

Cover Page

Order ID : Q2757

Project ID : 11 Newman Ave Nutley

Client : Sciacca General Contractors, LLC

Lab Sample Number

Q2757-01
Q2757-02
Q2757-03
Q2757-04
Q2757-05
Q2757-06
Q2757-07

Client Sample Number

WASTE
VOC
1
2
3
4
5

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 8/7/2025

DATA REPORTING QUALIFIERS- ORGANIC

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2757

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MAHESH PATEL

Date: 08/07/2025



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

LAB CHRONICLE

OrderID:	Q2757	OrderDate:	8/1/2025 4:13:00 PM
Client:	Sciacca General Contractors, LLC	Project:	11 Newman Ave Nutley
Contact:	Rosanne Scirica	Location:	D31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2757-01	WASTE	SOIL	TPH GC	8015D	08/01/25	08/06/25	08/06/25	08/01/25



QC SUMMARY



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

SOIL TPH GC SURROGATE RECOVERY

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No.: Q2757

CLIENT ID	S1	S2	S3	S4	TOT
	TETRACOSANE-d50				OUT
PIBLK-FG016352.D	84				0
PIBLK-FG016362.D	94				0
PB169135BL	72				0
PB169135BS	96				0
WASTE	76				0
WASTEMS	61				0
WASTEMSD	51				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate Diluted Out

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	<u>Alliance</u>	Client:	<u>Sciacca General Contractors, LLC</u>
Lab Code:	<u>ACE</u>	SDG No:	<u>Q2757</u>
Client Sample ID :	<u>WASTEMS</u>	Datafile:	<u>FG016359.D</u>

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
Petroleum Hydrocarbons	13878	35600	89900	391%	*	68-131

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No: Q2757

Client Sample ID : WASTEMSD

Datafile: FG016360.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
Petroleum Hydrocarbons	13887	35600	78700	310%	*	68-131

MS/MSD % Recovery RPD : 23.1

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

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No: Q2757

Client Sample ID : PB169135BS

Datafile: FG016356.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS (%)
Petroleum Hydrocarbons	11330	0	10019	88	68-131

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB169135BL

Lab Name: Alliance

Contract: SCIA01

Lab Code: ACE

SDG NO.: Q2757

Lab File ID: FG016355.D

Lab Sample ID: PB169135BL

Instrument ID: FG

Date Extracted: 08/06/2025

Matrix: (soil/water) Soil

Date Analyzed: 08/06/25

Level: (low/med) low

Time Analyzed: 11:37

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169135BS	PB169135BS	FG016356.D	08/06/25
WASTE	Q2757-01	FG016357.D	08/06/25
WASTEMS	Q2757-01MS	FG016359.D	08/06/25
WASTEMSD	Q2757-01MSD	FG016360.D	08/06/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	08/01/25
Project:	11 Newman Ave Nutley	Date Received:	08/01/25
Client Sample ID:	WASTE	SDG No.:	Q2757
Lab Sample ID:	Q2757-01	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	81.5
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016357.D	1	08/06/25 08:20	08/06/25 12:36	PB169135

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	35600		470	3470	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	15.1		37 - 130	76%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016357.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 12:36
Operator : YP\AJ
Sample : Q2757-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WASTE

Integration File: autoint1.e
Quant Time: Aug 07 04:35:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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...	15.201	1438927	15.103 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

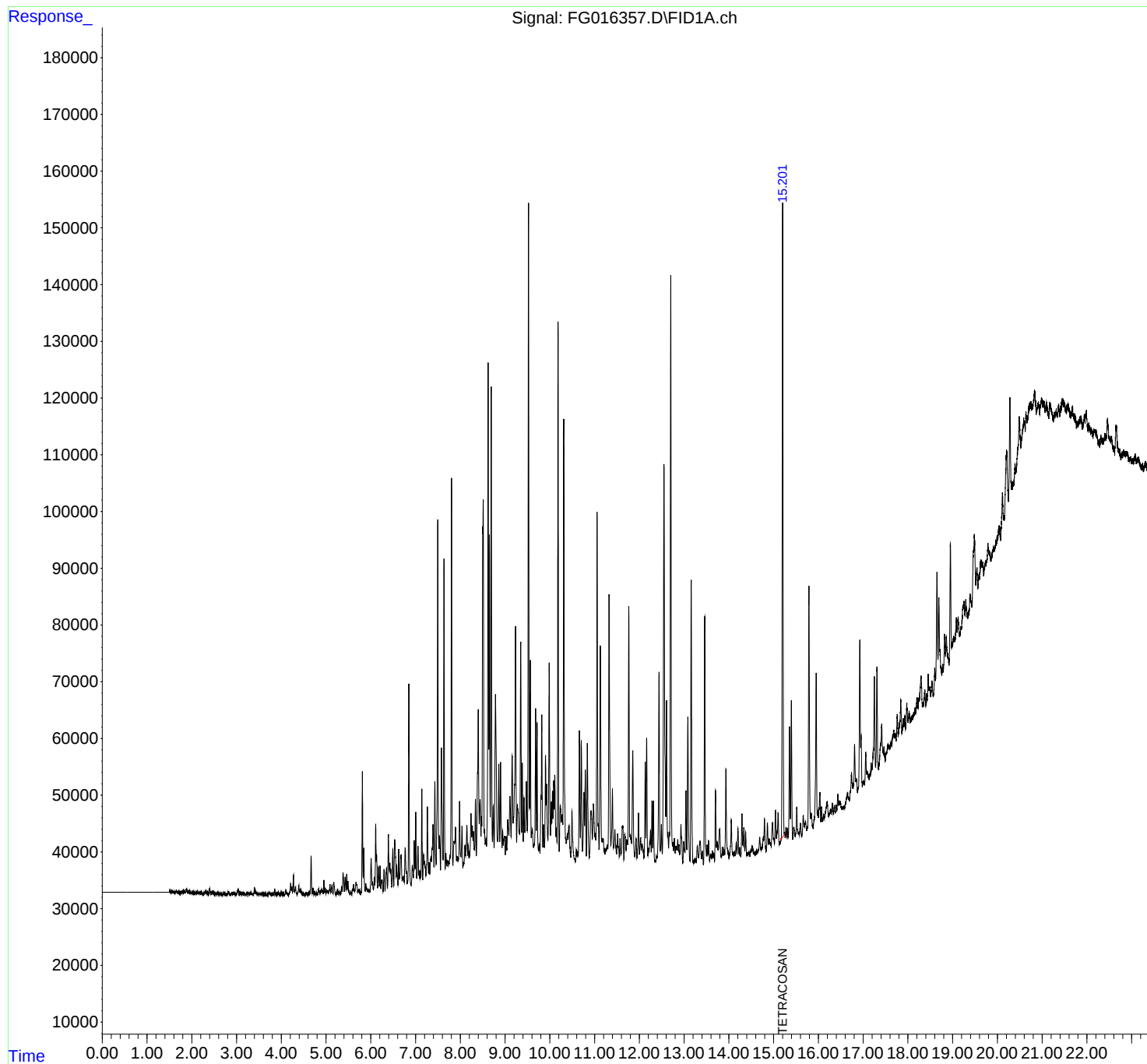
(m)=manual int.

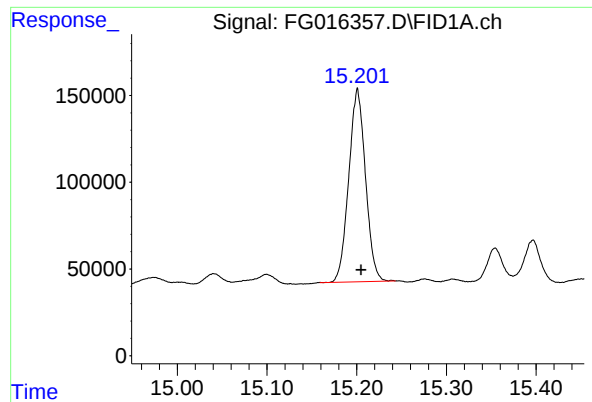
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016357.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 12:36
Operator : YP\AJ
Sample : Q2757-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WASTE

Integration File: autoint1.e
Quant Time: Aug 07 04:35:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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.: 15.201 min
Delta R.T.: -0.004 min
Response: 1438927
Conc: 15.10 ug/ml

Instrument :
FID_G
ClientSampleId :
WASTE

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016357.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 12:36
 Sample : Q2757-01
 Misc :
 ALS Vial : 23 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.017	2.000	2.032	BV	36	450	0.03%	0.001%
2	2.048	2.032	2.077	PV	285	4088	0.27%	0.005%
3	2.081	2.077	2.095	PV	108	826	0.05%	0.001%
4	2.121	2.095	2.137	VV	259	3780	0.25%	0.004%
5	2.143	2.137	2.151	VV	175	948	0.06%	0.001%
6	2.157	2.151	2.164	VV	173	907	0.06%	0.001%
7	2.170	2.164	2.205	VV	144	2684	0.18%	0.003%
8	2.208	2.205	2.221	VV	183	977	0.06%	0.001%
9	2.226	2.221	2.261	VV	138	1820	0.12%	0.002%
10	2.283	2.261	2.295	VV	204	2696	0.18%	0.003%
11	2.307	2.295	2.350	VV	564	10152	0.66%	0.012%
12	2.354	2.350	2.383	VV	243	1854	0.12%	0.002%
13	2.402	2.383	2.435	VV	1001	12358	0.81%	0.014%
14	2.460	2.435	2.522	VV	560	13042	0.85%	0.015%
15	2.532	2.522	2.550	VV	220	2432	0.16%	0.003%
16	2.568	2.550	2.578	VV	172	2079	0.14%	0.002%
17	2.585	2.578	2.616	VV	228	2914	0.19%	0.003%
18	2.624	2.616	2.647	PV	152	1880	0.12%	0.002%
19	2.659	2.647	2.675	VV	181	1686	0.11%	0.002%
20	2.693	2.675	2.715	PV	237	3345	0.22%	0.004%
21	2.728	2.715	2.767	VV	296	4849	0.32%	0.006%
22	2.776	2.767	2.781	VV	107	434	0.03%	0.000%
23	2.785	2.781	2.790	VV	96	240	0.02%	0.000%
24	2.821	2.790	2.863	PV	521	11532	0.75%	0.013%
25	2.867	2.863	2.872	VV	139	577	0.04%	0.001%
26	2.893	2.872	2.917	VV	409	6928	0.45%	0.008%
27	2.934	2.917	2.939	VV	316	3559	0.23%	0.004%
28	2.945	2.939	2.963	VV	414	4072	0.27%	0.005%
29	2.969	2.963	2.994	VV	246	2734	0.18%	0.003%
30	3.033	2.994	3.067	VV	900	21562	1.41%	0.025%
31	3.072	3.067	3.078	VV	324	1843	0.12%	0.002%
32	3.094	3.078	3.113	VV	481	6641	0.43%	0.008%
33	3.131	3.113	3.160	VV	537	8427	0.55%	0.010%
34	3.175	3.160	3.204	VV	344	6343	0.41%	0.007%
35	3.210	3.204	3.235	VV	185	3243	0.21%	0.004%
36	3.253	3.235	3.295	VV	465	9460	0.62%	0.011%

					rteres			
37	3.320	3.295	3.344	VV	454	8944	0.58%	0.010%
38	3.354	3.344	3.373	VV	274	3362	0.22%	0.004%
39	3.400	3.373	3.475	VV	1380	30504	1.99%	0.035%
40	3.500	3.475	3.515	VV	325	5596	0.37%	0.006%
41	3.521	3.515	3.527	VV	276	1582	0.10%	0.002%
42	3.532	3.527	3.537	VV	335	1634	0.11%	0.002%
43	3.541	3.537	3.560	VV	252	2987	0.20%	0.003%
44	3.574	3.560	3.585	VV	334	3351	0.22%	0.004%
45	3.589	3.585	3.604	VV	235	1931	0.13%	0.002%
46	3.627	3.604	3.675	VV	314	8478	0.55%	0.010%
47	3.679	3.675	3.682	PV	87	297	0.02%	0.000%
48	3.691	3.682	3.707	VV	208	1864	0.12%	0.002%
49	3.722	3.707	3.736	VV	452	6206	0.41%	0.007%
50	3.741	3.736	3.767	VV	400	5390	0.35%	0.006%
51	3.780	3.767	3.787	VV	266	2303	0.15%	0.003%
52	3.797	3.787	3.823	VV	404	5100	0.33%	0.006%
53	3.852	3.823	3.878	VV	1171	16694	1.09%	0.019%
54	3.881	3.878	3.886	VV	256	1143	0.07%	0.001%
55	3.892	3.886	3.902	VV	281	2205	0.14%	0.003%
56	3.909	3.902	3.912	VV	232	1146	0.07%	0.001%
57	3.939	3.912	3.977	VV	458	9977	0.65%	0.011%
58	3.993	3.977	4.009	VV	540	7166	0.47%	0.008%
59	4.014	4.009	4.036	VV	353	3890	0.25%	0.004%
60	4.049	4.036	4.069	VV	345	4077	0.27%	0.005%
61	4.097	4.069	4.158	VV	868	18522	1.21%	0.021%
62	4.210	4.158	4.226	VV	2050	34719	2.27%	0.039%
63	4.236	4.226	4.252	VV	1262	13994	0.91%	0.016%
64	4.273	4.252	4.298	VV	3574	46468	3.04%	0.053%
65	4.315	4.298	4.355	VV	1534	25602	1.67%	0.029%
66	4.391	4.355	4.422	VV	1691	32313	2.11%	0.037%
67	4.434	4.422	4.456	VV	1023	14278	0.93%	0.016%
68	4.477	4.456	4.523	VV	463	10914	0.71%	0.012%
69	4.562	4.523	4.575	VV	458	6872	0.45%	0.008%
70	4.578	4.575	4.593	VV	233	1566	0.10%	0.002%
71	4.609	4.593	4.618	VV	450	4839	0.32%	0.006%
72	4.628	4.618	4.646	VV	495	5965	0.39%	0.007%
73	4.667	4.646	4.689	VV	6905	74588	4.87%	0.085%
74	4.709	4.689	4.728	VV	1269	14219	0.93%	0.016%
75	4.743	4.728	4.769	VV	633	8397	0.55%	0.010%
76	4.786	4.769	4.808	VV	436	5756	0.38%	0.007%
77	4.834	4.808	4.873	VV	1070	21474	1.40%	0.024%
78	4.903	4.873	4.936	VV	974	25072	1.64%	0.028%
79	4.953	4.936	4.970	VV	2628	27316	1.78%	0.031%
80	4.979	4.970	4.995	VV	1014	10588	0.69%	0.012%
81	5.011	4.995	5.025	VV	697	9746	0.64%	0.011%
82	5.035	5.025	5.048	VV	762	8154	0.53%	0.009%
83	5.060	5.048	5.068	VV	675	6566	0.43%	0.007%
84	5.088	5.068	5.104	VV	1834	23549	1.54%	0.027%
85	5.132	5.104	5.154	VV	1712	28713	1.88%	0.033%
86	5.173	5.154	5.222	VV	2248	37145	2.43%	0.042%
87	5.226	5.222	5.232	VV	230	980	0.06%	0.001%
88	5.255	5.232	5.273	VV	1008	12400	0.81%	0.014%
89	5.291	5.273	5.316	VV	579	9247	0.60%	0.011%

					rteres			
90	5.348	5.316	5.362	VV	1459	19188	1.25%	0.022%
91	5.381	5.362	5.409	VV	3911	63922	4.18%	0.073%
92	5.427	5.409	5.446	VV	3140	42941	2.81%	0.049%
93	5.461	5.446	5.478	VV	3601	40188	2.63%	0.046%
94	5.491	5.478	5.511	VV	2400	29540	1.93%	0.034%
95	5.517	5.511	5.537	VV	565	5010	0.33%	0.006%
96	5.549	5.537	5.553	PV	341	2362	0.15%	0.003%
97	5.558	5.553	5.576	VV	369	3981	0.26%	0.005%
98	5.593	5.576	5.603	VV	951	10814	0.71%	0.012%
99	5.616	5.603	5.644	VV	1772	24844	1.62%	0.028%
100	5.670	5.644	5.682	VV	2099	32884	2.15%	0.037%
101	5.687	5.682	5.707	VV	1715	17508	1.14%	0.020%
102	5.728	5.707	5.746	VV	714	12986	0.85%	0.015%
103	5.754	5.746	5.773	VV	647	5918	0.39%	0.007%
104	5.812	5.773	5.830	VV	21575	224692	14.68%	0.255%
105	5.845	5.830	5.874	VV	8054	95082	6.21%	0.108%
106	5.889	5.874	5.905	VV	1753	20008	1.31%	0.023%
107	5.912	5.905	5.926	VV	779	8003	0.52%	0.009%
108	5.936	5.926	5.957	VV	561	7916	0.52%	0.009%
109	5.970	5.957	5.978	VV	423	5042	0.33%	0.006%
110	6.007	5.978	6.031	VV	6067	91934	6.01%	0.105%
111	6.040	6.031	6.058	VV	1921	20321	1.33%	0.023%
112	6.079	6.058	6.092	VV	2749	33629	2.20%	0.038%
113	6.110	6.092	6.123	VV	11997	134842	8.81%	0.153%
114	6.130	6.123	6.152	VV	6568	66946	4.37%	0.076%
115	6.168	6.152	6.192	VV	4439	60805	3.97%	0.069%
116	6.207	6.192	6.222	VV	4702	47496	3.10%	0.054%
117	6.249	6.222	6.275	VV	2199	44265	2.89%	0.050%
118	6.297	6.275	6.320	VV	3839	48459	3.17%	0.055%
119	6.351	6.320	6.372	VV	4180	77486	5.06%	0.088%
120	6.393	6.372	6.418	VV	10056	139642	9.12%	0.159%
121	6.427	6.418	6.439	VV	4960	54632	3.57%	0.062%
122	6.447	6.439	6.471	VV	3896	47126	3.08%	0.054%
123	6.491	6.471	6.513	VV	7371	93105	6.08%	0.106%
124	6.533	6.513	6.568	VV	9062	188496	12.31%	0.214%
125	6.579	6.568	6.606	VV	4411	67797	4.43%	0.077%
126	6.622	6.606	6.638	VV	7342	80699	5.27%	0.092%
127	6.666	6.638	6.672	VV	6223	79762	5.21%	0.091%
128	6.678	6.672	6.701	VV	6273	73422	4.80%	0.083%
129	6.725	6.701	6.748	VV	2473	56659	3.70%	0.064%
130	6.768	6.748	6.790	VV	7510	121483	7.94%	0.138%
131	6.798	6.790	6.817	VV	3177	37123	2.43%	0.042%
132	6.850	6.817	6.900	VV	36198	424579	27.74%	0.483%
133	6.927	6.900	6.951	VV	4301	83655	5.47%	0.095%
134	6.968	6.951	6.989	VV	8645	130318	8.51%	0.148%
135	7.004	6.989	7.024	VV	13623	153710	10.04%	0.175%
136	7.054	7.024	7.071	VV	7549	123494	8.07%	0.140%
137	7.079	7.071	7.096	VV	3236	38203	2.50%	0.043%
138	7.108	7.096	7.120	VV	3121	37376	2.44%	0.042%
139	7.140	7.120	7.161	VV	17638	196616	12.85%	0.223%
140	7.180	7.161	7.194	VV	5980	87612	5.72%	0.100%
141	7.201	7.194	7.231	VV	4569	81501	5.32%	0.093%

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142	7.264	7.231	7.288	VV	14372	224987	14.70%	0.256%
143	7.302	7.288	7.317	VV	4517	59788	3.91%	0.068%
144	7.344	7.317	7.355	VV	5352	99663	6.51%	0.113%
145	7.389	7.355	7.411	VV	11176	254382	16.62%	0.289%
146	7.430	7.411	7.459	VV	18686	276252	18.05%	0.314%
147	7.496	7.459	7.523	VV	64830	864664	56.49%	0.983%
148	7.534	7.523	7.557	VV	9018	142351	9.30%	0.162%
149	7.577	7.557	7.615	VV	24493	431387	28.18%	0.490%
150	7.635	7.615	7.663	VV	57931	652364	42.62%	0.742%
151	7.679	7.663	7.695	VV	5857	88331	5.77%	0.100%
152	7.707	7.695	7.722	VV	4639	69201	4.52%	0.079%
153	7.738	7.722	7.749	VV	4472	65910	4.31%	0.075%
154	7.766	7.749	7.773	VV	5351	71757	4.69%	0.082%
155	7.804	7.773	7.834	VV	71620	870887	56.90%	0.990%
156	7.863	7.834	7.870	VV	7850	141849	9.27%	0.161%
157	7.893	7.870	7.915	VV	10289	211069	13.79%	0.240%
158	7.929	7.915	7.953	VV	5185	107463	7.02%	0.122%
159	7.983	7.953	8.014	VV	14809	284185	18.57%	0.323%
160	8.038	8.014	8.056	VV	10286	176037	11.50%	0.200%
161	8.069	8.056	8.077	VV	3986	45228	2.95%	0.051%
162	8.102	8.077	8.116	VV	7005	126288	8.25%	0.144%
163	8.147	8.116	8.165	VV	10527	219959	14.37%	0.250%
164	8.177	8.165	8.192	VV	6934	95244	6.22%	0.108%
165	8.202	8.192	8.212	VV	5523	63342	4.14%	0.072%
166	8.239	8.212	8.257	VV	12507	247247	16.15%	0.281%
167	8.269	8.257	8.282	VV	10221	140745	9.20%	0.160%
168	8.294	8.282	8.318	VV	9261	160745	10.50%	0.183%
169	8.338	8.318	8.358	VV	15012	225868	14.76%	0.257%
170	8.400	8.358	8.423	VV	30671	662552	43.29%	0.753%
171	8.442	8.423	8.462	VV	14811	290722	18.99%	0.330%
172	8.473	8.462	8.481	VV	11793	117403	7.67%	0.133%
173	8.512	8.481	8.535	VV	67502	1280470	83.65%	1.456%
174	8.540	8.535	8.557	VV	9511	110953	7.25%	0.126%
175	8.575	8.557	8.587	VV	7838	131190	8.57%	0.149%
176	8.622	8.587	8.637	VV	91560	1119565	73.14%	1.273%
177	8.650	8.637	8.669	VV	61245	694447	45.37%	0.789%
178	8.691	8.669	8.718	VV	87411	1100938	71.93%	1.251%
179	8.737	8.718	8.755	VV	13464	221371	14.46%	0.252%
180	8.786	8.755	8.827	VV	33117	799025	52.20%	0.908%
181	8.861	8.827	8.881	VV	20773	373108	24.38%	0.424%
182	8.900	8.881	8.934	VV	21100	370944	24.23%	0.422%
183	8.947	8.934	8.961	VV	9028	124709	8.15%	0.142%
184	8.987	8.961	9.005	VV	8056	184581	12.06%	0.210%
185	9.024	9.005	9.038	VV	7967	127393	8.32%	0.145%
186	9.058	9.038	9.083	VV	10878	235937	15.41%	0.268%
187	9.109	9.083	9.134	VV	14941	348555	22.77%	0.396%
188	9.159	9.134	9.179	VV	22069	414514	27.08%	0.471%
189	9.234	9.179	9.259	VV	44765	944266	61.69%	1.073%
190	9.276	9.259	9.312	VV	13464	352903	23.06%	0.401%
191	9.317	9.312	9.327	VV	8535	73603	4.81%	0.084%
192	9.350	9.327	9.371	VV	42022	586866	38.34%	0.667%
193	9.386	9.371	9.407	VV	20604	284231	18.57%	0.323%
194	9.424	9.407	9.441	VV	14501	219665	14.35%	0.250%

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195	9.477	9.441	9.494	VV	17395	369981	24.17%	0.421%
196	9.524	9.494	9.546	VV	119238	1427706	93.27%	1.623%
197	9.565	9.546	9.585	VV	38649	498232	32.55%	0.566%
198	9.608	9.585	9.634	VV	8927	226813	14.82%	0.258%
199	9.683	9.634	9.699	VV	30113	488492	31.91%	0.555%
200	9.715	9.699	9.749	VV	27648	380841	24.88%	0.433%
201	9.765	9.749	9.779	VV	6035	98998	6.47%	0.113%
202	9.801	9.779	9.805	VV	14748	152633	9.97%	0.173%
203	9.821	9.805	9.844	VV	28730	400208	26.15%	0.455%
204	9.860	9.844	9.880	VV	9491	157840	10.31%	0.179%
205	9.904	9.880	9.918	VV	21641	301519	19.70%	0.343%
206	9.928	9.918	9.957	VV	16354	271067	17.71%	0.308%
207	9.986	9.957	10.015	VV	37946	618146	40.38%	0.703%
208	10.032	10.015	10.045	VV	13317	191713	12.52%	0.218%
209	10.060	10.045	10.073	VV	15062	212639	13.89%	0.242%
210	10.087	10.073	10.098	VV	17113	212328	13.87%	0.241%
211	10.110	10.098	10.137	VV	17987	299929	19.59%	0.341%
212	10.148	10.137	10.160	VV	8683	109806	7.17%	0.125%
213	10.184	10.160	10.209	VV	97730	1079575	70.53%	1.227%
214	10.233	10.209	10.254	VV	12669	267774	17.49%	0.304%
215	10.279	10.254	10.290	VV	11015	221320	14.46%	0.252%
216	10.311	10.290	10.367	VV	80461	1178313	76.98%	1.339%
217	10.391	10.367	10.406	VV	7527	158392	10.35%	0.180%
218	10.429	10.406	10.466	VV	8833	230843	15.08%	0.262%
219	10.494	10.466	10.549	VV	11332	294664	19.25%	0.335%
220	10.553	10.549	10.570	VV	3019	35281	2.30%	0.040%
221	10.592	10.570	10.608	VV	4513	82314	5.38%	0.094%
222	10.620	10.608	10.632	VV	4178	56216	3.67%	0.064%
223	10.660	10.632	10.681	VV	25478	373762	24.42%	0.425%
224	10.703	10.681	10.729	VV	23702	374392	24.46%	0.426%
225	10.763	10.729	10.777	VV	14525	269349	17.60%	0.306%
226	10.793	10.777	10.817	VV	18499	268604	17.55%	0.305%
227	10.837	10.817	10.884	VV	23083	404718	26.44%	0.460%
228	10.913	10.884	10.950	VV	11072	325342	21.25%	0.370%
229	10.975	10.950	11.004	VV	12386	297004	19.40%	0.338%
230	11.011	11.004	11.025	VV	7157	86595	5.66%	0.098%
231	11.056	11.025	11.079	VV	63657	845646	55.25%	0.961%
232	11.083	11.079	11.100	VV	8664	87672	5.73%	0.100%
233	11.128	11.100	11.159	VV	40051	655947	42.85%	0.746%
234	11.172	11.159	11.180	VV	6043	73856	4.83%	0.084%
235	11.192	11.180	11.211	VV	6023	101610	6.64%	0.116%
236	11.220	11.211	11.232	VV	4309	48057	3.14%	0.055%
237	11.243	11.232	11.249	VV	4069	40885	2.67%	0.046%
238	11.263	11.249	11.268	VV	4396	45926	3.00%	0.052%
239	11.283	11.268	11.297	VV	4921	81380	5.32%	0.093%
240	11.323	11.297	11.363	VV	49062	790452	51.64%	0.899%
241	11.398	11.363	11.422	VV	14735	288301	18.83%	0.328%
242	11.453	11.422	11.489	VV	7563	209600	13.69%	0.238%
243	11.514	11.489	11.551	VV	6787	169287	11.06%	0.192%
244	11.568	11.551	11.587	VV	5881	91717	5.99%	0.104%
245	11.626	11.587	11.655	VV	8055	222991	14.57%	0.253%
246	11.674	11.655	11.703	VV	6504	146290	9.56%	0.166%

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247	11.719	11.703	11.740	VV	5548	108400	7.08%	0.123%
248	11.765	11.740	11.787	VV	46336	595187	38.88%	0.677%
249	11.794	11.787	11.825	VV	6464	130825	8.55%	0.149%
250	11.853	11.825	11.898	VV	21145	406778	26.58%	0.462%
251	11.925	11.898	11.946	VV	5567	109555	7.16%	0.125%
252	11.981	11.946	12.000	VV	10081	173451	11.33%	0.197%
253	12.029	12.000	12.045	VV	5756	118120	7.72%	0.134%
254	12.060	12.045	12.103	VV	4605	125727	8.21%	0.143%
255	12.132	12.103	12.147	VV	19003	246331	16.09%	0.280%
256	12.163	12.147	12.190	VV	23102	293334	19.16%	0.333%
257	12.206	12.190	12.215	VV	3770	49067	3.21%	0.056%
258	12.231	12.215	12.237	VV	4928	54968	3.59%	0.062%
259	12.250	12.237	12.265	VV	6916	89390	5.84%	0.102%
260	12.283	12.265	12.298	VV	12084	144996	9.47%	0.165%
261	12.314	12.298	12.358	VV	12005	175469	11.46%	0.199%
262	12.381	12.358	12.392	VV	2258	37405	2.44%	0.043%
263	12.440	12.392	12.468	VV	34597	509990	33.32%	0.580%
264	12.493	12.468	12.513	VV	7790	127164	8.31%	0.145%
265	12.551	12.513	12.591	VV	70641	1323357	86.46%	1.504%
266	12.606	12.591	12.631	VV	29250	384190	25.10%	0.437%
267	12.638	12.631	12.654	VV	6284	71750	4.69%	0.082%
268	12.670	12.654	12.676	VV	6232	69021	4.51%	0.078%
269	12.702	12.676	12.742	VV	103958	1336676	87.33%	1.519%
270	12.752	12.742	12.766	VV	4470	55634	3.63%	0.063%
271	12.782	12.766	12.801	VV	5119	83331	5.44%	0.095%
272	12.816	12.801	12.828	VV	3746	52928	3.46%	0.060%
273	12.836	12.828	12.840	VV	3341	22981	1.50%	0.026%
274	12.858	12.840	12.872	VV	4773	75247	4.92%	0.086%
275	12.884	12.872	12.899	VV	3781	50116	3.27%	0.057%
276	12.930	12.899	12.970	VV	7414	166385	10.87%	0.189%
277	12.993	12.970	13.019	VV	4322	82084	5.36%	0.093%
278	13.041	13.019	13.060	VV	13272	178469	11.66%	0.203%
279	13.084	13.060	13.132	VV	26239	405178	26.47%	0.461%
280	13.159	13.132	13.207	VV	50469	650930	42.53%	0.740%
281	13.210	13.207	13.217	VV	653	3340	0.22%	0.004%
282	13.233	13.217	13.245	VV	1160	14742	0.96%	0.017%
283	13.257	13.245	13.273	VV	1175	14843	0.97%	0.017%
284	13.295	13.273	13.327	VV	3470	66742	4.36%	0.076%
285	13.349	13.327	13.357	VV	4200	56590	3.70%	0.064%
286	13.363	13.357	13.388	VV	4170	50179	3.28%	0.057%
287	13.408	13.388	13.433	VV	2448	38245	2.50%	0.043%
288	13.461	13.433	13.501	PV	43838	530075	34.63%	0.603%
289	13.516	13.501	13.531	VV	3372	45103	2.95%	0.051%
290	13.547	13.531	13.569	VV	4041	56166	3.67%	0.064%
291	13.595	13.569	13.620	VV	1628	37173	2.43%	0.042%
292	13.633	13.620	13.651	VV	2195	28950	1.89%	0.033%
293	13.665	13.651	13.680	VV	1641	20411	1.33%	0.023%
294	13.702	13.680	13.724	VV	12731	158662	10.37%	0.180%
295	13.733	13.724	13.763	VV	3702	73073	4.77%	0.083%
296	13.793	13.763	13.832	VV	5697	133307	8.71%	0.152%
297	13.858	13.832	13.873	VV	2555	38205	2.50%	0.043%
298	13.889	13.873	13.905	VV	1973	30153	1.97%	0.034%
299	13.934	13.905	14.003	VV	16193	261083	17.06%	0.297%

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300	14.054	14.003	14.098	VV	7087	142842	9.33%	0.162%
301	14.123	14.098	14.142	VV	1255	24017	1.57%	0.027%
302	14.163	14.142	14.180	VV	2661	37559	2.45%	0.043%
303	14.202	14.180	14.227	VV	5374	76534	5.00%	0.087%
304	14.244	14.227	14.266	VV	1920	27866	1.82%	0.032%
305	14.293	14.266	14.314	VV	7713	110385	7.21%	0.125%
306	14.334	14.314	14.357	VV	5307	82743	5.41%	0.094%
307	14.375	14.357	14.413	VV	4468	60703	3.97%	0.069%
308	14.433	14.413	14.441	VV	812	9297	0.61%	0.011%
309	14.453	14.441	14.466	VV	738	7938	0.52%	0.009%
310	14.487	14.466	14.494	PV	944	9963	0.65%	0.011%
311	14.518	14.494	14.553	VV	1744	40545	2.65%	0.046%
312	14.565	14.553	14.580	VV	591	5873	0.38%	0.007%
313	14.588	14.580	14.602	VV	603	4594	0.30%	0.005%
314	14.626	14.602	14.638	VV	529	6686	0.44%	0.008%
315	14.655	14.638	14.662	VV	729	8188	0.53%	0.009%
316	14.689	14.662	14.715	VV	2822	49372	3.23%	0.056%
317	14.732	14.715	14.740	VV	1063	12949	0.85%	0.015%
318	14.796	14.740	14.832	VV	5819	122845	8.03%	0.140%
319	14.860	14.832	14.885	PV	4890	70877	4.63%	0.081%
320	14.897	14.885	14.944	VV	2068	45927	3.00%	0.052%
321	14.974	14.944	14.994	VV	4616	87481	5.72%	0.099%
322	15.001	14.994	15.018	VV	1849	20664	1.35%	0.023%
323	15.041	15.018	15.062	VV	6618	94146	6.15%	0.107%
324	15.099	15.062	15.132	VV	6005	115450	7.54%	0.131%
325	15.201	15.132	15.257	VV	112393	1530669	100.00%	1.740%
326	15.276	15.257	15.294	VV	2791	40453	2.64%	0.046%
327	15.307	15.294	15.324	VV	2607	33332	2.18%	0.038%
328	15.354	15.324	15.374	VV	20307	264980	17.31%	0.301%
329	15.397	15.374	15.428	VV	24973	324524	21.20%	0.369%
330	15.452	15.428	15.484	VV	2180	44057	2.88%	0.050%
331	15.517	15.484	15.551	VV	5716	95335	6.23%	0.108%
332	15.558	15.551	15.571	VV	1018	10299	0.67%	0.012%
333	15.600	15.571	15.629	VV	2519	44745	2.92%	0.051%
334	15.661	15.629	15.692	PV	3536	71774	4.69%	0.082%
335	15.715	15.692	15.740	VV	2333	47944	3.13%	0.054%
336	15.789	15.740	15.825	VV	42944	636939	41.61%	0.724%
337	15.843	15.825	15.873	VV	3063	58504	3.82%	0.067%
338	15.880	15.873	15.885	VV	534	3677	0.24%	0.004%
339	15.951	15.885	15.974	VV	27256	432192	28.24%	0.491%
340	15.985	15.974	16.000	VV	2692	34438	2.25%	0.039%
341	16.033	16.000	16.054	VV	5708	102492	6.70%	0.117%
342	16.071	16.054	16.096	VV	2973	37312	2.44%	0.042%
343	16.116	16.096	16.134	VV	1356	18792	1.23%	0.021%
344	16.194	16.134	16.225	VV	3234	101772	6.65%	0.116%
345	16.275	16.225	16.290	VV	1495	34119	2.23%	0.039%
346	16.311	16.290	16.338	VV	2324	38124	2.49%	0.043%
347	16.358	16.338	16.377	VV	1647	22108	1.44%	0.025%
348	16.398	16.377	16.413	VV	1548	20662	1.35%	0.023%
349	16.434	16.413	16.450	VV	3302	45293	2.96%	0.051%
350	16.466	16.450	16.487	VV	1907	32337	2.11%	0.037%
351	16.492	16.487	16.529	VV	1682	20794	1.36%	0.024%

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352	16.548	16.529	16.564	PV	468	6033	0.39%	0.007%
353	16.585	16.564	16.590	VV	316	1854	0.12%	0.002%
354	16.652	16.590	16.672	PV	2046	55102	3.60%	0.063%
355	16.678	16.672	16.690	VV	898	7312	0.48%	0.008%
356	16.741	16.690	16.766	VV	4824	106134	6.93%	0.121%
357	16.783	16.766	16.787	VV	2377	25751	1.68%	0.029%
358	16.810	16.787	16.839	VV	8912	150473	9.83%	0.171%
359	16.853	16.839	16.874	VV	2585	38680	2.53%	0.044%
360	16.927	16.874	16.945	VV	26533	376673	24.61%	0.428%
361	16.955	16.945	16.981	VV	9418	112065	7.32%	0.127%
362	17.003	16.981	17.028	VV	868	15627	1.02%	0.018%
363	17.059	17.028	17.081	VV	5493	79262	5.18%	0.090%
364	17.090	17.081	17.114	VV	1798	27709	1.81%	0.031%
365	17.121	17.114	17.139	VV	856	7925	0.52%	0.009%
366	17.150	17.139	17.158	VV	865	7412	0.48%	0.008%
367	17.182	17.158	17.196	VV	2466	33566	2.19%	0.038%
368	17.251	17.196	17.277	VV	16816	285183	18.63%	0.324%
369	17.309	17.277	17.344	VV	18132	252638	16.51%	0.287%
370	17.414	17.344	17.452	PV	7123	200057	13.07%	0.227%
371	17.466	17.452	17.491	VV	2720	37054	2.42%	0.042%
372	17.522	17.491	17.527	PV	1363	18412	1.20%	0.021%
373	17.554	17.527	17.561	VV	2441	35414	2.31%	0.040%
374	17.569	17.561	17.574	VV	2031	14050	0.92%	0.016%
375	17.577	17.574	17.600	VV	1862	23758	1.55%	0.027%
376	17.619	17.600	17.641	VV	1998	37258	2.43%	0.042%
377	17.683	17.641	17.704	VV	3386	93425	6.10%	0.106%
378	17.712	17.704	17.717	VV	2545	17547	1.15%	0.020%
379	17.721	17.717	17.738	VV	2327	22877	1.49%	0.026%
380	17.762	17.738	17.783	VV	5276	86267	5.64%	0.098%
381	17.841	17.783	17.866	VV	7113	176978	11.56%	0.201%
382	17.894	17.866	17.912	VV	3207	60137	3.93%	0.068%
383	17.929	17.912	17.944	VV	3297	44903	2.93%	0.051%
384	17.976	17.944	18.003	VV	5009	99896	6.53%	0.114%
385	18.029	18.003	18.048	VV	3121	58852	3.84%	0.067%
386	18.069	18.048	18.085	VV	1506	29140	1.90%	0.033%
387	18.090	18.085	18.095	VV	1695	7755	0.51%	0.009%
388	18.128	18.095	18.134	VV	1903	31427	2.05%	0.036%
389	18.160	18.134	18.173	VV	2467	38213	2.50%	0.043%
390	18.178	18.173	18.180	VV	1594	6434	0.42%	0.007%
391	18.203	18.180	18.228	VV	3661	75668	4.94%	0.086%
392	18.239	18.228	18.250	VV	3131	35901	2.35%	0.041%
393	18.295	18.250	18.324	VV	6632	181057	11.83%	0.206%
394	18.335	18.324	18.350	VV	1486	16393	1.07%	0.019%
395	18.379	18.350	18.397	VV	3095	52836	3.45%	0.060%
396	18.417	18.397	18.434	VV	2173	26737	1.75%	0.030%
397	18.454	18.434	18.470	VV	5247	66969	4.38%	0.076%
398	18.478	18.470	18.510	VV	2762	47627	3.11%	0.054%
399	18.536	18.510	18.563	VV	3111	56614	3.70%	0.064%
400	18.599	18.563	18.617	PV	4753	73826	4.82%	0.084%
401	18.649	18.617	18.672	VV	21061	349246	22.82%	0.397%
402	18.691	18.672	18.758	VV	16141	361963	23.65%	0.411%
403	18.776	18.758	18.789	VV	3169	44538	2.91%	0.051%
404	18.820	18.789	18.841	VV	8007	156197	10.20%	0.178%

					rteres			
405	18.857	18.841	18.881	VV	7289	132928	8.68%	0.151%
406	18.891	18.881	18.919	VV	3891	69493	4.54%	0.079%
407	18.950	18.919	18.978	VV	22653	372209	24.32%	0.423%
408	18.989	18.978	18.995	VV	4666	44919	2.93%	0.051%
409	19.022	18.995	19.027	VV	5473	91747	5.99%	0.104%
410	19.034	19.027	19.060	VV	5230	91779	6.00%	0.104%
411	19.081	19.060	19.105	VV	8167	170019	11.11%	0.193%
412	19.124	19.105	19.152	VV	7626	170911	11.17%	0.194%
413	19.251	19.152	19.277	VV	8960	472556	30.87%	0.537%
414	19.293	19.277	19.325	VV	8782	204520	13.36%	0.232%
415	19.347	19.325	19.364	VV	5845	131032	8.56%	0.149%
416	19.391	19.364	19.428	VV	8619	273288	17.85%	0.311%
417	19.486	19.428	19.516	VV	17968	674389	44.06%	0.767%
418	19.544	19.516	19.565	VV	11417	293222	19.16%	0.333%
419	19.587	19.565	19.599	VV	9733	179352	11.72%	0.204%
420	19.632	19.599	19.638	VV	11913	253181	16.54%	0.288%
421	19.644	19.638	19.655	VV	11579	108234	7.07%	0.123%
422	19.664	19.655	19.691	VV	11042	224383	14.66%	0.255%
423	19.730	19.691	19.752	VV	10430	355218	23.21%	0.404%
424	19.789	19.752	19.804	VV	12947	350209	22.88%	0.398%
425	19.810	19.804	19.849	VV	11525	288803	18.87%	0.328%
426	19.856	19.849	19.860	VV	9631	63466	4.15%	0.072%
427	19.871	19.860	19.875	VV	9969	86157	5.63%	0.098%
428	19.879	19.875	19.882	VV	10230	45136	2.95%	0.051%
429	19.889	19.882	19.899	VV	10687	101431	6.63%	0.115%
430	19.907	19.899	19.916	VV	11074	107137	7.00%	0.122%
431	19.921	19.916	19.935	VV	10773	123276	8.05%	0.140%
432	19.963	19.935	19.975	VV	11560	256564	16.76%	0.292%
433	20.008	19.975	20.014	VV	11985	262951	17.18%	0.299%
434	20.033	20.014	20.040	VV	13245	198134	12.94%	0.225%
435	20.045	20.040	20.073	VV	12999	233055	15.23%	0.265%
436	20.112	20.073	20.154	VV	18052	691721	45.19%	0.786%
437	20.205	20.154	20.246	VV	24590	1056656	69.03%	1.201%
438	20.280	20.246	20.317	VV	33088	952482	62.23%	1.083%
439	20.323	20.317	20.349	VV	17510	326190	21.31%	0.371%
440	20.354	20.349	20.367	VV	17153	177842	11.62%	0.202%
441	20.393	20.367	20.409	VV	19997	470094	30.71%	0.534%
442	20.487	20.409	20.519	VV	26776	1468250	95.92%	1.669%
443	20.526	20.519	20.532	VV	22247	174871	11.42%	0.199%
444	20.574	20.532	20.579	VV	24766	653797	42.71%	0.743%
445	20.587	20.579	20.624	VV	25702	667831	43.63%	0.759%
446	20.639	20.624	20.659	VV	26269	530586	34.66%	0.603%
447	20.701	20.659	20.709	VV	26535	758104	49.53%	0.862%
448	20.714	20.709	20.720	VV	26739	179922	11.75%	0.205%
449	20.746	20.720	20.766	VV	26664	726204	47.44%	0.825%
450	20.773	20.766	20.780	VV	25889	205411	13.42%	0.233%
451	20.829	20.780	20.865	VV	27837	1344321	87.83%	1.528%
452	20.906	20.865	20.913	VV	24839	691074	45.15%	0.786%
453	20.919	20.913	20.943	VV	24956	435756	28.47%	0.495%
454	20.969	20.943	20.973	VV	24523	419237	27.39%	0.477%
455	20.983	20.973	21.023	VV	24972	715083	46.72%	0.813%
456	21.032	21.023	21.037	VV	23718	195601	12.78%	0.222%

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457	21.041	21.037	21.073	VV	23375	488106	31.89%	0.555%
458	21.099	21.073	21.128	VV	22774	720027	47.04%	0.818%
459	21.134	21.128	21.139	VV	20627	127011	8.30%	0.144%
460	21.144	21.139	21.147	VV	20092	104496	6.83%	0.119%
461	21.169	21.147	21.249	VV	21855	1217078	79.51%	1.383%
462	21.277	21.249	21.294	VV	18698	493369	32.23%	0.561%
463	21.316	21.294	21.327	VV	19060	371799	24.29%	0.423%
464	21.333	21.327	21.344	VV	18069	177489	11.60%	0.202%
465	21.370	21.344	21.393	VV	19068	536864	35.07%	0.610%
466	21.397	21.393	21.401	VV	17446	90800	5.93%	0.103%
467	21.413	21.401	21.422	VV	18304	219597	14.35%	0.250%
468	21.447	21.422	21.479	VV	19374	627505	41.00%	0.713%
469	21.489	21.479	21.543	VV	18311	661562	43.22%	0.752%
470	21.555	21.543	21.572	VV	17130	291970	19.07%	0.332%
471	21.578	21.572	21.582	VV	16994	98053	6.41%	0.111%
472	21.586	21.582	21.627	VV	16724	414451	27.08%	0.471%
473	21.643	21.627	21.648	VV	14709	179842	11.75%	0.204%
474	21.664	21.648	21.670	VV	15360	196991	12.87%	0.224%
475	21.674	21.670	21.695	VV	15399	217833	14.23%	0.248%
476	21.698	21.695	21.719	VV	13677	183625	12.00%	0.209%
477	21.724	21.719	21.738	VV	13496	151747	9.91%	0.172%
478	21.749	21.738	21.774	VV	12795	254299	16.61%	0.289%
479	21.780	21.774	21.818	VV	11436	284019	18.56%	0.323%
480	21.854	21.818	21.859	VV	11496	271238	17.72%	0.308%
481	21.863	21.859	21.875	VV	11519	104684	6.84%	0.119%
482	21.882	21.875	21.902	VV	10545	160820	10.51%	0.183%
483	21.950	21.902	21.959	VV	10784	330939	21.62%	0.376%
484	21.979	21.959	21.984	VV	10967	156037	10.19%	0.177%
485	21.990	21.984	22.029	VV	11132	234746	15.34%	0.267%
486	22.038	22.029	22.054	VV	8111	113464	7.41%	0.129%
487	22.060	22.054	22.094	VV	7482	157614	10.30%	0.179%
488	22.101	22.094	22.120	VV	6521	95095	6.21%	0.108%
489	22.124	22.120	22.127	VV	5924	23136	1.51%	0.026%
490	22.131	22.127	22.135	VV	5602	24380	1.59%	0.028%
491	22.153	22.135	22.170	VV	5882	111283	7.27%	0.126%
492	22.185	22.170	22.194	VV	5274	70948	4.64%	0.081%
493	22.208	22.194	22.250	VV	5028	127375	8.32%	0.145%
494	22.264	22.250	22.290	VV	2698	50524	3.30%	0.057%
495	22.301	22.290	22.309	VV	2471	22608	1.48%	0.026%
496	22.313	22.309	22.329	VV	3016	27550	1.80%	0.031%
497	22.332	22.329	22.369	VV	2051	33237	2.17%	0.038%
498	22.395	22.369	22.410	VV	2229	35989	2.35%	0.041%
499	22.414	22.410	22.430	VV	2045	14757	0.96%	0.017%
500	22.434	22.430	22.438	VV	1454	6046	0.39%	0.007%
501	22.459	22.438	22.500	VBA	4193	117182	7.66%	0.133%
Sum of corrected areas:						87973566		

FG080525.M Thu Aug 07 05:40:49 2025



CALIBRATION SUMMARY

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: SCIA01

ProjectID: 11 Newman Ave Nutley

Lab Code: ACE

SDG No.: Q2757

Calibration Sequence : FG080525		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	159549953	93853	FG016345.D
850	82027875	96503	FG016346.D
340	33685502	99075	FG016347.D
170	17686270	104037	FG016348.D
85	8678686	102102	FG016349.D
AVG RF : 99114		% RSD : 4.15	AVG RT : 15.2092

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 11 Newman Ave Nutley
Lab Code: ACE SDG No.: Q2757
DataFile: FG016353.D Analyst Name: YP\AJ Analyst Date: 08-06-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	87012770	102368	99114	3.283

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016353.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 10:05
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Aug 07 04:34:01 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Quant Title :
 QLast Update : Tue Aug 05 12:47:26 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...	15.206	4784787	50.221 ug/ml
Target Compounds			
1) N-OCTANE	2.118	5007849	47.191 ug/ml
2) N-DECANE	4.669	5325144	49.277 ug/ml
3) N-DODECANE	6.854	5388387	49.581 ug/ml
4) N-TETRADECANE	8.695	5409897	49.478 ug/ml
5) N-HEXADECANE	10.315	5457794	50.211 ug/ml
6) N-OCTADECANE	11.770	5584676	50.487 ug/ml
7) N-EICOSANE	13.092	5635577	49.861 ug/ml
8) N-DOCOSANE	14.300	5516905	50.218 ug/ml
10) N-TETRACOSANE	15.411	5539409	50.555 ug/ml
11) N-HEXACOSANE	16.441	5570773	52.089 ug/ml
12) N-OCTACOSANE	17.398	5582496	51.818 ug/ml
13) N-TRIACONTANE	18.293	5808806	53.312 ug/ml
14) N-DOTRIACONTANE	19.131	5762369	54.707 ug/ml
15) N-TETRATRIACONTANE	19.920	5093946	53.459 ug/ml
16) N-HEXATRIACONTANE	20.663	4170203	55.811 ug/ml
17) N-OCTATRIACONTANE	21.456	3370911	56.221 ug/ml
18) N-TETRACONTANE	22.466	2787628	66.322 ug/ml

(f)=RT Delta > 1/2 Window

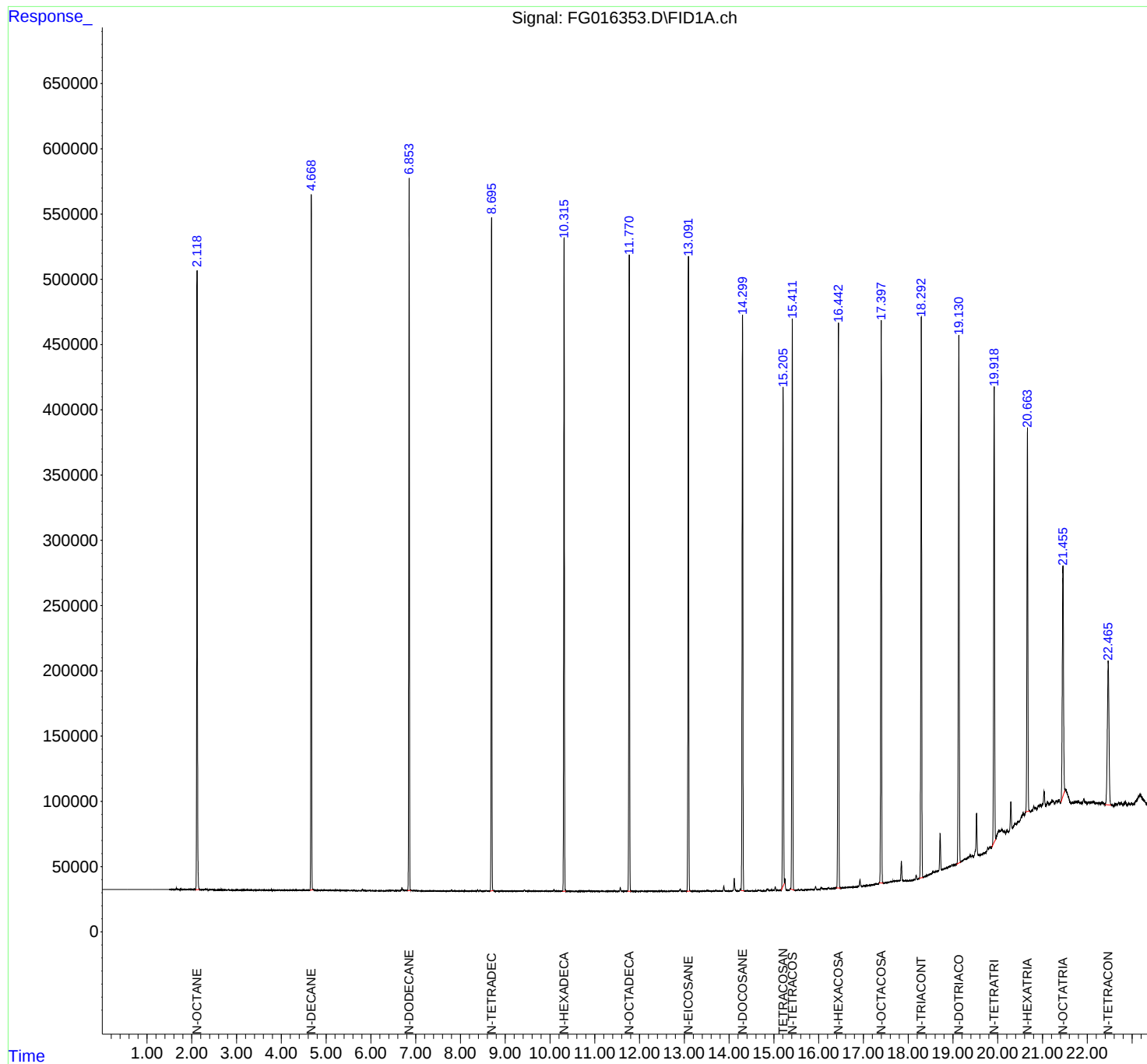
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Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016353.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 10:05
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Aug 07 04:34:01 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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\FG080625\
Data File : FG016353.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 10:05
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.118	2.081	2.171	BB	474745	5007849	86.21%	5.455%
2	4.669	4.635	4.706	BB	532556	5325144	91.67%	5.801%
3	6.854	6.819	6.892	BB	544369	5388387	92.76%	5.870%
4	8.695	8.659	8.735	BB	515978	5409897	93.13%	5.893%
5	10.315	10.277	10.356	BB	500164	5457794	93.96%	5.945%
6	11.770	11.732	11.811	BB	487529	5584676	96.14%	6.084%
7	13.092	13.050	13.135	BB	486647	5635577	97.02%	6.139%
8	14.300	14.264	14.340	BB	440515	5516905	94.97%	6.010%
9	15.206	15.161	15.235	BV	380809	4784787	82.37%	5.212%
10	15.411	15.375	15.457	BB	436937	5539409	95.36%	6.034%
11	16.441	16.392	16.486	BB	429445	5570773	95.90%	6.069%
12	17.398	17.350	17.440	BB	430713	5582496	96.10%	6.081%
13	18.293	18.245	18.330	BB	429650	5808806	100.00%	6.328%
14	19.131	19.078	19.173	BB	403567	5762369	99.20%	6.277%
15	19.920	19.867	19.953	BB	347485	5093946	87.69%	5.549%
16	20.663	20.625	20.713	BB	294285	4170203	71.79%	4.543%
17	21.456	21.410	21.499	BB	175449	3370911	58.03%	3.672%
18	22.466	22.396	22.537	BB	109657	2787628	47.99%	3.037%
Sum of corrected areas:							91797556	

FG080525.M Thu Aug 07 05:06:37 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 11 Newman Ave Nutley
Lab Code: ACE SDG No.: Q2757
DataFile: FG016363.D Analyst Name: YP\AJ Analyst Date: 08-06-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	87118415	102492	99114	3.408

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016363.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 15:33
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :

Integration File: autoint1.e
 Quant Time: Aug 07 04:37:28 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Quant Title :
 QLast Update : Tue Aug 05 12:47:26 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...	15.208	4777924	50.149 ug/ml
Target Compounds			
1) N-OCTANE	2.120	4915244	46.318 ug/ml
2) N-DECANE	4.672	5305457	49.095 ug/ml
3) N-DODECANE	6.855	5419922	49.871 ug/ml
4) N-TETRADECANE	8.697	5480648	50.125 ug/ml
5) N-HEXADECANE	10.317	5554247	51.098 ug/ml
6) N-OCTADECANE	11.773	5683349	51.379 ug/ml
7) N-EICOSANE	13.094	5716791	50.580 ug/ml
8) N-DOCOSANE	14.301	5559145	50.602 ug/ml
10) N-TETRACOSANE	15.415	5532980	50.496 ug/ml
11) N-HEXACOSANE	16.443	5496032	51.390 ug/ml
12) N-OCTACOSANE	17.400	5444224	50.535 ug/ml
13) N-TRIACONTANE	18.294	5607721	51.466 ug/ml
14) N-DOTRIACONTANE	19.134	5540171	52.598 ug/ml
15) N-TETRATRIACONTANE	19.921	4923662	51.672 ug/ml
16) N-HEXATRIACONTANE	20.667	4165616	55.750 ug/ml
17) N-OCTATRIACONTANE	21.459	3626054	60.476 ug/ml
18) N-TETRACONTANE	22.473	3147152	74.875 ug/ml

(f)=RT Delta > 1/2 Window

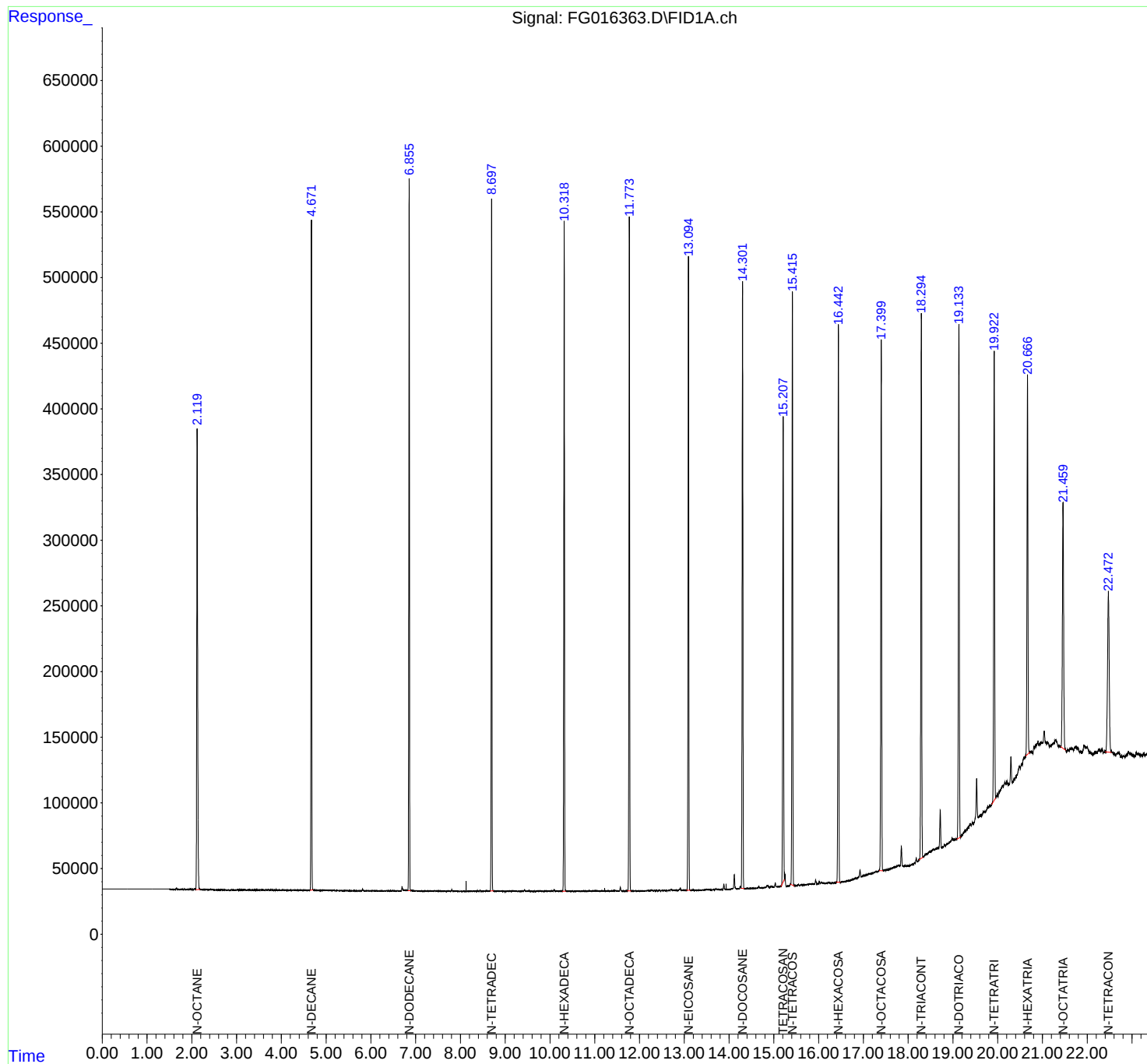
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016363.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 15:33
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :

Integration File: autoint1.e
Quant Time: Aug 07 04:37:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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\FG080625\
Data File : FG016363.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 15:33
Sample : 50 PPM TRPH STD :
Misc
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.120	2.084	2.181	BB	350994	4915244	85.98%	5.349%
2	4.672	4.640	4.711	BB	510287	5305457	92.80%	5.773%
3	6.855	6.823	6.892	BB	542311	5419922	94.81%	5.898%
4	8.697	8.662	8.736	BB	524323	5480648	95.87%	5.964%
5	10.317	10.275	10.356	BB	506722	5554247	97.16%	6.044%
6	11.773	11.733	11.811	BB	511353	5683349	99.42%	6.185%
7	13.094	13.052	13.137	BB	479075	5716791	100.00%	6.221%
8	14.301	14.266	14.344	BB	462544	5559145	97.24%	6.049%
9	15.208	15.160	15.237	BV	352397	4777924	83.58%	5.199%
10	15.415	15.371	15.449	BB	450760	5532980	96.78%	6.021%
11	16.443	16.398	16.488	BB	423917	5496032	96.14%	5.981%
12	17.400	17.351	17.438	BB	404099	5444224	95.23%	5.924%
13	18.294	18.239	18.333	BB	414024	5607721	98.09%	6.102%
14	19.134	19.081	19.172	BB	390744	5540171	96.91%	6.029%
15	19.921	19.867	19.956	BB	339857	4923662	86.13%	5.358%
16	20.667	20.625	20.712	BB	288452	4165616	72.87%	4.533%
17	21.459	21.410	21.521	BB	187155	3626054	63.43%	3.946%
18	22.473	22.403	22.545	BB	122601	3147152	55.05%	3.425%
Sum of corrected areas:							91896340	

FG080525.M Thu Aug 07 05:11:43 2025

Analytical Sequence

Client: Sciacca General Contractors, LLC

SDG No.: Q2757

Project: 11 Newman Ave Nutley

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 15.2092					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	06 Aug 2025 09:35	FG016352.D	15.204	
50 PPM TRPH STD	50 PPM TRPH STD	06 Aug 2025 10:05	FG016353.D	15.206	
PB169135BL	PB169135BL	06 Aug 2025 11:37	FG016355.D	15.203	
PB169135BS	PB169135BS	06 Aug 2025 12:06	FG016356.D	15.201	
WASTE	Q2757-01	06 Aug 2025 12:36	FG016357.D	15.201	
WASTEMS	Q2757-01MS	06 Aug 2025 13:35	FG016359.D	15.208	
WASTEMSD	Q2757-01MSD	06 Aug 2025 14:05	FG016360.D	15.208	
PIBLK02	LBLK02	06 Aug 2025 15:04	FG016362.D	15.206	
50 TRPH STD	50 TRPH STD	06 Aug 2025 15:33	FG016363.D	15.208	



QC SAMPLE DATA

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:		
Project:	11 Newman Ave Nutley		Date Received:		
Client Sample ID:	PB169135BL		SDG No.:	Q2757	
Lab Sample ID:	PB169135BL		Matrix:	SOIL	
Analytical Method:	8015D TPH		% Solid:	100	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
FG016355.D	1	08/06/25 08:20	08/06/25 11:37	PB169135

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	14.4		37 - 130	72%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016355.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 11:37
Operator : YP\AJ
Sample : PB169135BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169135BL

Integration File: autoint1.e
Quant Time: Aug 07 04:34:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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...	15.203	1371727	14.398 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

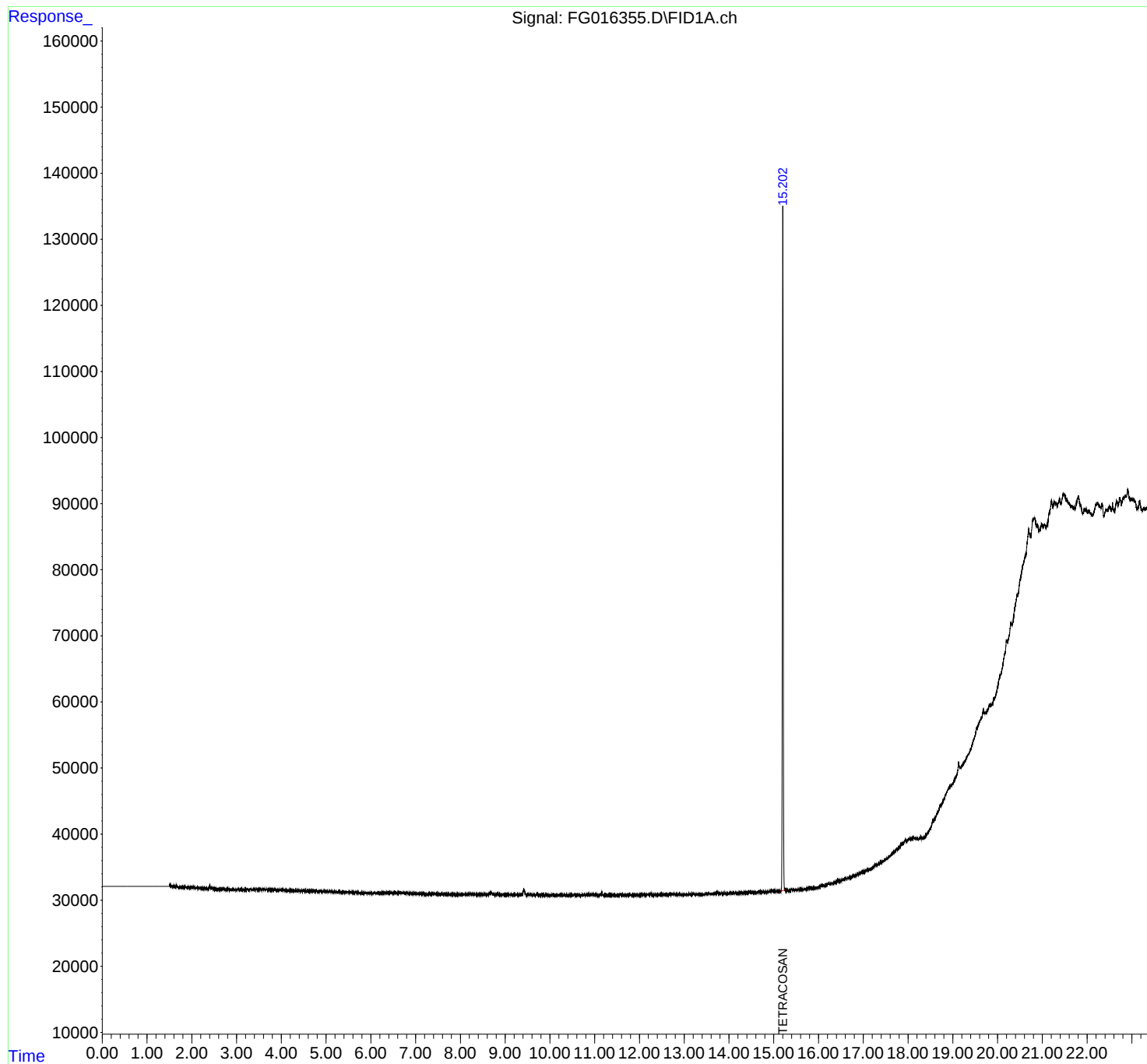
(m)=manual int.

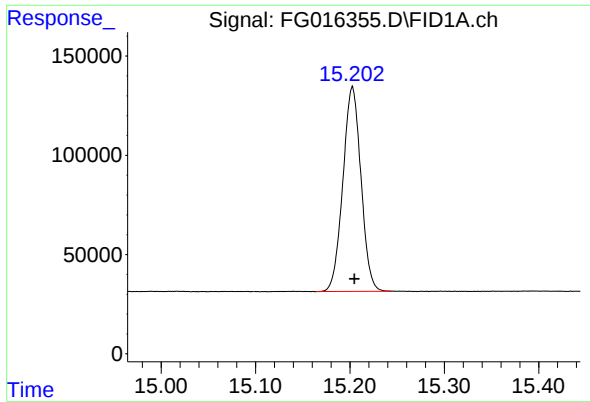
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016355.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 11:37
Operator : YP\AJ
Sample : PB169135BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169135BL

Integration File: autoint1.e
Quant Time: Aug 07 04:34:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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.: 15.203 min
Delta R.T.: -0.002 min
Response: 1371727
Conc: 14.40 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169135BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016355.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 11:37
Sample : PB169135BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.203	15.164	15.244	BB	103266	1371727	100.00%	100.000%
Sum of corrected areas:						1371727		

FG080525.M Thu Aug 07 05:09:05 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	08/06/25
Project:	11 Newman Ave Nutley	Date Received:	08/06/25
Client Sample ID:	PIBLK-FG016352.D	SDG No.:	Q2757
Lab Sample ID:	I.BLK-FG016352.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016352.D	1		08/06/25	FG080625

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	16.8		29 - 130	84%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016352.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 09:35
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: Aug 07 04:33:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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...	15.204	1598237	16.775 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

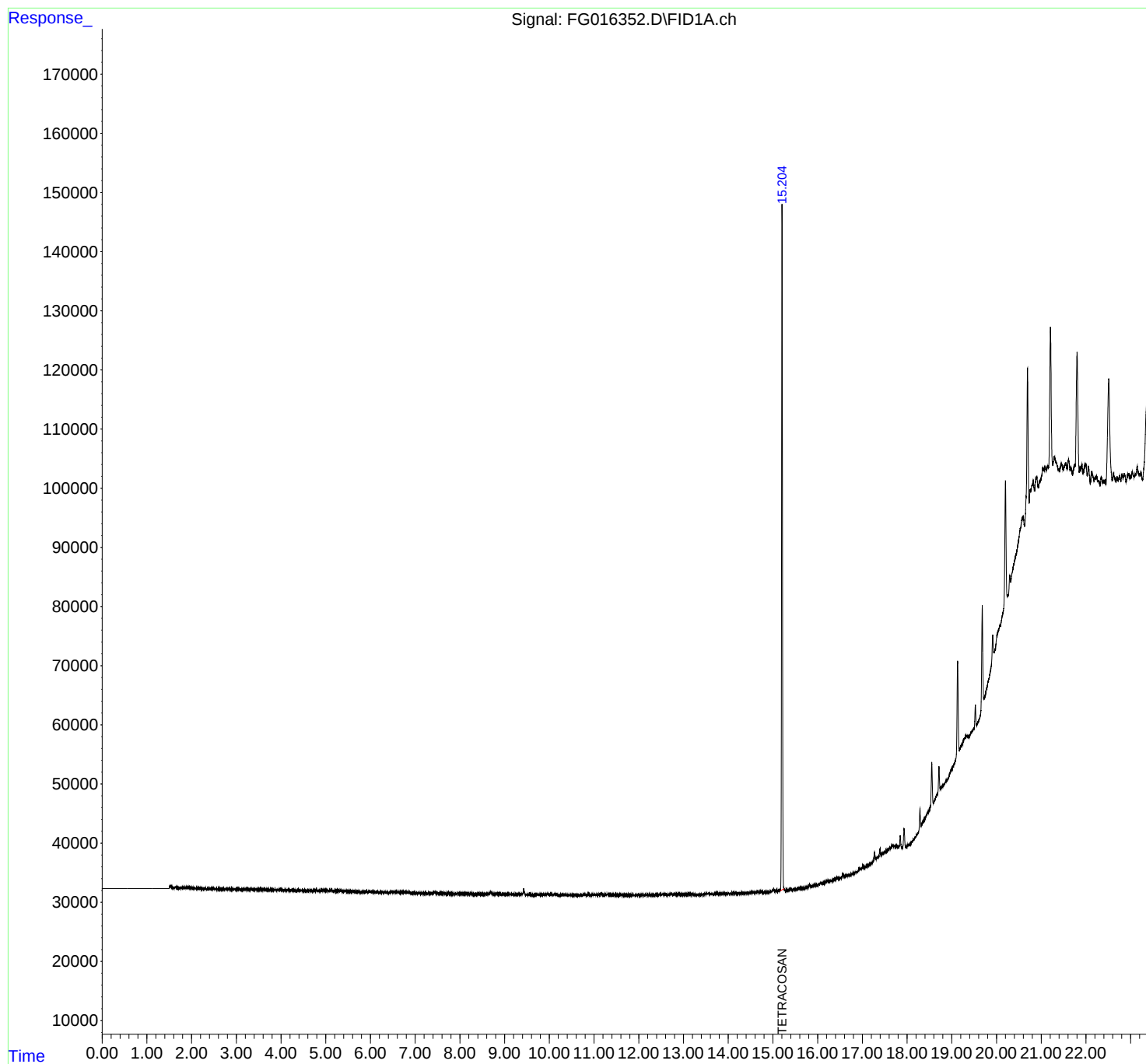
(m)=manual int.

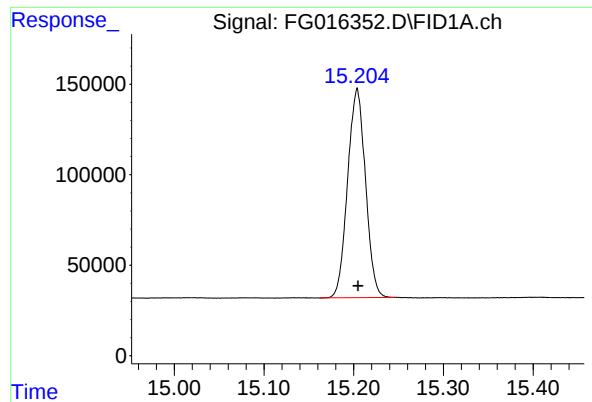
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016352.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 09:35
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Aug 07 04:33:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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.: 15.204 min
Delta R.T.: 0.000 min
Response: 1598237
Conc: 16.78 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016352.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 09:35
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.204	15.163	15.247	BB	115833	1598237	100.00%	100.000%
Sum of corrected areas:						1598237		

FG080525.M Thu Aug 07 05:02:12 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	08/06/25
Project:	11 Newman Ave Nutley	Date Received:	08/06/25
Client Sample ID:	PIBLK-FG016362.D	SDG No.:	Q2757
Lab Sample ID:	I.BLK-FG016362.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	TPH GC
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016362.D	1		08/06/25	FG080625

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.9		29 - 130	94%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016362.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 15:04
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: Aug 07 04:37:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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...	15.206	1797357	18.865 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

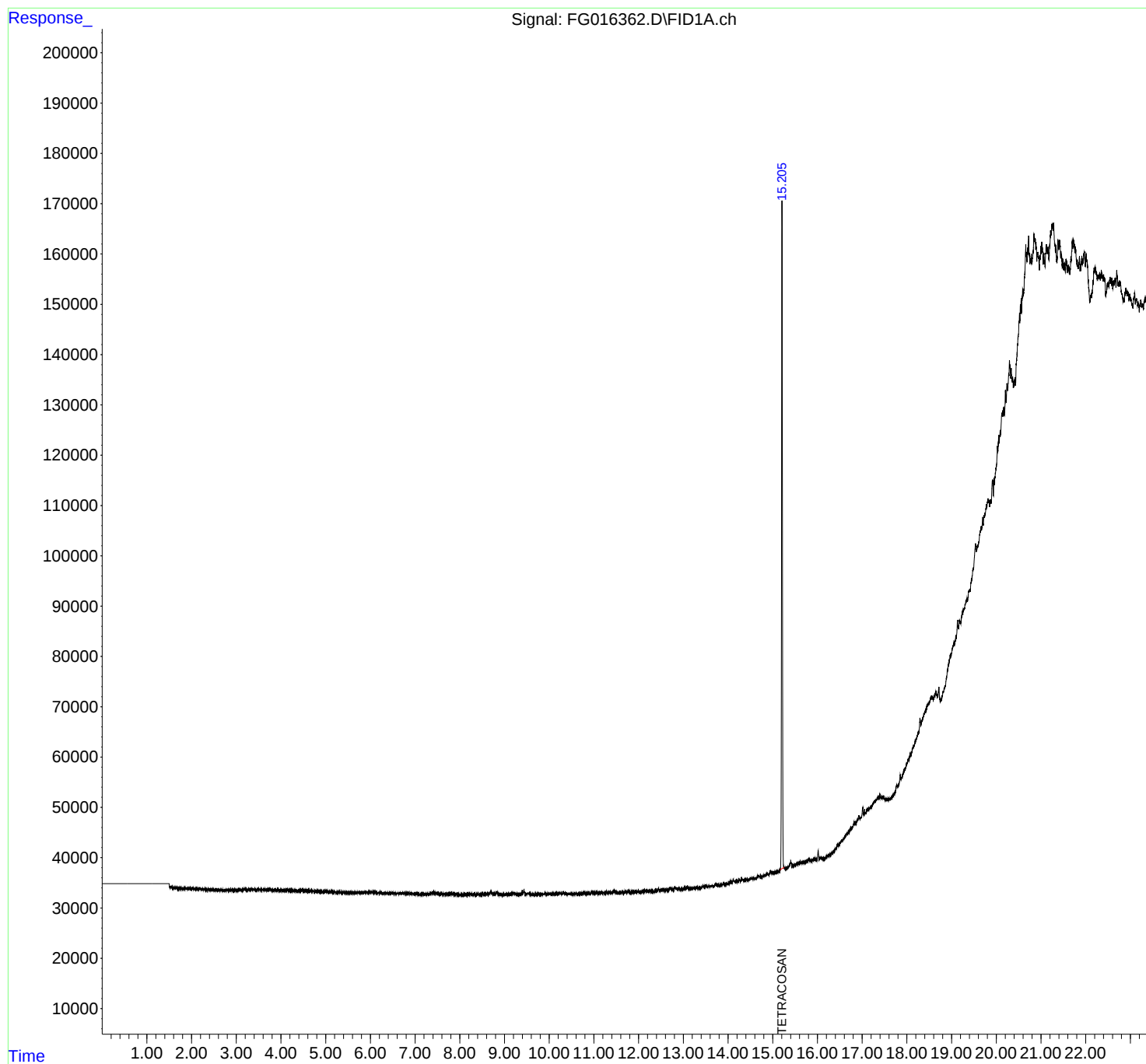
(m)=manual int.

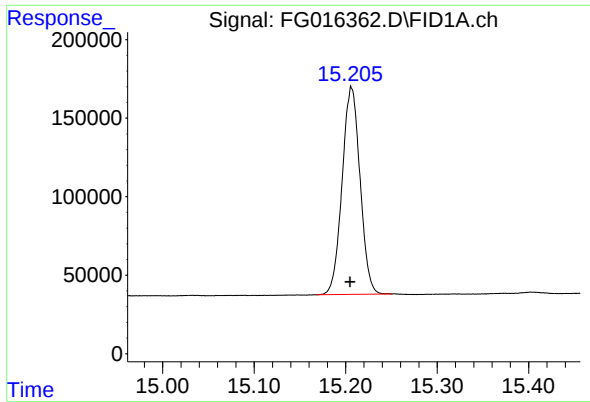
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016362.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 15:04
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Aug 07 04:37:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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.: 15.206 min
Delta R.T.: 0.002 min
Response: 1797357
Conc: 18.87 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016362.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 15:04
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.206	15.168	15.250	BB	131844	1797357	100.00%	100.000%
Sum of corrected areas:						1797357		

FG080525.M Thu Aug 07 05:11:15 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:		
Project:	11 Newman Ave Nutley		Date Received:		
Client Sample ID:	PB169135BS		SDG No.:	Q2757	
Lab Sample ID:	PB169135BS		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
FG016356.D	1	08/06/25 08:20	08/06/25 12:06	PB169135

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	10000		384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	19.2		37 - 130	96%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016356.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 12:06
 Operator : YP\AJ
 Sample : PB169135BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB169135BS

Integration File: autoint1.e
 Quant Time: Aug 07 04:34:58 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Quant Title :
 QLast Update : Tue Aug 05 12:47:26 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...	15.201	1833387	19.243 ug/ml
Target Compounds			
1) N-OCTANE	2.118	1511015	14.239 ug/ml
2) N-DECANE	4.667	1797085	16.630 ug/ml
3) N-DODECANE	6.850	1860172	17.116 ug/ml
4) N-TETRADECANE	8.692	1930357	17.655 ug/ml
5) N-HEXADECANE	10.312	1966285	18.089 ug/ml
6) N-OCTADECANE	11.766	2024519	18.302 ug/ml
7) N-EICOSANE	13.086	2080839	18.410 ug/ml
8) N-DOCOSANE	14.295	2024644	18.429 ug/ml
10) N-TETRACOSANE	15.406	2031138	18.537 ug/ml
11) N-HEXACOSANE	16.435	1985812	18.568 ug/ml
12) N-OCTACOSANE	17.392	1987000	18.444 ug/ml
13) N-TRIACONTANE	18.286	1972300	18.101 ug/ml
14) N-DOTRIACONTANE	19.125	1847584	17.541 ug/ml
15) N-TETRATRIACONTANE	19.913	1591090	16.698 ug/ml
16) N-HEXATRIACONTANE	20.657	1293253	17.308 ug/ml
17) N-OCTATRIACONTANE	21.449	1057278	17.634 ug/ml
18) N-TETRACONTANE	22.456	839347	19.969 ug/ml

(f)=RT Delta > 1/2 Window

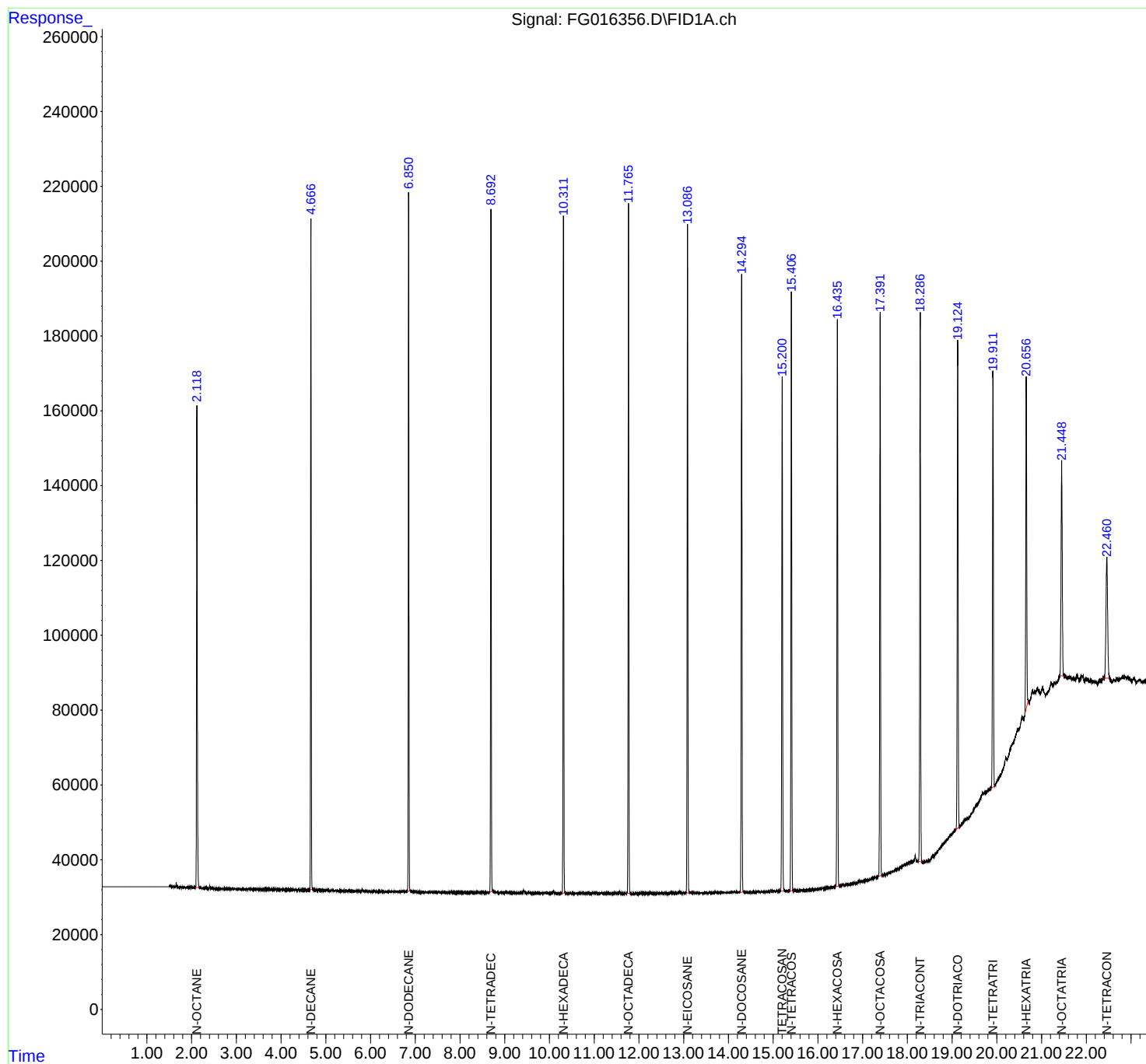
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016356.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 12:06
Operator : YP\AJ
Sample : PB169135BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169135BS

Integration File: autoint1.e
Quant Time: Aug 07 04:34:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 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\FG080625\
Data File : FG016356.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 12:06
Sample : PB169135BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.118	2.087	2.167	BB	128810	1511015	72.62%	4.777%
2	4.667	4.638	4.703	BB	179202	1797085	86.36%	5.681%
3	6.850	6.820	6.886	BB	186728	1860172	89.40%	5.880%
4	8.692	8.655	8.729	BB	182414	1930357	92.77%	6.102%
5	10.312	10.278	10.350	BB	180996	1966285	94.49%	6.216%
6	11.766	11.731	11.803	BB	184116	2024519	97.29%	6.400%
7	13.086	13.050	13.125	BB	178741	2080839	100.00%	6.578%
8	14.295	14.255	14.330	BB	163779	2024644	97.30%	6.400%
9	15.201	15.163	15.245	BB	136883	1833387	88.11%	5.796%
10	15.406	15.367	15.449	BB	159768	2031138	97.61%	6.421%
11	16.435	16.398	16.474	BB	150921	1985812	95.43%	6.278%
12	17.392	17.353	17.430	BB	150517	1987000	95.49%	6.281%
13	18.286	18.240	18.329	BB	146599	1972300	94.78%	6.235%
14	19.125	19.083	19.160	BB	130253	1847584	88.79%	5.841%
15	19.913	19.867	19.952	BB	109820	1591090	76.46%	5.030%
16	20.657	20.625	20.701	BB	88707	1293253	62.15%	4.088%
17	21.449	21.410	21.500	BB	57586	1057278	50.81%	3.342%
18	22.457	22.382	22.522	BB	32267	839347	40.34%	2.653%
Sum of corrected areas:							31633106	

FG080525.M Thu Aug 07 05:10:49 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	08/01/25
Project:	11 Newman Ave Nutley	Date Received:	08/01/25
Client Sample ID:	WASTEMS	SDG No.:	Q2757
Lab Sample ID:	Q2757-01MS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	81.5
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016359.D	1	08/06/25 08:00	08/06/25 13:35	PB169135

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	89900	E	470	3470	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	12.2		37 - 130	61%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016359.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 13:35
 Operator : YP\AJ
 Sample : Q2757-01MS
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 WASTEMS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 08/07/2025
 Supervised By :mohammad ahmed 08/08/2025

Integration File: Sample.e
 Quant Time: Aug 07 04:36:07 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Quant Title :
 QLast Update : Tue Aug 05 12:47:26 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...	15.208	1159198	12.167 ug/ml
Target Compounds			
1) N-OCTANE	2.121	1364056	12.854 ug/ml
2) N-DECANE	4.671	1796874	16.628 ug/ml
3) N-DODECANE	6.855	2164252	19.914 ug/ml
4) N-TETRADECANE	8.698	2626659	24.023 ug/ml
5) N-HEXADECANE	10.317	2627611	24.174 ug/mlm
6) N-OCTADECANE	11.773	2308510	20.870 ug/ml
7) N-EICOSANE	13.094	2278300	20.157 ug/ml
8) N-DOCOSANE	14.302	1964023	17.878 ug/ml
10) N-TETRACOSANE	15.414	2143059	19.559 ug/ml
11) N-HEXACOSANE	16.444	1848887	17.288 ug/ml
12) N-OCTACOSANE	17.402	1932284	17.936 ug/mlm
13) N-TRIACONTANE	18.296	1867728	17.142 ug/mlm
14) N-DOTRIACONTANE	19.137	1957848	18.588 ug/mlm
15) N-TETRATRIACONTANE	19.926	1750280	18.369 ug/ml
16) N-HEXATRIACONTANE	20.669	1318549	17.647 ug/ml
17) N-OCTATRIACONTANE	21.466	1100735	18.358 ug/mlm
18) N-TETRACONTANE	22.476	1108676	26.377 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016359.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 13:35
Operator : YP\AJ
Sample : Q2757-01MS
Misc :
ALS Vial : 25 Sample Multiplier: 1

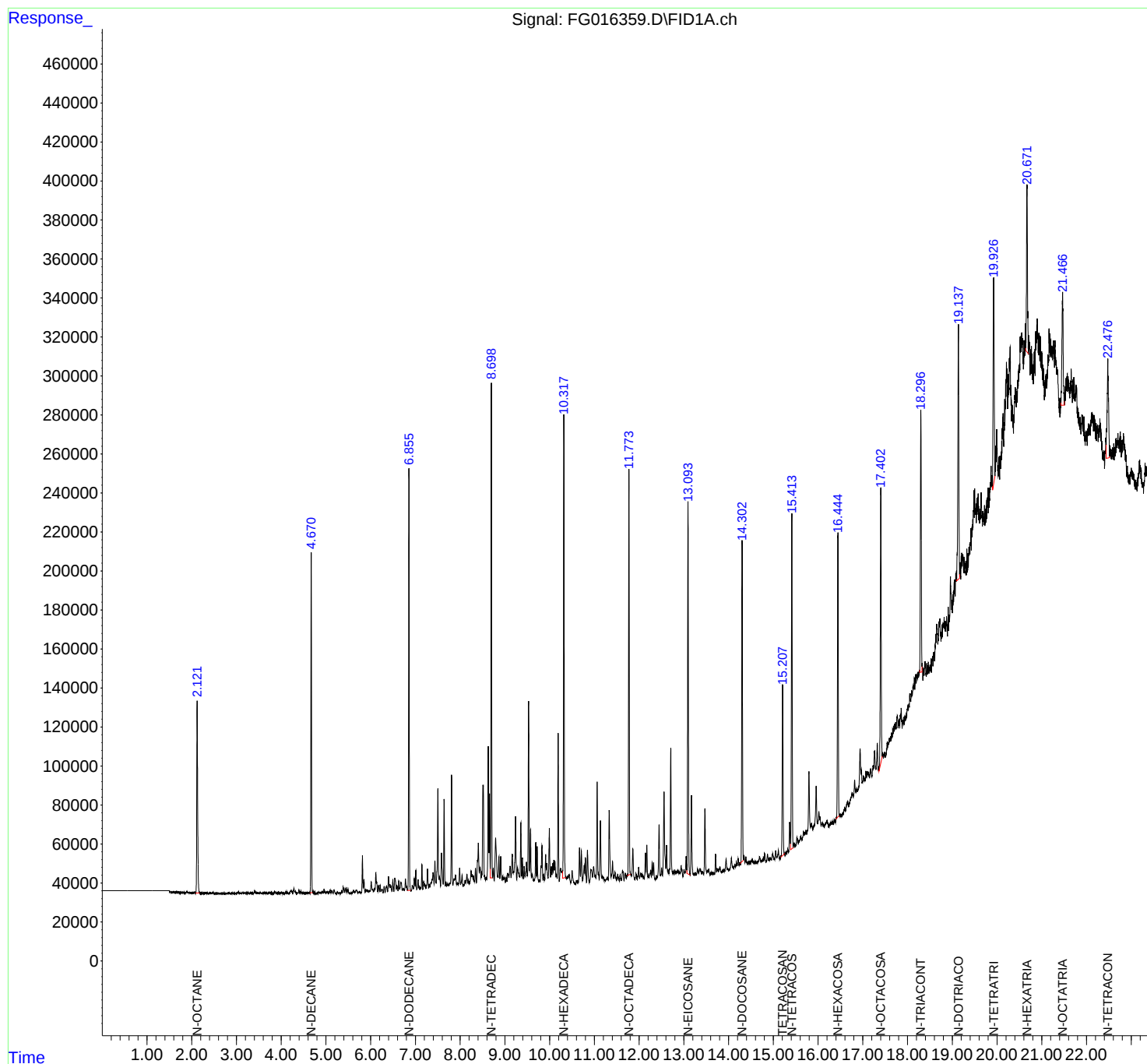
Instrument :
FID_G
ClientSampleId :
WASTEMS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 08/07/2025
Supervised By :mohammad ahmed 08/08/2025

Integration File: Sample.e
Quant Time: Aug 07 04:36:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_G

ClientSampleId :

WASTEMS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG08062
Data File : FG016359.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 13:35
Sample : Q2757-01MS
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.020	2.006	2.042	BV	115	532	0.01%	0.000%
2	2.063	2.042	2.085	PV	422	6286	0.12%	0.004%
3	2.121	2.085	2.203	VV	98667	1378297	25.71%	0.899%
4	2.222	2.203	2.229	VV	232	2365	0.04%	0.002%
5	2.233	2.229	2.241	VV	153	848	0.02%	0.001%
6	2.251	2.241	2.258	VV	177	1149	0.02%	0.001%
7	2.286	2.258	2.300	VV	235	3193	0.06%	0.002%
8	2.315	2.300	2.359	VV	490	8623	0.16%	0.006%
9	2.360	2.359	2.381	VV	145	661	0.01%	0.000%
10	2.407	2.381	2.444	PV	798	10430	0.19%	0.007%
11	2.464	2.444	2.515	VV	509	9713	0.18%	0.006%
12	2.535	2.515	2.582	PV	235	5017	0.09%	0.003%
13	2.586	2.582	2.608	VV	193	2006	0.04%	0.001%
14	2.611	2.608	2.615	VV	173	484	0.01%	0.000%
15	2.631	2.615	2.651	VV	167	2248	0.04%	0.001%
16	2.657	2.651	2.662	VV	196	1003	0.02%	0.001%
17	2.667	2.662	2.683	VV	198	1553	0.03%	0.001%
18	2.688	2.683	2.694	VV	163	842	0.02%	0.001%
19	2.700	2.694	2.704	VV	255	883	0.02%	0.001%
20	2.726	2.704	2.747	VV	230	3790	0.07%	0.002%
21	2.751	2.747	2.764	VV	169	1013	0.02%	0.001%
22	2.767	2.764	2.782	PV	124	726	0.01%	0.000%
23	2.790	2.782	2.799	VV	98	693	0.01%	0.000%
24	2.825	2.799	2.857	VV	513	10807	0.20%	0.007%
25	2.862	2.857	2.875	VV	151	1114	0.02%	0.001%
26	2.904	2.875	2.919	VV	381	6129	0.11%	0.004%
27	2.948	2.919	2.990	VV	369	8742	0.16%	0.006%
28	3.040	2.990	3.067	VV	840	18324	0.34%	0.012%
29	3.071	3.067	3.076	VV	372	1683	0.03%	0.001%
30	3.080	3.076	3.085	VV	313	1618	0.03%	0.001%
31	3.101	3.085	3.119	VV	433	5865	0.11%	0.004%
32	3.140	3.119	3.166	VV	672	11176	0.21%	0.007%
33	3.183	3.166	3.202	VV	407	6990	0.13%	0.005%
34	3.206	3.202	3.211	VV	283	1455	0.03%	0.001%
35	3.215	3.211	3.219	VV	307	1284	0.02%	0.001%
36	3.223	3.219	3.238	VV	267	2673	0.05%	0.002%

					retention			
37	3.249	3.238	3.299	VV	482	12217	0.23%	0.008%
38	3.328	3.299	3.379	VV	489	16439	0.06%	0.002%
39	3.406	3.379	3.442	VV	1315	26637	0.17%	0.006%
40	3.447	3.442	3.465	VV	557	5851	0.13%	0.005%
41	3.468	3.465	3.473	VV	323	1466	0.08%	0.003%
42	3.478	3.473	3.492	VV	311	3137	0.17%	0.006%
43	3.497	3.492	3.515	VV	305	4078	0.13%	0.005%
44	3.522	3.515	3.563	VV	385	9162	0.31%	0.011%
45	3.584	3.563	3.603	VV	407	7222	0.06%	0.002%
46	3.637	3.603	3.688	VV	556	16794	0.12%	0.004%
47	3.702	3.688	3.710	VV	325	3336	0.18%	0.006%
48	3.728	3.710	3.735	VV	586	6541	0.07%	0.003%
49	3.746	3.735	3.769	VV	596	9720	0.15%	0.005%
50	3.783	3.769	3.788	VV	433	3905	0.35%	0.012%
51	3.797	3.788	3.834	VV	474	7951	0.07%	0.002%
52	3.857	3.834	3.886	VV	1107	18686	0.03%	0.001%
53	3.899	3.886	3.907	VV	362	3770	0.23%	0.008%
54	3.911	3.907	3.917	VV	313	1645	0.16%	0.005%
55	3.939	3.917	3.984	VV	483	12199	0.09%	0.003%
56	3.998	3.984	4.017	VV	670	8329	0.09%	0.003%
57	4.021	4.017	4.042	VV	446	4680	0.21%	0.007%
58	4.053	4.042	4.076	VV	430	4646	0.23%	0.008%
59	4.103	4.076	4.118	PV	805	11306	0.61%	0.021%
60	4.132	4.118	4.165	VV	736	12157	0.25%	0.009%
61	4.217	4.165	4.233	VV	1555	32735	0.73%	0.026%
62	4.240	4.233	4.260	VV	1212	13229	0.34%	0.012%
63	4.284	4.260	4.304	VV	2809	39157	0.02%	0.001%
64	4.318	4.304	4.351	VV	1256	18042	0.56%	0.020%
65	4.356	4.351	4.359	VV	231	866	0.31%	0.011%
66	4.396	4.359	4.425	VV	1568	30076	0.09%	0.003%
67	4.437	4.425	4.460	VV	1118	16587	0.09%	0.003%
68	4.466	4.460	4.479	VV	463	4815	0.17%	0.006%
69	4.484	4.479	4.528	VV	544	8978	0.21%	0.007%
70	4.567	4.528	4.584	VV	594	11007	0.17%	0.006%
71	4.614	4.584	4.624	VV	569	9020	0.09%	0.003%
72	4.632	4.624	4.643	VV	492	4960	33.84%	1.183%
73	4.671	4.643	4.701	VV	174767	1814116	0.28%	0.010%
74	4.714	4.701	4.735	VV	1172	15206	0.17%	0.006%
75	4.750	4.735	4.771	VV	687	8896	0.08%	0.003%
76	4.788	4.771	4.811	VV	309	4305	0.34%	0.012%
77	4.838	4.811	4.876	VV	975	18423	0.42%	0.015%
78	4.911	4.876	4.940	VV	886	22425	0.47%	0.017%
79	4.958	4.940	4.974	VV	2351	25344	0.21%	0.007%
80	4.984	4.974	4.999	VV	1044	11014	0.19%	0.007%
81	5.018	4.999	5.029	VV	738	10052	0.16%	0.005%
82	5.040	5.029	5.052	VV	794	8362	0.14%	0.005%
83	5.066	5.052	5.073	VV	660	7312	0.42%	0.015%
84	5.093	5.073	5.109	VV	1643	22746	0.46%	0.016%
85	5.137	5.109	5.161	VV	1452	24678	0.59%	0.021%
86	5.179	5.161	5.227	VV	1941	31691	0.19%	0.007%
87	5.259	5.227	5.277	VV	806	10130	0.13%	0.004%
88	5.294	5.277	5.323	VV	447	6880	0.30%	0.011%
89	5.354	5.323	5.368	VV	1417	16126		

Instrument :

FID_G

ClientSampleId :

WASTEMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

					rters			
90	5.386	5.368	5.415	VV	3108	53050	0.99%	0.035%
91	5.431	5.415	5.451	VV	2598	36575		
92	5.467	5.451	5.482	VV	3043	32678		
93	5.495	5.482	5.516	VV	2138	25605		
94	5.524	5.516	5.540	VV	490	4174		
95	5.564	5.540	5.578	PV	295	4204		
96	5.600	5.578	5.607	VV	850	8724	0.16%	0.006%
97	5.619	5.607	5.646	VV	1639	22618	0.42%	0.015%
98	5.675	5.646	5.688	VV	1763	29817	0.56%	0.019%
99	5.693	5.688	5.714	VV	1506	14888	0.28%	0.010%
100	5.737	5.714	5.750	VV	675	11918	0.22%	0.008%
101	5.761	5.750	5.776	VV	676	7702	0.14%	0.005%
102	5.816	5.776	5.834	VV	19332	202705	3.78%	0.132%
103	5.850	5.834	5.880	VV	6972	90583	1.69%	0.059%
104	5.898	5.880	5.940	VV	1767	43322	0.81%	0.028%
105	5.948	5.940	5.958	VV	1044	10519	0.20%	0.007%
106	5.972	5.958	5.985	VV	1015	14530	0.27%	0.009%
107	6.046	6.037	6.063	VV	1840	21013	0.39%	0.014%
108	6.085	6.063	6.096	VV	2494	33784	0.63%	0.022%
109	6.115	6.096	6.129	VV	10457	122174	2.28%	0.080%
110	6.174	6.157	6.197	VV	3837	52724	0.98%	0.034%
111	6.252	6.228	6.280	VV	1802	35989	0.67%	0.023%
112	6.301	6.280	6.322	PV	3202	38577	0.72%	0.025%
113	6.432	6.422	6.443	VV	4109	43592	0.81%	0.028%
114	6.496	6.474	6.520	VV	6359	75047	1.40%	0.049%
115	6.585	6.573	6.610	VV	3515	50155	0.94%	0.033%
116	6.671	6.644	6.678	VV	4806	62673	1.17%	0.041%
117	6.684	6.678	6.706	VV	4895	51826	0.97%	0.034%
118	6.730	6.706	6.754	VV	1708	34406	0.64%	0.022%
119	6.776	6.754	6.797	VV	6728	89975	1.68%	0.059%
120	6.801	6.797	6.821	VV	2565	24719	0.46%	0.016%
121	6.855	6.821	6.904	VV	216874	2193968	40.92%	1.431%
122	6.931	6.904	6.958	VV	3027	57362	1.07%	0.037%
123	6.973	6.958	6.993	VV	6739	93555	1.75%	0.061%
124	7.009	6.993	7.030	VV	10891	121162	2.26%	0.079%
125	7.059	7.030	7.075	VV	5992	87626	1.63%	0.057%
126	7.083	7.075	7.098	VV	2115	21244	0.40%	0.014%
127	7.186	7.165	7.200	VV	4430	65444	1.22%	0.043%
128	7.206	7.200	7.235	VV	3188	51456	0.96%	0.034%
129	7.308	7.294	7.323	VV	3376	43497	0.81%	0.028%
130	7.345	7.323	7.359	VV	4091	71974	1.34%	0.047%
131	7.373	7.359	7.377	VV	5839	56025	1.05%	0.037%
132	7.393	7.377	7.416	VV	9130	163753	3.05%	0.107%
133	7.436	7.416	7.464	VV	15269	225964	4.21%	0.147%
134	7.502	7.464	7.529	VV	52298	695693	12.98%	0.454%
135	7.539	7.529	7.562	VV	6898	104557	1.95%	0.068%
136	7.582	7.562	7.621	VV	19132	339179	6.33%	0.221%
137	7.641	7.621	7.668	VV	46679	507555	9.47%	0.331%
138	7.684	7.668	7.699	VV	4146	58135	1.08%	0.038%
139	7.714	7.699	7.728	VV	2977	44152	0.82%	0.029%
140	7.744	7.728	7.753	VV	2899	37934	0.71%	0.025%
141	7.770	7.753	7.779	VV	3570	49584	0.92%	0.032%

Instrument :

FID_G

ClientSampleId :

WASTEMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

					rters			
142	7.808	7.779	7.840	VV	59016	687896	12.83%	0.449%
143	7.864	7.840	7.874	VV	5264	91331		
144	7.933	7.921	7.958	VV	3269	64543		
145	7.988	7.958	8.014	VV	11050	184966		
146	8.072	8.062	8.081	VV	2226	22903		
147	8.106	8.092	8.113	M	2146	16362		
148	8.152	8.121	8.171	VV	7543	149647	2.79%	0.098%
149	8.210	8.199	8.215	VV	3562	31843	0.59%	0.021%
150	8.273	8.263	8.286	VV	7444	91937	1.71%	0.060%
151	8.343	8.315	8.364	VV	10421	178893	3.34%	0.117%
152	8.388	8.364	8.393	VV	14520	154605	2.88%	0.101%
153	8.445	8.429	8.468	VV	10655	212562	3.96%	0.139%
154	8.480	8.468	8.488	VV	8458	86712	1.62%	0.057%
155	8.511	8.488	8.542	VV	52915	1006572	18.78%	0.657%
156	8.548	8.542	8.562	VV	6588	65814	1.23%	0.043%
157	8.582	8.562	8.593	VV	5541	93965	1.75%	0.061%
158	8.629	8.593	8.644	VV	72877	878458	16.39%	0.573%
159	8.656	8.644	8.673	VV	48430	528932	9.87%	0.345%
160	8.698	8.673	8.725	VV	257791	2786545	51.98%	1.818%
161	8.742	8.725	8.761	VV	10078	156297	2.92%	0.102%
162	8.793	8.761	8.848	VV	25621	662227	12.35%	0.432%
163	8.867	8.848	8.889	VV	15931	230477	4.30%	0.150%
164	8.954	8.939	8.967	VV	5940	80335	1.50%	0.052%
165	9.030	9.011	9.044	VV	5123	75262	1.40%	0.049%
166	9.165	9.139	9.185	VV	16808	301401	5.62%	0.197%
167	9.194	9.185	9.200	VV	7968	69335	1.29%	0.045%
168	9.239	9.200	9.265	VV	36167	630310	11.76%	0.411%
169	9.392	9.377	9.414	VV	14931	199116	3.71%	0.130%
170	9.431	9.414	9.449	VV	10400	150272	2.80%	0.098%
171	9.483	9.449	9.500	VV	12589	242579	4.52%	0.158%
172	9.530	9.500	9.553	VV	95087	1112945	20.76%	0.726%
173	9.573	9.553	9.593	VV	29243	365151	6.81%	0.238%
174	9.648	9.639	9.656	VV	3409	32438	0.61%	0.021%
175	9.690	9.656	9.707	VV	22543	299422	5.59%	0.195%
176	9.768	9.755	9.784	VV	3231	47811	0.89%	0.031%
177	9.829	9.812	9.851	VV	20775	281011	5.24%	0.183%
178	9.911	9.889	9.925	VV	15925	211954	3.95%	0.138%
179	10.038	10.022	10.051	VV	9669	124706	2.33%	0.081%
180	10.067	10.051	10.080	VV	11185	145476	2.71%	0.095%
181	10.093	10.080	10.105	VV	12945	153251	2.86%	0.100%
182	10.118	10.105	10.144	VV	12312	198212	3.70%	0.129%
183	10.154	10.144	10.167	VV	5371	65444	1.22%	0.043%
184	10.191	10.167	10.214	VV	77879	823594	15.36%	0.537%
185	10.240	10.214	10.263	VV	8477	182196	3.40%	0.119%
186	10.270	10.263	10.279	VV	6825	63944	1.19%	0.042%
187	10.318	10.279	10.377	VV	240872	2861842	53.38%	1.867%
188	10.402	10.377	10.413	VV	4212	77962	1.45%	0.051%
189	10.437	10.413	10.471	VV	5085	115979	2.16%	0.076%
190	10.599	10.558	10.606	M	638	3799	0.07%	0.002%
191	10.627	10.616	10.640	VV	1547	17649	0.33%	0.012%
192	10.709	10.689	10.735	VV	17095	244188	4.55%	0.159%
193	10.934	10.889	10.959	VV	7044	191772	3.58%	0.125%
194	10.983	10.959	11.012	VV	8402	179350	3.35%	0.117%

Instrument :

FID_G

ClientSampleId :

WASTEMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

							Instrument : FID_G	
							ClientSampleId : WASTEMS	
rteres							0.86%	0.030%
195	11.020	11.012	11.034	VV	3737	46343	Manual IntegrationsAPPROVED	
196	11.062	11.034	11.084	VV	51608	614869	11.21%	0.042%
197	11.091	11.084	11.107	VV	4650	49695	0.34%	0.012%
198	11.135	11.107	11.164	VV	31823	453926	3.31%	0.116%
199	11.176	11.164	11.190	VV	3025	41446	0.38%	0.013%
200	11.201	11.190	11.219	VV	2816	38502	0.75%	0.061%
201	11.229	11.219	11.242	VV	1537	18493	1.00%	0.035%
202	11.294	11.242	11.306	VV	2305	65122	0.34%	0.012%
203	11.407	11.371	11.428	VV	10518	177298	2.16%	0.076%
204	11.437	11.428	11.442	VV	2516	20522	1.42%	0.050%
205	11.460	11.442	11.497	VV	5007	93997	0.76%	0.026%
206	11.520	11.497	11.536	VV	3785	53860	1.00%	0.035%
207	11.543	11.536	11.559	VV	1834	18416	0.34%	0.012%
208	11.629	11.597	11.662	VV	5354	115993	2.16%	0.076%
209	11.682	11.662	11.712	VV	3706	76143	1.42%	0.050%
210	11.730	11.712	11.739	VV	2978	40608	0.76%	0.026%
211	11.773	11.739	11.832	VV	210614	2483759	46.33%	1.620%
212	11.861	11.832	11.901	VV	16253	267451	4.99%	0.174%
213	11.933	11.901	11.956	VV	3200	55596	1.04%	0.036%
214	12.037	12.010	12.052	VV	3393	62320	1.16%	0.041%
215	12.142	12.111	12.157	VV	13800	172655	3.22%	0.113%
216	12.173	12.157	12.199	VV	17735	216510	4.04%	0.141%
217	12.208	12.199	12.226	VV	2041	27030	0.50%	0.018%
218	12.259	12.226	12.276	VV	4913	89826	1.68%	0.059%
219	12.292	12.276	12.307	VV	8678	95982	1.79%	0.063%
220	12.324	12.307	12.357	VV	8541	105143	1.96%	0.069%
221	12.391	12.357	12.403	PV	1080	16464	0.31%	0.011%
222	12.447	12.403	12.474	VV	27573	372403	6.95%	0.243%
223	12.504	12.474	12.523	VV	5558	90393	1.69%	0.059%
224	12.558	12.523	12.598	VV	44393	779062	14.53%	0.508%
225	12.615	12.598	12.638	VV	17021	225999	4.22%	0.147%
226	12.648	12.638	12.663	VV	4476	54022	1.01%	0.035%
227	12.708	12.663	12.748	VV	66288	872531	16.28%	0.569%
228	12.760	12.748	12.775	VV	2954	42786	0.80%	0.028%
229	12.792	12.775	12.807	VV	3857	58894	1.10%	0.038%
230	12.864	12.847	12.880	VV	3810	57767	1.08%	0.038%
231	12.893	12.880	12.906	VV	2986	38870	0.73%	0.025%
232	12.916	12.906	12.923	VV	2499	23411	0.44%	0.015%
233	12.940	12.923	12.980	VV	5927	110666	2.06%	0.072%
234	13.004	12.980	13.027	VV	3656	64135	1.20%	0.042%
235	13.051	13.027	13.066	VV	10441	140416	2.62%	0.092%
236	13.094	13.066	13.139	VV	192665	2333317	43.52%	1.522%
237	13.170	13.139	13.219	VV	41456	535696	9.99%	0.349%
238	13.242	13.219	13.251	VV	1263	17980	0.34%	0.012%
239	13.265	13.251	13.282	VV	1347	18484	0.34%	0.012%
240	13.306	13.282	13.329	VV	3471	59453	1.11%	0.039%
241	13.355	13.329	13.367	VV	3591	62460	1.17%	0.041%
242	13.375	13.367	13.395	VV	3049	37077	0.69%	0.024%
243	13.416	13.395	13.440	VV	2240	37032	0.69%	0.024%
244	13.471	13.440	13.514	VV	34312	427732	7.98%	0.279%
245	13.528	13.514	13.543	VV	2453	32951	0.61%	0.021%
246	13.557	13.543	13.581	VV	3061	40432	0.75%	0.026%

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247	13.645	13.628	13.661	VV	1349	16413	0.31%	0.011%
248	13.677	13.661	13.688	VV	933	9159		
249	13.709	13.688	13.729	PV	10386	116380		
250	13.744	13.729	13.776	VV	2728	54738		
251	13.807	13.776	13.854	VV	3285	71263		
252	13.869	13.854	13.882	VV	1359	14295		
253	13.944	13.915	14.007	VV	6416	122113	2.28%	0.080%
254	14.063	14.007	14.116	VV	6452	149488	2.79%	0.098%
255	14.142	14.116	14.154	VV	2134	38508	0.72%	0.025%
256	14.173	14.154	14.191	VV	3421	53851	1.00%	0.035%
257	14.214	14.191	14.236	VV	5271	88758	1.66%	0.058%
258	14.255	14.236	14.269	VV	2825	46983	0.88%	0.031%
259	14.302	14.269	14.331	VV	167472	2086876	38.93%	1.361%
260	14.346	14.331	14.367	VV	5850	92070	1.72%	0.060%
261	14.386	14.367	14.427	VV	5196	106779	1.99%	0.070%
262	14.437	14.427	14.442	VV	1936	16364	0.31%	0.011%
263	14.446	14.442	14.450	VV	1858	8059	0.15%	0.005%
264	14.459	14.450	14.473	VV	1975	24243	0.45%	0.016%
265	14.494	14.473	14.501	VV	1962	28215	0.53%	0.018%
266	14.524	14.501	14.579	VV	2874	91987	1.72%	0.060%
267	14.597	14.579	14.612	VV	1366	22176	0.41%	0.014%
268	14.629	14.612	14.647	VV	1176	19872	0.37%	0.013%
269	14.694	14.647	14.728	VV	3612	85210	1.59%	0.056%
270	14.740	14.728	14.755	VV	1238	16877	0.31%	0.011%
271	14.778	14.755	14.789	VV	2291	33780	0.63%	0.022%
272	14.806	14.789	14.846	VV	4279	64411	1.20%	0.042%
273	14.869	14.846	14.893	VV	3868	53261	0.99%	0.035%
274	14.909	14.893	14.919	VV	1218	15204	0.28%	0.010%
275	14.942	14.919	14.956	VV	1472	22144	0.41%	0.014%
276	14.987	14.956	15.009	VV	3559	64825	1.21%	0.042%
277	15.012	15.009	15.030	VV	1031	9393	0.18%	0.006%
278	15.052	15.030	15.074	VV	4659	61735	1.15%	0.040%
279	15.113	15.074	15.144	VV	4620	76836	1.43%	0.050%
280	15.208	15.144	15.248	PV	88421	1198412	22.35%	0.782%
281	15.253	15.248	15.265	VV	1213	8778	0.16%	0.006%
282	15.284	15.265	15.302	VV	1535	17571	0.33%	0.011%
283	15.321	15.302	15.337	VV	2128	25545	0.48%	0.017%
284	15.365	15.337	15.384	VV	15201	201882	3.77%	0.132%
285	15.414	15.384	15.444	VV	172660	2183237	40.72%	1.424%
286	15.460	15.444	15.487	VV	3157	56161	1.05%	0.037%
287	15.529	15.487	15.564	VV	5253	133053	2.48%	0.087%
288	15.609	15.564	15.643	VV	4424	144266	2.69%	0.094%
289	15.677	15.643	15.699	VV	5767	144071	2.69%	0.094%
290	15.729	15.699	15.742	VV	4973	122391	2.28%	0.080%
291	15.796	15.742	15.829	VV	34647	672892	12.55%	0.439%
292	15.856	15.829	15.881	VV	7272	189708	3.54%	0.124%
293	15.958	15.881	15.982	VV	25052	595507	11.11%	0.388%
294	16.018	15.982	16.037	VV	10998	256964	4.79%	0.168%
295	16.044	16.037	16.067	VV	7942	103722	1.93%	0.068%
296	16.087	16.067	16.136	VV	4139	132172	2.47%	0.086%
297	16.200	16.136	16.242	VV	3519	146046	2.72%	0.095%
298	16.285	16.242	16.300	VV	1689	33090	0.62%	0.022%
299	16.319	16.300	16.346	VV	1527	20368	0.38%	0.013%

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300	16.363	16.346	16.389	PV	1331	19560	0.36%	0.013%
301	16.408	16.389	16.412	PV	2105	17382		
302	16.444	16.412	16.474	VV	145891	1906228	35.00%	0.003%
303	16.480	16.474	16.495	VV	1629	18363	0.01%	0.003%
304	16.505	16.495	16.526	VV	1285	14504	0.01%	0.003%
305	16.547	16.526	16.553	PV	1056	10629	0.01%	0.003%
306	16.595	16.553	16.611	VV	2184	41898	0.78%	0.027%
307	16.616	16.611	16.619	VV	1170	5106	0.10%	0.003%
308	16.664	16.619	16.680	VV	3696	89744	1.67%	0.059%
309	16.766	16.680	16.784	VV	4982	195597	3.65%	0.128%
310	16.818	16.784	16.838	VV	10357	185236	3.46%	0.121%
311	16.846	16.838	16.851	VV	4385	32184	0.60%	0.021%
312	16.865	16.851	16.883	VV	4409	69732	1.30%	0.045%
313	16.939	16.883	16.958	VV	22804	440299	8.21%	0.287%
314	16.966	16.958	16.986	VV	11499	147987	2.76%	0.097%
315	17.016	16.986	17.033	VV	6570	148172	2.76%	0.097%
316	17.046	17.033	17.055	VV	5011	58102	1.08%	0.038%
317	17.069	17.055	17.084	VV	7537	101475	1.89%	0.066%
318	17.103	17.084	17.116	VV	6595	109858	2.05%	0.072%
319	17.122	17.116	17.151	VV	5765	91461	1.71%	0.060%
320	17.173	17.151	17.199	VV	5842	109217	2.04%	0.071%
321	17.228	17.199	17.238	VV	6108	92110	1.72%	0.060%
322	17.261	17.238	17.294	VV	12890	244759	4.57%	0.160%
323	17.324	17.294	17.348	VV	14625	216855	4.05%	0.141%
324	17.355	17.348	17.364	VV	1832	9950	0.19%	0.006%
325	17.402	17.364	17.437	PV	143494	2032351	37.91%	1.326%
326	17.446	17.437	17.461	VV	6231	71645	1.34%	0.047%
327	17.468	17.461	17.473	VV	5000	32654	0.61%	0.021%
328	17.482	17.473	17.498	VV	5185	62952	1.17%	0.041%
329	17.544	17.498	17.555	VV	8541	165053	3.08%	0.108%
330	17.564	17.555	17.569	VV	7962	61866	1.15%	0.040%
331	17.620	17.599	17.627	VV	9262	143133	2.67%	0.093%
332	17.668	17.657	17.677	VV	11884	118046	2.20%	0.077%
333	17.688	17.677	17.700	VV	12519	158410	2.95%	0.103%
334	17.714	17.700	17.724	VV	12522	162963	3.04%	0.106%
335	17.734	17.724	17.745	VV	13014	140909	2.63%	0.092%
336	17.816	17.808	17.825	VV	12313	104503	1.95%	0.068%
337	17.841	17.825	17.847	VV	13669	159657	2.98%	0.104%
338	17.893	17.879	17.904	VV	9259	122300	2.28%	0.080%
339	17.953	17.947	17.958	VV	8966	51359	0.96%	0.034%
340	17.975	17.971	17.982	VV	9764	59353	1.11%	0.039%
341	18.029	18.018	18.038	VV	13532	151756	2.83%	0.099%
342	18.093	18.086	18.107	VV	17990	211017	3.94%	0.138%
343	18.126	18.107	18.137	VV	19806	327350	6.11%	0.214%
344	18.151	18.137	18.162	VV	23119	306936	5.73%	0.200%
345	18.185	18.162	18.194	VV	23834	399739	7.46%	0.261%
346	18.204	18.194	18.226	VV	22570	410964	7.67%	0.268%
347	18.235	18.226	18.241	VV	23447	206512	3.85%	0.135%
348	18.297	18.241	18.342	VV	155481	3177772	59.28%	2.073%
349	18.351	18.342	18.356	VV	22016	166364	3.10%	0.109%
350	18.361	18.356	18.370	VV	20941	156599	2.92%	0.102%
351	18.381	18.370	18.396	VV	24260	346549	6.46%	0.226%

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352	18.400	18.396	18.418	VV	23322	251010	4.68%	0.164%
353	18.430	18.418	18.438	VV	21992	217933		
354	18.490	18.477	18.495	VV	17995	183810		
355	18.576	18.567	18.581	VV	22855	162432		
356	18.586	18.581	18.591	VV	22166	122837		
357	18.599	18.591	18.607	VV	22566	202349		
358	18.630	18.607	18.636	VV	30700	440455	8.22%	0.287%
359	18.722	18.711	18.735	VV	35878	459491	8.57%	0.300%
360	18.817	18.810	18.826	VV	33550	290584	5.42%	0.190%
361	18.833	18.826	18.840	VV	30627	236866	4.42%	0.155%
362	18.860	18.854	18.865	VV	30243	182921	3.41%	0.119%
363	18.909	18.891	18.916	VV	35578	415639	7.75%	0.271%
364	18.931	18.916	18.936	VV	31323	349667	6.52%	0.228%
365	18.994	18.986	19.001	VV	37108	311550	5.81%	0.203%
366	19.010	19.001	19.017	VV	39284	344056	6.42%	0.224%
367	19.024	19.017	19.030	VV	40106	305317	5.70%	0.199%
368	19.042	19.030	19.047	VV	44819	406806	7.59%	0.265%
369	19.053	19.047	19.065	VV	45504	446211	8.32%	0.291%
370	19.093	19.065	19.098	VV	48856	901909	16.82%	0.588%
371	19.137	19.098	19.170	VV	173620	3830450	71.45%	2.499%
372	19.176	19.170	19.189	VV	50529	510112	9.52%	0.333%
373	19.199	19.189	19.204	VV	53126	432937	8.08%	0.282%
374	19.212	19.204	19.221	VV	54405	524423	9.78%	0.342%
375	19.262	19.252	19.276	VV	50823	664589	12.40%	0.434%
376	19.290	19.276	19.295	VV	45865	518447	9.67%	0.338%
377	19.326	19.316	19.333	VV	52705	453644	8.46%	0.296%
378	19.390	19.377	19.395	VV	53386	529495	9.88%	0.345%
379	19.433	19.425	19.440	VV	60046	530267	9.89%	0.346%
380	19.501	19.492	19.510	VV	78488	776176	14.48%	0.506%
381	19.617	19.610	19.624	VV	64122	501486	9.35%	0.327%
382	19.696	19.690	19.702	VV	59813	418886	7.81%	0.273%
383	19.707	19.702	19.712	VV	57457	336337	6.27%	0.219%
384	19.720	19.712	19.729	VV	62879	571347	10.66%	0.373%
385	19.769	19.753	19.774	VV	64477	770378	14.37%	0.503%
386	19.814	19.806	19.818	VV	68042	482181	8.99%	0.315%
387	19.823	19.818	19.834	VV	68731	585570	10.92%	0.382%
388	19.868	19.834	19.877	VV	79021	1842654	34.37%	1.202%
389	19.882	19.877	19.887	VV	72960	417955	7.80%	0.273%
390	19.893	19.887	19.899	VV	72542	514948	9.61%	0.336%
391	19.926	19.899	19.954	VV	173520	3989631	74.42%	2.603%
392	19.960	19.954	19.964	VV	77936	417265	7.78%	0.272%
393	19.971	19.964	19.976	VV	85754	592564	11.05%	0.387%
394	19.993	19.976	20.026	VV	93542	2375043	44.30%	1.549%
395	20.052	20.026	20.059	VV	77965	1432721	26.73%	0.935%
396	20.071	20.067	20.077	VV	77139	454835	8.48%	0.297%
397	20.083	20.077	20.087	VV	77302	446495	8.33%	0.291%
398	20.105	20.087	20.111	VV	83931	1101307	20.54%	0.718%
399	20.135	20.111	20.150	VV	96825	2059793	38.42%	1.344%
400	20.172	20.150	20.177	VV	102936	1488953	27.77%	0.971%
401	20.275	20.240	20.280	VV	121153	2602054	48.54%	1.697%
402	20.355	20.351	20.368	VV	87972	845040	15.76%	0.551%
403	20.375	20.368	20.379	VV	89563	575079	10.73%	0.375%
404	20.442	20.437	20.448	VV	98658	608639	11.35%	0.397%

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rteres								
405	20.516	20.506	20.522	VV	124606	1130100	21.08%	0.737%
							Manual IntegrationsAPPROVED	
406	20.529	20.522	20.537	VV	123892	1091292	20.98%	0.737%
407	20.542	20.537	20.548	VV	123428	767326	14.04%	0.737%
408	20.555	20.548	20.563	VV	126062	1138081	21.08%	0.737%
409	20.568	20.563	20.598	VV	122052	2395590	44.04%	0.737%
410	20.604	20.598	20.609	VV	119802	754045	14.04%	0.737%
411	20.617	20.609	20.623	VV	118394	964655	17.99%	0.629%
412	20.634	20.623	20.641	VV	127738	1293784	24.13%	0.844%
413	20.669	20.641	20.701	VV	196654	5360966	100.00%	3.497%
414	20.705	20.701	20.741	VV	119338	2721520	50.77%	1.775%
415	20.751	20.741	20.764	VV	111103	1465216	27.33%	0.956%
416	20.797	20.790	20.811	VV	101666	1233552	23.01%	0.805%
417	20.816	20.811	20.819	VV	99454	481409	8.98%	0.314%
418	20.847	20.842	20.852	VV	108360	608174	11.34%	0.397%
419	20.942	20.933	20.964	VV	113536	1995804	37.23%	1.302%
420	20.968	20.964	20.974	VV	110832	654555	12.21%	0.427%
421	21.011	21.006	21.017	VV	100393	627201	11.70%	0.409%
422	21.086	21.080	21.089	VV	87336	445302	8.31%	0.290%
423	21.185	21.181	21.198	VV	105932	1007064	18.79%	0.657%
424	21.228	21.223	21.243	VV	98309	1144773	21.35%	0.747%
425	21.297	21.285	21.317	VV	98914	1782764	33.25%	1.163%
426	21.325	21.317	21.330	VV	86709	632123	11.79%	0.412%
427	21.332	21.330	21.345	VV	83988	758645	14.15%	0.495%
428	21.350	21.345	21.391	VV	82175	1974721	36.84%	1.288%
429	21.400	21.391	21.405	VV	65644	535675	9.99%	0.349%
430	21.411	21.405	21.422	VV	65541	636678	11.88%	0.415%
431	21.466	21.422	21.509	VV	118438	4264514	79.55%	2.782%
432	21.516	21.509	21.521	VV	66327	446003	8.32%	0.291%
433	21.525	21.521	21.531	VV	68133	408991	7.63%	0.267%
434	21.539	21.531	21.547	VV	72048	629266	11.74%	0.410%
435	21.559	21.547	21.566	VV	72361	799468	14.91%	0.522%
436	21.571	21.566	21.576	VV	73325	400144	7.46%	0.261%
437	21.588	21.576	21.598	VV	71315	915714	17.08%	0.597%
438	21.646	21.641	21.652	VV	65810	419938	7.83%	0.274%
439	21.658	21.652	21.684	VV	72915	1238087	23.09%	0.808%
440	21.807	21.802	21.821	VV	48322	514466	9.60%	0.336%
441	21.856	21.846	21.874	VV	41959	651337	12.15%	0.425%
442	22.006	22.001	22.015	VV	30416	234566	4.38%	0.153%
443	22.029	22.015	22.041	VV	30952	448716	8.37%	0.293%
444	22.046	22.041	22.058	VV	33073	308477	5.75%	0.201%
445	22.136	22.131	22.141	VV	35003	200262	3.74%	0.131%
446	22.145	22.141	22.154	VV	32960	229164	4.27%	0.149%
447	22.215	22.200	22.222	VV	28110	310318	5.79%	0.202%
448	22.237	22.222	22.242	VV	25656	292110	5.45%	0.191%
449	22.291	22.284	22.295	VV	23593	152315	2.84%	0.099%
450	22.323	22.317	22.337	VV	21429	216461	4.04%	0.141%
451	22.374	22.366	22.380	VV	8402	57045	1.06%	0.037%
452	22.385	22.380	22.404	VV	8558	88137	1.64%	0.057%
453	22.431	22.404	22.439	VV	13187	164165	3.06%	0.107%
454	22.476	22.439	22.514	VV	53249	1214469	22.65%	0.792%
455	22.518	22.514	22.540	VV	7512	71485	1.33%	0.047%
456	22.546	22.540	22.551	VBA	3998	131188	2.45%	0.086%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025
Supervised By :mohammad ahmed 08/08/2025

rters
Sum of corrected areas:

153298067

FG080525.M Thu Aug 07 06:44:39 2025

Instrument :

FID_G

ClientSampleId :

WASTEMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	08/01/25
Project:	11 Newman Ave Nutley	Date Received:	08/01/25
Client Sample ID:	WASTEMSD	SDG No.:	Q2757
Lab Sample ID:	Q2757-01MSD	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	81.5
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016360.D	1	08/06/25 08:00	08/06/25 14:05	PB169135

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	78700	E	471	3470	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	10.3		37 - 130	51%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
 Data File : FG016360.D
 Signal(s) : FID1A.ch
 Acq On : 06 Aug 2025 14:05
 Operator : YP\AJ
 Sample : Q2757-01MSD
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 WASTEMSD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 08/07/2025
 Supervised By :mohammad ahmed 08/08/2025

Integration File: Sample.e
 Quant Time: Aug 07 04:36:32 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
 Quant Title :
 QLast Update : Tue Aug 05 12:47:26 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...	15.208	979149	10.277 ug/ml
Target Compounds			
1) N-OCTANE	2.120	1162549	10.955 ug/ml
2) N-DECANE	4.671	1529060	14.149 ug/ml
3) N-DODECANE	6.854	1830064	16.839 ug/ml
4) N-TETRADECANE	8.696	2223493	20.336 ug/ml
5) N-HEXADECANE	10.317	2154124	19.818 ug/ml
6) N-OCTADECANE	11.772	1943271	17.568 ug/ml
7) N-EICOSANE	13.093	1913807	16.933 ug/ml
8) N-DOCOSANE	14.301	1672344	15.223 ug/mlm
10) N-TETRACOSANE	15.412	1813978	16.555 ug/ml
11) N-HEXACOSANE	16.442	1576917	14.745 ug/ml
12) N-OCTACOSANE	17.400	1646076	15.279 ug/ml
13) N-TRIACONTANE	18.295	1628250	14.944 ug/ml
14) N-DOTRIACONTANE	19.135	1633032	15.504 ug/mlm
15) N-TETRATRIACONTANE	19.923	1314760	13.798 ug/mlm
16) N-HEXATRIACONTANE	20.669	998081	13.358 ug/ml
17) N-OCTATRIACONTANE	21.465	990954	16.527 ug/mlm
18) N-TETRACONTANE	22.478	970832	23.097 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG080625\
Data File : FG016360.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 14:05
Operator : YP\AJ
Sample : Q2757-01MSD
Misc :
ALS Vial : 26 Sample Multiplier: 1

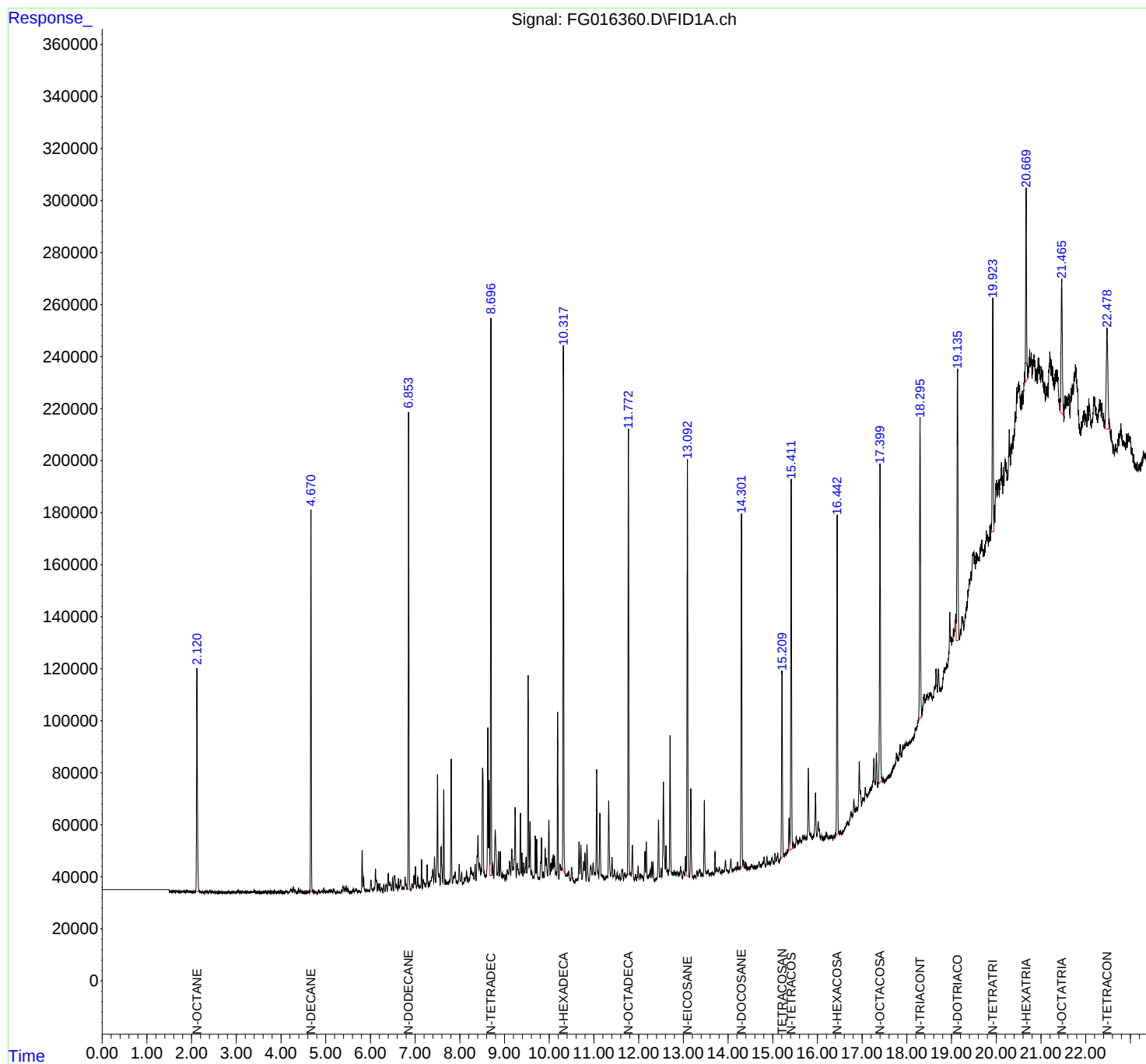
Instrument :
FID_G
ClientSampleId :
WASTEMSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 08/07/2025
Supervised By :mohammad ahmed 08/08/2025

Integration File: Sample.e
Quant Time: Aug 07 04:36:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Quant Title :
QLast Update : Tue Aug 05 12:47:26 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_G

ClientSampleId :

WASTEMSD

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG08062
Data File : FG016360.D
Signal(s) : FID1A.ch
Acq On : 06 Aug 2025 14:05
Sample : Q2757-01MSD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG080525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.019	2.000	2.025	BV	93	424	0.01%	0.000%
2	2.033	2.025	2.039	VV	113	485	0.01%	0.000%
3	2.056	2.039	2.085	PV	375	6030	0.15%	0.004%
4	2.120	2.085	2.184	VV	86084	1175348	28.55%	0.784%
5	2.188	2.184	2.196	VV	180	803	0.02%	0.001%
6	2.204	2.196	2.214	VV	143	1278	0.03%	0.001%
7	2.219	2.214	2.247	VV	215	2106	0.05%	0.001%
8	2.293	2.247	2.299	VV	179	3587	0.09%	0.002%
9	2.316	2.299	2.329	VV	436	4859	0.12%	0.003%
10	2.333	2.329	2.363	VV	274	3521	0.09%	0.002%
11	2.367	2.363	2.378	VV	129	521	0.01%	0.000%
12	2.381	2.378	2.388	VV	114	323	0.01%	0.000%
13	2.406	2.388	2.443	PV	751	9471	0.23%	0.006%
14	2.464	2.443	2.518	VV	527	10205	0.25%	0.007%
15	2.536	2.518	2.563	VV	250	3123	0.08%	0.002%
16	2.566	2.563	2.577	VV	163	1098	0.03%	0.001%
17	2.582	2.577	2.589	VV	186	725	0.02%	0.000%
18	2.601	2.589	2.615	VV	133	950	0.02%	0.001%
19	2.634	2.615	2.646	PV	134	1228	0.03%	0.001%
20	2.670	2.646	2.677	VV	125	1335	0.03%	0.001%
21	2.681	2.677	2.693	VV	177	1016	0.02%	0.001%
22	2.699	2.693	2.720	VV	206	2173	0.05%	0.001%
23	2.731	2.720	2.757	VV	329	2629	0.06%	0.002%
24	2.759	2.757	2.786	VV	58	490	0.01%	0.000%
25	2.827	2.786	2.867	PV	448	8503	0.21%	0.006%
26	2.870	2.867	2.877	VV	53	482	0.01%	0.000%
27	2.902	2.877	2.927	VV	315	4974	0.12%	0.003%
28	2.950	2.927	2.986	VV	337	6592	0.16%	0.004%
29	3.041	2.986	3.081	VV	665	18097	0.44%	0.012%
30	3.095	3.081	3.122	VV	372	5630	0.14%	0.004%
31	3.137	3.122	3.167	VV	501	8445	0.21%	0.006%
32	3.180	3.167	3.205	VV	388	5739	0.14%	0.004%
33	3.210	3.205	3.230	VV	281	3321	0.08%	0.002%
34	3.254	3.230	3.294	VV	431	10523	0.26%	0.007%
35	3.299	3.294	3.303	VV	279	1335	0.03%	0.001%
36	3.309	3.303	3.312	VV	310	1349	0.03%	0.001%

					retention			
37	3.327	3.312	3.365	VV	438	9944	0.24%	0.007%
38	3.373	3.365	3.385	VV	312	2854	0.06%	0.002%
39	3.405	3.385	3.431	VV	1118	16206	0.06%	0.002%
40	3.436	3.431	3.453	VV	369	3911	0.06%	0.002%
41	3.456	3.453	3.466	VV	350	1742	0.06%	0.002%
42	3.468	3.466	3.477	VV	314	1320	0.06%	0.002%
43	3.491	3.477	3.511	VV	279	4074	0.10%	0.003%
44	3.524	3.511	3.530	VV	247	2450	0.06%	0.002%
45	3.537	3.530	3.541	VV	261	1548	0.04%	0.001%
46	3.548	3.541	3.568	VV	289	3820	0.09%	0.003%
47	3.585	3.568	3.607	VV	305	5459	0.13%	0.004%
48	3.619	3.607	3.629	VV	330	3403	0.08%	0.002%
49	3.650	3.629	3.653	VV	416	4774	0.12%	0.003%
50	3.657	3.653	3.697	VV	403	5980	0.15%	0.004%
51	3.729	3.697	3.765	VV	521	14266	0.35%	0.010%
52	3.769	3.765	3.774	VV	305	1373	0.03%	0.001%
53	3.784	3.774	3.793	VV	377	3563	0.09%	0.002%
54	3.805	3.793	3.820	VV	467	5042	0.12%	0.003%
55	3.827	3.820	3.837	VV	271	2356	0.06%	0.002%
56	3.856	3.837	3.887	VV	933	15927	0.39%	0.011%
57	3.892	3.887	3.915	VV	320	4514	0.11%	0.003%
58	3.941	3.915	3.979	VV	440	11199	0.27%	0.007%
59	3.998	3.979	4.014	VV	575	7752	0.19%	0.005%
60	4.028	4.014	4.036	VV	407	3783	0.09%	0.003%
61	4.056	4.036	4.072	VV	351	5056	0.12%	0.003%
62	4.101	4.072	4.117	PV	747	10568	0.26%	0.007%
63	4.131	4.117	4.162	VV	584	9686	0.24%	0.006%
64	4.219	4.162	4.232	VV	1343	28784	0.70%	0.019%
65	4.237	4.232	4.259	VV	1139	11753	0.29%	0.008%
66	4.280	4.259	4.304	VV	2218	33414	0.81%	0.022%
67	4.317	4.304	4.354	VV	1172	16848	0.41%	0.011%
68	4.395	4.354	4.423	VV	1372	26512	0.64%	0.018%
69	4.440	4.423	4.474	VV	985	17212	0.42%	0.011%
70	4.482	4.474	4.498	VV	398	4973	0.12%	0.003%
71	4.506	4.498	4.526	VV	238	3117	0.08%	0.002%
72	4.535	4.526	4.545	VV	198	1602	0.04%	0.001%
73	4.566	4.545	4.595	VV	414	8253	0.20%	0.006%
74	4.610	4.595	4.629	VV	458	7204	0.17%	0.005%
75	4.632	4.629	4.640	VV	389	2495	0.06%	0.002%
76	4.671	4.640	4.702	VV	147292	1547029	37.58%	1.032%
77	4.714	4.702	4.730	VV	1082	12416	0.30%	0.008%
78	4.747	4.730	4.772	VV	582	9169	0.22%	0.006%
79	4.784	4.772	4.805	VV	246	2897	0.07%	0.002%
80	4.809	4.805	4.813	VV	77	224	0.01%	0.000%
81	4.840	4.813	4.855	PV	779	11198	0.27%	0.007%
82	4.858	4.855	4.872	VV	478	3501	0.09%	0.002%
83	4.893	4.872	4.899	VV	522	6345	0.15%	0.004%
84	4.908	4.899	4.939	VV	717	12599	0.31%	0.008%
85	4.957	4.939	4.973	VV	1994	20846	0.51%	0.014%
86	4.985	4.973	5.000	VV	867	9384	0.23%	0.006%
87	5.017	5.000	5.027	VV	658	7588	0.18%	0.005%
88	5.040	5.027	5.053	VV	745	8726	0.21%	0.006%
89	5.065	5.053	5.077	VV	614	7499	0.18%	0.005%

Instrument :

FID_G

ClientSampleId :

WASTEMSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

					retention			
90	5.092	5.077	5.109	VV	1382	16123	0.39%	0.011%
91	5.135	5.109	5.159	VV	1313	21052		
92	5.179	5.159	5.226	VV	1637	27199		
93	5.258	5.226	5.277	VV	697	8481		
94	5.295	5.277	5.325	VV	414	6830		
95	5.351	5.325	5.367	VV	1032	13711		
96	5.386	5.367	5.413	VV	2606	44342	1.08%	0.030%
97	5.431	5.413	5.451	VV	2214	32062	0.78%	0.021%
98	5.466	5.451	5.481	VV	2588	27934	0.68%	0.019%
99	5.494	5.481	5.517	VV	1819	22450	0.55%	0.015%
100	5.521	5.517	5.539	VV	408	3534	0.09%	0.002%
101	5.559	5.539	5.577	PV	322	4622	0.11%	0.003%
102	5.599	5.577	5.606	VV	700	7301	0.18%	0.005%
103	5.620	5.606	5.647	VV	1319	19064	0.46%	0.013%
104	5.674	5.647	5.685	VV	1499	23160	0.56%	0.015%
105	5.693	5.685	5.712	VV	1288	13306	0.32%	0.009%
106	5.737	5.712	5.749	VV	596	9961	0.24%	0.007%
107	5.758	5.749	5.782	VV	558	6973	0.17%	0.005%
108	5.816	5.782	5.834	VV	16126	170120	4.13%	0.114%
109	5.850	5.834	5.878	VV	5804	74163	1.80%	0.049%
110	5.895	5.878	5.933	VV	1330	29153	0.71%	0.019%
111	5.934	5.933	5.939	VV	670	2538	0.06%	0.002%
112	5.944	5.939	5.958	VV	719	7247	0.18%	0.005%
113	5.968	5.958	5.985	VV	753	10031	0.24%	0.007%
114	6.013	5.985	6.036	VV	4626	74130	1.80%	0.049%
115	6.044	6.036	6.063	VV	1448	16510	0.40%	0.011%
116	6.083	6.063	6.096	VV	1952	25656	0.62%	0.017%
117	6.115	6.096	6.130	VV	8768	104648	2.54%	0.070%
118	6.135	6.130	6.157	VV	4660	42629	1.04%	0.028%
119	6.173	6.157	6.197	VV	3224	42478	1.03%	0.028%
120	6.211	6.197	6.227	VV	3259	32604	0.79%	0.022%
121	6.251	6.227	6.280	VV	1530	28806	0.70%	0.019%
122	6.301	6.280	6.324	PV	2634	32344	0.79%	0.022%
123	6.356	6.324	6.378	PV	2916	52933	1.29%	0.035%
124	6.398	6.378	6.421	VV	7051	94630	2.30%	0.063%
125	6.431	6.421	6.442	VV	3450	37143	0.90%	0.025%
126	6.450	6.442	6.474	VV	2862	34004	0.83%	0.023%
127	6.495	6.474	6.518	VV	5336	63106	1.53%	0.042%
128	6.537	6.518	6.572	VV	6022	125890	3.06%	0.084%
129	6.583	6.572	6.610	VV	2875	42413	1.03%	0.028%
130	6.627	6.610	6.643	VV	4839	52383	1.27%	0.035%
131	6.670	6.643	6.676	VV	4141	50247	1.22%	0.034%
132	6.684	6.676	6.704	VV	4117	47743	1.16%	0.032%
133	6.729	6.704	6.750	VV	1446	29124	0.71%	0.019%
134	6.776	6.750	6.797	VV	5498	78325	1.90%	0.052%
135	6.800	6.797	6.823	VV	2241	22385	0.54%	0.015%
136	6.854	6.823	6.904	VV	183263	1862540	45.24%	1.243%
137	6.931	6.904	6.956	VV	2764	51079	1.24%	0.034%
138	6.973	6.956	6.993	VV	5774	81745	1.99%	0.055%
139	7.008	6.993	7.030	VV	9342	104240	2.53%	0.070%
140	7.059	7.030	7.076	VV	5067	77657	1.89%	0.052%
141	7.083	7.076	7.097	VV	1886	18586	0.45%	0.012%

Instrument :

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0.39% 0.011%

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142	7.113	7.097	7.123	VV	1803	21415	0.52%	0.014%
143	7.145	7.123	7.164	VV	11938	129112		
144	7.185	7.164	7.198	VV	3996	54783		
145	7.203	7.198	7.235	VV	2852	50288		
146	7.269	7.235	7.295	VV	9765	149058		
147	7.307	7.295	7.322	VV	2985	35326		
148	7.352	7.322	7.358	VV	3548	62830	1.53%	0.042%
149	7.372	7.358	7.377	VV	5029	49205	1.20%	0.033%
150	7.393	7.377	7.415	VV	7818	137039	3.33%	0.091%
151	7.435	7.415	7.464	VV	12708	193881	4.71%	0.129%
152	7.501	7.464	7.526	VV	44285	584814	14.20%	0.390%
153	7.538	7.526	7.562	VV	6017	97428	2.37%	0.065%
154	7.581	7.562	7.620	VV	16475	293410	7.13%	0.196%
155	7.640	7.620	7.668	VV	38197	435540	10.58%	0.291%
156	7.683	7.668	7.701	VV	3641	54821	1.33%	0.037%
157	7.712	7.701	7.728	VV	2815	39474	0.96%	0.026%
158	7.742	7.728	7.754	VV	2705	37822	0.92%	0.025%
159	7.771	7.754	7.779	VV	3232	43001	1.04%	0.029%
160	7.808	7.779	7.839	VV	49999	588780	14.30%	0.393%
161	7.872	7.839	7.878	VV	4728	92521	2.25%	0.062%
162	7.897	7.878	7.921	VV	6526	123799	3.01%	0.083%
163	7.935	7.921	7.957	VV	2950	58178	1.41%	0.039%
164	7.987	7.957	8.018	VV	9551	174729	4.24%	0.117%
165	8.043	8.018	8.061	VV	6476	106950	2.60%	0.071%
166	8.072	8.061	8.084	VV	2190	27148	0.66%	0.018%
167	8.107	8.084	8.120	VV	4140	65578	1.59%	0.044%
168	8.151	8.120	8.171	VV	6695	136437	3.31%	0.091%
169	8.183	8.171	8.196	VV	4214	52651	1.28%	0.035%
170	8.209	8.196	8.215	VV	3330	35552	0.86%	0.024%
171	8.246	8.215	8.261	VV	8137	156025	3.79%	0.104%
172	8.272	8.261	8.286	VV	6500	88801	2.16%	0.059%
173	8.297	8.286	8.320	VV	5671	94362	2.29%	0.063%
174	8.343	8.320	8.363	VV	9235	146122	3.55%	0.098%
175	8.387	8.363	8.392	VV	12546	135941	3.30%	0.091%
176	8.406	8.392	8.428	VV	20322	294873	7.16%	0.197%
177	8.442	8.428	8.467	VV	9513	187274	4.55%	0.125%
178	8.480	8.467	8.487	VV	7335	75086	1.82%	0.050%
179	8.510	8.487	8.540	VV	45818	854891	20.76%	0.570%
180	8.547	8.540	8.564	VV	5951	72238	1.75%	0.048%
181	8.582	8.564	8.592	VV	4965	78520	1.91%	0.052%
182	8.628	8.592	8.643	VV	61698	750758	18.24%	0.501%
183	8.656	8.643	8.673	VV	41147	454549	11.04%	0.303%
184	8.696	8.673	8.725	VV	218071	2367476	57.50%	1.580%
185	8.742	8.725	8.760	VV	9061	137313	3.34%	0.092%
186	8.793	8.760	8.846	VV	21883	576051	13.99%	0.384%
187	8.866	8.846	8.887	VV	13745	200958	4.88%	0.134%
188	8.906	8.887	8.938	VV	13729	226656	5.51%	0.151%
189	8.953	8.938	8.966	VV	5333	74264	1.80%	0.050%
190	8.976	8.966	8.980	VV	4407	36321	0.88%	0.024%
191	8.991	8.980	9.012	VV	4620	72194	1.75%	0.048%
192	9.030	9.012	9.045	VV	4754	72792	1.77%	0.049%
193	9.062	9.045	9.087	VV	6539	133290	3.24%	0.089%
194	9.116	9.087	9.138	VV	9481	215859	5.24%	0.144%

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195	9.164	9.138	9.186	VV	14532	269949	6.56%	0.180%
196	9.193	9.186	9.200	VV	7067	59682		
197	9.239	9.200	9.264	VV	30411	543901	13.21%	0.638%
198	9.282	9.264	9.334	VV	8763	263215	6.56%	0.180%
199	9.357	9.334	9.377	VV	28129	374733	9.45%	0.260%
200	9.391	9.377	9.413	VV	12785	176481	2.76%	0.076%
201	9.430	9.413	9.450	VV	9042	143201	3.48%	0.096%
202	9.483	9.450	9.499	VV	10970	214870	5.22%	0.143%
203	9.529	9.499	9.552	VV	80786	955524	23.21%	0.638%
204	9.572	9.552	9.592	VV	24785	319746	7.77%	0.213%
205	9.610	9.592	9.638	VV	5361	121369	2.95%	0.081%
206	9.646	9.638	9.652	VV	3227	26423	0.64%	0.018%
207	9.689	9.652	9.706	VV	19209	273305	6.64%	0.182%
208	9.721	9.706	9.753	VV	17903	228277	5.54%	0.152%
209	9.768	9.753	9.784	VV	3129	53607	1.30%	0.036%
210	9.808	9.784	9.812	VV	8960	93884	2.28%	0.063%
211	9.828	9.812	9.850	VV	18152	245749	5.97%	0.164%
212	9.867	9.850	9.885	VV	5266	83801	2.04%	0.056%
213	9.911	9.885	9.924	VV	13918	194790	4.73%	0.130%
214	9.935	9.924	9.963	VV	10360	163667	3.98%	0.109%
215	9.993	9.963	10.021	VV	24880	389028	9.45%	0.260%
216	10.038	10.021	10.050	VV	8443	113801	2.76%	0.076%
217	10.067	10.050	10.079	VV	9899	131757	3.20%	0.088%
218	10.092	10.079	10.105	VV	11532	139493	3.39%	0.093%
219	10.117	10.105	10.142	VV	11168	175689	4.27%	0.117%
220	10.154	10.142	10.166	VV	5093	63968	1.55%	0.043%
221	10.189	10.166	10.214	VV	66279	710199	17.25%	0.474%
222	10.241	10.214	10.264	VV	7579	175590	4.26%	0.117%
223	10.270	10.264	10.278	VV	6069	52515	1.28%	0.035%
224	10.317	10.278	10.385	VV	206120	2463531	59.84%	1.644%
225	10.402	10.385	10.412	VV	4025	59556	1.45%	0.040%
226	10.431	10.412	10.474	VV	4811	118445	2.88%	0.079%
227	10.502	10.474	10.555	VV	6593	143781	3.49%	0.096%
228	10.559	10.555	10.577	VV	941	10435	0.25%	0.007%
229	10.599	10.577	10.616	VV	1930	33356	0.81%	0.022%
230	10.628	10.616	10.639	VV	1761	21162	0.51%	0.014%
231	10.667	10.639	10.687	VV	16201	219694	5.34%	0.147%
232	10.708	10.687	10.734	VV	14995	224860	5.46%	0.150%
233	10.770	10.734	10.784	VV	8375	156688	3.81%	0.105%
234	10.800	10.784	10.824	VV	11619	158748	3.86%	0.106%
235	10.844	10.824	10.889	VV	14972	228408	5.55%	0.152%
236	10.924	10.889	10.959	VV	6529	186364	4.53%	0.124%
237	10.982	10.959	11.010	VV	7860	165864	4.03%	0.111%
238	11.020	11.010	11.034	VV	3838	50904	1.24%	0.034%
239	11.062	11.034	11.084	VV	43558	540778	13.13%	0.361%
240	11.091	11.084	11.107	VV	4676	49689	1.21%	0.033%
241	11.134	11.107	11.164	VV	26857	405513	9.85%	0.271%
242	11.171	11.164	11.189	VV	3137	43550	1.06%	0.029%
243	11.202	11.189	11.219	VV	2979	45676	1.11%	0.030%
244	11.227	11.219	11.242	VV	1916	23482	0.57%	0.016%
245	11.286	11.242	11.305	VV	2630	76854	1.87%	0.051%
246	11.330	11.305	11.372	VV	31452	475696	11.55%	0.317%

Instrument :

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						Instrument : FID_G ClientSampleId : WASTEMSD		
rteres						Manual IntegrationsAPPROVED		
247	11.406	11.372	11.429	VV	9620	169238	4.11%	0.113%
248	11.460	11.429	11.496	VV	4825	115610		
249	11.520	11.496	11.537	VV	3683	60124		
250	11.542	11.537	11.557	VV	1974	19523		
251	11.575	11.557	11.600	VV	3139	46941		
252	11.627	11.600	11.662	VV	4823	109656		
253	11.682	11.662	11.713	VV	3550	76010	1.85%	0.051%
254	11.729	11.713	11.738	VV	2889	37986	0.92%	0.025%
255	11.772	11.738	11.833	VV	174405	2108003	51.20%	1.407%
256	11.860	11.833	11.899	VV	14011	230219	5.59%	0.154%
257	11.933	11.899	11.954	VV	2889	50843	1.23%	0.034%
258	11.990	11.954	12.008	VV	5805	90018	2.19%	0.060%
259	12.035	12.008	12.052	VV	2829	52376	1.27%	0.035%
260	12.067	12.052	12.112	VV	2453	58426	1.42%	0.039%
261	12.141	12.112	12.156	VV	11557	147789	3.59%	0.099%
262	12.172	12.156	12.196	VV	15116	179320	4.36%	0.120%
263	12.207	12.196	12.222	VV	1709	23173	0.56%	0.015%
264	12.258	12.222	12.274	VV	4295	79877	1.94%	0.053%
265	12.291	12.274	12.307	VV	7243	81637	1.98%	0.054%
266	12.323	12.307	12.362	VV	7337	89967	2.19%	0.060%
267	12.388	12.362	12.403	PV	886	13966	0.34%	0.009%
268	12.446	12.403	12.486	VV	23364	323783	7.86%	0.216%
269	12.503	12.486	12.524	VV	4794	64362	1.56%	0.043%
270	12.555	12.524	12.597	VV	37650	643643	15.63%	0.430%
271	12.613	12.597	12.637	VV	13235	183788	4.46%	0.123%
272	12.647	12.637	12.664	VV	3718	45959	1.12%	0.031%
273	12.705	12.664	12.749	VV	55019	705277	17.13%	0.471%
274	12.760	12.749	12.775	VV	2668	34516	0.84%	0.023%
275	12.793	12.775	12.808	VV	3198	49553	1.20%	0.033%
276	12.823	12.808	12.839	VV	2590	39428	0.96%	0.026%
277	12.863	12.839	12.879	VV	2917	53436	1.30%	0.036%
278	12.891	12.879	12.904	VV	2198	27724	0.67%	0.018%
279	12.915	12.904	12.923	VV	1895	19353	0.47%	0.013%
280	12.939	12.923	12.978	VV	4672	82365	2.00%	0.055%
281	13.004	12.978	13.026	VV	2735	43945	1.07%	0.029%
282	13.050	13.026	13.065	VV	8431	110987	2.70%	0.074%
283	13.093	13.065	13.140	VV	161338	1949520	47.35%	1.301%
284	13.169	13.140	13.222	VV	34326	425241	10.33%	0.284%
285	13.242	13.222	13.253	PV	455	5135	0.12%	0.003%
286	13.267	13.253	13.280	VV	725	6073	0.15%	0.004%
287	13.305	13.280	13.329	VV	2527	37261	0.91%	0.025%
288	13.356	13.329	13.366	VV	2457	38550	0.94%	0.026%
289	13.374	13.366	13.396	VV	2396	27065	0.66%	0.018%
290	13.417	13.396	13.440	VV	1360	20233	0.49%	0.014%
291	13.471	13.440	13.512	VV	29043	348352	8.46%	0.232%
292	13.527	13.512	13.540	VV	1856	23232	0.56%	0.016%
293	13.557	13.540	13.580	VV	2403	32421	0.79%	0.022%
294	13.606	13.580	13.627	VV	759	15113	0.37%	0.010%
295	13.644	13.627	13.662	VV	1282	15332	0.37%	0.010%
296	13.674	13.662	13.687	VV	821	7292	0.18%	0.005%
297	13.709	13.687	13.729	PV	8795	101759	2.47%	0.068%
298	13.743	13.729	13.785	VV	2497	56997	1.38%	0.038%
299	13.804	13.785	13.850	VV	2705	51530	1.25%	0.034%

300	13.866	13.850	13.885	VV	1342	16161	0.39%	0.011%
301	13.901	13.885	13.915	VV	1181	14862		
302	13.944	13.915	14.010	VV	5030	96246		
303	14.063	14.010	14.109	VV	4982	96332		
304	14.138	14.109	14.153	VV	1116	19109		
305	14.173	14.153	14.193	VV	1885	28236		
306	14.213	14.193	14.235	VV	3591	47024	1.14%	0.031%
307	14.253	14.235	14.267	VV	1274	18220	0.44%	0.012%
308	14.301	14.267	14.332	VV	137011	1717387	41.71%	1.146%
309	14.344	14.332	14.366	VV	3810	48958	1.19%	0.033%
310	14.385	14.366	14.422	VV	2965	45211	1.10%	0.030%
311	14.439	14.422	14.445	VV	462	5215	0.13%	0.003%
312	14.452	14.445	14.471	VV	546	6296	0.15%	0.004%
313	14.494	14.471	14.500	VV	632	7765	0.19%	0.005%
314	14.531	14.500	14.562	VV	1430	35611	0.86%	0.024%
315	14.568	14.562	14.573	VV	465	2593	0.06%	0.002%
316	14.584	14.573	14.588	VV	392	3444	0.08%	0.002%
317	14.602	14.588	14.614	VV	487	5549	0.13%	0.004%
318	14.632	14.614	14.643	VV	517	5433	0.13%	0.004%
319	14.692	14.643	14.727	VV	2290	50005	1.21%	0.033%
320	14.742	14.727	14.750	VV	583	7323	0.18%	0.005%
321	14.778	14.750	14.788	VV	1765	25984	0.63%	0.017%
322	14.805	14.788	14.841	VV	3813	52808	1.28%	0.035%
323	14.868	14.841	14.892	PV	3350	45744	1.11%	0.031%
324	14.911	14.892	14.925	VV	1090	16500	0.40%	0.011%
325	14.934	14.925	14.955	VV	1213	15419	0.37%	0.010%
326	14.987	14.955	15.005	VV	2644	48149	1.17%	0.032%
327	15.014	15.005	15.030	VV	732	7368	0.18%	0.005%
328	15.053	15.030	15.072	PV	3673	50266	1.22%	0.034%
329	15.111	15.072	15.144	VV	3713	66429	1.61%	0.044%
330	15.208	15.144	15.266	PV	72675	1057348	25.68%	0.706%
331	15.283	15.266	15.299	VV	2367	36845	0.89%	0.025%
332	15.321	15.299	15.336	VV	2975	52455	1.27%	0.035%
333	15.365	15.336	15.383	VV	15222	223034	5.42%	0.149%
334	15.412	15.383	15.442	VV	144676	1910610	46.41%	1.275%
335	15.461	15.442	15.485	VV	4785	101551	2.47%	0.068%
336	15.527	15.485	15.566	VV	6901	226650	5.51%	0.151%
337	15.583	15.566	15.588	VV	4171	54686	1.33%	0.036%
338	15.608	15.588	15.640	VV	5540	142012	3.45%	0.095%
339	15.673	15.640	15.699	VV	6170	177628	4.31%	0.119%
340	15.717	15.699	15.724	VV	5259	74808	1.82%	0.050%
341	15.726	15.724	15.750	VV	5123	74210	1.80%	0.050%
342	15.797	15.750	15.837	VV	31035	595660	14.47%	0.397%
343	15.854	15.837	15.882	VV	5688	128350	3.12%	0.086%
344	15.885	15.882	15.894	VV	3725	25277	0.61%	0.017%
345	15.957	15.894	15.982	VV	20450	436921	10.61%	0.292%
346	16.018	15.982	16.035	VV	9024	187365	4.55%	0.125%
347	16.043	16.035	16.065	VV	5948	78366	1.90%	0.052%
348	16.081	16.065	16.106	VV	3299	59104	1.44%	0.039%
349	16.125	16.106	16.142	VV	2019	37257	0.90%	0.025%
350	16.206	16.142	16.235	VV	2933	110756	2.69%	0.074%
351	16.253	16.235	16.267	VV	1189	18373	0.45%	0.012%

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352	16.285	16.267	16.297	VV	1285	18753	0.46%	0.013%
353	16.316	16.297	16.345	VV	1339	23669		
354	16.363	16.345	16.385	VV	948	10953		
355	16.406	16.385	16.412	PV	1138	10524		
356	16.442	16.412	16.474	VV	123369	1608783	39	
357	16.478	16.474	16.495	VV	1446	13329		
358	16.503	16.495	16.525	VV	1305	16516	0.40%	0.011%
359	16.531	16.525	16.542	VV	510	3876	0.09%	0.003%
360	16.554	16.542	16.564	PV	514	2924	0.07%	0.002%
361	16.665	16.564	16.680	PV	1821	60449	1.47%	0.040%
362	16.684	16.680	16.700	VV	1331	11538	0.28%	0.008%
363	16.750	16.700	16.771	VV	4069	103302	2.51%	0.069%
364	16.775	16.771	16.785	VV	2624	18779	0.46%	0.013%
365	16.816	16.785	16.840	VV	7486	143376	3.48%	0.096%
366	16.867	16.840	16.894	VV	3481	90549	2.20%	0.060%
367	16.937	16.894	16.955	VV	19261	325916	7.92%	0.217%
368	16.965	16.955	16.987	VV	8238	106727	2.59%	0.071%
369	17.014	16.987	17.037	VV	4419	97987	2.38%	0.065%
370	17.041	17.037	17.048	VV	3062	19267	0.47%	0.013%
371	17.073	17.048	17.095	VV	6787	133868	3.25%	0.089%
372	17.098	17.095	17.118	VV	3889	43660	1.06%	0.029%
373	17.135	17.118	17.143	VV	3152	42873	1.04%	0.029%
374	17.191	17.143	17.213	VV	4799	160819	3.91%	0.107%
375	17.262	17.213	17.291	VV	14469	334908	8.13%	0.223%
376	17.321	17.291	17.350	VV	14796	254505	6.18%	0.170%
377	17.400	17.350	17.457	VV	123151	1796041	43.62%	1.198%
378	17.474	17.457	17.496	VV	2435	37429	0.91%	0.025%
379	17.537	17.496	17.549	VV	923	19959	0.48%	0.013%
380	17.561	17.549	17.567	VV	810	8071	0.20%	0.005%
381	17.597	17.567	17.611	VV	1078	22588	0.55%	0.015%
382	17.622	17.611	17.637	VV	687	7278	0.18%	0.005%
383	17.658	17.637	17.665	PV	1137	10421	0.25%	0.007%
384	17.701	17.665	17.706	VV	2070	34100	0.83%	0.023%
385	17.714	17.706	17.719	VV	1677	12912	0.31%	0.009%
386	17.769	17.719	17.815	VV	5279	153220	3.72%	0.102%
387	17.850	17.815	17.877	VV	6423	133290	3.24%	0.089%
388	17.909	17.877	17.927	VV	4113	84326	2.05%	0.056%
389	17.941	17.927	17.958	VV	3855	57226	1.39%	0.038%
390	17.985	17.958	17.999	VV	3710	73229	1.78%	0.049%
391	18.012	17.999	18.022	VV	2187	26962	0.65%	0.018%
392	18.037	18.022	18.043	VV	2212	23381	0.57%	0.016%
393	18.051	18.043	18.064	VV	2057	21167	0.51%	0.014%
394	18.073	18.064	18.090	VV	1706	21720	0.53%	0.014%
395	18.105	18.090	18.111	VV	1565	12151	0.30%	0.008%
396	18.117	18.111	18.121	VV	1131	6694	0.16%	0.004%
397	18.135	18.121	18.150	VV	1661	19982	0.49%	0.013%
398	18.186	18.150	18.203	VV	3529	62998	1.53%	0.042%
399	18.241	18.203	18.250	VV	4988	95266	2.31%	0.064%
400	18.295	18.250	18.333	VV	120283	1853664	45.02%	1.237%
401	18.376	18.333	18.381	VV	10502	215615	5.24%	0.144%
402	18.387	18.381	18.409	VV	11427	153320	3.72%	0.102%
403	18.434	18.409	18.449	VV	9909	206367	5.01%	0.138%
404	18.463	18.449	18.489	VV	9191	198262	4.82%	0.132%

Instrument :

FID_G

ClientSampleId :

WASTEMSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

405	18.504	18.489	18.523	VV	8525	156308	3.80%	0.104%
406	18.535	18.523	18.546	VV	7866	101967		
407	18.551	18.546	18.570	VV	6930	82716		
408	18.580	18.570	18.584	VV	5129	41644		
409	18.589	18.584	18.596	VV	5122	34419		
410	18.609	18.596	18.622	VV	8092	106065		
411	18.626	18.622	18.633	VV	7713	48243	1.17%	0.032%
412	18.653	18.633	18.683	VV	13493	275712	6.70%	0.184%
413	18.707	18.683	18.736	VV	12484	257904	6.26%	0.172%
414	18.746	18.736	18.768	VV	4366	63142	1.53%	0.042%
415	18.781	18.768	18.788	VV	3061	34322	0.83%	0.023%
416	18.835	18.788	18.848	VV	9474	238414	5.79%	0.159%
417	18.861	18.848	18.867	VV	8887	94911	2.31%	0.063%
418	18.870	18.867	18.878	VV	8475	56077	1.36%	0.037%
419	18.890	18.878	18.900	VV	9611	114000	2.77%	0.076%
420	18.960	18.900	18.985	VV	27558	754350	18.32%	0.503%
421	18.994	18.985	19.003	VV	17276	172513	4.19%	0.115%
422	19.016	19.003	19.021	VV	15802	163491	3.97%	0.109%
423	19.025	19.021	19.032	VV	15482	102126	2.48%	0.068%
424	19.041	19.032	19.053	VV	19424	219784	5.34%	0.147%
425	19.070	19.053	19.073	VV	18021	206529	5.02%	0.138%
426	19.092	19.073	19.104	VV	23306	381979	9.28%	0.255%
427	19.133	19.104	19.180	VV	115434	2167211	52.64%	1.446%
428	19.198	19.180	19.209	VV	14541	222793	5.41%	0.149%
429	19.230	19.209	19.237	VV	18648	264124	6.42%	0.176%
430	19.242	19.237	19.250	VV	18272	137403	3.34%	0.092%
431	19.255	19.250	19.274	VV	16360	203716	4.95%	0.136%
432	19.302	19.274	19.310	VV	17691	326752	7.94%	0.218%
433	19.340	19.310	19.351	VV	21217	461006	11.20%	0.308%
434	19.365	19.351	19.372	VV	25205	274565	6.67%	0.183%
435	19.399	19.372	19.410	VV	28578	610679	14.83%	0.408%
436	19.432	19.410	19.445	VV	30475	582672	14.15%	0.389%
437	19.476	19.445	19.482	VV	36455	723801	17.58%	0.483%
438	19.487	19.482	19.492	VV	36113	210507	5.11%	0.140%
439	19.498	19.492	19.506	VV	36199	303226	7.37%	0.202%
440	19.513	19.506	19.521	VV	35075	293880	7.14%	0.196%
441	19.525	19.521	19.534	VV	32077	242163	5.88%	0.162%
442	19.545	19.534	19.549	VV	33364	288588	7.01%	0.193%
443	19.555	19.549	19.562	VV	34584	261720	6.36%	0.175%
444	19.569	19.562	19.575	VV	32153	243833	5.92%	0.163%
445	19.581	19.575	19.590	VV	32920	290961	7.07%	0.194%
446	19.604	19.590	19.623	VV	31098	604349	14.68%	0.403%
447	19.637	19.623	19.647	VV	34390	470025	11.42%	0.314%
448	19.654	19.647	19.661	VV	35259	272366	6.62%	0.182%
449	19.677	19.661	19.712	VV	36217	1006526	24.45%	0.672%
450	19.727	19.712	19.732	VV	31102	361133	8.77%	0.241%
451	19.742	19.732	19.752	VV	32526	358588	8.71%	0.239%
452	19.760	19.752	19.768	VV	32972	319264	7.75%	0.213%
453	19.778	19.768	19.791	VV	36730	468528	11.38%	0.313%
454	19.796	19.791	19.800	VV	34110	187103	4.54%	0.125%
455	19.809	19.800	19.824	VV	34453	477665	11.60%	0.319%
456	19.832	19.824	19.845	VV	33054	399986	9.72%	0.267%

Instrument :

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WASTEMSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

					rterres				
457	19.857	19.845	19.872	VV	36745	526821	12.80%	0.352%	
458	19.887	19.872	19.892	VV	36633	412332	10.80%	0.352%	
459	19.924	19.892	19.949	VV	122257	2422647	58.40%	0.352%	
460	19.963	19.949	19.970	VV	41990	494791	12.80%	0.352%	
461	19.989	19.970	19.998	VV	49400	745600	18.40%	0.352%	
462	20.005	19.998	20.015	VV	50384	485953	11.20%	0.352%	
463	20.026	20.015	20.038	VV	48453	629850	15.30%	0.420%	
464	20.060	20.038	20.069	VV	48802	881901	21.42%	0.588%	
465	20.116	20.069	20.145	VV	54036	2161185	52.49%	1.442%	
466	20.157	20.145	20.174	VV	51088	793194	19.27%	0.529%	
467	20.191	20.174	20.195	VV	51961	612095	14.87%	0.408%	
468	20.201	20.195	20.214	VV	52829	562124	13.65%	0.375%	
469	20.222	20.214	20.239	VV	50760	739751	17.97%	0.494%	
470	20.244	20.239	20.249	VV	45273	257619	6.26%	0.172%	
471	20.259	20.249	20.263	VV	46264	392047	9.52%	0.262%	
472	20.292	20.263	20.305	VV	62008	1365239	33.16%	0.911%	
473	20.310	20.305	20.320	VV	54864	463822	11.27%	0.310%	
474	20.334	20.320	20.352	VV	55527	1005958	24.43%	0.671%	
475	20.367	20.352	20.375	VV	57175	769468	18.69%	0.513%	
476	20.383	20.375	20.389	VV	57418	478258	11.62%	0.319%	
477	20.394	20.389	20.397	VV	56341	248929	6.05%	0.166%	
478	20.421	20.397	20.437	VV	65357	1481607	35.99%	0.989%	
479	20.456	20.437	20.462	VV	73922	1019056	24.75%	0.680%	
480	20.487	20.462	20.496	VV	73991	1433489	34.82%	0.957%	
481	20.505	20.496	20.519	VV	74686	1017041	24.70%	0.679%	
482	20.524	20.519	20.537	VV	72627	756946	18.39%	0.505%	
483	20.541	20.537	20.550	VV	66690	481470	11.69%	0.321%	
484	20.556	20.550	20.576	VV	68230	1032739	25.08%	0.689%	
485	20.583	20.576	20.588	VV	69186	452489	10.99%	0.302%	
486	20.594	20.588	20.601	VV	66120	502558	12.21%	0.335%	
487	20.621	20.601	20.627	VV	70714	1062222	25.80%	0.709%	
488	20.634	20.627	20.640	VV	74630	550565	13.37%	0.367%	
489	20.669	20.640	20.713	VV	144570	4117108	100.00%	2.747%	
490	20.749	20.713	20.757	VV	80103	2001017	48.60%	1.335%	
491	20.762	20.757	20.772	VV	75956	643163	15.62%	0.429%	
492	20.784	20.772	20.802	VV	78369	1331334	32.34%	0.888%	
493	20.808	20.802	20.818	VV	74991	722347	17.55%	0.482%	
494	20.845	20.818	20.857	VV	76218	1721501	41.81%	1.149%	
495	20.862	20.857	20.878	VV	73473	877159	21.31%	0.585%	
496	20.884	20.878	20.895	VV	69520	665335	16.16%	0.444%	
497	20.900	20.895	20.916	VV	68446	831796	20.20%	0.555%	
498	20.921	20.916	20.926	VV	68812	398512	9.68%	0.266%	
499	20.937	20.926	20.944	VV	71953	751500	18.25%	0.501%	
500	20.950	20.944	20.964	VV	71801	820797	19.94%	0.548%	
501	20.971	20.964	20.982	VV	68599	712065	17.30%	0.475%	
502	20.987	20.982	20.992	VV	64327	394937	9.59%	0.264%	
503	21.003	20.992	21.015	VV	67110	900003	21.86%	0.601%	
504	21.021	21.015	21.025	VV	65322	364442	8.85%	0.243%	
505	21.029	21.025	21.040	VV	65241	583377	14.17%	0.389%	
506	21.045	21.040	21.064	VV	64010	852717	20.71%	0.569%	
507	21.075	21.064	21.080	VV	59308	556301	13.51%	0.371%	
508	21.085	21.080	21.097	VV	58465	555983	13.50%	0.371%	
509	21.122	21.097	21.136	VV	56511	1247486	30.30%	0.832%	

Instrument :

FID_G

ClientSampleId :

WASTEMSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 08/07/2025

Supervised By :mohammad ahmed 08/08/2025

							Instrument : FID_G			
							ClientSampleId : WASTEMSD			
rteres										
510	21.147	21.136	21.152	VV	54585	526823	12.80%	0.352%		
511	21.159	21.152	21.164	VV	56582	393160	Manual IntegrationsAPPROVED Reviewed By :Yogesh Patel 08/07/2025 Supervised By :mohammad ahmed 08/08/2025			
512	21.184	21.164	21.189	VV	63268	871262			21.80%	0.352%
513	21.198	21.189	21.226	VV	67650	1415830			34.40%	0.352%
514	21.234	21.226	21.254	VV	63570	1000608			24.40%	0.352%
515	21.263	21.254	21.276	VV	59811	746267			18.40%	0.352%
516	21.287	21.276	21.294	VV	55322	565582	13.74%	0.377%		
517	21.299	21.294	21.304	VV	53288	331281	8.05%	0.221%		
518	21.315	21.304	21.321	VV	55677	540968	13.14%	0.361%		
519	21.327	21.321	21.337	VV	56483	532739	12.94%	0.355%		
520	21.344	21.337	21.352	VV	56767	483420	11.74%	0.323%		
521	21.365	21.352	21.371	VV	56109	617170	14.99%	0.412%		
522	21.374	21.371	21.378	VV	53189	211142	5.13%	0.141%		
523	21.381	21.378	21.411	VV	52614	925084	22.47%	0.617%		
524	21.416	21.411	21.421	VV	42700	239893	5.83%	0.160%		
525	21.428	21.421	21.433	VV	42898	320314	7.78%	0.214%		
526	21.465	21.433	21.512	VV	88352	2710423	65.83%	1.809%		
527	21.539	21.512	21.544	VV	41393	726214	17.64%	0.485%		
528	21.548	21.544	21.556	VV	38489	254817	6.19%	0.170%		
529	21.564	21.556	21.576	VV	40227	464304	11.28%	0.310%		
530	21.583	21.576	21.602	VV	39739	602740	14.64%	0.402%		
531	21.631	21.602	21.641	VV	39799	895845	21.76%	0.598%		
532	21.645	21.641	21.651	VV	33464	204292	4.96%	0.136%		
533	21.663	21.651	21.669	VV	38083	366268	8.90%	0.244%		
534	21.677	21.669	21.684	VV	40836	340068	8.26%	0.227%		
535	21.699	21.684	21.709	VV	41257	577642	14.03%	0.385%		
536	21.722	21.709	21.728	VV	40983	458260	11.13%	0.306%		
537	21.744	21.728	21.750	VV	44984	573181	13.92%	0.382%		
538	21.758	21.750	21.763	VV	45095	332124	8.07%	0.222%		
539	21.771	21.763	21.777	VV	47183	380113	9.23%	0.254%		
540	21.784	21.777	21.794	VV	45890	430532	10.46%	0.287%		
541	21.798	21.794	21.882	VV	41114	1502887	36.50%	1.003%		
542	21.905	21.882	21.914	VV	21801	362100	8.80%	0.242%		
543	21.937	21.914	21.947	VV	23108	414934	10.08%	0.277%		
544	21.953	21.947	21.961	VV	24606	189887	4.61%	0.127%		
545	21.971	21.961	21.979	VV	24472	241752	5.87%	0.161%		
546	21.987	21.979	21.994	VV	22141	188249	4.57%	0.126%		
547	22.005	21.994	22.011	VV	22018	209564	5.09%	0.140%		
548	22.016	22.011	22.026	VV	20577	165819	4.03%	0.111%		
549	22.036	22.026	22.040	VV	24133	189971	4.61%	0.127%		
550	22.044	22.040	22.060	VV	23992	261598	6.35%	0.175%		
551	22.070	22.060	22.082	VV	26079	297003	7.21%	0.198%		
552	22.088	22.082	22.124	VV	23156	461332	11.21%	0.308%		
553	22.136	22.124	22.148	VV	16327	217025	5.27%	0.145%		
554	22.153	22.148	22.155	VV	16111	66944	1.63%	0.045%		
555	22.183	22.155	22.190	VV	24100	430666	10.46%	0.287%		
556	22.201	22.190	22.222	VV	23088	376764	9.15%	0.251%		
557	22.228	22.222	22.244	VV	18894	220210	5.35%	0.147%		
558	22.258	22.244	22.267	VV	15250	199538	4.85%	0.133%		
559	22.274	22.267	22.279	VV	14836	93666	2.28%	0.063%		
560	22.290	22.279	22.293	VV	16228	127963	3.11%	0.085%		
561	22.311	22.293	22.318	VV	19447	248926	6.05%	0.166%		

WASTEMSD

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
100 TRPH STD		FG016345.D	FG080525	N-TETRACONTANE	mohammad	8/7/2025 1:28:09 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2758-01		FG016358.D	FG080625	TETRACOSANE-d50 (SURROGA	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-DOTRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-HEXADECANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-OCTACOSANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-OCTATRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MS		FG016359.D	FG080625	N-TRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MSD		FG016360.D	FG080625	N-DOCOSANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MSD		FG016360.D	FG080625	N-DOTRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MSD		FG016360.D	FG080625	N-OCTATRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MSD		FG016360.D	FG080625	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly
Q2757-01MSD		FG016360.D	FG080625	N-TETRATRIACONTANE	 	 	Peak Integrated by Software incorrectly

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG080525

Review By	yogesh	Review On	8/5/2025 1:54:47 PM
Supervise By	mohammad	Supervise On	8/7/2025 1:28:09 AM
SubDirectory	FG080525	HP Acquire Method	HP Processing Method FG080525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016343.D	05 Aug 2025 09:42	YP\AJ	Ok
2	I.BLK	FG016344.D	05 Aug 2025 10:12	YP\AJ	Ok
3	100 TRPH STD	FG016345.D	05 Aug 2025 10:41	YP\AJ	Ok,M
4	50 TRPH STD	FG016346.D	05 Aug 2025 11:11	YP\AJ	Ok
5	20 TRPH STD	FG016347.D	05 Aug 2025 11:40	YP\AJ	Ok
6	10 TRPH STD	FG016348.D	05 Aug 2025 12:10	YP\AJ	Ok
7	5 TRPH STD	FG016349.D	05 Aug 2025 12:39	YP\AJ	Ok
8	FG080525ICV	FG016350.D	05 Aug 2025 13:24	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG080625

Review By	yogesh	Review On	8/6/2025 11:56:13 AM
Supervise By		Supervise On	
SubDirectory	FG080625	HP Acquire Method	HP Processing Method FG080525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24469 PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016351.D	06 Aug 2025 09:06	YP\AJ	Ok
2	I.BLK	FG016352.D	06 Aug 2025 09:35	YP\AJ	Ok
3	50 PPM TRPH STD	FG016353.D	06 Aug 2025 10:05	YP\AJ	Ok
4	RT MARKER	FG016354.D	06 Aug 2025 10:34	YP\AJ	Ok
5	PB169135BL	FG016355.D	06 Aug 2025 11:37	YP\AJ	Ok
6	PB169135BS	FG016356.D	06 Aug 2025 12:06	YP\AJ	Ok
7	Q2757-01	FG016357.D	06 Aug 2025 12:36	YP\AJ	Ok
8	Q2758-01	FG016358.D	06 Aug 2025 13:05	YP\AJ	Dilution
9	Q2757-01MS	FG016359.D	06 Aug 2025 13:35	YP\AJ	Ok,NS
10	Q2757-01MSD	FG016360.D	06 Aug 2025 14:05	YP\AJ	Ok,NS
11	Q2758-01	FG016361.D	06 Aug 2025 14:34	YP\AJ	Ok
12	I.BLK	FG016362.D	06 Aug 2025 15:04	YP\AJ	Ok
13	50 TRPH STD	FG016363.D	06 Aug 2025 15:33	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG080525

Review By	yogesh	Review On	8/5/2025 1:54:47 PM
Supervise By	mohammad	Supervise On	8/7/2025 1:28:09 AM
SubDirectory	FG080525	HP Acquire Method	HP Processing Method FG080525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016343.D	05 Aug 2025 09:42		YP\AJ	Ok
2	I.BLK		FG016344.D	05 Aug 2025 10:12		YP\AJ	Ok
3	100 TRPH STD		FG016345.D	05 Aug 2025 10:41		YP\AJ	Ok,M
4	50 TRPH STD		FG016346.D	05 Aug 2025 11:11		YP\AJ	Ok
5	20 TRPH STD		FG016347.D	05 Aug 2025 11:40		YP\AJ	Ok
6	10 TRPH STD		FG016348.D	05 Aug 2025 12:10		YP\AJ	Ok
7	5 TRPH STD		FG016349.D	05 Aug 2025 12:39		YP\AJ	Ok
8	FG080525ICV		FG016350.D	05 Aug 2025 13:24		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG080625

Review By	yogesh	Review On	8/6/2025 11:56:13 AM
Supervise By		Supervise On	
SubDirectory	FG080625	HP Acquire Method	HP Processing Method FG080525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016351.D	06 Aug 2025 09:06		YP\AJ	Ok
2	I.BLK		FG016352.D	06 Aug 2025 09:35		YP\AJ	Ok
3	50 PPM TRPH STD		FG016353.D	06 Aug 2025 10:05		YP\AJ	Ok
4	RT MARKER		FG016354.D	06 Aug 2025 10:34		YP\AJ	Ok
5	PB169135BL		FG016355.D	06 Aug 2025 11:37		YP\AJ	Ok
6	PB169135BS		FG016356.D	06 Aug 2025 12:06		YP\AJ	Ok
7	Q2757-01		FG016357.D	06 Aug 2025 12:36		YP\AJ	Ok
8	Q2758-01		FG016358.D	06 Aug 2025 13:05	Need 25X	YP\AJ	Dilution
9	Q2757-01MS		FG016359.D	06 Aug 2025 13:35		YP\AJ	Ok,NS
10	Q2757-01MSD		FG016360.D	06 Aug 2025 14:05		YP\AJ	Ok,NS
11	Q2758-01		FG016361.D	06 Aug 2025 14:34		YP\AJ	Ok
12	I.BLK		FG016362.D	06 Aug 2025 15:04		YP\AJ	Ok
13	50 TRPH STD		FG016363.D	06 Aug 2025 15:33		YP\AJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 8/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 08/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:14
Out Date: 08/05/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136687

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
Q2752-03	PIPE-LINE-LIQUIDS	1	1.00	1.00	2.00	2.00	100.0	oil sample
Q2757-01	WASTE	2	1.14	9.99	11.13	9.28	81.5	
Q2757-02	VOC	3	1.13	10.85	11.98	9.96	81.4	
Q2757-03	1	4	1.19	10.50	11.69	9.83	82.3	
Q2757-04	2	5	1.18	10.81	11.99	10.1	82.5	
Q2757-05	3	6	1.18	10.81	11.99	9.98	81.4	
Q2757-06	4	7	1.13	10.59	11.72	9.66	80.5	
Q2757-07	5	8	1.13	10.86	11.99	9.95	81.2	
Q2758-01	WASTE	9	1.12	10.57	11.69	10.94	92.9	
Q2759-01	SOLID-DRUMS	10	1.15	10.84	11.99	5.75	42.4	
Q2760-01	NB-07-08042025	11	1.13	10.76	11.89	11.36	95.1	
Q2760-02	NB-07-08042025-E2	12	1.13	10.37	11.5	10.44	89.8	
Q2763-01	TP-2	13	1.16	10.02	11.18	9.36	81.8	
Q2763-02	TP-2 EPH	14	1.18	10.12	11.3	9.75	84.7	
Q2763-03	TP-2 VOC	15	1.18	10.48	11.66	9.45	78.9	

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

WORKLIST(Hardcopy Internal Chain)

136687

WorkList Name : %1-080425

WorkList ID : 191066

Department : Wet-Chemistry

Date : 08-04-2025 07:38:11

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2752-03	PIPE-LINE-LIQUIDS	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	08/01/2025	Chemtech -SO
Q2757-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2757-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2758-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	D31	08/01/2025	Chemtech -SO
Q2759-01	SOLID-DRUMS	Solid	Percent Solids	Cool 4 deg C	SCIA01	D21	08/01/2025	Chemtech -SO
Q2760-01	NB-07-08042025	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	08/04/2025	Chemtech -SO
Q2760-02	NB-07-08042025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D21	08/04/2025	Chemtech -SO
Q2763-01	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D21	08/04/2025	Chemtech -SO
Q2763-02	TP-2 EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	O23	08/04/2025	Chemtech -SO
Q2763-03	TP-2 VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	O23	08/04/2025	Chemtech -SO

Date/Time 08/04/25 15:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: R3 C 174-1046

Date/Time 08/04/25 17:20

Raw Sample Received by: R3 C 174-1046

Raw Sample Relinquished by: [Signature]

SOP ID: M3541-ASE Extraction-15

Clean Up SOP #: N/A

Extraction Start Date : 08/06/2025

Matrix : Solid

Extraction Start Time : 08:20

Weigh By: RJ

Extraction By: RJ

Extraction End Date : 08/06/2025

Balance check: RJ

Filter By: RJ

Extraction End Time : 11:20

Balance ID: EX-SC-2

pH Meter ID: N/A

Concentration By: RS

pH Strip Lot#: N/A

Hood ID: 3,7

Supervisor By : RUPESH

Extraction Method: ☐ Seperatory Funnel

☐ Continous Liquid/Liquid

☐ Sonication

☐ Waste Dilution

☒ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	20 PPM	PP24583
Surrogate	1.0ML	20 PPM	PP24596
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	EP2626
Baked Na2SO4	N/A	EP2629
Methylene Chloride	N/A	E3954
Sand	N/A	E3951
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

Envap ID: NEVAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
8/6/25	RS (Ext Lab)	Y-P Pest IP43
11:25	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-15

Concentration Date: 08/06/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB169135BL	PB169135BL	TPH GC	30.02	N/A	ritesh	RUPESH	1			U1-1
PB169135BS	PB169135BS	TPH GC	30.01	N/A	ritesh	RUPESH	1			2
Q2757-01	WASTE	TPH GC	30.09	N/A	ritesh	RUPESH	1			3
Q2757-01MS	WASTEMS	TPH GC	30.06	N/A	ritesh	RUPESH	1			4
Q2757-01MS D	WASTEMSD	TPH GC	30.04	N/A	ritesh	RUPESH	1			5
Q2758-01	WASTE	TPH GC	30.07	N/A	ritesh	RUPESH	1			6

Rs
816

8:22
(6135

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q2758T WorkList ID : 191130 Department : Extraction Date : 08-06-2025 08:15:11

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2757-01	WASTE	Solid	TPH GC	Cool 4 deg C	SCIA01	D31	08/01/2025	8015D
Q2758-01	WASTE	Solid	TPH GC	Cool 4 deg C	SCIA01	D21	08/01/2025	8015D

Date/Time 08/06/25 8:15
Raw Sample Received by: RSF ELA-Web
Raw Sample Relinquished by: Chen

Date/Time 08/06/25 8:25
Raw Sample Received by: Chen
Raw Sample Relinquished by: RSF ELA-Web

Prep Standard - Chemical Standard Summary

Order ID : Q2757

Test : TPH GC

Prepbatch ID : PB169135,

Sequence ID/Qc Batch ID: FG080625,

Standard ID :

EP2626,EP2629,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24583,PP24596,

Chemical ID :

E3875,E3926,E3930,E3931,E3949,E3951,E3954,P11951,P11952,P13106,P13108,P13477,P13479,P13483,P13484,P13485,P13486,P13938,P13945,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2626	07/15/2025	01/15/2026	RUPESHKUMAR SHAH	None	None	Riteshkumar Patel
07/15/2025								

FROM 8000.00000ml of E3949 + 8000.00000ml of E3954 = Final Quantity: 16000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2629	07/28/2025	01/28/2026	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel
(EX-SC-2)								

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
433	100/100 PPM DRO (Restek)	PP24467	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

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

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

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

Pest/Pcb STANDARD PREPARATION LOG

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

FROM 0.50000ml of E3926 + 0.50000ml of PP24467 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
437	20 PPM ICC DRO STD (Restek)	PP24470	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24467 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
438	10 PPM ICC DRO STD (Restek)	PP24471	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24467 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
439	5 PPM ICC DRO STD (Restek)	PP24472	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24469 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3608	50 PPM ICV DRO STD (RESTEK)	PP24473	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24583	05/16/2025	11/16/2025	Rahul Chavli	None	None	Yogesh Patel
								05/22/2025

FROM 0.70000ml of P13945 + 1.30000ml of P13938 + 48.00000ml of E3930 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
147	20 PPM DRO Surrogate Spike Solution	PP24596	05/20/2025	11/20/2025	Abdul Mirza	None	None	Yogesh Patel 05/22/2025
<u>FROM</u> 1.00000ml of P13483 + 1.00000ml of P13484 + 1.00000ml of P13485 + 1.00000ml of P13486 + 196.00000ml of E3931 = Final Quantity: 200.000 ml								

CHEMICAL RECEIPT LOG BOOK

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	417203	01/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3931

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	04/18/2027	07/08/2025 / RITESHKUMAR	07/03/2025 / RUPESH	E3949

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)	25A2756718	12/31/2028	07/09/2025 / RUPESH	04/28/2020 / RUPESH	E3951

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25B1862001	03/19/2026	07/14/2025 / RUPESH	06/11/2025 / RUPESH	E3954

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13483

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13484

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13485

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13486

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13938

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	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13945



**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MÉXICO
CP 64070
TEL +52 81 13 52 67 67
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER:	6399	RELEASE DATE:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
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%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

RE-02-01, Ed. 3

E 3875

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

avantor



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

Certificate of Analysis

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

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

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

E 3926

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

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

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

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

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

Avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Reed on 7/2/25

E3949

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



Material	BDH9274-2.5KG
Material Description	BDH SAND STDD OTTAWA W+I 2.5KG
Grade	NOT APPLICABLE
Batch	25A2756718
Reassay Date	12/31/2028
CAS Number	14808-60-7
Molecular Formula	SiO ₂
Molecular Mass	60.09
Date of Manufacture	12/05/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Beige granules.	Beige granules.
Moisture	<= 0.1 %	0.1 %
Particle Size 30-40 mesh	>= 80 %	99 %
CUSTOMER PART # BDH9274-2.5KG		

Received on 1/12/25.

E3951

Internal ID #: 793

Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	Analysis may have been rounded to significant digits in specification limits Product meets analytical specifications of the grades listed.

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



Material No.: 9266-A4
Batch No.: 25B1862001
Manufactured Date: 2024-12-18
Expiration Date: 2026-03-19
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 Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.3 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	<0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

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

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

RS
7/14/25

E3954

Jamie Croak
Director Quality Operations, Bioscience Production



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

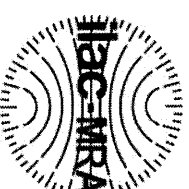
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

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

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

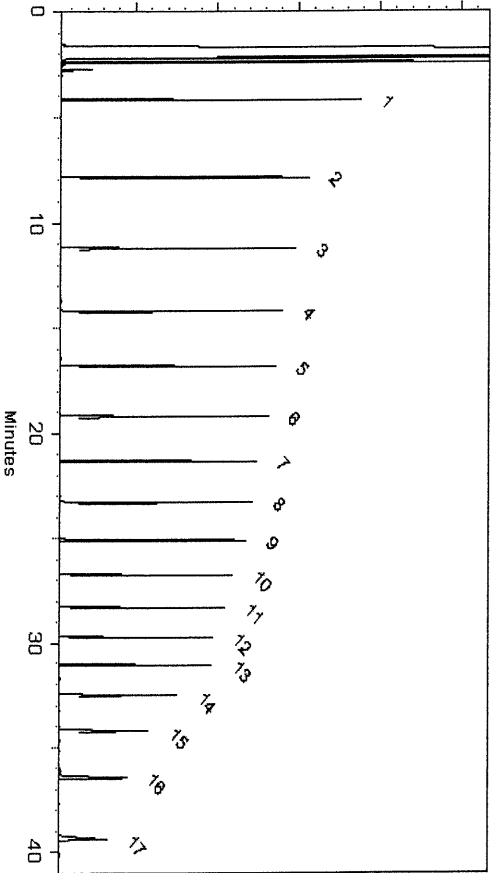
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

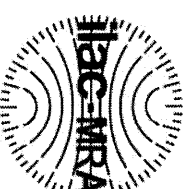
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0186840

Description :

Florida TRPH Standard

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

Container Size :

2 mL

Pkg Amt: > 1 mL

Expiration Date :

July 31, 2029

Storage: 25°C nominal

Handling:

Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

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

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

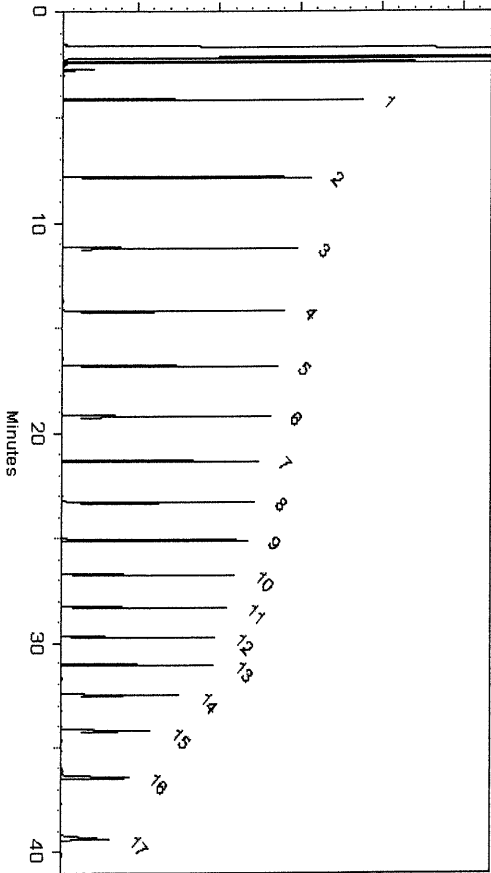
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

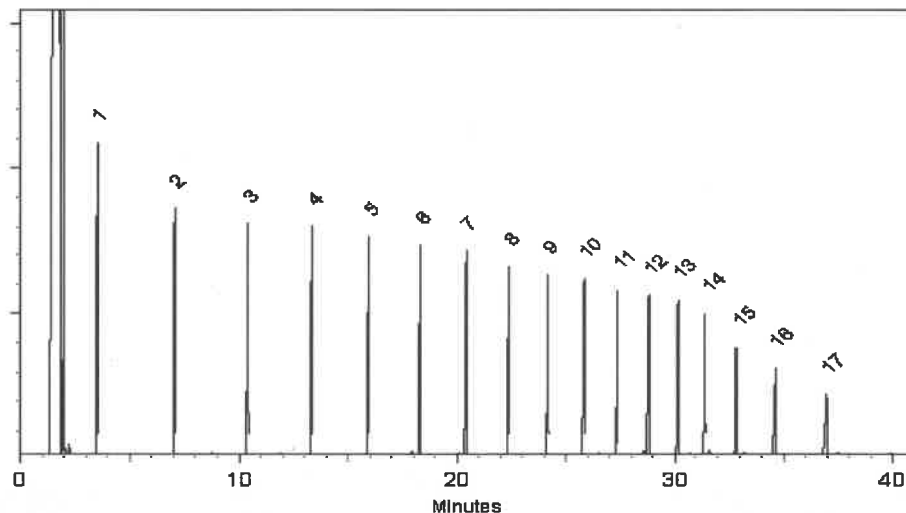
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

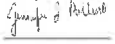


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
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Solvent: Hexane
CAS # 110-54-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

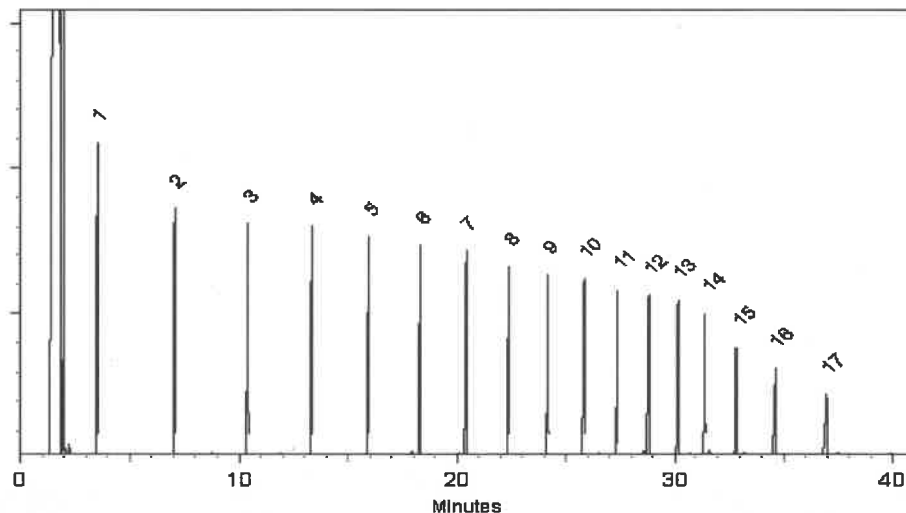
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

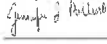


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

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

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

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

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

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

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

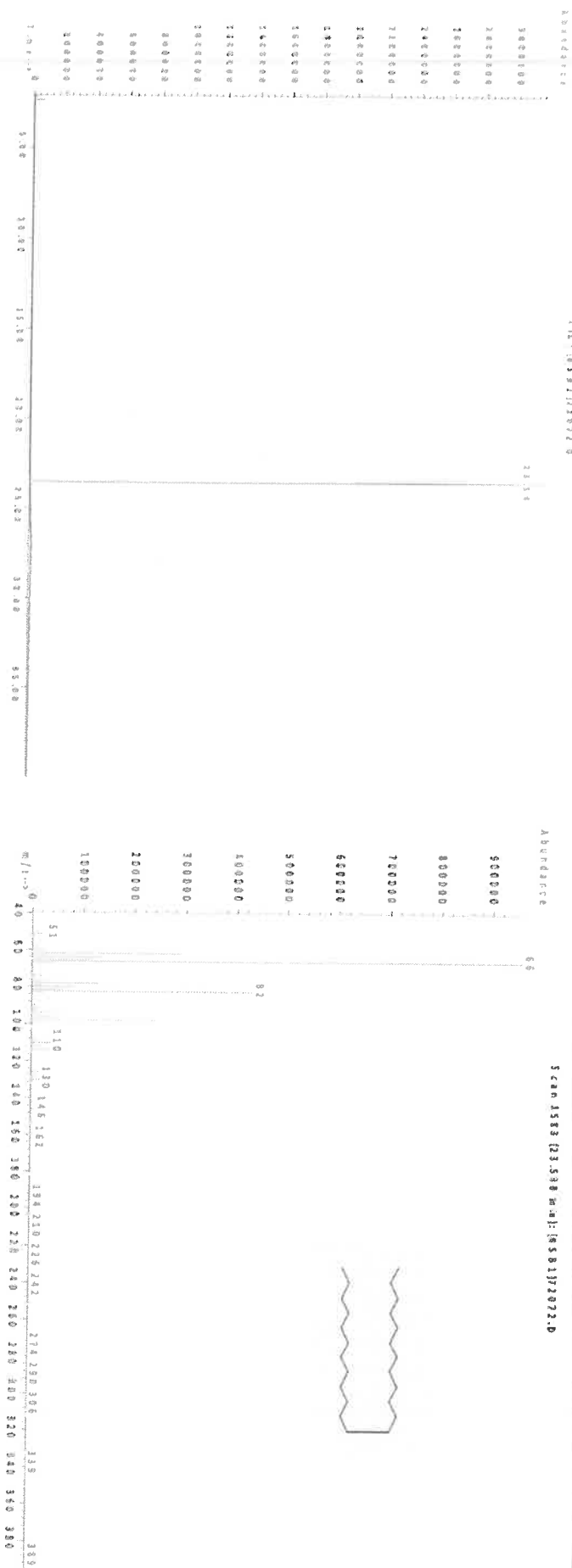
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

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

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



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#:
Weight(s) shown below were combined and diluted to (mL): 500.0
5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

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

DATE: 070716
DATE: 070716

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

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

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

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

Peak Data:

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

Qualitative Quantitative

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.55

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

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

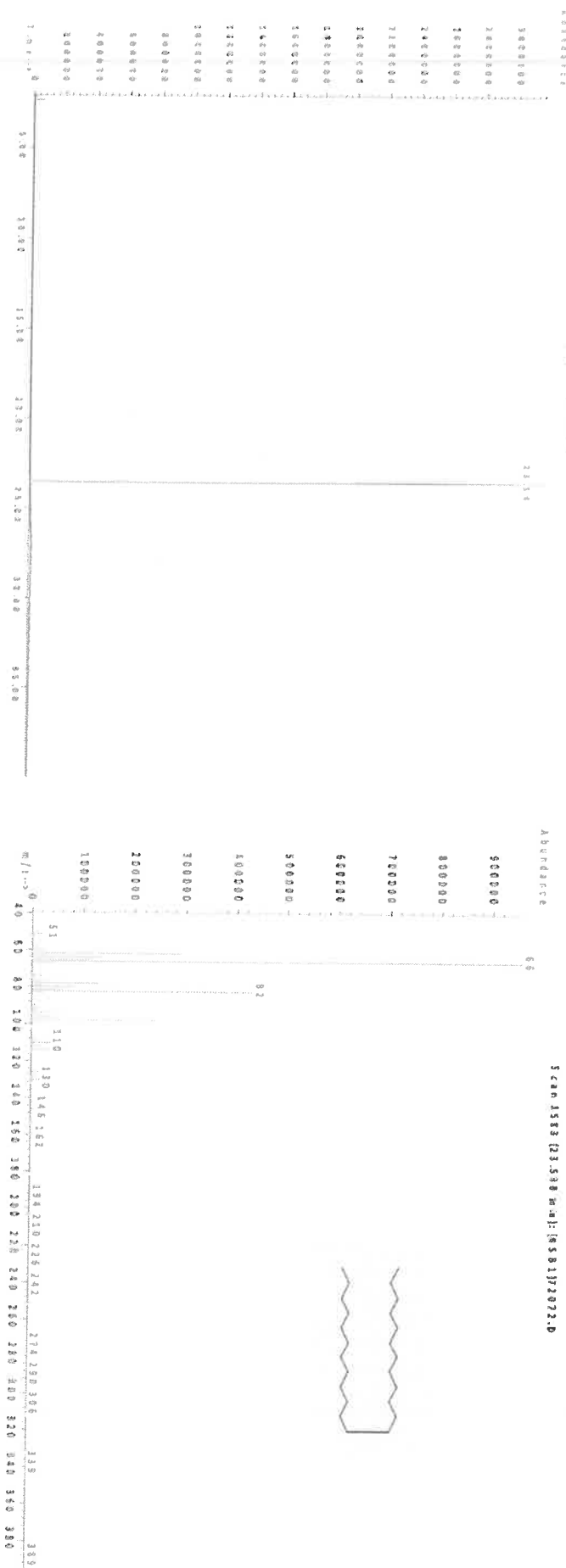
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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

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



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

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

070716
070716

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

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

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

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

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

Qualitative Quantitative

Peak No. Name FID RT (min)

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

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.55

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For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

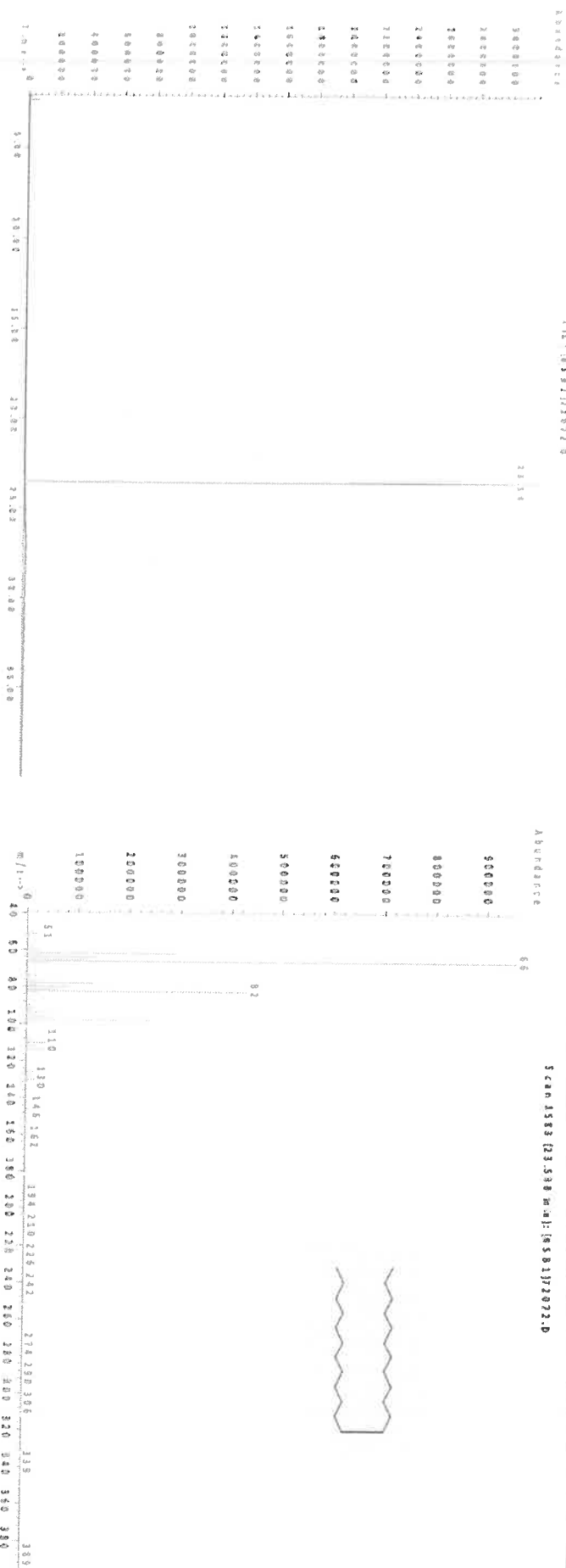
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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

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



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

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

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

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

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

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

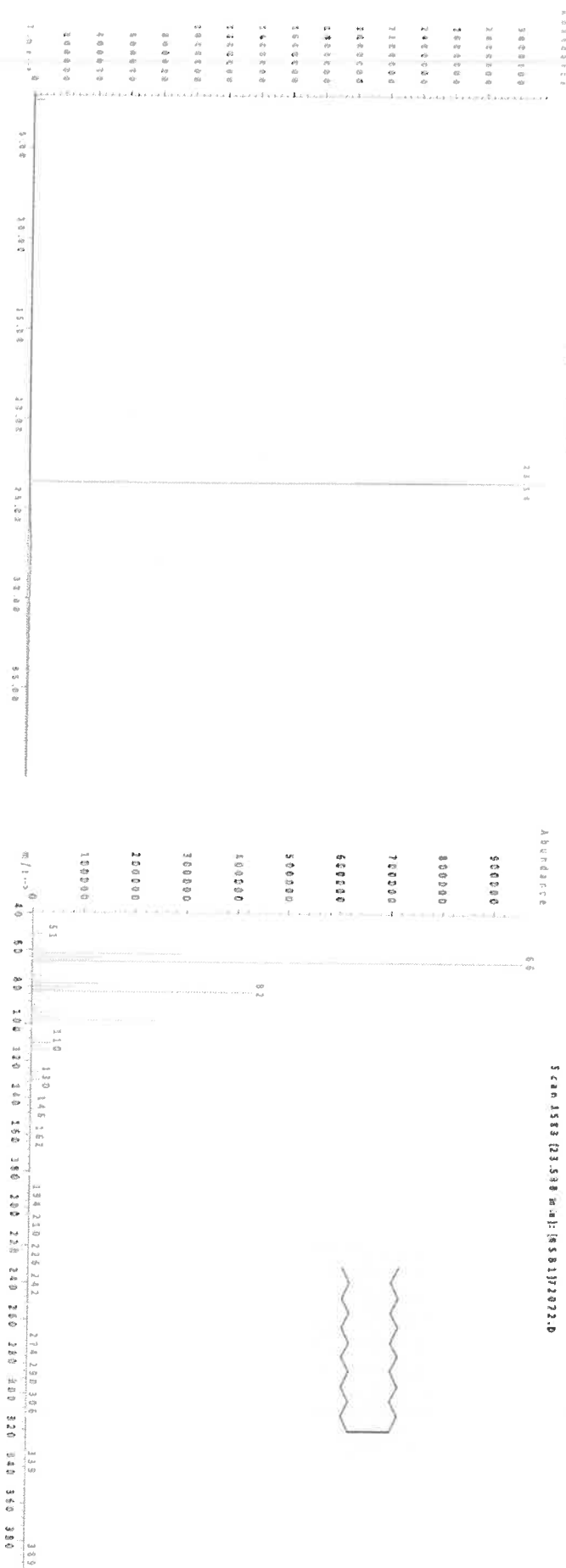
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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

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



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

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

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3	N/A	N/A

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

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

Qualitative Quantitative

Peak No. Name FID RT (min)

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

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.55

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

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

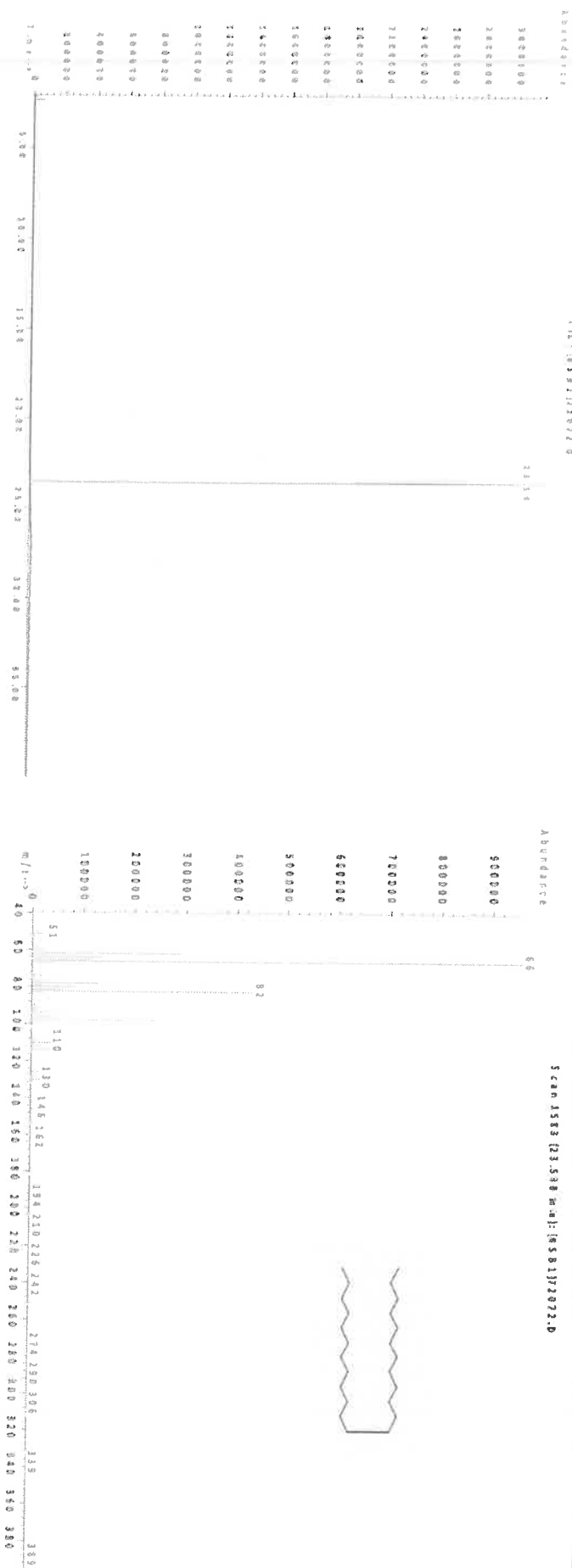
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

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

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

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

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

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

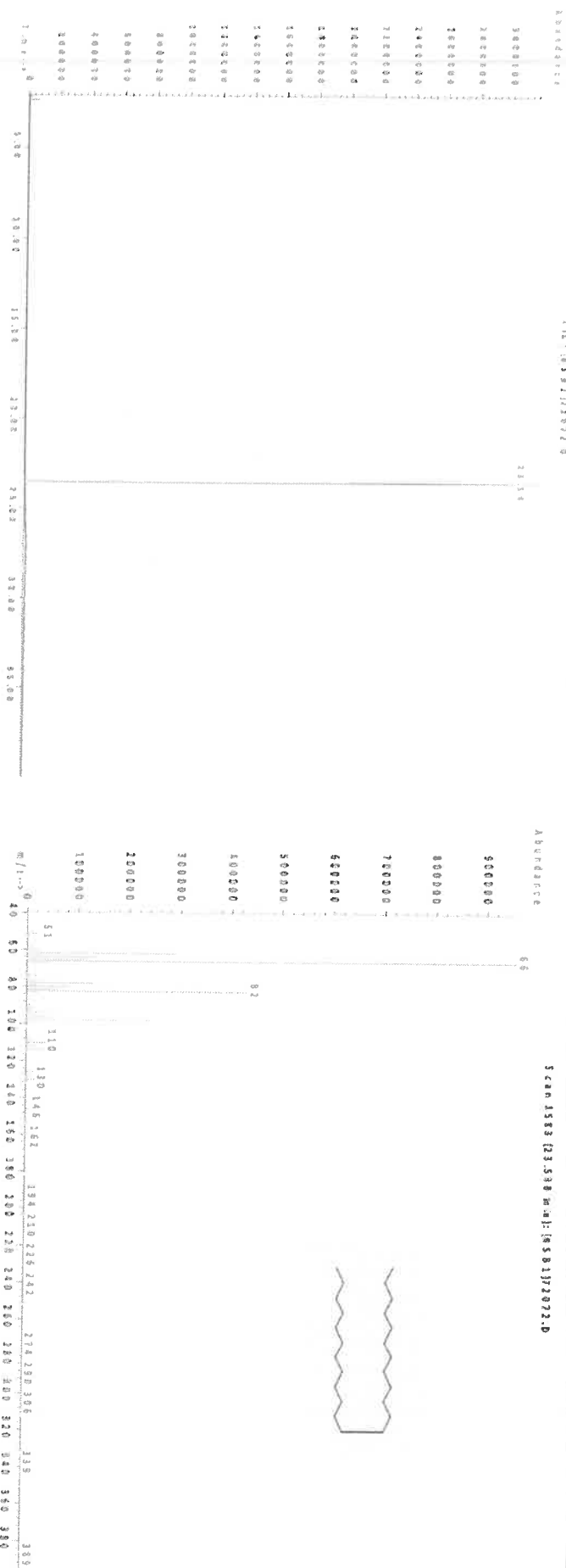
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



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



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031937
*
P031946
Y.P.
03/07/25

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBR0789	99%	502.0 µg/mL	+/- 12.9685
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	501.5 µg/mL	+/- 12.9555
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	502.5 µg/mL	+/- 12.9814
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	500.5 µg/mL	+/- 12.9297
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	500.0 µg/mL	+/- 12.9168
6	n-Octadecane (C18)	593-45-3	UB5NG	99%	500.5 µg/mL	+/- 12.9297
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	500.0 µg/mL	+/- 12.9177
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	500.5 µg/mL	+/- 12.9297
9	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	500.5 µg/mL	+/- 12.9297
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	502.0 µg/mL	+/- 12.9685
11	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	501.0 µg/mL	+/- 12.9426
12	n-Triacontane (C30)	638-68-6	MKCV7007	98%	499.8 µg/mL	+/- 12.9116
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	500.0 µg/mL	+/- 12.9168
14	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	501.5 µg/mL	+/- 12.9555
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	500.5 µg/mL	+/- 12.9297
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	500.2 µg/mL	+/- 12.9209
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.5 µg/mL	+/- 13.0072

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

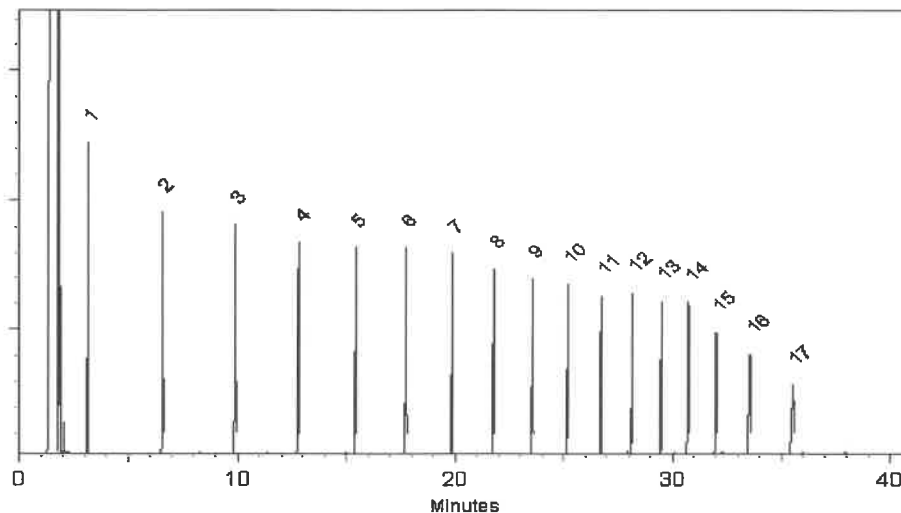
Inj. Temp:
250°C

Det. Temp:
330°C

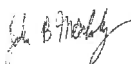
Det. Type:
FID

Split Vent:
2 ml/min.

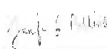
Inj. Vol
1µl



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


Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031937
*
P031946
Y.P.
03/07/25

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBR0789	99%	502.0 µg/mL	+/- 12.9685
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	501.5 µg/mL	+/- 12.9555
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	502.5 µg/mL	+/- 12.9814
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	500.5 µg/mL	+/- 12.9297
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	500.0 µg/mL	+/- 12.9168
6	n-Octadecane (C18)	593-45-3	UB5NG	99%	500.5 µg/mL	+/- 12.9297
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	500.0 µg/mL	+/- 12.9177
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	500.5 µg/mL	+/- 12.9297
9	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	500.5 µg/mL	+/- 12.9297
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	502.0 µg/mL	+/- 12.9685
11	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	501.0 µg/mL	+/- 12.9426
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CAS # 110-54-3
Purity 99%

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

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hydrogen-constant pressure 10 psi.

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

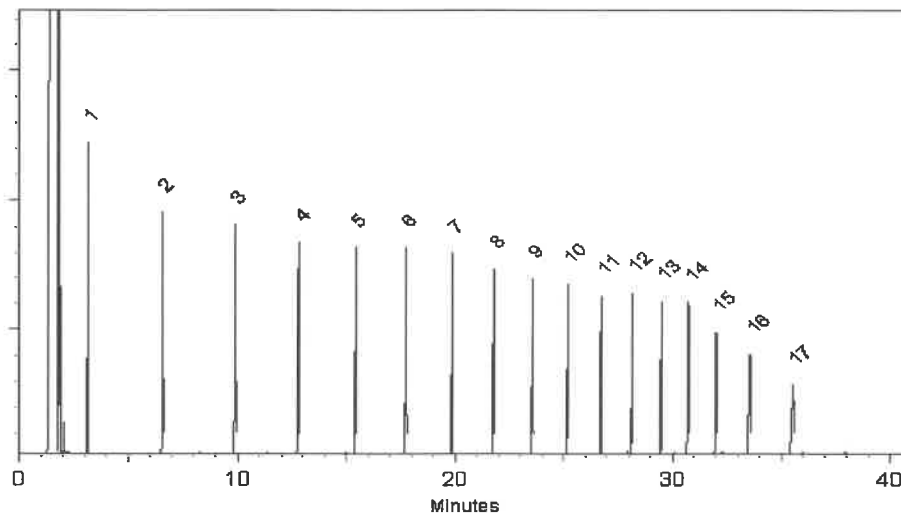
Inj. Temp:
250°C

Det. Temp:
330°C

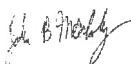
Det. Type:
FID

Split Vent:
2 ml/min.

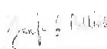
Inj. Vol
1µl



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


Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

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

General Certified Reference Material Notes

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- Purity values are rounded to the nearest whole number.

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

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

Manufacturing Notes:

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Handling Notes:

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



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax (908) 789-8922

www.chemtech.net

Chemtech Project Number

COC Number

Q2757
Newman Ave

CLIENT INFORMATION

Report to be sent to:

COMPANY: _____
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
ATTENTION: _____
PHONE: _____ FAX: _____

PROJECT INFORMATION

PROJECT NAME: _____
PROJECT #: _____
PROJECT MANAGER: _____
E-MAIL: _____
PHONE: _____ FAX: _____

BILLING INFORMATION

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

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1 TPH GC
2 VOC
3 EPH-F2
4
5
6
7
8
9
10
PRESERVATIVES

COMMENTS

<- Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

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

RELINQUISHED BY	DATE/TIME	1533	RECEIVED BY	DATE/TIME	1533	RECEIVED FOR LAB BY	DATE/TIME	1533	Comments:	Conditions of bottles or coolers at receipt:	COMPLIANT	NON COMPLIANT	COOLER TEMP	30.2
1. RELINQUISHED BY	8-1-25		2. RECEIVED BY	8-1-25										
2. RELINQUISHED BY			3. RECEIVED BY											
3. RELINQUISHED BY	8-1-25		4. RECEIVED BY											

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2757	SCIA01	Order Date : 8/1/2025 4:13:00 PM 11 Newman Ave Nutley	Project Mgr :
Client Name : Sciacca General Contractor:		Project Name : 89 E. Centre St, Nutley	Report Type : Results Only
Client Contact : Rosanne Scirica		Receive DateTime : 8/1/2025 12:00:00 AM	EDD Type : EXCEL NJCLEANUP
Invoice Name : Sciacca General Contractor:		Purchase Order : 04:40:00 PM	Hard Copy Date :
Invoice Contact : Rosanne Scirica			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2757-02	VOC	Solid	08/01/2025	08:15	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinquished By :

Date / Time :

SN
8/4/25 1040

Received By :

Date / Time :

Sam
08/04/25

10:40

RGH 6
F22

Storage Area : VOA Refridgator Room