



Cover Page

Order ID : O1233

Project ID : NYCDDC Phase II SCI Arthur Kill Road CEQR

Client : Louis Berger U.S., Inc., A WSP Company

Lab Sample Number

O1233-02
O1233-03
O1233-04
O1233-05
O1233-06
O1233-07
O1233-08
O1233-09
O1233-10
O1233-11
O1233-12

Client Sample Number

B-P34A
B-P34B
B-P36A
B-P36B
B-P37A
B-P37B
B-38A
B-P38B
WC-38
B-P38C
FB01

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: 1/31/2023

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

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

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

APPENDIX A**QA REVIEW GENERAL DOCUMENTATION**

Project #: 01233

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓**COVER PAGE:**

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

✓

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

✓**CHAIN OF CUSTODY:**

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓**ANALYTICAL:**

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

1st Level QA Review Signature: KETAN PATEL

Date: 01/31/2023

2nd Level QA Review Signature: _____

Date: _____



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID: O1233
Client: Louis Berger U.S., Inc., A WSP Company
Contact: Jonathan Ganz

OrderDate: 1/19/2023 1:53:00 PM
Project: NYCDDC Phase II SCI Arthur Kill Road CEQR
Location: N11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1233-10	WC-38	SOIL			01/18/23	01/20/23	01/23/23	01/19/23
			Diesel Range Organics	8015D				
			Gasoline Range Organics	8015D				

QC
SUMMARY



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SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0123S2	94				0
BSF0123S1	93				0
WC-38	148				0
BSF0123S2	91				0

QC LIMITS

AAA-TFT

For Water : 50-150
For Soil : 50-150

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



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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATION

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Cas No: O1233 SAS No : O1233 SDG No: O1233
Matrix Spike - EPA Sample No : BSF0123S1 Datafile: FB029158.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	150	83	50-150



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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATION

Lab Name: Chemtech Client: Louis Berger U.S., Inc., A WSP Company
Lab Code: CHEM Cas No: O1233 SAS No : O1233 SDG No: O1233
Matrix Spike - EPA Sample No : BSF0123S2 Datafile: FB029160.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	162	90	50-150

LCS/LCSD % Recovery RPD : 7.7



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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VB0123S2

Lab Name: CHEMTECH

Contract: loui01

Lab Code: CHEM Case No.: 01233

SAS No.: 01233 SDG NO.: 01233

Lab File ID: FB029157.D

Lab Sample ID: VB0123S2

Date Analyzed: 01/23/23

Time Analyzed: 11:45

GC Column: RTX-502.2 ID: 0.53 (mm)

Heated Purge: (Y/N) Y

Instrument ID: FB

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0123S1	BSF0123S1	FB029158.D	01/23/23
WC-38	01233-10	FB029159.D	01/23/23
BSF0123S2	BSF0123S2	FB029160.D	01/23/23

COMMENTS:

SAMPLE DATA



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23		
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23		
Client Sample ID:	WC-38	SDG No.:	O1233		
Lab Sample ID:	O1233-10	Matrix:	SOIL		
Analytical Method:	8015D GRO	% Solid:	84.9	Decanted:	
Sample Wt/Vol:	5.01	Units:	g	Final Vol:	5 mL
Soil Aliquot Vol:			uL	Test:	Gasoline Range Organics
Extraction Type:				Injection Volume :	
GPC Factor :		PH :			
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB029159.D	500	01/23/23 13:02	FB012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	142000		2130	26400	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	29.7		50 - 150	148%	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_B\Data\FB012323\
Data File : FB029159.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 13:02
Operator : AJ/MA
Sample : 01233-10 500X
Misc : 5.01G/5.00 ML MEOH
ALS Vial : 5 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:11 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.804	362677	29.680 ng/ml
Target Compounds			

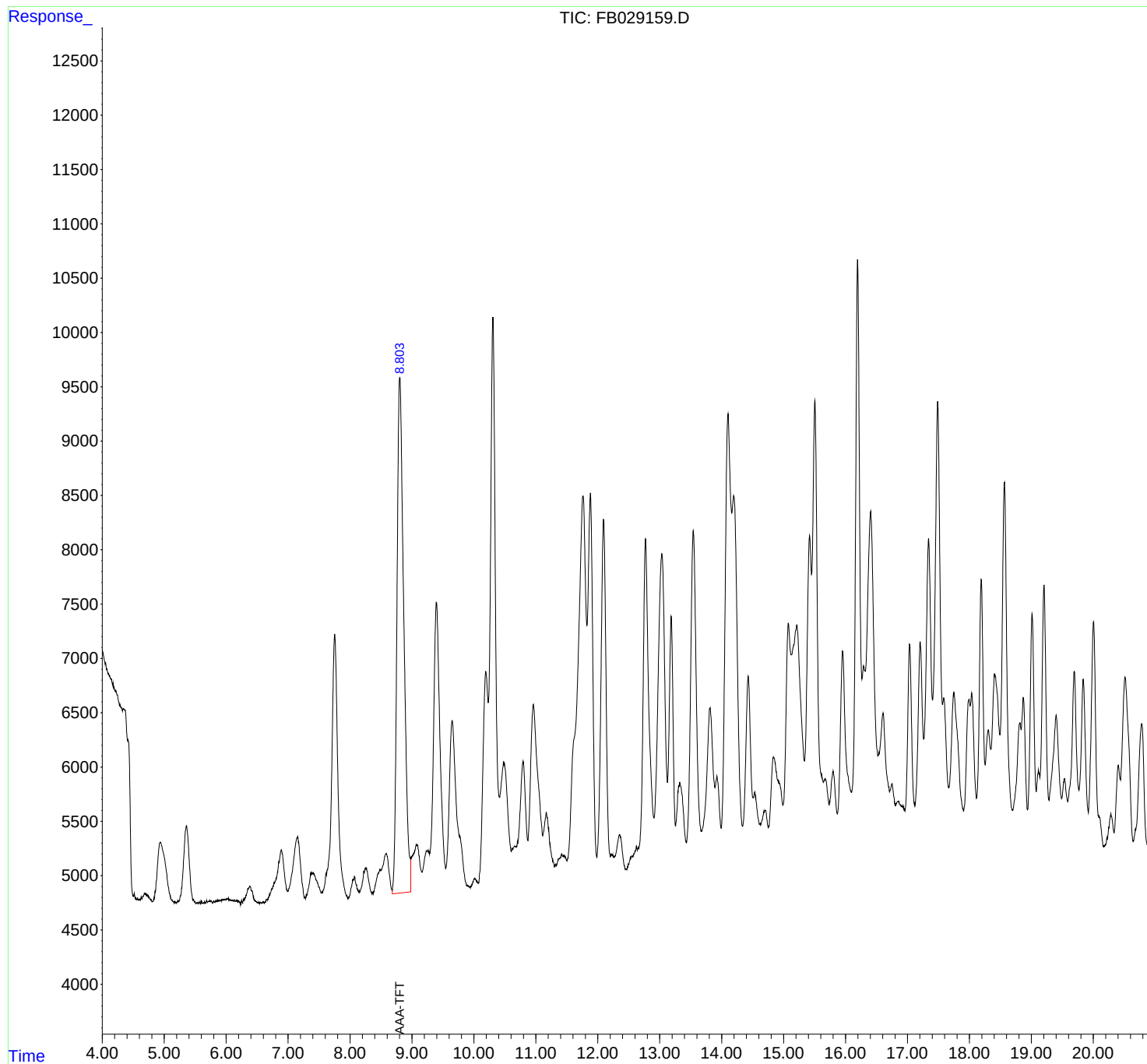
(f)=RT Delta > 1/2 Window

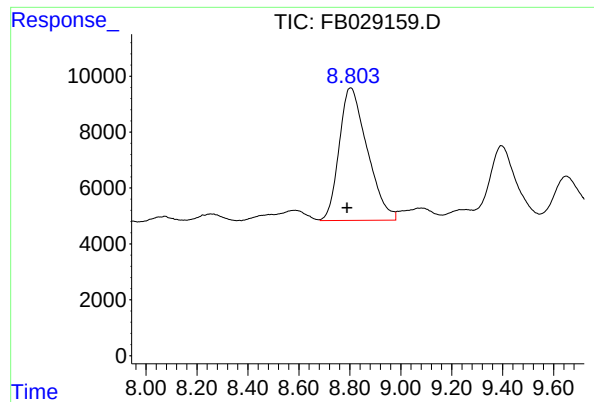
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029159.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 13:02
Operator : AJ/MA
Sample : 01233-10 500X
Misc : 5.01G/5.00 ML MEOH
ALS Vial : 5 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:11 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um





#5 AAA-TFT

R.T.: 8.804 min
Delta R.T.: 0.015 min
Response: 362677
Conc: 29.68 ng/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
 Data File : FB029159.D
 Signal(s) : FID2B.CH
 Acq On : 23 Jan 2023 13:02
 Sample : 01233-10 500X
 Misc : 5.01G/5.00 ML MEOH
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SAMPLE.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
 Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.518	4.504	4.535	BV	37	273	0.07%	0.006%
2	4.543	4.535	4.560	PV	18	88	0.02%	0.002%
3	4.570	4.560	4.599	PV	21	173	0.05%	0.004%
4	4.630	4.599	4.641	VV	37	372	0.10%	0.008%
5	4.681	4.641	4.725	VV	70	2595	0.71%	0.056%
6	4.733	4.725	4.811	VV	56	1529	0.42%	0.033%
7	5.180	5.166	5.192	VV	14	133	0.04%	0.003%
8	5.220	5.192	5.236	PV	22	324	0.09%	0.007%
9	5.536	5.511	5.548	VV	15	166	0.05%	0.004%
10	5.570	5.548	5.586	VV	18	226	0.06%	0.005%
11	5.605	5.586	5.617	PV	28	295	0.08%	0.006%
12	5.652	5.617	5.671	VV	24	389	0.11%	0.008%
13	5.685	5.671	5.700	VV	32	363	0.10%	0.008%
14	5.737	5.700	5.745	VV	33	689	0.19%	0.015%
15	5.761	5.745	5.784	VV	32	548	0.15%	0.012%
16	5.801	5.784	5.820	VV	29	458	0.13%	0.010%
17	5.934	5.820	5.947	VV	48	2564	0.70%	0.055%
18	6.037	5.947	6.047	VV	58	2744	0.75%	0.059%
19	6.054	6.047	6.068	VV	44	527	0.14%	0.011%
20	6.071	6.068	6.083	VV	44	353	0.10%	0.008%
21	6.100	6.083	6.155	VV	43	1523	0.42%	0.033%
22	6.173	6.155	6.184	VV	43	588	0.16%	0.013%
23	6.196	6.184	6.235	VV	32	729	0.20%	0.016%
24	6.253	6.235	6.265	PV	36	419	0.12%	0.009%
25	6.383	6.265	6.541	VV	168	12140	3.33%	0.263%
26	6.550	6.541	6.579	VV	14	199	0.05%	0.004%
27	6.594	6.579	6.620	VV	19	258	0.07%	0.006%
28	7.157	6.993	7.284	VV	595	52088	14.30%	1.127%
29	7.377	7.284	7.387	VV	263	8957	2.46%	0.194%
30	7.408	7.387	7.539	VV	257	15973	4.38%	0.346%
31	7.549	7.539	7.557	VV	81	768	0.21%	0.017%
32	7.754	7.557	7.968	VV	2441	172588	47.38%	3.734%
33	8.075	7.968	8.160	PV	197	11201	3.08%	0.242%
34	8.254	8.160	8.357	VV	270	17996	4.94%	0.389%
35	8.368	8.357	8.375	VV	37	330	0.09%	0.007%
36	8.586	8.375	8.679	VV	384	39217	10.77%	0.848%

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37	8.804	8.679	8.980	VV	4752	364267	100.00%	7.881%
38	9.082	8.980	9.165	VV	437	37588	10.32%	0.813%
39	9.257	9.165	9.286	VV	376	22725	6.24%	0.492%
40	9.395	9.286	9.545	VV	2652	194780	53.47%	4.214%
41	9.650	9.545	9.884	VV	1549	134704	36.98%	2.914%
42	9.893	9.884	9.932	VV	23	368	0.10%	0.008%
43	9.952	9.932	9.958	PV	11	92	0.03%	0.002%
44	10.016	9.958	10.072	VV	78	3341	0.92%	0.072%
45	10.193	10.072	10.233	VV	1970	106392	29.21%	2.302%
46	10.308	10.233	10.416	VV	5222	302813	83.13%	6.551%
47	10.481	10.416	10.605	VV	1120	90625	24.88%	1.961%
48	10.661	10.605	10.686	VV	330	15405	4.23%	0.333%
49	10.794	10.686	10.872	VV	1093	75756	20.80%	1.639%
50	10.961	10.872	11.111	VV	1616	140876	38.67%	3.048%
51	11.170	11.111	11.301	VV	612	42643	11.71%	0.923%
52	11.420	11.301	11.445	VV	212	13768	3.78%	0.298%
53	11.456	11.445	11.504	VV	198	6107	1.68%	0.132%
54	11.762	11.504	11.826	VV	3485	346350	95.08%	7.493%
55	11.882	11.826	11.984	VV	3504	192411	52.82%	4.163%
56	12.095	11.984	12.205	VV	3247	184587	50.67%	3.994%
57	12.220	12.205	12.269	VV	155	5459	1.50%	0.118%
58	12.352	12.269	12.470	VV	322	20517	5.63%	0.444%
59	12.625	12.470	12.639	PV	190	10433	2.86%	0.226%
60	12.771	12.639	12.907	VV	2997	195874	53.77%	4.238%
61	13.186	13.125	13.257	VV	2224	100243	27.52%	2.169%
62	13.326	13.257	13.431	VV	672	46673	12.81%	1.010%
63	13.543	13.431	13.677	VV	2956	184656	50.69%	3.995%
64	13.812	13.677	13.894	VV	1281	91968	25.25%	1.990%
65	13.924	13.894	13.992	VV	637	27237	7.48%	0.589%
66	14.103	13.992	14.165	VV	3949	251955	69.17%	5.451%
67	14.196	14.165	14.337	VV	3176	183628	50.41%	3.973%
68	14.429	14.337	14.510	VV	1481	79391	21.79%	1.718%
69	14.534	14.510	14.624	VV	401	17229	4.73%	0.373%
70	14.703	14.624	14.755	VV	207	11146	3.06%	0.241%
71	14.840	14.755	14.990	VV	671	59238	16.26%	1.282%
72	15.078	14.990	15.127	VV	1873	99795	27.40%	2.159%
73	15.214	15.127	15.336	VV	1840	175029	48.05%	3.787%
74	15.421	15.336	15.452	VV	2623	123324	33.86%	2.668%
75	15.505	15.452	15.643	VV	3852	208315	57.19%	4.507%
76	15.672	15.643	15.736	VV	355	15205	4.17%	0.329%
77	15.799	15.736	15.868	VV	397	17746	4.87%	0.384%
78	15.954	15.868	16.096	PV	1426	71629	19.66%	1.550%
Sum of corrected areas:					4622070			

FB011723.M Tue Jan 24 00:03:33 2023

CALIBRATION SUMMARY



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

GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233

Calibration Sequence : FB011723		Test : Gasoline Range Organics	
Concentration (PPB)	Area Count	Reference Factor	File ID
45	622989	13844	FB029115.D
90	1667787	18531	FB029116.D
180	3442113	19123	FB029117.D
450	8424970	18722	FB029118.D
900	16352397	18169	FB029119.D
AVG RF : 17678		% RSD : 12.279	AVG RT : 8.7888



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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
DataFile: FB029155.D Analyst Name: AJ/MA Analyst Date: 01-23-2023

Conc. (PPB)	Area Count	RF	Average RF	%D
180	2892916	16072	17678	9.085

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
 Data File : FB029155.D
 Signal(s) : FID2B.CH
 Acq On : 23 Jan 2023 10:27
 Operator : AJ/MA
 Sample : 20 PPB GRO STD
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Integration File: Calibration.e
 Quant Time: Jan 23 23:49:50 2023
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
 Quant Title :
 QLast Update : Tue Jan 17 12:59:31 2023
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.792	202322	16.557 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.714	364480	24.895 ng/ml
2) t 2,2,4-Trimethylpentane	7.420	455840	28.730 ng/ml
3) t n-Heptane	7.751	122313	7.320 ng/ml
4) t Benzene	7.887	172748	8.125 ng/ml
6) t Toluene	10.619	508449	25.226 ng/ml
7) t Ethylbenzene	13.056	168788	8.800 ng/ml
8) t m-Xylene	13.189	345222	18.451 ng/ml
9) t O-Xylene	13.916	354680	19.710 ng/ml
10) t 1,2,4-Trimethylbenzene	16.191	400396	22.459 ng/ml

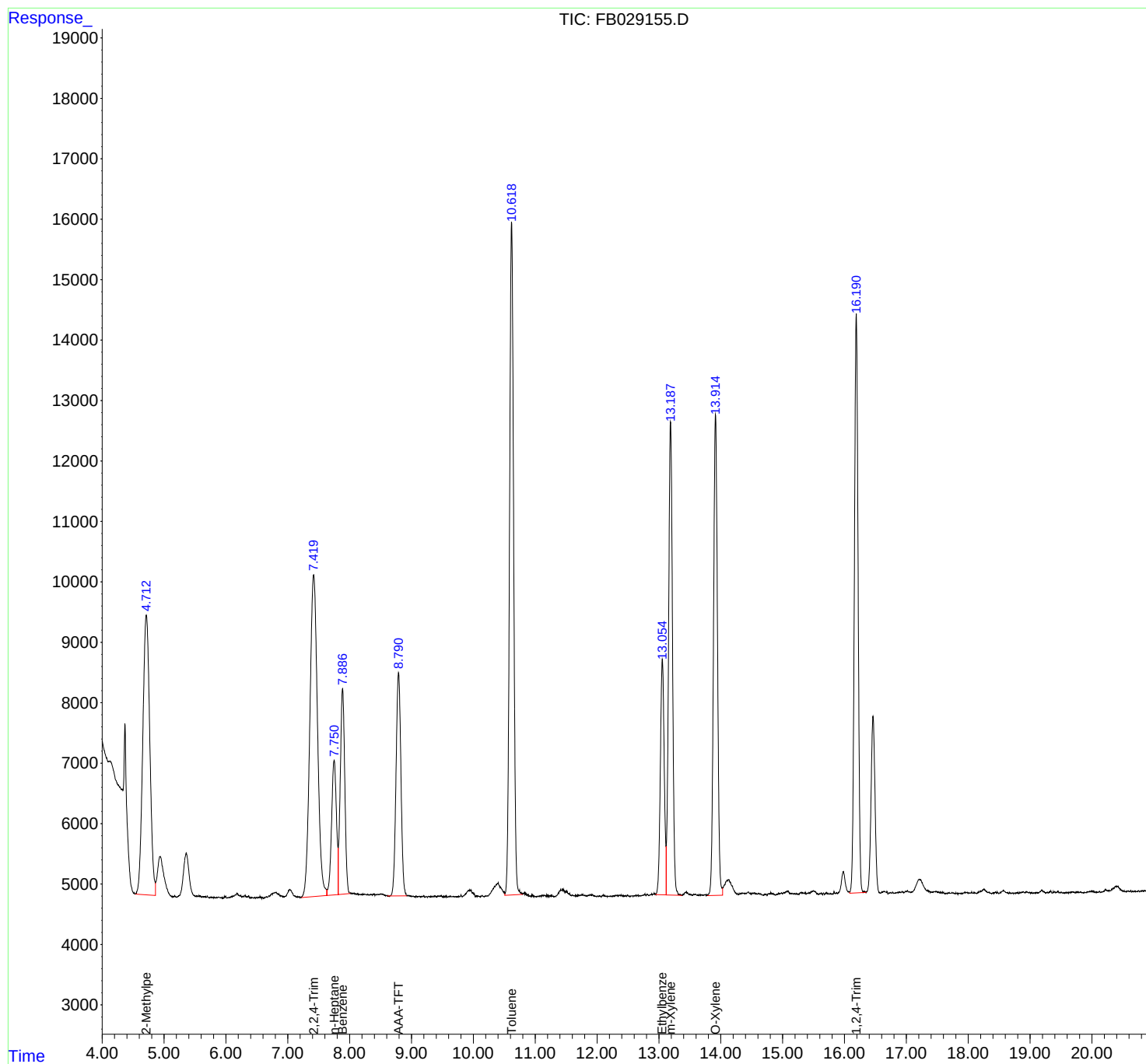
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029155.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 10:27
Operator : AJ/MA
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:49:50 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029155.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 10:27
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.714	4.537	4.862	PV	4629	364480	71.68%	11.775%
2	7.420	7.218	7.632	BV	5328	455840	89.65%	14.727%
3	7.751	7.632	7.816	VV	2228	122313	24.06%	3.952%
4	7.887	7.816	8.011	VV	3400	172748	33.98%	5.581%
5	8.792	8.612	8.926	BV	3691	202322	39.79%	6.537%
6	10.619	10.507	10.797	VV	11131	508449	100.00%	16.427%
7	13.056	12.954	13.117	BV	3885	168788	33.20%	5.453%
8	13.189	13.117	13.372	VV	7828	345222	67.90%	11.153%
9	13.916	13.784	14.028	PV	7956	354680	69.76%	11.459%
10	16.191	16.085	16.355	VV	9570	400396	78.75%	12.936%

Sum of corrected areas: 3095238

FB011723.M Tue Jan 24 00:00:46 2023



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

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: loui01
ProjectID: NYCDDC Phase II SCI Arthur Kill Road CEQR
Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG No.: O1233
DataFile: FB029161.D Analyst Name: AJ/MA Analyst Date: 01-23-2023

Conc. (PPB)	Area Count	RF	Average RF	%D
180	2573729	14298	17678	19.12

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
 Data File : FB029161.D
 Signal(s) : FID2B.CH
 Acq On : 23 Jan 2023 14:16
 Operator : AJ/MA
 Sample : 20 PPB GRO STD
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Integration File: Calibration.e
 Quant Time: Jan 23 23:50:21 2023
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
 Quant Title :
 QLast Update : Tue Jan 17 12:59:31 2023
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.794	232526	19.029 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.710	339653	23.199 ng/ml
2) t 2,2,4-Trimethylpentane	7.419	396971	25.020 ng/ml
3) t n-Heptane	7.753	125564	7.515 ng/ml
4) t Benzene	7.889	164309	7.728 ng/ml
6) t Toluene	10.623	489264	24.275 ng/ml
7) t Ethylbenzene	13.060	155378	8.101 ng/ml
8) t m-Xylene	13.192	305884	16.349 ng/ml
9) t O-Xylene	13.919	298049	16.563 ng/ml
10) t 1,2,4-Trimethylbenzene	16.194	298657	16.753 ng/ml

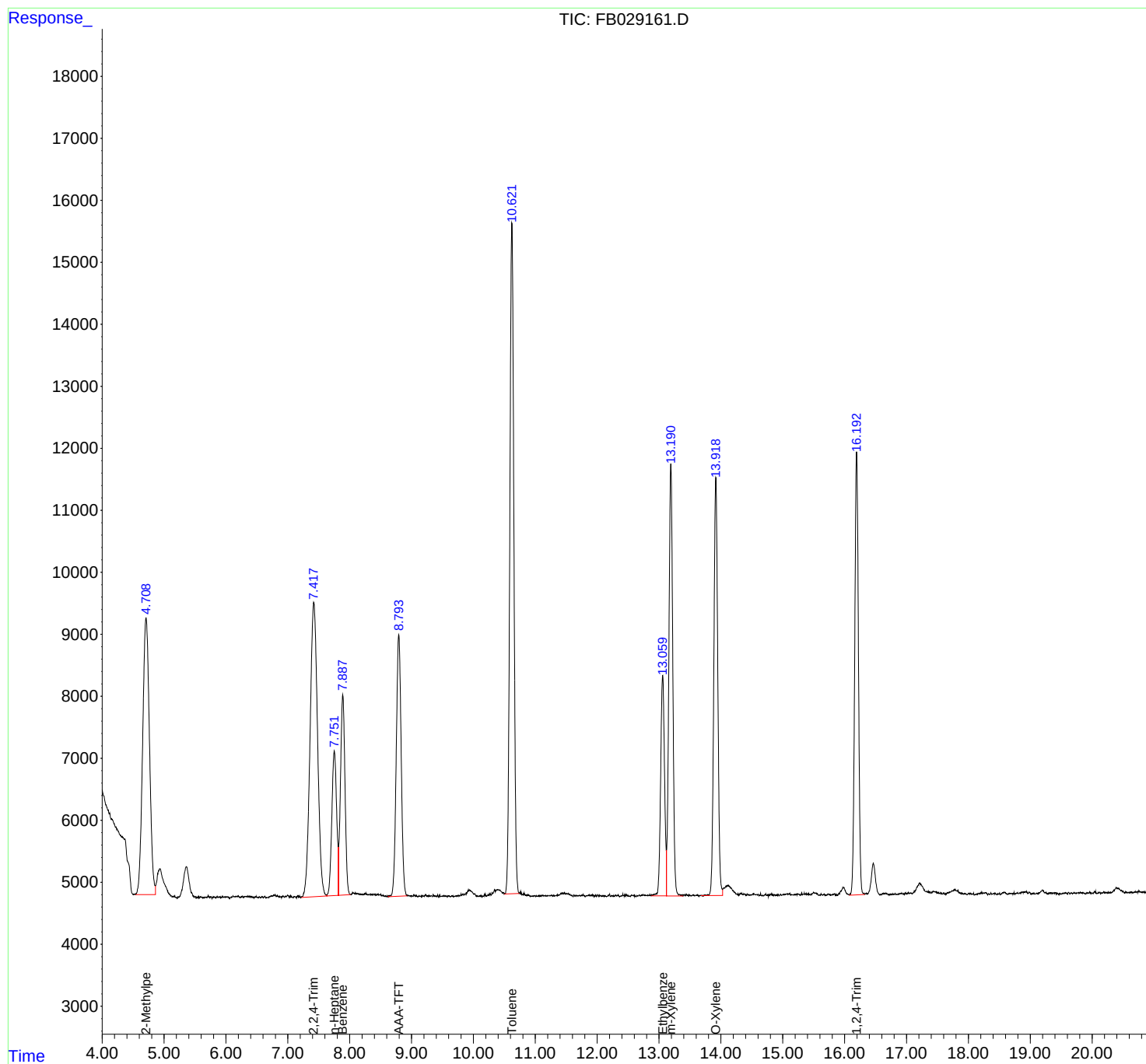
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029161.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 14:16
Operator : AJ/MA
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:21 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029161.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 14:16
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.710	4.537	4.861	BV	4464	339653	69.42%	12.103%
2	7.419	7.221	7.632	VV	4738	396971	81.14%	14.146%
3	7.753	7.632	7.819	VV	2334	125564	25.66%	4.474%
4	7.889	7.819	8.014	VV	3229	164309	33.58%	5.855%
5	8.794	8.623	8.927	BV	4218	232526	47.53%	8.286%
6	10.623	10.505	10.739	BV	10820	489264	100.00%	17.435%
7	13.060	12.875	13.121	PV	3553	155378	31.76%	5.537%
8	13.192	13.121	13.388	VV	6963	305884	62.52%	10.900%
9	13.919	13.675	14.027	BV	6746	298049	60.92%	10.621%
10	16.194	16.080	16.325	VV	7144	298657	61.04%	10.643%

Sum of corrected areas: 2806257

FB011723.M Tue Jan 24 00:02:33 2023



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

Analytical Sequence

Client: Louis Berger U.S., Inc., A WSP Company

SDG No.: O1233

Project: NYCDDC Phase II SCI Arthur Kill Road CEQR

Instrument ID: FID_B

GC Column: RTX-502.2 ID: 0.53 (mm)

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 8.7888					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	23 Jan 2023 10:27	FB029155.D	8.792	
VBF0123S2	VBF0123S2	23 Jan 2023 11:45	FB029157.D	8.794	
BSF0123S1	BSF0123S1	23 Jan 2023 12:22	FB029158.D	8.793	
WC-38	O1233-10	23 Jan 2023 13:02	FB029159.D	8.804	
BSF0123S2	BSF0123S2	23 Jan 2023 13:39	FB029160.D	8.795	
20 PPB GRO STD	20 PPB GRO STD	23 Jan 2023 14:16	FB029161.D	8.794	

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

QC Limits
(± 0.10 minutes)

Lower Limit
8.6888

Upper Limits
8.8888

QC SAMPLE DATA



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

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	VBF0123S2	SDG No.:	O1233
Lab Sample ID:	VBF0123S2	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	5
GPC Factor :		Test:	Gasoline Range Organics
PH :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB029157.D	50	01/23/23 11:45	FB012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	181	U	181	2250	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.7		50 - 150	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_B\Data\FB012323\
Data File : FB029157.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 11:45
Operator : AJ/MA
Sample : VBF0123S2 50X
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 3 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:01 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.794	228728	18.718 ng/ml
Target Compounds			

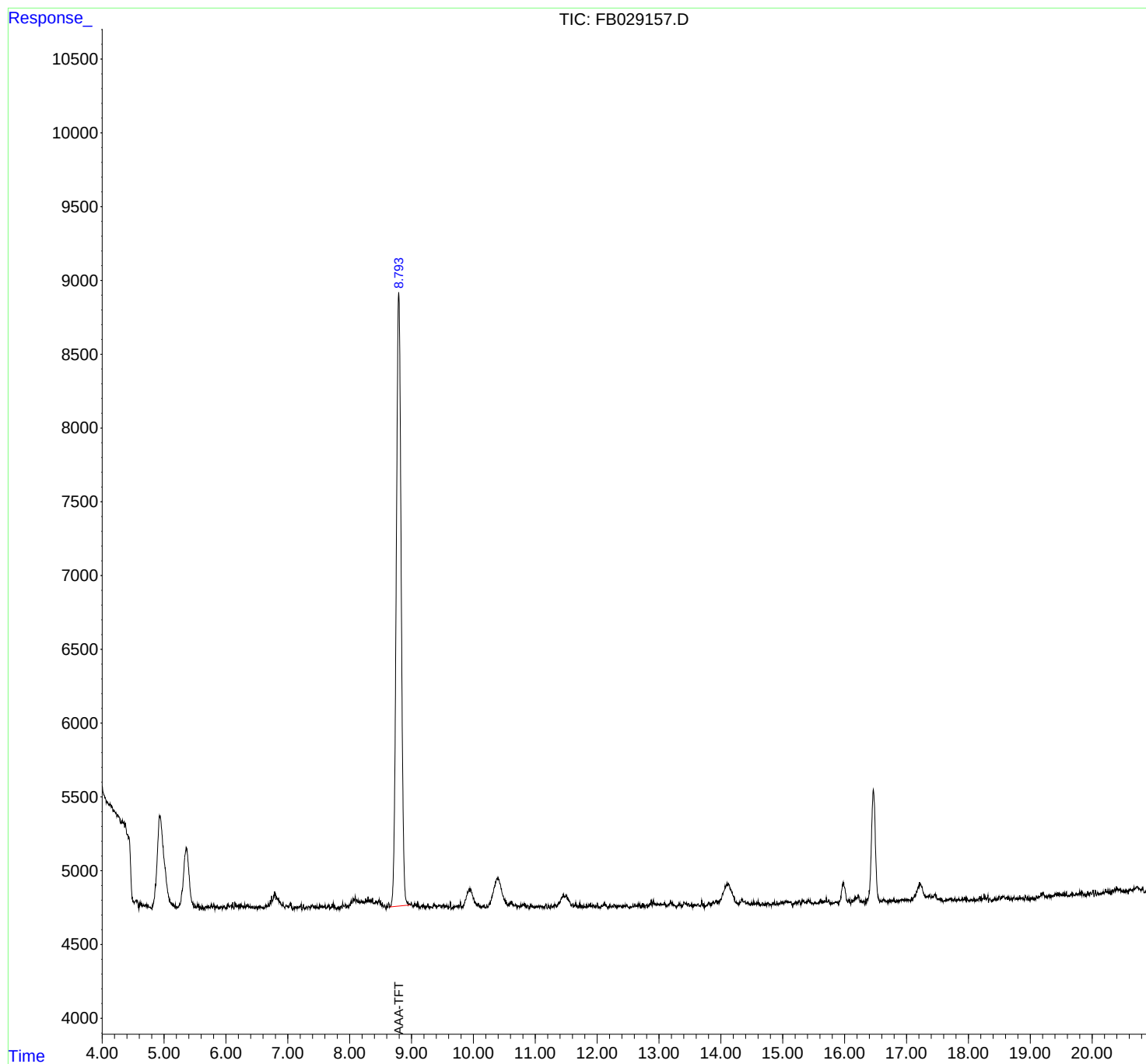
(f)=RT Delta > 1/2 Window

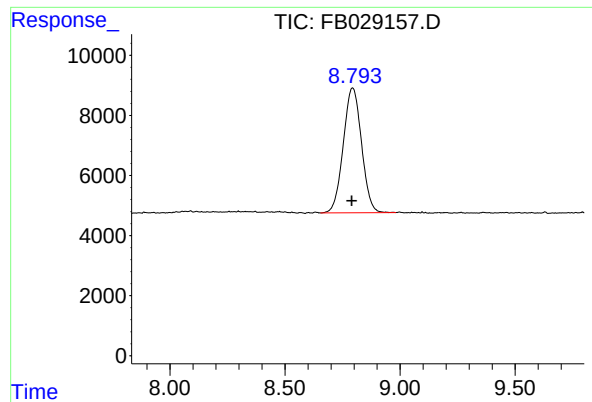
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029157.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 11:45
Operator : AJ/MA
Sample : VBF0123S2 50X
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 3 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:01 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um





#5 AAA-TFT

R.T.: 8.794 min

Delta R.T.: 0.004 min

Response: 228728

Conc: 18.72 ng/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029157.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 11:45
Sample : VBF0123S2 50X
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 3 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	8.794	8.654	8.982	BV	4155	228728	100.00%	100.000%
Sum of corrected areas:						228728		

FB011723.M Tue Jan 24 00:01:19 2023



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

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	BSF0123S1	SDG No.:	O1233
Lab Sample ID:	BSF0123S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	5
GPC Factor :		Test:	Gasoline Range Organics
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB029158.D	1	01/23/23 12:22	FB012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	150		4.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.6		50 - 150	93%	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_B\Data\FB012323\
 Data File : FB029158.D
 Signal(s) : FID2B.CH
 Acq On : 23 Jan 2023 12:22
 Operator : AJ/MA
 Sample : BSF0123S1
 Misc : 5.00G/5.00 ML DI WATER
 ALS Vial : 4 Sample Multiplier: 1

Integration File: Calibration.e
 Quant Time: Jan 23 23:50:06 2023
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
 Quant Title :
 QLast Update : Tue Jan 17 12:59:31 2023
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.793	226729	18.555 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.709	345277	23.584 ng/ml
2) t 2,2,4-Trimethylpentane	7.420	412465	25.996 ng/ml
3) t n-Heptane	7.752	122385	7.324 ng/ml
4) t Benzene	7.888	168066	7.905 ng/ml
6) t Toluene	10.622	491497	24.385 ng/ml
7) t Ethylbenzene	13.059	157400	8.206 ng/ml
8) t m-Xylene	13.192	315488	16.862 ng/ml
9) t O-Xylene	13.918	314585	17.482 ng/ml
10) t 1,2,4-Trimethylbenzene	16.194	327677	18.380 ng/ml

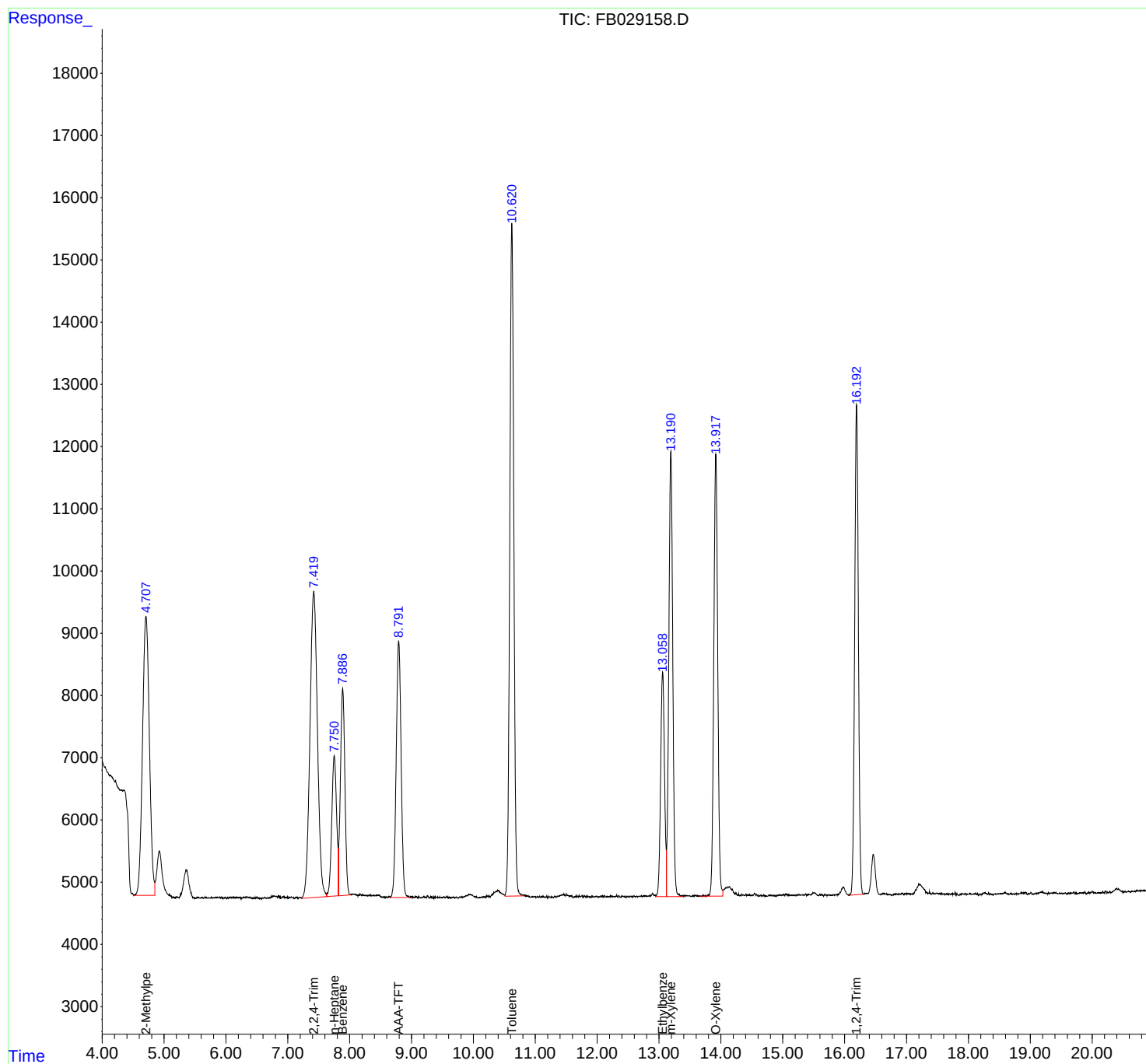
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029158.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 12:22
Operator : AJ/MA
Sample : BSF0123S1
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 4 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:06 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029158.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 12:22
Sample : BSF0123S1
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 4 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.709	4.512	4.852	PV	4483	345277	70.25%	11.982%
2	7.420	7.226	7.628	BV	4918	412465	83.92%	14.314%
3	7.752	7.628	7.818	VV	2255	122385	24.90%	4.247%
4	7.888	7.818	8.025	VV	3327	168066	34.19%	5.832%
5	8.793	8.656	8.971	VV	4122	226729	46.13%	7.868%
6	10.622	10.510	10.819	VV	10803	491497	100.00%	17.057%
7	13.059	12.948	13.120	VV	3610	157400	32.02%	5.462%
8	13.192	13.120	13.397	VV	7149	315488	64.19%	10.948%
9	13.918	13.667	14.031	BV	7097	314585	64.01%	10.917%
10	16.194	16.080	16.311	PV	7871	327677	66.67%	11.371%

Sum of corrected areas: 2881569

FB011723.M Tue Jan 24 00:01:41 2023



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

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	BSF0123S2	SDG No.:	O1233
Lab Sample ID:	BSF0123S2	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	5
GPC Factor :		Test:	Gasoline Range Organics
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB029160.D	1	01/23/23 13:39	FB012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	162		4.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.1		50 - 150	91%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
 Data File : FB029160.D
 Signal(s) : FID2B.CH
 Acq On : 23 Jan 2023 13:39
 Operator : AJ/MA
 Sample : BSF0123S2
 Misc : 5.00G/5.00 ML DI WATER
 ALS Vial : 6 Sample Multiplier: 1

Integration File: Calibration.e
 Quant Time: Jan 23 23:50:16 2023
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
 Quant Title :
 QLast Update : Tue Jan 17 12:59:31 2023
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.795	221829	18.154 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.710	378036	25.821 ng/ml
2) t 2,2,4-Trimethylpentane	7.422	460083	28.997 ng/ml
3) t n-Heptane	7.755	137145	8.208 ng/ml
4) t Benzene	7.890	187837	8.835 ng/ml
6) t Toluene	10.623	538480	26.716 ng/ml
7) t Ethylbenzene	13.059	167789	8.748 ng/ml
8) t m-Xylene	13.193	334686	17.888 ng/ml
9) t O-Xylene	13.919	330713	18.378 ng/ml
10) t 1,2,4-Trimethylbenzene	16.195	327530	18.372 ng/ml

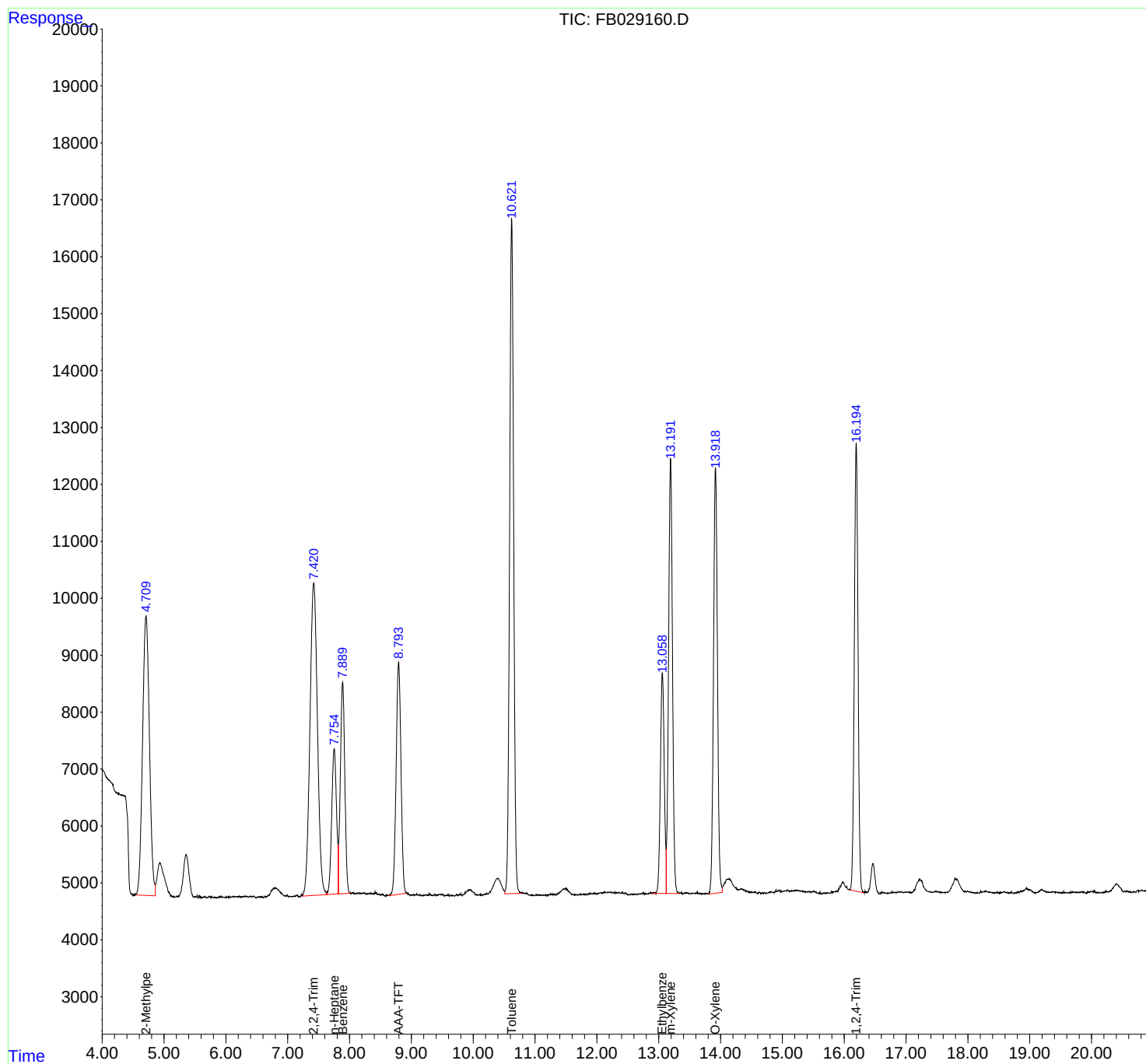
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029160.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 13:39
Operator : AJ/MA
Sample : BSF0123S2
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 6 Sample Multiplier: 1

Integration File: Calibration.e
Quant Time: Jan 23 23:50:16 2023
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Quant Title :
QLast Update : Tue Jan 17 12:59:31 2023
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB012323\
Data File : FB029160.D
Signal(s) : FID2B.CH
Acq On : 23 Jan 2023 13:39
Sample : BSF0123S2
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 6 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB011723.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.710	4.544	4.860	PV	4905	378036	70.20%	12.257%
2	7.422	7.245	7.632	VV	5486	460083	85.44%	14.918%
3	7.755	7.632	7.818	VV	2555	137145	25.47%	4.447%
4	7.890	7.818	8.011	VV	3718	187837	34.88%	6.090%
5	8.795	8.637	8.918	BV	4075	221829	41.20%	7.193%
6	10.623	10.510	10.789	VV	11858	538480	100.00%	17.460%
7	13.059	12.896	13.121	BV	3873	167789	31.16%	5.440%
8	13.193	13.121	13.335	VV	7639	334686	62.15%	10.852%
9	13.919	13.800	14.028	PV	7465	330713	61.42%	10.723%
10	16.195	16.082	16.318	BV	7860	327530	60.82%	10.620%

Sum of corrected areas: 3084128

FB011723.M Tue Jan 24 00:02:13 2023



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

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB011723

Review By	yogesh	Review On	1/17/2023 1:50:45 PM
Supervise By	Ankita	Supervise On	1/17/2023 3:06:42 PM
SubDirectory	FB011723	HP Acquire Method	HP Processing Method FB011723
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP21302,PP21485,PP21486,PP21487,PP21488,PP21489		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP21303,PP21490		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	5 GRO STD	FB029115.D	17 Jan 2023 9:03	AJ/MA	Ok
2	10 GRO STD	FB029116.D	17 Jan 2023 9:44	AJ/MA	Ok
3	20 GRO STD	FB029117.D	17 Jan 2023 10:30	AJ/MA	Ok
4	50 GRO STD	FB029118.D	17 Jan 2023 11:29	AJ/MA	Ok
5	100 GRO STD	FB029119.D	17 Jan 2023 12:11	AJ/MA	Ok
6	FB011723GROICV	FB029120.D	17 Jan 2023 13:28	AJ/MA	Ok

M : Manual Integration



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

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB012323

Review By	yogesh	Review On	1/23/2023 3:15:39 PM
Supervise By	Ankita	Supervise On	1/24/2023 9:18:15 AM
SubDirectory	FB012323	HP Acquire Method	HP Processing Method FB011723
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP21302,PP21485,PP21486,PP21487,PP21488,PP21489		
CCC	PP21507,PP21508		
Internal Standard/PEM			
ICV/I.BLK	PP21303,PP21490		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	20 PPB GRO STD	FB029155.D	23 Jan 2023 10:27	AJ/MA	Ok
2	VBF0123S1	FB029156.D	23 Jan 2023 11:08	AJ/MA	Ok
3	VBF0123S2	FB029157.D	23 Jan 2023 11:45	AJ/MA	Ok
4	BSF0123S1	FB029158.D	23 Jan 2023 12:22	AJ/MA	Ok
5	O1233-10	FB029159.D	23 Jan 2023 13:02	AJ/MA	Ok
6	BSF0123S2	FB029160.D	23 Jan 2023 13:39	AJ/MA	Ok
7	20 PPB GRO STD	FB029161.D	23 Jan 2023 14:16	AJ/MA	Ok

M : Manual Integration



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

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB011723

Review By	yogesh	Review On	1/17/2023 1:50:45 PM				
Supervise By	Ankita	Supervise On	1/17/2023 3:06:42 PM				
SubDirectory	FB011723	HP Acquire Method	HP Processing Method			FB011723	
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds		PP21302,PP21485,PP21486,PP21487,PP21488,PP21489					
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		PP21303,PP21490					
Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	5 GRO STD		FB029115.D	17 Jan 2023 9:03		AJ/MA	Ok
2	10 GRO STD		FB029116.D	17 Jan 2023 9:44		AJ/MA	Ok
3	20 GRO STD		FB029117.D	17 Jan 2023 10:30		AJ/MA	Ok
4	50 GRO STD		FB029118.D	17 Jan 2023 11:29		AJ/MA	Ok
5	100 GRO STD		FB029119.D	17 Jan 2023 12:11		AJ/MA	Ok
6	FB011723GROICV		FB029120.D	17 Jan 2023 13:28		AJ/MA	Ok

M : Manual Integration



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

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB012323

Review By	yogesh	Review On	1/23/2023 3:15:39 PM				
Supervise By	Ankita	Supervise On	1/24/2023 9:18:15 AM				
SubDirectory	FB012323	HP Acquire Method	HP Processing Method			FB011723	
STD. NAME		STD REF.#					
Tune/Reschk Initial Calibration Stds		PP21302,PP21485,PP21486,PP21487,PP21488,PP21489					
CCC Internal Standard/PEM		PP21507,PP21508					
ICV/I.BLK Surrogate Standard		PP21303,PP21490					
MS/MSD Standard LCS Standard							

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	20 PPB GRO STD		FB029155.D	23 Jan 2023 10:27		AJ/MA	Ok
2	VBF0123S1		FB029156.D	23 Jan 2023 11:08		AJ/MA	Ok
3	VBF0123S2		FB029157.D	23 Jan 2023 11:45		AJ/MA	Ok
4	BSF0123S1		FB029158.D	23 Jan 2023 12:22		AJ/MA	Ok
5	O1233-10		FB029159.D	23 Jan 2023 13:02		AJ/MA	Ok
6	BSF0123S2		FB029160.D	23 Jan 2023 13:39		AJ/MA	Ok
7	20 PPB GRO STD		FB029161.D	23 Jan 2023 14:16		AJ/MA	Ok

M : Manual Integration

**PERCENT SOLID**

Supervisor: Iwona

Analyst: jignesh

Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107

Time IN: 17:15

In Date: 01/20/2023

Weight Check 1.0g: 1.00

Weight Check 10g: 10.00

OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103

Time OUT: 08:30

Out Date: 01/21/2023

Weight Check 1.0g: 1.00

Weight Check 10g: 10.00

BalanceID: M SC-4

Thermometer ID: %SOLIDS-OVEN

QC:LB123747

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
O1229-01	OK-02-011923	1	1.12	8.72	9.84	8.73	87.3	
O1229-02	OK-02-011923-EPH-2	2	1.12	8.72	9.84	8.73	87.3	
O1230-01	BBC	3	1.15	8.45	9.6	9.47	98.5	
O1231-01	BBC	4	1.19	8.53	9.72	9.57	98.2	
O1232-01	B-P-17A	18	1.15	8.78	9.93	9.00	89.4	
O1232-02	B-P-17B	19	1.15	8.41	9.56	8.46	86.9	
O1232-03	WC-17	20	1.13	8.64	9.77	9.03	91.4	
O1232-04	B-P-18A	21	1.13	8.57	9.7	8.63	87.5	
O1232-05	B-P-18B	22	1.15	8.83	9.98	9.22	91.4	
O1232-06	B-P-19A	23	1.12	8.57	9.69	8.68	88.2	
O1232-07	B-P-19B	24	1.18	8.35	9.53	8.53	88.0	
O1232-08	B-P-35A	25	1.13	8.62	9.75	9.00	91.3	
O1232-09	B-P-35B	26	1.17	8.53	9.7	9.13	93.3	
O1232-10	DUP01	27	1.15	8.80	9.95	9.08	90.1	
O1233-02	B-P34A	28	1.13	8.76	9.89	8.6	85.3	
O1233-03	B-P34B	29	1.13	8.71	9.84	9.03	90.7	
O1233-04	B-P36A	30	1.16	8.75	9.91	9.00	89.6	
O1233-05	B-P36B	31	1.13	8.84	9.97	9.12	90.4	
O1233-06	B-P37A	32	1.18	8.60	9.78	8.74	87.9	
O1233-07	B-P37B	33	1.18	8.38	9.56	8.18	83.5	
O1233-08	B-P38A	34	1.12	8.66	9.78	8.85	89.3	
O1233-09	B-P38B	35	1.15	8.81	9.96	8.26	80.7	
O1233-10	WC-38	36	1.18	8.59	9.77	8.47	84.9	
O1233-11	B-P38C	37	1.15	8.82	9.97	8.73	85.9	
O1234-01	EO-02-11923	5	1.14	8.82	9.96	8.72	85.9	
O1234-02	EO-02-11923	6	1.12	8.54	9.66	8.48	86.2	
O1235-04	12X52	7	1.12	7.08	8.2	6.57	77.0	
O1235-05	12X53	8	1.16	5.17	6.33	5.91	91.9	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

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
O1235-06	12X54	9	1.11	8.50	9.61	5.73	54.4	
O1235-07	12X55	10	1.13	8.43	9.56	7.14	71.3	
O1237-01	COMP-1-2-3A	11	1.18	8.72	9.9	9.24	92.4	
O1237-02	3A	12	1.13	8.44	9.57	9.33	97.2	
O1238-01	RBRB22281-OILY-DEBRIS	13	1.00	1.00	2.00	2.00	100.0	OILY DEBRIS
O1239-01	BORING-3	14	1.17	8.73	9.9	8.29	81.6	
O1239-03	BORING-3-EPH-2	15	1.13	8.64	9.77	8.31	83.1	
O1240-01	TR-05-011923	16	1.18	8.50	9.68	8.38	84.7	
O1240-02	TR-05-011923-EPH-2	17	1.17	8.67	9.84	8.73	87.2	
O1241-01	34326-FRONT	38	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-02	34326-BACK	39	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-03	34327-FRONT	40	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-04	34327-BACK	41	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-05	34328-FRONT	42	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-06	34328BACK	43	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-07	343269-FRONT	44	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1241-08	34329-BACK	45	1.00	1.00	2.00	2.00	100.0	PILC REEL
O1243-01	TJRC-11823-B4-0-10	60	1.12	8.65	9.77	8.54	85.8	
O1243-02	TJRC-11823-B4-0-10	61	1.14	8.45	9.59	8.02	81.4	
O1243-03	TJRC-11823-B4-10-20	62	1.15	8.81	9.96	8.85	87.4	
O1243-04	TJRC-11823-B4-10-20	63	1.17	8.57	9.74	8.16	81.6	
O1243-05	TJRC-11923-B4-20-30	64	1.15	8.75	9.9	8.28	81.5	
O1243-06	TJRC-11923-B4-20-30	65	1.13	8.70	9.83	8.43	83.9	
O1243-07	TJRC-11923-B4-30-40	66	1.16	8.77	9.93	8.29	81.3	
O1243-08	TJRC-11923-B4-30-40	67	1.14	8.83	9.97	8.47	83.0	
O1244-01	VNJ-223	46	1.12	8.62	9.74	8.59	86.7	
O1244-02	VNJ-223	47	1.16	8.80	9.96	8.62	84.8	
O1248-05	SVOC-GPC-BLANK	50	1.00	1.00	2.00	2.00	100.0	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

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
O1248-06	PEST-GPC-BLANK	51	1.00	1.00	2.00	2.00	100.0	
O1248-07	PEST-GPC-BLANK-SPIKE	52	1.00	1.00	2.00	2.00	100.0	
O1248-08	PCB-GPC-BLANK	53	1.00	1.00	2.00	2.00	100.0	
O1248-09	PCB-GPC-BLANK-SPIKE	54	1.00	1.00	2.00	2.00	100.0	
O1248-10	SVOC-GPC2-BLANK	55	1.00	1.00	2.00	2.00	100.0	
O1248-11	PEST-GPC2-BLANK	56	1.00	1.00	2.00	2.00	100.0	
O1248-12	PEST-GPC2-BLANK-SPIKE	57	1.00	1.00	2.00	2.00	100.0	
O1248-13	PCB-GCP2-BLANK	58	1.00	1.00	2.00	2.00	100.0	
O1248-14	PCB-GCP2-BLANK-SPIKE	59	1.00	1.00	2.00	2.00	100.0	
O1251-01	COMP-1	68	1.13	8.43	9.56	8.44	86.7	
O1251-03	EPH-1	69	1.11	8.51	9.62	8.47	86.5	
O1251-05	TOT-VOC-1	70	1.00	1.00	2.00	2.00	100.0	no jar
O1251-06	TOT-VOC-2	71	1.00	1.00	2.00	2.00	100.0	no jar
O1251-07	COMP-2	72	1.12	8.74	9.86	8.75	87.3	
O1251-09	EPH-2	73	1.14	8.80	9.94	8.8	87.0	
O1251-11	TOT-VOC-3	74	1.00	1.00	2.00	2.00	100.0	no jar
O1251-12	TOT-VOC-4	75	1.00	1.00	2.00	2.00	100.0	no jar
O1252-01	MH-9	48	1.14	8.84	9.98	9.47	94.2	
O1252-02	MH-9-EPH	49	1.12	8.46	9.58	8.67	89.2	
O1253-01	SU-04-012023	79	1.12	8.47	9.59	8.99	92.9	
O1253-02	SU-04-012023-EPH-2	80	1.18	8.69	9.87	9.17	91.9	
O1254-01	HR-04-012023	81	1.13	8.66	9.79	9.09	91.9	
O1254-02	HR-04-012023-EPH-2	82	1.16	8.69	9.85	8.95	89.6	
O1255-01	BORING-1	76	1.18	8.61	9.79	8.32	82.9	
O1255-03	BORING-1-EPH-2	77	1.11	8.78	9.89	8.35	82.5	
O1256-01	OR-02-012023	83	1.15	8.81	9.96	9.09	90.1	
O1256-02	OR-02-012023-EPH-2	84	1.1	8.87	9.97	8.66	85.2	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/23/2023

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 01/20/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 01/21/2023
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: %SOLIDS-OVEN

QC:LB123747

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
O1258-01	WASTE-VOA-2	78	1.12	8.58	9.7	8.62	87.4	

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

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023

WorkList ID : 166715

Department : Wet-Chemistry

Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/24/2023	Solid	O1229-01	Percent Solids	Cool 4 deg C	PSEG05	N11	OK-02-011923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1229-02	Percent Solids	Cool 4 deg C	PSEG05	N11	OK-02-011923-EPH-2	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1230-01	Percent Solids	Cool 4 deg C	EART12	N11	BBC	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1231-01	Percent Solids	Cool 4 deg C	EART12	N11	BBC	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1232-01	Percent Solids	Cool 4 deg C	loui01	N11	B-P-17A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-02	Percent Solids	Cool 4 deg C	loui01	N11	B-P-17B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-03	Percent Solids	Cool 4 deg C	loui01	N11	WC-17	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-04	Percent Solids	Cool 4 deg C	loui01	N11	B-P-18A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-05	Percent Solids	Cool 4 deg C	loui01	N11	B-P-18B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-06	Percent Solids	Cool 4 deg C	loui01	N11	B-P-19A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-07	Percent Solids	Cool 4 deg C	loui01	N11	B-P-19B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-08	Percent Solids	Cool 4 deg C	loui01	N11	B-P-35A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-09	Percent Solids	Cool 4 deg C	loui01	N11	B-P-35B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1232-10	Percent Solids	Cool 4 deg C	loui01	N11	DUP01	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-02	Percent Solids	Cool 4 deg C	loui01	N11	B-P-34A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-03	Percent Solids	Cool 4 deg C	loui01	N11	B-P-34B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-04	Percent Solids	Cool 4 deg C	loui01	N11	B-P-36A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-05	Percent Solids	Cool 4 deg C	loui01	N11	B-P-36B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-06	Percent Solids	Cool 4 deg C	loui01	N11	B-P-37A	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-07	Percent Solids	Cool 4 deg C	loui01	N11	B-P-37B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-08	Percent Solids	Cool 4 deg C	loui01	N11	B-P-38A	01/18/2023	Chemtech -SO

Date/Time 01-20-23 15:45

Raw Sample Received by: 70 (wjc)

Raw Sample Relinquished by: JDCSM

Date/Time

01-20-23

Raw Sample Received by:

Raw Sample Relinquished by:

123747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023 WorkList ID : 166715 Department : Wet-Chemistry Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/26/2023	Solid	O1233-09	Percent Solids	Cool 4 deg C	loui01	N11	B-P38B	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-10	Percent Solids	Cool 4 deg C	loui01	N11	WC-38	01/18/2023	Chemtech -SO
01/26/2023	Solid	O1233-11	Percent Solids	Cool 4 deg C	loui01	N11	B-P38C	01/18/2023	Chemtech -SO
01/24/2023	Solid	O1234-01	Percent Solids	Cool 4 deg C	PSEG05	N11	EO-02-11923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1234-02	Percent Solids	Cool 4 deg C	PSEG05	N11	EO-02-11923	01/19/2023	Chemtech -SO
01/28/2023	Solid	O1235-04	Percent Solids	Cool 4 deg C	ATCE02	N11	12X52	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-05	Percent Solids	Cool 4 deg C	ATCE02	N11	12X53	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-06	Percent Solids	Cool 4 deg C	ATCE02	N11	12X54	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1235-07	Percent Solids	Cool 4 deg C	ATCE02	N11	12X55	01/18/2023	Chemtech -SO
01/24/2023	Solid	O1237-01	Percent Solids	Cool 4 deg C	PSEG03	N12	COMP-1-2-3A	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1237-02	Percent Solids	Cool 4 deg C	PSEG03	N12	3A	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1238-01	Percent Solids	Cool 4 deg C	PSEG03	N12	RBRB22281-OILY-DEBRIS	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1239-01	Percent Solids	Cool 4 deg C	PSEG03	N12	BORING-3	01/19/2023	Chemtech -SO
01/26/2023	Solid	O1239-03	Percent Solids	Cool 4 deg C	PSEG03	N12	BORING-3-EPH-2	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1240-01	Percent Solids	Cool 4 deg C	PSEG05	N12	TR-05-011923	01/19/2023	Chemtech -SO
01/24/2023	Solid	O1240-02	Percent Solids	Cool 4 deg C	PSEG05	N12	TR-05-011923-EPH-2	01/19/2023	Chemtech -SO
01/27/2023	Solid	O1241-01	Percent Solids	Cool 4 deg C	PSEG03	N11	34326-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-02	Percent Solids	Cool 4 deg C	PSEG03	N11	34326-BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-03	Percent Solids	Cool 4 deg C	PSEG03	N11	34327-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-04	Percent Solids	Cool 4 deg C	PSEG03	N11	34327-BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-05	Percent Solids	Cool 4 deg C	PSEG03	N11	34328-FRONT	01/20/2023	Chemtech -SO

Date/Time 01-20-23 15:45
 Raw Sample Received by: JO (WCC)
 Raw Sample Relinquished by: JO CSM

Date/Time 01-20-23 17:25
 Raw Sample Received by: JDCSM
 Raw Sample Relinquished by: JO (WCC)

123747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023

WorkList ID : 166715

Department : Wet-Chemistry

Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/27/2023	Solid	O1241-06	Percent Solids	Cool 4 deg C	PSEG03	N11	34328BACK	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-07	Percent Solids	Cool 4 deg C	PSEG03	N11	343269-FRONT	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1241-08	Percent Solids	Cool 4 deg C	PSEG03	N11	34329-BACK	01/20/2023	Chemtech -SO
01/28/2023	Solid	O1243-01	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-0-10	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-02	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-0-10	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-03	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-10-20	01/18/2023	Chemtech -SO
01/28/2023	Solid	O1243-04	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-10-20	01/18/2023	Chemtech -SO
01/29/2023	Solid	O1243-05	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-20-30	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-06	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-20-30	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-07	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-30-40	01/19/2023	Chemtech -SO
01/29/2023	Solid	O1243-08	Percent Solids	Cool 4 deg C	ENTE01	N11	TJRC-11823-B4-30-40	01/19/2023	Chemtech -SO
01/27/2023	Solid	O1244-01	Percent Solids	Cool 4 deg C	PSEG03	N11	VNJ-223	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1244-02	Percent Solids	Cool 4 deg C	PSEG03	N11	VNJ-223	01/20/2023	Chemtech -SO
01/23/2023	Solid	O1248-05	Percent Solids	Cool 4 deg C	CHEM02	N11	SVOC-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-06	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-07	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-08	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GPC-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-09	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GPC-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-10	Percent Solids	Cool 4 deg C	CHEM02	N11	SVOC-GPC2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-11	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-12	Percent Solids	Cool 4 deg C	CHEM02	N11	PEST-GPC2-BLANK-SPIKE	01/13/2023	Chemtech -SO

Date/Time 01/20/23 15:45

Raw Sample Received by: JP (WC)

Raw Sample Relinquished by: JDCSM2

Date/Time 01/20/23

Raw Sample Received by: JDCSM2

Raw Sample Relinquished by: JP (WC)

2523747

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-012023 WorkList ID : 166715 Department : Wet-Chemistry Date : 01-20-2023 09:10:27

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
01/23/2023	Solid	O1248-13	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GCP2-BLANK	01/13/2023	Chemtech -SO
01/23/2023	Solid	O1248-14	Percent Solids	Cool 4 deg C	CHEM02	N11	PCB-GCP2-BLANK-SPIKE	01/13/2023	Chemtech -SO
01/25/2023	Solid	O1251-01	Percent Solids	Cool 4 deg C	SOUN03	N11	COMP-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-03	Percent Solids	Cool 4 deg C	SOUN03	N11	EPH-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-05	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-1	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-06	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-07	Percent Solids	Cool 4 deg C	SOUN03	N11	COMP-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-09	Percent Solids	Cool 4 deg C	SOUN03	N11	EPH-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-11	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-3	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1251-12	Percent Solids	Cool 4 deg C	SOUN03	N11	TOT-VOC-4	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1252-01	Percent Solids	Cool 4 deg C	PSEG03	N11	MH-9	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1252-02	Percent Solids	Cool 4 deg C	PSEG03	N11	MH-9-EPH	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1253-01	Percent Solids	Cool 4 deg C	PSEG05	N13	SU-04-012023	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1253-02	Percent Solids	Cool 4 deg C	PSEG05	N13	SU-04-012023-EPH-2	01/20/2023	Chemtech -SO
01/26/2023	Solid	O1254-01	Percent Solids	Cool 4 deg C	PSEG05	N11	HR-04-012023	01/20/2023	Chemtech -SO
01/26/2023	Solid	O1254-02	Percent Solids	Cool 4 deg C	PSEG05	N11	HR-04-012023-EPH-2	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1255-01	Percent Solids	Cool 4 deg C	PSEG03	N11	BORING-1	01/20/2023	Chemtech -SO
01/27/2023	Solid	O1255-03	Percent Solids	Cool 4 deg C	PSEG03	N11	BORING-1-EPH-2	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1256-01	Percent Solids	Cool 4 deg C	PSEG05	N11	OR-02-012023	01/20/2023	Chemtech -SO
01/25/2023	Solid	O1256-02	Percent Solids	Cool 4 deg C	PSEG05	N11	OR-02-012023-EPH-2	01/20/2023	Chemtech -SO
01/23/2023	Solid	O1258-01	Percent Solids	Cool 4 deg C	RMJE02	N11	WASTE-VOA-2	01/20/2023	Chemtech -SO

Date/Time 01-20-23 15:43
Raw Sample Received by: JP (wc)
Raw Sample Relinquished by: JDCSM

Date/Time 01-20-23 17:25
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: JP (wc)



Prep Standard - Chemical Standard Summary

Order ID : O1233

Test : Gasoline Range Organics

Prepbatch ID :

Sequence ID/Qc Batch ID: FB012323,

Standard ID :

PP21302,PP21303,PP21304,PP21485,PP21486,PP21487,PP21488,PP21489,PP21490,PP21507,PP21508,

Chemical ID :

P9822,P9823,V11250,V13214,W2606,

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

<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>
231	10 PPM GRO STD 1ST SOURCE	PP21302	12/19/2022	06/19/2023	Yogesh Patel	None	None	Ankita Jodhani 12/20/2022
<u>FROM</u> 0.11100ml of P9822 + 9.89000ml of V13214 = 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>
233	10 PPM GRO STD 2nd SOURCE	PP21303	12/19/2022	06/19/2023	Yogesh Patel	None	None	Ankita Jodhani 12/20/2022
<u>FROM</u> 0.11100ml of P9823 + 9.89000ml of V13214 = Final Quantity: 10.000 ml								

CHEMTECH

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

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>
3619	25 PPM AAA-TFT Surg	PP21304	12/19/2022	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
12/20/2022								

FROM 0.10000ml of V11250 + 9.90000ml of V13214 = 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>
238	5 PPB ICC GRO STD	PP21485	01/17/2023	02/17/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.00100ml of PP21304 + 0.00250ml of PP21302 = Final Quantity: 5.004 ml

CHEMTECH

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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>
237	10 PPB ICC GRO STD	PP21486	01/17/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.00200ml of PP21304 + 0.00500ml of PP21302 = Final Quantity: 5.007 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>
239	20 PPB ICC GRO STD	PP21487	01/17/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.00400ml of PP21304 + 0.01000ml of PP21302 = Final Quantity: 5.014 ml

CHEMTECH

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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>
235	50 PPB ICC GRO STD	PP21488	01/17/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.01000ml of PP21304 + 0.02500ml of PP21302 = Final Quantity: 5.035 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>
234	100 PPB ICC GRO STD	PP21489	01/17/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.02000ml of PP21304 + 0.05000ml of PP21302 = Final Quantity: 5.070 ml

CHEMTECH

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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>
240	20 PPB ICV GRO STD	PP21490	01/17/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.00400ml of PP21304 + 0.01000ml of PP21303 = Final Quantity: 5.014 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>
241	20 PPB CCC GRO STD	PP21507	01/23/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani
01/24/2023								

FROM 5.00000ml of W2606 + 0.00400ml of PP21304 + 0.01000ml of PP21302 = Final Quantity: 5.014 ml

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

<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>
241	20 PPB CCC GRO STD	PP21508	01/23/2023	06/12/2023	Yogesh Patel	None	None	Ankita Jodhani 01/24/2023
<u>FROM</u>	5.00000ml of W2606 + 0.00400ml of PP21304 + 0.01000ml of PP21302 = Final Quantity: 5.014 ml							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30065 / GRO Mix (EPA)	A0155991	01/07/2023	07/07/2022 / yogesh	09/11/2020 / DHAVAL	P9822

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30065 / GRO Mix (EPA)	A0155991	01/07/2023	07/07/2022 / yogesh	09/11/2020 / DHAVAL	P9823

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30068 / VOA Mix, a, a, a-trifluorotoluene 2500ug/ml, P&T methanol, 1ml	A0158026	06/19/2023	03/08/2022 / Ankita	09/11/2020 / DHAVAL	V11250

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22C2362001	06/12/2023	12/12/2022 / SAM	09/13/2022 / SAM	V13214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



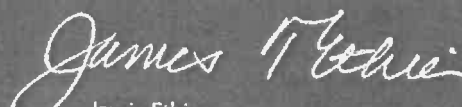
Material No.: 9077-02
Batch No.: 22C2362001
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	< 0.1 ppm
Titration Acid (μeq/g)	≤ 0.3	0.3
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

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

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700
Page 1 of 1



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

1st source

DP

P9817

To

10

P9826

Catalog No. : 30065 **Lot No.:** A0155991

Description : Gasoline Range Organics Mix (EPA)

Gasoline Range Organics Mix (EPA) 500 - 1500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Methylpentane CAS # 107-83-5 (Lot MKCB1674V) Purity 98%	1,505.3 µg/mL	+/- 8.9409 µg/mL Gravimetric +/- 84.4194 µg/mL Unstressed +/- 86.3938 µg/mL Stressed
2	2,2,4-Trimethylpentane (isooctane) CAS # 540-84-1 (Lot SHBD2922V) Purity 99%	1,504.0 µg/mL	+/- 8.9333 µg/mL Gravimetric +/- 84.3476 µg/mL Unstressed +/- 86.3203 µg/mL Stressed
3	n-Heptane (C7) CAS # 142-82-5 (Lot SHBK8626) Purity 98%	500.8 µg/mL	+/- 2.9745 µg/mL Gravimetric +/- 28.0848 µg/mL Unstressed +/- 28.7417 µg/mL Stressed
4	Benzene CAS # 71-43-2 (Lot SHBK5679) Purity 99%	501.0 µg/mL	+/- 2.9758 µg/mL Gravimetric +/- 28.0972 µg/mL Unstressed +/- 28.7543 µg/mL Stressed
5	Toluene CAS # 108-88-3 (Lot MKCH9232) Purity 99%	1,505.0 µg/mL	+/- 8.9392 µg/mL Gravimetric +/- 84.4037 µg/mL Unstressed +/- 86.3777 µg/mL Stressed
6	Ethylbenzene CAS # 100-41-4 (Lot SHBJ4278) Purity 99%	502.0 µg/mL	+/- 2.9817 µg/mL Gravimetric +/- 28.1533 µg/mL Unstressed +/- 28.8117 µg/mL Stressed
7	m-Xylene CAS # 108-38-3 (Lot SHBJ8743) Purity 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL Gravimetric +/- 56.3065 µg/mL Unstressed +/- 57.6234 µg/mL Stressed

8	o-Xylene		1,008.0 µg/mL	+/- 5.9872	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBK7739)		+/- 56.5308	µg/mL	Unstressed
	Purity 99%			+/- 57.8530	µg/mL	Stressed
9	1,2,4-Trimethylbenzene		1,004.5 µg/mL	+/- 5.9664	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)		+/- 56.3345	µg/mL	Unstressed
	Purity 98%			+/- 57.6521	µg/mL	Stressed
Solvent:	P&T Methanol					
	CAS # 67-56-1					
	Purity 99%					

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

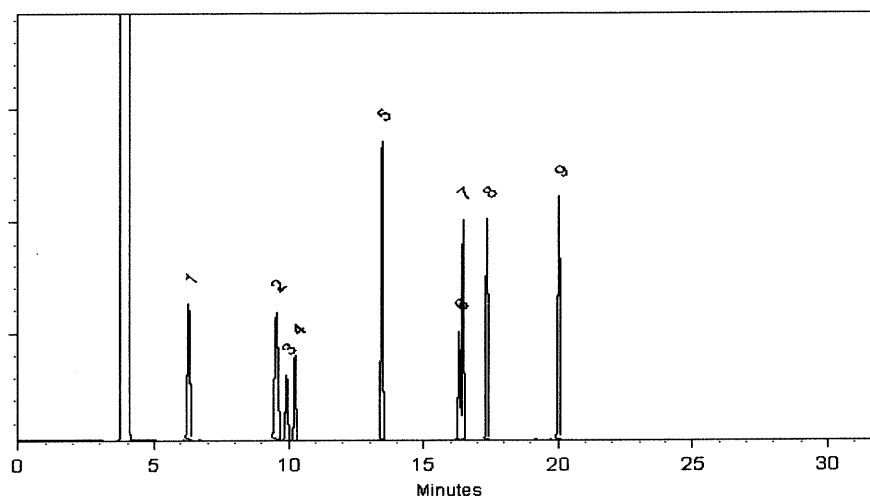
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°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.

Miranda Kline
Miranda Kline - Operations Technician I

Date Mixed: 19-Dec-2019 Balance: 1127510105

Feng-Yun Lo
Feng-Yun Lo - QC Analyst

Date Passed: 23-Dec-2019

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



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

1st source

DP

P9817

To

10

P9826

Catalog No. : 30065 **Lot No.:** A0155991

Description : Gasoline Range Organics Mix (EPA)

Gasoline Range Organics Mix (EPA) 500 - 1500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Methylpentane CAS # 107-83-5 (Lot MKCB1674V) Purity 98%	1,505.3 µg/mL	+/- 8.9409 µg/mL Gravimetric +/- 84.4194 µg/mL Unstressed +/- 86.3938 µg/mL Stressed
2	2,2,4-Trimethylpentane (isooctane) CAS # 540-84-1 (Lot SHBD2922V) Purity 99%	1,504.0 µg/mL	+/- 8.9333 µg/mL Gravimetric +/- 84.3476 µg/mL Unstressed +/- 86.3203 µg/mL Stressed
3	n-Heptane (C7) CAS # 142-82-5 (Lot SHBK8626) Purity 98%	500.8 µg/mL	+/- 2.9745 µg/mL Gravimetric +/- 28.0848 µg/mL Unstressed +/- 28.7417 µg/mL Stressed
4	Benzene CAS # 71-43-2 (Lot SHBK5679) Purity 99%	501.0 µg/mL	+/- 2.9758 µg/mL Gravimetric +/- 28.0972 µg/mL Unstressed +/- 28.7543 µg/mL Stressed
5	Toluene CAS # 108-88-3 (Lot MKCH9232) Purity 99%	1,505.0 µg/mL	+/- 8.9392 µg/mL Gravimetric +/- 84.4037 µg/mL Unstressed +/- 86.3777 µg/mL Stressed
6	Ethylbenzene CAS # 100-41-4 (Lot SHBJ4278) Purity 99%	502.0 µg/mL	+/- 2.9817 µg/mL Gravimetric +/- 28.1533 µg/mL Unstressed +/- 28.8117 µg/mL Stressed
7	m-Xylene CAS # 108-38-3 (Lot SHBJ8743) Purity 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL Gravimetric +/- 56.3065 µg/mL Unstressed +/- 57.6234 µg/mL Stressed

8	o-Xylene		1,008.0 µg/mL	+/- 5.9872	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBK7739)		+/- 56.5308	µg/mL	Unstressed
	Purity 99%			+/- 57.8530	µg/mL	Stressed
9	1,2,4-Trimethylbenzene		1,004.5 µg/mL	+/- 5.9664	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)		+/- 56.3345	µg/mL	Unstressed
	Purity 98%			+/- 57.6521	µg/mL	Stressed
Solvent: P&T Methanol						
	CAS # 67-56-1					
	Purity 99%					

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

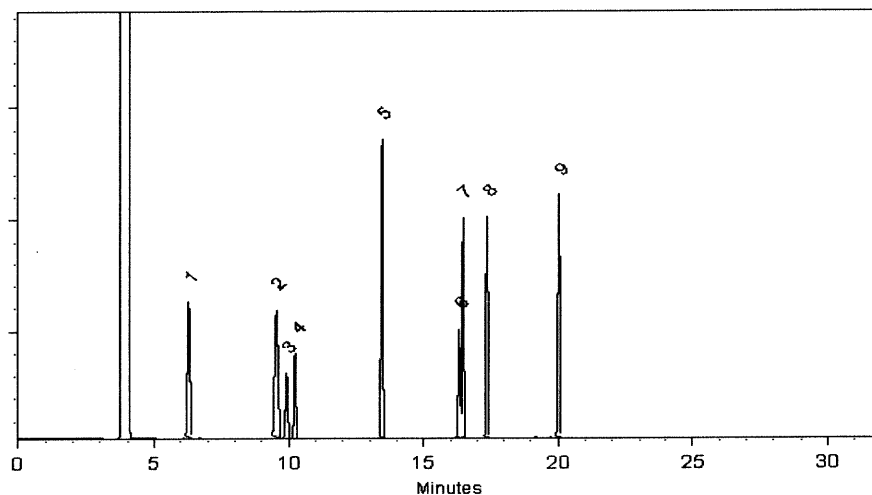
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°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.

Miranda Kline
Miranda Kline - Operations Technician I

Date Mixed: 19-Dec-2019

Balance: 1127510105

Feng-Yun Lo
Feng-Yun Lo - QC Analyst

Date Passed: 23-Dec-2019

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



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. : 30068 Lot No.: A0158026
Description : a,a,a-Trifluorotoluene Standard
a,a,a-Trifluorotoluene 2500µg/mL, P & T Methanol, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : May 31, 2028 Storage: 0°C or colder

DD
VII250
TO
VII254
(S)

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	a,a,a-Trifluorotoluene CAS # 98-08-8 Purity 99% (Lot SHBJ9102)	2,514.0 µg/mL	+/- 14.9324 µg/mL Gravimetric +/- 140.9906 µg/mL Unstressed +/- 144.2881 µg/mL Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

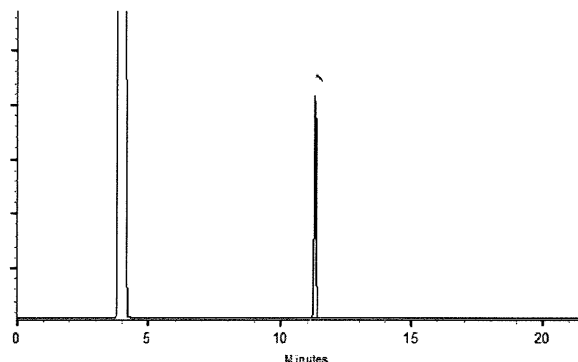
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

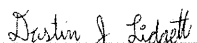
Inj. Temp:
200°C

Det. Temp:
250°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.


Dustin Lidgett - Mix Technician

Date Mixed: 20-Feb-2020

Balance: B251644995


Fang-Yun Lo - QC Analyst

Date Passed: 24-Feb-2020

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

SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 78-8922

www.chemtech.net

Chemtech Project Number:

01232/33

COC Number:

CLIENT INFORMATION

COMPANY: Louis Berger dba WSP USA Inc.

ADDRESS: 350 Mt. Kemble Ave

CITY: Morristown STATE: NJ ZIP: 07962

ATTENTION: Jonathan Ganz (Jon.Ganz@wsp.com)

PHONE: 212-612-7995

FAX:

PROJECT INFORMATION

PROJECT NAME: HWR1140A PCSMP Ph II SCI

PROJECT #: 31202661.297 Task 02 LOCATION: Staten Island

PROJECT MANAGER: Jon Ganz

E-MAIL: Jon.Ganz@wsp.com

PHONE: 212-612-7995

FAX:

BILLING INFORMATION

BILL TO: Louis Berger

PO# 31202661.297 Task 02

ADDRESS: 350 Mt. Kemble Ave

CITY: Morristown

STATE: NJ ZIP: 07962

ATTENTION: Jon Ganz

PHONE: 212-612-7995

DATA TURNAROUND INFORMATION

HARD COPY: _____ DAYS*
EDD See Contract Rates below _____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

TCL VOC - 2 days

TCL SVOC - 5 days

PAH - 5 days

TPH GRO/DRO - 3 days

TAL Metals - 5 Days

PCBs and Pesticides - 5 Day

TCLP RCRA Metals - 5 Day

RCRA Characteristics and Paint Filter - 3 Days

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____

Level 2

☐ EDD Format

ANALYSIS

TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8) EPA 1311/ 6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B)	Paint Filter Test (EPA 9095B)
1	2	3	4	5	6	7	8	9	

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	Preservatives									Comments ← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	B-P17A	507		X	1/18/23	0950	1	X	X	X	X	X					
2.	B-P17B	508		X	1/18/23	1005	1	X	X	X	X	X					
3.	W017	509	X		1/18/23	1010	1						X	X	X	X	
4.	B-P18A			X	1/18/23	1025		X	X	X	X	X					
5.	B-P18B			X	1/18/23	1045		X	X	X	X	X					
6.	B-P19A			X	1/18/23	1125		X	X	X	X	X					
7.	B-P19B			X	1/18/23	1135		X	X	X	X	X					
8.	B-P35A			X	1/18/23	1225		X	X	X	X	X					
9.	B-P35B			X	1/18/23	1245		X	X	X	X	X					
10.	DUPO1			X				X	X	X	X	X					

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	1333	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>3.0</u>
1.	1/19/23		1-19-23	MeOH extraction requires an additional 4oz. Jar for percent solid
RELINQUISHED BY	DATE/TIME	RECEIVED BY		Comments:
2.	1-19-23	2.		
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY		SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
3.	1-19-23	3.		CHEMTECH: ☐ Picked Up ☐ Overnight
				Shipment Complete ☐ YES ☐ NO

Page 1 of 3

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

CHEMTECH CHAIN OF CUSTODY RECORD		284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 78-8922 www.chemtech.net		Chemtech Project Number: <u>01232/33</u>																				
CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION																				
COMPANY: Louis Berger dba WSP USA Inc.		PROJECT NAME: HWR1140A PCSMP Ph II SCI		BILL TO: Louis Berger PO# 31202661.297 Task 02																				
ADDRESS: 350 Mt. Kemble Ave		PROJECT #: 31202661.297 Task 02 LOCATION: Staten Island		ADDRESS: 350 Mt. Kemble Ave																				
CITY: Morristown STATE: NJ ZIP: 07962		PROJECT MANAGER: Jon Ganz		CITY: Morristown STATE: NJ ZIP: 07962																				
ATTENTION: Jonathan Ganz (Jon.Ganz@wsp.com)		E-MAIL: Jon.Ganz@wsp.com		ATTENTION: Jon Ganz PHONE: 212-612-7995																				
PHONE: 212-612-7995 FAX:		PHONE: 212-612-7995 FAX:																						
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS																				
FAX: _____ DAYS HARD COPY: _____ DAYS* EDD See Contract Rates below DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS TCL VOC - 2 days TCL SVOC - 5 days PAH - 5 days TPH GRO/DRO - 3 days TAL Metals - 5 Days PCBs and Pesticides - 5 Day TCLP RCRA Metals - 5 Day RCRA Characteristics and Paint Filter - 3 Days		☐ RESULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☐ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ Level 2 ☐ EDD Format _____		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TCL VOC (8260C)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TCL SVOC (8270C/625)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TCL Pest (8081A/608)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">PCB (3550B, 8082/608)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TAL Metals (7471A and 6010B)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">PCBs (8082), PAHs (8270)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP Metals (RCRA 8)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">EPA 1311/6010B</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-DRO/GRO (8015B), Paint Filter Test (EPA 9095B)</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td> </tr> </table>		TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8)	EPA 1311/6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B), Paint Filter Test (EPA 9095B)	1	2	3	4	5	6	7	8	9
TCL VOC (8260C)	TCL SVOC (8270C/625)	TCL Pest (8081A/608)	PCB (3550B, 8082/608)	TAL Metals (7471A and 6010B)	PCBs (8082), PAHs (8270)	TCLP Metals (RCRA 8)	EPA 1311/6010B	RCRA Char- EPA 9012B/9034, 1030/1010A, 9045C, 9095B	TPH-DRO/GRO (8015B), Paint Filter Test (EPA 9095B)															
1	2	3	4	5	6	7	8	9																
				PRESERVATIVES																				
				COMMENTS																				
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">SAMPLE TYPE</th> <th colspan="2">SAMPLE COLLECTION</th> <th rowspan="2"># of Bottles</th> </tr> <tr> <th>COMP</th> <th>GRAB</th> <th>DATE</th> <th>TIME</th> </tr> </table>	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	COMP	GRAB	DATE	TIME	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1</td><td style="text-align: center;">2</td><td style="text-align: center;">3</td><td style="text-align: center;">4</td><td style="text-align: center;">5</td><td style="text-align: center;">6</td><td style="text-align: center;">7</td><td style="text-align: center;">8</td><td style="text-align: center;">9</td> </tr> </table>		1	2	3	4	5	6	7	8	9	<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles																				
COMP	GRAB	DATE	TIME																					
1	2	3	4	5	6	7	8	9																
1.	B-P38C	soil	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 30px;"></td> <td style="width: 30px; text-align: center;">X</td> <td style="width: 100px; text-align: center;">11/18/23</td> <td style="width: 100px; text-align: center;">2350</td> <td style="width: 30px; text-align: center;">1</td> </tr> </table>		X	11/18/23	2350	1	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 30px; text-align: center;">X</td> <td style="width: 30px; text-align: center;">X</td> <td style="width: 30px; text-align: center;">X</td> <td style="width: 30px; text-align: center;">X</td> <td style="width: 30px; text-align: center;">X</td> <td></td><td></td><td></td><td></td> </tr> </table>		X	X	X	X	X									
	X	11/18/23	2350	1																				
X	X	X	X	X																				
2.																								
3.																								
4.																								
5.																								
6.																								
7.																								
8.																								
9.																								
10.																								

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	1333	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>3.0</u> MeOH extraction requires an additional 4oz. Jar for percent solid ☐ Ice in Cooler?: _____
1. <u>[Signature]</u>	1/19/23	<u>[Signature]</u>	1-19-23	Comments: SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight
2. RELINQUISHED BY	DATE/TIME	RECEIVED BY		
3. RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY		

Page 3 of 3

Shipment Complete
☐ YES ☐ NO

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



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

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255422
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-22-15



LOGIN REPORT/SAMPLE TRANSFER

Order ID : O1233 loui01

Order Date : 1/19/2023 1:53:00 PM

Project Mgr :

Client Name : Louis Berger U.S.. Inc., A V

Project Name : NYCDDC Phase II SCI Artl

Report Type : Level 1

Client Contact : Jonathan Ganz

Receive DateTime : 1/19/2023 12:00:00 AM

EDD Type : Excel NY

Invoice Name : Louis Berger U.S.. Inc., A V

Purchase Order : 18:05

Hard Copy Date :

Invoice Contact : Jonathan Ganz

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
O1233-02	B-P34A	Solid	01/18/2023	21:15	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-03	B-P34B	Solid	01/18/2023	21:40	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-04	B-P36A	Solid	01/18/2023	22:10	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-05	B-P36B	Solid	01/18/2023	22:25	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-06	B-P37A	Solid	01/18/2023	23:00	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-07	B-P37B	Solid	01/18/2023	23:15	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-08	B-P38A B-38A	Solid	01/18/2023	23:45	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-09	B-P38B	Solid	01/18/2023	23:55	VOC-TCLVOA-10		8260D		2 Bus. Days
O1233-11	B-P38C	Solid	01/18/2023	23:50					



LOGIN REPORT/SAMPLE TRANSFER

Order ID : O1233 loui01

Order Date : 1/19/2023 1:53:00 PM

Project Mgr :

Client Name : Louis Berger U.S., Inc., A V

Project Name : NYCDDC Phase II SCI Artl

Report Type : Level I

Client Contact : Jonathan Ganz

Receive DateTime : 1/19/2023 ~~12:00:00~~ AM

EDD Type : Excel NY

Invoice Name : Louis Berger U.S., Inc., A V

Purchase Order : 18:05

Hard Copy Date :

Invoice Contact : Jonathan Ganz

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
O1233-12	FB01	Water	01/18/2023	12:05	VOC-TCLVOA-10		8260D	2 Bus. Days	
					VOC-TCLVOA-10		8260D	2 Bus. Days	

JAN
samplersstored in vault
Free #2Relinquished By : celDate / Time : 1/20/23 9:20Received By : huy D. d.Date / Time : 1/20/23 9:20

Storage Area : VOA Refrigerator Room