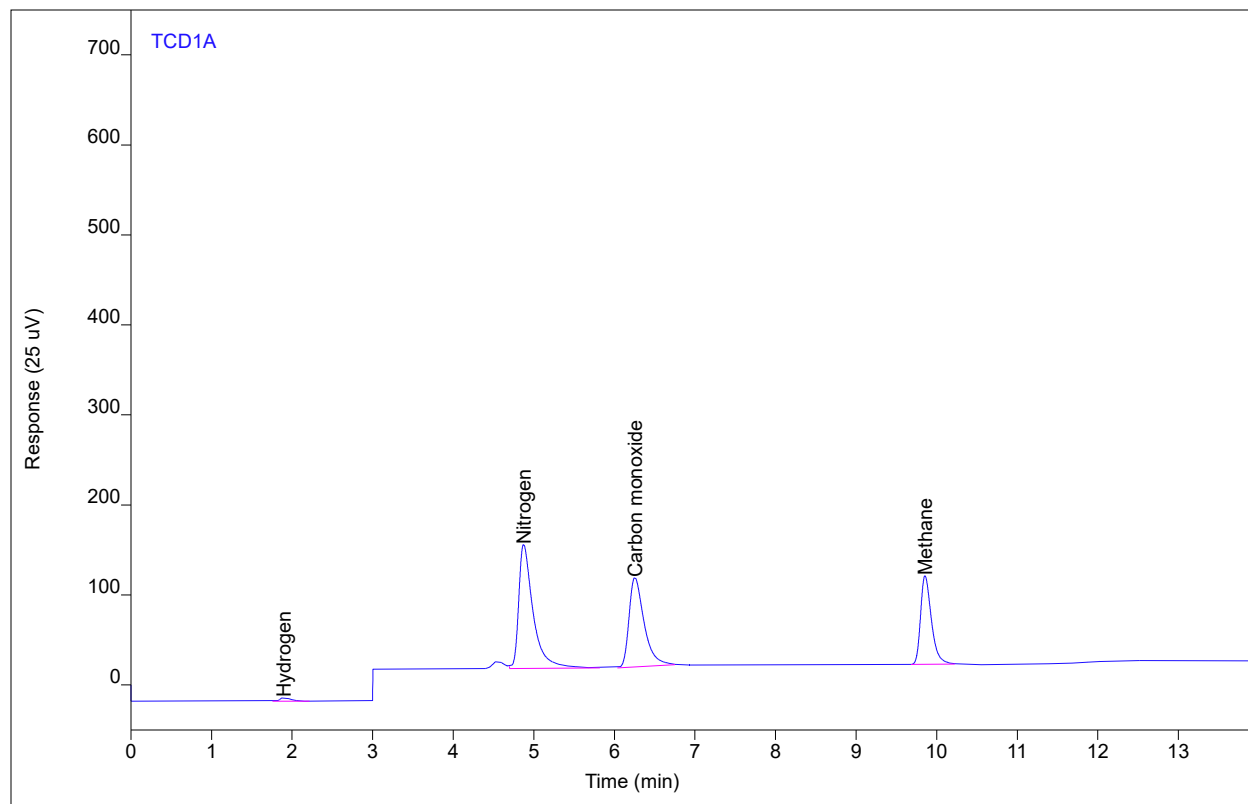


Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG8 ENV(1=565.49,3=462.16)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0702.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 3:46 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



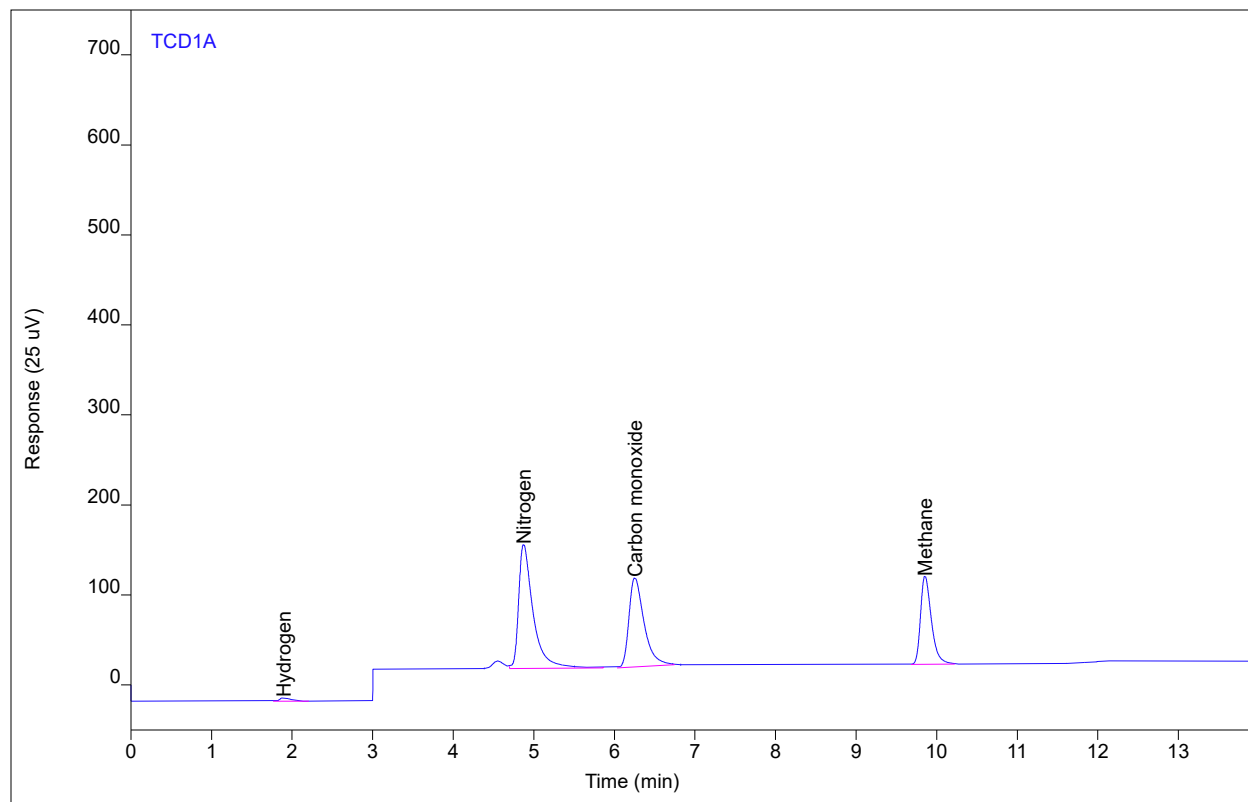
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	39.4362	4.23183	3.11763	1	3.11763	%
Nitrogen	VB	4.87	1710.63	137.790	4.11267	1	4.11267	%
Carbon monoxide	BB	6.25	1291.83	99.4621	4.01502	1	4.01502	%
Methane	BB	9.86	916.639	98.4536	3.23943	1	3.23943	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG8 ENV(1=565.49,3=462.16)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0703.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 4:12 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



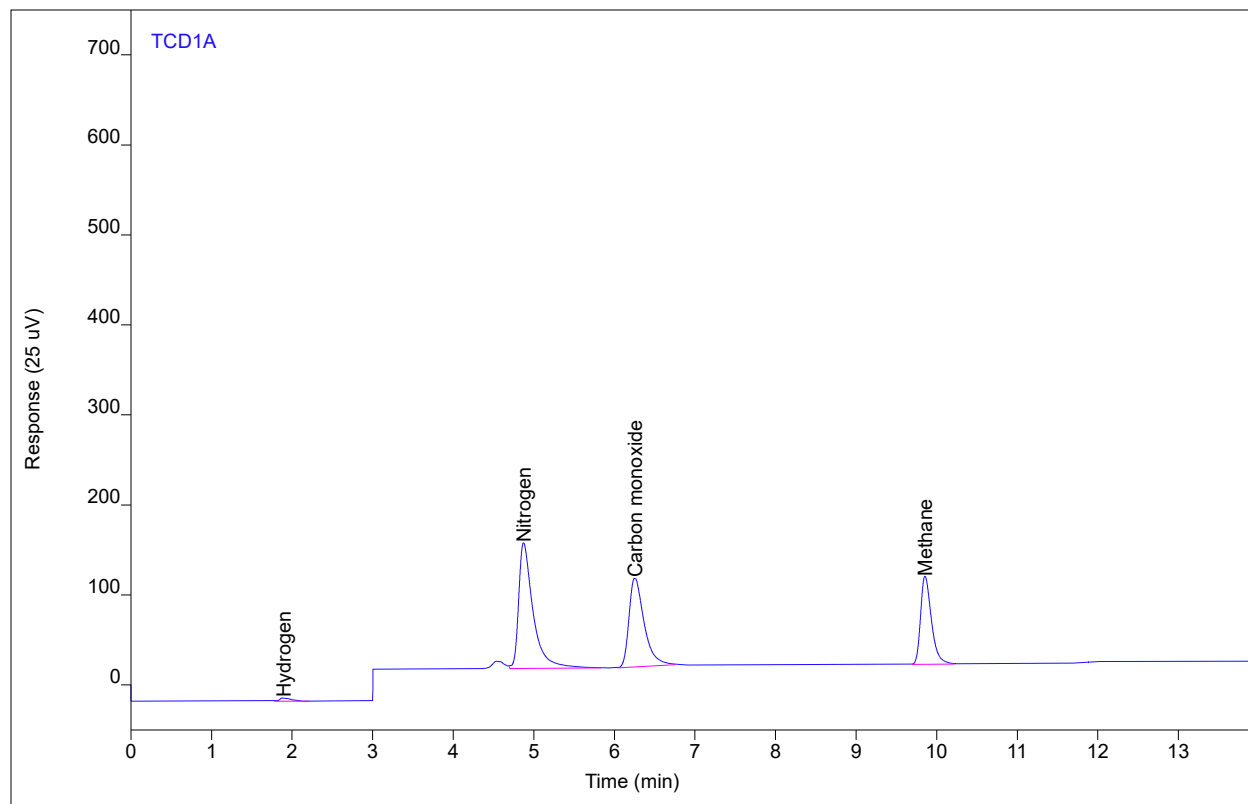
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	39.5273	4.26702	3.12497	1	3.12497	%
Nitrogen	VB	4.87	1723.18	138.273	4.14961	1	4.14961	%
Carbon monoxide	BB	6.25	1293.86	99.4381	4.02129	1	4.02129	%
Methane	BB	9.86	917.351	98.4278	3.24194	1	3.24194	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG8 ENV(1=565.49,3=462.16)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0704.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 4:37 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



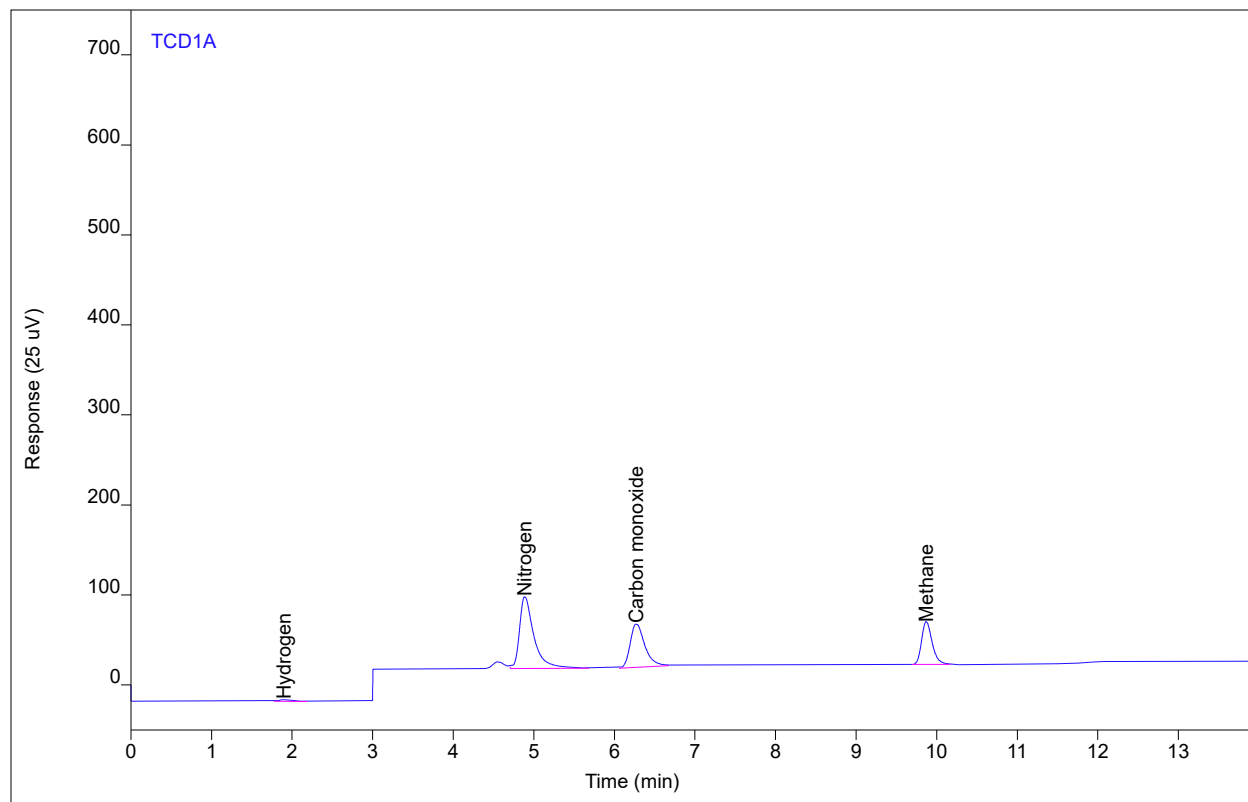
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	39.4949	4.24866	3.12236	1	3.12236	%
Nitrogen	VB	4.87	1734.42	139.667	4.18271	1	4.18271	%
Carbon monoxide	BB	6.25	1294.10	99.4466	4.02203	1	4.02203	%
Methane	BB	9.86	915.401	98.1263	3.23508	1	3.23508	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG7 ENV(1=1271.99,3=359.45)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0802.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 5:28 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



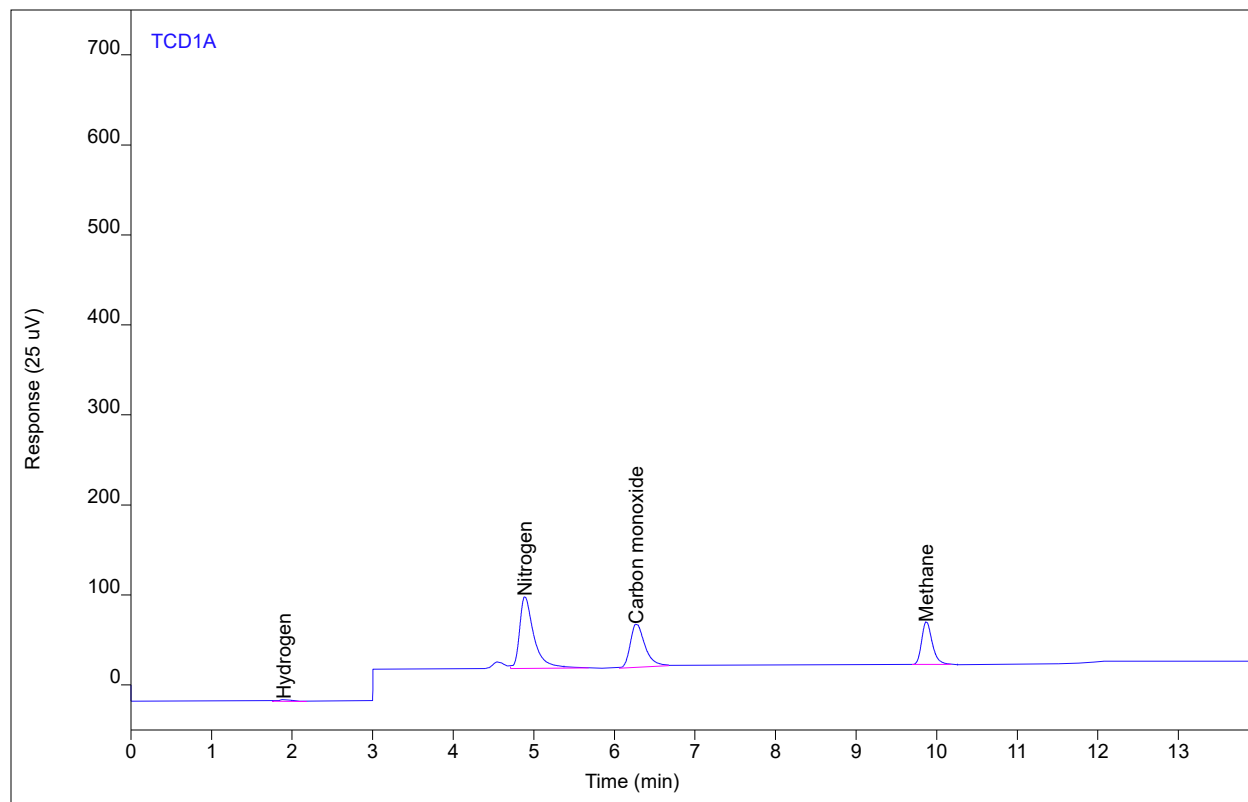
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	19.5935	2.07471	1.51723	1	1.51723	%
Nitrogen	VB	4.89	986.256	80.2401	1.98050	1	1.98050	%
Carbon monoxide	BB	6.27	609.301	48.7350	1.90906	1	1.90906	%
Methane	BB	9.87	436.947	47.8674	1.55197	1	1.55197	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG7 ENV(1=1271.99,3=359.45)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0803.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 5:53 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



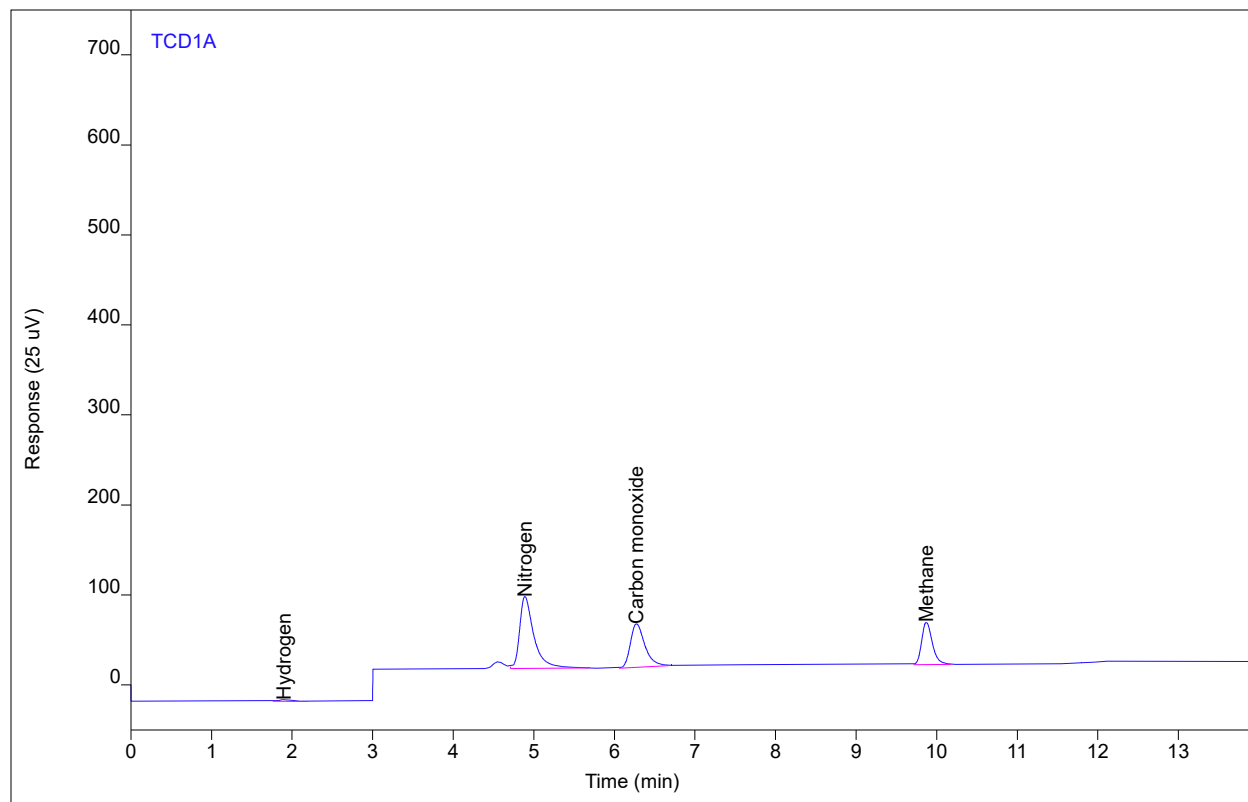
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	19.3620	2.07358	1.49855	1	1.49855	%
Nitrogen	VB	4.89	982.736	79.9891	1.97014	1	1.97014	%
Carbon monoxide	BB	6.27	606.946	48.5174	1.90179	1	1.90179	%
Methane	BB	9.87	435.687	47.9284	1.54754	1	1.54754	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG7 ENV(1=1271.99,3=359.45)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0804.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 6:19 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



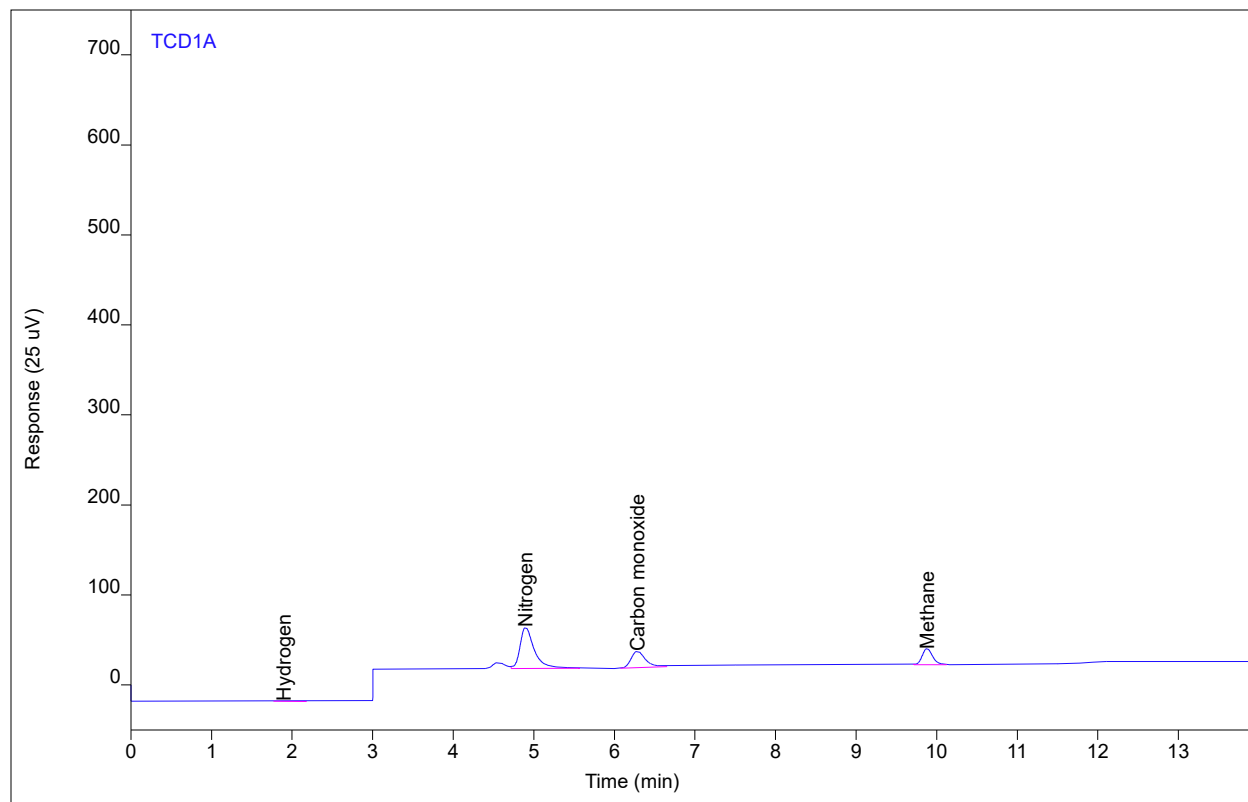
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	19.0141	2.03970	1.47049	1	1.47049	%
Nitrogen	VB	4.89	982.071	79.8841	1.96818	1	1.96818	%
Carbon monoxide	BB	6.27	605.425	48.4750	1.89710	1	1.89710	%
Methane	BB	9.87	434.129	47.3873	1.54206	1	1.54206	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG6 ENV(1=2755.99,3=256.75)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0902.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 7:10 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



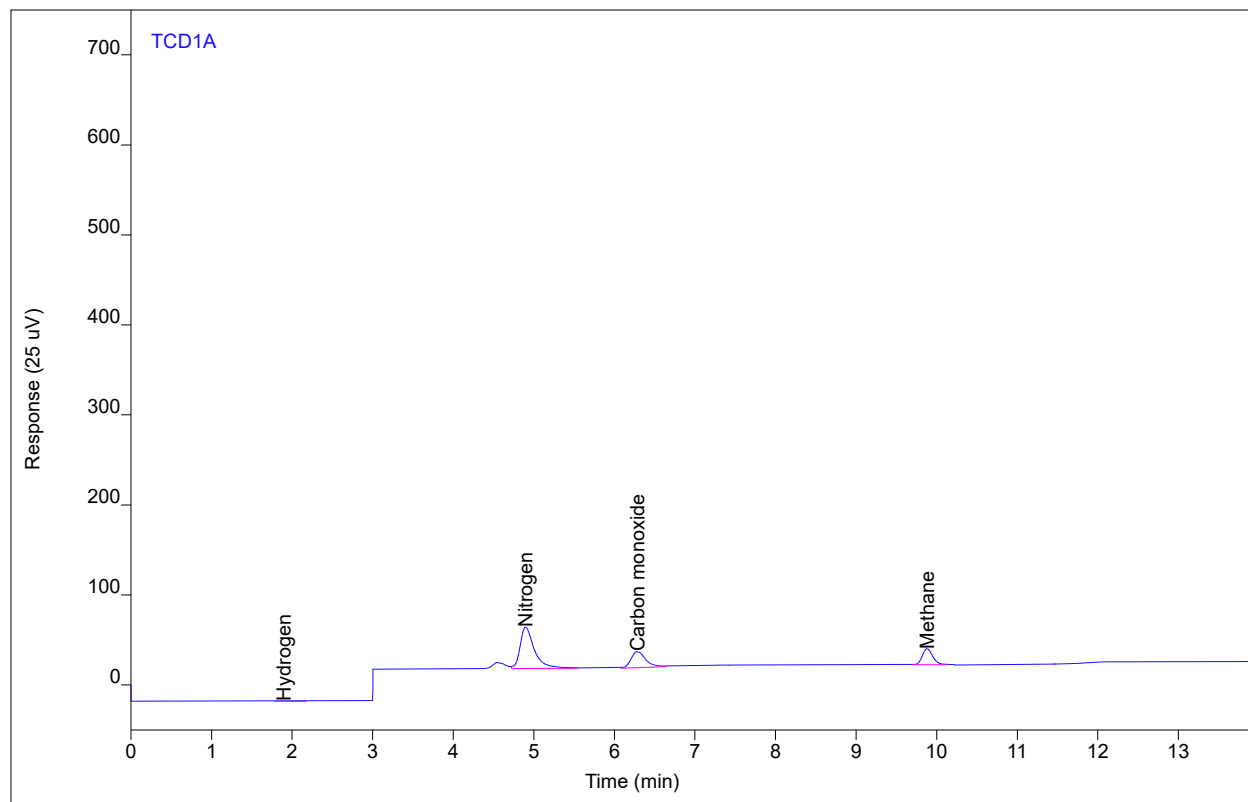
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	8.28252	0.82620	0.60494	1	0.60494	%
Nitrogen	VB	4.90	559.865	45.9170	0.72543	1	0.72543	%
Carbon monoxide	BB	6.29	224.530	18.3843	0.72184	1	0.72184	%
Methane	BB	9.88	160.180	17.8852	0.57837	1	0.57837	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG6 ENV(1=2755.99,3=256.75)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0903.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 7:35 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



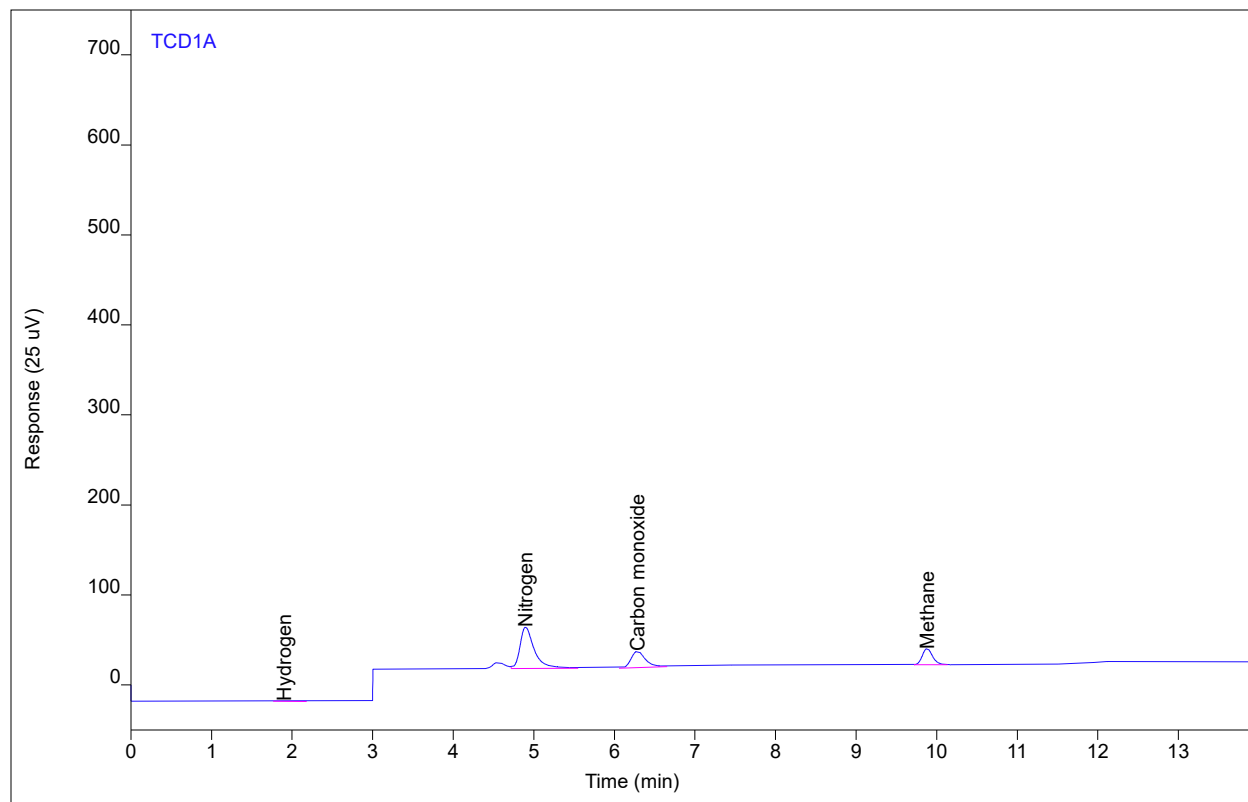
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	8.18547	0.83020	0.59711	1	0.59711	%
Nitrogen	VB	4.90	561.159	46.0725	0.72924	1	0.72924	%
Carbon monoxide	BB	6.29	224.450	18.3520	0.72159	1	0.72159	%
Methane	BB	9.88	159.996	17.8946	0.57772	1	0.57772	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG6 ENV(1=2755.99,3=256.75)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F0904.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 8:00 PM
File Modified 7/13/2021 2:29 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



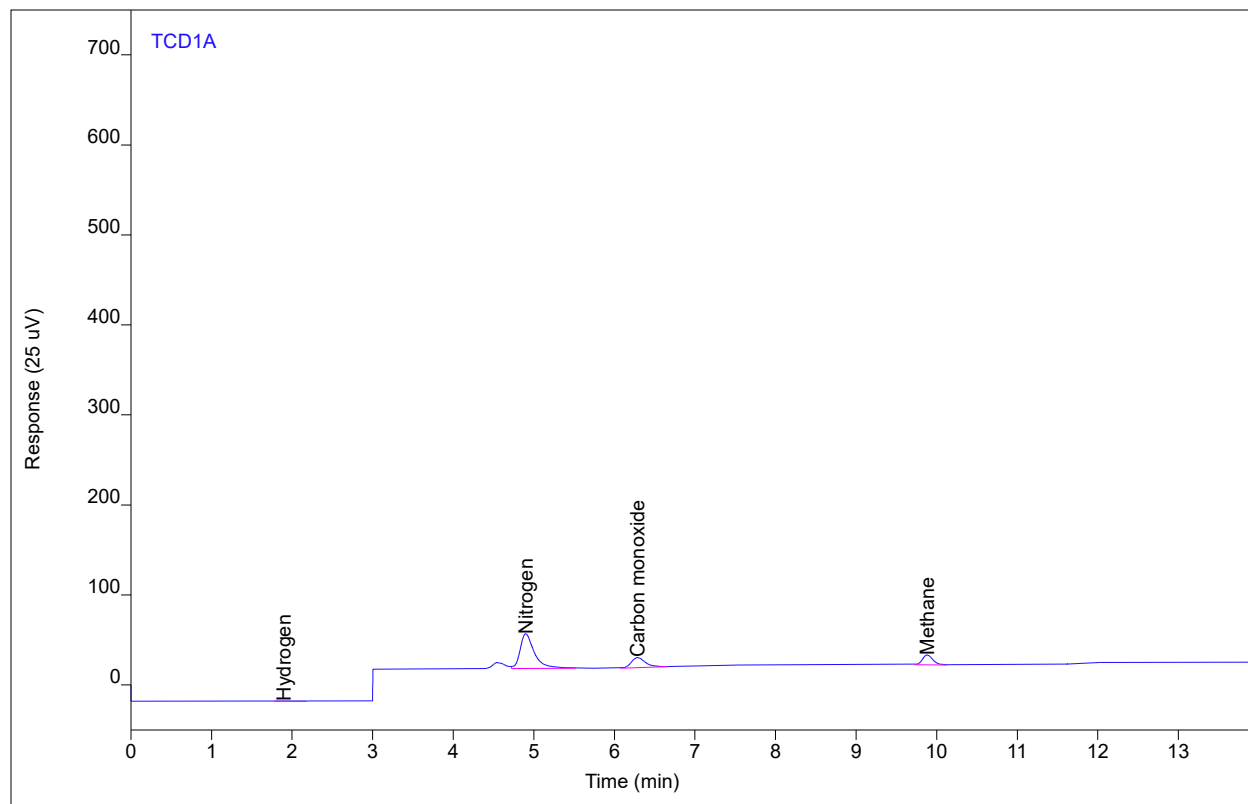
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	8.69096	0.85739	0.63788	1	0.63788	%
Nitrogen	VB	4.90	560.496	46.0199	0.72729	1	0.72729	%
Carbon monoxide	BB	6.29	224.913	18.3366	0.72301	1	0.72301	%
Methane	BB	9.88	160.312	17.9140	0.57883	1	0.57883	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG5 ENV(1=2755.99,3=154.05)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1006.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 10:33 PM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 6 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



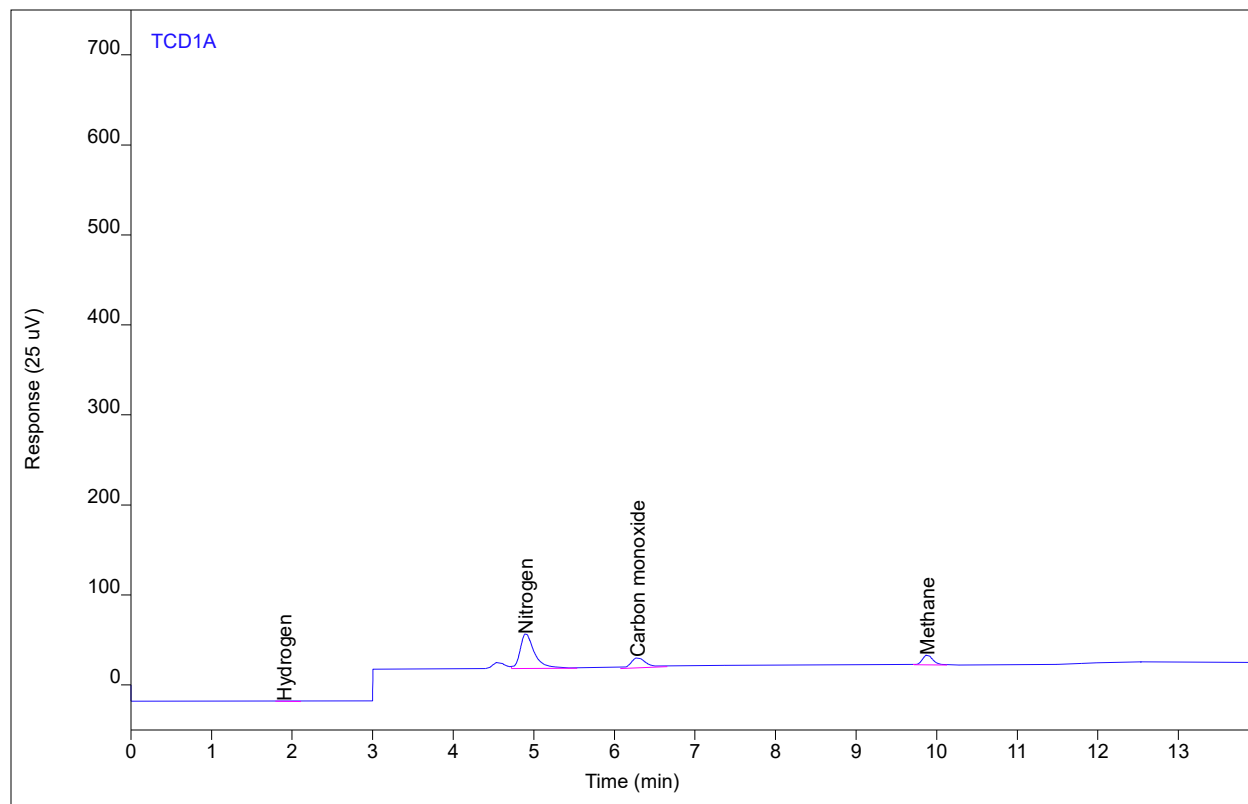
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	5.44065	0.55612	0.39681	1	0.39681	%
Nitrogen	VB	4.90	468.569	38.5496	0.45757	1	0.45757	%
Carbon monoxide	BB	6.29	139.500	11.4051	0.45947	1	0.45947	%
Methane	BB	9.88	99.5344	11.1921	0.36503	1	0.36503	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG5 ENV(1=2755.99,3=154.05)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1007.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 10:58 PM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 7 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



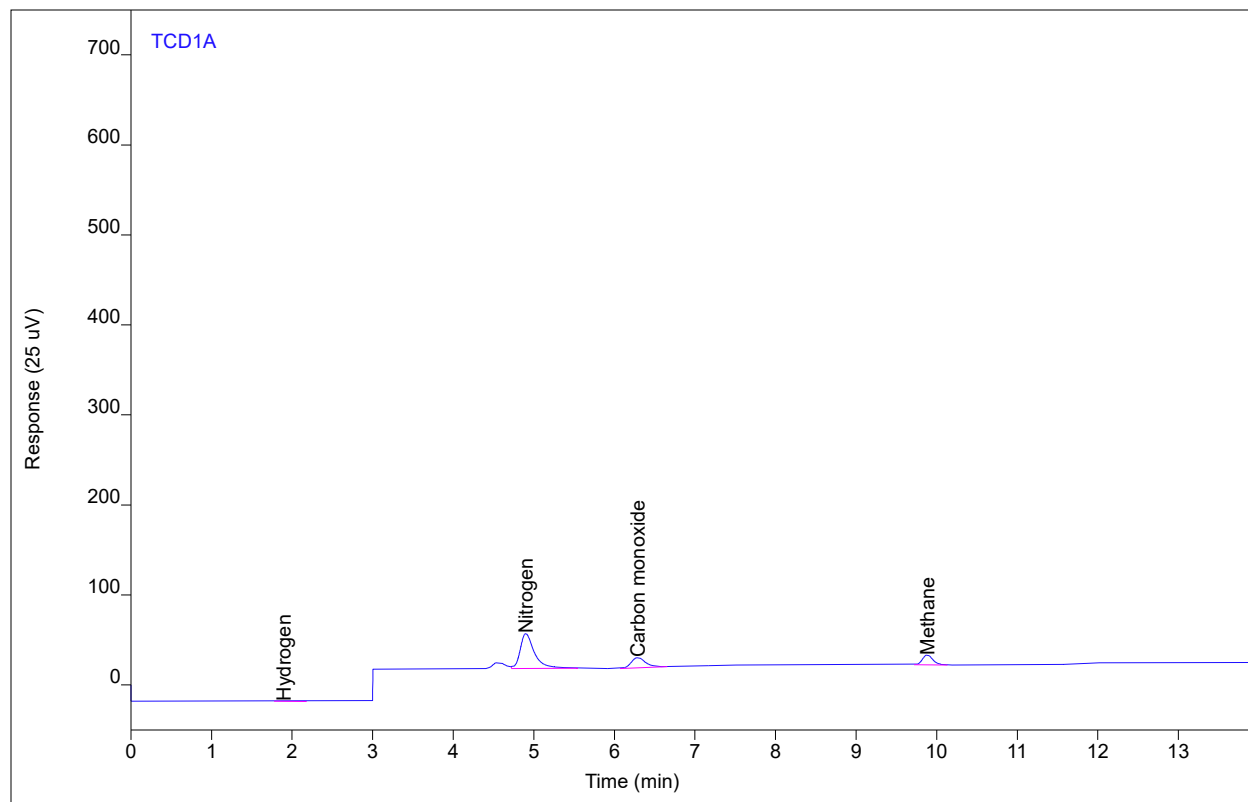
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	MM	1.91	5.48319	0.54027	0.39992	1	0.39992	%
Nitrogen	VB	4.90	469.958	38.5722	0.46079	1	0.46079	%
Carbon monoxide	BB	6.29	139.245	11.4214	0.45868	1	0.45868	%
Methane	BB	9.88	98.9766	11.0900	0.36307	1	0.36307	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1533 #FG5 ENV(1=2755.99,3=154.05)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1008.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/11/2021 11:23 PM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 8 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



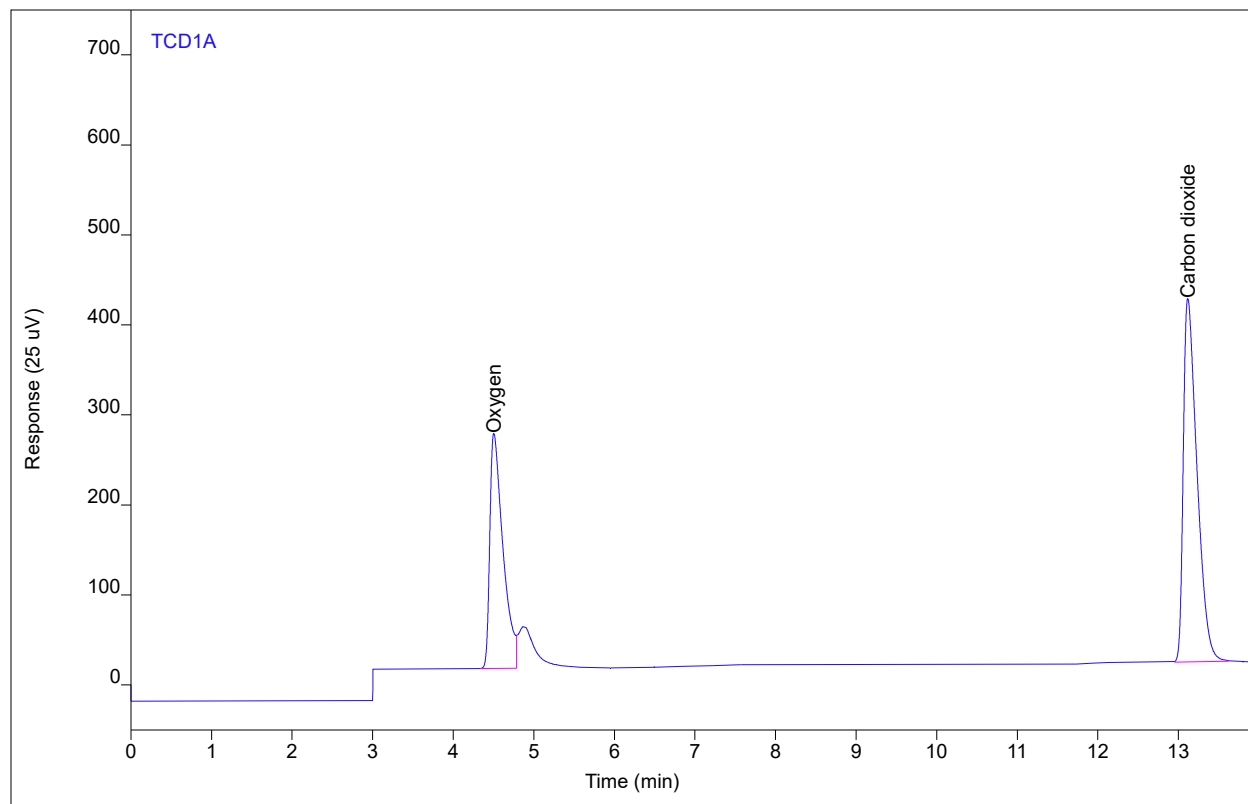
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.90	5.32205	0.54433	0.38816	1	0.38816	%
Nitrogen	VB	4.90	472.914	38.7949	0.46949	1	0.46949	%
Carbon monoxide	BB	6.29	140.264	11.4657	0.46183	1	0.46183	%
Methane	BB	9.88	99.9599	11.2136	0.36653	1	0.36653	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG4 ENV(1=0,2=358.99)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1102.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 12:14 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



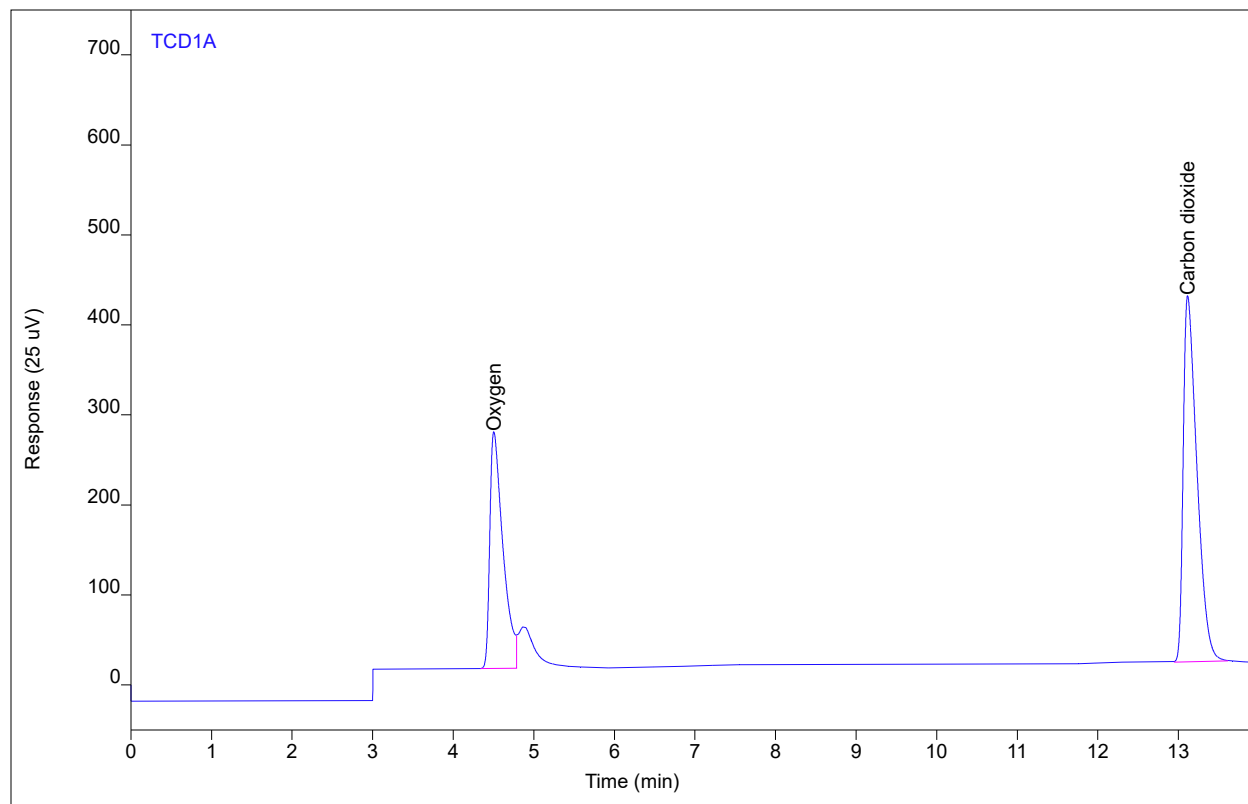
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.50	2965.12	261.359	9.77479	1	9.77479	%
Carbon dioxide	BB	13.12	4764.93	404.306	10.0524	1	10.0524	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG4 ENV(1=0,2=358.99)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1103.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 12:39 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



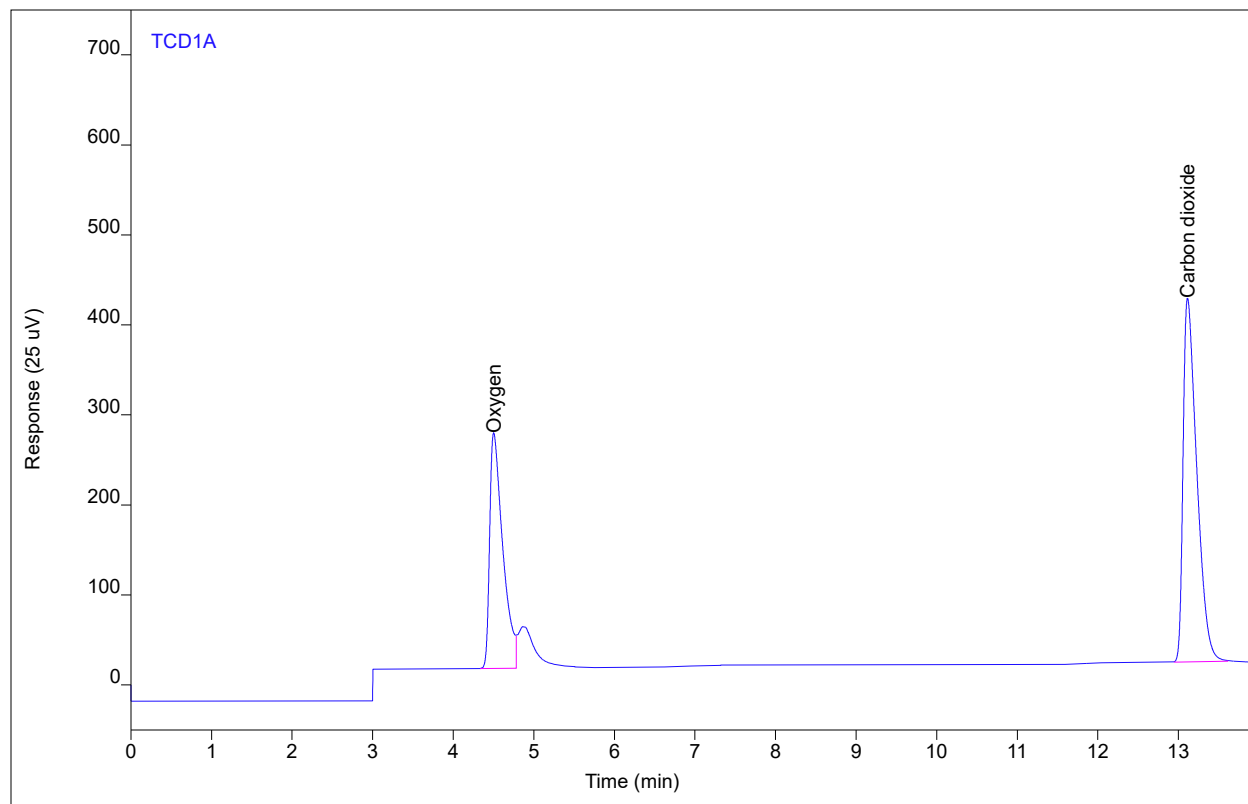
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.50	2988.51	263.184	9.85350	1	9.85350	%
Carbon dioxide	BB	13.12	4800.32	406.919	10.1270	1	10.1270	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG4 ENV(1=0,2=358.99)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1104.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 1:05 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



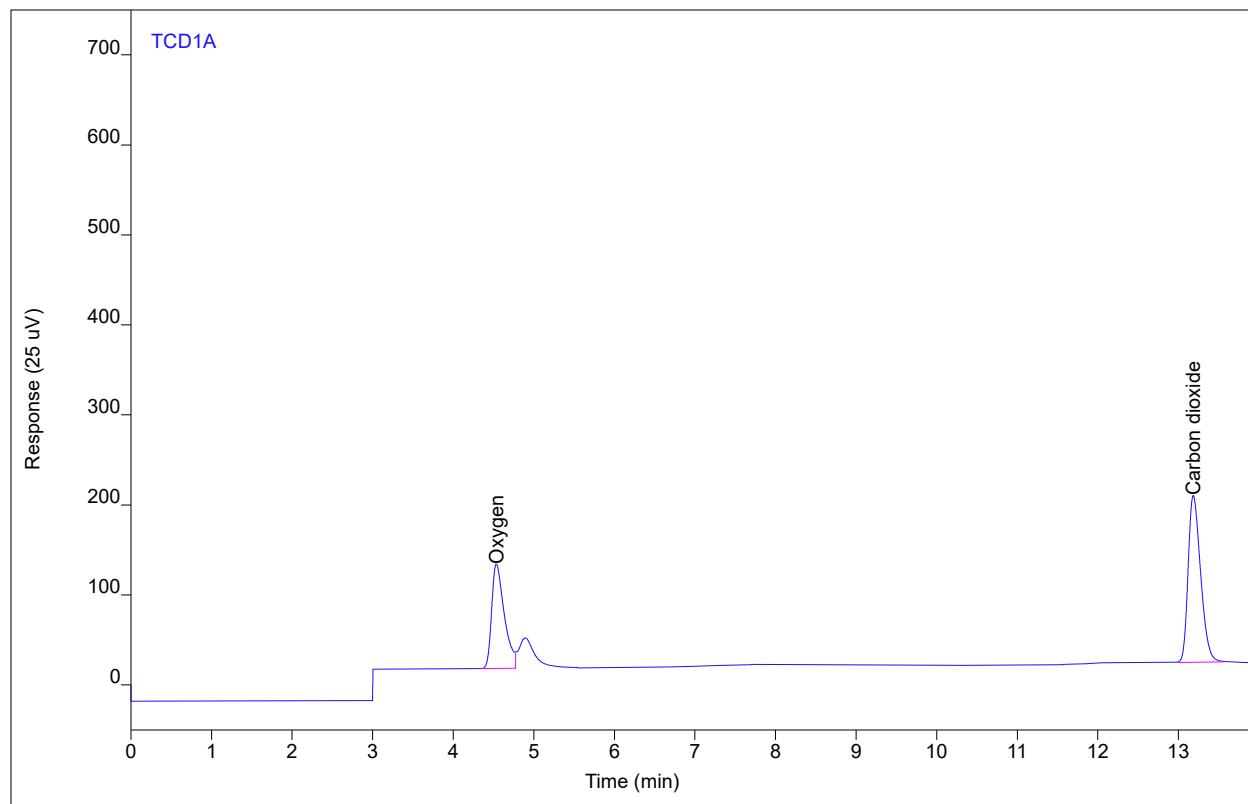
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.50	2968.13	261.642	9.78491	1	9.78491	%
Carbon dioxide	BB	13.11	4769.25	404.545	10.0615	1	10.0615	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG3 ENV(1=565.33,2=465.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1202.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 1:56 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



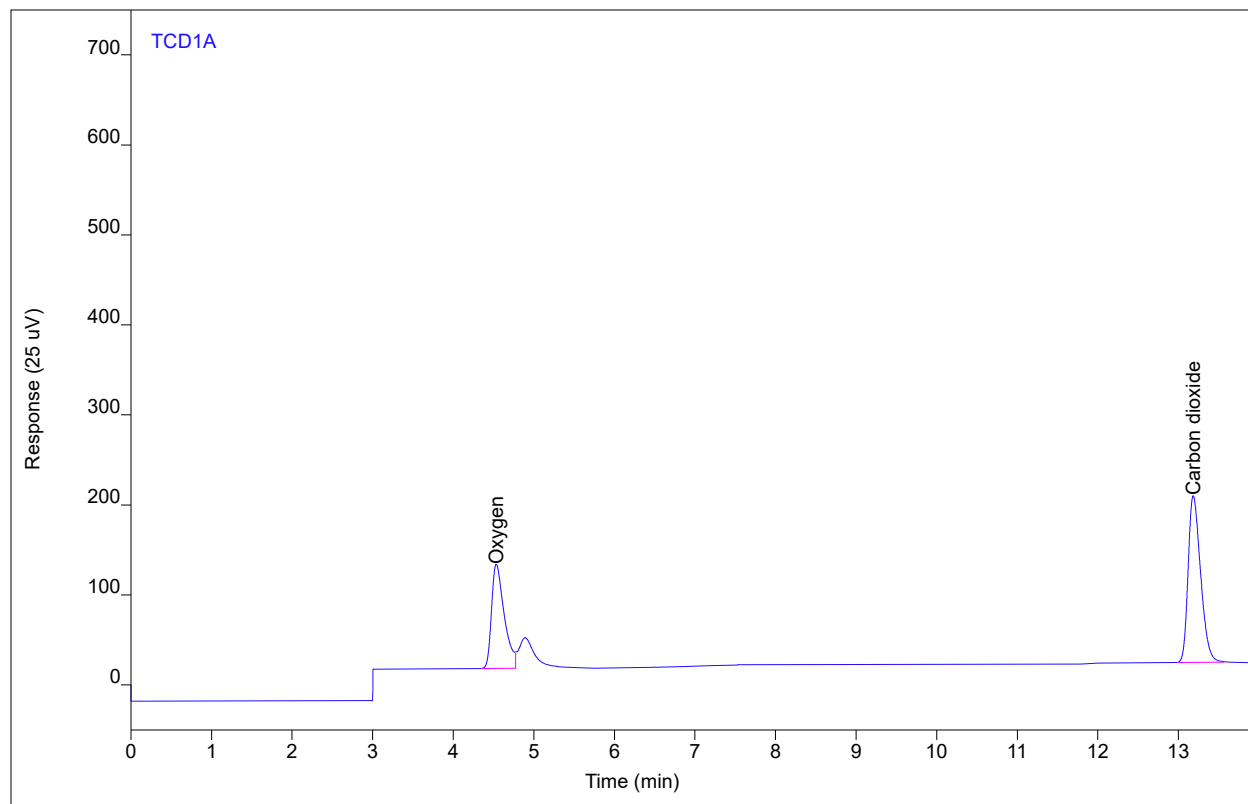
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.54	1271.56	116.039	4.07460	1	4.07460	%
Carbon dioxide	BB	13.18	1992.34	185.385	4.20226	1	4.20226	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG3 ENV(1=565.33,2=465.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1203.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 2:21 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



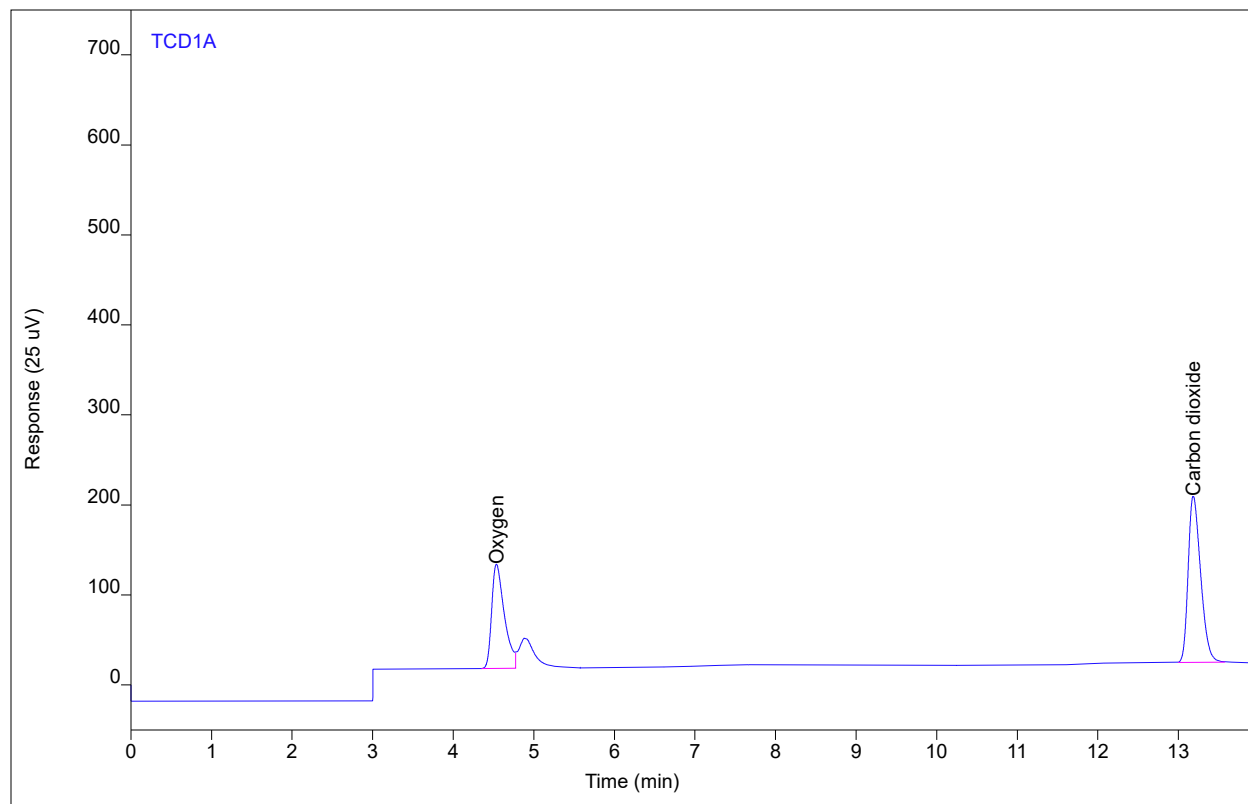
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.53	1267.49	115.820	4.06091	1	4.06091	%
Carbon dioxide	BB	13.18	1985.02	185.312	4.18681	1	4.18681	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG3 ENV(1=565.33,2=465.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1204.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 2:46 AM
File Modified 7/13/2021 2:30 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



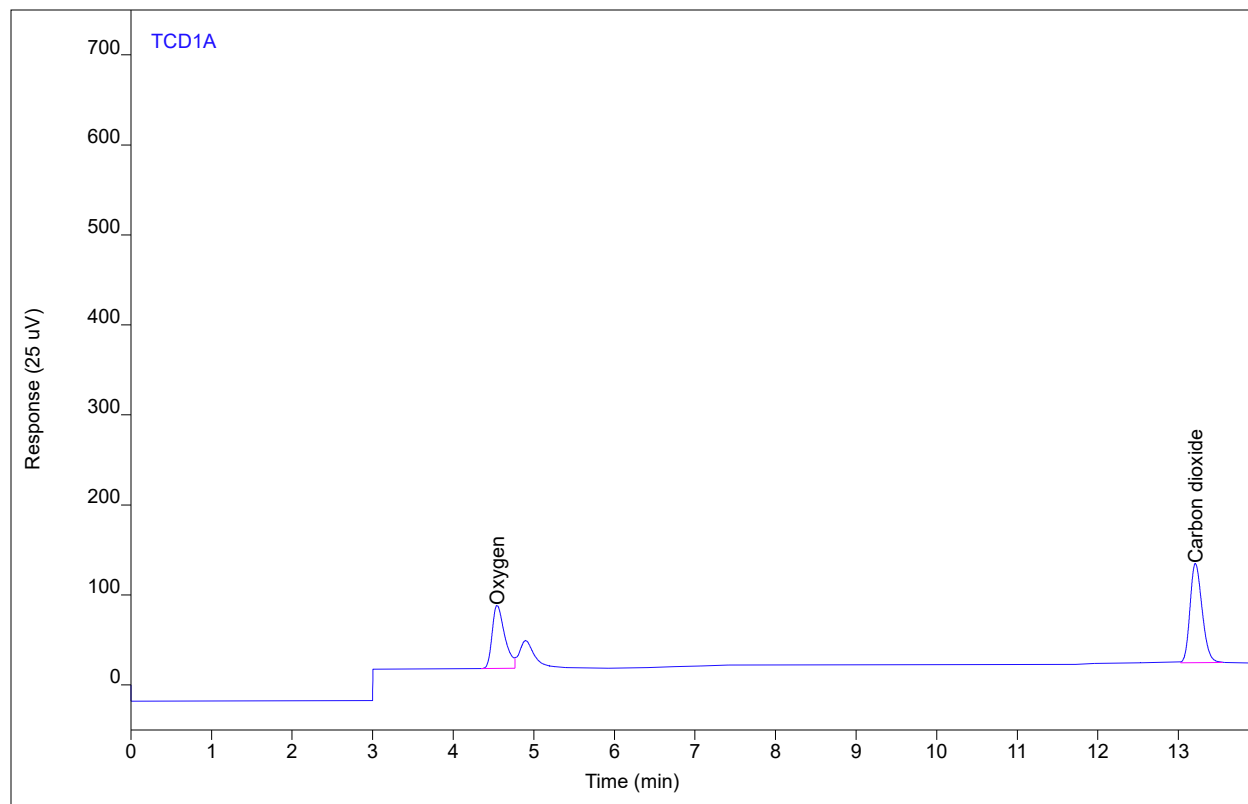
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.54	1267.69	115.816	4.06159	1	4.06159	%
Carbon dioxide	BB	13.18	1987.92	185.210	4.19292	1	4.19292	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG2 ENV(1=565.33,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1302.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 3:37 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



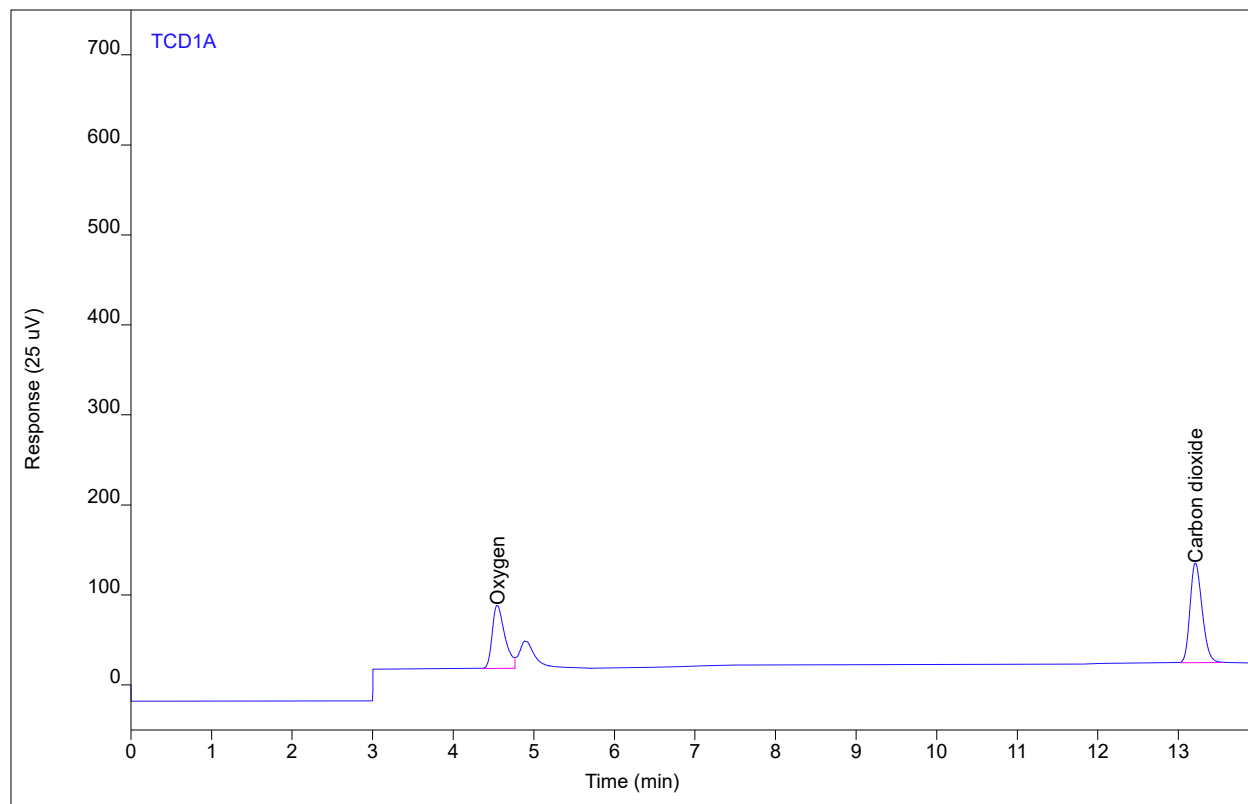
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.54	762.753	70.5809	2.36207	1	2.36207	%
Carbon dioxide	BB	13.21	1149.41	110.455	2.42368	1	2.42368	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG2 ENV(1=565.33,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1303.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 4:02 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



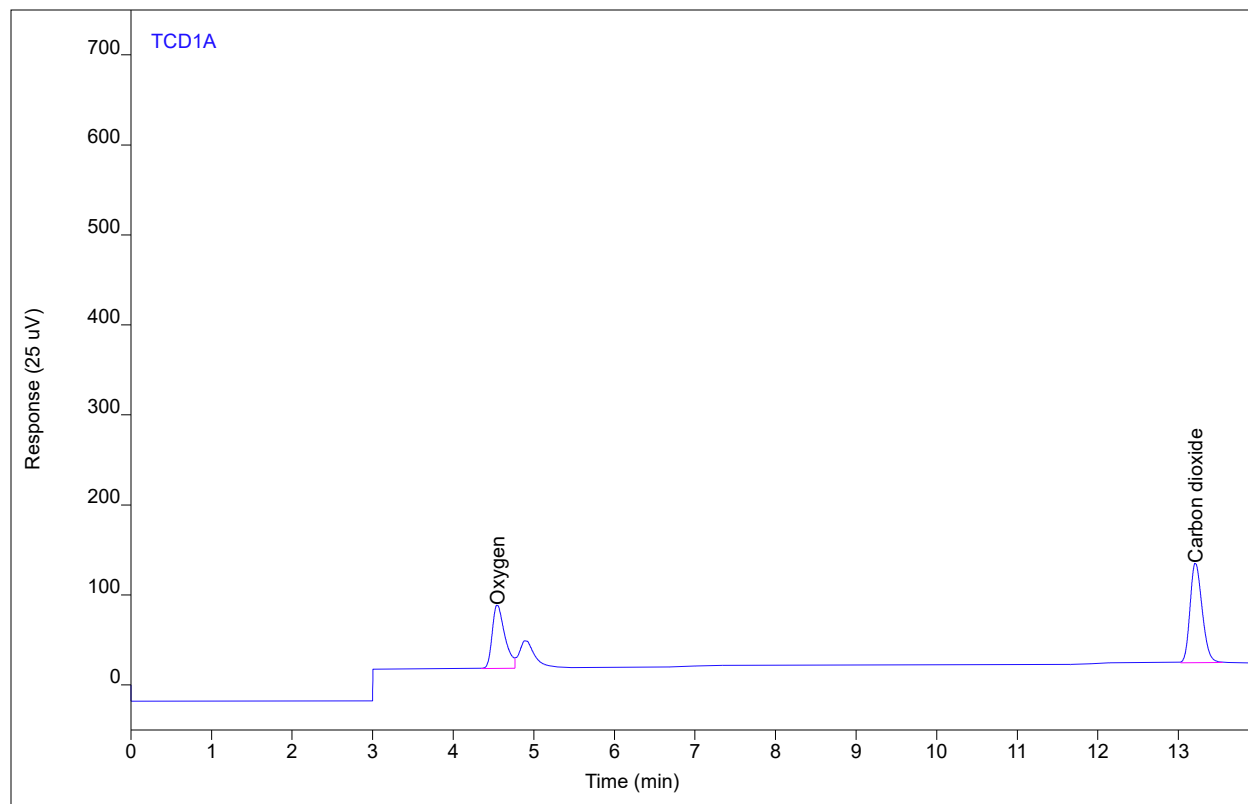
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.55	763.784	70.5370	2.36554	1	2.36554	%
Carbon dioxide	BB	13.21	1155.72	111.020	2.43700	1	2.43700	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG2 ENV(1=565.33,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1304.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 4:28 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 4 of 4
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



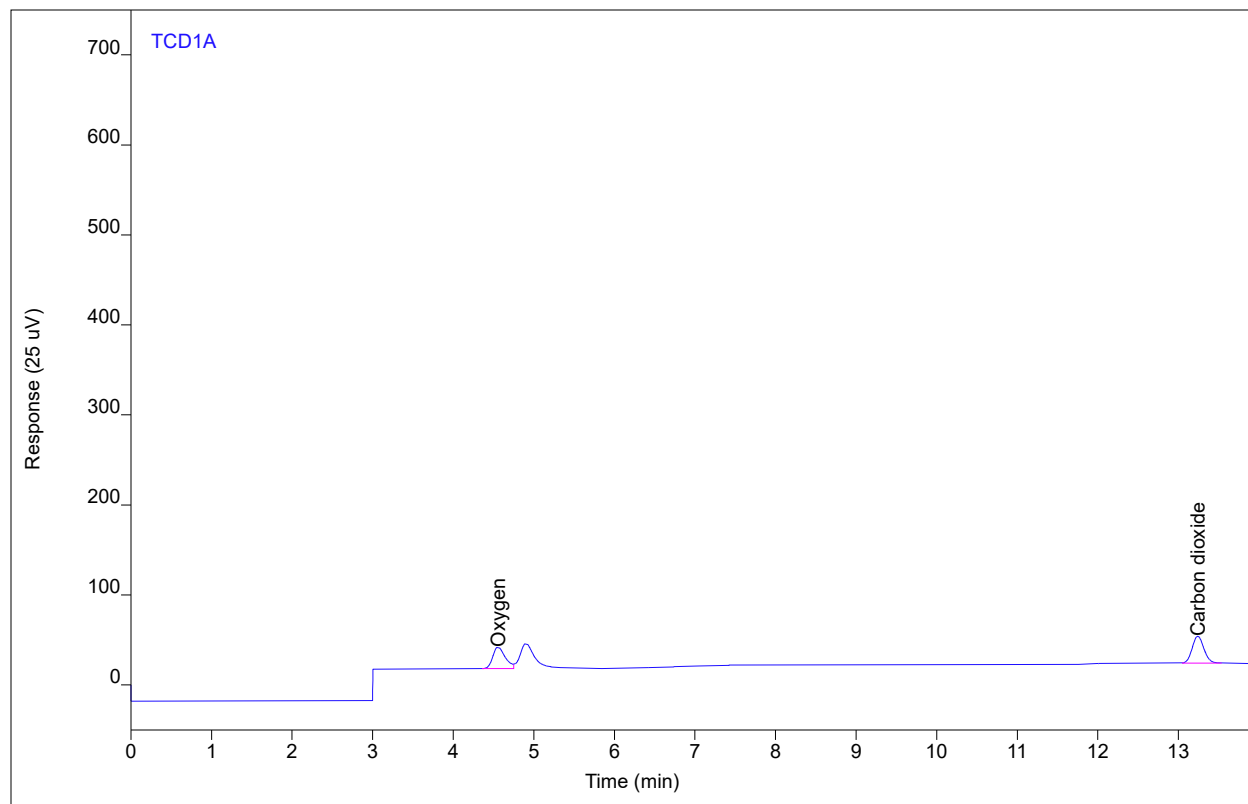
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.55	767.091	70.9022	2.37667	1	2.37667	%
Carbon dioxide	BB	13.21	1157.16	111.034	2.44005	1	2.44005	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG1 ENV(1=2685.32,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1406.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 7:00 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 6 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



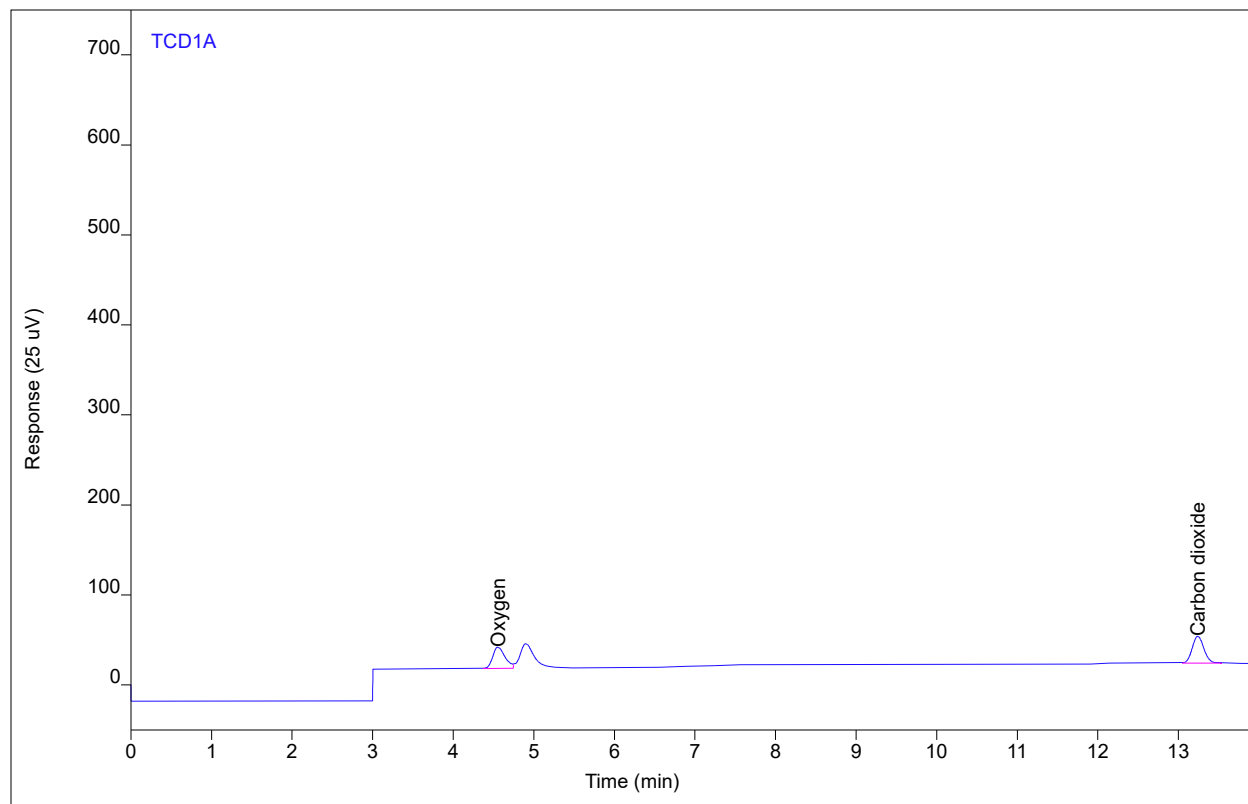
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.56	253.617	23.9091	0.64843	1	0.64843	%
Carbon dioxide	BB	13.24	303.789	30.0449	0.63945	1	0.63945	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG1 ENV(1=2685.32,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1407.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 7:25 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 7 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



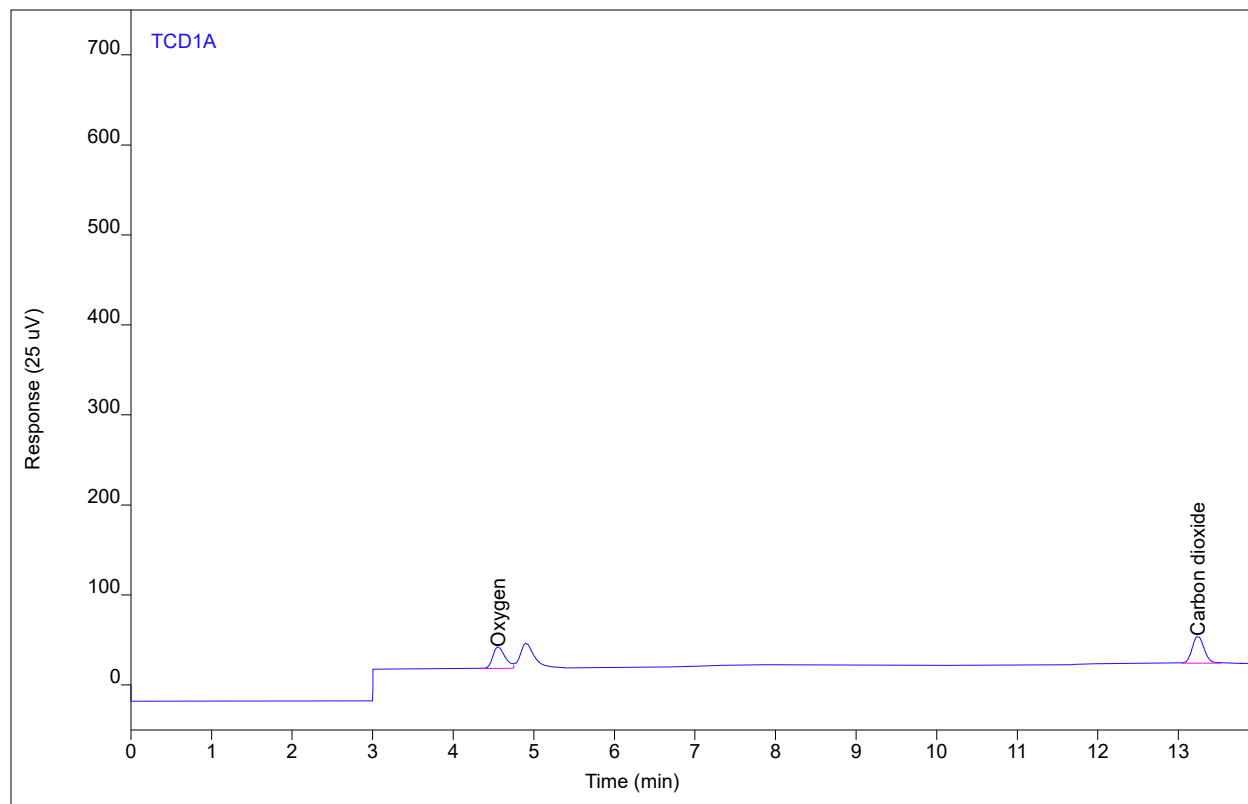
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.55	252.961	23.8921	0.64622	1	0.64622	%
Carbon dioxide	BB	13.24	303.741	30.0520	0.63934	1	0.63934	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1537 #FG1 ENV(1=2685.32,2=206.9)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1408.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 7:50 AM
File Modified 7/13/2021 2:31 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 8 of 8
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



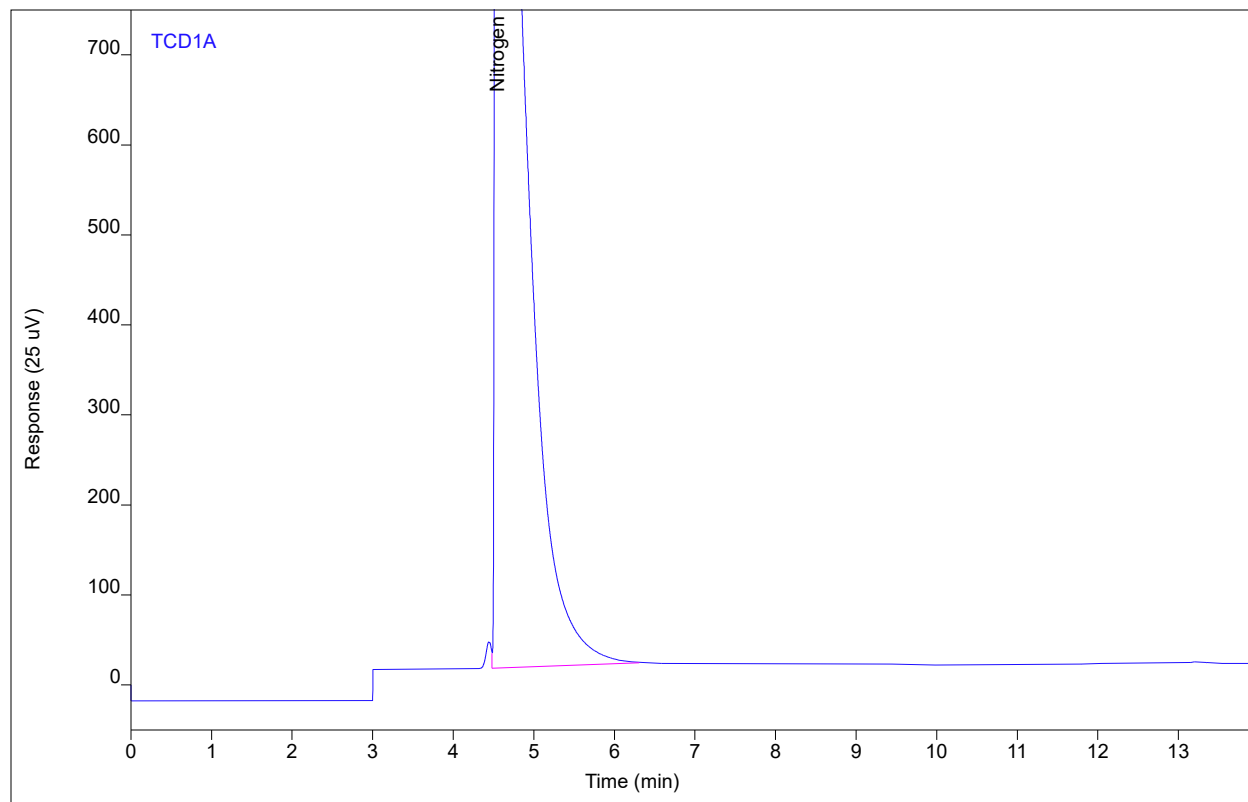
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Oxygen	BV	4.56	254.282	23.9879	0.65067	1	0.65067	%
Carbon dioxide	BB	13.24	306.796	30.2187	0.64579	1	0.64579	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG22 ENV(1=0,3=377.15)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1601.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 10:28 AM
File Modified 7/13/2021 2:38 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 1 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



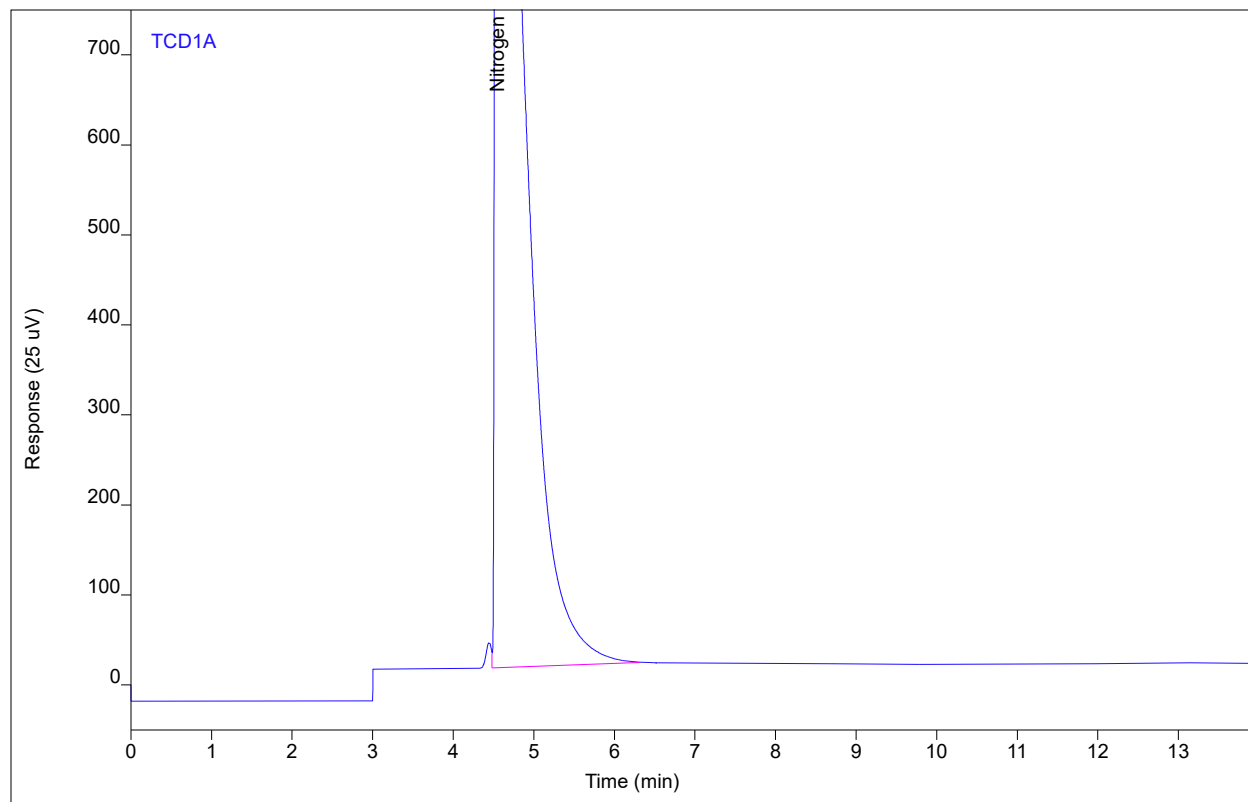
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Nitrogen	VB	4.55	33951.0	1506.22	99.0115	1	99.0115	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG22 ENV(1=0,3=377.15)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1602.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 10:53 AM
File Modified 7/13/2021 2:38 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



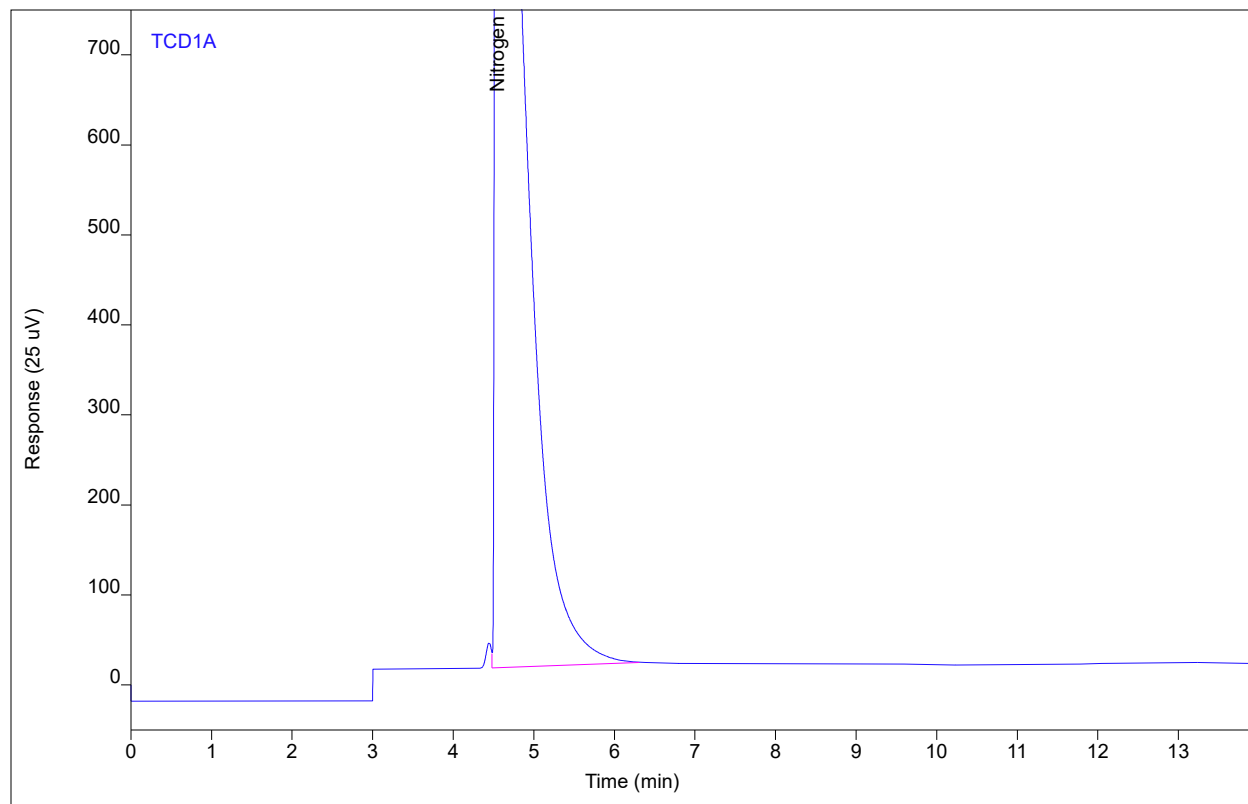
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Nitrogen	VB	4.55	34089.4	1509.96	99.4188	1	99.4188	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG22 ENV(1=0,3=377.15)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1603.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 11:18 AM
File Modified 7/13/2021 2:38 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



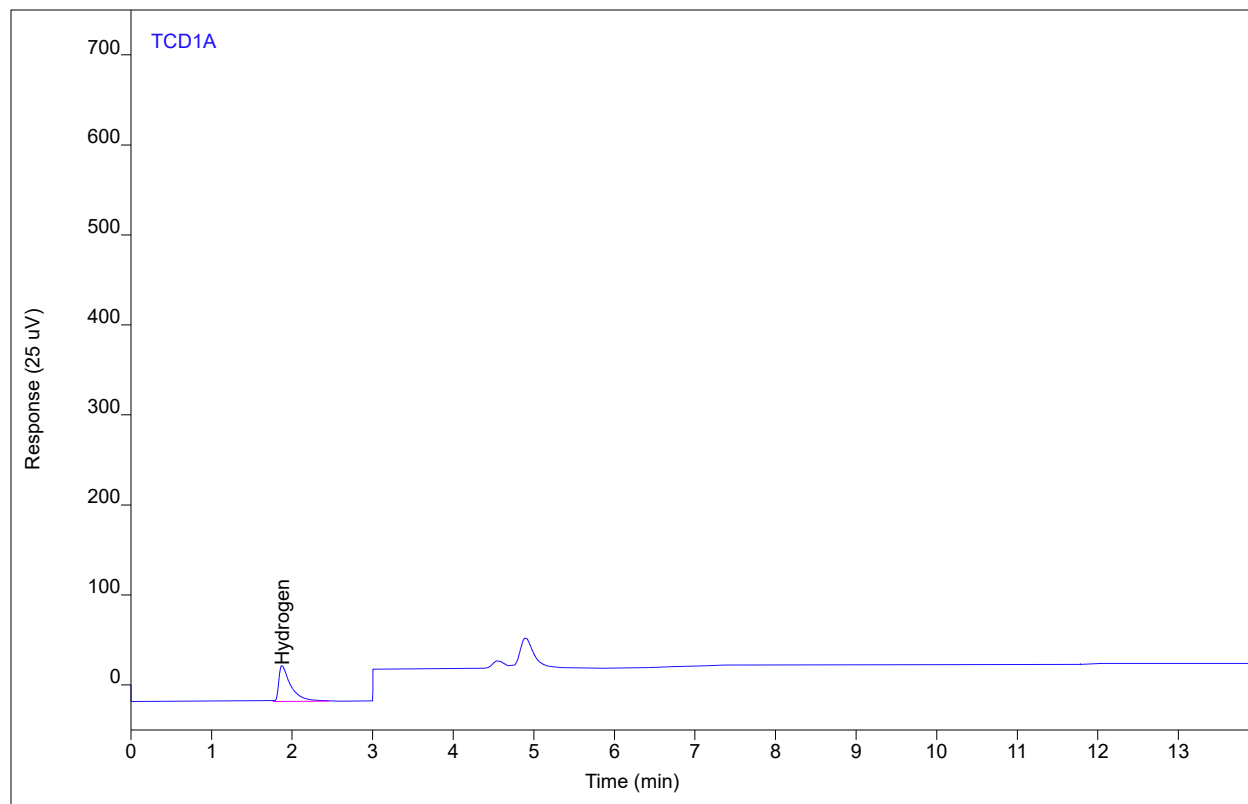
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Nitrogen	VB	4.54	34010.6	1504.91	99.1868	1	99.1868	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG19 ENV(1=565.33,3=346.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1701.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 11:44 AM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 1 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



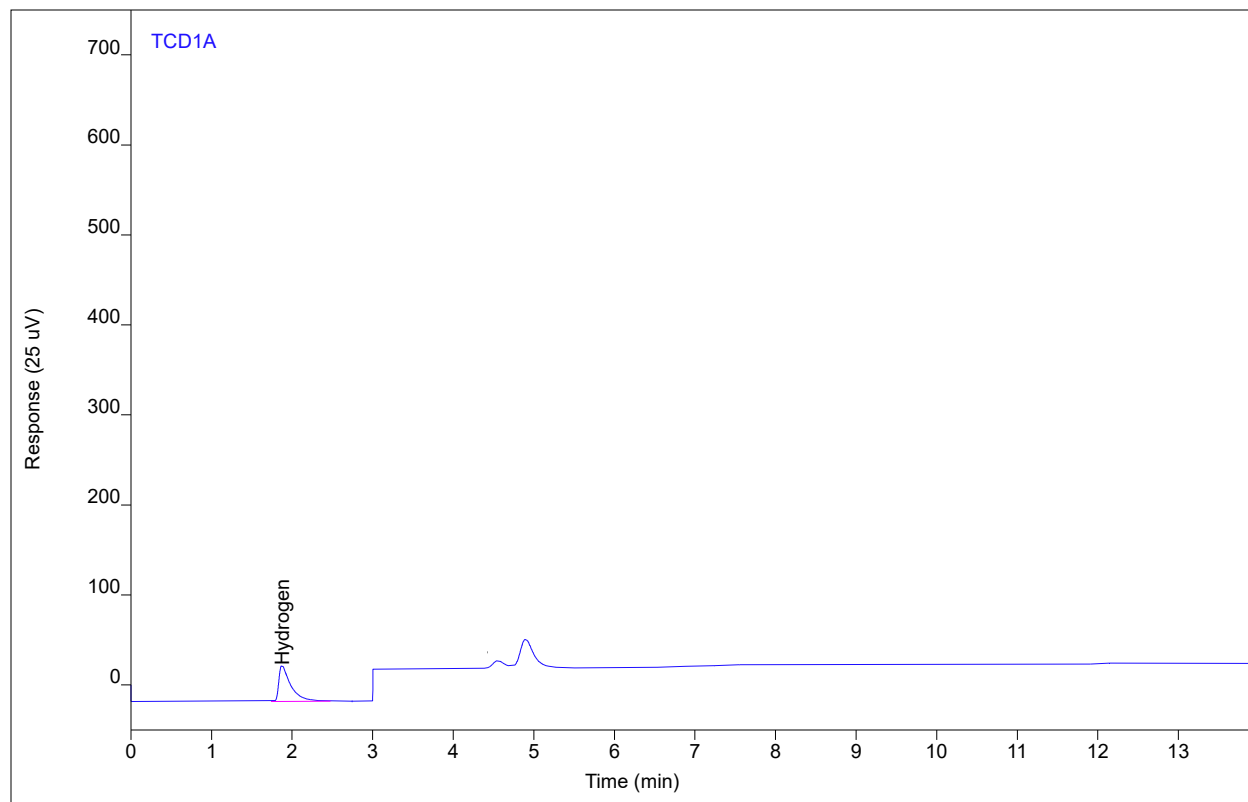
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.87	402.254	39.9831	32.3805	1	32.3805	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG19 ENV(1=565.33,3=346.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1702.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 12:09 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



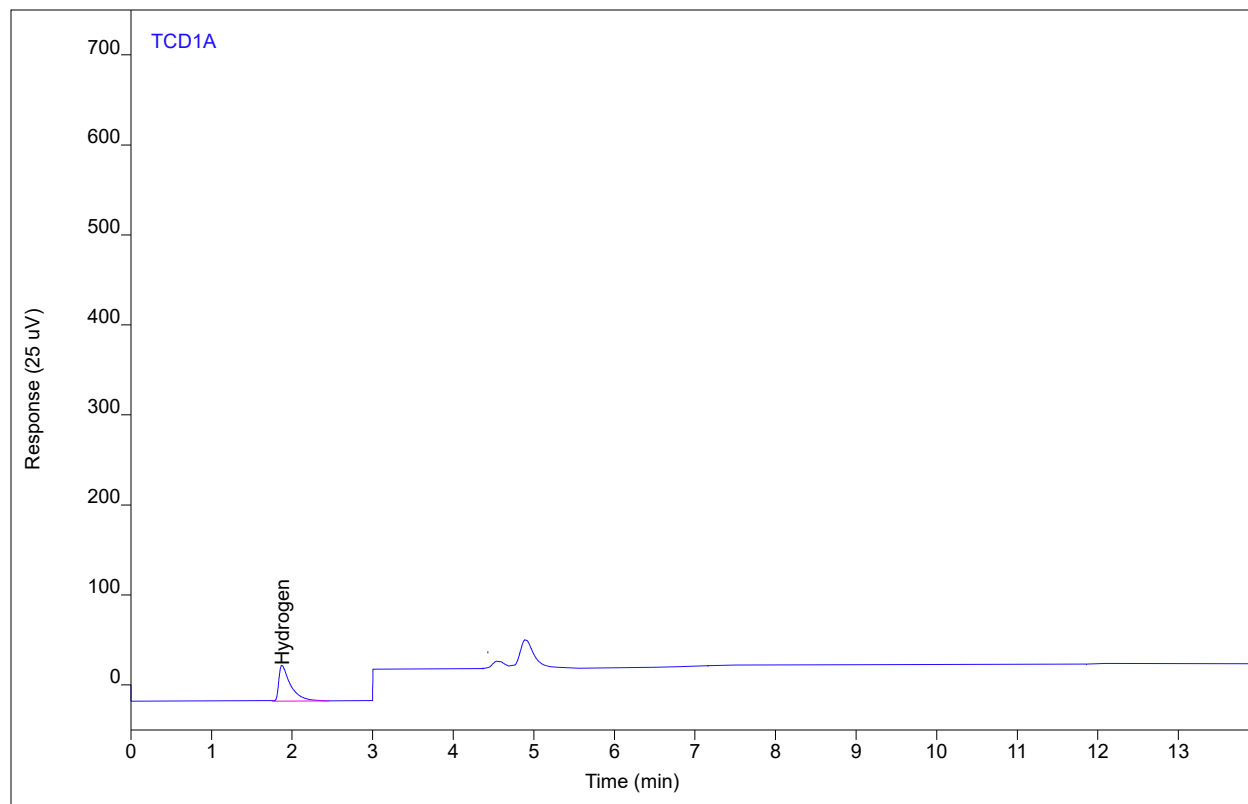
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.88	405.709	40.2110	32.6591	1	32.6591	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG19 ENV(1=565.33,3=346.53)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1703.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 12:34 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



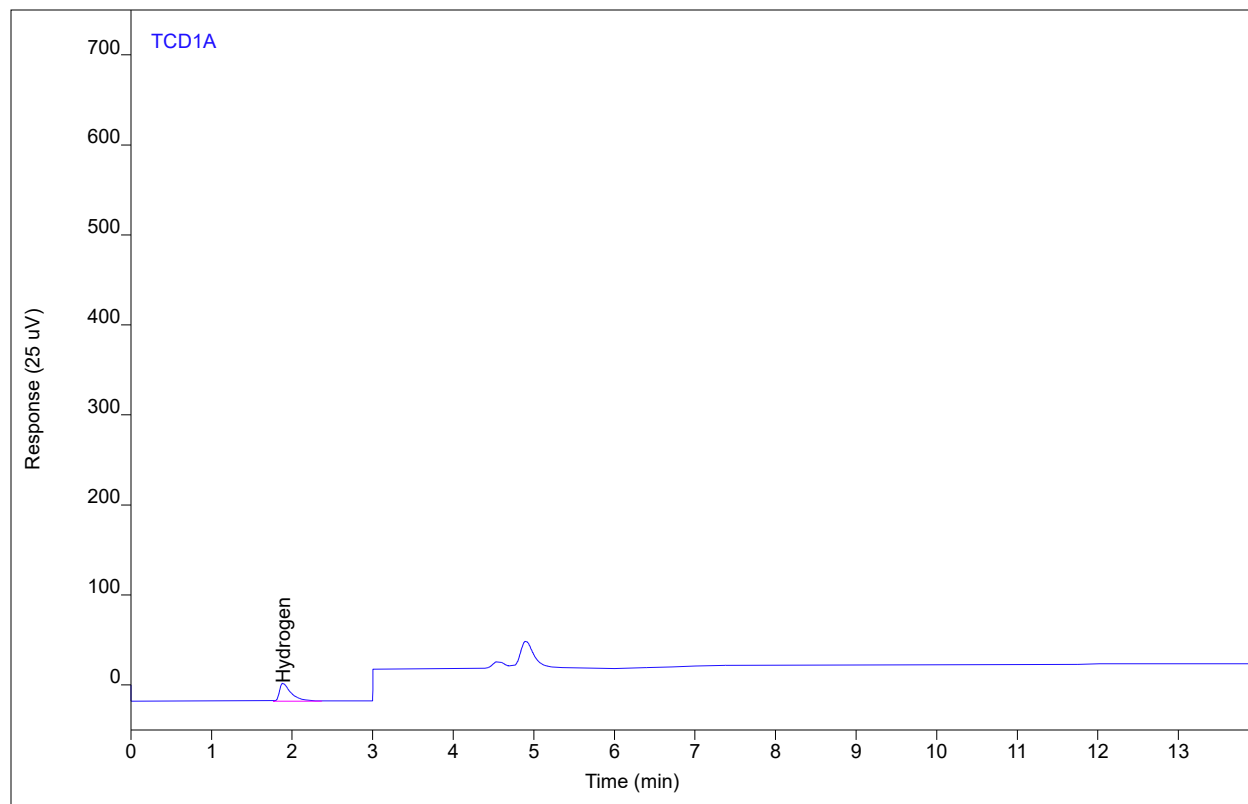
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.87	404.205	40.1326	32.5379	1	32.5379	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG18 ENV(1=565.33,3=148.51)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1801.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 1:00 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 1 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
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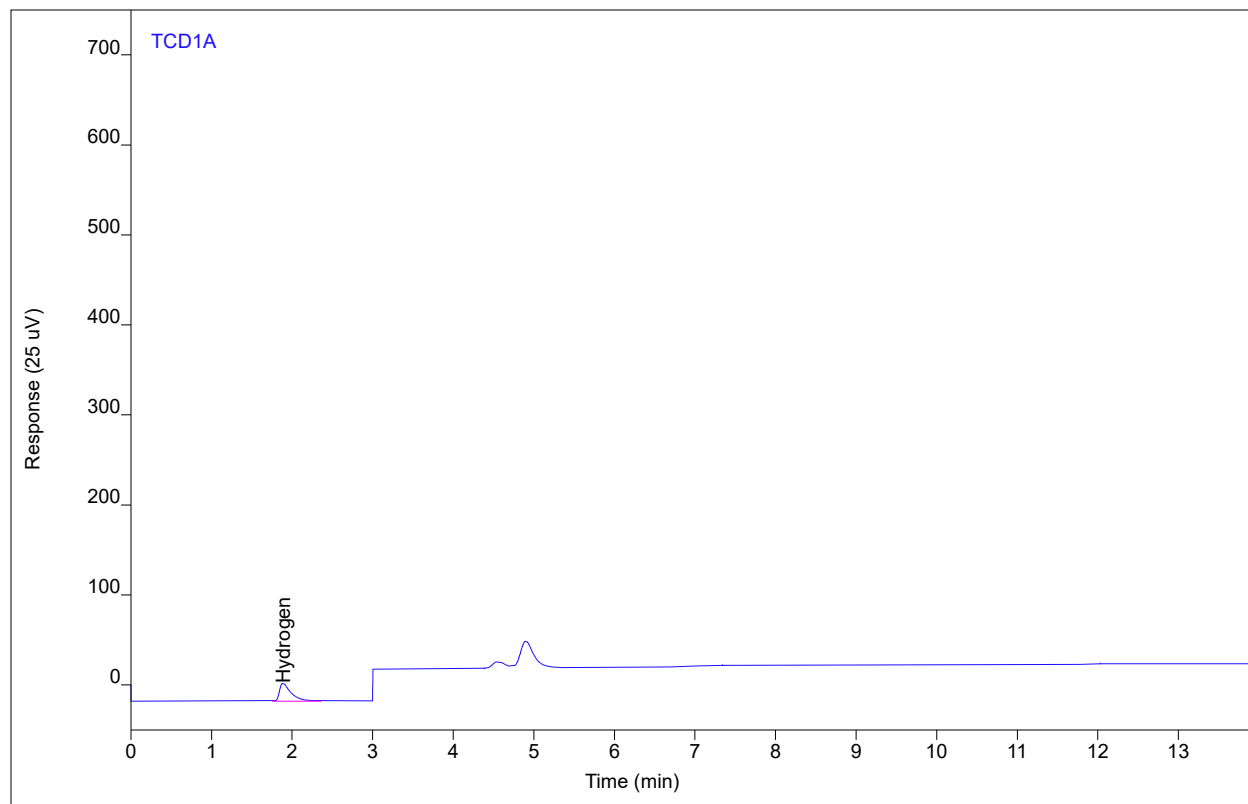
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	199.934	20.2273	16.0625	1	16.0625	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG18 ENV(1=565.33,3=148.51)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1802.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 1:25 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 2 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



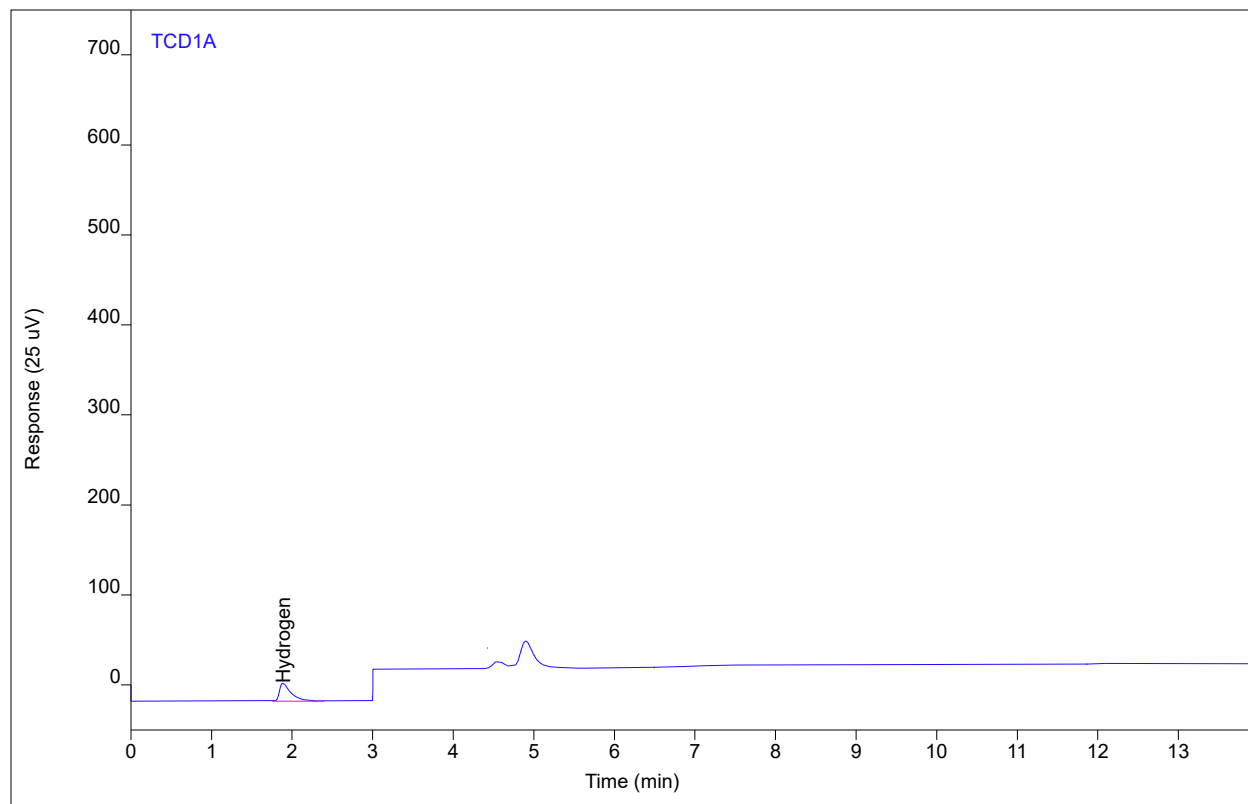
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	200.316	20.2640	16.0933	1	16.0933	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG18 ENV(1=565.33,3=148.51)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1803.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 1:50 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



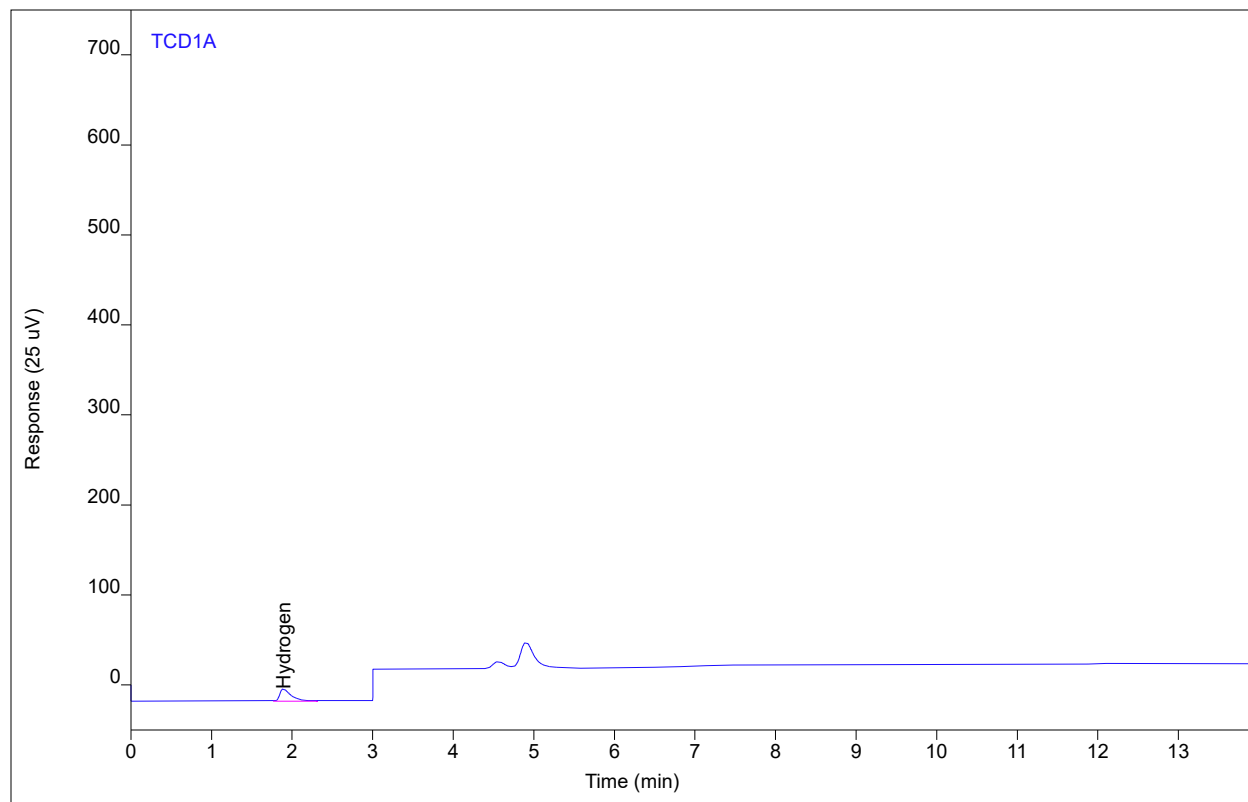
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	200.975	20.2268	16.1465	1	16.1465	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG17 ENV(1=1766.66,3=297.03)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1901.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 2:16 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 1 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



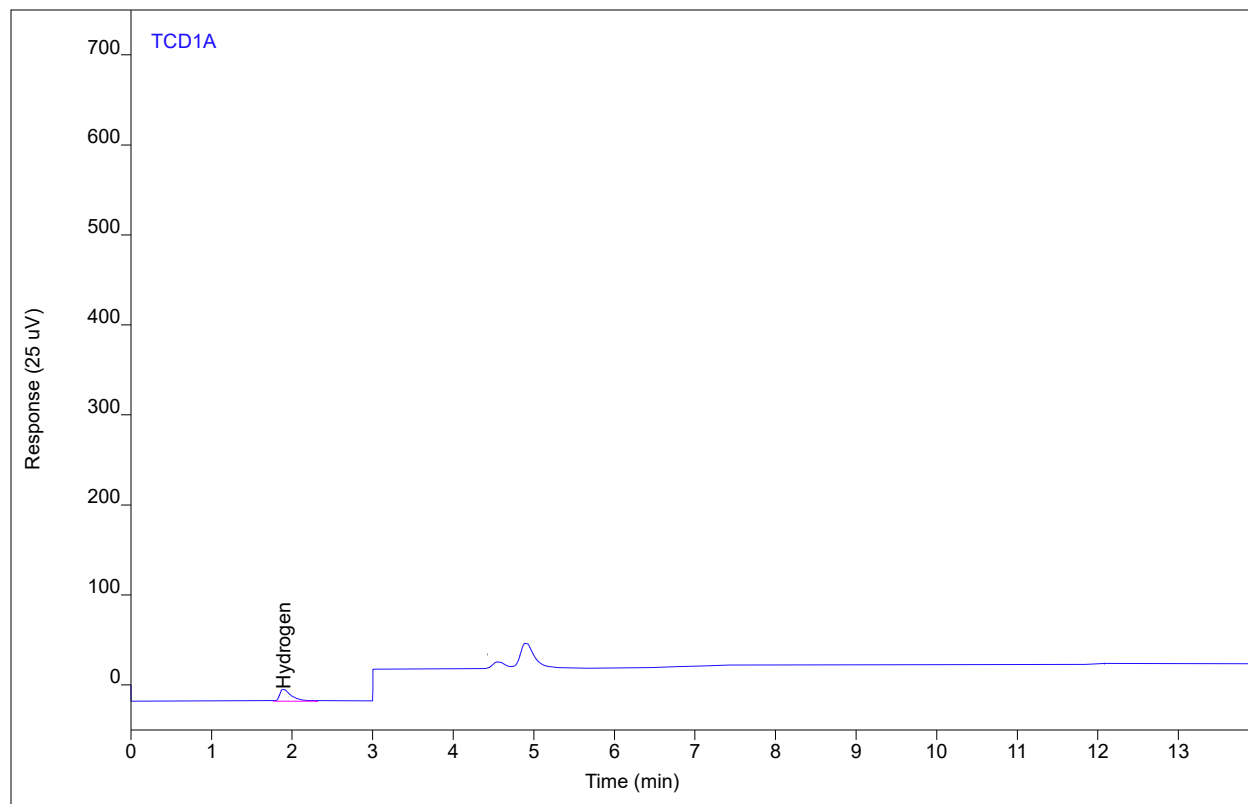
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	135.210	13.8917	10.8422	1	10.8422	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG17 ENV(1=1766.66,3=297.03)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1902.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 2:41 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number
Injection Volume
Injection
Acquisition Method
Analysis Method
Method Modified
Printed
Calibration
Vial 9
250
2 of 3
GC142P133_CAL.M
BETTYP1563_FGA.M
7/13/2021 2:38 PM
7/20/2021 8:51 AM



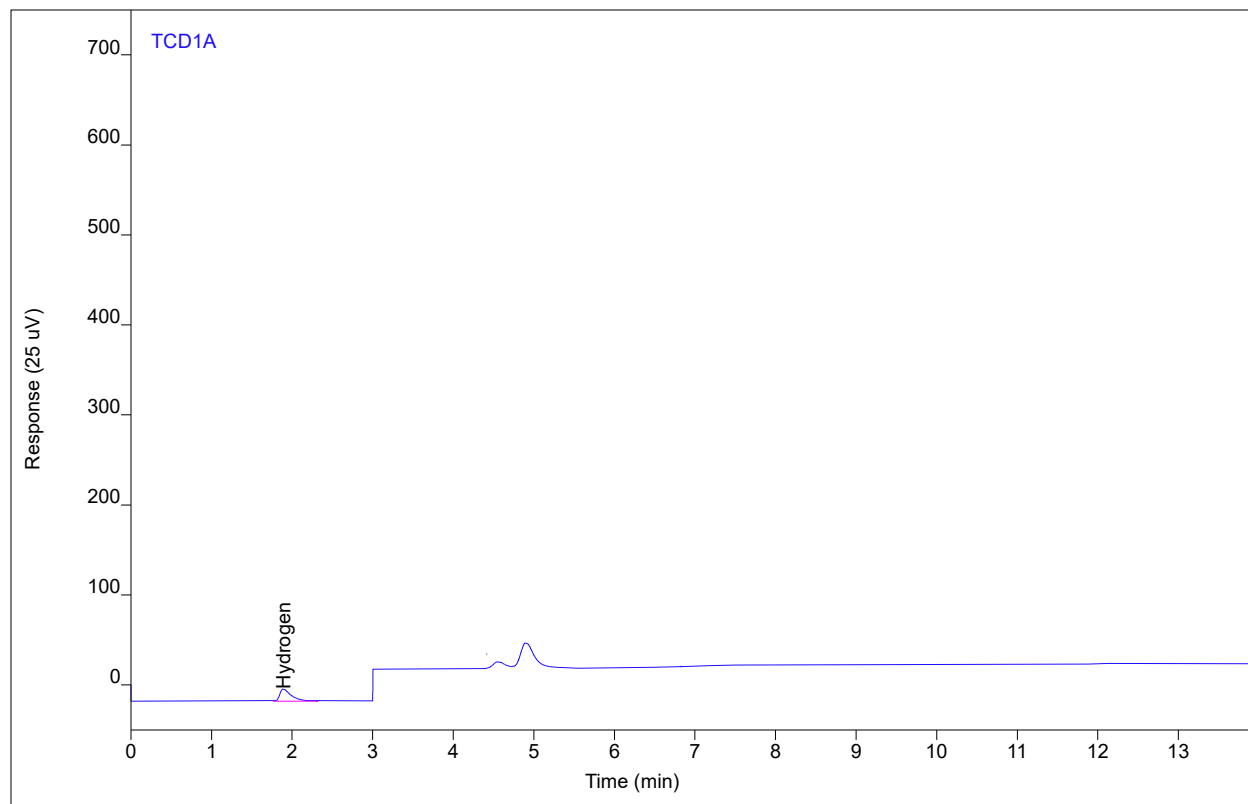
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	134.705	13.8480	10.8015	1	10.8015	%

Chromatogram Report

Enthalpy Analytical

Sample Name BettyP1401 #FG17 ENV(1=1766.66,3=297.03)
Sequence Name BETTYP1563 ver.2
Inj Data File 009F1903.D
File Location GC/2021/Betty/Quarter 3
Injection Date 7/12/2021 3:07 PM
File Modified 7/13/2021 2:32 PM
Instrument
Operator Nicholas Traversa

Sample Type
Vial Number Vial 9
Injection Volume 250
Injection 3 of 3
Acquisition Method GC142P133_CAL.M
Analysis Method BETTYP1563_FGA.M
Method Modified 7/13/2021 2:38 PM
Printed 7/20/2021 8:51 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen	BB	1.89	135.088	13.8657	10.8324	1	10.8324	%

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X05HE64C15AC0J1	Reference Number:	122-401943606-1
Cylinder Number:	CC357518	Cylinder Volume:	132.2 CF
Laboratory:	124 - Durham (SAP) - NC	Cylinder Pressure:	2014 PSIG
Analysis Date:	Oct 28, 2020	Valve Outlet:	350
Lot Number:	122-401943606-1		

Expiration Date: Oct 28, 2028

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

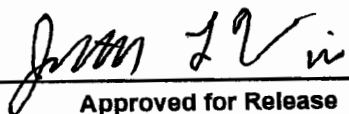
ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
HYDROGEN	8.000 %	8.186 %	+/- 2%
METHANE	8.000 %	8.033 %	+/- 2%
CARBON MONOXIDE	10.00 %	10.07 %	+/- 2%
NITROGEN	10.00 %	10.18 %	+/- 2%
HELIUM	Balance		

Permanent Notes: MONTROSE ENVIRONMENTAL/ENTHALPY ANALYTICAL

 **COPY**




Approved for Release

EA Job # 1121-078A 174 of 222

CERTIFICATE OF ANALYSIS

Grade of Product: PRIMARY STANDARD

Part Number:	X03HE80P15A01P0	Reference Number:	132-401943608-1
Cylinder Number:	CC148417	Cylinder Volume:	132.9 CF
Laboratory:	180 - Durham - NC	Cylinder Pressure:	2014 PSIG
Analysis Date:	Nov 17, 2020	Valve Outlet:	590
Lot Number:	132-401943608-1		

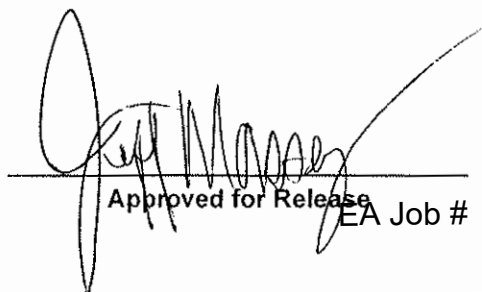
Expiration Date: Nov 17, 2028

Primary Standard Gas Mixtures are traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
CARBON DIOXIDE	10.00 %	10.01 %	+/- 0.02% abs
OXYGEN	10.00 %	10.00 %	+/- 0.02% abs
HELIUM	Balance		




Approved for Release

EA Job # 1121-078A 175 of 222

CERTIFICATE OF ANALYSIS

Grade of Product: INSTRUMENT

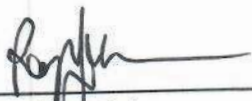
Part Number: CD I80CT
Cylinder Number: W-865
Laboratory: 180 - Durham - NC
Analysis Date: Jan 27, 2020
Lot Number: 132-401714975-1

Reference Number: 132-401714975-1
Cylinder Volume: 26.0 LB
Cylinder Pressure: 835 PSIG
Valve Outlet: 320

ANALYTICAL RESULTS

Component	Requested Purity	Certified Concentration
CARBON DIOXIDE	99.99 %	99.99 %
Moisture	< 10.0 PPM	4.50 PPM
THC	< 10.0 PPM	2.50 PPM
Oxygen	< 20.0 PPM	1.90 PPM
Nitrogen	< 70.0 PPM	6.36 PPM

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.


Approved for Release

EA Job # 1121-078A 176 of 222

Issue Date: **12-08-2014**

To:

Attn:

Praxair Order Number:
Customer Order Number:
Customer Reference
Number:

Product Lot Number: 1124002724A1
Product Part Number: ME 5.0RS-G

CERTIFICATE OF ANALYSIS

(Methane 99.999%, Research)

<i>Cylinder Serial Number</i>	<i>Analytes</i>	<i>Specification</i>	
RA071907	Methane	99.999	%
RA072283	Ethane	ND < 0.1	ppm
*RA072293	Nitrogen	ND < 0.1	ppm
RA072328	Oxygen	0.1	ppm
	Moisture	0.3	ppm
	Other Hydrocarbons	ND < 0.1	ppm

Cylinder Style: G
Cylinder Pressure @70°F (21°C): 2000 PSI
Cylinder Volume: 40 Cubic Feet

Valve Outlet Connection: 350 CGA
Filling Method: Pressure

Approved Signer: _____

Patrick Philpot

This analysis of the product described herein was prepared by Praxair Distribution using instruments whose calibration is certified using Praxair Reference Materials. Praxair Reference Materials are prepared either by weights traceable to the National Institute of Standards and Technology (NIST), Measurement Canada or by using NIST Standard Reference Materials where available.

Note: All expressions for concentration (e.g., % or ppm) are for gas phase, by volume (e.g., ppmv) unless otherwise noted

***Key to Analytical Principle:**

A. Flame Ionization with Methanizer	F. Gas Chromatography with Helium Ionization Detector	K. Gas Chromatography with Ultrasonic Detector	P. Electrochemical
B. Gas Chromatography with Discharge Ionization Detector	G. Gas Chromatography with Methanizer Carbonizer	L. Gravimetric Methods	Q. Total Hydrocarbon Analyzer
C. Gas Chromatography with Electrolytic Conductivity Detector	H. Gas Chromatography with Photoionization Detector	M. Infrared – FTIR or NDIR	R. Wet Chemical
D. Gas Chromatography with Flame Ionization Detector	I. Gas Chromatography with Reduction Gas Analyzer	N. Mass Spectrometry – MS or GC/MS	S. Detector Tube
E. Gas Chromatography with Flame Photometric Detector	J. Gas Chromatography with Thermal Conductivity Detector	O. Paramagnetic	T. Odor

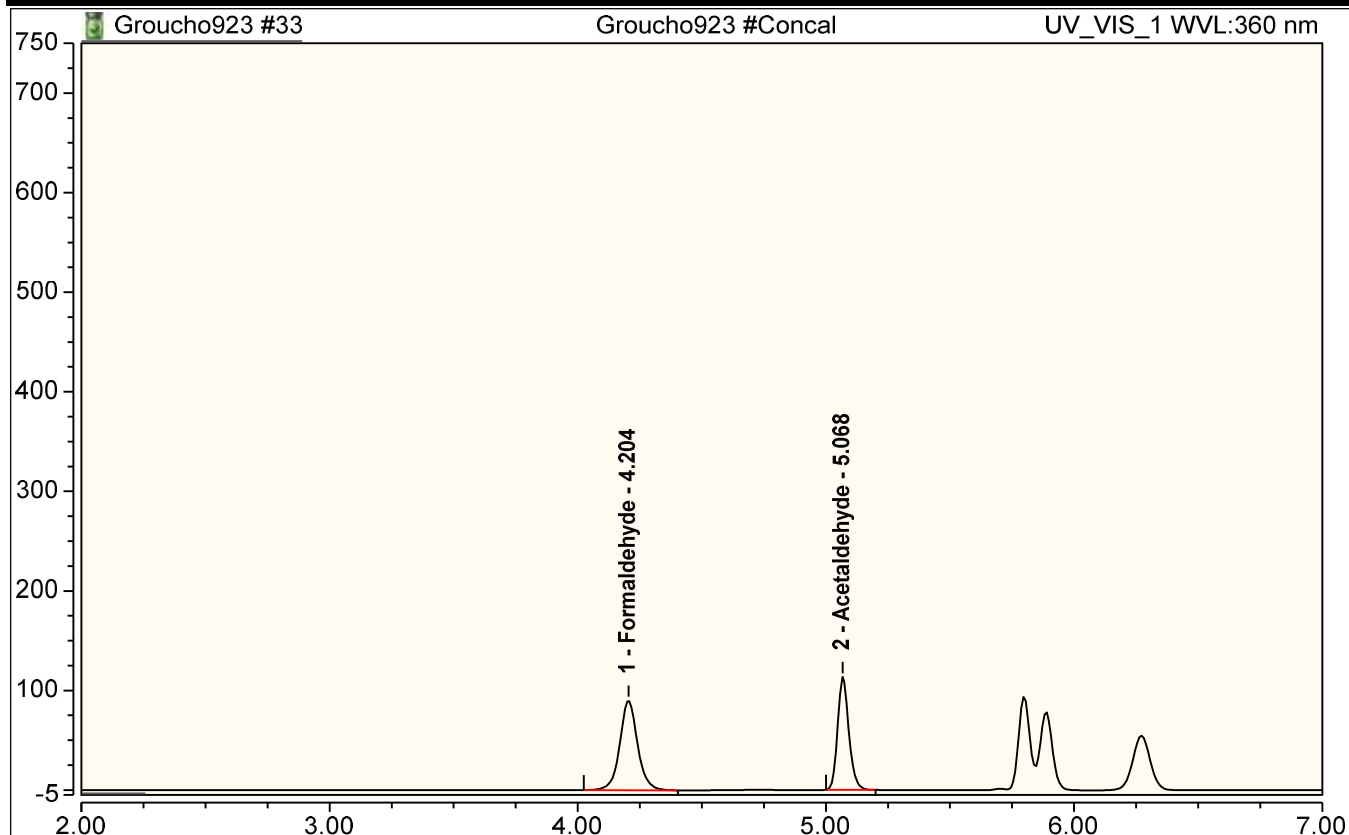
IMPORTANT

The information contained herein has been prepared at your request by personnel within Praxair Distribution. While we believe the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall liability of Praxair Distribution arising out of the use of the information contained herein exceed the fee established for providing such information.

Raw Data

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 11:57	Run Time:	16.50

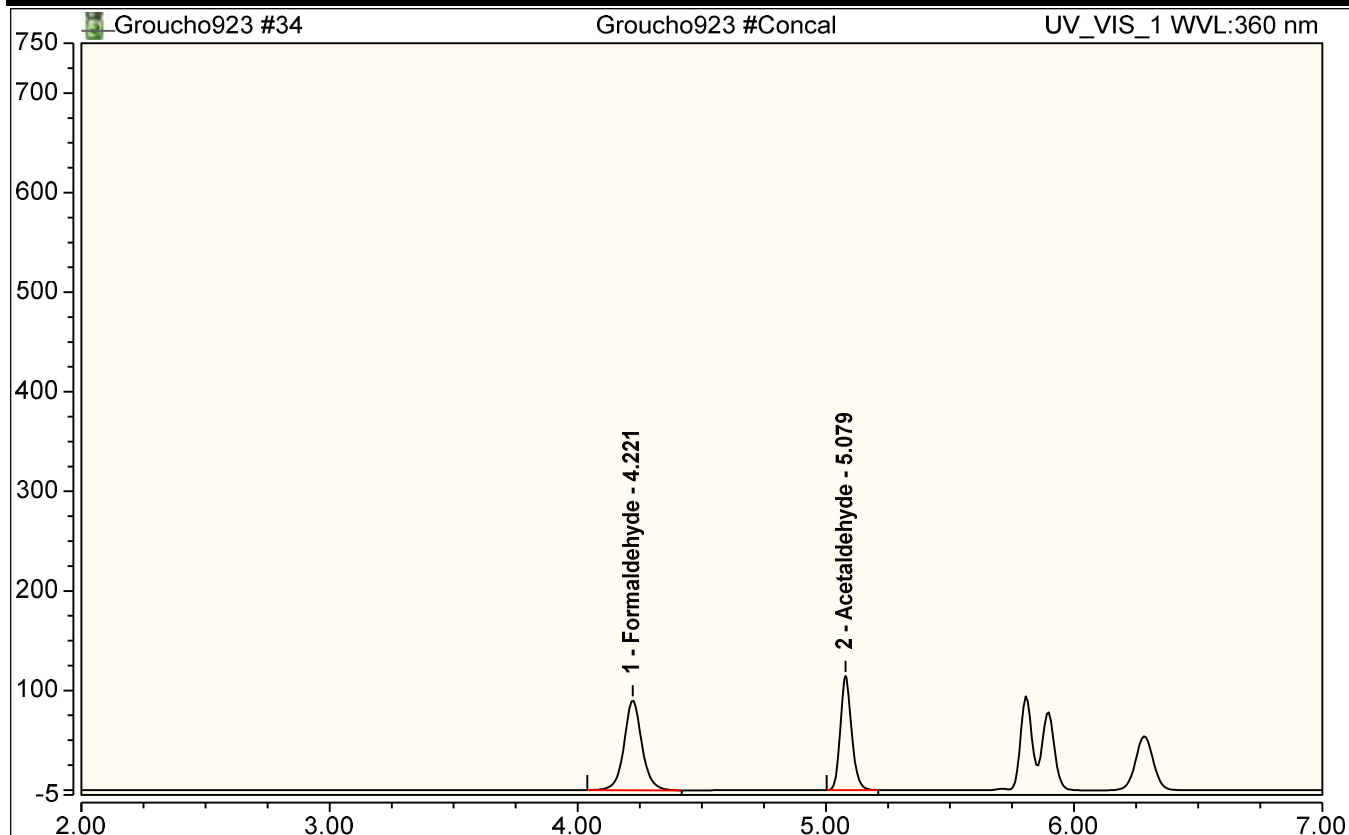


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.20	Formaldehyde	7.489	90.138	2.49594
2	5.07	Acetaldehyde	5.933	113.383	2.52874

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 12:16	Run Time:	16.50

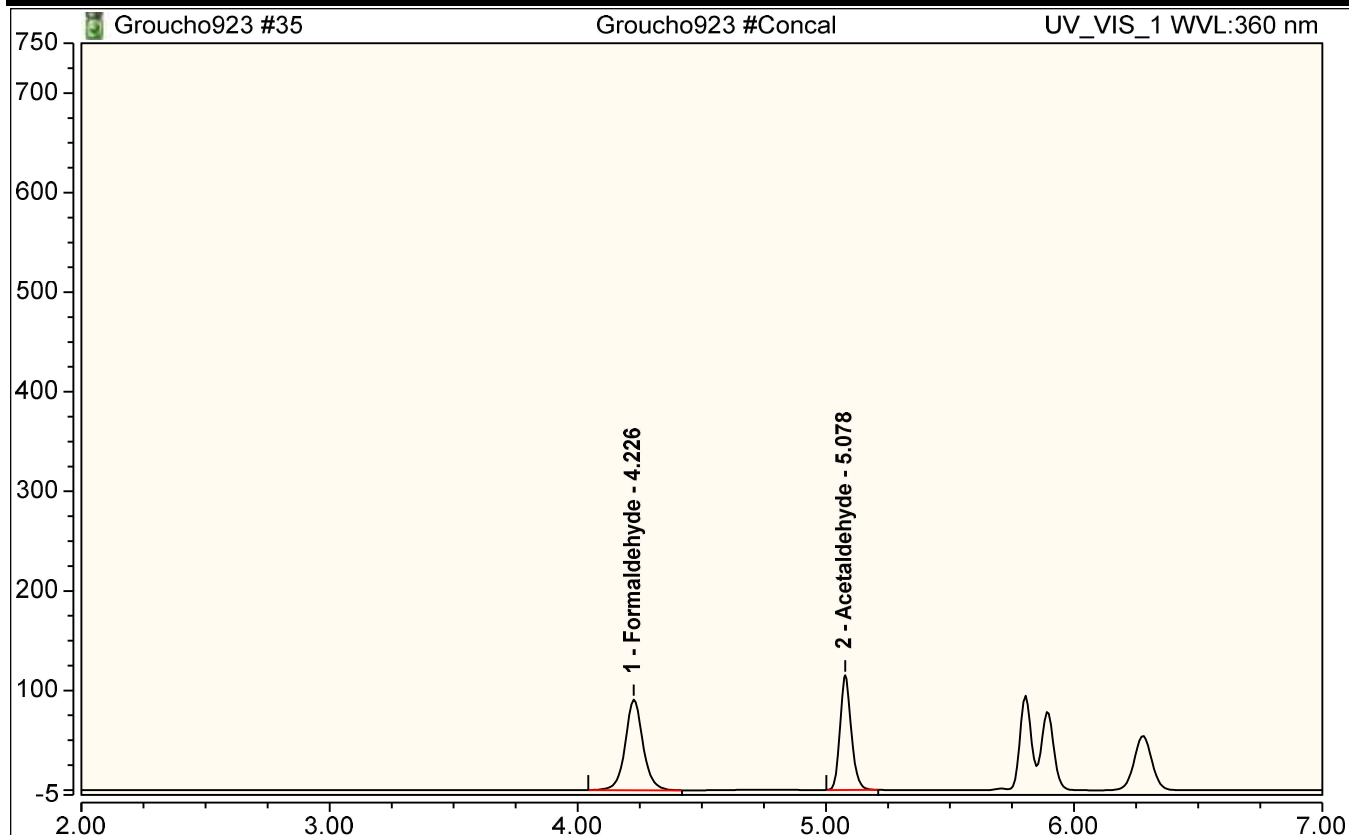


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.22	Formaldehyde	7.552	90.414	2.51678
2	5.08	Acetaldehyde	6.006	114.705	2.55980

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 12:34	Run Time:	16.50

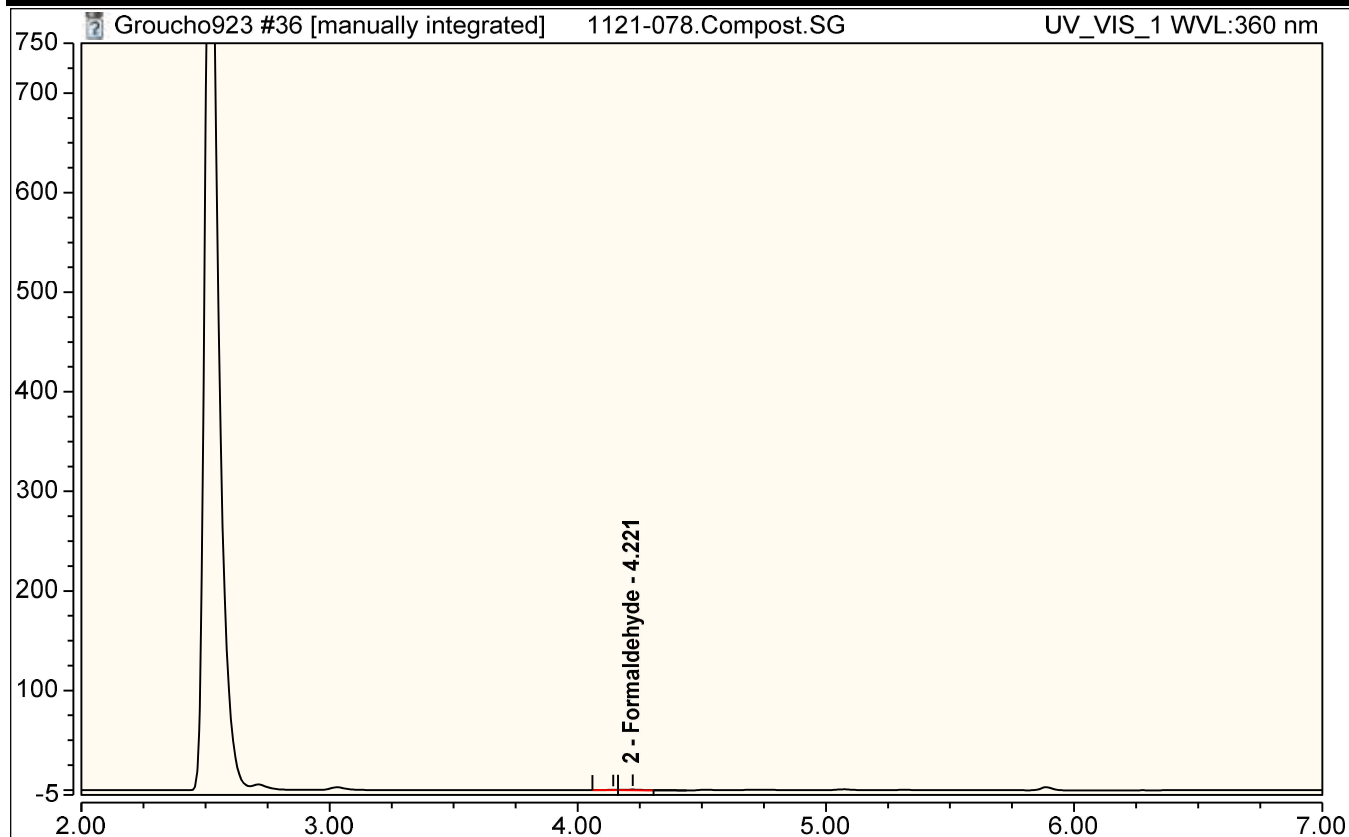


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.23	Formaldehyde	7.568	90.935	2.52242
2	5.08	Acetaldehyde	6.023	115.129	2.56676

Peak Analysis Report

Sample Name:	1121-078.Compost.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 12:52	Run Time:	16.50



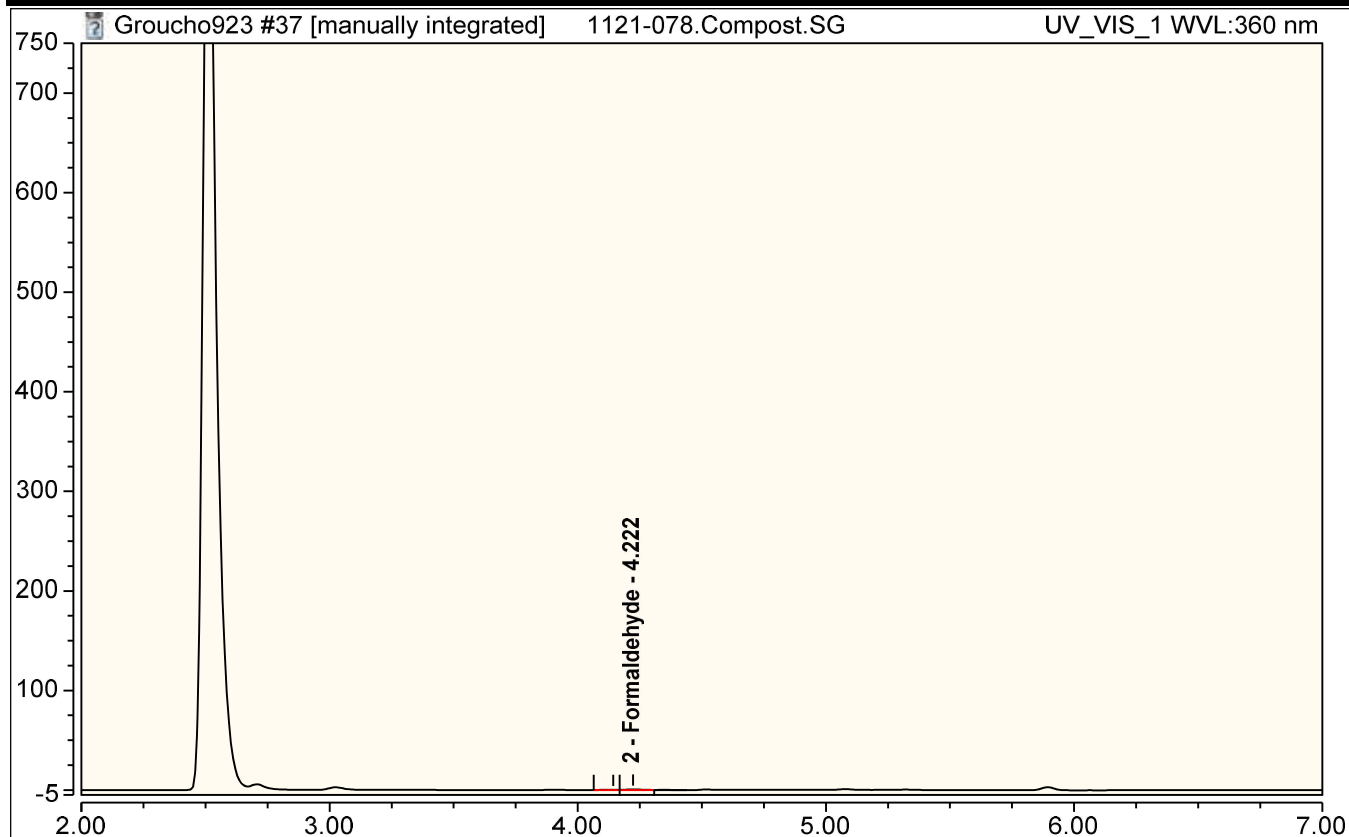
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.22	Formaldehyde	0.061	0.657	0.02097

Peak Analysis Report

Sample Name:	1121-078.Compost.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 13:10	Run Time:	16.50



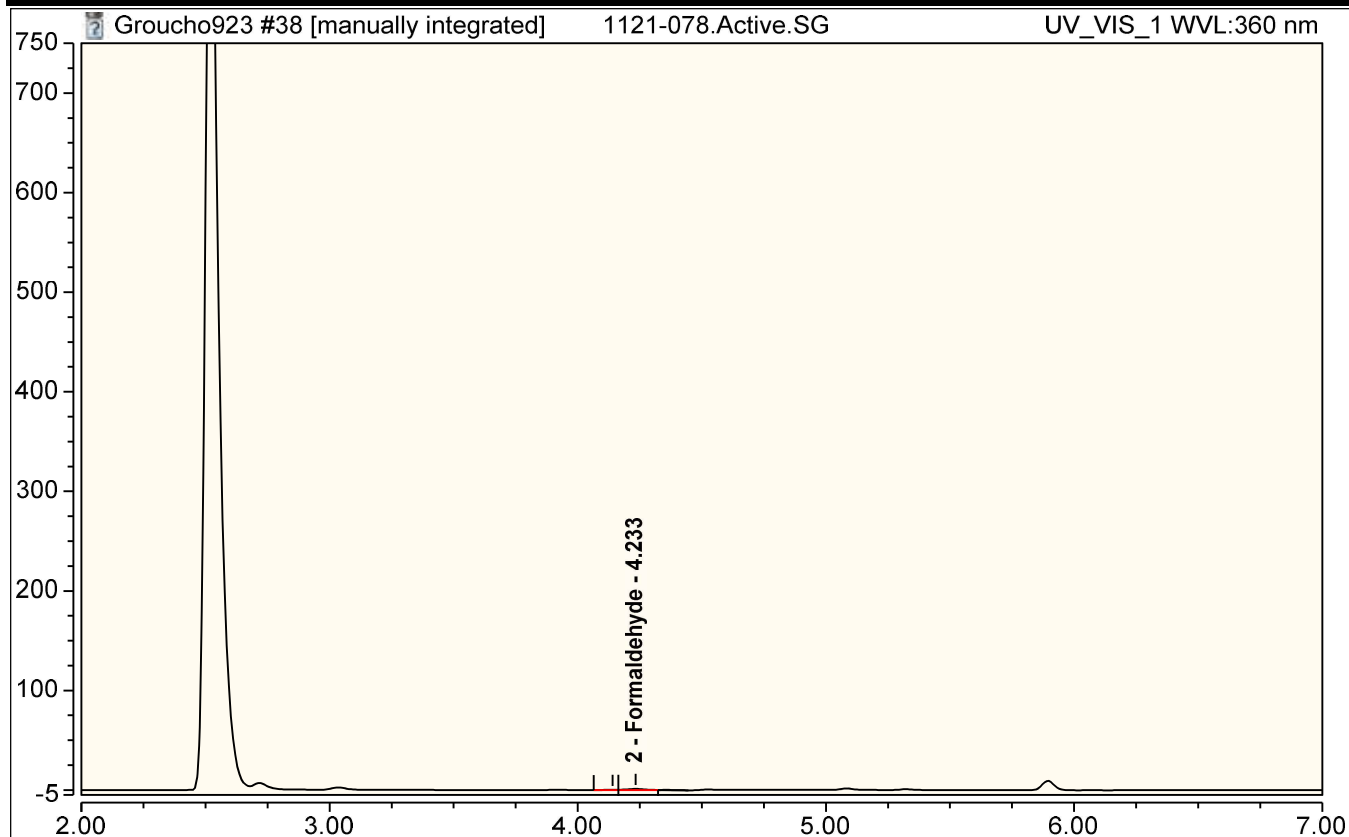
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.22	Formaldehyde	0.060	0.653	0.02061

Peak Analysis Report

Sample Name:	1121-078.Active.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 13:28	Run Time:	16.50



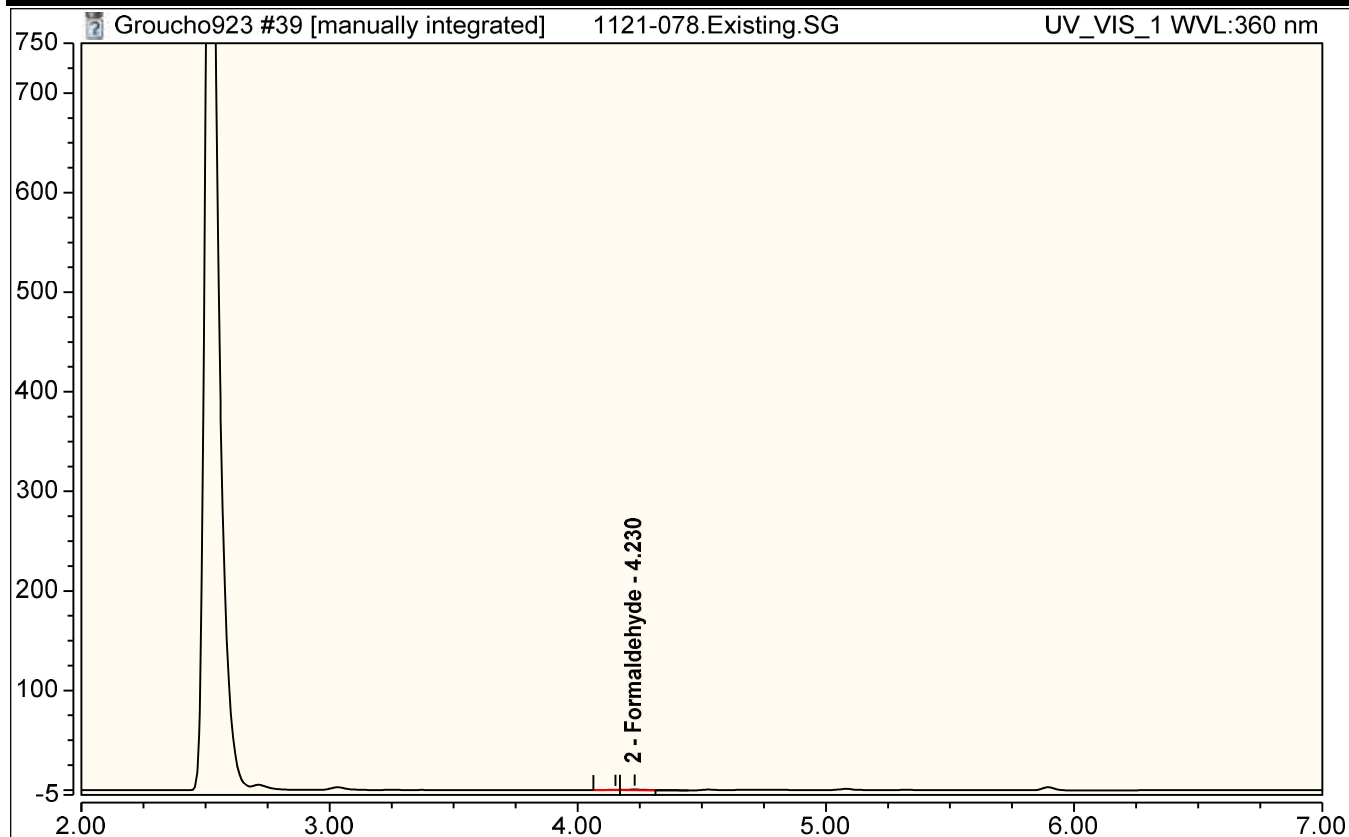
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.23	Formaldehyde	0.111	1.222	0.03772

Peak Analysis Report

Sample Name:	1121-078.Existing.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 13:47	Run Time:	16.50



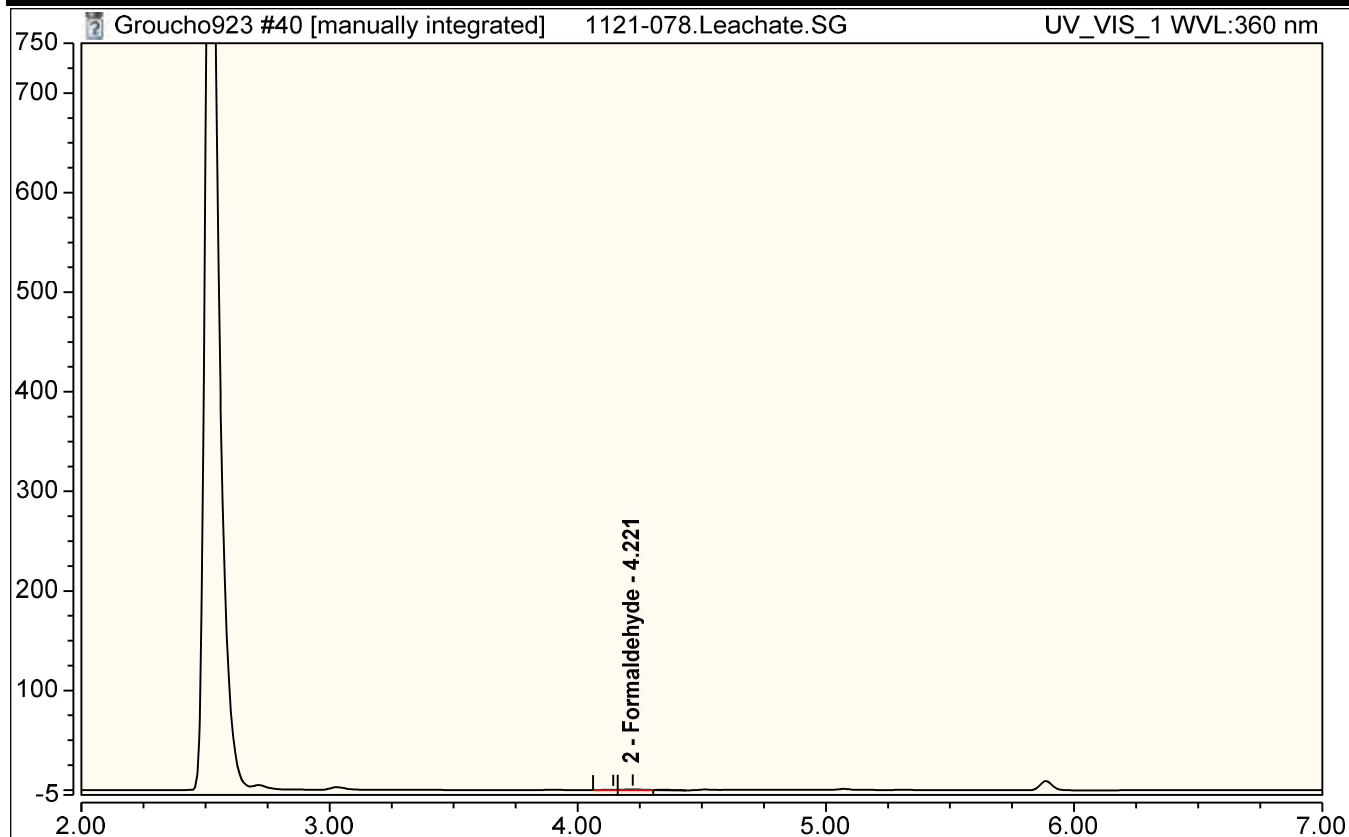
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.23	Formaldehyde	0.065	0.700	0.02252

Peak Analysis Report

Sample Name:	1121-078.Leachate.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 14:05	Run Time:	16.50



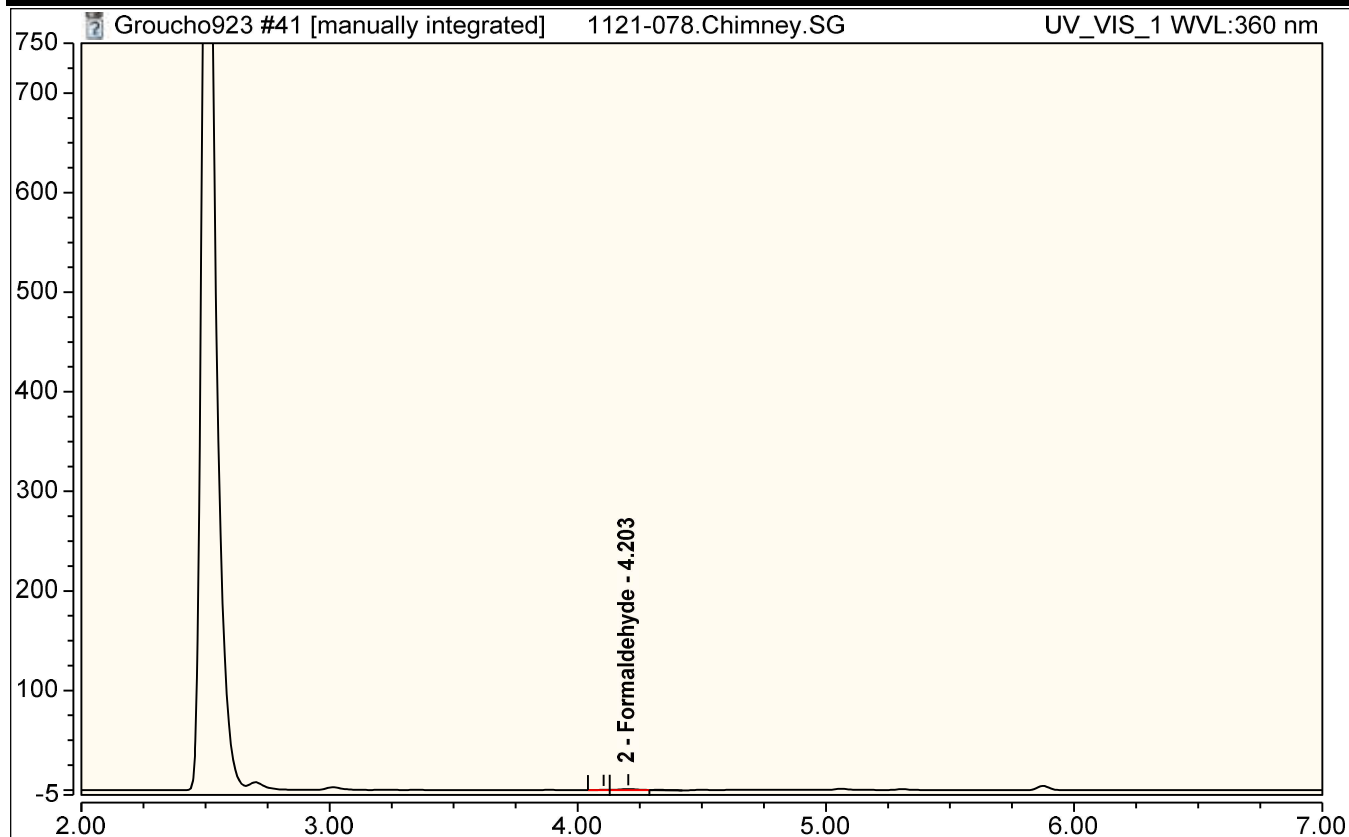
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.22	Formaldehyde	0.065	0.705	0.02257

Peak Analysis Report

Sample Name:	1121-078.Chimney.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 14:23	Run Time:	16.50



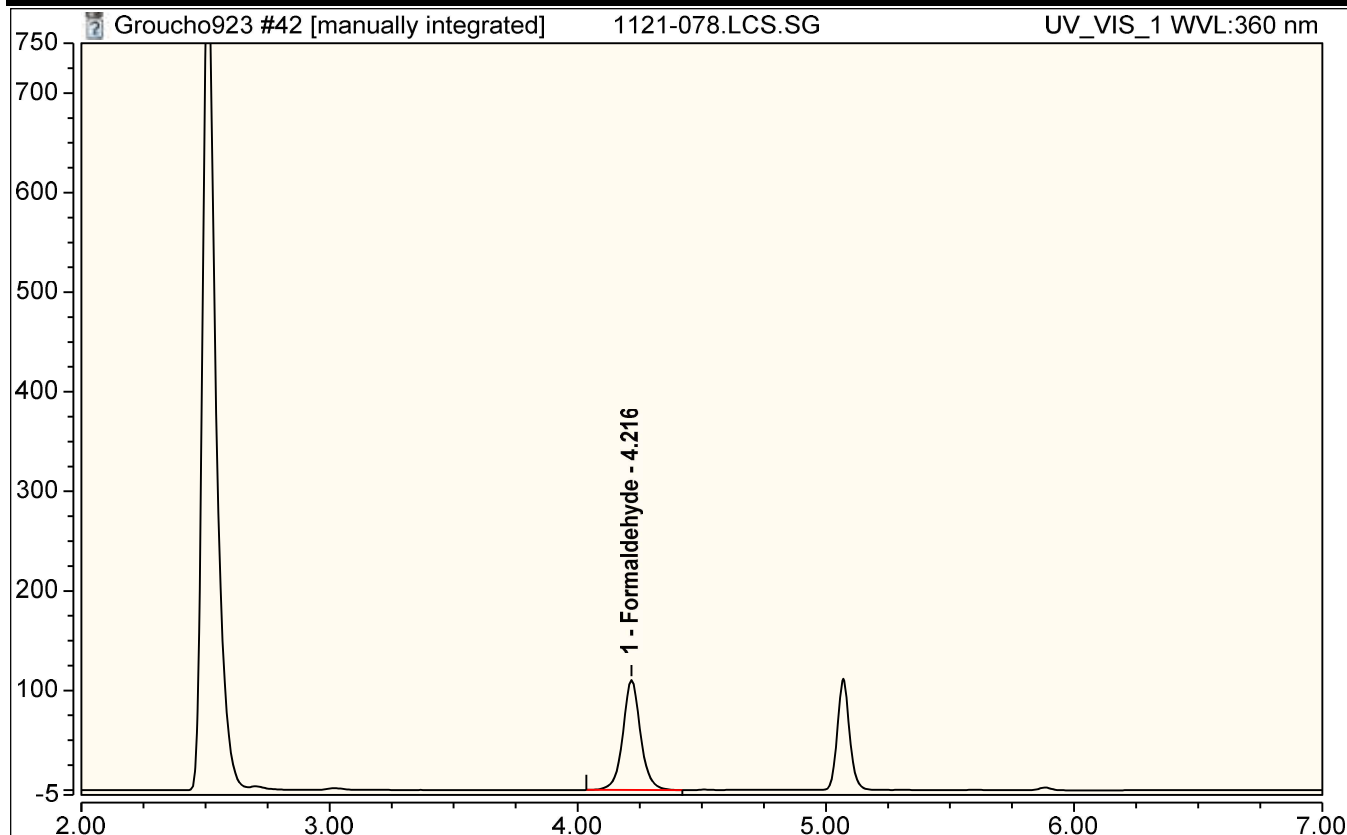
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.20	Formaldehyde	0.098	1.094	0.03348

Peak Analysis Report

Sample Name:	1121-078.LCS.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 14:41	Run Time:	16.50

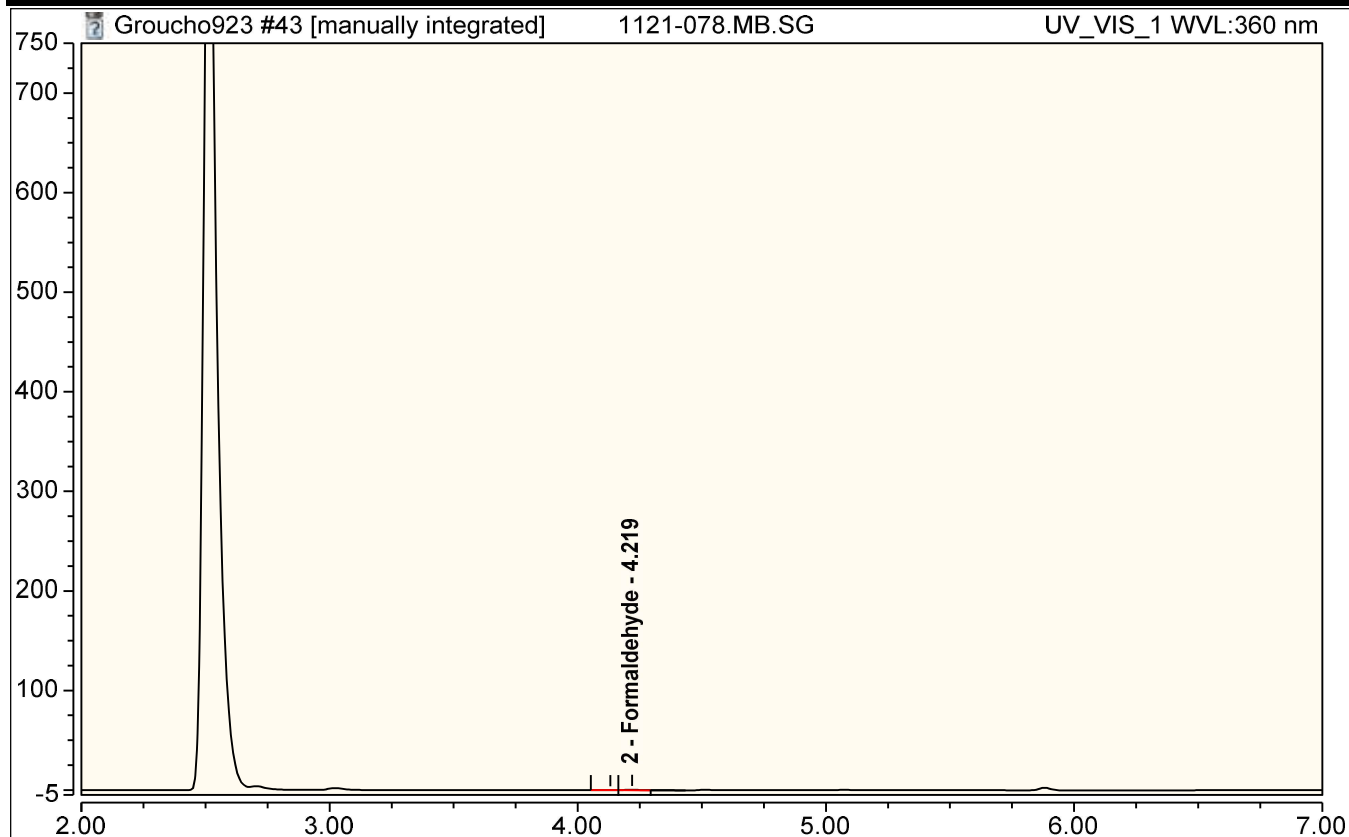


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.22	Formaldehyde	9.182	110.532	3.06015

Peak Analysis Report

Sample Name:	1121-078.MB.SG	Injection Volume:	5.00
Injection Type:	Unknown	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 14:59	Run Time:	16.50



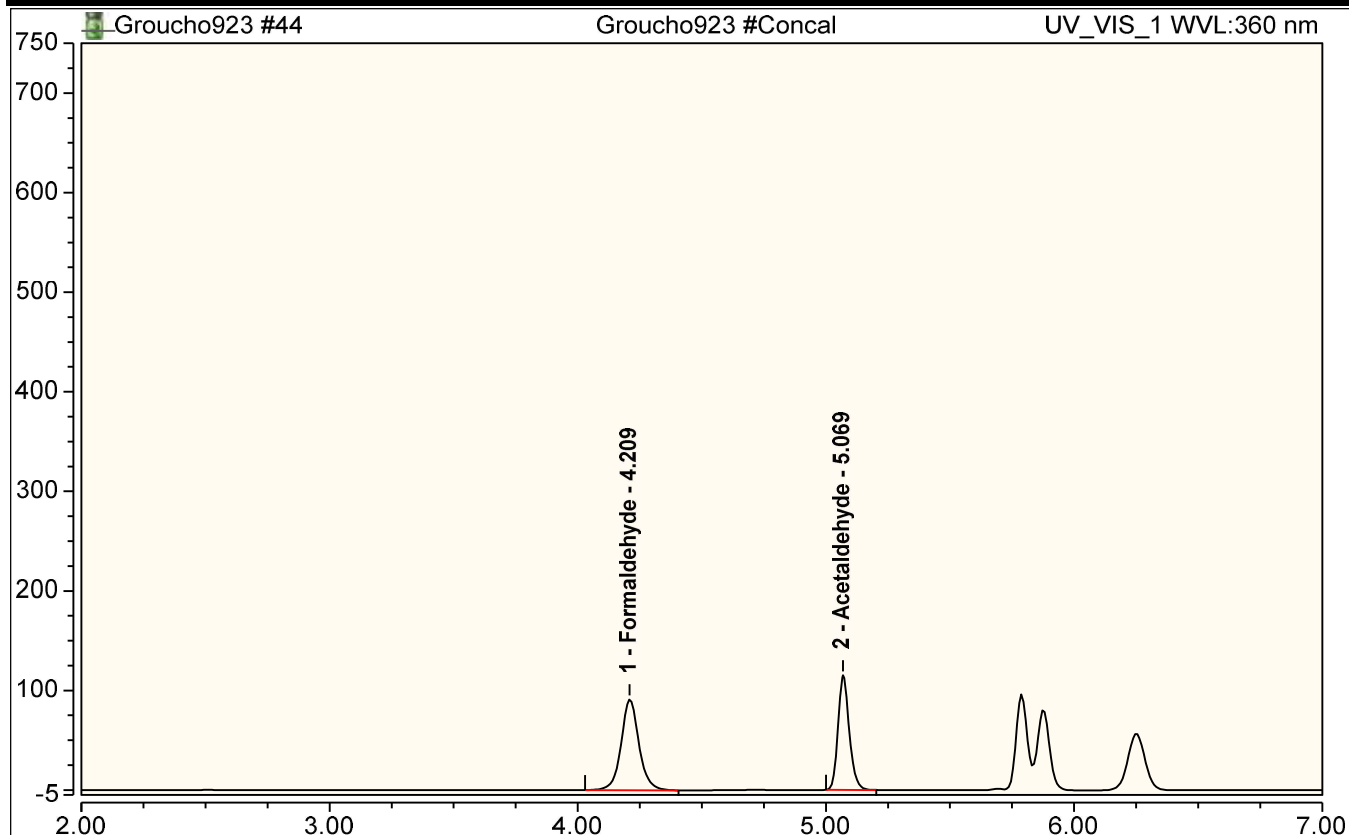
Analyst Comment:

II PRM 11/19/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	4.22	Formaldehyde	0.044	0.479	0.01559

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 15:18	Run Time:	16.50

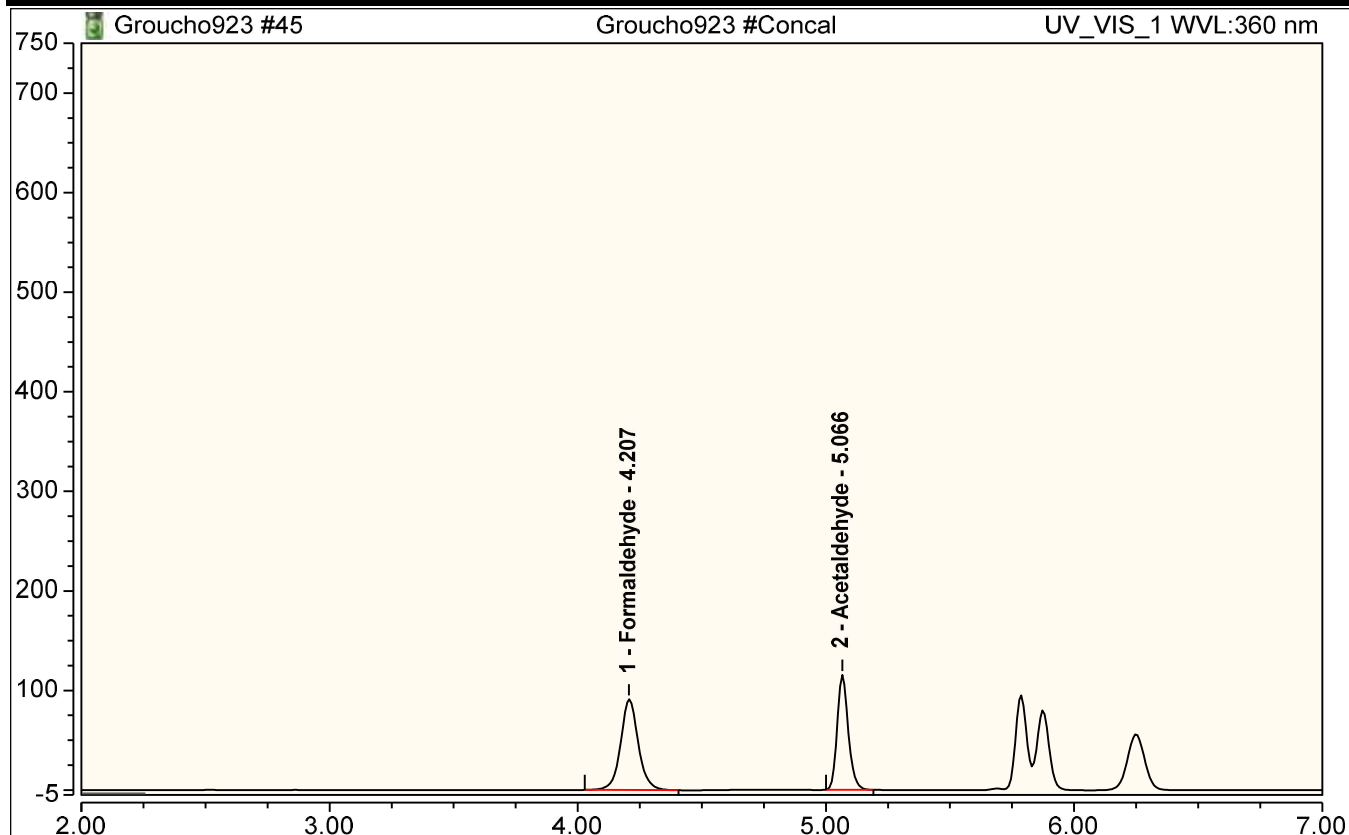


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.21	Formaldehyde	7.604	91.295	2.53423
2	5.07	Acetaldehyde	6.030	115.275	2.56972

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 15:36	Run Time:	16.50

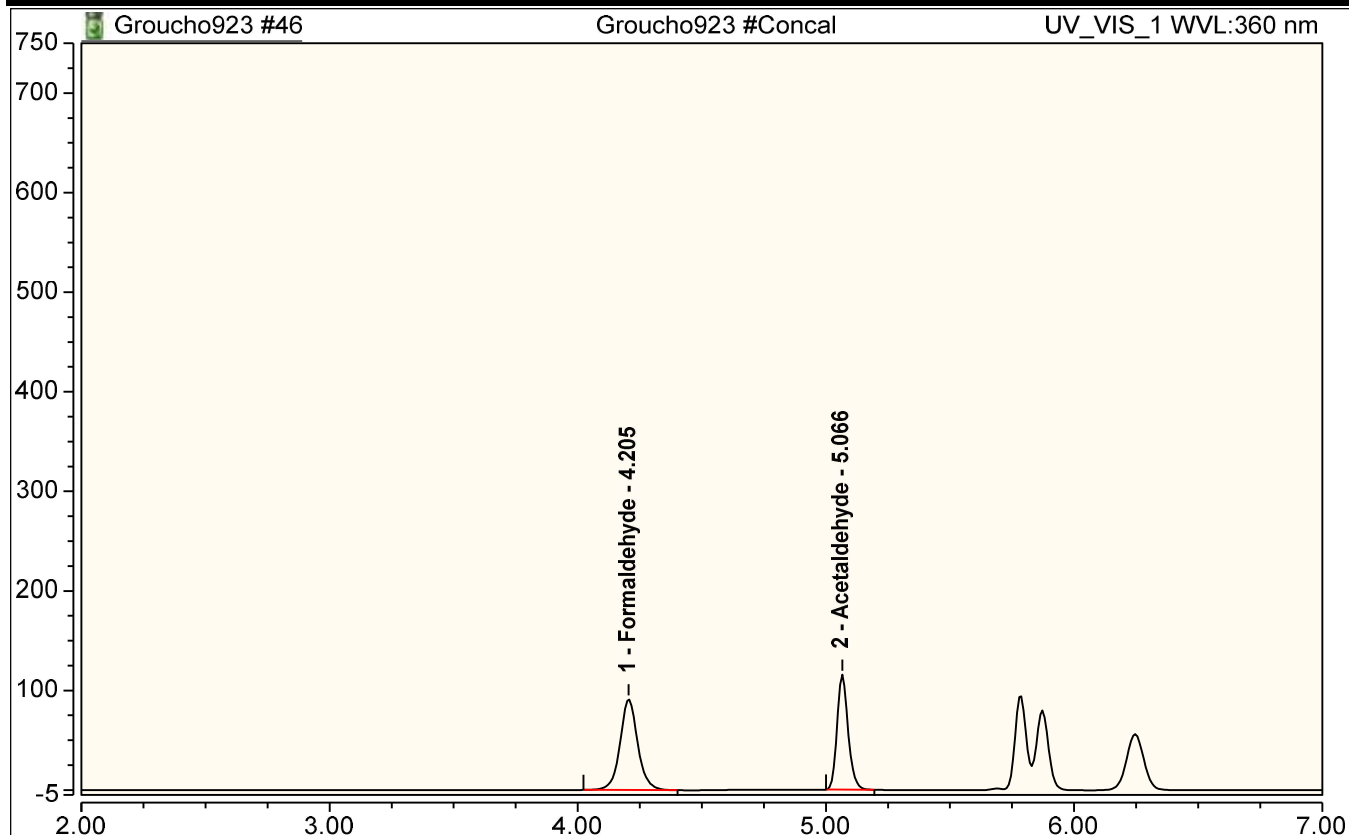


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.21	Formaldehyde	7.556	91.285	2.51835
2	5.07	Acetaldehyde	5.973	115.460	2.54568

Peak Analysis Report

Sample Name:	Groucho923 #Concal	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 15:54	Run Time:	16.50



Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.21	Formaldehyde	7.549	91.281	2.51583
2	5.07	Acetaldehyde	5.965	115.682	2.54204

No.	Injection Name	Inject Time	Pos.	Level	Ref. Amount ug/mL	Calibration Point Status	Ref. Amount ug/mL	Calibration Point Status	Volume	Dil.Factor
					UV_VIS_1 Formaldehyde	UV_VIS_1 Formaldehyde	UV_VIS_1 Acetaldehyde	UV_VIS_1 Acetaldehyde		
4	HPLCSTDS1131 #1	15/Jun/2021 17:47	1	1	0.0452	Ok	0.0452	Ok	5.00	1.0000
5	HPLCSTDS1131 #1	15/Jun/2021 18:05	1	1	0.0452	Ok	0.0452	Ok	5.00	1.0000
6	HPLCSTDS1131 #1	15/Jun/2021 18:23	1	1	0.0452	Ok	0.0452	Ok	5.00	1.0000
7	HPLCSTDS1131 #2	15/Jun/2021 18:41	2	2	0.1000	Ok	0.1000	Ok	5.00	1.0000
8	HPLCSTDS1131 #2	15/Jun/2021 18:59	2	2	0.1000	Ok	0.1000	Ok	5.00	1.0000
9	HPLCSTDS1131 #2	15/Jun/2021 19:17	2	2	0.1000	Ok	0.1000	Ok	5.00	1.0000
10	HPLCSTDS1131 #3	15/Jun/2021 19:35	3	3	0.8696	Ok	0.8696	Ok	5.00	1.0000
11	HPLCSTDS1131 #3	15/Jun/2021 19:54	3	3	0.8696	Ok	0.8696	Ok	5.00	1.0000
12	HPLCSTDS1131 #3	15/Jun/2021 20:12	3	3	0.8696	Ok	0.8696	Ok	5.00	1.0000
13	HPLCSTDS1131 #4	15/Jun/2021 20:30	4	4	2.5167	Ok	2.5167	Ok	5.00	1.0000
14	HPLCSTDS1131 #4	15/Jun/2021 20:48	4	4	2.5167	Ok	2.5167	Ok	5.00	1.0000
15	HPLCSTDS1131 #4	15/Jun/2021 21:06	4	4	2.5167	Ok	2.5167	Ok	5.00	1.0000
16	HPLCSTDS1131 #5	15/Jun/2021 21:24	5	5	5.0333	Ok	5.0333	Ok	5.00	1.0000
17	HPLCSTDS1131 #5	15/Jun/2021 21:43	5	5	5.0333	Ok	5.0333	Ok	5.00	1.0000
18	HPLCSTDS1131 #5	15/Jun/2021 22:01	5	5	5.0333	Ok	5.0333	Ok	5.00	1.0000
19	HPLCSTDS1131 #6	15/Jun/2021 22:19	6	6	7.5500	Ok	7.5500	Ok	5.00	1.0000
20	HPLCSTDS1131 #6	15/Jun/2021 22:37	6	6	7.5500	Ok	7.5500	Ok	5.00	1.0000
21	HPLCSTDS1131 #6	15/Jun/2021 22:55	6	6	7.5500	Ok	7.5500	Ok	5.00	1.0000
22	HPLCSTDS1131 #7	15/Jun/2021 23:13	7	7	15.1000	Ok	15.1000	Ok	5.00	1.0000
23	HPLCSTDS1131 #7	15/Jun/2021 23:31	7	7	15.1000	Ok	15.1000	Ok	5.00	1.0000
24	HPLCSTDS1131 #7	15/Jun/2021 23:50	7	7	15.1000	Ok	15.1000	Ok	5.00	1.0000

Detection Parameters

Ret. Time min	Param. Name	Param. Value	Inj. Type	Channel
<Initial>	Consider Void Peak	Off	Any	All Channels
<Initial>	Smoothing Width	Auto	Any	All Channels
<Initial>	Baseline Noise Range	Auto	Any	All Channels
0.000	Tailing Sensitivity Factor	0.200 [%]	Any	All Channels
0.000	Fronting Sensitivity Factor	0.250 [%]	Any	All Channels
0.000	Minimum Area	Auto	Any	All Channels
0.000	Inhibit Integration	On	Any	All Channels
4.000	Inhibit Integration	Off	Any	All Channels
4.500	Inhibit Integration	On	Any	All Channels
5.000	Inhibit Integration	Off	Any	All Channels
5.350	Inhibit Integration	On	Any	All Channels

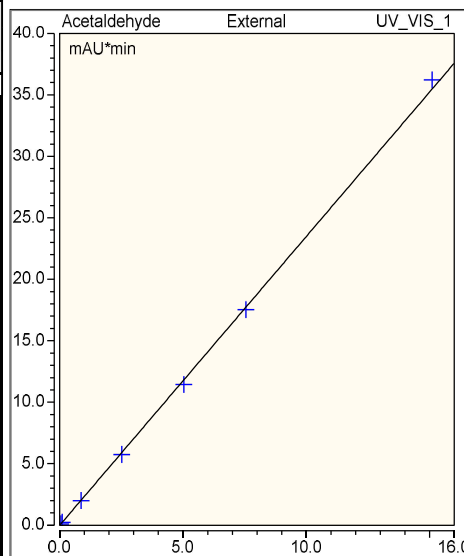
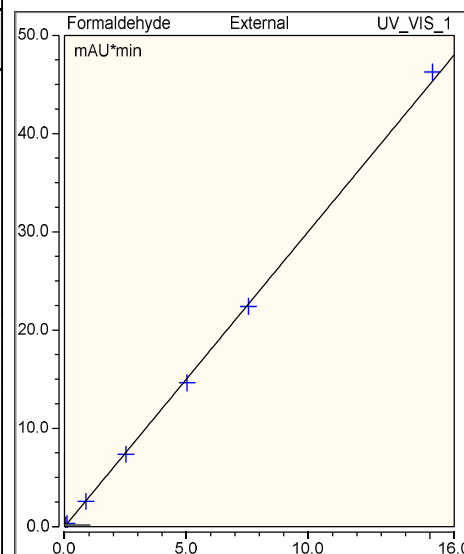
Calibration Batch Report

Sequence:	Groucho923	Injection Vol:	5.00
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	19-Nov-2021 / 15:54	Run Time:	16.49890667

Calibration Summary

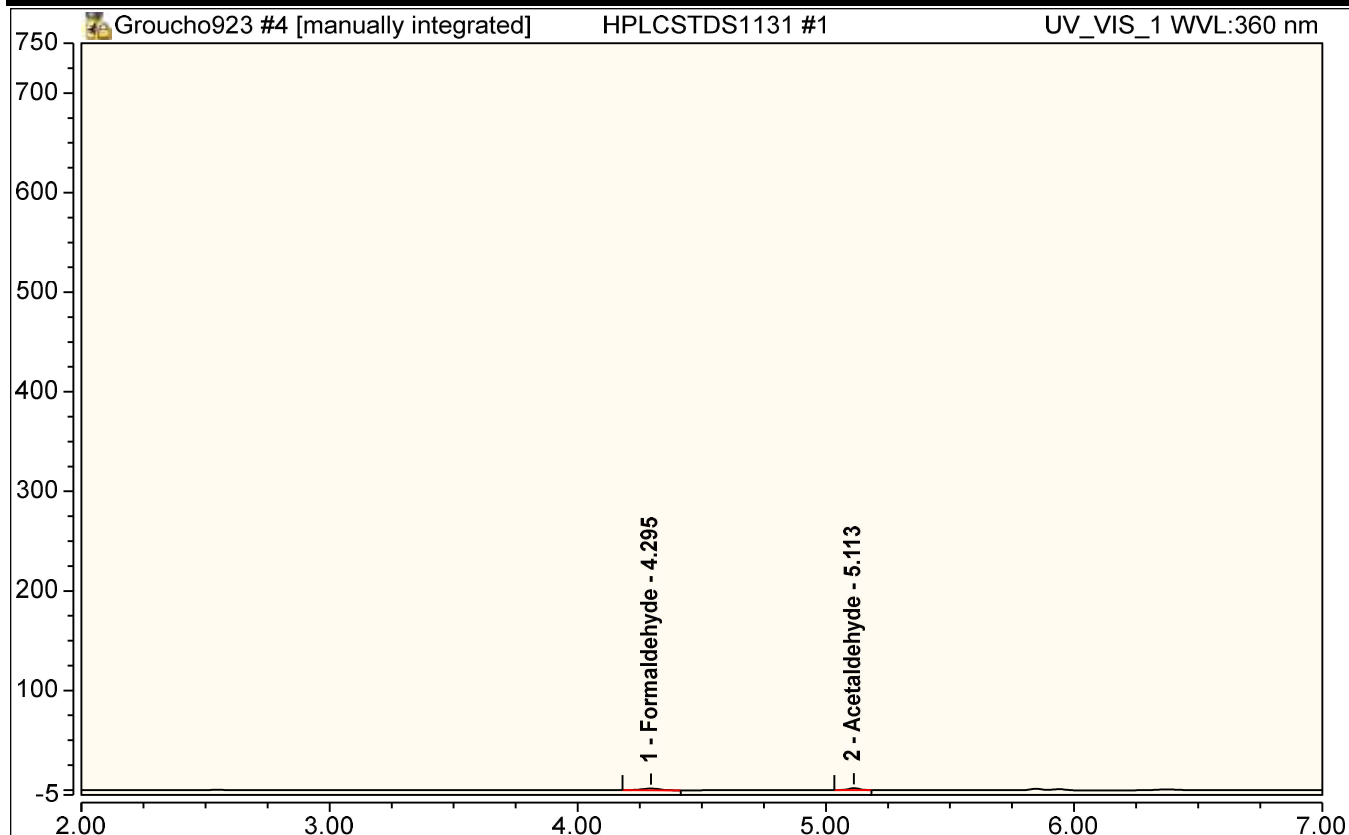
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Formaldehyde	Area	Lin, WithOffset, 1/A, Avg	7.000	-0.002	3.001	0.000	99.952
Acetaldehyde	Area	Lin, WithOffset, 1/A, Avg	7.000	-0.008	2.349	0.000	99.951
AVERAGE:				-0.0051	2.6754	0.0000	99.9513

Injection Name	Ret.Time min UV_VIS_1	Area mAU*min UV_VIS_1	Height mAU UV_VIS_1	Amount ug/mL UV_VIS_1
Formaldehyde	Formaldehyde	Formaldehyde	Formaldehyde	Formaldehyde
HPLCSTDS1131 #1	4.295	0.1364	1.682	0.046
HPLCSTDS1131 #1	4.298	0.1392	1.709	0.047
HPLCSTDS1131 #1	4.304	0.1374	1.666	0.047
HPLCSTDS1131 #2	4.313	0.3033	3.767	0.102
HPLCSTDS1131 #2	4.307	0.3085	3.743	0.104
HPLCSTDS1131 #2	4.316	0.3097	3.763	0.104
HPLCSTDS1131 #3	4.316	2.5673	31.468	0.856
HPLCSTDS1131 #3	4.317	2.5565	31.600	0.853
HPLCSTDS1131 #3	4.315	2.5720	31.698	0.858
HPLCSTDS1131 #4	4.318	7.3429	90.910	2.447
HPLCSTDS1131 #4	4.318	7.4030	91.634	2.467
HPLCSTDS1131 #4	4.316	7.3154	90.877	2.438
HPLCSTDS1131 #5	4.317	14.6357	182.264	4.877
HPLCSTDS1131 #5	4.323	14.6504	182.553	4.882
HPLCSTDS1131 #5	4.326	14.6250	182.443	4.874
HPLCSTDS1131 #6	4.328	22.4621	280.267	7.485
HPLCSTDS1131 #6	4.327	22.3731	279.166	7.455
HPLCSTDS1131 #6	4.328	22.3988	279.041	7.464
HPLCSTDS1131 #7	4.335	46.1909	574.879	15.391
HPLCSTDS1131 #7	4.330	46.3293	577.421	15.437
HPLCSTDS1131 #7	4.332	46.2588	576.359	15.413
Injection Name	Ret.Time min UV_VIS_1	Area mAU*min UV_VIS_1	Height mAU UV_VIS_1	Amount ug/mL UV_VIS_1
Acetaldehyde	Acetaldehyde	Acetaldehyde	Acetaldehyde	Acetaldehyde
HPLCSTDS1131 #1	5.113	0.101	2.023	0.046
HPLCSTDS1131 #1	5.115	0.103	1.996	0.047
HPLCSTDS1131 #1	5.115	0.102	2.021	0.047
HPLCSTDS1131 #2	5.123	0.233	4.597	0.103
HPLCSTDS1131 #2	5.121	0.239	4.647	0.105
HPLCSTDS1131 #2	5.124	0.230	4.551	0.101
HPLCSTDS1131 #3	5.125	2.005	39.116	0.857
HPLCSTDS1131 #3	5.124	1.997	39.314	0.853
HPLCSTDS1131 #3	5.125	2.005	39.410	0.857
HPLCSTDS1131 #4	5.125	5.749	113.293	2.450
HPLCSTDS1131 #4	5.125	5.792	113.979	2.469
HPLCSTDS1131 #4	5.125	5.716	113.089	2.436
HPLCSTDS1131 #5	5.125	11.444	226.352	4.874
HPLCSTDS1131 #5	5.128	11.457	228.420	4.880
HPLCSTDS1131 #5	5.129	11.439	227.778	4.872
HPLCSTDS1131 #6	5.130	17.570	350.857	7.482
HPLCSTDS1131 #6	5.129	17.503	348.643	7.453
HPLCSTDS1131 #6	5.131	17.511	350.218	7.456
HPLCSTDS1131 #7	5.134	36.181	718.441	15.403
HPLCSTDS1131 #7	5.131	36.250	722.088	15.432
HPLCSTDS1131 #7	5.134	36.224	723.084	15.421



Peak Analysis Report

Sample Name:	HPLCSTDS1131 #1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 17:47	Run Time:	16.50



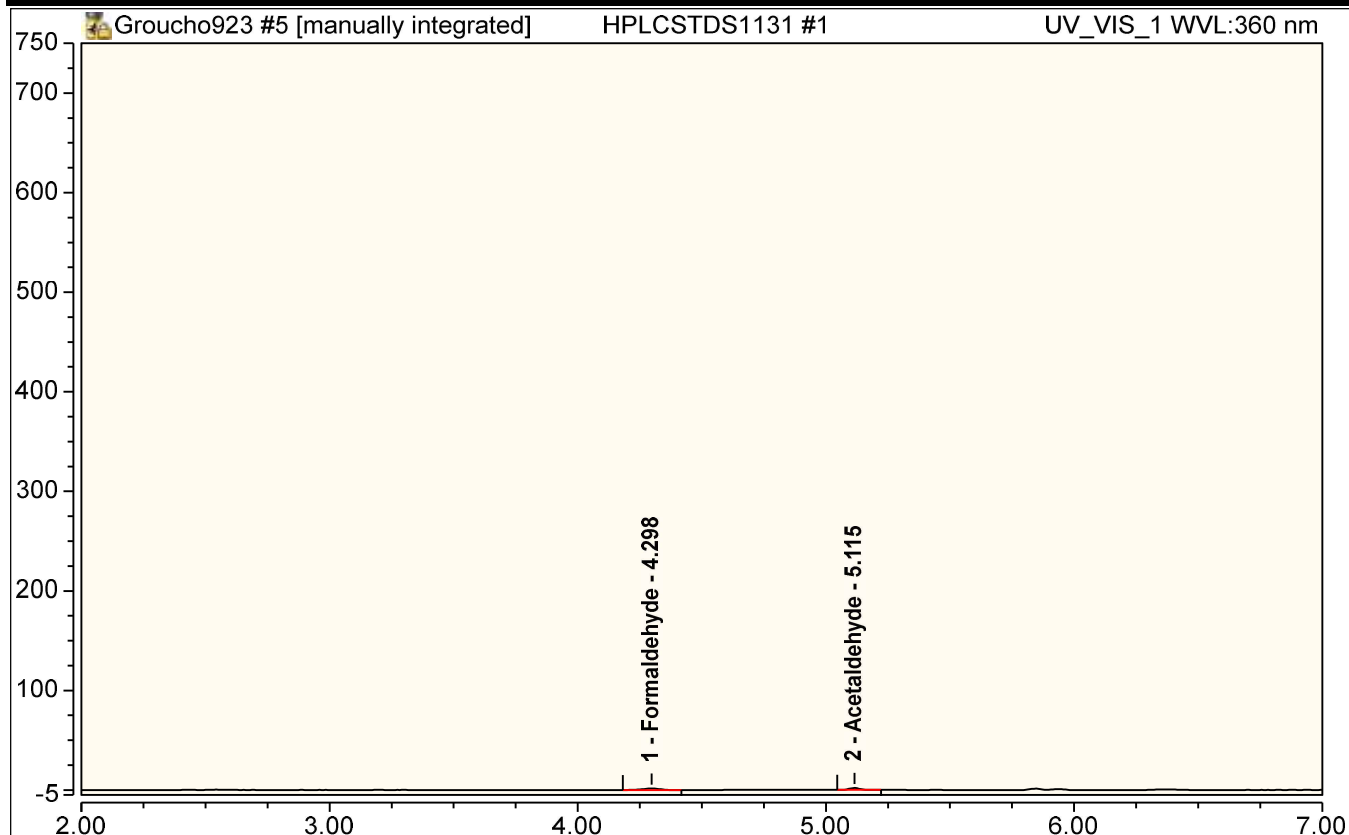
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.30	Formaldehyde	0.136	1.682	0.04622
2	5.11	Acetaldehyde	0.101	2.023	0.04648

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 18:05	Run Time:	16.50



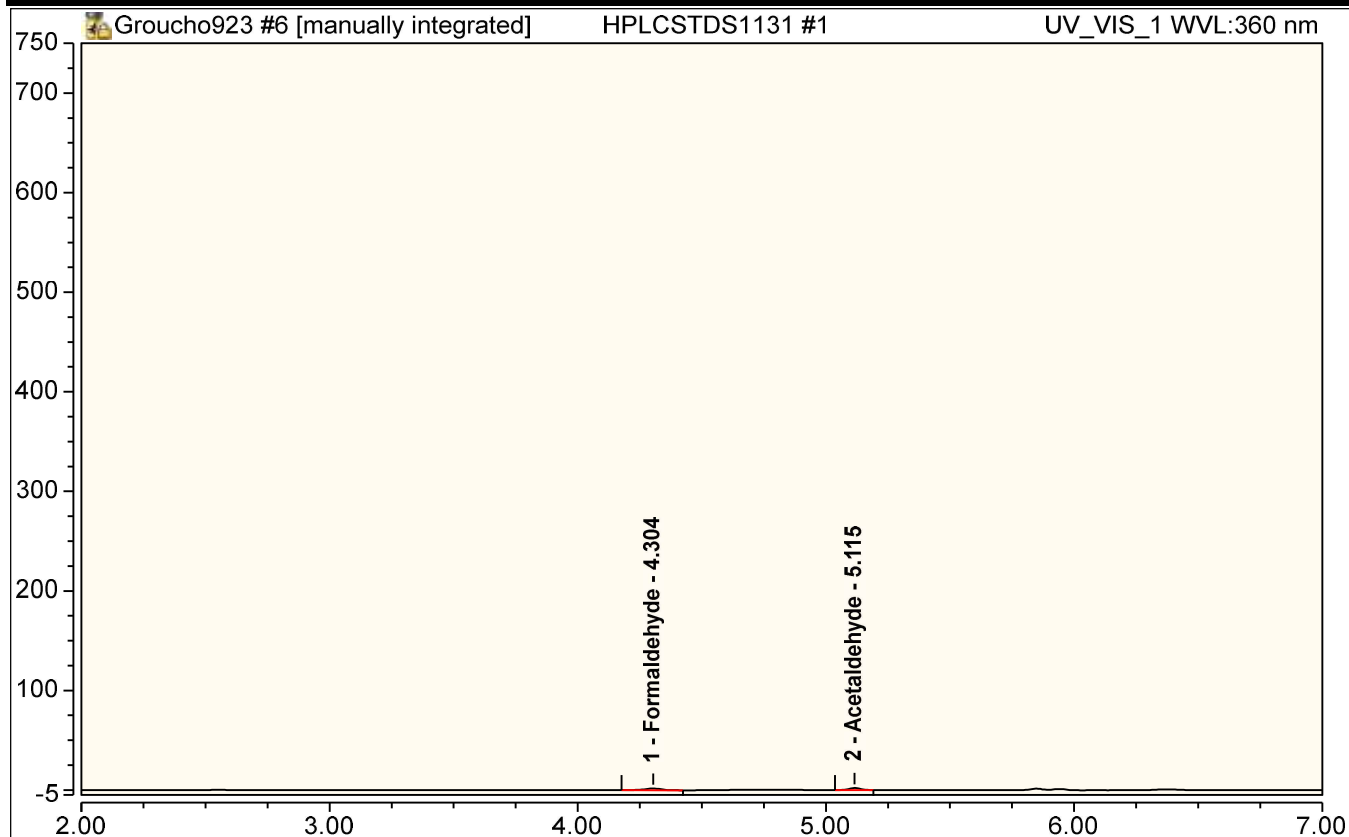
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.30	Formaldehyde	0.139	1.709	0.04718
2	5.12	Acetaldehyde	0.103	1.996	0.04713

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #1	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 18:23	Run Time:	16.50



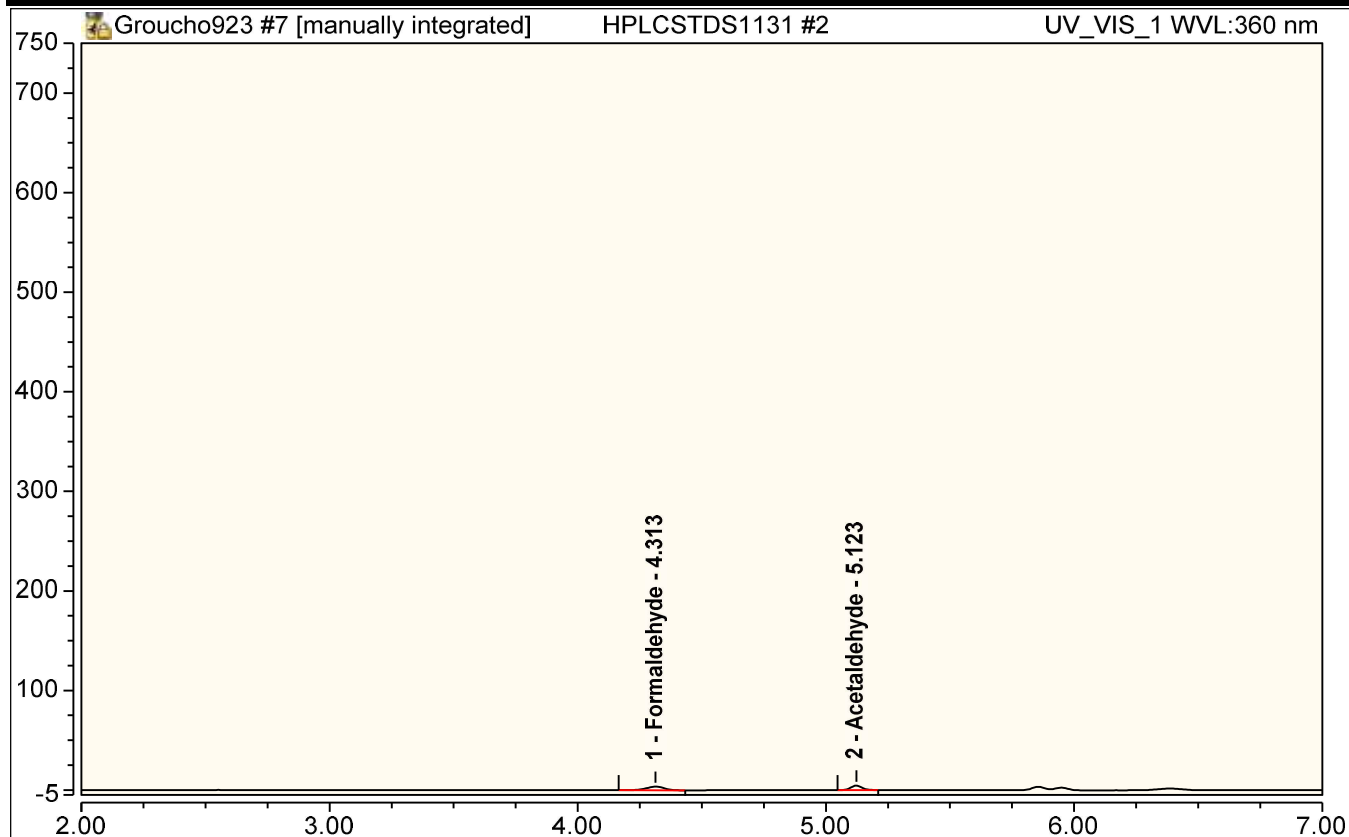
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.30	Formaldehyde	0.137	1.666	0.04657
2	5.12	Acetaldehyde	0.102	2.021	0.04657

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 18:41	Run Time:	16.50



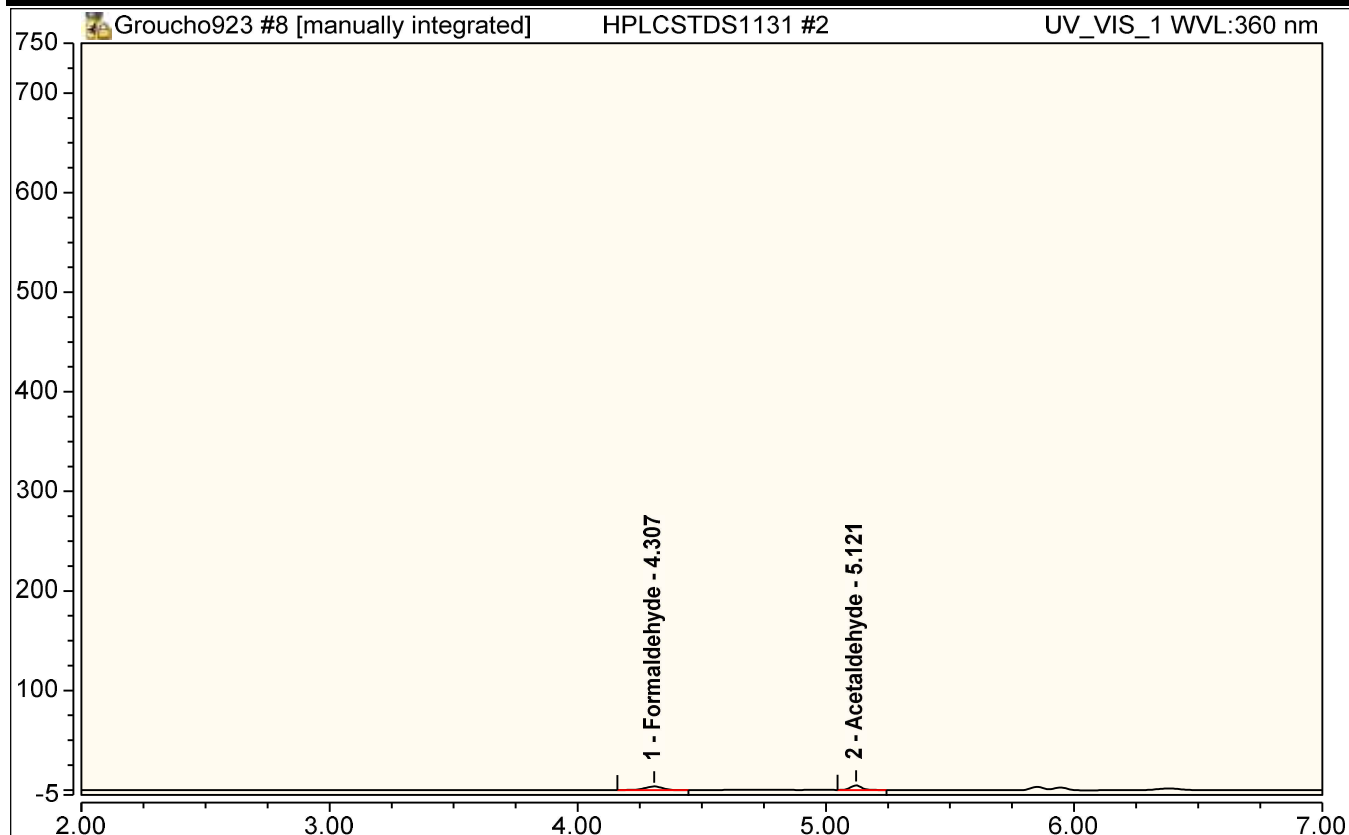
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.31	Formaldehyde	0.303	3.767	0.10185
2	5.12	Acetaldehyde	0.233	4.597	0.10266

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 18:59	Run Time:	16.50



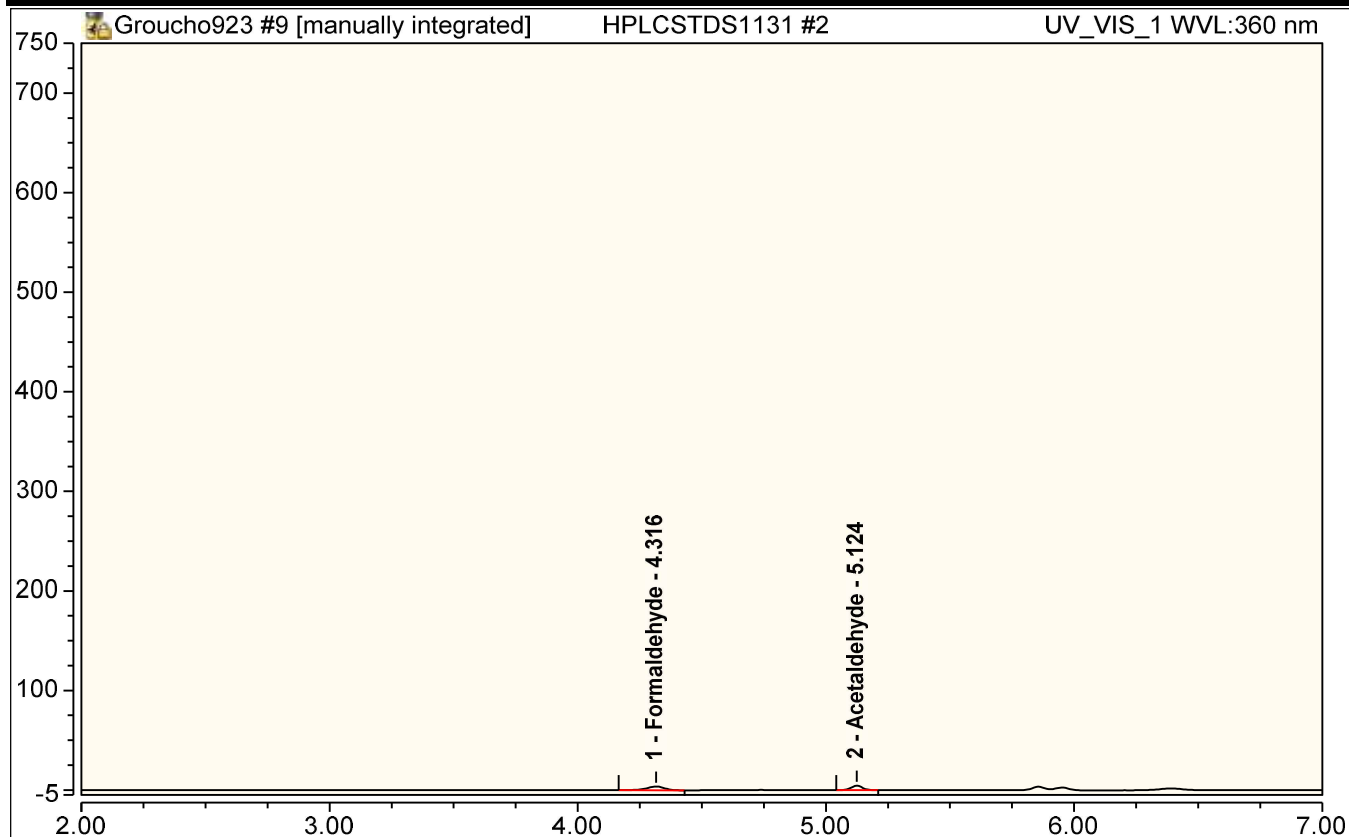
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.31	Formaldehyde	0.309	3.743	0.10358
2	5.12	Acetaldehyde	0.239	4.647	0.10496

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #2	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 19:17	Run Time:	16.50



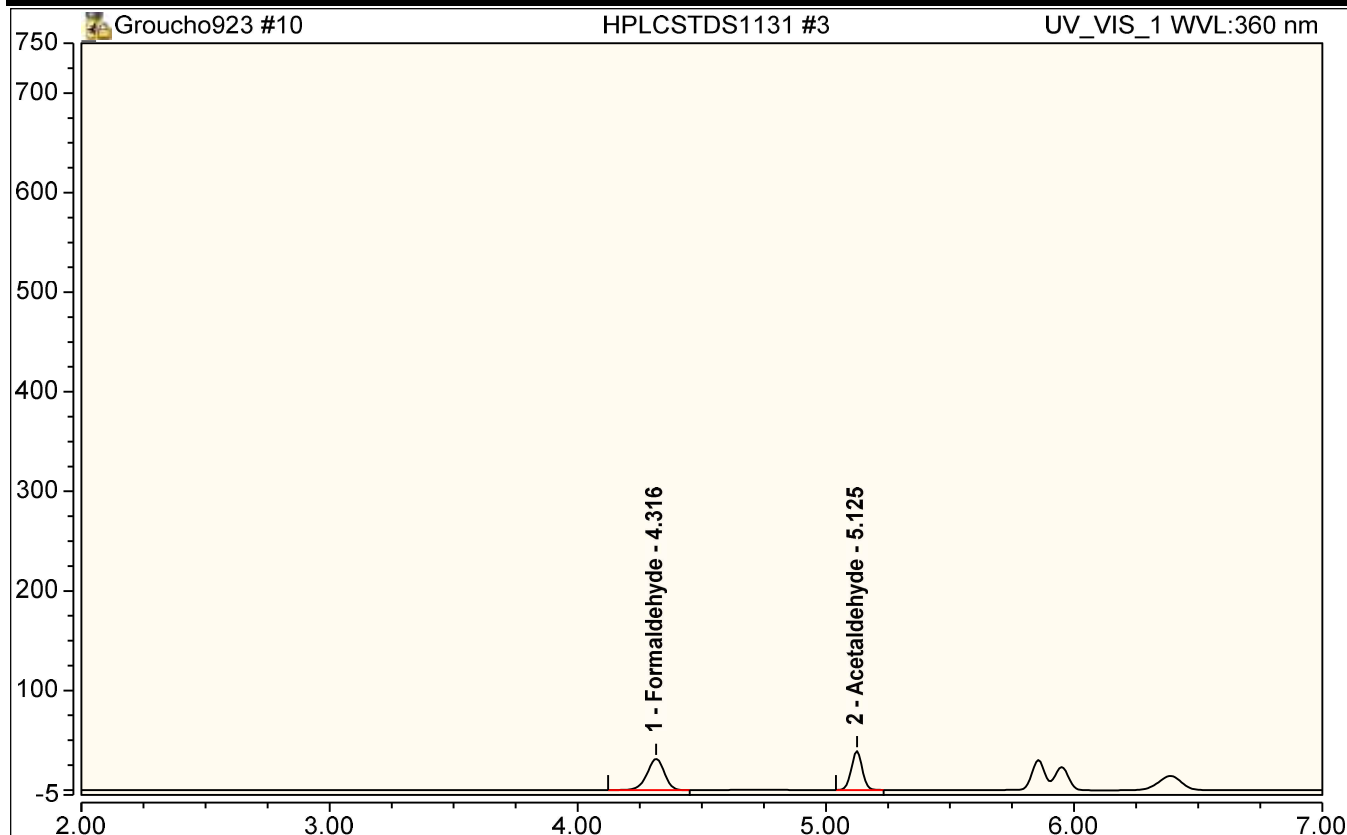
Analyst Comment:

II PRM 6/16/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	0.310	3.763	0.10396
2	5.12	Acetaldehyde	0.230	4.551	0.10136

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 19:35	Run Time:	16.50

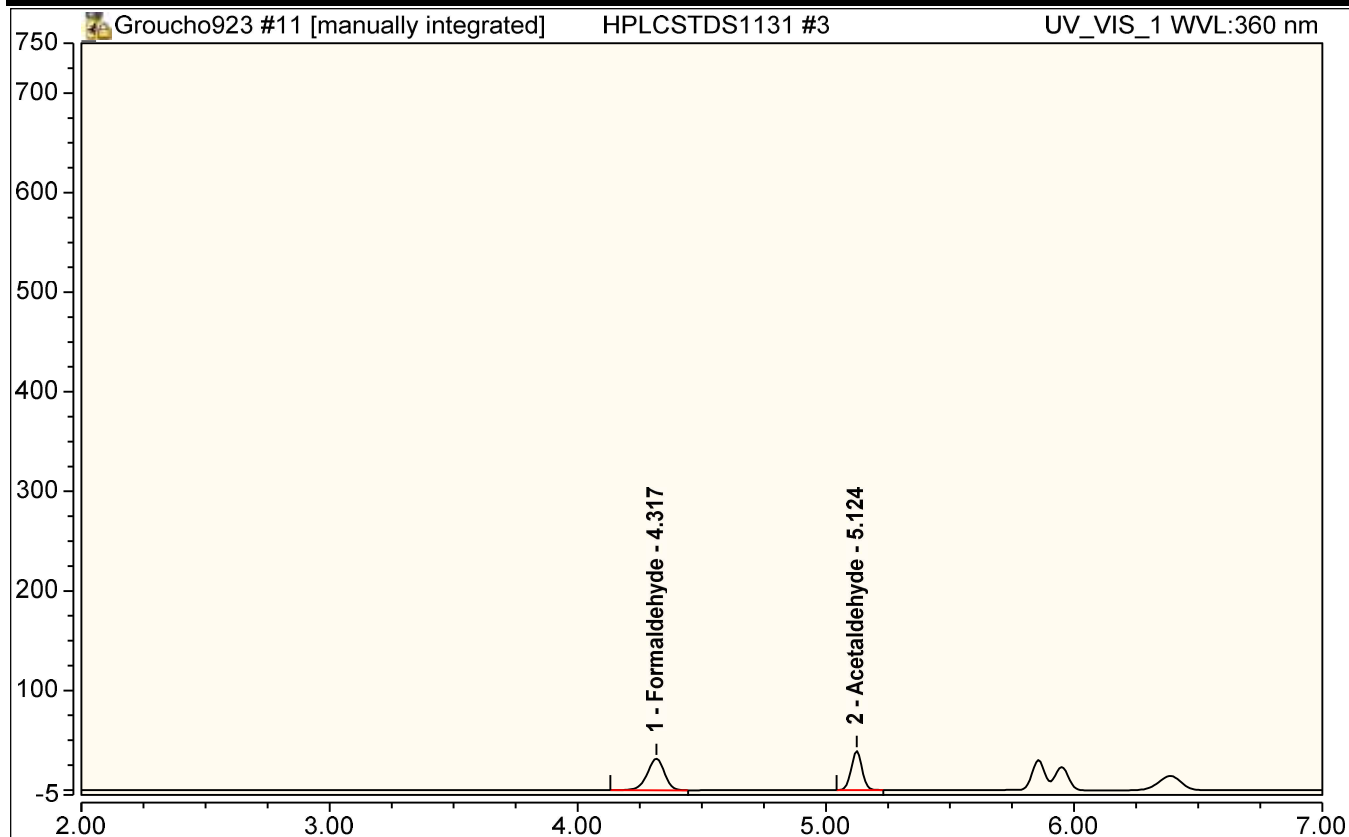


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	2.567	31.468	0.85614
2	5.13	Acetaldehyde	2.005	39.116	0.85685

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 19:54	Run Time:	16.50



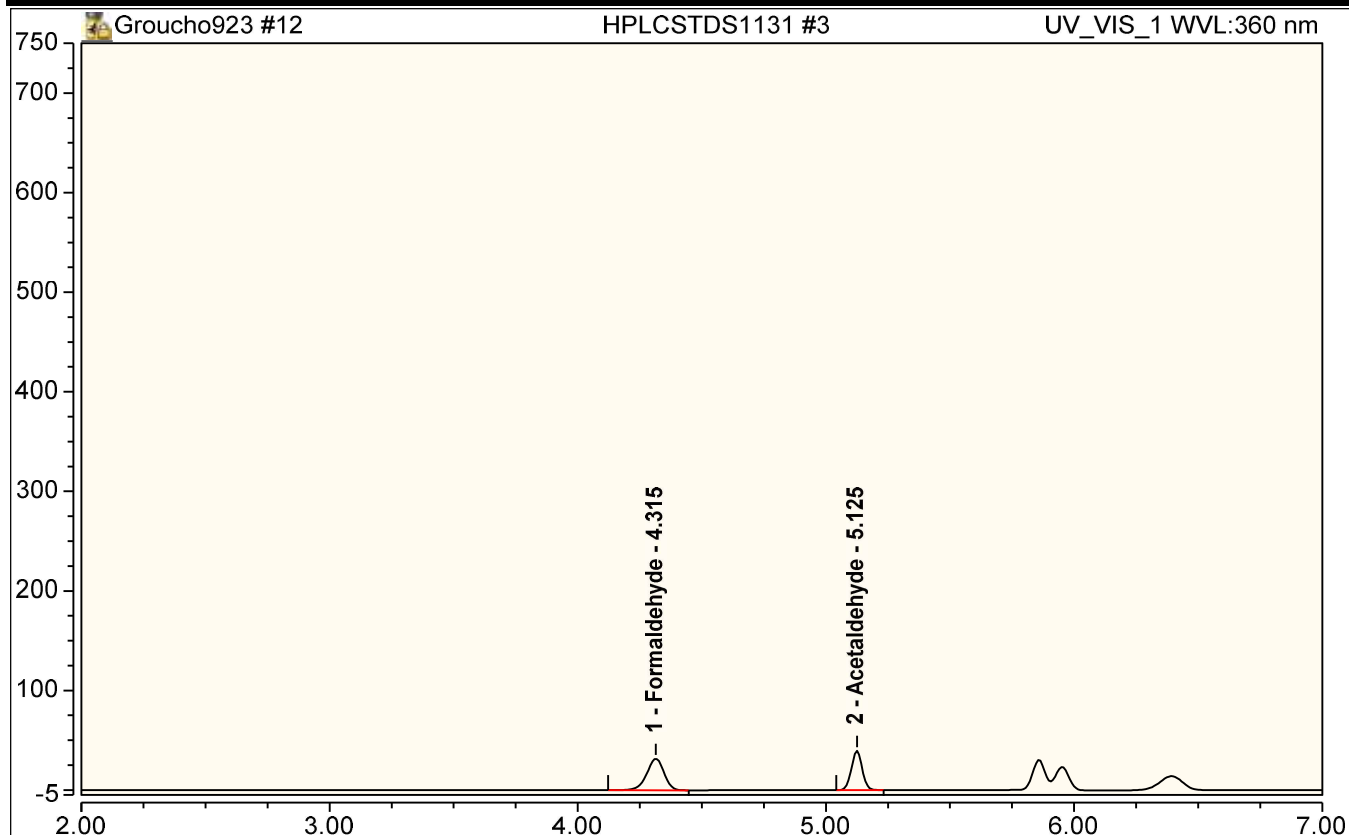
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	2.556	31.600	0.85255
2	5.12	Acetaldehyde	1.997	39.314	0.85314

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #3	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 20:12	Run Time:	16.50

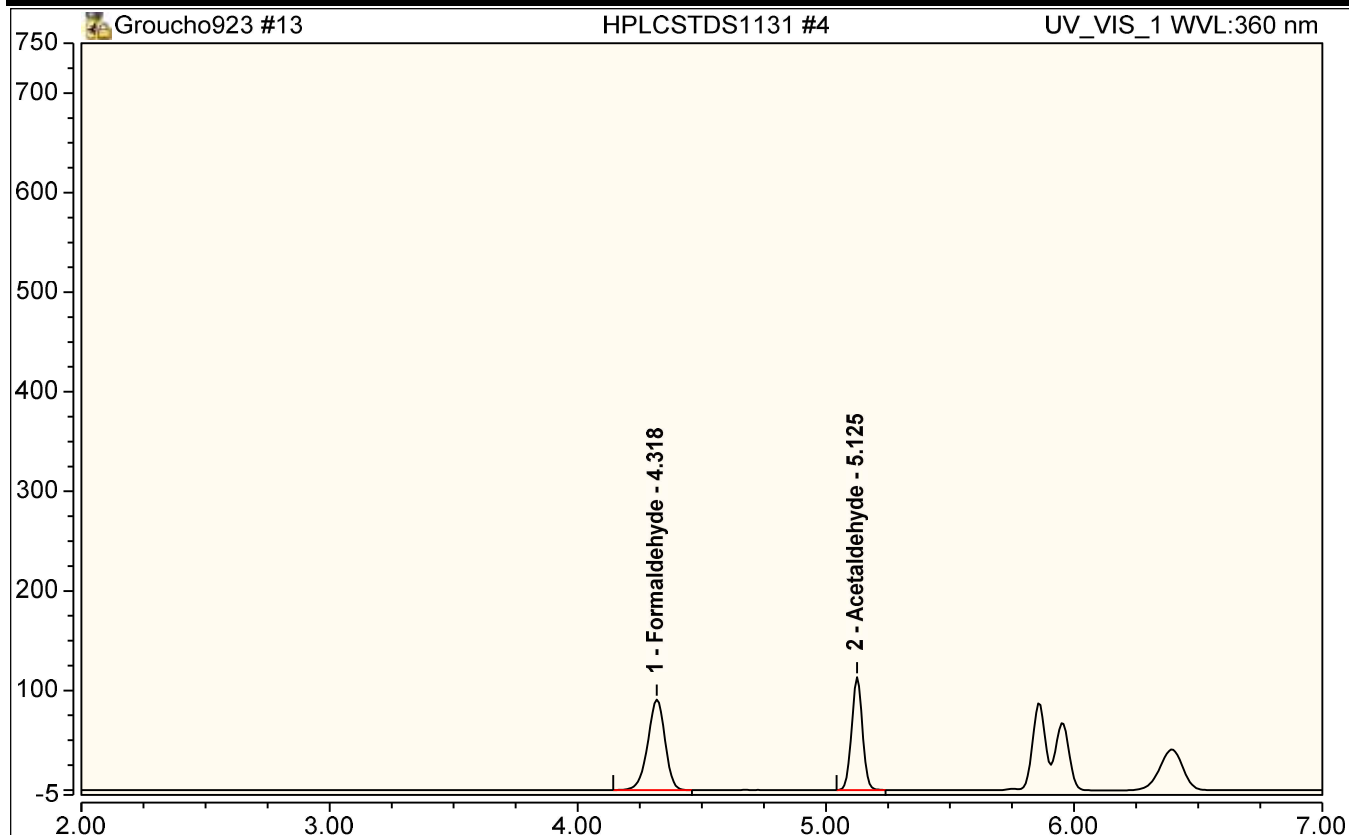


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.31	Formaldehyde	2.572	31.698	0.85773
2	5.13	Acetaldehyde	2.005	39.410	0.85684

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 20:30	Run Time:	16.50

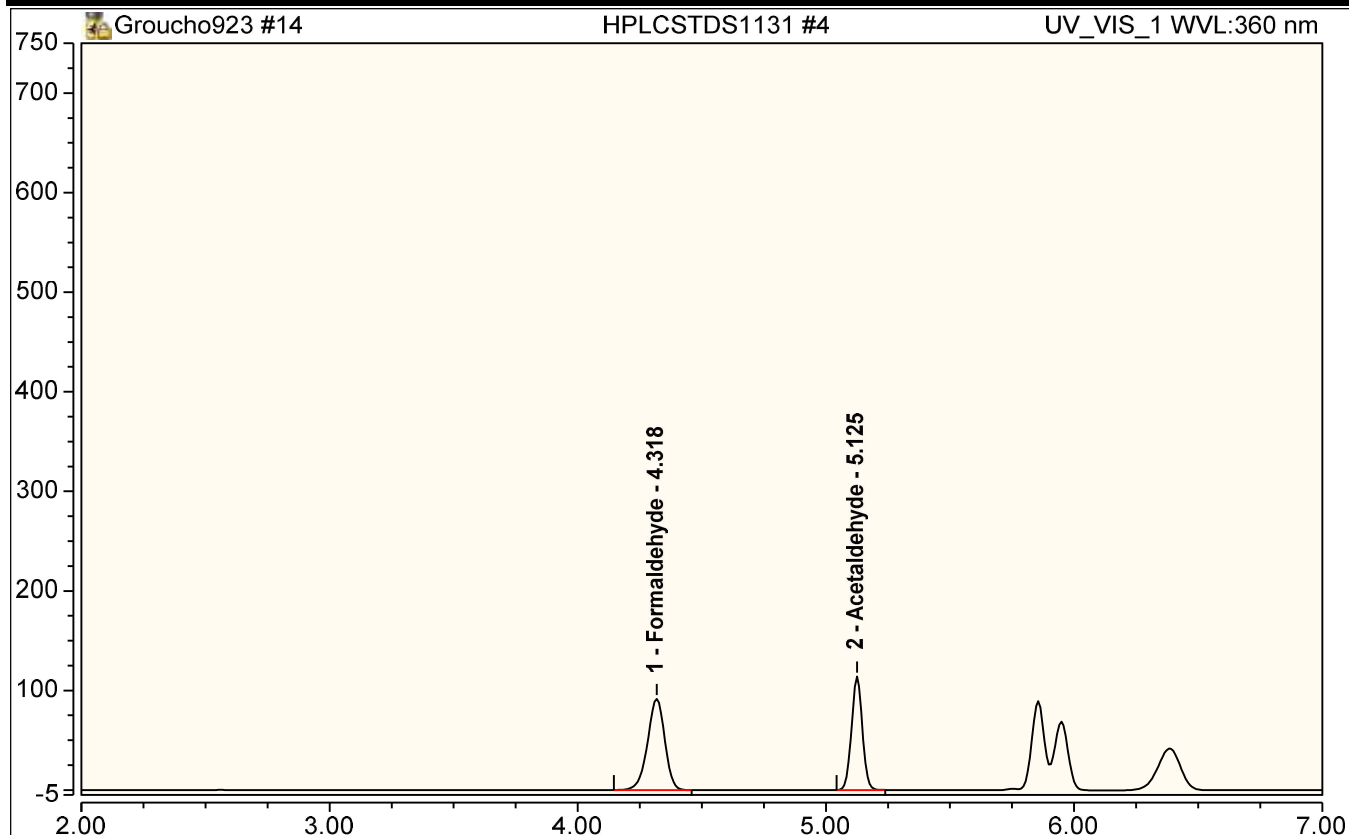


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	7.343	90.910	2.44728
2	5.13	Acetaldehyde	5.749	113.293	2.45012

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 20:48	Run Time:	16.50

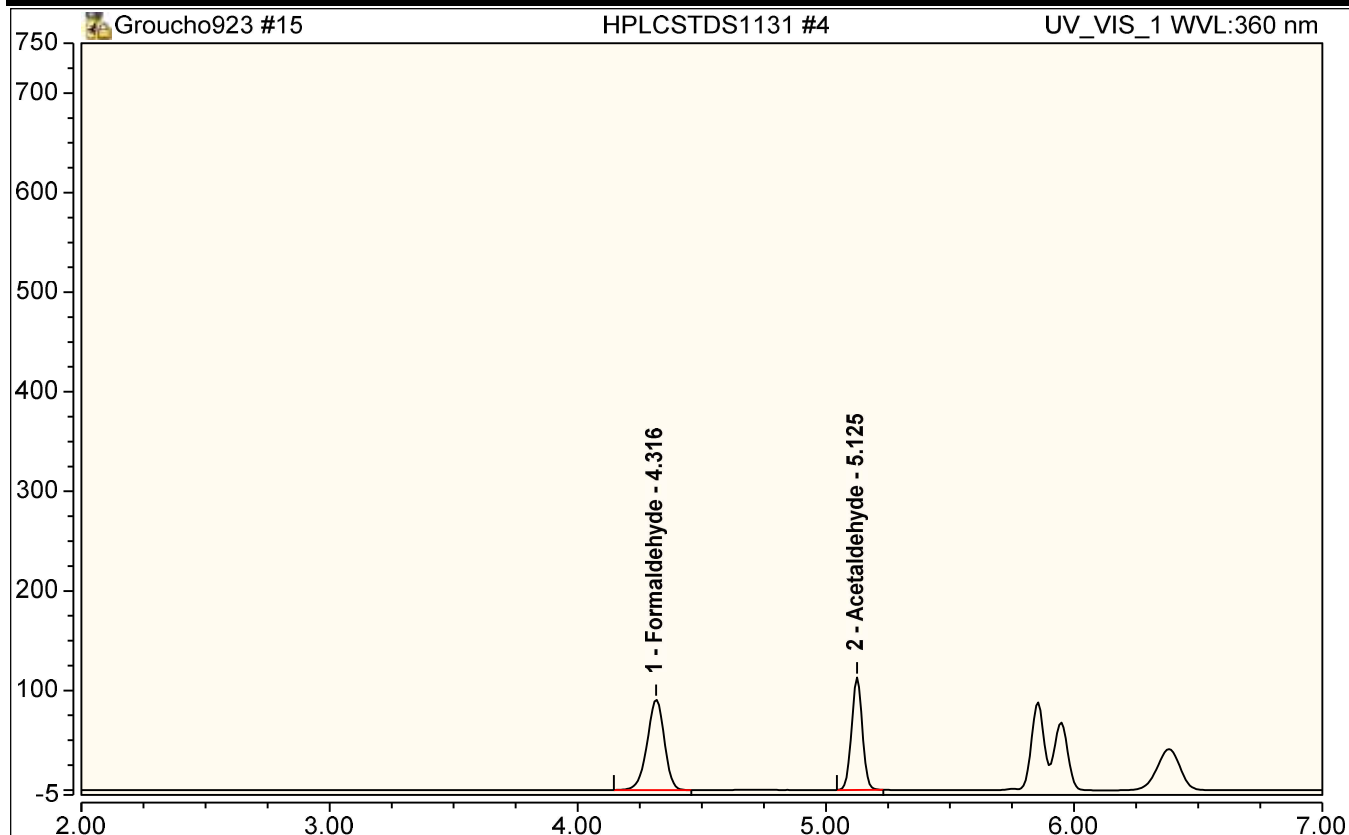


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	7.403	91.634	2.46731
2	5.13	Acetaldehyde	5.792	113.979	2.46852

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #4	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 21:06	Run Time:	16.50

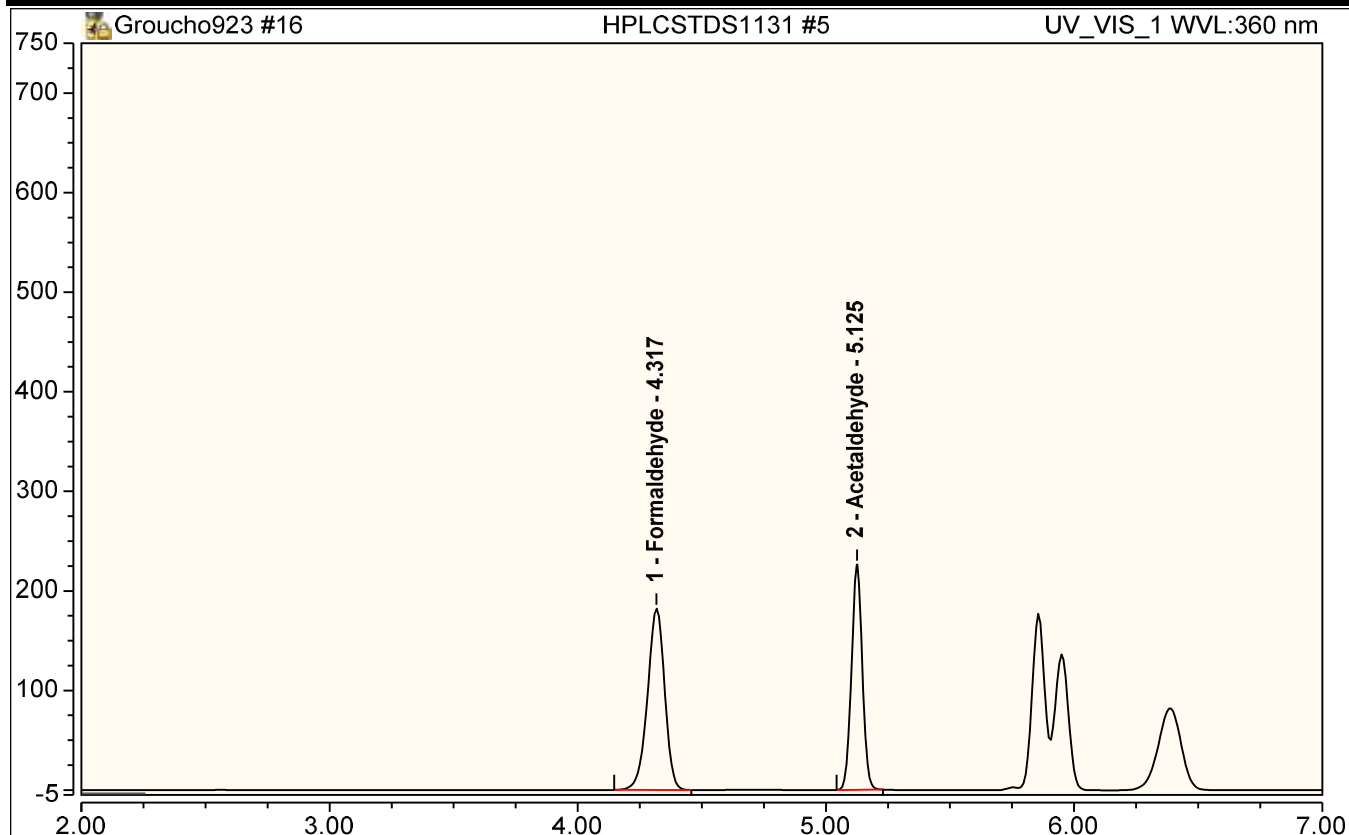


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	7.315	90.877	2.43809
2	5.13	Acetaldehyde	5.716	113.089	2.43608

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 21:24	Run Time:	16.50

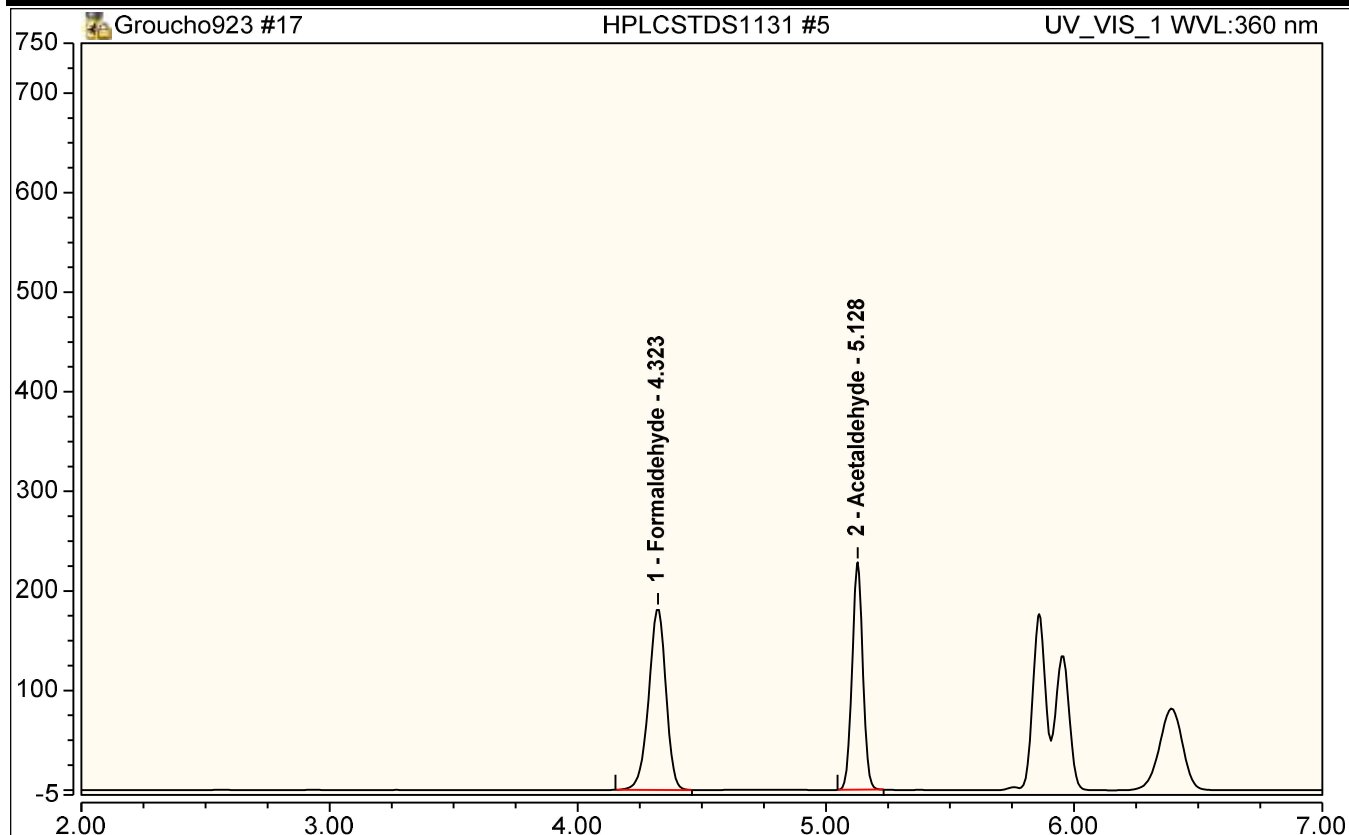


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	14.636	182.264	4.87706
2	5.13	Acetaldehyde	11.444	226.352	4.87430

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 21:43	Run Time:	16.50

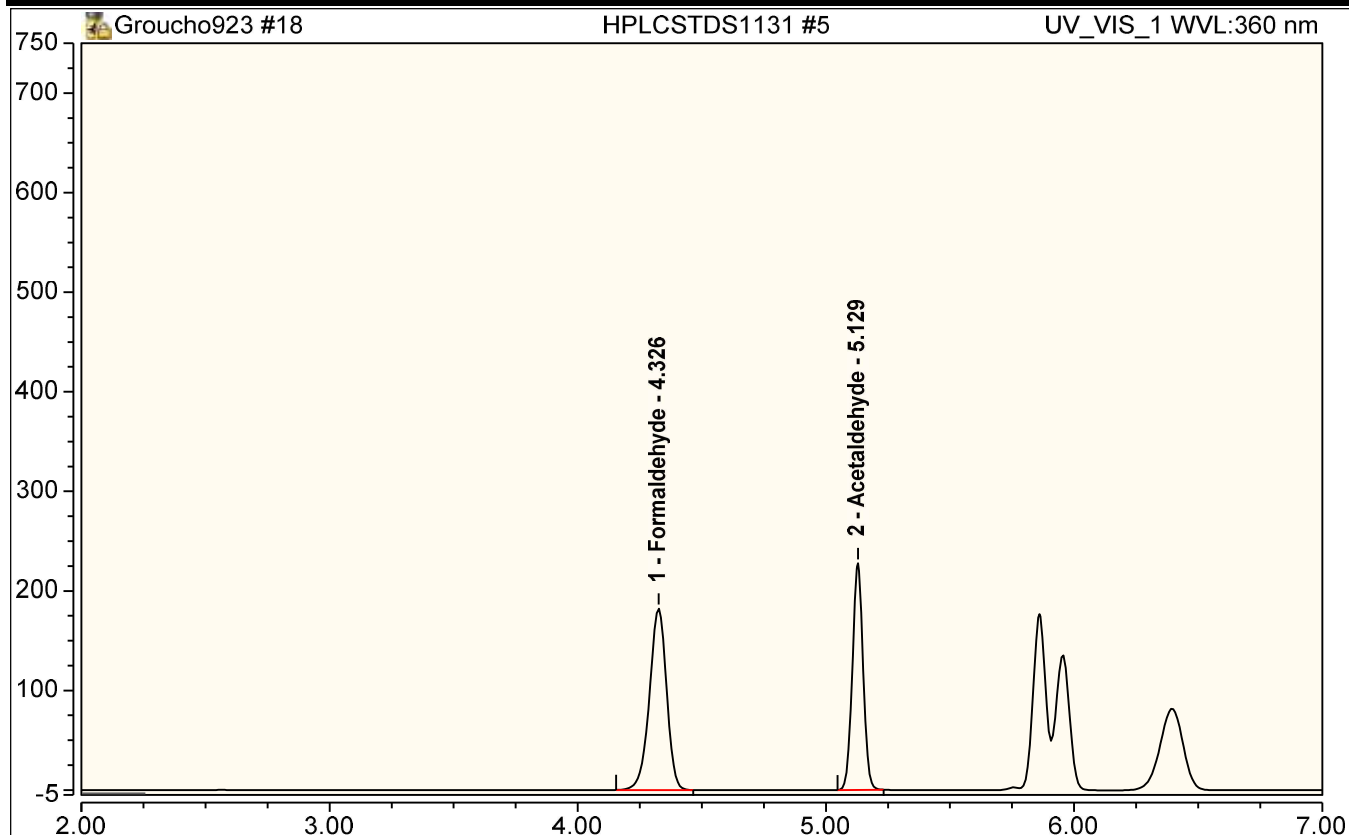


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.32	Formaldehyde	14.650	182.553	4.88196
2	5.13	Acetaldehyde	11.457	228.420	4.87979

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #5	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 22:01	Run Time:	16.50

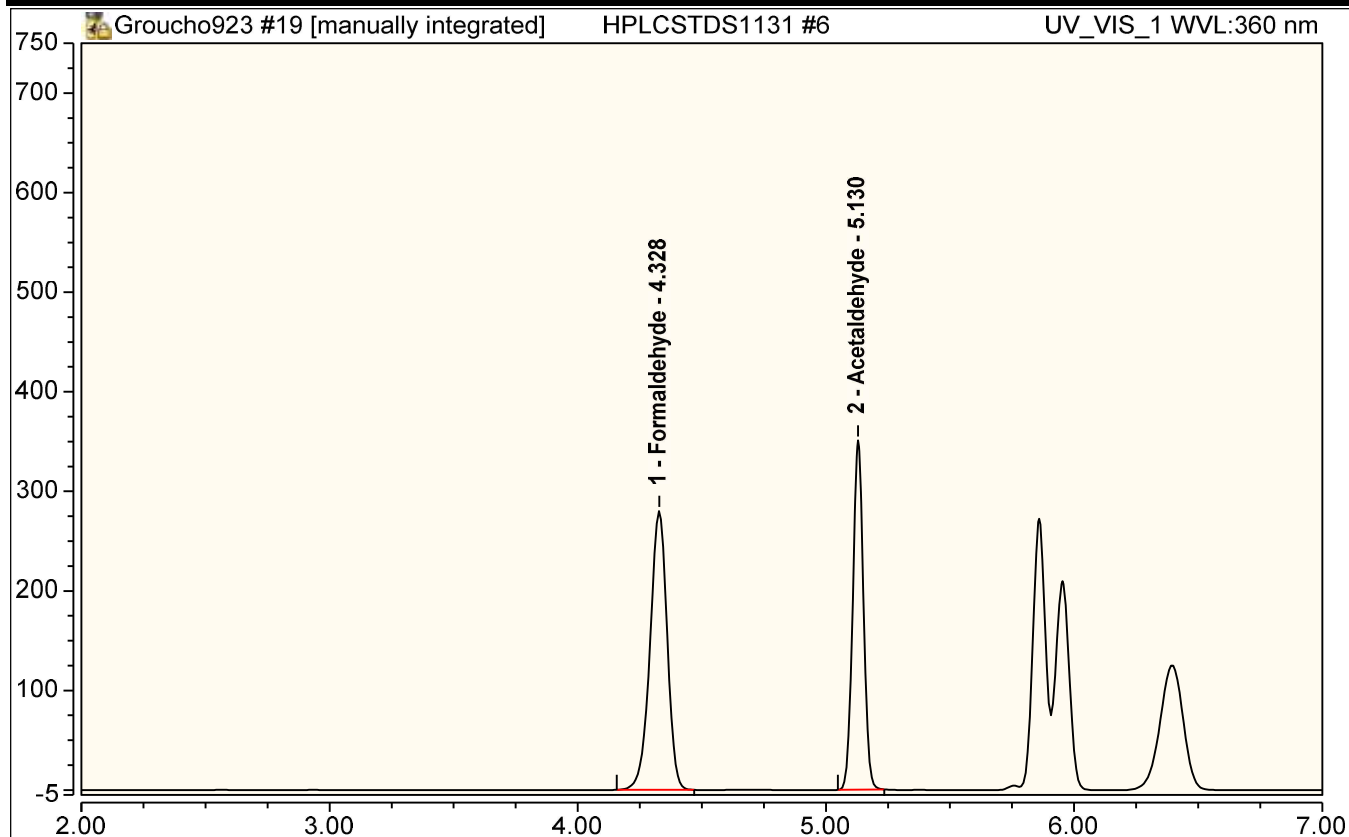


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	14.625	182.443	4.87351
2	5.13	Acetaldehyde	11.439	227.778	4.87216

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 22:19	Run Time:	16.50



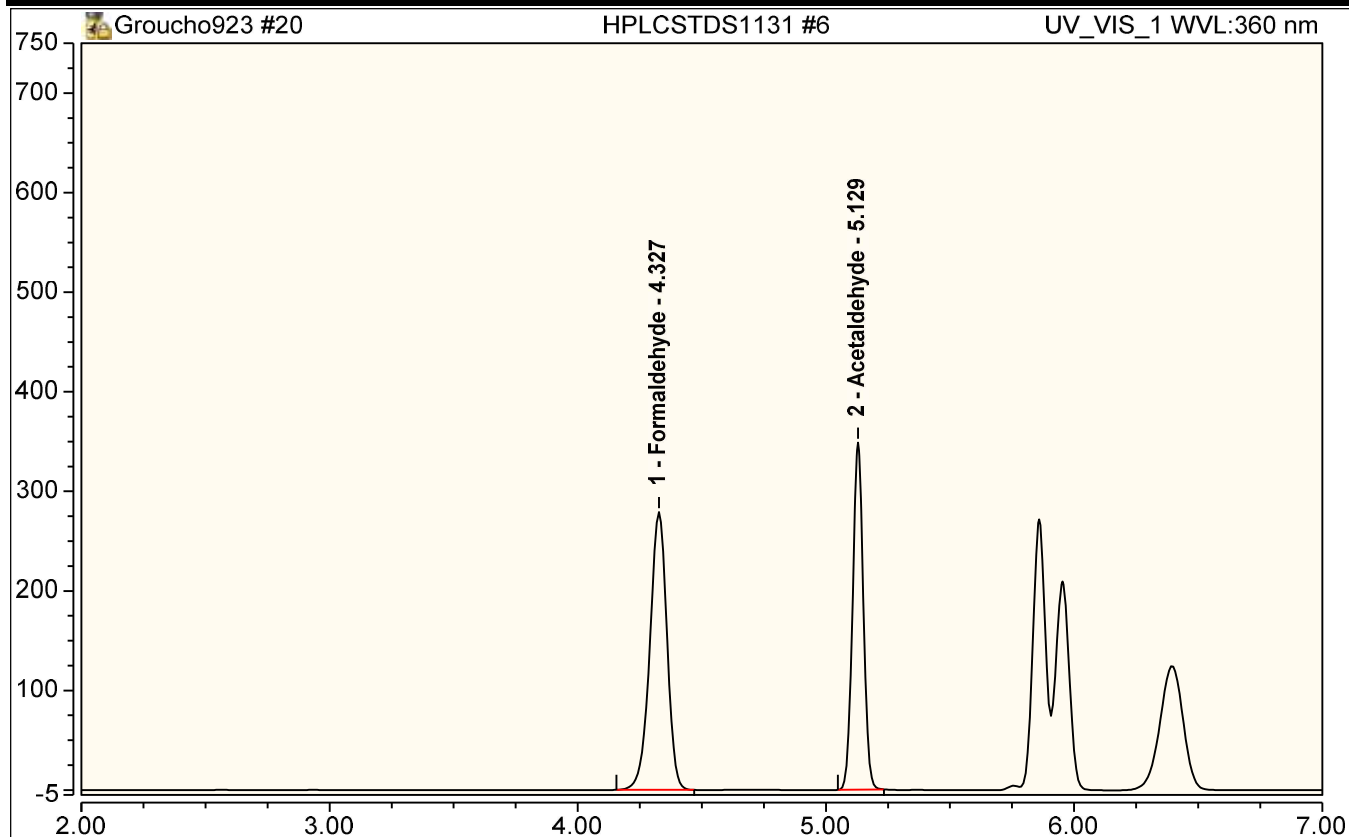
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	22.462	280.267	7.48463
2	5.13	Acetaldehyde	17.570	350.857	7.48157

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 22:37	Run Time:	16.50

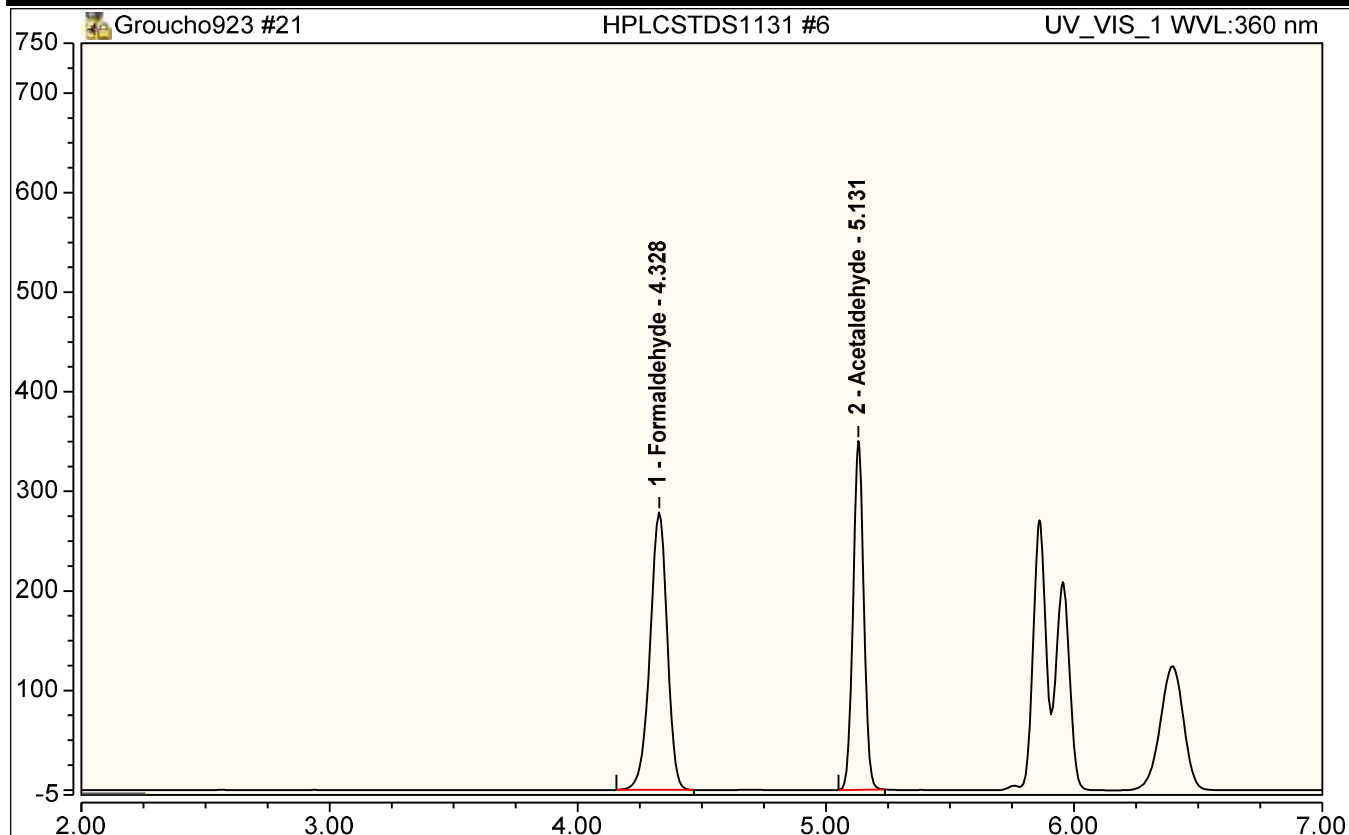


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	22.373	279.166	7.45498
2	5.13	Acetaldehyde	17.503	348.643	7.45301

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #6	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 22:55	Run Time:	16.50

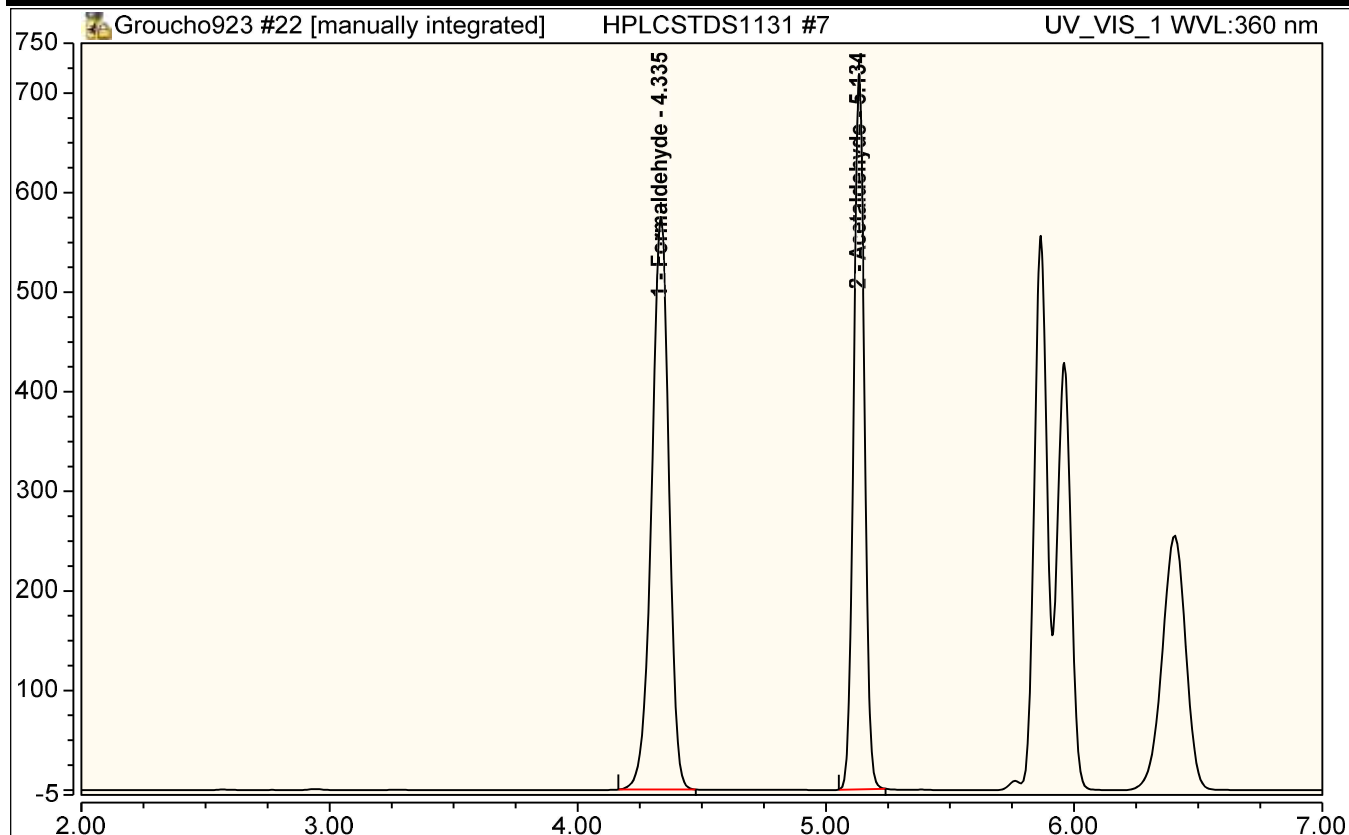


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	22.399	279.041	7.46353
2	5.13	Acetaldehyde	17.511	350.218	7.45650

Peak Analysis Report

Sample Name:	HPLCSTD51131 #7	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 23:13	Run Time:	16.50



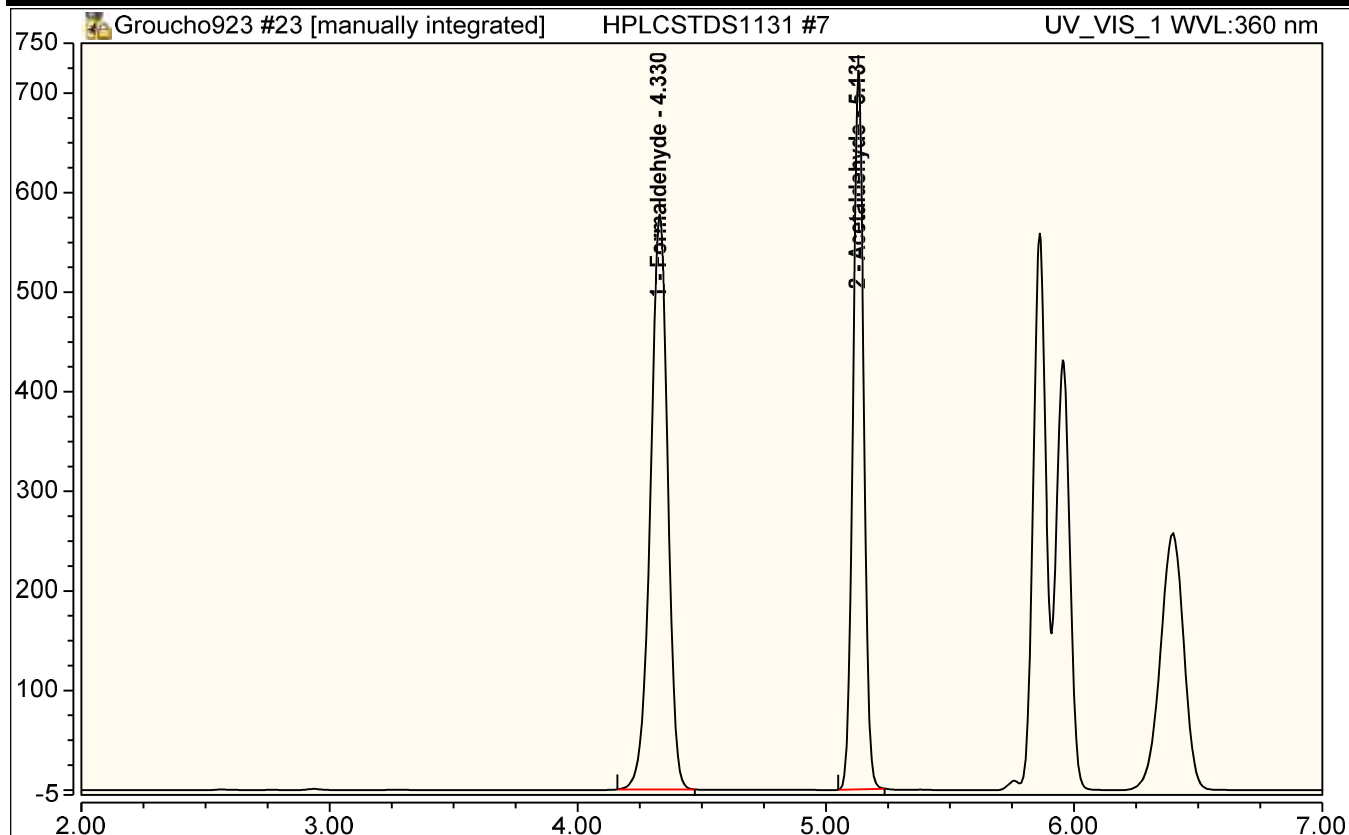
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.34	Formaldehyde	46.191	574.879	15.39051
2	5.13	Acetaldehyde	36.181	718.441	15.40285

Peak Analysis Report

Sample Name:	HPLCSTD51131 #7	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 23:31	Run Time:	16.50



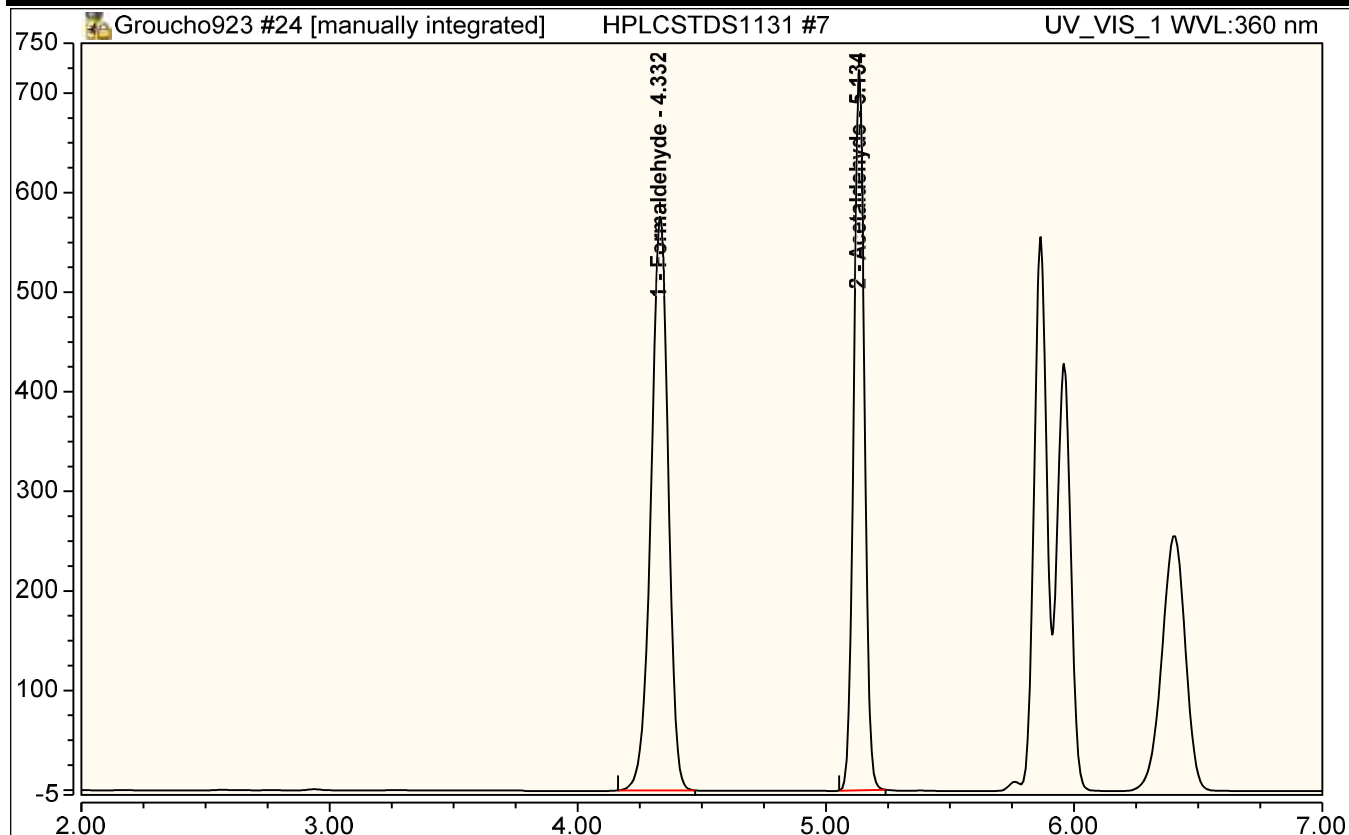
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	46.329	577.421	15.43663
2	5.13	Acetaldehyde	36.250	722.088	15.43228

Peak Analysis Report

Sample Name:	HPLCSTD51131 #7	Injection Volume:	5.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	15-Jun-2021 / 23:50	Run Time:	16.50



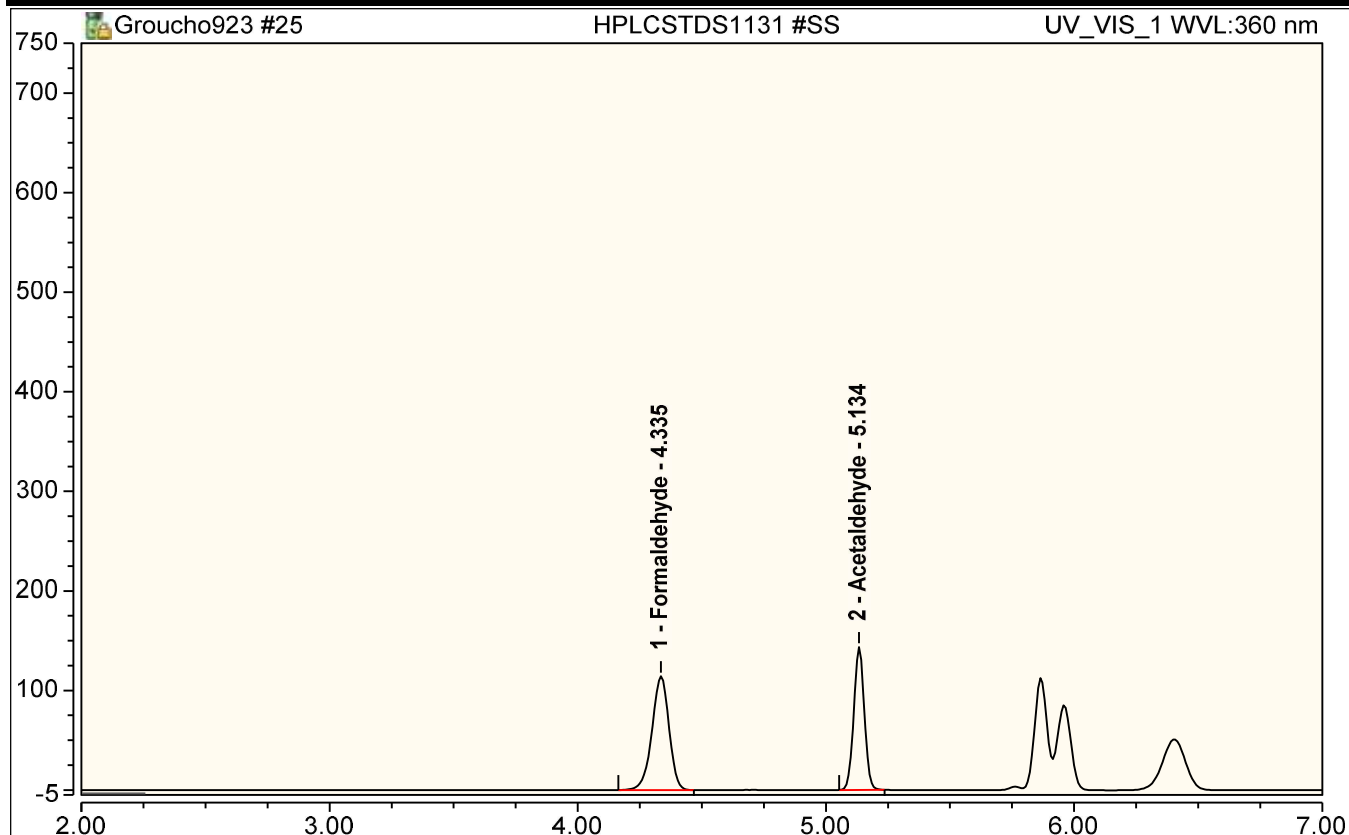
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	46.259	576.359	15.41314
2	5.13	Acetaldehyde	36.224	723.084	15.42125

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #SS	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 01:02	Run Time:	16.50

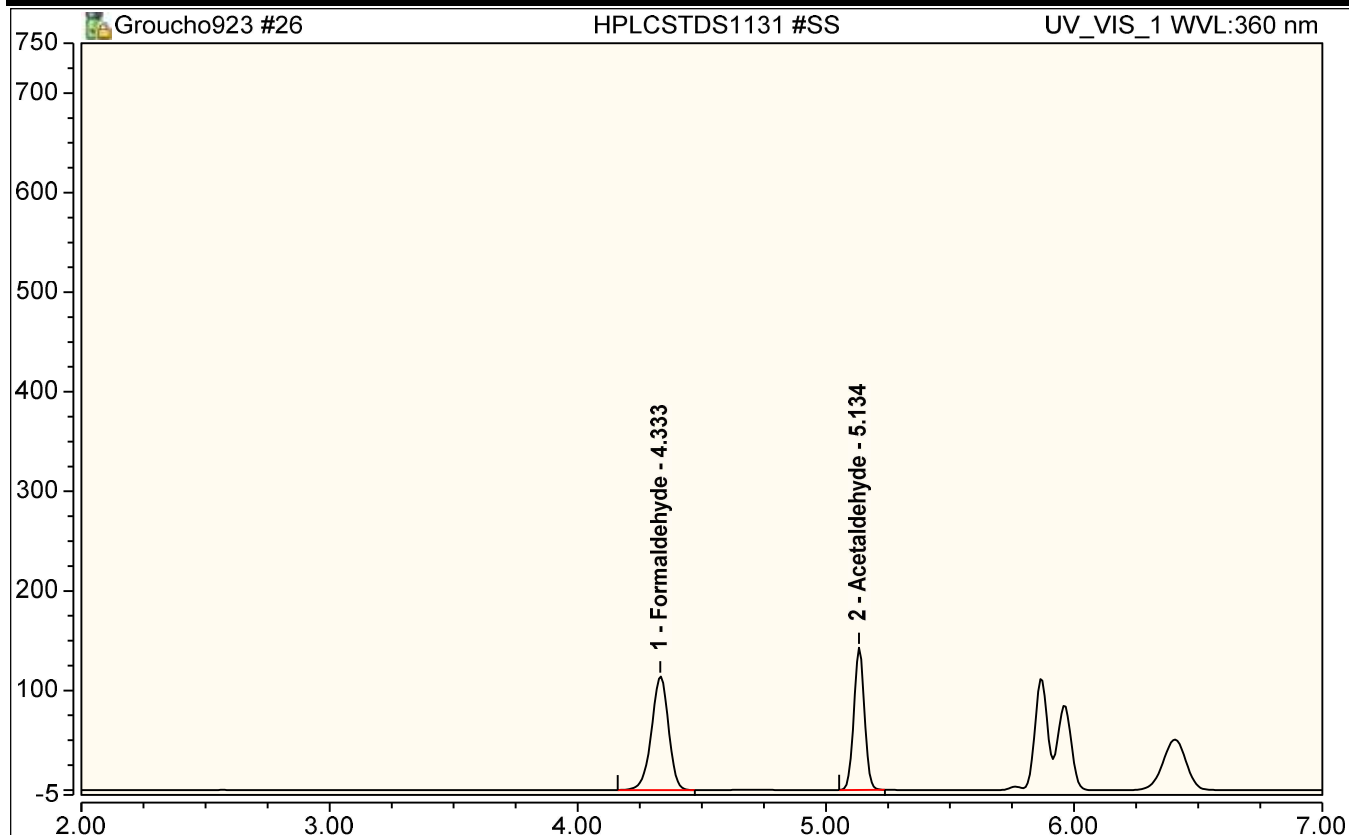


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.34	Formaldehyde	9.125	114.326	3.04094
2	5.13	Acetaldehyde	7.125	143.572	3.03589

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #SS	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 01:21	Run Time:	16.50

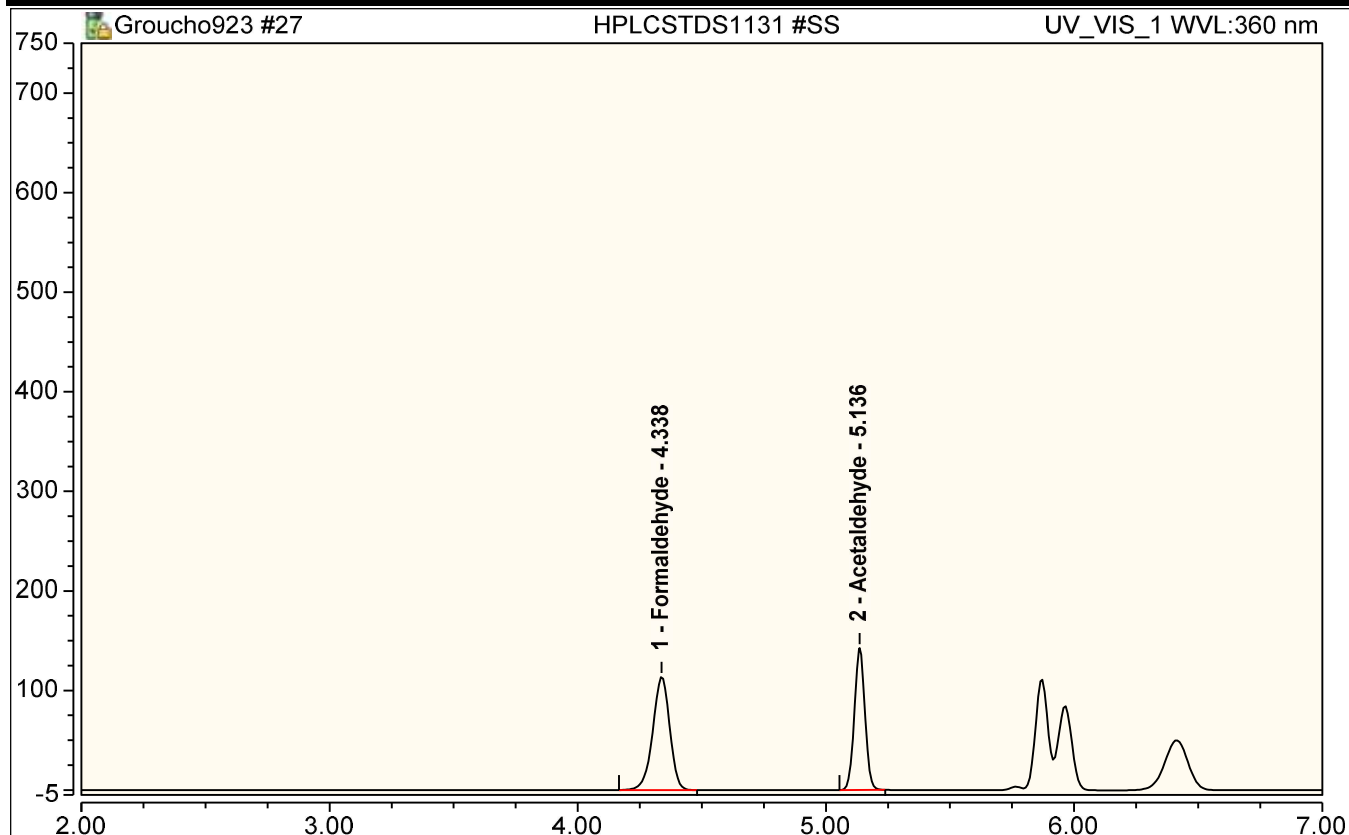


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.33	Formaldehyde	9.127	114.241	3.04162
2	5.13	Acetaldehyde	7.121	142.897	3.03415

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #SS	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 01:39	Run Time:	16.50

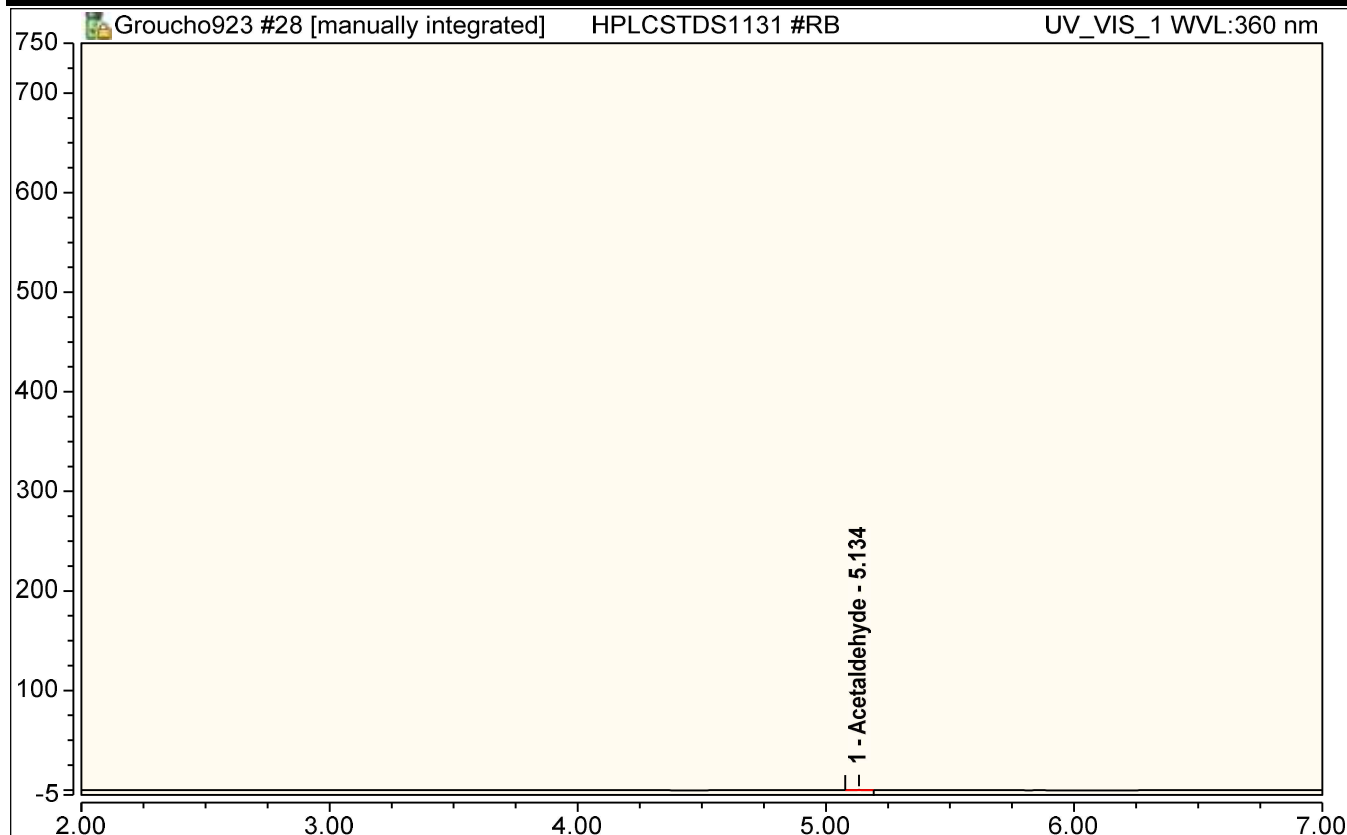


Analyst Comment:

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.34	Formaldehyde	9.057	113.853	3.01841
2	5.14	Acetaldehyde	7.074	142.665	3.01414

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #RB	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 01:57	Run Time:	16.50



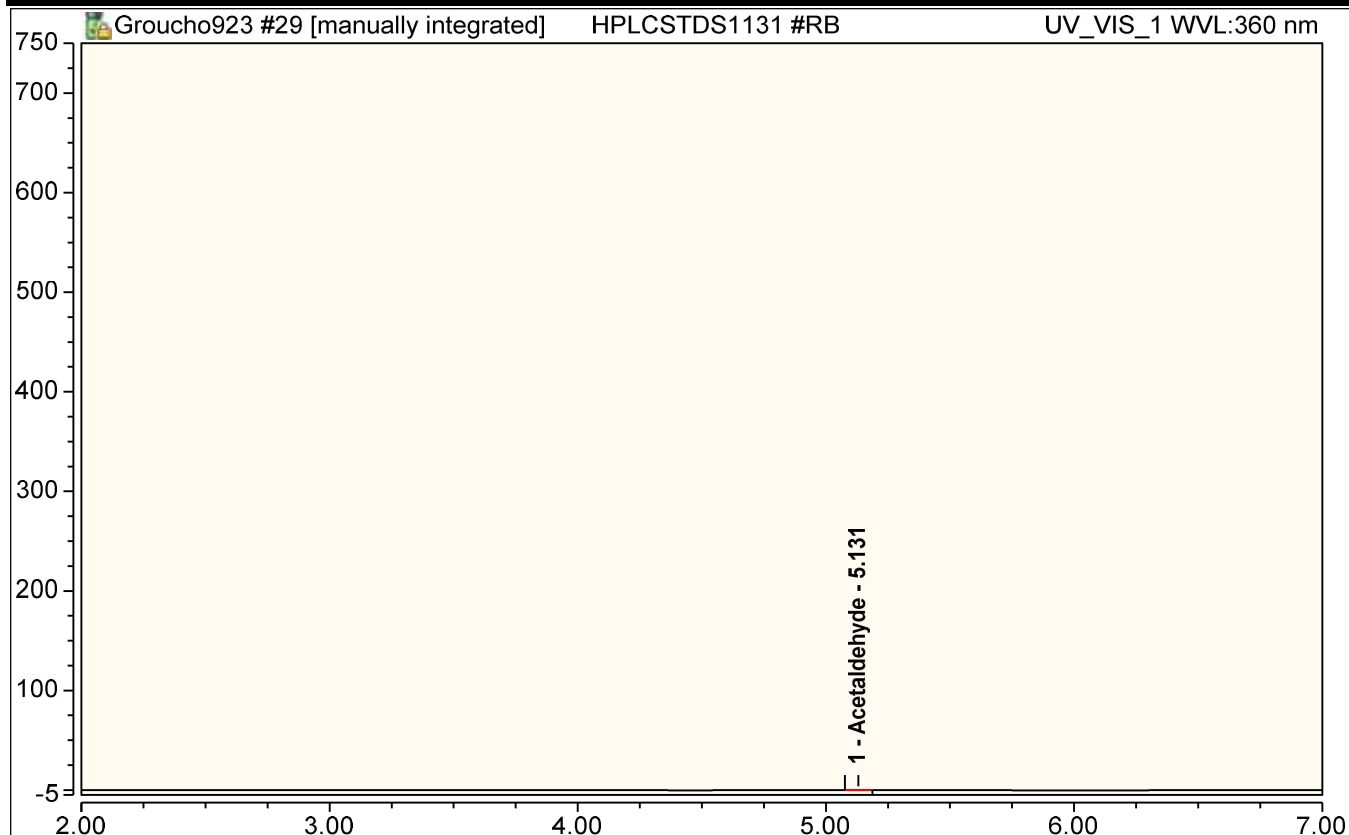
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.13	Acetaldehyde	0.006	0.127	0.00603

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #RB	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 02:15	Run Time:	16.50



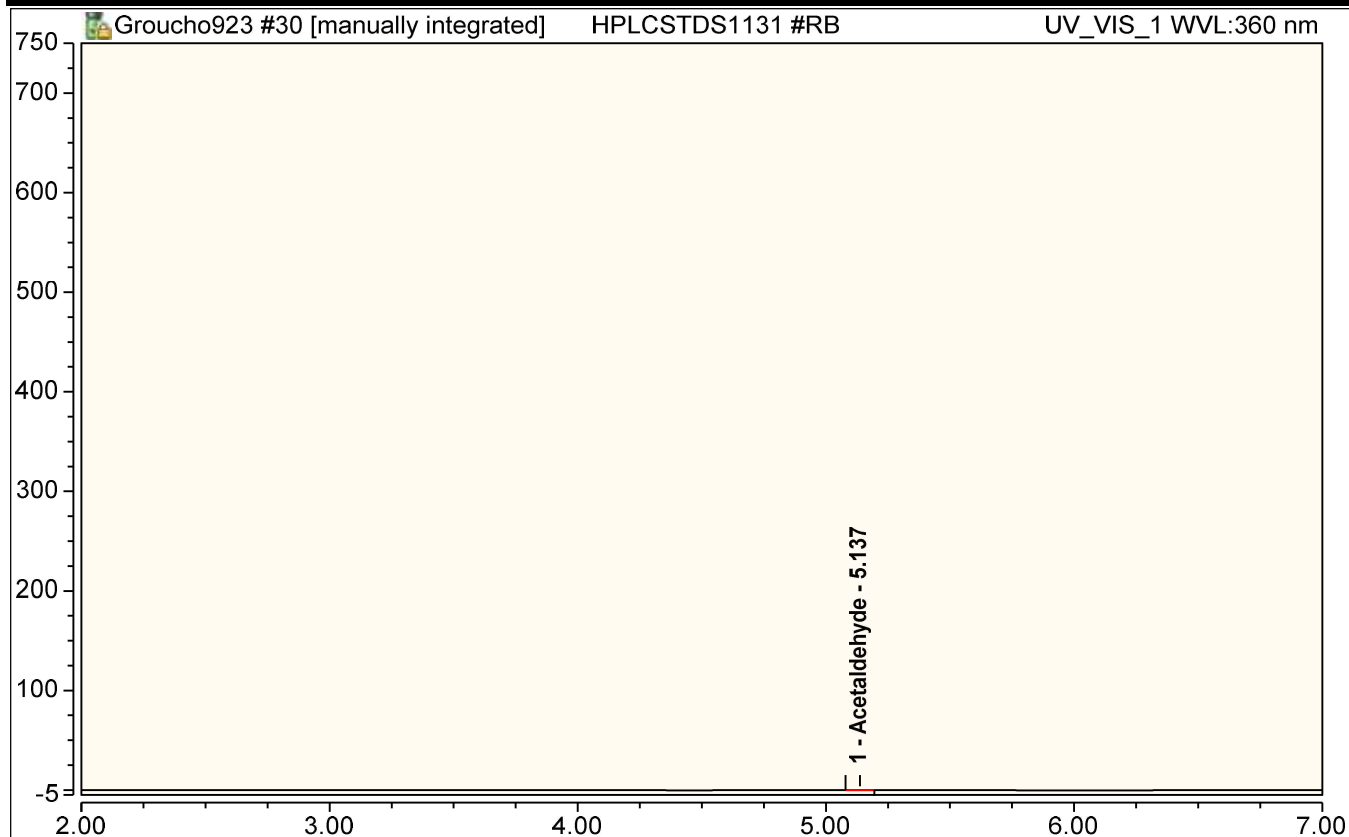
Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.13	Acetaldehyde	0.005	0.106	0.00549

Peak Analysis Report

Sample Name:	HPLCSTDS1131 #RB	Injection Volume:	5.00
Injection Type:	Check Standard	Dilution Factor:	1.0
Instrument Method:	Tobacco_AgilentZorbaxSBC CARBS	Operator:	PMann
Inj. Date / Time:	16-Jun-2021 / 02:33	Run Time:	16.50



Analyst Comment:

II PRM 6/17/21

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.14	Acetaldehyde	0.004	0.085	0.00508

**This Is The Last Page
Of This Report.**

Attachment 3

Enthalpy Report Methods TO-13A, TO-15

Trinity Consultants Inc.

4525 Wasatch Blvd, Suite 200
Salt Lake City, UT 84124

Bristol Landfill

Analytical Report (1121-078B)

EPA Method TO-15

TO-15 Target Compound List

EPA Method TO-13A

TO-13A Target Compound List



Enthalpy Analytical, LLC.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 66 pages.

A handwritten signature in black ink, appearing to read "Jennifer Bowker", is written over a horizontal line.

QA Review Performed by – Jennifer Bowker

Report Issued: 12/9/2021

Results

Sample Name : Compost Summa-3 (0799)
 Sample Info : 1121-078; 500mL load; Can #0799
 Data File : T2104363.D
 Dilution : 1
 Pressurization Factor : 3.634
 Acquisition Date : 2021-11-17 17:39:03
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	2.14	0.140	0.127	3.68	0.242	0.219	
Freon 12 (CCl2F2)	0.542	0.142	0.127	2.68	0.704	0.629	
Freon 114 (C2Cl2F4)	ND	0.146	0.127	ND	1.02	0.889	
Chloromethane	0.602	0.144	0.127	1.24	0.297	0.263	
Chloroethene (Vinyl chloride)	ND	0.145	0.127	ND	0.371	0.325	
1,3-Butadiene	ND	0.141	0.127	ND	0.313	0.281	
Bromomethane	ND	0.143	0.127	ND	0.554	0.494	
Chloroethane	ND	0.148	0.127	ND	0.390	0.336	
Bromoethene (Vinyl bromide)	ND	0.142	0.127	ND	0.622	0.556	
Freon 11 (CCl3F)	0.237	0.153	0.127	1.33	0.862	0.715	
Ethanol	3.33	0.144	0.127	6.28	0.271	0.240	
Acrolein	ND	0.143	0.127	ND	0.328	0.292	
Freon 113 (C2Cl3F3)	ND	0.148	0.127	ND	1.13	0.975	
1,1-Dichloroethene	ND	0.146	0.127	ND	0.580	0.504	
Acetone	2.39	0.146	0.127	5.67	0.346	0.302	m
Carbon disulfide	ND	0.145	0.127	ND	0.451	0.396	
Isopropyl alcohol	1.19	0.145	0.127	2.92	0.356	0.313	
Allyl chloride (3-chloropropene)	ND	0.147	0.127	ND	0.459	0.398	
Acetonitrile	0.364	0.145	0.127	0.611	0.243	0.214	
Methylene chloride	ND	0.372	0.372	ND	1.29	1.29	
trans-1,2-Dichloroethene	ND	0.148	0.127	ND	0.588	0.504	
Methyl tert-butyl ether	ND	0.149	0.127	ND	0.539	0.459	
Acrylonitrile	ND	0.148	0.127	ND	0.321	0.276	
Hexane	13.9	0.148	0.127	49.1	0.521	0.448	
1,1-Dichloroethane	ND	0.144	0.127	ND	0.584	0.515	
Vinyl acetate	ND	0.149	0.127	ND	0.524	0.448	
cis-1,2-Dichloroethene	ND	0.147	0.127	ND	0.582	0.504	
Methyl ethyl ketone (2-Butanone)	0.185	0.150	0.127	0.546	0.443	0.375	
Ethyl acetate	0.397	0.145	0.127	1.43	0.523	0.458	
Chloroform	ND	0.146	0.127	ND	0.712	0.621	
Tetrahydrofuran	ND	0.147	0.127	ND	0.434	0.375	
1,1,1-Trichloroethane	ND	0.147	0.127	ND	0.801	0.694	
Cyclohexane	ND	0.149	0.127	ND	0.513	0.438	
Carbon tetrachloride	ND	0.146	0.127	ND	0.921	0.800	
Benzene	0.251	0.146	0.127	0.802	0.467	0.406	
2,2,4-trimethylpentane	ND	0.150	0.127	ND	0.702	0.594	
1,2-Dichloroethane	ND	0.150	0.127	ND	0.605	0.515	
Heptane	0.195	0.147	0.127	0.799	0.603	0.521	
Trichloroethene	ND	0.147	0.127	ND	0.790	0.683	
1,2-Dichloropropane	ND	0.146	0.127	ND	0.676	0.588	
Methyl methacrylate	ND	0.152	0.127	ND	0.623	0.521	
1,4-Dioxane	ND	0.146	0.127	ND	0.525	0.458	
Bromodichloromethane	ND	0.147	0.127	ND	0.984	0.852	
cis-1,3-Dichloropropene	ND	0.144	0.127	ND	0.655	0.577	
Methyl isobutyl ketone	ND	0.151	0.127	ND	0.619	0.521	
Toluene	0.380	0.148	0.127	1.43	0.558	0.479	
trans-1,3-Dichloropropene	ND	0.150	0.127	ND	0.681	0.577	
1,1,2-Trichloroethane	ND	0.148	0.127	ND	0.807	0.694	
Tetrachloroethene	0.128	0.149	0.127	0.868	1.01	0.863	J
2-Hexanone (Methyl butyl ketone)	ND	0.149	0.127	ND	0.609	0.521	
Dibromochloromethane	ND	0.147	0.127	ND	1.25	1.08	
1,2-Dibromoethane	ND	0.146	0.127	ND	1.12	0.977	
Chlorobenzene	ND	0.150	0.127	ND	0.689	0.586	
Ethylbenzene	ND	0.144	0.127	ND	0.627	0.552	
1,1,1,2-Tetrachloroethane	ND	0.147	0.127	ND	1.01	0.873	
m-/p-Xylenes	0.380	0.147	0.127	1.65	0.640	0.552	

Sample Name : Compost Summa-3 (0799)
 Sample Info : 1121-078; 500mL load; Can #0799
 Data File : T2104363.D
 Dilution : 1
 Pressurization Factor : 3.634
 Acquisition Date : 2021-11-17 17:39:03
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	0.129	0.146	0.127	0.560	0.632	0.552	J
Styrene	ND	0.142	0.127	ND	0.607	0.542	
Bromoform	ND	0.146	0.127	ND	1.51	1.31	
1,1,2,2-Tetrachloroethane	ND	0.147	0.127	ND	1.01	0.873	
4-Ethyltoluene	ND	0.148	0.127	ND	0.727	0.625	
2-Chlorotoluene	ND	0.147	0.127	ND	0.759	0.658	
1,3,5-Trimethylbenzene	ND	0.147	0.127	ND	0.725	0.625	
1,2,4-Trimethylbenzene	ND	0.146	0.127	ND	0.715	0.625	
1,3-Dichlorobenzene	ND	0.148	0.127	ND	0.888	0.765	
1,4-Dichlorobenzene	ND	0.146	0.127	ND	0.878	0.765	
Benzyl chloride	ND	0.146	0.127	ND	0.757	0.658	
1,2-Dichlorobenzene	ND	0.147	0.127	ND	0.885	0.765	
1,2,4-Trichlorobenzene	ND	0.145	0.127	ND	1.07	0.944	
Hexachlorobutadiene	ND	0.144	0.127	ND	1.53	1.36	
Naphthalene	ND	0.146	0.127	ND	0.767	0.667	
1-Bromopropane	ND	0.144	0.127	ND	0.725	0.640	
1-Octene	ND	0.143	0.127	ND	0.659	0.584	
n-Octane	ND	0.146	0.127	ND	0.681	0.594	
Isopropylbenzene	ND	0.148	0.127	ND	0.726	0.625	
n-Propylbenzene	ND	0.149	0.127	ND	0.733	0.625	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	586,373	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	2,199,730	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,693,444	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Hot Wells (Active) Summa-4 (1734)
 Sample Info : 1121-078; 500mL load; Can #1734
 Data File : T2104364.D
 Dilution : 1
 Pressurization Factor : 4.685
 Acquisition Date : 2021-11-17 18:28:37
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	8.38	0.181	0.164	14.4	0.312	0.282	
Freon 12 (CCl2F2)	0.585	0.183	0.164	2.89	0.907	0.811	
Freon 114 (C2Cl2F4)	ND	0.188	0.164	ND	1.31	1.15	
Chloromethane	1.02	0.185	0.164	2.11	0.383	0.339	
Chloroethene (Vinyl chloride)	ND	0.187	0.164	ND	0.479	0.419	
1,3-Butadiene	ND	0.182	0.164	ND	0.403	0.363	
Bromomethane	ND	0.184	0.164	ND	0.714	0.637	
Chloroethane	ND	0.190	0.164	ND	0.502	0.433	
Bromoethene (Vinyl bromide)	ND	0.183	0.164	ND	0.802	0.717	
Freon 11 (CCl3F)	0.295	0.198	0.164	1.66	1.11	0.921	
Ethanol	36.7	0.186	0.164	69.2	0.350	0.309	
Acrolein	0.190	0.185	0.164	0.436	0.423	0.376	
Freon 113 (C2Cl3F3)	ND	0.190	0.164	ND	1.46	1.26	
1,1-Dichloroethene	ND	0.189	0.164	ND	0.747	0.650	
Acetone	19.2	0.188	0.164	45.6	0.446	0.390	m
Carbon disulfide	ND	0.187	0.164	ND	0.582	0.511	
Isopropyl alcohol	8.08	0.187	0.164	19.8	0.459	0.403	
Allyl chloride (3-chloropropene)	ND	0.189	0.164	ND	0.591	0.513	
Acetonitrile	3.01	0.187	0.164	5.06	0.314	0.275	
Methylene chloride	ND	0.480	0.480	ND	1.67	1.67	
trans-1,2-Dichloroethene	ND	0.191	0.164	ND	0.758	0.650	
Methyl tert-butyl ether	ND	0.193	0.164	ND	0.695	0.591	
Acrylonitrile	ND	0.191	0.164	ND	0.414	0.356	
Hexane	2.95	0.190	0.164	10.4	0.671	0.578	
1,1-Dichloroethane	ND	0.186	0.164	ND	0.753	0.664	
Vinyl acetate	ND	0.192	0.164	ND	0.675	0.577	
cis-1,2-Dichloroethene	ND	0.189	0.164	ND	0.750	0.650	
Methyl ethyl ketone (2-Butanone)	7.13	0.194	0.164	21.0	0.571	0.484	
Ethyl acetate	1.17	0.187	0.164	4.20	0.674	0.591	
Chloroform	ND	0.188	0.164	ND	0.918	0.801	
Tetrahydrofuran	3.76	0.190	0.164	11.1	0.559	0.484	
1,1,1-Trichloroethane	ND	0.189	0.164	ND	1.03	0.895	
Cyclohexane	0.255	0.192	0.164	0.876	0.661	0.564	
Carbon tetrachloride	ND	0.189	0.164	ND	1.19	1.03	
Benzene	24.8	0.189	0.164	79.4	0.602	0.524	
2,2,4-trimethylpentane	0.202	0.194	0.164	0.944	0.905	0.766	
1,2-Dichloroethane	ND	0.193	0.164	ND	0.780	0.664	
Heptane	0.571	0.190	0.164	2.34	0.778	0.672	
Trichloroethene	ND	0.189	0.164	ND	1.02	0.881	
1,2-Dichloropropane	ND	0.189	0.164	ND	0.872	0.758	
Methyl methacrylate	ND	0.196	0.164	ND	0.803	0.671	
1,4-Dioxane	0.488	0.188	0.164	1.76	0.677	0.591	
Bromodichloromethane	ND	0.189	0.164	ND	1.27	1.10	
cis-1,3-Dichloropropene	ND	0.186	0.164	ND	0.845	0.744	
Methyl isobutyl ketone	0.540	0.195	0.164	2.21	0.798	0.672	
Toluene	4.80	0.191	0.164	18.1	0.719	0.618	
trans-1,3-Dichloropropene	ND	0.193	0.164	ND	0.878	0.744	
1,1,2-Trichloroethane	ND	0.191	0.164	ND	1.04	0.895	
Tetrachloroethene	0.314	0.192	0.164	2.13	1.30	1.11	
2-Hexanone (Methyl butyl ketone)	0.301	0.192	0.164	1.23	0.785	0.672	
Dibromochloromethane	ND	0.189	0.164	ND	1.61	1.40	
1,2-Dibromoethane	ND	0.188	0.164	ND	1.44	1.26	
Chlorobenzene	ND	0.193	0.164	ND	0.889	0.755	
Ethylbenzene	3.03	0.186	0.164	13.2	0.808	0.712	
1,1,1,2-Tetrachloroethane	ND	0.189	0.164	ND	1.30	1.13	
m-/p-Xylenes	2.94	0.190	0.164	12.8	0.825	0.712	

Sample Name : Hot Wells (Active) Summa-4 (1734)
 Sample Info : 1121-078; 500mL load; Can #1734
 Data File : T2104364.D
 Dilution : 1
 Pressurization Factor : 4.685
 Acquisition Date : 2021-11-17 18:28:37
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	0.998	0.188	0.164	4.33	0.815	0.712	
Styrene	0.391	0.184	0.164	1.66	0.782	0.698	
Bromoform	ND	0.188	0.164	ND	1.94	1.69	
1,1,2,2-Tetrachloroethane	ND	0.189	0.164	ND	1.30	1.13	
4-Ethyltoluene	0.265	0.191	0.164	1.30	0.937	0.806	m
2-Chlorotoluene	ND	0.189	0.164	ND	0.979	0.849	
1,3,5-Trimethylbenzene	0.334	0.190	0.164	1.64	0.934	0.806	m
1,2,4-Trimethylbenzene	0.836	0.188	0.164	4.11	0.922	0.806	m
1,3-Dichlorobenzene	ND	0.190	0.164	ND	1.14	0.986	
1,4-Dichlorobenzene	0.178	0.188	0.164	1.07	1.13	0.986	J
Benzyl chloride	ND	0.189	0.164	ND	0.976	0.849	
1,2-Dichlorobenzene	ND	0.190	0.164	ND	1.14	0.986	
1,2,4-Trichlorobenzene	ND	0.187	0.164	ND	1.39	1.22	
Hexachlorobutadiene	ND	0.185	0.164	ND	1.97	1.75	
Naphthalene	0.209	0.189	0.164	1.09	0.989	0.860	
1-Bromopropane	ND	0.186	0.164	ND	0.935	0.825	
1-Octene	ND	0.185	0.164	ND	0.849	0.753	
n-Octane	ND	0.188	0.164	ND	0.878	0.766	
Isopropylbenzene	0.386	0.190	0.164	1.90	0.936	0.806	
n-Propylbenzene	0.180	0.192	0.164	0.887	0.945	0.806	J

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	549,984	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	2,073,561	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,635,540	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Existing Landfill (498) Summa-2 (0763)

Sample Info : 1121-078; 500mL load; Can #0763

Data File : T2104365.D

Dilution : 1

Pressurization Factor : 4.343

Acquisition Date : 2021-11-17 19:18:13

Instrument Method : TO15-SCN2.M

Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	4.33	0.168	0.152	7.45	0.289	0.262	
Freon 12 (CCl2F2)	0.549	0.170	0.152	2.72	0.841	0.752	
Freon 114 (C2Cl2F4)	ND	0.174	0.152	ND	1.22	1.06	
Chloromethane	0.614	0.172	0.152	1.27	0.355	0.314	
Chloroethene (Vinyl chloride)	ND	0.174	0.152	ND	0.444	0.389	
1,3-Butadiene	ND	0.169	0.152	ND	0.374	0.336	
Bromomethane	ND	0.170	0.152	ND	0.662	0.590	
Chloroethane	ND	0.176	0.152	ND	0.466	0.401	
Bromoethene (Vinyl bromide)	ND	0.170	0.152	ND	0.743	0.665	
Freon 11 (CCl3F)	0.248	0.183	0.152	1.39	1.03	0.854	
Ethanol	4.51	0.172	0.152	8.50	0.324	0.286	
Acrolein	0.203	0.171	0.152	0.465	0.392	0.349	
Freon 113 (C2Cl3F3)	ND	0.176	0.152	ND	1.35	1.16	
1,1-Dichloroethene	ND	0.175	0.152	ND	0.693	0.603	
Acetone	2.96	0.174	0.152	7.03	0.413	0.361	m
Carbon disulfide	ND	0.173	0.152	ND	0.539	0.473	
Isopropyl alcohol	1.46	0.173	0.152	3.58	0.426	0.374	
Allyl chloride (3-chloropropene)	ND	0.175	0.152	ND	0.548	0.476	
Acetonitrile	16.3	0.173	0.152	27.4	0.291	0.255	
Methylene chloride	ND	0.445	0.445	ND	1.54	1.54	
trans-1,2-Dichloroethene	ND	0.177	0.152	ND	0.703	0.603	
Methyl tert-butyl ether	ND	0.179	0.152	ND	0.644	0.548	
Acrylonitrile	ND	0.177	0.152	ND	0.384	0.330	
Hexane	0.417	0.176	0.152	1.47	0.622	0.536	
1,1-Dichloroethane	ND	0.173	0.152	ND	0.698	0.615	
Vinyl acetate	ND	0.178	0.152	ND	0.626	0.535	
cis-1,2-Dichloroethene	ND	0.175	0.152	ND	0.696	0.603	
Methyl ethyl ketone (2-Butanone)	0.261	0.180	0.152	0.770	0.530	0.448	m
Ethyl acetate	0.537	0.173	0.152	1.93	0.625	0.548	
Chloroform	ND	0.174	0.152	ND	0.851	0.742	
Tetrahydrofuran	ND	0.176	0.152	ND	0.518	0.448	
1,1,1-Trichloroethane	ND	0.175	0.152	ND	0.957	0.829	
Cyclohexane	ND	0.178	0.152	ND	0.613	0.523	
Carbon tetrachloride	ND	0.175	0.152	ND	1.10	0.956	
Benzene	0.355	0.175	0.152	1.13	0.558	0.486	
2,2,4-trimethylpentane	ND	0.180	0.152	ND	0.839	0.710	
1,2-Dichloroethane	ND	0.179	0.152	ND	0.724	0.615	
Heptane	0.235	0.176	0.152	0.965	0.721	0.623	
Trichloroethene	ND	0.176	0.152	ND	0.944	0.817	
1,2-Dichloropropane	ND	0.175	0.152	ND	0.808	0.702	
Methyl methacrylate	ND	0.182	0.152	ND	0.745	0.622	
1,4-Dioxane	ND	0.174	0.152	ND	0.628	0.548	
Bromodichloromethane	ND	0.175	0.152	ND	1.18	1.02	
cis-1,3-Dichloropropene	ND	0.173	0.152	ND	0.783	0.690	
Methyl isobutyl ketone	ND	0.180	0.152	ND	0.739	0.623	
Toluene	0.550	0.177	0.152	2.07	0.666	0.573	
trans-1,3-Dichloropropene	ND	0.179	0.152	ND	0.814	0.690	
1,1,2-Trichloroethane	ND	0.177	0.152	ND	0.964	0.829	
Tetrachloroethene	0.182	0.178	0.152	1.24	1.21	1.03	
2-Hexanone (Methyl butyl ketone)	ND	0.178	0.152	ND	0.728	0.623	
Dibromochloromethane	ND	0.175	0.152	ND	1.49	1.29	
1,2-Dibromoethane	ND	0.174	0.152	ND	1.34	1.17	
Chlorobenzene	ND	0.179	0.152	ND	0.824	0.700	
Ethylbenzene	0.192	0.173	0.152	0.832	0.749	0.660	
1,1,1,2-Tetrachloroethane	ND	0.175	0.152	ND	1.20	1.04	
m-/p-Xylenes	0.697	0.176	0.152	3.03	0.765	0.660	

Sample Name : Existing Landfill (498) Summa-2 (0763)
 Sample Info : 1121-078; 500mL load; Can #0763
 Data File : T2104365.D
 Dilution : 1
 Pressurization Factor : 4.343
 Acquisition Date : 2021-11-17 19:18:13
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	0.215	0.174	0.152	0.934	0.756	0.660	
Styrene	ND	0.170	0.152	ND	0.725	0.647	
Bromoform	ND	0.174	0.152	ND	1.80	1.57	
1,1,2,2-Tetrachloroethane	ND	0.176	0.152	ND	1.21	1.04	
4-Ethyltoluene	ND	0.177	0.152	ND	0.868	0.747	
2-Chlorotoluene	ND	0.175	0.152	ND	0.907	0.787	
1,3,5-Trimethylbenzene	ND	0.176	0.152	ND	0.866	0.747	
1,2,4-Trimethylbenzene	ND	0.174	0.152	ND	0.855	0.747	
1,3-Dichlorobenzene	ND	0.176	0.152	ND	1.06	0.914	
1,4-Dichlorobenzene	ND	0.175	0.152	ND	1.05	0.914	
Benzyl chloride	ND	0.175	0.152	ND	0.905	0.787	
1,2-Dichlorobenzene	ND	0.176	0.152	ND	1.06	0.914	
1,2,4-Trichlorobenzene	ND	0.173	0.152	ND	1.28	1.13	
Hexachlorobutadiene	ND	0.172	0.152	ND	1.83	1.62	
Naphthalene	ND	0.175	0.152	ND	0.917	0.797	
1-Bromopropane	ND	0.172	0.152	ND	0.867	0.765	
1-Octene	ND	0.171	0.152	ND	0.787	0.698	
n-Octane	0.198	0.174	0.152	0.927	0.814	0.710	m
Isopropylbenzene	ND	0.176	0.152	ND	0.868	0.747	
n-Propylbenzene	ND	0.178	0.152	ND	0.876	0.747	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	539,307	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	2,011,585	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,566,406	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Leachate Tank Summa-1 (R5091)
 Sample Info : 1121-078; 500mL load; Can #R5091
 Data File : T2104366.D
 Dilution : 1
 Pressurization Factor : 4.211
 Acquisition Date : 2021-11-17 20:07:48
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	12.8	0.163	0.147	22.1	0.280	0.254	
Freon 12 (CCl2F2)	0.545	0.165	0.147	2.69	0.815	0.729	
Freon 114 (C2Cl2F4)	ND	0.169	0.147	ND	1.18	1.03	
Chloromethane	1.01	0.167	0.147	2.09	0.344	0.304	
Chloroethene (Vinyl chloride)	ND	0.168	0.147	ND	0.430	0.377	
1,3-Butadiene	0.190	0.164	0.147	0.421	0.363	0.326	
Bromomethane	ND	0.165	0.147	ND	0.642	0.572	
Chloroethane	0.208	0.171	0.147	0.549	0.452	0.389	
Bromoethene (Vinyl bromide)	ND	0.165	0.147	ND	0.721	0.645	
Freon 11 (CCl3F)	0.298	0.178	0.147	1.68	0.998	0.828	
Ethanol	45.4	0.167	0.147	85.5	0.315	0.278	
Acrolein	ND	0.166	0.147	ND	0.380	0.338	
Freon 113 (C2Cl3F3)	ND	0.171	0.147	ND	1.31	1.13	
1,1-Dichloroethene	ND	0.169	0.147	ND	0.672	0.584	
Acetone	25.5	0.169	0.147	60.6	0.401	0.350	m
Carbon disulfide	ND	0.168	0.147	ND	0.523	0.459	
Isopropyl alcohol	11.5	0.168	0.147	28.2	0.413	0.362	
Allyl chloride (3-chloropropene)	ND	0.170	0.147	ND	0.531	0.461	
Acetonitrile	0.176	0.168	0.147	0.295	0.282	0.247	
Methylene chloride	ND	0.431	0.431	ND	1.50	1.50	
trans-1,2-Dichloroethene	ND	0.172	0.147	ND	0.681	0.584	
Methyl tert-butyl ether	ND	0.173	0.147	ND	0.624	0.531	
Acrylonitrile	ND	0.171	0.147	ND	0.372	0.320	
Hexane	10.2	0.171	0.147	36.1	0.603	0.519	
1,1-Dichloroethane	ND	0.167	0.147	ND	0.677	0.597	
Vinyl acetate	ND	0.172	0.147	ND	0.607	0.519	
cis-1,2-Dichloroethene	ND	0.170	0.147	ND	0.675	0.584	
Methyl ethyl ketone (2-Butanone)	11.0	0.174	0.147	32.4	0.514	0.435	
Ethyl acetate	1.42	0.168	0.147	5.13	0.606	0.531	
Chloroform	ND	0.169	0.147	ND	0.825	0.720	
Tetrahydrofuran	6.48	0.170	0.147	19.1	0.503	0.435	
1,1,1-Trichloroethane	ND	0.170	0.147	ND	0.928	0.804	
Cyclohexane	0.578	0.173	0.147	1.99	0.594	0.507	
Carbon tetrachloride	ND	0.170	0.147	ND	1.07	0.927	
Benzene	48.2	0.169	0.147	154	0.541	0.471	
2,2,4-trimethylpentane	0.321	0.174	0.147	1.50	0.814	0.689	
1,2-Dichloroethane	ND	0.173	0.147	ND	0.702	0.597	
Heptane	0.744	0.171	0.147	3.05	0.699	0.604	
Trichloroethene	ND	0.170	0.147	ND	0.915	0.792	
1,2-Dichloropropane	ND	0.170	0.147	ND	0.784	0.681	
Methyl methacrylate	ND	0.176	0.147	ND	0.722	0.604	
1,4-Dioxane	0.831	0.169	0.147	3.00	0.609	0.531	m
Bromodichloromethane	ND	0.170	0.147	ND	1.14	0.988	
cis-1,3-Dichloropropene	ND	0.167	0.147	ND	0.759	0.669	
Methyl isobutyl ketone	0.841	0.175	0.147	3.44	0.717	0.604	
Toluene	7.44	0.171	0.147	28.0	0.646	0.555	
trans-1,3-Dichloropropene	ND	0.174	0.147	ND	0.789	0.669	
1,1,2-Trichloroethane	0.314	0.171	0.147	1.71	0.935	0.804	
Tetrachloroethene	0.192	0.172	0.147	1.30	1.17	1.00	m
2-Hexanone (Methyl butyl ketone)	0.319	0.172	0.147	1.31	0.706	0.604	
Dibromochloromethane	ND	0.170	0.147	ND	1.45	1.26	
1,2-Dibromoethane	ND	0.169	0.147	ND	1.30	1.13	
Chlorobenzene	ND	0.173	0.147	ND	0.799	0.678	
Ethylbenzene	5.83	0.167	0.147	25.3	0.726	0.640	
1,1,1,2-Tetrachloroethane	ND	0.170	0.147	ND	1.17	1.01	
m-/p-Xylenes	4.92	0.171	0.147	21.4	0.742	0.640	

Sample Name : Leachate Tank Summa-1 (R5091)
 Sample Info : 1121-078; 500mL load; Can #R5091
 Data File : T2104366.D
 Dilution : 1
 Pressurization Factor : 4.211
 Acquisition Date : 2021-11-17 20:07:48
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	1.67	0.169	0.147	7.26	0.733	0.640	
Styrene	0.888	0.165	0.147	3.78	0.703	0.628	
Bromoform	ND	0.169	0.147	ND	1.75	1.52	
1,1,2,2-Tetrachloroethane	ND	0.170	0.147	ND	1.17	1.01	
4-Ethyltoluene	0.505	0.171	0.147	2.48	0.842	0.725	m
2-Chlorotoluene	ND	0.170	0.147	ND	0.880	0.763	
1,3,5-Trimethylbenzene	0.683	0.171	0.147	3.36	0.840	0.725	
1,2,4-Trimethylbenzene	1.71	0.169	0.147	8.39	0.829	0.725	m
1,3-Dichlorobenzene	ND	0.171	0.147	ND	1.03	0.886	
1,4-Dichlorobenzene	0.345	0.169	0.147	2.07	1.02	0.886	
Benzyl chloride	ND	0.169	0.147	ND	0.877	0.763	
1,2-Dichlorobenzene	ND	0.171	0.147	ND	1.03	0.886	
1,2,4-Trichlorobenzene	ND	0.168	0.147	ND	1.25	1.09	
Hexachlorobutadiene	ND	0.166	0.147	ND	1.77	1.57	
Naphthalene	0.226	0.170	0.147	1.18	0.889	0.773	
1-Bromopropane	ND	0.167	0.147	ND	0.841	0.741	
1-Octene	ND	0.166	0.147	ND	0.763	0.677	
n-Octane	1.62	0.169	0.147	7.56	0.789	0.689	m
Isopropylbenzene	0.734	0.171	0.147	3.61	0.841	0.725	
n-Propylbenzene	0.334	0.173	0.147	1.64	0.850	0.725	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	534,549	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	2,003,508	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,605,519	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Chimney Summa-5
 Sample Info : 1121-078; 500mL load; Can #000072
 Data File : T2104376.D
 Dilution : 1
 Pressurization Factor : 4.958
 Acquisition Date : 2021-11-18 14:32:13
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	26.4	0.192	0.174	45.4	0.330	0.299	
Freon 12 (CCl2F2)	0.597	0.194	0.174	2.95	0.960	0.858	
Freon 114 (C2Cl2F4)	ND	0.199	0.174	ND	1.39	1.21	
Chloromethane	0.912	0.196	0.174	1.88	0.405	0.358	
Chloroethene (Vinyl chloride)	0.186	0.198	0.174	0.475	0.506	0.444	m J
1,3-Butadiene	0.337	0.193	0.174	0.746	0.427	0.384	
Bromomethane	ND	0.195	0.174	ND	0.755	0.674	
Chloroethane	0.959	0.201	0.174	2.53	0.532	0.458	m
Bromoethene (Vinyl bromide)	ND	0.194	0.174	ND	0.848	0.759	
Freon 11 (CCl3F)	0.339	0.209	0.174	1.91	1.18	0.975	m
Ethanol	24.8	0.197	0.174	46.8	0.370	0.327	
Acrolein	ND	0.195	0.174	ND	0.448	0.398	
Freon 113 (C2Cl3F3)	ND	0.201	0.174	ND	1.54	1.33	
1,1-Dichloroethene	ND	0.200	0.174	ND	0.791	0.688	
Acetone	7.28	0.199	0.174	17.3	0.472	0.412	m
Carbon disulfide	ND	0.198	0.174	ND	0.616	0.540	
Isopropyl alcohol	2.13	0.198	0.174	5.24	0.486	0.427	
Allyl chloride (3-chloropropene)	ND	0.200	0.174	ND	0.626	0.543	
Acetonitrile	2.52	0.198	0.174	4.23	0.332	0.291	
Methylene chloride	0.617	0.508	0.508	2.14	1.76	1.76	m
trans-1,2-Dichloroethene	ND	0.202	0.174	ND	0.802	0.688	
Methyl tert-butyl ether	ND	0.204	0.174	ND	0.735	0.626	
Acrylonitrile	ND	0.202	0.174	ND	0.438	0.377	
Hexane	10.3	0.201	0.174	36.2	0.710	0.612	
1,1-Dichloroethane	ND	0.197	0.174	ND	0.797	0.702	
Vinyl acetate	ND	0.203	0.174	ND	0.714	0.611	
cis-1,2-Dichloroethene	ND	0.200	0.174	ND	0.794	0.688	
Methyl ethyl ketone (2-Butanone)	1.39	0.205	0.174	4.11	0.605	0.512	
Ethyl acetate	0.725	0.198	0.174	2.61	0.713	0.625	
Chloroform	ND	0.199	0.174	ND	0.971	0.847	
Tetrahydrofuran	1.09	0.201	0.174	3.22	0.592	0.512	m
1,1,1-Trichloroethane	ND	0.200	0.174	ND	1.09	0.947	
Cyclohexane	0.377	0.203	0.174	1.30	0.700	0.597	
Carbon tetrachloride	ND	0.200	0.174	ND	1.26	1.09	
Benzene	146	0.200	0.174	467	0.637	0.554	m
2,2,4-trimethylpentane	0.198	0.205	0.174	0.925	0.958	0.811	J
1,2-Dichloroethane	ND	0.204	0.174	ND	0.826	0.702	
Heptane	0.892	0.201	0.174	3.66	0.823	0.711	
Trichloroethene	ND	0.201	0.174	ND	1.08	0.933	
1,2-Dichloropropane	ND	0.200	0.174	ND	0.923	0.802	
Methyl methacrylate	ND	0.208	0.174	ND	0.850	0.711	
1,4-Dioxane	0.297	0.199	0.174	1.07	0.717	0.625	
Bromodichloromethane	ND	0.200	0.174	ND	1.34	1.16	
cis-1,3-Dichloropropene	ND	0.197	0.174	ND	0.894	0.788	
Methyl isobutyl ketone	0.266	0.206	0.174	1.09	0.844	0.711	
Toluene	9.73	0.202	0.174	36.7	0.761	0.654	
trans-1,3-Dichloropropene	ND	0.205	0.174	ND	0.929	0.788	
1,1,2-Trichloroethane	ND	0.202	0.174	ND	1.10	0.947	
Tetrachloroethene	0.244	0.203	0.174	1.66	1.38	1.18	
2-Hexanone (Methyl butyl ketone)	ND	0.203	0.174	ND	0.831	0.711	
Dibromochloromethane	ND	0.200	0.174	ND	1.70	1.48	
1,2-Dibromoethane	ND	0.199	0.174	ND	1.53	1.33	
Chlorobenzene	ND	0.204	0.174	ND	0.940	0.799	
Ethylbenzene	5.69	0.197	0.174	24.7	0.855	0.753	
1,1,1,2-Tetrachloroethane	ND	0.200	0.174	ND	1.37	1.19	
m-/p-Xylenes	8.34	0.201	0.174	36.2	0.873	0.753	

Sample Name : Chimney Summa-5
 Sample Info : 1121-078; 500mL load; Can #000072
 Data File : T2104376.D
 Dilution : 1
 Pressurization Factor : 4.958
 Acquisition Date : 2021-11-18 14:32:13
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	3.66	0.199	0.174	15.9	0.863	0.753	
Styrene	ND	0.194	0.174	ND	0.828	0.739	
Bromoform	ND	0.199	0.174	ND	2.06	1.79	
1,1,2,2-Tetrachloroethane	ND	0.201	0.174	ND	1.38	1.19	
4-Ethyltoluene	1.20	0.202	0.174	5.89	0.991	0.853	
2-Chlorotoluene	ND	0.200	0.174	ND	1.04	0.898	
1,3,5-Trimethylbenzene	1.91	0.201	0.174	9.41	0.989	0.853	
1,2,4-Trimethylbenzene	3.91	0.199	0.174	19.2	0.976	0.853	
1,3-Dichlorobenzene	ND	0.201	0.174	ND	1.21	1.04	
1,4-Dichlorobenzene	0.734	0.199	0.174	4.41	1.20	1.04	
Benzyl chloride	ND	0.200	0.174	ND	1.03	0.898	
1,2-Dichlorobenzene	ND	0.201	0.174	ND	1.21	1.04	
1,2,4-Trichlorobenzene	ND	0.198	0.174	ND	1.47	1.29	
Hexachlorobutadiene	ND	0.196	0.174	ND	2.09	1.85	
Naphthalene	0.196	0.200	0.174	1.03	1.05	0.910	J
1-Bromopropane	ND	0.197	0.174	ND	0.990	0.873	
1-Octene	ND	0.196	0.174	ND	0.899	0.797	
n-Octane	5.34	0.199	0.174	24.9	0.929	0.811	
Isopropylbenzene	0.928	0.201	0.174	4.56	0.991	0.853	
n-Propylbenzene	0.358	0.203	0.174	1.76	1.00	0.853	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	478,875	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	1,791,378	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,530,745	18.47	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : 1128-728-00F
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101555.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 00:44:32
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	1,835	20.0	1,835	
2-Methylnaphthalene	20.0	537	20.0	537	
1-Methylnaphthalene	20.0	260	20.0	260	
Acenaphthylene	20.0	22.6	20.0	22.6	m
Acenaphthene	20.0	121	20.0	121	m
Fluorene	20.0	216	20.0	216	m
Phenanthrene	20.0	615	20.0	615	
Anthracene	20.0	43.3	20.0	43.3	m
Fluoranthene	20.0	81.4	20.0	81.4	
Pyrene	20.0	46.0	20.0	46.0	
Benzo(a)anthracene	20.0	ND	20.0	ND	
Chrysene	20.0	ND	20.0	ND	
Benzo(b)fluoranthene	20.0	ND	20.0	ND	
Benzo(k)fluoranthene	20.0	ND	20.0	ND	
Benzo(e)pyrene	20.0	ND	20.0	ND	
Benzo(a)pyrene	20.0	ND	20.0	ND	
Perylene	20.0	ND	20.0	ND	
Indeno(1,2,3-cd)pyrene	20.0	ND	20.0	ND	
Dibenz(a,h)anthracene	20.0	ND	20.0	ND	
Benzo(g,h,i)perylene	20.0	ND	20.0	ND	
Coronene	20.0	ND	20.0	ND	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : 1128-728-00F
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101555.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 00:44:32
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	77,866	5.60	400	-1.1	PASS
Acenaphthene-d10	31,855	7.22	400	4.3	PASS
Phenanthrene-d10	55,012	8.61	400	2.9	PASS
Chrysene-d12	38,299	13.05	400	9.6	PASS
Perylene-d12	25,698	18.55	400	10.5	PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	48,718	10.6	1,402	1402.2	1,000	140	FAIL
Benzo(a)pyrene-d12 (Surr)	46,374	18.2	1,310	1310.1	1,000	131	FAIL
Fluoranthene-d10 (Surr)	116,872	10.0	1,218	1218.2	1,000	122	FAIL
Fluorene-d10 (Surr)	90,264	7.70	1,209	1209.3	1,000	121	FAIL
Pyrene-d10 (Surr)	140,911	10.4	1,435	1434.8	1,000	143	FAIL

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Lab QC



Sample Name : Chimney Summa-5 LD
 Sample Info : 1121-078; 500mL load; Can #000072
 Data File : T2104377.D
 Dilution : 1
 Pressurization Factor : 4.958
 Acquisition Date : 2021-11-18 15:22:26
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	% Diff	Flag *
Propylene	26.0	0.192	0.174	44.8	0.330	0.299	1.3	
Freon 12 (CCl2F2)	0.644	0.194	0.174	3.18	0.960	0.858	7.5	
Freon 114 (C2Cl2F4)	ND	0.199	0.174	ND	1.39	1.21		
Chloromethane	0.833	0.196	0.174	1.72	0.405	0.358	9.1	
Chloroethene (Vinyl chloride)	0.195	0.198	0.174	0.499	0.506	0.444	4.9	m J
1,3-Butadiene	0.395	0.193	0.174	0.875	0.427	0.384	15.9	
Bromomethane	ND	0.195	0.174	ND	0.755	0.674		
Chloroethane	0.849	0.201	0.174	2.24	0.532	0.458	12.2	
Bromoethene (Vinyl bromide)	ND	0.194	0.174	ND	0.848	0.759		
Freon 11 (CCl3F)	0.341	0.209	0.174	1.92	1.18	0.975	0.5	
Ethanol	24.1	0.197	0.174	45.5	0.370	0.327	2.7	
Acrolein	ND	0.195	0.174	ND	0.448	0.398		
Freon 113 (C2Cl3F3)	ND	0.201	0.174	ND	1.54	1.33		
1,1-Dichloroethene	ND	0.200	0.174	ND	0.791	0.688		
Acetone	6.95	0.199	0.174	16.5	0.472	0.412	4.5	m
Carbon disulfide	ND	0.198	0.174	ND	0.616	0.540		
Isopropyl alcohol	1.96	0.198	0.174	4.83	0.486	0.427	8.1	
Allyl chloride (3-chloropropene)	ND	0.200	0.174	ND	0.626	0.543		
Acetonitrile	2.36	0.198	0.174	3.95	0.332	0.291	6.7	
Methylene chloride	0.539	0.508	0.508	1.87	1.76	1.76	13.6	
trans-1,2-Dichloroethene	ND	0.202	0.174	ND	0.802	0.688		
Methyl tert-butyl ether	ND	0.204	0.174	ND	0.735	0.626		
Acrylonitrile	ND	0.202	0.174	ND	0.438	0.377		
Hexane	10.0	0.201	0.174	35.4	0.710	0.612	2.2	
1,1-Dichloroethane	ND	0.197	0.174	ND	0.797	0.702		
Vinyl acetate	ND	0.203	0.174	ND	0.714	0.611		
cis-1,2-Dichloroethene	ND	0.200	0.174	ND	0.794	0.688		
Methyl ethyl ketone (2-Butanone)	1.46	0.205	0.174	4.30	0.605	0.512	4.3	
Ethyl acetate	0.662	0.198	0.174	2.38	0.713	0.625	9.1	
Chloroform	ND	0.199	0.174	ND	0.971	0.847		
Tetrahydrofuran	1.08	0.201	0.174	3.19	0.592	0.512	0.9	
1,1,1-Trichloroethane	ND	0.200	0.174	ND	1.09	0.947		
Cyclohexane	0.326	0.203	0.174	1.12	0.700	0.597	14.5	
Carbon tetrachloride	ND	0.200	0.174	ND	1.26	1.09		
Benzene	145	0.200	0.174	464	0.637	0.554	0.6	
2,2,4-trimethylpentane	0.182	0.205	0.174	0.849	0.958	0.811	8.6	J
1,2-Dichloroethane	ND	0.204	0.174	ND	0.826	0.702		
Heptane	0.794	0.201	0.174	3.25	0.823	0.711	11.7	
Trichloroethene	ND	0.201	0.174	ND	1.08	0.933		
1,2-Dichloropropane	ND	0.200	0.174	ND	0.923	0.802		
Methyl methacrylate	ND	0.208	0.174	ND	0.850	0.711		
1,4-Dioxane	0.299	0.199	0.174	1.08	0.717	0.625	0.5	
Bromodichloromethane	ND	0.200	0.174	ND	1.34	1.16		
cis-1,3-Dichloropropene	ND	0.197	0.174	ND	0.894	0.788		
Methyl isobutyl ketone	0.249	0.206	0.174	1.02	0.844	0.711	6.5	
Toluene	9.83	0.202	0.174	37.0	0.761	0.654	1.1	
trans-1,3-Dichloropropene	ND	0.205	0.174	ND	0.929	0.788		
1,1,2-Trichloroethane	ND	0.202	0.174	ND	1.10	0.947		
Tetrachloroethene	0.257	0.203	0.174	1.74	1.38	1.18	5.1	
2-Hexanone (Methyl butyl ketone)	ND	0.203	0.174	ND	0.831	0.711		
Dibromochloromethane	ND	0.200	0.174	ND	1.70	1.48		
1,2-Dibromoethane	ND	0.199	0.174	ND	1.53	1.33		
Chlorobenzene	ND	0.204	0.174	ND	0.940	0.799		
Ethylbenzene	5.63	0.197	0.174	24.4	0.855	0.753	1.1	
1,1,1,2-Tetrachloroethane	ND	0.200	0.174	ND	1.37	1.19		
m-/p-Xylenes	8.18	0.201	0.174	35.5	0.873	0.753	2.0	
o-Xylene	3.55	0.199	0.174	15.4	0.863	0.753	3.1	
Styrene	ND	0.194	0.174	ND	0.828	0.739		
Bromoform	ND	0.199	0.174	ND	2.06	1.79		
1,1,2,2-Tetrachloroethane	ND	0.201	0.174	ND	1.38	1.19		
4-Ethyltoluene	1.18	0.202	0.174	5.81	0.991	0.853	1.3	m
2-Chlorotoluene	ND	0.200	0.174	ND	1.04	0.898		

Sample Name : Chimney Summa-5 LD
 Sample Info : 1121-078; 500mL load; Can #000072
 Data File : T2104377.D
 Dilution : 1
 Pressurization Factor : 4.958
 Acquisition Date : 2021-11-18 15:22:26
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	% Diff	Flag *
1,3,5-Trimethylbenzene	1.88	0.201	0.174	9.22	0.989	0.853	2.0	
1,2,4-Trimethylbenzene	3.80	0.199	0.174	18.7	0.976	0.853	2.6	
1,3-Dichlorobenzene	ND	0.201	0.174	ND	1.21	1.04		
1,4-Dichlorobenzene	0.743	0.199	0.174	4.47	1.20	1.04	1.2	
Benzyl chloride	ND	0.200	0.174	ND	1.03	0.898		
1,2-Dichlorobenzene	ND	0.201	0.174	ND	1.21	1.04		
1,2,4-Trichlorobenzene	ND	0.198	0.174	ND	1.47	1.29		
Hexachlorobutadiene	ND	0.196	0.174	ND	2.09	1.85		
Naphthalene	0.174	0.200	0.174	0.914	1.05	0.910	11.5	m J
1-Bromopropane	ND	0.197	0.174	ND	0.990	0.873		
1-Octene	ND	0.196	0.174	ND	0.899	0.797		
n-Octane	5.40	0.199	0.174	25.2	0.929	0.811	1.0	
Isopropylbenzene	0.907	0.201	0.174	4.46	0.991	0.853	2.2	
n-Propylbenzene	0.337	0.203	0.174	1.66	1.00	0.853	6.0	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	488,663	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	1,820,404	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,582,659	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Humid Blank #0702
 Sample Info : 500mL load; Can #0702
 Data File : T2104348.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 05:44:01
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	ND	0.0386	0.0350	ND	0.0665	0.0602	
Freon 12 (CCl2F2)	ND	0.0392	0.0350	ND	0.194	0.173	
Freon 114 (C2Cl2F4)	ND	0.0401	0.0350	ND	0.280	0.245	
Chloromethane	ND	0.0396	0.0350	ND	0.0817	0.0723	
Chloroethene (Vinyl chloride)	ND	0.0400	0.0350	ND	0.102	0.0895	
1,3-Butadiene	ND	0.0389	0.0350	ND	0.0861	0.0774	
Bromomethane	ND	0.0392	0.0350	ND	0.152	0.136	
Chloroethane	ND	0.0406	0.0350	ND	0.107	0.0924	
Bromoethene (Vinyl bromide)	ND	0.0391	0.0350	ND	0.171	0.153	
Freon 11 (CCl3F)	ND	0.0422	0.0350	ND	0.237	0.197	
Ethanol	ND	0.0396	0.0350	ND	0.0747	0.0659	
Acrolein	ND	0.0394	0.0350	ND	0.0903	0.0803	
Freon 113 (C2Cl3F3)	ND	0.0406	0.0350	ND	0.311	0.268	
1,1-Dichloroethene	ND	0.0402	0.0350	ND	0.160	0.139	
Acetone	0.0513	0.0401	0.0350	0.122	0.0952	0.0831	m
Carbon disulfide	ND	0.0399	0.0350	ND	0.124	0.109	
Isopropyl alcohol	ND	0.0399	0.0350	ND	0.0980	0.0860	
Allyl chloride (3-chloropropene)	ND	0.0403	0.0350	ND	0.126	0.110	
Acetonitrile	ND	0.0399	0.0350	ND	0.0670	0.0588	
Methylene chloride	ND	0.102	0.102	ND	0.356	0.356	
trans-1,2-Dichloroethene	ND	0.0408	0.0350	ND	0.162	0.139	
Methyl tert-butyl ether	ND	0.0411	0.0350	ND	0.148	0.126	
Acrylonitrile	ND	0.0407	0.0350	ND	0.0884	0.0760	
Hexane	ND	0.0406	0.0350	ND	0.143	0.123	
1,1-Dichloroethane	ND	0.0397	0.0350	ND	0.161	0.142	
Vinyl acetate	ND	0.0409	0.0350	ND	0.144	0.123	
cis-1,2-Dichloroethene	ND	0.0404	0.0350	ND	0.160	0.139	
Methyl ethyl ketone (2-Butanone)	ND	0.0414	0.0350	ND	0.122	0.103	
Ethyl acetate	ND	0.0399	0.0350	ND	0.144	0.126	
Chloroform	ND	0.0401	0.0350	ND	0.196	0.171	
Tetrahydrofuran	ND	0.0405	0.0350	ND	0.119	0.103	
1,1,1-Trichloroethane	ND	0.0404	0.0350	ND	0.220	0.191	
Cyclohexane	ND	0.0410	0.0350	ND	0.141	0.120	
Carbon tetrachloride	ND	0.0403	0.0350	ND	0.253	0.220	
Benzene	ND	0.0402	0.0350	ND	0.129	0.112	
2,2,4-trimethylpentane	ND	0.0414	0.0350	ND	0.193	0.164	
1,2-Dichloroethane	ND	0.0412	0.0350	ND	0.167	0.142	
Heptane	ND	0.0405	0.0350	ND	0.166	0.143	
Trichloroethene	ND	0.0404	0.0350	ND	0.217	0.188	
1,2-Dichloropropane	ND	0.0403	0.0350	ND	0.186	0.162	
Methyl methacrylate	ND	0.0419	0.0350	ND	0.171	0.143	
1,4-Dioxane	ND	0.0401	0.0350	ND	0.145	0.126	
Bromodichloromethane	ND	0.0404	0.0350	ND	0.271	0.235	
cis-1,3-Dichloropropene	ND	0.0397	0.0350	ND	0.180	0.159	
Methyl isobutyl ketone	ND	0.0416	0.0350	ND	0.170	0.143	
Toluene	ND	0.0407	0.0350	ND	0.153	0.132	
trans-1,3-Dichloropropene	ND	0.0413	0.0350	ND	0.187	0.159	
1,1,2-Trichloroethane	ND	0.0407	0.0350	ND	0.222	0.191	
Tetrachloroethene	ND	0.0409	0.0350	ND	0.278	0.237	
2-Hexanone (Methyl butyl ketone)	ND	0.0409	0.0350	ND	0.168	0.143	
Dibromochloromethane	ND	0.0403	0.0350	ND	0.343	0.298	
1,2-Dibromoethane	ND	0.0401	0.0350	ND	0.308	0.269	
Chlorobenzene	ND	0.0412	0.0350	ND	0.190	0.161	
Ethylbenzene	ND	0.0397	0.0350	ND	0.172	0.152	
1,1,1,2-Tetrachloroethane	ND	0.0403	0.0350	ND	0.277	0.240	
m-/p-Xylenes	ND	0.0406	0.0350	ND	0.176	0.152	

Sample Name : Humid Blank #0702
 Sample Info : 500mL load; Can #0702
 Data File : T2104348.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 05:44:01
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	ND	0.0401	0.0350	ND	0.174	0.152	
Styrene	ND	0.0392	0.0350	ND	0.167	0.149	
Bromoform	ND	0.0401	0.0350	ND	0.415	0.362	
1,1,2,2-Tetrachloroethane	ND	0.0404	0.0350	ND	0.278	0.240	
4-Ethyltoluene	ND	0.0407	0.0350	ND	0.200	0.172	
2-Chlorotoluene	ND	0.0404	0.0350	ND	0.209	0.181	
1,3,5-Trimethylbenzene	ND	0.0406	0.0350	ND	0.199	0.172	
1,2,4-Trimethylbenzene	ND	0.0400	0.0350	ND	0.197	0.172	
1,3-Dichlorobenzene	ND	0.0406	0.0350	ND	0.244	0.210	
1,4-Dichlorobenzene	ND	0.0402	0.0350	ND	0.242	0.210	
Benzyl chloride	ND	0.0402	0.0350	ND	0.208	0.181	
1,2-Dichlorobenzene	ND	0.0405	0.0350	ND	0.244	0.210	
1,2,4-Trichlorobenzene	ND	0.0398	0.0350	ND	0.296	0.260	
Hexachlorobutadiene	ND	0.0395	0.0350	ND	0.421	0.373	
Naphthalene	ND	0.0403	0.0350	ND	0.211	0.183	
1-Bromopropane	ND	0.0397	0.0350	ND	0.200	0.176	
1-Octene	ND	0.0395	0.0350	ND	0.181	0.161	
n-Octane	ND	0.0401	0.0350	ND	0.187	0.164	
Isopropylbenzene	ND	0.0406	0.0350	ND	0.200	0.172	
n-Propylbenzene	ND	0.0410	0.0350	ND	0.202	0.172	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	529,531	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	1,993,760	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,488,601	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Humid Blank #R5110
 Sample Info : 500mL load; Can #R5110
 Data File : T2104375.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-18 13:41:59
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	ND	0.0386	0.0350	ND	0.0665	0.0602	
Freon 12 (CCl2F2)	ND	0.0392	0.0350	ND	0.194	0.173	
Freon 114 (C2Cl2F4)	ND	0.0401	0.0350	ND	0.280	0.245	
Chloromethane	ND	0.0396	0.0350	ND	0.0817	0.0723	
Chloroethene (Vinyl chloride)	ND	0.0400	0.0350	ND	0.102	0.0895	
1,3-Butadiene	ND	0.0389	0.0350	ND	0.0861	0.0774	
Bromomethane	ND	0.0392	0.0350	ND	0.152	0.136	
Chloroethane	ND	0.0406	0.0350	ND	0.107	0.0924	
Bromoethene (Vinyl bromide)	ND	0.0391	0.0350	ND	0.171	0.153	
Freon 11 (CCl3F)	ND	0.0422	0.0350	ND	0.237	0.197	
Ethanol	0.0804	0.0396	0.0350	0.152	0.0747	0.0659	
Acrolein	ND	0.0394	0.0350	ND	0.0903	0.0803	
Freon 113 (C2Cl3F3)	ND	0.0406	0.0350	ND	0.311	0.268	
1,1-Dichloroethene	ND	0.0402	0.0350	ND	0.160	0.139	
Acetone	0.0426	0.0401	0.0350	0.101	0.0952	0.0831	m
Carbon disulfide	ND	0.0399	0.0350	ND	0.124	0.109	
Isopropyl alcohol	ND	0.0399	0.0350	ND	0.0980	0.0860	
Allyl chloride (3-chloropropene)	ND	0.0403	0.0350	ND	0.126	0.110	
Acetonitrile	ND	0.0399	0.0350	ND	0.0670	0.0588	
Methylene chloride	ND	0.102	0.102	ND	0.356	0.356	
trans-1,2-Dichloroethene	ND	0.0408	0.0350	ND	0.162	0.139	
Methyl tert-butyl ether	ND	0.0411	0.0350	ND	0.148	0.126	
Acrylonitrile	ND	0.0407	0.0350	ND	0.0884	0.0760	
Hexane	ND	0.0406	0.0350	ND	0.143	0.123	
1,1-Dichloroethane	ND	0.0397	0.0350	ND	0.161	0.142	
Vinyl acetate	ND	0.0409	0.0350	ND	0.144	0.123	
cis-1,2-Dichloroethene	ND	0.0404	0.0350	ND	0.160	0.139	
Methyl ethyl ketone (2-Butanone)	ND	0.0414	0.0350	ND	0.122	0.103	
Ethyl acetate	ND	0.0399	0.0350	ND	0.144	0.126	
Chloroform	ND	0.0401	0.0350	ND	0.196	0.171	
Tetrahydrofuran	ND	0.0405	0.0350	ND	0.119	0.103	
1,1,1-Trichloroethane	ND	0.0404	0.0350	ND	0.220	0.191	
Cyclohexane	ND	0.0410	0.0350	ND	0.141	0.120	
Carbon tetrachloride	ND	0.0403	0.0350	ND	0.253	0.220	
Benzene	ND	0.0402	0.0350	ND	0.129	0.112	
2,2,4-trimethylpentane	ND	0.0414	0.0350	ND	0.193	0.164	
1,2-Dichloroethane	ND	0.0412	0.0350	ND	0.167	0.142	
Heptane	ND	0.0405	0.0350	ND	0.166	0.143	
Trichloroethene	ND	0.0404	0.0350	ND	0.217	0.188	
1,2-Dichloropropane	ND	0.0403	0.0350	ND	0.186	0.162	
Methyl methacrylate	ND	0.0419	0.0350	ND	0.171	0.143	
1,4-Dioxane	ND	0.0401	0.0350	ND	0.145	0.126	
Bromodichloromethane	ND	0.0404	0.0350	ND	0.271	0.235	
cis-1,3-Dichloropropene	ND	0.0397	0.0350	ND	0.180	0.159	
Methyl isobutyl ketone	ND	0.0416	0.0350	ND	0.170	0.143	
Toluene	ND	0.0407	0.0350	ND	0.153	0.132	
trans-1,3-Dichloropropene	ND	0.0413	0.0350	ND	0.187	0.159	
1,1,2-Trichloroethane	ND	0.0407	0.0350	ND	0.222	0.191	
Tetrachloroethene	ND	0.0409	0.0350	ND	0.278	0.237	
2-Hexanone (Methyl butyl ketone)	ND	0.0409	0.0350	ND	0.168	0.143	
Dibromochloromethane	ND	0.0403	0.0350	ND	0.343	0.298	
1,2-Dibromoethane	ND	0.0401	0.0350	ND	0.308	0.269	
Chlorobenzene	ND	0.0412	0.0350	ND	0.190	0.161	
Ethylbenzene	ND	0.0397	0.0350	ND	0.172	0.152	
1,1,1,2-Tetrachloroethane	ND	0.0403	0.0350	ND	0.277	0.240	
m-/p-Xylenes	ND	0.0406	0.0350	ND	0.176	0.152	

Sample Name : Humid Blank #R5110
 Sample Info : 500mL load; Can #R5110
 Data File : T2104375.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-18 13:41:59
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	ND	0.0401	0.0350	ND	0.174	0.152	
Styrene	ND	0.0392	0.0350	ND	0.167	0.149	
Bromoform	ND	0.0401	0.0350	ND	0.415	0.362	
1,1,2,2-Tetrachloroethane	ND	0.0404	0.0350	ND	0.278	0.240	
4-Ethyltoluene	ND	0.0407	0.0350	ND	0.200	0.172	
2-Chlorotoluene	ND	0.0404	0.0350	ND	0.209	0.181	
1,3,5-Trimethylbenzene	ND	0.0406	0.0350	ND	0.199	0.172	
1,2,4-Trimethylbenzene	ND	0.0400	0.0350	ND	0.197	0.172	
1,3-Dichlorobenzene	ND	0.0406	0.0350	ND	0.244	0.210	
1,4-Dichlorobenzene	ND	0.0402	0.0350	ND	0.242	0.210	
Benzyl chloride	ND	0.0402	0.0350	ND	0.208	0.181	
1,2-Dichlorobenzene	ND	0.0405	0.0350	ND	0.244	0.210	
1,2,4-Trichlorobenzene	ND	0.0398	0.0350	ND	0.296	0.260	
Hexachlorobutadiene	ND	0.0395	0.0350	ND	0.421	0.373	
Naphthalene	ND	0.0403	0.0350	ND	0.211	0.183	
1-Bromopropane	ND	0.0397	0.0350	ND	0.200	0.176	
1-Octene	ND	0.0395	0.0350	ND	0.181	0.161	
n-Octane	ND	0.0401	0.0350	ND	0.187	0.164	
Isopropylbenzene	ND	0.0406	0.0350	ND	0.200	0.172	
n-Propylbenzene	ND	0.0410	0.0350	ND	0.202	0.172	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	442,216	12.46	5.01	PASS
1,4-Difluorobenzene (IS)	1,630,709	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,355,074	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104345.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 03:28:10
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Propylene	462,060	4.53	4.83	93.8	PASS
Freon 12 (CCl2F2)	1,351,533	4.61	4.90	94.2	PASS
Freon 114 (C2Cl2F4)	1,264,924	4.53	5.01	90.4	PASS
Chloromethane	556,315	5.46	4.95	110.4	PASS
Chloroethene (Vinyl chloride)	506,348	5.24	5.00	104.9	PASS
1,3-Butadiene	467,570	4.53	4.87	93.2	PASS
Bromomethane	440,742	5.36	4.91	109.3	PASS
Chloroethane	210,576	4.94	5.08	97.3	PASS
Bromoethene (Vinyl bromide)	445,391	4.32	4.89	88.4	PASS
Freon 11 (CCl3F)	1,543,195	4.84	5.28	91.7	PASS
Ethanol	226,946	4.61	4.96	93.1	PASS
Acrolein	178,803	4.62	4.93	93.9	PASS
1,1-Dichloroethene	844,684	4.51	5.03	89.7	PASS
Freon 113 (C2Cl3F3)	899,186	4.74	5.08	93.5	PASS
Acetone	915,273	4.35	5.01	86.8	PASS
Isopropyl alcohol	1,014,090	5.07	4.99	101.7	PASS
Carbon disulfide	1,088,450	3.80	4.99	76.3	PASS
Acetonitrile	497,377	4.83	4.99	96.8	PASS
Allyl chloride (3-chloropropene)	162,851	3.79	5.04	75.2	PASS
Methylene chloride	764,492	4.85	5.12	94.7	PASS
Acrylonitrile	442,205	5.16	5.09	101.4	PASS
trans-1,2-Dichloroethene	736,788	4.71	5.10	92.3	PASS
Methyl tert-butyl ether	1,203,869	4.25	5.14	82.8	PASS
Hexane	755,604	5.11	5.08	100.6	PASS
1,1-Dichloroethane	872,562	4.63	4.97	93.3	PASS
Vinyl acetate	1,557,364	5.17	5.12	101.1	PASS
Methyl ethyl ketone (2-Butanone)	179,429	3.75	5.17	72.6	PASS
cis-1,2-Dichloroethene	830,547	4.62	5.05	91.4	PASS
Ethyl acetate	208,040	4.41	4.99	88.4	PASS
1-Bromopropane	1,062,149	5.13	4.96	103.4	PASS
Tetrahydrofuran	165,072	3.65	5.06	72.1	PASS
Chloroform	999,830	4.33	5.02	86.4	PASS
1,1,1-Trichloroethane	1,117,029	4.50	5.05	89.1	PASS
Cyclohexane	809,480	5.19	5.13	101.2	PASS
Carbon tetrachloride	1,316,550	4.75	5.04	94.4	PASS
Benzene	1,120,039	4.17	5.03	82.9	PASS
1,2-Dichloroethane	830,244	5.23	5.15	101.7	PASS
2,2,4-trimethylpentane	2,498,515	5.74	5.17	111.0	PASS
Heptane	488,604	5.40	5.07	106.5	PASS
Trichloroethene	684,061	5.03	5.06	99.5	PASS
1,2-Dichloropropane	508,529	4.77	5.04	94.7	PASS
Methyl methacrylate	415,161	4.30	5.24	82.1	PASS

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104345.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 03:28:10
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
1,4-Dioxane	266,079	4.36	5.02	87.0	PASS
Bromodichloromethane	1,045,685	4.66	5.05	92.2	PASS
cis-1,3-Dichloropropene	673,632	4.17	4.97	84.1	PASS
Methyl isobutyl ketone	1,546,618	5.87	5.20	113.0	PASS
Toluene	1,461,427	4.89	5.09	96.0	PASS
1-Octene	303,764	4.32	4.94	87.6	PASS
n-Octane	400,315	4.60	5.02	91.7	PASS
trans-1,3-Dichloropropene	767,341	4.78	5.16	92.6	PASS
1,1,2-Trichloroethane	497,697	4.86	5.09	95.7	PASS
Tetrachloroethene	877,710	4.92	5.12	96.3	PASS
2-Hexanone (Methyl butyl ketone)	1,514,838	6.13	5.12	119.8	PASS
Dibromochloromethane	1,168,779	5.31	5.04	105.3	PASS
1,2-Dibromoethane	849,569	4.83	5.12	94.4	PASS
Chlorobenzene	1,236,518	4.97	5.15	96.6	PASS
Ethylbenzene	1,778,242	4.51	4.97	90.9	PASS
1,1,1,2-Tetrachloroethane	768,060	5.19	5.04	103.1	PASS
m-/p-Xylenes	1,450,652	4.57	5.07	90.2	PASS
o-Xylene	1,452,306	4.55	5.01	90.8	PASS
Styrene	1,170,417	4.51	4.90	92.1	PASS
Bromoform	1,161,736	4.85	5.02	96.8	PASS
Isopropylbenzene	2,205,344	4.77	5.08	93.9	PASS
1,1,2,2-Tetrachloroethane	1,089,121	4.72	5.06	93.5	PASS
n-Propylbenzene	2,618,934	4.99	5.13	97.3	PASS
4-Ethyltoluene	2,392,775	5.08	5.09	100.0	PASS
2-Chlorotoluene	1,886,772	4.86	5.05	96.4	PASS
1,3,5-Trimethylbenzene	2,013,399	5.08	5.07	100.2	PASS
1,2,4-Trimethylbenzene	2,056,868	4.93	5.01	98.5	PASS
1,3-Dichlorobenzene	1,575,239	5.38	5.08	106.0	PASS
1,4-Dichlorobenzene	1,556,438	5.34	5.03	106.2	PASS
Benzyl chloride	1,996,220	5.40	5.03	107.4	PASS
1,2-Dichlorobenzene	1,558,876	5.42	5.07	107.0	PASS
1,2,4-Trichlorobenzene	1,362,620	4.95	4.98	99.3	PASS
Hexachlorobutadiene	1,274,920	4.77	4.94	96.6	PASS
Naphthalene	3,036,410	5.23	5.04	103.9	PASS

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104345.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 03:28:10
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	4.53	0.0386	0.0350	7.80	0.0665	0.0602	
Freon 12 (CCl2F2)	4.61	0.0392	0.0350	22.8	0.194	0.173	
Freon 114 (C2Cl2F4)	4.53	0.0401	0.0350	31.6	0.280	0.245	
Chloromethane	5.46	0.0396	0.0350	11.3	0.0817	0.0723	
Chloroethene (Vinyl chloride)	5.24	0.0400	0.0350	13.4	0.102	0.0895	
1,3-Butadiene	4.53	0.0389	0.0350	10.0	0.0861	0.0774	
Bromomethane	5.36	0.0392	0.0350	20.8	0.152	0.136	
Chloroethane	4.94	0.0406	0.0350	13.0	0.107	0.0924	
Bromoethene (Vinyl bromide)	4.32	0.0391	0.0350	18.9	0.171	0.153	
Freon 11 (CCl3F)	4.84	0.0422	0.0350	27.2	0.237	0.197	
Ethanol	4.61	0.0396	0.0350	8.69	0.0747	0.0659	
Acrolein	4.62	0.0394	0.0350	10.6	0.0903	0.0803	
Freon 113 (C2Cl3F3)	4.74	0.0406	0.0350	36.4	0.311	0.268	
1,1-Dichloroethene	4.51	0.0402	0.0350	17.9	0.160	0.139	m
Acetone	4.35	0.0401	0.0350	10.3	0.0952	0.0831	m
Carbon disulfide	3.80	0.0399	0.0350	11.8	0.124	0.109	
Isopropyl alcohol	5.07	0.0399	0.0350	12.5	0.0980	0.0860	
Allyl chloride (3-chloropropene)	3.79	0.0403	0.0350	11.9	0.126	0.110	
Acetonitrile	4.83	0.0399	0.0350	8.10	0.0670	0.0588	
Methylene chloride	4.85	0.102	0.102	16.8	0.356	0.356	
trans-1,2-Dichloroethene	4.71	0.0408	0.0350	18.7	0.162	0.139	
Methyl tert-butyl ether	4.25	0.0411	0.0350	15.3	0.148	0.126	
Acrylonitrile	5.16	0.0407	0.0350	11.2	0.0884	0.0760	
Hexane	5.11	0.0406	0.0350	18.0	0.143	0.123	
1,1-Dichloroethane	4.63	0.0397	0.0350	18.7	0.161	0.142	
Vinyl acetate	5.17	0.0409	0.0350	18.2	0.144	0.123	m
cis-1,2-Dichloroethene	4.62	0.0404	0.0350	18.3	0.160	0.139	
Methyl ethyl ketone (2-Butanone)	3.75	0.0414	0.0350	11.1	0.122	0.103	
Ethyl acetate	4.41	0.0399	0.0350	15.9	0.144	0.126	
Chloroform	4.33	0.0401	0.0350	21.2	0.196	0.171	
Tetrahydrofuran	3.65	0.0405	0.0350	10.8	0.119	0.103	
1,1,1-Trichloroethane	4.50	0.0404	0.0350	24.6	0.220	0.191	
Cyclohexane	5.19	0.0410	0.0350	17.9	0.141	0.120	m
Carbon tetrachloride	4.75	0.0403	0.0350	29.9	0.253	0.220	
Benzene	4.17	0.0402	0.0350	13.3	0.129	0.112	
2,2,4-trimethylpentane	5.74	0.0414	0.0350	26.8	0.193	0.164	
1,2-Dichloroethane	5.23	0.0412	0.0350	21.2	0.167	0.142	
Heptane	5.40	0.0405	0.0350	22.1	0.166	0.143	
Trichloroethene	5.03	0.0404	0.0350	27.0	0.217	0.188	
1,2-Dichloropropane	4.77	0.0403	0.0350	22.0	0.186	0.162	
Methyl methacrylate	4.30	0.0419	0.0350	17.6	0.171	0.143	
1,4-Dioxane	4.36	0.0401	0.0350	15.7	0.145	0.126	
Bromodichloromethane	4.66	0.0404	0.0350	31.2	0.271	0.235	
cis-1,3-Dichloropropene	4.17	0.0397	0.0350	18.9	0.180	0.159	
Methyl isobutyl ketone	5.87	0.0416	0.0350	24.1	0.170	0.143	
Toluene	4.89	0.0407	0.0350	18.4	0.153	0.132	
trans-1,3-Dichloropropene	4.78	0.0413	0.0350	21.7	0.187	0.159	
1,1,2-Trichloroethane	4.86	0.0407	0.0350	26.5	0.222	0.191	
Tetrachloroethene	4.92	0.0409	0.0350	33.4	0.278	0.237	
2-Hexanone (Methyl butyl ketone)	6.13	0.0409	0.0350	25.1	0.168	0.143	
Dibromochloromethane	5.31	0.0403	0.0350	45.2	0.343	0.298	
1,2-Dibromoethane	4.83	0.0401	0.0350	37.1	0.308	0.269	
Chlorobenzene	4.97	0.0412	0.0350	22.9	0.190	0.161	
Ethylbenzene	4.51	0.0397	0.0350	19.6	0.172	0.152	
1,1,1,2-Tetrachloroethane	5.19	0.0403	0.0350	35.7	0.277	0.240	
m-/p-Xylenes	4.57	0.0406	0.0350	19.9	0.176	0.152	

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104345.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 03:28:10
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	4.55	0.0401	0.0350	19.8	0.174	0.152	
Styrene	4.51	0.0392	0.0350	19.2	0.167	0.149	
Bromoform	4.85	0.0401	0.0350	50.2	0.415	0.362	
1,1,2,2-Tetrachloroethane	4.72	0.0404	0.0350	32.4	0.278	0.240	
4-Ethyltoluene	5.08	0.0407	0.0350	25.0	0.200	0.172	
2-Chlorotoluene	4.86	0.0404	0.0350	25.2	0.209	0.181	
1,3,5-Trimethylbenzene	5.08	0.0406	0.0350	25.0	0.199	0.172	
1,2,4-Trimethylbenzene	4.93	0.0400	0.0350	24.2	0.197	0.172	
1,3-Dichlorobenzene	5.38	0.0406	0.0350	32.4	0.244	0.210	
1,4-Dichlorobenzene	5.34	0.0402	0.0350	32.1	0.242	0.210	
Benzyl chloride	5.40	0.0402	0.0350	28.0	0.208	0.181	
1,2-Dichlorobenzene	5.42	0.0405	0.0350	32.6	0.244	0.210	
1,2,4-Trichlorobenzene	4.95	0.0398	0.0350	36.7	0.296	0.260	
Hexachlorobutadiene	4.77	0.0395	0.0350	50.9	0.421	0.373	
Naphthalene	5.23	0.0403	0.0350	27.4	0.211	0.183	
1-Bromopropane	5.13	0.0397	0.0350	25.8	0.200	0.176	
1-Octene	4.32	0.0395	0.0350	19.8	0.181	0.161	
n-Octane	4.60	0.0401	0.0350	21.5	0.187	0.164	
Isopropylbenzene	4.77	0.0406	0.0350	23.4	0.200	0.172	
n-Propylbenzene	4.99	0.0410	0.0350	24.5	0.202	0.172	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	576,234	12.48	5.01	PASS
1,4-Difluorobenzene (IS)	2,150,637	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,717,747	18.47	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : 5ppbv TO15 LCS LD
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104346.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 04:11:33
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Propylene	448,455	4.42	4.83	91.6	PASS
Freon 12 (CCl2F2)	1,329,803	4.56	4.90	93.2	PASS
Freon 114 (C2Cl2F4)	1,240,336	4.46	5.01	89.1	PASS
Chloromethane	543,097	5.36	4.95	108.4	PASS
Chloroethene (Vinyl chloride)	490,998	5.11	5.00	102.3	PASS
1,3-Butadiene	457,860	4.47	4.87	91.8	PASS
Bromomethane	429,953	5.26	4.91	107.3	PASS
Chloroethane	211,638	5.00	5.08	98.4	PASS
Bromoethene (Vinyl bromide)	435,685	4.25	4.89	87.0	PASS
Freon 11 (CCl3F)	1,520,880	4.80	5.28	90.9	PASS
Ethanol	229,563	4.69	4.96	94.7	PASS
Acrolein	182,827	4.76	4.93	96.6	PASS
1,1-Dichloroethene	848,002	4.56	5.03	90.6	PASS
Freon 113 (C2Cl3F3)	879,960	4.67	5.08	92.0	PASS
Acetone	905,351	4.33	5.01	86.4	PASS
Isopropyl alcohol	1,009,113	5.07	4.99	101.8	PASS
Carbon disulfide	1,083,277	3.81	4.99	76.4	PASS
Acetonitrile	491,494	4.80	4.99	96.2	PASS
Allyl chloride (3-chloropropene)	160,061	3.75	5.04	74.3	PASS
Methylene chloride	755,808	4.82	5.12	94.1	PASS
Acrylonitrile	428,241	5.03	5.09	98.7	PASS
trans-1,2-Dichloroethene	730,242	4.69	5.10	92.0	PASS
Methyl tert-butyl ether	1,196,813	4.25	5.14	82.8	PASS
Hexane	745,197	5.07	5.08	99.8	PASS
1,1-Dichloroethane	851,360	4.54	4.97	91.5	PASS
Vinyl acetate	1,541,955	5.15	5.12	100.7	PASS
Methyl ethyl ketone (2-Butanone)	178,977	3.77	5.17	72.8	PASS
cis-1,2-Dichloroethene	832,476	4.65	5.05	92.1	PASS
Ethyl acetate	212,211	4.53	4.99	90.7	PASS
1-Bromopropane	1,044,391	5.07	4.96	102.2	PASS
Tetrahydrofuran	170,193	3.78	5.06	74.7	PASS
Chloroform	988,998	4.31	5.02	86.0	PASS
1,1,1-Trichloroethane	1,116,704	4.53	5.05	89.6	PASS
Cyclohexane	790,595	5.10	5.13	99.4	PASS
Carbon tetrachloride	1,307,376	4.75	5.04	94.3	PASS
Benzene	1,098,025	4.04	5.03	80.4	PASS
1,2-Dichloroethane	821,184	5.12	5.15	99.4	PASS
2,2,4-trimethylpentane	2,461,665	5.59	5.17	108.1	PASS
Heptane	485,801	5.30	5.07	104.7	PASS
Trichloroethene	680,478	4.95	5.06	97.9	PASS
1,2-Dichloropropane	489,088	4.53	5.04	90.0	PASS
Methyl methacrylate	408,992	4.18	5.24	79.9	PASS

Sample Name : 5ppbv TO15 LCS LD
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104346.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 04:11:33
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
1,4-Dioxane	269,472	4.37	5.02	87.1	PASS
Bromodichloromethane	1,040,064	4.58	5.05	90.7	PASS
cis-1,3-Dichloropropene	661,211	4.05	4.97	81.6	PASS
Methyl isobutyl ketone	1,504,416	5.65	5.20	108.7	PASS
Toluene	1,439,562	4.85	5.09	95.3	PASS
1-Octene	295,704	4.24	4.94	85.9	PASS
n-Octane	397,482	4.60	5.02	91.8	PASS
trans-1,3-Dichloropropene	760,773	4.77	5.16	92.5	PASS
1,1,2-Trichloroethane	493,830	4.86	5.09	95.7	PASS
Tetrachloroethene	871,183	4.93	5.12	96.3	PASS
2-Hexanone (Methyl butyl ketone)	1,483,853	6.05	5.12	118.2	PASS
Dibromochloromethane	1,159,453	5.30	5.04	105.2	PASS
1,2-Dibromoethane	845,549	4.84	5.12	94.6	PASS
Chlorobenzene	1,219,154	4.94	5.15	95.9	PASS
Ethylbenzene	1,763,059	4.51	4.97	90.8	PASS
1,1,1,2-Tetrachloroethane	767,266	5.23	5.04	103.8	PASS
m-/p-Xylenes	1,444,576	4.59	5.07	90.5	PASS
o-Xylene	1,423,734	4.50	5.01	89.8	PASS
Styrene	1,138,092	4.42	4.90	90.2	PASS
Bromoform	1,139,970	4.80	5.02	95.7	PASS
Isopropylbenzene	2,195,407	4.78	5.08	94.2	PASS
1,1,2,2-Tetrachloroethane	1,083,533	4.74	5.06	93.7	PASS
n-Propylbenzene	2,588,901	4.97	5.13	97.0	PASS
4-Ethyltoluene	2,356,334	5.05	5.09	99.2	PASS
2-Chlorotoluene	1,867,678	4.85	5.05	96.1	PASS
1,3,5-Trimethylbenzene	1,986,325	5.05	5.07	99.7	PASS
1,2,4-Trimethylbenzene	2,037,956	4.92	5.01	98.3	PASS
1,3-Dichlorobenzene	1,554,132	5.35	5.08	105.4	PASS
1,4-Dichlorobenzene	1,553,603	5.37	5.03	106.9	PASS
Benzyl chloride	1,994,859	5.44	5.03	108.1	PASS
1,2-Dichlorobenzene	1,549,445	5.43	5.07	107.2	PASS
1,2,4-Trichlorobenzene	1,385,464	5.07	4.98	101.8	PASS
Hexachlorobutadiene	1,287,925	4.86	4.94	98.3	PASS
Naphthalene	3,101,394	5.39	5.04	107.0	PASS

Sample Name : 5ppbv TO15 LCS LD
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104346.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 04:11:33
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	% Diff	Flag *
Propylene	4.42	0.0386	0.0350	7.61	0.0665	0.0602	2.4	
Freon 12 (CCl2F2)	4.56	0.0392	0.0350	22.6	0.194	0.173	1.0	
Freon 114 (C2Cl2F4)	4.46	0.0401	0.0350	31.2	0.280	0.245	1.4	
Chloromethane	5.36	0.0396	0.0350	11.1	0.0817	0.0723	1.8	
Chloroethene (Vinyl chloride)	5.11	0.0400	0.0350	13.1	0.102	0.0895	2.5	
1,3-Butadiene	4.47	0.0389	0.0350	9.88	0.0861	0.0774	1.5	
Bromomethane	5.26	0.0392	0.0350	20.4	0.152	0.136	1.9	
Chloroethane	5.00	0.0406	0.0350	13.2	0.107	0.0924	1.1	
Bromoethene (Vinyl bromide)	4.25	0.0391	0.0350	18.6	0.171	0.153	1.6	
Freon 11 (CCl3F)	4.80	0.0422	0.0350	26.9	0.237	0.197	0.9	
Ethanol	4.69	0.0396	0.0350	8.84	0.0747	0.0659	1.7	m
Acrolein	4.76	0.0394	0.0350	10.9	0.0903	0.0803	2.8	
Freon 113 (C2Cl3F3)	4.67	0.0406	0.0350	35.8	0.311	0.268	1.6	
1,1-Dichloroethene	4.56	0.0402	0.0350	18.1	0.160	0.139	1.0	
Acetone	4.33	0.0401	0.0350	10.3	0.0952	0.0831	0.5	
Carbon disulfide	3.81	0.0399	0.0350	11.9	0.124	0.109	0.1	
Isopropyl alcohol	5.07	0.0399	0.0350	12.5	0.0980	0.0860	0.1	
Allyl chloride (3-chloropropene)	3.75	0.0403	0.0350	11.7	0.126	0.110	1.1	
Acetonitrile	4.80	0.0399	0.0350	8.05	0.0670	0.0588	0.6	
Methylene chloride	4.82	0.102	0.102	16.7	0.356	0.356	0.6	m
trans-1,2-Dichloroethene	4.69	0.0408	0.0350	18.6	0.162	0.139	0.3	
Methyl tert-butyl ether	4.25	0.0411	0.0350	15.3	0.148	0.126	0.0	
Acrylonitrile	5.03	0.0407	0.0350	10.9	0.0884	0.0760	2.6	
Hexane	5.07	0.0406	0.0350	17.9	0.143	0.123	0.8	
1,1-Dichloroethane	4.54	0.0397	0.0350	18.4	0.161	0.142	1.9	
Vinyl acetate	5.15	0.0409	0.0350	18.1	0.144	0.123	0.4	m
cis-1,2-Dichloroethene	4.65	0.0404	0.0350	18.5	0.160	0.139	0.8	
Methyl ethyl ketone (2-Butanone)	3.77	0.0414	0.0350	11.1	0.122	0.103	0.3	
Ethyl acetate	4.53	0.0399	0.0350	16.3	0.144	0.126	2.6	
Chloroform	4.31	0.0401	0.0350	21.0	0.196	0.171	0.5	
Tetrahydrofuran	3.78	0.0405	0.0350	11.2	0.119	0.103	3.6	
1,1,1-Trichloroethane	4.53	0.0404	0.0350	24.7	0.220	0.191	0.6	
Cyclohexane	5.10	0.0410	0.0350	17.5	0.141	0.120	1.8	
Carbon tetrachloride	4.75	0.0403	0.0350	29.9	0.253	0.220	0.1	
Benzene	4.04	0.0402	0.0350	12.9	0.129	0.112	3.2	
2,2,4-trimethylpentane	5.59	0.0414	0.0350	26.1	0.193	0.164	2.7	
1,2-Dichloroethane	5.12	0.0412	0.0350	20.7	0.167	0.142	2.3	
Heptane	5.30	0.0405	0.0350	21.7	0.166	0.143	1.7	
Trichloroethene	4.95	0.0404	0.0350	26.6	0.217	0.188	1.7	
1,2-Dichloropropane	4.53	0.0403	0.0350	20.9	0.186	0.162	5.1	
Methyl methacrylate	4.18	0.0419	0.0350	17.1	0.171	0.143	2.7	
1,4-Dioxane	4.37	0.0401	0.0350	15.7	0.145	0.126	0.1	m
Bromodichloromethane	4.58	0.0404	0.0350	30.7	0.271	0.235	1.7	m
cis-1,3-Dichloropropene	4.05	0.0397	0.0350	18.4	0.180	0.159	3.0	
Methyl isobutyl ketone	5.65	0.0416	0.0350	23.1	0.170	0.143	3.9	
Toluene	4.85	0.0407	0.0350	18.3	0.153	0.132	0.7	
trans-1,3-Dichloropropene	4.77	0.0413	0.0350	21.7	0.187	0.159	0.1	
1,1,2-Trichloroethane	4.86	0.0407	0.0350	26.5	0.222	0.191	0.0	
Tetrachloroethene	4.93	0.0409	0.0350	33.4	0.278	0.237	0.0	
2-Hexanone (Methyl butyl ketone)	6.05	0.0409	0.0350	24.8	0.168	0.143	1.3	
Dibromochloromethane	5.30	0.0403	0.0350	45.2	0.343	0.298	0.0	
1,2-Dibromoethane	4.84	0.0401	0.0350	37.2	0.308	0.269	0.3	
Chlorobenzene	4.94	0.0412	0.0350	22.7	0.190	0.161	0.6	
Ethylbenzene	4.51	0.0397	0.0350	19.6	0.172	0.152	0.1	
1,1,1,2-Tetrachloroethane	5.23	0.0403	0.0350	35.9	0.277	0.240	0.7	
m-/p-Xylenes	4.59	0.0406	0.0350	19.9	0.176	0.152	0.4	
o-Xylene	4.50	0.0401	0.0350	19.5	0.174	0.152	1.2	
Styrene	4.42	0.0392	0.0350	18.8	0.167	0.149	2.0	
Bromoform	4.80	0.0401	0.0350	49.6	0.415	0.362	1.1	
1,1,2,2-Tetrachloroethane	4.74	0.0404	0.0350	32.5	0.278	0.240	0.3	
4-Ethyltoluene	5.05	0.0407	0.0350	24.8	0.200	0.172	0.8	
2-Chlorotoluene	4.85	0.0404	0.0350	25.1	0.209	0.181	0.2	

Sample Name : 5ppbv TO15 LCS LD
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104346.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-17 04:11:33
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	% Diff	Flag *
1,3,5-Trimethylbenzene	5.05	0.0406	0.0350	24.8	0.199	0.172	0.6	
1,2,4-Trimethylbenzene	4.92	0.0400	0.0350	24.2	0.197	0.172	0.2	
1,3-Dichlorobenzene	5.35	0.0406	0.0350	32.2	0.244	0.210	0.6	
1,4-Dichlorobenzene	5.37	0.0402	0.0350	32.3	0.242	0.210	0.6	
Benzyl chloride	5.44	0.0402	0.0350	28.2	0.208	0.181	0.7	
1,2-Dichlorobenzene	5.43	0.0405	0.0350	32.7	0.244	0.210	0.2	
1,2,4-Trichlorobenzene	5.07	0.0398	0.0350	37.6	0.296	0.260	2.4	
Hexachlorobutadiene	4.86	0.0395	0.0350	51.8	0.421	0.373	1.8	
Naphthalene	5.39	0.0403	0.0350	28.2	0.211	0.183	2.9	
1-Bromopropane	5.07	0.0397	0.0350	25.5	0.200	0.176	1.1	
1-Octene	4.24	0.0395	0.0350	19.5	0.181	0.161	1.9	
n-Octane	4.60	0.0401	0.0350	21.5	0.187	0.164	0.1	
Isopropylbenzene	4.78	0.0406	0.0350	23.5	0.200	0.172	0.3	
n-Propylbenzene	4.97	0.0410	0.0350	24.5	0.202	0.172	0.4	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	572,859	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	2,176,003	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,704,509	18.46	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104371.D
 Dilution : N/A
 Pressurization Factor : N/A
 Acquisition Date : 2021-11-18 09:35:49
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Propylene	404,087	4.69	4.83	97.1	PASS
Freon 12 (CCl2F2)	1,188,578	4.80	4.90	98.0	PASS
Freon 114 (C2Cl2F4)	1,082,341	4.58	5.01	91.5	PASS
Chloromethane	465,611	5.41	4.95	109.4	PASS
Chloroethene (Vinyl chloride)	435,910	5.34	5.00	106.8	PASS
1,3-Butadiene	401,181	4.60	4.87	94.6	PASS
Bromomethane	376,475	5.42	4.91	110.5	PASS
Chloroethane	188,466	5.24	5.08	103.1	PASS
Bromoethene (Vinyl bromide)	383,129	4.40	4.89	90.0	PASS
Freon 11 (CCl3F)	1,378,513	5.11	5.28	97.0	PASS
Ethanol	198,425	4.77	4.96	96.3	PASS
Acrolein	163,541	5.01	4.93	101.6	PASS
1,1-Dichloroethene	758,969	4.80	5.03	95.4	PASS
Freon 113 (C2Cl3F3)	754,145	4.71	5.08	92.8	PASS
Acetone	817,740	4.60	5.01	91.8	PASS
Isopropyl alcohol	914,823	5.41	4.99	108.6	PASS
Carbon disulfide	980,342	4.05	4.99	81.3	PASS
Acetonitrile	435,795	5.00	4.99	100.4	PASS
Allyl chloride (3-chloropropene)	142,993	3.94	5.04	78.1	PASS
Methylene chloride	677,423	5.08	5.12	99.3	PASS
Acrylonitrile	380,421	5.25	5.09	103.2	PASS
trans-1,2-Dichloroethene	661,615	5.00	5.10	98.1	PASS
Methyl tert-butyl ether	1,083,129	4.53	5.14	88.1	PASS
Hexane	665,245	5.32	5.08	104.8	PASS
1,1-Dichloroethane	777,657	4.88	4.97	98.4	PASS
Vinyl acetate	1,398,634	5.49	5.12	107.4	PASS
Methyl ethyl ketone (2-Butanone)	159,540	3.95	5.17	76.4	PASS
cis-1,2-Dichloroethene	747,065	4.91	5.05	97.3	PASS
Ethyl acetate	200,163	5.02	4.99	100.6	PASS
1-Bromopropane	968,967	5.53	4.96	111.6	PASS
Tetrahydrofuran	154,850	4.05	5.06	80.0	PASS
Chloroform	889,245	4.56	5.02	90.9	PASS
1,1,1-Trichloroethane	998,293	4.76	5.05	94.2	PASS
Cyclohexane	716,703	5.43	5.13	106.0	PASS
Carbon tetrachloride	1,191,183	5.09	5.04	101.1	PASS
Benzene	989,324	4.38	5.03	87.0	PASS
1,2-Dichloroethane	750,017	5.62	5.15	109.1	PASS
2,2,4-trimethylpentane	2,189,901	5.98	5.17	115.6	PASS
Heptane	427,511	5.61	5.07	110.7	PASS
Trichloroethene	571,655	4.99	5.06	98.8	PASS
1,2-Dichloropropane	440,820	4.91	5.04	97.5	PASS
Methyl methacrylate	366,541	4.51	5.24	86.1	PASS

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104371.D
 Dilution : N/A
 Pressurization Factor : N/A
 Acquisition Date : 2021-11-18 09:35:49
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
1,4-Dioxane	244,684	4.77	5.02	95.0	PASS
Bromodichloromethane	909,235	4.81	5.05	95.3	PASS
cis-1,3-Dichloropropene	602,823	4.44	4.97	89.4	PASS
Methyl isobutyl ketone	1,363,089	6.15	5.20	118.3	PASS
Toluene	1,269,704	4.76	5.09	93.5	PASS
1-Octene	271,635	4.33	4.94	87.7	PASS
n-Octane	365,169	4.70	5.02	93.7	PASS
trans-1,3-Dichloropropene	711,847	4.96	5.16	96.2	PASS
1,1,2-Trichloroethane	437,214	4.79	5.09	94.1	PASS
Tetrachloroethene	753,159	4.73	5.12	92.6	PASS
2-Hexanone (Methyl butyl ketone)	1,341,138	6.08	5.12	118.8	PASS
Dibromochloromethane	1,026,472	5.22	5.04	103.6	PASS
1,2-Dibromoethane	756,368	4.81	5.12	94.1	PASS
Chlorobenzene	1,065,252	4.80	5.15	93.2	PASS
Ethylbenzene	1,608,850	4.57	4.97	92.1	PASS
1,1,1,2-Tetrachloroethane	673,197	5.10	5.04	101.2	PASS
m-/p-Xylenes	1,314,590	4.64	5.07	91.6	PASS
o-Xylene	1,301,668	4.57	5.01	91.2	PASS
Styrene	1,041,407	4.50	4.90	91.8	PASS
Bromoform	1,076,668	5.04	5.02	100.5	PASS
Isopropylbenzene	1,994,138	4.83	5.08	95.1	PASS
1,1,2,2-Tetrachloroethane	950,835	4.62	5.06	91.4	PASS
n-Propylbenzene	2,359,011	5.04	5.13	98.2	PASS
4-Ethyltoluene	2,172,857	5.17	5.09	101.7	PASS
2-Chlorotoluene	1,712,044	4.94	5.05	97.9	PASS
1,3,5-Trimethylbenzene	1,809,214	5.12	5.07	100.9	PASS
1,2,4-Trimethylbenzene	1,872,982	5.03	5.01	100.5	PASS
1,3-Dichlorobenzene	1,368,140	5.24	5.08	103.1	PASS
1,4-Dichlorobenzene	1,367,239	5.25	5.03	104.5	PASS
Benzyl chloride	1,794,976	5.44	5.03	108.2	PASS
1,2-Dichlorobenzene	1,347,881	5.25	5.07	103.7	PASS
1,2,4-Trichlorobenzene	1,196,306	4.86	4.98	97.7	PASS
Hexachlorobutadiene	1,174,442	4.92	4.94	99.7	PASS
Naphthalene	2,630,356	5.08	5.04	100.8	PASS

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104371.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-18 09:35:49
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Propylene	4.69	0.0386	0.0350	8.07	0.0665	0.0602	
Freon 12 (CCl2F2)	4.80	0.0392	0.0350	23.7	0.194	0.173	
Freon 114 (C2Cl2F4)	4.58	0.0401	0.0350	32.0	0.280	0.245	
Chloromethane	5.41	0.0396	0.0350	11.2	0.0817	0.0723	
Chloroethene (Vinyl chloride)	5.34	0.0400	0.0350	13.6	0.102	0.0895	
1,3-Butadiene	4.60	0.0389	0.0350	10.2	0.0861	0.0774	
Bromomethane	5.42	0.0392	0.0350	21.0	0.152	0.136	
Chloroethane	5.24	0.0406	0.0350	13.8	0.107	0.0924	
Bromoethene (Vinyl bromide)	4.40	0.0391	0.0350	19.2	0.171	0.153	
Freon 11 (CCl3F)	5.11	0.0422	0.0350	28.7	0.237	0.197	
Ethanol	4.77	0.0396	0.0350	8.99	0.0747	0.0659	
Acrolein	5.01	0.0394	0.0350	11.5	0.0903	0.0803	
Freon 113 (C2Cl3F3)	4.71	0.0406	0.0350	36.1	0.311	0.268	
1,1-Dichloroethene	4.80	0.0402	0.0350	19.0	0.160	0.139	
Acetone	4.60	0.0401	0.0350	10.9	0.0952	0.0831	m
Carbon disulfide	4.05	0.0399	0.0350	12.6	0.124	0.109	
Isopropyl alcohol	5.41	0.0399	0.0350	13.3	0.0980	0.0860	
Allyl chloride (3-chloropropene)	3.94	0.0403	0.0350	12.3	0.126	0.110	
Acetonitrile	5.00	0.0399	0.0350	8.40	0.0670	0.0588	
Methylene chloride	5.08	0.102	0.102	17.7	0.356	0.356	m
trans-1,2-Dichloroethene	5.00	0.0408	0.0350	19.8	0.162	0.139	
Methyl tert-butyl ether	4.53	0.0411	0.0350	16.3	0.148	0.126	
Acrylonitrile	5.25	0.0407	0.0350	11.4	0.0884	0.0760	
Hexane	5.32	0.0406	0.0350	18.8	0.143	0.123	
1,1-Dichloroethane	4.88	0.0397	0.0350	19.8	0.161	0.142	
Vinyl acetate	5.49	0.0409	0.0350	19.3	0.144	0.123	m
cis-1,2-Dichloroethene	4.91	0.0404	0.0350	19.5	0.160	0.139	
Methyl ethyl ketone (2-Butanone)	3.95	0.0414	0.0350	11.6	0.122	0.103	
Ethyl acetate	5.02	0.0399	0.0350	18.1	0.144	0.126	
Chloroform	4.56	0.0401	0.0350	22.3	0.196	0.171	
Tetrahydrofuran	4.05	0.0405	0.0350	11.9	0.119	0.103	m
1,1,1-Trichloroethane	4.76	0.0404	0.0350	26.0	0.220	0.191	
Cyclohexane	5.43	0.0410	0.0350	18.7	0.141	0.120	
Carbon tetrachloride	5.09	0.0403	0.0350	32.0	0.253	0.220	
Benzene	4.38	0.0402	0.0350	14.0	0.129	0.112	
2,2,4-trimethylpentane	5.98	0.0414	0.0350	27.9	0.193	0.164	
1,2-Dichloroethane	5.62	0.0412	0.0350	22.7	0.167	0.142	
Heptane	5.61	0.0405	0.0350	23.0	0.166	0.143	
Trichloroethene	4.99	0.0404	0.0350	26.8	0.217	0.188	
1,2-Dichloropropane	4.91	0.0403	0.0350	22.7	0.186	0.162	
Methyl methacrylate	4.51	0.0419	0.0350	18.5	0.171	0.143	
1,4-Dioxane	4.77	0.0401	0.0350	17.2	0.145	0.126	m
Bromodichloromethane	4.81	0.0404	0.0350	32.2	0.271	0.235	
cis-1,3-Dichloropropene	4.44	0.0397	0.0350	20.1	0.180	0.159	
Methyl isobutyl ketone	6.15	0.0416	0.0350	25.2	0.170	0.143	
Toluene	4.76	0.0407	0.0350	17.9	0.153	0.132	
trans-1,3-Dichloropropene	4.96	0.0413	0.0350	22.5	0.187	0.159	
1,1,2-Trichloroethane	4.79	0.0407	0.0350	26.1	0.222	0.191	m
Tetrachloroethene	4.73	0.0409	0.0350	32.1	0.278	0.237	
2-Hexanone (Methyl butyl ketone)	6.08	0.0409	0.0350	24.9	0.168	0.143	
Dibromochloromethane	5.22	0.0403	0.0350	44.5	0.343	0.298	
1,2-Dibromoethane	4.81	0.0401	0.0350	37.0	0.308	0.269	
Chlorobenzene	4.80	0.0412	0.0350	22.1	0.190	0.161	
Ethylbenzene	4.57	0.0397	0.0350	19.9	0.172	0.152	
1,1,1,2-Tetrachloroethane	5.10	0.0403	0.0350	35.0	0.277	0.240	
m-/p-Xylenes	4.64	0.0406	0.0350	20.2	0.176	0.152	

Sample Name : 5ppbv TO15 LCS
 Sample Info : 125mL load; Can #2074; GCMSPrepPg1082
 Data File : T2104371.D
 Dilution : 1
 Pressurization Factor : 1.000
 Acquisition Date : 2021-11-18 09:35:49
 Instrument Method : TO15-SCN2.M
 Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
o-Xylene	4.57	0.0401	0.0350	19.8	0.174	0.152	
Styrene	4.50	0.0392	0.0350	19.2	0.167	0.149	
Bromoform	5.04	0.0401	0.0350	52.1	0.415	0.362	
1,1,2,2-Tetrachloroethane	4.62	0.0404	0.0350	31.7	0.278	0.240	
4-Ethyltoluene	5.17	0.0407	0.0350	25.4	0.200	0.172	
2-Chlorotoluene	4.94	0.0404	0.0350	25.6	0.209	0.181	
1,3,5-Trimethylbenzene	5.12	0.0406	0.0350	25.1	0.199	0.172	
1,2,4-Trimethylbenzene	5.03	0.0400	0.0350	24.7	0.197	0.172	
1,3-Dichlorobenzene	5.24	0.0406	0.0350	31.5	0.244	0.210	
1,4-Dichlorobenzene	5.25	0.0402	0.0350	31.6	0.242	0.210	
Benzyl chloride	5.44	0.0402	0.0350	28.2	0.208	0.181	
1,2-Dichlorobenzene	5.25	0.0405	0.0350	31.6	0.244	0.210	
1,2,4-Trichlorobenzene	4.86	0.0398	0.0350	36.1	0.296	0.260	
Hexachlorobutadiene	4.92	0.0395	0.0350	52.5	0.421	0.373	
Naphthalene	5.08	0.0403	0.0350	26.6	0.211	0.183	
1-Bromopropane	5.53	0.0397	0.0350	27.8	0.200	0.176	m
1-Octene	4.33	0.0395	0.0350	19.9	0.181	0.161	
n-Octane	4.70	0.0401	0.0350	22.0	0.187	0.164	
Isopropylbenzene	4.83	0.0406	0.0350	23.7	0.200	0.172	
n-Propylbenzene	5.04	0.0410	0.0350	24.8	0.202	0.172	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	486,986	12.47	5.01	PASS
1,4-Difluorobenzene (IS)	1,810,672	14.20	5.03	PASS
Chlorobenzene-d5 (IS)	1,533,431	18.47	4.84	PASS

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : 1128-728-00F LD
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101556.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 01:19:34
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	% Diff	Flag *
Naphthalene	20.0	1,847	20.0	1,847	0.6	
2-Methylnaphthalene	20.0	528	20.0	528	1.6	
1-Methylnaphthalene	20.0	261	20.0	261	0.1	m
Acenaphthylene	20.0	25.4	20.0	25.4	11.8	m
Acenaphthene	20.0	126	20.0	126	4.0	m
Fluorene	20.0	213	20.0	213	1.3	m
Phenanthrene	20.0	607	20.0	607	1.3	
Anthracene	20.0	41.4	20.0	41.4	4.5	
Fluoranthene	20.0	76.1	20.0	76.1	6.7	
Pyrene	20.0	44.9	20.0	44.9	2.4	
Benzo(a)anthracene	20.0	ND	20.0	ND		
Chrysene	20.0	ND	20.0	ND		
Benzo(b)fluoranthene	20.0	ND	20.0	ND		
Benzo(k)fluoranthene	20.0	ND	20.0	ND		
Benzo(e)pyrene	20.0	ND	20.0	ND		
Benzo(a)pyrene	20.0	ND	20.0	ND		
Perylene	20.0	ND	20.0	ND		
Indeno(1,2,3-cd)pyrene	20.0	ND	20.0	ND		
Dibenz(a,h)anthracene	20.0	ND	20.0	ND		
Benzo(g,h,i)perylene	20.0	ND	20.0	ND		
Coronene	20.0	ND	20.0	ND		

(ND) = Not Detected

*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**

Sample Name : 1128-728-00F LD
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101556.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 01:19:34
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	78,229	5.60	400	-0.7	PASS
Acenaphthene-d10	32,612	7.22	400	6.7	PASS
Phenanthrene-d10	55,162	8.61	400	3.2	PASS
Chrysene-d12	37,292	13.05	400	6.7	PASS
Perylene-d12	23,977	18.56	400	3.1	m PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	47,101	10.6	1,352	1352.0	1,000	135	FAIL
Benzo(a)pyrene-d12 (Surr)	43,959	18.2	1,331	1331.0	1,000	133	FAIL
Fluoranthene-d10 (Surr)	113,724	10.0	1,182	1182.2	1,000	118	PASS
Fluorene-d10 (Surr)	90,783	7.70	1,188	1188.0	1,000	119	PASS
Pyrene-d10 (Surr)	135,695	10.4	1,378	1377.9	1,000	138	FAIL

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : MB
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101553.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 23:34:44
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	157	20.0	157	
2-Methylnaphthalene	20.0	72.4	20.0	72.4	
1-Methylnaphthalene	20.0	53.2	20.0	53.2	m
Acenaphthylene	20.0	ND	20.0	ND	
Acenaphthene	20.0	49.6	20.0	49.6	
Fluorene	20.0	107	20.0	107	
Phenanthrene	20.0	345	20.0	345	
Anthracene	20.0	24.7	20.0	24.7	
Fluoranthene	20.0	42.4	20.0	42.4	
Pyrene	20.0	22.6	20.0	22.6	
Benzo(a)anthracene	20.0	ND	20.0	ND	
Chrysene	20.0	ND	20.0	ND	
Benzo(b)fluoranthene	20.0	ND	20.0	ND	
Benzo(k)fluoranthene	20.0	ND	20.0	ND	
Benzo(e)pyrene	20.0	ND	20.0	ND	
Benzo(a)pyrene	20.0	ND	20.0	ND	
Perylene	20.0	ND	20.0	ND	
Indeno(1,2,3-cd)pyrene	20.0	ND	20.0	ND	
Dibenz(a,h)anthracene	20.0	ND	20.0	ND	
Benzo(g,h,i)perylene	20.0	ND	20.0	ND	
Coronene	20.0	ND	20.0	ND	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : MB
Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
Data File : W2101553.D
Dilution : 1
Extract Volume : 1.00
Acquisition Date : 2021-12-06 23:34:44
Instrument Method : RXI-TO13A-SIMV7.M
Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	82,832	5.60	400	5.2	PASS
Acenaphthene-d10	35,118	7.22	400	14.9	PASS
Phenanthrene-d10	60,154	8.61	400	12.5	PASS
Chrysene-d12	42,426	13.05	400	21.4	PASS
Perylene-d12	26,638	18.55	400	14.5	PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	47,618	10.6	1,253	1253.4	1,000	125	FAIL
Benzo(a)pyrene-d12 (Surr)	47,675	18.2	1,299	1299.3	1,000	130	FAIL
Fluoranthene-d10 (Surr)	120,571	10.0	1,149	1149.4	1,000	115	PASS
Fluorene-d10 (Surr)	91,537	7.70	1,112	1112.4	1,000	111	PASS
Pyrene-d10 (Surr)	137,438	10.4	1,280	1279.8	1,000	128	FAIL

* (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : MB conf
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101554.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 00:09:43
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	161	20.0	161	
2-Methylnaphthalene	20.0	84.3	20.0	84.3	
1-Methylnaphthalene	20.0	53.5	20.0	53.5	m
Acenaphthylene	20.0	ND	20.0	ND	
Acenaphthene	20.0	50.1	20.0	50.1	
Fluorene	20.0	111	20.0	111	
Phenanthrene	20.0	373	20.0	373	
Anthracene	20.0	23.0	20.0	23.0	m
Fluoranthene	20.0	43.8	20.0	43.8	
Pyrene	20.0	22.7	20.0	22.7	
Benzo(a)anthracene	20.0	ND	20.0	ND	
Chrysene	20.0	ND	20.0	ND	
Benzo(b)fluoranthene	20.0	ND	20.0	ND	
Benzo(k)fluoranthene	20.0	ND	20.0	ND	
Benzo(e)pyrene	20.0	ND	20.0	ND	
Benzo(a)pyrene	20.0	ND	20.0	ND	
Perylene	20.0	ND	20.0	ND	
Indeno(1,2,3-cd)pyrene	20.0	ND	20.0	ND	
Dibenz(a,h)anthracene	20.0	ND	20.0	ND	
Benzo(g,h,i)perylene	20.0	ND	20.0	ND	
Coronene	20.0	ND	20.0	ND	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : MB conf
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101554.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-07 00:09:43
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	79,320	5.60	400	0.7	PASS
Acenaphthene-d10	33,307	7.22	400	9.0	PASS
Phenanthrene-d10	54,591	8.62	400	2.1	PASS
Chrysene-d12	37,402	13.05	400	7.0	PASS
Perylene-d12	22,522	18.56	400	-3.2	PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	45,681	10.6	1,325	1324.9	1,000	132	FAIL
Benzo(a)pyrene-d12 (Surr)	43,634	18.2	1,406	1406.5	1,000	141	FAIL
Fluoranthene-d10 (Surr)	115,820	10.0	1,217	1216.6	1,000	122	FAIL
Fluorene-d10 (Surr)	91,937	7.70	1,178	1178.0	1,000	118	PASS
Pyrene-d10 (Surr)	132,568	10.4	1,360	1360.2	1,000	136	FAIL

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : Hexane Blank
 Sample Info : 5uL ISTD SVOAPrepPg408
 Data File : W2101550.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 21:49:55
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	ND	20.0	ND	
2-Methylnaphthalene	20.0	ND	20.0	ND	
1-Methylnaphthalene	20.0	ND	20.0	ND	
Acenaphthylene	20.0	ND	20.0	ND	
Acenaphthene	20.0	ND	20.0	ND	
Fluorene	20.0	ND	20.0	ND	
Phenanthrene	20.0	ND	20.0	ND	
Anthracene	20.0	ND	20.0	ND	
Fluoranthene	20.0	ND	20.0	ND	
Pyrene	20.0	ND	20.0	ND	
Benzo(a)anthracene	20.0	25.2	20.0	25.2	
Chrysene	20.0	23.4	20.0	23.4	
Benzo(b)fluoranthene	20.0	ND	20.0	ND	
Benzo(k)fluoranthene	20.0	ND	20.0	ND	
Benzo(e)pyrene	20.0	ND	20.0	ND	
Benzo(a)pyrene	20.0	ND	20.0	ND	
Perylene	20.0	ND	20.0	ND	
Indeno(1,2,3-cd)pyrene	20.0	ND	20.0	ND	
Dibenz(a,h)anthracene	20.0	ND	20.0	ND	
Benzo(g,h,i)perylene	20.0	ND	20.0	ND	
Coronene	20.0	ND	20.0	ND	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : Hexane Blank
Sample Info : 5uL ISTD SVOAPrepPg408
Data File : W2101550.D
Dilution : 1
Extract Volume : 1.00
Acquisition Date : 2021-12-06 21:49:55
Instrument Method : RXI-TO13A-SIMV7.M
Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	56,829	5.60	400	-27.8	PASS
Acenaphthene-d10	23,445	7.22	400	-23.3	PASS
Phenanthrene-d10	40,753	8.62	400	-23.8	PASS
Chrysene-d12	25,833	13.05	400	-26.1	PASS
Perylene-d12	19,373	18.55	400	-16.7	PASS

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : LCS
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101547.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:04:55
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	Response	Concentration (ug/mL)	Tag Value (ug/mL)	% Recovery	Flag
Naphthalene	185,759	1,042	1,000	104.2	PASS
2-Methylnaphthalene	132,805	1,133	1,000	113.3	PASS
1-Methylnaphthalene	121,346	1,132	1,000	113.2	PASS
Acenaphthylene	131,618	836	1,000	83.6	PASS
Acenaphthene	116,772	1,161	1,000	116.1	PASS
Fluorene	133,290	1,225	1,000	122.5	FAIL
Phenanthrene	237,975	1,616	1,000	161.6	FAIL
Anthracene	159,959	1,182	1,000	118.2	PASS
Fluoranthene	180,932	1,289	1,000	128.9	FAIL
Pyrene	184,605	1,249	1,000	124.9	FAIL
Benzo(a)anthracene	142,748	1,248	1,000	124.8	FAIL
Chrysene	152,503	1,245	1,000	124.5	FAIL
Benzo(b)fluoranthene	127,604	1,285	1,000	128.5	FAIL
Benzo(k)fluoranthene	116,916	1,233	1,000	123.3	FAIL
Benzo(e)pyrene	114,620	1,176	1,000	117.6	PASS
Benzo(a)pyrene	92,840	1,184	1,000	118.4	PASS
Perylene	73,039	1,478	1,000	147.8	FAIL
Indeno(1,2,3-cd)pyrene	110,071	1,229	1,000	122.9	FAIL
Dibenz(a,h)anthracene	96,194	1,393	1,000	139.3	FAIL
Benzo(g,h,i)perylene	112,237	1,270	1,000	127.0	FAIL
Coronene	65,037	1,482	1,000	148.2	FAIL

Sample Name : LCS
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101547.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:04:55
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	1,042	20.0	1,042	
2-Methylnaphthalene	20.0	1,133	20.0	1,133	
1-Methylnaphthalene	20.0	1,132	20.0	1,132	
Acenaphthylene	20.0	836	20.0	836	
Acenaphthene	20.0	1,161	20.0	1,161	m
Fluorene	20.0	1,225	20.0	1,225	m
Phenanthrene	20.0	1,616	20.0	1,616	
Anthracene	20.0	1,182	20.0	1,182	m
Fluoranthene	20.0	1,289	20.0	1,289	
Pyrene	20.0	1,249	20.0	1,249	
Benzo(a)anthracene	20.0	1,248	20.0	1,248	
Chrysene	20.0	1,245	20.0	1,245	
Benzo(b)fluoranthene	20.0	1,285	20.0	1,285	
Benzo(k)fluoranthene	20.0	1,233	20.0	1,233	m
Benzo(e)pyrene	20.0	1,176	20.0	1,176	
Benzo(a)pyrene	20.0	1,184	20.0	1,184	m
Perylene	20.0	1,478	20.0	1,478	
Indeno(1,2,3-cd)pyrene	20.0	1,229	20.0	1,229	m
Dibenz(a,h)anthracene	20.0	1,393	20.0	1,393	
Benzo(g,h,i)perylene	20.0	1,270	20.0	1,270	
Coronene	20.0	1,482	20.0	1,482	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : LCS
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101547.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:04:55
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	81,705	5.60	400	3.8	PASS
Acenaphthene-d10	33,363	7.22	400	9.2	PASS
Phenanthrene-d10	57,990	8.62	400	8.5	PASS
Chrysene-d12	39,565	13.05	400	13.2	PASS
Perylene-d12	25,683	18.56	400	10.4	PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	48,922	10.6	1,336	1335.7	1,000	134	FAIL
Benzo(a)pyrene-d12 (Surr)	44,755	18.2	1,265	1265.1	1,000	127	FAIL
Fluoranthene-d10 (Surr)	115,201	10.0	1,139	1139.2	1,000	114	PASS
Fluorene-d10 (Surr)	94,227	7.70	1,205	1205.3	1,000	121	FAIL
Pyrene-d10 (Surr)	140,936	10.4	1,361	1361.3	1,000	136	FAIL

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name : LCS conf
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101548.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:39:52
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	Response	Concentration (ug/mL)	Tag Value (ug/mL)	% Recovery	Flag
Naphthalene	181,221	1,060	1,000	106.0	PASS
2-Methylnaphthalene	129,314	1,150	1,000	115.0	PASS
1-Methylnaphthalene	117,979	1,147	1,000	114.7	PASS
Acenaphthylene	131,275	865	1,000	86.5	PASS
Acenaphthene	114,768	1,184	1,000	118.4	PASS
Fluorene	129,223	1,232	1,000	123.2	FAIL
Phenanthrene	234,651	1,679	1,000	167.9	FAIL
Anthracene	159,011	1,238	1,000	123.8	FAIL
Fluoranthene	181,349	1,362	1,000	136.2	FAIL
Pyrene	185,509	1,323	1,000	132.3	FAIL
Benzo(a)anthracene	141,940	1,325	1,000	132.5	FAIL
Chrysene	153,306	1,336	1,000	133.6	FAIL
Benzo(b)fluoranthene	128,224	1,408	1,000	140.8	FAIL
Benzo(k)fluoranthene	116,493	1,339	1,000	133.9	FAIL
Benzo(e)pyrene	116,406	1,302	1,000	130.2	FAIL
Benzo(a)pyrene	94,448	1,313	1,000	131.3	FAIL
Perylene	72,217	1,593	1,000	159.3	FAIL
Indeno(1,2,3-cd)pyrene	110,131	1,341	1,000	134.1	FAIL
Dibenz(a,h)anthracene	97,537	1,539	1,000	153.9	FAIL
Benzo(g,h,i)perylene	112,581	1,389	1,000	138.9	FAIL
Coronene	66,713	1,657	1,000	165.7	FAIL

Sample Name : LCS conf
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101548.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:39:52
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Target Compound	MDL (ng/mL)	Concentration (ng/mL)	MDL (ng)	Catch Weight (ng)	Flag *
Naphthalene	20.0	1,060	20.0	1,060	
2-Methylnaphthalene	20.0	1,150	20.0	1,150	
1-Methylnaphthalene	20.0	1,147	20.0	1,147	
Acenaphthylene	20.0	865	20.0	865	
Acenaphthene	20.0	1,184	20.0	1,184	
Fluorene	20.0	1,232	20.0	1,232	
Phenanthrene	20.0	1,679	20.0	1,679	
Anthracene	20.0	1,238	20.0	1,238	
Fluoranthene	20.0	1,362	20.0	1,362	
Pyrene	20.0	1,323	20.0	1,323	
Benzo(a)anthracene	20.0	1,325	20.0	1,325	
Chrysene	20.0	1,336	20.0	1,336	
Benzo(b)fluoranthene	20.0	1,408	20.0	1,408	
Benzo(k)fluoranthene	20.0	1,339	20.0	1,339	m
Benzo(e)pyrene	20.0	1,302	20.0	1,302	m
Benzo(a)pyrene	20.0	1,313	20.0	1,313	m
Perylene	20.0	1,593	20.0	1,593	
Indeno(1,2,3-cd)pyrene	20.0	1,341	20.0	1,341	m
Dibenz(a,h)anthracene	20.0	1,539	20.0	1,539	
Benzo(g,h,i)perylene	20.0	1,389	20.0	1,389	
Coronene	20.0	1,657	20.0	1,657	

(ND) = Not Detected

* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

Sample Name : LCS conf
 Sample Info : 1121-078; 5uL ISTD SVOAPrepPg408
 Data File : W2101548.D
 Dilution : 1
 Extract Volume : 1.00
 Acquisition Date : 2021-12-06 20:39:52
 Instrument Method : RXI-TO13A-SIMV7.M
 Matrix : LIQUID

Internal Standards	Response	Retention Time (min)	Concentration (ng/mL)	% Deviation	Flag *
Naphthalene-d8	78,412	5.60	400	-0.4	PASS
Acenaphthene-d10	32,160	7.22	400	5.3	PASS
Phenanthrene-d10	55,035	8.62	400	2.9	PASS
Chrysene-d12	37,044	13.05	400	6.0	PASS
Perylene-d12	23,557	18.55	400	1.3	PASS

Surrogates	Response	Retention Time (min)	Concentration (ng/mL)	Catch (ng)	Tag Value (ng)	% Recovery	Flag *
p-Terphenyl-d14 (Surr)	48,857	10.6	1,406	1405.6	1,000	141	FAIL
Benzo(a)pyrene-d12 (Surr)	44,599	18.2	1,374	1374.4	1,000	137	FAIL
Fluoranthene-d10 (Surr)	117,474	10.0	1,224	1224.0	1,000	122	FAIL
Fluorene-d10 (Surr)	93,674	7.70	1,243	1243.1	1,000	124	FAIL
Pyrene-d10 (Surr)	141,119	10.4	1,436	1436.3	1,000	144	FAIL

* (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	Trinity Consultants Inc.
Analyst	TDD
Parameters	EPA Method TO-15

Client #	Bristol Landfill
Job #	1121-078
# Samples	5 (6L) Canisters

Custody	Alyssa Miller received the samples on 11/17/21 after being relinquished by Trinity Consultants Inc. The samples were received at ambient temperature and in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.
Analysis	The samples were analyzed for the TO-15 target compound list using the analytical procedures in EPA Method TO-15, <i>Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)</i>. Upon receipt, the canister pressures were measured and recorded. The canisters were then pressurized with helium and a dilution ratio was calculated for each. See the Canister & Controller Data Sheet located in the Results section of this report. The samples were analyzed undiluted. The Agilent Technologies Model 7890A, Gas Chromatograph "Tobias" (S/N CN10823053) equipped with a 5973N Inert MSD (S/N US03940689) was used for this analysis. All samples and standards were introduced directly to the analyzer using an Entech 7100A Preconcentrator.
Calibration	The BFB tune analyses associated with the initial and continuing calibrations met all method acceptance criteria. The initial calibration (<i>T101321A-TO15</i>) met the 30% RSD criteria. The initial calibration verification (ICV) met the 70-130% recovery criteria. The continuing calibration (CCV) met the 30% difference criteria. Full calibration data is available upon request.
Chromatographic Conditions	The acquisition method (<i>TO15-SCN2.M</i>) may be made available upon request.



Enthalpy Analytical Narrative Summary (continued)

QC Notes

All internal standard area (IS) responses and retention time criteria were met for these analyses.

The Laboratory Duplicates (LD) analyzed with this sample data met the 25% difference criterion.

The laboratory humid blanks associated with these analyses did not contain any of the target analytes at a concentration greater than 3x their MDL value.

The Laboratory Control Samples (LCS) met the 70-130% recovery criteria.

The samples were analyzed within the 30-day holding time required by the method.

Reporting Notes

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

The results presented in this report are representative of the samples as provided to the laboratory.



Enthalpy Analytical Narrative Summary

Company	Trinity Consultants, Inc.
Analyst	DBS
Parameters	EPA Method TO-13A

Client #	Bristol Landfill
Job #	1121-078
# Samples	1 Puf Sample

Custody

The PUF sample was received at Enthalpy Analytical's Wilmington laboratory on 11/18/21 at 17.9°C after being relinquished by Trinity Consultants, Inc. A sample extracted were shipped to Enthalpy Analytical's Durham laboratory where they were received by Alyssa Miller on 12/01/21 at 2.1 °C. All extracts were received in good condition.

Prior to, during, and after analysis, the sample was kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis

The sample was analyzed for the TO-13A target compounds list using the analytical procedures in EPA Method TO-13A, *Determination of Polycyclic Aromatic Hydrocarbons (PAHs) in Ambient Air Using Gas Chromatography/Mass Spectrometry (GC/MS)*.

Each sample was soxhlet extracted for 16 hours in hexane followed by a 16-hour soxhlet extraction in toluene. The soxhlet extracts were combined and solvent exchanged into hexane then concentrated to a 1mL final volume.

The field samples and QC samples were prepared for analysis by spiking a 100-uL aliquot of sample with 5 uL of SV IS SIM PAH internal standard solution resulting in an internal standard concentration of 400 ng.

The Agilent Technologies Model 6890N, Gas Chromatograph "Wiley" (S/N CN10244010) was equipped with a 5973N Mass Selective Detector (S/N US21844806) for these analyses.

Chromatographic Conditions

Copies of the acquisition methods (*RXI-TO13A-SCNV7.m* & *RXI-TO13A-SIMV7.m*) may be made available upon request.

Calibration

The DFTPP tune analyses associated with the initial and continuing calibrations met all method acceptance criteria.

The initial calibration (*W120621A-TO13A*) met the 30% RSD acceptance criteria. The initial calibration verification (ICV) met the 30% recovery criteria. The continuing calibration (CCV) met the 30% difference criteria. Calibration reports have not been included in this Level 2 report, however full calibration data is available upon request.



Enthalpy Analytical Narrative Summary (continued)

QC Notes

All internal standard area responses and retention time criteria were met for these analyses.

All surrogates failed to meet the 60-120% recovery criteria with the following exceptions; fluoranthene-10 and fluorene-10 in the method blank (MB) and fluoranthene-d10 in the LCS. Failing surrogate recoveries were biased high. Re-analysis confirmed these results.

The laboratory method blank (MB) extracted with these samples contained naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene and pyrene at concentrations above the LOQ. Re-analysis confirmed these results.

Benzo(a)anthracene and chrysene were detected in the associated hexane system blank above the MDL. These compounds were not detected in the sample or associated method blank (MB).

The Laboratory Control Sample (LCS) failed to meet the 60-120% recovery criteria for most compounds. All compounds that failed exhibited a high bias. Re-analysis confirmed these results.

The Laboratory Duplicate (LD) associated with this sample data met the 20% difference criteria for all compounds of interest.

All sample extracts were analyzed within the 40-day holding time required by the method.

Reporting Notes

Only data for samples reported in the Results section of this report have been included in the EDD.

The results presented in this report are representative of the samples as provided to the laboratory.



General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as “**Type**” represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as “EPA Method 16-Type” because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym **MDL** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym **LOQ** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym **ND** following a value indicates a non-detect or analytical result below the MDL.
- The letter **J** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter **E** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- Sample results are presented ‘as measured’ for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.
- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).
- The acronym **DF** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of **MS** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).



General Reporting Notes

(continued)

- The addition of **MSD** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of **LD** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of **AD** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID **LCS** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.
- **Significant Figures:** Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.
- **Manual Integration:** The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was *not integrated* by the software "**NI**", the peak was *integrated incorrectly* by the software "**II**" or the *wrong peak* was integrated by the software "**WP**". These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.



Sample Custody



Special Handling:

- ☐ Standard Turn Around Time
- ☐ Rush Turn Around Time -- Date Needed _____
- All TATs Subject to Approval by Enthalpy Analytics!
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

For spiked or duplicate samples, please provide sample volumes for necessary calculations. For Particulates, please provide tare weights and/or condensed water volume.

Sample(s) Collected by: Keegan Waggener
Client Name: Trinity Consultant
Project Manager: Russell Bailey

Project Number: 1121-078
Site Name: Bristol Landfill
Location: Hot Wells (Active)

PO#: _____
Telephone#: 678-938-1425
Email: _____

Special Instructions:

A=Air 1=H₂SO₄ 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample Containers

Analysis:

VOA Vials	
Glass	
Plastic	
Bags	
Canisters	
Tubes	
Other	

Notes:

← 5.2°C Raytek
7 Ambient temp
good condition
mm 2 11.17.21

Relinquished By:

Date: _____

Received By:

Date: _____

Time:

Sample Condition Upon Receipt:

Keegan Wagner

11-11

Alpina muellei

11.17.21

112D

☒ Iced ☒ Ambient ☒ °C 5.2

☐ Iced ☐ Ambient ☐ °C☐ Iced ☐ Ambient ☐ °C

Chain of Custody Record

Page of

Special Handling:

- ☐ Standard Turn Around Time
- ☐ Rush Turn Around Time -- Date Needed _____
- All TATs Subject to Approval by Enthalpy Analytical
 - All Bag/Can Samples Disposed of 1 Month from Receipt
 - All Other Samples Disposed of 4 Months from Receipt.

Sample(s) Collected by: Keegan Waggener
Client Name: Trinity Consultants
Project Manager: Russell Baily

Project Number: 1121-078
Site Name: Bristol Landfill
Location: Chimney

PO#: _____
phone#: 678-938-1425
Email: _____

For spiked or duplicate samples; please provide sample volumes for recovery calculations. For Particulates; please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H₂SO₄ 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample Containers

Analyses:

Notes:

← 5.2°C Raytek
7 Ambient temp
good condition
pmms 11-17-21

Relinquished By:

Date: _____

Received By:

Date: _____

Time:

Sample Condition Upon Receipt:

Keaton Wagner

11-16

Aussammeln

11-17-21

1120

☒ Iced ☒ Ambient ☒ °C 5.2☐ Iced ☐ Ambient ☐ °C☐ Iced ☐ Ambient ☐ °C



Enthalpy
analytical, inc.

Enthalpy Ultratrace Job#: _____ COC Page _____ of _____

Special Handling:

- ☐ Standard Turn Around Time (21 calendar days)
- ☐ Rush Turn Around Time – Date Needed _____
- All Fast TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Samples Disposed of After 6 months Unless Otherwise Instructed.

Enthalpy Analytical-Wilmington, NC has added enhancements to standard methods to improve accuracy, precision and permit an assessment of laboratory performance in the context of your specific data needs. For more information email Glyde_hines@enthalpy.com.

PO#: _____
Telephone#: 678-938-1425
Email: _____

This Chain of Custody is applicable to Flue Gas and Ambient Air samples. Please note that standard TAT of 21 calendar days applies to PCDD/F analysis only.

Client Special Instructions:

Only used 1 PUF
- the one with blue
tape

Sample Containers

Analyses:[illegible]

Relinquished By:

Date: _____

Received By:

Date _____

Time:

Sample Temperatures Upon Receipt: _____

Bearish w/ 11/30/2

Really King
Allyson Muelh

Date	Time
11-18-21	11:15
12-01-21	12:15

XAD/PUFs & Filters:	☒ Iced	☐ Ambient °C	17.9° T ₉
Solvents/Impingers:	☐ Iced	☐ Ambient °C	
XAD/PUFs & Filters:	☒ Iced	☐ Ambient °C	2.1
Solvents/Impingers:	☐ Iced	☐ Ambient °C	
XAD/PUFs & Filters:	☐ Iced	☐ Ambient °C	
Solvents/Impingers:	☐ Iced	☐ Ambient °C	

2714 Exchange Drive • Wilmington, NC 28405 • (910) 212-5858 • www.enthalpy.com

Feeder, 7912 0458 3987, cooler, melted, EA Job # 1124-0785 62 of 66 good condition OK 11/18/21

2.1°C Fluke # 6, good condition, amm3 12-01-21

A

~~11/30/21~~

COPY

~~Br~~
~~11/30/21~~

Spike Profile Sheet

Batch#: ~~1121-728~~ 12640ENTHALPY
ANALYTICALComments: ~~Batch #:~~ Batch #: 12640 EE SV 11/23/21

COPY

NOTE: ALL Ax STANDARDS SOLUTIONS ARE ONLY SPIKED INTO BCS, LCS, OPR AND/OR MS/MSD

PCDD/F

ES: $\mu\text{L @}$	Ax-A: $\mu\text{L @}$	Ax-B: $\mu\text{L @}$	AS: $\mu\text{L @}$
ID:	ID:	ID:	ID:
Exp.:	Exp.:	Exp.:	Exp.:
Spiker:	Spiker:	Spiker:	Spiker:
Witness: Date:	Witness: Date:	Witness: Date:	Witness: Date:
CS: $\mu\text{L @}$	JS: $\mu\text{L @}$	$\mu\text{L @}$	$\mu\text{L @}$
ID:	ID:	ID:	ID:
Exp.:	Exp.:	Exp.:	Exp.:
Spiker:	Spiker:	Spiker:	Spiker:
Witness: Date:	Witness: Date:	Witness: Date:	Witness: Date:

PCB

ES: $\mu\text{L @}$	Ax1668/209: $\mu\text{L @}$		CS: $\mu\text{L @}$
ID:	ID:		ID:
Exp.:	Exp.:		Exp.:
Spiker:	Spiker:		Spiker:
Witness: Date:	Witness: Date:		Witness: Date:
JS: $\mu\text{L @}$	FS: $\mu\text{L @}$	$\mu\text{L @}$	
ID:	ID:	ID:	
Exp.:	Exp.:	Exp.:	
Spiker:	Spiker:	Spiker:	
Witness: Date:	Witness: Date:	Witness: Date:	

EE SV 11/22/21
surrogate

SV PAH

ES: 50 $\mu\text{L @ 20,000 pg/mL}$	Ax: 50 $\mu\text{L @ 20,000 pg/mL}$	$\mu\text{L @}$	CS: $\mu\text{L @}$
ID: SIDA K52	ID: SIDA K53	ID:	ID:
Exp.: Oct 2022	Exp.: Oct 2022	Exp.:	Exp.:
Spiker: Ben 11/22/21	Spiker: Ben 11/22/21	Spiker:	Spiker:
Witness: Date:	Witness: Date:	Witness: Date:	Witness: Date:
JS: $\mu\text{L @}$	: $\mu\text{L @}$		
ID:	ID:		
Exp.:	Exp.:		
Spiker:	Spiker:		
Witness: Date:	Witness: Date:		

COPY

Air Sample Fraction Observations			ENTHALPY ANALYTICAL		
Extraction Prep:	Init.	Date			
	36/W	11/22/21			
Lab Sample ID	XAD	Filter(s)	Rinses	Glasswool	Other
1121-728-001	Wh, D, F	D, WH, B, PM	—	Yw Puff	—
Blank 11/30/21					
COMMON OBSERVATION ABBREVIATIONS					
B = BULLSEYE					
BE = BEIGE					
BK = BLACK					
C = CLEAN					
D = DRY					
F = FREE FLOWING					
GY = GREY					
M = MOIST					
PM = PARTICULATES					
S = STICKY					
W = WET					
WH = WHITE					
YW = YELLOW					
Comments:					
Blank 11/30/21					

1121-728_MB
Trinity Consultants
Prep Date: 11/10/2021
SV PAH

1121-728_LCS
Trinity Consultants
Prep Date: 11/10/2021
SV PAH

**This Is The Last Page
Of This Report.**