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2425 New Holland Pike, Lancaster, PA 17601 | 717-656-2300 | Fax: 717-656-2681 | www.LancasterLabs.com

NYSDEC ASP Category B Data Package

Prepared for:

Brown & Caldwell
2 Park Way
Suite 2A
Upper Saddle River NJ 07458

Project: Bartlett Tree
Air Samples
Collected on 12/05/18

SDG# BTR29

GROUP	SAMPLE NUMBERS
2016279	9929275-9929277

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-18-27
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M. Kauffman

Dana M. Kauffman
Manager

Date: 12/31/2018

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at (717) 556-7264.

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Sample Reference List for SDG Number BTR29
with a Data Package Type of NYSDEC B

09286 - Brown & Caldwell

Project: Bartlett Tree

Lab Sample Number	Client Sample ID	Collection Date	Date Received
9929275	AA-1	12/05/2018 06:30	12/07/2018 10:20
9929276	IA-1	12/05/2018 06:30	12/07/2018 10:20
9929277	SV-1	12/05/2018 06:30	12/07/2018 10:20

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05298 TO 15 VOA Ext. List

Air samples are collected in passivated SUMMA canisters. A volume of the air is cryogenically trapped and desorbed into a gas chromatograph equipped with a capillary column and interfaced directly to a mass selective (MS) detector.

Reference: EPA Method TO-15, "Methods for the Determination of Toxic Organic Compounds in Air," 1999

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Brown & Caldwell
2 Park Way
Suite 2A
Upper Saddle River NJ 07458

Report Date: December 17, 2018 16:43

Project: Bartlett Tree

Account #: 09286
Group Number: 2016279
SDG: BTR29
PO Number: 139990
State of Sample Origin: NY

Electronic Copy To Brown & Caldwell Attn: Brian Taylor

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
AA-1 Air	12/05/2018 06:30 - 12/05/2018 10:33	9929275
IA-1 Air	12/05/2018 06:30 - 12/05/2018 13:46	9929276
SV-1 Air	12/05/2018 06:30 - 12/05/2018 13:45	9929277

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **AA-1 Air**
SummaCan# 1262
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 10:33
SDG#: BTR29-01

Brown & Caldwell
ELLE Sample #: AQ 9929275
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		**ug/m3**	**ug/m3**	**ppb(v)**	**ppb(v)**	
05298	Acetone	67-64-1	5.4 J	1.3	2.3 J	0.53	1
05298	Benzene	71-43-2	2.2 J	0.35	0.70 J	0.11	1
05298	Bromobenzene	108-86-1	N.D.	0.64	N.D.	0.10	1
05298	Bromodichloromethane	75-27-4	N.D.	0.80	N.D.	0.12	1
05298	Bromoform	75-25-2	N.D.	1.8	N.D.	0.17	1
05298	Bromomethane	74-83-9	N.D.	0.70	N.D.	0.18	1
05298	1,3-Butadiene	106-99-0	N.D.	0.38	N.D.	0.17	1
05298	2-Butanone	78-93-3	1.7 J	0.62	0.58 J	0.21	1
05298	Carbon Disulfide	75-15-0	N.D.	0.40	N.D.	0.13	1
05298	Carbon Tetrachloride	56-23-5	N.D.	0.88	N.D.	0.14	1
05298	Chlorobenzene	108-90-7	N.D.	0.60	N.D.	0.13	1
05298	Chlorodifluoromethane	75-45-6	N.D.	0.53	N.D.	0.15	1
05298	Chloroethane	75-00-3	N.D.	0.50	N.D.	0.19	1
05298	Chloroform	67-66-3	N.D.	0.45	N.D.	0.092	1
05298	Chloromethane	74-87-3	N.D.	0.50	N.D.	0.24	1
05298	3-Chloropropene	107-05-1	N.D.	0.47	N.D.	0.15	1
05298	Cumene	98-82-8	N.D.	1.2	N.D.	0.24	1
05298	Dibromochloromethane	124-48-1	N.D.	1.1	N.D.	0.13	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.0	N.D.	0.13	1
05298	Dibromomethane	74-95-3	N.D.	1.0	N.D.	0.14	1
05298	1,2-Dichlorobenzene	95-50-1	N.D.	1.2	N.D.	0.20	1
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.1	N.D.	0.19	1
05298	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	N.D.	0.17	1
05298	Dichlorodifluoromethane	75-71-8	0.95 J	0.64	0.19 J	0.13	1
05298	1,1-Dichloroethane	75-34-3	N.D.	0.36	N.D.	0.089	1
05298	1,2-Dichloroethane	107-06-2	N.D.	0.32	N.D.	0.080	1
05298	1,1-Dichloroethene	75-35-4	N.D.	0.56	N.D.	0.14	1
05298	cis-1,2-Dichloroethene	156-59-2	N.D.	0.48	N.D.	0.12	1
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.34	N.D.	0.086	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.46	N.D.	0.11	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.60	N.D.	0.13	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.45	N.D.	0.10	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.54	N.D.	0.12	1
05298	Ethylbenzene	100-41-4	2.0 J	0.83	0.46 J	0.19	1
05298	4-Ethyltoluene	622-96-8	1.1 J	0.88	0.23 J	0.18	1
05298	Freon 113	76-13-1	N.D.	0.84	N.D.	0.11	1
05298	Freon 114	76-14-2	N.D.	0.84	N.D.	0.12	1
05298	Heptane	142-82-5	2.0 J	0.94	0.49 J	0.23	1
05298	Hexachloroethane	67-72-1	N.D.	2.6	N.D.	0.27	1
05298	Hexane	110-54-3	4.5	0.46	1.3	0.13	1
05298	2-Hexanone	591-78-6	N.D.	0.74	N.D.	0.18	1

Sample Description: **AA-1 Air**
SummaCan# 1262
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 10:33
SDG#: BTR29-01

Brown & Caldwell
ELLE Sample #: AQ 9929275
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		**ug/m3**	**ug/m3**	**ppb(v)**	**ppb(v)**	
05298	Isooctane	540-84-1	4.5 J	0.61	0.97 J	0.13	1
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.54	N.D.	0.15	1
05298	4-Methyl-2-pentanone	108-10-1	N.D.	0.61	N.D.	0.15	1
05298	Methylene Chloride	75-09-2	N.D.	0.87	N.D.	0.25	1
05298	Octane	111-65-9	N.D.	1.9	N.D.	0.40	1
05298	Pentane	109-66-0	11	0.38	3.6	0.13	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.0	N.D.	0.15	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.0	N.D.	0.15	1
05298	Tetrachloroethene	127-18-4	N.D.	1.7	N.D.	0.25	1
05298	Toluene	108-88-3	8.4	0.45	2.2	0.12	1
05298	1,1,1-Trichloroethane	71-55-6	N.D.	0.65	N.D.	0.12	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	0.65	N.D.	0.12	1
05298	Trichloroethene	79-01-6	N.D.	0.97	N.D.	0.18	1
05298	Trichlorofluoromethane	75-69-4	N.D.	0.84	N.D.	0.15	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	0.84	N.D.	0.14	1
05298	1,2,4-Trimethylbenzene	95-63-6	3.4 J	1.4	0.69 J	0.28	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	1.6	N.D.	0.32	1
05298	Vinyl Chloride	75-01-4	N.D.	0.31	N.D.	0.12	1
05298	m/p-Xylene	179601-23-1	7.5 J	1.1	1.7 J	0.26	1
05298	o-Xylene	95-47-6	2.7 J	0.83	0.63 J	0.19	1

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	TO 15 VOA Ext. List	EPA TO-15	1	F1834930AA	12/15/2018 19:30	Jacob E Bailey	1

Sample Description: **IA-1 Air**
SummaCan# 1361
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 13:46
SDG#: BTR29-02

Brown & Caldwell
ELLE Sample #: AQ 9929276
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		ug/m3	ug/m3	ppb(v)	ppb(v)	
05298	Acetone	67-64-1	15 J	1.7	6.4 J	0.73	1.38
05298	Benzene	71-43-2	6.3	0.48	2.0	0.15	1.38
05298	Bromobenzene	108-86-1	N.D.	0.88	N.D.	0.14	1.38
05298	Bromodichloromethane	75-27-4	N.D.	1.1	N.D.	0.17	1.38
05298	Bromoform	75-25-2	N.D.	2.4	N.D.	0.23	1.38
05298	Bromomethane	74-83-9	N.D.	0.96	N.D.	0.25	1.38
05298	1,3-Butadiene	106-99-0	N.D.	0.52	N.D.	0.23	1.38
05298	2-Butanone	78-93-3	4.9	0.85	1.7	0.29	1.38
05298	Carbon Disulfide	75-15-0	N.D.	0.56	N.D.	0.18	1.38
05298	Carbon Tetrachloride	56-23-5	N.D.	1.2	N.D.	0.19	1.38
05298	Chlorobenzene	108-90-7	N.D.	0.82	N.D.	0.18	1.38
05298	Chlorodifluoromethane	75-45-6	N.D.	0.73	N.D.	0.21	1.38
05298	Chloroethane	75-00-3	N.D.	0.69	N.D.	0.26	1.38
05298	Chloroform	67-66-3	N.D.	0.62	N.D.	0.13	1.38
05298	Chloromethane	74-87-3	N.D.	0.68	N.D.	0.33	1.38
05298	3-Chloropropene	107-05-1	N.D.	0.65	N.D.	0.21	1.38
05298	Cumene	98-82-8	N.D.	1.6	N.D.	0.33	1.38
05298	Dibromochloromethane	124-48-1	N.D.	1.5	N.D.	0.18	1.38
05298	1,2-Dibromoethane	106-93-4	N.D.	1.4	N.D.	0.18	1.38
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.19	1.38
05298	1,2-Dichlorobenzene	95-50-1	N.D.	1.7	N.D.	0.28	1.38
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.6	N.D.	0.26	1.38
05298	1,4-Dichlorobenzene	106-46-7	N.D.	1.4	N.D.	0.23	1.38
05298	Dichlorodifluoromethane	75-71-8	2.9 J	0.88	0.58 J	0.18	1.38
05298	1,1-Dichloroethane	75-34-3	N.D.	0.50	N.D.	0.12	1.38
05298	1,2-Dichloroethane	107-06-2	N.D.	0.45	N.D.	0.11	1.38
05298	1,1-Dichloroethene	75-35-4	N.D.	0.76	N.D.	0.19	1.38
05298	cis-1,2-Dichloroethene	156-59-2	N.D.	0.65	N.D.	0.17	1.38
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.47	N.D.	0.12	1.38
05298	Dichlorofluoromethane	75-43-4	N.D.	0.64	N.D.	0.15	1.38
05298	1,2-Dichloropropane	78-87-5	N.D.	0.83	N.D.	0.18	1.38
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.62	N.D.	0.14	1.38
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.75	N.D.	0.17	1.38
05298	Ethylbenzene	100-41-4	5.6 J	1.1	1.3 J	0.26	1.38
05298	4-Ethyltoluene	622-96-8	4.2 J	1.2	0.86 J	0.25	1.38
05298	Freon 113	76-13-1	N.D.	1.2	N.D.	0.15	1.38
05298	Freon 114	76-14-2	N.D.	1.2	N.D.	0.17	1.38
05298	Heptane	142-82-5	5.5 J	1.3	1.3 J	0.32	1.38
05298	Hexachloroethane	67-72-1	N.D.	3.6	N.D.	0.37	1.38
05298	Hexane	110-54-3	13	0.63	3.7	0.18	1.38
05298	2-Hexanone	591-78-6	N.D.	1.0	N.D.	0.25	1.38

Sample Description: **IA-1 Air**
SummaCan# 1361
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 13:46
SDG#: BTR29-02

Brown & Caldwell
ELLE Sample #: AQ 9929276
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		**ug/m3**	**ug/m3**	**ppb(v)**	**ppb(v)**	
05298	Isooctane	540-84-1	12	0.84	2.6	0.18	1.38
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.74	N.D.	0.21	1.38
05298	4-Methyl-2-pentanone	108-10-1	N.D.	0.84	N.D.	0.21	1.38
05298	Methylene Chloride	75-09-2	N.D.	1.2	N.D.	0.34	1.38
05298	Octane	111-65-9	3.2 J	2.6	0.68 J	0.55	1.38
05298	Pentane	109-66-0	33	0.53	11	0.18	1.38
05298	Styrene	100-42-5	N.D.	1.2	N.D.	0.28	1.38
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.21	1.38
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.21	1.38
05298	Tetrachloroethene	127-18-4	2.7 J	2.3	0.39 J	0.34	1.38
05298	Toluene	108-88-3	23	0.62	6.2	0.17	1.38
05298	1,1,1-Trichloroethane	71-55-6	N.D.	0.90	N.D.	0.17	1.38
05298	1,1,2-Trichloroethane	79-00-5	N.D.	0.90	N.D.	0.17	1.38
05298	Trichloroethene	79-01-6	N.D.	1.3	N.D.	0.25	1.38
05298	Trichlorofluoromethane	75-69-4	1.4 J	1.2	0.24 J	0.21	1.38
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.19	1.38
05298	1,2,4-Trimethylbenzene	95-63-6	9.8 J	1.9	2.0 J	0.39	1.38
05298	1,3,5-Trimethylbenzene	108-67-8	2.3 J	2.2	0.47 J	0.44	1.38
05298	Vinyl Chloride	75-01-4	N.D.	0.42	N.D.	0.17	1.38
05298	m/p-Xylene	179601-23-1	22	1.6	5.0	0.36	1.38
05298	o-Xylene	95-47-6	7.5	1.1	1.7	0.26	1.38

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	TO 15 VOA Ext. List	EPA TO-15	1	F1834930AA	12/15/2018 20:07	Jacob E Bailey	1.38

Sample Description: **SV-1 Air**
SummaCan# 1412
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 13:45
SDG#: BTR29-03

Brown & Caldwell
ELLE Sample #: AQ 9929277
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		**ug/m3**	**ug/m3**	**ppb(v)**	**ppb(v)**	
05298	Acetone	67-64-1	46	1.3	19	0.53	1
05298	Benzene	71-43-2	1.6 J	0.35	0.50 J	0.11	1
05298	Bromobenzene	108-86-1	N.D.	0.64	N.D.	0.10	1
05298	Bromodichloromethane	75-27-4	N.D.	0.80	N.D.	0.12	1
05298	Bromoform	75-25-2	N.D.	1.8	N.D.	0.17	1
05298	Bromomethane	74-83-9	N.D.	0.70	N.D.	0.18	1
05298	1,3-Butadiene	106-99-0	1.2 J	0.38	0.53 J	0.17	1
05298	2-Butanone	78-93-3	9.5	0.62	3.2	0.21	1
05298	Carbon Disulfide	75-15-0	0.81 J	0.40	0.26 J	0.13	1
05298	Carbon Tetrachloride	56-23-5	1.4 J	0.88	0.23 J	0.14	1
05298	Chlorobenzene	108-90-7	N.D.	0.60	N.D.	0.13	1
05298	Chlorodifluoromethane	75-45-6	N.D.	0.53	N.D.	0.15	1
05298	Chloroethane	75-00-3	N.D.	0.50	N.D.	0.19	1
05298	Chloroform	67-66-3	4.5 J	0.45	0.92 J	0.092	1
05298	Chloromethane	74-87-3	N.D.	0.50	N.D.	0.24	1
05298	3-Chloropropene	107-05-1	N.D.	0.47	N.D.	0.15	1
05298	Cumene	98-82-8	N.D.	1.2	N.D.	0.24	1
05298	Dibromochloromethane	124-48-1	N.D.	1.1	N.D.	0.13	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.0	N.D.	0.13	1
05298	Dibromomethane	74-95-3	N.D.	1.0	N.D.	0.14	1
05298	1,2-Dichlorobenzene	95-50-1	N.D.	1.2	N.D.	0.20	1
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.1	N.D.	0.19	1
05298	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	N.D.	0.17	1
05298	Dichlorodifluoromethane	75-71-8	6.3	0.64	1.3	0.13	1
05298	1,1-Dichloroethane	75-34-3	N.D.	0.36	N.D.	0.089	1
05298	1,2-Dichloroethane	107-06-2	N.D.	0.32	N.D.	0.080	1
05298	1,1-Dichloroethene	75-35-4	N.D.	0.56	N.D.	0.14	1
05298	cis-1,2-Dichloroethene	156-59-2	N.D.	0.48	N.D.	0.12	1
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.34	N.D.	0.086	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.46	N.D.	0.11	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.60	N.D.	0.13	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.45	N.D.	0.10	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.54	N.D.	0.12	1
05298	Ethylbenzene	100-41-4	N.D.	0.83	N.D.	0.19	1
05298	4-Ethyltoluene	622-96-8	N.D.	0.88	N.D.	0.18	1
05298	Freon 113	76-13-1	N.D.	0.84	N.D.	0.11	1
05298	Freon 114	76-14-2	N.D.	0.84	N.D.	0.12	1
05298	Heptane	142-82-5	N.D.	0.94	N.D.	0.23	1
05298	Hexachloroethane	67-72-1	N.D.	2.6	N.D.	0.27	1
05298	Hexane	110-54-3	2.1 J	0.46	0.61 J	0.13	1
05298	2-Hexanone	591-78-6	N.D.	0.74	N.D.	0.18	1

Sample Description: **SV-1 Air**
SummaCan# 1412
Bartlett Tree

Project Name: **Bartlett Tree**

Submittal Date/Time: 12/07/2018 10:20
Collection Date/Time: 12/05/2018 06:30 through 12/05/2018 13:45
SDG#: BTR29-03

Brown & Caldwell
ELLE Sample #: AQ 9929277
ELLE Group #: 2016279
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15**		**ug/m3**	**ug/m3**	**ppb(v)**	**ppb(v)**	
05298	Isooctane	540-84-1	0.74 J	0.61	0.16 J	0.13	1
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.54	N.D.	0.15	1
05298	4-Methyl-2-pentanone	108-10-1	N.D.	0.61	N.D.	0.15	1
05298	Methylene Chloride	75-09-2	N.D.	0.87	N.D.	0.25	1
05298	Octane	111-65-9	N.D.	1.9	N.D.	0.40	1
05298	Pentane	109-66-0	2.6 J	0.38	0.88 J	0.13	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.0	N.D.	0.15	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.0	N.D.	0.15	1
05298	Tetrachloroethene	127-18-4	450	1.7	67	0.25	1
05298	Toluene	108-88-3	2.2 J	0.45	0.57 J	0.12	1
05298	1,1,1-Trichloroethane	71-55-6	5.7	0.65	1.0	0.12	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	0.65	N.D.	0.12	1
05298	Trichloroethene	79-01-6	2.3 J	0.97	0.43 J	0.18	1
05298	Trichlorofluoromethane	75-69-4	2.0 J	0.84	0.36 J	0.15	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	0.84	N.D.	0.14	1
05298	1,2,4-Trimethylbenzene	95-63-6	1.5 J	1.4	0.31 J	0.28	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	1.6	N.D.	0.32	1
05298	Vinyl Chloride	75-01-4	N.D.	0.31	N.D.	0.12	1
05298	m/p-Xylene	179601-23-1	1.4 J	1.1	0.32 J	0.26	1
05298	o-Xylene	95-47-6	0.84 J	0.83	0.19 J	0.19	1

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	TO 15 VOA Ext. List	EPA TO-15	1	F1834930AA	12/15/2018 20:38	Jacob E Bailey	1

Quality Control Summary

Client Name: Brown & Caldwell
Group Number: 2016279
Reported: 12/17/2018 16:43

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/m3	MDL ug/m3	Result ppb(v)	MDL ppb(v)
Batch number: F1834930AA	Sample number(s): 9929275-9929277			
Acetone	N.D.	1.3	N.D.	0.53
Benzene	N.D.	0.35	N.D.	0.11
Bromobenzene	N.D.	0.64	N.D.	0.10
Bromodichloromethane	N.D.	0.80	N.D.	0.12
Bromoform	N.D.	1.8	N.D.	0.17
Bromomethane	N.D.	0.70	N.D.	0.18
1,3-Butadiene	N.D.	0.38	N.D.	0.17
2-Butanone	N.D.	0.62	N.D.	0.21
Carbon Disulfide	N.D.	0.40	N.D.	0.13
Carbon Tetrachloride	N.D.	0.88	N.D.	0.14
Chlorobenzene	N.D.	0.60	N.D.	0.13
Chlorodifluoromethane	N.D.	0.53	N.D.	0.15
Chloroethane	N.D.	0.50	N.D.	0.19
Chloroform	N.D.	0.45	N.D.	0.092
Chloromethane	N.D.	0.50	N.D.	0.24
3-Chloropropene	N.D.	0.47	N.D.	0.15
Cumene	N.D.	1.2	N.D.	0.24
Dibromochloromethane	N.D.	1.1	N.D.	0.13
1,2-Dibromoethane	N.D.	1.0	N.D.	0.13
Dibromomethane	N.D.	1.0	N.D.	0.14
1,2-Dichlorobenzene	N.D.	1.2	N.D.	0.20
1,3-Dichlorobenzene	N.D.	1.1	N.D.	0.19
1,4-Dichlorobenzene	N.D.	1.0	N.D.	0.17
Dichlorodifluoromethane	N.D.	0.64	N.D.	0.13
1,1-Dichloroethane	N.D.	0.36	N.D.	0.089
1,2-Dichloroethane	N.D.	0.32	N.D.	0.080
1,1-Dichloroethene	N.D.	0.56	N.D.	0.14
cis-1,2-Dichloroethene	N.D.	0.48	N.D.	0.12
trans-1,2-Dichloroethene	N.D.	0.34	N.D.	0.086
Dichlorofluoromethane	N.D.	0.46	N.D.	0.11
1,2-Dichloropropane	N.D.	0.60	N.D.	0.13
cis-1,3-Dichloropropene	N.D.	0.45	N.D.	0.10
trans-1,3-Dichloropropene	N.D.	0.54	N.D.	0.12
Ethylbenzene	N.D.	0.83	N.D.	0.19
4-Ethyltoluene	N.D.	0.88	N.D.	0.18
Freon 113	N.D.	0.84	N.D.	0.11
Freon 114	N.D.	0.84	N.D.	0.12
Heptane	N.D.	0.94	N.D.	0.23
Hexachloroethane	N.D.	2.6	N.D.	0.27

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Brown & Caldwell
Reported: 12/17/2018 16:43

Group Number: 2016279

Method Blank (continued)

Analysis Name	Result ug/m3	MDL ug/m3	Result ppb(v)	MDL ppb(v)
Hexane	N.D.	0.46	N.D.	0.13
2-Hexanone	N.D.	0.74	N.D.	0.18
Isooctane	N.D.	0.61	N.D.	0.13
Methyl t-Butyl Ether	N.D.	0.54	N.D.	0.15
4-Methyl-2-pentanone	N.D.	0.61	N.D.	0.15
Methylene Chloride	N.D.	0.87	N.D.	0.25
Octane	N.D.	1.9	N.D.	0.40
Pentane	N.D.	0.38	N.D.	0.13
Styrene	N.D.	0.85	N.D.	0.20
1,1,1,2-Tetrachloroethane	N.D.	1.0	N.D.	0.15
1,1,2,2-Tetrachloroethane	N.D.	1.0	N.D.	0.15
Tetrachloroethene	N.D.	1.7	N.D.	0.25
Toluene	N.D.	0.45	N.D.	0.12
1,1,1-Trichloroethane	N.D.	0.65	N.D.	0.12
1,1,2-Trichloroethane	N.D.	0.65	N.D.	0.12
Trichloroethene	N.D.	0.97	N.D.	0.18
Trichlorofluoromethane	N.D.	0.84	N.D.	0.15
1,2,3-Trichloropropane	N.D.	0.84	N.D.	0.14
1,2,4-Trimethylbenzene	N.D.	1.4	N.D.	0.28
1,3,5-Trimethylbenzene	N.D.	1.6	N.D.	0.32
Vinyl Chloride	N.D.	0.31	N.D.	0.12
m/p-Xylene	N.D.	1.1	N.D.	0.26
o-Xylene	N.D.	0.83	N.D.	0.19

LCS/LCSD

Analysis Name	LCS Spike Added ug/m3	LCS Conc ug/m3	LCSD Spike Added ug/m3	LCSD Conc ug/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F1834930AA	Sample number(s): 9929275-9929277								
Acetone	23.76	25.48	23.76	25.01	107	105	71-136	2	25
Benzene	31.95	33.37	31.95	33.49	104	105	76-123	0	25
Bromobenzene	64.22	64.33	64.22	66.39	100	103	74-118	3	25
Bromodichloromethane	67.01	69.92	67.01	67.14	104	100	75-134	4	25
Bromoform	103.37	102.7	103.37	97.41	99	94	69-128	5	25
Bromomethane	38.83	42.47	38.83	43.57	109	112	71-133	3	25
1,3-Butadiene	22.12	20.32	22.12	19.57	92	88	72-122	4	25
2-Butanone	29.49	29.76	29.49	29.39	101	100	75-126	1	25
Carbon Disulfide	31.14	31.31	31.14	30.86	101	99	72-128	1	25
Carbon Tetrachloride	62.91	64.99	62.91	62.2	103	99	72-127	4	25
Chlorobenzene	46.04	44.96	46.04	45.81	98	100	76-117	2	25
Chlorodifluoromethane	35.37	38.01	35.37	37.75	107	107	70-138	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Brown & Caldwell
Reported: 12/17/2018 16:43

Group Number: 2016279

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/m3	LCS Conc ug/m3	LCSD Spike Added ug/m3	LCSD Conc ug/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	26.38	26.17	26.38	27.09	99	103	76-129	3	25
Chloroform	48.83	48.85	48.83	48.12	100	99	75-127	2	25
Chloromethane	20.65	20.44	20.65	20.91	99	101	65-140	2	25
3-Chloropropene	31.3	38.14	31.3	38.09	122	122	67-141	0	25
Cumene	49.16	48.53	49.16	51.24	99	104	80-133	5	25
Dibromochloromethane	85.19	86.5	85.19	82.95	102	97	74-131	4	25
1,2-Dibromoethane	76.83	75.73	76.83	75.52	99	98	73-121	0	25
Dibromomethane	71.1	76.53	71.1	74.46	108	105	76-124	3	25
1,2-Dichlorobenzene	60.12	58.81	60.12	62.18	98	103	71-126	6	25
1,3-Dichlorobenzene	60.12	59.56	60.12	61.83	99	103	75-129	4	25
1,4-Dichlorobenzene	60.12	59.8	60.12	61.66	99	103	74-123	3	25
Dichlorodifluoromethane	49.45	54.16	49.45	51.85	110	105	74-133	4	25
1,1-Dichloroethane	40.47	40.31	40.47	39.74	100	98	74-129	1	25
1,2-Dichloroethane	40.47	42.37	40.47	43.46	105	107	72-138	3	25
1,1-Dichloroethene	39.65	39.28	39.65	40.48	99	102	70-129	3	25
cis-1,2-Dichloroethene	39.65	37.98	39.65	37.79	96	95	76-126	0	25
trans-1,2-Dichloroethene	39.65	38.95	39.65	39.02	98	98	77-128	0	25
Dichlorofluoromethane	42.09	44.72	42.09	45.35	106	108	75-137	1	25
1,2-Dichloropropane	46.21	48.28	46.21	47.23	104	102	75-127	2	25
cis-1,3-Dichloropropene	45.39	44.71	45.39	44.45	98	98	51-120	1	25
trans-1,3-Dichloropropene	45.39	46.17	45.39	45.65	102	101	72-119	1	25
Ethylbenzene	43.42	41.29	43.42	42.35	95	98	77-117	3	25
4-Ethyltoluene	49.16	49.19	49.16	51.75	100	105	73-130	5	25
Freon 113	76.64	71.65	76.64	73.11	93	95	66-119	2	25
Freon 114	69.91	74.94	69.91	70.84	107	101	66-126	6	25
Heptane	40.98	38.89	40.98	39.83	95	97	74-122	2	25
Hexachloroethane	96.83	111.77	96.83	104.59	115	108	59-135	7	25
Hexane	35.25	34.2	35.25	33.84	97	96	70-118	1	25
2-Hexanone	40.97	39.65	40.97	40.03	97	98	63-144	1	25
Isooctane	46.72	46.36	46.72	47.56	99	102	74-127	3	25
Methyl t-Butyl Ether	36.05	34.16	36.05	34.61	95	96	71-119	1	25
4-Methyl-2-pentanone	40.97	41.8	40.97	40.03	102	98	68-133	4	25
Methylene Chloride	34.74	39.89	34.74	38.42	115	111	69-128	4	25
Octane	46.72	45.43	46.72	46.86	97	100	73-122	3	25
Pentane	29.51	27.19	29.51	27.81	92	94	69-125	2	25
Styrene	42.6	43.02	42.6	42.8	101	100	76-127	1	25
1,1,1,2-Tetrachloroethane	68.65	70.27	68.65	70.28	102	102	73-124	0	25
1,1,2,2-Tetrachloroethane	68.65	65.56	68.65	66.43	96	97	72-133	1	25
Tetrachloroethene	67.82	68.35	67.82	70.48	101	104	68-123	3	25
Toluene	37.69	36.07	37.69	37.33	96	99	78-119	3	25
1,1,1-Trichloroethane	54.56	54.6	54.56	53.56	100	98	74-122	2	25
1,1,2-Trichloroethane	54.56	54.34	54.56	56.96	100	104	76-127	5	25
Trichloroethene	53.74	57.32	53.74	56.33	107	105	76-118	2	25
Trichlorofluoromethane	56.18	54.36	56.18	54.97	97	98	73-132	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Brown & Caldwell
Reported: 12/17/2018 16:43

Group Number: 2016279

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/m3	LCS Conc ug/m3	LCSD Spike Added ug/m3	LCSD Conc ug/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,3-Trichloropropane	60.3	61.13	60.3	60.65	101	101	71-127	1	25
1,2,4-Trimethylbenzene	49.16	52.24	49.16	55.51	106	113	70-138	6	25
1,3,5-Trimethylbenzene	49.16	51.08	49.16	53.95	104	110	72-130	5	25
Vinyl Chloride	25.56	25.71	25.56	24.78	101	97	75-130	4	25
m/p-Xylene	43.42	41.66	43.42	43.45	96	100	78-119	4	25
o-Xylene	43.42	40.45	43.42	42.35	93	98	78-121	5	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Summa Canister Field Test Data/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 97986 Group # 2018249 Sample # 9929275-77 Bottle Order (SCR) # 235192

Client Information

Client: Brown and Caldwell

Account #:

Project Name/#: Bartlett Tree

Project Manager: Brian Taylor

P.O. #:

Sampler: Brian Taylor

Quote #: 209794

Name of state where samples were collected: NY

Turnaround Time Requested (TAT) (circle one)

(Standard) Rush (specify) _____

Data Package Required? (Yes) No — NYSCAT 13

EDD Required? (Yes) No

	Temperature (F)		Pressure ("Hg)	
	Start	Stop	Start	Stop
Ambient	26	36	30.1	30.04
Maximum		36	30.1	
Minimum	26			30.04

Analyses Requested

EPA TO - 15 | ☐ BTEX ☐ MTBE | EPA 18 | EPA 25 (select range below) | Helium as tracer | O2/CO2 | Library Search

Sample Identification	Start Date/Time (24-hour clock)	Stop Date/Time (24-hour clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Flow Reg. ID	Can ID (B)	Can Size (L)	Controller Flowrate (mL/min)	EPA TO - 15	BTEX	MTBE	EPA 18	EPA 25	Helium as tracer	O2/CO2	Library Search
AA-1	12/5/18 0630	12/5/18 1033	-30	-1	—	—	339237	1262	6	10.5	X							
IA-1	12/5/18 0630	12/5/18 1346	-30	-24	63	65	900025	1361	6	10.4	X							
SV-1	12/5/18 0630	12/5/18 1345	-30	-1	63	65	958041	1412	6	10.5	X							
						12/5/18												

Instructions/QC Requirements & Comments

EPA 25 (check one) ☐ C1 - C4 ☐ C2 - C10 ☐ C1 - C10 ☐ C4 - C10 (GRO) ☐ C2 - C4

Canisters Shipped by: [signature]	Date/Time: 12/30/18 13:13	Canisters Received by:	Date/Time:	Relinquished by:	Date/Time: 12/6/18 8:20	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Relinquished by:	Date/Time:	Received by: [signature]	Date/Time: 12/7/18 10:20

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Sample Administration Receipt Documentation Log

Doc Log ID: 235400

Group Number(s): 2016279

Client: Brown and Caldwell

Bartlett Tree

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	12/07/2018 10:20
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	Yes
Extra Samples:	No	Flow Controller Quantity:	3
Discrepancy in Container Qty on COC:	No	Air Quality Returns:	No

Unpacked by Katie Hartlove (2114) at 11:52 on 12/07/2018

2425 New Holland Pike
Lancaster, PA 17601-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatile Organics in Air by GC/MS Data

Case Narrative/Conformance Summary

Volatile Organics in Air by GC/MS

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Case Narrative/Conformance Summary

CLIENT: Brown & Caldwell
SDG: BTR29

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

Sample #	Client ID	DF	Comments
9929275	AA-1	1	
9929276	IA-1	1.38	
9929277	SV-1	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specifications.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

LOQ = Limit of Quantitation	LCS = Lab Control Sample
MDL = Method Detection Limit	LCSD = Lab Control Sample Duplicate
ND = Not Detected	RE = Repreparation/Reanalysis
J = Estimated Value	* = Out of Specification
E= out of calibration range	

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \quad \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$X_a = \frac{(A_x)(I_s)(Df)}{(A_{is})(RRF)}$$

Where:

X_a = target compound concentration, ppb(v)

A_x = Area of the quantitation ion for the target compound to be measured

A_{is} = Area of quantitation ion for the specific internal standard

I_s = Concentration of internal standard, ppb(v)

RRF = Average relative response factor from initial or continuing calibration

Df = Dilution factor

5. % Recovery

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

QC Summary

Volatile Organics in Air by GC/MS

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Quality Control Reference List
Volatiles in Air

CLIENT: Brown & Caldwell
SDG: BTR29

Fraction: Volatile Organics in Air by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
TO 15 VOA Ext. List	F1834930AA	VBLKF07B	12/15/2018 12:20
		LCSF07Q	12/15/2018 13:06
		LCSDF07Y	12/15/2018 13:37
		9929275	12/15/2018 19:30
		9929276	12/15/2018 20:07
		9929277	12/15/2018 20:38

Fraction: Volatile Organics in Air by GC/MS

F1834930AA / VBLKF07B Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	12/15/18	N.D.	ug/m3	0.64	4.9
Chlorodifluoromethane	12/15/18	N.D.	ug/m3	0.53	3.5
Chloromethane	12/15/18	N.D.	ug/m3	0.50	2.1
Freon 114	12/15/18	N.D.	ug/m3	0.84	7.0
Vinyl Chloride	12/15/18	N.D.	ug/m3	0.31	2.6
1,3-Butadiene	12/15/18	N.D.	ug/m3	0.38	2.2
Bromomethane	12/15/18	N.D.	ug/m3	0.70	3.9
Chloroethane	12/15/18	N.D.	ug/m3	0.50	2.6
Dichlorofluoromethane	12/15/18	N.D.	ug/m3	0.46	4.2
Trichlorofluoromethane	12/15/18	N.D.	ug/m3	0.84	5.6
Pentane	12/15/18	N.D.	ug/m3	0.38	3.0
1,1-Dichloroethene	12/15/18	N.D.	ug/m3	0.56	4.0
Freon 113	12/15/18	N.D.	ug/m3	0.84	7.7
Acetone	12/15/18	N.D.	ug/m3	1.3	12
Carbon Disulfide	12/15/18	N.D.	ug/m3	0.40	3.1
3-Chloropropene	12/15/18	N.D.	ug/m3	0.47	3.1
Methylene Chloride	12/15/18	N.D.	ug/m3	0.87	6.9
trans-1,2-Dichloroethene	12/15/18	N.D.	ug/m3	0.34	4.0
Methyl t-Butyl Ether	12/15/18	N.D.	ug/m3	0.54	3.6
Hexane	12/15/18	N.D.	ug/m3	0.46	3.5
1,1-Dichloroethane	12/15/18	N.D.	ug/m3	0.36	4.0
cis-1,2-Dichloroethene	12/15/18	N.D.	ug/m3	0.48	4.0
2-Butanone	12/15/18	N.D.	ug/m3	0.62	2.9
Chloroform	12/15/18	N.D.	ug/m3	0.45	4.9
1,1,1-Trichloroethane	12/15/18	N.D.	ug/m3	0.65	5.5
Carbon Tetrachloride	12/15/18	N.D.	ug/m3	0.88	6.3
1,2-Dichloroethane	12/15/18	N.D.	ug/m3	0.32	4.0
Benzene	12/15/18	N.D.	ug/m3	0.35	3.2
Isooctane	12/15/18	N.D.	ug/m3	0.61	4.7
Heptane	12/15/18	N.D.	ug/m3	0.94	4.1
Trichloroethene	12/15/18	N.D.	ug/m3	0.97	5.4
1,2-Dichloropropane	12/15/18	N.D.	ug/m3	0.60	4.6
Dibromomethane	12/15/18	N.D.	ug/m3	1.0	7.1
Bromodichloromethane	12/15/18	N.D.	ug/m3	0.80	6.7
cis-1,3-Dichloropropene	12/15/18	N.D.	ug/m3	0.45	4.5
4-Methyl-2-pentanone	12/15/18	N.D.	ug/m3	0.61	4.1
Toluene	12/15/18	N.D.	ug/m3	0.45	3.8
Octane	12/15/18	N.D.	ug/m3	1.9	9.3
trans-1,3-Dichloropropene	12/15/18	N.D.	ug/m3	0.54	4.5
1,1,2-Trichloroethane	12/15/18	N.D.	ug/m3	0.65	5.5
Tetrachloroethene	12/15/18	N.D.	ug/m3	1.7	14
2-Hexanone	12/15/18	N.D.	ug/m3	0.74	4.1
Dibromochloromethane	12/15/18	N.D.	ug/m3	1.1	8.5
1,2-Dibromoethane	12/15/18	N.D.	ug/m3	1.0	7.7
Chlorobenzene	12/15/18	N.D.	ug/m3	0.60	4.6

Fraction: Volatile Organics in Air by GC/MS

F1834930AA / VBLKF07B Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,1,1,2-Tetrachloroethane	12/15/18	N.D.	ug/m3	1.0	6.9
Ethylbenzene	12/15/18	N.D.	ug/m3	0.83	4.3
m/p-Xylene	12/15/18	N.D.	ug/m3	1.1	8.7
o-Xylene	12/15/18	N.D.	ug/m3	0.83	4.3
Styrene	12/15/18	N.D.	ug/m3	0.85	4.3
Bromoform	12/15/18	N.D.	ug/m3	1.8	10
Cumene	12/15/18	N.D.	ug/m3	1.2	4.9
1,1,2,2-Tetrachloroethane	12/15/18	N.D.	ug/m3	1.0	6.9
1,2,3-Trichloropropane	12/15/18	N.D.	ug/m3	0.84	6.0
Bromobenzene	12/15/18	N.D.	ug/m3	0.64	6.4
4-Ethyltoluene	12/15/18	N.D.	ug/m3	0.88	4.9
1,3,5-Trimethylbenzene	12/15/18	N.D.	ug/m3	1.6	9.8
1,2,4-Trimethylbenzene	12/15/18	N.D.	ug/m3	1.4	9.8
1,3-Dichlorobenzene	12/15/18	N.D.	ug/m3	1.1	6.0
1,4-Dichlorobenzene	12/15/18	N.D.	ug/m3	1.0	6.0
1,2-Dichlorobenzene	12/15/18	N.D.	ug/m3	1.2	6.0
Hexachloroethane	12/15/18	N.D.	ug/m3	2.6	19

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

LCS: LCSF07Q LCSD: LCSDF07Y **Analyte**	Batch: **F1834930AA** (Sample number(s): 9929275-9929277)							
	Spike Added ug/m3	**LCS Conc ug/m3**	**LCSD Conc ug/m3**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	49.45	54.16	51.85	110	105	74-133	4	25
Chlorodifluoromethane	35.37	38.01	37.75	107	107	70-138	1	25
Chloromethane	20.65	20.44	20.91	99	101	65-140	2	25
Freon 114	69.91	74.94	70.84	107	101	66-126	6	25
Vinyl Chloride	25.56	25.71	24.78	101	97	75-130	4	25
1,3-Butadiene	22.12	20.32	19.57	92	88	72-122	4	25
Bromomethane	38.83	42.47	43.57	109	112	71-133	3	25
Chloroethane	26.38	26.17	27.09	99	103	76-129	3	25
Dichlorofluoromethane	42.09	44.72	45.35	106	108	75-137	1	25
Trichlorofluoromethane	56.18	54.36	54.97	97	98	73-132	1	25
Pentane	29.51	27.19	27.81	92	94	69-125	2	25
1,1-Dichloroethene	39.65	39.28	40.48	99	102	70-129	3	25
Freon 113	76.64	71.65	73.11	93	95	66-119	2	25
Acetone	23.76	25.48	25.01	107	105	71-136	2	25
Carbon Disulfide	31.14	31.31	30.86	101	99	72-128	1	25
3-Chloropropene	31.3	38.14	38.09	122	122	67-141	0	25
Methylene Chloride	34.74	39.89	38.42	115	111	69-128	4	25
trans-1,2-Dichloroethene	39.65	38.95	39.02	98	98	77-128	0	25
Methyl t-Butyl Ether	36.05	34.16	34.61	95	96	71-119	1	25
Hexane	35.25	34.2	33.84	97	96	70-118	1	25
1,1-Dichloroethane	40.47	40.31	39.74	100	98	74-129	1	25
cis-1,2-Dichloroethene	39.65	37.98	37.79	96	95	76-126	0	25
2-Butanone	29.49	29.76	29.39	101	100	75-126	1	25
Chloroform	48.83	48.85	48.12	100	99	75-127	2	25
1,1,1-Trichloroethane	54.56	54.6	53.56	100	98	74-122	2	25
Carbon Tetrachloride	62.91	64.99	62.2	103	99	72-127	4	25
1,2-Dichloroethane	40.47	42.37	43.46	105	107	72-138	3	25
Benzene	31.95	33.37	33.49	104	105	76-123	0	25
Isooctane	46.72	46.36	47.56	99	102	74-127	3	25
Heptane	40.98	38.89	39.83	95	97	74-122	2	25
Trichloroethene	53.74	57.32	56.33	107	105	76-118	2	25
1,2-Dichloropropane	46.21	48.28	47.23	104	102	75-127	2	25
Dibromomethane	71.1	76.53	74.46	108	105	76-124	3	25
Bromodichloromethane	67.01	69.92	67.14	104	100	75-134	4	25
cis-1,3-Dichloropropene	45.39	44.71	44.45	98	98	51-120	1	25
4-Methyl-2-pentanone	40.96	41.8	40.03	102	98	68-133	4	25
Toluene	37.68	36.07	37.33	96	99	78-119	3	25
Octane	46.72	45.43	46.86	97	100	73-122	3	25
trans-1,3-Dichloropropene	45.39	46.17	45.65	102	101	72-119	1	25
1,1,2-Trichloroethane	54.56	54.34	56.96	100	104	76-127	5	25
Tetrachloroethene	67.82	68.35	70.48	101	104	68-123	3	25
2-Hexanone	40.96	39.65	40.03	97	98	63-144	1	25

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

LCS: LCSF07Q LCSD: LCSDF07Y **Analyte**	Batch: **F1834930AA** (Sample number(s): 9929275-9929277)							
	Spike Added ug/m3	**LCS Conc ug/m3**	**LCSD Conc ug/m3**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dibromochloromethane	85.19	86.5	82.95	102	97	74-131	4	25
1,2-Dibromoethane	76.83	75.73	75.52	99	98	73-121	0	25
Chlorobenzene	46.04	44.96	45.81	98	100	76-117	2	25
1,1,1,2-Tetrachloroethane	68.65	70.27	70.28	102	102	73-124	0	25
Ethylbenzene	43.42	41.29	42.35	95	98	77-117	3	25
m/p-Xylene	43.42	41.66	43.45	96	100	78-119	4	25
o-Xylene	43.42	40.45	42.35	93	98	78-121	5	25
Styrene	42.6	43.02	42.8	101	100	76-127	1	25
Bromoform	103.37	102.7	97.41	99	94	69-128	5	25
Cumene	49.16	48.53	51.24	99	104	80-133	5	25
1,1,2,2-Tetrachloroethane	68.65	65.56	66.43	96	97	72-133	1	25
1,2,3-Trichloropropane	60.3	61.13	60.65	101	101	71-127	1	25
Bromobenzene	64.22	64.33	66.39	100	103	74-118	3	25
4-Ethyltoluene	49.16	49.19	51.75	100	105	73-130	5	25
1,3,5-Trimethylbenzene	49.16	51.08	53.95	104	110	72-130	5	25
1,2,4-Trimethylbenzene	49.16	52.24	55.51	106	113	70-138	6	25
1,3-Dichlorobenzene	60.12	59.56	61.83	99	103	75-129	4	25
1,4-Dichlorobenzene	60.12	59.8	61.66	99	103	74-123	3	25
1,2-Dichlorobenzene	60.12	58.81	62.18	98	103	71-126	6	25
Hexachloroethane	96.83	111.77	104.59	115	108	59-135	7	25

Fraction: Volatile Organics in Air by GC/MS

05298: TO 15 VOA Ext. List Analyte Name	Default MDL	Default LOQ	Units
Dichlorodifluoromethane	0.64	4.9	ug/m3
Chlorodifluoromethane	0.53	3.5	ug/m3
Freon 114	0.84	7.0	ug/m3
Chloromethane	0.50	2.1	ug/m3
Vinyl Chloride	0.31	2.6	ug/m3
1,3-Butadiene	0.38	2.2	ug/m3
Bromomethane	0.70	3.9	ug/m3
Chloroethane	0.50	2.6	ug/m3
Dichlorofluoromethane	0.46	4.2	ug/m3
Trichlorofluoromethane	0.84	5.6	ug/m3
Pentane	0.38	3.0	ug/m3
1,1-Dichloroethene	0.56	4.0	ug/m3
Freon 113	0.84	7.7	ug/m3
Acetone	1.3	12	ug/m3
Carbon Disulfide	0.40	3.1	ug/m3
3-Chloropropene	0.47	3.1	ug/m3
Methylene Chloride	0.87	6.9	ug/m3
trans-1,2-Dichloroethene	0.34	4.0	ug/m3
Methyl t-Butyl Ether	0.54	3.6	ug/m3
Hexane	0.46	3.5	ug/m3
1,1-Dichloroethane	0.36	4.0	ug/m3
cis-1,2-Dichloroethene	0.48	4.0	ug/m3
2-Butanone	0.62	2.9	ug/m3
Chloroform	0.45	4.9	ug/m3
1,1,1-Trichloroethane	0.65	5.5	ug/m3
Carbon Tetrachloride	0.88	6.3	ug/m3
1,2-Dichloroethane	0.32	4.0	ug/m3
Benzene	0.35	3.2	ug/m3
Isooctane	0.61	4.7	ug/m3
Heptane	0.94	4.1	ug/m3
Trichloroethene	0.97	5.4	ug/m3
1,2-Dichloropropane	0.60	4.6	ug/m3
Dibromomethane	1.0	7.1	ug/m3
Bromodichloromethane	0.80	6.7	ug/m3
cis-1,3-Dichloropropene	0.45	4.5	ug/m3
4-Methyl-2-pentanone	0.61	4.1	ug/m3
Toluene	0.45	3.8	ug/m3
Octane	1.9	9.3	ug/m3
trans-1,3-Dichloropropene	0.54	4.5	ug/m3
1,1,2-Trichloroethane	0.65	5.5	ug/m3
Tetrachloroethene	1.7	14	ug/m3
2-Hexanone	0.74	4.1	ug/m3
Dibromochloromethane	1.1	8.5	ug/m3
1,2-Dibromoethane	1.0	7.7	ug/m3
Chlorobenzene	0.60	4.6	ug/m3
1,1,1,2-Tetrachloroethane	1.0	6.9	ug/m3
Ethylbenzene	0.83	4.3	ug/m3

Fraction: Volatile Organics in Air by GC/MS

05298: TO 15 VOA Ext. List Analyte Name	Default MDL	Default LOQ	Units
m/p-Xylene	1.1	8.7	ug/m3
o-Xylene	0.83	4.3	ug/m3
Styrene	0.85	4.3	ug/m3
Bromoform	1.8	10	ug/m3
Cumene	1.2	4.9	ug/m3
1,1,2,2-Tetrachloroethane	1.0	6.9	ug/m3
1,2,3-Trichloropropane	0.84	6.0	ug/m3
Bromobenzene	0.64	6.4	ug/m3
4-Ethyltoluene	0.88	4.9	ug/m3
1,3,5-Trimethylbenzene	1.6	9.8	ug/m3
1,2,4-Trimethylbenzene	1.4	9.8	ug/m3
1,3-Dichlorobenzene	1.1	6.0	ug/m3
1,4-Dichlorobenzene	1.0	6.0	ug/m3
1,2-Dichlorobenzene	1.2	6.0	ug/m3
Hexachloroethane	2.6	19	ug/m3

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: fl00210.d

BFB Injection Date: 12/14/2018

Instrument ID: 26379

BFB Injection Time: 09:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	28.76
75	30.0% - 66.0% of mass 95	50.86
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.78
173	< 2.0% of mass 174	0.51 (0.60)
174	> 50.0% of mass 95	84.73
175	4.0% - 9.0% of mass 174	6.23 (7.35)
176	93.0% - 101.0% of mass 174	82.44 (97.30)
177	5.0% - 9.0% of mass 176	5.67 (6.88)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	fl00211.d	12/14/2018	10:19
VSTD005	fl00212.d	12/14/2018	10:50
VSTD002	fl00213.d	12/14/2018	11:20
VSTD001	fl00214.d	12/14/2018	11:51
VSTD025	fl00215.d	12/14/2018	12:21
VSTD070	fl00216.d	12/14/2018	12:52
VBLKF06	fl00218.d	12/14/2018	13:53
LCSF06	fl00221.d	12/14/2018	15:43
LCSDF06	fl00222.d	12/14/2018	16:13
mdlv0.5	fl00223.d	12/14/2018	17:38
mdlv0.2	fl00224.d	12/14/2018	18:08
9922131	fl00225.d	12/14/2018	18:39
9922132DL	fl00226.d	12/14/2018	19:09
9924109DL	fl00227.d	12/14/2018	19:40
9924110	fl00228.d	12/14/2018	20:10
9923229	fl00229.d	12/14/2018	20:41
9923229	fl00230.d	12/14/2018	21:11
9923230DL	fl00231.d	12/14/2018	21:42
9923236	fl00232.d	12/14/2018	22:13
9923237	fl00233.d	12/14/2018	22:43
9923238	fl00234.d	12/14/2018	23:13
9927668	fl00235.d	12/14/2018	23:44
9927669	fl00236.d	12/15/2018	00:14
9927670	fl00237.d	12/15/2018	00:45
9927671	fl00238.d	12/15/2018	01:16

eurofins | Lancaster Laboratories Environmental

FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: fl00240.d

BFB Injection Date: 12/15/2018

Instrument ID: 26379

BFB Injection Time: 10:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	30.53
75	30.0% - 66.0% of mass 95	49.75
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.65
173	< 2.0% of mass 174	0.59 (0.64)
174	> 50.0% of mass 95	91.93
175	4.0% - 9.0% of mass 174	6.57 (7.15)
176	93.0% - 101.0% of mass 174	88.49 (96.26)
177	5.0% - 9.0% of mass 176	5.68 (6.42)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	fl00241.d	12/15/2018	11:32
VBLKF07	fl00242.d	12/15/2018	12:20
LCSF07	fl00243.d	12/15/2018	13:06
LCSDF07	fl00244.d	12/15/2018	13:37
9924109	fl00245.d	12/15/2018	14:25
9923236DL	fl00246.d	12/15/2018	14:55
9927670DL	fl00247.d	12/15/2018	15:26
9927545	fl00248.d	12/15/2018	15:56
9927545	fl00249.d	12/15/2018	16:27
9927552	fl00250.d	12/15/2018	16:57
9927615	fl00251.d	12/15/2018	17:28
9927615DL	fl00252.d	12/15/2018	17:58
9927616	fl00253.d	12/15/2018	18:29
9929275	fl00255.d	12/15/2018	19:30
9929276	fl00256.d	12/15/2018	20:07
9929277	fl00257.d	12/15/2018	20:38
9929306	fl00258.d	12/15/2018	21:10
9929307	fl00259.d	12/15/2018	21:41

Theoretical Standard Concentrations for EPA Method TO-14/15.

Compound Name	Cas No	VSTD001	VSTD002	VSTD005	VSTD010	VSTD025	VSTD70
Bromochloromethane	74-97-5	10.00	10.00	10.00	10.00	10.00	10.00
Propene	115-07-1	1.00	2.00	5.00	10.00	25.00	70.0
Dichlorodifluoromethane	75-71-8	1.00	2.00	5.00	10.00	25.00	
Chlorodifluoromethane	75-45-6	1.00	2.00	5.00	10.00	25.00	
Freon 114	76-14-2	1.00	2.00	5.00	10.00	25.00	
Chloromethane	74-87-3	1.00	2.00	5.00	10.00	25.00	
Vinyl Chloride	75-01-4	1.00	2.00	5.00	10.00	25.00	70.0
1,3-Butadiene	106-99-0	1.00	2.00	5.00	10.00	25.00	
Bromomethane	74-83-9	1.00	2.00	5.00	10.00	25.00	
Chloroethane	75-00-3	1.00	2.00	5.00	10.00	25.00	
Bromoethene	593-60-2	1.00	2.00	5.00	10.00	25.00	
Dichlorofluoromethane	75-43-4	1.00	2.00	5.00	10.00	25.00	
Trichlorofluoromethane	75-69-4	1.00	2.00	5.00	10.00	25.00	
Pentane	109-66-0	1.00	2.00	5.00	10.00	25.00	70.0
Ethanol	9003-99-0	1.00	2.00	5.00	10.00	25.00	
Acrolein	107-02-8	1.00	2.00	5.00	10.00	25.00	
1,1-Dichloroethene	75-35-4	1.00	2.00	5.00	10.00	25.00	70.0
Freon 113	76-13-1	1.00	2.00	5.00	10.00	25.00	
Acetone	67-64-1	1.00	2.00	5.00	10.00	25.00	70.0
Methyl Iodide	74-88-4	1.00	2.00	5.00	10.00	25.00	
Carbon Disulfide	75-15-0	1.00	2.00	5.00	10.00	25.00	
Acetonitrile	75-05-8	1.00	2.00	5.00	10.00	25.00	
3-Chloropropene	107-05-1	1.00	2.00	5.00	10.00	25.00	
Methylene Chloride	75-09-2	1.00	2.00	5.00	10.00	25.00	70.0
tert-Butyl Alcohol	75-65-0	1.12	2.24	5.60	11.20	28.00	78.4
Acrylonitrile	107-13-1	1.00	2.00	5.00	10.00	25.00	
trans-1,2-Dichloroethene	156-60-5	1.00	2.00	5.00	10.00	25.00	70.0
Methyl t-Butyl Ether	1634-04-4	1.00	2.00	5.00	10.00	25.00	
Hexane	110-54-3	1.00	2.00	5.00	10.00	25.00	70.0
1,1-Dichloroethane	75-34-3	1.00	2.00	5.00	10.00	25.00	70.0
Vinyl Acetate	108-05-4	1.00	2.00	5.00	10.00	25.00	
Di-Isopropyl Ether	108-20-3	1.00	2.00	5.00	10.00	25.00	
Ethyl Tert-Butyl Ether	637-92-3	1.00	2.00	5.00	10.00	25.00	
cis-1,2-Dichloroethene	156-59-2	1.00	2.00	5.00	10.00	25.00	70.0
2-Butanone	78-93-3	1.00	2.00	5.00	10.00	25.00	70.0
Ethyl Acetate	141-78-6	1.00	2.00	5.00	10.00	25.00	
Methyl Acrylate	96-33-3	1.00	2.00	5.00	10.00	25.00	
Tetrahydrofuran	77392-70-2	1.00	2.00	5.00	10.00	25.00	
Chloroform	67-66-3	1.00	2.00	5.00	10.00	25.00	
1,1,1-Trichloroethane	71-55-6	1.00	2.00	5.00	10.00	25.00	70.0
Cyclohexane	68411-77-8	1.00	2.00	5.00	10.00	25.00	
Carbon Tetrachloride	56-23-5	1.00	2.00	5.00	10.00	25.00	70.0
1,4-Difluorobenzene	540-36-3	10.00	10.00	10.00	10.00	10.00	10.00
1,2-Dichloroethane	107-06-2	1.00	2.00	5.00	10.00	25.00	70.0
Benzene	71-43-2	1.00	2.00	5.00	10.00	25.00	70.0
Isooctane	540-84-1	1.00	2.00	5.00	10.00	25.00	70.0
Tert Amyl Methyl Ether	64257-84-7	1.00	2.00	5.00	10.00	25.00	
Heptane	142-82-5	1.00	2.00	5.00	10.00	25.00	70.0

Theoretical Standard Concentrations for EPA Method TO-14/15.

Trichloroethene	79-01-6	1.00	2.00	5.00	10.00	25.00	70.0
Ethyl Acrylate	140-88-5	1.00	2.00	5.00	10.00	25.00	
1,2-Dichloropropane	78-87-5	1.00	2.00	5.00	10.00	25.00	
Methyl Methacrylate	80-62-6	1.00	2.00	5.00	10.00	25.00	
Dibromomethane	74-95-3	1.00	2.00	5.00	10.00	25.00	
1,4-Dioxane	123-91-1	1.00	2.00	5.00	10.00	25.00	
Bromodichloromethane	75-27-4	1.00	2.00	5.00	10.00	25.00	
cis-1,3-Dichloropropene	10061-01-5	1.00	2.00	5.00	10.00	25.00	
4-Methyl-2-Pentanone	108-10-1	1.00	2.00	5.00	10.00	25.00	
Chlorobenzene d5	3114-55-4	10.00	10.00	10.00	10.00	10.00	10.00
Toluene	108-88-3	1.00	2.00	5.00	10.00	25.00	70.0
Octane	111-65-9	1.00	2.00	5.00	10.00	25.00	
trans-1,3-Dichloropropene	10061-02-6	1.00	2.00	5.00	10.00	25.00	
Ethyl Methacrylate	97-63-2	1.00	2.00	5.00	10.00	25.00	
1,1,2-Trichloroethane	79-00-5	1.00	2.00	5.00	10.00	25.00	70.0
Tetrachloroethene	127-18-4	1.00	2.00	5.00	10.00	25.00	70.0
2-Hexanone	591-78-6	1.00	2.00	5.00	10.00	25.00	
Dibromochloromethane	124-48-1	1.00	2.00	5.00	10.00	25.00	
1,2-Dibromoethane	106-93-4	1.00	2.00	5.00	10.00	25.00	
Chlorobenzene	108-90-7	1.00	2.00	5.00	10.00	25.00	
1,1,1,2-Tetrachloroethane	630-20-6	1.00	2.00	5.00	10.00	25.00	
Ethylbenzene	100-41-4	1.00	2.00	5.00	10.00	25.00	70.0
m/p-Xylene	1330-20-7	1.00	2.00	5.00	10.00	25.00	70.0
o-Xylene	95-47-6	1.00	2.00	5.00	10.00	25.00	70.0
Styrene	100-42-5	1.00	2.00	5.00	10.00	25.00	
Bromoform	75-25-2	1.00	2.00	5.00	10.00	25.00	
Cumene	98-82-8	1.00	2.00	5.00	10.00	25.00	
1,1,2,2-Tetrachloroethane	79-34-5	1.00	2.00	5.00	10.00	25.00	
1,2,3-Trichloropropane	96-18-4	1.00	2.00	5.00	10.00	25.00	
n-Propylbenzene	74296-31-4	1.00	2.00	5.00	10.00	25.00	
2-Chlorotoluene	95-49-8	1.00	2.00	5.00	10.00	25.00	
Bromobenzene	108-86-1	1.00	2.00	5.00	10.00	25.00	
4-Ethyltoluene	622-96-8	1.00	2.00	5.00	10.00	25.00	
1,3,5-Trimethylbenzene	108-67-8	1.00	2.00	5.00	10.00	25.00	
Alpha Methyl Styrene	611-15-1	1.00	2.00	5.00	10.00	25.00	
tert-Butylbenzene	98-06-6	1.00	2.00	5.00	10.00	25.00	
1,2,4-Trimethylbenzene	95-63-6	1.00	2.00	5.00	10.00	25.00	
sec-Butylbenzene	68411-44-9	1.00	2.00	5.00	10.00	25.00	
1,3-Dichlorobenzene	541-73-1	1.00	2.00	5.00	10.00	25.00	
1,4-Dichlorobenzene	106-46-7	1.00	2.00	5.00	10.00	25.00	
p-Isopropyltoluene	99-87-6	1.00	2.00	5.00	10.00	25.00	
Benzyl chloride	100-44-7	1.00	2.00	5.00	10.00	25.00	
1,2-Dichlorobenzene	95-50-1	1.00	2.00	5.00	10.00	25.00	
n-Butylbenzene	74296-32-5	1.00	2.00	5.00	10.00	25.00	
Hexachloroethane	67-72-1	1.00	2.00	5.00	10.00	25.00	
1,2-Dibromo-3-Chloropropane	96-12-8	1.00	2.00	5.00	10.00	25.00	
1,2,4-Trichlorobenzene	120-82-1	1.00	2.00	5.00	10.00	25.00	
Hexachlorobutadiene	87-68-3	1.00	2.00	5.00	10.00	25.00	
Naphthalene	91-20-3	1.00	2.00	5.00	10.00	25.00	

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 12/14/2018 Calibration End Date: 12/14/2018

Calibration Start Time: 10:19 Calibration End Time: 12:52

LAB FILE IDs:
RRF 1 = fl00214.d RRF 2 = fl00213.d RRF 5 = fl00212.d RRF 10 = fl00211.d RRF 25 = fl00215.d
RRF 70 = fl00216.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Propene	1.173	1.406	1.389	1.437	1.433	1.486	1.387	8	AVG
Dichlorodifluoromethane	2.684	3.186	3.297	3.655	3.476	3.512	3.302	10	AVG
Chlorodifluoromethane	2.849	3.069	2.957	3.112	3.075	2.986	3.008	3	AVG
Freon 114	3.238	3.253	3.258	3.476	3.320	3.348	3.315	3	AVG
Chloromethane	1.573	1.630	1.625	1.605	1.616	1.534	1.597	2	AVG
Vinyl Chloride	0.990	1.032	1.062	1.079	1.041	1.116	1.053	4	AVG
1,3-Butadiene	1.007	0.993	1.012	1.077	0.980	1.125	1.032	5	AVG
Bromomethane	0.784	0.931	0.999	1.100	1.023	1.085	0.987	12	AVG
Chloroethane	0.712	0.766	0.745	0.803	0.812	0.822	0.777	6	AVG
Bromoethene	0.811	0.938	1.031	1.055	1.083	1.156	1.012	12	AVG
Dichlorofluoromethane	2.361	2.952	2.920	3.037	2.987	2.960	2.869	9	AVG
Trichlorofluoromethane	3.468	3.402	3.247	3.356	3.309	3.287	3.345	2	AVG
Pentane	2.751	2.914	2.930	3.006	3.127	3.151	2.980	5	AVG
Ethanol	0.513	0.569	0.562	0.550	0.553	0.650	0.566	8	AVG
Freon123a	2.587	2.529	2.573	2.608	2.584	2.562	2.574	1	AVG
Acrolein	0.536	0.615	0.591	0.649	0.658	0.708	0.626	9	AVG
1,1-Dichloroethene	1.957	2.306	2.425	2.533	2.573	2.667	2.410	11	AVG
Freon 113	2.016	1.897	1.762	1.766	1.771	1.691	1.817	6	AVG
Acetone	2.328	2.565	2.584	2.716	2.622	2.660	2.579	5	AVG
Methyl Iodide	2.298	2.774	2.759	2.448	2.857	2.535	2.612	8	AVG
Carbon Disulfide	2.773	3.178	3.352	3.523	3.506	3.526	3.310	9	AVG
Isopropanol	2.000	2.263	2.506	2.440	2.594	3.008	2.468	14	AVG
Acetonitrile	1.191	1.429	1.480	1.522	1.554	1.566	1.457	10	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 12/14/2018 Calibration End Date: 12/14/2018

Calibration Start Time: 10:19 Calibration End Time: 12:52

LAB FILE IDs:
RRF 1 = fl00214.d RRF 2 = fl00213.d RRF 5 = fl00212.d RRF 10 = fl00211.d RRF 25 = fl00215.d
RRF 70 = fl00216.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
3-Chloropropene	1.726	1.874	1.962	2.105	2.187	2.287	2.024	10	AVG
Methylene Chloride	0.862	0.924	1.006	1.043	1.048	1.031	0.986	8	AVG
tert-Butyl Alcohol	2.787	2.993	2.955	2.945	3.095	3.366	3.023	6	AVG
Acrylonitrile	1.229	1.386	1.423	1.513	1.521	1.578	1.442	9	AVG
trans-1,2-Dichloroethene	1.913	2.218	2.319	2.396	2.402	2.472	2.287	9	AVG
Methyl t-Butyl Ether	3.006	3.218	3.316	3.350	3.529	3.490	3.318	6	AVG
Hexane	1.748	1.682	1.653	1.726	1.762	1.742	1.719	2	AVG
1,1-Dichloroethane	2.677	2.880	2.863	2.959	2.909	2.956	2.874	4	AVG
Vinyl Acetate	3.460	3.872	4.107	4.412	4.777	5.017	4.274	14	AVG
Di-Isopropyl Ether	5.075	5.464	5.389	5.706	5.987	6.167	5.631	7	AVG
Ethyl Tert-Butyl Ether	4.338	4.701	4.816	5.050	5.364	5.614	4.980	9	AVG
cis-1,2-Dichloroethene	1.922	2.064	2.174	2.269	2.297	2.405	2.188	8	AVG
2-Butanone	3.208	3.526	3.554	3.713	3.681	3.737	3.570	6	AVG
Ethyl Acetate	3.563	3.848	3.846	3.997	4.029	4.159	3.907	5	AVG
Methyl Acrylate	2.551	2.806	2.955	3.160	3.232	3.382	3.014	10	AVG
Tetrahydrofuran	1.643	1.766	1.842	2.062	2.084	2.111	1.918	10	AVG
Chloroform	2.535	2.717	2.742	2.904	2.854	2.846	2.766	5	AVG
1,1,1-Trichloroethane	2.763	2.911	2.780	2.799	2.884	2.825	2.827	2	AVG
Cyclohexane	2.583	2.742	2.657	2.709	2.964	3.027	2.780	6	AVG
Carbon Tetrachloride	2.485	2.477	2.462	2.526	2.623	2.716	2.548	4	AVG
Benzene	1.089	1.124	1.120	1.159	1.126	1.092	1.118	2	AVG
1,2-Dichloroethane	0.646	0.674	0.671	0.704	0.672	0.657	0.671	3	AVG
Isooctane	2.021	2.146	2.271	2.400	2.467	2.433	2.290	8	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 12/14/2018 Calibration End Date: 12/14/2018

Calibration Start Time: 10:19 Calibration End Time: 12:52

LAB FILE IDs:
RRF 1 = fl00214.d RRF 2 = fl00213.d RRF 5 = fl00212.d RRF 10 = fl00211.d RRF 25 = fl00215.d
RRF 70 = fl00216.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Tert-Amyl Methyl Ether	0.847	0.917	0.957	1.002	1.018	1.045	0.964	8	AVG
Heptane	0.339	0.351	0.361	0.378	0.386	0.395	0.368	6	AVG
Trichloroethene	0.446	0.450	0.465	0.481	0.470	0.475	0.465	3	AVG
Ethyl Acrylate	1.022	1.012	1.066	1.118	1.146	1.199	1.094	7	AVG
1,2-Dichloropropane	0.570	0.566	0.564	0.566	0.548	0.522	0.556	3	AVG
Dibromomethane	0.484	0.509	0.510	0.541	0.508	0.508	0.510	4	AVG
1,4-Dioxane	0.228	0.240	0.250	0.267	0.258	0.265	0.251	6	AVG
Methyl Methacrylate	0.342	0.361	0.357	0.382	0.384	0.410	0.373	6	AVG
Bromodichloromethane	0.849	0.863	0.868	0.903	0.851	0.833	0.861	3	AVG
cis-1,3-Dichloropropene	0.629	0.642	0.666	0.692	0.684	0.702	0.669	4	AVG
4-Methyl-2-Pentanone	1.402	1.326	1.295	1.331	1.320	1.265	1.323	3	AVG
Toluene	1.479	1.396	1.356	1.372	1.327	1.321	1.375	4	AVG
Octane	1.311	1.293	1.276	1.326	1.387	1.328	1.320	3	AVG
trans-1,3-Dichloropropene	0.582	0.564	0.609	0.616	0.604	0.629	0.601	4	AVG
Ethyl Methacrylate	0.626	0.571	0.604	0.636	0.667	0.720	0.637	8	AVG
1,1,2-Trichloroethane	0.586	0.546	0.534	0.538	0.497	0.488	0.531	7	AVG
Tetrachloroethene	0.808	0.829	0.807	0.811	0.755	0.736	0.791	5	AVG
2-Hexanone	1.353	1.250	1.256	1.327	1.280	1.272	1.290	3	AVG
Dibromochloromethane	0.672	0.675	0.645	0.669	0.621	0.649	0.655	3	AVG
1,2-Dibromoethane	0.832	0.827	0.796	0.794	0.755	0.760	0.794	4	AVG
Chlorobenzene	1.260	1.225	1.161	1.188	1.111	1.081	1.171	6	AVG
1,1,1,2-Tetrachloroethane	0.642	0.615	0.610	0.610	0.582	0.565	0.604	4	AVG
Ethylbenzene	2.023	1.884	1.846	1.925	1.844	****	1.905	4	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 12/14/2018 Calibration End Date: 12/14/2018

Calibration Start Time: 10:19 Calibration End Time: 12:52

LAB FILE IDs:
RRF 1 = fl00214.d RRF 2 = fl00213.d RRF 5 = fl00212.d RRF 10 = fl00211.d RRF 25 = fl00215.d
RRF 70 = fl00216.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
m/p-Xylene	1.447	1.336	1.334	1.402	1.368	1.352	1.373	3	AVG
o-Xylene	1.299	1.312	1.323	1.399	1.389	1.395	1.353	3	AVG
Styrene	0.909	0.906	0.939	1.022	1.014	1.015	0.968	6	AVG
Bromoform	0.955	0.912	0.901	0.943	0.894	0.913	0.920	3	AVG
Cumene	1.821	1.766	1.826	1.948	1.937	****	1.860	4	AVG
Bromobenzene	0.771	0.744	0.759	0.748	0.713	0.678	0.736	5	AVG
1,1,2,2-Tetrachloroethane	1.346	1.211	1.186	1.175	1.094	****	1.202	8	AVG
1,2,3-Trichloropropane	0.403	0.376	0.345	0.364	0.329	0.321	0.356	9	AVG
n-Propylbenzene	0.511	0.505	0.527	0.552	0.558	0.561	0.536	5	AVG
2-Chlorotoluene	0.493	0.494	0.491	0.502	0.494	0.492	0.494	1	AVG
4-Ethyltoluene	1.809	1.721	1.830	1.943	1.946	****	1.850	5	AVG
1,3,5-Trimethylbenzene	1.482	1.468	1.553	1.680	1.666	1.589	1.573	6	AVG
Alpha Methyl Styrene	0.613	0.552	0.618	0.718	0.778	****	0.656	14	AVG
tert-Butylbenzene	1.376	1.363	1.462	1.545	1.545	****	1.458	6	AVG
1,2,4-Trimethylbenzene	1.374	1.376	1.486	1.600	1.651	****	1.497	8	AVG
sec-Butylbenzene	2.193	2.160	2.256	2.380	2.427	****	2.283	5	AVG
1,3-Dichlorobenzene	1.188	1.199	1.152	1.144	1.176	****	1.172	2	AVG
1,4-Dichlorobenzene	1.203	1.155	1.128	1.137	1.182	****	1.161	3	AVG
p-Isopropyltoluene	1.606	1.623	1.734	1.856	1.968	****	1.757	9	AVG
Benzyl Chloride	0.193	0.198	0.211	0.230	0.278	****	0.222	15	AVG
1,2-Dichlorobenzene	1.124	1.082	1.048	1.040	1.092	1.053	1.073	3	AVG
n-Butylbenzene	0.908	0.909	0.987	1.065	1.220	****	1.018	13	AVG
Hexachloroethane	0.408	0.421	0.437	0.477	0.575	0.624	0.490	18	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Instrument ID: 26379 Calibration Start Date: 12/14/2018 Calibration End Date: 12/14/2018

Calibration Start Time: 10:19 Calibration End Time: 12:52

LAB FILE IDs:
RRF 1 = fl00214.d RRF 2 = fl00213.d RRF 5 = fl00212.d RRF 10 = fl00211.d RRF 25 = fl00215.d
RRF 70 = fl00216.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane	0.424	0.424	0.439	0.462	0.606	0.619	0.496	18	AVG
1,2,4-Trichlorobenzene	0.591	0.614	0.625	0.644	0.865	0.883	0.704	19	AVG
Hexachlorobutadiene	0.688	0.641	0.613	0.628	0.787	0.820	0.696	13	AVG
Naphthalene	0.890	0.952	1.061	1.103	1.644	****	1.130	27	AVG

Average % RSD: 7

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* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
# Average RRF for all compounds must be greater than 0.010.

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP26379.i/18dec14.b/fl00211.d VSTD010
/chem/HP26379.i/18dec14.b/fl00212.d VSTD005
/chem/HP26379.i/18dec14.b/fl00213.d VSTD002
/chem/HP26379.i/18dec14.b/fl00214.d VSTD001
/chem/HP26379.i/18dec14.b/fl00215.d VSTD025
/chem/HP26379.i/18dec14.b/fl00216.d VSTD070

Area Summary

Internal Standard Name	File ID: fl00211.d	fl00212.d	fl00213.d	fl00214.d	fl00215.d	fl00216.d	Avg. Area	%RSD	In Spec
Bromochloromethane	378389	381634	361028	367994	366597	378663	372384	2	Yes
1,4-Difluorobenzene	1320260	1318463	1253585	1235154	1295638	1378514	1300269	4	Yes
Chlorobenzene-d5	1297228	1271707	1203807	1177222	1261024	1320463	1255242	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

Internal Standard Name	File ID: fl00211.d	fl00212.d	fl00213.d	fl00214.d	fl00215.d	fl00216.d	Avg. RT
Bromochloromethane	11.086	11.094	11.101	11.093	11.094	11.101	11.095
1,4-Difluorobenzene	13.386	13.386	13.386	13.386	13.386	13.386	13.386
Chlorobenzene-d5	18.221	18.221	18.228	18.221	18.228	18.221	18.223

Comments:_____

_____

Report generated on 12/14/2018 at 13:56

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fl00221.d LCSD File ID: fl00222.d

Batch: F1834830AA LCS Injected: 12/14/2018 LCSD Injected: 12/14/2018

Method: EPA TO-15 LCS Client ID: LCSF06 LCSD Client ID: LCSDF06

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Propene	10.00	9.68	10.16	97	102	78-126	5	25	YES
Dichlorodifluoromethane	10.00	10.39	10.95	104	110	74-133	5	25	YES
Chlorodifluoromethane	10.00	10.53	10.71	105	107	70-138	2	25	YES
Freon 114	10.00	10.21	10.55	102	105	66-126	3	25	YES
Chloromethane	10.00	10.10	10.35	101	103	65-140	2	25	YES
Vinyl Chloride	10.00	10.40	10.66	104	107	75-130	2	25	YES
1,3-Butadiene	10.00	8.93	9.52	89	95	72-122	6	25	YES
Bromomethane	10.00	11.04	10.85	110	109	71-133	2	25	YES
Chloroethane	10.00	10.29	10.69	103	107	76-129	4	25	YES
Dichlorofluoromethane	10.00	10.75	11.15	108	112	75-137	4	25	YES
Trichlorofluoromethane	10.00	9.72	10.06	97	101	73-132	3	25	YES
Pentane	10.00	9.43	9.99	94	100	69-125	6	25	YES
Acrolein	10.00	10.43	11.00	104	110	54-132	5	25	YES
1,1-Dichloroethene	10.00	10.30	10.78	103	108	70-129	5	25	YES
Freon 113	10.00	9.71	9.76	97	98	66-119	1	25	YES
Acetone	10.00	10.71	10.69	107	107	71-136	0	25	YES
Methyl Iodide	10.00	9.38	9.94	94	99	72-127	6	25	YES
Carbon Disulfide	10.00	10.12	10.33	101	103	72-128	2	25	YES
Acetonitrile	10.00	11.47	11.60	115	116	56-136	1	25	YES
3-Chloropropene	10.00	12.39	12.83	124	128	67-141	4	25	YES
Methylene Chloride	10.00	11.58	11.75	116	118	69-128	1	25	YES
Acrylonitrile	10.00	10.32	10.79	103	108	68-135	4	25	YES
trans-1,2-Dichloroethene	10.00	10.18	10.49	102	105	77-128	3	25	YES
Methyl t-Butyl Ether	10.00	9.93	10.19	99	102	71-119	3	25	YES
Hexane	10.00	10.05	10.15	100	101	70-118	1	25	YES
1,1-Dichloroethane	10.00	10.04	10.29	100	103	74-129	2	25	YES
Vinyl Acetate	10.00	11.59	12.27	116	123	75-161	6	25	YES
cis-1,2-Dichloroethene	10.00	9.88	10.19	99	102	76-126	3	25	YES
2-Butanone	10.00	10.41	10.46	104	105	75-126	0	25	YES
Ethyl Acetate	10.00	9.98	10.28	100	103	73-124	3	25	YES
Methyl Acrylate	10.00	10.30	10.56	103	106	75-125	2	25	YES
Chloroform	10.00	10.30	10.38	103	104	75-127	1	25	YES
1,1,1-Trichloroethane	10.00	10.13	10.10	101	101	74-122	0	25	YES
Carbon Tetrachloride	10.00	10.28	10.19	103	102	72-127	1	25	YES
Benzene	10.00	10.50	10.41	105	104	76-123	1	25	YES
1,2-Dichloroethane	10.00	10.69	10.73	107	107	72-138	0	25	YES

COMMENTS:
Applies to Sample(s): 9922131-9922132, 99241099924110

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fl00221.d LCSD File ID: fl00222.d

Batch: F1834830AA LCS Injected: 12/14/2018 LCSD Injected: 12/14/2018

Method: EPA TO-15 LCS Client ID: LCSF06 LCSD Client ID: LCSDF06

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Isooctane	10.00	10.26	10.43	103	104	74-127	2	25	YES
Heptane	10.00	10.10	9.97	101	100	74-122	1	25	YES
Trichloroethene	10.00	10.58	10.53	106	105	76-118	0	25	YES
Ethyl Acrylate	10.00	10.43	10.31	104	103	71-126	1	25	YES
1,2-Dichloropropane	10.00	10.60	10.29	106	103	75-127	3	25	YES
Dibromomethane	10.00	10.52	10.42	105	104	76-124	1	25	YES
1,4-Dioxane	10.00	10.73	10.82	107	108	76-124	1	25	YES
Methyl Methacrylate	10.00	10.11	9.80	101	98	73-117	3	25	YES
Bromodichloromethane	10.00	10.40	9.91	104	99	75-134	5	25	YES
cis-1,3-Dichloropropene	10.00	10.33	9.99	103	100	51-120	3	25	YES
4-Methyl-2-Pentanone	10.00	10.35	9.95	104	100	79-131	4	25	YES
Toluene	10.00	10.03	10.13	100	101	78-119	1	25	YES
Octane	10.00	10.12	10.37	101	104	73-122	3	25	YES
trans-1,3-Dichloropropene	10.00	10.41	10.08	104	101	76-131	3	25	YES
Ethyl Methacrylate	10.00	10.33	9.99	103	100	69-137	3	25	YES
1,1,2-Trichloroethane	10.00	10.49	10.24	105	102	76-127	2	25	YES
Tetrachloroethene	10.00	10.51	10.43	105	104	68-123	1	25	YES
2-Hexanone	10.00	10.36	9.92	104	99	74-134	4	25	YES
Dibromochloromethane	10.00	10.27	9.55	103	96	74-131	7	25	YES
1,2-Dibromoethane	10.00	10.32	9.87	103	99	73-121	4	25	YES
Chlorobenzene	10.00	10.06	10.11	101	101	76-117	0	25	YES
1,1,1,2-Tetrachloroethane	10.00	10.35	9.77	103	98	73-137	6	25	YES
Ethylbenzene	10.00	9.94	10.05	99	100	77-117	1	25	YES
m/p-Xylene	10.00	10.18	10.48	102	105	78-119	3	25	YES
o-Xylene	10.00	9.97	10.27	100	103	78-121	3	25	YES
Styrene	10.00	10.49	10.41	105	104	77-143	1	25	YES
Bromoform	10.00	10.02	9.27	100	93	58-144	8	25	YES
Cumene	10.00	10.65	10.85	106	109	80-133	2	25	YES
Bromobenzene	10.00	10.39	10.37	104	104	74-118	0	25	YES
1,1,2,2-Tetrachloroethane	10.00	9.83	9.59	98	96	72-133	2	25	YES
1,2,3-Trichloropropane	10.00	10.50	10.10	105	101	71-127	4	25	YES
4-Ethyltoluene	10.00	10.56	10.98	106	110	73-130	4	25	YES
1,3,5-Trimethylbenzene	10.00	10.80	11.10	108	111	72-130	3	25	YES
Alpha Methyl Styrene	10.00	11.24	11.00	112	110	71-138	2	25	YES
1,2,4-Trimethylbenzene	10.00	11.12	11.54	111	115	70-138	4	25	YES
1,3-Dichlorobenzene	10.00	10.22	10.31	102	103	75-129	1	25	YES

COMMENTS:
Applies to Sample(s): 9922131-9922132, 99241099924110

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fl00221.d LCSD File ID: fl00222.d

Batch: F1834830AA LCS Injected: 12/14/2018 LCSD Injected: 12/14/2018

Method: EPA TO-15 LCS Client ID: LCSF06 LCSD Client ID: LCSDF06

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
1,4-Dichlorobenzene	10.00	10.04	10.26	100	103	74-123	2	25	YES
1,2-Dichlorobenzene	10.00	10.02	10.16	100	102	71-126	1	25	YES
Hexachloroethane	10.00	11.28	10.36	113	104	59-135	8	25	YES
1,2,4-Trichlorobenzene	10.00	10.06	11.00	101	110	45-156	9	25	YES
Hexachlorobutadiene	10.00	10.13	10.54	101	105	49-154	4	25	YES

COMMENTS:
Applies to Sample(s): 9922131-9922132, 99241099924110

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fl00241.d

Calibration Date: 12/15/2018

Instrument ID: 26379

Calibration Time: 11:32

Init. Calib. Date(s): 12/14/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	1.387	1.357	9.778	10	-2
Dichlorodifluoromethane	3.302	3.563	10.793	10	8
Chlorodifluoromethane	3.008	3.154	10.485	10	5
Freon 114	3.315	3.451	10.408	10	4
Chloromethane	1.597	1.581	9.901	10	-1
Vinyl Chloride	1.053	1.038	9.859	10	-1
1,3-Butadiene	1.032	0.985	9.542	10	-5
Bromomethane	0.987	1.047	10.611	10	6
Chloroethane	0.777	0.765	9.848	10	-2
Bromoethene	1.012	0.981	9.694	10	-3
Dichlorofluoromethane	2.869	2.904	10.122	10	1
Trichlorofluoromethane	3.345	3.193	9.544	10	-5
Pentane	2.980	2.842	9.538	10	-5
Ethanol	0.566	0.561	9.906	10	-1
Freon123a	2.574	2.467	10.639	11.1	-4
Acrolein	0.626	0.569	9.096	10	-9
1,1-Dichloroethene	2.410	2.332	9.677	10	-3
Freon 113	1.817	1.683	9.264	10	-7
Acetone	2.579	2.600	10.082	10	1
Methyl Iodide	2.612	2.078	7.956	10	-20
Carbon Disulfide	3.310	3.358	10.148	10	1
Isopropanol	2.468	2.461	9.970	10	0
Acetonitrile	1.457	1.510	10.364	10	4
3-Chloropropene	2.024	1.982	10.873	11.1	-2
Methylene Chloride	0.986	0.994	11.190	11.1	1
tert-Butyl Alcohol	3.023	2.935	10.777	11.1	-3
Acrylonitrile	1.442	1.432	9.937	10	-1
trans-1,2-Dichloroethene	2.287	2.228	9.744	10	-3
Methyl t-Butyl Ether	3.318	3.060	9.222	10	-8
Hexane	1.719	1.610	9.367	10	-6
1,1-Dichloroethane	2.874	2.819	9.810	10	-2
Vinyl Acetate	4.274	4.339	11.369	11.2	2
Di-Isopropyl Ether	5.631	5.180	9.198	10	-8
Ethyl Tert-Butyl Ether	4.980	4.516	9.068	10	-9
cis-1,2-Dichloroethene	2.188	2.085	9.526	10	-5
2-Butanone	3.570	3.581	10.032	10	0
Ethyl Acetate	3.907	3.803	9.735	10	-3
Methyl Acrylate	3.014	2.881	9.558	10	-4
Tetrahydrofuran	1.918	1.900	9.906	10	-1

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fl00241.d

Calibration Date: 12/15/2018

Instrument ID: 26379

Calibration Time: 11:32

Init. Calib. Date(s): 12/14/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	2.766	2.775	10.032	10	0
1,1,1-Trichloroethane	2.827	2.722	9.628	10	-4
Cyclohexane	2.780	2.421	8.707	10	-13
Carbon Tetrachloride	2.548	2.540	9.967	10	0
Benzene	1.118	1.178	10.534	10	5
1,2-Dichloroethane	0.671	0.706	10.523	10	5
Isooctane	2.290	2.261	9.875	10	-1
Tert-Amyl Methyl Ether	0.964	0.932	9.664	10	-3
Heptane	0.368	0.347	9.426	10	-6
Trichloroethene	0.465	0.461	9.918	10	-1
Ethyl Acrylate	1.094	1.030	9.413	10	-6
1,2-Dichloropropane	0.556	0.566	10.190	10	2
Dibromomethane	0.510	0.524	10.267	10	3
1,4-Dioxane	0.251	0.256	10.179	10	2
Methyl Methacrylate	0.373	0.352	9.452	10	-5
Bromodichloromethane	0.861	0.882	10.237	10	2
cis-1,3-Dichloropropene	0.669	0.638	9.540	10	-5
4-Methyl-2-Pentanone	1.323	1.279	9.665	10	-3
Toluene	1.375	1.339	9.739	10	-3
Octane	1.320	1.289	9.767	10	-2
trans-1,3-Dichloropropene	0.601	0.602	10.029	10	0
Ethyl Methacrylate	0.637	0.593	9.307	10	-7
1,1,2-Trichloroethane	0.531	0.539	10.151	10	2
Tetrachloroethene	0.791	0.818	10.339	10	3
2-Hexanone	1.290	1.217	9.433	10	-6
Dibromochloromethane	0.655	0.649	9.907	10	-1
1,2-Dibromoethane	0.794	0.797	10.041	10	0
Chlorobenzene	1.171	1.194	10.198	10	2
1,1,1,2-Tetrachloroethane	0.604	0.608	10.066	10	1
Ethylbenzene	1.905	1.874	9.840	10	-2
m/p-Xylene	1.373	1.363	9.930	10	-1
o-Xylene	1.353	1.291	9.542	10	-5
Styrene	0.968	0.940	9.711	10	-3
Bromoform	0.920	0.908	9.873	10	-1
Cumene	1.860	1.858	9.992	10	0
Bromobenzene	0.736	0.779	10.591	10	6
1,1,2,2-Tetrachloroethane	1.202	1.179	9.809	10	-2
1,2,3-Trichloropropane	0.356	0.358	10.035	10	0
n-Propylbenzene	0.536	0.546	10.190	10	2

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fl00241.d

Calibration Date: 12/15/2018

Instrument ID: 26379

Calibration Time: 11:32

Init. Calib. Date(s): 12/14/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.494	0.511	10.339	10	3
4-Ethyltoluene	1.850	1.944	10.508	10	5
1,3,5-Trimethylbenzene	1.573	1.670	10.616	10	6
Alpha Methyl Styrene	0.656	0.650	9.919	10	-1
tert-Butylbenzene	1.458	1.523	10.447	10	4
1,2,4-Trimethylbenzene	1.497	1.600	10.683	10	7
sec-Butylbenzene	2.283	2.409	10.552	10	6
1,3-Dichlorobenzene	1.172	1.200	10.243	10	2
1,4-Dichlorobenzene	1.161	1.184	10.199	10	2
p-Isopropyltoluene	1.757	1.842	10.479	10	5
Benzyl Chloride	0.222	0.240	10.814	10	8
1,2-Dichlorobenzene	1.073	1.079	10.053	10	1
n-Butylbenzene	1.018	1.075	10.557	10	6
Hexachloroethane	0.490	0.522	10.639	10	6
1,2-Dibromo-3-chloropropane	0.496	0.477	9.626	10	-4
1,2,4-Trichlorobenzene	0.704	0.623	8.854	10	-11
Hexachlorobutadiene	0.696	0.609	8.751	10	-12
Naphthalene	1.130	1.019	9.020	10	-10

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP26379.i/18dec14.b/fl00211.d
/chem/HP26379.i/18dec14.b/fl00212.d
/chem/HP26379.i/18dec14.b/fl00213.d
/chem/HP26379.i/18dec14.b/fl00214.d
/chem/HP26379.i/18dec14.b/fl00215.d
/chem/HP26379.i/18dec14.b/fl00216.d

** ICAL Area and RT are the average from the above standards.

Current Continuing Calibration Standard:

/chem/HP26379.i/18dec15.b/fl00241.d

Area Summary

File ID:

Internal Standard Name	fl00241.d	ICAL Area	Low Limit	High Limit	In Spec
Bromochloromethane	362862	372384	223430	521338	Yes
1,4-Difluorobenzene	1200035	1300269	780161	1820377	Yes
Chlorobenzene-d5	1192352	1255242	753145	1757339	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	fl00241.d	ICAL RT	In Spec
Bromochloromethane	11.101	11.095	Yes
1,4-Difluorobenzene	13.386	13.386	Yes
Chlorobenzene-d5	18.228	18.223	Yes

A "No" indicates the retention time is greater than 30 seconds from the RT of the referenced ICAL average.

Comments:_____

_____

Page 1 of 1

Report generated on 12/15/2018 at 12:07

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 12/15/2018

Lab File ID: fl00241.d Analyzed Time: 11:32

Instrument ID: 26379

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	R.T.	Area	R.T.	Area	R.T.
24 HOUR STANDARD	362862	11.10	1200035	13.39	1192385	18.23
UPPER LIMIT	508007	11.43	1680049	13.72	1669339	18.56
LOWER LIMIT	217717	10.77	720021	13.06	715431	17.90
LAB SAMPLE ID						
VBLKF07	368951	11.10	1144396	13.39	1174240	18.23
LCSF07	372587	11.09	1241442	13.39	1249087	18.22
LCSDF07	366579	11.11	1205356	13.39	1192340	18.23
9924109	345833	11.09	1626175	13.38	1402482	18.22
9923236DL	413317	11.10	1388321	13.39	1318268	18.23
9927670DL	375427	11.10	1215277	13.39	1182999	18.23
9927545	357711	11.11	1183359	13.39	1207300	18.23
9927545	344921	11.11	1132437	13.39	1138354	18.23
9927552	324301	11.11	1102064	13.39	1143621	18.23
9927615	356352	11.10	1383632	13.39	1257347	18.23
9927615DL	381622	11.09	1248112	13.39	1198229	18.22
9927616	345002	11.10	1080606	13.39	1121269	18.23
9929275	334184	11.11	1067310	13.39	1065213	18.23
9929276	315777	11.12	1067905	13.39	1080634	18.22
9929277	342615	11.11	1105458	13.39	1167336	18.22
9929306	307072	11.11	1220812	13.39	1213979	18.23
9929307	320836	11.11	1094073	13.39	1097087	18.23

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Sample Data

Volatile Organics in Air by GC/MS

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929275
Canister ID:	1262	Lab File ID:	fl00255.d
Pressure Received:	15.5 psia	Date Collected:	12/05/2018
Final Pressure:	31.0 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	19:30
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.95	J
75-45-6	Chlorodifluoromethane	0.53	U
76-14-2	Freon 114	0.84	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.31	U
106-99-0	1,3-Butadiene	0.38	U
74-83-9	Bromomethane	0.70	U
75-00-3	Chloroethane	0.50	U
75-43-4	Dichlorofluoromethane	0.46	U
75-69-4	Trichlorofluoromethane	0.84	U
109-66-0	Pentane	11	
75-35-4	1,1-Dichloroethene	0.56	U
76-13-1	Freon 113	0.84	U
67-64-1	Acetone	5.4	J
75-15-0	Carbon Disulfide	0.40	U
107-05-1	3-Chloropropene	0.47	U
75-09-2	Methylene Chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.34	U
1634-04-4	Methyl t-Butyl Ether	0.54	U
110-54-3	Hexane	4.5	
75-34-3	1,1-Dichloroethane	0.36	U
156-59-2	cis-1,2-Dichloroethene	0.48	U
78-93-3	2-Butanone	1.7	J
67-66-3	Chloroform	0.45	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929275
Canister ID:	1262	Lab File ID:	fl00255.d
Pressure Received:	15.5 psia	Date Collected:	12/05/2018
Final Pressure:	31.0 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	19:30
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
71-55-6	1,1,1-Trichloroethane	0.65	U
56-23-5	Carbon Tetrachloride	0.88	U
71-43-2	Benzene	2.2	J
107-06-2	1,2-Dichloroethane	0.32	U
540-84-1	Isooctane	4.5	J
142-82-5	Heptane	2.0	J
79-01-6	Trichloroethene	0.97	U
78-87-5	1,2-Dichloropropane	0.60	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	0.80	U
10061-01-5	cis-1,3-Dichloropropene	0.45	U
108-10-1	4-Methyl-2-Pentanone	0.61	U
108-88-3	Toluene	8.4	
111-65-9	Octane	1.9	U
10061-02-6	trans-1,3-Dichloropropene	0.54	U
79-00-5	1,1,2-Trichloroethane	0.65	U
127-18-4	Tetrachloroethene	1.7	U
591-78-6	2-Hexanone	0.74	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	0.60	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	2.0	J
179601-23-1	m/p-Xylene	7.5	J

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929275
Canister ID:	1262	Lab File ID:	fl00255.d
Pressure Received:	15.5 psia	Date Collected:	12/05/2018
Final Pressure:	31.0 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	19:30
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
95-47-6	o-Xylene	2.7	J
100-42-5	Styrene	0.85	U
75-25-2	Bromoform	1.8	U
98-82-8	Cumene	1.2	U
108-86-1	Bromobenzene	0.64	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	0.84	U
622-96-8	4-Ethyltoluene	1.1	J
108-67-8	1,3,5-Trimethylbenzene	1.6	U
95-63-6	1,2,4-Trimethylbenzene	3.4	J
541-73-1	1,3-Dichlorobenzene	1.1	U
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.2	U
67-72-1	Hexachloroethane	2.6	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00255.d Injection date and time: **15-DEC-2018 19:30**
Data file Sample Info. Line: 9929275;400;F1834930AA;1262-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 31.0 psia Canister Pressure before dilution (Ya): 15.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.108(-0.007)	1022	130	334184 (-8)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1067310 (-11)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1065213 (-11)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)	4.009(-0.000)	85	21304M	0.193	0.19		J	0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)			Not Detected					0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)			Not Detected					0.15	1
11) Pentane	(1)	5.864(-0.000)	43	363417	3.649	3.65			0.13	1
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)	8.070(-0.000)	43	195281	2.266	2.27		J	0.53	5
18) Carbon Disulfide	(1)			Not Detected					0.13	1
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)	8.443(0.000)	56	73320	1.276	1.28			0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
45) 2-Butanone	(1)	11.810(0.000)	43	69464	0.582	0.58		J	0.21	1
39) Chloroform	(1)			Not Detected					0.092	1
44) 1,1,1-Trichloroethane	(1)			Not Detected					0.12	1
42) Carbon Tetrachloride	(1)			Not Detected					0.14	1
48) Benzene	(2)	12.325(0.000)	78	83759	0.702	0.70		J	0.11	1
50) 1,2-Dichloroethane	(2)			Not Detected					0.08	1
46) Isooctane	(2)	12.046(-0.000)	57	237908	0.974	0.97		J	0.13	1
47) Heptane	(2)	12.189(0.000)	71	19286	0.491	0.49		J	0.23	1
51) Trichloroethene	(2)			Not Detected					0.18	1
55) 1,2-Dichloropropane	(2)			Not Detected					0.13	1
53) Dibromomethane	(2)			Not Detected					0.14	1
56) Bromodichloromethane	(2)			Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)			Not Detected					0.15	1
61) Toluene	(3)	15.799(0.000)	91	327385	2.235	2.23			0.12	1
60) Octane	(3)			Not Detected					0.4	2
64) trans-1,3-Dichloropropene	(3)			Not Detected					0.12	1
67) 1,1,2-Trichloroethane	(3)			Not Detected					0.12	1
63) Tetrachloroethene	(3)			Not Detected					0.25	2
70) 2-Hexanone	(3)			Not Detected					0.18	1
68) Dibromochloromethane	(3)			Not Detected					0.13	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52. Target 3.5 esignature user ID: jeb07445

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00255.d Injection date and time: **15-DEC-2018 19:30**
Data file Sample Info. Line: 9929275;400;F1834930AA;1262-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 31.0 psia Canister Pressure before dilution (Ya): 15.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

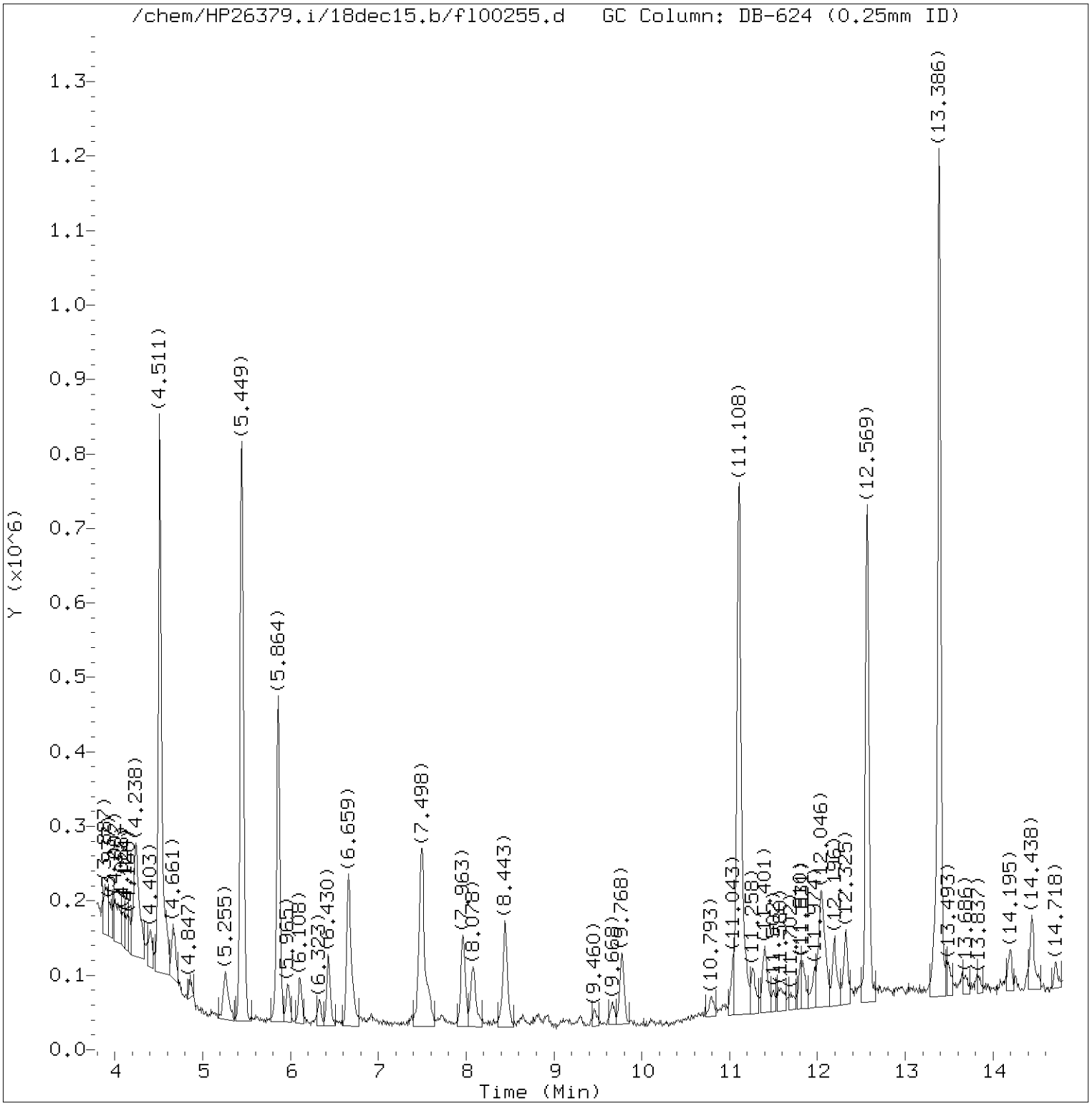
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
69) 1,2-Dibromoethane	(3)			Not Detected					0.13	1
72) Chlorobenzene	(3)			Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.15	1
73) Ethylbenzene	(3)	18.264(-0.000)	91	92492	0.456	0.46		J	0.19	1
75) m/p-Xylene	(3)	18.486(-0.000)	91	254155	1.738	1.74		J	0.26	2
76) o-Xylene	(3)	19.180(-0.000)	91	90262	0.626	0.63		J	0.19	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.17	1
80) Cumene	(3)			Not Detected					0.24	1
82) Bromobenzene	(3)			Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)			Not Detected					0.14	1
84) 4-Ethyltoluene	(3)	20.455(0.001)	105	45991M	0.233	0.23		J	0.18	1
86) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.32	2
90) 1,2,4-Trimethylbenzene	(3)	21.215(-0.000)	105	109407	0.686	0.69		J	0.28	2
93) 1,3-Dichlorobenzene	(3)			Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)			Not Detected					0.17	1
98) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) Hexachloroethane	(3)			Not Detected					0.27	2

M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

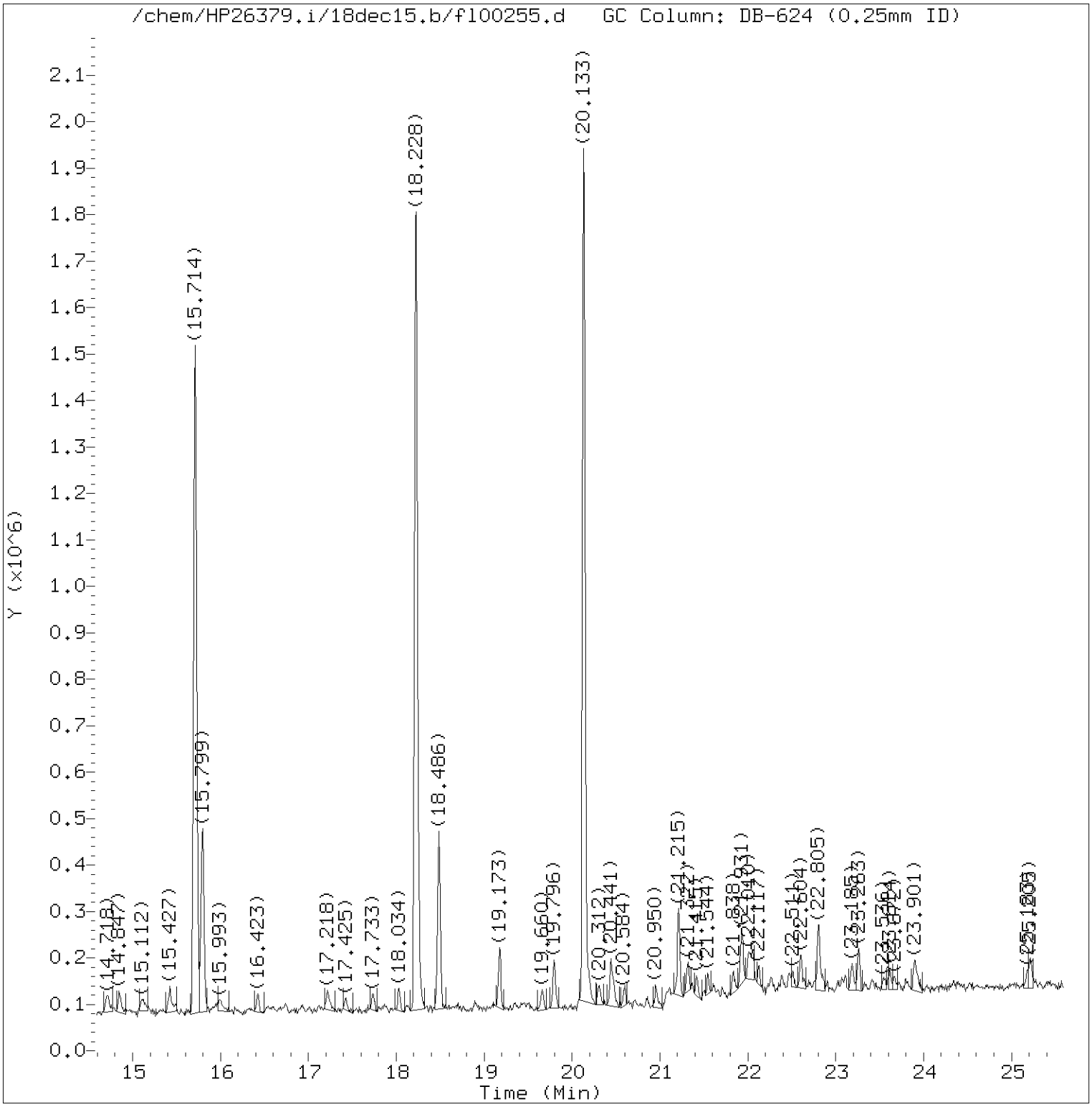
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

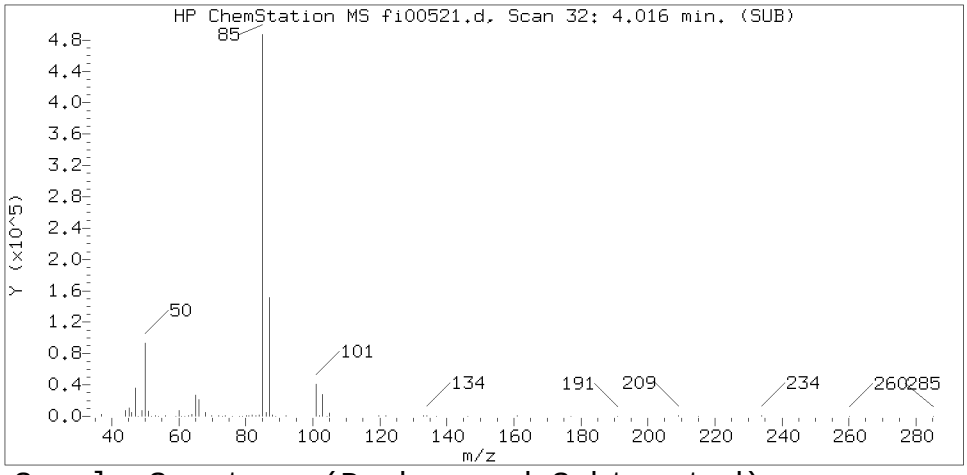
Sample Name: 1262- Lab Sample ID: 9929275

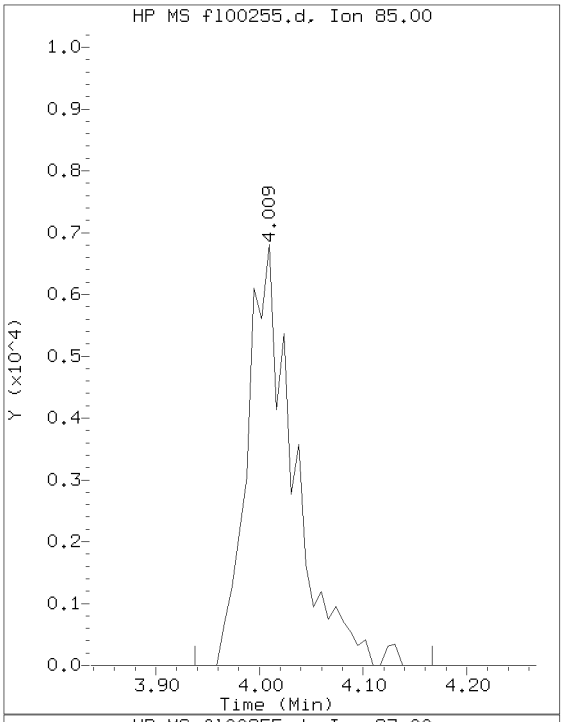
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	4.009	85	21304M	0.193
11) Pentane	(1)	5.864	43	363417	3.649
24) Acetone	(1)	8.071	43	195281	2.266
26) Hexane	(1)	8.443	56	73320	1.276
37)*Bromochloromethane	(1)	11.108	130	334184	10.000
45) 2-Butanone	(1)	11.810	43	69464	0.582
46) Isooctane	(2)	12.046	57	237908	0.974
47) Heptane	(2)	12.189	71	19286	0.491
48) Benzene	(2)	12.325	78	83759	0.702
52)*1,4-Difluorobenzene	(2)	13.393	114	1067310	10.000
61) Toluene	(3)	15.799	91	327385	2.235
71)*Chlorobenzene-d5	(3)	18.228	117	1065213	10.000
73) Ethylbenzene	(3)	18.264	91	92492	0.456
75) m/p-Xylene	(3)	18.486	91	254155	1.738
76) o-Xylene	(3)	19.180	91	90262	0.626
84) 4-Ethyltoluene	(3)	20.455	105	45991M	0.233
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	109407	0.686

M = Compound was manually integrated.
* = Compound is an internal standard.

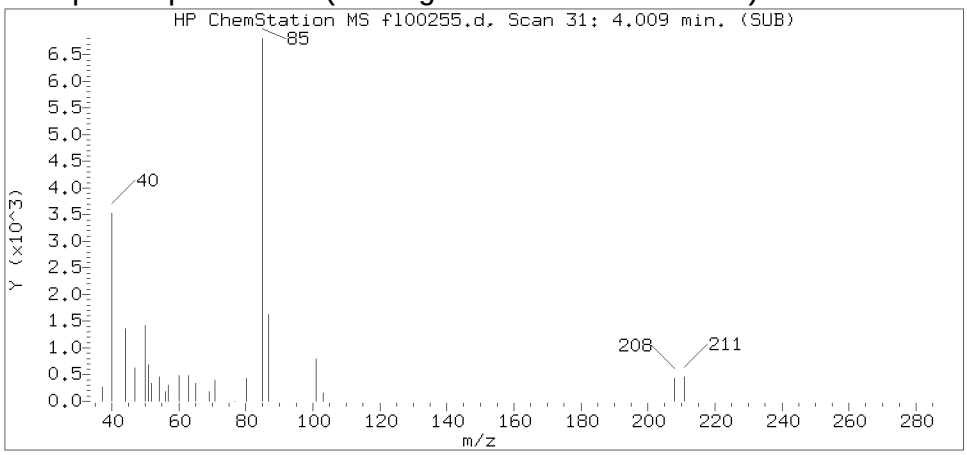
Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

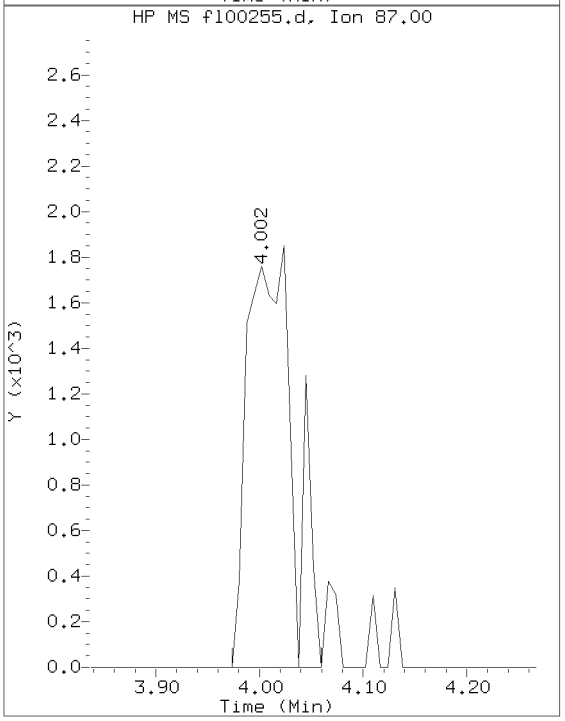
Reference Standard Spectrum for Dichlorodifluoromethane



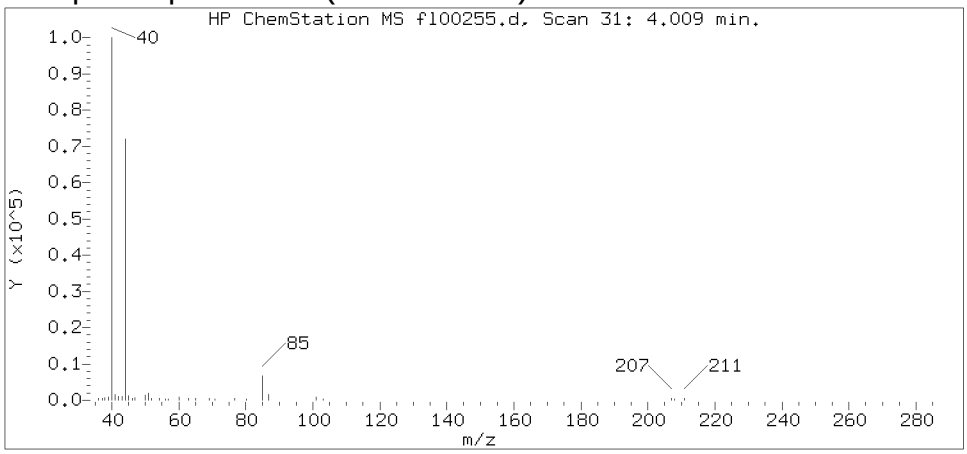


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

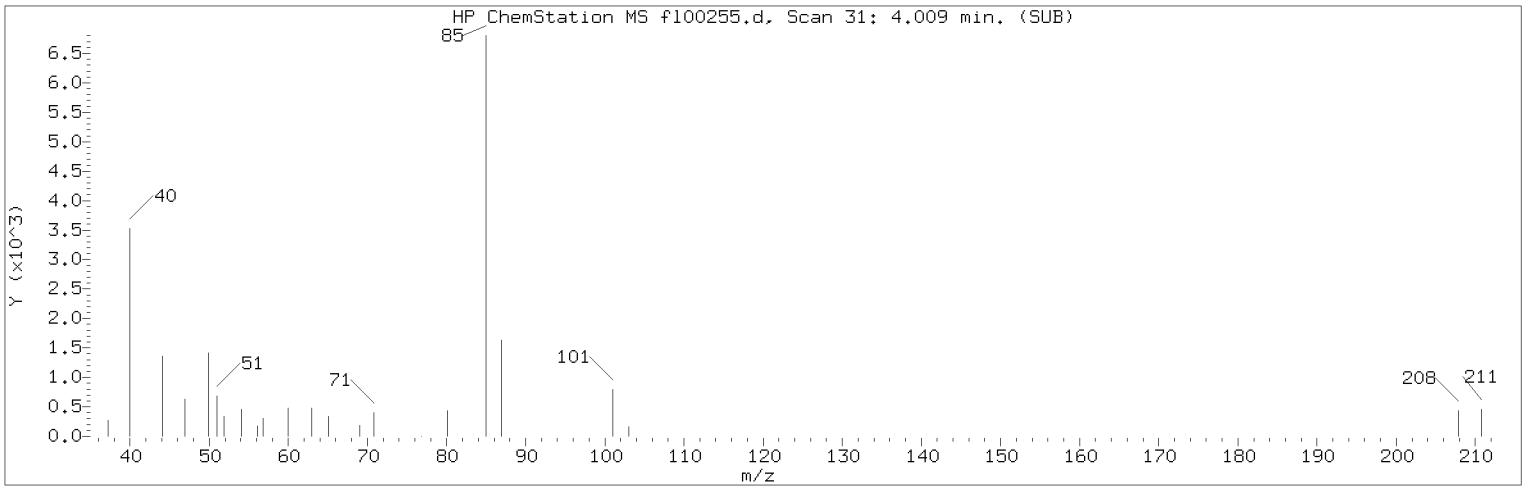
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

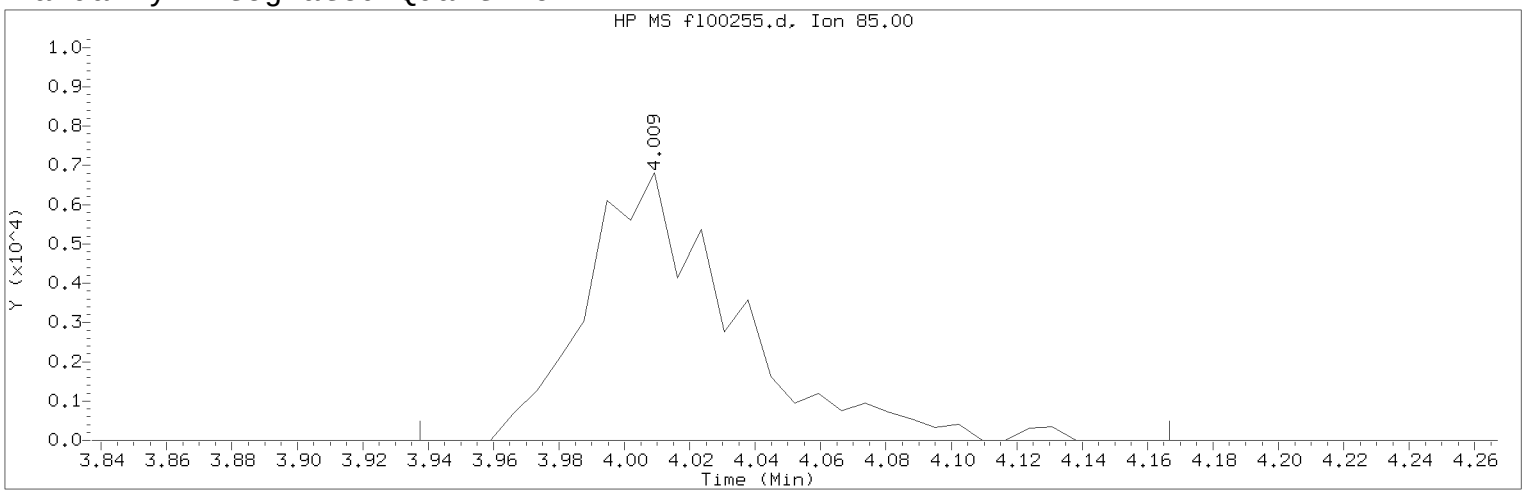
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Relative Retention Time :-0.00040
Quant Ion : 85.00
Area (flag) : 21304M
Concentration (ppb(v)) : 0.1931

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

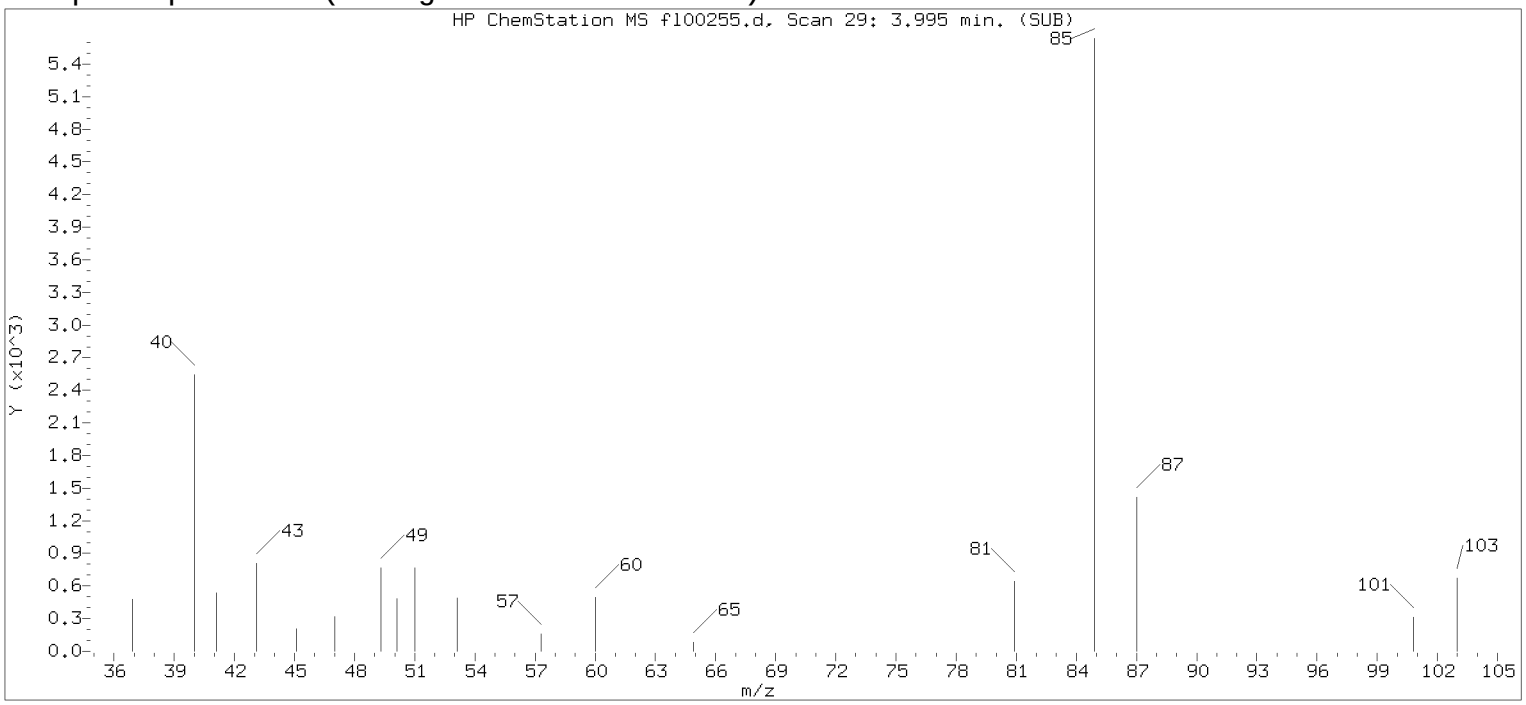
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Quant Ion : 85.00
Area (flag) : 21304M
Concentration (ppb(v)) : 0.1931
Integration start scan : 20 Integration stop scan: 52
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

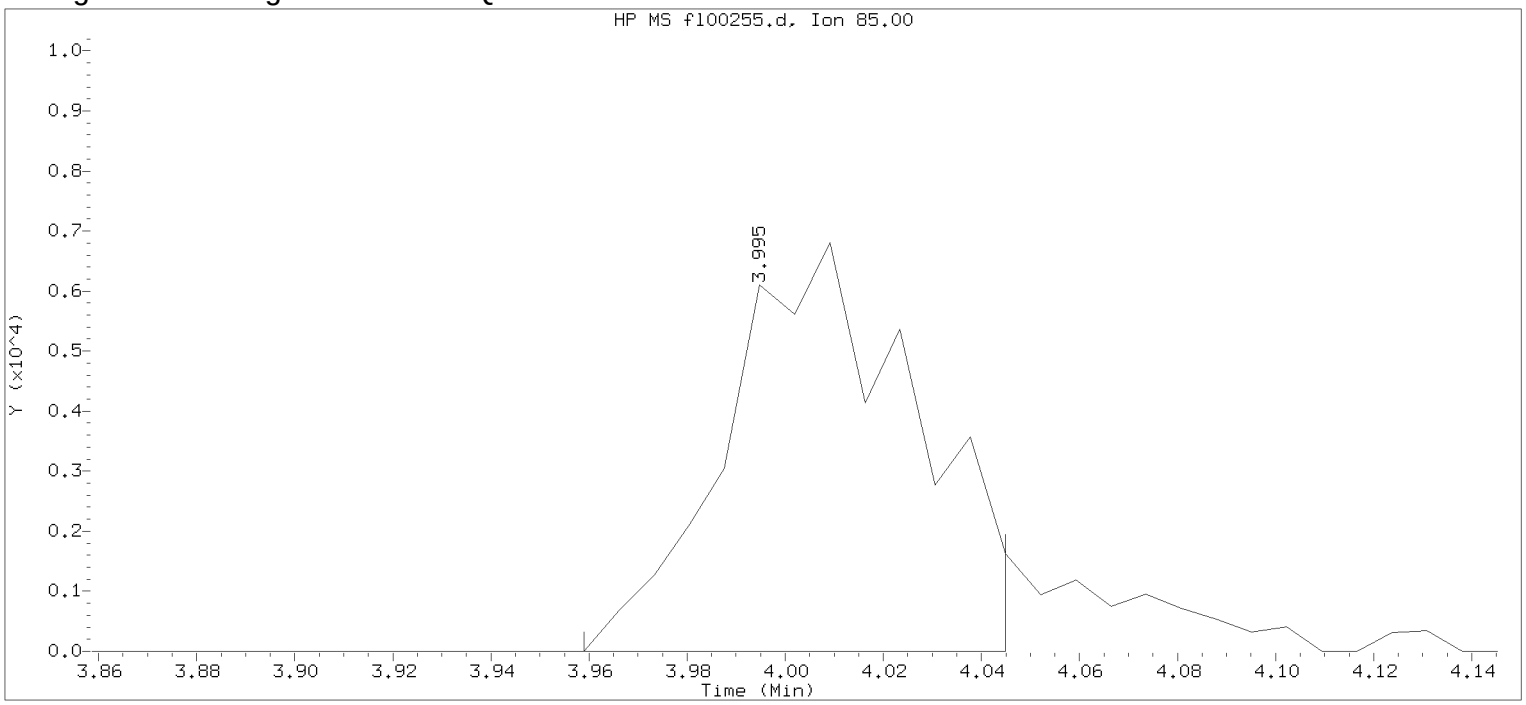
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

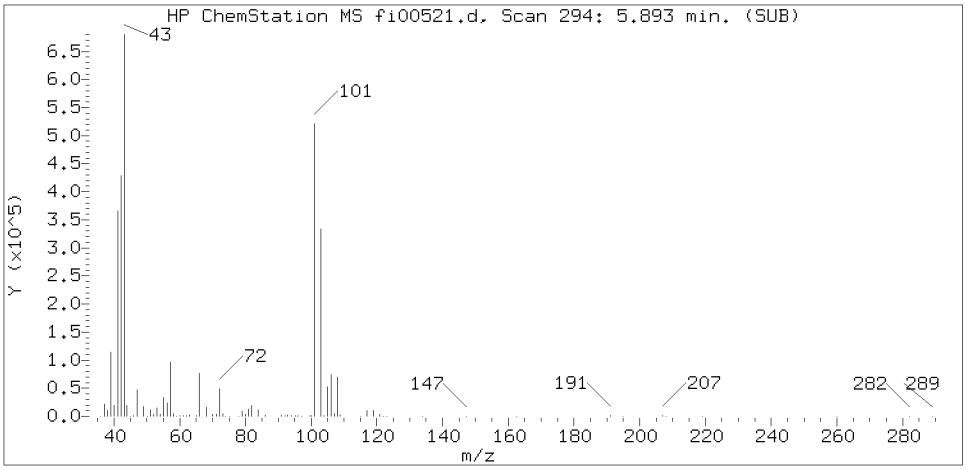
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 20:04 Unknown

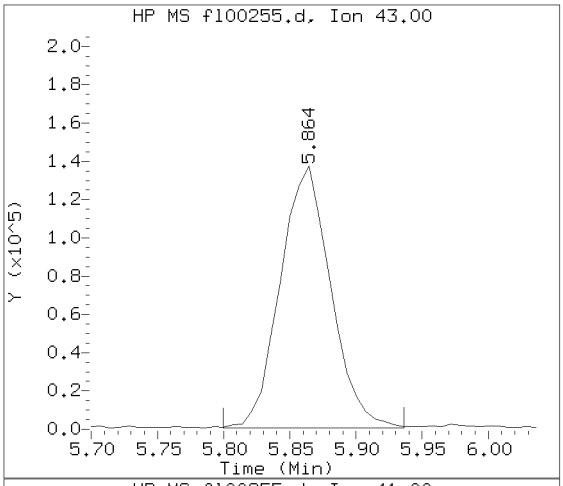
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 29
Retention Time (minutes): 3.995
Quant Ion : 85.00
Area : 18173
Concentration (ppb(v)) : 0.1647
Integration start scan : 23 Integration stop scan: 35
Y at integration start : 0 Y at integration end: 0

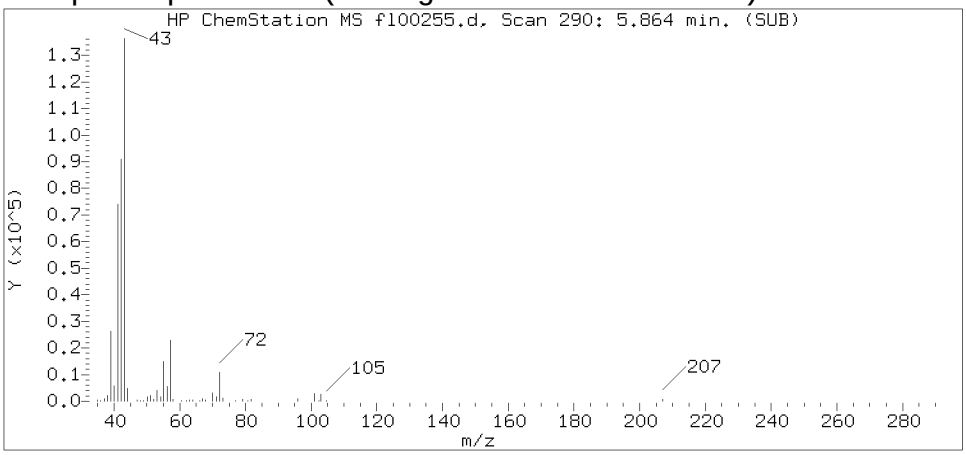
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

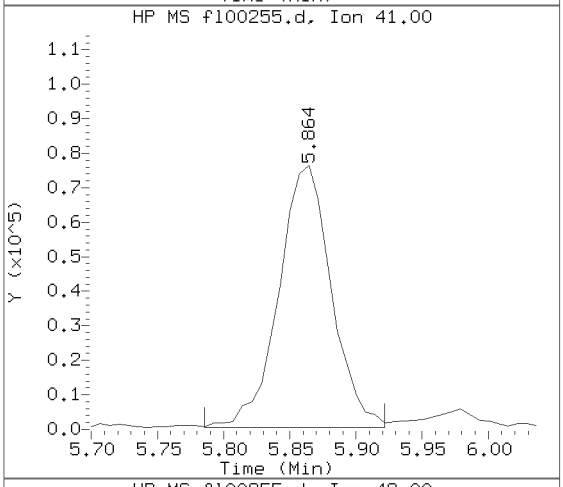
Reference Standard Spectrum for Pentane



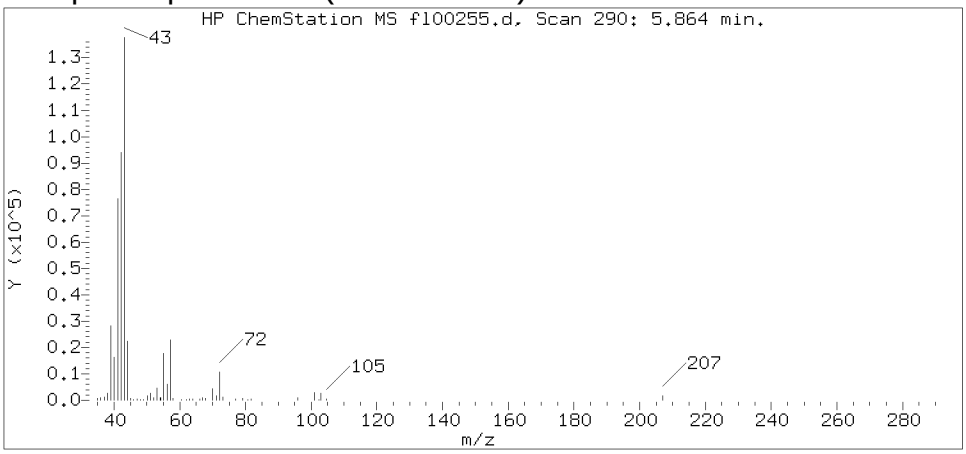


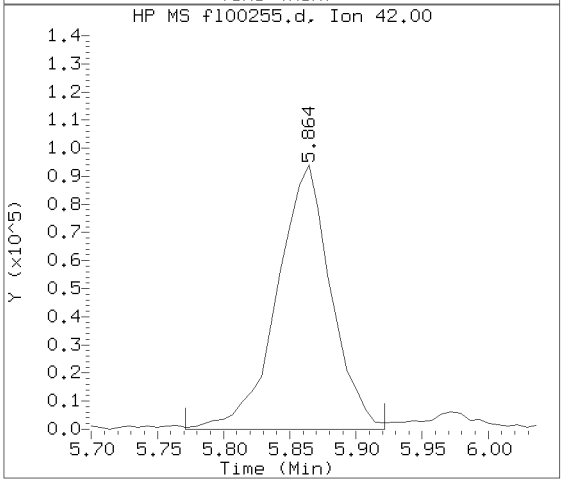
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

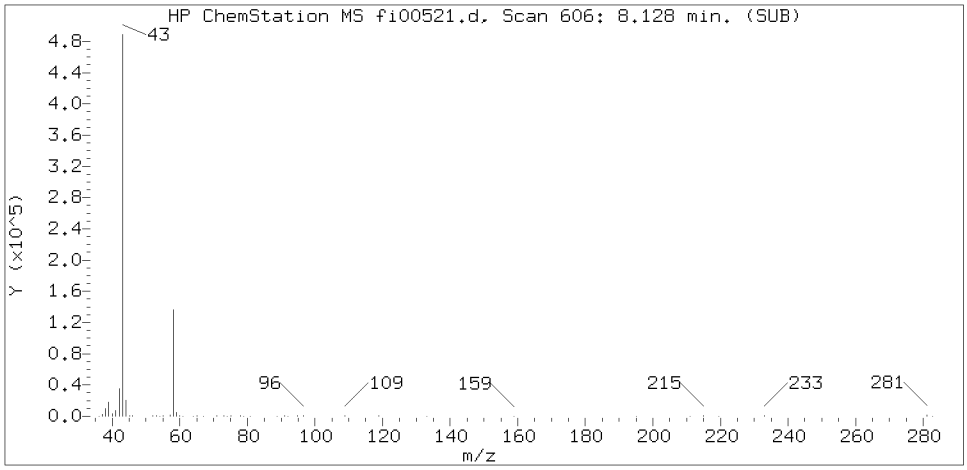
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

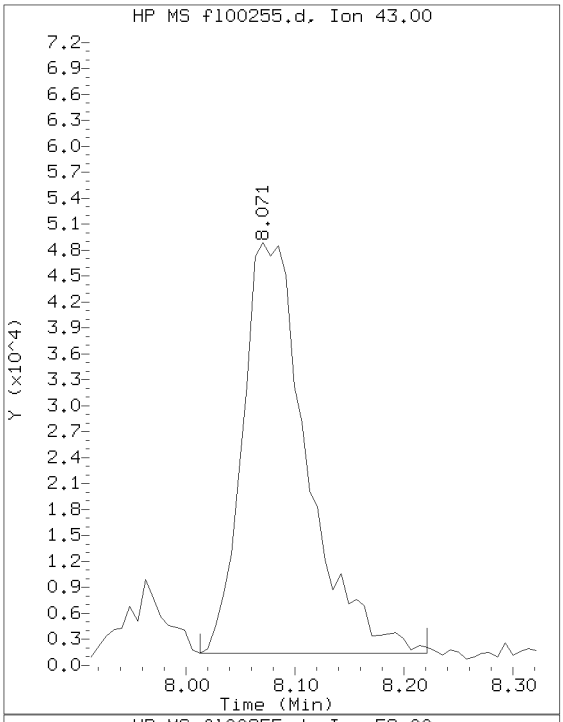
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 11
Compound Name : Pentane
Scan Number : 290
Retention Time (minutes): 5.864
Relative Retention Time :-0.00029
Quant Ion : 43.00
Area (flag) : 363417
Concentration (ppb(v)) : 3.6495

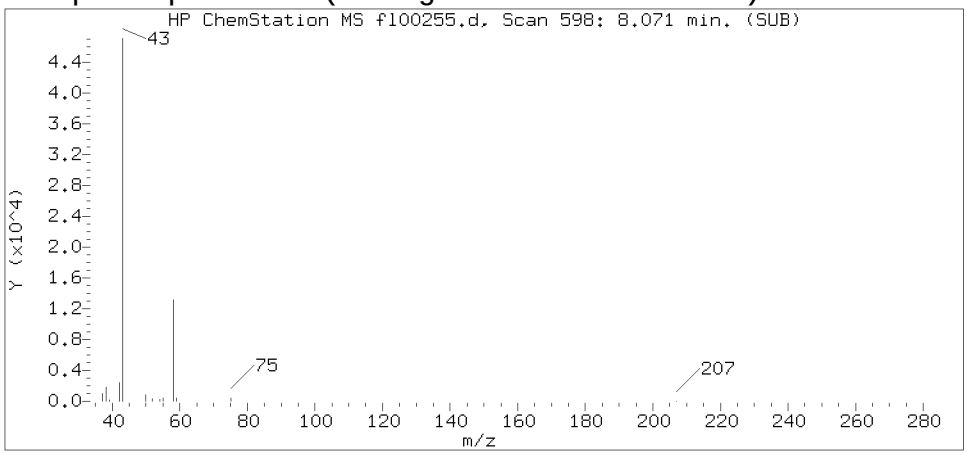
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

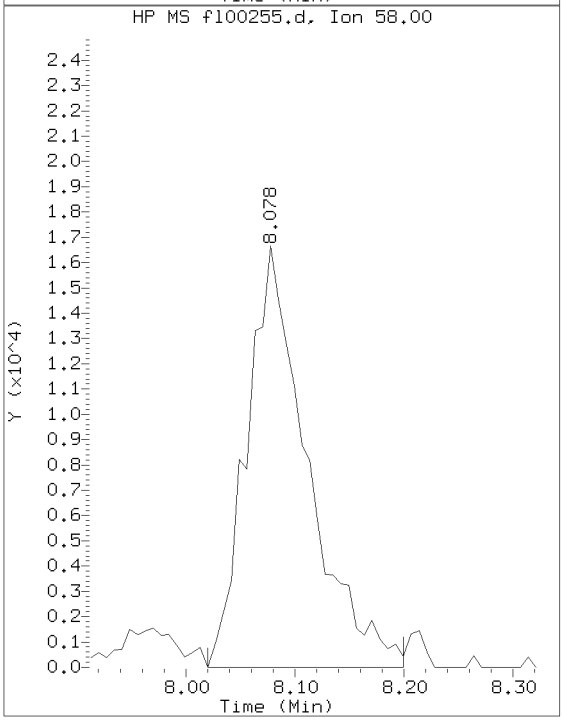
Reference Standard Spectrum for Acetone



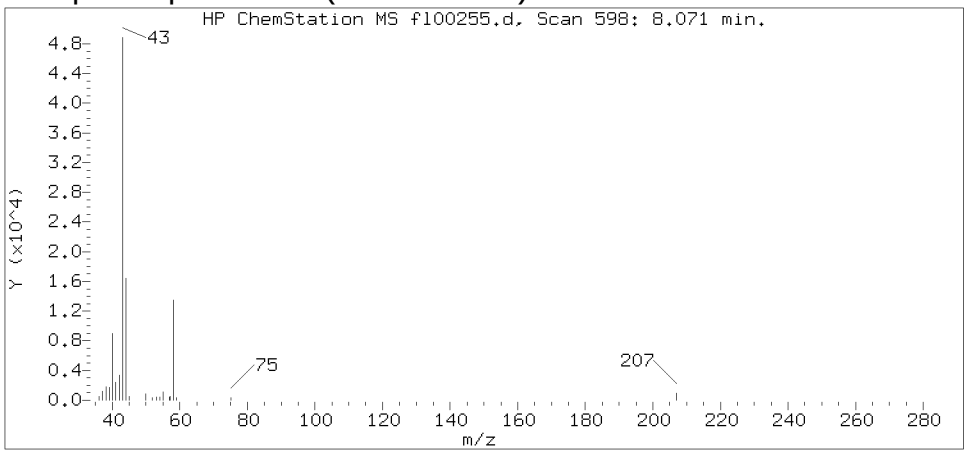


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

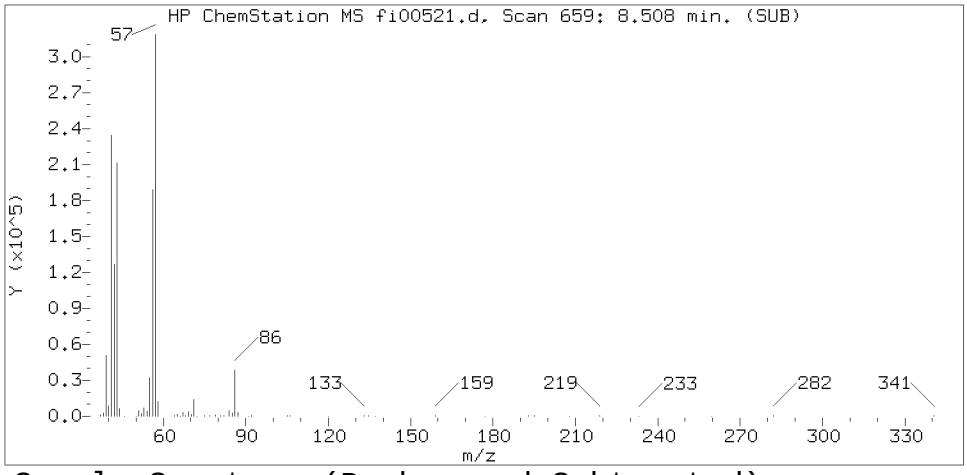
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

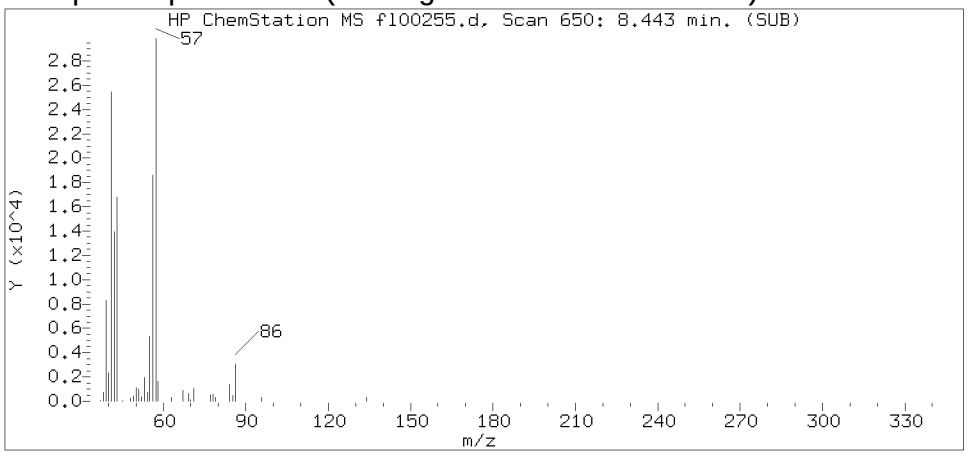
Compound Number : 24
Compound Name : Acetone
Scan Number : 598
Retention Time (minutes): 8.071
Relative Retention Time :-0.00017
Quant Ion : 43.00
Area (flag) : 195281
Concentration (ppb(v)) : 2.2656

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

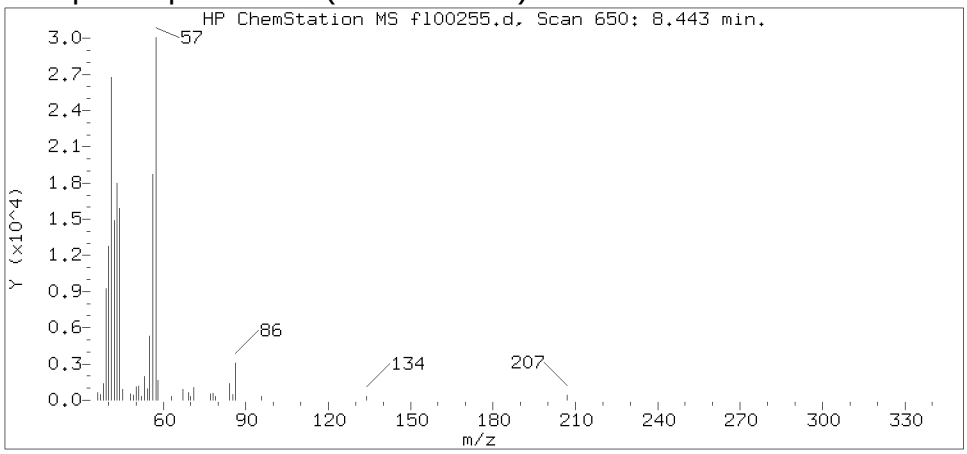
Reference Standard Spectrum for Hexane

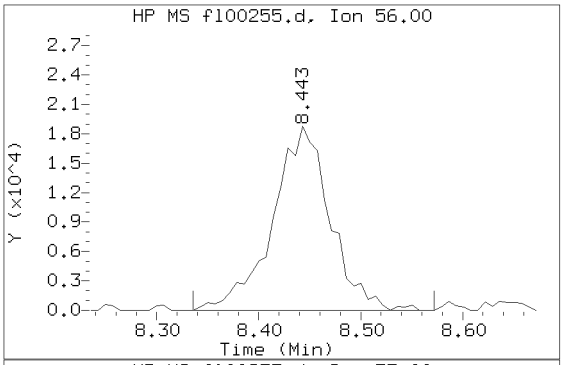


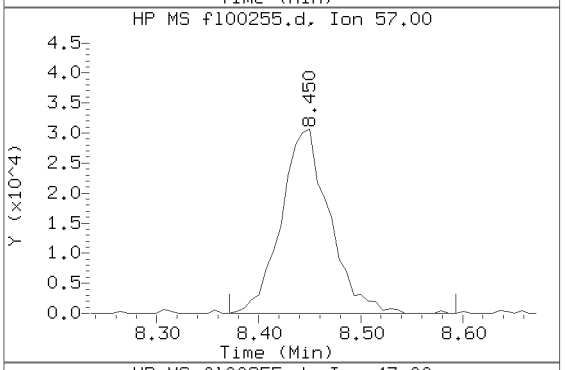
Sample Spectrum (Background Subtracted)

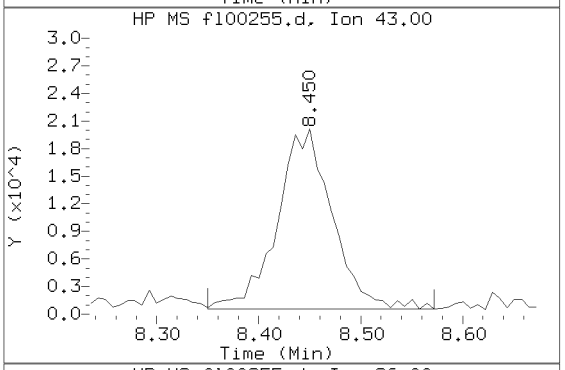


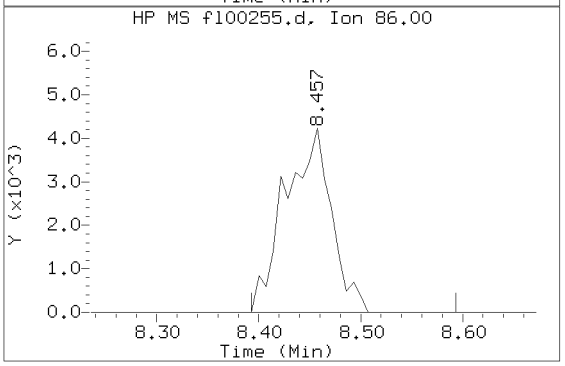
Sample Spectrum (Unaltered)











Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

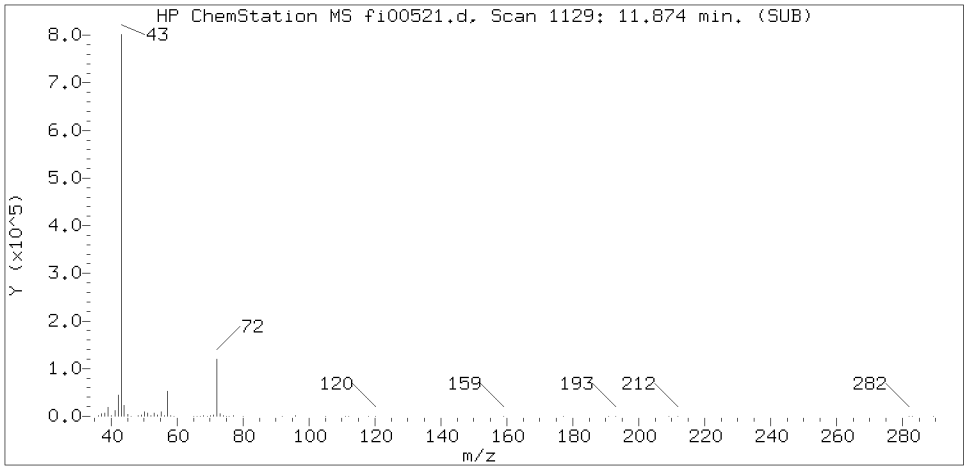
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

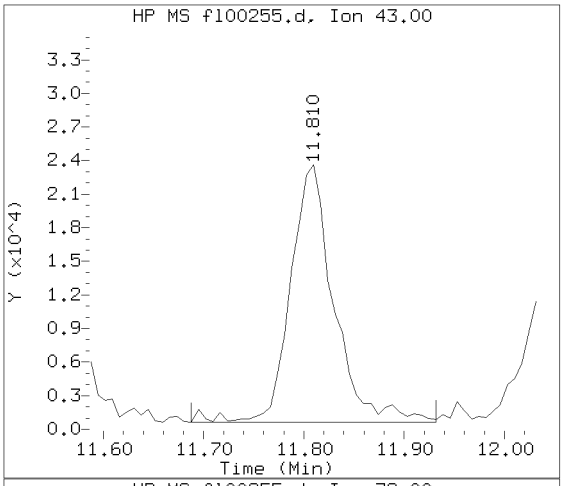
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number	: 26
Compound Name	: Hexane
Scan Number	: 650
Retention Time (minutes)	: 8.443
Relative Retention Time	: 0.00050
Quant Ion	: 56.00
Area (flag)	: 73320
Concentration (ppb(v))	: 1.2763

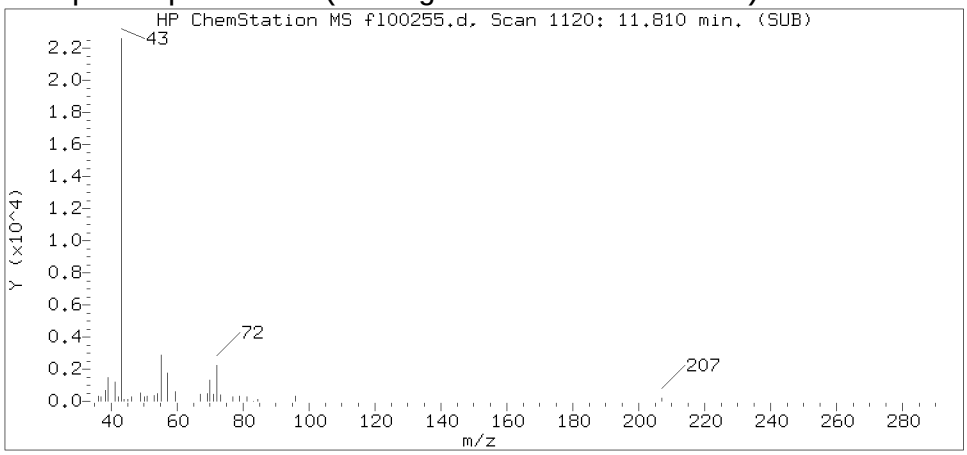
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

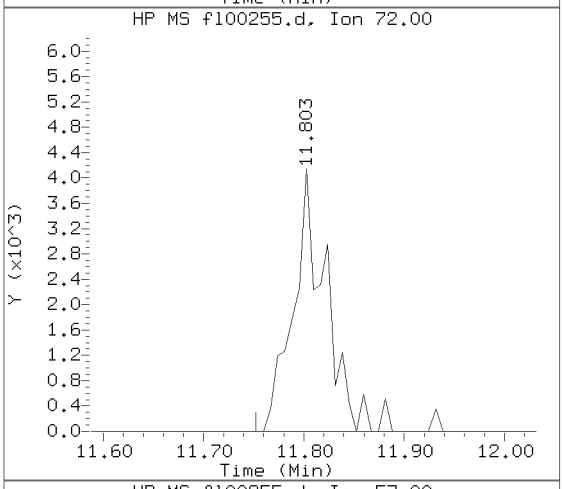
Reference Standard Spectrum for 2-Butanone



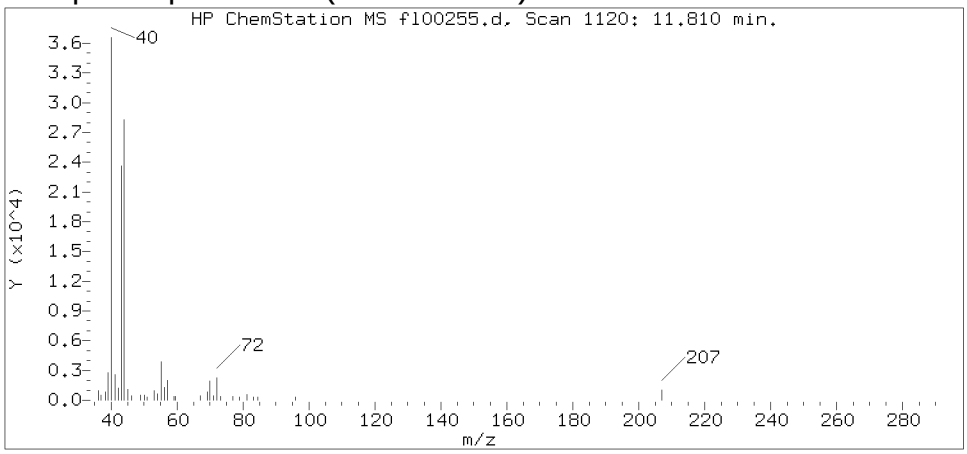


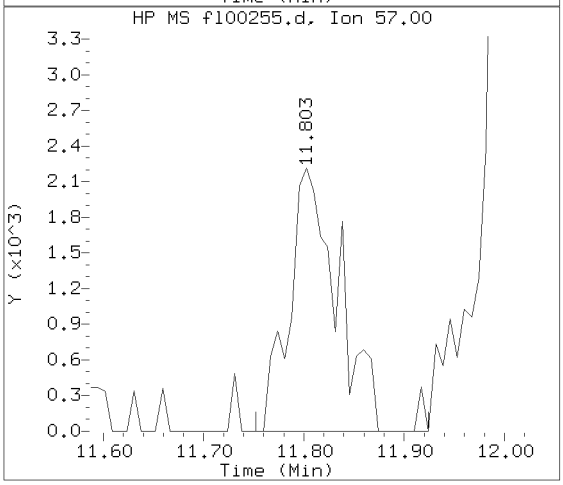
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

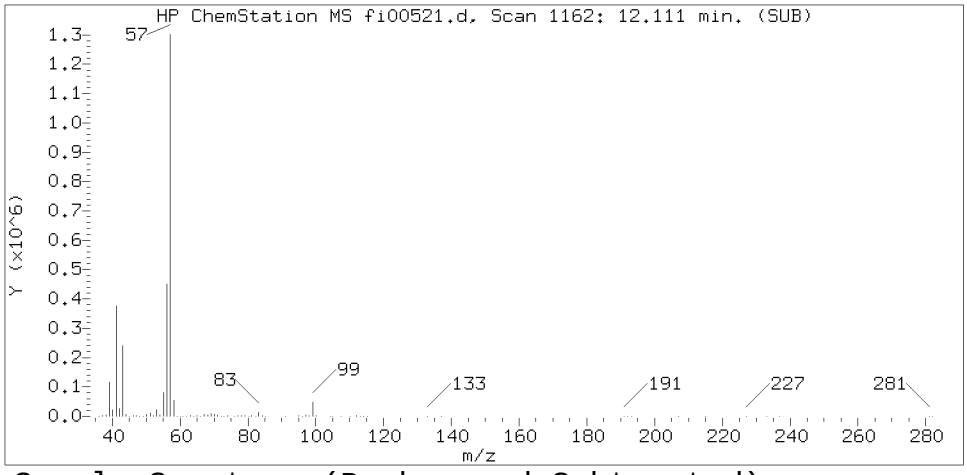
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

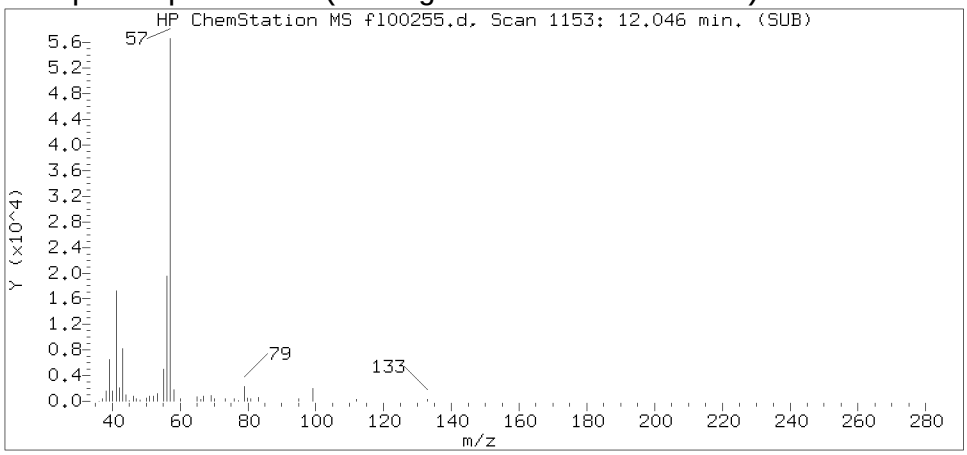
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1120
Retention Time (minutes): 11.810
Relative Retention Time : 0.00004
Quant Ion : 43.00
Area (flag) : 69464
Concentration (ppb(v)) : 0.5823

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

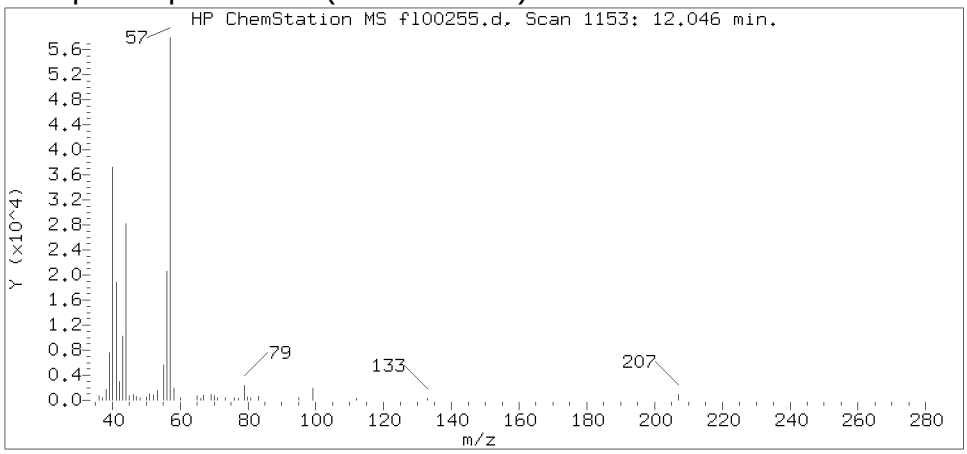
Reference Standard Spectrum for Isooctane

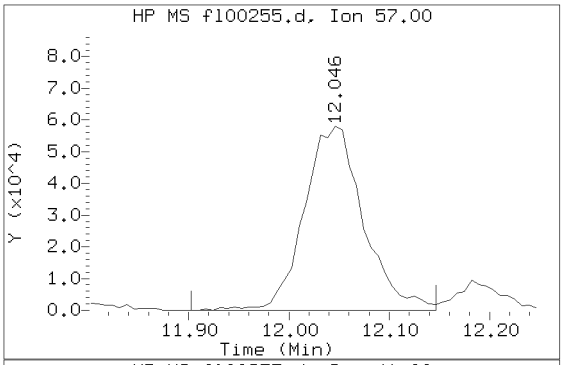


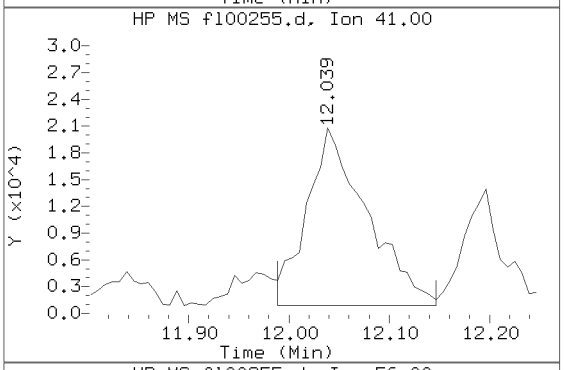
Sample Spectrum (Background Subtracted)

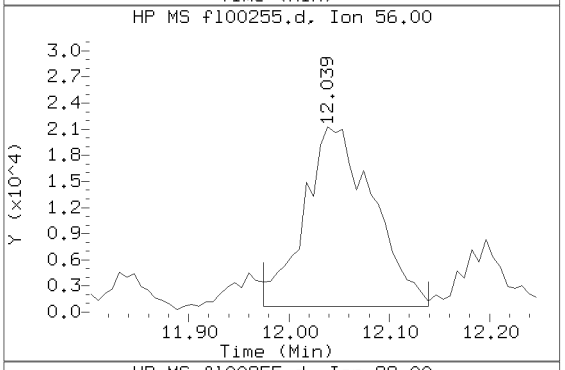


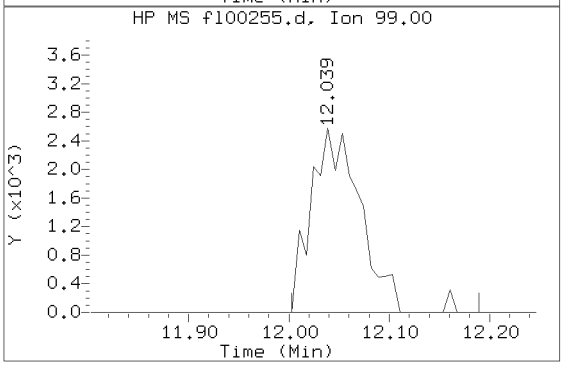
Sample Spectrum (Unaltered)











Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

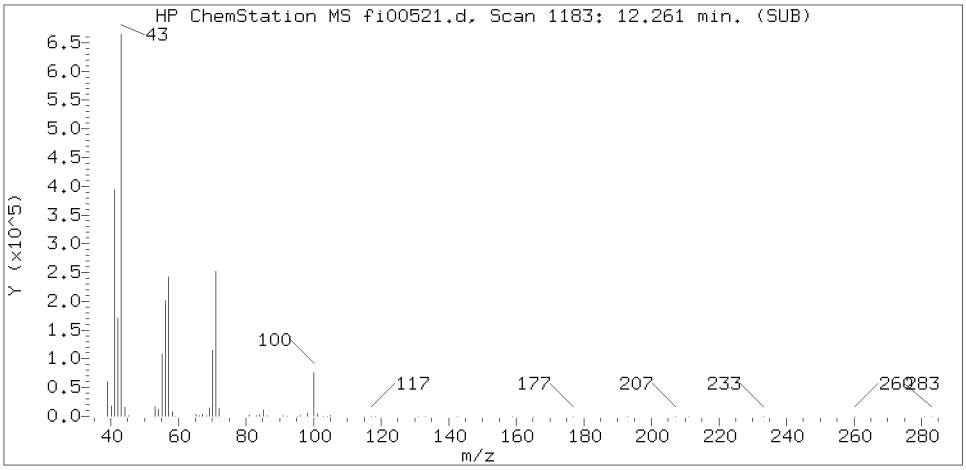
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

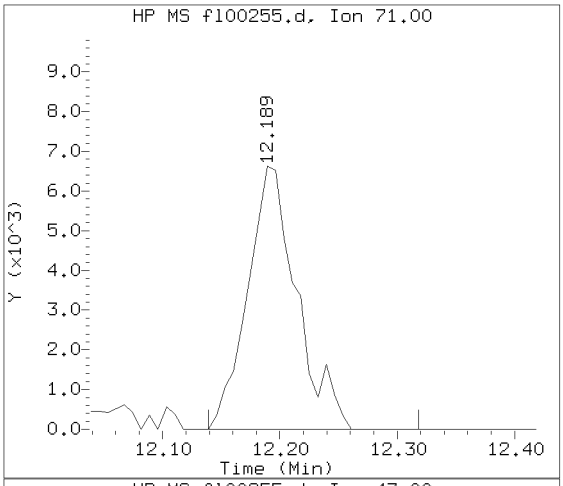
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number	: 46
Compound Name	: Isooctane
Scan Number	: 1153
Retention Time (minutes)	: 12.046
Relative Retention Time	:-0.00005
Quant Ion	: 57.00
Area (flag)	: 237908
Concentration (ppb(v))	: 0.9735

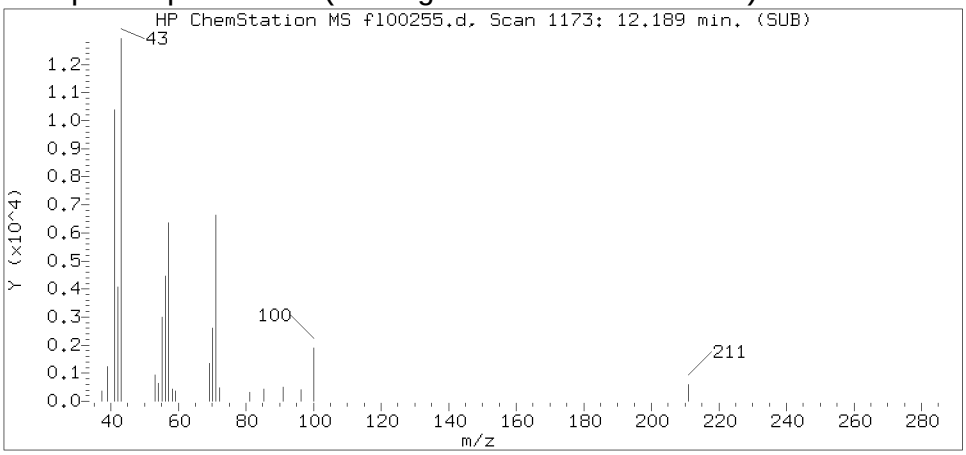
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

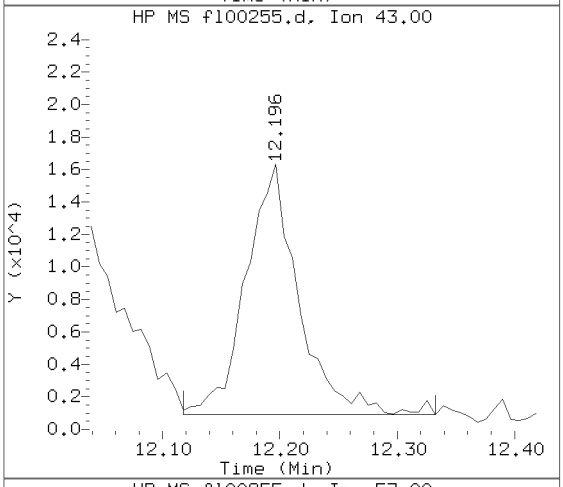
Reference Standard Spectrum for Heptane



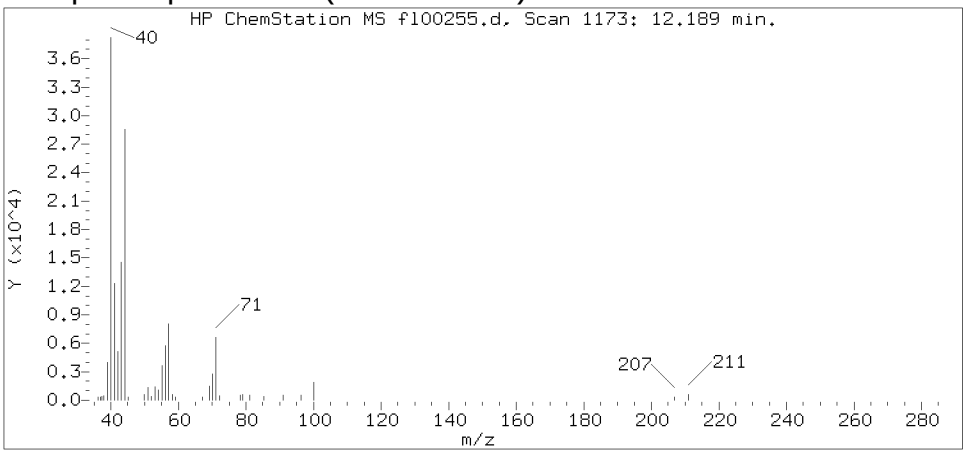


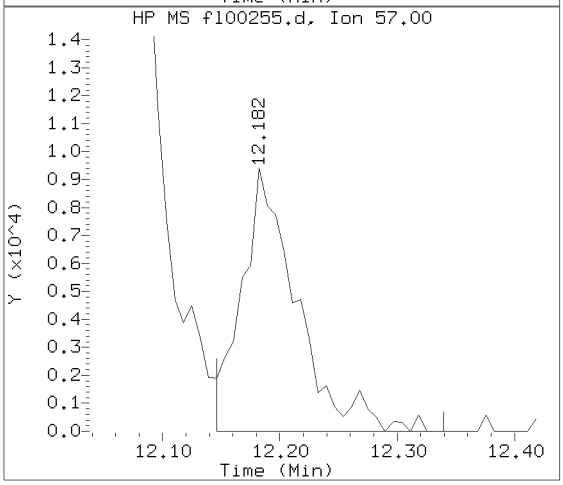
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 47
Compound Name : Heptane
Scan Number : 1173
Retention Time (minutes): 12.189
Relative Retention Time : 0.00049
Quant Ion : 71.00
Area (flag) : 19286
Concentration (ppb(v)) : 0.4906

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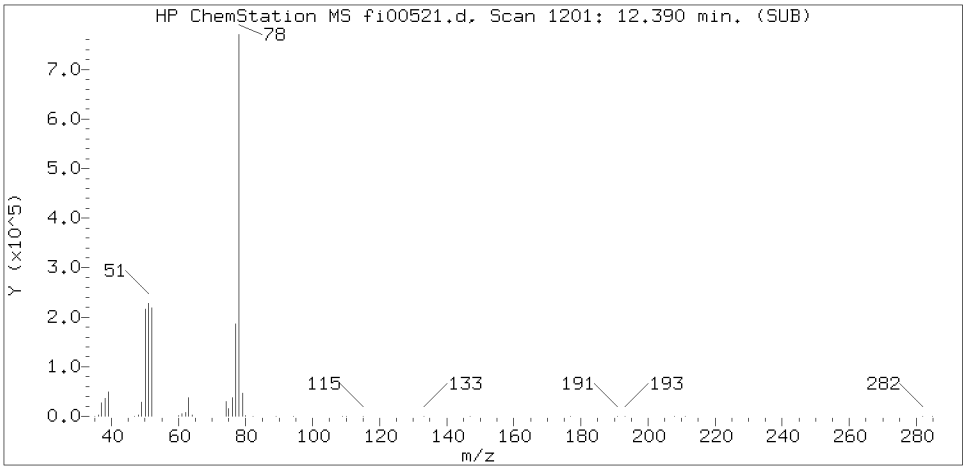
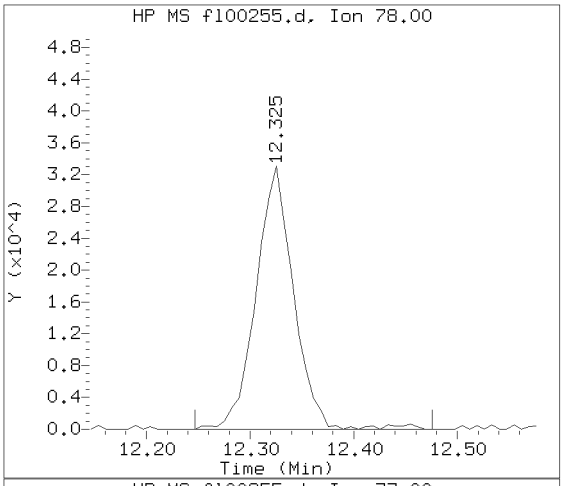
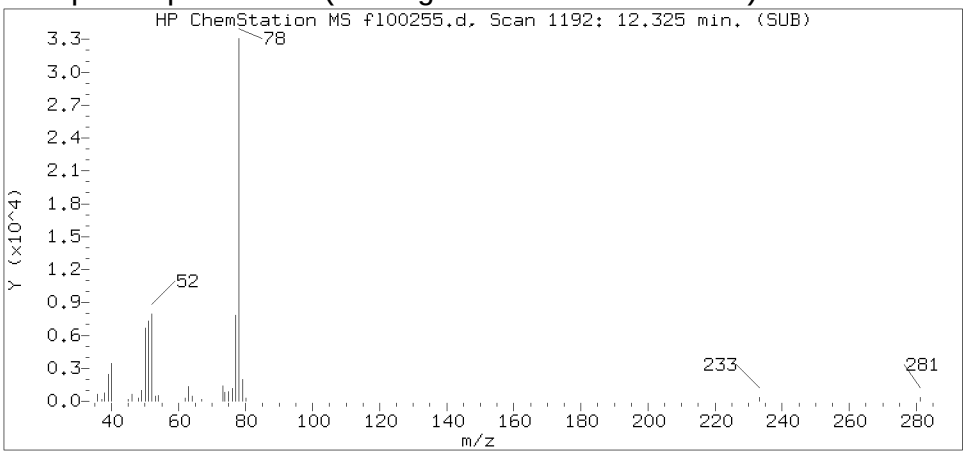
Target 3.5 esignature user ID: jeb07445

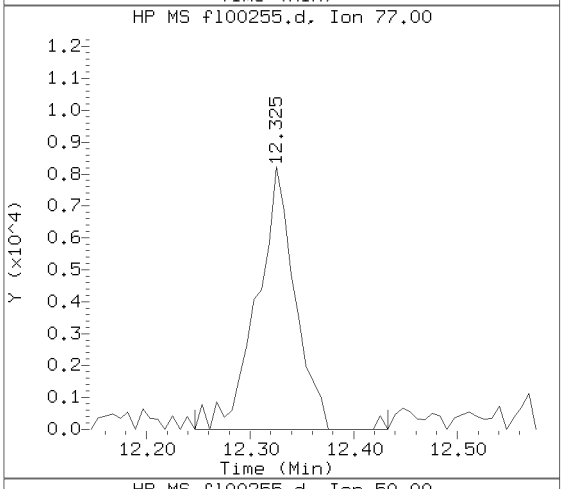
Reference Standard Spectrum for Benzene



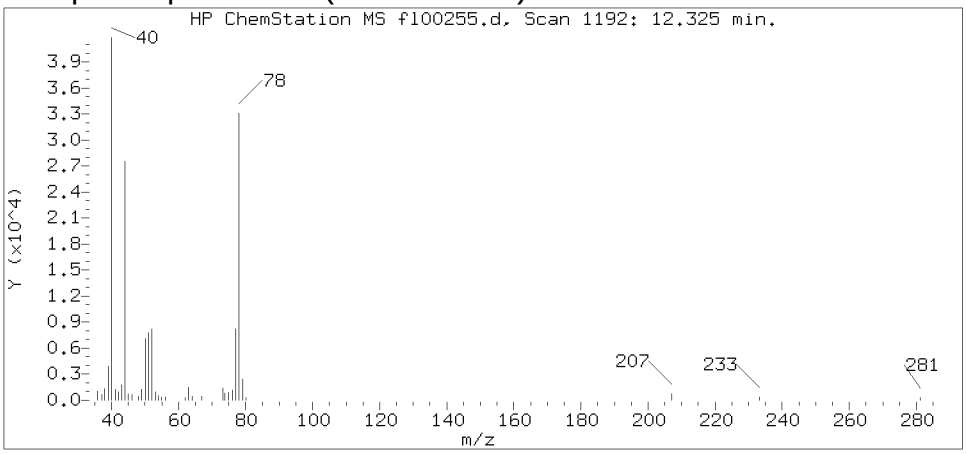


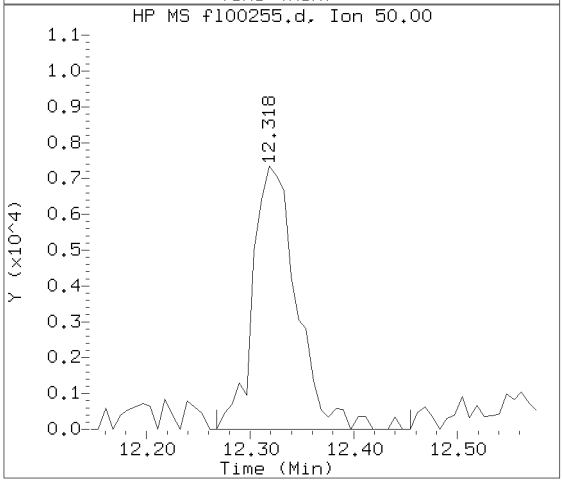
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Compound Number	: 48
Compound Name	: Benzene
Scan Number	: 1192
Retention Time (minutes)	: 12.325
Relative Retention Time	: 0.00050
Quant Ion	: 78.00
Area (flag)	: 83759
Concentration (ppb(v))	: 0.7017

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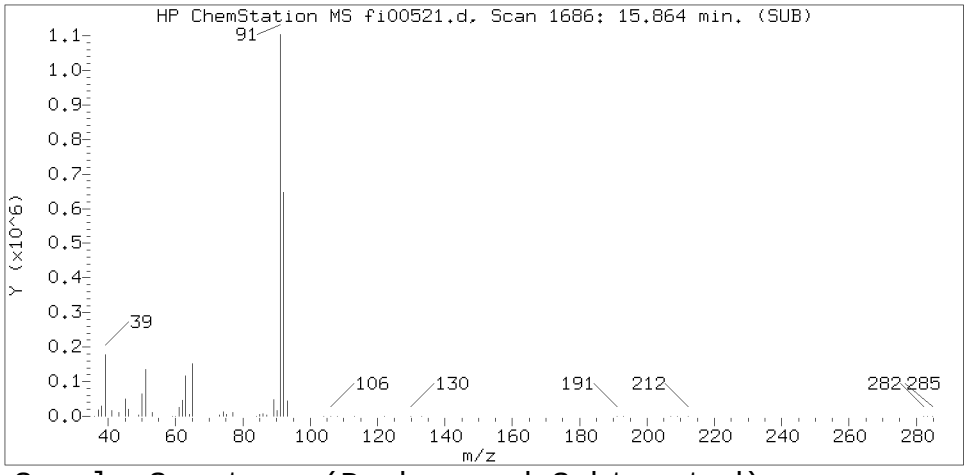
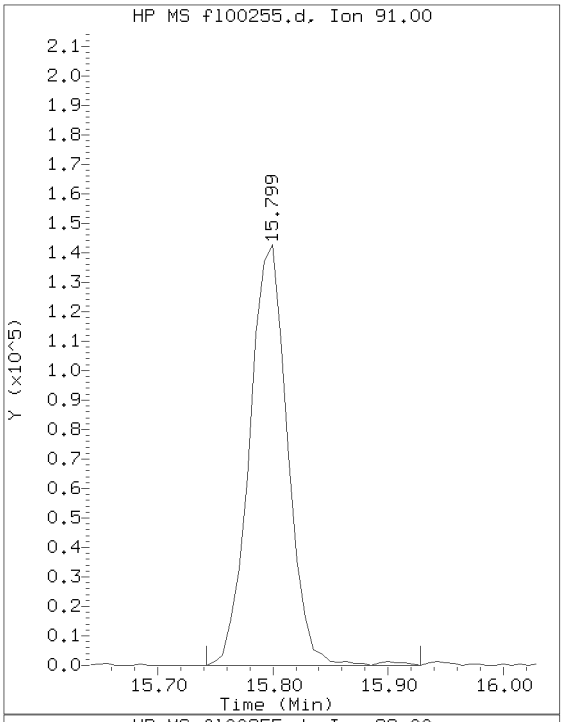
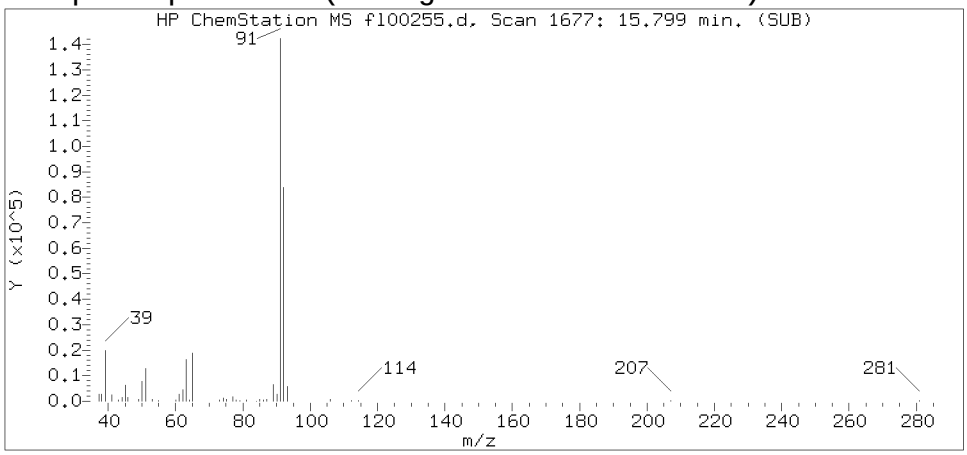
Target 3.5 esignature user ID: jeb07445

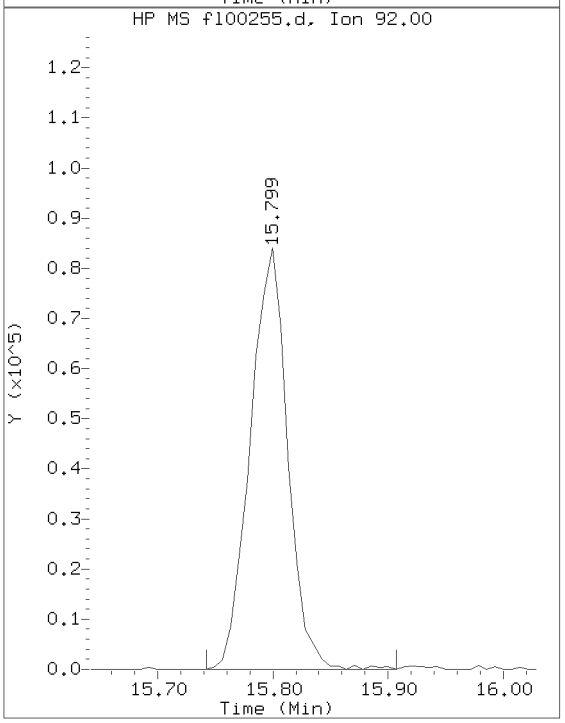
Reference Standard Spectrum for Toluene



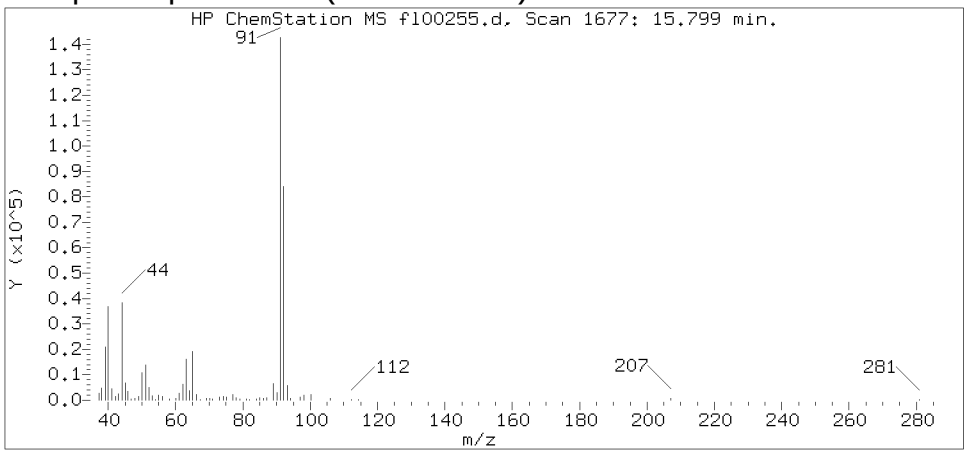


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Compound Number	: 61
Compound Name	: Toluene
Scan Number	: 1677
Retention Time (minutes)	: 15.799
Relative Retention Time	: 0.00000
Quant Ion	: 91.00
Area (flag)	: 327385
Concentration (ppb(v))	: 2.2347

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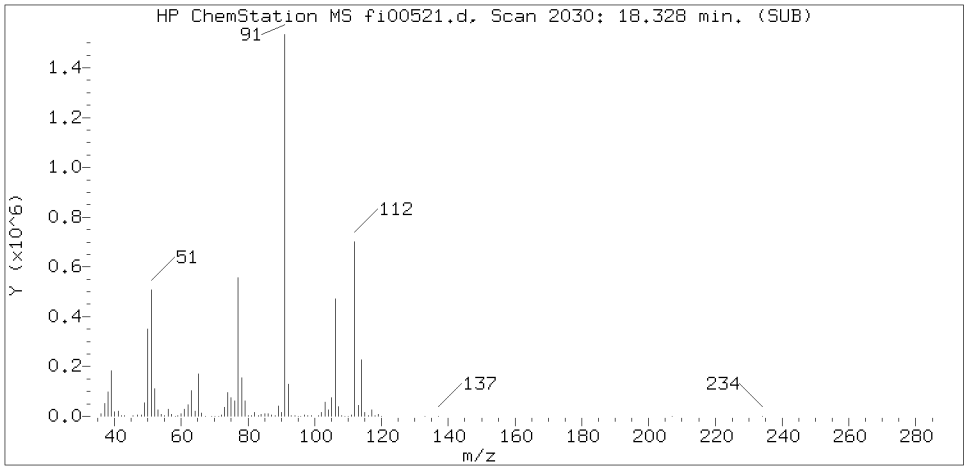
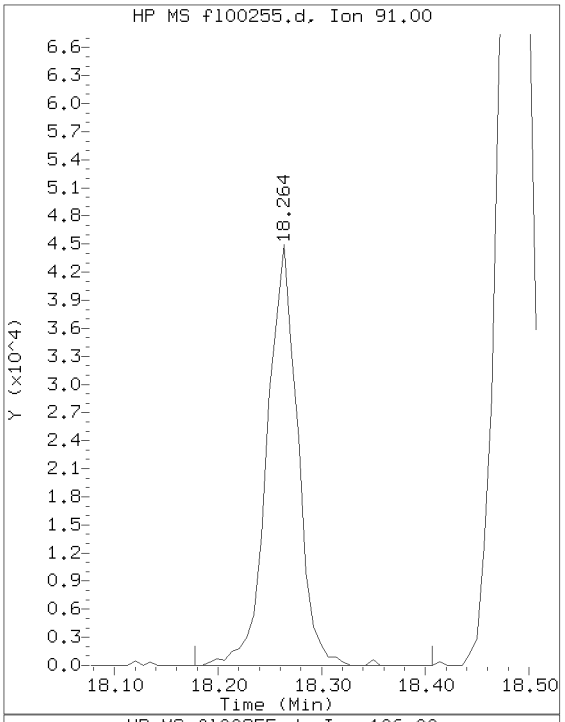
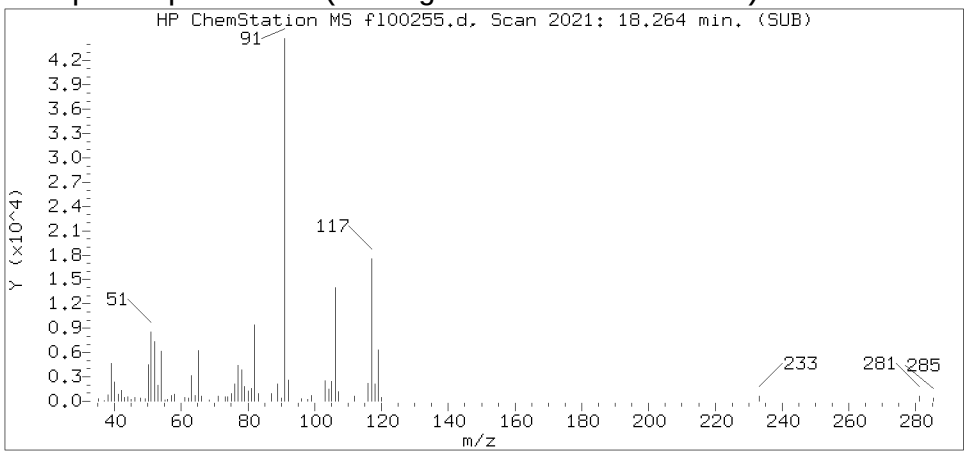
Target 3.5 esignature user ID: jeb07445

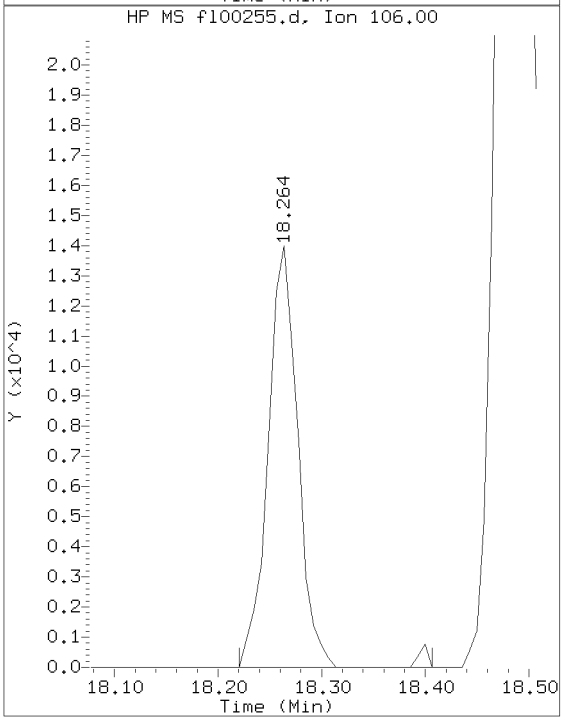
Reference Standard Spectrum for Ethylbenzene



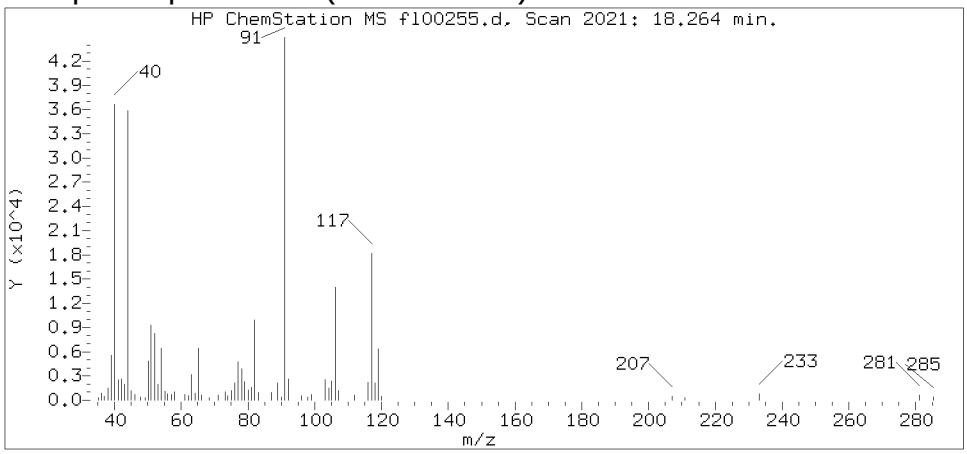


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 73
Compound Name : Ethylbenzene
Scan Number : 2021
Retention Time (minutes): 18.264
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 92492
Concentration (ppb(v)) : 0.4559

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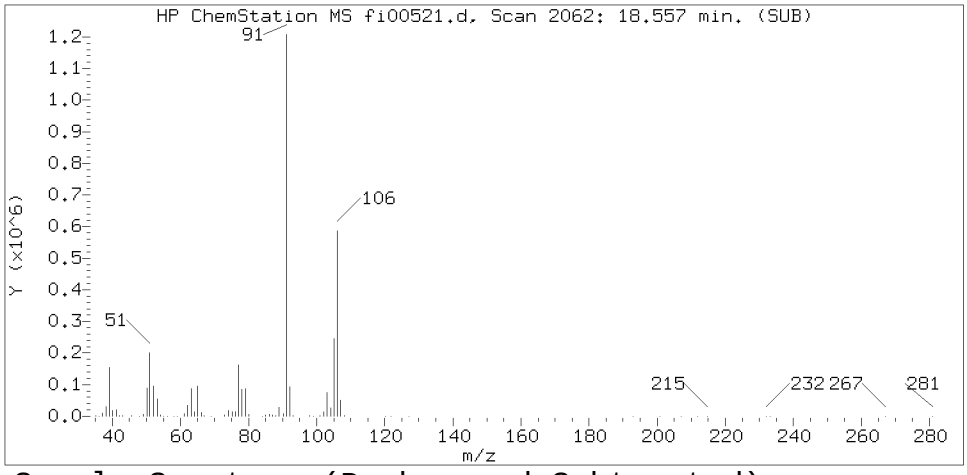
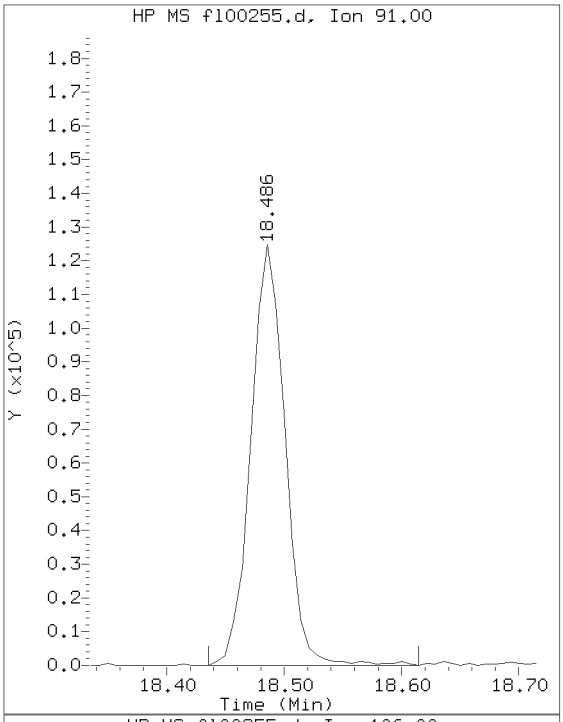
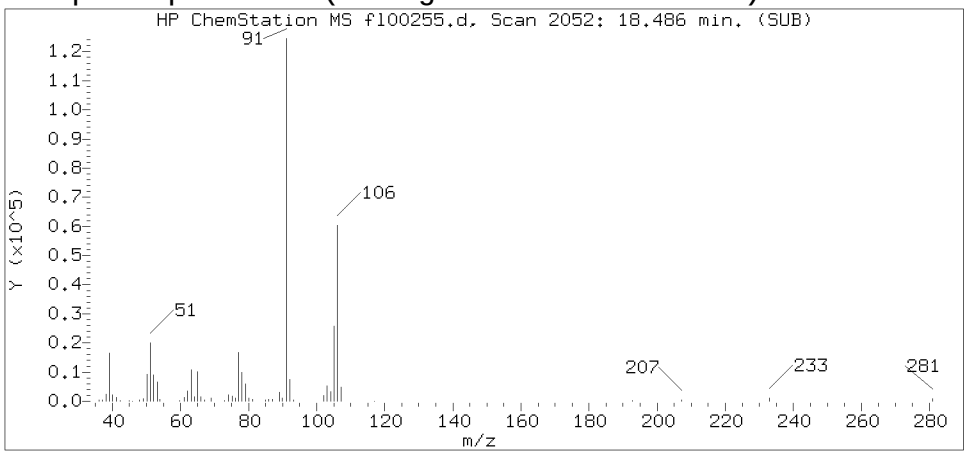
Target 3.5 esignature user ID: jeb07445

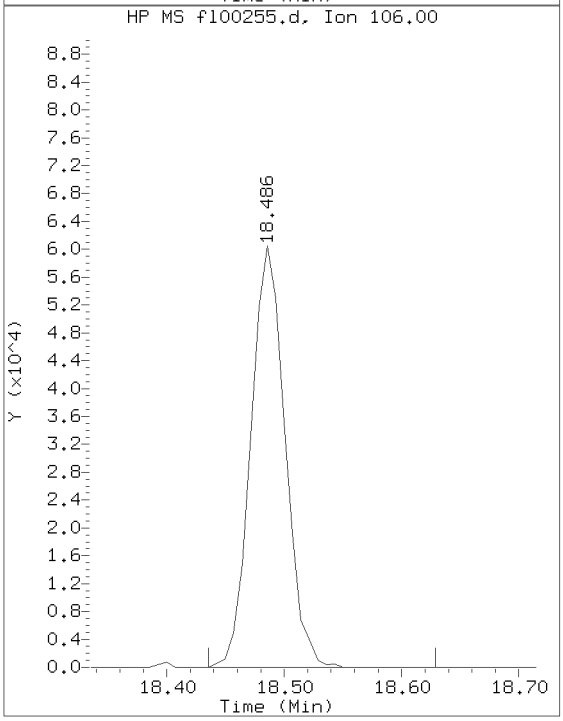
Reference Standard Spectrum for m/p-Xylene



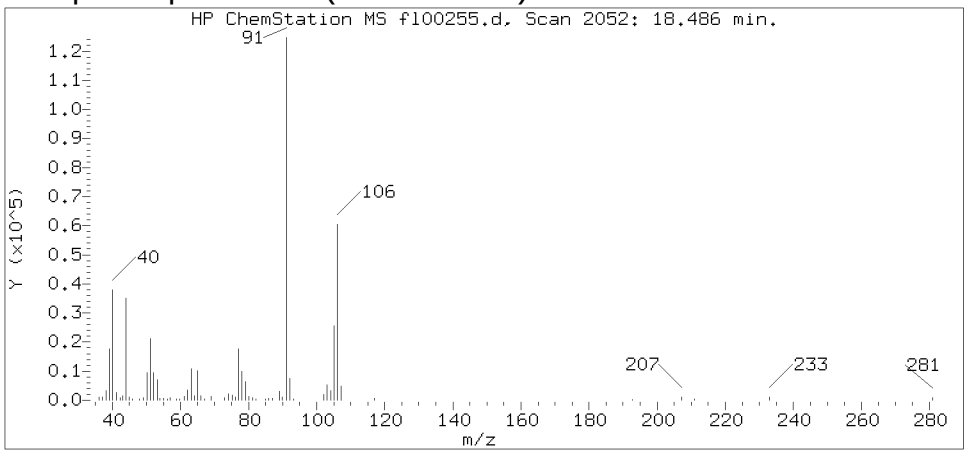


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

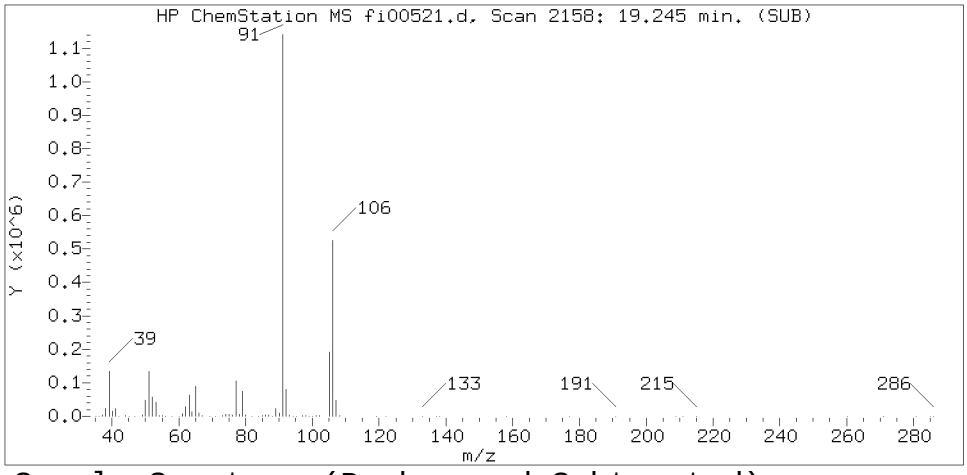
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

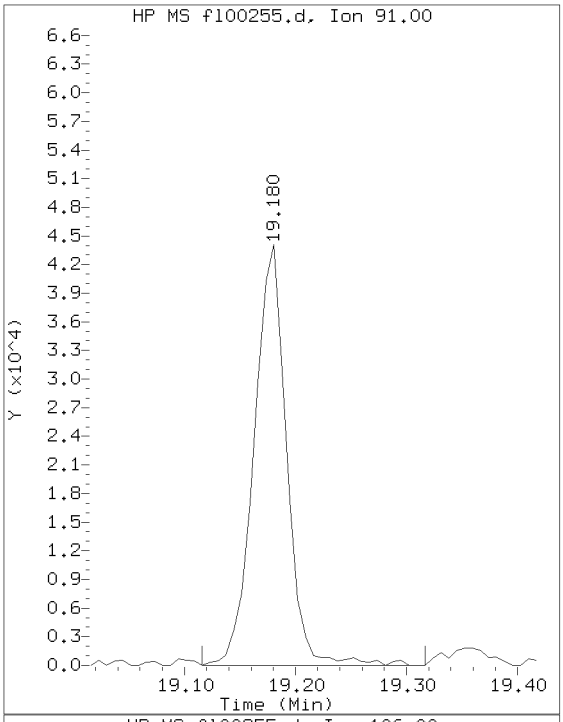
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 2052
Retention Time (minutes): 18.486
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 254155
Concentration (ppb(v)) : 1.7378

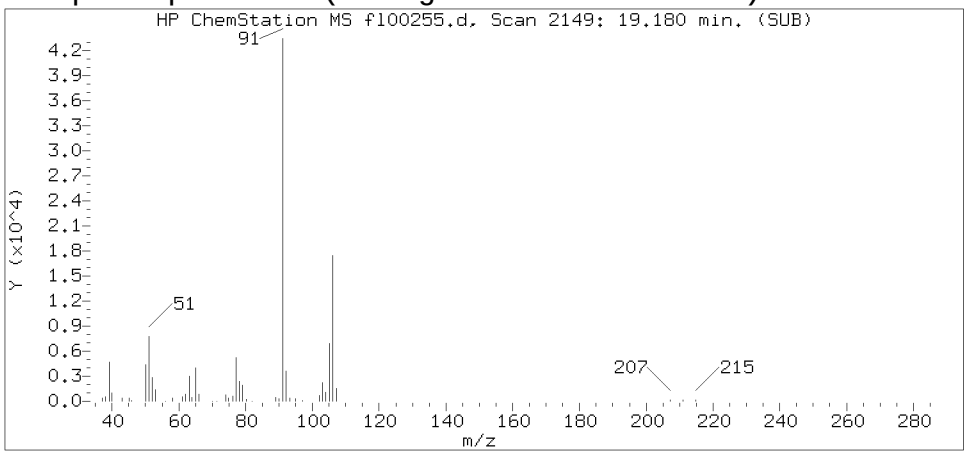
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

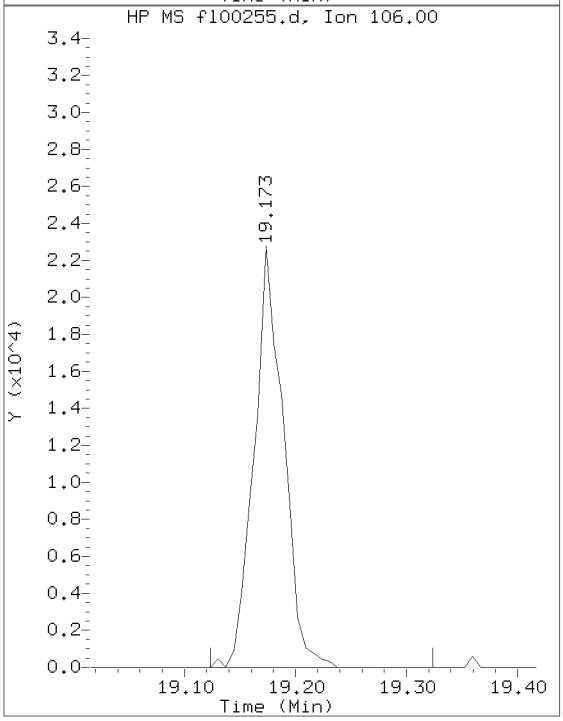
Reference Standard Spectrum for o-Xylene



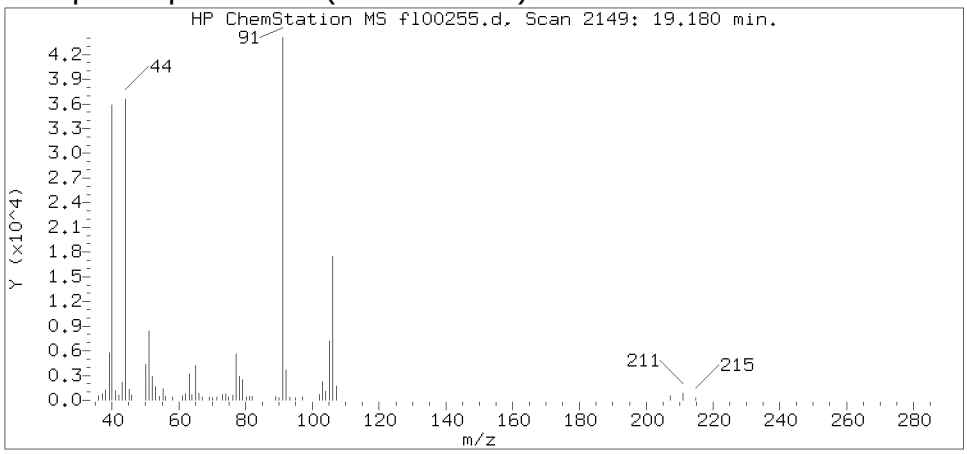


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

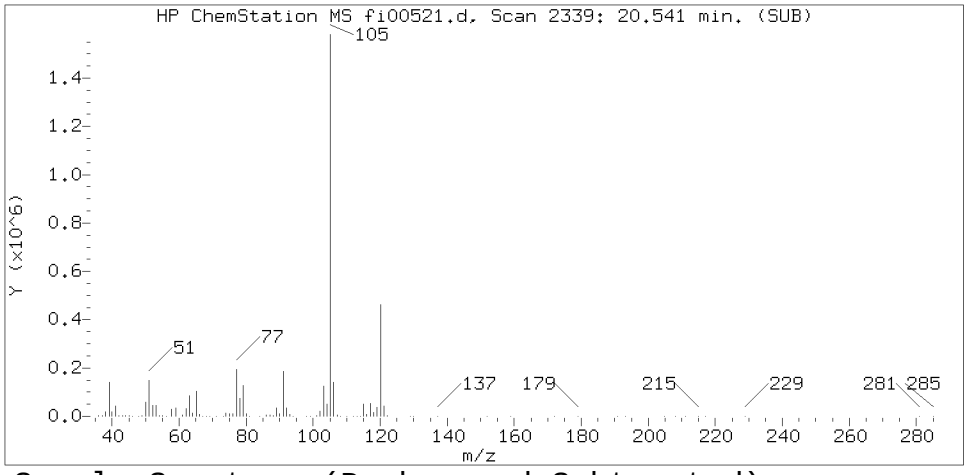
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

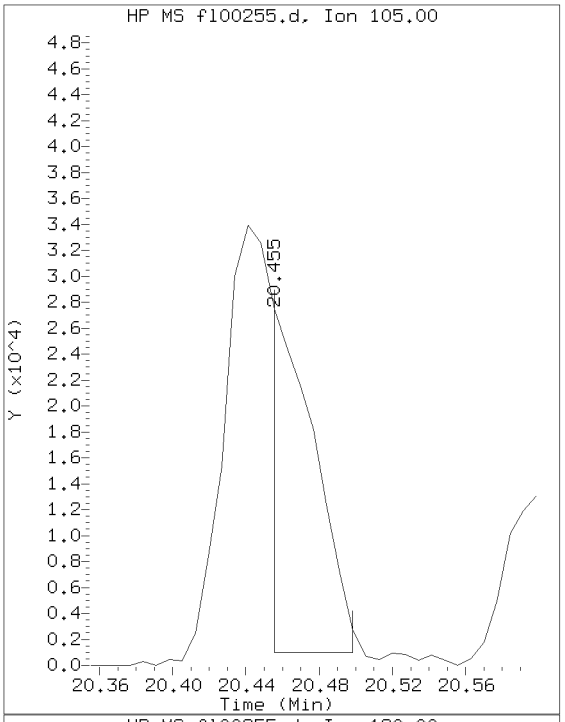
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 2149
Retention Time (minutes): 19.180
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 90262
Concentration (ppb(v)) : 0.6263

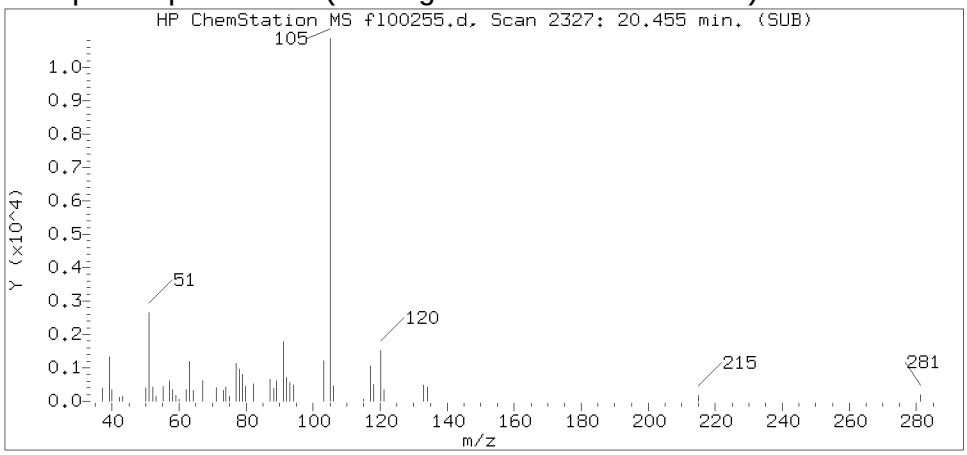
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

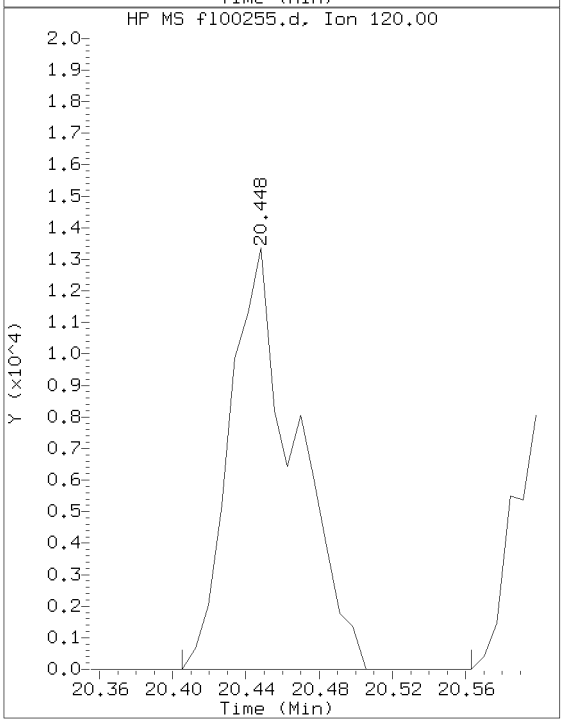
Reference Standard Spectrum for 4-Ethyltoluene



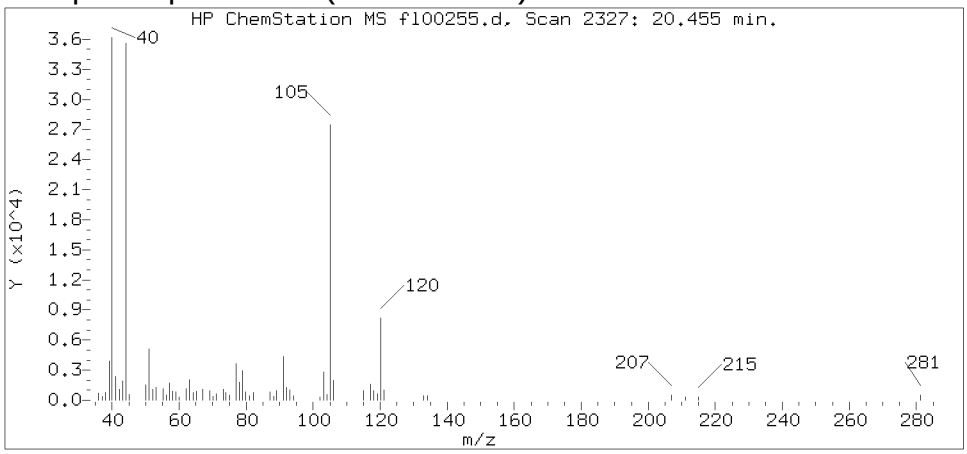


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

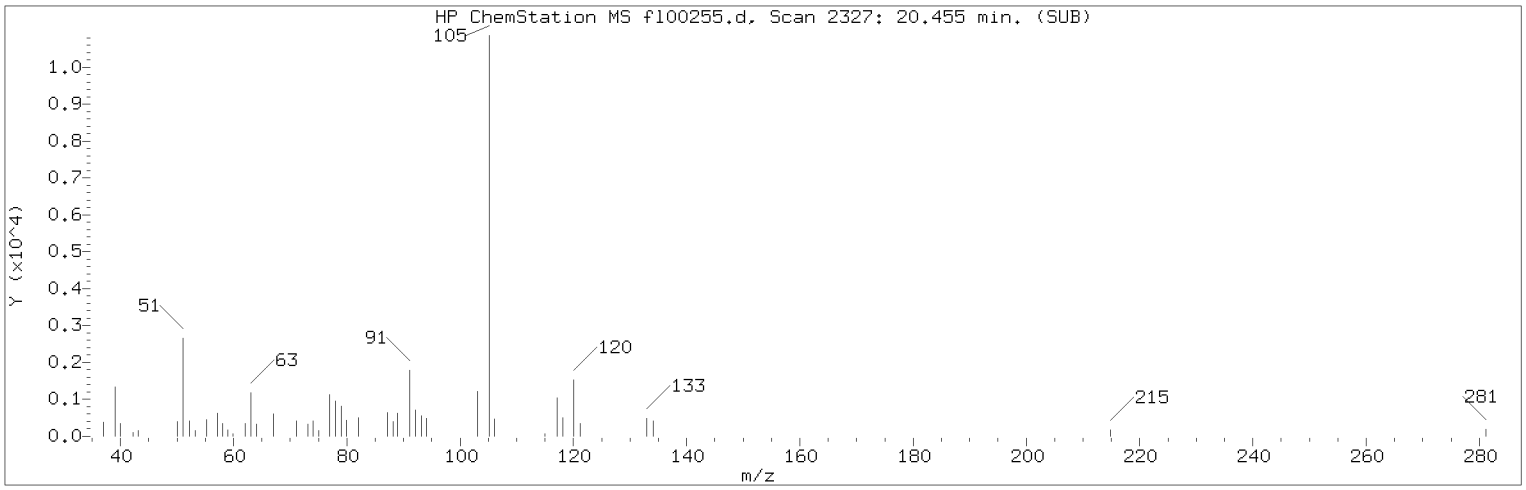
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

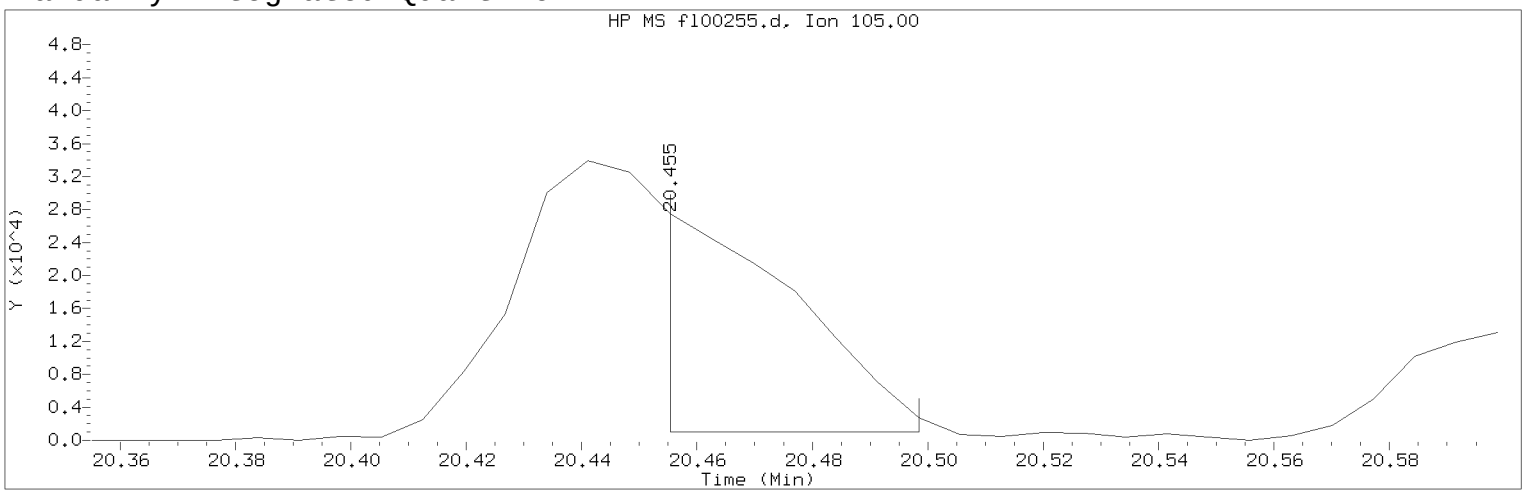
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2327
Retention Time (minutes): 20.455
Relative Retention Time : 0.00118
Quant Ion : 105.00
Area (flag) : 45991M
Concentration (ppb(v)) : 0.2334

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

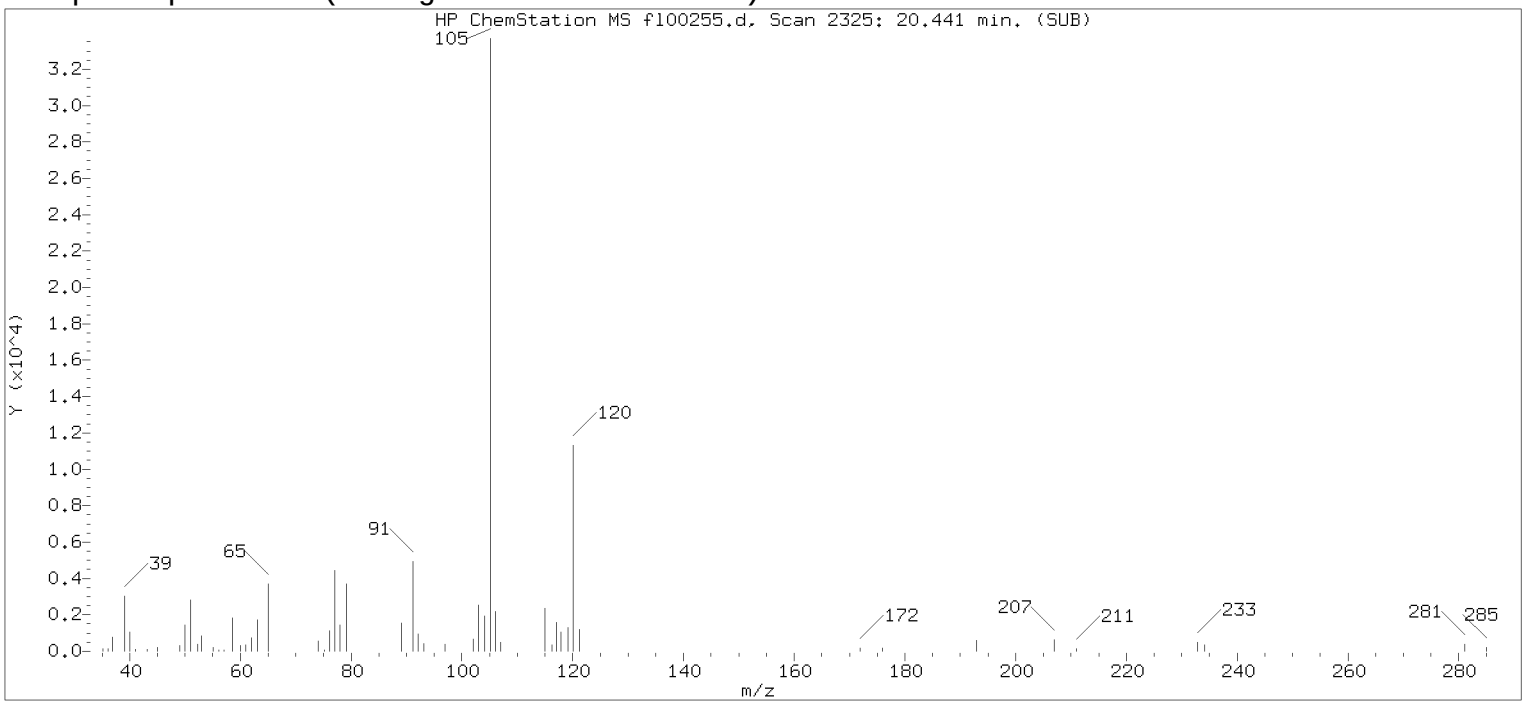
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2327
Retention Time (minutes): 20.455
Quant Ion : 105.00
Area (flag) : 45991M
Concentration (ppb(v)) : 0.2334
Integration start scan : 2326 Integration stop scan: 2332
Y at integration start : 976 Y at integration end: 976

Reason for manual integration: improper integration

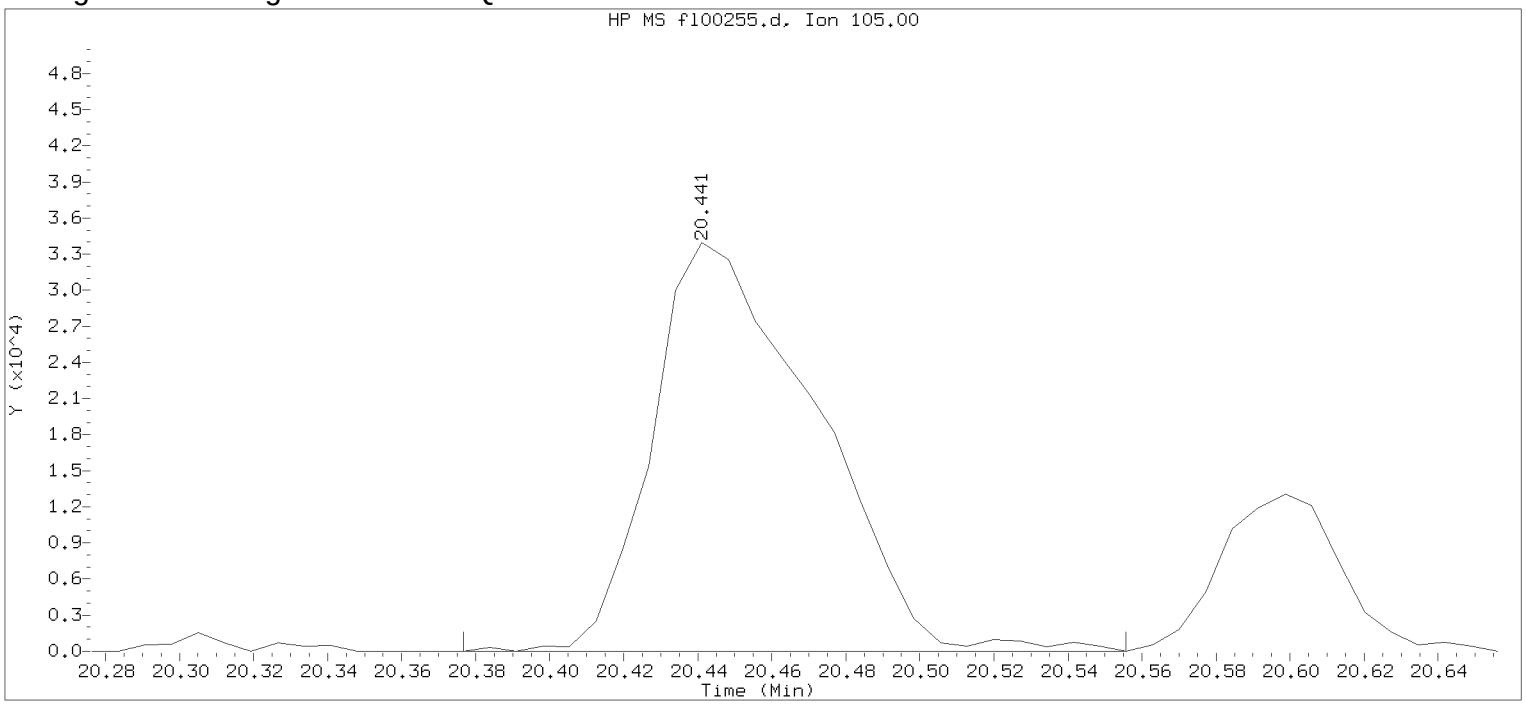
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

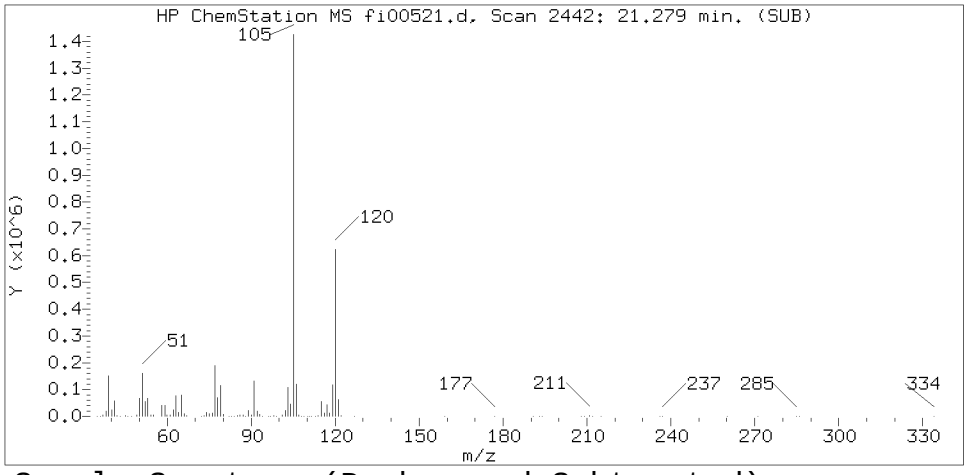
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 20:04 Unknown

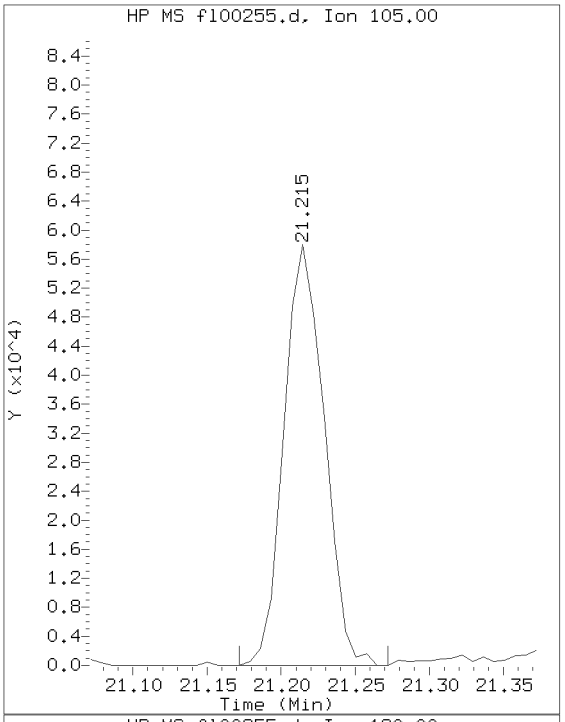
Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2325
Retention Time (minutes): 20.441
Quant Ion : 105.00
Area : 104104
Concentration (ppb(v)) : 0.5284
Integration start scan : 2315 Integration stop scan: 2340
Y at integration start : 0 Y at integration end: 0

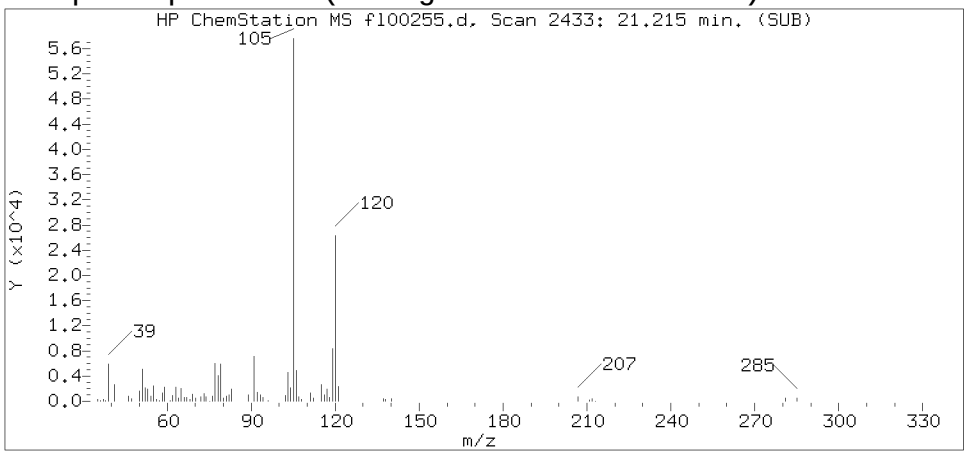
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

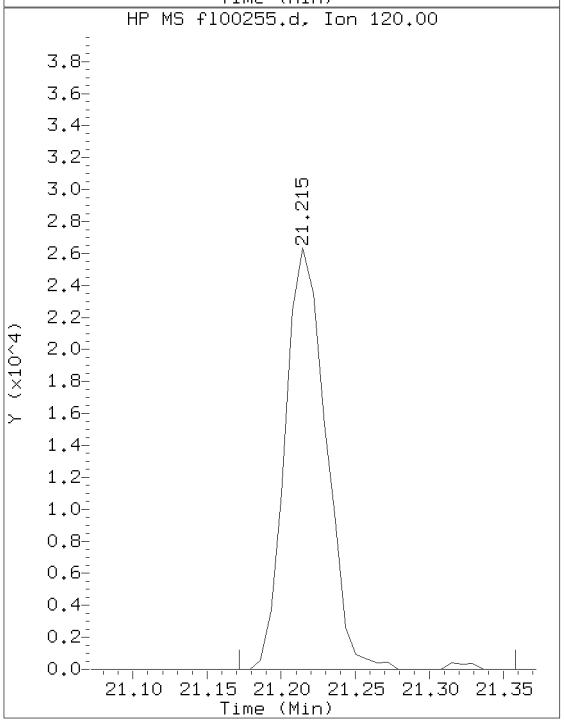
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



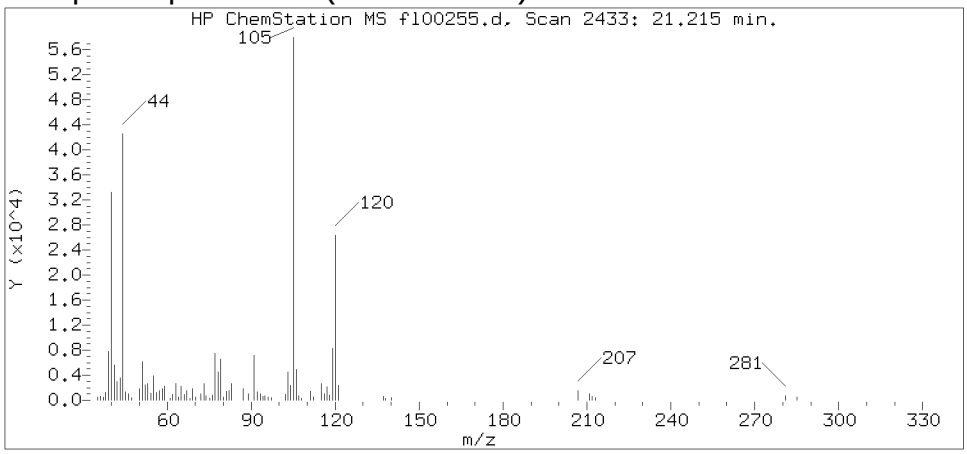


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00255.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 19:30 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:47 jeb07445

Sample Name: 1262- Lab Sample ID: 9929275

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 2433
Retention Time (minutes): 21.215
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 109407
Concentration (ppb(v)) : 0.6859

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:52.
Target 3.5 esignature user ID: jeb07445

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929276
Canister ID:	1361	Lab File ID:	fl00256.d
Pressure Received:	3.8 psia	Date Collected:	12/05/2018
Final Pressure:	20.9 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	800 cc	Analyzed Time:	20:07
Instrument ID:	26379	Dilution Factor:	1.38

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	2.9	J
75-45-6	Chlorodifluoromethane	0.73	U
76-14-2	Freon 114	1.2	U
74-87-3	Chloromethane	0.68	U
75-01-4	Vinyl Chloride	0.42	U
106-99-0	1,3-Butadiene	0.52	U
74-83-9	Bromomethane	0.96	U
75-00-3	Chloroethane	0.69	U
75-43-4	Dichlorofluoromethane	0.64	U
75-69-4	Trichlorofluoromethane	1.4	J
109-66-0	Pentane	33	
75-35-4	1,1-Dichloroethene	0.76	U
76-13-1	Freon 113	1.2	U
67-64-1	Acetone	15	J
75-15-0	Carbon Disulfide	0.56	U
107-05-1	3-Chloropropene	0.65	U
75-09-2	Methylene Chloride	1.2	U
156-60-5	trans-1,2-Dichloroethene	0.47	U
1634-04-4	Methyl t-Butyl Ether	0.74	U
110-54-3	Hexane	13	
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.65	U
78-93-3	2-Butanone	4.9	
67-66-3	Chloroform	0.62	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929276
Canister ID:	1361	Lab File ID:	fl00256.d
Pressure Received:	3.8 psia	Date Collected:	12/05/2018
Final Pressure:	20.9 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	800 cc	Analyzed Time:	20:07
Instrument ID:	26379	Dilution Factor:	1.38

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
71-55-6	1,1,1-Trichloroethane	0.90	U
56-23-5	Carbon Tetrachloride	1.2	U
71-43-2	Benzene	6.3	
107-06-2	1,2-Dichloroethane	0.45	U
540-84-1	Isooctane	12	
142-82-5	Heptane	5.5	J
79-01-6	Trichloroethene	1.3	U
78-87-5	1,2-Dichloropropane	0.83	U
74-95-3	Dibromomethane	1.4	U
75-27-4	Bromodichloromethane	1.1	U
10061-01-5	cis-1,3-Dichloropropene	0.62	U
108-10-1	4-Methyl-2-Pentanone	0.84	U
108-88-3	Toluene	23	
111-65-9	Octane	3.2	J
10061-02-6	trans-1,3-Dichloropropene	0.75	U
79-00-5	1,1,2-Trichloroethane	0.90	U
127-18-4	Tetrachloroethene	2.7	J
591-78-6	2-Hexanone	1.0	U
124-48-1	Dibromochloromethane	1.5	U
106-93-4	1,2-Dibromoethane	1.4	U
108-90-7	Chlorobenzene	0.82	U
630-20-6	1,1,1,2-Tetrachloroethane	1.4	U
100-41-4	Ethylbenzene	5.6	J
179601-23-1	m/p-Xylene	22	

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929276
Canister ID:	1361	Lab File ID:	fl00256.d
Pressure Received:	3.8 psia	Date Collected:	12/05/2018
Final Pressure:	20.9 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	800 cc	Analyzed Time:	20:07
Instrument ID:	26379	Dilution Factor:	1.38

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
95-47-6	o-Xylene	7.5	
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	2.4	U
98-82-8	Cumene	1.6	U
108-86-1	Bromobenzene	0.88	U
79-34-5	1,1,2,2-Tetrachloroethane	1.4	U
96-18-4	1,2,3-Trichloropropane	1.2	U
622-96-8	4-Ethyltoluene	4.2	J
108-67-8	1,3,5-Trimethylbenzene	2.3	J
95-63-6	1,2,4-Trimethylbenzene	9.8	J
541-73-1	1,3-Dichlorobenzene	1.6	U
106-46-7	1,4-Dichlorobenzene	1.4	U
95-50-1	1,2-Dichlorobenzene	1.7	U
67-72-1	Hexachloroethane	3.6	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00256.d Injection date and time: **15-DEC-2018 20:07**
Data file Sample Info. Line: 9929276;800;F1834930AA;1361-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 20.9 psia Canister Pressure before dilution (Ya): 3.8 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 800 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.122(-0.021)	1024	130	315777 (-13)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.385(0.000)	1340	114	1067905 (-11)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.221(0.007)	2015	117	1080634 (-9)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)	4.023(-0.001)	85	43892M	0.421	0.58		J	0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)			Not Detected					0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)	5.879(0.000)	101	18707	0.177	0.24		J	0.15	1
11) Pentane	(1)	5.864(0.000)	43	756342	8.038	11.05			0.13	1
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)	8.078(0.000)	43	381262	4.681	6.44		J	0.53	5
18) Carbon Disulfide	(1)			Not Detected					0.13	1
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)	8.450(0.000)	56	147732	2.722	3.74			0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
45) 2-Butanone	(1)	11.802(0.002)	43	137109	1.216	1.67			0.21	1
39) Chloroform	(1)			Not Detected					0.092	1
44) 1,1,1-Trichloroethane	(1)			Not Detected					0.12	1
42) Carbon Tetrachloride	(1)			Not Detected					0.14	1
48) Benzene	(2)	12.332(-0.000)	78	172338	1.443	1.98			0.11	1
50) 1,2-Dichloroethane	(2)			Not Detected					0.08	1
46) Isooctane	(2)	12.039(0.000)	57	467783	1.913	2.63			0.13	1
47) Heptane	(2)	12.196(-0.000)	71	38434	0.977	1.34		J	0.23	1
51) Trichloroethene	(2)			Not Detected					0.18	1
55) 1,2-Dichloropropane	(2)			Not Detected					0.13	1
53) Dibromomethane	(2)			Not Detected					0.14	1
56) Bromodichloromethane	(2)			Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)			Not Detected					0.15	1
61) Toluene	(3)	15.792(0.000)	91	670841	4.514	6.21			0.12	1
60) Octane	(3)	15.427(-0.000)	43	70591	0.495	0.68		J	0.4	2
64) trans-1,3-Dichloropropene	(3)			Not Detected					0.12	1
67) 1,1,2-Trichloroethane	(3)			Not Detected					0.12	1
63) Tetrachloroethene	(3)	16.430(-0.000)	166	24414	0.286	0.39		J	0.25	2
70) 2-Hexanone	(3)			Not Detected					0.18	1
68) Dibromochloromethane	(3)			Not Detected					0.13	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00256.d Injection date and time: **15-DEC-2018 20:07**
Data file Sample Info. Line: 9929276;800;F1834930AA;1361-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 20.9 psia Canister Pressure before dilution (Ya): 3.8 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 800 cc

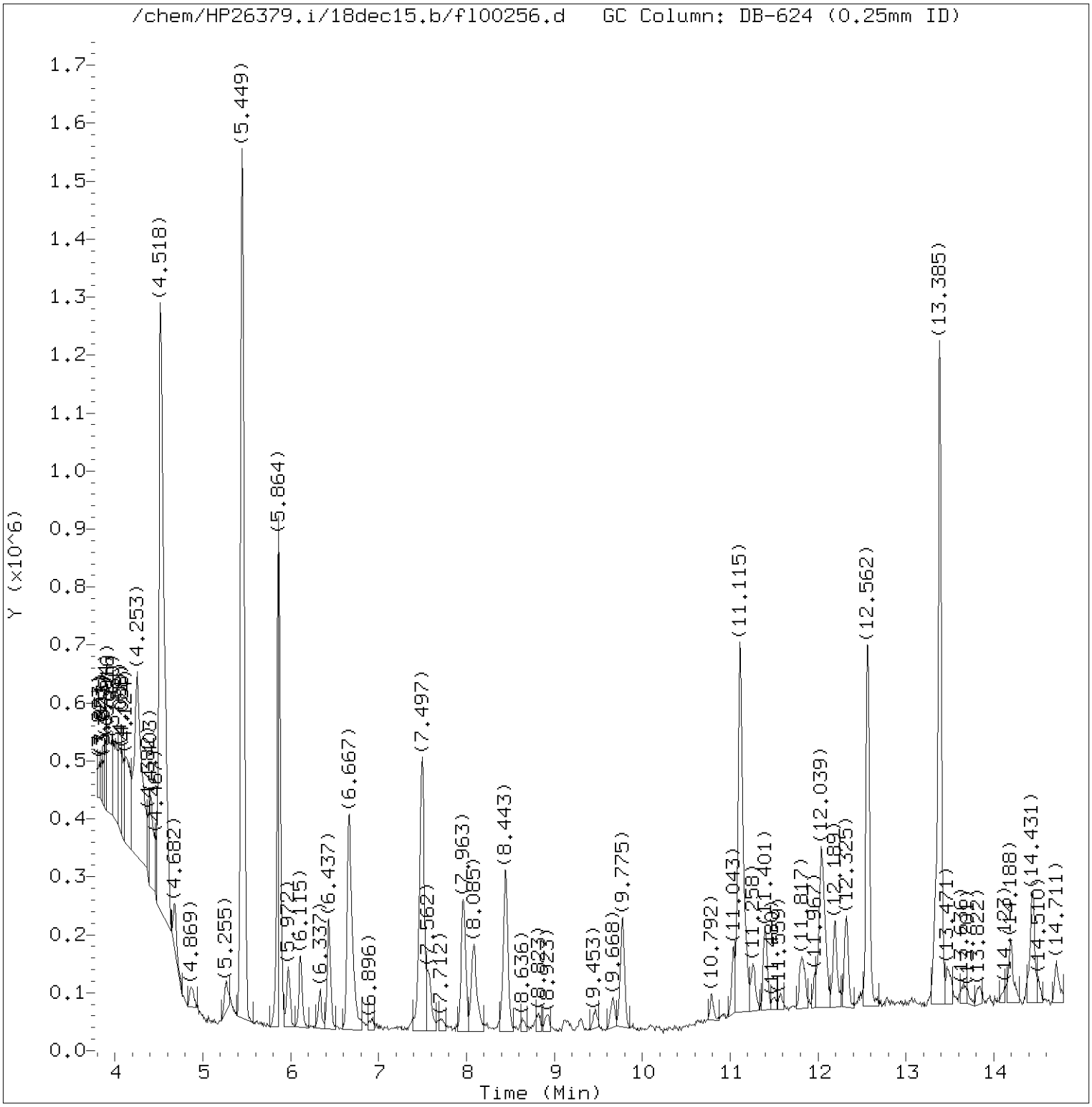
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
69) 1,2-Dibromoethane	(3)			Not Detected					0.13	1
72) Chlorobenzene	(3)			Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.15	1
73) Ethylbenzene	(3)	18.264(-0.000)	91	193962	0.942	1.30		J	0.19	1
75) m/p-Xylene	(3)	18.486(-0.000)	91	534296	3.601	4.95			0.26	2
76) o-Xylene	(3)	19.180(-0.000)	91	184126	1.259	1.73			0.19	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.17	1
80) Cumene	(3)			Not Detected					0.24	1
82) Bromobenzene	(3)			Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)			Not Detected					0.14	1
84) 4-Ethyltoluene	(3)	20.448(0.001)	105	125613M	0.628	0.86		J	0.18	1
86) 1,3,5-Trimethylbenzene	(3)	20.599(-0.000)	105	58651	0.345	0.47		J	0.32	2
90) 1,2,4-Trimethylbenzene	(3)	21.215(-0.000)	105	235424	1.455	2.00		J	0.28	2
93) 1,3-Dichlorobenzene	(3)			Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)			Not Detected					0.17	1
98) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) Hexachloroethane	(3)			Not Detected					0.27	2

M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

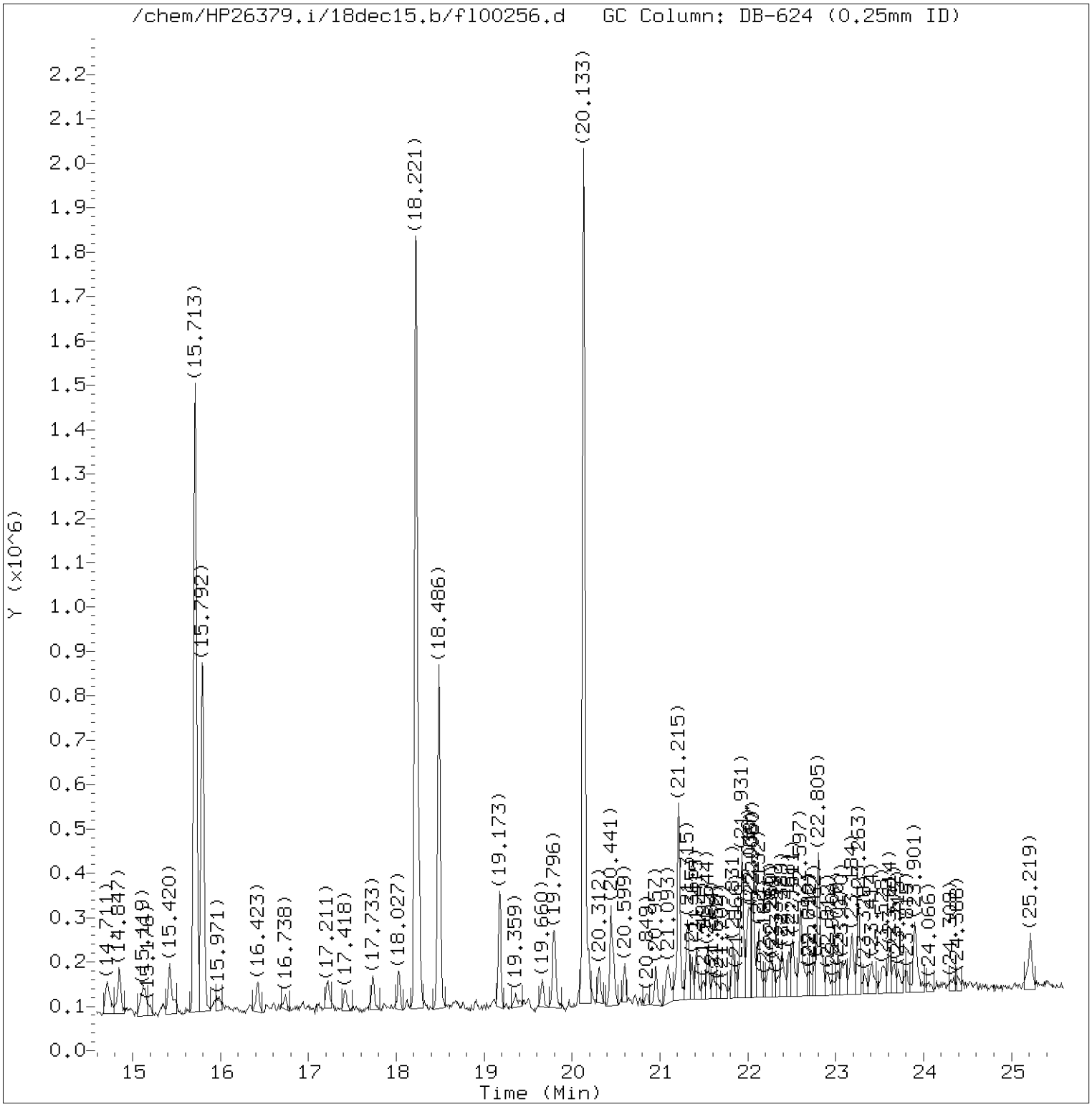
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

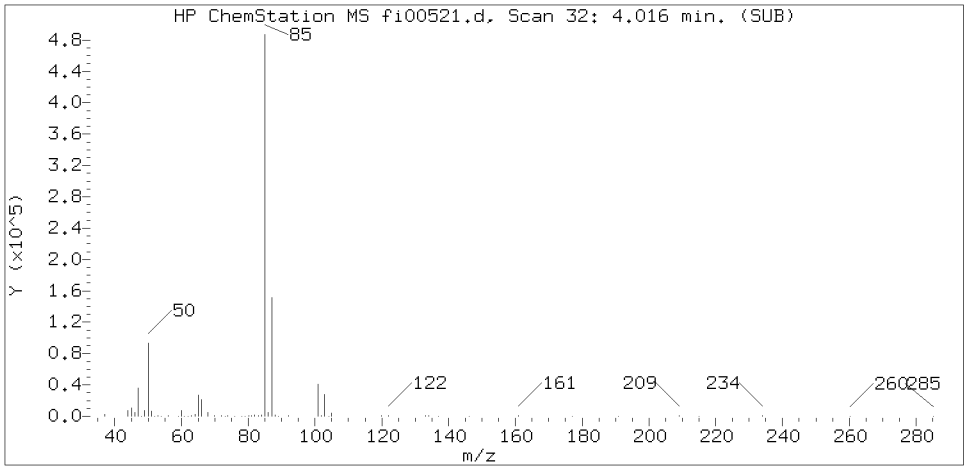
Sample Name: 1361- Lab Sample ID: 9929276

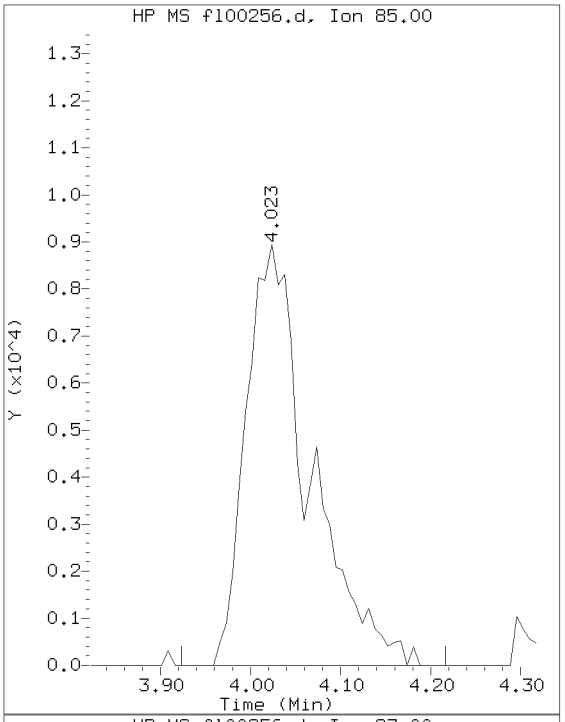
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	4.023	85	43892M	0.421
11) Pentane	(1)	5.864	43	756342	8.038
12) Trichlorofluoromethane	(1)	5.879	101	18707	0.177
24) Acetone	(1)	8.078	43	381262	4.681
26) Hexane	(1)	8.450	56	147732	2.722
37)*Bromochloromethane	(1)	11.122	130	315777	10.000
45) 2-Butanone	(1)	11.802	43	137109	1.216
46) Isooctane	(2)	12.039	57	467783	1.913
47) Heptane	(2)	12.196	71	38434	0.977
48) Benzene	(2)	12.332	78	172338	1.443
52)*1,4-Difluorobenzene	(2)	13.385	114	1067905	10.000
60) Octane	(3)	15.427	43	70591	0.495
61) Toluene	(3)	15.792	91	670841	4.514
63) Tetrachloroethene	(3)	16.430	166	24414	0.286
71)*Chlorobenzene-d5	(3)	18.221	117	1080634	10.000
73) Ethylbenzene	(3)	18.264	91	193962	0.942
75) m/p-Xylene	(3)	18.486	91	534296	3.601
76) o-Xylene	(3)	19.180	91	184126	1.259
84) 4-Ethyltoluene	(3)	20.448	105	125613M	0.628
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	58651	0.345
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	235424	1.455

M = Compound was manually integrated.
* = Compound is an internal standard.

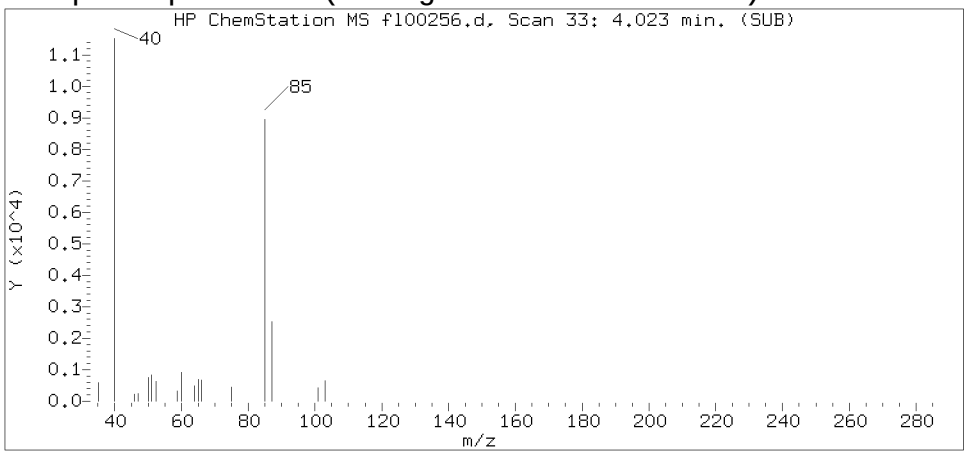
Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

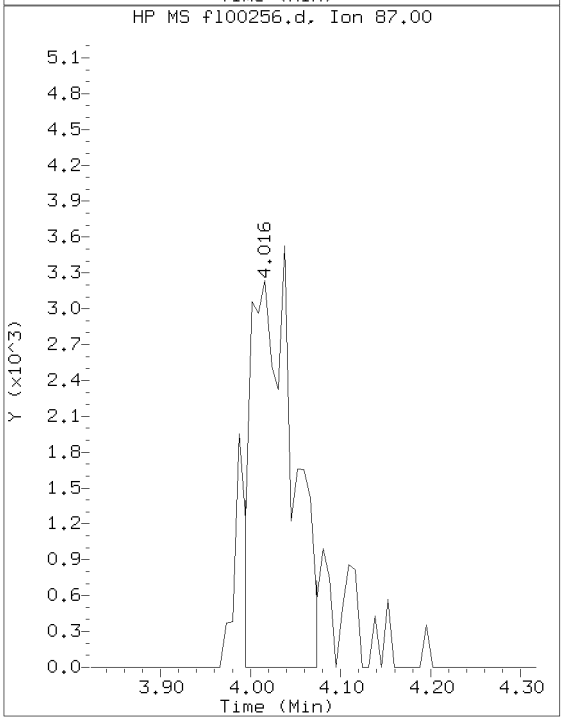
Reference Standard Spectrum for Dichlorodifluoromethane



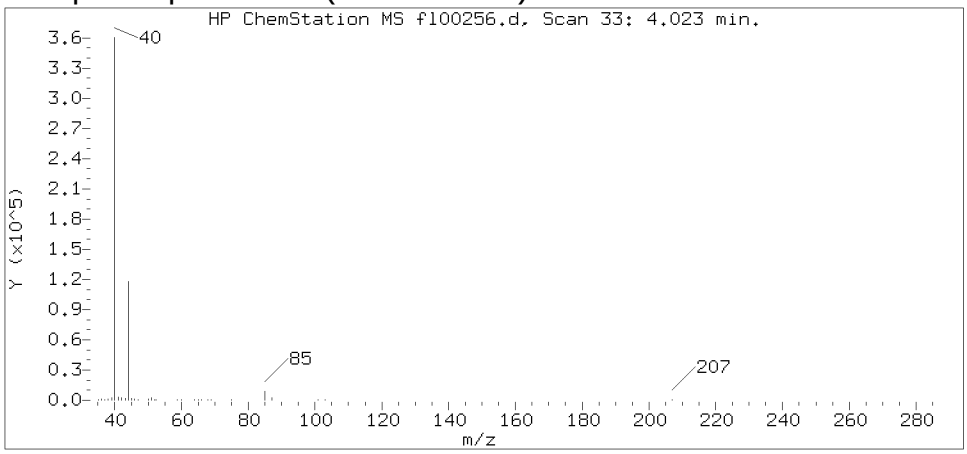


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

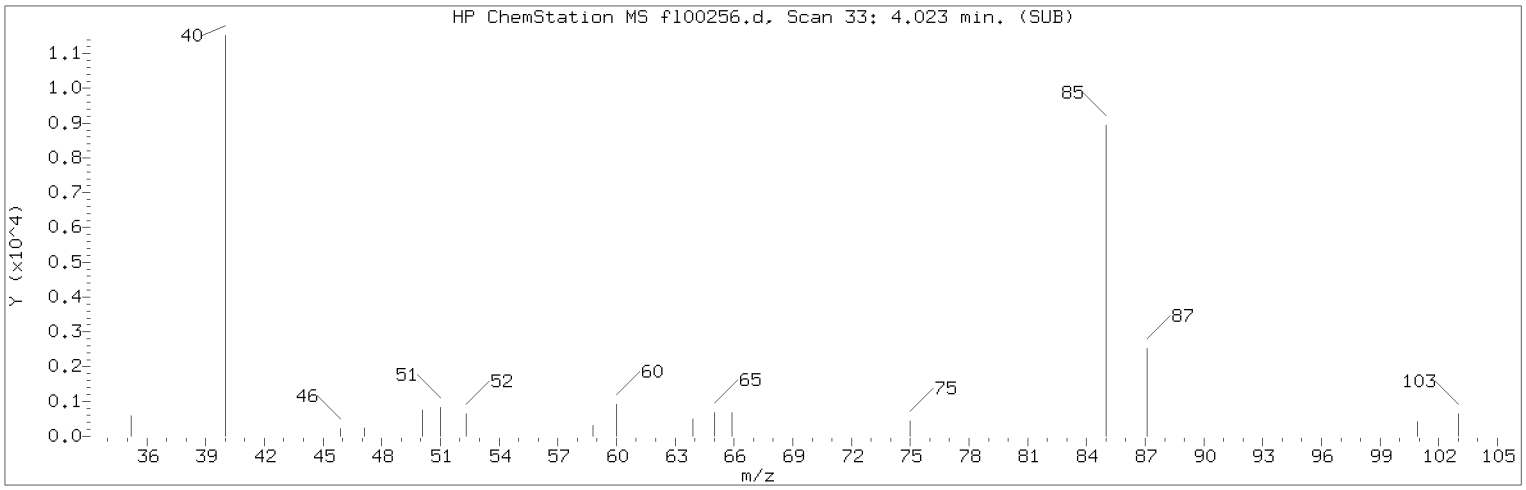
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

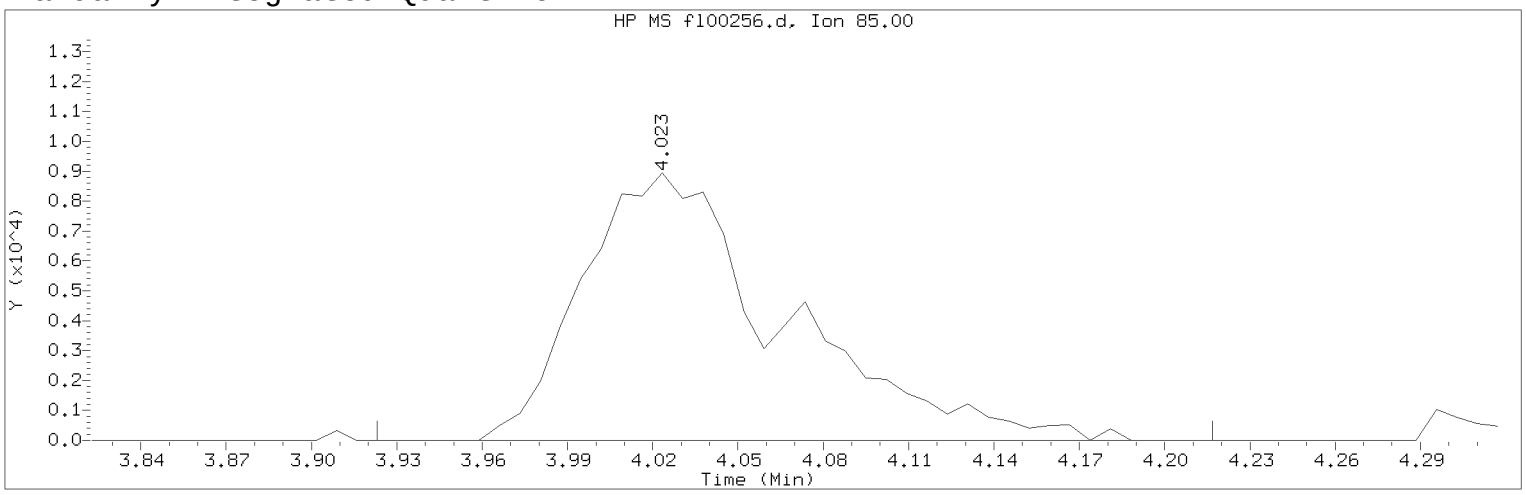
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 33
Retention Time (minutes): 4.023
Relative Retention Time :-0.00122
Quant Ion : 85.00
Area (flag) : 43892M
Concentration (ppb(v)) : 0.4210

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

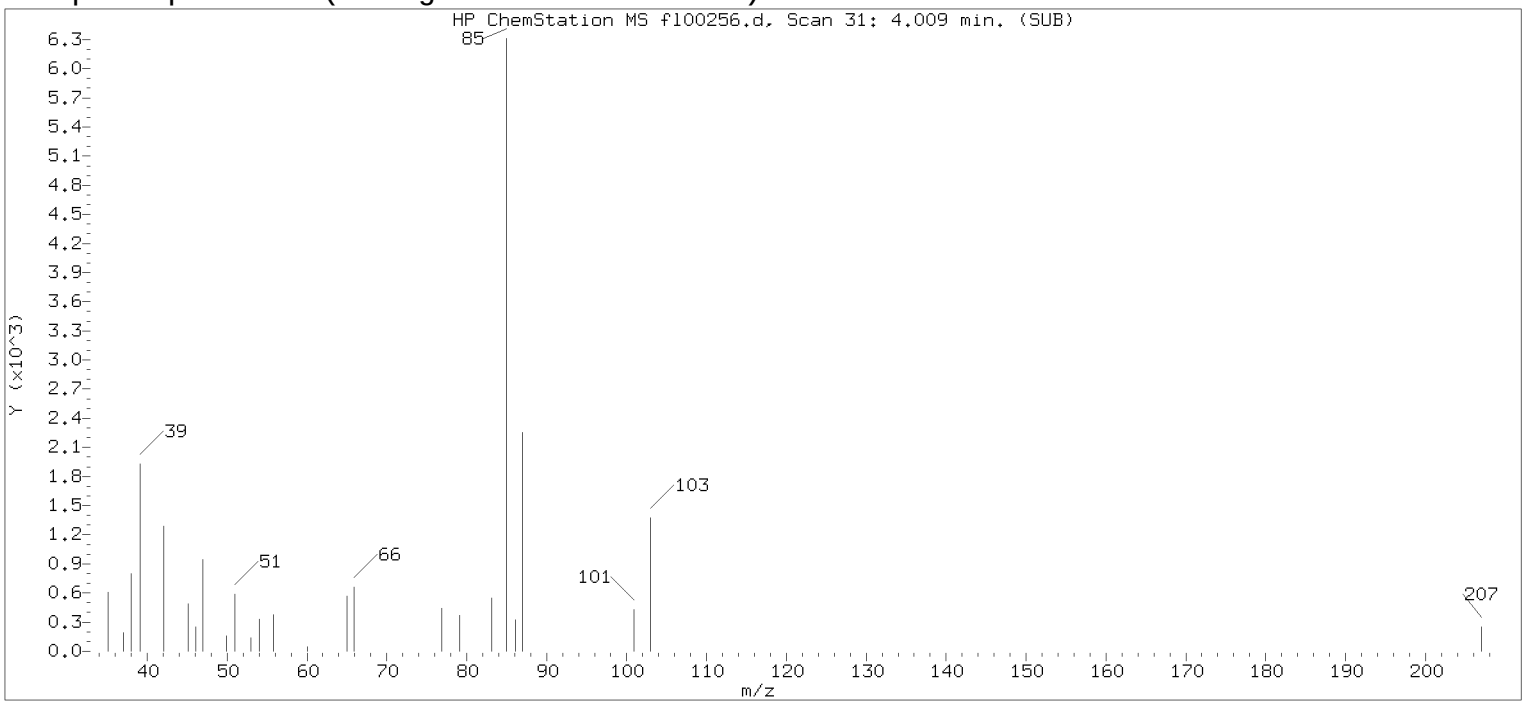
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 33
Retention Time (minutes): 4.023
Quant Ion : 85.00
Area (flag) : 43892M
Concentration (ppb(v)) : 0.4210
Integration start scan : 18 Integration stop scan: 59
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

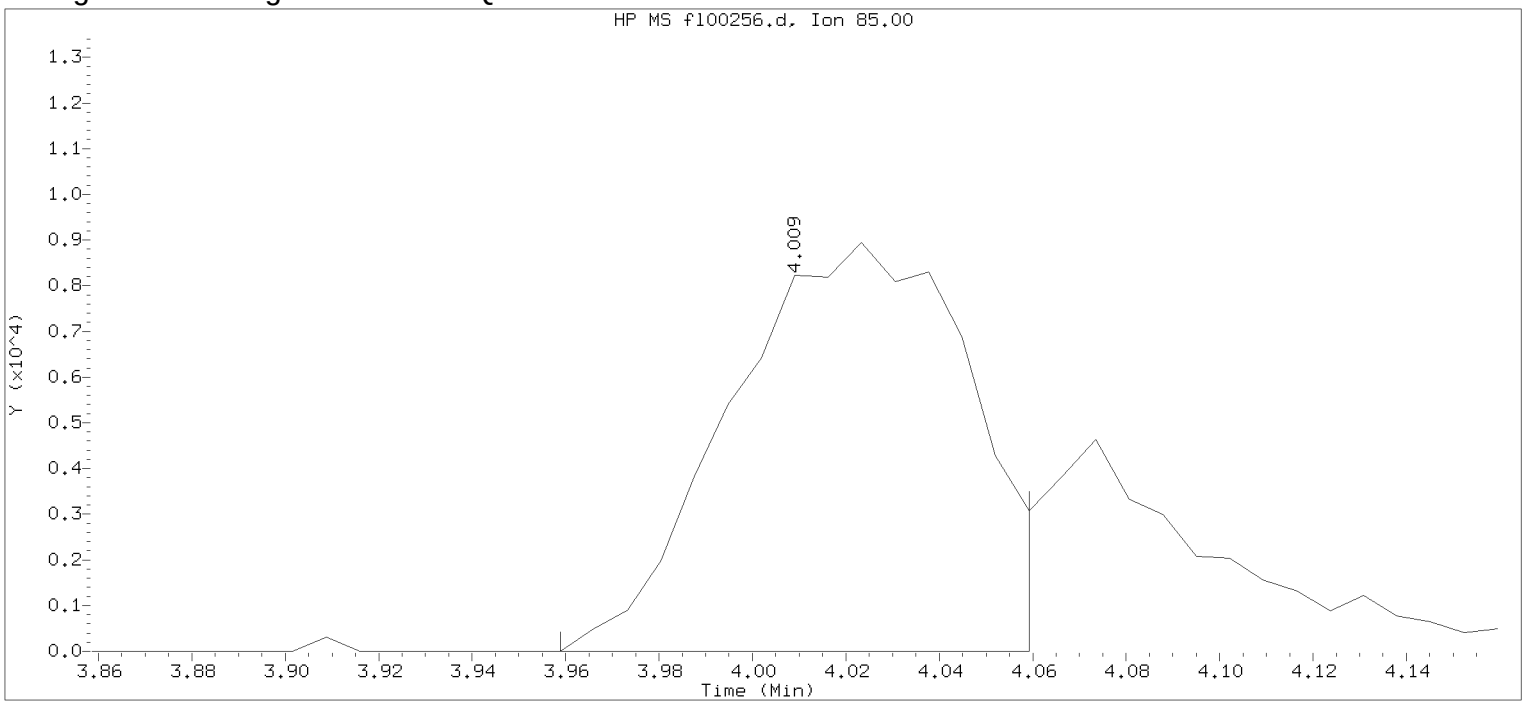
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

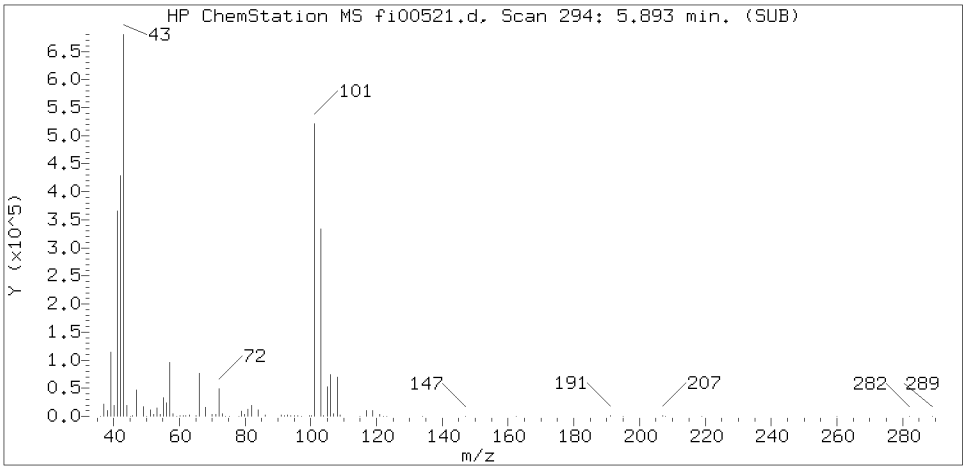
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 20:41 Unknown

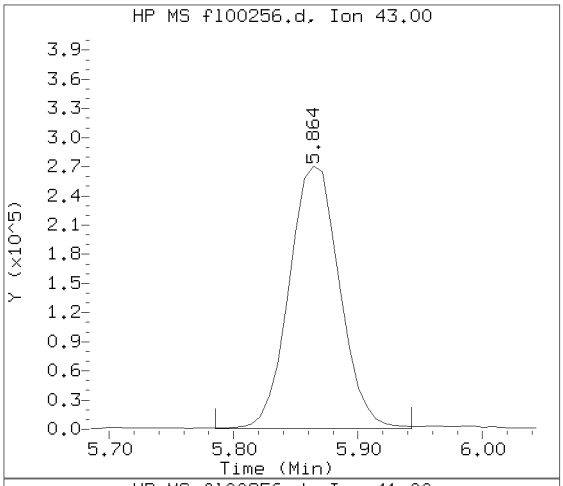
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Quant Ion : 85.00
Area : 31573
Concentration (ppb(v)) : 0.3028
Integration start scan : 23 Integration stop scan: 37
Y at integration start : 0 Y at integration end: 0

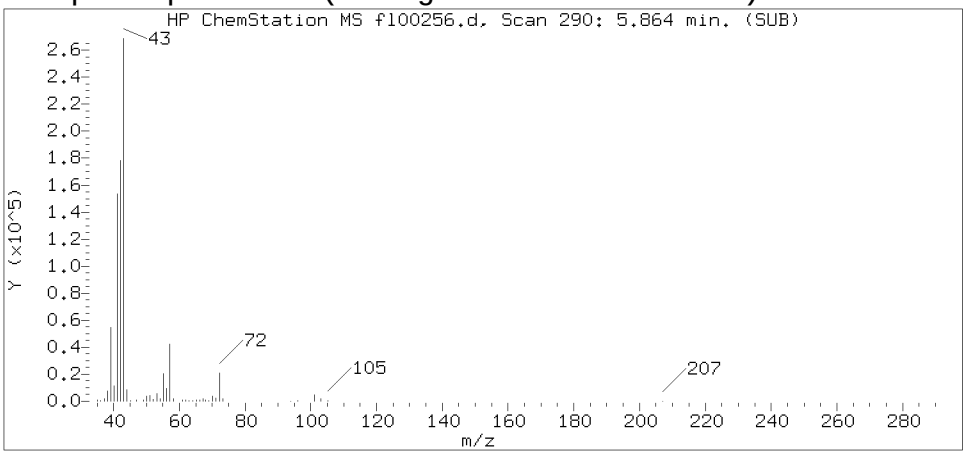
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

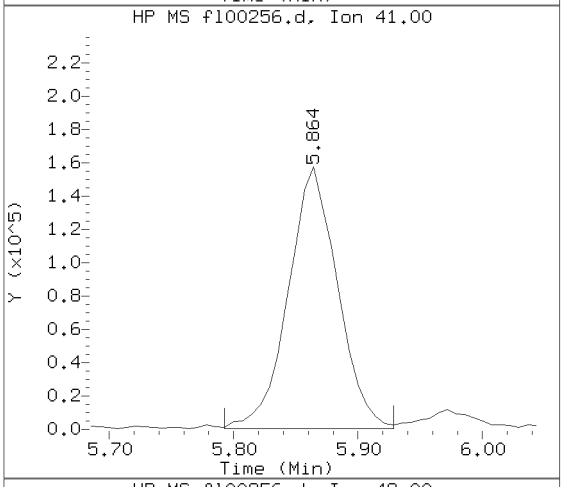
Reference Standard Spectrum for Pentane



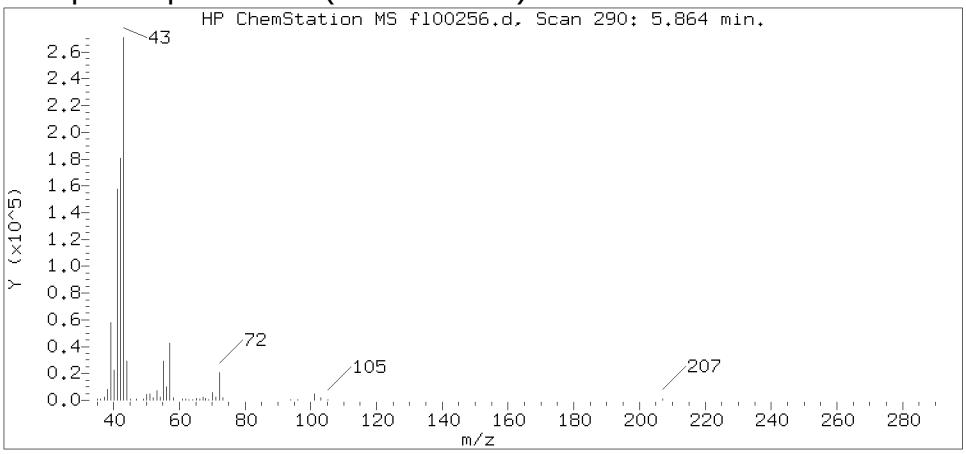


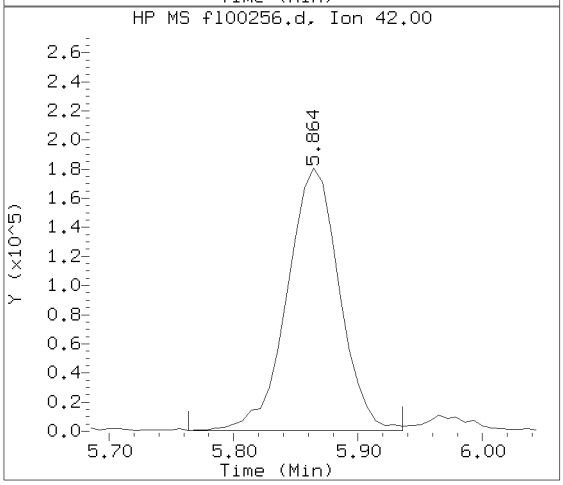
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

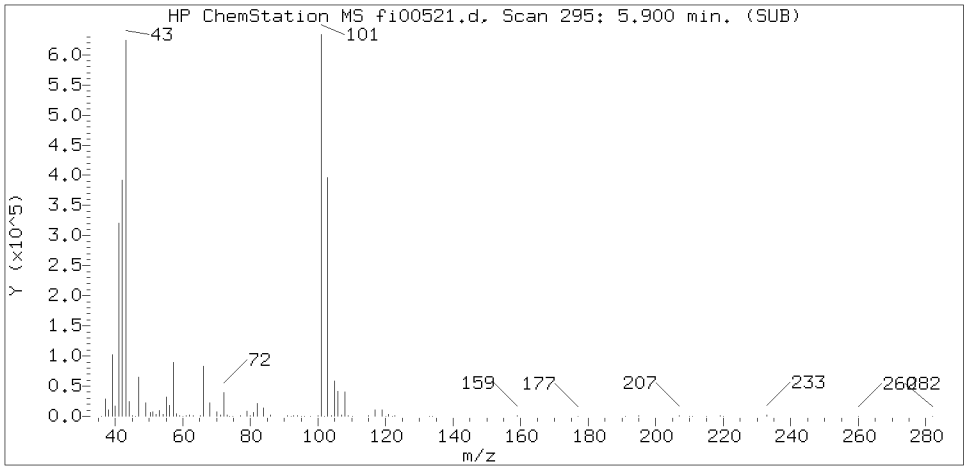
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

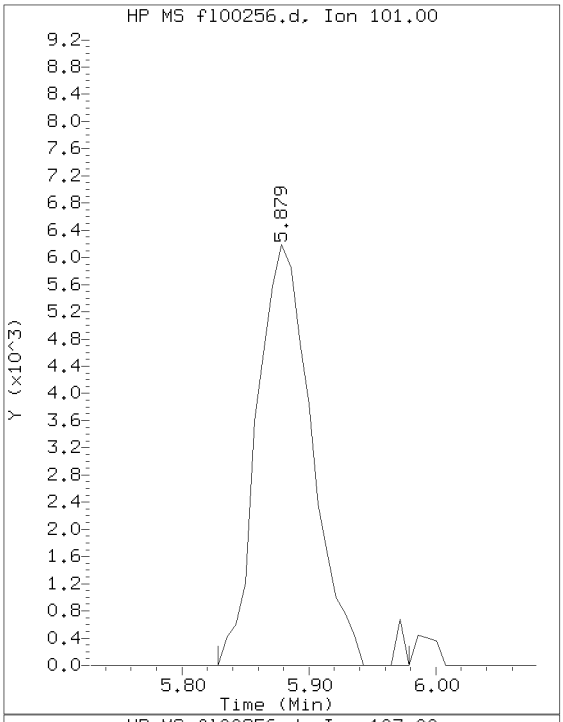
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 11
Compound Name : Pentane
Scan Number : 290
Retention Time (minutes): 5.864
Relative Retention Time : 0.00039
Quant Ion : 43.00
Area (flag) : 756342
Concentration (ppb(v)) : 8.0380

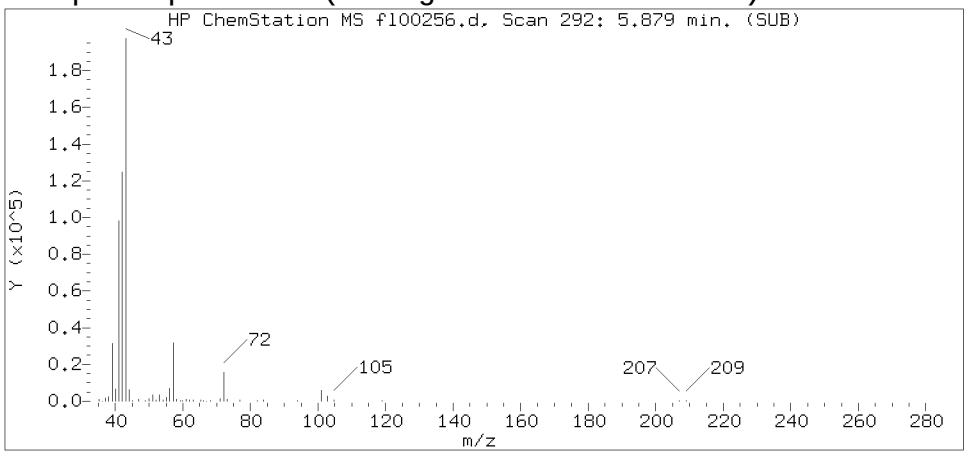
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

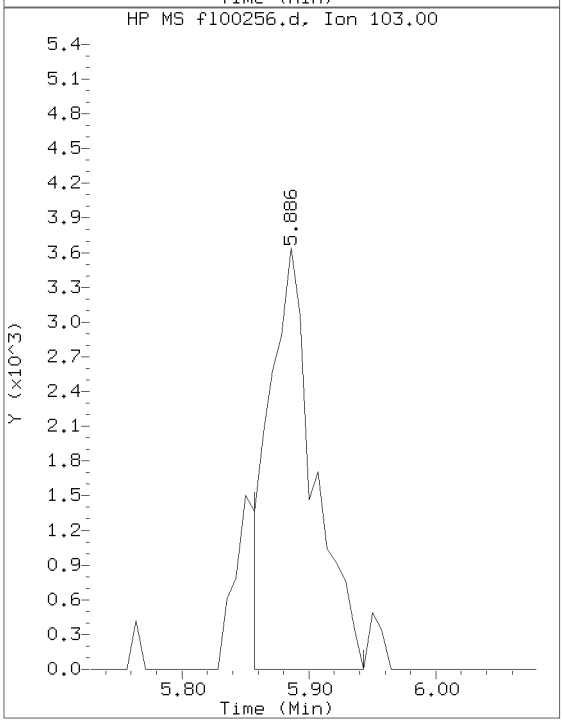
Reference Standard Spectrum for Trichlorofluoromethane



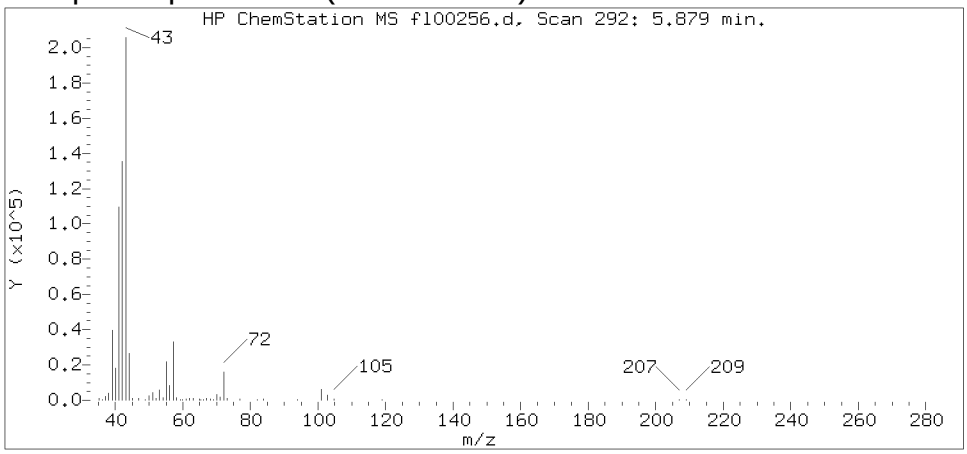


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

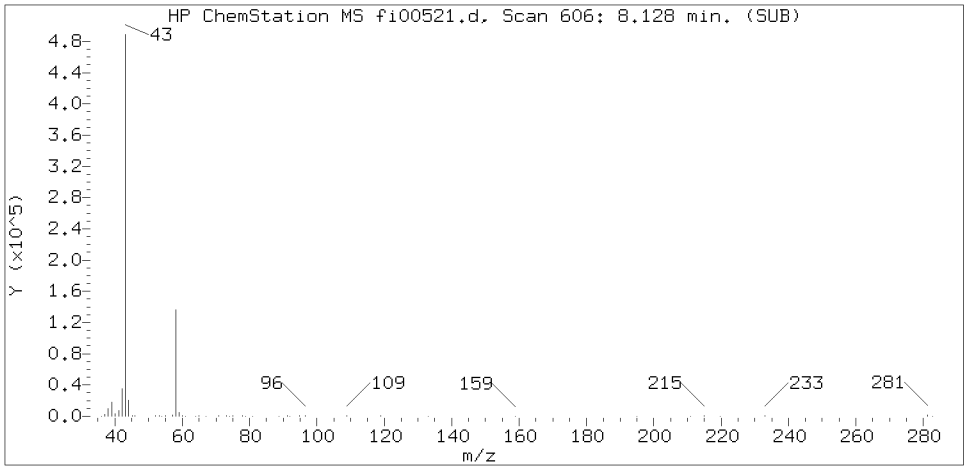
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

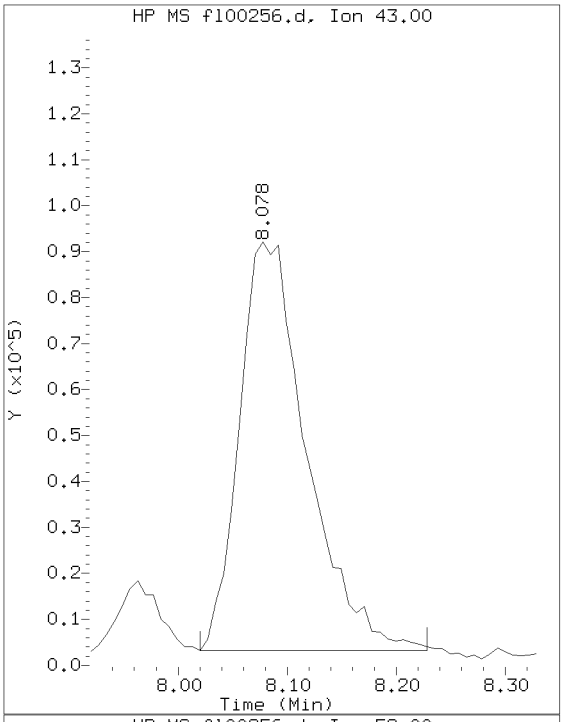
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 292
Retention Time (minutes): 5.879
Relative Retention Time : 0.00039
Quant Ion : 101.00
Area (flag) : 18707
Concentration (ppb(v)) : 0.1771

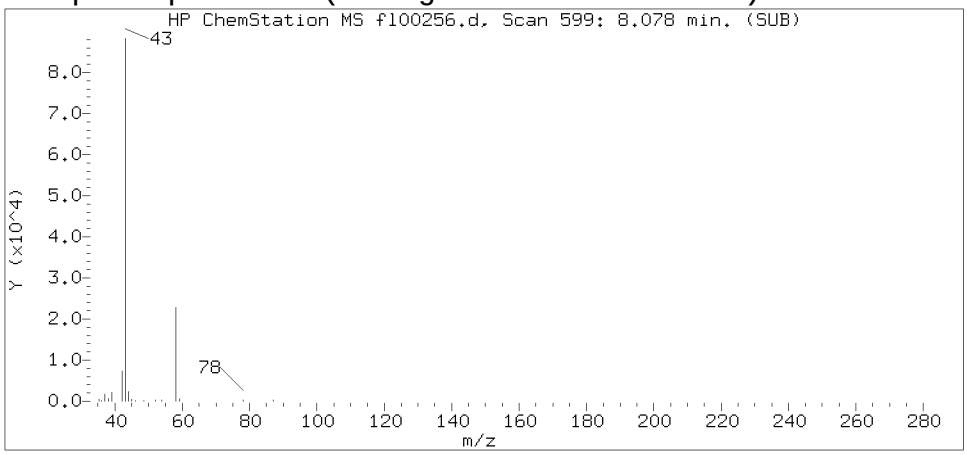
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

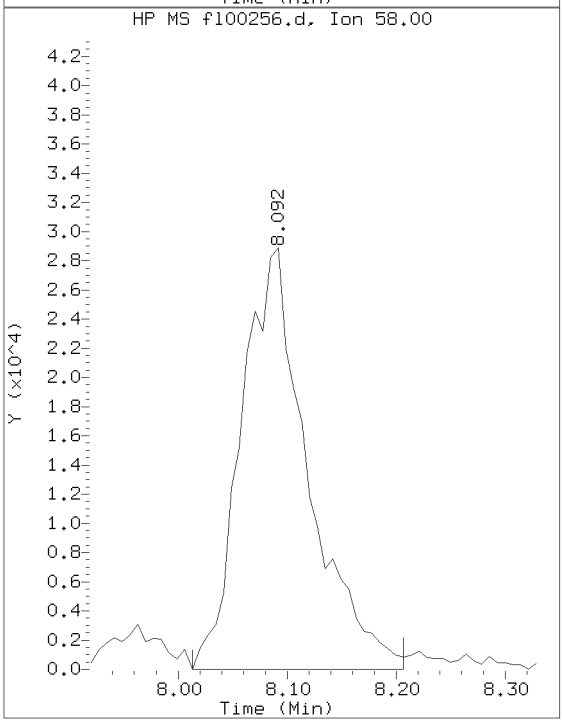
Reference Standard Spectrum for Acetone



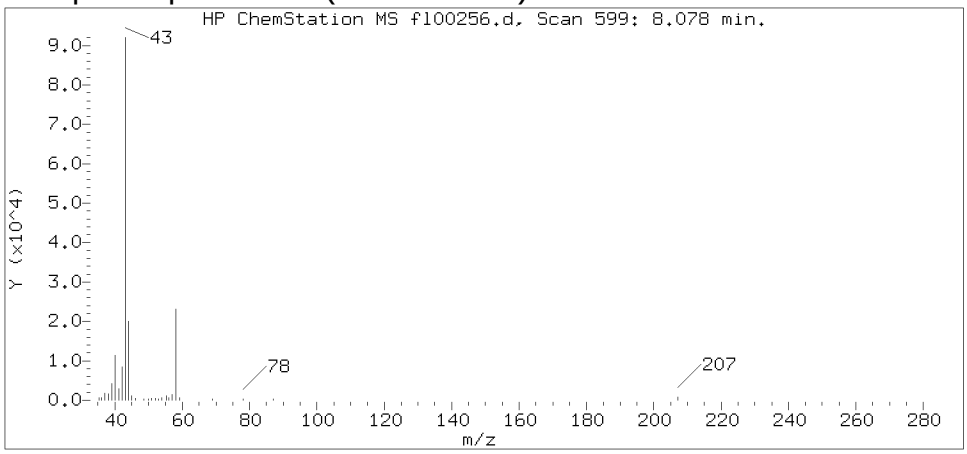


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

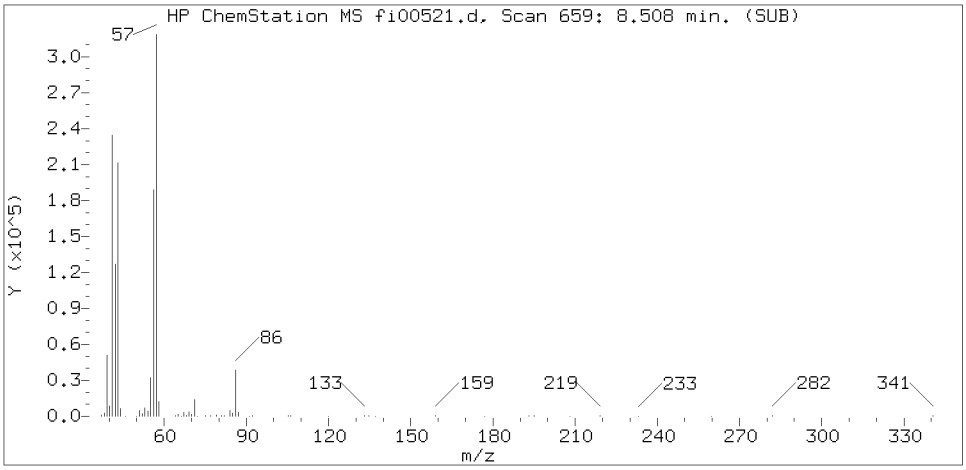
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

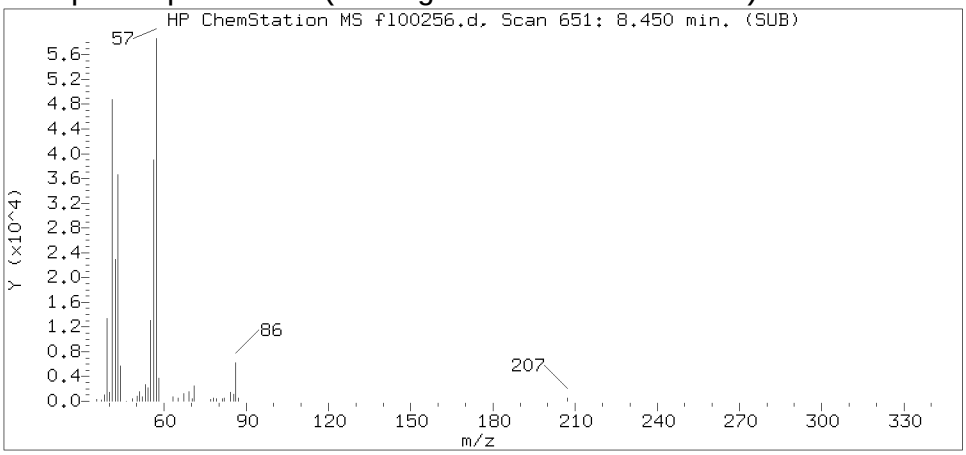
Compound Number	: 24
Compound Name	: Acetone
Scan Number	: 599
Retention Time (minutes)	: 8.078
Relative Retention Time	: 0.00012
Quant Ion	: 43.00
Area (flag)	: 381262
Concentration (ppb(v))	: 4.6812

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

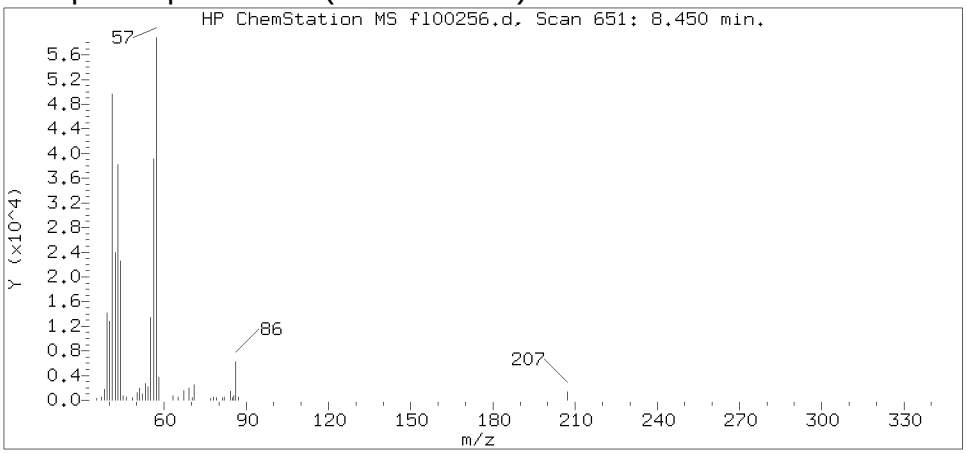
Reference Standard Spectrum for Hexane

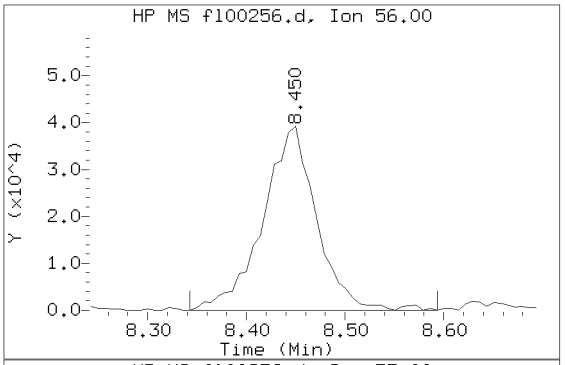


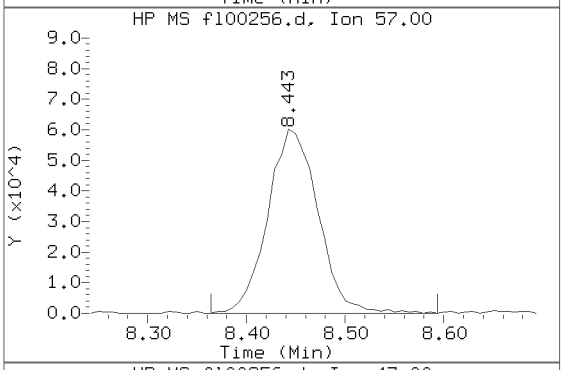
Sample Spectrum (Background Subtracted)

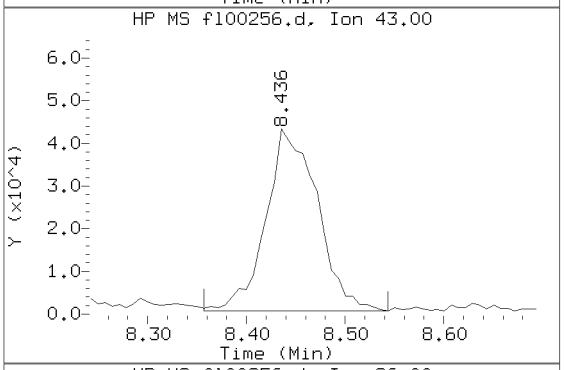


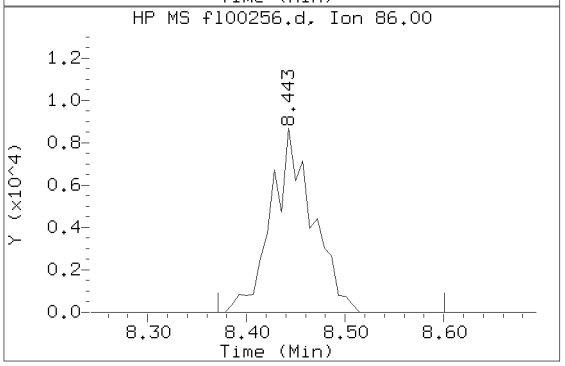
Sample Spectrum (Unaltered)











Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 26
Compound Name : Hexane
Scan Number : 651
Retention Time (minutes): 8.450
Relative Retention Time : 0.00083
Quant Ion : 56.00
Area (flag) : 147732
Concentration (ppb(v)) : 2.7215

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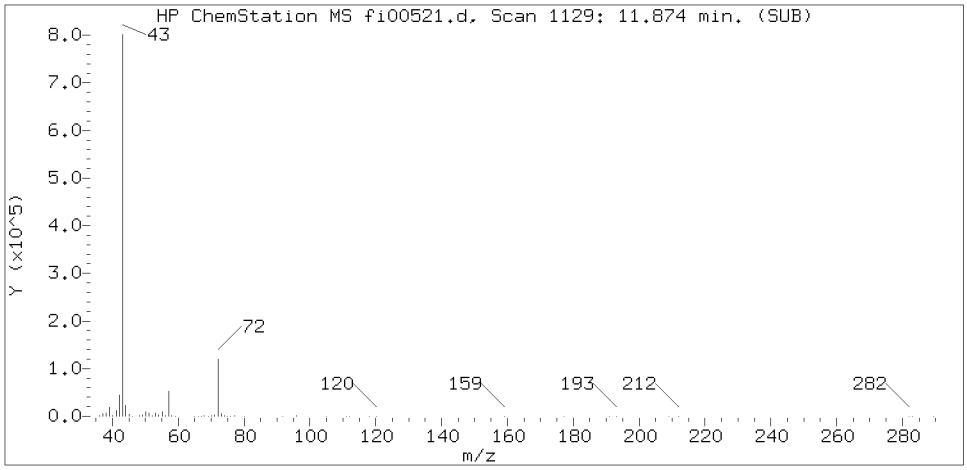
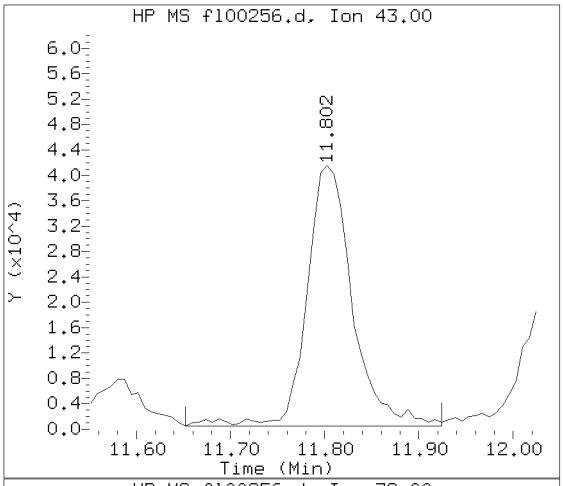
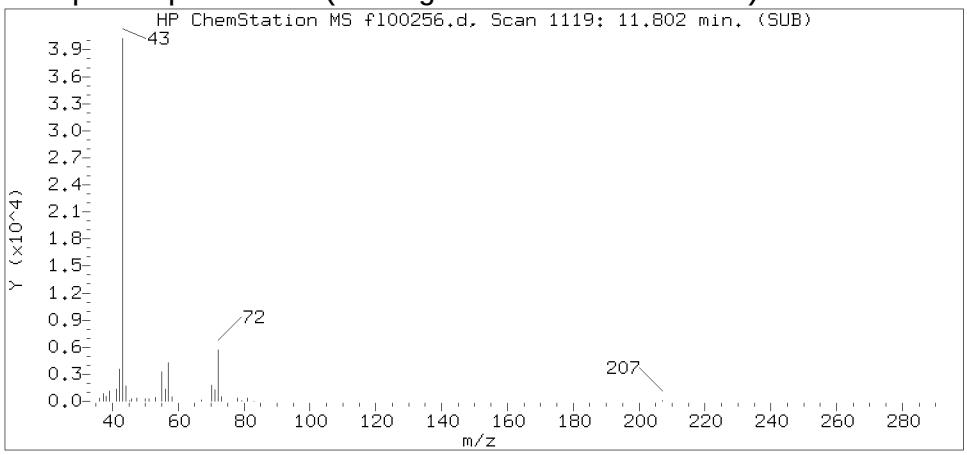
Target 3.5 esignature user ID: jeb07445

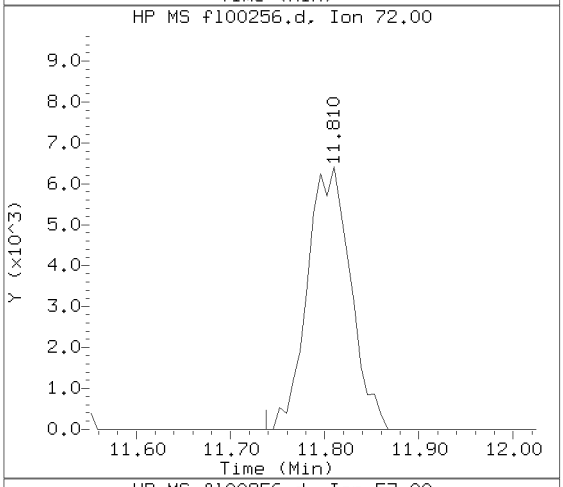
Reference Standard Spectrum for 2-Butanone



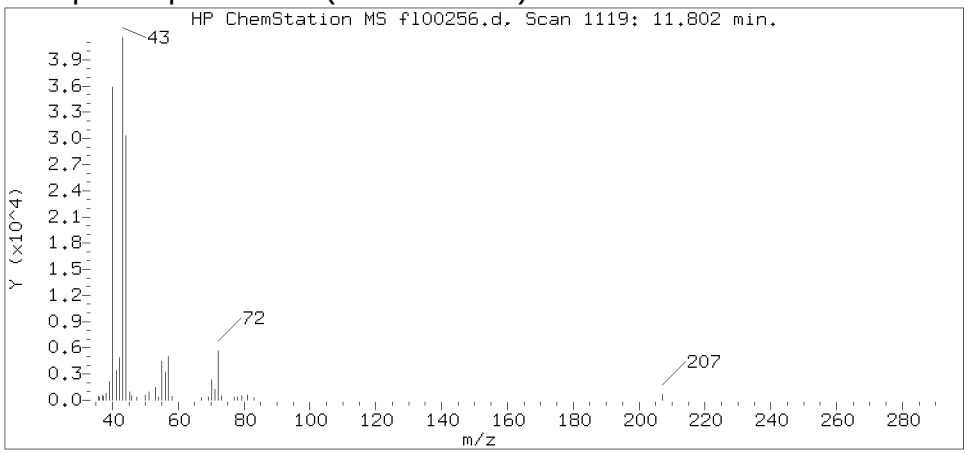


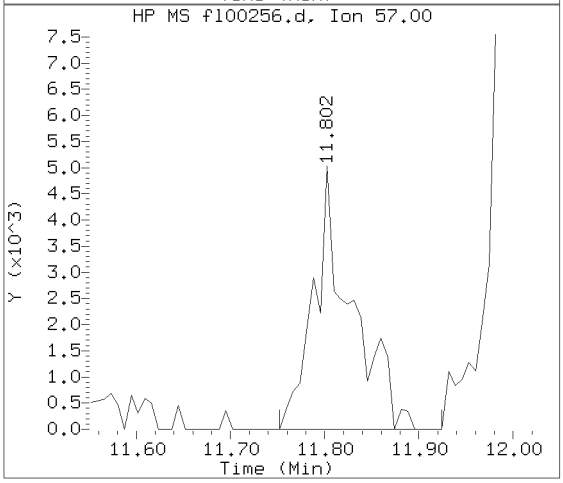
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.802
Relative Retention Time : 0.00205
Quant Ion : 43.00
Area (flag) : 137109
Concentration (ppb(v)) : 1.2163

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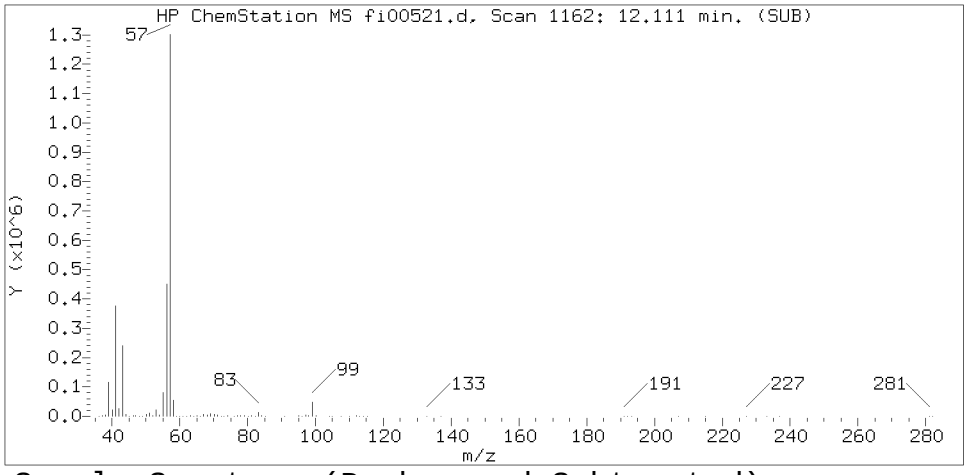
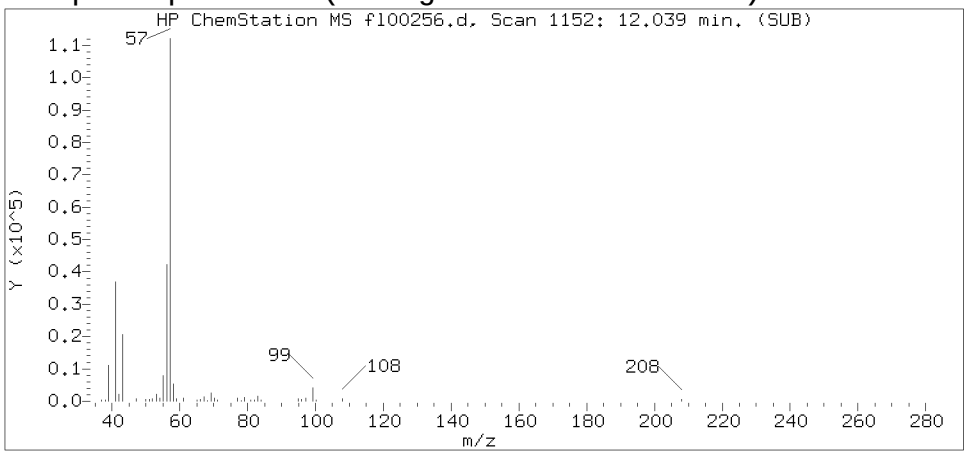
Target 3.5 esignature user ID: jeb07445

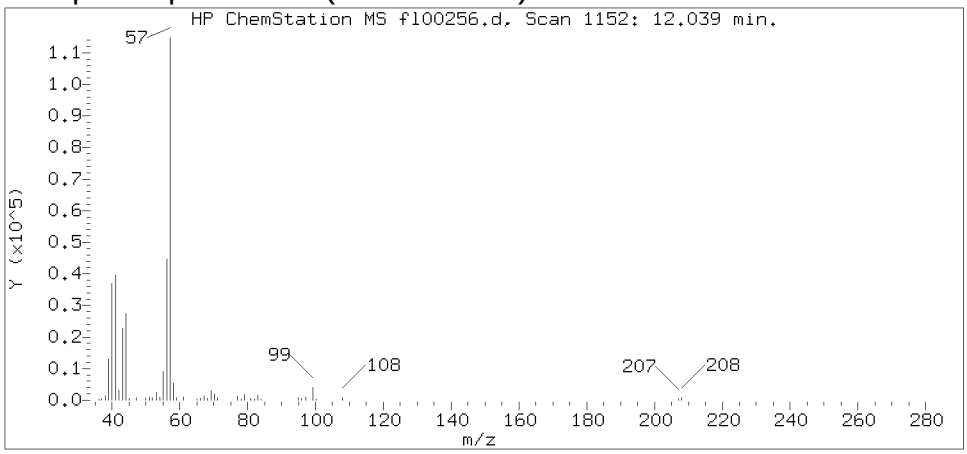
Reference Standard Spectrum for Isooctane

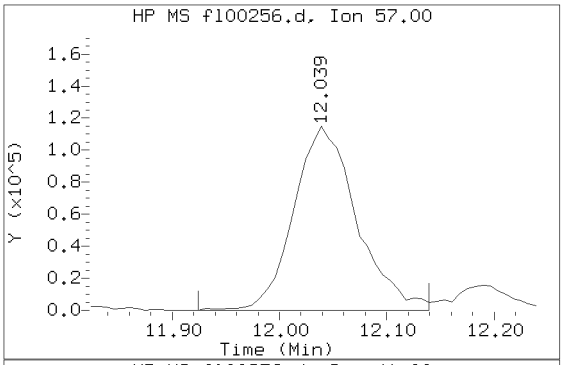


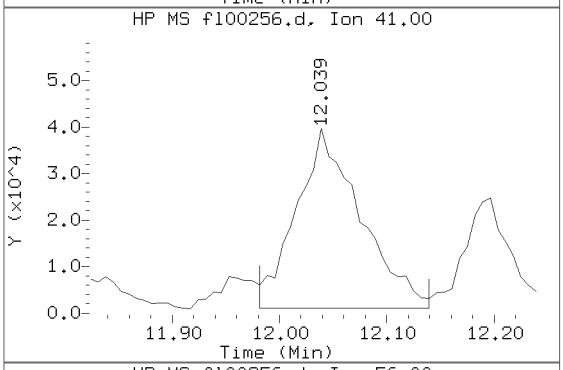
Sample Spectrum (Background Subtracted)

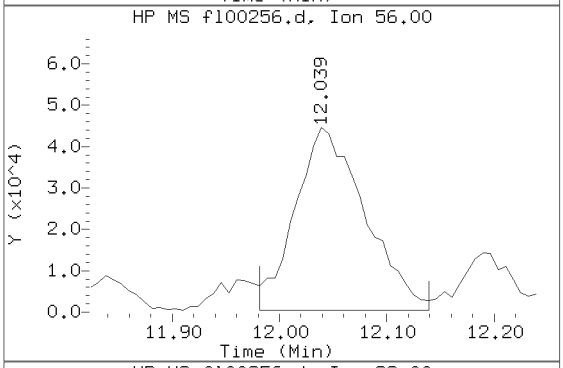


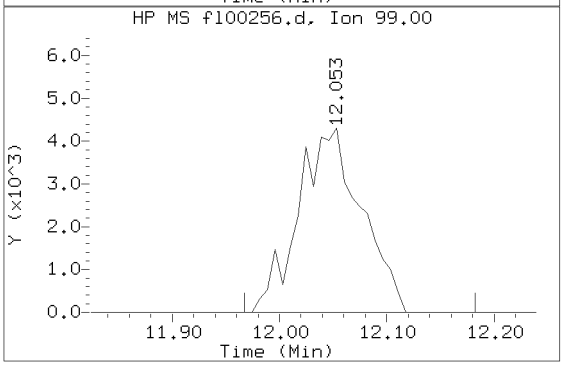
Sample Spectrum (Unaltered)











Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number	: 46
Compound Name	: Isooctane
Scan Number	: 1152
Retention Time (minutes)	: 12.039
Relative Retention Time	: 0.00000
Quant Ion	: 57.00
Area (flag)	: 467783
Concentration (ppb(v))	: 1.9131

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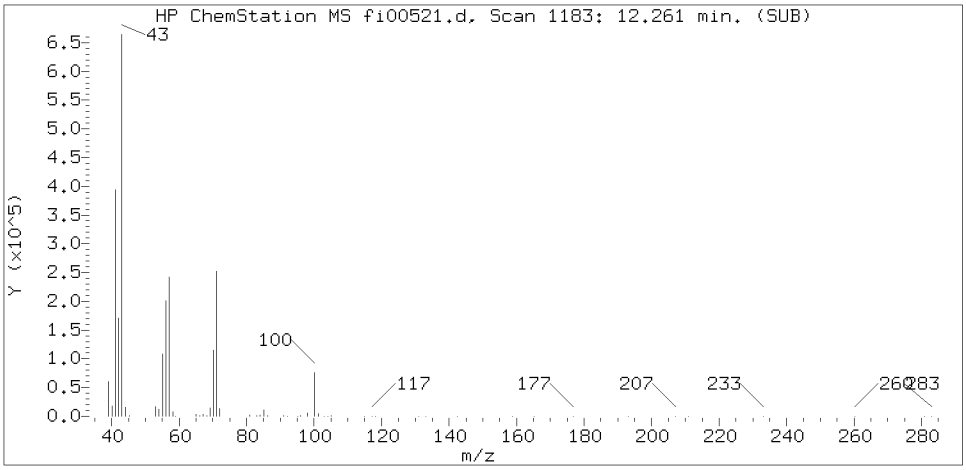
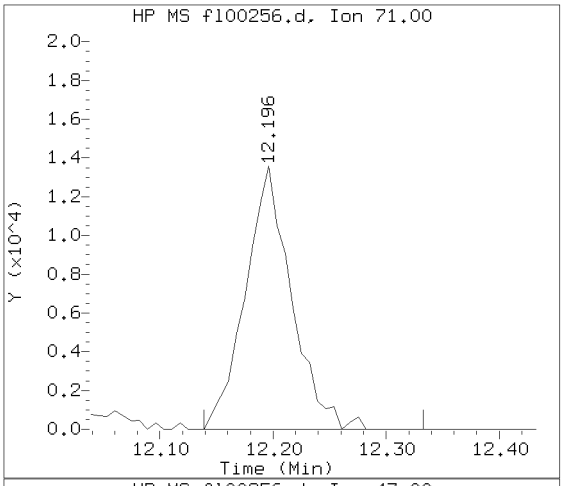
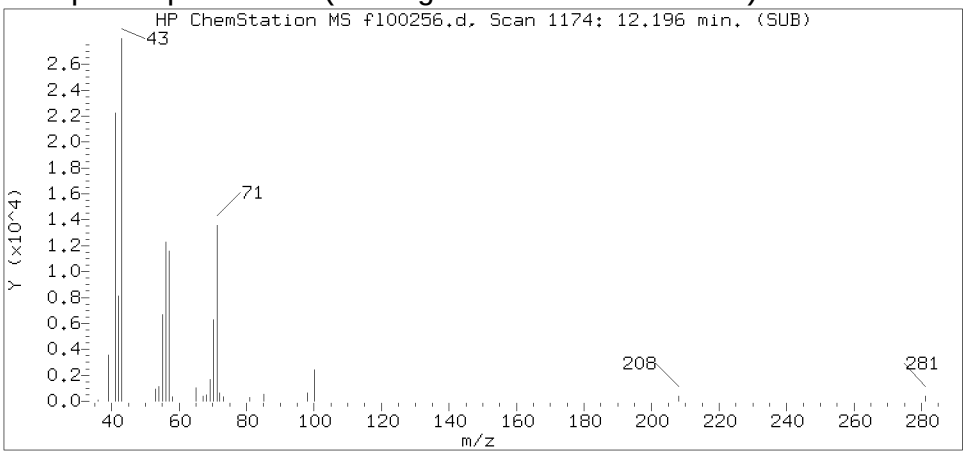
Target 3.5 esignature user ID: jeb07445

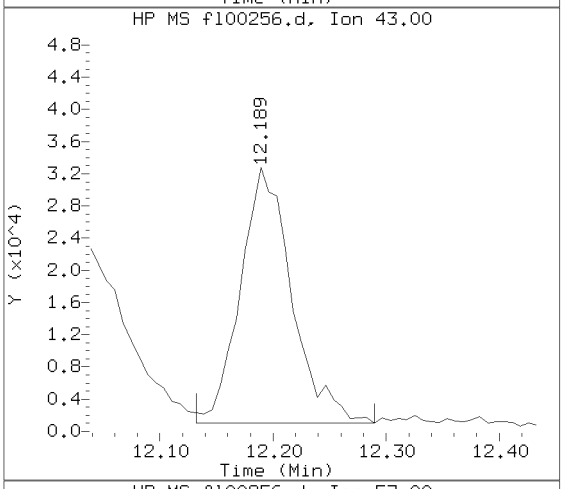
Reference Standard Spectrum for Heptane



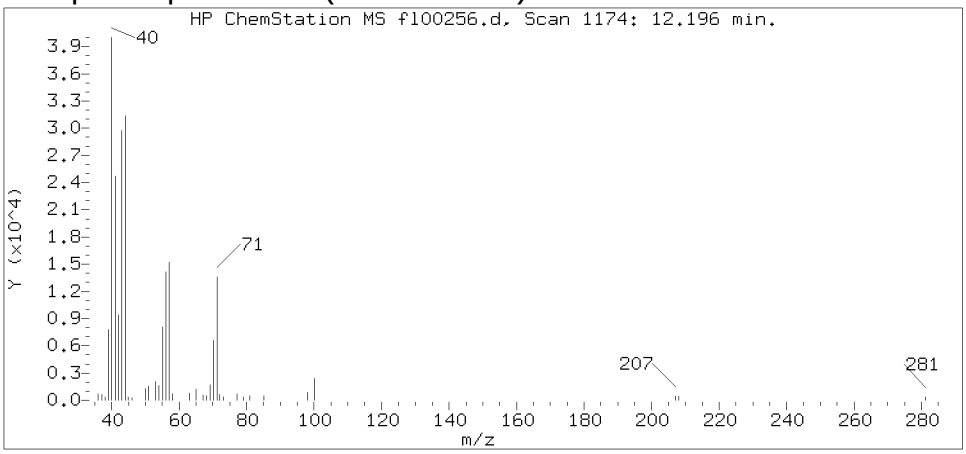


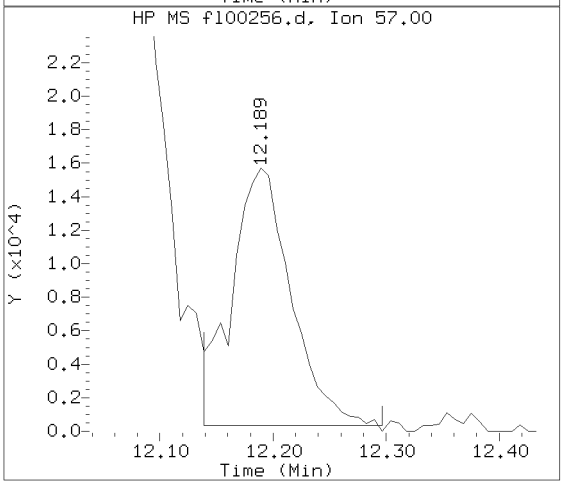
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 47
Compound Name : Heptane
Scan Number : 1174
Retention Time (minutes): 12.196
Relative Retention Time :-0.00053
Quant Ion : 71.00
Area (flag) : 38434
Concentration (ppb(v)) : 0.9771

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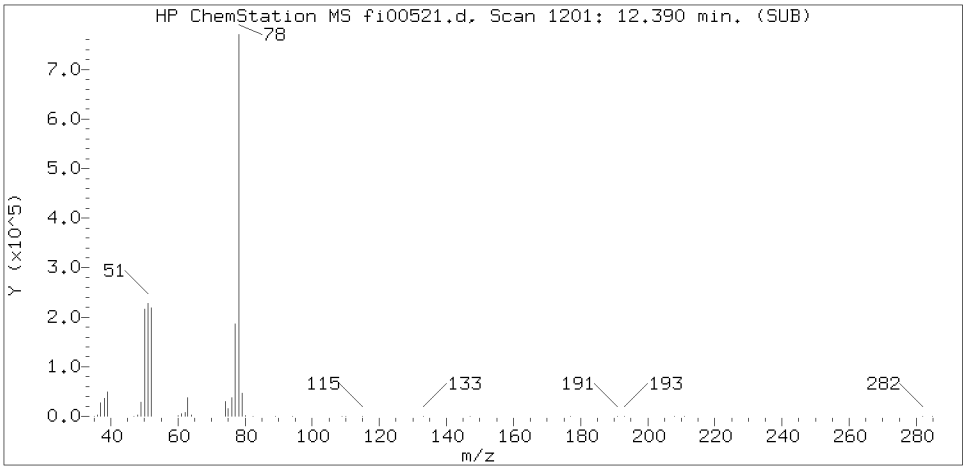
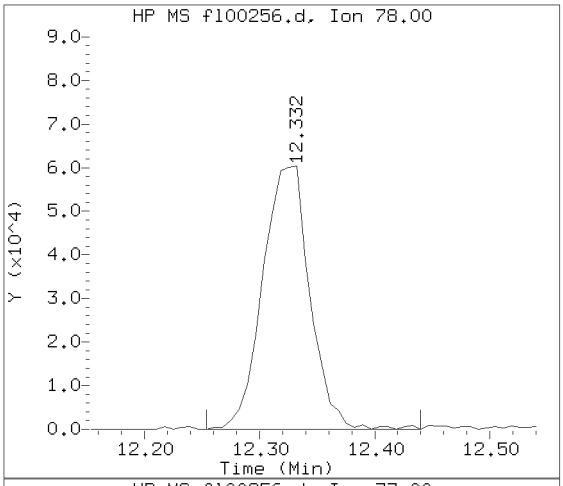
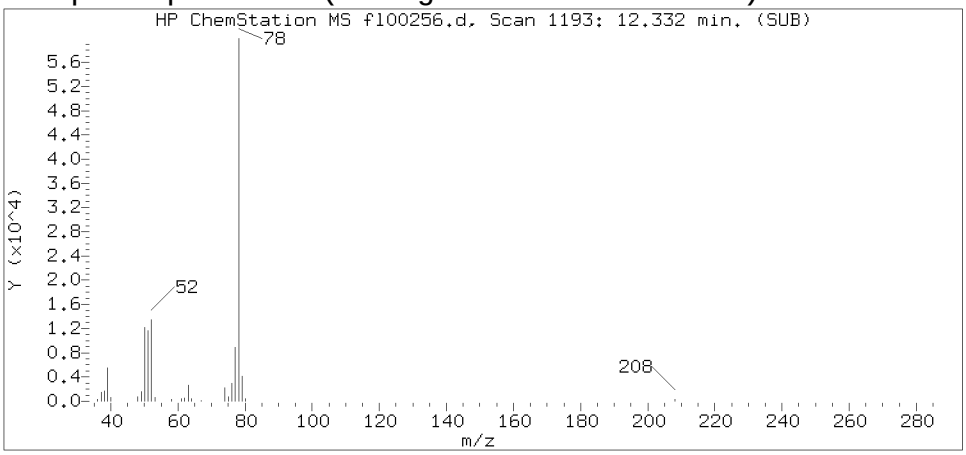
Target 3.5 esignature user ID: jeb07445

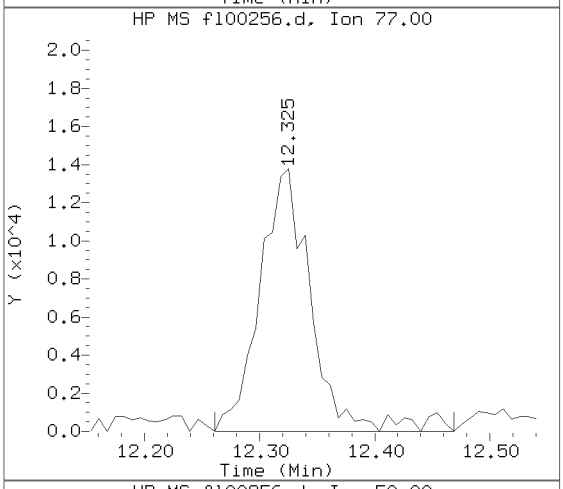
Reference Standard Spectrum for Benzene



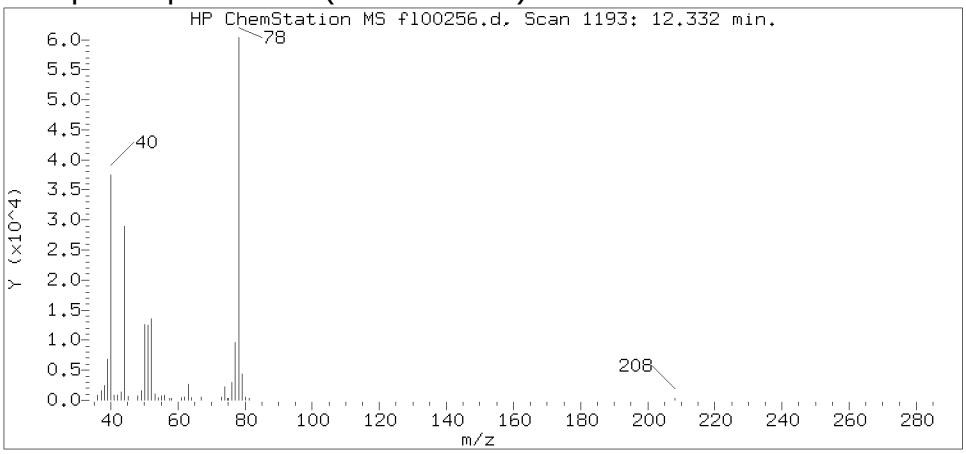


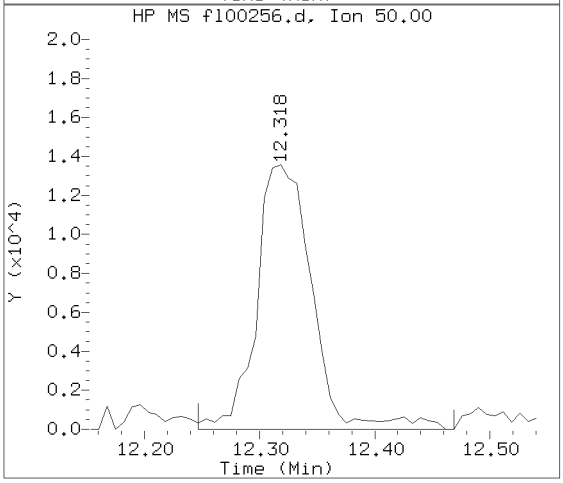
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 48
Compound Name : Benzene
Scan Number : 1193
Retention Time (minutes): 12.332
Relative Retention Time :-0.00053
Quant Ion : 78.00
Area (flag) : 172338
Concentration (ppb(v)) : 1.4430

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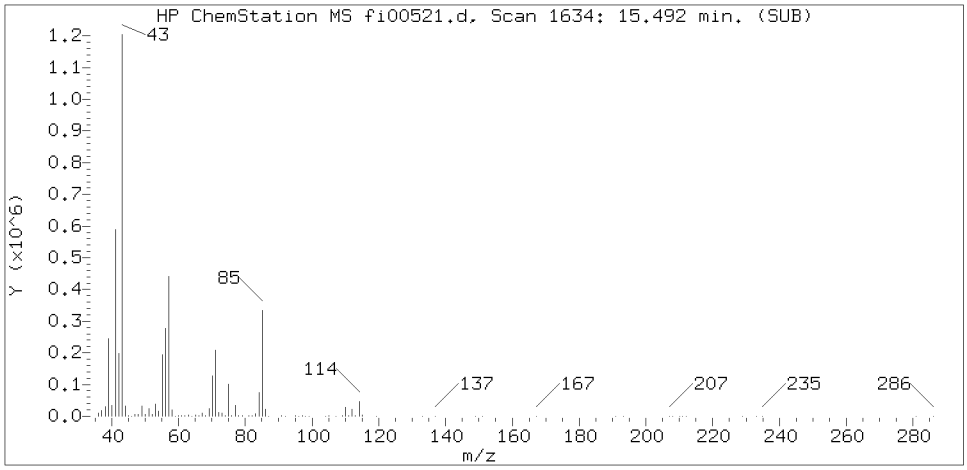
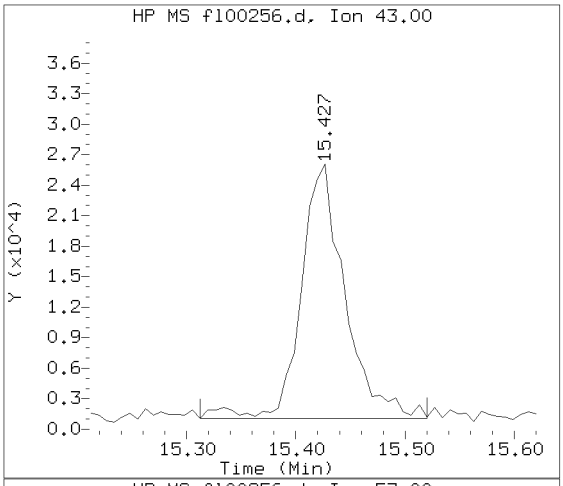
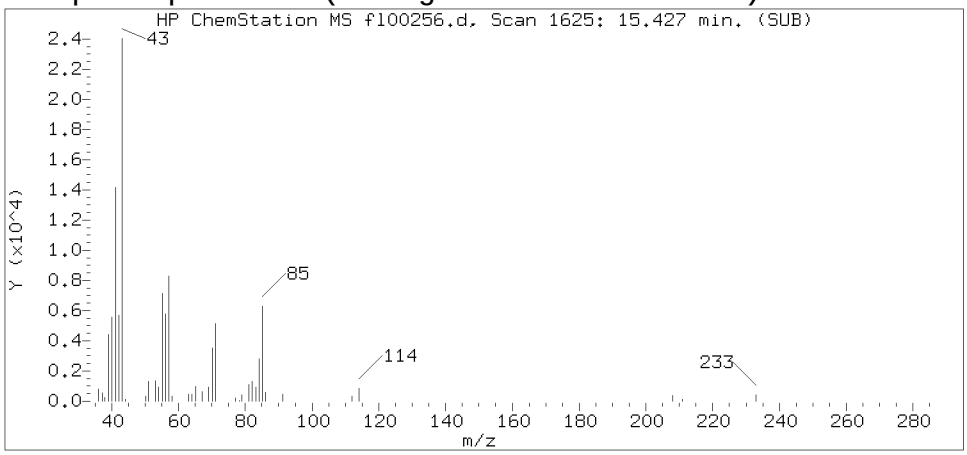
Target 3.5 esignature user ID: jeb07445

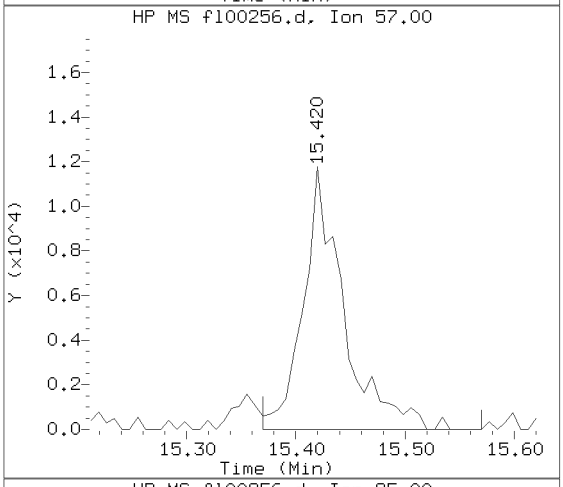
Reference Standard Spectrum for Octane



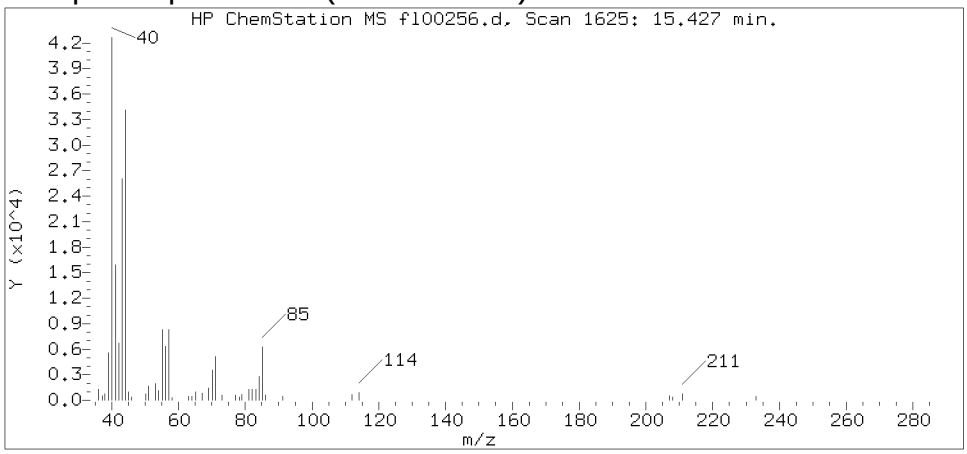


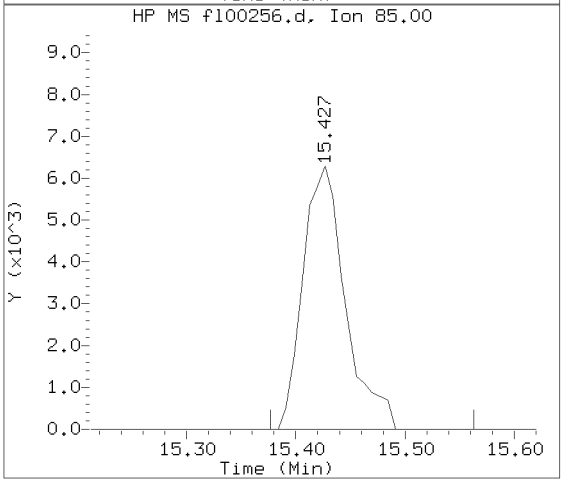
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

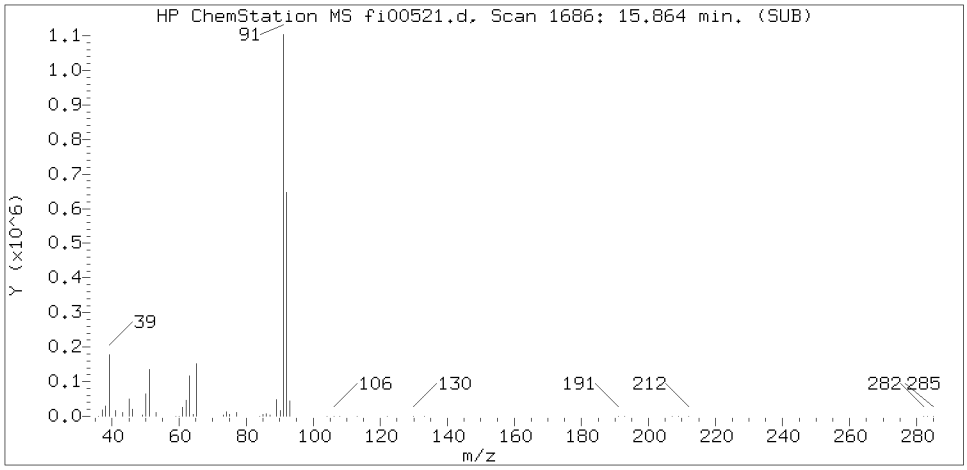
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

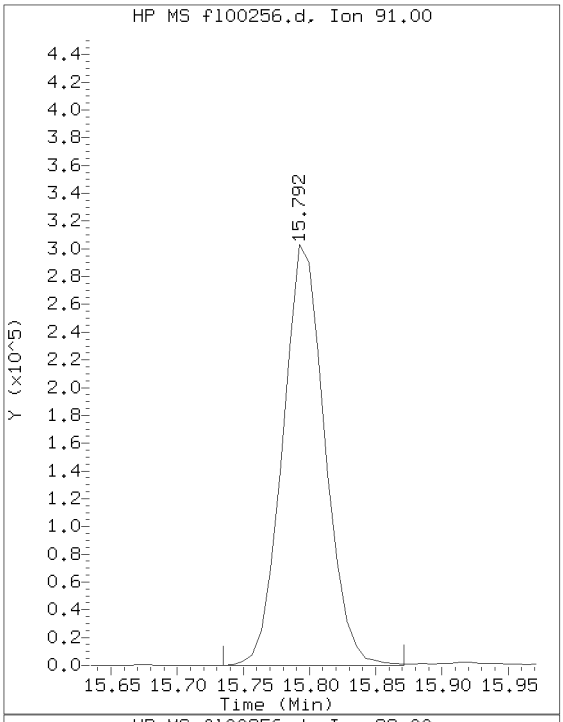
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 60
Compound Name : Octane
Scan Number : 1625
Retention Time (minutes): 15.427
Relative Retention Time :-0.00033
Quant Ion : 43.00
Area (flag) : 70591
Concentration (ppb(v)) : 0.4948

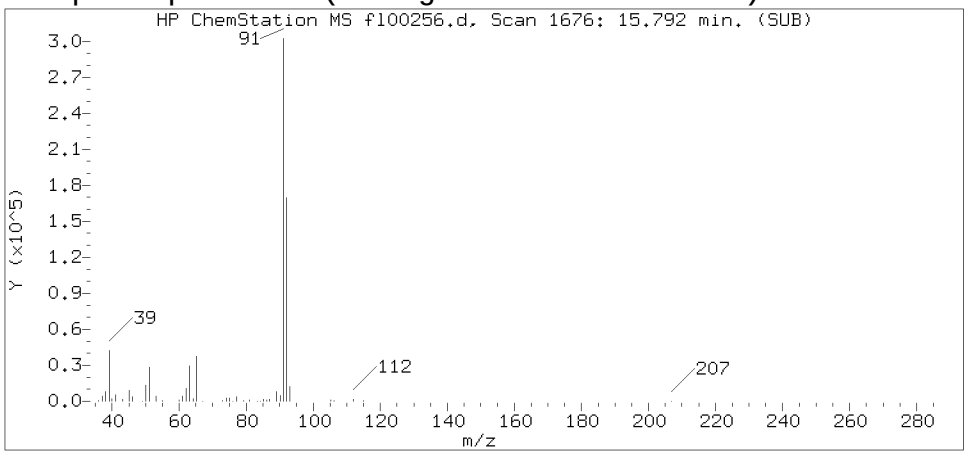
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

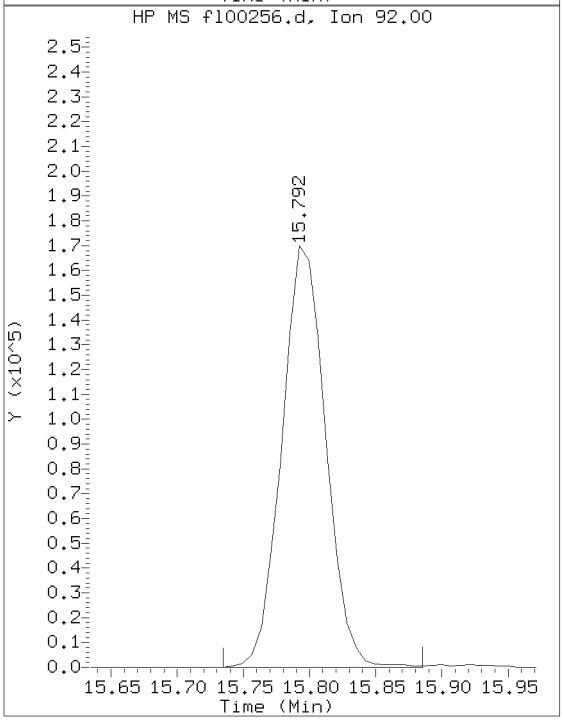
Reference Standard Spectrum for Toluene



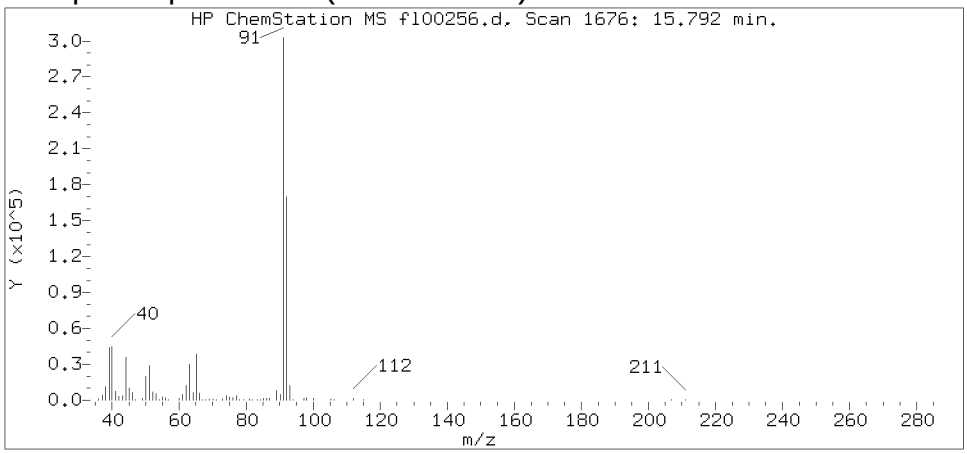


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

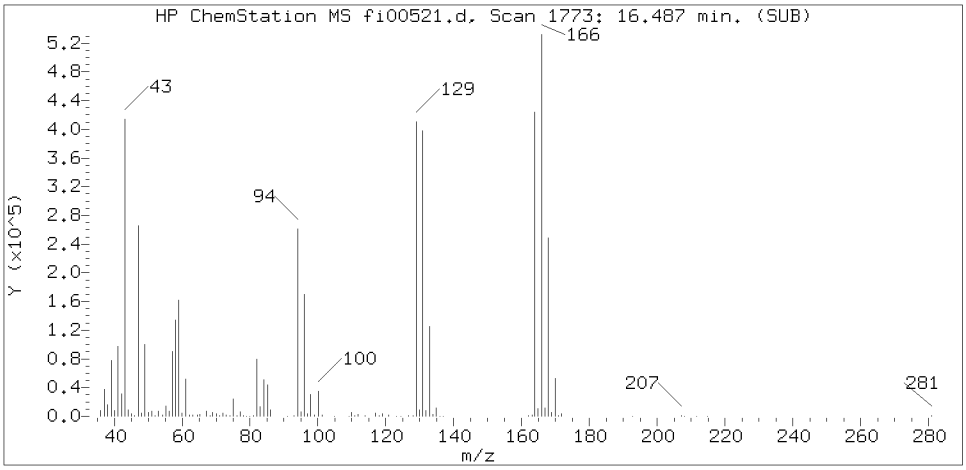
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

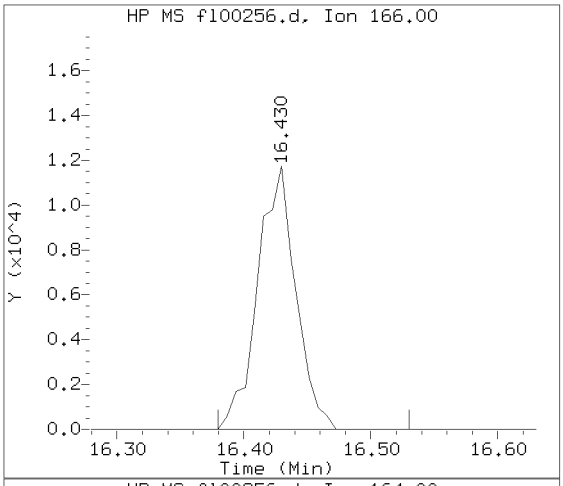
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number	: 61
Compound Name	: Toluene
Scan Number	: 1676
Retention Time (minutes)	: 15.792
Relative Retention Time	: 0.00005
Quant Ion	: 91.00
Area (flag)	: 670841
Concentration (ppb(v))	: 4.5138

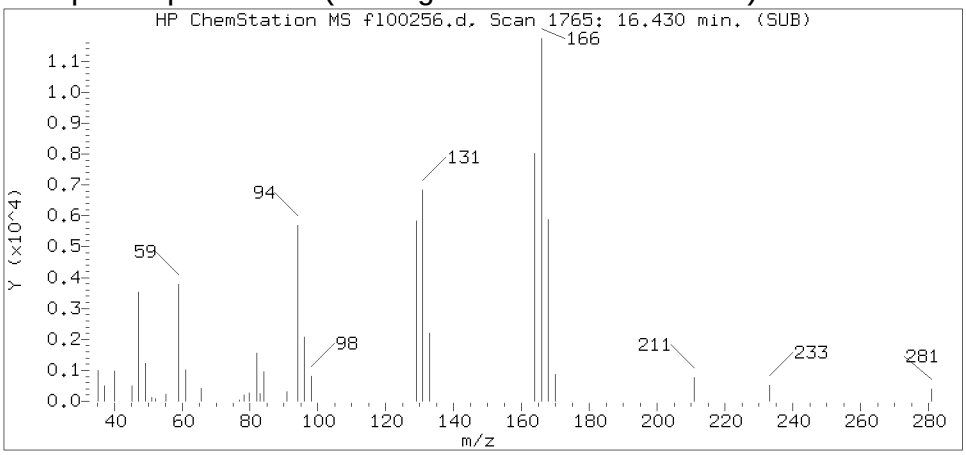
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

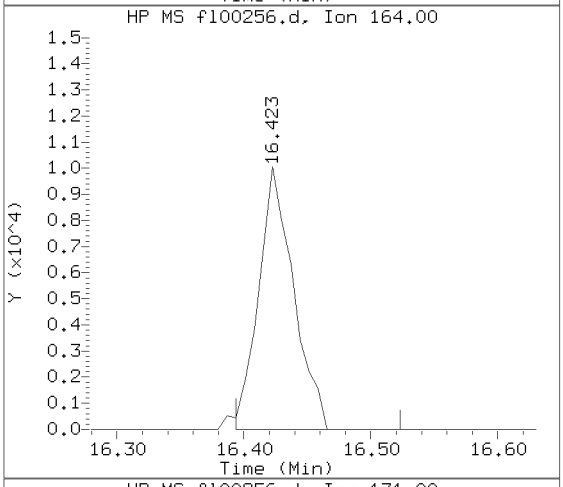
Reference Standard Spectrum for Tetrachloroethene



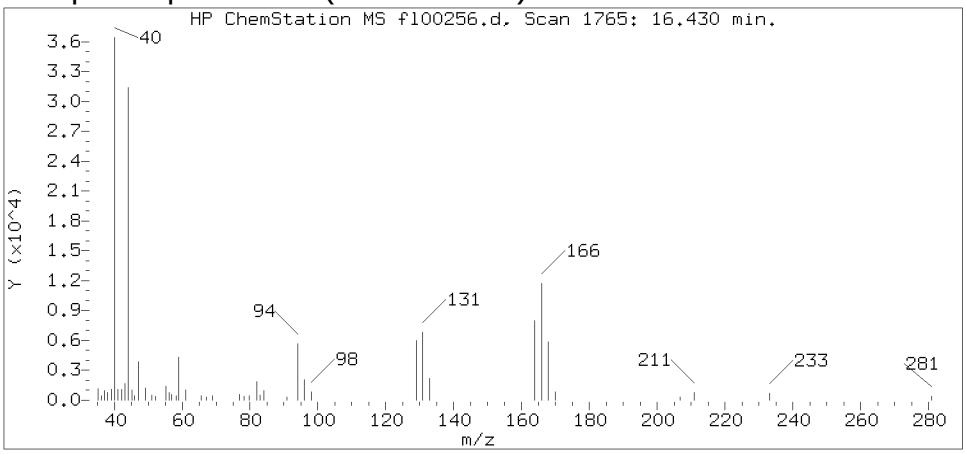


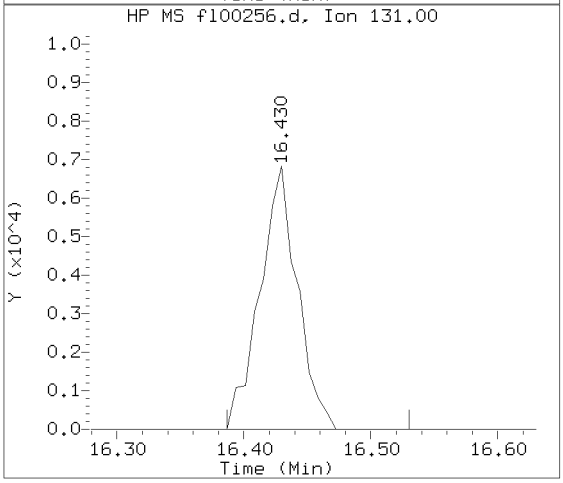
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 63
Compound Name : Tetrachloroethene
Scan Number : 1765
Retention Time (minutes): 16.430
Relative Retention Time :-0.00075
Quant Ion : 166.00
Area (flag) : 24414
Concentration (ppb(v)) : 0.2856

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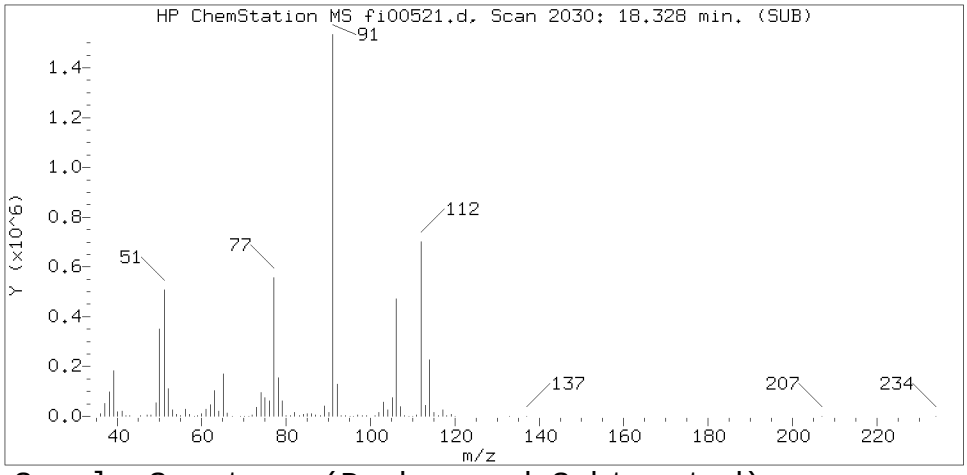
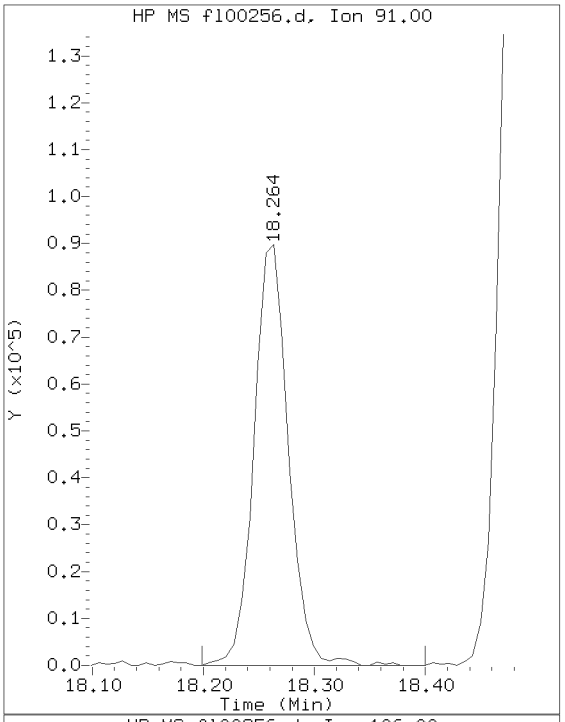
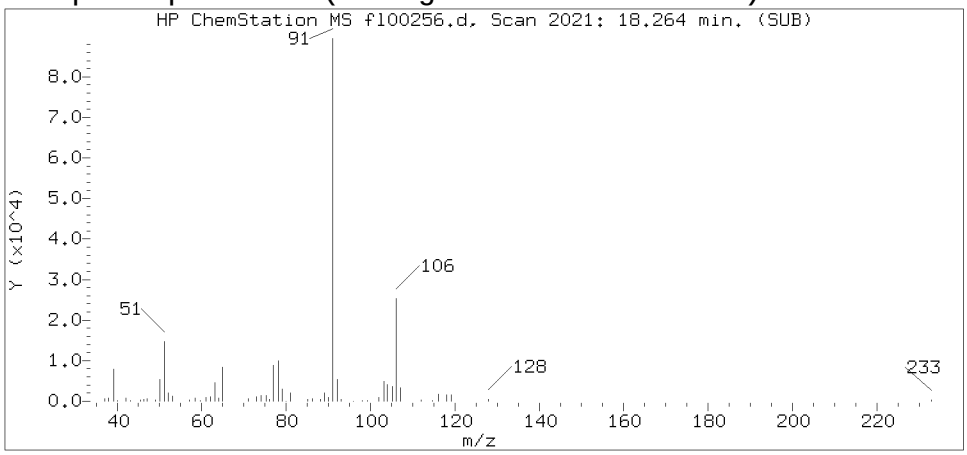
Target 3.5 esignature user ID: jeb07445

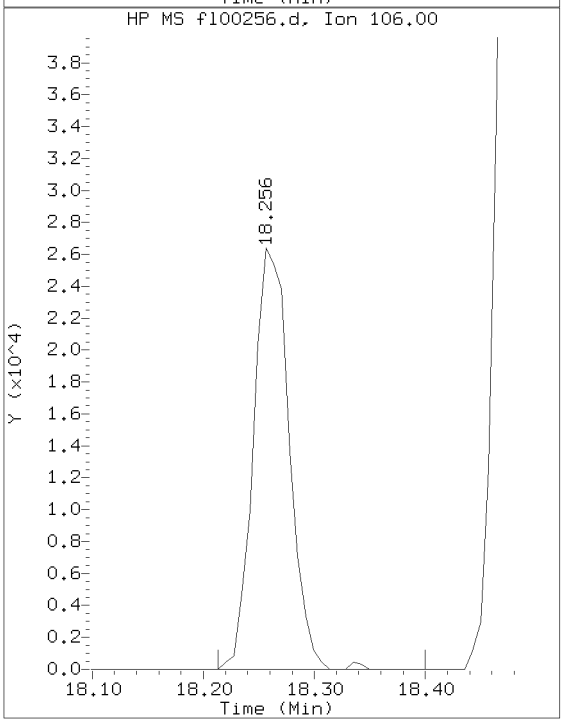
Reference Standard Spectrum for Ethylbenzene



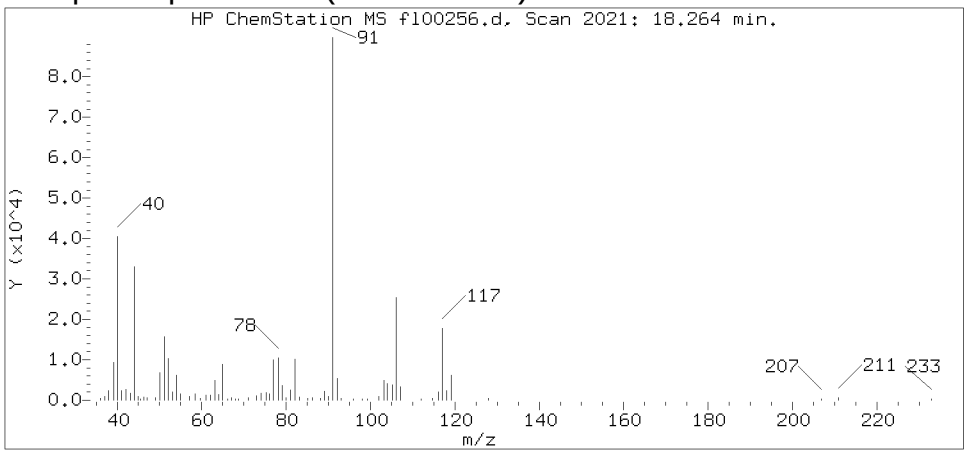


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 73
Compound Name : Ethylbenzene
Scan Number : 2021
Retention Time (minutes): 18.264
Relative Retention Time :-0.00039
Quant Ion : 91.00
Area (flag) : 193962
Concentration (ppb(v)) : 0.9424

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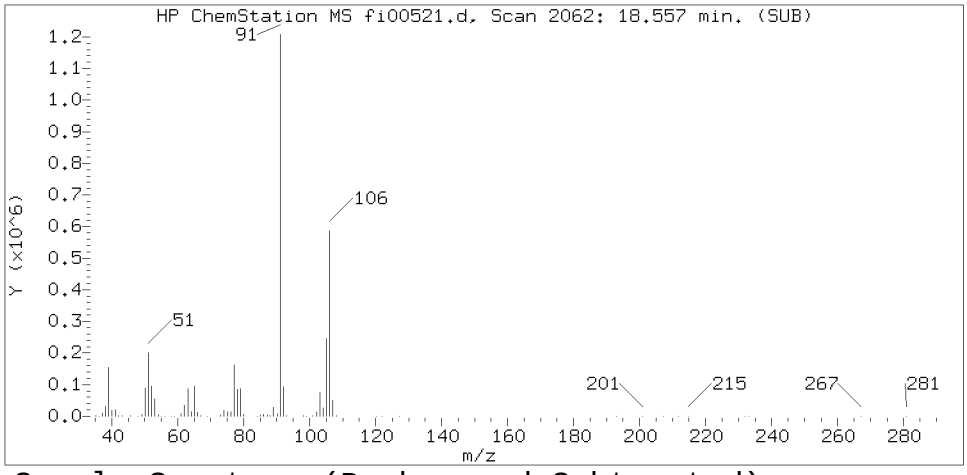
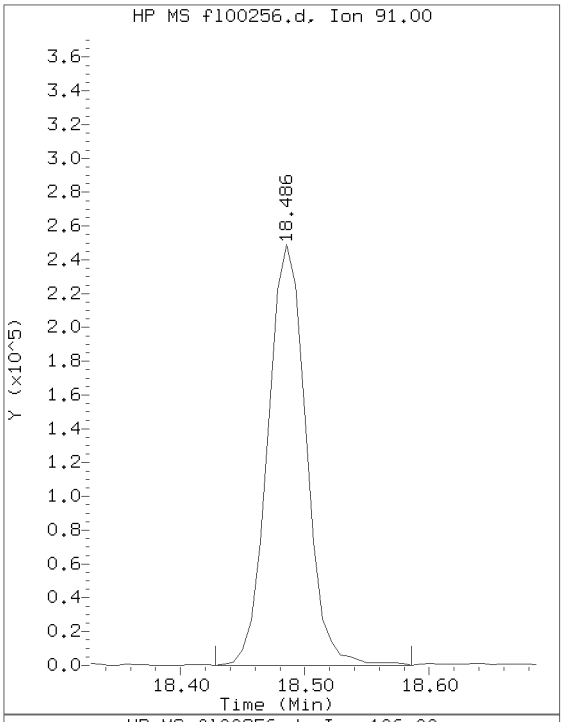
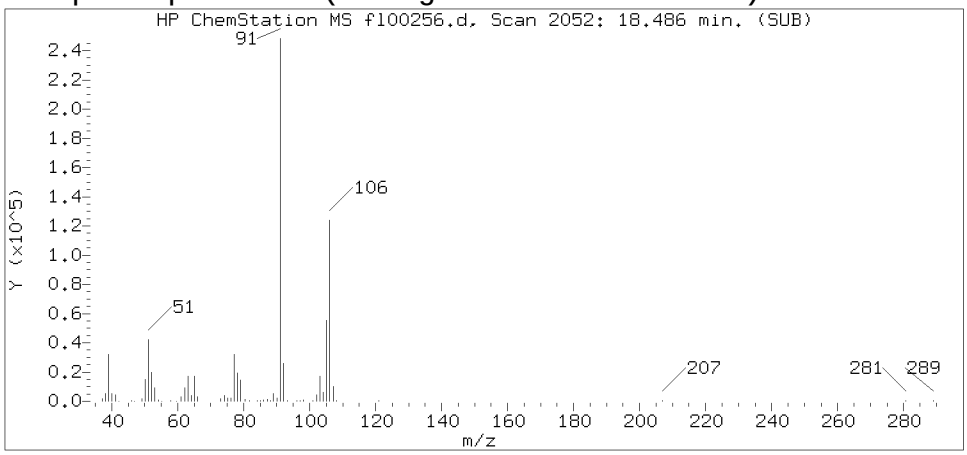
Target 3.5 esignature user ID: jeb07445

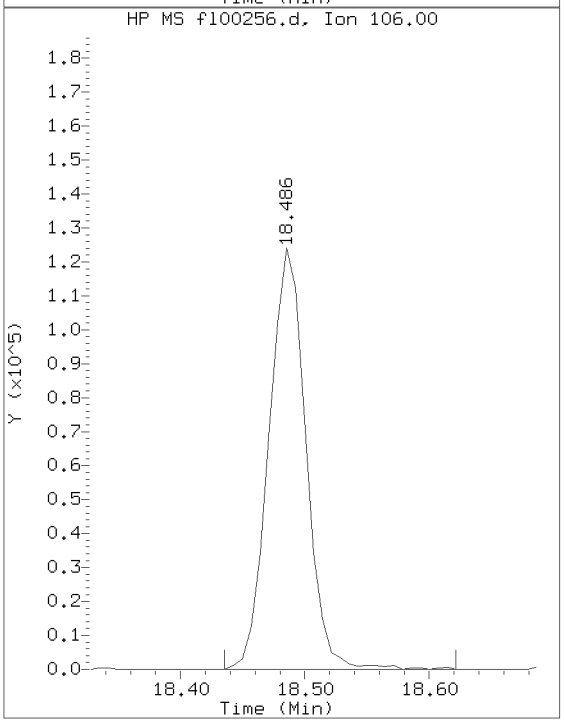
Reference Standard Spectrum for m/p-Xylene



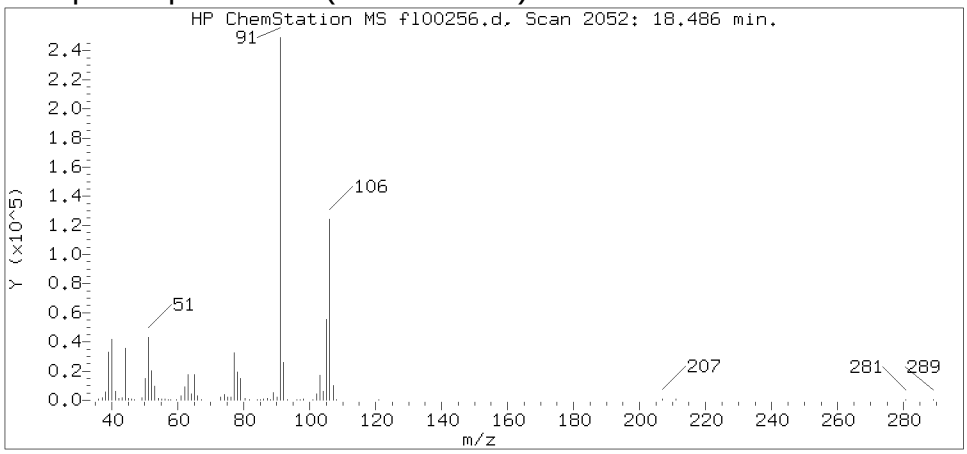


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 2052
Retention Time (minutes): 18.486
Relative Retention Time :-0.00040
Quant Ion : 91.00
Area (flag) : 534296
Concentration (ppb(v)) : 3.6011

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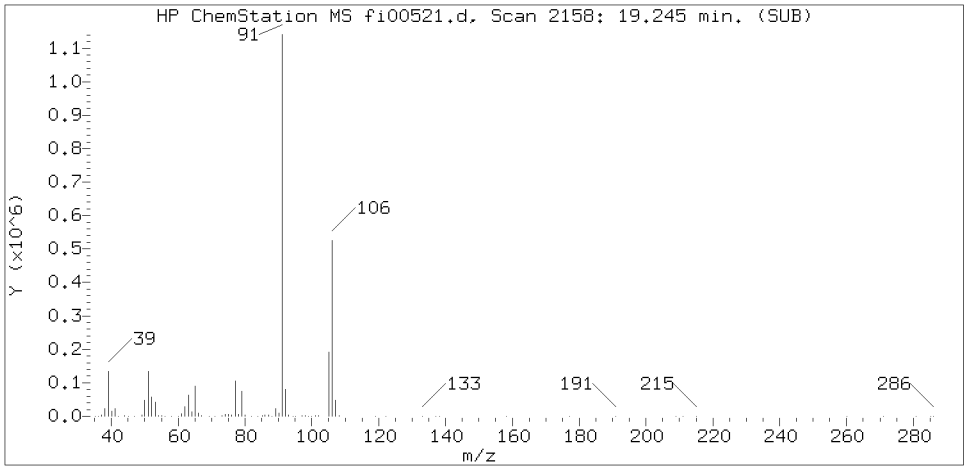
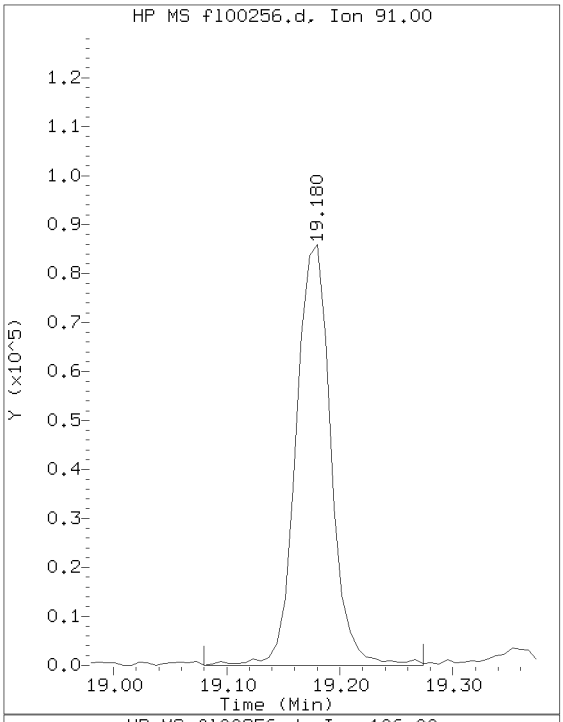
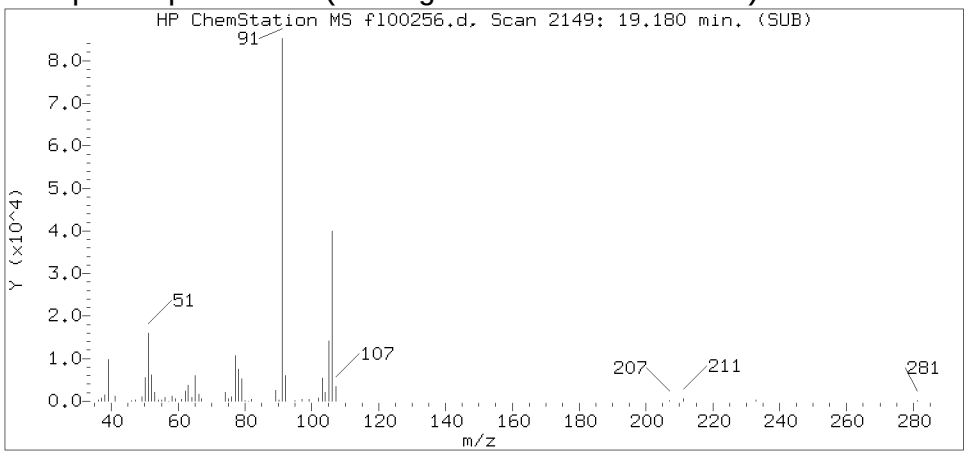
Target 3.5 esignature user ID: jeb07445

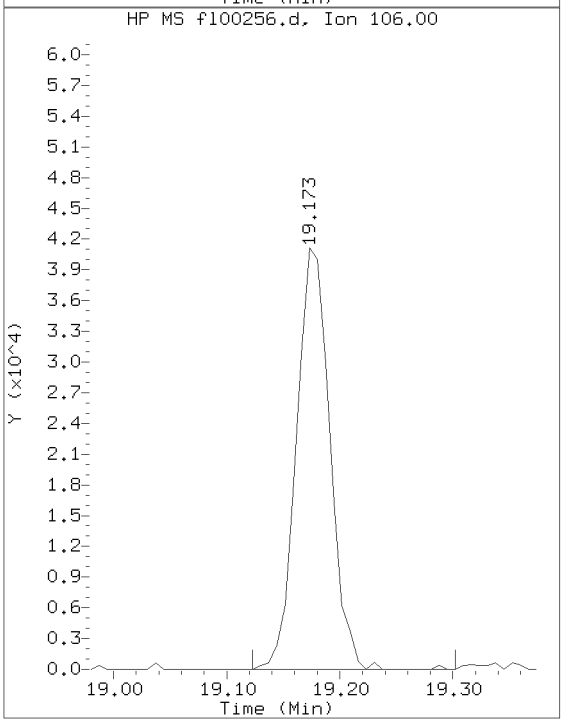
Reference Standard Spectrum for o-Xylene



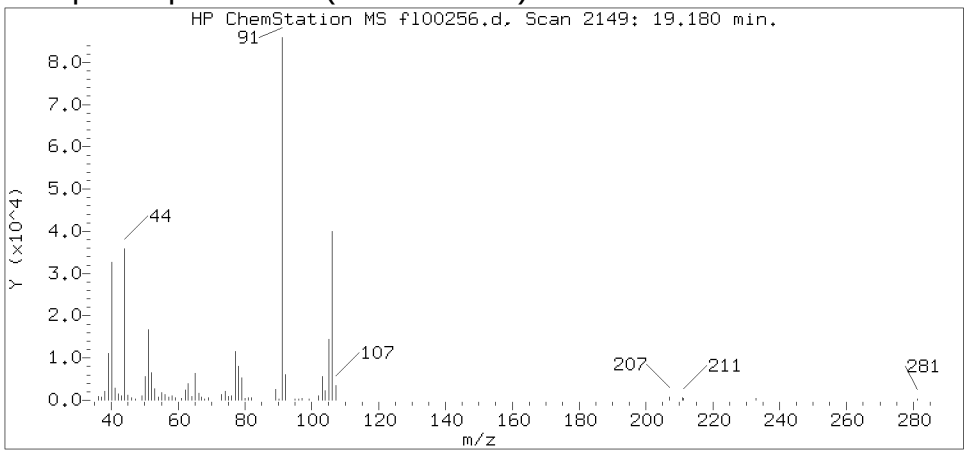


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 2149
Retention Time (minutes): 19.180
Relative Retention Time :-0.00041
Quant Ion : 91.00
Area (flag) : 184126
Concentration (ppb(v)) : 1.2594

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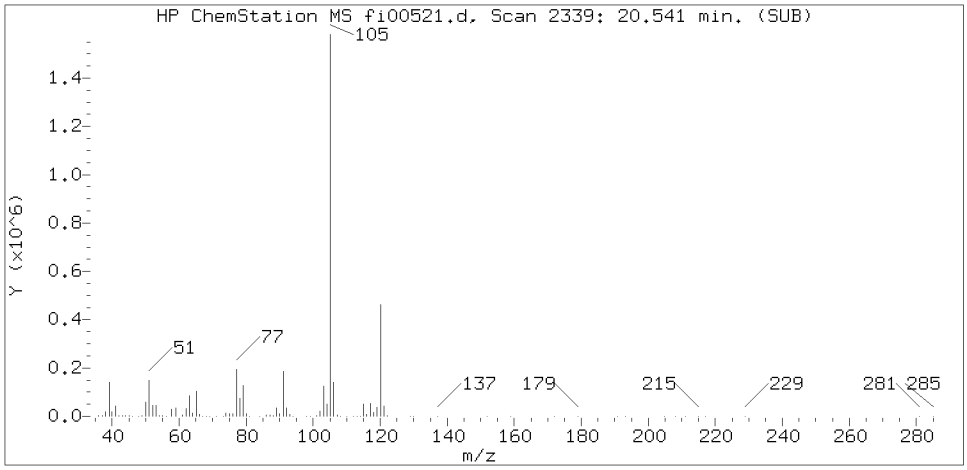
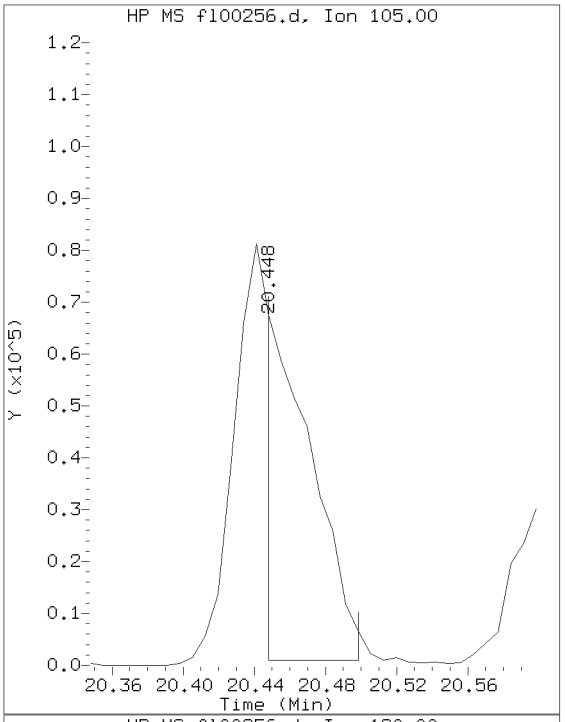
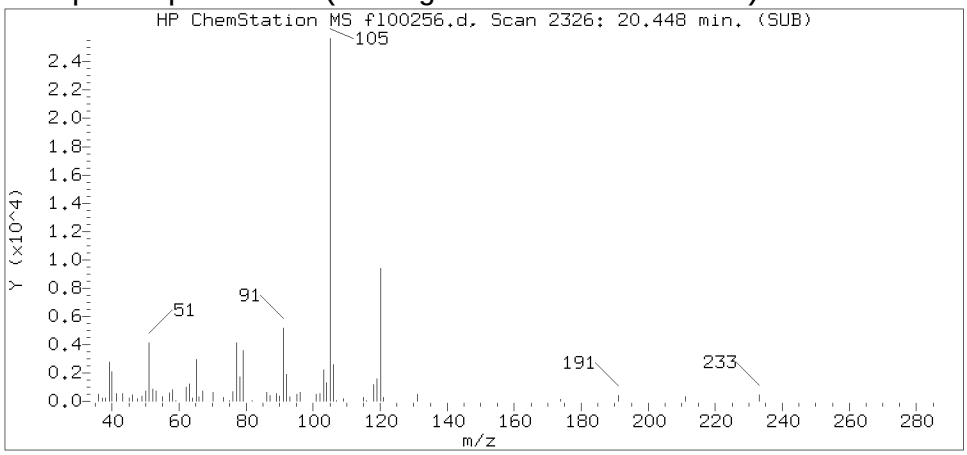
Target 3.5 esignature user ID: jeb07445

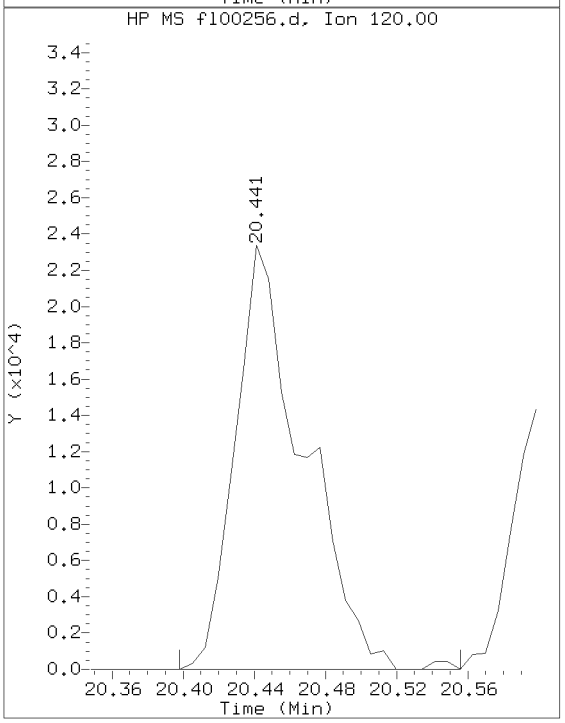
Reference Standard Spectrum for 4-Ethyltoluene



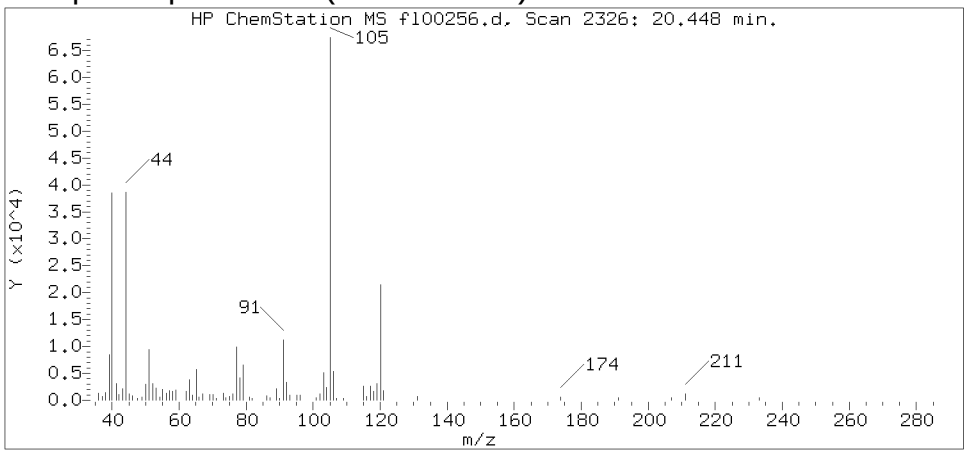


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

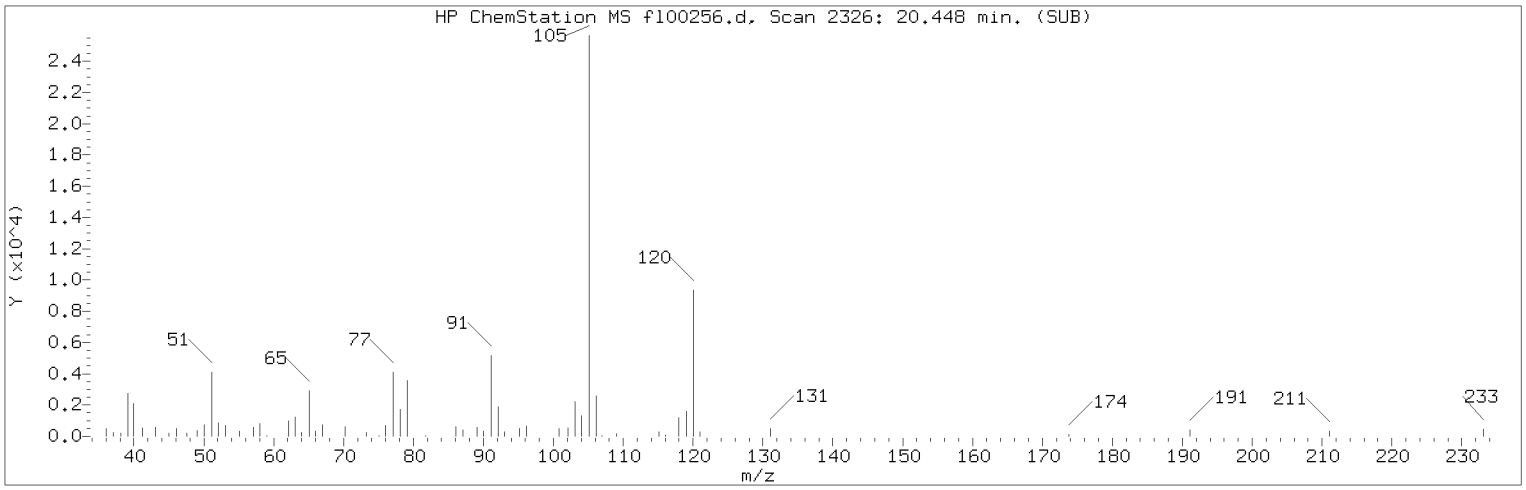
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

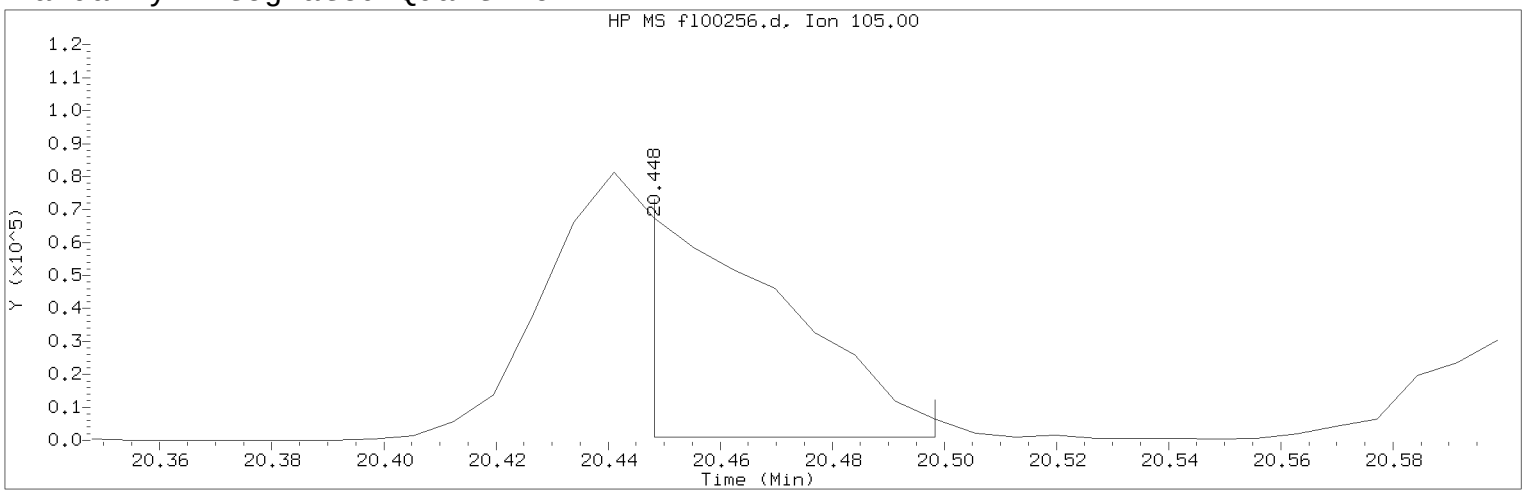
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2326
Retention Time (minutes): 20.448
Relative Retention Time : 0.00113
Quant Ion : 105.00
Area (flag) : 125613M
Concentration (ppb(v)) : 0.6285

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

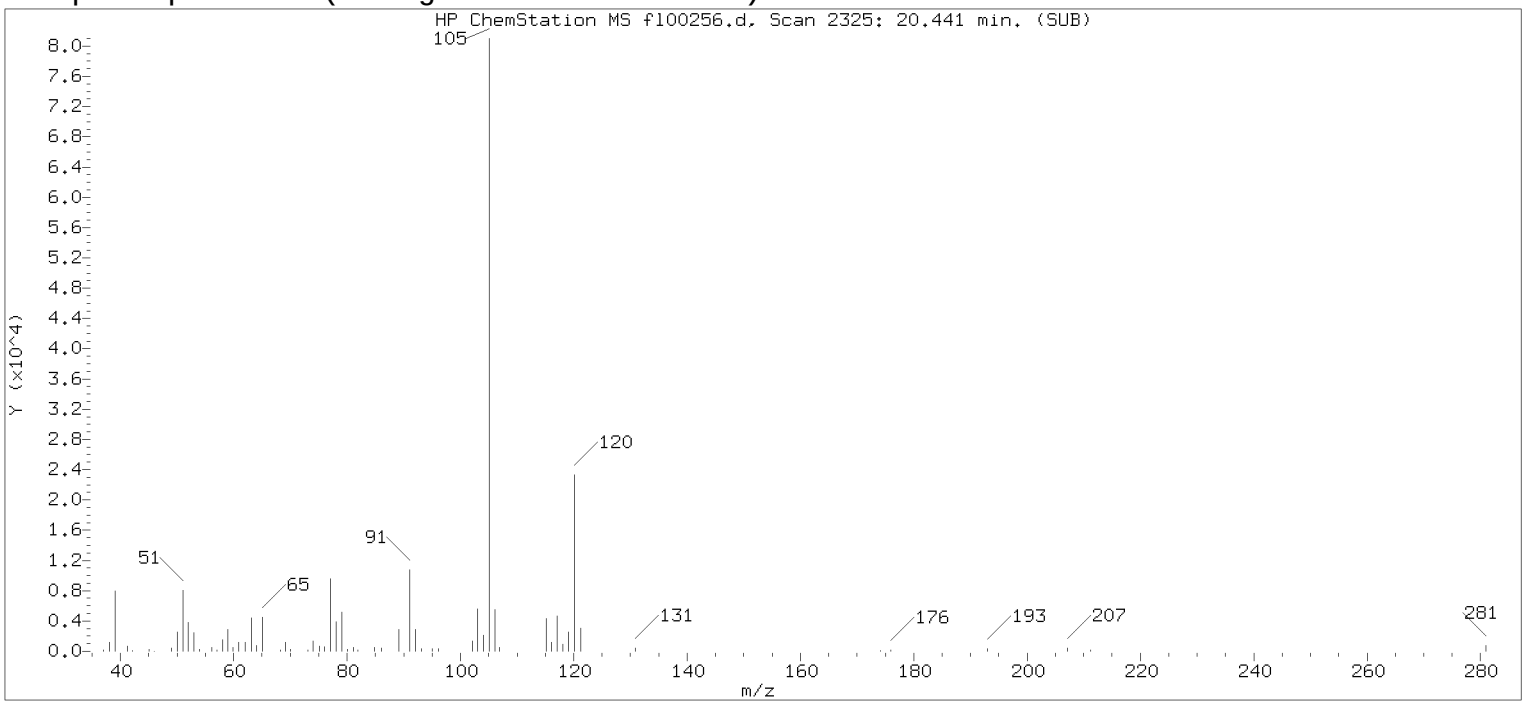
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2326
Retention Time (minutes): 20.448
Quant Ion : 105.00
Area (flag) : 125613M
Concentration (ppb(v)) : 0.6285
Integration start scan : 2325 Integration stop scan: 2332
Y at integration start : 1007 Y at integration end: 1007

Reason for manual integration: improper integration

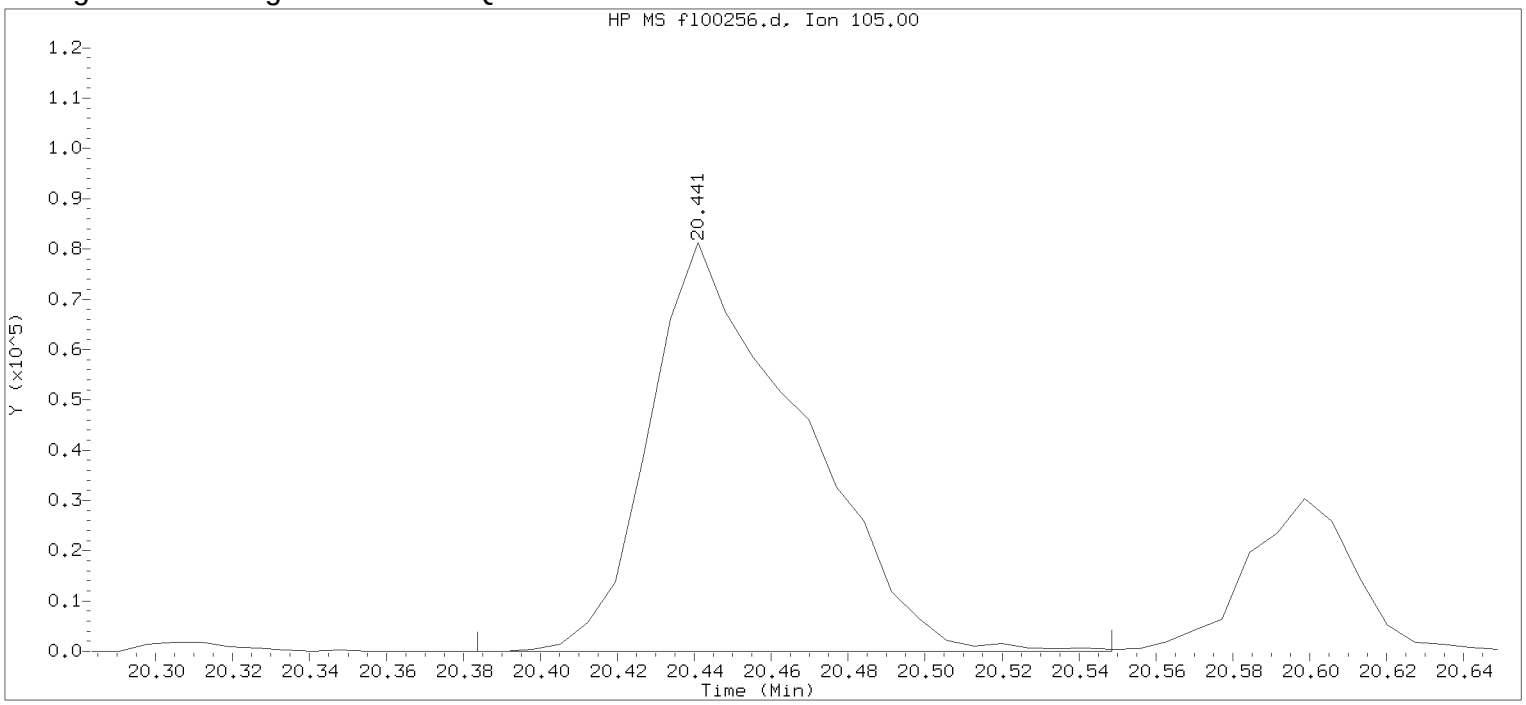
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

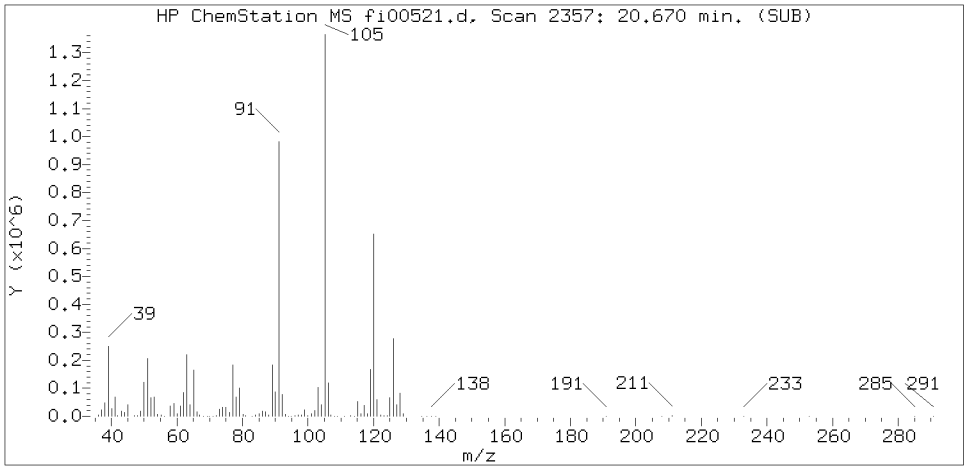
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 20:41 Unknown

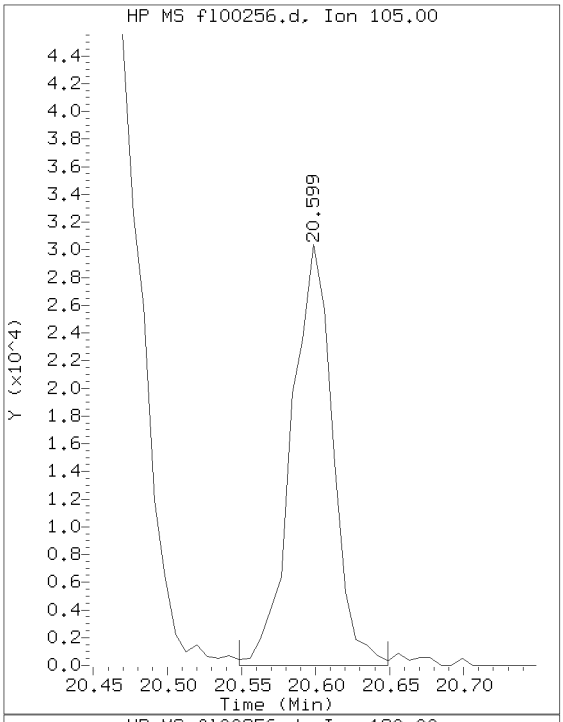
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2325
Retention Time (minutes): 20.441
Quant Ion : 105.00
Area : 220911
Concentration (ppb(v)) : 1.1053
Integration start scan : 2316 Integration stop scan: 2339
Y at integration start : 0 Y at integration end: 0

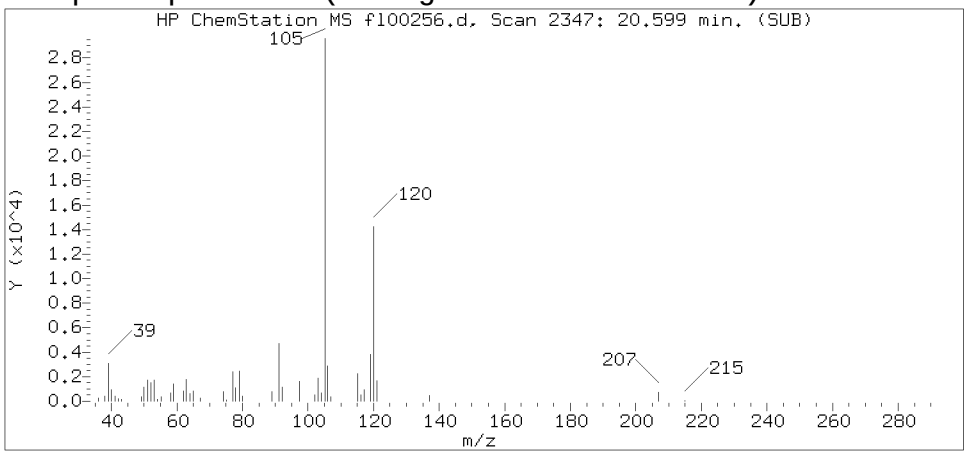
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature userID: jeb07445

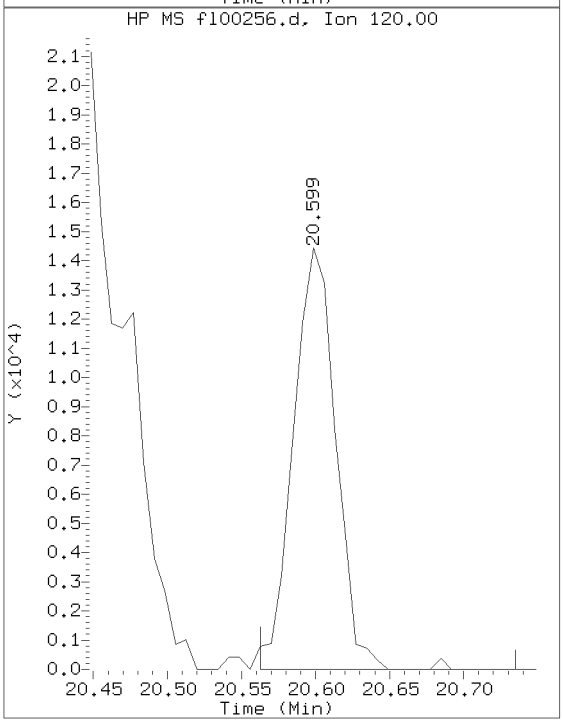
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



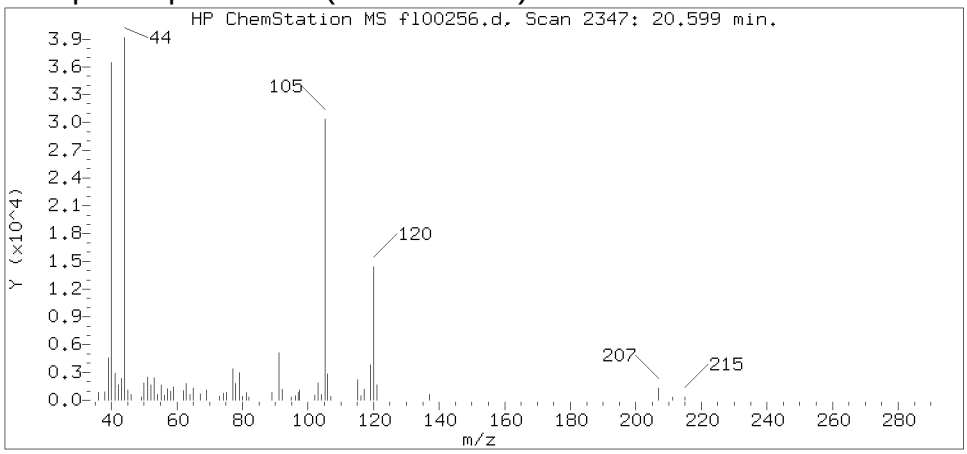


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

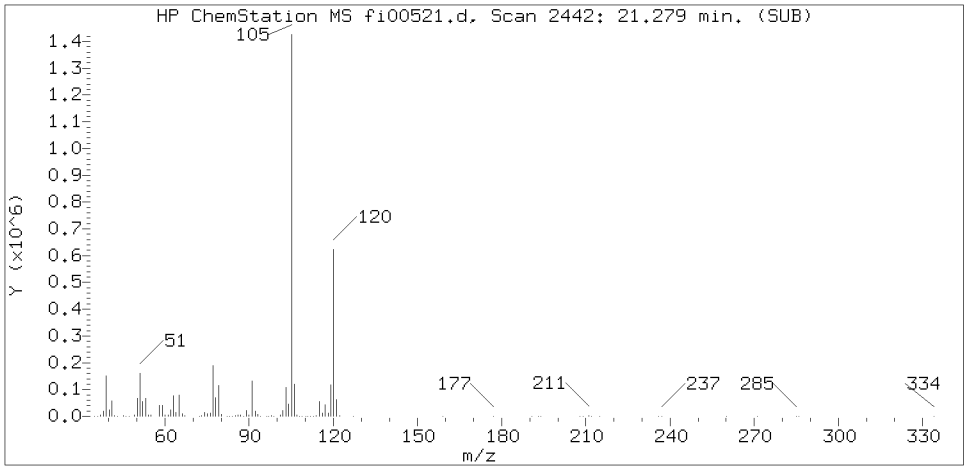
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

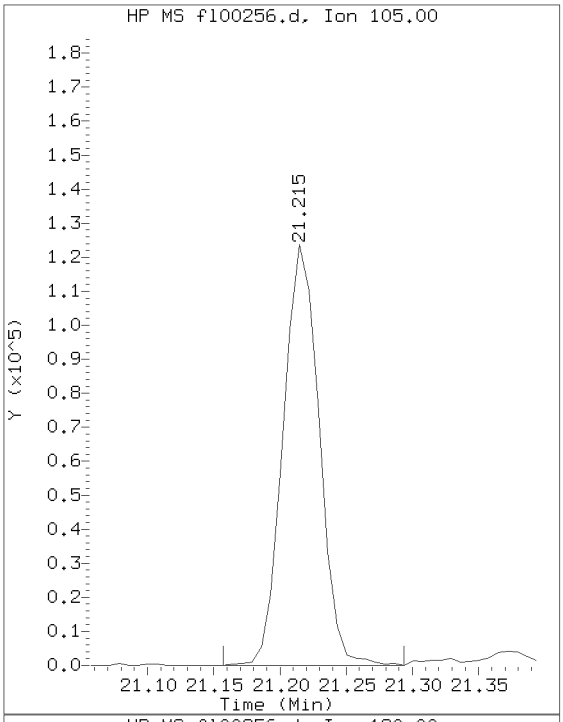
Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 86
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 2347
Retention Time (minutes): 20.599
Relative Retention Time :-0.00045
Quant Ion : 105.00
Area (flag) : 58651
Concentration (ppb(v)) : 0.3450

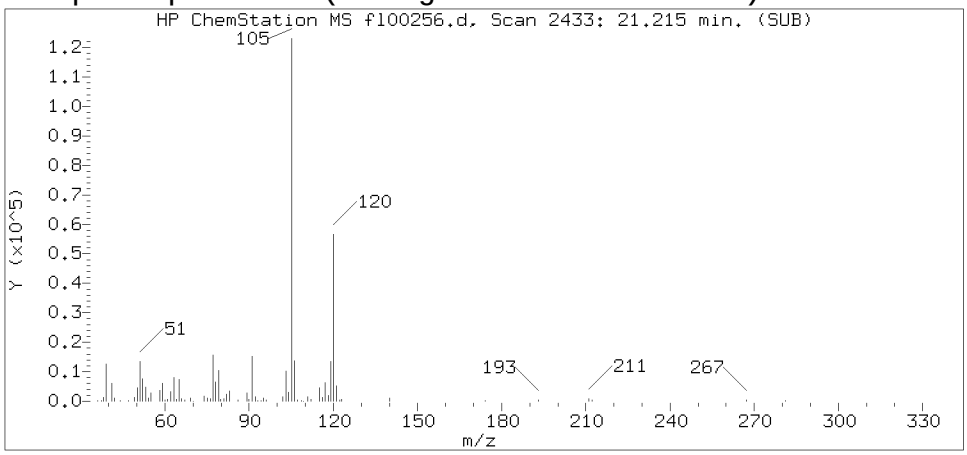
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

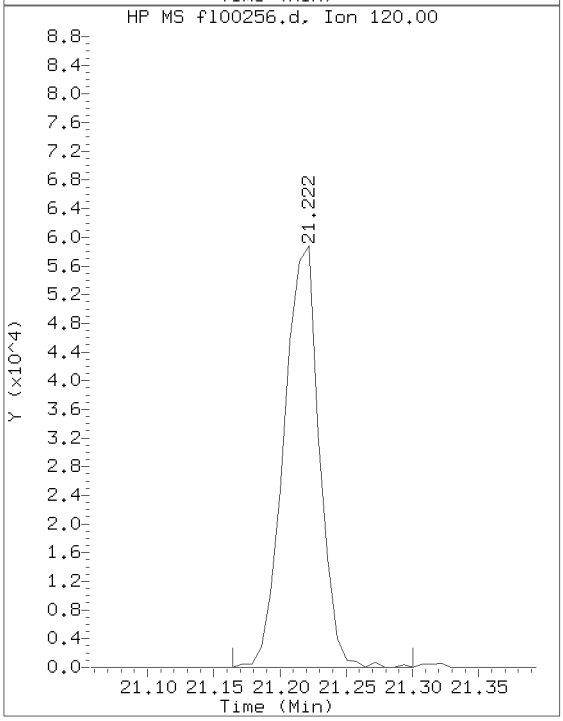
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



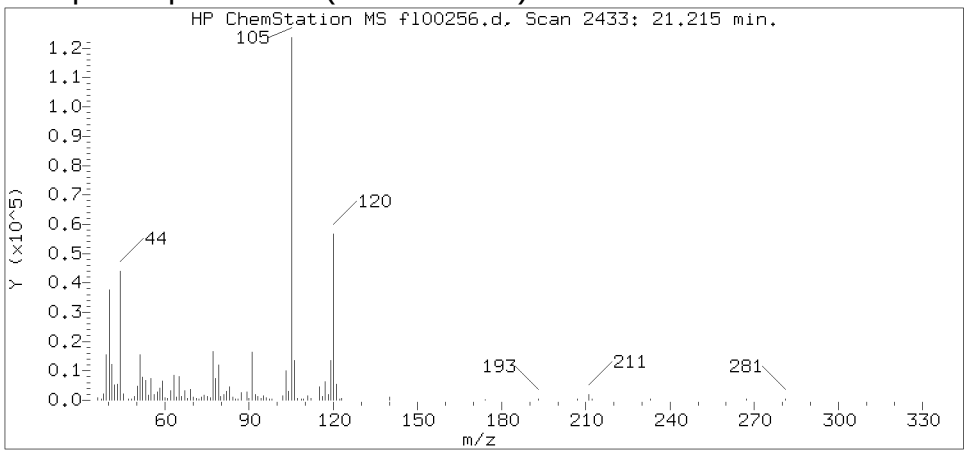


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00256.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:48 jeb07445

Sample Name: 1361- Lab Sample ID: 9929276

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 2433
Retention Time (minutes): 21.215
Relative Retention Time :-0.00046
Quant Ion : 105.00
Area (flag) : 235424
Concentration (ppb(v)) : 1.4549

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929277
Canister ID:	1412	Lab File ID:	fl00257.d
Pressure Received:	14.7 psia	Date Collected:	12/05/2018
Final Pressure:	29.4 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	20:38
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	6.3	
75-45-6	Chlorodifluoromethane	0.53	U
76-14-2	Freon 114	0.84	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.31	U
106-99-0	1,3-Butadiene	1.2	J
74-83-9	Bromomethane	0.70	U
75-00-3	Chloroethane	0.50	U
75-43-4	Dichlorofluoromethane	0.46	U
75-69-4	Trichlorofluoromethane	2.0	J
109-66-0	Pentane	2.6	J
75-35-4	1,1-Dichloroethene	0.56	U
76-13-1	Freon 113	0.84	U
67-64-1	Acetone	46	
75-15-0	Carbon Disulfide	0.81	J
107-05-1	3-Chloropropene	0.47	U
75-09-2	Methylene Chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.34	U
1634-04-4	Methyl t-Butyl Ether	0.54	U
110-54-3	Hexane	2.1	J
75-34-3	1,1-Dichloroethane	0.36	U
156-59-2	cis-1,2-Dichloroethene	0.48	U
78-93-3	2-Butanone	9.5	
67-66-3	Chloroform	4.5	J

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929277
Canister ID:	1412	Lab File ID:	fl00257.d
Pressure Received:	14.7 psia	Date Collected:	12/05/2018
Final Pressure:	29.4 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	20:38
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
71-55-6	1,1,1-Trichloroethane	5.7	
56-23-5	Carbon Tetrachloride	1.4	J
71-43-2	Benzene	1.6	J
107-06-2	1,2-Dichloroethane	0.32	U
540-84-1	Isooctane	0.74	J
142-82-5	Heptane	0.94	U
79-01-6	Trichloroethene	2.3	J
78-87-5	1,2-Dichloropropane	0.60	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	0.80	U
10061-01-5	cis-1,3-Dichloropropene	0.45	U
108-10-1	4-Methyl-2-Pentanone	0.61	U
108-88-3	Toluene	2.2	J
111-65-9	Octane	1.9	U
10061-02-6	trans-1,3-Dichloropropene	0.54	U
79-00-5	1,1,2-Trichloroethane	0.65	U
127-18-4	Tetrachloroethene	450	
591-78-6	2-Hexanone	0.74	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	0.60	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	0.83	U
179601-23-1	m/p-Xylene	1.4	J

Abbreviations:
U = The compound is less than the limit being reported.
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E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	CANISTER	Lab Sample ID:	9929277
Canister ID:	1412	Lab File ID:	fl00257.d
Pressure Received:	14.7 psia	Date Collected:	12/05/2018
Final Pressure:	29.4 psia	Date Received:	12/07/2018
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	400 cc	Analyzed Time:	20:38
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
95-47-6	o-Xylene	0.84	J
100-42-5	Styrene	0.85	U
75-25-2	Bromoform	1.8	U
98-82-8	Cumene	1.2	U
108-86-1	Bromobenzene	0.64	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	0.84	U
622-96-8	4-Ethyltoluene	0.88	U
108-67-8	1,3,5-Trimethylbenzene	1.6	U
95-63-6	1,2,4-Trimethylbenzene	1.5	J
541-73-1	1,3-Dichlorobenzene	1.1	U
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.2	U
67-72-1	Hexachloroethane	2.6	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00257.d Injection date and time: **15-DEC-2018 20:38**
Data file Sample Info. Line: 9929277;400;F1834930AA;1412-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 29.4 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.108(-0.007)	1022	130	342615 (-6)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.385(0.000)	1340	114	1105458 (-8)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.221(0.007)	2015	117	1167336 (-2)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)	4.009(-0.000)	85	143665M	1.270	1.27			0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)	4.668(-0.000)	54	18727M	0.529	0.53		J	0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)	5.864(0.000)	101	41559	0.363	0.36		J	0.15	1
11) Pentane	(1)	5.857(0.000)	43	89767	0.879	0.88		J	0.13	1
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)	8.078(-0.000)	43	1697089	19.205	19.20			0.53	5
18) Carbon Disulfide	(1)	6.939(-0.000)	76	29569M	0.261	0.26		J	0.13	1
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)	8.421(0.002)	56	35816	0.608	0.61		J	0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
45) 2-Butanone	(1)	11.810(0.000)	43	395458	3.233	3.23			0.21	1
39) Chloroform	(1)	11.208(0.000)	83	86739	0.915	0.92		J	0.092	1
44) 1,1,1-Trichloroethane	(1)	11.638(0.000)	97	100460	1.037	1.04			0.12	1
42) Carbon Tetrachloride	(1)	11.502(0.000)	117	20037	0.230	0.23		J	0.14	1
48) Benzene	(2)	12.325(0.000)	78	61987	0.501	0.50		J	0.11	1
50) 1,2-Dichloroethane	(2)			Not Detected					0.08	1
46) Isooctane	(2)	12.039(0.000)	57	40355	0.159	0.16		J	0.13	1
47) Heptane	(2)			Not Detected					0.23	1
51) Trichloroethene	(2)	13.350(-0.000)	130	22009	0.429	0.43		J	0.18	1
55) 1,2-Dichloropropane	(2)			Not Detected					0.13	1
53) Dibromomethane	(2)			Not Detected					0.14	1
56) Bromodichloromethane	(2)			Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)			Not Detected					0.15	1
61) Toluene	(3)	15.792(0.000)	91	92064	0.573	0.57		J	0.12	1
60) Octane	(3)			Not Detected					0.4	2
64) trans-1,3-Dichloropropene	(3)			Not Detected					0.12	1
67) 1,1,2-Trichloroethane	(3)			Not Detected					0.12	1
63) Tetrachloroethene	(3)	16.430(-0.000)	166	6184741	66.985	66.99			0.25	2
70) 2-Hexanone	(3)			Not Detected					0.18	1
68) Dibromochloromethane	(3)			Not Detected					0.13	1

M = Compound was manually integrated.

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Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00257.d Injection date and time: **15-DEC-2018 20:38**
Data file Sample Info. Line: 9929277;400;F1834930AA;1412-;0;0;SAMPLE; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **292**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 29.4 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
69) 1,2-Dibromoethane	(3)			Not Detected					0.13	1
72) Chlorobenzene	(3)			Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.15	1
73) Ethylbenzene	(3)			Not Detected					0.19	1
75) m/p-Xylene	(3)	18.486(-0.000)	91	50905	0.318	0.32		J	0.26	2
76) o-Xylene	(3)	19.173(-0.000)	91	30487	0.193	0.19		J	0.19	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.17	1
80) Cumene	(3)			Not Detected					0.24	1
82) Bromobenzene	(3)			Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)			Not Detected					0.14	1
84) 4-Ethyltoluene	(3)			Not Detected					0.18	1
86) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.32	2
90) 1,2,4-Trimethylbenzene	(3)	21.215(-0.000)	105	54992	0.315	0.31		J	0.28	2
93) 1,3-Dichlorobenzene	(3)			Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)			Not Detected					0.17	1
98) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) Hexachloroethane	(3)			Not Detected					0.27	2

Total number of targets = 62

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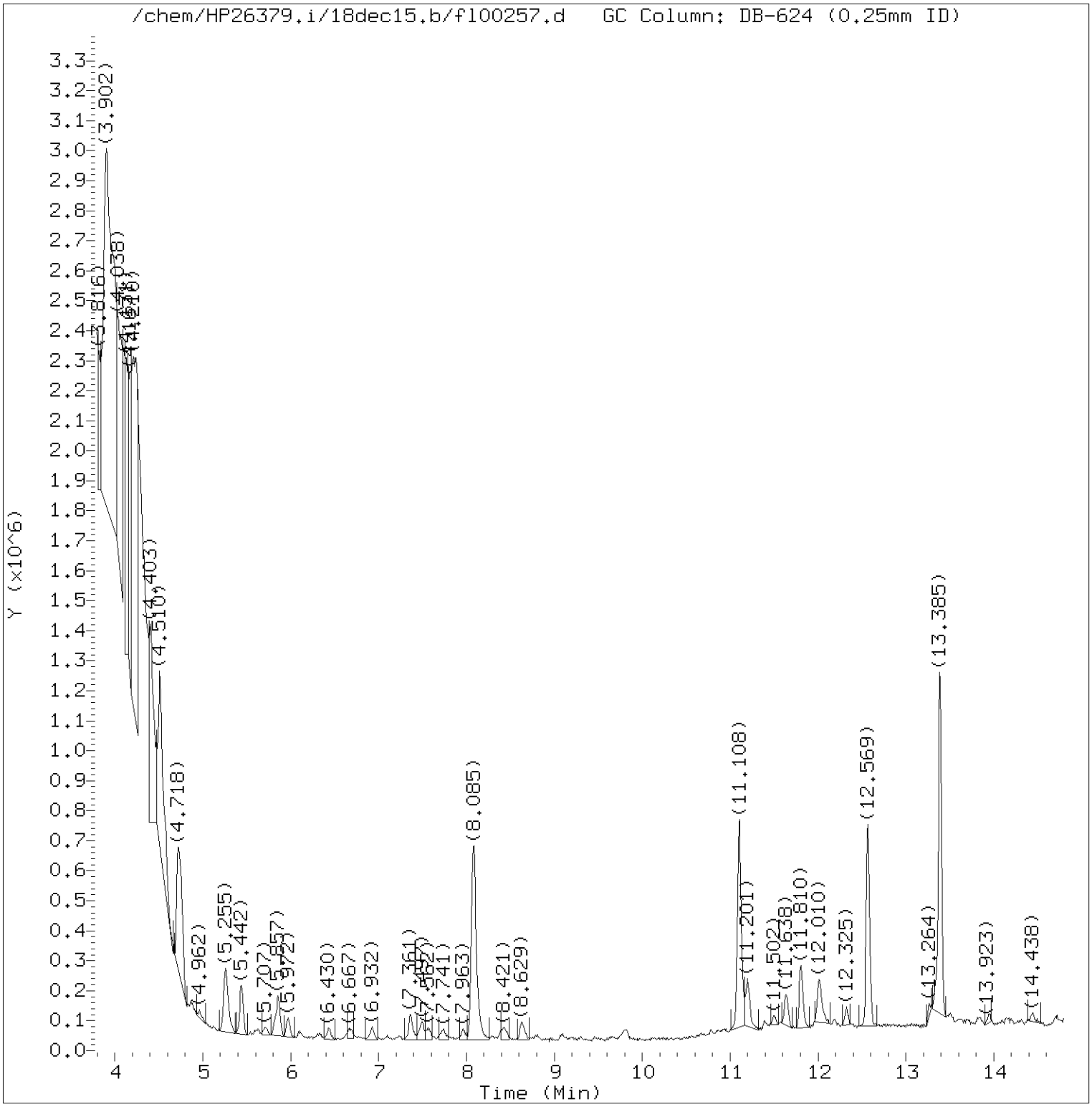
Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

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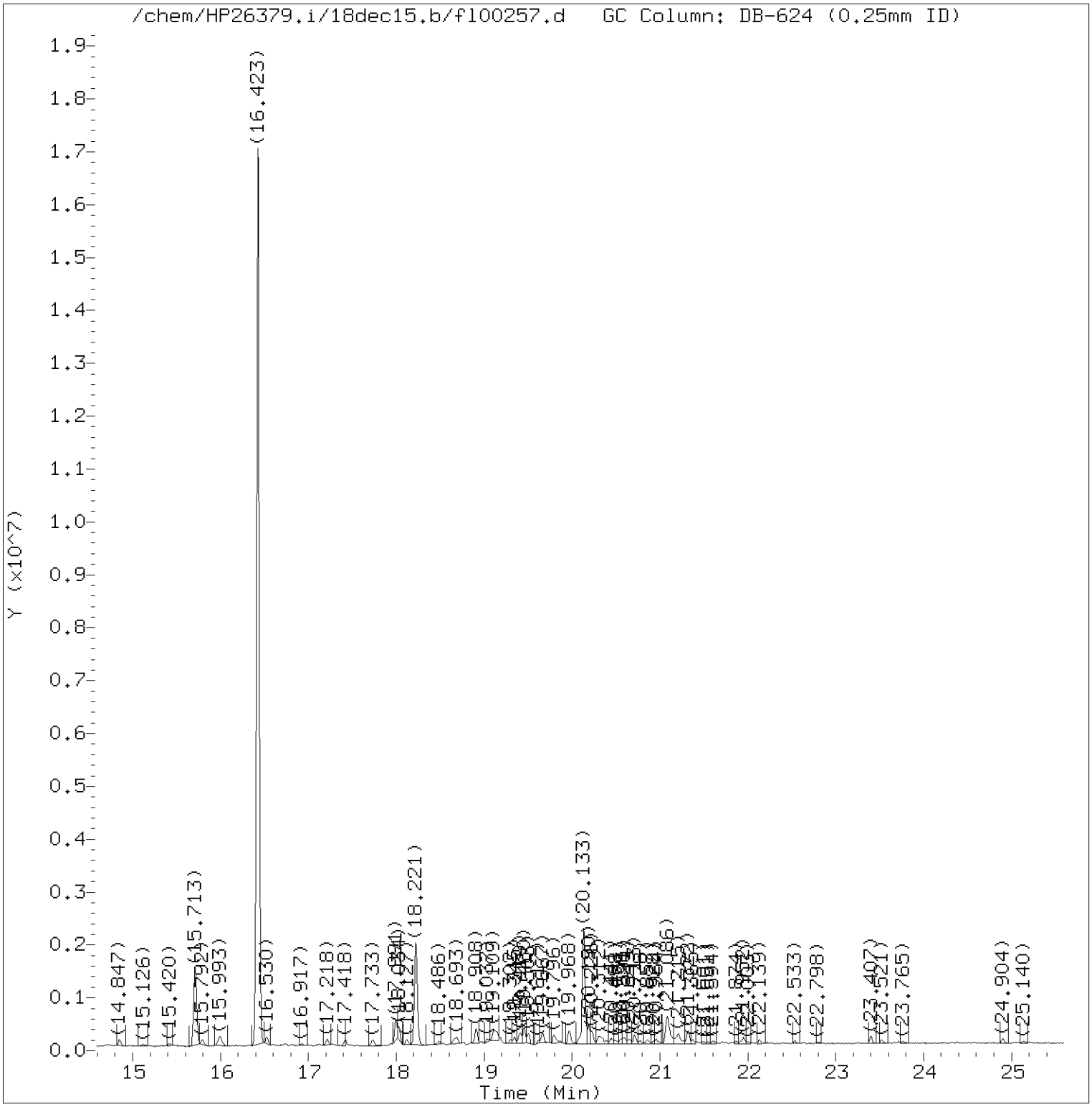
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

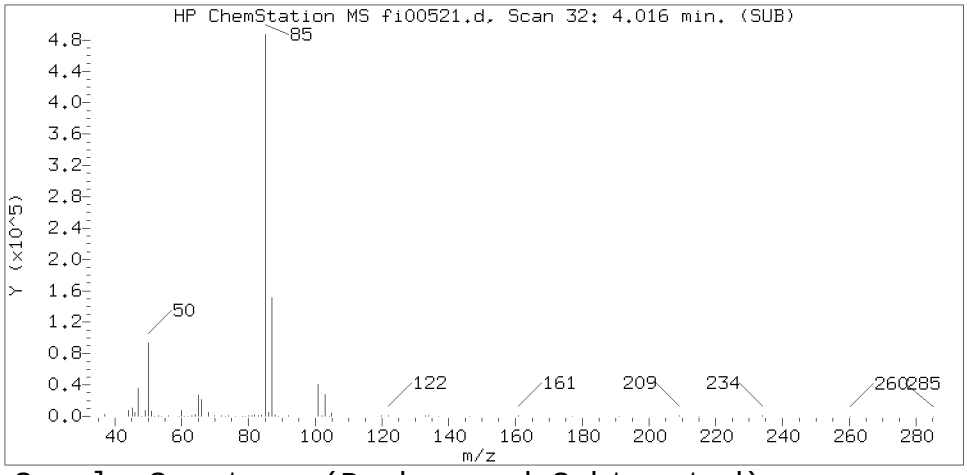
Sample Name: 1412- Lab Sample ID: 9929277

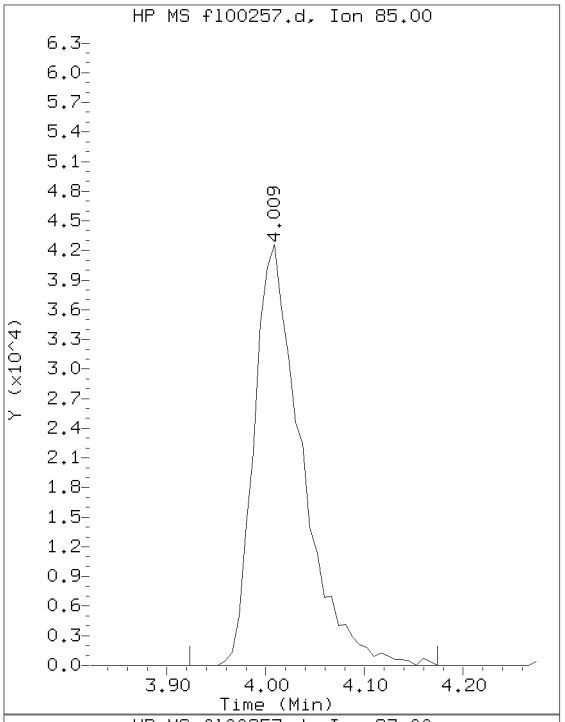
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	4.009	85	143665M	1.270
7) 1,3-Butadiene	(1)	4.668	54	18727M	0.529
11) Pentane	(1)	5.857	43	89767	0.879
12) Trichlorofluoromethane	(1)	5.864	101	41559	0.363
18) Carbon Disulfide	(1)	6.939	76	29569M	0.261
24) Acetone	(1)	8.078	43	1697089	19.205
26) Hexane	(1)	8.421	56	35816	0.608
37)*Bromochloromethane	(1)	11.108	130	342615	10.000
39) Chloroform	(1)	11.208	83	86739	0.915
42) Carbon Tetrachloride	(1)	11.502	117	20037	0.230
44) 1,1,1-Trichloroethane	(1)	11.638	97	100460	1.037
45) 2-Butanone	(1)	11.810	43	395458	3.233
46) Isooctane	(2)	12.039	57	40355	0.159
48) Benzene	(2)	12.325	78	61987	0.501
51) Trichloroethene	(2)	13.350	130	22009	0.429
52)*1,4-Difluorobenzene	(2)	13.385	114	1105458	10.000
61) Toluene	(3)	15.792	91	92064	0.573
63) Tetrachloroethene	(3)	16.430	166	6184741	66.985
71)*Chlorobenzene-d5	(3)	18.221	117	1167336	10.000
75) m/p-Xylene	(3)	18.486	91	50905	0.318
76) o-Xylene	(3)	19.173	91	30487	0.193
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	54992	0.315

M = Compound was manually integrated.
* = Compound is an internal standard.

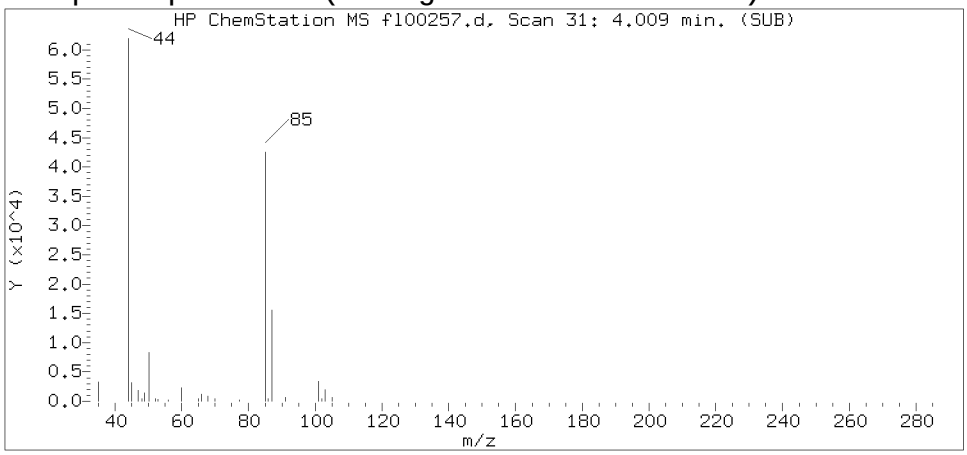
Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

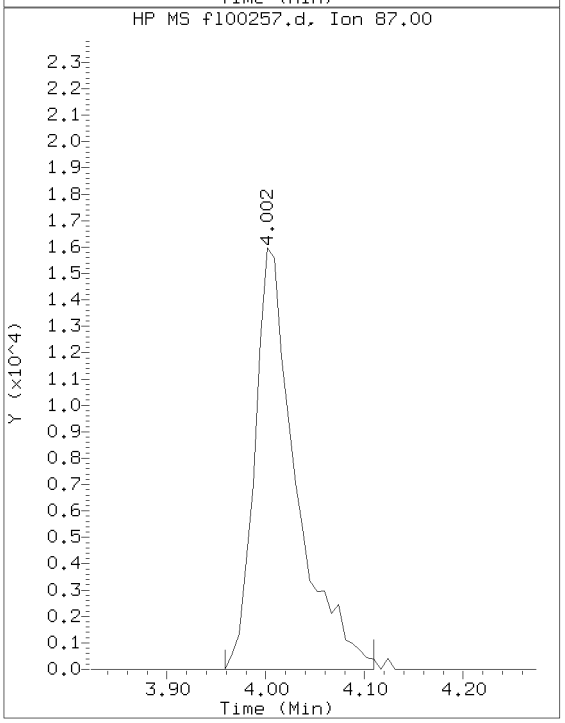
Reference Standard Spectrum for Dichlorodifluoromethane



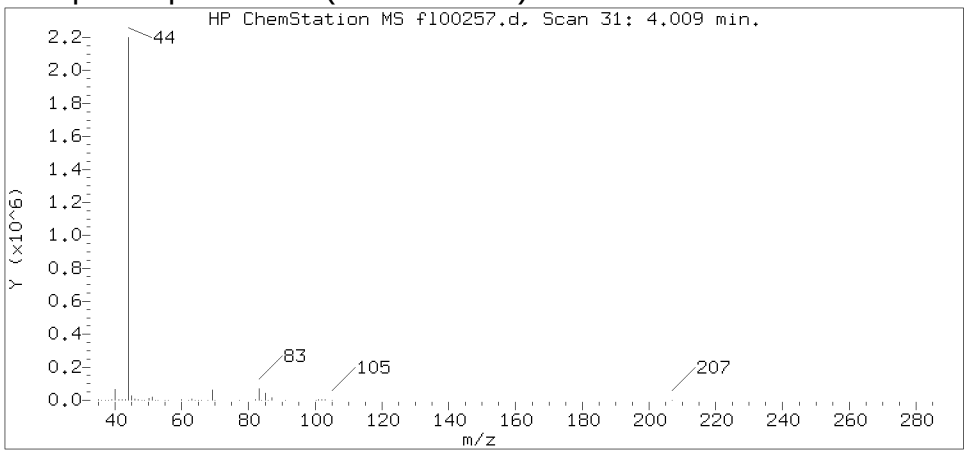


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

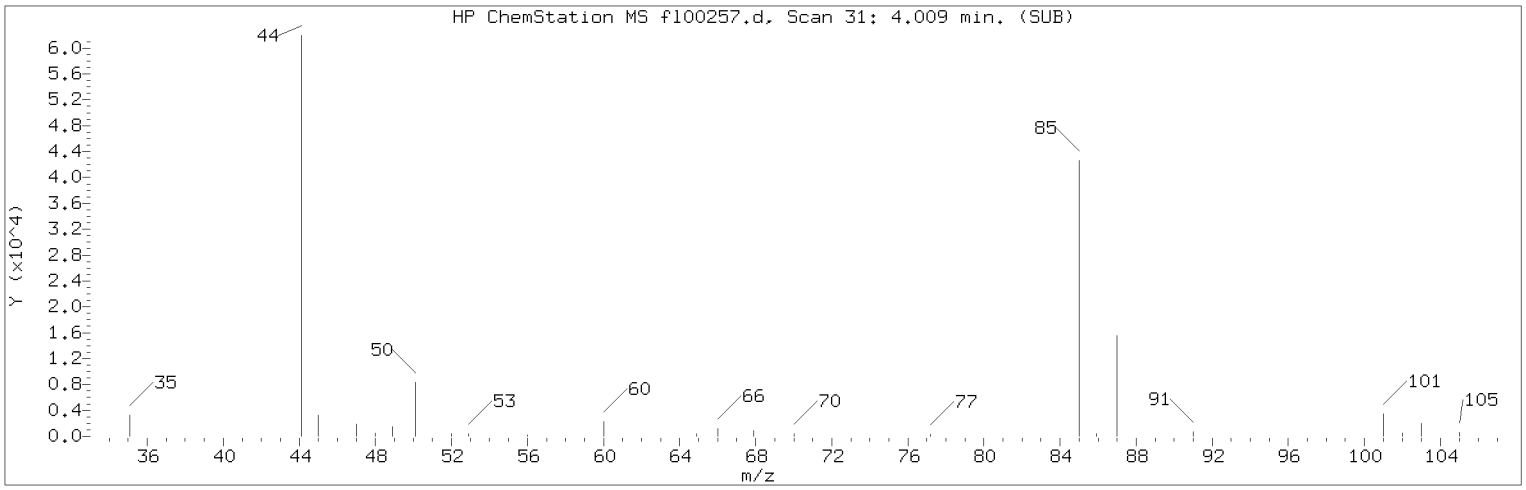
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

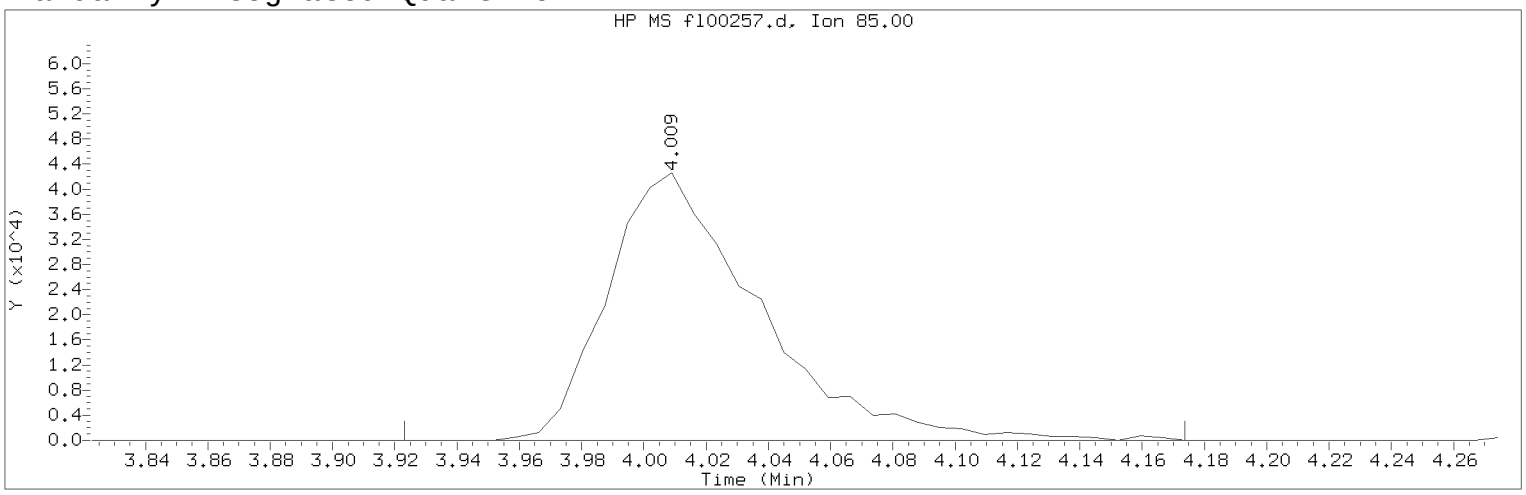
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Relative Retention Time :-0.00040
Quant Ion : 85.00
Area (flag) : 143665M
Concentration (ppb(v)) : 1.2700

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

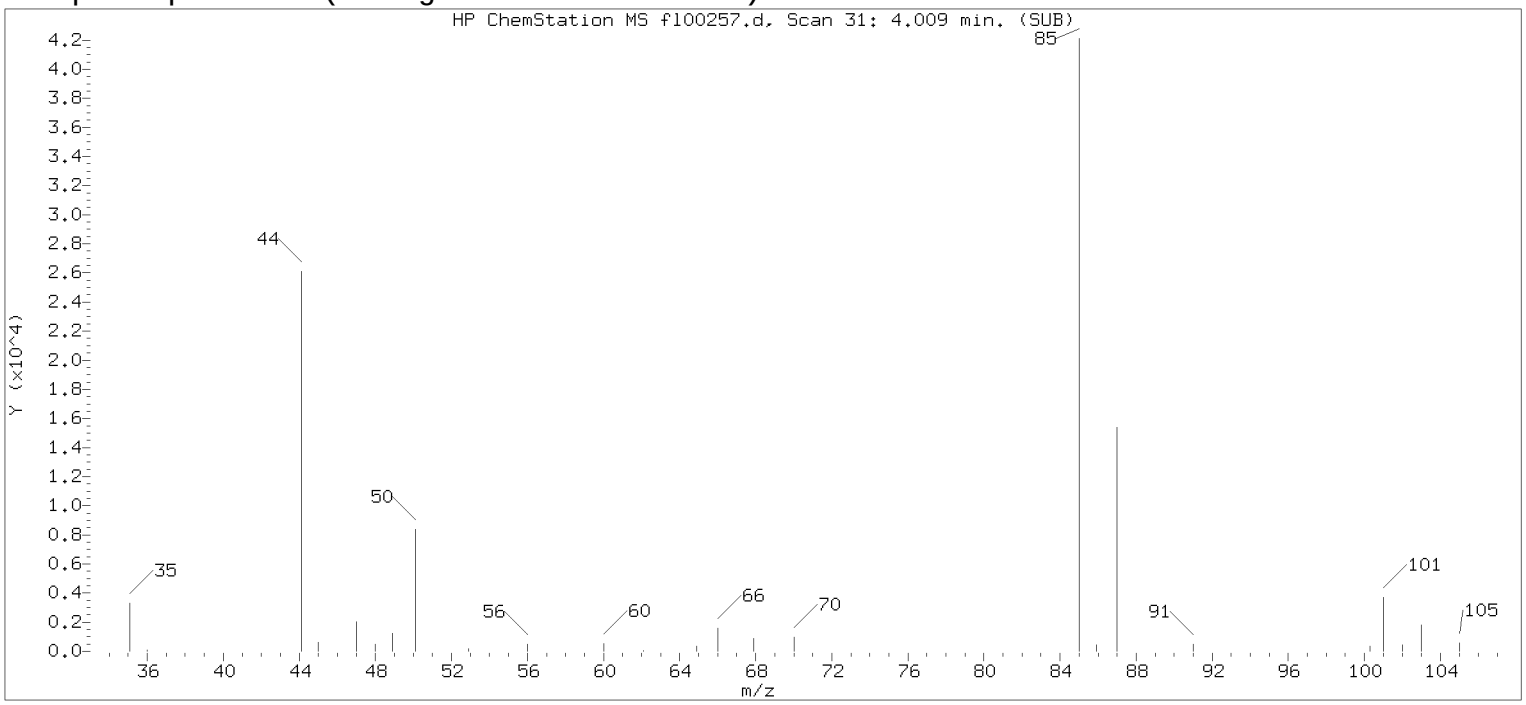
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Quant Ion : 85.00
Area (flag) : 143665M
Concentration (ppb(v)) : 1.2700
Integration start scan : 18 Integration stop scan: 53
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

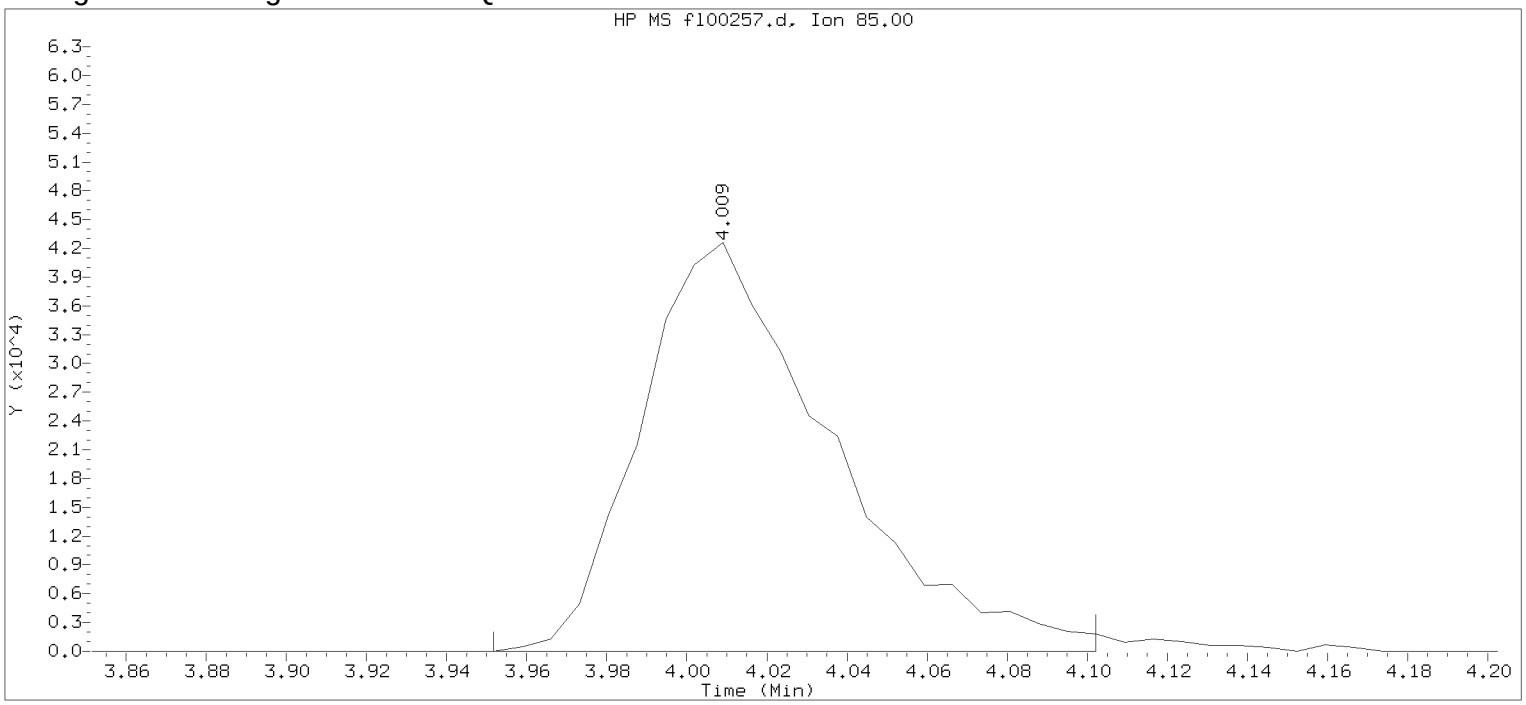
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

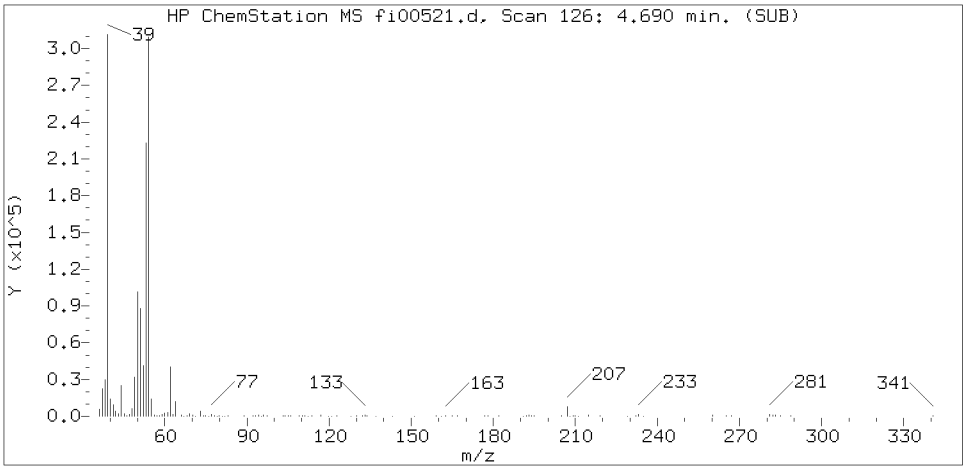
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 21:11 Unknown

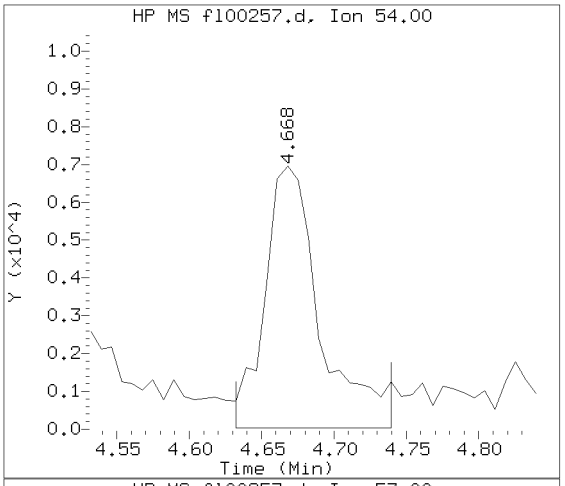
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 31
Retention Time (minutes): 4.009
Quant Ion : 85.00
Area : 140743
Concentration (ppb(v)) : 1.2442
Integration start scan : 22 Integration stop scan: 43
Y at integration start : 0 Y at integration end: 0

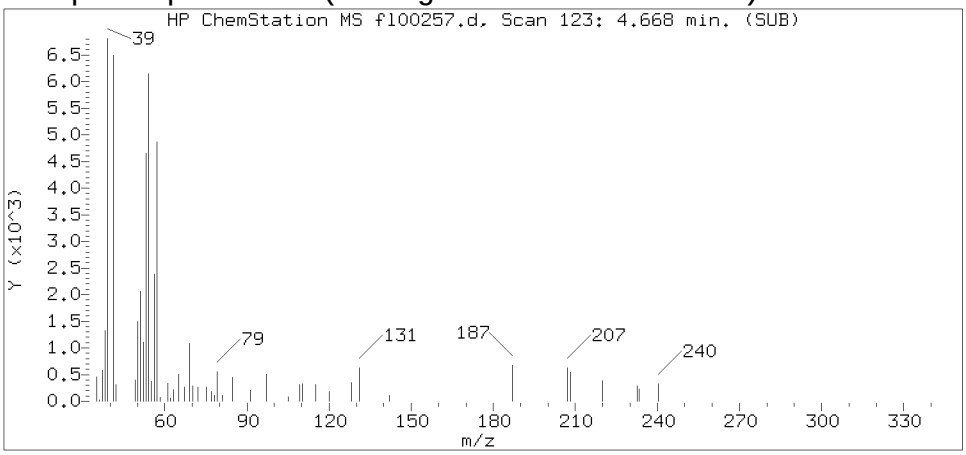
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature userBIR29jeb07445

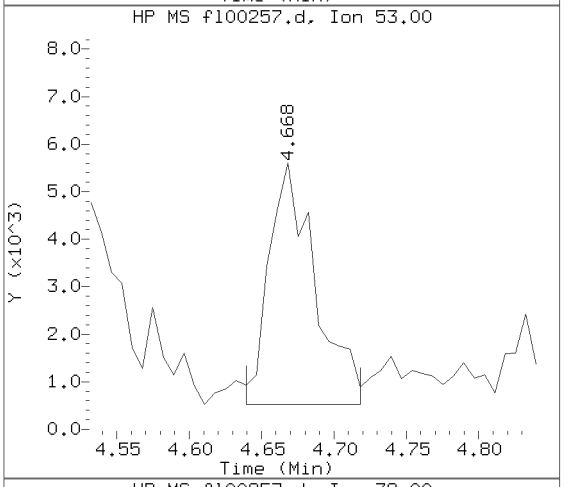
Reference Standard Spectrum for 1,3-Butadiene



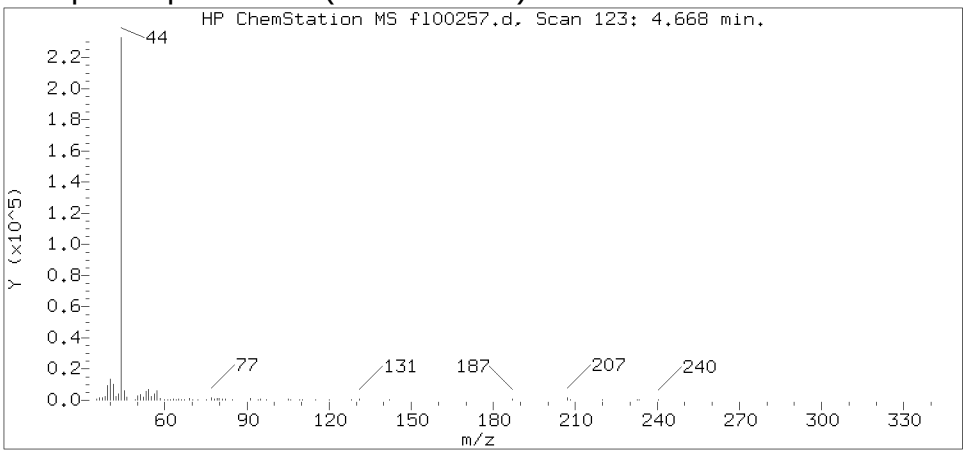


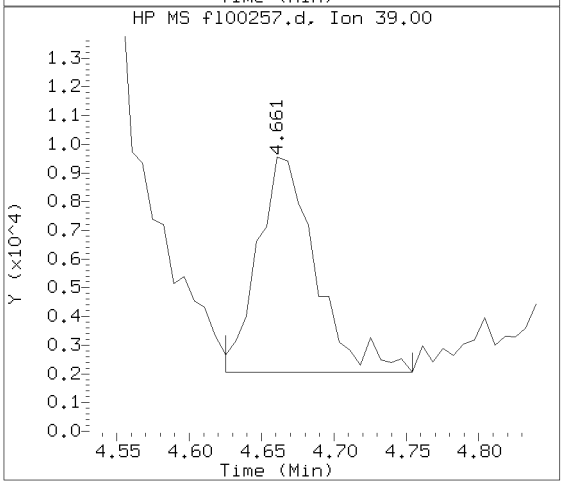
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

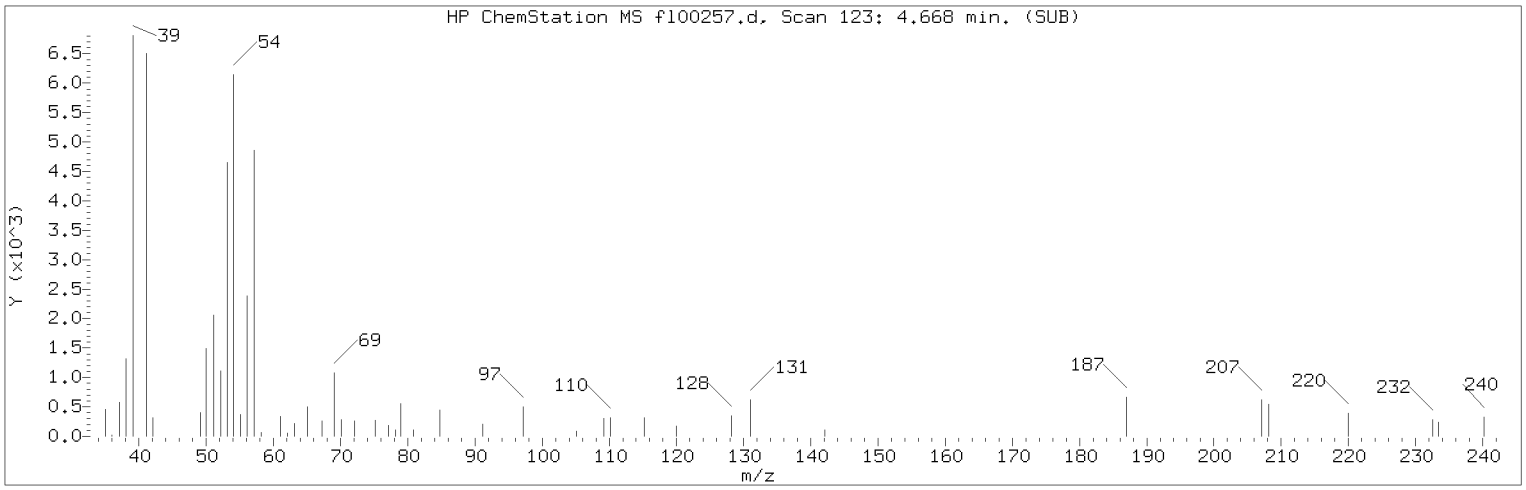
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

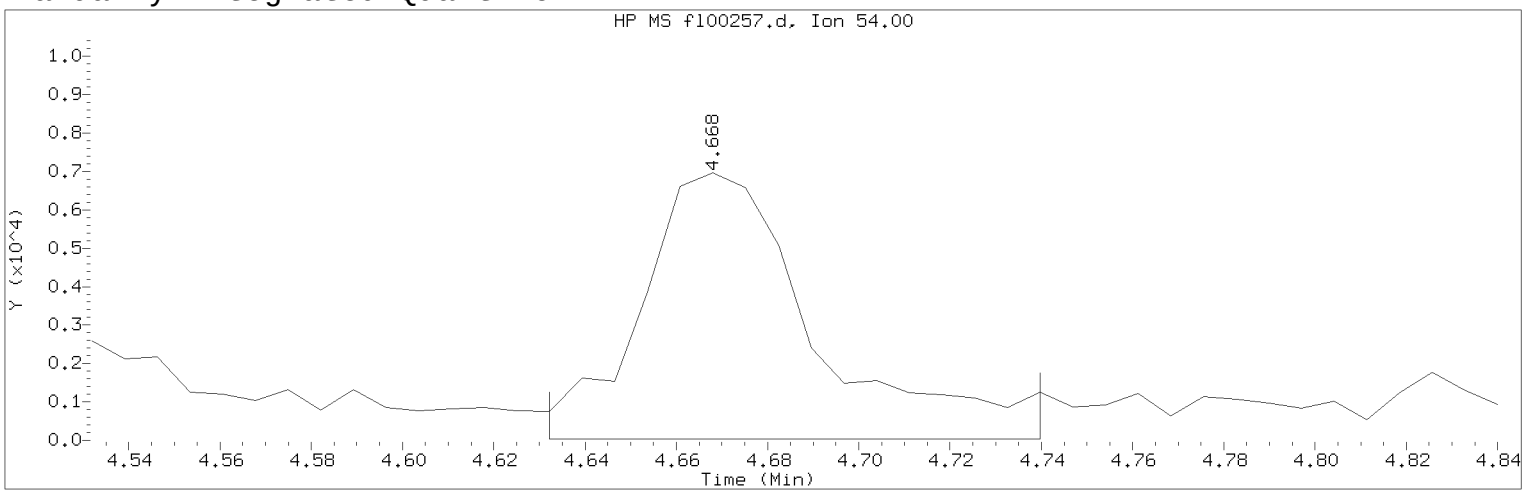
Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 123
Retention Time (minutes): 4.668
Relative Retention Time :-0.00036
Quant Ion : 54.00
Area (flag) : 18727M
Concentration (ppb(v)) : 0.5294

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

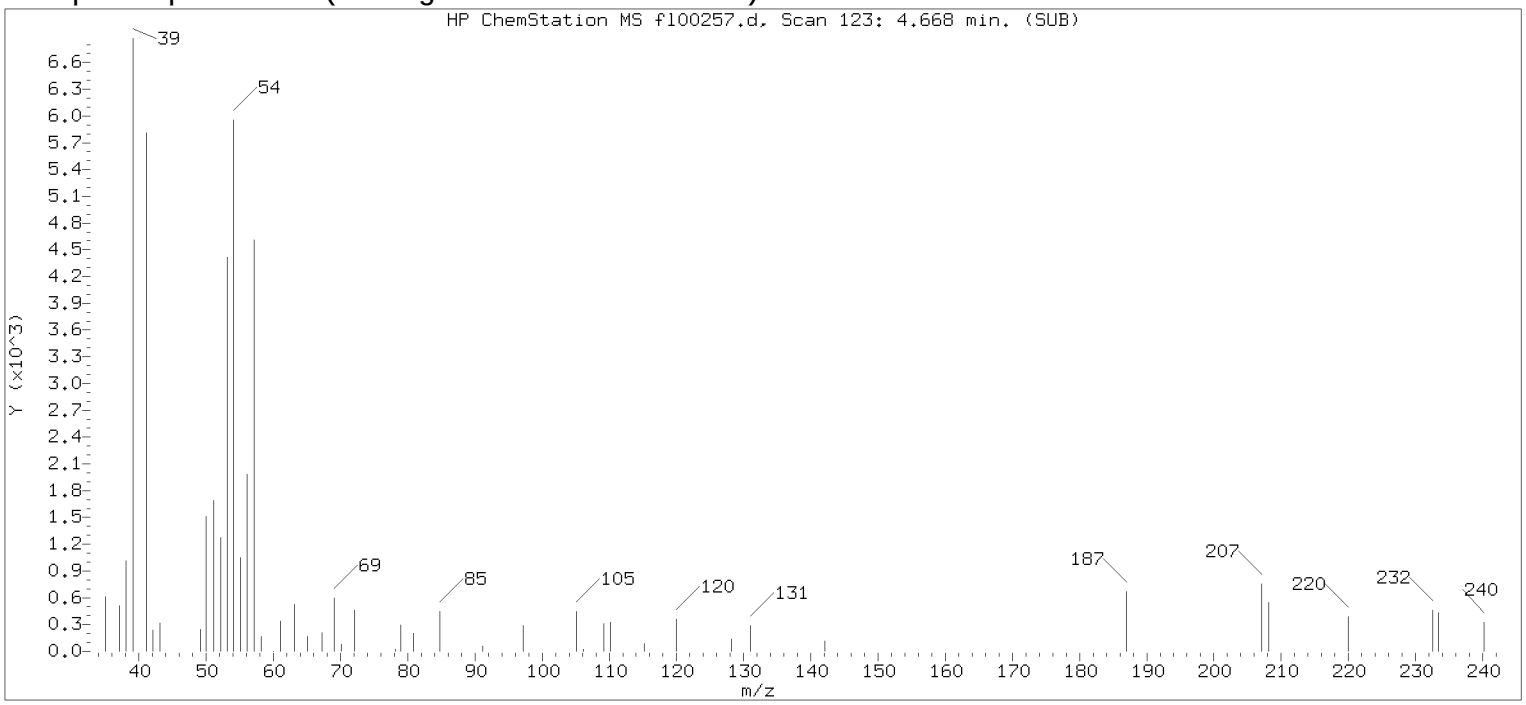
Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 123
Retention Time (minutes): 4.668
Quant Ion : 54.00
Area (flag) : 18727M
Concentration (ppb(v)) : 0.5294
Integration start scan : 117 Integration stop scan: 132
Y at integration start : 33 Y at integration end: 33

Reason for manual integration: improper integration

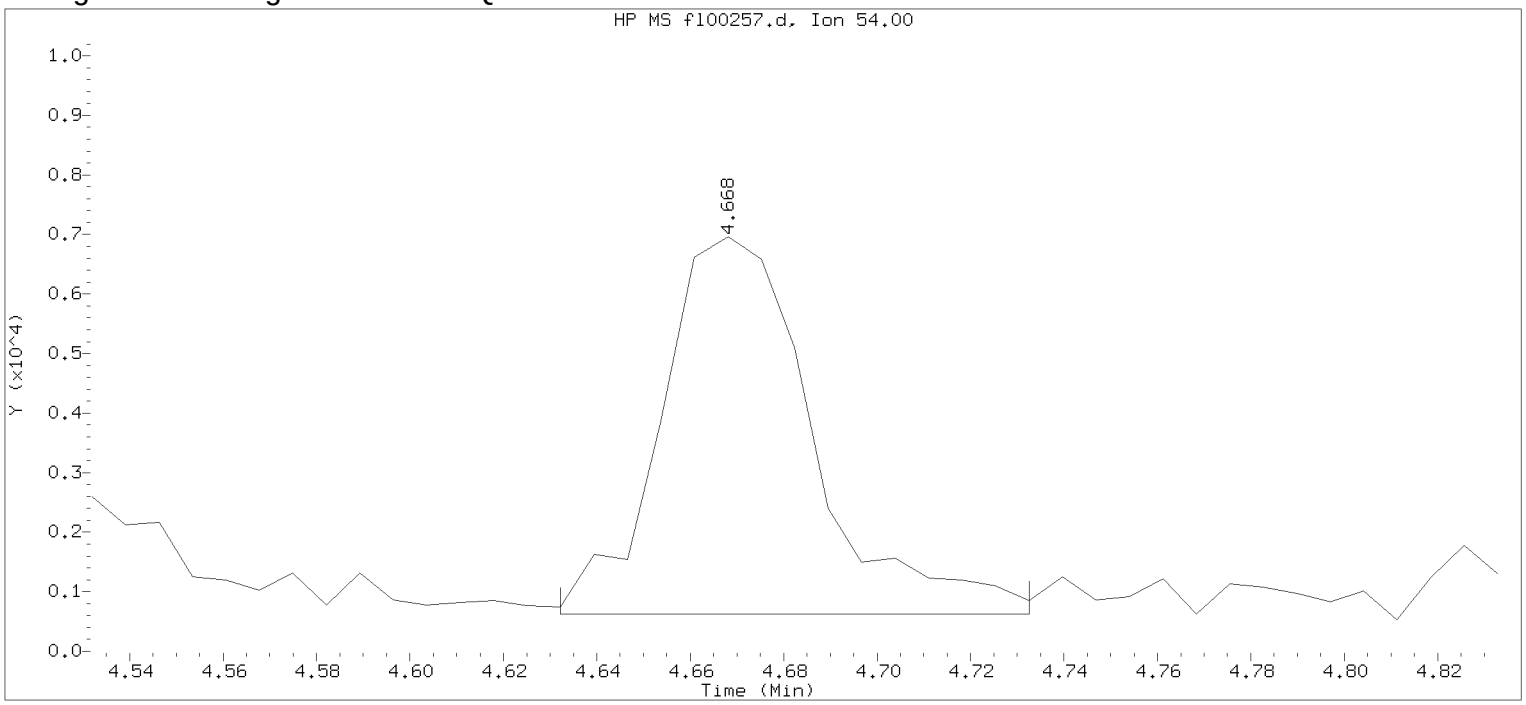
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

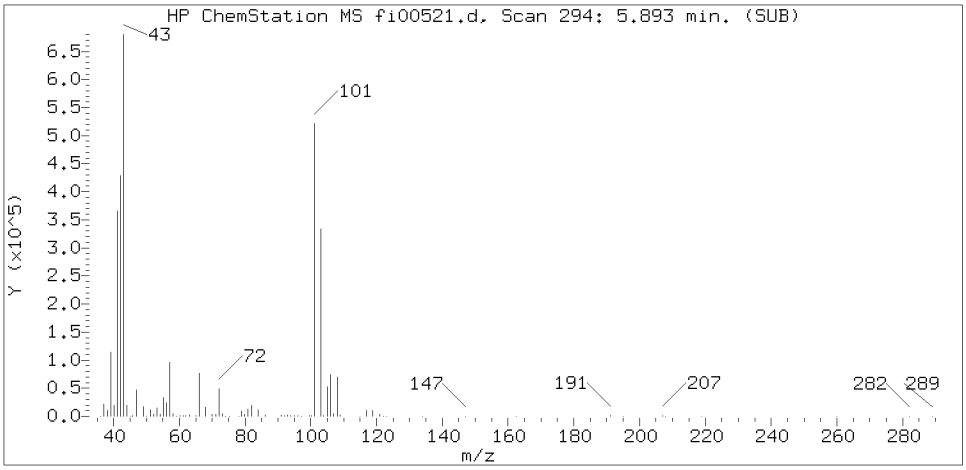
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 21:11 Unknown

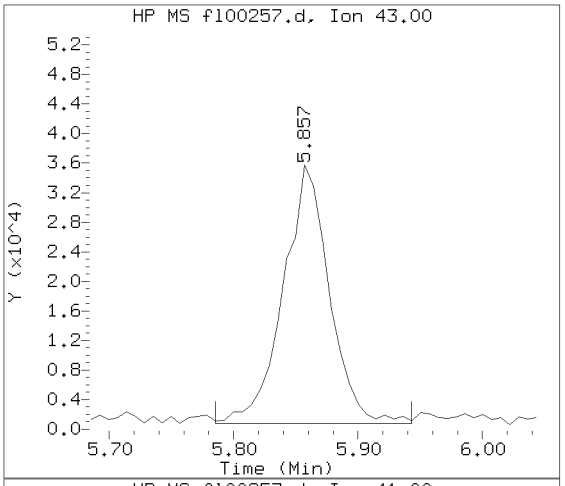
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 123
Retention Time (minutes): 4.668
Quant Ion : 54.00
Area : 14301
Concentration (ppb(v)) : 0.4043
Integration start scan : 117 Integration stop scan: 131
Y at integration start : 627 Y at integration end: 627

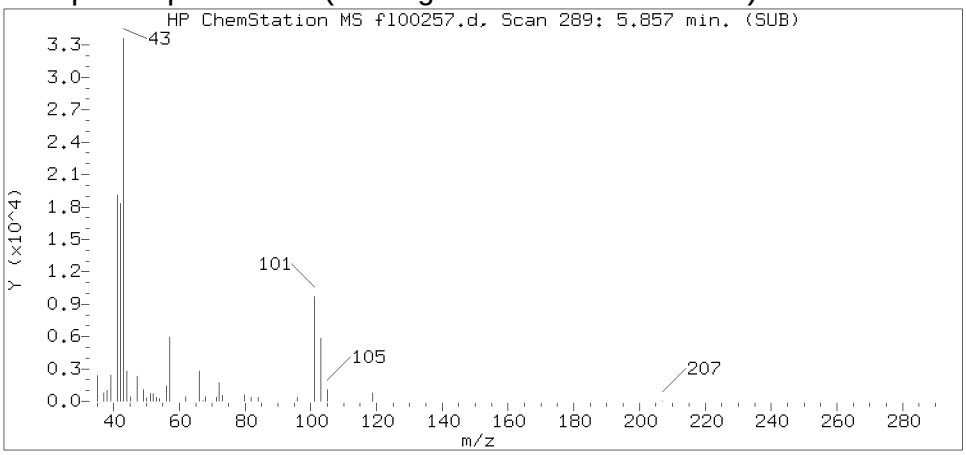
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature userBIR29jeb07445

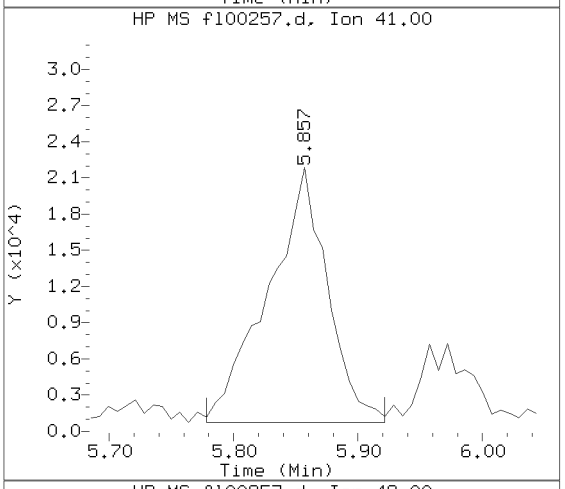
Reference Standard Spectrum for Pentane



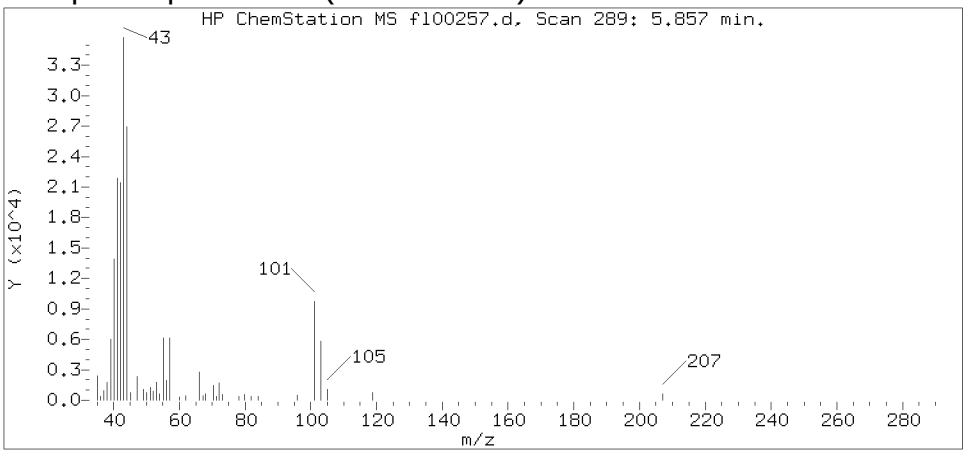


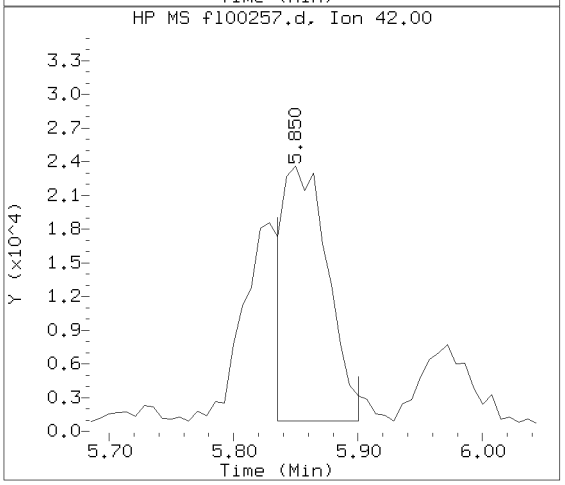
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

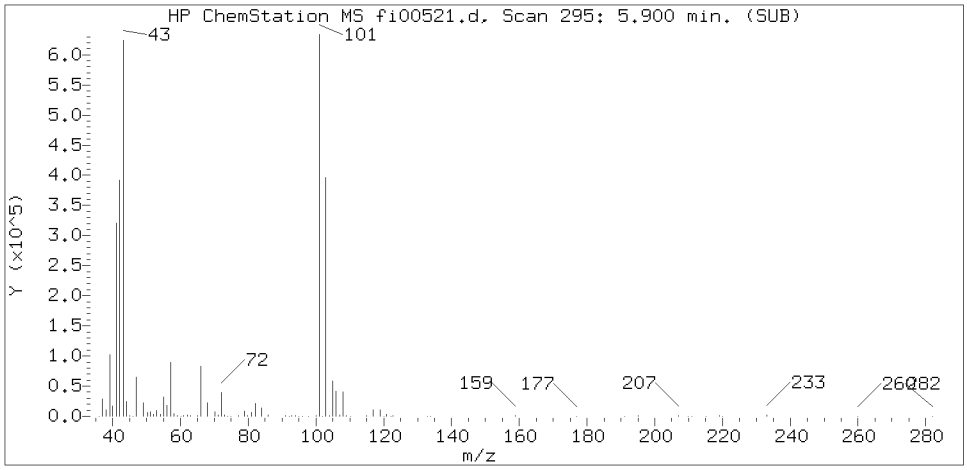
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

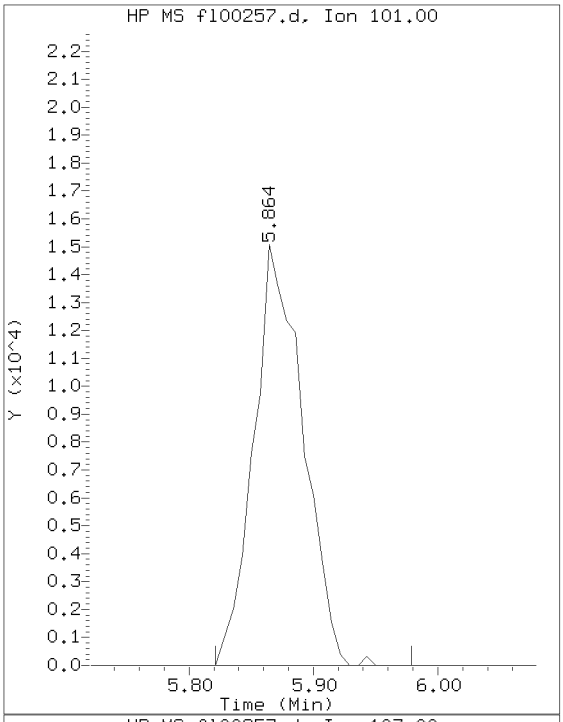
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 11
Compound Name : Pentane
Scan Number : 289
Retention Time (minutes): 5.857
Relative Retention Time : 0.00035
Quant Ion : 43.00
Area (flag) : 89767
Concentration (ppb(v)) : 0.8793

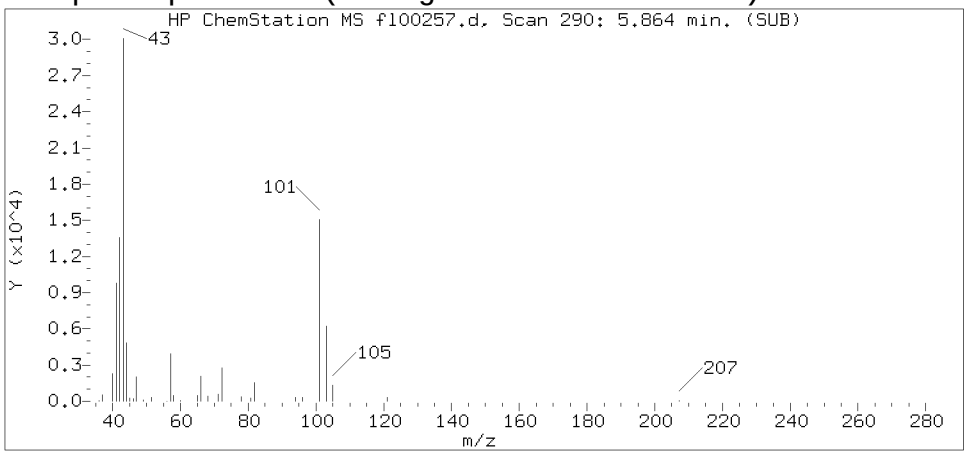
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

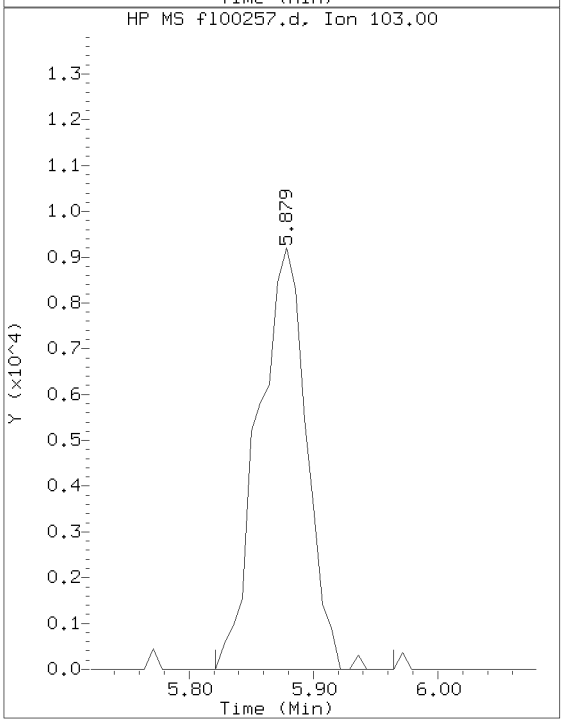
Reference Standard Spectrum for Trichlorofluoromethane



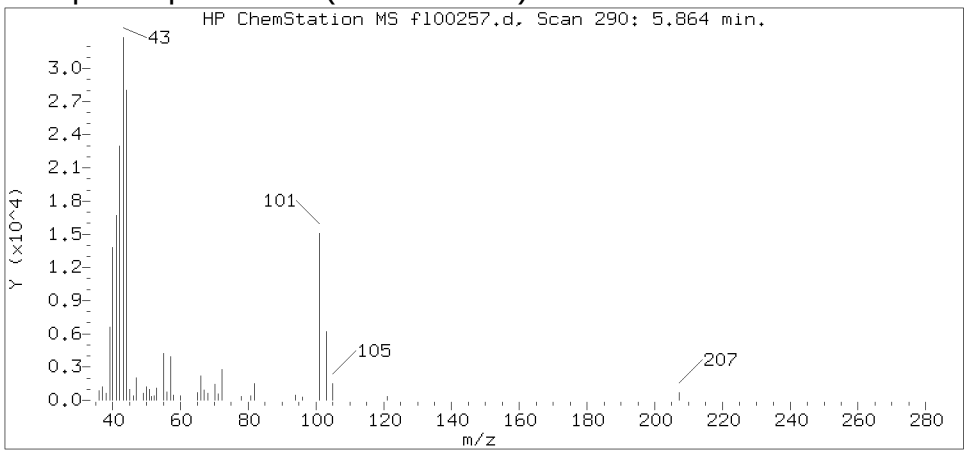


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

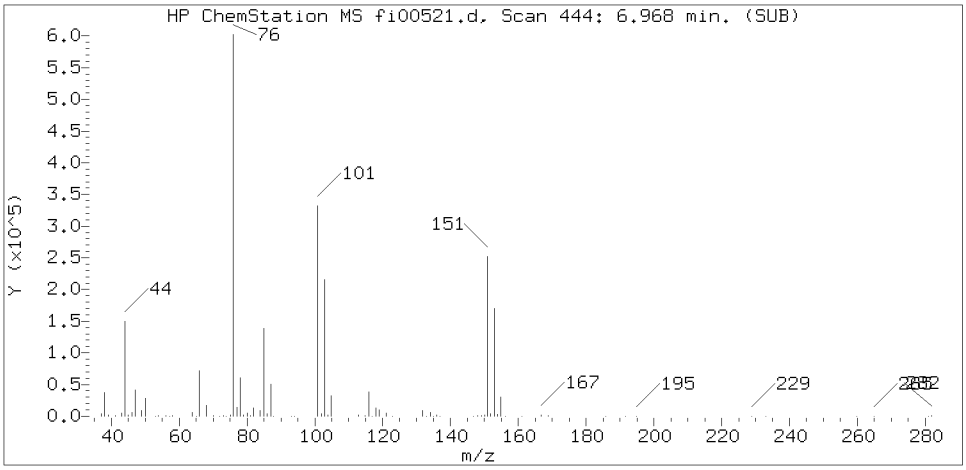
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

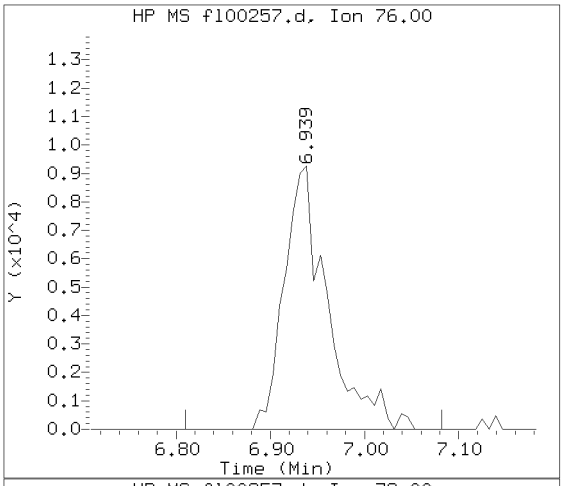
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 290
Retention Time (minutes): 5.864
Relative Retention Time : 0.00100
Quant Ion : 101.00
Area (flag) : 41559
Concentration (ppb(v)) : 0.3626

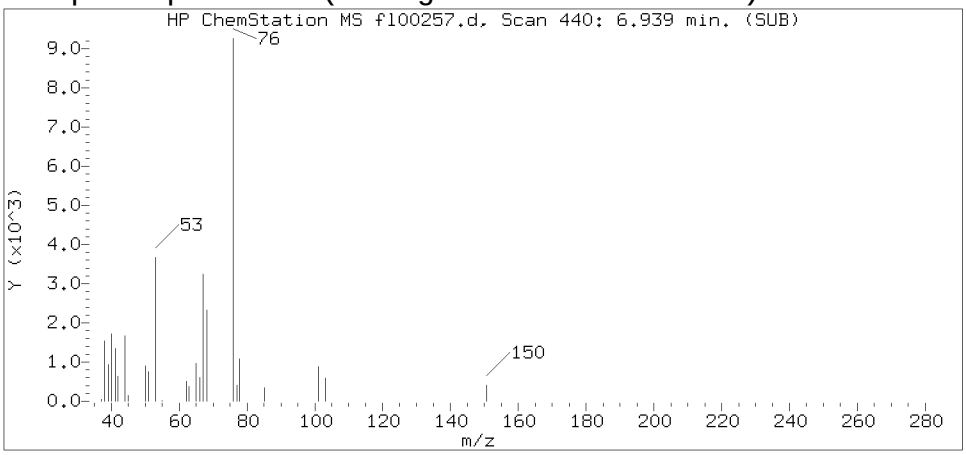
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

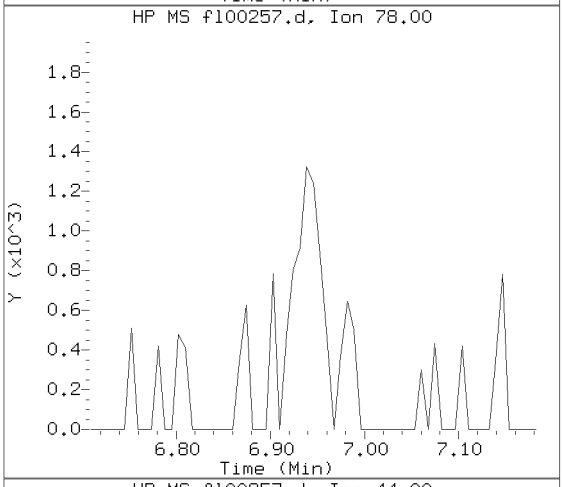
Reference Standard Spectrum for Carbon Disulfide



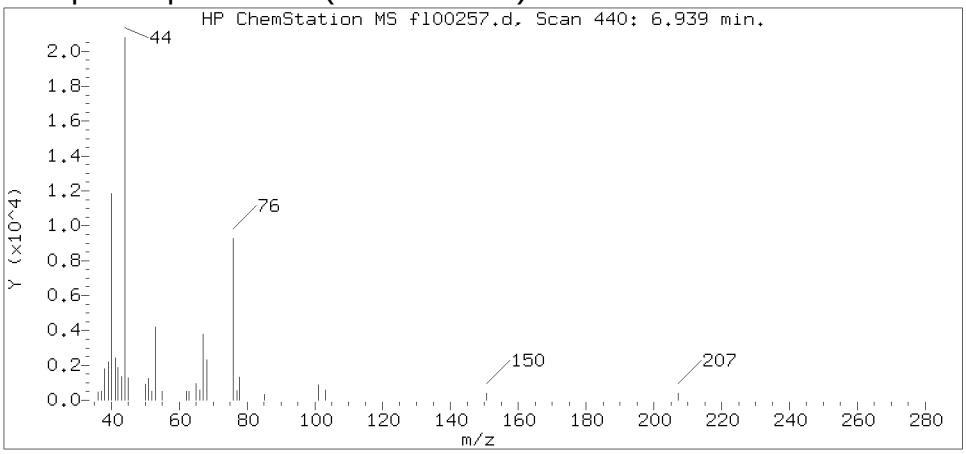


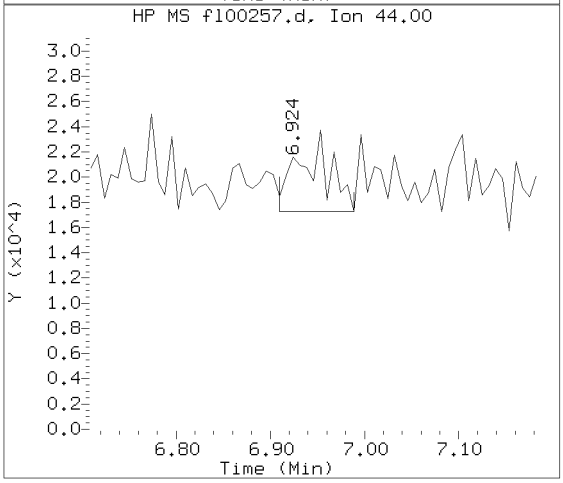
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

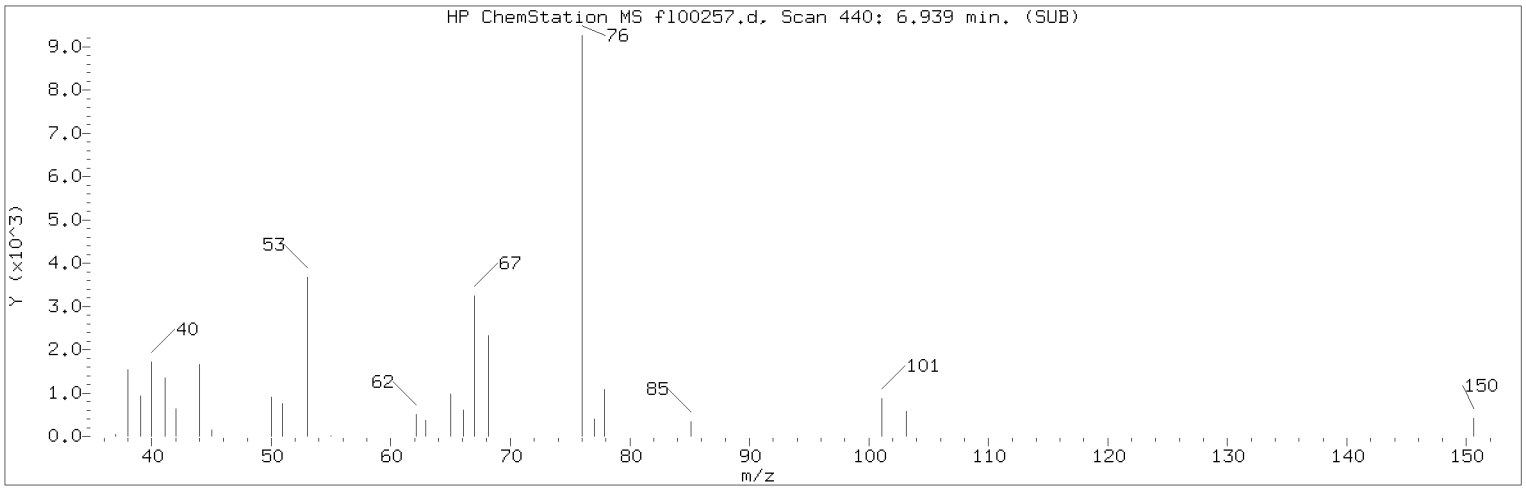
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

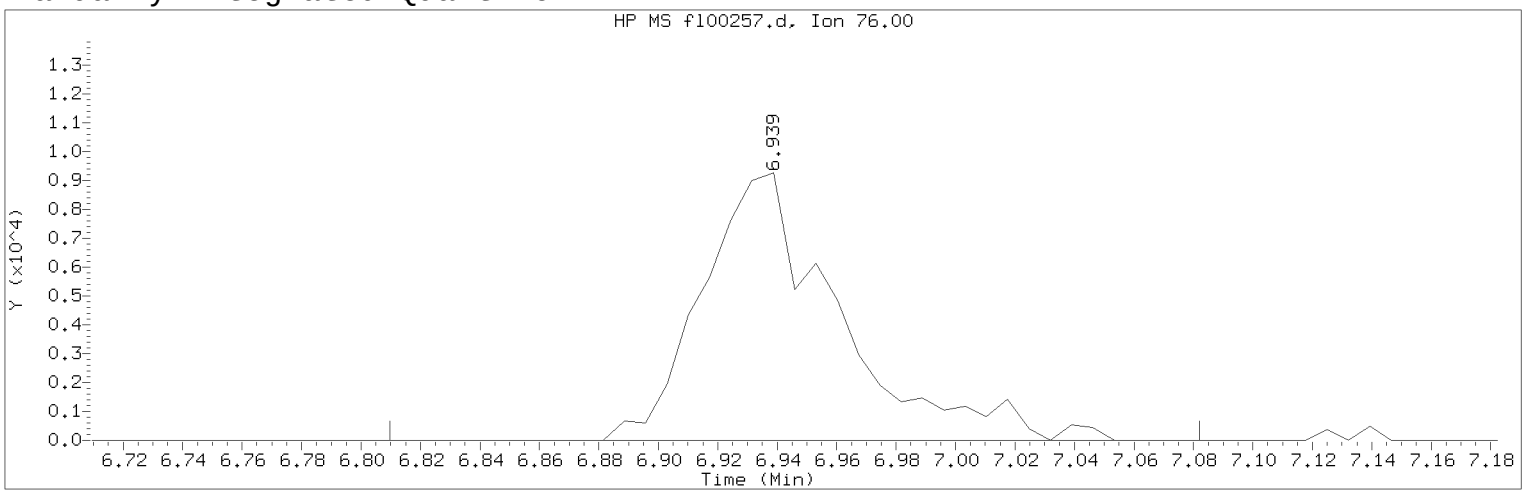
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 440
Retention Time (minutes): 6.939
Relative Retention Time :-0.00023
Quant Ion : 76.00
Area (flag) : 29569M
Concentration (ppb(v)) : 0.2608

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

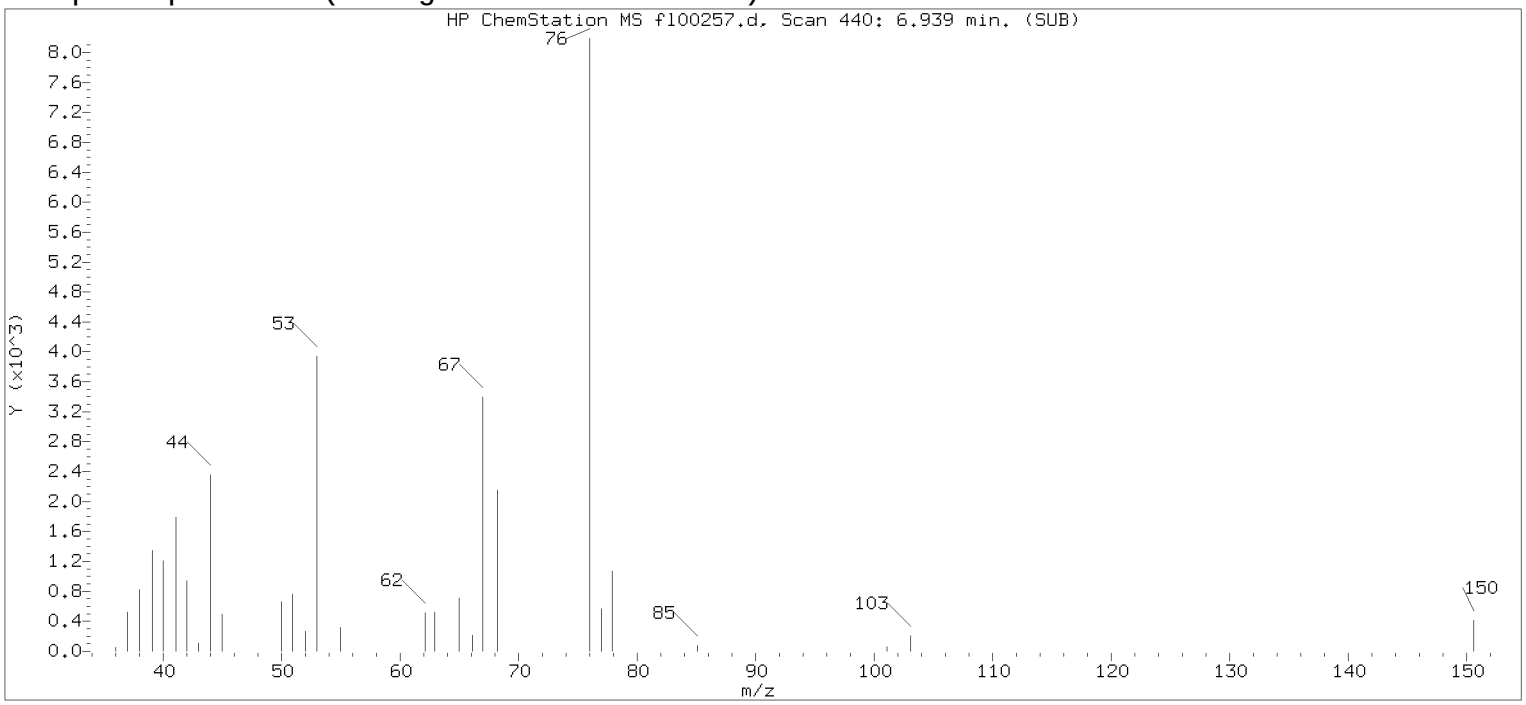
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 440
Retention Time (minutes): 6.939
Quant Ion : 76.00
Area (flag) : 29569M
Concentration (ppb(v)) : 0.2608
Integration start scan : 421 Integration stop scan: 459
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

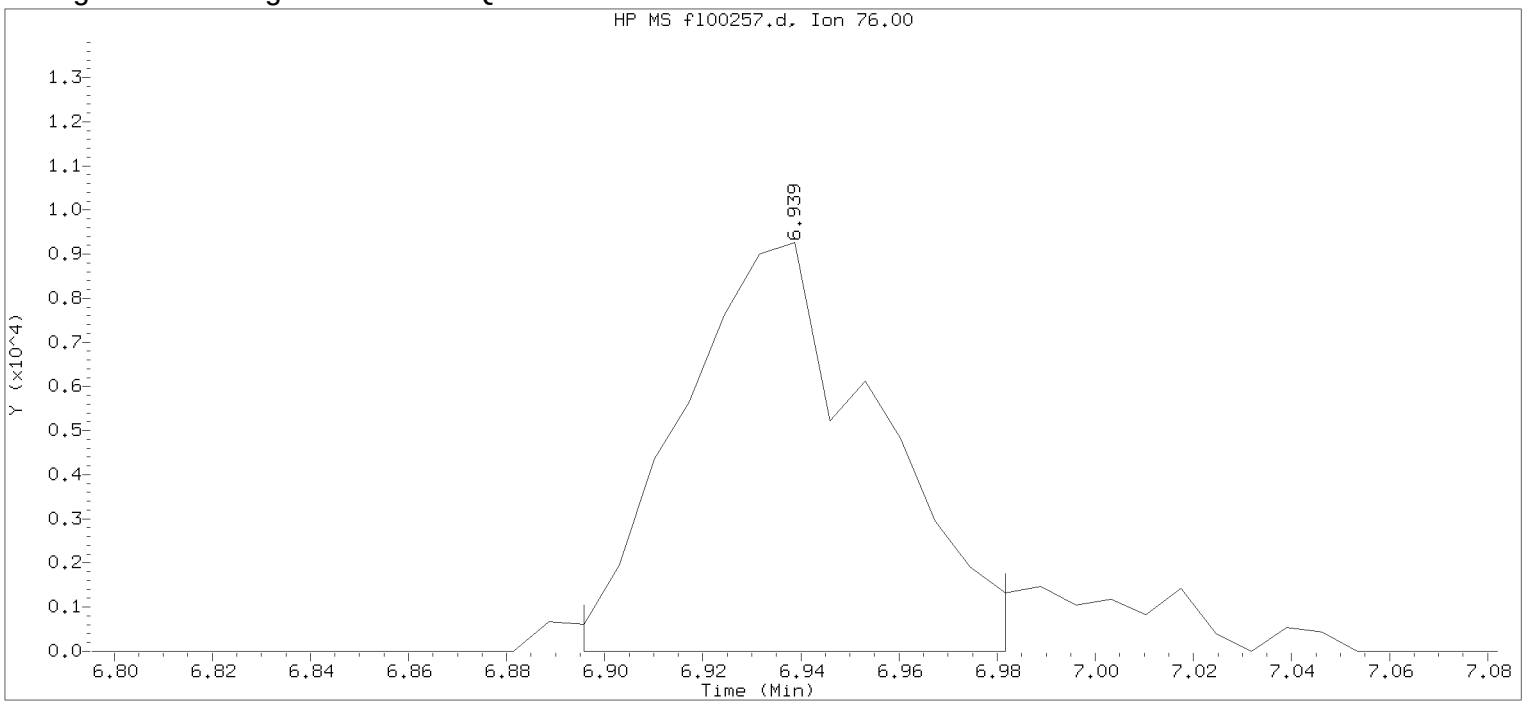
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:49.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

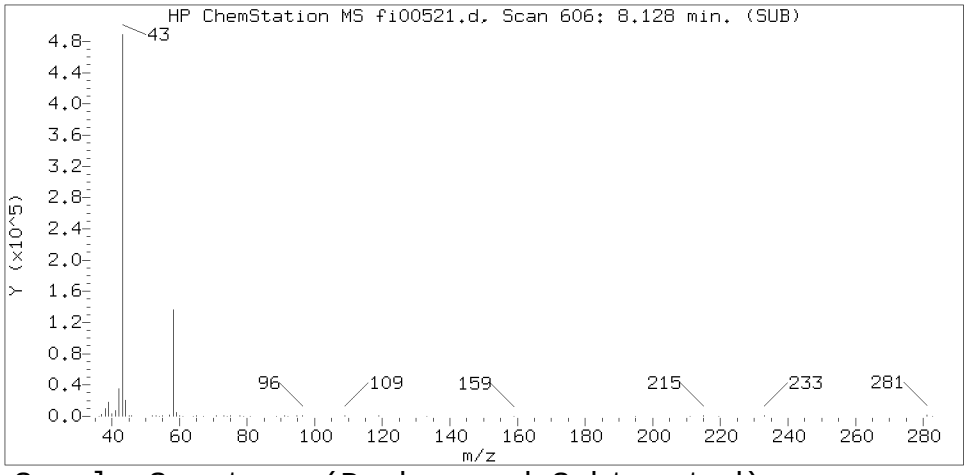
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 21:11 Unknown

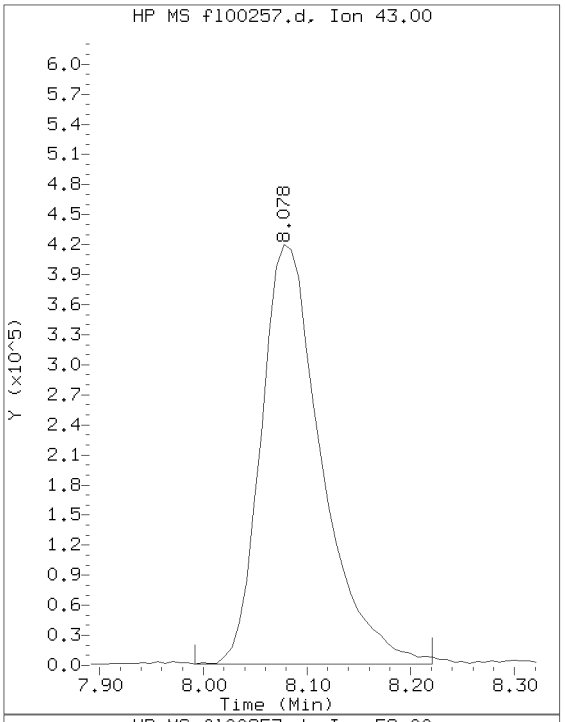
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 440
Retention Time (minutes): 6.939
Quant Ion : 76.00
Area : 25723
Concentration (ppb(v)) : 0.2269
Integration start scan : 433 Integration stop scan: 445
Y at integration start : 0 Y at integration end: 0

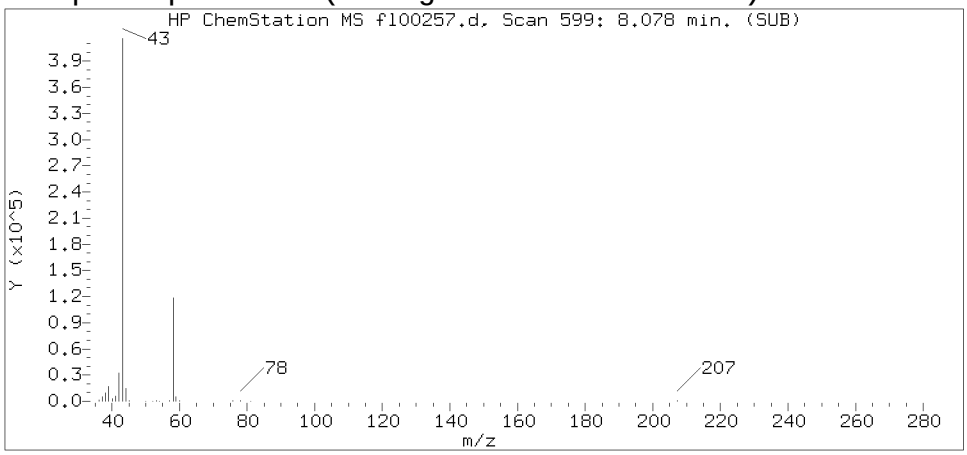
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature userBIR29jeb07445

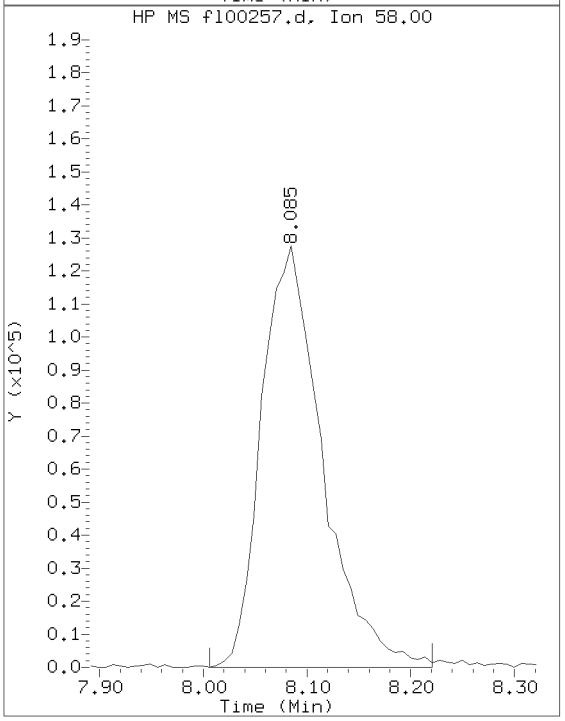
Reference Standard Spectrum for Acetone



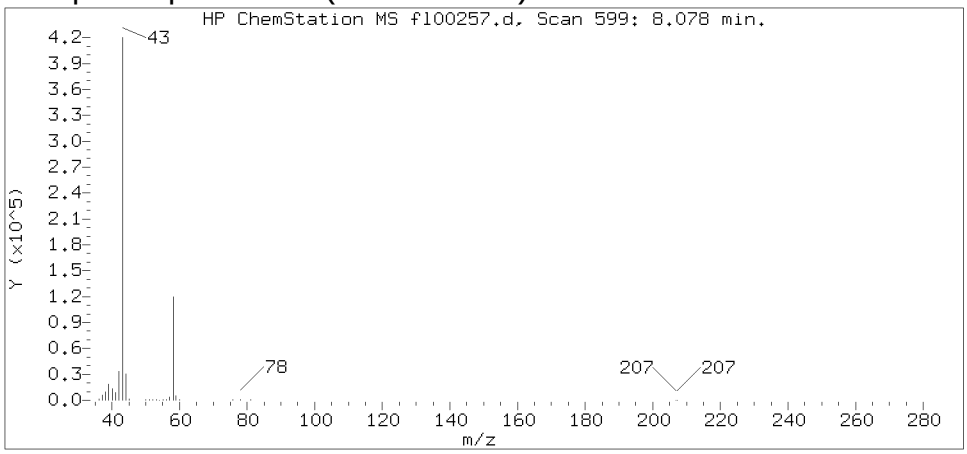


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

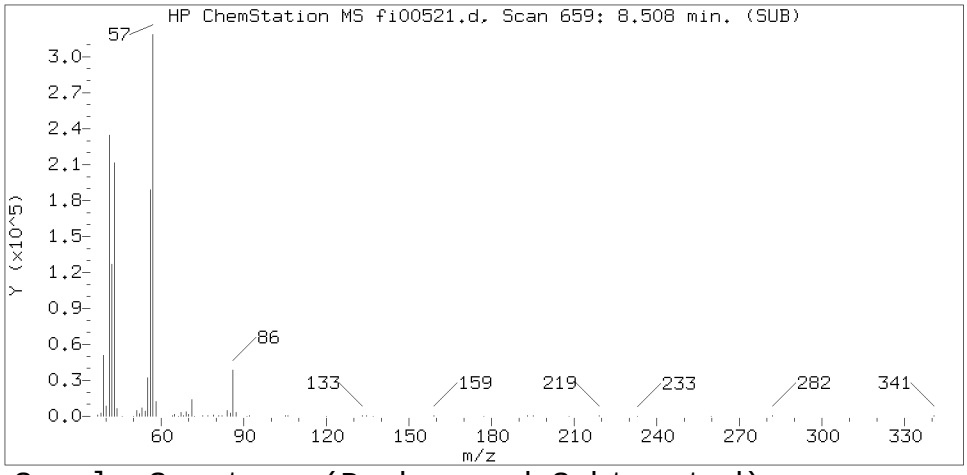
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

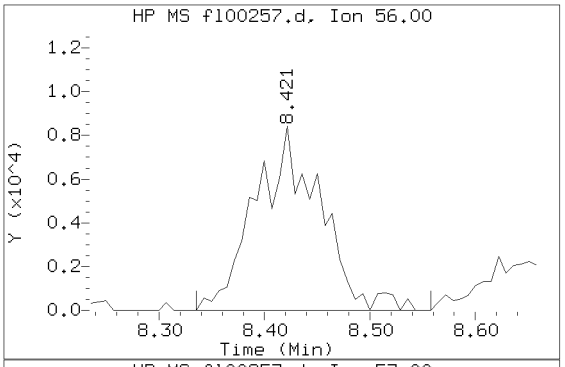
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 24
Compound Name : Acetone
Scan Number : 599
Retention Time (minutes): 8.078
Relative Retention Time :-0.00082
Quant Ion : 43.00
Area (flag) : 1697089
Concentration (ppb(v)) : 19.2049

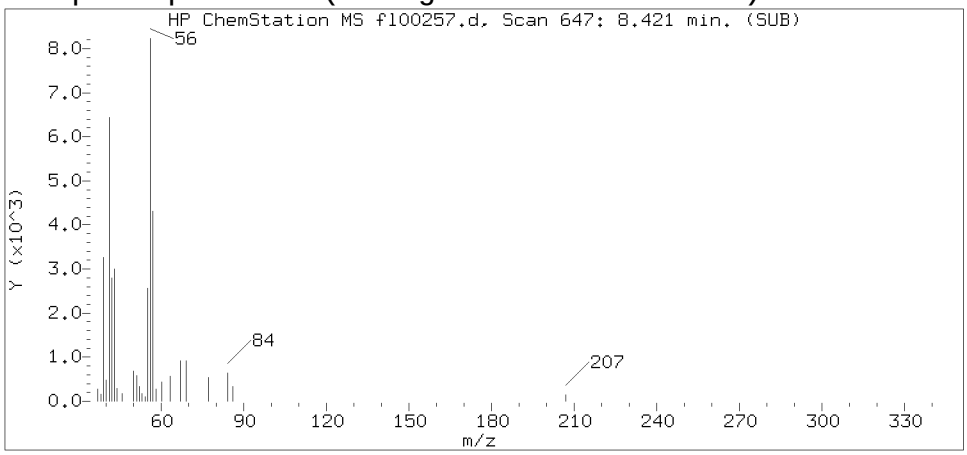
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

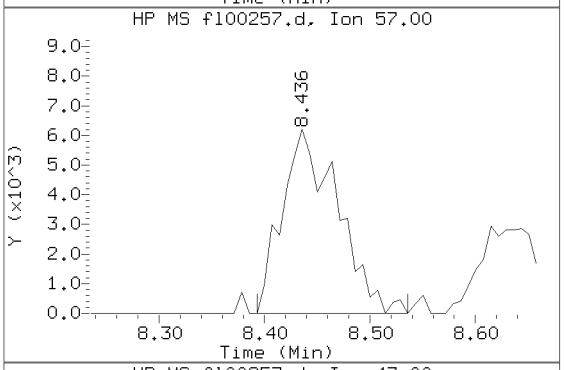
Reference Standard Spectrum for Hexane

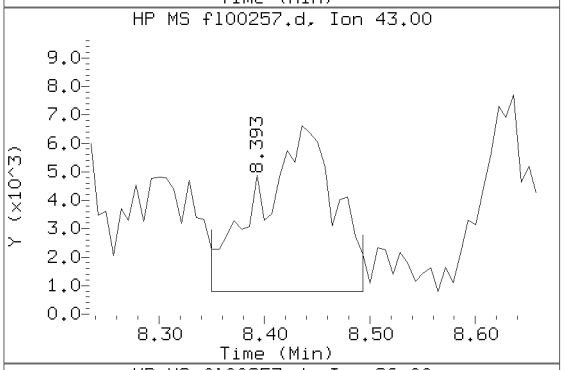




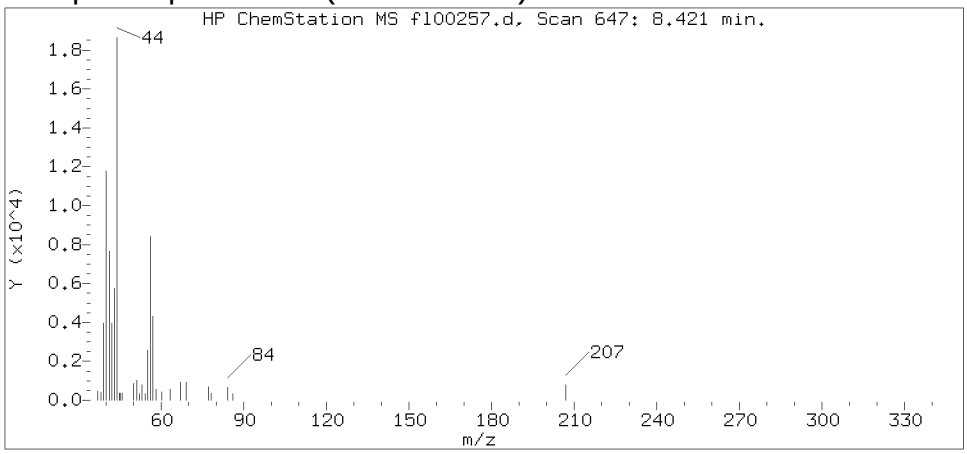
Sample Spectrum (Background Subtracted)

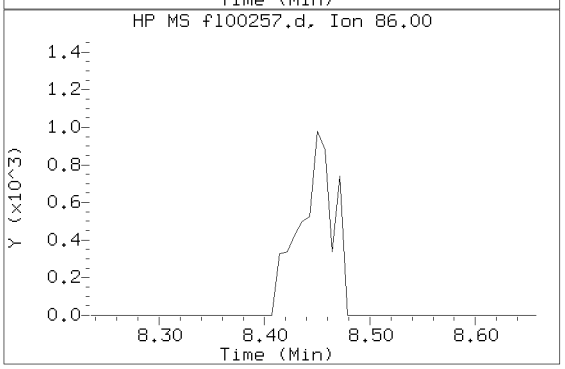






Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

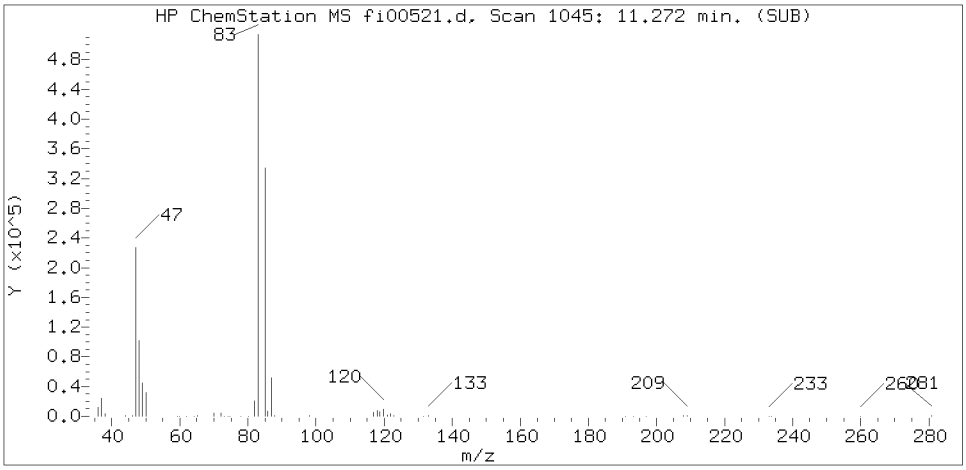
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

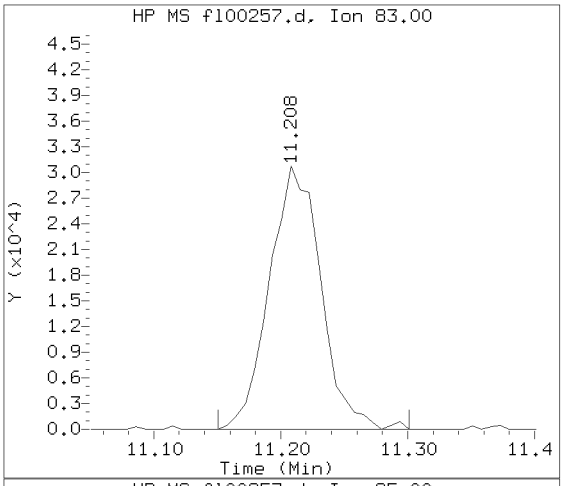
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 26
Compound Name : Hexane
Scan Number : 647
Retention Time (minutes): 8.421
Relative Retention Time : 0.00243
Quant Ion : 56.00
Area (flag) : 35816
Concentration (ppb(v)) : 0.6081

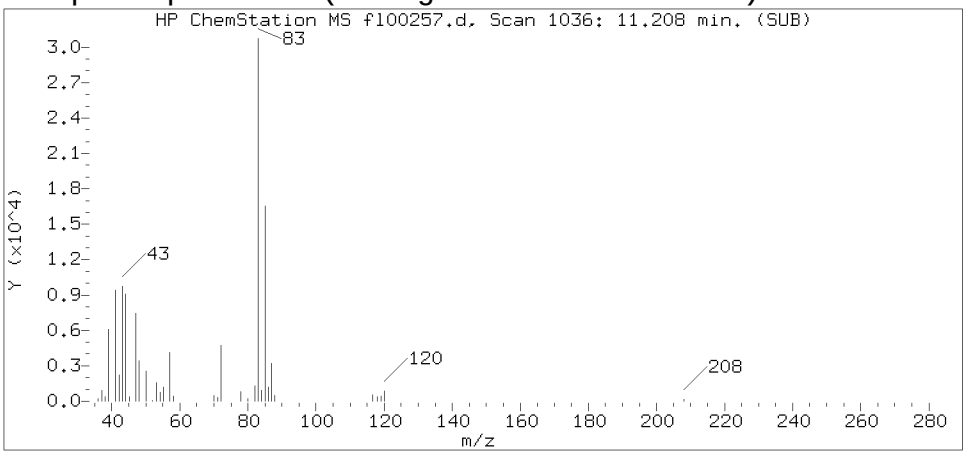
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

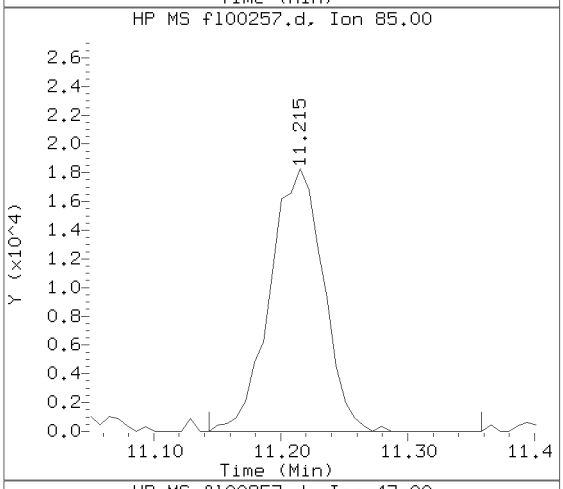
Reference Standard Spectrum for Chloroform



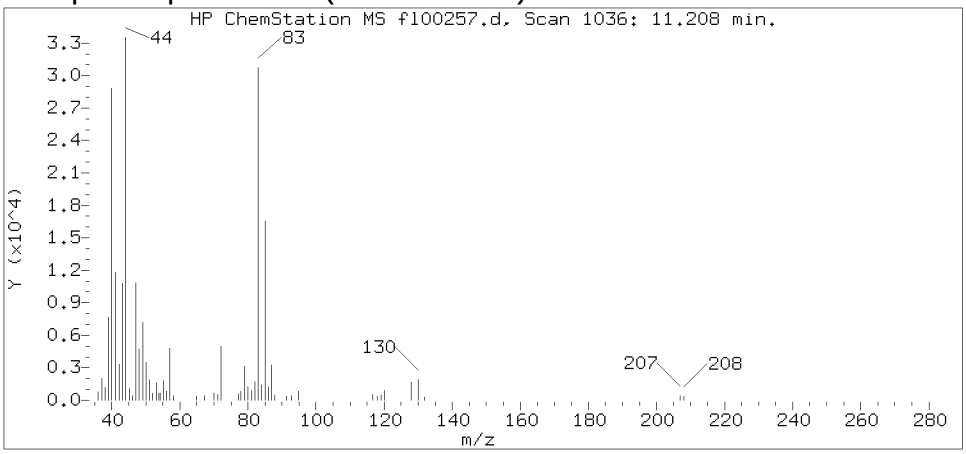


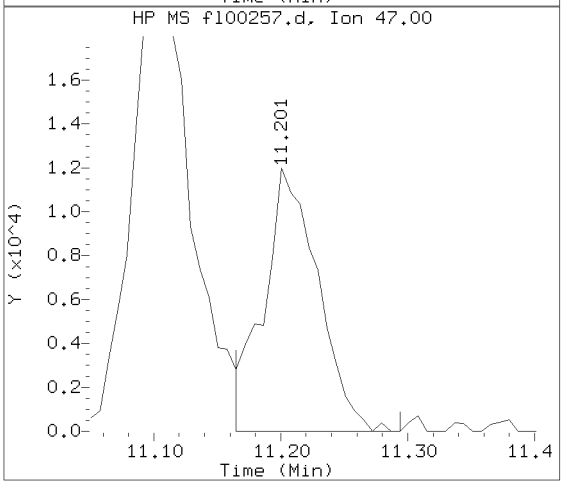
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

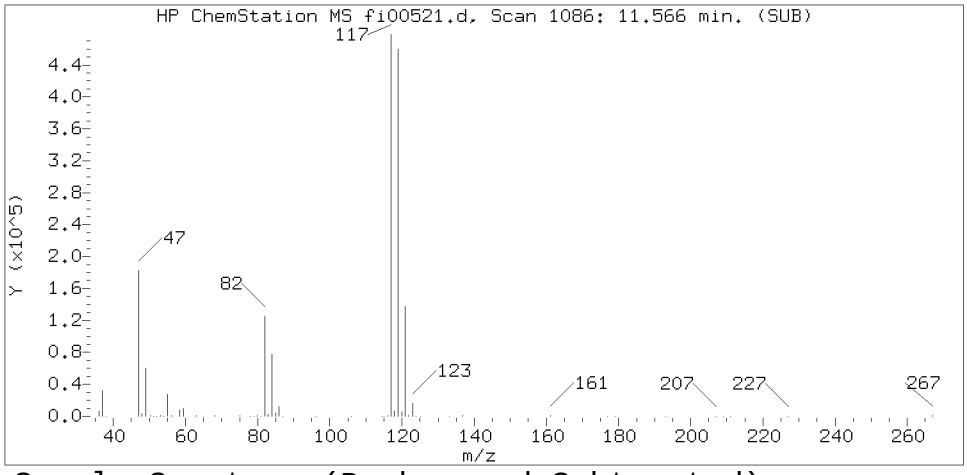
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

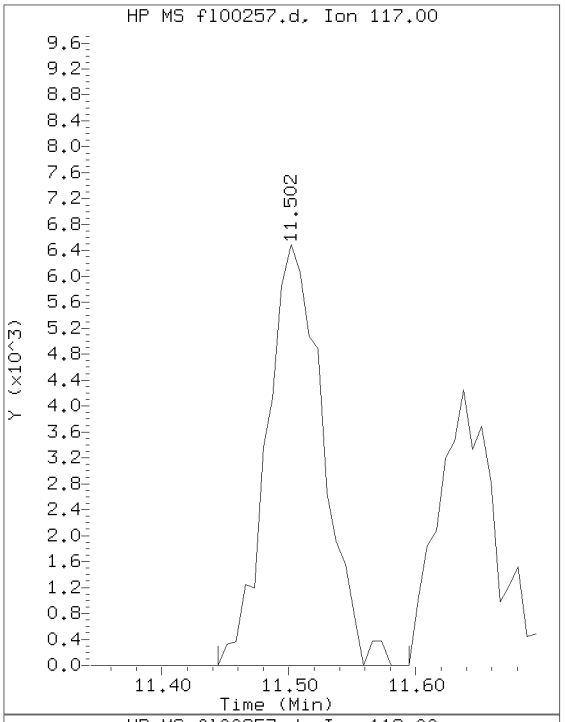
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 39
Compound Name : Chloroform
Scan Number : 1036
Retention Time (minutes): 11.208
Relative Retention Time : 0.00065
Quant Ion : 83.00
Area (flag) : 86739
Concentration (ppb(v)) : 0.9152

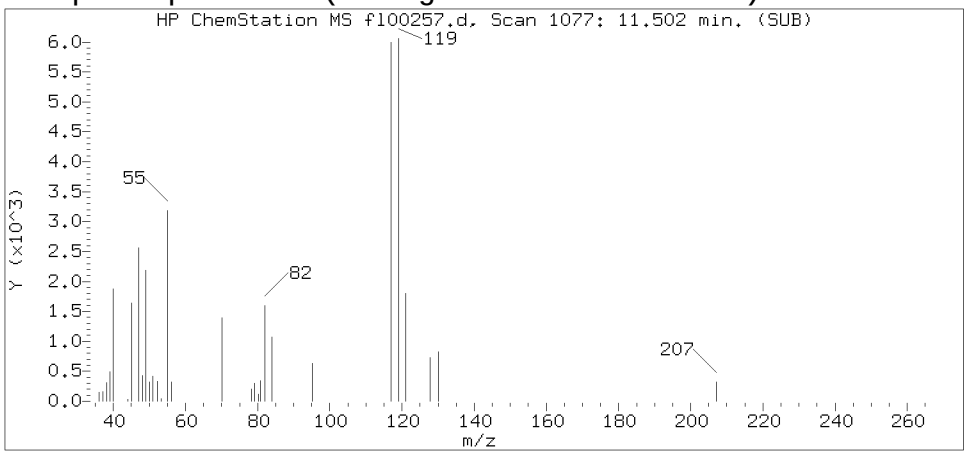
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

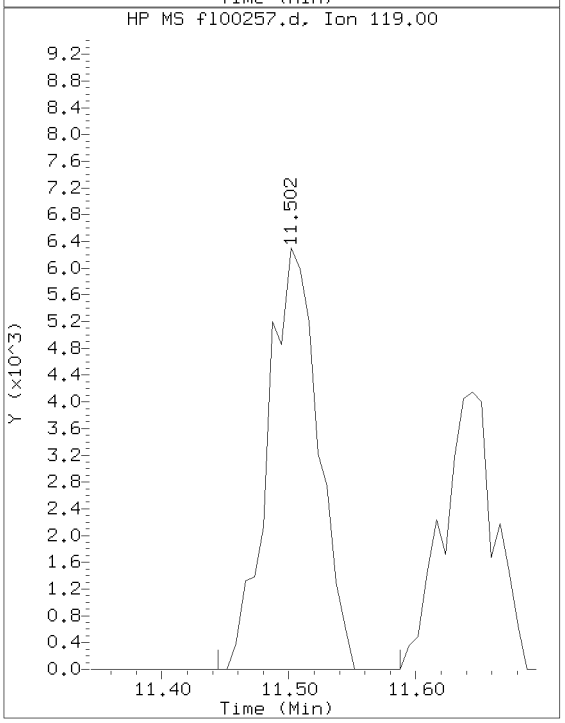
Reference Standard Spectrum for Carbon Tetrachloride



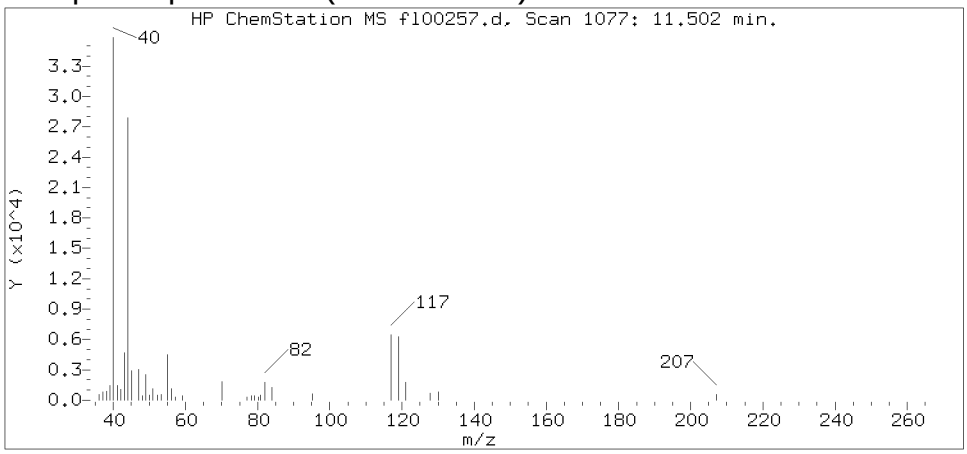


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

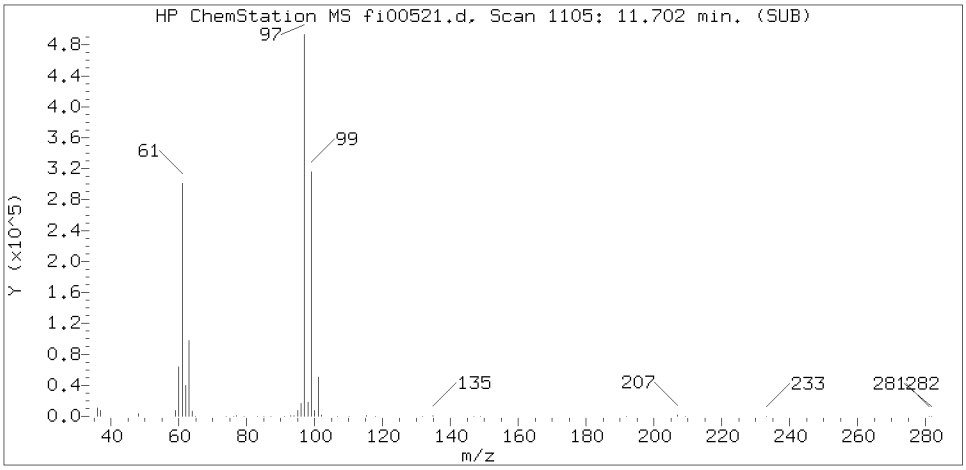
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

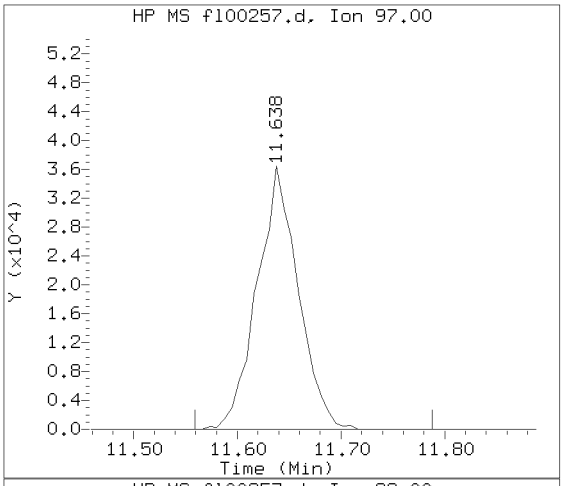
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 42
Compound Name : Carbon Tetrachloride
Scan Number : 1077
Retention Time (minutes): 11.502
Relative Retention Time : 0.00002
Quant Ion : 117.00
Area (flag) : 20037
Concentration (ppb(v)) : 0.2295

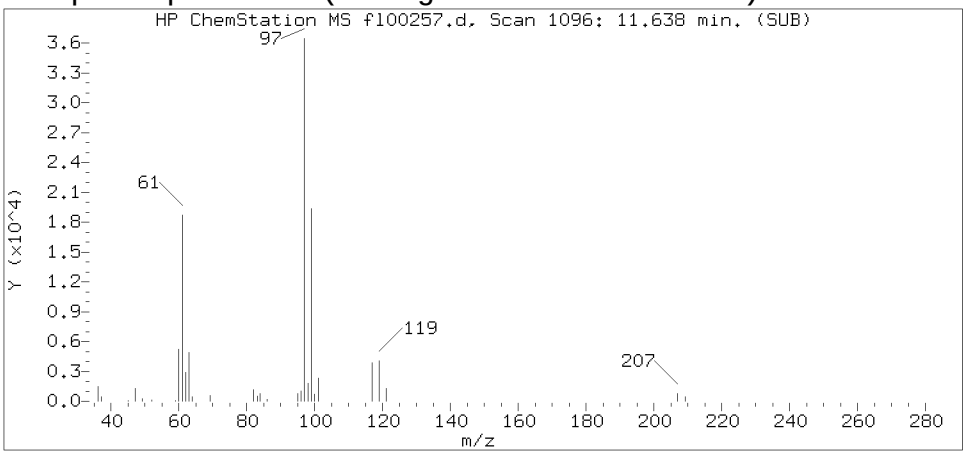
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

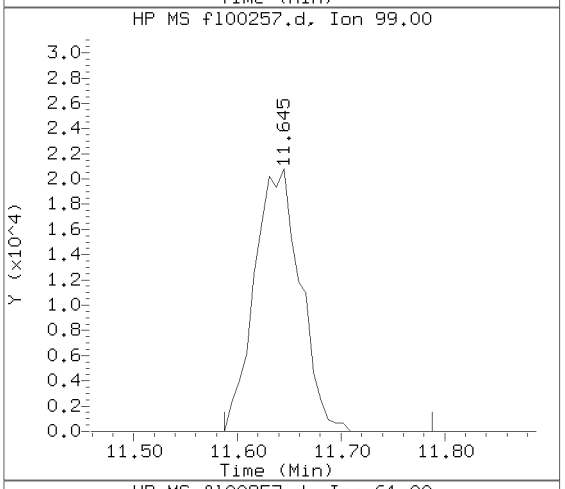
Reference Standard Spectrum for 1,1,1-Trichloroethane



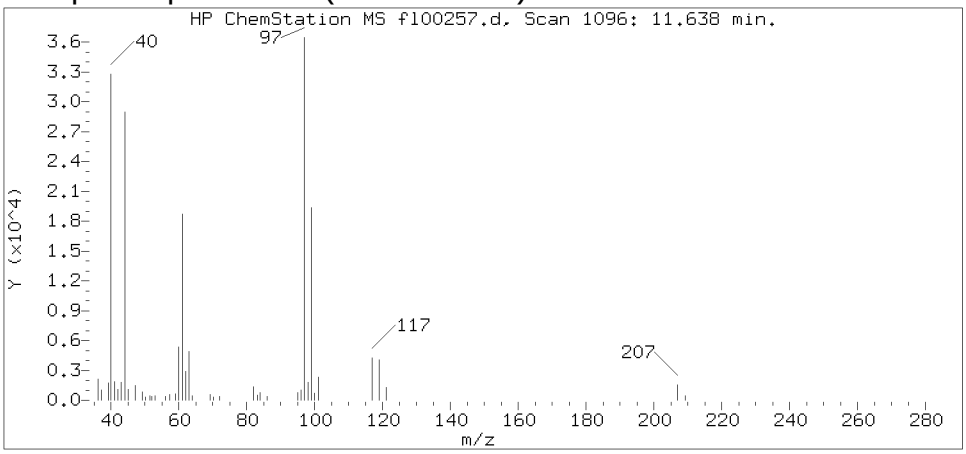


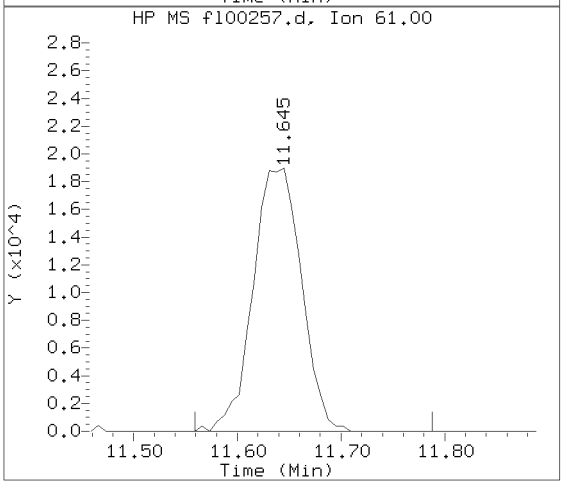
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

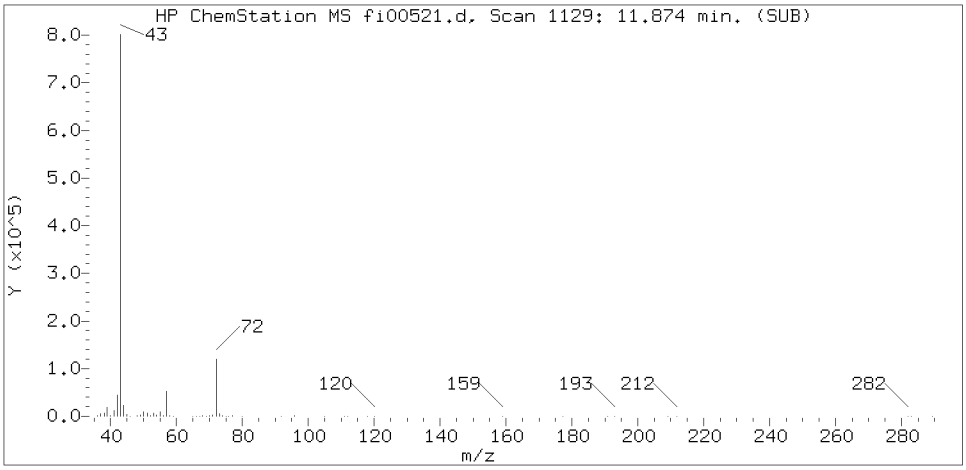
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

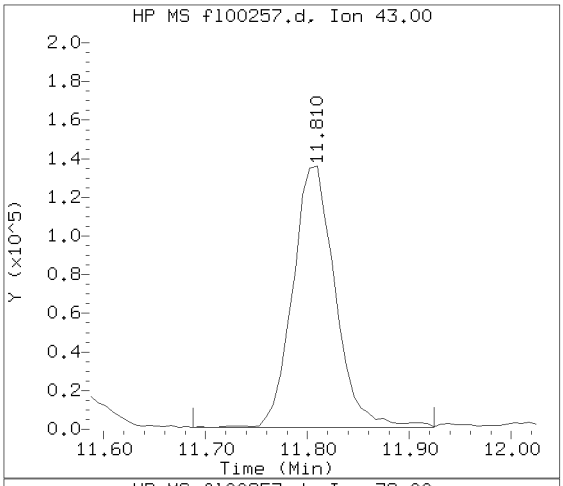
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 44
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1096
Retention Time (minutes): 11.638
Relative Retention Time : 0.00068
Quant Ion : 97.00
Area (flag) : 100460
Concentration (ppb(v)) : 1.0371

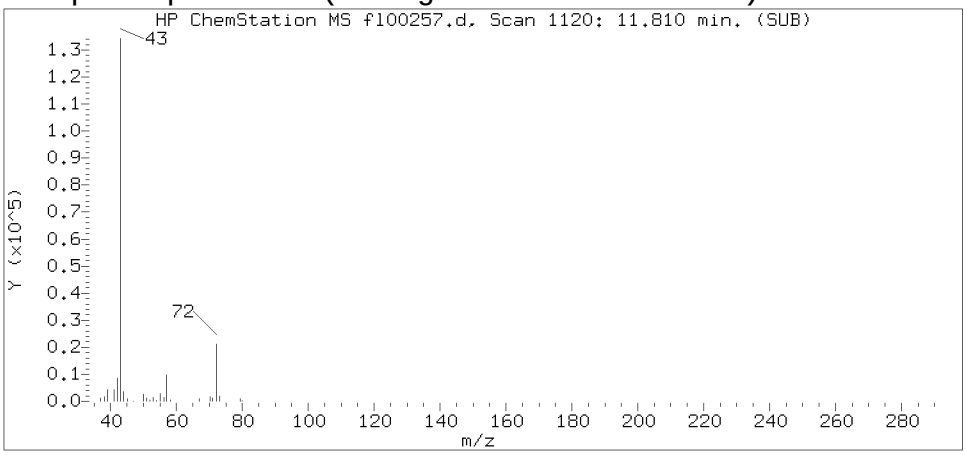
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

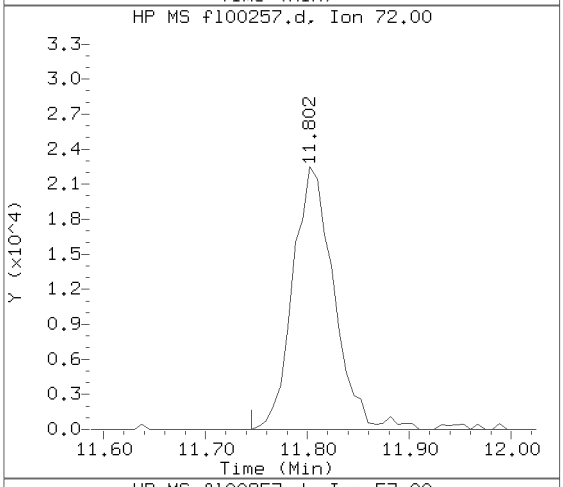
Reference Standard Spectrum for 2-Butanone



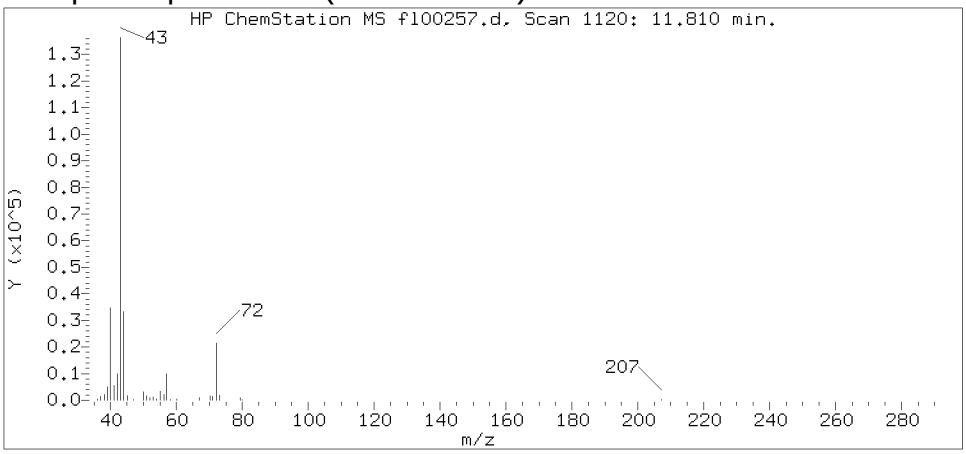


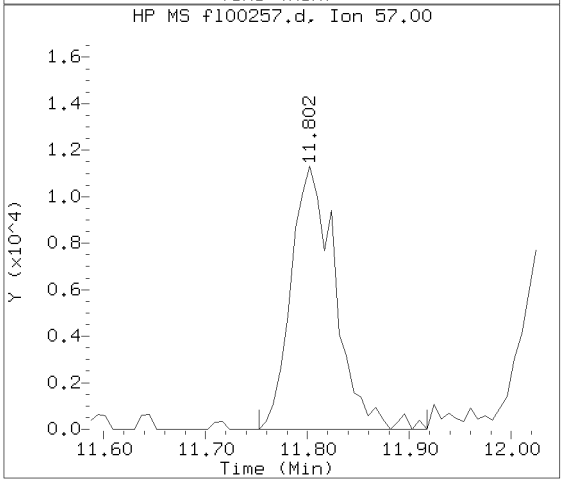
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1120
Retention Time (minutes): 11.810
Relative Retention Time : 0.00004
Quant Ion : 43.00
Area (flag) : 395458
Concentration (ppb(v)) : 3.2334

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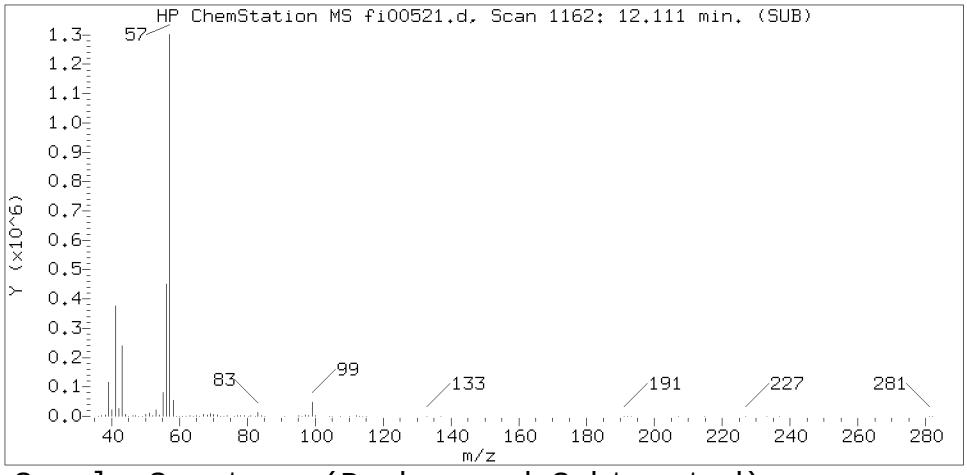
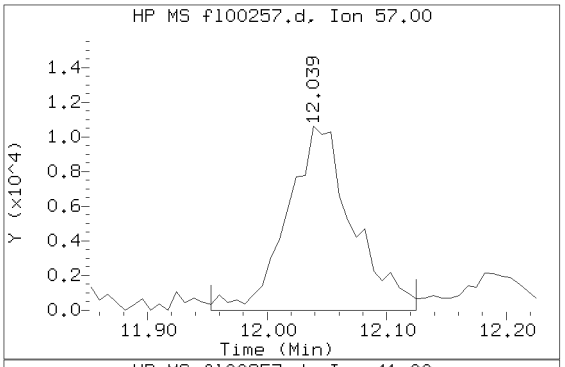
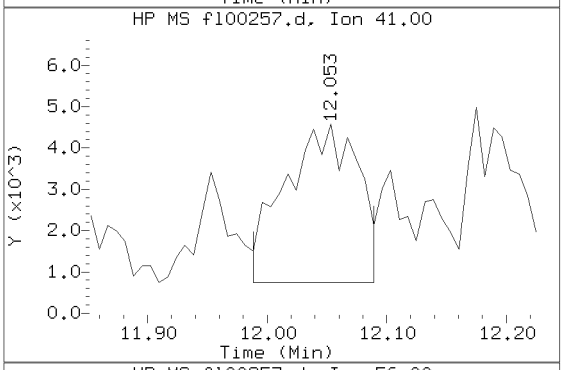
Target 3.5 esignature user ID: jeb07445

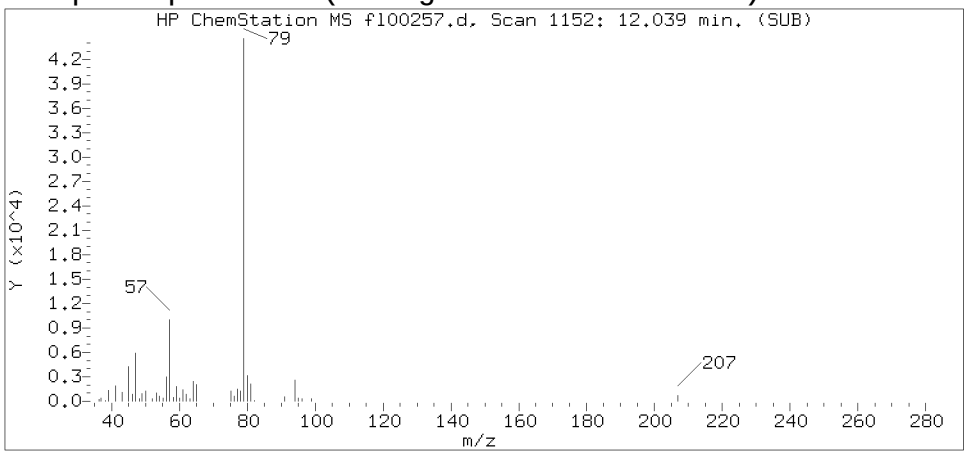
Reference Standard Spectrum for Isooctane

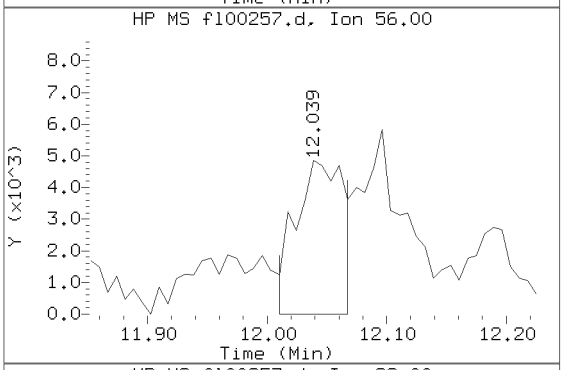




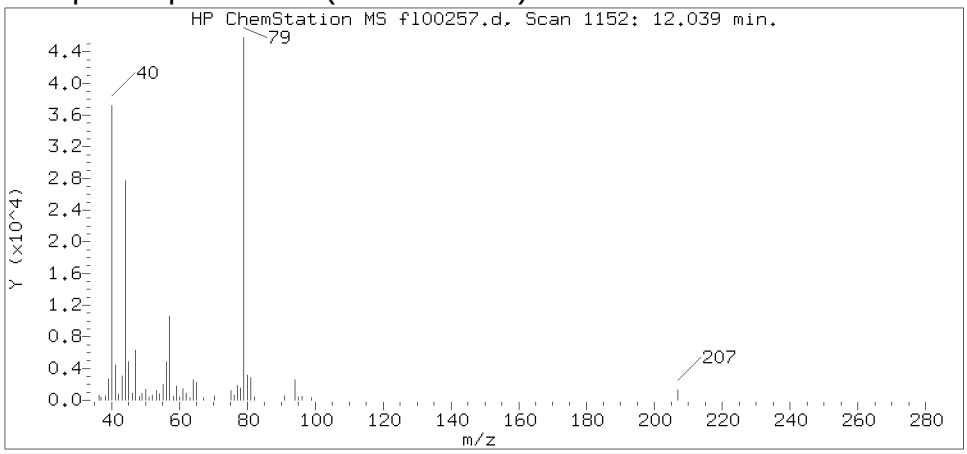


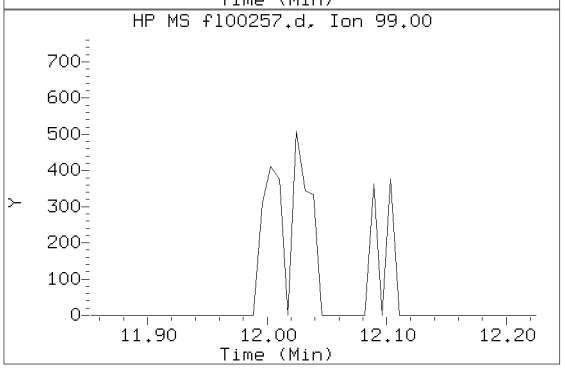
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number	: 46
Compound Name	: Isooctane
Scan Number	: 1152
Retention Time (minutes)	: 12.039
Relative Retention Time	: 0.00000
Quant Ion	: 57.00
Area (flag)	: 40355
Concentration (ppb(v))	: 0.1594

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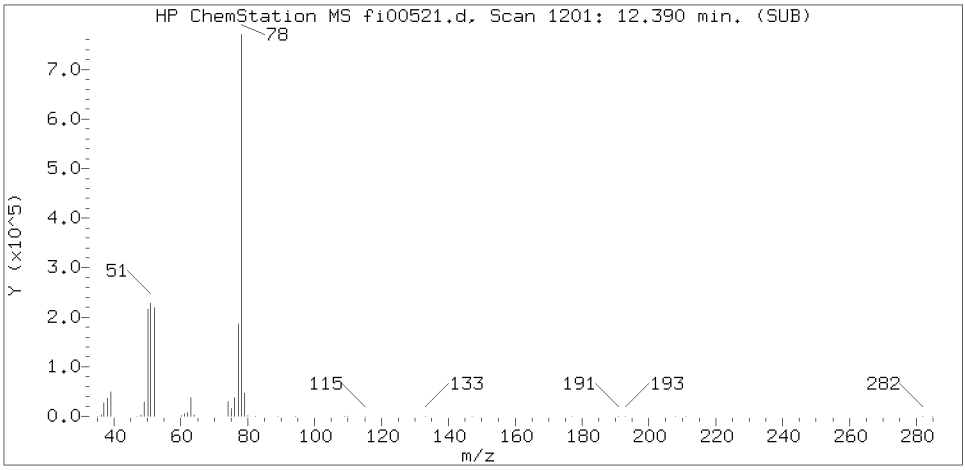
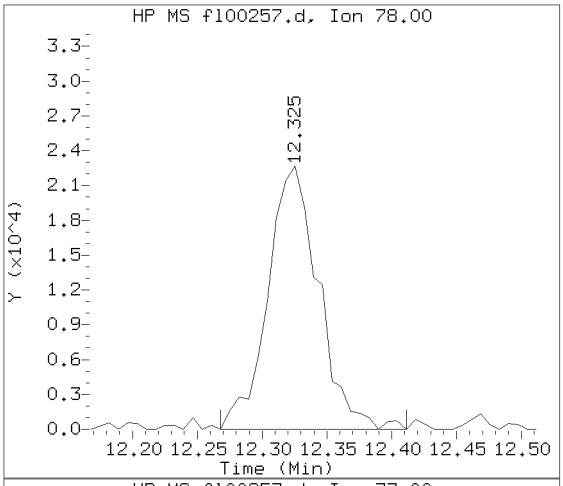
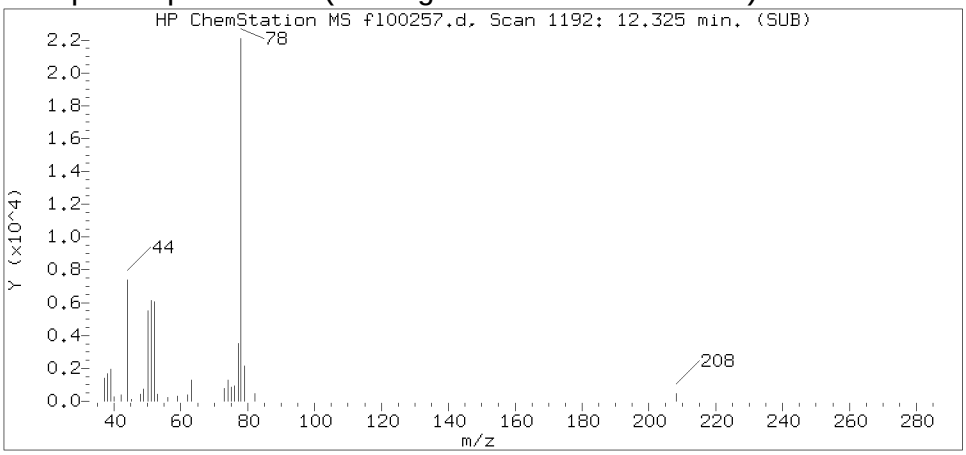
Target 3.5 esignature user ID: jeb07445

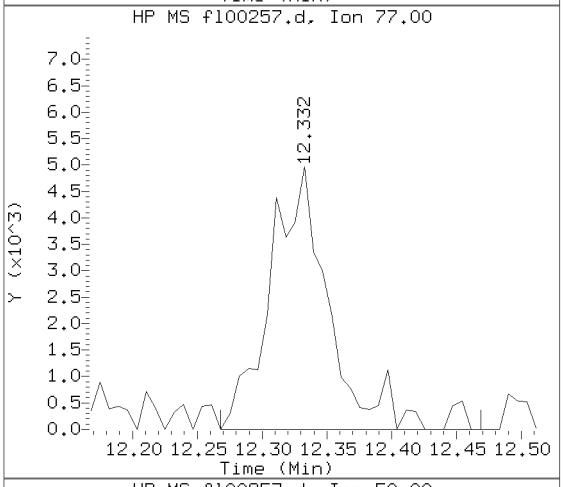
Reference Standard Spectrum for Benzene



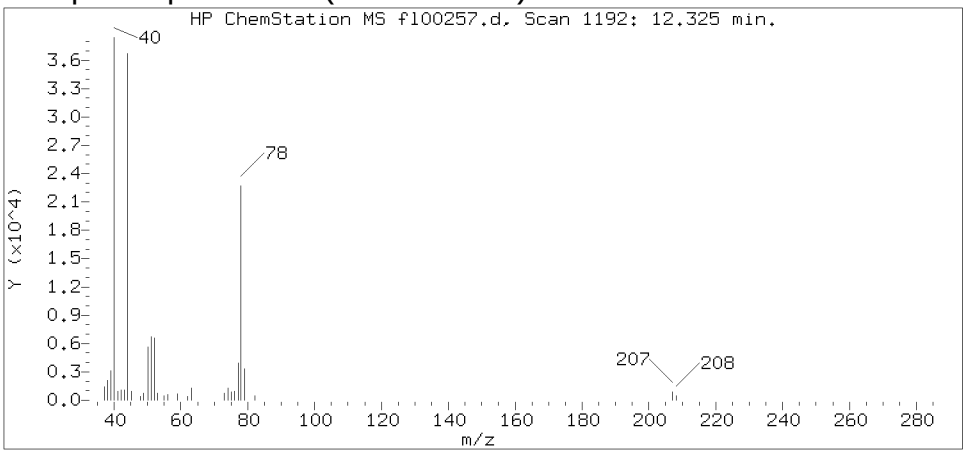


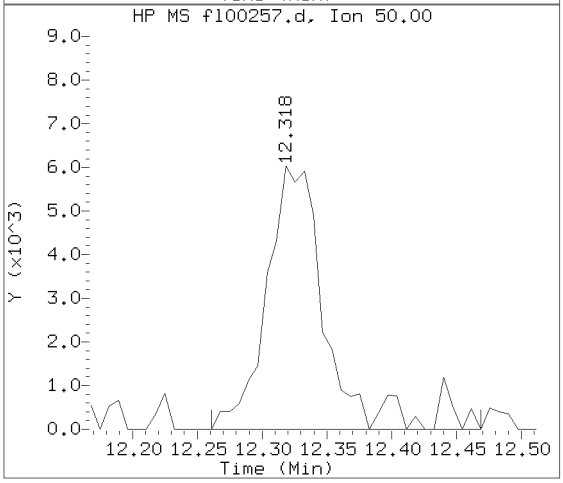
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number	: 48
Compound Name	: Benzene
Scan Number	: 1192
Retention Time (minutes)	: 12.325
Relative Retention Time	: 0.00000
Quant Ion	: 78.00
Area (flag)	: 61987
Concentration (ppb(v))	: 0.5014

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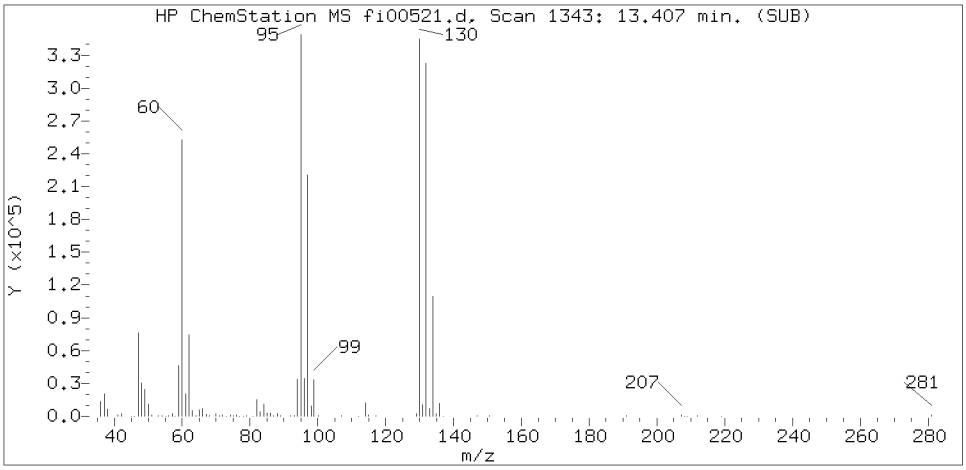
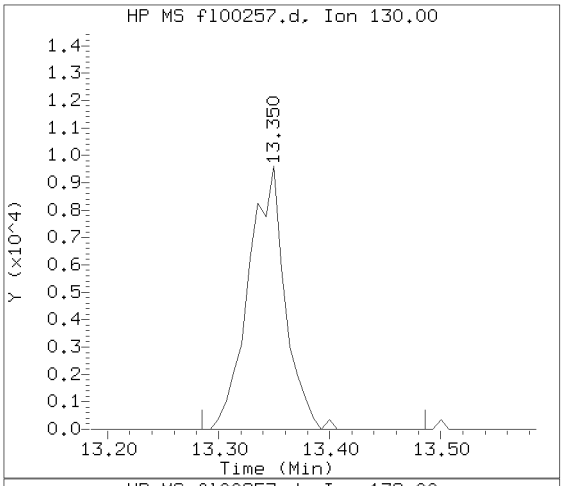
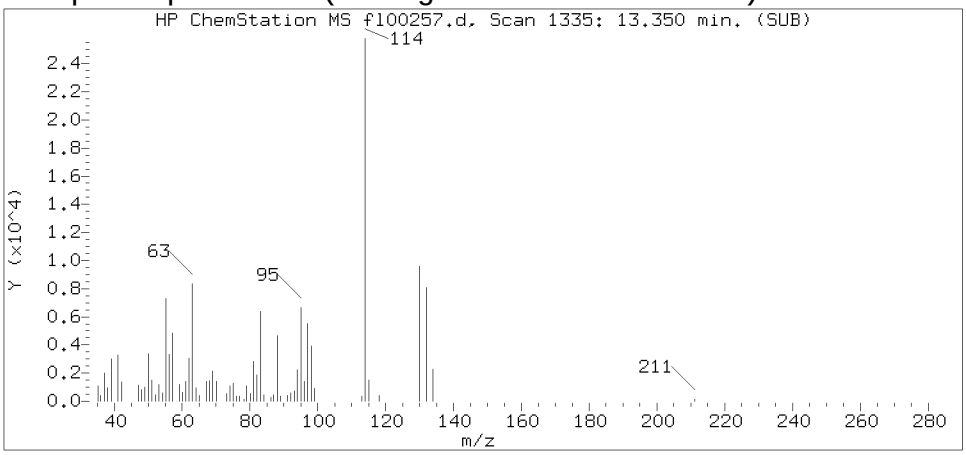
Target 3.5 esignature user ID: jeb07445

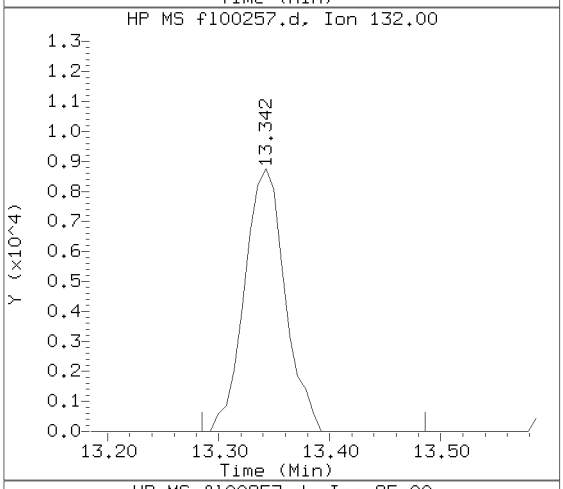
Reference Standard Spectrum for Trichloroethene



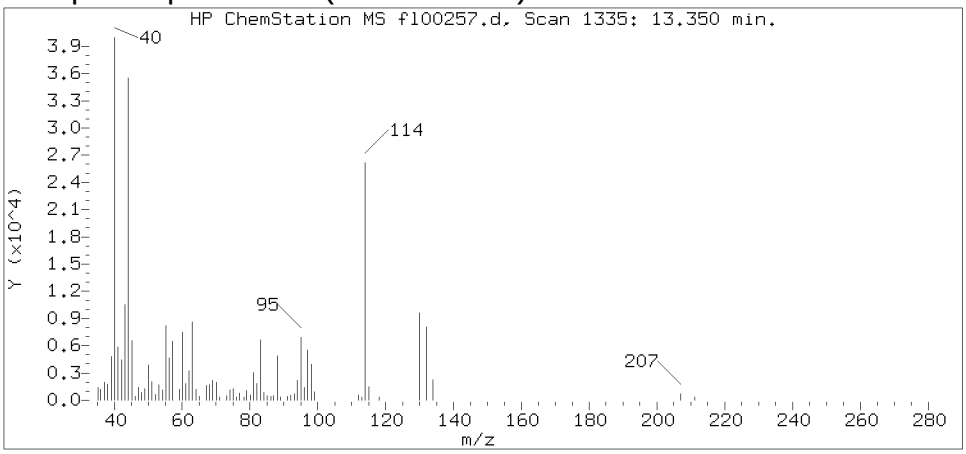


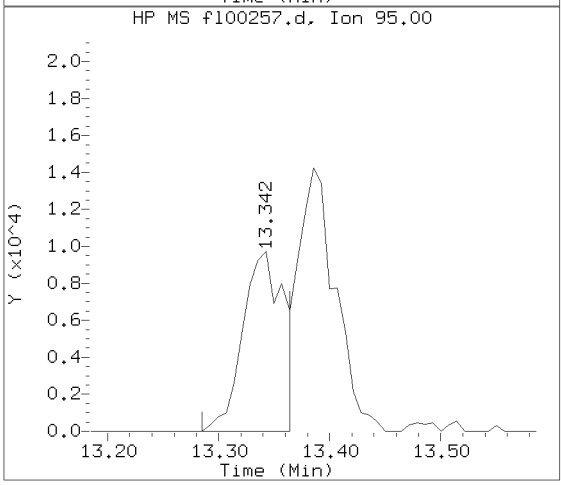
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 51
Compound Name : Trichloroethene
Scan Number : 1335
Retention Time (minutes): 13.350
Relative Retention Time :-0.00053
Quant Ion : 130.00
Area (flag) : 22009
Concentration (ppb(v)) : 0.4286

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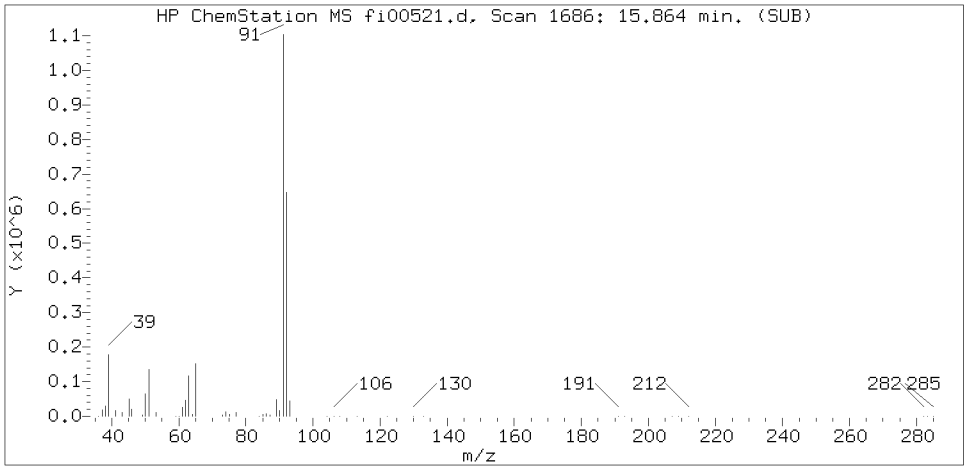
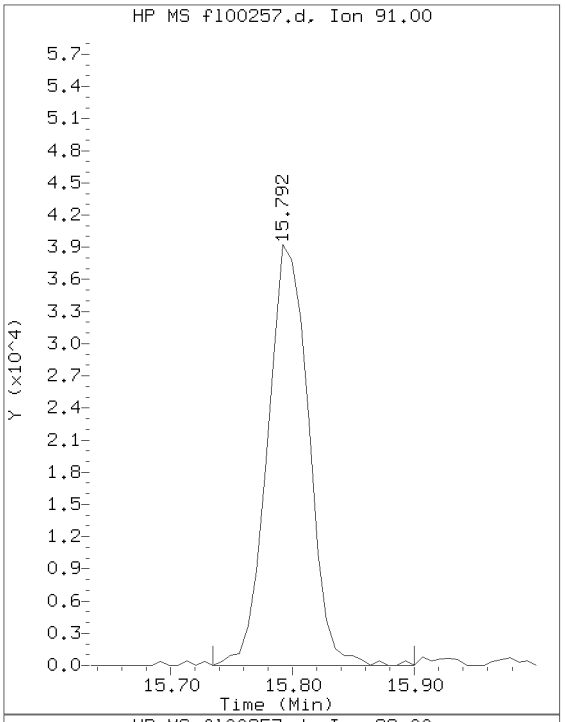
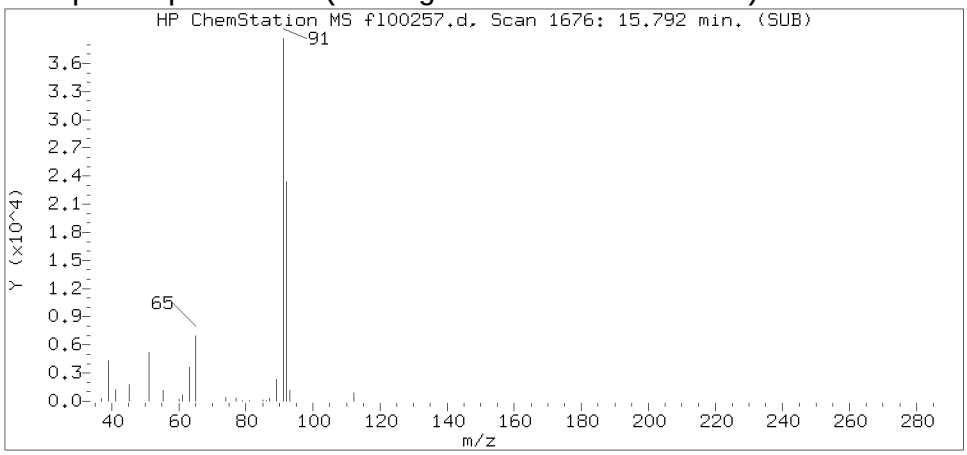
Target 3.5 esignature user ID: jeb07445

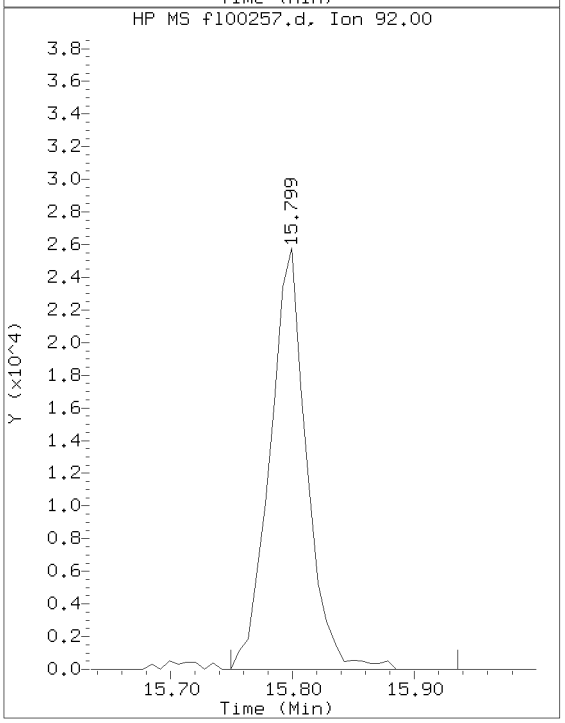
Reference Standard Spectrum for Toluene



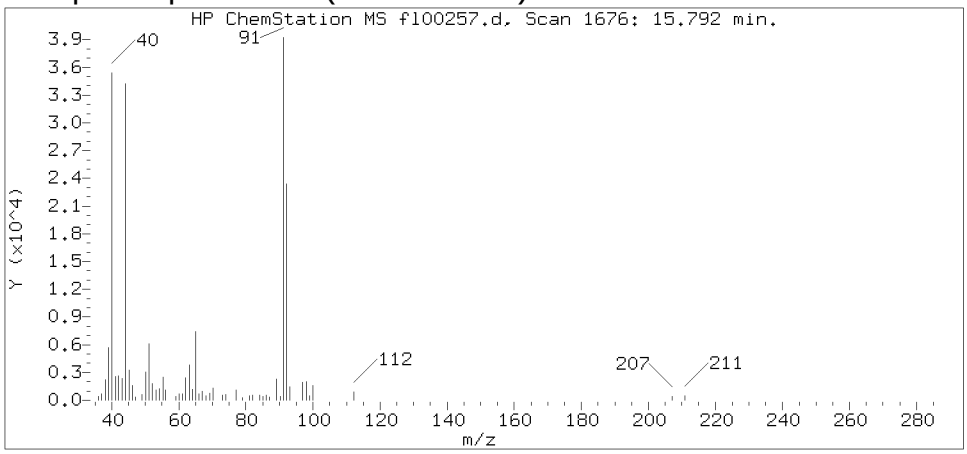


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number	: 61
Compound Name	: Toluene
Scan Number	: 1676
Retention Time (minutes)	: 15.792
Relative Retention Time	: 0.00005
Quant Ion	: 91.00
Area (flag)	: 92064
Concentration (ppb(v))	: 0.5735

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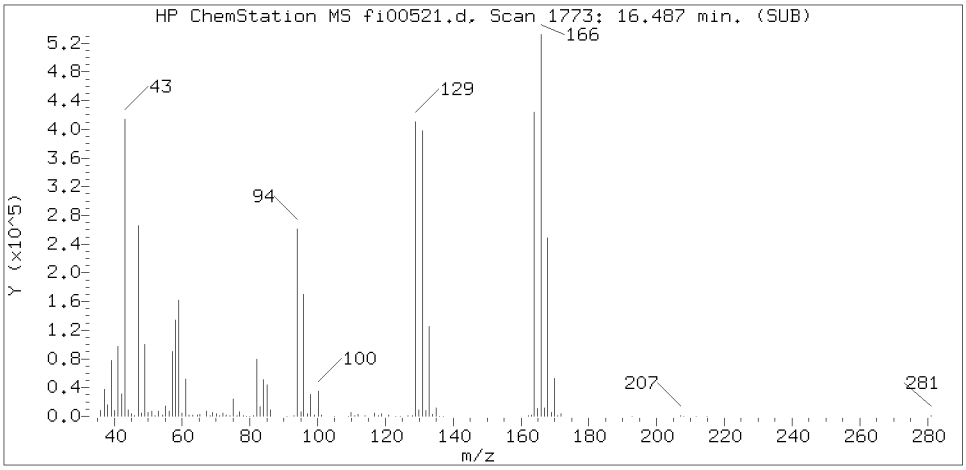
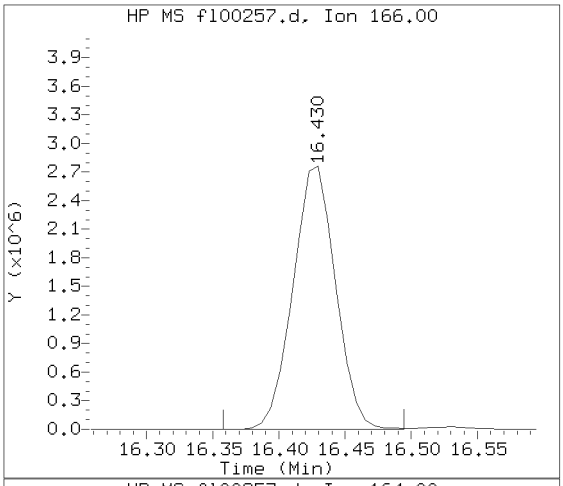
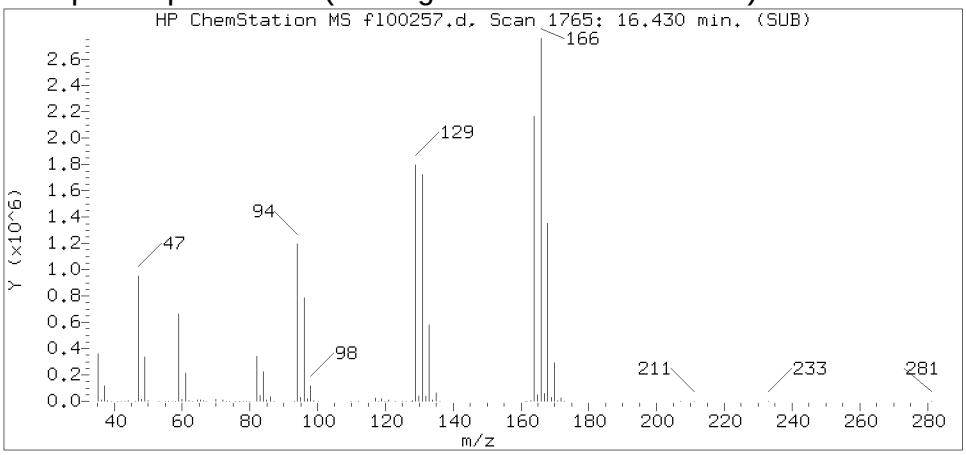
Target 3.5 esignature user ID: jeb07445

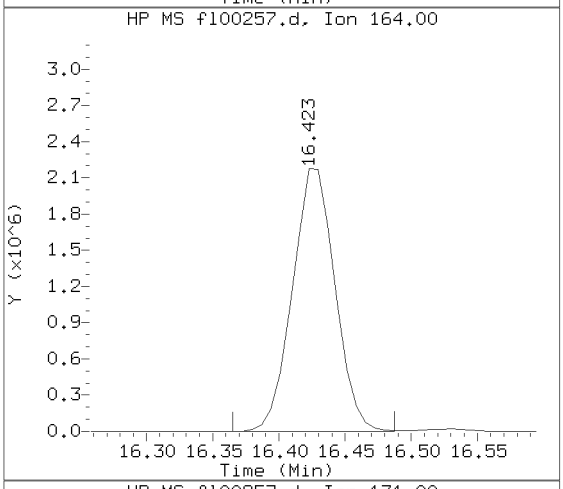
Reference Standard Spectrum for Tetrachloroethene



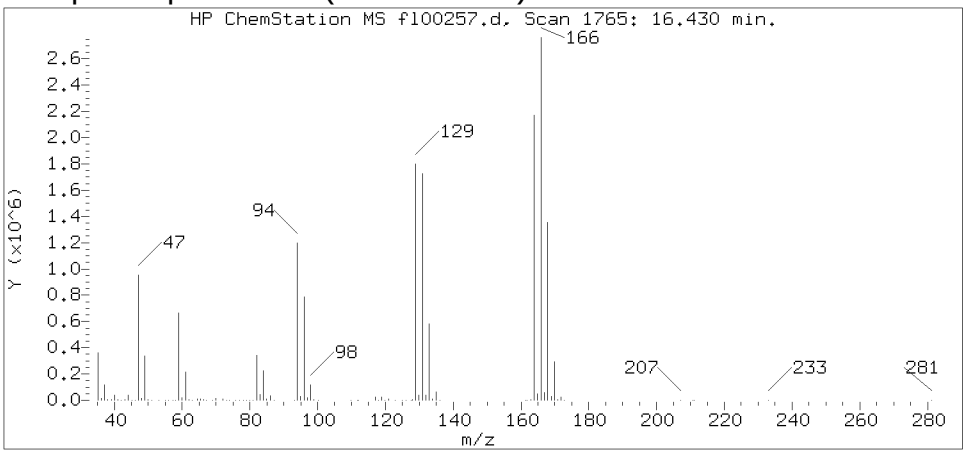


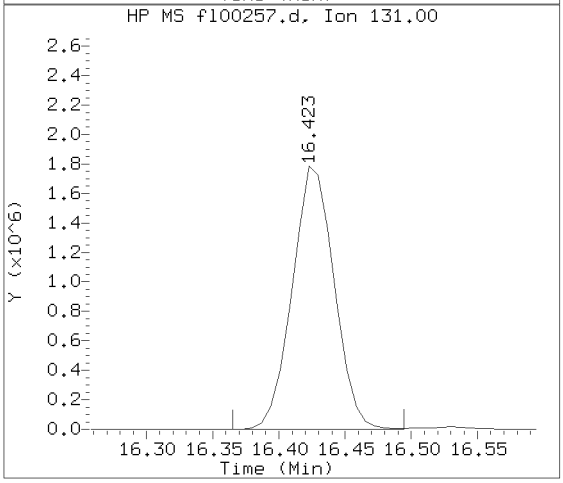
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 63
Compound Name : Tetrachloroethene
Scan Number : 1765
Retention Time (minutes): 16.430
Relative Retention Time :-0.00075
Quant Ion : 166.00
Area (flag) : 6184741
Concentration (ppb(v)) : 66.9853

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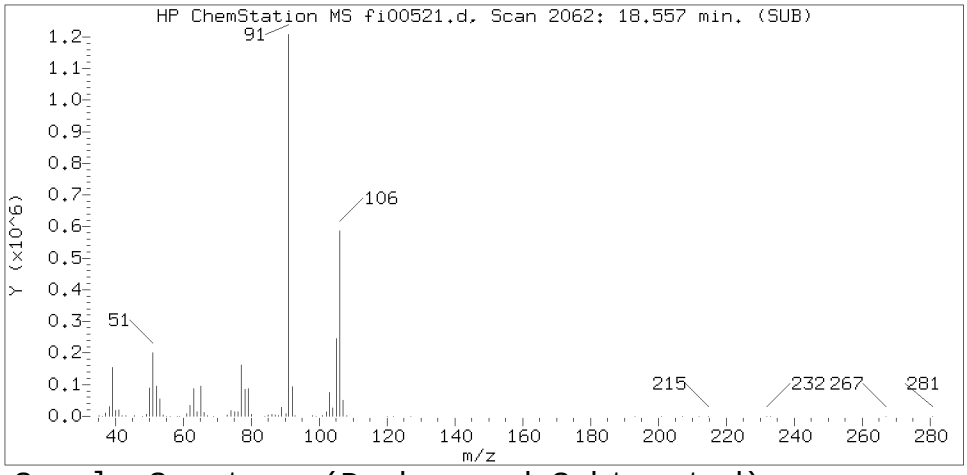
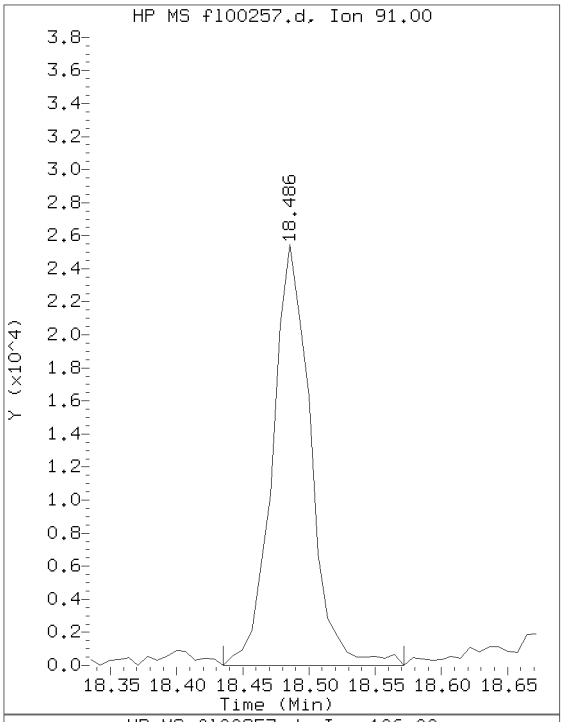
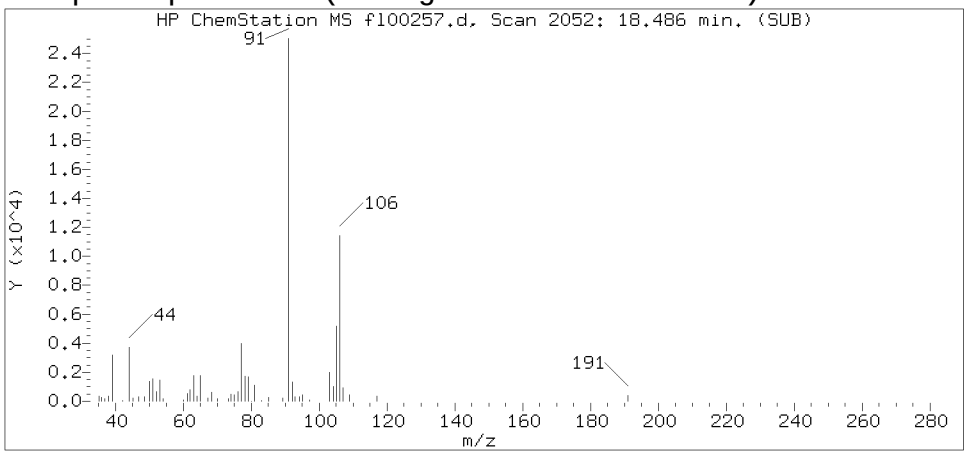
Target 3.5 esignature user ID: jeb07445

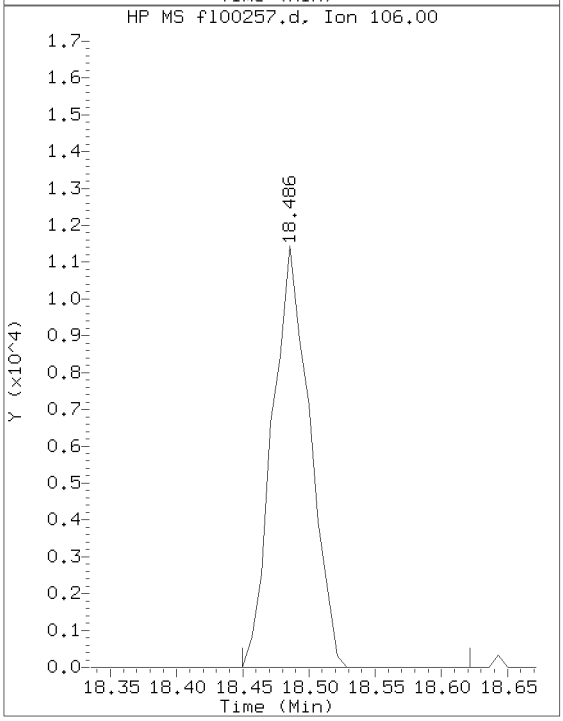
Reference Standard Spectrum for m/p-Xylene



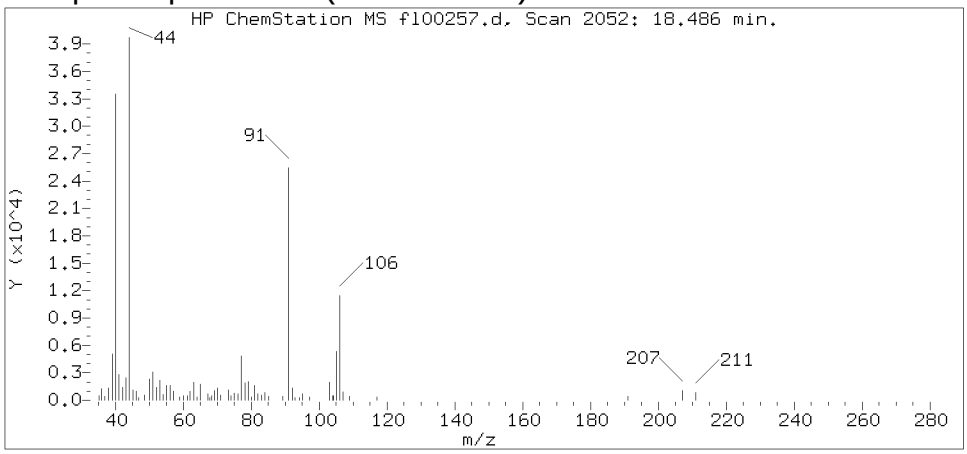


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

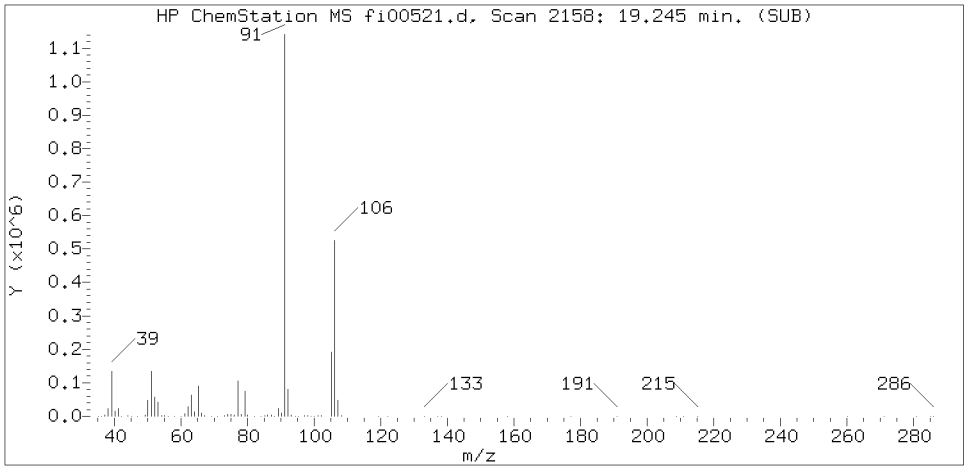
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

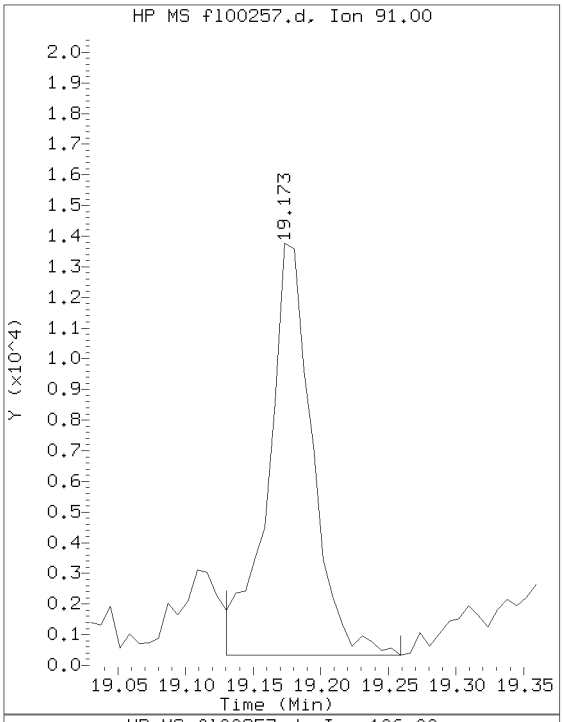
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 2052
Retention Time (minutes): 18.486
Relative Retention Time :-0.00040
Quant Ion : 91.00
Area (flag) : 50905
Concentration (ppb(v)) : 0.3176

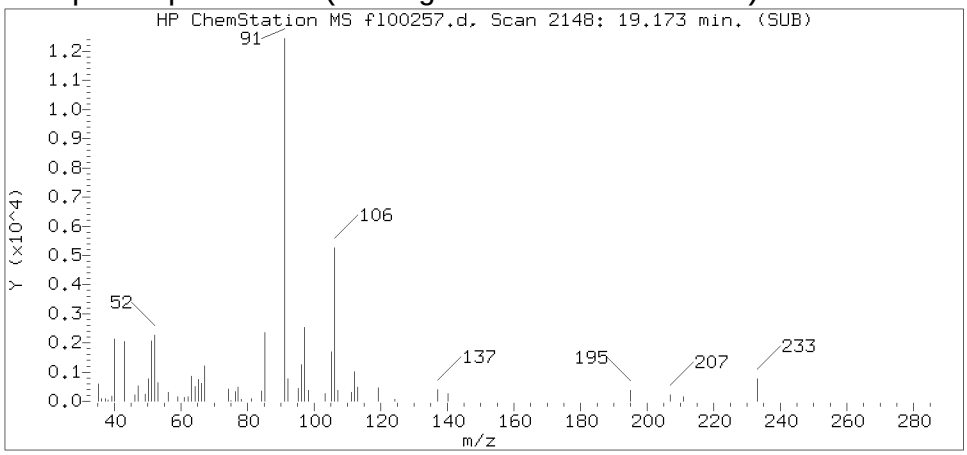
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

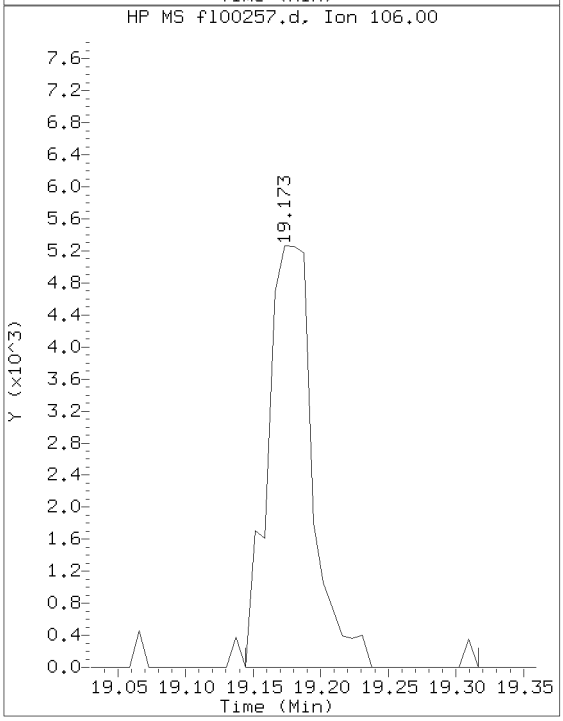
Reference Standard Spectrum for o-Xylene



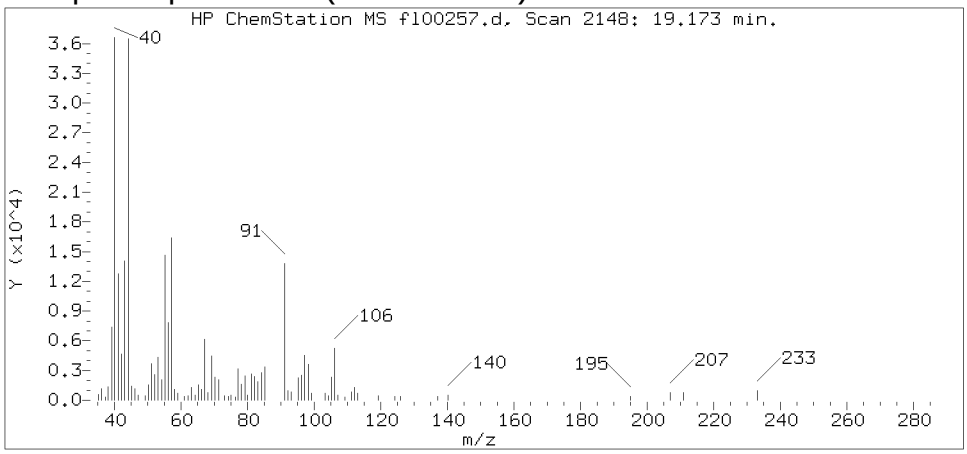


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

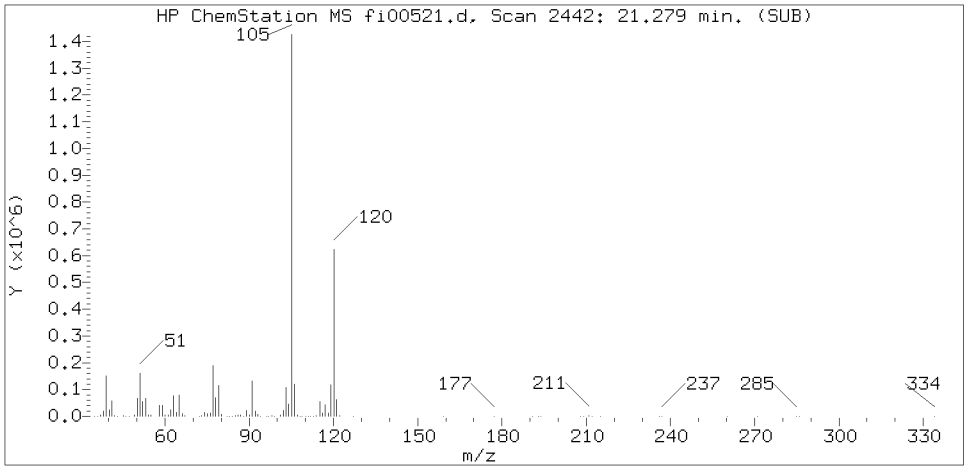
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

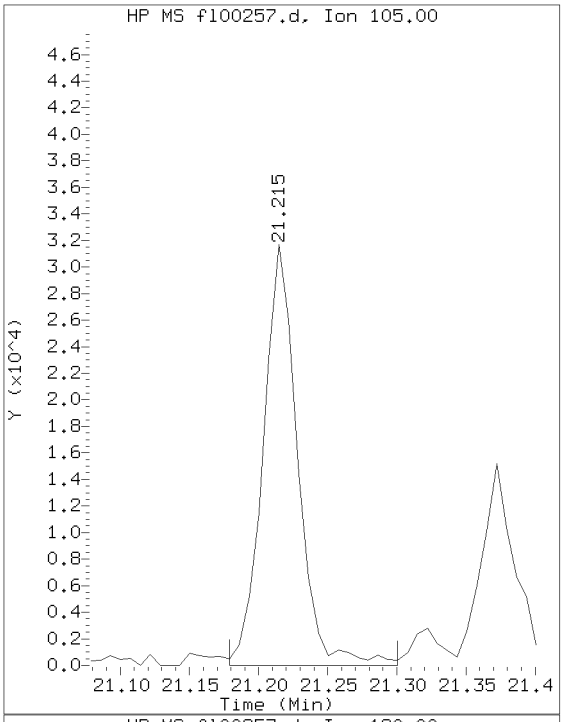
Sample Name: 1412- Lab Sample ID: 9929277

Compound Number	: 76
Compound Name	: o-Xylene
Scan Number	: 2148
Retention Time (minutes)	: 19.173
Relative Retention Time	:-0.00002
Quant Ion	: 91.00
Area (flag)	: 30487
Concentration (ppb(v))	: 0.1930

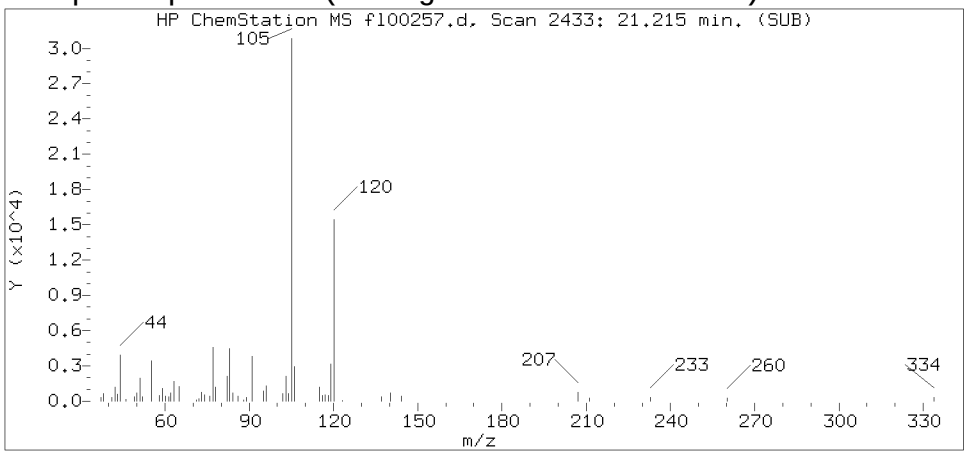
Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

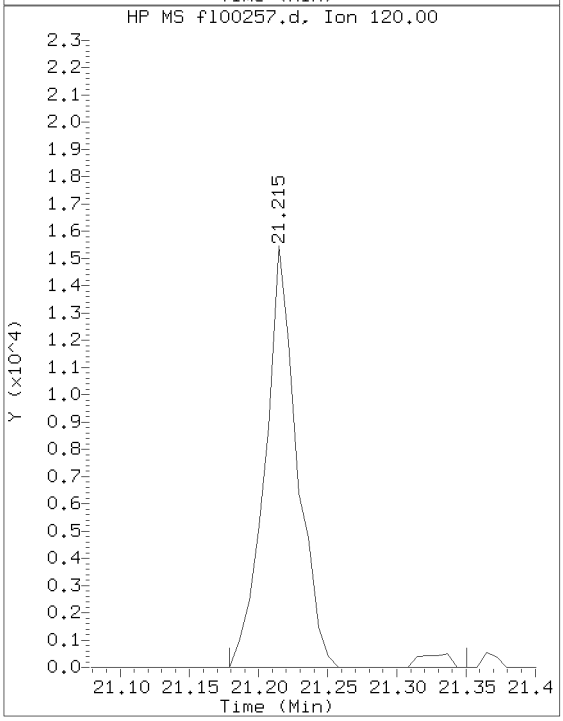
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



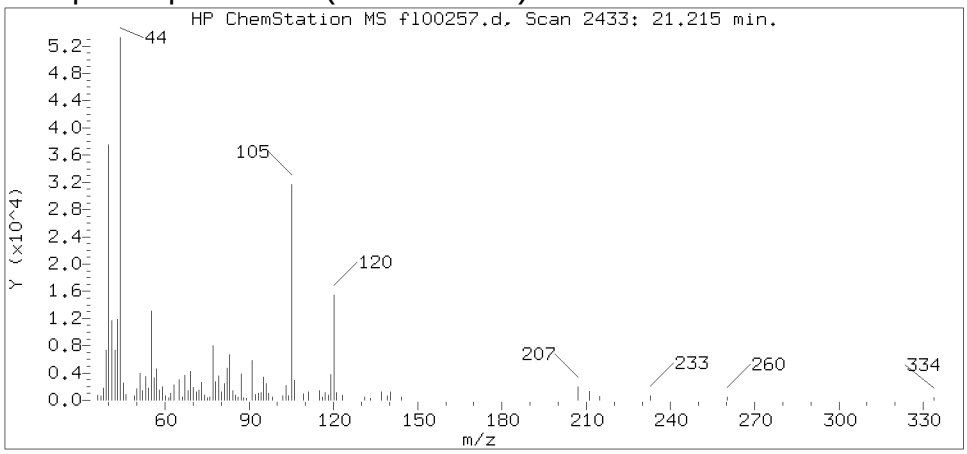


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18dec15.b/fl00257.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 20:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: 292
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 17-Dec-2018 12:52 jeb07445

Sample Name: 1412- Lab Sample ID: 9929277

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 2433
Retention Time (minutes): 21.215
Relative Retention Time :-0.00046
Quant Ion : 105.00
Area (flag) : 54992
Concentration (ppb(v)) : 0.3146

Digitally signed by Jacob E. Bailey on 12/17/2018 at 12:53.
Target 3.5 esignature user ID: jeb07445

Standards Data

Volatile Organics in Air by GC/MS

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP26379 **HP #06**

Data Directory Path is - D:\data\18dec14\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	FL00210.D	50NGBFB	12/14/2018	09:25		
jeb07445	FL00211.D	VSTD010	12/14/2018	10:19		
jeb07445	FL00212.D	VSTD005	12/14/2018	10:50		
jeb07445	FL00213.D	VSTD002	12/14/2018	11:20		
jeb07445	FL00214.D	VSTD001	12/14/2018	11:51		
jeb07445	FL00215.D	VSTD025	12/14/2018	12:21		
jeb07445	FL00216.D	VSTD070	12/14/2018	12:52		
jeb07445	FL00217.D	VBLKF06	12/14/2018	13:22	F1834830AA	
jeb07445	FL00218.D	VBLKF06	12/14/2018	13:53	F1834830AA	
jeb07445	FL00219.D	fc1	12/14/2018	14:42	F1834830AA	
jeb07445	FL00220.D	fc2	12/14/2018	15:12	F1834830AA	
jeb07445	FL00221.D	LCSF06	12/14/2018	15:43	F1834830AA	
jeb07445	FL00222.D	LCSDF06	12/14/2018	16:13	F1834830AA	
jeb07445	FL00223.D	mdlv0.5	12/14/2018	17:38	F1834830AA	
jeb07445	FL00224.D	mdlv0.2	12/14/2018	18:08	F1834830AA	
jeb07445	FL00225.D	9922131	12/14/2018	18:39	F1834830AA	100
jeb07445	FL00226.D	9922132DL	12/14/2018	19:09	F1834830AA	100
jeb07445	FL00227.D	9924109	12/14/2018	19:40	F1834830AA	100
jeb07445	FL00228.D	9924110	12/14/2018	20:10	F1834830AA	
jeb07445	FL00229.D	9923229	12/14/2018	20:41	F1834830AA	
jeb07445	FL00230.D	9923229	12/14/2018	21:11	F1834830AA	
jeb07445	FL00231.D	9923230DL	12/14/2018	21:42	F1834830AA	
jeb07445	FL00232.D	9923236	12/14/2018	22:13	F1834830AA	
jeb07445	FL00233.D	9923237	12/14/2018	22:43	F1834830AA	10
jeb07445	FL00234.D	9923238	12/14/2018	23:13	F1834830AA	
jeb07445	FL00235.D	9927668	12/14/2018	23:44	F1834830AA	
jeb07445	FL00236.D	9927669	12/15/2018	00:14	F1834830AA	100
jeb07445	FL00237.D	9927670	12/15/2018	00:45	F1834830AA	
jeb07445	FL00238.D	9927671	12/15/2018	01:16	F1834830AA	100

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP26379 **HP #06**

Data Directory Path is - D:\data\18dec15\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	FL00240.D	50NGBFB	12/15/2018	10:08		
jeb07445	FL00240.D	50NGBFB	12/15/2018	10:47		
jeb07445	FL00241.D	VSTD010	12/15/2018	11:32		
jeb07445	FL00242.D	VBLKF07	12/15/2018	12:20	F1834930AA	
jeb07445	FL00243.D	LCSF07	12/15/2018	13:06	F1834930AA	
jeb07445	FL00244.D	LCSDF07	12/15/2018	13:37	F1834930AA	
jeb07445	FL00245.D	9924109	12/15/2018	14:25	F1834930AA	
jeb07445	FL00246.D	9923236DL	12/15/2018	14:55	F1834930AA	
jeb07445	FL00247.D	9927670DL	12/15/2018	15:26	F1834930AA	
jeb07445	FL00248.D	9927545	12/15/2018	15:56	F1834930AA	
jeb07445	FL00249.D	9927545	12/15/2018	16:27	F1834930AA	
jeb07445	FL00250.D	9927552	12/15/2018	16:57	F1834930AA	
jeb07445	FL00251.D	9927615	12/15/2018	17:28	F1834930AA	
jeb07445	FL00252.D	9927615DL	12/15/2018	17:58	F1834930AA	
jeb07445	FL00253.D	9927616	12/15/2018	18:29	F1834930AA	
jeb07445	FL00254.D	9927616DL	12/15/2018	19:00	F1834930AA	
jeb07445	FL00255.D	9929275	12/15/2018	19:30	F1834930AA	
jeb07445	FL00256.D	9929276	12/15/2018	20:07	F1834930AA	
jeb07445	FL00257.D	9929277	12/15/2018	20:38	F1834930AA	
jeb07445	FL00258.D	9929306	12/15/2018	21:10	F1834930AA	
jeb07445	FL00259.D	9929307	12/15/2018	21:41	F1834930AA	

Data File: /chem/HP26379.i/18dec14.b/f100210.d

Date : 14-DEC-2018 09:25

Client ID: BFB

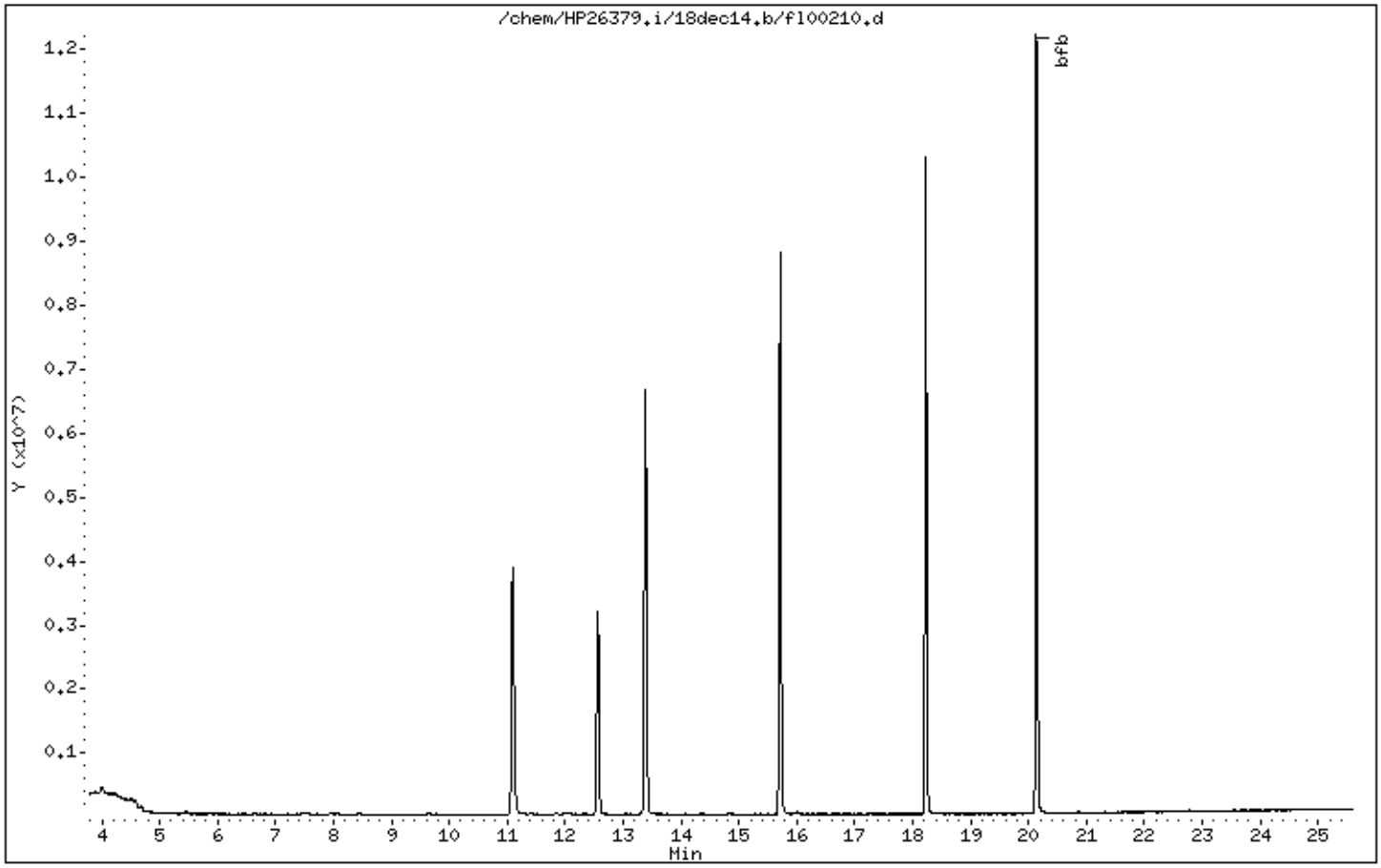
Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18dec14.b/f100210.d

Date : 14-DEC-2018 09:25

Client ID: BFB

Instrument: HP26379.i

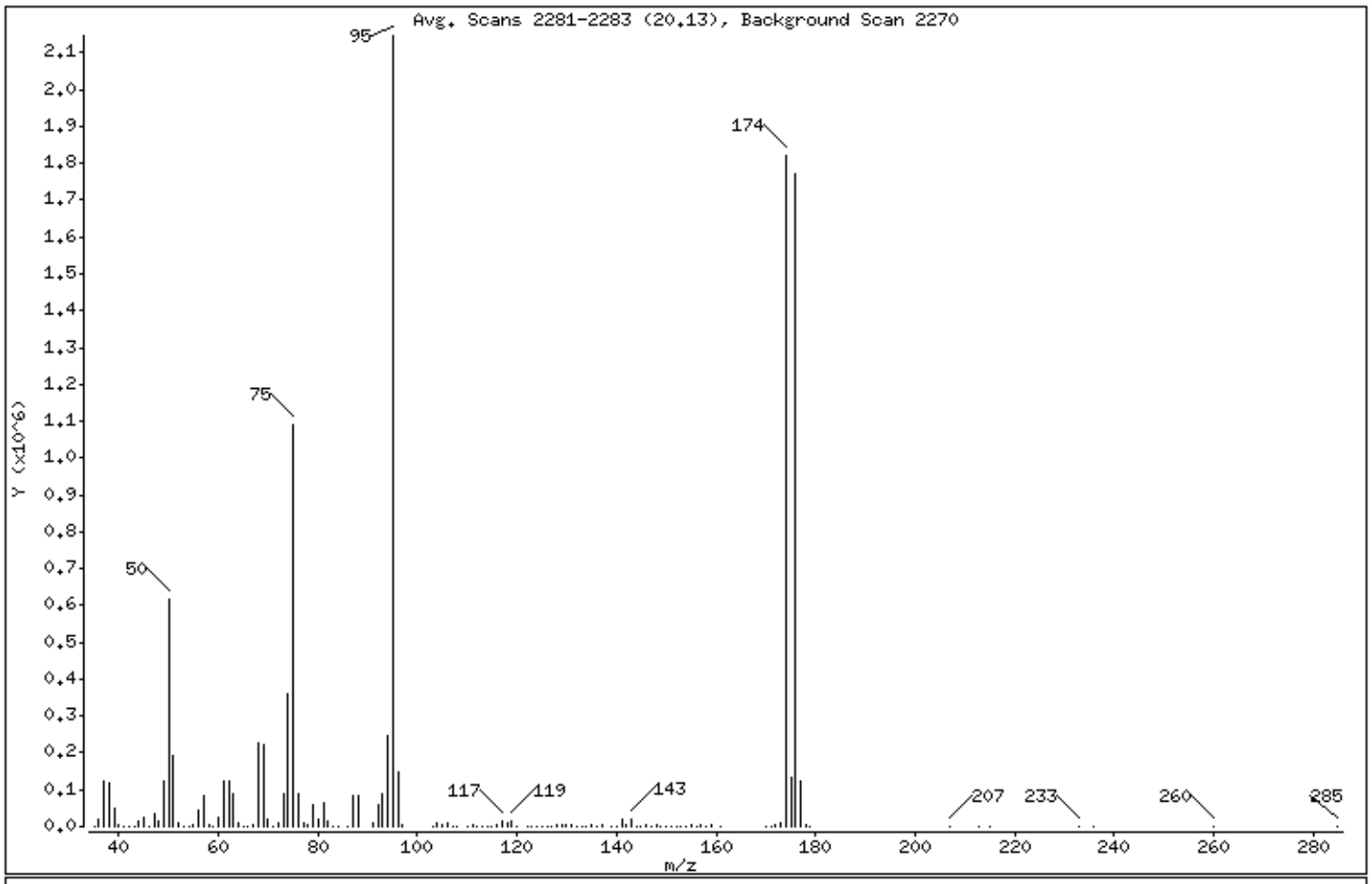
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.76
75	30.00 - 66.00% of mass 95	50.86
96	5.00 - 9.00% of mass 95	6.78
173	Less than 2.00% of mass 174	0.51 (0.60)
174	50.00 - 120.00% of mass 95	84.73
175	4.00 - 9.00% of mass 174	6.23 (7.35)
176	93.00 - 101.00% of mass 174	82.44 (97.30)
177	5.00 - 9.00% of mass 176	5.67 (6.88)

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445

Date : 14-DEC-2018 09:25

Client ID: BFB Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

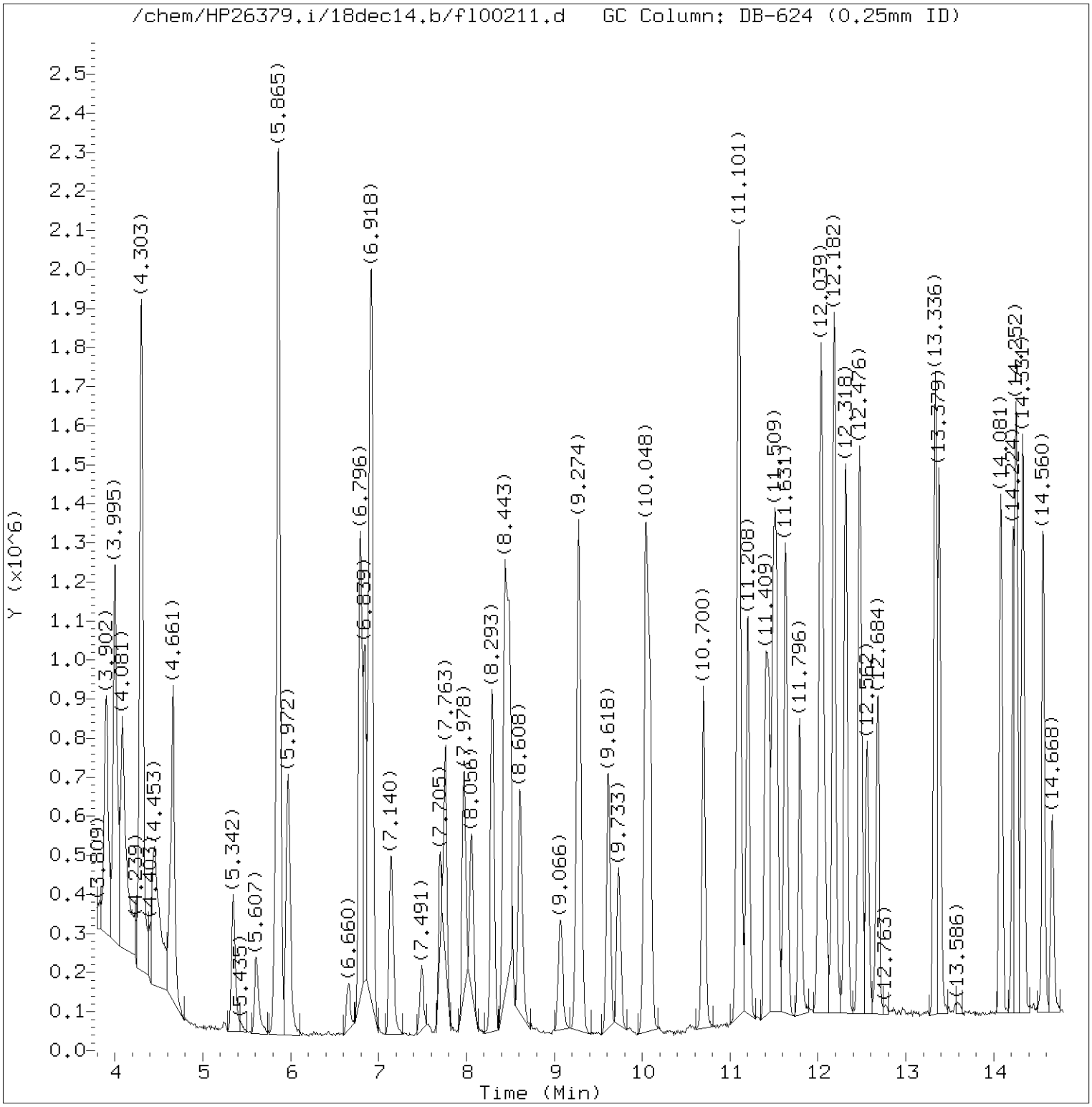
Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: f100210.d
Spectrum: Avg. Scans 2281-2283 (20.13), Background Scan 2270
Location of Maximum: 95.00
Number of points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	140	69.00	220864	112.00	1627	148.00	5305
36.00	21448	70.00	17352	113.00	1994	149.00	1491
37.00	124800	71.00	553	114.00	134	150.00	2106
38.00	116880	72.00	9473	115.00	2028	151.00	167
39.00	48240	73.00	87400	116.00	6994	152.00	1117
40.00	2559	74.00	361856	117.00	12438	153.00	1407
41.00	342	75.00	1091584	118.00	8056	154.00	1360
42.00	216	76.00	89488	119.00	12364	155.00	5893
43.00	859	77.00	10189	120.00	518	156.00	1048
44.00	15258	78.00	6811	122.00	604	157.00	3101
45.00	24880	79.00	61384	123.00	617	158.00	1160
46.00	1457	80.00	19416	124.00	1357	159.00	2660
47.00	36912	81.00	66008	125.00	729	161.00	2434
48.00	16520	82.00	13908	126.00	845	170.00	409
49.00	125696	83.00	2229	127.00	712	171.00	226
50.00	617344	84.00	103	128.00	5779	172.00	3628
51.00	193664	86.00	1820	129.00	3084	173.00	10893
52.00	8741	87.00	83480	130.00	7115	174.00	1818624
53.00	977	88.00	85704	131.00	2735	175.00	133696
54.00	234	91.00	8592	132.00	326	176.00	1769472
55.00	5974	92.00	58552	133.00	372	177.00	121800
56.00	42592	93.00	87872	134.00	414	178.00	2951
57.00	82144	94.00	248000	135.00	3711	179.00	119
58.00	3552	95.00	2146304	136.00	642	207.00	440
59.00	270	96.00	145600	137.00	3349	213.00	181
60.00	22496	97.00	3723	139.00	501	215.00	391
61.00	125216	103.00	1063	140.00	1338	233.00	190
62.00	123168	104.00	8443	141.00	20944	236.00	169
63.00	89848	105.00	2898	142.00	3316	260.00	120
64.00	9991	106.00	8735	143.00	21000	285.00	146
65.00	2242	107.00	2213	144.00	1299		
66.00	683	108.00	251	145.00	1559		
67.00	5799	110.00	1010	146.00	2655		
68.00	226944	111.00	2557	147.00	1740		

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

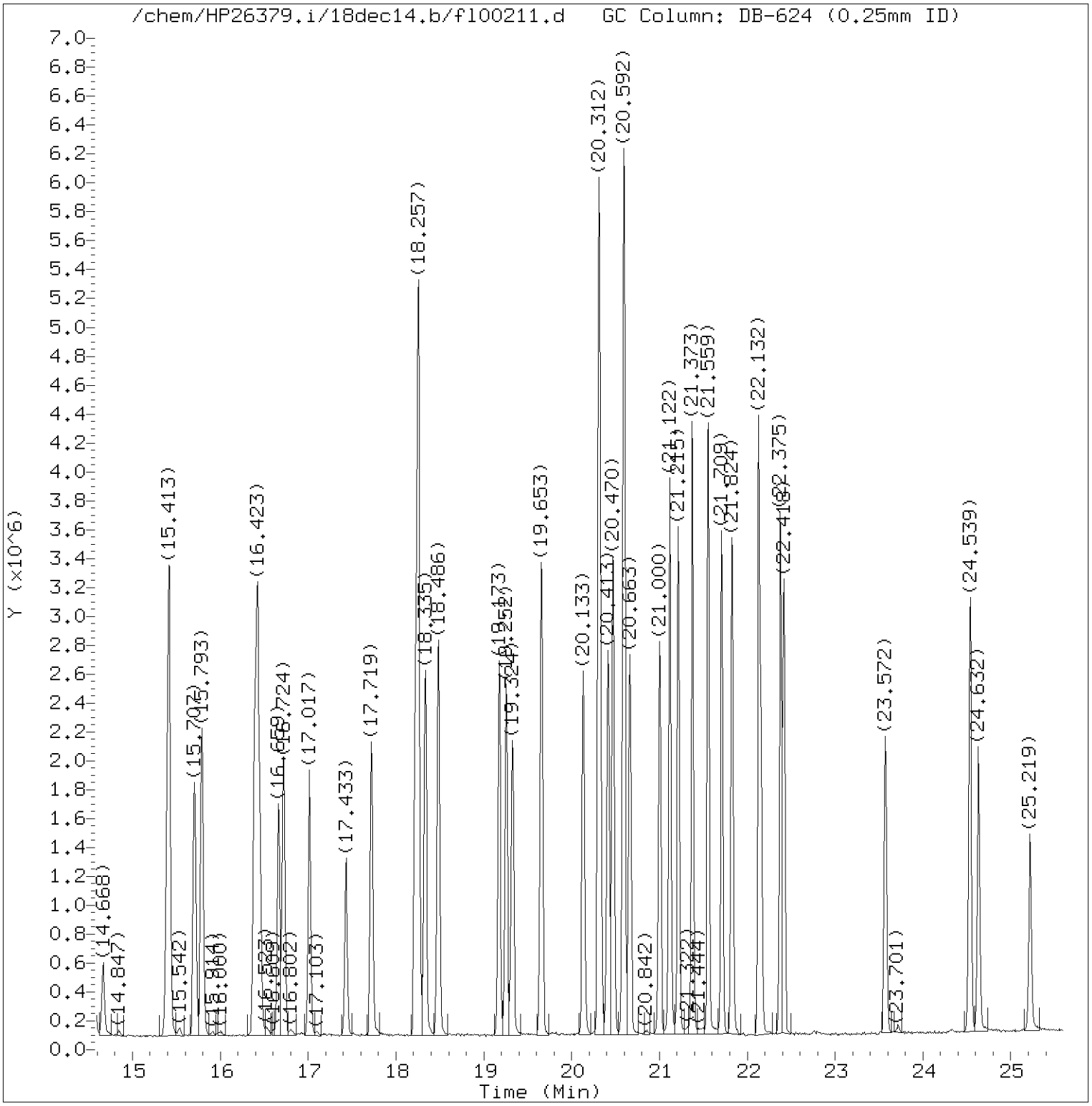
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.895	41	543726	10.506
2) Dichlorodifluoromethane	(1)	4.002	85	1382914	11.212
3) Chlorodifluoromethane	(1)	4.088	51	1177366	10.329
4) Freon 114	(1)	4.296	85	1315355	10.505
5) Chloromethane	(1)	4.446	50	607290	9.970
6) Vinyl Chloride	(1)	4.633	62	408215	10.365
7) 1,3-Butadiene	(1)	4.661	54	407668	10.625
8) Bromomethane	(1)	5.349	94	416159	11.369
9) Chloroethane	(1)	5.607	64	303994	11.432
10) Bromoethene	(1)	5.829	106	399064	10.723
11) Pentane	(1)	5.857	43	1137298	10.204
12) Trichlorofluoromethane	(1)	5.865	101	1269847	9.998
13) Dichlorofluoromethane	(1)	5.972	67	1149054	10.650
14) Ethanol	(1)	6.660	45	208099	10.011
15) Freon123a	(1)	6.796	67	1095473	11.237
16) 1,1-Dichloroethene	(1)	6.846	61	958486	10.739
17) Freon 113	(1)	6.903	103	668152	9.584
18) Carbon Disulfide	(1)	6.925	76	1332962	10.785
19) Methyl Iodide	(1)	7.147	142	926371	9.318
20) Acrolein	(1)	7.491	56	245483	10.673
21) Isopropanol	(1)	7.705	45	923390	11.384
22) 3-Chloropropene	(1)	7.763	41	884084	11.855
23) Methylene Chloride	(1)	7.978	84	438214	11.858
24) Acetone	(1)	8.056	43	1027540	10.595
25) trans-1,2-Dichloroethene	(1)	8.293	61	906543	10.650
26) Hexane	(1)	8.443	56	653252	10.070
27) Methyl t-Butyl Ether	(1)	8.486	73	1267738	10.202
28) tert-Butyl Alcohol	(1)	8.608	59	1236865	11.062
29) Acetonitrile	(1)	9.066	41	575994	10.608
30) Di-Isopropyl Ether	(1)	9.274	45	2158936	10.329
31) 1,1-Dichloroethane	(1)	9.618	63	1119644	10.355
32) Acrylonitrile	(1)	9.733	53	572544	10.699
33) Ethyl Tert-Butyl Ether	(1)	10.041	59	1910708	10.404
34) Vinyl Acetate	(1)	10.091	43	1869868M	11.978
35) cis-1,2-Dichloroethene	(1)	10.700	61	858429	10.576
36) 1,2-Dichloroethene (total)	(1)		61	1764972	21.226
37)*Bromochloromethane	(1)	11.086	130	378389	10.000
38) Cyclohexane	(1)	11.108	56	1025209	9.921

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.201	83	1098687	10.557
40) Ethyl Acetate	(1)	11.409	43	1512277	10.363
41) Methyl Acrylate	(1)	11.445	55	1195547	10.744
42) Carbon Tetrachloride	(1)	11.495	117	955908	10.047
43) Tetrahydrofuran	(1)	11.530	42	780074	10.970
44) 1,1,1-Trichloroethane	(1)	11.631	97	1059283	9.900
45) 2-Butanone	(1)	11.796	43	1404787	10.498
46) Isooctane	(2)	12.039	57	3168613	10.615
47) Heptane	(2)	12.182	71	499502	10.420
48) Benzene	(2)	12.318	78	1530591	10.318
49) Tert-Amyl Methyl Ether	(2)	12.476	73	1322512	10.565
50) 1,2-Dichloroethane	(2)	12.677	62	928819	10.448
51) Trichloroethene	(2)	13.336	130	635132	10.405
52)*1,4-Difluorobenzene	(2)	13.386	114	1320260	10.000
53) Dibromomethane	(2)	14.081	174	714035	10.596
54) Ethyl Acrylate	(2)	14.217	55	1476655	10.425
55) 1,2-Dichloropropane	(2)	14.252	63	747797	10.068
56) Bromodichloromethane	(2)	14.331	83	1192242	10.418
57) Methyl Methacrylate	(2)	14.560	69	504634	10.469
58) 1,4-Dioxane	(2)	14.668	88	352894	10.746
59) cis-1,3-Dichloropropene	(2)	15.391	75	913699	10.446
60) Octane	(3)	15.420	43	1719896	10.055
61) Toluene	(3)	15.793	91	1779388	9.896
62) 4-Methyl-2-Pentanone	(2)	16.387	43	1756924	9.970
63) Tetrachloroethene	(3)	16.423	166	1051586	10.109
64) trans-1,3-Dichloropropene	(3)	16.452	75	798767	10.346
66) Ethyl Methacrylate	(3)	16.659	69	824942	10.244
65) 1,3-Dichloropropene (total)	(3)		75	1712466	20.622
67) 1,1,2-Trichloroethane	(3)	16.724	97	698076	9.965
68) Dibromochloromethane	(3)	17.017	127	868261	10.195
69) 1,2-Dibromoethane	(3)	17.433	107	1030103	9.918
70) 2-Hexanone	(3)	17.719	43	1721267	10.261
71)*Chlorobenzene-d5	(3)	18.221	117	1297228	10.000
72) Chlorobenzene	(3)	18.249	112	1540855	9.990
73) Ethylbenzene	(3)	18.257	91	2497158	10.107
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	791556	9.973
75) m/p-Xylene	(3)	18.486	91	1818517	10.179
76) o-Xylene	(3)	19.173	91	1815068	10.407

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3633585	20.583
78) Styrene	(3)	19.252	104	1325637	10.667
79) Bromoform	(3)	19.324	173	1222872	10.236
80) Cumene	(3)	19.661	105	2527137	10.476
81) n-Propylbenzene	(3)	20.312	120	715582	10.394
82) Bromobenzene	(3)	20.320	156	970741	10.014
83) 1,1,2,2-Tetrachloroethane	(3)	20.413	83	1523923	9.770
84) 4-Ethyltoluene	(3)	20.470	105	2520633	10.506
85) 2-Chlorotoluene	(3)	20.592	126	650662	10.142
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2179726	10.704
87) 1,2,3-Trichloropropane	(3)	20.663	110	472451	10.017
88) Alpha Methyl Styrene	(3)	21.000	118	931282	10.946
89) tert-Butylbenzene	(3)	21.122	119	2004303	10.596
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	2075784	10.686
91) sec-Butylbenzene	(3)	21.373	105	3087703	10.425
92) p-Isopropyltoluene	(3)	21.559	119	2407114	10.559
93) 1,3-Dichlorobenzene	(3)	21.709	146	1483755	9.761
94) 1,4-Dichlorobenzene	(3)	21.824	146	1475313	9.796
95) n-Butylbenzene	(3)	22.132	92	1381798	10.464
96) Benzyl Chloride	(3)	22.160	126	298825	10.373
97) Hexachloroethane	(3)	22.375	117	618954	10.294
98) 1,2-Dichlorobenzene	(3)	22.418	146	1349038	9.654
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	599579	9.815
100) Hexachlorobutadiene	(3)	24.539	225	814524	9.351
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	834985	9.639
102) Naphthalene	(3)	25.219	128	1431257	9.765

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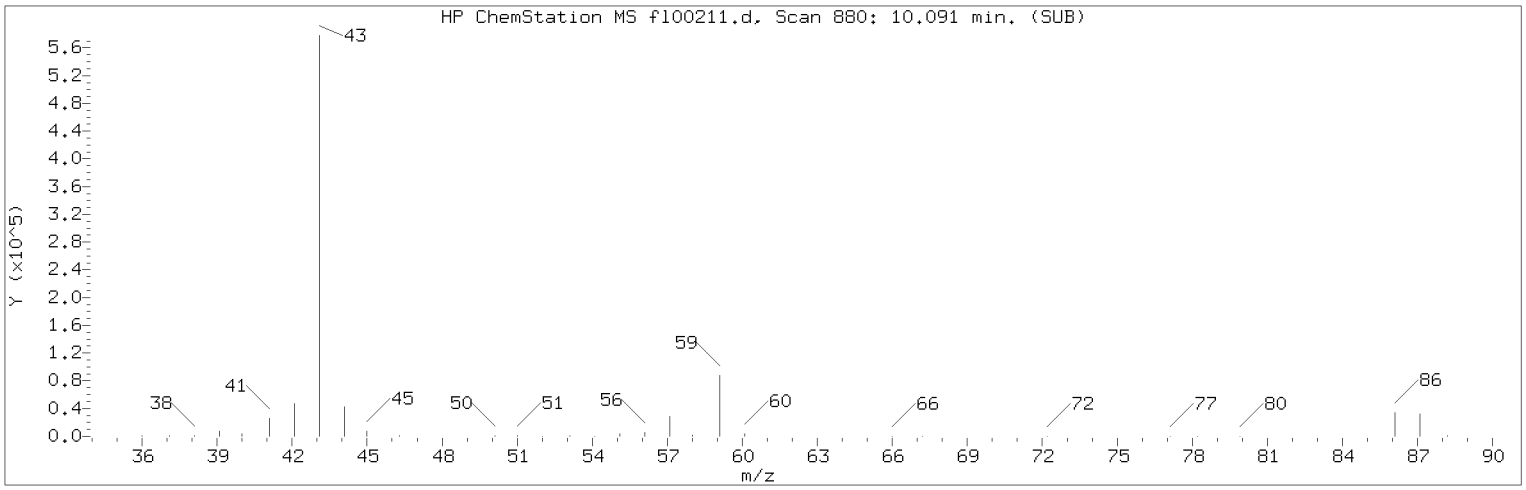
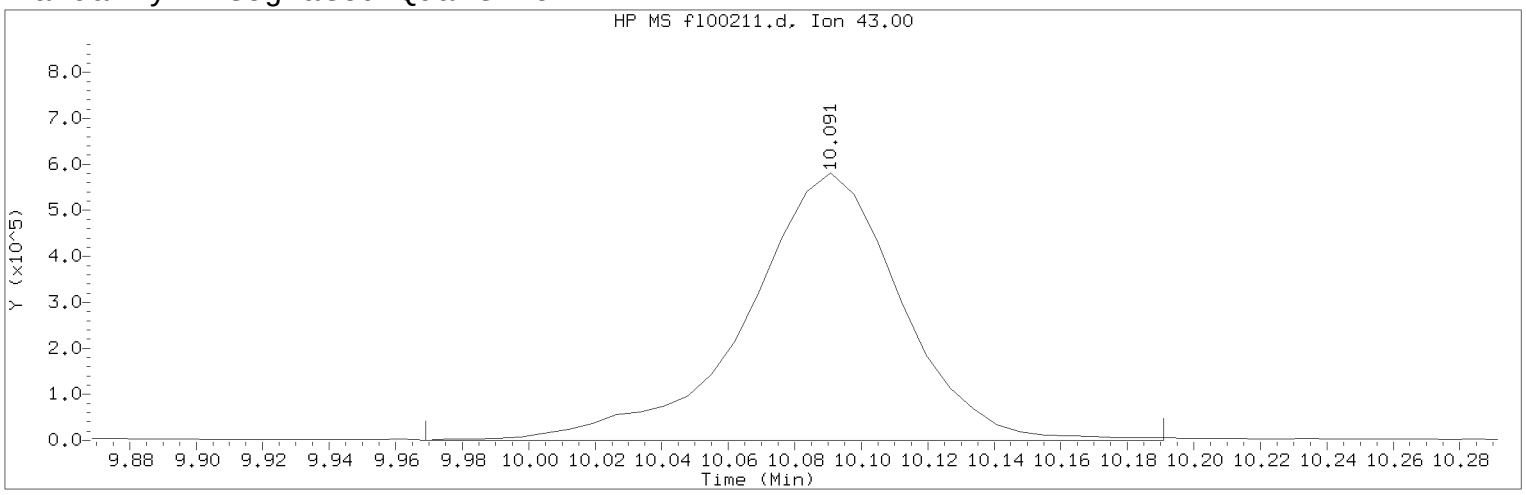
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

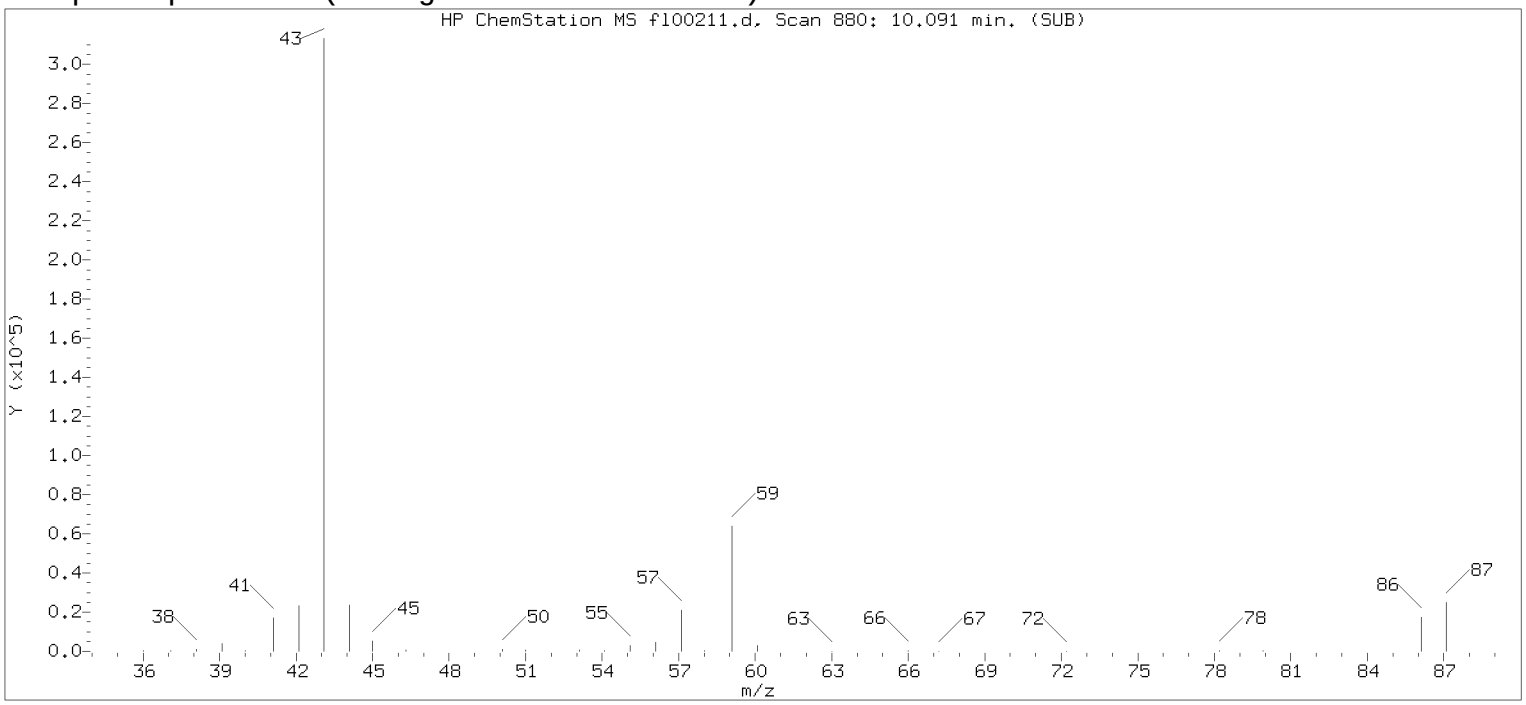
Compound Number : 34
Compound Name : Vinyl Acetate
Scan Number : 880
Retention Time (minutes): 10.091
Quant Ion : 43.00
Area (flag) : 1869868M
Concentration (ppb(v)) : 11.9780
Integration start scan : 862 Integration stop scan: 893
Y at integration start : 138 Y at integration end: 138

Reason for manual integration: improper integration

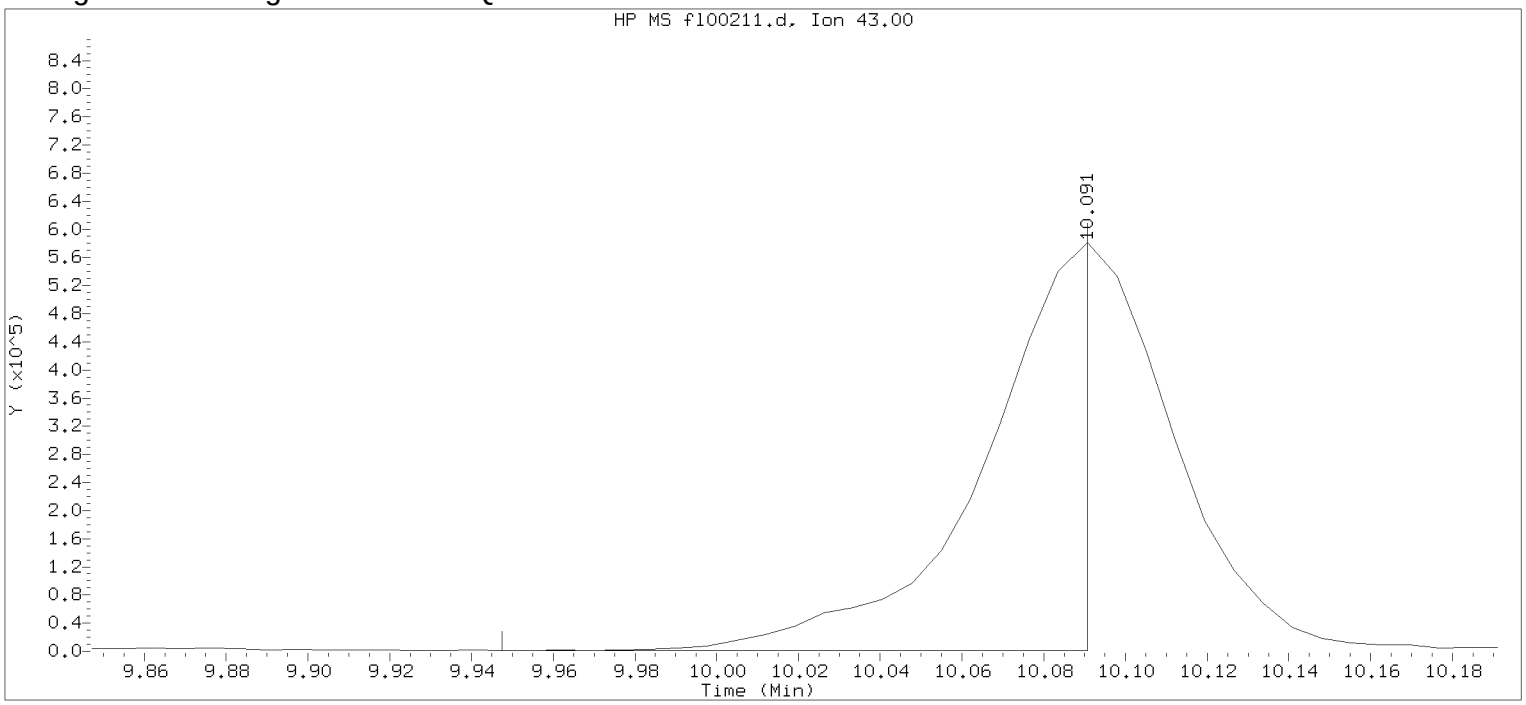
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



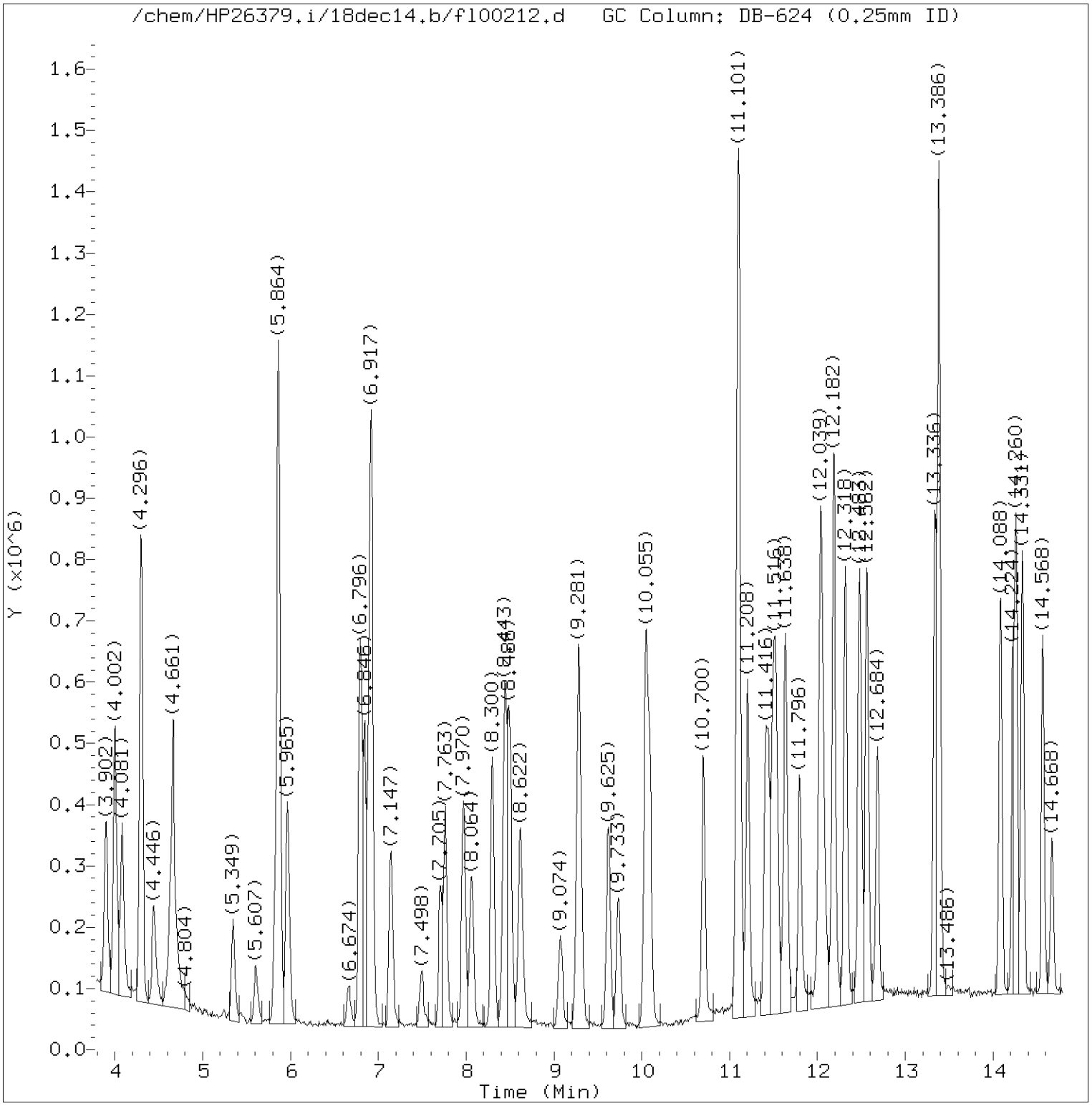
Data File: /chem/HP26379.i/18dec14.b/fl00211.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 04-DEC-2018 12:56
Date, time and analyst ID of latest file update: 14-Dec-2018 10:52 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 34
Compound Name : Vinyl Acetate
Scan Number : 880
Retention Time (minutes): 10.091
Quant Ion : 43.00
Area : 999224
Concentration (ppb(v)) : 6.0629
Integration start scan : 859 Integration stop scan: 879
Y at integration start : 730 Y at integration end: 730

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

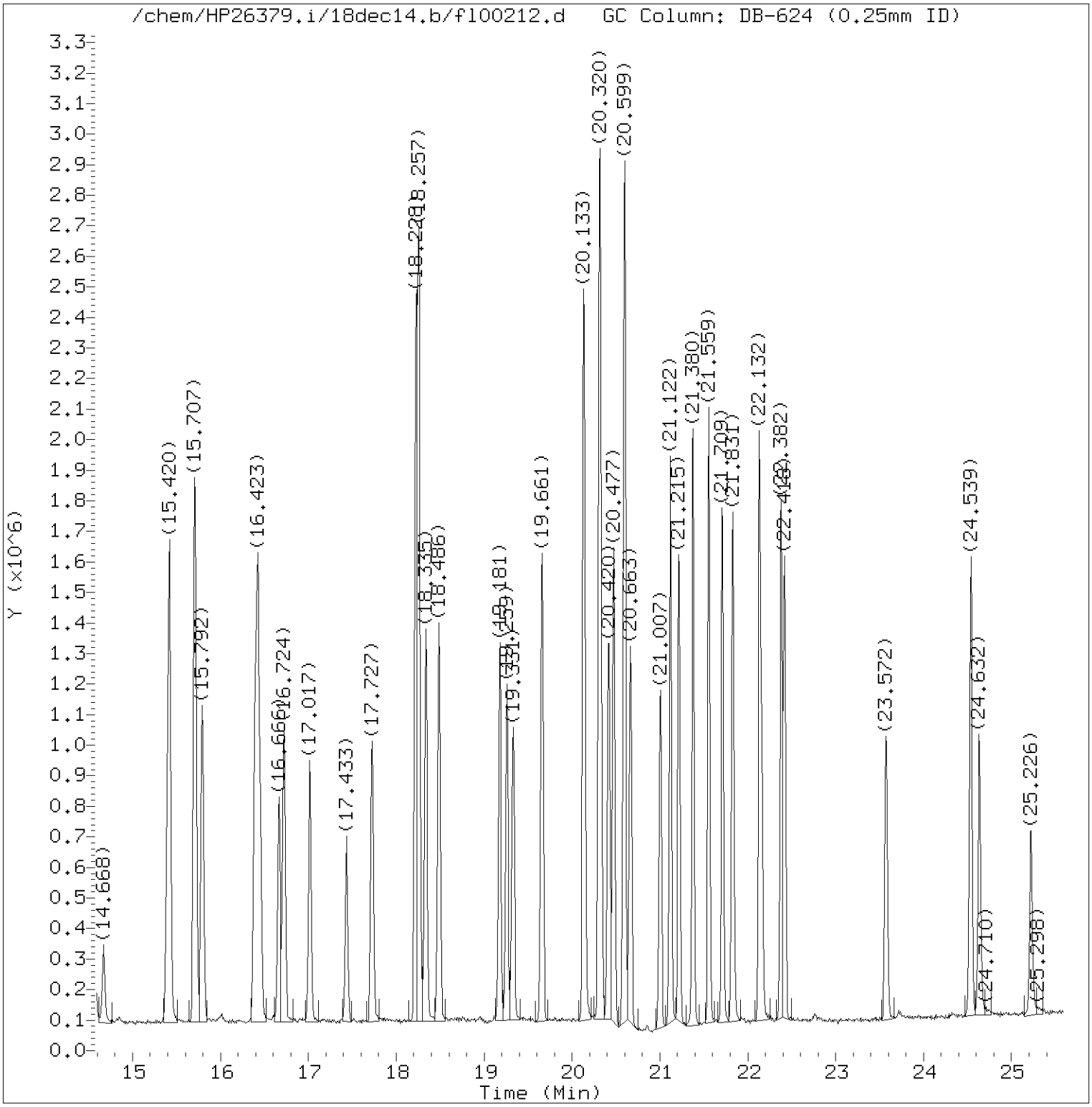
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	265089	5.079
2) Dichlorodifluoromethane	(1)	3.995	85	629092	5.057
3) Chlorodifluoromethane	(1)	4.081	51	564275	4.908
4) Freon 114	(1)	4.296	85	621675	4.923
5) Chloromethane	(1)	4.446	50	310156	5.048
6) Vinyl Chloride	(1)	4.632	62	202609	5.101
7) 1,3-Butadiene	(1)	4.668	54	193177	4.992
8) Bromomethane	(1)	5.349	94	190625	5.163
9) Chloroethane	(1)	5.599	64	142105M	5.200
10) Bromoethene	(1)	5.822	106	196736	5.242
11) Pentane	(1)	5.857	43	559115	4.974
12) Trichlorofluoromethane	(1)	5.872	101	619585	4.837
13) Dichlorofluoromethane	(1)	5.965	67	557267	5.121
14) Ethanol	(1)	6.667	45	107174	5.112
15) Freon123a	(1)	6.796	67	545057	5.543
16) 1,1-Dichloroethene	(1)	6.846	61	462766	5.141
17) Freon 113	(1)	6.910	103	336135	4.781
18) Carbon Disulfide	(1)	6.925	76	639583	5.131
19) Methyl Iodide	(1)	7.147	142	526435	5.250
20) Acrolein	(1)	7.491	56	112698	4.858
21) Isopropanol	(1)	7.705	45	478222	5.846
22) 3-Chloropropene	(1)	7.763	41	415553	5.525
23) Methylene Chloride	(1)	7.970	84	213055	5.716
24) Acetone	(1)	8.064	43	493144	5.041
25) trans-1,2-Dichloroethene	(1)	8.300	61	442461	5.154
26) Hexane	(1)	8.443	56	315399	4.820
27) Methyl t-Butyl Ether	(1)	8.493	73	632699	5.048
28) tert-Butyl Alcohol	(1)	8.622	59	625967	5.551
29) Acetonitrile	(1)	9.074	41	282380	5.156
30) Di-Isopropyl Ether	(1)	9.281	45	1028229	4.877
31) 1,1-Dichloroethane	(1)	9.618	63	546382	5.010
32) Acrylonitrile	(1)	9.733	53	271499	5.030
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	919007	4.961
34) Vinyl Acetate	(1)	10.091	43	877717	5.575
35) cis-1,2-Dichloroethene	(1)	10.700	61	414897	5.068
36) 1,2-Dichloroethene (total)	(1)		61	857358	10.222
37)*Bromochloromethane	(1)	11.094	130	381634	10.000
38) Cyclohexane	(1)	11.108	56	507042	4.865

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	523249	4.985
40) Ethyl Acetate	(1)	11.409	43	733934	4.987
41) Methyl Acrylate	(1)	11.445	55	563891	5.025
42) Carbon Tetrachloride	(1)	11.502	117	469884	4.896
43) Tetrahydrofuran	(1)	11.538	42	351460	4.900
44) 1,1,1-Trichloroethane	(1)	11.638	97	530529	4.916
45) 2-Butanone	(1)	11.796	43	678090	5.024
46) Isooctane	(2)	12.039	57	1497054	5.022
47) Heptane	(2)	12.182	71	238026	4.972
48) Benzene	(2)	12.318	78	738316	4.984
49) Tert-Amyl Methyl Ether	(2)	12.483	73	630946	5.047
50) 1,2-Dichloroethane	(2)	12.684	62	442291	4.982
51) Trichloroethene	(2)	13.336	130	306507	5.028
52)*1,4-Difluorobenzene	(2)	13.386	114	1318463	10.000
53) Dibromomethane	(2)	14.088	174	336235	4.996
54) Ethyl Acrylate	(2)	14.224	55	703062	4.970
55) 1,2-Dichloropropane	(2)	14.260	63	371491	5.008
56) Bromodichloromethane	(2)	14.338	83	572046	5.006
57) Methyl Methacrylate	(2)	14.568	69	235062	4.883
58) 1,4-Dioxane	(2)	14.668	88	164940	5.030
59) cis-1,3-Dichloropropene	(2)	15.399	75	438773	5.023
60) Octane	(3)	15.420	43	811652	4.840
61) Toluene	(3)	15.792	91	862256	4.892
62) 4-Methyl-2-Pentanone	(2)	16.394	43	853958	4.853
63) Tetrachloroethene	(3)	16.423	166	513041	5.031
64) trans-1,3-Dichloropropene	(3)	16.451	75	387462	5.119
66) Ethyl Methacrylate	(3)	16.666	69	383979	4.864
65) 1,3-Dichloropropene (total)	(3)		75	826235	10.149
67) 1,1,2-Trichloroethane	(3)	16.724	97	339588	4.945
68) Dibromochloromethane	(3)	17.017	127	409979	4.910
69) 1,2-Dibromoethane	(3)	17.433	107	505861	4.968
70) 2-Hexanone	(3)	17.727	43	798510	4.856
71)*Chlorobenzene-d5	(3)	18.221	117	1271707	10.000
72) Chlorobenzene	(3)	18.249	112	738434	4.884
73) Ethylbenzene	(3)	18.264	91	1173960	4.847
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	387857	4.985
75) m/p-Xylene	(3)	18.486	91	848077	4.842
76) o-Xylene	(3)	19.181	91	840990	4.919

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

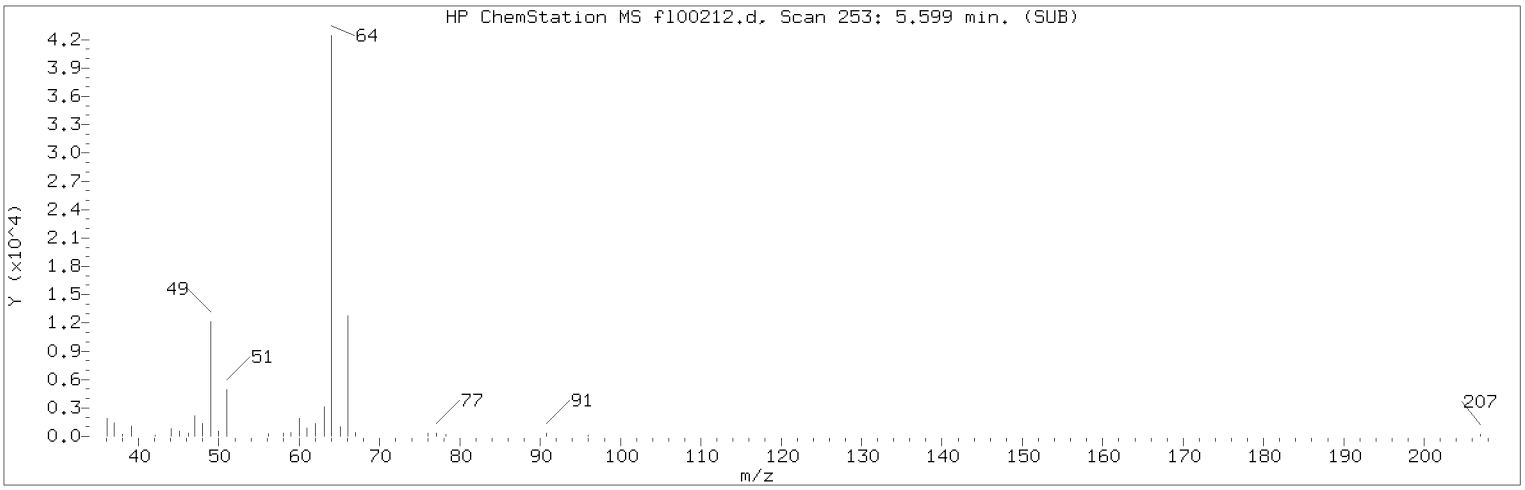
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

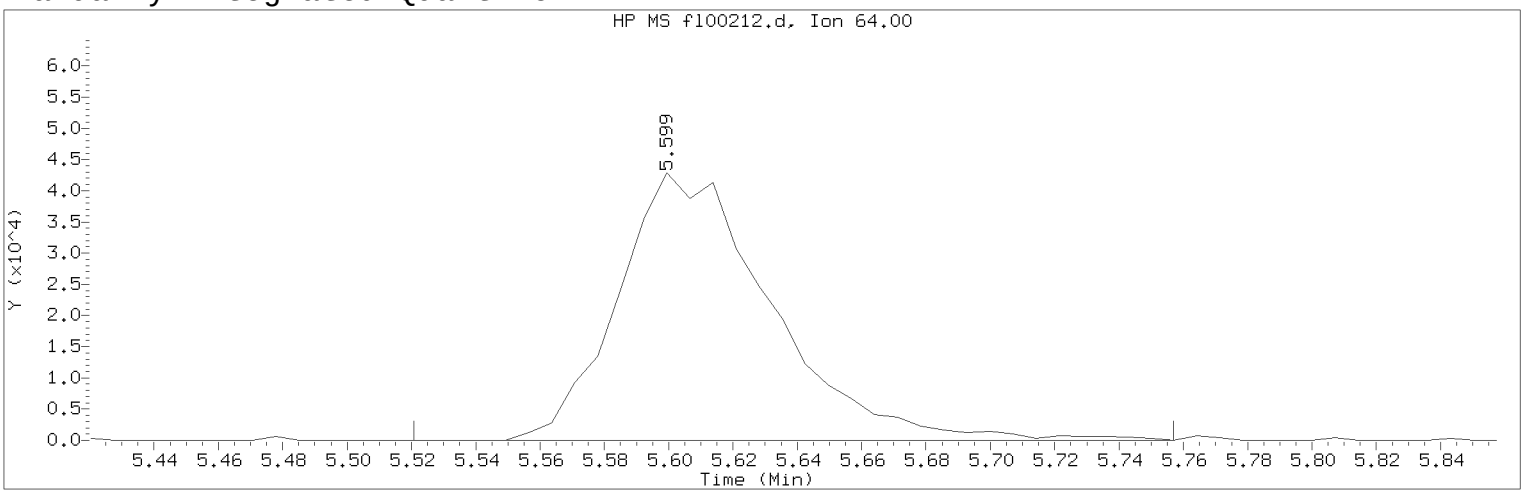
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	1689067	9.760
78) Styrene	(3)	19.259	104	597121	4.901
79) Bromoform	(3)	19.331	173	572912	4.892
80) Cumene	(3)	19.661	105	1161196	4.910
81) n-Propylbenzene	(3)	20.312	120	335117	4.966
82) Bromobenzene	(3)	20.327	156	482835	5.081
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	754151	4.932
84) 4-Ethyltoluene	(3)	20.477	105	1163432	4.946
85) 2-Chlorotoluene	(3)	20.592	126	312023	4.961
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	987330	4.946
87) 1,2,3-Trichloropropane	(3)	20.663	110	219647	4.751
88) Alpha Methyl Styrene	(3)	21.007	118	392936	4.711
89) tert-Butylbenzene	(3)	21.122	119	929809	5.014
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	945095	4.963
91) sec-Butylbenzene	(3)	21.380	105	1434250	4.940
92) p-Isopropyltoluene	(3)	21.559	119	1102461	4.933
93) 1,3-Dichlorobenzene	(3)	21.709	146	732266	4.914
94) 1,4-Dichlorobenzene	(3)	21.831	146	717219	4.858
95) n-Butylbenzene	(3)	22.132	92	627825	4.850
96) Benzyl Chloride	(3)	22.160	126	133916	4.742
97) Hexachloroethane	(3)	22.382	117	277730	4.712
98) 1,2-Dichlorobenzene	(3)	22.418	146	666511	4.865
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	279014	4.659
100) Hexachlorobutadiene	(3)	24.539	225	390035	4.568
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	397223	4.678
102) Naphthalene	(3)	25.219	128	674399	4.694

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

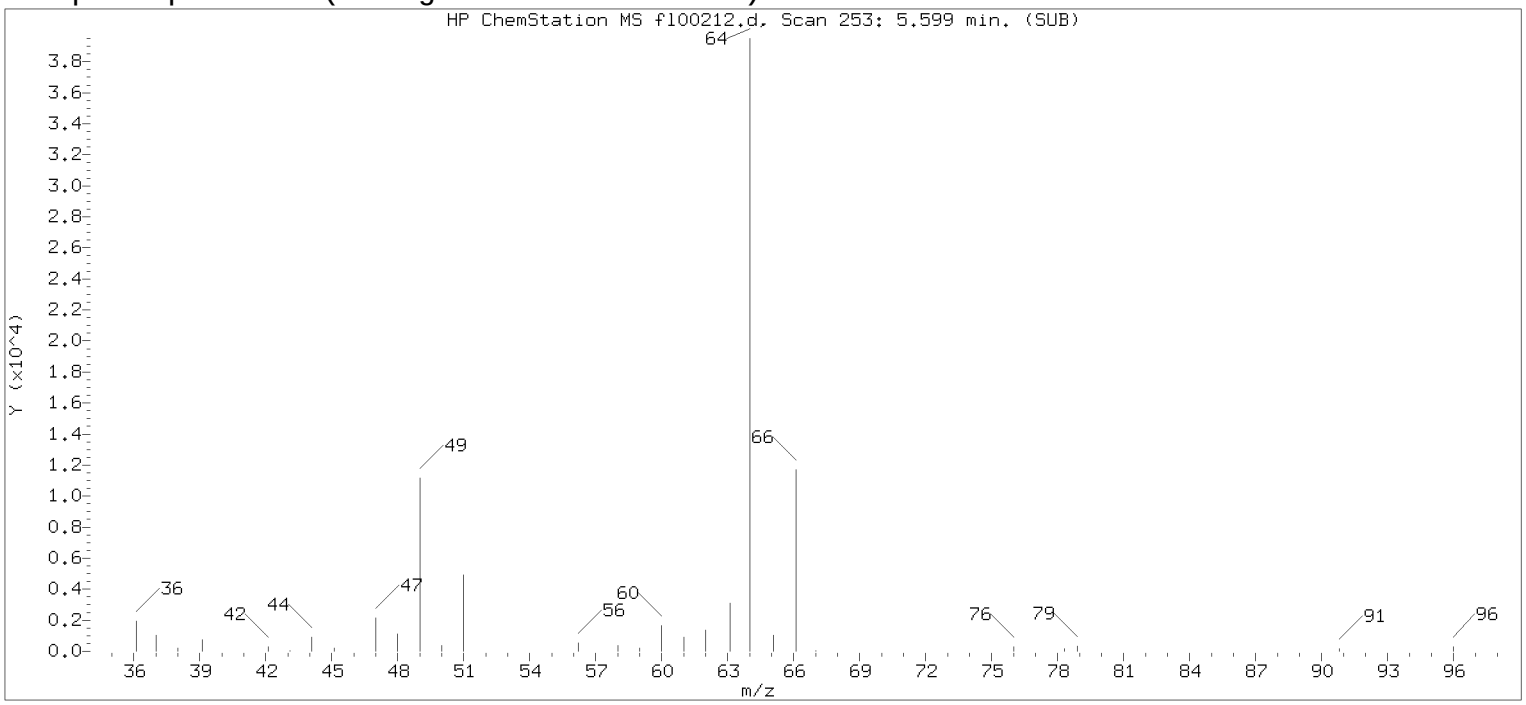
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 253
Retention Time (minutes): 5.599
Quant Ion : 64.00
Area (flag) : 142105M
Concentration (ppb(v)) : 5.1998
Integration start scan : 241 Integration stop scan: 274
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

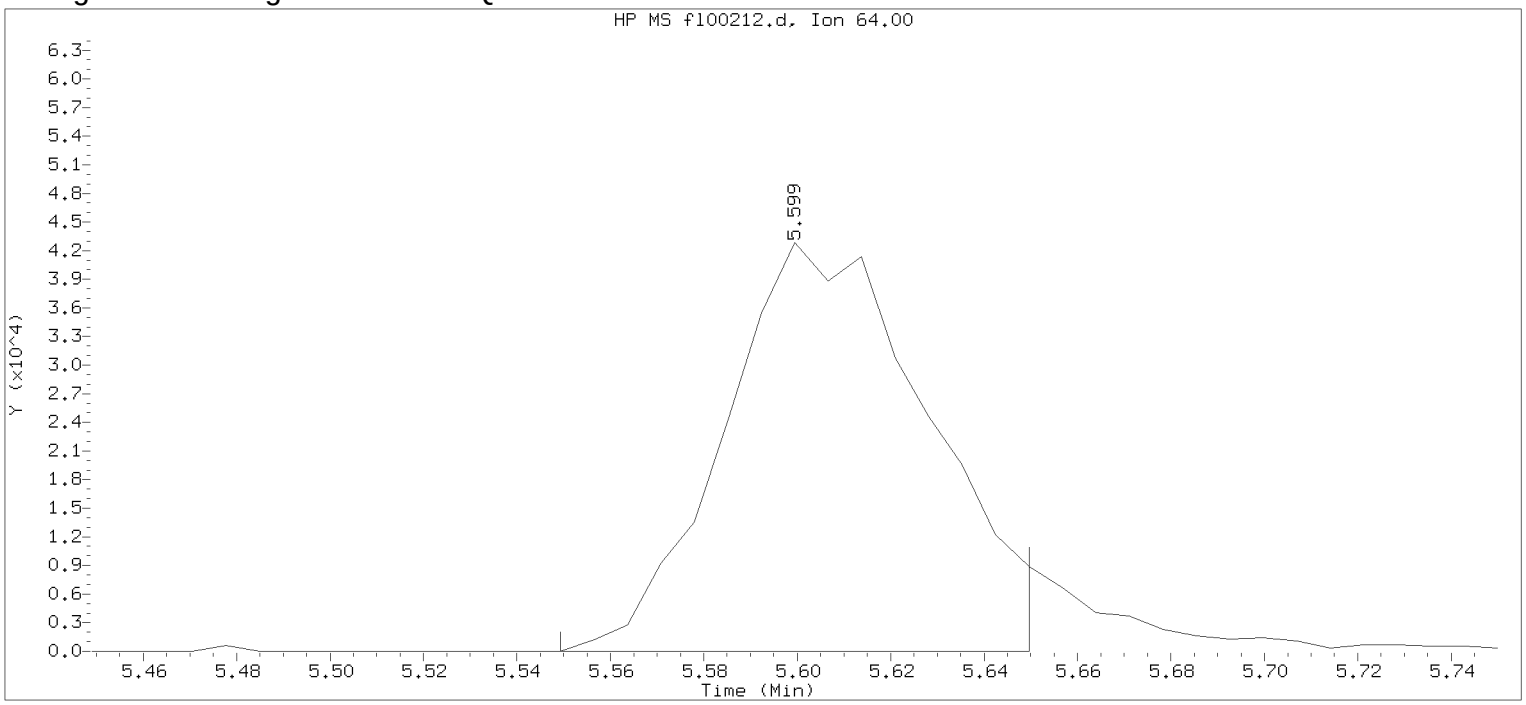
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



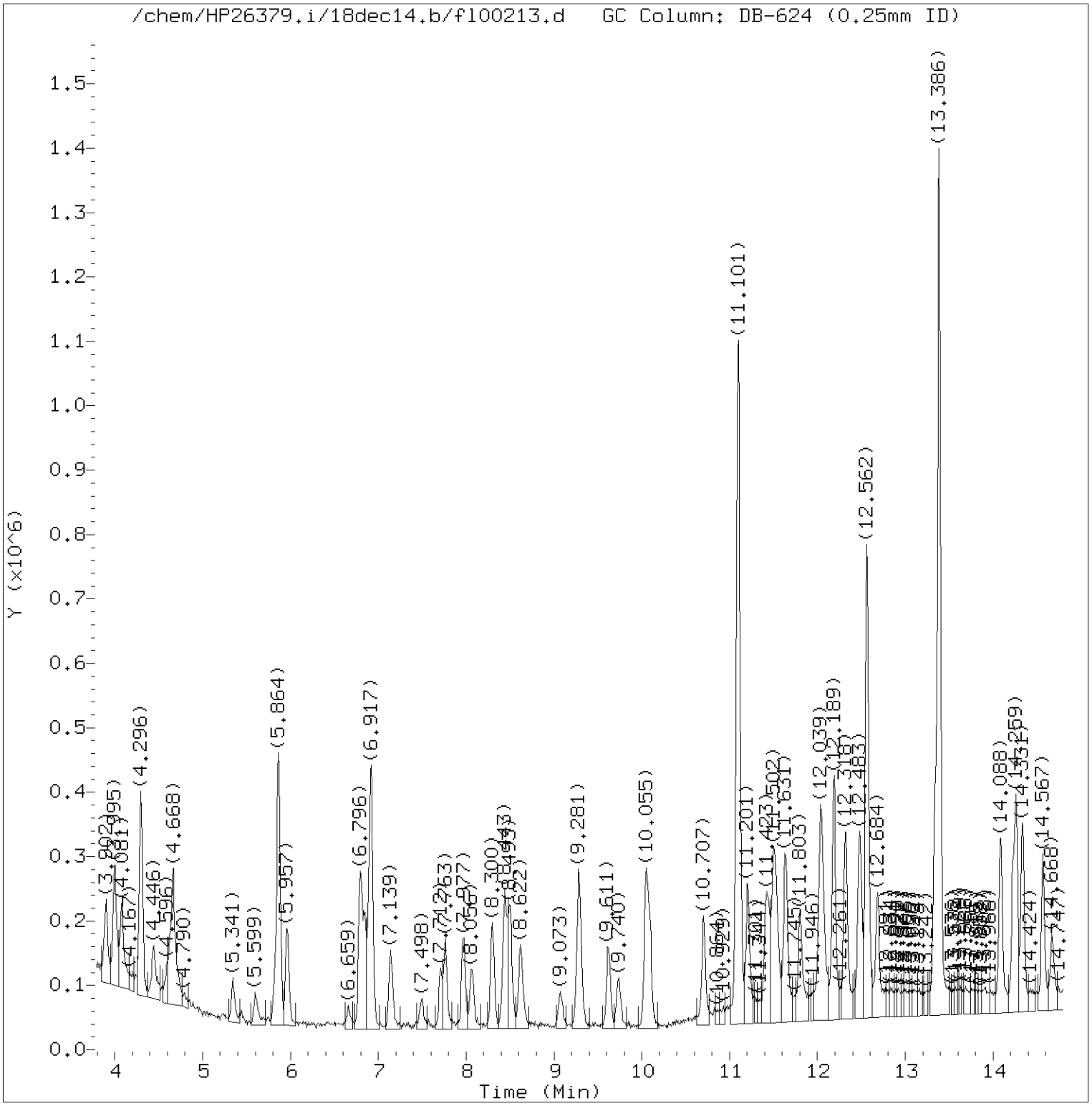
Data File: /chem/HP26379.i/18dec14.b/fl00212.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 10:50 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 10:58
Date, time and analyst ID of latest file update: 14-Dec-2018 11:22 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 253
Retention Time (minutes): 5.599
Quant Ion : 64.00
Area : 129388
Concentration (ppb(v)) : 4.2201
Integration start scan : 245 Integration stop scan: 259
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID: jeb07445



Total Ion Chromatogram (TIC)

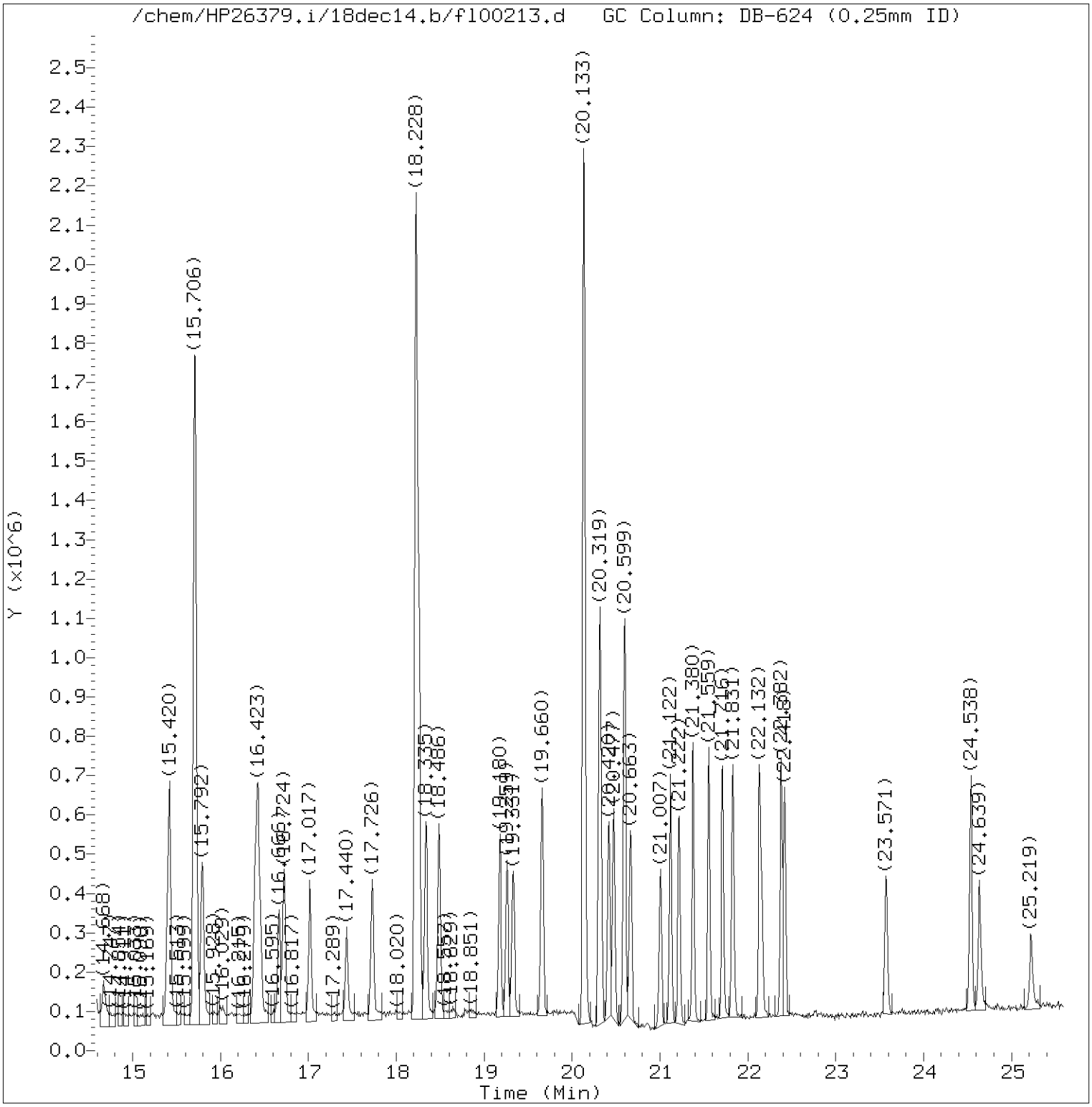
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	101529M	2.056
2) Dichlorodifluoromethane	(1)	3.995	85	230059	1.955
3) Chlorodifluoromethane	(1)	4.074	51	221622	2.038
4) Freon 114	(1)	4.296	85	234873	1.966
5) Chloromethane	(1)	4.446	50	117665	2.025
6) Vinyl Chloride	(1)	4.632	62	74514	1.983
7) 1,3-Butadiene	(1)	4.668	54	71689	1.958
8) Bromomethane	(1)	5.341	94	67256M	1.926
9) Chloroethane	(1)	5.592	64	55284M	2.138
10) Bromoethene	(1)	5.821	106	67726	1.907
11) Pentane	(1)	5.857	43	210416	1.979
12) Trichlorofluoromethane	(1)	5.872	101	245678	2.027
13) Dichlorofluoromethane	(1)	5.957	67	213152	2.071
14) Ethanol	(1)	6.659	45	41113	2.073
15) Freon123a	(1)	6.796	67	202715	2.179
16) 1,1-Dichloroethene	(1)	6.846	61	166530	1.955
17) Freon 113	(1)	6.917	103	137003	2.060
18) Carbon Disulfide	(1)	6.924	76	229475	1.946
19) Methyl Iodide	(1)	7.139	142	200300	2.112
20) Acrolein	(1)	7.498	56	44408	2.024
21) Isopropanol	(1)	7.712	45	163411	2.111
22) 3-Chloropropene	(1)	7.763	41	150219	2.111
23) Methylene Chloride	(1)	7.970	84	74061	2.101
24) Acetone	(1)	8.056	43	185212	2.002
25) trans-1,2-Dichloroethene	(1)	8.300	61	160140	1.972
26) Hexane	(1)	8.443	56	121467	1.962
27) Methyl t-Butyl Ether	(1)	8.500	73	232385	1.960
28) tert-Butyl Alcohol	(1)	8.622	59	239901	2.249
29) Acetonitrile	(1)	9.073	41	103150	1.991
30) Di-Isopropyl Ether	(1)	9.281	45	394501	1.978
31) 1,1-Dichloroethane	(1)	9.618	63	207917	2.015
32) Acrylonitrile	(1)	9.732	53	100075	1.960
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	339414	1.937
34) Vinyl Acetate	(1)	10.098	43	313128	2.102
35) cis-1,2-Dichloroethene	(1)	10.707	61	149037	1.924
36) 1,2-Dichloroethene (total)	(1)		61	309177	3.896
37)*Bromochloromethane	(1)	11.101	130	361028	10.000
38) Cyclohexane	(1)	11.115	56	197968	2.008

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	196210	1.976
40) Ethyl Acetate	(1)	11.416	43	277850	1.996
41) Methyl Acrylate	(1)	11.452	55	202613	1.908
42) Carbon Tetrachloride	(1)	11.502	117	178820	1.970
43) Tetrahydrofuran	(1)	11.537	42	127506	1.879
44) 1,1,1-Trichloroethane	(1)	11.638	97	210212	2.059
45) 2-Butanone	(1)	11.810	43	254615	1.994
46) Isooctane	(2)	12.032	57	538139	1.899
47) Heptane	(2)	12.182	71	88027	1.934
48) Benzene	(2)	12.325	78	281797	2.001
49) Tert-Amyl Methyl Ether	(2)	12.483	73	229879	1.934
50) 1,2-Dichloroethane	(2)	12.676	62	169100	2.003
51) Trichloroethene	(2)	13.343	130	112879	1.948
52)*1,4-Difluorobenzene	(2)	13.386	114	1253585	10.000
53) Dibromomethane	(2)	14.088	174	127584	1.994
54) Ethyl Acrylate	(2)	14.224	55	253638	1.886
55) 1,2-Dichloropropane	(2)	14.267	63	141788	2.010
56) Bromodichloromethane	(2)	14.338	83	216367	1.991
57) Methyl Methacrylate	(2)	14.567	69	90611	1.980
58) 1,4-Dioxane	(2)	14.675	88	60279	1.933
59) cis-1,3-Dichloropropene	(2)	15.398	75	160955	1.938
60) Octane	(3)	15.427	43	311265	1.961
61) Toluene	(3)	15.792	91	336109	2.014
62) 4-Methyl-2-Pentanone	(2)	16.394	43	332391	1.987
63) Tetrachloroethene	(3)	16.423	166	199675	2.068
64) trans-1,3-Dichloropropene	(3)	16.459	75	135851	1.896
66) Ethyl Methacrylate	(3)	16.666	69	137474	1.840
65) 1,3-Dichloropropene (total)	(3)		75	296806	3.852
67) 1,1,2-Trichloroethane	(3)	16.724	97	131349	2.021
68) Dibromochloromethane	(3)	17.017	127	162517	2.056
69) 1,2-Dibromoethane	(3)	17.433	107	199139	2.066
70) 2-Hexanone	(3)	17.726	43	300947	1.933
71)*Chlorobenzene-d5	(3)	18.228	117	1203807	10.000
72) Chlorobenzene	(3)	18.249	112	294972	2.061
73) Ethylbenzene	(3)	18.264	91	453705	1.979
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	148112	2.011
75) m/p-Xylene	(3)	18.486	91	321728	1.941
76) o-Xylene	(3)	19.180	91	315985	1.952

* = Compound is an internal standard.

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on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

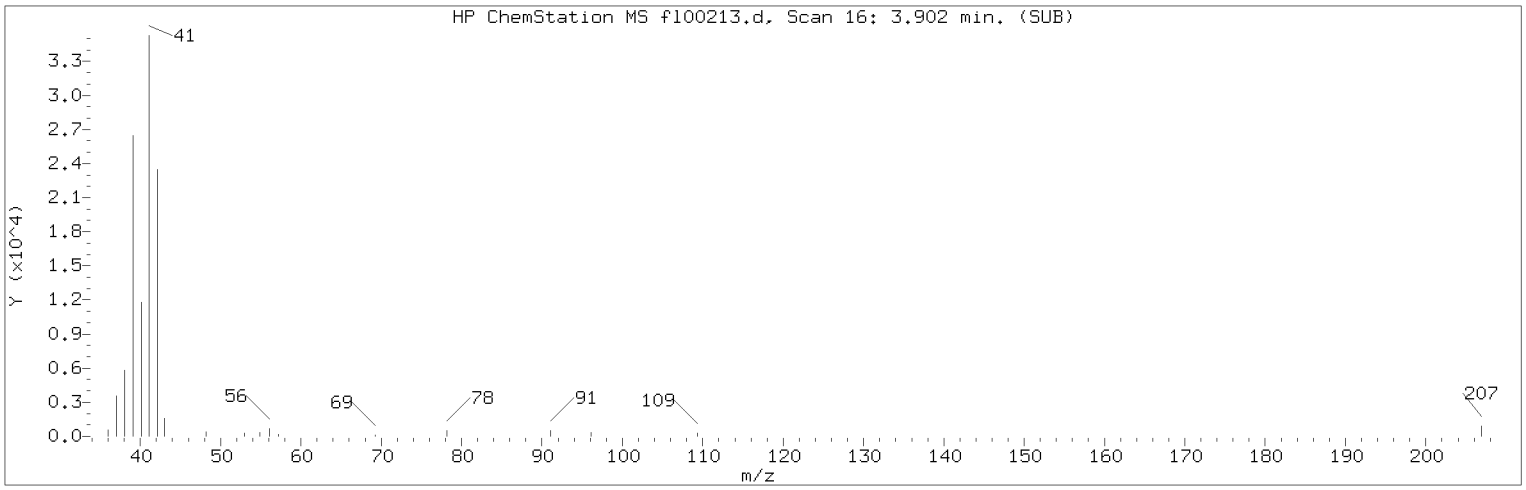
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

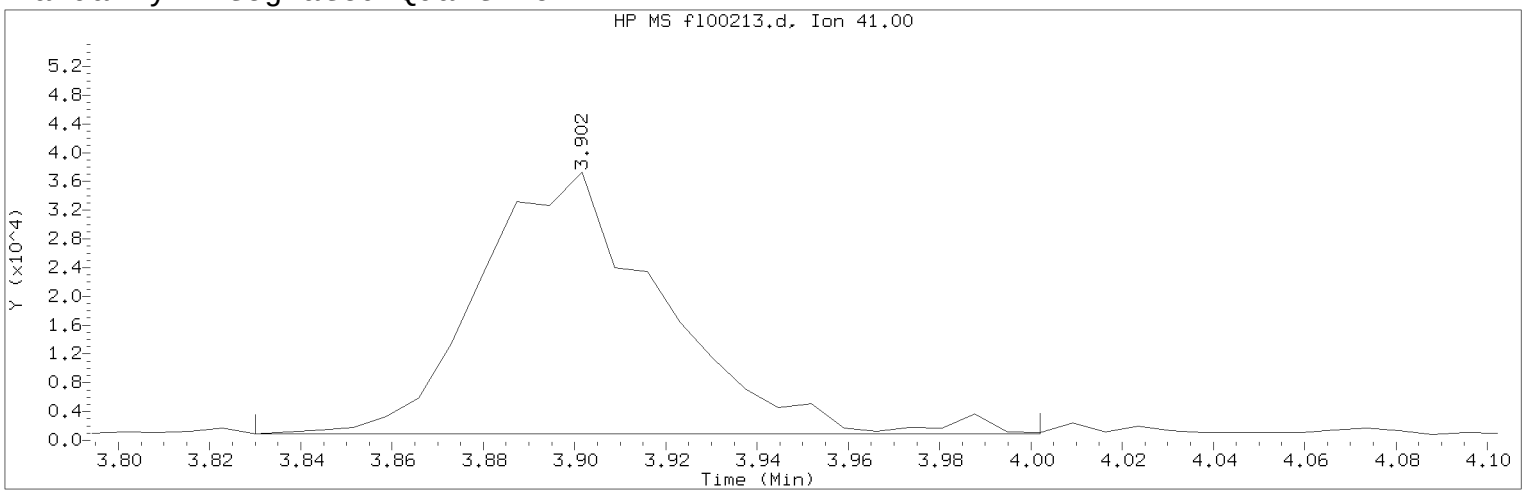
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	637713	3.893
78) Styrene	(3)	19.259	104	218083	1.891
79) Bromoform	(3)	19.331	173	219614	1.981
80) Cumene	(3)	19.660	105	425112	1.899
81) n-Propylbenzene	(3)	20.312	120	121675	1.905
82) Bromobenzene	(3)	20.327	156	179077	1.991
83) 1,1,2,2-Tetrachloroethane	(3)	20.412	83	291495	2.014
84) 4-Ethyltoluene	(3)	20.477	105	414316	1.861
85) 2-Chlorotoluene	(3)	20.592	126	118896	1.997
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	353479	1.871
87) 1,2,3-Trichloropropane	(3)	20.670	110	90456	2.067
88) Alpha Methyl Styrene	(3)	21.007	118	132968	1.684
89) tert-Butylbenzene	(3)	21.122	119	328109	1.869
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	331248	1.838
91) sec-Butylbenzene	(3)	21.380	105	520118	1.892
92) p-Isopropyltoluene	(3)	21.559	119	390782	1.847
93) 1,3-Dichlorobenzene	(3)	21.716	146	288784	2.047
94) 1,4-Dichlorobenzene	(3)	21.831	146	277995	1.989
95) n-Butylbenzene	(3)	22.132	92	218952	1.787
96) Benzyl Chloride	(3)	22.160	126	47785	1.788
97) Hexachloroethane	(3)	22.375	117	101271	1.815
98) 1,2-Dichlorobenzene	(3)	22.418	146	260623	2.010
99) 1,2-Dibromo-3-chloropropane	(3)	23.571	157	102001	1.799
100) Hexachlorobutadiene	(3)	24.538	225	154425	1.910
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	147899	1.840
102) Naphthalene	(3)	25.219	128	229085	1.684

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

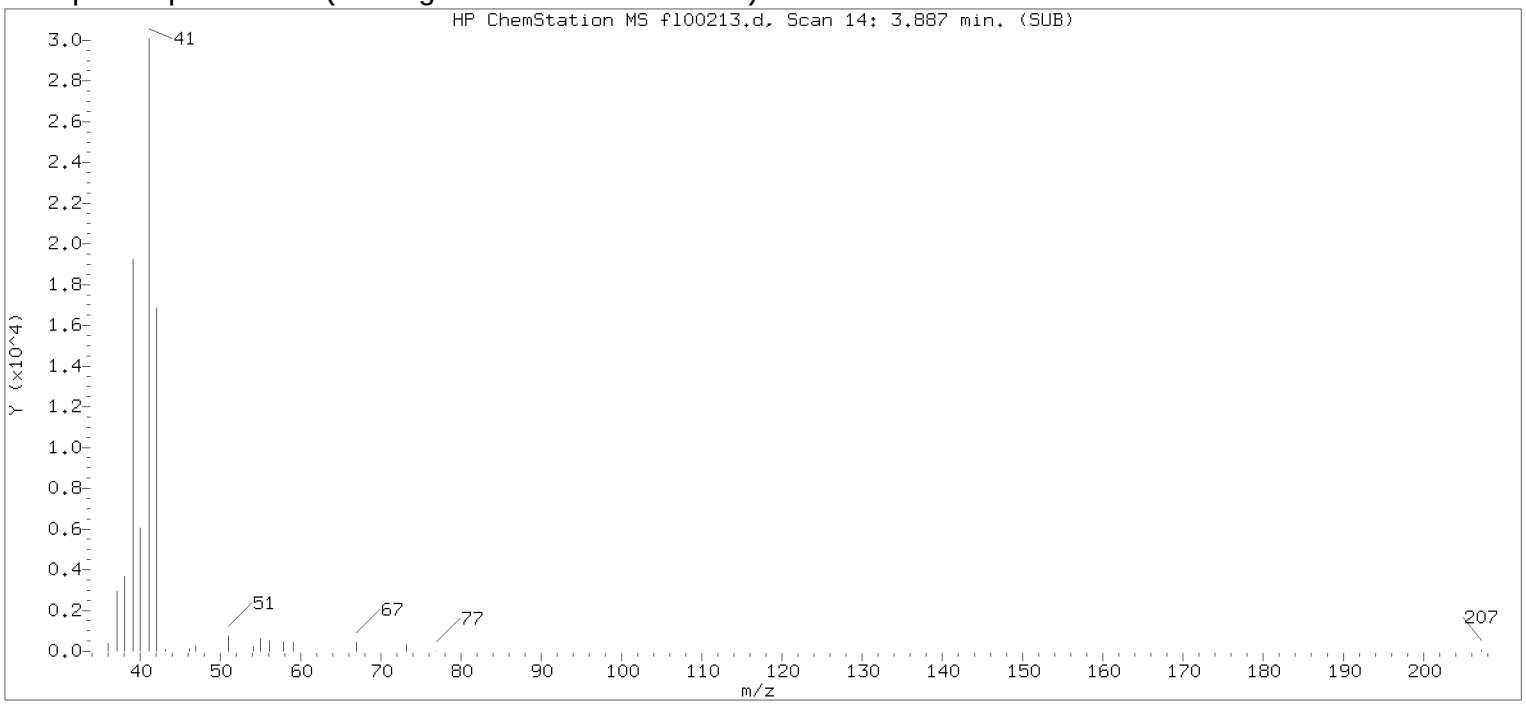
Compound Number : 1
Compound Name : Propene
Scan Number : 16
Retention Time (minutes): 3.902
Quant Ion : 41.00
Area (flag) : 101529M
Concentration (ppb(v)) : 2.0562
Integration start scan : 5 Integration stop scan: 29
Y at integration start : 904 Y at integration end: 904

Reason for manual integration: improper integration

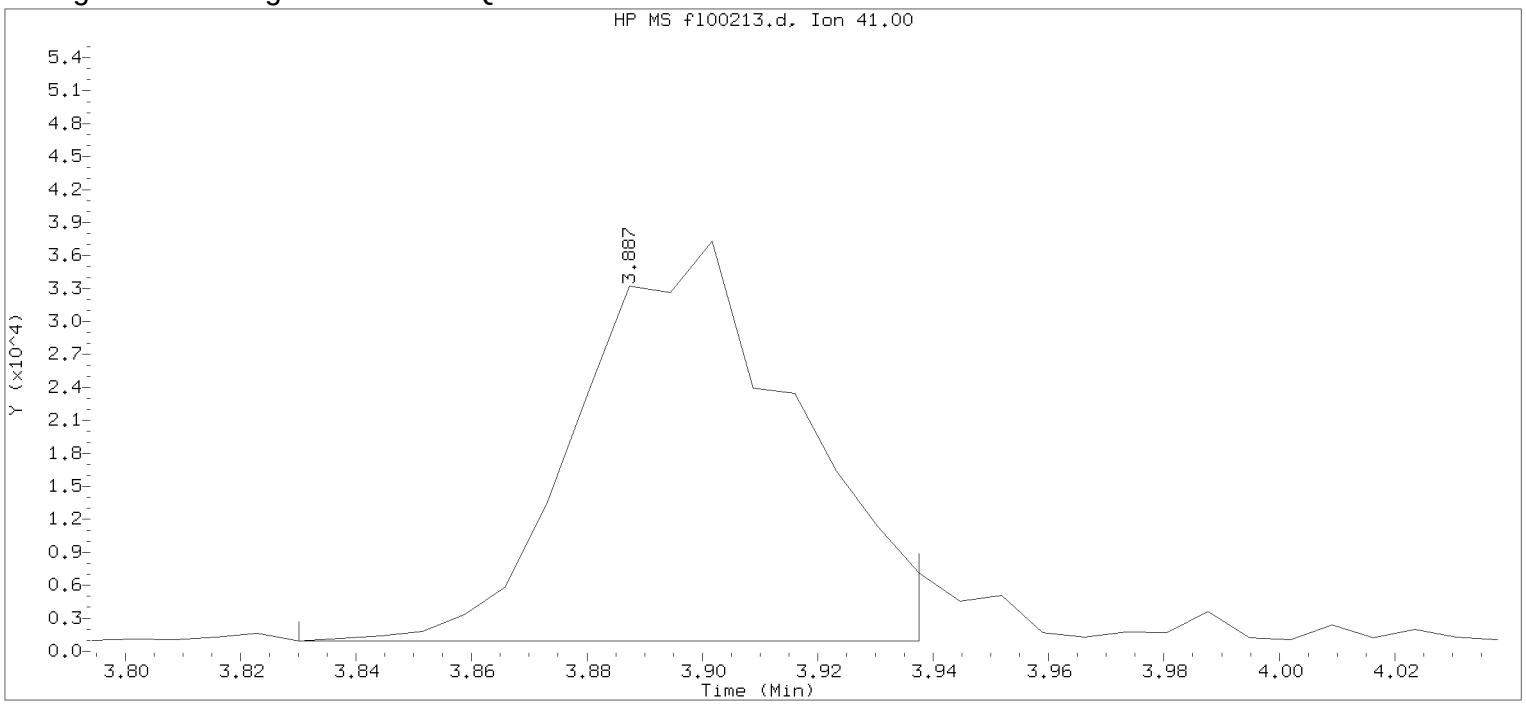
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

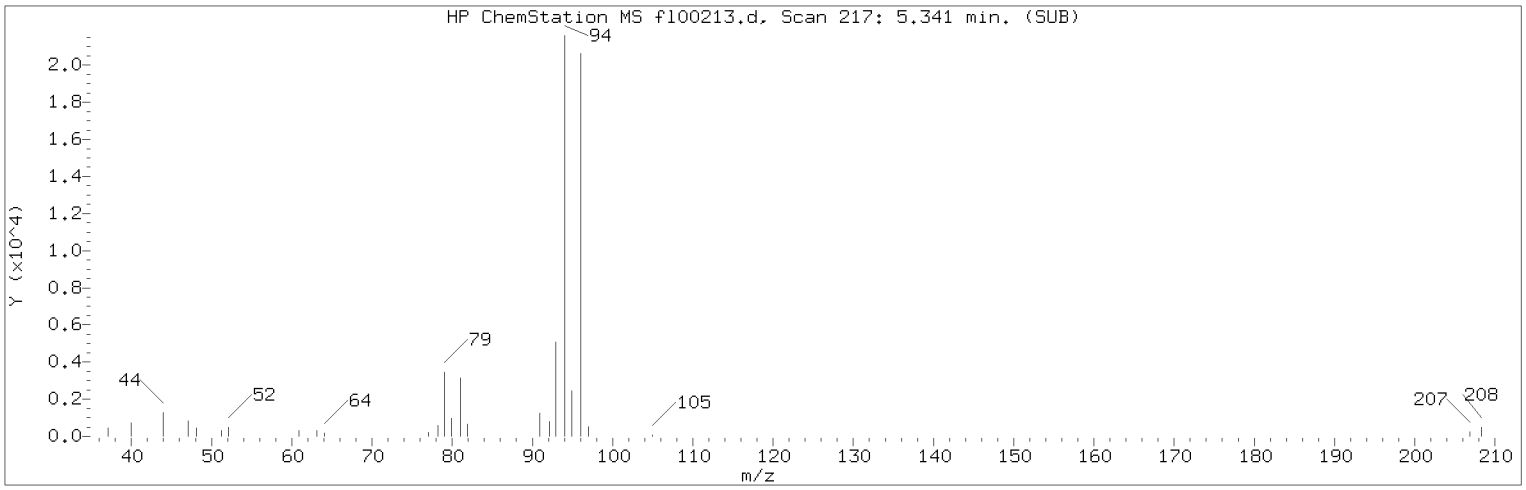
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 11:54 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

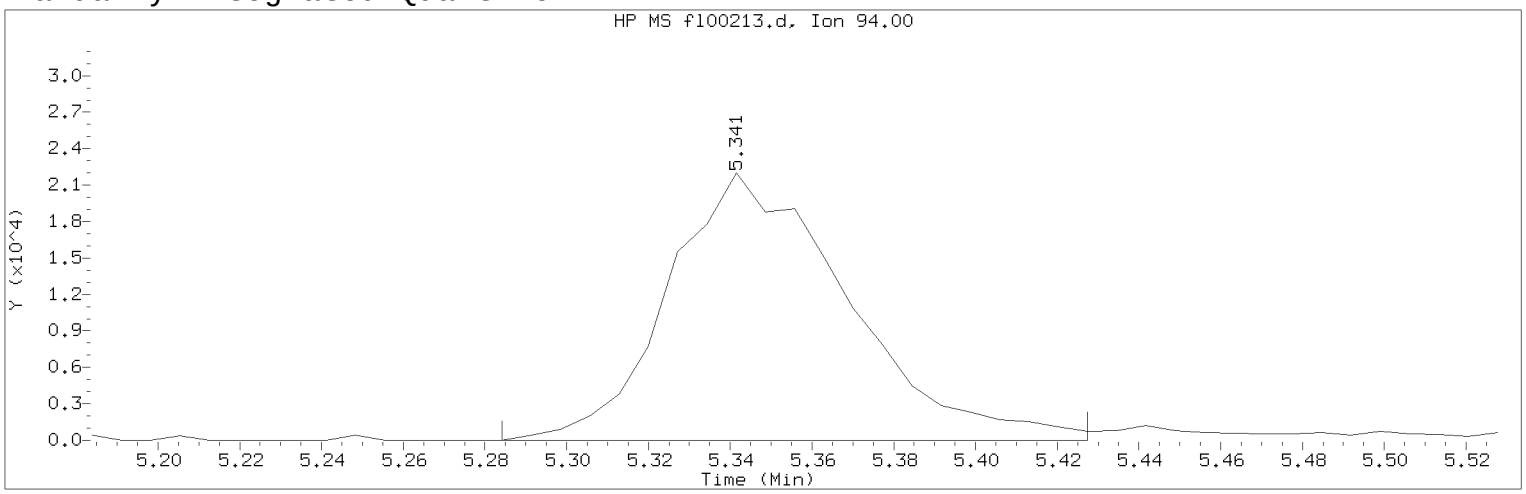
Compound Number : 1
Compound Name : Propene
Scan Number : 14
Retention Time (minutes): 3.887
Quant Ion : 41.00
Area : 94160
Concentration (ppb(v)) : 1.8457
Integration start scan : 5 Integration stop scan: 20
Y at integration start : 915 Y at integration end: 915

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

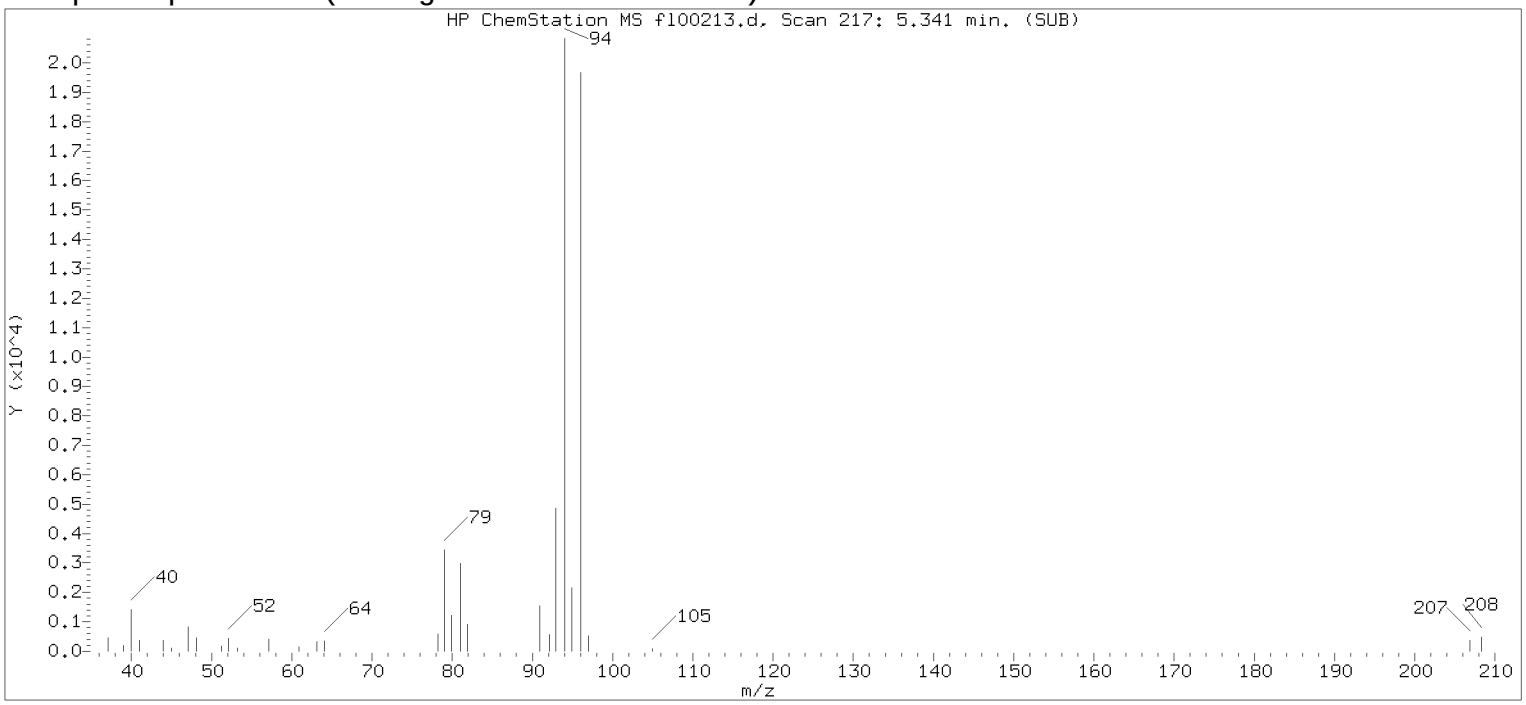
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 217
Retention Time (minutes): 5.341
Quant Ion : 94.00
Area (flag) : 67256M
Concentration (ppb(v)) : 1.9257
Integration start scan : 208 Integration stop scan: 228
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

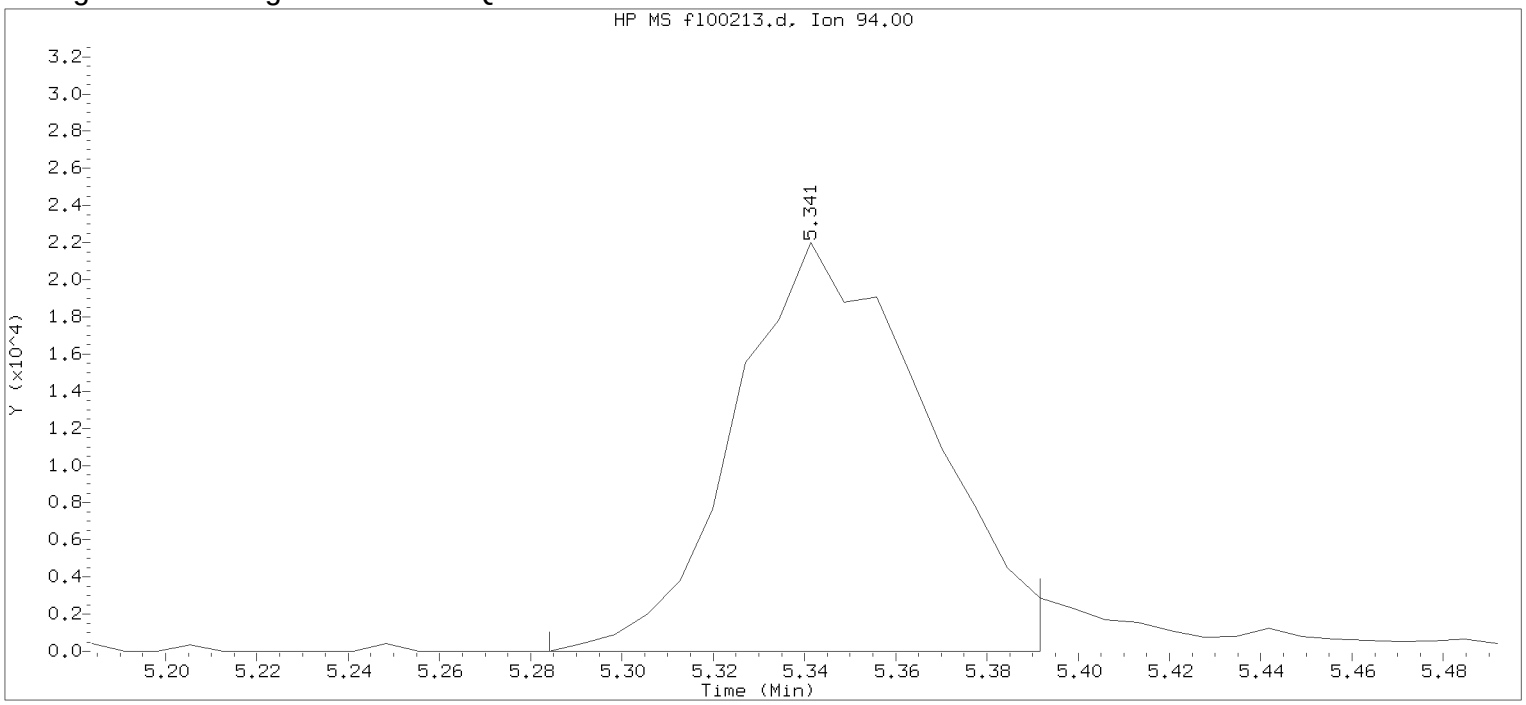
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

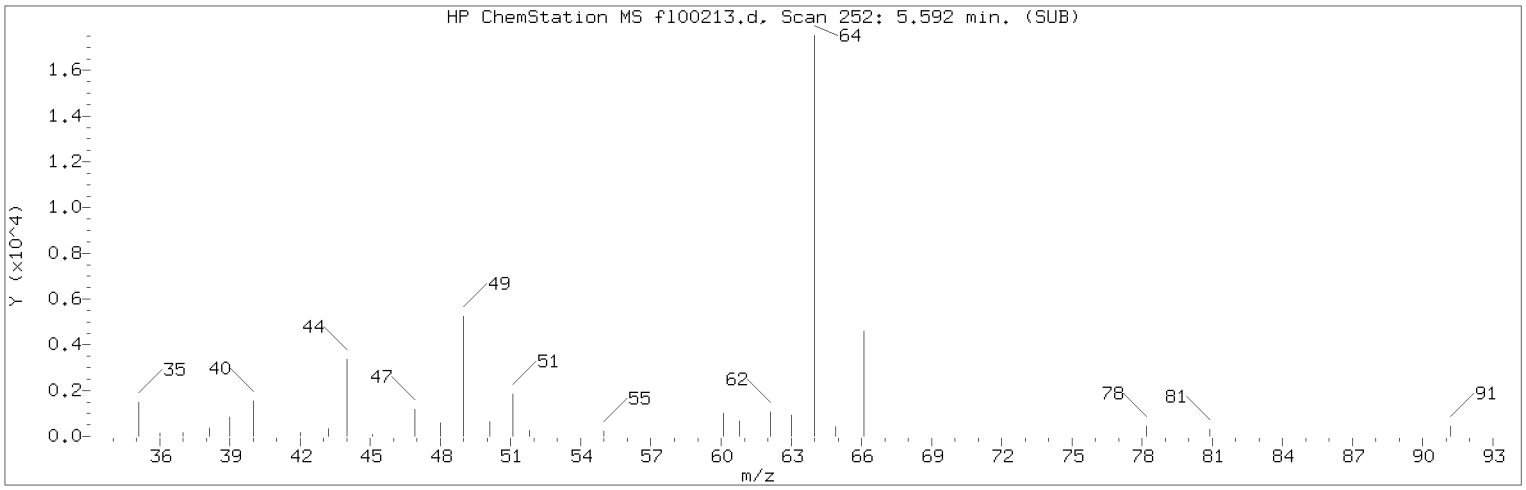
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 11:54 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

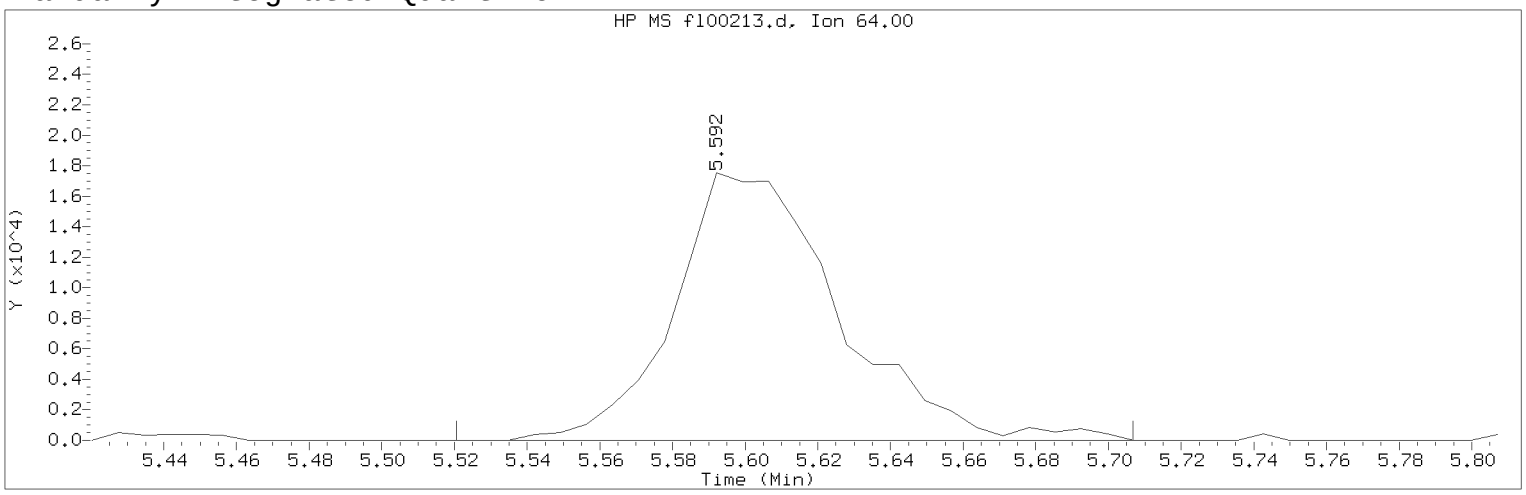
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 217
Retention Time (minutes): 5.341
Quant Ion : 94.00
Area : 63463
Concentration (ppb(v)) : 1.6751
Integration start scan : 208 Integration stop scan: 223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

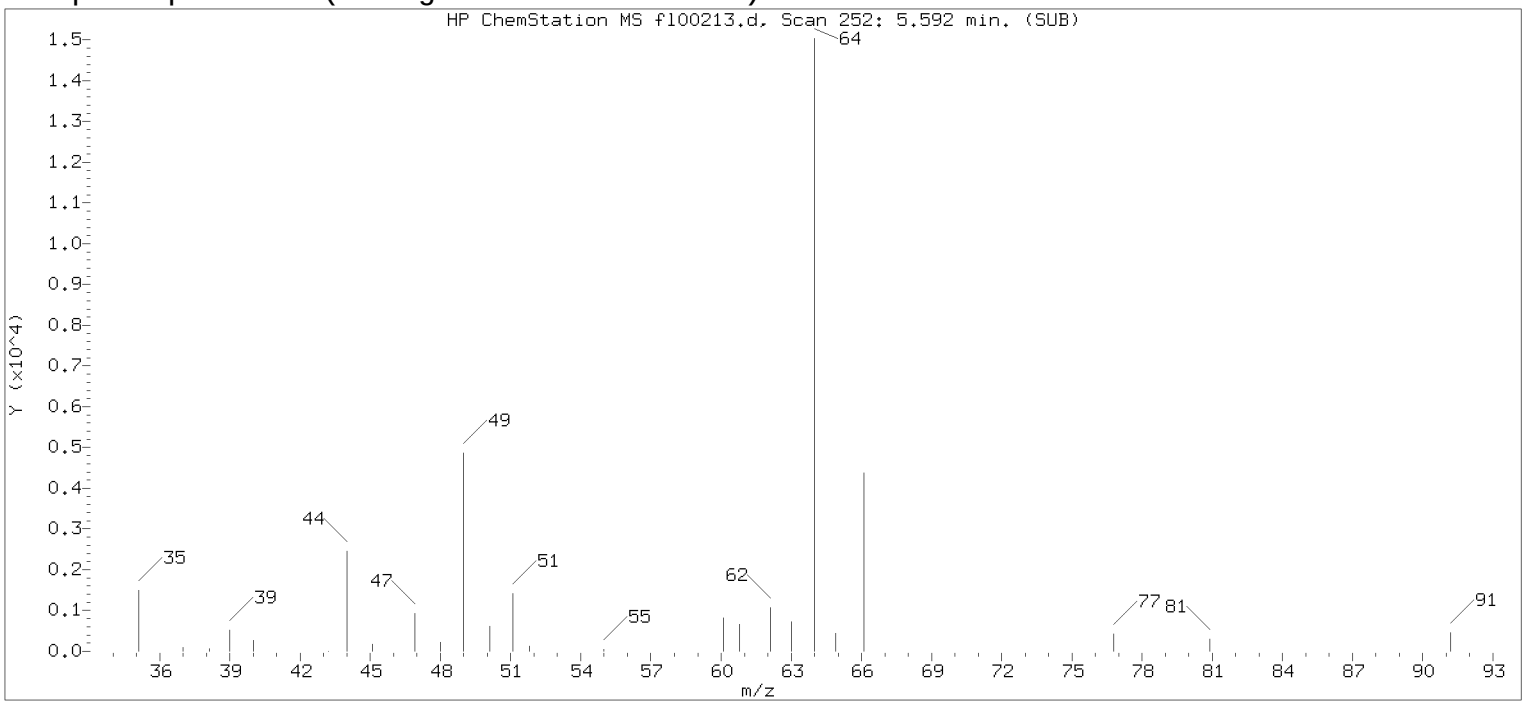
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 252
Retention Time (minutes): 5.592
Quant Ion : 64.00
Area (flag) : 55284M
Concentration (ppb(v)) : 2.1384
Integration start scan : 241 Integration stop scan: 267
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

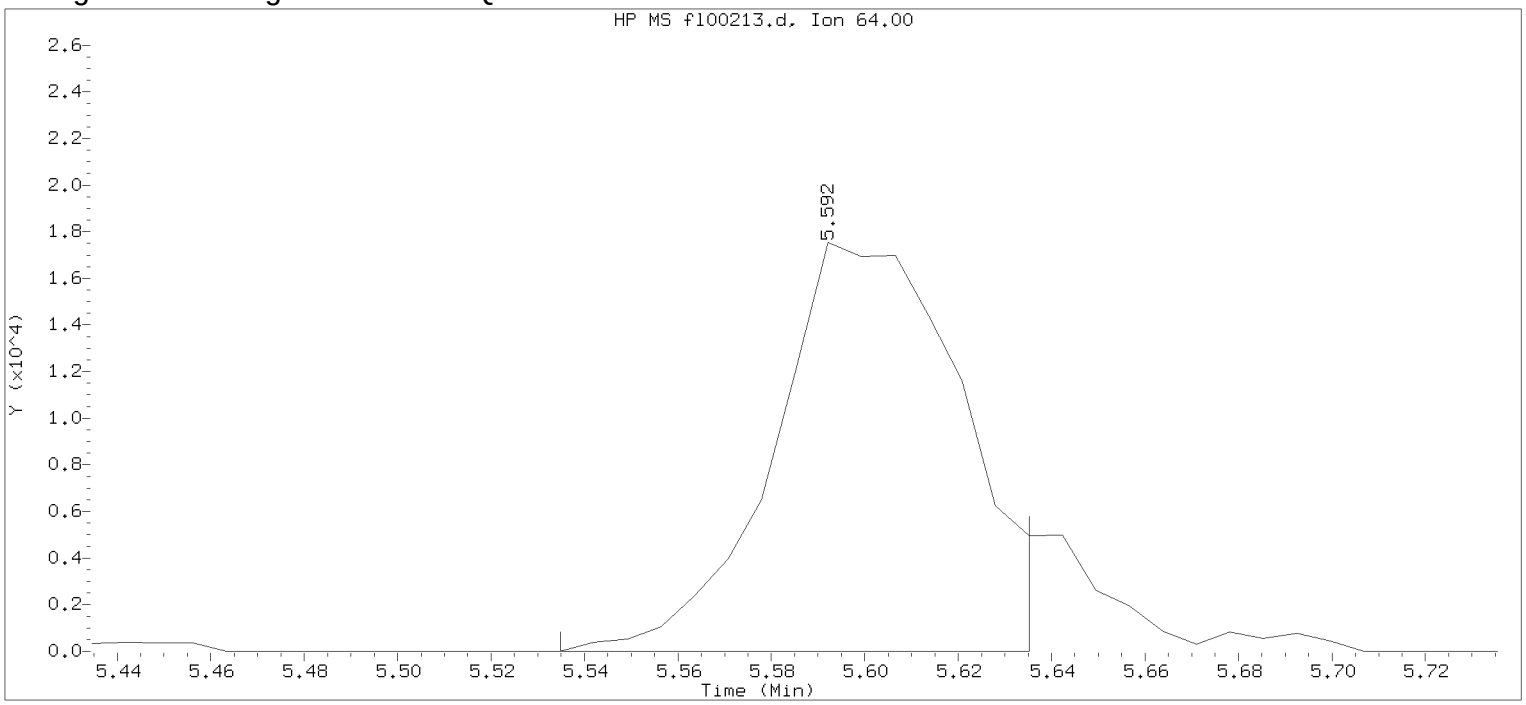
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



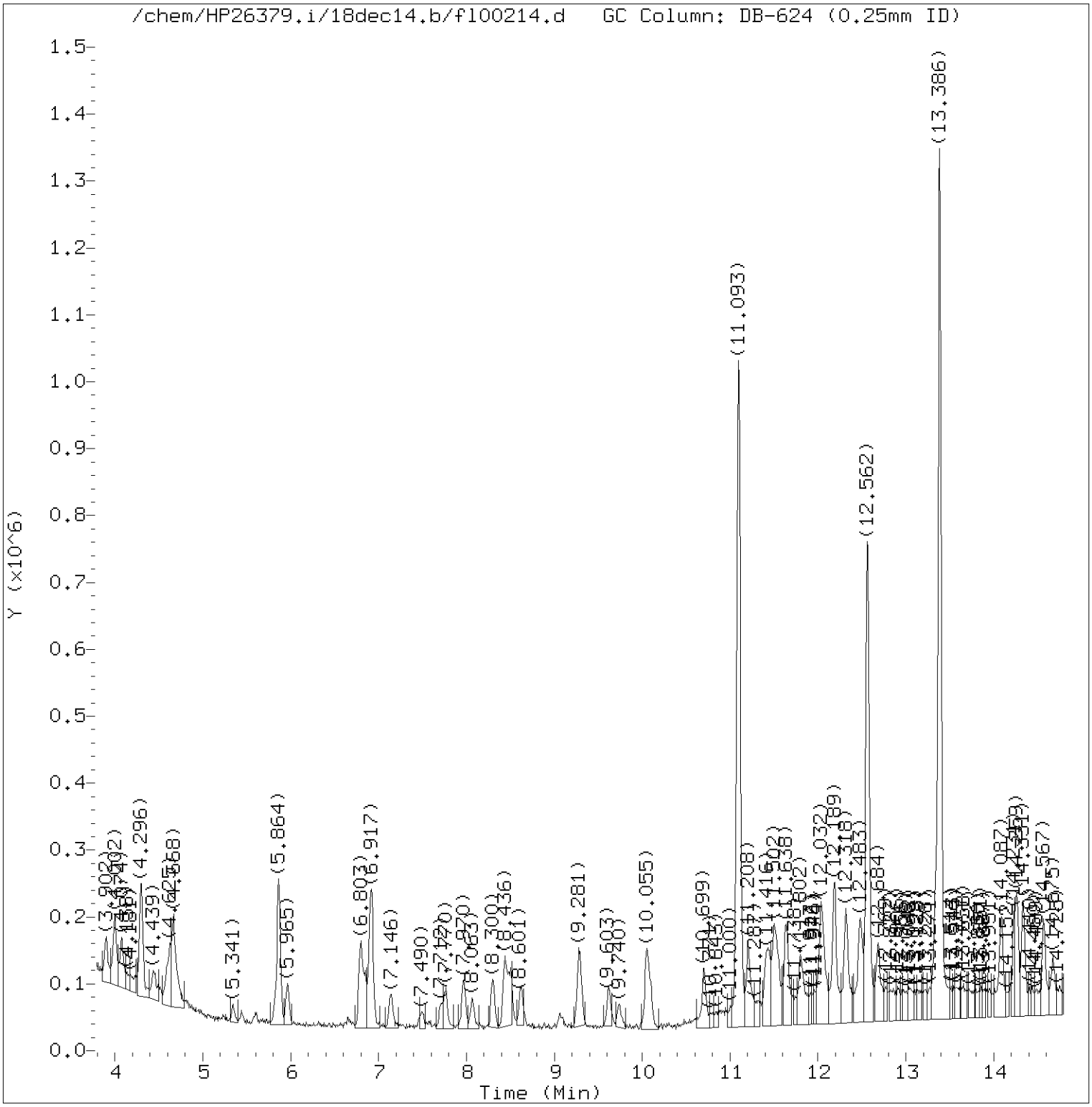
Data File: /chem/HP26379.i/18dec14.b/fl00213.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 11:54 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 252
Retention Time (minutes): 5.592
Quant Ion : 64.00
Area : 48502
Concentration (ppb(v)) : 1.8137
Integration start scan : 243 Integration stop scan: 257
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

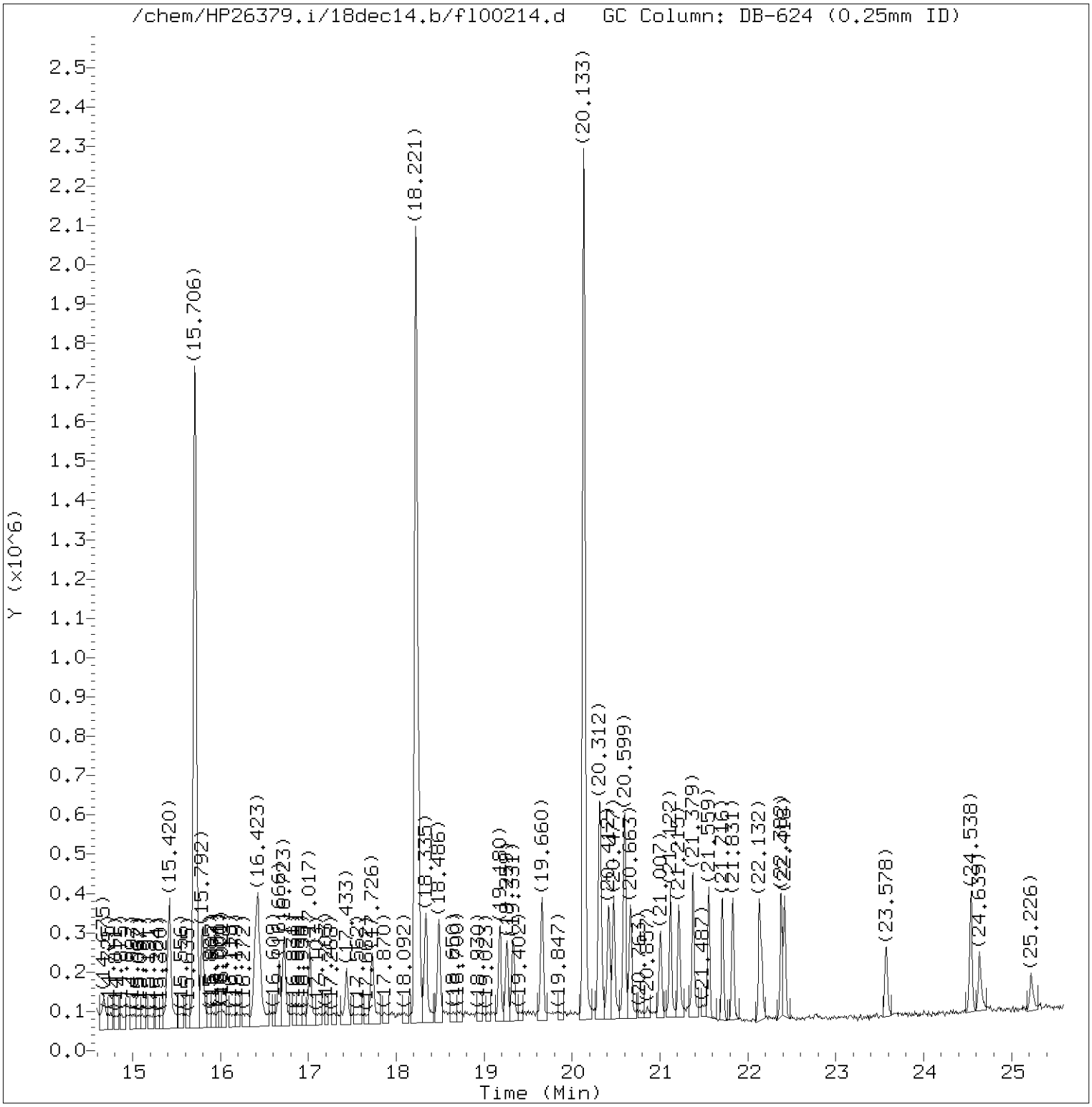
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

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on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.894	41	43174	0.858
2) Dichlorodifluoromethane	(1)	3.995	85	98771	0.823
3) Chlorodifluoromethane	(1)	4.081	51	104840	0.946
4) Freon 114	(1)	4.303	85	119157	0.979
5) Chloromethane	(1)	4.439	50	57892	0.977
6) Vinyl Chloride	(1)	4.632	62	36435	0.951
7) 1,3-Butadiene	(1)	4.661	54	37070	0.993
8) Bromomethane	(1)	5.356	94	28845	0.810
9) Chloroethane	(1)	5.606	64	26203M	0.928
10) Bromoethene	(1)	5.821	106	29835	0.824
11) Pentane	(1)	5.864	43	101237	0.934
12) Trichlorofluoromethane	(1)	5.871	101	127635	1.033
13) Dichlorofluoromethane	(1)	5.965	67	86879	0.828
14) Ethanol	(1)	6.659	45	18891	0.934
15) Freon123a	(1)	6.803	67	105679	1.115
16) 1,1-Dichloroethene	(1)	6.853	61	72006	0.830
17) Freon 113	(1)	6.910	103	74180	1.094
18) Carbon Disulfide	(1)	6.924	76	102038	0.849
19) Methyl Iodide	(1)	7.139	142	84572	0.875
20) Acrolein	(1)	7.497	56	19736M	0.880
21) Isopropanol	(1)	7.712	45	73587M	0.847
22) 3-Chloropropene	(1)	7.763	41	70506	0.972
23) Methylene Chloride	(1)	7.970	84	35208	0.980
24) Acetone	(1)	8.063	43	85675	0.908
25) trans-1,2-Dichloroethene	(1)	8.307	61	70404	0.851
26) Hexane	(1)	8.443	56	64339	1.020
27) Methyl t-Butyl Ether	(1)	8.500	73	110632	0.915
28) tert-Butyl Alcohol	(1)	8.615	59	113823	1.047
29) Acetonitrile	(1)	9.066	41	43819	0.830
30) Di-Isopropyl Ether	(1)	9.288	45	186757	0.919
31) 1,1-Dichloroethane	(1)	9.618	63	98527	0.937
32) Acrylonitrile	(1)	9.732	53	45226	0.869
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	159624	0.894
34) Vinyl Acetate	(1)	10.098	43	142594	0.939
35) cis-1,2-Dichloroethene	(1)	10.707	61	70712	0.896
36) 1,2-Dichloroethene (total)	(1)		61	141116	1.746
37)*Bromochloromethane	(1)	11.093	130	367994	10.000
38) Cyclohexane	(1)	11.108	56	95043	0.946

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.201	83	93295	0.922
40) Ethyl Acetate	(1)	11.416	43	131128	0.924
41) Methyl Acrylate	(1)	11.444	55	93881	0.868
42) Carbon Tetrachloride	(1)	11.502	117	91437	0.988
43) Tetrahydrofuran	(1)	11.537	42	60474	0.874
44) 1,1,1-Trichloroethane	(1)	11.638	97	101683	0.977
45) 2-Butanone	(1)	11.795	43	118047	0.907
46) Isooctane	(2)	12.032	57	249619	0.894
47) Heptane	(2)	12.189	71	41812	0.932
48) Benzene	(2)	12.318	78	134519	0.969
49) Tert-Amyl Methyl Ether	(2)	12.490	73	104596	0.893
50) 1,2-Dichloroethane	(2)	12.691	62	79747	0.959
51) Trichloroethene	(2)	13.343	130	55036	0.964
52)*1,4-Difluorobenzene	(2)	13.386	114	1235154	10.000
53) Dibromomethane	(2)	14.087	174	59770	0.948
54) Ethyl Acrylate	(2)	14.231	55	126273	0.953
55) 1,2-Dichloropropane	(2)	14.259	63	70347	1.012
56) Bromodichloromethane	(2)	14.338	83	104904	0.980
57) Methyl Methacrylate	(2)	14.567	69	42207	0.936
58) 1,4-Dioxane	(2)	14.675	88	28107	0.915
59) cis-1,3-Dichloropropene	(2)	15.398	75	77728	0.950
60) Octane	(3)	15.427	43	154366	0.994
61) Toluene	(3)	15.792	91	174163	1.067
62) 4-Methyl-2-Pentanone	(2)	16.394	43	173110	1.050
63) Tetrachloroethene	(3)	16.430	166	95063	1.007
64) trans-1,3-Dichloropropene	(3)	16.458	75	68522	0.978
66) Ethyl Methacrylate	(3)	16.666	69	73724	1.009
65) 1,3-Dichloropropene (total)	(3)		75	146250	1.941
67) 1,1,2-Trichloroethane	(3)	16.716	97	68958	1.085
68) Dibromochloromethane	(3)	17.017	127	79113	1.024
69) 1,2-Dibromoethane	(3)	17.433	107	97887	1.039
70) 2-Hexanone	(3)	17.726	43	159327	1.047
71)*Chlorobenzene-d5	(3)	18.221	117	1177222	10.000
72) Chlorobenzene	(3)	18.249	112	148322	1.060
73) Ethylbenzene	(3)	18.264	91	238181	1.062
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	75605	1.050
75) m/p-Xylene	(3)	18.486	91	170286	1.050
76) o-Xylene	(3)	19.173	91	152957	0.966

* = Compound is an internal standard.

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on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	323243	2.018
78) Styrene	(3)	19.259	104	107023	0.949
79) Bromoform	(3)	19.324	173	112467	1.037
80) Cumene	(3)	19.660	105	214411	0.979
81) n-Propylbenzene	(3)	20.312	120	60172	0.963
82) Bromobenzene	(3)	20.326	156	90822	1.032
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	158434	1.119
84) 4-Ethyltoluene	(3)	20.477	105	212930	0.978
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	174493	0.944
85) 2-Chlorotoluene	(3)	20.599	126	58013	0.996
87) 1,2,3-Trichloropropane	(3)	20.670	110	47481	1.109
88) Alpha Methyl Styrene	(3)	21.000	118	72116	0.934
89) tert-Butylbenzene	(3)	21.122	119	161930	0.943
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	161764	0.918
91) sec-Butylbenzene	(3)	21.372	105	258154	0.960
92) p-Isopropyltoluene	(3)	21.559	119	189086	0.914
93) 1,3-Dichlorobenzene	(3)	21.716	146	139886	1.014
94) 1,4-Dichlorobenzene	(3)	21.831	146	141589	1.036
95) n-Butylbenzene	(3)	22.132	92	106890	0.892
96) Benzyl Chloride	(3)	22.160	126	22744	0.870
97) Hexachloroethane	(3)	22.382	117	48041	0.880
98) 1,2-Dichlorobenzene	(3)	22.418	146	132290	1.043
99) 1,2-Dibromo-3-chloropropane	(3)	23.571	157	49935	0.901
100) Hexachlorobutadiene	(3)	24.538	225	80983	1.024
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	69628	0.886
102) Naphthalene	(3)	25.226	128	104750	0.788

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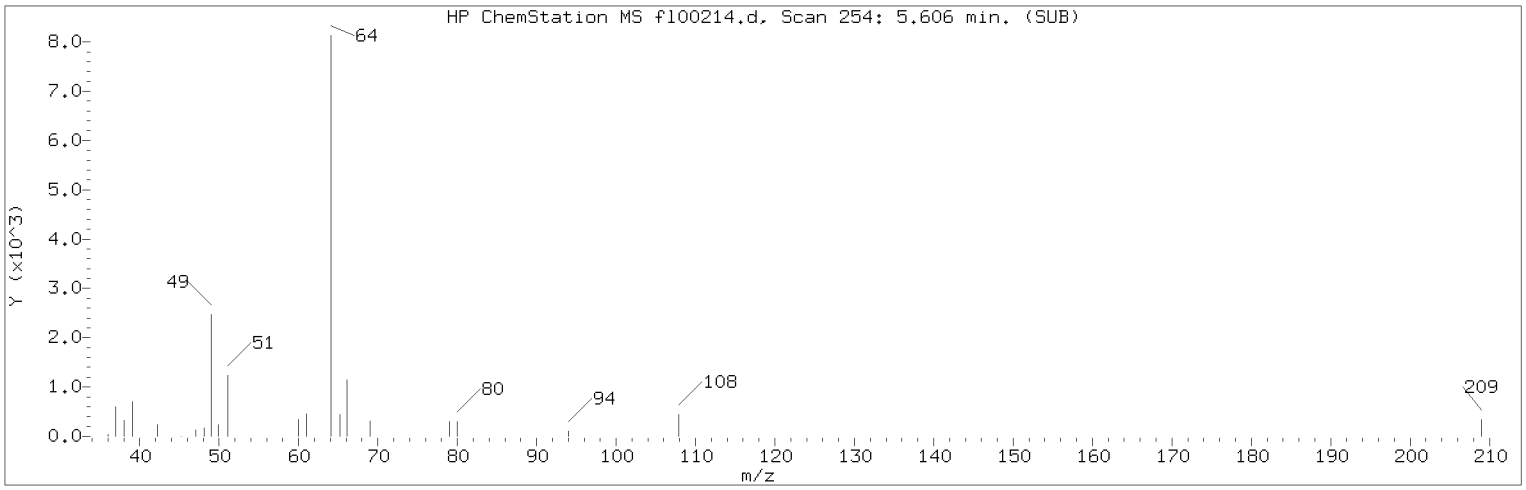
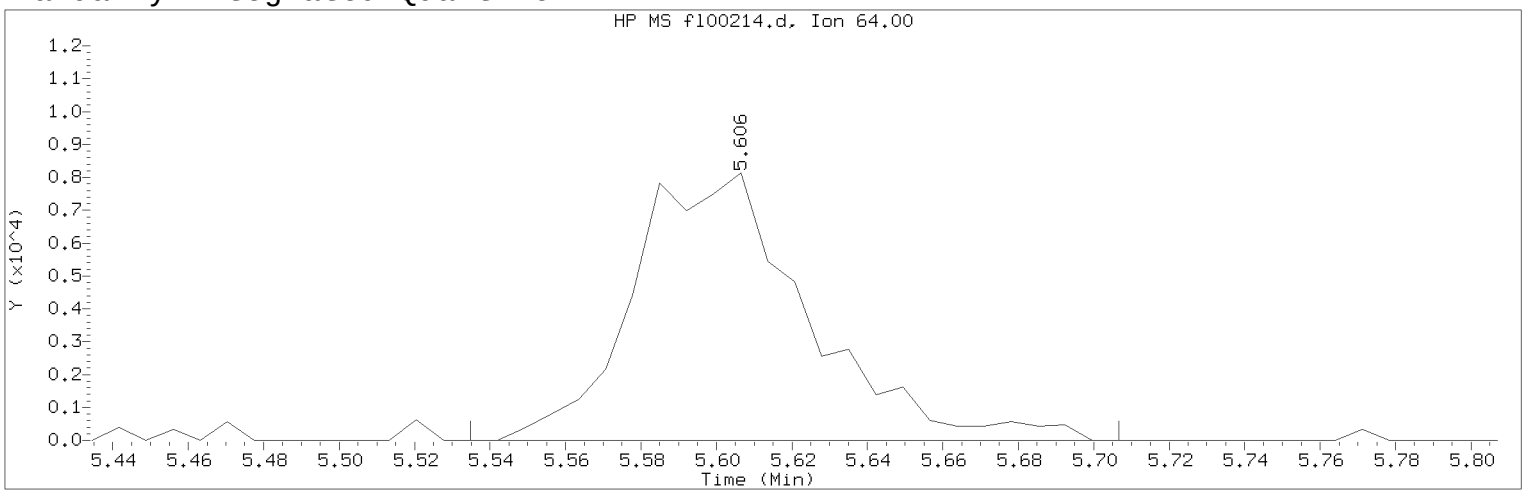
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

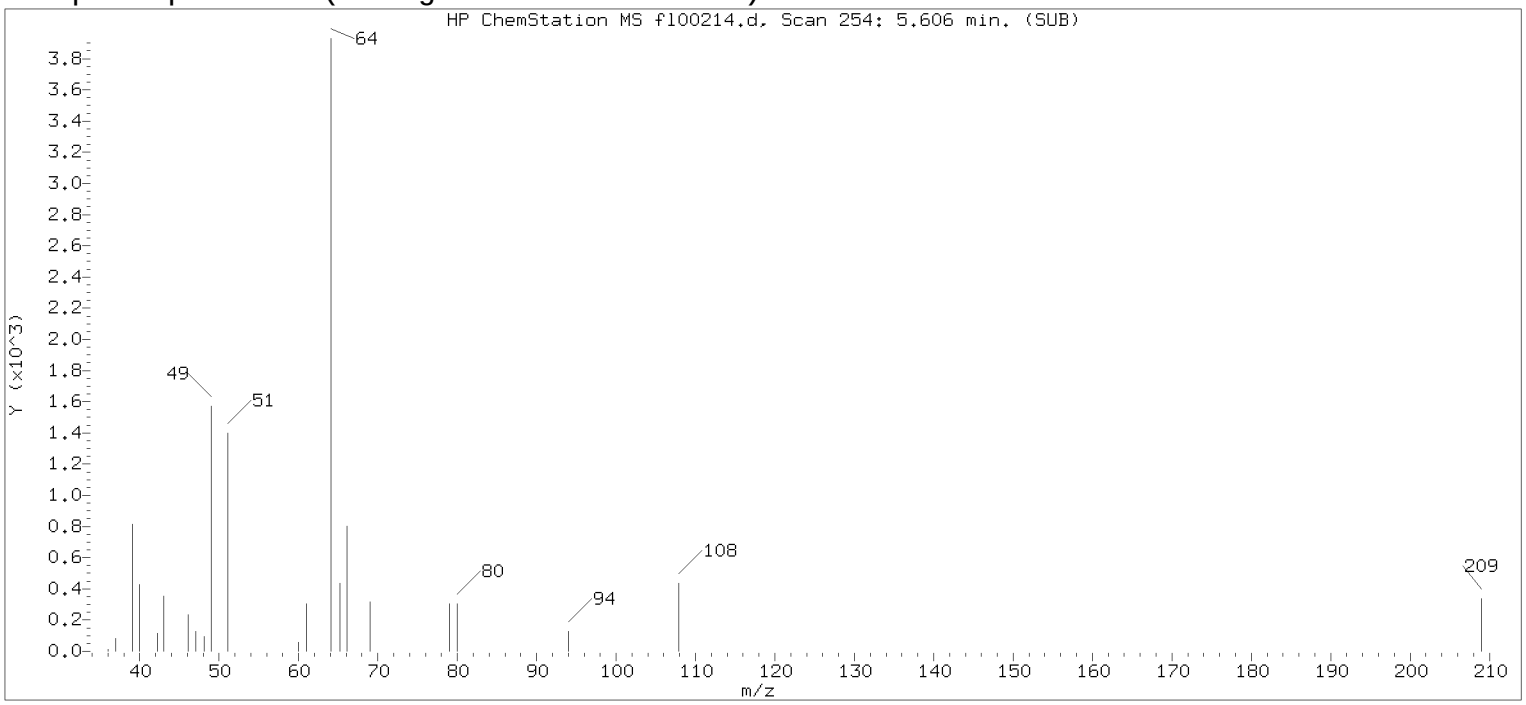
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 254
Retention Time (minutes): 5.606
Quant Ion : 64.00
Area (flag) : 26203M
Concentration (ppb(v)) : 0.9277
Integration start scan : 243 Integration stop scan: 267
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

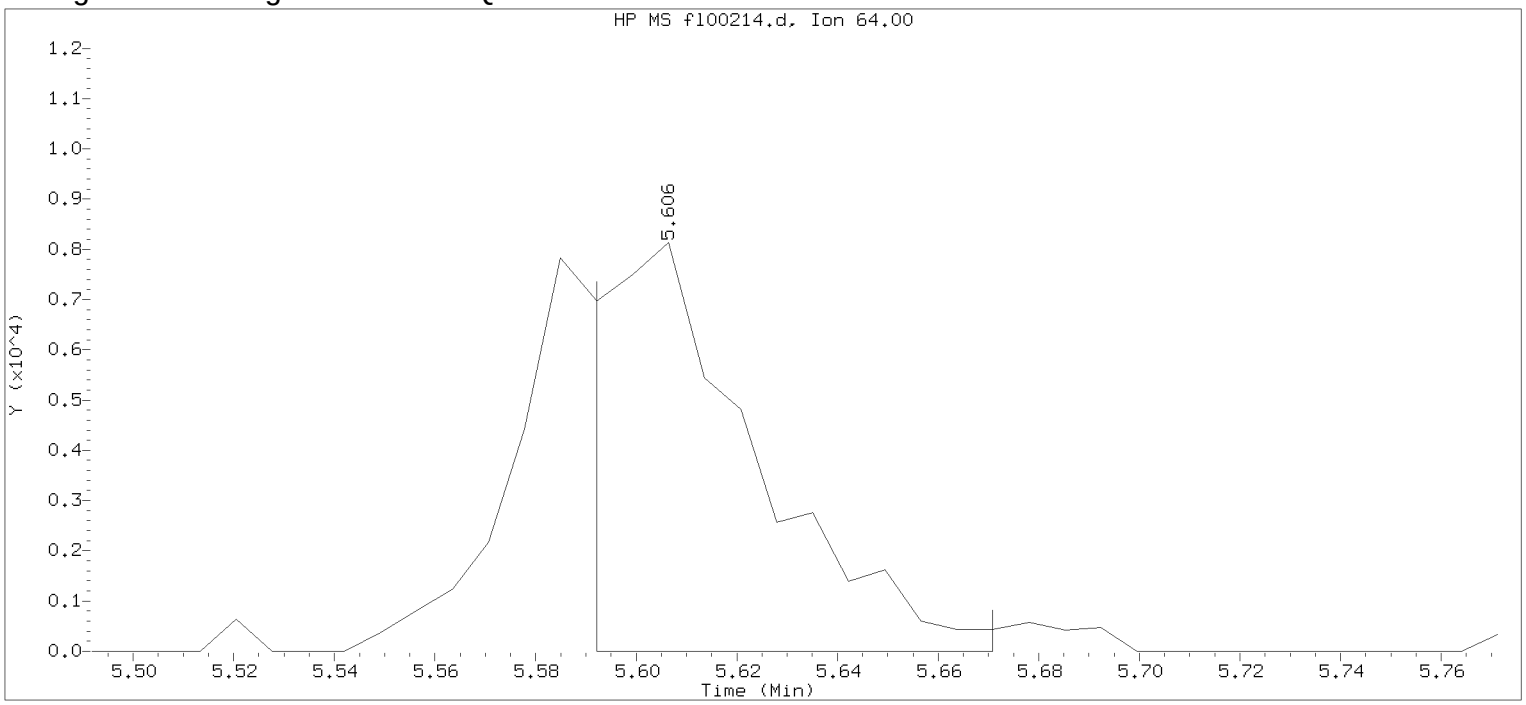
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

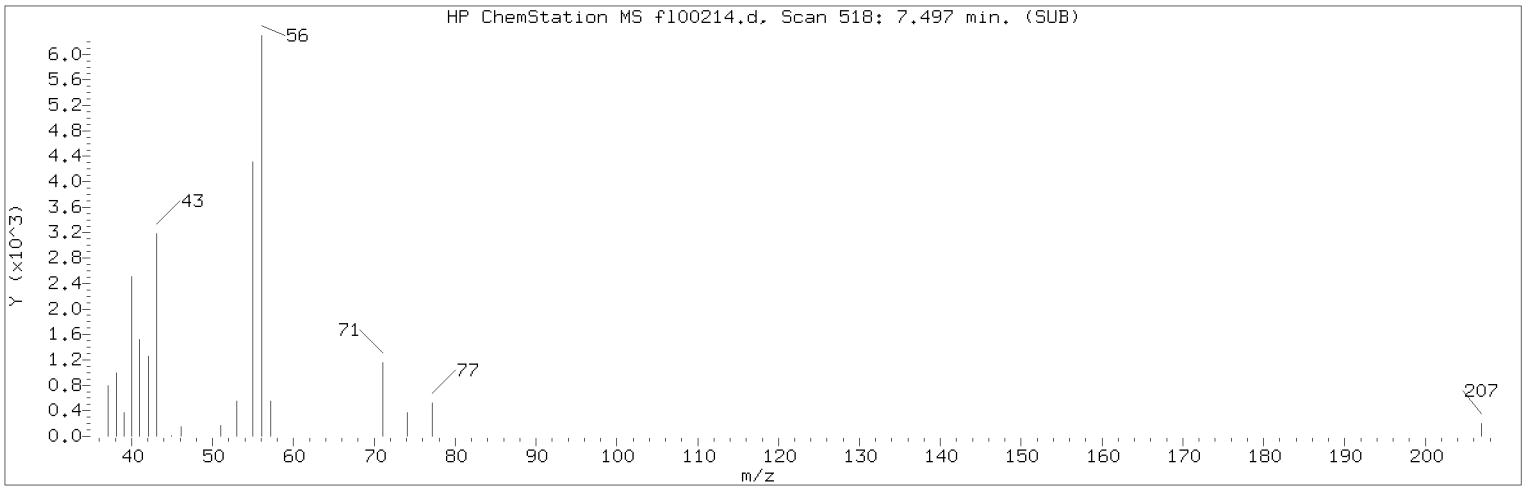
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 12:24 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

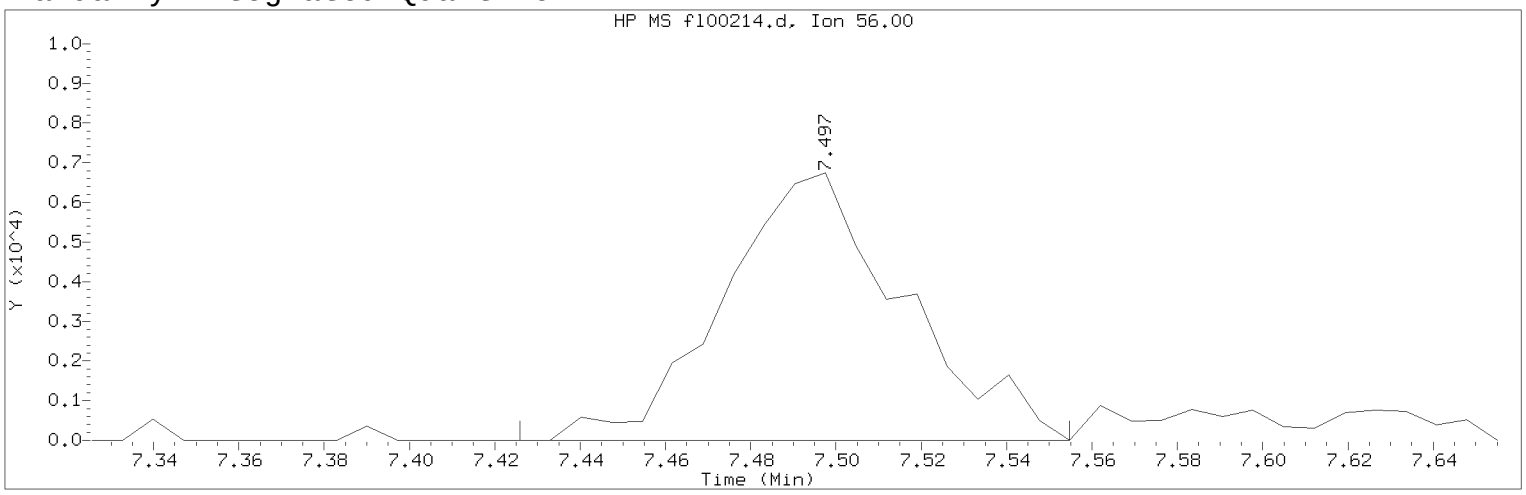
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 254
Retention Time (minutes): 5.606
Quant Ion : 64.00
Area : 16744
Concentration (ppb(v)) : 0.6143
Integration start scan : 251 Integration stop scan: 262
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

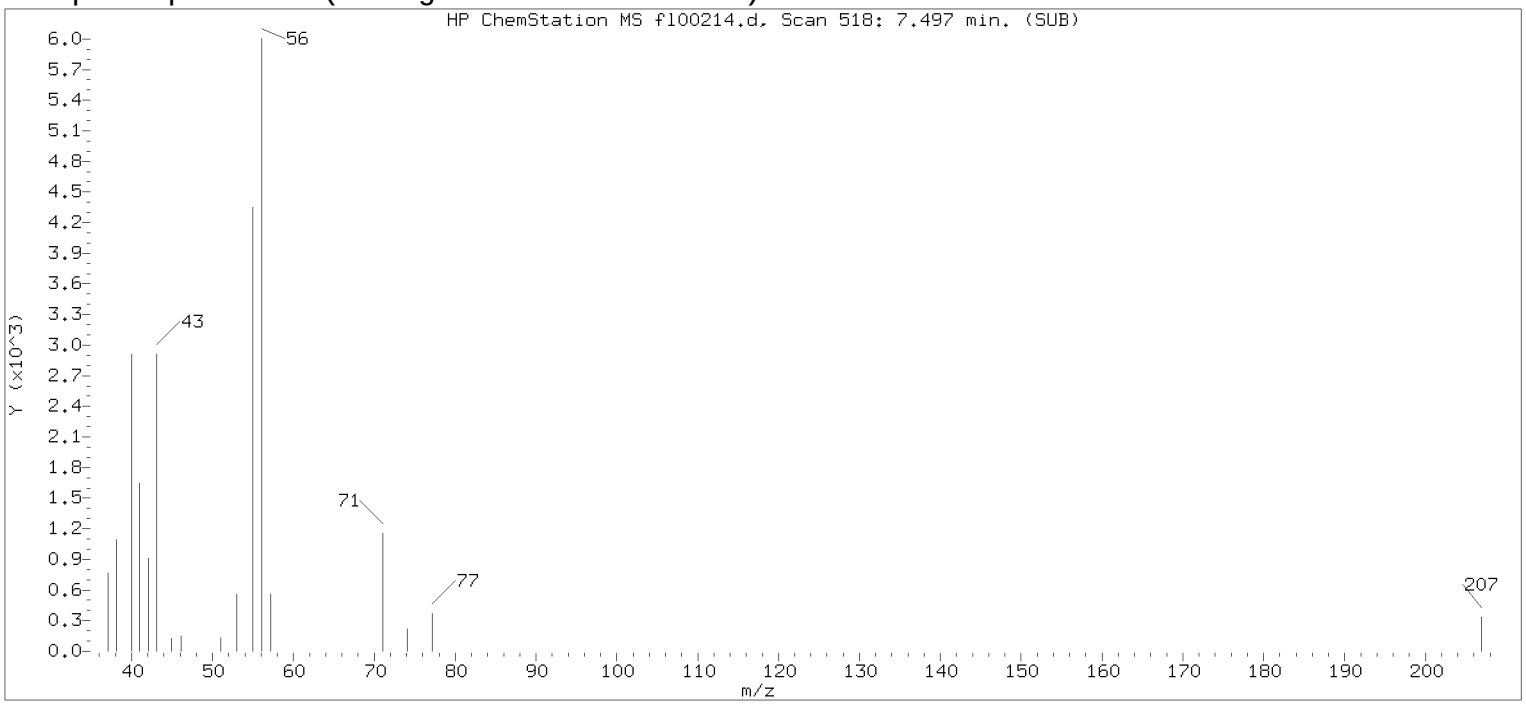
Compound Number : 20
Compound Name : Acrolein
Scan Number : 518
Retention Time (minutes): 7.497
Quant Ion : 56.00
Area (flag) : 19736M
Concentration (ppb(v)) : 0.8796
Integration start scan : 507 Integration stop scan: 525
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

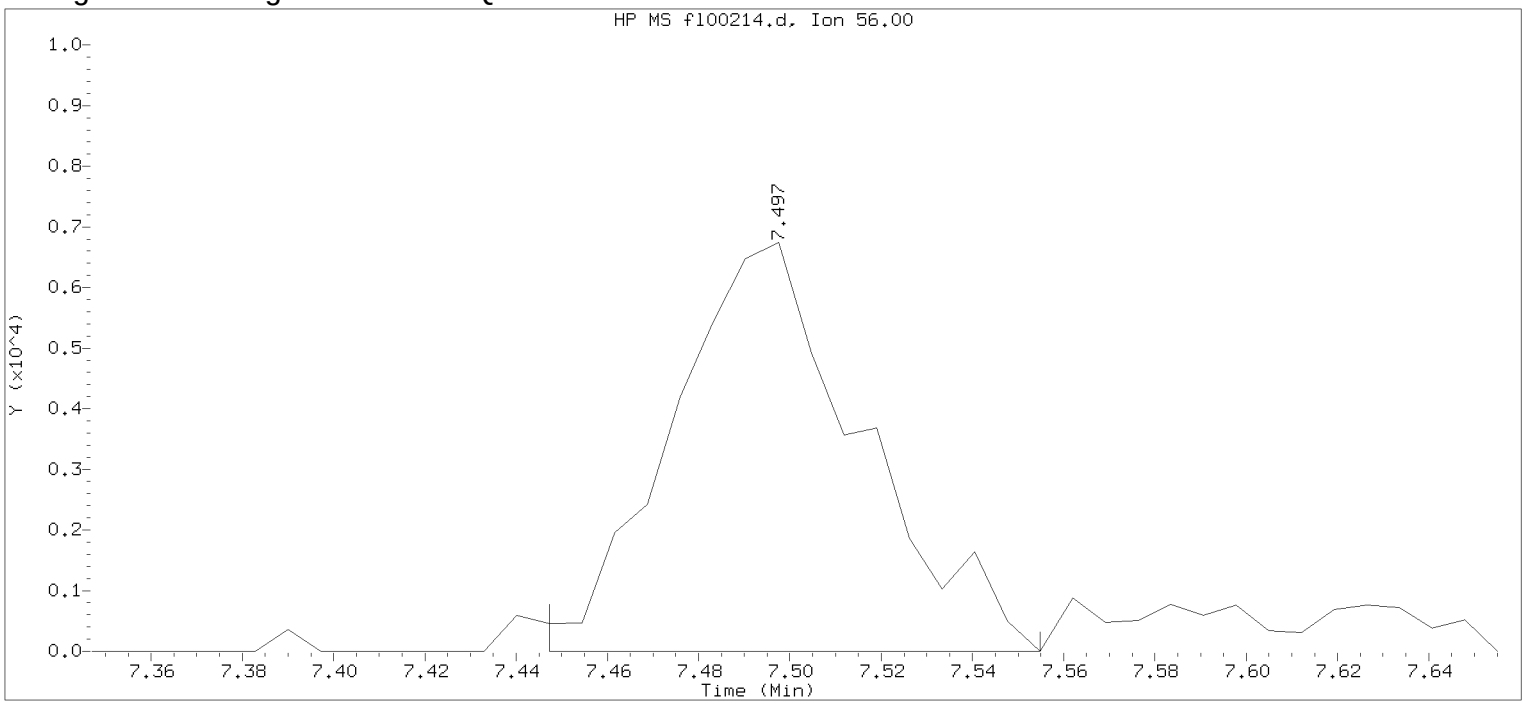
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

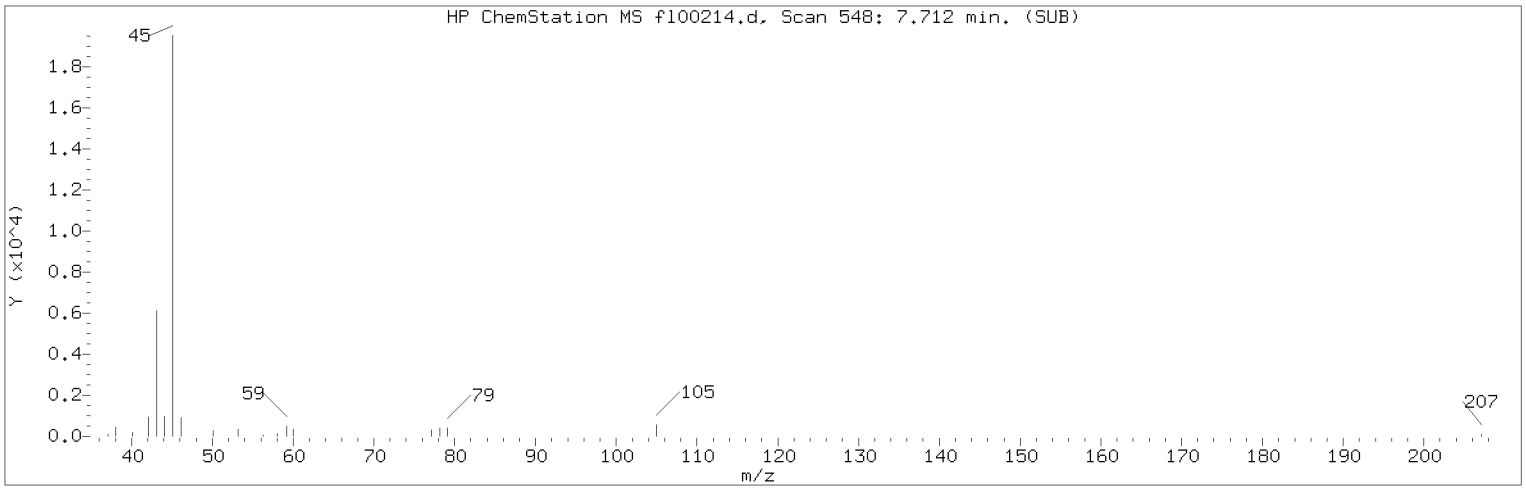
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 12:24 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

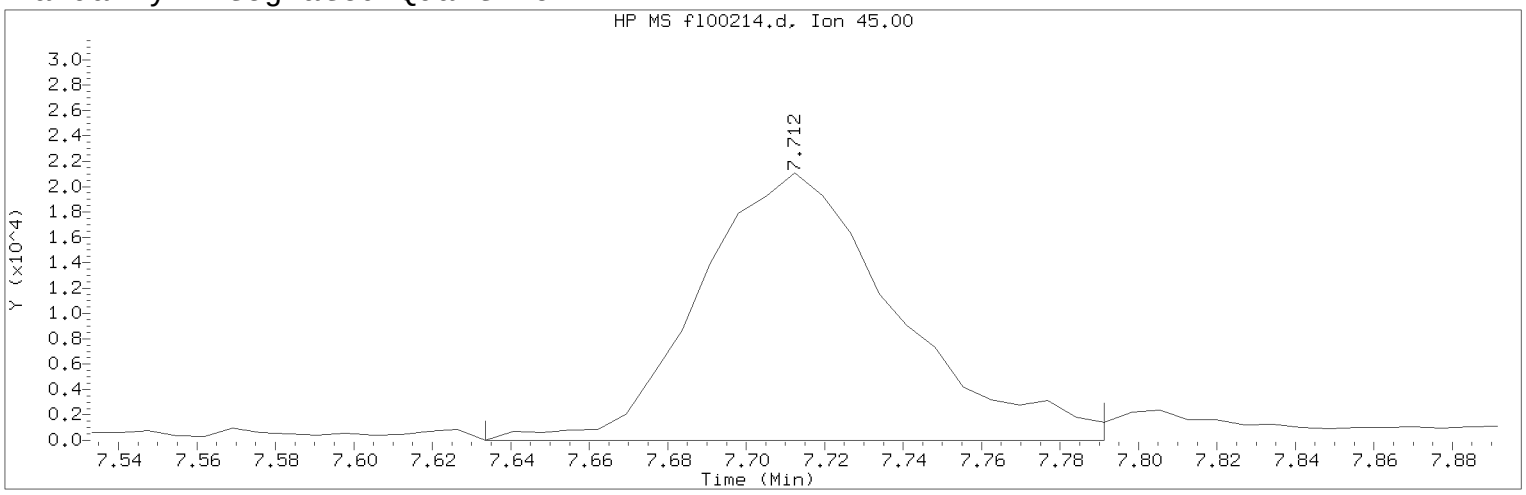
Compound Number : 20
Compound Name : Acrolein
Scan Number : 518
Retention Time (minutes): 7.497
Quant Ion : 56.00
Area : 19385
Concentration (ppb(v)) : 0.8501
Integration start scan : 510 Integration stop scan: 525
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID=jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:02
Date, time and analyst ID of latest file update: 14-Dec-2018 13:02 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

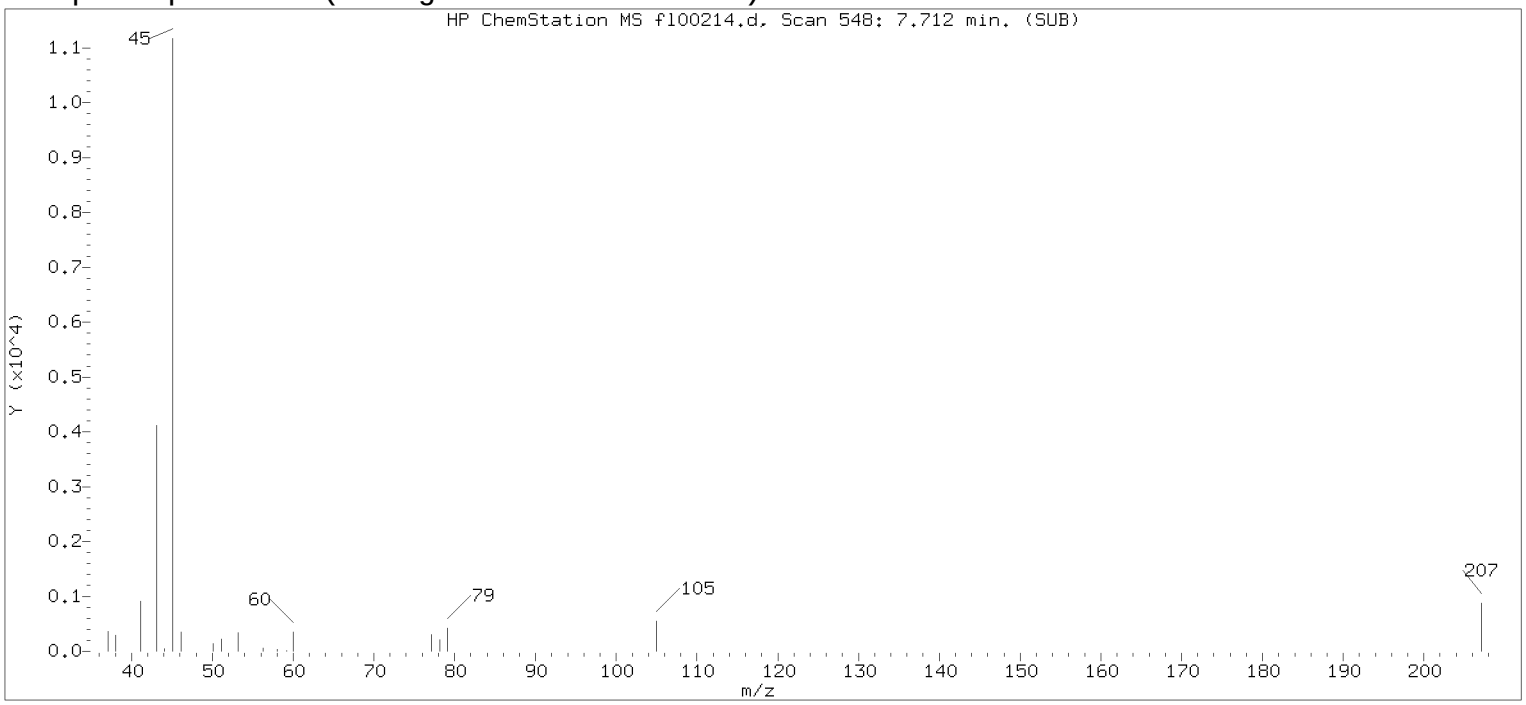
Compound Number : 21
Compound Name : Isopropanol
Scan Number : 548
Retention Time (minutes): 7.712
Quant Ion : 45.00
Area (flag) : 73587M
Concentration (ppb(v)) : 0.8471
Integration start scan : 536 Integration stop scan: 558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

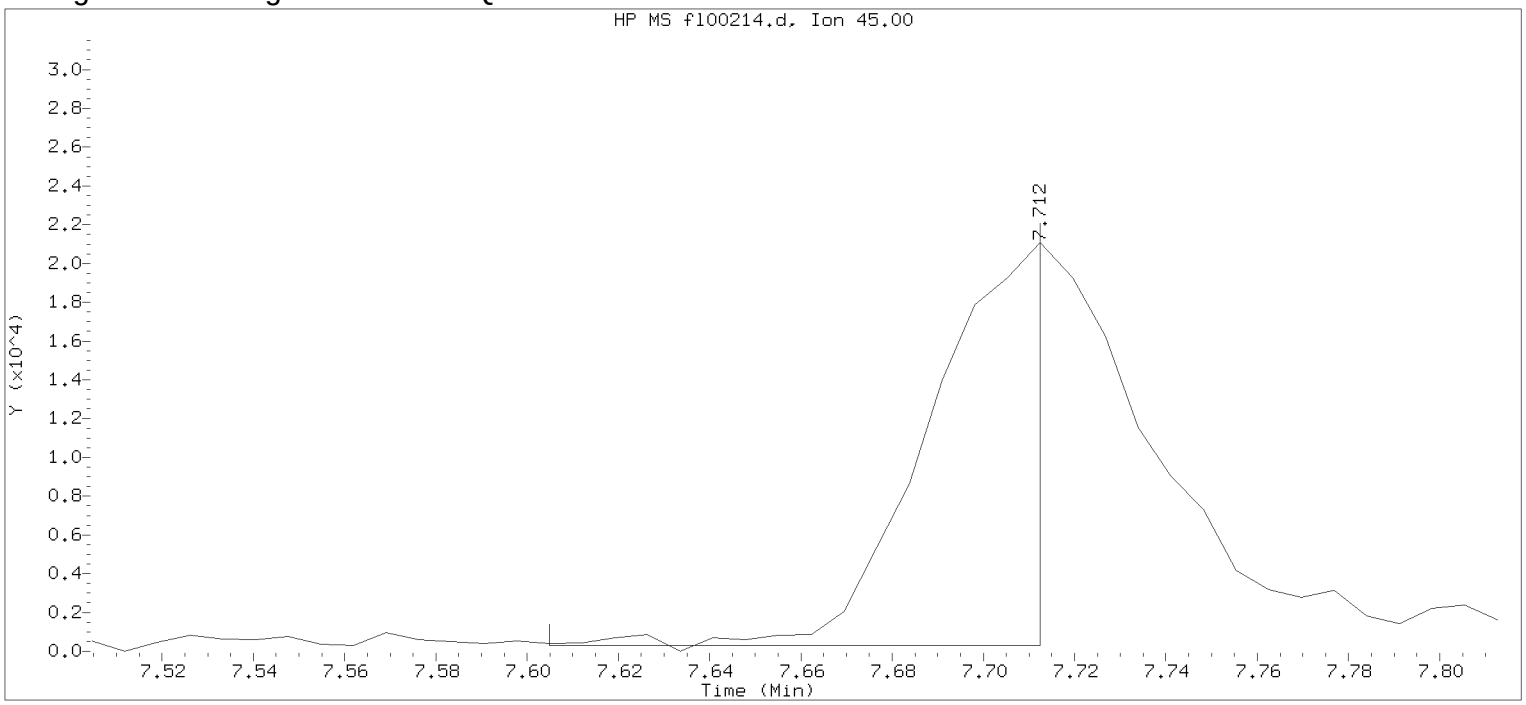
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:26.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



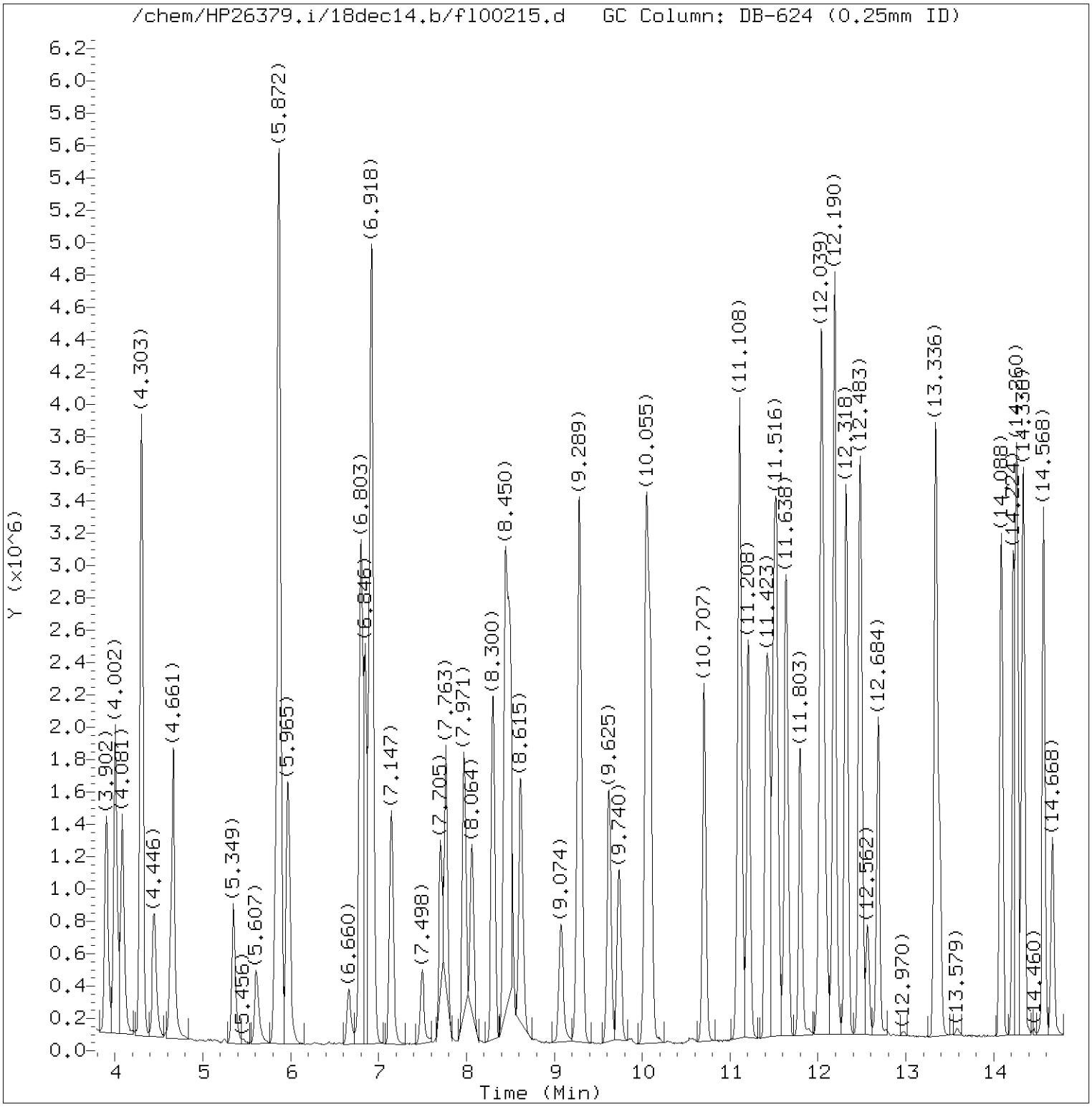
Data File: /chem/HP26379.i/18dec14.b/fl00214.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 11:51 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 12:24 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 21
Compound Name : Isopropanol
Scan Number : 548
Retention Time (minutes): 7.712
Quant Ion : 45.00
Area : 33673
Concentration (ppb(v)) : 0.3700
Integration start scan : 532 Integration stop scan: 547
Y at integration start : 303 Y at integration end: 303

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:26.
Target 3.5 esignature userID: jeb07445



Total Ion Chromatogram (TIC)

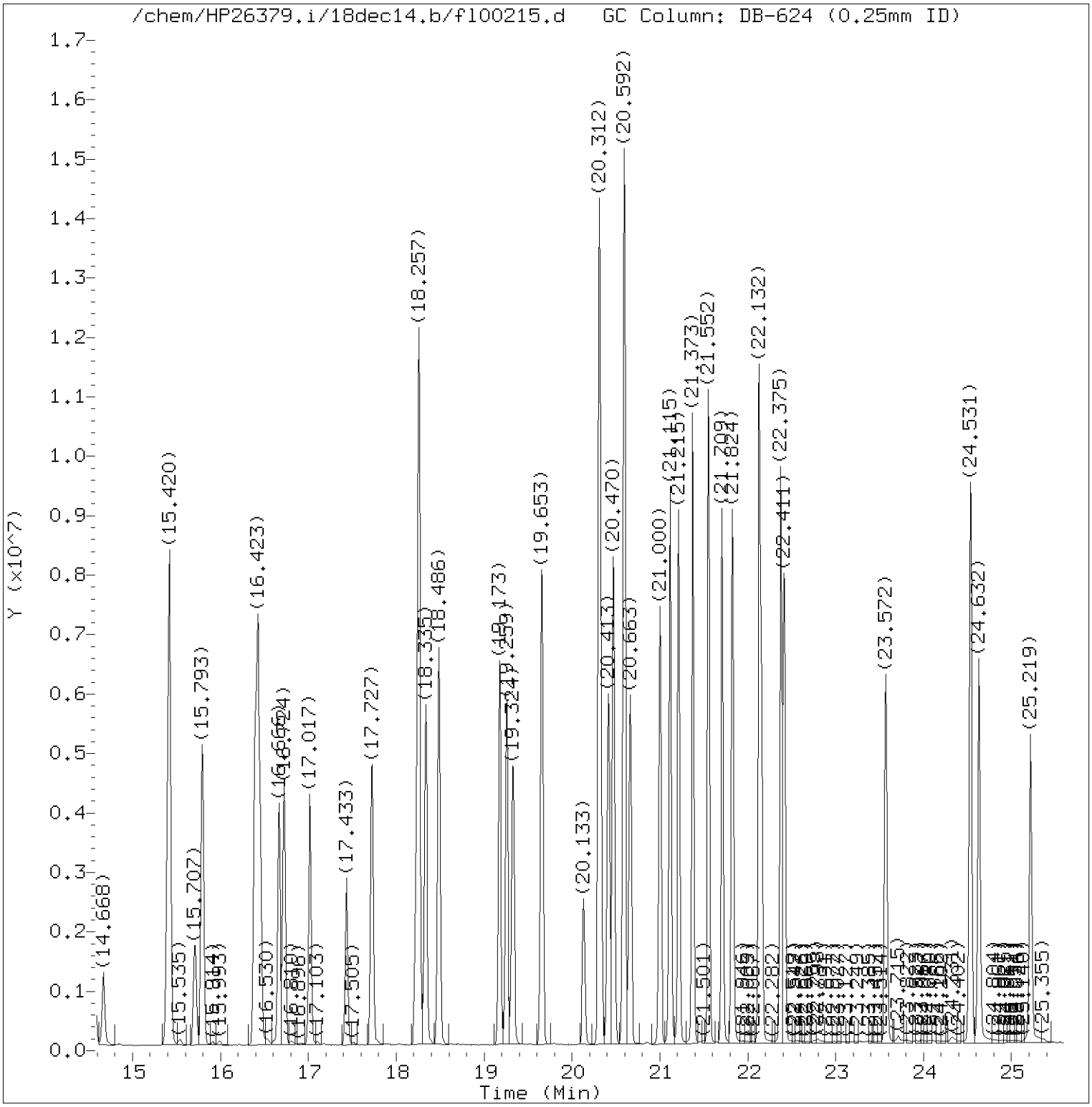
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	1313354	25.823
2) Dichlorodifluoromethane	(1)	4.002	85	3186126	26.323
3) Chlorodifluoromethane	(1)	4.081	51	2818017	25.556
4) Freon 114	(1)	4.303	85	3042980	25.036
5) Chloromethane	(1)	4.446	50	1481091	25.295
6) Vinyl Chloride	(1)	4.640	62	954367	24.714
7) 1,3-Butadiene	(1)	4.668	54	898299	23.733
8) Bromomethane	(1)	5.349	94	937448	25.909
9) Chloroethane	(1)	5.607	64	743936	26.131
10) Bromoethene	(1)	5.829	106	992618	26.750
11) Pentane	(1)	5.865	43	2866068	26.237
12) Trichlorofluoromethane	(1)	5.872	101	3032700	24.732
13) Dichlorofluoromethane	(1)	5.965	67	2737172	26.021
14) Ethanol	(1)	6.660	45	506366	24.399
15) Freon123a	(1)	6.796	67	2628836	27.858
16) 1,1-Dichloroethene	(1)	6.846	61	2357936	26.687
17) Freon 113	(1)	6.910	103	1623478	24.369
18) Carbon Disulfide	(1)	6.932	76	3213073	26.483
19) Methyl Iodide	(1)	7.147	142	2618861	27.350
20) Acrolein	(1)	7.498	56	603048	26.276
21) Isopropanol	(1)	7.705	45	2377120	26.268
22) 3-Chloropropene	(1)	7.763	41	2224513	29.987
23) Methylene Chloride	(1)	7.971	84	1065999	29.501
24) Acetone	(1)	8.064	43	2403481	25.419
25) trans-1,2-Dichloroethene	(1)	8.300	61	2201249	26.260
26) Hexane	(1)	8.443	56	1615210	25.631
27) Methyl t-Butyl Ether	(1)	8.501	73	3233971	26.585
28) tert-Butyl Alcohol	(1)	8.615	59	3148326	28.404
29) Acetonitrile	(1)	9.074	41	1423917	26.661
30) Di-Isopropyl Ether	(1)	9.289	45	5487423	26.581
31) 1,1-Dichloroethane	(1)	9.625	63	2665834	25.302
32) Acrylonitrile	(1)	9.733	53	1393536	26.369
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	4915939M	26.926
34) Vinyl Acetate	(1)	10.098	43	4903680	31.295
35) cis-1,2-Dichloroethene	(1)	10.707	61	2105461	26.244
36) 1,2-Dichloroethene (total)	(1)		61	4306710	52.503
37)*Bromochloromethane	(1)	11.094	130	366597	10.000
38) Cyclohexane	(1)	11.115	56	2716530	26.651

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	2615252	25.788
40) Ethyl Acetate	(1)	11.409	43	3692163	25.778
41) Methyl Acrylate	(1)	11.445	55	2961780	26.802
42) Carbon Tetrachloride	(1)	11.502	117	2403674	25.732
43) Tetrahydrofuran	(1)	11.538	42	1909711	27.161
44) 1,1,1-Trichloroethane	(1)	11.638	97	2643575	25.505
45) 2-Butanone	(1)	11.796	43	3373956	25.782
46) Isooctane	(2)	12.046	57	7990552	26.936
47) Heptane	(2)	12.190	71	1251876	26.232
48) Benzene	(2)	12.318	78	3646472	25.166
49) Tert-Amyl Methyl Ether	(2)	12.483	73	3297604	26.394
50) 1,2-Dichloroethane	(2)	12.684	62	2177718	25.062
51) Trichloroethene	(2)	13.336	130	1522316	25.293
52)*1,4-Difluorobenzene	(2)	13.386	114	1295638	10.000
53) Dibromomethane	(2)	14.088	174	1646942	24.920
54) Ethyl Acrylate	(2)	14.224	55	3710453	26.178
55) 1,2-Dichloropropane	(2)	14.260	63	1774854	24.646
56) Bromodichloromethane	(2)	14.338	83	2755730	24.697
57) Methyl Methacrylate	(2)	14.568	69	1242363	25.739
58) 1,4-Dioxane	(2)	14.668	88	836227	25.676
59) cis-1,3-Dichloropropene	(2)	15.399	75	2213962	25.539
60) Octane	(3)	15.420	43	4371064	26.258
61) Toluene	(3)	15.793	91	4184422	24.128
62) 4-Methyl-2-Pentanone	(2)	16.394	43	4275839	24.942
63) Tetrachloroethene	(3)	16.423	166	2380625	23.868
64) trans-1,3-Dichloropropene	(3)	16.459	75	1905669	25.155
66) Ethyl Methacrylate	(3)	16.666	69	2101901	26.157
65) 1,3-Dichloropropene (total)	(3)		75	4119631	50.499
67) 1,1,2-Trichloroethane	(3)	16.724	97	1565313	23.361
68) Dibromochloromethane	(3)	17.017	127	1959302	23.710
69) 1,2-Dibromoethane	(3)	17.433	107	2379883	23.771
70) 2-Hexanone	(3)	17.727	43	4033701	24.803
71)*Chlorobenzene-d5	(3)	18.228	117	1261024	10.000
72) Chlorobenzene	(3)	18.249	112	3500962	23.709
73) Ethylbenzene	(3)	18.264	91	5814363	24.208
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	1833308	24.067
75) m/p-Xylene	(3)	18.486	91	4312311	24.907
76) o-Xylene	(3)	19.173	91	4378606	25.666

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

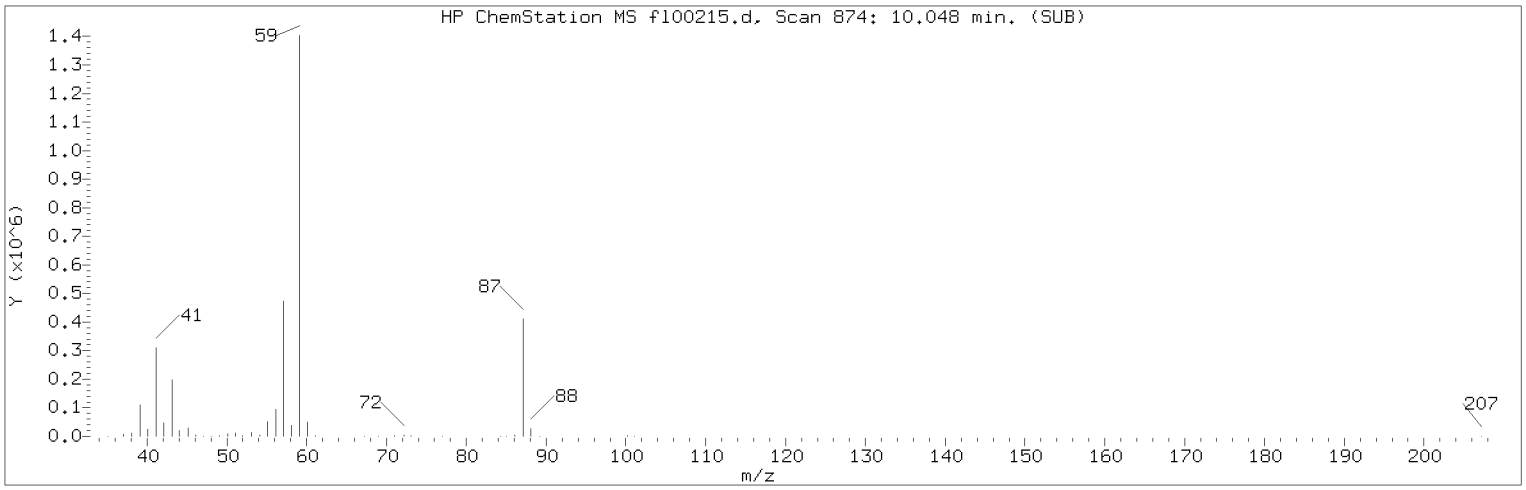
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

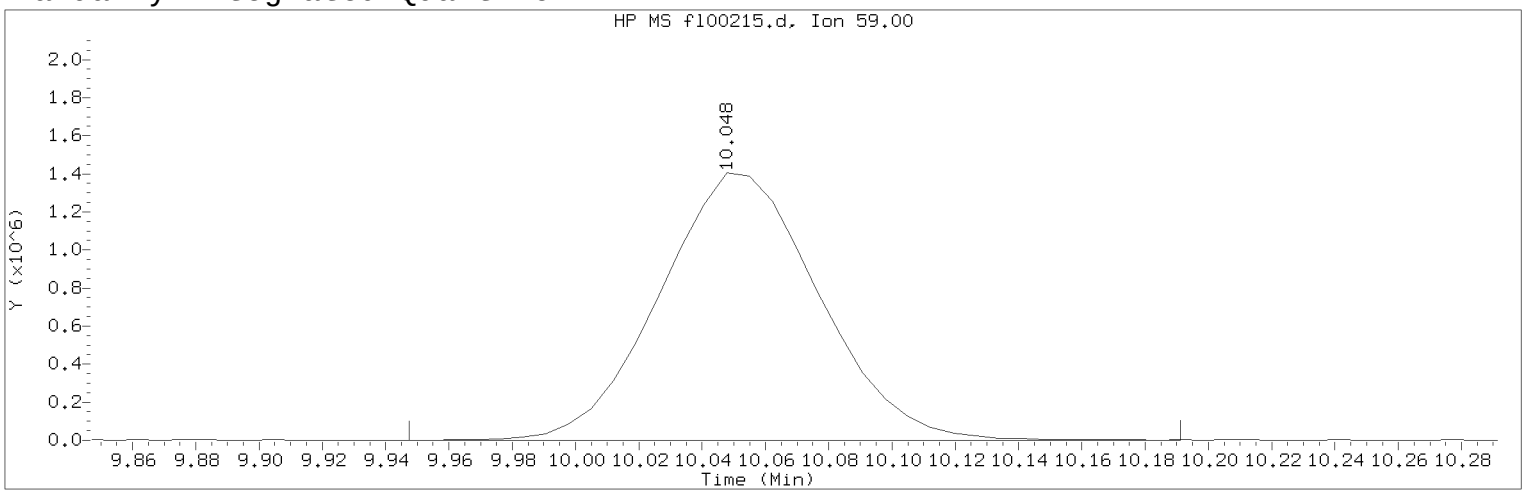
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	8690917	50.567
78) Styrene	(3)	19.259	104	3197462	26.206
79) Bromoform	(3)	19.331	173	2817459	24.293
80) Cumene	(3)	19.653	105	6106443	26.039
81) n-Propylbenzene	(3)	20.305	120	1760112	26.051
82) Bromobenzene	(3)	20.320	156	2248794	24.241
83) 1,1,2,2-Tetrachloroethane	(3)	20.413	83	3450133	22.755
84) 4-Ethyltoluene	(3)	20.470	105	6133447	26.297
85) 2-Chlorotoluene	(3)	20.592	126	1556949	24.990
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	5250635	26.471
87) 1,2,3-Trichloropropane	(3)	20.663	110	1037814	23.089
88) Alpha Methyl Styrene	(3)	21.000	118	2454178	29.674
89) tert-Butylbenzene	(3)	21.115	119	4870242	26.487
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	5203788	27.558
91) sec-Butylbenzene	(3)	21.373	105	7651414	26.575
92) p-Isopropyltoluene	(3)	21.552	119	6204974	27.999
93) 1,3-Dichlorobenzene	(3)	21.709	146	3707258	25.088
94) 1,4-Dichlorobenzene	(3)	21.824	146	3727847	25.462
95) n-Butylbenzene	(3)	22.132	92	3845820	29.959
96) Benzyl Chloride	(3)	22.153	126	875423	31.262
97) Hexachloroethane	(3)	22.375	117	1812268	29.317
98) 1,2-Dichlorobenzene	(3)	22.418	146	3441234	25.430
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	1909359	30.554
100) Hexachlorobutadiene	(3)	24.531	225	2480408	28.255
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	2725826	30.724
102) Naphthalene	(3)	25.219	128	5182259	36.374

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

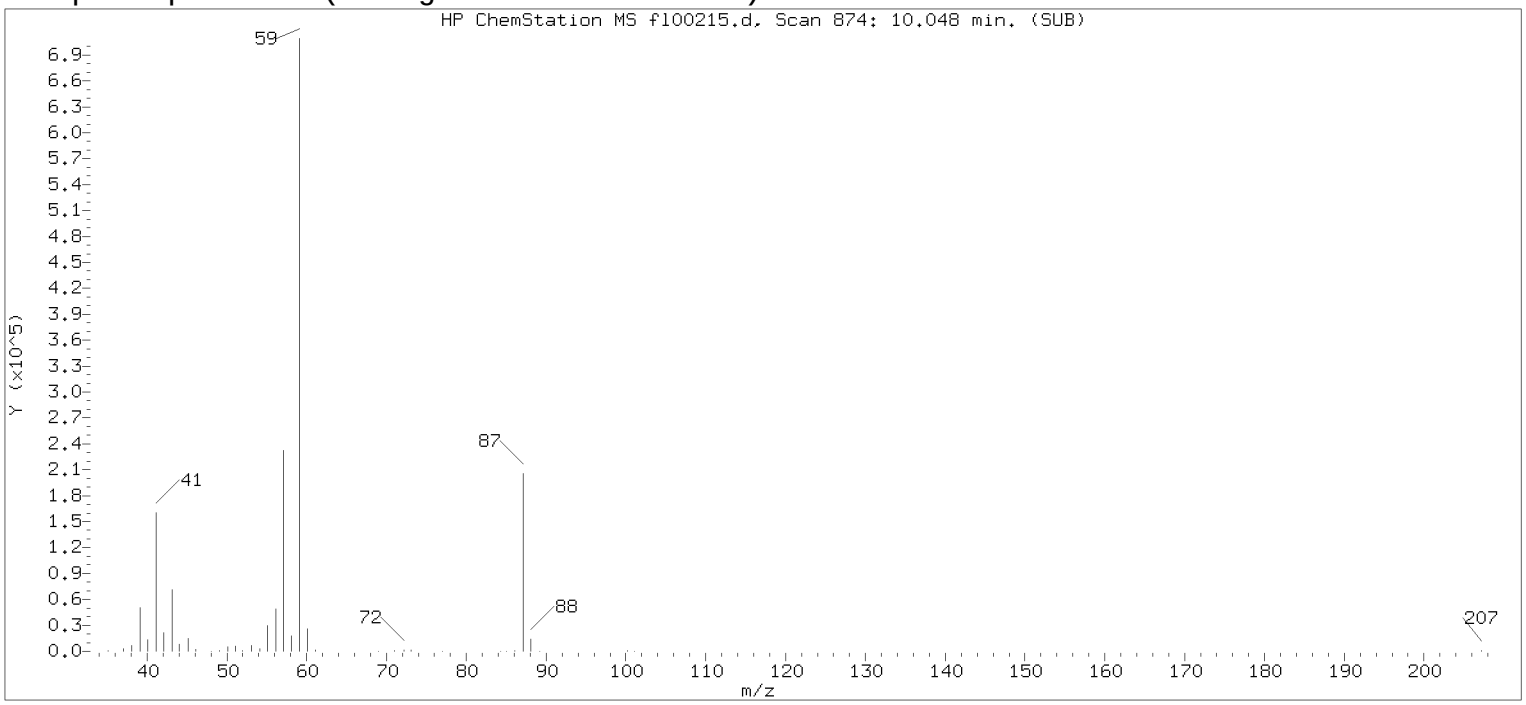
Compound Number : 33
Compound Name : Ethyl Tert-Butyl Ether
Scan Number : 874
Retention Time (minutes): 10.048
Quant Ion : 59.00
Area (flag) : 4915939M
Concentration (ppb(v)) : 26.9257
Integration start scan : 859 Integration stop scan: 893
Y at integration start : 214 Y at integration end: 214

Reason for manual integration: improper integration

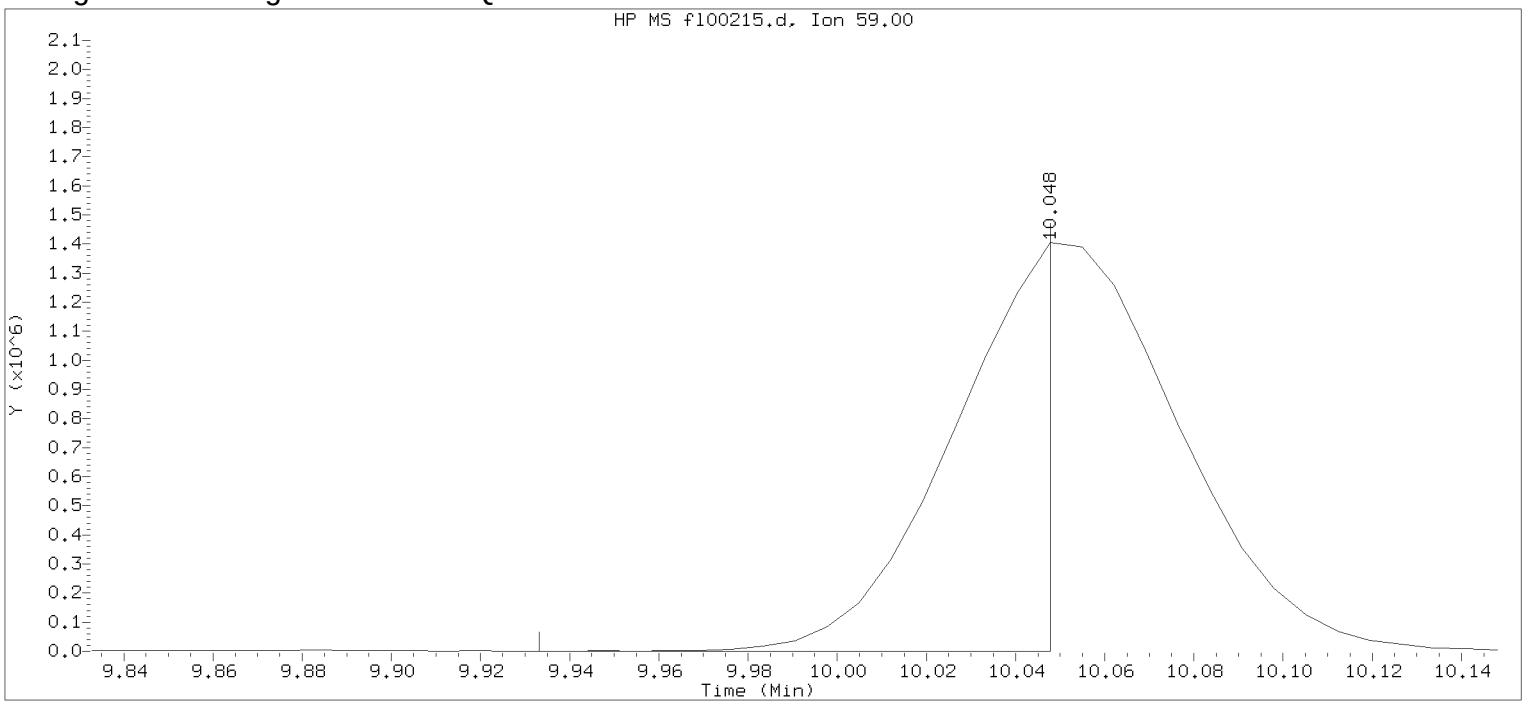
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00215.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:21 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 11:51
Date, time and analyst ID of latest file update: 14-Dec-2018 12:55 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 33
Compound Name : Ethyl Tert-Butyl Ether
Scan Number : 874
Retention Time (minutes): 10.048
Quant Ion : 59.00
Area : 2084813
Concentration (ppb(v)) : 11.5286
Integration start scan : 857 Integration stop scan: 873
Y at integration start : 678 Y at integration end: 678

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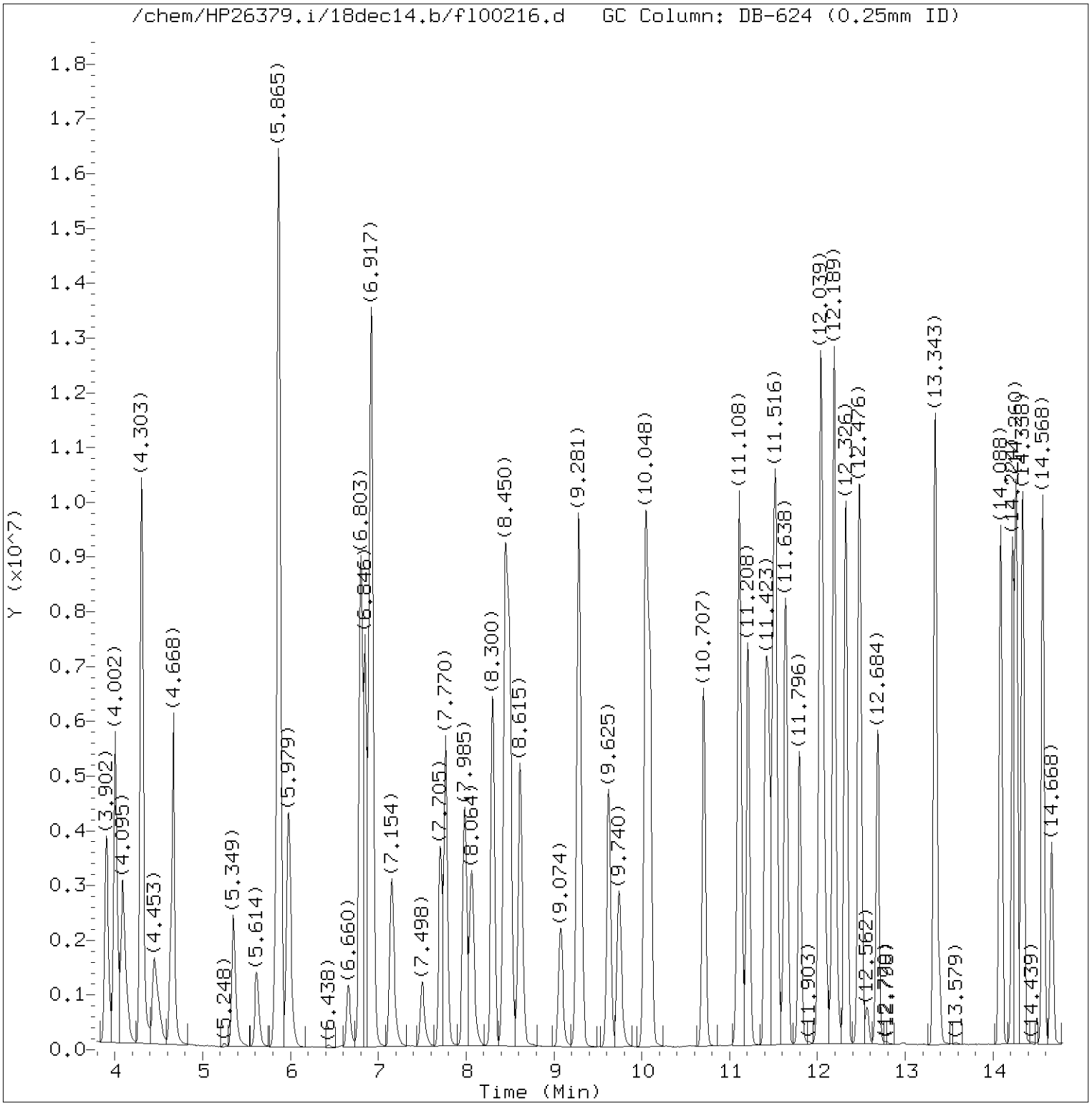
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

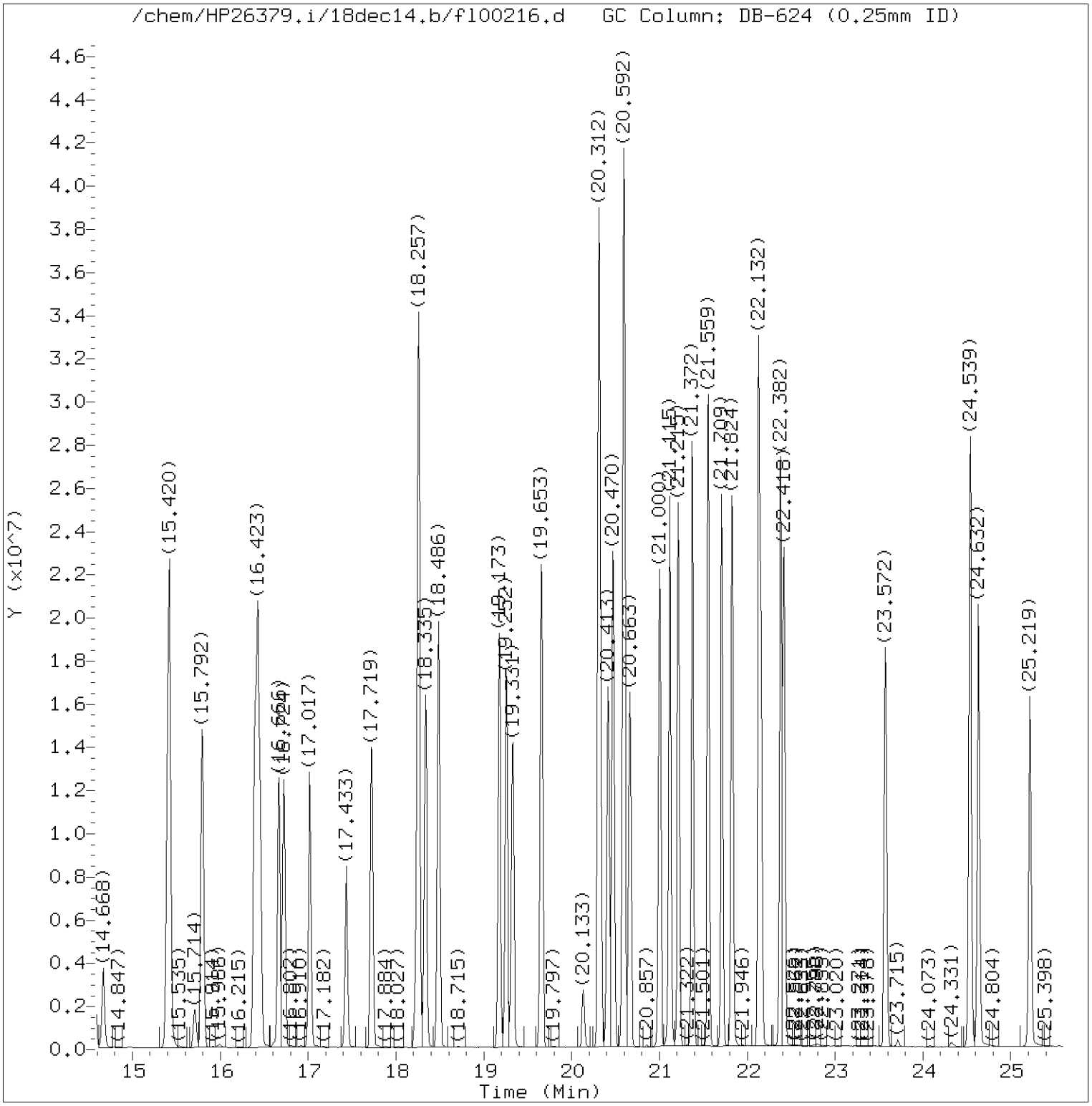
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	3937956	74.960
2) Dichlorodifluoromethane	(1)	4.002	85	9309019	74.458
3) Chlorodifluoromethane	(1)	4.095	51	7914667	69.488
4) Freon 114	(1)	4.303	85	8873022	70.676
5) Chloromethane	(1)	4.453	50	4066461	67.236
6) Vinyl Chloride	(1)	4.640	62	2958676	74.176
7) 1,3-Butadiene	(1)	4.668	54	2981001	76.250
8) Bromomethane	(1)	5.349	94	2875590	76.943
9) Chloroethane	(1)	5.614	64	2178951	74.097
10) Bromoethene	(1)	5.836	106	3063549	79.929
11) Pentane	(1)	5.865	43	8351762	74.017
12) Trichlorofluoromethane	(1)	5.872	101	8711888	68.782
13) Dichlorofluoromethane	(1)	5.979	67	7845951	72.210
14) Ethanol	(1)	6.652	45	1722441	80.350
15) Freon123a	(1)	6.803	67	7538823	77.345
16) 1,1-Dichloroethene	(1)	6.853	61	7068708	77.454
17) Freon 113	(1)	6.910	103	4483490	65.156
18) Carbon Disulfide	(1)	6.932	76	9346511	74.581
19) Methyl Iodide	(1)	7.154	142	6720004	67.943
20) Acrolein	(1)	7.505	56	1875366	79.111
21) Isopropanol	(1)	7.705	45	7972566M	85.294
22) 3-Chloropropene	(1)	7.770	41	6729819	87.829
23) Methylene Chloride	(1)	7.985	84	3033242	81.269
24) Acetone	(1)	8.064	43	7049695M	72.182
25) trans-1,2-Dichloroethene	(1)	8.300	61	6553175	75.684
26) Hexane	(1)	8.450	56	4616800	70.927
27) Methyl t-Butyl Ether	(1)	8.493	73	9250901	73.624
28) tert-Butyl Alcohol	(1)	8.615	59	9904222	86.508
29) Acetonitrile	(1)	9.081	41	4151014	75.247
30) Di-Isopropyl Ether	(1)	9.281	45	16347433	76.664
31) 1,1-Dichloroethane	(1)	9.625	63	7835379	71.998
32) Acrylonitrile	(1)	9.740	53	4182408	76.620
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	14879381	78.901
34) Vinyl Acetate	(1)	10.098	43	14894094	92.026
35) cis-1,2-Dichloroethene	(1)	10.707	61	6374103	76.919
36) 1,2-Dichloroethene (total)	(1)		61	12927278	152.603
37)*Bromochloromethane	(1)	11.101	130	378663	10.000
38) Cyclohexane	(1)	11.115	56	8024558	76.218

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	7544410	72.022
40) Ethyl Acetate	(1)	11.409	43	11023501	74.513
41) Methyl Acrylate	(1)	11.445	55	8965752	78.549
42) Carbon Tetrachloride	(1)	11.502	117	7198211	74.604
43) Tetrahydrofuran	(1)	11.530	42	5595814	77.052
44) 1,1,1-Trichloroethane	(1)	11.638	97	7488925	69.950
45) 2-Butanone	(1)	11.796	43	9904635	73.274
46) Isooctane	(2)	12.039	57	23473896	74.372
47) Heptane	(2)	12.189	71	3807302	74.981
48) Benzene	(2)	12.326	78	10537592	68.352
49) Tert-Amyl Methyl Ether	(2)	12.483	73	10084801	75.867
50) 1,2-Dichloroethane	(2)	12.684	62	6340414	68.582
51) Trichloroethene	(2)	13.343	130	4587148	71.634
52)*1,4-Difluorobenzene	(2)	13.386	114	1378514	10.000
53) Dibromomethane	(2)	14.088	174	4906229	69.773
54) Ethyl Acrylate	(2)	14.224	55	11574040	76.748
55) 1,2-Dichloropropane	(2)	14.260	63	5037232	65.742
56) Bromodichloromethane	(2)	14.338	83	8041088	67.733
57) Methyl Methacrylate	(2)	14.568	69	3954025	76.994
58) 1,4-Dioxane	(2)	14.668	88	2552872	73.673
59) cis-1,3-Dichloropropene	(2)	15.399	75	6775440	73.458
60) Octane	(3)	15.420	43	12271923	70.401
61) Toluene	(3)	15.792	91	12212451	67.248
62) 4-Methyl-2-Pentanone	(2)	16.394	43	12210413	66.944
63) Tetrachloroethene	(3)	16.423	166	6804561	65.152
64) trans-1,3-Dichloropropene	(3)	16.459	75	5810616	73.248
66) Ethyl Methacrylate	(3)	16.666	69	6651300	79.047
65) 1,3-Dichloropropene (total)	(3)		75	12586056	147.338
67) 1,1,2-Trichloroethane	(3)	16.724	97	4511575	64.301
68) Dibromochloromethane	(3)	17.017	127	6000992	69.351
69) 1,2-Dibromoethane	(3)	17.433	107	7028217	67.041
70) 2-Hexanone	(3)	17.719	43	11761483	69.065
71)*Chlorobenzene-d5	(3)	18.221	117	1320463	10.000
72) Chlorobenzene	(3)	18.249	112	9992725	64.627
73) Ethylbenzene	(3)	18.264	91	16154490	64.232
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	5225621	65.512
75) m/p-Xylene	(3)	18.486	91	12494797	68.917
76) o-Xylene	(3)	19.173	91	12892764	72.171

* = Compound is an internal standard.

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on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	25387561	141.064
78) Styrene	(3)	19.259	104	9384069	73.449
79) Bromoform	(3)	19.331	173	8443431	69.523
80) Cumene	(3)	19.653	105	17125582	69.740
81) n-Propylbenzene	(3)	20.305	120	5187811	73.327
82) Bromobenzene	(3)	20.320	156	6263455	64.479
83) 1,1,2,2-Tetrachloroethane	(3)	20.413	83	9644934	60.750
84) 4-Ethyltoluene	(3)	20.470	105	17145381	70.201
85) 2-Chlorotoluene	(3)	20.592	126	4544404	69.656
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	14686823	70.709
87) 1,2,3-Trichloropropane	(3)	20.663	110	2965436	63.003
88) Alpha Methyl Styrene	(3)	21.000	118	7557973	87.273
89) tert-Butylbenzene	(3)	21.122	119	13668898	70.993
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	14735739	74.525
91) sec-Butylbenzene	(3)	21.380	105	18842951	62.499
92) p-Isopropyltoluene	(3)	21.559	119	16232742	69.952
93) 1,3-Dichlorobenzene	(3)	21.709	146	10434712	67.436
94) 1,4-Dichlorobenzene	(3)	21.831	146	10592883	69.095
95) n-Butylbenzene	(3)	22.132	92	11524986	85.739
96) Benzyl Chloride	(3)	22.160	126	2856890	97.429
97) Hexachloroethane	(3)	22.382	117	5765786	89.073
98) 1,2-Dichlorobenzene	(3)	22.418	146	9730970	68.672
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	5720138	87.415
100) Hexachlorobutadiene	(3)	24.539	225	7575462	82.408
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	8157878	87.811
102) Naphthalene	(3)	25.219	128	16128386	108.108

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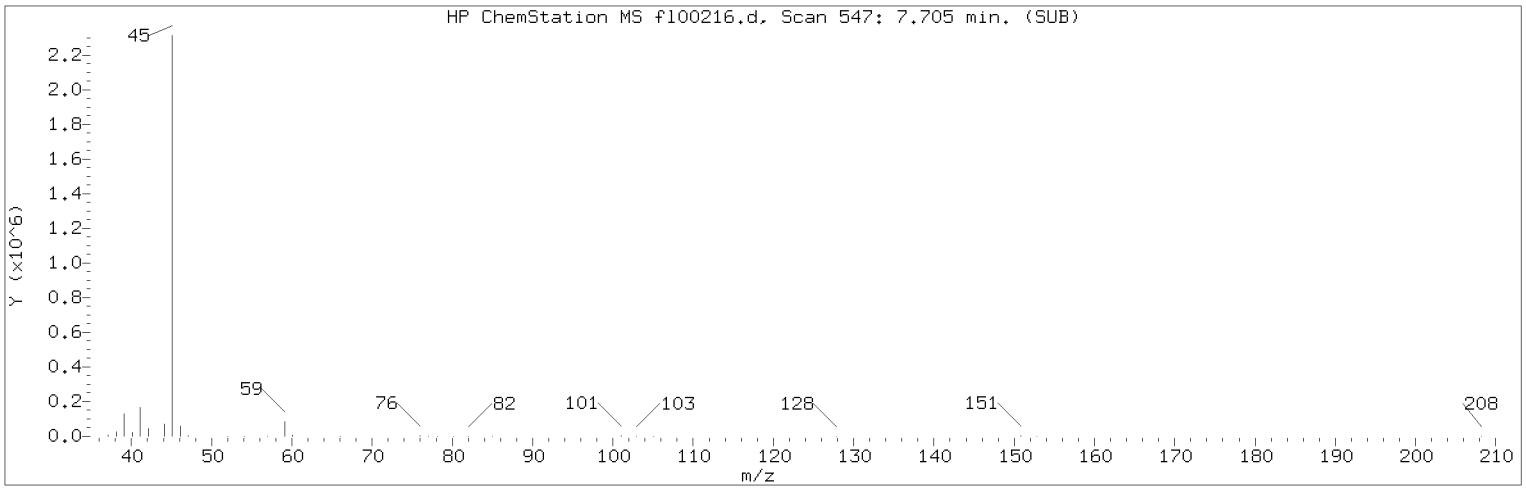
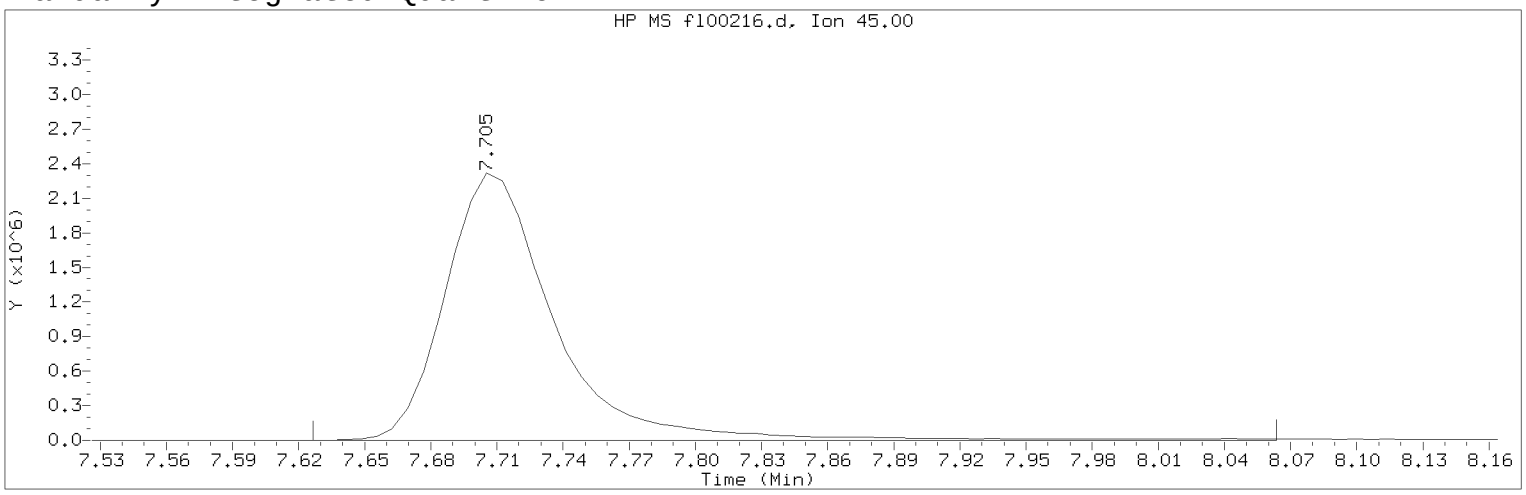
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

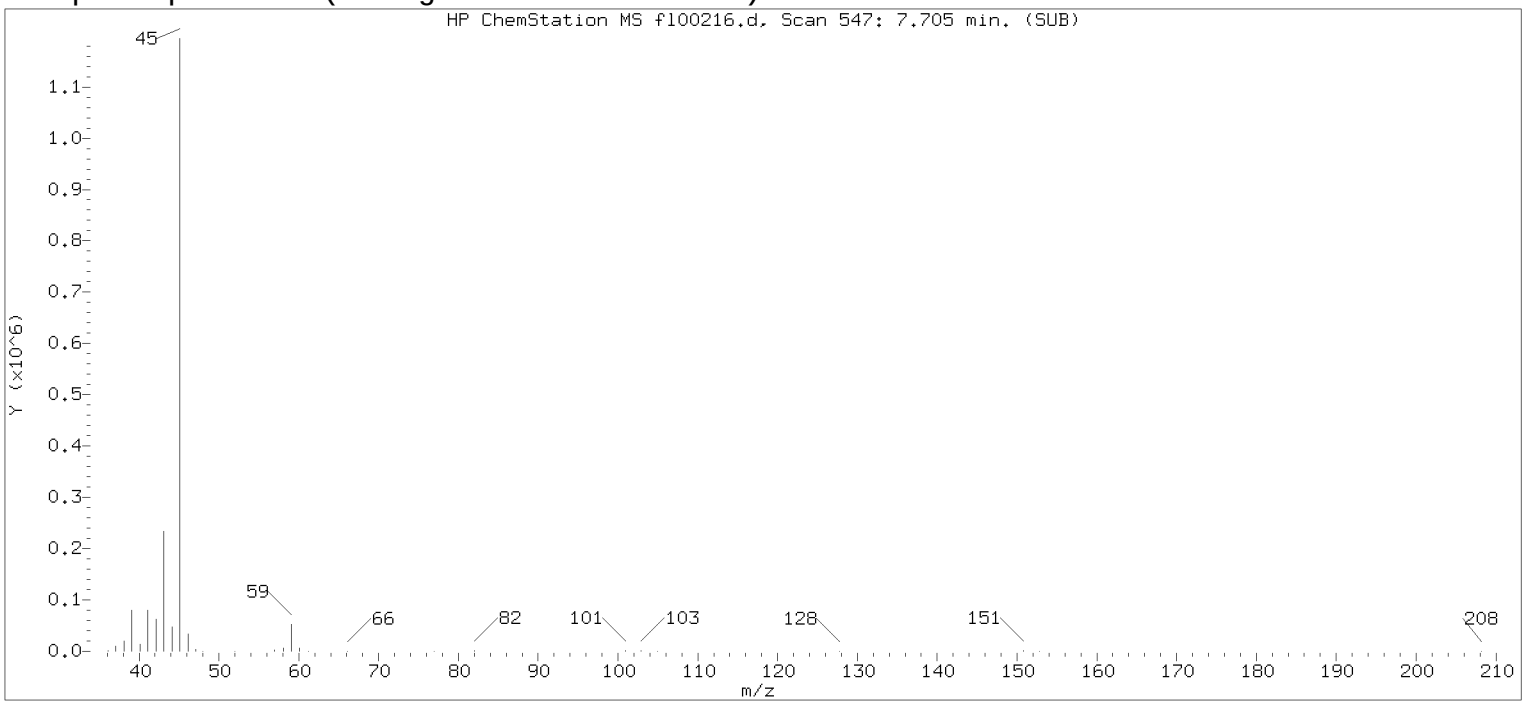
Compound Number : 21
Compound Name : Isopropanol
Scan Number : 547
Retention Time (minutes): 7.705
Quant Ion : 45.00
Area (flag) : 7972566M
Concentration (ppb(v)) : 85.2938
Integration start scan : 535 Integration stop scan: 596
Y at integration start : 519 Y at integration end: 519

Reason for manual integration: improper integration

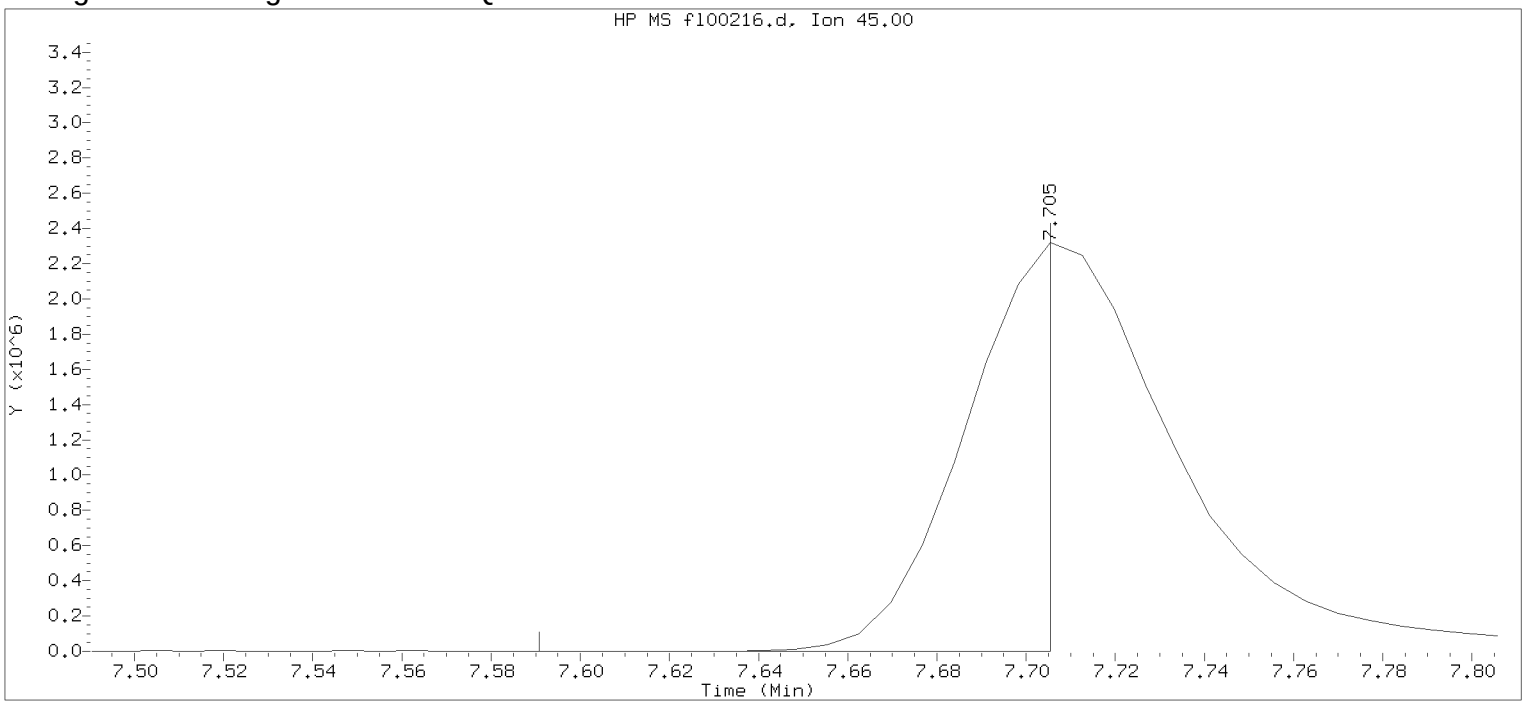
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

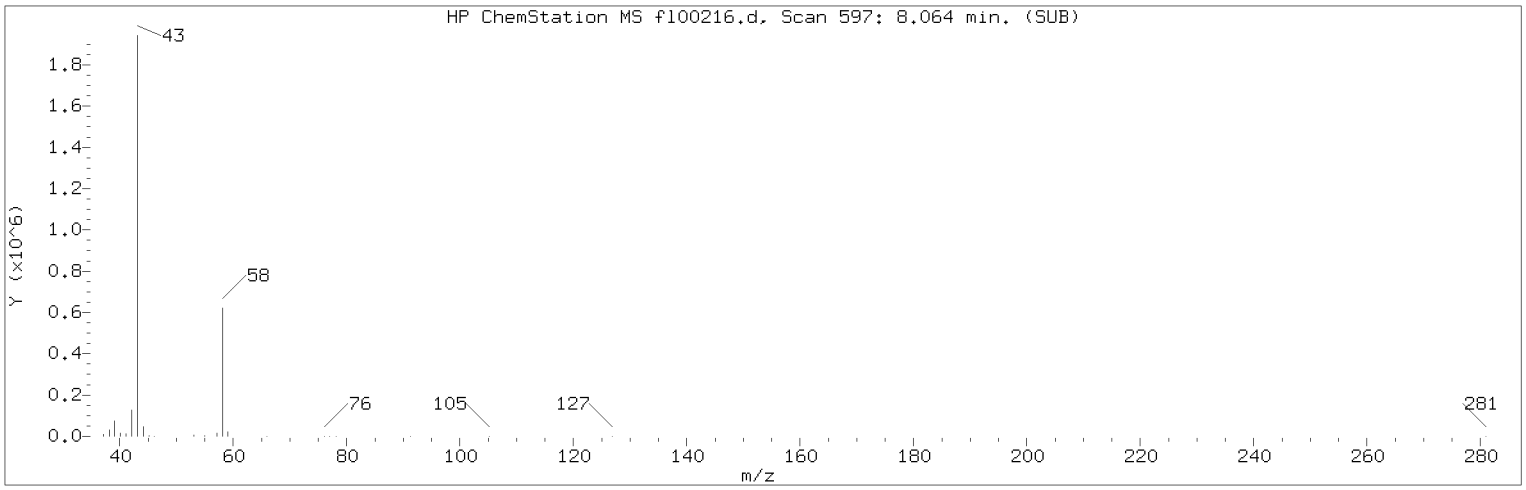
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:56
Date, time and analyst ID of latest file update: 14-Dec-2018 13:56 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

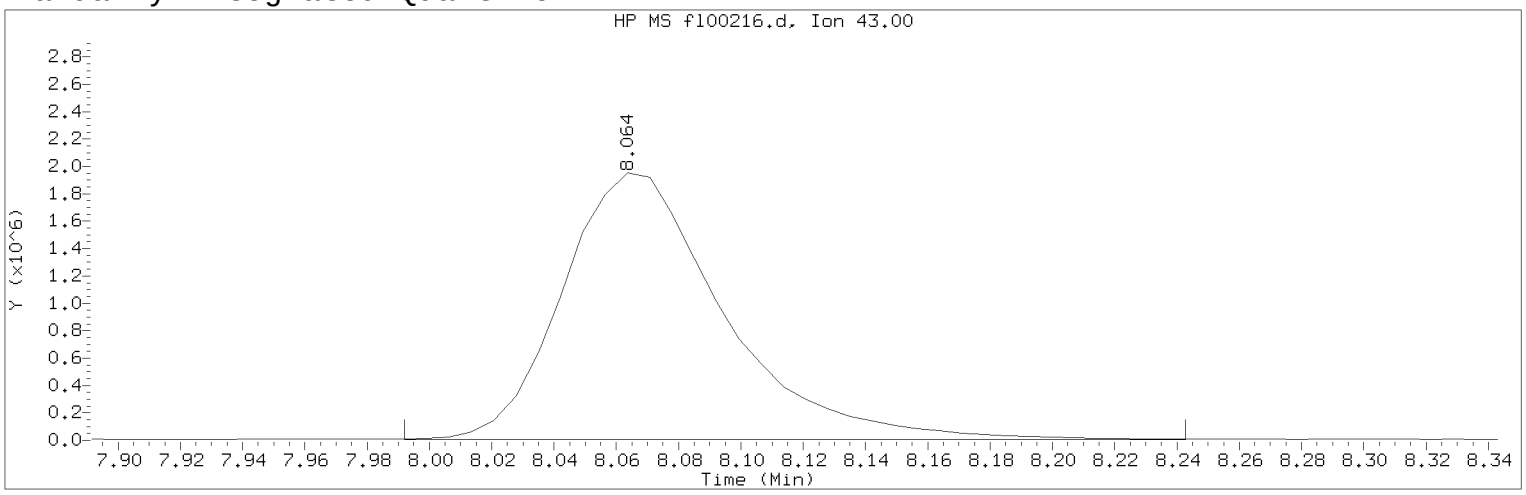
Compound Number : 21
Compound Name : Isopropanol
Scan Number : 547
Retention Time (minutes): 7.705
Quant Ion : 45.00
Area : 3000241
Concentration (ppb(v)) : 36.7528
Integration start scan : 530 Integration stop scan: 546
Y at integration start : 646 Y at integration end: 646

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:59.
Target 3.5 esignature userID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 16:59 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

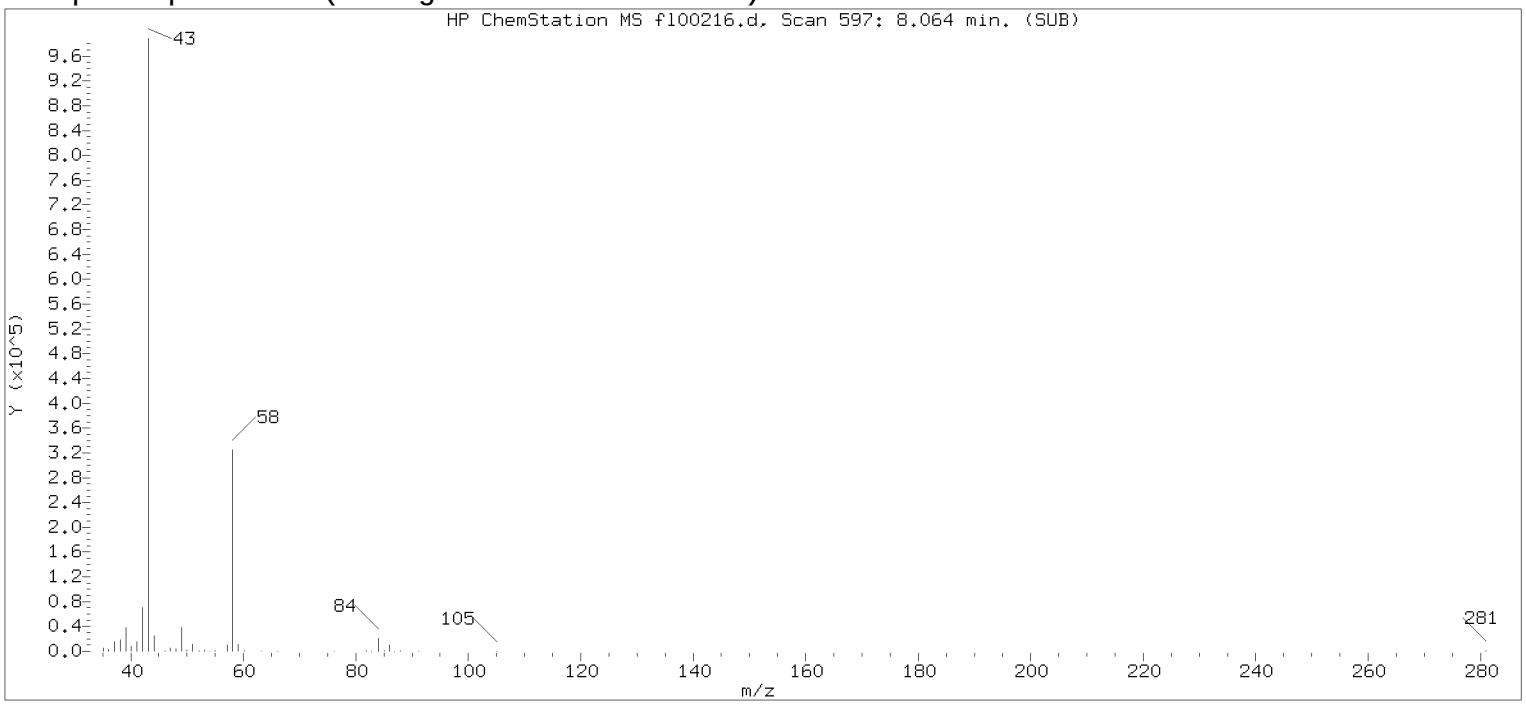
Compound Number : 24
Compound Name : Acetone
Scan Number : 597
Retention Time (minutes): 8.064
Quant Ion : 43.00
Area (flag) : 7049695M
Concentration (ppb(v)) : 72.1823
Integration start scan : 586 Integration stop scan: 621
Y at integration start : 2509 Y at integration end: 2509

Reason for manual integration: improper integration

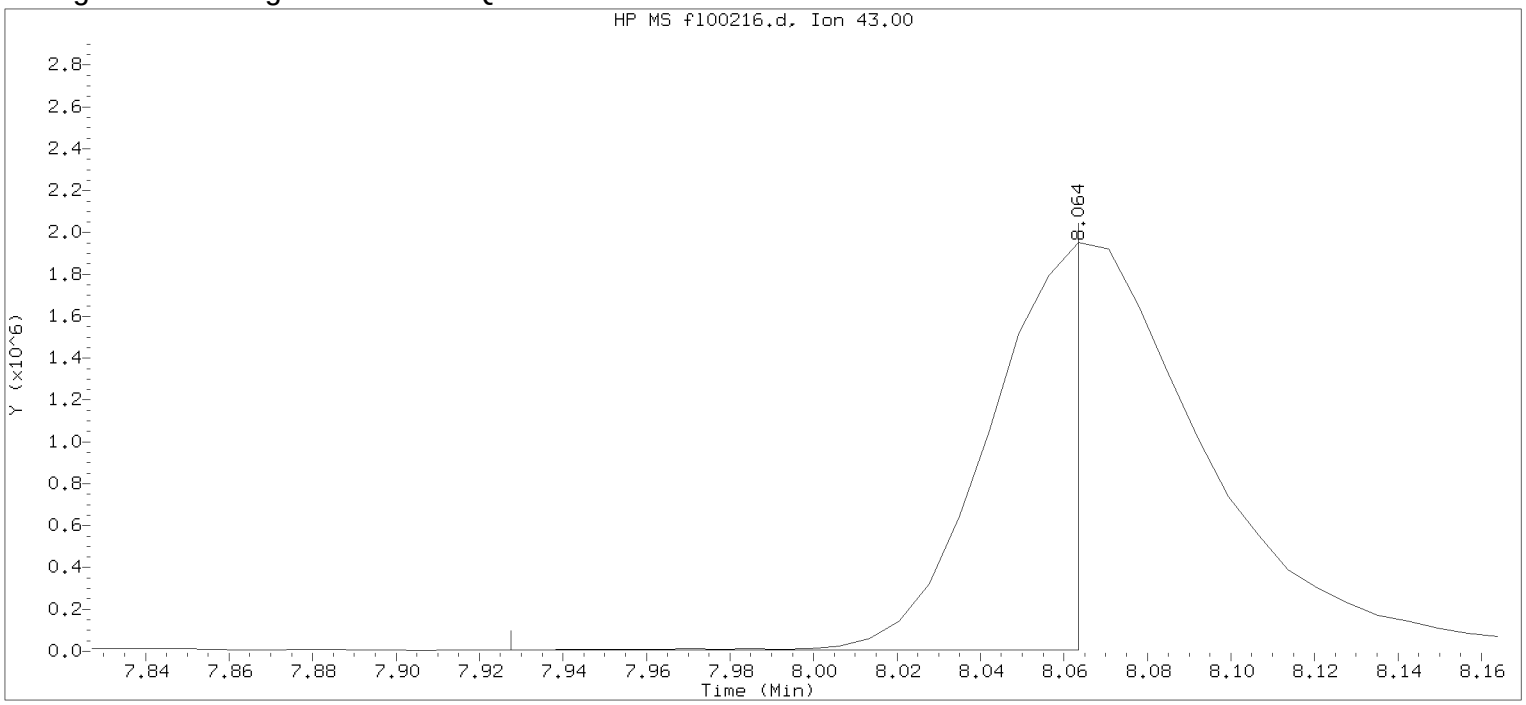
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:59.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:01.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



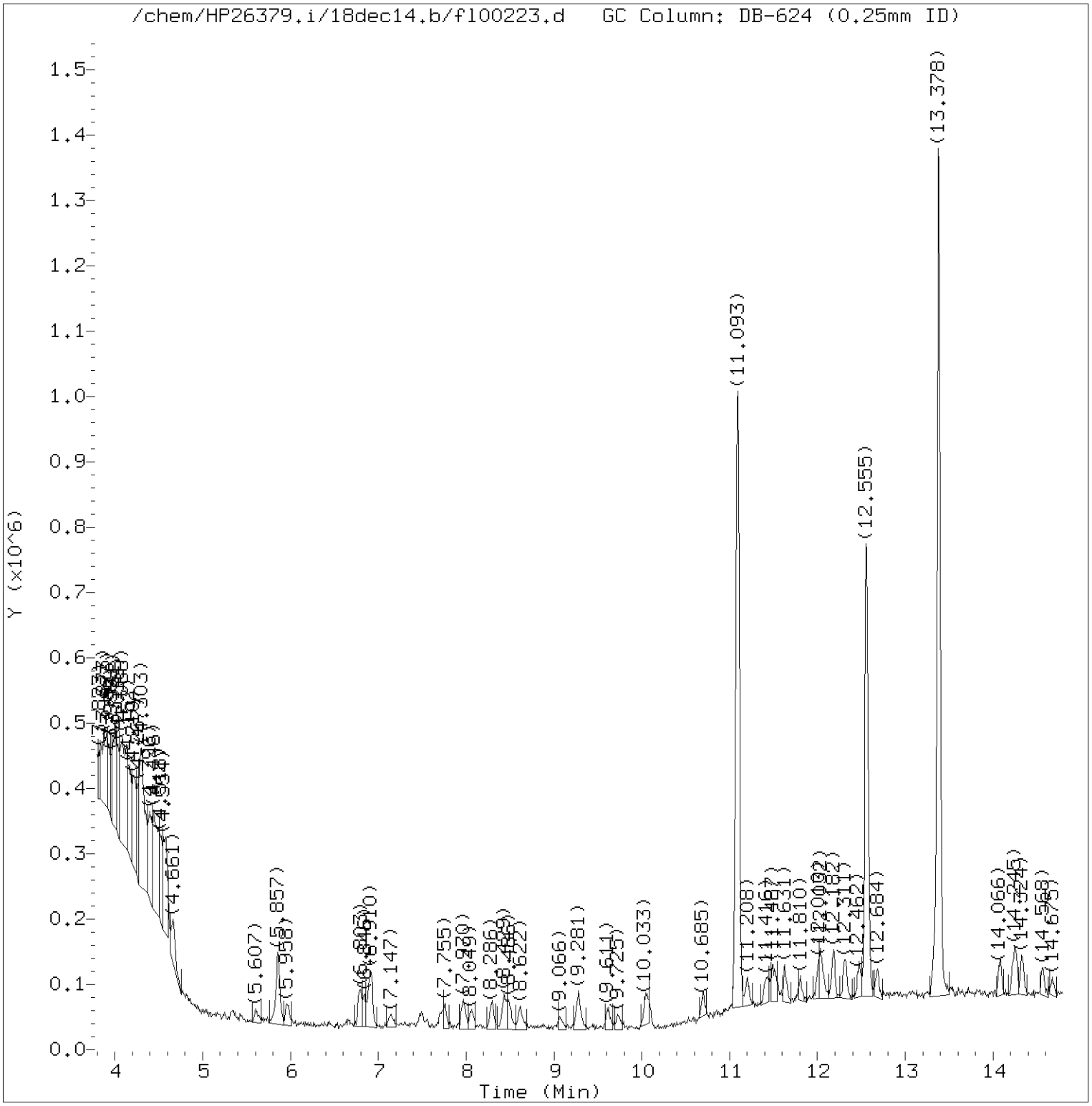
Data File: /chem/HP26379.i/18dec14.b/fl00216.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 12:52 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all
Calibration date and time: 14-DEC-2018 13:56
Date, time and analyst ID of latest file update: 14-Dec-2018 13:56 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 24
Compound Name : Acetone
Scan Number : 597
Retention Time (minutes): 8.064
Quant Ion : 43.00
Area : 2804376
Concentration (ppb(v)) : 32.0290
Integration start scan : 577 Integration stop scan: 596
Y at integration start : 5596 Y at integration end: 5596

Digitally signed by Jacob E. Bailey on 12/14/2018 at 16:59.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

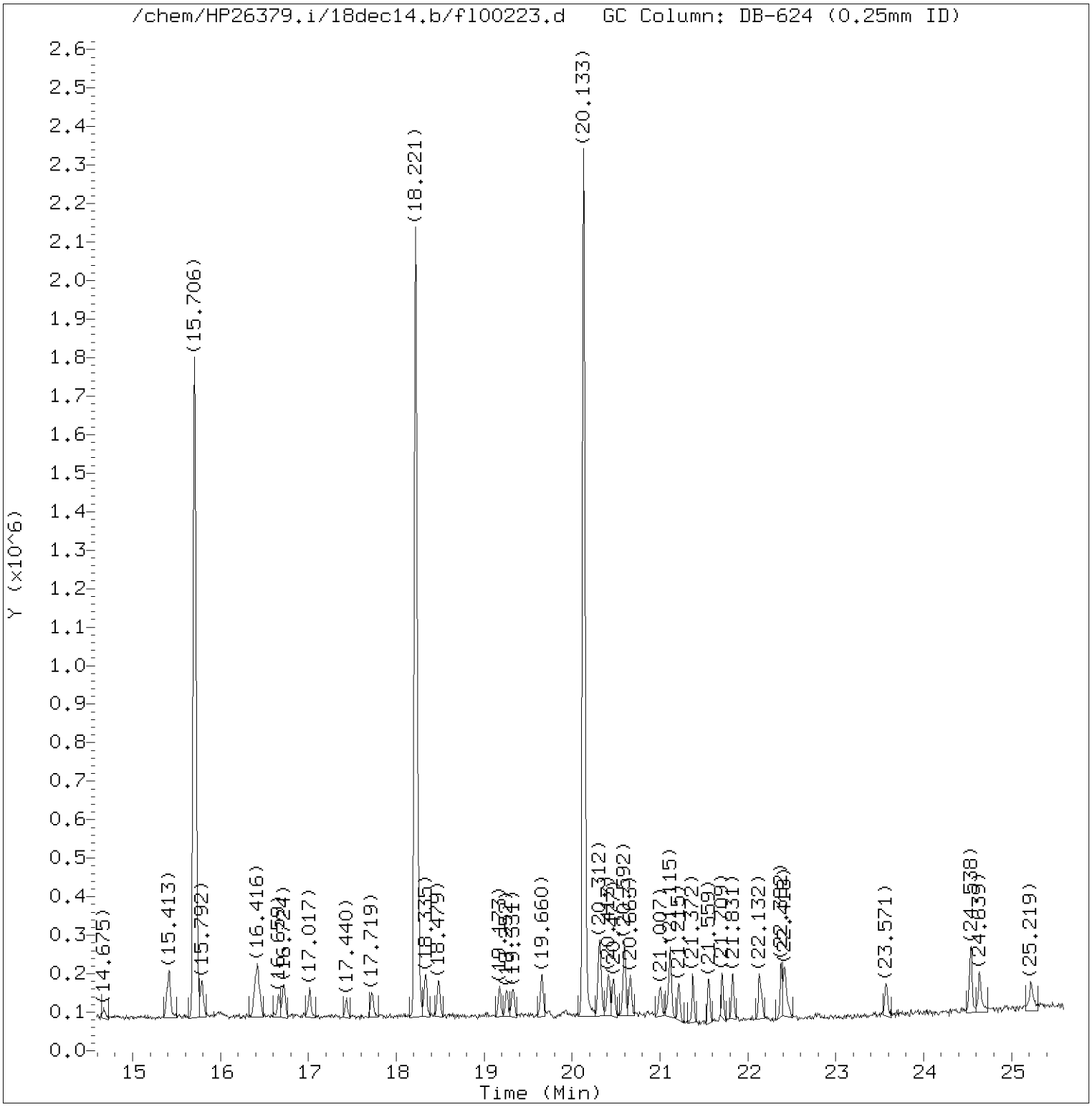
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.895	41	25938	0.487
2) Dichlorodifluoromethane	(1)	4.002	85	58439	0.461
3) Chlorodifluoromethane	(1)	4.081	51	50976	0.442
4) Freon 114	(1)	4.303	85	63261	0.497
5) Chloromethane	(1)	4.453	50	33992M	0.555
6) Vinyl Chloride	(1)	4.625	62	19208M	0.475
7) 1,3-Butadiene	(1)	4.661	54	19639	0.496
8) Bromomethane	(1)	5.349	94	22186M	0.586
9) Chloroethane	(1)	5.607	64	14928	0.501
10) Bromoethene	(1)	5.814	106	18960	0.488
11) Pentane	(1)	5.857	43	50588	0.443
12) Trichlorofluoromethane	(1)	5.864	101	57282	0.446
13) Dichlorofluoromethane	(1)	5.965	67	48352	0.439
14) Ethanol	(1)	6.660	45	20391	0.939
15) Freon123a	(1)	6.796	67	48986	0.496
16) 1,1-Dichloroethene	(1)	6.846	61	41756	0.452
17) Freon 113	(1)	6.903	103	31501	0.452
18) Carbon Disulfide	(1)	6.925	76	57743	0.455
19) Methyl Iodide	(1)	7.139	142	39342	0.393
20) Acrolein	(1)	7.490	56	13049	0.543
21) Isopropanol	(1)	7.705	45	52392	0.553
22) 3-Chloropropene	(1)	7.755	41	40353	0.520
23) Methylene Chloride	(1)	7.963	84	19808	0.524
24) Acetone	(1)	8.063	43	60182	0.608
25) trans-1,2-Dichloroethene	(1)	8.300	61	39660	0.452
26) Hexane	(1)	8.436	56	30199	0.458
27) Methyl t-Butyl Ether	(1)	8.500	73	45085	0.354
28) tert-Butyl Alcohol	(1)	8.622	59	52474	0.452
29) Acetonitrile	(1)	9.066	41	35082	0.628
30) Di-Isopropyl Ether	(1)	9.281	45	78786	0.365
31) 1,1-Dichloroethane	(1)	9.611	63	47753	0.433
32) Acrylonitrile	(1)	9.725	53	25306	0.458
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	73479	0.385
34) Vinyl Acetate	(1)	10.091	43	72820	0.444
35) cis-1,2-Dichloroethene	(1)	10.699	61	37738M	0.450
36) 1,2-Dichloroethene (total)	(1)		61	77398	0.902
37)*Bromochloromethane	(1)	11.093	130	383560	10.000
38) Cyclohexane	(1)	11.108	56	41246	0.387

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	45690	0.431
40) Ethyl Acetate	(1)	11.401	43	62262	0.415
41) Methyl Acrylate	(1)	11.459	55	51486	0.445
42) Carbon Tetrachloride	(1)	11.487	117	42443	0.434
43) Tetrahydrofuran	(1)	11.538	42	30093	0.409
44) 1,1,1-Trichloroethane	(1)	11.631	97	43570	0.402
45) 2-Butanone	(1)	11.795	43	61456	0.449
46) Isooctane	(2)	12.032	57	120484	0.414
47) Heptane	(2)	12.175	71	18174	0.388
48) Benzene	(2)	12.311	78	67153	0.472
49) Tert-Amyl Methyl Ether	(2)	12.476	73	45739	0.373
50) 1,2-Dichloroethane	(2)	12.676	62	40113	0.470
51) Trichloroethene	(2)	13.335	130	24337	0.412
52)*1,4-Difluorobenzene	(2)	13.386	114	1272536	10.000
53) Dibromomethane	(2)	14.080	174	29005	0.447
54) Ethyl Acrylate	(2)	14.217	55	54884	0.394
55) 1,2-Dichloropropane	(2)	14.259	63	30956	0.438
56) Bromodichloromethane	(2)	14.331	83	48533	0.443
57) Methyl Methacrylate	(2)	14.568	69	20015	0.422
58) 1,4-Dioxane	(2)	14.675	88	13595	0.425
59) cis-1,3-Dichloropropene	(2)	15.391	75	38078	0.447
60) Octane	(3)	15.420	43	66237	0.406
61) Toluene	(3)	15.785	91	70269	0.413
62) 4-Methyl-2-Pentanone	(2)	16.394	43	70224	0.417
63) Tetrachloroethene	(3)	16.423	166	42076	0.430
64) trans-1,3-Dichloropropene	(3)	16.459	75	30838	0.415
66) Ethyl Methacrylate	(3)	16.659	69	28310	0.359
65) 1,3-Dichloropropene (total)	(3)		75	68916	0.863
67) 1,1,2-Trichloroethane	(3)	16.724	97	29311	0.446
68) Dibromochloromethane	(3)	17.010	127	34213	0.422
69) 1,2-Dibromoethane	(3)	17.433	107	39765	0.405
70) 2-Hexanone	(3)	17.719	43	65495	0.411
71)*Chlorobenzene-d5	(3)	18.221	117	1236026	10.000
72) Chlorobenzene	(3)	18.249	112	61822	0.427
73) Ethylbenzene	(3)	18.256	91	91679	0.389
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	31271	0.419
75) m/p-Xylene	(3)	18.479	91	60589	0.357
76) o-Xylene	(3)	19.173	91	56161	0.336

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	116750	0.693
78) Styrene	(3)	19.252	104	36630	0.306
79) Bromoform	(3)	19.324	173	42777	0.376
80) Cumene	(3)	19.653	105	80005	0.348
81) n-Propylbenzene	(3)	20.312	120	22204	0.335
82) Bromobenzene	(3)	20.327	156	33293	0.366
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	58967	0.397
84) 4-Ethyltoluene	(3)	20.477	105	71526	0.313
85) 2-Chlorotoluene	(3)	20.592	126	19795	0.324
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	65355	0.336
87) 1,2,3-Trichloropropane	(3)	20.656	110	18216	0.413
88) Alpha Methyl Styrene	(3)	21.000	118	28674	0.354
89) tert-Butylbenzene	(3)	21.122	119	71080	0.394
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	57246	0.309
91) sec-Butylbenzene	(3)	21.372	105	90286	0.320
92) p-Isopropyltoluene	(3)	21.559	119	67408	0.310
93) 1,3-Dichlorobenzene	(3)	21.709	146	52494	0.362
94) 1,4-Dichlorobenzene	(3)	21.824	146	53806	0.375
95) n-Butylbenzene	(3)	22.132	92	37176	0.295
96) Benzyl Chloride	(3)	22.153	126	8832	0.322
97) Hexachloroethane	(3)	22.375	117	25148	0.415
98) 1,2-Dichlorobenzene	(3)	22.418	146	48423	0.365
99) 1,2-Dibromo-3-chloropropane	(3)	23.571	157	25472	0.416
100) Hexachlorobutadiene	(3)	24.538	225	45452	0.528
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	44788	0.515
102) Naphthalene	(3)	25.219	128	77835	0.557

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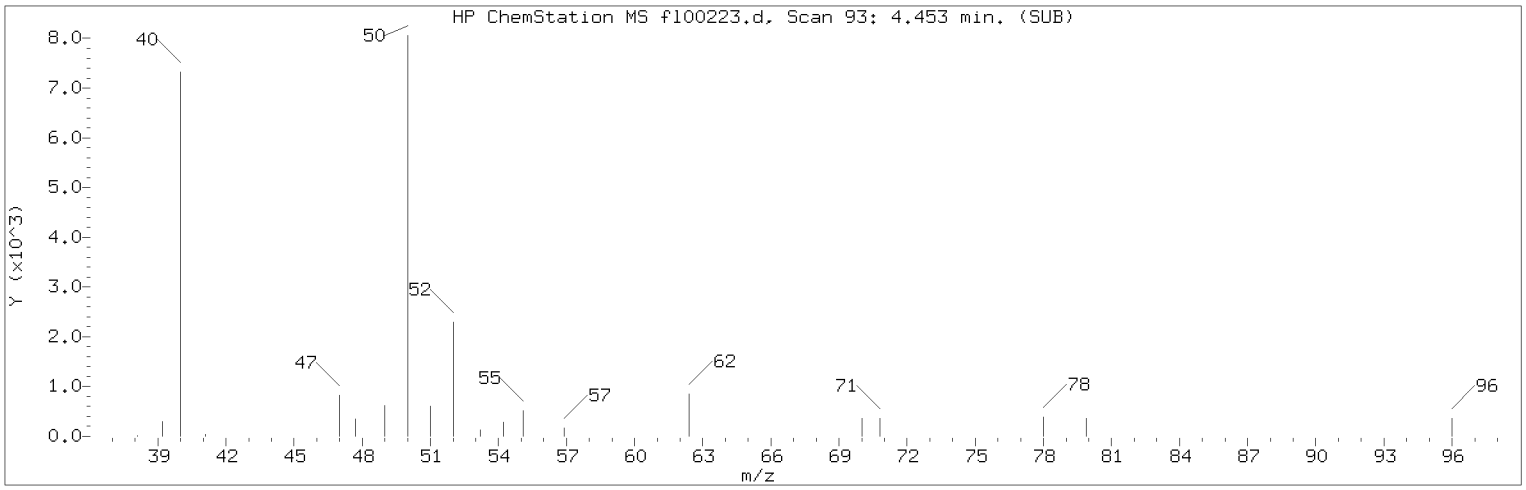
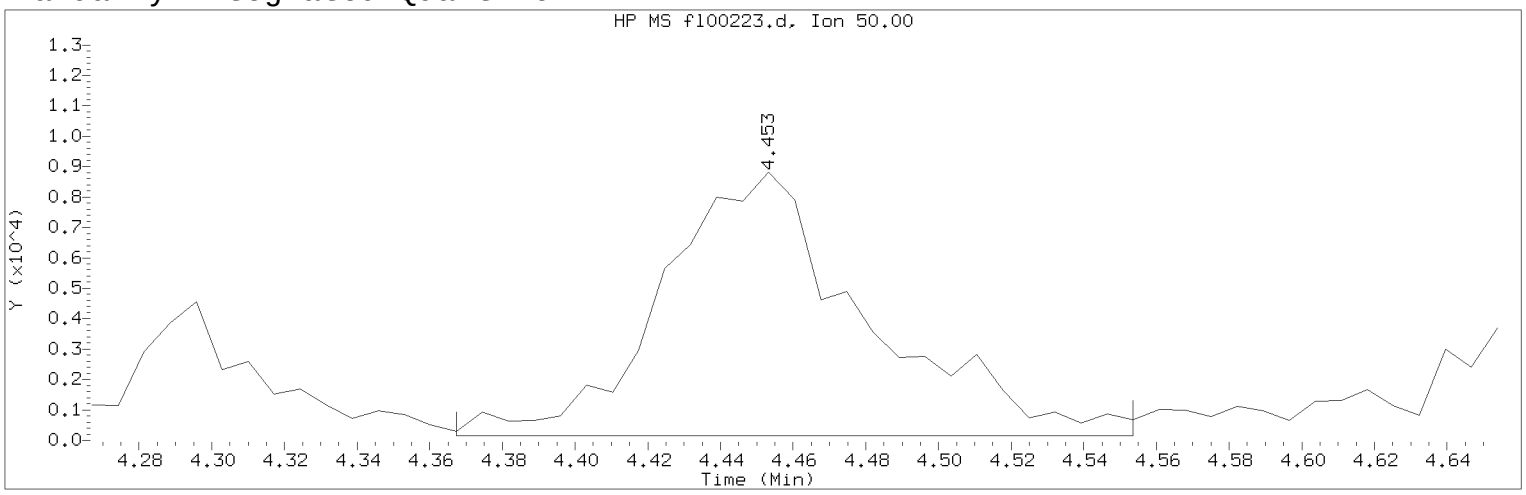
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

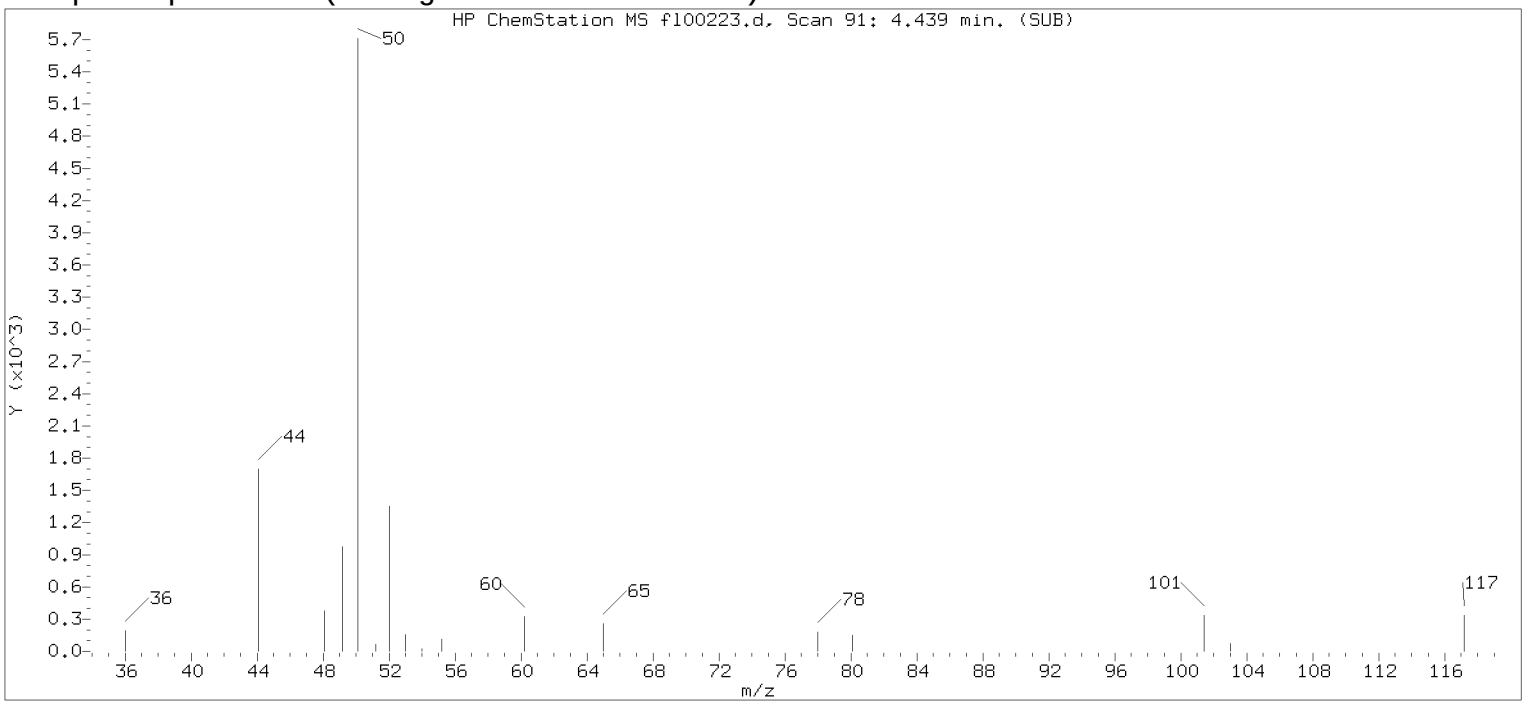
Compound Number : 5
Compound Name : Chloromethane
Scan Number : 93
Retention Time (minutes): 4.453
Quant Ion : 50.00
Area (flag) : 33992M
Concentration (ppb(v)) : 0.5549
Integration start scan : 80 Integration stop scan: 106
Y at integration start : 155 Y at integration end: 155

Reason for manual integration: improper integration

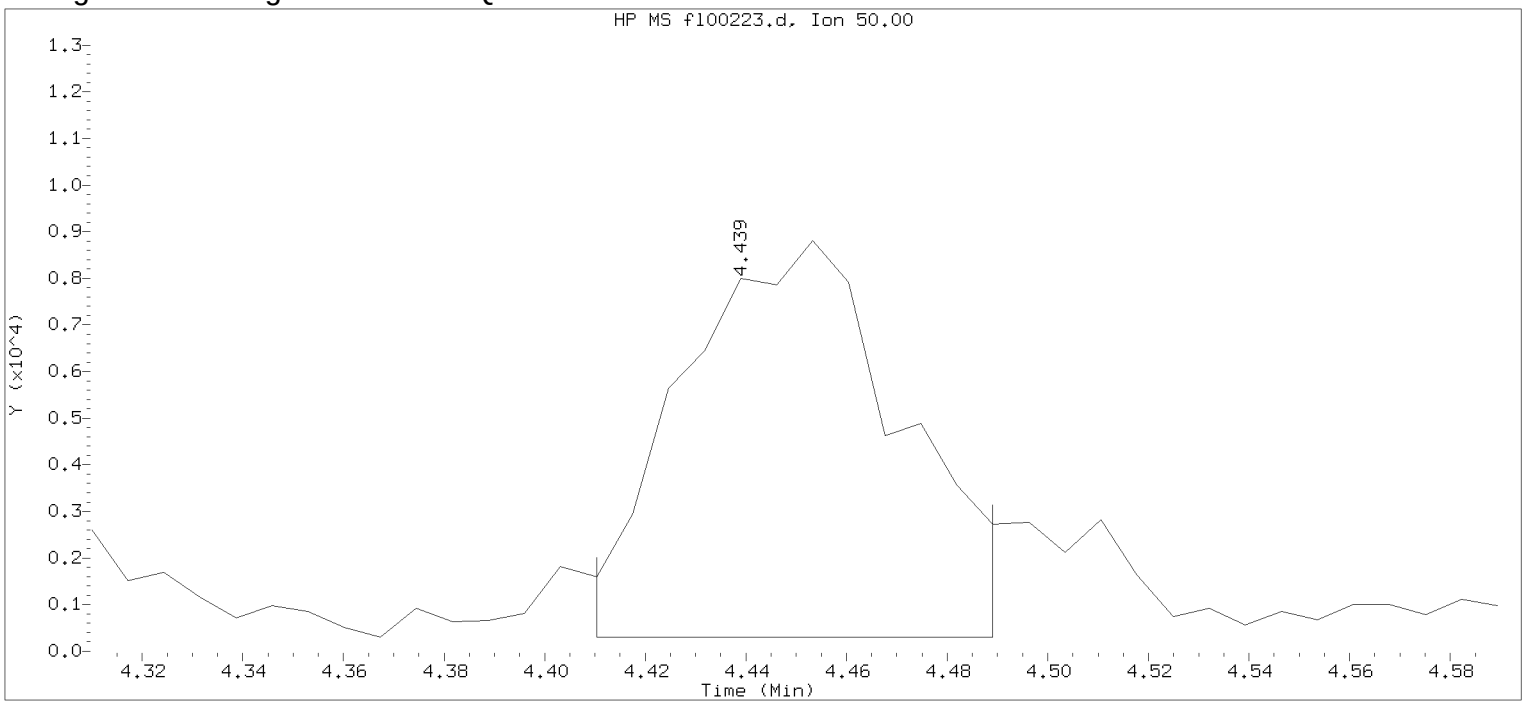
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:12 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 5
Compound Name : Chloromethane
Scan Number : 91
Retention Time (minutes): 4.439
Quant Ion : 50.00
Area : 25597
Concentration (ppb(v)) : 0.4178
Integration start scan : 86 Integration stop scan: 97
Y at integration start : 300 Y at integration end: 300

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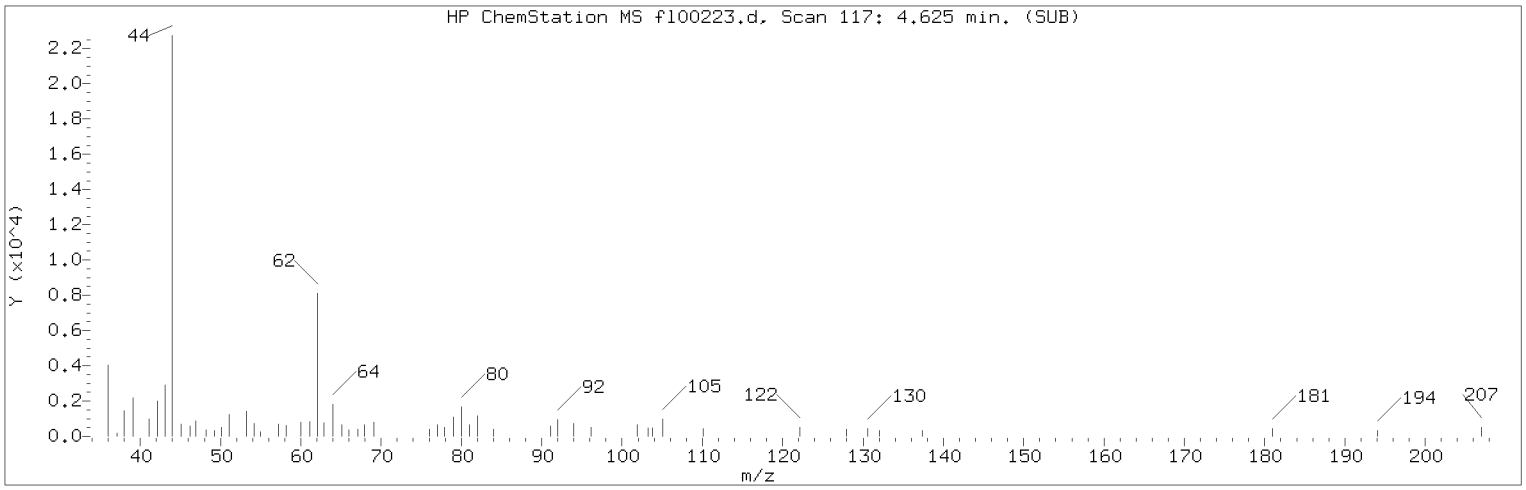
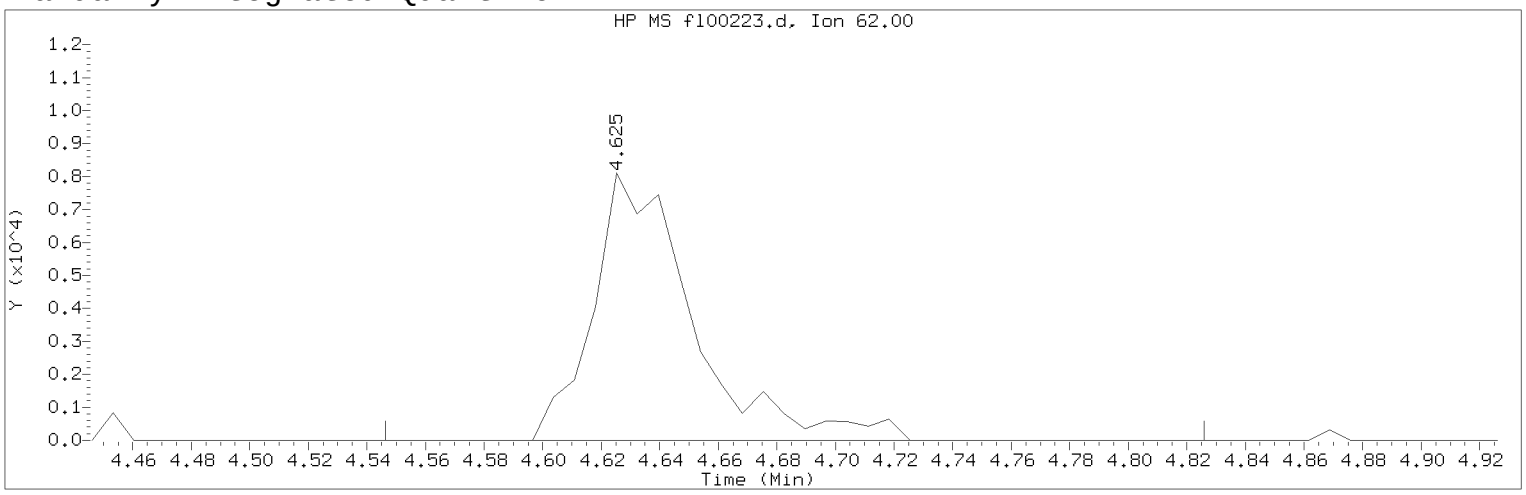
Target 3.5 esignature userBIR29jbs01207

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

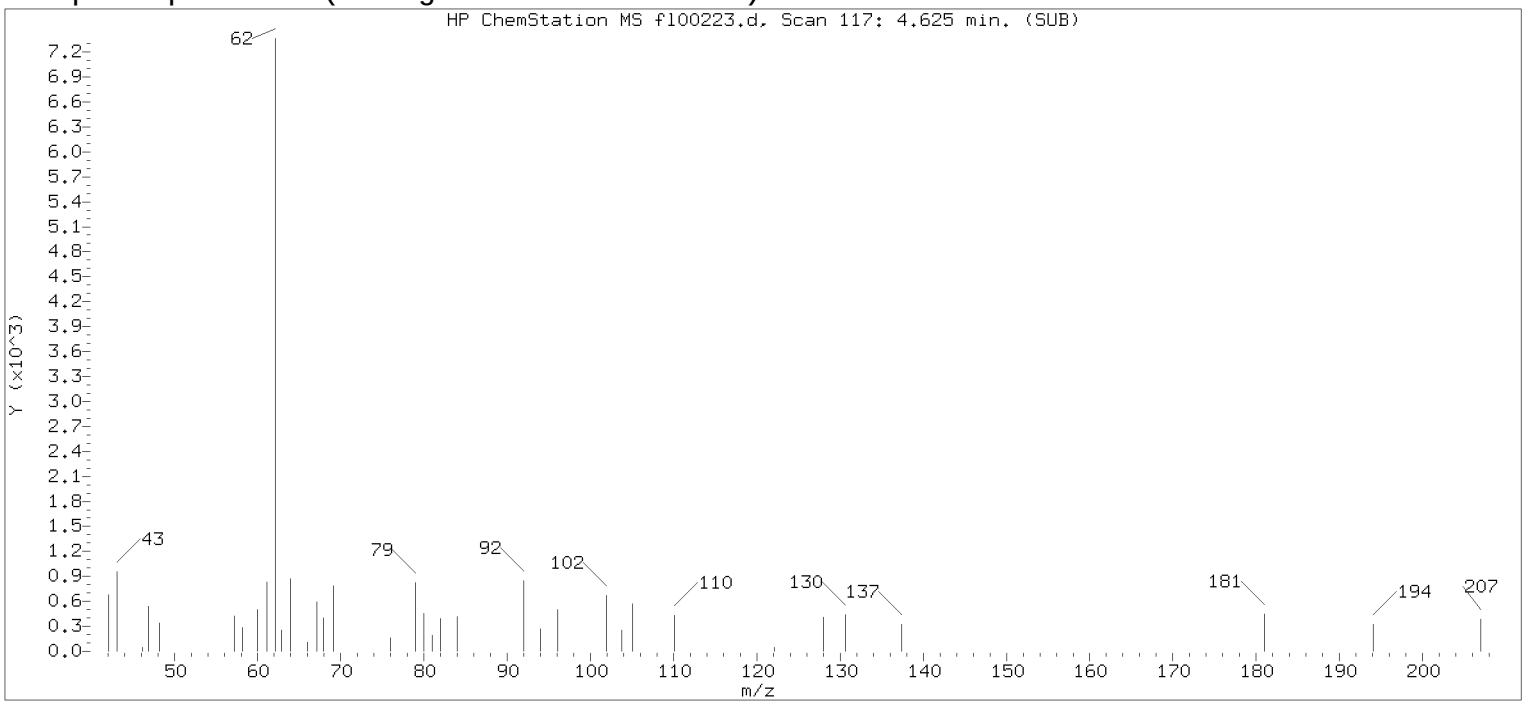
Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 117
Retention Time (minutes): 4.625
Quant Ion : 62.00
Area (flag) : 19208M
Concentration (ppb(v)) : 0.4754
Integration start scan : 105 Integration stop scan: 144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

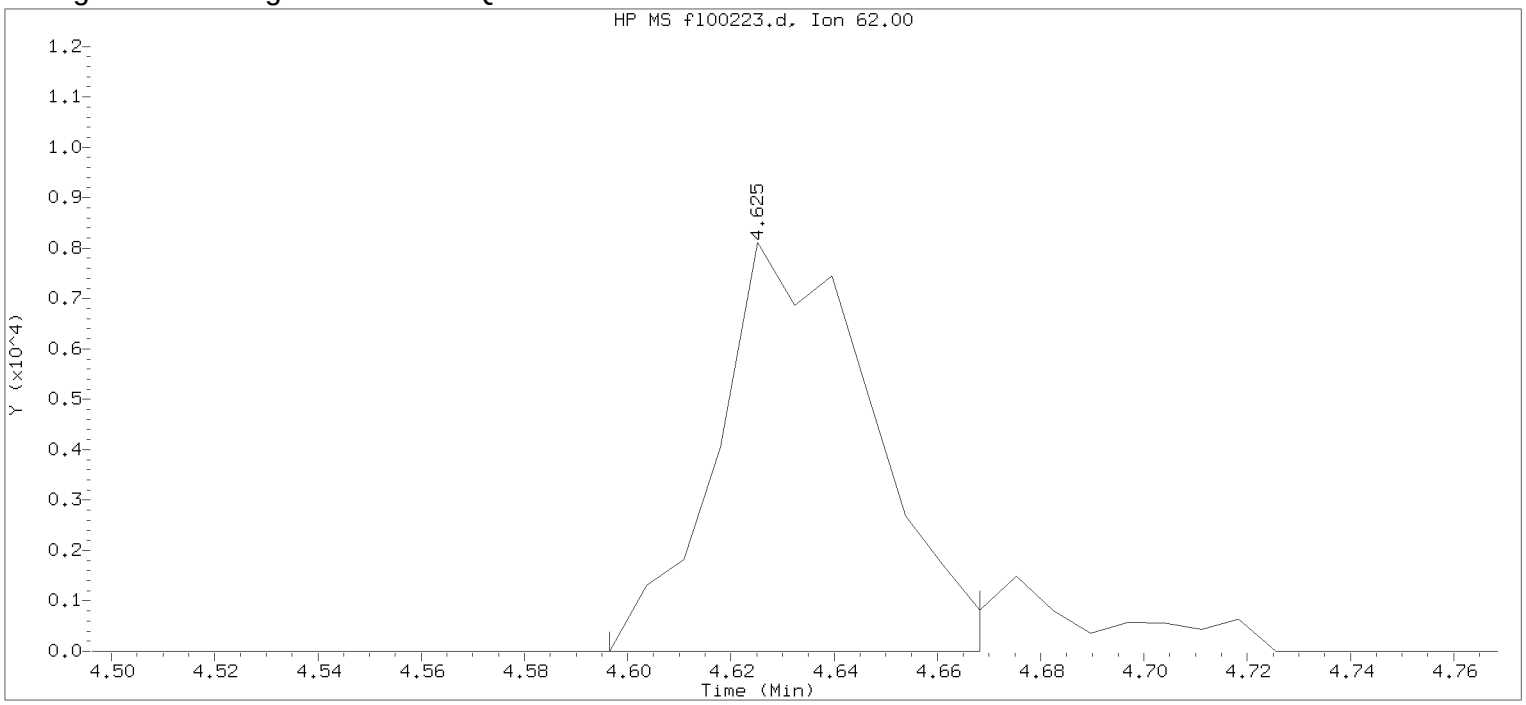
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:12 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 117
Retention Time (minutes): 4.625
Quant Ion : 62.00
Area : 16953
Concentration (ppb(v)) : 0.4196
Integration start scan : 112 Integration stop scan: 122
Y at integration start : 0 Y at integration end: 0

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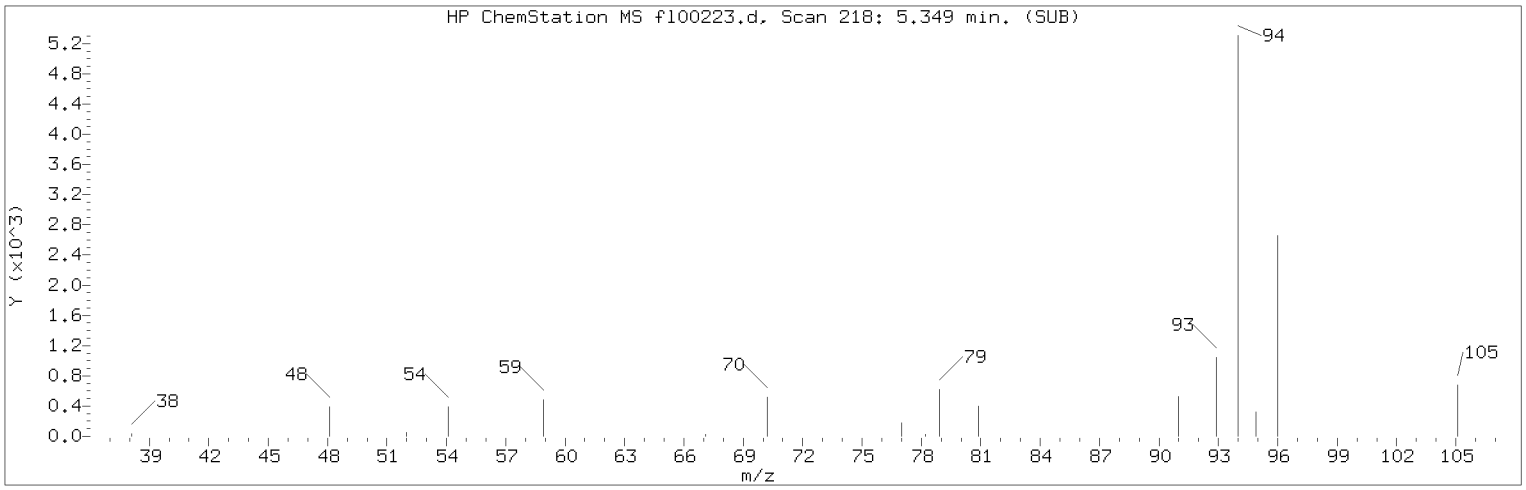
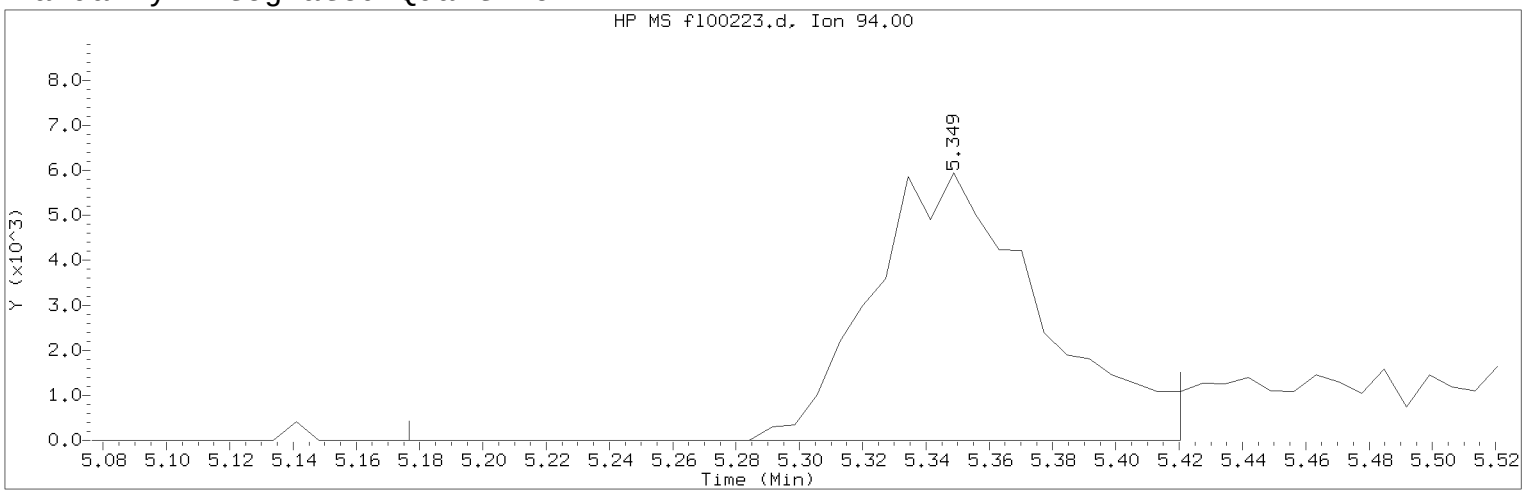
Target 3.5 esignature userBIR29jbs01209

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

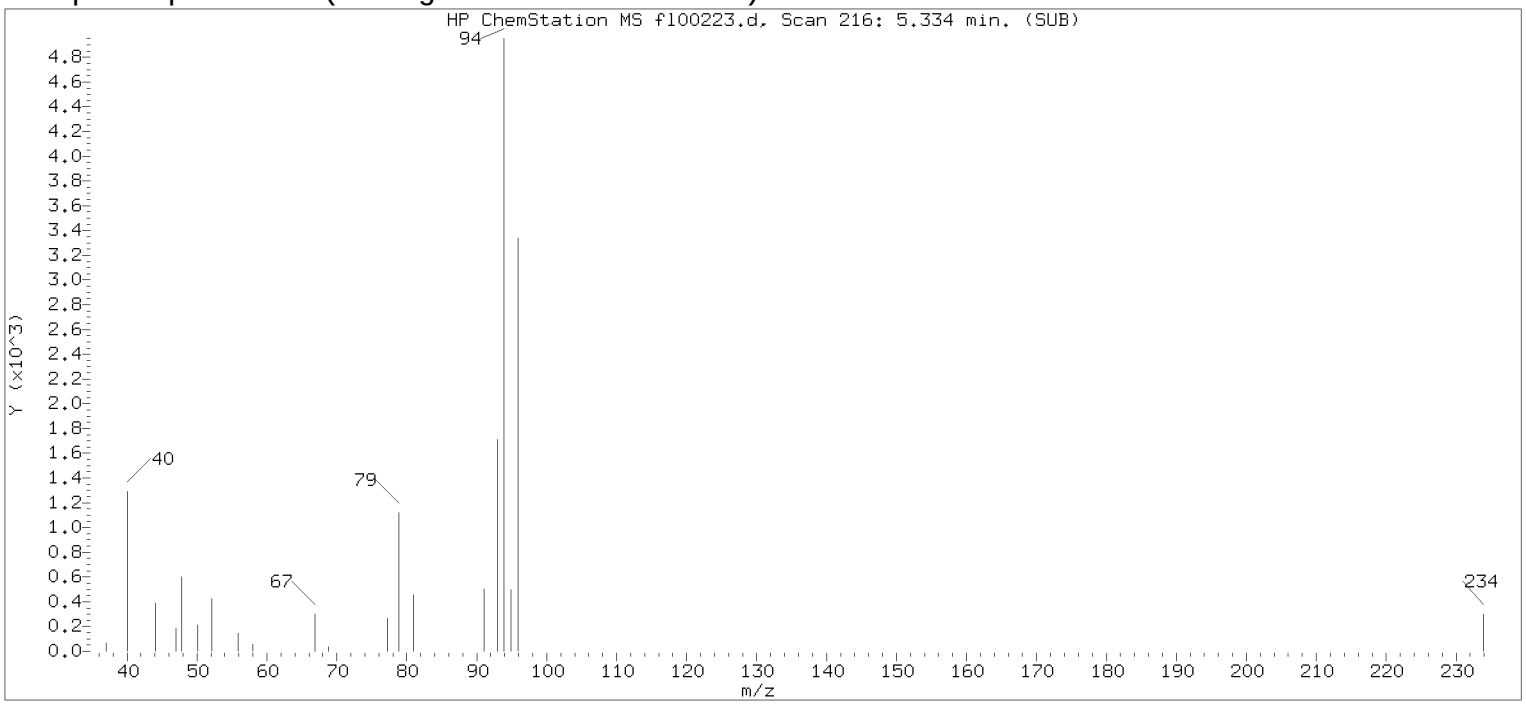
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 218
Retention Time (minutes): 5.349
Quant Ion : 94.00
Area (flag) : 22186M
Concentration (ppb(v)) : 0.5861
Integration start scan : 193 Integration stop scan: 227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

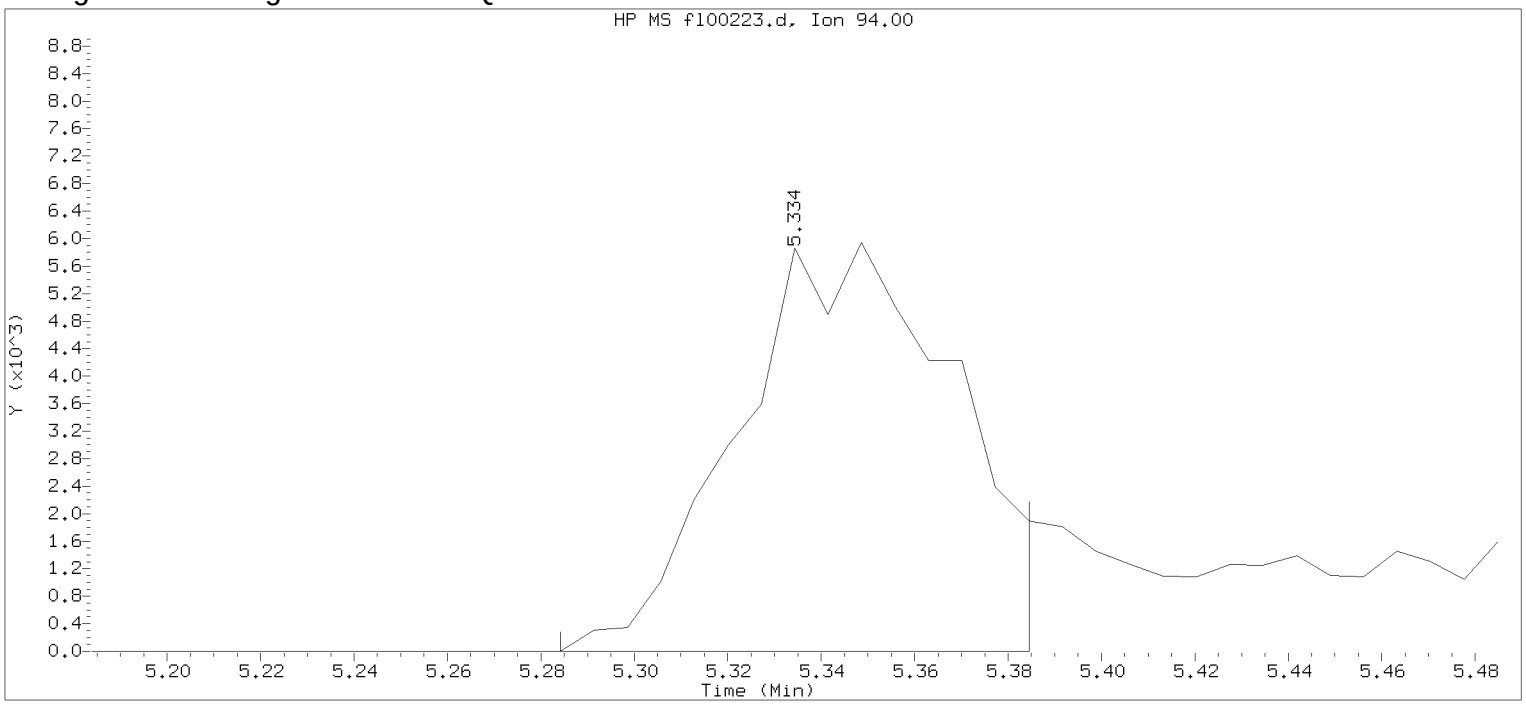
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

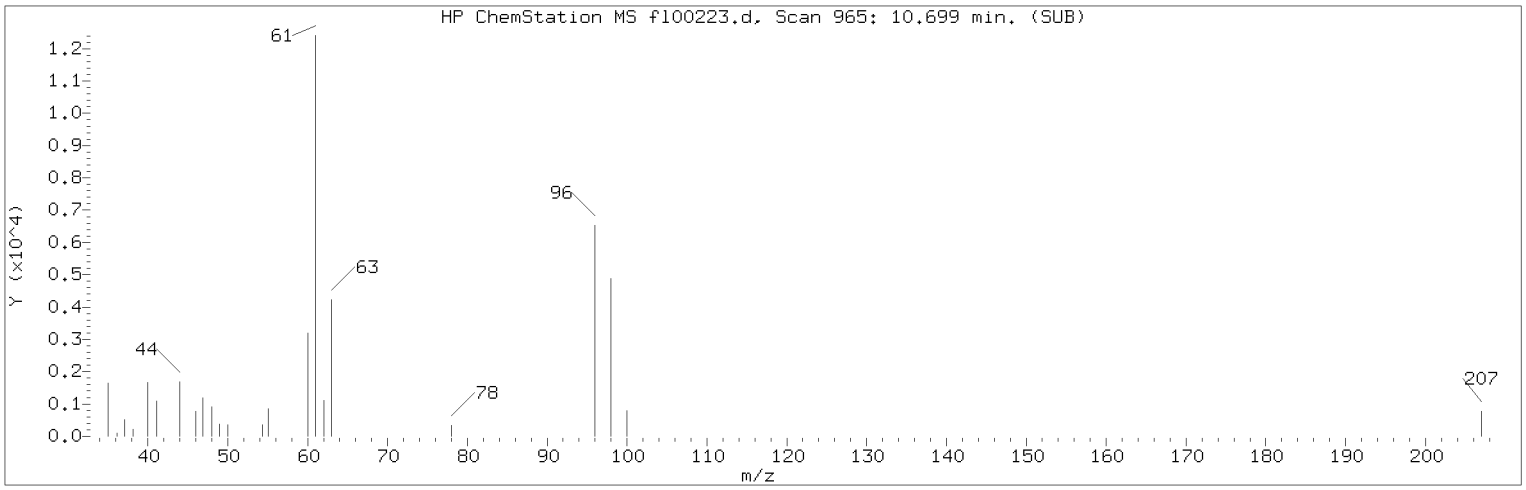
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:12 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

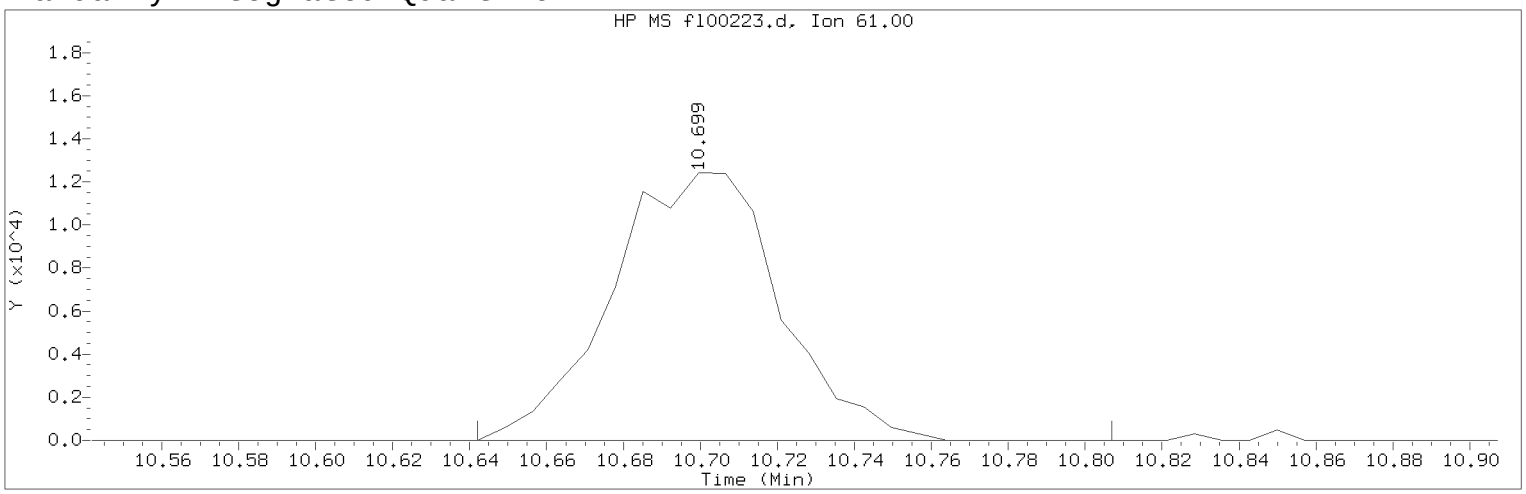
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 216
Retention Time (minutes): 5.334
Quant Ion : 94.00
Area : 18892
Concentration (ppb(v)) : 0.4991
Integration start scan : 208 Integration stop scan: 222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:12.
Target 3.5 esignature userBIR29jbs01211

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

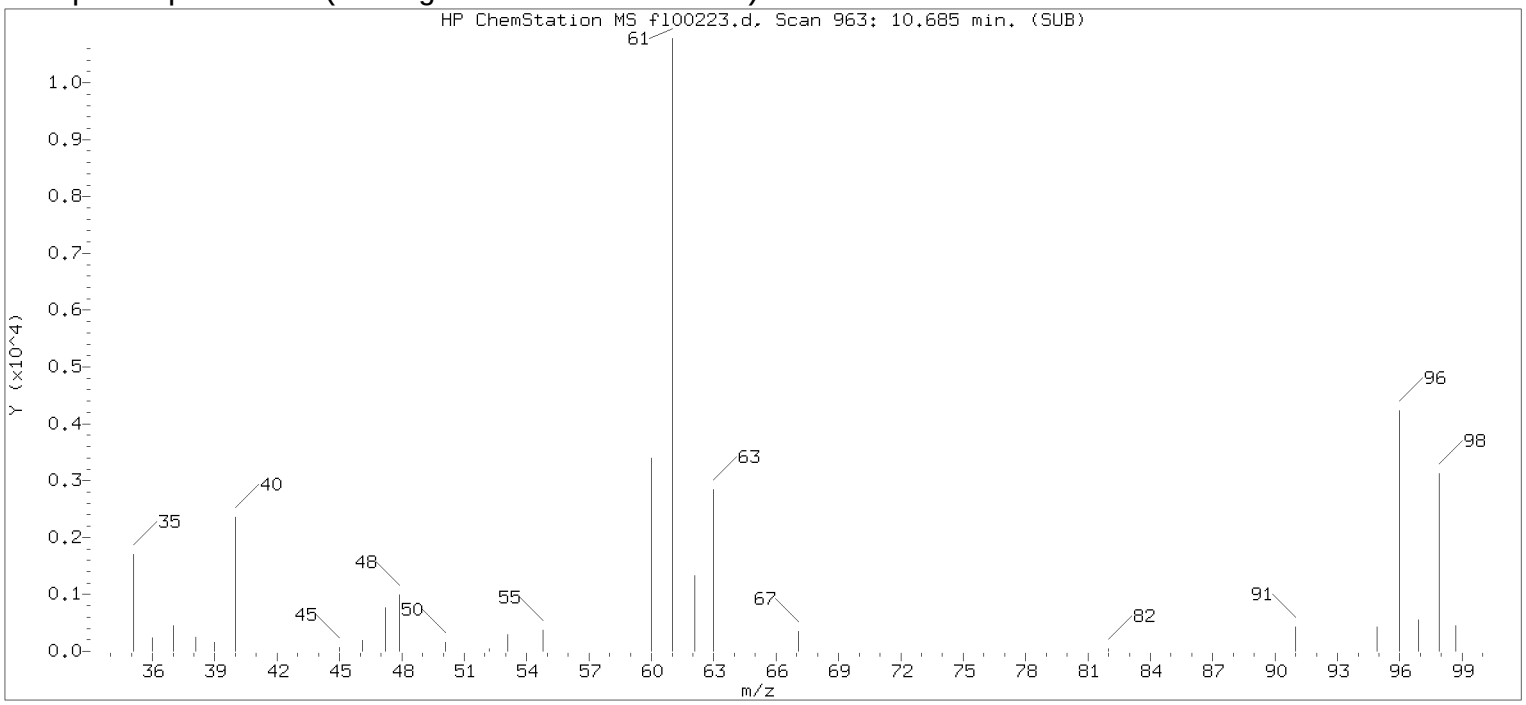
Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 965
Retention Time (minutes): 10.699
Quant Ion : 61.00
Area (flag) : 37738M
Concentration (ppb(v)) : 0.4496
Integration start scan : 956 Integration stop scan: 979
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

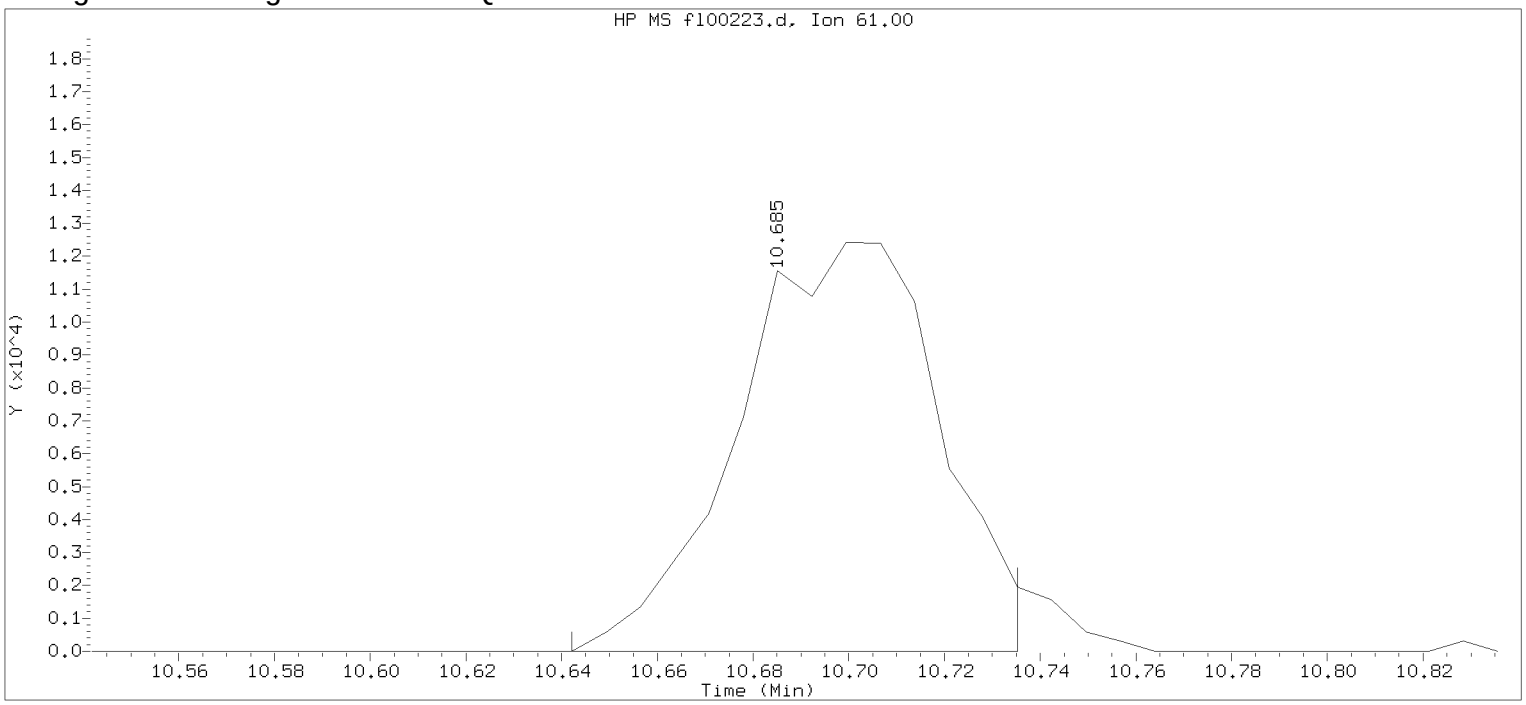
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:12.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



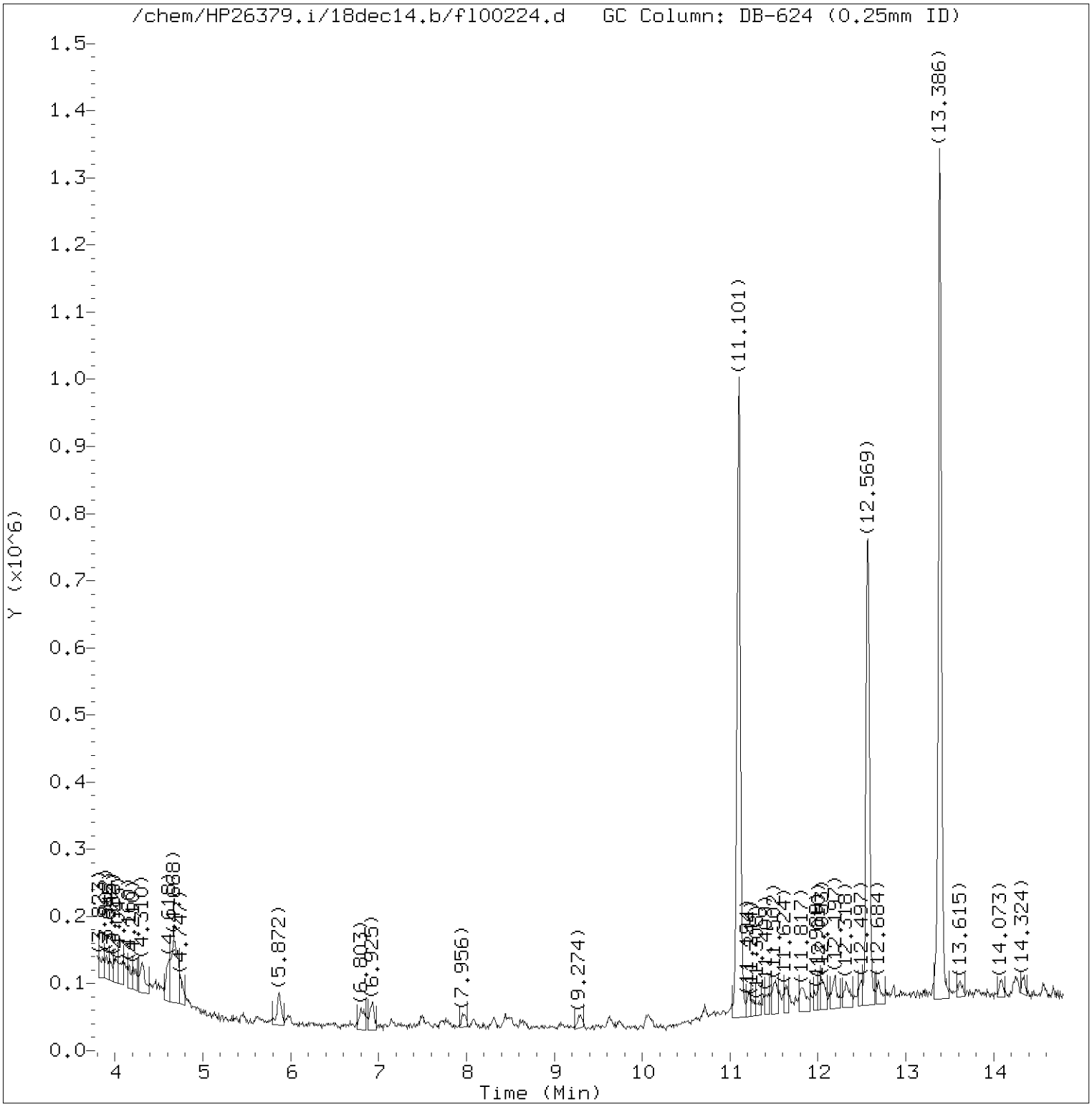
Data File: /chem/HP26379.i/18dec14.b/fl00223.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 17:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:12 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 963
Retention Time (minutes): 10.685
Quant Ion : 61.00
Area : 36264
Concentration (ppb(v)) : 0.4320
Integration start scan : 956 Integration stop scan: 969
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:12.
Target 3.5 esignature userBIR29jbs01214



Total Ion Chromatogram (TIC)

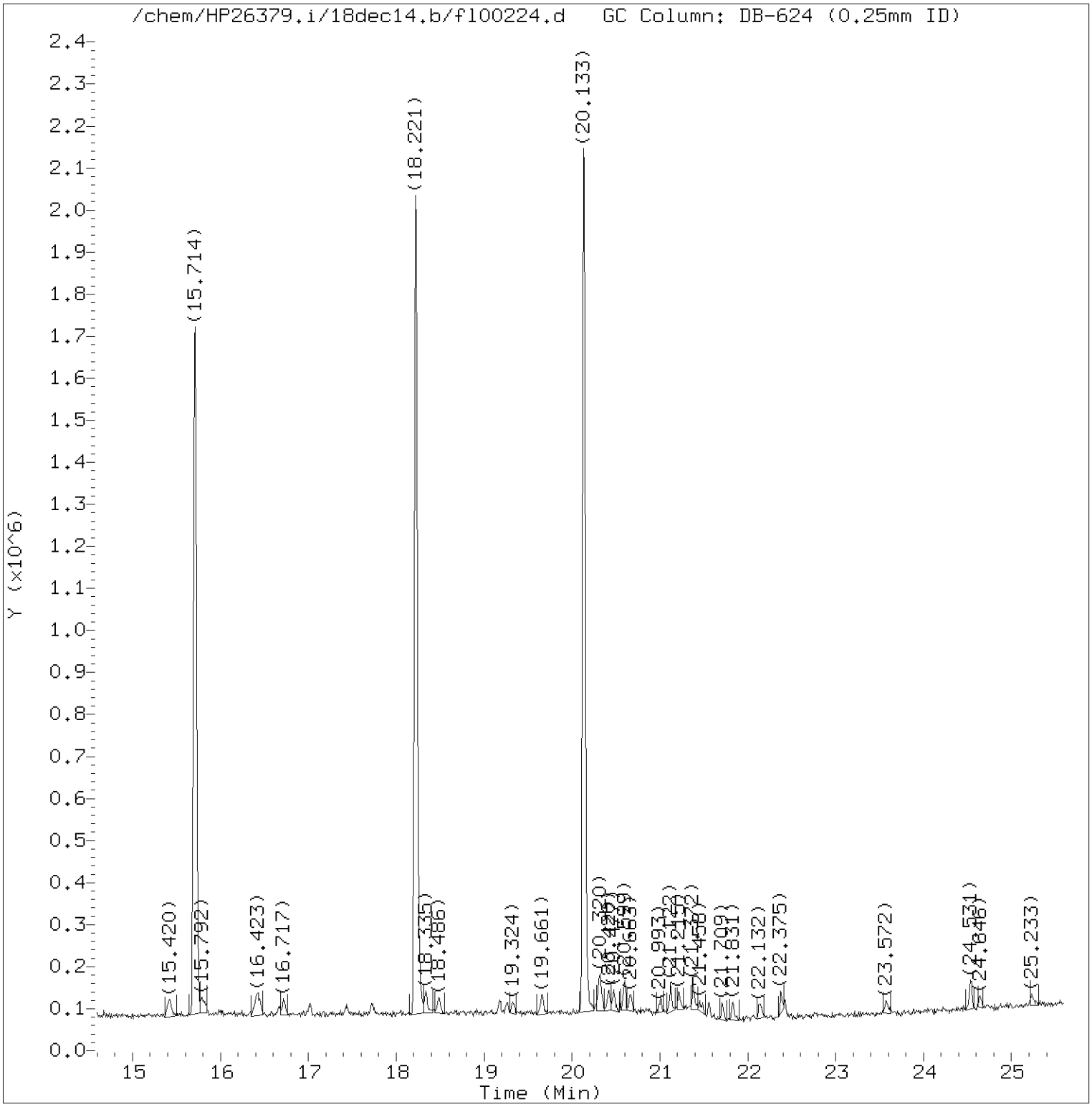
Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	8372	0.158
2) Dichlorodifluoromethane	(1)	4.009	85	20502	0.163
3) Chlorodifluoromethane	(1)	4.102	51	24555M	0.214
4) Freon 114	(1)	4.310	85	24419	0.193
5) Chloromethane	(1)	4.453	50	13475	0.221
6) Vinyl Chloride	(1)	4.647	62	6719	0.167
7) 1,3-Butadiene	(1)	4.675	54	11010	0.280
8) Bromomethane	(1)	5.349	94	8371M	0.222
9) Chloroethane	(1)	5.614	64	6696M	0.226
10) Bromoethene	(1)	5.829	106	6540	0.169
11) Pentane	(1)	5.872	43	20128	0.177
12) Trichlorofluoromethane	(1)	5.879	101	23758	0.186
13) Dichlorofluoromethane	(1)	5.972	67	20436	0.187
14) Ethanol	(1)	6.667	45	10766	0.499
15) Freon123a	(1)	6.803	67	22759	0.232
16) 1,1-Dichloroethene	(1)	6.853	61	14298	0.156
17) Freon 113	(1)	6.917	103	11750	0.170
18) Carbon Disulfide	(1)	6.939	76	21970	0.174
19) Methyl Iodide	(1)	7.147	142	16689	0.168
20) Acrolein	(1)	7.512	56	6641	0.278
21) Isopropanol	(1)	7.727	45	16600	0.176
22) 3-Chloropropene	(1)	7.770	41	14390	0.186
23) Methylene Chloride	(1)	7.992	84	7777	0.207
24) Acetone	(1)	8.085	43	25760	0.262
25) trans-1,2-Dichloroethene	(1)	8.314	61	14685	0.168
26) Hexane	(1)	8.443	56	13709	0.209
27) Methyl t-Butyl Ether	(1)	8.515	73	16725	0.132
28) tert-Butyl Alcohol	(1)	8.615	59	21008	0.182
29) Acetonitrile	(1)	9.074	41	19070	0.343
30) Di-Isopropyl Ether	(1)	9.303	45	32600	0.152
31) 1,1-Dichloroethane	(1)	9.625	63	20243	0.185
32) Acrylonitrile	(1)	9.747	53	10623	0.193
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	25690	0.135
34) Vinyl Acetate	(1)	10.098	43	27296	0.167
35) cis-1,2-Dichloroethene	(1)	10.700	61	13618	0.163
36) 1,2-Dichloroethene (total)	(1)		61	28303	0.332
37)*Bromochloromethane	(1)	11.101	130	381424	10.000
38) Cyclohexane	(1)	11.122	56	19463	0.184

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	15238	0.144
40) Ethyl Acetate	(1)	11.423	43	30674	0.206
41) Methyl Acrylate	(1)	11.459	55	19190	0.167
42) Carbon Tetrachloride	(1)	11.516	117	15985	0.164
43) Tetrahydrofuran	(1)	11.545	42	15798	0.216
44) 1,1,1-Trichloroethane	(1)	11.652	97	16667	0.155
45) 2-Butanone	(1)	11.817	43	27750	0.204
46) Isooctane	(2)	12.053	57	45109	0.160
47) Heptane	(2)	12.182	71	7681	0.169
48) Benzene	(2)	12.318	78	25155	0.183
49) Tert-Amyl Methyl Ether	(2)	12.490	73	17943	0.151
50) 1,2-Dichloroethane	(2)	12.698	62	15016	0.182
51) Trichloroethene	(2)	13.336	130	9793	0.171
52)*1,4-Difluorobenzene	(2)	13.386	114	1230883	10.000
53) Dibromomethane	(2)	14.081	174	12073	0.192
54) Ethyl Acrylate	(2)	14.231	55	22269	0.165
55) 1,2-Dichloropropane	(2)	14.260	63	13896	0.203
56) Bromodichloromethane	(2)	14.338	83	18518	0.175
57) Methyl Methacrylate	(2)	14.575	69	6858	0.150
58) 1,4-Dioxane	(2)	14.689	88	5774	0.187
59) cis-1,3-Dichloropropene	(2)	15.399	75	13644	0.166
60) Octane	(3)	15.420	43	26542	0.168
61) Toluene	(3)	15.792	91	26644	0.162
62) 4-Methyl-2-Pentanone	(2)	16.401	43	28802	0.177
63) Tetrachloroethene	(3)	16.409	166	15281	0.162
64) trans-1,3-Dichloropropene	(3)	16.459	75	13788	0.192
66) Ethyl Methacrylate	(3)	16.659	69	11466	0.151
65) 1,3-Dichloropropene (total)	(3)		75	27432	0.358
67) 1,1,2-Trichloroethane	(3)	16.724	97	9669	0.152
68) Dibromochloromethane	(3)	17.017	127	12630	0.161
69) 1,2-Dibromoethane	(3)	17.433	107	16977	0.179
70) 2-Hexanone	(3)	17.719	43	28814	0.187
71)*Chlorobenzene-d5	(3)	18.221	117	1194606	10.000
72) Chlorobenzene	(3)	18.249	112	23818	0.170
73) Ethylbenzene	(3)	18.257	91	36925	0.162
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	13242	0.184
75) m/p-Xylene	(3)	18.486	91	23280	0.142
76) o-Xylene	(3)	19.181	91	22735	0.141

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

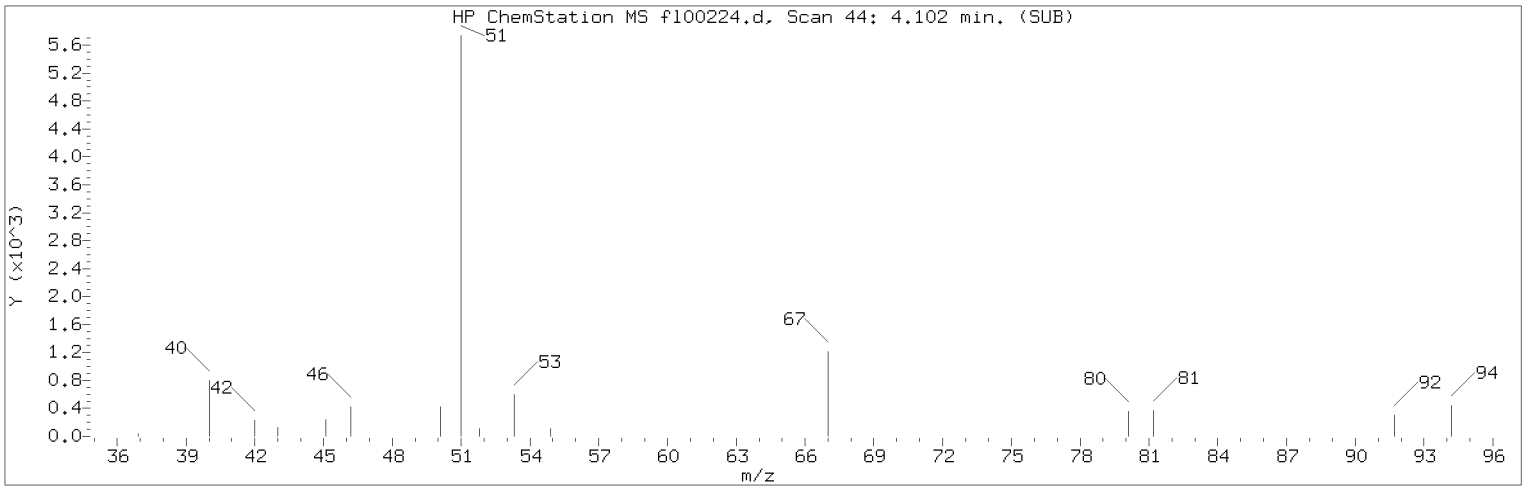
Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	46015	0.283
78) Styrene	(3)	19.259	104	16101	0.139
79) Bromoform	(3)	19.331	173	18206	0.166
80) Cumene	(3)	19.661	105	27309	0.123
81) n-Propylbenzene	(3)	20.305	120	8550	0.134
82) Bromobenzene	(3)	20.327	156	12559	0.143
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	24051	0.167
84) 4-Ethyltoluene	(3)	20.477	105	30280	0.137
85) 2-Chlorotoluene	(3)	20.585	126	8346	0.141
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	24353	0.130
87) 1,2,3-Trichloropropane	(3)	20.663	110	7803	0.183
88) Alpha Methyl Styrene	(3)	21.007	118	10861	0.139
89) tert-Butylbenzene	(3)	21.129	119	31087	0.178
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	21463	0.120
91) sec-Butylbenzene	(3)	21.380	105	36226	0.133
92) p-Isopropyltoluene	(3)	21.552	119	28016	0.133
93) 1,3-Dichlorobenzene	(3)	21.709	146	21307	0.152
94) 1,4-Dichlorobenzene	(3)	21.831	146	21676	0.156
95) n-Butylbenzene	(3)	22.132	92	12572	0.103
96) Benzyl Chloride	(3)	22.160	126	3537M	0.133
97) Hexachloroethane	(3)	22.375	117	9227	0.158
98) 1,2-Dichlorobenzene	(3)	22.418	146	18398	0.144
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	9081	0.153
100) Hexachlorobutadiene	(3)	24.539	225	19446	0.234
101) 1,2,4-Trichlorobenzene	(3)	24.653	180	15359	0.183
102) Naphthalene	(3)	25.241	128	30030M	0.222

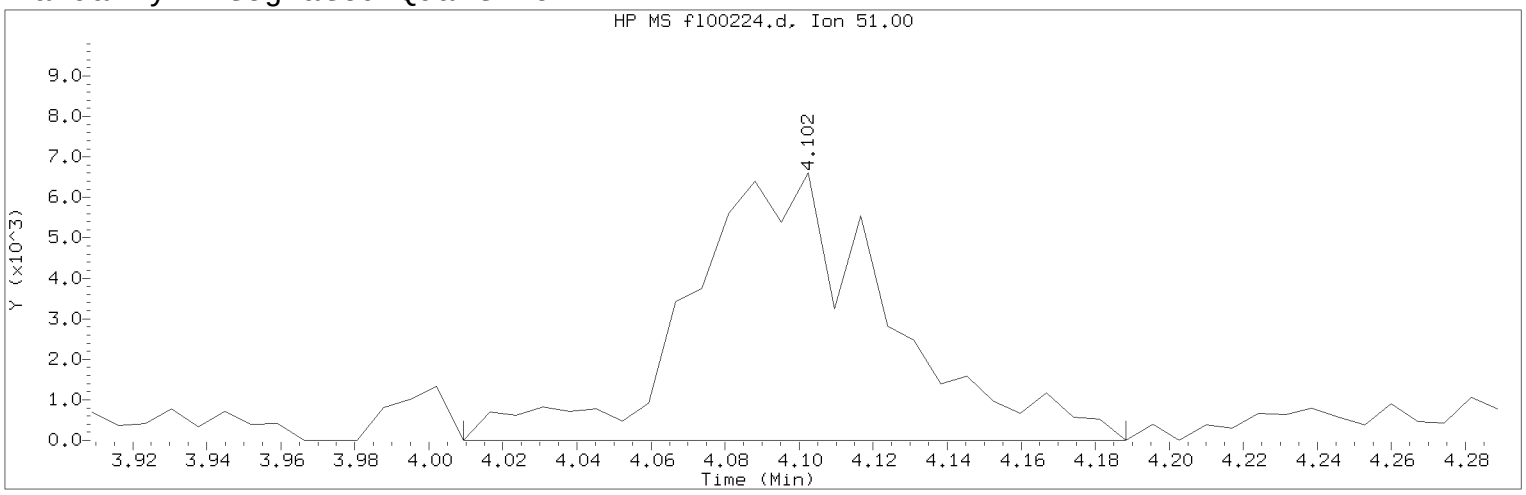
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

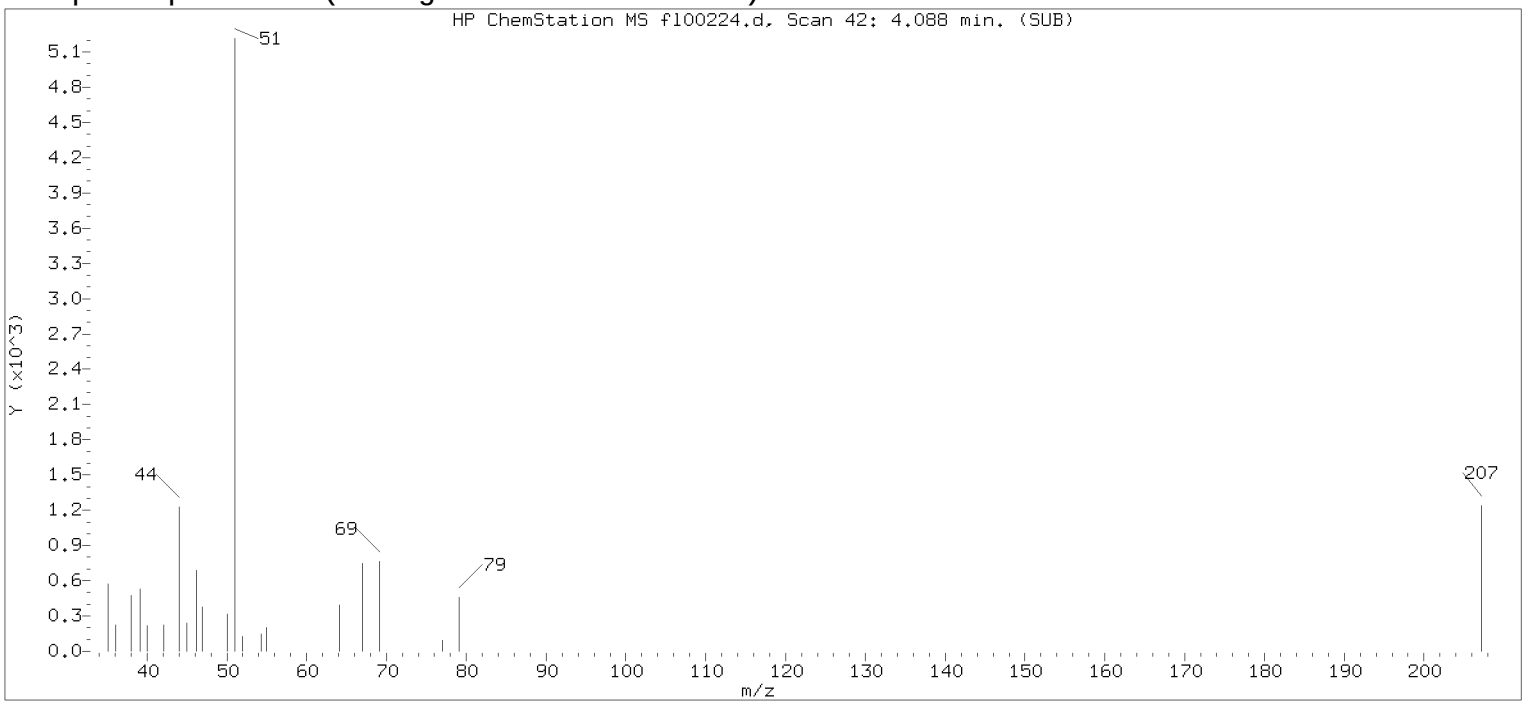
Compound Number : 3
Compound Name : Chlorodifluoromethane
Scan Number : 44
Retention Time (minutes): 4.102
Quant Ion : 51.00
Area (flag) : 24555M
Concentration (ppb(v)) : 0.2140
Integration start scan : 30 Integration stop scan: 55
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

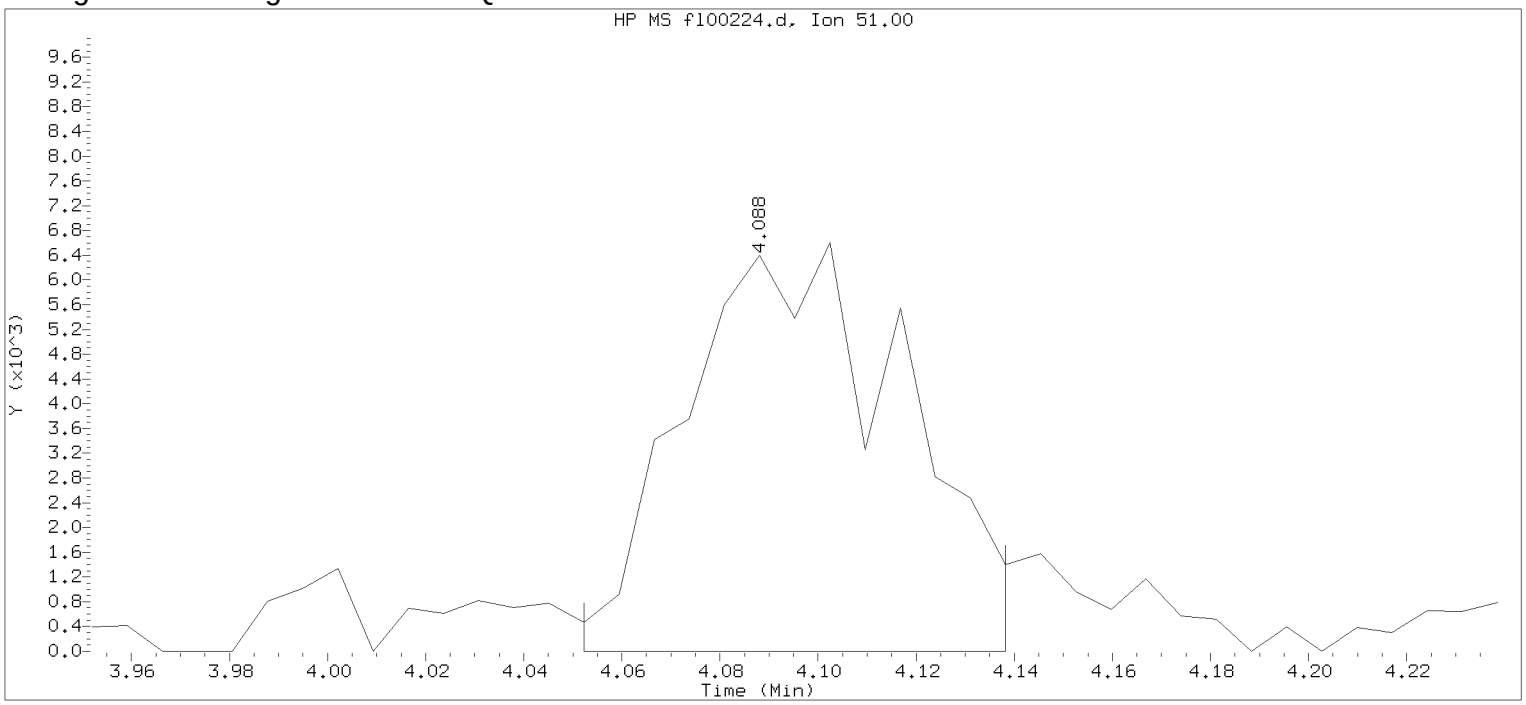
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

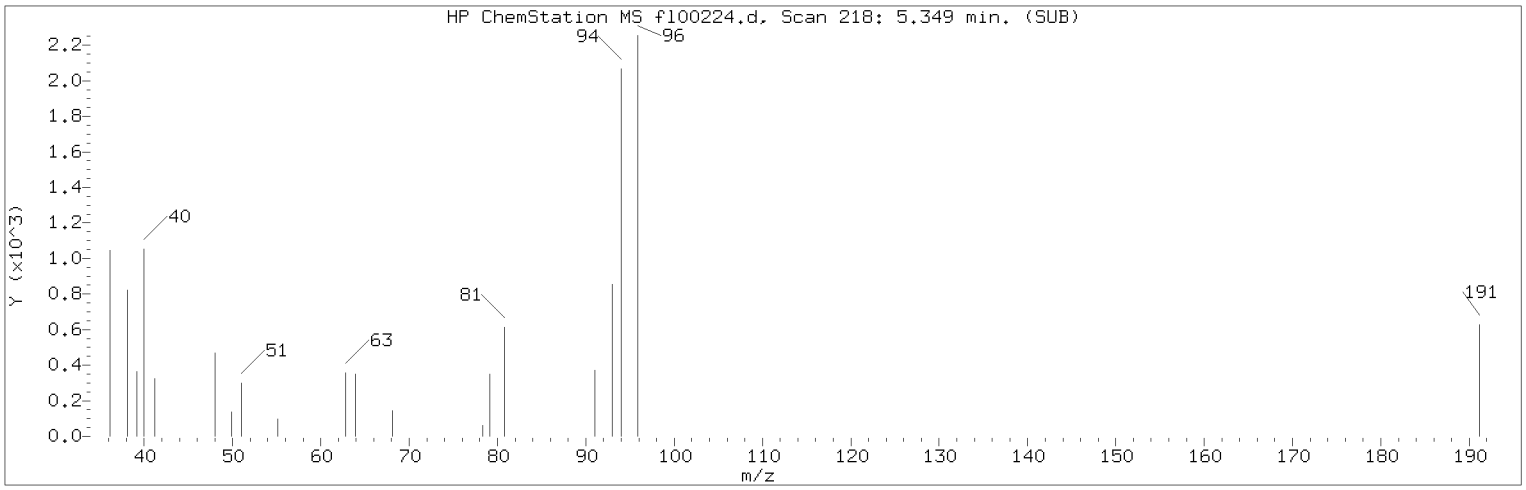
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:42 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

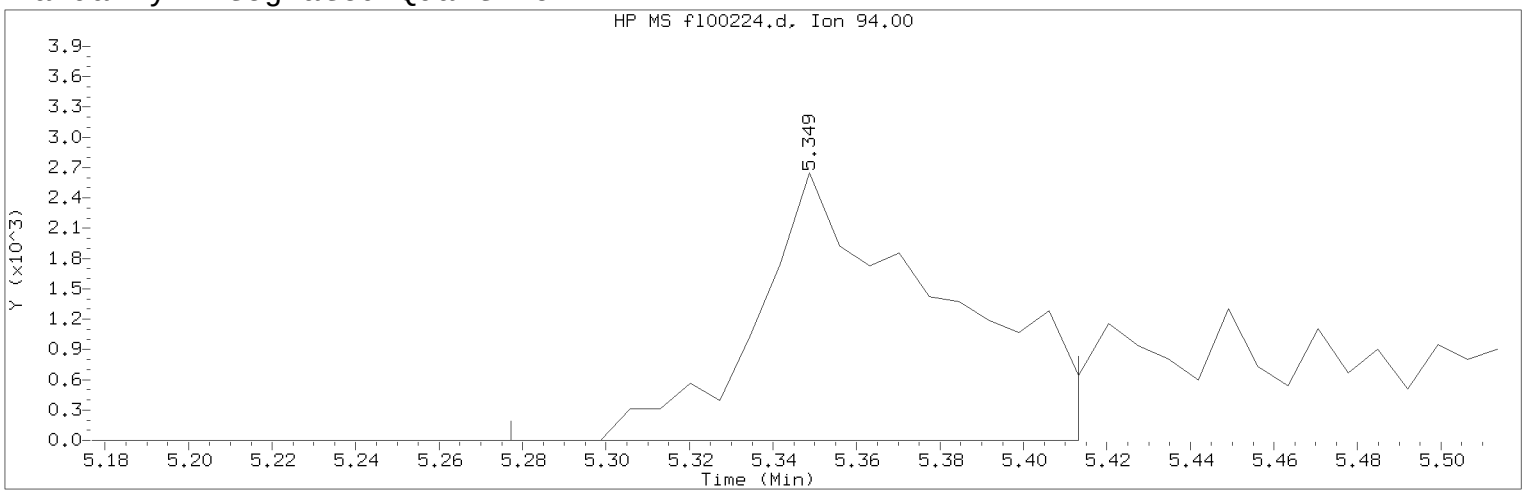
Compound Number : 3
Compound Name : Chlorodifluoromethane
Scan Number : 42
Retention Time (minutes): 4.088
Quant Ion : 51.00
Area : 20246
Concentration (ppb(v)) : 0.1765
Integration start scan : 36 Integration stop scan: 48
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:13.
Target 3.5 esignature userBIR29jbs01220

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

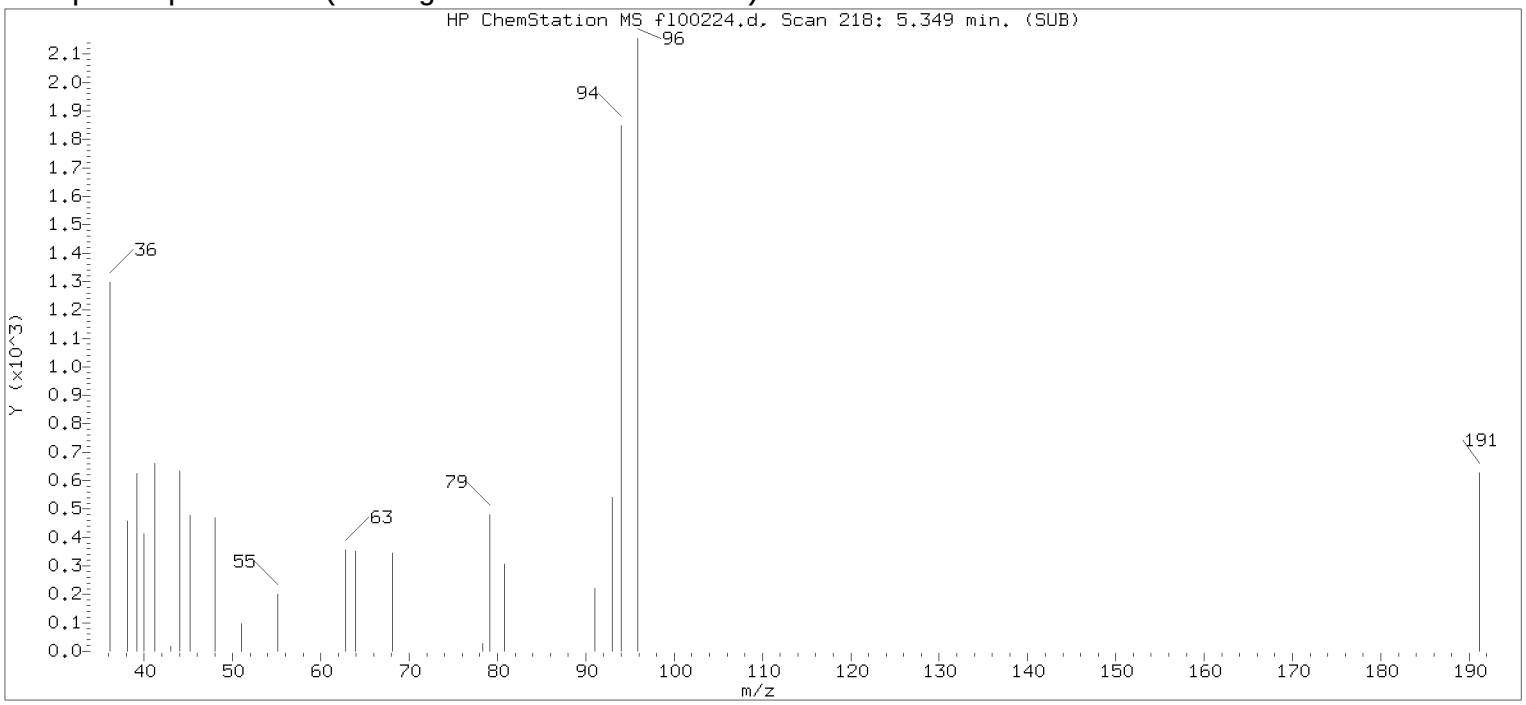
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 218
Retention Time (minutes): 5.349
Quant Ion : 94.00
Area (flag) : 8371M
Concentration (ppb(v)) : 0.2224
Integration start scan : 207 Integration stop scan: 226
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

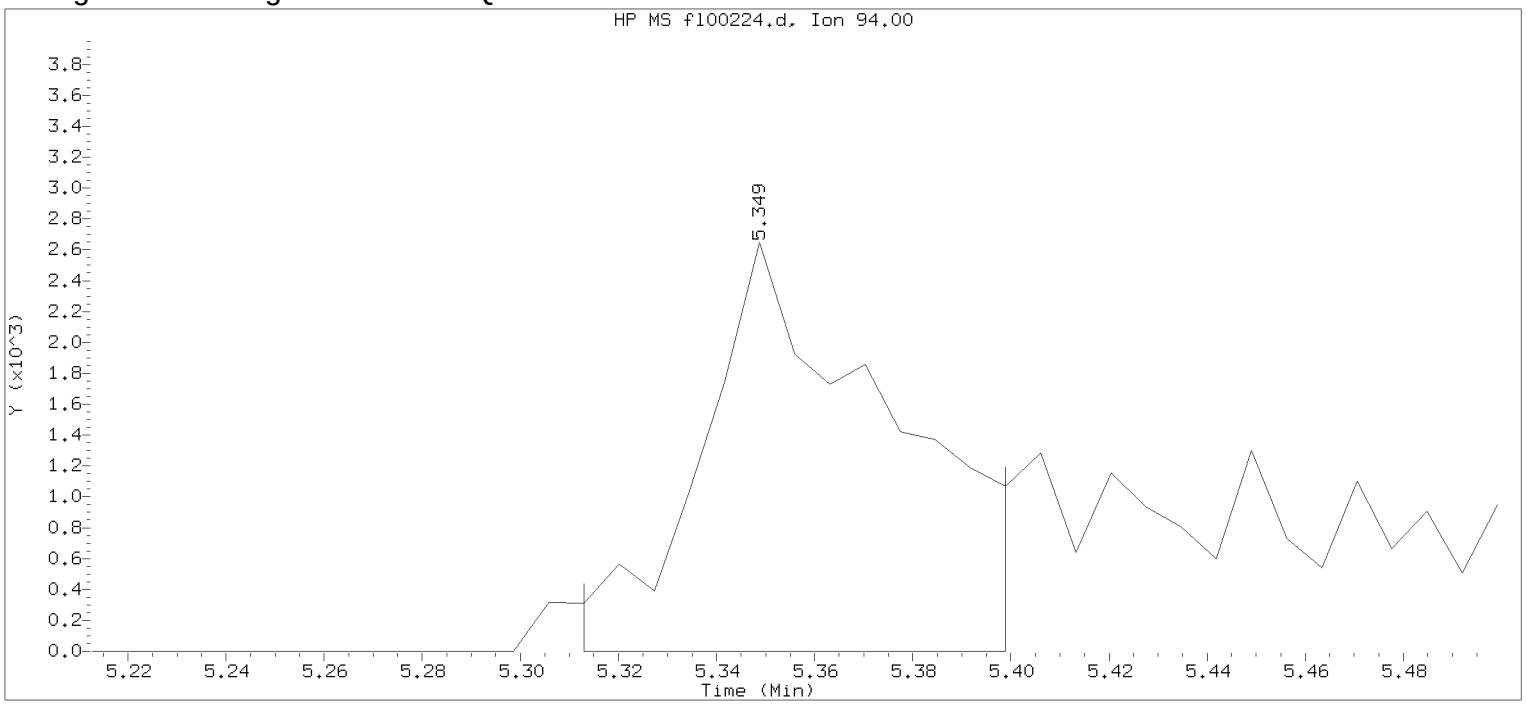
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

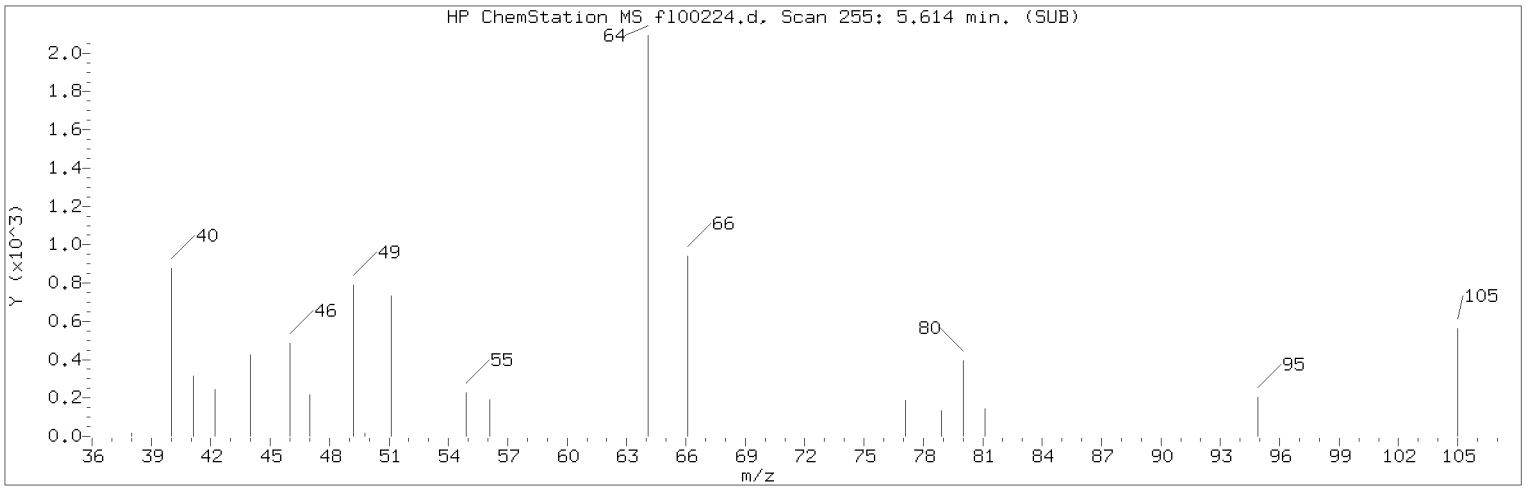
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:42 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

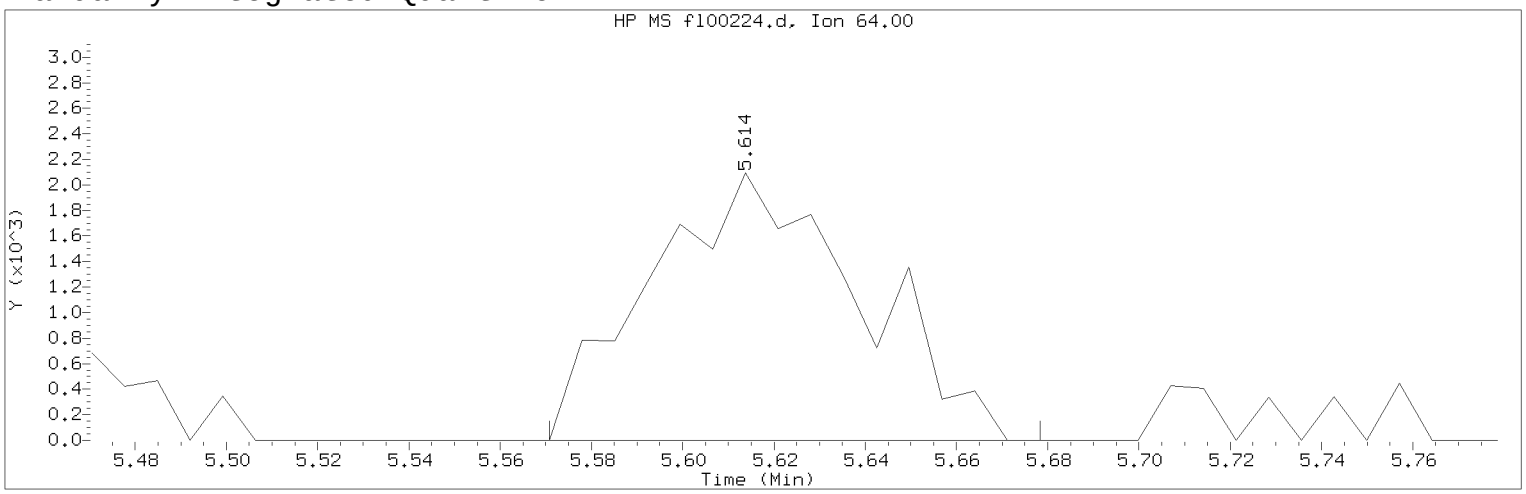
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 218
Retention Time (minutes): 5.349
Quant Ion : 94.00
Area : 7113
Concentration (ppb(v)) : 0.1890
Integration start scan : 212 Integration stop scan: 224
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:13.
Target 3.5 esignature userBIR29jbs01224

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

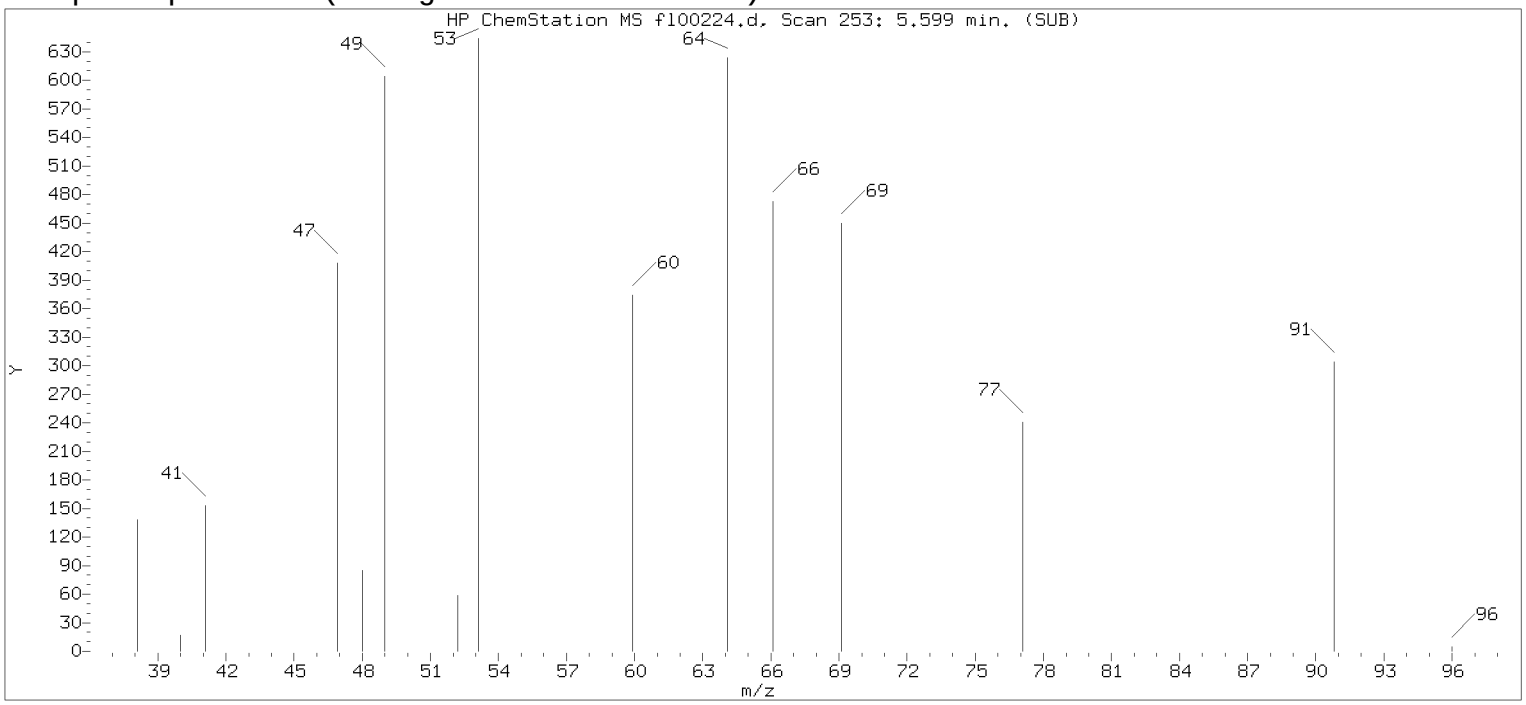
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 255
Retention Time (minutes): 5.614
Quant Ion : 64.00
Area (flag) : 6696M
Concentration (ppb(v)) : 0.2261
Integration start scan : 248 Integration stop scan: 263
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

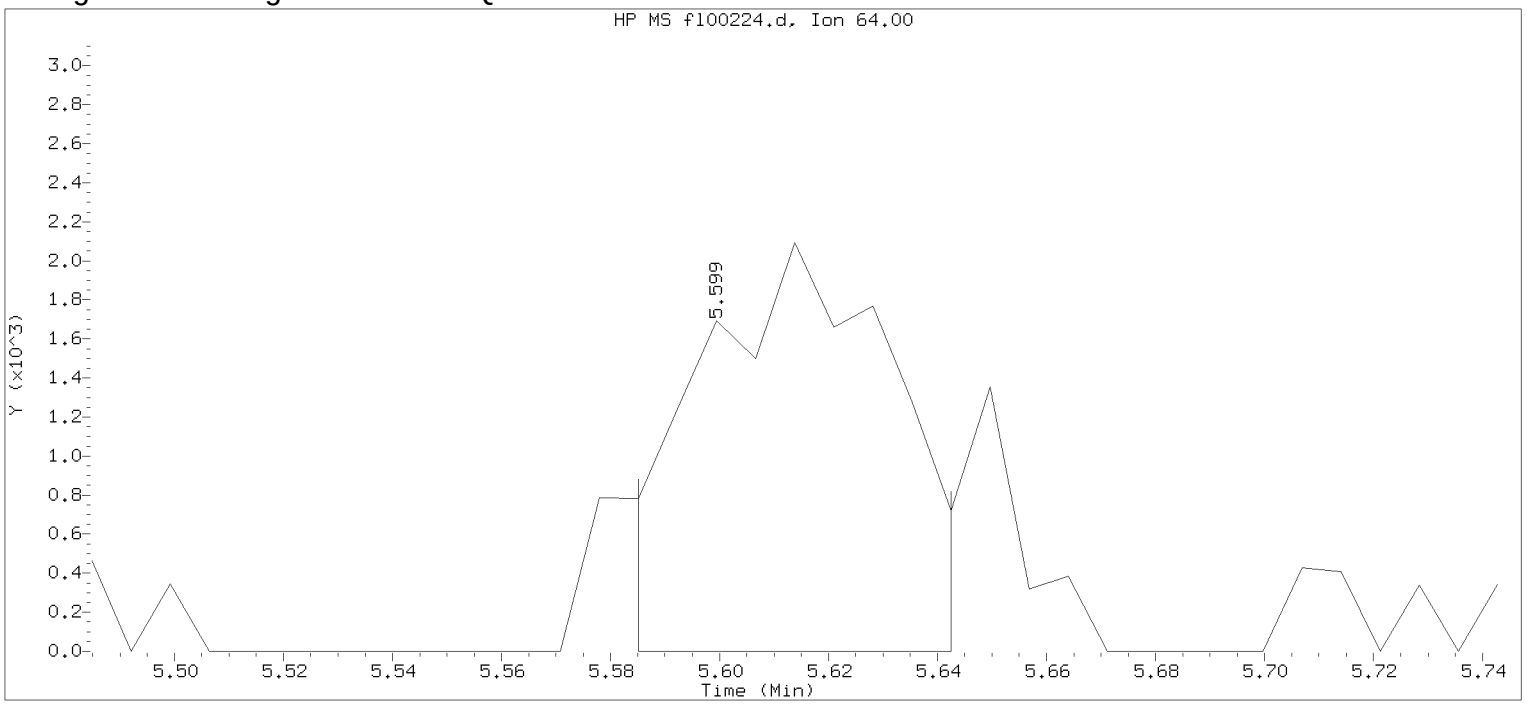
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

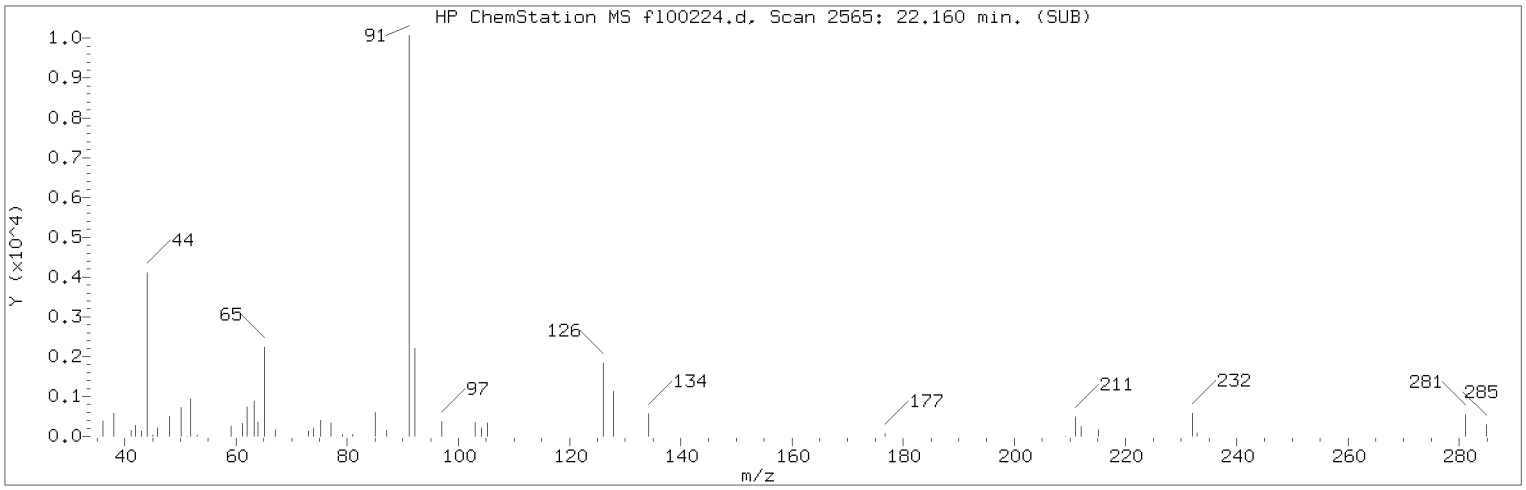
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:42 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

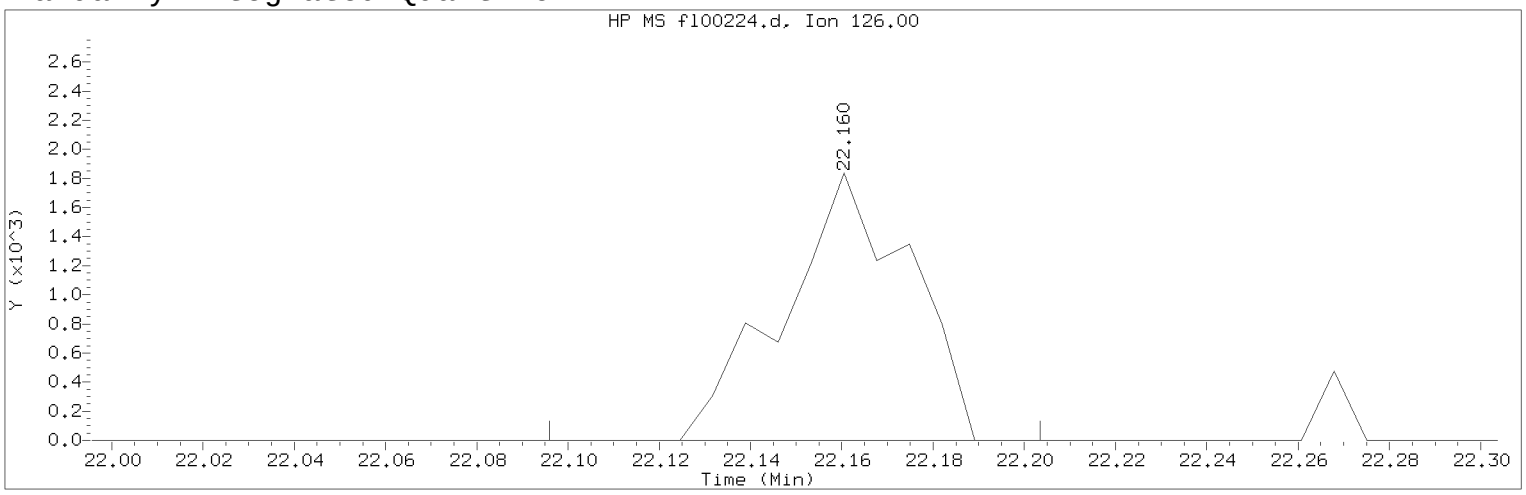
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 253
Retention Time (minutes): 5.599
Quant Ion : 64.00
Area : 5150
Concentration (ppb(v)) : 0.1739
Integration start scan : 250 Integration stop scan: 258
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:13.
Target 3.5 esignature userBIR29jbs01324

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

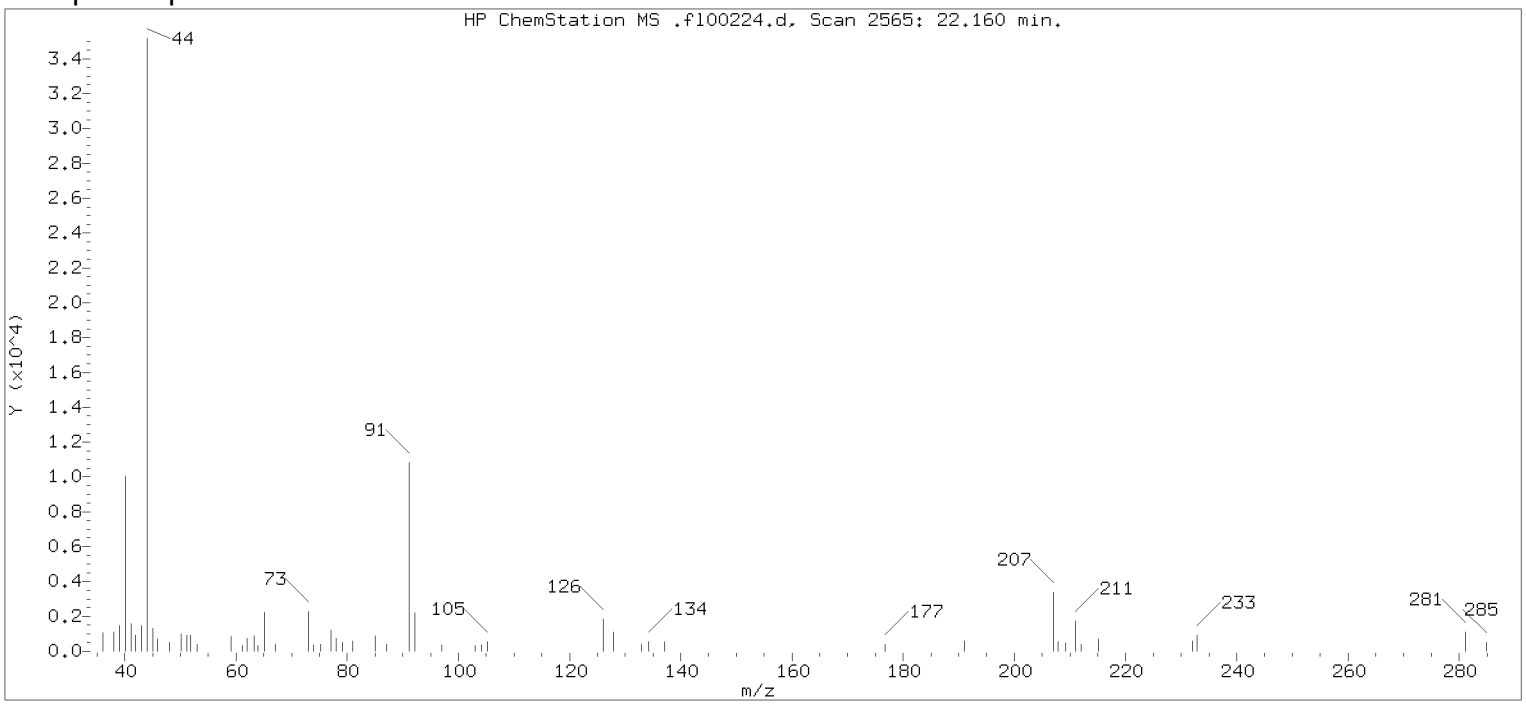
Compound Number : 96
Compound Name : Benzyl Chloride
Scan Number : 2565
Retention Time (minutes): 22.160
Quant Ion : 126.00
Area (flag) : 3537M
Concentration (ppb(v)) : 0.1333
Integration start scan : 2555 Integration stop scan: 2570
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

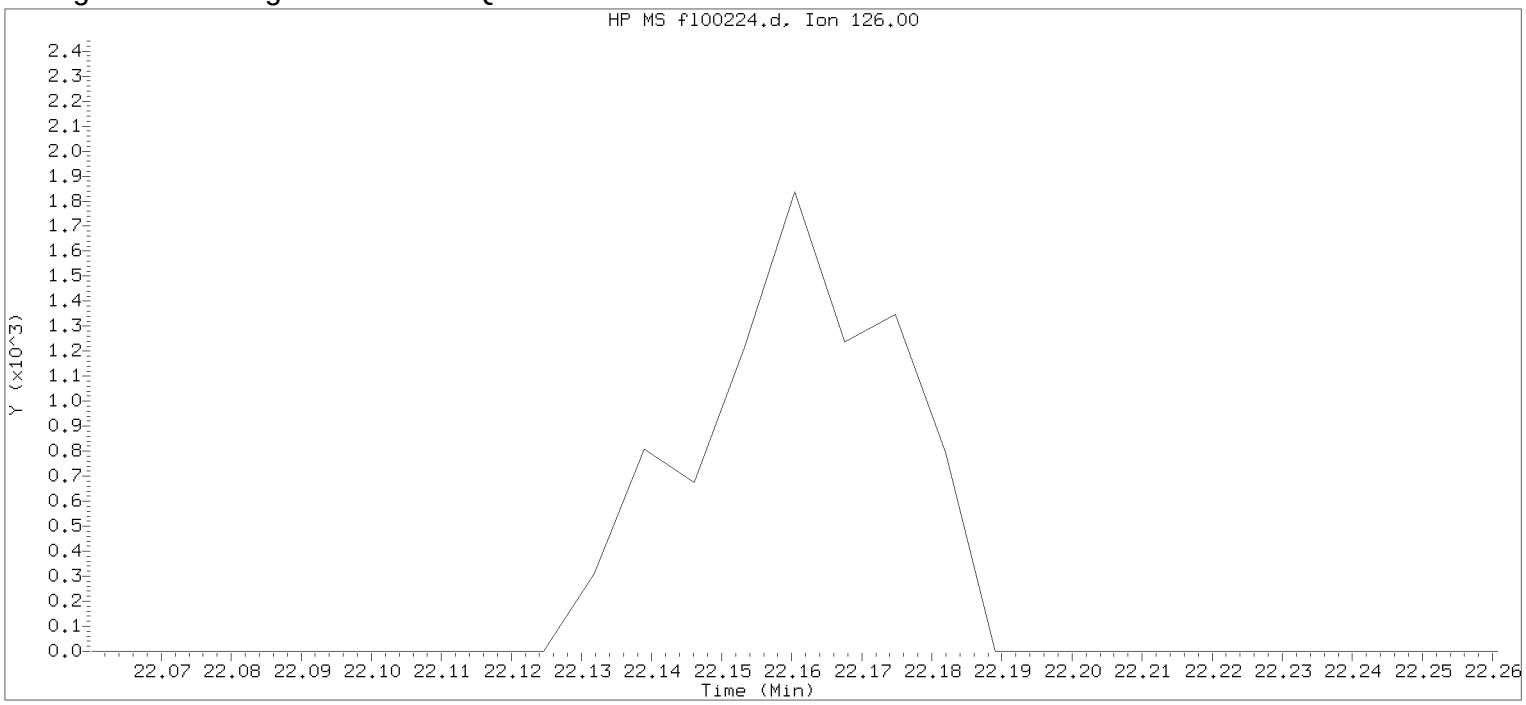
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

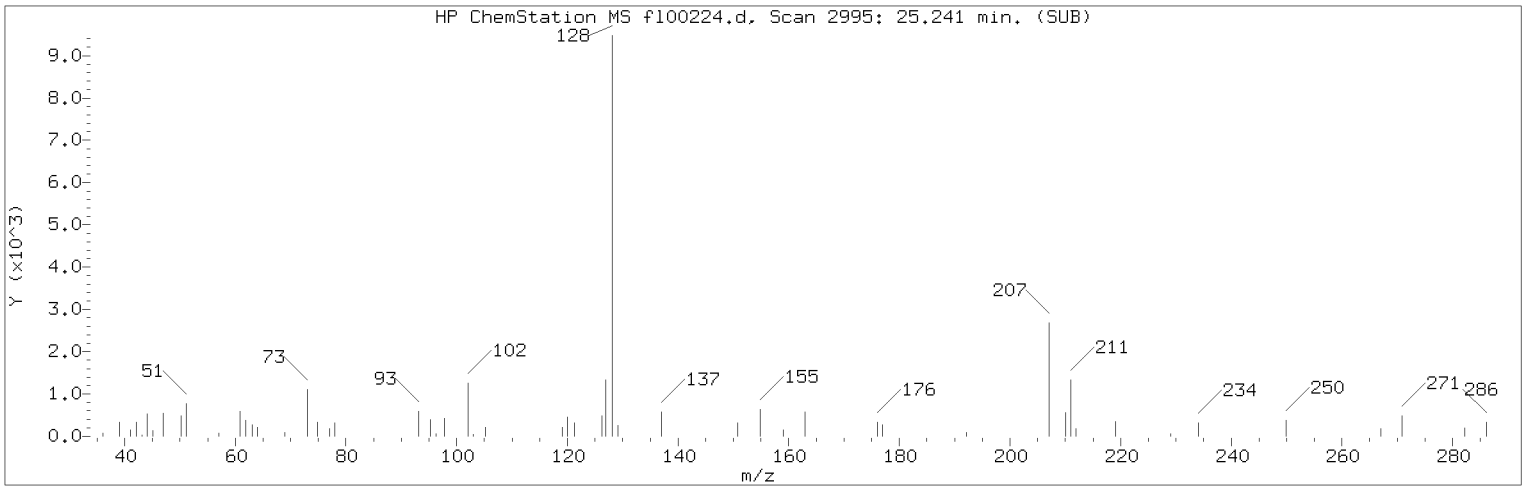
Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:42 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

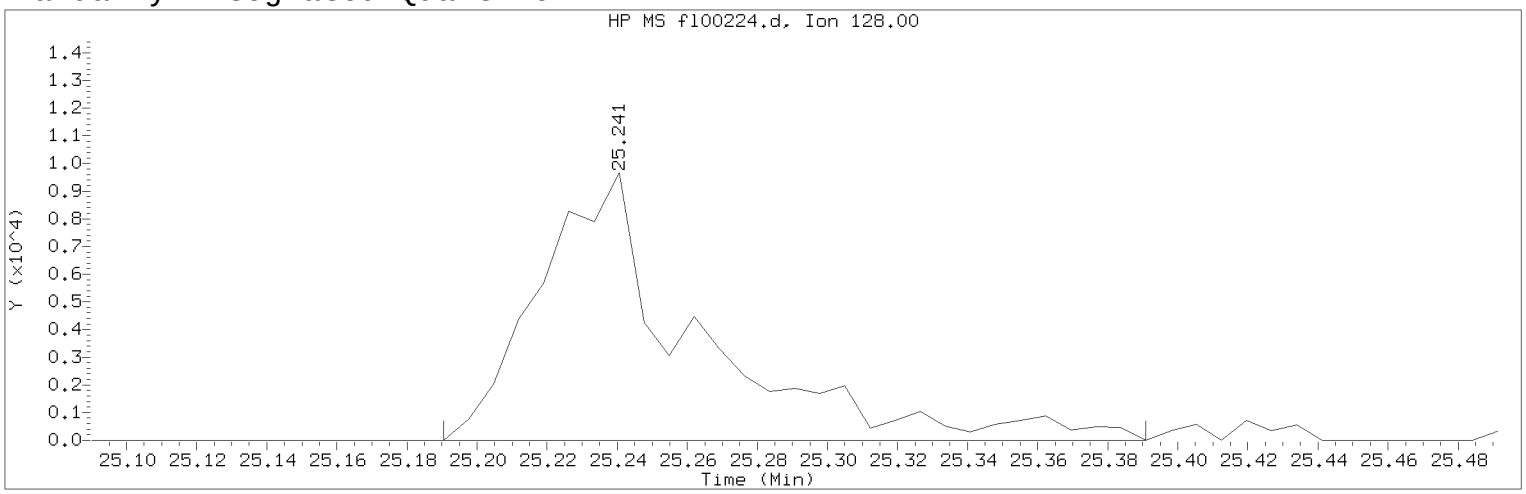
Compound Number : 96
Compound Name : Benzyl Chloride
Expected RT (minutes) : 22.160
Quant Ion : 126.00

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 17-Dec-2018 15:12 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

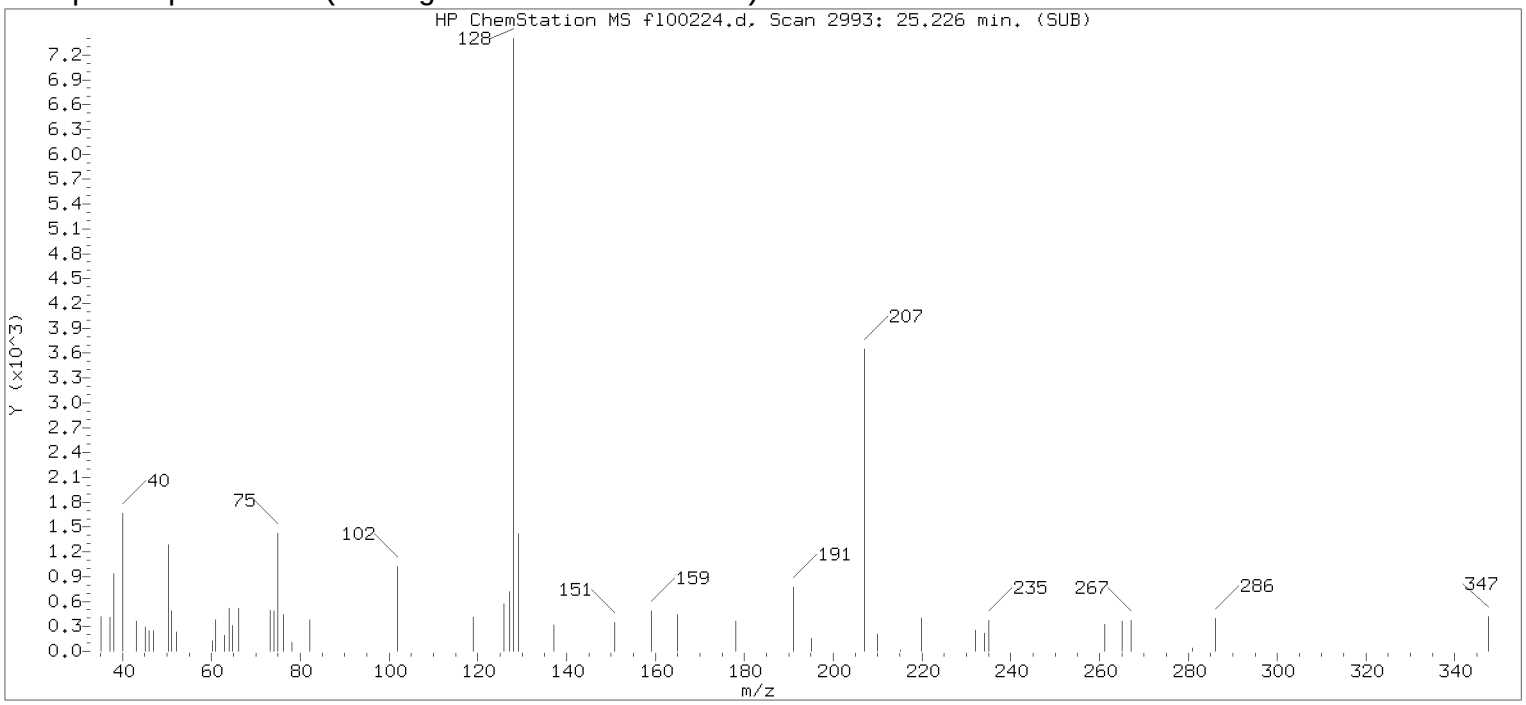
Compound Number : 102
Compound Name : Naphthalene
Scan Number : 2995
Retention Time (minutes): 25.241
Quant Ion : 128.00
Area (flag) : 30030M
Concentration (ppb(v)) : 0.2225
Integration start scan : 2987 Integration stop scan: 3015
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

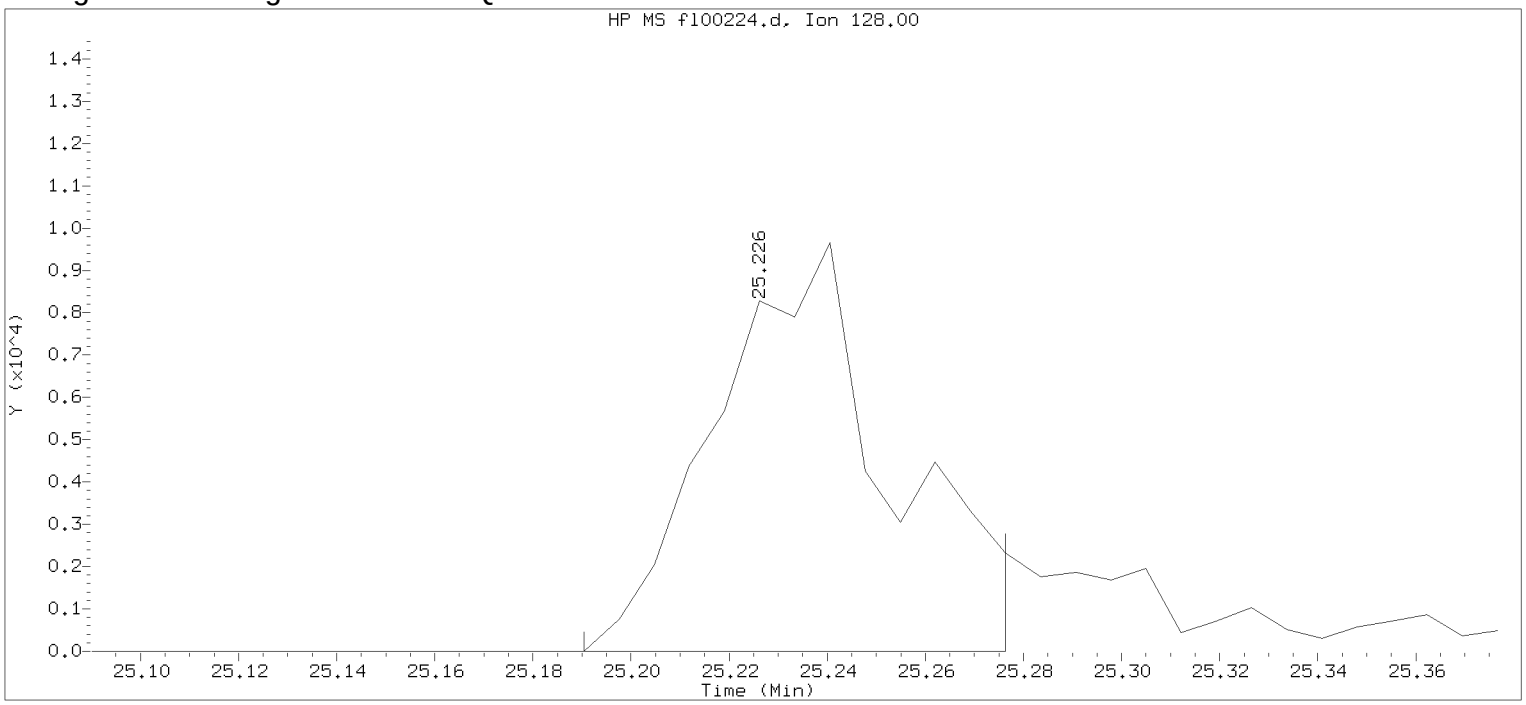
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 12/17/2018 at 15:13.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:07.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec14.b/fl00224.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 18:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 16:59
Date, time and analyst ID of latest file update: 14-Dec-2018 18:42 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 102
Compound Name : Naphthalene
Scan Number : 2993
Retention Time (minutes): 25.226
Quant Ion : 128.00
Area : 23617
Concentration (ppb(v)) : 0.1750
Integration start scan : 2987 Integration stop scan: 2999
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:13.
Target 3.5 esignature userBIR29jbs01328

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00221.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 15:43 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:26 jeb07445

Sample Name: LCSF06 Lab Sample ID: LCSF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	491347	9.678
2) Dichlorodifluoromethane	(1)	4.002	85	1255077	10.387
3) Chlorodifluoromethane	(1)	4.088	51	1158726	10.526
4) Freon 114	(1)	4.303	85	1238233	10.205
5) Chloromethane	(1)	4.446	50	590512	10.103
6) Vinyl Chloride	(1)	4.632	62	400961	10.401
7) 1,3-Butadiene	(1)	4.668	54	337481	8.932
8) Bromomethane	(1)	5.349	94	398763	11.040
9) Chloroethane	(1)	5.614	64	292564	10.294
10) Bromoethene	(1)	5.829	106	387206	10.453
11) Pentane	(1)	5.864	43	1028124	9.428
12) Trichlorofluoromethane	(1)	5.872	101	1190308	9.724
13) Dichlorofluoromethane	(1)	5.972	67	1129268	10.754
14) Ethanol	(1)	6.667	45	229812	11.093
15) Freon123a	(1)	6.796	67	1080404	11.469
16) 1,1-Dichloroethene	(1)	6.846	61	908217	10.297
17) Freon 113	(1)	6.903	103	645701	9.709
18) Carbon Disulfide	(1)	6.932	76	1225107	10.115
19) Methyl Iodide	(1)	7.147	142	896536	9.379
20) Acrolein	(1)	7.498	56	238936	10.429
21) Isopropanol	(1)	7.712	45	935972	10.361
22) 3-Chloropropene	(1)	7.763	41	917226	12.386
23) Methylene Chloride	(1)	7.978	84	417570	11.576
24) Acetone	(1)	8.063	43	1010690	10.708
25) trans-1,2-Dichloroethene	(1)	8.300	61	851535	10.176
26) Hexane	(1)	8.443	56	631978	10.046
27) Methyl t-Butyl Ether	(1)	8.500	73	1206028	9.932
28) tert-Butyl Alcohol	(1)	8.622	59	1185955	10.718
29) Acetonitrile	(1)	9.081	41	611365	11.467
30) Di-Isopropyl Ether	(1)	9.288	45	2025282	9.828
31) 1,1-Dichloroethane	(1)	9.625	63	1055449	10.035
32) Acrylonitrile	(1)	9.732	53	544342	10.318
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	1765485	9.687
34) Vinyl Acetate	(1)	10.098	43	1813610	11.595
35) cis-1,2-Dichloroethene	(1)	10.707	61	791430	9.882
36) 1,2-Dichloroethene (total)	(1)		61	1642965	20.058
37)*Bromochloromethane	(1)	11.101	130	365955	10.000
38) Cyclohexane	(1)	11.108	56	979380	9.625

* = Compound is an internal standard.

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on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00221.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 15:43 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:26 jeb07445

Sample Name: LCSF06 Lab Sample ID: LCSF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1042466	10.297
40) Ethyl Acetate	(1)	11.409	43	1426312	9.976
41) Methyl Acrylate	(1)	11.444	55	1136473	10.302
42) Carbon Tetrachloride	(1)	11.502	117	958741	10.282
43) Tetrahydrofuran	(1)	11.538	42	756439	10.777
44) 1,1,1-Trichloroethane	(1)	11.638	97	1048034	10.129
45) 2-Butanone	(1)	11.795	43	1360559	10.415
46) Isooctane	(2)	12.039	57	2912693	10.259
47) Heptane	(2)	12.189	71	461379	10.101
48) Benzene	(2)	12.318	78	1456241	10.501
49) Tert-Amyl Methyl Ether	(2)	12.483	73	1199655	10.033
50) 1,2-Dichloroethane	(2)	12.684	62	888632	10.685
51) Trichloroethene	(2)	13.335	130	609320	10.578
52)*1,4-Difluorobenzene	(2)	13.386	114	1240030	10.000
53) Dibromomethane	(2)	14.088	174	665524	10.522
54) Ethyl Acrylate	(2)	14.224	55	1415050	10.431
55) 1,2-Dichloropropane	(2)	14.259	63	730303	10.596
56) Bromodichloromethane	(2)	14.338	83	1110421	10.398
57) Methyl Methacrylate	(2)	14.568	69	467017	10.110
58) 1,4-Dioxane	(2)	14.675	88	334585	10.734
59) cis-1,3-Dichloropropene	(2)	15.398	75	857096	10.330
60) Octane	(3)	15.420	43	1619708	10.116
61) Toluene	(3)	15.792	91	1672947	10.029
62) 4-Methyl-2-Pentanone	(2)	16.394	43	1698399	10.351
63) Tetrachloroethene	(3)	16.423	166	1008495	10.513
64) trans-1,3-Dichloropropene	(3)	16.459	75	758293	10.407
66) Ethyl Methacrylate	(3)	16.666	69	798520	10.332
65) 1,3-Dichloropropene (total)	(3)		75	1615389	20.737
67) 1,1,2-Trichloroethane	(3)	16.724	97	676286	10.494
68) Dibromochloromethane	(3)	17.017	127	816119	10.268
69) 1,2-Dibromoethane	(3)	17.433	107	993750	10.320
70) 2-Hexanone	(3)	17.726	43	1620792	10.362
71)*Chlorobenzene-d5	(3)	18.221	117	1212853	10.000
72) Chlorobenzene	(3)	18.249	112	1428986	10.062
73) Ethylbenzene	(3)	18.264	91	2296039	9.939
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	758267	10.350
75) m/p-Xylene	(3)	18.486	91	1695902	10.184
76) o-Xylene	(3)	19.173	91	1635852	9.970

* = Compound is an internal standard.

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on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00221.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 15:43 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:26 jeb07445

Sample Name: LCSF06 Lab Sample ID: LCSF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3331754	20.154
78) Styrene	(3)	19.259	104	1231426	10.494
79) Bromoform	(3)	19.331	173	1118255	10.025
80) Cumene	(3)	19.660	105	2401808	10.649
81) n-Propylbenzene	(3)	20.312	120	673236	10.360
82) Bromobenzene	(3)	20.319	156	926936	10.389
83) 1,1,2,2-Tetrachloroethane	(3)	20.413	83	1433277	9.829
84) 4-Ethyltoluene	(3)	20.470	105	2369657	10.563
85) 2-Chlorotoluene	(3)	20.592	126	622525	10.389
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2060070	10.798
87) 1,2,3-Trichloropropane	(3)	20.663	110	453919	10.500
88) Alpha Methyl Styrene	(3)	21.000	118	894281	11.243
89) tert-Butylbenzene	(3)	21.115	119	2033296	11.497
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	2019543	11.120
91) sec-Butylbenzene	(3)	21.372	105	3028256	10.935
92) p-Isopropyltoluene	(3)	21.559	119	2349265	11.022
93) 1,3-Dichlorobenzene	(3)	21.709	146	1452532	10.220
94) 1,4-Dichlorobenzene	(3)	21.824	146	1414160	10.043
95) n-Butylbenzene	(3)	22.132	92	1358570	11.004
96) Benzyl Chloride	(3)	22.153	126	314061	11.661
97) Hexachloroethane	(3)	22.375	117	670554	11.278
98) 1,2-Dichlorobenzene	(3)	22.418	146	1303722	10.017
99) 1,2-Dibromo-3-chloropropane	(3)	23.571	157	629081	10.467
100) Hexachlorobutadiene	(3)	24.538	225	855143	10.128
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	858153	10.057
102) Naphthalene	(3)	25.219	128	1494790	10.908

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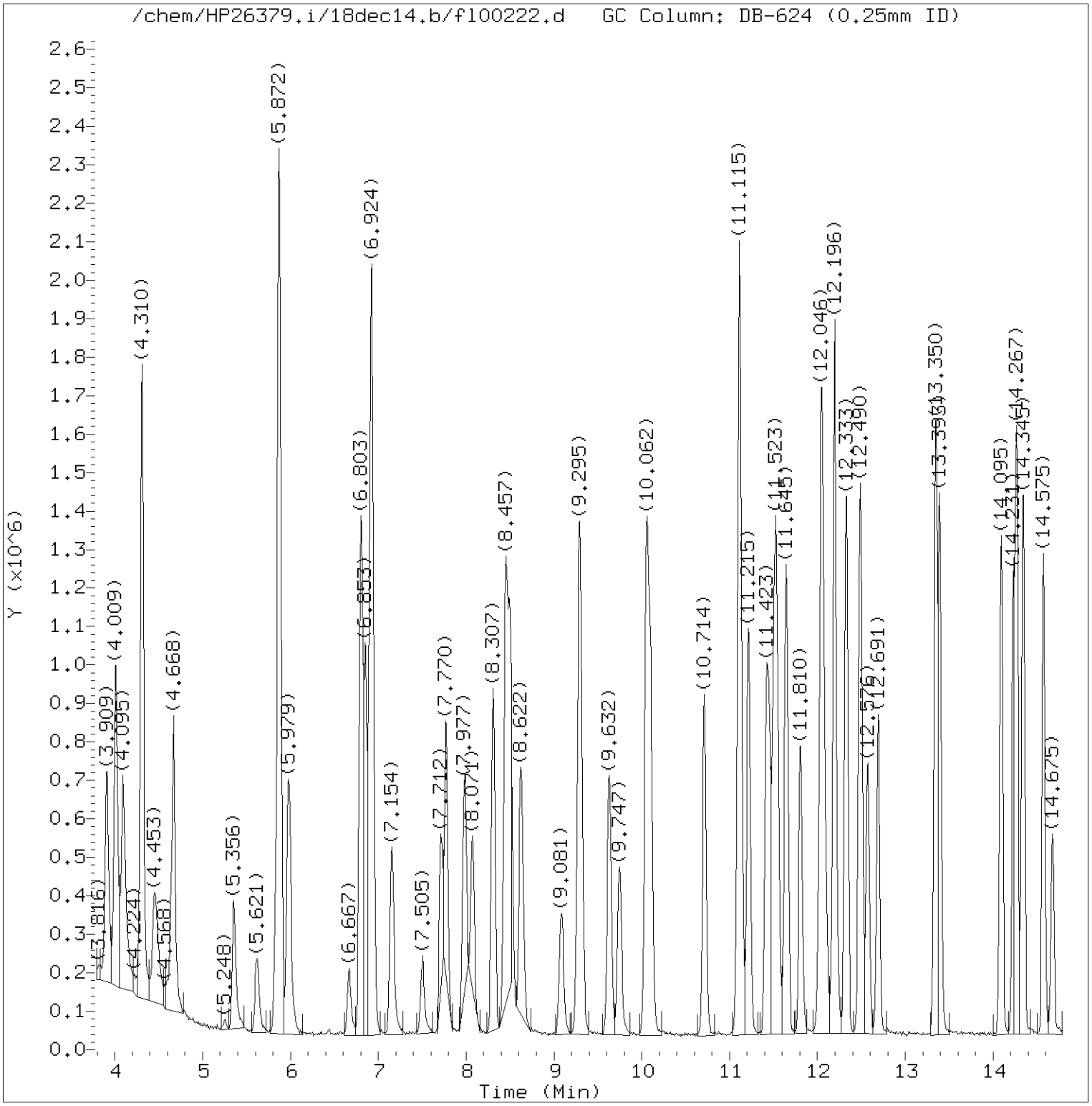
on 12/14/2018 at 16:27.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00222.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 16:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:56 jeb07445

Sample Name: LCSDF06 Lab Sample ID: LCSDF06

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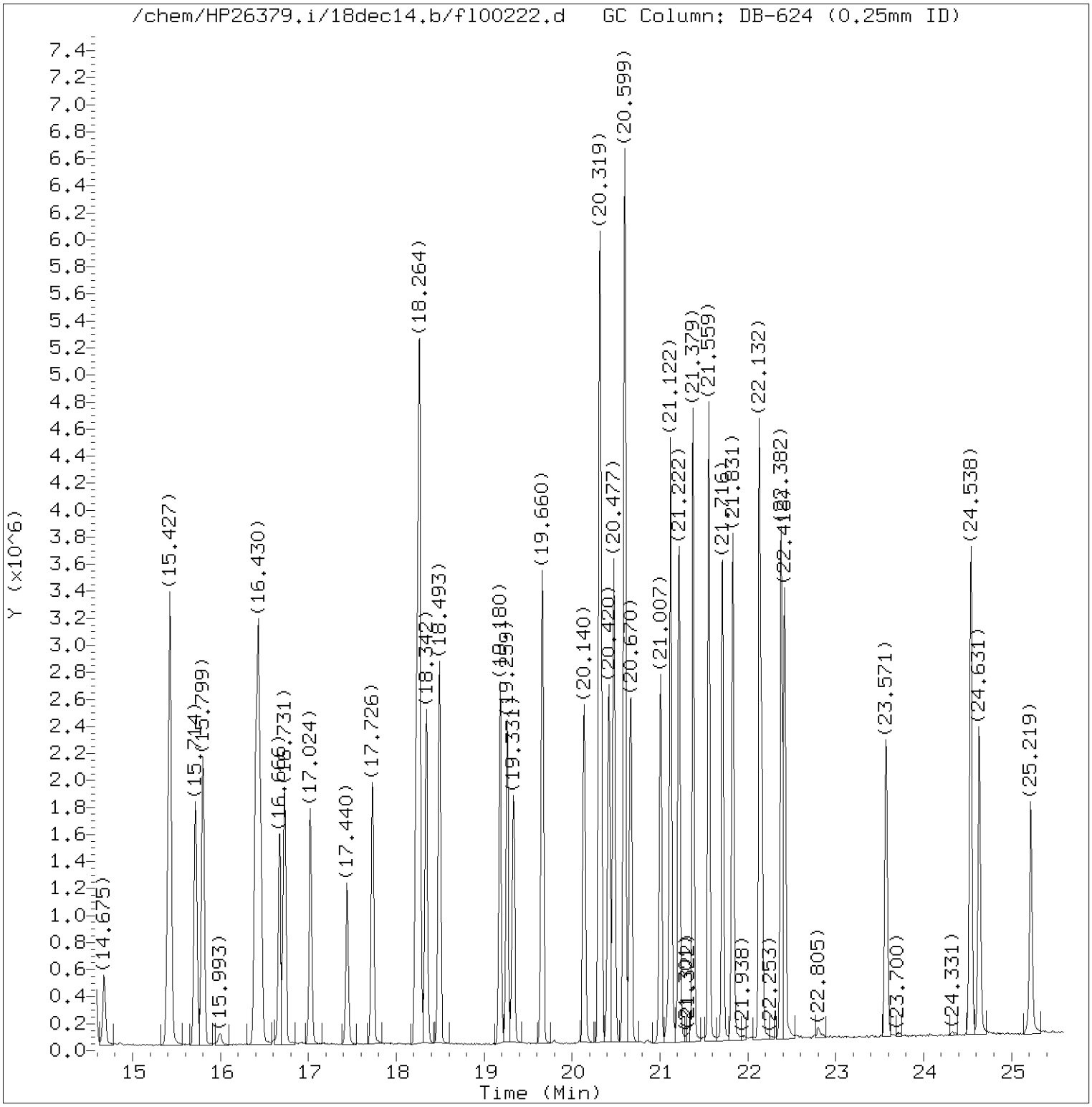
on 12/14/2018 at 16:58.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00222.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 16:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:56 jeb07445

Sample Name: LCSDF06 Lab Sample ID: LCSDF06

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00222.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 16:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:56 jeb07445

Sample Name: LCSDF06 Lab Sample ID: LCSDF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	533691	10.164
2) Dichlorodifluoromethane	(1)	4.009	85	1368410	10.951
3) Chlorodifluoromethane	(1)	4.095	51	1218704	10.705
4) Freon 114	(1)	4.310	85	1323222	10.545
5) Chloromethane	(1)	4.460	50	625349	10.345
6) Vinyl Chloride	(1)	4.639	62	424919	10.659
7) 1,3-Butadiene	(1)	4.675	54	371892	9.517
8) Bromomethane	(1)	5.356	94	405401	10.853
9) Chloroethane	(1)	5.621	64	314188	10.690
10) Bromoethene	(1)	5.829	106	412187	10.760
11) Pentane	(1)	5.872	43	1126686	9.990
12) Trichlorofluoromethane	(1)	5.879	101	1273723	10.061
13) Dichlorofluoromethane	(1)	5.986	67	1211264	11.154
14) Ethanol	(1)	6.667	45	256582	11.976
15) Freon123a	(1)	6.803	67	1122629	11.524
16) 1,1-Dichloroethene	(1)	6.860	61	982972	10.776
17) Freon 113	(1)	6.917	103	671336	9.761
18) Carbon Disulfide	(1)	6.932	76	1294058	10.331
19) Methyl Iodide	(1)	7.154	142	982862	9.942
20) Acrolein	(1)	7.505	56	260629	11.000
21) Isopropanol	(1)	7.712	45	1030694	11.033
22) 3-Chloropropene	(1)	7.770	41	982782	12.833
23) Methylene Chloride	(1)	7.985	84	438372	11.751
24) Acetone	(1)	8.071	43	1043508	10.690
25) trans-1,2-Dichloroethene	(1)	8.307	61	907496	10.486
26) Hexane	(1)	8.450	56	660175	10.147
27) Methyl t-Butyl Ether	(1)	8.508	73	1280280	10.195
28) tert-Butyl Alcohol	(1)	8.622	59	1297507	11.339
29) Acetonitrile	(1)	9.088	41	639316	11.595
30) Di-Isopropyl Ether	(1)	9.295	45	2162732	10.148
31) 1,1-Dichloroethane	(1)	9.632	63	1118987	10.288
32) Acrylonitrile	(1)	9.747	53	588594	10.788
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1916167	10.166
34) Vinyl Acetate	(1)	10.105	43	1984608	12.269
35) cis-1,2-Dichloroethene	(1)	10.714	61	843721	10.187
36) 1,2-Dichloroethene (total)	(1)		61	1751217	20.673
37)*Bromochloromethane	(1)	11.108	130	378466	10.000
38) Cyclohexane	(1)	11.122	56	1060637	10.079

* = Compound is an internal standard.

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on 12/14/2018 at 16:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00222.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 16:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:56 jeb07445

Sample Name: LCSDF06 Lab Sample ID: LCSDF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.222	83	1087182	10.384
40) Ethyl Acetate	(1)	11.423	43	1520138	10.281
41) Methyl Acrylate	(1)	11.459	55	1204481	10.558
42) Carbon Tetrachloride	(1)	11.509	117	982875	10.192
43) Tetrahydrofuran	(1)	11.545	42	791169	10.900
44) 1,1,1-Trichloroethane	(1)	11.645	97	1080345	10.096
45) 2-Butanone	(1)	11.803	43	1413121	10.460
46) Isooctane	(2)	12.046	57	3116012	10.430
47) Heptane	(2)	12.196	71	479298	9.973
48) Benzene	(2)	12.333	78	1518928	10.409
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1279129	10.167
50) 1,2-Dichloroethane	(2)	12.691	62	939109	10.732
51) Trichloroethene	(2)	13.350	130	637980	10.526
52)*1,4-Difluorobenzene	(2)	13.393	114	1304767	10.000
53) Dibromomethane	(2)	14.095	174	693517	10.420
54) Ethyl Acrylate	(2)	14.231	55	1471557	10.309
55) 1,2-Dichloropropane	(2)	14.267	63	746583	10.295
56) Bromodichloromethane	(2)	14.345	83	1113161	9.907
57) Methyl Methacrylate	(2)	14.575	69	476387	9.801
58) 1,4-Dioxane	(2)	14.675	88	354837	10.819
59) cis-1,3-Dichloropropene	(2)	15.406	75	871758	9.986
60) Octane	(3)	15.427	43	1757243	10.372
61) Toluene	(3)	15.799	91	1787219	10.126
62) 4-Methyl-2-Pentanone	(2)	16.401	43	1717963	9.951
63) Tetrachloroethene	(3)	16.430	166	1058340	10.426
64) trans-1,3-Dichloropropene	(3)	16.458	75	776797	10.075
65) 1,3-Dichloropropene (total)	(3)		75	1648555	20.061
66) Ethyl Methacrylate	(3)	16.673	69	816615	9.986
67) 1,1,2-Trichloroethane	(3)	16.731	97	698206	10.239
68) Dibromochloromethane	(3)	17.024	127	803540	9.555
69) 1,2-Dibromoethane	(3)	17.440	107	1005643	9.870
70) 2-Hexanone	(3)	17.726	43	1642452	9.924
71)*Chlorobenzene-d5	(3)	18.228	117	1283342	10.000
72) Chlorobenzene	(3)	18.256	112	1519565	10.112
73) Ethylbenzene	(3)	18.264	91	2455864	10.047
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	757232	9.768
75) m/p-Xylene	(3)	18.493	91	1846774	10.481
76) o-Xylene	(3)	19.180	91	1783601	10.273

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec14.b/fl00222.d Instrument ID: HP26379.i
Injection date and time: 14-DEC-2018 16:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec14.b/to-15.m Sublist used: all1
Calibration date and time: 14-DEC-2018 14:22
Date, time and analyst ID of latest file update: 14-Dec-2018 16:56 jeb07445

Sample Name: LCSDF06 Lab Sample ID: LCSDF06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3630375	20.754
78) Styrene	(3)	19.259	104	1292532	10.409
79) Bromoform	(3)	19.331	173	1094186	9.270
80) Cumene	(3)	19.660	105	2590132	10.853
81) n-Propylbenzene	(3)	20.312	120	716198	10.416
82) Bromobenzene	(3)	20.327	156	979195	10.372
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1480019	9.592
84) 4-Ethyltoluene	(3)	20.477	105	2605684	10.977
85) 2-Chlorotoluene	(3)	20.592	126	673209	10.617
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2241677	11.105
87) 1,2,3-Trichloropropane	(3)	20.670	110	461980	10.099
88) Alpha Methyl Styrene	(3)	21.007	118	925528	10.996
89) tert-Butylbenzene	(3)	21.122	119	2185958	11.682
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	2216951	11.536
91) sec-Butylbenzene	(3)	21.379	105	3282263	11.202
92) p-Isopropyltoluene	(3)	21.559	119	2594353	11.503
93) 1,3-Dichlorobenzene	(3)	21.716	146	1550613	10.311
94) 1,4-Dichlorobenzene	(3)	21.831	146	1529430	10.265
95) n-Butylbenzene	(3)	22.132	92	1470376	11.255
96) Benzyl Chloride	(3)	22.160	126	312307	10.959
97) Hexachloroethane	(3)	22.382	117	651816	10.361
98) 1,2-Dichlorobenzene	(3)	22.418	146	1399723	10.164
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	658094	10.348
100) Hexachlorobutadiene	(3)	24.538	225	941495	10.538
101) 1,2,4-Trichlorobenzene	(3)	24.631	180	992783	10.995
102) Naphthalene	(3)	25.219	128	1748948	12.062

Digitally signed by Jacob E. Bailey
on 12/14/2018 at 16:58.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18dec15.b/f100240.d

Date : 15-DEC-2018 10:47

Client ID: BFB

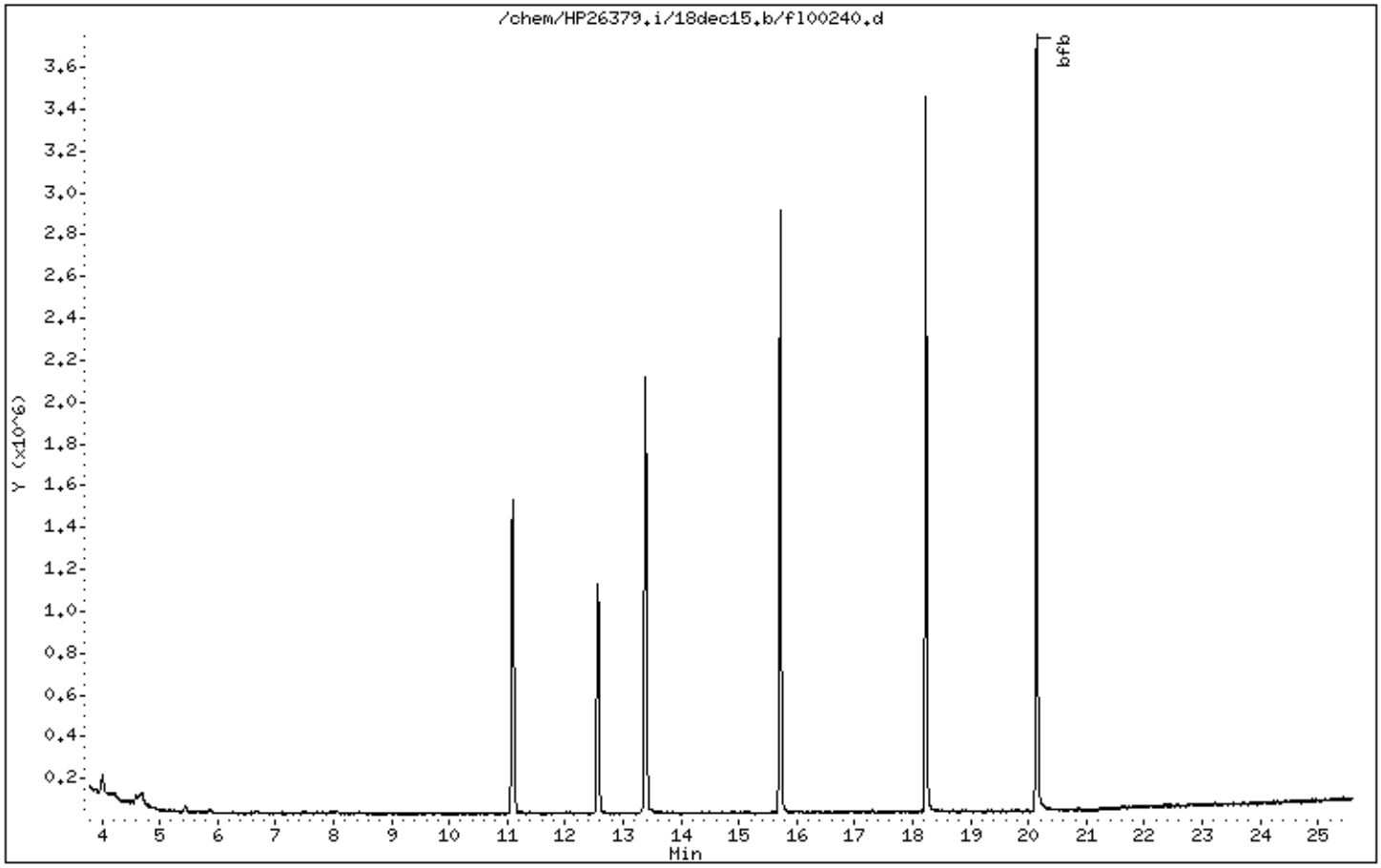
Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 12/15/2018 at 13:05.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18dec15.b/f100240.d

Date : 15-DEC-2018 10:47

Client ID: BFB

Instrument: HP26379.i

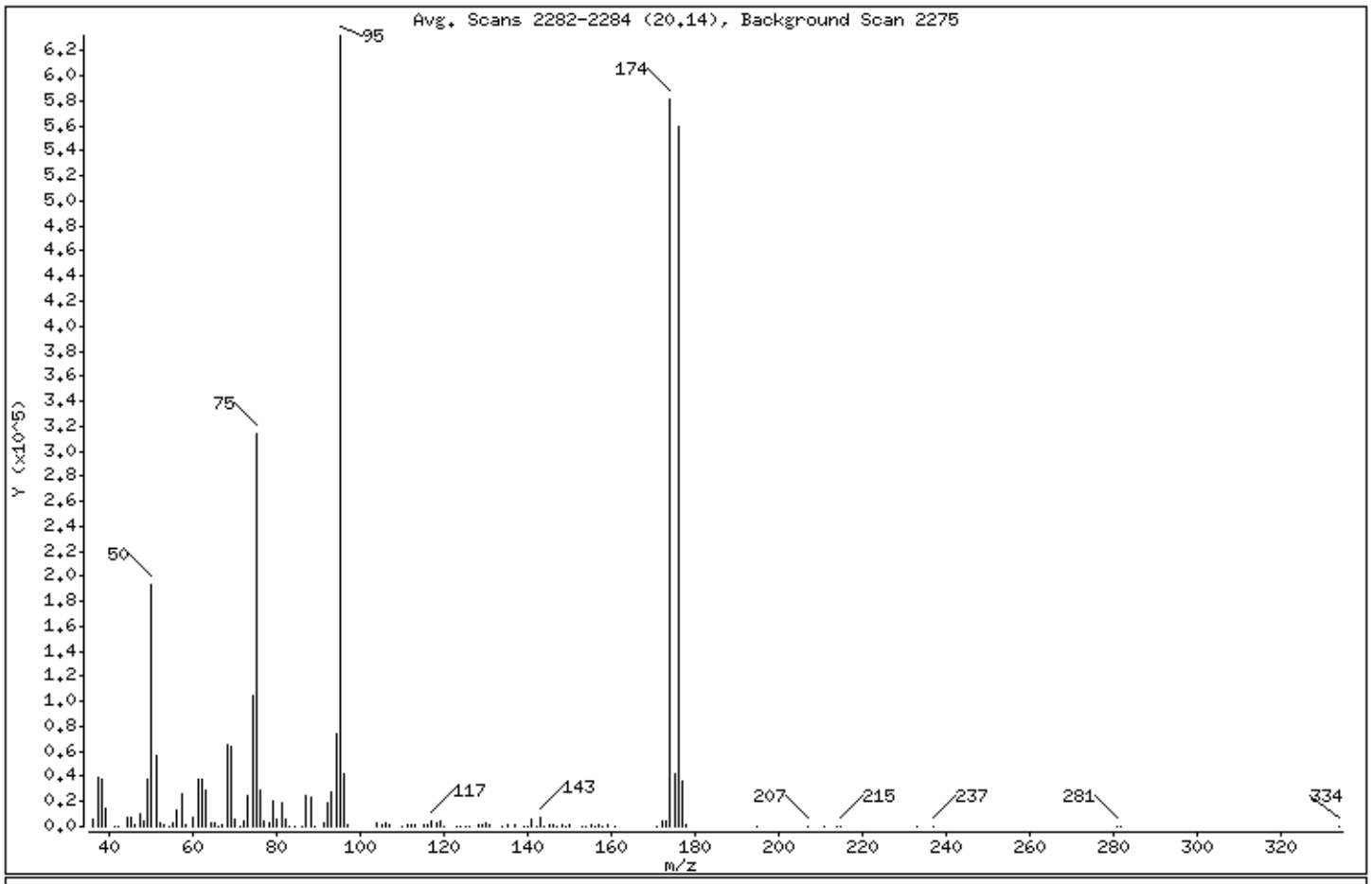
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	30.53
75	30.00 - 66.00% of mass 95	49.75
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.59 (0.64)
174	50.00 - 120.00% of mass 95	91.93
175	4.00 - 9.00% of mass 174	6.57 (7.15)
176	93.00 - 101.00% of mass 174	88.49 (96.26)
177	5.00 - 9.00% of mass 176	5.68 (6.42)

Digitally signed by Jacob E. Bailey on 12/15/2018 at 13:05.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18dec15.b/f100240.d

Date : 15-DEC-2018 10:47

Client ID: BFB

Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

Data File: f100240.d
Spectrum: Avg. Scans 2282-2284 (20.14), Background Scan 2275
Location of Maximum: 95.00
Number of points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5423	70.00	5152	111.00	940	150.00	750
37.00	38640	71.00	109	112.00	812	153.00	548
38.00	37672	72.00	3867	113.00	990	154.00	144
39.00	14015	73.00	24536	115.00	826	155.00	1642
41.00	571	74.00	104072	116.00	2086	156.00	277
42.00	46	75.00	314496	117.00	4109	157.00	1456
44.00	6749	76.00	28496	118.00	2361	158.00	497
45.00	7309	77.00	4298	119.00	3806	159.00	904
46.00	829	78.00	3054	120.00	128	161.00	670
47.00	9917	79.00	20560	123.00	124	171.00	270
48.00	4950	80.00	6286	124.00	414	172.00	3960
49.00	37384	81.00	18192	125.00	242	173.00	3728
50.00	193024	82.00	5176	126.00	317	174.00	581184
51.00	56856	83.00	521	128.00	2118	175.00	41552
52.00	2932	84.00	107	129.00	1277	176.00	559424
53.00	875	86.00	663	130.00	2269	177.00	35920
54.00	475	87.00	25008	131.00	927	178.00	960
55.00	2406	88.00	22840	134.00	302	195.00	110
56.00	13574	89.00	307	135.00	1419	207.00	352
57.00	26264	91.00	2694	137.00	1631	211.00	278
58.00	879	92.00	18336	139.00	110	214.00	111
60.00	6770	93.00	27384	140.00	303	215.00	362
61.00	37568	94.00	74640	141.00	6301	233.00	231
62.00	38064	95.00	632192	142.00	530	237.00	116
63.00	29056	96.00	42056	143.00	7244	281.00	244
64.00	2915	97.00	1707	144.00	568	282.00	113
65.00	2695	104.00	2857	145.00	1056	334.00	243
66.00	617	105.00	1195	146.00	955		
67.00	1110	106.00	2790	147.00	592		
68.00	65512	107.00	782	148.00	1255		
69.00	64328	110.00	541	149.00	580		

Digitally signed by Jacob E. Bailey on 12/15/2018 at 13:05.
Target 3.5 esignature user ID: jeb07445

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP26379.i/18dec14.b/fl00211.d
/chem/HP26379.i/18dec14.b/fl00212.d
/chem/HP26379.i/18dec14.b/fl00213.d
/chem/HP26379.i/18dec14.b/fl00214.d
/chem/HP26379.i/18dec14.b/fl00215.d
/chem/HP26379.i/18dec14.b/fl00216.d

** ICAL Area and RT are the average from the above standards.

Current Continuing Calibration Standard:

/chem/HP26379.i/18dec15.b/fl00241.d

Area Summary

Internal Standard Name	File ID: fl00241.d	ICAL Area	Low Limit	High Limit	In Spec
Bromochloromethane	362862	372384	223430	521338	Yes
1,4-Difluorobenzene	1200035	1300269	780161	1820377	Yes
Chlorobenzene-d5	1192352	1255242	753145	1757339	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

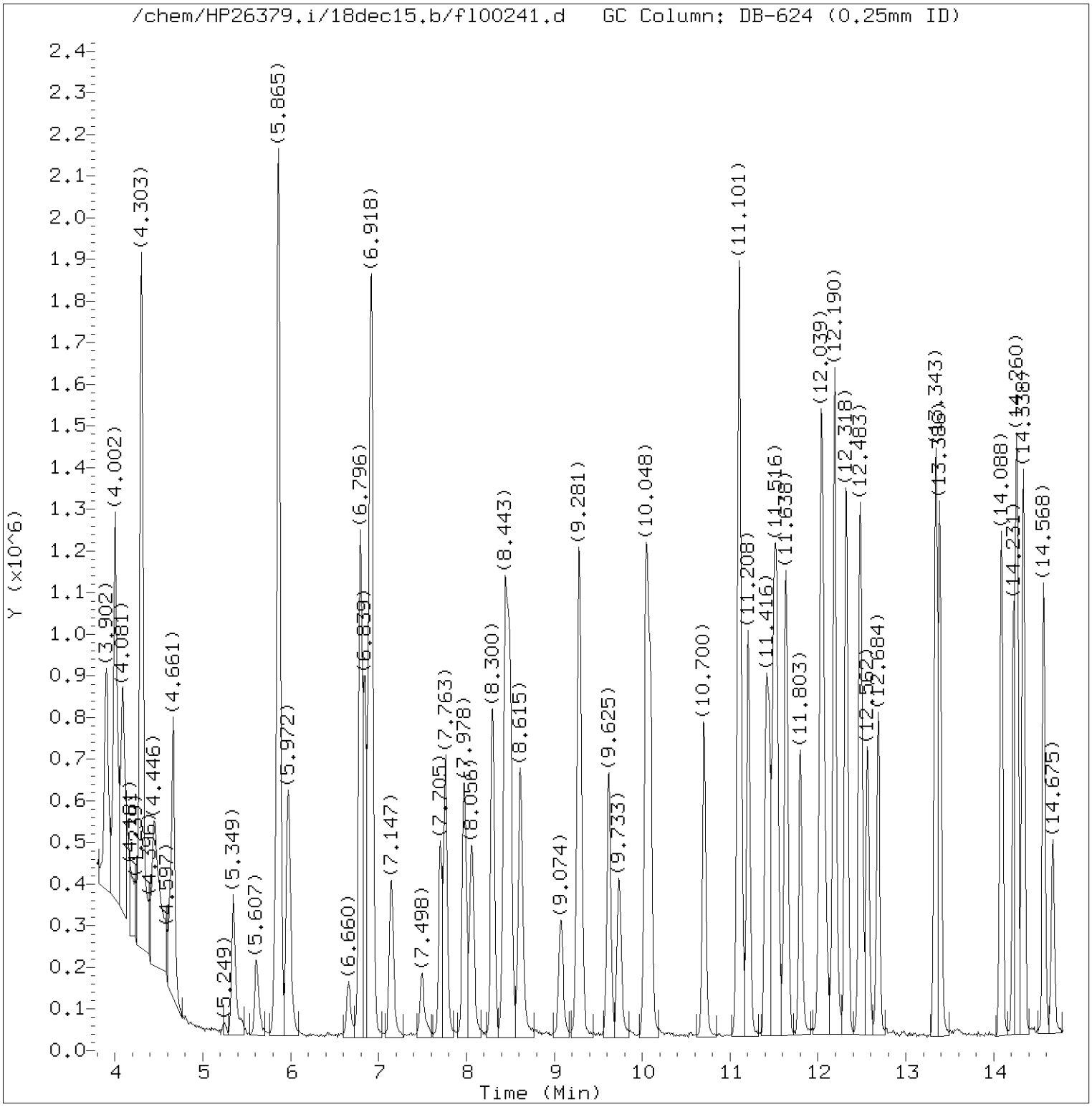
Internal Standard Name	File ID: fl00241.d	ICAL RT	In Spec
Bromochloromethane	11.101	11.095	Yes
1,4-Difluorobenzene	13.386	13.386	Yes
Chlorobenzene-d5	18.228	18.223	Yes

A "No" indicates the retention time is greater than 30 seconds from the RT of the referenced ICAL average.

Comments:_____

_____

Report generated on 12/15/2018 at 12:07



Total Ion Chromatogram (TIC)

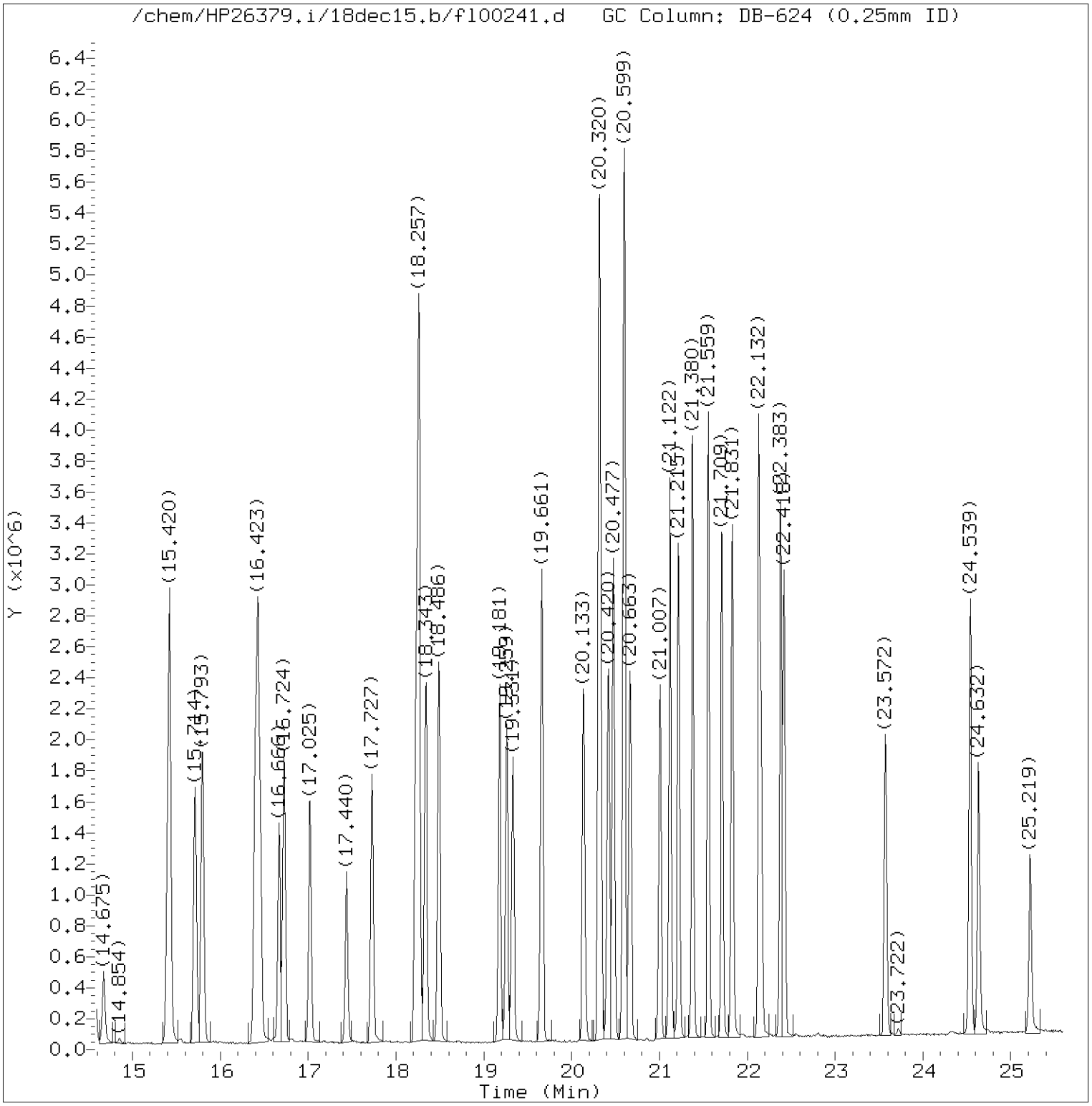
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00241.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 11:32 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 12:08 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00241.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 11:32 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 12:08 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00241.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 11:32 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 12:08 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	492247	9.778
2) Dichlorodifluoromethane	(1)	4.002	85	1293029	10.793
3) Chlorodifluoromethane	(1)	4.088	51	1144452	10.485
4) Freon 114	(1)	4.303	85	1252131	10.408
5) Chloromethane	(1)	4.453	50	573844	9.901
6) Vinyl Chloride	(1)	4.640	62	376828	9.859
7) 1,3-Butadiene	(1)	4.661	54	357482	9.542
8) Bromomethane	(1)	5.349	94	380019	10.611
9) Chloroethane	(1)	5.614	64	277506	9.848
10) Bromoethene	(1)	5.829	106	356063	9.694
11) Pentane	(1)	5.857	43	1031341	9.538
12) Trichlorofluoromethane	(1)	5.872	101	1158444	9.544
13) Dichlorofluoromethane	(1)	5.972	67	1053901	10.122
14) Ethanol	(1)	6.660	45	203497	9.906
15) Freon123a	(1)	6.796	67	993673	10.639
16) 1,1-Dichloroethene	(1)	6.846	61	846327	9.677
17) Freon 113	(1)	6.910	103	610860	9.264
18) Carbon Disulfide	(1)	6.932	76	1218658	10.148
19) Methyl Iodide	(1)	7.147	142	754074	7.956
20) Acrolein	(1)	7.491	56	206620	9.096
21) Isopropanol	(1)	7.705	45	893067	9.970
22) 3-Chloropropene	(1)	7.763	41	798371	10.873
23) Methylene Chloride	(1)	7.978	84	400240	11.190
24) Acetone	(1)	8.064	43	943580	10.082
25) trans-1,2-Dichloroethene	(1)	8.293	61	808482	9.744
26) Hexane	(1)	8.443	56	584306	9.367
27) Methyl t-Butyl Ether	(1)	8.493	73	1110431	9.222
28) tert-Butyl Alcohol	(1)	8.615	59	1182333	10.777
29) Acetonitrile	(1)	9.074	41	547898	10.364
30) Di-Isopropyl Ether	(1)	9.281	45	1879506	9.198
31) 1,1-Dichloroethane	(1)	9.618	63	1023083	9.810
32) Acrylonitrile	(1)	9.733	53	519778	9.937
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	1638754	9.068
34) Vinyl Acetate	(1)	10.098	43	1763253	11.369
35) cis-1,2-Dichloroethene	(1)	10.700	61	756464	9.526
36) 1,2-Dichloroethene (total)	(1)		61	1564946	19.270
37)*Bromochloromethane	(1)	11.101	130	362862	10.000
38) Cyclohexane	(1)	11.115	56	878414	8.707

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00241.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 11:32 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 12:08 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1007069	10.032
40) Ethyl Acetate	(1)	11.409	43	1380137	9.735
41) Methyl Acrylate	(1)	11.452	55	1045495	9.558
42) Carbon Tetrachloride	(1)	11.495	117	921528	9.967
43) Tetrahydrofuran	(1)	11.538	42	689401	9.906
44) 1,1,1-Trichloroethane	(1)	11.638	97	987726	9.628
45) 2-Butanone	(1)	11.803	43	1299473	10.032
46) Isooctane	(2)	12.039	57	2713391	9.875
47) Heptane	(2)	12.190	71	416644	9.426
48) Benzene	(2)	12.326	78	1413699	10.534
49) Tert-Amyl Methyl Ether	(2)	12.483	73	1118241	9.664
50) 1,2-Dichloroethane	(2)	12.684	62	846867	10.523
51) Trichloroethene	(2)	13.343	130	552867	9.918
52)*1,4-Difluorobenzene	(2)	13.386	114	1200035	10.000
53) Dibromomethane	(2)	14.088	174	628498	10.267
54) Ethyl Acrylate	(2)	14.224	55	1235708	9.413
55) 1,2-Dichloropropane	(2)	14.260	63	679664	10.190
56) Bromodichloromethane	(2)	14.338	83	1058001	10.237
57) Methyl Methacrylate	(2)	14.568	69	422573	9.452
58) 1,4-Dioxane	(2)	14.675	88	307059	10.179
59) cis-1,3-Dichloropropene	(2)	15.399	75	765980	9.540
60) Octane	(3)	15.427	43	1537400	9.767
61) Toluene	(3)	15.800	91	1597099	9.739
62) 4-Methyl-2-Pentanone	(2)	16.394	43	1534652	9.665
63) Tetrachloroethene	(3)	16.423	166	975044	10.339
64) trans-1,3-Dichloropropene	(3)	16.459	75	718403	10.029
66) Ethyl Methacrylate	(3)	16.666	69	707170	9.307
65) 1,3-Dichloropropene (total)	(3)		75	1484383	19.243
67) 1,1,2-Trichloroethane	(3)	16.724	97	643137	10.151
68) Dibromochloromethane	(3)	17.025	127	774120	9.907
69) 1,2-Dibromoethane	(3)	17.440	107	950570	10.041
70) 2-Hexanone	(3)	17.727	43	1450620	9.433
71)*Chlorobenzene-d5	(3)	18.228	117	1192385	10.000
72) Chlorobenzene	(3)	18.257	112	1423859	10.198
73) Ethylbenzene	(3)	18.264	91	2234712	9.840
74) 1,1,1,2-Tetrachloroethane	(3)	18.343	131	725051	10.066
75) m/p-Xylene	(3)	18.486	91	1625778	9.930
76) o-Xylene	(3)	19.181	91	1539342	9.542

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00241.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 11:32 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 12:08 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3165121	19.476
78) Styrene	(3)	19.259	104	1120315	9.711
79) Bromoform	(3)	19.331	173	1082792	9.873
80) Cumene	(3)	19.661	105	2215582	9.992
81) n-Propylbenzene	(3)	20.312	120	650998	10.190
82) Bromobenzene	(3)	20.327	156	929046	10.591
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1406218	9.809
84) 4-Ethyltoluene	(3)	20.477	105	2317534	10.508
85) 2-Chlorotoluene	(3)	20.592	126	609085	10.339
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	1991227	10.616
87) 1,2,3-Trichloropropane	(3)	20.663	110	426506	10.035
88) Alpha Methyl Styrene	(3)	21.007	118	775644	9.919
89) tert-Butylbenzene	(3)	21.122	119	1816296	10.447
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	1907463	10.683
91) sec-Butylbenzene	(3)	21.380	105	2872638	10.552
92) p-Isopropyltoluene	(3)	21.559	119	2195942	10.479
93) 1,3-Dichlorobenzene	(3)	21.716	146	1431260	10.243
94) 1,4-Dichlorobenzene	(3)	21.831	146	1411884	10.199
95) n-Butylbenzene	(3)	22.132	92	1281442	10.557
96) Benzyl Chloride	(3)	22.160	126	286339	10.814
97) Hexachloroethane	(3)	22.383	117	621888	10.639
98) 1,2-Dichlorobenzene	(3)	22.418	146	1286331	10.053
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	568808	9.626
100) Hexachlorobutadiene	(3)	24.539	225	726381	8.751
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	742755	8.854
102) Naphthalene	(3)	25.219	128	1215213	9.020

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

Raw QC Data

Volatile Organics in Air by GC/MS

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00242.d Injection date and time: **15-DEC-2018 12:20**
Data file Sample Info. Line: VBLKF07;200;F1834930AA;VBLKF07;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.101(0.000)	1021	130	368951 (2)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1144396 (-5)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1174240 (-2)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)			Not Detected					0.16	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)			Not Detected					0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
10) Bromoethene	(1)			Not Detected					0.18	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)			Not Detected					0.15	1
11) Pentane	(1)			Not Detected					0.13	1
14) Ethanol	(1)			Not Detected					0.69	5
15) Freon123a	(1)			Not Detected					0.2	1
20) Acrolein	(1)			Not Detected					0.62	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)			Not Detected					0.53	5
19) Methyl Iodide	(1)			Not Detected					0.15	1
18) Carbon Disulfide	(1)			Not Detected					0.13	1
21) Isopropanol	(1)			Not Detected					0.24	1
29) Acetonitrile	(1)			Not Detected					0.83	5
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
28) tert-Butyl Alcohol	(1)			Not Detected					0.21	1
32) Acrylonitrile	(1)			Not Detected					0.13	1
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)			Not Detected					0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
34) Vinyl Acetate	(1)			Not Detected					0.16	1
30) Di-Isopropyl Ether	(1)			Not Detected					0.15	1
33) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.15	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
45) 2-Butanone	(1)			Not Detected					0.21	1
40) Ethyl Acetate	(1)			Not Detected					0.25	2
41) Methyl Acrylate	(1)			Not Detected					0.14	1
43) Tetrahydrofuran	(1)			Not Detected					0.24	1
39) Chloroform	(1)			Not Detected					0.092	1
44) 1,1,1-Trichloroethane	(1)			Not Detected					0.12	1
38) Cyclohexane	(1)			Not Detected					0.11	1

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Data file: /chem/HP26379.i/18dec15.b/fl00242.d Injection date and time: **15-DEC-2018 12:20**
Data file Sample Info. Line: VBLKF07;200;F1834930AA;VBLKF07;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)				Not Detected					0.14	1
48) Benzene	(2)				Not Detected					0.11	1
50) 1,2-Dichloroethane	(2)				Not Detected					0.08	1
46) Isooctane	(2)				Not Detected					0.13	1
49) Tert-Amyl Methyl Ether	(2)				Not Detected					0.11	1
47) Heptane	(2)				Not Detected					0.23	1
51) Trichloroethene	(2)				Not Detected					0.18	1
54) Ethyl Acrylate	(2)				Not Detected					0.16	1
55) 1,2-Dichloropropane	(2)				Not Detected					0.13	1
53) Dibromomethane	(2)				Not Detected					0.14	1
58) 1,4-Dioxane	(2)				Not Detected					0.17	1
57) Methyl Methacrylate	(2)				Not Detected					0.15	1
56) Bromodichloromethane	(2)				Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)				Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)				Not Detected					0.15	1
61) Toluene	(3)				Not Detected					0.12	1
60) Octane	(3)				Not Detected					0.4	2
64) trans-1,3-Dichloropropene	(3)				Not Detected					0.12	1
65) 1,3-Dichloropropene (total)	(3)				Not Detected					0.23	1
66) Ethyl Methacrylate	(3)				Not Detected					0.19	1
67) 1,1,2-Trichloroethane	(3)				Not Detected					0.12	1
63) Tetrachloroethene	(3)				Not Detected					0.25	2
70) 2-Hexanone	(3)				Not Detected					0.18	1
68) Dibromochloromethane	(3)				Not Detected					0.13	1
69) 1,2-Dibromoethane	(3)				Not Detected					0.13	1
72) Chlorobenzene	(3)				Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.15	1
73) Ethylbenzene	(3)				Not Detected					0.19	1
75) m/p-Xylene	(3)				Not Detected					0.26	2
76) o-Xylene	(3)				Not Detected					0.19	1
77) Xylene (total)	(3)				Not Detected					0.44	2
78) Styrene	(3)				Not Detected					0.2	1
79) Bromoform	(3)				Not Detected					0.17	1
80) Cumene	(3)				Not Detected					0.24	1
82) Bromobenzene	(3)				Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)				Not Detected					0.14	1
81) n-Propylbenzene	(3)				Not Detected					0.21	1
85) 2-Chlorotoluene	(3)				Not Detected					0.22	1
84) 4-Ethyltoluene	(3)				Not Detected					0.18	1
86) 1,3,5-Trimethylbenzene	(3)				Not Detected					0.32	2
88) Alpha Methyl Styrene	(3)				Not Detected					0.18	1
89) tert-Butylbenzene	(3)				Not Detected					0.76	5
90) 1,2,4-Trimethylbenzene	(3)				Not Detected					0.28	2
91) sec-Butylbenzene	(3)				Not Detected					0.39	2
93) 1,3-Dichlorobenzene	(3)				Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)				Not Detected					0.17	1
92) p-Isopropyltoluene	(3)				Not Detected					0.28	2
96) Benzyl Chloride	(3)				Not Detected					0.25	2
98) 1,2-Dichlorobenzene	(3)				Not Detected					0.2	1
95) n-Butylbenzene	(3)				Not Detected					0.26	2
97) Hexachloroethane	(3)				Not Detected					0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)				Not Detected					0.28	2
101) 1,2,4-Trichlorobenzene	(3)				Not Detected					0.38	2

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00242.d Injection date and time: **15-DEC-2018 12:20**
Data file Sample Info. Line: VBLKF07;200;F1834930AA;VBLKF07;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

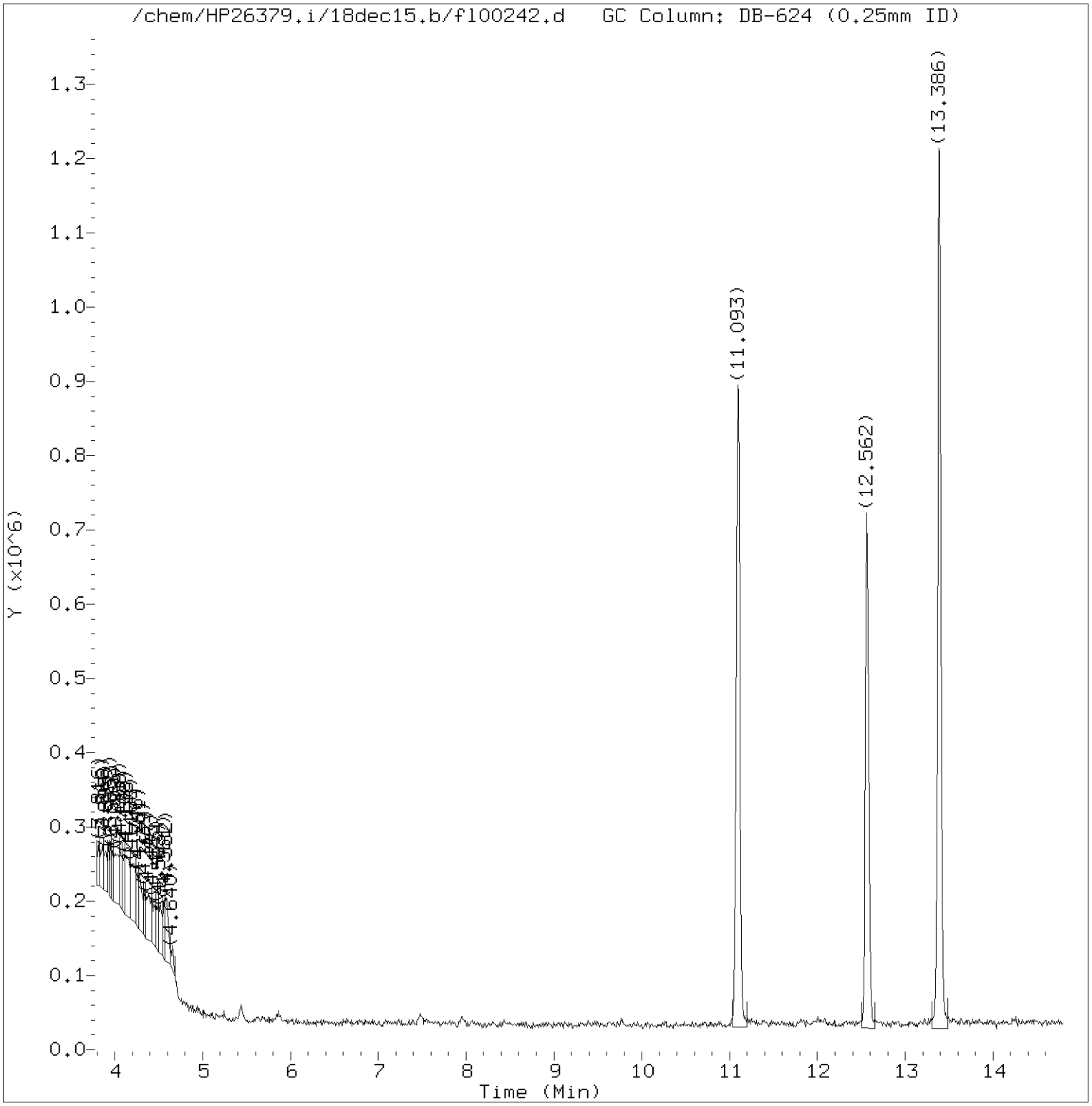
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)				Not Detected					0.47	2
102) Naphthalene	(3)				Not Detected					0.5	2

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 12/15/2018 at 13:01. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:44. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

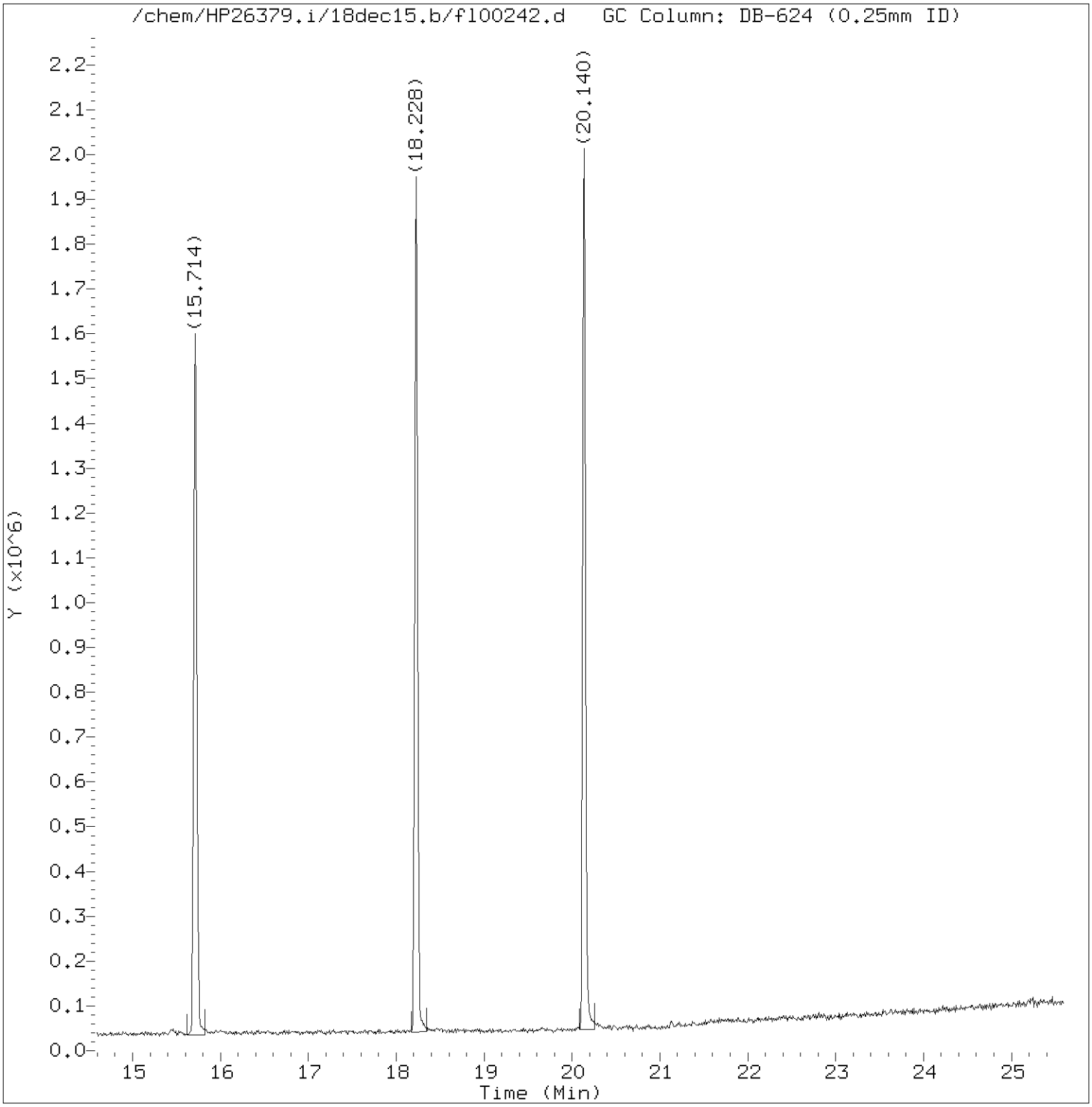
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00242.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 12:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Sample Name: VBLKF07 Lab Sample ID: VBLKF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00242.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 12:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Sample Name: VBLKF07 Lab Sample ID: VBLKF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00242.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 12:20 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:01 jeb07445

Sample Name: VBLKF07 Lab Sample ID: VBLKF07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
37)*Bromochloromethane	(1)	11.101	130	368951	10.000
52)*1,4-Difluorobenzene	(2)	13.393	114	1144396	10.000
71)*Chlorobenzene-d5	(3)	18.228	117	1174240	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:01.
Target 3.5 esignature user ID: jeb07445

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSF07
Canister ID:	N/A	Lab File ID:	fl00243.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:06
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
115-07-1	Propene	17	
75-71-8	Dichlorodifluoromethane	54	
75-45-6	Chlorodifluoromethane	38	
76-14-2	Freon 114	75	
74-87-3	Chloromethane	20	
75-01-4	Vinyl Chloride	26	
106-99-0	1,3-Butadiene	20	
74-83-9	Bromomethane	42	
75-00-3	Chloroethane	26	
593-60-2	Bromoethene	44	
75-43-4	Dichlorofluoromethane	45	
75-69-4	Trichlorofluoromethane	54	
109-66-0	Pentane	27	
64-17-5	Ethanol	20	
107-02-8	Acrolein	24	
75-35-4	1,1-Dichloroethene	39	
76-13-1	Freon 113	72	
67-64-1	Acetone	25	
74-88-4	Methyl Iodide	50	
75-15-0	Carbon Disulfide	31	
67-63-0	Isopropanol	25	
75-05-8	Acetonitrile	19	
107-05-1	3-Chloropropene	38	
75-09-2	Methylene Chloride	40	

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSF07
Canister ID:	N/A	Lab File ID:	fl00243.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:06
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-65-0	tert-Butyl Alcohol	33	
107-13-1	Acrylonitrile	22	
156-60-5	trans-1,2-Dichloroethene	39	
1634-04-4	Methyl t-Butyl Ether	34	
110-54-3	Hexane	34	
75-34-3	1,1-Dichloroethane	40	
108-05-4	Vinyl Acetate	41	
108-20-3	Di-Isopropyl Ether	39	
637-92-3	Ethyl Tert-Butyl Ether	39	
156-59-2	cis-1,2-Dichloroethene	38	
540-59-0	1,2-Dichloroethene (total)	77	
78-93-3	2-Butanone	30	
141-78-6	Ethyl Acetate	35	
96-33-3	Methyl Acrylate	35	
109-99-9	Tetrahydrofuran	30	
67-66-3	Chloroform	49	
71-55-6	1,1,1-Trichloroethane	55	
110-82-7	Cyclohexane	32	
56-23-5	Carbon Tetrachloride	65	
71-43-2	Benzene	33	
107-06-2	1,2-Dichloroethane	42	
540-84-1	Isooctane	46	
994-05-8	Tert-Amyl Methyl Ether	41	
142-82-5	Heptane	39	

Abbreviations:
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E = The compound exceeded the calibration limit.
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J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSF07
Canister ID:	N/A	Lab File ID:	fl00243.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:06
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
79-01-6	Trichloroethene	57	
140-88-5	Ethyl Acrylate	42	
78-87-5	1,2-Dichloropropane	48	
74-95-3	Dibromomethane	77	
123-91-1	1,4-Dioxane	38	
80-62-6	Methyl Methacrylate	40	
75-27-4	Bromodichloromethane	70	
10061-01-5	cis-1,3-Dichloropropene	45	
108-10-1	4-Methyl-2-Pentanone	42	
108-88-3	Toluene	36	
111-65-9	Octane	45	
10061-02-6	trans-1,3-Dichloropropene	46	
542-75-6	1,3-Dichloropropene (total)	91	
97-63-2	Ethyl Methacrylate	45	
79-00-5	1,1,2-Trichloroethane	54	
127-18-4	Tetrachloroethene	68	
591-78-6	2-Hexanone	40	
124-48-1	Dibromochloromethane	87	
106-93-4	1,2-Dibromoethane	76	
108-90-7	Chlorobenzene	45	
630-20-6	1,1,1,2-Tetrachloroethane	70	
100-41-4	Ethylbenzene	41	
179601-23-1	m/p-Xylene	42	
95-47-6	o-Xylene	40	

Abbreviations:
U = The compound is less than the limit being reported.
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E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSF07
Canister ID:	N/A	Lab File ID:	fl00243.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:06
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
1330-20-7	Xylene (total)	82	
100-42-5	Styrene	43	
75-25-2	Bromoform	100	
98-82-8	Cumene	49	
108-86-1	Bromobenzene	64	
79-34-5	1,1,2,2-Tetrachloroethane	66	
96-18-4	1,2,3-Trichloropropane	61	
103-65-1	n-Propylbenzene	48	
95-49-8	2-Chlorotoluene	53	
622-96-8	4-Ethyltoluene	49	
108-67-8	1,3,5-Trimethylbenzene	51	
98-83-9	Alpha Methyl Styrene	53	
98-06-6	tert-Butylbenzene	61	
95-63-6	1,2,4-Trimethylbenzene	52	
135-98-8	sec-Butylbenzene	57	
541-73-1	1,3-Dichlorobenzene	60	
106-46-7	1,4-Dichlorobenzene	60	
99-87-6	p-Isopropyltoluene	58	
100-44-7	Benzyl Chloride	62	
95-50-1	1,2-Dichlorobenzene	59	
104-51-8	n-Butylbenzene	58	
67-72-1	Hexachloroethane	110	
96-12-8	1,2-Dibromo-3-chloropropane	100	
120-82-1	1,2,4-Trichlorobenzene	71	

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSF07
Canister ID:	N/A	Lab File ID:	fl00243.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:06
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
87-68-3	Hexachlorobutadiene	100	
91-20-3	Naphthalene	57	

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00243.d Injection date and time: **15-DEC-2018 13:06**
Data file Sample Info. Line: LCSF07;200;F1834930AA;LCSF07;0;0;LCS; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.094(0.007)	1020	130	372587 (3)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.386(0.000)	1340	114	1241442 (3)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.221(0.007)	2015	117	1249087 (5)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	3.902(-0.000)	41	509608	9.859	9.86			0.16	1
2) Dichlorodifluoromethane	(1)	4.002(-0.000)	85	1347179	10.951	10.95			0.13	1
3) Chlorodifluoromethane	(1)	4.095(-0.000)	51	1204403	10.747	10.75			0.15	1
4) Freon 114	(1)	4.303(-0.000)	85	1324236	10.720	10.72			0.12	1
5) Chloromethane	(1)	4.453(-0.000)	50	589154	9.900	9.90			0.24	1
6) Vinyl Chloride	(1)	4.640(-0.000)	62	394741	10.058	10.06			0.12	1
7) 1,3-Butadiene	(1)	4.668(-0.000)	54	353344	9.185	9.19			0.17	1
8) Bromomethane	(1)	5.349(-0.000)	94	402242	10.938	10.94			0.18	1
9) Chloroethane	(1)	5.614(-0.000)	64	287015	9.919	9.92			0.19	1
10) Bromoethene	(1)	5.829(-0.000)	106	381606	10.119	10.12			0.18	1
13) Dichlorofluoromethane	(1)	5.972(-0.000)	67	1135771	10.623	10.62			0.11	1
12) Trichlorofluoromethane	(1)	5.872(-0.000)	101	1205873	9.676	9.68			0.15	1
11) Pentane	(1)	5.864(-0.000)	43	1023108	9.215	9.22			0.13	1
14) Ethanol	(1)	6.660(-0.000)	45	228241	10.821	10.82			0.69	5
15) Freon123a	(1)	6.796(-0.000)	67	1077635	11.236	11.24			0.2	1
20) Acrolein	(1)	7.498(-0.001)	56	241795	10.366	10.37			0.62	5
16) 1,1-Dichloroethene	(1)	6.846(-0.000)	61	889680	9.907	9.91			0.14	1
17) Freon 113	(1)	6.910(-0.000)	103	632996	9.349	9.35			0.11	1
24) Acetone	(1)	8.064(-0.000)	43	1030666	10.725	10.73			0.53	5
19) Methyl Iodide	(1)	7.147(-0.000)	142	842490	8.657	8.66			0.15	1
18) Carbon Disulfide	(1)	6.932(-0.000)	76	1240088	10.057	10.06			0.13	1
21) Isopropanol	(1)	7.705(-0.000)	45	946638	10.293	10.29			0.24	1
29) Acetonitrile	(1)	9.074(-0.000)	41	618185	11.389	11.39			0.83	5
22) 3-Chloropropene	(1)	7.763(-0.000)	41	918670	12.185	12.18			0.15	1
23) Methylene Chloride	(1)	7.978(-0.000)	84	421756	11.484	11.48			0.25	2
28) tert-Butyl Alcohol	(1)	8.615(-0.000)	59	1213692	10.774	10.77			0.21	1
32) Acrylonitrile	(1)	9.732(-0.000)	53	545034	10.148	10.15			0.13	1
25) trans-1,2-Dichloroethene	(1)	8.300(-0.001)	61	836909	9.823	9.82			0.086	1
27) Methyl t-Butyl Ether	(1)	8.493(-0.000)	73	1171422	9.475	9.47			0.15	1
26) Hexane	(1)	8.436(0.000)	56	621404	9.702	9.70			0.13	1
31) 1,1-Dichloroethane	(1)	9.618(-0.000)	63	1066464	9.959	9.96			0.089	1
34) Vinyl Acetate	(1)	10.091(0.000)	43	1836688	11.533	11.53			0.16	1
30) Di-Isopropyl Ether	(1)	9.281(-0.000)	45	1954764	9.317	9.32			0.15	1
33) Ethyl Tert-Butyl Ether	(1)	10.048(-0.000)	59	1735152	9.351	9.35			0.15	1
35) cis-1,2-Dichloroethene	(1)	10.700(-0.000)	61	781087	9.579	9.58			0.12	1
36) 1,2-Dichloroethene (total)	(1)		61	1617996	19.403	19.40			0.2	1
45) 2-Butanone	(1)	11.795(-0.000)	43	1341872	10.089	10.09			0.21	1
40) Ethyl Acetate	(1)	11.409(-0.000)	43	1410194M	9.688	9.69			0.25	2
41) Methyl Acrylate	(1)	11.444(-0.000)	55	1106825	9.855	9.86			0.14	1
43) Tetrahydrofuran	(1)	11.538(-0.000)	42	724102	10.133	10.13			0.24	1
39) Chloroform	(1)	11.208(-0.000)	83	1031203	10.005	10.00			0.092	1
44) 1,1,1-Trichloroethane	(1)	11.631(-0.000)	97	1054268	10.008	10.01			0.12	1
38) Cyclohexane	(1)	11.108(-0.000)	56	959996	9.267	9.27			0.11	1

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00243.d Injection date and time: **15-DEC-2018 13:06**
Data file Sample Info. Line: LCSF07;200;F1834930AA;LCSF07;0;0;LCS; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)	11.502(-0.001)	117	980721	10.330	10.33			0.14	1
48) Benzene	(2)	12.318(0.000)	78	1450368	10.447	10.45			0.11	1
50) 1,2-Dichloroethane	(2)	12.684(0.000)	62	871664	10.469	10.47			0.08	1
46) Isooctane	(2)	12.039(0.000)	57	2820834	9.924	9.92			0.13	1
49) Tert-Amyl Methyl Ether	(2)	12.476(0.000)	73	1178033	9.841	9.84			0.11	1
47) Heptane	(2)	12.189(0.000)	71	433989	9.491	9.49			0.23	1
51) Trichloroethene	(2)	13.336(0.000)	130	615166	10.667	10.67			0.18	1
54) Ethyl Acrylate	(2)	14.217(0.000)	55	1380847	10.167	10.17			0.16	1
55) 1,2-Dichloropropane	(2)	14.260(0.000)	63	720907	10.448	10.45			0.13	1
53) Dibromomethane	(2)	14.080(0.000)	174	681634	10.764	10.76			0.14	1
58) 1,4-Dioxane	(2)	14.668(0.000)	88	325375	10.427	10.43			0.17	1
57) Methyl Methacrylate	(2)	14.568(-0.000)	69	450917	9.750	9.75			0.15	1
56) Bromodichloromethane	(2)	14.331(0.000)	83	1115609	10.435	10.43			0.12	1
59) cis-1,3-Dichloropropene	(2)	15.398(-0.000)	75	818176	9.850	9.85			0.1	1
62) 4-Methyl-2-Pentanone	(2)	16.387(0.000)	43	1676023	10.203	10.20			0.15	1
61) Toluene	(3)	15.792(0.000)	91	1644356	9.572	9.57			0.12	1
60) Octane	(3)	15.420(0.000)	43	1603272	9.723	9.72			0.4	2
64) trans-1,3-Dichloropropene	(3)	16.451(0.000)	75	763339	10.172	10.17			0.12	1
65) 1,3-Dichloropropene (total)	(3)		75	1581515	20.022	20.02			0.23	1
66) Ethyl Methacrylate	(3)	16.666(-0.000)	69	775087	9.738	9.74			0.19	1
67) 1,1,2-Trichloroethane	(3)	16.724(-0.000)	97	661081	9.960	9.96			0.12	1
63) Tetrachloroethene	(3)	16.423(-0.000)	166	995614	10.077	10.08			0.25	2
70) 2-Hexanone	(3)	17.719(0.000)	43	1559371	9.680	9.68			0.18	1
68) Dibromochloromethane	(3)	17.017(0.000)	127	831138	10.154	10.15			0.13	1
69) 1,2-Dibromoethane	(3)	17.433(0.000)	107	977373	9.856	9.86			0.13	1
72) Chlorobenzene	(3)	18.249(-0.000)	112	1428351	9.766	9.77			0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)	18.335(-0.000)	131	772298	10.235	10.24			0.15	1
73) Ethylbenzene	(3)	18.256(-0.000)	91	2261956	9.508	9.51			0.19	1
75) m/p-Xylene	(3)	18.486(-0.000)	91	1645262	9.593	9.59			0.26	2
76) o-Xylene	(3)	19.173(-0.000)	91	1574261	9.316	9.32			0.19	1
77) Xylene (total)	(3)		91	3219523	18.909	18.91			0.44	2
78) Styrene	(3)	19.252(-0.000)	104	1220704	10.100	10.10			0.2	1
79) Bromoform	(3)	19.324(-0.000)	173	1141465	9.936	9.94			0.17	1
80) Cumene	(3)	19.660(-0.000)	105	2293087	9.872	9.87			0.24	1
82) Bromobenzene	(3)	20.320(-0.000)	156	920554	10.018	10.02			0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)	20.413(-0.000)	83	1434304	9.550	9.55			0.15	1
87) 1,2,3-Trichloropropane	(3)	20.663(-0.000)	110	451346	10.137	10.14			0.14	1
81) n-Propylbenzene	(3)	20.305(-0.000)	120	651898	9.741	9.74			0.21	1
85) 2-Chlorotoluene	(3)	20.592(-0.000)	126	632334	10.246	10.25			0.22	1
84) 4-Ethyltoluene	(3)	20.470(-0.000)	105	2311671	10.006	10.01			0.18	1
86) 1,3,5-Trimethylbenzene	(3)	20.599(-0.000)	105	2041546	10.391	10.39			0.32	2
88) Alpha Methyl Styrene	(3)	21.000(-0.000)	118	891563	10.883	10.88			0.18	1
89) tert-Butylbenzene	(3)	21.115(-0.000)	119	2037644	11.188	11.19			0.76	5
90) 1,2,4-Trimethylbenzene	(3)	21.215(-0.000)	105	1987634	10.627	10.63			0.28	2
91) sec-Butylbenzene	(3)	21.372(-0.000)	105	2979504	10.447	10.45			0.39	2
93) 1,3-Dichlorobenzene	(3)	21.709(-0.000)	146	1449963	9.906	9.91			0.19	1
94) 1,4-Dichlorobenzene	(3)	21.824(-0.000)	146	1442487	9.947	9.95			0.17	1
92) p-Isopropyltoluene	(3)	21.559(-0.000)	119	2322907	10.582	10.58			0.28	2
96) Benzyl Chloride	(3)	22.160(-0.000)	126	334485	12.059	12.06			0.25	2
98) 1,2-Dichlorobenzene	(3)	22.418(-0.000)	146	1311243	9.782	9.78			0.2	1
95) n-Butylbenzene	(3)	22.132(-0.000)	92	1349866	10.616	10.62			0.26	2
97) Hexachloroethane	(3)	22.375(-0.000)	117	706813	11.543	11.54			0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)	23.572(-0.000)	157	644146	10.406	10.41			0.28	2
101) 1,2,4-Trichlorobenzene	(3)	24.632(-0.000)	180	836801	9.522	9.52			0.38	2

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00243.d Injection date and time: **15-DEC-2018 13:06**
Data file Sample Info. Line: LCSF07;200;F1834930AA;LCSF07;0;0;LCS; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)	24.538(-0.000)	225	833966	9.591	9.59			0.47	2
102) Naphthalene	(3)	25.219(-0.000)	128	1538116	10.899	10.90			0.5	2

Total number of targets = 99

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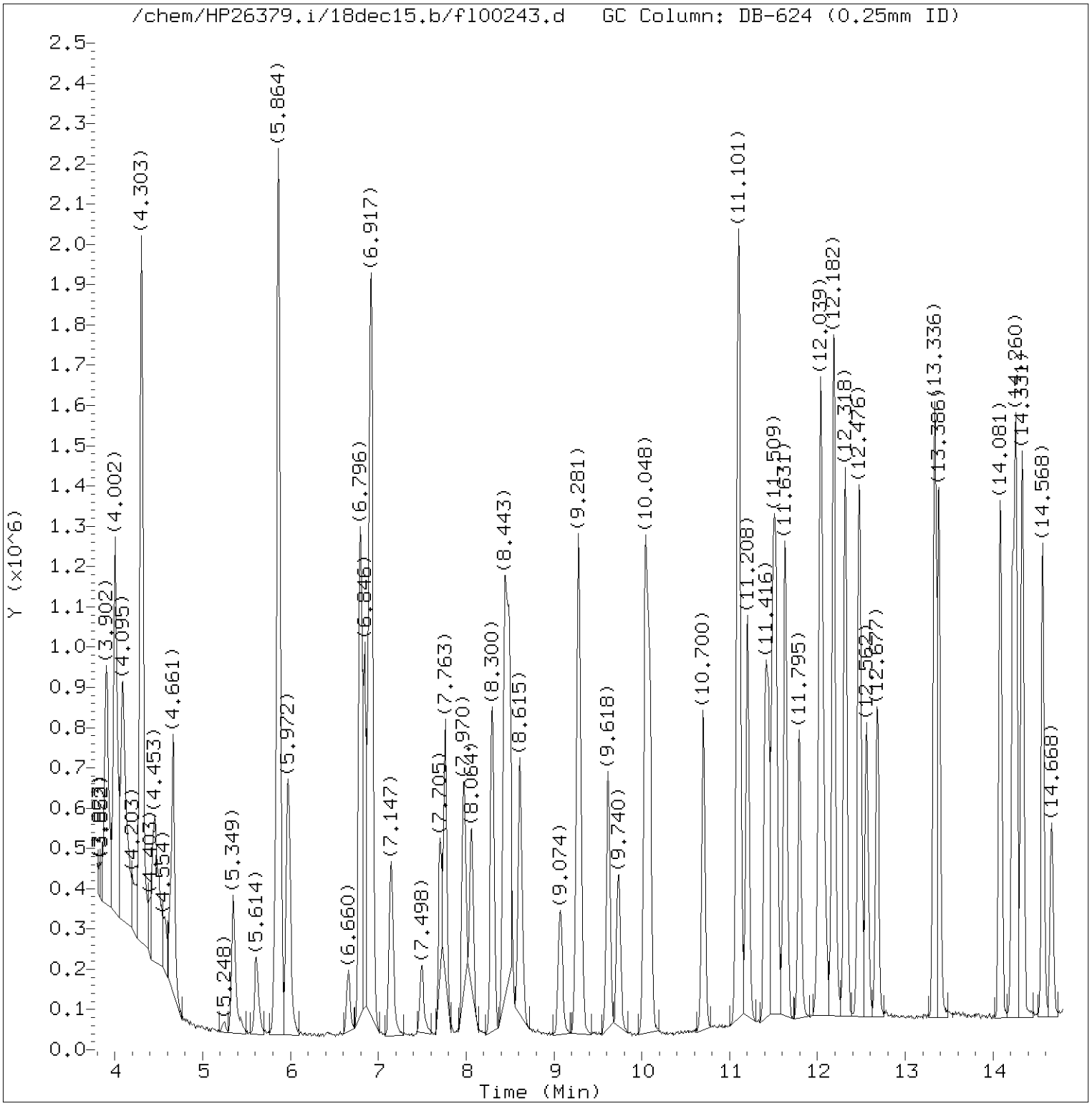
Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:44. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

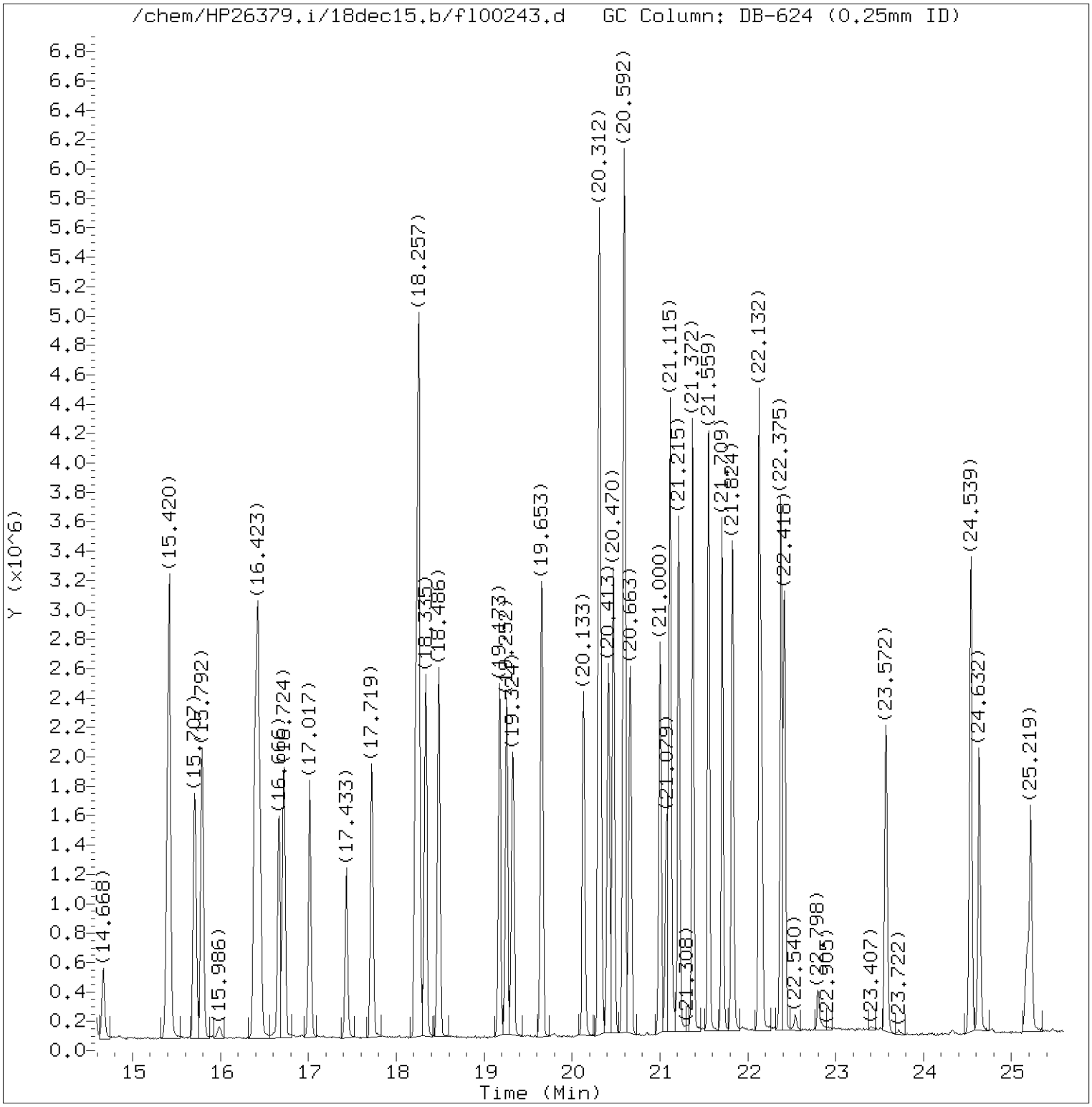
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	509608	9.859
2) Dichlorodifluoromethane	(1)	4.002	85	1347179	10.951
3) Chlorodifluoromethane	(1)	4.095	51	1204403	10.747
4) Freon 114	(1)	4.303	85	1324236	10.720
5) Chloromethane	(1)	4.453	50	589154	9.900
6) Vinyl Chloride	(1)	4.640	62	394741	10.058
7) 1,3-Butadiene	(1)	4.668	54	353344	9.185
8) Bromomethane	(1)	5.349	94	402242	10.938
9) Chloroethane	(1)	5.614	64	287015	9.919
10) Bromoethene	(1)	5.829	106	381606	10.119
11) Pentane	(1)	5.864	43	1023108	9.215
12) Trichlorofluoromethane	(1)	5.872	101	1205873	9.676
13) Dichlorofluoromethane	(1)	5.972	67	1135771	10.623
14) Ethanol	(1)	6.660	45	228241	10.821
15) Freon123a	(1)	6.796	67	1077635	11.236
16) 1,1-Dichloroethene	(1)	6.846	61	889680	9.907
17) Freon 113	(1)	6.910	103	632996	9.349
18) Carbon Disulfide	(1)	6.932	76	1240088	10.057
19) Methyl Iodide	(1)	7.147	142	842490	8.657
20) Acrolein	(1)	7.498	56	241795	10.366
21) Isopropanol	(1)	7.705	45	946638	10.293
22) 3-Chloropropene	(1)	7.763	41	918670	12.185
23) Methylene Chloride	(1)	7.978	84	421756	11.484
24) Acetone	(1)	8.064	43	1030666	10.725
25) trans-1,2-Dichloroethene	(1)	8.300	61	836909	9.823
26) Hexane	(1)	8.436	56	621404	9.702
27) Methyl t-Butyl Ether	(1)	8.493	73	1171422	9.475
28) tert-Butyl Alcohol	(1)	8.615	59	1213692	10.774
29) Acetonitrile	(1)	9.074	41	618185	11.389
30) Di-Isopropyl Ether	(1)	9.281	45	1954764	9.317
31) 1,1-Dichloroethane	(1)	9.618	63	1066464	9.959
32) Acrylonitrile	(1)	9.733	53	545034	10.148
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	1735152	9.351
34) Vinyl Acetate	(1)	10.091	43	1836688	11.533
35) cis-1,2-Dichloroethene	(1)	10.700	61	781087	9.579
36) 1,2-Dichloroethene (total)	(1)		61	1617996	19.403
37)*Bromochloromethane	(1)	11.094	130	372587	10.000
38) Cyclohexane	(1)	11.108	56	959996	9.267

* = Compound is an internal standard.

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on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1031203	10.005
40) Ethyl Acetate	(1)	11.409	43	1410194M	9.688
41) Methyl Acrylate	(1)	11.444	55	1106825	9.855
42) Carbon Tetrachloride	(1)	11.502	117	980721	10.330
43) Tetrahydrofuran	(1)	11.538	42	724102	10.133
44) 1,1,1-Trichloroethane	(1)	11.631	97	1054268	10.008
45) 2-Butanone	(1)	11.795	43	1341872	10.089
46) Isooctane	(2)	12.039	57	2820834	9.924
47) Heptane	(2)	12.189	71	433989	9.491
48) Benzene	(2)	12.318	78	1450368	10.447
49) Tert-Amyl Methyl Ether	(2)	12.476	73	1178033	9.841
50) 1,2-Dichloroethane	(2)	12.684	62	871664	10.469
51) Trichloroethene	(2)	13.336	130	615166	10.667
52)*1,4-Difluorobenzene	(2)	13.386	114	1241442	10.000
53) Dibromomethane	(2)	14.081	174	681634	10.764
54) Ethyl Acrylate	(2)	14.217	55	1380847	10.167
55) 1,2-Dichloropropane	(2)	14.260	63	720907	10.448
56) Bromodichloromethane	(2)	14.331	83	1115609	10.435
57) Methyl Methacrylate	(2)	14.568	69	450917	9.750
58) 1,4-Dioxane	(2)	14.668	88	325375	10.427
59) cis-1,3-Dichloropropene	(2)	15.399	75	818176	9.850
60) Octane	(3)	15.420	43	1603272	9.723
61) Toluene	(3)	15.792	91	1644356	9.572
62) 4-Methyl-2-Pentanone	(2)	16.387	43	1676023	10.203
63) Tetrachloroethene	(3)	16.423	166	995614	10.077
64) trans-1,3-Dichloropropene	(3)	16.451	75	763339	10.172
66) Ethyl Methacrylate	(3)	16.666	69	775087	9.738
65) 1,3-Dichloropropene (total)	(3)		75	1581515	20.022
67) 1,1,2-Trichloroethane	(3)	16.724	97	661081	9.960
68) Dibromochloromethane	(3)	17.017	127	831138	10.154
69) 1,2-Dibromoethane	(3)	17.433	107	977373	9.856
70) 2-Hexanone	(3)	17.719	43	1559371	9.680
71)*Chlorobenzene-d5	(3)	18.221	117	1249087	10.000
72) Chlorobenzene	(3)	18.249	112	1428351	9.766
73) Ethylbenzene	(3)	18.257	91	2261956	9.508
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	772298	10.235
75) m/p-Xylene	(3)	18.486	91	1645262	9.593
76) o-Xylene	(3)	19.173	91	1574261	9.316

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

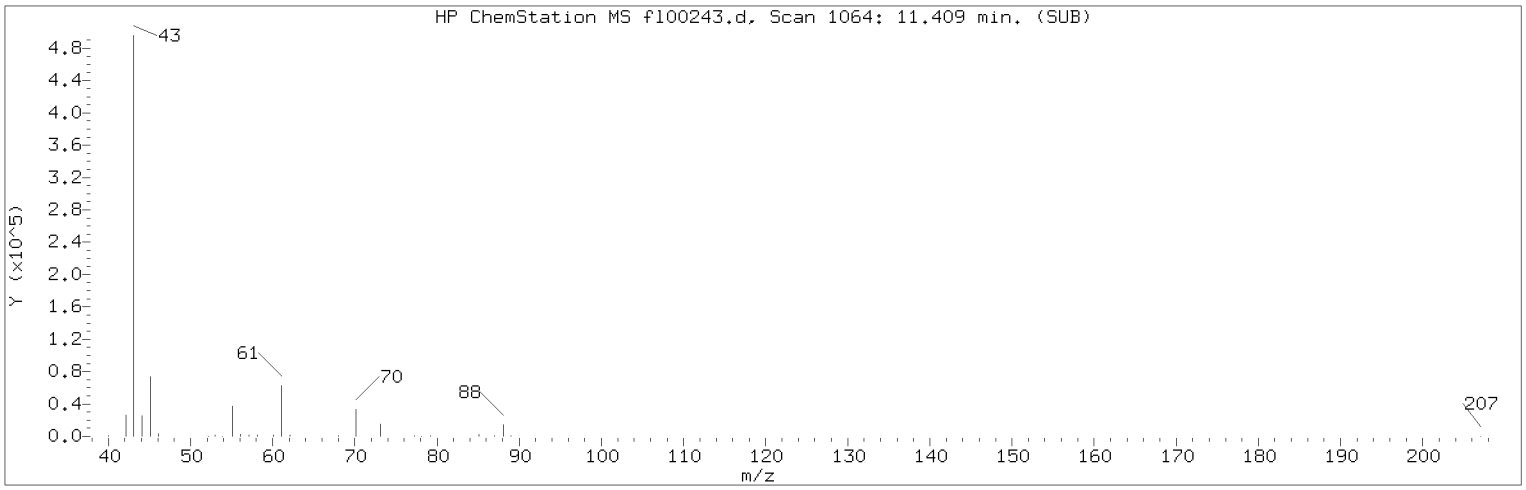
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

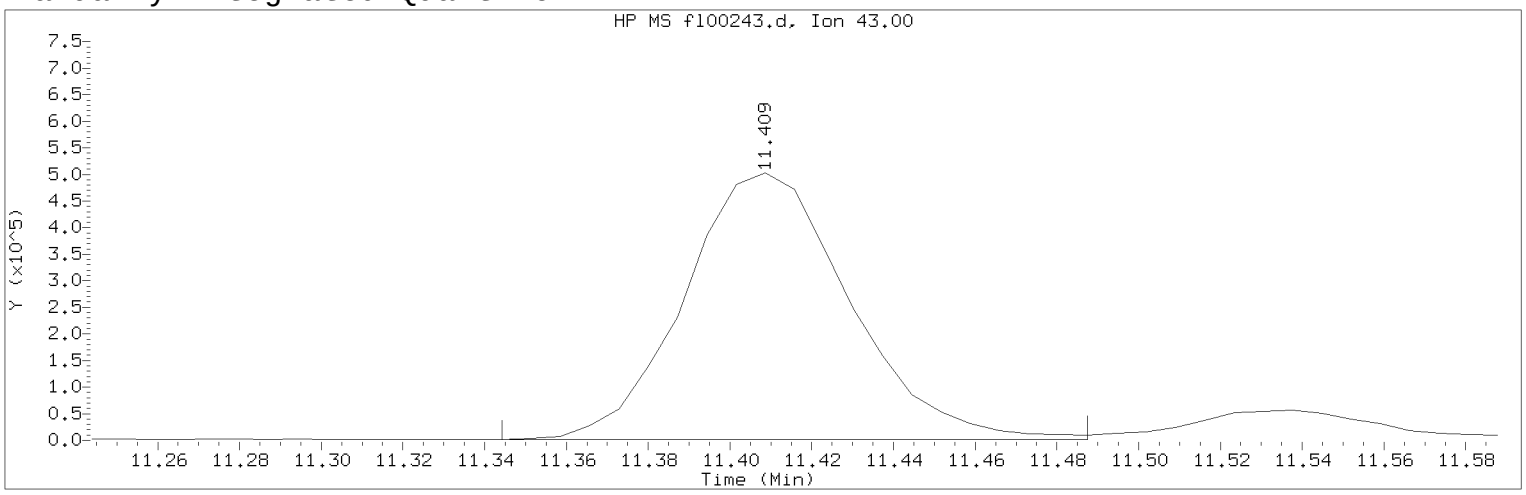
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3219523	18.909
78) Styrene	(3)	19.252	104	1220704	10.100
79) Bromoform	(3)	19.324	173	1141465	9.936
80) Cumene	(3)	19.660	105	2293087	9.872
81) n-Propylbenzene	(3)	20.305	120	651898	9.741
82) Bromobenzene	(3)	20.320	156	920554	10.018
83) 1,1,2,2-Tetrachloroethane	(3)	20.413	83	1434304	9.550
84) 4-Ethyltoluene	(3)	20.470	105	2311671	10.006
85) 2-Chlorotoluene	(3)	20.592	126	632334	10.246
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2041546	10.391
87) 1,2,3-Trichloropropane	(3)	20.663	110	451346	10.137
88) Alpha Methyl Styrene	(3)	21.000	118	891563	10.883
89) tert-Butylbenzene	(3)	21.115	119	2037644	11.188
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	1987634	10.627
91) sec-Butylbenzene	(3)	21.372	105	2979504	10.447
92) p-Isopropyltoluene	(3)	21.559	119	2322907	10.582
93) 1,3-Dichlorobenzene	(3)	21.709	146	1449963	9.906
94) 1,4-Dichlorobenzene	(3)	21.824	146	1442487	9.947
95) n-Butylbenzene	(3)	22.132	92	1349866	10.616
96) Benzyl Chloride	(3)	22.160	126	334485	12.059
97) Hexachloroethane	(3)	22.375	117	706813	11.543
98) 1,2-Dichlorobenzene	(3)	22.418	146	1311243	9.782
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	644146	10.406
100) Hexachlorobutadiene	(3)	24.539	225	833966	9.591
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	836801	9.522
102) Naphthalene	(3)	25.219	128	1538116	10.899

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:51 jeb07445

Sample Name: LCSF07 Lab Sample ID: LCSF07

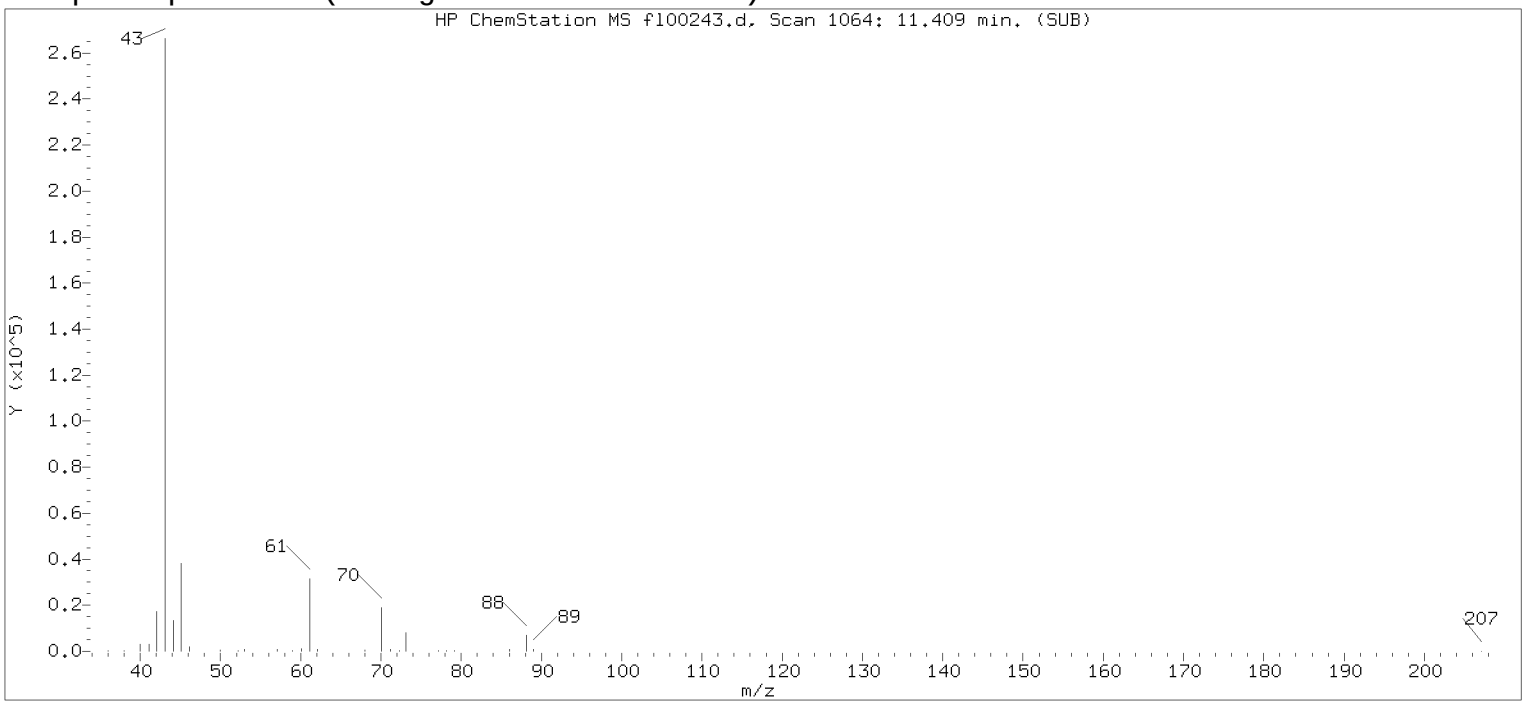
Compound Number : 40
Compound Name : Ethyl Acetate
Scan Number : 1064
Retention Time (minutes): 11.409
Quant Ion : 43.00
Area (flag) : 1410194M
Concentration (ppb(v)) : 9.6876
Integration start scan : 1054 Integration stop scan: 1074
Y at integration start : 856 Y at integration end: 856

Reason for manual integration: improper integration

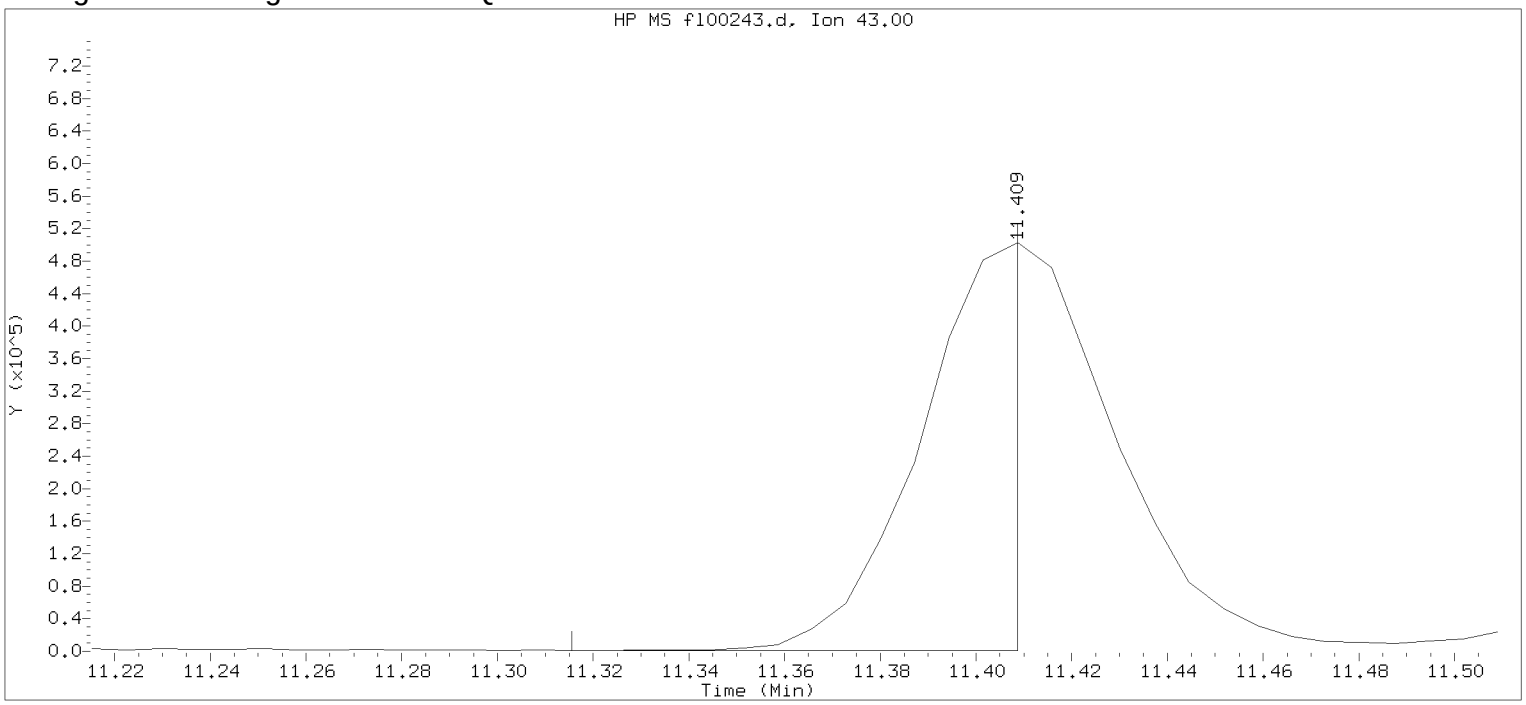
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/15/2018 at 13:51.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:44.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00243.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:06 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 13:40 Unknown

Sample Name: LCSF07 Lab Sample ID: LCSF07

Compound Number : 40
Compound Name : Ethyl Acetate
Scan Number : 1064
Retention Time (minutes): 11.409
Quant Ion : 43.00
Area : 678643
Concentration (ppb(v)) : 4.6621
Integration start scan : 1050 Integration stop scan: 1063
Y at integration start : 1047 Y at integration end: 1047

Digitally signed by Jacob E. Bailey on 12/15/2018 at 13:51.
Target 3.5 esignature userBIR29jeb07445

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSDF07
Canister ID:	N/A	Lab File ID:	fl00244.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:37
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
115-07-1	Propene	17	
75-71-8	Dichlorodifluoromethane	52	
75-45-6	Chlorodifluoromethane	38	
76-14-2	Freon 114	71	
74-87-3	Chloromethane	21	
75-01-4	Vinyl Chloride	25	
106-99-0	1,3-Butadiene	20	
74-83-9	Bromomethane	44	
75-00-3	Chloroethane	27	
593-60-2	Bromoethene	45	
75-43-4	Dichlorofluoromethane	45	
75-69-4	Trichlorofluoromethane	55	
109-66-0	Pentane	28	
64-17-5	Ethanol	21	
107-02-8	Acrolein	24	
75-35-4	1,1-Dichloroethene	40	
76-13-1	Freon 113	73	
67-64-1	Acetone	25	
74-88-4	Methyl Iodide	50	
75-15-0	Carbon Disulfide	31	
67-63-0	Isopropanol	26	
75-05-8	Acetonitrile	19	
107-05-1	3-Chloropropene	38	
75-09-2	Methylene Chloride	38	

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSDF07
Canister ID:	N/A	Lab File ID:	fl00244.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:37
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-65-0	tert-Butyl Alcohol	33	
107-13-1	Acrylonitrile	22	
156-60-5	trans-1,2-Dichloroethene	39	
1634-04-4	Methyl t-Butyl Ether	35	
110-54-3	Hexane	34	
75-34-3	1,1-Dichloroethane	40	
108-05-4	Vinyl Acetate	42	
108-20-3	Di-Isopropyl Ether	39	
637-92-3	Ethyl Tert-Butyl Ether	40	
156-59-2	cis-1,2-Dichloroethene	38	
540-59-0	1,2-Dichloroethene (total)	77	
78-93-3	2-Butanone	29	
141-78-6	Ethyl Acetate	35	
96-33-3	Methyl Acrylate	34	
109-99-9	Tetrahydrofuran	30	
67-66-3	Chloroform	48	
71-55-6	1,1,1-Trichloroethane	54	
110-82-7	Cyclohexane	32	
56-23-5	Carbon Tetrachloride	62	
71-43-2	Benzene	33	
107-06-2	1,2-Dichloroethane	43	
540-84-1	Isooctane	48	
994-05-8	Tert-Amyl Methyl Ether	41	
142-82-5	Heptane	40	

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSDF07
Canister ID:	N/A	Lab File ID:	fl00244.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:37
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
79-01-6	Trichloroethene	56	
140-88-5	Ethyl Acrylate	41	
78-87-5	1,2-Dichloropropane	47	
74-95-3	Dibromomethane	74	
123-91-1	1,4-Dioxane	38	
80-62-6	Methyl Methacrylate	38	
75-27-4	Bromodichloromethane	67	
10061-01-5	cis-1,3-Dichloropropene	44	
108-10-1	4-Methyl-2-Pentanone	40	
108-88-3	Toluene	37	
111-65-9	Octane	47	
10061-02-6	trans-1,3-Dichloropropene	46	
542-75-6	1,3-Dichloropropene (total)	90	
97-63-2	Ethyl Methacrylate	45	
79-00-5	1,1,2-Trichloroethane	57	
127-18-4	Tetrachloroethene	70	
591-78-6	2-Hexanone	40	
124-48-1	Dibromochloromethane	83	
106-93-4	1,2-Dibromoethane	76	
108-90-7	Chlorobenzene	46	
630-20-6	1,1,1,2-Tetrachloroethane	70	
100-41-4	Ethylbenzene	42	
179601-23-1	m/p-Xylene	43	
95-47-6	o-Xylene	42	

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSDF07
Canister ID:	N/A	Lab File ID:	fl00244.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:37
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
1330-20-7	Xylene (total)	86	
100-42-5	Styrene	43	
75-25-2	Bromoform	97	
98-82-8	Cumene	51	
108-86-1	Bromobenzene	66	
79-34-5	1,1,2,2-Tetrachloroethane	66	
96-18-4	1,2,3-Trichloropropane	61	
103-65-1	n-Propylbenzene	51	
95-49-8	2-Chlorotoluene	55	
622-96-8	4-Ethyltoluene	52	
108-67-8	1,3,5-Trimethylbenzene	54	
98-83-9	Alpha Methyl Styrene	51	
98-06-6	tert-Butylbenzene	62	
95-63-6	1,2,4-Trimethylbenzene	56	
135-98-8	sec-Butylbenzene	60	
541-73-1	1,3-Dichlorobenzene	62	
106-46-7	1,4-Dichlorobenzene	62	
99-87-6	p-Isopropyltoluene	61	
100-44-7	Benzyl Chloride	60	
95-50-1	1,2-Dichlorobenzene	62	
104-51-8	n-Butylbenzene	61	
67-72-1	Hexachloroethane	100	
96-12-8	1,2-Dibromo-3-chloropropane	100	
120-82-1	1,2,4-Trichlorobenzene	81	

Abbreviations:
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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.: BTR29

Sample Media:	N/A	Lab Sample ID:	LCSDF07
Canister ID:	N/A	Lab File ID:	fl00244.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	12/15/2018
Injection Volume:	200 cc	Analyzed Time:	13:37
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ug/m3 Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
87-68-3	Hexachlorobutadiene	110	
91-20-3	Naphthalene	62	

Abbreviations:
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B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00244.d Injection date and time: **15-DEC-2018 13:37**
Data file Sample Info. Line: LCSDF07;200;F1834930AA;LCSDF07;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.108(-0.007)	1022	130	366579 (1)	10.00		217718 - 508006
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1205356 (0)	10.00		720021 - 1680049
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1192340 (0)	10.00		715431 - 1669339

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	3.902(0.000)	41	498752	9.807	9.81			0.16	1
2) Dichlorodifluoromethane	(1)	4.009(-0.000)	85	1269144	10.486	10.49			0.13	1
3) Chlorodifluoromethane	(1)	4.095(-0.000)	51	1176936	10.674	10.67			0.15	1
4) Freon 114	(1)	4.310(-0.000)	85	1231573	10.133	10.13			0.12	1
5) Chloromethane	(1)	4.453(0.000)	50	592888	10.126	10.13			0.24	1
6) Vinyl Chloride	(1)	4.640(0.000)	62	374351	9.695	9.69			0.12	1
7) 1,3-Butadiene	(1)	4.668(-0.000)	54	334720	8.844	8.84			0.17	1
8) Bromomethane	(1)	5.356(-0.000)	94	405968	11.221	11.22			0.18	1
9) Chloroethane	(1)	5.621(-0.000)	64	292272	10.267	10.27			0.19	1
10) Bromoethene	(1)	5.836(-0.000)	106	382122	10.298	10.30			0.18	1
13) Dichlorofluoromethane	(1)	5.972(0.000)	67	1133149	10.773	10.77			0.11	1
12) Trichlorofluoromethane	(1)	5.872(0.000)	101	1199767	9.785	9.78			0.15	1
11) Pentane	(1)	5.864(-0.000)	43	1029588	9.426	9.43			0.13	1
14) Ethanol	(1)	6.660(0.000)	45	234271	11.289	11.29			0.69	5
15) Freon123a	(1)	6.803(-0.000)	67	1053211	11.162	11.16			0.2	1
20) Acrolein	(1)	7.505(-0.000)	56	236918	10.324	10.32			0.62	5
16) 1,1-Dichloroethene	(1)	6.853(-0.000)	61	902018	10.209	10.21			0.14	1
17) Freon 113	(1)	6.910(0.000)	103	635451	9.539	9.54			0.11	1
24) Acetone	(1)	8.071(-0.000)	43	995294	10.527	10.53			0.53	5
19) Methyl Iodide	(1)	7.146(0.000)	142	827716	8.645	8.64			0.15	1
18) Carbon Disulfide	(1)	6.939(-0.000)	76	1202277	9.910	9.91			0.13	1
21) Isopropanol	(1)	7.712(-0.000)	45	966145	10.677	10.68			0.24	1
29) Acetonitrile	(1)	9.088(-0.000)	41	588875	11.027	11.03			0.83	5
22) 3-Chloropropene	(1)	7.770(-0.000)	41	902764	12.170	12.17			0.15	1
23) Methylene Chloride	(1)	7.985(-0.000)	84	399669	11.061	11.06			0.25	2
28) tert-Butyl Alcohol	(1)	8.622(-0.000)	59	1222454	11.029	11.03			0.21	1
32) Acrylonitrile	(1)	9.740(-0.000)	53	545989	10.332	10.33			0.13	1
25) trans-1,2-Dichloroethene	(1)	8.307(-0.000)	61	825014	9.842	9.84			0.086	1
27) Methyl t-Butyl Ether	(1)	8.500(-0.000)	73	1167615	9.599	9.60			0.15	1
26) Hexane	(1)	8.450(-0.000)	56	605073	9.602	9.60			0.13	1
31) 1,1-Dichloroethane	(1)	9.625(-0.000)	63	1034323	9.817	9.82			0.089	1
34) Vinyl Acetate	(1)	10.105(-0.000)	43	1849573	11.805	11.80			0.16	1
30) Di-Isopropyl Ether	(1)	9.288(-0.000)	45	1947403	9.434	9.43			0.15	1
33) Ethyl Tert-Butyl Ether	(1)	10.055(-0.000)	59	1733272	9.494	9.49			0.15	1
35) cis-1,2-Dichloroethene	(1)	10.707(-0.000)	61	764670	9.532	9.53			0.12	1
36) 1,2-Dichloroethene (total)	(1)		61	1589684	19.374	19.37			0.2	1
45) 2-Butanone	(1)	11.802(0.000)	43	1304228M	9.967	9.97			0.21	1
40) Ethyl Acetate	(1)	11.416(0.000)	43	1401893	9.788	9.79			0.25	2
41) Methyl Acrylate	(1)	11.459(0.000)	55	1064386	9.632	9.63			0.14	1
43) Tetrahydrofuran	(1)	11.538(0.000)	42	723310	10.288	10.29			0.24	1
39) Chloroform	(1)	11.215(0.000)	83	999434	9.855	9.86			0.092	1
44) 1,1,1-Trichloroethane	(1)	11.645(0.000)	97	1017425	9.817	9.82			0.12	1
38) Cyclohexane	(1)	11.115(0.000)	56	945769	9.279	9.28			0.11	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 12/15/2018 at 14:14. Target 3.5 esignature user ID: jeb07445

Data file: /chem/HP26379.i/18dec15.b/fl00244.d Injection date and time: **15-DEC-2018 13:37**
Data file Sample Info. Line: LCSDF07;200;F1834930AA;LCSDF07;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)	11.509(-0.000)	117	923420	9.886	9.89			0.14	1
48) Benzene	(2)	12.325(0.000)	78	1412987	10.482	10.48			0.11	1
50) 1,2-Dichloroethane	(2)	12.691(-0.000)	62	868009	10.738	10.74			0.08	1
46) Isooctane	(2)	12.046(-0.000)	57	2809441	10.180	10.18			0.13	1
49) Tert-Amyl Methyl Ether	(2)	12.490(-0.000)	73	1127434	9.700	9.70			0.11	1
47) Heptane	(2)	12.189(0.000)	71	431502	9.719	9.72			0.23	1
51) Trichloroethene	(2)	13.343(0.000)	130	586941	10.483	10.48			0.18	1
54) Ethyl Acrylate	(2)	14.231(0.000)	55	1316091	9.981	9.98			0.16	1
55) 1,2-Dichloropropane	(2)	14.267(0.000)	63	684760	10.221	10.22			0.13	1
53) Dibromomethane	(2)	14.095(0.000)	174	643916	10.473	10.47			0.14	1
58) 1,4-Dioxane	(2)	14.682(0.000)	88	323260	10.669	10.67			0.17	1
57) Methyl Methacrylate	(2)	14.575(0.000)	69	419240	9.336	9.34			0.15	1
56) Bromodichloromethane	(2)	14.338(0.000)	83	1040142	10.020	10.02			0.12	1
59) cis-1,3-Dichloropropene	(2)	15.406(0.000)	75	789901	9.794	9.79			0.1	1
62) 4-Methyl-2-Pentanone	(2)	16.401(0.000)	43	1558282	9.771	9.77			0.15	1
61) Toluene	(3)	15.800(0.000)	91	1624273	9.905	9.91			0.12	1
60) Octane	(3)	15.427(0.000)	43	1578583	10.029	10.03			0.4	2
64) trans-1,3-Dichloropropene	(3)	16.458(0.000)	75	720515	10.059	10.06			0.12	1
65) 1,3-Dichloropropene (total)	(3)		75	1510416	19.853	19.85			0.23	1
66) Ethyl Methacrylate	(3)	16.666(0.000)	69	726422	9.561	9.56			0.19	1
67) 1,1,2-Trichloroethane	(3)	16.731(-0.000)	97	661396	10.439	10.44			0.12	1
63) Tetrachloroethene	(3)	16.430(-0.000)	166	979985	10.391	10.39			0.25	2
70) 2-Hexanone	(3)	17.726(0.000)	43	1502521	9.771	9.77			0.18	1
68) Dibromochloromethane	(3)	17.024(0.000)	127	760816	9.737	9.74			0.13	1
69) 1,2-Dibromoethane	(3)	17.440(0.000)	107	930397	9.829	9.83			0.13	1
72) Chlorobenzene	(3)	18.256(-0.000)	112	1389234	9.950	9.95			0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)	18.342(-0.000)	131	737394	10.238	10.24			0.15	1
73) Ethylbenzene	(3)	18.264(-0.000)	91	2214883	9.753	9.75			0.19	1
75) m/p-Xylene	(3)	18.493(-0.000)	91	1638221	10.007	10.01			0.26	2
76) o-Xylene	(3)	19.180(-0.000)	91	1573223	9.753	9.75			0.19	1
77) Xylene (total)	(3)		91	3211444	19.760	19.76			0.44	2
78) Styrene	(3)	19.259(-0.000)	104	1159122	10.047	10.05			0.2	1
79) Bromoform	(3)	19.331(0.000)	173	1033402	9.423	9.42			0.17	1
80) Cumene	(3)	19.660(0.000)	105	2311209	10.423	10.42			0.24	1
82) Bromobenzene	(3)	20.326(-0.000)	156	906816	10.338	10.34			0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)	20.420(-0.000)	83	1387277	9.677	9.68			0.15	1
87) 1,2,3-Trichloropropane	(3)	20.670(-0.000)	110	427464	10.058	10.06			0.14	1
81) n-Propylbenzene	(3)	20.312(-0.000)	120	660082	10.332	10.33			0.21	1
85) 2-Chlorotoluene	(3)	20.592(-0.000)	126	631377	10.718	10.72			0.22	1
84) 4-Ethyltoluene	(3)	20.477(-0.000)	105	2321776	10.528	10.53			0.18	1
86) 1,3,5-Trimethylbenzene	(3)	20.599(-0.000)	105	2058538	10.976	10.98			0.32	2
88) Alpha Methyl Styrene	(3)	21.007(-0.000)	118	829562	10.608	10.61			0.18	1
89) tert-Butylbenzene	(3)	21.122(-0.000)	119	1975109	11.361	11.36			0.76	5
90) 1,2,4-Trimethylbenzene	(3)	21.222(-0.000)	105	2016031	11.292	11.29			0.28	2
91) sec-Butylbenzene	(3)	21.380(-0.000)	105	2985263	10.966	10.97			0.39	2
93) 1,3-Dichlorobenzene	(3)	21.716(-0.000)	146	1436821	10.284	10.28			0.19	1
94) 1,4-Dichlorobenzene	(3)	21.831(-0.000)	146	1419712	10.256	10.26			0.17	1
92) p-Isopropyltoluene	(3)	21.559(-0.000)	119	2321530	11.079	11.08			0.28	2
96) Benzyl Chloride	(3)	22.160(-0.000)	126	305811	11.550	11.55			0.25	2
98) 1,2-Dichlorobenzene	(3)	22.418(-0.000)	146	1323313	10.342	10.34			0.2	1
95) n-Butylbenzene	(3)	22.132(-0.000)	92	1351003	11.131	11.13			0.26	2
97) Hexachloroethane	(3)	22.382(-0.000)	117	631385	10.802	10.80			0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)	23.578(-0.000)	157	618539	10.468	10.47			0.28	2
101) 1,2,4-Trichlorobenzene	(3)	24.632(-0.000)	180	915287	10.911	10.91			0.38	2

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18dec15.b/fl00244.d Injection date and time: **15-DEC-2018 13:37**
Data file Sample Info. Line: LCSDF07;200;F1834930AA;LCSDF07;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1834930AA**
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Blank Data file reference: **/chem/HP26379.i/18dec15.b/fl00242.d**

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 15-DEC-2018 12:08
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18dec15.b/fl00241.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

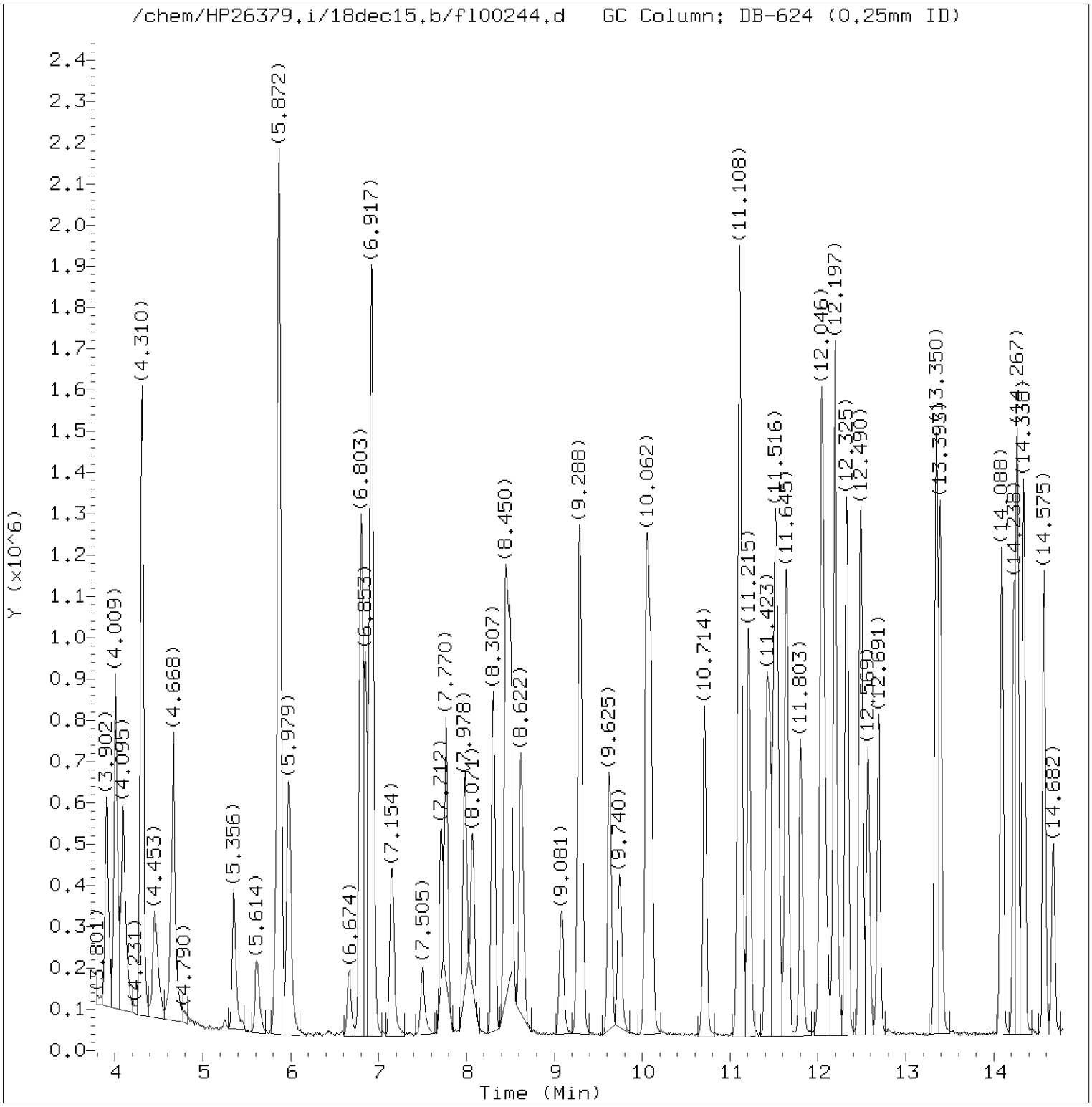
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)	24.538(-0.000)	225	893763	10.767	10.77			0.47	2
102) Naphthalene	(3)	25.219(-0.000)	128	1603665	11.904	11.90			0.5	2

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 12/15/2018 at 14:14. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:44. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

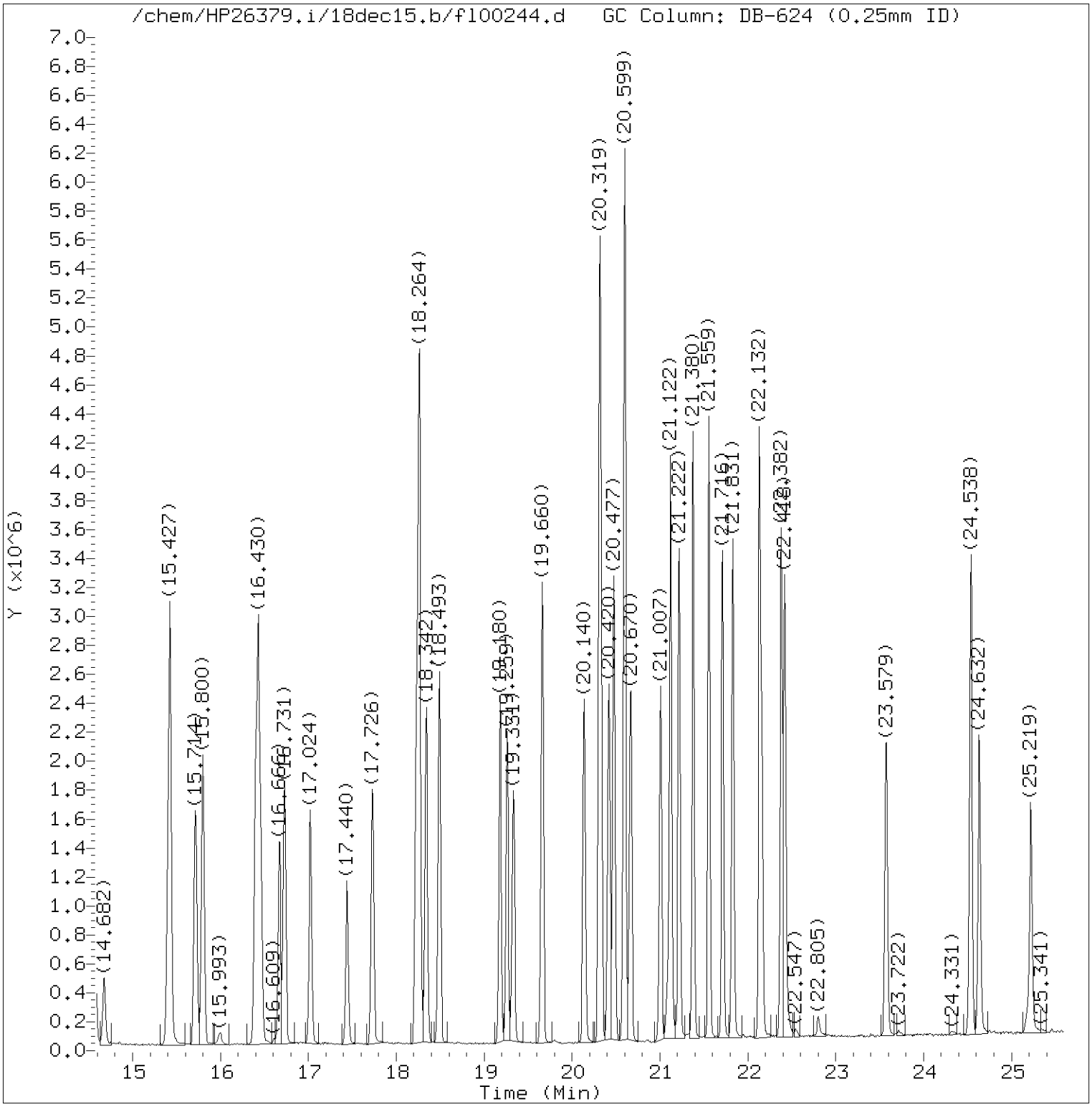
Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	498752	9.807
2) Dichlorodifluoromethane	(1)	4.009	85	1269144	10.486
3) Chlorodifluoromethane	(1)	4.095	51	1176936	10.674
4) Freon 114	(1)	4.310	85	1231573	10.133
5) Chloromethane	(1)	4.453	50	592888	10.126
6) Vinyl Chloride	(1)	4.640	62	374351	9.695
7) 1,3-Butadiene	(1)	4.668	54	334720	8.844
8) Bromomethane	(1)	5.356	94	405968	11.221
9) Chloroethane	(1)	5.621	64	292272	10.267
10) Bromoethene	(1)	5.836	106	382122	10.298
11) Pentane	(1)	5.864	43	1029588	9.426
12) Trichlorofluoromethane	(1)	5.872	101	1199767	9.785
13) Dichlorofluoromethane	(1)	5.972	67	1133149	10.773
14) Ethanol	(1)	6.660	45	234271	11.289
15) Freon123a	(1)	6.803	67	1053211	11.162
16) 1,1-Dichloroethene	(1)	6.853	61	902018	10.209
17) Freon 113	(1)	6.910	103	635451	9.539
18) Carbon Disulfide	(1)	6.939	76	1202277	9.910
19) Methyl Iodide	(1)	7.147	142	827716	8.645
20) Acrolein	(1)	7.505	56	236918	10.324
21) Isopropanol	(1)	7.712	45	966145	10.677
22) 3-Chloropropene	(1)	7.770	41	902764	12.170
23) Methylene Chloride	(1)	7.985	84	399669	11.061
24) Acetone	(1)	8.071	43	995294	10.527
25) trans-1,2-Dichloroethene	(1)	8.307	61	825014	9.842
26) Hexane	(1)	8.450	56	605073	9.602
27) Methyl t-Butyl Ether	(1)	8.500	73	1167615	9.599
28) tert-Butyl Alcohol	(1)	8.622	59	1222454	11.029
29) Acetonitrile	(1)	9.088	41	588875	11.027
30) Di-Isopropyl Ether	(1)	9.288	45	1947403	9.434
31) 1,1-Dichloroethane	(1)	9.625	63	1034323	9.817
32) Acrylonitrile	(1)	9.740	53	545989	10.332
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1733272	9.494
34) Vinyl Acetate	(1)	10.105	43	1849573	11.805
35) cis-1,2-Dichloroethene	(1)	10.707	61	764670	9.532
36) 1,2-Dichloroethene (total)	(1)		61	1589684	19.374
37)*Bromochloromethane	(1)	11.108	130	366579	10.000
38) Cyclohexane	(1)	11.115	56	945769	9.279

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.215	83	999434	9.855
40) Ethyl Acetate	(1)	11.416	43	1401893	9.788
41) Methyl Acrylate	(1)	11.459	55	1064386	9.632
42) Carbon Tetrachloride	(1)	11.509	117	923420	9.886
43) Tetrahydrofuran	(1)	11.538	42	723310	10.288
44) 1,1,1-Trichloroethane	(1)	11.645	97	1017425	9.817
45) 2-Butanone	(1)	11.803	43	1304228M	9.967
46) Isooctane	(2)	12.046	57	2809441	10.180
47) Heptane	(2)	12.189	71	431502	9.719
48) Benzene	(2)	12.325	78	1412987	10.482
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1127434	9.700
50) 1,2-Dichloroethane	(2)	12.691	62	868009	10.738
51) Trichloroethene	(2)	13.343	130	586941	10.483
52)*1,4-Difluorobenzene	(2)	13.393	114	1205356	10.000
53) Dibromomethane	(2)	14.095	174	643916	10.473
54) Ethyl Acrylate	(2)	14.231	55	1316091	9.981
55) 1,2-Dichloropropane	(2)	14.267	63	684760	10.221
56) Bromodichloromethane	(2)	14.338	83	1040142	10.020
57) Methyl Methacrylate	(2)	14.575	69	419240	9.336
58) 1,4-Dioxane	(2)	14.682	88	323260	10.669
59) cis-1,3-Dichloropropene	(2)	15.406	75	789901	9.794
60) Octane	(3)	15.427	43	1578583	10.029
61) Toluene	(3)	15.800	91	1624273	9.905
62) 4-Methyl-2-Pentanone	(2)	16.401	43	1558282	9.771
63) Tetrachloroethene	(3)	16.430	166	979985	10.391
64) trans-1,3-Dichloropropene	(3)	16.459	75	720515	10.059
66) Ethyl Methacrylate	(3)	16.666	69	726422	9.561
65) 1,3-Dichloropropene (total)	(3)		75	1510416	19.853
67) 1,1,2-Trichloroethane	(3)	16.731	97	661396	10.439
68) Dibromochloromethane	(3)	17.024	127	760816	9.737
69) 1,2-Dibromoethane	(3)	17.440	107	930397	9.829
70) 2-Hexanone	(3)	17.726	43	1502521	9.771
71)*Chlorobenzene-d5	(3)	18.228	117	1192340	10.000
72) Chlorobenzene	(3)	18.256	112	1389234	9.950
73) Ethylbenzene	(3)	18.264	91	2214883	9.753
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	737394	10.238
75) m/p-Xylene	(3)	18.493	91	1638221	10.007
76) o-Xylene	(3)	19.180	91	1573223	9.753

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

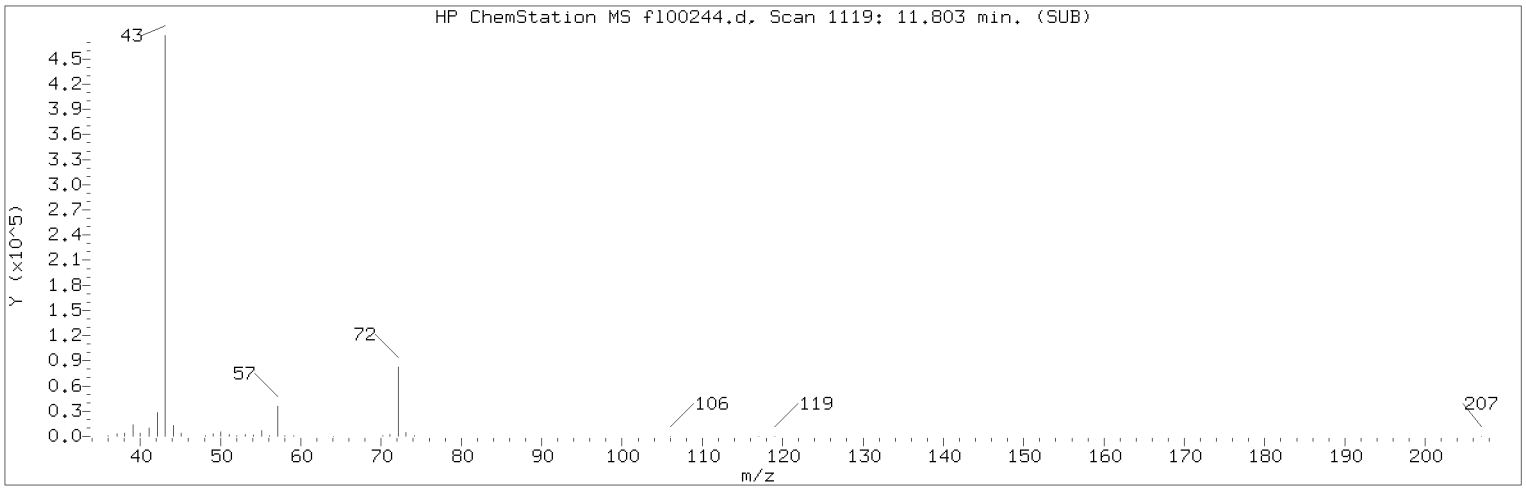
Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

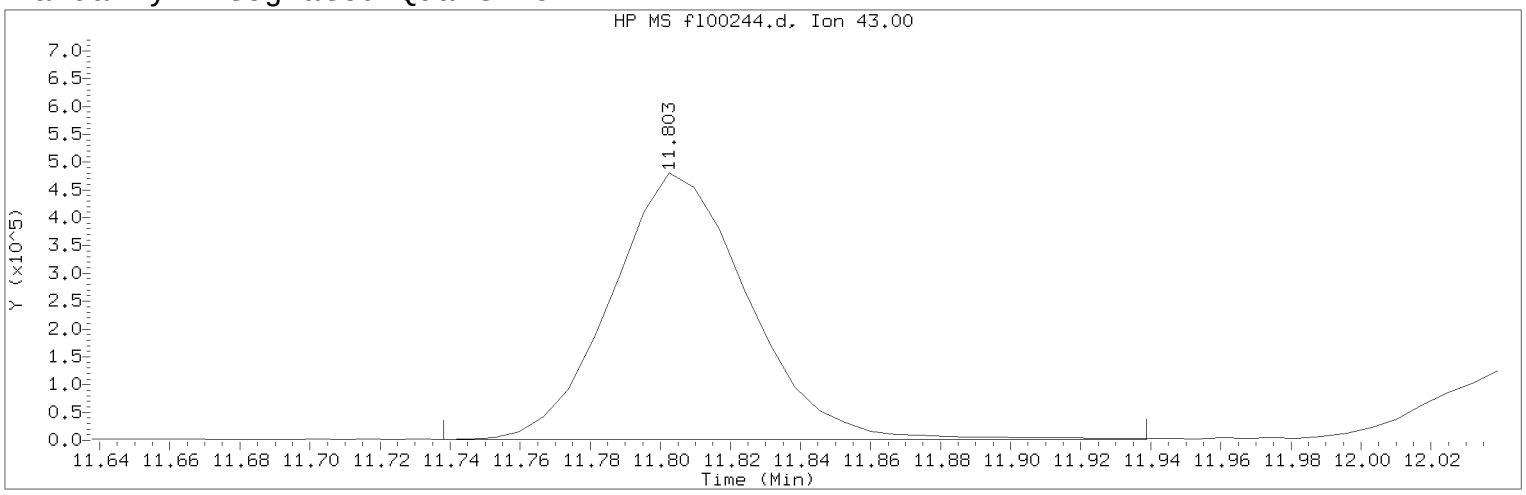
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3211444	19.760
78) Styrene	(3)	19.259	104	1159122	10.047
79) Bromoform	(3)	19.331	173	1033402	9.423
80) Cumene	(3)	19.660	105	2311209	10.423
81) n-Propylbenzene	(3)	20.312	120	660082	10.332
82) Bromobenzene	(3)	20.327	156	906816	10.338
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1387277	9.677
84) 4-Ethyltoluene	(3)	20.477	105	2321776	10.528
85) 2-Chlorotoluene	(3)	20.592	126	631377	10.718
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2058538	10.976
87) 1,2,3-Trichloropropane	(3)	20.670	110	427464	10.058
88) Alpha Methyl Styrene	(3)	21.007	118	829562	10.608
89) tert-Butylbenzene	(3)	21.122	119	1975109	11.361
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	2016031	11.292
91) sec-Butylbenzene	(3)	21.380	105	2985263	10.966
92) p-Isopropyltoluene	(3)	21.559	119	2321530	11.079
93) 1,3-Dichlorobenzene	(3)	21.716	146	1436821	10.284
94) 1,4-Dichlorobenzene	(3)	21.831	146	1419712	10.256
95) n-Butylbenzene	(3)	22.132	92	1351003	11.131
96) Benzyl Chloride	(3)	22.160	126	305811	11.550
97) Hexachloroethane	(3)	22.382	117	631385	10.802
98) 1,2-Dichlorobenzene	(3)	22.418	146	1323313	10.342
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	618539	10.468
100) Hexachlorobutadiene	(3)	24.538	225	893763	10.767
101) 1,2,4-Trichlorobenzene	(3)	24.632	180	915287	10.911
102) Naphthalene	(3)	25.219	128	1603665	11.904

Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:13 jeb07445

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

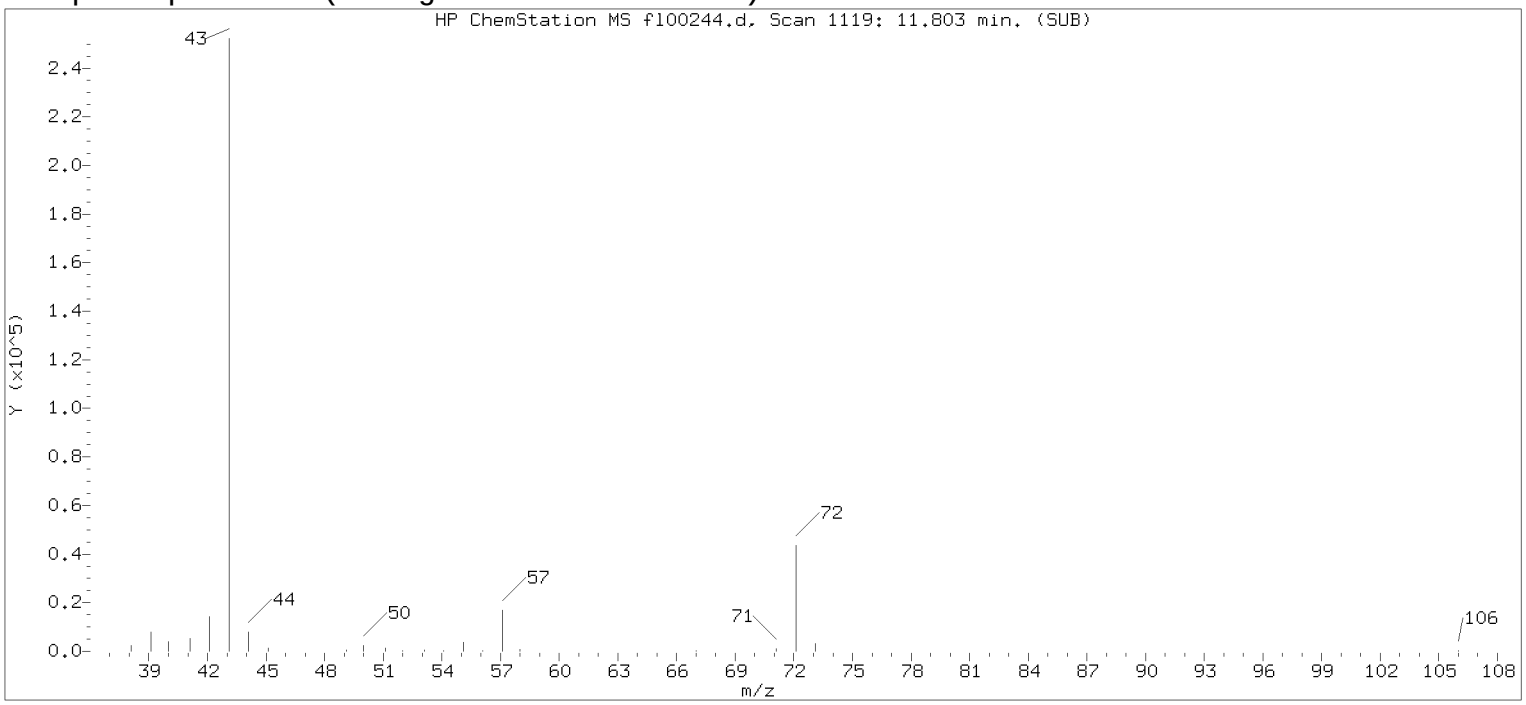
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area (flag) : 1304228M
Concentration (ppb(v)) : 9.9667
Integration start scan : 1109 Integration stop scan: 1137
Y at integration start : 1122 Y at integration end: 1122

Reason for manual integration: improper integration

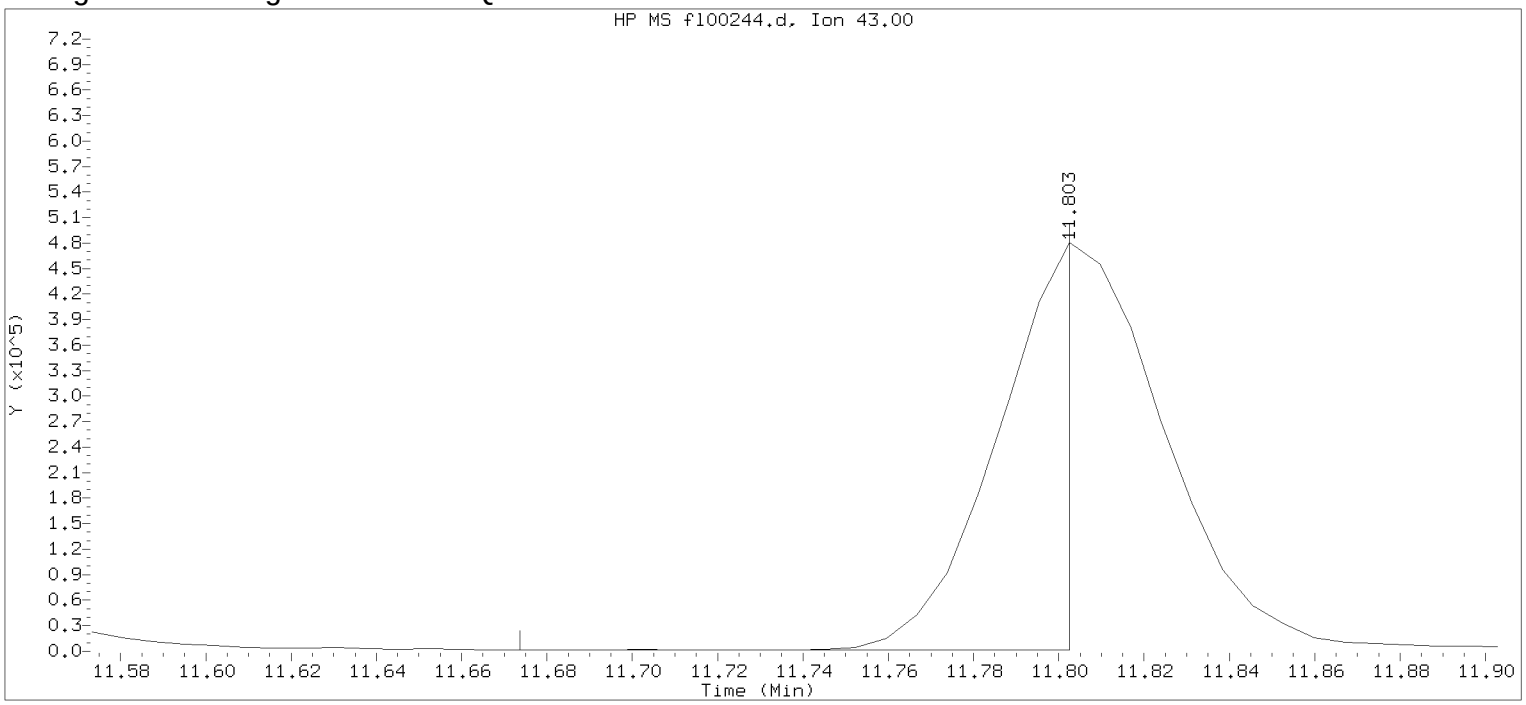
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 12/15/2018 at 14:14.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 12/17/2018 at 15:44.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18dec15.b/fl00244.d Instrument ID: HP26379.i
Injection date and time: 15-DEC-2018 13:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18dec15.b/to-15.m Sublist used: all1
Calibration date and time: 15-DEC-2018 12:08
Date, time and analyst ID of latest file update: 15-Dec-2018 14:10 Unknown

Sample Name: LCSDF07 Lab Sample ID: LCSDF07

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area : 549048
Concentration (ppb(v)) : 4.1957
Integration start scan : 1100 Integration stop scan: 1118
Y at integration start : 1344 Y at integration end: 1344

Digitally signed by Jacob E. Bailey on 12/15/2018 at 14:14.
Target 3.5 esignature userID: jeb07445

Clean Canister Certification Data

Volatile Organics in Air by GC/MS

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Cleaning Data Summary
SDG# BTR29

Sample #	Can ID	Certified File	Instrument #
9929275	1262	fk00463	HP26379
9929276	1361	fk00463	HP26379
9929277	1412	fk00463	HP26379

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP26379 **HP #06**

Data Directory Path is - D:\data\18nov26\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	FK00320.D	50NGBFB	11/26/2018	09:20		
jeb07445	FK00321.D	VSTD010	11/26/2018	10:07		
jeb07445	FK00322.D	VSTD005	11/26/2018	10:37		
jeb07445	FK00323.D	VSTD002	11/26/2018	11:08		
jeb07445	FK00324.D	VSTD001	11/26/2018	11:38		
jeb07445	FK00325.D	VSTD025	11/26/2018	12:09		
jeb07445	FK00326.D	VSTD070	11/26/2018	12:40		
jeb07445	FK00325.D	VSTD025	11/26/2018	12:09		
jeb07445	FK00326.D	VSTD070	11/26/2018	12:40		
jeb07445	FK00325.D	VSTD025	11/26/2018	12:09		
jeb07445	FK00326.D	VSTD070	11/26/2018	12:40		
jeb07445	FK00325.D	VSTD025	11/26/2018	12:09		
jeb07445	FK00327.D	VBLKF10	11/26/2018	13:36	F1833030AA	
jeb07445	FK00328.D	VBLKF10	11/26/2018	14:06	F1833030AA	
jeb07445	FK00329.D	fc1	11/26/2018	14:37	F1833030AA	
jeb07445	FK00330.D	fc2	11/26/2018	15:08	F1833030AA	
jeb07445	FK00331.D	cc535	11/26/2018	15:38	F1833030AA	
jeb07445	FK00332.D	cc1431	11/26/2018	16:09	F1833030AA	
jeb07445	FK00333.D	LCSF10	11/26/2018	16:39	F1833030AA	
jeb07445	FK00334.D	LCSDF10	11/26/2018	17:10	F1833030AA	
jeb07445	FK00336.D	mdlv0.5	11/26/2018	18:05	F1833030AA	
jeb07445	FK00337.D	mdlv0.2	11/26/2018	18:35	F1833030AA	
jeb07445	FK00338.D	9887699	11/26/2018	19:06	F1833030AA	
jeb07445	FK00339.D	9887699	11/26/2018	19:37	F1833030AA	
jeb07445	FK00340.D	9897828	11/26/2018	20:07	F1833030AA	
jeb07445	FK00341.D	9897829	11/26/2018	20:38	F1833030AA	
jeb07445	FK00342.D	9897830	11/26/2018	21:09	F1833030AA	
jeb07445	FK00343.D	9897831	11/26/2018	21:39	F1833030AA	
jeb07445	FK00344.D	9897832	11/26/2018	22:10	F1833030AA	
jeb07445	FK00345.D	9889116	11/26/2018	22:41	F1833030AA	2
jeb07445	FK00346.D	9889120	11/26/2018	23:12	F1833030AA	2
jeb07445	FK00347.D	9889117	11/26/2018	23:43	F1833030AA	100
jeb07445	FK00348.D	9889118	11/27/2018	00:13	F1833030AA	100
jeb07445	FK00349.D	9889119	11/27/2018	00:44	F1833030AA	100
jeb07445	FK00350.D	9889121	11/27/2018	01:15	F1833030AA	100
jeb07445	FK00351.D	9889122	11/27/2018	01:46	F1833030AA	100
jeb07445	FK00352.D	VBLKF10	11/27/2018	09:35	F1833030AA	

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: fk00320.d

BFB Injection Date: 11/26/2018

Instrument ID: 26379

BFB Injection Time: 09:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	24.84
75	30.0% - 66.0% of mass 95	49.13
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.47
173	< 2.0% of mass 174	0.58 (0.64)
174	> 50.0% of mass 95	89.73
175	4.0% - 9.0% of mass 174	6.75 (7.52)
176	93.0% - 101.0% of mass 174	87.29 (97.27)
177	5.0% - 9.0% of mass 176	5.63 (6.45)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	fk00321.d	11/26/2018	10:07
VSTD005	fk00322.d	11/26/2018	10:37
VSTD002	fk00323.d	11/26/2018	11:08
VSTD001	fk00324.d	11/26/2018	11:38
VSTD025	fk00325.d	11/26/2018	12:09
VSTD070	fk00326.d	11/26/2018	12:40
VBLKF10	fk00328.d	11/26/2018	14:06
cc535	fk00331.d	11/26/2018	15:38
cc1431	fk00332.d	11/26/2018	16:09
LCSF10	fk00333.d	11/26/2018	16:39
LCSDF10	fk00334.d	11/26/2018	17:10
mdlv0.5	fk00336.d	11/26/2018	18:05
mdlv0.2	fk00337.d	11/26/2018	18:35
9887699	fk00338.d	11/26/2018	19:06
9887699	fk00339.d	11/26/2018	19:37
9897828	fk00340.d	11/26/2018	20:07
9897829	fk00341.d	11/26/2018	20:38
9897831	fk00343.d	11/26/2018	21:39
9897832	fk00344.d	11/26/2018	22:10
9889116	fk00345.d	11/26/2018	22:41
9889120	fk00346.d	11/26/2018	23:12
9889117	fk00347.d	11/26/2018	23:43
9889118	fk00348.d	11/27/2018	00:13
9889119	fk00349.d	11/27/2018	00:44
9889121	fk00350.d	11/27/2018	01:15
9889122	fk00351.d	11/27/2018	01:46

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 11/26/2018 Calibration End Date: 11/26/2018

Calibration Start Time: 10:07 Calibration End Time: 12:40

LAB FILE IDs:
RRF 1 = fk00324.d RRF 2 = fk00323.d RRF 5 = fk00322.d RRF 10 = fk00321.d RRF 25 = fk00325.d
RRF 70 = fk00326.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Propene	1.020	1.321	1.398	1.369	1.280	1.430	1.303	11	AVG
Dichlorodifluoromethane	2.837	3.531	3.894	4.026	3.436	3.750	3.579	12	AVG
Chlorodifluoromethane	3.098	2.972	3.101	3.208	2.773	2.893	3.008	5	AVG
Freon 114	3.814	3.908	3.848	3.985	3.308	3.568	3.738	7	AVG
Chloromethane	1.634	1.777	1.752	1.646	1.493	1.505	1.635	7	AVG
Vinyl Chloride	0.887	1.004	1.060	1.111	0.944	0.978	0.997	8	AVG
1,3-Butadiene	0.959	0.896	0.916	0.976	0.804	0.806	0.893	8	AVG
Bromomethane	0.771	1.016	1.166	1.313	1.056	1.224	1.091	17	AVG
Chloroethane	0.601	0.783	0.855	0.885	0.772	0.847	0.791	13	AVG
Bromoethene	0.766	1.007	1.118	1.147	1.029	1.235	1.050	15	AVG
Dichlorofluoromethane	2.496	3.114	3.388	3.458	2.946	3.143	3.091	11	AVG
Trichlorofluoromethane	4.400	4.030	3.945	3.831	3.383	3.495	3.847	10	AVG
Pentane	2.667	2.619	2.762	2.887	2.745	3.035	2.786	5	AVG
Ethanol	0.466	0.495	0.516	0.513	0.527	0.637	0.526	11	AVG
Freon123a	3.355	3.170	2.932	2.964	2.579	2.730	2.955	10	AVG
Acrolein	0.448	0.536	0.552	0.583	0.577	0.700	0.566	14	AVG
1,1-Dichloroethene	1.812	2.313	2.482	2.565	2.310	2.708	2.365	13	AVG
Freon 113	2.441	2.361	2.149	2.057	1.829	1.828	2.111	12	AVG
Acetone	2.052	2.411	2.523	2.612	2.309	2.554	2.410	9	AVG
Methyl Iodide	2.155	2.874	3.110	2.729	2.824	2.810	2.750	12	AVG
Carbon Disulfide	2.873	3.570	3.929	4.048	3.520	3.783	3.620	12	AVG
Isopropanol	1.852	1.987	2.260	2.382	2.273	2.863	2.269	16	AVG
Acetonitrile	1.172	1.373	1.411	1.461	1.415	1.526	1.393	9	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 11/26/2018 Calibration End Date: 11/26/2018

Calibration Start Time: 10:07 Calibration End Time: 12:40

LAB FILE IDs:
RRF 1 = fk00324.d RRF 2 = fk00323.d RRF 5 = fk00322.d RRF 10 = fk00321.d RRF 25 = fk00325.d
RRF 70 = fk00326.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
3-Chloropropene	1.416	1.721	1.931	2.095	1.951	2.256	1.895	16	AVG
Methylene Chloride	0.814	0.971	1.159	1.191	1.060	1.159	1.059	14	AVG
tert-Butyl Alcohol	2.810	2.883	2.909	3.001	2.886	3.337	2.971	6	AVG
Acrylonitrile	0.982	1.261	1.316	1.413	1.332	1.529	1.306	14	AVG
trans-1,2-Dichloroethene	1.777	2.142	2.429	2.432	2.216	2.519	2.252	12	AVG
Methyl t-Butyl Ether	2.938	2.981	3.335	3.496	3.425	3.675	3.308	9	AVG
Hexane	1.703	1.667	1.707	1.763	1.668	1.771	1.713	3	AVG
1,1-Dichloroethane	2.841	3.063	3.119	3.186	2.807	3.064	3.013	5	AVG
Vinyl Acetate	2.935	3.363	4.020	4.449	4.332	4.853	3.992	18	AVG
Di-Isopropyl Ether	4.421	4.609	4.768	5.068	5.156	5.861	4.981	10	AVG
Ethyl Tert-Butyl Ether	3.468	3.828	4.324	4.683	4.764	5.486	4.426	16	AVG
cis-1,2-Dichloroethene	1.620	1.985	2.097	2.225	2.051	2.405	2.064	13	AVG
2-Butanone	2.848	3.039	3.300	3.428	3.209	3.573	3.233	8	AVG
Ethyl Acetate	3.336	3.471	3.584	3.732	3.568	1.724	3.236	23	AVG
Methyl Acrylate	2.210	2.402	2.701	2.963	2.898	3.305	2.746	14	AVG
Tetrahydrofuran	1.433	1.508	1.692	1.760	1.780	2.030	1.701	13	AVG
Chloroform	2.955	2.970	3.075	3.196	2.835	3.045	3.012	4	AVG
1,1,1-Trichloroethane	3.330	3.506	3.303	3.242	2.988	3.110	3.246	6	AVG
Cyclohexane	2.347	2.307	2.412	2.496	2.640	2.983	2.531	10	AVG
Carbon Tetrachloride	3.550	3.336	3.224	3.243	3.001	3.144	3.250	6	AVG
Benzene	1.455	1.458	1.461	1.436	1.249	1.224	1.381	8	AVG
1,2-Dichloroethane	0.740	0.846	0.825	0.822	0.708	0.690	0.772	9	AVG
Isooctane	1.932	2.147	2.405	2.588	2.476	2.494	2.340	11	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 11/26/2018 Calibration End Date: 11/26/2018

Calibration Start Time: 10:07 Calibration End Time: 12:40

LAB FILE IDs:
RRF 1 = fk00324.d RRF 2 = fk00323.d RRF 5 = fk00322.d RRF 10 = fk00321.d RRF 25 = fk00325.d
RRF 70 = fk00326.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Tert-Amyl Methyl Ether	0.897	0.970	1.021	1.079	1.044	1.103	1.019	7	AVG
Heptane	0.341	0.377	0.401	0.430	0.434	0.437	0.403	9	AVG
Trichloroethene	0.562	0.578	0.575	0.578	0.509	0.545	0.558	5	AVG
Ethyl Acrylate	0.999	1.014	1.017	1.110	1.096	1.175	1.068	7	AVG
1,2-Dichloropropane	0.732	0.724	0.671	0.676	0.591	0.562	0.659	11	AVG
Dibromomethane	0.636	0.627	0.622	0.637	0.549	0.552	0.604	7	AVG
1,4-Dioxane	0.276	0.239	0.262	0.290	0.286	0.306	0.276	8	AVG
Methyl Methacrylate	0.330	0.363	0.355	0.399	0.394	0.443	0.381	10	AVG
Bromodichloromethane	1.163	1.141	1.084	1.088	0.947	0.922	1.058	9	AVG
cis-1,3-Dichloropropene	0.694	0.690	0.746	0.781	0.737	0.772	0.737	5	AVG
4-Methyl-2-Pentanone	1.373	1.312	1.241	1.305	1.301	1.217	1.292	4	AVG
Toluene	1.583	1.498	1.498	1.519	1.419	1.440	1.493	4	AVG
Octane	1.074	1.082	1.212	1.356	1.344	1.285	1.225	10	AVG
trans-1,3-Dichloropropene	0.609	0.668	0.679	0.731	0.664	0.676	0.671	6	AVG
Ethyl Methacrylate	0.601	0.575	0.628	0.678	0.706	0.756	0.657	10	AVG
1,1,2-Trichloroethane	0.705	0.668	0.634	0.634	0.561	0.538	0.623	10	AVG
Tetrachloroethene	1.002	0.966	0.940	0.959	0.833	0.800	0.917	9	AVG
2-Hexanone	1.073	1.131	1.123	1.206	1.217	1.193	1.157	5	AVG
Dibromochloromethane	0.911	0.861	0.799	0.815	0.736	0.732	0.809	9	AVG
1,2-Dibromoethane	0.927	0.947	0.887	0.890	0.812	0.824	0.881	6	AVG
Chlorobenzene	1.460	1.384	1.350	1.327	1.236	1.178	1.323	8	AVG
1,1,1,2-Tetrachloroethane	0.845	0.830	0.770	0.774	0.692	0.648	0.760	10	AVG
Ethylbenzene	1.967	1.926	1.942	2.031	1.971	****	1.967	2	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 26379 Calibration Start Date: 11/26/2018 Calibration End Date: 11/26/2018

Calibration Start Time: 10:07 Calibration End Time: 12:40

LAB FILE IDs:
RRF 1 = fk00324.d RRF 2 = fk00323.d RRF 5 = fk00322.d RRF 10 = fk00321.d RRF 25 = fk00325.d
RRF 70 = fk00326.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
m/p-Xylene	1.286	1.280	1.322	1.448	1.467	1.463	1.378	7	AVG
o-Xylene	1.188	1.271	1.253	1.366	1.431	1.488	1.333	9	AVG
Styrene	0.845	0.849	0.948	1.048	1.105	1.097	0.982	12	AVG
Bromoform	1.224	1.148	1.082	1.089	1.046	1.002	1.098	7	AVG
Cumene	1.675	1.663	1.775	1.958	2.077	****	1.830	10	AVG
Bromobenzene	0.836	0.831	0.822	0.824	0.793	0.721	0.805	5	AVG
1,1,2,2-Tetrachloroethane	1.600	1.518	1.389	1.351	1.265	****	1.425	9	AVG
1,2,3-Trichloropropane	0.452	0.439	0.401	0.402	0.383	0.345	0.404	10	AVG
n-Propylbenzene	0.517	0.501	0.564	0.587	0.628	0.601	0.566	9	AVG
2-Chlorotoluene	0.488	0.509	0.543	0.572	0.561	0.504	0.529	6	AVG
4-Ethyltoluene	1.715	1.675	1.864	2.047	2.149	****	1.890	11	AVG
1,3,5-Trimethylbenzene	1.359	1.489	1.695	1.807	1.872	1.589	1.635	12	AVG
Alpha Methyl Styrene	0.617	0.595	0.608	0.746	0.891	****	0.692	18	AVG
tert-Butylbenzene	1.259	1.253	1.488	1.693	1.731	****	1.485	15	AVG
1,2,4-Trimethylbenzene	1.335	1.404	1.590	1.733	1.845	****	1.581	14	AVG
sec-Butylbenzene	1.955	2.178	2.378	2.574	2.736	****	2.364	13	AVG
1,3-Dichlorobenzene	1.329	1.375	1.320	1.317	1.361	****	1.340	2	AVG
1,4-Dichlorobenzene	1.335	1.332	1.272	1.303	1.378	****	1.324	3	AVG
p-Isopropyltoluene	1.531	1.557	1.835	2.041	2.254	****	1.843	17	AVG
Benzyl Chloride	0.269	0.299	0.304	0.333	0.378	****	0.317	13	AVG
1,2-Dichlorobenzene	1.221	1.249	1.226	1.215	1.291	1.162	1.227	3	AVG
n-Butylbenzene	0.886	1.032	1.106	1.218	1.418	****	1.132	18	AVG
Hexachloroethane	0.753	0.729	0.691	0.730	0.786	0.705	0.733	5	AVG

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Instrument ID: 26379 Calibration Start Date: 11/26/2018 Calibration End Date: 11/26/2018

Calibration Start Time: 10:07 Calibration End Time: 12:40

LAB FILE IDs:
RRF 1 = fk00324.d RRF 2 = fk00323.d RRF 5 = fk00322.d RRF 10 = fk00321.d RRF 25 = fk00325.d
RRF 70 = fk00326.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane	0.614	0.621	0.616	0.640	0.726	0.703	0.653	7	AVG
1,2,4-Trichlorobenzene	0.798	0.806	0.807	0.806	0.979	0.997	0.866	11	AVG
Hexachlorobutadiene	0.905	0.897	0.844	0.810	0.907	0.894	0.876	5	AVG
Naphthalene	1.097	1.312	1.371	1.507	1.895	****	1.436	21	AVG

Average % RSD: 10

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
# Average RRF for all compounds must be greater than 0.010.

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP26379.i/18nov26.b/fk00321.d VSTD010
/chem/HP26379.i/18nov26.b/fk00322.d VSTD005
/chem/HP26379.i/18nov26.b/fk00323.d VSTD002
/chem/HP26379.i/18nov26.b/fk00324.d VSTD001
/chem/HP26379.i/18nov26.b/fk00325.d VSTD025
/chem/HP26379.i/18nov26.b/fk00326.d VSTD070

Area Summary

	File ID:								
Internal Standard Name	fk00321.d	fk00322.d	fk00323.d	fk00324.d	fk00325.d	fk00326.d	Avg. Area	%RSD	In Spec
Bromochloromethane	485375	478225	440995	422855	457504	455892	456808	5	Yes
1,4-Difluorobenzene	1489503	1442608	1280295	1201834	1462372	1617851	1415744	11	Yes
Chlorobenzene-d5	1471585	1436881	1317251	1263060	1466993	1610340	1427685	9	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:						
Internal Standard Name	fk00321.d	fk00322.d	fk00323.d	fk00324.d	fk00325.d	fk00326.d	Avg. RT
Bromochloromethane	11.093	11.100	11.101	11.100	11.101	11.101	11.099
1,4-Difluorobenzene	13.386	13.385	13.386	13.386	13.393	13.393	13.388
Chlorobenzene-d5	18.228	18.228	18.228	18.228	18.228	18.235	18.229

Comments:_____

_____

Report generated on 11/26/2018 at 13:21

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fk00333.d LCSD File ID: fk00334.d

Batch: F1833030AA LCS Injected: 11/26/2018 LCSD Injected: 11/26/2018

Method: EPA TO-15 LCS Client ID: LCSF10 LCSD Client ID: LCSDF10

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Propene	10.00	10.07	10.22	101	102	78-126	1	25	YES
Dichlorodifluoromethane	10.00	10.99	10.46	110	105	74-133	5	25	YES
Chlorodifluoromethane	10.00	10.76	10.35	108	103	70-138	4	25	YES
Freon 114	10.00	10.27	9.83	103	98	66-126	4	25	YES
Chloromethane	10.00	10.43	9.79	104	98	65-140	6	25	YES
Vinyl Chloride	10.00	11.52	11.15	115	112	75-130	3	25	YES
1,3-Butadiene	10.00	9.74	9.70	97	97	72-122	0	25	YES
Bromomethane	10.00	11.53	10.79	115	108	71-133	7	25	YES
Chloroethane	10.00	10.87	10.55	109	105	76-129	3	25	YES
Bromoethene	10.00	10.38	10.29	104	103	77-123	1	25	YES
Dichlorofluoromethane	10.00	11.35	10.95	114	110	75-137	4	25	YES
Trichlorofluoromethane	10.00	9.63	9.46	96	95	73-132	2	25	YES
Pentane	10.00	9.46	9.53	95	95	69-125	1	25	YES
Ethanol	10.00	11.37	11.36	114	114	56-149	0	25	YES
Acrolein	10.00	10.48	10.17	105	102	54-132	3	25	YES
1,1-Dichloroethene	10.00	10.17	10.45	102	105	70-129	3	25	YES
Freon 113	10.00	9.57	9.28	96	93	66-119	3	25	YES
Acetone	10.00	11.29	10.71	113	107	71-136	5	25	YES
Methyl Iodide	10.00	10.00	9.61	100	96	72-127	4	25	YES
Carbon Disulfide	10.00	10.52	10.18	105	102	72-128	3	25	YES
Isopropanol	10.00	10.45	10.38	104	104	69-160	1	25	YES
Acetonitrile	10.00	11.68	11.11	117	111	56-136	5	25	YES
3-Chloropropene	10.00	12.56	12.71	126	127	67-141	1	25	YES
Methylene Chloride	10.00	12.46	11.59	125	116	69-128	7	25	YES
tert-Butyl Alcohol	10.00	10.46	10.33	105	103	71-154	1	25	YES
Acrylonitrile	10.00	11.26	10.66	113	107	68-135	5	25	YES
trans-1,2-Dichloroethene	10.00	10.14	10.11	101	101	77-128	0	25	YES
Methyl t-Butyl Ether	10.00	9.73	9.73	97	97	71-119	0	25	YES
Hexane	10.00	10.37	9.98	104	100	70-118	4	25	YES
1,1-Dichloroethane	10.00	10.32	10.00	103	100	74-129	3	25	YES
Vinyl Acetate	10.00	12.03	11.85	120	119	75-161	1	25	YES
Di-Isopropyl Ether	10.00	9.23	9.38	92	94	71-122	2	25	YES
Ethyl Tert-Butyl Ether	10.00	9.62	9.36	96	94	68-121	3	25	YES
cis-1,2-Dichloroethene	10.00	10.05	9.80	100	98	76-126	3	25	YES
2-Butanone	10.00	10.69	10.15	107	102	75-126	5	25	YES
Ethyl Acetate	10.00	11.17	10.80	112	108	73-124	3	25	YES

COMMENTS:
Applies to Sample(s): 9889116-9889122

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fk00333.d LCSD File ID: fk00334.d

Batch: F1833030AA LCS Injected: 11/26/2018 LCSD Injected: 11/26/2018

Method: EPA TO-15 LCS Client ID: LCSF10 LCSD Client ID: LCSDF10

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Methyl Acrylate	10.00	10.49	9.83	105	98	75-125	7	25	YES
Tetrahydrofuran	10.00	10.75	10.33	108	103	67-127	4	25	YES
Chloroform	10.00	10.33	10.04	103	100	75-127	3	25	YES
1,1,1-Trichloroethane	10.00	9.98	9.49	100	95	74-122	5	25	YES
Cyclohexane	10.00	9.15	9.18	92	92	70-118	0	25	YES
Carbon Tetrachloride	10.00	9.81	9.48	98	95	72-127	3	25	YES
Benzene	10.00	10.53	10.28	105	103	76-123	2	25	YES
1,2-Dichloroethane	10.00	11.18	10.74	112	107	72-138	4	25	YES
Isooctane	10.00	10.70	10.65	107	106	74-127	1	25	YES
Tert-Amyl Methyl Ether	10.00	10.10	10.07	101	101	78-124	0	25	YES
Heptane	10.00	10.31	10.66	103	107	74-122	3	25	YES
Trichloroethene	10.00	10.48	10.22	105	102	76-118	3	25	YES
Ethyl Acrylate	10.00	10.28	9.58	103	96	71-126	7	25	YES
1,2-Dichloropropane	10.00	10.66	10.19	107	102	75-127	4	25	YES
Dibromomethane	10.00	11.15	10.38	112	104	76-124	7	25	YES
1,4-Dioxane	10.00	10.87	10.64	109	106	76-124	2	25	YES
Methyl Methacrylate	10.00	10.11	9.51	101	95	73-117	6	25	YES
Bromodichloromethane	10.00	10.53	9.88	105	99	75-134	6	25	YES
cis-1,3-Dichloropropene	10.00	10.37	9.66	104	97	51-120	7	25	YES
4-Methyl-2-Pentanone	10.00	10.36	9.53	104	95	79-131	8	25	YES
Toluene	10.00	9.47	9.66	95	97	78-119	2	25	YES
Octane	10.00	9.95	9.98	100	100	73-122	0	25	YES
trans-1,3-Dichloropropene	10.00	9.89	9.54	99	95	76-131	4	25	YES
Ethyl Methacrylate	10.00	9.09	8.86	91	89	69-137	3	25	YES
1,1,2-Trichloroethane	10.00	9.74	9.52	97	95	76-127	2	25	YES
Tetrachloroethene	10.00	9.84	9.84	98	98	68-123	0	25	YES
2-Hexanone	10.00	9.26	9.06	93	91	74-134	2	25	YES
Dibromochloromethane	10.00	9.48	8.86	95	89	74-131	7	25	YES
1,2-Dibromoethane	10.00	9.32	9.28	93	93	73-121	0	25	YES
Chlorobenzene	10.00	9.14	9.35	91	94	76-117	2	25	YES
1,1,1,2-Tetrachloroethane	10.00	9.33	8.88	93	89	73-137	5	25	YES
Ethylbenzene	10.00	9.18	9.36	92	94	77-117	2	25	YES
m/p-Xylene	10.00	9.09	9.27	91	93	78-119	2	25	YES
o-Xylene	10.00	8.50	8.48	85	85	78-121	0	25	YES
Xylene (total)	20.00	17.59	17.75	88	89	79-120	1	25	YES
Styrene	10.00	9.34	9.18	93	92	77-143	2	25	YES

COMMENTS:
Applies to Sample(s): 9889116-9889122

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fk00333.d LCSD File ID: fk00334.d

Batch: F1833030AA LCS Injected: 11/26/2018 LCSD Injected: 11/26/2018

Method: EPA TO-15 LCS Client ID: LCSF10 LCSD Client ID: LCSDF10

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Bromoform	10.00	8.90	8.04	89	80	58-144	10	25	YES
Cumene	10.00	8.96	9.41	90	94	80-133	5	25	YES
Bromobenzene	10.00	9.13	9.34	91	93	74-118	2	25	YES
1,1,2,2-Tetrachloroethane	10.00	7.90	7.77	79	78	72-133	2	25	YES
1,2,3-Trichloropropane	10.00	8.75	8.73	87	87	71-127	0	25	YES
n-Propylbenzene	10.00	8.55	9.08	86	91	73-120	6	25	YES
2-Chlorotoluene	10.00	8.94	9.48	89	95	74-123	6	25	YES
4-Ethyltoluene	10.00	8.78	9.25	88	93	73-130	5	25	YES
1,3,5-Trimethylbenzene	10.00	9.23	9.54	92	95	72-130	3	25	YES
Alpha Methyl Styrene	10.00	8.52	7.93	85	79	71-138	7	25	YES
tert-Butylbenzene	10.00	9.04	9.63	90	96	78-138	6	25	YES
1,2,4-Trimethylbenzene	10.00	8.57	9.10	86	91	70-138	6	25	YES
sec-Butylbenzene	10.00	8.88	9.30	89	93	79-139	5	25	YES
1,3-Dichlorobenzene	10.00	7.81	8.23	78	82	75-129	5	25	YES
1,4-Dichlorobenzene	10.00	7.79	8.01	78	80	74-123	3	25	YES
p-Isopropyltoluene	10.00	8.39	8.81	84	88	75-145	5	25	YES
Benzyl Chloride	10.00	8.31	8.01	83	80	49-163	4	25	YES
1,2-Dichlorobenzene	10.00	7.51	7.88	75	79	71-126	5	25	YES
n-Butylbenzene	10.00	7.88	8.10	79	81	72-143	3	25	YES
Hexachloroethane	10.00	8.29	7.72	83	77	59-135	7	25	YES
1,2-Dibromo-3-chloropropane	10.00	6.54	6.44	65	64	52-156	1	25	YES
1,2,4-Trichlorobenzene	10.00	5.88	6.86	59	69	45-156	15	25	YES
Hexachlorobutadiene	10.00	6.66	7.00	67	70	49-154	5	25	YES
Naphthalene	10.00	5.97	6.68	60	67	39-152	11	25	YES

COMMENTS:
Applies to Sample(s): 9889116-9889122

Data File: /chem/HP26379.i/18nov26.b/fk00320.d

Date : 26-NOV-2018 09:20

Client ID: BFB

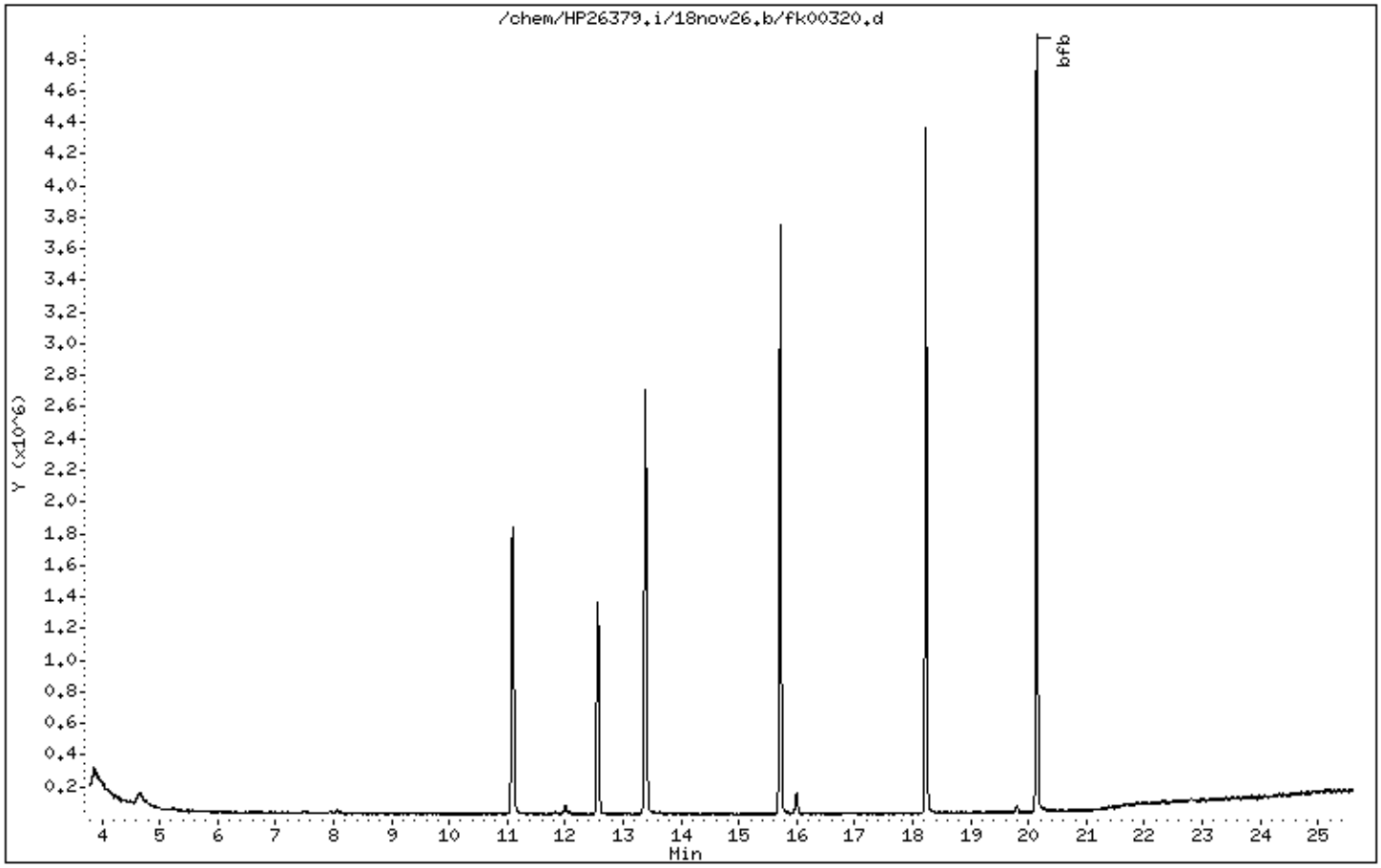
Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 11/26/2018 at 15:55.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18nov26.b/fk00320.d

Date : 26-NOV-2018 09:20

Client ID: BFB

Instrument: HP26379.i

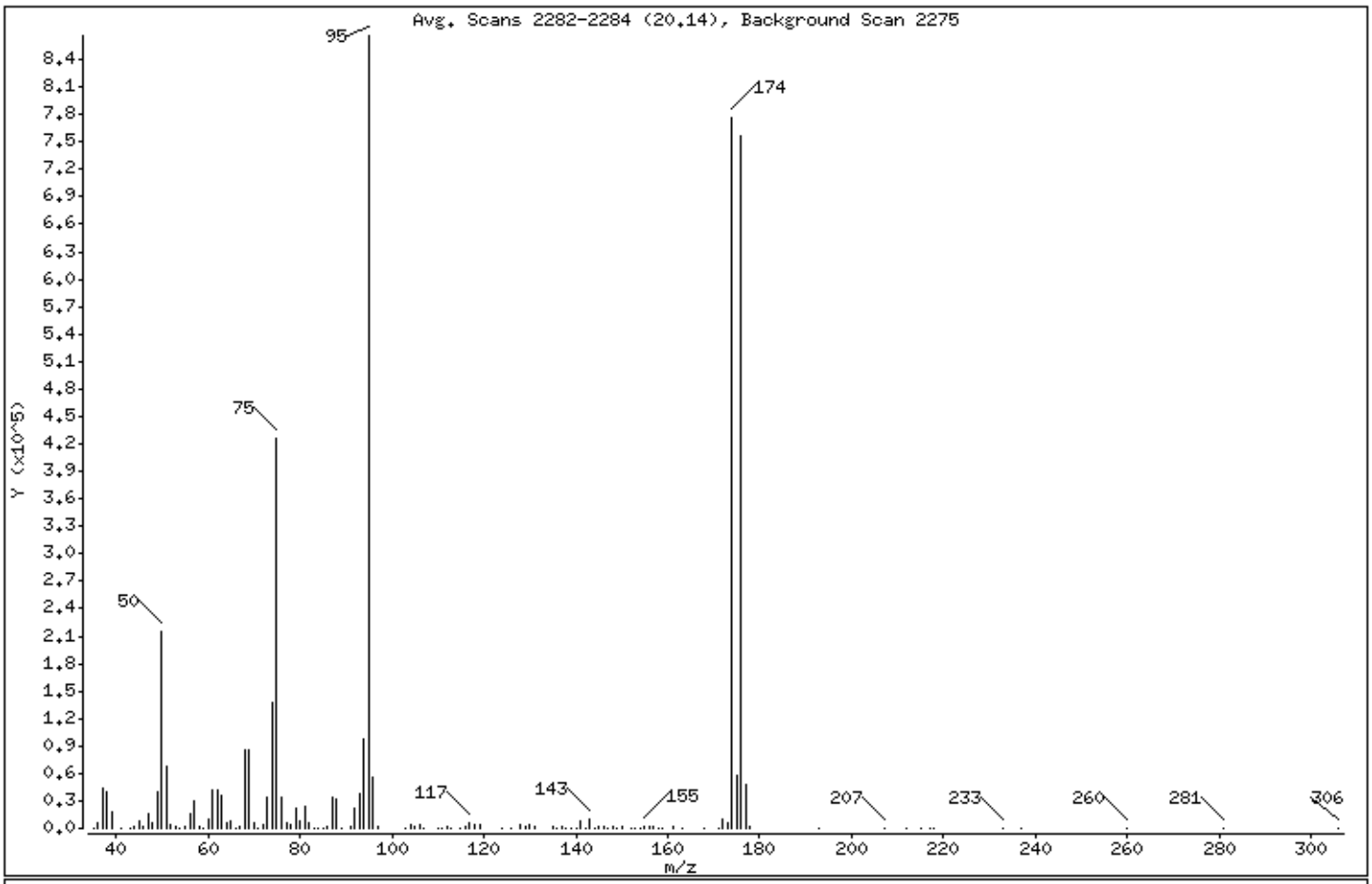
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	24.84
75	30.00 - 66.00% of mass 95	49.13
96	5.00 - 9.00% of mass 95	6.47
173	Less than 2.00% of mass 174	0.58 (0.64)
174	50.00 - 120.00% of mass 95	89.73
175	4.00 - 9.00% of mass 174	6.75 (7.52)
176	93.00 - 101.00% of mass 174	87.29 (97.27)
177	5.00 - 9.00% of mass 176	5.63 (6.45)

Digitally signed by Jacob E. Bailey on 11/26/2018 at 15:55.
Target 3.5 esignature user ID: jeb07445

Date : 26-NOV-2018 09:20

Client ID: BFB Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

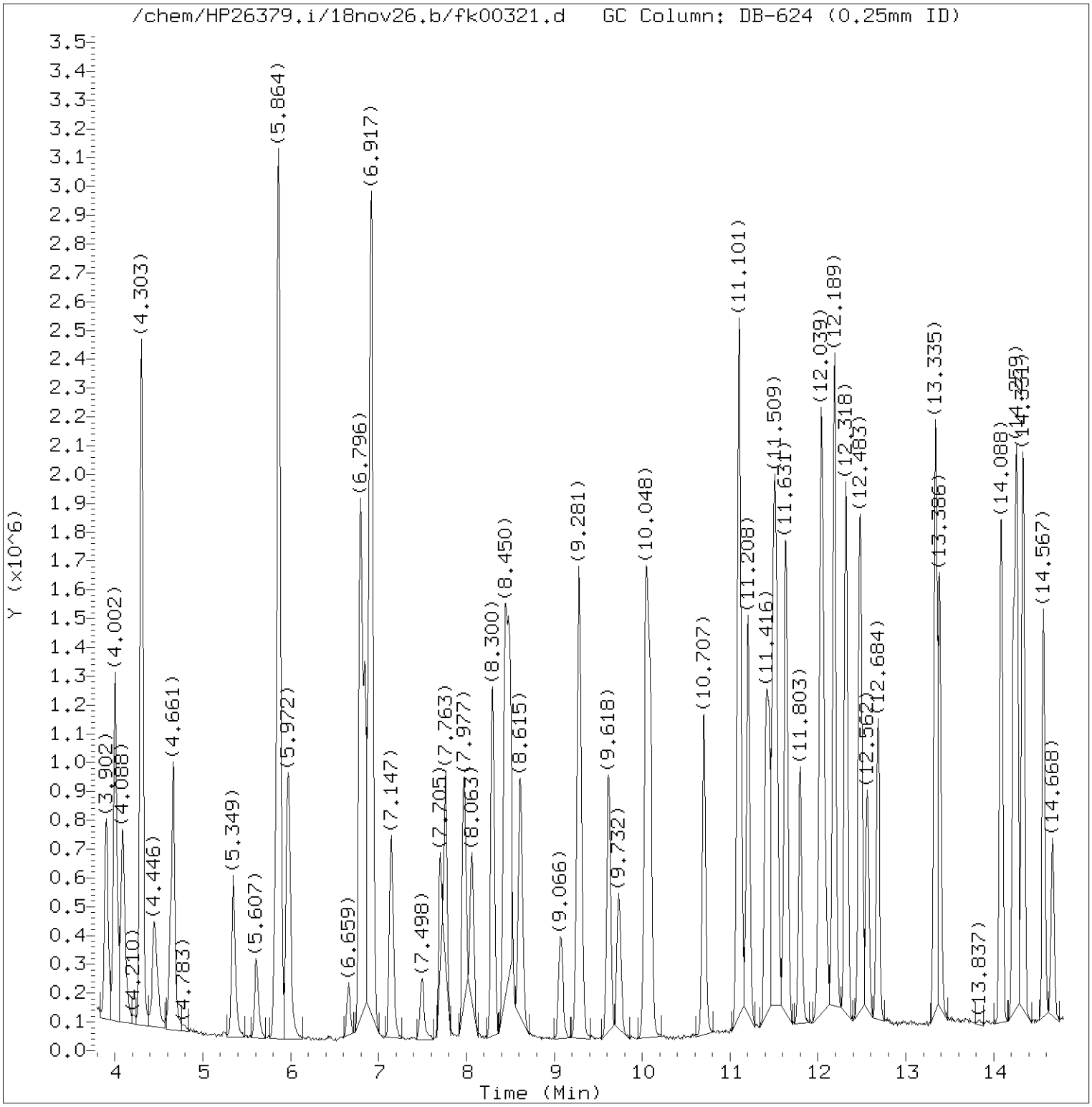
Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: fk00320.d
Spectrum: Avg. Scans 2282-2284 (20,14), Background Scan 2275
Location of Maximum: 95.00
Number of points: 126

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	175	69.00	85344	107.00	754	152.00	354
36.00	5369	70.00	6003	110.00	366	153.00	303
37.00	43000	71.00	284	111.00	775	154.00	532
38.00	39360	72.00	3473	112.00	1323	155.00	2168
39.00	18184	73.00	33824	113.00	886	156.00	1279
41.00	383	74.00	137664	115.00	913	157.00	1408
43.00	370	75.00	425408	116.00	2868	158.00	562
44.00	2064	76.00	34248	117.00	5245	159.00	950
45.00	8664	77.00	6075	118.00	3563	161.00	1146
46.00	2054	78.00	3354	119.00	3769	163.00	186
47.00	15145	79.00	22224	124.00	473	168.00	137
48.00	6225	80.00	8109	126.00	133	171.00	538
49.00	40416	81.00	24880	128.00	3282	172.00	10270
50.00	215104	82.00	5446	129.00	1878	173.00	5003
51.00	67728	83.00	717	130.00	3418	174.00	777024
52.00	3344	84.00	157	131.00	1367	175.00	58416
53.00	1642	85.00	107	135.00	1749	176.00	755840
54.00	791	86.00	1191	136.00	111	177.00	48728
55.00	2276	87.00	34160	137.00	1673	178.00	1800
56.00	16136	88.00	31192	138.00	122	193.00	134
57.00	29080	89.00	475	139.00	141	207.00	811
58.00	1180	91.00	2896	140.00	515	212.00	131
59.00	209	92.00	22592	141.00	8688	215.00	121
60.00	9311	93.00	38200	142.00	777	217.00	105
61.00	41392	94.00	98376	143.00	10170	218.00	137
62.00	42520	95.00	865920	144.00	963	233.00	751
63.00	35280	96.00	56048	145.00	2322	237.00	373
64.00	6227	97.00	1485	146.00	1248	260.00	592
65.00	8297	103.00	457	147.00	608	281.00	399
66.00	863	104.00	3612	148.00	2029	306.00	156
67.00	2336	105.00	1232	149.00	463		
68.00	86408	106.00	3725	150.00	1245		

Digitally signed by Jacob E. Bailey on 11/26/2018 at 15:55.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

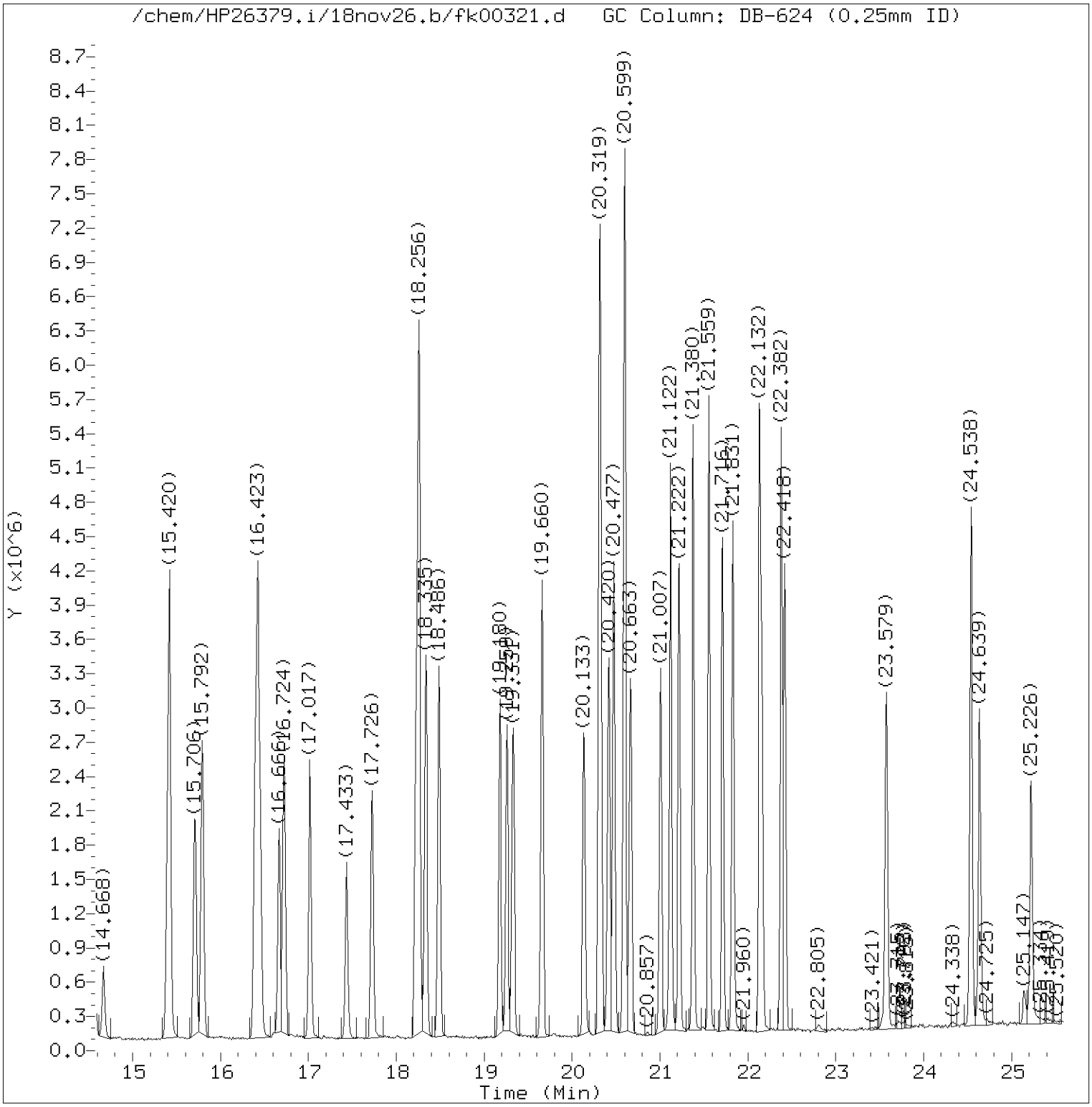
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.895	41	664405	10.000
2) Dichlorodifluoromethane	(1)	4.002	85	1954076	10.000
3) Chlorodifluoromethane	(1)	4.088	51	1557317	10.000
4) Freon 114	(1)	4.303	85	1934187	10.000
5) Chloromethane	(1)	4.446	50	799012	10.000
6) Vinyl Chloride	(1)	4.632	62	539234	10.000
7) 1,3-Butadiene	(1)	4.661	54	473529	10.000
8) Bromomethane	(1)	5.349	94	637417	10.000
9) Chloroethane	(1)	5.607	64	429542	10.000
10) Bromoethene	(1)	5.829	106	556790	10.000
11) Pentane	(1)	5.857	43	1401439	10.000
12) Trichlorofluoromethane	(1)	5.864	101	1859637	10.000
13) Dichlorofluoromethane	(1)	5.972	67	1678659	10.000
14) Ethanol	(1)	6.659	45	249150	10.000
15) Freon123a	(1)	6.796	67	1596765	11.100
16) 1,1-Dichloroethene	(1)	6.846	61	1244832	10.000
17) Freon 113	(1)	6.910	103	998223	10.000
18) Carbon Disulfide	(1)	6.925	76	1964918	10.000
19) Methyl Iodide	(1)	7.147	142	1324572	10.000
20) Acrolein	(1)	7.498	56	283144	10.000
21) Isopropanol	(1)	7.705	45	1156342	10.000
22) 3-Chloropropene	(1)	7.763	41	1128573	11.100
23) Methylene Chloride	(1)	7.977	84	641472	11.100
24) Acetone	(1)	8.063	43	1267781	10.000
25) trans-1,2-Dichloroethene	(1)	8.300	61	1180218	10.000
26) Hexane	(1)	8.443	56	855580	10.000
27) Methyl t-Butyl Ether	(1)	8.493	73	1696674	10.000
28) tert-Butyl Alcohol	(1)	8.615	59	1616714	11.100
29) Acetonitrile	(1)	9.073	41	709141	10.000
30) Di-Isopropyl Ether	(1)	9.281	45	2460055	10.000
31) 1,1-Dichloroethane	(1)	9.618	63	1546334	10.000
32) Acrylonitrile	(1)	9.732	53	686013	10.000
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	2273186	10.000
34) Vinyl Acetate	(1)	10.091	43	2418388	11.200
35) cis-1,2-Dichloroethene	(1)	10.699	61	1080101	10.000
36) 1,2-Dichloroethene (total)	(1)		61	2260319	20.000
37)*Bromochloromethane	(1)	11.093	130	485375	10.000
38) Cyclohexane	(1)	11.108	56	1211310	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1551121	10.000
40) Ethyl Acetate	(1)	11.409	43	1811506	10.000
41) Methyl Acrylate	(1)	11.444	55	1438148	10.000
42) Carbon Tetrachloride	(1)	11.502	117	1574086	10.000
43) Tetrahydrofuran	(1)	11.530	42	854228	10.000
44) 1,1,1-Trichloroethane	(1)	11.631	97	1573770	10.000
45) 2-Butanone	(1)	11.803	43	1663952	10.000
46) Isooctane	(2)	12.039	57	3854699	10.000
47) Heptane	(2)	12.189	71	641033	10.000
48) Benzene	(2)	12.318	78	2138806	10.000
49) Tert-Amyl Methyl Ether	(2)	12.483	73	1606878	10.000
50) 1,2-Dichloroethane	(2)	12.684	62	1224540	10.000
51) Trichloroethene	(2)	13.335	130	861636	10.000
52)*1,4-Difluorobenzene	(2)	13.386	114	1489503	10.000
53) Dibromomethane	(2)	14.080	174	948118	10.000
54) Ethyl Acrylate	(2)	14.224	55	1653194	10.000
55) 1,2-Dichloropropane	(2)	14.259	63	1006175	10.000
56) Bromodichloromethane	(2)	14.331	83	1621174	10.000
57) Methyl Methacrylate	(2)	14.567	69	593613	10.000
58) 1,4-Dioxane	(2)	14.668	88	431947	10.000
59) cis-1,3-Dichloropropene	(2)	15.398	75	1163741	10.000
60) Octane	(3)	15.420	43	1994998	10.000
61) Toluene	(3)	15.792	91	2235001	10.000
62) 4-Methyl-2-Pentanone	(2)	16.394	43	1944503	10.000
63) Tetrachloroethene	(3)	16.423	166	1410518	10.000
64) trans-1,3-Dichloropropene	(3)	16.459	75	1075447	10.000
66) Ethyl Methacrylate	(3)	16.666	69	997902	10.000
65) 1,3-Dichloropropene (total)	(3)		75	2239188	20.000
67) 1,1,2-Trichloroethane	(3)	16.724	97	933184	10.000
68) Dibromochloromethane	(3)	17.017	127	1198809	10.000
69) 1,2-Dibromoethane	(3)	17.433	107	1310407	10.000
70) 2-Hexanone	(3)	17.726	43	1775241M	10.000
71)*Chlorobenzene-d5	(3)	18.228	117	1471585	10.000
72) Chlorobenzene	(3)	18.249	112	1953293	10.000
73) Ethylbenzene	(3)	18.264	91	2988580	10.000
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	1138824	10.000
75) m/p-Xylene	(3)	18.486	91	2131343	10.000
76) o-Xylene	(3)	19.180	91	2009604	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	4140947	20.000
78) Styrene	(3)	19.259	104	1541589	10.000
79) Bromoform	(3)	19.331	173	1603189	10.000
80) Cumene	(3)	19.660	105	2880727	10.000
81) n-Propylbenzene	(3)	20.312	120	863636	10.000
82) Bromobenzene	(3)	20.327	156	1212549	10.000
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1987671	10.000
84) 4-Ethyltoluene	(3)	20.477	105	3012824	10.000
85) 2-Chlorotoluene	(3)	20.592	126	841761	10.000
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2658599	10.000
87) 1,2,3-Trichloropropane	(3)	20.663	110	591118	10.000
88) Alpha Methyl Styrene	(3)	21.007	118	1097875	10.000
89) tert-Butylbenzene	(3)	21.122	119	2490724	10.000
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	2549563	10.000
91) sec-Butylbenzene	(3)	21.380	105	3787720	10.000
92) p-Isopropyltoluene	(3)	21.559	119	3003898	10.000
93) 1,3-Dichlorobenzene	(3)	21.716	146	1938715	10.000
94) 1,4-Dichlorobenzene	(3)	21.831	146	1917566	10.000
95) n-Butylbenzene	(3)	22.132	92	1792196	10.000
96) Benzyl Chloride	(3)	22.160	126	489724	10.000
97) Hexachloroethane	(3)	22.382	117	1074794	10.000
98) 1,2-Dichlorobenzene	(3)	22.418	146	1788395	10.000
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	941626	10.000
100) Hexachlorobutadiene	(3)	24.538	225	1192309	10.000
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	1186195	10.000
102) Naphthalene	(3)	25.226	128	2217408	10.000

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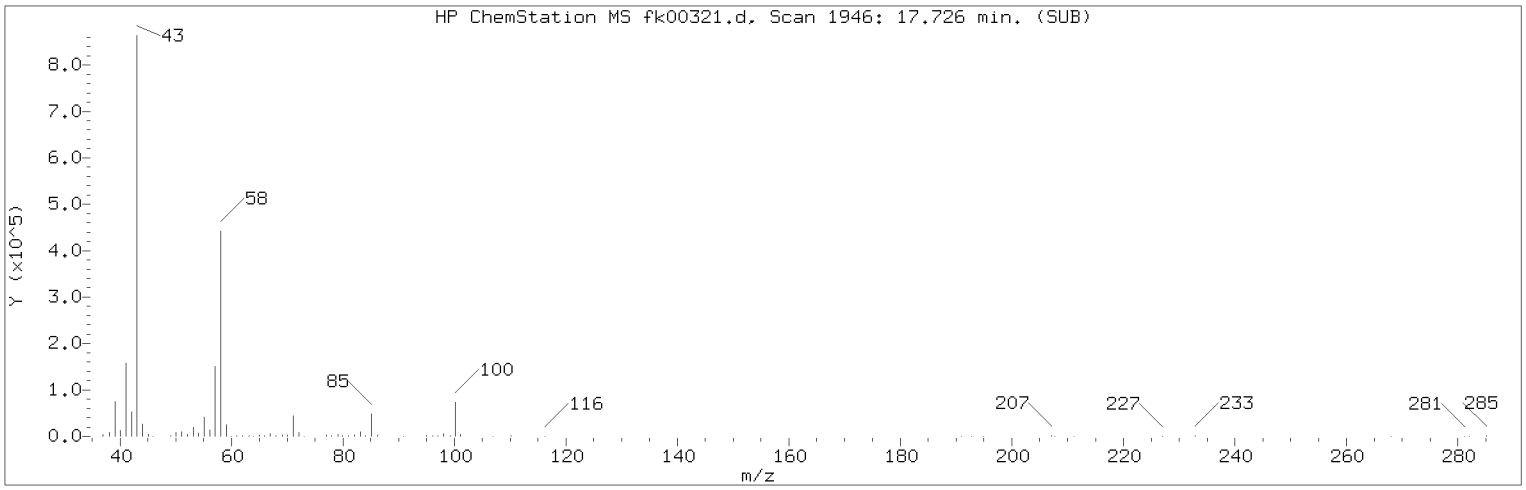
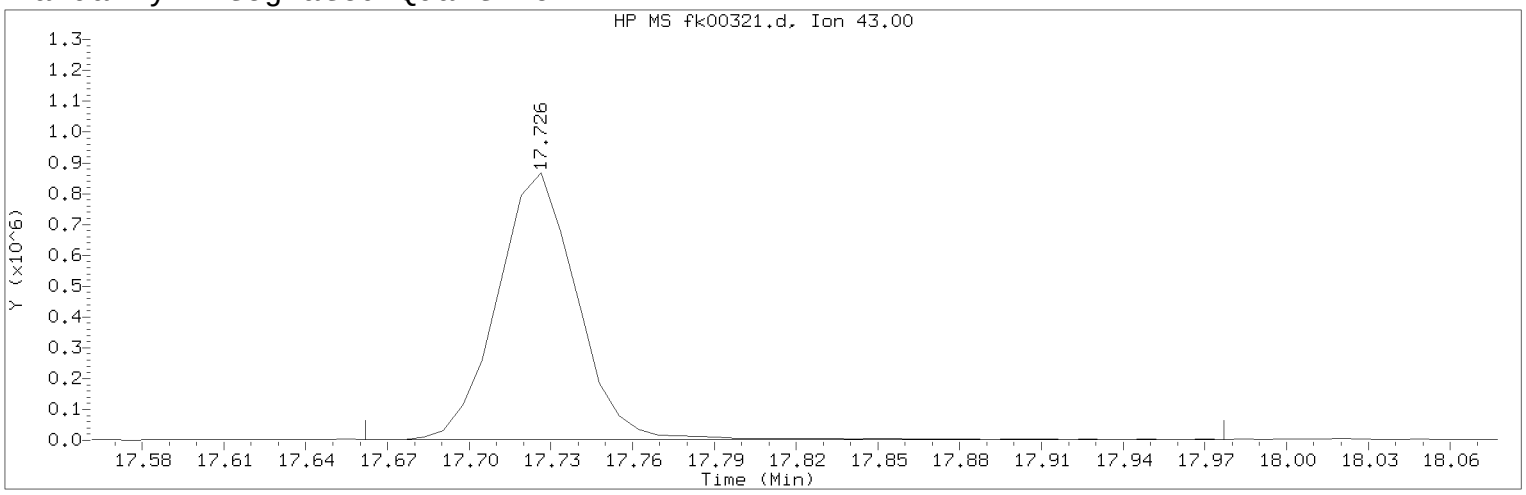
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 10:50 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

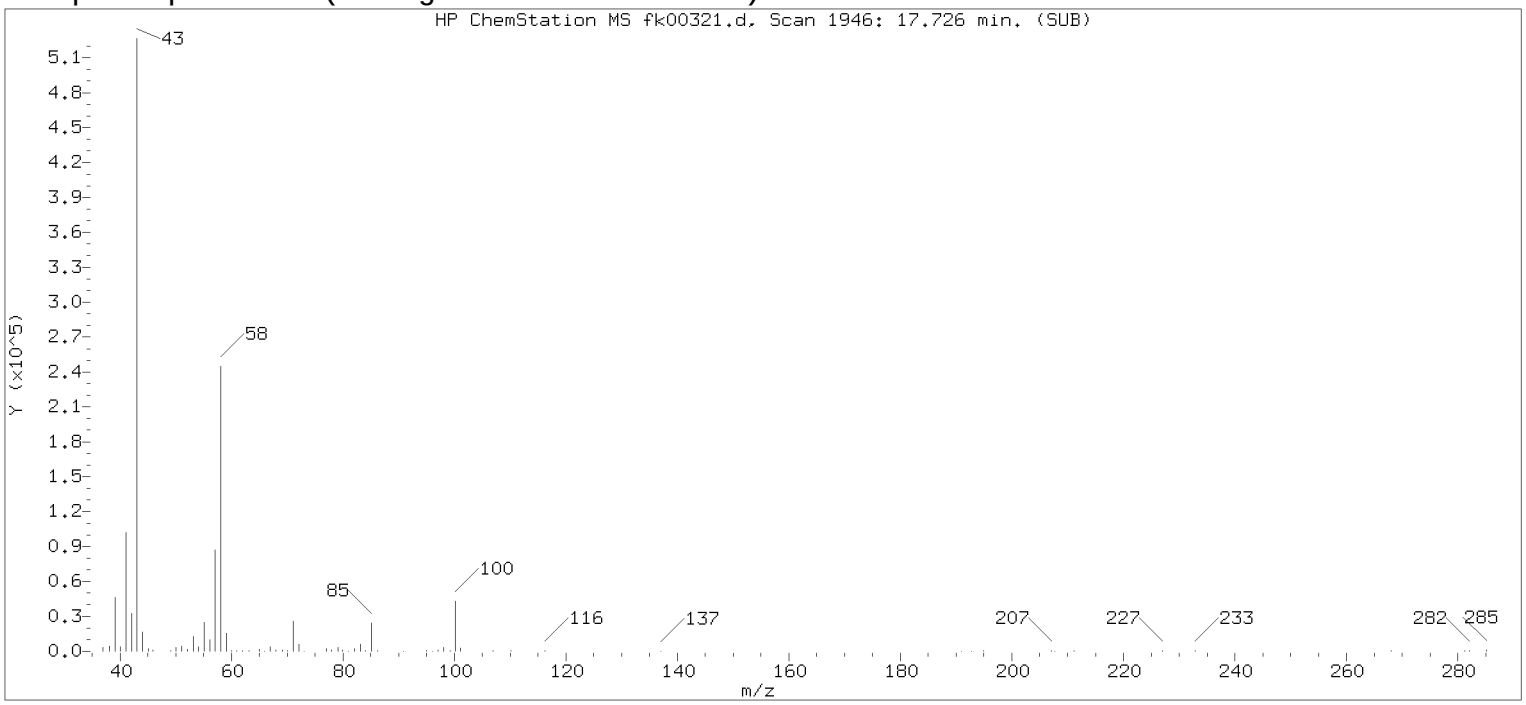
Compound Number : 70
Compound Name : 2-Hexanone
Scan Number : 1946
Retention Time (minutes): 17.726
Quant Ion : 43.00
Area (flag) : 1775241M
Concentration (ppb(v)) : 10.0000
Integration start scan : 1936 Integration stop scan: 1980
Y at integration start : 1304 Y at integration end: 1304

Reason for manual integration: improper integration

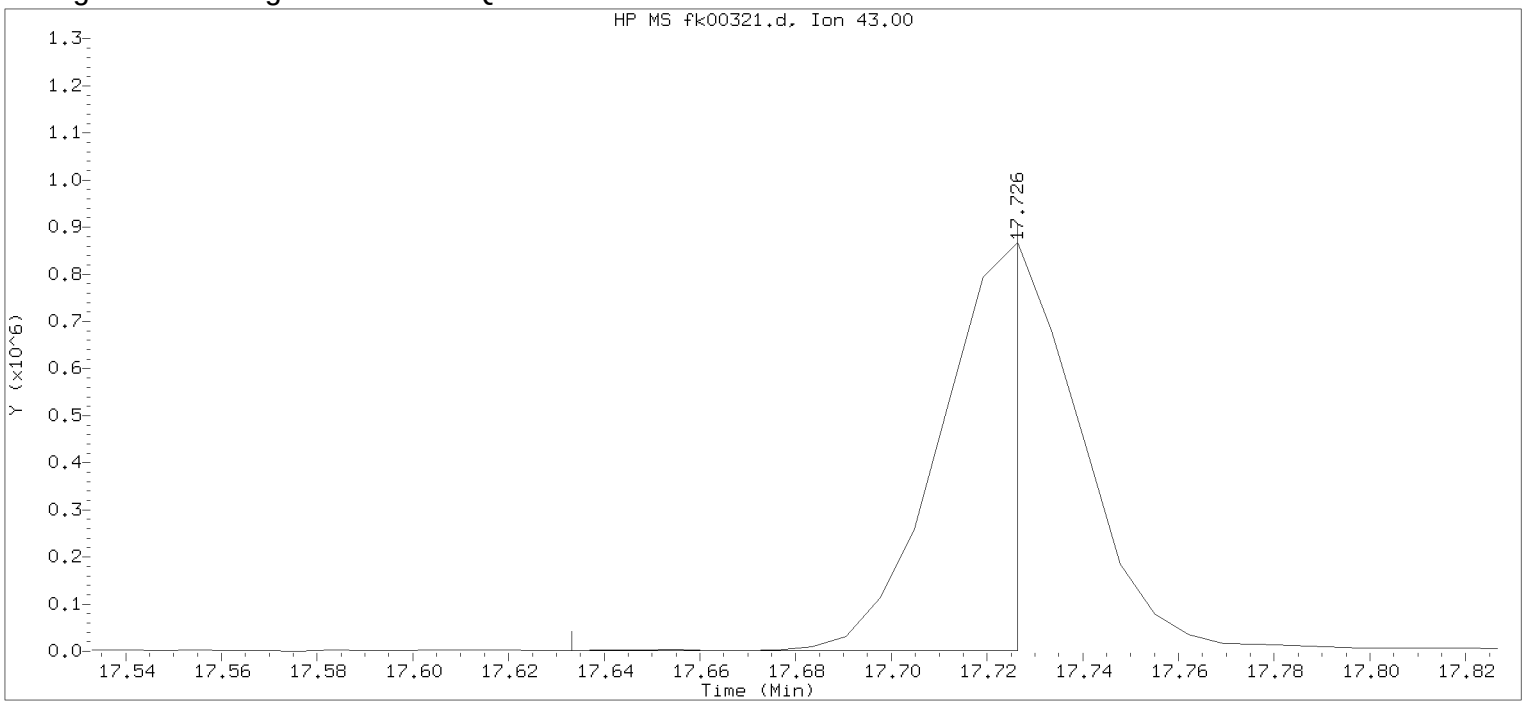
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



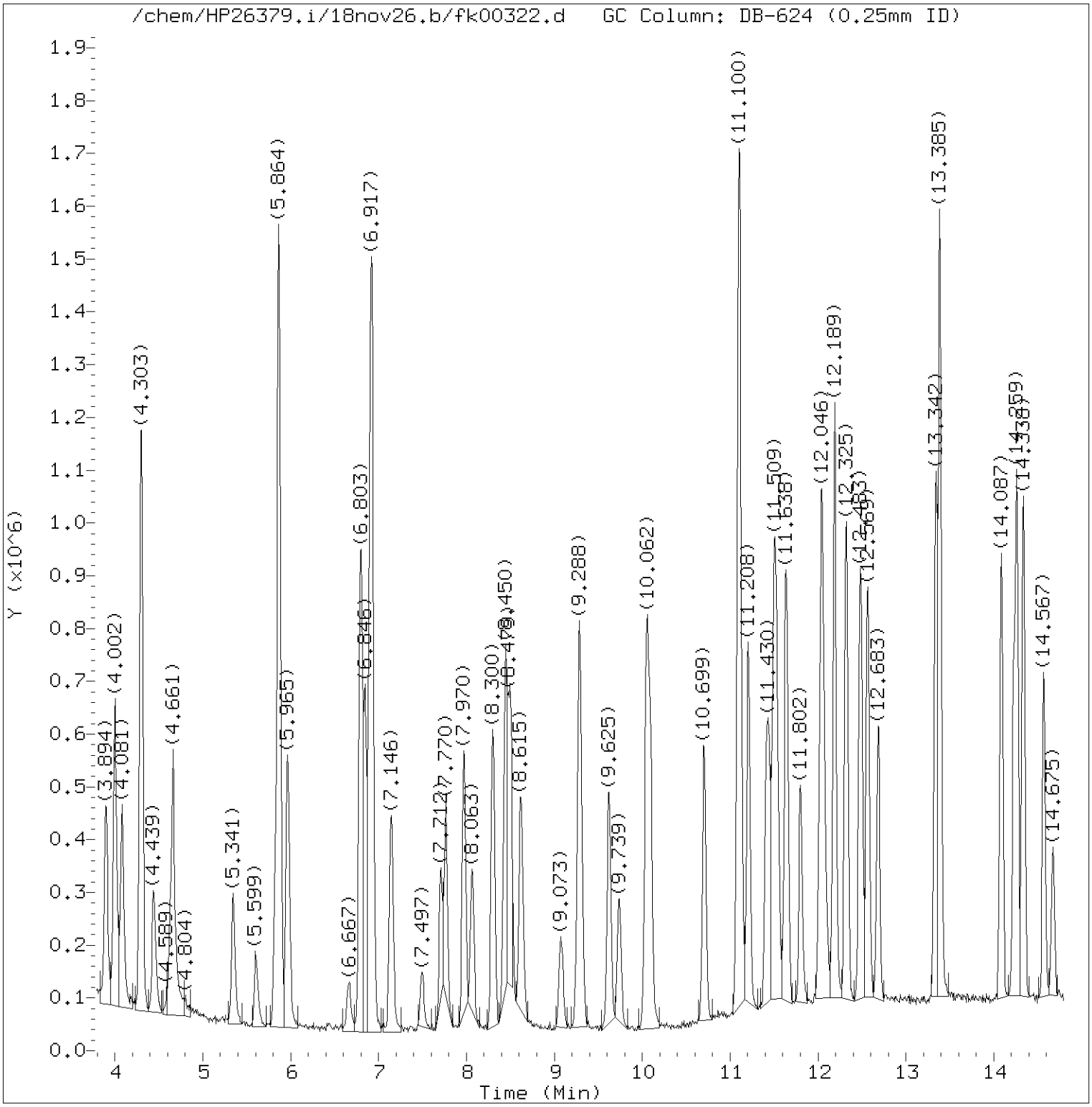
Data File: /chem/HP26379.i/18nov26.b/fk00321.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:07 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 13-NOV-2018 11:13
Date, time and analyst ID of latest file update: 26-Nov-2018 10:39 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 70
Compound Name : 2-Hexanone
Scan Number : 1946
Retention Time (minutes): 17.726
Quant Ion : 43.00
Area : 932614
Concentration (ppb(v)) : 6.2116
Integration start scan : 1932 Integration stop scan: 1945
Y at integration start : 1421 Y at integration end: 1421

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

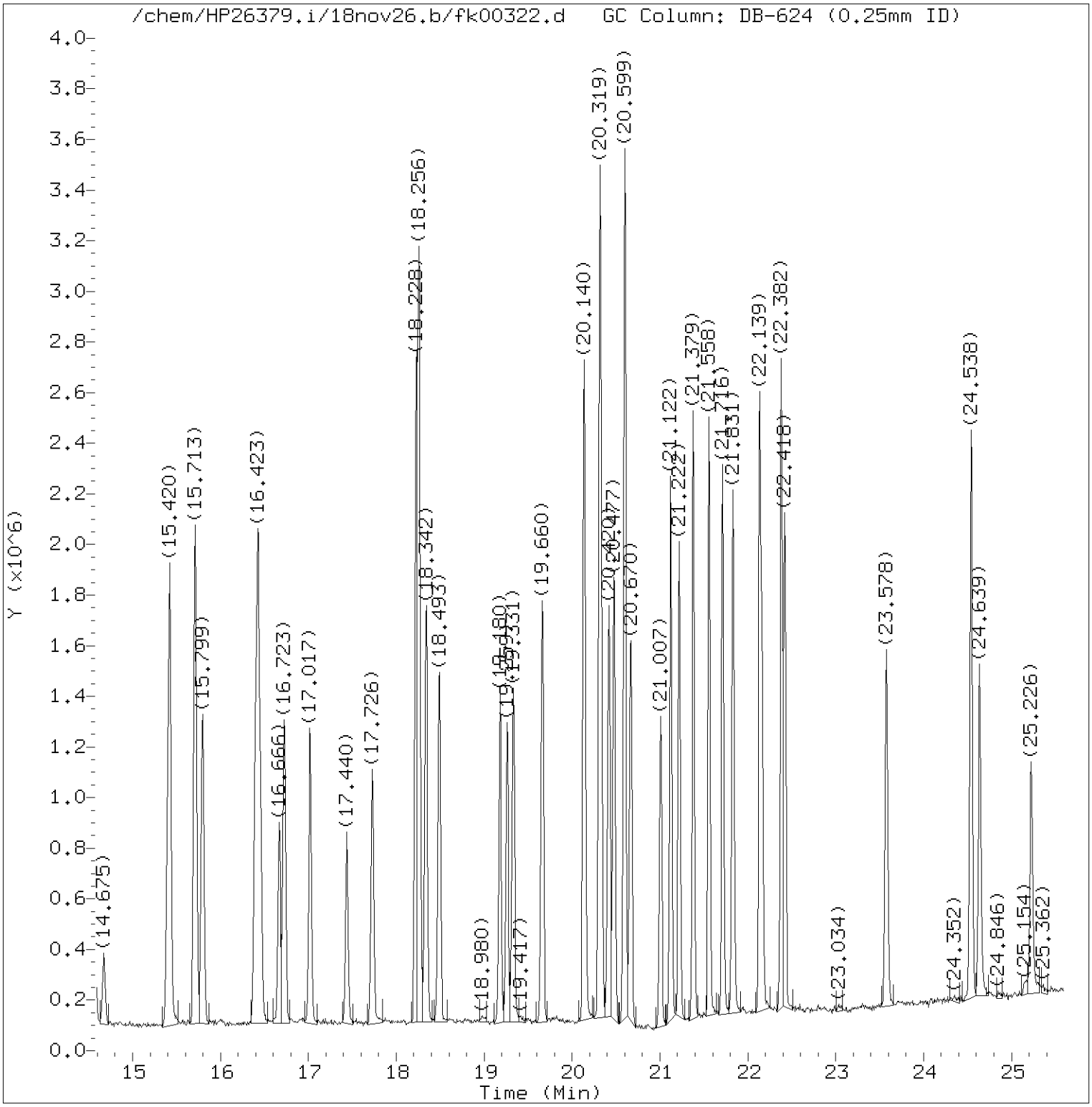
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	334257	5.053
2) Dichlorodifluoromethane	(1)	4.002	85	931195	4.917
3) Chlorodifluoromethane	(1)	4.081	51	741530	4.915
4) Freon 114	(1)	4.296	85	920076	4.913
5) Chloromethane	(1)	4.446	50	419038	5.156
6) Vinyl Chloride	(1)	4.632	62	253494	4.883
7) 1,3-Butadiene	(1)	4.661	54	219059	4.843
8) Bromomethane	(1)	5.341	94	278735	4.702
9) Chloroethane	(1)	5.599	64	204530M	4.915
10) Bromoethene	(1)	5.821	106	267319	4.936
11) Pentane	(1)	5.864	43	660488	4.889
12) Trichlorofluoromethane	(1)	5.871	101	943185	5.073
13) Dichlorofluoromethane	(1)	5.965	67	810138	4.949
14) Ethanol	(1)	6.659	45	123474	5.015
15) Freon123a	(1)	6.803	67	778065	5.520
16) 1,1-Dichloroethene	(1)	6.846	61	593403	4.918
17) Freon 113	(1)	6.903	103	513945	5.110
18) Carbon Disulfide	(1)	6.932	76	939532	4.925
19) Methyl Iodide	(1)	7.146	142	743604	5.326
20) Acrolein	(1)	7.497	56	131891	4.860
21) Isopropanol	(1)	7.712	45	540314	4.868
22) 3-Chloropropene	(1)	7.770	41	512422	5.324
23) Methylene Chloride	(1)	7.977	84	307621	5.475
24) Acetone	(1)	8.070	43	603167	4.913
25) trans-1,2-Dichloroethene	(1)	8.307	61	580781	4.997
26) Hexane	(1)	8.436	56	408083	4.919
27) Methyl t-Butyl Ether	(1)	8.500	73	797521	4.883
28) tert-Butyl Alcohol	(1)	8.622	59	772108	5.464
29) Acetonitrile	(1)	9.073	41	337282	4.912
30) Di-Isopropyl Ether	(1)	9.288	45	1140078	4.847
31) 1,1-Dichloroethane	(1)	9.618	63	745808	4.947
32) Acrylonitrile	(1)	9.739	53	314602	4.821
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1033986	4.801
34) Vinyl Acetate	(1)	10.090	43	1076669	5.317
35) cis-1,2-Dichloroethene	(1)	10.699	61	501340	4.851
36) 1,2-Dichloroethene (total)	(1)		61	1082121	9.848
37)*Bromochloromethane	(1)	11.100	130	478225	10.000
38) Cyclohexane	(1)	11.122	56	576633	4.914

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	735235	4.904
40) Ethyl Acetate	(1)	11.416	43	856993	4.899
41) Methyl Acrylate	(1)	11.451	55	645756	4.768
42) Carbon Tetrachloride	(1)	11.502	117	770880	4.985
43) Tetrahydrofuran	(1)	11.537	42	404536	4.901
44) 1,1,1-Trichloroethane	(1)	11.638	97	789734	5.046
45) 2-Butanone	(1)	11.795	43	789125	4.905
46) Isooctane	(2)	12.039	57	1734856	4.817
47) Heptane	(2)	12.189	71	289313	4.824
48) Benzene	(2)	12.318	78	1053722M	5.043
49) Tert-Amyl Methyl Ether	(2)	12.490	73	736548	4.863
50) 1,2-Dichloroethane	(2)	12.683	62	594856	5.008
51) Trichloroethene	(2)	13.342	130	414717	4.985
52)*1,4-Difluorobenzene	(2)	13.385	114	1442608	10.000
53) Dibromomethane	(2)	14.087	174	448408	4.941
54) Ethyl Acrylate	(2)	14.224	55	733744	4.782
55) 1,2-Dichloropropane	(2)	14.259	63	483810	4.982
56) Bromodichloromethane	(2)	14.338	83	782101	4.991
57) Methyl Methacrylate	(2)	14.567	69	256377	4.714
58) 1,4-Dioxane	(2)	14.675	88	188756	4.743
59) cis-1,3-Dichloropropene	(2)	15.405	75	537771	4.883
60) Octane	(3)	15.427	43	870765	4.720
61) Toluene	(3)	15.799	91	1076461	4.966
62) 4-Methyl-2-Pentanone	(2)	16.394	43	895126	4.873
63) Tetrachloroethene	(3)	16.430	166	675248	4.951
64) trans-1,3-Dichloropropene	(3)	16.458	75	487947	4.817
66) Ethyl Methacrylate	(3)	16.666	69	450928	4.807
65) 1,3-Dichloropropene (total)	(3)		75	1025718	9.682
67) 1,1,2-Trichloroethane	(3)	16.723	97	455185	4.998
68) Dibromochloromethane	(3)	17.017	127	574338	4.953
69) 1,2-Dibromoethane	(3)	17.440	107	637202	4.990
70) 2-Hexanone	(3)	17.726	43	806928	4.821
71)*Chlorobenzene-d5	(3)	18.228	117	1436881	10.000
72) Chlorobenzene	(3)	18.256	112	969890	5.042
73) Ethylbenzene	(3)	18.264	91	1395295	4.888
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	553408	4.988
75) m/p-Xylene	(3)	18.493	91	949559	4.771
76) o-Xylene	(3)	19.180	91	899850	4.784

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

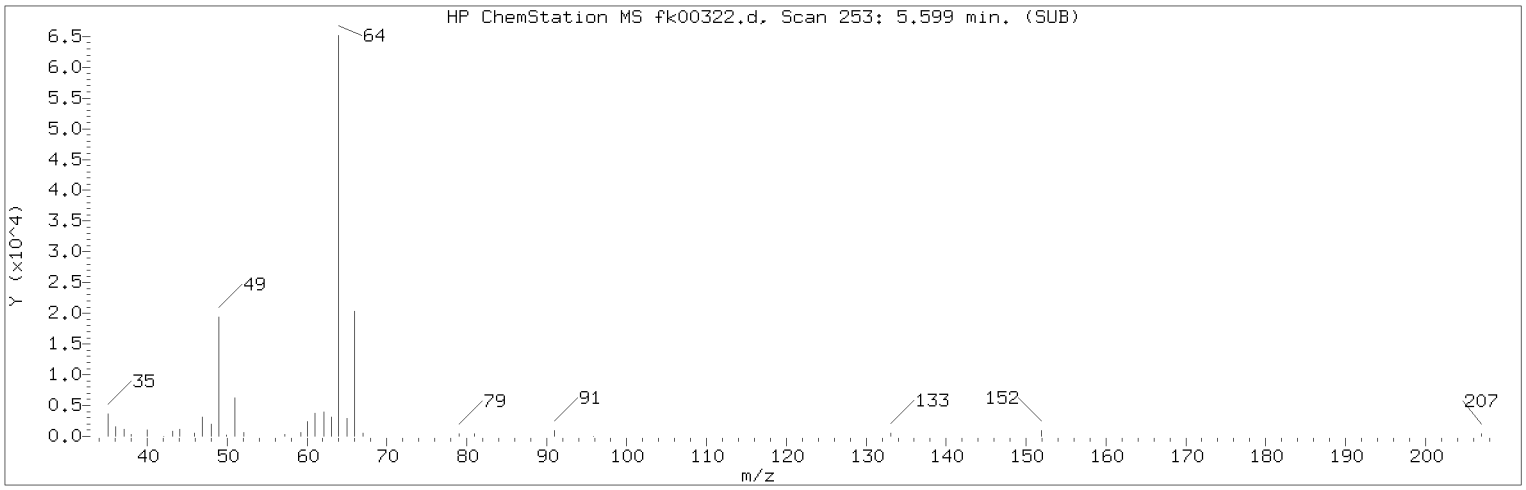
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	1849409	9.555
78) Styrene	(3)	19.259	104	681205	4.751
79) Bromoform	(3)	19.331	173	777183	4.982
80) Cumene	(3)	19.660	105	1275586	4.756
81) n-Propylbenzene	(3)	20.319	120	405113	4.900
82) Bromobenzene	(3)	20.326	156	590907	4.995
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	998260	5.071
84) 4-Ethyltoluene	(3)	20.484	105	1339364M	4.766
85) 2-Chlorotoluene	(3)	20.599	126	389990	4.869
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	1217432	4.840
87) 1,2,3-Trichloropropane	(3)	20.670	110	288258	4.997
88) Alpha Methyl Styrene	(3)	21.007	118	436952	4.491
89) tert-Butylbenzene	(3)	21.122	119	1068697	4.678
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	1141994	4.785
91) sec-Butylbenzene	(3)	21.379	105	1708508	4.802
92) p-Isopropyltoluene	(3)	21.558	119	1317985	4.733
93) 1,3-Dichlorobenzene	(3)	21.716	146	948567	5.005
94) 1,4-Dichlorobenzene	(3)	21.831	146	914025	4.940
95) n-Butylbenzene	(3)	22.132	92	794617	4.759
96) Benzyl Chloride	(3)	22.160	126	218503	4.775
97) Hexachloroethane	(3)	22.382	117	496310	4.861
98) 1,2-Dichlorobenzene	(3)	22.418	146	881012	5.023
99) 1,2-Dibromo-3-chloropropane	(3)	23.578	157	442444	4.904
100) Hexachlorobutadiene	(3)	24.538	225	606171	5.101
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	580052	5.004
102) Naphthalene	(3)	25.226	128	984987	4.764

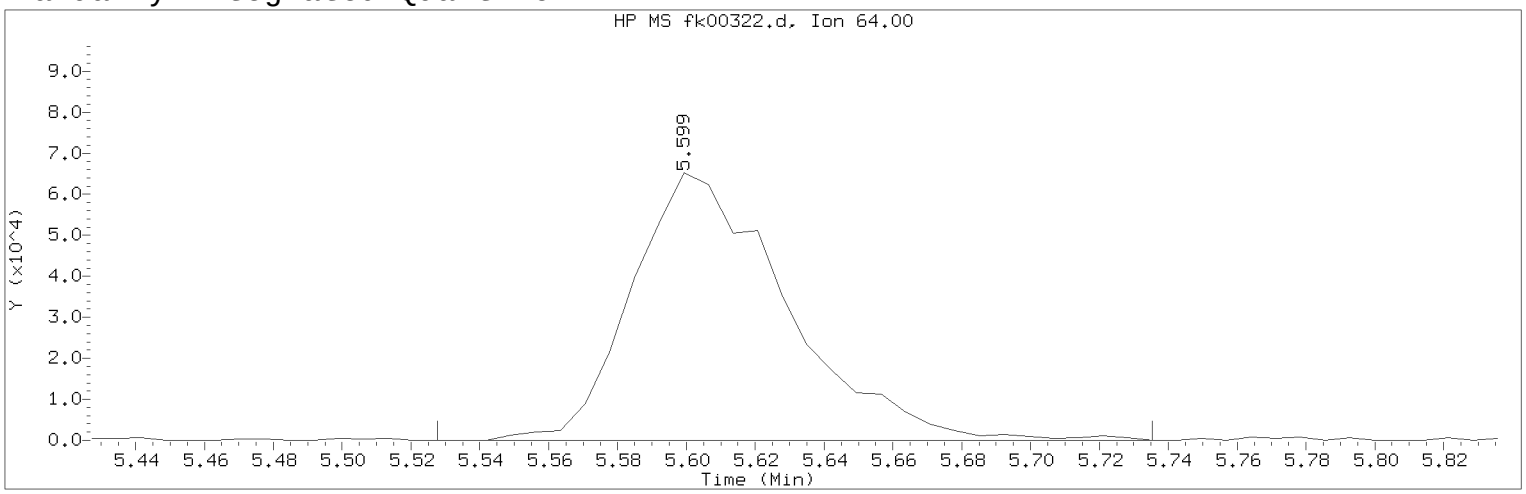
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

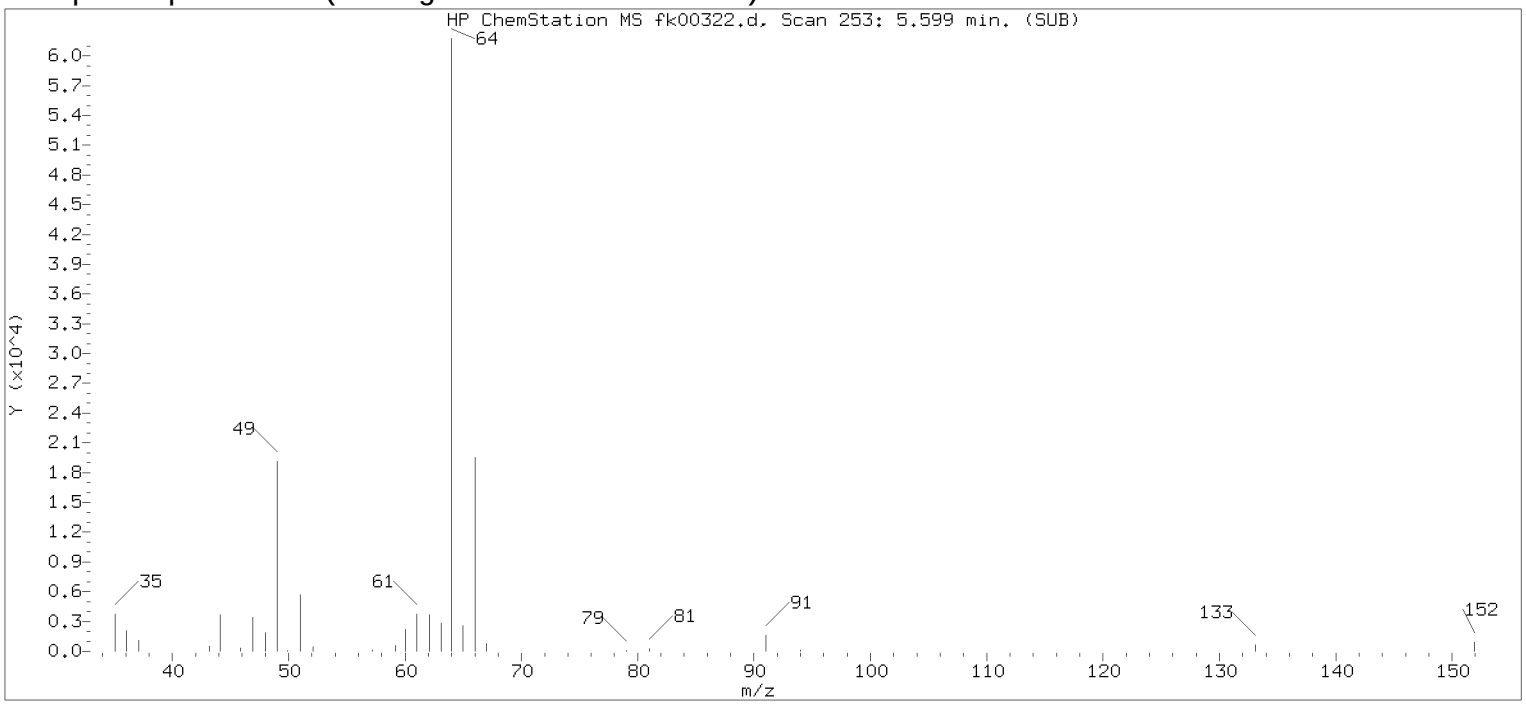
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 253
Retention Time (minutes): 5.599
Quant Ion : 64.00
Area (flag) : 204530M
Concentration (ppb(v)) : 4.9150
Integration start scan : 242 Integration stop scan: 271
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

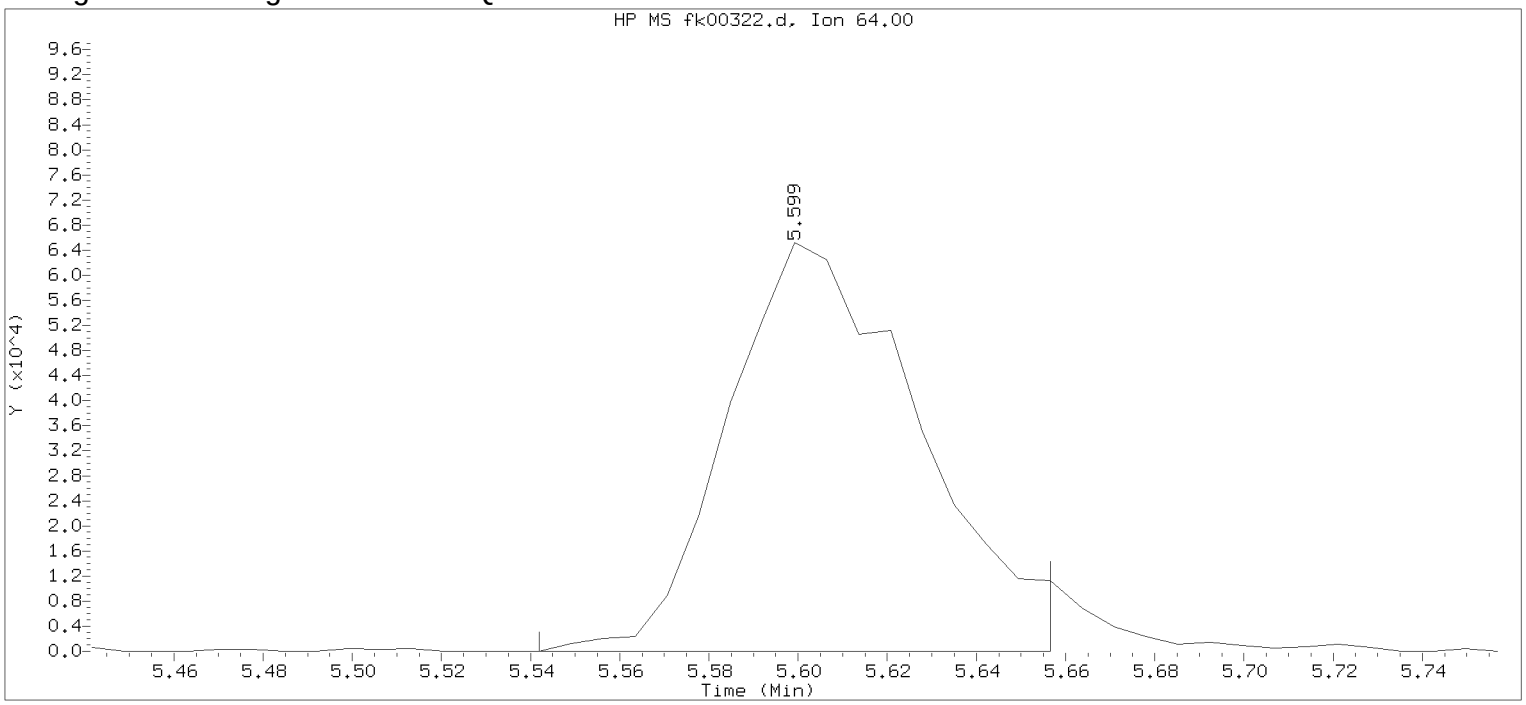
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

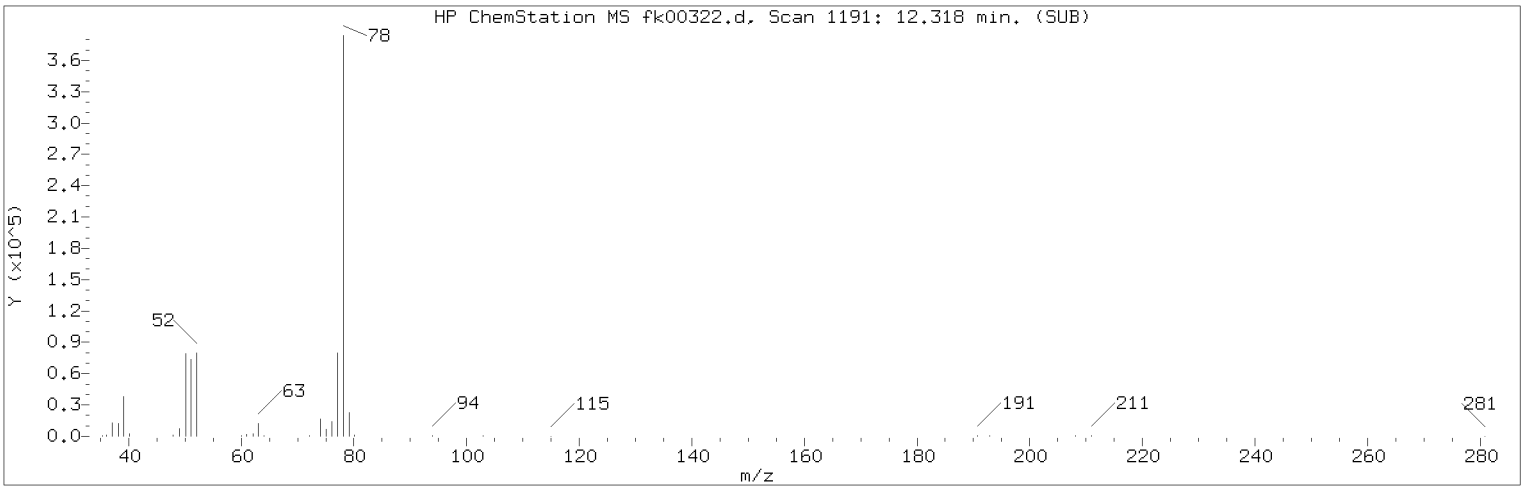
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 11:10 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

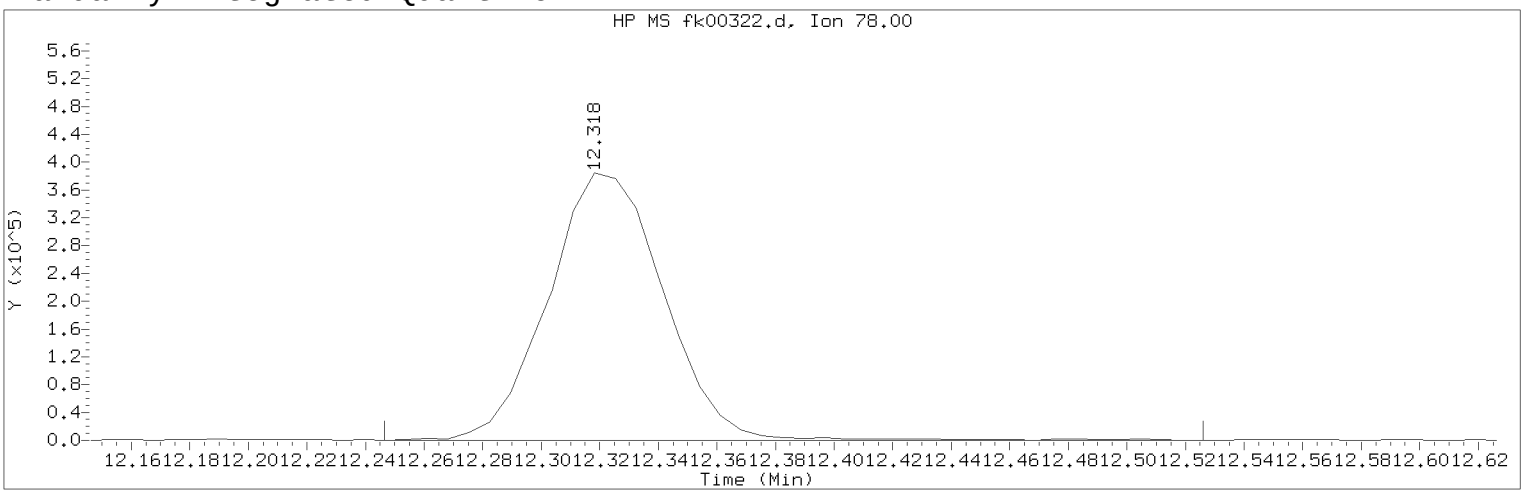
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 253
Retention Time (minutes): 5.599
Quant Ion : 64.00
Area : 193753
Concentration (ppb(v)) : 4.5781
Integration start scan : 244 Integration stop scan: 260
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

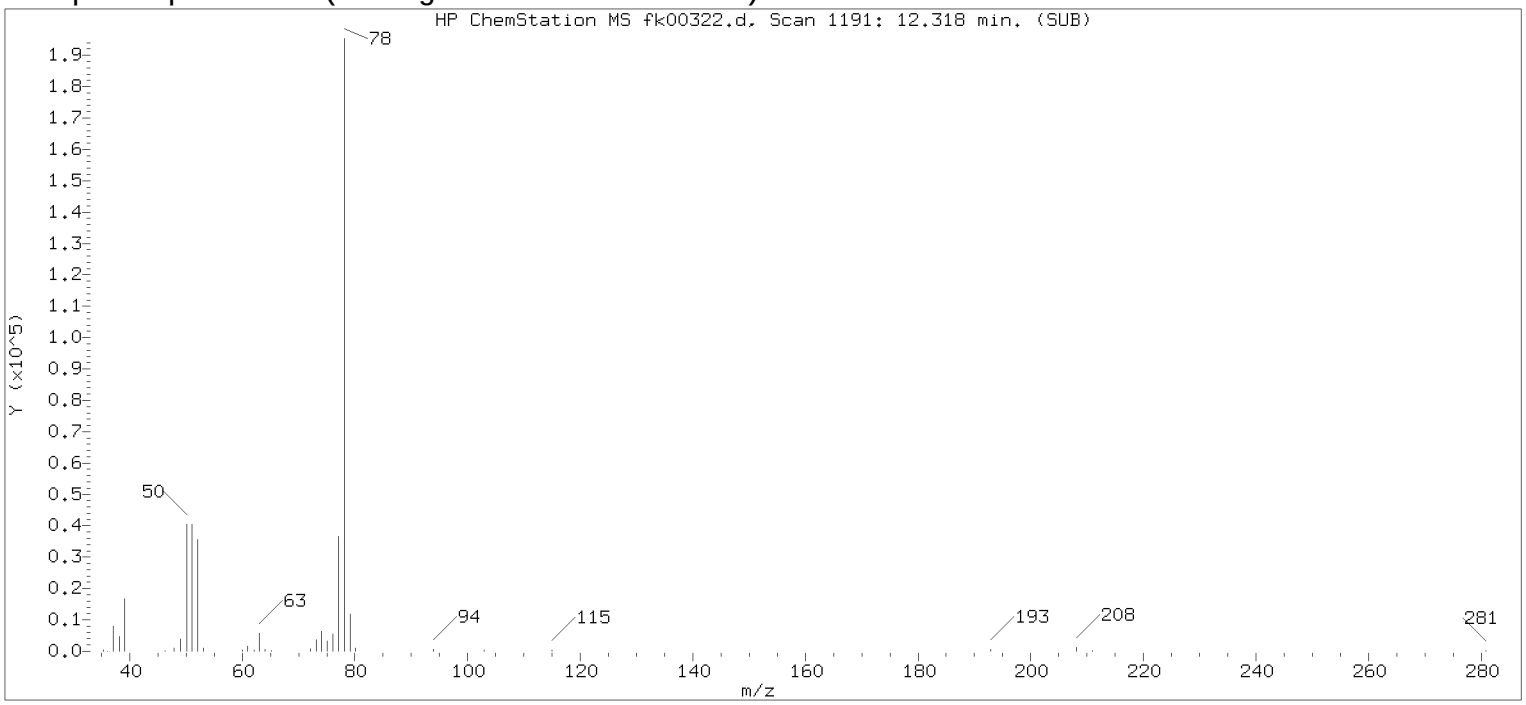
Compound Number : 48
Compound Name : Benzene
Scan Number : 1191
Retention Time (minutes): 12.318
Quant Ion : 78.00
Area (flag) : 1053722M
Concentration (ppb(v)) : 5.0430
Integration start scan : 1180 Integration stop scan: 1219
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

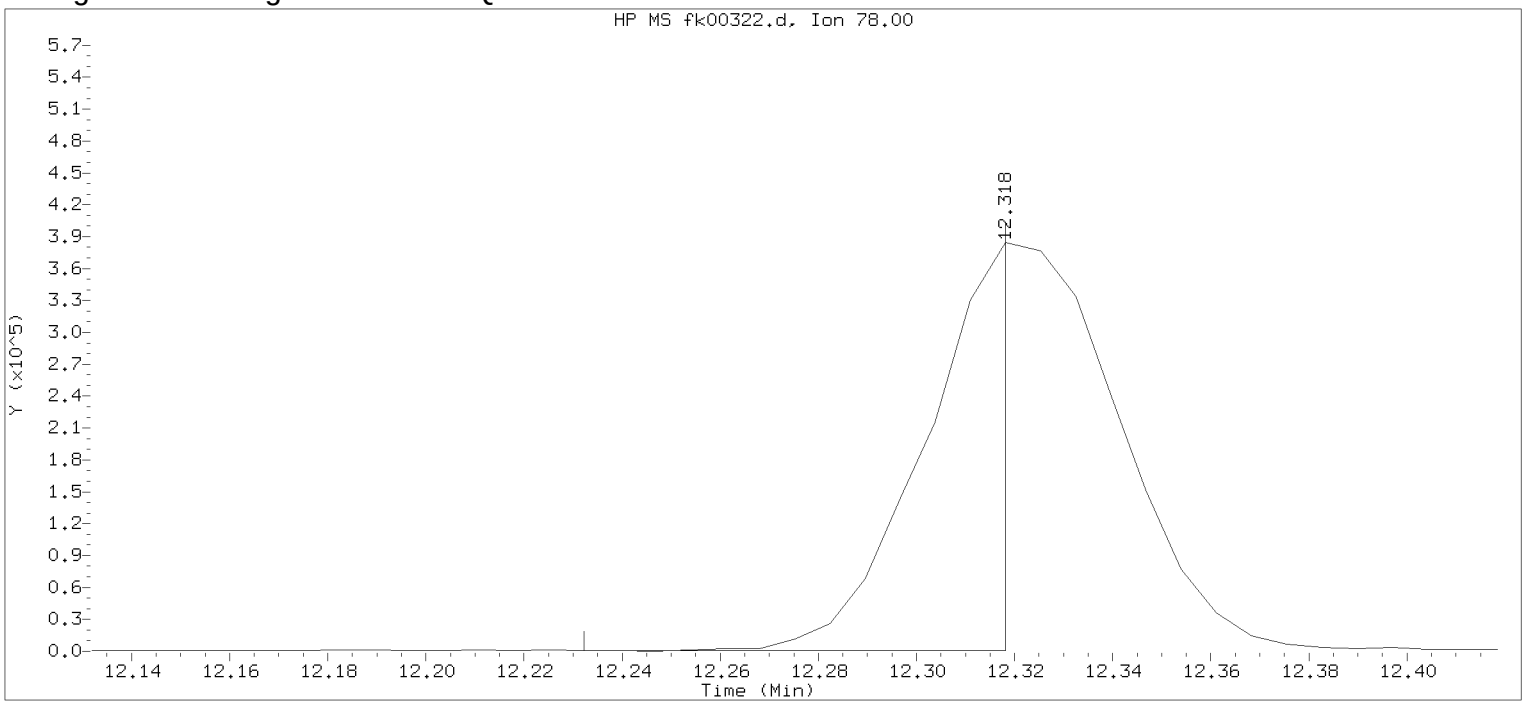
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

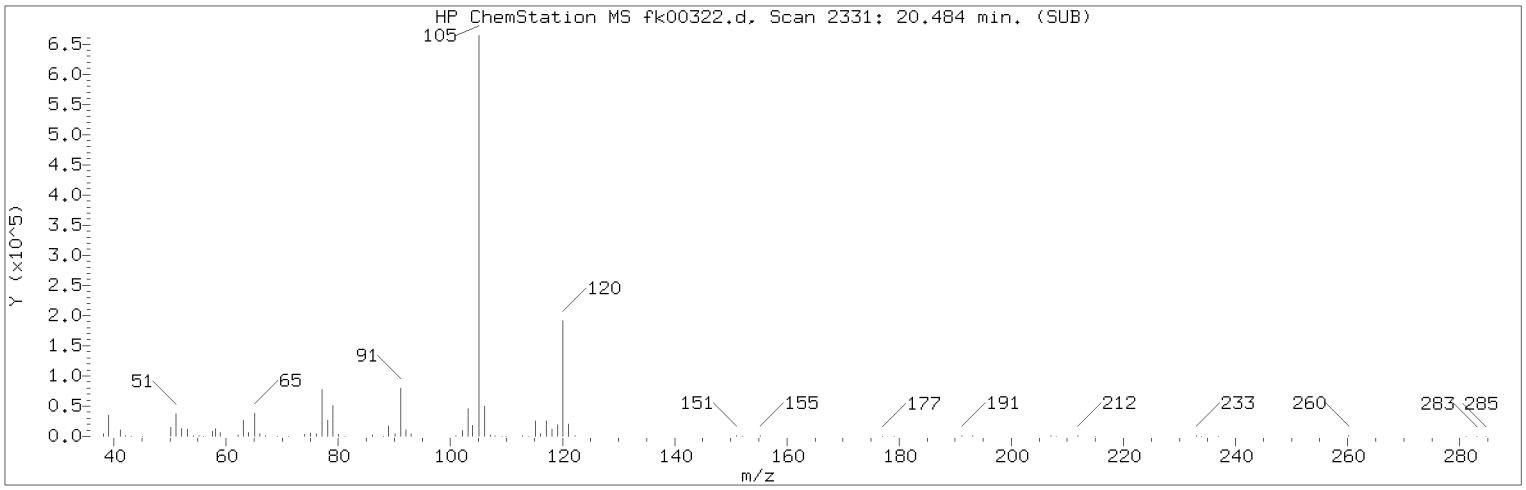
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 11:10 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

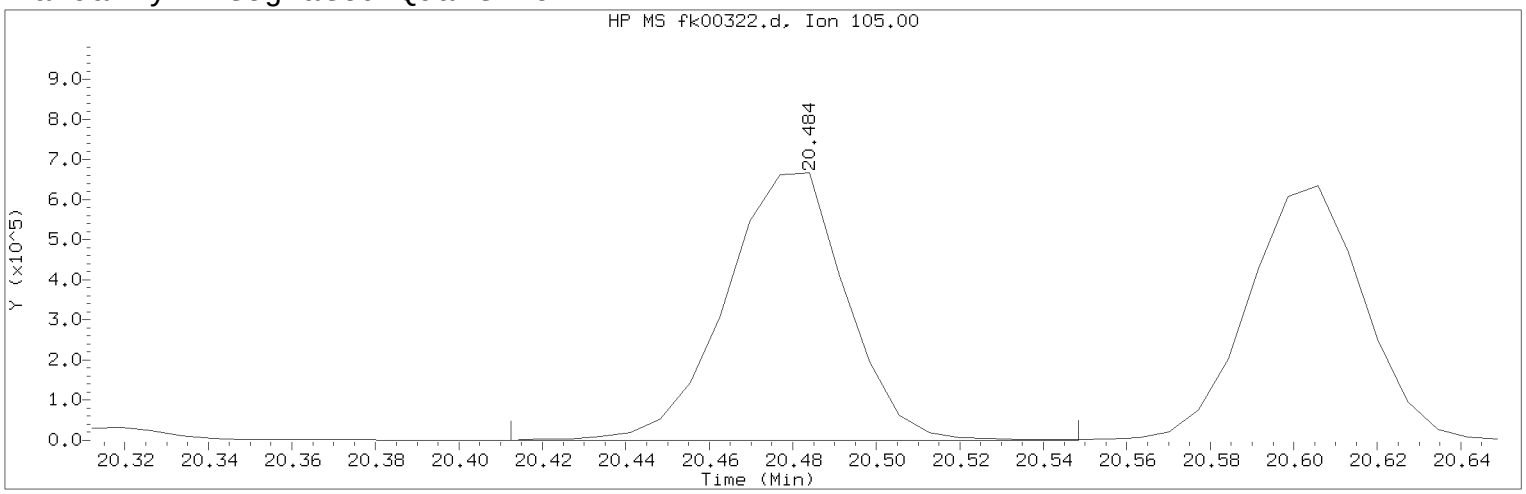
Compound Number : 48
Compound Name : Benzene
Scan Number : 1191
Retention Time (minutes): 12.318
Quant Ion : 78.00
Area : 425477
Concentration (ppb(v)) : 2.0540
Integration start scan : 1178 Integration stop scan: 1190
Y at integration start : 349 Y at integration end: 349

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:21 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

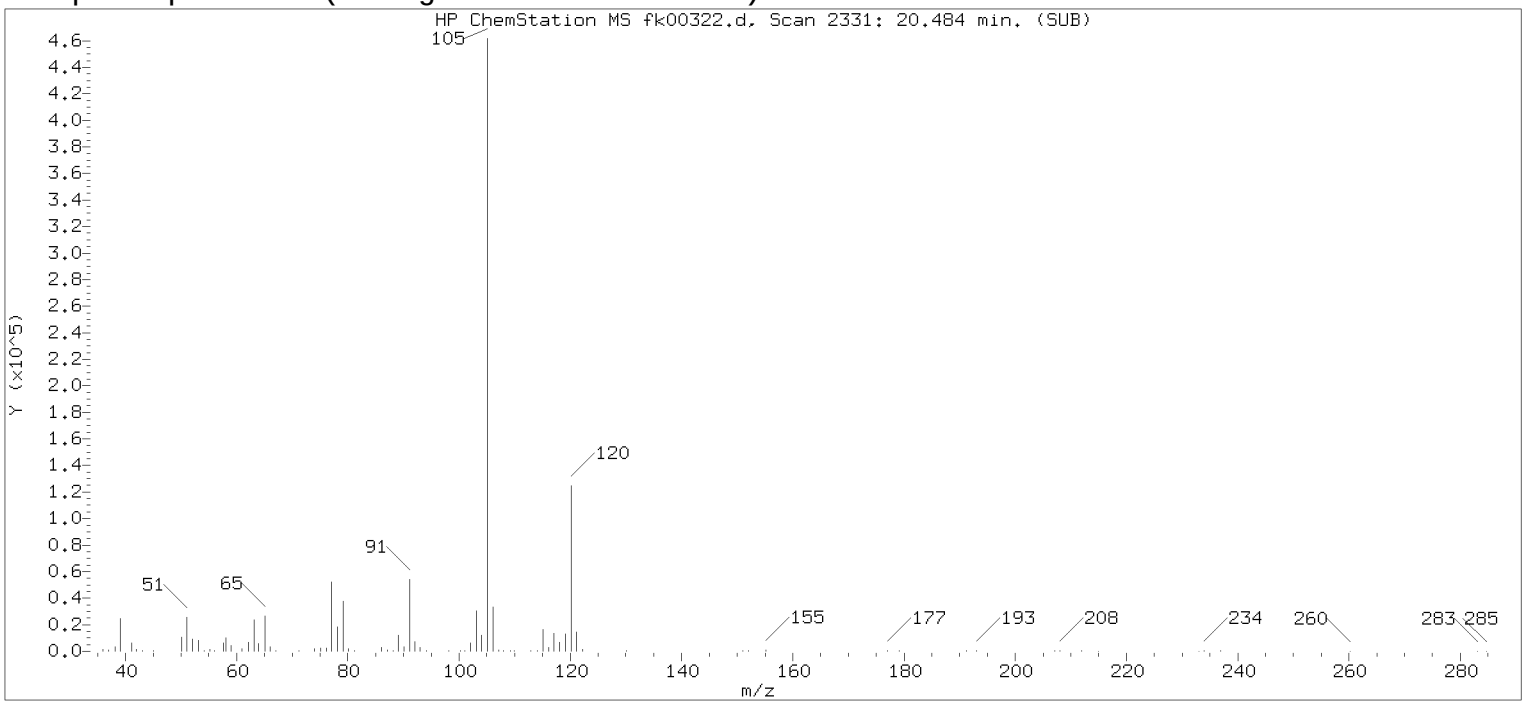
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2331
Retention Time (minutes): 20.484
Quant Ion : 105.00
Area (flag) : 1339364M
Concentration (ppb(v)) : 4.7660
Integration start scan : 2320 Integration stop scan: 2339
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

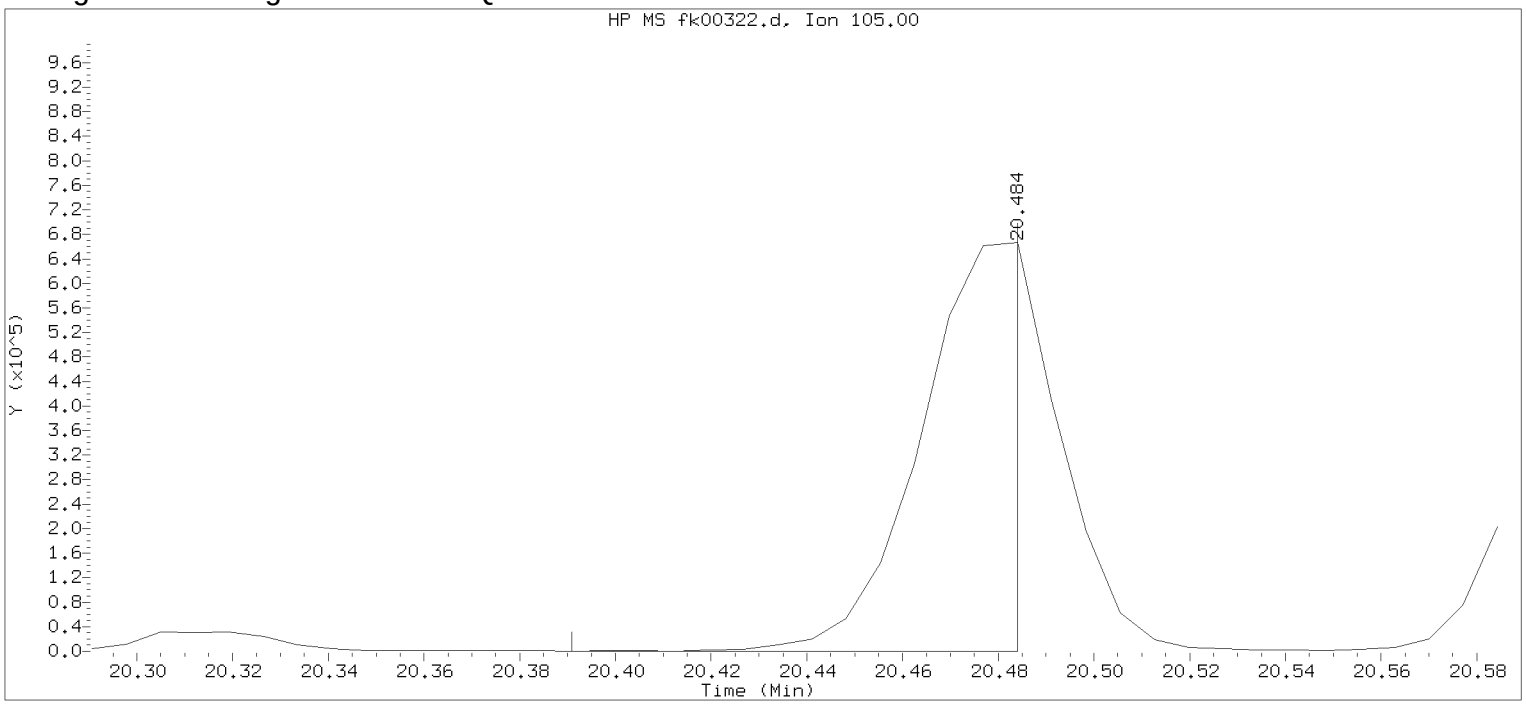
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



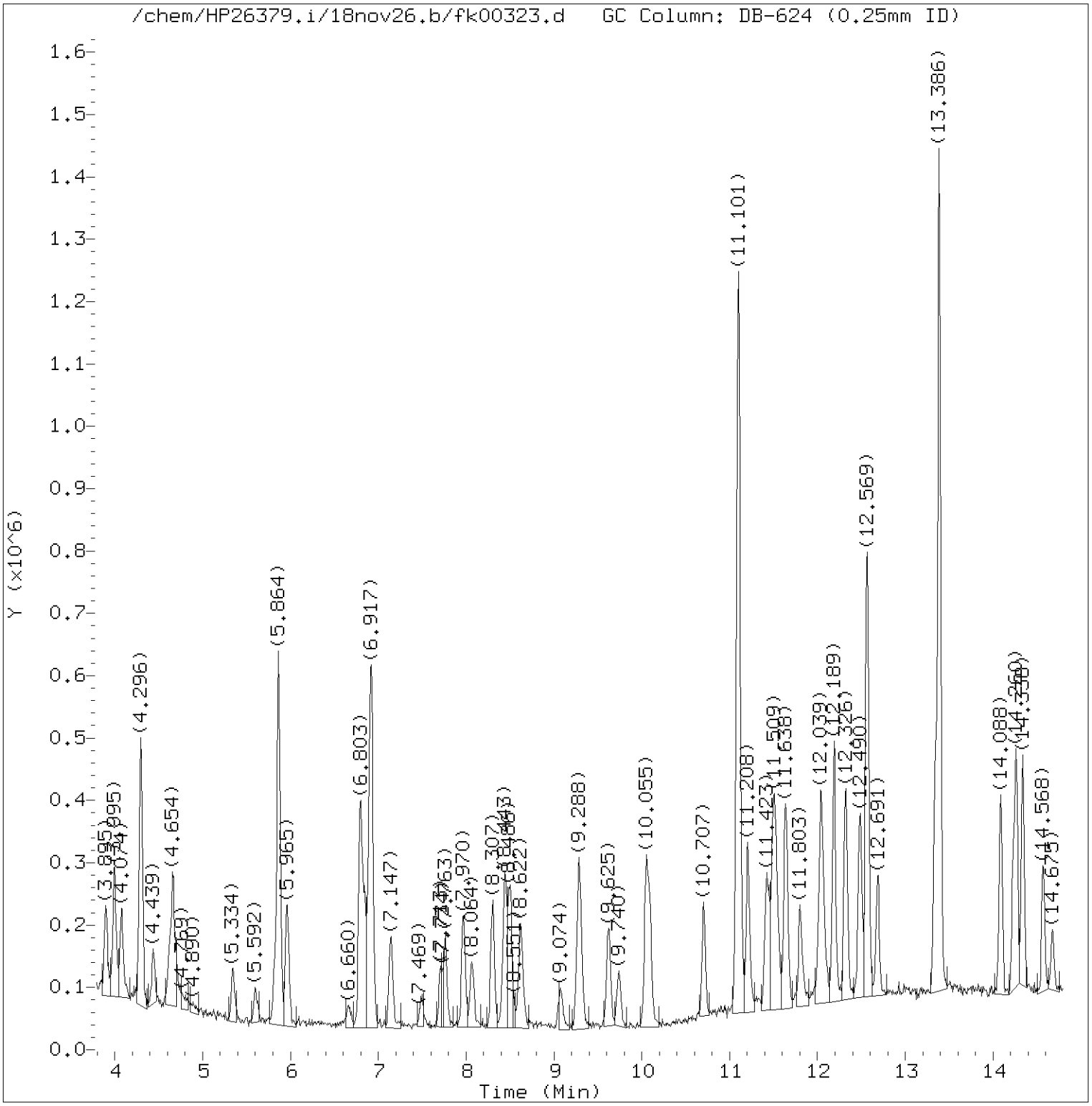
Data File: /chem/HP26379.i/18nov26.b/fk00322.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 10:37 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 10:50
Date, time and analyst ID of latest file update: 26-Nov-2018 11:10 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2331
Retention Time (minutes): 20.484
Quant Ion : 105.00
Area : 892749
Concentration (ppb(v)) : 3.0347
Integration start scan : 2317 Integration stop scan: 2330
Y at integration start : 384 Y at integration end: 384

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

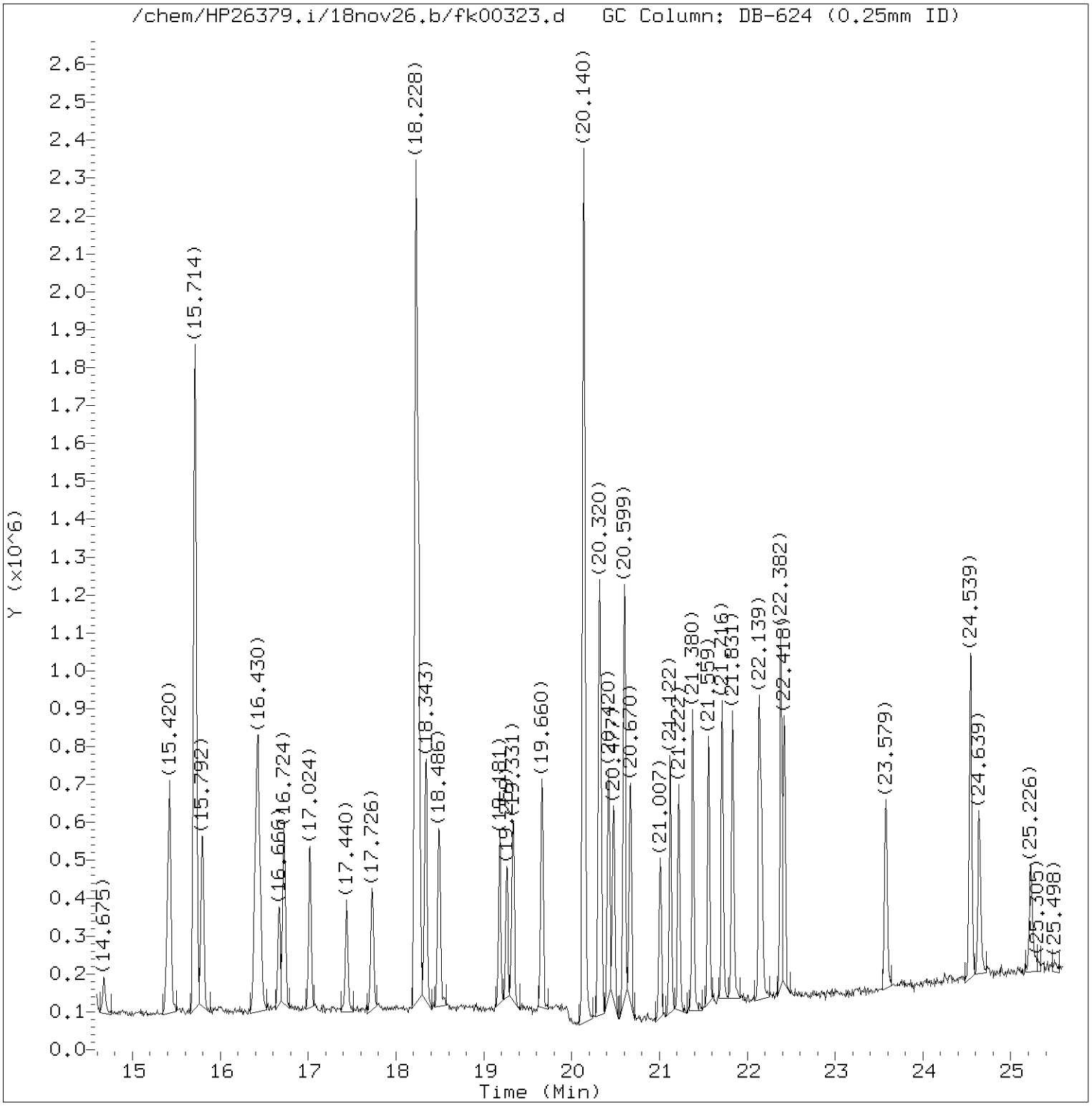
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.895	41	116469	1.938
2) Dichlorodifluoromethane	(1)	3.988	85	311425	1.850
3) Chlorodifluoromethane	(1)	4.081	51	262166	1.921
4) Freon 114	(1)	4.296	85	344655	1.997
5) Chloromethane	(1)	4.439	50	156745	2.060
6) Vinyl Chloride	(1)	4.632	62	88518	1.897
7) 1,3-Butadiene	(1)	4.668	54	78986	1.928
8) Bromomethane	(1)	5.349	94	89586	1.744
9) Chloroethane	(1)	5.592	64	69093	1.862
10) Bromoethene	(1)	5.822	106	88837	1.847
11) Pentane	(1)	5.864	43	231015	1.901
12) Trichlorofluoromethane	(1)	5.864	101	355410	2.048
13) Dichlorofluoromethane	(1)	5.958	67	274615	1.876
14) Ethanol	(1)	6.660	45	43671	1.948
15) Freon123a	(1)	6.796	67	310392	2.329
16) 1,1-Dichloroethene	(1)	6.853	61	204020M	1.886
17) Freon 113	(1)	6.910	103	208200	2.157
18) Carbon Disulfide	(1)	6.932	76	314868	1.855
19) Methyl Iodide	(1)	7.147	142	253485	1.979
20) Acrolein	(1)	7.498	56	47287M	1.925
21) Isopropanol	(1)	7.713	45	175239	1.798
22) 3-Chloropropene	(1)	7.756	41	168451	1.994
23) Methylene Chloride	(1)	7.963	84	95067	1.948
24) Acetone	(1)	8.064	43	212668	1.917
25) trans-1,2-Dichloroethene	(1)	8.300	61	188948	1.836
26) Hexane	(1)	8.429	56	147000	1.947
27) Methyl t-Butyl Ether	(1)	8.500	73	262953	1.823
28) tert-Butyl Alcohol	(1)	8.622	59	282261	2.184
29) Acetonitrile	(1)	9.074	41	121089M	1.941
30) Di-Isopropyl Ether	(1)	9.288	45	406485	1.914
31) 1,1-Dichloroethane	(1)	9.625	63	270130	1.962
32) Acrylonitrile	(1)	9.733	53	111259	1.897
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	337636	1.789
34) Vinyl Acetate	(1)	10.098	43	332203	1.910
35) cis-1,2-Dichloroethene	(1)	10.707	61	175058	1.888
36) 1,2-Dichloroethene (total)	(1)		61	364006	3.724
37)*Bromochloromethane	(1)	11.101	130	440995	10.000
38) Cyclohexane	(1)	11.115	56	203518	1.919

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	261928	1.928
40) Ethyl Acetate	(1)	11.416	43	306120	1.931
41) Methyl Acrylate	(1)	11.452	55	211863	1.787
42) Carbon Tetrachloride	(1)	11.502	117	294191	2.042
43) Tetrahydrofuran	(1)	11.545	42	133036	1.825
44) 1,1,1-Trichloroethane	(1)	11.638	97	309193	2.093
45) 2-Butanone	(1)	11.803	43	268010	1.867
46) Isooctane	(2)	12.039	57	549737	1.804
47) Heptane	(2)	12.189	71	96574	1.872
48) Benzene	(2)	12.318	78	373395	2.009
49) Tert-Amyl Methyl Ether	(2)	12.490	73	248495	1.896
50) 1,2-Dichloroethane	(2)	12.691	62	216664	2.036
51) Trichloroethene	(2)	13.343	130	148098	2.004
52)*1,4-Difluorobenzene	(2)	13.386	114	1280295	10.000
53) Dibromomethane	(2)	14.095	174	160551	1.996
54) Ethyl Acrylate	(2)	14.231	55	259603	1.937
55) 1,2-Dichloropropane	(2)	14.260	63	185377	2.098
56) Bromodichloromethane	(2)	14.338	83	292213	2.066
57) Methyl Methacrylate	(2)	14.575	69	92953	1.950
58) 1,4-Dioxane	(2)	14.675	88	61198	1.814
59) cis-1,3-Dichloropropene	(2)	15.406	75	176736	1.868
60) Octane	(3)	15.427	43	284949M	1.778
61) Toluene	(3)	15.792	91	394532	1.990
62) 4-Methyl-2-Pentanone	(2)	16.394	43	335948	2.040
63) Tetrachloroethene	(3)	16.430	166	254523	2.024
64) trans-1,3-Dichloropropene	(3)	16.459	75	176050	1.929
65) 1,3-Dichloropropene (total)	(3)		75	352786	3.747
66) Ethyl Methacrylate	(3)	16.674	69	151405	1.834
67) 1,1,2-Trichloroethane	(3)	16.731	97	176093	2.071
68) Dibromochloromethane	(3)	17.024	127	226889	2.088
69) 1,2-Dibromoethane	(3)	17.440	107	249467	2.085
70) 2-Hexanone	(3)	17.726	43	297986	1.961
71)*Chlorobenzene-d5	(3)	18.228	117	1317251	10.000
72) Chlorobenzene	(3)	18.257	112	364720	2.045
73) Ethylbenzene	(3)	18.264	91	507478	1.959
74) 1,1,1,2-Tetrachloroethane	(3)	18.343	131	218746	2.098
75) m/p-Xylene	(3)	18.486	91	337189	1.896
76) o-Xylene	(3)	19.181	91	334938	1.961

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

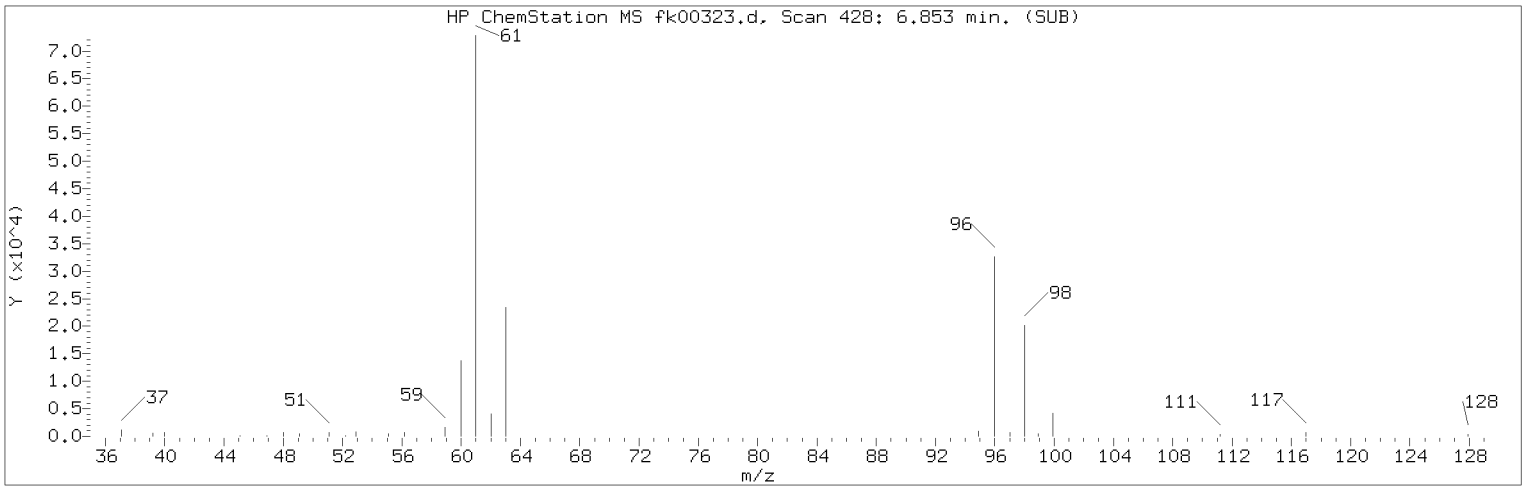
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

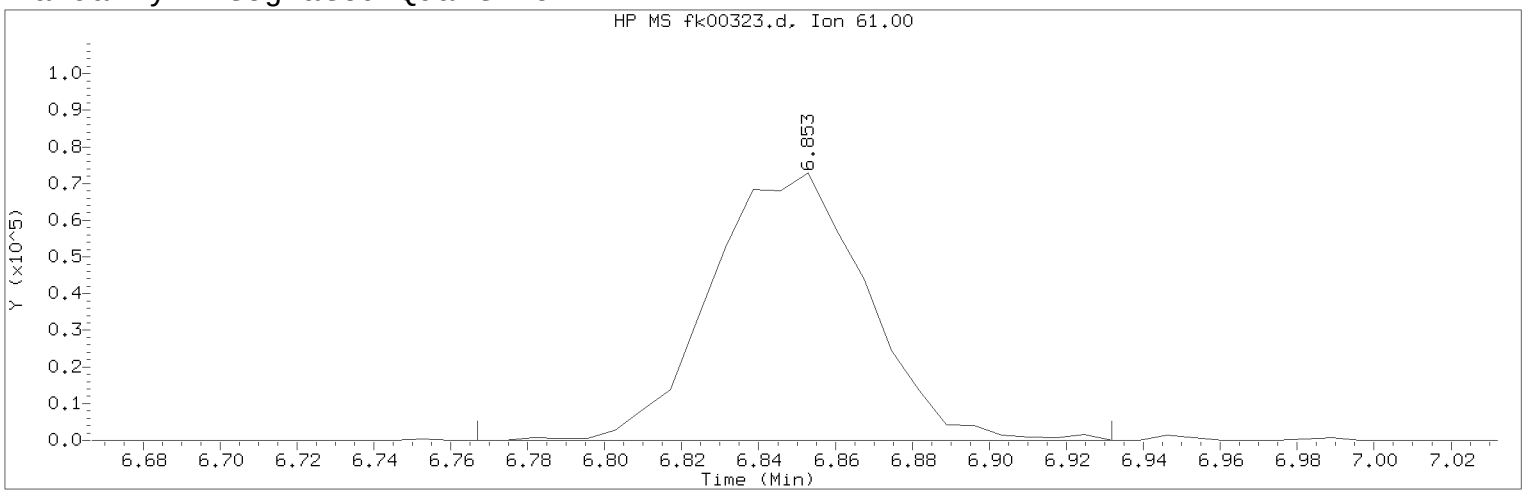
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	672127	3.856
78) Styrene	(3)	19.259	104	223634	1.790
79) Bromoform	(3)	19.338	173	302319	2.075
80) Cumene	(3)	19.660	105	438041	1.849
81) n-Propylbenzene	(3)	20.312	120	131892	1.819
82) Bromobenzene	(3)	20.334	156	219014	2.013
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	399796	2.139
84) 4-Ethyltoluene	(3)	20.477	105	441156	1.799
85) 2-Chlorotoluene	(3)	20.599	126	134046	1.880
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	392365	1.791
87) 1,2,3-Trichloropropane	(3)	20.670	110	115754	2.122
88) Alpha Methyl Styrene	(3)	21.014	118	156873	1.832
89) tert-Butylbenzene	(3)	21.122	119	330093	1.696
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	370013	1.783
91) sec-Butylbenzene	(3)	21.380	105	573786	1.833
92) p-Isopropyltoluene	(3)	21.559	119	410236	1.720
93) 1,3-Dichlorobenzene	(3)	21.716	146	362181	2.056
94) 1,4-Dichlorobenzene	(3)	21.831	146	351034	2.046
95) n-Butylbenzene	(3)	22.132	92	271902	1.845
96) Benzyl Chloride	(3)	22.160	126	78642	1.915
97) Hexachloroethane	(3)	22.382	117	192181	2.035
98) 1,2-Dichlorobenzene	(3)	22.425	146	329049	2.031
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	163596	1.985
100) Hexachlorobutadiene	(3)	24.546	225	236439	2.111
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	212380	1.999
102) Naphthalene	(3)	25.233	128	345539	1.878

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

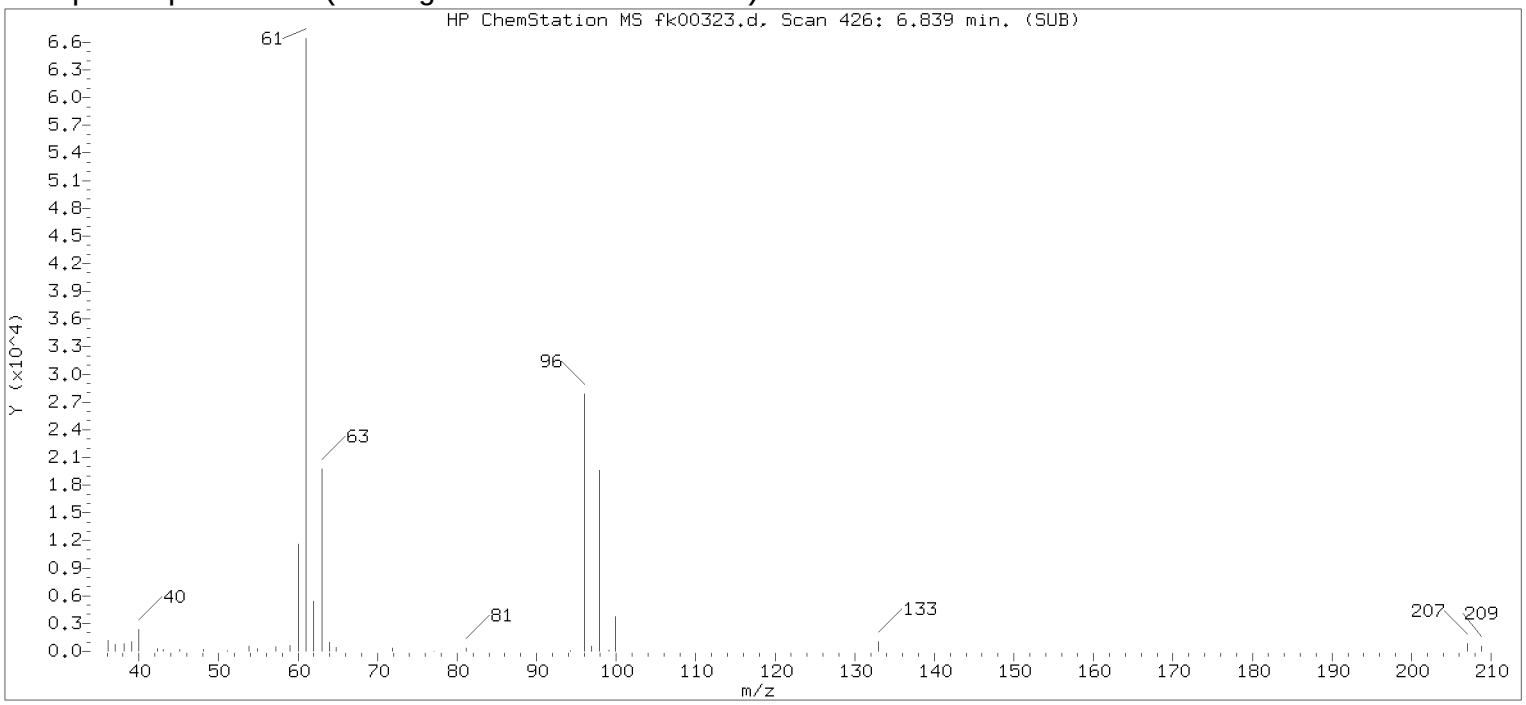
Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 428
Retention Time (minutes): 6.853
Quant Ion : 61.00
Area (flag) : 204020M
Concentration (ppb(v)) : 1.8859
Integration start scan : 415 Integration stop scan: 438
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

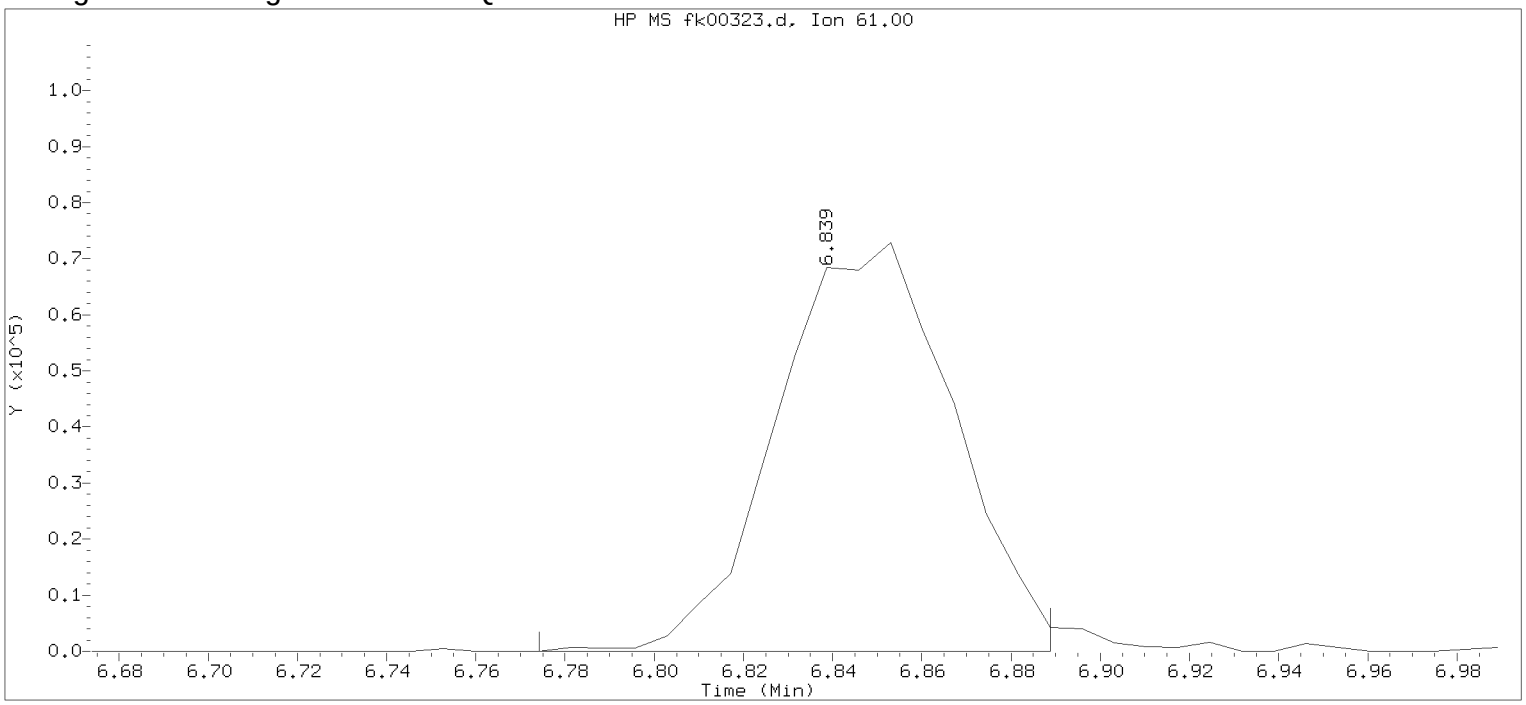
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

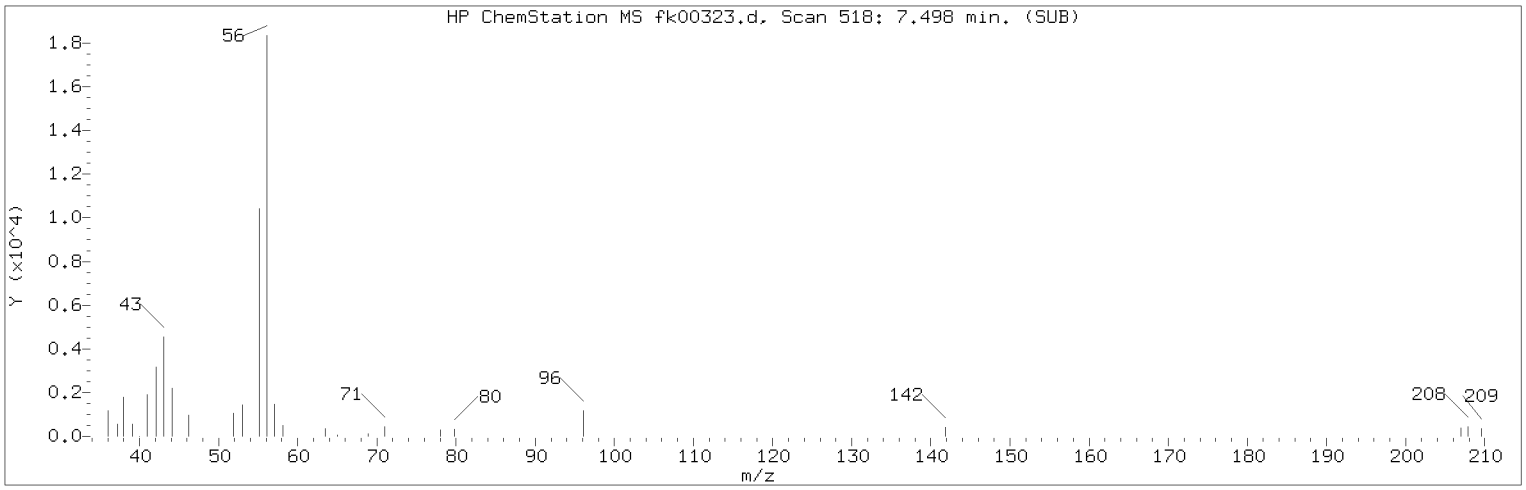
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:40 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

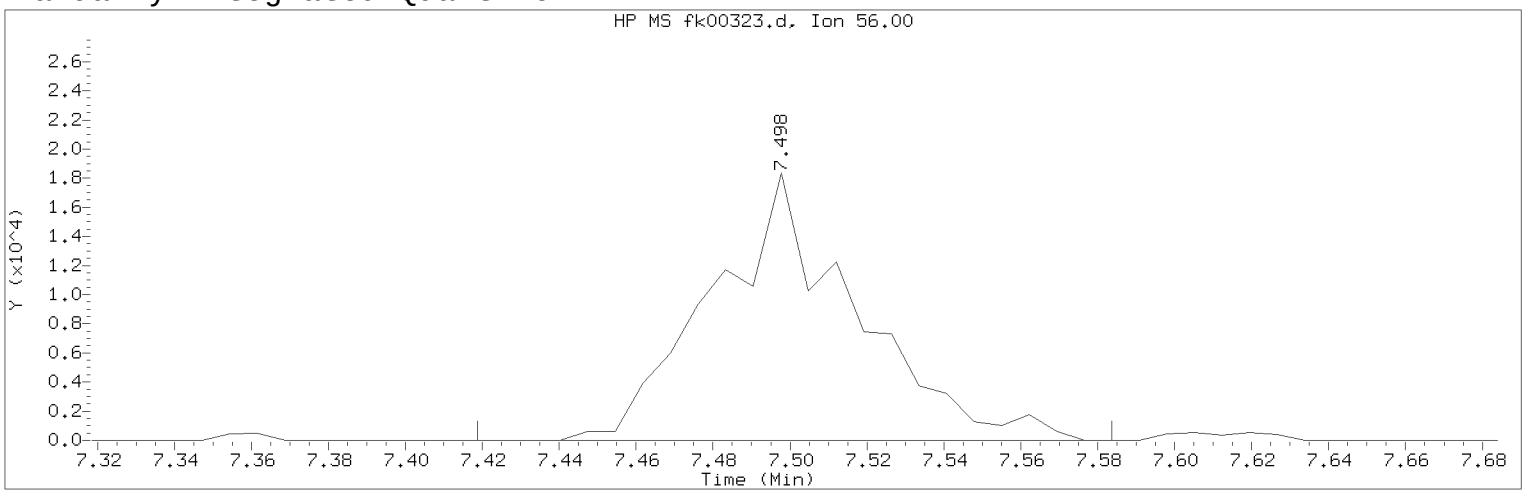
Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 426
Retention Time (minutes): 6.839
Quant Ion : 61.00
Area : 199429
Concentration (ppb(v)) : 1.7923
Integration start scan : 416 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

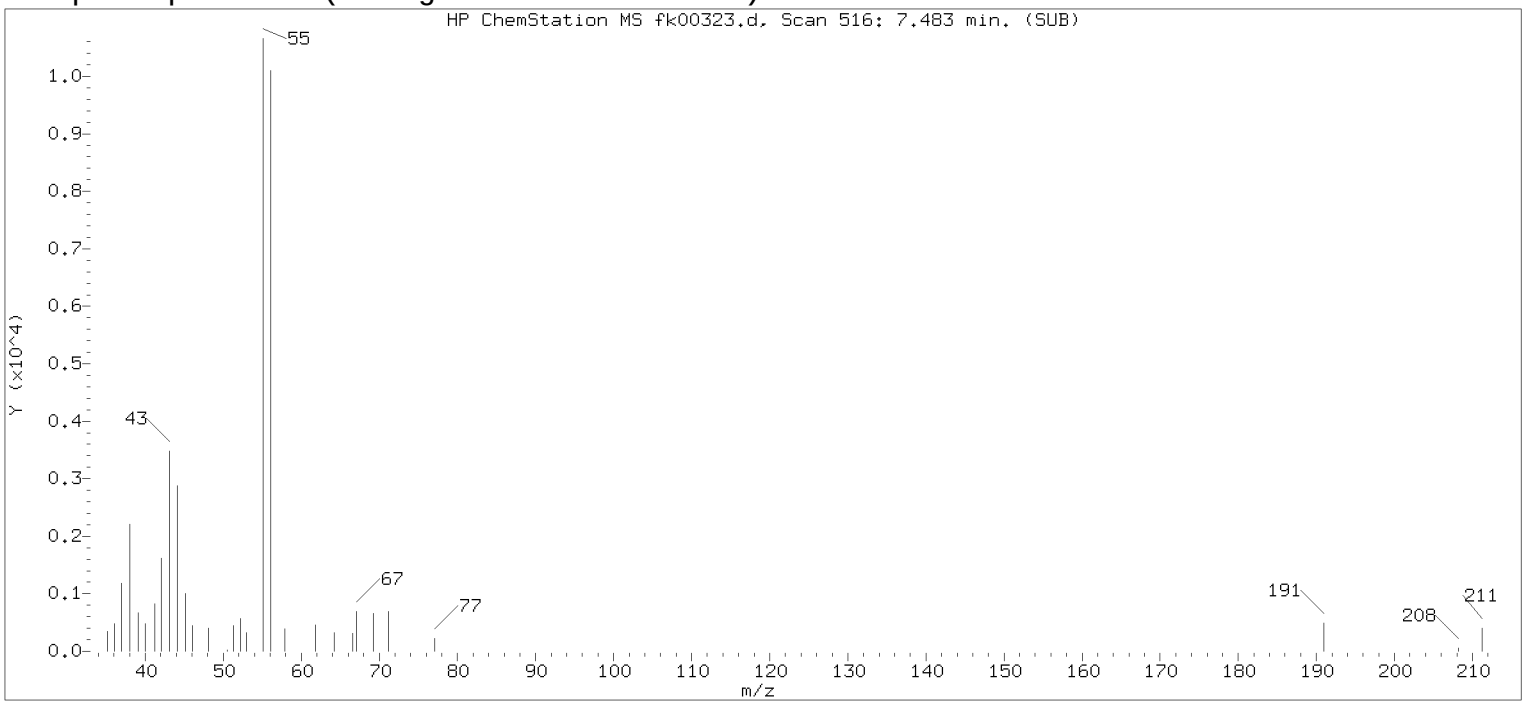
Compound Number : 20
Compound Name : Acrolein
Scan Number : 518
Retention Time (minutes): 7.498
Quant Ion : 56.00
Area (flag) : 47287M
Concentration (ppb(v)) : 1.9250
Integration start scan : 506 Integration stop scan: 529
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

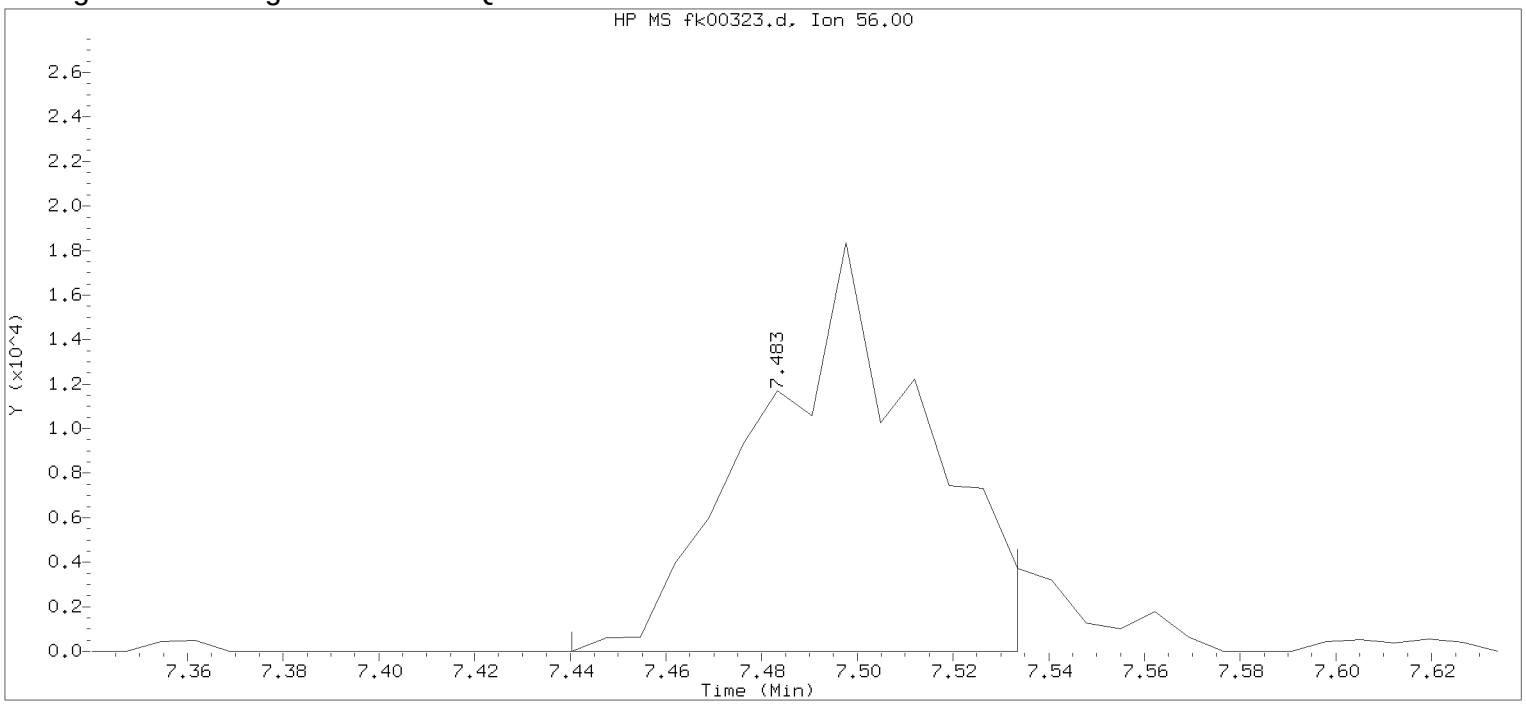
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

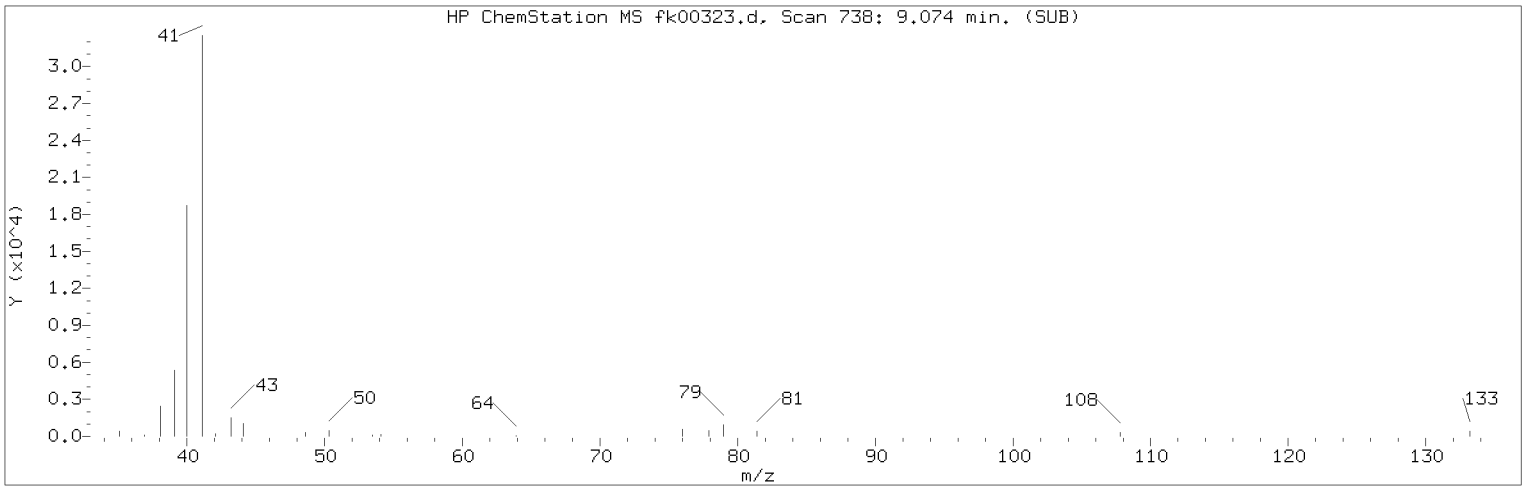
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:40 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

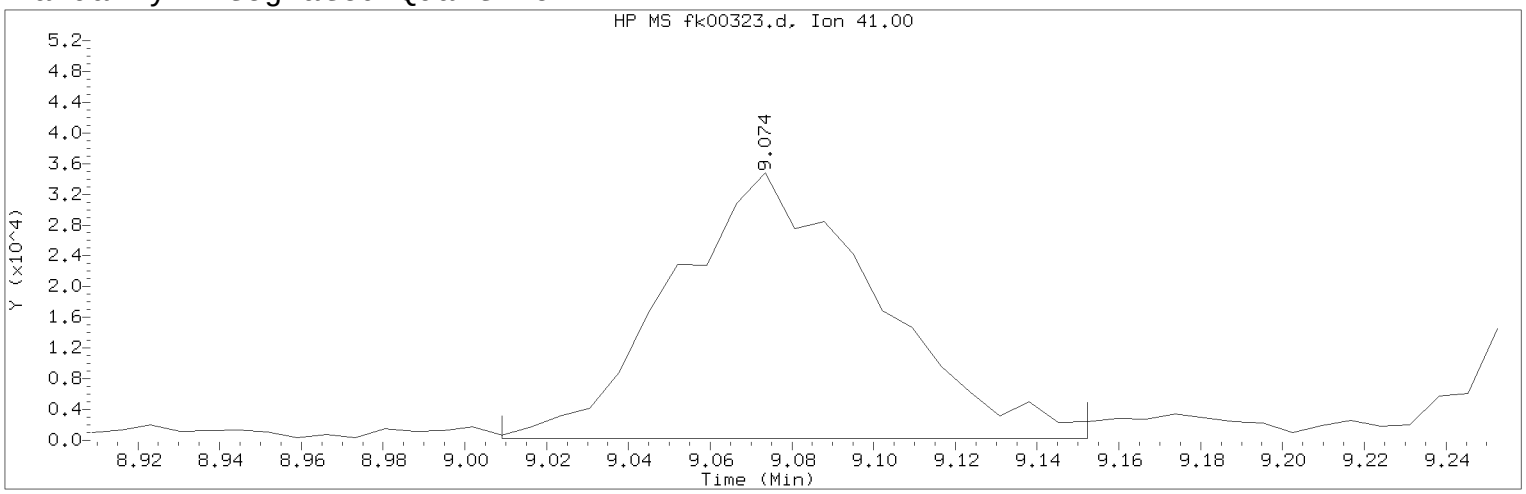
Compound Number : 20
Compound Name : Acrolein
Scan Number : 516
Retention Time (minutes): 7.483
Quant Ion : 56.00
Area : 43090
Concentration (ppb(v)) : 1.7219
Integration start scan : 509 Integration stop scan: 522
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

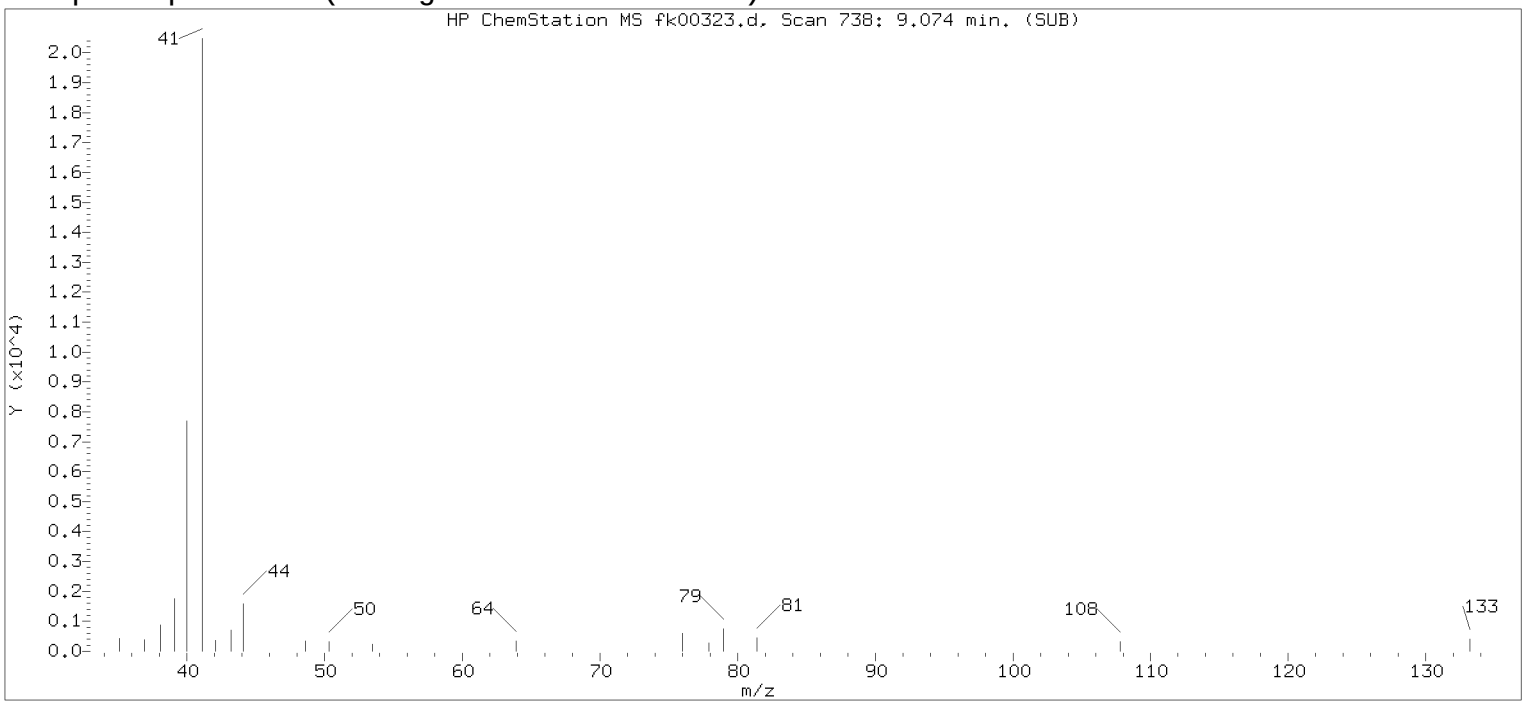
Compound Number : 29
Compound Name : Acetonitrile
Scan Number : 738
Retention Time (minutes): 9.074
Quant Ion : 41.00
Area (flag) : 121089M
Concentration (ppb(v)) : 1.9407
Integration start scan : 728 Integration stop scan: 748
Y at integration start : 250 Y at integration end: 250

Reason for manual integration: improper integration

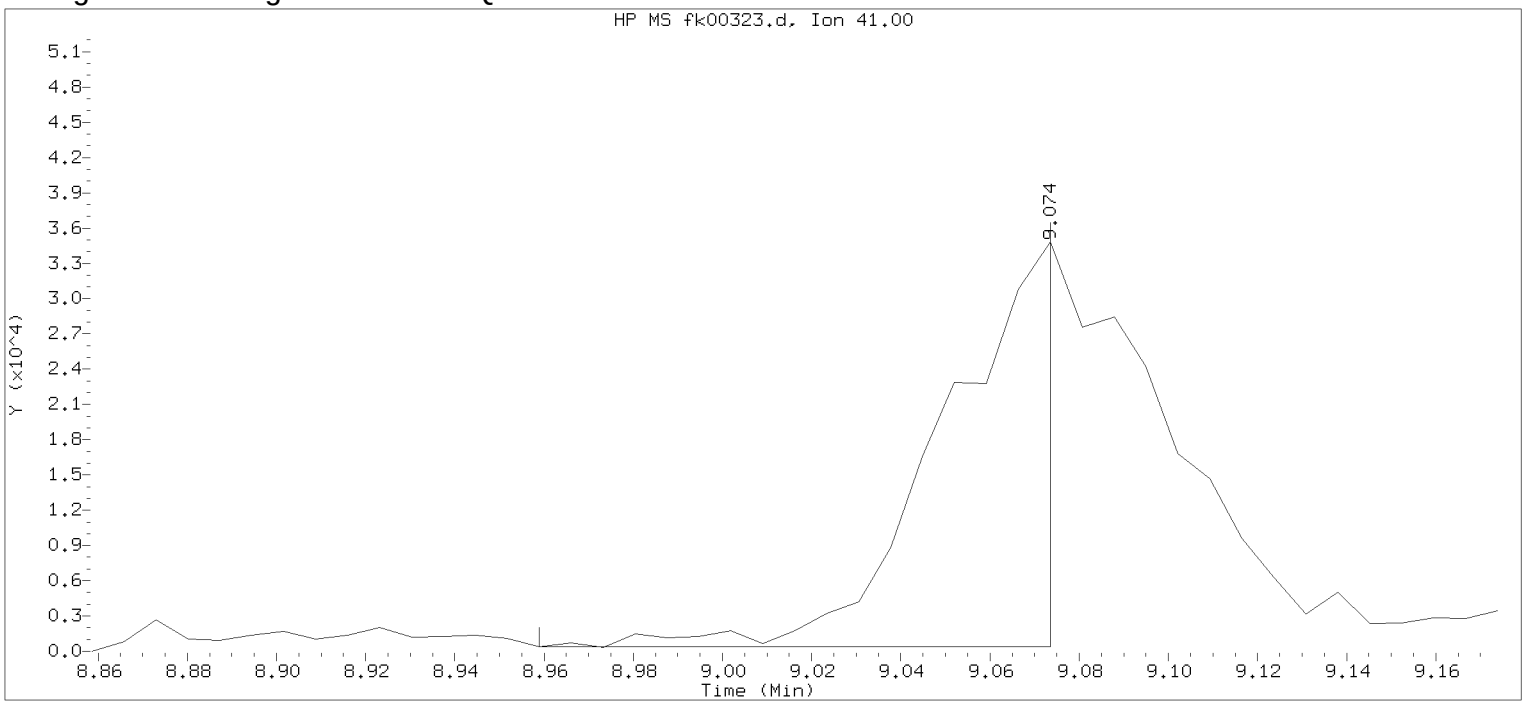
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

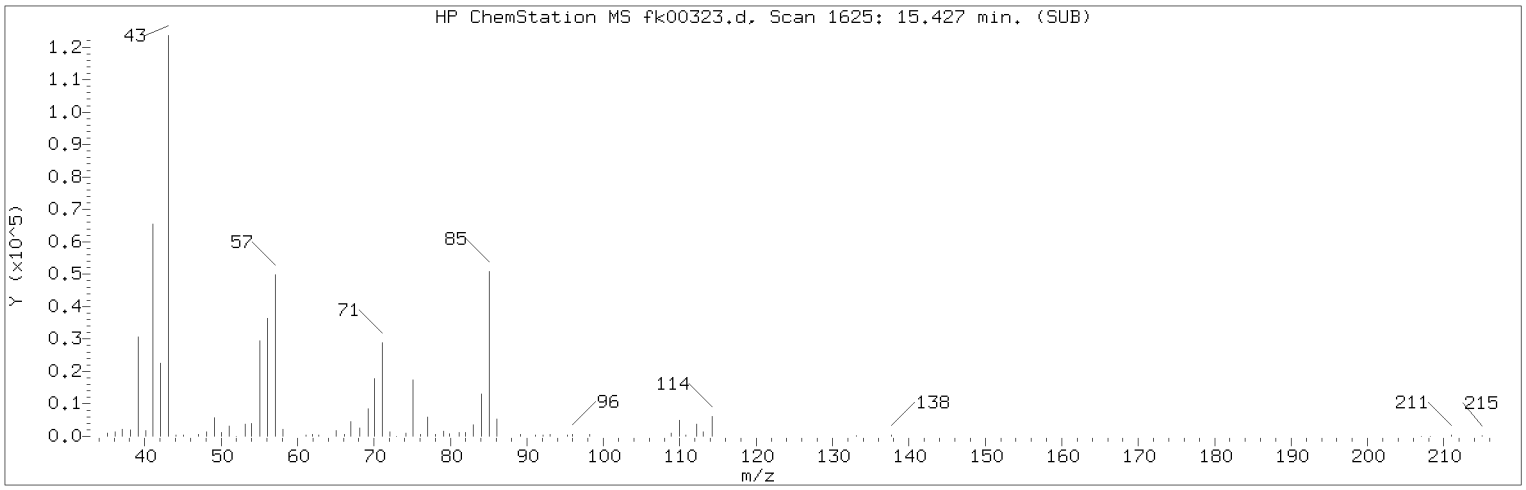
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:40 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

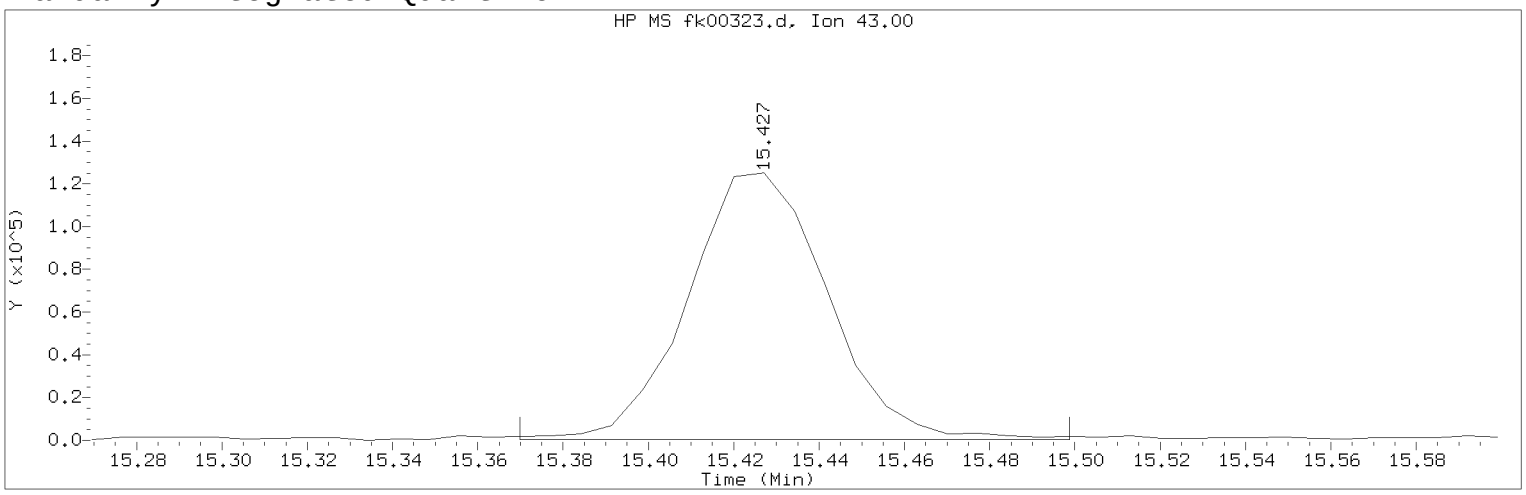
Compound Number : 29
Compound Name : Acetonitrile
Scan Number : 738
Retention Time (minutes): 9.074
Quant Ion : 41.00
Area : 55844
Concentration (ppb(v)) : 0.8820
Integration start scan : 721 Integration stop scan: 737
Y at integration start : 371 Y at integration end: 371

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userID=jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:47
Date, time and analyst ID of latest file update: 26-Nov-2018 11:48 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

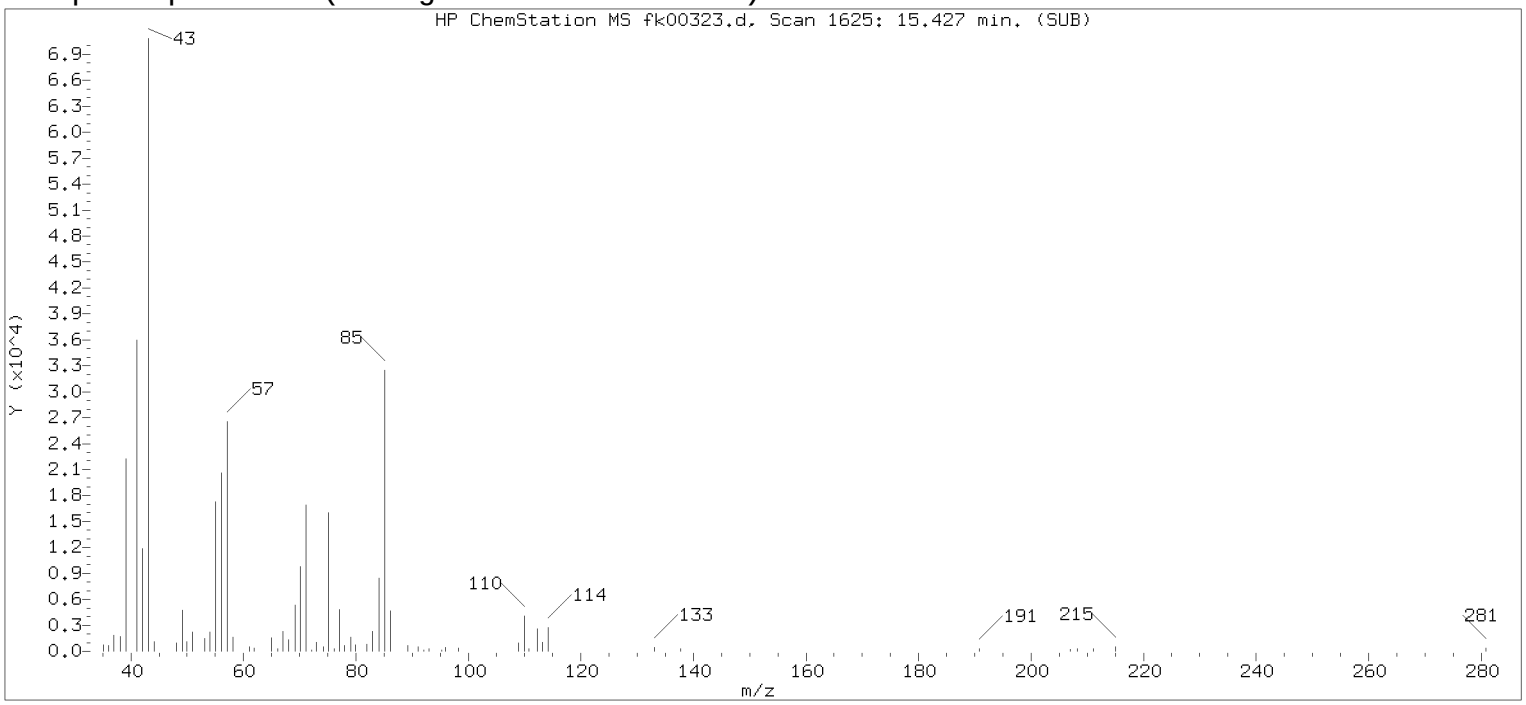
Compound Number : 60
Compound Name : Octane
Scan Number : 1625
Retention Time (minutes): 15.427
Quant Ion : 43.00
Area (flag) : 284949M
Concentration (ppb(v)) : 1.7783
Integration start scan : 1616 Integration stop scan: 1634
Y at integration start : 300 Y at integration end: 300

Reason for manual integration: improper integration

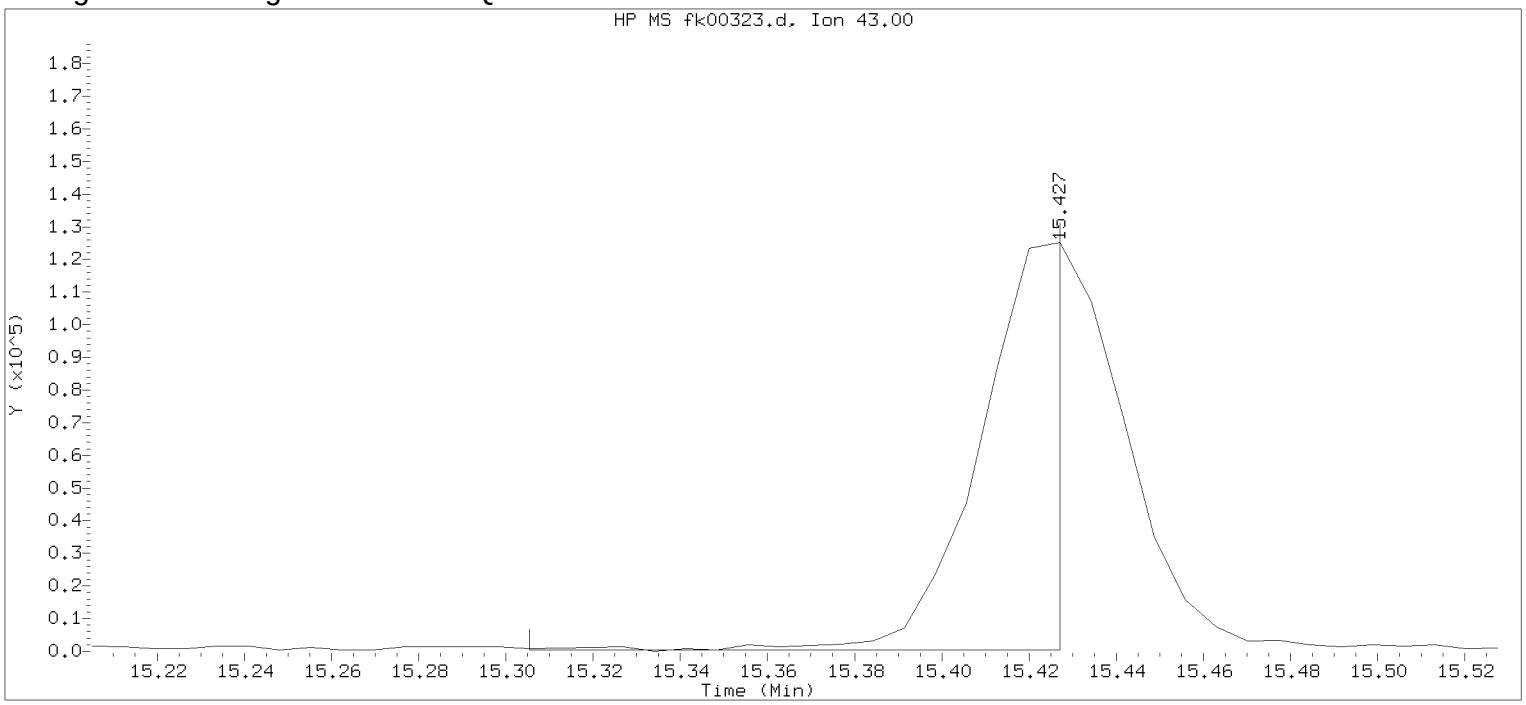
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



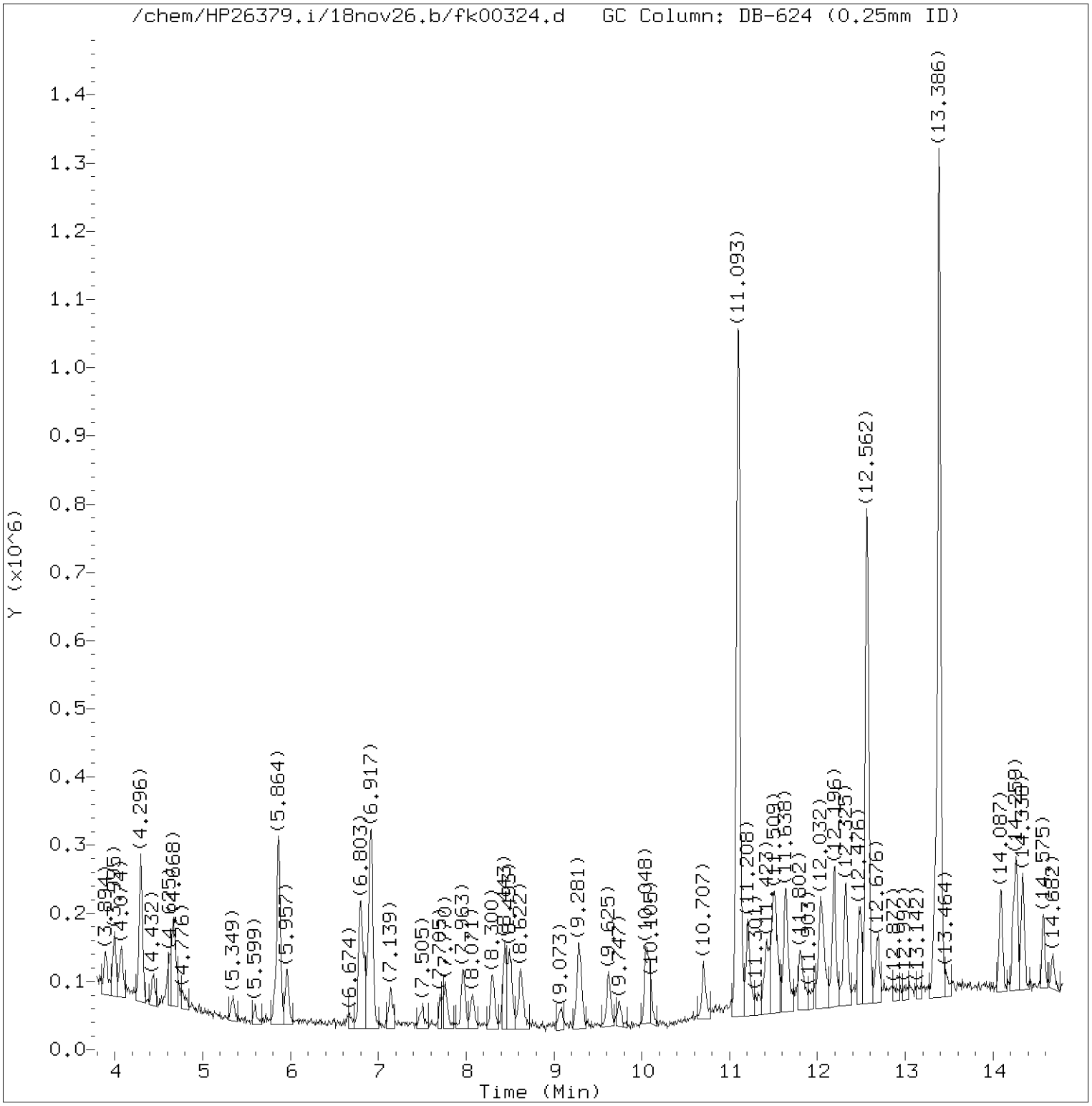
Data File: /chem/HP26379.i/18nov26.b/fk00323.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:08 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 11:21
Date, time and analyst ID of latest file update: 26-Nov-2018 11:40 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 60
Compound Name : Octane
Scan Number : 1625
Retention Time (minutes): 15.427
Quant Ion : 43.00
Area : 153910
Concentration (ppb(v)) : 0.9101
Integration start scan : 1607 Integration stop scan: 1624
Y at integration start : 394 Y at integration end: 394

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445



Total Ion Chromatogram (TIC)

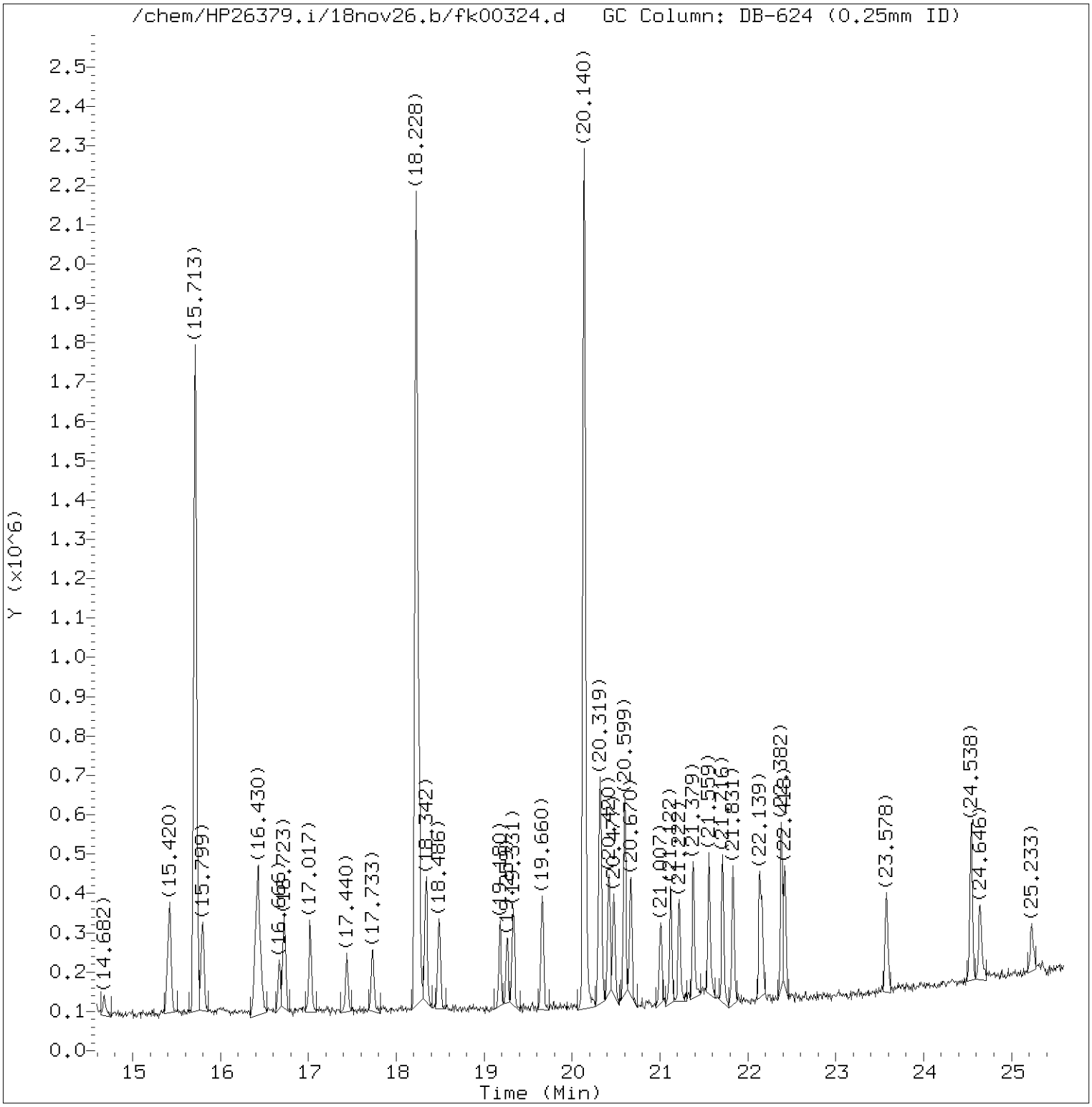
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00324.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 12:13
Date, time and analyst ID of latest file update: 26-Nov-2018 12:13 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00324.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 12:13
Date, time and analyst ID of latest file update: 26-Nov-2018 12:13 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00324.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 12:13
Date, time and analyst ID of latest file update: 26-Nov-2018 12:13 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.887	41	43132	0.799
2) Dichlorodifluoromethane	(1)	3.995	85	119974	0.794
3) Chlorodifluoromethane	(1)	4.074	51	130996	1.001
4) Freon 114	(1)	4.296	85	161281	0.981
5) Chloromethane	(1)	4.439	50	69107	0.960
6) Vinyl Chloride	(1)	4.618	62	37526	0.874
7) 1,3-Butadiene	(1)	4.661	54	40571	1.024
8) Bromomethane	(1)	5.341	94	32589	0.723
9) Chloroethane	(1)	5.606	64	25413	0.769
10) Bromoethene	(1)	5.814	106	32376	0.758
11) Pentane	(1)	5.864	43	112769	0.975
12) Trichlorofluoromethane	(1)	5.864	101	186064	1.086
13) Dichlorofluoromethane	(1)	5.957	67	105530	0.801
14) Ethanol	(1)	6.659	45	19714	0.937
15) Freon123a	(1)	6.803	67	157455	1.199
16) 1,1-Dichloroethene	(1)	6.846	61	76623	0.790
17) Freon 113	(1)	6.910	103	103216	1.084
18) Carbon Disulfide	(1)	6.924	76	121467	0.797
19) Methyl Iodide	(1)	7.146	142	91146	0.793
20) Acrolein	(1)	7.497	56	18943	0.846
21) Isopropanol	(1)	7.712	45	78313	0.873
22) 3-Chloropropene	(1)	7.763	41	66456	0.878
23) Methylene Chloride	(1)	7.977	84	38216	0.874
24) Acetone	(1)	8.071	43	86782	0.855
25) trans-1,2-Dichloroethene	(1)	8.307	61	75127	0.809
26) Hexane	(1)	8.443	56	72017	0.996
27) Methyl t-Butyl Ether	(1)	8.507	73	124219	0.922
28) tert-Butyl Alcohol	(1)	8.622	59	131903	1.075
29) Acetonitrile	(1)	9.081	41	49569	0.866
30) Di-Isopropyl Ether	(1)	9.281	45	186958	0.937
31) 1,1-Dichloroethane	(1)	9.625	63	120142	0.931
32) Acrylonitrile	(1)	9.740	53	41540	0.790
33) Ethyl Tert-Butyl Ether	(1)	10.062	59	146629	0.851
34) Vinyl Acetate	(1)	10.091	43	139018	0.891
35) cis-1,2-Dichloroethene	(1)	10.707	61	68496	0.817
36) 1,2-Dichloroethene (total)	(1)		61	143623	1.627
37)*Bromochloromethane	(1)	11.100	130	422855	10.000
38) Cyclohexane	(1)	11.115	56	99243	0.982

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00324.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 12:13
Date, time and analyst ID of latest file update: 26-Nov-2018 12:13 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	124953	0.969
40) Ethyl Acetate	(1)	11.423	43	141081	0.945
41) Methyl Acrylate	(1)	11.451	55	93459	0.860
42) Carbon Tetrachloride	(1)	11.502	117	150099	1.063
43) Tetrahydrofuran	(1)	11.545	42	60601	0.897
44) 1,1,1-Trichloroethane	(1)	11.631	97	140798	0.995
45) 2-Butanone	(1)	11.802	43	120426	0.903
46) Isooctane	(2)	12.046	57	232158	0.852
47) Heptane	(2)	12.189	71	41005	0.881
48) Benzene	(2)	12.325	78	174919	1.002
49) Tert-Amyl Methyl Ether	(2)	12.490	73	107778	0.904
50) 1,2-Dichloroethane	(2)	12.691	62	88976	0.916
51) Trichloroethene	(2)	13.335	130	67541	0.980
52)*1,4-Difluorobenzene	(2)	13.386	114	1201834	10.000
53) Dibromomethane	(2)	14.087	174	76379	1.008
54) Ethyl Acrylate	(2)	14.224	55	120083	0.965
55) 1,2-Dichloropropane	(2)	14.259	63	87987	1.045
56) Bromodichloromethane	(2)	14.338	83	139739	1.039
57) Methyl Methacrylate	(2)	14.567	69	39602	0.911
58) 1,4-Dioxane	(2)	14.682	88	33124	1.034
59) cis-1,3-Dichloropropene	(2)	15.405	75	83390	0.953
60) Octane	(3)	15.427	43	135639	0.909
61) Toluene	(3)	15.792	91	199970	1.039
62) 4-Methyl-2-Pentanone	(2)	16.394	43	165025	1.050
63) Tetrachloroethene	(3)	16.423	166	126553	1.037
64) trans-1,3-Dichloropropene	(3)	16.451	75	76865	0.906
66) Ethyl Methacrylate	(3)	16.666	69	75873	0.968
65) 1,3-Dichloropropene (total)	(3)		75	160255	1.827
67) 1,1,2-Trichloroethane	(3)	16.723	97	89050	1.068
68) Dibromochloromethane	(3)	17.017	127	115097	1.076
69) 1,2-Dibromoethane	(3)	17.440	107	117141	1.016
70) 2-Hexanone	(3)	17.726	43	135533	0.947
71)*Chlorobenzene-d5	(3)	18.228	117	1263060	10.000
72) Chlorobenzene	(3)	18.249	112	184390	1.058
73) Ethylbenzene	(3)	18.264	91	248456	1.000
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	106686	1.050
75) m/p-Xylene	(3)	18.486	91	162422	0.964
76) o-Xylene	(3)	19.180	91	150023	0.936

* = Compound is an internal standard.

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on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00324.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 11:38 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 12:13
Date, time and analyst ID of latest file update: 26-Nov-2018 12:13 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	312445	1.900
78) Styrene	(3)	19.266	104	106711	0.916
79) Bromoform	(3)	19.331	173	154622	1.078
80) Cumene	(3)	19.660	105	211552	0.948
81) n-Propylbenzene	(3)	20.312	120	65348	0.954
82) Bromobenzene	(3)	20.326	156	105586	1.009
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	202128	1.093
84) 4-Ethyltoluene	(3)	20.477	105	216560	0.939
85) 2-Chlorotoluene	(3)	20.599	126	61598	0.924
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	171704	0.856
87) 1,2,3-Trichloropropane	(3)	20.670	110	57070	1.067
88) Alpha Methyl Styrene	(3)	21.014	118	77936	0.962
89) tert-Butylbenzene	(3)	21.122	119	159080	0.885
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	168671	0.881
91) sec-Butylbenzene	(3)	21.379	105	246888	0.861
92) p-Isopropyltoluene	(3)	21.559	119	193365	0.879
93) 1,3-Dichlorobenzene	(3)	21.716	146	167918	0.995
94) 1,4-Dichlorobenzene	(3)	21.831	146	168673	1.019
95) n-Butylbenzene	(3)	22.139	92	111894	0.835
96) Benzyl Chloride	(3)	22.160	126	34039	0.895
97) Hexachloroethane	(3)	22.382	117	95112	1.037
98) 1,2-Dichlorobenzene	(3)	22.418	146	154194	0.994
99) 1,2-Dibromo-3-chloropropane	(3)	23.578	157	77602	0.987
100) Hexachlorobutadiene	(3)	24.546	225	114352	1.048
101) 1,2,4-Trichlorobenzene	(3)	24.646	180	100812	0.992
102) Naphthalene	(3)	25.233	128	138567	0.830

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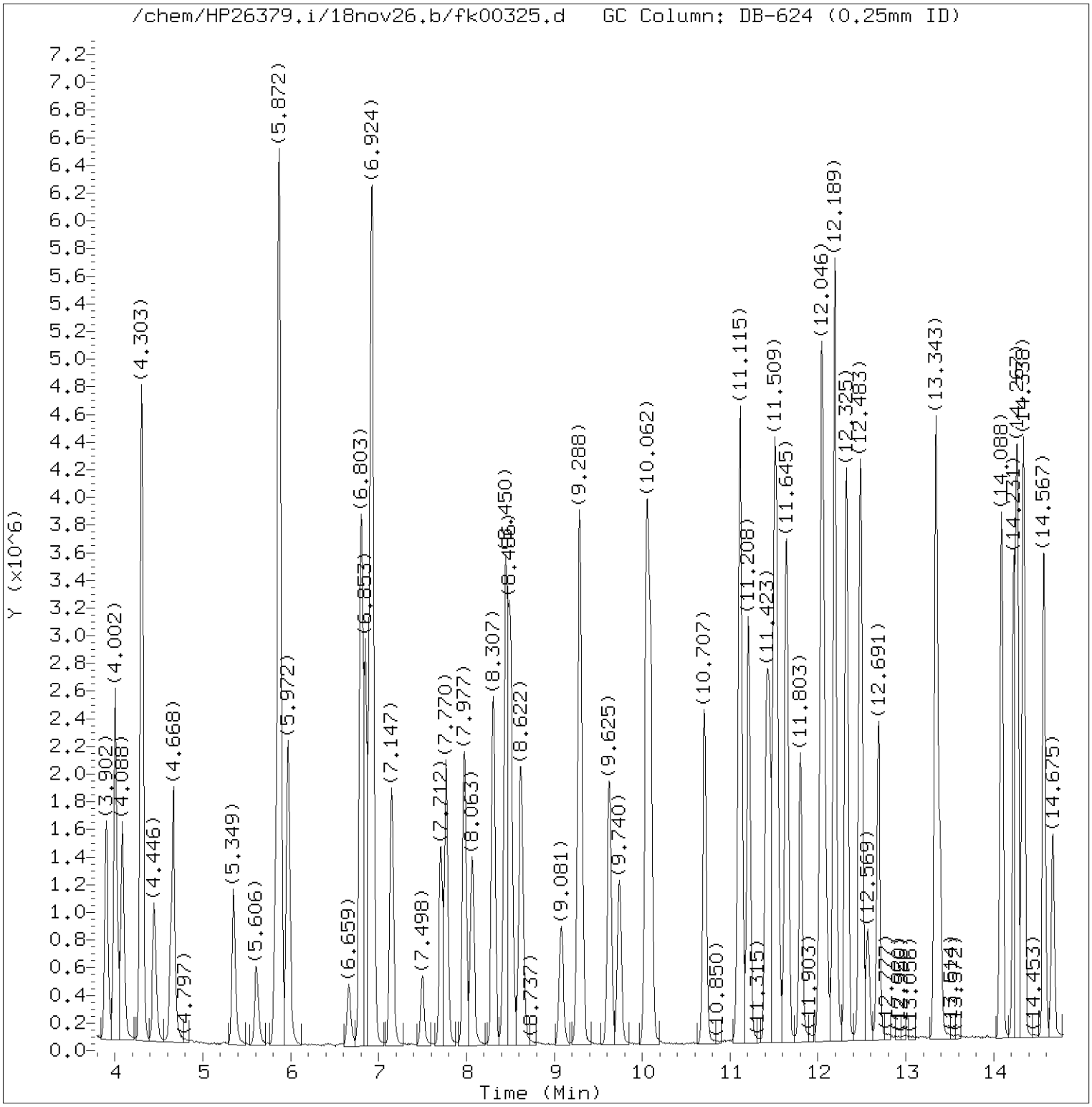
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

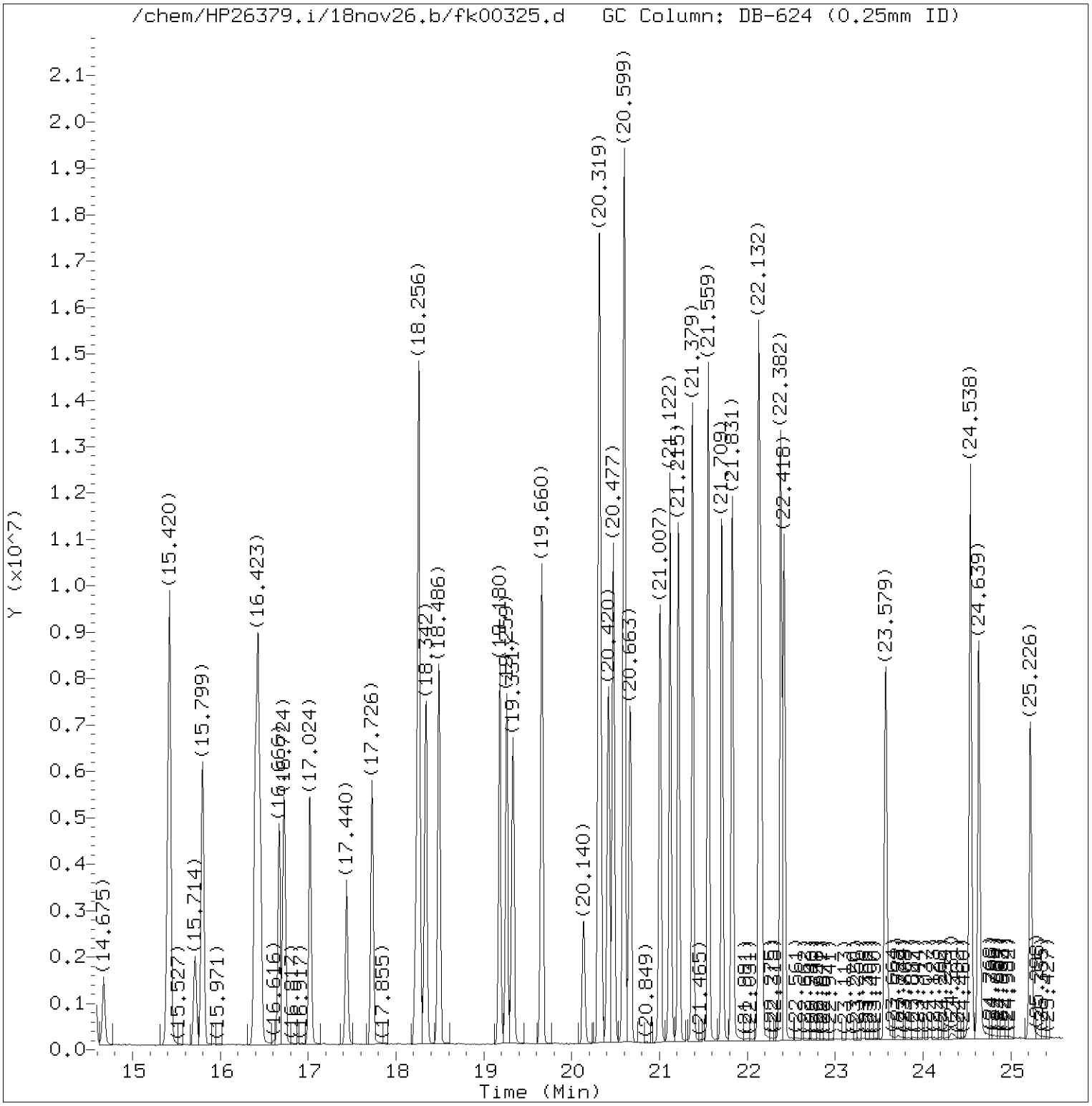
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	1464558	24.569
2) Dichlorodifluoromethane	(1)	4.002	85	3929831	24.000
3) Chlorodifluoromethane	(1)	4.088	51	3172032	23.052
4) Freon 114	(1)	4.303	85	3783438	22.121
5) Chloromethane	(1)	4.446	50	1707332	22.829
6) Vinyl Chloride	(1)	4.639	62	1079251	23.654
7) 1,3-Butadiene	(1)	4.668	54	919708	22.516
8) Bromomethane	(1)	5.349	94	1208373	24.209
9) Chloroethane	(1)	5.606	64	882614	24.403
10) Bromoethene	(1)	5.829	106	1176807	24.489
11) Pentane	(1)	5.864	43	3139496	24.631
12) Trichlorofluoromethane	(1)	5.872	101	3869131	21.982
13) Dichlorofluoromethane	(1)	5.972	67	3369896	23.831
14) Ethanol	(1)	6.659	45	602411	25.040
15) Freon123a	(1)	6.803	67	3274395	24.220
16) 1,1-Dichloroethene	(1)	6.853	61	2641781	24.417
17) Freon 113	(1)	6.910	103	2091965	21.663
18) Carbon Disulfide	(1)	6.932	76	4025615	24.304
19) Methyl Iodide	(1)	7.147	142	3230154	25.670
20) Acrolein	(1)	7.498	56	659465	25.466
21) Isopropanol	(1)	7.705	45	2599841	25.040
22) 3-Chloropropene	(1)	7.770	41	2476930	28.573
23) Methylene Chloride	(1)	7.977	84	1345556	27.773
24) Acetone	(1)	8.063	43	2641193	23.953
25) trans-1,2-Dichloroethene	(1)	8.307	61	2534563	24.596
26) Hexane	(1)	8.450	56	1907288	24.339
27) Methyl t-Butyl Ether	(1)	8.500	73	3917371	25.881
28) tert-Butyl Alcohol	(1)	8.622	59	3664042	26.956
29) Acetonitrile	(1)	9.081	41	1618918	25.401
30) Di-Isopropyl Ether	(1)	9.288	45	5897404	25.882
31) 1,1-Dichloroethane	(1)	9.625	63	3210415	23.288
32) Acrylonitrile	(1)	9.740	53	1523262	25.500
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	5448633	26.910
34) Vinyl Acetate	(1)	10.098	43	5549105M	30.383
35) cis-1,2-Dichloroethene	(1)	10.707	61	2345685	24.844
36) 1,2-Dichloroethene (total)	(1)		61	4880248	49.440
37)*Bromochloromethane	(1)	11.101	130	457504	10.000
38) Cyclohexane	(1)	11.115	56	3019175	26.076

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	3242201	23.524
40) Ethyl Acetate	(1)	11.416	43	4081351	24.679
41) Methyl Acrylate	(1)	11.451	55	3314499	26.378
42) Carbon Tetrachloride	(1)	11.509	117	3432628	23.089
43) Tetrahydrofuran	(1)	11.537	42	2035918	26.169
44) 1,1,1-Trichloroethane	(1)	11.645	97	3418093	23.013
45) 2-Butanone	(1)	11.803	43	3670687M	24.817
46) Isooctane	(2)	12.046	57	9052178	26.450
47) Heptane	(2)	12.196	71	1587752	26.912
48) Benzene	(2)	12.325	78	4567199	22.622
49) Tert-Amyl Methyl Ether	(2)	12.483	73	3818306M	25.623
50) 1,2-Dichloroethane	(2)	12.691	62	2586598	22.918
51) Trichloroethene	(2)	13.343	130	1862155	22.822
52)*1,4-Difluorobenzene	(2)	13.393	114	1462372	10.000
53) Dibromomethane	(2)	14.095	174	2006615	22.736
54) Ethyl Acrylate	(2)	14.224	55	4007756	25.649
55) 1,2-Dichloropropane	(2)	14.267	63	2160207	22.409
56) Bromodichloromethane	(2)	14.338	83	3463482	22.391
57) Methyl Methacrylate	(2)	14.567	69	1440154	25.876
58) 1,4-Dioxane	(2)	14.675	88	1044535	25.852
59) cis-1,3-Dichloropropene	(2)	15.398	75	2692747	24.997
60) Octane	(3)	15.427	43	4929825	27.422
61) Toluene	(3)	15.799	91	5204269	23.765
62) 4-Methyl-2-Pentanone	(2)	16.394	43	4755300	25.176
63) Tetrachloroethene	(3)	16.430	166	3055699	22.725
64) trans-1,3-Dichloropropene	(3)	16.458	75	2434982	24.735
66) Ethyl Methacrylate	(3)	16.666	69	2590746	26.868
65) 1,3-Dichloropropene (total)	(3)		75	5127729	49.894
67) 1,1,2-Trichloroethane	(3)	16.724	97	2055649	22.479
68) Dibromochloromethane	(3)	17.024	127	2697743	22.730
69) 1,2-Dibromoethane	(3)	17.440	107	2979777	23.044
70) 2-Hexanone	(3)	17.726	43	4464928	26.297
71)*Chlorobenzene-d5	(3)	18.228	117	1466993	10.000
72) Chlorobenzene	(3)	18.256	112	4534306	23.368
73) Ethylbenzene	(3)	18.264	91	7226848	25.500
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	2536416	22.758
75) m/p-Xylene	(3)	18.486	91	5379543	26.620
76) o-Xylene	(3)	19.180	91	5246340	26.835

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	10625883	53.451
78) Styrene	(3)	19.259	104	4050780	28.126
79) Bromoform	(3)	19.331	173	3835338	23.801
80) Cumene	(3)	19.660	105	7618331	28.384
81) n-Propylbenzene	(3)	20.312	120	2302042	27.709
82) Bromobenzene	(3)	20.327	156	2907650	24.636
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	4637978	22.194
84) 4-Ethyltoluene	(3)	20.477	105	7880859M	28.425
85) 2-Chlorotoluene	(3)	20.592	126	2058867	26.507
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	6865090	28.621
87) 1,2,3-Trichloropropane	(3)	20.670	110	1405364	23.729
88) Alpha Methyl Styrene	(3)	21.007	118	3267336	32.207
89) tert-Butylbenzene	(3)	21.122	119	6348768	29.149
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	6767861	29.172
91) sec-Butylbenzene	(3)	21.379	105	10032874	28.929
92) p-Isopropyltoluene	(3)	21.559	119	8264767	30.561
93) 1,3-Dichlorobenzene	(3)	21.716	146	4989662	25.373
94) 1,4-Dichlorobenzene	(3)	21.831	146	5054501	26.018
95) n-Butylbenzene	(3)	22.132	92	5201156	31.320
96) Benzyl Chloride	(3)	22.160	126	1387729	29.873
97) Hexachloroethane	(3)	22.382	117	2884361	26.840
98) 1,2-Dichlorobenzene	(3)	22.418	146	4736503	26.305
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	2662940	27.785
100) Hexachlorobutadiene	(3)	24.538	225	3325830	25.871
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	3590081	28.274
102) Naphthalene	(3)	25.226	128	6950109	32.985

M = Compound was manually integrated.

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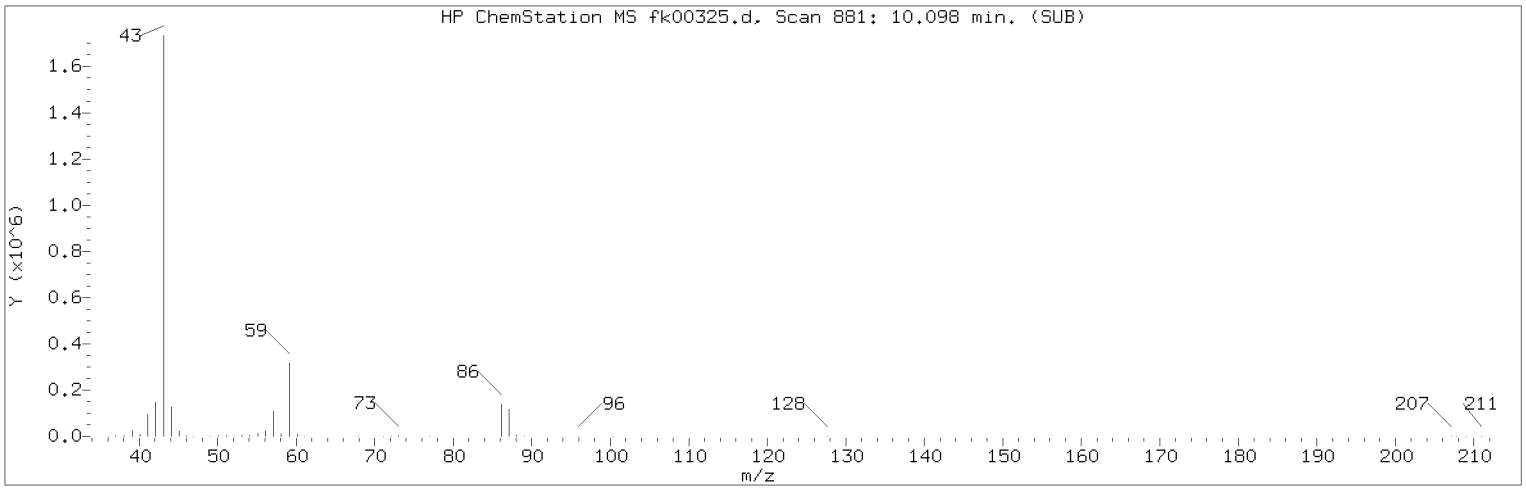
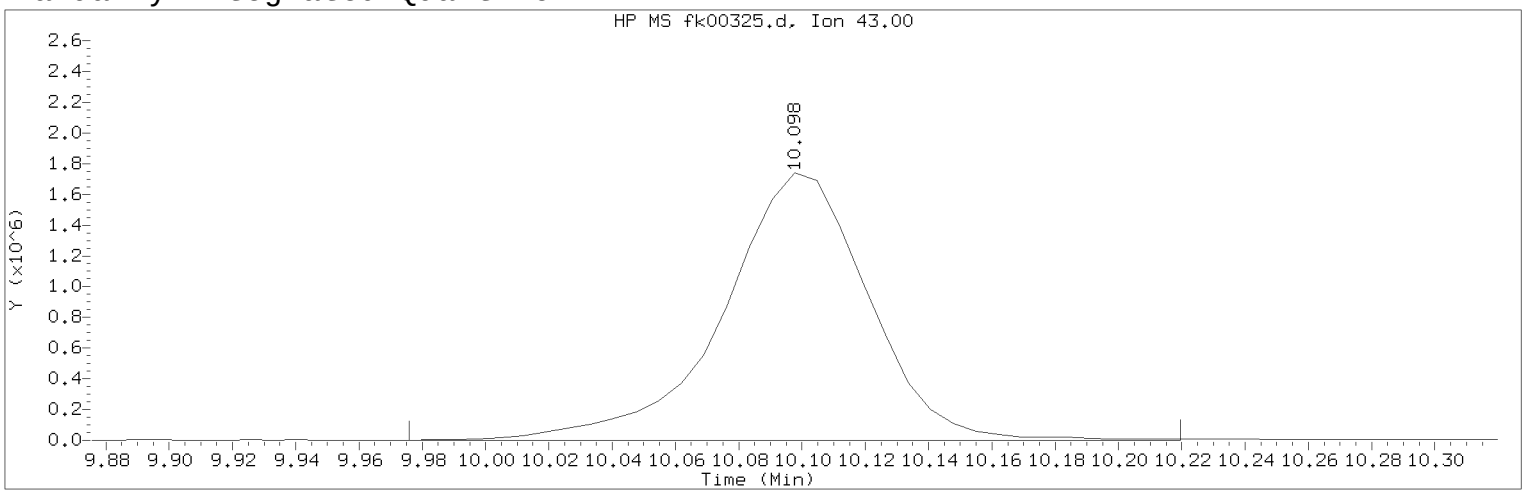
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

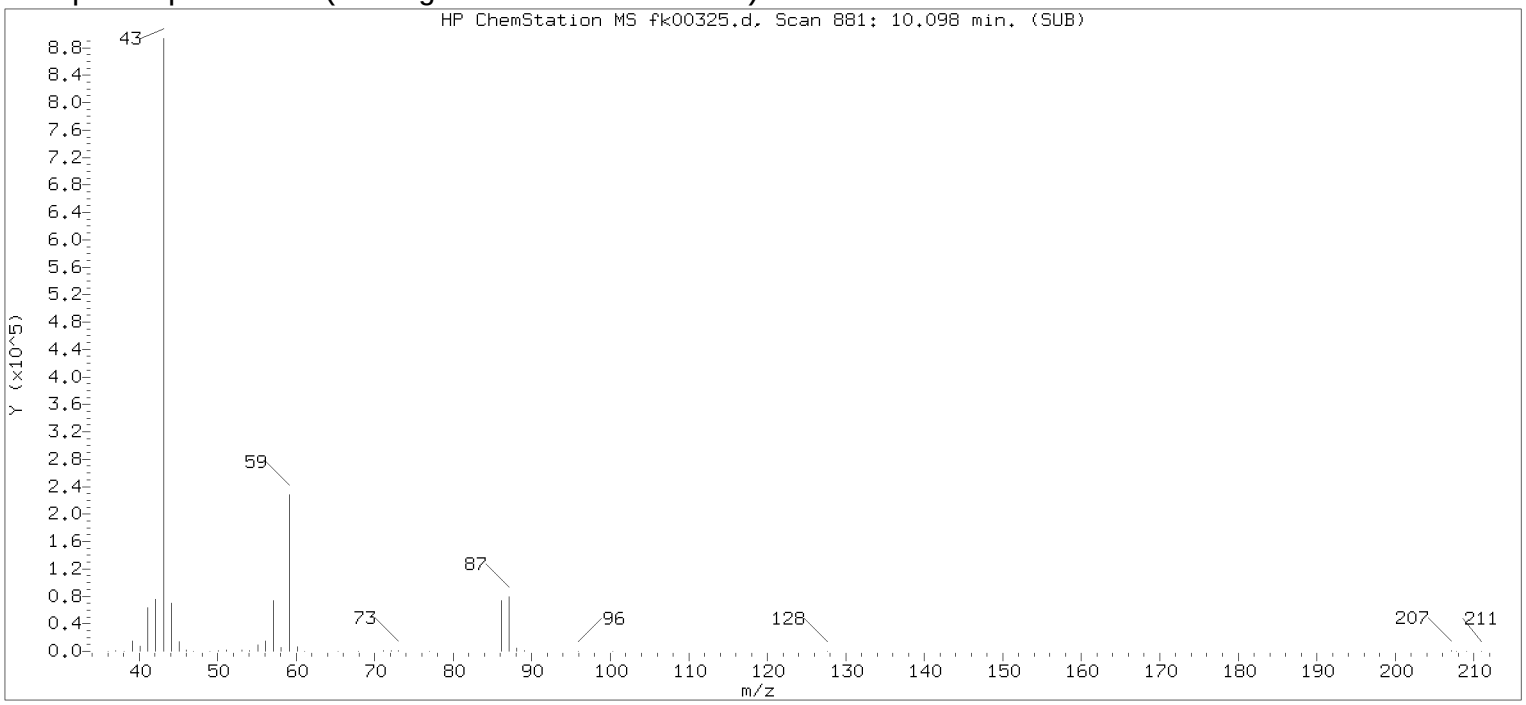
Compound Number : 34
Compound Name : Vinyl Acetate
Scan Number : 881
Retention Time (minutes): 10.098
Quant Ion : 43.00
Area (flag) : 5549105M
Concentration (ppb(v)) : 30.3832
Integration start scan : 863 Integration stop scan: 897
Y at integration start : 325 Y at integration end: 325

Reason for manual integration: improper integration

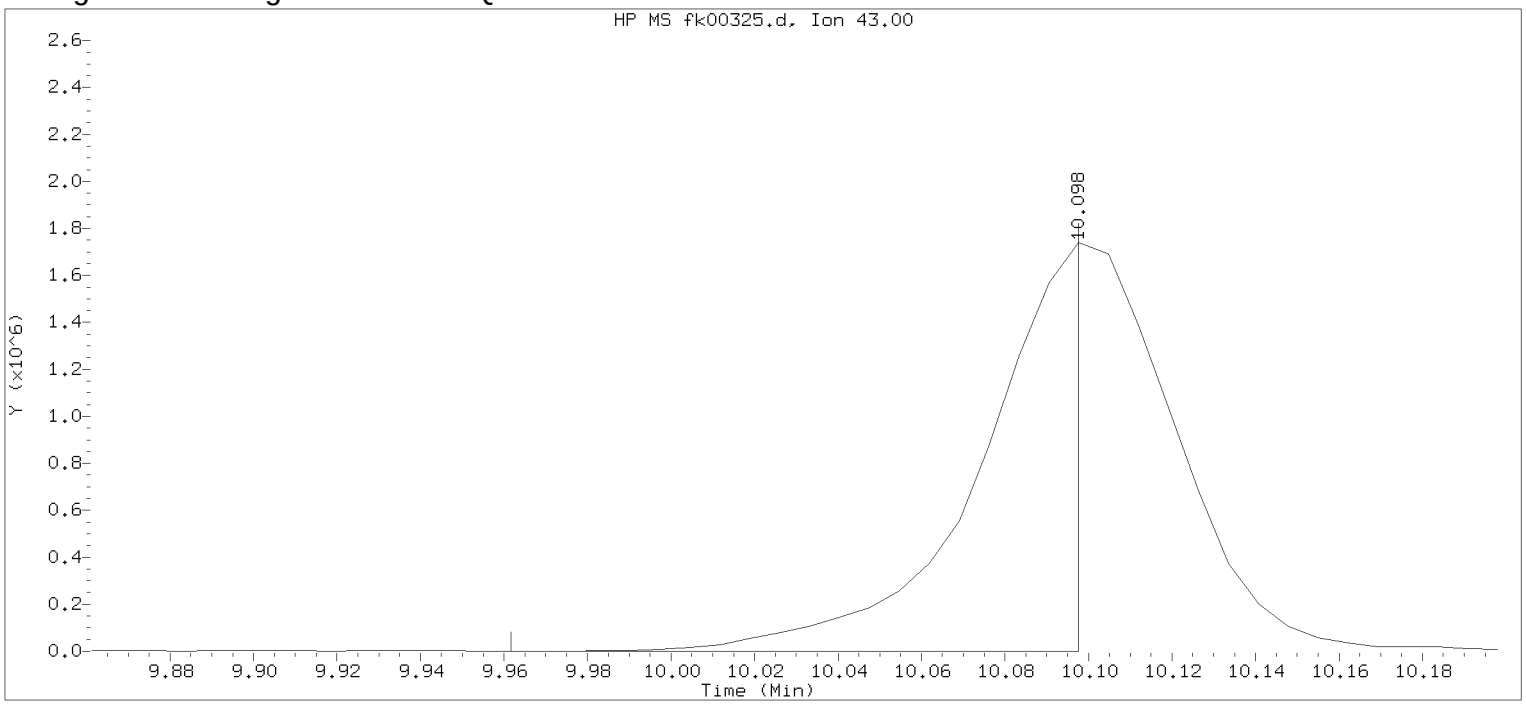
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

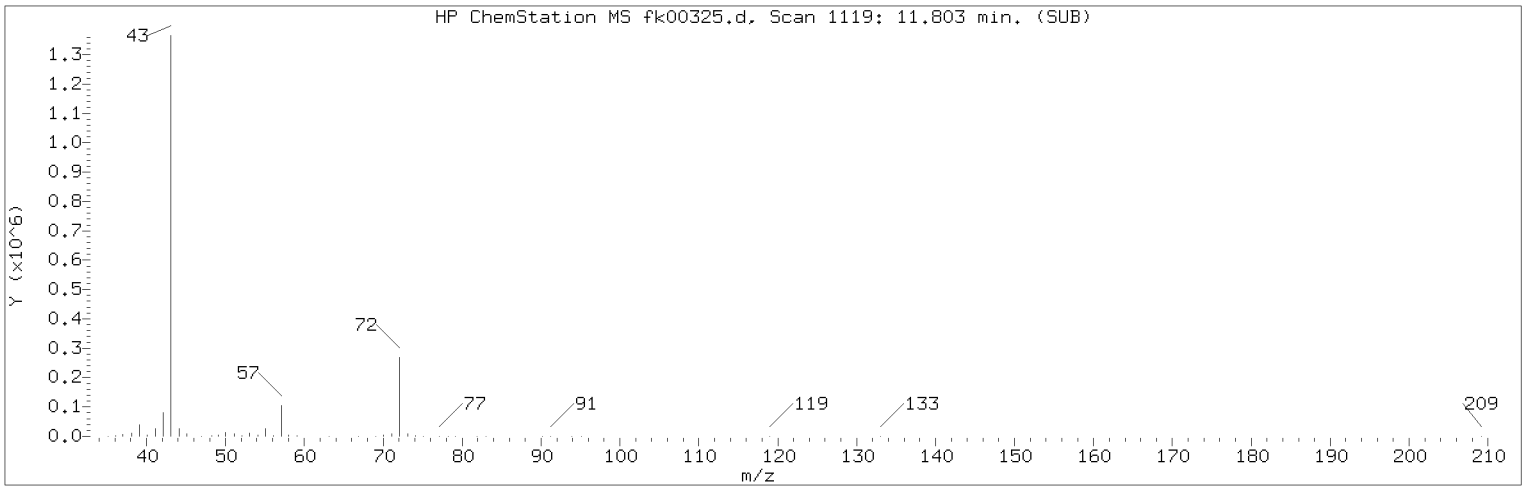
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:15
Date, time and analyst ID of latest file update: 26-Nov-2018 13:20 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

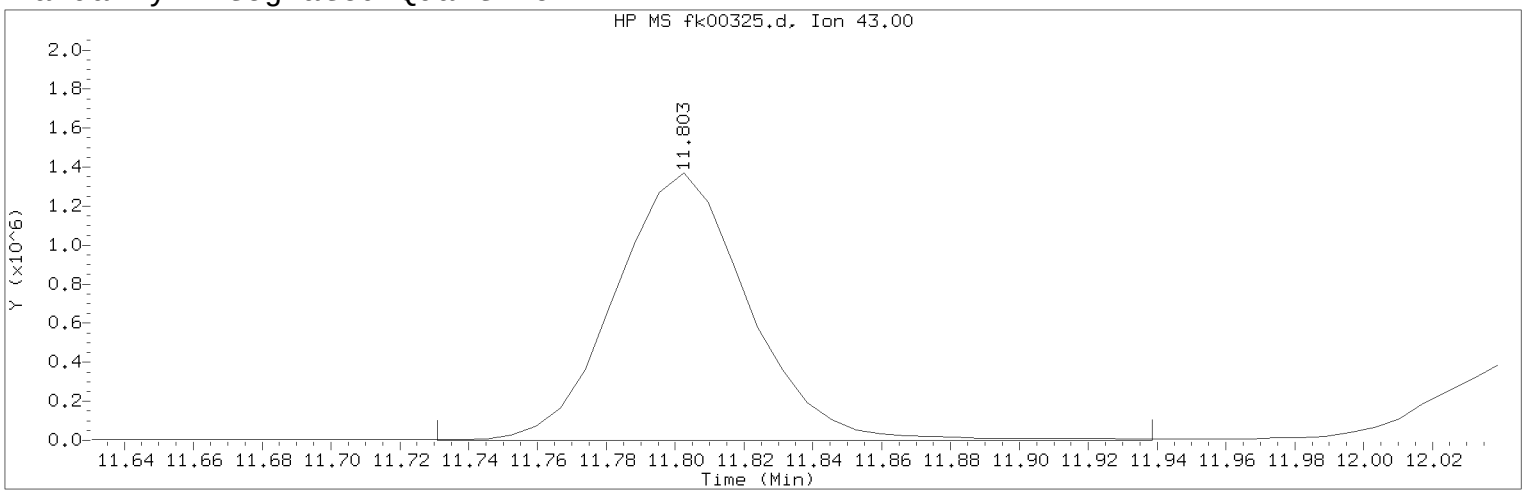
Compound Number : 34
Compound Name : Vinyl Acetate
Scan Number : 881
Retention Time (minutes): 10.098
Quant Ion : 43.00
Area : 2736112
Concentration (ppb(v)) : 15.2406
Integration start scan : 861 Integration stop scan: 880
Y at integration start : 760 Y at integration end: 760

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userBIR29jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

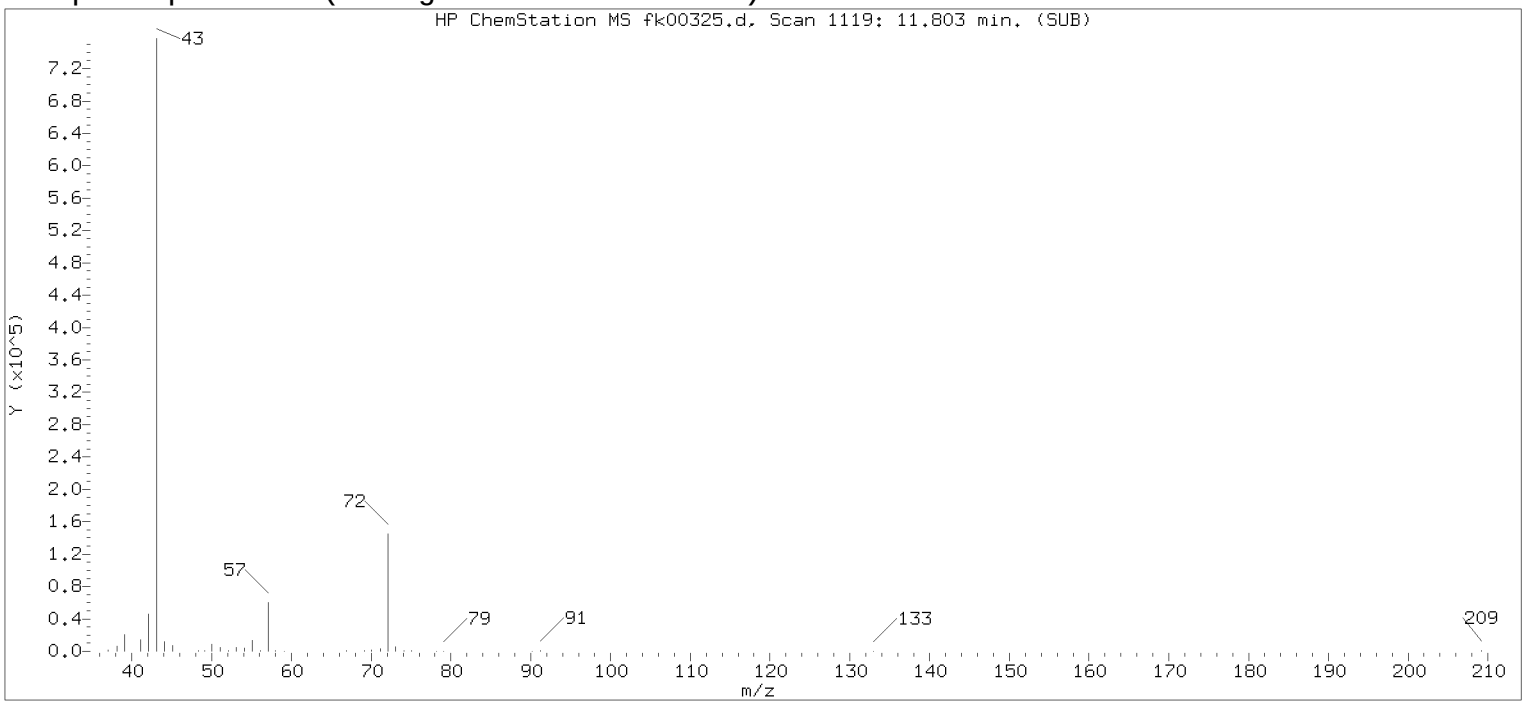
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area (flag) : 3670687M
Concentration (ppb(v)) : 24.8175
Integration start scan : 1108 Integration stop scan: 1137
Y at integration start : 320 Y at integration end: 320

Reason for manual integration: improper integration

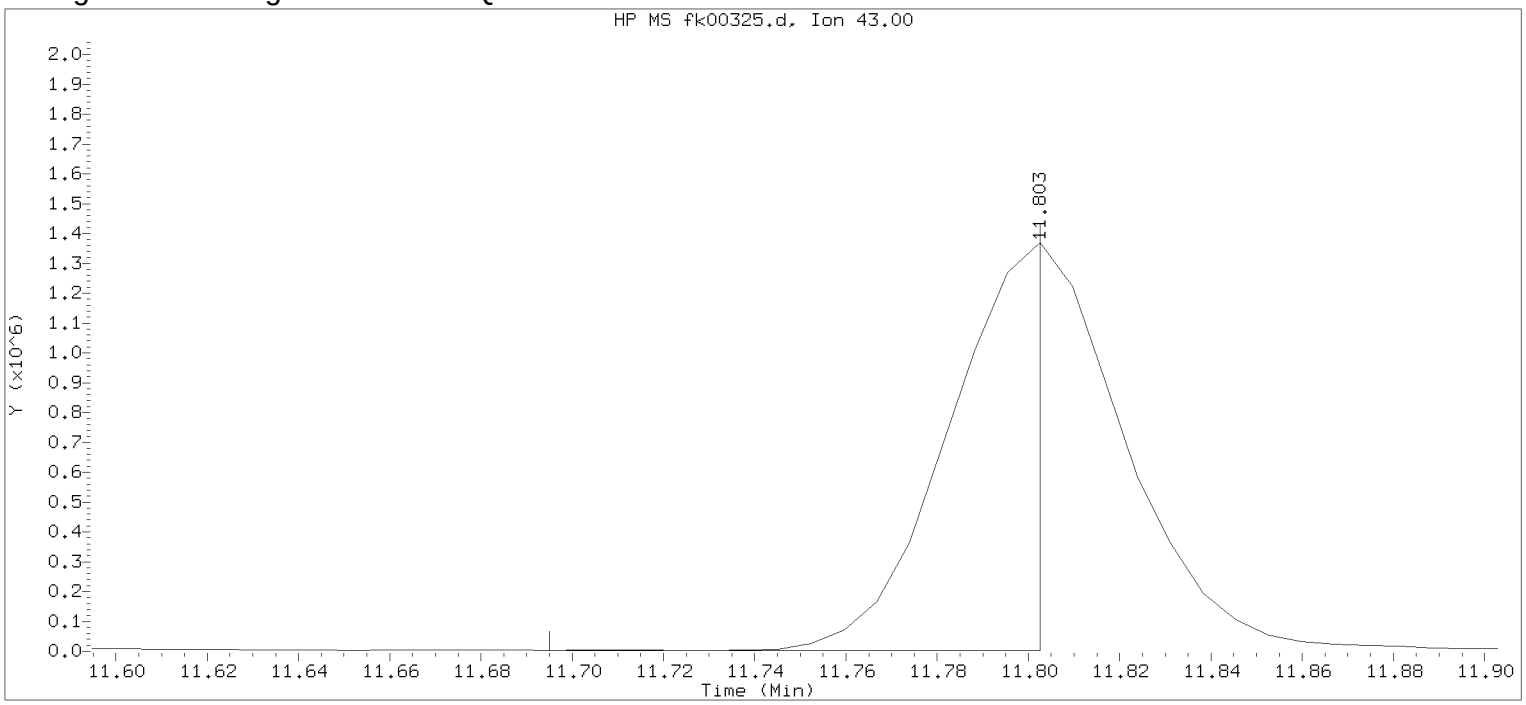
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

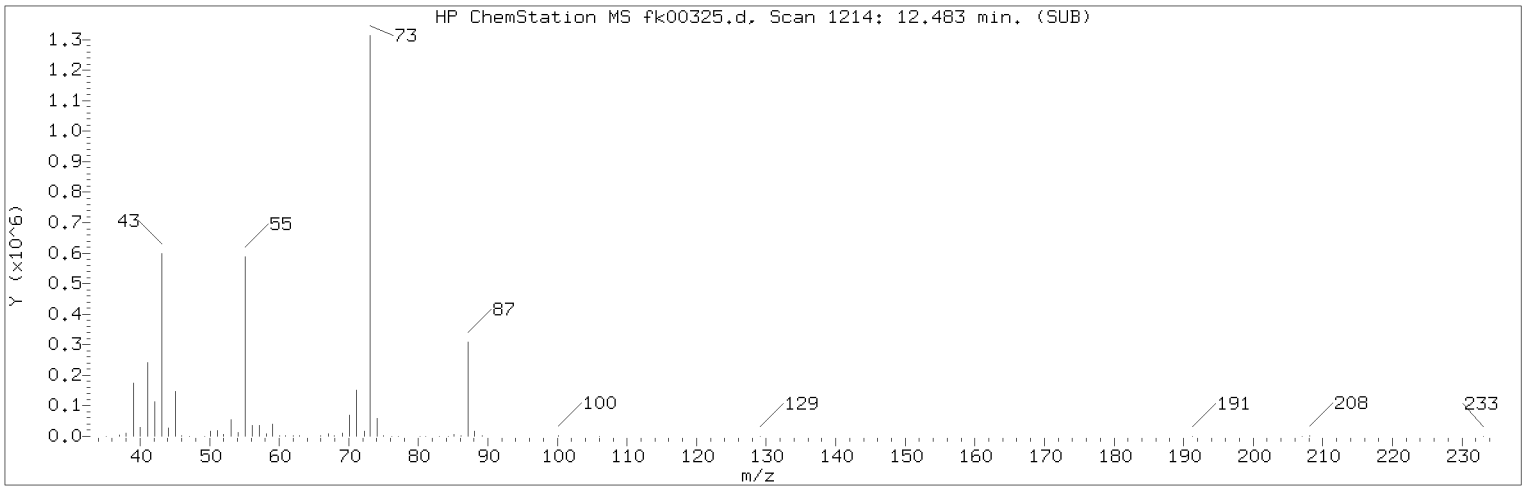
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:15
Date, time and analyst ID of latest file update: 26-Nov-2018 13:20 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

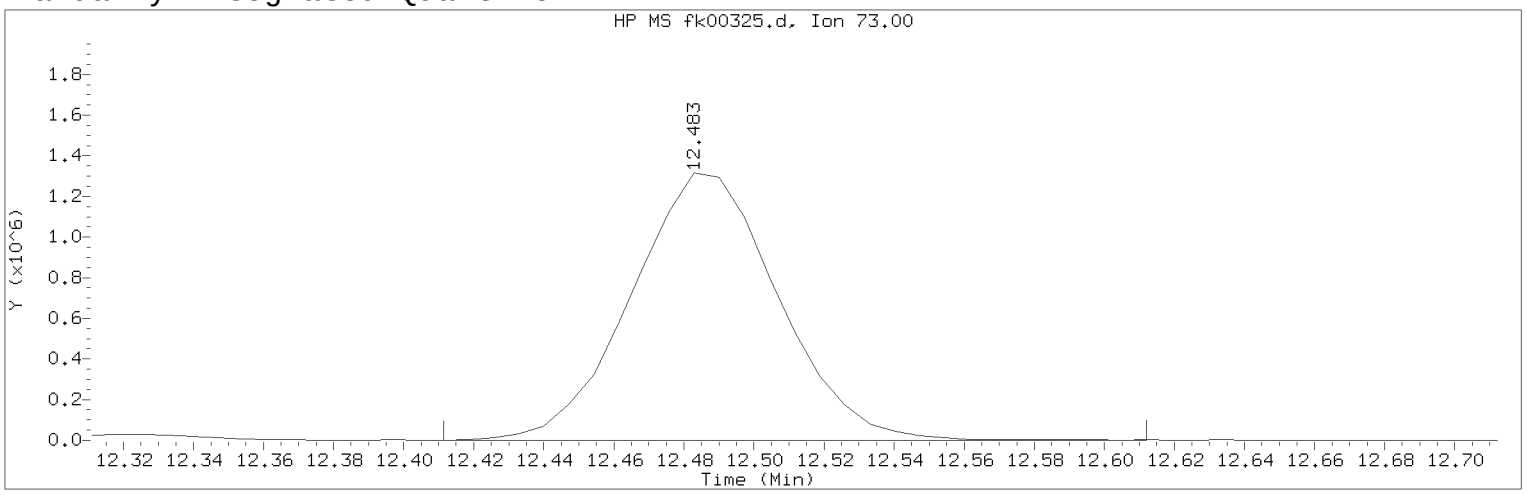
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area : 1833895
Concentration (ppb(v)) : 12.3809
Integration start scan : 1103 Integration stop scan: 1118
Y at integration start : 2254 Y at integration end: 2254

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

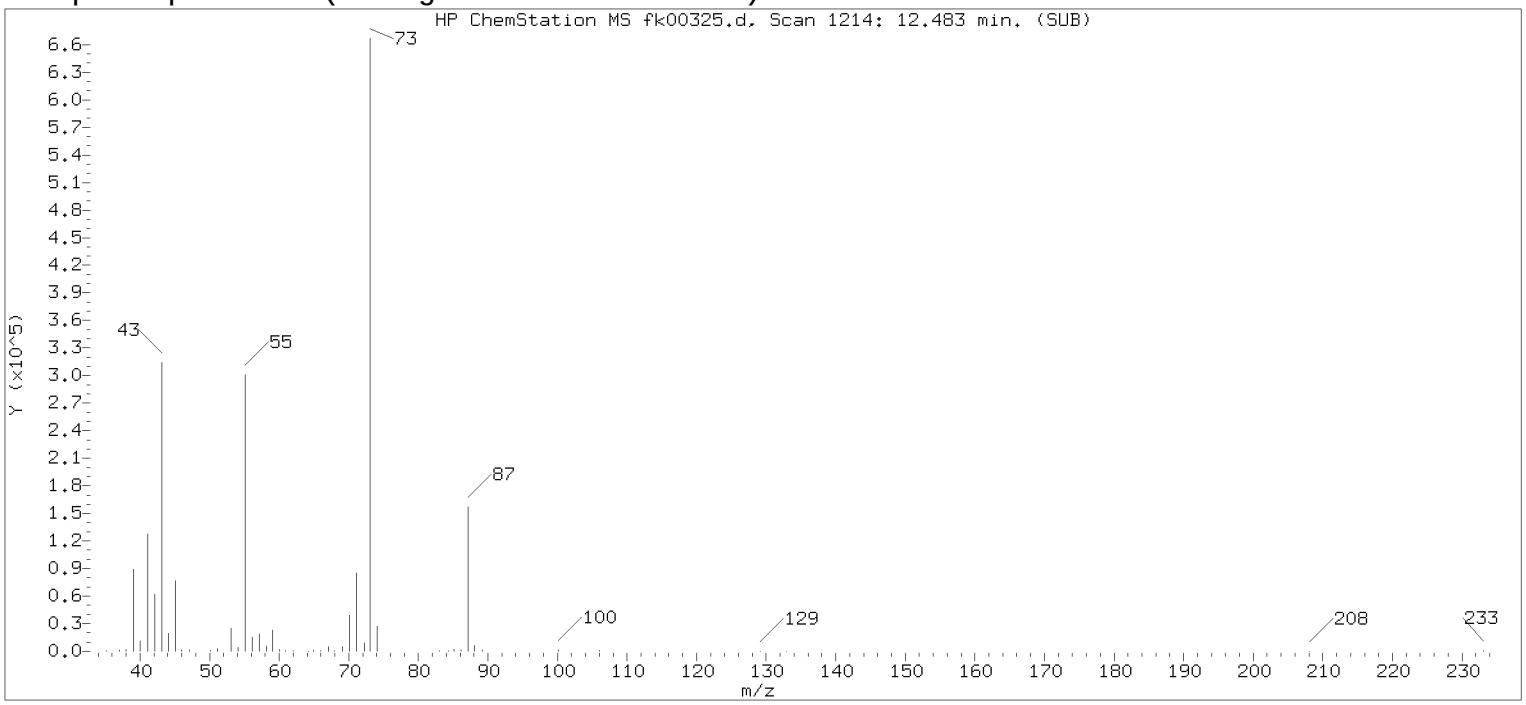
Compound Number : 49
Compound Name : Tert-Amyl Methyl Ether
Scan Number : 1214
Retention Time (minutes): 12.483
Quant Ion : 73.00
Area (flag) : 3818306M
Concentration (ppb(v)) : 25.6229
Integration start scan : 1203 Integration stop scan: 1231
Y at integration start : 650 Y at integration end: 650

Reason for manual integration: improper integration

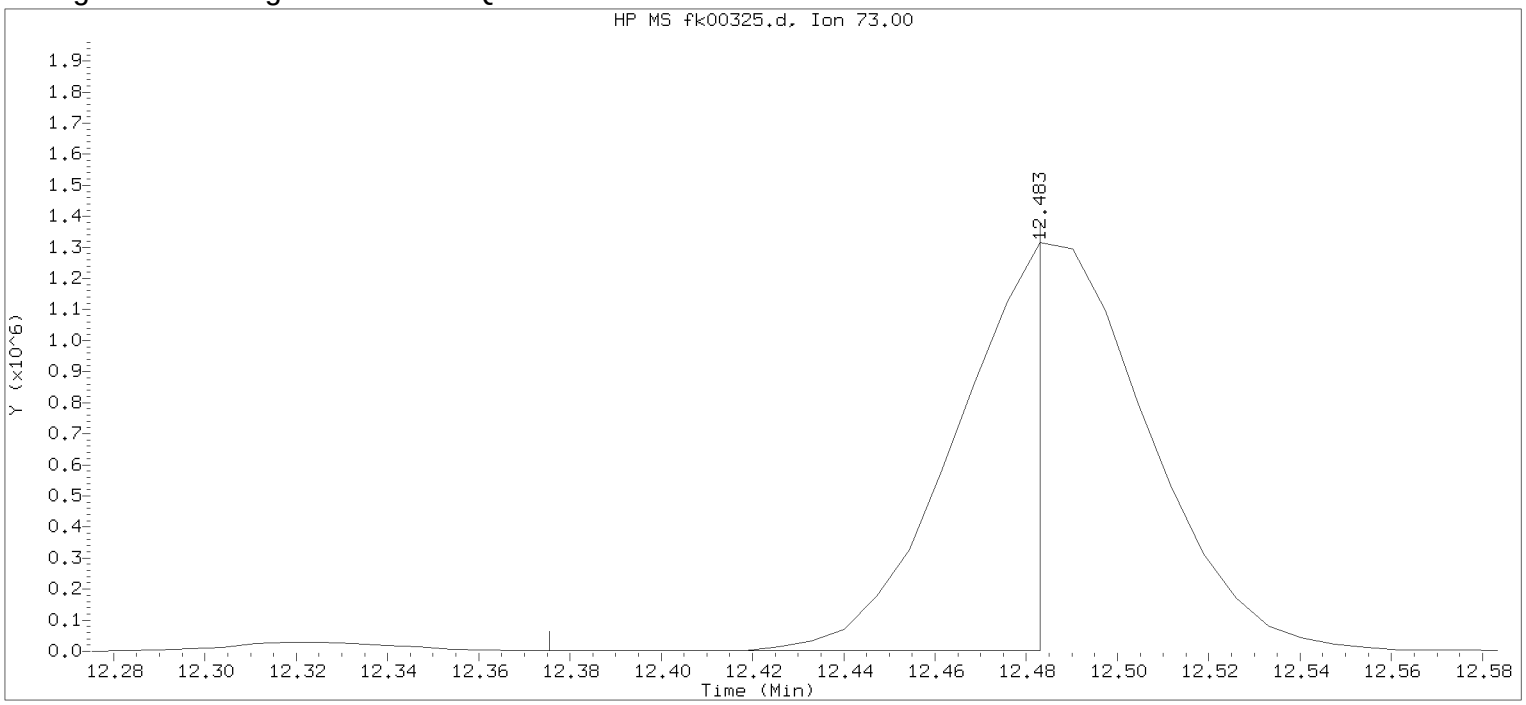
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

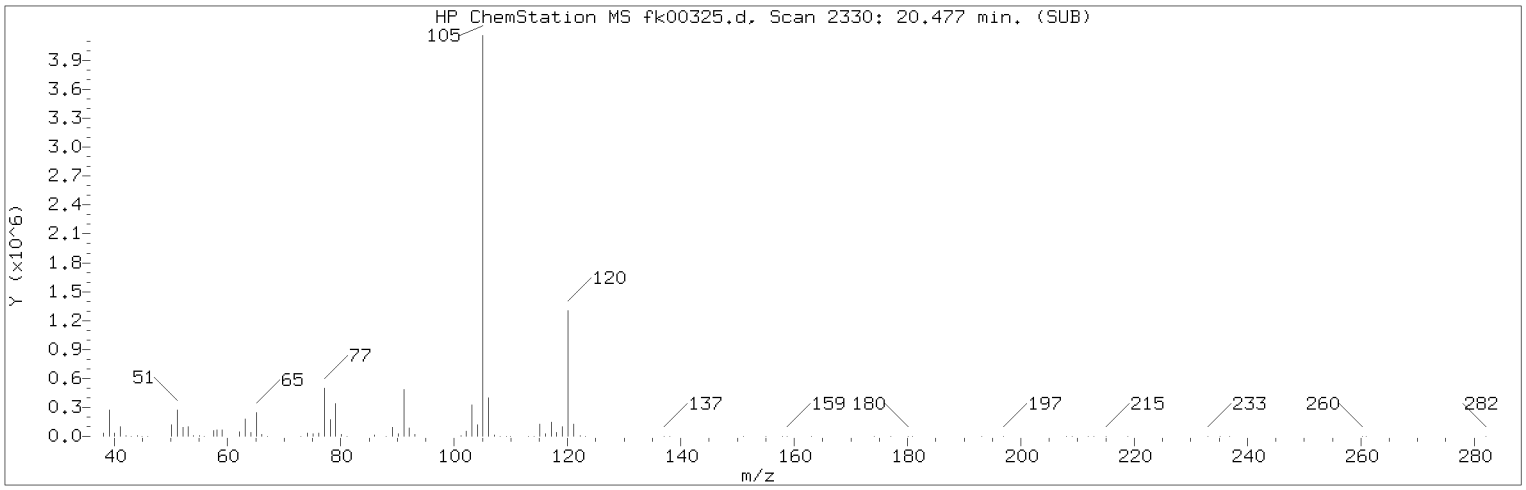
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:15
Date, time and analyst ID of latest file update: 26-Nov-2018 13:20 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

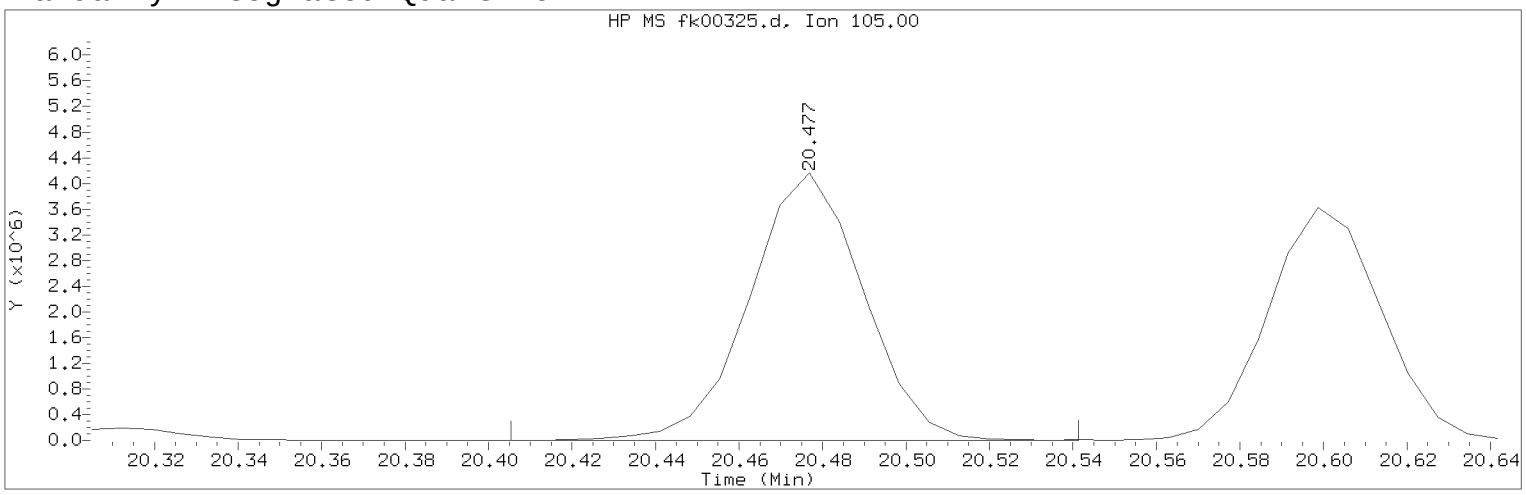
Compound Number : 49
Compound Name : Tert-Amyl Methyl Ether
Scan Number : 1214
Retention Time (minutes): 12.483
Quant Ion : 73.00
Area : 1653586
Concentration (ppb(v)) : 11.1520
Integration start scan : 1198 Integration stop scan: 1213
Y at integration start : 1143 Y at integration end: 1143

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature userID=jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:23
Date, time and analyst ID of latest file update: 26-Nov-2018 13:23 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

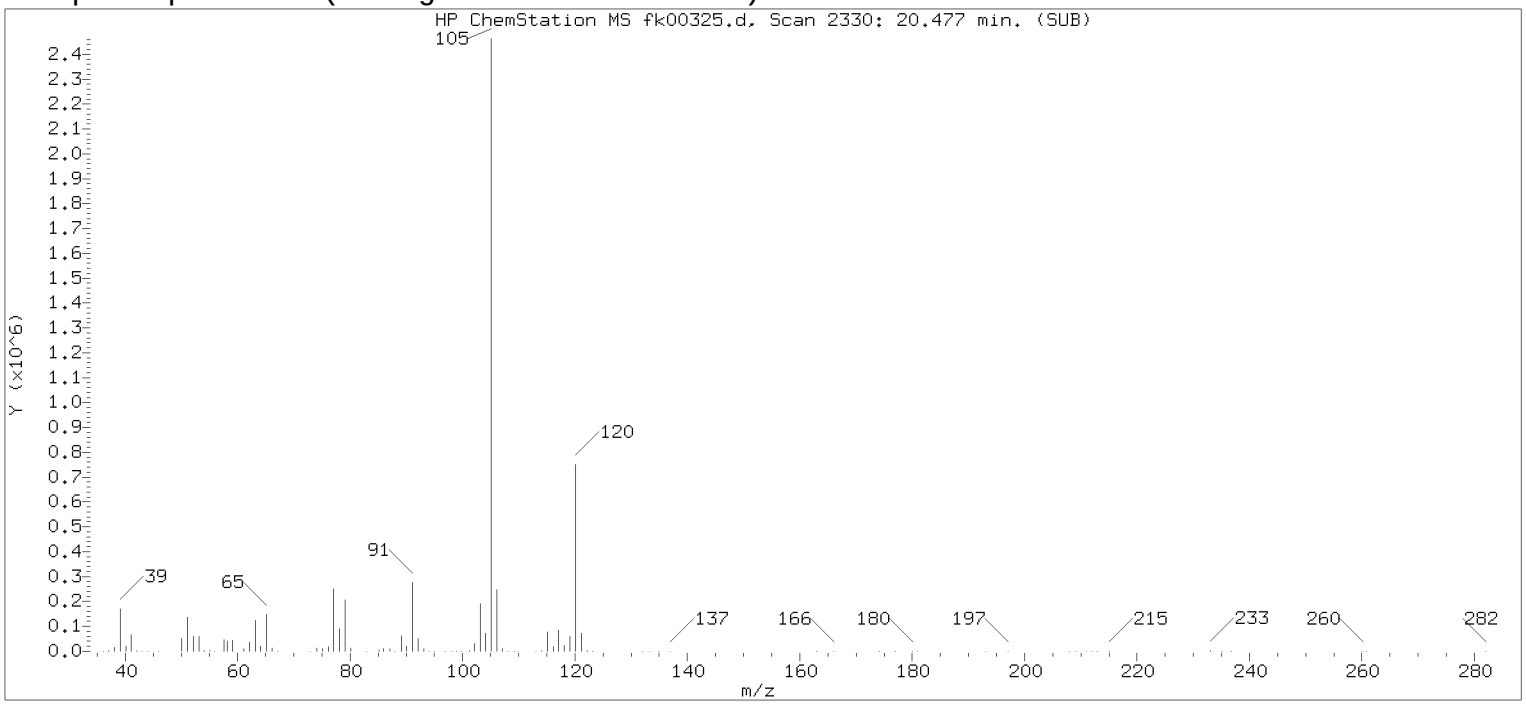
Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2330
Retention Time (minutes): 20.477
Quant Ion : 105.00
Area (flag) : 7880859M
Concentration (ppb(v)) : 28.4253
Integration start scan : 2319 Integration stop scan: 2338
Y at integration start : 666 Y at integration end: 666

Reason for manual integration: improper integration

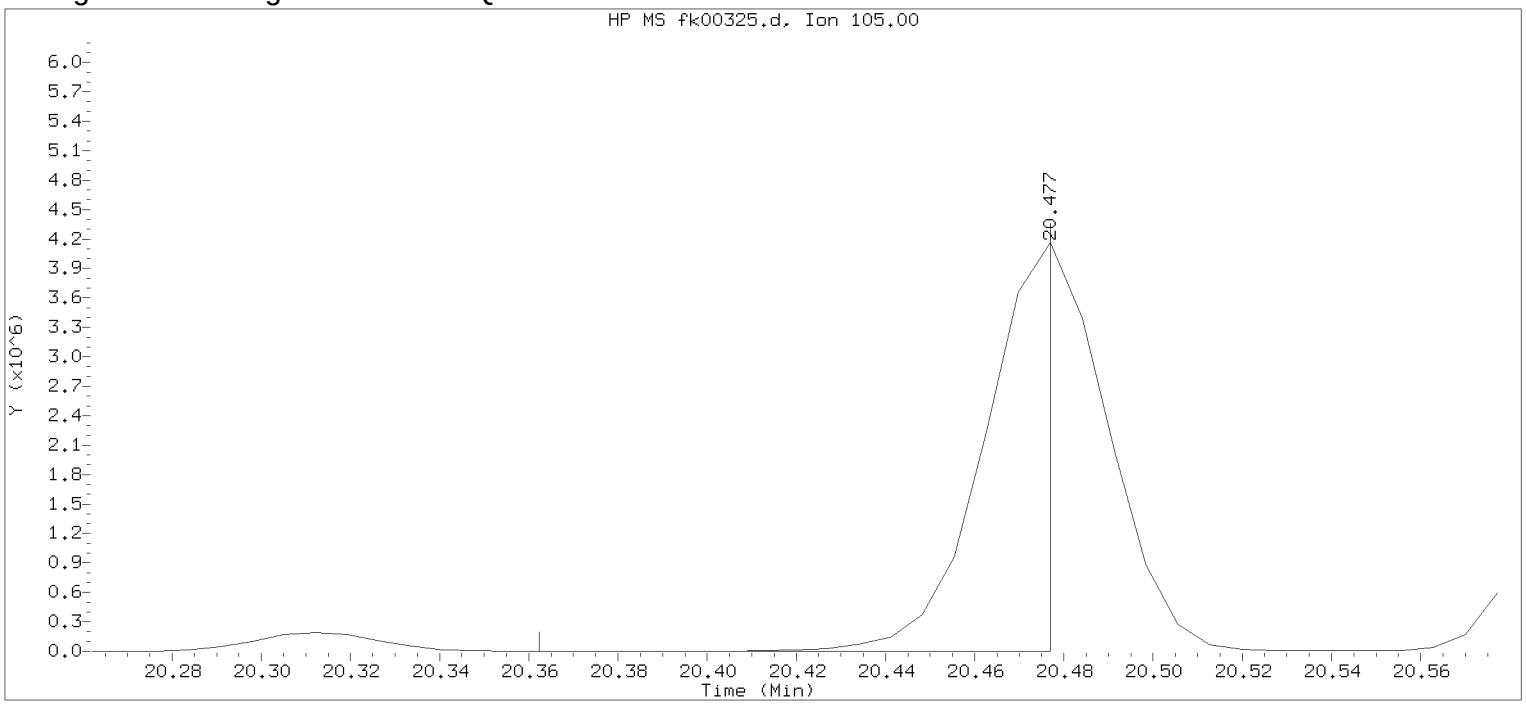
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:55.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



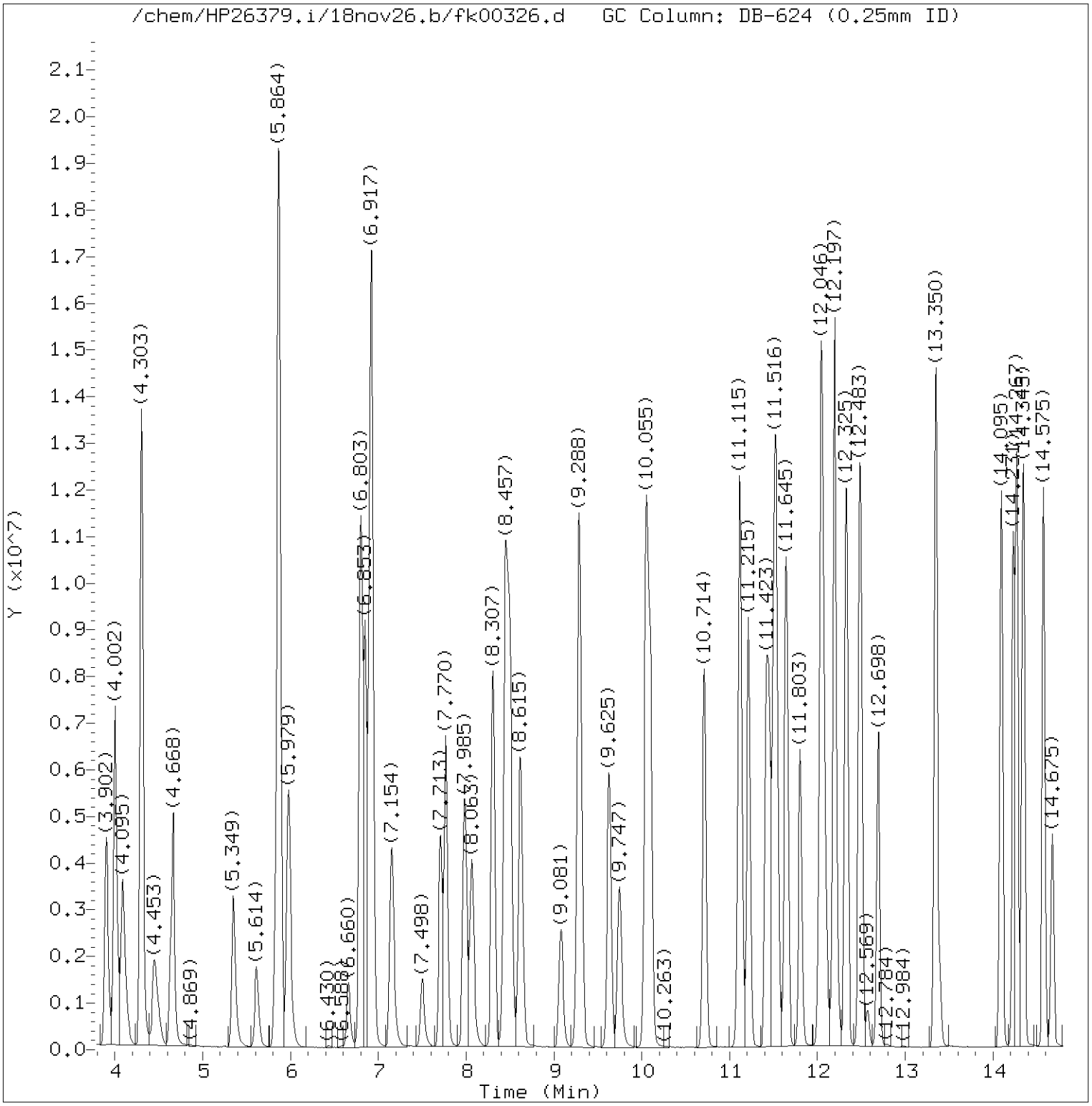
Data File: /chem/HP26379.i/18nov26.b/fk00325.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:09 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 13:15
Date, time and analyst ID of latest file update: 26-Nov-2018 13:20 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 84
Compound Name : 4-Ethyltoluene
Scan Number : 2330
Retention Time (minutes): 20.477
Quant Ion : 105.00
Area : 4108932
Concentration (ppb(v)) : 15.3460
Integration start scan : 2313 Integration stop scan: 2329
Y at integration start : 824 Y at integration end: 824

Digitally signed by Jacob E. Bailey on 11/26/2018 at 14:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

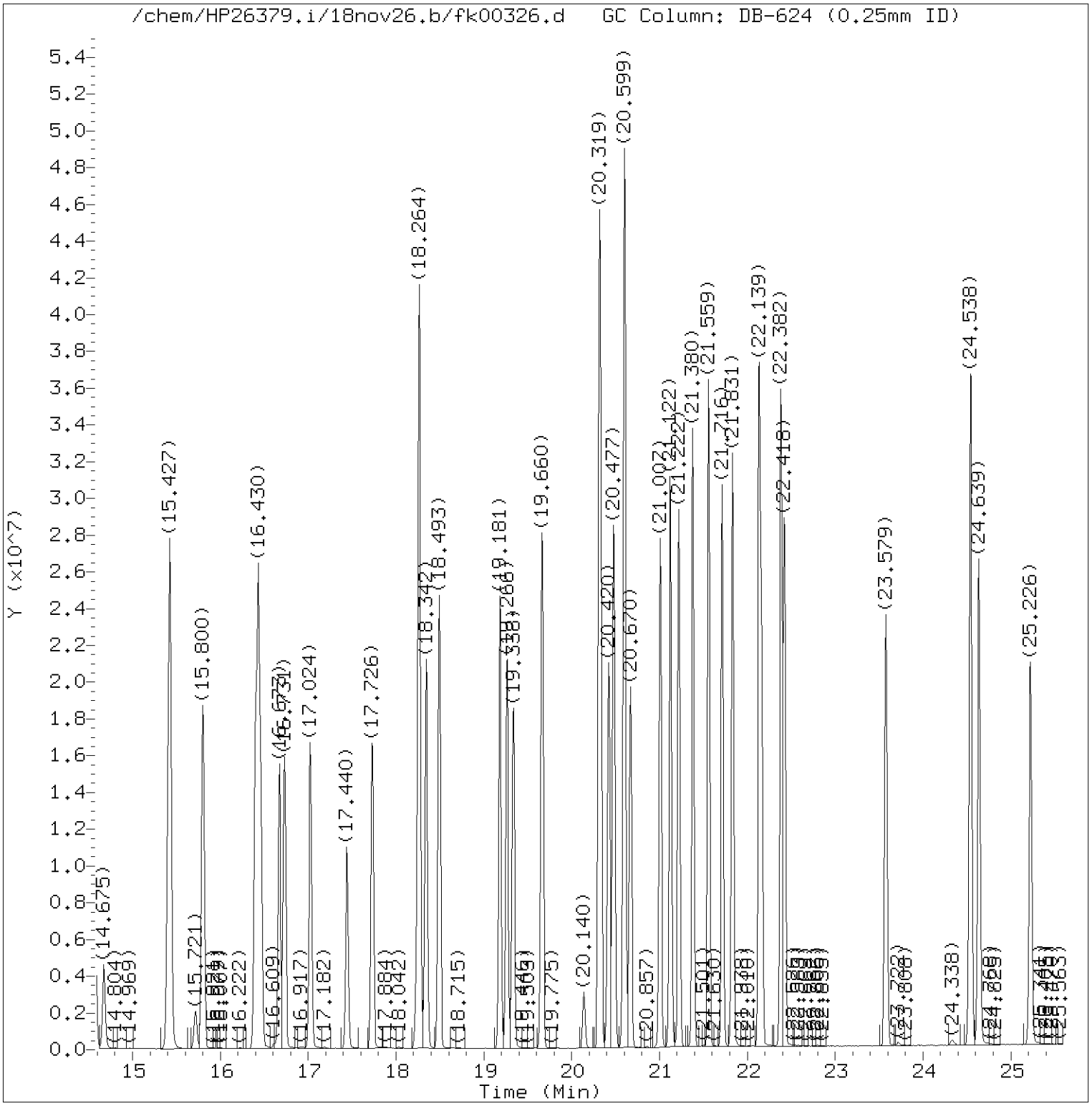
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00326.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:40 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 14:45 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:45.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00326.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:40 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 14:45 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:45.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00326.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:40 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 14:45 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	4563298	76.822
2) Dichlorodifluoromethane	(1)	4.002	85	11965737	73.336
3) Chlorodifluoromethane	(1)	4.095	51	9231932	67.328
4) Freon 114	(1)	4.303	85	11385688	66.806
5) Chloromethane	(1)	4.453	50	4804320	64.465
6) Vinyl Chloride	(1)	4.632	62	3120647	68.638
7) 1,3-Butadiene	(1)	4.668	54	2572708	63.206
8) Bromomethane	(1)	5.349	94	3906820	78.547
9) Chloroethane	(1)	5.614	64	2702733	74.991
10) Bromoethene	(1)	5.836	106	3942137	82.325
11) Pentane	(1)	5.864	43	9686594	76.266
12) Trichlorofluoromethane	(1)	5.872	101	11154010	63.594
13) Dichlorofluoromethane	(1)	5.979	67	10029331	71.176
14) Ethanol	(1)	6.660	45	2033959	84.843
15) Freon123a	(1)	6.803	67	9672125	71.797
16) 1,1-Dichloroethene	(1)	6.853	61	8641081	80.150
17) Freon 113	(1)	6.910	103	5834613	60.632
18) Carbon Disulfide	(1)	6.932	76	12071762	73.139
19) Methyl Iodide	(1)	7.154	142	8968177	71.522
20) Acrolein	(1)	7.505	56	2235327	86.627
21) Isopropanol	(1)	7.713	45	9134997	88.294
22) 3-Chloropropene	(1)	7.770	41	7991073	92.508
23) Methylene Chloride	(1)	7.985	84	4105910	85.047
24) Acetone	(1)	8.063	43	8150100	74.174
25) trans-1,2-Dichloroethene	(1)	8.307	61	8038418	78.283
26) Hexane	(1)	8.450	56	5650216	72.356
27) Methyl t-Butyl Ether	(1)	8.500	73	11728363	77.761
28) tert-Butyl Alcohol	(1)	8.622	59	11820650	87.271
29) Acetonitrile	(1)	9.081	41	4870735	76.693
30) Di-Isopropyl Ether	(1)	9.288	45	18702909	82.370
31) 1,1-Dichloroethane	(1)	9.632	63	9777283	71.174
32) Acrylonitrile	(1)	9.747	53	4880617	81.993
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	17508576	86.779
34) Vinyl Acetate	(1)	10.105	43	17345758	95.310
35) cis-1,2-Dichloroethene	(1)	10.714	61	7674169	81.568
36) 1,2-Dichloroethene (total)	(1)		61	15712587	159.851
37)*Bromochloromethane	(1)	11.101	130	455892	10.000
38) Cyclohexane	(1)	11.115	56	9520323	82.516

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:45.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00326.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:40 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 14:45 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.215	83	9717131	70.754
40) Ethyl Acetate	(1)	11.416	43	5500849	37.288
41) Methyl Acrylate	(1)	11.452	55	10547355	84.237
42) Carbon Tetrachloride	(1)	11.509	117	10033622	67.728
43) Tetrahydrofuran	(1)	11.538	42	6478002	83.559
44) 1,1,1-Trichloroethane	(1)	11.645	97	9924543	67.056
45) 2-Butanone	(1)	11.803	43	11402893	77.367
46) Isooctane	(2)	12.046	57	28241981	74.592
47) Heptane	(2)	12.197	71	4943717	75.742
48) Benzene	(2)	12.333	78	13859711	62.051
49) Tert-Amyl Methyl Ether	(2)	12.483	73	12486389	75.738
50) 1,2-Dichloroethane	(2)	12.691	62	7812764	62.571
51) Trichloroethene	(2)	13.350	130	6168263	68.331
52)*1,4-Difluorobenzene	(2)	13.393	114	1617851	10.000
53) Dibromomethane	(2)	14.095	174	6246611	63.975
54) Ethyl Acrylate	(2)	14.231	55	13301853	76.949
55) 1,2-Dichloropropane	(2)	14.267	63	6364778	59.680
56) Bromodichloromethane	(2)	14.345	83	10446543	61.046
57) Methyl Methacrylate	(2)	14.575	69	5018580	81.504
58) 1,4-Dioxane	(2)	14.675	88	3462604	77.463
59) cis-1,3-Dichloropropene	(2)	15.406	75	8746403	73.391
60) Octane	(3)	15.427	43	14488888	73.421
61) Toluene	(3)	15.800	91	16227998	67.509
62) 4-Methyl-2-Pentanone	(2)	16.401	43	13786493	65.976
63) Tetrachloroethene	(3)	16.430	166	9018521	61.098
64) trans-1,3-Dichloropropene	(3)	16.459	75	7614973	70.469
65) 1,3-Dichloropropene (total)	(3)		75	16361376	145.028
66) Ethyl Methacrylate	(3)	16.673	69	8524711	80.537
67) 1,1,2-Trichloroethane	(3)	16.731	97	6069827	60.468
68) Dibromochloromethane	(3)	17.024	127	8252444	63.343
69) 1,2-Dibromoethane	(3)	17.440	107	9293951	65.476
70) 2-Hexanone	(3)	17.726	43	13451080	72.170
71)*Chlorobenzene-d5	(3)	18.235	117	1610340	10.000
72) Chlorobenzene	(3)	18.256	112	13280592	62.351
73) Ethylbenzene	(3)	18.271	91	19778048	62.428
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	7299273	59.664
75) m/p-Xylene	(3)	18.493	91	16486527	74.320
76) o-Xylene	(3)	19.181	91	16778425	78.181

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:45.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

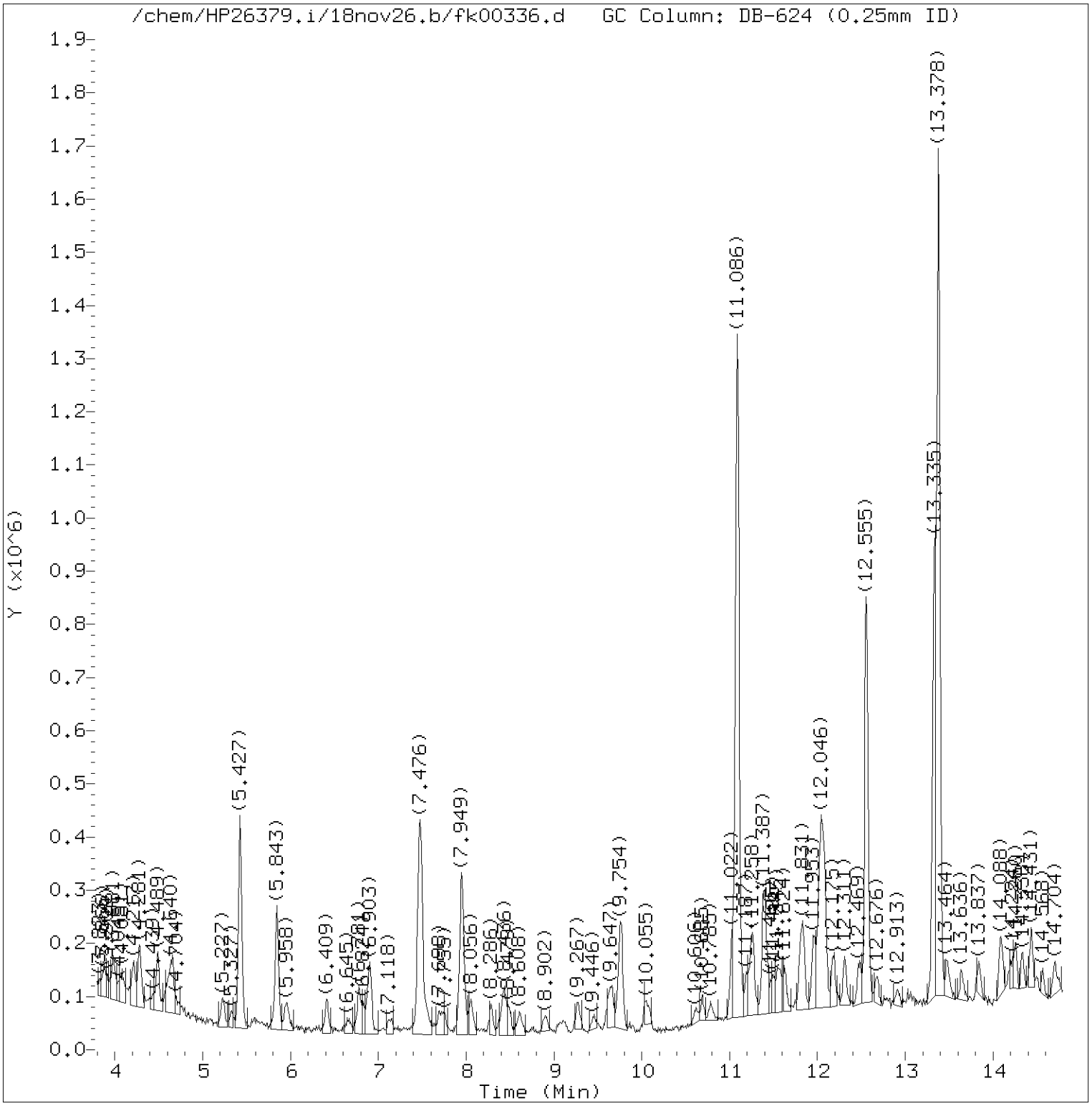
Data File: /chem/HP26379.i/18nov26.b/fk00326.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 12:40 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 14:45 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	33264953	152.437
78) Styrene	(3)	19.266	104	12360411	78.183
79) Bromoform	(3)	19.338	173	11294590	63.852
80) Cumene	(3)	19.668	105	20349885	69.070
81) n-Propylbenzene	(3)	20.312	120	6779499	74.340
82) Bromobenzene	(3)	20.327	156	8122767	62.697
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	12302824	53.631
84) 4-Ethyltoluene	(3)	20.484	105	20411437	67.068
85) 2-Chlorotoluene	(3)	20.599	126	5681731	66.639
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	17907934	68.013
87) 1,2,3-Trichloropropane	(3)	20.670	110	3889421	59.824
88) Alpha Methyl Styrene	(3)	21.007	118	9949670	89.347
89) tert-Butylbenzene	(3)	21.122	119	17307694	72.390
90) 1,2,4-Trimethylbenzene	(3)	21.229	105	17499735	68.715
91) sec-Butylbenzene	(3)	21.387	105	20233616	53.149
92) p-Isopropyltoluene	(3)	21.566	119	18306027	61.665
93) 1,3-Dichlorobenzene	(3)	21.716	146	13224917	61.265
94) 1,4-Dichlorobenzene	(3)	21.831	146	13649717	64.007
95) n-Butylbenzene	(3)	22.132	92	13962700	76.595
96) Benzyl Chloride	(3)	22.160	126	3772428	73.979
97) Hexachloroethane	(3)	22.382	117	7948083	67.377
98) 1,2-Dichlorobenzene	(3)	22.425	146	13094138	66.247
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	7921678	75.296
100) Hexachlorobutadiene	(3)	24.546	225	10080910	71.436
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	11234415	80.601
102) Naphthalene	(3)	25.226	128	21379416	92.434

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 14:45.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

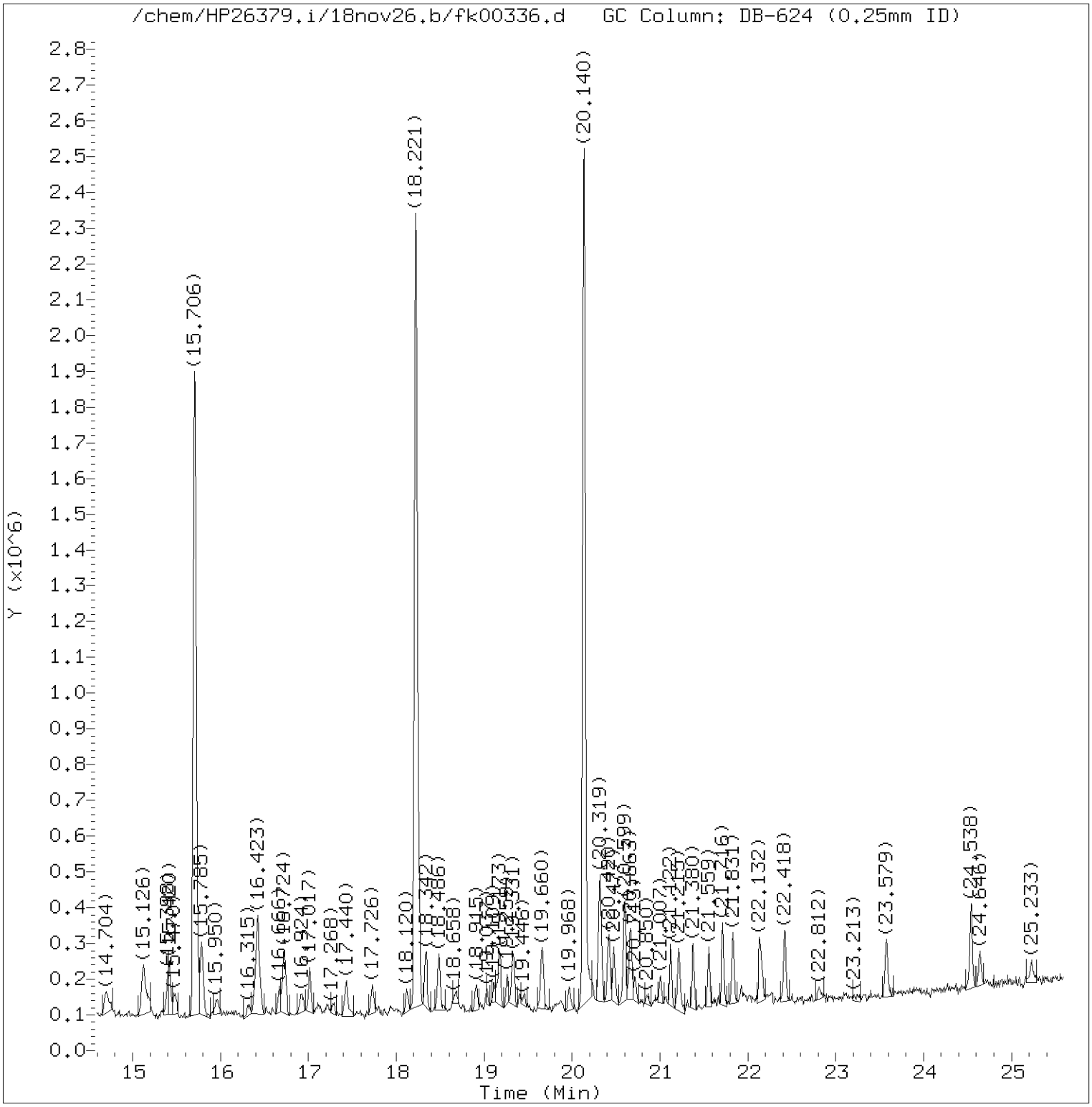
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.887	41	36582	0.591
2) Dichlorodifluoromethane	(1)	3.988	85	77717	0.457
3) Chlorodifluoromethane	(1)	4.074	51	69974M	0.490
4) Freon 114	(1)	4.289	85	79335	0.447
5) Chloromethane	(1)	4.439	50	43268M	0.557
6) Vinyl Chloride	(1)	4.611	62	24349	0.514
7) 1,3-Butadiene	(1)	4.640	54	20239	0.477
8) Bromomethane	(1)	5.327	94	23467	0.453
9) Chloroethane	(1)	5.607	64	21652M	0.577
10) Bromoethene	(1)	5.807	106	23112M	0.463
11) Pentane	(1)	5.843	43	147247	1.113
12) Trichlorofluoromethane	(1)	5.850	101	73980	0.405
13) Dichlorofluoromethane	(1)	5.965	67	68852M	0.469
14) Ethanol	(1)	6.631	45	22817	0.914
15) Freon123a	(1)	6.781	67	68511	0.488
16) 1,1-Dichloroethene	(1)	6.824	61	49557	0.441
17) Freon 113	(1)	6.889	103	37661	0.376
18) Carbon Disulfide	(1)	6.910	76	77684	0.452
19) Methyl Iodide	(1)	7.125	142	45931	0.352
20) Acrolein	(1)	7.476	56	52031	1.936
21) Isopropanol	(1)	7.698	45	54681	0.507
22) 3-Chloropropene	(1)	7.748	41	41622	0.463
23) Methylene Chloride	(1)	7.956	84	32519	0.647
24) Acetone	(1)	8.049	43	118777	1.038
25) trans-1,2-Dichloroethene	(1)	8.278	61	45452	0.425
26) Hexane	(1)	8.436	56	55274	0.680
27) Methyl t-Butyl Ether	(1)	8.486	73	50577	0.322
28) tert-Butyl Alcohol	(1)	8.615	59	56261	0.399
29) Acetonitrile	(1)	9.073	41	39491	0.597
30) Di-Isopropyl Ether	(1)	9.274	45	81146	0.343
31) 1,1-Dichloroethane	(1)	9.618	63	65664	0.459
32) Acrylonitrile	(1)	9.747	53	45835	0.739
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	77402	0.368
34) Vinyl Acetate	(1)	10.076	43	73861	0.390
35) cis-1,2-Dichloroethene	(1)	10.692	61	40443	0.413
36) 1,2-Dichloroethene (total)	(1)		61	85895	0.838
37)*Bromochloromethane	(1)	11.086	130	474875	10.000
38) Cyclohexane	(1)	11.101	56	219825	1.829

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.201	83	63173	0.442
40) Ethyl Acetate	(1)	11.394	43	210570	1.370
41) Methyl Acrylate	(1)	11.437	55	53038	0.407
42) Carbon Tetrachloride	(1)	11.495	117	48911	0.317
43) Tetrahydrofuran	(1)	11.538	42	37845	0.469
44) 1,1,1-Trichloroethane	(1)	11.631	97	64174	0.416
45) 2-Butanone	(1)	11.795	43	116590	0.759
46) Isooctane	(2)	12.039	57	552768	1.571
47) Heptane	(2)	12.175	71	22971	0.379
48) Benzene	(2)	12.311	78	94203	0.454
49) Tert-Amyl Methyl Ether	(2)	12.483	73	54298	0.354
50) 1,2-Dichloroethane	(2)	12.676	62	54749	0.472
51) Trichloroethene	(2)	13.335	130	38529	0.459
52)*1,4-Difluorobenzene	(2)	13.378	114	1503749	10.000
53) Dibromomethane	(2)	14.080	174	44723	0.493
54) Ethyl Acrylate	(2)	14.217	55	73921	0.460
55) 1,2-Dichloropropane	(2)	14.260	63	46905	0.473
56) Bromodichloromethane	(2)	14.338	83	74799	0.470
57) Methyl Methacrylate	(2)	14.560	69	22857	0.399
58) 1,4-Dioxane	(2)	14.682	88	13106	0.315
59) cis-1,3-Dichloropropene	(2)	15.398	75	48667	0.439
60) Octane	(3)	15.420	43	74931	0.442
61) Toluene	(3)	15.785	91	109246	0.529
62) 4-Methyl-2-Pentanone	(2)	16.394	43	75942	0.391
63) Tetrachloroethene	(3)	16.423	166	104894	0.827
64) trans-1,3-Dichloropropene	(3)	16.459	75	41907	0.451
66) Ethyl Methacrylate	(3)	16.666	69	44043	0.484
65) 1,3-Dichloropropene (total)	(3)		75	90574	0.891
67) 1,1,2-Trichloroethane	(3)	16.731	97	54326	0.630
68) Dibromochloromethane	(3)	17.024	127	63513	0.567
69) 1,2-Dibromoethane	(3)	17.440	107	68950	0.565
70) 2-Hexanone	(3)	17.726	43	67876	0.424
71)*Chlorobenzene-d5	(3)	18.221	117	1383931	10.000
72) Chlorobenzene	(3)	18.249	112	89985	0.492
73) Ethylbenzene	(3)	18.264	91	143877	0.528
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	51785	0.493
75) m/p-Xylene	(3)	18.486	91	115605	0.606
76) o-Xylene	(3)	19.173	91	103926	0.563

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

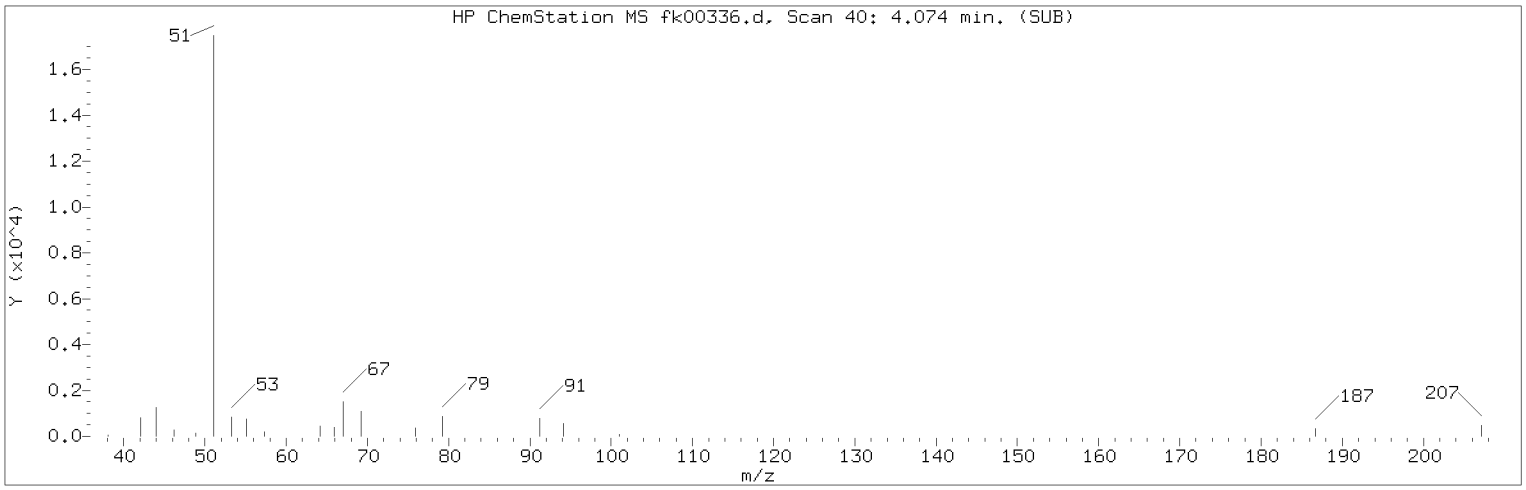
Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	219531	1.170
78) Styrene	(3)	19.259	104	52171	0.384
79) Bromoform	(3)	19.331	173	87776	0.577
80) Cumene	(3)	19.660	105	113341	0.448
81) n-Propylbenzene	(3)	20.312	120	37150	0.474
82) Bromobenzene	(3)	20.319	156	62941	0.565
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	125377	0.636
84) 4-Ethyltoluene	(3)	20.477	105	113541	0.434
85) 2-Chlorotoluene	(3)	20.592	126	37806	0.516
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	95937	0.424
87) 1,2,3-Trichloropropane	(3)	20.670	110	35897	0.642
88) Alpha Methyl Styrene	(3)	21.000	118	28042	0.293
89) tert-Butylbenzene	(3)	21.129	119	93289	0.454
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	88048	0.402
91) sec-Butylbenzene	(3)	21.380	105	140223	0.429
92) p-Isopropyltoluene	(3)	21.559	119	93756	0.367
93) 1,3-Dichlorobenzene	(3)	21.716	146	96532	0.520
94) 1,4-Dichlorobenzene	(3)	21.831	146	91133	0.497
95) n-Butylbenzene	(3)	22.132	92	59000	0.377
96) Benzyl Chloride	(3)	22.160	126	17875	0.408
98) 1,2-Dichlorobenzene	(3)	22.425	146	83667	0.493
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	45093	0.499
100) Hexachlorobutadiene	(3)	24.546	225	65973	0.544
101) 1,2,4-Trichlorobenzene	(3)	24.646	180	44688M	0.373
102) Naphthalene	(3)	25.233	128	47882	0.241

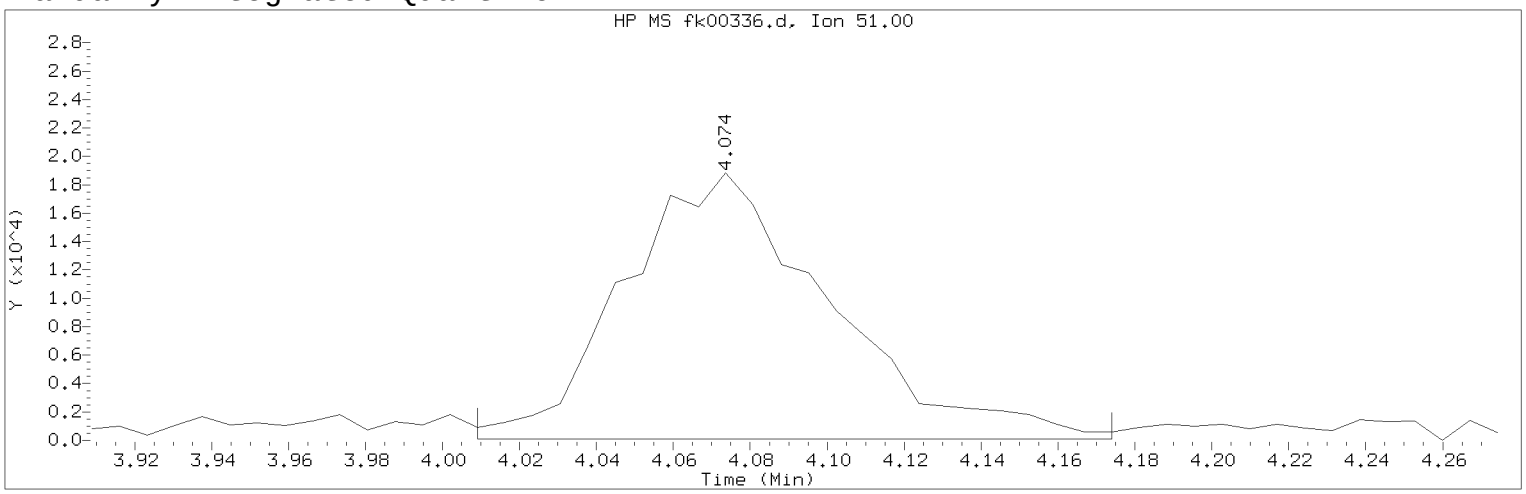
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

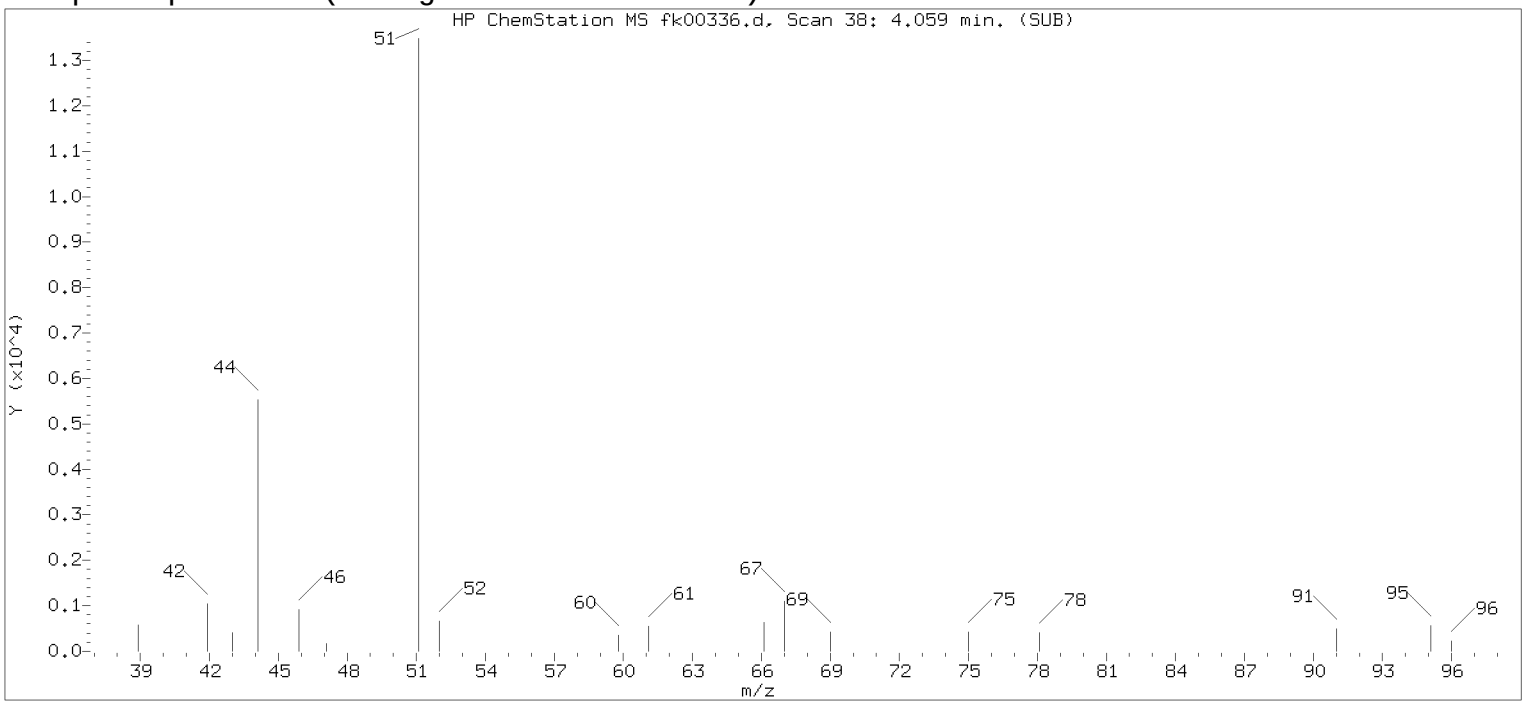
Compound Number : 3
Compound Name : Chlorodifluoromethane
Scan Number : 40
Retention Time (minutes): 4.074
Quant Ion : 51.00
Area (flag) : 69974M
Concentration (ppb(v)) : 0.4899
Integration start scan : 30 Integration stop scan: 53
Y at integration start : 87 Y at integration end: 87

Reason for manual integration: improper integration

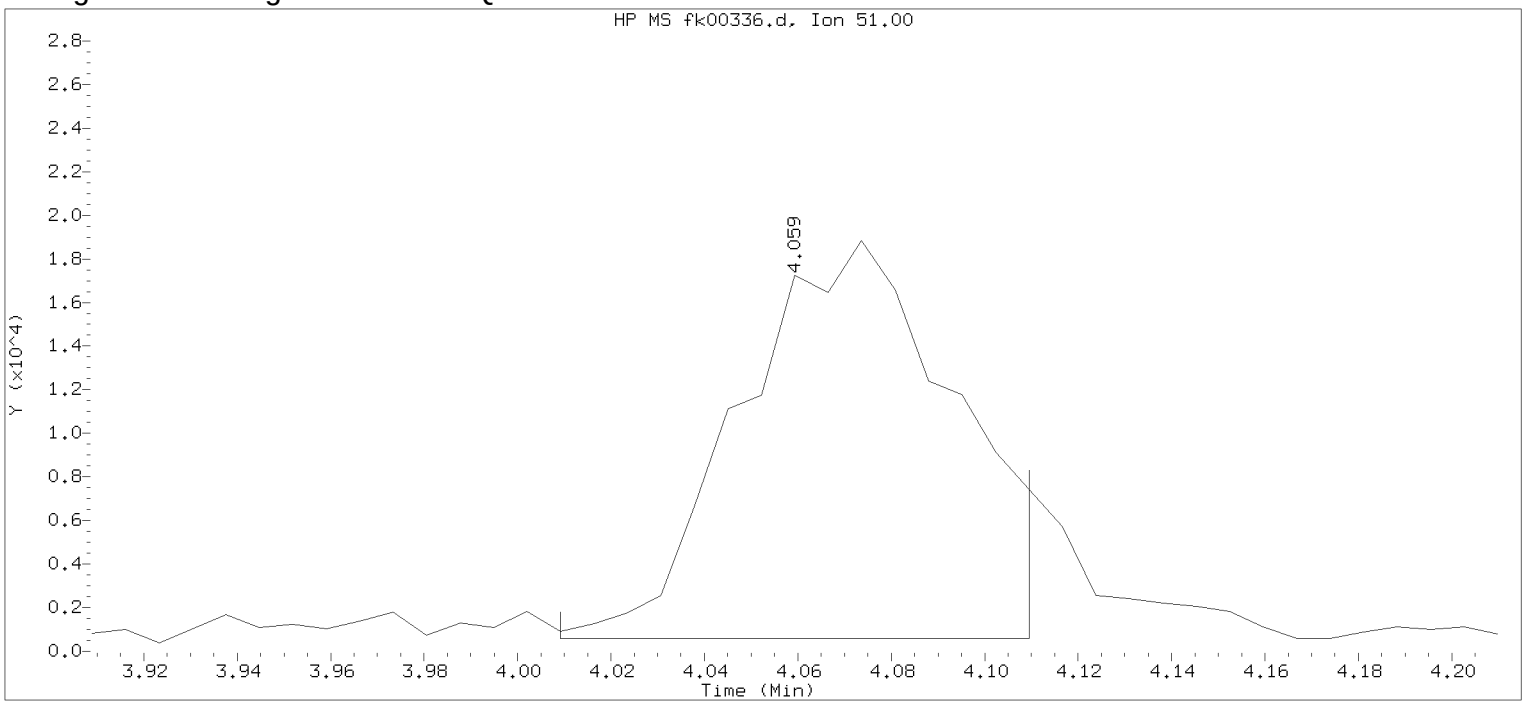
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

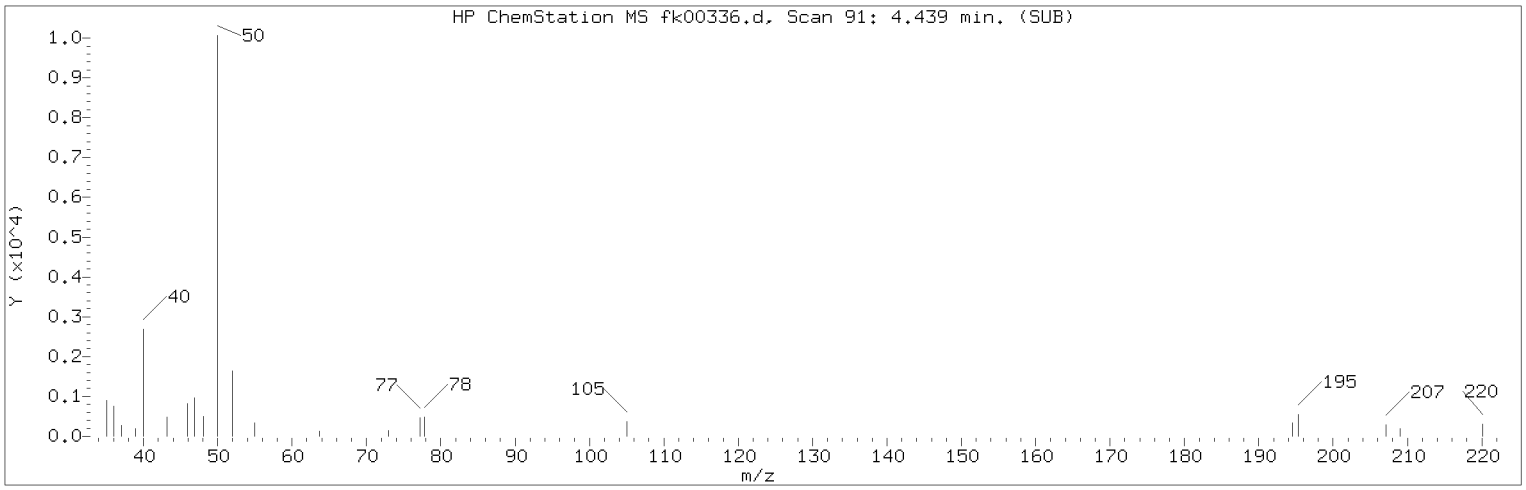
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

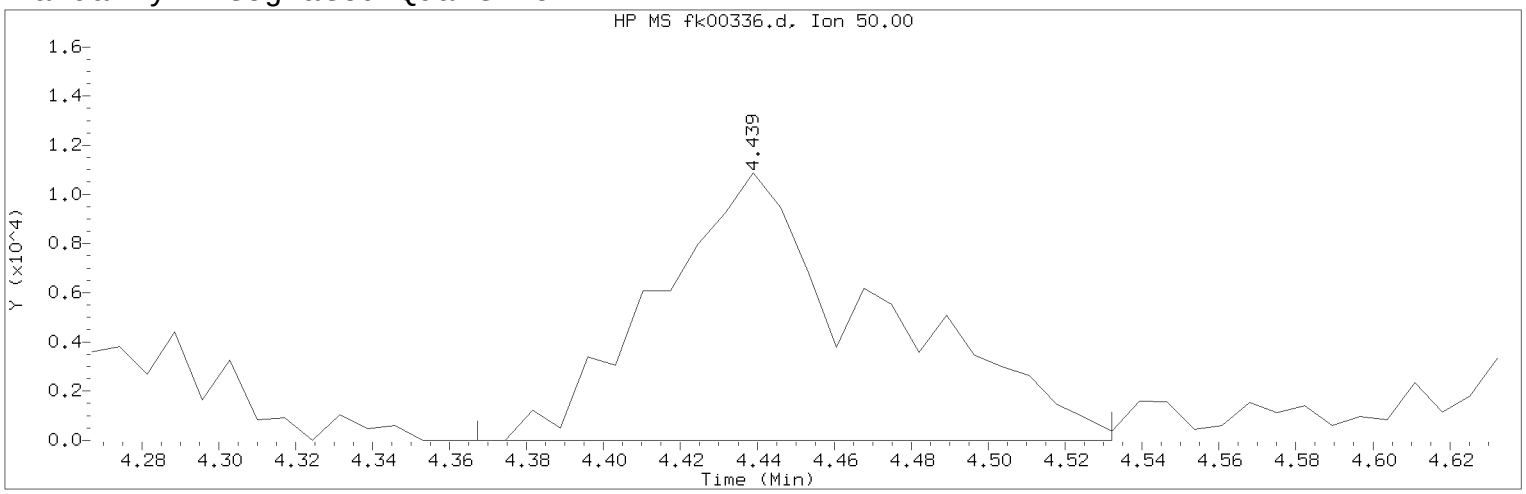
Compound Number : 3
Compound Name : Chlorodifluoromethane
Scan Number : 38
Retention Time (minutes): 4.059
Quant Ion : 51.00
Area : 57394
Concentration (ppb(v)) : 0.4018
Integration start scan : 30 Integration stop scan: 44
Y at integration start : 580 Y at integration end: 580

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01359

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

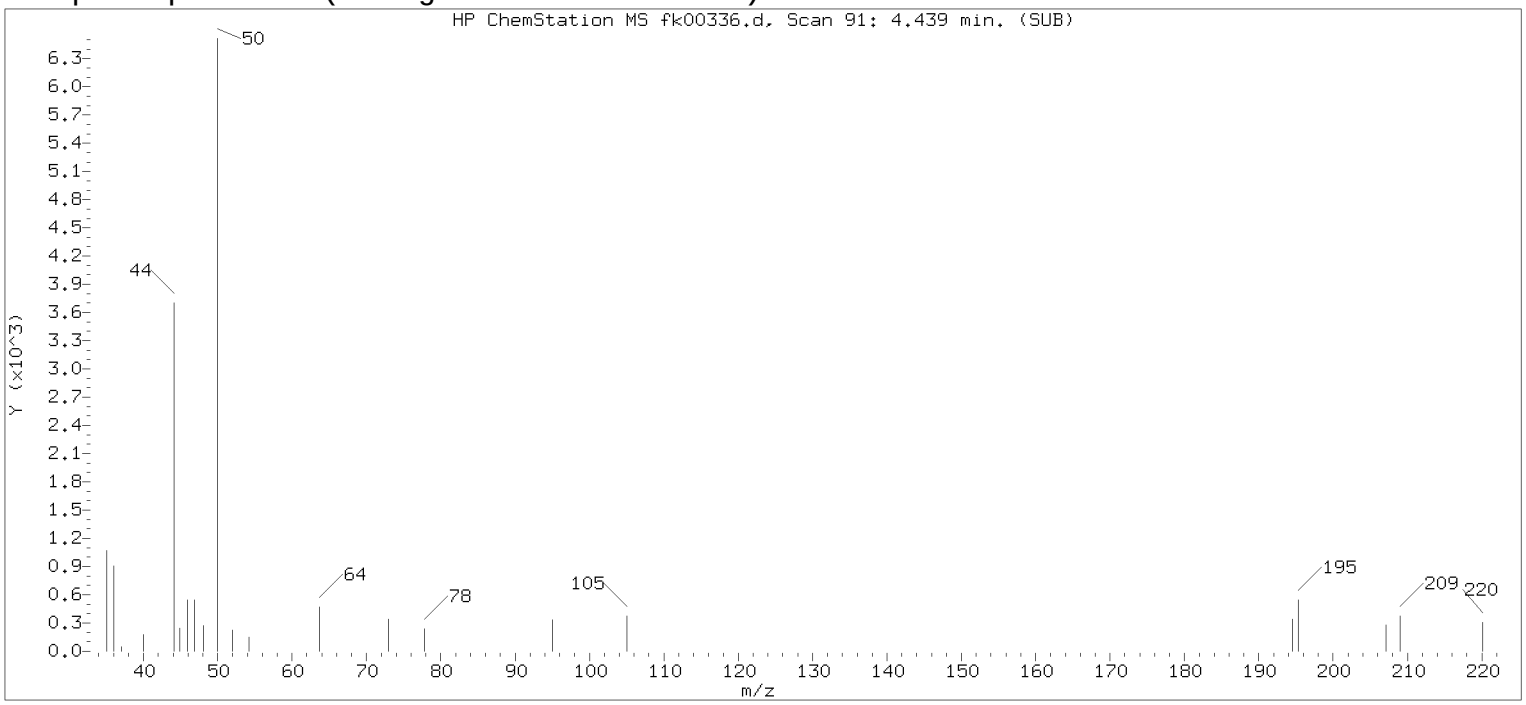
Compound Number : 5
Compound Name : Chloromethane
Scan Number : 91
Retention Time (minutes): 4.439
Quant Ion : 50.00
Area (flag) : 43268M
Concentration (ppb(v)) : 0.5574
Integration start scan : 80 Integration stop scan: 103
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

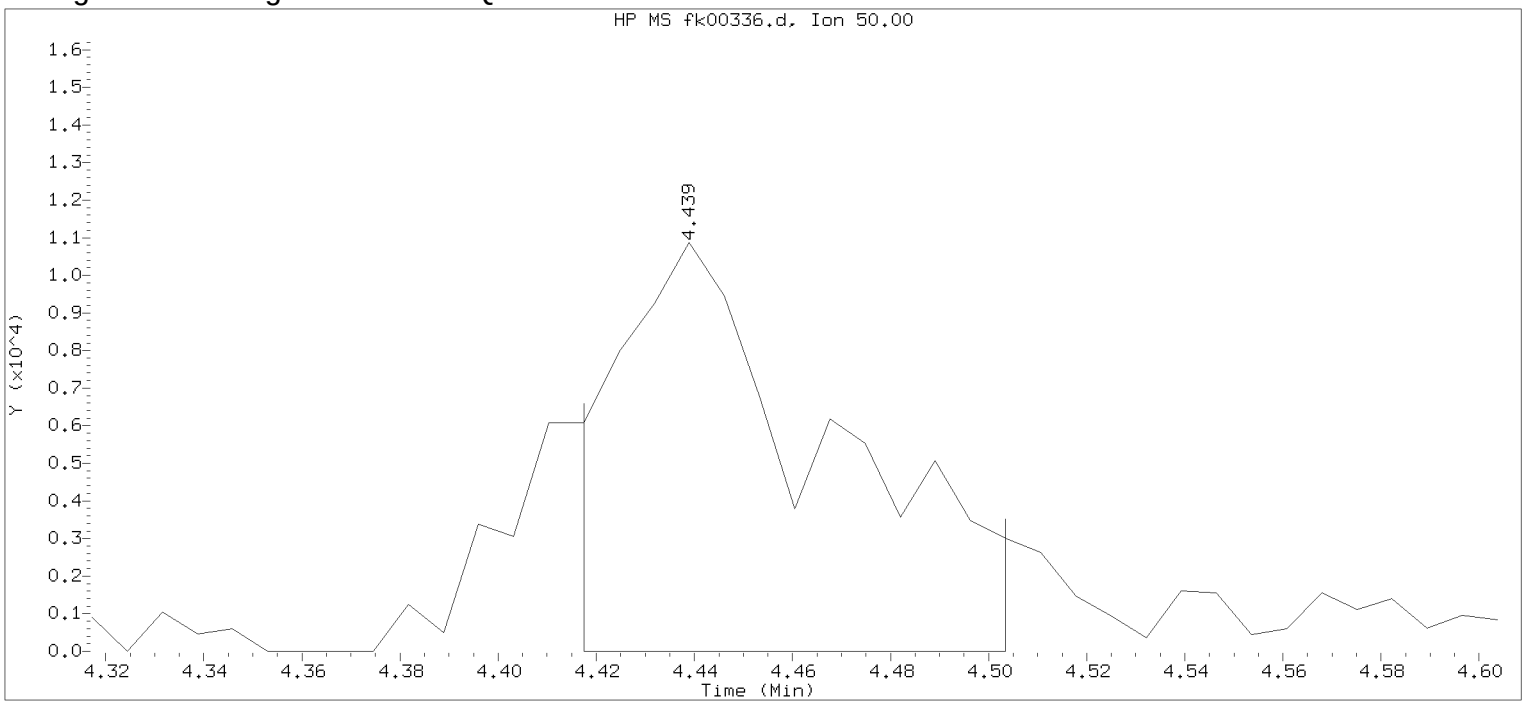
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

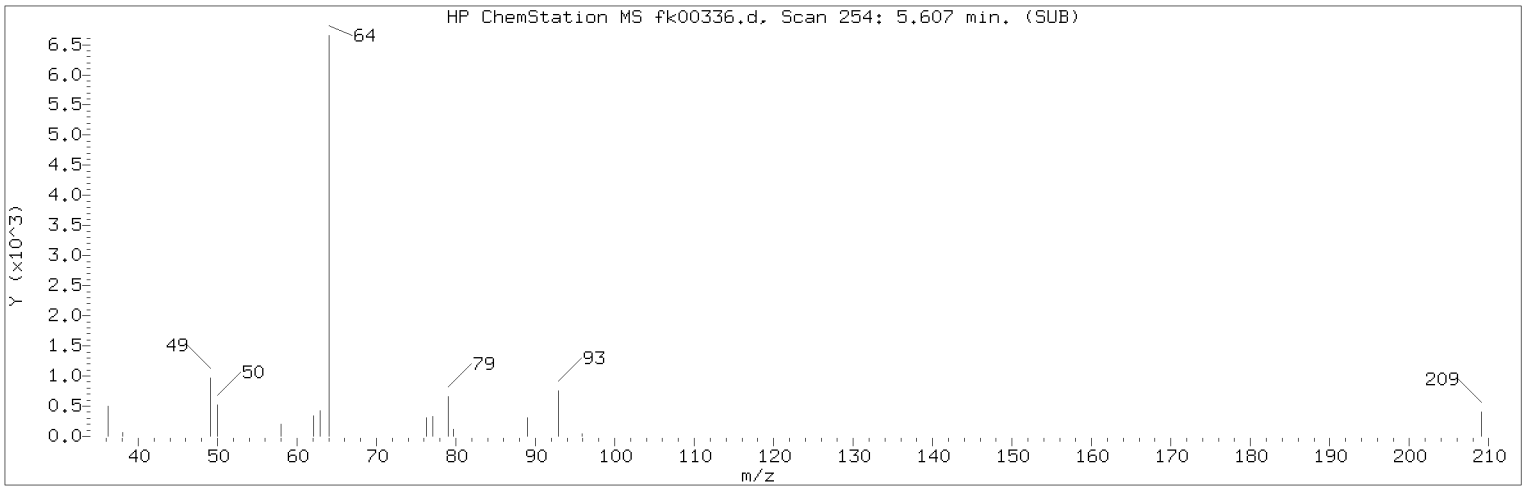
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

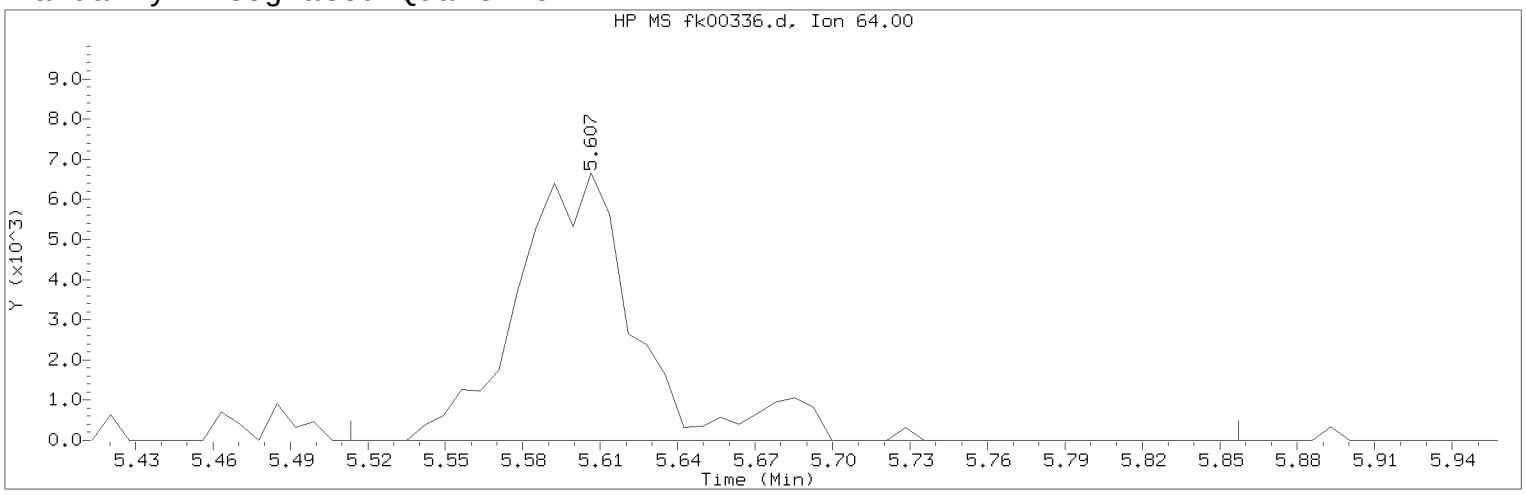
Compound Number : 5
Compound Name : Chloromethane
Scan Number : 91
Retention Time (minutes): 4.439
Quant Ion : 50.00
Area : 32870
Concentration (ppb(v)) : 0.4234
Integration start scan : 87 Integration stop scan: 99
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01364

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

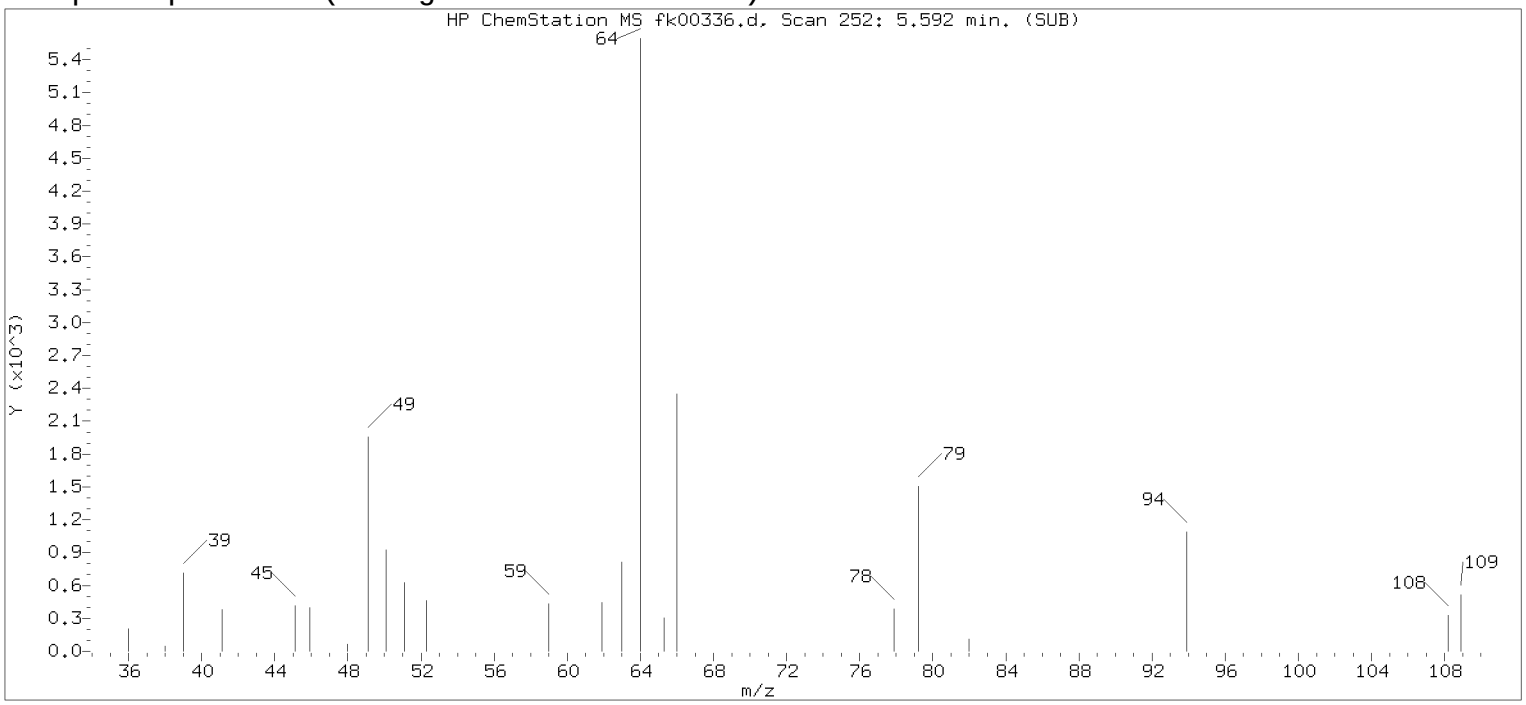
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 254
Retention Time (minutes): 5.607
Quant Ion : 64.00
Area (flag) : 21652M
Concentration (ppb(v)) : 0.5768
Integration start scan : 240 Integration stop scan: 288
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

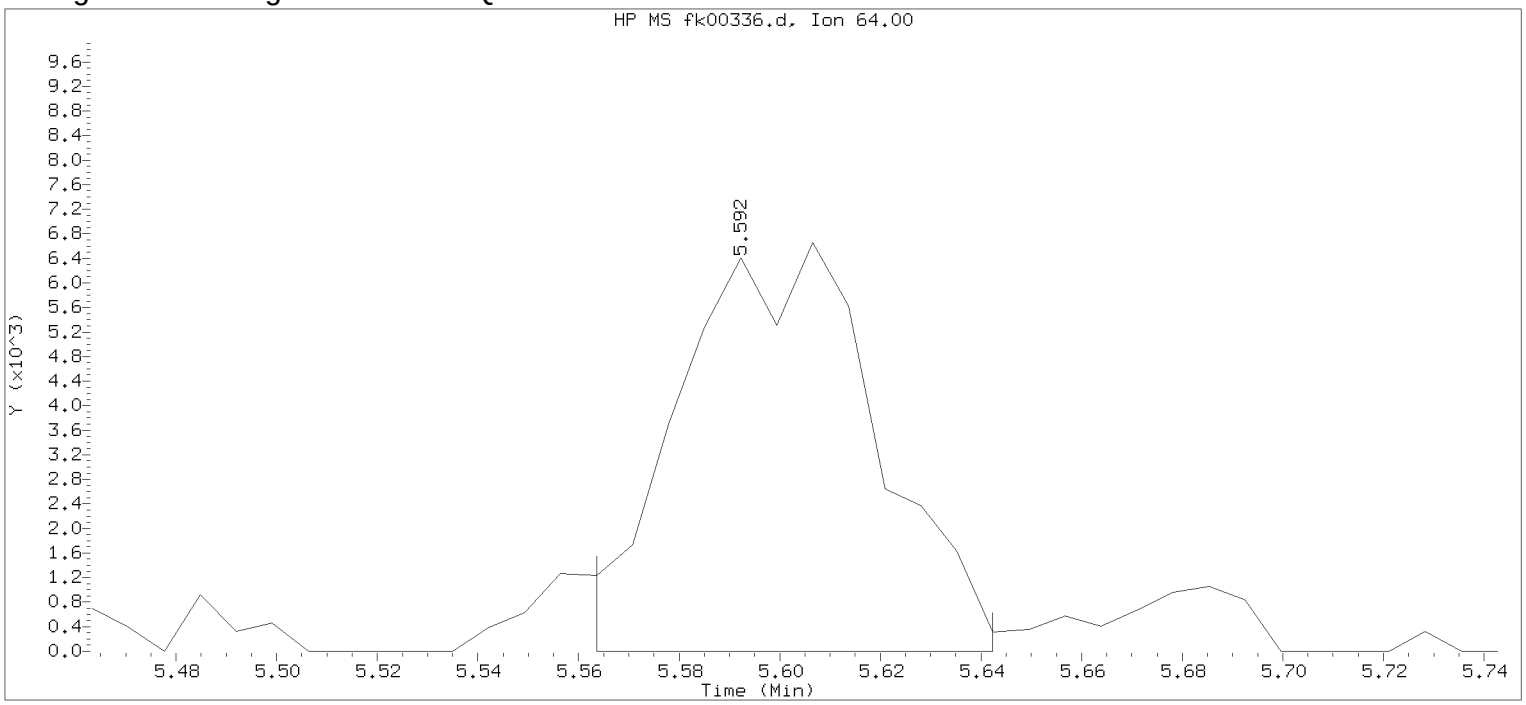
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

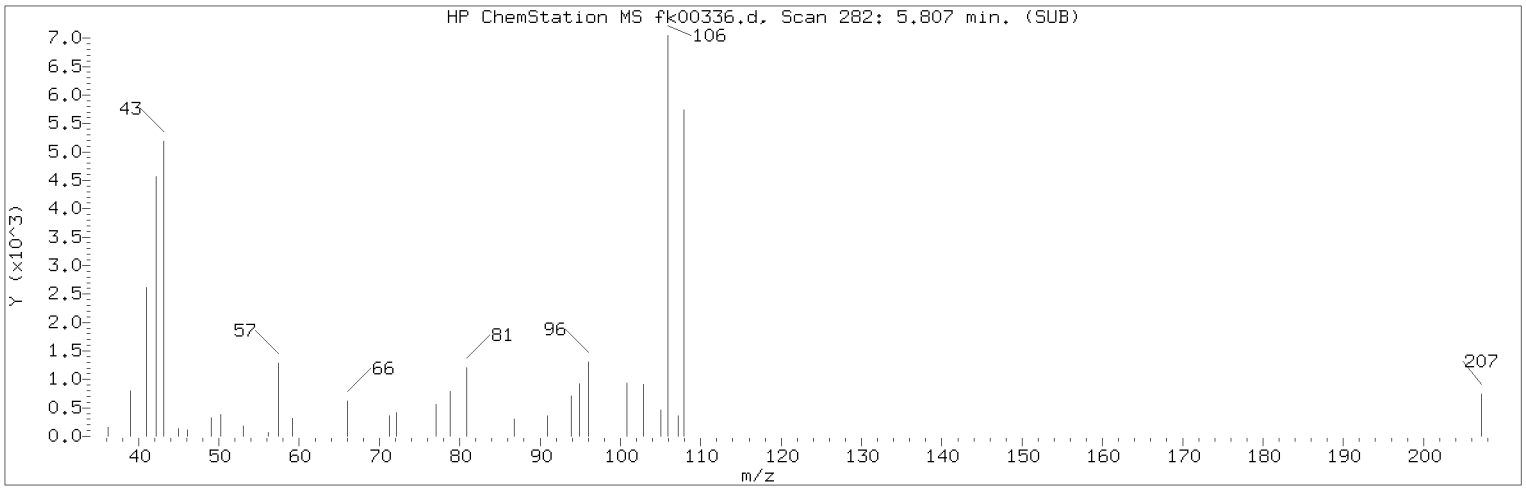
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

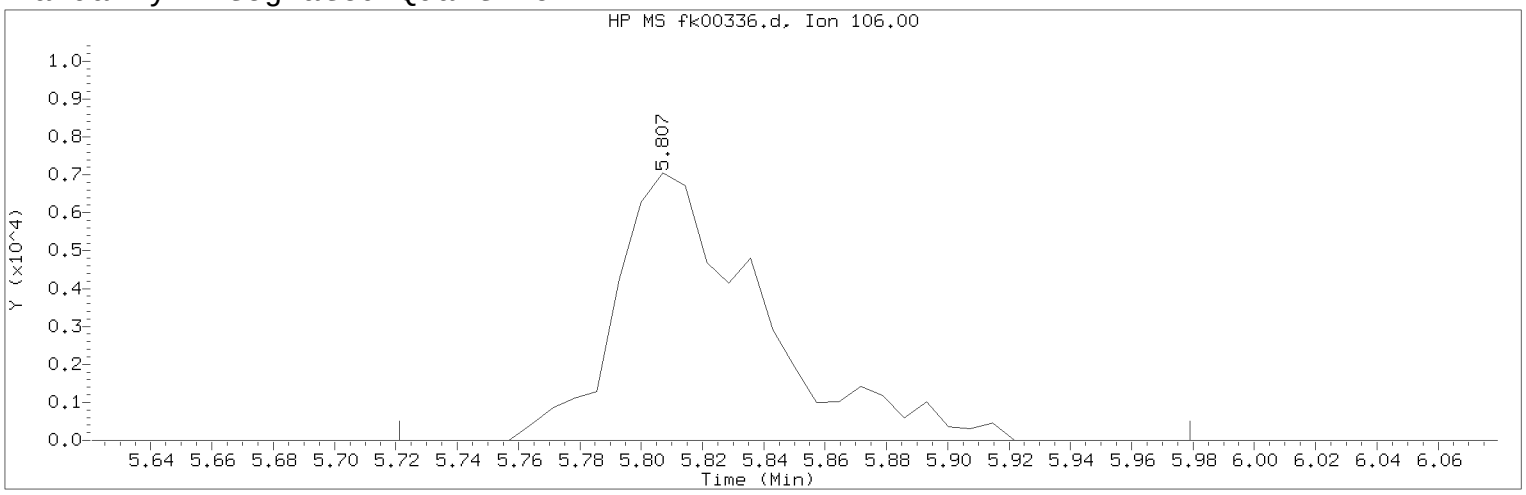
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 252
Retention Time (minutes): 5.592
Quant Ion : 64.00
Area : 18111
Concentration (ppb(v)) : 0.4824
Integration start scan : 247 Integration stop scan: 258
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

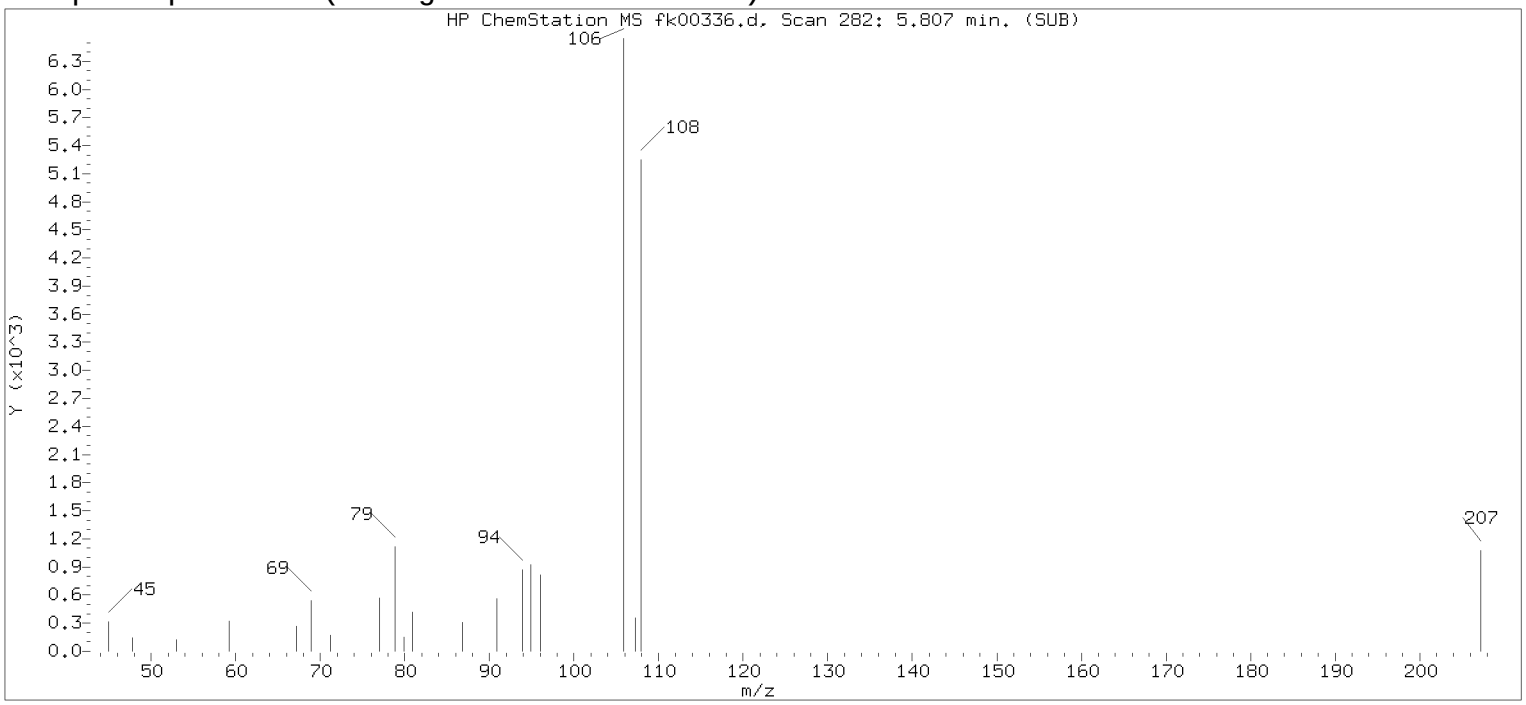
Compound Number : 10
Compound Name : Bromoethene
Scan Number : 282
Retention Time (minutes): 5.807
Quant Ion : 106.00
Area (flag) : 23112M
Concentration (ppb(v)) : 0.4634
Integration start scan : 269 Integration stop scan: 305
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

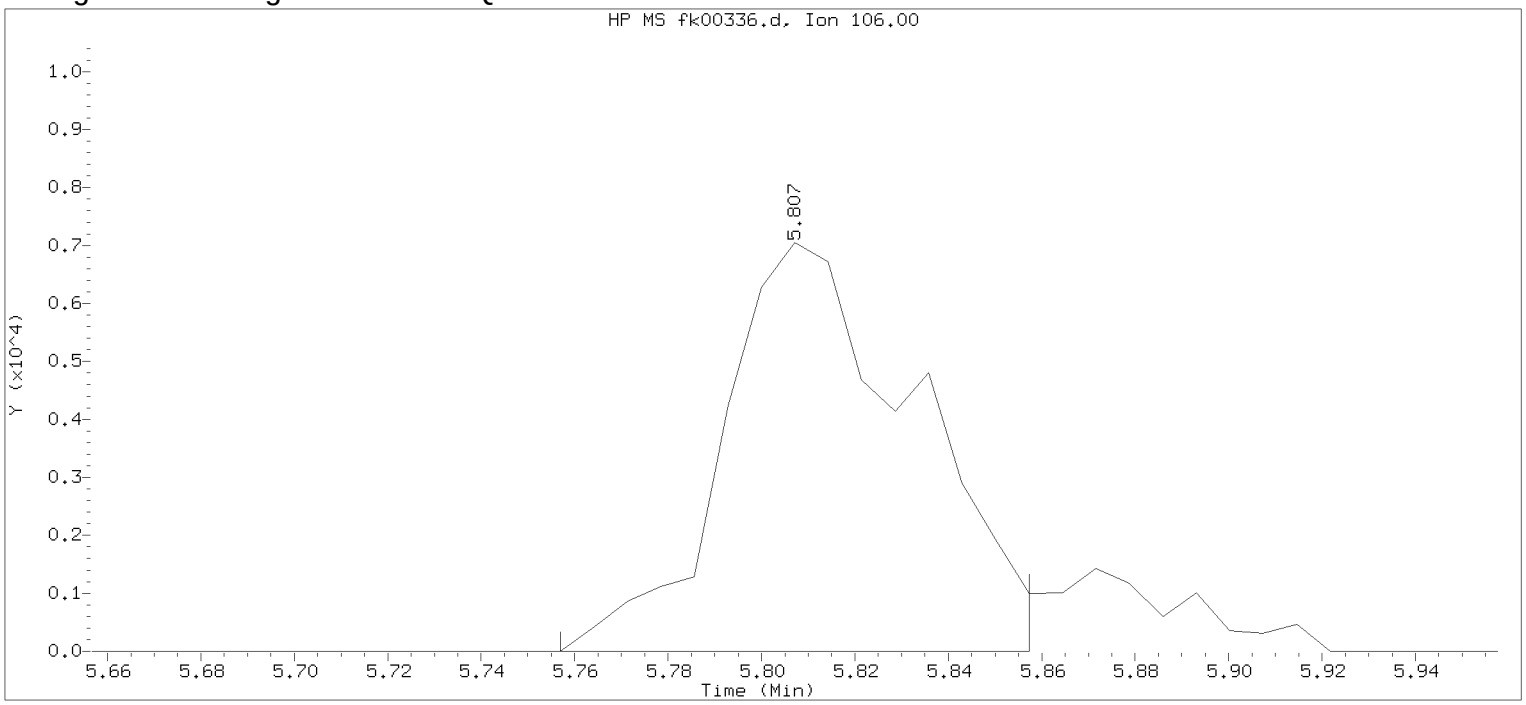
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

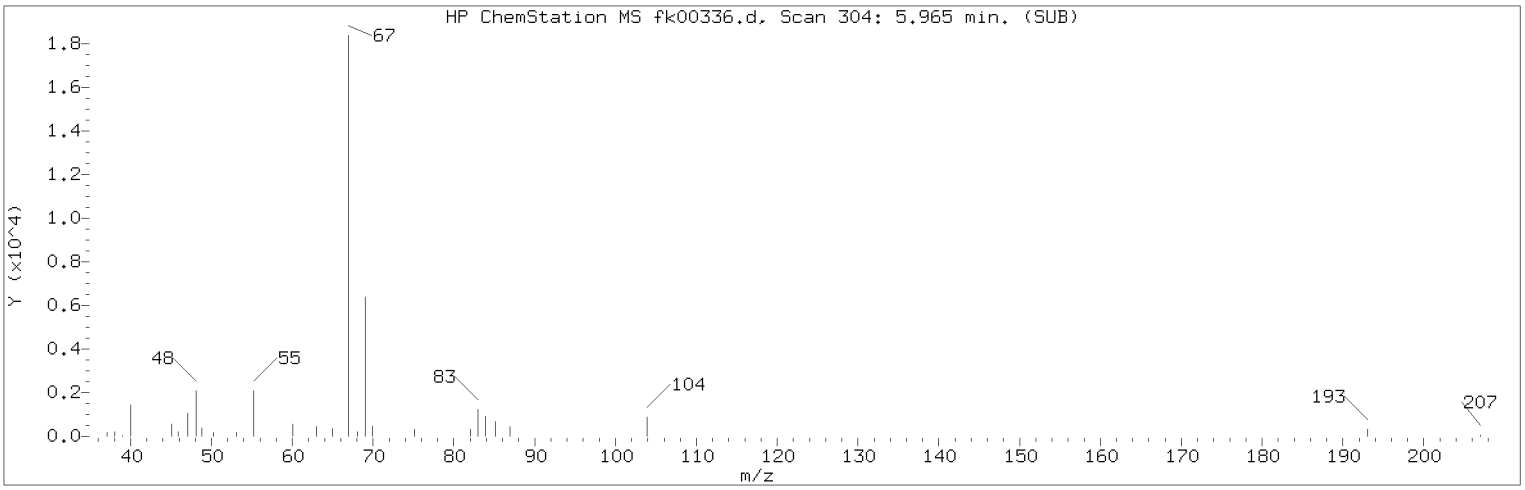
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

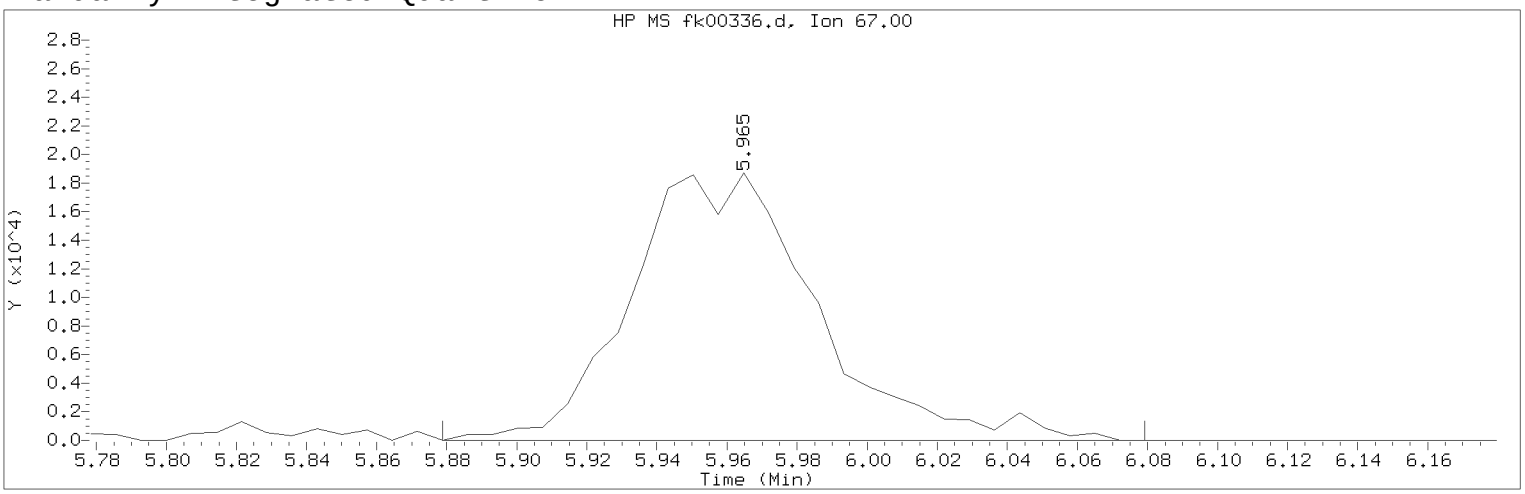
Compound Number : 10
Compound Name : Bromoethene
Scan Number : 282
Retention Time (minutes): 5.807
Quant Ion : 106.00
Area : 20170
Concentration (ppb(v)) : 0.4044
Integration start scan : 274 Integration stop scan: 288
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01305

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

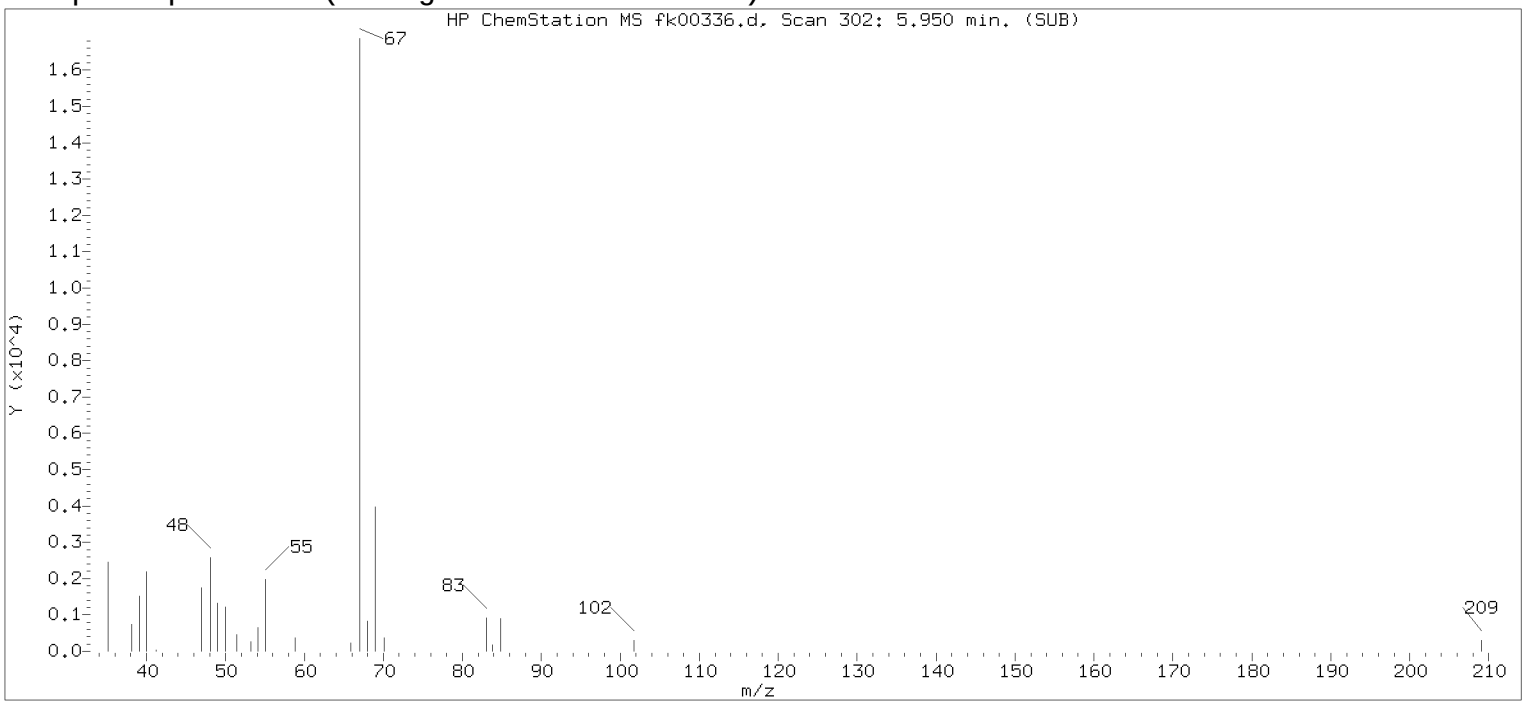
Compound Number : 13
Compound Name : Dichlorofluoromethane
Scan Number : 304
Retention Time (minutes): 5.965
Quant Ion : 67.00
Area (flag) : 68852M
Concentration (ppb(v)) : 0.4691
Integration start scan : 291 Integration stop scan: 319
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

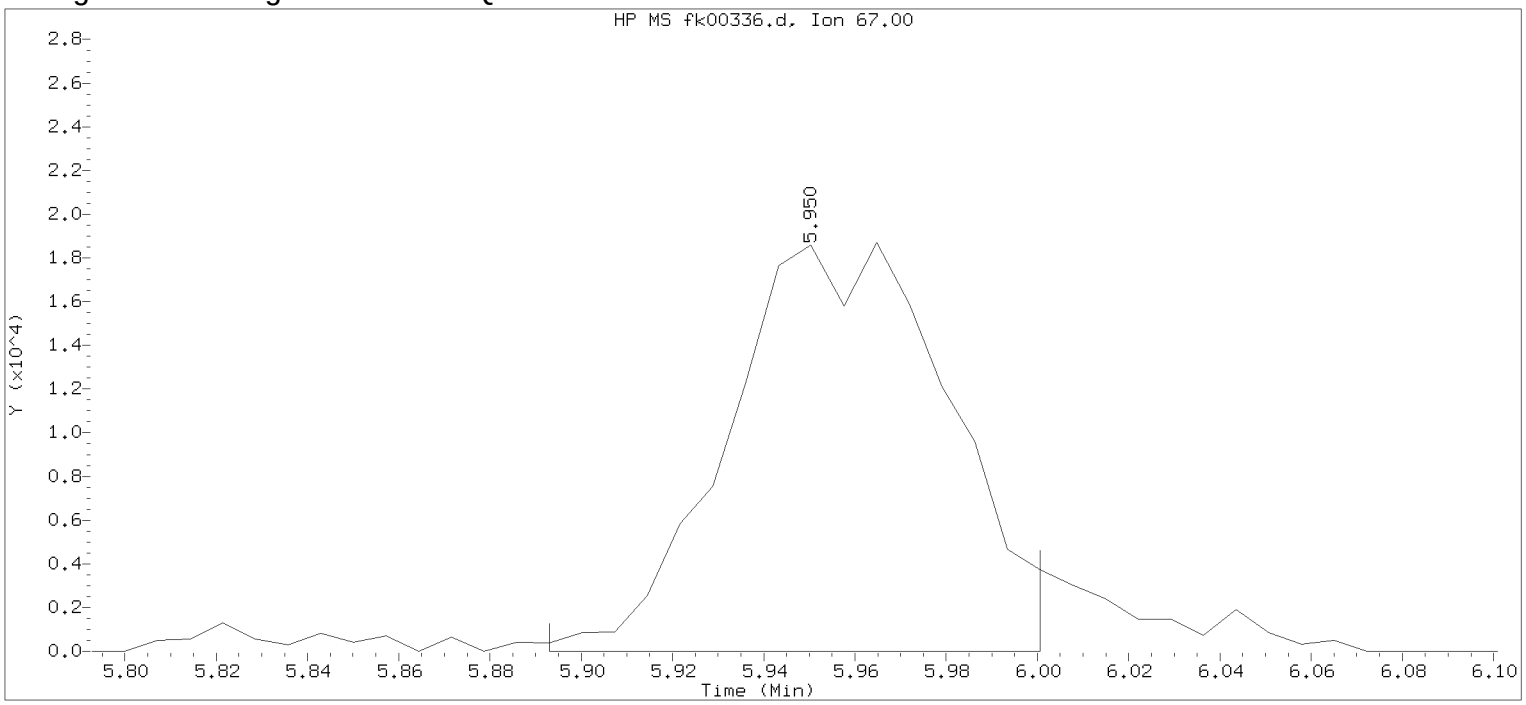
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

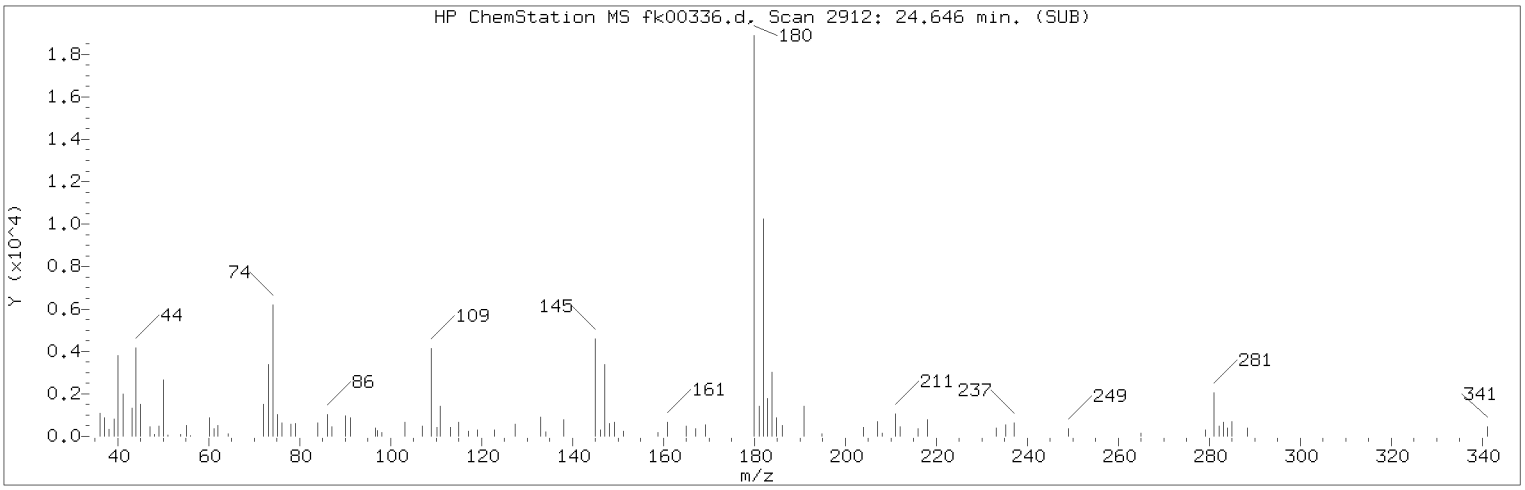
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

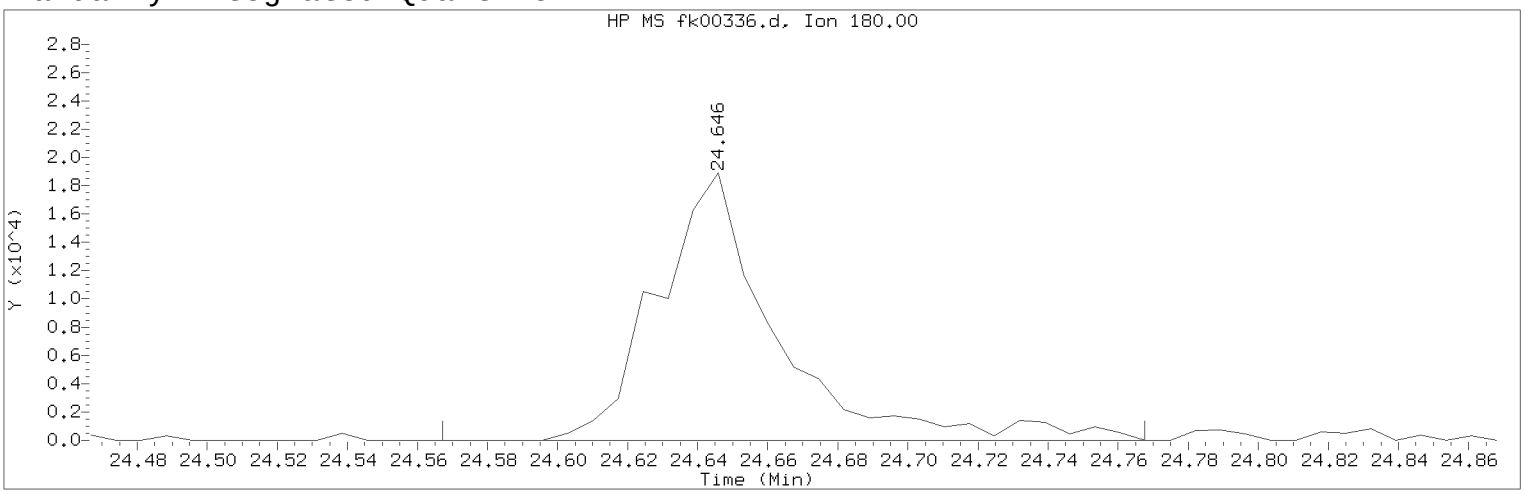
Compound Number : 13
Compound Name : Dichlorofluoromethane
Scan Number : 302
Retention Time (minutes): 5.950
Quant Ion : 67.00
Area : 62336
Concentration (ppb(v)) : 0.4247
Integration start scan : 293 Integration stop scan: 308
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01367

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

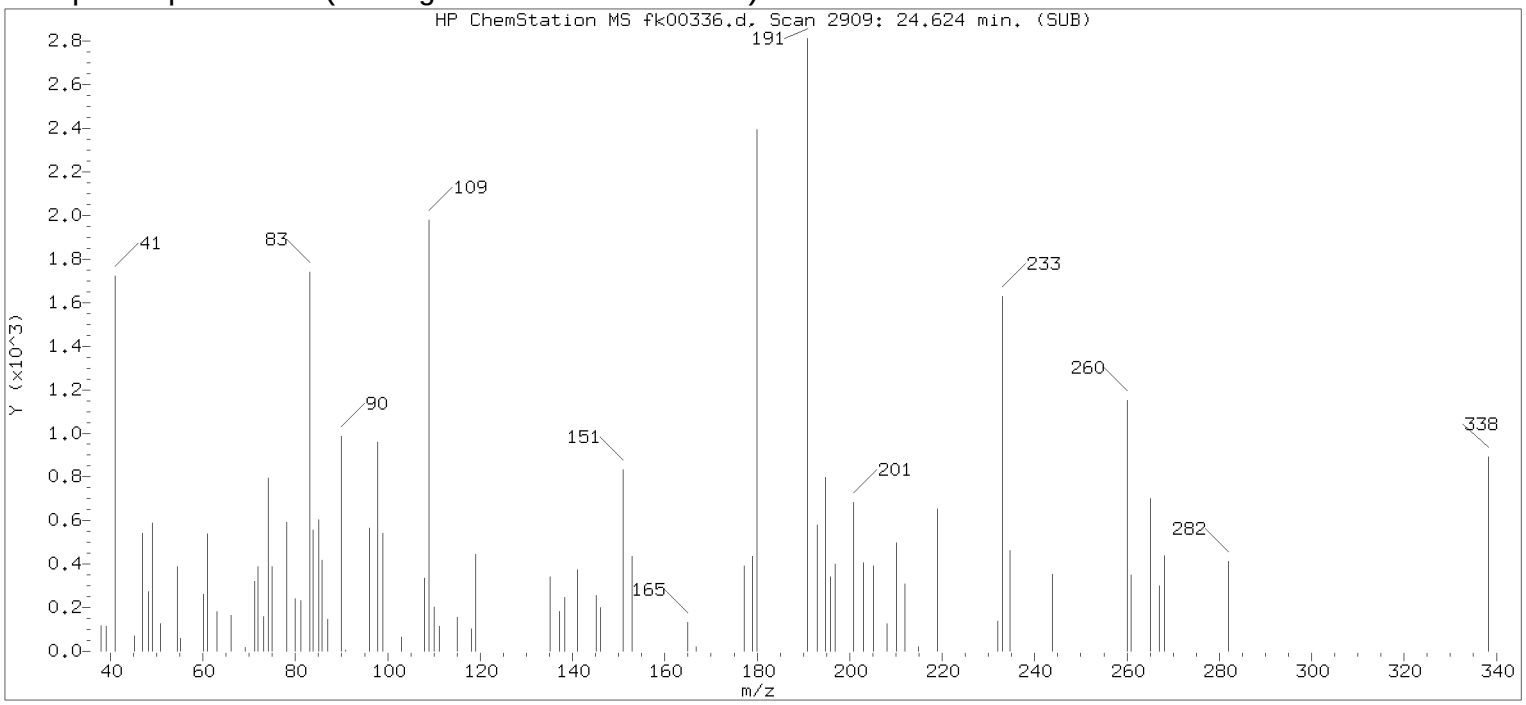
Compound Number : 101
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 2912
Retention Time (minutes): 24.646
Quant Ion : 180.00
Area (flag) : 44688M
Concentration (ppb(v)) : 0.3731
Integration start scan : 2900 Integration stop scan: 2928
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

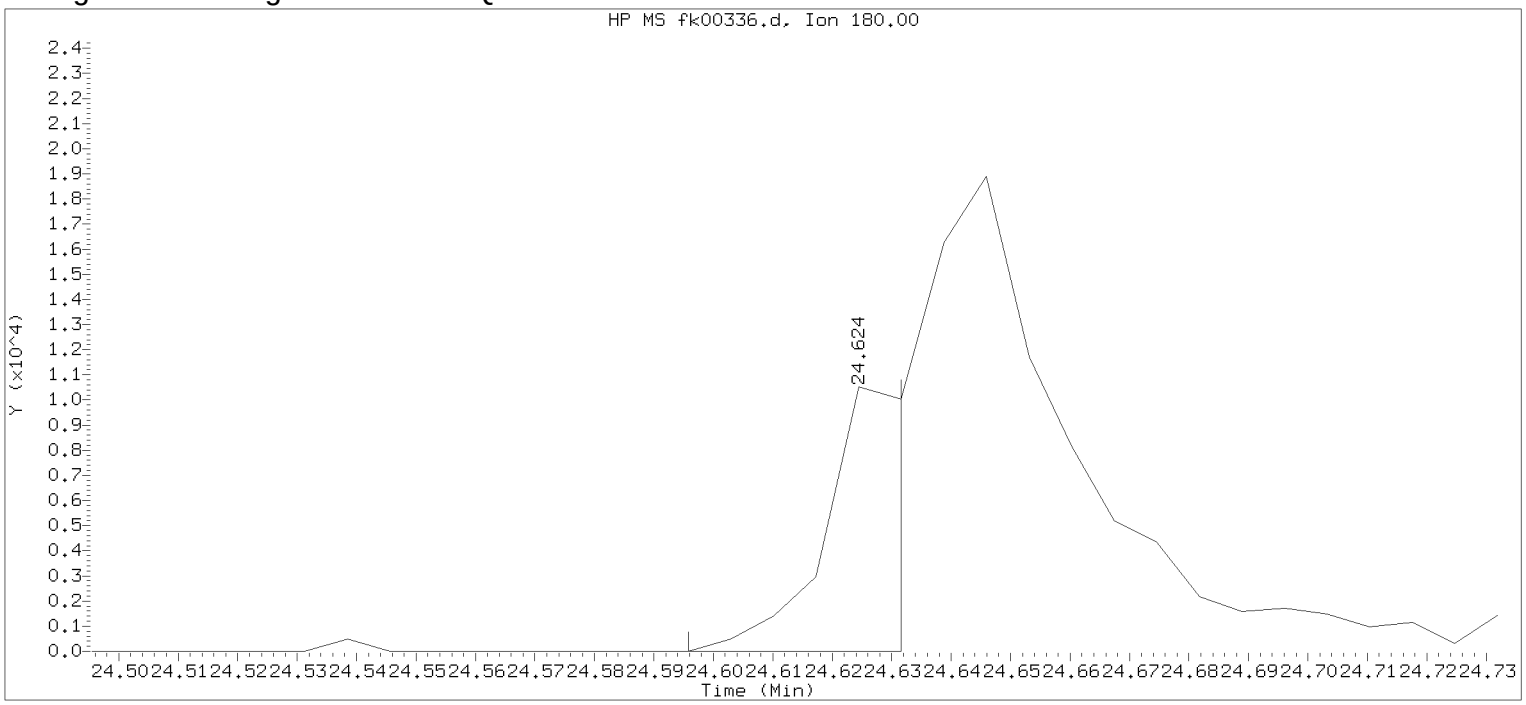
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



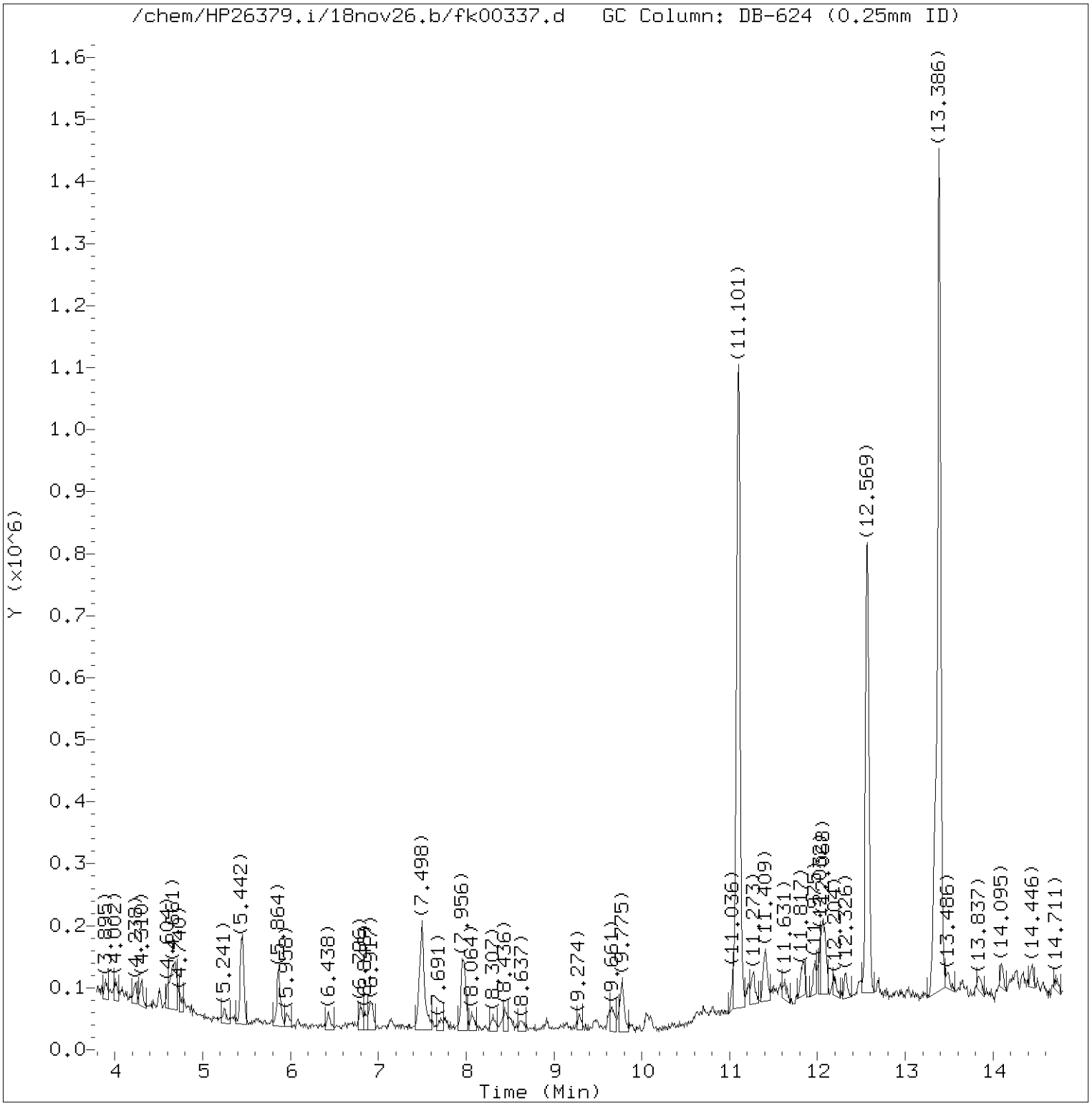
Data File: /chem/HP26379.i/18nov26.b/fk00336.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 18:38 Unknown

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 101
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 2909
Retention Time (minutes): 24.624
Quant Ion : 180.00
Area : 8766
Concentration (ppb(v)) : 0.0732
Integration start scan : 2904 Integration stop scan: 2909
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01369



Total Ion Chromatogram (TIC)

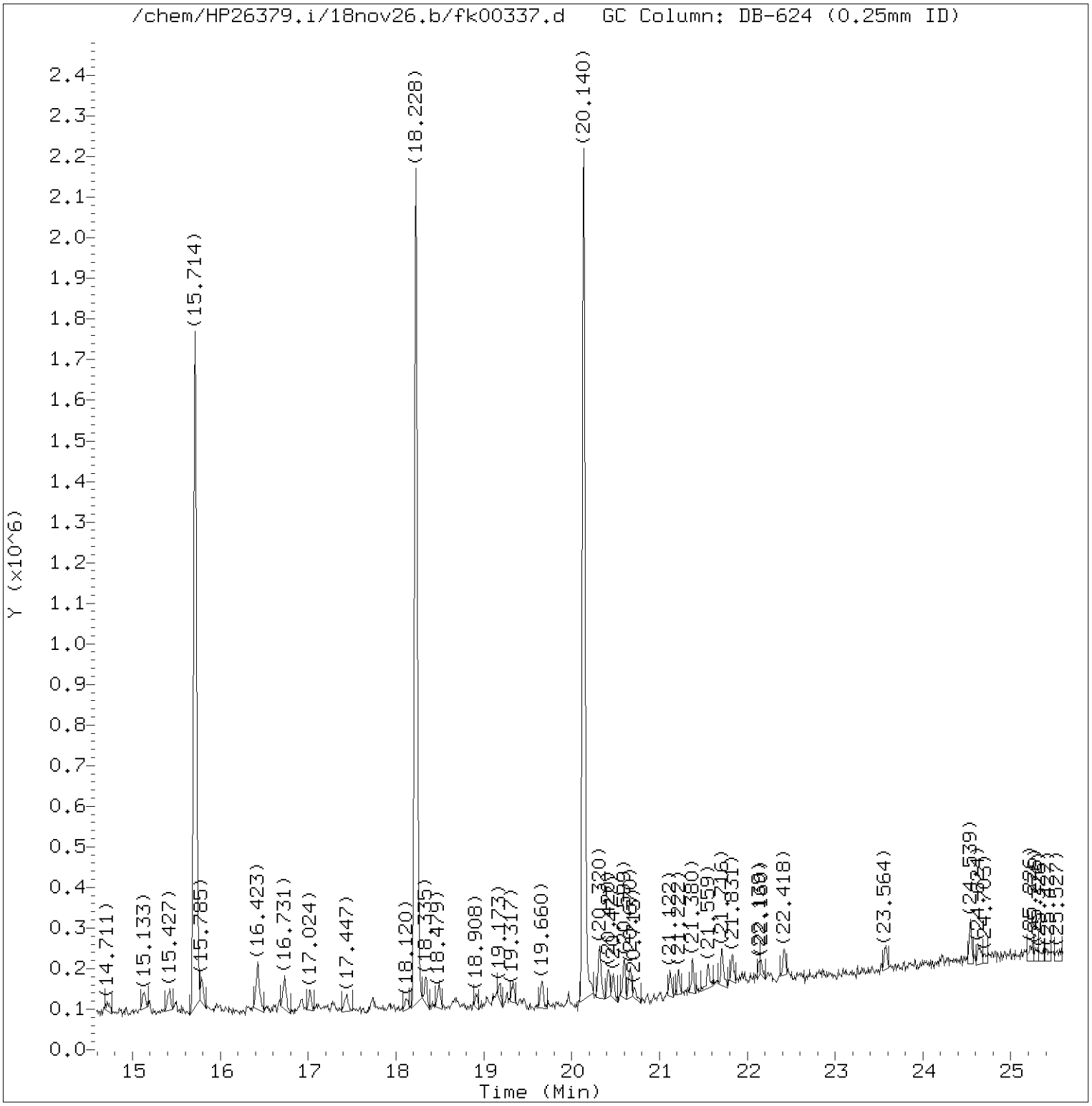
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.887	41	11667	0.210
2) Dichlorodifluoromethane	(1)	4.002	85	27841	0.182
3) Chlorodifluoromethane	(1)	4.088	51	27141	0.212
4) Freon 114	(1)	4.303	85	28282	0.177
5) Chloromethane	(1)	4.439	50	14273	0.205
6) Vinyl Chloride	(1)	4.640	62	11641M	0.274
7) 1,3-Butadiene	(1)	4.668	54	13859M	0.364
8) Bromomethane	(1)	5.349	94	12453M	0.268
9) Chloroethane	(1)	5.607	64	7527M	0.223
10) Bromoethene	(1)	5.822	106	7703	0.172
11) Pentane	(1)	5.857	43	49441	0.416
12) Trichlorofluoromethane	(1)	5.872	101	30230	0.184
13) Dichlorofluoromethane	(1)	5.965	67	22745	0.173
14) Ethanol	(1)	6.660	45	11230M	0.501
15) Freon123a	(1)	6.796	67	26003	0.206
16) 1,1-Dichloroethene	(1)	6.846	61	16083	0.159
17) Freon 113	(1)	6.903	103	14503	0.161
18) Carbon Disulfide	(1)	6.932	76	29095	0.188
19) Methyl Iodide	(1)	7.147	142	24558M	0.209
20) Acrolein	(1)	7.498	56	22973	0.952
22) 3-Chloropropene	(1)	7.698	41	25255	0.312
21) Isopropanol	(1)	7.720	45	23975	0.248
23) Methylene Chloride	(1)	7.970	84	12785	0.283
24) Acetone	(1)	8.071	43	44783	0.436
25) trans-1,2-Dichloroethene	(1)	8.307	61	18255	0.190
26) Hexane	(1)	8.436	56	21890	0.300
27) Methyl t-Butyl Ether	(1)	8.508	73	22239	0.158
28) tert-Butyl Alcohol	(1)	8.637	59	22021	0.174
29) Acetonitrile	(1)	9.031	41	16806	0.283
30) Di-Isopropyl Ether	(1)	9.296	45	33954	0.160
31) 1,1-Dichloroethane	(1)	9.611	63	22835	0.178
32) Acrylonitrile	(1)	9.754	53	21204	0.381
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	24763	0.131
34) Vinyl Acetate	(1)	10.098	43	32849	0.193
35) cis-1,2-Dichloroethene	(1)	10.707	61	14239	0.162
36) 1,2-Dichloroethene (total)	(1)		61	32494	0.352
37)*Bromochloromethane	(1)	11.094	130	426528	10.000
38) Cyclohexane	(1)	11.115	56	72361	0.670

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.215	83	28652	0.223
40) Ethyl Acetate	(1)	11.416	43	77690	0.563
41) Methyl Acrylate	(1)	11.459	55	17577	0.150
42) Carbon Tetrachloride	(1)	11.509	117	21175	0.153
43) Tetrahydrofuran	(1)	11.559	42	14453	0.199
44) 1,1,1-Trichloroethane	(1)	11.638	97	24360	0.176
45) 2-Butanone	(1)	11.810	43	52497	0.381
46) Isooctane	(2)	12.046	57	184198	0.620
47) Heptane	(2)	12.204	71	10663	0.208
48) Benzene	(2)	12.318	78	36499	0.208
49) Tert-Amyl Methyl Ether	(2)	12.483	73	20404	0.158
50) 1,2-Dichloroethane	(2)	12.684	62	20096	0.205
51) Trichloroethene	(2)	13.350	130	13749	0.194
52)*1,4-Difluorobenzene	(2)	13.386	114	1269135	10.000
53) Dibromomethane	(2)	14.088	174	17389	0.227
54) Ethyl Acrylate	(2)	14.224	55	30365	0.224
55) 1,2-Dichloropropane	(2)	14.267	63	15543	0.186
56) Bromodichloromethane	(2)	14.338	83	27630	0.206
57) Methyl Methacrylate	(2)	14.568	69	8741	0.181
58) 1,4-Dioxane	(2)	14.654	88	4883	0.139
59) cis-1,3-Dichloropropene	(2)	15.399	75	17563	0.188
60) Octane	(3)	15.427	43	27857	0.175
61) Toluene	(3)	15.800	91	38698	0.200
62) 4-Methyl-2-Pentanone	(2)	16.401	43	28167	0.172
63) Tetrachloroethene	(3)	16.423	166	36976	0.311
64) trans-1,3-Dichloropropene	(3)	16.466	75	16958	0.195
66) Ethyl Methacrylate	(3)	16.666	69	13125	0.154
65) 1,3-Dichloropropene (total)	(3)		75	34521	0.383
67) 1,1,2-Trichloroethane	(3)	16.731	97	19564	0.242
68) Dibromochloromethane	(3)	17.024	127	25868	0.246
69) 1,2-Dibromoethane	(3)	17.440	107	31176	0.273
70) 2-Hexanone	(3)	17.726	43	26900	0.179
71)*Chlorobenzene-d5	(3)	18.228	117	1297116	10.000
72) Chlorobenzene	(3)	18.257	112	37136	0.216
73) Ethylbenzene	(3)	18.264	91	51263	0.201
74) 1,1,1,2-Tetrachloroethane	(3)	18.335	131	22855	0.232
75) m/p-Xylene	(3)	18.486	91	39159	0.219
76) o-Xylene	(3)	19.181	91	37424	0.216

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

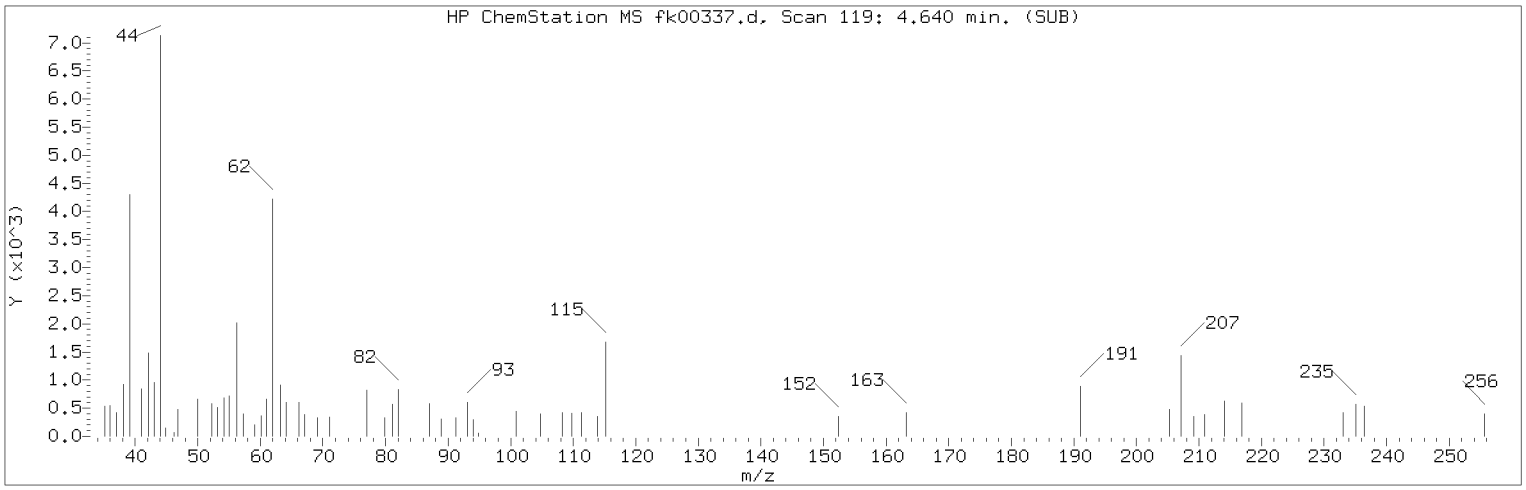
Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	76583	0.436
78) Styrene	(3)	19.267	104	16869	0.132
79) Bromoform	(3)	19.338	173	32918	0.231
80) Cumene	(3)	19.660	105	40756	0.172
81) n-Propylbenzene	(3)	20.312	120	12169	0.166
82) Bromobenzene	(3)	20.320	156	22288	0.214
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	48468	0.262
84) 4-Ethyltoluene	(3)	20.477	105	38901	0.159
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	33306	0.157
85) 2-Chlorotoluene	(3)	20.599	126	10843	0.158
87) 1,2,3-Trichloropropane	(3)	20.656	110	11164	0.213
88) Alpha Methyl Styrene	(3)	21.014	118	10938	0.122
89) tert-Butylbenzene	(3)	21.122	119	38592	0.200
90) 1,2,4-Trimethylbenzene	(3)	21.215	105	30473	0.149
91) sec-Butylbenzene	(3)	21.380	105	48359	0.158
92) p-Isopropyltoluene	(3)	21.559	119	38391	0.161
93) 1,3-Dichlorobenzene	(3)	21.716	146	35364	0.203
94) 1,4-Dichlorobenzene	(3)	21.831	146	33847	0.197
95) n-Butylbenzene	(3)	22.132	92	17790	0.121
96) Benzyl Chloride	(3)	22.160	126	6637	0.162
98) 1,2-Dichlorobenzene	(3)	22.418	146	32959	0.207
99) 1,2-Dibromo-3-chloropropane	(3)	23.572	157	19094	0.225
100) Hexachlorobutadiene	(3)	24.546	225	25367	0.223
101) 1,2,4-Trichlorobenzene	(3)	24.646	180	16977M	0.151
102) Naphthalene	(3)	25.233	128	19700M	0.106

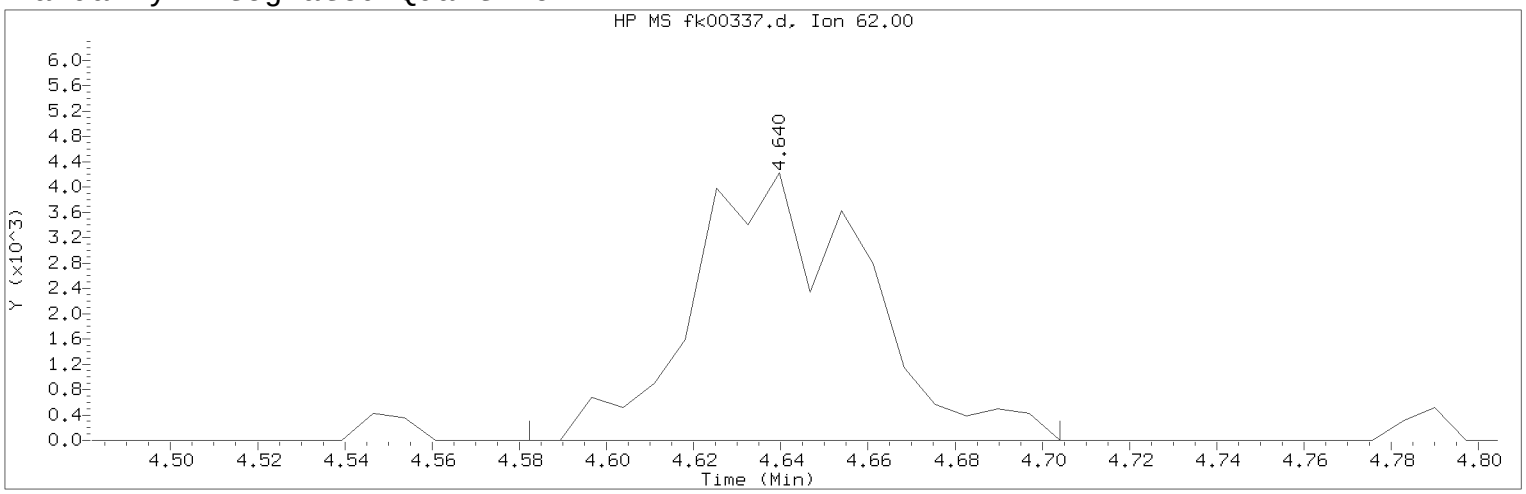
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

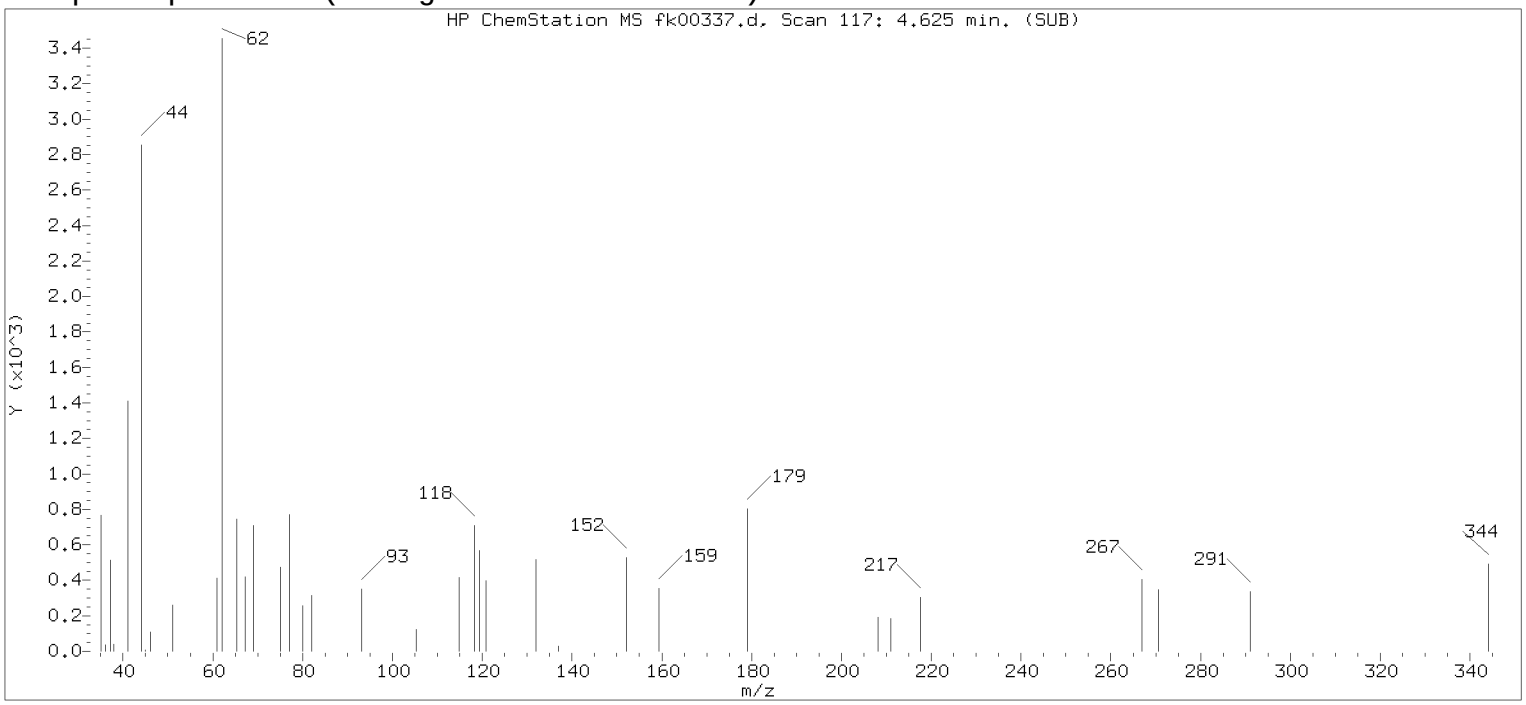
Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 119
Retention Time (minutes): 4.640
Quant Ion : 62.00
Area (flag) : 11641M
Concentration (ppb(v)) : 0.2737
Integration start scan : 110 Integration stop scan: 127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

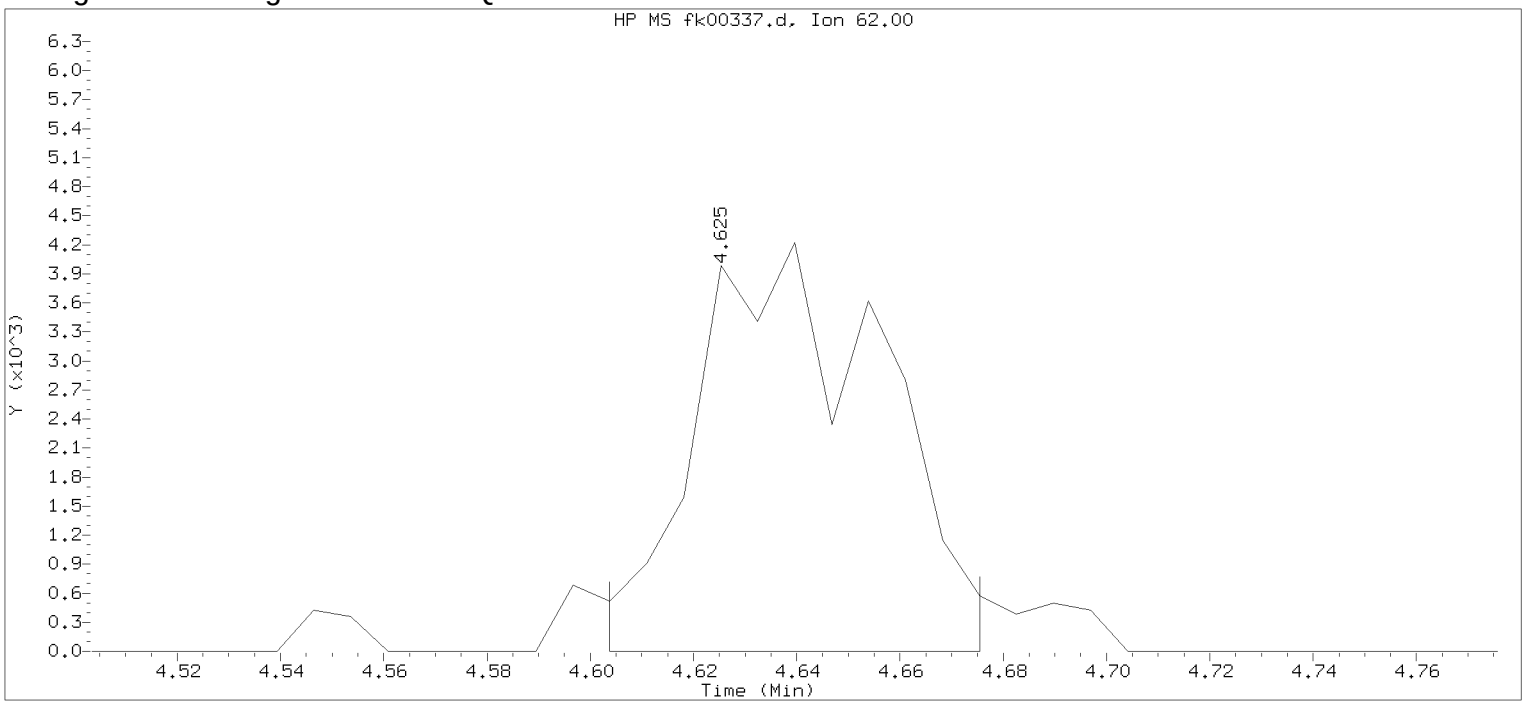
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

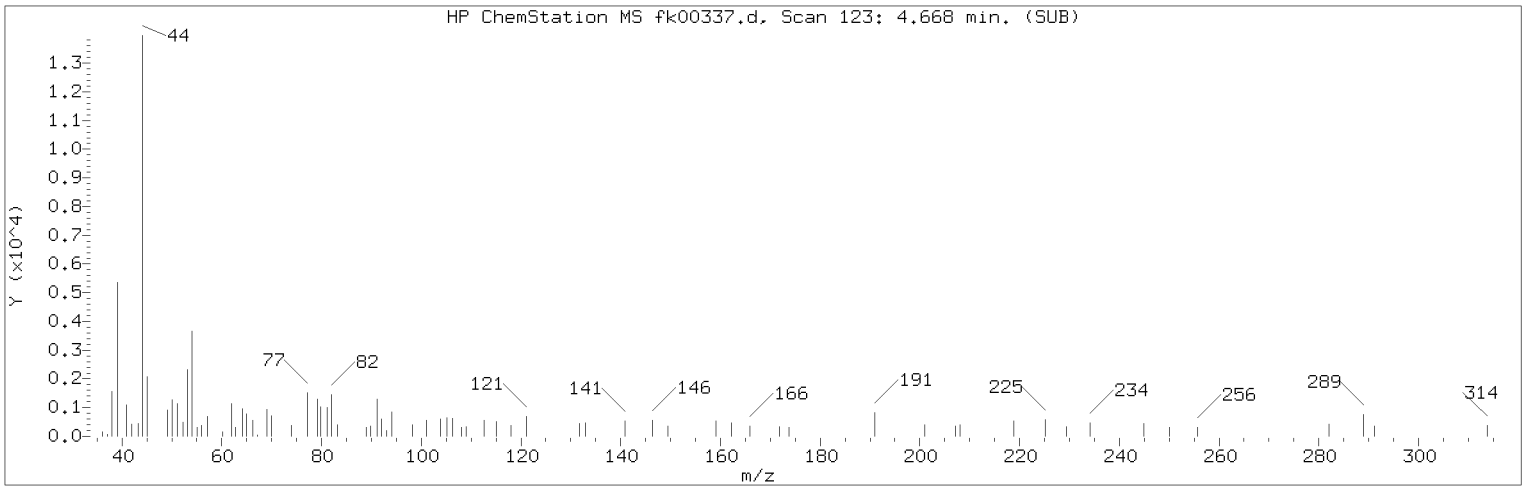
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

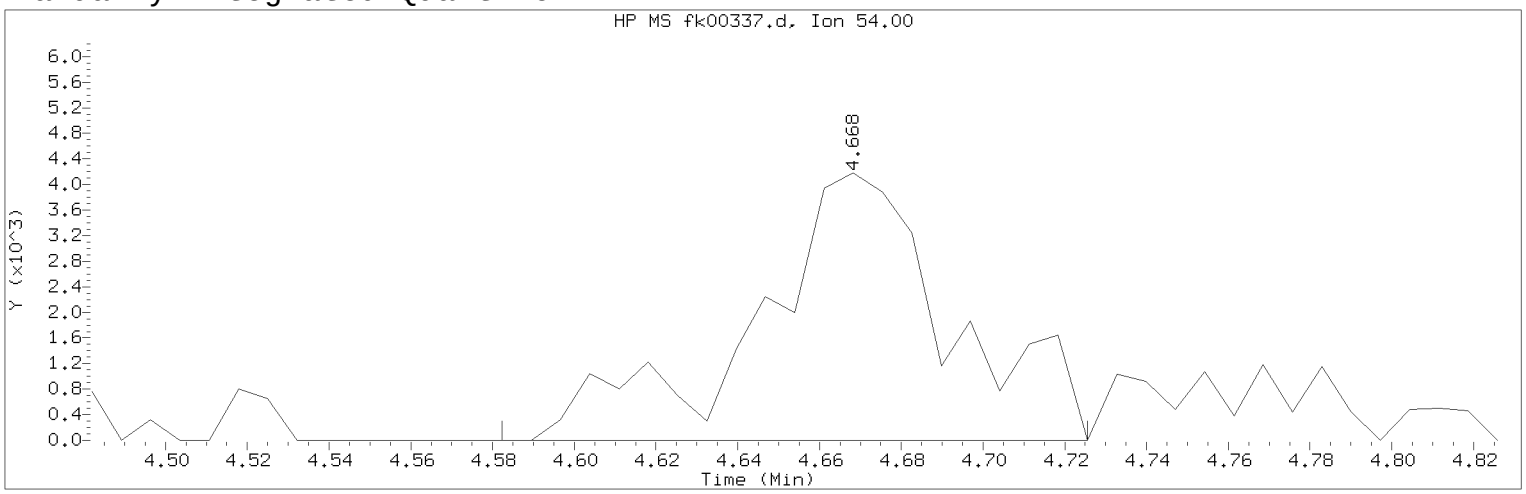
Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 117
Retention Time (minutes): 4.625
Quant Ion : 62.00
Area : 10557
Concentration (ppb(v)) : 0.2482
Integration start scan : 113 Integration stop scan: 123
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01376

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

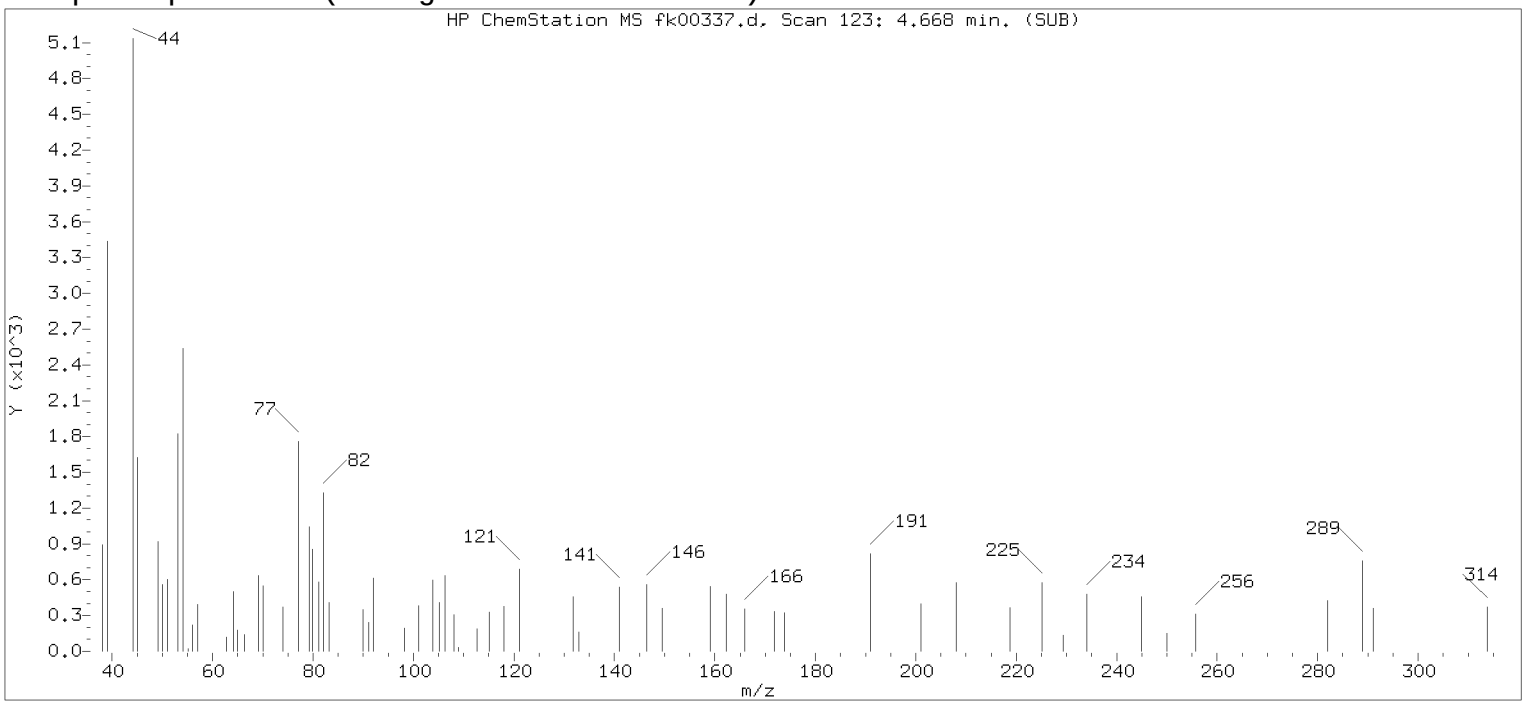
Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 123
Retention Time (minutes): 4.668
Quant Ion : 54.00
Area (flag) : 13859M
Concentration (ppb(v)) : 0.3639
Integration start scan : 110 Integration stop scan: 130
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

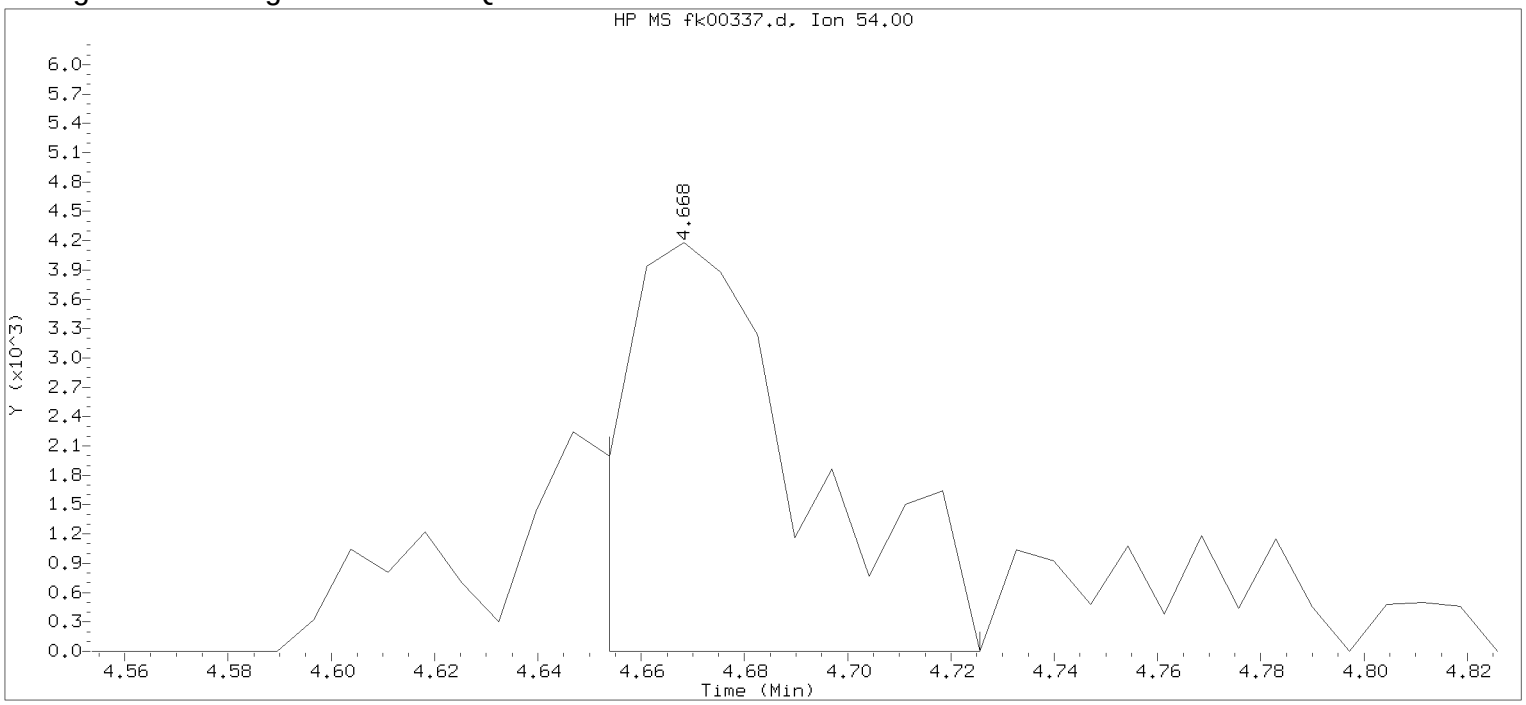
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

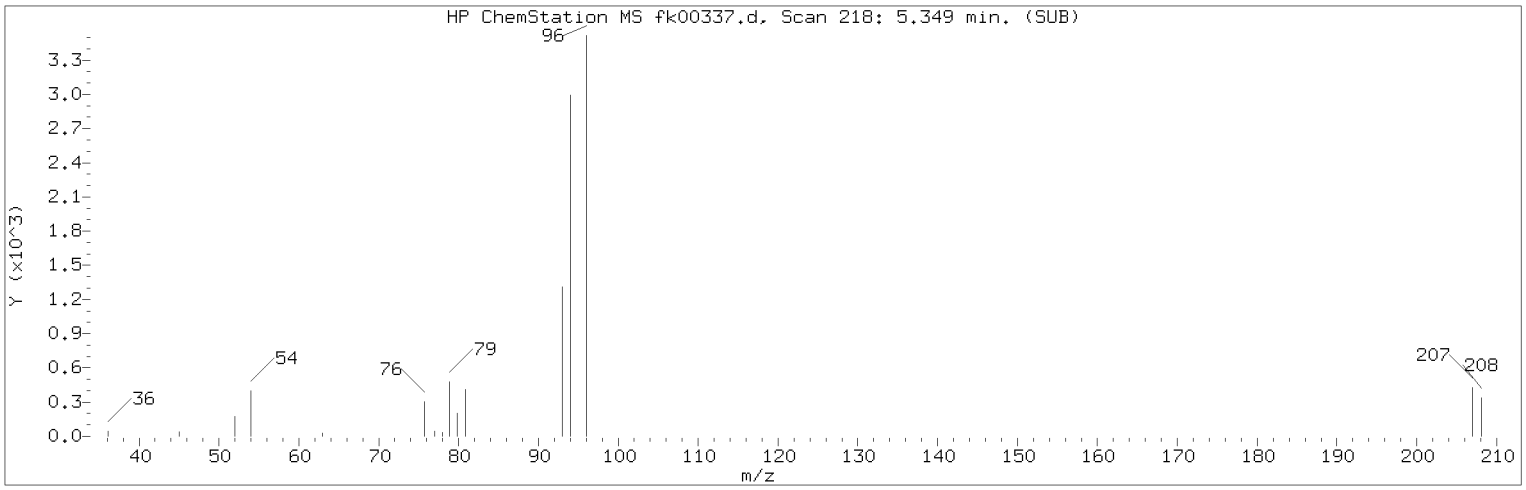
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

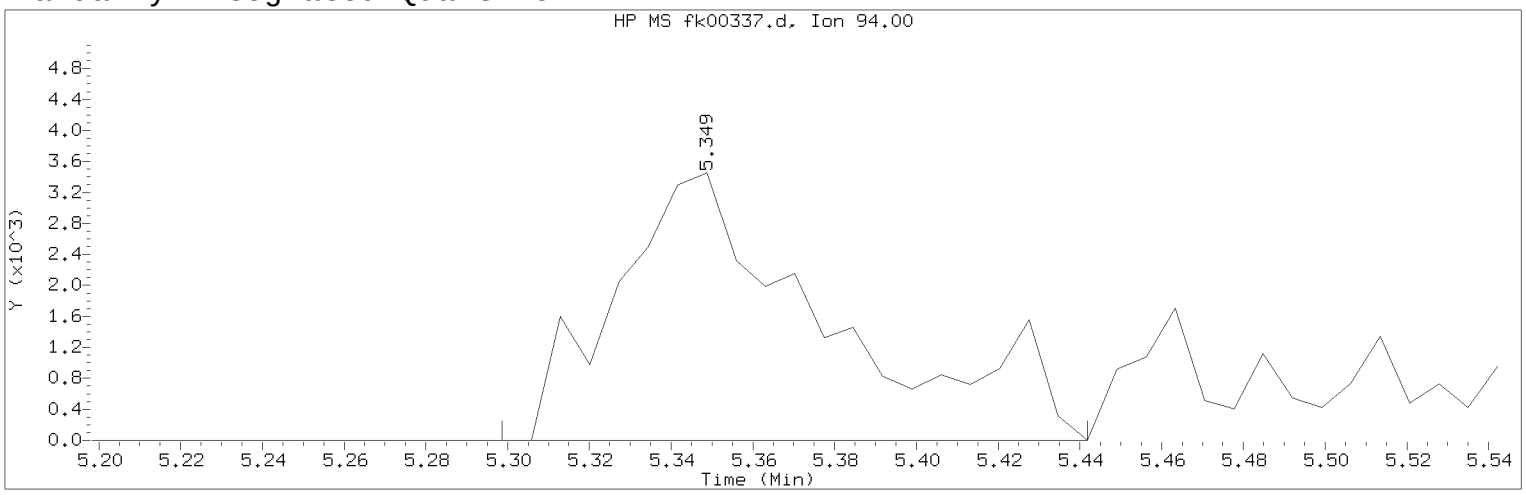
Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 123
Retention Time (minutes): 4.668
Quant Ion : 54.00
Area : 9958
Concentration (ppb(v)) : 0.2615
Integration start scan : 120 Integration stop scan: 130
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01374

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

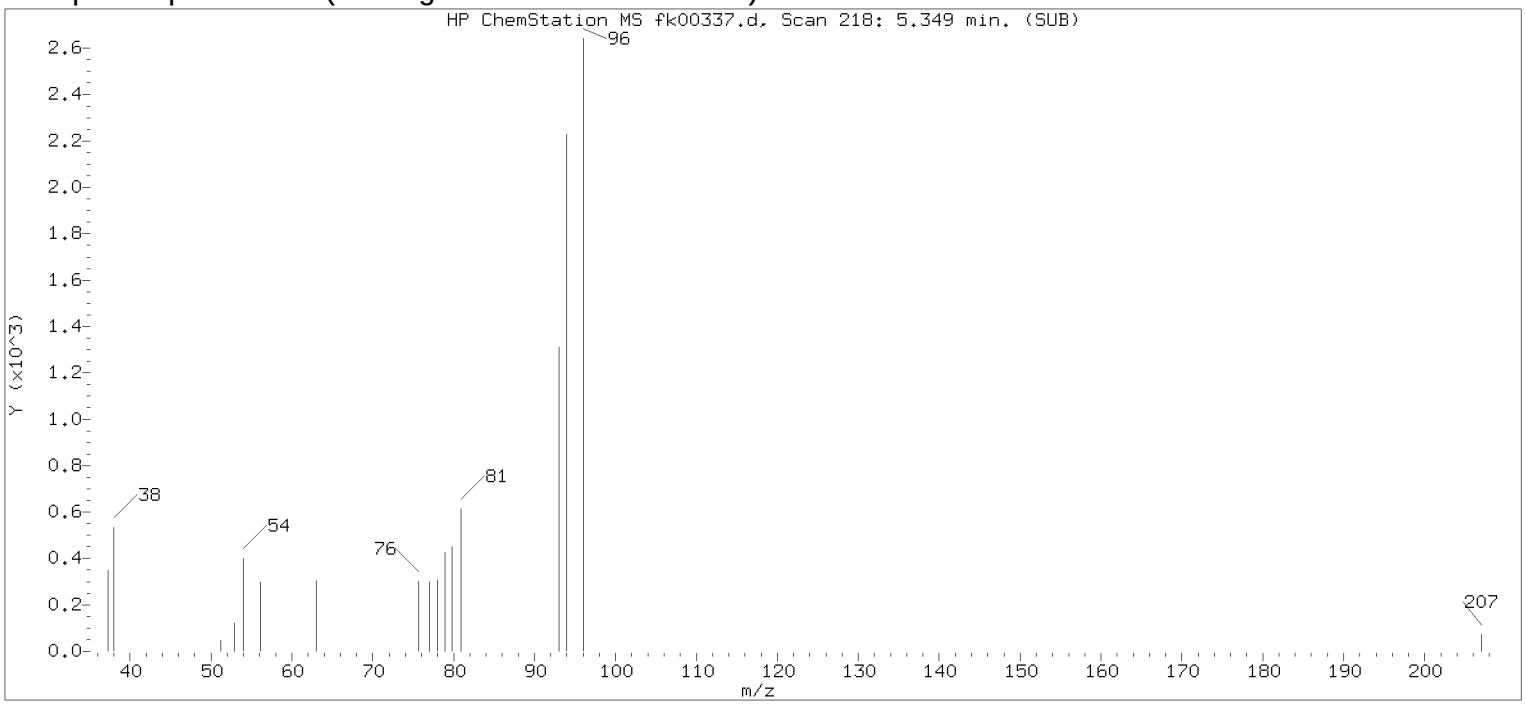
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 218
Retention Time (minutes): 5.349
Quant Ion : 94.00
Area (flag) : 12453M
Concentration (ppb(v)) : 0.2676
Integration start scan : 210 Integration stop scan: 230
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

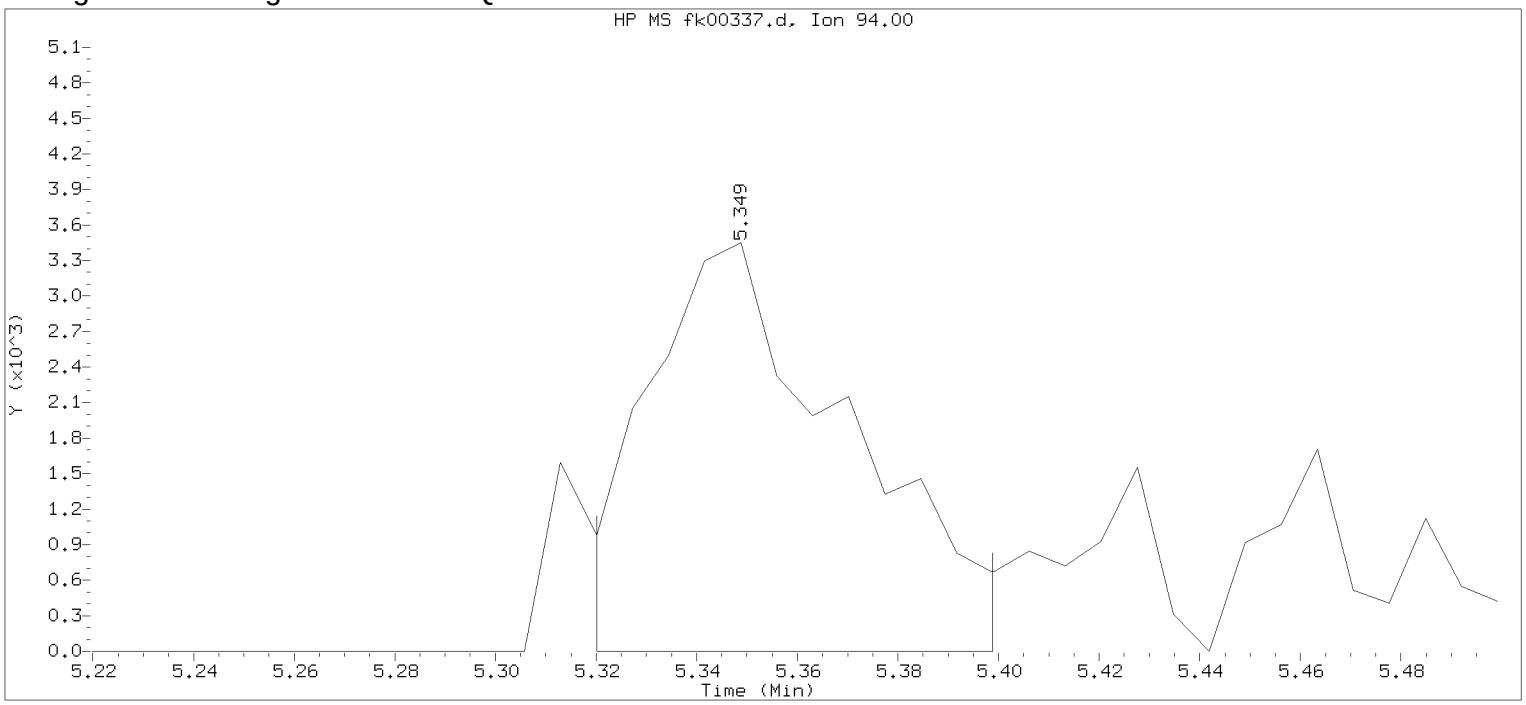
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

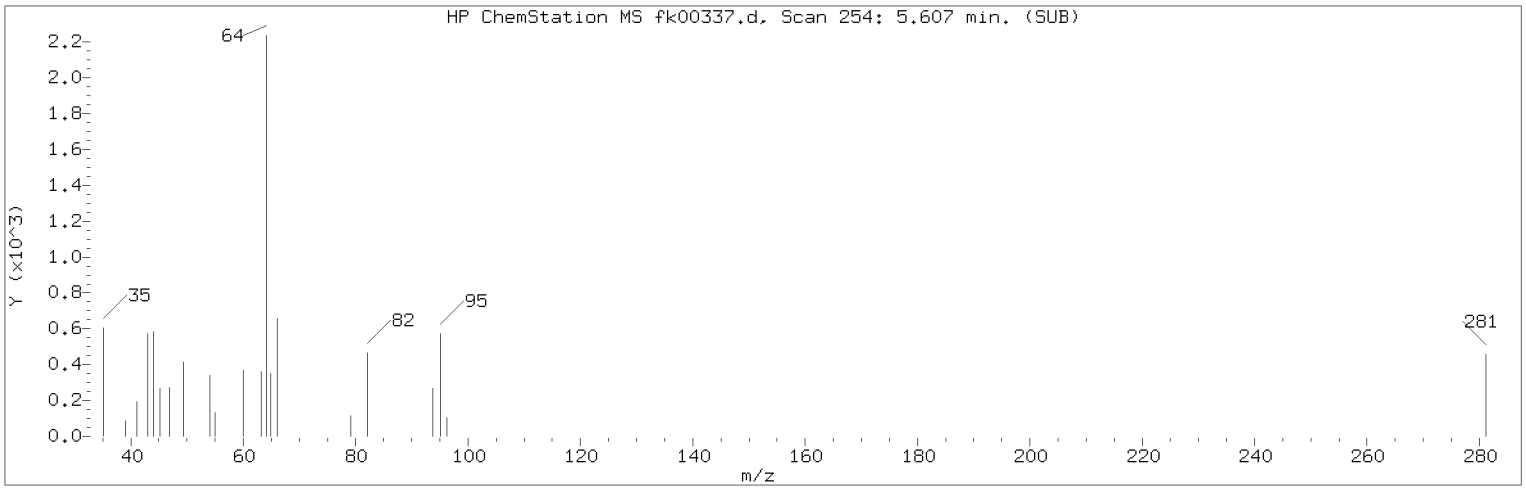
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

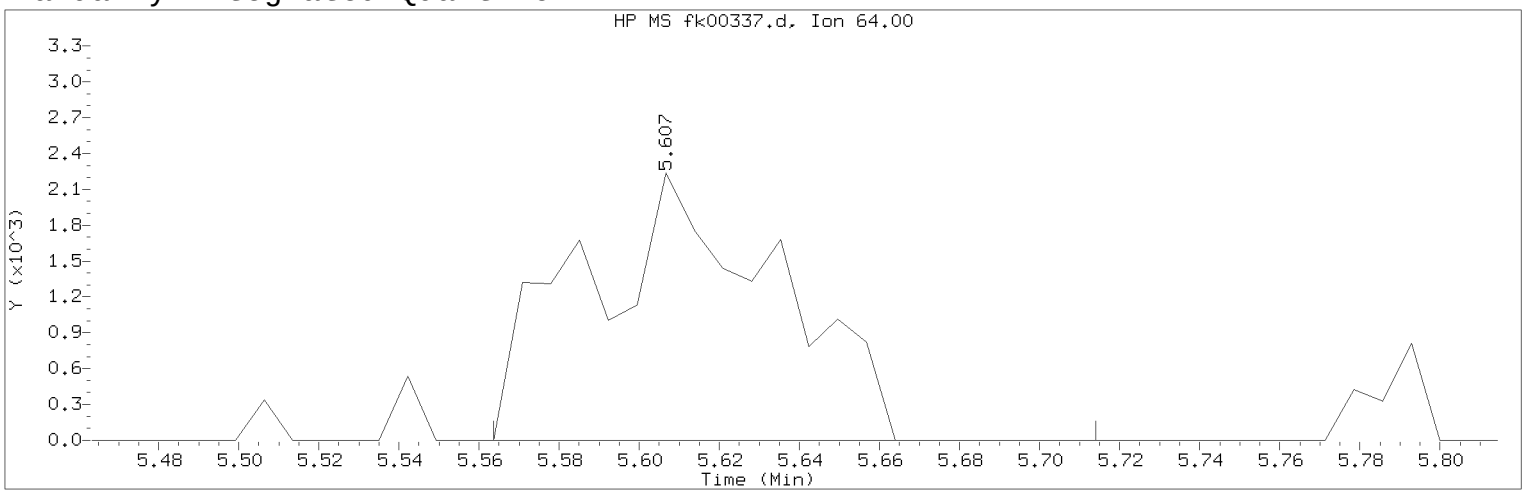
Compound Number : 8
Compound Name : Bromomethane
Scan Number : 218
Retention Time (minutes): 5.349
Quant Ion : 94.00
Area : 9538
Concentration (ppb(v)) : 0.2050
Integration start scan : 213 Integration stop scan: 224
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01380

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

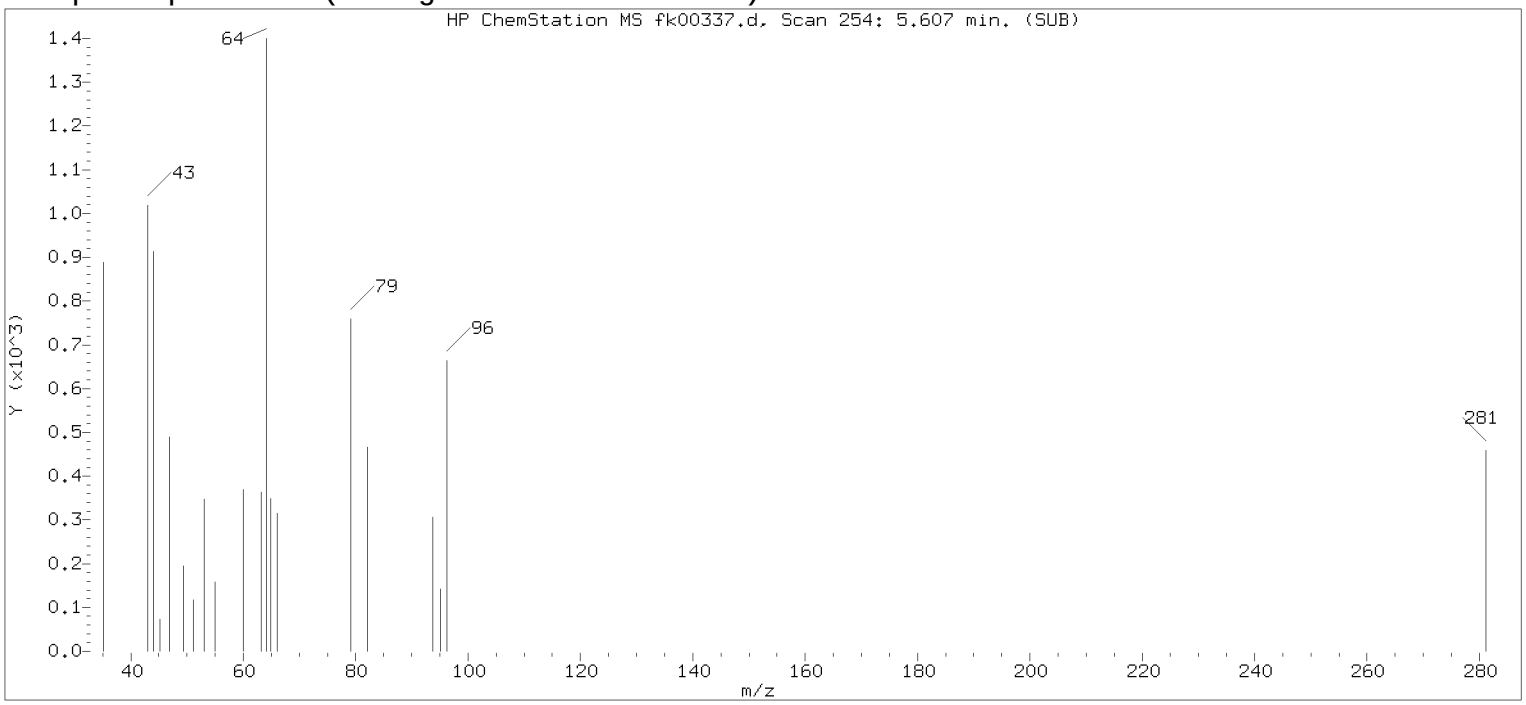
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 254
Retention Time (minutes): 5.607
Quant Ion : 64.00
Area (flag) : 7527M
Concentration (ppb(v)) : 0.2232
Integration start scan : 247 Integration stop scan: 268
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

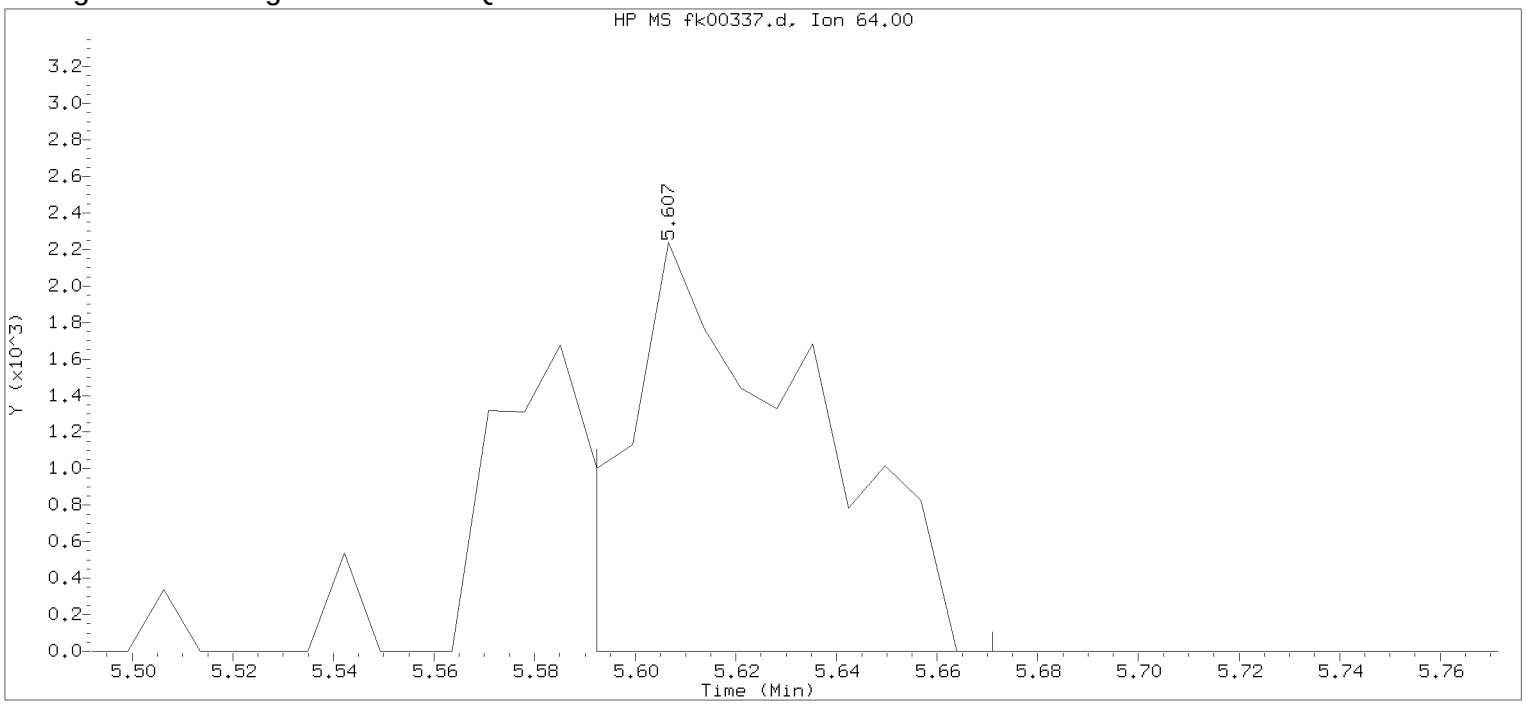
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

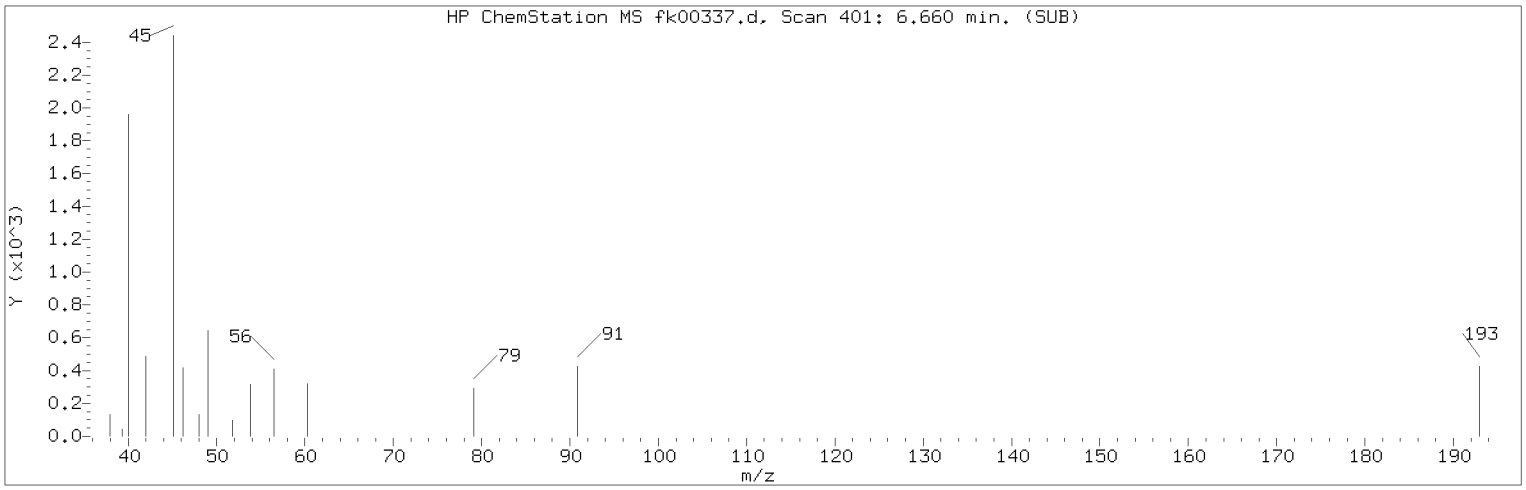
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

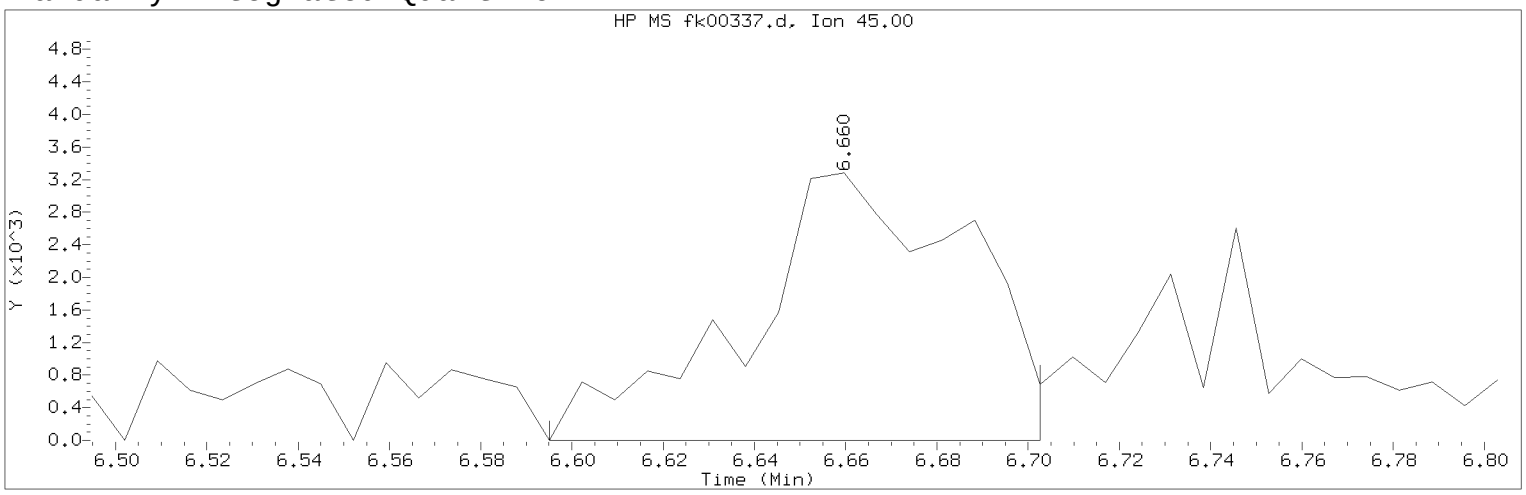
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 254
Retention Time (minutes): 5.607
Quant Ion : 64.00
Area : 5462
Concentration (ppb(v)) : 0.1620
Integration start scan : 251 Integration stop scan: 262
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01382

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

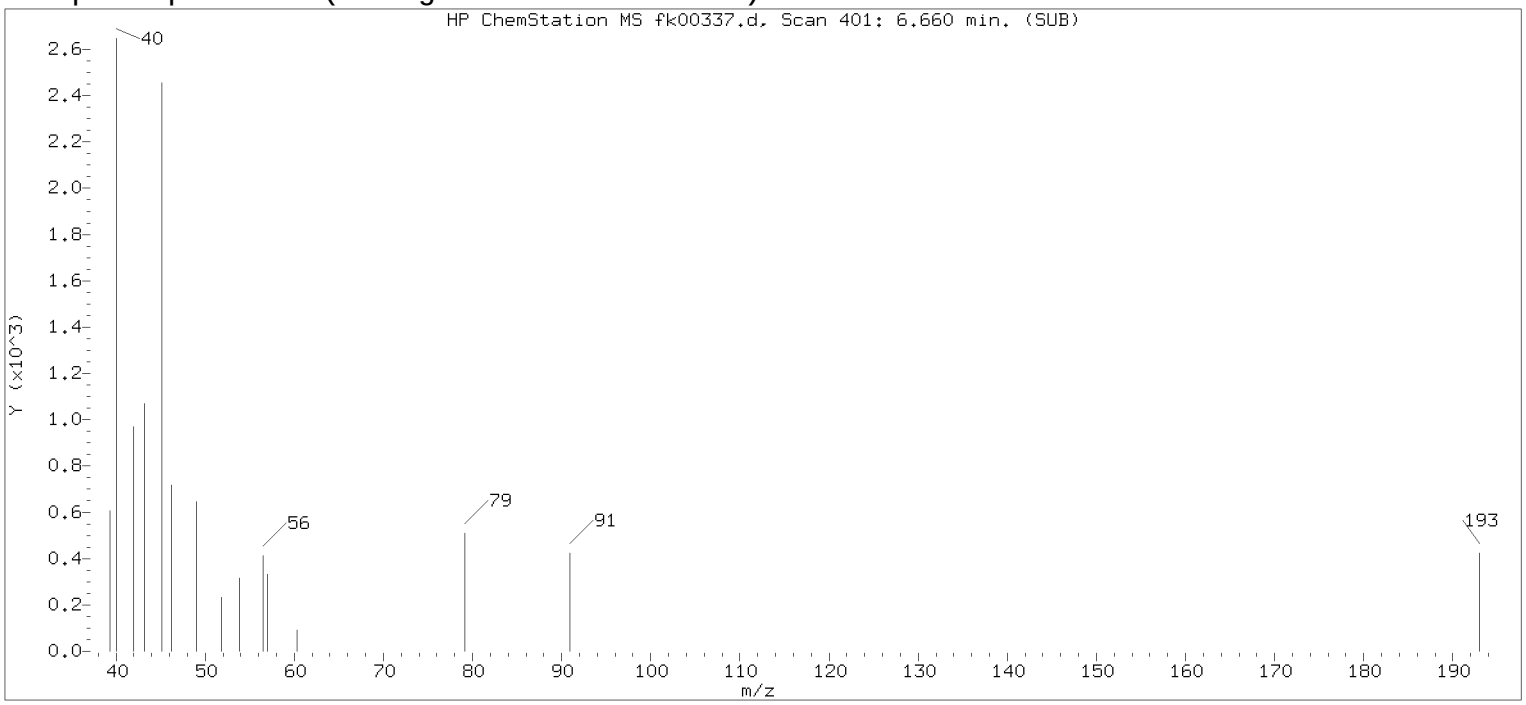
Compound Number : 14
Compound Name : Ethanol
Scan Number : 401
Retention Time (minutes): 6.660
Quant Ion : 45.00
Area (flag) : 11230M
Concentration (ppb(v)) : 0.5007
Integration start scan : 391 Integration stop scan: 406
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

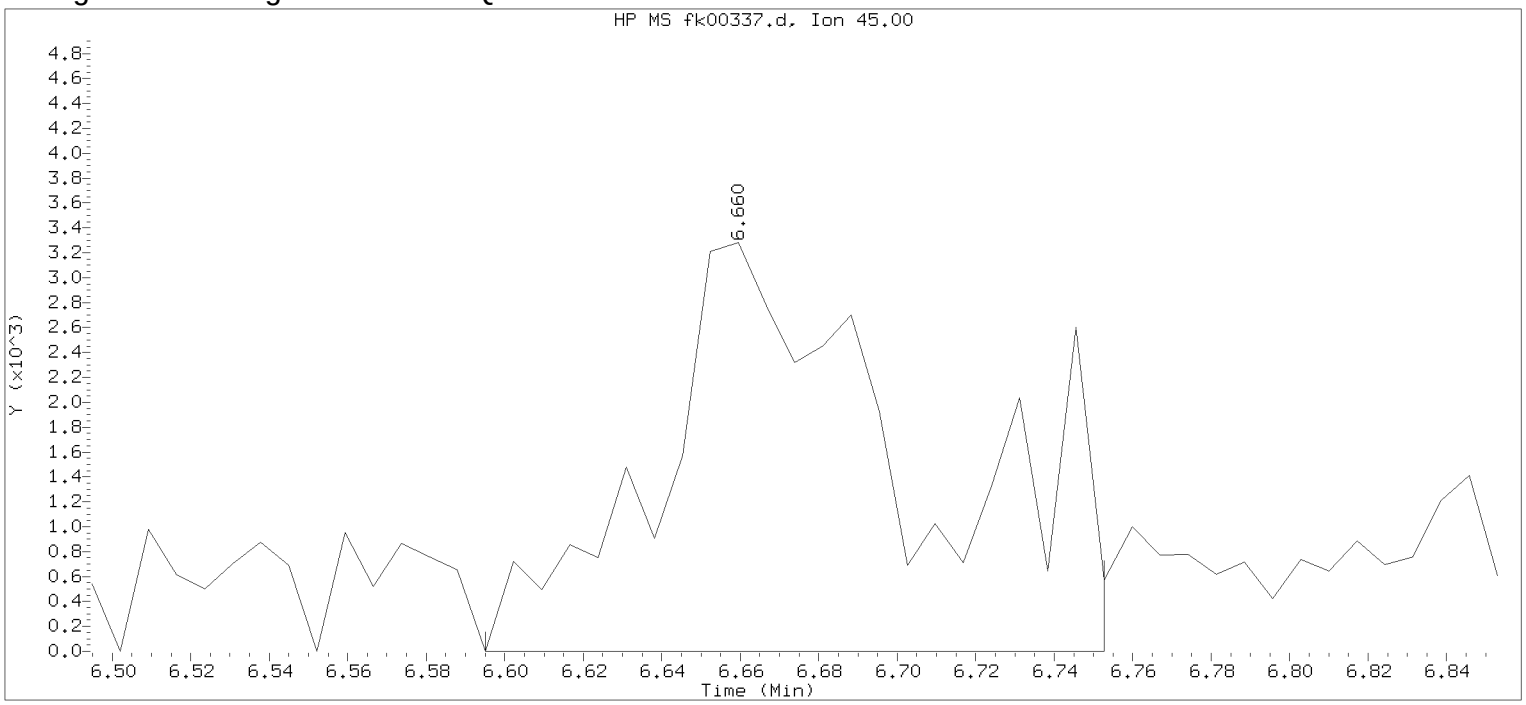
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

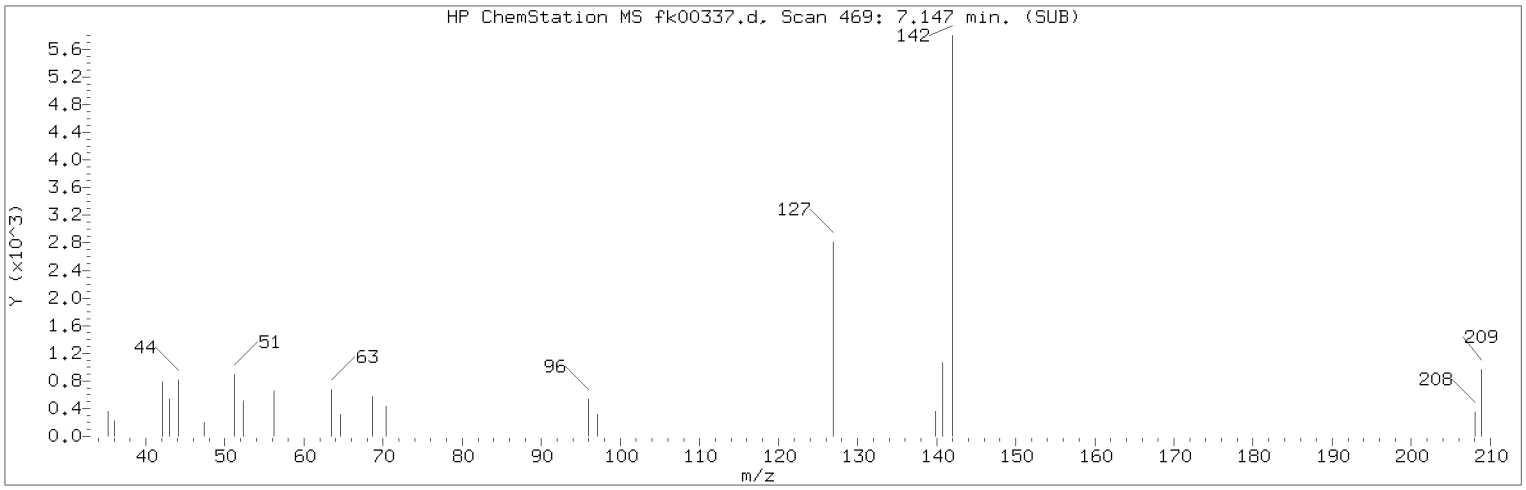
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

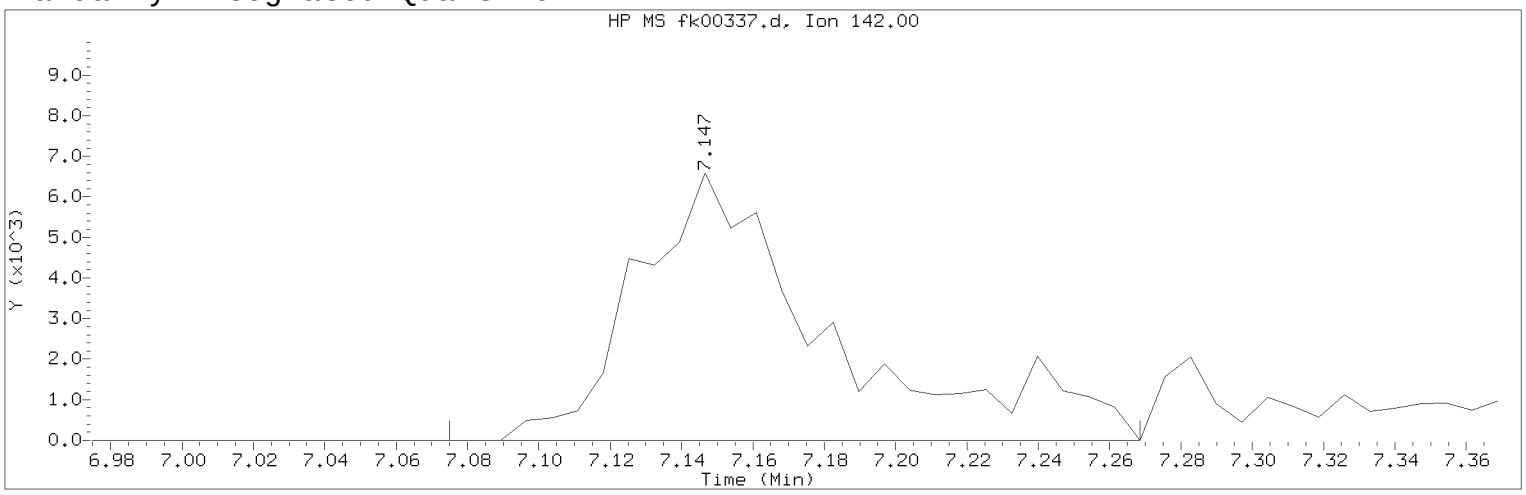
Compound Number : 14
Compound Name : Ethanol
Scan Number : 401
Retention Time (minutes): 6.660
Quant Ion : 45.00
Area : 14942
Concentration (ppb(v)) : 0.6662
Integration start scan : 391 Integration stop scan: 413
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01384

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

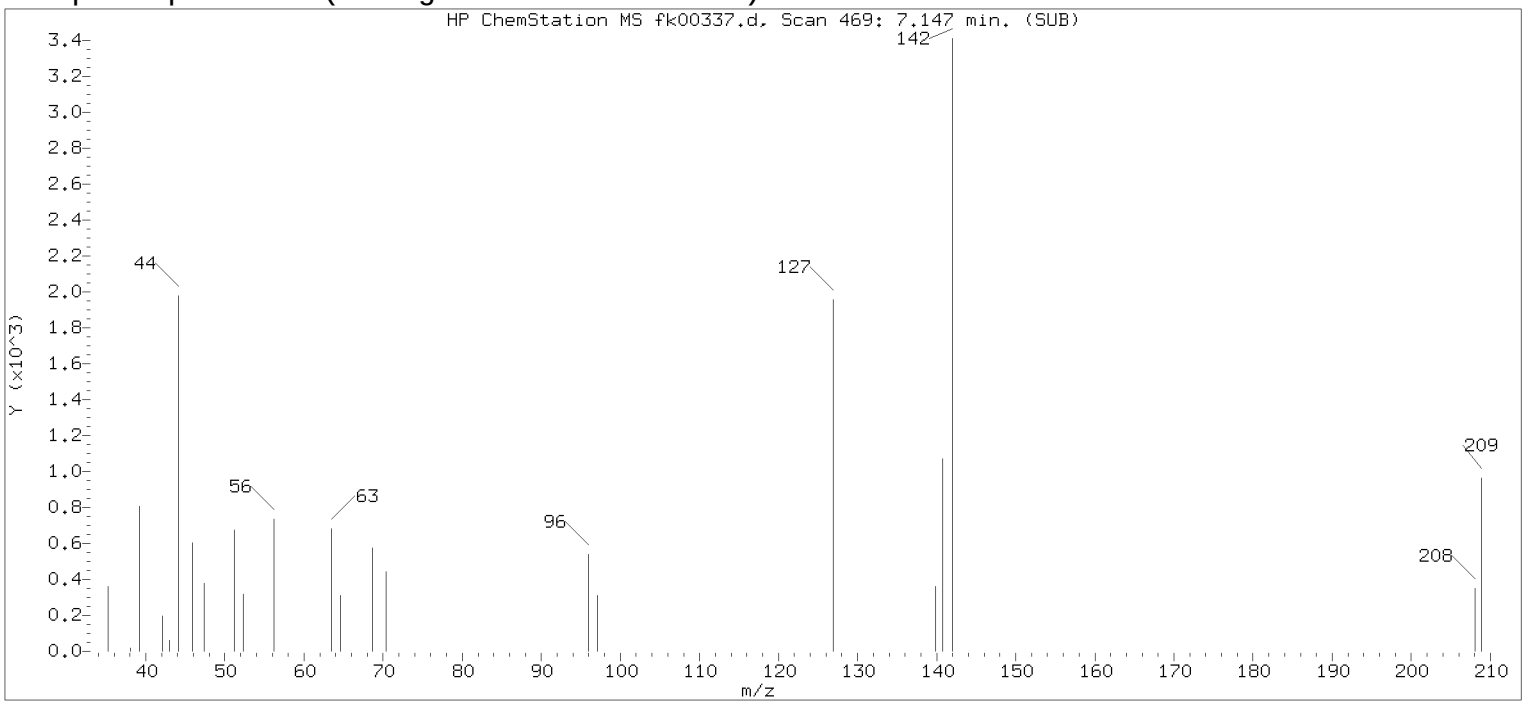
Compound Number : 19
Compound Name : Methyl Iodide
Scan Number : 469
Retention Time (minutes): 7.147
Quant Ion : 142.00
Area (flag) : 24558M
Concentration (ppb(v)) : 0.2093
Integration start scan : 458 Integration stop scan: 485
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

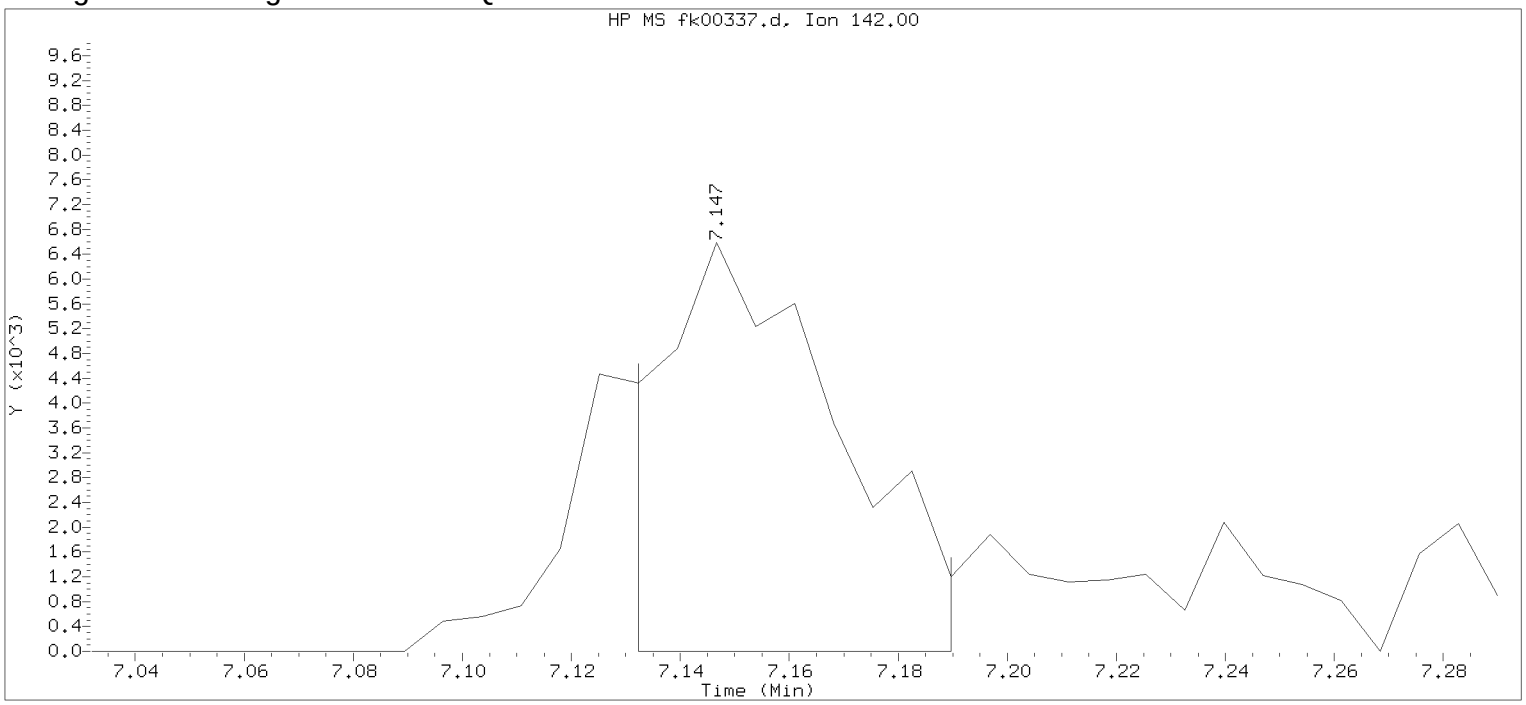
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

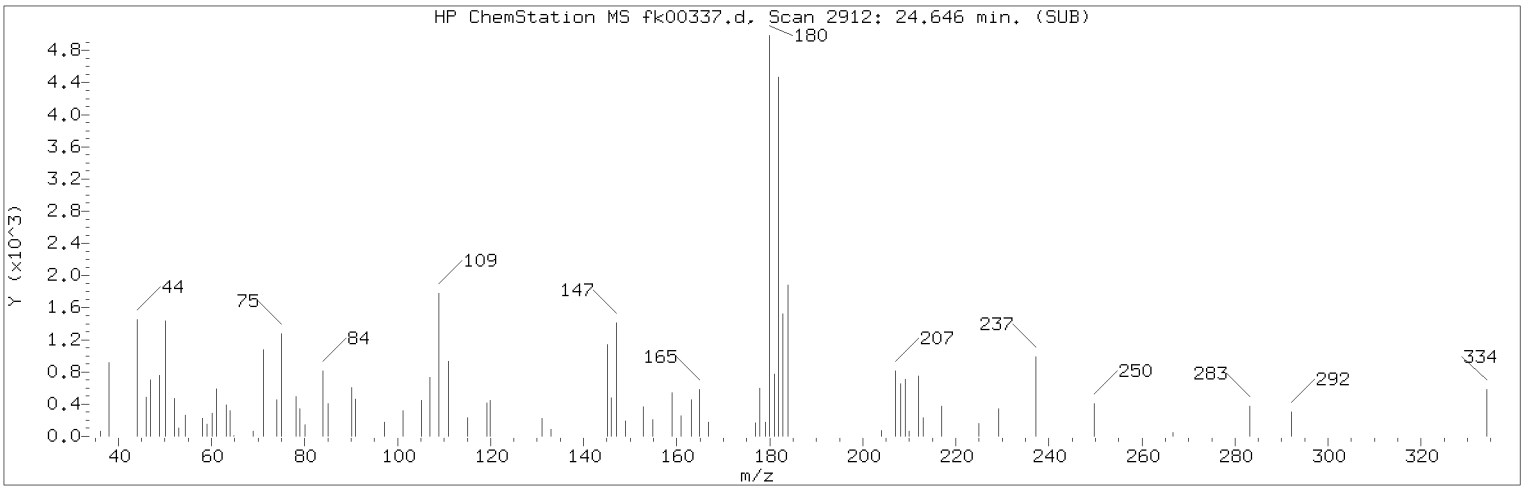
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

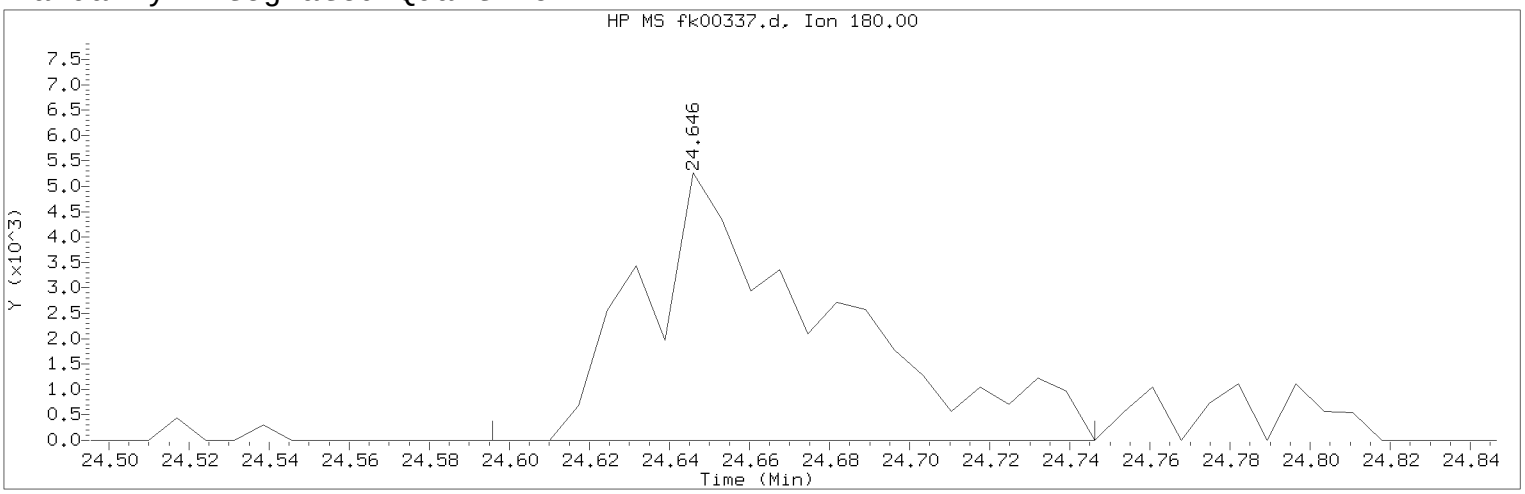
Compound Number : 19
Compound Name : Methyl Iodide
Scan Number : 469
Retention Time (minutes): 7.147
Quant Ion : 142.00
Area : 14607
Concentration (ppb(v)) : 0.1245
Integration start scan : 466 Integration stop scan: 474
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01386

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

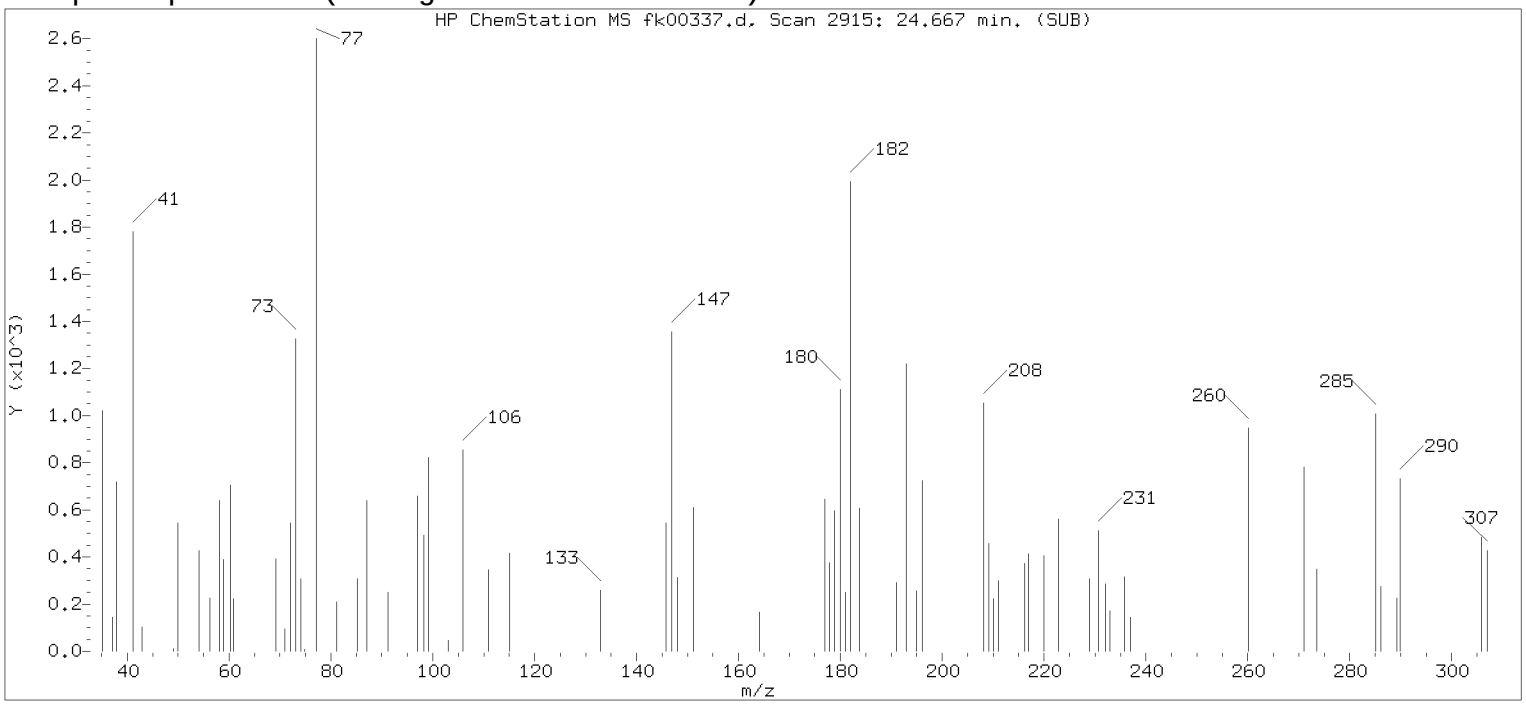
Compound Number : 101
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 2912
Retention Time (minutes): 24.646
Quant Ion : 180.00
Area (flag) : 16977M
Concentration (ppb(v)) : 0.1512
Integration start scan : 2904 Integration stop scan: 2925
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

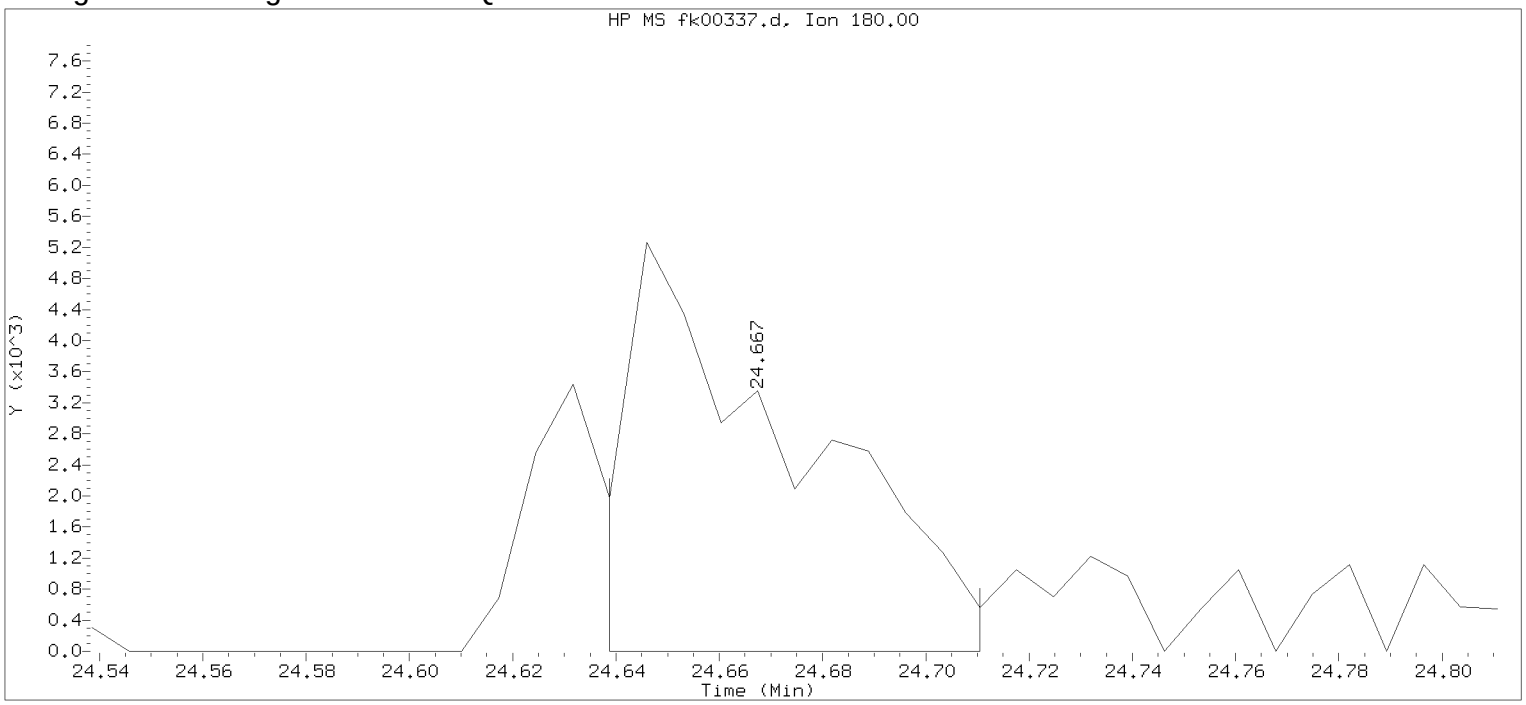
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

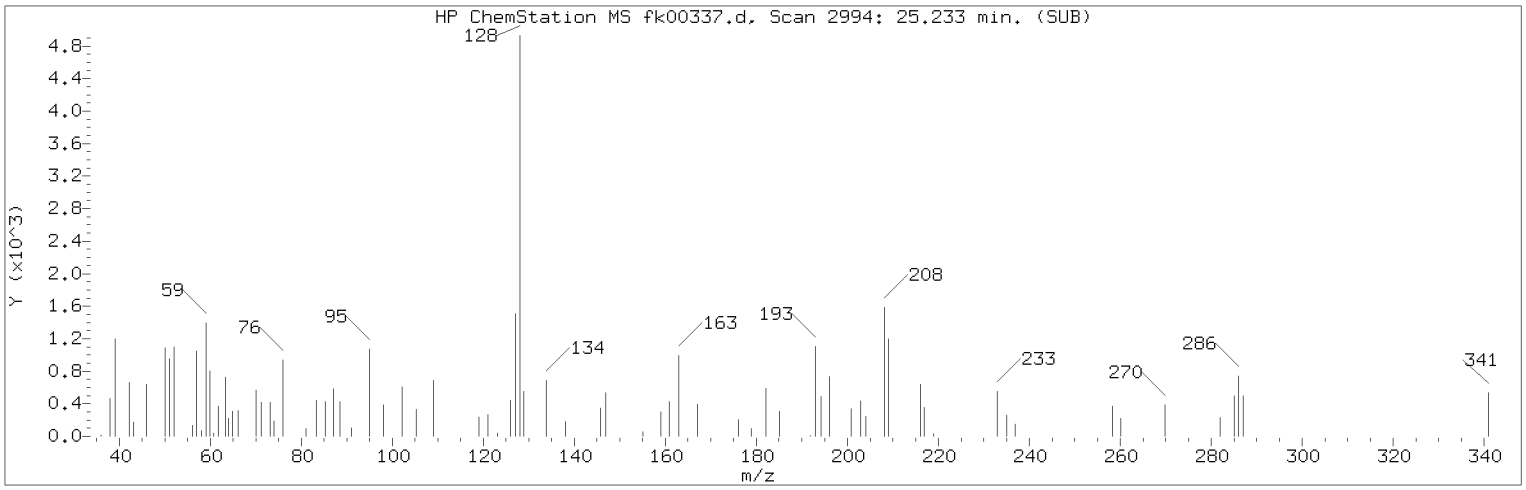
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

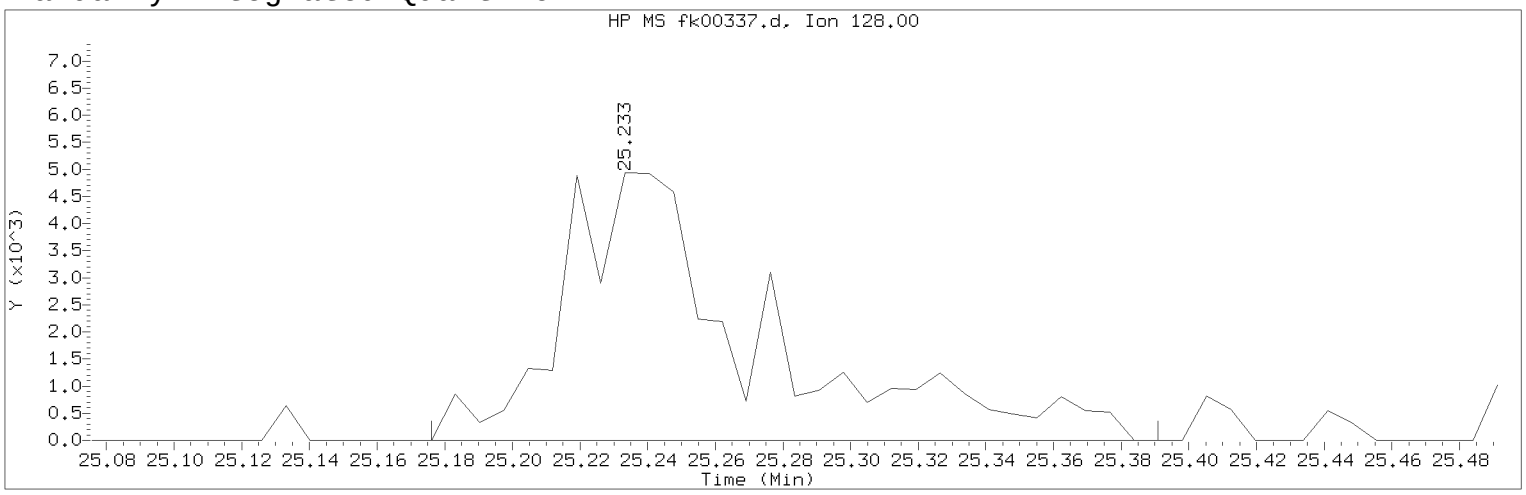
Compound Number : 101
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 2915
Retention Time (minutes): 24.667
Quant Ion : 180.00
Area : 11867
Concentration (ppb(v)) : 0.1057
Integration start scan : 2910 Integration stop scan: 2920
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01388

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 27-Nov-2018 13:02 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

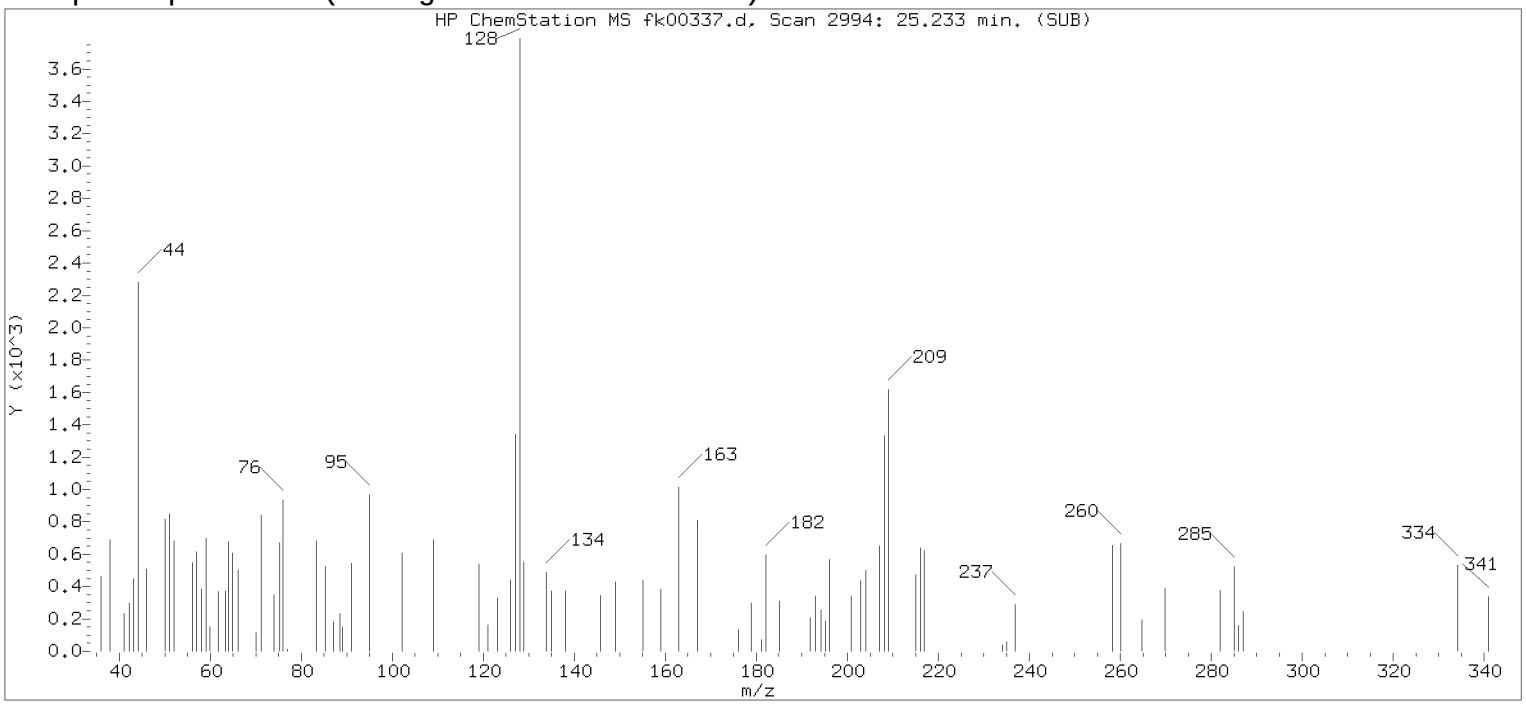
Compound Number : 102
Compound Name : Naphthalene
Scan Number : 2994
Retention Time (minutes): 25.233
Quant Ion : 128.00
Area (flag) : 19700M
Concentration (ppb(v)) : 0.1057
Integration start scan : 2985 Integration stop scan: 3015
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

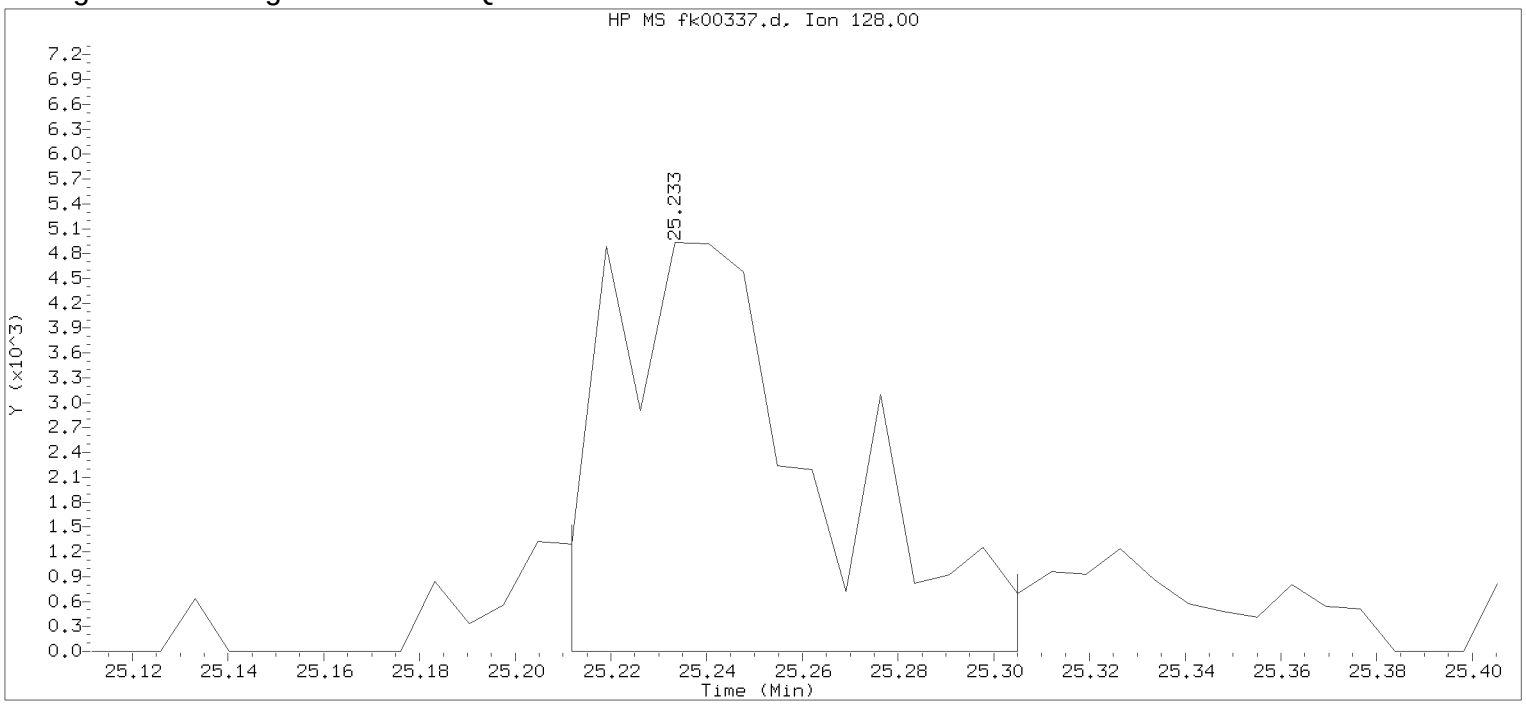
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 11/27/2018 at 13:04.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:59.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



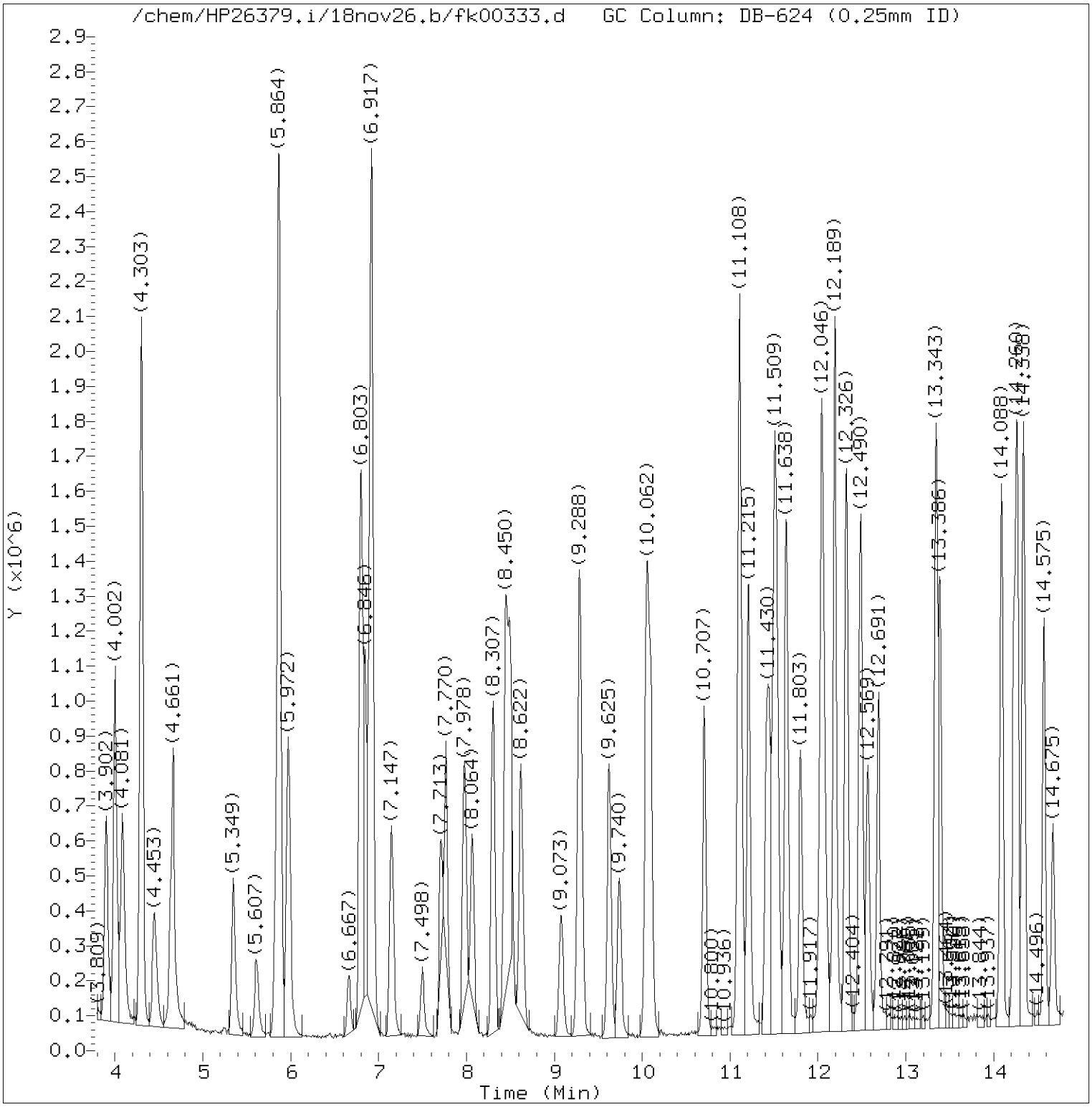
Data File: /chem/HP26379.i/18nov26.b/fk00337.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 18:35 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 19:08 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 102
Compound Name : Naphthalene
Scan Number : 2994
Retention Time (minutes): 25.233
Quant Ion : 128.00
Area : 14810
Concentration (ppb(v)) : 0.0795
Integration start scan : 2990 Integration stop scan: 3003
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 11/27/2018 at 13:04.
Target 3.5 esignature userBIR29jbs01390



Total Ion Chromatogram (TIC)

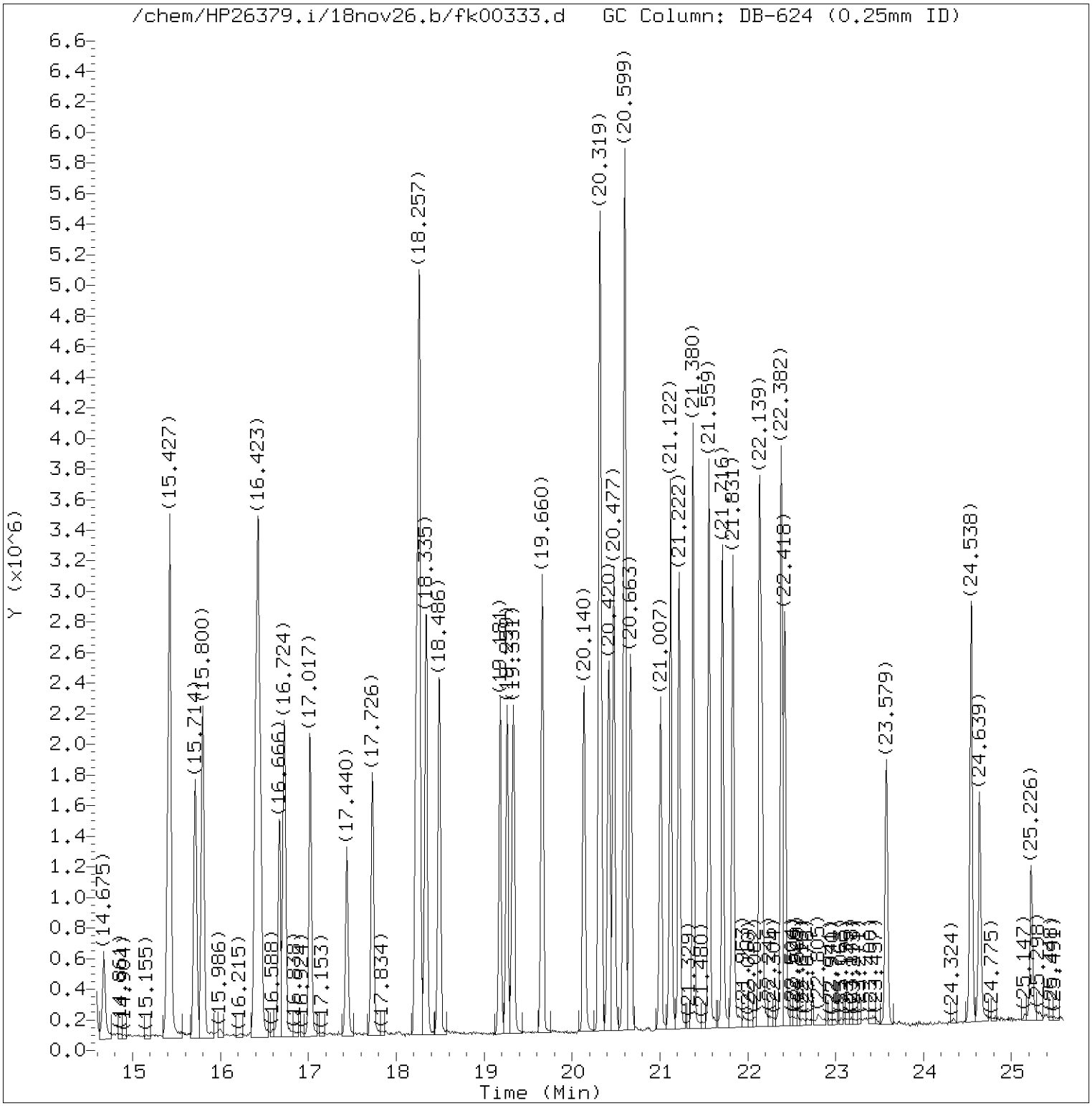
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	546409	10.069
2) Dichlorodifluoromethane	(1)	4.002	85	1637505	10.985
3) Chlorodifluoromethane	(1)	4.081	51	1347822	10.759
4) Freon 114	(1)	4.303	85	1598526	10.266
5) Chloromethane	(1)	4.453	50	709831	10.425
6) Vinyl Chloride	(1)	4.640	62	478498	11.520
7) 1,3-Butadiene	(1)	4.661	54	362017	9.735
8) Bromomethane	(1)	5.349	94	523758	11.526
9) Chloroethane	(1)	5.614	64	357921	10.870
10) Bromoethene	(1)	5.829	106	454189	10.382
11) Pentane	(1)	5.864	43	1097577	9.459
12) Trichlorofluoromethane	(1)	5.872	101	1542806	9.628
13) Dichlorofluoromethane	(1)	5.972	67	1461613	11.354
14) Ethanol	(1)	6.667	45	249123	11.375
15) Freon123a	(1)	6.803	67	1383646	11.242
16) 1,1-Dichloroethene	(1)	6.853	61	1001940	10.172
17) Freon 113	(1)	6.910	103	841497	9.572
18) Carbon Disulfide	(1)	6.932	76	1586941	10.524
19) Methyl Iodide	(1)	7.147	142	1145556	10.000
20) Acrolein	(1)	7.498	56	246963	10.476
21) Isopropanol	(1)	7.705	45	987379	10.446
22) 3-Chloropropene	(1)	7.770	41	990884	12.556
23) Methylene Chloride	(1)	7.970	84	549514	12.459
24) Acetone	(1)	8.064	43	1133812	11.295
25) trans-1,2-Dichloroethene	(1)	8.307	61	951502	10.143
26) Hexane	(1)	8.450	56	739641	10.368
27) Methyl t-Butyl Ether	(1)	8.500	73	1340548	9.729
28) tert-Butyl Alcohol	(1)	8.622	59	1294601	10.462
29) Acetonitrile	(1)	9.073	41	677756	11.681
30) Di-Isopropyl Ether	(1)	9.281	45	1915163	9.232
31) 1,1-Dichloroethane	(1)	9.625	63	1295512	10.323
32) Acrylonitrile	(1)	9.740	53	612321	11.260
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1773001	9.619
34) Vinyl Acetate	(1)	10.098	43	1999771	12.027
35) cis-1,2-Dichloroethene	(1)	10.707	61	863512	10.046
36) 1,2-Dichloroethene (total)	(1)		61	1815014	20.189
37)*Bromochloromethane	(1)	11.101	130	416501	10.000
38) Cyclohexane	(1)	11.115	56	964633	9.152

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1295552	10.326
40) Ethyl Acetate	(1)	11.416	43	1505337	11.169
41) Methyl Acrylate	(1)	11.452	55	1200355	10.493
42) Carbon Tetrachloride	(1)	11.502	117	1327480	9.808
43) Tetrahydrofuran	(1)	11.538	42	761740	10.755
44) 1,1,1-Trichloroethane	(1)	11.638	97	1349686	9.982
45) 2-Butanone	(1)	11.803	43	1439976M	10.694
46) Isooctane	(2)	12.046	57	3015025	10.702
47) Heptane	(2)	12.197	71	500590	10.307
48) Benzene	(2)	12.326	78	1749793	10.529
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1238468	10.096
50) 1,2-Dichloroethane	(2)	12.691	62	1039047	11.184
51) Trichloroethene	(2)	13.343	130	703758	10.478
52)*1,4-Difluorobenzene	(2)	13.393	114	1203804	10.000
53) Dibromomethane	(2)	14.088	174	810430	11.155
54) Ethyl Acrylate	(2)	14.224	55	1322427	10.281
55) 1,2-Dichloropropane	(2)	14.260	63	845992	10.661
56) Bromodichloromethane	(2)	14.338	83	1341197	10.533
57) Methyl Methacrylate	(2)	14.575	69	463117	10.108
58) 1,4-Dioxane	(2)	14.675	88	361576	10.871
59) cis-1,3-Dichloropropene	(2)	15.406	75	919924	10.374
60) Octane	(3)	15.427	43	1573362	9.953
61) Toluene	(3)	15.800	91	1823987	9.472
62) 4-Methyl-2-Pentanone	(2)	16.394	43	1610432	10.358
63) Tetrachloroethene	(3)	16.430	166	1163777	9.843
64) trans-1,3-Dichloropropene	(3)	16.459	75	856366	9.893
65) 1,3-Dichloropropene (total)	(3)		75	1776290	20.267
66) Ethyl Methacrylate	(3)	16.673	69	770411	9.086
67) 1,1,2-Trichloroethane	(3)	16.724	97	783075	9.739
68) Dibromochloromethane	(3)	17.017	127	989680	9.483
69) 1,2-Dibromoethane	(3)	17.440	107	1059481	9.318
70) 2-Hexanone	(3)	17.726	43	1382962	9.263
71)*Chlorobenzene-d5	(3)	18.228	117	1289956	10.000
72) Chlorobenzene	(3)	18.257	112	1558892	9.137
73) Ethylbenzene	(3)	18.264	91	2329706	9.180
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	914088	9.327
75) m/p-Xylene	(3)	18.486	91	1614929	9.088
76) o-Xylene	(3)	19.181	91	1461591	8.502

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

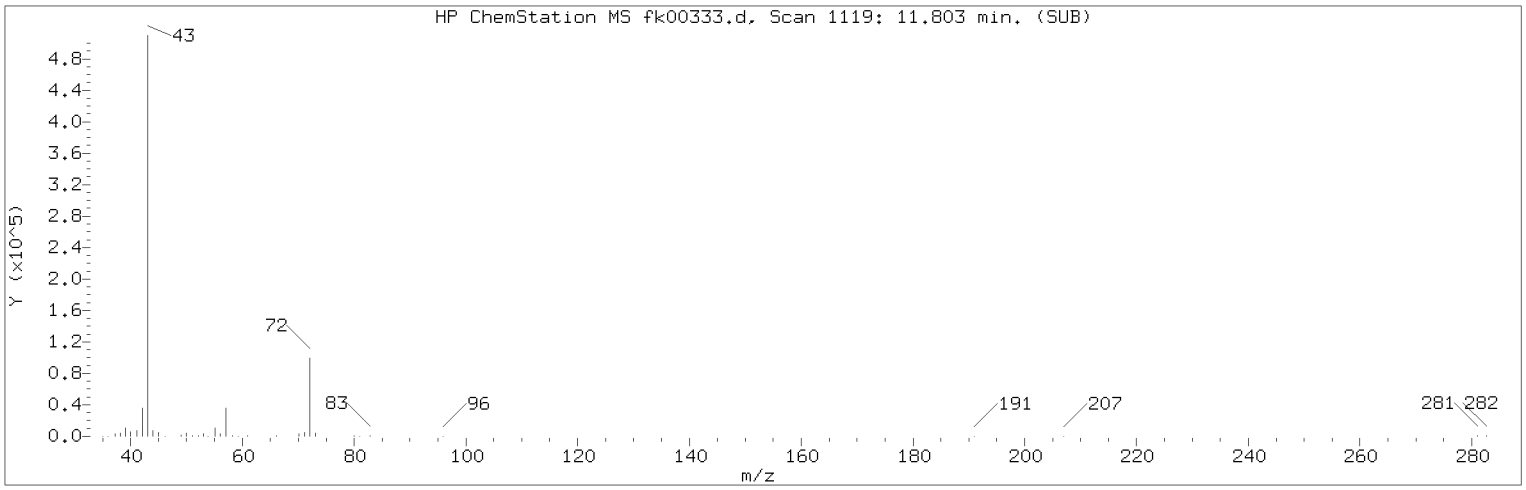
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

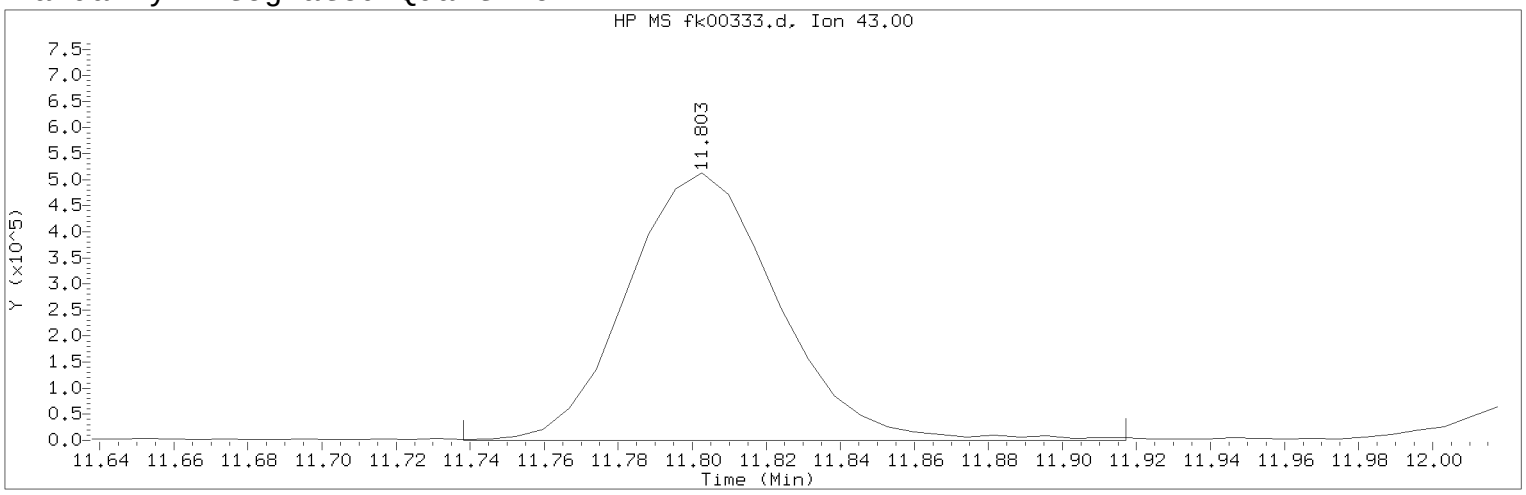
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3076520	17.590
78) Styrene	(3)	19.259	104	1182396	9.337
79) Bromoform	(3)	19.331	173	1261494	8.903
80) Cumene	(3)	19.660	105	2114768	8.961
81) n-Propylbenzene	(3)	20.312	120	624725	8.552
82) Bromobenzene	(3)	20.327	156	947780	9.133
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1451504	7.899
84) 4-Ethyltoluene	(3)	20.477	105	2140492	8.780
85) 2-Chlorotoluene	(3)	20.592	126	610796	8.943
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	1947250	9.232
87) 1,2,3-Trichloropropane	(3)	20.663	110	455488	8.746
88) Alpha Methyl Styrene	(3)	21.007	118	760285	8.523
89) tert-Butylbenzene	(3)	21.122	119	1730845	9.037
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	1747842	8.568
91) sec-Butylbenzene	(3)	21.380	105	2706613	8.876
92) p-Isopropyltoluene	(3)	21.559	119	1994340	8.387
93) 1,3-Dichlorobenzene	(3)	21.716	146	1350914	7.812
94) 1,4-Dichlorobenzene	(3)	21.831	146	1330712	7.790
95) n-Butylbenzene	(3)	22.132	92	1151273	7.884
96) Benzyl Chloride	(3)	22.160	126	339452	8.310
97) Hexachloroethane	(3)	22.382	117	783107	8.287
98) 1,2-Dichlorobenzene	(3)	22.418	146	1189071	7.510
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	550790	6.536
100) Hexachlorobutadiene	(3)	24.538	225	752385	6.656
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	656499	5.880
102) Naphthalene	(3)	25.226	128	1106358	5.971

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:18 jeb07445

Sample Name: LCSF10 Lab Sample ID: LCSF10

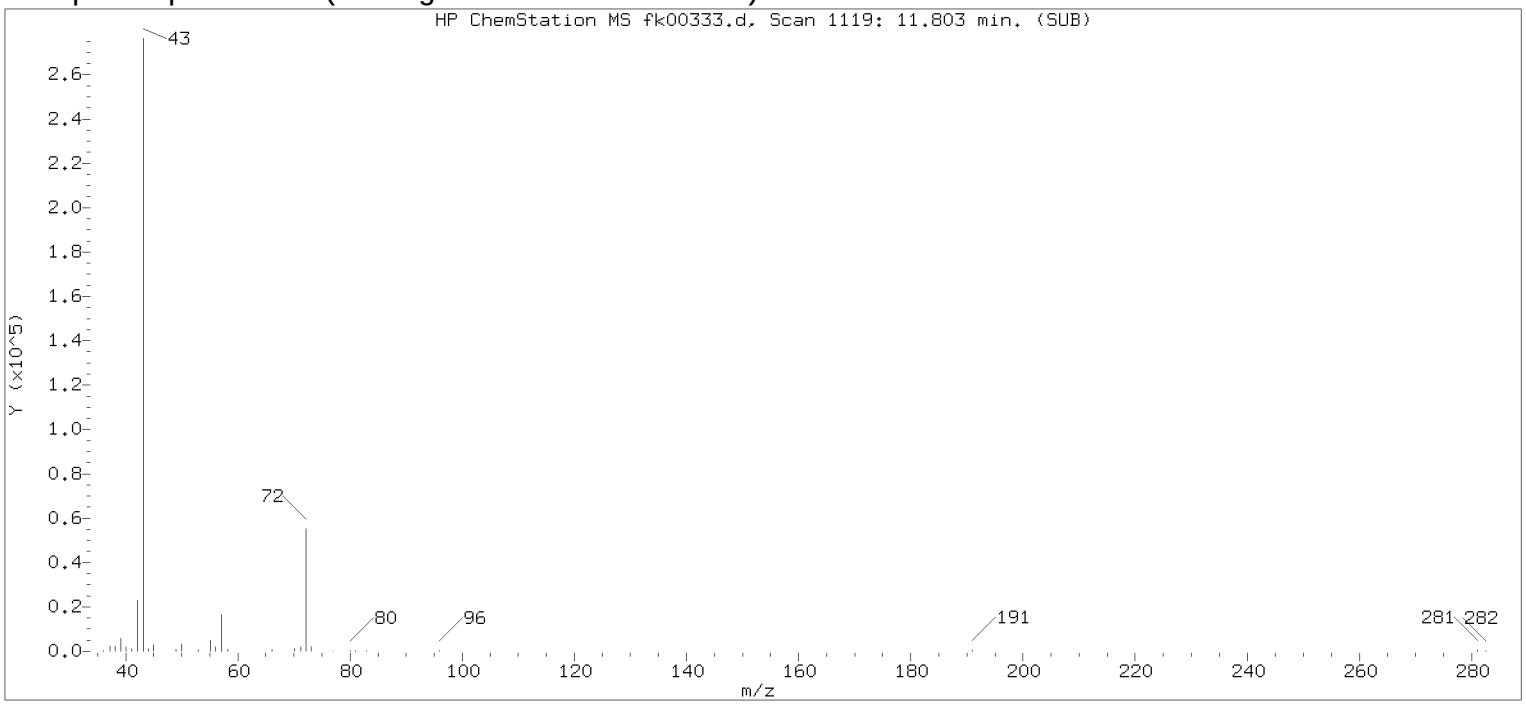
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area (flag) : 1439976M
Concentration (ppb(v)) : 10.6941
Integration start scan : 1109 Integration stop scan: 1134
Y at integration start : 463 Y at integration end: 463

Reason for manual integration: improper integration

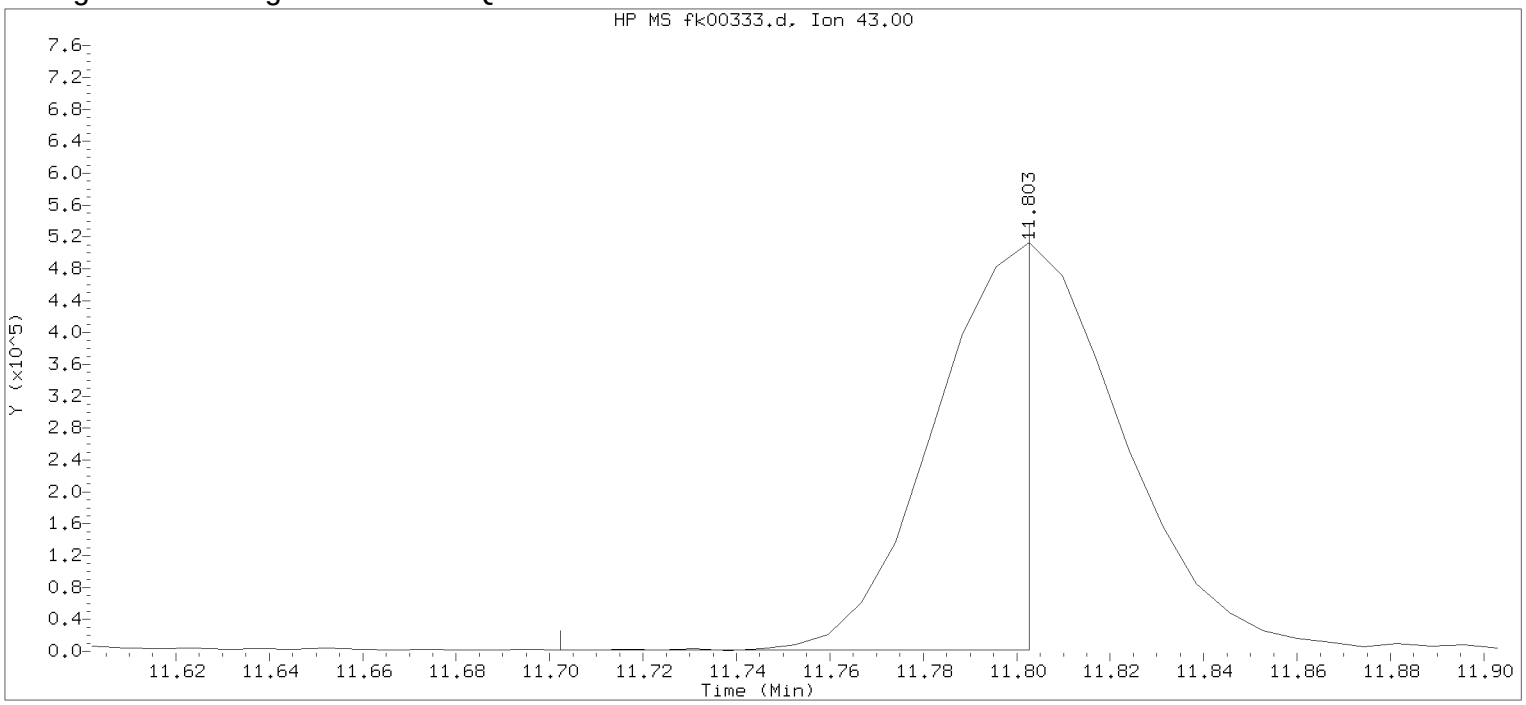
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:18.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:52.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



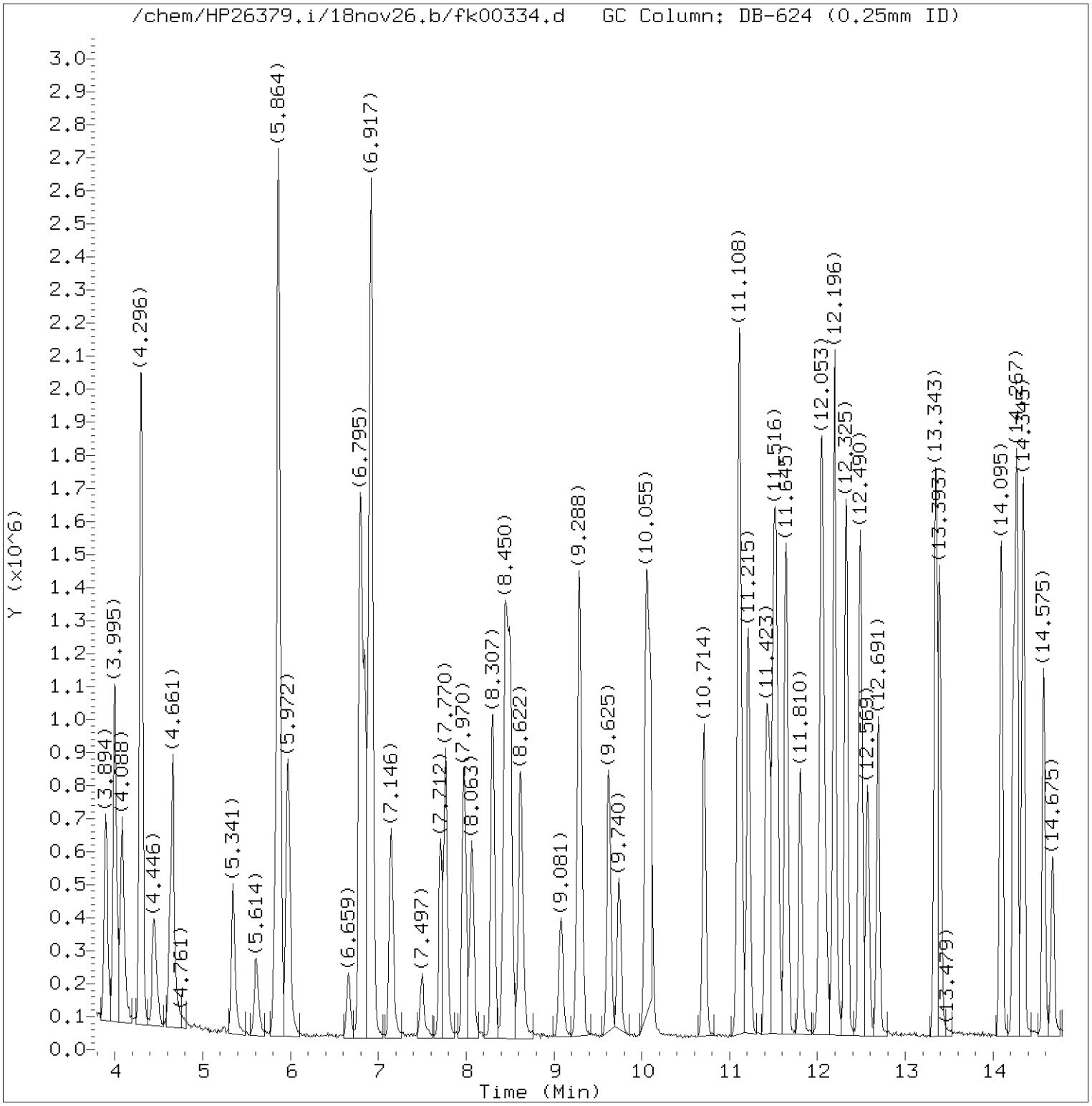
Data File: /chem/HP26379.i/18nov26.b/fk00333.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 16:39 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:12 Unknown

Sample Name: LCSF10 Lab Sample ID: LCSF10

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.803
Quant Ion : 43.00
Area : 696157
Concentration (ppb(v)) : 5.1701
Integration start scan : 1104 Integration stop scan: 1118
Y at integration start : 1230 Y at integration end: 1230

Digitally signed by Jacob E. Bailey on 11/26/2018 at 17:18.
Target 3.5 esignature userID: jeb07445



Total Ion Chromatogram (TIC)

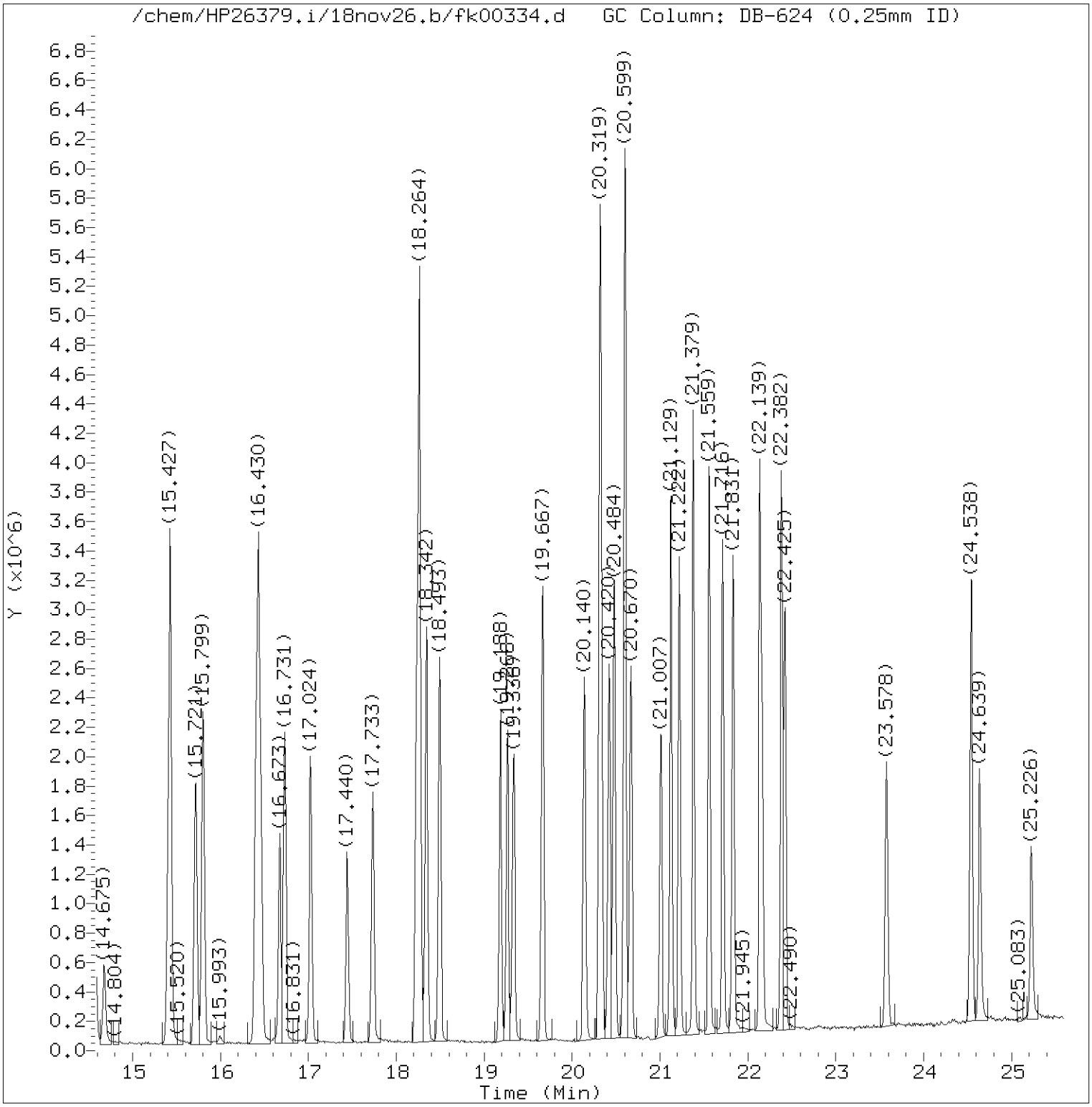
Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.894	41	593368	10.217
2) Dichlorodifluoromethane	(1)	4.002	85	1668160	10.457
3) Chlorodifluoromethane	(1)	4.088	51	1387461	10.350
4) Freon 114	(1)	4.296	85	1638602	9.834
5) Chloromethane	(1)	4.446	50	713627	9.794
6) Vinyl Chloride	(1)	4.625	62	495713	11.152
7) 1,3-Butadiene	(1)	4.661	54	386173	9.704
8) Bromomethane	(1)	5.341	94	524512	10.786
9) Chloroethane	(1)	5.614	64	371617	10.547
10) Bromoethene	(1)	5.821	106	481757	10.290
11) Pentane	(1)	5.864	43	1183278	9.529
12) Trichlorofluoromethane	(1)	5.871	101	1622313	9.461
13) Dichlorofluoromethane	(1)	5.972	67	1508506	10.950
14) Ethanol	(1)	6.659	45	266321	11.363
15) Freon123a	(1)	6.795	67	1414322	10.738
16) 1,1-Dichloroethene	(1)	6.846	61	1101798	10.453
17) Freon 113	(1)	6.910	103	873082	9.280
18) Carbon Disulfide	(1)	6.932	76	1642380	10.178
19) Methyl Iodide	(1)	7.146	142	1177870	9.608
20) Acrolein	(1)	7.497	56	256638	10.173
21) Isopropanol	(1)	7.712	45	1049559	10.376
22) 3-Chloropropene	(1)	7.770	41	1073192	12.707
23) Methylene Chloride	(1)	7.970	84	546866	11.586
24) Acetone	(1)	8.063	43	1150280	10.708
25) trans-1,2-Dichloroethene	(1)	8.300	61	1015171	10.112
26) Hexane	(1)	8.450	56	762206	9.984
27) Methyl t-Butyl Ether	(1)	8.500	73	1434779	9.730
28) tert-Butyl Alcohol	(1)	8.622	59	1367977	10.330
29) Acetonitrile	(1)	9.081	41	689593	11.106
30) Di-Isopropyl Ether	(1)	9.295	45	2081257	9.375
31) 1,1-Dichloroethane	(1)	9.625	63	1342504	9.996
32) Acrylonitrile	(1)	9.740	53	620306	10.659
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1845801	9.357
34) Vinyl Acetate	(1)	10.098	43	2109142	11.854
35) cis-1,2-Dichloroethene	(1)	10.714	61	901116	9.797
36) 1,2-Dichloroethene (total)	(1)		61	1916287	19.909
37)*Bromochloromethane	(1)	11.100	130	445714	10.000
38) Cyclohexane	(1)	11.122	56	1035815	9.183

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.215	83	1348739	10.045
40) Ethyl Acetate	(1)	11.416	43	1557179	10.797
41) Methyl Acrylate	(1)	11.451	55	1202896	9.826
42) Carbon Tetrachloride	(1)	11.509	117	1372946	9.479
43) Tetrahydrofuran	(1)	11.545	42	782989	10.330
44) 1,1,1-Trichloroethane	(1)	11.645	97	1372881	9.488
45) 2-Butanone	(1)	11.802	43	1463226M	10.155
46) Isooctane	(2)	12.053	57	3206282	10.648
47) Heptane	(2)	12.196	71	553588	10.665
48) Benzene	(2)	12.325	78	1826362	10.282
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1320149	10.069
50) 1,2-Dichloroethane	(2)	12.691	62	1066582	10.741
51) Trichloroethene	(2)	13.343	130	733450	10.217
52)*1,4-Difluorobenzene	(2)	13.393	114	1286626	10.000
53) Dibromomethane	(2)	14.095	174	806248	10.383
54) Ethyl Acrylate	(2)	14.231	55	1316531	9.577
55) 1,2-Dichloropropane	(2)	14.267	63	864518	10.193
56) Bromodichloromethane	(2)	14.338	83	1344476	9.879
57) Methyl Methacrylate	(2)	14.575	69	465717	9.511
58) 1,4-Dioxane	(2)	14.682	88	378210	10.639
59) cis-1,3-Dichloropropene	(2)	15.405	75	915586	9.660
60) Octane	(3)	15.434	43	1648218	9.978
61) Toluene	(3)	15.799	91	1943146	9.657
62) 4-Methyl-2-Pentanone	(2)	16.401	43	1583210	9.527
63) Tetrachloroethene	(3)	16.437	166	1215818	9.840
64) trans-1,3-Dichloropropene	(3)	16.458	75	862512	9.535
65) 1,3-Dichloropropene (total)	(3)		75	1778098	19.196
66) Ethyl Methacrylate	(3)	16.673	69	784609	8.855
67) 1,1,2-Trichloroethane	(3)	16.731	97	799703	9.517
68) Dibromochloromethane	(3)	17.024	127	966246	8.860
69) 1,2-Dibromoethane	(3)	17.440	107	1102093	9.275
70) 2-Hexanone	(3)	17.733	43	1413509	9.060
71)*Chlorobenzene-d5	(3)	18.228	117	1347982	10.000
72) Chlorobenzene	(3)	18.256	112	1667870	9.355
73) Ethylbenzene	(3)	18.271	91	2481761	9.358
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	909501	8.881
75) m/p-Xylene	(3)	18.493	91	1721115	9.269
76) o-Xylene	(3)	19.188	91	1523772	8.482

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

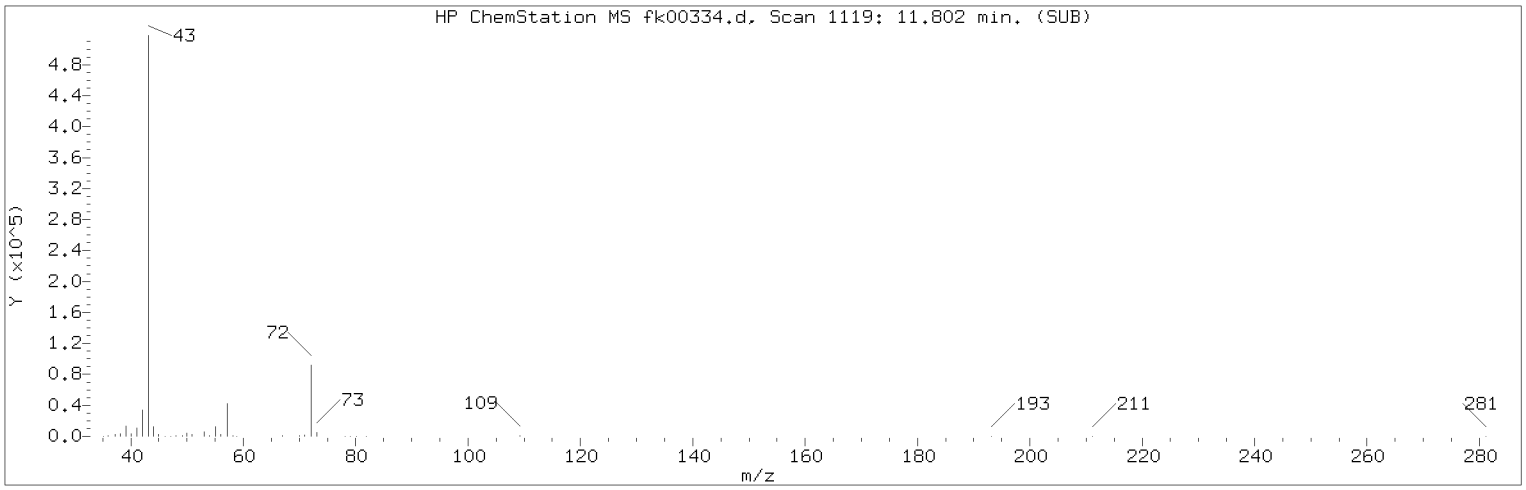
Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

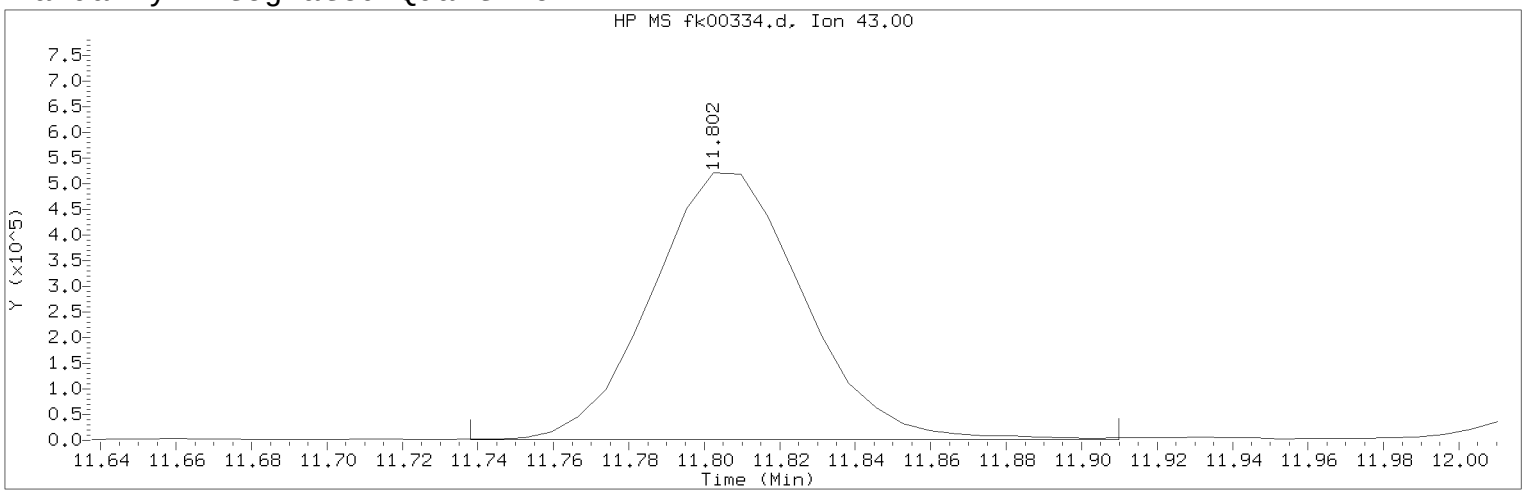
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3244887	17.751
78) Styrene	(3)	19.266	104	1215461	9.185
79) Bromoform	(3)	19.338	173	1189915	8.036
80) Cumene	(3)	19.667	105	2321413	9.413
81) n-Propylbenzene	(3)	20.319	120	692952	9.077
82) Bromobenzene	(3)	20.326	156	1013380	9.344
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1491615	7.768
84) 4-Ethyltoluene	(3)	20.484	105	2357703	9.255
85) 2-Chlorotoluene	(3)	20.599	126	676616	9.480
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	2102726	9.540
87) 1,2,3-Trichloropropane	(3)	20.670	110	474833	8.725
88) Alpha Methyl Styrene	(3)	21.014	118	738856	7.926
89) tert-Butylbenzene	(3)	21.129	119	1927008	9.628
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	1939267	9.097
91) sec-Butylbenzene	(3)	21.379	105	2963118	9.298
92) p-Isopropyltoluene	(3)	21.566	119	2190281	8.814
93) 1,3-Dichlorobenzene	(3)	21.716	146	1487214	8.230
94) 1,4-Dichlorobenzene	(3)	21.831	146	1429233	8.006
95) n-Butylbenzene	(3)	22.139	92	1236024	8.100
96) Benzyl Chloride	(3)	22.160	126	341759	8.006
97) Hexachloroethane	(3)	22.382	117	762154	7.718
98) 1,2-Dichlorobenzene	(3)	22.425	146	1304094	7.882
99) 1,2-Dibromo-3-chloropropane	(3)	23.578	157	567163	6.440
100) Hexachlorobutadiene	(3)	24.546	225	826866	7.000
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	800341	6.860
102) Naphthalene	(3)	25.226	128	1292681	6.677

Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:45 jeb07445

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

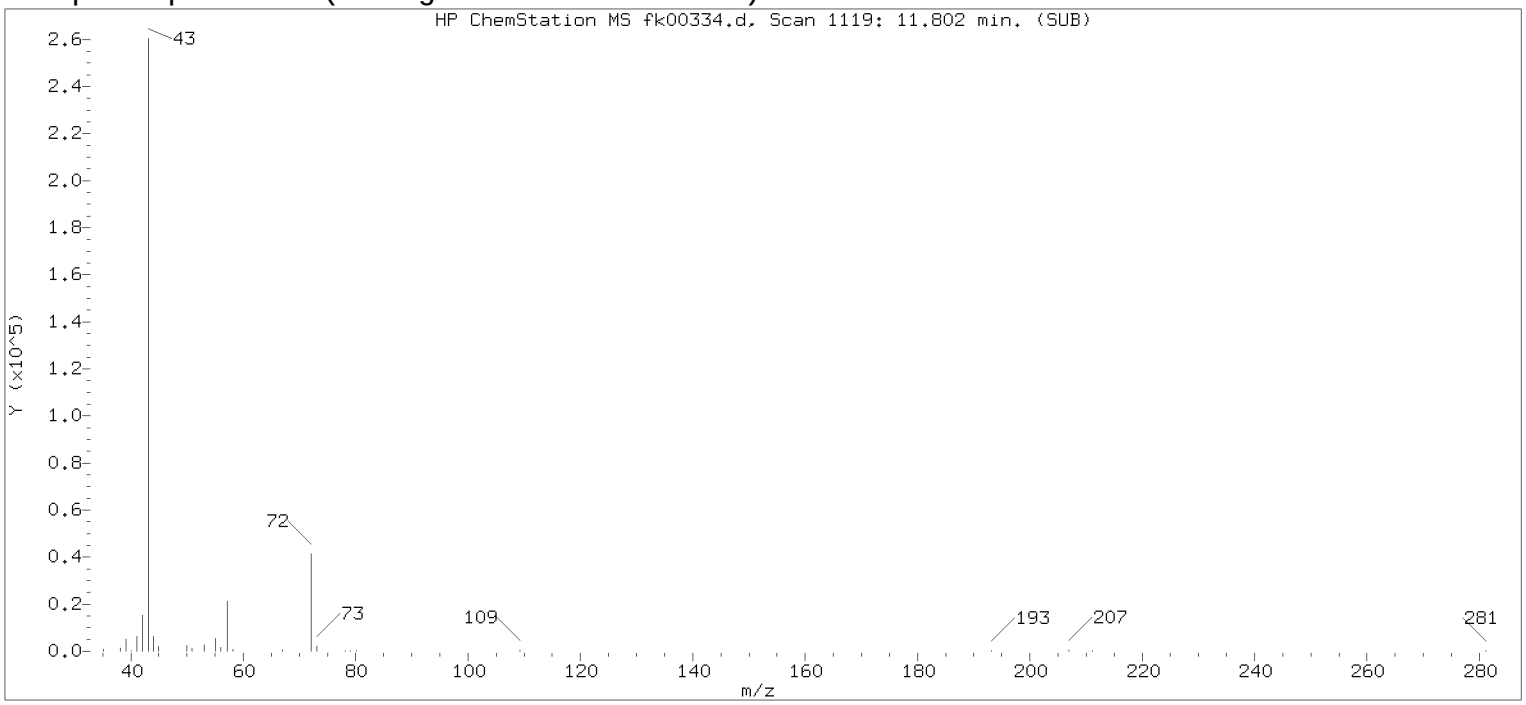
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.802
Quant Ion : 43.00
Area (flag) : 1463226M
Concentration (ppb(v)) : 10.1545
Integration start scan : 1109 Integration stop scan: 1133
Y at integration start : 841 Y at integration end: 841

Reason for manual integration: improper integration

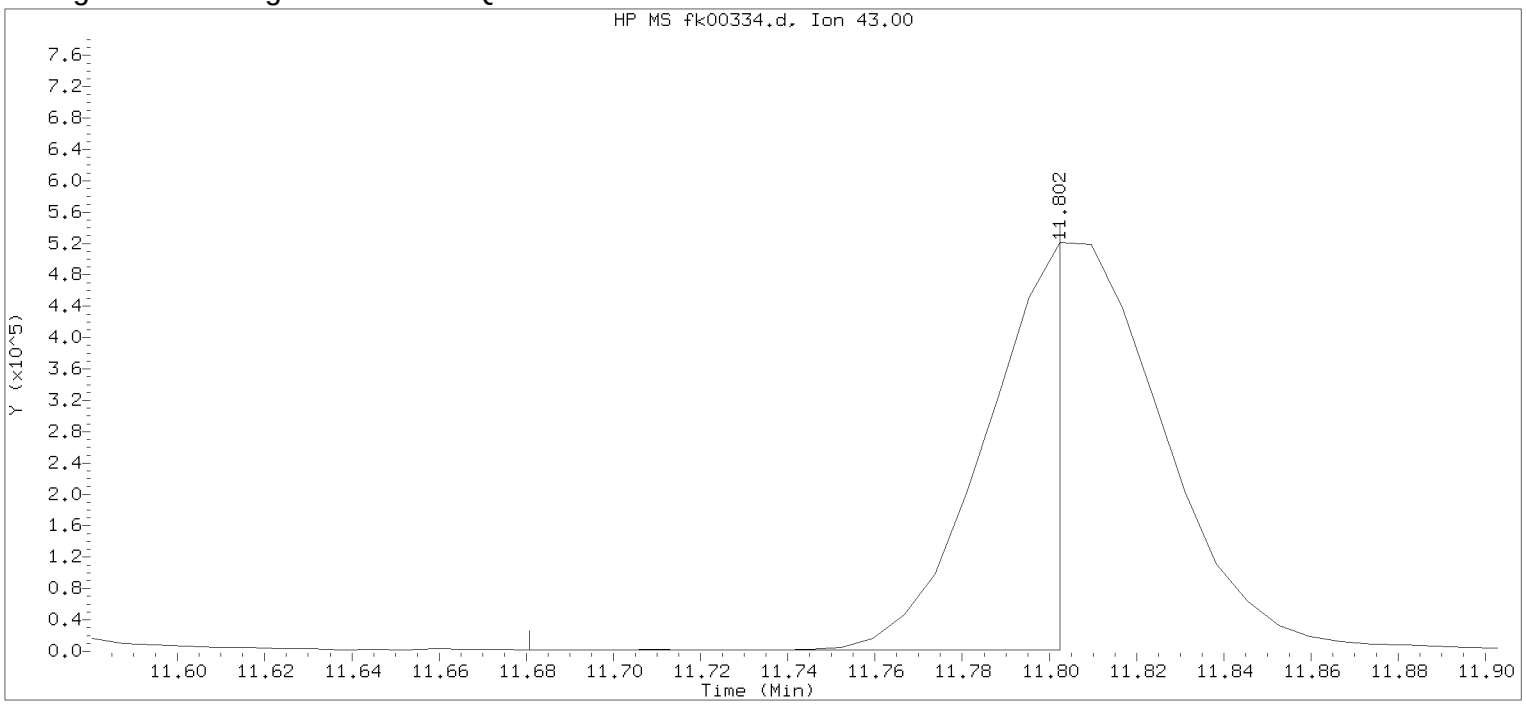
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/26/2018 at 17:46.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/27/2018 at 12:53.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov26.b/fk00334.d Instrument ID: HP26379.i
Injection date and time: 26-NOV-2018 17:10 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov26.b/to-15.m Sublist used: all1
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 26-Nov-2018 17:43 Unknown

Sample Name: LCSDF10 Lab Sample ID: LCSDF10

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1119
Retention Time (minutes): 11.802
Quant Ion : 43.00
Area : 598772
Concentration (ppb(v)) : 4.1554
Integration start scan : 1101 Integration stop scan: 1118
Y at integration start : 1555 Y at integration end: 1555

Digitally signed by Jacob E. Bailey on 11/26/2018 at 17:46.
Target 3.5 esignature userID: jeb07445

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP26379 **HP #06**

Data Directory Path is - D:\data\18nov29\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	FK00440.D	50NGBFB	11/29/2018	10:13		
jeb07445	FK00441.D	VSTD010	11/29/2018	11:05		
jeb07445	FK00442.D	VBLKF13	11/29/2018	11:53	F1833330AA	
jeb07445	FK00443.D	LCSF13	11/29/2018	12:43	F1833330AA	
jeb07445	FK00444.D	LCSDF13	11/29/2018	13:13	F1833330AA	
jeb07445	FK00445.D	LCSDF13	11/29/2018	13:44	F1833330AA	
jeb07445	FK00446.D	9902985	11/29/2018	14:39	F1833330AA	2
jeb07445	FK00447.D	9904753DL	11/29/2018	15:10	F1833330AA	
jeb07445	FK00448.D	9904754	11/29/2018	15:40	F1833330AA	10
jeb07445	FK00449.D	9906920	11/29/2018	16:11	F1833330AA	
jeb07445	FK00450.D	9906921DL	11/29/2018	16:41	F1833330AA	
jeb07445	FK00451.D	9907362	11/29/2018	17:12	F1833330AA	100
jeb07445	FK00452.D	9907363DL	11/29/2018	17:43	F1833330AA	100
jeb07445	FK00453.D	9909288	11/29/2018	18:13	F1833330AA	
jeb07445	FK00454.D	9909289	11/29/2018	18:44	F1833330AA	
jeb07445	FK00455.D	9909845	11/29/2018	19:14	F1833330AA	
jeb07445	FK00456.D	9909845DL	11/29/2018	19:45	F1833330AA	
jeb07445	FK00457.D	9909846	11/29/2018	20:16	F1833330AA	
jeb07445	FK00458.D	9909847	11/29/2018	20:46	F1833330AA	
jeb07445	FK00459.D	9909847	11/29/2018	21:17	F1833330AA	
jeb07445	FK00460.D	9909858	11/29/2018	21:47	F1833330AA	
jeb07445	FK00461.D	cc532	11/29/2018	22:18	F1833330AA	
jeb07445	FK00462.D	cc841	11/29/2018	22:49	F1833330AA	
jeb07445	FK00463.D	cc864	11/29/2018	23:19	F1833330AA	
jeb07445	FK00464.D	cc1137	11/29/2018	23:50	F1833330AA	

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKF13
Canister ID:	N/A	Lab File ID:	fk00442.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	11/29/2018
Injection Volume:	200 cc	Analyzed Time:	11:53
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
115-07-1	Propene	0.16	U
75-71-8	Dichlorodifluoromethane	0.13	U
75-45-6	Chlorodifluoromethane	0.15	U
76-14-2	Freon 114	0.12	U
74-87-3	Chloromethane	0.24	U
75-01-4	Vinyl Chloride	0.12	U
106-99-0	1,3-Butadiene	0.17	U
74-83-9	Bromomethane	0.18	U
75-00-3	Chloroethane	0.19	U
593-60-2	Bromoethene	0.18	U
75-43-4	Dichlorofluoromethane	0.11	U
75-69-4	Trichlorofluoromethane	0.15	U
109-66-0	Pentane	0.13	U
64-17-5	Ethanol	0.69	U
107-02-8	Acrolein	0.62	U
75-35-4	1,1-Dichloroethene	0.14	U
76-13-1	Freon 113	0.11	U
67-64-1	Acetone	0.53	U
74-88-4	Methyl Iodide	0.15	U
75-15-0	Carbon Disulfide	0.13	U
67-63-0	Isopropanol	0.24	U
75-05-8	Acetonitrile	0.83	U
107-05-1	3-Chloropropene	0.15	U
75-09-2	Methylene Chloride	0.25	U

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKF13
Canister ID:	N/A	Lab File ID:	fk00442.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	11/29/2018
Injection Volume:	200 cc	Analyzed Time:	11:53
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-65-0	tert-Butyl Alcohol	0.21	U
107-13-1	Acrylonitrile	0.13	U
156-60-5	trans-1,2-Dichloroethene	0.086	U
1634-04-4	Methyl t-Butyl Ether	0.15	U
110-54-3	Hexane	0.13	U
75-34-3	1,1-Dichloroethane	0.089	U
108-05-4	Vinyl Acetate	0.16	U
108-20-3	Di-Isopropyl Ether	0.15	U
637-92-3	Ethyl Tert-Butyl Ether	0.15	U
156-59-2	cis-1,2-Dichloroethene	0.12	U
540-59-0	1,2-Dichloroethene (total)	0.20	U
78-93-3	2-Butanone	0.21	U
141-78-6	Ethyl Acetate	0.25	U
96-33-3	Methyl Acrylate	0.14	U
109-99-9	Tetrahydrofuran	0.24	U
67-66-3	Chloroform	0.092	U
71-55-6	1,1,1-Trichloroethane	0.12	U
110-82-7	Cyclohexane	0.11	U
56-23-5	Carbon Tetrachloride	0.14	U
71-43-2	Benzene	0.11	U
107-06-2	1,2-Dichloroethane	0.080	U
540-84-1	Isooctane	0.13	U
994-05-8	Tert-Amyl Methyl Ether	0.11	U
142-82-5	Heptane	0.23	U

Abbreviations:
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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKF13
Canister ID:	N/A	Lab File ID:	fk00442.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	11/29/2018
Injection Volume:	200 cc	Analyzed Time:	11:53
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
79-01-6	Trichloroethene	0.18	U
140-88-5	Ethyl Acrylate	0.16	U
78-87-5	1,2-Dichloropropane	0.13	U
74-95-3	Dibromomethane	0.14	U
123-91-1	1,4-Dioxane	0.17	U
80-62-6	Methyl Methacrylate	0.15	U
75-27-4	Bromodichloromethane	0.12	U
10061-01-5	cis-1,3-Dichloropropene	0.10	U
108-10-1	4-Methyl-2-Pentanone	0.15	U
108-88-3	Toluene	0.12	U
111-65-9	Octane	0.40	U
10061-02-6	trans-1,3-Dichloropropene	0.12	U
542-75-6	1,3-Dichloropropene (total)	0.23	U
97-63-2	Ethyl Methacrylate	0.19	U
79-00-5	1,1,2-Trichloroethane	0.12	U
127-18-4	Tetrachloroethene	0.25	U
591-78-6	2-Hexanone	0.18	U
124-48-1	Dibromochloromethane	0.13	U
106-93-4	1,2-Dibromoethane	0.13	U
108-90-7	Chlorobenzene	0.13	U
630-20-6	1,1,1,2-Tetrachloroethane	0.15	U
100-41-4	Ethylbenzene	0.19	U
179601-23-1	m/p-Xylene	0.26	U
95-47-6	o-Xylene	0.19	U

Abbreviations:
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D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKF13
Canister ID:	N/A	Lab File ID:	fk00442.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	11/29/2018
Injection Volume:	200 cc	Analyzed Time:	11:53
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
1330-20-7	Xylene (total)	0.44	U
100-42-5	Styrene	0.20	U
75-25-2	Bromoform	0.17	U
98-82-8	Cumene	0.24	U
108-86-1	Bromobenzene	0.10	U
79-34-5	1,1,2,2-Tetrachloroethane	0.15	U
96-18-4	1,2,3-Trichloropropane	0.14	U
103-65-1	n-Propylbenzene	0.21	U
95-49-8	2-Chlorotoluene	0.22	U
622-96-8	4-Ethyltoluene	0.18	U
108-67-8	1,3,5-Trimethylbenzene	0.32	U
98-83-9	Alpha Methyl Styrene	0.18	U
98-06-6	tert-Butylbenzene	0.76	U
95-63-6	1,2,4-Trimethylbenzene	0.28	U
135-98-8	sec-Butylbenzene	0.39	U
541-73-1	1,3-Dichlorobenzene	0.19	U
106-46-7	1,4-Dichlorobenzene	0.17	U
99-87-6	p-Isopropyltoluene	0.28	U
100-44-7	Benzyl Chloride	0.25	U
95-50-1	1,2-Dichlorobenzene	0.20	U
104-51-8	n-Butylbenzene	0.26	U
67-72-1	Hexachloroethane	0.27	U
96-12-8	1,2-Dibromo-3-chloropropane	0.28	U
120-82-1	1,2,4-Trichlorobenzene	0.38	U

Abbreviations:
U = The compound is less than the limit being reported.
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J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKF13
Canister ID:	N/A	Lab File ID:	fk00442.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	11/29/2018
Injection Volume:	200 cc	Analyzed Time:	11:53
Instrument ID:	26379	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
87-68-3	Hexachlorobutadiene	0.47	U
91-20-3	Naphthalene	0.50	U

Abbreviations:
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J = The result is between the MDL and LOQ.

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fk00444.d LCSD File ID: fk00445.d

Batch: F1833330AA LCS Injected: 11/29/2018 LCSD Injected: 11/29/2018

Method: EPA TO-15 LCS Client ID: LCSF13 LCSD Client ID: LCSDF13

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Propene	10.00	9.06	9.49	91	95	78-126	5	25	YES
Dichlorodifluoromethane	10.00	9.15	9.60	91	96	74-133	5	25	YES
Chlorodifluoromethane	10.00	9.68	10.01	97	100	70-138	3	25	YES
Freon 114	10.00	8.54	9.08	85	91	66-126	6	25	YES
Chloromethane	10.00	8.87	9.26	89	93	65-140	4	25	YES
Vinyl Chloride	10.00	10.27	10.80	103	108	75-130	5	25	YES
1,3-Butadiene	10.00	9.18	9.75	92	97	72-122	6	25	YES
Bromomethane	10.00	9.55	9.63	96	96	71-133	1	25	YES
Chloroethane	10.00	9.29	9.54	93	95	76-129	3	25	YES
Bromoethene	10.00	9.04	9.72	90	97	77-123	7	25	YES
Dichlorofluoromethane	10.00	9.41	10.06	94	101	75-137	7	25	YES
Trichlorofluoromethane	10.00	8.31	8.74	83	87	73-132	5	25	YES
Pentane	10.00	8.52	9.08	85	91	69-125	6	25	YES
Ethanol	10.00	8.73	8.62	87	86	56-149	1	25	YES
Acrolein	10.00	8.74	9.53	87	95	54-132	9	25	YES
1,1-Dichloroethene	10.00	8.90	9.62	89	96	70-129	8	25	YES
Freon 113	10.00	7.89	8.30	79	83	66-119	5	25	YES
Acetone	10.00	9.40	9.61	94	96	71-136	2	25	YES
Methyl Iodide	10.00	8.29	8.89	83	89	72-127	7	25	YES
Carbon Disulfide	10.00	8.81	9.12	88	91	72-128	3	25	YES
Isopropanol	10.00	8.82	9.39	88	94	69-160	6	25	YES
Acetonitrile	10.00	9.38	9.62	94	96	56-136	3	25	YES
3-Chloropropene	10.00	11.17	11.91	112	119	67-141	6	25	YES
Methylene Chloride	10.00	10.05	10.64	101	106	69-128	6	25	YES
tert-Butyl Alcohol	10.00	8.95	9.32	89	93	71-154	4	25	YES
Acrylonitrile	10.00	9.47	9.87	95	99	68-135	4	25	YES
trans-1,2-Dichloroethene	10.00	8.84	9.43	88	94	77-128	7	25	YES
Methyl t-Butyl Ether	10.00	8.57	8.94	86	89	71-119	4	25	YES
Hexane	10.00	8.94	9.15	89	92	70-118	2	25	YES
1,1-Dichloroethane	10.00	8.67	9.14	87	91	74-129	5	25	YES
Vinyl Acetate	10.00	10.51	10.94	105	109	75-161	4	25	YES
Di-Isopropyl Ether	10.00	8.26	8.75	83	87	71-122	6	25	YES
Ethyl Tert-Butyl Ether	10.00	8.31	8.70	83	87	68-121	5	25	YES
cis-1,2-Dichloroethene	10.00	8.69	9.17	87	92	76-126	5	25	YES
2-Butanone	10.00	8.90	9.60	89	96	75-126	8	25	YES
Ethyl Acetate	10.00	9.43	10.04	94	100	73-124	6	25	YES

COMMENTS:
Applies to Sample(s): 9909858

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 26379 LCS File ID: fk00444.d LCSD File ID: fk00445.d

Batch: F1833330AA LCS Injected: 11/29/2018 LCSD Injected: 11/29/2018

Method: EPA TO-15 LCS Client ID: LCSF13 LCSD Client ID: LCSDF13

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Methyl Acrylate	10.00	8.78	9.23	88	92	75-125	5	25	YES
Tetrahydrofuran	10.00	9.58	9.88	96	99	67-127	3	25	YES
Chloroform	10.00	8.84	9.16	88	92	75-127	4	25	YES
1,1,1-Trichloroethane	10.00	8.29	8.82	83	88	74-122	6	25	YES
Cyclohexane	10.00	8.23	8.79	82	88	70-118	7	25	YES
Carbon Tetrachloride	10.00	8.32	8.67	83	87	72-127	4	25	YES
Benzene	10.00	8.95	9.06	90	91	76-123	1	25	YES
1,2-Dichloroethane	10.00	9.24	9.34	92	93	72-138	1	25	YES
Isooctane	10.00	9.19	9.44	92	94	74-127	3	25	YES
Tert-Amyl Methyl Ether	10.00	8.40	8.81	84	88	78-124	5	25	YES
Heptane	10.00	9.09	9.01	91	90	74-122	1	25	YES
Trichloroethene	10.00	8.85	8.83	89	88	76-118	0	25	YES
Ethyl Acrylate	10.00	8.09	8.20	81	82	71-126	1	25	YES
1,2-Dichloropropane	10.00	8.51	8.70	85	87	75-127	2	25	YES
Dibromomethane	10.00	8.84	9.07	88	91	76-124	3	25	YES
1,4-Dioxane	10.00	8.72	9.25	87	92	76-124	6	25	YES
Methyl Methacrylate	10.00	8.37	7.91	84	79	73-117	6	25	YES
Bromodichloromethane	10.00	8.59	8.64	86	86	75-134	1	25	YES
cis-1,3-Dichloropropene	10.00	8.41	8.30	84	83	51-120	1	25	YES
4-Methyl-2-Pentanone	10.00	8.24	8.19	82	82	79-131	1	25	YES
Toluene	10.00	8.57	8.56	86	86	78-119	0	25	YES
Octane	10.00	9.11	8.86	91	89	73-122	3	25	YES
trans-1,3-Dichloropropene	10.00	8.79	8.65	88	87	76-131	2	25	YES
Ethyl Methacrylate	10.00	8.01	7.61	80	76	69-137	5	25	YES
1,1,2-Trichloroethane	10.00	8.29	8.45	83	84	76-127	2	25	YES
Tetrachloroethene	10.00	8.55	8.67	85	87	68-123	1	25	YES
2-Hexanone	10.00	8.03	7.71	80	77	74-134	4	25	YES
Dibromochloromethane	10.00	8.21	7.75	82	78	74-131	6	25	YES
1,2-Dibromoethane	10.00	8.16	8.17	82	82	73-121	0	25	YES
Chlorobenzene	10.00	8.15	8.44	82	84	76-117	3	25	YES
1,1,1,2-Tetrachloroethane	10.00	7.97	7.88	80	79	73-137	1	25	YES
Ethylbenzene	10.00	8.20	8.36	82	84	77-117	2	25	YES
m/p-Xylene	10.00	8.37	8.56	84	86	78-119	2	25	YES
o-Xylene	10.00	7.76	8.03	78	80	78-121	3	25	YES
Xylene (total)	20.00	16.14	16.60	81	83	79-120	3	25	YES
Styrene	10.00	8.67	8.49	87	85	77-143	2	25	YES

COMMENTS:
Applies to Sample(s): 9909858

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FORM 03
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SDG No.:

Instrument ID: 26379 LCS File ID: fk00444.d LCSD File ID: fk00445.d

Batch: F1833330AA LCS Injected: 11/29/2018 LCSD Injected: 11/29/2018

Method: EPA TO-15 LCS Client ID: LCSF13 LCSD Client ID: LCSDF13

Dilution Factor: 1

COMPOUND	SPIKE LEVEL	LCS CONC. (ppb(v))	LCSD CONC. (ppb(v))	LCS %REC	LCSD %REC	RANGE	%RPD	RPD MAX	IN SPEC
Bromoform	10.00	8.01	7.47	80	75	58-144	7	25	YES
Cumene	10.00	8.43	8.72	84	87	80-133	3	25	YES
Bromobenzene	10.00	8.46	8.50	85	85	74-118	0	25	YES
1,1,2,2-Tetrachloroethane	10.00	7.31	7.35	73	74	72-133	1	25	YES
1,2,3-Trichloropropane	10.00	8.02	8.24	80	82	71-127	3	25	YES
n-Propylbenzene	10.00	8.15	8.25	82	83	73-120	1	25	YES
2-Chlorotoluene	10.00	8.61	8.95	86	90	74-123	4	25	YES
4-Ethyltoluene	10.00	8.36	8.90	84	89	73-130	6	25	YES
1,3,5-Trimethylbenzene	10.00	8.82	9.10	88	91	72-130	3	25	YES
Alpha Methyl Styrene	10.00	8.29	8.02	83	80	71-138	3	25	YES
tert-Butylbenzene	10.00	8.83	9.25	88	92	78-138	5	25	YES
1,2,4-Trimethylbenzene	10.00	8.55	9.05	85	91	70-138	6	25	YES
sec-Butylbenzene	10.00	8.64	8.98	86	90	79-139	4	25	YES
1,3-Dichlorobenzene	10.00	7.69	7.90	77	79	75-129	3	25	YES
1,4-Dichlorobenzene	10.00	7.45	7.74	74	77	74-123	4	25	YES
p-Isopropyltoluene	10.00	8.42	8.92	84	89	75-145	6	25	YES
Benzyl Chloride	10.00	8.04	7.55	80	75	49-163	6	25	YES
1,2-Dichlorobenzene	10.00	7.38	7.74	74	77	71-126	5	25	YES
n-Butylbenzene	10.00	7.94	8.14	79	81	72-143	2	25	YES
Hexachloroethane	10.00	7.91	7.72	79	77	59-135	2	25	YES
1,2-Dibromo-3-chloropropane	10.00	6.46	6.14	65	61	52-156	5	25	YES
1,2,4-Trichlorobenzene	10.00	6.15	6.32	61	63	45-156	3	25	YES
Hexachlorobutadiene	10.00	6.78	6.81	68	68	49-154	0	25	YES
Naphthalene	10.00	5.85	6.18	58	62	39-152	6	25	YES

COMMENTS:
Applies to Sample(s): 9909858

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKF13 Analyzed Date: 11/29/2018

Lab File ID: fk00442.d Analyzed Time: 11:53

Instrument ID: 26379

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

LAB SAMPLE ID	LAB FILE ID	CANISTER ID	DATE ANALYZED	TIME ANALYZED
LCSF13	fk00444.d	N/A	11/29/2018	13:13
LCSDF13	fk00445.d	N/A	11/29/2018	13:44
9902985	fk00446.d	997	11/29/2018	14:39
9904753DL	fk00447.d	1286	11/29/2018	15:10
9904754	fk00448.d	1244	11/29/2018	15:40
9906920	fk00449.d	1066	11/29/2018	16:11
9906921DL	fk00450.d	N/A	11/29/2018	16:41
9907362	fk00451.d	N/A	11/29/2018	17:12
9907363DL	fk00452.d	N/A	11/29/2018	17:43
9909288	fk00453.d	N/A	11/29/2018	18:13
9909289	fk00454.d	N/A	11/29/2018	18:44
9909845	fk00455.d	530	11/29/2018	19:14
9909846	fk00457.d	506	11/29/2018	20:16
9909847	fk00458.d	882	11/29/2018	20:46
9909847	fk00459.d	882	11/29/2018	21:17
9909858	fk00460.d	1146	11/29/2018	21:47
cc532	fk00461.d	532	11/29/2018	22:18
cc841	fk00462.d	841	11/29/2018	22:49
cc864	fk00463.d	864	11/29/2018	23:19

COMMENTS:

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: fk00440.d

BFB Injection Date: 11/29/2018

Instrument ID: 26379

BFB Injection Time: 10:13

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	27.69
75	30.0% - 66.0% of mass 95	50.73
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.89
173	< 2.0% of mass 174	0.95 (1.02)
174	> 50.0% of mass 95	93.25
175	4.0% - 9.0% of mass 174	6.84 (7.34)
176	93.0% - 101.0% of mass 174	87.06 (93.36)
177	5.0% - 9.0% of mass 176	5.82 (6.68)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	fk00441.d	11/29/2018	11:05
VBLKF13	fk00442.d	11/29/2018	11:53
LCSF13	fk00444.d	11/29/2018	13:13
LCSDF13	fk00445.d	11/29/2018	13:44
9902985	fk00446.d	11/29/2018	14:39
9904753DL	fk00447.d	11/29/2018	15:10
9904754	fk00448.d	11/29/2018	15:40
9906920	fk00449.d	11/29/2018	16:11
9906921DL	fk00450.d	11/29/2018	16:41
9907362	fk00451.d	11/29/2018	17:12
9907363DL	fk00452.d	11/29/2018	17:43
9909288	fk00453.d	11/29/2018	18:13
9909289	fk00454.d	11/29/2018	18:44
9909845	fk00455.d	11/29/2018	19:14
9909846	fk00457.d	11/29/2018	20:16
9909847	fk00458.d	11/29/2018	20:46
9909847	fk00459.d	11/29/2018	21:17
9909858	fk00460.d	11/29/2018	21:47
cc532	fk00461.d	11/29/2018	22:18
cc841	fk00462.d	11/29/2018	22:49
cc864	fk00463.d	11/29/2018	23:19

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fk00441.d

Calibration Date: 11/29/2018

Instrument ID: 26379

Calibration Time: 11:05

Init. Calib. Date(s): 11/26/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	1.303	1.304	10.011	10	0
Dichlorodifluoromethane	3.579	3.704	10.348	10	3
Chlorodifluoromethane	3.008	3.066	10.193	10	2
Freon 114	3.738	3.620	9.684	10	-3
Chloromethane	1.635	1.595	9.757	10	-2
Vinyl Chloride	0.997	1.124	11.273	10	13
1,3-Butadiene	0.893	1.045	11.710	10	17
Bromomethane	1.091	1.187	10.881	10	9
Chloroethane	0.791	0.783	9.899	10	-1
Bromoethene	1.050	1.004	9.561	10	-4
Dichlorofluoromethane	3.091	3.157	10.214	10	2
Trichlorofluoromethane	3.847	3.613	9.391	10	-6
Pentane	2.786	2.644	9.491	10	-5
Ethanol	0.526	0.463	8.814	10	-12
Freon123a	2.955	2.675	10.049	11.1	-9
Acrolein	0.566	0.486	8.584	10	-14
1,1-Dichloroethene	2.365	2.291	9.687	10	-3
Freon 113	2.111	1.872	8.870	10	-11
Acetone	2.410	2.477	10.278	10	3
Methyl Iodide	2.750	2.367	8.606	10	-14
Carbon Disulfide	3.620	3.639	10.052	10	1
Isopropanol	2.269	2.050	9.031	10	-10
Acetonitrile	1.393	1.383	9.927	10	-1
3-Chloropropene	1.895	1.880	11.014	11.1	-1
Methylene Chloride	1.059	1.072	11.237	11.1	1
tert-Butyl Alcohol	2.971	2.576	9.623	11.1	-13
Acrylonitrile	1.306	1.291	9.886	10	-1
trans-1,2-Dichloroethene	2.252	2.161	9.594	10	-4
Methyl t-Butyl Ether	3.308	3.002	9.075	10	-9
Hexane	1.713	1.649	9.629	10	-4
1,1-Dichloroethane	3.013	2.872	9.530	10	-5
Vinyl Acetate	3.992	4.056	11.379	11.2	2
Di-Isopropyl Ether	4.981	4.424	8.882	10	-11
Ethyl Tert-Butyl Ether	4.426	3.866	8.735	10	-13
cis-1,2-Dichloroethene	2.064	1.974	9.567	10	-4
2-Butanone	3.233	3.185	9.852	10	-1
Ethyl Acetate	3.236	3.452	10.669	10	7
Methyl Acrylate	2.746	2.659	9.681	10	-3
Tetrahydrofuran	1.701	1.784	10.490	10	5

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fk00441.d

Calibration Date: 11/29/2018

Instrument ID: 26379

Calibration Time: 11:05

Init. Calib. Date(s): 11/26/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	3.012	2.903	9.636	10	-4
1,1,1-Trichloroethane	3.246	2.967	9.139	10	-9
Cyclohexane	2.531	2.196	8.676	10	-13
Carbon Tetrachloride	3.250	2.957	9.100	10	-9
Benzene	1.381	1.365	9.884	10	-1
1,2-Dichloroethane	0.772	0.799	10.359	10	4
Isooctane	2.340	2.428	10.377	10	4
Tert-Amyl Methyl Ether	1.019	0.935	9.171	10	-8
Heptane	0.403	0.398	9.865	10	-1
Trichloroethene	0.558	0.526	9.434	10	-6
Ethyl Acrylate	1.068	0.903	8.454	10	-15
1,2-Dichloropropane	0.659	0.625	9.476	10	-5
Dibromomethane	0.604	0.581	9.623	10	-4
1,4-Dioxane	0.276	0.272	9.843	10	-2
Methyl Methacrylate	0.381	0.330	8.662	10	-13
Bromodichloromethane	1.058	1.021	9.652	10	-3
cis-1,3-Dichloropropene	0.737	0.656	8.902	10	-11
4-Methyl-2-Pentanone	1.292	1.156	8.951	10	-10
Toluene	1.493	1.395	9.344	10	-7
Octane	1.225	1.185	9.671	10	-3
trans-1,3-Dichloropropene	0.671	0.604	9.008	10	-10
Ethyl Methacrylate	0.657	0.538	8.185	10	-18
1,1,2-Trichloroethane	0.623	0.571	9.155	10	-8
Tetrachloroethene	0.917	0.858	9.361	10	-6
2-Hexanone	1.157	0.993	8.584	10	-14
Dibromochloromethane	0.809	0.701	8.669	10	-13
1,2-Dibromoethane	0.881	0.765	8.678	10	-13
Chlorobenzene	1.323	1.198	9.059	10	-9
1,1,1,2-Tetrachloroethane	0.760	0.662	8.711	10	-13
Ethylbenzene	1.967	1.774	9.019	10	-10
m/p-Xylene	1.378	1.268	9.208	10	-8
o-Xylene	1.333	1.121	8.412	10	-16
Styrene	0.982	0.884	9.000	10	-10
Bromoform	1.098	0.934	8.507	10	-15
Cumene	1.830	1.706	9.327	10	-7
Bromobenzene	0.805	0.770	9.575	10	-4
1,1,2,2-Tetrachloroethane	1.425	1.194	8.385	10	-16
1,2,3-Trichloropropane	0.404	0.357	8.850	10	-12
n-Propylbenzene	0.566	0.523	9.228	10	-8

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: fk00441.d

Calibration Date: 11/29/2018

Instrument ID: 26379

Calibration Time: 11:05

Init. Calib. Date(s): 11/26/2018

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.529	0.521	9.831	10	-2
4-Ethyltoluene	1.890	1.873	9.913	10	-1
1,3,5-Trimethylbenzene	1.635	1.666	10.188	10	2
Alpha Methyl Styrene	0.692	0.591	8.539	10	-15
tert-Butylbenzene	1.485	1.684	11.341	10	13
1,2,4-Trimethylbenzene	1.581	1.658	10.482	10	5
sec-Butylbenzene	2.364	2.419	10.233	10	2
1,3-Dichlorobenzene	1.340	1.221	9.110	10	-9
1,4-Dichlorobenzene	1.324	1.238	9.348	10	-7
p-Isopropyltoluene	1.843	1.876	10.174	10	2
Benzyl Chloride	0.317	0.288	9.090	10	-9
1,2-Dichlorobenzene	1.227	1.121	9.136	10	-9
n-Butylbenzene	1.132	1.101	9.723	10	-3
Hexachloroethane	0.733	0.659	8.999	10	-10
1,2-Dibromo-3-chloropropane	0.653	0.543	8.315	10	-17
1,2,4-Trichlorobenzene	0.866	0.719	8.309	10	-17
Hexachlorobutadiene	0.876	0.735	8.386	10	-16
Naphthalene	1.436	1.290	8.984	10	-10

* Maximum %DRIFT = 30%.
# Average RRF for all compounds must be greater than 0.010.

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP26379.i/18nov26.b/fk00321.d
/chem/HP26379.i/18nov26.b/fk00322.d
/chem/HP26379.i/18nov26.b/fk00323.d
/chem/HP26379.i/18nov26.b/fk00324.d
/chem/HP26379.i/18nov26.b/fk00325.d
/chem/HP26379.i/18nov26.b/fk00326.d

** ICAL Area and RT are the average from the above standards.

Current Continuing Calibration Standard:

/chem/HP26379.i/18nov29.b/fk00441.d

Area Summary

Internal Standard Name	File ID: fk00441.d	ICAL Area	Low Limit	High Limit	In Spec
Bromochloromethane	461813	456808	274085	639531	Yes
1,4-Difluorobenzene	1363124	1415744	849446	1982042	Yes
Chlorobenzene-d5	1443877	1427685	856611	1998759	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

Internal Standard Name	File ID: fk00441.d	ICAL RT	In Spec
Bromochloromethane	11.093	11.099	Yes
1,4-Difluorobenzene	13.386	13.388	Yes
Chlorobenzene-d5	18.228	18.229	Yes

A "No" indicates the retention time is greater than 30 seconds from the RT of the referenced ICAL average.

Comments:_____

_____

Report generated on 11/29/2018 at 11:40

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 11/29/2018

Lab File ID: fk00441.d Analyzed Time: 11:05

Instrument ID: 26379

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	R.T.	Area	R.T.	Area	R.T.
24 HOUR STANDARD	461813	11.09	1363124	13.39	1443877	18.23
UPPER LIMIT	646538	11.42	1908374	13.72	2021428	18.56
LOWER LIMIT	277088	10.76	817874	13.06	866326	17.90
LAB SAMPLE ID						
VBLKF13	467212	11.10	1207905	13.39	1287807	18.23
LCSF13	474572	11.11	1412270	13.39	1435750	18.23
LCSDF13	452844	11.10	1383346	13.39	1445355	18.23
9902985	498804	11.09	1649199	13.39	1826413	18.23
9904753DL	463981	11.10	1192400	13.39	1355084	18.23
9904754	393720	11.10	1041732	13.39	1136821	18.23
9906920	434045	11.10	1036193	13.39	1173736	18.23
9906921DL	412546	11.10	1017483	13.39	1134479	18.23
9907362	431566	11.09	1391747	13.39	1189809	18.23
9907363DL	432508	11.10	1166414	13.39	1173296	18.23
9909288	438891	11.10	1336607	13.39	1217203	18.23
9909289	420843	11.11	1483713	13.39	1299472	18.23
9909845	419849	11.11	1073017	13.39	1201769	18.23
9909846	409955	11.10	1036764	13.39	1178870	18.23
9909847	409615	11.11	982722	13.39	1141871	18.23
9909847	392915	11.10	920553	13.39	1122664	18.23
9909858	385625	11.11	969152	13.39	1164514	18.23
cc532	394142	11.11	865884	13.39	1049448	18.23
cc841	420721	11.11	901697	13.39	1063239	18.23
cc864	411631	11.10	830605	13.39	1015113	18.23

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Data File: /chem/HP26379.i/18nov29.b/fk00440.d

Date : 29-NOV-2018 10:13

Client ID: BFB

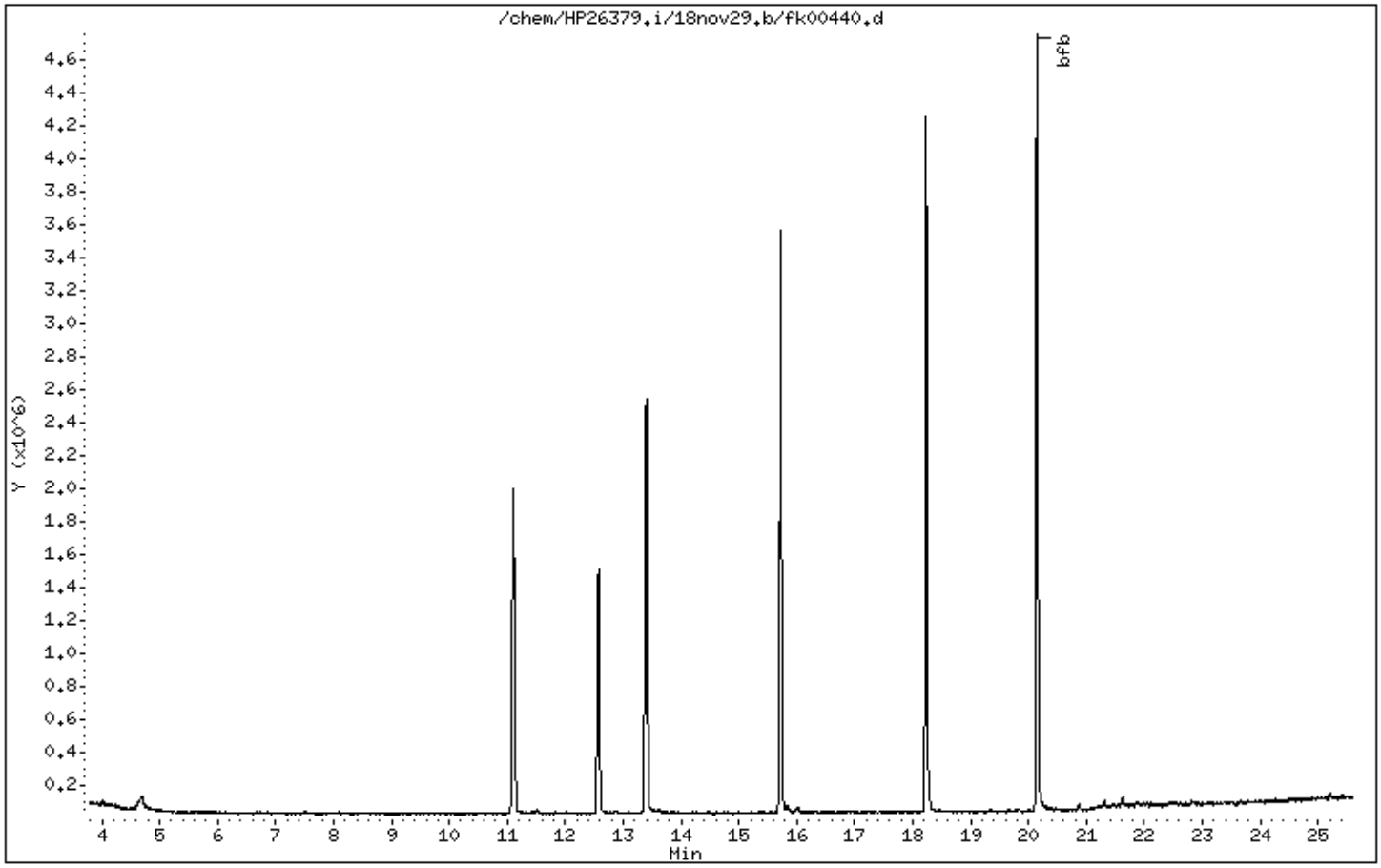
Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP26379.i/18nov29.b/fk00440.d

Date : 29-NOV-2018 10:13

Client ID: BFB

Instrument: HP26379.i

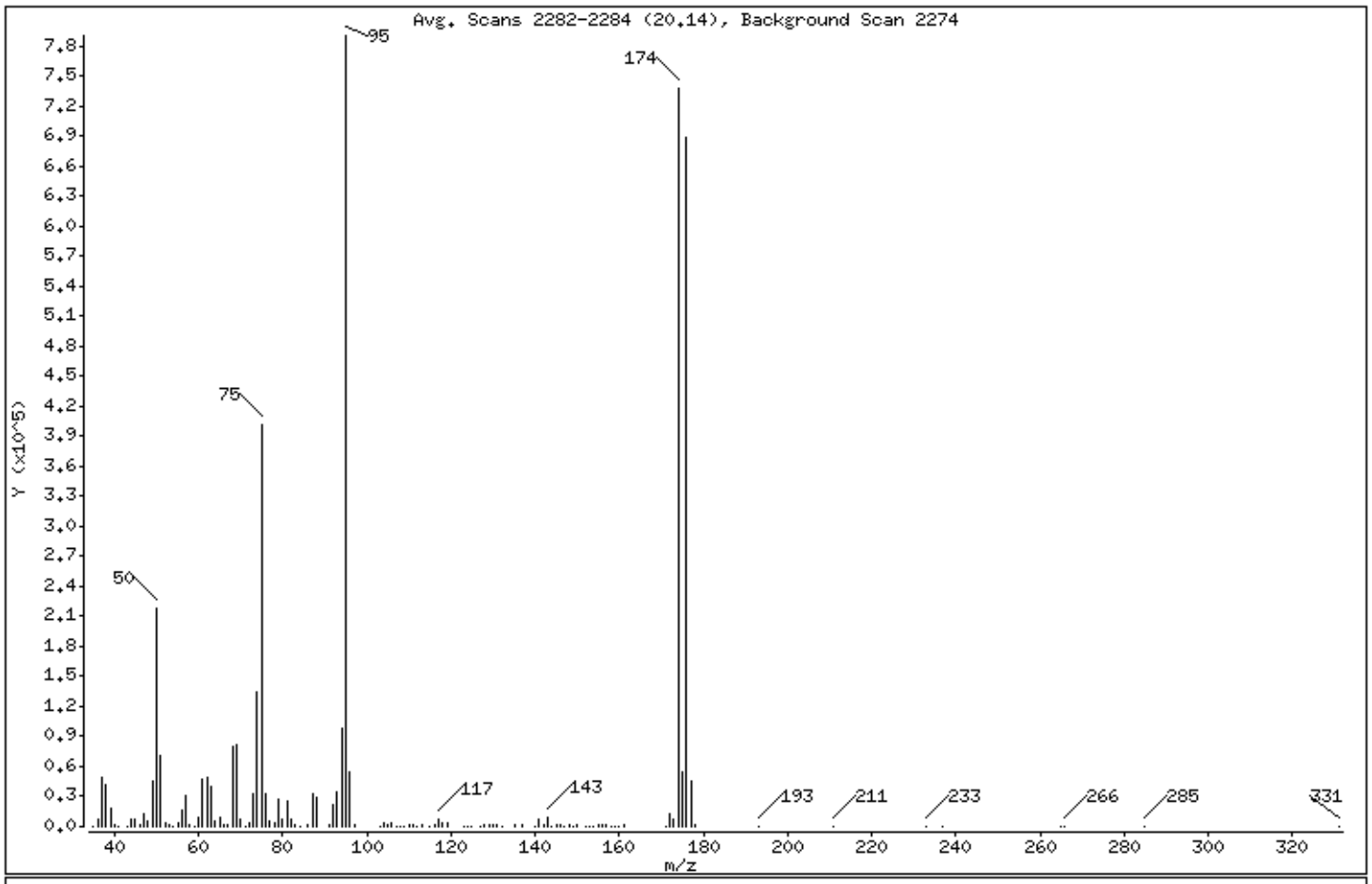
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	27.69
75	30.00 - 66.00% of mass 95	50.73
96	5.00 - 9.00% of mass 95	6.89
173	Less than 2.00% of mass 174	0.95 (1.02)
174	50.00 - 120.00% of mass 95	93.25
175	4.00 - 9.00% of mass 174	6.84 (7.34)
176	93.00 - 101.00% of mass 174	87.06 (93.36)
177	5.00 - 9.00% of mass 176	5.82 (6.68)

Digitally signed by Jacob E. Bailey on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Date : 29-NOV-2018 10:13

Client ID: BFB Instrument: HP26379.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: fk00440.d
Spectrum: Avg. Scans 2282-2284 (20.14), Background Scan 2274
Location of Maximum: 95.00
Number of points: 123

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	394	67.00	2067	106.00	2937	147.00	737
36.00	7638	68.00	79176	107.00	704	148.00	1316
37.00	49424	69.00	81128	108.00	264	149.00	592
38.00	42080	70.00	7210	109.00	102	150.00	1198
39.00	17664	71.00	260	110.00	1333	152.00	118
40.00	2304	72.00	3887	111.00	920	153.00	241
41.00	88	73.00	32440	112.00	552	154.00	190
43.00	387	74.00	134720	113.00	1056	155.00	2331
44.00	7965	75.00	400832	115.00	415	156.00	995
45.00	6810	76.00	33192	116.00	1947	157.00	1418
46.00	1583	77.00	5114	117.00	6917	158.00	586
47.00	13419	78.00	2815	118.00	3422	159.00	670
48.00	5691	79.00	26592	119.00	4473	160.00	144
49.00	45656	80.00	8154	123.00	153	161.00	1054
50.00	218752	81.00	25976	124.00	280	171.00	896
51.00	71208	82.00	7389	125.00	134	172.00	12852
52.00	3970	83.00	934	127.00	441	173.00	7503
53.00	2142	84.00	193	128.00	2674	174.00	736832
54.00	842	86.00	1907	129.00	1737	175.00	54056
55.00	3116	87.00	33176	130.00	2225	176.00	687872
56.00	16576	88.00	29824	131.00	1558	177.00	45960
57.00	30944	91.00	2602	132.00	402	178.00	1620
58.00	1891	92.00	21792	135.00	1411	193.00	390
59.00	809	93.00	34992	137.00	1844	211.00	365
60.00	9706	94.00	98680	140.00	275	233.00	875
61.00	47584	95.00	790144	141.00	8049	237.00	131
62.00	49240	96.00	54416	142.00	1119	265.00	139
63.00	39128	97.00	1919	143.00	9485	266.00	191
64.00	5674	103.00	541	144.00	657	285.00	363
65.00	9875	104.00	3550	145.00	1924	331.00	168
66.00	1254	105.00	1386	146.00	1420		

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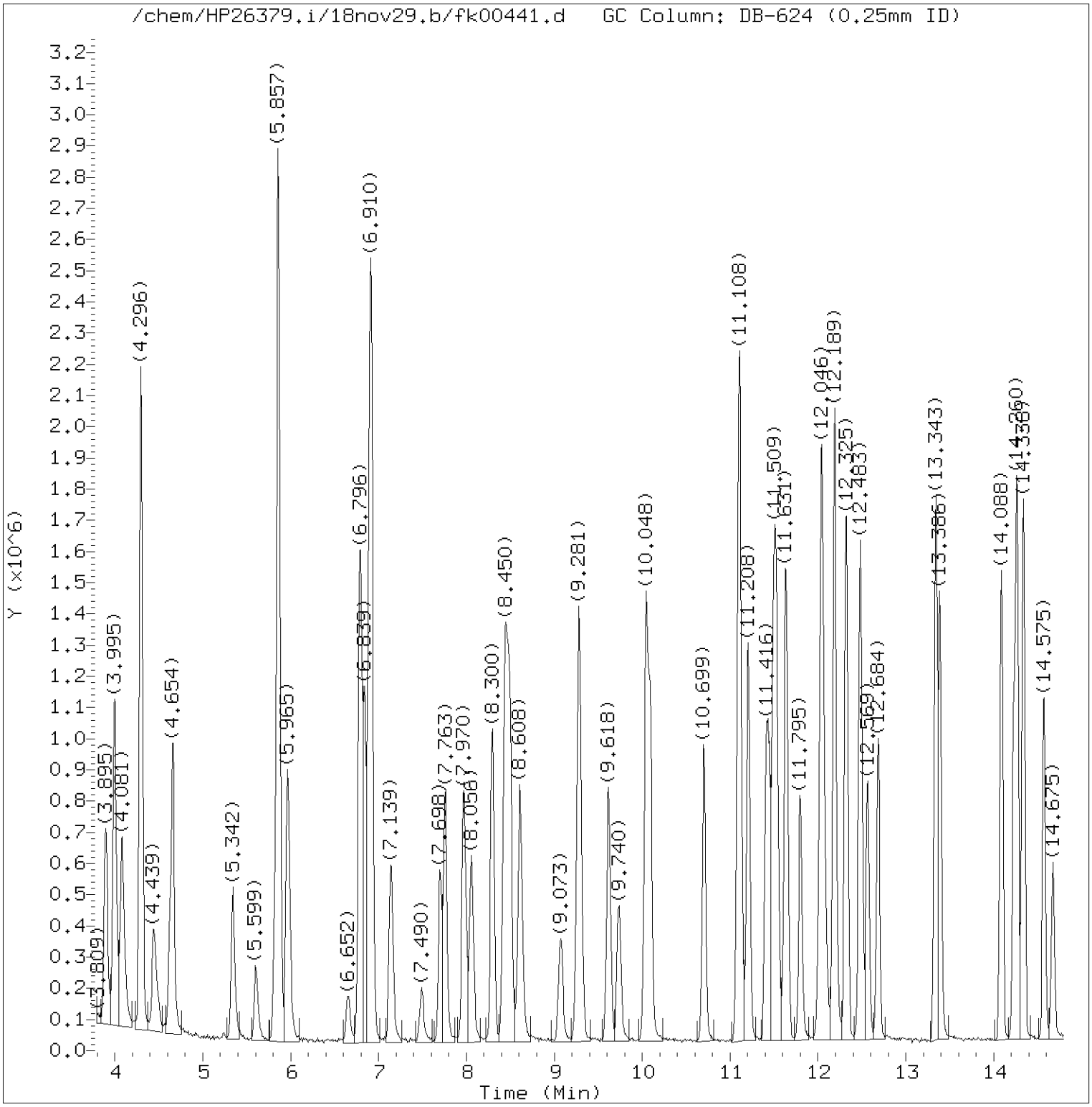
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

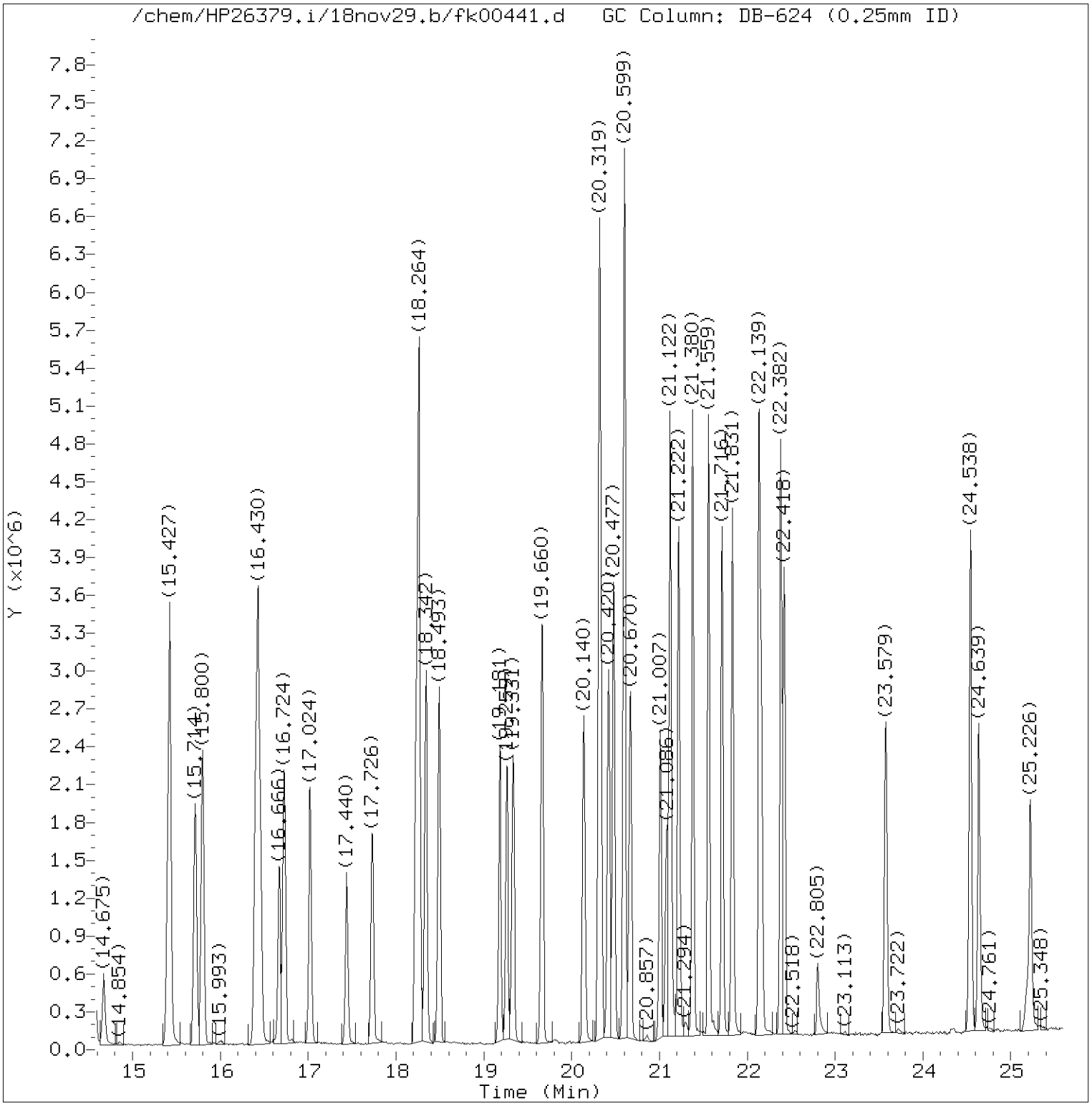
Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.895	41	602400	10.011
2) Dichlorodifluoromethane	(1)	3.995	85	1710364	10.348
3) Chlorodifluoromethane	(1)	4.081	51	1415761	10.193
4) Freon 114	(1)	4.296	85	1671952	9.684
5) Chloromethane	(1)	4.439	50	736621	9.757
6) Vinyl Chloride	(1)	4.632	62	519183	11.273
7) 1,3-Butadiene	(1)	4.661	54	482814	11.710
8) Bromomethane	(1)	5.342	94	548231	10.881
9) Chloroethane	(1)	5.599	64	361399	9.899
10) Bromoethene	(1)	5.821	106	463767	9.561
11) Pentane	(1)	5.857	43	1221078	9.491
12) Trichlorofluoromethane	(1)	5.864	101	1668519	9.391
13) Dichlorofluoromethane	(1)	5.965	67	1457903	10.214
14) Ethanol	(1)	6.652	45	214032	8.814
15) Freon123a	(1)	6.796	67	1371332	10.049
16) 1,1-Dichloroethene	(1)	6.839	61	1057979	9.687
17) Freon 113	(1)	6.903	103	864669	8.870
18) Carbon Disulfide	(1)	6.925	76	1680621	10.052
19) Methyl Iodide	(1)	7.139	142	1093183	8.606
20) Acrolein	(1)	7.490	56	224380	8.584
21) Isopropanol	(1)	7.698	45	946507	9.031
22) 3-Chloropropene	(1)	7.763	41	963772	11.014
23) Methylene Chloride	(1)	7.970	84	549550	11.237
24) Acetone	(1)	8.056	43	1143990	10.278
25) trans-1,2-Dichloroethene	(1)	8.293	61	997946	9.594
26) Hexane	(1)	8.443	56	761677	9.629
27) Methyl t-Butyl Ether	(1)	8.493	73	1386438	9.075
28) tert-Butyl Alcohol	(1)	8.608	59	1320366	9.623
29) Acetonitrile	(1)	9.081	41	638626	9.927
30) Di-Isopropyl Ether	(1)	9.281	45	2042853	8.882
31) 1,1-Dichloroethane	(1)	9.618	63	1326218	9.530
32) Acrylonitrile	(1)	9.725	53	596099	9.886
33) Ethyl Tert-Butyl Ether	(1)	10.048	59	1785219	8.735
34) Vinyl Acetate	(1)	10.091	43	2097805	11.379
35) cis-1,2-Dichloroethene	(1)	10.699	61	911795	9.567
36) 1,2-Dichloroethene (total)	(1)		61	1909741	19.161
37)*Bromochloromethane	(1)	11.093	130	461813	10.000
38) Cyclohexane	(1)	11.115	56	1014001	8.676

* = Compound is an internal standard.

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on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.208	83	1340534	9.636
40) Ethyl Acetate	(1)	11.409	43	1594391	10.669
41) Methyl Acrylate	(1)	11.444	55	1227954	9.681
42) Carbon Tetrachloride	(1)	11.502	117	1365628	9.100
43) Tetrahydrofuran	(1)	11.538	42	823814	10.490
44) 1,1,1-Trichloroethane	(1)	11.638	97	1370193	9.139
45) 2-Butanone	(1)	11.795	43	1470934M	9.852
46) Isooctane	(2)	12.046	57	3310159	10.377
47) Heptane	(2)	12.189	71	542508	9.865
48) Benzene	(2)	12.325	78	1860133	9.884
49) Tert-Amyl Methyl Ether	(2)	12.483	73	1273849	9.171
50) 1,2-Dichloroethane	(2)	12.684	62	1089791	10.359
51) Trichloroethene	(2)	13.343	130	717544	9.434
52)*1,4-Difluorobenzene	(2)	13.386	114	1363124	10.000
53) Dibromomethane	(2)	14.088	174	791680	9.623
54) Ethyl Acrylate	(2)	14.224	55	1231337	8.454
55) 1,2-Dichloropropane	(2)	14.260	63	851471	9.476
56) Bromodichloromethane	(2)	14.338	83	1391663	9.652
57) Methyl Methacrylate	(2)	14.575	69	449405	8.662
58) 1,4-Dioxane	(2)	14.675	88	370697	9.843
59) cis-1,3-Dichloropropene	(2)	15.406	75	893840	8.902
60) Octane	(3)	15.427	43	1711188	9.671
61) Toluene	(3)	15.800	91	2013858	9.344
62) 4-Methyl-2-Pentanone	(2)	16.394	43	1575918	8.951
63) Tetrachloroethene	(3)	16.430	166	1238965	9.361
64) trans-1,3-Dichloropropene	(3)	16.459	75	872751	9.008
66) Ethyl Methacrylate	(3)	16.666	69	776840	8.185
65) 1,3-Dichloropropene (total)	(3)		75	1766591	17.464
67) 1,1,2-Trichloroethane	(3)	16.731	97	824038	9.155
68) Dibromochloromethane	(3)	17.024	127	1012691	8.669
69) 1,2-Dibromoethane	(3)	17.440	107	1104406	8.678
70) 2-Hexanone	(3)	17.726	43	1434456	8.584
71)*Chlorobenzene-d5	(3)	18.228	117	1443877	10.000
72) Chlorobenzene	(3)	18.256	112	1730158	9.059
73) Ethylbenzene	(3)	18.264	91	2561887	9.019
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	955590	8.711
75) m/p-Xylene	(3)	18.493	91	1831388	9.208
76) o-Xylene	(3)	19.181	91	1618704	8.412

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3450092	17.633
78) Styrene	(3)	19.266	104	1275840	9.000
79) Bromoform	(3)	19.331	173	1349189	8.507
80) Cumene	(3)	19.668	105	2463880	9.327
81) n-Propylbenzene	(3)	20.312	120	754544	9.228
82) Bromobenzene	(3)	20.327	156	1112219	9.575
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1724627	8.385
84) 4-Ethyltoluene	(3)	20.477	105	2705096	9.913
85) 2-Chlorotoluene	(3)	20.599	126	751567	9.831
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	2405126	10.188
87) 1,2,3-Trichloropropane	(3)	20.670	110	515883	8.850
88) Alpha Methyl Styrene	(3)	21.007	118	852634	8.539
89) tert-Butylbenzene	(3)	21.122	119	2431287	11.341
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	2393550	10.482
91) sec-Butylbenzene	(3)	21.380	105	3492998	10.233
92) p-Isopropyltoluene	(3)	21.559	119	2708109	10.174
93) 1,3-Dichlorobenzene	(3)	21.716	146	1763331	9.110
94) 1,4-Dichlorobenzene	(3)	21.831	146	1787352	9.348
95) n-Butylbenzene	(3)	22.132	92	1589173	9.723
96) Benzyl Chloride	(3)	22.160	126	415620	9.090
97) Hexachloroethane	(3)	22.382	117	951792	8.999
98) 1,2-Dichlorobenzene	(3)	22.418	146	1619037	9.136
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	784333	8.315
100) Hexachlorobutadiene	(3)	24.538	225	1061048	8.386
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	1038442	8.309
102) Naphthalene	(3)	25.226	128	1863093	8.984

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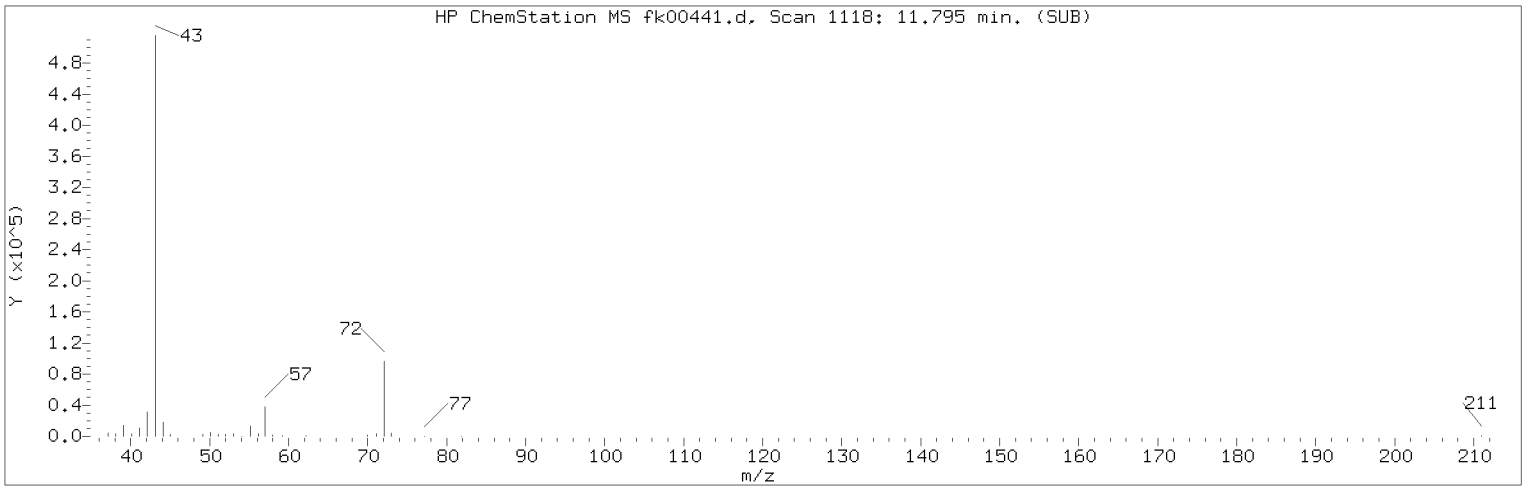
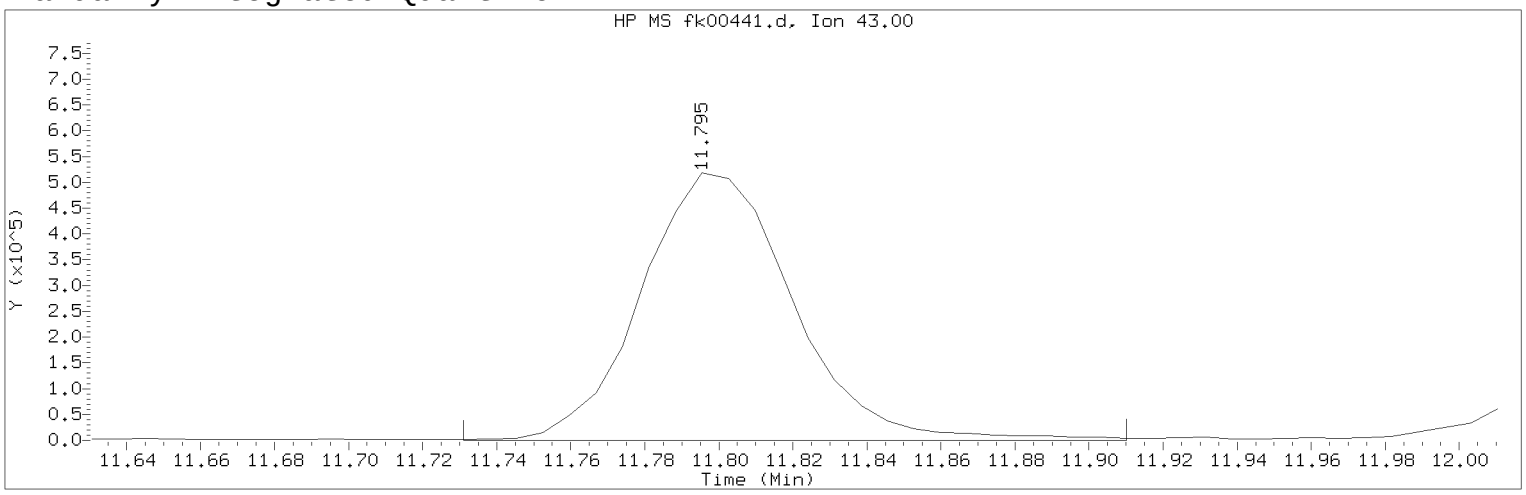
on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 11:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

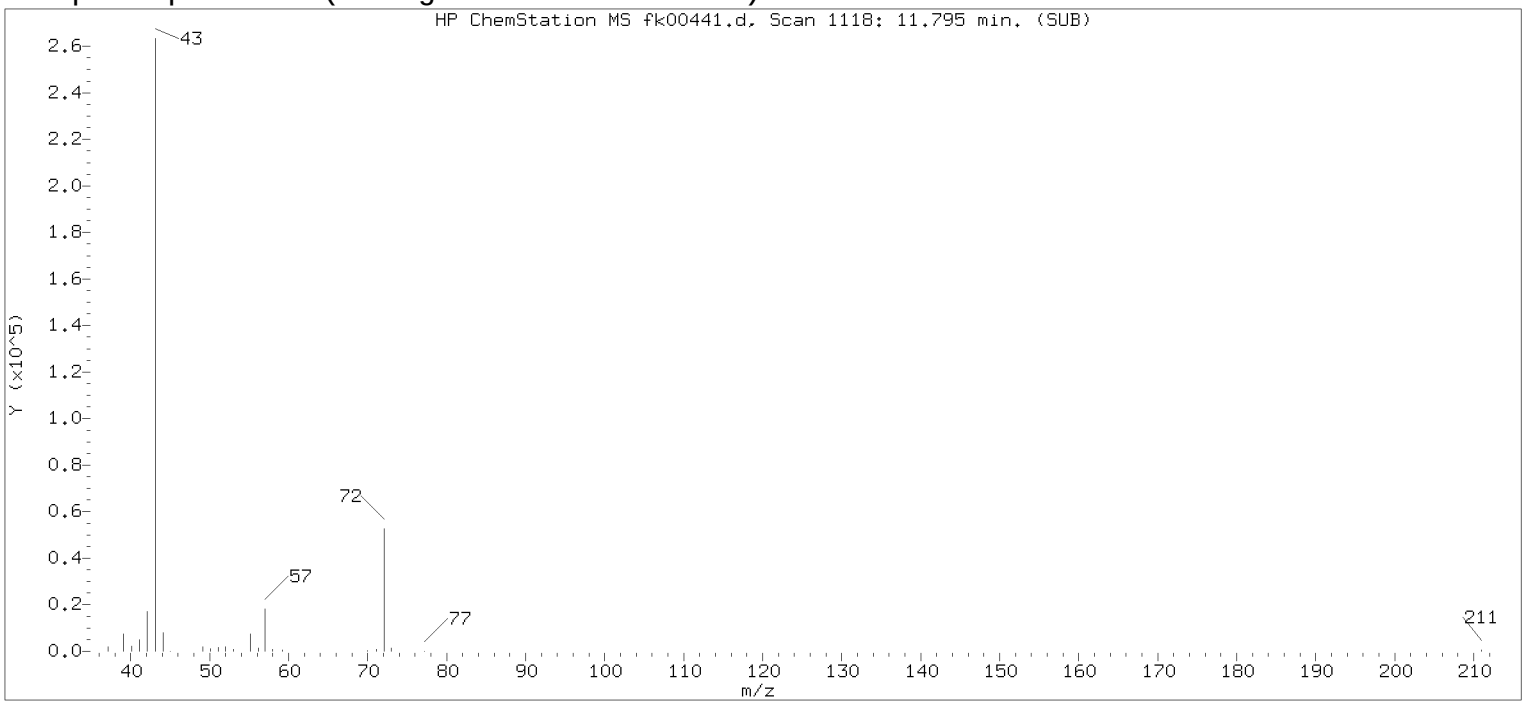
Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1118
Retention Time (minutes): 11.795
Quant Ion : 43.00
Area (flag) : 1470934M
Concentration (ppb(v)) : 9.8522
Integration start scan : 1108 Integration stop scan: 1133
Y at integration start : 389 Y at integration end: 389

Reason for manual integration: improper integration

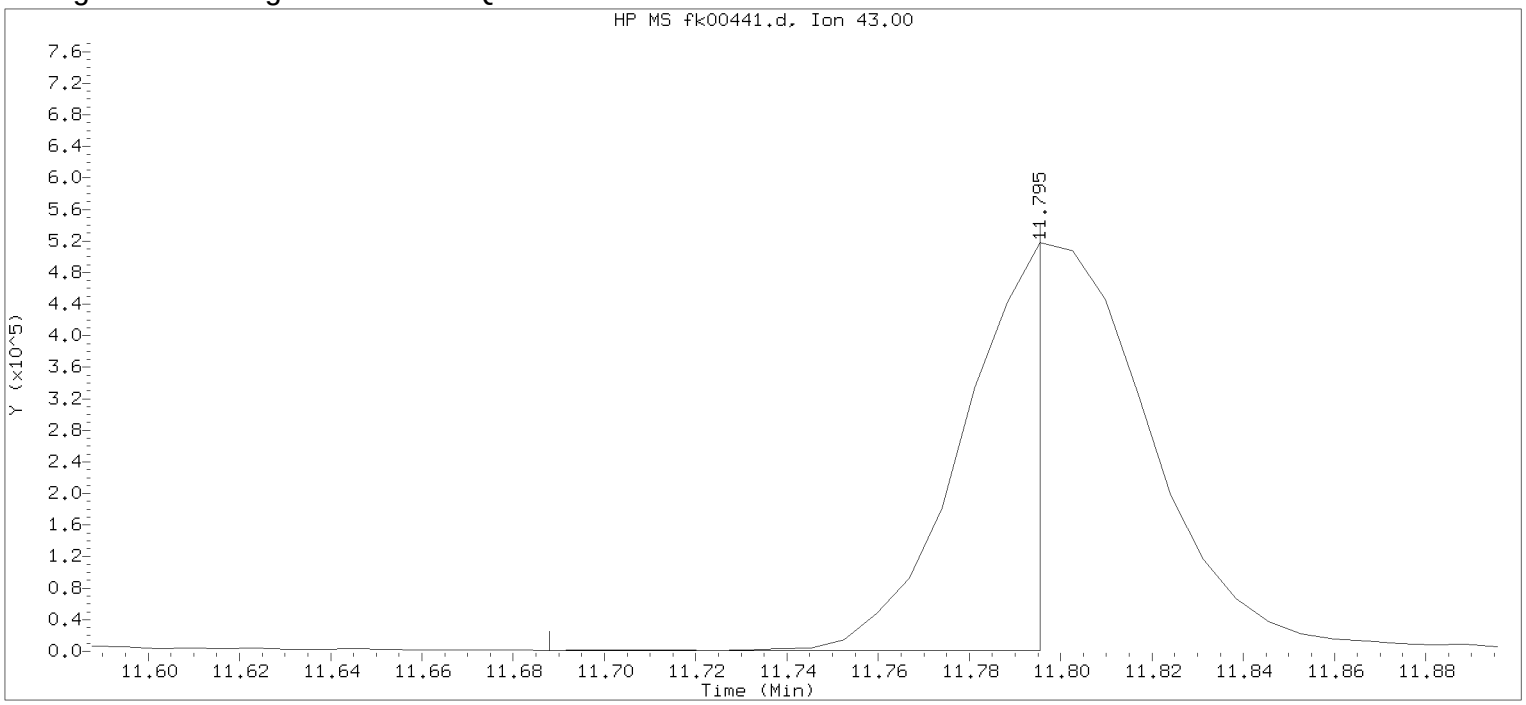
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/29/2018 at 12:23.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:06.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov29.b/fk00441.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:05 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all
Calibration date and time: 26-NOV-2018 14:45
Date, time and analyst ID of latest file update: 29-Nov-2018 11:38 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 45
Compound Name : 2-Butanone
Scan Number : 1118
Retention Time (minutes): 11.795
Quant Ion : 43.00
Area : 590145
Concentration (ppb(v)) : 3.9527
Integration start scan : 1102 Integration stop scan: 1117
Y at integration start : 1152 Y at integration end: 1152

Digitally signed by Jacob E. Bailey on 11/29/2018 at 12:23.
Target 3.5 esignature userID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00442.d Injection date and time: **29-NOV-2018 11:53**
Data file Sample Info. Line: VBLKF13;200;F1833330AA;VBLKF13;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.100(-0.007)	1021	130	467212 (1)	10.00		277088 - 646538
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1207905 (-11)	10.00		817875 - 1908373
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1287807 (-11)	10.00		866327 - 2021427

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)			Not Detected					0.16	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)			Not Detected					0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
10) Bromoethene	(1)			Not Detected					0.18	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)			Not Detected					0.15	1
11) Pentane	(1)			Not Detected					0.13	1
14) Ethanol	(1)			Not Detected					0.69	5
15) Freon123a	(1)			Not Detected					0.2	1
20) Acrolein	(1)			Not Detected					0.62	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)			Not Detected					0.53	5
19) Methyl Iodide	(1)			Not Detected					0.15	1
18) Carbon Disulfide	(1)			Not Detected					0.13	1
21) Isopropanol	(1)			Not Detected					0.24	1
29) Acetonitrile	(1)			Not Detected					0.83	5
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
28) tert-Butyl Alcohol	(1)			Not Detected					0.21	1
32) Acrylonitrile	(1)			Not Detected					0.13	1
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)			Not Detected					0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
34) Vinyl Acetate	(1)			Not Detected					0.16	1
30) Di-Isopropyl Ether	(1)			Not Detected					0.15	1
33) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.15	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
45) 2-Butanone	(1)			Not Detected					0.21	1
40) Ethyl Acetate	(1)			Not Detected					0.25	2
41) Methyl Acrylate	(1)			Not Detected					0.14	1
43) Tetrahydrofuran	(1)			Not Detected					0.24	1
39) Chloroform	(1)			Not Detected					0.092	1
44) 1,1,1-Trichloroethane	(1)			Not Detected					0.12	1
38) Cyclohexane	(1)			Not Detected					0.11	1

Digitally signed by Jacob E. Bailey on 11/29/2018 at 13:03. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00442.d Injection date and time: **29-NOV-2018 11:53**
Data file Sample Info. Line: VBLKF13;200;F1833330AA;VBLKF13;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)			Not Detected					0.14	1
48) Benzene	(2)			Not Detected					0.11	1
50) 1,2-Dichloroethane	(2)			Not Detected					0.08	1
46) Isooctane	(2)			Not Detected					0.13	1
49) Tert-Amyl Methyl Ether	(2)			Not Detected					0.11	1
47) Heptane	(2)			Not Detected					0.23	1
51) Trichloroethene	(2)			Not Detected					0.18	1
54) Ethyl Acrylate	(2)			Not Detected					0.16	1
55) 1,2-Dichloropropane	(2)			Not Detected					0.13	1
53) Dibromomethane	(2)			Not Detected					0.14	1
58) 1,4-Dioxane	(2)			Not Detected					0.17	1
57) Methyl Methacrylate	(2)			Not Detected					0.15	1
56) Bromodichloromethane	(2)			Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)			Not Detected					0.15	1
61) Toluene	(3)			Not Detected					0.12	1
60) Octane	(3)			Not Detected					0.4	2
64) trans-1,3-Dichloropropene	(3)			Not Detected					0.12	1
65) 1,3-Dichloropropene (total)	(3)			Not Detected					0.23	1
66) Ethyl Methacrylate	(3)			Not Detected					0.19	1
67) 1,1,2-Trichloroethane	(3)			Not Detected					0.12	1
63) Tetrachloroethene	(3)			Not Detected					0.25	2
70) 2-Hexanone	(3)			Not Detected					0.18	1
68) Dibromochloromethane	(3)			Not Detected					0.13	1
69) 1,2-Dibromoethane	(3)			Not Detected					0.13	1
72) Chlorobenzene	(3)			Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.15	1
73) Ethylbenzene	(3)			Not Detected					0.19	1
75) m/p-Xylene	(3)			Not Detected					0.26	2
76) o-Xylene	(3)			Not Detected					0.19	1
77) Xylene (total)	(3)			Not Detected					0.44	2
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.17	1
80) Cumene	(3)			Not Detected					0.24	1
82) Bromobenzene	(3)			Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)			Not Detected					0.14	1
81) n-Propylbenzene	(3)			Not Detected					0.21	1
85) 2-Chlorotoluene	(3)			Not Detected					0.22	1
84) 4-Ethyltoluene	(3)			Not Detected					0.18	1
86) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.32	2
88) Alpha Methyl Styrene	(3)			Not Detected					0.18	1
89) tert-Butylbenzene	(3)			Not Detected					0.76	5
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.28	2
91) sec-Butylbenzene	(3)			Not Detected					0.39	2
93) 1,3-Dichlorobenzene	(3)			Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)			Not Detected					0.17	1
92) p-Isopropyltoluene	(3)			Not Detected					0.28	2
96) Benzyl Chloride	(3)			Not Detected					0.25	2
98) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
95) n-Butylbenzene	(3)			Not Detected					0.26	2
97) Hexachloroethane	(3)			Not Detected					0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)			Not Detected					0.28	2
101) 1,2,4-Trichlorobenzene	(3)			Not Detected					0.38	2

Digitally signed by Jacob E. Bailey on 11/29/2018 at 13:03. Target 3.5 esignature user ID: jeb07445

Data file: /chem/HP26379.i/18nov29.b/fk00442.d Injection date and time: **29-NOV-2018 11:53**
Data file Sample Info. Line: VBLKF13;200;F1833330AA;VBLKF13;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

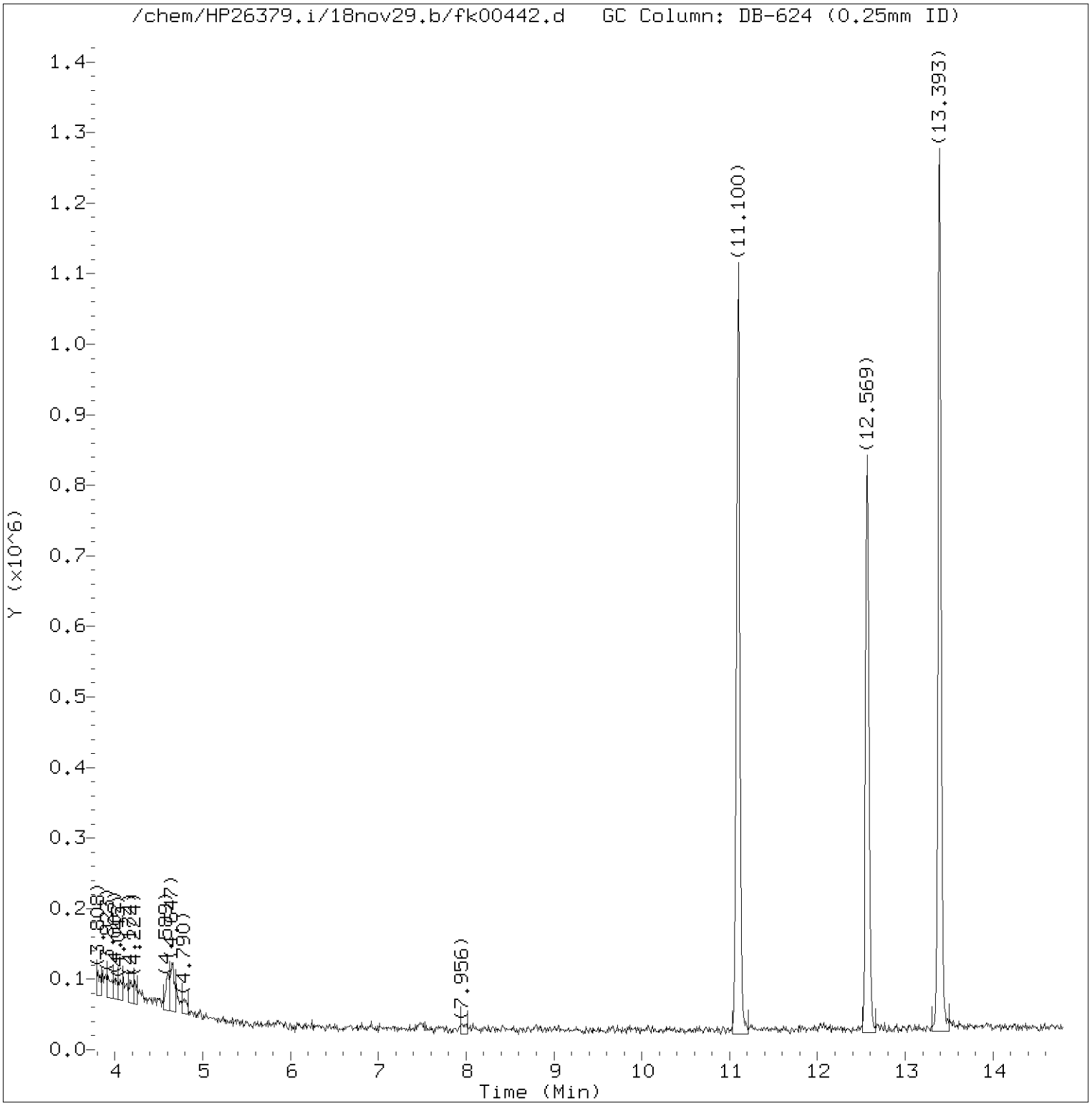
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)				Not Detected					0.47	2
102) Naphthalene	(3)				Not Detected					0.5	2

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 11/29/2018 at 13:03. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:06. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

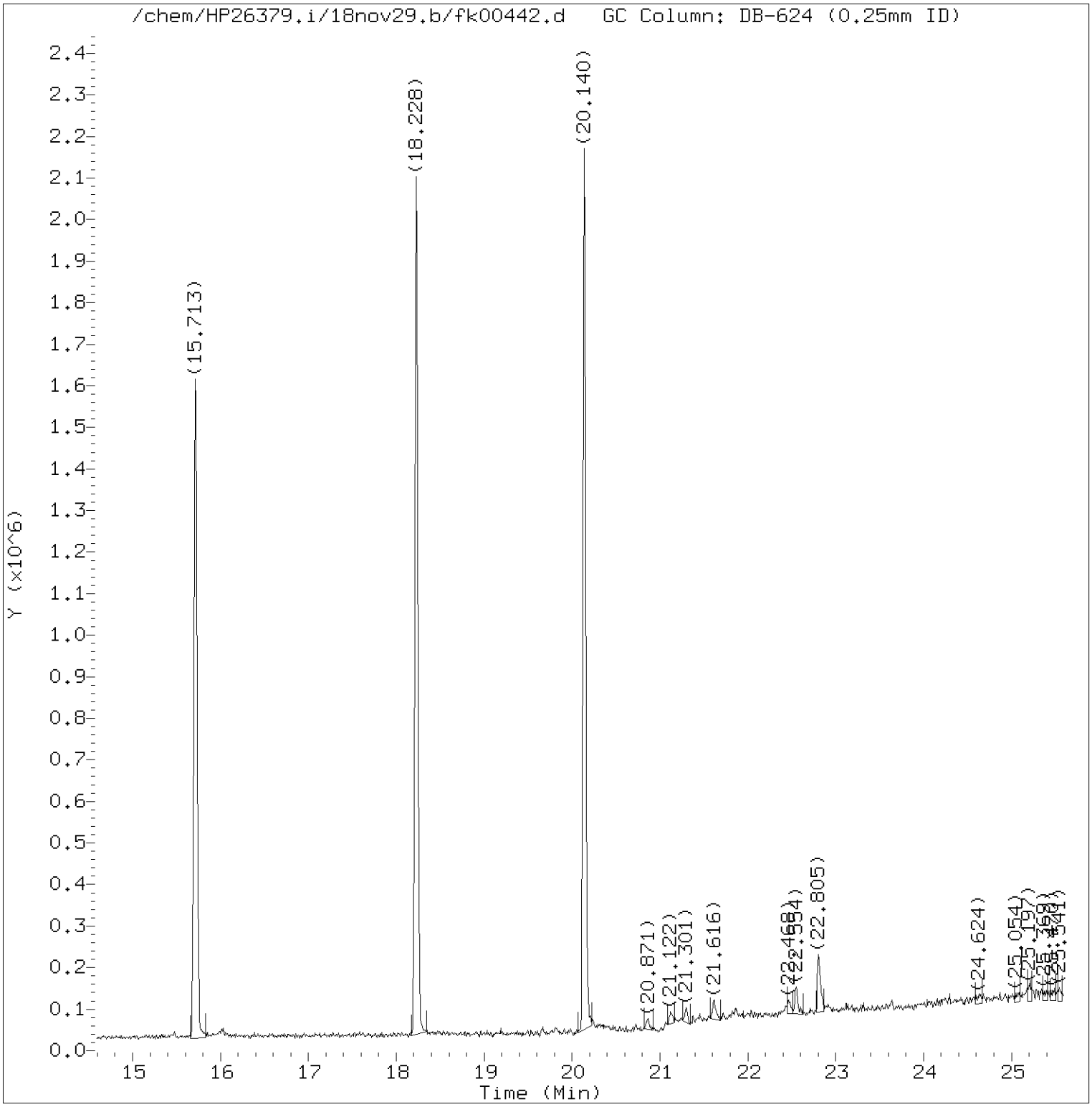
Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00442.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:53 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Sample Name: VBLKF13 Lab Sample ID: VBLKF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:03.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00442.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:53 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Sample Name: VBLKF13 Lab Sample ID: VBLKF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:03.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00442.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 11:53 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:03 jeb07445

Sample Name: VBLKF13 Lab Sample ID: VBLKF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
37)*Bromochloromethane	(1)	11.100	130	467212	10.000
52)*1,4-Difluorobenzene	(2)	13.393	114	1207905	10.000
71)*Chlorobenzene-d5	(3)	18.228	117	1287807	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:03.
Target 3.5 esignature user ID: jeb07445

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00444.d
Injection date and time: **29-NOV-2018 13:13**
Data file Sample Info. Line: LCSF13;200;F1833330AA;LCSF13;0;0;LCS;
Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.115(-0.021)	1023	130	474572 (3)	10.00		277088 - 646538
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1412270 (4)	10.00		817875 - 1908373
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1435750 (-1)	10.00		866327 - 2021427

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	3.923(-0.001)	41	560019	9.057	9.06			0.16	1
2) Dichlorodifluoromethane	(1)	4.016(-0.001)	85	1553920	9.149	9.15			0.13	1
3) Chlorodifluoromethane	(1)	4.109(-0.001)	51	1381304	9.677	9.68			0.15	1
4) Freon 114	(1)	4.324(-0.001)	85	1515613	8.543	8.54			0.12	1
5) Chloromethane	(1)	4.468(-0.001)	50	688369	8.873	8.87			0.24	1
6) Vinyl Chloride	(1)	4.654(-0.001)	62	486134	10.272	10.27			0.12	1
7) 1,3-Butadiene	(1)	4.682(-0.001)	54	388761	9.175	9.18			0.17	1
8) Bromomethane	(1)	5.363(-0.000)	94	494670	9.554	9.55			0.18	1
9) Chloroethane	(1)	5.628(-0.001)	64	348621	9.292	9.29			0.19	1
10) Bromoethene	(1)	5.843(-0.000)	106	450571	9.039	9.04			0.18	1
13) Dichlorofluoromethane	(1)	5.986(-0.000)	67	1379966	9.408	9.41			0.11	1
12) Trichlorofluoromethane	(1)	5.893(-0.001)	101	1516808	8.308	8.31			0.15	1
11) Pentane	(1)	5.879(-0.000)	43	1126341	8.519	8.52			0.13	1
14) Ethanol	(1)	6.666(-0.000)	45	217887	8.731	8.73			0.69	5
15) Freon123a	(1)	6.810(-0.000)	67	1268749	9.047	9.05			0.2	1
20) Acrolein	(1)	7.512(-0.000)	56	234788	8.741	8.74			0.62	5
16) 1,1-Dichloroethene	(1)	6.860(-0.000)	61	999396	8.905	8.90			0.14	1
17) Freon 113	(1)	6.917(-0.000)	103	789965	7.886	7.89			0.11	1
24) Acetone	(1)	8.078(-0.000)	43	1074637	9.395	9.40			0.53	5
19) Methyl Iodide	(1)	7.168(-0.001)	142	1081921	8.289	8.29			0.15	1
18) Carbon Disulfide	(1)	6.946(-0.000)	76	1514057	8.812	8.81			0.13	1
21) Isopropanol	(1)	7.727(-0.001)	45	949913	8.820	8.82			0.24	1
29) Acetonitrile	(1)	9.088(0.000)	41	619832	9.376	9.38			0.83	5
22) 3-Chloropropene	(1)	7.777(0.000)	41	1004408M	11.170	11.17			0.15	1
23) Methylene Chloride	(1)	7.999(-0.001)	84	505258	10.054	10.05			0.25	2
28) tert-Butyl Alcohol	(1)	8.636(-0.001)	59	1261635	8.948	8.95			0.21	1
32) Acrylonitrile	(1)	9.747(-0.000)	53	586924	9.472	9.47			0.13	1
25) trans-1,2-Dichloroethene	(1)	8.314(-0.000)	61	944626	8.837	8.84			0.086	1
27) Methyl t-Butyl Ether	(1)	8.522(-0.001)	73	1346181	8.574	8.57			0.15	1
26) Hexane	(1)	8.457(0.000)	56	726450	8.937	8.94			0.13	1
31) 1,1-Dichloroethane	(1)	9.639(-0.000)	63	1239464	8.668	8.67			0.089	1
34) Vinyl Acetate	(1)	10.112(-0.000)	43	1990862	10.509	10.51			0.16	1
30) Di-Isopropyl Ether	(1)	9.302(-0.000)	45	1952531	8.261	8.26			0.15	1
33) Ethyl Tert-Butyl Ether	(1)	10.069(-0.000)	59	1744924	8.308	8.31			0.15	1
35) cis-1,2-Dichloroethene	(1)	10.721(-0.000)	61	851266	8.692	8.69			0.12	1
36) 1,2-Dichloroethene (total)	(1)		61	1795892	17.529	17.53			0.2	1
45) 2-Butanone	(1)	11.810(0.000)	43	1364889	8.896	8.90			0.21	1
40) Ethyl Acetate	(1)	11.423(0.000)	43	1448108	9.430	9.43			0.25	2
41) Methyl Acrylate	(1)	11.459(0.000)	55	1144965	8.784	8.78			0.14	1
43) Tetrahydrofuran	(1)	11.545(0.001)	42	773383	9.583	9.58			0.24	1
39) Chloroform	(1)	11.222(0.000)	83	1264183	8.843	8.84			0.092	1
44) 1,1,1-Trichloroethane	(1)	11.645(0.001)	97	1277677	8.293	8.29			0.12	1
38) Cyclohexane	(1)	11.122(0.001)	56	987979	8.226	8.23			0.11	1

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00444.d Injection date and time: **29-NOV-2018 13:13**
Data file Sample Info. Line: LCSF13;200;F1833330AA;LCSF13;0;0;LCS; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)	11.516(0.000)	117	1282408	8.316	8.32			0.14	1
48) Benzene	(2)	12.325(0.000)	78	1745100	8.950	8.95			0.11	1
50) 1,2-Dichloroethane	(2)	12.691(-0.000)	62	1007380	9.242	9.24			0.08	1
46) Isooctane	(2)	12.046(0.000)	57	3037909	9.192	9.19			0.13	1
49) Tert-Amyl Methyl Ether	(2)	12.490(-0.000)	73	1208458	8.397	8.40			0.11	1
47) Heptane	(2)	12.196(-0.000)	71	518007	9.092	9.09			0.23	1
51) Trichloroethene	(2)	13.342(0.000)	130	697512	8.852	8.85			0.18	1
54) Ethyl Acrylate	(2)	14.231(0.000)	55	1220940	8.091	8.09			0.16	1
55) 1,2-Dichloropropane	(2)	14.266(0.000)	63	792099	8.508	8.51			0.13	1
53) Dibromomethane	(2)	14.095(0.000)	174	753279	8.838	8.84			0.14	1
58) 1,4-Dioxane	(2)	14.682(0.000)	88	340128	8.717	8.72			0.17	1
57) Methyl Methacrylate	(2)	14.574(0.000)	69	449927	8.371	8.37			0.15	1
56) Bromodichloromethane	(2)	14.338(0.000)	83	1282549	8.586	8.59			0.12	1
59) cis-1,3-Dichloropropene	(2)	15.405(0.000)	75	874556	8.407	8.41			0.1	1
62) 4-Methyl-2-Pentanone	(2)	16.401(0.000)	43	1503892	8.245	8.24			0.15	1
61) Toluene	(3)	15.799(0.000)	91	1836349	8.568	8.57			0.12	1
60) Octane	(3)	15.427(0.000)	43	1602106	9.106	9.11			0.4	2
64) trans-1,3-Dichloropropene	(3)	16.458(-0.000)	75	847183	8.793	8.79			0.12	1
65) 1,3-Dichloropropene (total)	(3)		75	1721739	17.200	17.20			0.23	1
66) Ethyl Methacrylate	(3)	16.673(-0.000)	69	756379	8.015	8.01			0.19	1
67) 1,1,2-Trichloroethane	(3)	16.731(0.000)	97	741905	8.290	8.29			0.12	1
63) Tetrachloroethene	(3)	16.430(-0.000)	166	1124846	8.547	8.55			0.25	2
70) 2-Hexanone	(3)	17.726(0.000)	43	1333787	8.026	8.03			0.18	1
68) Dibromochloromethane	(3)	17.024(-0.000)	127	953357	8.207	8.21			0.13	1
69) 1,2-Dibromoethane	(3)	17.440(-0.000)	107	1033183	8.164	8.16			0.13	1
72) Chlorobenzene	(3)	18.256(-0.000)	112	1548630	8.155	8.15			0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)	18.342(-0.000)	131	869260	7.969	7.97			0.15	1
73) Ethylbenzene	(3)	18.264(-0.000)	91	2317588	8.205	8.20			0.19	1
75) m/p-Xylene	(3)	18.493(-0.000)	91	1656188	8.374	8.37			0.26	2
76) o-Xylene	(3)	19.180(-0.000)	91	1485756	7.765	7.76			0.19	1
77) Xylene (total)	(3)		91	3141944	16.139	16.14			0.44	2
78) Styrene	(3)	19.259(0.000)	104	1221402	8.665	8.67			0.2	1
79) Bromoform	(3)	19.331(-0.000)	173	1263500	8.012	8.01			0.17	1
80) Cumene	(3)	19.660(0.000)	105	2215617	8.435	8.43			0.24	1
82) Bromobenzene	(3)	20.326(-0.000)	156	977199	8.460	8.46			0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)	20.420(-0.000)	83	1494286	7.306	7.31			0.15	1
87) 1,2,3-Trichloropropane	(3)	20.670(-0.000)	110	464724	8.017	8.02			0.14	1
81) n-Propylbenzene	(3)	20.312(-0.000)	120	662908	8.153	8.15			0.21	1
85) 2-Chlorotoluene	(3)	20.592(0.000)	126	654263	8.607	8.61			0.22	1
84) 4-Ethyltoluene	(3)	20.477(-0.000)	105	2269427	8.364	8.36			0.18	1
86) 1,3,5-Trimethylbenzene	(3)	20.599(0.000)	105	2070532	8.820	8.82			0.32	2
88) Alpha Methyl Styrene	(3)	21.007(-0.000)	118	822756	8.287	8.29			0.18	1
89) tert-Butylbenzene	(3)	21.122(-0.000)	119	1882984	8.833	8.83			0.76	5
90) 1,2,4-Trimethylbenzene	(3)	21.222(-0.000)	105	1940997	8.548	8.55			0.28	2
91) sec-Butylbenzene	(3)	21.379(-0.000)	105	2933953	8.644	8.64			0.39	2
93) 1,3-Dichlorobenzene	(3)	21.716(-0.000)	146	1479583	7.688	7.69			0.19	1
94) 1,4-Dichlorobenzene	(3)	21.831(-0.000)	146	1415728	7.446	7.45			0.17	1
92) p-Isopropyltoluene	(3)	21.558(-0.000)	119	2228123	8.418	8.42			0.28	2
96) Benzyl Chloride	(3)	22.160(-0.000)	126	365565	8.041	8.04			0.25	2
98) 1,2-Dichlorobenzene	(3)	22.418(-0.000)	146	1301004	7.383	7.38			0.2	1
95) n-Butylbenzene	(3)	22.132(-0.000)	92	1289895	7.936	7.94			0.26	2
97) Hexachloroethane	(3)	22.382(-0.000)	117	832326	7.914	7.91			0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)	23.578(-0.000)	157	605795	6.458	6.46			0.28	2
101) 1,2,4-Trichlorobenzene	(3)	24.639(-0.000)	180	764113	6.149	6.15			0.38	2

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00444.d Injection date and time: **29-NOV-2018 13:13**
Data file Sample Info. Line: LCSF13;200;F1833330AA;LCSF13;0;0;LCS; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)	24.538(-0.000)	225	853595	6.784	6.78			0.47	2
102) Naphthalene	(3)	25.226(-0.000)	128	1205991	5.848	5.85			0.5	2

Total number of targets = 99

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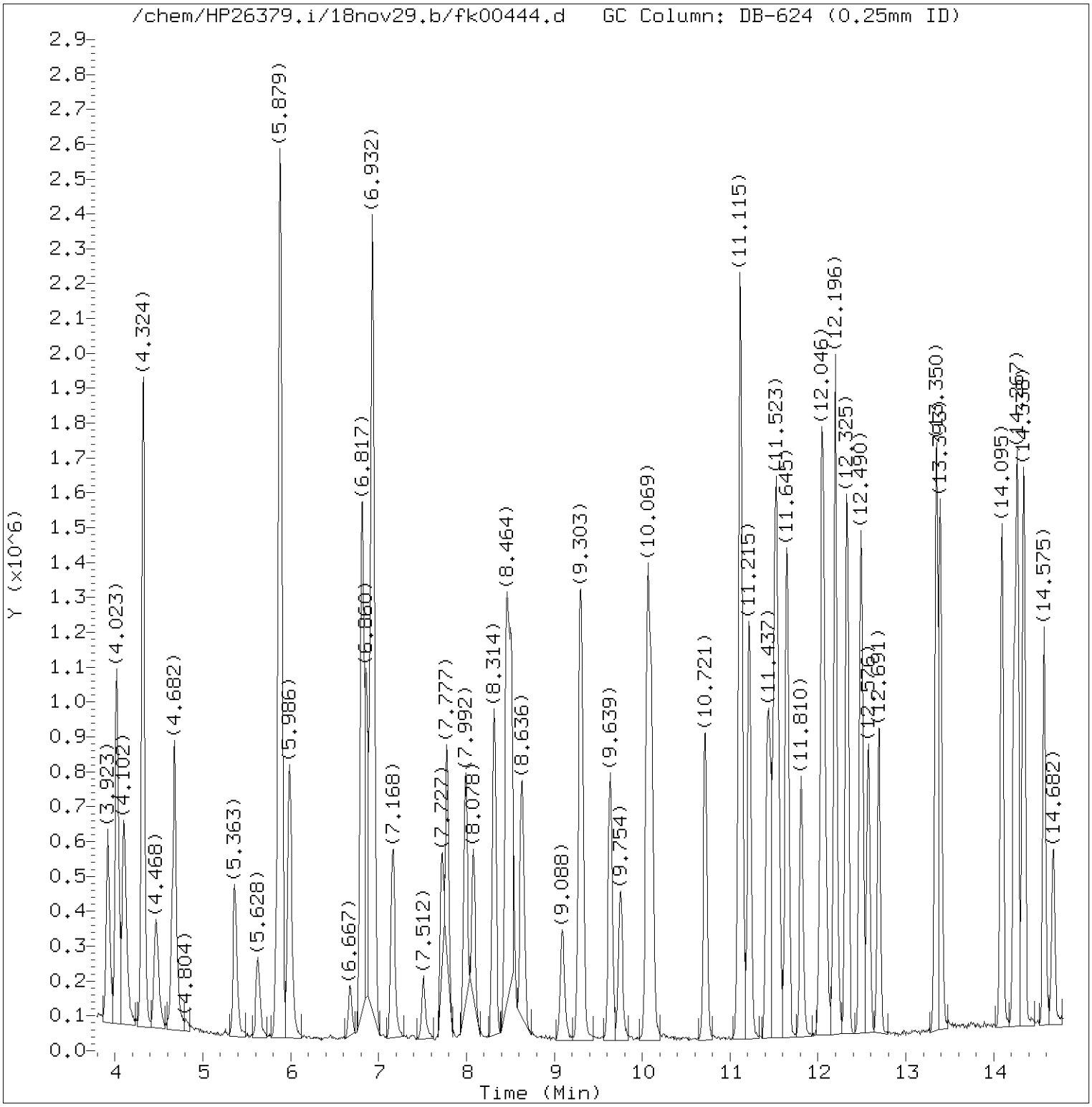
Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:06. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

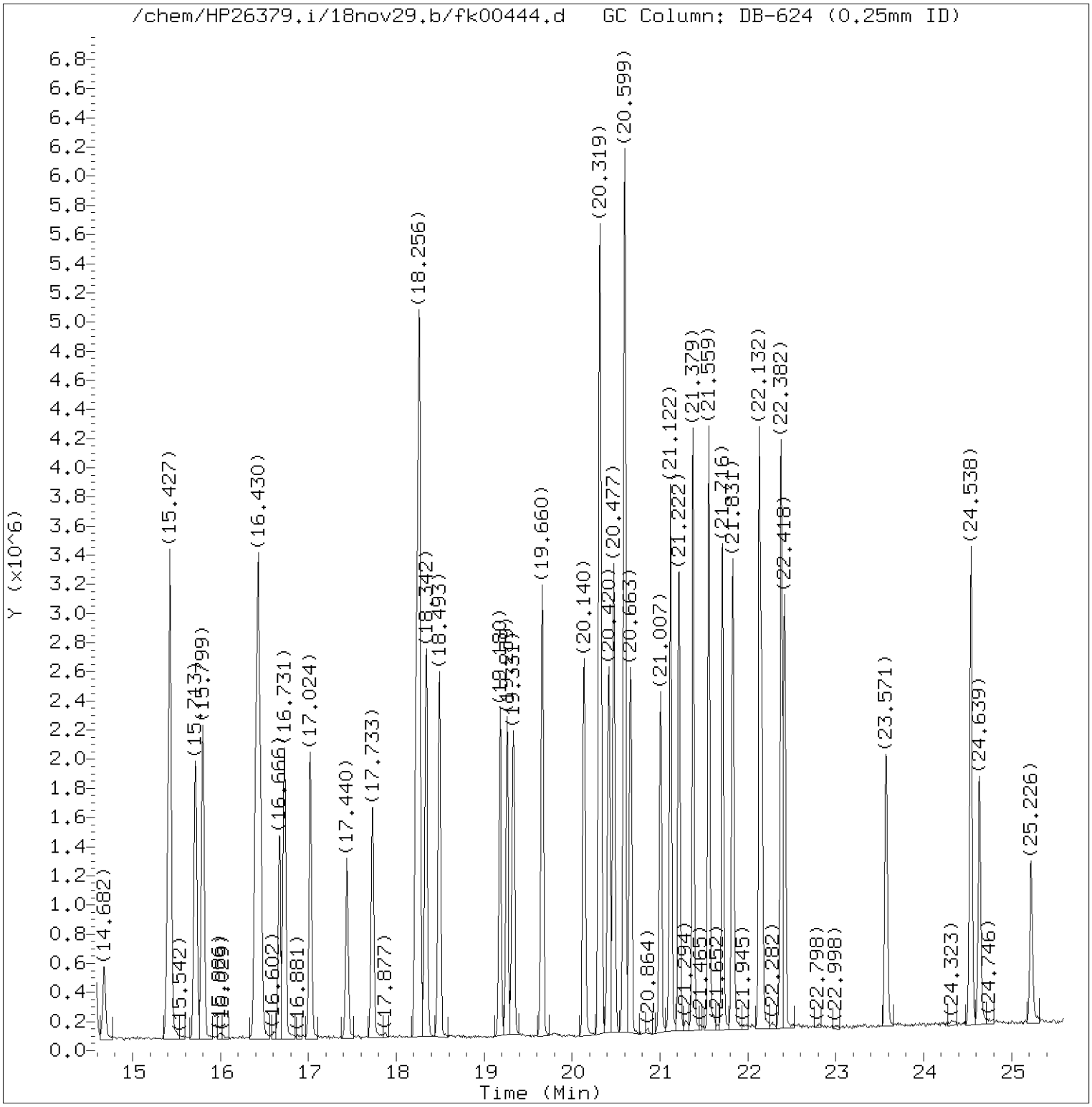
Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.923	41	560019	9.057
2) Dichlorodifluoromethane	(1)	4.016	85	1553920	9.149
3) Chlorodifluoromethane	(1)	4.109	51	1381304	9.677
4) Freon 114	(1)	4.324	85	1515613	8.543
5) Chloromethane	(1)	4.468	50	688369	8.873
6) Vinyl Chloride	(1)	4.654	62	486134	10.272
7) 1,3-Butadiene	(1)	4.682	54	388761	9.175
8) Bromomethane	(1)	5.363	94	494670	9.554
9) Chloroethane	(1)	5.628	64	348621	9.292
10) Bromoethene	(1)	5.843	106	450571	9.039
11) Pentane	(1)	5.879	43	1126341	8.519
12) Trichlorofluoromethane	(1)	5.893	101	1516808	8.308
13) Dichlorofluoromethane	(1)	5.986	67	1379966	9.408
14) Ethanol	(1)	6.667	45	217887	8.731
15) Freon123a	(1)	6.810	67	1268749	9.047
16) 1,1-Dichloroethene	(1)	6.860	61	999396	8.905
17) Freon 113	(1)	6.917	103	789965	7.886
18) Carbon Disulfide	(1)	6.946	76	1514057	8.812
19) Methyl Iodide	(1)	7.168	142	1081921	8.289
20) Acrolein	(1)	7.512	56	234788	8.741
21) Isopropanol	(1)	7.727	45	949913	8.820
22) 3-Chloropropene	(1)	7.777	41	1004408M	11.170
23) Methylene Chloride	(1)	7.999	84	505258	10.054
24) Acetone	(1)	8.078	43	1074637	9.395
25) trans-1,2-Dichloroethene	(1)	8.314	61	944626	8.837
26) Hexane	(1)	8.457	56	726450	8.937
27) Methyl t-Butyl Ether	(1)	8.522	73	1346181	8.574
28) tert-Butyl Alcohol	(1)	8.636	59	1261635	8.948
29) Acetonitrile	(1)	9.088	41	619832	9.376
30) Di-Isopropyl Ether	(1)	9.303	45	1952531	8.261
31) 1,1-Dichloroethane	(1)	9.639	63	1239464	8.668
32) Acrylonitrile	(1)	9.747	53	586924	9.472
33) Ethyl Tert-Butyl Ether	(1)	10.069	59	1744924	8.308
34) Vinyl Acetate	(1)	10.112	43	1990862	10.509
35) cis-1,2-Dichloroethene	(1)	10.721	61	851266	8.692
36) 1,2-Dichloroethene (total)	(1)		61	1795892	17.529
37)*Bromochloromethane	(1)	11.115	130	474572	10.000
38) Cyclohexane	(1)	11.122	56	987979	8.226

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.222	83	1264183	8.843
40) Ethyl Acetate	(1)	11.423	43	1448108	9.430
41) Methyl Acrylate	(1)	11.459	55	1144965	8.784
42) Carbon Tetrachloride	(1)	11.516	117	1282408	8.316
43) Tetrahydrofuran	(1)	11.545	42	773383	9.583
44) 1,1,1-Trichloroethane	(1)	11.645	97	1277677	8.293
45) 2-Butanone	(1)	11.810	43	1364889	8.896
46) Isooctane	(2)	12.046	57	3037909	9.192
47) Heptane	(2)	12.196	71	518007	9.092
48) Benzene	(2)	12.325	78	1745100	8.950
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1208458	8.397
50) 1,2-Dichloroethane	(2)	12.691	62	1007380	9.242
51) Trichloroethene	(2)	13.343	130	697512	8.852
52)*1,4-Difluorobenzene	(2)	13.393	114	1412270	10.000
53) Dibromomethane	(2)	14.095	174	753279	8.838
54) Ethyl Acrylate	(2)	14.231	55	1220940	8.091
55) 1,2-Dichloropropane	(2)	14.267	63	792099	8.508
56) Bromodichloromethane	(2)	14.338	83	1282549	8.586
57) Methyl Methacrylate	(2)	14.575	69	449927	8.371
58) 1,4-Dioxane	(2)	14.682	88	340128	8.717
59) cis-1,3-Dichloropropene	(2)	15.405	75	874556	8.407
60) Octane	(3)	15.427	43	1602106	9.106
61) Toluene	(3)	15.799	91	1836349	8.568
62) 4-Methyl-2-Pentanone	(2)	16.401	43	1503892	8.245
63) Tetrachloroethene	(3)	16.430	166	1124846	8.547
64) trans-1,3-Dichloropropene	(3)	16.458	75	847183	8.793
65) 1,3-Dichloropropene (total)	(3)		75	1721739	17.200
66) Ethyl Methacrylate	(3)	16.673	69	756379	8.015
67) 1,1,2-Trichloroethane	(3)	16.731	97	741905	8.290
68) Dibromochloromethane	(3)	17.024	127	953357	8.207
69) 1,2-Dibromoethane	(3)	17.440	107	1033183	8.164
70) 2-Hexanone	(3)	17.726	43	1333787	8.026
71)*Chlorobenzene-d5	(3)	18.228	117	1435750	10.000
72) Chlorobenzene	(3)	18.256	112	1548630	8.155
73) Ethylbenzene	(3)	18.264	91	2317588	8.205
74) 1,1,1,2-Tetrachloroethane	(3)	18.342	131	869260	7.969
75) m/p-Xylene	(3)	18.493	91	1656188	8.374
76) o-Xylene	(3)	19.180	91	1485756	7.765

* = Compound is an internal standard.

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on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

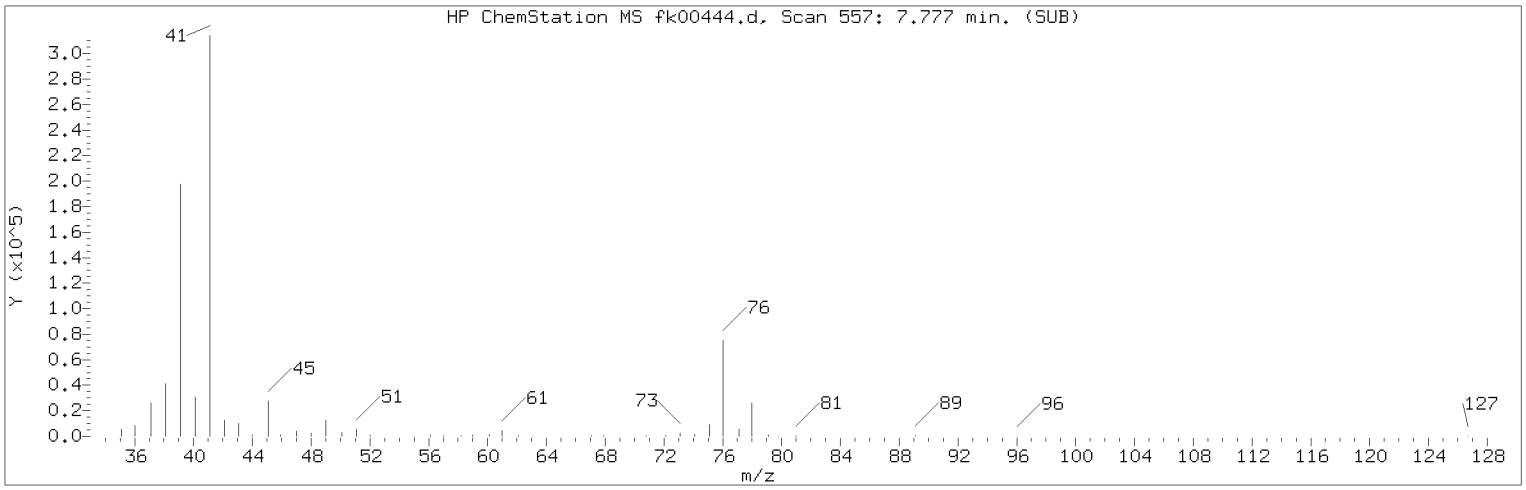
Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

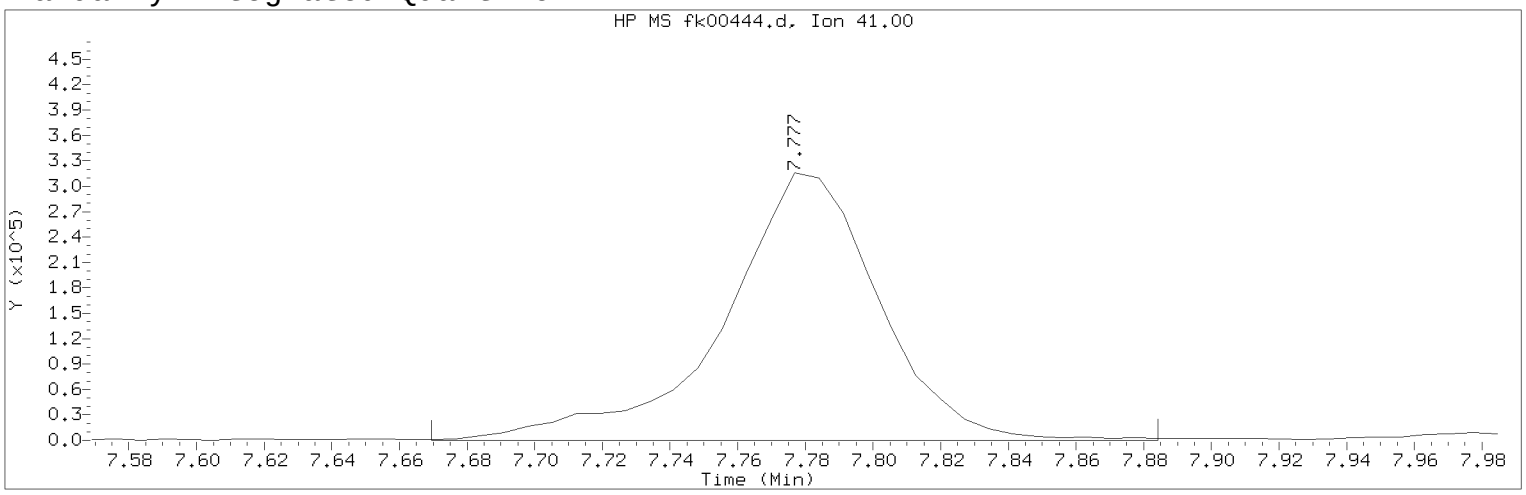
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3141944	16.139
78) Styrene	(3)	19.259	104	1221402	8.665
79) Bromoform	(3)	19.331	173	1263500	8.012
80) Cumene	(3)	19.660	105	2215617	8.435
81) n-Propylbenzene	(3)	20.312	120	662908	8.153
82) Bromobenzene	(3)	20.326	156	977199	8.460
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1494286	7.306
84) 4-Ethyltoluene	(3)	20.477	105	2269427	8.364
85) 2-Chlorotoluene	(3)	20.592	126	654263	8.607
86) 1,3,5-Trimethylbenzene	(3)	20.599	105	2070532	8.820
87) 1,2,3-Trichloropropane	(3)	20.670	110	464724	8.017
88) Alpha Methyl Styrene	(3)	21.007	118	822756	8.287
89) tert-Butylbenzene	(3)	21.122	119	1882984	8.833
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	1940997	8.548
91) sec-Butylbenzene	(3)	21.379	105	2933953	8.644
92) p-Isopropyltoluene	(3)	21.559	119	2228123	8.418
93) 1,3-Dichlorobenzene	(3)	21.716	146	1479583	7.688
94) 1,4-Dichlorobenzene	(3)	21.831	146	1415728	7.446
95) n-Butylbenzene	(3)	22.132	92	1289895	7.936
96) Benzyl Chloride	(3)	22.160	126	365565	8.041
97) Hexachloroethane	(3)	22.382	117	832326	7.914
98) 1,2-Dichlorobenzene	(3)	22.418	146	1301004	7.383
99) 1,2-Dibromo-3-chloropropane	(3)	23.578	157	605795	6.458
100) Hexachlorobutadiene	(3)	24.538	225	853595	6.784
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	764113	6.149
102) Naphthalene	(3)	25.226	128	1205991	5.848

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:57 jeb07445

Sample Name: LCSF13 Lab Sample ID: LCSF13

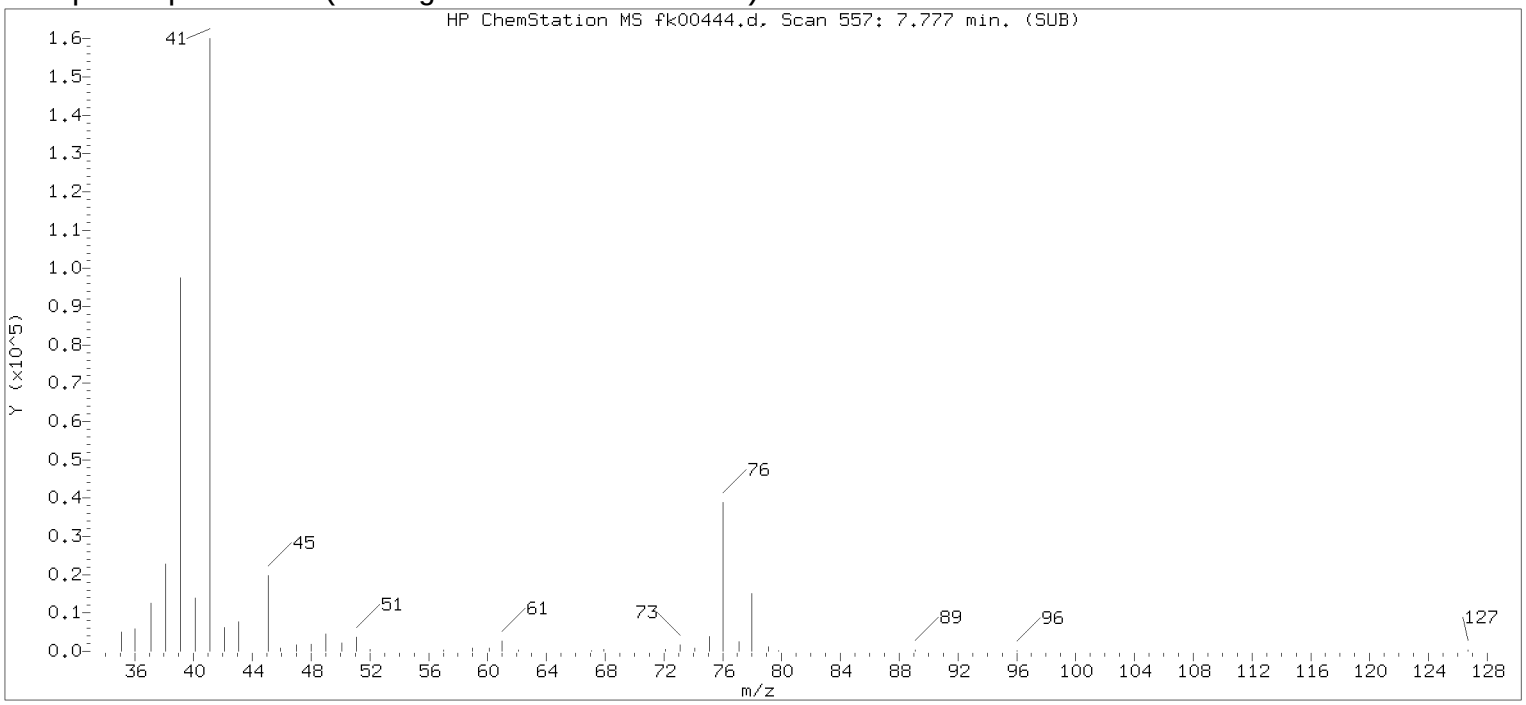
Compound Number : 22
Compound Name : 3-Chloropropene
Scan Number : 557
Retention Time (minutes): 7.777
Quant Ion : 41.00
Area (flag) : 1004408M
Concentration (ppb(v)) : 11.1698
Integration start scan : 541 Integration stop scan: 571
Y at integration start : 297 Y at integration end: 297

Reason for manual integration: improper integration

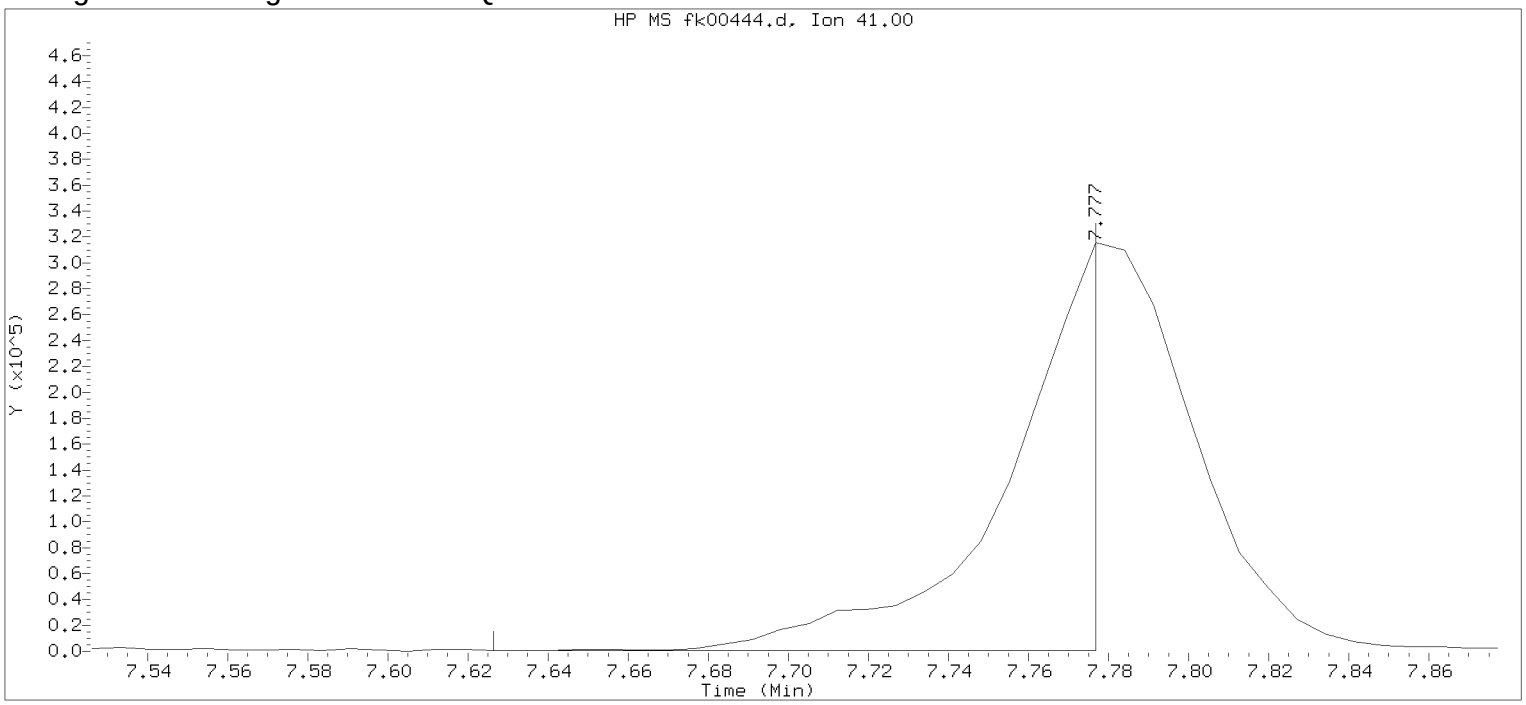
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 11/29/2018 at 13:58.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:06.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP26379.i/18nov29.b/fk00444.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:13 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 13:46 Unknown

Sample Name: LCSF13 Lab Sample ID: LCSF13

Compound Number : 22
Compound Name : 3-Chloropropene
Scan Number : 557
Retention Time (minutes): 7.777
Quant Ion : 41.00
Area : 466322
Concentration (ppb(v)) : 5.1859
Integration start scan : 535 Integration stop scan: 556
Y at integration start : 498 Y at integration end: 498

Digitally signed by Jacob E. Bailey on 11/29/2018 at 13:58.
Target 3.5 esignature userBIR29jeb07445

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

LCSDF13

Data file: /chem/HP26379.i/18nov29.b/fk00445.d Injection date and time: **29-NOV-2018 13:44**
Data file Sample Info. Line: LCSDF13;200;F1833330AA;LCSDF13;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.101(-0.007)	1021	130	452844 (-2)	10.00		277088 - 646538
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	1383346 (1)	10.00		817875 - 1908373
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1445355 (0)	10.00		866327 - 2021427

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	3.902(-0.000)	41	559864	9.489	9.49			0.16	1
2) Dichlorodifluoromethane	(1)	4.002(-0.000)	85	1555217	9.596	9.60			0.13	1
3) Chlorodifluoromethane	(1)	4.088(-0.000)	51	1363137	10.008	10.01			0.15	1
4) Freon 114	(1)	4.310(-0.001)	85	1537092	9.080	9.08			0.12	1
5) Chloromethane	(1)	4.453(-0.001)	50	685136	9.255	9.26			0.24	1
6) Vinyl Chloride	(1)	4.640(-0.000)	62	487846	10.802	10.80			0.12	1
7) 1,3-Butadiene	(1)	4.668(-0.000)	54	394121	9.748	9.75			0.17	1
8) Bromomethane	(1)	5.349(-0.000)	94	475728	9.629	9.63			0.18	1
9) Chloroethane	(1)	5.607(-0.000)	64	341526	9.540	9.54			0.19	1
10) Bromoethene	(1)	5.829(-0.000)	106	462151	9.716	9.72			0.18	1
13) Dichlorofluoromethane	(1)	5.972(-0.000)	67	1407442	10.056	10.06			0.11	1
12) Trichlorofluoromethane	(1)	5.872(-0.000)	101	1521881	8.735	8.74			0.15	1
11) Pentane	(1)	5.864(-0.000)	43	1145297	9.078	9.08			0.13	1
14) Ethanol	(1)	6.660(-0.000)	45	205204	8.617	8.62			0.69	5
15) Freon123a	(1)	6.796(0.000)	67	1323524	9.891	9.89			0.2	1
20) Acrolein	(1)	7.505(-0.000)	56	244181	9.527	9.53			0.62	5
16) 1,1-Dichloroethene	(1)	6.853(-0.000)	61	1030348	9.621	9.62			0.14	1
17) Freon 113	(1)	6.910(-0.000)	103	793791	8.304	8.30			0.11	1
24) Acetone	(1)	8.064(-0.000)	43	1048764	9.609	9.61			0.53	5
19) Methyl Iodide	(1)	7.147(-0.000)	142	1106955	8.887	8.89			0.15	1
18) Carbon Disulfide	(1)	6.932(-0.000)	76	1495776	9.123	9.12			0.13	1
21) Isopropanol	(1)	7.720(-0.001)	45	964914	9.389	9.39			0.24	1
29) Acetonitrile	(1)	9.081(0.000)	41	606944	9.621	9.62			0.83	5
22) 3-Chloropropene	(1)	7.770(-0.000)	41	1021980	11.911	11.91			0.15	1
23) Methylene Chloride	(1)	7.978(-0.000)	84	510058	10.636	10.64			0.25	2
28) tert-Butyl Alcohol	(1)	8.622(-0.000)	59	1253477	9.317	9.32			0.21	1
32) Acrylonitrile	(1)	9.747(-0.001)	53	583650	9.871	9.87			0.13	1
25) trans-1,2-Dichloroethene	(1)	8.307(-0.000)	61	962177	9.433	9.43			0.086	1
27) Methyl t-Butyl Ether	(1)	8.500(-0.000)	73	1339296	8.940	8.94			0.15	1
26) Hexane	(1)	8.458(-0.000)	56	710003	9.153	9.15			0.13	1
31) 1,1-Dichloroethane	(1)	9.625(-0.000)	63	1246704	9.136	9.14			0.089	1
34) Vinyl Acetate	(1)	10.105(-0.000)	43	1977843	10.941	10.94			0.16	1
30) Di-Isopropyl Ether	(1)	9.288(-0.000)	45	1972383	8.745	8.75			0.15	1
33) Ethyl Tert-Butyl Ether	(1)	10.055(-0.000)	59	1743537	8.700	8.70			0.15	1
35) cis-1,2-Dichloroethene	(1)	10.714(-0.000)	61	856922	9.169	9.17			0.12	1
36) 1,2-Dichloroethene (total)	(1)		61	1819099	18.603	18.60			0.2	1
45) 2-Butanone	(1)	11.803(0.000)	43	1405681	9.602	9.60			0.21	1
40) Ethyl Acetate	(1)	11.423(-0.000)	43	1470920	10.038	10.04			0.25	2
41) Methyl Acrylate	(1)	11.459(-0.000)	55	1147725	9.228	9.23			0.14	1
43) Tetrahydrofuran	(1)	11.545(0.000)	42	761032	9.883	9.88			0.24	1
39) Chloroform	(1)	11.215(0.000)	83	1249405	9.159	9.16			0.092	1
44) 1,1,1-Trichloroethane	(1)	11.645(0.000)	97	1296583	8.819	8.82			0.12	1
38) Cyclohexane	(1)	11.122(0.000)	56	1007538	8.791	8.79			0.11	1

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Data file: /chem/HP26379.i/18nov29.b/fk00445.d Injection date and time: **29-NOV-2018 13:44**
Data file Sample Info. Line: LCSDF13;200;F1833330AA;LCSDF13;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)	11.509(0.000)	117	1275275	8.666	8.67			0.14	1
48) Benzene	(2)	12.326(0.000)	78	1730068	9.059	9.06			0.11	1
50) 1,2-Dichloroethane	(2)	12.691(-0.000)	62	997136	9.340	9.34			0.08	1
46) Isooctane	(2)	12.053(-0.000)	57	3057217	9.444	9.44			0.13	1
49) Tert-Amyl Methyl Ether	(2)	12.490(-0.000)	73	1242327	8.813	8.81			0.11	1
47) Heptane	(2)	12.197(-0.000)	71	503035	9.013	9.01			0.23	1
51) Trichloroethene	(2)	13.350(-0.000)	130	681231	8.826	8.83			0.18	1
54) Ethyl Acrylate	(2)	14.231(0.000)	55	1211893	8.199	8.20			0.16	1
55) 1,2-Dichloropropane	(2)	14.267(0.000)	63	793682	8.704	8.70			0.13	1
53) Dibromomethane	(2)	14.095(0.000)	174	757296	9.071	9.07			0.14	1
58) 1,4-Dioxane	(2)	14.682(0.000)	88	353413	9.247	9.25			0.17	1
57) Methyl Methacrylate	(2)	14.575(0.000)	69	416259	7.906	7.91			0.15	1
56) Bromodichloromethane	(2)	14.346(0.000)	83	1263622	8.636	8.64			0.12	1
59) cis-1,3-Dichloropropene	(2)	15.406(0.000)	75	845530	8.298	8.30			0.1	1
62) 4-Methyl-2-Pentanone	(2)	16.401(0.000)	43	1463297	8.190	8.19			0.15	1
61) Toluene	(3)	15.800(-0.000)	91	1846371	8.558	8.56			0.12	1
60) Octane	(3)	15.427(-0.000)	43	1568894	8.858	8.86			0.4	2
64) trans-1,3-Dichloropropene	(3)	16.459(-0.000)	75	839267	8.653	8.65			0.12	1
65) 1,3-Dichloropropene (total)	(3)		75	1684797	16.951	16.95			0.23	1
66) Ethyl Methacrylate	(3)	16.674(-0.000)	69	723000	7.610	7.61			0.19	1
67) 1,1,2-Trichloroethane	(3)	16.731(-0.000)	97	760951	8.446	8.45			0.12	1
63) Tetrachloroethene	(3)	16.430(-0.000)	166	1149256	8.675	8.67			0.25	2
70) 2-Hexanone	(3)	17.734(-0.000)	43	1289722	7.710	7.71			0.18	1
68) Dibromochloromethane	(3)	17.024(-0.000)	127	906400	7.751	7.75			0.13	1
69) 1,2-Dibromoethane	(3)	17.440(-0.000)	107	1040800	8.169	8.17			0.13	1
72) Chlorobenzene	(3)	18.256(0.000)	112	1613096	8.438	8.44			0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)	18.342(0.000)	131	865459	7.882	7.88			0.15	1
73) Ethylbenzene	(3)	18.271(-0.000)	91	2376631	8.358	8.36			0.19	1
75) m/p-Xylene	(3)	18.493(-0.000)	91	1705124	8.564	8.56			0.26	2
76) o-Xylene	(3)	19.188(-0.000)	91	1546979	8.031	8.03			0.19	1
77) Xylene (total)	(3)		91	3252103	16.595	16.60			0.44	2
78) Styrene	(3)	19.266(0.000)	104	1204601	8.489	8.49			0.2	1
79) Bromoform	(3)	19.338(-0.000)	173	1186283	7.472	7.47			0.17	1
80) Cumene	(3)	19.668(0.000)	105	2306759	8.723	8.72			0.24	1
82) Bromobenzene	(3)	20.327(0.000)	156	987943	8.496	8.50			0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)	20.420(0.000)	83	1513530	7.351	7.35			0.15	1
87) 1,2,3-Trichloropropane	(3)	20.670(0.000)	110	480594	8.236	8.24			0.14	1
81) n-Propylbenzene	(3)	20.320(-0.000)	120	675515	8.253	8.25			0.21	1
85) 2-Chlorotoluene	(3)	20.599(-0.000)	126	685284	8.955	8.95			0.22	1
84) 4-Ethyltoluene	(3)	20.484(-0.000)	105	2431343	8.901	8.90			0.18	1
86) 1,3,5-Trimethylbenzene	(3)	20.606(0.000)	105	2151572	9.104	9.10			0.32	2
88) Alpha Methyl Styrene	(3)	21.007(0.000)	118	801932	8.023	8.02			0.18	1
89) tert-Butylbenzene	(3)	21.122(0.000)	119	1984186	9.246	9.25			0.76	5
90) 1,2,4-Trimethylbenzene	(3)	21.222(0.000)	105	2068648	9.050	9.05			0.28	2
91) sec-Butylbenzene	(3)	21.380(0.000)	105	3066881	8.976	8.98			0.39	2
93) 1,3-Dichlorobenzene	(3)	21.716(0.000)	146	1530860	7.901	7.90			0.19	1
94) 1,4-Dichlorobenzene	(3)	21.831(0.000)	146	1481739	7.741	7.74			0.17	1
92) p-Isopropyltoluene	(3)	21.559(0.000)	119	2377712	8.924	8.92			0.28	2
96) Benzyl Chloride	(3)	22.168(-0.000)	126	345417	7.547	7.55			0.25	2
98) 1,2-Dichlorobenzene	(3)	22.418(0.000)	146	1373131	7.740	7.74			0.2	1
95) n-Butylbenzene	(3)	22.139(-0.000)	92	1331235	8.136	8.14			0.26	2
97) Hexachloroethane	(3)	22.382(0.000)	117	817632	7.722	7.72			0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)	23.579(0.000)	157	579600	6.138	6.14			0.28	2
101) 1,2,4-Trichlorobenzene	(3)	24.639(0.000)	180	790653	6.320	6.32			0.38	2

Digitally signed by Jacob E. Bailey on 11/29/2018 at 14:19. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00445.d Injection date and time: **29-NOV-2018 13:44**
Data file Sample Info. Line: LCSDF13;200;F1833330AA;LCSDF13;0;0;LCSD; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 29-NOV-2018 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

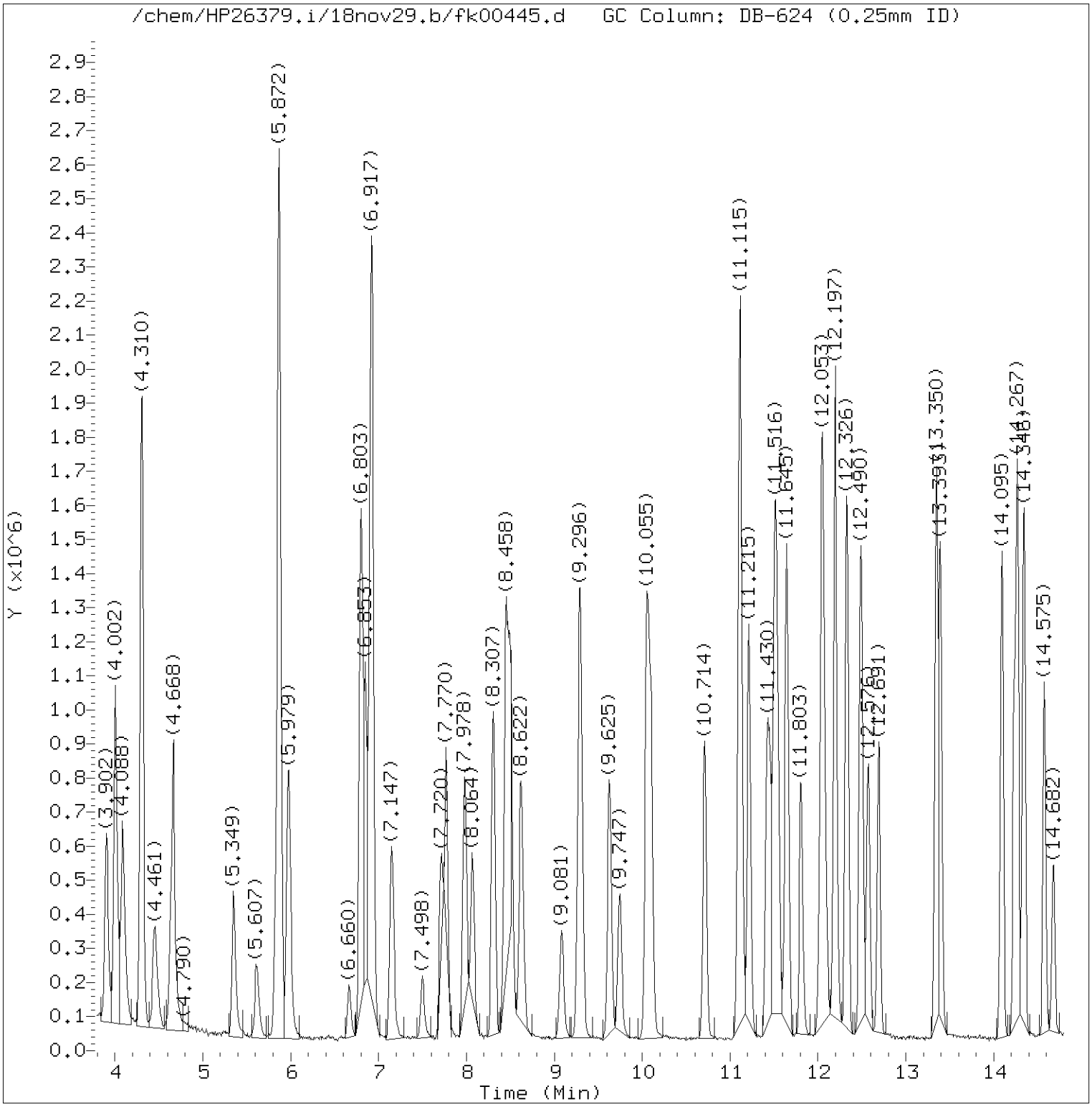
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)	24.546(-0.000)	225	862712	6.811	6.81			0.47	2
102) Naphthalene	(3)	25.226(0.000)	128	1282794	6.179	6.18			0.5	2

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 11/29/2018 at 14:19. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:06. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

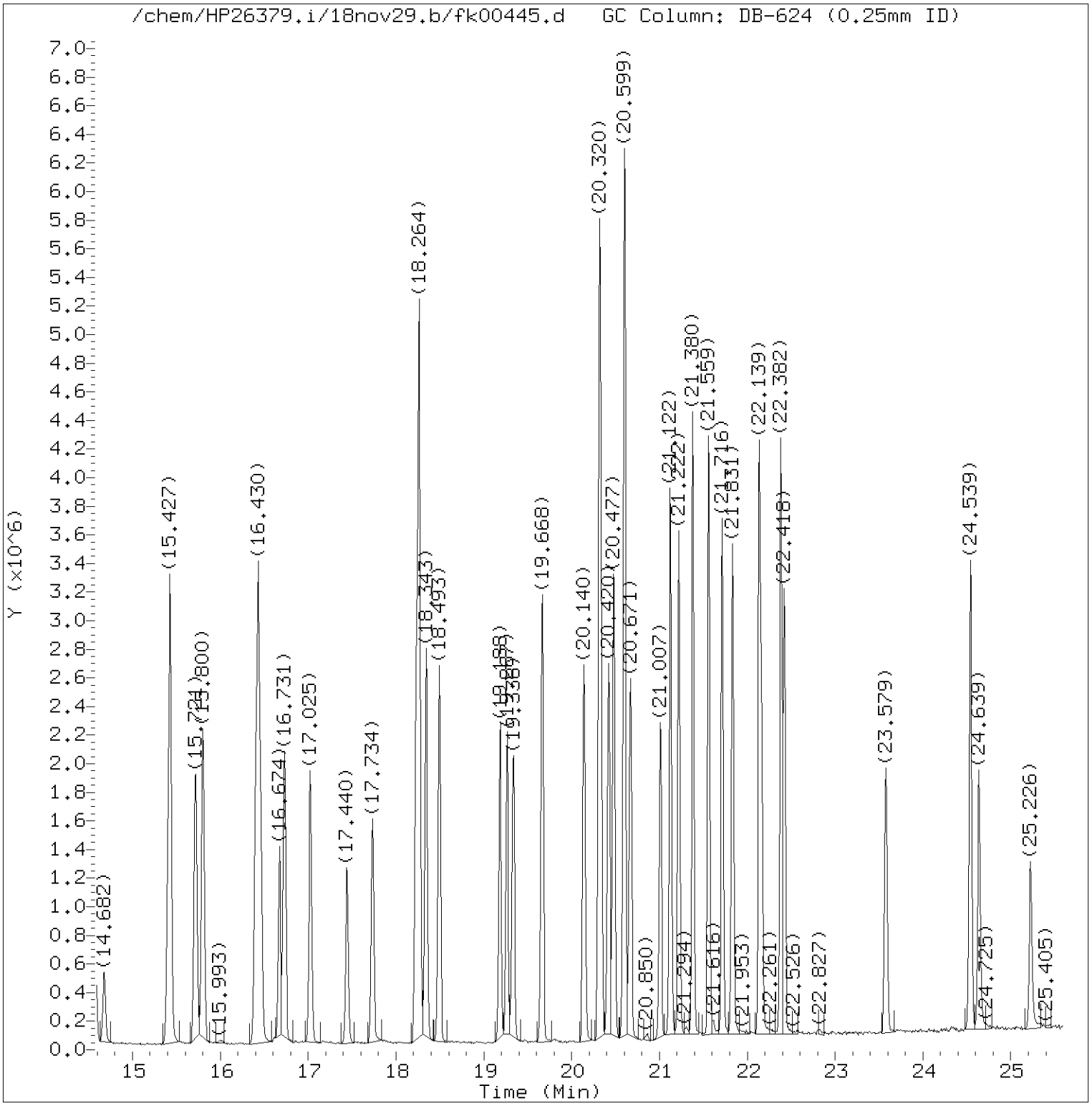
Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00445.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:44 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Sample Name: LCSDF13 Lab Sample ID: LCSDF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 14:19.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00445.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:44 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Sample Name: LCSDF13 Lab Sample ID: LCSDF13

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 14:19.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00445.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:44 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Sample Name: LCSDF13 Lab Sample ID: LCSDF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	3.902	41	559864	9.489
2) Dichlorodifluoromethane	(1)	4.002	85	1555217	9.596
3) Chlorodifluoromethane	(1)	4.088	51	1363137	10.008
4) Freon 114	(1)	4.310	85	1537092	9.080
5) Chloromethane	(1)	4.453	50	685136	9.255
6) Vinyl Chloride	(1)	4.640	62	487846	10.802
7) 1,3-Butadiene	(1)	4.668	54	394121	9.748
8) Bromomethane	(1)	5.349	94	475728	9.629
9) Chloroethane	(1)	5.607	64	341526	9.540
10) Bromoethene	(1)	5.829	106	462151	9.716
11) Pentane	(1)	5.865	43	1145297	9.078
12) Trichlorofluoromethane	(1)	5.872	101	1521881	8.735
13) Dichlorofluoromethane	(1)	5.972	67	1407442	10.056
14) Ethanol	(1)	6.660	45	205204	8.617
15) Freon123a	(1)	6.796	67	1323524	9.891
16) 1,1-Dichloroethene	(1)	6.853	61	1030348	9.621
17) Freon 113	(1)	6.910	103	793791	8.304
18) Carbon Disulfide	(1)	6.932	76	1495776	9.123
19) Methyl Iodide	(1)	7.147	142	1106955	8.887
20) Acrolein	(1)	7.505	56	244181	9.527
21) Isopropanol	(1)	7.720	45	964914	9.389
22) 3-Chloropropene	(1)	7.770	41	1021980	11.911
23) Methylene Chloride	(1)	7.978	84	510058	10.636
24) Acetone	(1)	8.064	43	1048764	9.609
25) trans-1,2-Dichloroethene	(1)	8.307	61	962177	9.433
26) Hexane	(1)	8.458	56	710003	9.153
27) Methyl t-Butyl Ether	(1)	8.501	73	1339296	8.940
28) tert-Butyl Alcohol	(1)	8.622	59	1253477	9.317
29) Acetonitrile	(1)	9.081	41	606944	9.621
30) Di-Isopropyl Ether	(1)	9.288	45	1972383	8.745
31) 1,1-Dichloroethane	(1)	9.625	63	1246704	9.136
32) Acrylonitrile	(1)	9.747	53	583650	9.871
33) Ethyl Tert-Butyl Ether	(1)	10.055	59	1743537	8.700
34) Vinyl Acetate	(1)	10.105	43	1977843	10.941
35) cis-1,2-Dichloroethene	(1)	10.714	61	856922	9.169
36) 1,2-Dichloroethene (total)	(1)		61	1819099	18.603
37)*Bromochloromethane	(1)	11.101	130	452844	10.000
38) Cyclohexane	(1)	11.122	56	1007538	8.791

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 14:19.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00445.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:44 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Sample Name: LCSDF13 Lab Sample ID: LCSDF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Chloroform	(1)	11.215	83	1249405	9.159
40) Ethyl Acetate	(1)	11.423	43	1470920	10.038
41) Methyl Acrylate	(1)	11.459	55	1147725	9.228
42) Carbon Tetrachloride	(1)	11.509	117	1275275	8.666
43) Tetrahydrofuran	(1)	11.545	42	761032	9.883
44) 1,1,1-Trichloroethane	(1)	11.645	97	1296583	8.819
45) 2-Butanone	(1)	11.803	43	1405681	9.602
46) Isooctane	(2)	12.053	57	3057217	9.444
47) Heptane	(2)	12.197	71	503035	9.013
48) Benzene	(2)	12.326	78	1730068	9.059
49) Tert-Amyl Methyl Ether	(2)	12.490	73	1242327	8.813
50) 1,2-Dichloroethane	(2)	12.691	62	997136	9.340
51) Trichloroethene	(2)	13.350	130	681231	8.826
52)*1,4-Difluorobenzene	(2)	13.393	114	1383346	10.000
53) Dibromomethane	(2)	14.095	174	757296	9.071
54) Ethyl Acrylate	(2)	14.231	55	1211893	8.199
55) 1,2-Dichloropropane	(2)	14.267	63	793682	8.704
56) Bromodichloromethane	(2)	14.346	83	1263622	8.636
57) Methyl Methacrylate	(2)	14.575	69	416259	7.906
58) 1,4-Dioxane	(2)	14.682	88	353413	9.247
59) cis-1,3-Dichloropropene	(2)	15.406	75	845530	8.298
60) Octane	(3)	15.427	43	1568894	8.858
61) Toluene	(3)	15.800	91	1846371	8.558
62) 4-Methyl-2-Pentanone	(2)	16.401	43	1463297	8.190
63) Tetrachloroethene	(3)	16.430	166	1149256	8.675
64) trans-1,3-Dichloropropene	(3)	16.459	75	839267	8.653
65) 1,3-Dichloropropene (total)	(3)		75	1684797	16.951
66) Ethyl Methacrylate	(3)	16.674	69	723000	7.610
67) 1,1,2-Trichloroethane	(3)	16.731	97	760951	8.446
68) Dibromochloromethane	(3)	17.025	127	906400	7.751
69) 1,2-Dibromoethane	(3)	17.440	107	1040800	8.169
70) 2-Hexanone	(3)	17.734	43	1289722	7.710
71)*Chlorobenzene-d5	(3)	18.228	117	1445355	10.000
72) Chlorobenzene	(3)	18.257	112	1613096	8.438
73) Ethylbenzene	(3)	18.271	91	2376631	8.358
74) 1,1,1,2-Tetrachloroethane	(3)	18.343	131	865459	7.882
75) m/p-Xylene	(3)	18.493	91	1705124	8.564
76) o-Xylene	(3)	19.188	91	1546979	8.031

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 11/29/2018 at 14:19.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00445.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 13:44 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 29-NOV-2018 11:41
Date, time and analyst ID of latest file update: 29-Nov-2018 14:19 jeb07445

Sample Name: LCSDF13 Lab Sample ID: LCSDF13

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
77) Xylene (total)	(3)		91	3252103	16.595
78) Styrene	(3)	19.267	104	1204601	8.489
79) Bromoform	(3)	19.338	173	1186283	7.472
80) Cumene	(3)	19.668	105	2306759	8.723
81) n-Propylbenzene	(3)	20.320	120	675515	8.253
82) Bromobenzene	(3)	20.327	156	987943	8.496
83) 1,1,2,2-Tetrachloroethane	(3)	20.420	83	1513530	7.351
84) 4-Ethyltoluene	(3)	20.484	105	2431343	8.901
85) 2-Chlorotoluene	(3)	20.599	126	685284	8.955
86) 1,3,5-Trimethylbenzene	(3)	20.606	105	2151572	9.104
87) 1,2,3-Trichloropropane	(3)	20.671	110	480594	8.236
88) Alpha Methyl Styrene	(3)	21.007	118	801932	8.023
89) tert-Butylbenzene	(3)	21.122	119	1984186	9.246
90) 1,2,4-Trimethylbenzene	(3)	21.222	105	2068648	9.050
91) sec-Butylbenzene	(3)	21.380	105	3066881	8.976
92) p-Isopropyltoluene	(3)	21.559	119	2377712	8.924
93) 1,3-Dichlorobenzene	(3)	21.716	146	1530860	7.901
94) 1,4-Dichlorobenzene	(3)	21.831	146	1481739	7.741
95) n-Butylbenzene	(3)	22.139	92	1331235	8.136
96) Benzyl Chloride	(3)	22.168	126	345417	7.547
97) Hexachloroethane	(3)	22.382	117	817632	7.722
98) 1,2-Dichlorobenzene	(3)	22.418	146	1373131	7.740
99) 1,2-Dibromo-3-chloropropane	(3)	23.579	157	579600	6.138
100) Hexachlorobutadiene	(3)	24.546	225	862712	6.811
101) 1,2,4-Trichlorobenzene	(3)	24.639	180	790653	6.320
102) Naphthalene	(3)	25.226	128	1282794	6.179

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on 11/29/2018 at 14:19.
Target 3.5 esignature user ID: jeb07445

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air

cc864

Data file: /chem/HP26379.i/18nov29.b/fk00463.d Injection date and time: **29-NOV-2018 23:19**
Data file Sample Info. Line: cc864;200;F1833330AA;cc864;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 30-NOV-2018 09:42
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
37) Bromochloromethane	11.101(-0.007)	1021	130	411631 (-11)	10.00		277088 - 646538
52) 1,4-Difluorobenzene	13.393(-0.007)	1341	114	830605 (-39)	10.00		817875 - 1908373
71) Chlorobenzene-d5	18.228(0.000)	2016	117	1015113 (-30)	10.00		866327 - 2021427

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Propene	(1)			Not Detected					0.16	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.13	1
3) Chlorodifluoromethane	(1)			Not Detected					0.15	1
4) Freon 114	(1)			Not Detected					0.12	1
5) Chloromethane	(1)			Not Detected					0.24	1
6) Vinyl Chloride	(1)			Not Detected					0.12	1
7) 1,3-Butadiene	(1)			Not Detected					0.17	1
8) Bromomethane	(1)			Not Detected					0.18	1
9) Chloroethane	(1)			Not Detected					0.19	1
10) Bromoethene	(1)			Not Detected					0.18	1
13) Dichlorofluoromethane	(1)			Not Detected					0.11	1
12) Trichlorofluoromethane	(1)			Not Detected					0.15	1
11) Pentane	(1)			Not Detected					0.13	1
14) Ethanol	(1)			Not Detected					0.69	5
15) Freon123a	(1)			Not Detected					0.2	1
20) Acrolein	(1)			Not Detected					0.62	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.14	1
17) Freon 113	(1)			Not Detected					0.11	1
24) Acetone	(1)	8.085(-0.002)	43	64772	0.653	0.65		J	0.53	5
19) Methyl Iodide	(1)			Not Detected					0.15	1
18) Carbon Disulfide	(1)			Not Detected					0.13	1
21) Isopropanol	(1)			Not Detected					0.24	1
29) Acetonitrile	(1)			Not Detected					0.83	5
22) 3-Chloropropene	(1)			Not Detected					0.15	1
23) Methylene Chloride	(1)			Not Detected					0.25	2
28) tert-Butyl Alcohol	(1)			Not Detected					0.21	1
32) Acrylonitrile	(1)			Not Detected					0.13	1
25) trans-1,2-Dichloroethene	(1)			Not Detected					0.086	1
27) Methyl t-Butyl Ether	(1)			Not Detected					0.15	1
26) Hexane	(1)			Not Detected					0.13	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.089	1
34) Vinyl Acetate	(1)			Not Detected					0.16	1
30) Di-Isopropyl Ether	(1)			Not Detected					0.15	1
33) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.15	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.12	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
45) 2-Butanone	(1)			Not Detected					0.21	1
40) Ethyl Acetate	(1)			Not Detected					0.25	2
41) Methyl Acrylate	(1)			Not Detected					0.14	1
43) Tetrahydrofuran	(1)			Not Detected					0.24	1
39) Chloroform	(1)			Not Detected					0.092	1
44) 1,1,1-Trichloroethane	(1)			Not Detected					0.12	1
38) Cyclohexane	(1)			Not Detected					0.11	1

Digitally signed by Jacob E. Bailey on 11/30/2018 at 09:55. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00463.d Injection date and time: **29-NOV-2018 23:19**
Data file Sample Info. Line: cc864;200;F1833330AA;cc864;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 30-NOV-2018 09:42
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
42) Carbon Tetrachloride	(1)			Not Detected					0.14	1
48) Benzene	(2)			Not Detected					0.11	1
50) 1,2-Dichloroethane	(2)			Not Detected					0.08	1
46) Isooctane	(2)			Not Detected					0.13	1
49) Tert-Amyl Methyl Ether	(2)			Not Detected					0.11	1
47) Heptane	(2)			Not Detected					0.23	1
51) Trichloroethene	(2)			Not Detected					0.18	1
54) Ethyl Acrylate	(2)			Not Detected					0.16	1
55) 1,2-Dichloropropane	(2)			Not Detected					0.13	1
53) Dibromomethane	(2)			Not Detected					0.14	1
58) 1,4-Dioxane	(2)			Not Detected					0.17	1
57) Methyl Methacrylate	(2)			Not Detected					0.15	1
56) Bromodichloromethane	(2)			Not Detected					0.12	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.1	1
62) 4-Methyl-2-Pentanone	(2)			Not Detected					0.15	1
61) Toluene	(3)			Not Detected					0.12	1
60) Octane	(3)			Not Detected					0.4	2
64) trans-1,3-Dichloropropene	(3)			Not Detected					0.12	1
65) 1,3-Dichloropropene (total)	(3)			Not Detected					0.23	1
66) Ethyl Methacrylate	(3)			Not Detected					0.19	1
67) 1,1,2-Trichloroethane	(3)			Not Detected					0.12	1
63) Tetrachloroethene	(3)			Not Detected					0.25	2
70) 2-Hexanone	(3)			Not Detected					0.18	1
68) Dibromochloromethane	(3)			Not Detected					0.13	1
69) 1,2-Dibromoethane	(3)			Not Detected					0.13	1
72) Chlorobenzene	(3)			Not Detected					0.13	1
74) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.15	1
73) Ethylbenzene	(3)			Not Detected					0.19	1
75) m/p-Xylene	(3)			Not Detected					0.26	2
76) o-Xylene	(3)			Not Detected					0.19	1
77) Xylene (total)	(3)			Not Detected					0.44	2
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.17	1
80) Cumene	(3)			Not Detected					0.24	1
82) Bromobenzene	(3)			Not Detected					0.1	1
83) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.15	1
87) 1,2,3-Trichloropropane	(3)			Not Detected					0.14	1
81) n-Propylbenzene	(3)			Not Detected					0.21	1
85) 2-Chlorotoluene	(3)			Not Detected					0.22	1
84) 4-Ethyltoluene	(3)			Not Detected					0.18	1
86) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.32	2
88) Alpha Methyl Styrene	(3)			Not Detected					0.18	1
89) tert-Butylbenzene	(3)			Not Detected					0.76	5
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.28	2
91) sec-Butylbenzene	(3)			Not Detected					0.39	2
93) 1,3-Dichlorobenzene	(3)			Not Detected					0.19	1
94) 1,4-Dichlorobenzene	(3)			Not Detected					0.17	1
92) p-Isopropyltoluene	(3)			Not Detected					0.28	2
96) Benzyl Chloride	(3)			Not Detected					0.25	2
98) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
95) n-Butylbenzene	(3)			Not Detected					0.26	2
97) Hexachloroethane	(3)			Not Detected					0.27	2
99) 1,2-Dibromo-3-chloropropane	(3)			Not Detected					0.28	2
101) 1,2,4-Trichlorobenzene	(3)			Not Detected					0.38	2

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP26379.i/18nov29.b/fk00463.d Injection date and time: **29-NOV-2018 23:19**
Data file Sample Info. Line: cc864;200;F1833330AA;cc864;0;0;BLANK; Instrument ID: **HP26379.i** Batch: **F1833330AA**
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Blank Data file reference: **/chem/HP26379.i/18nov29.b/fk00442.d**

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: **all1**
Calibration date and time (Last Method Edit): 30-NOV-2018 09:42
Mid Level Daily Calibration Standard Reference: **/chem/HP26379.i/18nov29.b/fk00441.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

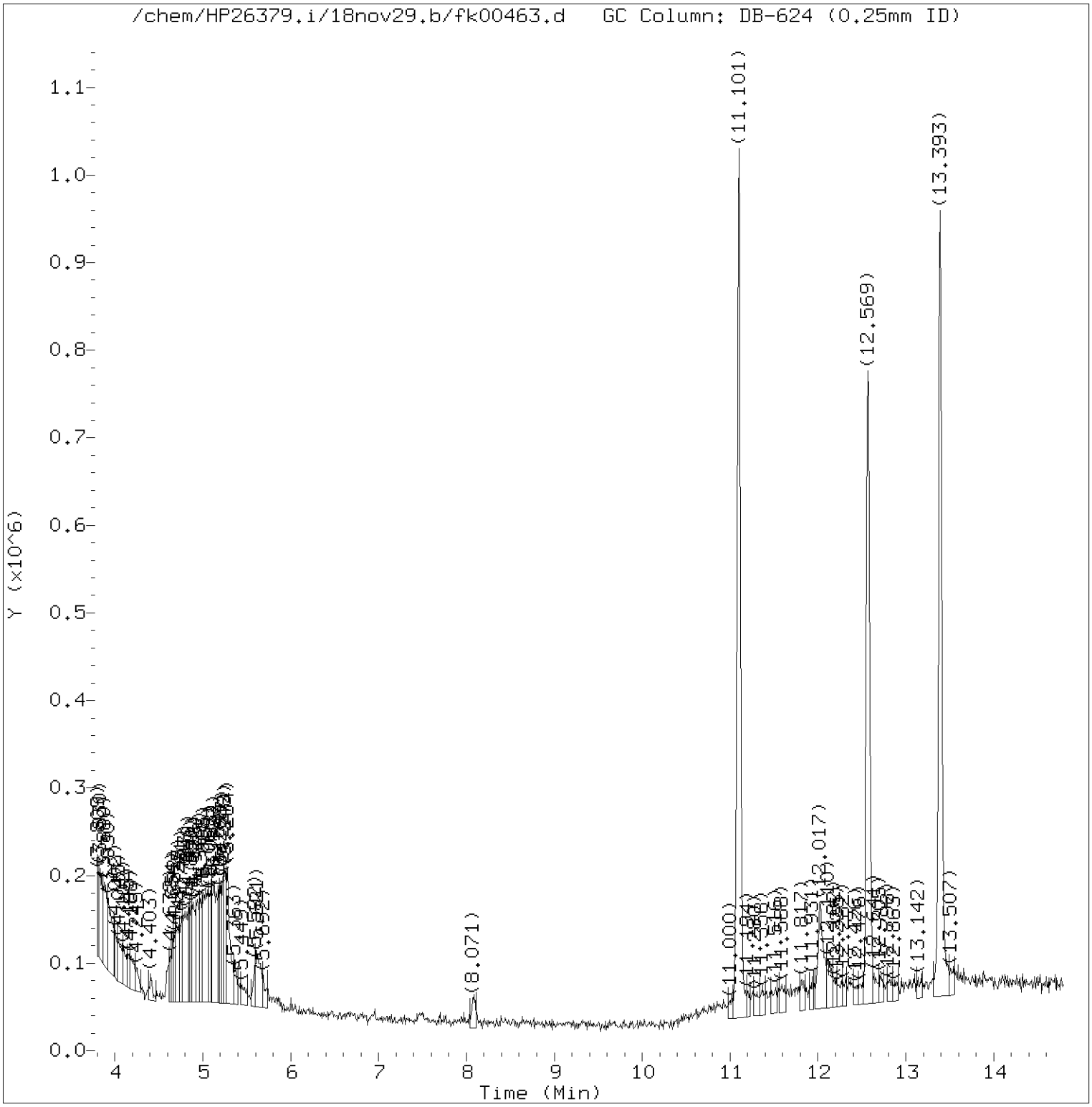
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
100) Hexachlorobutadiene	(3)				Not Detected					0.47	2
102) Naphthalene	(3)				Not Detected					0.5	2

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 11/30/2018 at 09:55. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 11/30/2018 at 13:26. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

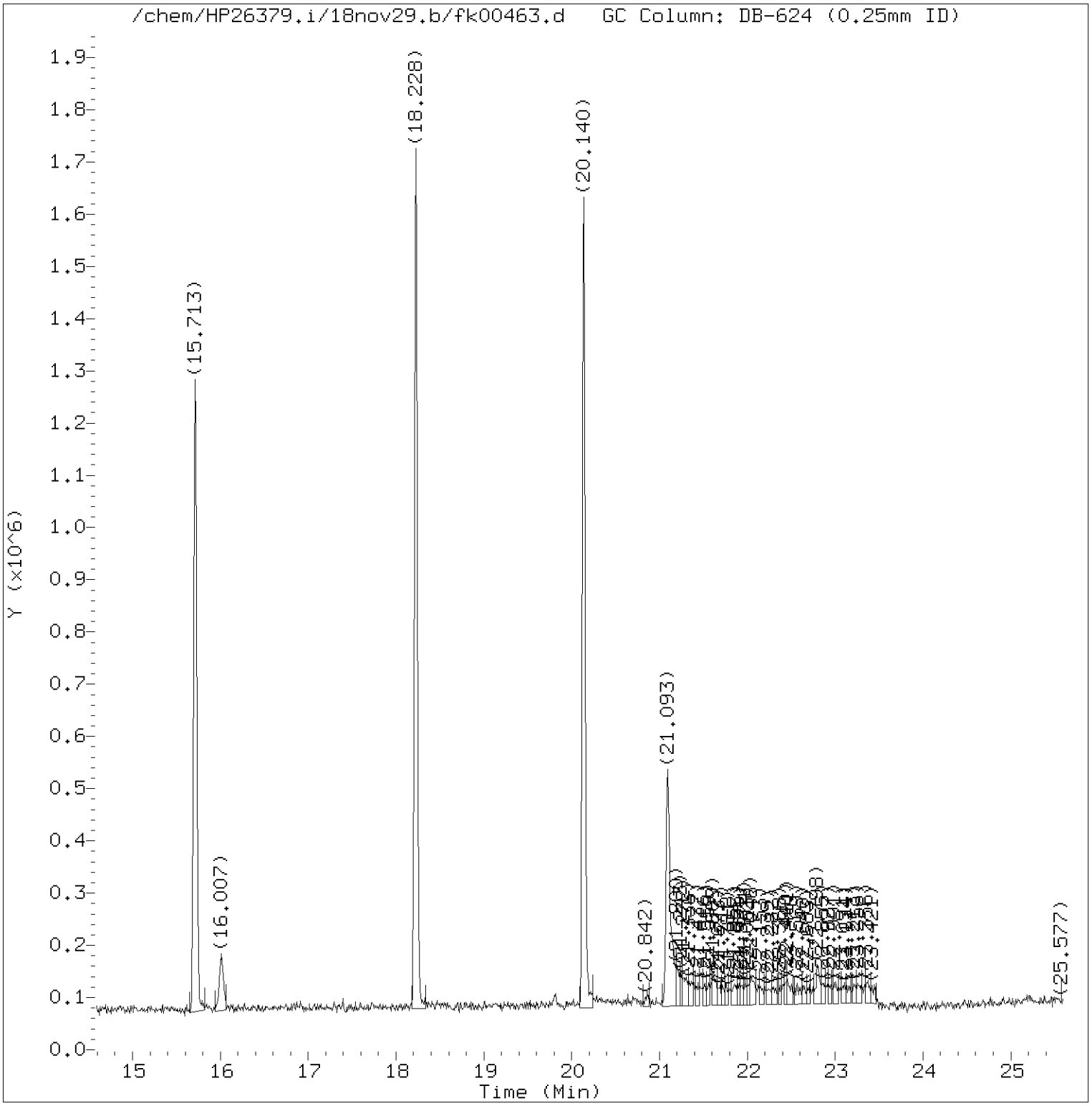
Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00463.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 23:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 30-NOV-2018 09:42
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Sample Name: cc864 Lab Sample ID: cc864

Digitally signed by Jacob E. Bailey
on 11/30/2018 at 09:55.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00463.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 23:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 30-NOV-2018 09:42
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Sample Name: cc864 Lab Sample ID: cc864

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on 11/30/2018 at 09:55.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP26379.i/18nov29.b/fk00463.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 23:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 30-NOV-2018 09:42
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Sample Name: cc864 Lab Sample ID: cc864

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
24) Acetone	(1)	8.085	43	64772	0.653
37)*Bromochloromethane	(1)	11.101	130	411631	10.000
52)*1,4-Difluorobenzene	(2)	13.393	114	830605	10.000
71)*Chlorobenzene-d5	(3)	18.228	117	1015113	10.000

* = Compound is an internal standard.

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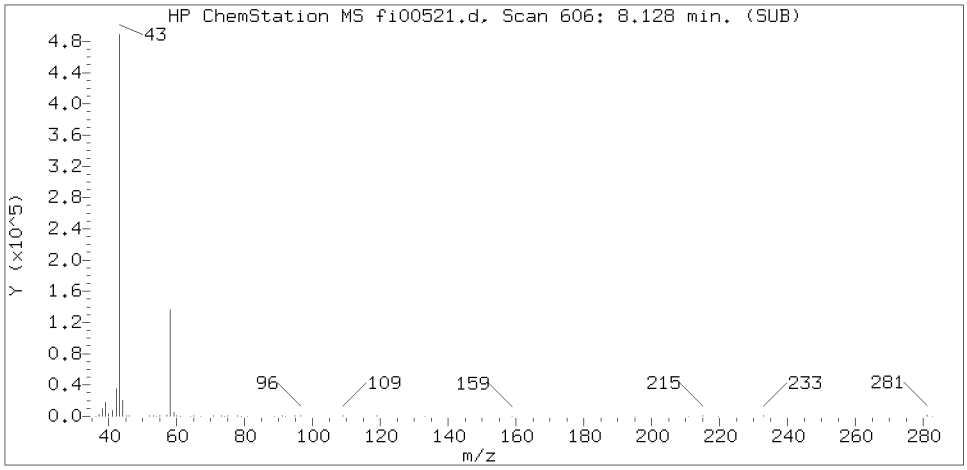
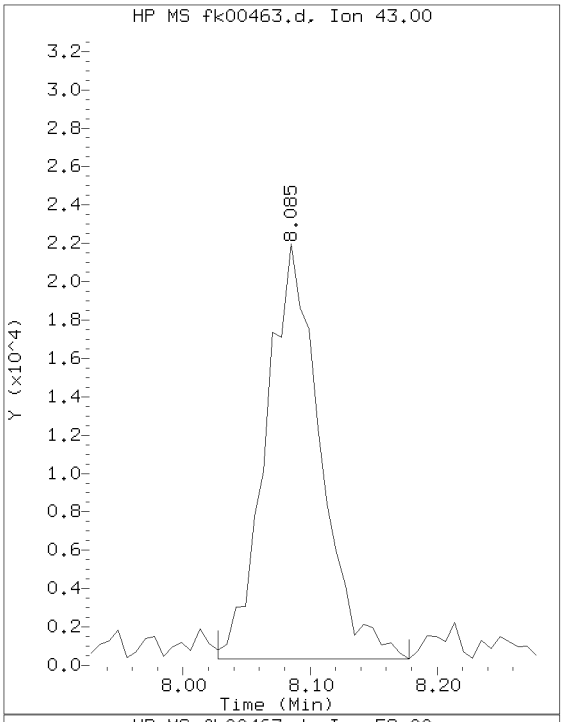
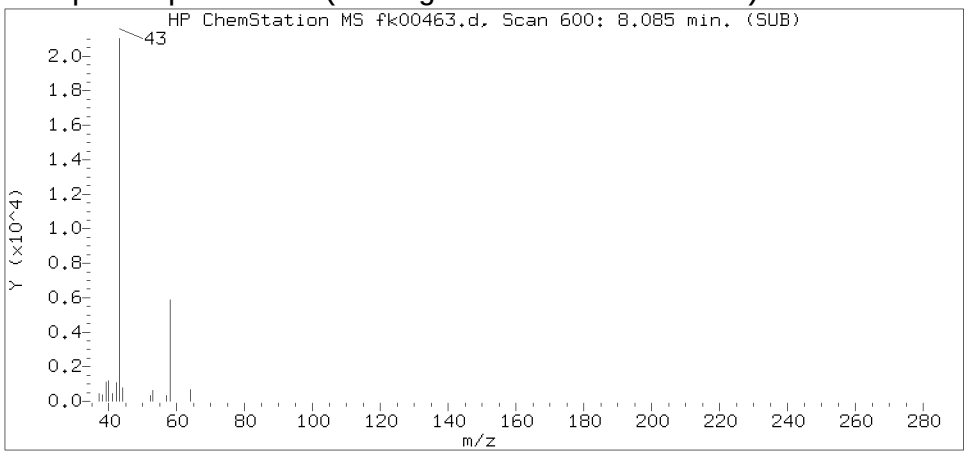
on 11/30/2018 at 09:55.
Target 3.5 esignature user ID: jeb07445

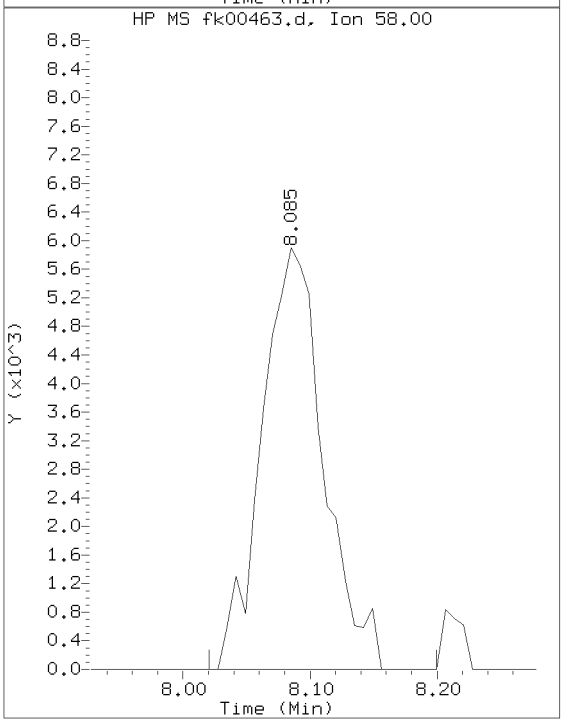
Reference Standard Spectrum for Acetone



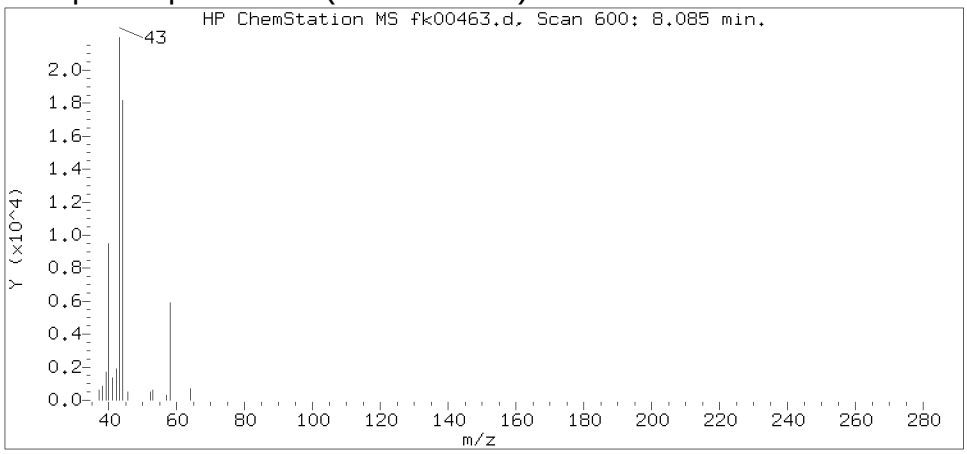


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP26379.i/18nov29.b/fk00463.d Instrument ID: HP26379.i
Injection date and time: 29-NOV-2018 23:19 Analyst ID: jeb07445

Method used: /chem/HP26379.i/18nov29.b/to-15.m Sublist used: all1
Calibration date and time: 30-NOV-2018 09:42
Date, time and analyst ID of latest file update: 30-Nov-2018 09:55 jeb07445

Sample Name: cc864 Lab Sample ID: cc864

Compound Number : 24
Compound Name : Acetone
Scan Number : 600
Retention Time (minutes): 8.085
Relative Retention Time :-0.00211
Quant Ion : 43.00
Area (flag) : 64772
Concentration (ppb(v)) : 0.6529

Digitally signed by Jacob E. Bailey on 11/30/2018 at 09:55.
Target 3.5 esignature user ID: jeb07445