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Type I Data Package

Prepared for:

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

Project: Dow Philadelphia
Air Samples
Collected on 04/03/17

SDG# SWL71

GROUP	SAMPLE NUMBERS
1784843	8920247-8920250

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-13-10
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 **Date: 04/10/2017**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Natalie Luciano at (717) 556-7258.

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Sample Reference List for SDG Number SWL71
with a Data Package Type of I

41610 - The Dow Chemical Company

Project: Dow Philadelphia

Lab Sample Number	Client Sample ID	Collection Date	Date Received
8920247	20170403VP-42V5.5N	04/03/2017 10:18	04/04/2017 18:15
8920248	20170403FD	04/03/2017 10:50	04/04/2017 18:15
8920249	20170403VP-40V5.5N	04/03/2017 11:12	04/04/2017 18:15
8920250	20170403VP-41V5.5N	04/03/2017 10:50	04/04/2017 18:15

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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

10341 Helium as Tracer Gas

Air samples are collected in passivated SUMMA canisters. The sample is introduced, using a gas-sampling loop, into a gas chromatograph equipped with a packed column and interfaced directly to a thermal conductivity detector (TCD).

Reference: ASTM D 1946 Standard Practice for Analysis of Reformed Gas by Gas Chromatography, ASTM International

Analysis Reports / Field Chain of Custody

ANALYTICAL RESULTS

Prepared by:	Prepared for:
Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601	The Dow Chemical Company PO Box 210279 Dallas TX 75211

Report Date: April 07, 2017

Project: Dow Philadelphia

Submittal Date: 04/04/2017
Group Number: 1784843
SDG: SWL71
State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LL) #
20170403VP-42V5.5N Air	8920247
20170403FD Air	8920248
20170403VP-40V5.5N Air	8920249
20170403VP-41V5.5N Air	8920250

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	The Dow Chemical Company	Attn: Trevor C. King
Electronic Copy To	AECOM	Attn: Kelly Rinehimer

Respectfully Submitted,

Natalie R. Luciano
Senior Specialist

(717) 556-7258

Project Name: Dow Philadelphia
LL Group #: 1784843

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if 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.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

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Analysis Report

Sample Description: 20170403VP-42V5.5N Air
SUMMA# 895
DOW Philadelphia

LL Sample # AQ 8920247
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:18 by JD
through 04/03/2017 12:10
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7101 SDG#: SWL71-01

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**ASTM D1946**		ug/m3		ug/m3	ppb(v)		ppb(v)	
10341	Helium as Tracer Gas	7440-59-7	1,600,000	U	1,600,000	10,000,000	U	10,000,000	2
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Acetone	67-64-1	12		4.8	5.2		2.0	1
05298	Benzene	71-43-2	3.9		3.2	1.2		1.0	1
05298	Bromobenzene	108-86-1	6.4	U	6.4	1.0	U	1.0	1
05298	Bromodichloromethane	75-27-4	6.7	U	6.7	1.0	U	1.0	1
05298	Bromoform	75-25-2	10	U	10	1.0	U	1.0	1
05298	Bromomethane	74-83-9	3.9	U	3.9	1.0	U	1.0	1
05298	1,3-Butadiene	106-99-0	4.4	U	4.4	2.0	U	2.0	1
05298	2-Butanone	78-93-3	37		5.9	13		2.0	1
05298	Carbon Disulfide	75-15-0	3.1	U	3.1	1.0	U	1.0	1
05298	Carbon Tetrachloride	56-23-5	6.3	U	6.3	1.0	U	1.0	1
05298	Chlorobenzene	108-90-7	4.6	U	4.6	1.0	U	1.0	1
05298	Chlorodifluoromethane	75-45-6	3.5	U	3.5	1.0	U	1.0	1
05298	Chloroethane	75-00-3	2.6	U	2.6	1.0	U	1.0	1
05298	Chloroform	67-66-3	4.5	J	4.9	0.91	J	1.0	1
05298	Chloromethane	74-87-3	2.1	U	2.1	1.0	U	1.0	1
05298	3-Chloropropene	107-05-1	3.1	U	3.1	1.0	U	1.0	1
05298	Cumene	98-82-8	1.3	J	4.9	0.26	J	1.0	1
05298	Dibromochloromethane	124-48-1	8.5	U	8.5	1.0	U	1.0	1
05298	1,2-Dibromoethane	106-93-4	7.7	U	7.7	1.0	U	1.0	1
05298	Dibromomethane	74-95-3	7.1	U	7.1	1.0	U	1.0	1
05298	1,2-Dichlorobenzene	95-50-1	6.0	U	6.0	1.0	U	1.0	1
05298	1,3-Dichlorobenzene	541-73-1	1.3	J	6.0	0.22	J	1.0	1
05298	1,4-Dichlorobenzene	106-46-7	6.0	U	6.0	1.0	U	1.0	1
05298	Dichlorodifluoromethane	75-71-8	2.9	J	4.9	0.58	J	1.0	1
05298	1,1-Dichloroethane	75-34-3	4.0	U	4.0	1.0	U	1.0	1
05298	1,2-Dichloroethane	107-06-2	4.0	U	4.0	1.0	U	1.0	1
05298	1,1-Dichloroethene	75-35-4	4.0	U	4.0	1.0	U	1.0	1
05298	cis-1,2-Dichloroethene	156-59-2	1.2	J	4.0	0.30	J	1.0	1
05298	trans-1,2-Dichloroethene	156-60-5	4.0	U	4.0	1.0	U	1.0	1
05298	Dichlorofluoromethane	75-43-4	4.2	U	4.2	1.0	U	1.0	1
05298	1,2-Dichloropropane	78-87-5	4.6	U	4.6	1.0	U	1.0	1
05298	cis-1,3-Dichloropropene	10061-01-5	4.5	U	4.5	1.0	U	1.0	1
05298	trans-1,3-Dichloropropene	10061-02-6	4.5	U	4.5	1.0	U	1.0	1
05298	Ethylbenzene	100-41-4	4.9		4.3	1.1		1.0	1
05298	4-Ethyltoluene	622-96-8	6.3		4.9	1.3		1.0	1
05298	Freon 113	76-13-1	15	U	15	2.0	U	2.0	1
05298	Freon 114	76-14-2	7.0	U	7.0	1.0	U	1.0	1
05298	Heptane	142-82-5	4.1	U	4.1	1.0	U	1.0	1
05298	Hexachloroethane	67-72-1	9.7	U	9.7	1.0	U	1.0	1
05298	Hexane	110-54-3	0.92	J	3.5	0.26	J	1.0	1
05298	2-Hexanone	591-78-6	6.1	J	8.2	1.5	J	2.0	1
05298	Isooctane	540-84-1	16		4.7	3.5		1.0	1
05298	Methyl t-Butyl Ether	1634-04-4	3.6	U	3.6	1.0	U	1.0	1
05298	4-Methyl-2-pentanone	108-10-1	8.2	U	8.2	2.0	U	2.0	1
05298	Methylene Chloride	75-09-2	3.5	U	3.5	1.0	U	1.0	1
05298	Octane	111-65-9	2.6	J	4.7	0.56	J	1.0	1

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Analysis Report

Sample Description: 20170403VP-42V5.5N Air
SUMMA# 895
DOW Philadelphia

LL Sample # AQ 8920247
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:18 by JD
through 04/03/2017 12:10
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7101 SDG#: SWL71-01

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Pentane	109-66-0	1.9	J	3.0	0.63	J	1.0	1
05298	Styrene	100-42-5	4.3	U	4.3	1.0	U	1.0	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	6.9	U	6.9	1.0	U	1.0	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	6.9	U	6.9	1.0	U	1.0	1
05298	Tetrachloroethene	127-18-4	70		6.8	10		1.0	1
05298	Toluene	108-88-3	11		3.8	2.9		1.0	1
05298	1,1,1-Trichloroethane	71-55-6	5.5	U	5.5	1.0	U	1.0	1
05298	1,1,2-Trichloroethane	79-00-5	5.5	U	5.5	1.0	U	1.0	1
05298	Trichloroethene	79-01-6	8.5		5.4	1.6		1.0	1
05298	Trichlorofluoromethane	75-69-4	1.2	J	5.6	0.22	J	1.0	1
05298	1,2,3-Trichloropropane	96-18-4	6.0	U	6.0	1.0	U	1.0	1
05298	1,2,4-Trimethylbenzene	95-63-6	22		4.9	4.5		1.0	1
05298	1,3,5-Trimethylbenzene	108-67-8	6.3		4.9	1.3		1.0	1
05298	Vinyl Chloride	75-01-4	2.6	U	2.6	1.0	U	1.0	1
05298	m/p-Xylene	179601-23-1	20		4.3	4.7		1.0	1
05298	o-Xylene	95-47-6	7.9		4.3	1.8		1.0	1

LOQ = Limit of Quantitation

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10341	Helium as Tracer Gas	ASTM D1946	1	17096HE01	04/06/2017 14:33	Jeffrey B Smith	2
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 18:01	Jacob E Bailey	1

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Analysis Report

Sample Description: 20170403FD Air
SUMMA# 1440
DOW Philadelphia

LL Sample # AQ 8920248
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:50 by JD
through 04/03/2017 12:50
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7102 SDG#: SWL71-02FD

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**ASTM D1946**		ug/m3		ug/m3	ppb(v)		ppb(v)	
10341	Helium as Tracer Gas	7440-59-7	1,600,000	U	1,600,000	10,000,000	U	10,000,000	2
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Acetone	67-64-1	83		4.8	35		2.0	1
05298	Benzene	71-43-2	33		3.2	10		1.0	1
05298	Bromobenzene	108-86-1	6.4	U	6.4	1.0	U	1.0	1
05298	Bromodichloromethane	75-27-4	6.7	U	6.7	1.0	U	1.0	1
05298	Bromoform	75-25-2	10	U	10	1.0	U	1.0	1
05298	Bromomethane	74-83-9	3.9	U	3.9	1.0	U	1.0	1
05298	1,3-Butadiene	106-99-0	4.4	U	4.4	2.0	U	2.0	1
05298	2-Butanone	78-93-3	52		5.9	18		2.0	1
05298	Carbon Disulfide	75-15-0	17		3.1	5.4		1.0	1
05298	Carbon Tetrachloride	56-23-5	6.3	U	6.3	1.0	U	1.0	1
05298	Chlorobenzene	108-90-7	4.6	U	4.6	1.0	U	1.0	1
05298	Chlorodifluoromethane	75-45-6	3.5	U	3.5	1.0	U	1.0	1
05298	Chloroethane	75-00-3	2.6	U	2.6	1.0	U	1.0	1
05298	Chloroform	67-66-3	4.7	J	4.9	0.95	J	1.0	1
05298	Chloromethane	74-87-3	2.1	U	2.1	1.0	U	1.0	1
05298	3-Chloropropene	107-05-1	3.1	U	3.1	1.0	U	1.0	1
05298	Cumene	98-82-8	7.2		4.9	1.5		1.0	1
05298	Dibromochloromethane	124-48-1	8.5	U	8.5	1.0	U	1.0	1
05298	1,2-Dibromoethane	106-93-4	7.7	U	7.7	1.0	U	1.0	1
05298	Dibromomethane	74-95-3	7.1	U	7.1	1.0	U	1.0	1
05298	1,2-Dichlorobenzene	95-50-1	6.0	U	6.0	1.0	U	1.0	1
05298	1,3-Dichlorobenzene	541-73-1	1.5	J	6.0	0.25	J	1.0	1
05298	1,4-Dichlorobenzene	106-46-7	6.0	U	6.0	1.0	U	1.0	1
05298	Dichlorodifluoromethane	75-71-8	2.6	J	4.9	0.53	J	1.0	1
05298	1,1-Dichloroethane	75-34-3	4.0	U	4.0	1.0	U	1.0	1
05298	1,2-Dichloroethane	107-06-2	340		40	84		10	10
05298	1,1-Dichloroethene	75-35-4	4.0	U	4.0	1.0	U	1.0	1
05298	cis-1,2-Dichloroethene	156-59-2	61		4.0	15		1.0	1
05298	trans-1,2-Dichloroethene	156-60-5	23		4.0	5.9		1.0	1
05298	Dichlorofluoromethane	75-43-4	4.2	U	4.2	1.0	U	1.0	1
05298	1,2-Dichloropropane	78-87-5	4.6	U	4.6	1.0	U	1.0	1
05298	cis-1,3-Dichloropropene	10061-01-5	4.5	U	4.5	1.0	U	1.0	1
05298	trans-1,3-Dichloropropene	10061-02-6	4.5	U	4.5	1.0	U	1.0	1
05298	Ethylbenzene	100-41-4	600		43	140		10	10
05298	4-Ethyltoluene	622-96-8	6.3		4.9	1.3		1.0	1
05298	Freon 113	76-13-1	15	U	15	2.0	U	2.0	1
05298	Freon 114	76-14-2	7.0	U	7.0	1.0	U	1.0	1
05298	Heptane	142-82-5	34		4.1	8.4		1.0	1
05298	Hexachloroethane	67-72-1	9.7	U	9.7	1.0	U	1.0	1
05298	Hexane	110-54-3	51		3.5	14		1.0	1
05298	2-Hexanone	591-78-6	8.2	U	8.2	2.0	U	2.0	1
05298	Isooctane	540-84-1	92		4.7	20		1.0	1
05298	Methyl t-Butyl Ether	1634-04-4	3.6	U	3.6	1.0	U	1.0	1
05298	4-Methyl-2-pentanone	108-10-1	8.2	U	8.2	2.0	U	2.0	1
05298	Methylene Chloride	75-09-2	3.8		3.5	1.1		1.0	1
05298	Octane	111-65-9	25		4.7	5.4		1.0	1

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Analysis Report

Sample Description: 20170403FD Air
SUMMA# 1440
DOW Philadelphia

LL Sample # AQ 8920248
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:50 by JD
through 04/03/2017 12:50
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7102 SDG#: SWL71-02FD

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Pentane	109-66-0	13		3.0	4.2		1.0	1
05298	Styrene	100-42-5	4.3	U	4.3	1.0	U	1.0	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	6.9	U	6.9	1.0	U	1.0	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	6.9	U	6.9	1.0	U	1.0	1
05298	Tetrachloroethene	127-18-4	18		6.8	2.6		1.0	1
05298	Toluene	108-88-3	440		38	120		10	10
05298	1,1,1-Trichloroethane	71-55-6	5.5	U	5.5	1.0	U	1.0	1
05298	1,1,2-Trichloroethane	79-00-5	5.5	U	5.5	1.0	U	1.0	1
05298	Trichloroethene	79-01-6	7.3		5.4	1.4		1.0	1
05298	Trichlorofluoromethane	75-69-4	5.6	U	5.6	1.0	U	1.0	1
05298	1,2,3-Trichloropropane	96-18-4	6.0	U	6.0	1.0	U	1.0	1
05298	1,2,4-Trimethylbenzene	95-63-6	30		4.9	6.2		1.0	1
05298	1,3,5-Trimethylbenzene	108-67-8	11		4.9	2.3		1.0	1
05298	Vinyl Chloride	75-01-4	5.5		2.6	2.2		1.0	1
05298	m/p-Xylene	179601-23-1	820		43	190		10	10
05298	o-Xylene	95-47-6	77		4.3	18		1.0	1

LOQ = Limit of Quantitation

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10341	Helium as Tracer Gas	ASTM D1946	1	17096HE01	04/06/2017 14:40	Jeffrey B Smith	2
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 18:45	Jacob E Bailey	1
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 20:08	Jacob E Bailey	10

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: 20170403VP-40V5.5N Air
SUMMA# 1480
DOW Philadelphia

LL Sample # AQ 8920249
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 11:12 by JD
through 04/03/2017 13:01
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7103 SDG#: SWL71-03

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**ASTM D1946**		ug/m3		ug/m3	ppb(v)		ppb(v)	
10341	Helium as Tracer Gas	7440-59-7	1,600,000	U	1,600,000	10,000,000	U	10,000,000	2
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Acetone	67-64-1	53		4.8	22		2.0	1
05298	Benzene	71-43-2	2.2	J	3.2	0.69	J	1.0	1
05298	Bromobenzene	108-86-1	6.4	U	6.4	1.0	U	1.0	1
05298	Bromodichloromethane	75-27-4	6.7	U	6.7	1.0	U	1.0	1
05298	Bromoform	75-25-2	10	U	10	1.0	U	1.0	1
05298	Bromomethane	74-83-9	3.9	U	3.9	1.0	U	1.0	1
05298	1,3-Butadiene	106-99-0	4.4	U	4.4	2.0	U	2.0	1
05298	2-Butanone	78-93-3	26		5.9	8.7		2.0	1
05298	Carbon Disulfide	75-15-0	6.9		3.1	2.2		1.0	1
05298	Carbon Tetrachloride	56-23-5	6.3	U	6.3	1.0	U	1.0	1
05298	Chlorobenzene	108-90-7	4.6	U	4.6	1.0	U	1.0	1
05298	Chlorodifluoromethane	75-45-6	3.5	U	3.5	1.0	U	1.0	1
05298	Chloroethane	75-00-3	2.6	U	2.6	1.0	U	1.0	1
05298	Chloroform	67-66-3	4.9	U	4.9	1.0	U	1.0	1
05298	Chloromethane	74-87-3	2.1	U	2.1	1.0	U	1.0	1
05298	3-Chloropropene	107-05-1	3.1	U	3.1	1.0	U	1.0	1
05298	Cumene	98-82-8	1.3	J	4.9	0.27	J	1.0	1
05298	Dibromochloromethane	124-48-1	8.5	U	8.5	1.0	U	1.0	1
05298	1,2-Dibromoethane	106-93-4	7.7	U	7.7	1.0	U	1.0	1
05298	Dibromomethane	74-95-3	7.1	U	7.1	1.0	U	1.0	1
05298	1,2-Dichlorobenzene	95-50-1	6.0	U	6.0	1.0	U	1.0	1
05298	1,3-Dichlorobenzene	541-73-1	6.0	U	6.0	1.0	U	1.0	1
05298	1,4-Dichlorobenzene	106-46-7	6.0	U	6.0	1.0	U	1.0	1
05298	Dichlorodifluoromethane	75-71-8	2.2	J	4.9	0.44	J	1.0	1
05298	1,1-Dichloroethane	75-34-3	4.0	U	4.0	1.0	U	1.0	1
05298	1,2-Dichloroethane	107-06-2	4.0	U	4.0	1.0	U	1.0	1
05298	1,1-Dichloroethene	75-35-4	4.0	U	4.0	1.0	U	1.0	1
05298	cis-1,2-Dichloroethene	156-59-2	29		4.0	7.2		1.0	1
05298	trans-1,2-Dichloroethene	156-60-5	3.9	J	4.0	0.97	J	1.0	1
05298	Dichlorofluoromethane	75-43-4	4.2	U	4.2	1.0	U	1.0	1
05298	1,2-Dichloropropane	78-87-5	4.6	U	4.6	1.0	U	1.0	1
05298	cis-1,3-Dichloropropene	10061-01-5	4.5	U	4.5	1.0	U	1.0	1
05298	trans-1,3-Dichloropropene	10061-02-6	4.5	U	4.5	1.0	U	1.0	1
05298	Ethylbenzene	100-41-4	65		4.3	15		1.0	1
05298	4-Ethyltoluene	622-96-8	1.8	J	4.9	0.36	J	1.0	1
05298	Freon 113	76-13-1	15	U	15	2.0	U	2.0	1
05298	Freon 114	76-14-2	7.0	U	7.0	1.0	U	1.0	1
05298	Heptane	142-82-5	3.8	J	4.1	0.94	J	1.0	1
05298	Hexachloroethane	67-72-1	9.7	U	9.7	1.0	U	1.0	1
05298	Hexane	110-54-3	2.1	J	3.5	0.61	J	1.0	1
05298	2-Hexanone	591-78-6	8.2	U	8.2	2.0	U	2.0	1
05298	Isooctane	540-84-1	630		47	140		10	10
05298	Methyl t-Butyl Ether	1634-04-4	3.6	U	3.6	1.0	U	1.0	1
05298	4-Methyl-2-pentanone	108-10-1	8.2	U	8.2	2.0	U	2.0	1
05298	Methylene Chloride	75-09-2	3.5	U	3.5	1.0	U	1.0	1
05298	Octane	111-65-9	5.7		4.7	1.2		1.0	1

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Analysis Report

Sample Description: 20170403VP-40V5.5N Air
SUMMA# 1480
DOW Philadelphia

LL Sample # AQ 8920249
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 11:12 by JD
through 04/03/2017 13:01
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7103 SDG#: SWL71-03

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Pentane	109-66-0	2.9	J	3.0	0.97	J	1.0	1
05298	Styrene	100-42-5	4.3	U	4.3	1.0	U	1.0	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	6.9	U	6.9	1.0	U	1.0	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	6.9	U	6.9	1.0	U	1.0	1
05298	Tetrachloroethene	127-18-4	49		6.8	7.2		1.0	1
05298	Toluene	108-88-3	140		3.8	36		1.0	1
05298	1,1,1-Trichloroethane	71-55-6	5.5	U	5.5	1.0	U	1.0	1
05298	1,1,2-Trichloroethane	79-00-5	5.5	U	5.5	1.0	U	1.0	1
05298	Trichloroethene	79-01-6	7.3		5.4	1.4		1.0	1
05298	Trichlorofluoromethane	75-69-4	5.6	U	5.6	1.0	U	1.0	1
05298	1,2,3-Trichloropropane	96-18-4	6.0	U	6.0	1.0	U	1.0	1
05298	1,2,4-Trimethylbenzene	95-63-6	6.5		4.9	1.3		1.0	1
05298	1,3,5-Trimethylbenzene	108-67-8	2.4	J	4.9	0.48	J	1.0	1
05298	Vinyl Chloride	75-01-4	0.60	J	2.6	0.23	J	1.0	1
05298	m/p-Xylene	179601-23-1	160		4.3	37		1.0	1
05298	o-Xylene	95-47-6	13		4.3	3.0		1.0	1

LOQ = Limit of Quantitation

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10341	Helium as Tracer Gas	ASTM D1946	1	17096HE01	04/06/2017 14:48	Jeffrey B Smith	2
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 19:29	Jacob E Bailey	1
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 20:34	Jacob E Bailey	10

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Analysis Report

Sample Description: 20170403VP-41V5.5N Air
SUMMA# 1481
DOW Philadelphia

LL Sample # AQ 8920250
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:50 by JD
through 04/03/2017 12:50
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7104 SDG#: SWL71-04

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**ASTM D1946**		ug/m3		ug/m3	ppb(v)		ppb(v)	
10341	Helium as Tracer Gas	7440-59-7	1,600,000	U	1,600,000	10,000,000	U	10,000,000	2
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Acetone	67-64-1	23		4.8	9.7		2.0	1
05298	Benzene	71-43-2	34		3.2	11		1.0	1
05298	Bromobenzene	108-86-1	6.4	U	6.4	1.0	U	1.0	1
05298	Bromodichloromethane	75-27-4	6.7	U	6.7	1.0	U	1.0	1
05298	Bromoform	75-25-2	10	U	10	1.0	U	1.0	1
05298	Bromomethane	74-83-9	3.9	U	3.9	1.0	U	1.0	1
05298	1,3-Butadiene	106-99-0	4.4	U	4.4	2.0	U	2.0	1
05298	2-Butanone	78-93-3	52		5.9	18		2.0	1
05298	Carbon Disulfide	75-15-0	17		3.1	5.5		1.0	1
05298	Carbon Tetrachloride	56-23-5	6.3	U	6.3	1.0	U	1.0	1
05298	Chlorobenzene	108-90-7	4.6	U	4.6	1.0	U	1.0	1
05298	Chlorodifluoromethane	75-45-6	3.5	U	3.5	1.0	U	1.0	1
05298	Chloroethane	75-00-3	2.6	U	2.6	1.0	U	1.0	1
05298	Chloroform	67-66-3	4.8	J	4.9	0.99	J	1.0	1
05298	Chloromethane	74-87-3	2.1	U	2.1	1.0	U	1.0	1
05298	3-Chloropropene	107-05-1	3.1	U	3.1	1.0	U	1.0	1
05298	Cumene	98-82-8	7.6		4.9	1.5		1.0	1
05298	Dibromochloromethane	124-48-1	8.5	U	8.5	1.0	U	1.0	1
05298	1,2-Dibromoethane	106-93-4	7.7	U	7.7	1.0	U	1.0	1
05298	Dibromomethane	74-95-3	7.1	U	7.1	1.0	U	1.0	1
05298	1,2-Dichlorobenzene	95-50-1	6.0	U	6.0	1.0	U	1.0	1
05298	1,3-Dichlorobenzene	541-73-1	1.2	J	6.0	0.21	J	1.0	1
05298	1,4-Dichlorobenzene	106-46-7	6.0	U	6.0	1.0	U	1.0	1
05298	Dichlorodifluoromethane	75-71-8	2.5	J	4.9	0.51	J	1.0	1
05298	1,1-Dichloroethane	75-34-3	4.0	U	4.0	1.0	U	1.0	1
05298	1,2-Dichloroethane	107-06-2	350		40	87		10	10
05298	1,1-Dichloroethene	75-35-4	4.0	U	4.0	1.0	U	1.0	1
05298	cis-1,2-Dichloroethene	156-59-2	63		4.0	16		1.0	1
05298	trans-1,2-Dichloroethene	156-60-5	24		4.0	6.1		1.0	1
05298	Dichlorofluoromethane	75-43-4	4.2	U	4.2	1.0	U	1.0	1
05298	1,2-Dichloropropane	78-87-5	4.6	U	4.6	1.0	U	1.0	1
05298	cis-1,3-Dichloropropene	10061-01-5	4.5	U	4.5	1.0	U	1.0	1
05298	trans-1,3-Dichloropropene	10061-02-6	4.5	U	4.5	1.0	U	1.0	1
05298	Ethylbenzene	100-41-4	650		43	150		10	10
05298	4-Ethyltoluene	622-96-8	8.4		4.9	1.7		1.0	1
05298	Freon 113	76-13-1	15	U	15	2.0	U	2.0	1
05298	Freon 114	76-14-2	7.0	U	7.0	1.0	U	1.0	1
05298	Heptane	142-82-5	36		4.1	8.7		1.0	1
05298	Hexachloroethane	67-72-1	9.7	U	9.7	1.0	U	1.0	1
05298	Hexane	110-54-3	53		3.5	15		1.0	1
05298	2-Hexanone	591-78-6	8.2	U	8.2	2.0	U	2.0	1
05298	Isooctane	540-84-1	95		4.7	20		1.0	1
05298	Methyl t-Butyl Ether	1634-04-4	3.6	U	3.6	1.0	U	1.0	1
05298	4-Methyl-2-pentanone	108-10-1	8.2	U	8.2	2.0	U	2.0	1
05298	Methylene Chloride	75-09-2	4.0		3.5	1.1		1.0	1
05298	Octane	111-65-9	29		4.7	6.2		1.0	1

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Analysis Report

Sample Description: 20170403VP-41V5.5N Air
SUMMA# 1481
DOW Philadelphia

LL Sample # AQ 8920250
LL Group # 1784843
Account # 41610

Project Name: Dow Philadelphia

Collected: 04/03/2017 10:50 by JD
through 04/03/2017 12:50
Submitted: 04/04/2017 18:15
Reported: 04/07/2017 09:19

The Dow Chemical Company
PO Box 210279
Dallas TX 75211

S7104 SDG#: SWL71-04

CAT No.	Analysis Name	CAS Number	Final Result		LOQ	Final Result		LOQ	DF
Volatiles in Air	**EPA TO-15**		ug/m3		ug/m3	ppb(v)		ppb(v)	
05298	Pentane	109-66-0	13		3.0	4.3		1.0	1
05298	Styrene	100-42-5	4.3	U	4.3	1.0	U	1.0	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	6.9	U	6.9	1.0	U	1.0	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	6.9	U	6.9	1.0	U	1.0	1
05298	Tetrachloroethene	127-18-4	19		6.8	2.8		1.0	1
05298	Toluene	108-88-3	480		38	130		10	10
05298	1,1,1-Trichloroethane	71-55-6	5.5	U	5.5	1.0	U	1.0	1
05298	1,1,2-Trichloroethane	79-00-5	5.5	U	5.5	1.0	U	1.0	1
05298	Trichloroethene	79-01-6	7.4		5.4	1.4		1.0	1
05298	Trichlorofluoromethane	75-69-4	5.6	U	5.6	1.0	U	1.0	1
05298	1,2,3-Trichloropropane	96-18-4	6.0	U	6.0	1.0	U	1.0	1
05298	1,2,4-Trimethylbenzene	95-63-6	33		4.9	6.7		1.0	1
05298	1,3,5-Trimethylbenzene	108-67-8	12		4.9	2.4		1.0	1
05298	Vinyl Chloride	75-01-4	5.8		2.6	2.3		1.0	1
05298	m/p-Xylene	179601-23-1	900		43	210		10	10
05298	o-Xylene	95-47-6	82		4.3	19		1.0	1

LOQ = Limit of Quantitation

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10341	Helium as Tracer Gas	ASTM D1946	1	17096HE01	04/06/2017 14:59	Jeffrey B Smith	2
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 21:18	Jacob E Bailey	1
05298	TO-15 Standard list	EPA TO-15	1	E1709530AA	04/05/2017 22:27	Jacob E Bailey	10

Quality Control Summary

Client Name: The Dow Chemical Company
Reported: 04/07/2017 09:19

Group Number: 1784843

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		LOQ ug/m3	Result ppb(v)		LOQ ppb(v)
Batch number: 17096HE01	Sample number(s): 8920247-8920250					
Helium as Tracer Gas	820,000 U		820,000	5,000,000 U		5,000,000
Batch number: E1709530AA	Sample number(s): 8920247-8920250					
Acetone	4.8	U	4.8	2.0	U	2.0
Benzene	3.2	U	3.2	1.0	U	1.0
Bromobenzene	6.4	U	6.4	1.0	U	1.0
Bromodichloromethane	6.7	U	6.7	1.0	U	1.0
Bromoform	10	U	10	1.0	U	1.0
Bromomethane	3.9	U	3.9	1.0	U	1.0
1,3-Butadiene	4.4	U	4.4	2.0	U	2.0
2-Butanone	5.9	U	5.9	2.0	U	2.0
Carbon Disulfide	3.1	U	3.1	1.0	U	1.0
Carbon Tetrachloride	6.3	U	6.3	1.0	U	1.0
Chlorobenzene	4.6	U	4.6	1.0	U	1.0
Chlorodifluoromethane	3.5	U	3.5	1.0	U	1.0
Chloroethane	2.6	U	2.6	1.0	U	1.0
Chloroform	4.9	U	4.9	1.0	U	1.0
Chloromethane	2.1	U	2.1	1.0	U	1.0
3-Chloropropene	3.1	U	3.1	1.0	U	1.0
Cumene	4.9	U	4.9	1.0	U	1.0
Dibromochloromethane	8.5	U	8.5	1.0	U	1.0
1,2-Dibromoethane	7.7	U	7.7	1.0	U	1.0
Dibromomethane	7.1	U	7.1	1.0	U	1.0
1,2-Dichlorobenzene	6.0	U	6.0	1.0	U	1.0
1,3-Dichlorobenzene	6.0	U	6.0	1.0	U	1.0
1,4-Dichlorobenzene	6.0	U	6.0	1.0	U	1.0
Dichlorodifluoromethane	4.9	U	4.9	1.0	U	1.0
1,1-Dichloroethane	4.0	U	4.0	1.0	U	1.0
1,2-Dichloroethane	4.0	U	4.0	1.0	U	1.0
1,1-Dichloroethene	4.0	U	4.0	1.0	U	1.0
cis-1,2-Dichloroethene	4.0	U	4.0	1.0	U	1.0
trans-1,2-Dichloroethene	4.0	U	4.0	1.0	U	1.0
Dichlorofluoromethane	4.2	U	4.2	1.0	U	1.0
1,2-Dichloropropane	4.6	U	4.6	1.0	U	1.0
cis-1,3-Dichloropropene	4.5	U	4.5	1.0	U	1.0
trans-1,3-Dichloropropene	4.5	U	4.5	1.0	U	1.0
Ethylbenzene	4.3	U	4.3	1.0	U	1.0
4-Ethyltoluene	4.9	U	4.9	1.0	U	1.0
Freon 113	15	U	15	2.0	U	2.0
Freon 114	7.0	U	7.0	1.0	U	1.0

*- 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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Dow Chemical Company
Reported: 04/07/2017 09:19

Group Number: 1784843

Method Blank (continued)

Analysis Name	Result ug/m3		LOQ ug/m3	Result ppb(v)		LOQ ppb(v)
Heptane	4.1	U	4.1	1.0	U	1.0
Hexachloroethane	19	U	19	2.0	U	2.0
Hexane	3.5	U	3.5	1.0	U	1.0
2-Hexanone	8.2	U	8.2	2.0	U	2.0
Isooctane	4.7	U	4.7	1.0	U	1.0
Methyl t-Butyl Ether	3.6	U	3.6	1.0	U	1.0
4-Methyl-2-pentanone	8.2	U	8.2	2.0	U	2.0
Methylene Chloride	3.5	U	3.5	1.0	U	1.0
Octane	4.7	U	4.7	1.0	U	1.0
Pentane	3.0	U	3.0	1.0	U	1.0
Styrene	4.3	U	4.3	1.0	U	1.0
1,1,1,2-Tetrachloroethane	6.9	U	6.9	1.0	U	1.0
1,1,2,2-Tetrachloroethane	6.9	U	6.9	1.0	U	1.0
Tetrachloroethene	6.8	U	6.8	1.0	U	1.0
Toluene	3.8	U	3.8	1.0	U	1.0
1,1,1-Trichloroethane	5.5	U	5.5	1.0	U	1.0
1,1,2-Trichloroethane	5.5	U	5.5	1.0	U	1.0
Trichloroethene	5.4	U	5.4	1.0	U	1.0
Trichlorofluoromethane	5.6	U	5.6	1.0	U	1.0
1,2,3-Trichloropropane	6.0	U	6.0	1.0	U	1.0
1,2,4-Trimethylbenzene	4.9	U	4.9	1.0	U	1.0
1,3,5-Trimethylbenzene	4.9	U	4.9	1.0	U	1.0
Vinyl Chloride	2.6	U	2.6	1.0	U	1.0
m/p-Xylene	4.3	U	4.3	1.0	U	1.0
o-Xylene	4.3	U	4.3	1.0	U	1.0

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: E1709530AA	Sample number(s): 8920247-8920250								
Acetone	23.76	27.64	23.76	27.96	116	118	71-136	1	25
Benzene	31.95	34.26	31.95	34.47	107	108	76-123	1	25
Bromobenzene	64.22	65.9	64.22	66.81	103	104	74-118	1	25
Bromodichloromethane	67.01	74.3	67.01	73.2	111	109	75-134	1	25
Bromoform	103.37	113.06	103.37	114.89	109	111	69-128	2	25
Bromomethane	38.83	46.79	38.83	45.76	121	118	71-133	2	25
1,3-Butadiene	22.12	23.22	22.12	23.61	105	107	72-122	2	25
2-Butanone	29.49	32.53	29.49	33.71	110	114	75-126	4	25
Carbon Disulfide	31.14	33.49	31.14	33.22	108	107	72-128	1	25
Carbon Tetrachloride	62.91	70.18	62.91	71.87	112	114	72-127	2	25
Chlorobenzene	46.04	46.99	46.04	48.06	102	104	76-117	2	25
Chlorodifluoromethane	35.37	41.02	35.37	41.58	116	118	70-138	1	25
Chloroethane	26.38	29.35	26.38	29.9	111	113	76-129	2	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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Dow Chemical Company
Reported: 04/07/2017 09:19

Group Number: 1784843

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
Chloroform	48.83	53.85	48.83	54.54	110	112	75-127	1	25
Chloromethane	20.65	21.72	20.65	22.39	105	108	65-140	3	25
3-Chloropropene	31.3	41.16	31.3	41.15	132	131	67-141	0	25
Cumene	49.16	51.76	49.16	52.92	105	108	74-121	2	25
Dibromochloromethane	85.19	93.54	85.19	94.74	110	111	74-131	1	25
1,2-Dibromoethane	76.83	81.76	76.83	83.14	106	108	73-121	2	25
Dibromomethane	71.1	78.47	71.1	79.11	110	111	76-124	1	25
1,2-Dichlorobenzene	60.12	63.15	60.12	64.85	105	108	71-126	3	25
1,3-Dichlorobenzene	60.12	62.49	60.12	64.96	104	108	75-129	4	25
1,4-Dichlorobenzene	60.12	63.55	60.12	64.36	106	107	74-123	1	25
Dichlorodifluoromethane	49.45	55.04	49.45	56.94	111	115	74-133	3	25
1,1-Dichloroethane	40.47	44.55	40.47	45.01	110	111	74-129	1	25
1,2-Dichloroethane	40.47	45.94	40.47	46.2	114	114	72-138	1	25
1,1-Dichloroethene	39.65	44.58	39.65	45.09	112	114	70-129	1	25
cis-1,2-Dichloroethene	39.65	43.82	39.65	44	111	111	76-126	0	25
trans-1,2-Dichloroethene	39.65	43.03	39.65	44.33	109	112	77-128	3	25
Dichlorofluoromethane	42.09	48.01	42.09	49.48	114	118	75-137	3	25
1,2-Dichloropropane	46.21	48.94	46.21	49.34	106	107	75-127	1	25
cis-1,3-Dichloropropene	45.39	49.1	45.39	49.07	108	108	51-120	0	25
trans-1,3-Dichloropropene	45.39	49.17	45.39	50.26	108	111	72-119	2	25
Ethylbenzene	43.42	46.72	43.42	47.76	108	110	77-117	2	25
4-Ethyltoluene	49.16	51.38	49.16	53.14	105	108	73-130	3	25
Freon 113	76.64	82.87	76.64	83.18	108	109	66-119	0	25
Freon 114	69.91	77.07	69.91	78.34	110	112	66-126	2	25
Heptane	40.98	44.67	40.98	44.15	109	108	74-122	1	25
Hexachloroethane	96.83	116.14	96.83	118.23	120	122	59-135	2	25
Hexane	35.25	37.23	35.25	38.49	106	109	70-118	3	25
2-Hexanone	40.97	43.89	40.97	45.34	107	111	63-144	3	25
Isooctane	46.72	49.91	46.72	50.06	107	107	74-127	0	25
Methyl t-Butyl Ether	36.05	38.75	36.05	39.23	107	109	71-119	1	25
4-Methyl-2-pentanone	40.97	44.63	40.97	45.68	109	112	68-133	2	25
Methylene Chloride	34.74	42.58	34.74	43.29	123	125	69-128	2	25
Octane	46.72	48.78	46.72	50	104	107	73-122	2	25
Pentane	29.51	30.91	29.51	31.68	105	107	69-125	2	25
Styrene	42.6	46.36	42.6	46.96	109	110	76-127	1	25
1,1,1,2-Tetrachloroethane	68.65	74.8	68.65	75.98	109	111	73-124	2	25
1,1,2,2-Tetrachloroethane	68.65	68	68.65	69.97	99	102	72-133	3	25
Tetrachloroethene	67.82	72.61	67.82	74.61	107	110	68-123	3	25
Toluene	37.69	40.2	37.69	40.94	107	109	78-119	2	25
1,1,1-Trichloroethane	54.56	60.79	54.56	61.38	111	113	74-122	1	25
1,1,2-Trichloroethane	54.56	58.03	54.56	59.56	106	109	76-127	3	25
Trichloroethene	53.74	61.3	53.74	61.2	114	114	76-118	0	25
Trichlorofluoromethane	56.18	62.86	56.18	63.73	112	113	73-132	1	25
1,2,3-Trichloropropane	60.3	62.23	60.3	65.25	103	108	71-127	5	25
1,2,4-Trimethylbenzene	49.16	52.24	49.16	53.49	106	109	70-138	2	25
1,3,5-Trimethylbenzene	49.16	50.93	49.16	50.17	104	102	72-130	2	25
Vinyl Chloride	25.56	28.53	25.56	28.77	112	113	75-130	1	25
m/p-Xylene	43.42	48.59	43.42	49.52	112	114	78-119	2	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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Dow Chemical Company
Reported: 04/07/2017 09:19

Group Number: 1784843

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
o-Xylene	43.42	47.68	43.42	48.51	110	112	78-121	2	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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Summa Canister Field Test Data/Chain of Custody

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Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 41610 Group # 1784843 Sample # 8920247-50 Bottle Order (SCR) # 204045

Client Information

Client: Dow Chemical

Account #: 41610

Project Name/#: Dow Philadelphia Project # 60533397.17010

Project Manager: Carl Cohen (Dow)

Invoice To: Report To: Kelly Rinehimer (AECOM)

P.O. #:

Sampler: Jonathan Ditzler / Crystal May

Quote #:

Name of state where samples were collected: PA

Turnaround Time Requested (TAT) (circle one)

Standard Rush (specify) 2-day

Data Package Required? (Yes) No

EDD Required? Yes No

	Temperature (F)		Pressure ("Hg)	
	Start	Stop	Start	Stop
Ambient	50	61	30.12	30.06
Maximum				
Minimum				

Analyses Requested

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	Can Size (L)	Controller Flowrate (mL/min)	EPA TO - 15	EPA 18 ☐ MTBE ☐ BTEX	EPA 25 (select range below)	Helium as tracer	O2/CO2	Library Search
20170403VP-42VS.5N	1018 4/3/17	1210 4/3/17	29.0	3.8			339238	845	6	113.5	X			X		
20170403FD	1050 4/3/17	1250 4/3/17	29.0	5.5			325349	1446	6	112.5	X			X		
20170403VP-40VS.5N	1112 4/3/17	1301 4/3/17	29.5	1.2			363426	1480	6	113.5	X			X		
20170403VP-41VS.5N	1050 4/3/17	1250 4/3/17	29.0	4.0			507657	1481	6	113.0	X			X		

Instructions/QC Requirements & Comments

Equis Level IV data package

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

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:	Relinquished by:	Date/Time:	Received by:	Date/Time:
[signature]	3/30/17	[signature] AECOM	3/31/17 1400				
Relinquished by: [signature] AECOM	Date/Time: 4/3/17 1445	Received by: [signature]	Date/Time: 4/4/17	Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by: [signature]	Date/Time: 4/4/17 815	Received by:	Date/Time:	Relinquished by:	Date/Time:	Received by: [signature]	Date/Time: 4/4/17 1815

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Sample Administration Receipt Documentation Log

Doc Log ID: 179902

Group Number(s): 1784843

Client: Dow Chemical

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	04/04/2017 18:15
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	PA		

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:	4
Discrepancy in Container Qty on COC:	No	Air Quality Returns:	No

Unpacked by Simon Nies (25112) at 23:18 on 04/04/2017

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	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	none detected
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< 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.

Laboratory Data Qualifiers:

C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
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.
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.

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.

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.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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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Additional Data Qualifiers

Qualifier	Definition
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q4	MS/MSD Out of Range
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-42V5.5N
Laboratory ID Number: 8920247
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Acetone (2-propanone)	67-64-1	58.08	12		5.2			
Benzene	71-43-2	78.11	3.9		1.2			
Bromobenzene	108-86-1	157.0	6.4	U	1.0			
Bromodichloromethane	75-27-4	163.8	6.7	U	1.0			
Bromoform	75-25-2	252.8	10	U	1.0			
Bromomethane (Methyl bromide)	74-83-9	94.94	3.9	U	1.0			
1,3-Butadiene	106-99-0	54.09	4.4	U	2.0			
2-Butanone (Methyl ethyl ketone)	78-93-3	72.11	37		13			
Carbon disulfide	75-15-0	76.14	3.1	U	1.0			
Carbon tetrachloride	56-23-5	153.8	6.3	U	1.0			
Chlorobenzene	108-90-7	112.6	4.6	U	1.0			
Chlorodifluoromethane	75-45-6	86.47	3.5	U	1.0			
Chloroethane	75-00-3	64.52	2.6	U	1.0			
Chloroform	67-66-3	119.4	4.5	J	0.91			
Chloromethane (Methyl chloride)	74-87-3	50.49	2.1	U	1.0			
3-Chloropropene (allyl chloride)	107-05-1	76.53	3.1	U	1.0			
Cumene	98-82-8	120.2	1.3	J	0.26			
Dibromochloromethane	124-48-1	208.3	8.5	U	1.0			
1,2-Dibromoethane	106-93-4	187.9	7.7	U	1.0			
Dibromomethane	74-95-3	173.8	7.1	U	1.0			
1,2-Dichlorobenzene	95-50-1	147.0	6.0	U	1.0			
1,3-Dichlorobenzene	541-73-1	147.0	1.3	J	0.22			
1,4-Dichlorobenzene	106-46-7	147.0	6.0	U	1.0			
Dichlorodifluoromethane	75-71-8	120.9	2.9	J	0.58			
1,1-Dichloroethane	75-34-3	98.96	4.0	U	1.0			
1,2-Dichloroethane	107-06-2	98.96	4.0	U	1.0			
1,1-Dichloroethene	75-35-4	96.94	4.0	U	1.0			
1,2-Dichloroethene (cis)	156-59-2	96.94	1.2	J	0.30			
1,2-Dichloroethene (trans)	156-60-5	96.94	4.0	U	1.0			
Dichlorofluoromethane	75-43-4	102.9	4.2	U	1.0			
1,2-Dichloropropane	78-87-5	113.0	4.6	U	1.0			
cis-1,3-Dichloropropene	10061-01-5	111.0	4.5	U	1.0			
trans-1,3-Dichloropropene	10061-02-6	111.0	4.5	U	1.0			
Ethylbenzene	100-41-4	106.2	4.9		1.1			
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	120.2	6.3		1.3			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	187.4	15	U	2.0			
1,2-Dichlorotetrafluoroethane (Freon 114)	76-14-2	170.9	7.0	U	1.0			
n-Heptane	142-82-5	100.2	4.1	U	1.0			
Hexachloroethane	67-72-1	236.7	9.7	U	1.0			
n-Hexane	110-54-3	86.17	0.92	J	0.26			
2-Hexanone	591-78-6	100.2	6.1	J	1.5			
2,2,4-Trimethylpentane	540-84-1	114.2	16		3.5			
MTBE (Methyl tert-butyl ether)	1634-04-4	88.15	3.6	U	1.0			
4-Methyl-2-pentanone (MIBK)	108-10-1	100.2	8.2	U	2.0			
Methylene chloride	75-09-2	84.94	3.5	U	1.0			
Octane	111-65-9	114.2	2.6	J	0.56			
Pentane	109-66-0	72.15	1.9	J	0.63			
Styrene	100-42-5	104.1	4.3	U	1.0			
1,1,1,2-Tetrachloroethane	630-20-6	167.8	6.9	U	1.0			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	6.9	U	1.0			
Tetrachloroethene (PCE)	127-18-4	165.8	70		10			
Toluene	108-88-3	92.14	11		2.9			
1,1,1-Trichloroethane	71-55-6	133.4	5.5	U	1.0			
1,1,2-Trichloroethane	79-00-5	133.4	5.5	U	1.0			
Trichloroethene (TCE)	79-01-6	131.4	8.5		1.6			
Trichlorofluoromethane (Freon 11)	75-69-4	137.4	1.2	J	0.22			
1,2,3-Trichloropropane	96-18-4	147.4	6.0	U	1.0			
1,2,4-Trimethylbenzene	95-63-6	120.2	22		4.5			
1,3,5-Trimethylbenzene	108-67-8	120.2	6.3		1.3			
Vinyl chloride	75-01-4	62.50	2.6	U	1.0			
Xylenes (m&p)	179601-23-1	106.2	20		4.7			

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-42V5.5N
Laboratory ID Number: 8920247
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Xylenes (o)	95-47-6	106.2	7.9		1.8			

Project Name: Dow Philadelphia
Field ID Number: 20170403FD
Laboratory ID Number: 8920248
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Acetone (2-propanone)	67-64-1	58.08	83		35			
Benzene	71-43-2	78.11	33		10			
Bromobenzene	108-86-1	157.0	6.4	U	1.0			
Bromodichloromethane	75-27-4	163.8	6.7	U	1.0			
Bromoform	75-25-2	252.8	10	U	1.0			
Bromomethane (Methyl bromide)	74-83-9	94.94	3.9	U	1.0			
1,3-Butadiene	106-99-0	54.09	4.4	U	2.0			
2-Butanone (Methyl ethyl ketone)	78-93-3	72.11	52		18			
Carbon disulfide	75-15-0	76.14	17		5.4			
Carbon tetrachloride	56-23-5	153.8	6.3	U	1.0			
Chlorobenzene	108-90-7	112.6	4.6	U	1.0			
Chlorodifluoromethane	75-45-6	86.47	3.5	U	1.0			
Chloroethane	75-00-3	64.52	2.6	U	1.0			
Chloroform	67-66-3	119.4	4.7	J	0.95			
Chloromethane (Methyl chloride)	74-87-3	50.49	2.1	U	1.0			
3-Chloropropene (allyl chloride)	107-05-1	76.53	3.1	U	1.0			
Cumene	98-82-8	120.2	7.2		1.5			
Dibromochloromethane	124-48-1	208.3	8.5	U	1.0			
1,2-Dibromoethane	106-93-4	187.9	7.7	U	1.0			
Dibromomethane	74-95-3	173.8	7.1	U	1.0			
1,2-Dichlorobenzene	95-50-1	147.0	6.0	U	1.0			
1,3-Dichlorobenzene	541-73-1	147.0	1.5	J	0.25			
1,4-Dichlorobenzene	106-46-7	147.0	6.0	U	1.0			
Dichlorodifluoromethane	75-71-8	120.9	2.6	J	0.53			
1,1-Dichloroethane	75-34-3	98.96	4.0	U	1.0			
1,2-Dichloroethane	107-06-2	98.96	340		84			
1,1-Dichloroethene	75-35-4	96.94	4.0	U	1.0			
1,2-Dichloroethene (cis)	156-59-2	96.94	61		15			
1,2-Dichloroethene (trans)	156-60-5	96.94	23		5.9			
Dichlorofluoromethane	75-43-4	102.9	4.2	U	1.0			
1,2-Dichloropropane	78-87-5	113.0	4.6	U	1.0			
cis-1,3-Dichloropropene	10061-01-5	111.0	4.5	U	1.0			
trans-1,3-Dichloropropene	10061-02-6	111.0	4.5	U	1.0			
Ethylbenzene	100-41-4	106.2	600		140			
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	120.2	6.3		1.3			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	187.4	15	U	2.0			
1,2-Dichlorotetrafluoroethane (Freon 114)	76-14-2	170.9	7.0	U	1.0			
n-Heptane	142-82-5	100.2	34		8.4			
Hexachloroethane	67-72-1	236.7	9.7	U	1.0			
n-Hexane	110-54-3	86.17	51		14			
2-Hexanone	591-78-6	100.2	8.2	U	2.0			
2,2,4-Trimethylpentane	540-84-1	114.2	92		20			
MTBE (Methyl tert-butyl ether)	1634-04-4	88.15	3.6	U	1.0			
4-Methyl-2-pentanone (MIBK)	108-10-1	100.2	8.2	U	2.0			
Methylene chloride	75-09-2	84.94	3.8		1.1			
Octane	111-65-9	114.2	25		5.4			
Pentane	109-66-0	72.15	13		4.2			
Styrene	100-42-5	104.1	4.3	U	1.0			
1,1,1,2-Tetrachloroethane	630-20-6	167.8	6.9	U	1.0			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	6.9	U	1.0			
Tetrachloroethene (PCE)	127-18-4	165.8	18		2.6			
Toluene	108-88-3	92.14	440		120			
1,1,1-Trichloroethane	71-55-6	133.4	5.5	U	1.0			
1,1,2-Trichloroethane	79-00-5	133.4	5.5	U	1.0			
Trichloroethene (TCE)	79-01-6	131.4	7.3		1.4			
Trichlorofluoromethane (Freon 11)	75-69-4	137.4	5.6	U	1.0			
1,2,3-Trichloropropane	96-18-4	147.4	6.0	U	1.0			
1,2,4-Trimethylbenzene	95-63-6	120.2	30		6.2			
1,3,5-Trimethylbenzene	108-67-8	120.2	11		2.3			
Vinyl chloride	75-01-4	62.50	5.5		2.2			
Xylenes (m&p)	179601-23-1	106.2	820		190			

Project Name: Dow Philadelphia
Field ID Number: 20170403FD
Laboratory ID Number: 8920248
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Xylenes (o)	95-47-6	106.2	77		18			

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-40V5.5N
Laboratory ID Number: 8920249
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Acetone (2-propanone)	67-64-1	58.08	53		22			
Benzene	71-43-2	78.11	2.2	J	0.69			
Bromobenzene	108-86-1	157.0	6.4	U	1.0			
Bromodichloromethane	75-27-4	163.8	6.7	U	1.0			
Bromoform	75-25-2	252.8	10	U	1.0			
Bromomethane (Methyl bromide)	74-83-9	94.94	3.9	U	1.0			
1,3-Butadiene	106-99-0	54.09	4.4	U	2.0			
2-Butanone (Methyl ethyl ketone)	78-93-3	72.11	26		8.7			
Carbon disulfide	75-15-0	76.14	6.9		2.2			
Carbon tetrachloride	56-23-5	153.8	6.3	U	1.0			
Chlorobenzene	108-90-7	112.6	4.6	U	1.0			
Chlorodifluoromethane	75-45-6	86.47	3.5	U	1.0			
Chloroethane	75-00-3	64.52	2.6	U	1.0			
Chloroform	67-66-3	119.4	4.9	U	1.0			
Chloromethane (Methyl chloride)	74-87-3	50.49	2.1	U	1.0			
3-Chloropropene (allyl chloride)	107-05-1	76.53	3.1	U	1.0			
Cumene	98-82-8	120.2	1.3	J	0.27			
Dibromochloromethane	124-48-1	208.3	8.5	U	1.0			
1,2-Dibromoethane	106-93-4	187.9	7.7	U	1.0			
Dibromomethane	74-95-3	173.8	7.1	U	1.0			
1,2-Dichlorobenzene	95-50-1	147.0	6.0	U	1.0			
1,3-Dichlorobenzene	541-73-1	147.0	6.0	U	1.0			
1,4-Dichlorobenzene	106-46-7	147.0	6.0	U	1.0			
Dichlorodifluoromethane	75-71-8	120.9	2.2	J	0.44			
1,1-Dichloroethane	75-34-3	98.96	4.0	U	1.0			
1,2-Dichloroethane	107-06-2	98.96	4.0	U	1.0			
1,1-Dichloroethene	75-35-4	96.94	4.0	U	1.0			
1,2-Dichloroethene (cis)	156-59-2	96.94	29		7.2			
1,2-Dichloroethene (trans)	156-60-5	96.94	3.9	J	0.97			
Dichlorofluoromethane	75-43-4	102.9	4.2	U	1.0			
1,2-Dichloropropane	78-87-5	113.0	4.6	U	1.0			
cis-1,3-Dichloropropene	10061-01-5	111.0	4.5	U	1.0			
trans-1,3-Dichloropropene	10061-02-6	111.0	4.5	U	1.0			
Ethylbenzene	100-41-4	106.2	65		15			
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	120.2	1.8	J	0.36			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	187.4	15	U	2.0			
1,2-Dichlorotetrafluoroethane (Freon 114)	76-14-2	170.9	7.0	U	1.0			
n-Heptane	142-82-5	100.2	3.8	J	0.94			
Hexachloroethane	67-72-1	236.7	9.7	U	1.0			
n-Hexane	110-54-3	86.17	2.1	J	0.61			
2-Hexanone	591-78-6	100.2	8.2	U	2.0			
2,2,4-Trimethylpentane	540-84-1	114.2	630		140			
MTBE (Methyl tert-butyl ether)	1634-04-4	88.15	3.6	U	1.0			
4-Methyl-2-pentanone (MIBK)	108-10-1	100.2	8.2	U	2.0			
Methylene chloride	75-09-2	84.94	3.5	U	1.0			
Octane	111-65-9	114.2	5.7		1.2			
Pentane	109-66-0	72.15	2.9	J	0.97			
Styrene	100-42-5	104.1	4.3	U	1.0			
1,1,1,2-Tetrachloroethane	630-20-6	167.8	6.9	U	1.0			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	6.9	U	1.0			
Tetrachloroethene (PCE)	127-18-4	165.8	49		7.2			
Toluene	108-88-3	92.14	140		36			
1,1,1-Trichloroethane	71-55-6	133.4	5.5	U	1.0			
1,1,2-Trichloroethane	79-00-5	133.4	5.5	U	1.0			
Trichloroethene (TCE)	79-01-6	131.4	7.3		1.4			
Trichlorofluoromethane (Freon 11)	75-69-4	137.4	5.6	U	1.0			
1,2,3-Trichloropropane	96-18-4	147.4	6.0	U	1.0			
1,2,4-Trimethylbenzene	95-63-6	120.2	6.5		1.3			
1,3,5-Trimethylbenzene	108-67-8	120.2	2.4	J	0.48			
Vinyl chloride	75-01-4	62.50	0.60	J	0.23			
Xylenes (m&p)	179601-23-1	106.2	160		37			

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-40V5.5N
Laboratory ID Number: 8920249
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Xylenes (o)	95-47-6	106.2	13		3.0			

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-41V5.5N
Laboratory ID Number: 8920250
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Acetone (2-propanone)	67-64-1	58.08	23		9.7			
Benzene	71-43-2	78.11	34		11			
Bromobenzene	108-86-1	157.0	6.4	U	1.0			
Bromodichloromethane	75-27-4	163.8	6.7	U	1.0			
Bromoform	75-25-2	252.8	10	U	1.0			
Bromomethane (Methyl bromide)	74-83-9	94.94	3.9	U	1.0			
1,3-Butadiene	106-99-0	54.09	4.4	U	2.0			
2-Butanone (Methyl ethyl ketone)	78-93-3	72.11	52		18			
Carbon disulfide	75-15-0	76.14	17		5.5			
Carbon tetrachloride	56-23-5	153.8	6.3	U	1.0			
Chlorobenzene	108-90-7	112.6	4.6	U	1.0			
Chlorodifluoromethane	75-45-6	86.47	3.5	U	1.0			
Chloroethane	75-00-3	64.52	2.6	U	1.0			
Chloroform	67-66-3	119.4	4.8	J	0.99			
Chloromethane (Methyl chloride)	74-87-3	50.49	2.1	U	1.0			
3-Chloropropene (allyl chloride)	107-05-1	76.53	3.1	U	1.0			
Cumene	98-82-8	120.2	7.6		1.5			
Dibromochloromethane	124-48-1	208.3	8.5	U	1.0			
1,2-Dibromoethane	106-93-4	187.9	7.7	U	1.0			
Dibromomethane	74-95-3	173.8	7.1	U	1.0			
1,2-Dichlorobenzene	95-50-1	147.0	6.0	U	1.0			
1,3-Dichlorobenzene	541-73-1	147.0	1.2	J	0.21			
1,4-Dichlorobenzene	106-46-7	147.0	6.0	U	1.0			
Dichlorodifluoromethane	75-71-8	120.9	2.5	J	0.51			
1,1-Dichloroethane	75-34-3	98.96	4.0	U	1.0			
1,2-Dichloroethane	107-06-2	98.96	350		87			
1,1-Dichloroethene	75-35-4	96.94	4.0	U	1.0			
1,2-Dichloroethene (cis)	156-59-2	96.94	63		16			
1,2-Dichloroethene (trans)	156-60-5	96.94	24		6.1			
Dichlorofluoromethane	75-43-4	102.9	4.2	U	1.0			
1,2-Dichloropropane	78-87-5	113.0	4.6	U	1.0			
cis-1,3-Dichloropropene	10061-01-5	111.0	4.5	U	1.0			
trans-1,3-Dichloropropene	10061-02-6	111.0	4.5	U	1.0			
Ethylbenzene	100-41-4	106.2	650		150			
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	120.2	8.4		1.7			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	187.4	15	U	2.0			
1,2-Dichlorotetrafluoroethane (Freon 114)	76-14-2	170.9	7.0	U	1.0			
n-Heptane	142-82-5	100.2	36		8.7			
Hexachloroethane	67-72-1	236.7	9.7	U	1.0			
n-Hexane	110-54-3	86.17	53		15			
2-Hexanone	591-78-6	100.2	8.2	U	2.0			
2,2,4-Trimethylpentane	540-84-1	114.2	95		20			
MTBE (Methyl tert-butyl ether)	1634-04-4	88.15	3.6	U	1.0			
4-Methyl-2-pentanone (MIBK)	108-10-1	100.2	8.2	U	2.0			
Methylene chloride	75-09-2	84.94	4.0		1.1			
Octane	111-65-9	114.2	29		6.2			
Pentane	109-66-0	72.15	13		4.3			
Styrene	100-42-5	104.1	4.3	U	1.0			
1,1,1,2-Tetrachloroethane	630-20-6	167.8	6.9	U	1.0			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	6.9	U	1.0			
Tetrachloroethene (PCE)	127-18-4	165.8	19		2.8			
Toluene	108-88-3	92.14	480		130			
1,1,1-Trichloroethane	71-55-6	133.4	5.5	U	1.0			
1,1,2-Trichloroethane	79-00-5	133.4	5.5	U	1.0			
Trichloroethene (TCE)	79-01-6	131.4	7.4		1.4			
Trichlorofluoromethane (Freon 11)	75-69-4	137.4	5.6	U	1.0			
1,2,3-Trichloropropane	96-18-4	147.4	6.0	U	1.0			
1,2,4-Trimethylbenzene	95-63-6	120.2	33		6.7			
1,3,5-Trimethylbenzene	108-67-8	120.2	12		2.4			
Vinyl chloride	75-01-4	62.50	5.8		2.3			
Xylenes (m&p)	179601-23-1	106.2	900		210			

Project Name: Dow Philadelphia
Field ID Number: 20170403VP-41V5.5N
Laboratory ID Number: 8920250
SDG Number: SWL71

Sampling Date: 04/03/2017
Analysis Date: 04/05/2017

TARGET ANALYTES -
AIR RESULT

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Footnote
EPA TO-15			***ug/m3***		***ppb(v)***			
Xylenes (o)	95-47-6	106.2	82		19			

Volatile Organics in Air by GC Data

Case Narrative/Conformance Summary

Volatile Organics in Air by GC

eurofins | Lancaster Laboratories Environmental

Case Narrative/Conformance Summary

CLIENT: The Dow Chemical Company
SDG: SWL71

Volatiles in Air

Fraction: Volatile Organics in Air by GC

Sample #	Client ID	DF	Comments
8920247	20170403VP-42V5.5N	2	
8920248	20170403FD	2	Field Duplicate Sample
8920249	20170403VP-40V5.5N	2	
8920250	20170403VP-41V5.5N	2	

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:

LCS/LCSD

The target analyte is not a component of the spiking solution, therefore, LCS data is not reported.

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	

QC Summary

Volatile Organics in Air by GC

Lancaster Laboratories Environmental

Quality Control Reference List
Volatiles in Air

CLIENT: The Dow Chemical Company
SDG: SWL71

Fraction: Volatile Organics in Air by GC

Analysis	Batch Number	Sample Number	Analysis Date
Helium as Tracer Gas	17096HE01	BLANK	04/06/2017 14:16:00
		8920247	04/06/2017 14:33:00
		8920248	04/06/2017 14:40:00
		8920249	04/06/2017 14:48:00
		8920250	04/06/2017 14:59:00

Lancaster Laboratories Environmental

Quality Control Summary
Method Blank
Volatiles in Air
SDG: SWL71
Matrix: AIR

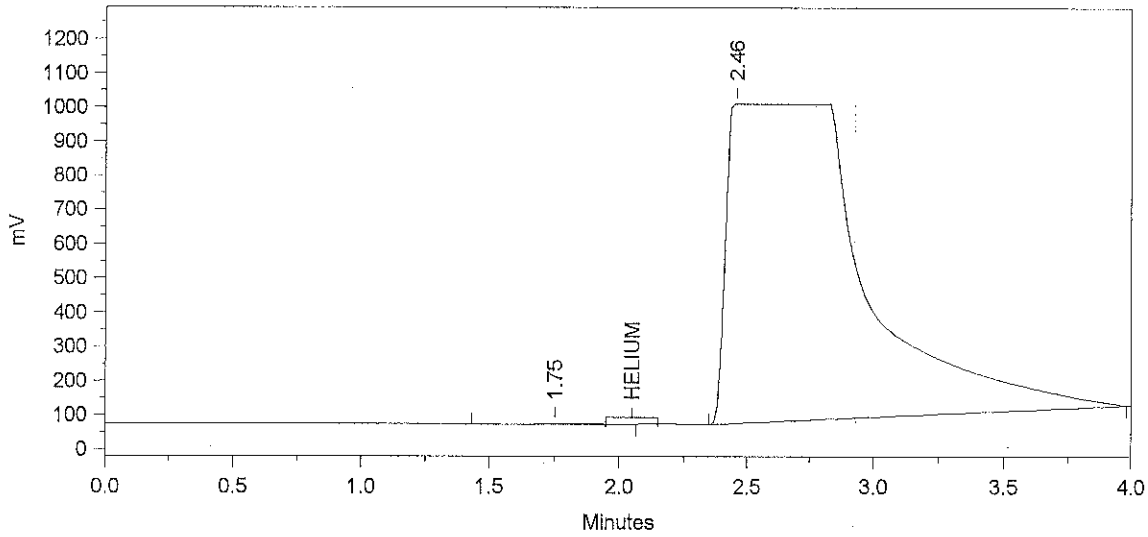
Fraction: Volatile Organics in Air by GC

17096HE01 / BLK **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
Helium as Tracer Gas	04/06/17	N.D.	ug/m3	820000	820000

Sample Data

Volatile Organics in Air by GC

8920247 DF2



Sample Name: **8920247 DF2**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:33:34pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.03R**
Date Stamp: 4/6/17 02:33:34pm
Sequence File: 17096.SEQ #3
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

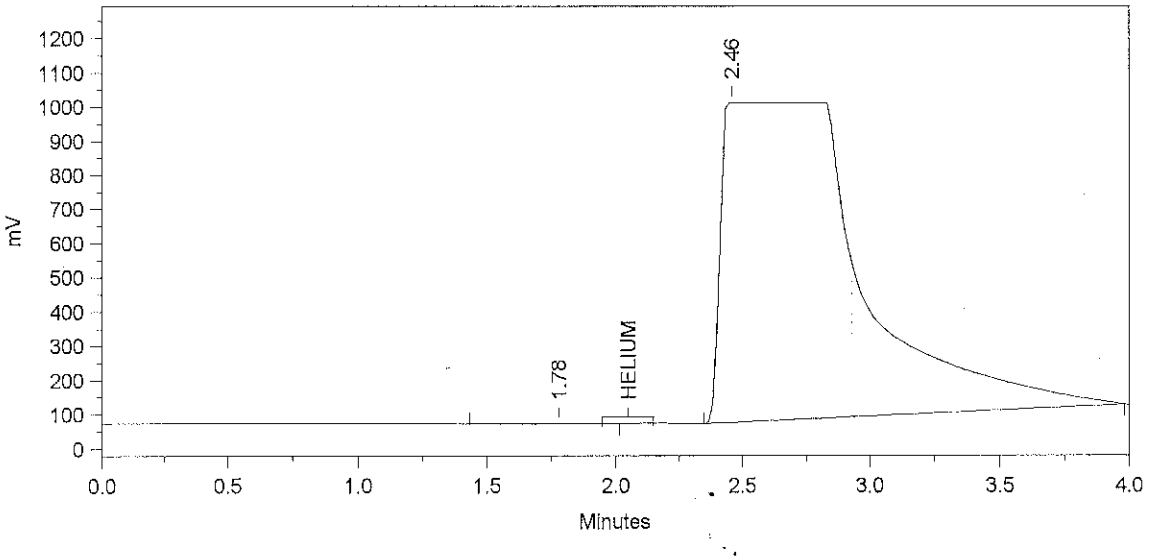
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.752		0.0000	0.000	8393.7	0.024	BB	0.413	338.60	0.036
2	2.458		0.0000	0.000	35387060.0	99.976	BB	0.629	937140.10	99.964

Total Area = 35395450.0, Total Amount = 0.0, Total Height = 937478.8, Sample Units = ppm(v)

ND

4/10/17

8920248 DF2



Sample Name: **8920248 DF2**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:40:11pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.04R**
Date Stamp: 4/6/17 02:40:10pm
Sequence File: 17096.SEQ #4
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49, Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7, Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

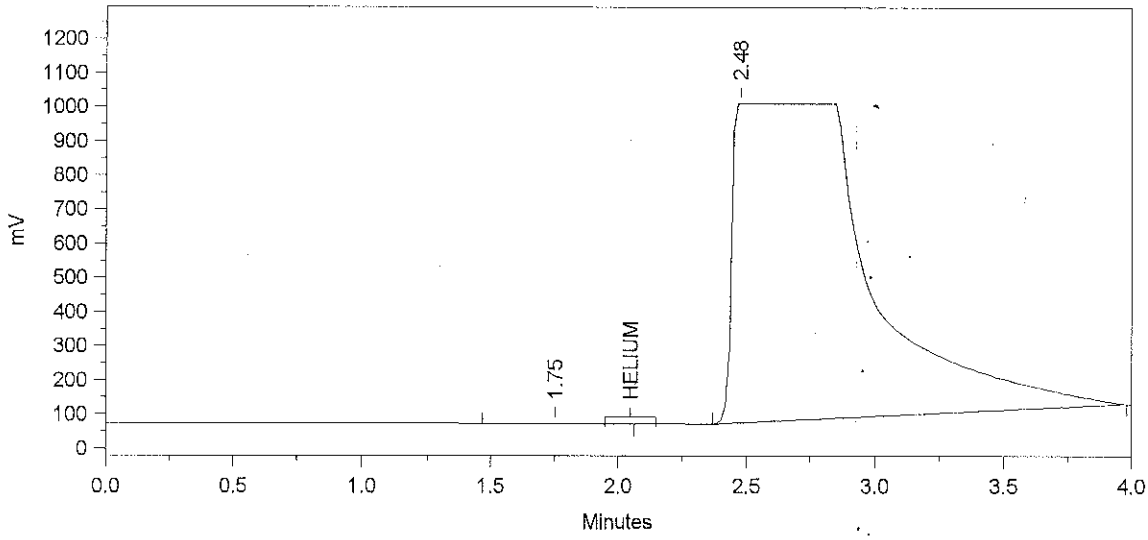
Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.781		0.0000	0.000	7115.9	0.020	BB	0.435	272.48	0.029
2	2.458		0.0000	0.000	35365550.0	99.980	BB	0.629	937343.00	99.971

Total Area = 35372660.0, Total Amount = 0.0, Total Height = 937615.5, Sample Units = ppm(v)

NID
4/6/17
4/10/17

8920249 DF2



Sample Name: **8920249 DF2**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:48:30pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.05R**
Date Stamp: 4/6/17 02:48:30pm
Sequence File: 17096.SEQ #5
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm.
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.753		0.0000	0.000	8260.3	0.024	BB	0.370	372.22	0.039
2	2.475		0.0000	0.000	34623490.0	99.976	BB	0.610	945594.90	99.961

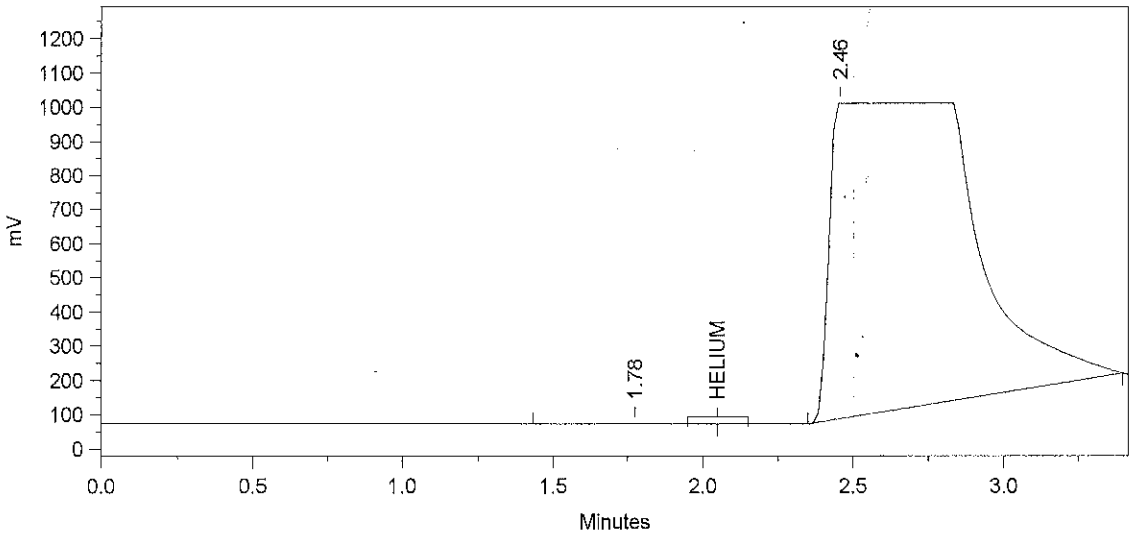
Total Area = 34631750.0, Total Amount = 0.0, Total Height = 945967.2, Sample Units = ppm(v)

ND

KRiBay

4/10/17

8920250 DF2



Sample Name: **8920250 DF2**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:59:56pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.06R**
Date Stamp: 4/6/17 02:59:56pm
Sequence File: 17096.SEQ #6
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 3.42 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.775		0.0000	0.000	8375.3	0.028	BB	0.437	319.78	0.034
2	2.458		0.0000	0.000	29806830.0	99.972	BB	0.531	934958.20	99.966

Total Area = 29815200.0, Total Amount = 0.0, Total Height = 935278.0, Sample Units = ppm(v)

ND

4/10/17

Standards Data

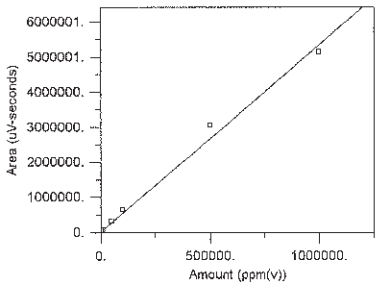
Volatile Organics in Air by GC

Calibration File Name: **C:\CPWIN\DATA1\HE140402.CAL** Version = 5
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 0
Amount units = ppm(v)
1 components with 6 levels each

1 HELIUM

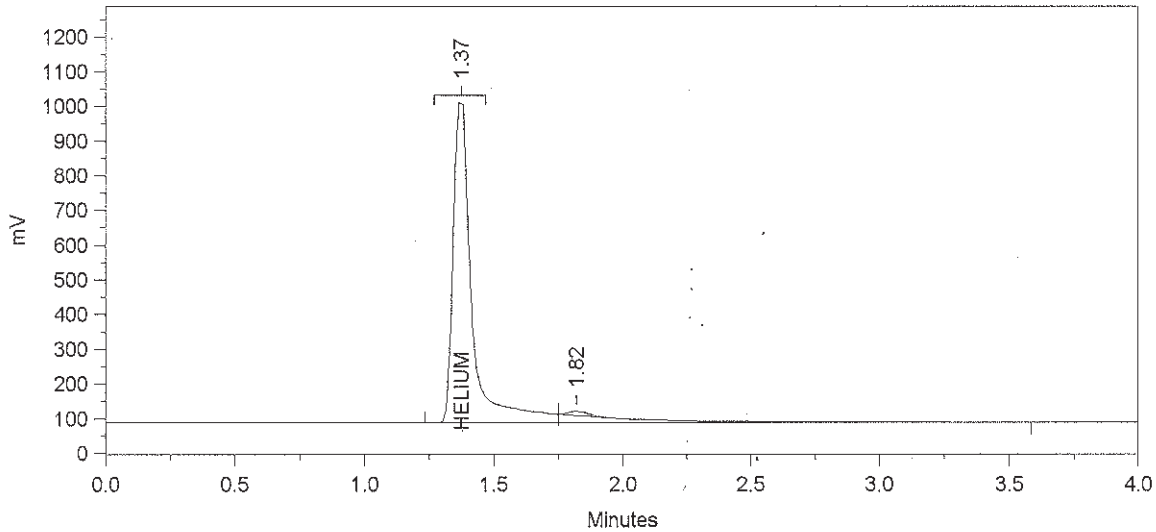
Retention time = 1.367 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by area

Level	Amount	Area	Area/Amt	Source	Date and time
1	5000.000	30277.7	6.055532	14262.11A	9/19/2014 8:07:2
2	10000.000	61214.6	6.121455	14262.10A	9/19/2014 8:07:1
3	50000.000	315513.0	6.31026	14262.09A	9/19/2014 8:07:0
4	100000.000	639132.2	6.391322	14262.08A	9/19/2014 8:06:4
5	500000.000	3059662.0	6.119324	14262.07A	9/19/2014 8:06:2
6	1000000.000	5135469.0	5.135469	14262.05A	9/19/2014 8:06:1



Calibration formula: Y = 5.343 X
Fit type = Linear with equal weighting, forced to origin
Coefficient of determination = 0.9906, Average error = 14.01%
Average CF = 6.0222 with RSD = 7.52%

VSTD100%



Sample Name: **VSTD100%**
Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:08:23pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.05R**
Date Stamp: 9/19/14 07:08:24pm
Sequence File: 14262A.SEQ #8
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

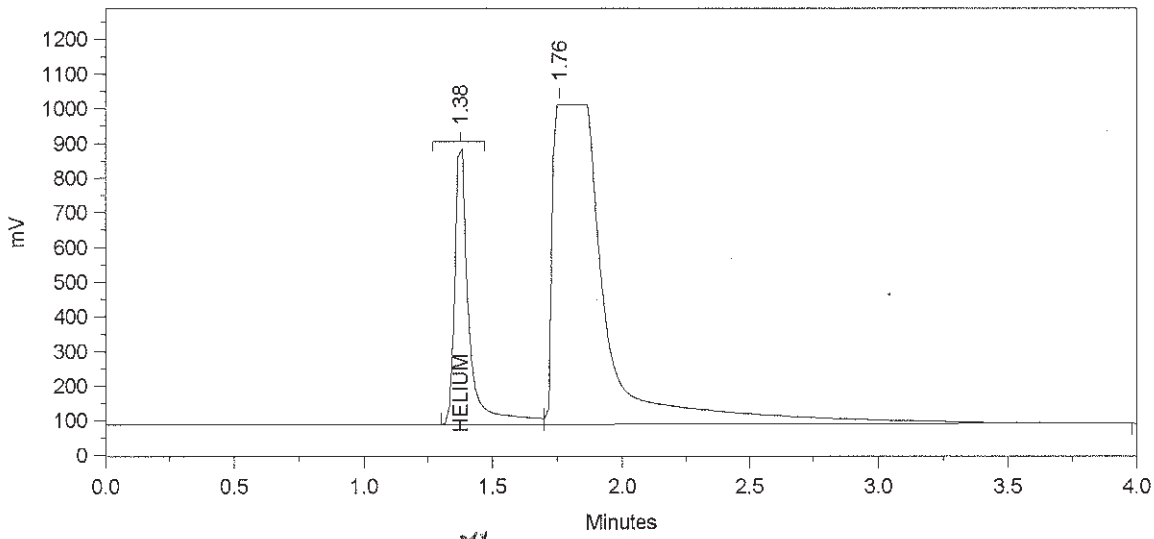
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.374	HELIUM	1600778.0000	100.000	5135469.0	98.791	SBB	0.091	944800.10	98.681
2	1.818		0.0000	0.000	62844.1	1.209	TVB	0.083	12626.48	1.319

Total Area = 5198313.0, Total Amount = 1600778.0, Total Height = 957426.6, Sample Units = ppm(v)

9/22/14

CMY412
9/22/14

VSTD10%



50% ③ FAC 1811 9-19-14

Sample Name: **VSTD10%**

Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:24:09pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.07R**
Date Stamp: 9/19/14 07:24:12pm
Sequence File: 14262A.SEQ #10
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

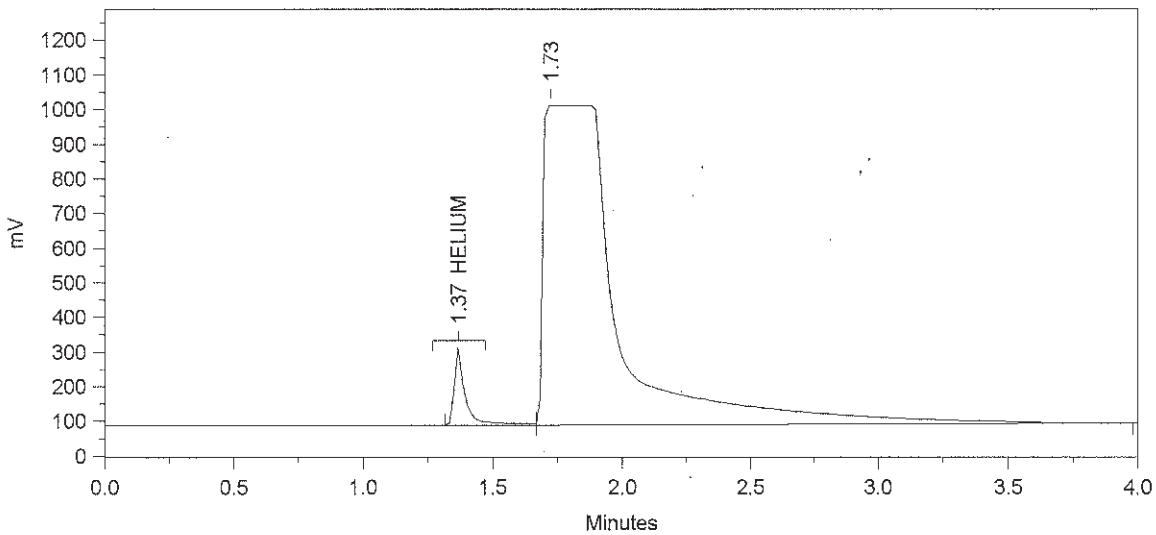
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.376	HELIUM	953727.4000	100.000	3059662.0	18.750	BV	0.061	838407.50	47.060
2	1.758		0.0000	0.000	13258650.0	81.250	VB	0.234	943174.20	52.940

Total Area = 16318310.0, Total Amount = 953727.4, Total Height = 1781582.0, Sample Units = ppm(v)

9/22/14

9/22/14

VSTD10%



Sample Name: **VSTD10%**
Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:31:52pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.08R**
Date Stamp: 9/19/14 07:31:54pm
Sequence File: 14262A.SEQ #11
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

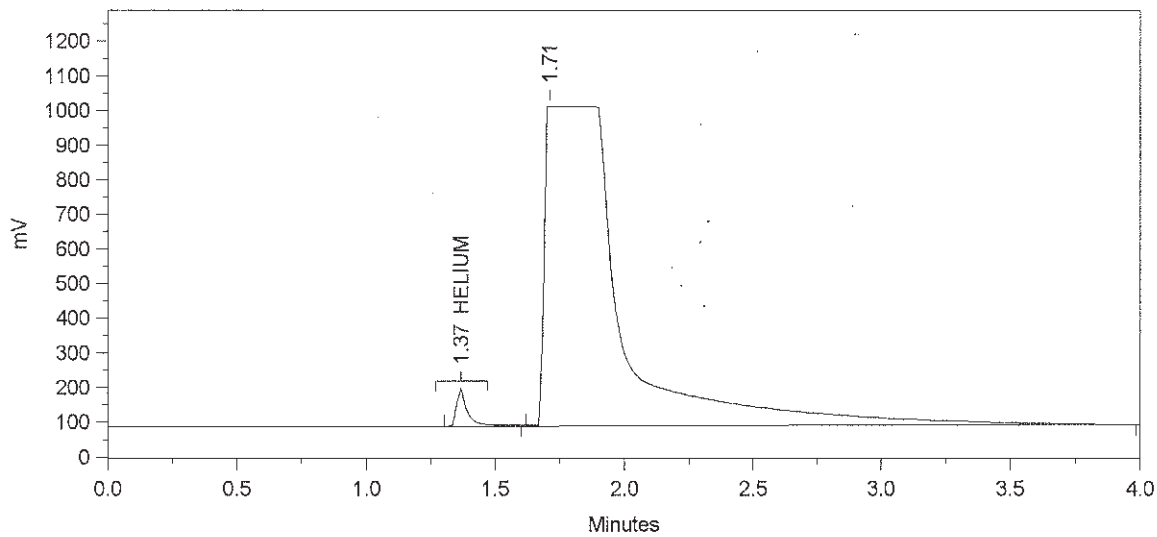
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.367	HELIUM	199224.0000	100.000	639132.2	3.337	BV	0.048	223961.90	19.451
2	1.725		0.0000	0.000	18513140.0	96.663	VB	0.333	927462.40	80.549

Total Area = 19152270.0, Total Amount = 199224.0, Total Height = 1151424.0, Sample Units = ppm(v)

9/22/14

9/22/14

VSTD5%



Sample Name: **VSTD5%**
Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:39:54pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.09R**
Date Stamp: 9/19/14 07:39:56pm
Sequence File: 14262A.SEQ #12
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

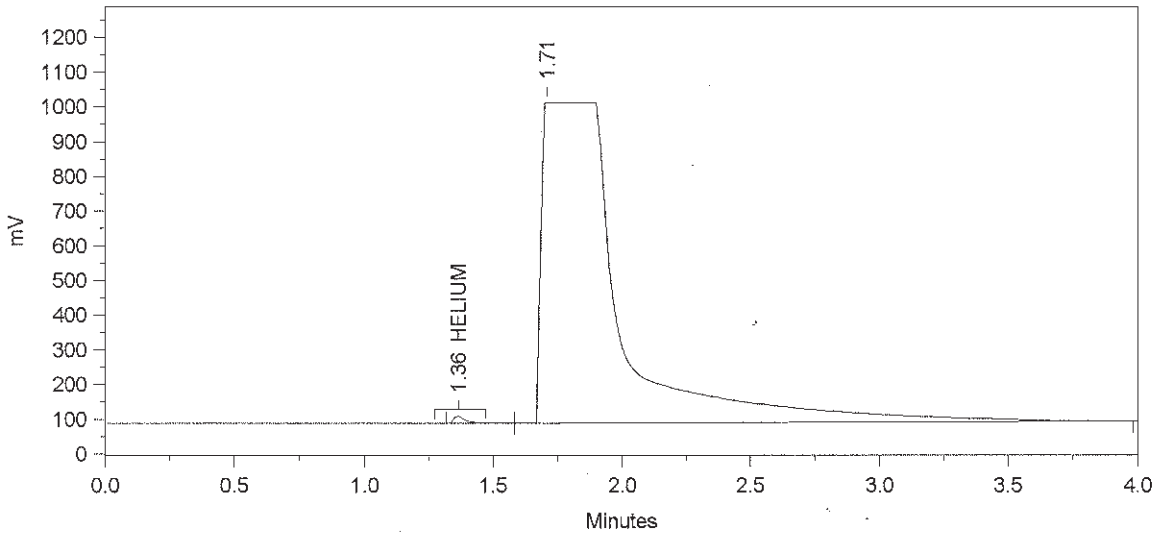
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.366	HELIUM	98348.5900	100.000	315513.0	1.622	BV	0.048	109635.00	9.844
2	1.708		0.0000	0.000	19142300.0	98.378	VB	0.318	1004044.00	90.156

Total Area = 19457820.0, Total Amount = 98348.59, Total Height = 1113679.0, Sample Units = ppm(v)

9/22/14

9/22/14

VSTD1%



Sample Name: **VSTD1%**
Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:46:36pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.10R**
Date Stamp: 9/19/14 07:46:38pm
Sequence File: 14262A.SEQ #13
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

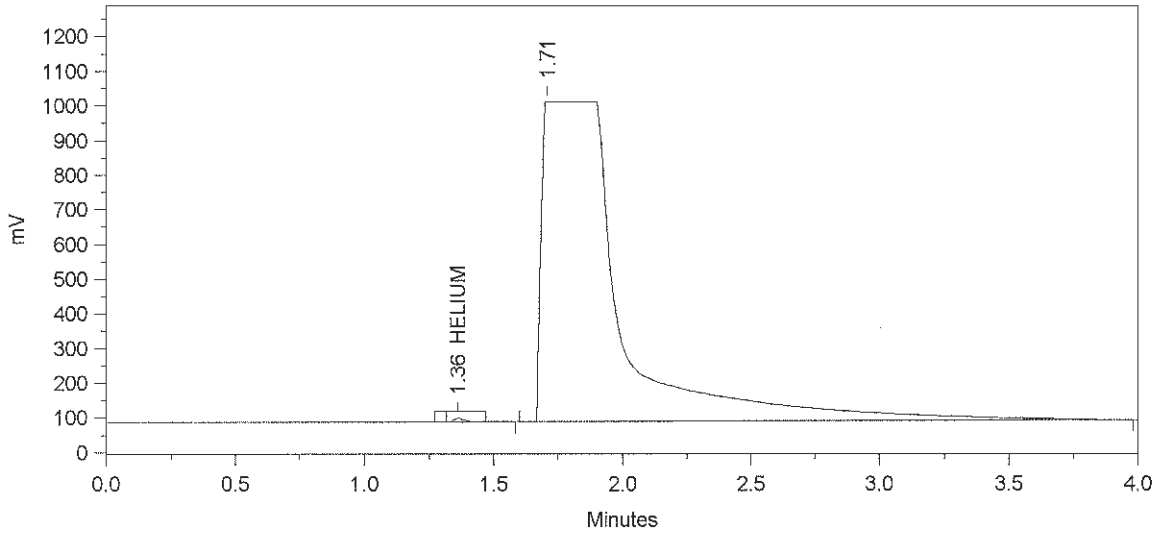
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.362	HELIUM	19081.1900	100.000	61214.5	0.312	BV	0.049	20699.06	2.066
2	1.708		0.0000	0.000	19574960.0	99.688	VB	0.333	981182.50	97.934

Total Area = 19636170.0, Total Amount = 19081.19, Total Height = 1001882.0, Sample Units = ppm(v)

9/22/14

9/22/14

VSTD0.5%



Sample Name: **VSTD0.5%**
Acquired from FIXED GASES--TCD via port 1 on 9/19/14 07:55:03pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2006DATA\SEP06\06262\14262.11R**
Date Stamp: 9/19/14 07:55:04pm
Sequence File: 14262A.SEQ #14
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 43. Date Stamp: 5/2/14 07:25:16pm
Calibration File: C:\CPWIN\DATA1\HE140402.CAL
Version 3. Date Stamp: 9/19/14 06:14:32pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

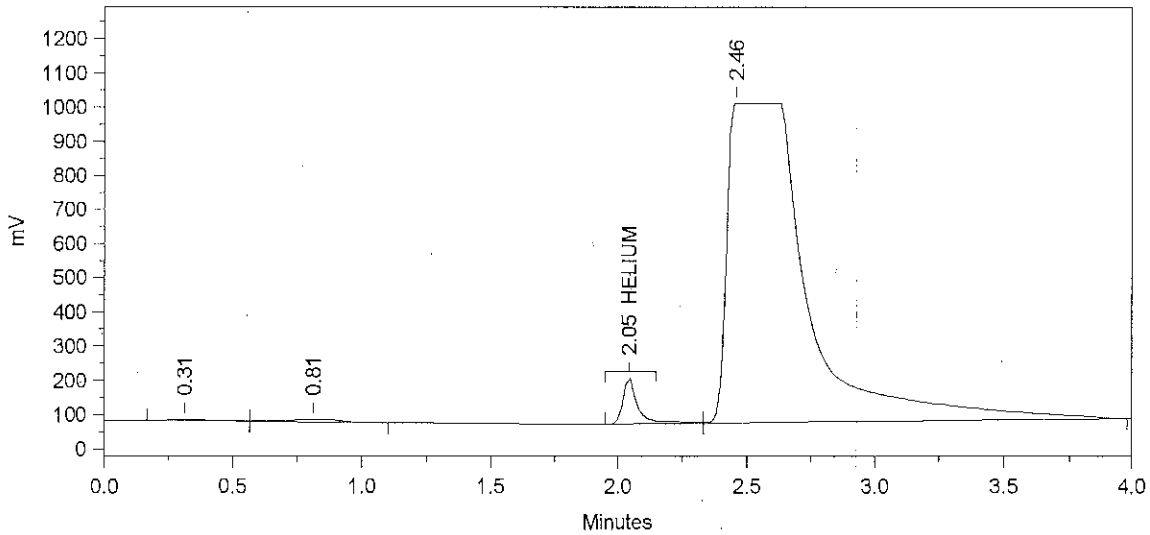
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.362	HELIUM	9437.8560	100.000	30277.7	0.154	BB	0.049	10390.29	1.051
2	1.708		0.0000	0.000	19662610.0	99.846	BB	0.335	977943.80	98.949

Total Area = 19692880.0, Total Amount = 9437.855, Total Height = 988334.1, Sample Units = ppm(v)

9/22/14

9/22/14

VSTD10%



Sample Name: **VSTD10%**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:03:15pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.01R**
Date Stamp: 4/6/17 02:03:14pm
Sequence File: 17096.SEQ #1
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

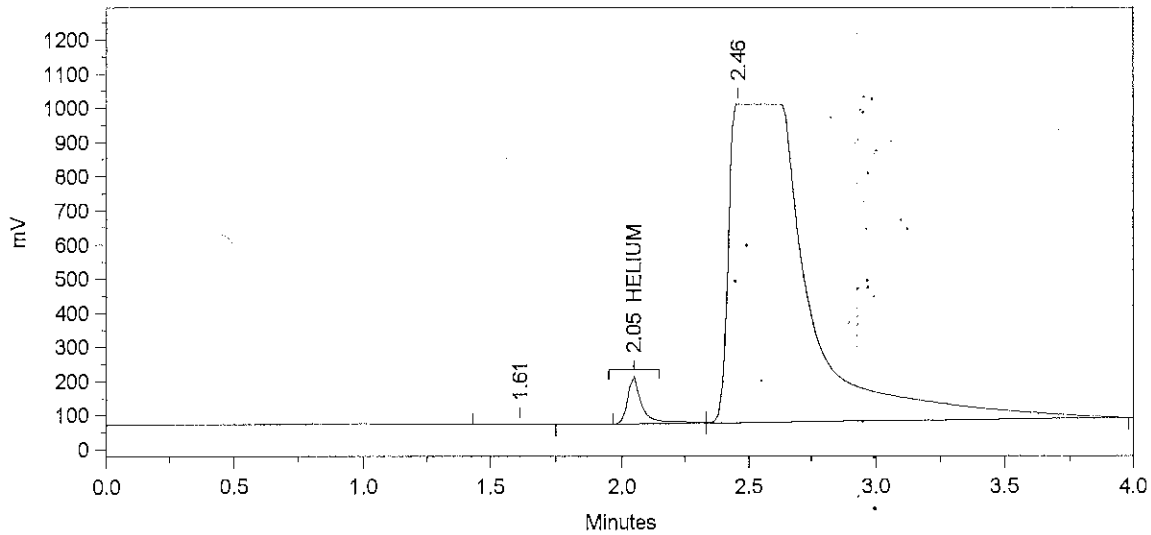
PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.311		0.0000	0.000	46461.9	0.222	BV	0.366	2116.88	0.194
2	0.812		0.0000	0.000	111452.5	0.534	VB	0.284	6547.41	0.601
3	2.045	HELIUM	97334.9000	100.000	534002.1	2.556	BV	0.067	133271.00	12.241
4	2.458		0.0000	0.000	20196740.0	96.688	VB	0.356	946789.10	86.963

Total Area = 20888660.0, Total Amount = 97334.9, Total Height = 1088724.0, Sample Units = ppm(v)

%D = 2.7%

[illegible]
4/6/17

VSTD10%



Sample Name: **VSTD10%**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 03:08:21pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.07R**
Date Stamp: 4/6/17 03:08:20pm
Sequence File: 17096.SEQ #7
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	1.613		0.0000	0.000	2296.9	0.011	BB	0.184	208.61	0.019
2	2.048	HELIUM	99876.4400	100.000	547945.6	2.604	BV	0.066	139356.60	12.856
3	2.458		0.0000	0.000	20495040.0	97.385	VB	0.362	944445.40	87.125

Total Area = 21045280.0, Total Amount = 99876.44, Total Height = 1084011.0, Sample Units = ppm(v)

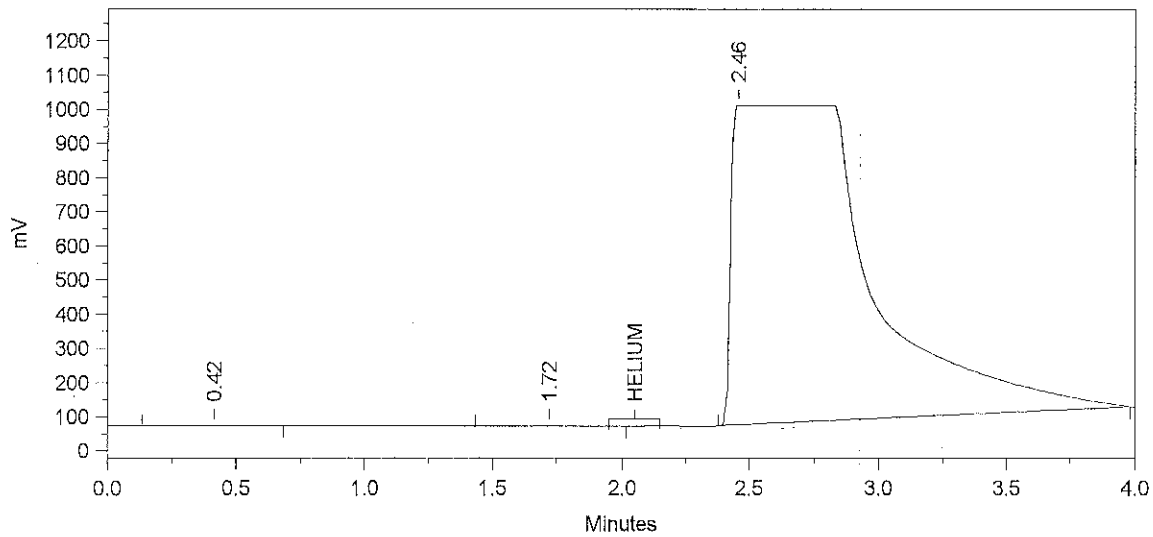
7DC 0.1%

4/10/17

Raw QC Data

Volatile Organics in Air by GC

BLANK



Sample Name: **BLANK**
Acquired from FIXED GASES--TCD via port 1 on 4/6/17 02:16:14pm by 1304
RT-Msieve 5A

Data File: **C:\CPWIN\DATA1\2017\17096\17096.02R**
Date Stamp: 4/6/17 02:16:14pm
Sequence File: 17096.SEQ #2
Method File: C:\CPWIN\DATA1\FGHE.MET
Version 49. Date Stamp: 8/16/16 01:22:04pm
Calibration File: C:\CPWIN\DATA1\HE16229.CAL
Version 7. Date Stamp: 4/6/17 02:08:12pm

Run Time = 4.0 min Sample Rate = 1.0 per sec.
Amount Inj. = 1.000 Dilution Factor = 1.000
Sample Weight = 1.000 Int Std Amount = 1.000

Starting Peak Width = 0.05 min. Peak Threshold = 5 Area Reject = 0

PK#	Ret Time	Name	Amount	Amount%	Area	Area%	Type	Width	Height	Height%
1	0.417		0.0000	0.000	8119.4	0.023	BB	0.328	412.69	0.043
2	1.723		0.0000	0.000	7608.1	0.022	BB	0.356	356.07	0.037
3	2.458		0.0000	0.000	34797400.0	99.955	BB	0.610	951394.10	99.919

Total Area = 34813130.0, Total Amount = 0.0, Total Height = 952162.8, Sample Units = ppm(v)

ND

Kenny 4/10/17

Volatile Organics in Air by GC/MS Data

Case Narrative/Conformance Summary

Volatile Organics in Air by GC/MS

eurofins | Lancaster Laboratories Environmental

Case Narrative/Conformance Summary

CLIENT: The Dow Chemical Company
SDG: SWL71

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

Sample #	Client ID	DF	Comments
8920247	20170403VP-42V5.5N	1	
8920248	20170403FD	1; 10	Field Duplicate Sample
8920249	20170403VP-40V5.5N	1; 10	
8920250	20170403VP-41V5.5N	1; 10	

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	

MDL Summary

Volatile Organics in Air by GC/MS

Analytical Method:
TO-15
Instrument type: 7890B/5977A

GC/MS Volatiles in Air MDL Study

Instrument ID	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i
Datafile	ej00653.d	ej00654.d	ej00655.d	ej00656.d	ej00657.d	ej00658.d	ej00659.d
Injection Date	10/27/2016 1:04	10/27/2016 1:32	10/27/2016 2:00	10/27/2016 2:28	10/27/2016 2:55	10/27/2016 3:23	10/27/2016 3:51
Lab Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5
Client Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5

Compound Name	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Mean Concentration (ppbv)**	**Standard Deviation**	**Student T value used**	**Sample MDL (ppbv)**	**Sample Spike Level (ppbv)**	**Average %Rec.**	**10x Rule?**	**4x Rule?**
Propene	0.663	0.622	0.584	0.645	0.535	0.687	0.662	0.628	0.053	3.143	0.166	0.50	126	pass	pass
Dichlorodifluoromethane	0.523	0.548	0.548	0.550	0.525	0.530	0.560	0.541	0.014	3.143	0.045	0.50	108	fail	pass
Chlorodifluoromethane	0.582	0.551	0.570	0.541	0.552	0.559	0.556	0.559	0.014	3.143	0.042	0.50	112	fail	pass
Freon 114	0.555	0.551	0.542	0.582	0.531	0.552	0.523	0.548	0.019	3.143	0.060	0.50	110	pass	pass
Chloromethane	0.740	0.712	0.712	0.681	0.614	0.714	0.700	0.696	0.040	3.143	0.127	0.50	139	pass	pass
Vinyl Chloride	0.528	0.537	0.550	0.553	0.559	0.525	0.582	0.548	0.020	3.143	0.062	0.50	110	pass	pass
1,3-Butadiene	0.500	0.546	0.575	0.520	0.497	0.572	0.500	0.530	0.034	3.143	0.108	0.50	106	pass	pass
Bromomethane	0.682	0.633	0.630	0.696	0.642	0.615	0.666	0.652	0.030	3.143	0.094	0.50	130	pass	pass
Chloroethane	0.574	0.535	0.546	0.548	0.540	0.591	0.614	0.564	0.030	3.143	0.094	0.50	113	pass	pass
Bromoethene	0.545	0.499	0.513	0.529	0.486	0.497	0.485	0.508	0.023	3.143	0.071	0.50	102	pass	pass
Dichlorofluoromethane	0.545	0.533	0.548	0.519	0.534	0.566	0.568	0.545	0.018	3.143	0.056	0.50	109	pass	pass
Trichlorofluoromethane	0.521	0.562	0.515	0.555	0.511	0.514	0.545	0.532	0.021	3.143	0.068	0.50	106	pass	pass
Pentane	0.523	0.550	0.563	0.590	0.586	0.552	0.543	0.558	0.024	3.143	0.075	0.50	112	pass	pass
Ethanol***	1.359	1.316	1.239	1.318	1.179	1.290	1.339	1.291	0.063	3.143	0.197	1.00	129	pass	pass
Freon123a	0.541	0.562	0.545	0.573	0.508	0.544	0.522	0.542	0.022	3.143	0.069	0.50	108	pass	pass
Acrolein***	0.987	0.938	1.122	1.128	1.096	1.066	1.190	1.075	0.087	3.143	0.273	1.00	108	pass	pass
1,1-Dichloroethene	0.526	0.531	0.536	0.485	0.507	0.505	0.498	0.513	0.019	3.143	0.059	0.50	103	pass	pass
Freon 113	0.536	0.537	0.530	0.557	0.546	0.554	0.535	0.542	0.010	3.143	0.032	0.50	108	fail	pass
Acetone	0.649	0.587	0.650	0.669	0.627	0.588	0.605	0.625	0.033	3.143	0.102	0.50	125	pass	pass
Methyl Iodide	0.403	0.408	0.430	0.403	0.390	0.404	0.383	0.403	0.015	3.143	0.047	0.50	81	fail	pass
Carbon Disulfide	0.583	0.587	0.615	0.597	0.599	0.590	0.597	0.595	0.010	3.143	0.033	0.50	119	fail	pass
Isopropanol***	1.102	1.354	1.183	1.203	1.169	1.219	1.189	1.203	0.076	3.143	0.240	1.00	120	pass	pass
Acetonitrile***	1.859	1.786	2.235	1.570	1.699	2.053	2.403	1.944	0.300	3.143	0.942	1.00	194	pass	pass
3-Chloropropene	0.607	0.569	0.516	0.552	0.632	0.581	0.563	0.574	0.038	3.143	0.118	0.50	115	pass	pass
Methylene Chloride	0.583	0.618	0.641	0.613	0.583	0.585	0.650	0.610	0.028	3.143	0.088	0.50	122	pass	pass
tert-Butyl Alcohol	1.026	0.949	0.963	0.906	0.869	0.926	0.882	0.932	0.054	3.143	0.169	0.50	186	pass	pass
Acrylonitrile	0.539	0.567	0.527	0.581	0.565	0.517	0.497	0.542	0.030	3.143	0.096	0.50	108	pass	pass
trans-1,2-Dichloroethene	0.521	0.537	0.508	0.495	0.518	0.553	0.527	0.523	0.019	3.143	0.059	0.50	105	pass	pass
Methyl t-Butyl Ether	0.465	0.500	0.524	0.477	0.477	0.473	0.451	0.481	0.024	3.143	0.075	0.50	96	pass	pass

Analytical Method:
TO-15
Instrument type: 7890B/5977A

GC/MS Volatiles in Air MDL Study

Instrument ID	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i
Datafile	ej00653.d	ej00654.d	ej00655.d	ej00656.d	ej00657.d	ej00658.d	ej00659.d
Injection Date	10/27/2016 1:04	10/27/2016 1:32	10/27/2016 2:00	10/27/2016 2:28	10/27/2016 2:55	10/27/2016 3:23	10/27/2016 3:51
Lab Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5
Client Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5

Compound Name	Concentration (ppbv)	Concentration (ppbv)	Concentration (ppbv)	Concentration (ppbv)	Concentration (ppbv)	Concentration (ppbv)	Concentration (ppbv)	Mean Concentration (ppbv)	Standard Deviation	Student T value used	Sample MDL (ppbv)	Sample Spike Level (ppbv)	Average %Rec.	10x Rule?	4x Rule?
Hexane	0.451	0.507	0.534	0.459	0.520	0.518	0.477	0.495	0.033	3.143	0.102	0.50	99	pass	pass
1,1-Dichloroethane	0.538	0.518	0.553	0.510	0.525	0.519	0.534	0.528	0.015	3.143	0.046	0.50	106	fail	pass
Vinyl Acetate	0.500	0.541	0.445	0.495	0.503	0.442	0.469	0.485	0.035	3.143	0.111	0.50	97	pass	pass
Di-Isopropyl Ether	0.513	0.514	0.539	0.524	0.482	0.537	0.511	0.517	0.019	3.143	0.060	0.50	103	pass	pass
Ethyl Tert-Butyl Ether	0.495	0.470	0.496	0.463	0.465	0.469	0.449	0.472	0.017	3.143	0.054	0.50	94	pass	pass
cis-1,2-Dichloroethene	0.495	0.575	0.481	0.517	0.519	0.537	0.483	0.515	0.033	3.143	0.105	0.50	103	pass	pass
1,2-Dichloroethene (total)	1.016	1.112	0.989	1.012	1.037	1.090	1.010	1.038	0.046	3.143	0.144	1.00	104	pass	pass
2-Butanone	0.542	0.520	0.457	0.481	0.463	0.474	0.565	0.500	0.042	3.143	0.132	0.50	100	pass	pass
Ethyl Acetate***	1.108	0.995	1.106	1.120	1.049	1.188	1.100	1.095	0.060	3.143	0.189	1.00	110	pass	pass
Methyl Acrylate	0.529	0.495	0.500	0.449	0.457	0.489	0.474	0.485	0.027	3.143	0.086	0.50	97	pass	pass
Tetrahydrofuran	0.588	0.620	0.713	0.689	0.609	0.618	0.653	0.641	0.046	3.143	0.143	0.50	128	pass	pass
Chloroform	0.519	0.469	0.537	0.540	0.505	0.524	0.532	0.518	0.025	3.143	0.077	0.50	104	pass	pass
1,1,1-Trichloroethane	0.510	0.503	0.529	0.489	0.489	0.492	0.520	0.505	0.016	3.143	0.050	0.50	101	fail	pass
Cyclohexane	0.514	0.523	0.551	0.493	0.469	0.481	0.521	0.507	0.028	3.143	0.088	0.50	101	pass	pass
Carbon Tetrachloride	0.516	0.475	0.512	0.481	0.445	0.481	0.493	0.486	0.024	3.143	0.076	0.50	97	pass	pass
Benzene	0.536	0.563	0.563	0.555	0.529	0.534	0.546	0.547	0.014	3.143	0.044	0.50	109	fail	pass
1,2-Dichloroethane	0.559	0.542	0.543	0.557	0.534	0.559	0.559	0.550	0.010	3.143	0.033	0.50	110	fail	pass
Isooctane	0.508	0.505	0.500	0.517	0.474	0.527	0.509	0.506	0.017	3.143	0.052	0.50	101	pass	pass
Tert-Amyl Methyl Ether	0.515	0.507	0.504	0.490	0.505	0.497	0.527	0.506	0.012	3.143	0.038	0.50	101	fail	pass
Heptane	0.508	0.457	0.534	0.521	0.542	0.482	0.540	0.512	0.032	3.143	0.101	0.50	102	pass	pass
Trichloroethene	0.495	0.519	0.511	0.555	0.495	0.490	0.554	0.517	0.028	3.143	0.087	0.50	103	pass	pass
Ethyl Acrylate	0.585	0.498	0.524	0.507	0.521	0.545	0.532	0.530	0.029	3.143	0.090	0.50	106	pass	pass
1,2-Dichloropropane	0.527	0.514	0.550	0.572	0.517	0.571	0.544	0.542	0.024	3.143	0.075	0.50	108	pass	pass
Dibromomethane	0.539	0.520	0.459	0.511	0.519	0.535	0.545	0.518	0.029	3.143	0.091	0.50	104	pass	pass
1,4-Dioxane	0.609	0.545	0.589	0.589	0.592	0.617	0.636	0.597	0.029	3.143	0.090	0.50	119	pass	pass
Methyl Methacrylate	0.505	0.471	0.463	0.440	0.442	0.467	0.510	0.471	0.028	3.143	0.087	0.50	94	pass	pass
Bromodichloromethane	0.531	0.537	0.529	0.526	0.504	0.550	0.533	0.530	0.014	3.143	0.044	0.50	106	fail	pass
cis-1,3-Dichloropropene	0.472	0.467	0.461	0.492	0.506	0.474	0.453	0.475	0.018	3.143	0.057	0.50	95	pass	pass
4-Methyl-2-Pentanone	0.703	0.671	0.711	0.758	0.681	0.719	0.712	0.708	0.028	3.143	0.089	0.50	142	pass	pass

Analytical Method:
TO-15
Instrument type: 7890B/5977A

GC/MS Volatiles in Air MDL Study

Instrument ID	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i
Datafile	ej00653.d	ej00654.d	ej00655.d	ej00656.d	ej00657.d	ej00658.d	ej00659.d
Injection Date	10/27/2016 1:04	10/27/2016 1:32	10/27/2016 2:00	10/27/2016 2:28	10/27/2016 2:55	10/27/2016 3:23	10/27/2016 3:51
Lab Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5
Client Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5

Compound Name	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Mean Concentration (ppbv)**	**Standard Deviation**	**Student T value used**	**Sample MDL (ppbv)**	**Sample Spike Level (ppbv)**	**Average %Rec.**	**10x Rule?**	**4x Rule?**
Toluene	0.503	0.478	0.487	0.518	0.492	0.496	0.487	0.494	0.013	3.143	0.041	0.50	99	fail	pass
Octane	0.476	0.524	0.519	0.470	0.451	0.453	0.490	0.483	0.029	3.143	0.092	0.50	97	pass	pass
trans-1,3-Dichloropropene	0.491	0.490	0.527	0.470	0.468	0.485	0.461	0.485	0.022	3.143	0.069	0.50	97	pass	pass
1,3-Dichloropropene (total)	0.955	0.944	0.979	0.948	0.960	0.950	0.903	0.948	0.023	3.143	0.073	1.00	95	pass	pass
Ethyl Methacrylate	0.518	0.501	0.540	0.532	0.476	0.480	0.506	0.508	0.024	3.143	0.077	0.50	102	pass	pass
1,1,2-Trichloroethane	0.484	0.511	0.508	0.540	0.466	0.509	0.499	0.502	0.023	3.143	0.073	0.50	100	pass	pass
Tetrachloroethene	0.559	0.552	0.543	0.505	0.566	0.556	0.582	0.552	0.024	3.143	0.075	0.50	110	pass	pass
2-Hexanone	0.776	0.780	0.791	0.797	0.761	0.858	0.793	0.794	0.031	3.143	0.097	0.50	159	pass	pass
Dibromochloromethane	0.504	0.428	0.464	0.453	0.452	0.475	0.468	0.463	0.023	3.143	0.074	0.50	93	pass	pass
1,2-Dibromoethane	0.471	0.445	0.455	0.488	0.472	0.477	0.489	0.471	0.016	3.143	0.051	0.50	94	pass	pass
Chlorobenzene	0.486	0.479	0.485	0.481	0.473	0.476	0.475	0.479	0.005	3.143	0.016	0.50	96	fail	pass
1,1,1,2-Tetrachloroethane	0.452	0.470	0.460	0.433	0.441	0.454	0.419	0.447	0.017	3.143	0.054	0.50	89	pass	pass
Ethylbenzene	0.466	0.435	0.461	0.448	0.442	0.445	0.456	0.450	0.011	3.143	0.035	0.50	90	fail	pass
m/p-Xylene	0.470	0.428	0.471	0.441	0.430	0.422	0.454	0.445	0.020	3.143	0.063	0.50	89	pass	pass
o-Xylene	0.436	0.453	0.430	0.449	0.425	0.407	0.436	0.434	0.015	3.143	0.048	0.50	87	fail	pass
Xylene (total)	0.907	0.881	0.901	0.890	0.855	0.829	0.890	0.879	0.028	3.143	0.087	1.00	88	pass	pass
Styrene	0.410	0.395	0.393	0.402	0.391	0.404	0.365	0.394	0.015	3.143	0.046	0.50	79	fail	pass
Bromoform	0.428	0.436	0.455	0.393	0.401	0.425	0.416	0.422	0.021	3.143	0.066	0.50	84	pass	pass
Cumene	0.436	0.429	0.425	0.393	0.398	0.407	0.409	0.414	0.016	3.143	0.051	0.50	83	pass	pass
Bromobenzene	0.473	0.469	0.503	0.502	0.464	0.476	0.482	0.481	0.016	3.143	0.049	0.50	96	fail	pass
1,1,2,2-Tetrachloroethane	0.495	0.503	0.496	0.522	0.527	0.503	0.533	0.511	0.016	3.143	0.049	0.50	102	fail	pass
1,2,3-Trichloropropane	0.527	0.493	0.498	0.525	0.560	0.536	0.546	0.526	0.024	3.143	0.076	0.50	105	pass	pass
n-Propylbenzene	0.417	0.404	0.419	0.389	0.404	0.419	0.403	0.408	0.011	3.143	0.035	0.50	82	fail	pass
2-Chlorotoluene	0.411	0.447	0.426	0.435	0.422	0.429	0.421	0.427	0.011	3.143	0.036	0.50	85	fail	pass
4-Ethyltoluene	0.398	0.390	0.408	0.388	0.387	0.381	0.386	0.391	0.009	3.143	0.028	0.50	78	fail	pass
1,3,5-Trimethylbenzene	0.448	0.386	0.412	0.412	0.409	0.415	0.404	0.412	0.018	3.143	0.058	0.50	82	pass	pass
Alpha Methyl Styrene	0.395	0.363	0.366	0.424	0.390	0.381	0.365	0.383	0.022	3.143	0.069	0.50	77	pass	pass
tert-Butylbenzene	0.403	0.359	0.385	0.358	0.353	0.376	0.343	0.368	0.021	3.143	0.066	0.50	74	pass	pass
1,2,4-Trimethylbenzene	0.444	0.401	0.407	0.422	0.391	0.397	0.370	0.405	0.024	3.143	0.074	0.50	81	pass	pass

Analytical Method:
TO-15
Instrument type: 7890B/5977A

GC/MS Volatiles in Air MDL Study

Instrument ID	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i
Datafile	ej00653.d	ej00654.d	ej00655.d	ej00656.d	ej00657.d	ej00658.d	ej00659.d
Injection Date	10/27/2016 1:04	10/27/2016 1:32	10/27/2016 2:00	10/27/2016 2:28	10/27/2016 2:55	10/27/2016 3:23	10/27/2016 3:51
Lab Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5
Client Sample ID	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5	MDL0.5

Compound Name	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Concentration (ppbv)**	**Mean Concentration (ppbv)**	**Standard Deviation**	**Student T value used**	**Sample MDL (ppbv)**	**Sample Spike Level (ppbv)**	**Average %Rec.**	**10x Rule?**	**4x Rule?**
sec-Butylbenzene	0.412	0.416	0.409	0.395	0.378	0.377	0.389	0.397	0.016	3.143	0.051	0.50	79	pass	pass
1,3-Dichlorobenzene	0.470	0.453	0.462	0.487	0.462	0.486	0.485	0.472	0.014	3.143	0.044	0.50	94	fail	pass
1,4-Dichlorobenzene	0.499	0.486	0.494	0.489	0.469	0.493	0.480	0.487	0.010	3.143	0.032	0.50	97	fail	pass
p-Isopropyltoluene	0.420	0.385	0.397	0.396	0.370	0.381	0.389	0.391	0.016	3.143	0.049	0.50	78	fail	pass
Benzyl Chloride	0.449	0.424	0.399	0.396	0.373	0.389	0.392	0.403	0.025	3.143	0.080	0.50	81	pass	pass
1,2-Dichlorobenzene	0.482	0.485	0.484	0.493	0.482	0.503	0.492	0.489	0.008	3.143	0.024	0.50	98	fail	pass
n-Butylbenzene	0.438	0.436	0.448	0.439	0.424	0.454	0.428	0.438	0.010	3.143	0.033	0.50	88	fail	pass
Hexachloroethane	0.444	0.410	0.394	0.398	0.349	0.374	0.376	0.392	0.030	3.143	0.095	0.50	78	pass	pass
1,2-Dibromo-3-chloropropane***	0.967	1.048	1.034	1.034	1.006	1.005	0.887	0.997	0.056	3.143	0.174	1.00	100	pass	pass
1,2,4-Trichlorobenzene	0.763	0.668	0.694	0.617	0.583	0.588	0.641	0.651	0.064	4.143	0.265	0.50	130	pass	pass
Hexachlorobutadiene	0.780	0.689	0.713	0.670	0.612	0.641	0.631	0.677	0.057	5.143	0.295	0.50	135	pass	pass
Naphthalene	0.845	0.770	0.783	0.711	0.699	0.689	0.661	0.737	0.065	6.143	0.397	0.50	147	pass	pass

***Ethanol, Acrolein, Isopropanol, Acetonitrile, Ethyl Acetate, and 1,2-Dibromo-3-chloropropane were spiked at 1.0ppb and were analyzed in the files below.

Instrument ID	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i	HP22820.i
Datafile	ej00660.d	ej00662.d	ej00663.d	ej00664.d	ej00665.d	ej00666.d	ej00667.d
Injection Date	10/27/2016 4:16	10/27/2016 5:06	10/27/2016 5:31	10/27/2016 5:55	10/27/2016 6:20	10/27/2016 6:45	10/27/2016 7:10
Lab Sample ID	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0
Client Sample ID	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0	MDL1.0

QC Summary

Volatile Organics in Air by GC/MS

Lancaster Laboratories Environmental

Quality Control Reference List
Volatiles in Air

CLIENT: The Dow Chemical Company
SDG: SWL71

Fraction: Volatile Organics in Air by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
TO-15 Standard list	E1709530AA	VBLKE53	04/05/2017 14:12:00
		LCSE53	04/05/2017 14:56:00
		LCSDE53	04/05/2017 15:30:00
		8920247	04/05/2017 18:01:00
		8920248	04/05/2017 18:45:00
		8920248	04/05/2017 20:08:00
		8920249	04/05/2017 19:29:00
		8920249	04/05/2017 20:34:00
		8920250	04/05/2017 21:18:00
		8920250 DUP	04/05/2017 22:01:00
		8920250	04/05/2017 22:27:00

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Quality Control Summary
Method Blank
Volatiles in Air
SDG: SWL71
Matrix: AIR

Fraction: Volatile Organics in Air by GC/MS

E1709530AA / VBLKE53 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	04/05/17	N.D.	ug/m3	0.99	4.9
Chlorodifluoromethane	04/05/17	N.D.	ug/m3	0.71	3.5
Chloromethane	04/05/17	N.D.	ug/m3	0.41	2.1
Freon 114	04/05/17	N.D.	ug/m3	1.4	7.0
Vinyl Chloride	04/05/17	N.D.	ug/m3	0.51	2.6
1,3-Butadiene	04/05/17	N.D.	ug/m3	0.88	4.4
Bromomethane	04/05/17	N.D.	ug/m3	1.9	3.9
Chloroethane	04/05/17	N.D.	ug/m3	0.53	2.6
Dichlorofluoromethane	04/05/17	N.D.	ug/m3	0.84	4.2
Trichlorofluoromethane	04/05/17	N.D.	ug/m3	1.1	5.6
Pentane	04/05/17	N.D.	ug/m3	1.5	3.0
1,1-Dichloroethene	04/05/17	N.D.	ug/m3	0.79	4.0
Freon 113	04/05/17	N.D.	ug/m3	3.8	15
Acetone	04/05/17	N.D.	ug/m3	1.2	4.8
Carbon Disulfide	04/05/17	N.D.	ug/m3	1.6	3.1
3-Chloropropene	04/05/17	N.D.	ug/m3	0.63	3.1
Methylene Chloride	04/05/17	N.D.	ug/m3	0.69	3.5
trans-1,2-Dichloroethene	04/05/17	N.D.	ug/m3	0.79	4.0
Methyl t-Butyl Ether	04/05/17	N.D.	ug/m3	0.72	3.6
Hexane	04/05/17	N.D.	ug/m3	0.70	3.5
1,1-Dichloroethane	04/05/17	N.D.	ug/m3	0.81	4.0
cis-1,2-Dichloroethene	04/05/17	N.D.	ug/m3	0.79	4.0
2-Butanone	04/05/17	N.D.	ug/m3	1.5	5.9
Chloroform	04/05/17	N.D.	ug/m3	0.98	4.9
1,1,1-Trichloroethane	04/05/17	N.D.	ug/m3	1.1	5.5
Carbon Tetrachloride	04/05/17	N.D.	ug/m3	1.3	6.3
1,2-Dichloroethane	04/05/17	N.D.	ug/m3	0.81	4.0
Benzene	04/05/17	N.D.	ug/m3	0.64	3.2
Isooctane	04/05/17	N.D.	ug/m3	0.93	4.7
Heptane	04/05/17	N.D.	ug/m3	2.0	4.1
Trichloroethene	04/05/17	N.D.	ug/m3	1.1	5.4
1,2-Dichloropropane	04/05/17	N.D.	ug/m3	0.92	4.6
Dibromomethane	04/05/17	N.D.	ug/m3	1.4	7.1
Bromodichloromethane	04/05/17	N.D.	ug/m3	1.3	6.7
cis-1,3-Dichloropropene	04/05/17	N.D.	ug/m3	0.91	4.5
4-Methyl-2-pentanone	04/05/17	N.D.	ug/m3	2.0	8.2
Toluene	04/05/17	N.D.	ug/m3	0.75	3.8
Octane	04/05/17	N.D.	ug/m3	2.3	4.7
trans-1,3-Dichloropropene	04/05/17	N.D.	ug/m3	0.91	4.5
1,1,2-Trichloroethane	04/05/17	N.D.	ug/m3	1.1	5.5
Tetrachloroethene	04/05/17	N.D.	ug/m3	1.4	6.8
2-Hexanone	04/05/17	N.D.	ug/m3	2.0	8.2
Dibromochloromethane	04/05/17	N.D.	ug/m3	1.7	8.5
1,2-Dibromoethane	04/05/17	N.D.	ug/m3	1.5	7.7
Chlorobenzene	04/05/17	N.D.	ug/m3	0.92	4.6

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Quality Control Summary
Method Blank
Volatiles in Air
SDG: SWL71
Matrix: AIR

Fraction: Volatile Organics in Air by GC/MS

E1709530AA / VBLKE53 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
1,1,1,2-Tetrachloroethane	04/05/17	N.D.	ug/m3	1.4	6.9
Ethylbenzene	04/05/17	N.D.	ug/m3	0.87	4.3
m/p-Xylene	04/05/17	N.D.	ug/m3	0.87	4.3
o-Xylene	04/05/17	N.D.	ug/m3	0.87	4.3
Styrene	04/05/17	N.D.	ug/m3	0.85	4.3
Bromoform	04/05/17	N.D.	ug/m3	2.1	10
Cumene	04/05/17	N.D.	ug/m3	0.98	4.9
1,1,2,2-Tetrachloroethane	04/05/17	N.D.	ug/m3	1.4	6.9
1,2,3-Trichloropropane	04/05/17	N.D.	ug/m3	1.2	6.0
Bromobenzene	04/05/17	N.D.	ug/m3	1.3	6.4
4-Ethyltoluene	04/05/17	N.D.	ug/m3	0.98	4.9
1,3,5-Trimethylbenzene	04/05/17	N.D.	ug/m3	0.98	4.9
1,2,4-Trimethylbenzene	04/05/17	N.D.	ug/m3	0.98	4.9
1,3-Dichlorobenzene	04/05/17	N.D.	ug/m3	1.2	6.0
1,4-Dichlorobenzene	04/05/17	N.D.	ug/m3	1.2	6.0
1,2-Dichlorobenzene	04/05/17	N.D.	ug/m3	1.2	6.0
Hexachloroethane	04/05/17	N.D.	ug/m3	4.8	19

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: SWL71
Matrix: AIR

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

LCS: LCSE53 LCSD: LCSDE53 **Analyte**	Batch: **E1709530AA** (Sample number(s): 8920247-8920250)							
	Spike Added ug/m3	**LCS Conc ug/m3**	**LCSD Conc ug/m3**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	49.45	55.04	56.94	111	115	74-133	3	25
Chlorodifluoromethane	35.37	41.02	41.58	116	118	70-138	1	25
Chloromethane	20.65	21.72	22.39	105	108	65-140	3	25
Freon 114	69.91	77.07	78.34	110	112	66-126	2	25
Vinyl Chloride	25.56	28.53	28.77	112	113	75-130	1	25
1,3-Butadiene	22.12	23.22	23.61	105	107	72-122	2	25
Bromomethane	38.83	46.79	45.76	121	118	71-133	2	25
Chloroethane	26.38	29.35	29.9	111	113	76-129	2	25
Dichlorofluoromethane	42.09	48.01	49.48	114	118	75-137	3	25
Trichlorofluoromethane	56.18	62.86	63.73	112	113	73-132	1	25
Pentane	29.51	30.91	31.68	105	107	69-125	2	25
1,1-Dichloroethene	39.65	44.58	45.09	112	114	70-129	1	25
Freon 113	76.64	82.87	83.18	108	109	66-119	0	25
Acetone	23.76	27.64	27.96	116	118	71-136	1	25
Carbon Disulfide	31.14	33.49	33.22	108	107	72-128	1	25
3-Chloropropene	31.3	41.16	41.15	132	131	67-141	0	25
Methylene Chloride	34.74	42.58	43.29	123	125	69-128	2	25
trans-1,2-Dichloroethene	39.65	43.03	44.33	109	112	77-128	3	25
Methyl t-Butyl Ether	36.05	38.75	39.23	107	109	71-119	1	25
Hexane	35.25	37.23	38.49	106	109	70-118	3	25
1,1-Dichloroethane	40.47	44.55	45.01	110	111	74-129	1	25
cis-1,2-Dichloroethene	39.65	43.82	44	111	111	76-126	0	25
2-Butanone	29.49	32.53	33.71	110	114	75-126	4	25
Chloroform	48.83	53.85	54.54	110	112	75-127	1	25
1,1,1-Trichloroethane	54.56	60.79	61.38	111	113	74-122	1	25
Carbon Tetrachloride	62.91	70.18	71.87	112	114	72-127	2	25
1,2-Dichloroethane	40.47	45.94	46.2	114	114	72-138	1	25
Benzene	31.95	34.26	34.47	107	108	76-123	1	25
Isooctane	46.72	49.91	50.06	107	107	74-127	0	25
Heptane	40.98	44.67	44.15	109	108	74-122	1	25
Trichloroethene	53.74	61.3	61.2	114	114	76-118	0	25
1,2-Dichloropropane	46.21	48.94	49.34	106	107	75-127	1	25
Dibromomethane	71.1	78.47	79.11	110	111	76-124	1	25
Bromodichloromethane	67.01	74.3	73.2	111	109	75-134	1	25
cis-1,3-Dichloropropene	45.39	49.1	49.07	108	108	51-120	0	25
4-Methyl-2-pentanone	40.96	44.63	45.68	109	112	68-133	2	25
Toluene	37.68	40.2	40.94	107	109	78-119	2	25
Octane	46.72	48.78	50	104	107	73-122	2	25
trans-1,3-Dichloropropene	45.39	49.17	50.26	108	111	72-119	2	25
1,1,2-Trichloroethane	54.56	58.03	59.56	106	109	76-127	3	25
Tetrachloroethene	67.82	72.61	74.61	107	110	68-123	3	25
2-Hexanone	40.96	43.89	45.34	107	111	63-144	3	25

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: SWL71
Matrix: AIR

Volatiles in Air

Fraction: Volatile Organics in Air by GC/MS

LCS: LCSE53 LCSD: LCSDE53 **Analyte**	Batch: **E1709530AA** (Sample number(s): 8920247-8920250)							
	Spike Added ug/m3	**LCS Conc ug/m3**	**LCSD Conc ug/m3**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dibromochloromethane	85.19	93.54	94.74	110	111	74-131	1	25
1,2-Dibromoethane	76.83	81.76	83.14	106	108	73-121	2	25
Chlorobenzene	46.04	46.99	48.06	102	104	76-117	2	25
1,1,1,2-Tetrachloroethane	68.65	74.8	75.98	109	111	73-124	2	25
Ethylbenzene	43.42	46.72	47.76	108	110	77-117	2	25
m/p-Xylene	43.42	48.59	49.52	112	114	78-119	2	25
o-Xylene	43.42	47.68	48.51	110	112	78-121	2	25
Styrene	42.6	46.36	46.96	109	110	76-127	1	25
Bromoform	103.37	113.06	114.89	109	111	69-128	2	25
Cumene	49.16	51.76	52.92	105	108	74-121	2	25
1,1,2,2-Tetrachloroethane	68.65	68	69.97	99	102	72-133	3	25
1,2,3-Trichloropropane	60.3	62.23	65.25	103	108	71-127	5	25
Bromobenzene	64.22	65.9	66.81	103	104	74-118	1	25
4-Ethyltoluene	49.16	51.38	53.14	105	108	73-130	3	25
1,3,5-Trimethylbenzene	49.16	50.93	50.17	104	102	72-130	2	25
1,2,4-Trimethylbenzene	49.16	52.24	53.49	106	109	70-138	2	25
1,3-Dichlorobenzene	60.12	62.49	64.96	104	108	75-129	4	25
1,4-Dichlorobenzene	60.12	63.55	64.36	106	107	74-123	1	25
1,2-Dichlorobenzene	60.12	63.15	64.85	105	108	71-126	3	25
Hexachloroethane	96.83	116.14	118.23	120	122	59-135	2	25

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

SDG No.:

Lab File ID: ec00840.d

BFB Injection Date: 03/30/2017

Instrument ID: 22820

BFB Injection Time: 16:00

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	13.11
75	30.0% - 66.0% of mass 95	41.74
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.82
173	< 2.0% of mass 174	0.57 (0.56)
174	> 50.0% of mass 95	102.47
175	4.0% - 9.0% of mass 174	7.42 (7.24)
176	93.0% - 101.0% of mass 174	100.52 (98.10)
177	5.0% - 9.0% of mass 176	6.66 (6.63)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	ec00847.d	03/30/2017	19:49
VSTD002	ec00848.d	03/30/2017	20:15
VSTD005	ec00849.d	03/30/2017	20:42
VSTD010	ec00850.d	03/30/2017	21:16
VSTD025	ec00851.d	03/30/2017	21:43
VSTD070	ec00852.d	03/30/2017	22:21
VBLKE48	ec00857.d	03/31/2017	01:10
LCSE48	ec00860.d	03/31/2017	02:51
LCSDE48	ec00861.d	03/31/2017	03:25
mdlv0.5	ec00862.d	03/31/2017	03:59
mdlv0.2	ec00863.d	03/31/2017	04:26
cc927	ec00864.d	03/31/2017	09:15
8896789DL	ec00866.d	03/31/2017	10:57
8896790DL	ec00867.d	03/31/2017	11:22
8896791DL	ec00868.d	03/31/2017	11:48
8902732	ec00869.d	03/31/2017	12:32
8902733	ec00870.d	03/31/2017	13:16
8902733	ec00871.d	03/31/2017	14:00

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

SDG No.:

Lab File ID: ed00050.d

BFB Injection Date: 04/05/2017

Instrument ID: 22820

BFB Injection Time: 11:14

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	14.44
75	30.0% - 66.0% of mass 95	42.94
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.78
173	< 2.0% of mass 174	0.62 (0.62)
174	> 50.0% of mass 95	100.95
175	4.0% - 9.0% of mass 174	7.12 (7.06)
176	93.0% - 101.0% of mass 174	97.51 (96.59)
177	5.0% - 9.0% of mass 176	6.35 (6.52)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	ed00051.d	04/05/2017	12:02
VBLKE53	ed00053.d	04/05/2017	14:12
LCSE53	ed00054.d	04/05/2017	14:56
LCSDE53	ed00055.d	04/05/2017	15:30
8920247	ed00059.d	04/05/2017	18:01
8920248	ed00060.d	04/05/2017	18:45
8920249	ed00061.d	04/05/2017	19:29
8920248DL	ed00062.d	04/05/2017	20:08
8920249DL	ed00063.d	04/05/2017	20:34
8920250	ed00064.d	04/05/2017	21:18
8920250	ed00065.d	04/05/2017	22:01
8920250DL	ed00066.d	04/05/2017	22:27

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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: 04/05/2017

Lab File ID: ed00051.d Analyzed Time: 12:02

Instrument ID: 22820

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	R.T.	Area	R.T.	Area	R.T.
24 HOUR STANDARD	226272	5.47	834510	6.30	830573	8.50
UPPER LIMIT	316781	5.80	1168314	6.63	1162802	8.83
LOWER LIMIT	135763	5.14	500706	5.97	498344	8.17
LAB SAMPLE ID						
VBLKE53	226153	5.47	840733	6.30	825407	8.50
LCSE53	225456	5.47	843221	6.30	836421	8.50
LCSDE53	220130	5.47	833240	6.30	816889	8.50
8920247	206183	5.47	816753	6.30	799812	8.50
8920248	203374	5.47	826711	6.30	870624	8.50
8920249	216598	5.47	897933	6.30	893746	8.50
8920248DL	244839	5.47	898023	6.29	887259	8.50
8920249DL	236671	5.47	893131	6.30	868103	8.50
8920250	211523	5.47	861652	6.30	889045	8.50
8920250	231037	5.47	923754	6.30	932120	8.50
8920250DL	252067	5.47	951541	6.29	933242	8.50

* = 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.

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FORM 09
VOLATILE ORGANICS IN AIR
DUPLICATE SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 Method: EPA TO-15

Batch: E1709530A

BKG Lab Sample ID(s): 8920250 BKG Injected: 04/05/2017

DUP Lab Sample ID(s): 8920250 DUP Injected: 04/05/2017

BKG File ID(s): ed00064.d

DUP File ID(s): ed00065.d

Concentration Units: ppb(v) Limt: MDL

COMPOUND	BKG CONC.	Q	DUP CONC.	Q	RPD	RPD MAX	IN SPEC
Dichlorodifluoromethane	0.51	J	0.48	J	6	25	YES
Chlorodifluoromethane	0.20	U	0.20	U		25	YES
Freon 114	0.20	U	0.20	U		25	YES
Chloromethane	0.20	U	0.20	U		25	YES
Vinyl Chloride	2.3		2.2		4	25	YES
1,3-Butadiene	0.40	U	0.40	U		25	YES
Bromomethane	0.20	U	0.20	U		25	YES
Chloroethane	0.20	U	0.20	U		25	YES
Dichlorofluoromethane	0.20	U	0.20	U		25	YES
Trichlorofluoromethane	0.20	U	0.20	U		25	YES
Pentane	4.3		4.0		7	25	YES
1,1-Dichloroethene	0.20	U	0.20	U		25	YES
Freon 113	0.50	U	0.50	U		25	YES
Acetone	9.7		9.1		6	25	YES
Carbon Disulfide	5.5		5.4		2	25	YES
3-Chloropropene	0.20	U	0.20	U		25	YES
Methylene Chloride	1.1		1.0	J	10	25	YES
trans-1,2-Dichloroethene	6.1		5.7		7	25	YES
Methyl t-Butyl Ether	0.20	U	0.20	U		25	YES
Hexane	15		14		7	25	YES
1,1-Dichloroethane	0.20	U	0.20	U		25	YES
cis-1,2-Dichloroethene	16		15		6	25	YES
2-Butanone	18		17		6	25	YES
Chloroform	0.99	J	0.95	J	4	25	YES
1,1,1-Trichloroethane	0.20	U	0.20	U		25	YES
Carbon Tetrachloride	0.20	U	0.20	U		25	YES
Benzene	11		11		0	25	YES

COMMENTS:

Abbreviations:
BKG = Background sample
DUP = Duplicate sample
D = Analysis of diluted sample.
U = The compound is less than the limit being reported
J = The result is between the MDL and LOQ

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FORM 09
VOLATILE ORGANICS IN AIR
DUPLICATE SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 Method: EPA TO-15

Batch: E1709530A

BKG Lab Sample ID(s): 8920250 BKG Injected: 04/05/2017

DUP Lab Sample ID(s): 8920250 DUP Injected: 04/05/2017

BKG File ID(s): ed00064.d

DUP File ID(s): ed00065.d

Concentration Units: ppb(v) Limt: MDL

COMPOUND	BKG CONC.	Q	DUP CONC.	Q	RPD	RPD MAX	IN SPEC
1,2-Dichloroethane	93		88		6	25	YES
Isooctane	20		20		0	25	YES
Heptane	8.7		8.5		2	25	YES
Trichloroethene	1.4		1.4		0	25	YES
1,2-Dichloropropane	0.20	U	0.20	U		25	YES
Dibromomethane	0.20	U	0.20	U		25	YES
Bromodichloromethane	0.20	U	0.20	U		25	YES
cis-1,3-Dichloropropene	0.20	U	0.20	U		25	YES
4-Methyl-2-Pentanone	0.50	U	0.50	U		25	YES
Toluene	110		110		0	25	YES
Octane	6.2		6.0		3	25	YES
trans-1,3-Dichloropropene	0.20	U	0.20	U		25	YES
1,1,2-Trichloroethane	0.20	U	0.20	U		25	YES
Tetrachloroethene	2.8		2.8		0	25	YES
2-Hexanone	0.50	U	0.50	U		25	YES
Dibromochloromethane	0.20	U	0.20	U		25	YES
1,2-Dibromoethane	0.20	U	0.20	U		25	YES
Chlorobenzene	0.20	U	0.20	U		25	YES
1,1,1,2-Tetrachloroethane	0.20	U	0.20	U		25	YES
Ethylbenzene	110		100		10	25	YES
m/p-Xylene	140		130		7	25	YES
o-Xylene	19		19		0	25	YES
Styrene	0.20	U	0.20	U		25	YES
Bromoform	0.20	U	0.20	U		25	YES
Cumene	1.5		1.5		0	25	YES
Bromobenzene	0.20	U	0.20	U		25	YES
1,1,2,2-Tetrachloroethane	0.20	U	0.20	U		25	YES

COMMENTS:

Abbreviations:
BKG = Background sample
DUP = Duplicate sample
D = Analysis of diluted sample.
U = The compound is less than the limit being reported
J = The result is between the MDL and LOQ

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FORM 09
VOLATILE ORGANICS IN AIR
DUPLICATE SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 Method: EPA TO-15

Batch: E1709530A

BKG Lab Sample ID(s): 8920250 BKG Injected: 04/05/2017

DUP Lab Sample ID(s): 8920250 DUP Injected: 04/05/2017

BKG File ID(s): ed00064.d

DUP File ID(s): ed00065.d

Concentration Units: ppb(v) Limt: MDL

COMPOUND	BKG CONC.	Q	DUP CONC.	Q	RPD	RPD MAX	IN SPEC
1,2,3-Trichloropropane	0.20	U	0.20	U		25	YES
4-Ethyltoluene	1.7		1.7		0	25	YES
1,3,5-Trimethylbenzene	2.4		2.4		0	25	YES
1,2,4-Trimethylbenzene	6.7		6.7		0	25	YES
1,3-Dichlorobenzene	0.21	J	0.21	J	0	25	YES
1,4-Dichlorobenzene	0.20	U	0.20	U		25	YES
1,2-Dichlorobenzene	0.20	U	0.20	U		25	YES
Hexachloroethane	0.20	U	0.20	U		25	YES

COMMENTS:

Abbreviations:
BKG = Background sample
DUP = Duplicate sample
D = Analysis of diluted sample.
U = The compound is less than the limit being reported
J = The result is between the MDL and LOQ

Sample Data

Volatile Organics in Air by GC/MS

S7101

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

8920247

Data file: /chem/HP22820.i/17apr05.b/ed00059.d
Injection date and time: **05-APR-2017 18:01**
Data file Sample Info. Line: 8920247;400;E1709530AA;S7101;0;0;SAMPLE;
Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.4 psia Canister Pressure before dilution (Ya): 13.7 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
40) Bromochloromethane	5.474(0.000)	752	130	206183 (-9)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	816753 (-2)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	799812 (-4)	10.00		498344 - 1162802

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)	1.649(-0.001)	85	29987	0.578	0.58		J	0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)	2.774(-0.001)	101	12148	0.217	0.22		J	0.2	1
13) Pentane	(1)	2.867(0.000)	43	18501	0.633	0.63		J	0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.540(-0.002)	43	122524	5.233	5.23			0.5	2
21) Carbon Disulfide	(1)			Not Detected					0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
28) trans-1,2-Dichloroethene	(1)			Not Detected					0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.557(0.000)	57	7900M	0.260	0.26		J	0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.000)	61	7920	0.297	0.30		J	0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	136122M	12.701	12.70			0.5	2
42) Chloroform	(1)	5.539(-0.000)	83	42394	0.913	0.91		J	0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(0.000)	78	93308	1.231	1.23			0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)	6.040(0.000)	57	366744	3.518	3.52			0.2	1
50) Heptane	(2)			Not Detected					0.2	1
52) Trichloroethene	(2)	6.491(-0.000)	130	62039	1.589	1.59			0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.466(0.000)	91	281572	2.916	2.92			0.2	1
62) Octane	(3)	7.523(-0.000)	43	26595	0.561	0.56		J	0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	583793	10.272	10.27			0.2	1
68) 2-Hexanone	(3)	7.945(0.000)	43	60047	1.477	1.48		J	0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33. Target 3.5 esignature user ID: jeb07445

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

Data file: /chem/HP22820.i/17apr05.b/ed00059.d Injection date and time: **05-APR-2017 18:01**
Data file Sample Info. Line: 8920247;400;E1709530AA;S7101;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.4 psia Canister Pressure before dilution (Ya): 13.7 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
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	139988	1.132	1.13			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	456667	4.674	4.67			0.2	1
76) o-Xylene	(3)	8.970(0.000)	91	171227	1.808	1.81			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)	9.242(-0.000)	105	34756	0.261	0.26		J	0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)	9.622(0.000)	105	169070M	1.285	1.28			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	139255M	1.273	1.27			0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	466100M	4.505	4.51			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.195(-0.000)	146	17420	0.223	0.22		J	0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Total number of targets = 62

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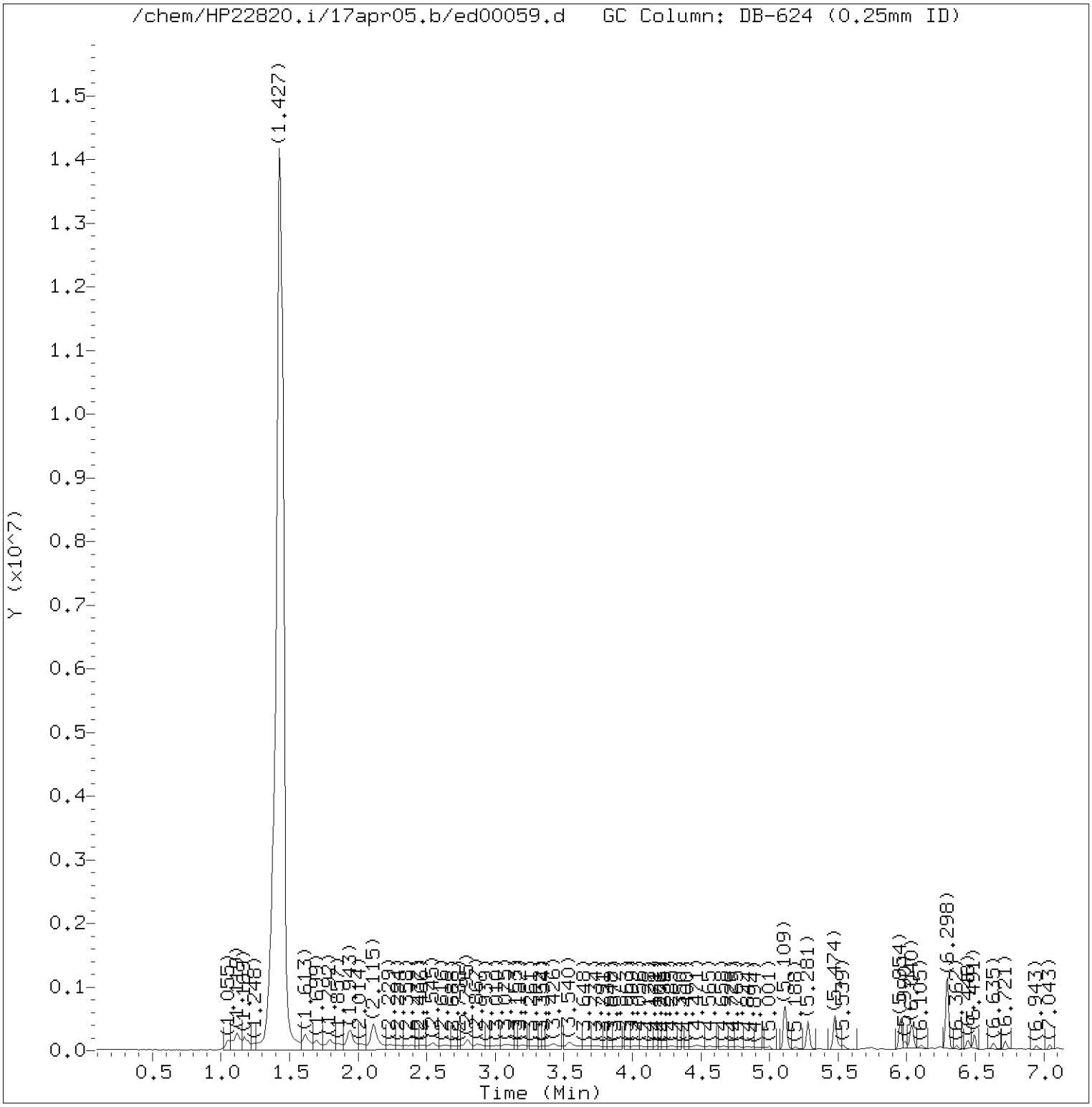
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

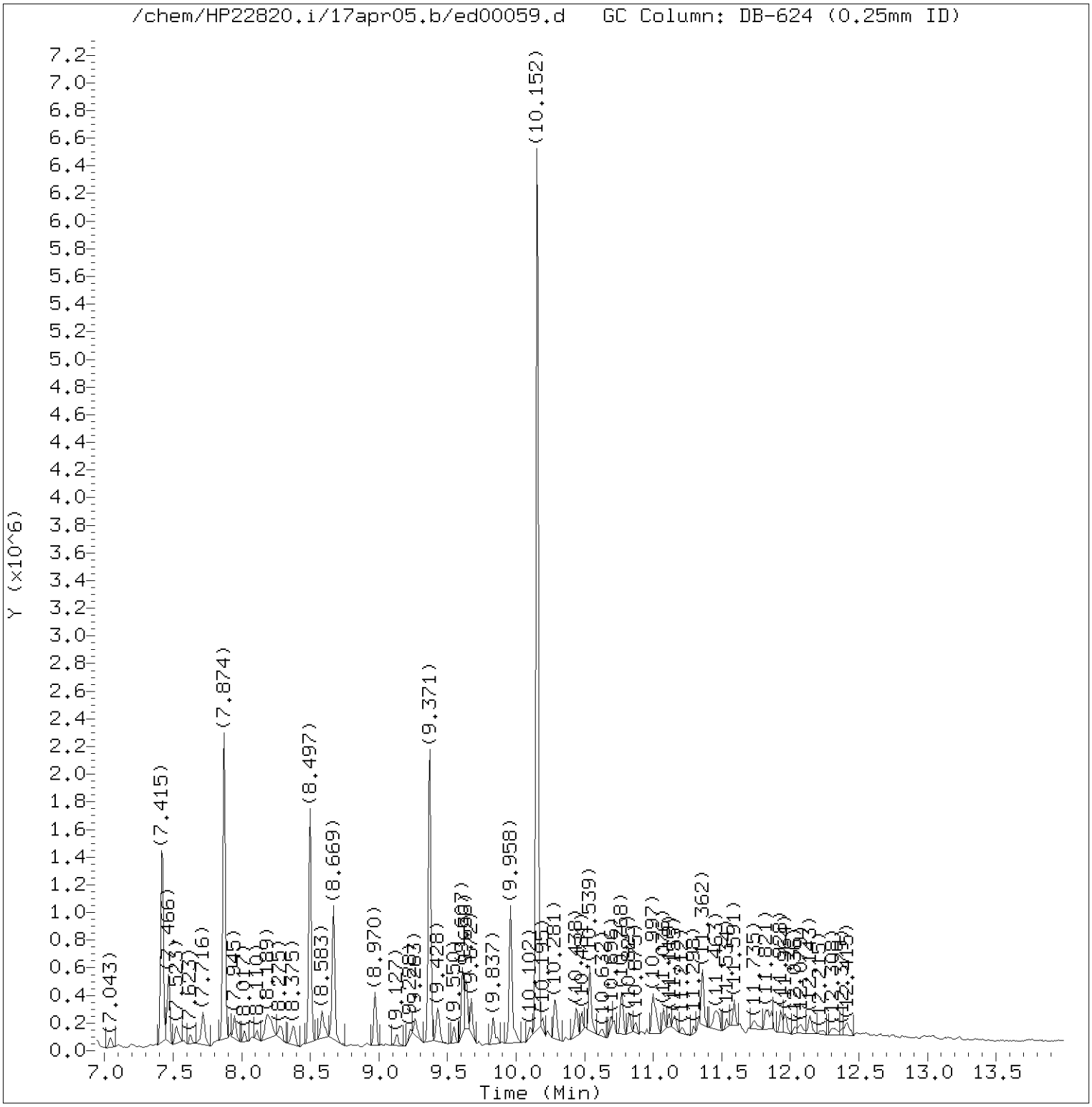
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	1.649	85	29987	0.578
12) Trichlorofluoromethane	(1)	2.774	101	12148	0.217
13) Pentane	(1)	2.867	43	18501	0.633
19) Acetone	(1)	3.540	43	122524	5.233
30) Hexane	(1)	4.557	57	7900M	0.260
35) cis-1,2-Dichloroethene	(1)	5.259	61	7920	0.297
37) 2-Butanone	(1)	5.281	72	136122M	12.701
40)*Bromochloromethane	(1)	5.474	130	206183	10.000
42) Chloroform	(1)	5.539	83	42394	0.913
46) Benzene	(2)	5.990	78	93308	1.231
48) Isooctane	(2)	6.040	57	366744	3.518
51)*1,4-Difluorobenzene	(2)	6.298	114	816753	10.000
52) Trichloroethene	(2)	6.491	130	62039	1.589
61) Toluene	(3)	7.466	91	281572	2.916
62) Octane	(3)	7.523	43	26595	0.561
67) Tetrachloroethene	(3)	7.874	166	583793	10.272
68) 2-Hexanone	(3)	7.945	43	60047	1.477
71)*Chlorobenzene-d5	(3)	8.497	117	799812	10.000
74) Ethylbenzene	(3)	8.583	91	139988	1.132
75) m/p-Xylene	(3)	8.669	91	456667	4.674
76) o-Xylene	(3)	8.970	91	171227	1.808
80) Cumene	(3)	9.242	105	34756	0.261
86) 4-Ethyltoluene	(3)	9.622	105	169070M	1.285
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	139255M	1.273
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	466100M	4.505
92) 1,3-Dichlorobenzene	(3)	10.195	146	17420	0.223

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

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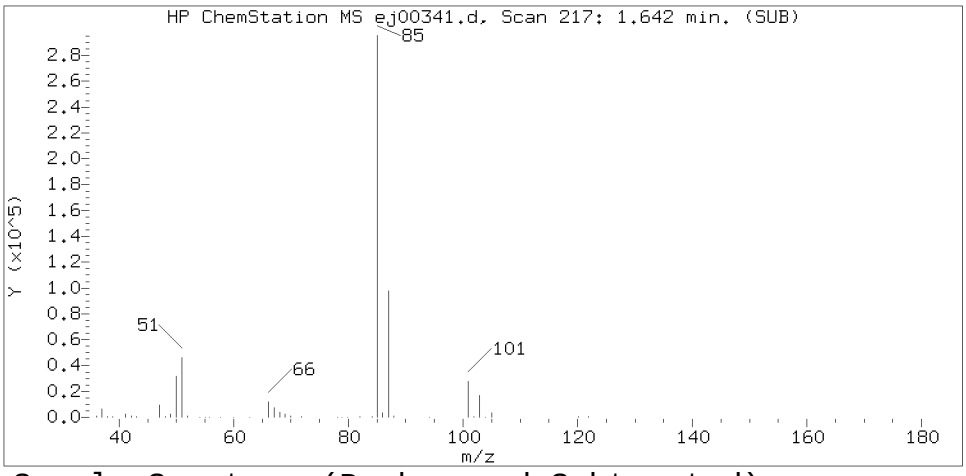
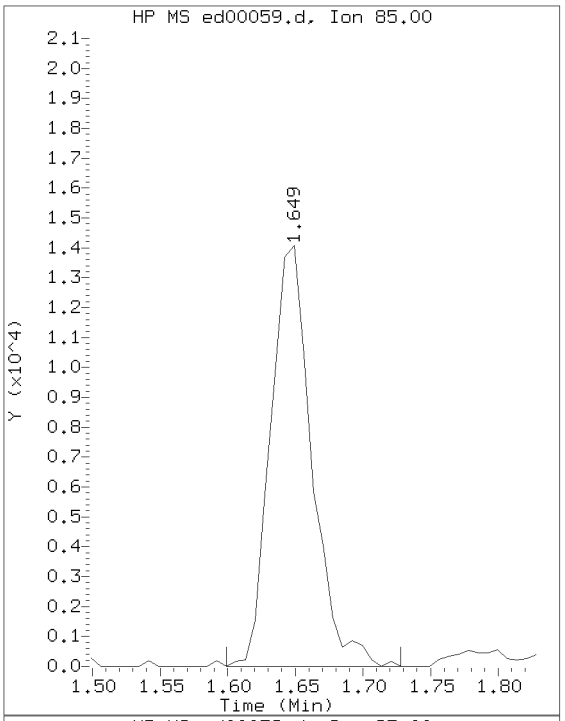
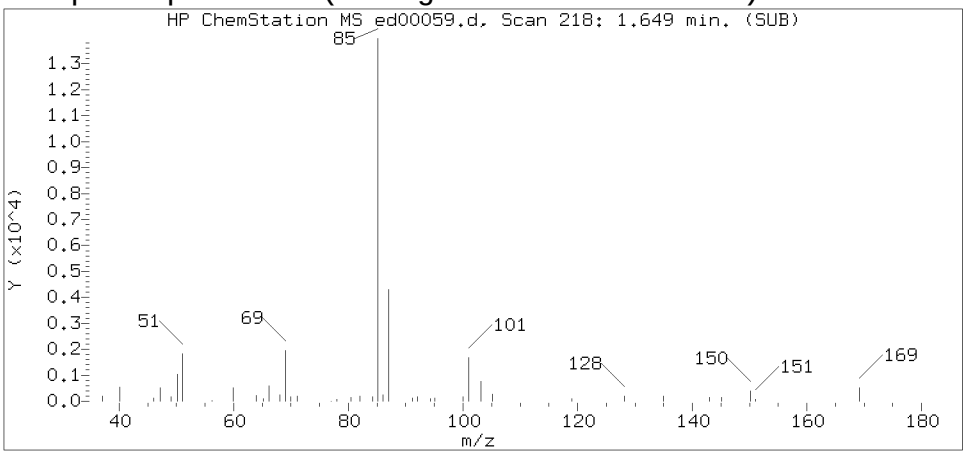
on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

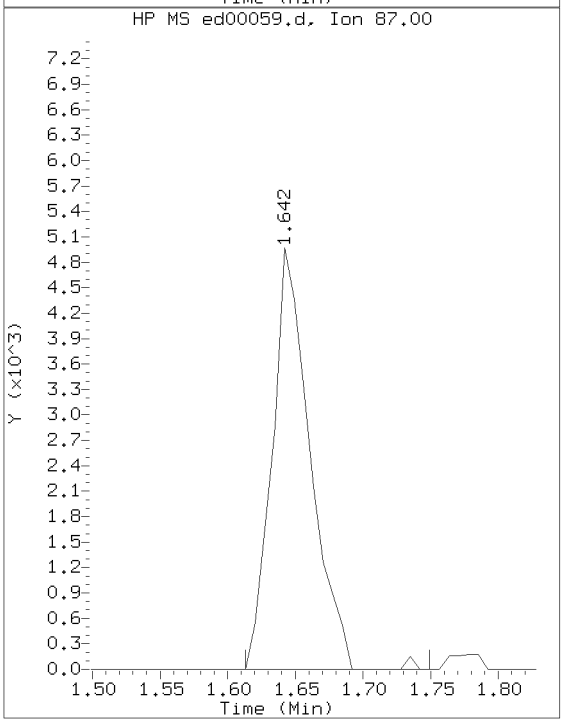
Reference Standard Spectrum for Dichlorodifluoromethane



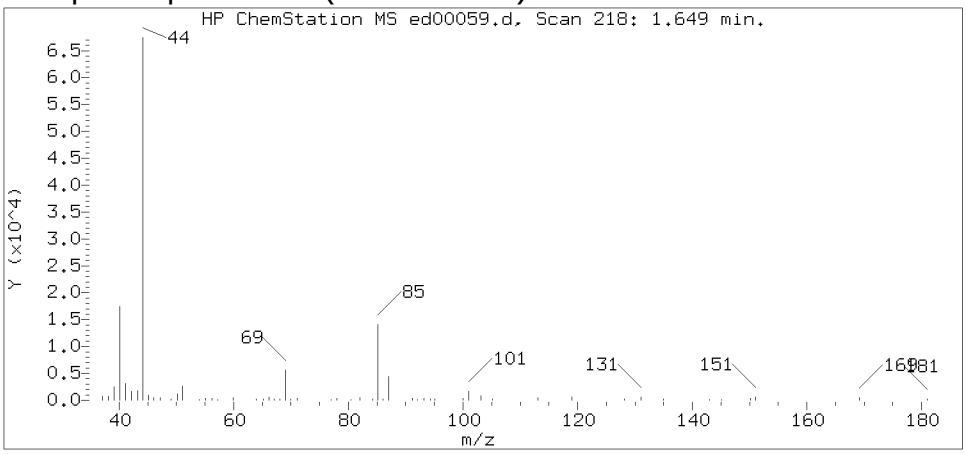


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 218
Retention Time (minutes): 1.649
Relative Retention Time :-0.00129
Quant Ion : 85.00
Area (flag) : 29987
Concentration (ppb(v)) : 0.5776

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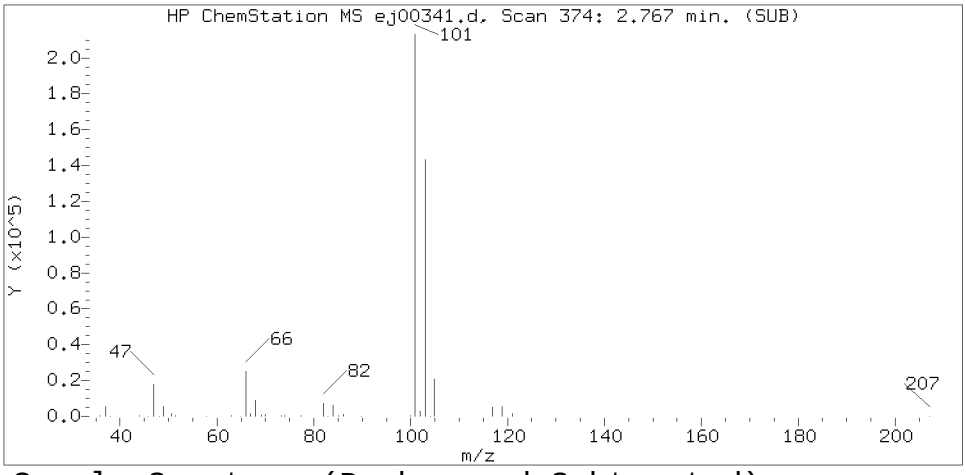
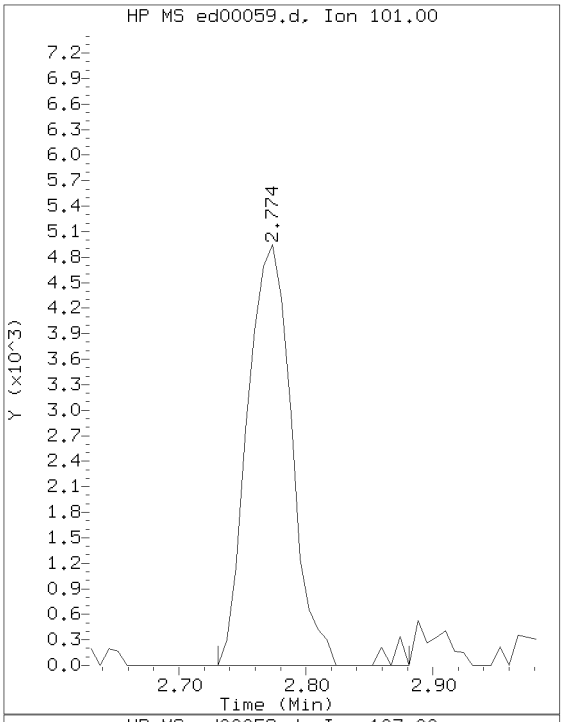
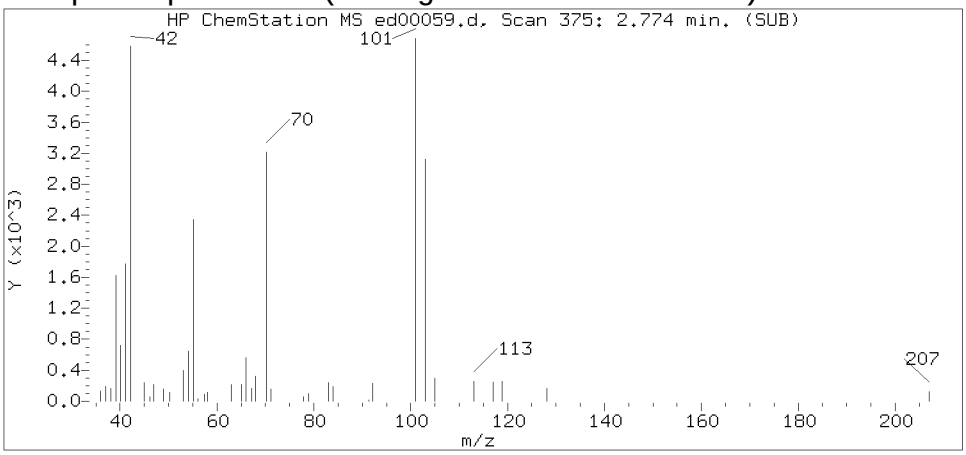
Target 3.5 esignature user ID: jeb07445

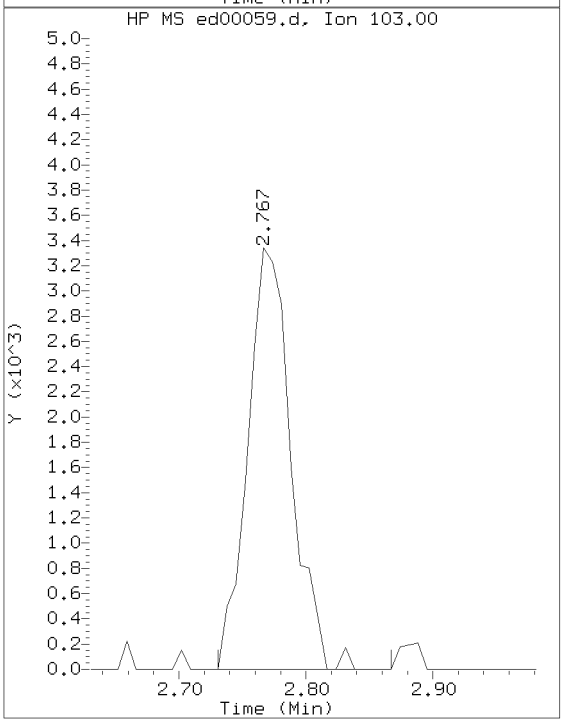
Reference Standard Spectrum for Trichlorofluoromethane



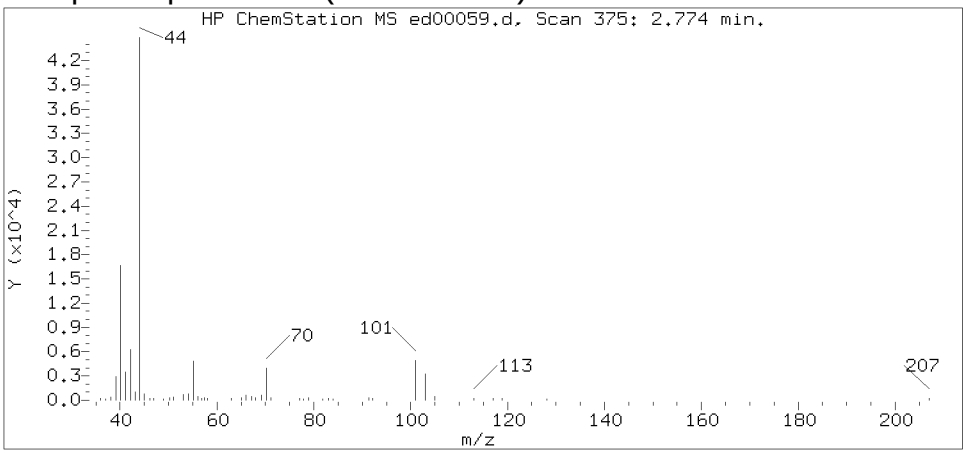


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 375
Retention Time (minutes): 2.774
Relative Retention Time :-0.00129
Quant Ion : 101.00
Area (flag) : 12148
Concentration (ppb(v)) : 0.2175

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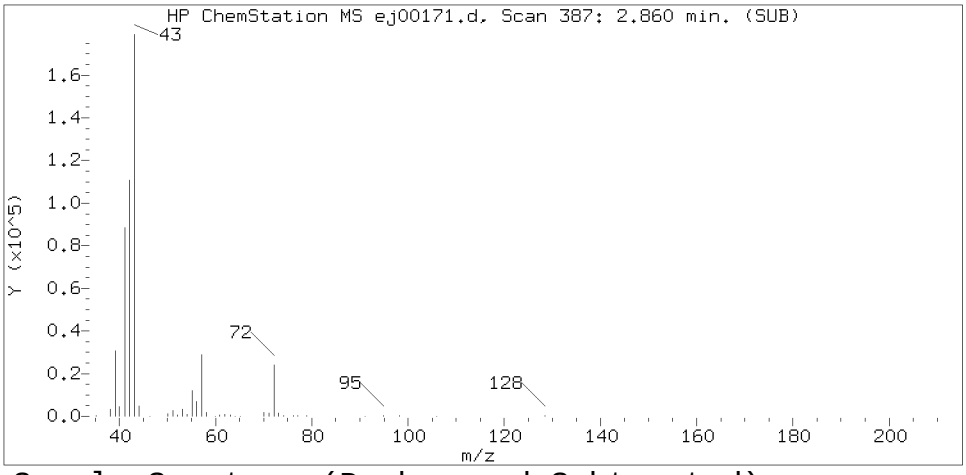
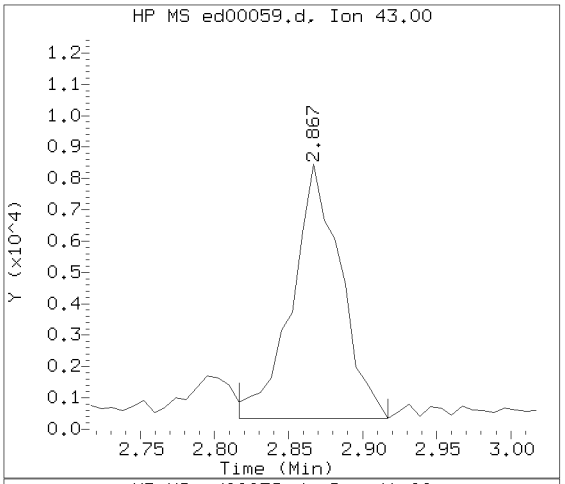
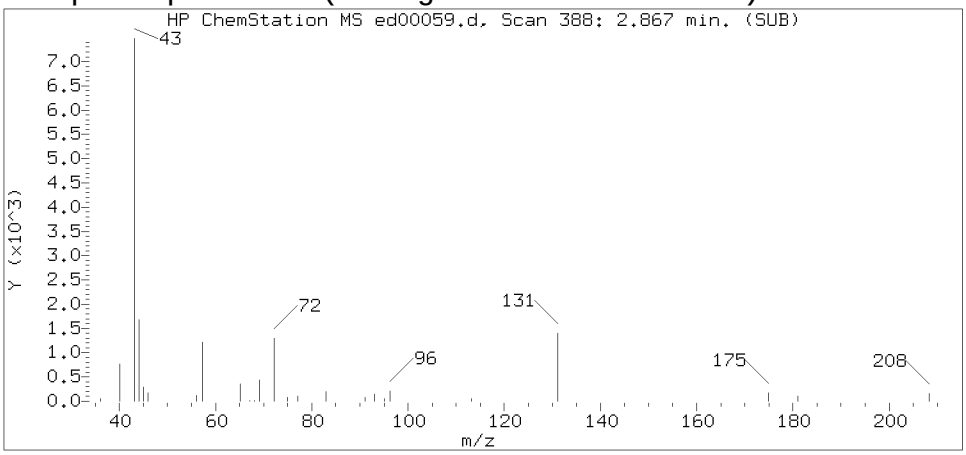
Target 3.5 esignature user ID: jeb07445

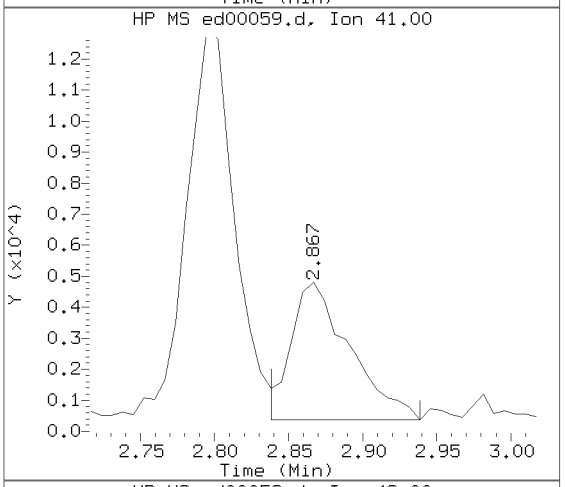
Reference Standard Spectrum for Pentane



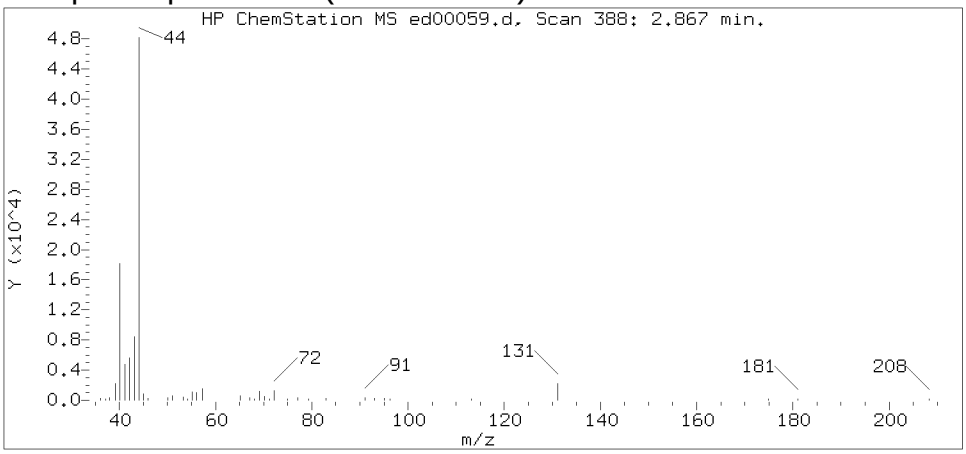


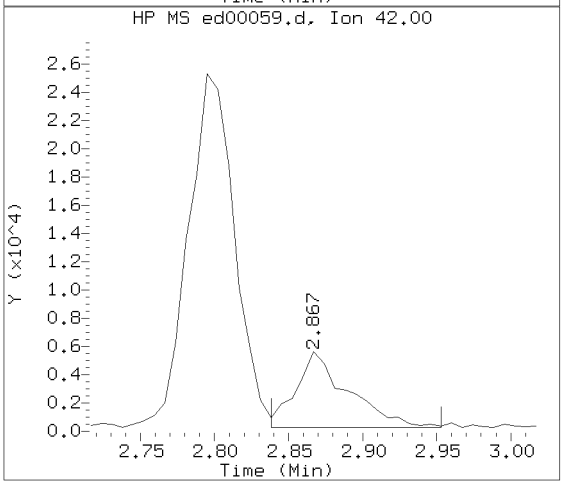
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

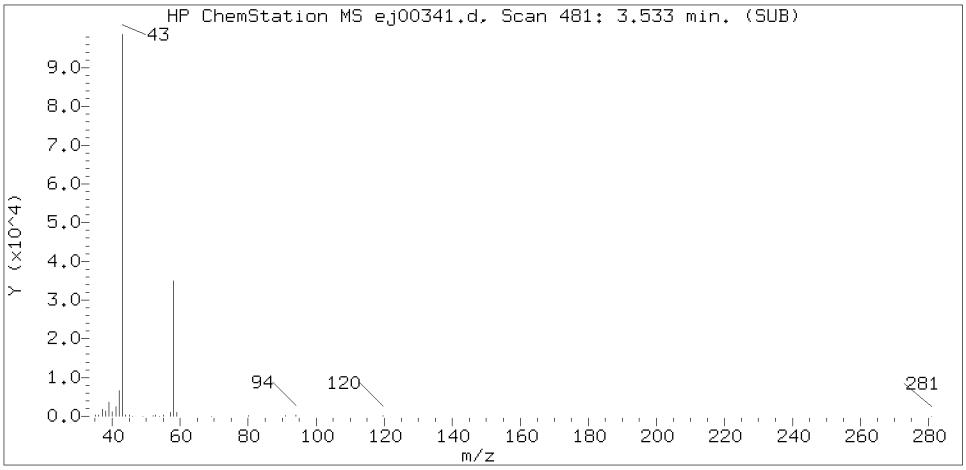
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

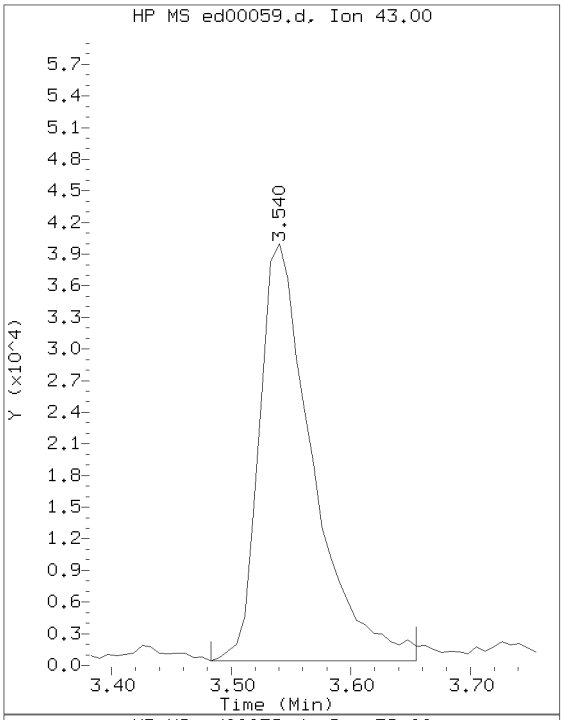
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 13
Compound Name : Pentane
Scan Number : 388
Retention Time (minutes): 2.867
Relative Retention Time : 0.00002
Quant Ion : 43.00
Area (flag) : 18501
Concentration (ppb(v)) : 0.6333

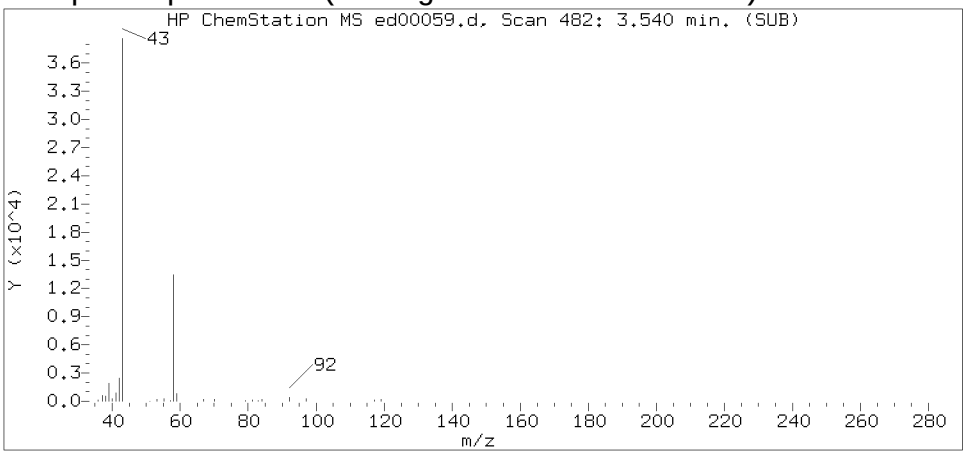
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

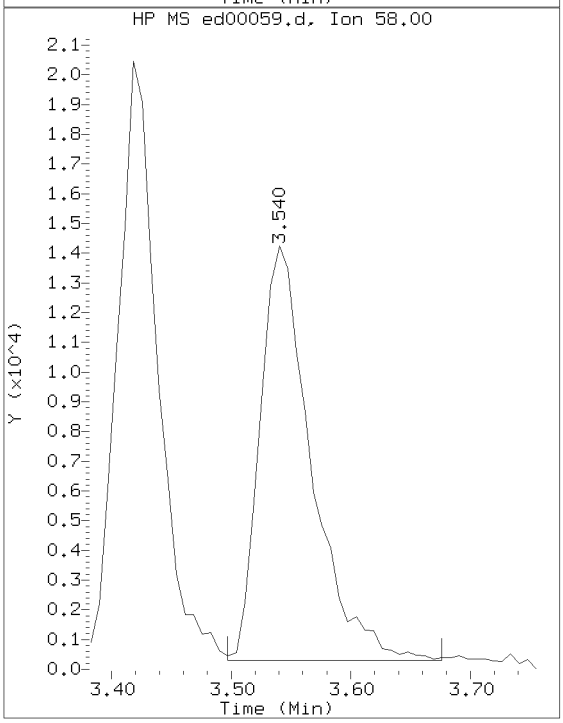
Reference Standard Spectrum for Acetone



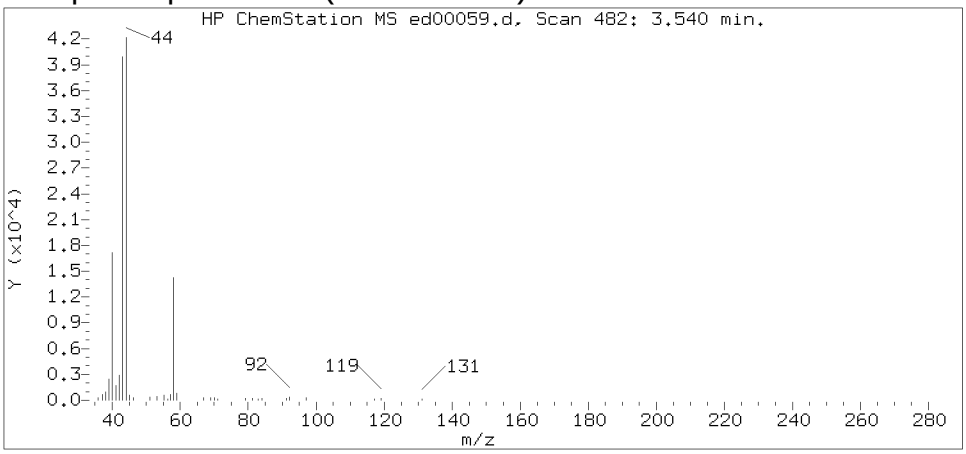


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

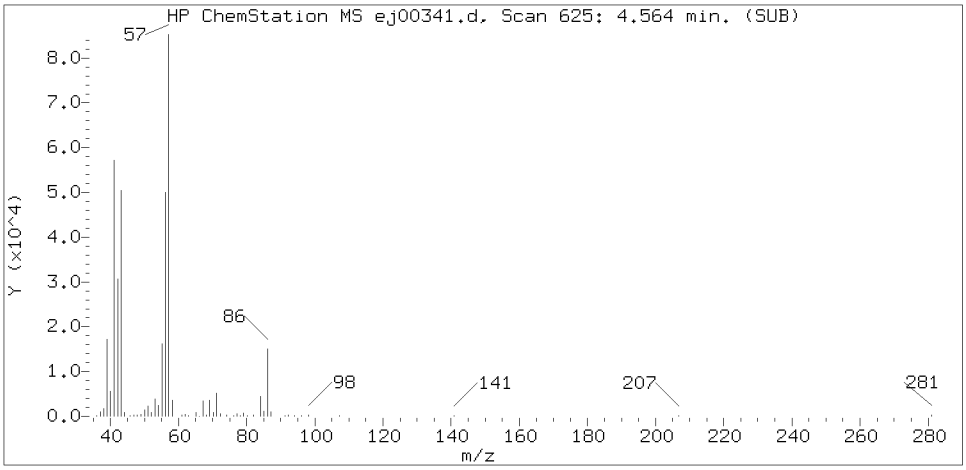
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

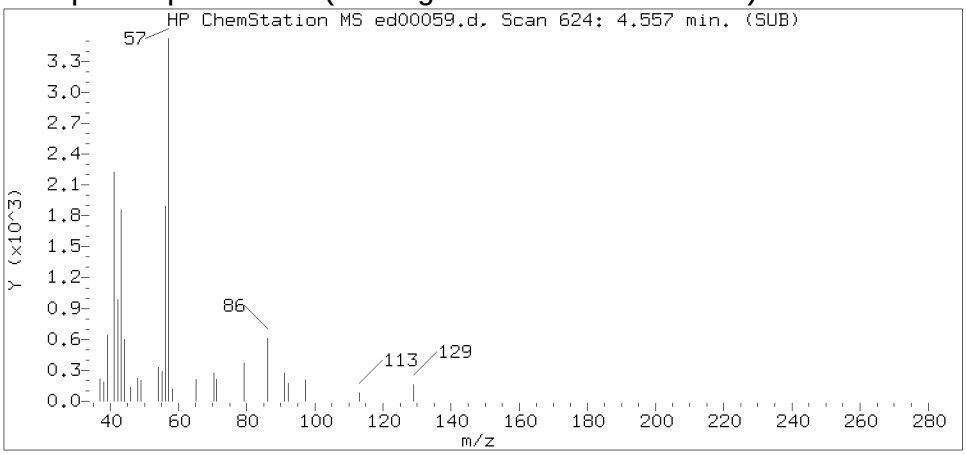
Compound Number : 19
Compound Name : Acetone
Scan Number : 482
Retention Time (minutes): 3.540
Relative Retention Time :-0.00260
Quant Ion : 43.00
Area (flag) : 122524
Concentration (ppb(v)) : 5.2332

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

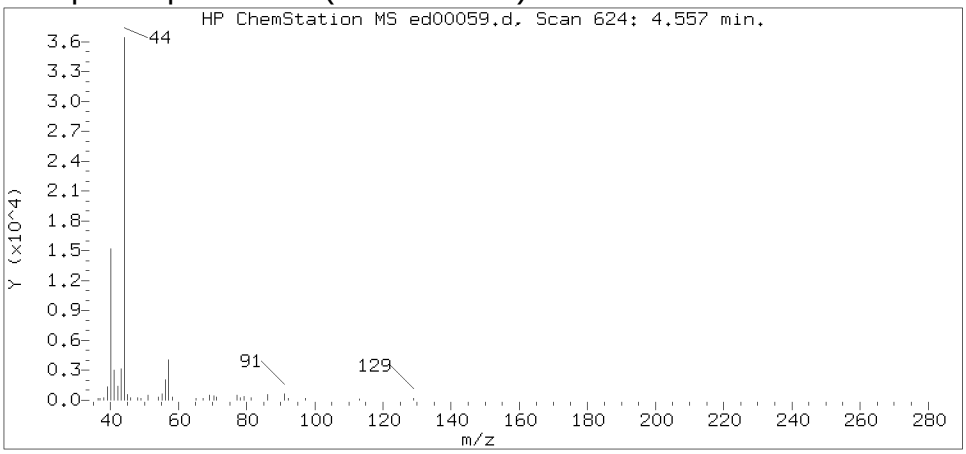
Reference Standard Spectrum for Hexane

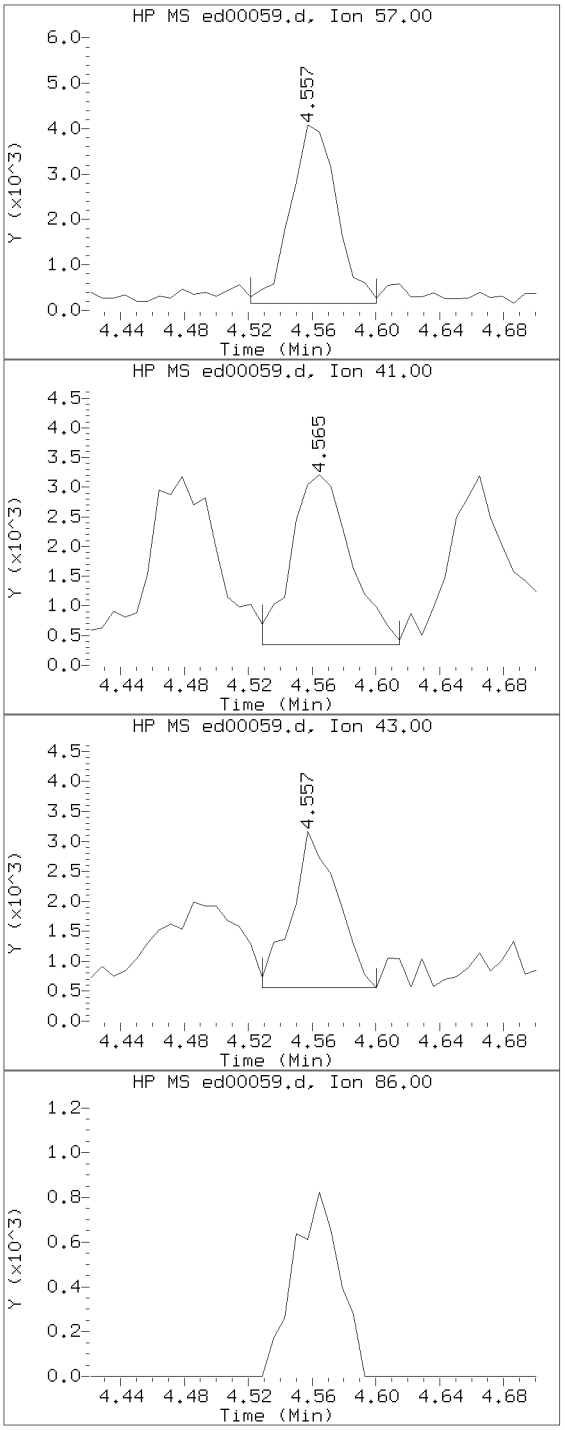


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

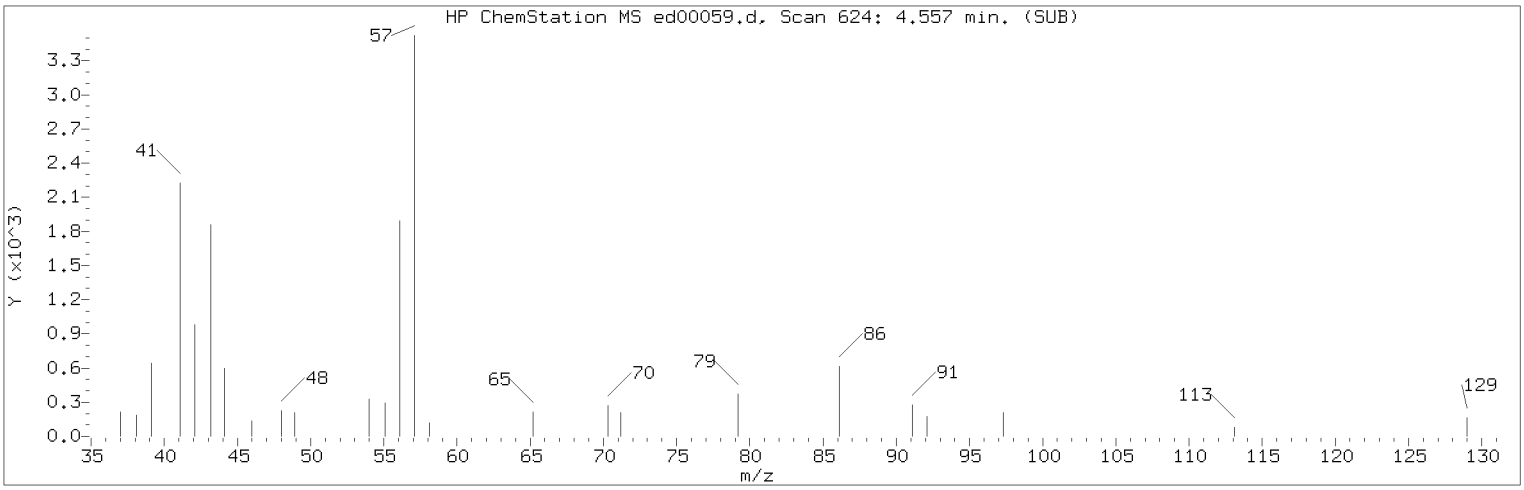
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

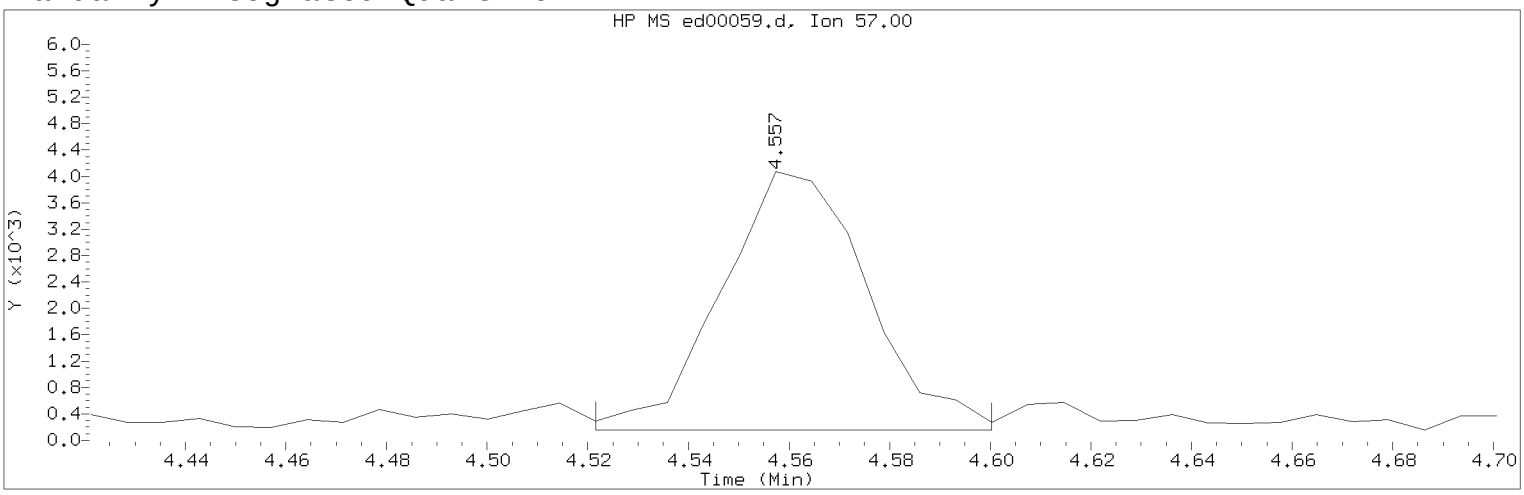
Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Relative Retention Time : 0.00001
Quant Ion : 57.00
Area (flag) : 7900M
Concentration (ppb(v)) : 0.2605

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

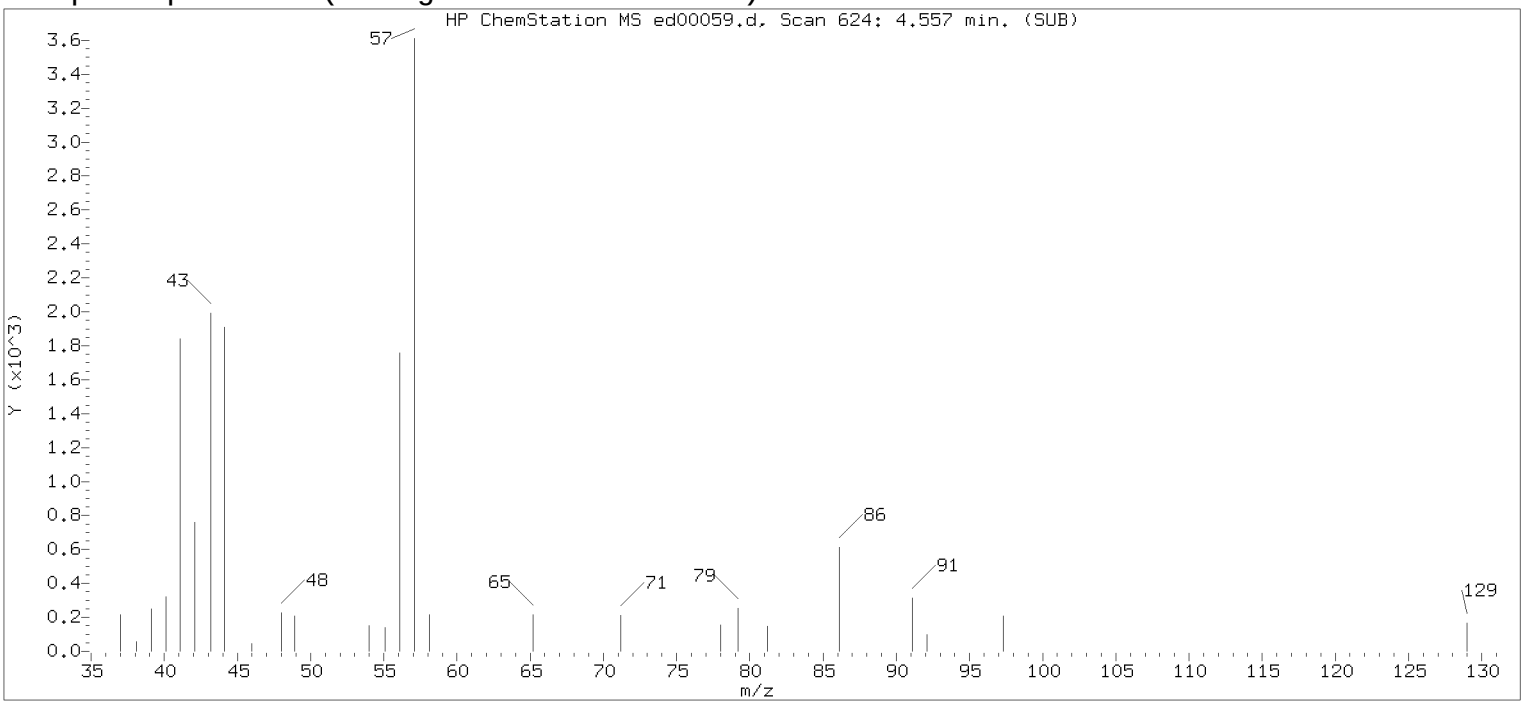
Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Quant Ion : 57.00
Area (flag) : 7900M
Concentration (ppb(v)) : 0.2605
Integration start scan : 618 Integration stop scan: 629
Y at integration start : 160 Y at integration end: 160

Reason for manual integration: improper integration

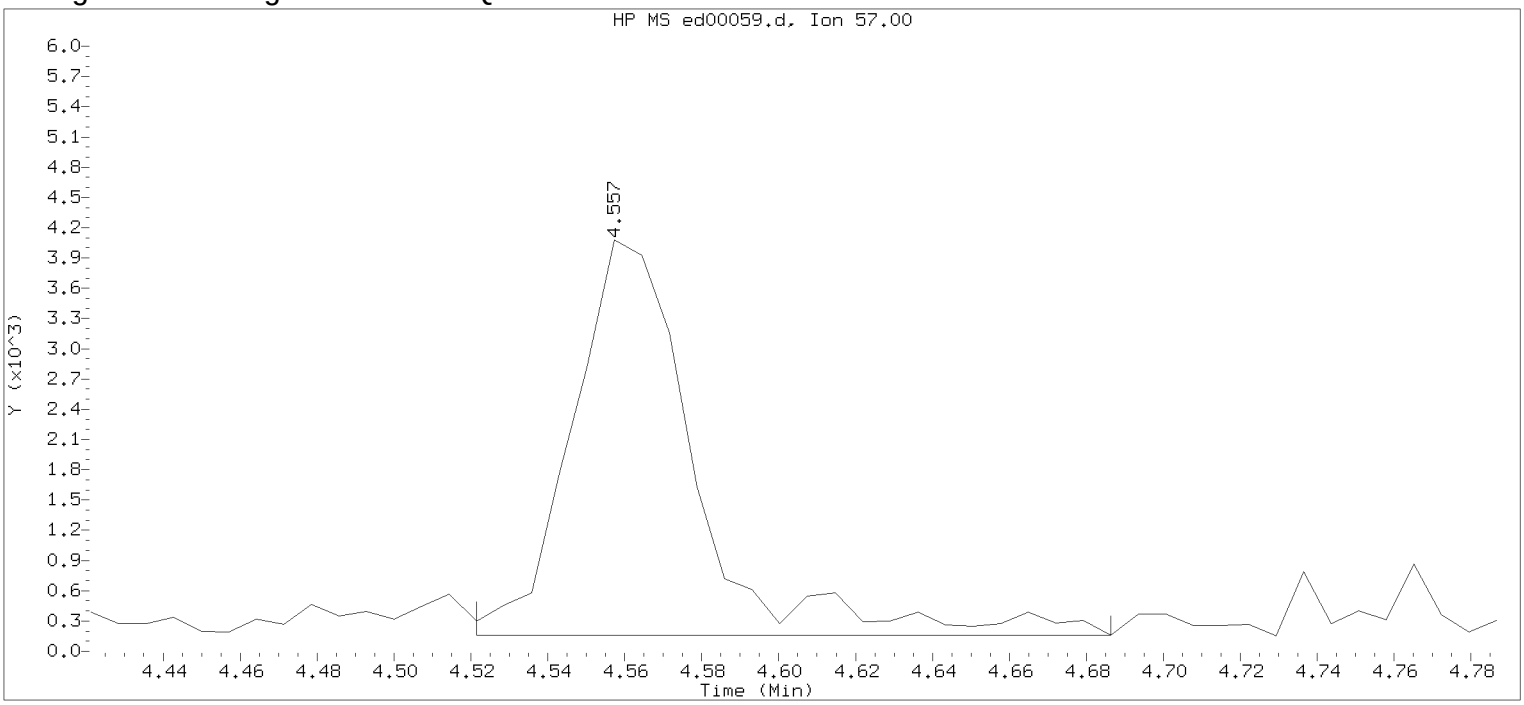
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

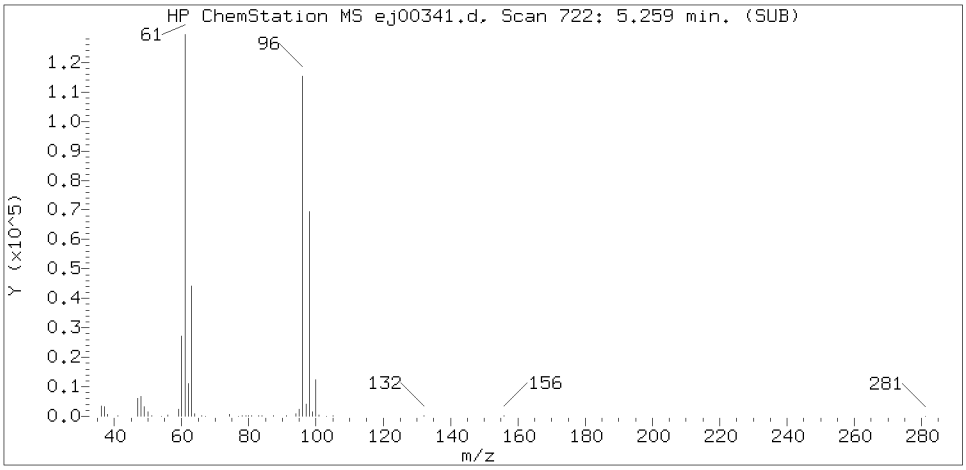
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:20 Unknown

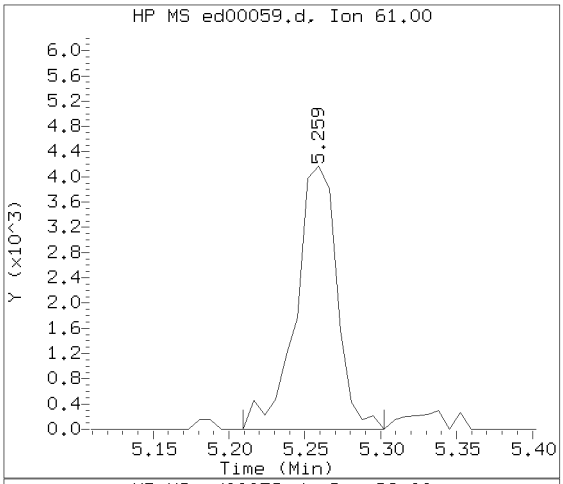
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Quant Ion : 57.00
Area : 8776
Concentration (ppb(v)) : 0.2894
Integration start scan : 618 Integration stop scan: 641
Y at integration start : 160 Y at integration end: 160

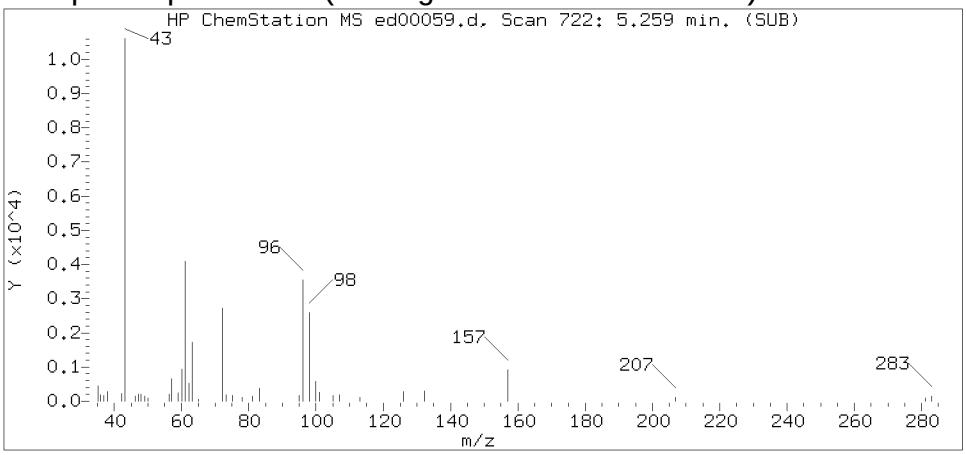
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user id: jeb07445

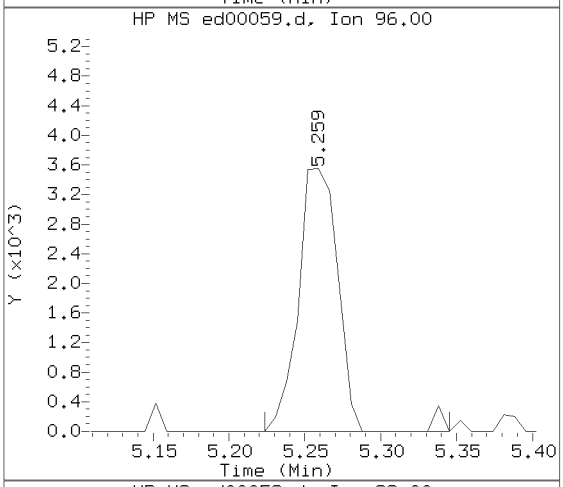
Reference Standard Spectrum for cis-1,2-Dichloroethene



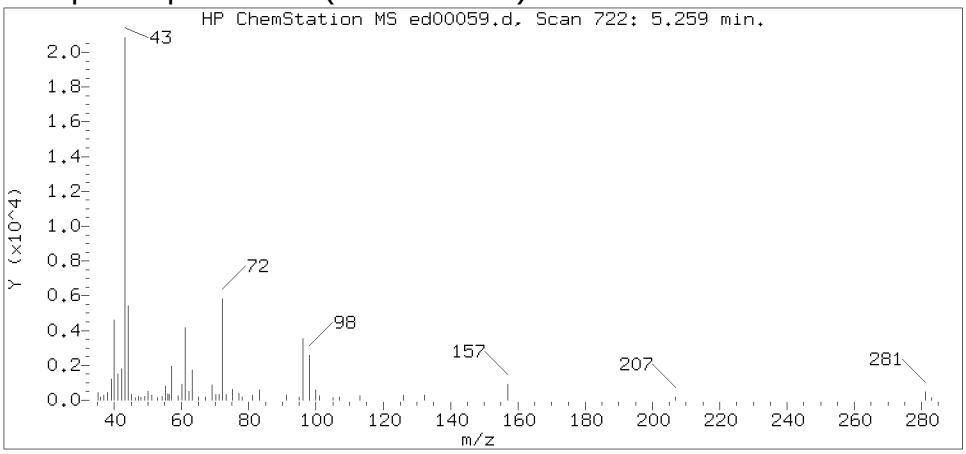


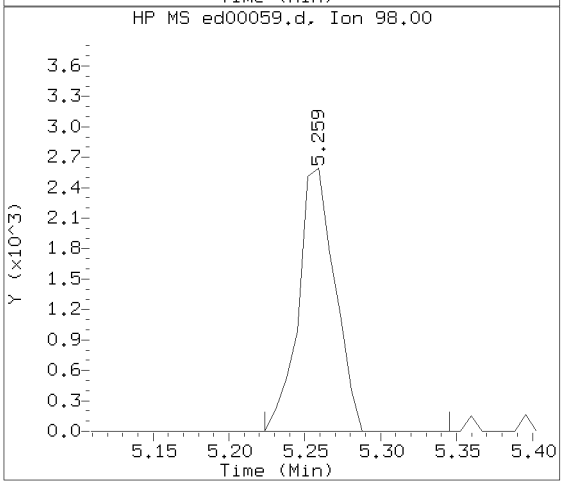
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time : 0.00000
Quant Ion : 61.00
Area (flag) : 7920
Concentration (ppb(v)) : 0.2966

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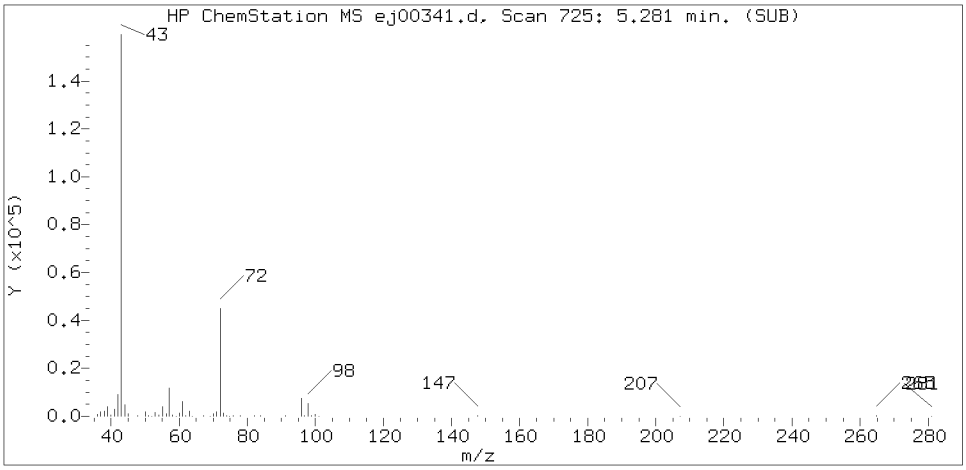
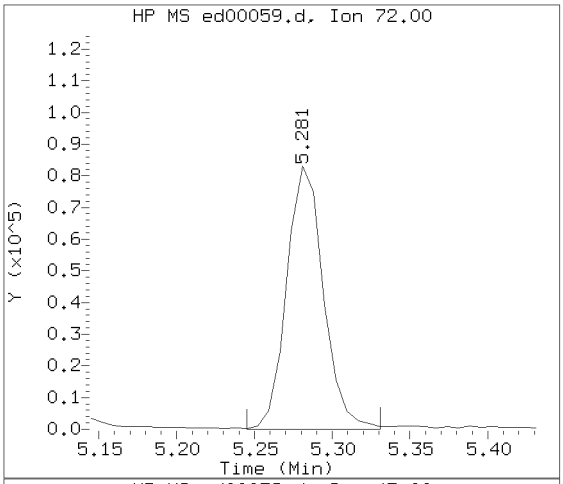
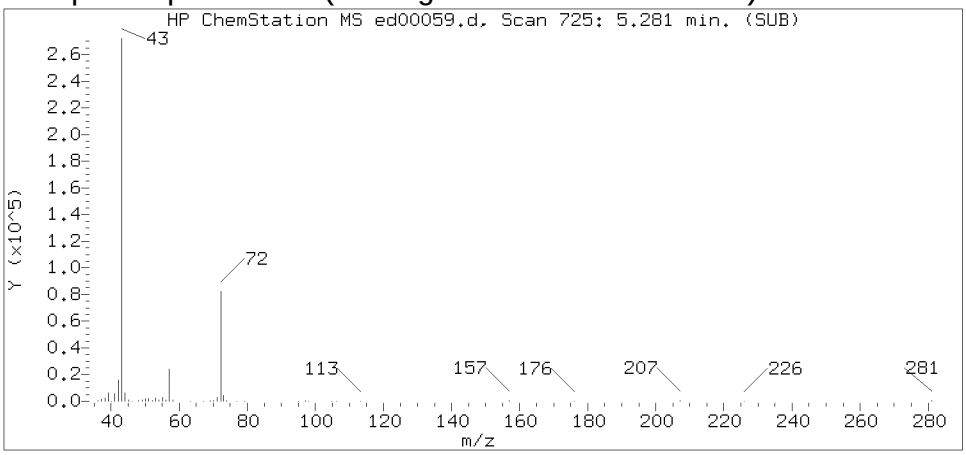
Target 3.5 esignature user ID: jeb07445

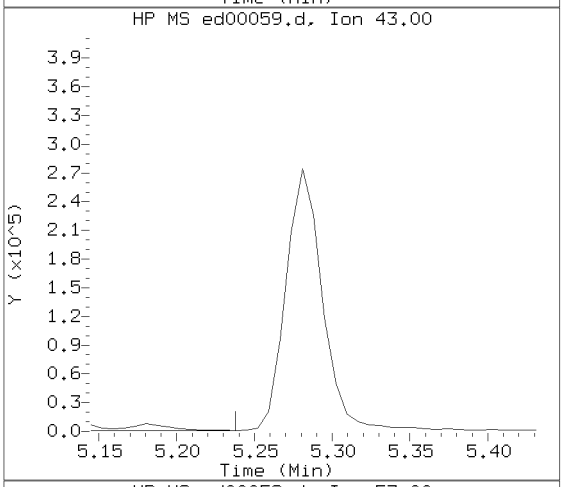
Reference Standard Spectrum for 2-Butanone



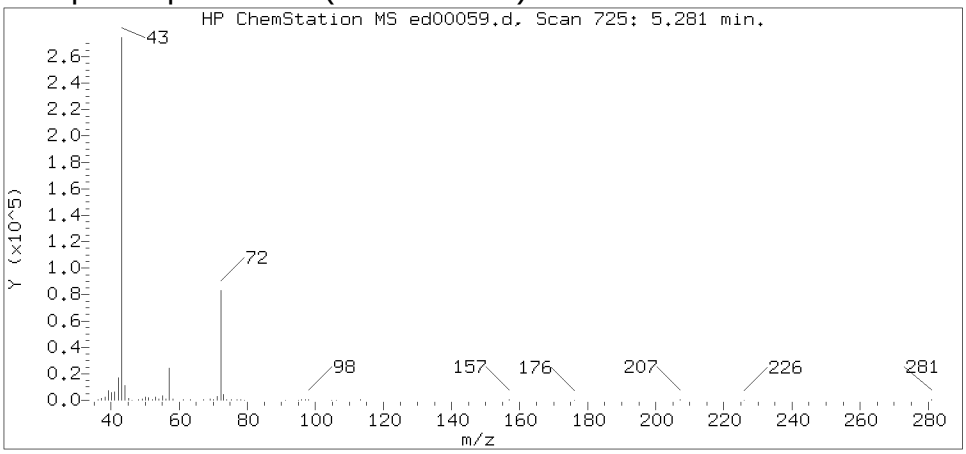


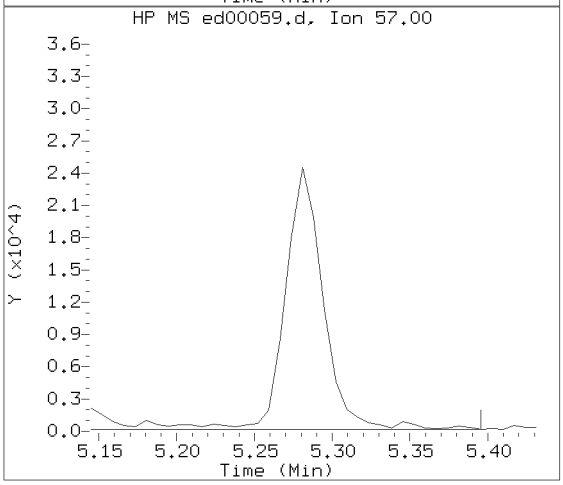
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

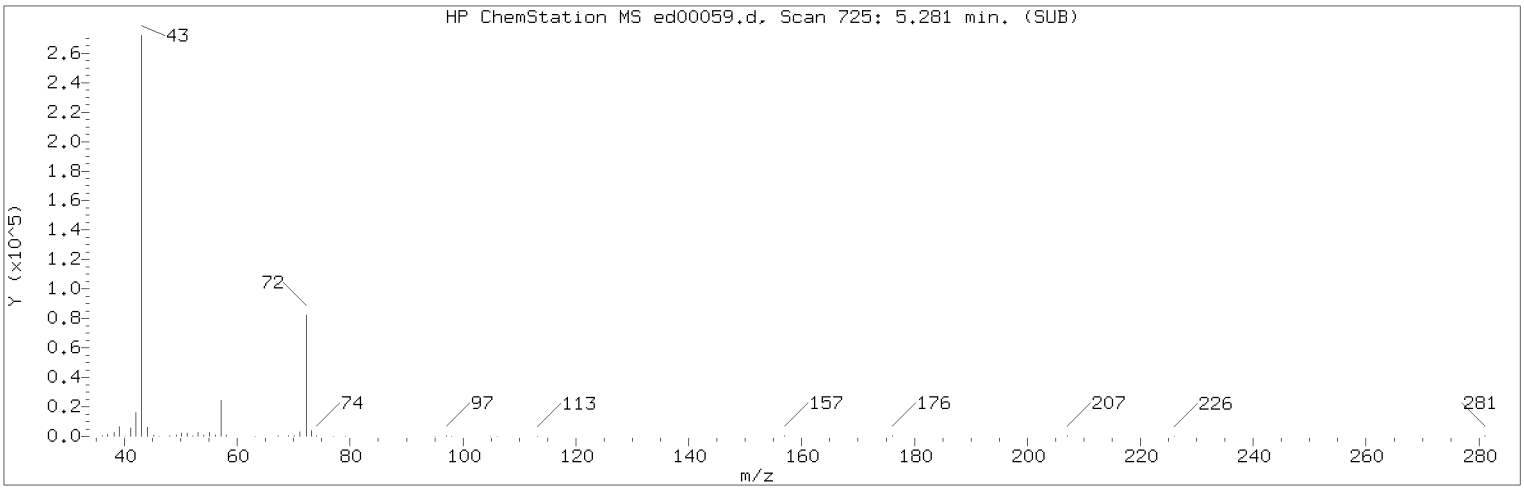
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

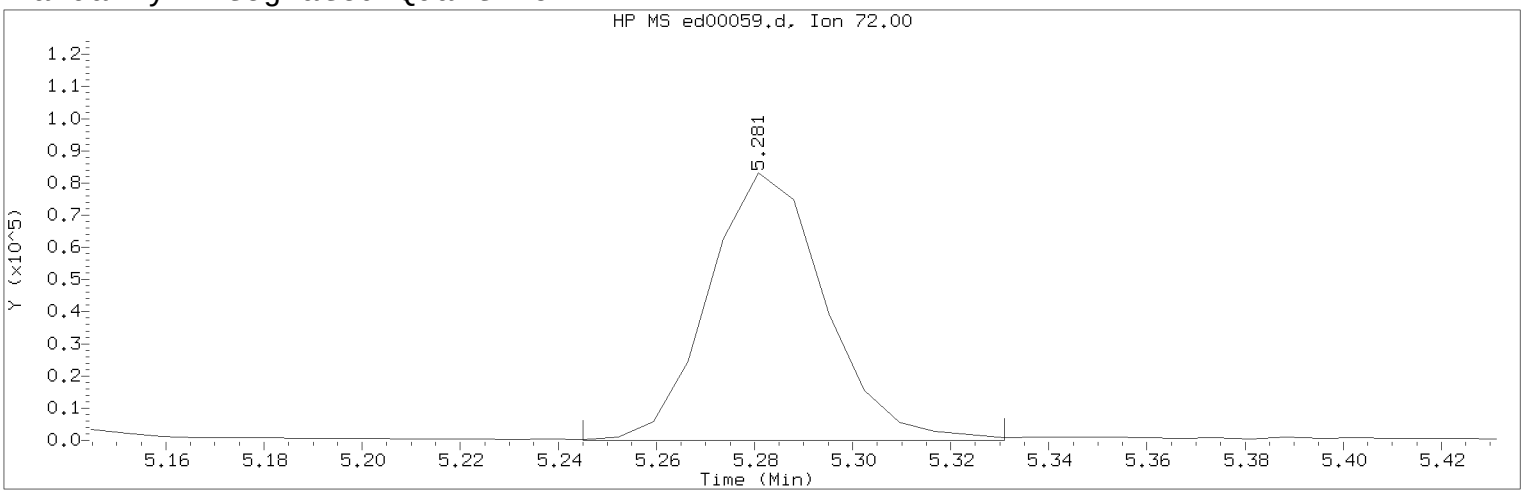
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time : 0.00000
Quant Ion : 72.00
Area (flag) : 136122M
Concentration (ppb(v)) : 12.7008

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

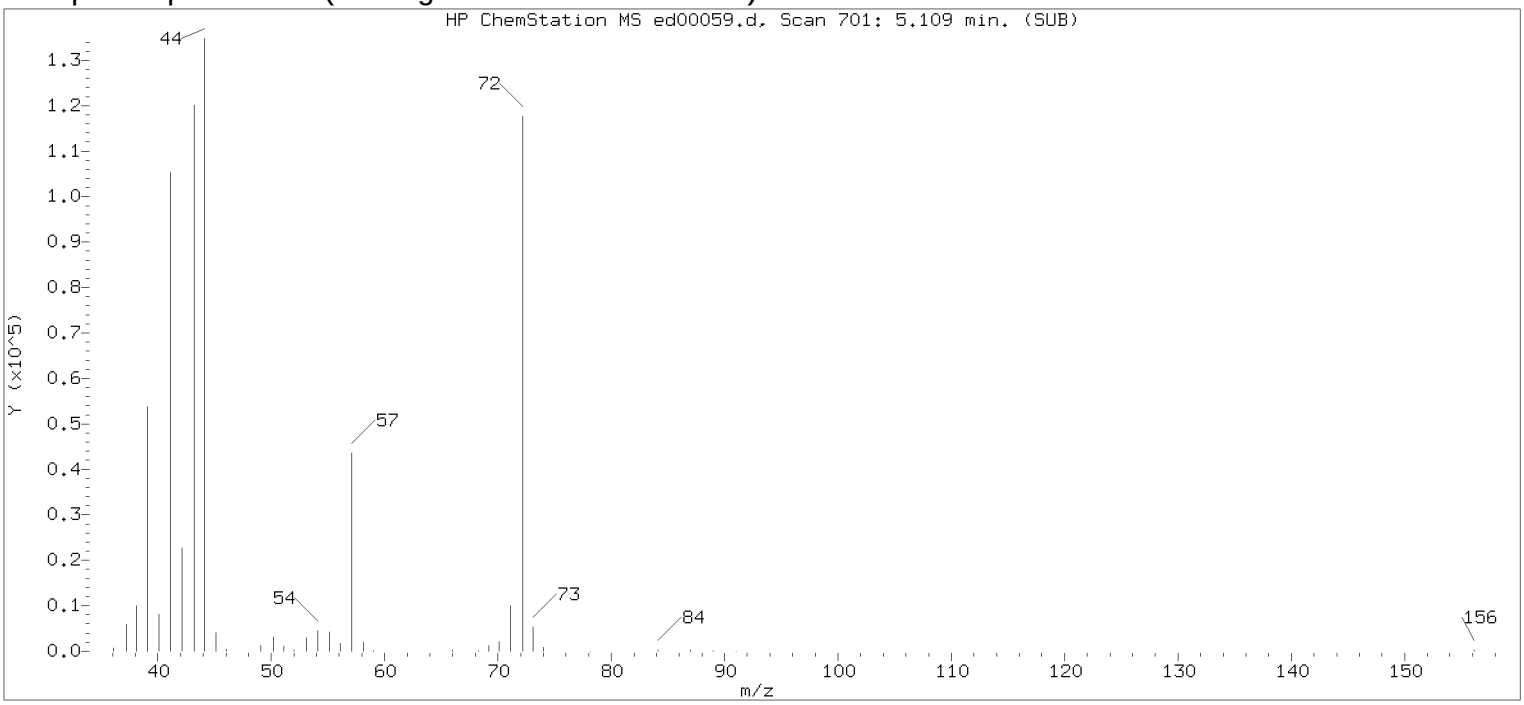
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Quant Ion : 72.00
Area (flag) : 136122M
Concentration (ppb(v)) : 12.7008
Integration start scan : 719 Integration stop scan: 731
Y at integration start : 87 Y at integration end: 87

Reason for manual integration: improper integration

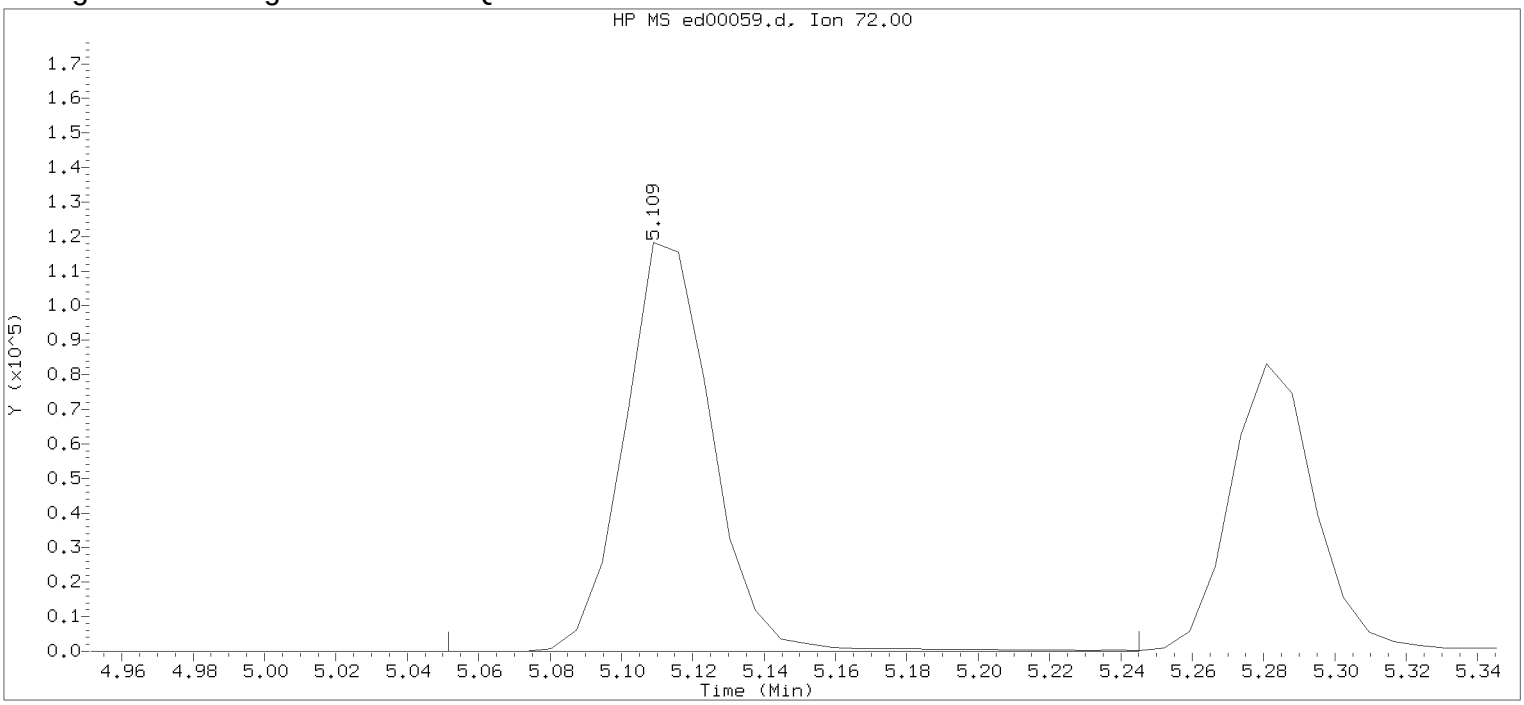
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

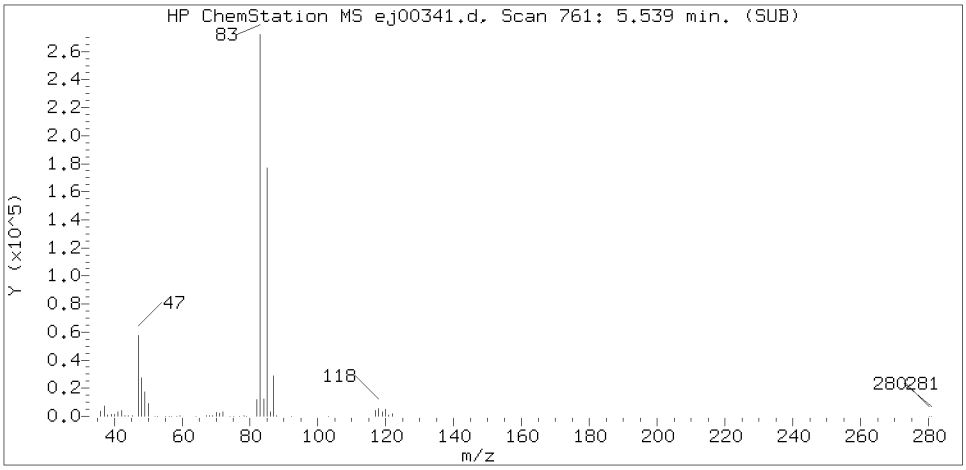
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:20 Unknown

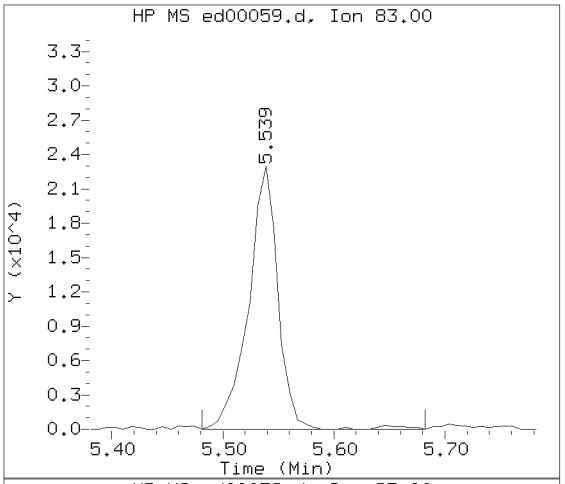
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 701
Retention Time (minutes): 5.109
Quant Ion : 72.00
Area : 202385
Concentration (ppb(v)) : 18.8833
Integration start scan : 692 Integration stop scan: 719
Y at integration start : 0 Y at integration end: 0

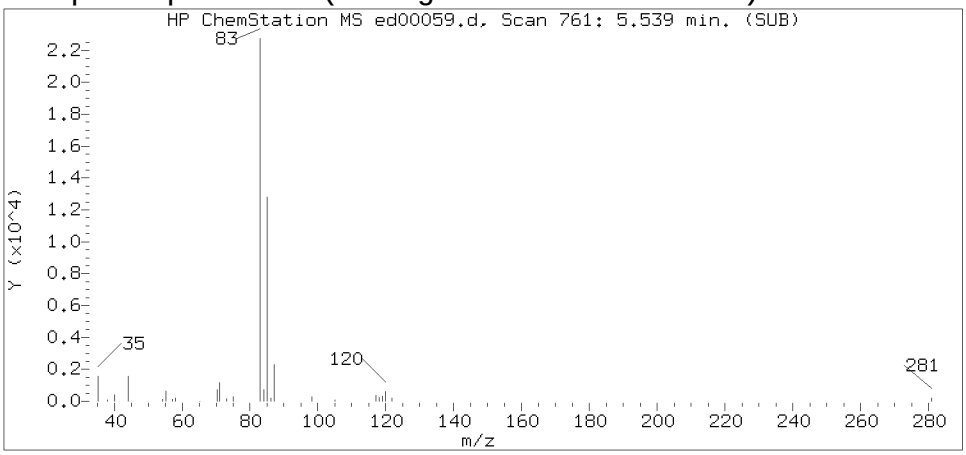
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user id: jeb07445

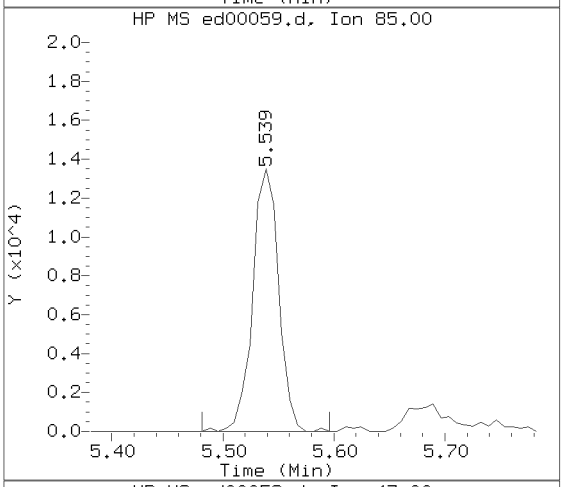
Reference Standard Spectrum for Chloroform



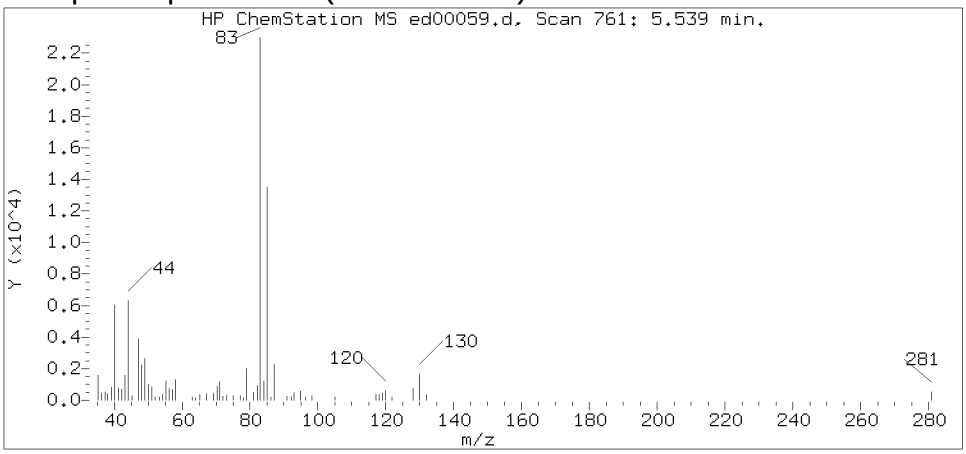


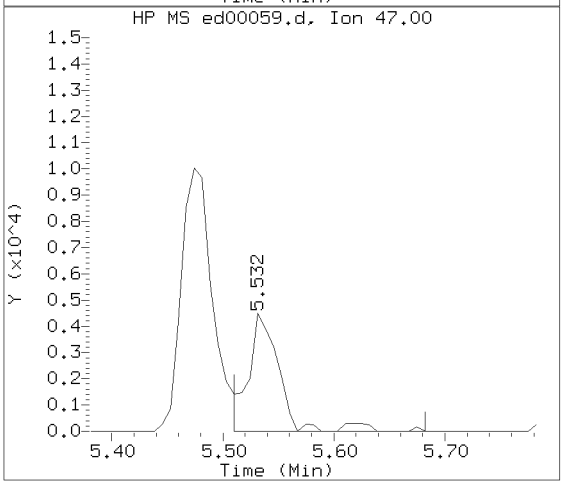
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

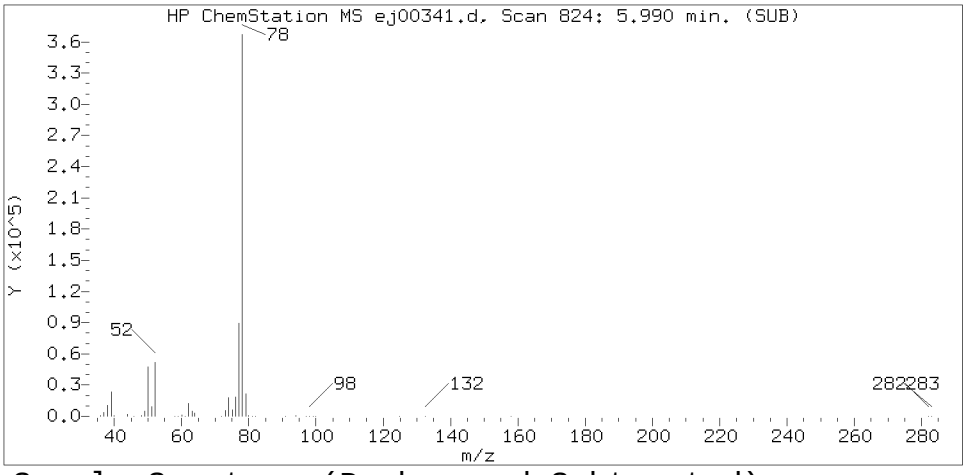
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

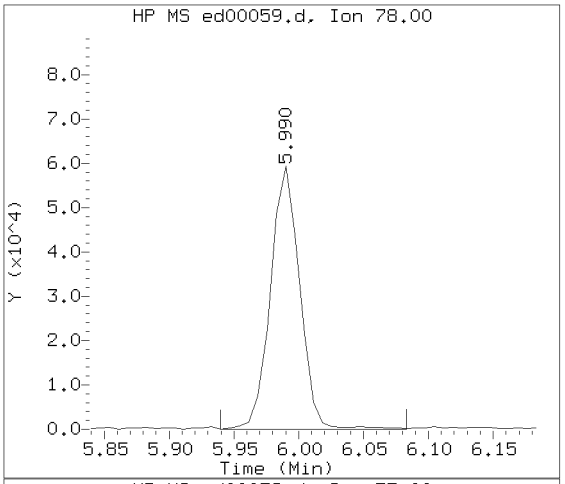
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 42
Compound Name : Chloroform
Scan Number : 761
Retention Time (minutes): 5.539
Relative Retention Time :-0.00000
Quant Ion : 83.00
Area (flag) : 42394
Concentration (ppb(v)) : 0.9133

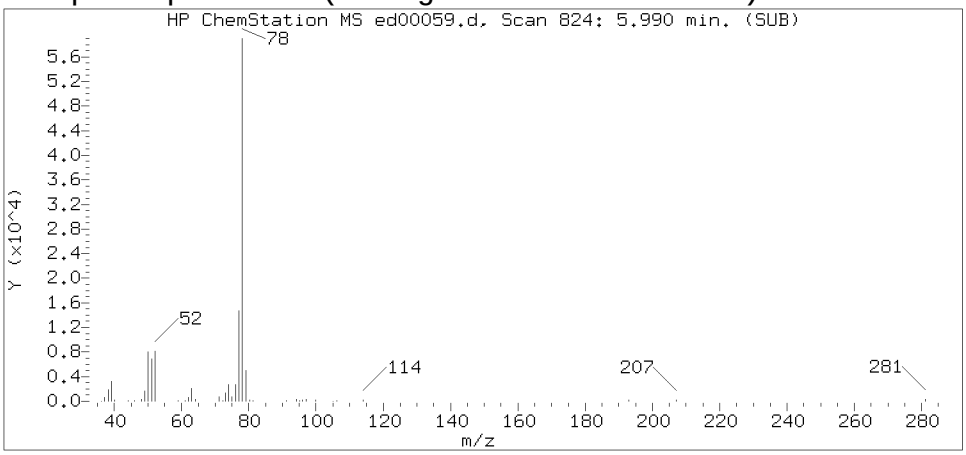
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

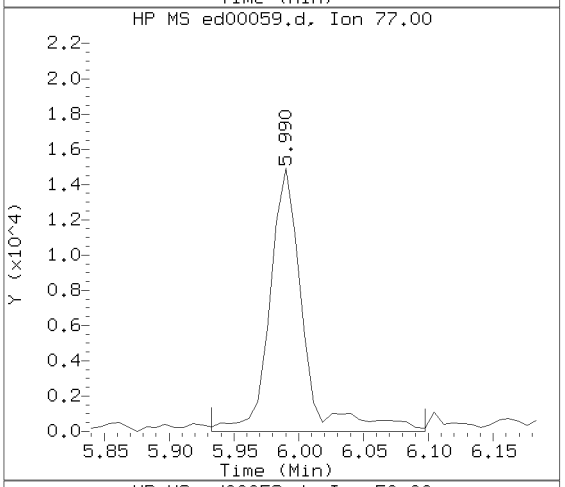
Reference Standard Spectrum for Benzene



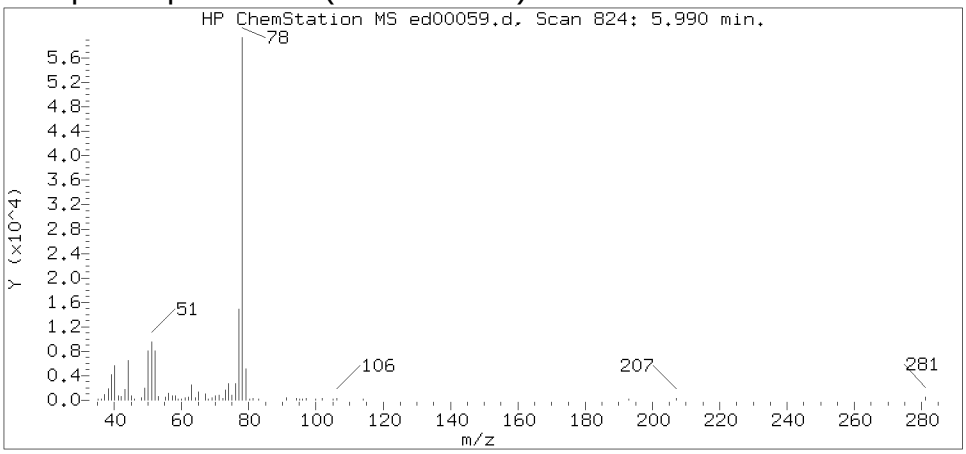


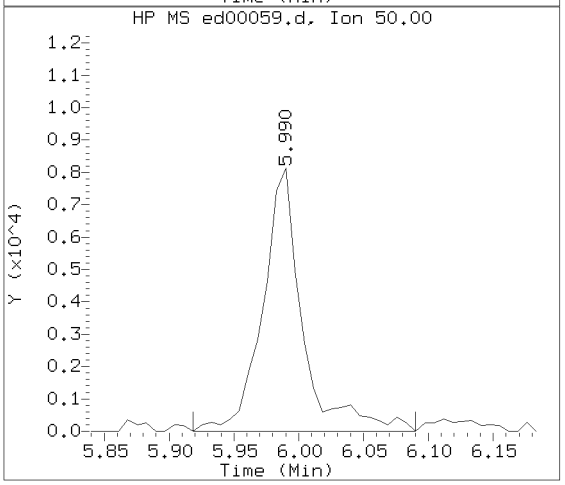
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

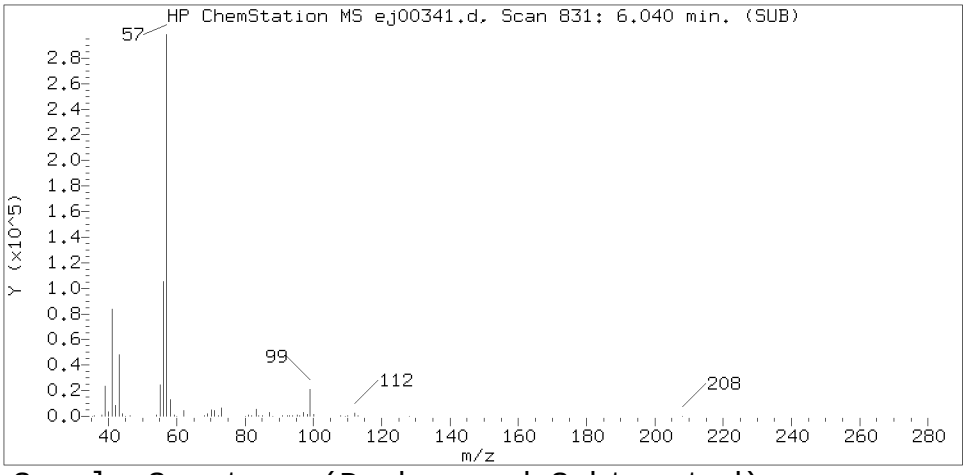
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

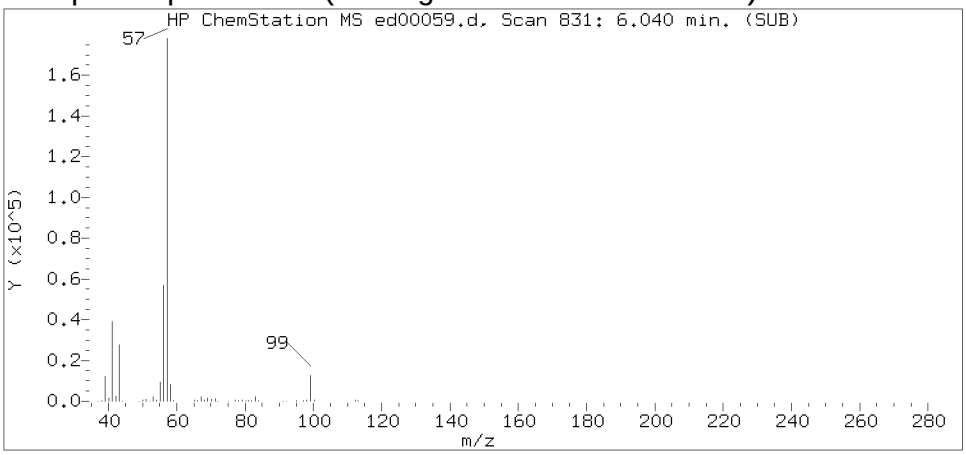
Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time : 0.00000
Quant Ion : 78.00
Area (flag) : 93308
Concentration (ppb(v)) : 1.2315

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

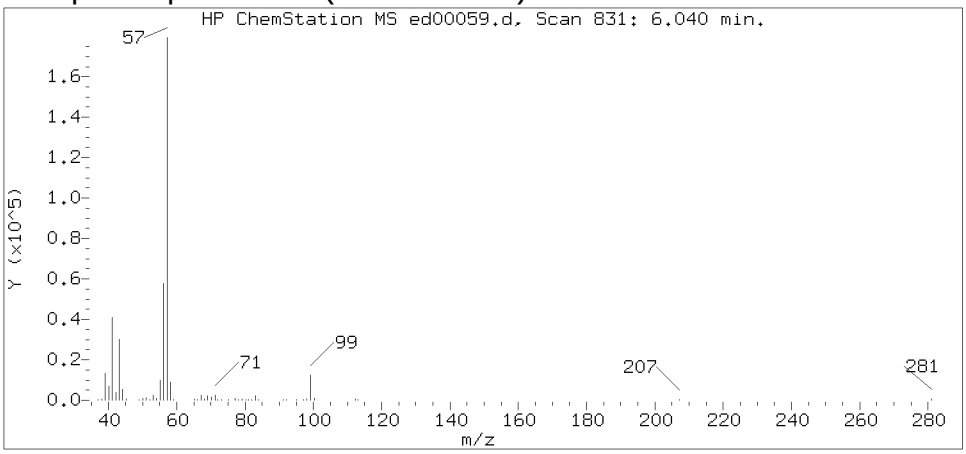
Reference Standard Spectrum for Isooctane

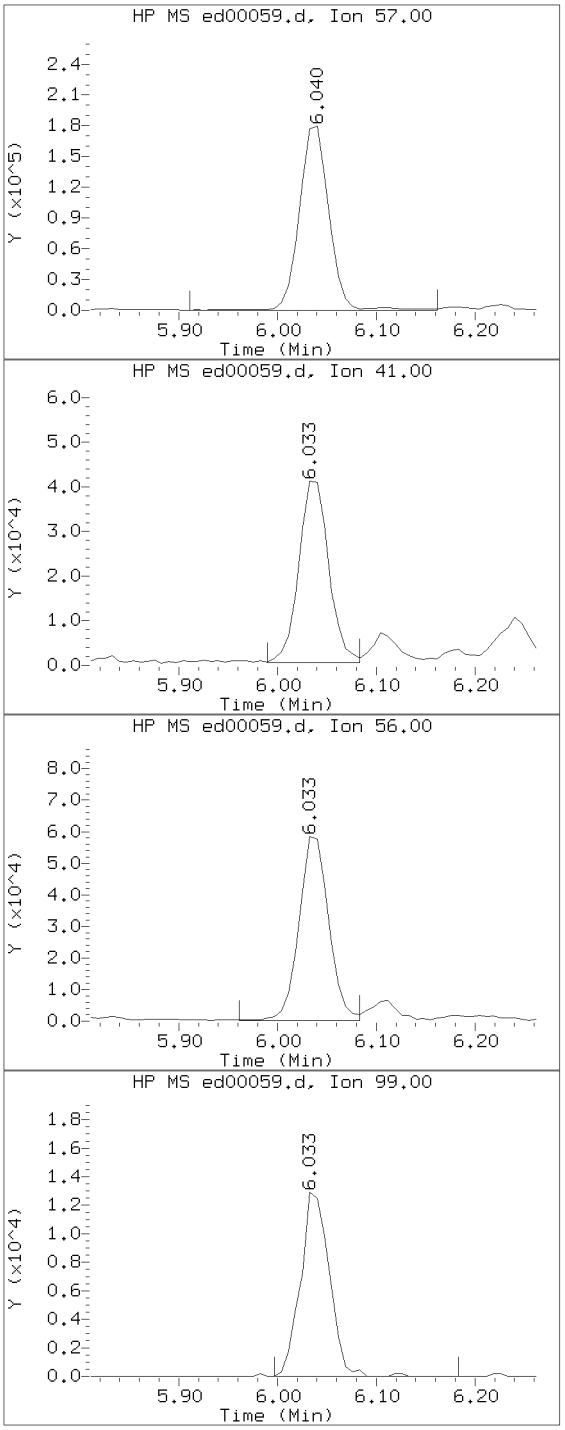


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 48
Compound Name : Isooctane
Scan Number : 831
Retention Time (minutes): 6.040
Relative Retention Time : 0.00000
Quant Ion : 57.00
Area (flag) : 366744
Concentration (ppb(v)) : 3.5181

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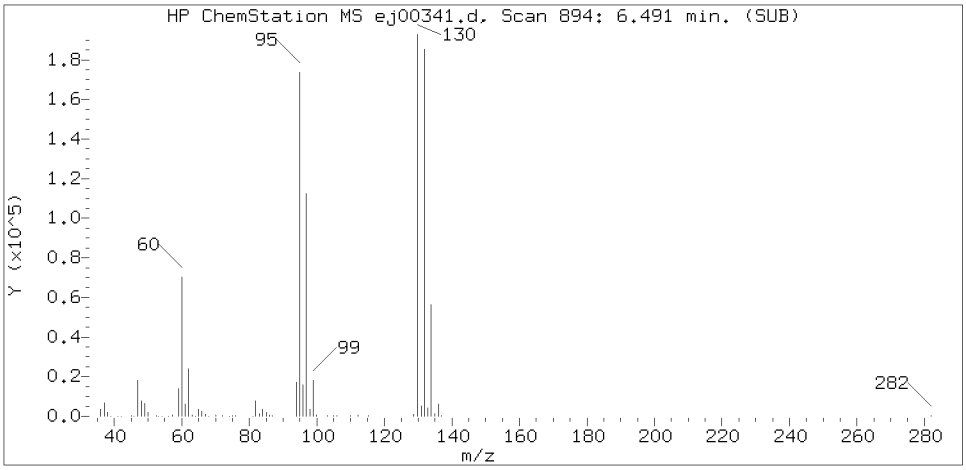
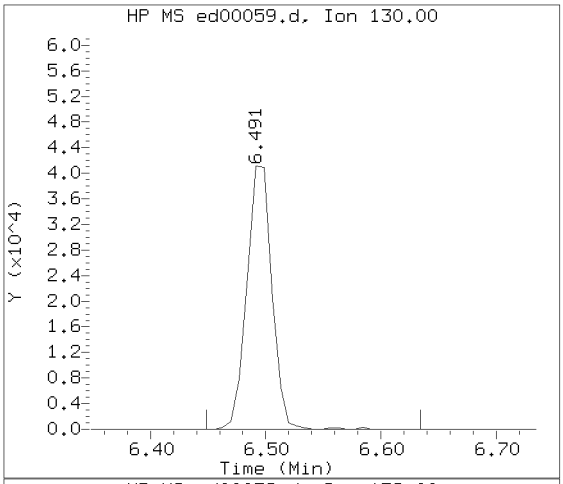
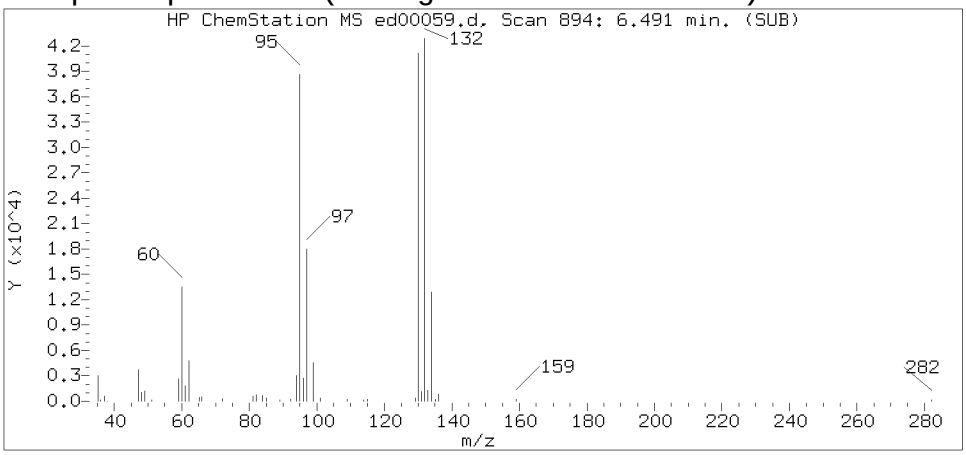
Target 3.5 esignature user ID: jeb07445

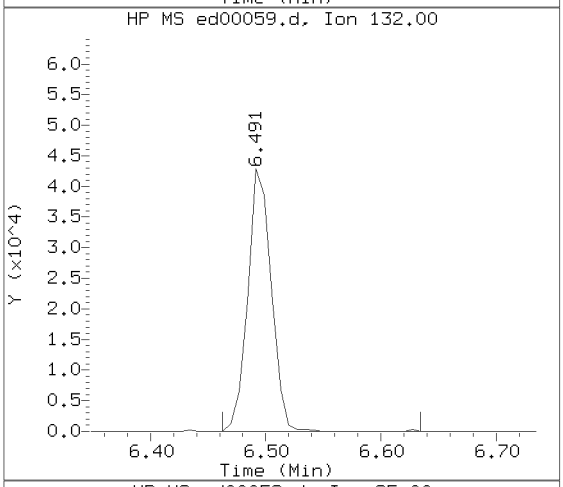
Reference Standard Spectrum for Trichloroethene



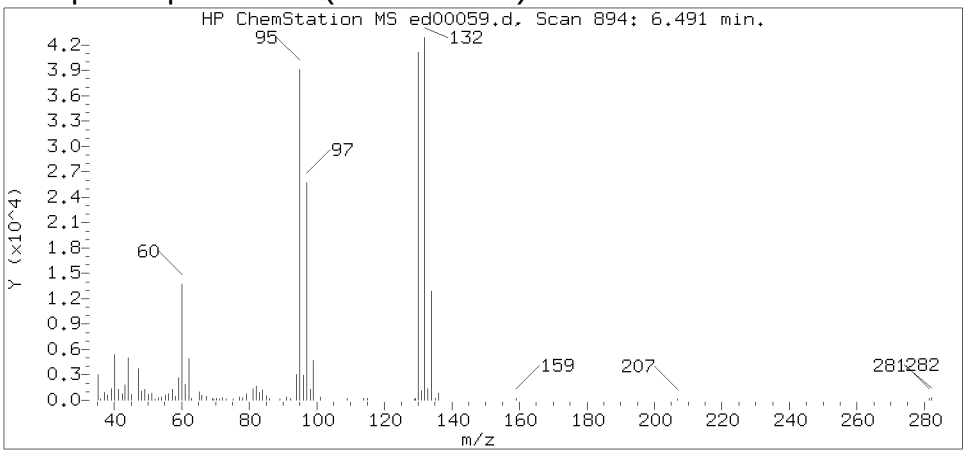


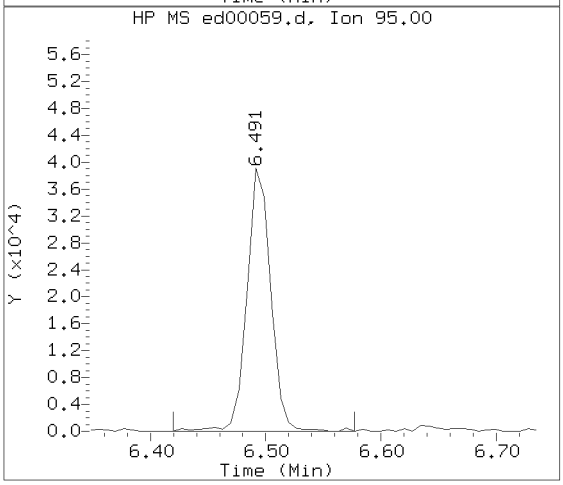
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 52
Compound Name : Trichloroethene
Scan Number : 894
Retention Time (minutes): 6.491
Relative Retention Time :-0.00000
Quant Ion : 130.00
Area (flag) : 62039
Concentration (ppb(v)) : 1.5889

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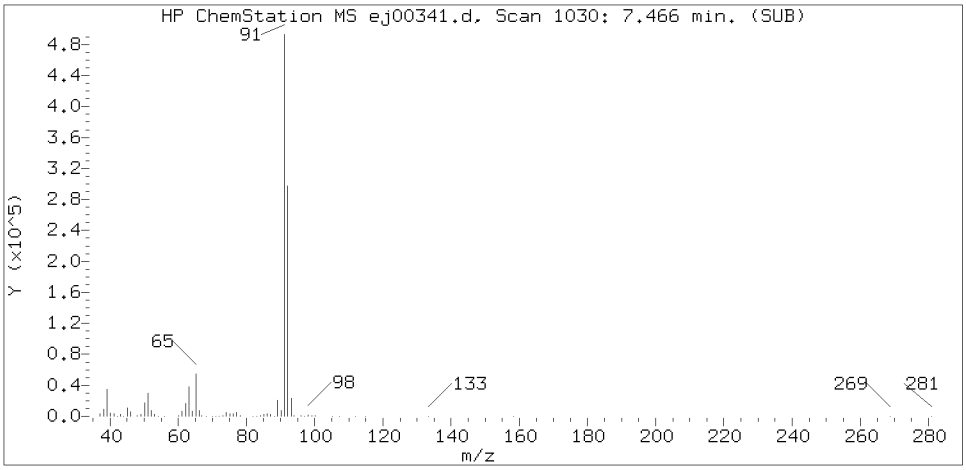
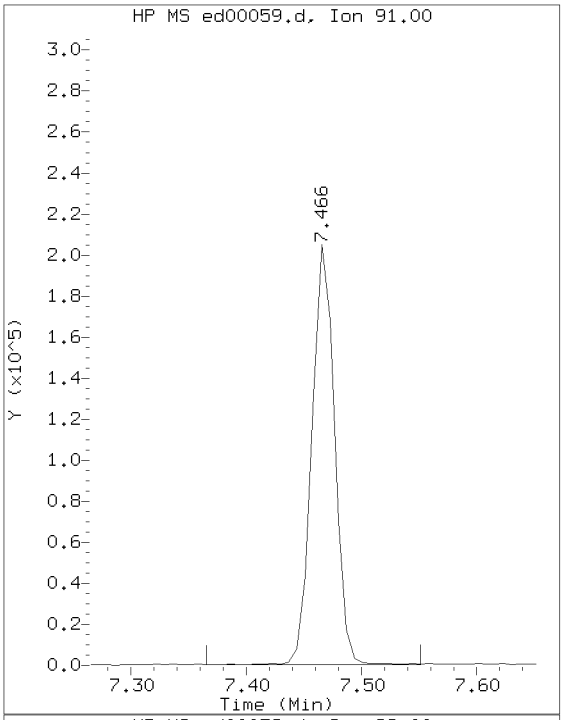
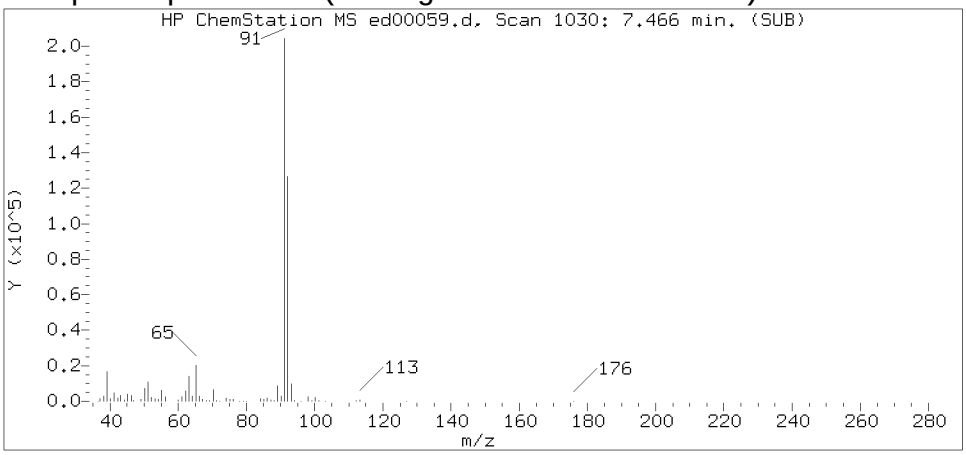
Target 3.5 esignature user ID: jeb07445

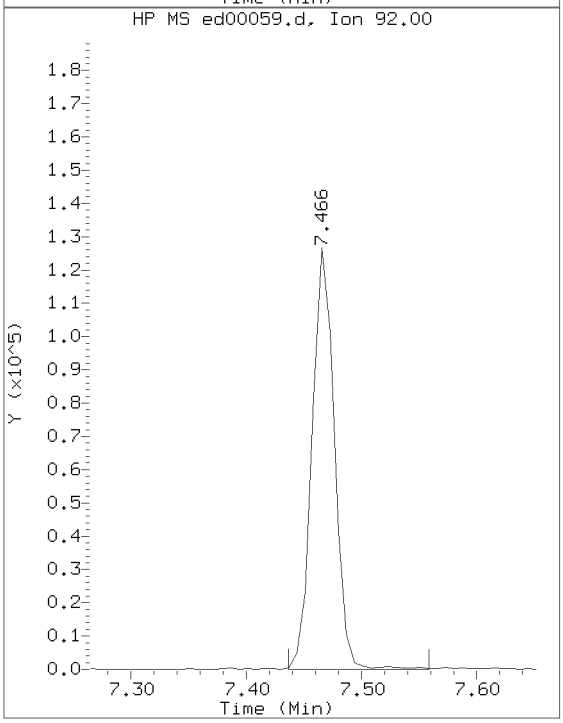
Reference Standard Spectrum for Toluene



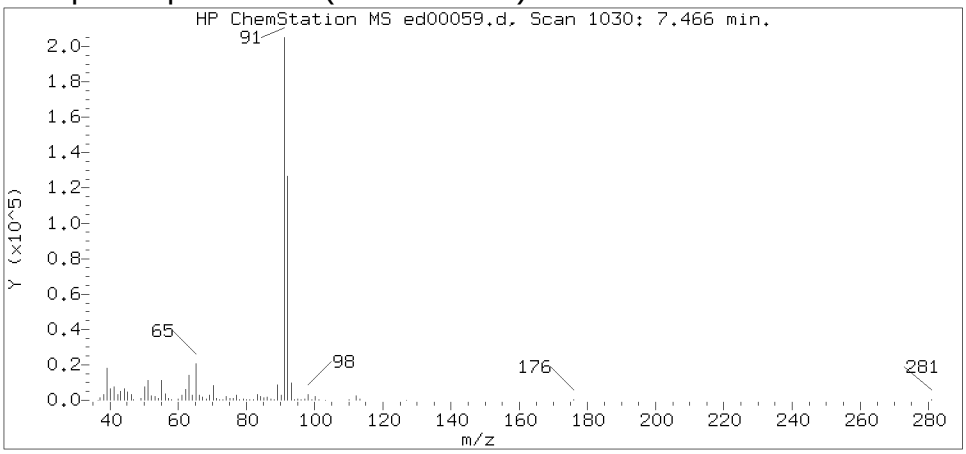


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.466
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 281572
Concentration (ppb(v)) : 2.9164

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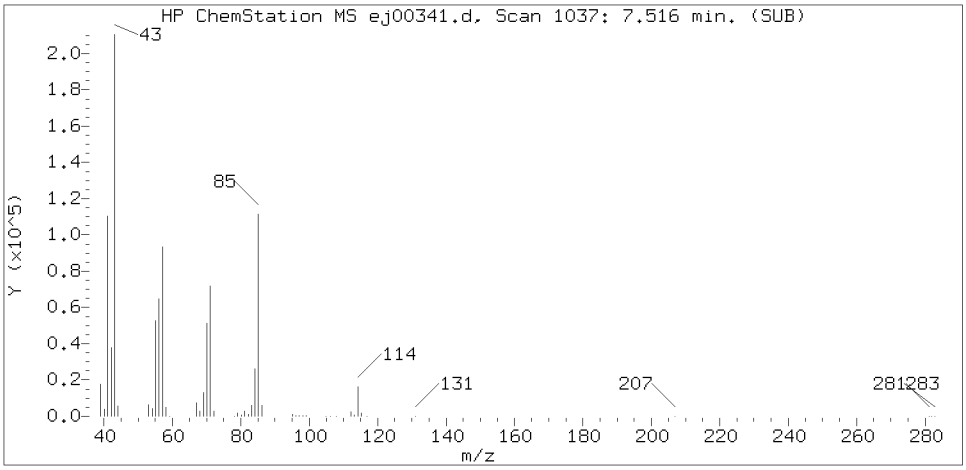
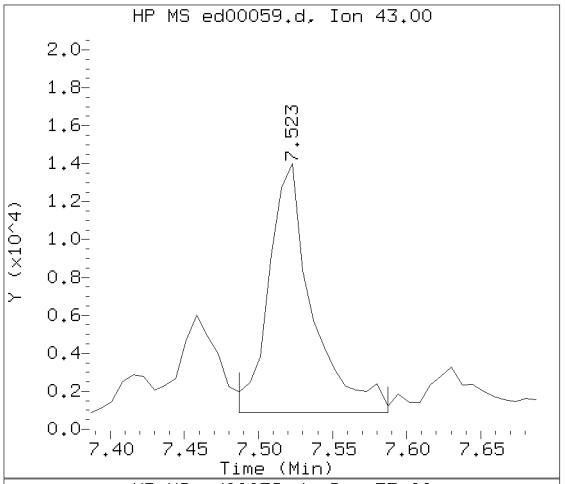
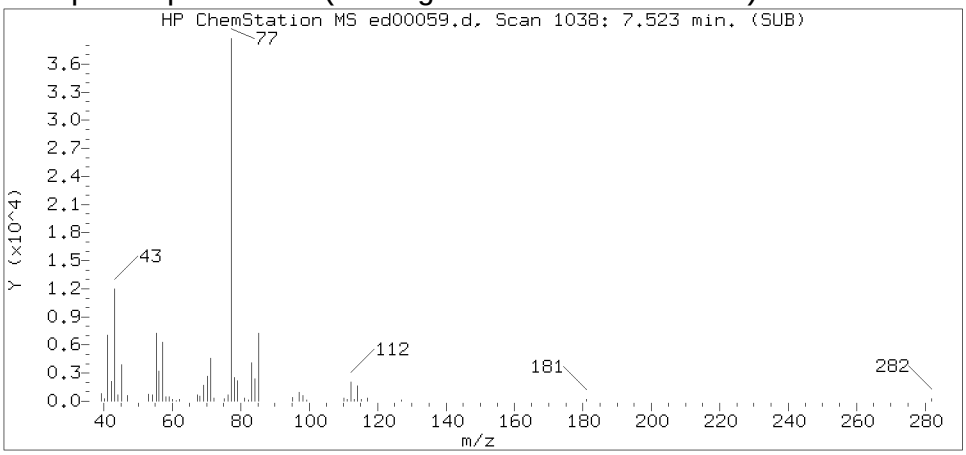
Target 3.5 esignature user ID: jeb07445

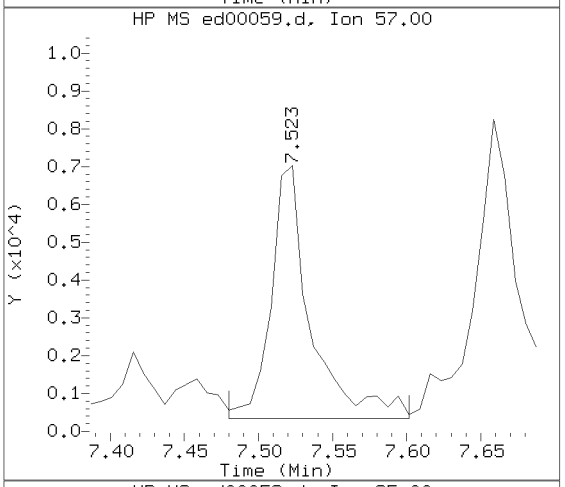
Reference Standard Spectrum for Octane



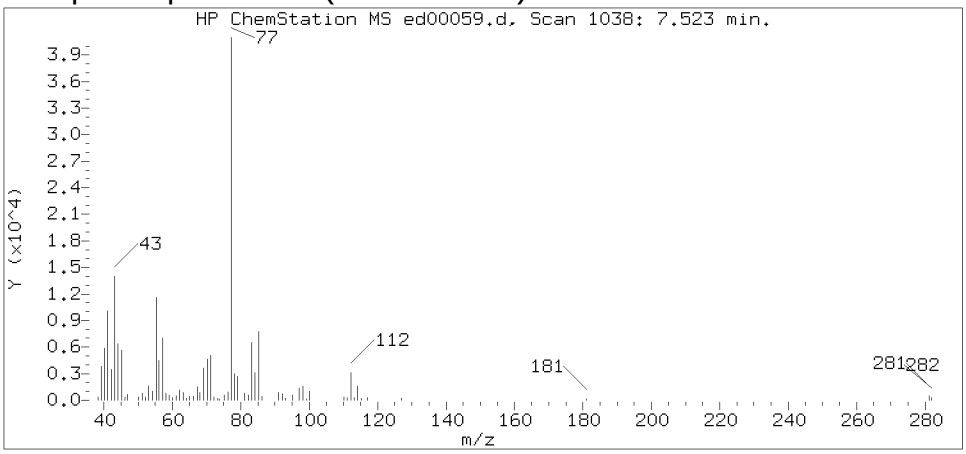


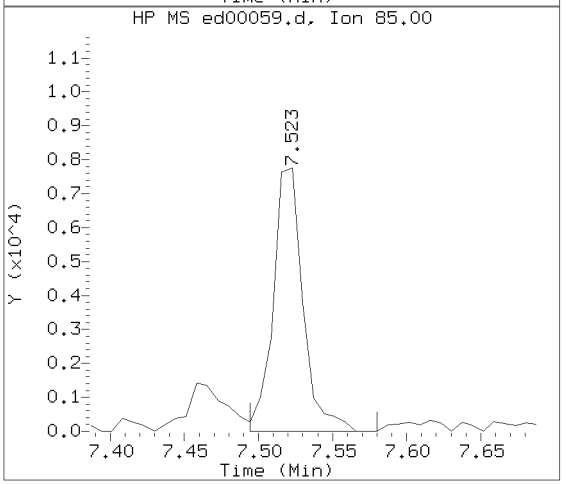
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 62
Compound Name : Octane
Scan Number : 1038
Retention Time (minutes): 7.523
Relative Retention Time :-0.00084
Quant Ion : 43.00
Area (flag) : 26595
Concentration (ppb(v)) : 0.5611

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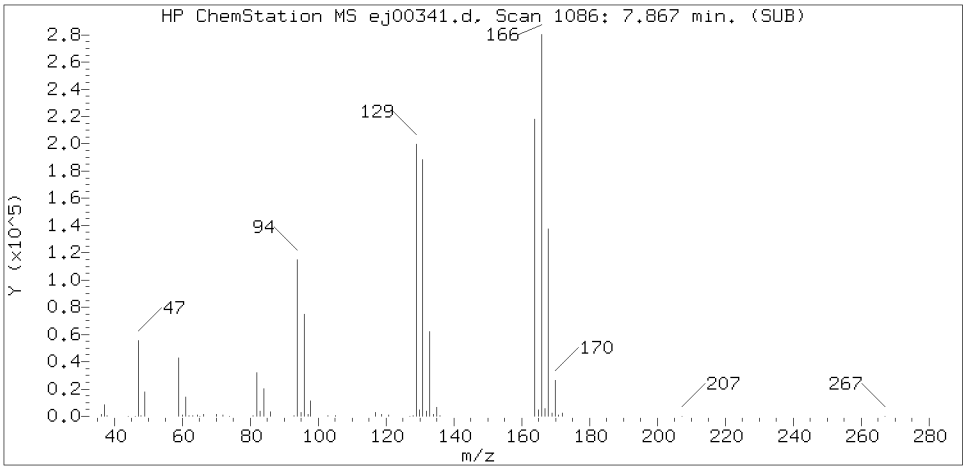
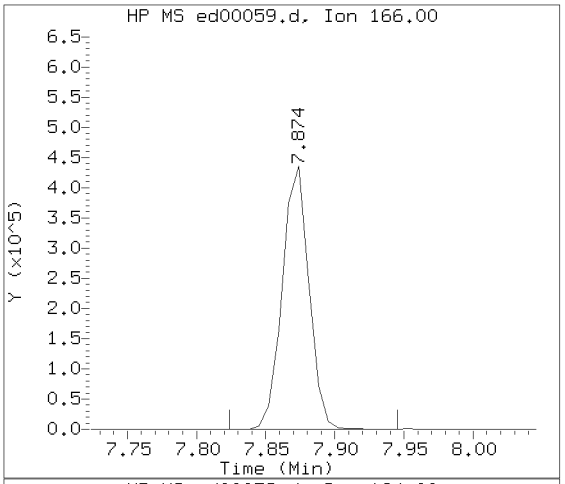
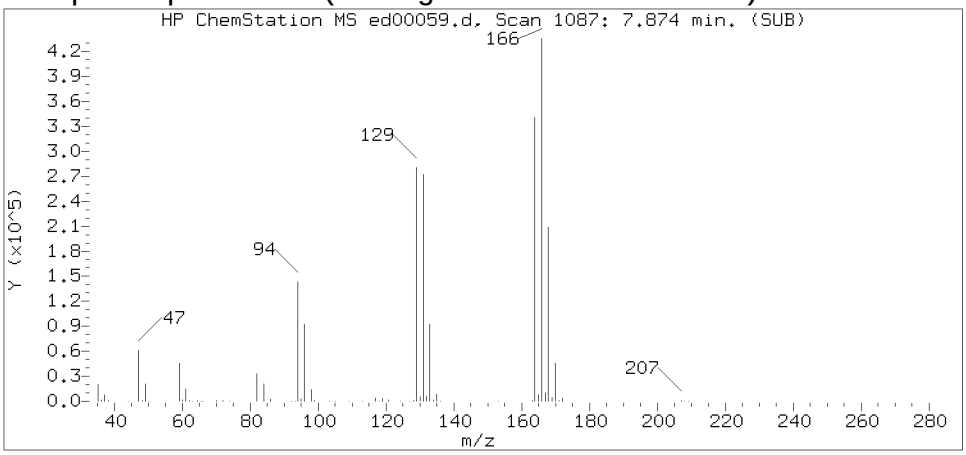
Target 3.5 esignature user ID: jeb07445

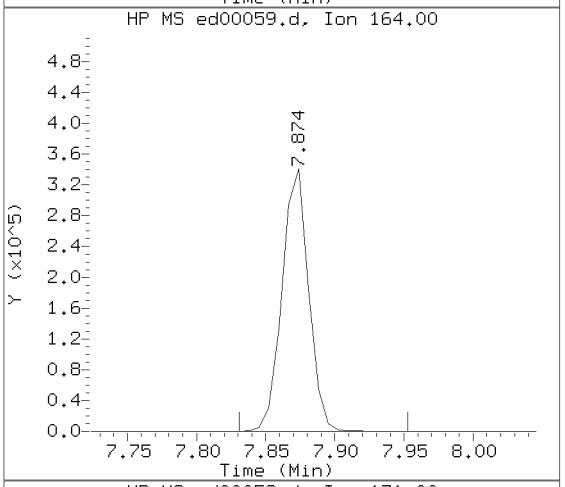
Reference Standard Spectrum for Tetrachloroethene



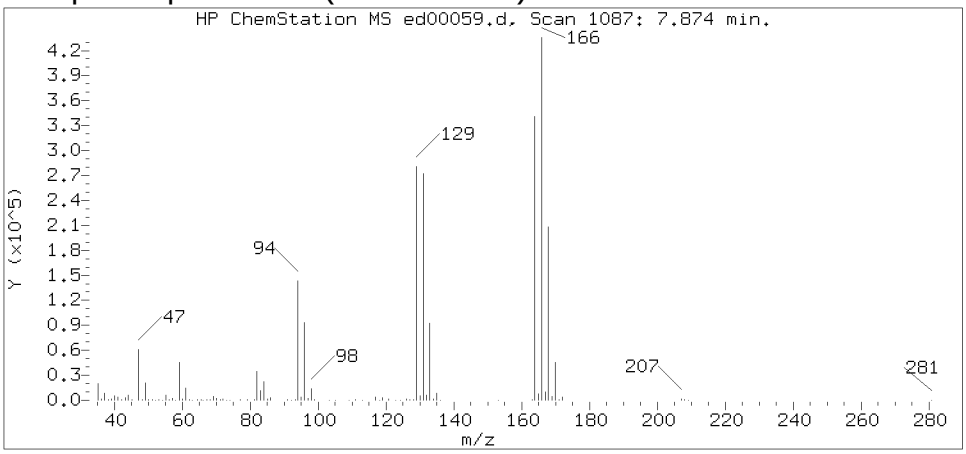


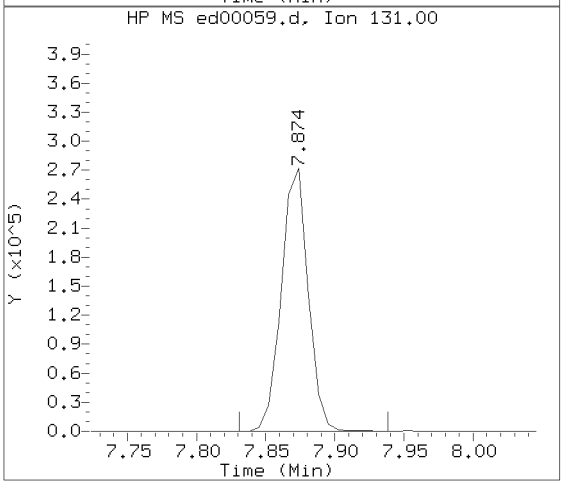
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 583793
Concentration (ppb(v)) : 10.2724

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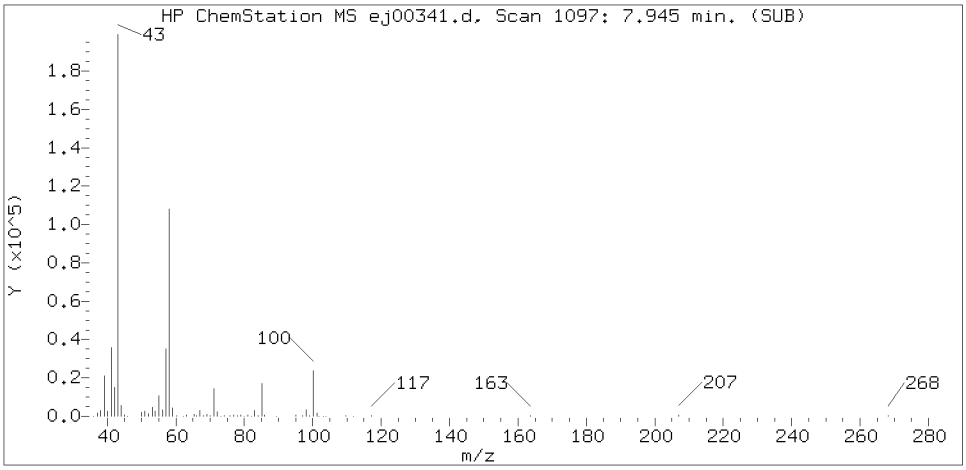
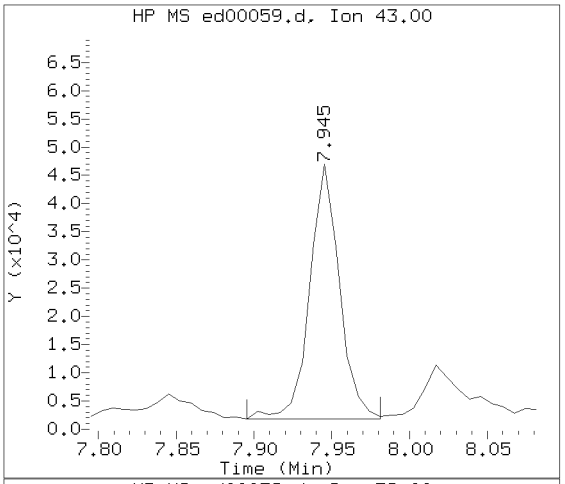
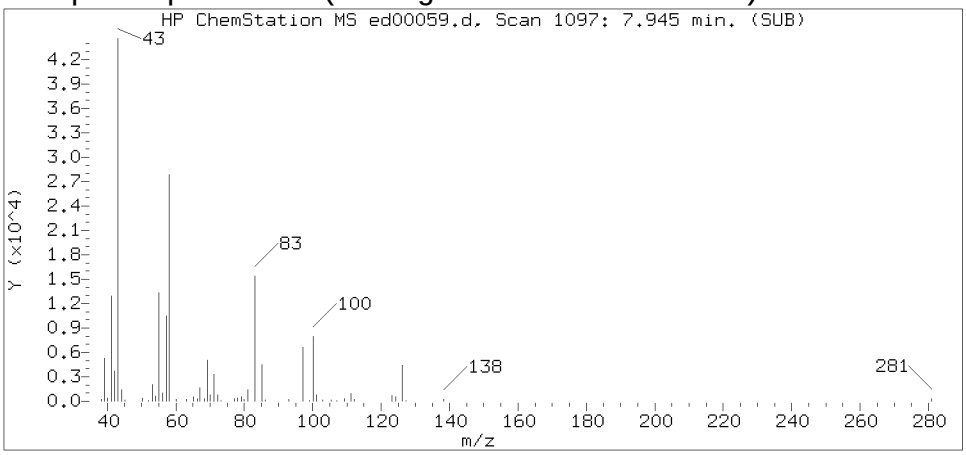
Target 3.5 esignature user ID: jeb07445

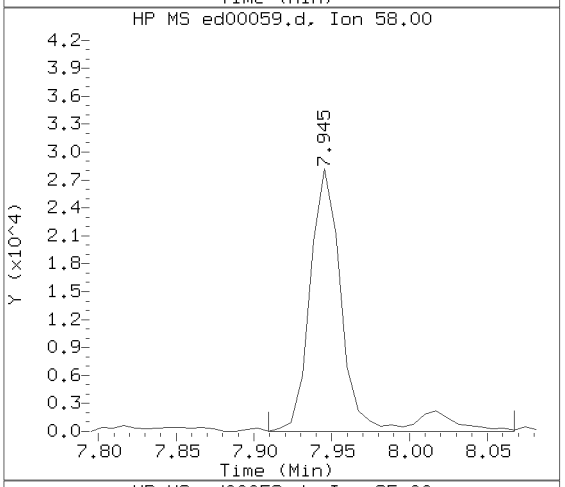
Reference Standard Spectrum for 2-Hexanone



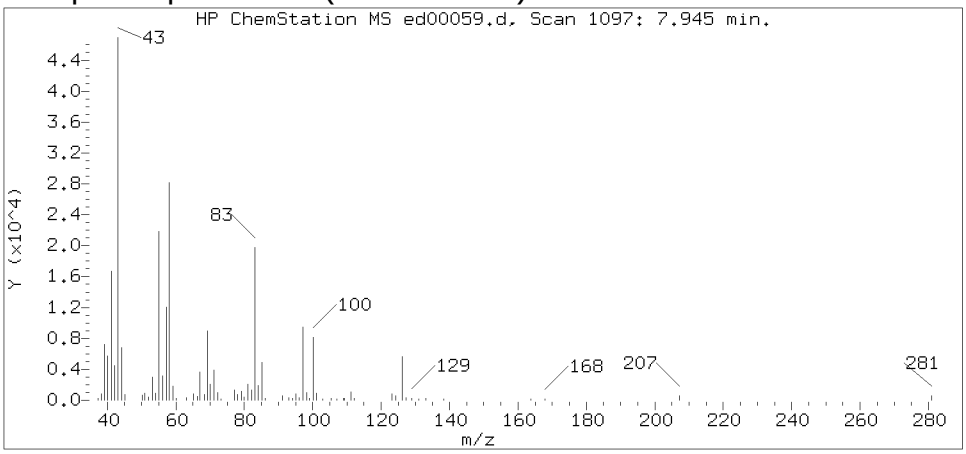


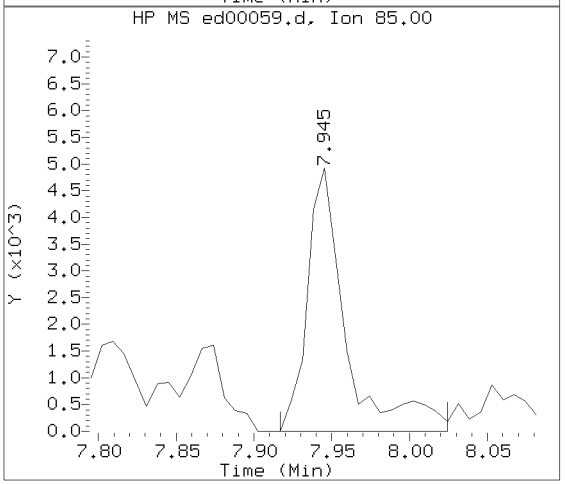
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 68
Compound Name : 2-Hexanone
Scan Number : 1097
Retention Time (minutes): 7.945
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 60047
Concentration (ppb(v)) : 1.4774

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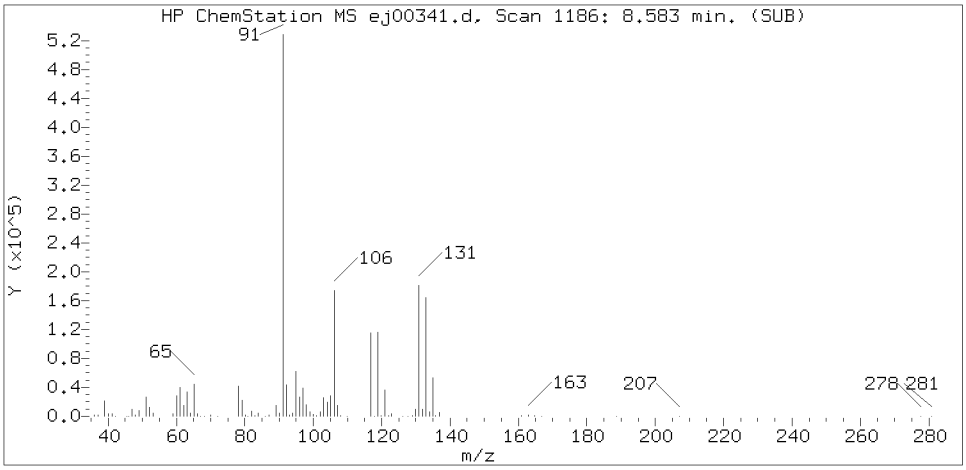
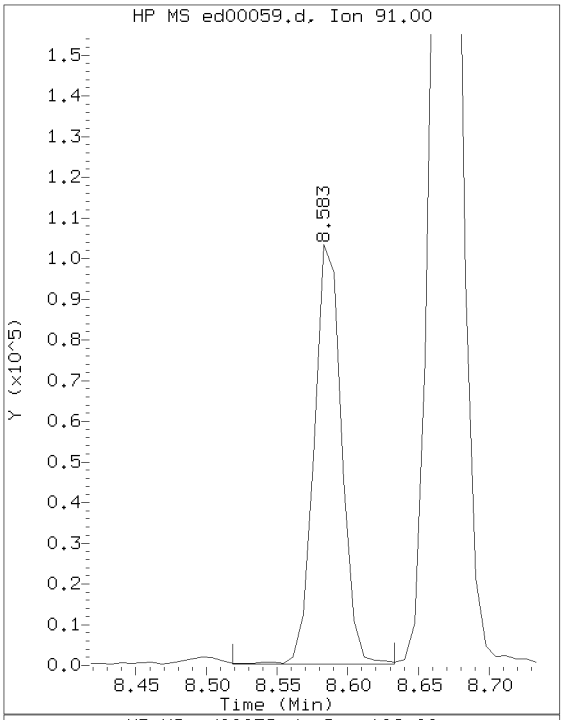
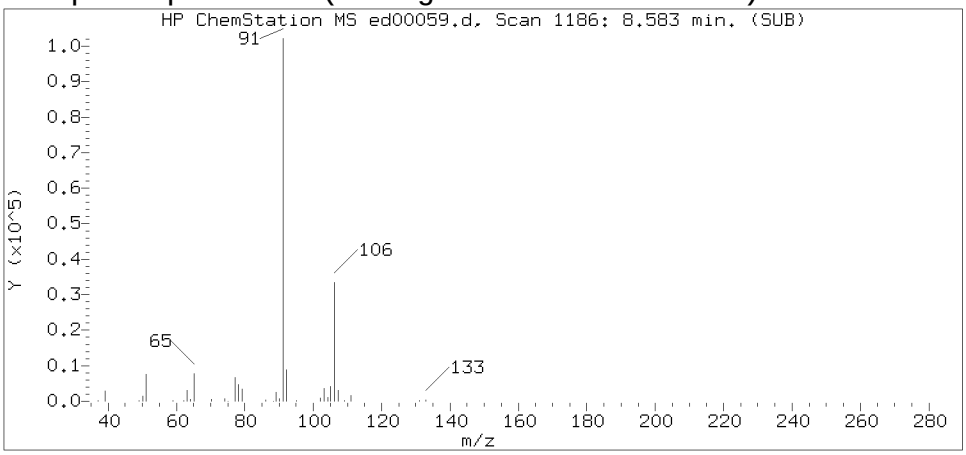
Target 3.5 esignature user ID: jeb07445

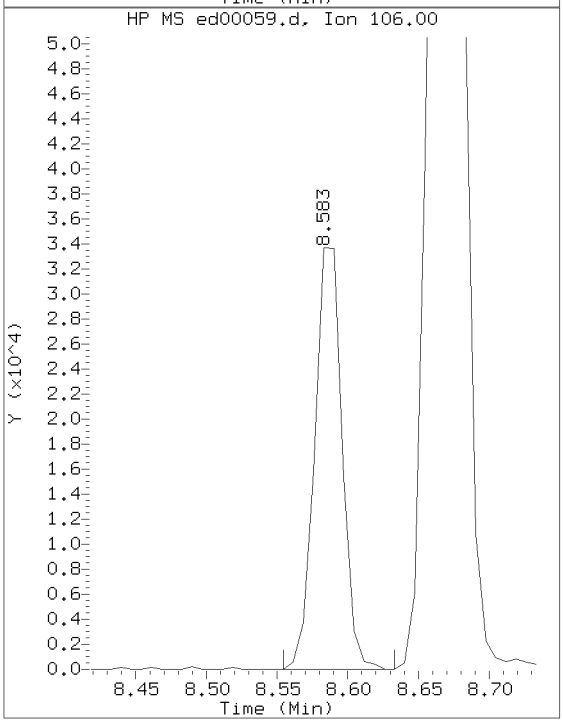
Reference Standard Spectrum for Ethylbenzene



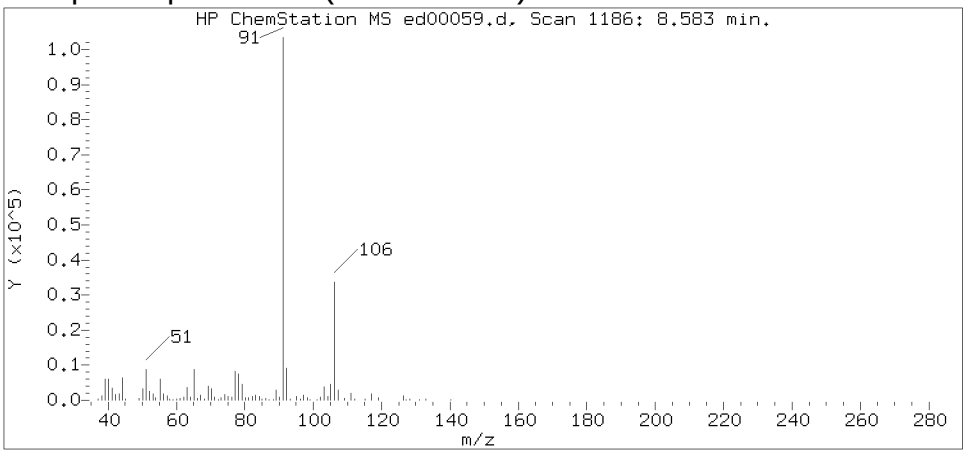


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 139988
Concentration (ppb(v)) : 1.1315

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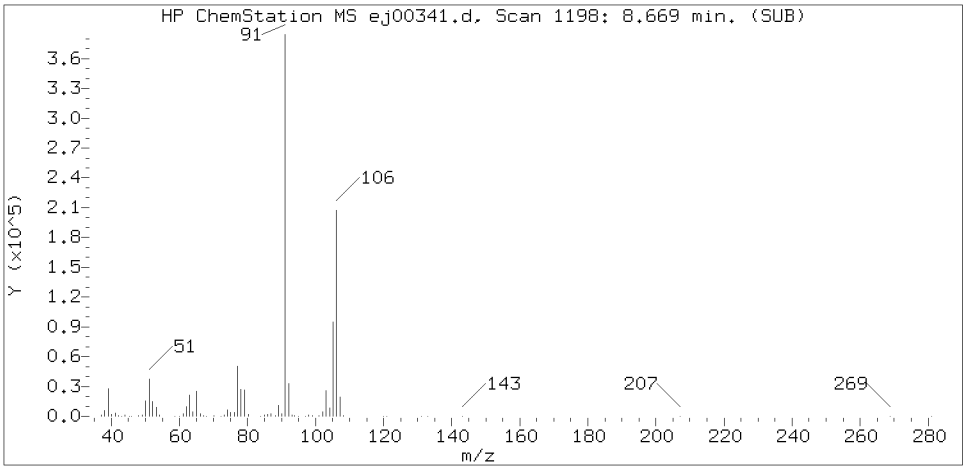
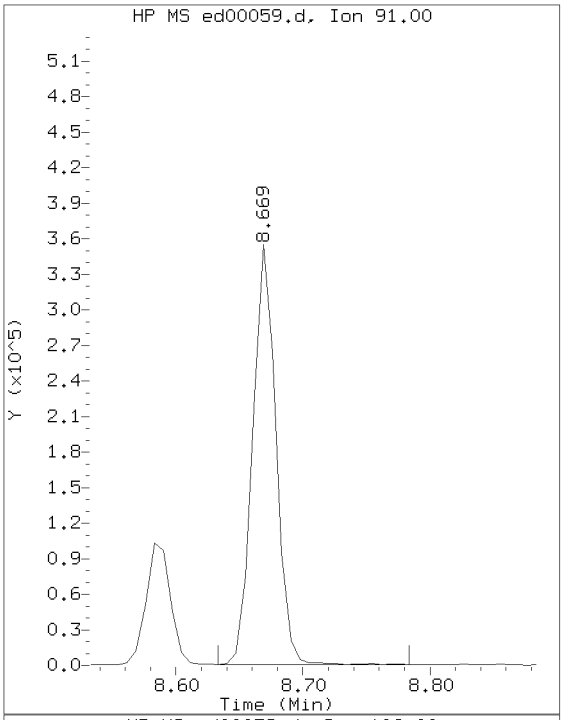
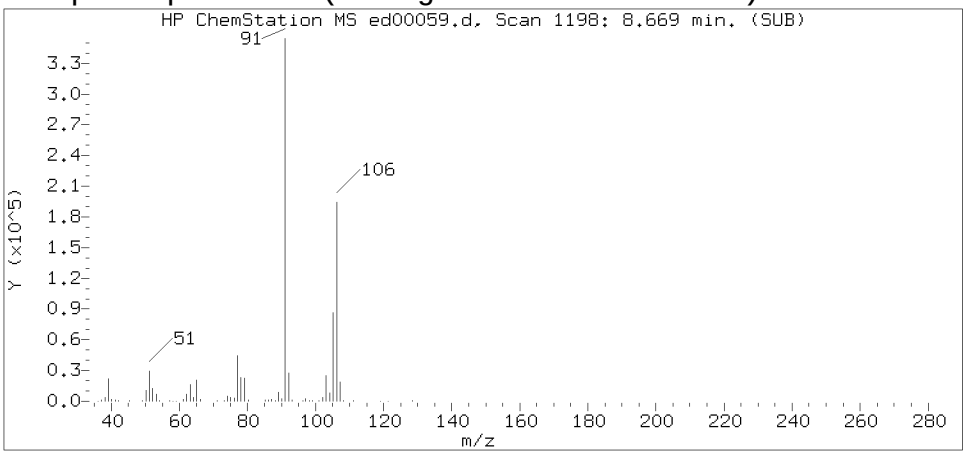
Target 3.5 esignature user ID: jeb07445

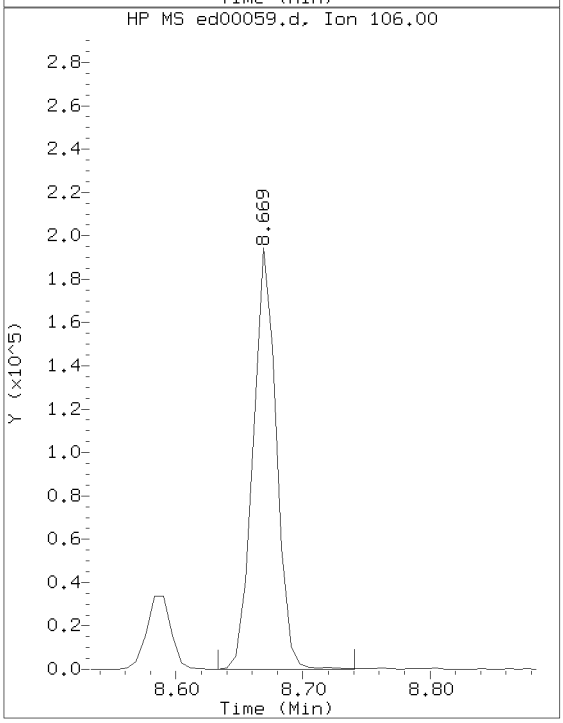
Reference Standard Spectrum for m/p-Xylene



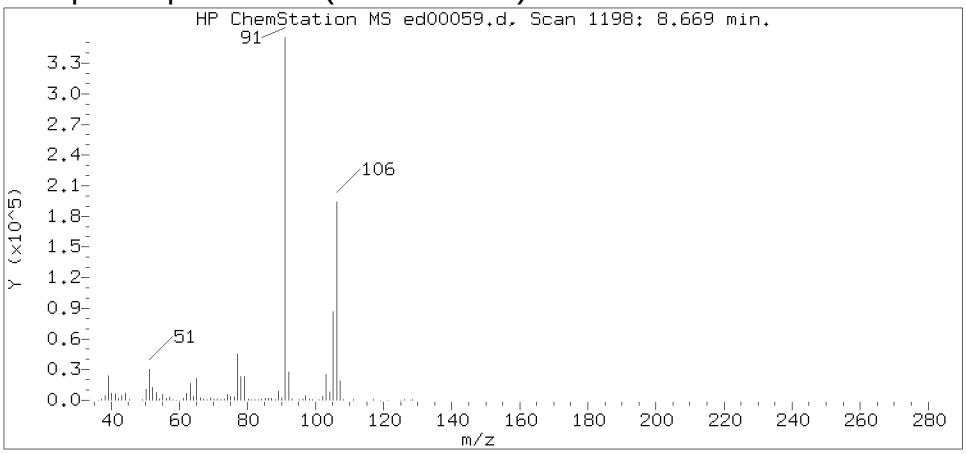


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1198
Retention Time (minutes): 8.669
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 456667
Concentration (ppb(v)) : 4.6737

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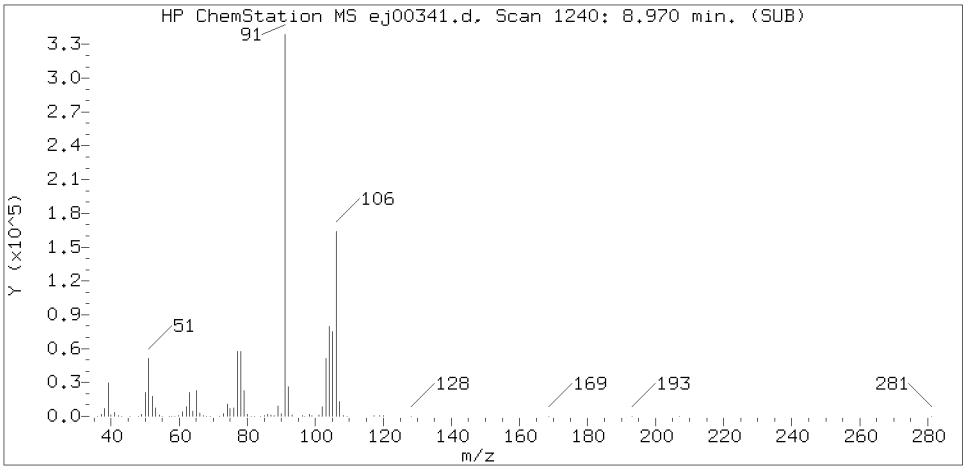
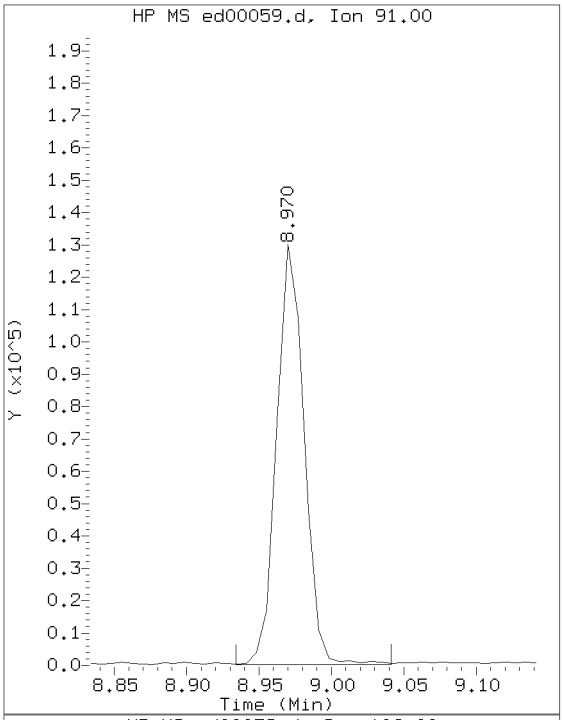
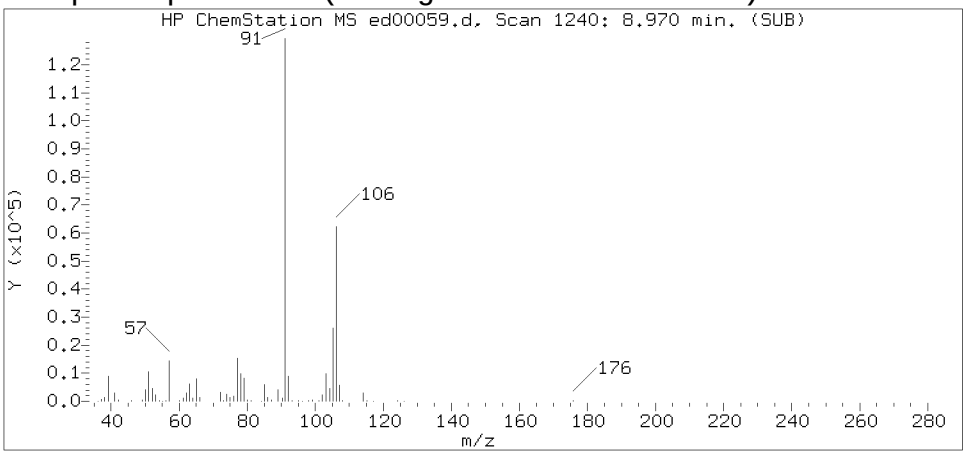
Target 3.5 esignature user ID: jeb07445

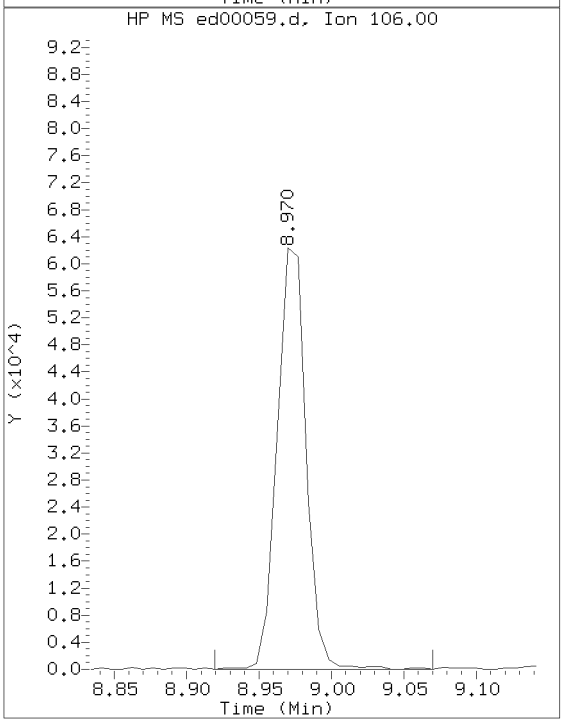
Reference Standard Spectrum for o-Xylene



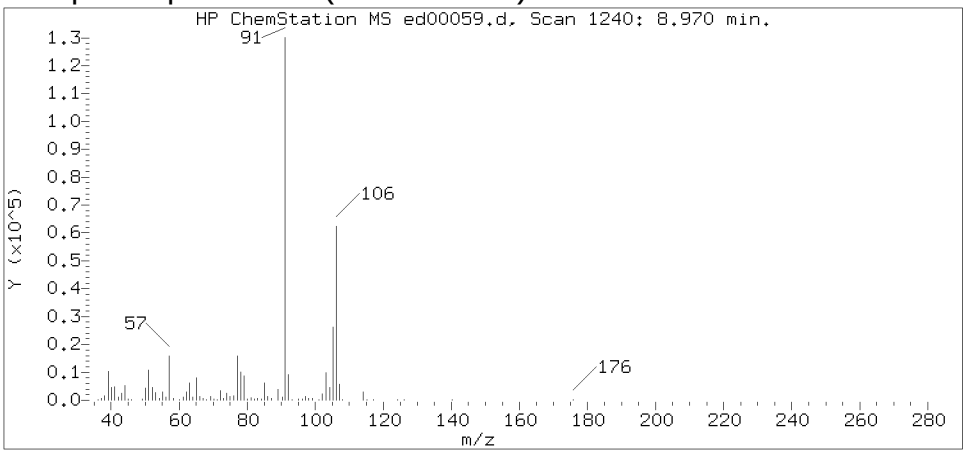


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 171227
Concentration (ppb(v)) : 1.8081

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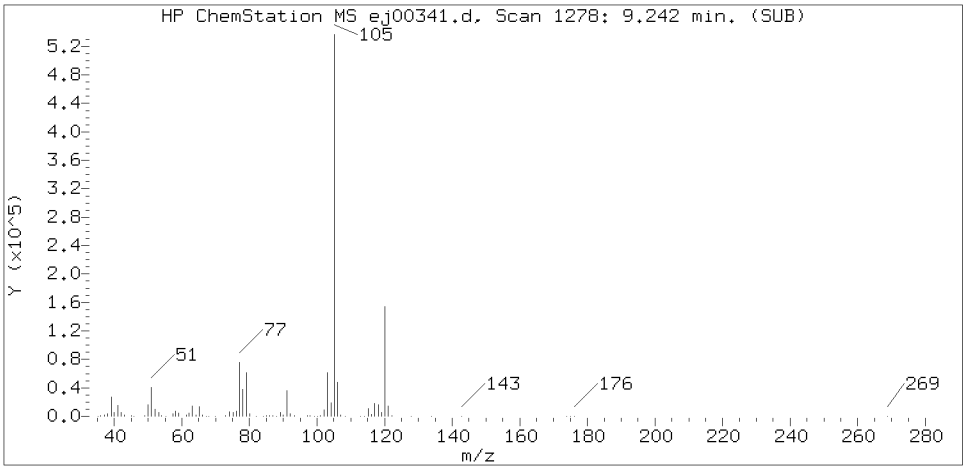
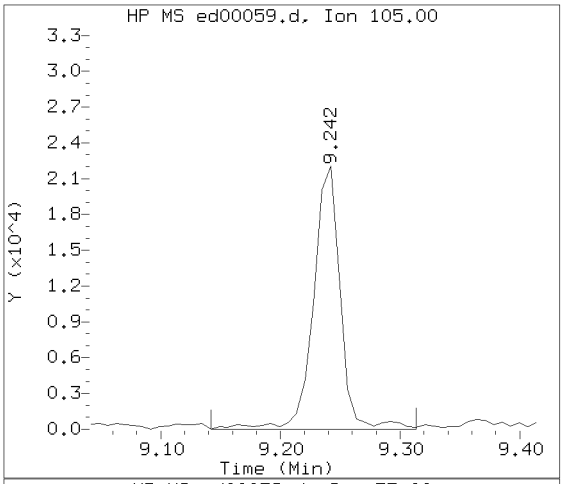
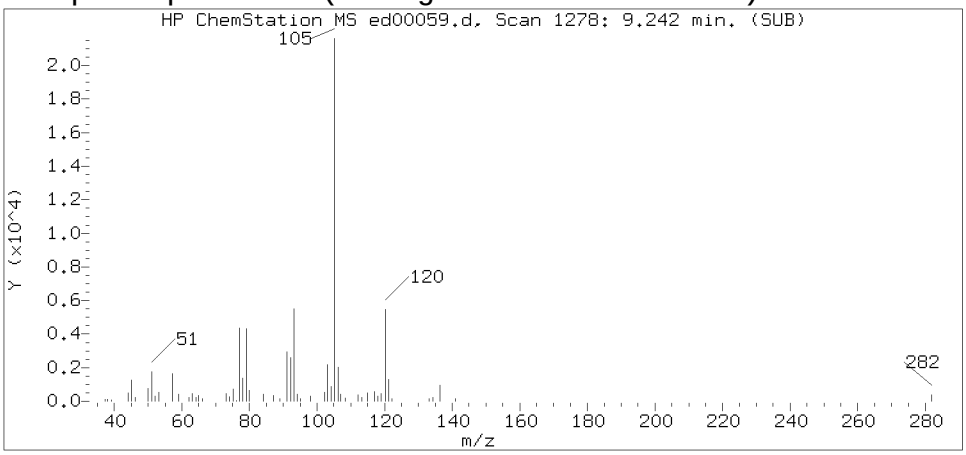
Target 3.5 esignature user ID: jeb07445

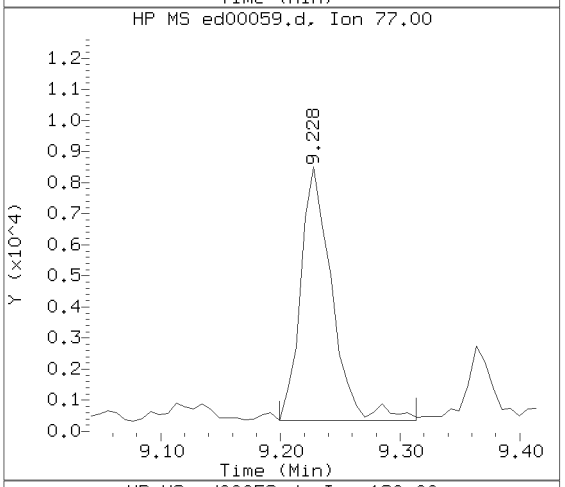
Reference Standard Spectrum for Cumene



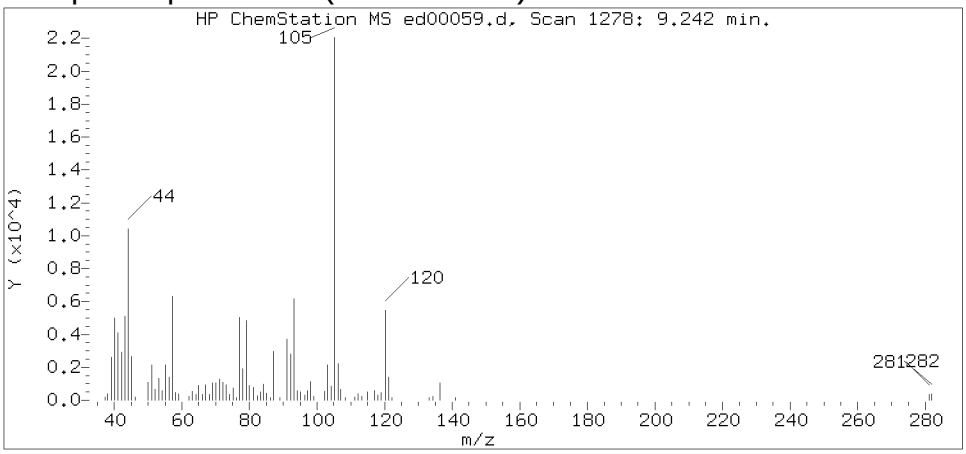


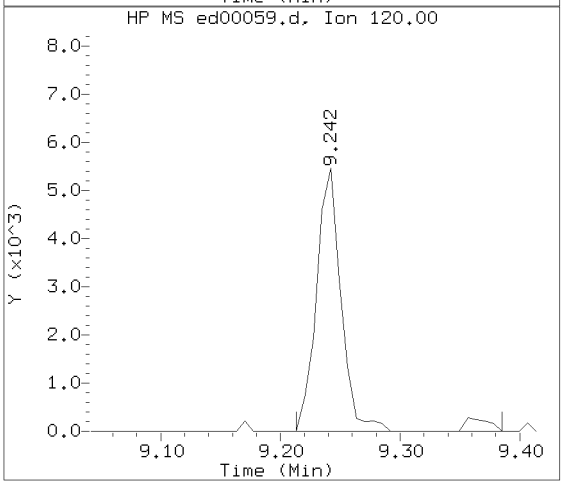
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 80
Compound Name : Cumene
Scan Number : 1278
Retention Time (minutes): 9.242
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 34756
Concentration (ppb(v)) : 0.2608

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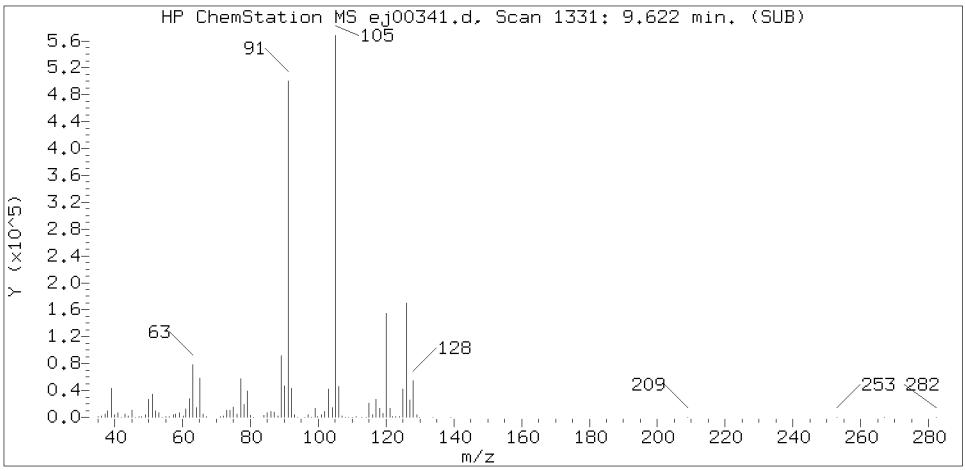
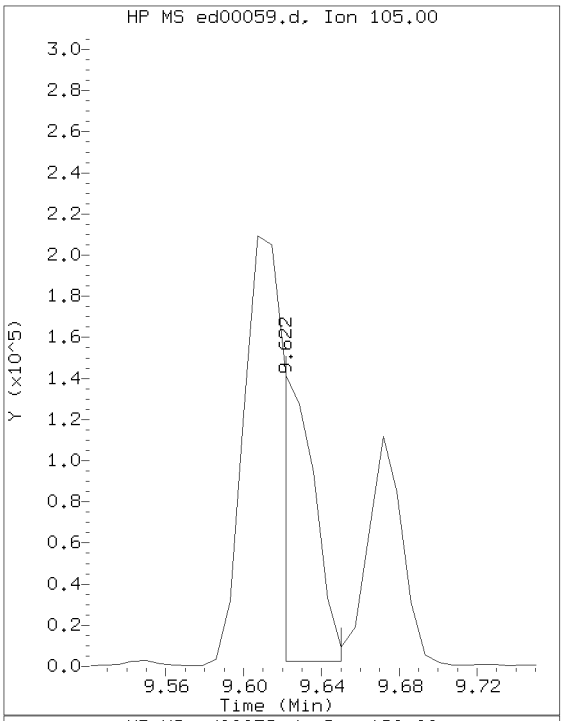
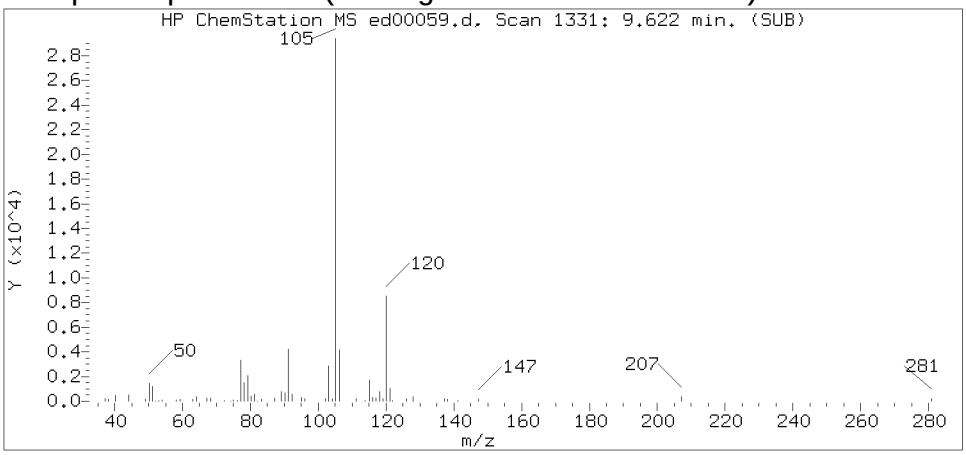
Target 3.5 esignature user ID: jeb07445

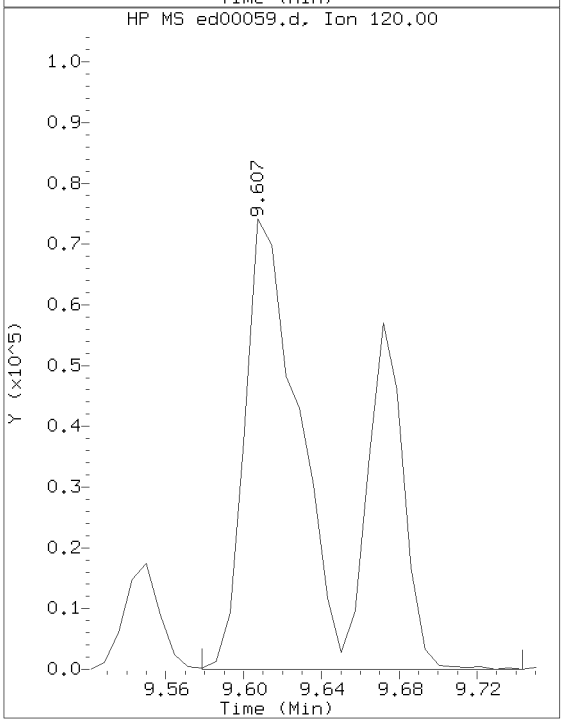
Reference Standard Spectrum for 4-Ethyltoluene



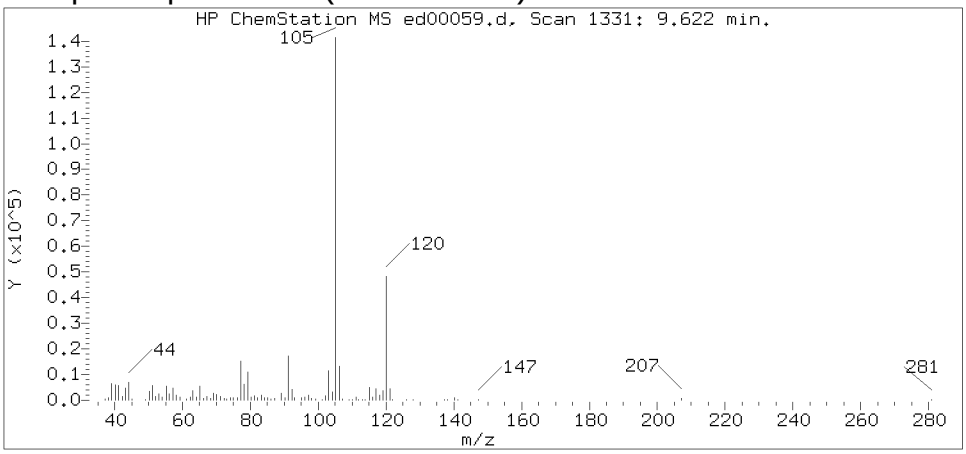


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 169070M
Concentration (ppb(v)) : 1.2848

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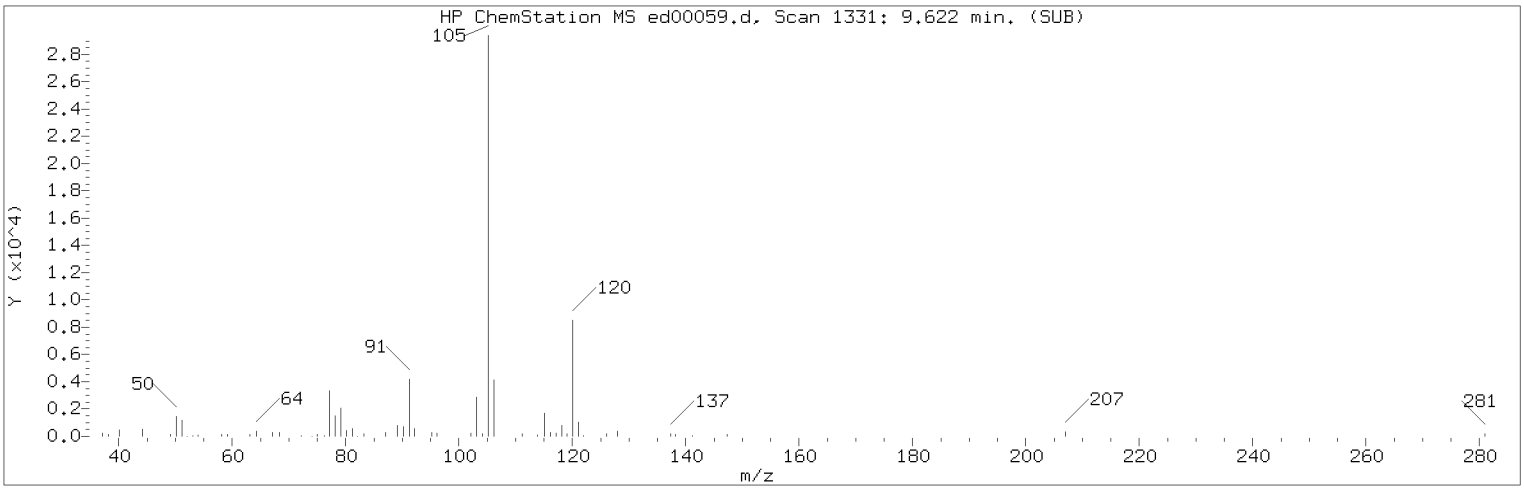
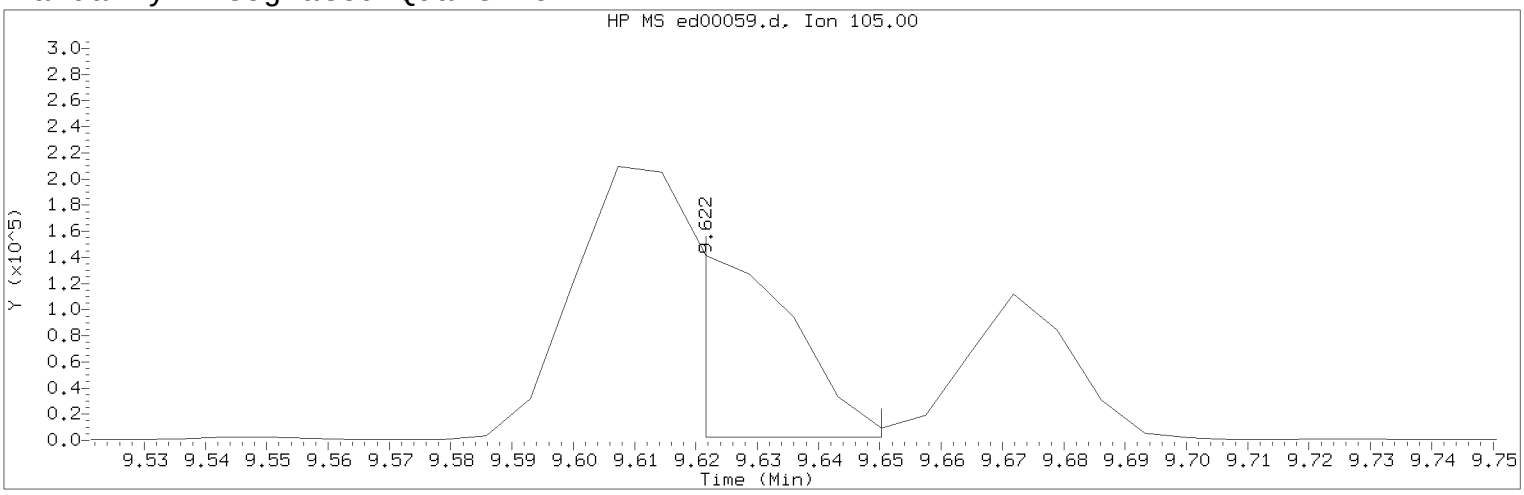
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

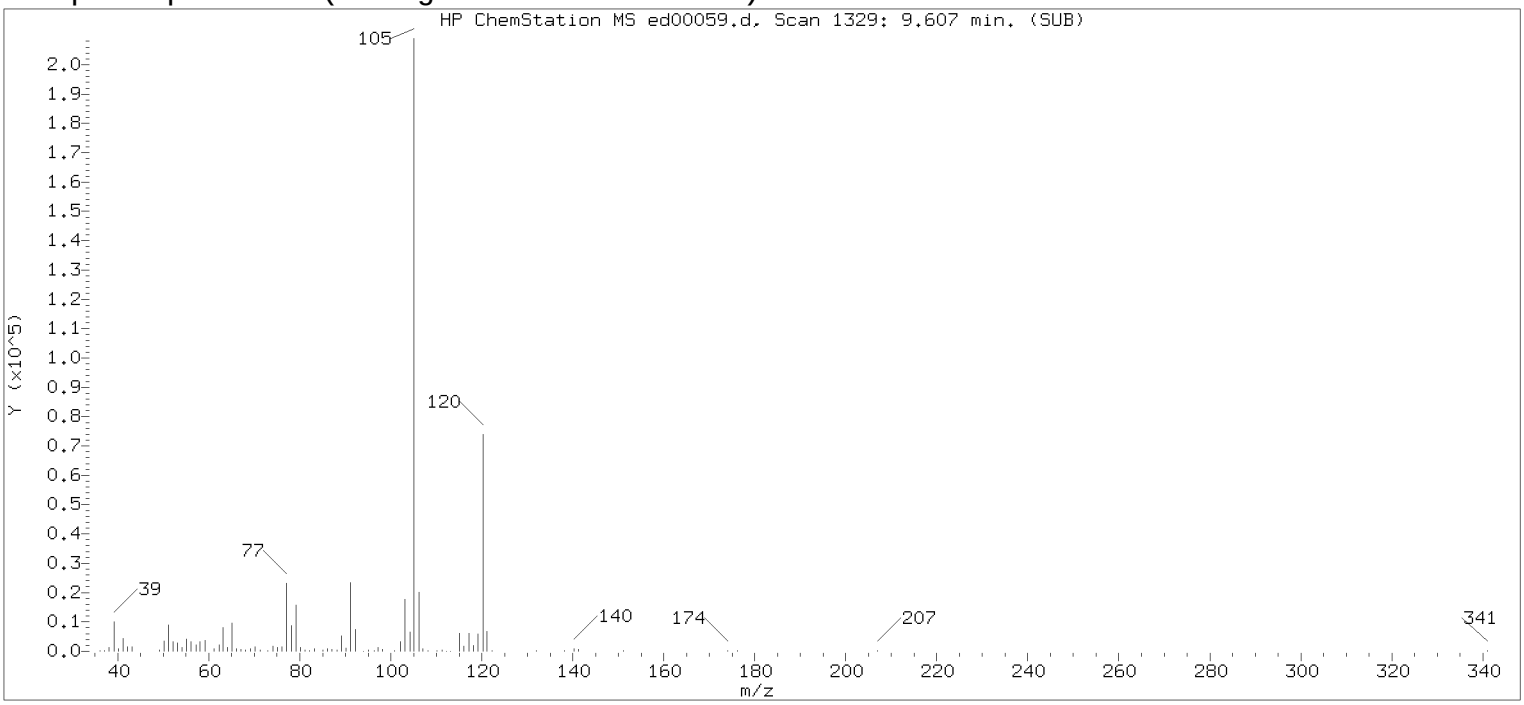
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Quant Ion : 105.00
Area (flag) : 169070M
Concentration (ppb(v)) : 1.2848
Integration start scan : 1330 Integration stop scan: 1334
Y at integration start : 2474 Y at integration end: 2474

Reason for manual integration: improper integration

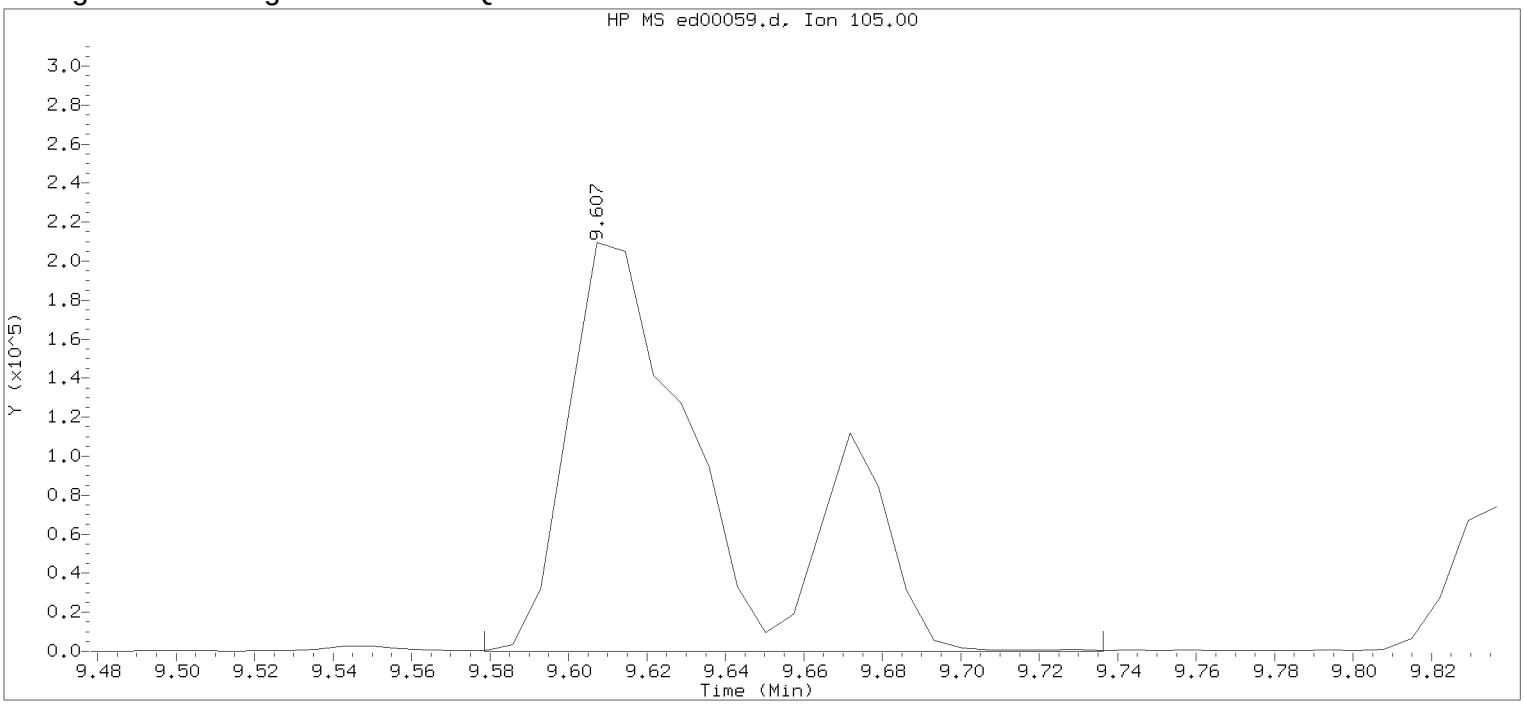
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

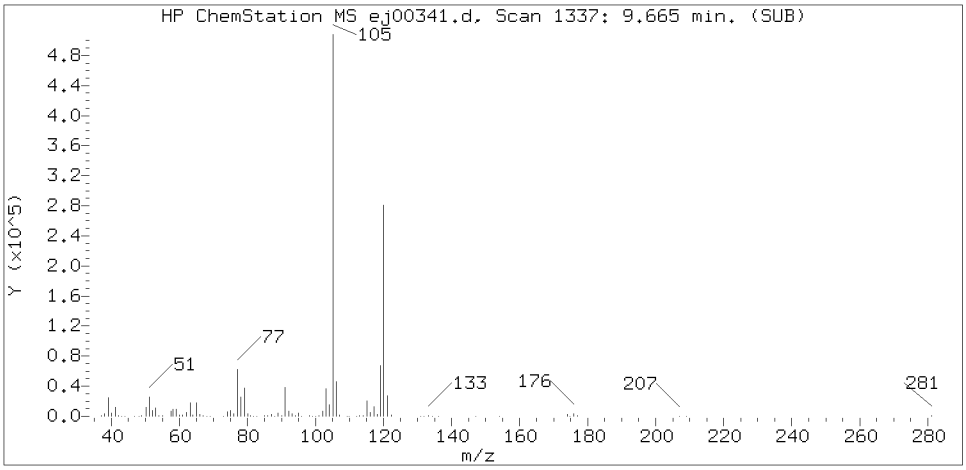
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:20 Unknown

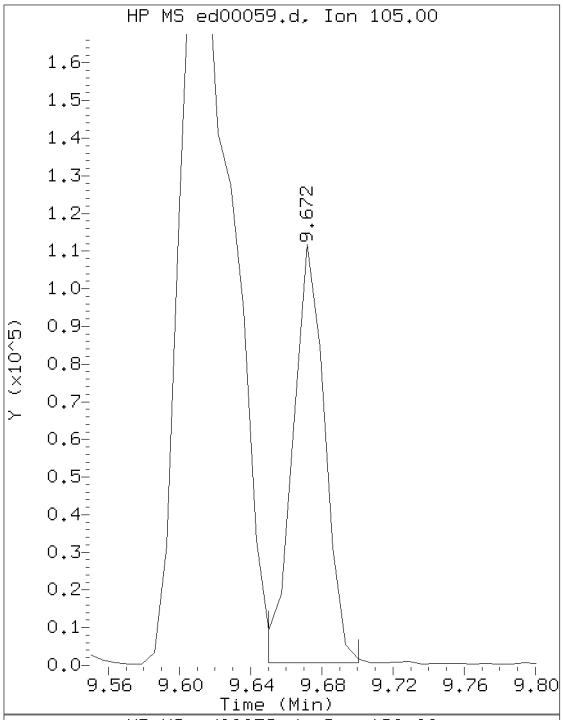
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 559234
Concentration (ppb(v)) : 4.2496
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

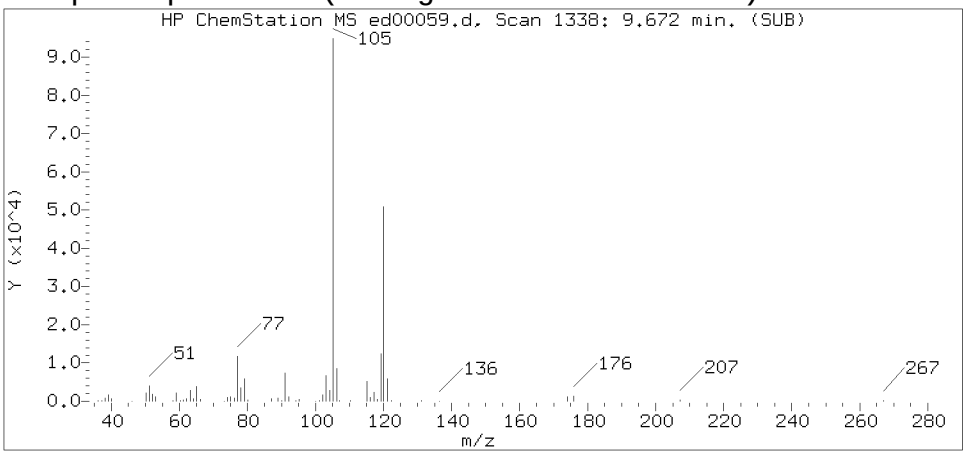
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user id: jeb07445

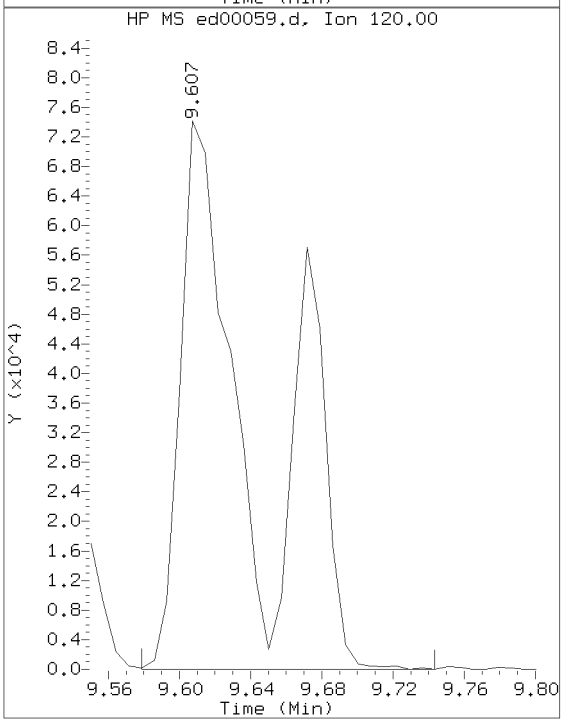
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



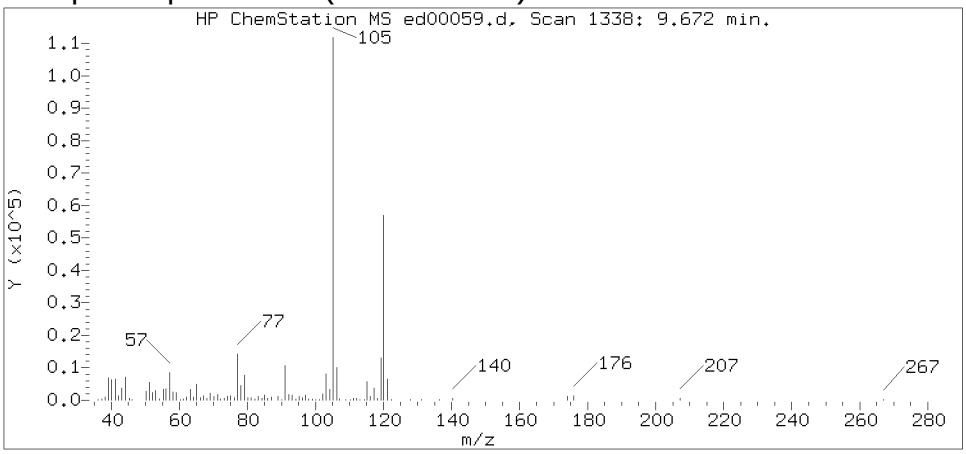


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

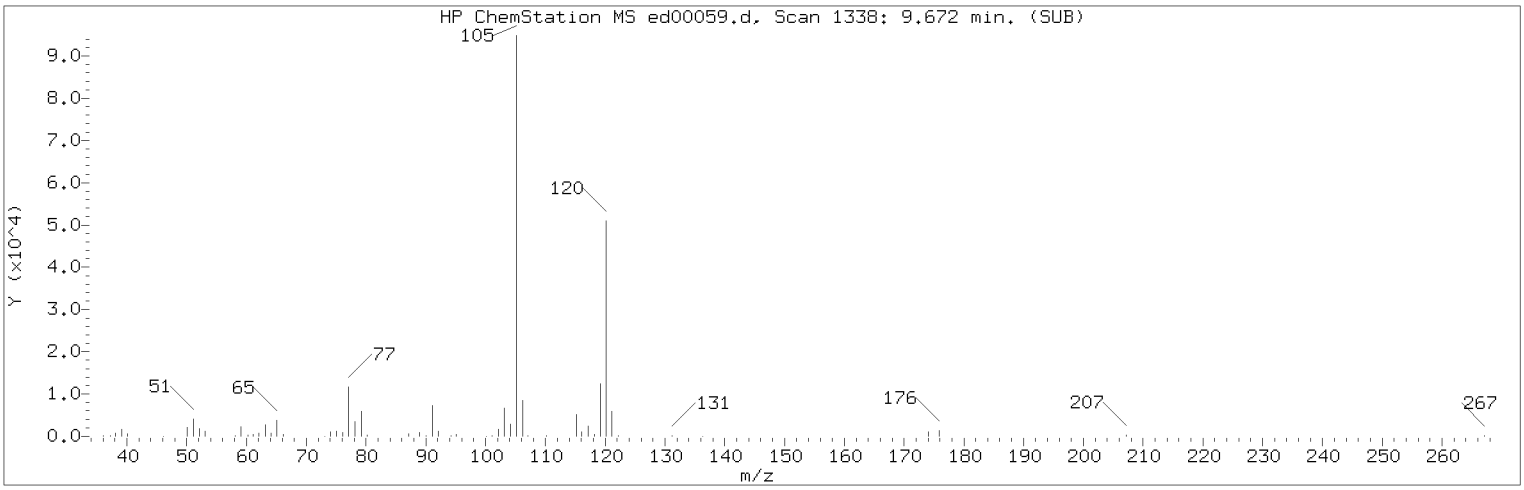
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

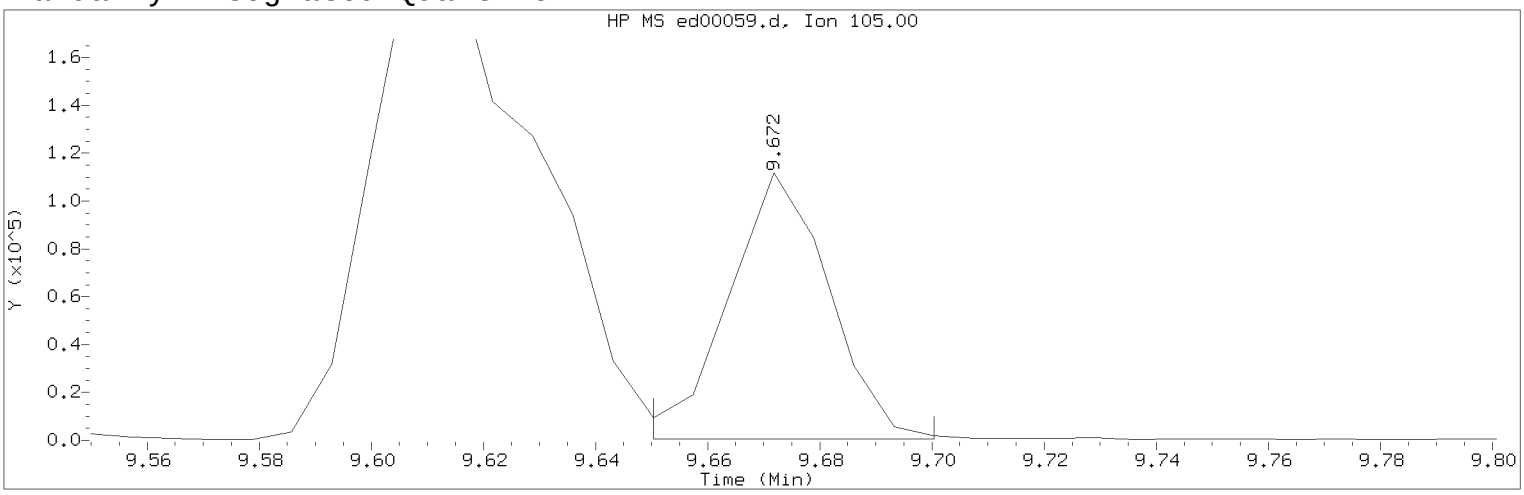
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 139255M
Concentration (ppb(v)) : 1.2732

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

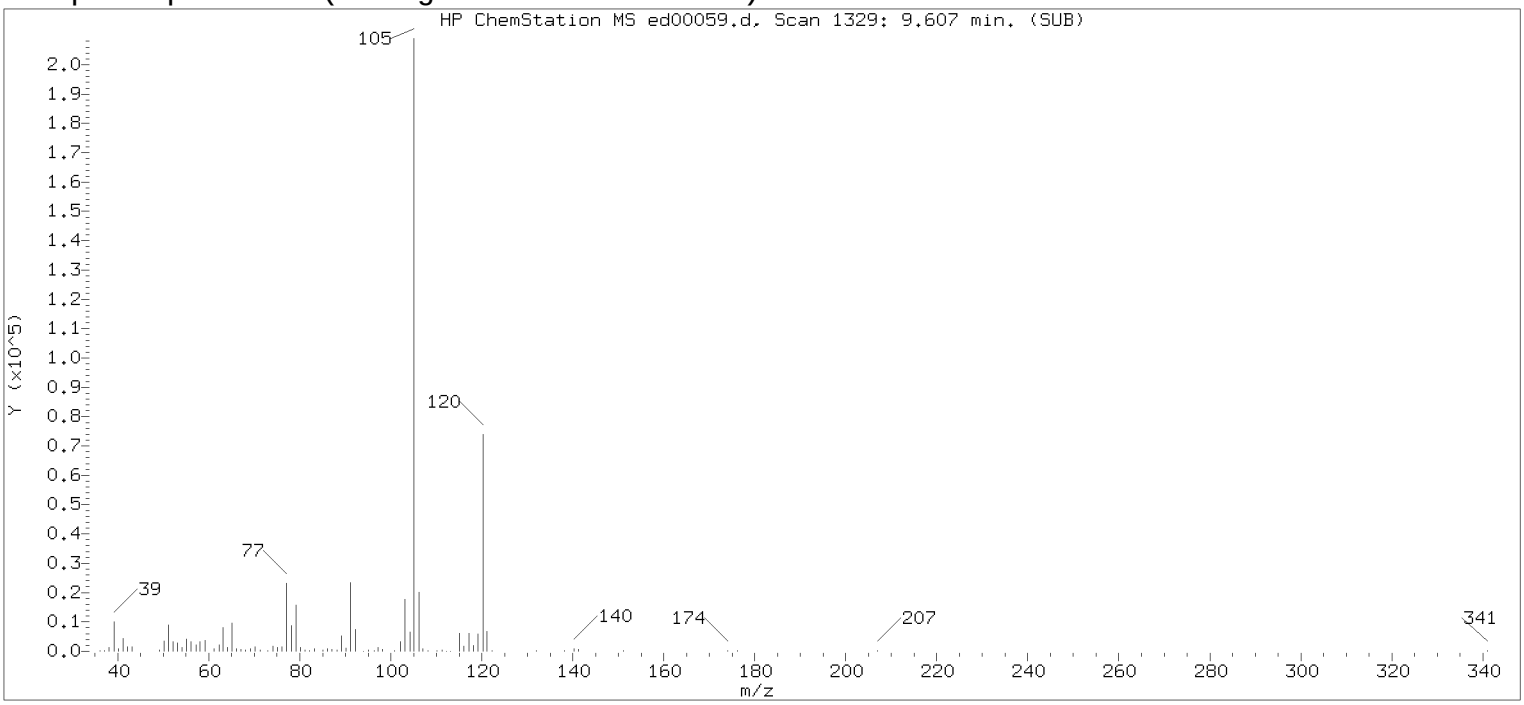
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 139255M
Concentration (ppb(v)) : 1.2732
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 615 Y at integration end: 615

Reason for manual integration: improper integration

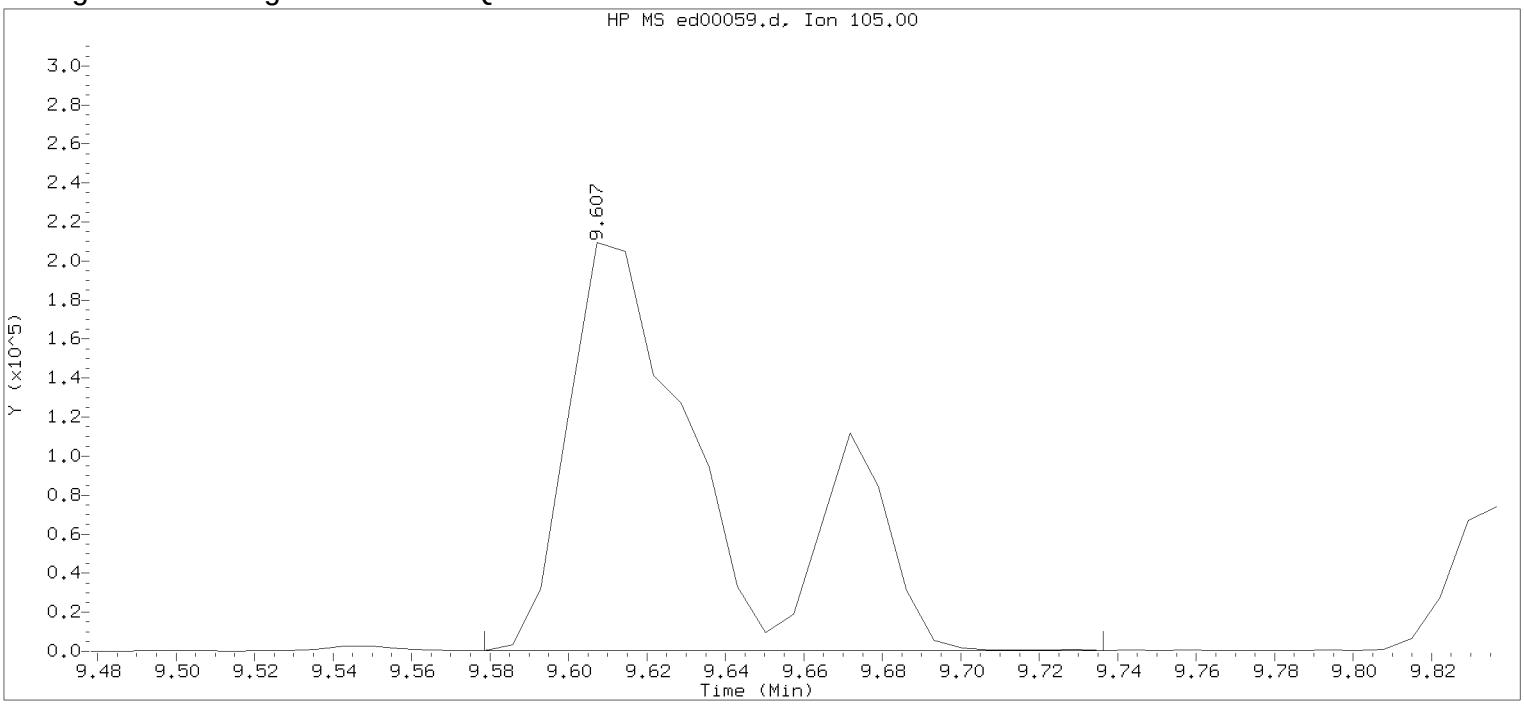
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

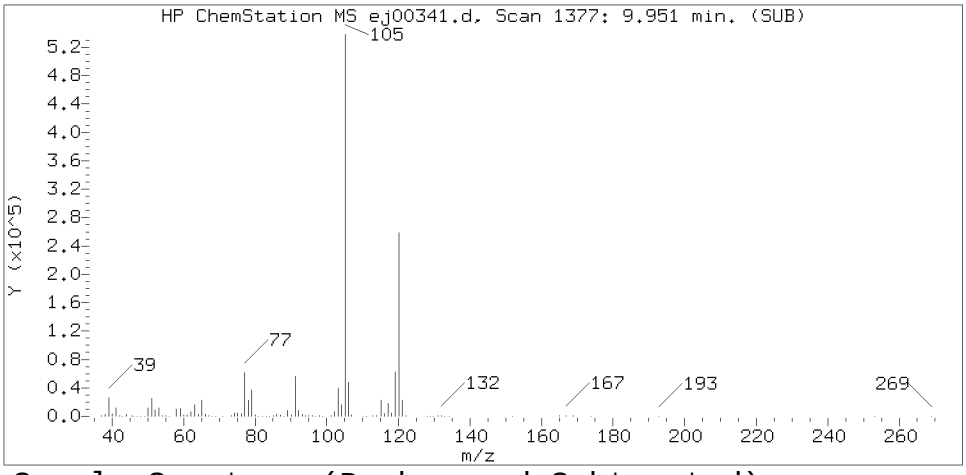
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:20 Unknown

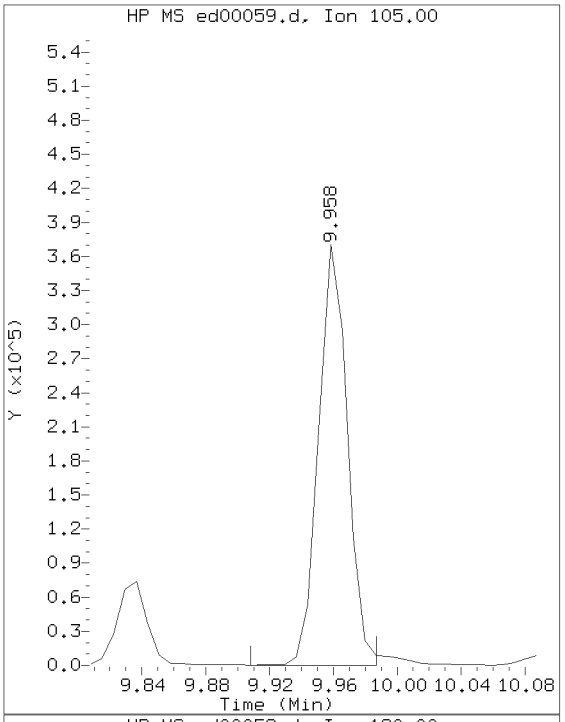
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 556880
Concentration (ppb(v)) : 5.0915
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 249 Y at integration end: 249

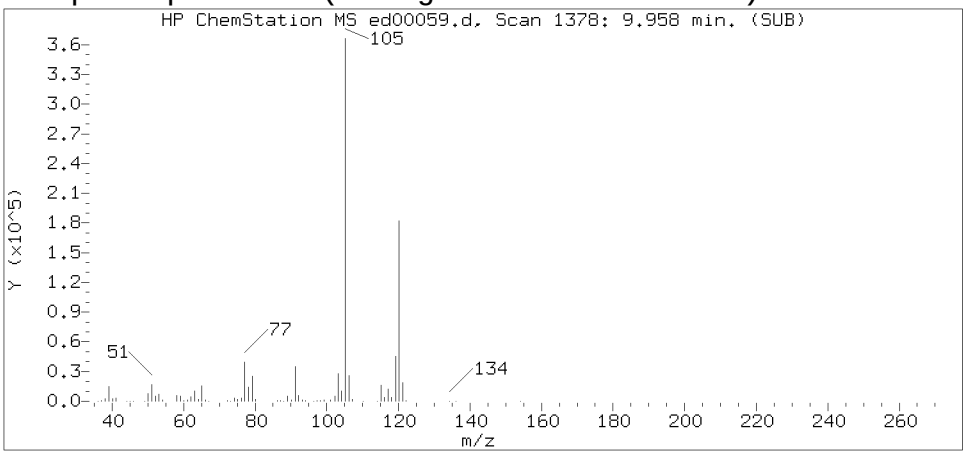
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user id: jeb07445

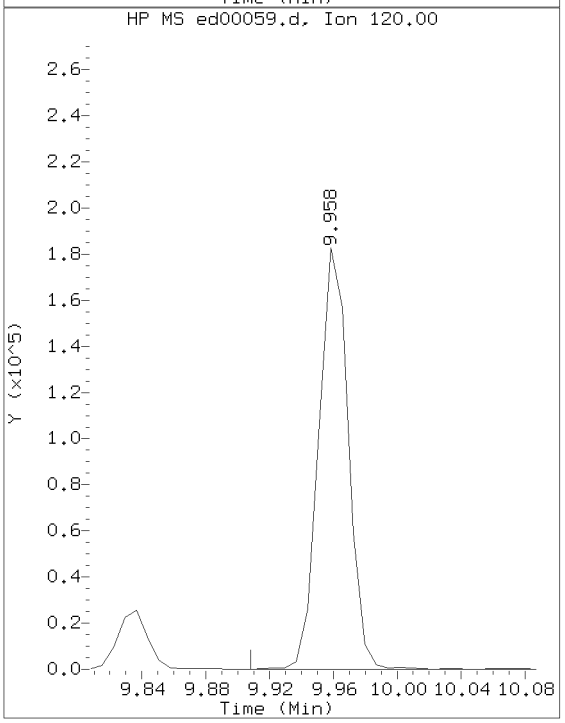
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



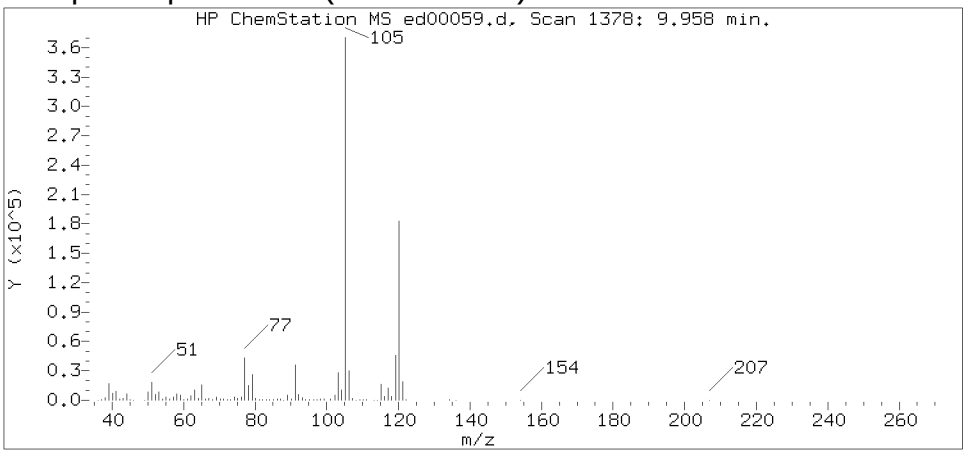


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

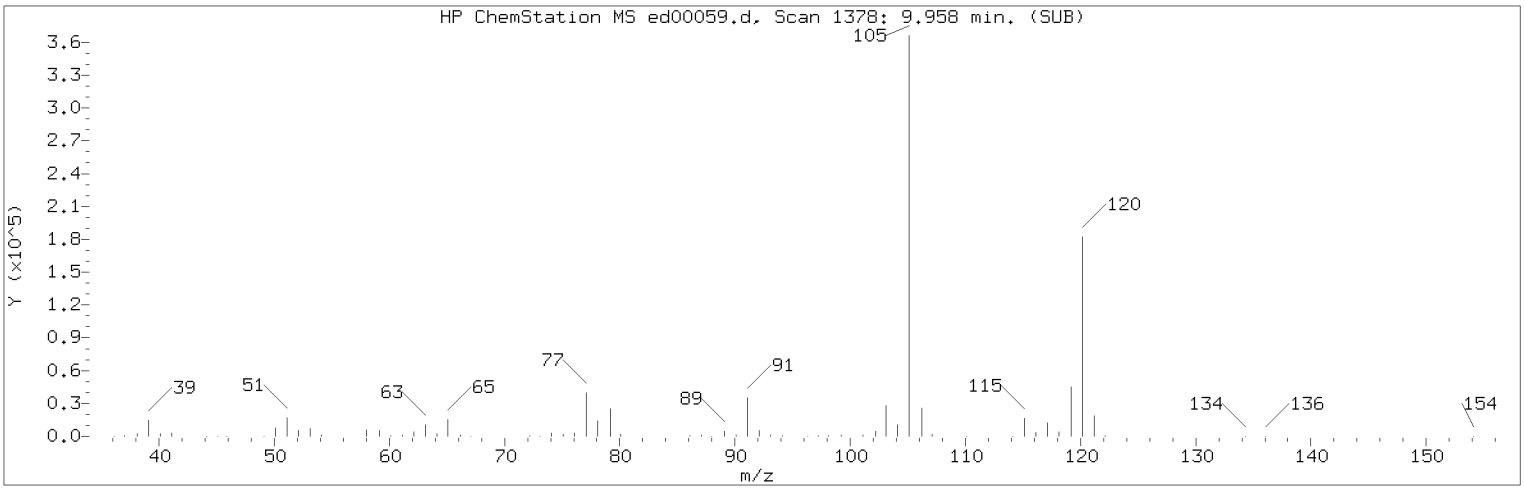
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

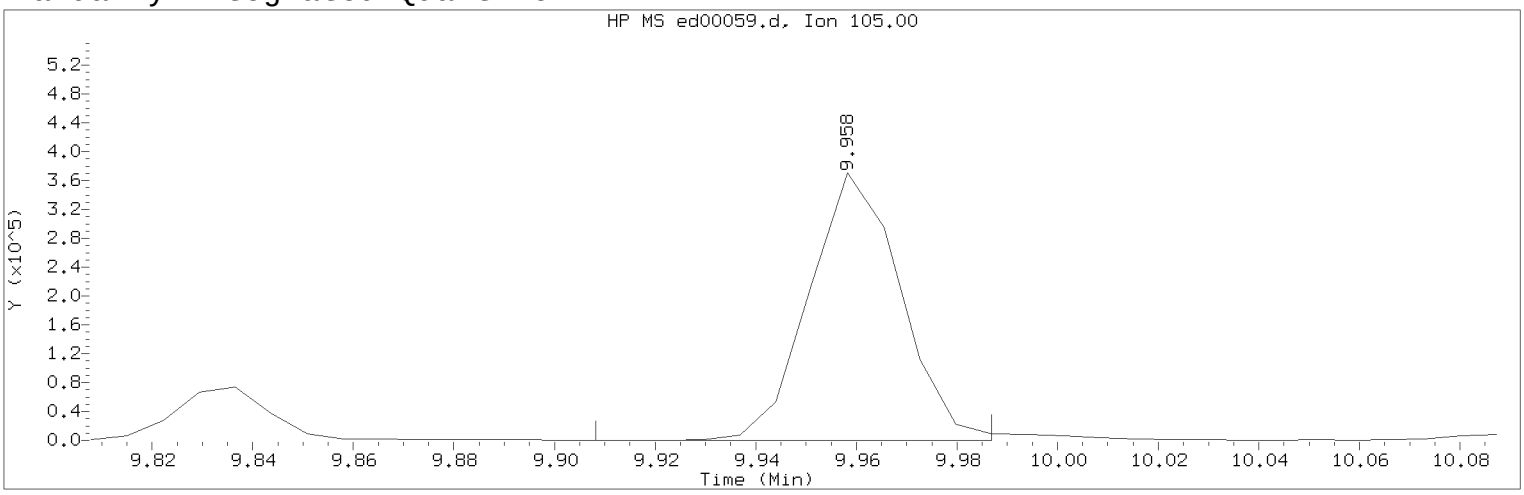
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 466100M
Concentration (ppb(v)) : 4.5051

Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

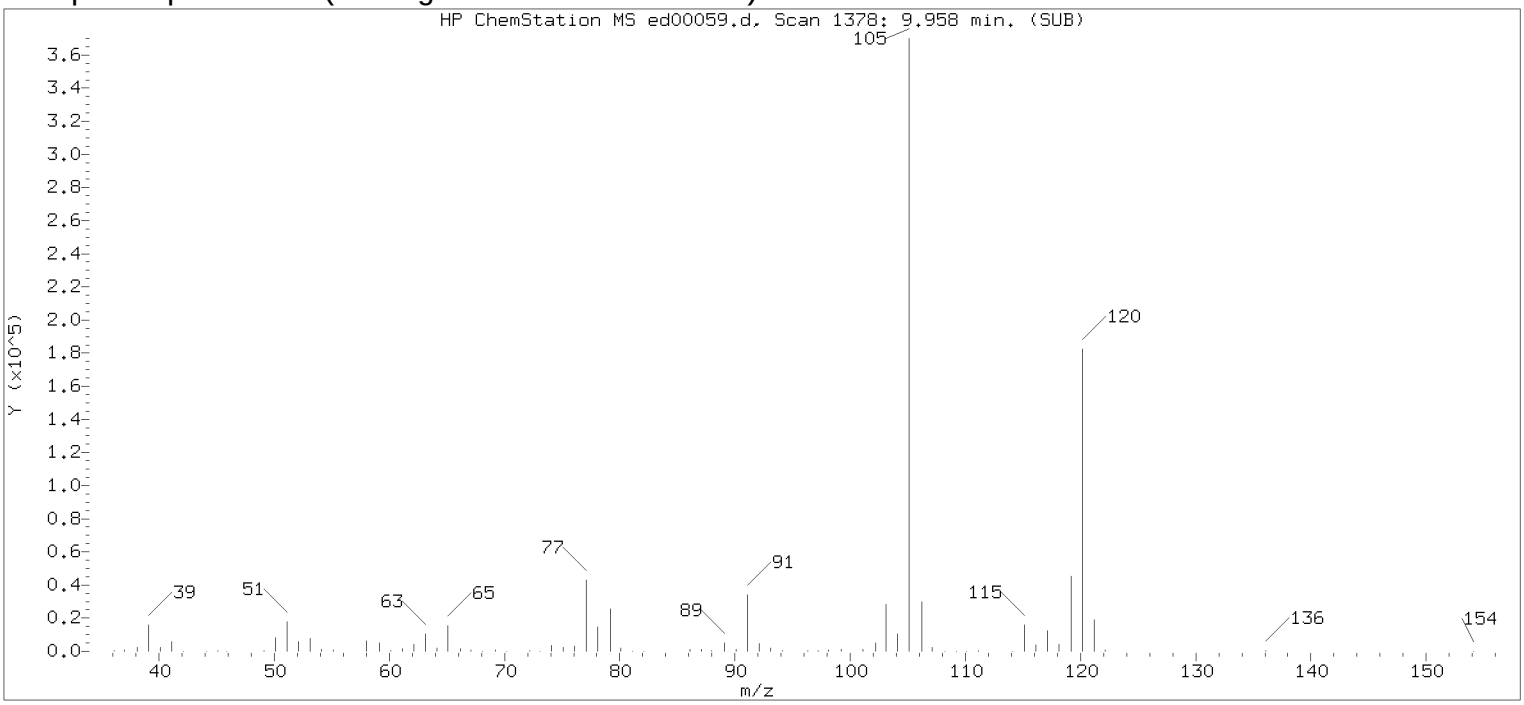
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area (flag) : 466100M
Concentration (ppb(v)) : 4.5051
Integration start scan : 1370 Integration stop scan: 1381
Y at integration start : 211 Y at integration end: 211

Reason for manual integration: improper integration

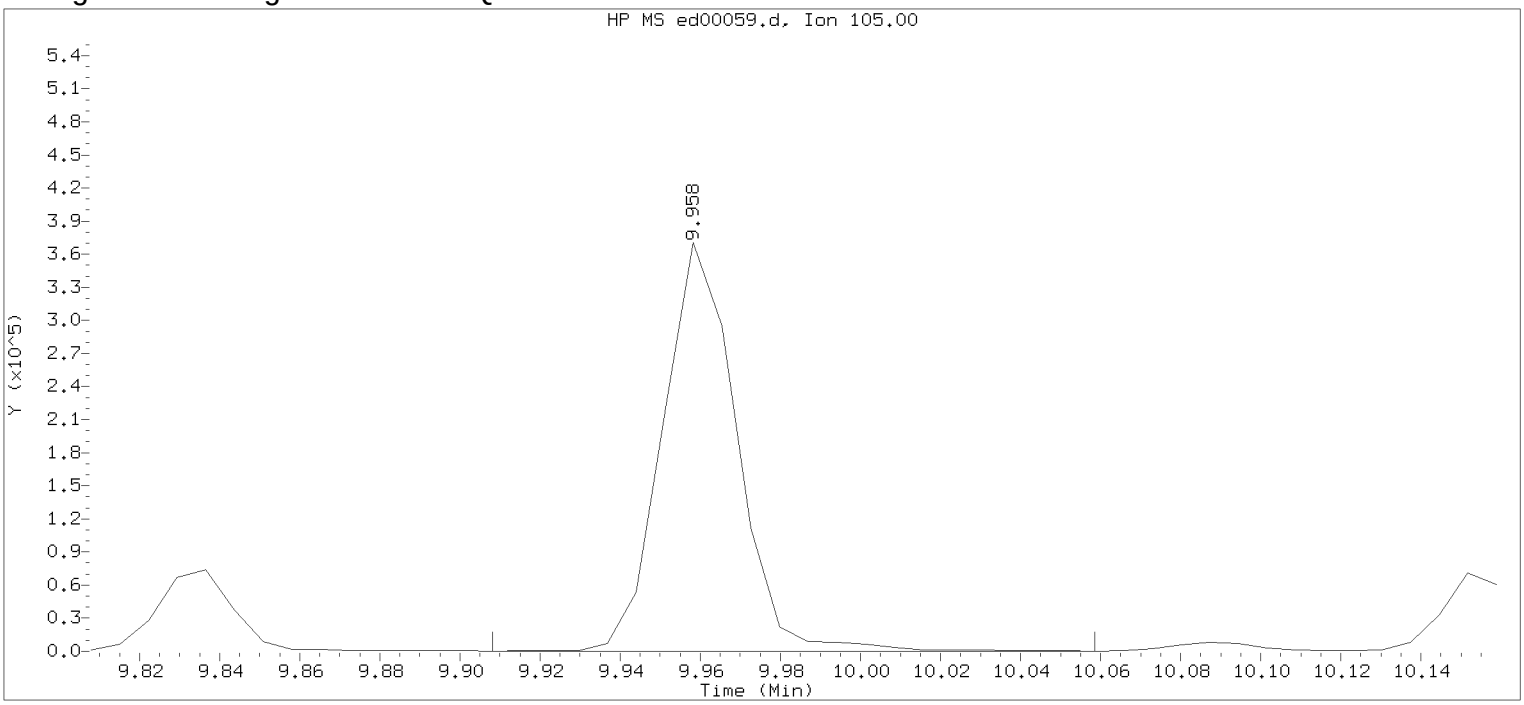
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

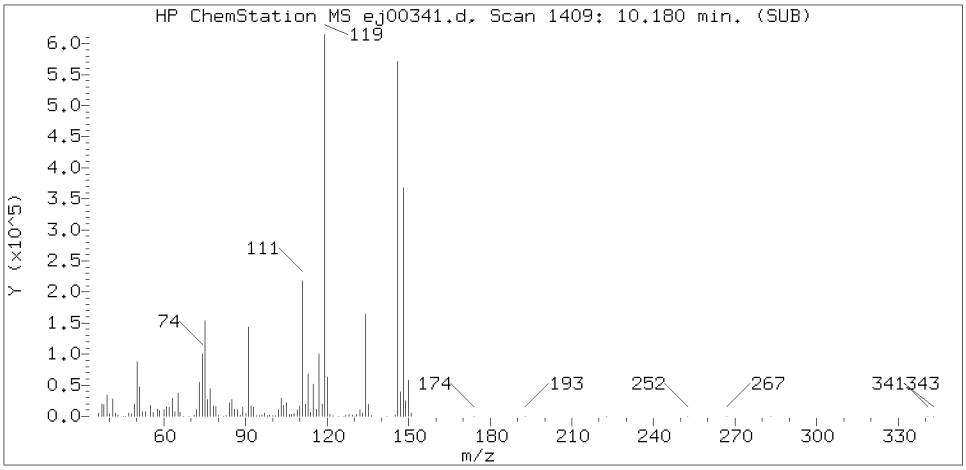
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:20 Unknown

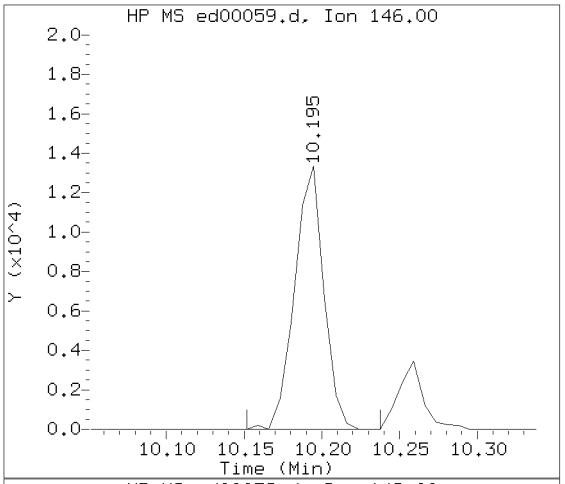
Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area : 475084
Concentration (ppb(v)) : 4.5919
Integration start scan : 1370 Integration stop scan: 1391
Y at integration start : 211 Y at integration end: 211

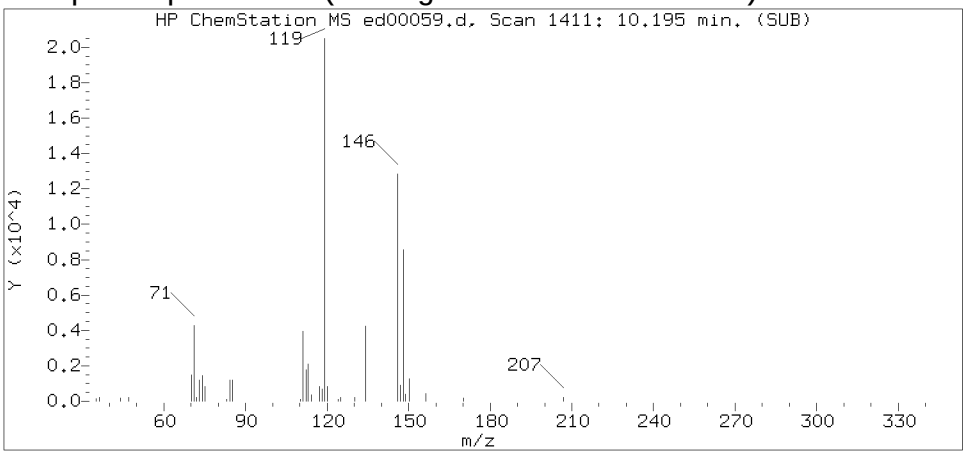
Digitally signed by Jacob E. Bailey on 04/05/2017 at 18:33.
Target 3.5 esignature user id: jeb07445

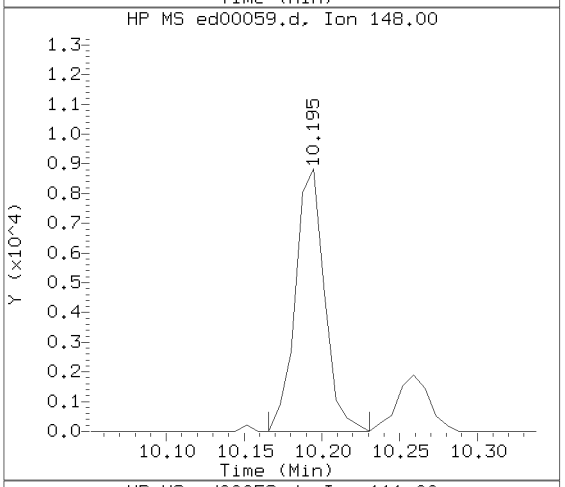
Reference Standard Spectrum for 1,3-Dichlorobenzene



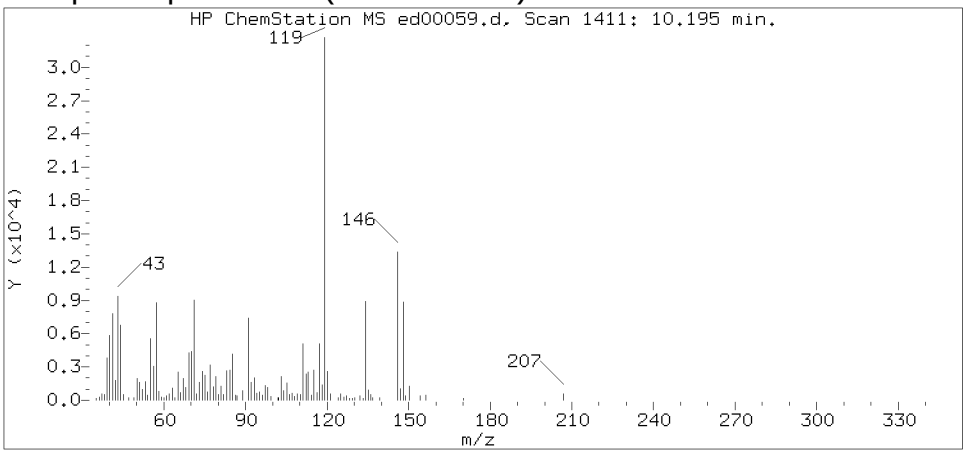


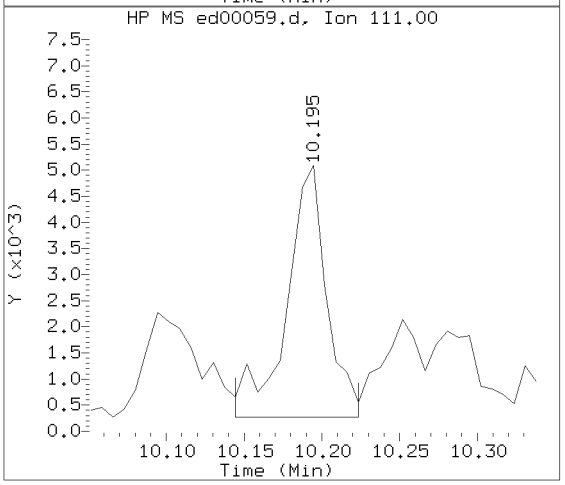
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00059.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 18:32 jeb07445

Sample Name: S7101 Lab Sample ID: 8920247

Compound Number : 92
Compound Name : 1,3-Dichlorobenzene
Scan Number : 1411
Retention Time (minutes): 10.195
Relative Retention Time :-0.00000
Quant Ion : 146.00
Area (flag) : 17420
Concentration (ppb(v)) : 0.2225

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Target 3.5 esignature user ID: jeb07445

S7102

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

8920248

Data file: /chem/HP22820.i/17apr05.b/ed00060.d
Injection date and time: **05-APR-2017 18:45**
Data file Sample Info. Line: 8920248;400;E1709530AA;S7102;0;0;SAMPLE;
Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 24.7 psia Canister Pressure before dilution (Ya): 12.3 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
40) Bromochloromethane	5.474(0.000)	752	130	203374 (-10)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	826711 (-1)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	870624 (5)	10.00		498344 - 1162802

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)	1.649(-0.001)	85	27213	0.531	0.53		J	0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)	1.978(-0.002)	62	41605	2.159	2.16			0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.874(-0.001)	43	122172	4.240	4.24			0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.533(-0.001)	43	810105	35.079	35.08			0.5	2
21) Carbon Disulfide	(1)	3.669(-0.002)	76	318657	5.400	5.40			0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)	4.020(-0.001)	84	19036	1.084	1.08			0.2	1
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	161646	5.850	5.85			0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.564(-0.001)	57	430793	14.399	14.40			0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.000)	61	404395	15.355	15.36			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	188093	17.792	17.79			0.5	2
42) Chloroform	(1)	5.539(-0.000)	83	43700	0.954	0.95		J	0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(0.000)	78	786534	10.255	10.26			0.2	1
47) 1,2-Dichloroethane	(2)	6.011(0.000)	62	2573125	89.060	89.06		E	0.2	1
48) Isooctane	(2)	6.033(0.001)	57	2076355	19.678	19.68			0.2	1
50) Heptane	(2)	6.176(0.000)	43	292604M	8.375	8.37			0.2	1
52) Trichloroethene	(2)	6.491(-0.000)	130	53508	1.354	1.35			0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.465(0.000)	91	11578170	110.170	110.17		E	0.2	1
62) Octane	(3)	7.516(0.000)	43	277759M	5.384	5.38			0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	160143	2.589	2.59			0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43. Target 3.5 esignature user ID: jeb07445

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

Data file: /chem/HP22820.i/17apr05.b/ed00060.d Injection date and time: **05-APR-2017 18:45**
Data file Sample Info. Line: 8920248;400;E1709530AA;S7102;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 24.7 psia Canister Pressure before dilution (Ya): 12.3 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
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.590(-0.000)	91	13891353	103.154	103.15		E	0.2	1
75) m/p-Xylene	(3)	8.676(-0.000)	91	14623929	137.492	137.49		E	0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	1816177	17.618	17.62			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)	9.242(-0.000)	105	213396	1.471	1.47			0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)	9.614(0.001)	105	183013M	1.278	1.28			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.664(0.000)	105	270769	2.274	2.27			0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.951(0.001)	105	697449M	6.193	6.19			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.180(0.001)	146	21206	0.249	0.25		J	0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Total number of targets = 62

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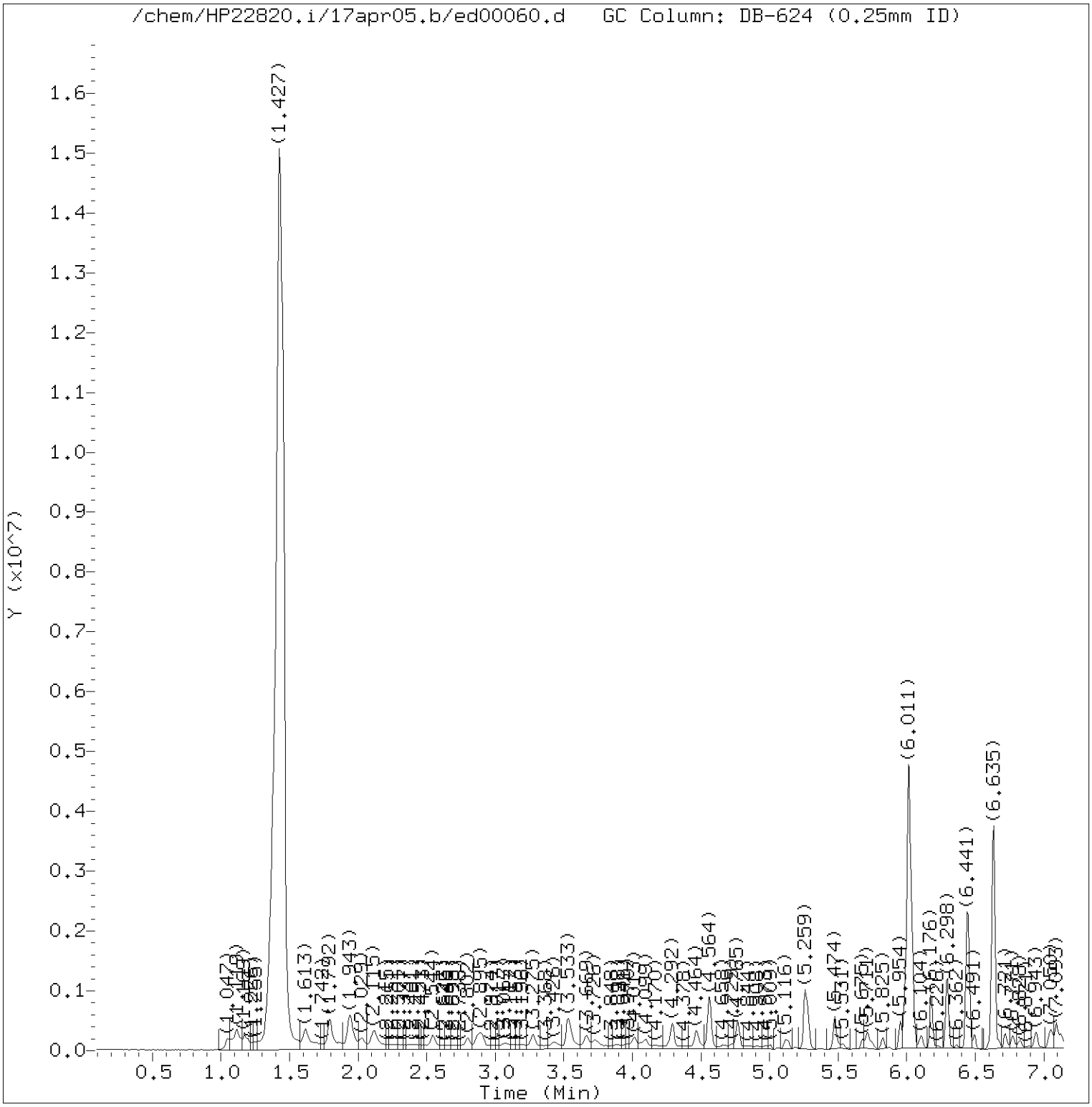
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:56. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

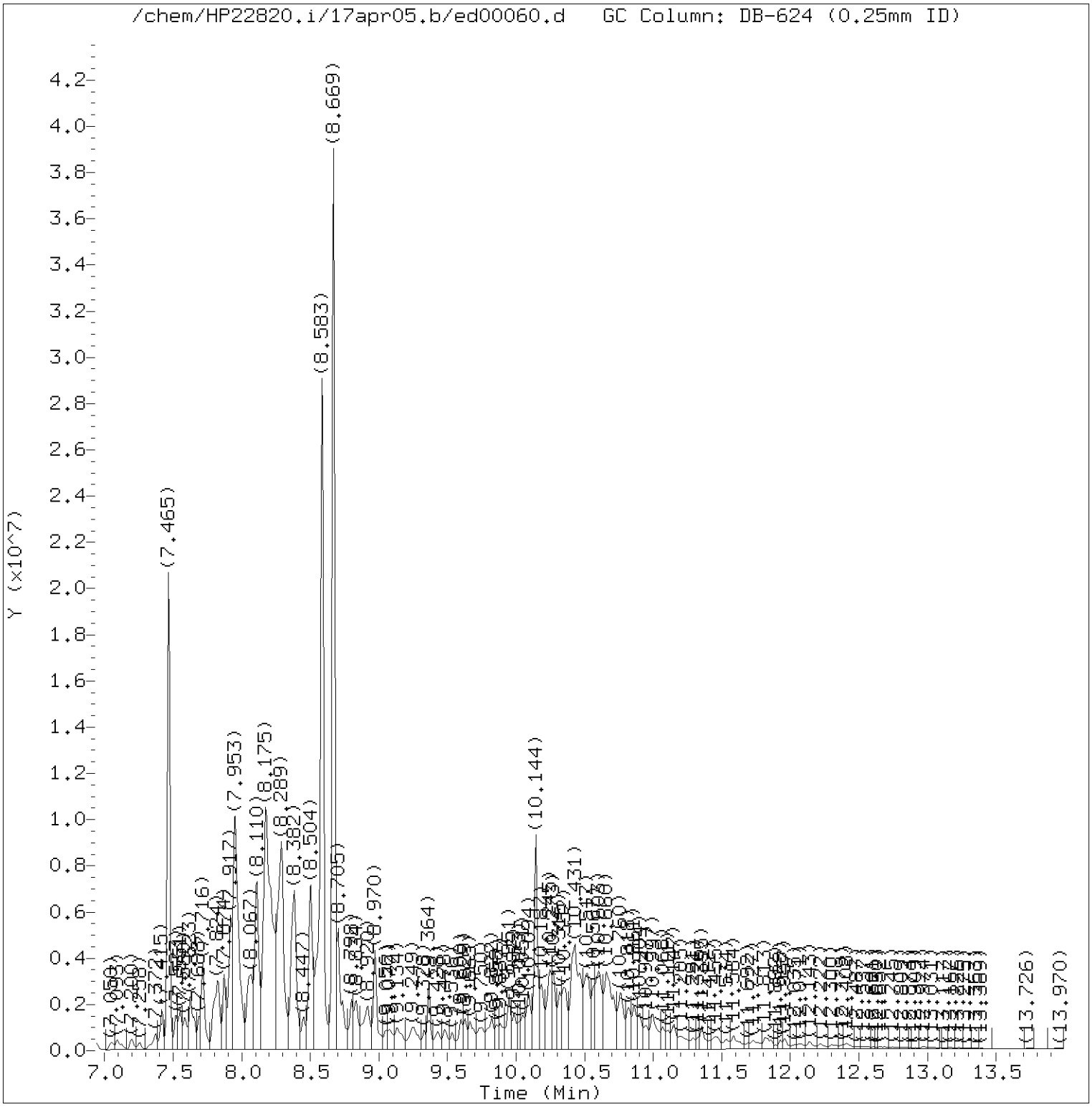
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

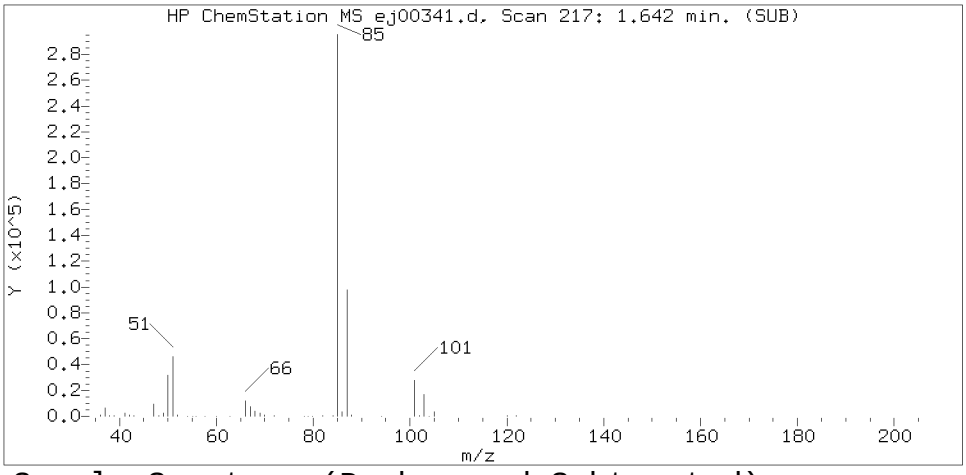
Sample Name: S7102 Lab Sample ID: 8920248

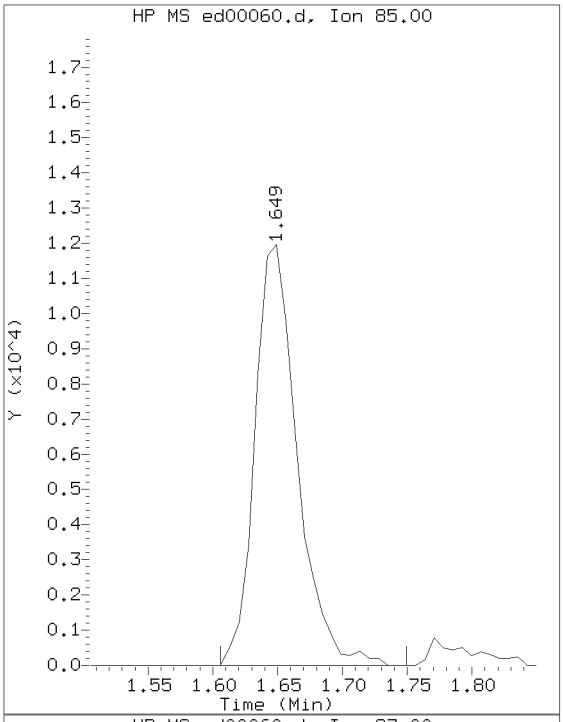
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	1.649	85	27213	0.531
6) Vinyl Chloride	(1)	1.979	62	41605	2.159
13) Pentane	(1)	2.874	43	122172	4.240
19) Acetone	(1)	3.533	43	810105	35.079
21) Carbon Disulfide	(1)	3.669	76	318657	5.400
25) Methylene Chloride	(1)	4.020	84	19036	1.084
28) trans-1,2-Dichloroethene	(1)	4.292	61	161646	5.850
30) Hexane	(1)	4.564	57	430793	14.399
35) cis-1,2-Dichloroethene	(1)	5.259	61	404395	15.355
37) 2-Butanone	(1)	5.281	72	188093	17.792
40)*Bromochloromethane	(1)	5.474	130	203374	10.000
42) Chloroform	(1)	5.539	83	43700	0.954
46) Benzene	(2)	5.990	78	786534	10.255
47) 1,2-Dichloroethane	(2)	6.011	62	2573125	89.060
48) Isooctane	(2)	6.033	57	2076355	19.678
50) Heptane	(2)	6.176	43	292604M	8.375
51)*1,4-Difluorobenzene	(2)	6.298	114	826711	10.000
52) Trichloroethene	(2)	6.491	130	53508	1.354
61) Toluene	(3)	7.465	91	11578170	110.170
62) Octane	(3)	7.516	43	277759M	5.384
67) Tetrachloroethene	(3)	7.874	166	160143	2.589
71)*Chlorobenzene-d5	(3)	8.497	117	870624	10.000
74) Ethylbenzene	(3)	8.590	91	13891353	103.154
75) m/p-Xylene	(3)	8.676	91	14623929	137.492
76) o-Xylene	(3)	8.970	91	1816177	17.618
80) Cumene	(3)	9.242	105	213396	1.471
86) 4-Ethyltoluene	(3)	9.614	105	183013M	1.278
87) 1,3,5-Trimethylbenzene	(3)	9.665	105	270769	2.274
90) 1,2,4-Trimethylbenzene	(3)	9.951	105	697449M	6.193
92) 1,3-Dichlorobenzene	(3)	10.180	146	21206	0.249

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

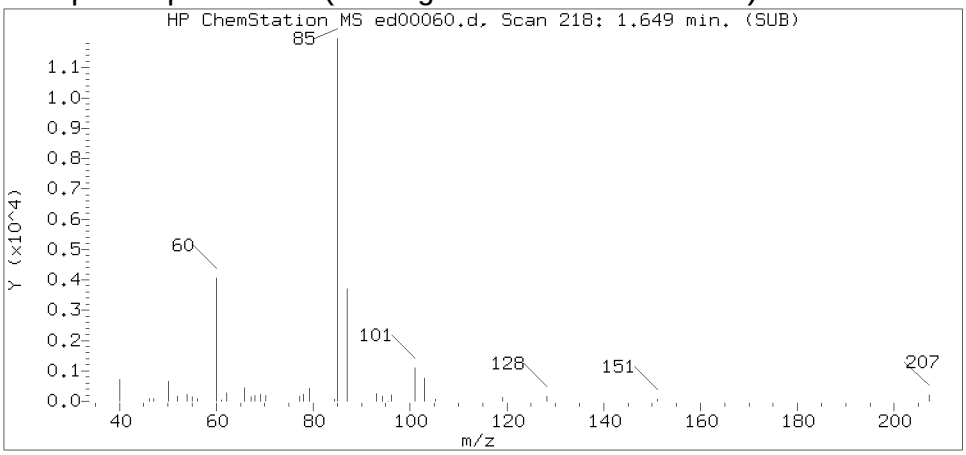
Digitally signed by Jacob E. Bailey
on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

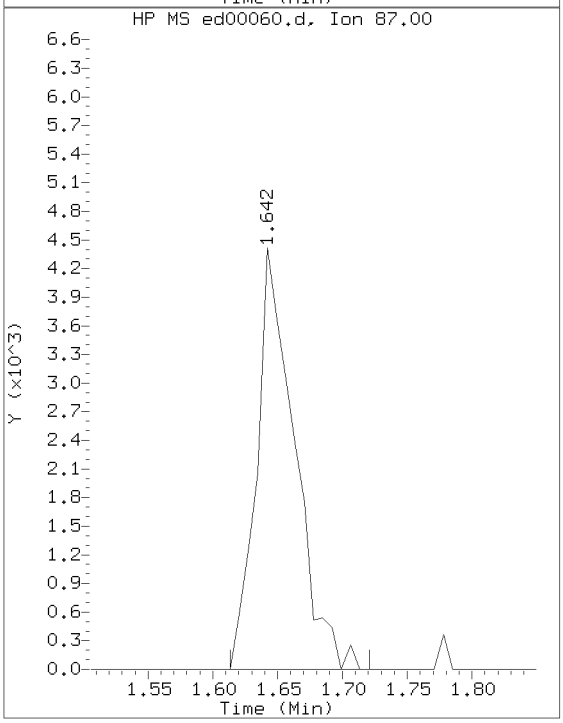
Reference Standard Spectrum for Dichlorodifluoromethane



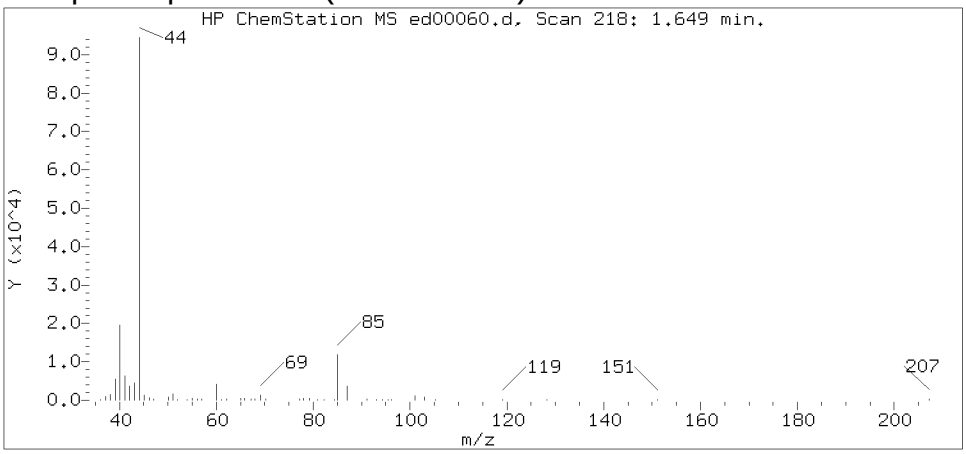


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

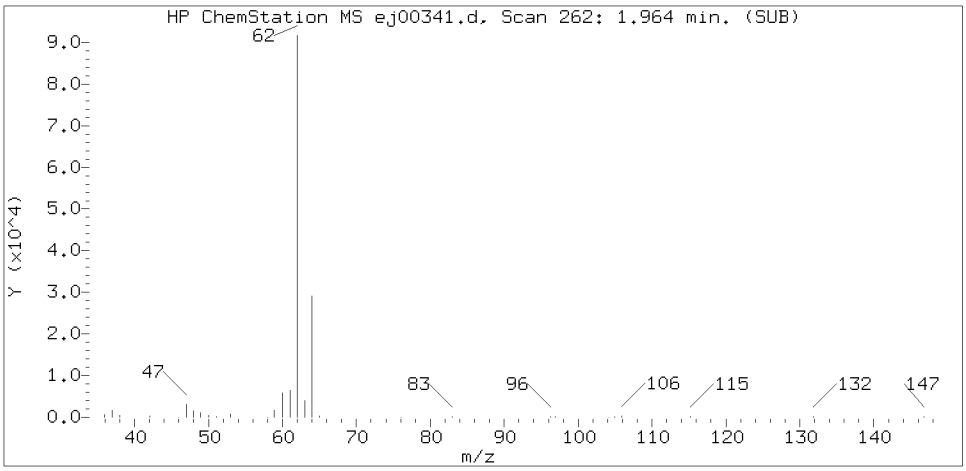
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

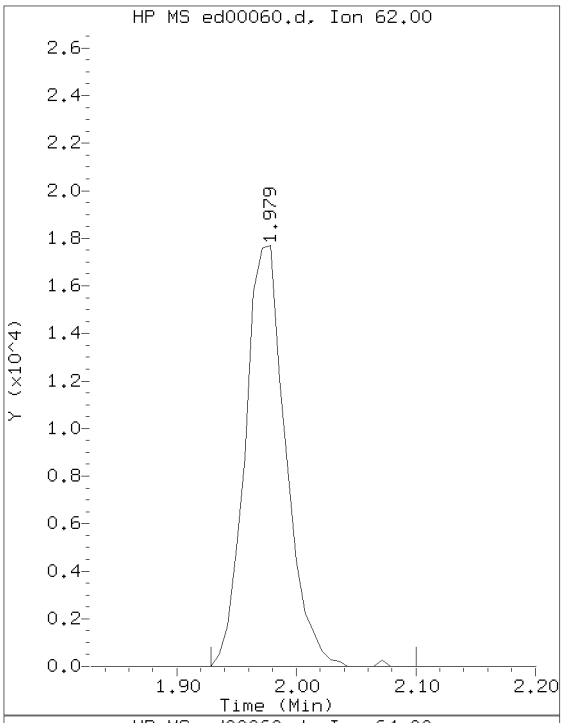
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 218
Retention Time (minutes): 1.649
Relative Retention Time :-0.00127
Quant Ion : 85.00
Area (flag) : 27213
Concentration (ppb(v)) : 0.5314

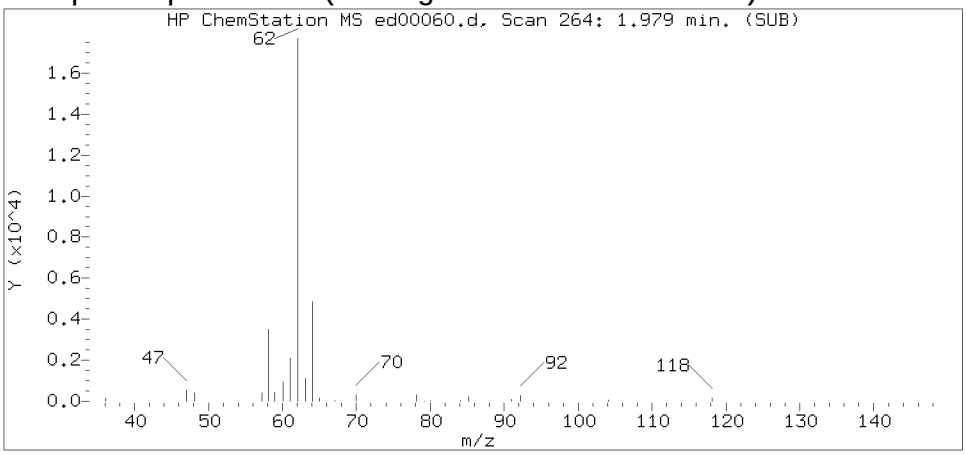
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

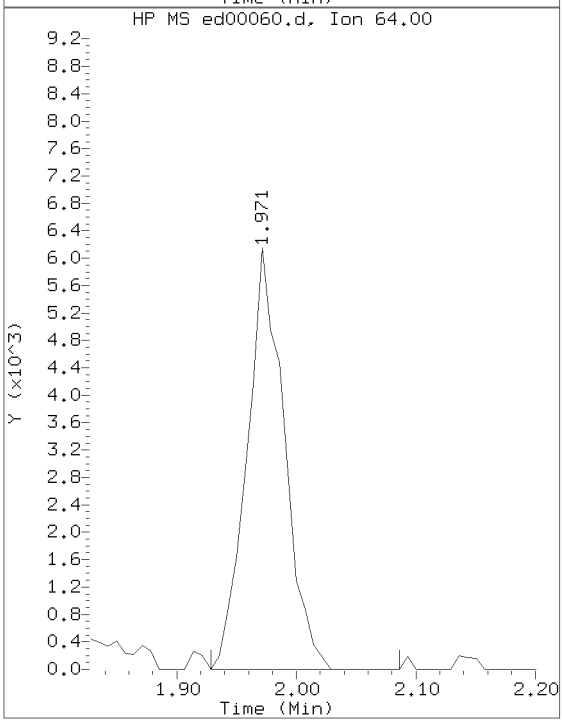
Reference Standard Spectrum for Vinyl Chloride



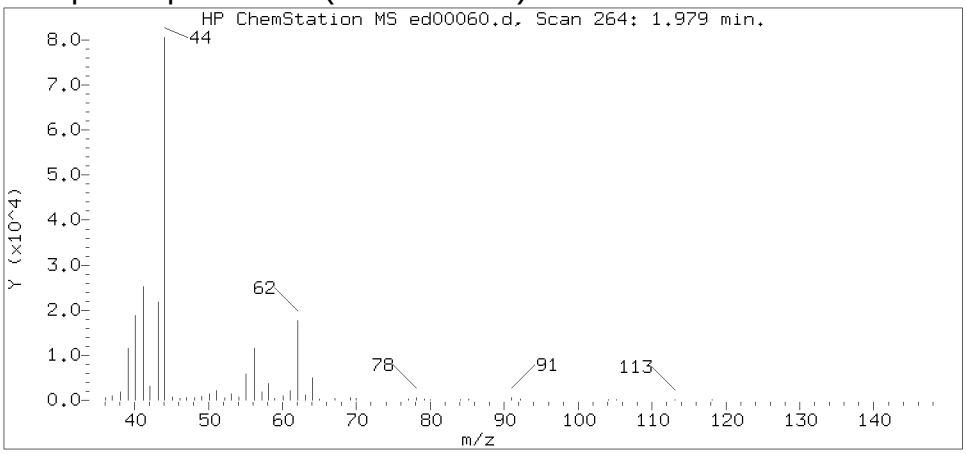


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

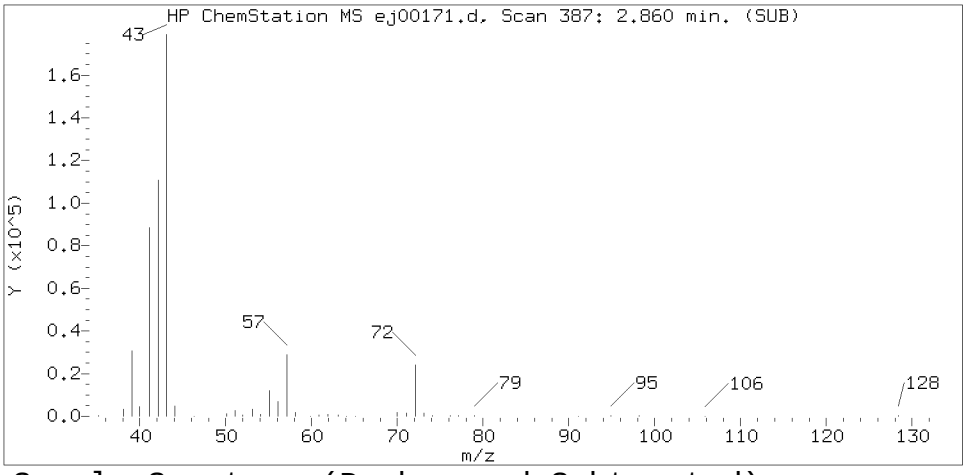
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

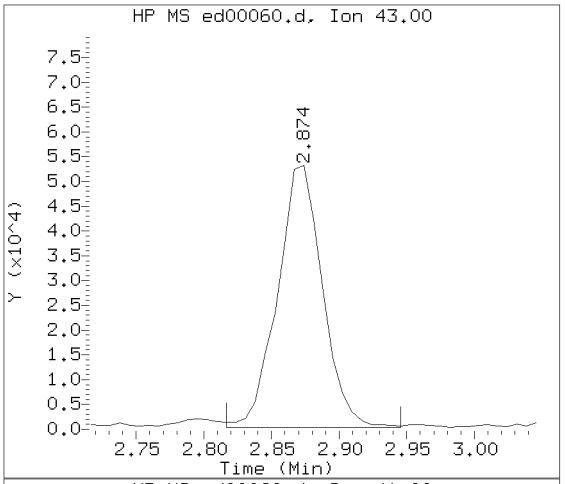
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 264
Retention Time (minutes): 1.979
Relative Retention Time :-0.00258
Quant Ion : 62.00
Area (flag) : 41605
Concentration (ppb(v)) : 2.1592

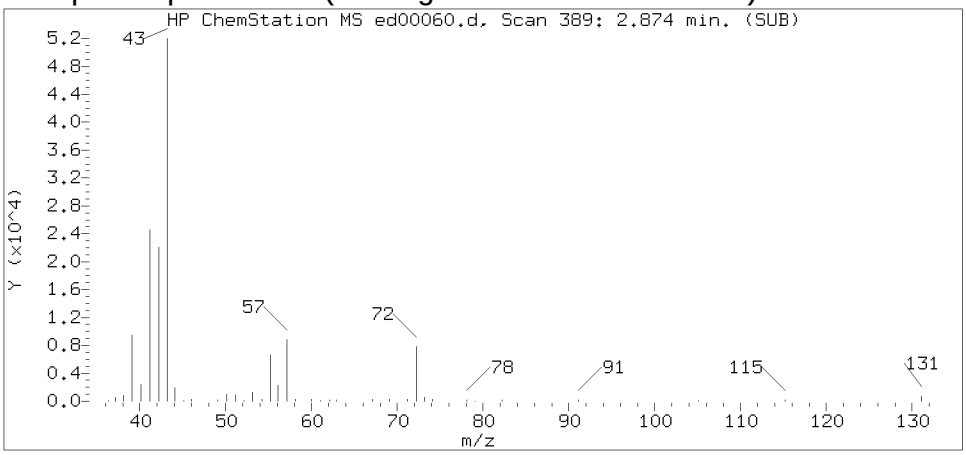
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

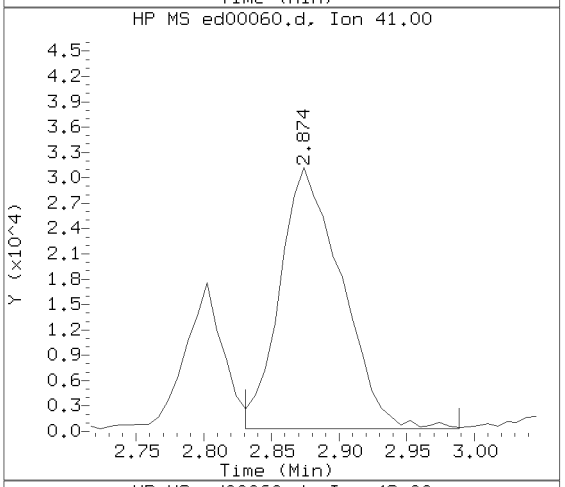
Reference Standard Spectrum for Pentane



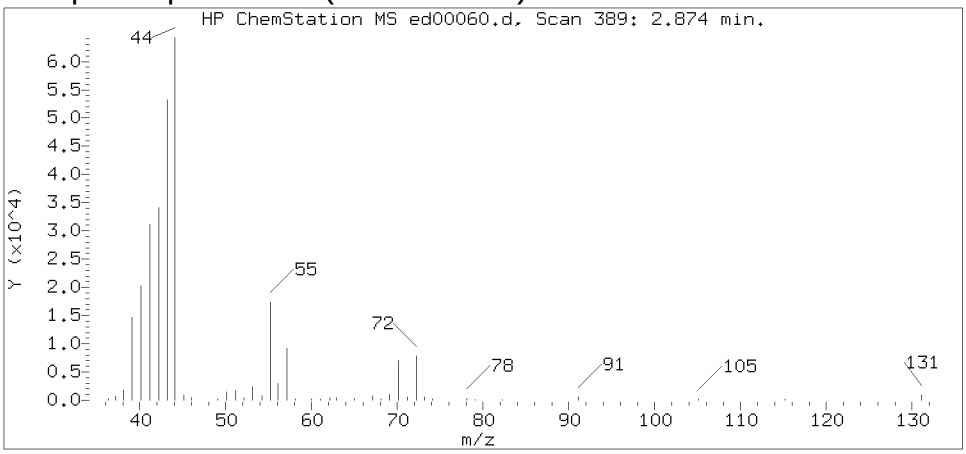


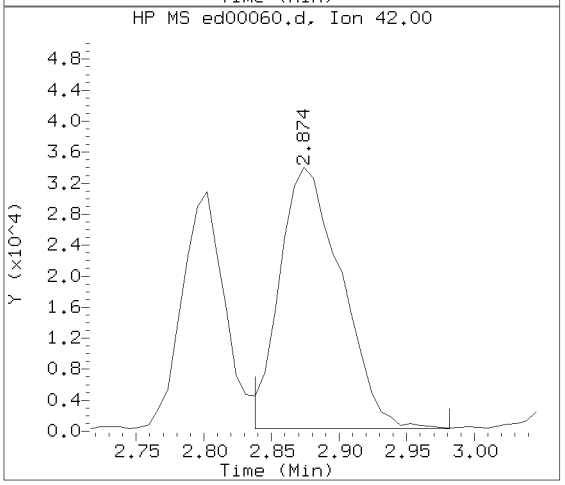
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 13
Compound Name : Pentane
Scan Number : 389
Retention Time (minutes): 2.874
Relative Retention Time :-0.00128
Quant Ion : 43.00
Area (flag) : 122172
Concentration (ppb(v)) : 4.2401

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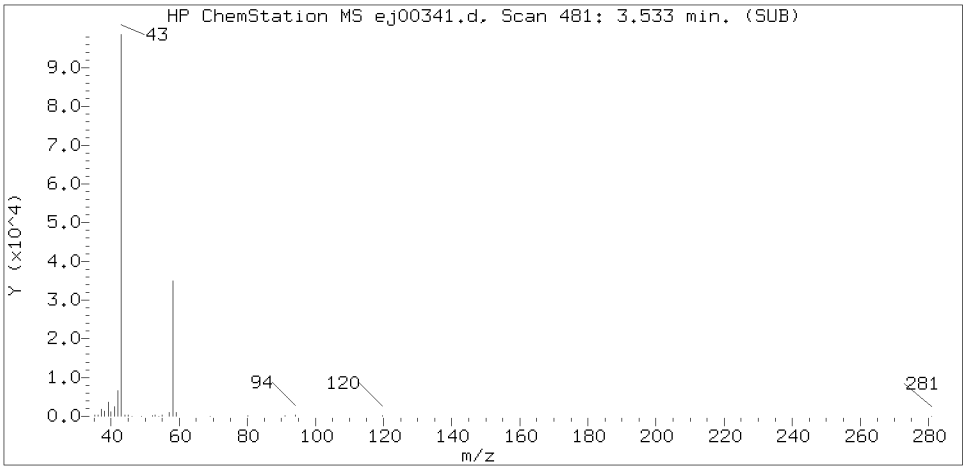
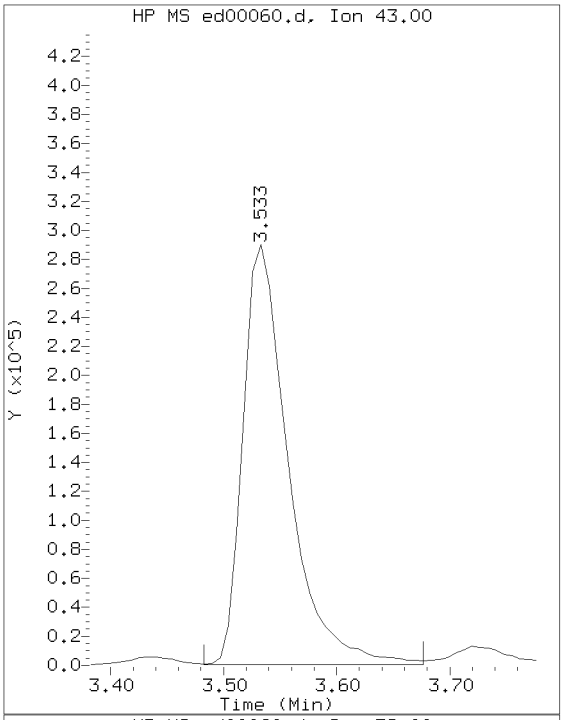
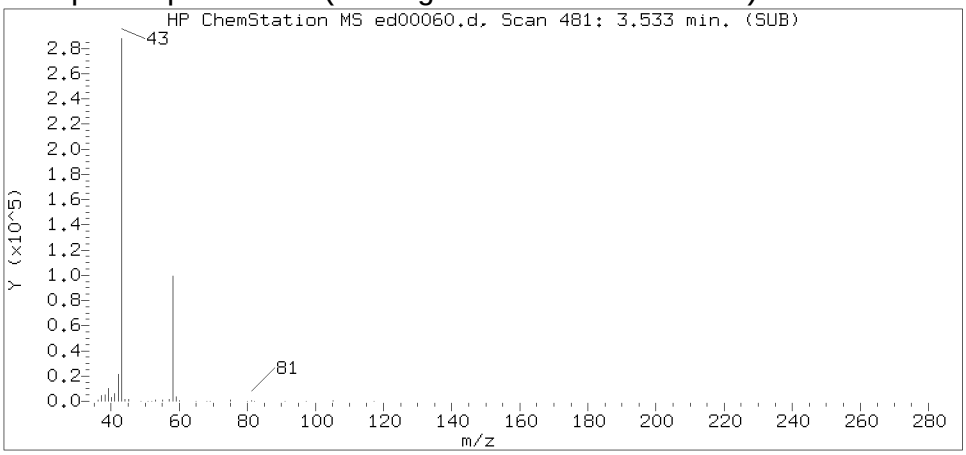
Target 3.5 esignature user ID: jeb07445

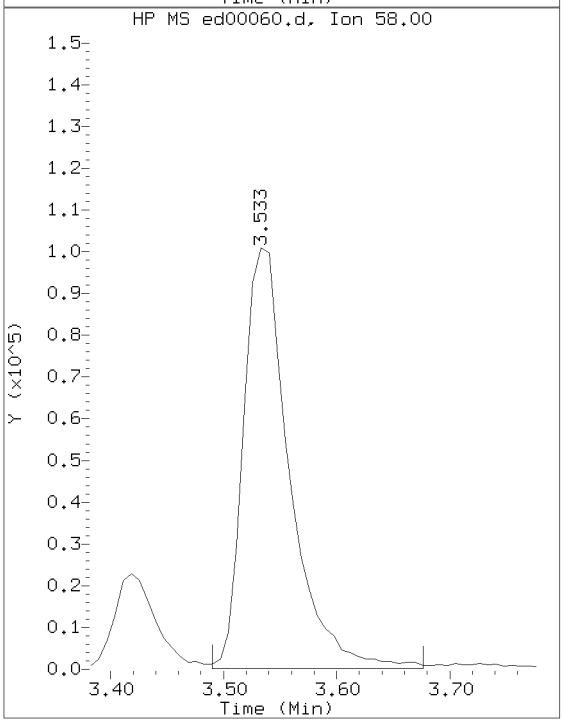
Reference Standard Spectrum for Acetone



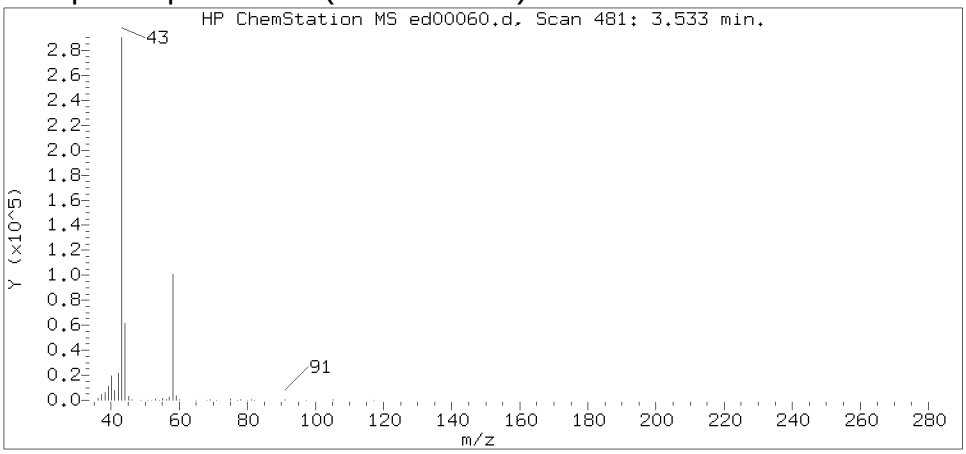


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Relative Retention Time :-0.00129
Quant Ion : 43.00
Area (flag) : 810105
Concentration (ppb(v)) : 35.0791

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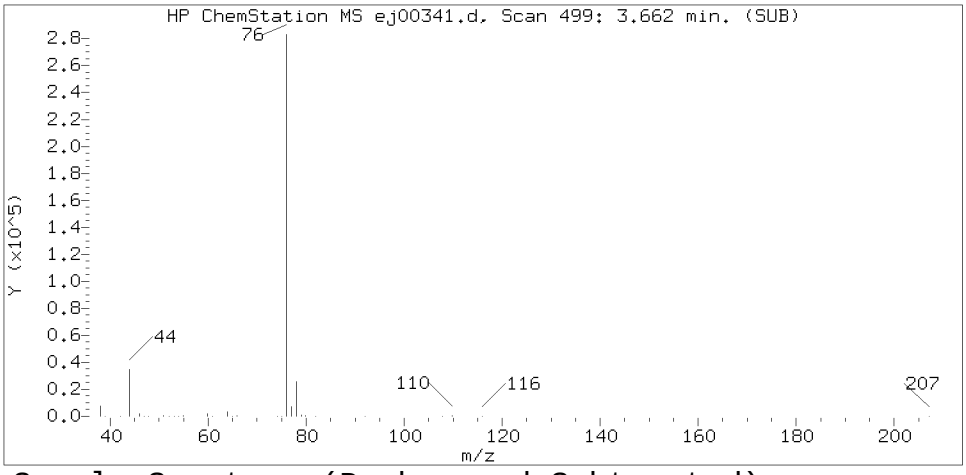
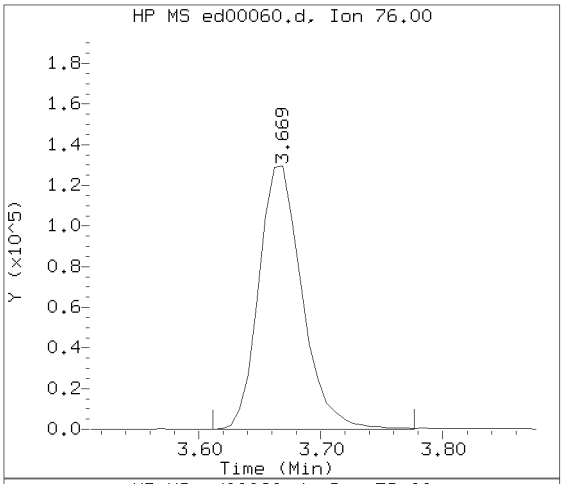
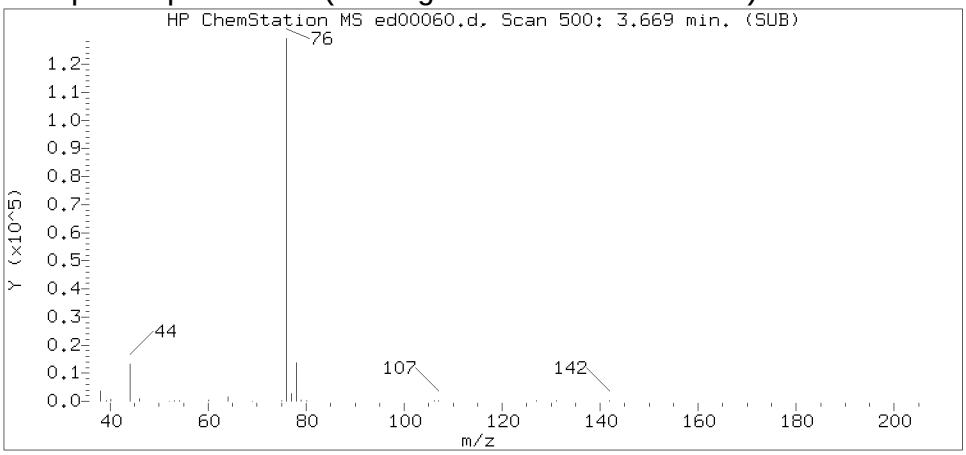
Target 3.5 esignature user ID: jeb07445

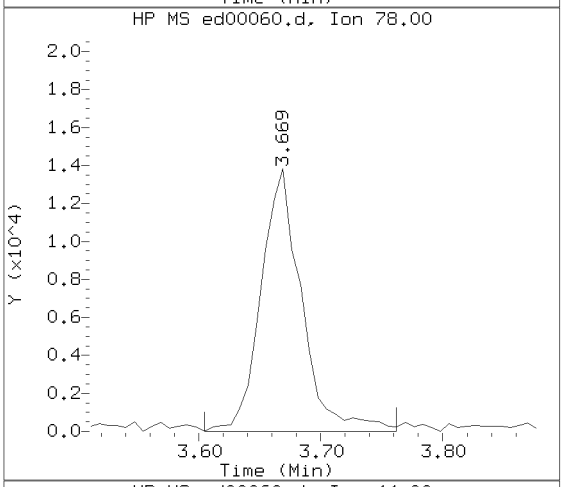
Reference Standard Spectrum for Carbon Disulfide



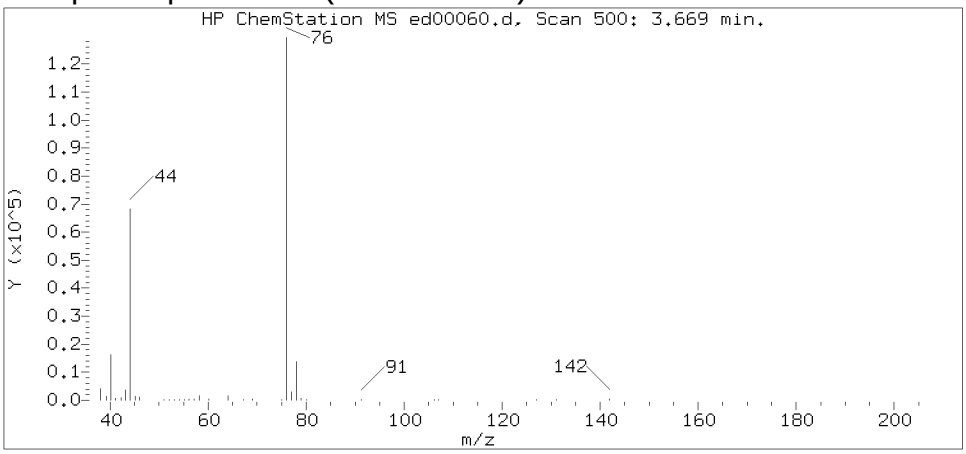


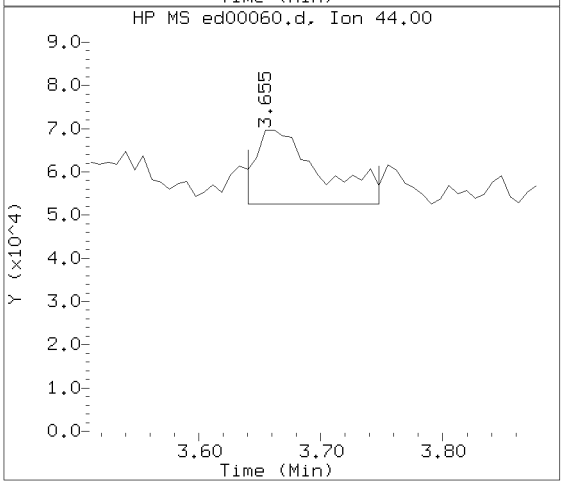
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 21
Compound Name : Carbon Disulfide
Scan Number : 500
Retention Time (minutes): 3.669
Relative Retention Time :-0.00260
Quant Ion : 76.00
Area (flag) : 318657
Concentration (ppb(v)) : 5.3996

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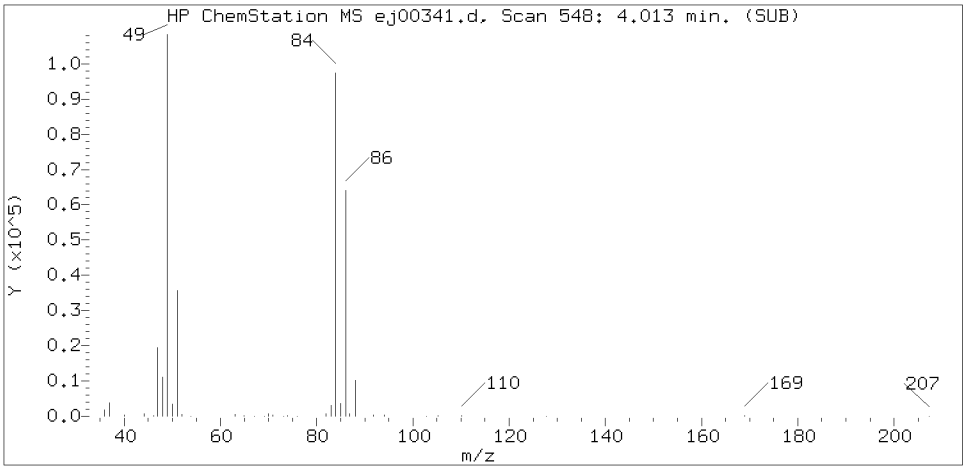
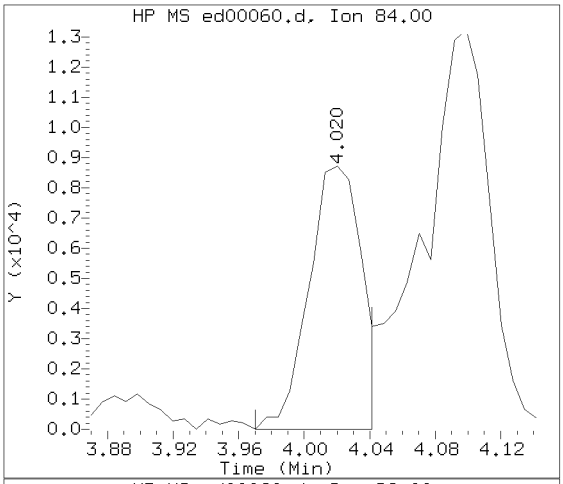
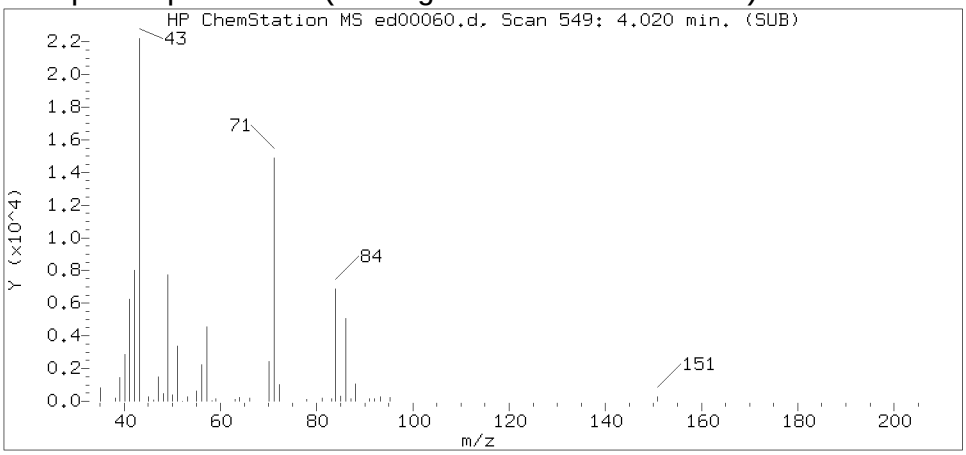
Target 3.5 esignature user ID: jeb07445

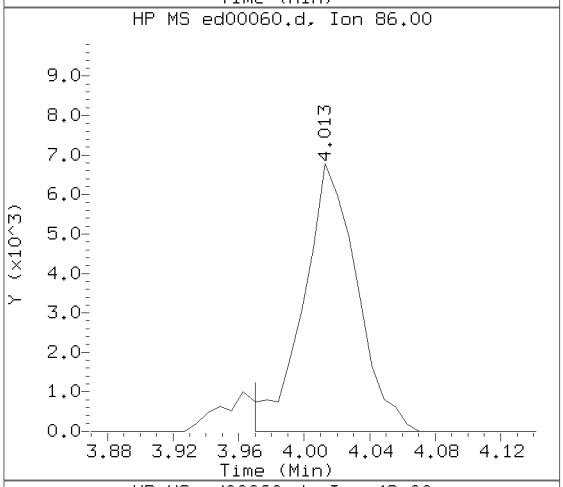
Reference Standard Spectrum for Methylene Chloride



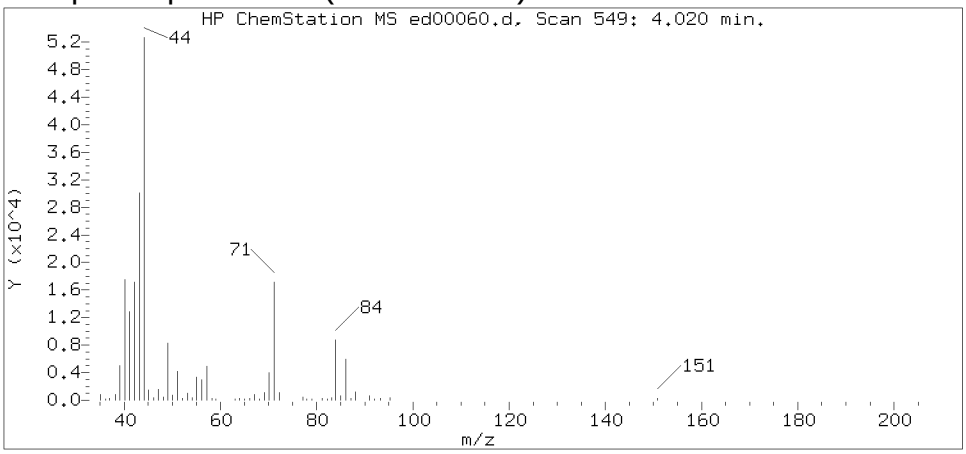


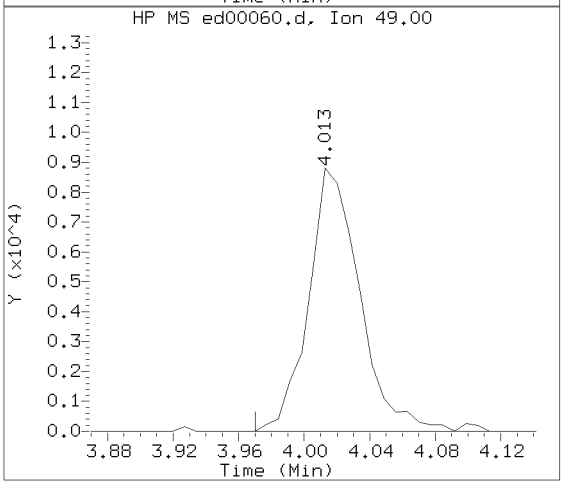
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 25
Compound Name : Methylene Chloride
Scan Number : 549
Retention Time (minutes): 4.020
Relative Retention Time :-0.00130
Quant Ion : 84.00
Area (flag) : 19036
Concentration (ppb(v)) : 1.0837

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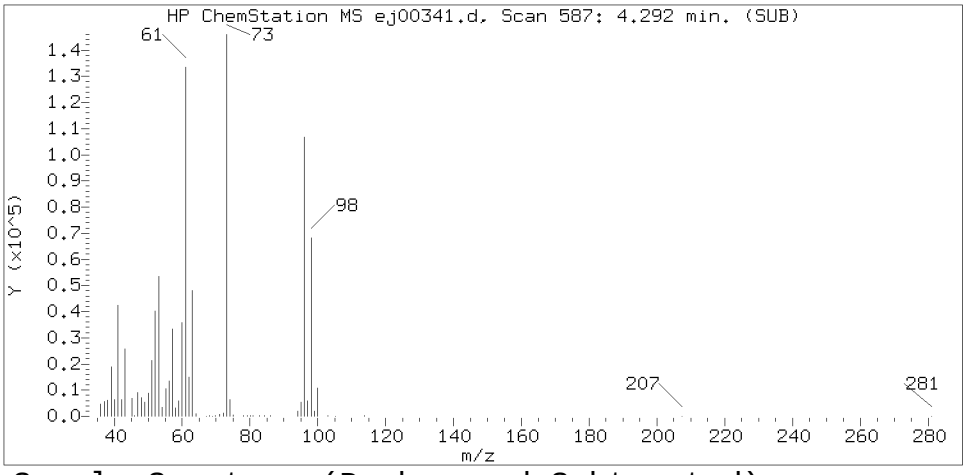
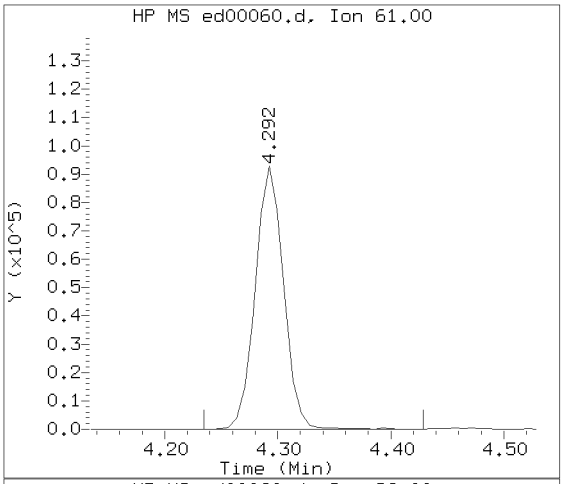
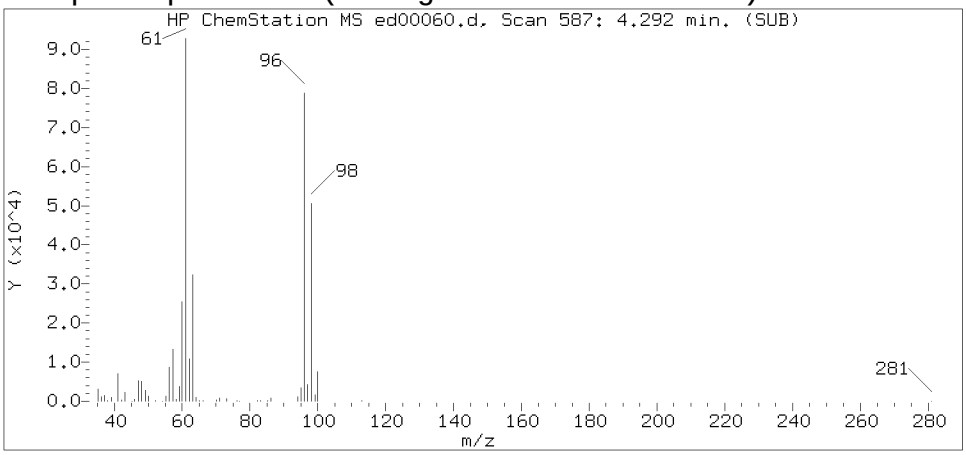
Target 3.5 esignature user ID: jeb07445

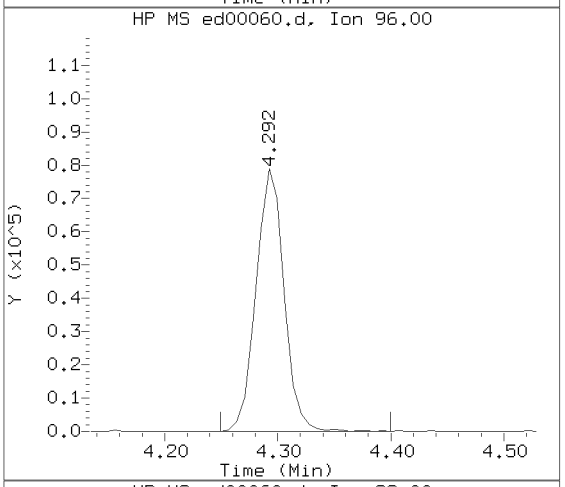
Reference Standard Spectrum for trans-1,2-Dichloroethene



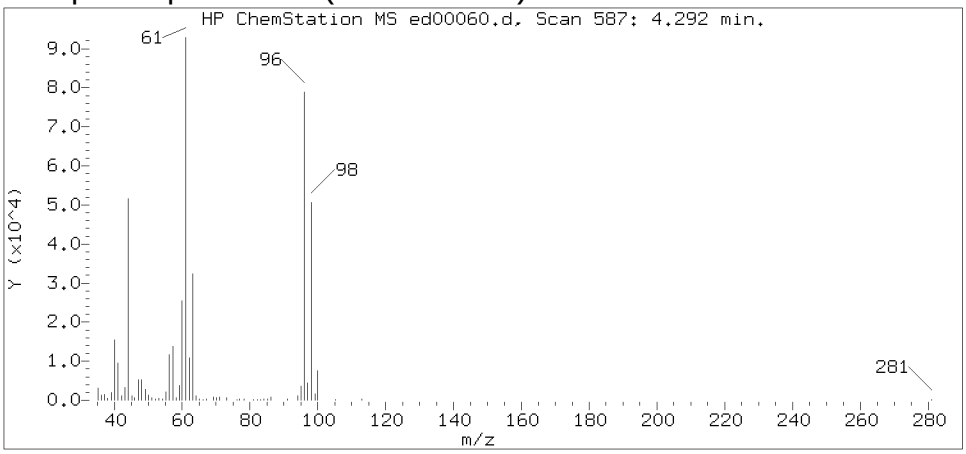


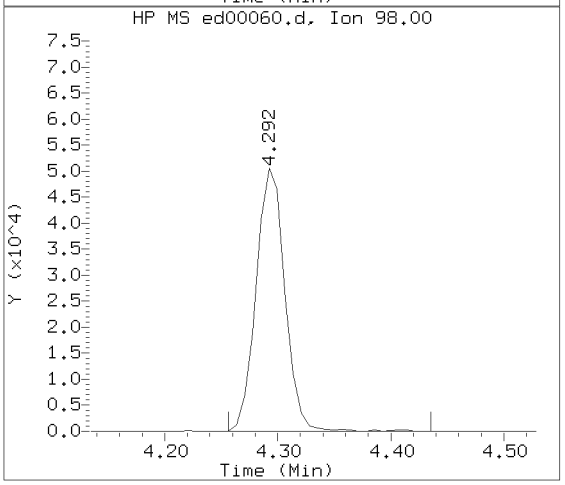
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 587
Retention Time (minutes): 4.292
Relative Retention Time : 0.00001
Quant Ion : 61.00
Area (flag) : 161646
Concentration (ppb(v)) : 5.8502

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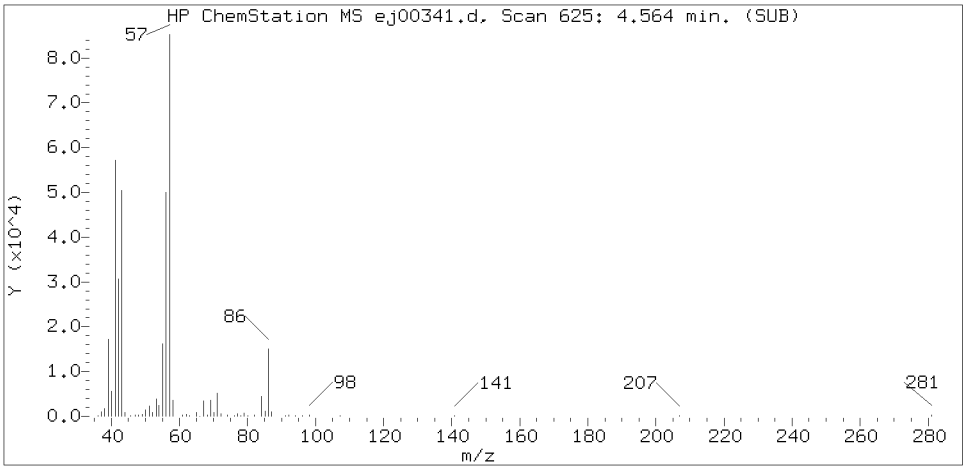
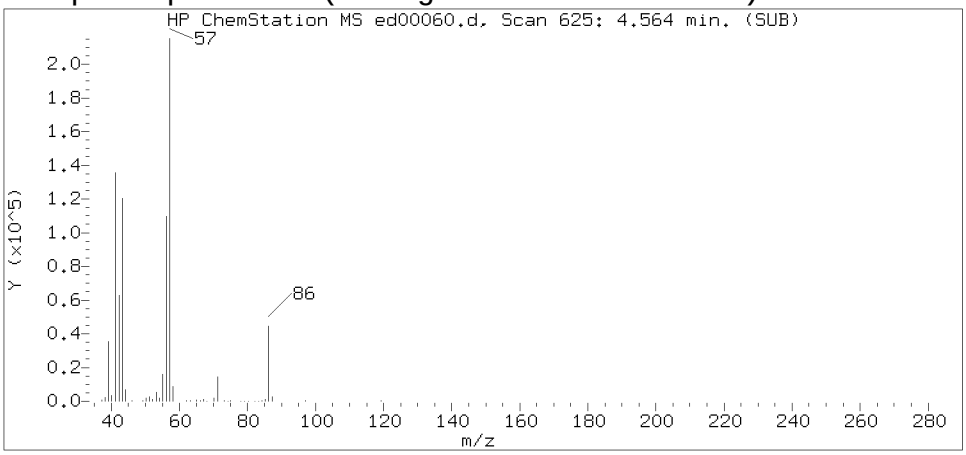
Target 3.5 esignature user ID: jeb07445

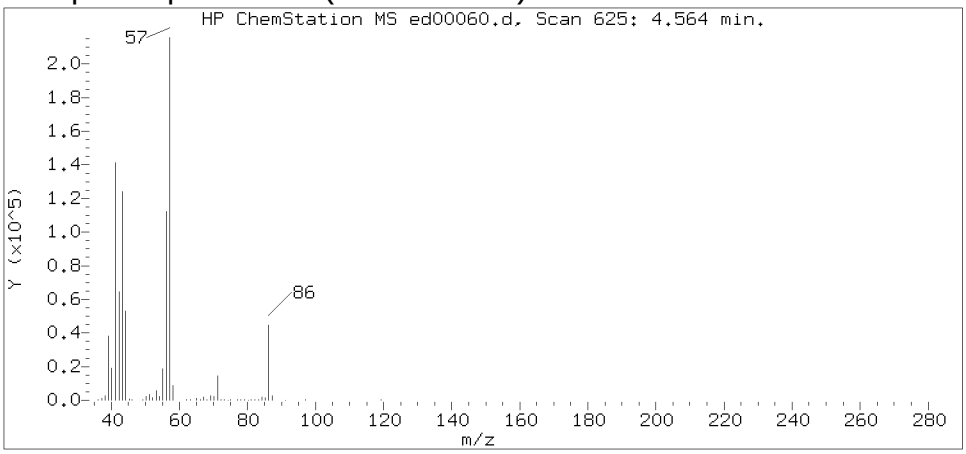
Reference Standard Spectrum for Hexane

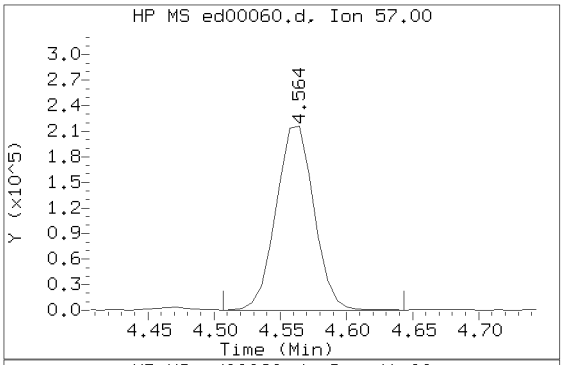


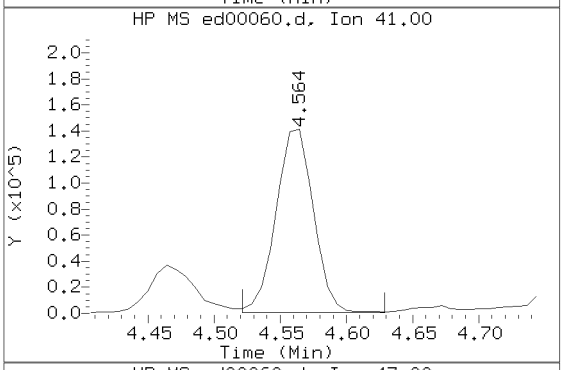
Sample Spectrum (Background Subtracted)

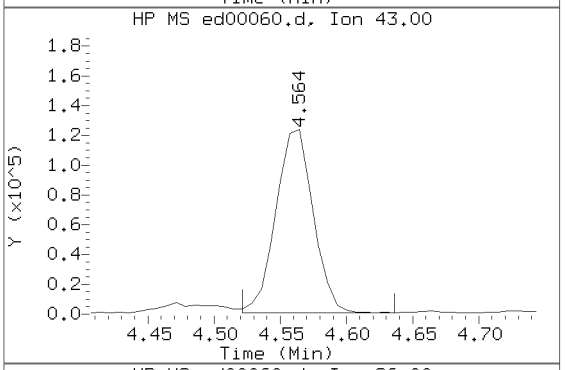


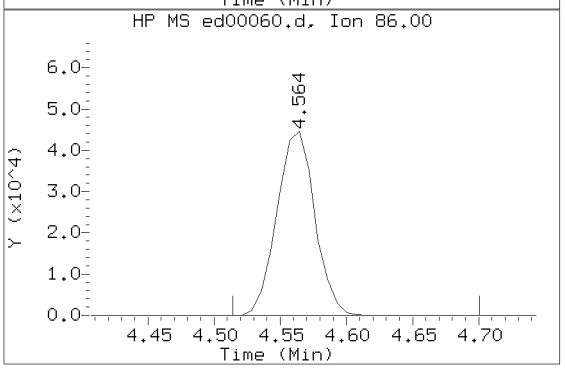
Sample Spectrum (Unaltered)











Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 30
Compound Name : Hexane
Scan Number : 625
Retention Time (minutes): 4.564
Relative Retention Time :-0.00130
Quant Ion : 57.00
Area (flag) : 430793
Concentration (ppb(v)) : 14.3988

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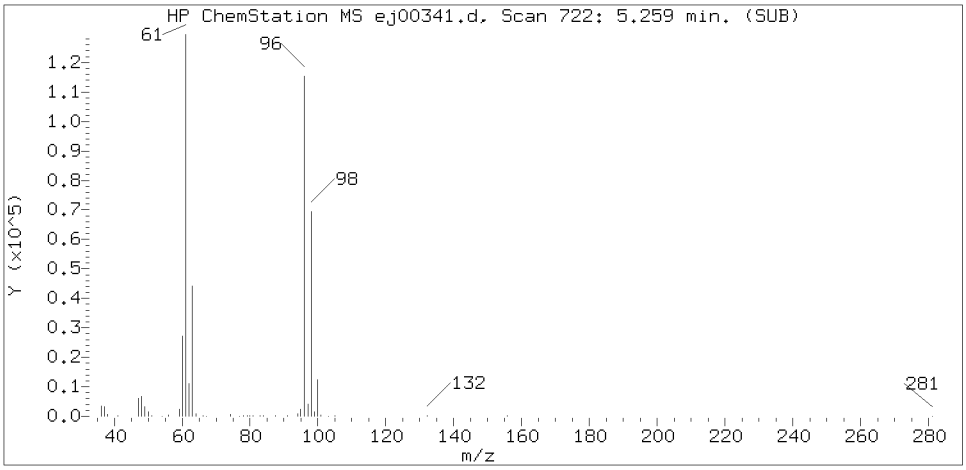
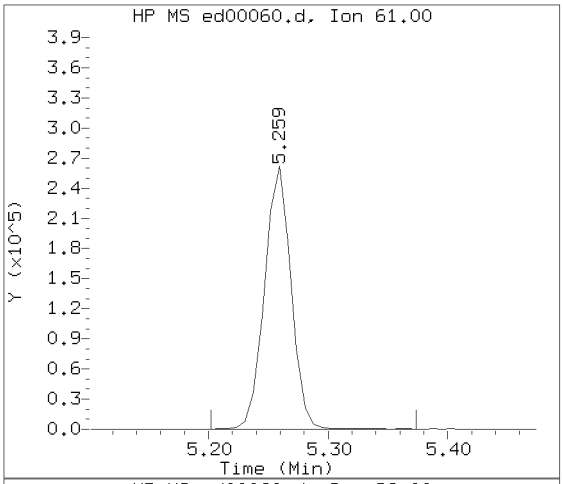
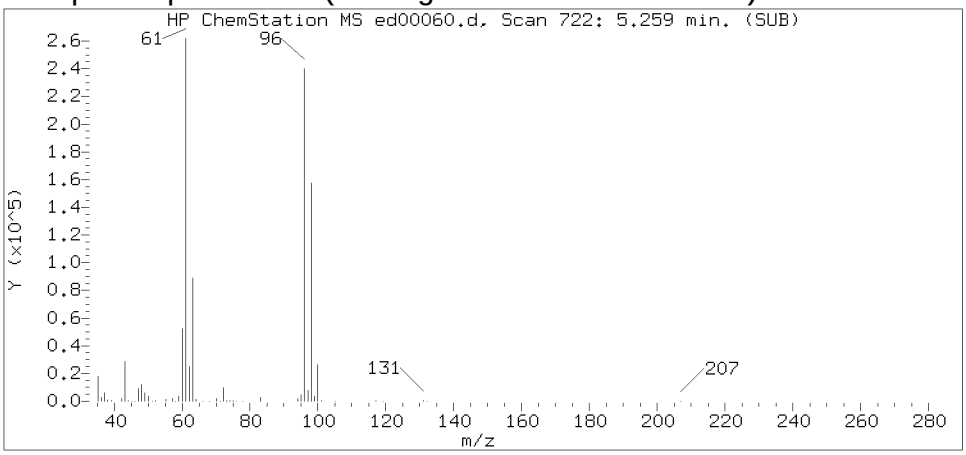
Target 3.5 esignature user ID: jeb07445

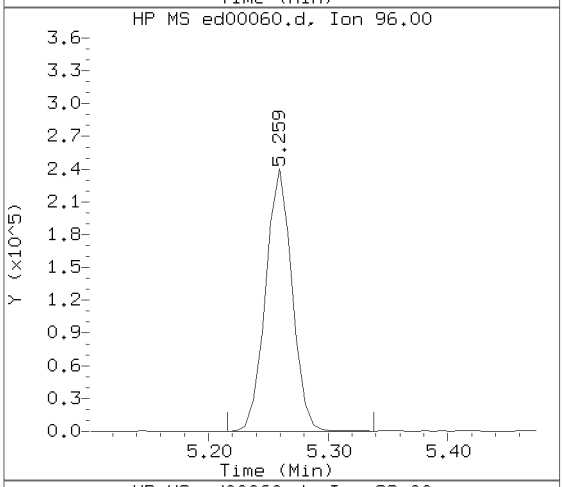
Reference Standard Spectrum for cis-1,2-Dichloroethene



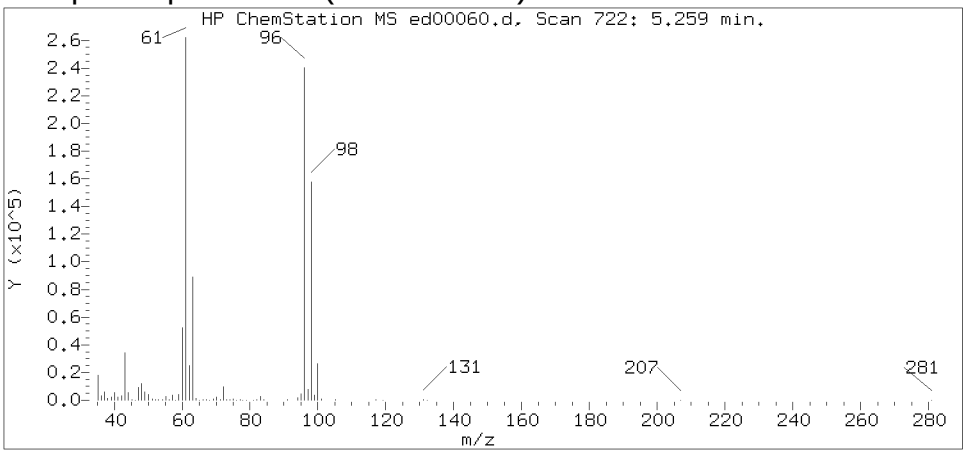


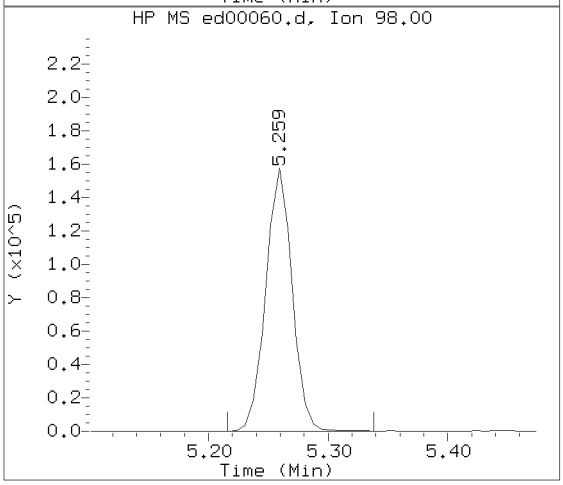
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time : 0.00000
Quant Ion : 61.00
Area (flag) : 404395
Concentration (ppb(v)) : 15.3553

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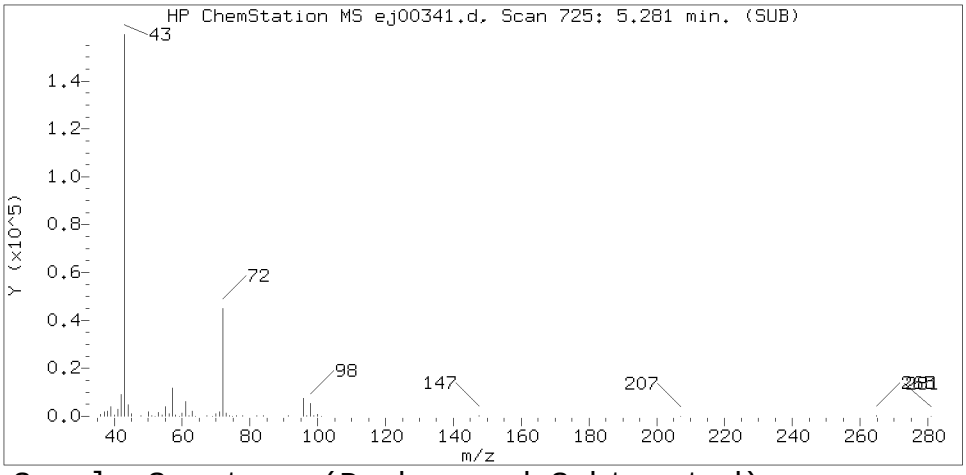
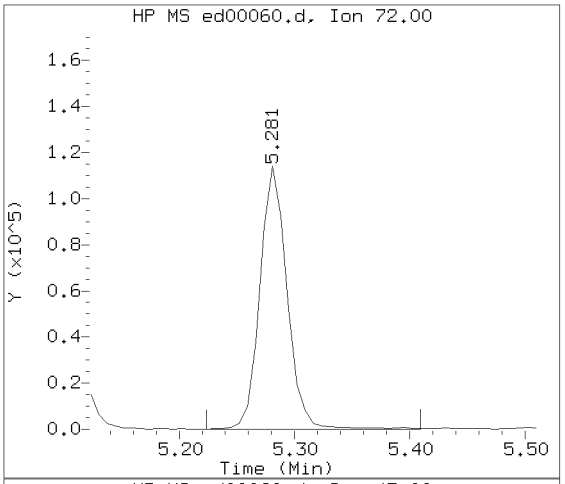
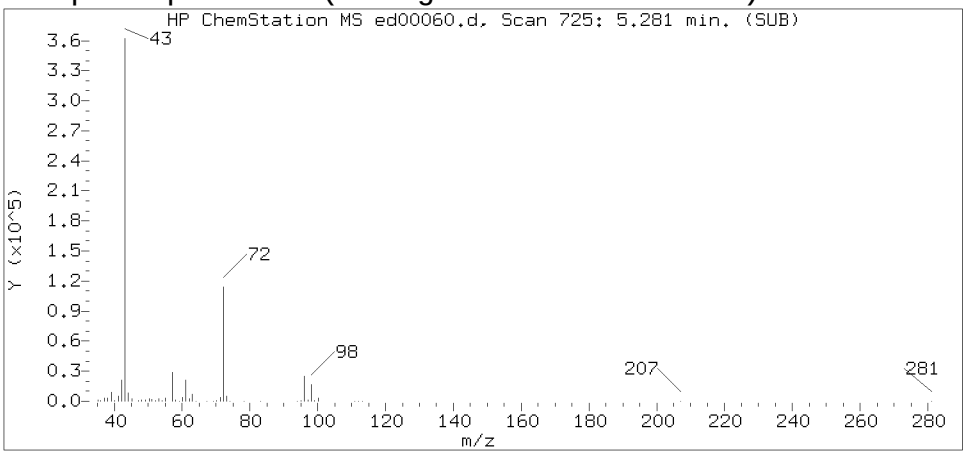
Target 3.5 esignature user ID: jeb07445

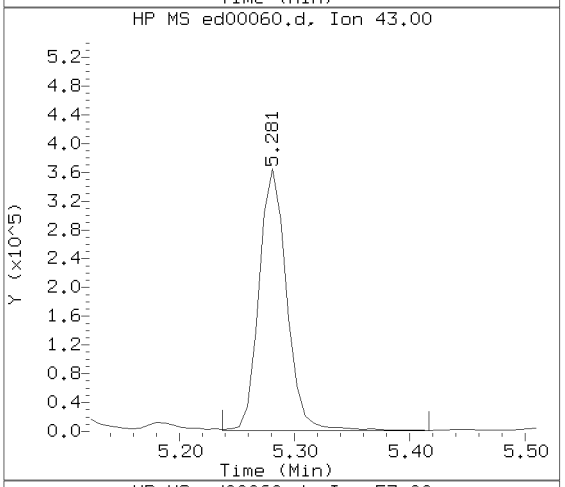
Reference Standard Spectrum for 2-Butanone



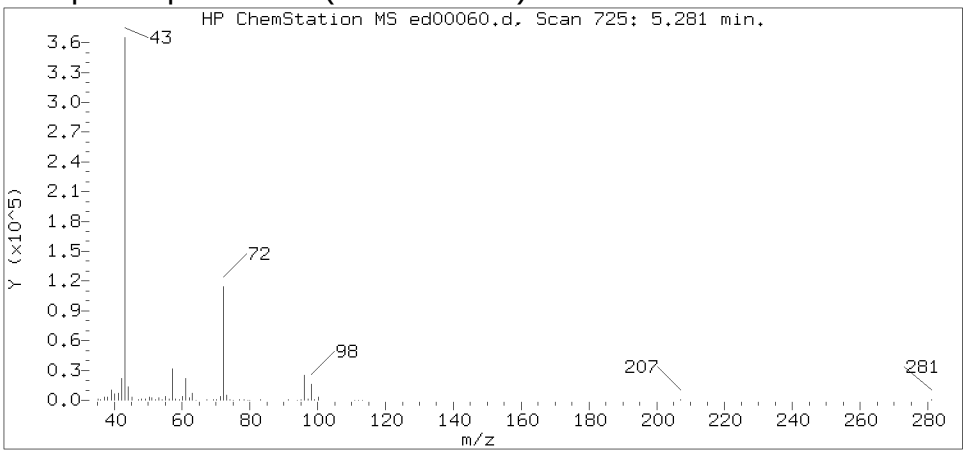


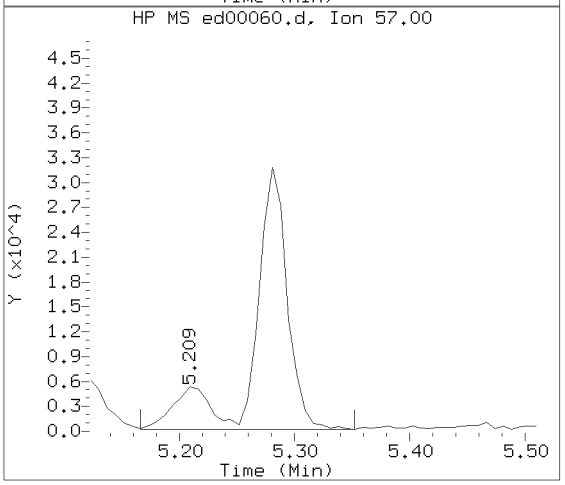
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time : 0.00000
Quant Ion : 72.00
Area (flag) : 188093
Concentration (ppb(v)) : 17.7922

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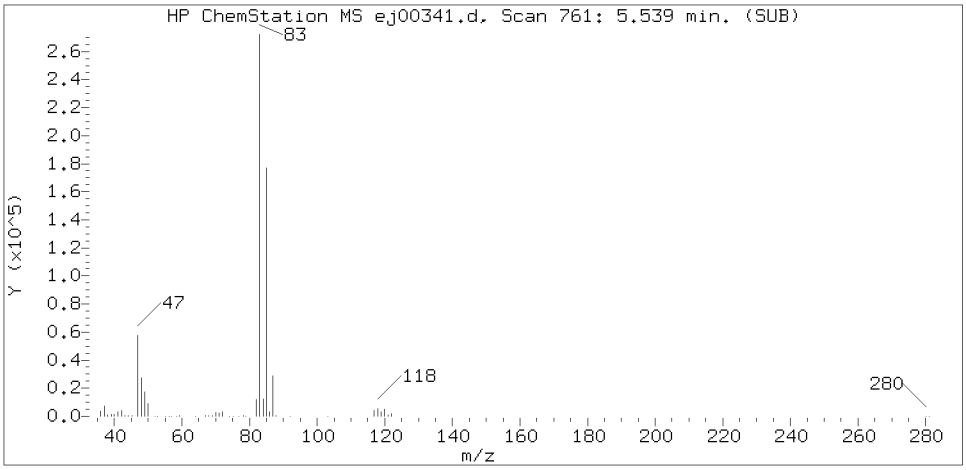
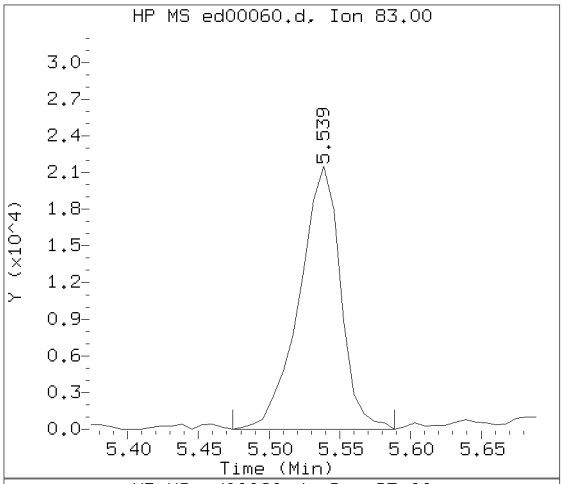
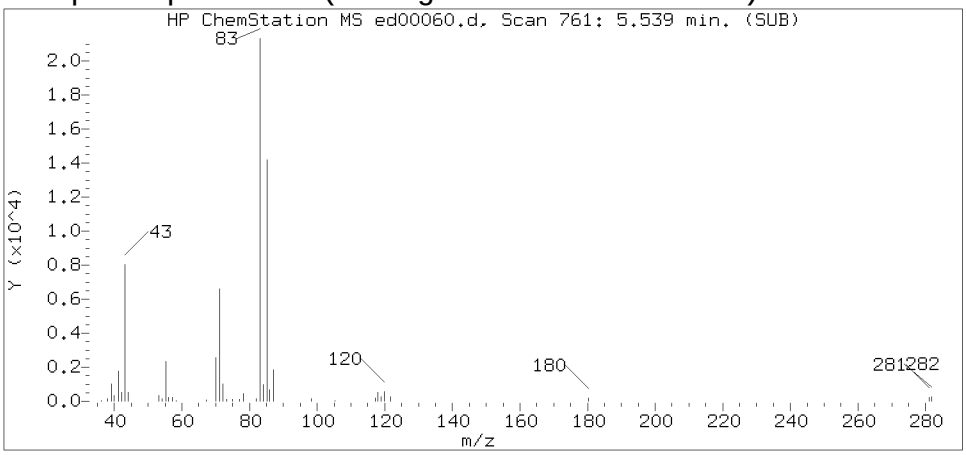
Target 3.5 esignature user ID: jeb07445

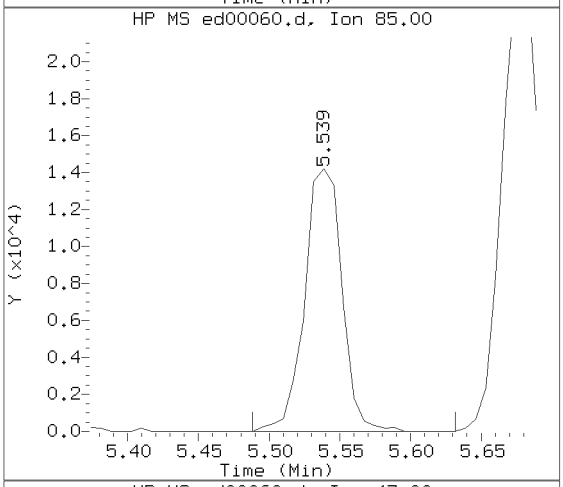
Reference Standard Spectrum for Chloroform



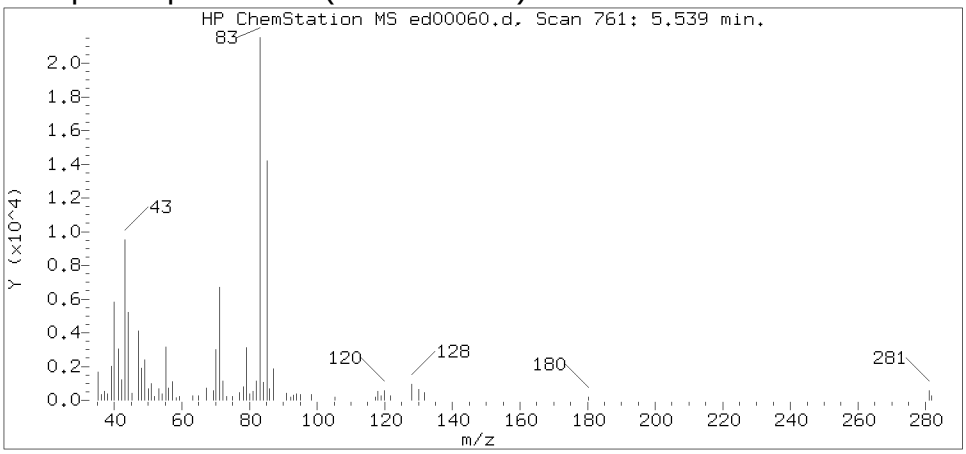


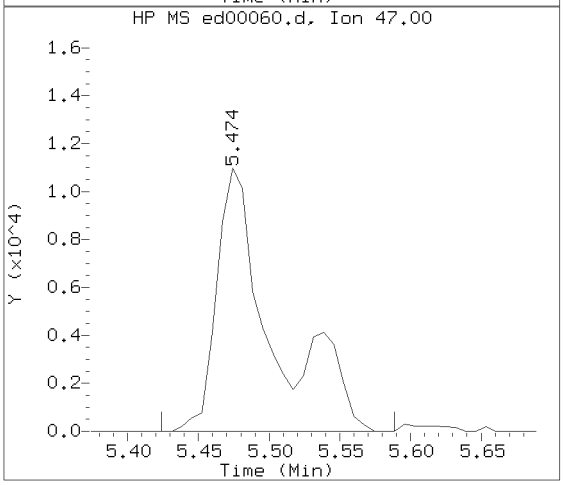
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 42
Compound Name : Chloroform
Scan Number : 761
Retention Time (minutes): 5.539
Relative Retention Time :-0.00000
Quant Ion : 83.00
Area (flag) : 43700
Concentration (ppb(v)) : 0.9545

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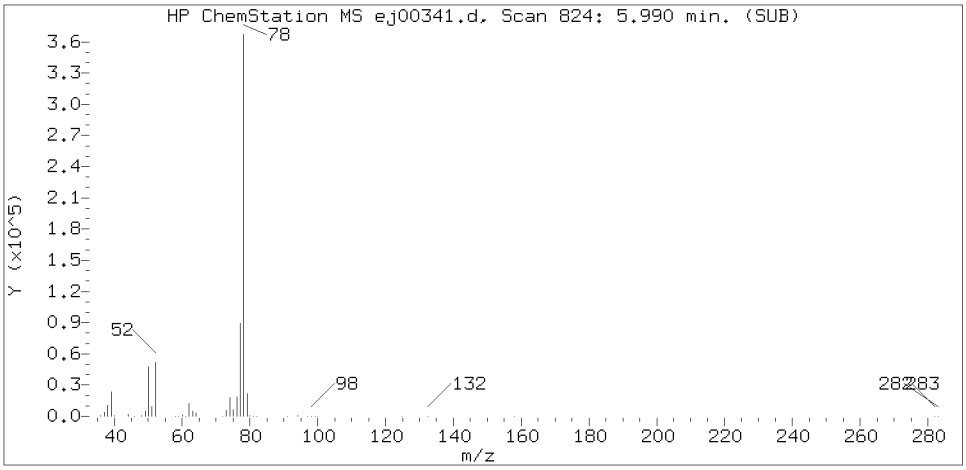
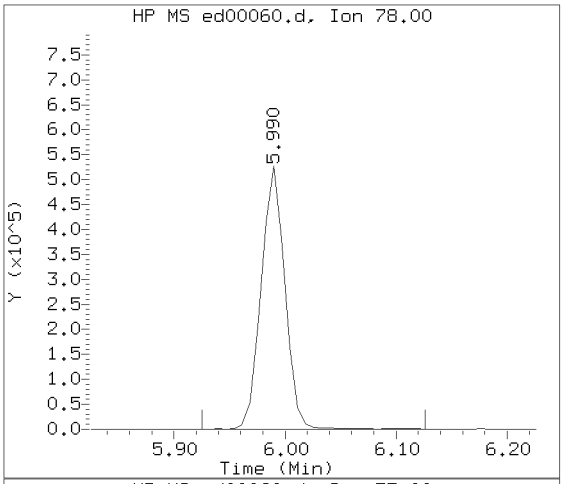
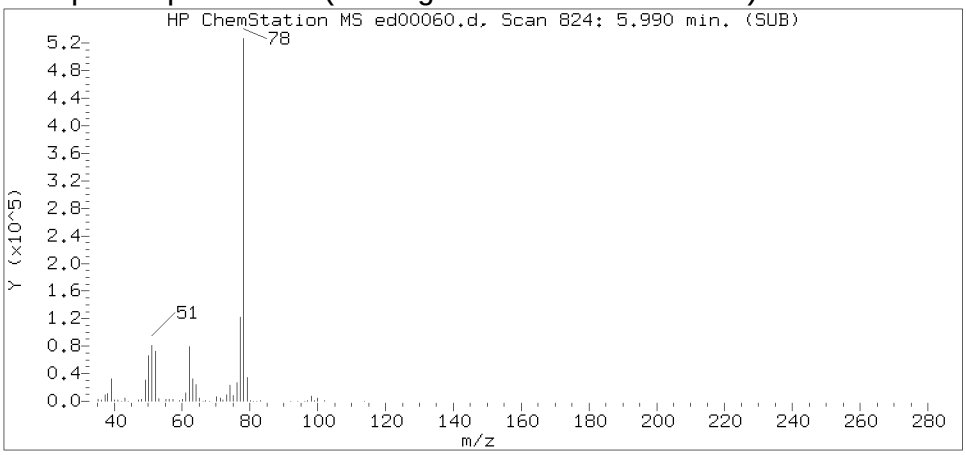
Target 3.5 esignature user ID: jeb07445

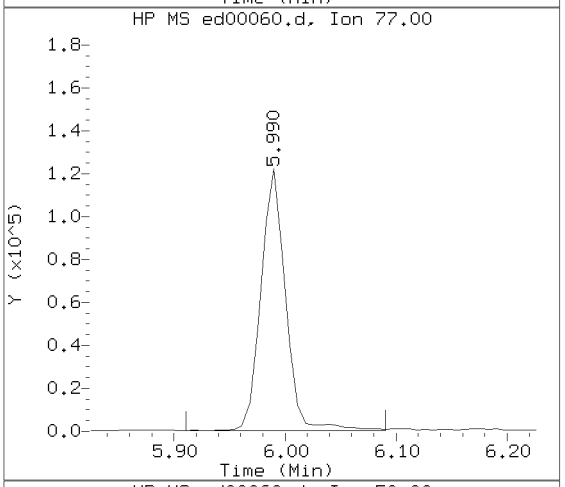
Reference Standard Spectrum for Benzene



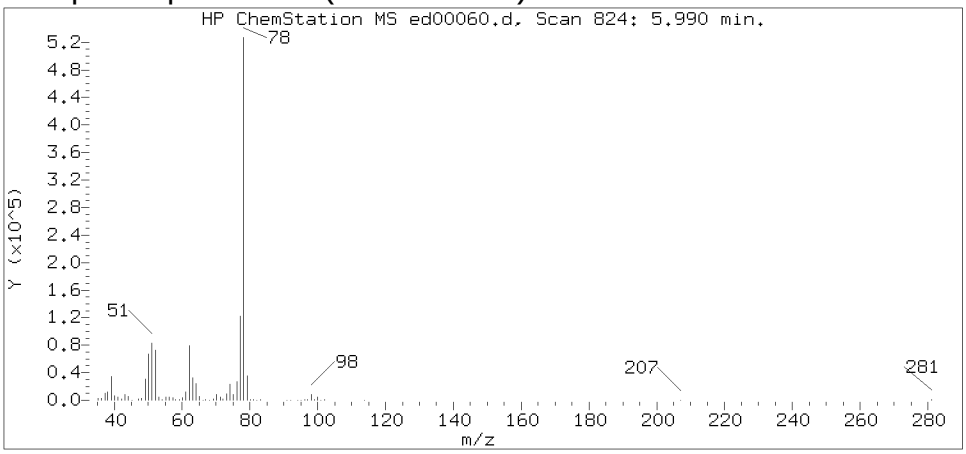


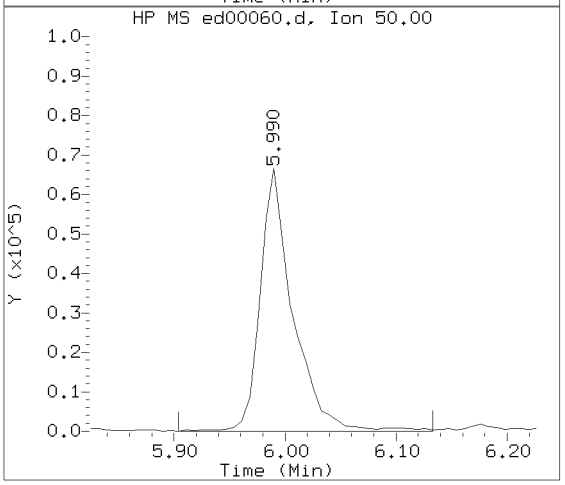
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time : 0.00000
Quant Ion : 78.00
Area (flag) : 786534
Concentration (ppb(v)) : 10.2554

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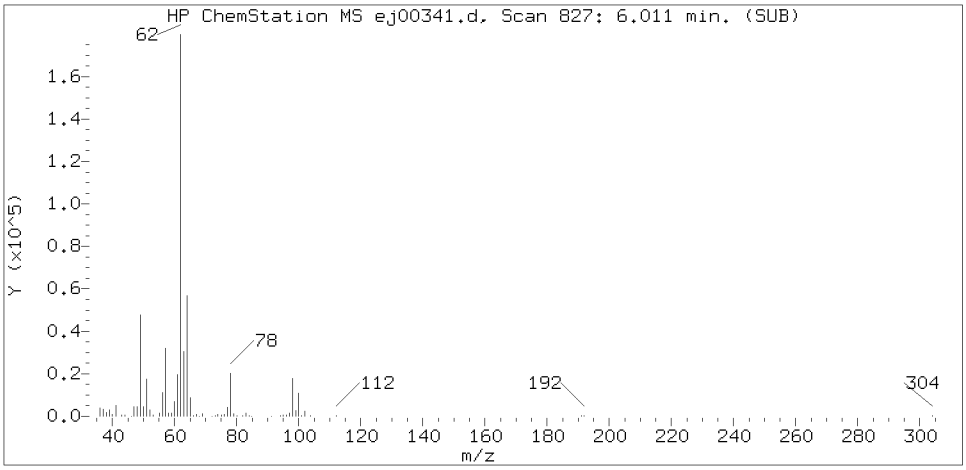
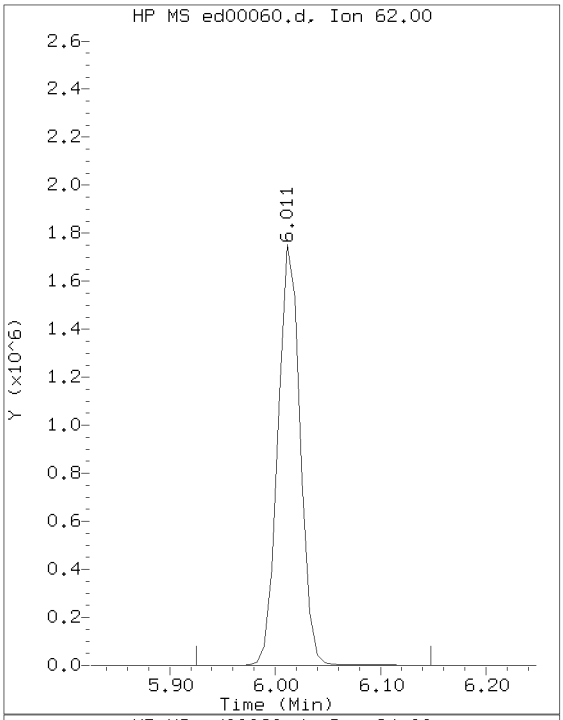
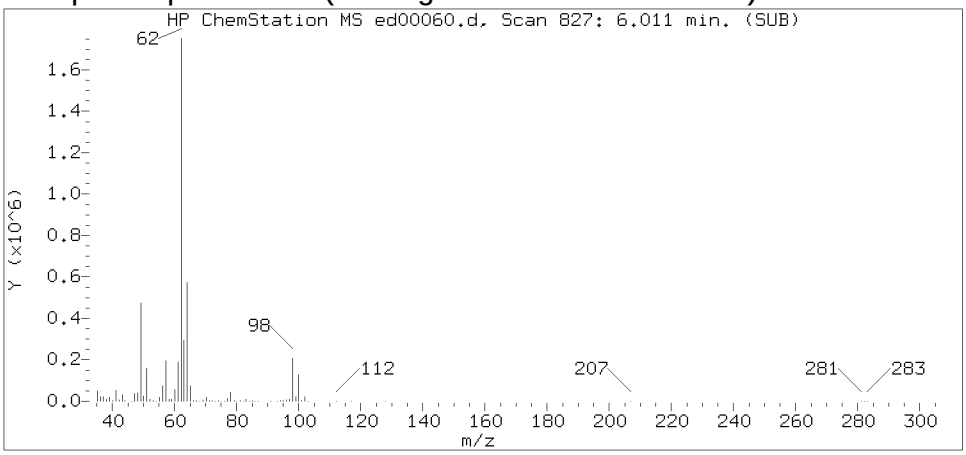
Target 3.5 esignature user ID: jeb07445

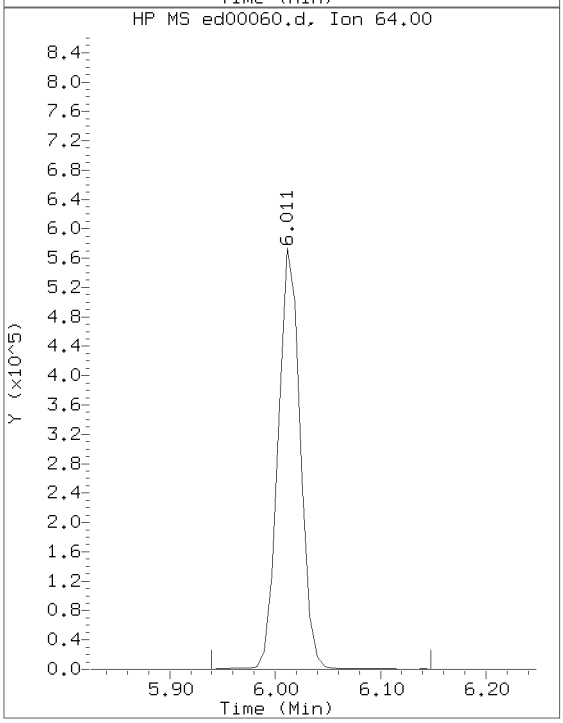
Reference Standard Spectrum for 1,2-Dichloroethane



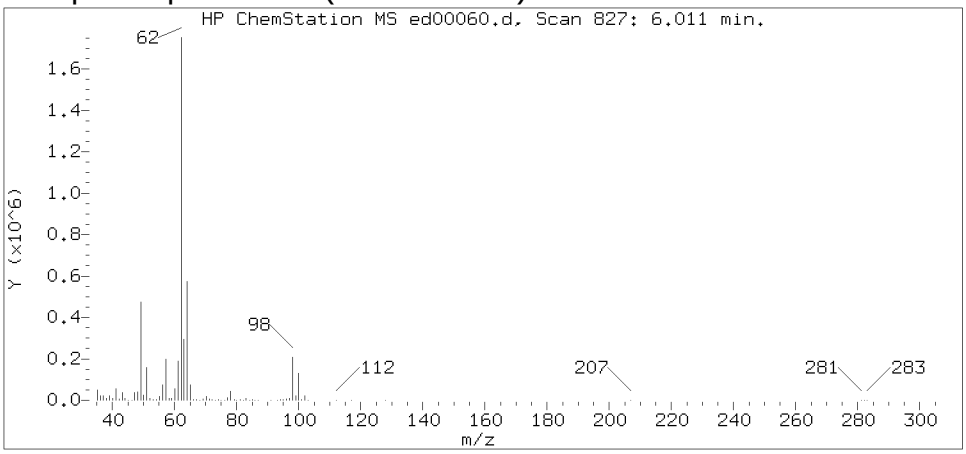


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.011
Relative Retention Time : 0.00000
Quant Ion : 62.00
Area (flag) : 2573125
Concentration (ppb(v)) : 89.0602

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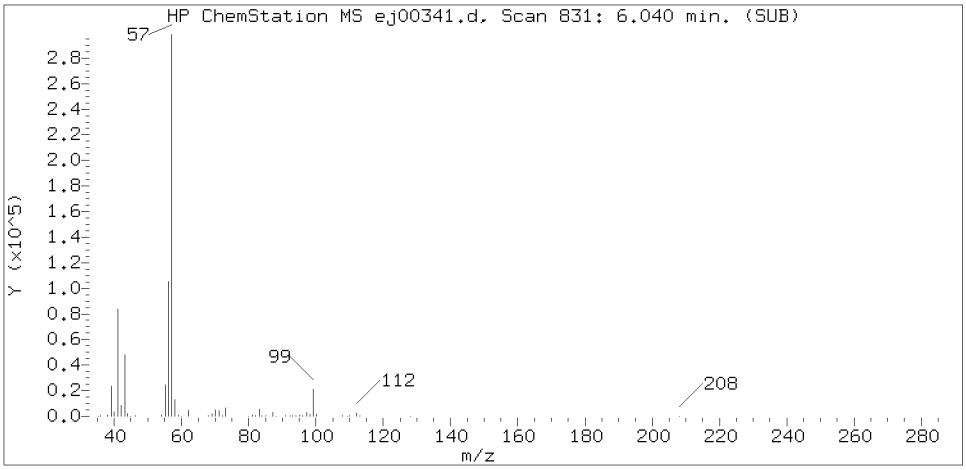
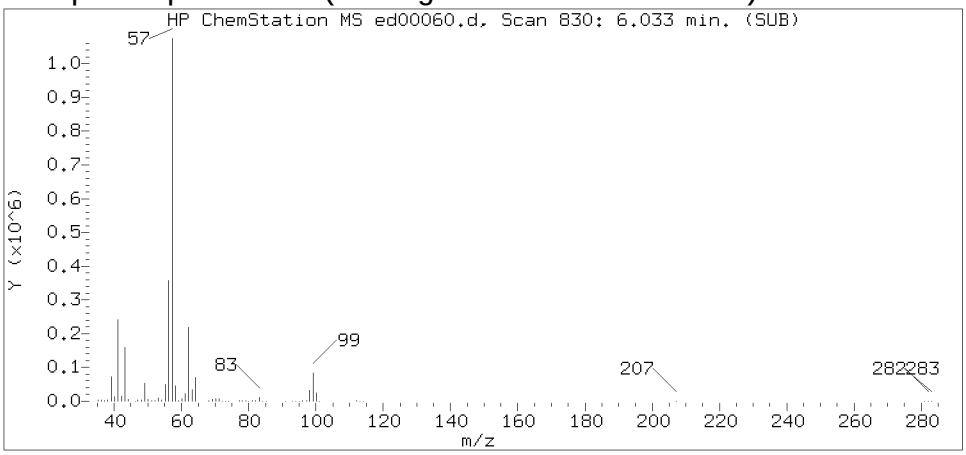
Target 3.5 esignature user ID: jeb07445

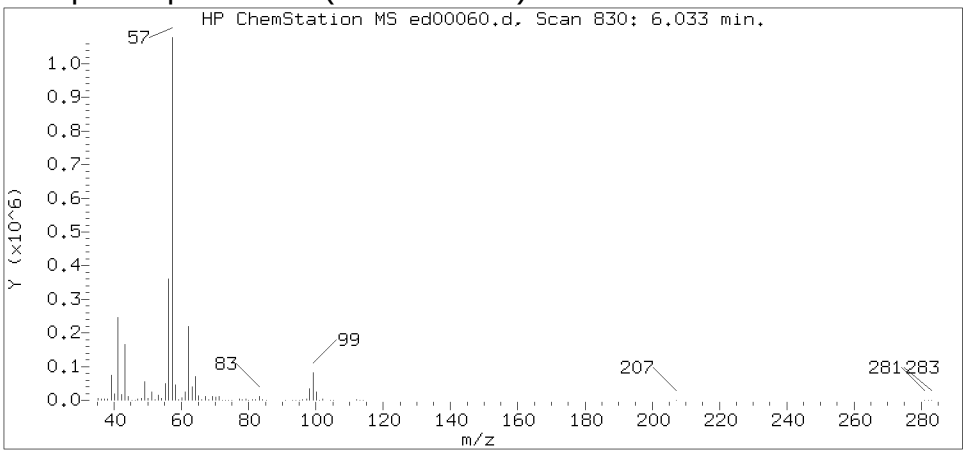
Reference Standard Spectrum for Isooctane

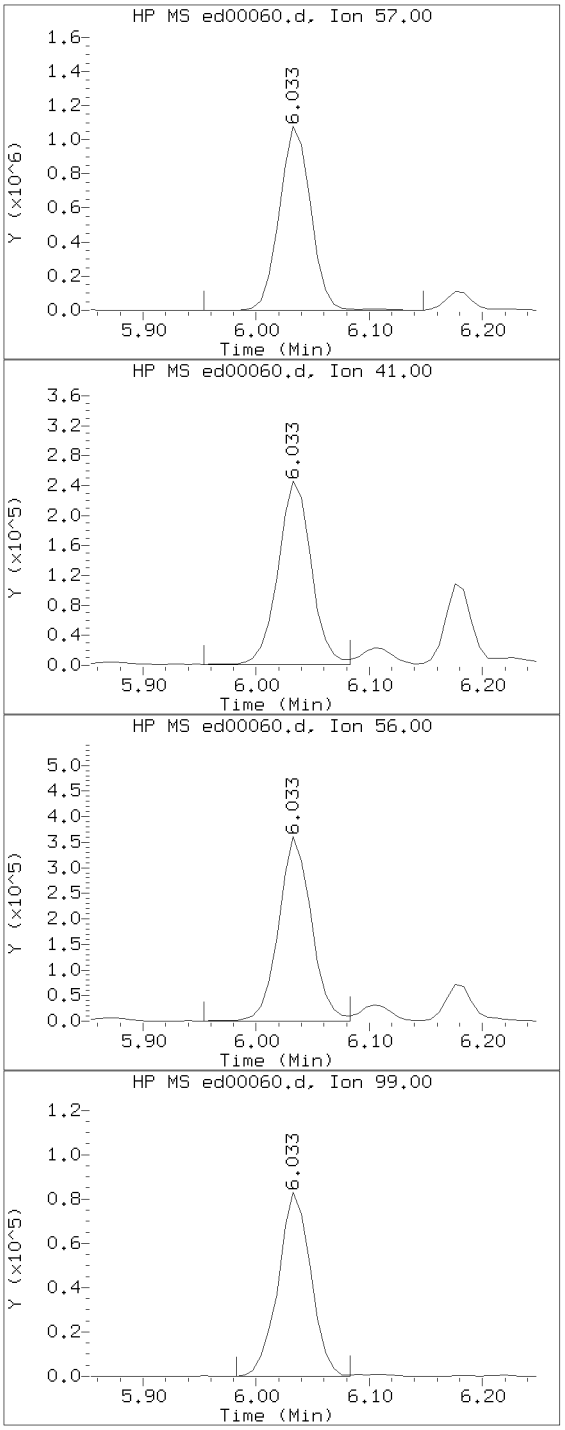


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 48
Compound Name : Isooctane
Scan Number : 830
Retention Time (minutes): 6.033
Relative Retention Time : 0.00114
Quant Ion : 57.00
Area (flag) : 2076355
Concentration (ppb(v)) : 19.6779

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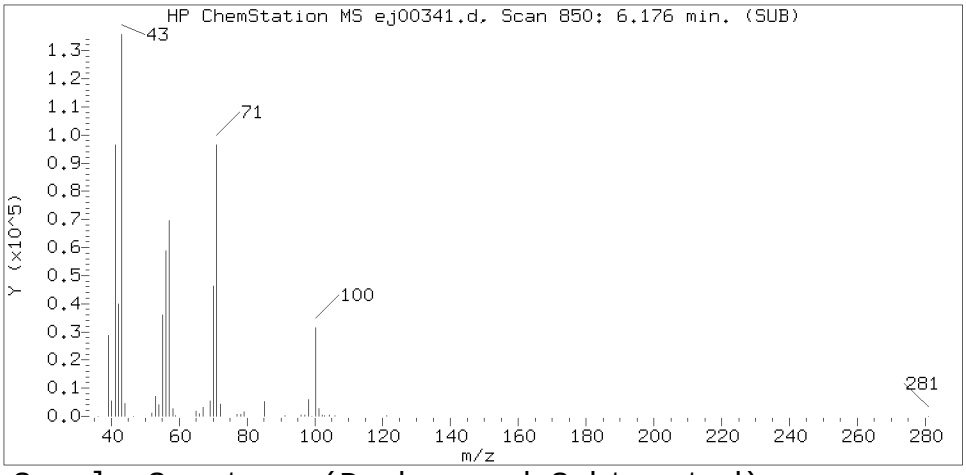
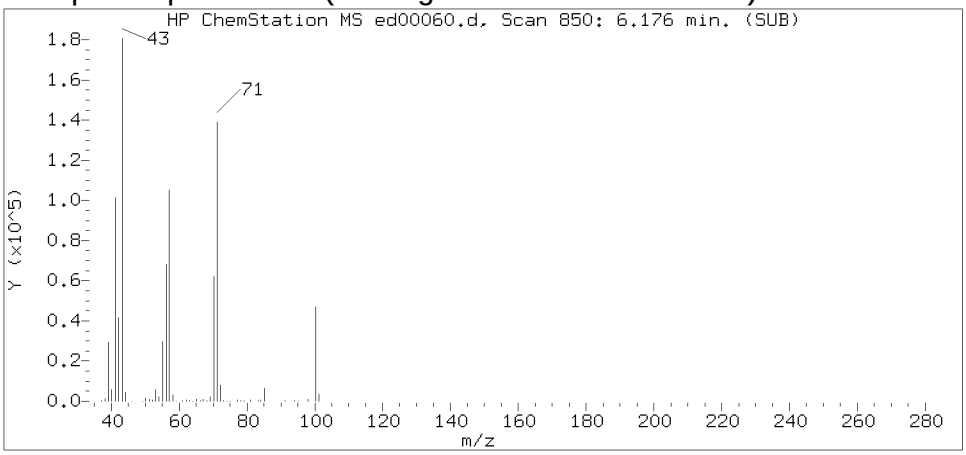
Target 3.5 esignature user ID: jeb07445

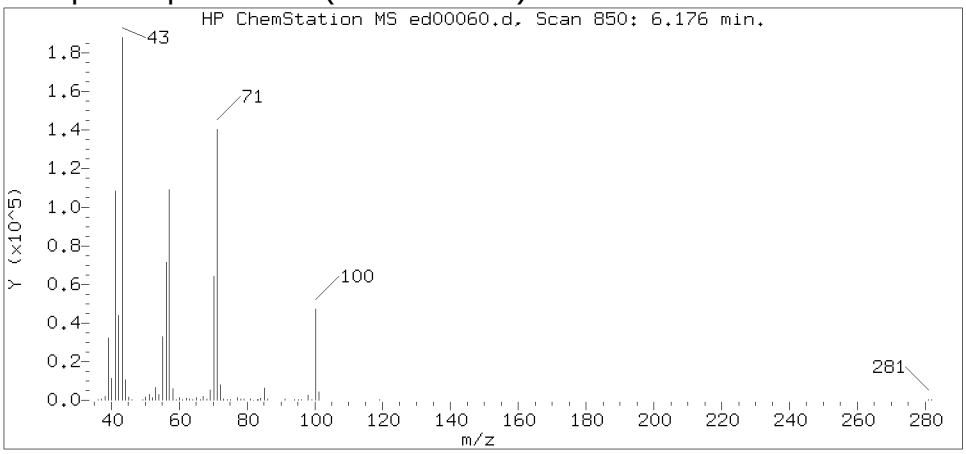
Reference Standard Spectrum for Heptane

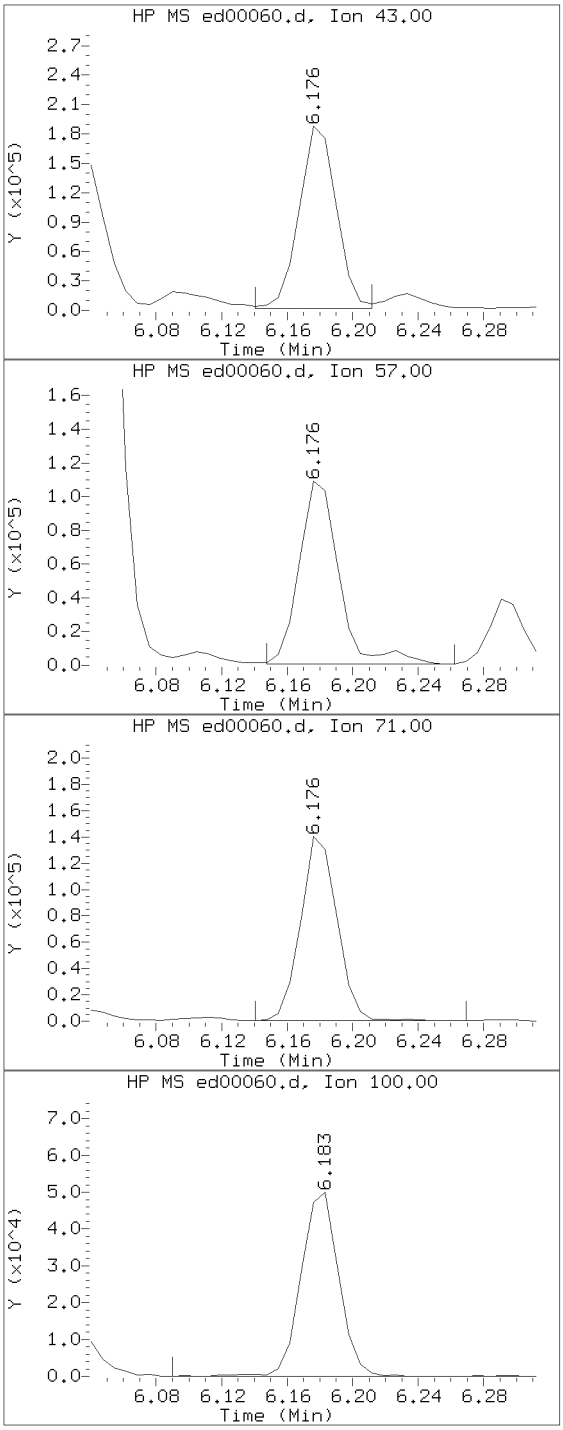


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

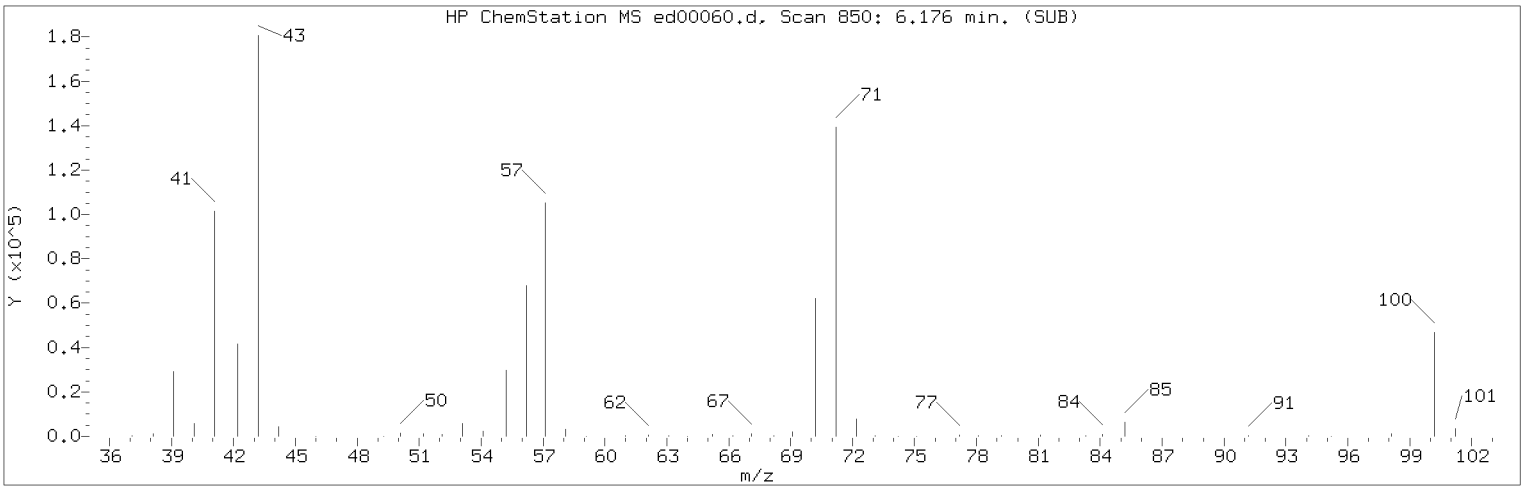
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

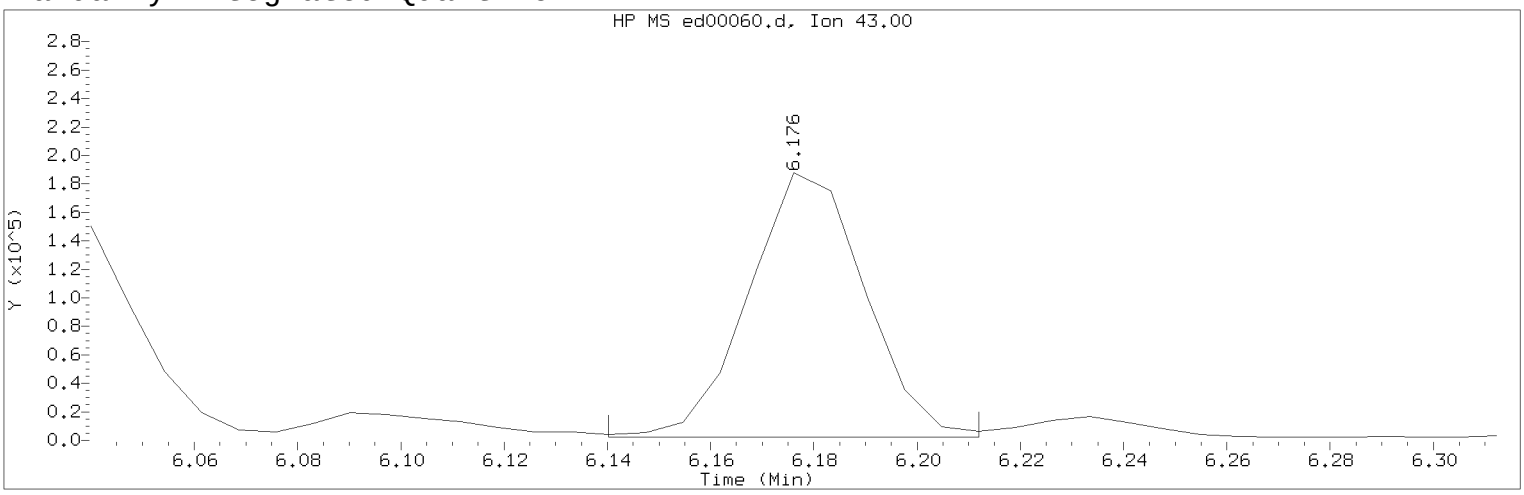
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 292604M
Concentration (ppb(v)) : 8.3748

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

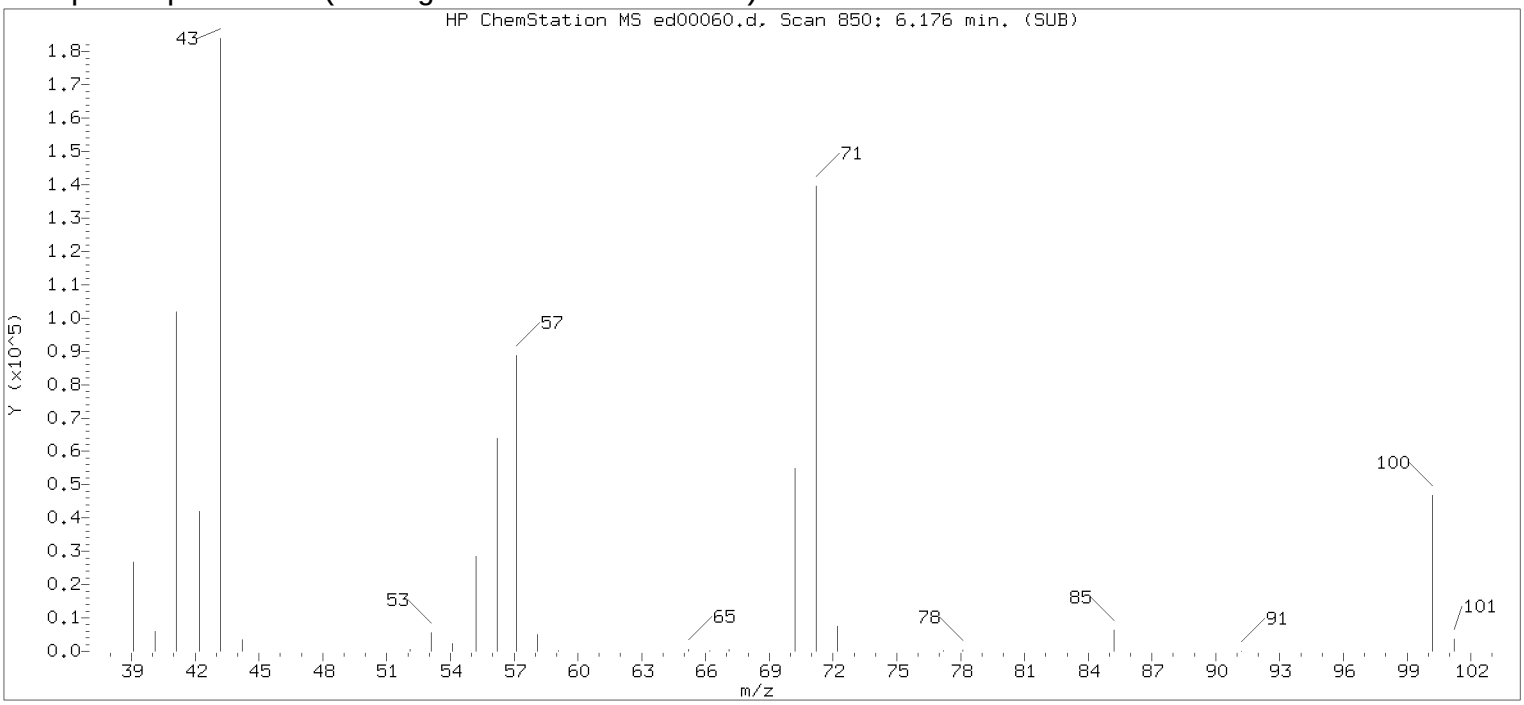
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 292604M
Concentration (ppb(v)) : 8.3748
Integration start scan : 844 Integration stop scan: 854
Y at integration start : 2129 Y at integration end: 2129

Reason for manual integration: improper integration

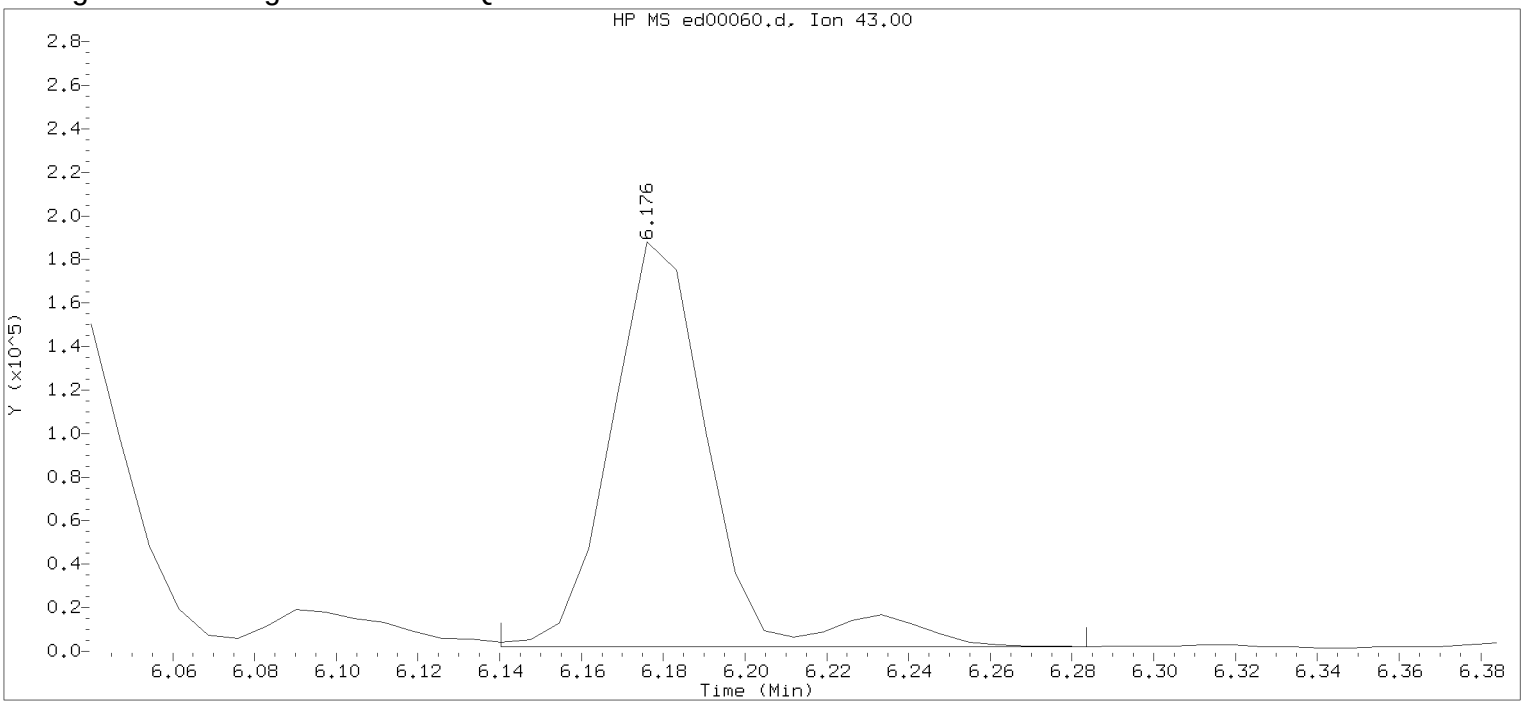
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:56.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

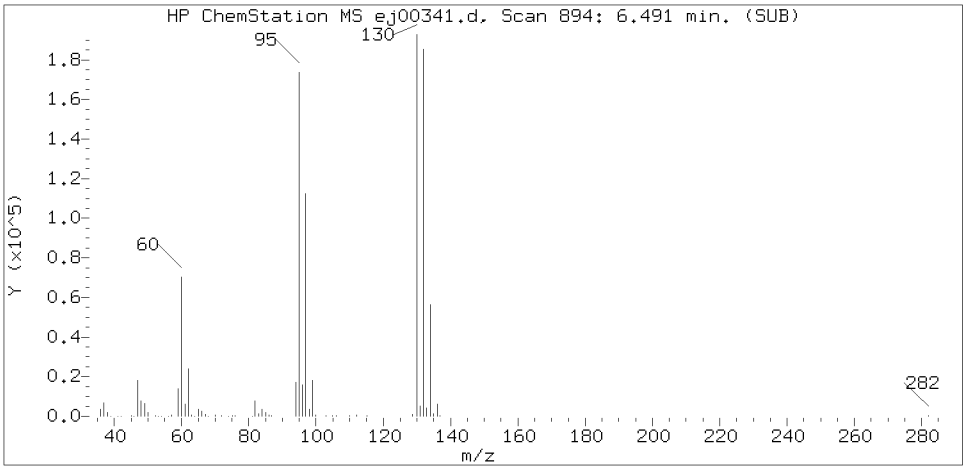
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:04 Unknown

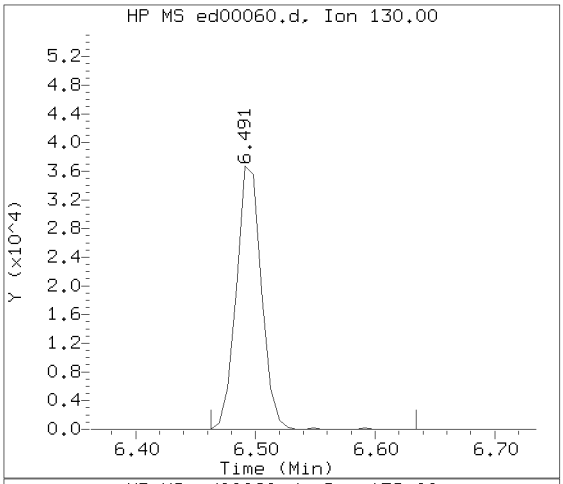
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 315008
Concentration (ppb(v)) : 9.0160
Integration start scan : 844 Integration stop scan: 864
Y at integration start : 2129 Y at integration end: 2129

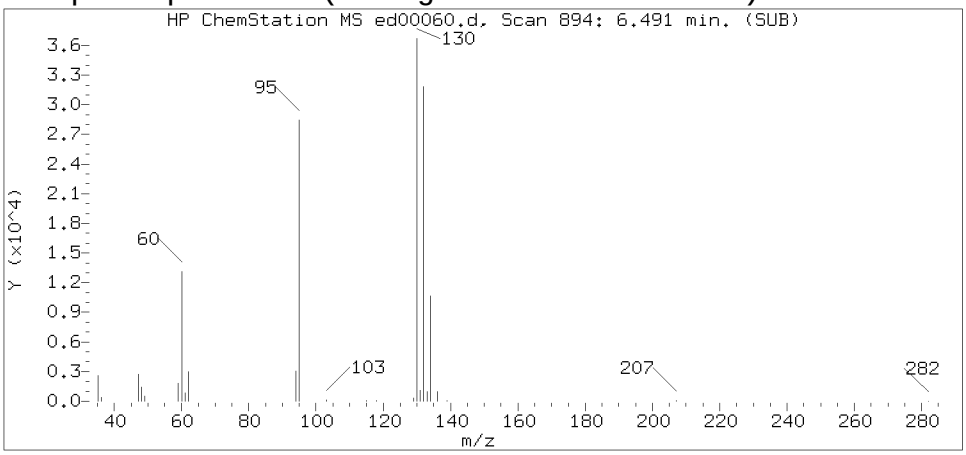
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user id: jeb07445

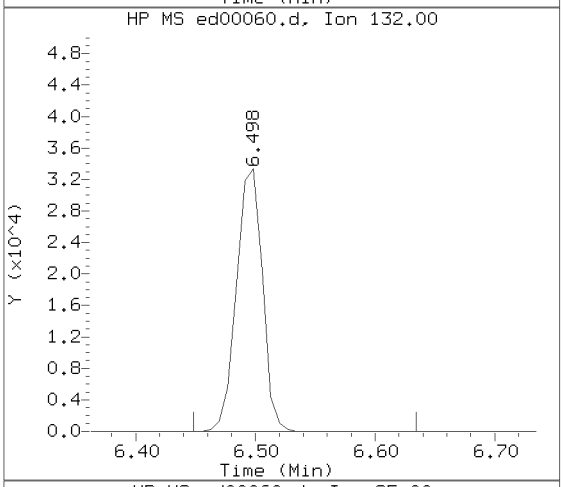
Reference Standard Spectrum for Trichloroethene



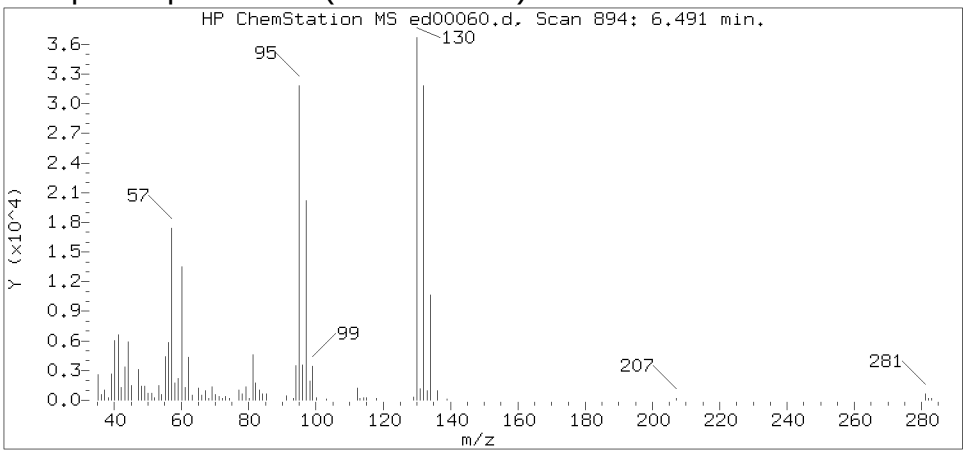


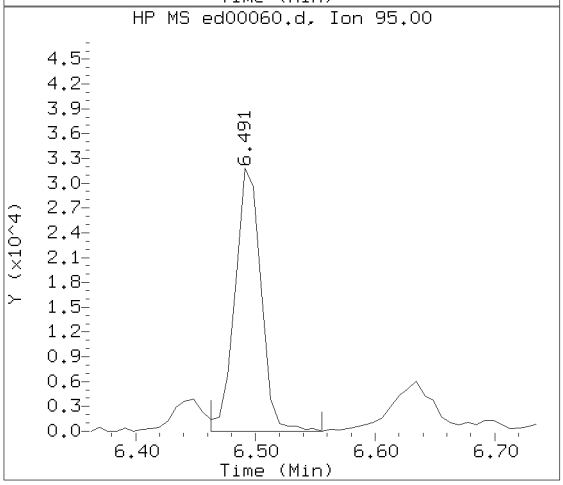
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

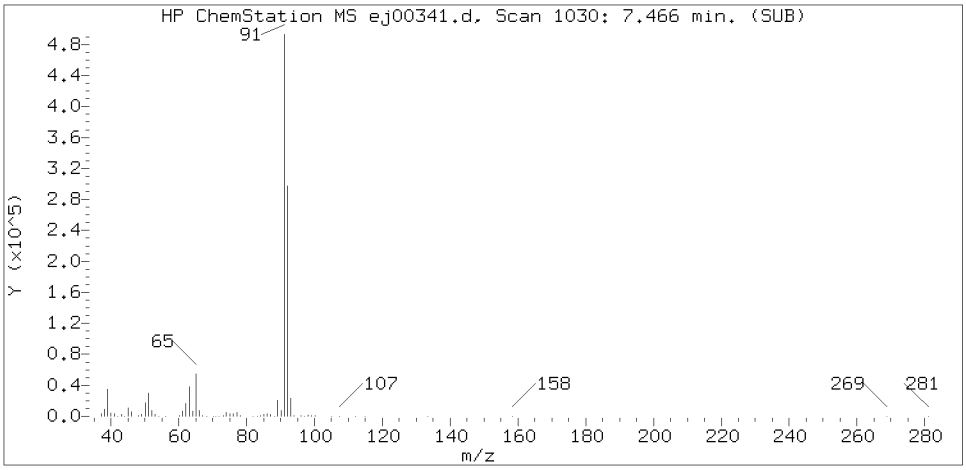
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

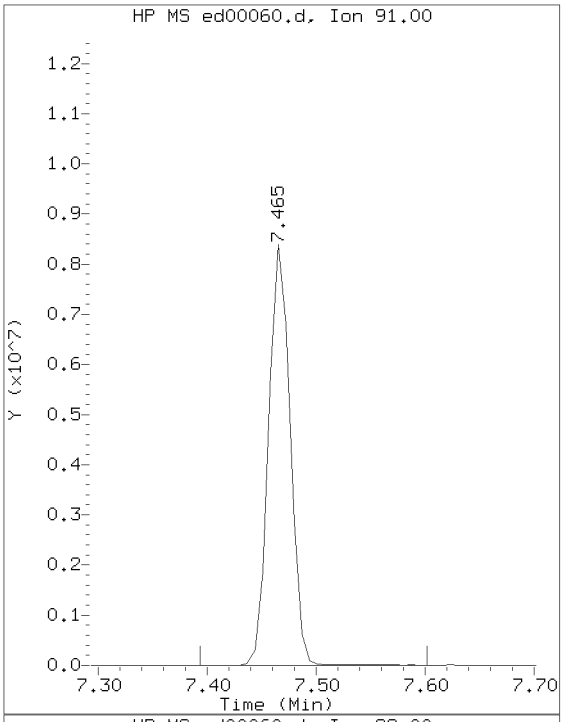
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 52
Compound Name : Trichloroethene
Scan Number : 894
Retention Time (minutes): 6.491
Relative Retention Time :-0.00000
Quant Ion : 130.00
Area (flag) : 53508
Concentration (ppb(v)) : 1.3539

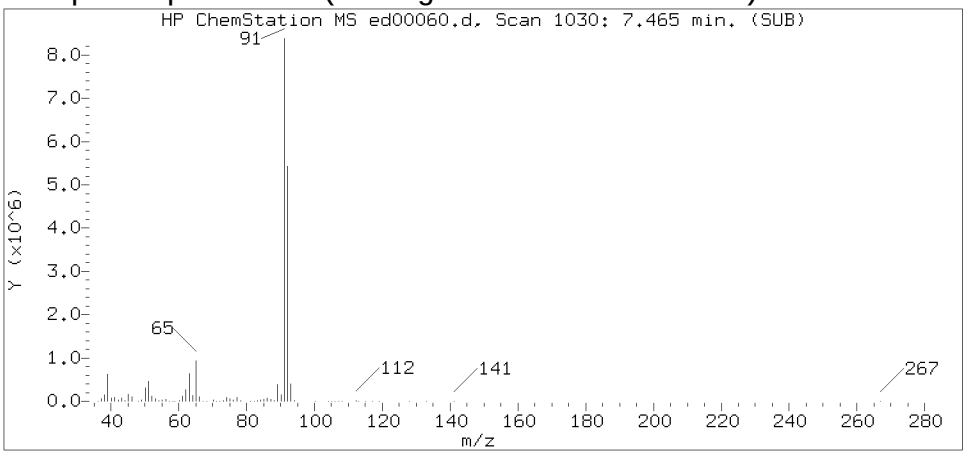
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

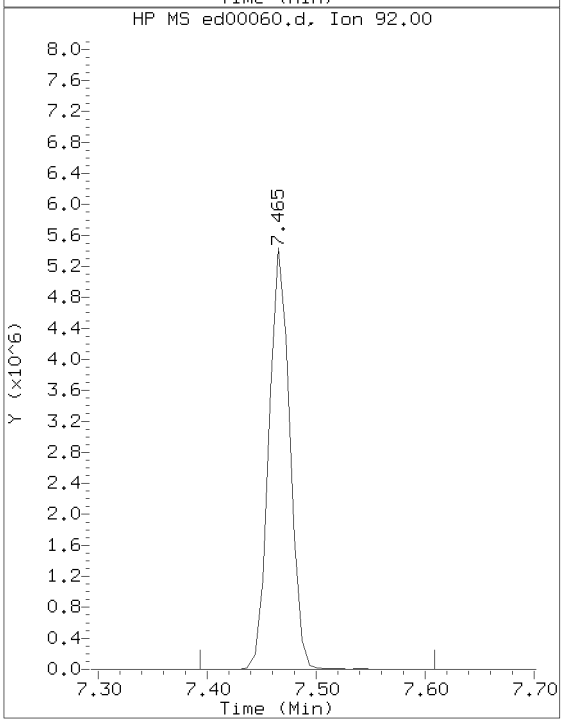
Reference Standard Spectrum for Toluene



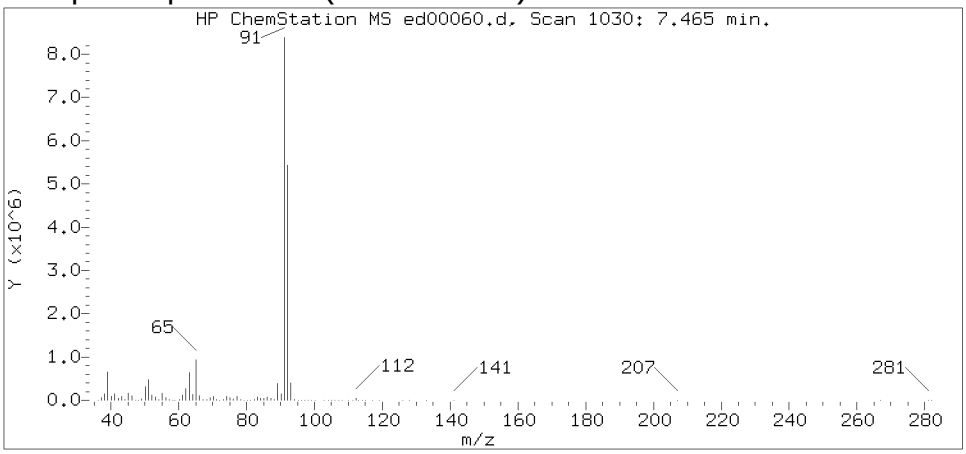


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.465
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 11578170
Concentration (ppb(v)) : 110.1697

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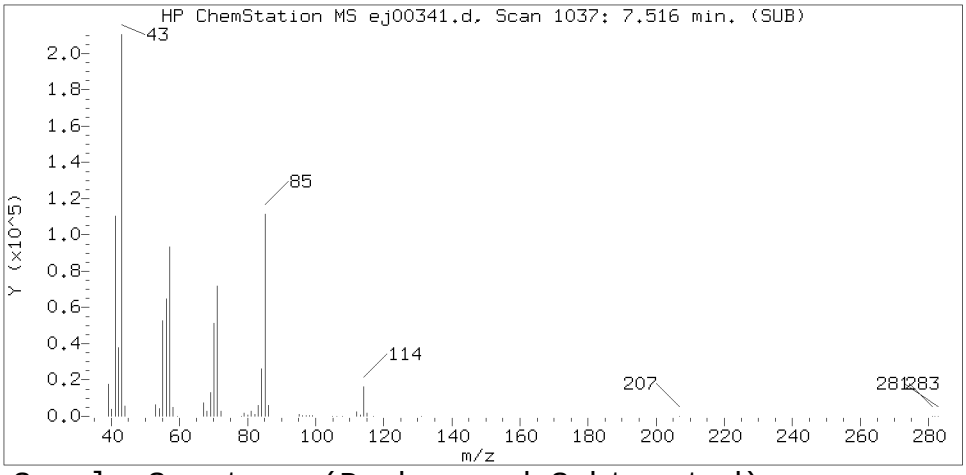
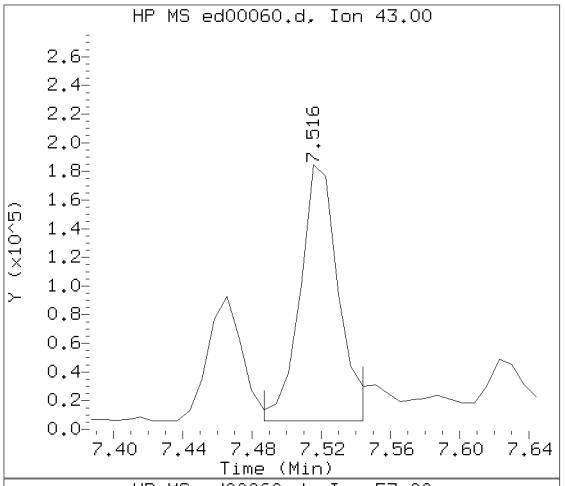
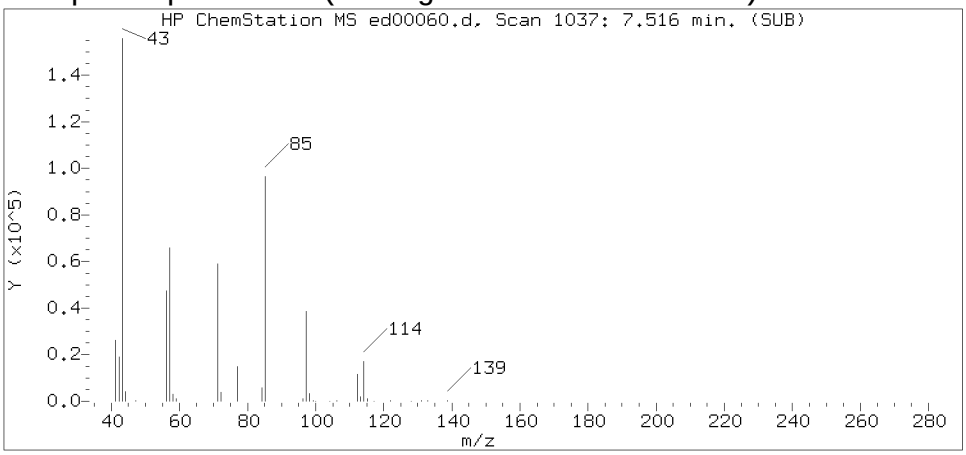
Target 3.5 esignature user ID: jeb07445

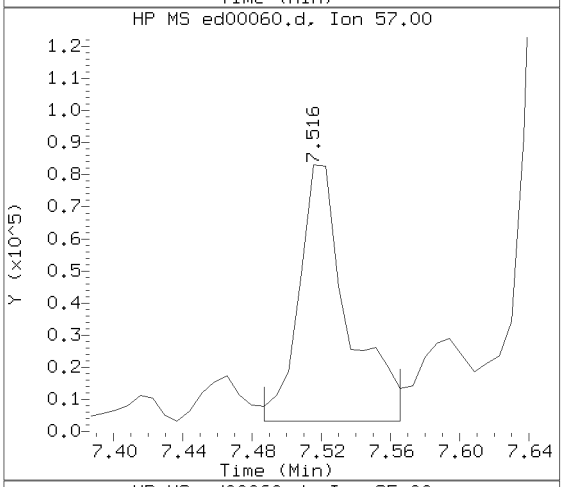
Reference Standard Spectrum for Octane



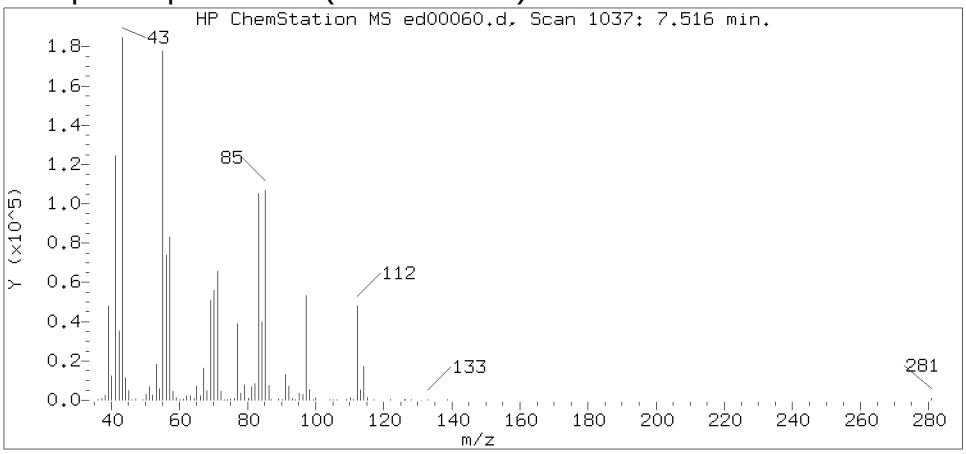


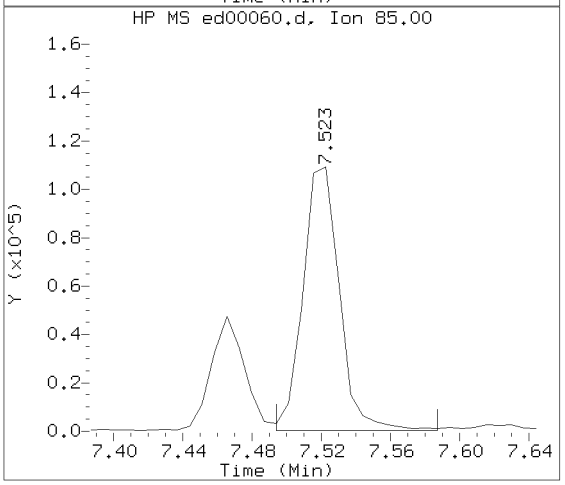
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

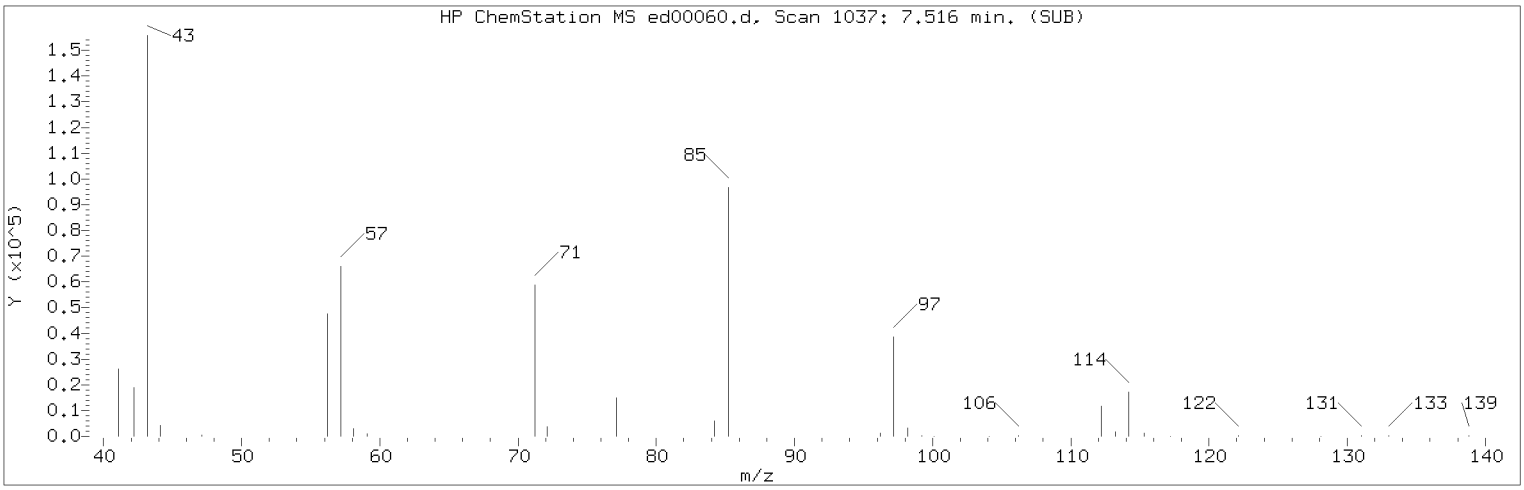
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

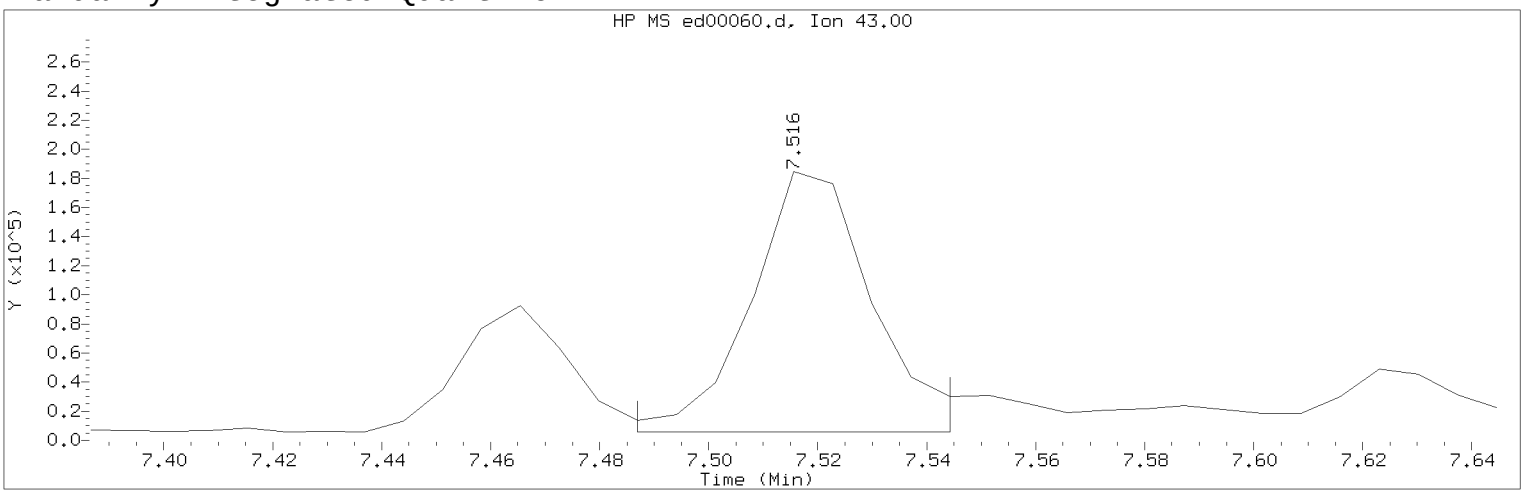
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 277759M
Concentration (ppb(v)) : 5.3839

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

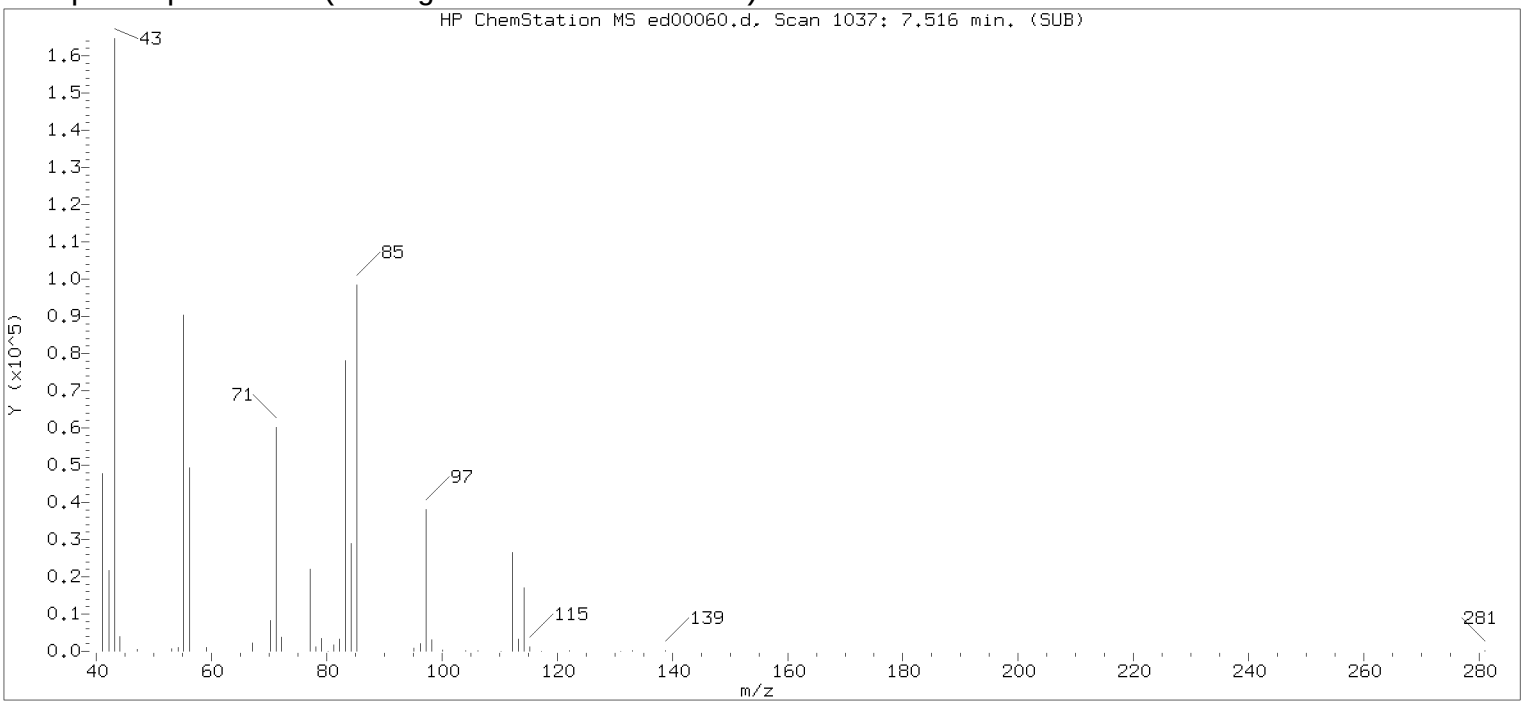
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area (flag) : 277759M
Concentration (ppb(v)) : 5.3839
Integration start scan : 1032 Integration stop scan: 1040
Y at integration start : 5945 Y at integration end: 5945

Reason for manual integration: improper integration

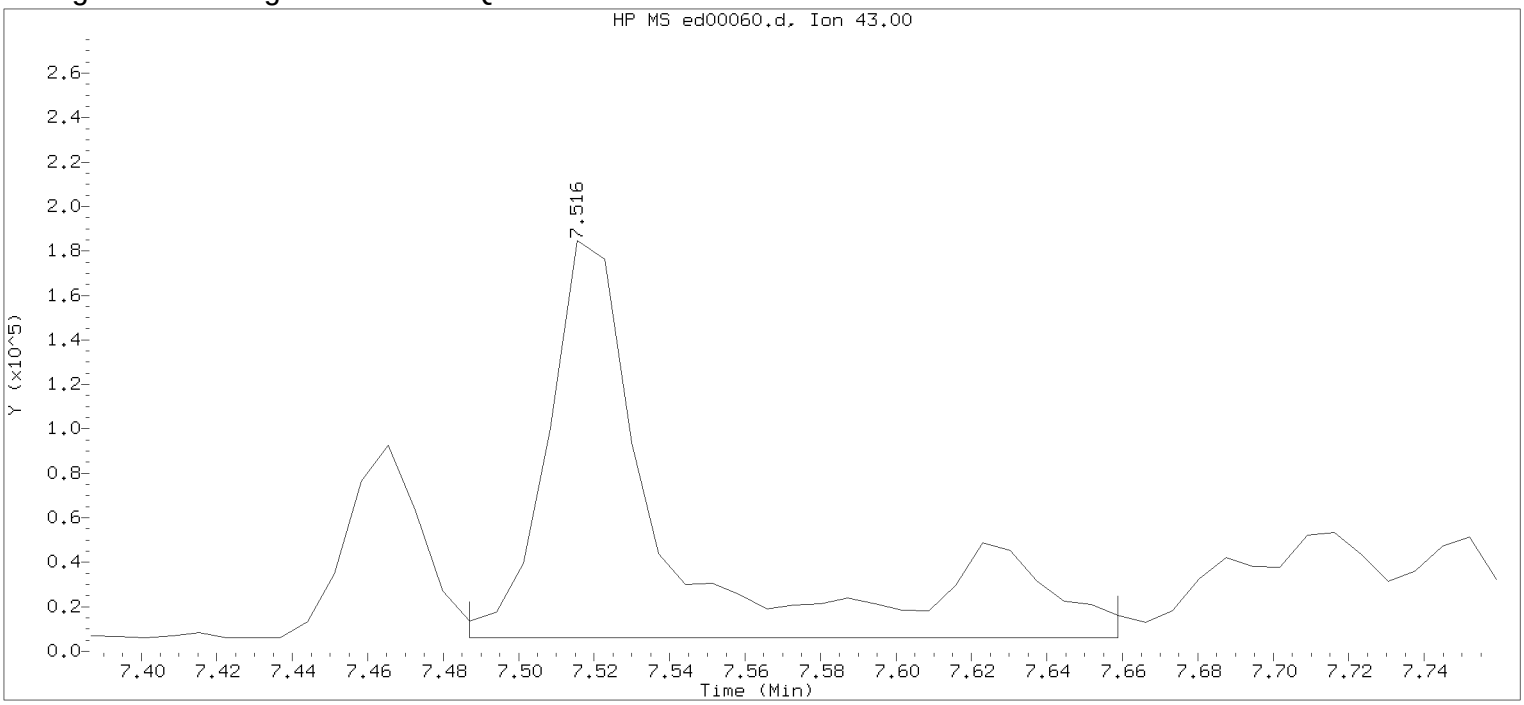
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:56.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

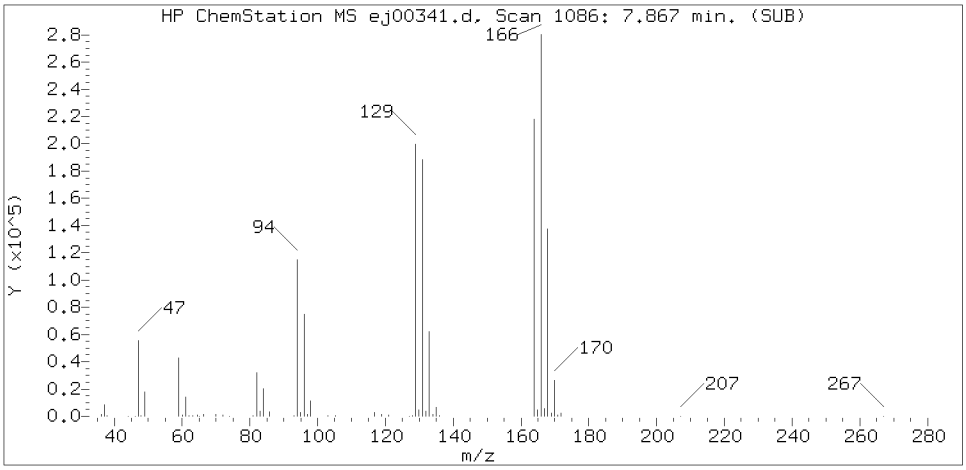
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:04 Unknown

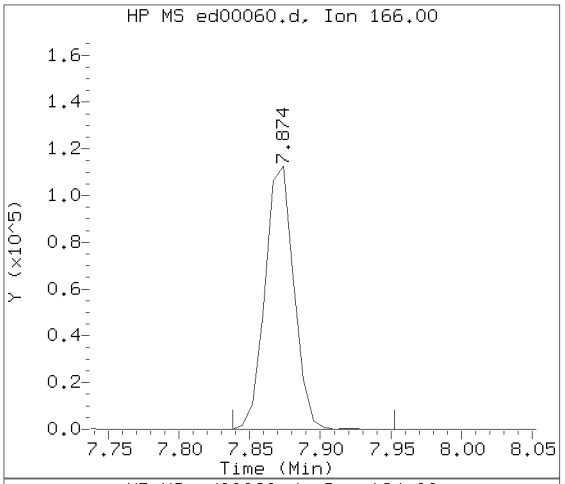
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area : 411107
Concentration (ppb(v)) : 7.9686
Integration start scan : 1032 Integration stop scan: 1056
Y at integration start : 5945 Y at integration end: 5945

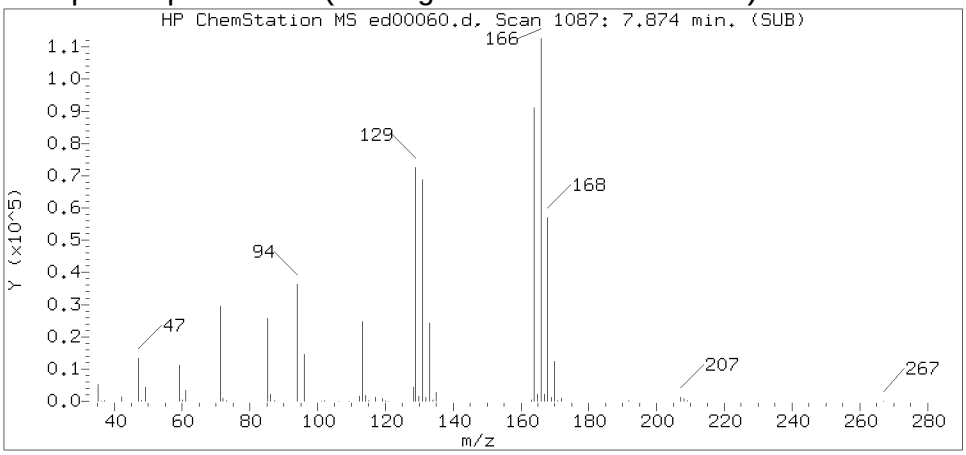
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user id: jeb07445

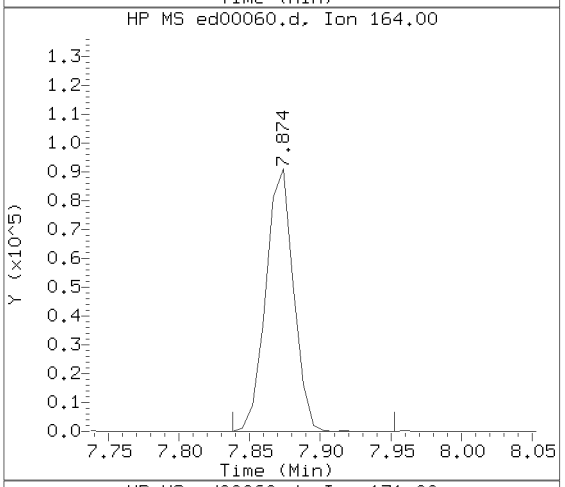
Reference Standard Spectrum for Tetrachloroethene



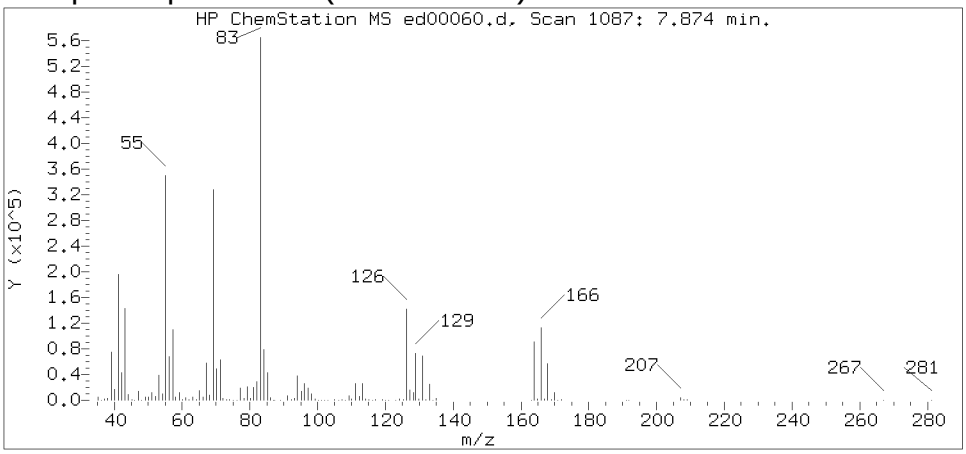


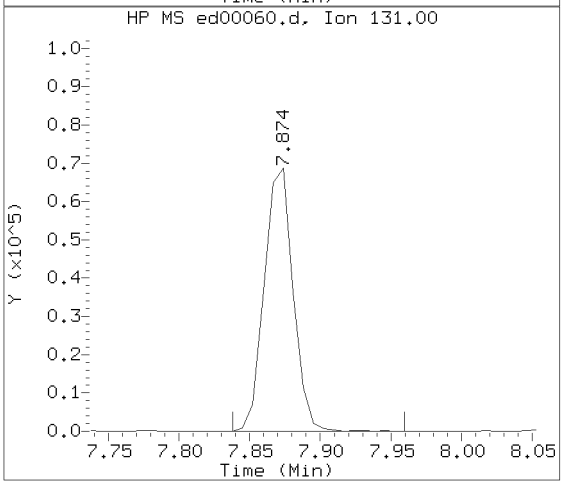
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 160143
Concentration (ppb(v)) : 2.5887

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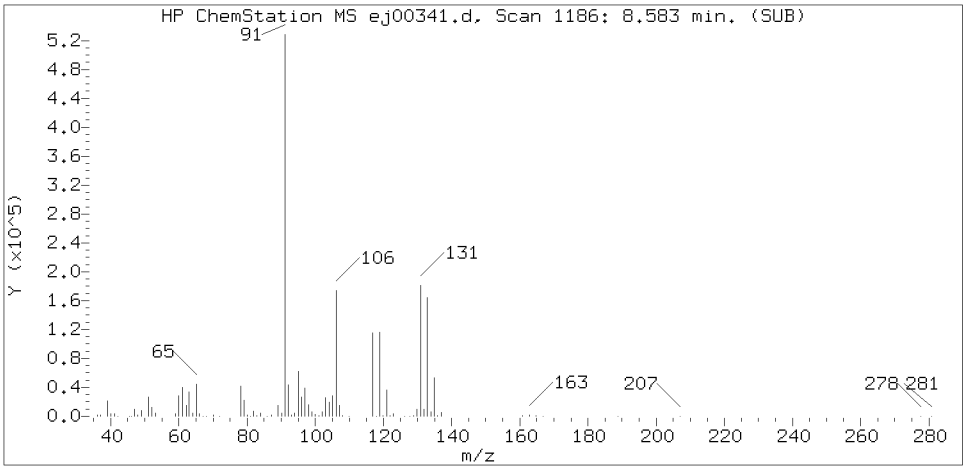
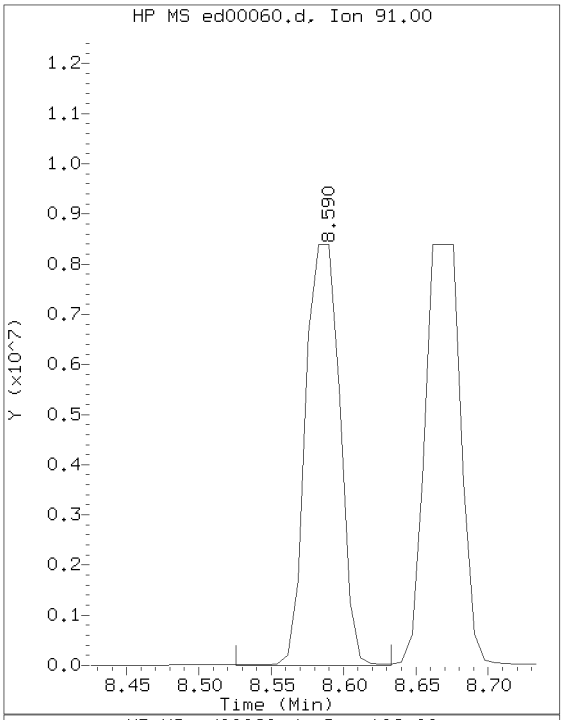
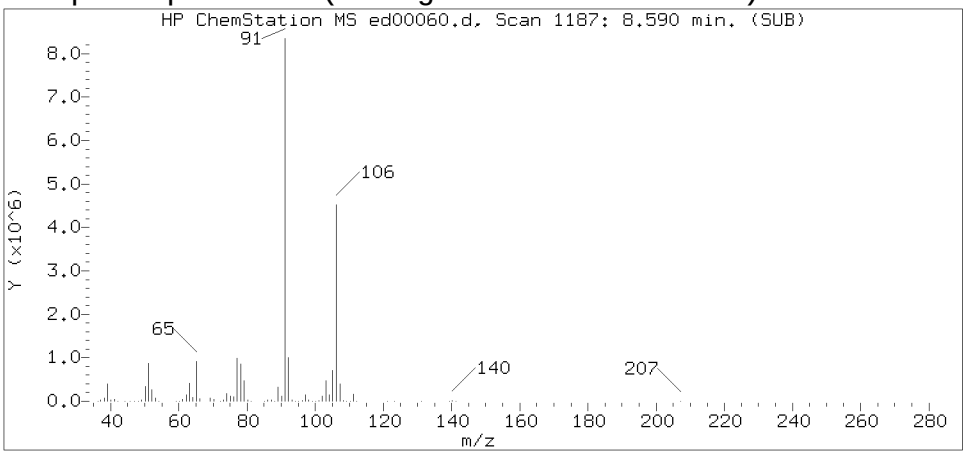
Target 3.5 esignature user ID: jeb07445

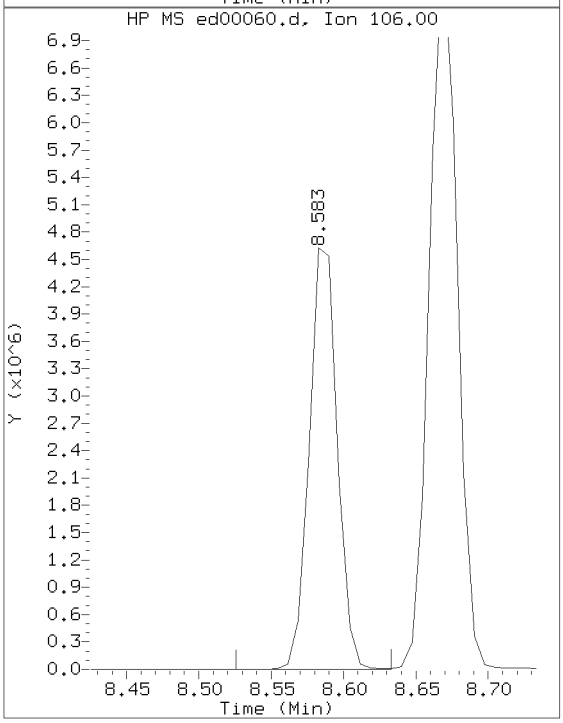
Reference Standard Spectrum for Ethylbenzene



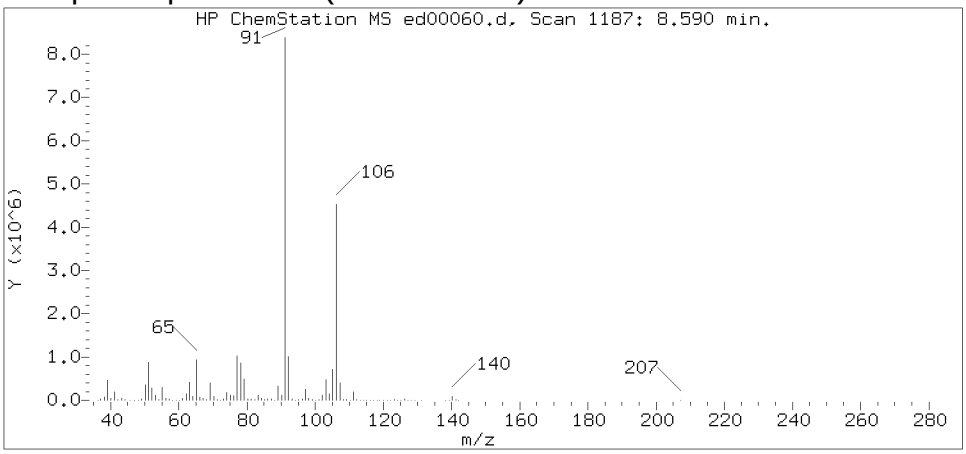


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

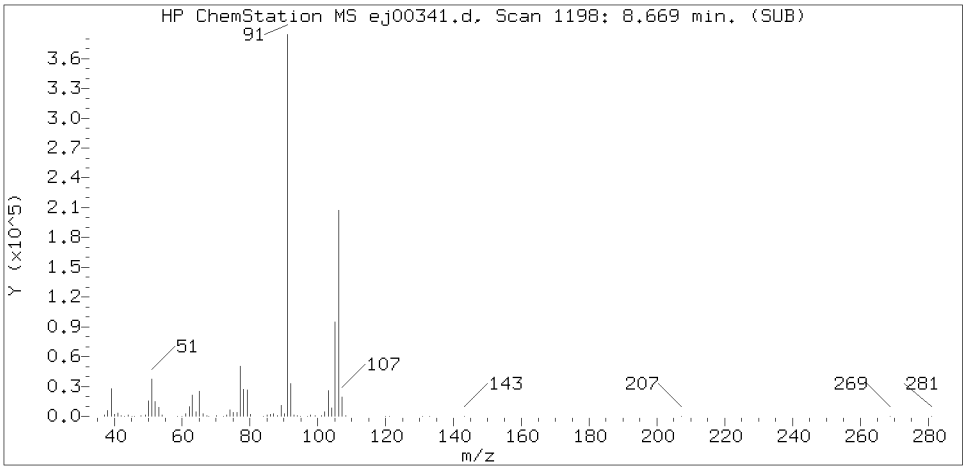
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

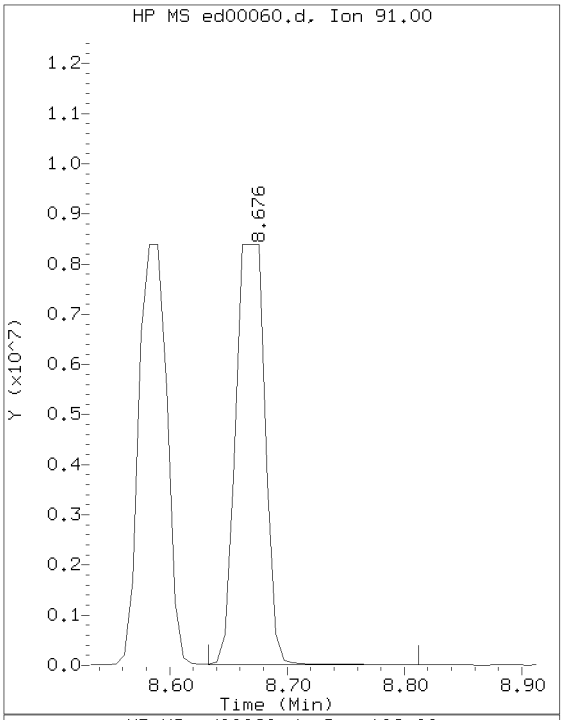
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1187
Retention Time (minutes): 8.590
Relative Retention Time :-0.00084
Quant Ion : 91.00
Area (flag) : 13891353
Concentration (ppb(v)) : 103.1535

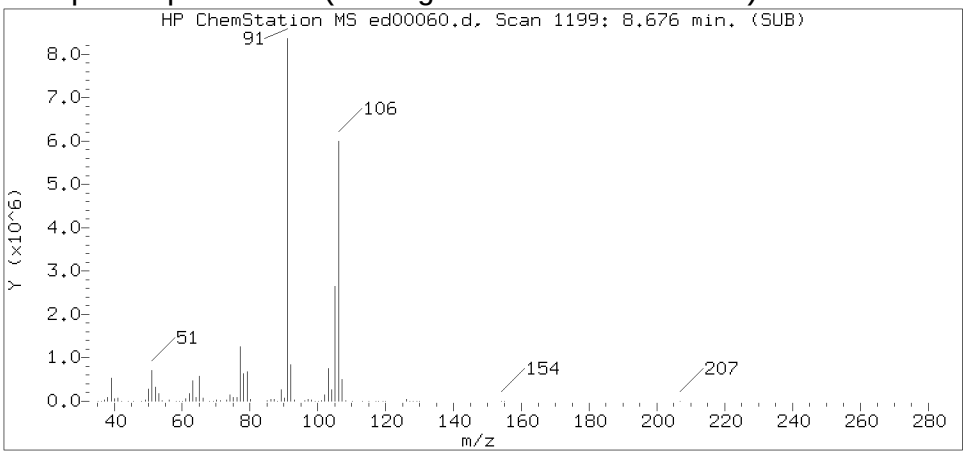
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

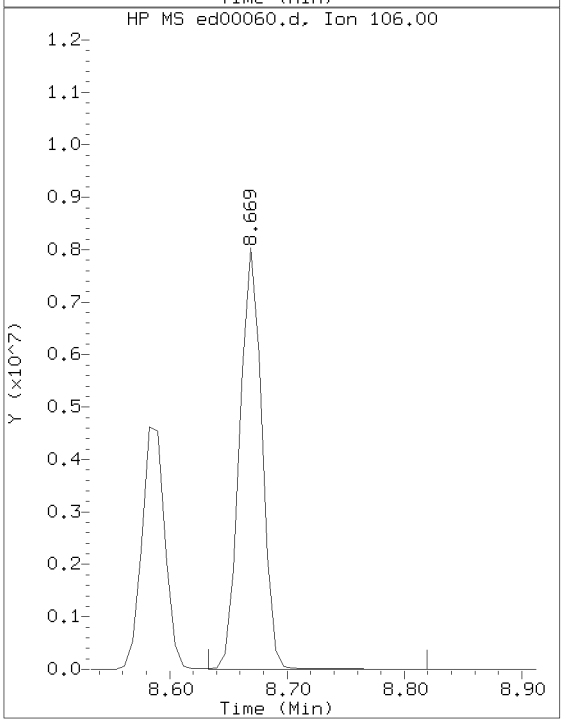
Reference Standard Spectrum for m/p-Xylene



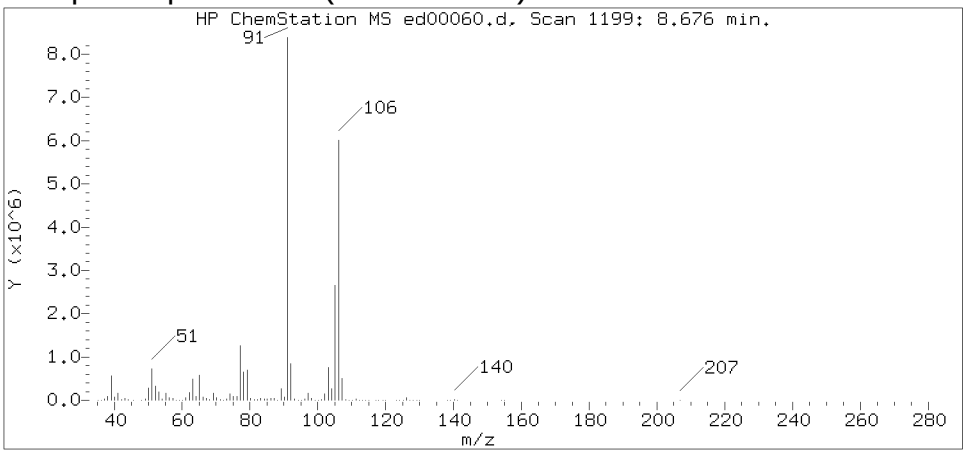


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1199
Retention Time (minutes): 8.676
Relative Retention Time :-0.00084
Quant Ion : 91.00
Area (flag) : 14623929
Concentration (ppb(v)) : 137.4924

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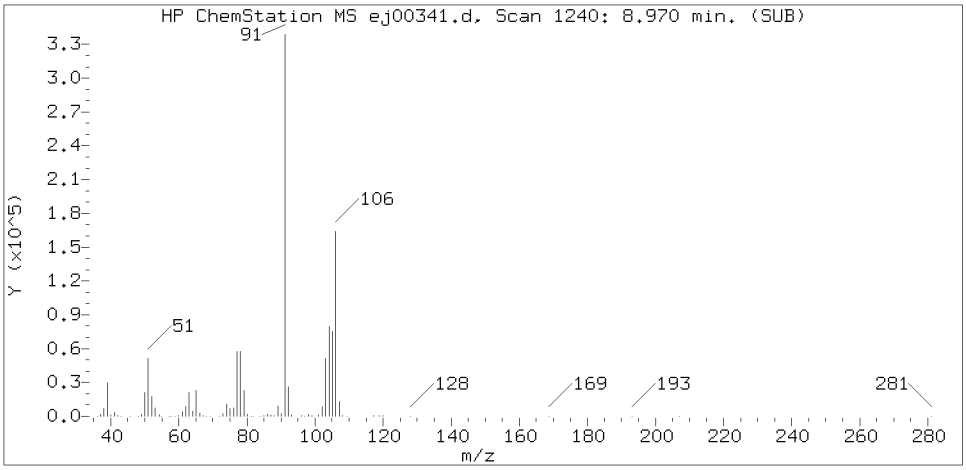
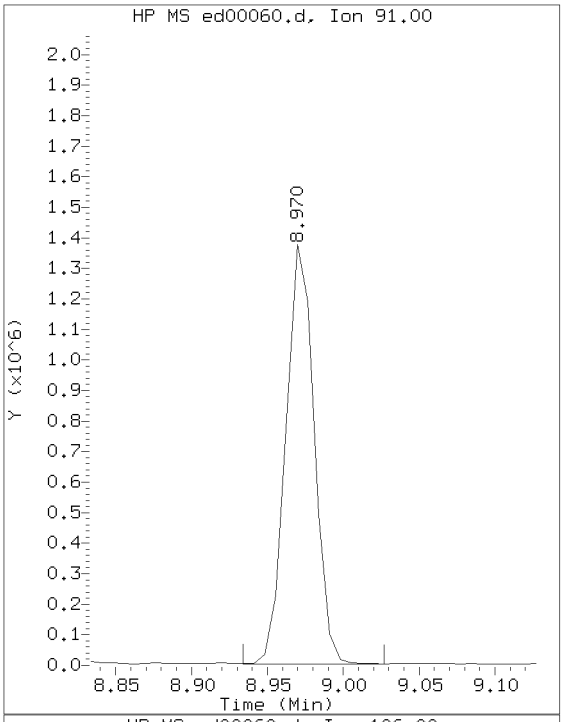
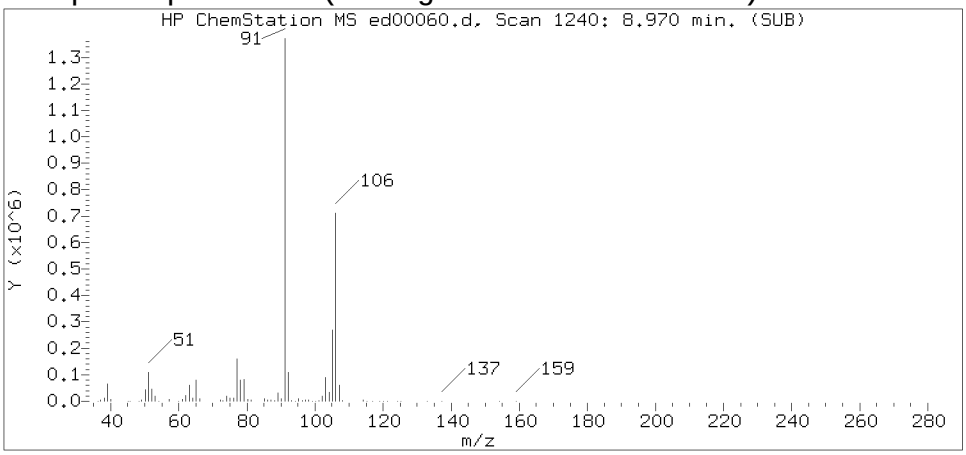
Target 3.5 esignature user ID: jeb07445

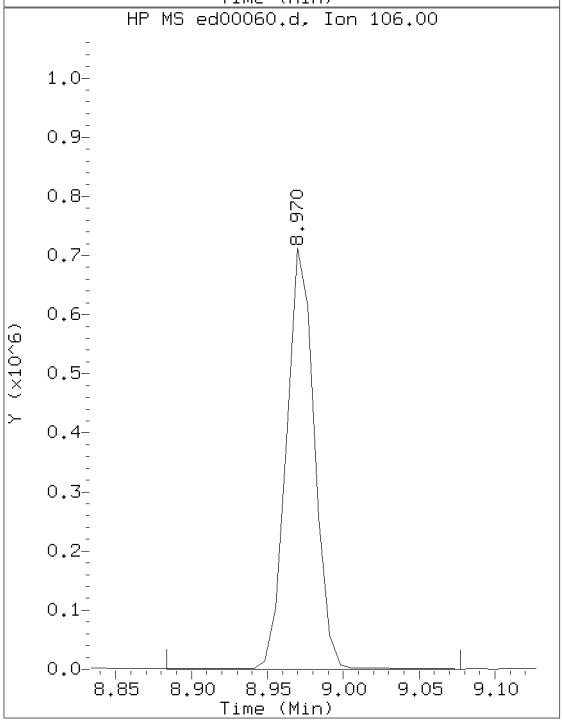
Reference Standard Spectrum for o-Xylene



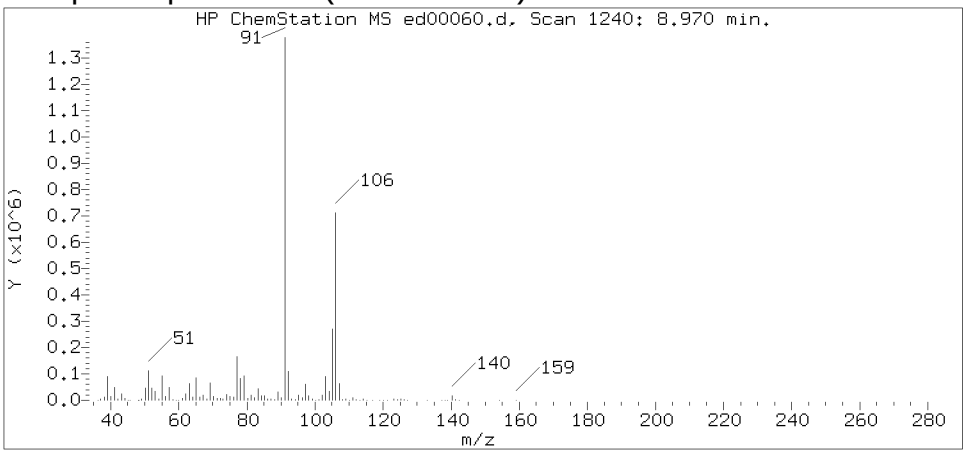


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

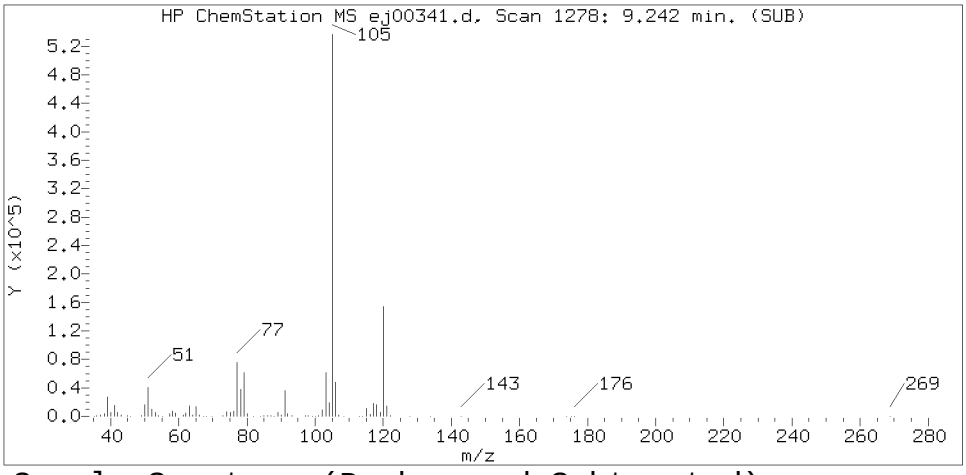
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

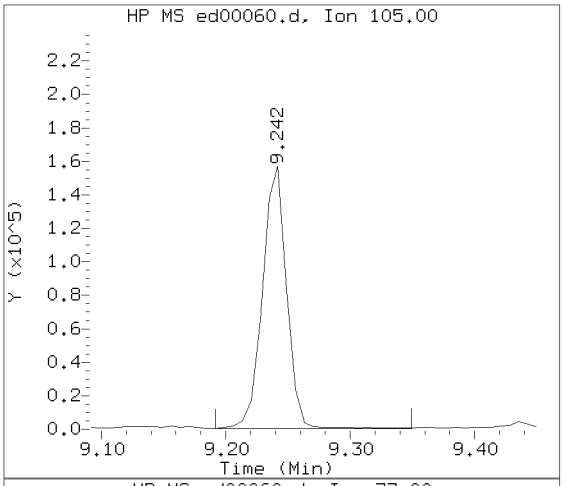
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 1816177
Concentration (ppb(v)) : 17.6184

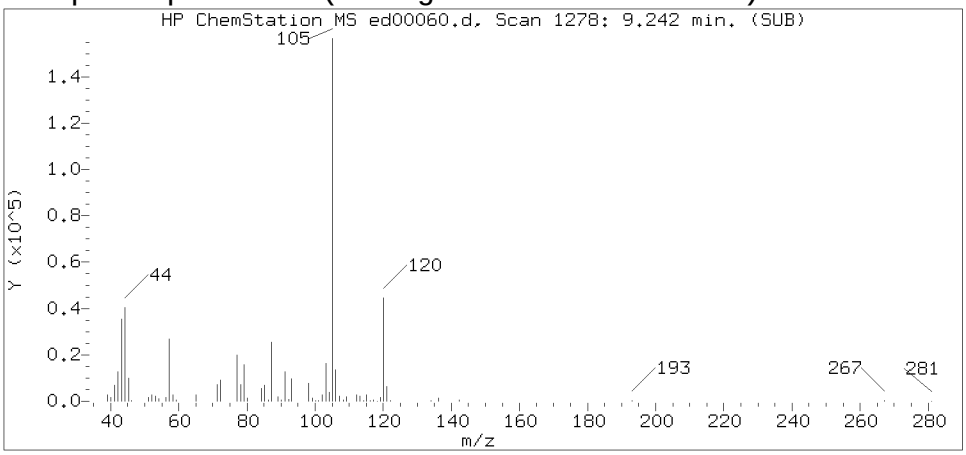
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

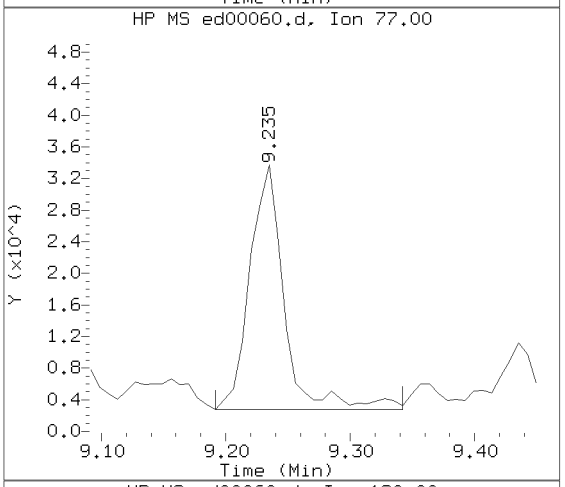
Reference Standard Spectrum for Cumene



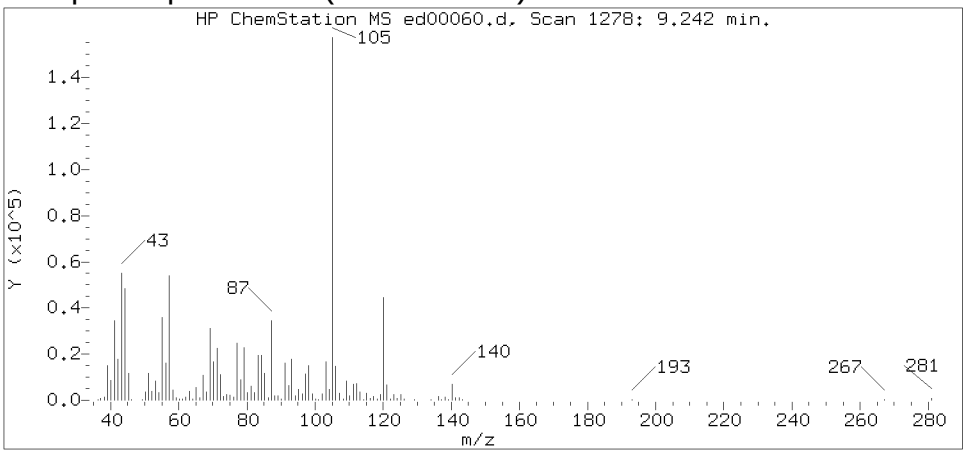


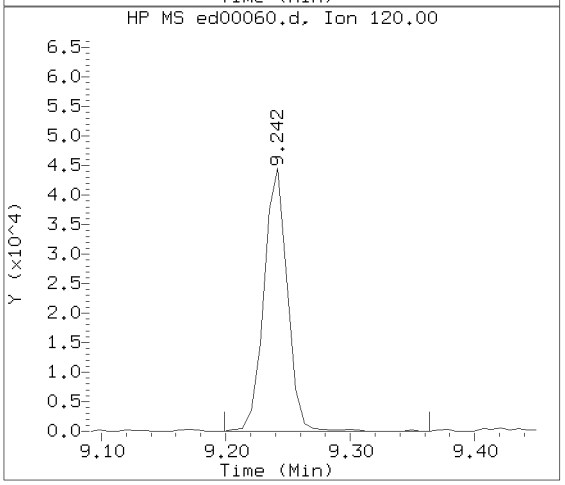
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

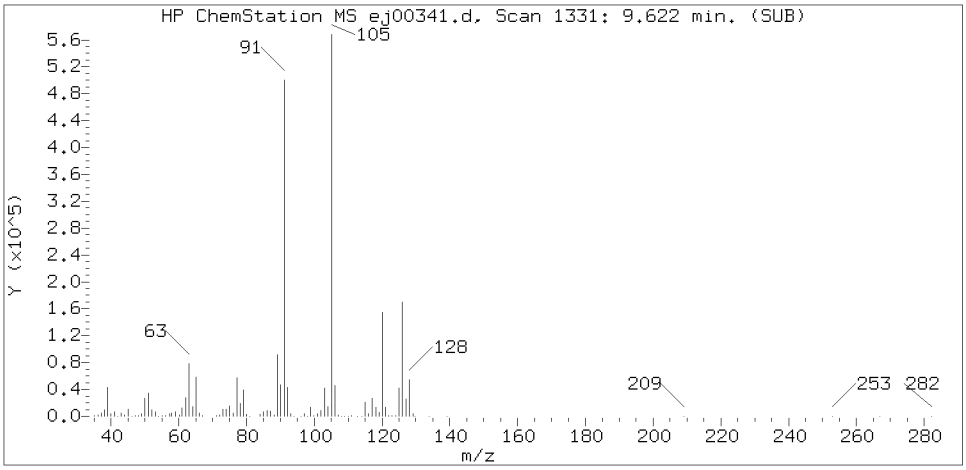
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

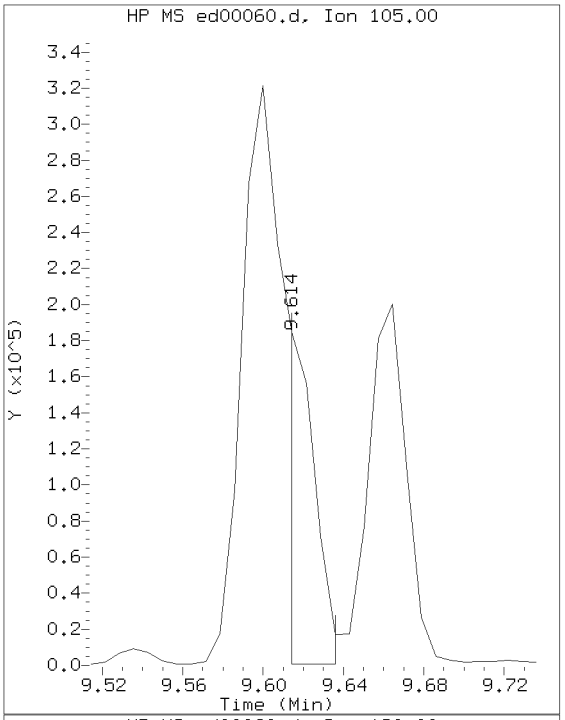
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 80
Compound Name : Cumene
Scan Number : 1278
Retention Time (minutes): 9.242
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 213396
Concentration (ppb(v)) : 1.4709

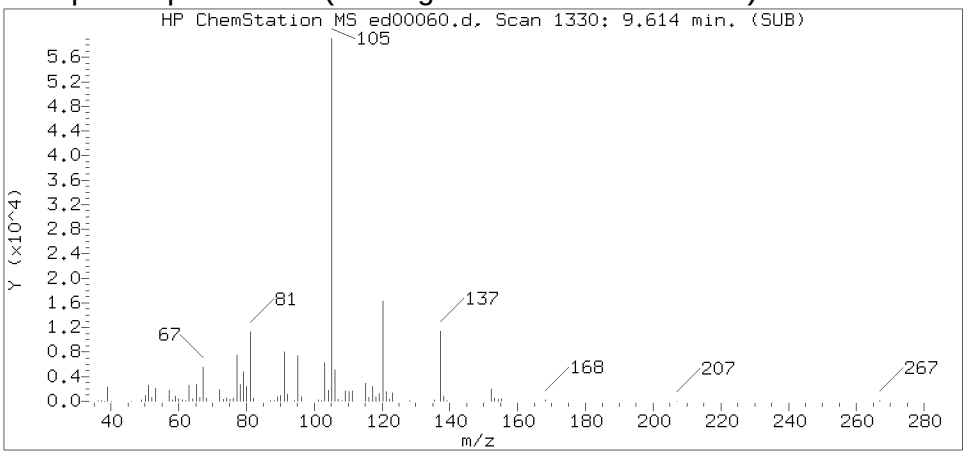
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

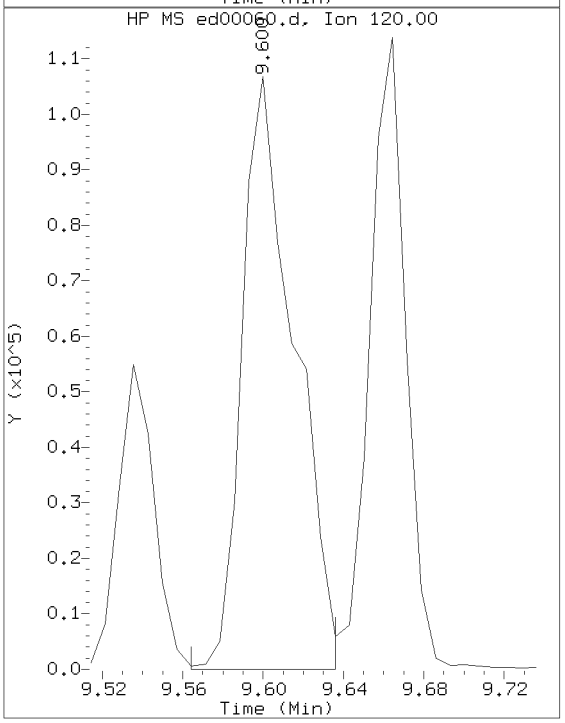
Reference Standard Spectrum for 4-Ethyltoluene



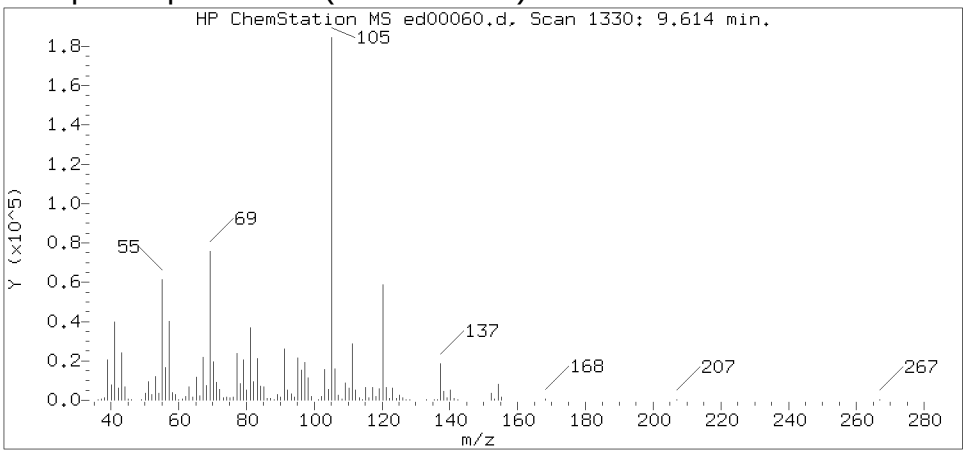


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

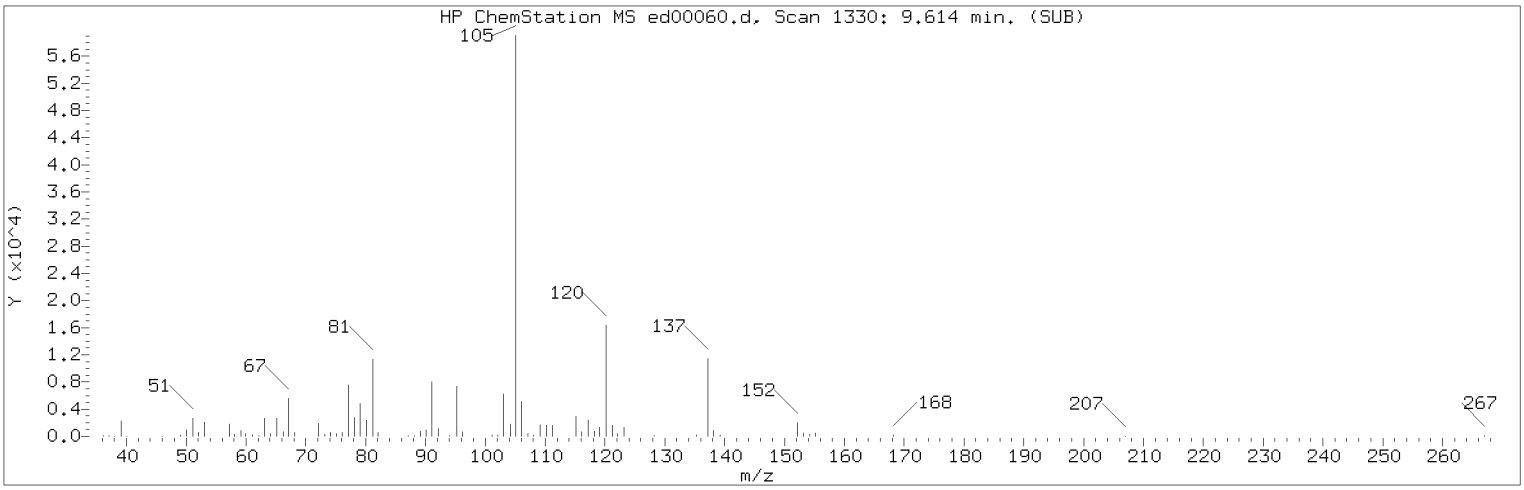
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

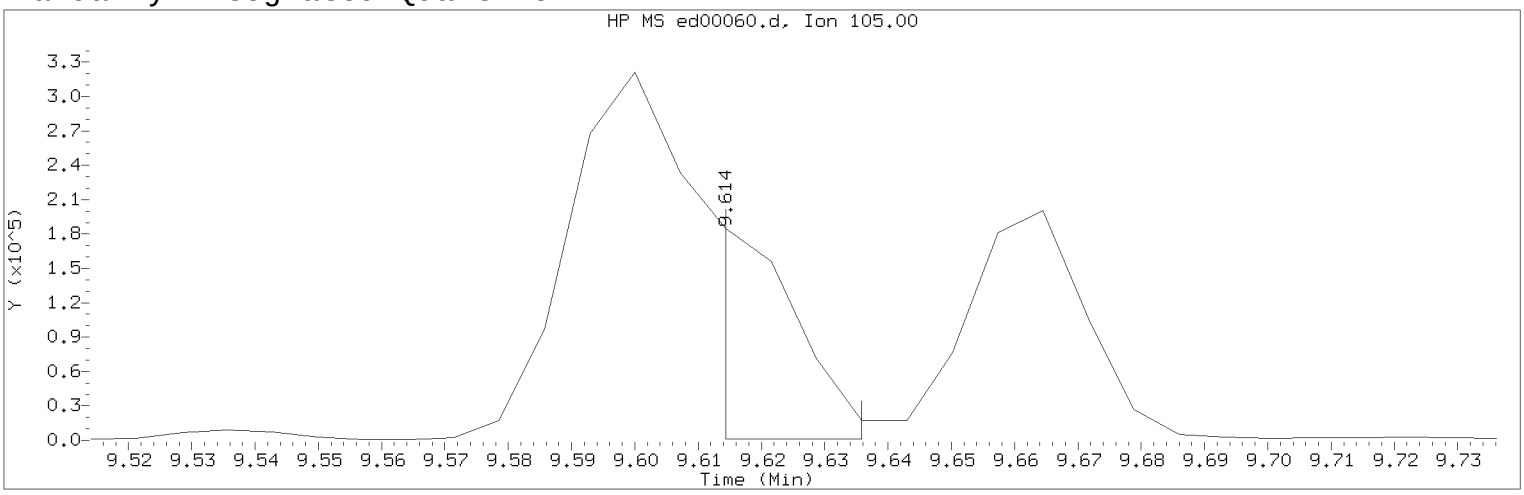
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1330
Retention Time (minutes): 9.614
Relative Retention Time : 0.00168
Quant Ion : 105.00
Area (flag) : 183013M
Concentration (ppb(v)) : 1.2776

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

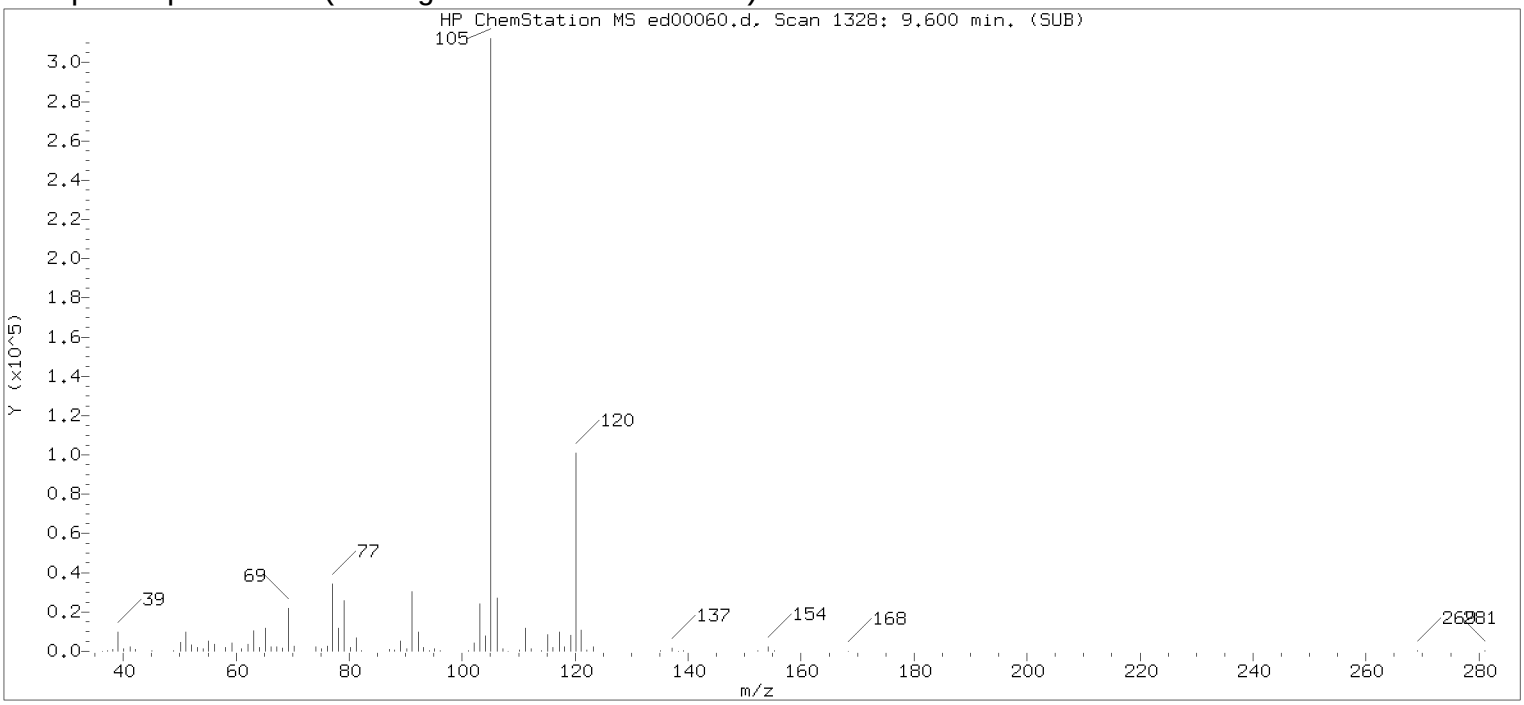
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1330
Retention Time (minutes): 9.614
Quant Ion : 105.00
Area (flag) : 183013M
Concentration (ppb(v)) : 1.2776
Integration start scan : 1329 Integration stop scan: 1332
Y at integration start : 877 Y at integration end: 877

Reason for manual integration: improper integration

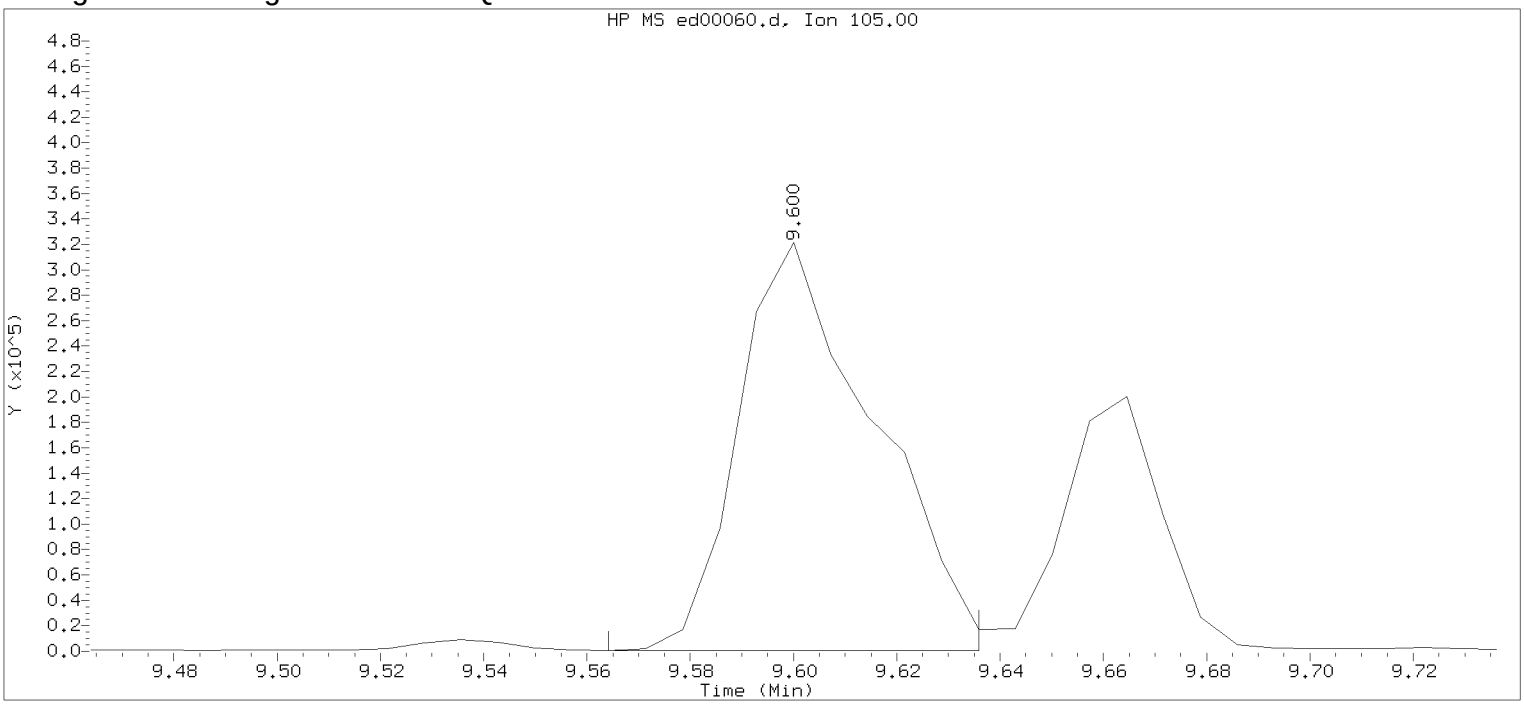
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:56.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

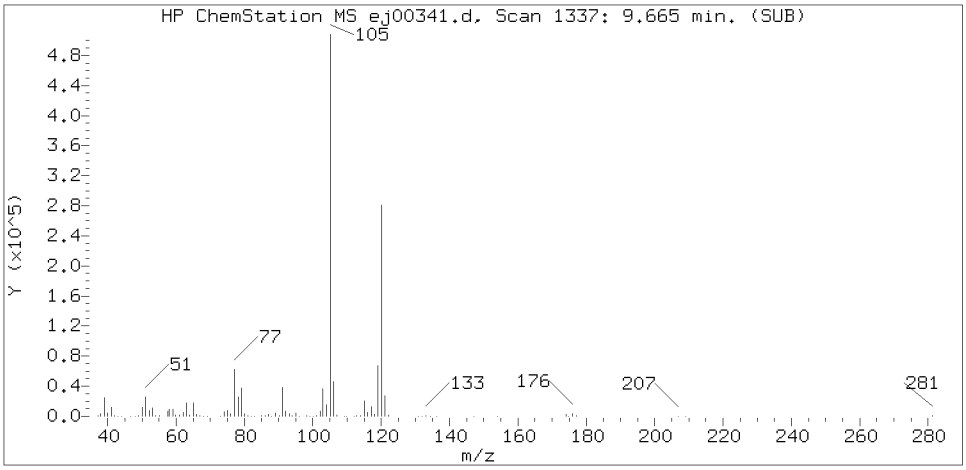
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:04 Unknown

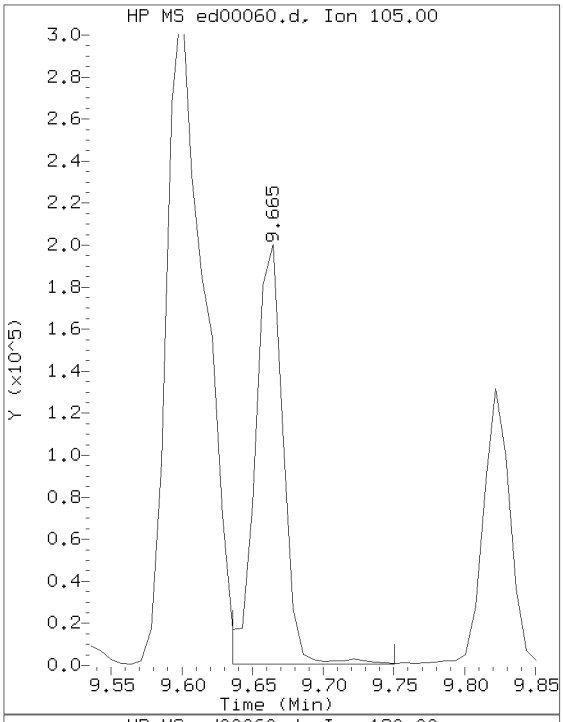
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1328
Retention Time (minutes): 9.600
Quant Ion : 105.00
Area : 581651
Concentration (ppb(v)) : 4.0605
Integration start scan : 1322 Integration stop scan: 1332
Y at integration start : 625 Y at integration end: 625

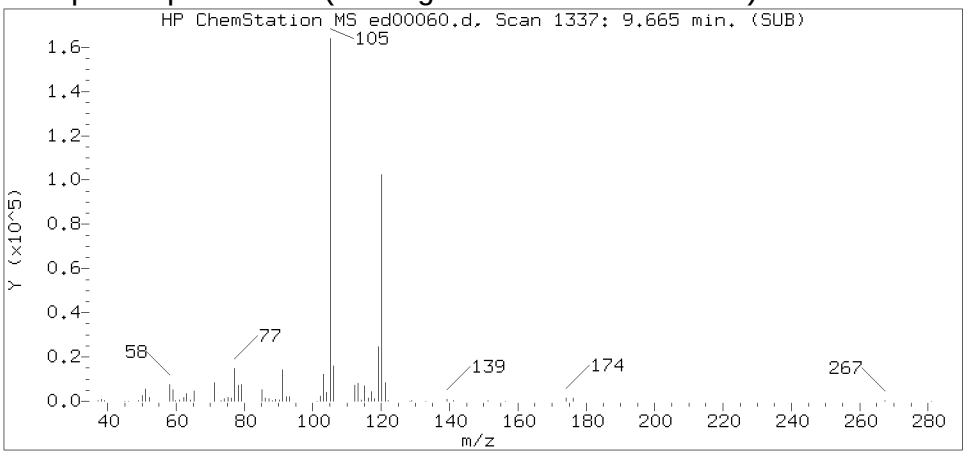
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user id: jeb07445

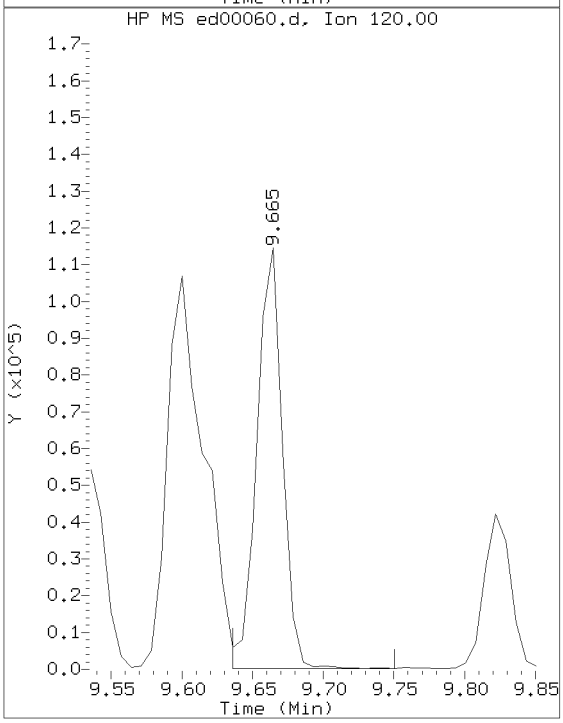
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



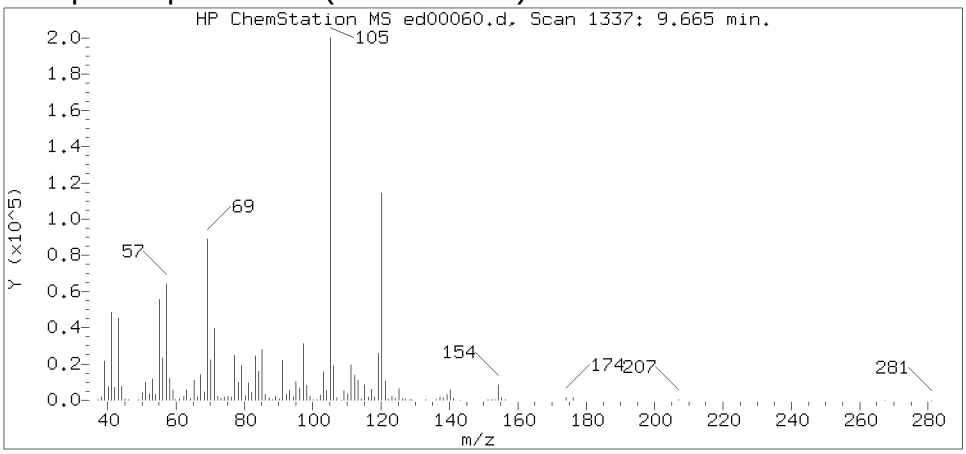


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

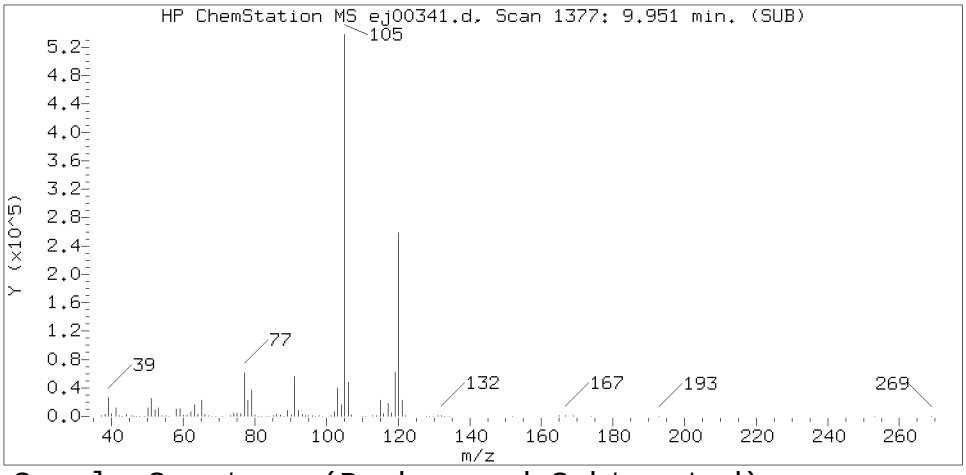
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

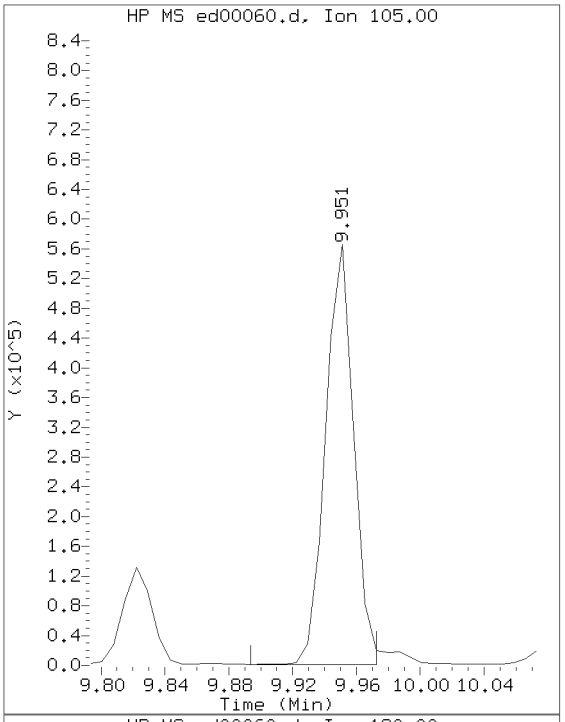
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1337
Retention Time (minutes): 9.665
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 270769
Concentration (ppb(v)) : 2.2743

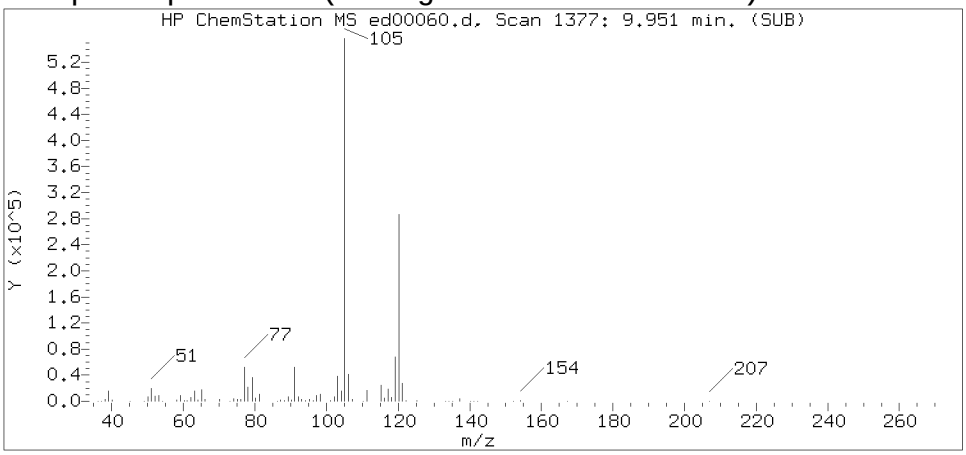
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

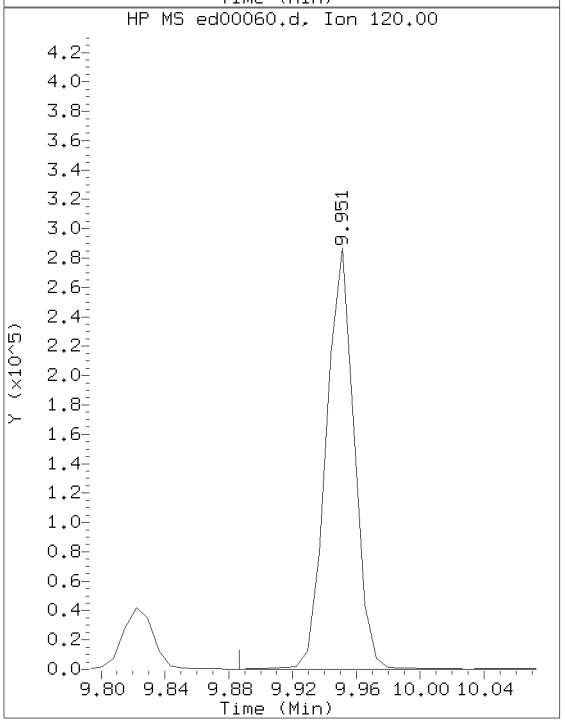
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



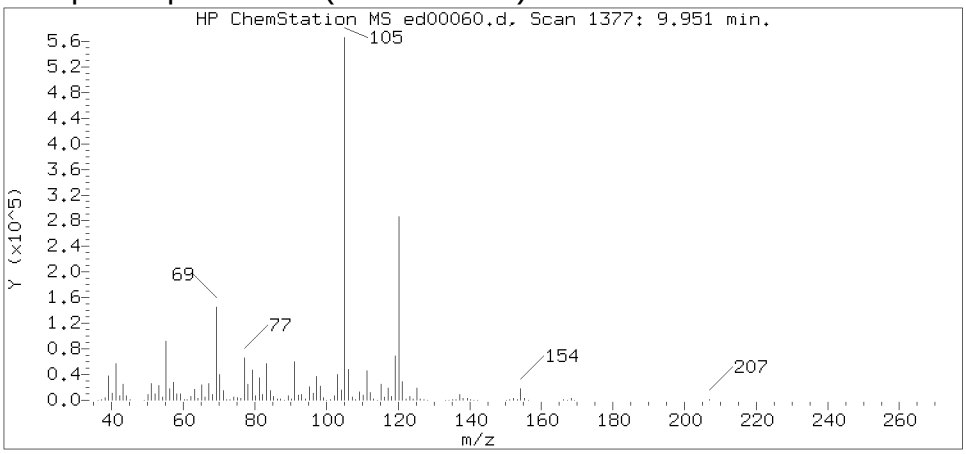


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

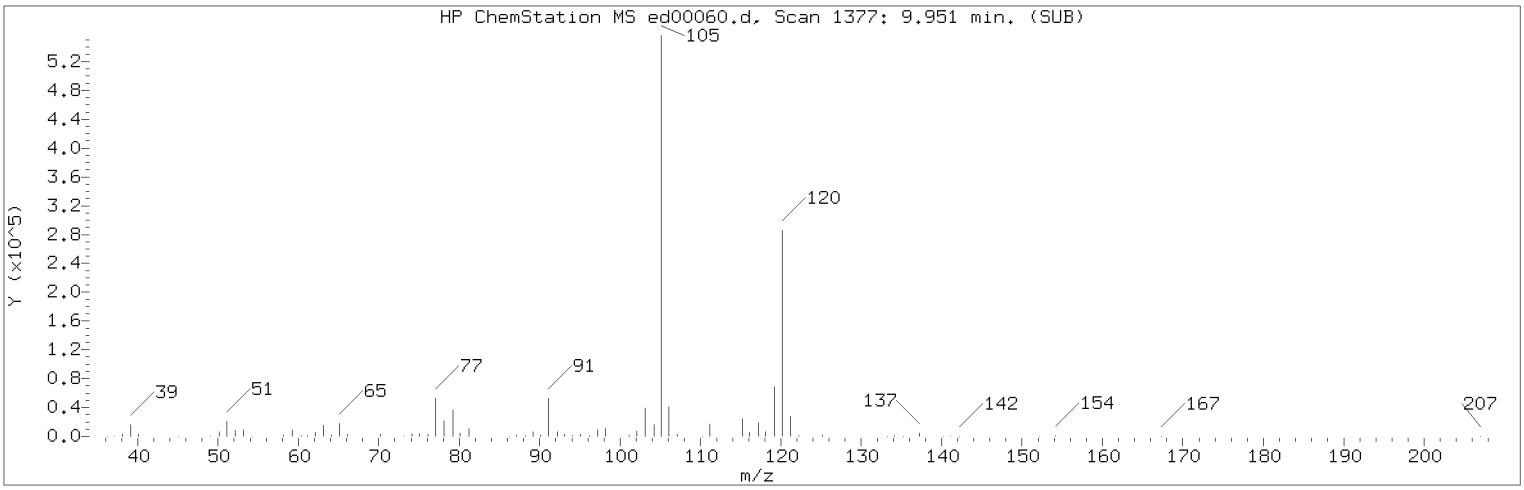
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

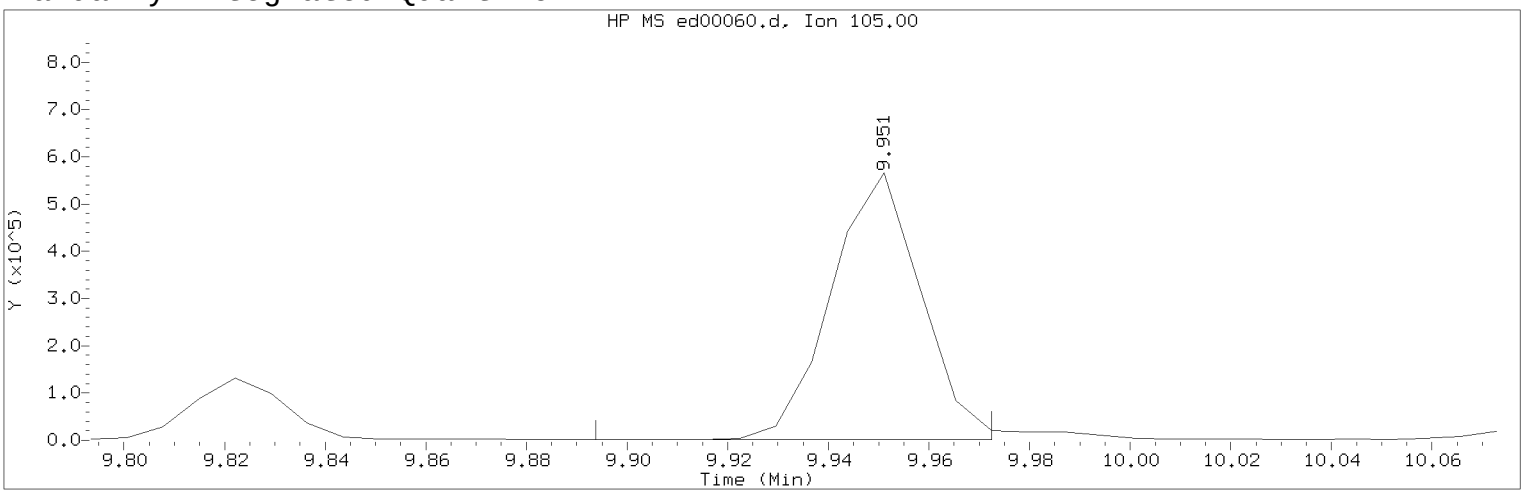
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1377
Retention Time (minutes): 9.951
Relative Retention Time : 0.00168
Quant Ion : 105.00
Area (flag) : 697449M
Concentration (ppb(v)) : 6.1929

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

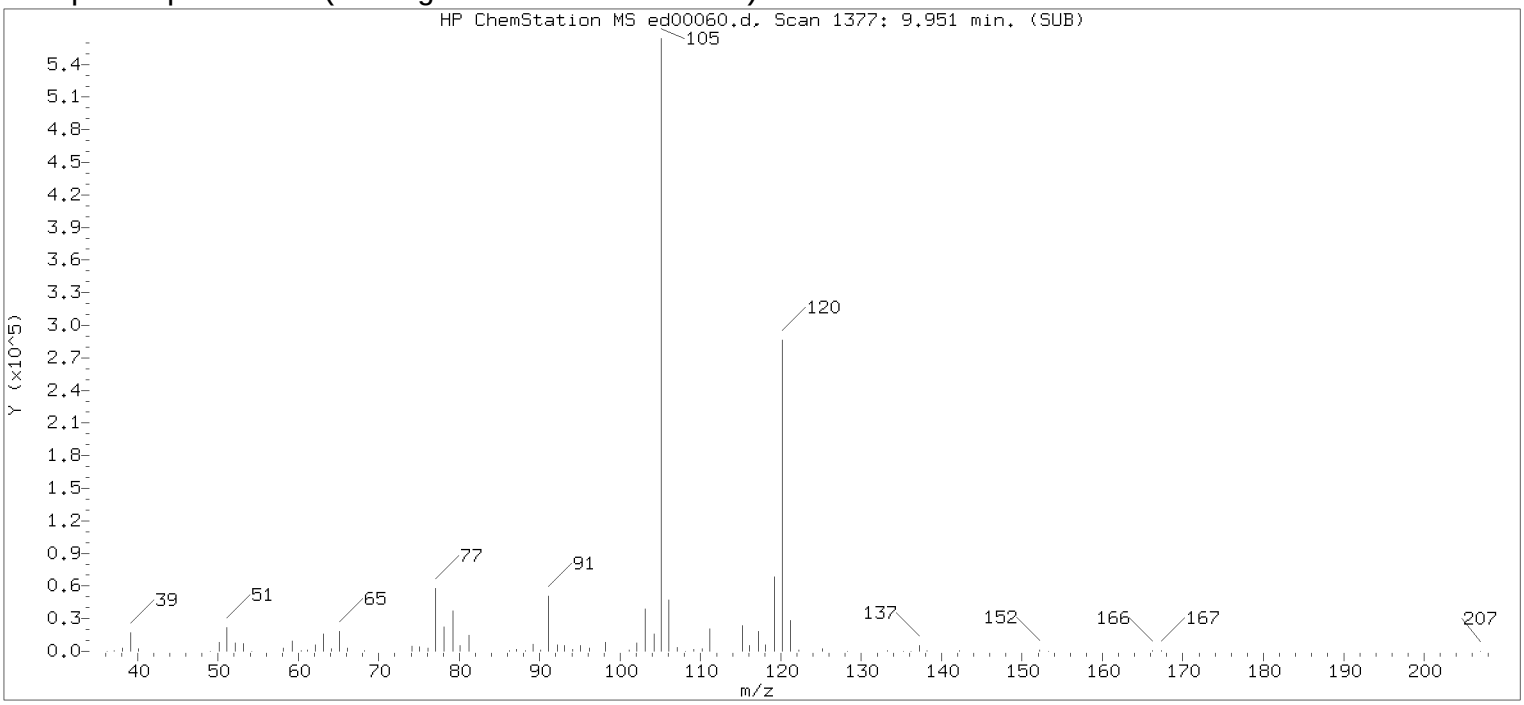
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1377
Retention Time (minutes): 9.951
Quant Ion : 105.00
Area (flag) : 697449M
Concentration (ppb(v)) : 6.1929
Integration start scan : 1368 Integration stop scan: 1379
Y at integration start : 1280 Y at integration end: 1280

Reason for manual integration: improper integration

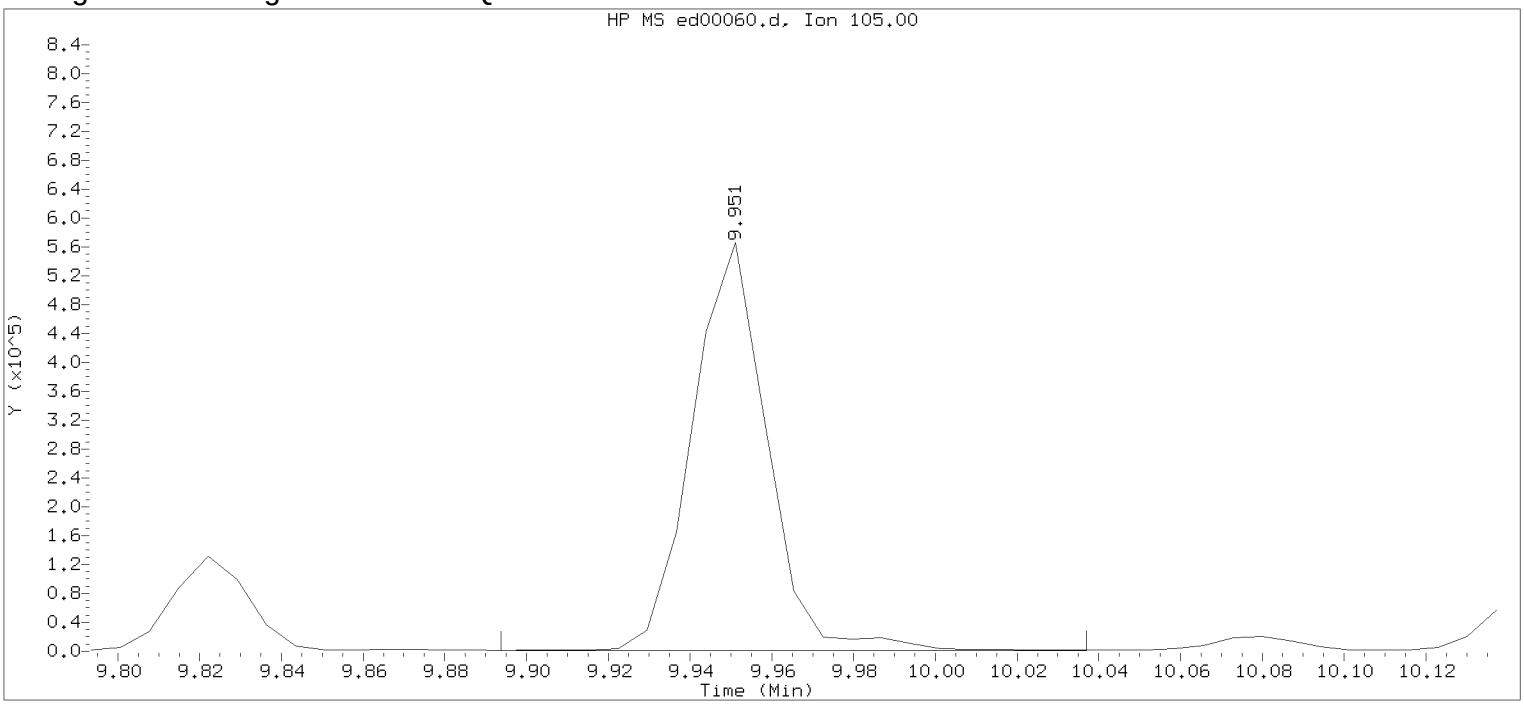
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:56.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

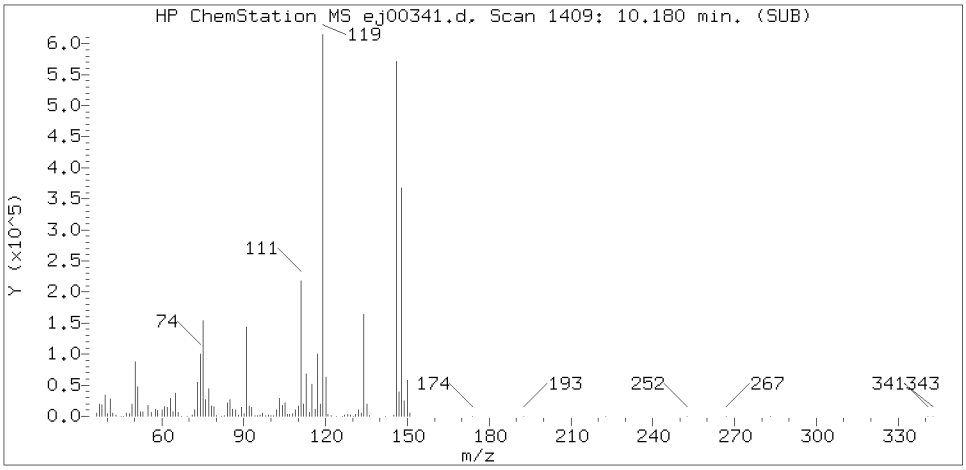
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:04 Unknown

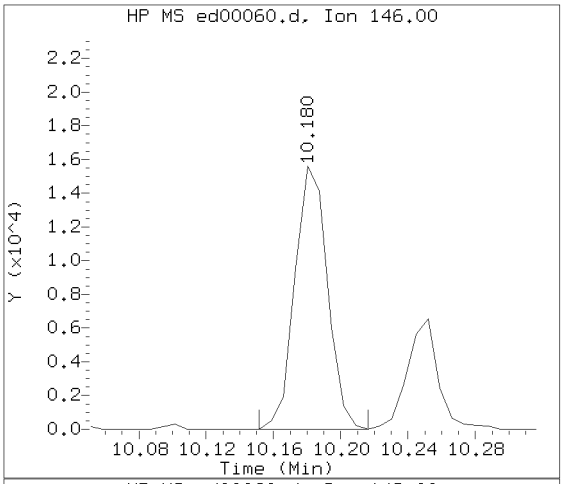
Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1377
Retention Time (minutes): 9.951
Quant Ion : 105.00
Area : 718303
Concentration (ppb(v)) : 6.3780
Integration start scan : 1368 Integration stop scan: 1388
Y at integration start : 1280 Y at integration end: 1280

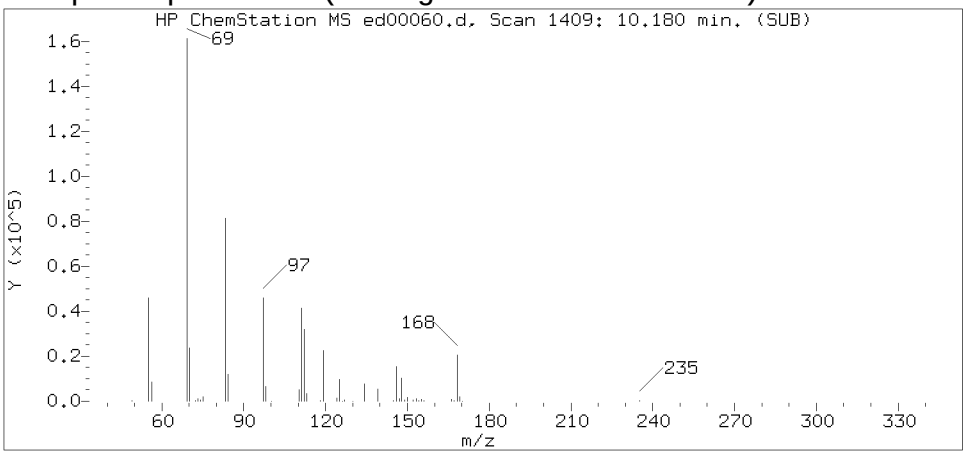
Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user id: jeb07445

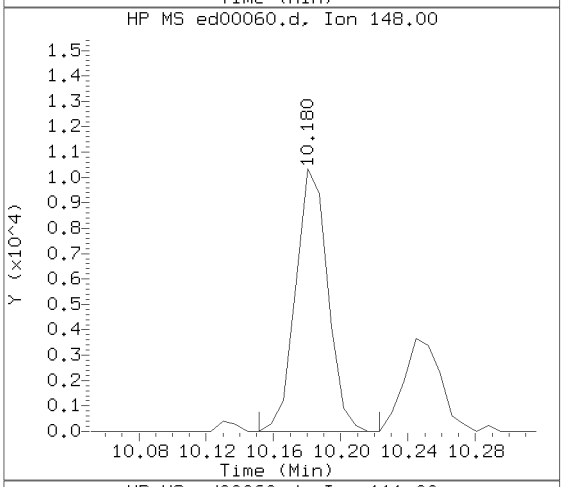
Reference Standard Spectrum for 1,3-Dichlorobenzene



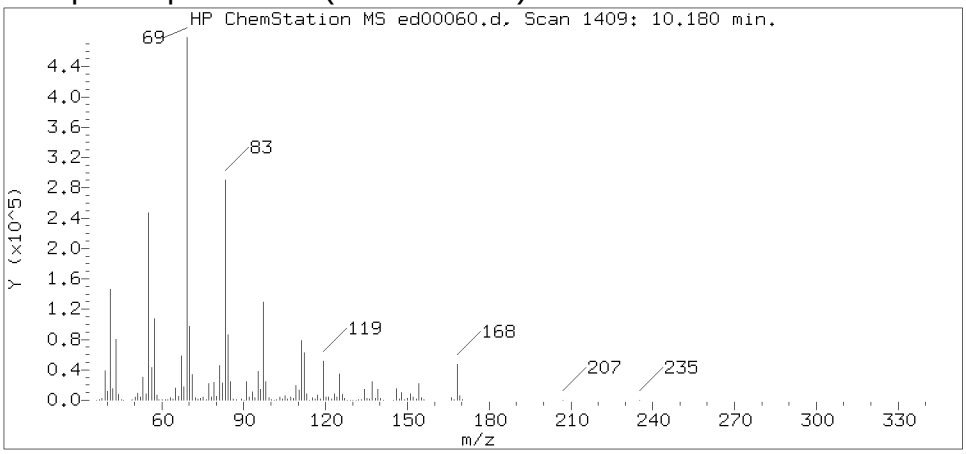


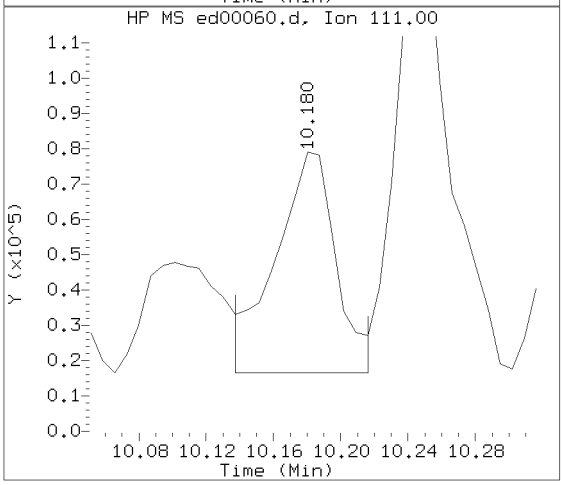
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00060.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 18:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 02:42 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248

Compound Number : 92
Compound Name : 1,3-Dichlorobenzene
Scan Number : 1409
Retention Time (minutes): 10.180
Relative Retention Time : 0.00168
Quant Ion : 146.00
Area (flag) : 21206
Concentration (ppb(v)) : 0.2489

Digitally signed by Jacob E. Bailey on 04/06/2017 at 02:43.
Target 3.5 esignature user ID: jeb07445

S7102 Lancaster Laboratories, Inc. 8920248DL

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00062.d Injection date and time: **05-APR-2017 20:08**
Data file Sample Info. Line: 8920248DL;40;E1709530AA;S7102;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 24.7 psia Canister Pressure before dilution (Ya): 12.3 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
40) Bromochloromethane	5.467(0.007)	751	130	244839 (8)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.291(0.007)	866	114	898023 (8)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	887259 (7)	10.00		498344 - 1162802

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)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.860(0.000)	43	13051	0.376	3.76		J	0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.526(-0.000)	43	81375	2.927	29.27			0.5	2
21) Carbon Disulfide	(1)			Not Detected					0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
28) trans-1,2-Dichloroethene	(1)	4.285(0.000)	61	16913	0.508	5.08		J	0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.557(-0.001)	57	45486	1.263	12.63			0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.252(0.000)	61	38432	1.212	12.12			0.2	1
37) 2-Butanone	(1)	5.281(-0.001)	72	19692	1.547	15.47		J	0.5	2
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(-0.001)	78	83145	0.998	9.98		J	0.2	1
47) 1,2-Dichloroethane	(2)	6.012(-0.001)	62	262411	8.361	83.61			0.2	1
48) Isooctane	(2)	6.033(0.000)	57	215601	1.881	18.81			0.2	1
50) Heptane	(2)	6.176(-0.001)	43	30358M	0.800	8.00		J	0.2	1
52) Trichloroethene	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.466(0.000)	91	1252481	11.694	116.94			0.2	1
62) Octane	(3)	7.516(0.000)	43	29013	0.552	5.52		J	0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	16814	0.267	2.67		J	0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00062.d Injection date and time: **05-APR-2017 20:08**
Data file Sample Info. Line: 8920248DL;40;E1709530AA;S7102;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 24.7 psia Canister Pressure before dilution (Ya): 12.3 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

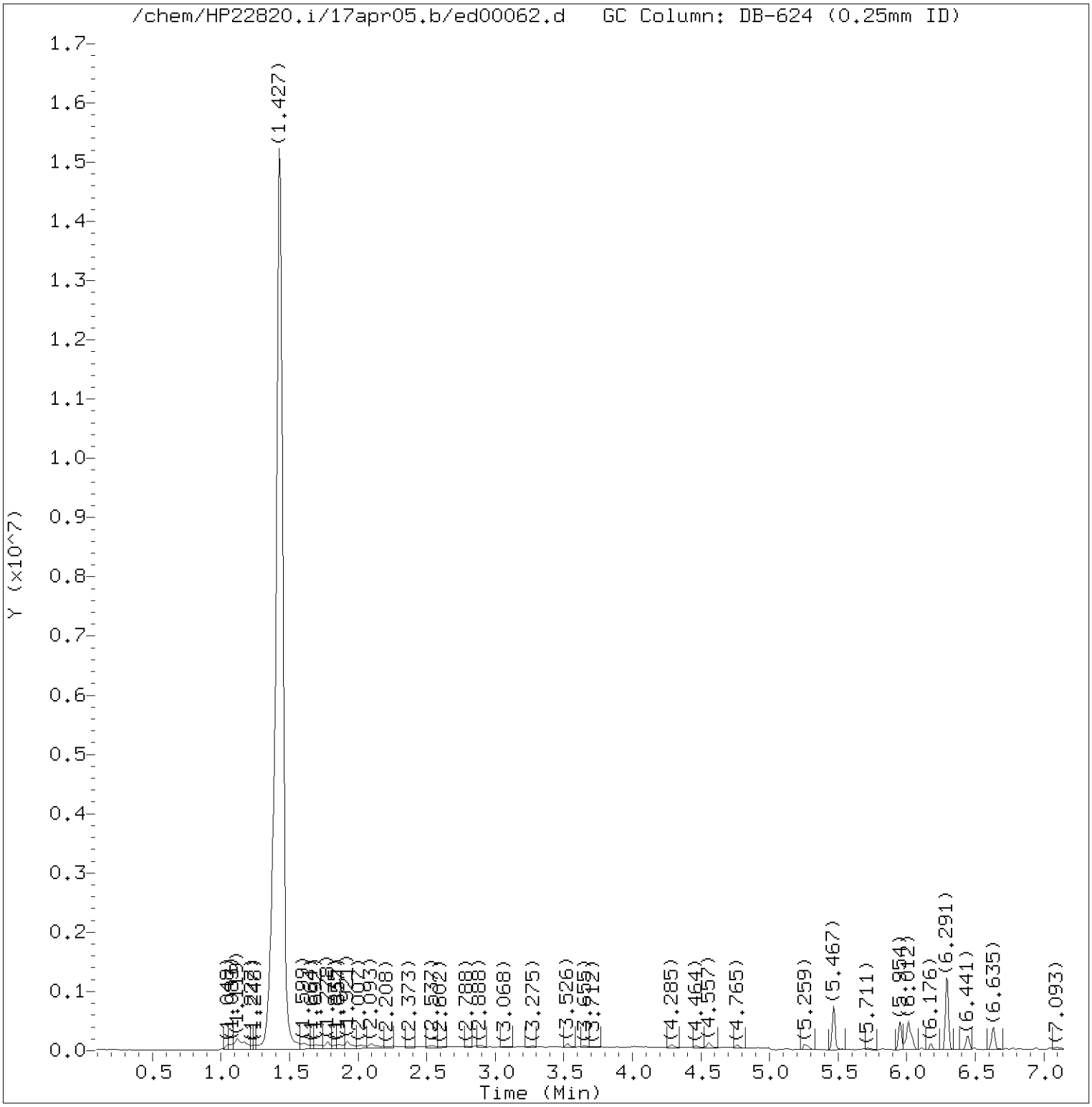
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	1887918	13.756	137.56			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	2058207	18.988	189.88			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	183101	1.743	17.43			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	25527M	0.210	2.10		J	0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	70797M	0.617	6.17		J	0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

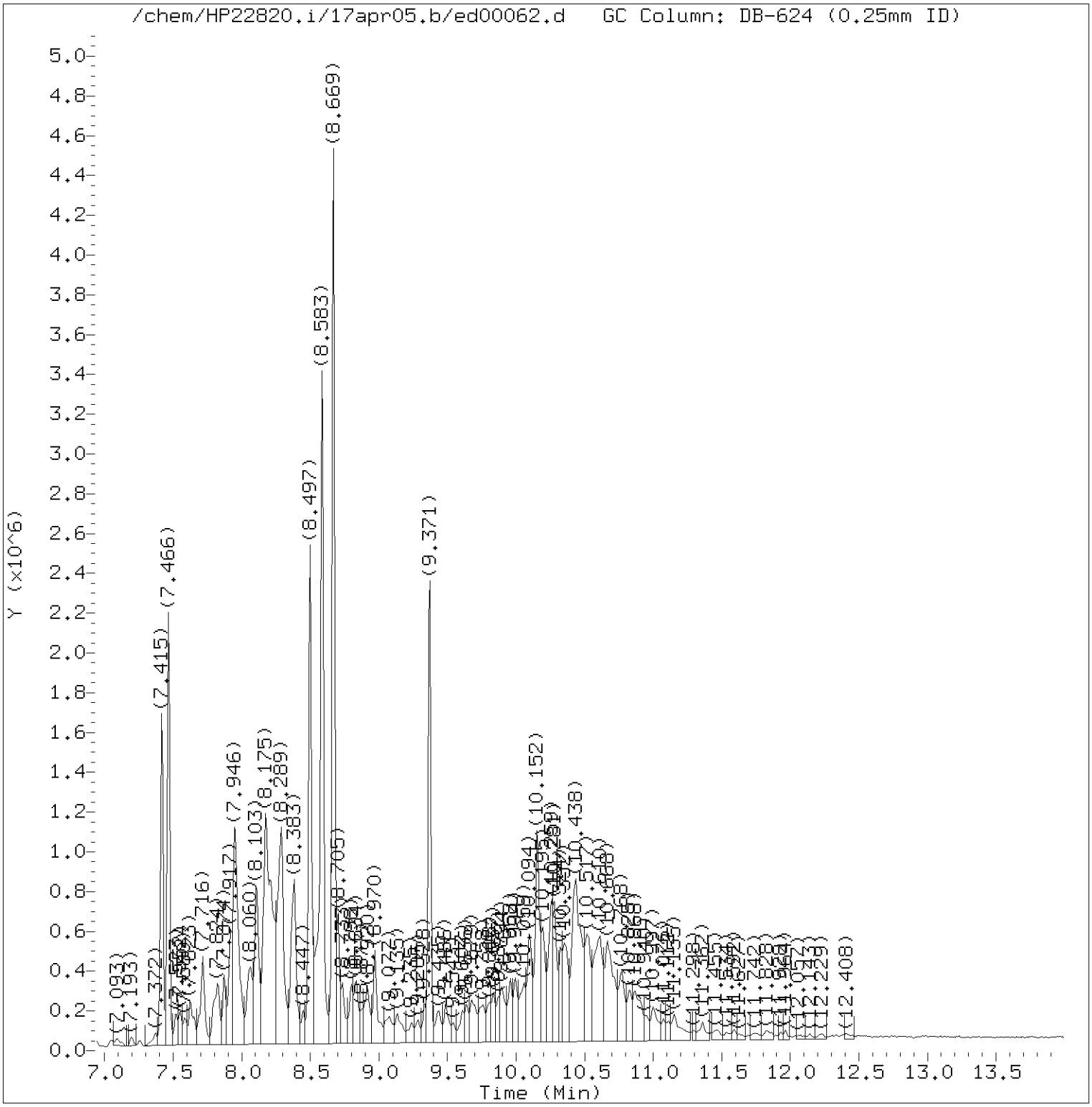
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

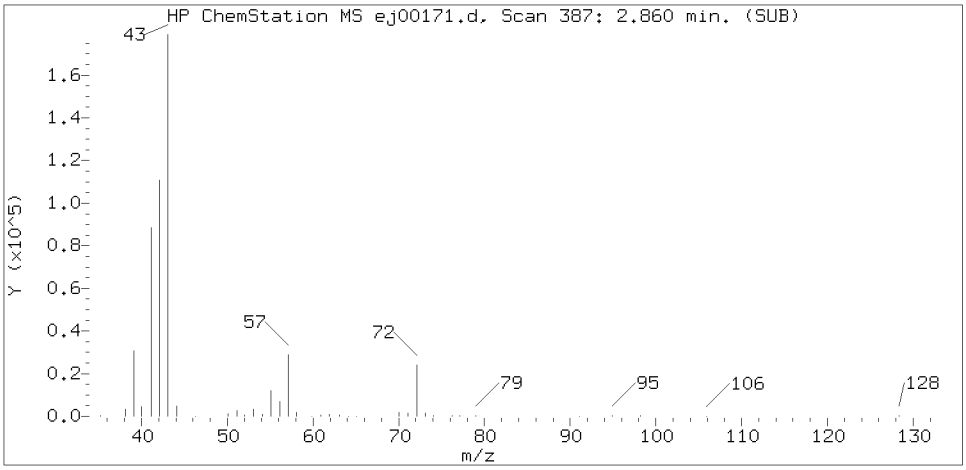
Sample Name: S7102 Lab Sample ID: 8920248DL

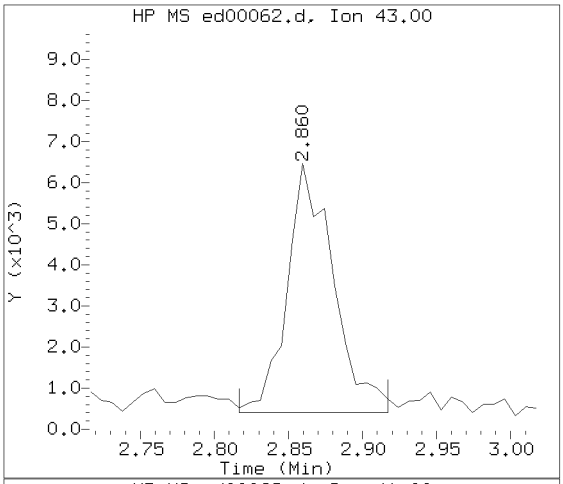
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
13) Pentane	(1)	2.860	43	13051	0.376
19) Acetone	(1)	3.526	43	81375	2.927
28) trans-1,2-Dichloroethene	(1)	4.285	61	16913	0.508
30) Hexane	(1)	4.557	57	45486	1.263
35) cis-1,2-Dichloroethene	(1)	5.252	61	38432	1.212
37) 2-Butanone	(1)	5.281	72	19692	1.547
40)*Bromochloromethane	(1)	5.467	130	244839	10.000
46) Benzene	(2)	5.990	78	83145	0.998
47) 1,2-Dichloroethane	(2)	6.012	62	262411	8.361
48) Isooctane	(2)	6.033	57	215601	1.881
50) Heptane	(2)	6.176	43	30358M	0.800
51)*1,4-Difluorobenzene	(2)	6.291	114	898023	10.000
61) Toluene	(3)	7.466	91	1252481	11.694
62) Octane	(3)	7.516	43	29013	0.552
67) Tetrachloroethene	(3)	7.874	166	16814	0.267
71)*Chlorobenzene-d5	(3)	8.497	117	887259	10.000
74) Ethylbenzene	(3)	8.583	91	1887918	13.756
75) m/p-Xylene	(3)	8.669	91	2058207	18.988
76) o-Xylene	(3)	8.970	91	183101	1.743
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	25527M	0.210
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	70797M	0.617

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

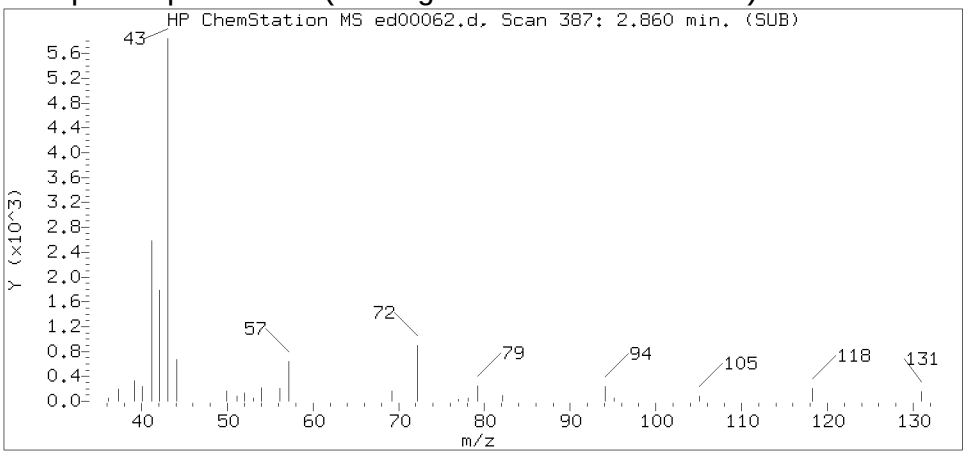
Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

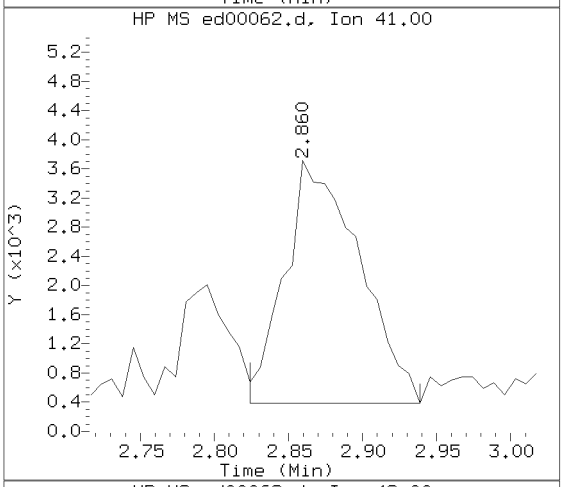
Reference Standard Spectrum for Pentane



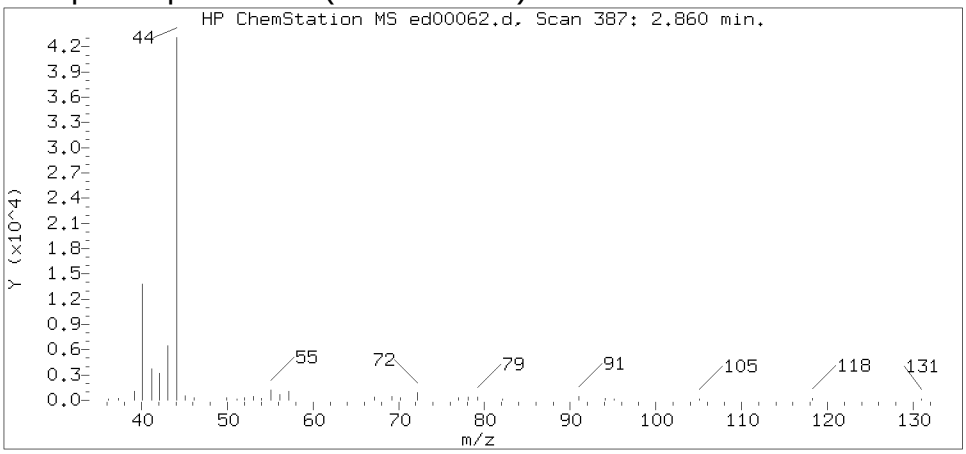


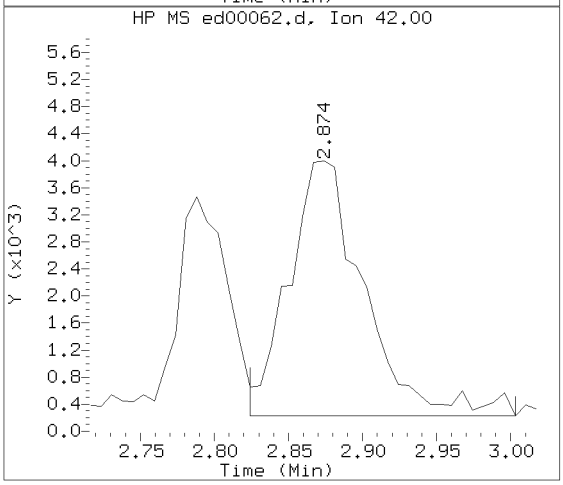
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

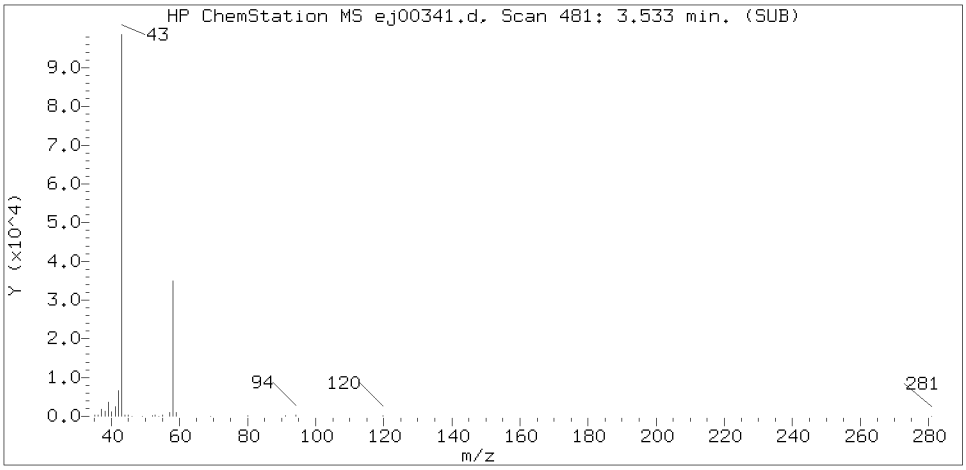
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

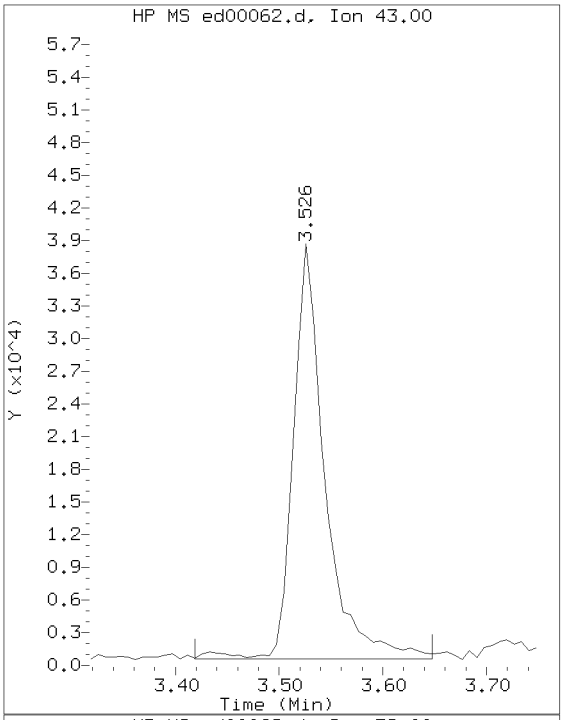
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 13
Compound Name : Pentane
Scan Number : 387
Retention Time (minutes): 2.860
Relative Retention Time : 0.00063
Quant Ion : 43.00
Area (flag) : 13051
Concentration (ppb(v)) : 0.3762

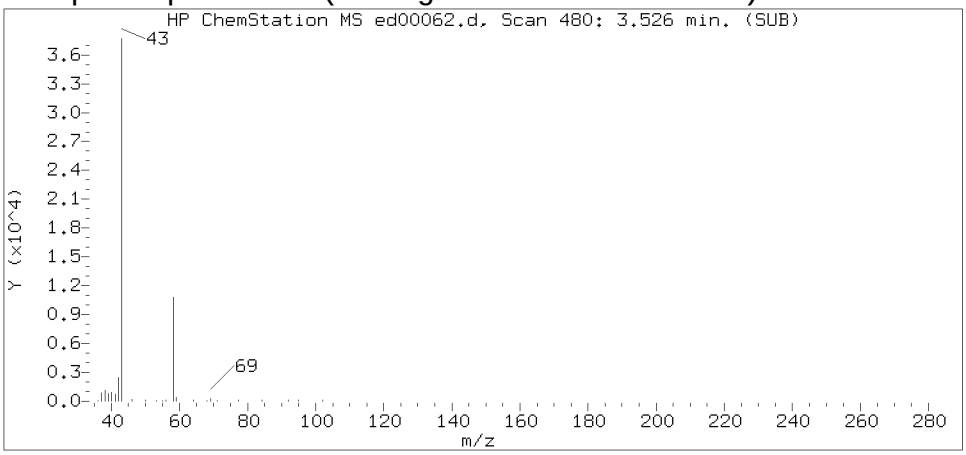
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

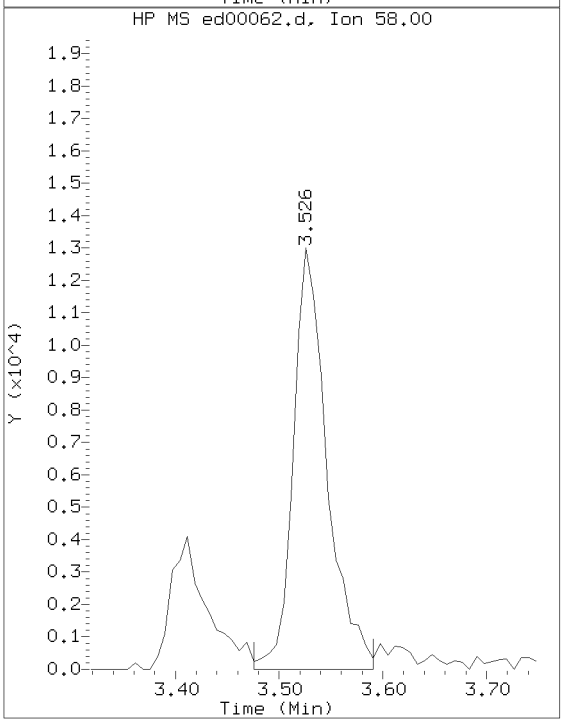
Reference Standard Spectrum for Acetone



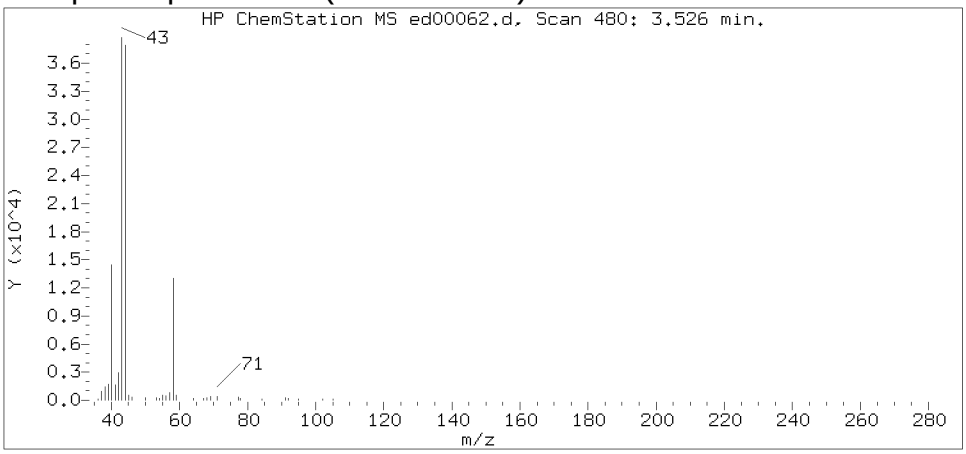


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 19
Compound Name : Acetone
Scan Number : 480
Retention Time (minutes): 3.526
Relative Retention Time :-0.00084
Quant Ion : 43.00
Area (flag) : 81375
Concentration (ppb(v)) : 2.9269

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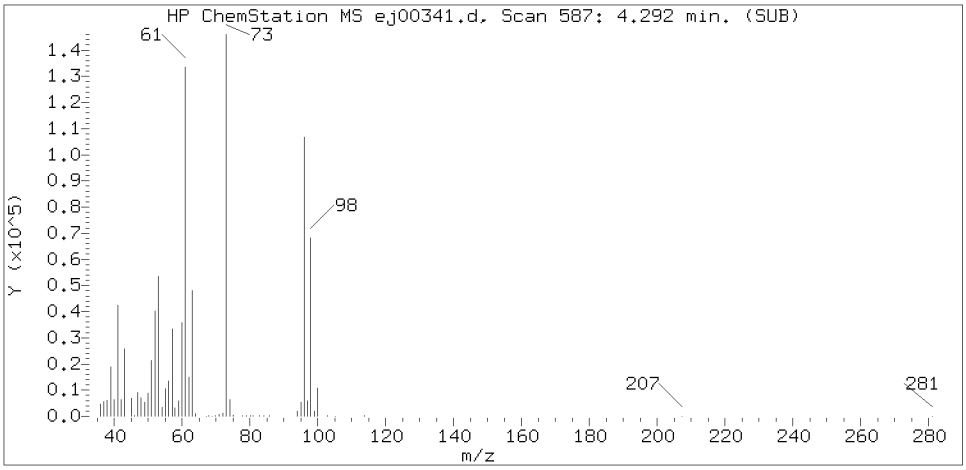
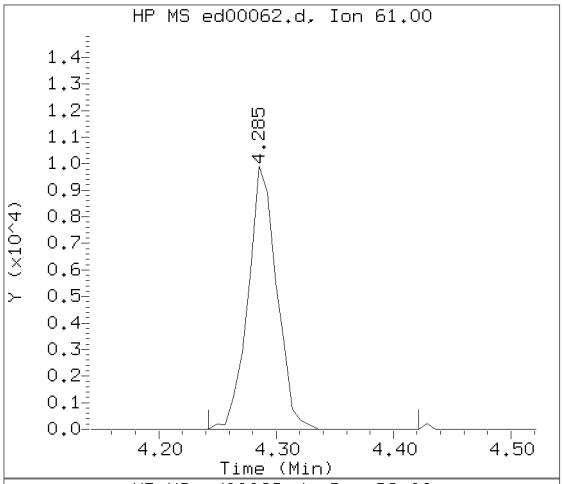
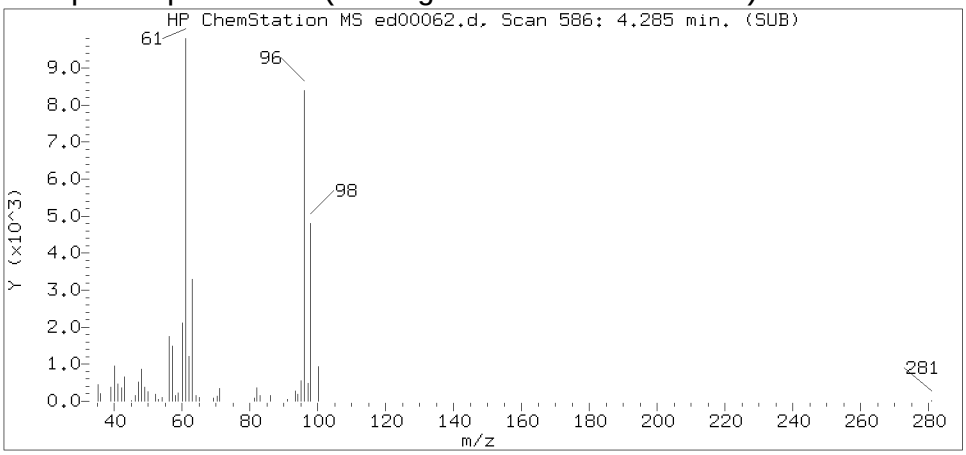
Target 3.5 esignature user ID: jeb07445

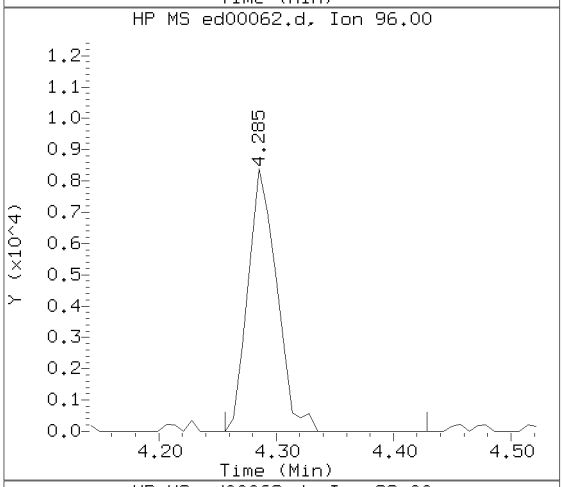
Reference Standard Spectrum for trans-1,2-Dichloroethene



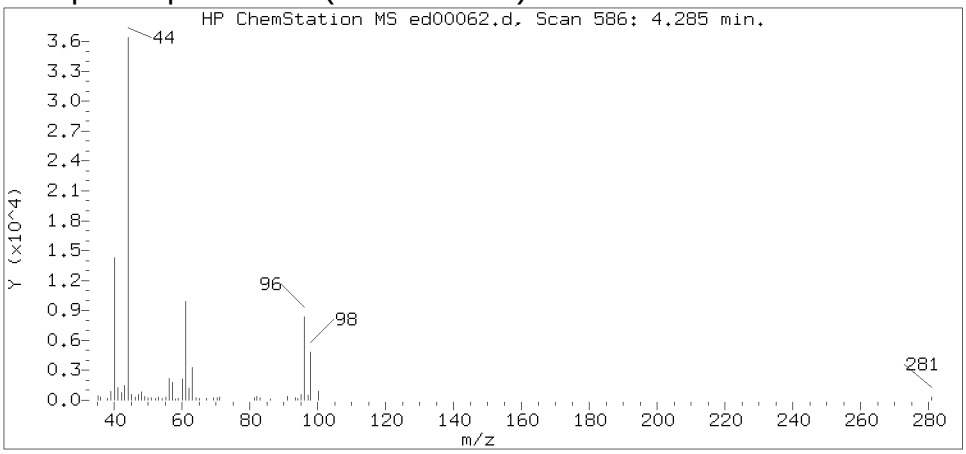


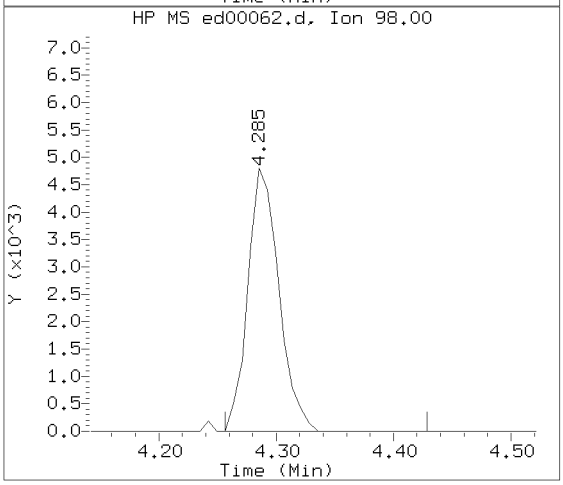
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 586
Retention Time (minutes): 4.285
Relative Retention Time : 0.00029
Quant Ion : 61.00
Area (flag) : 16913
Concentration (ppb(v)) : 0.5084

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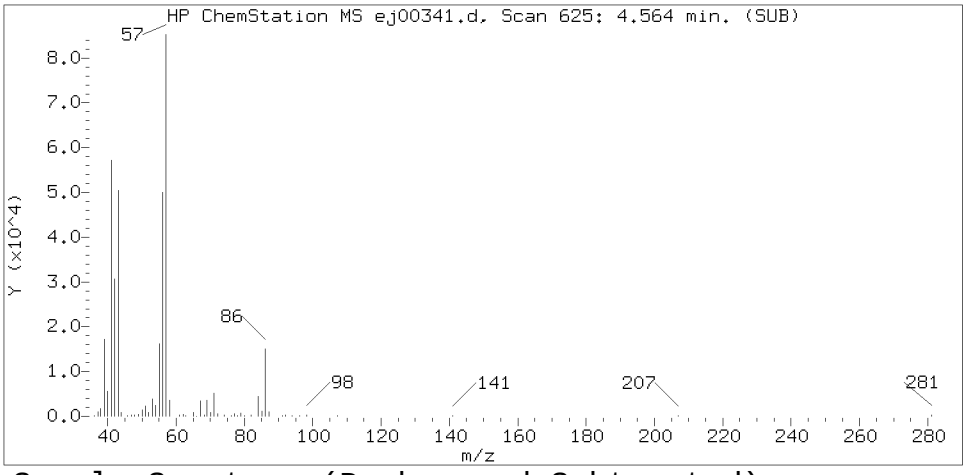
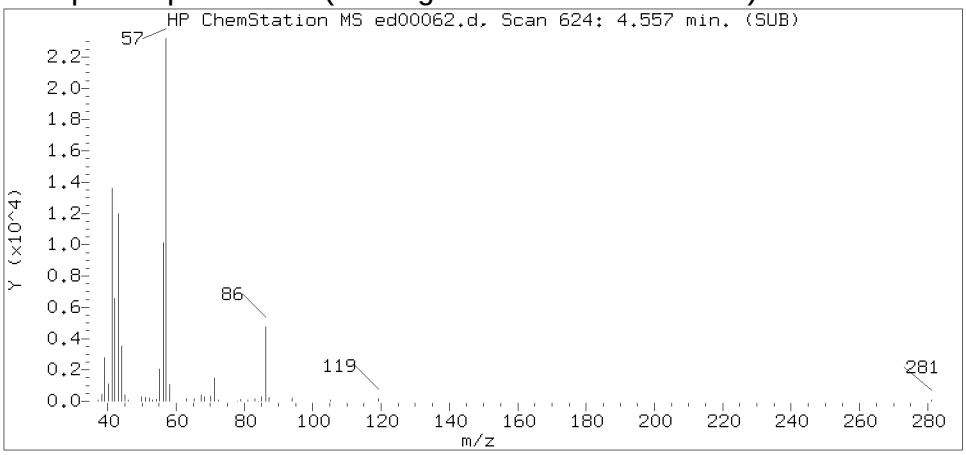
Target 3.5 esignature user ID: jeb07445

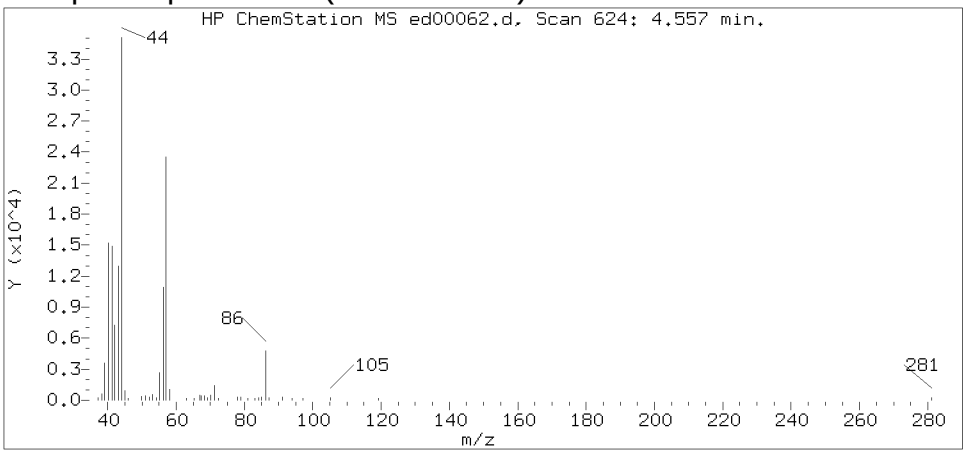
Reference Standard Spectrum for Hexane

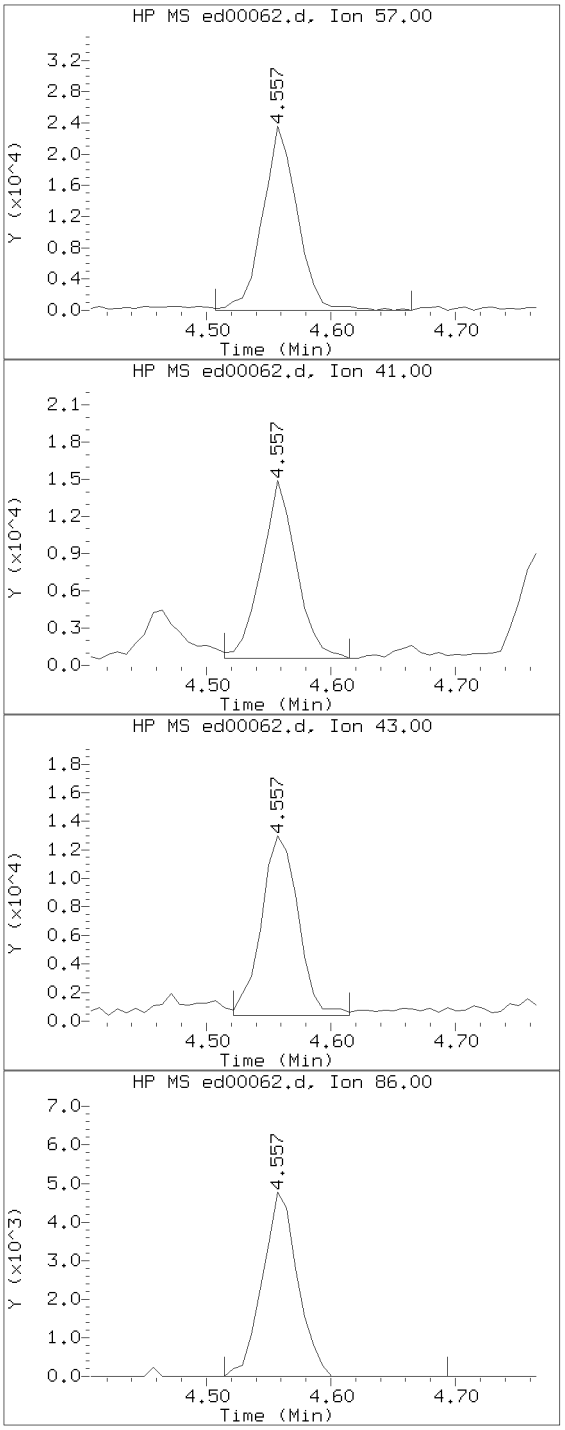


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

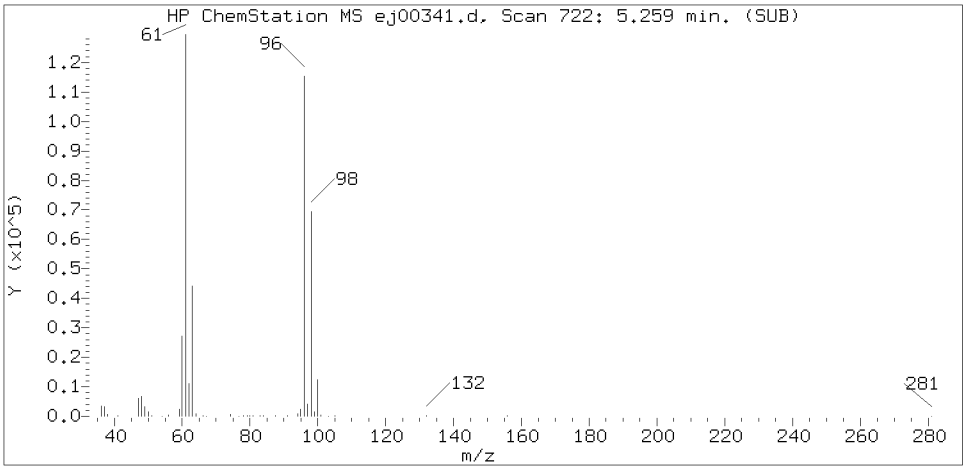
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

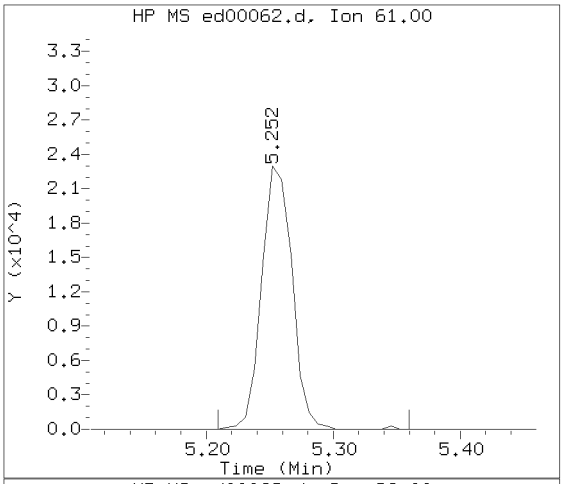
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Relative Retention Time :-0.00109
Quant Ion : 57.00
Area (flag) : 45486
Concentration (ppb(v)) : 1.2628

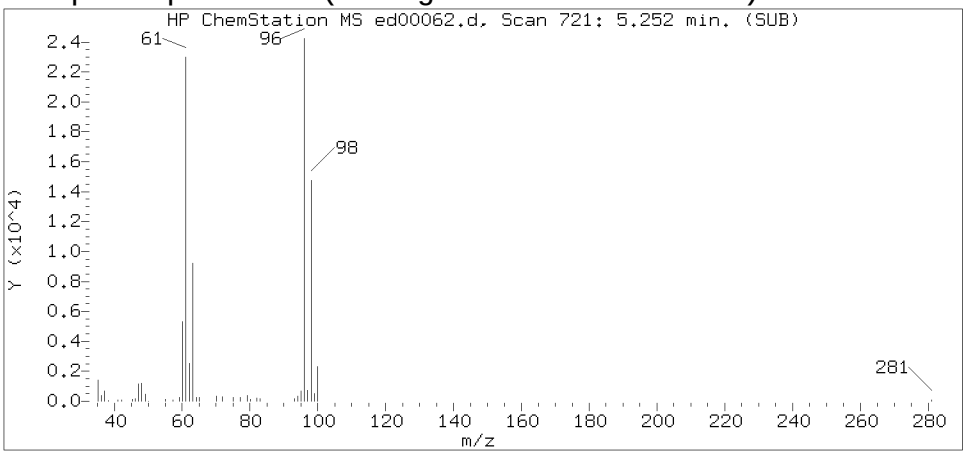
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

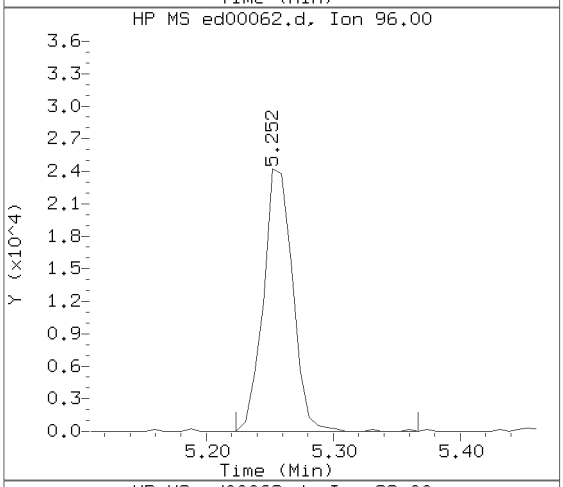
Reference Standard Spectrum for cis-1,2-Dichloroethene



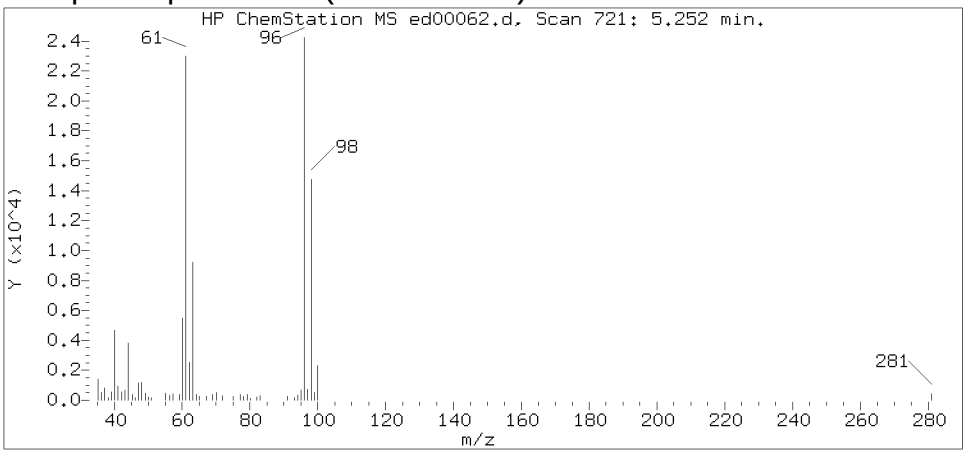


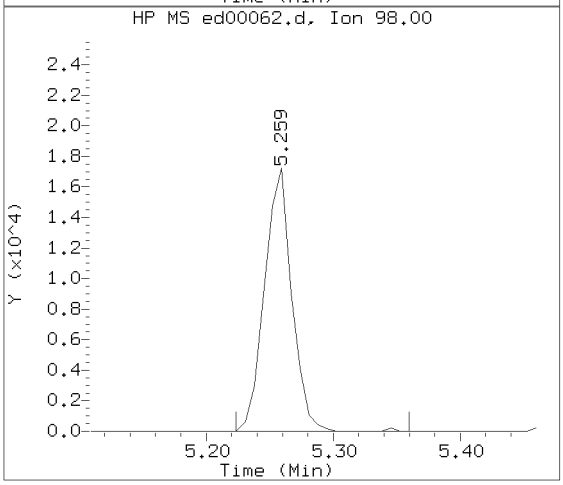
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

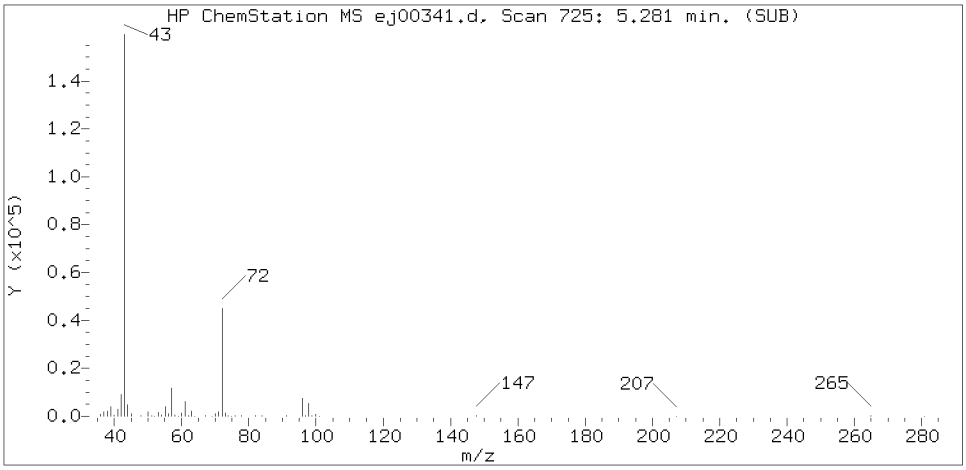
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

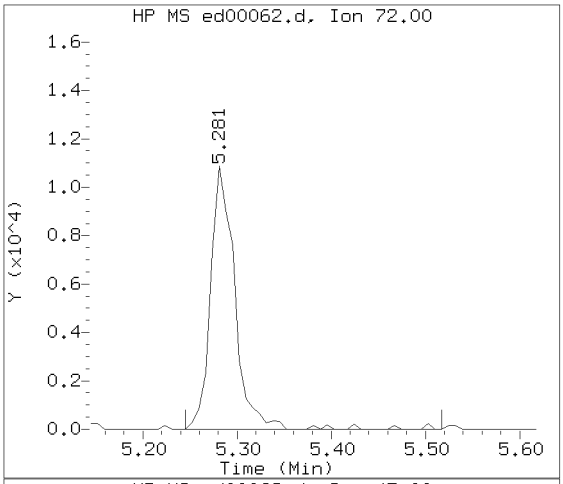
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 721
Retention Time (minutes): 5.252
Relative Retention Time : 0.00005
Quant Ion : 61.00
Area (flag) : 38432
Concentration (ppb(v)) : 1.2122

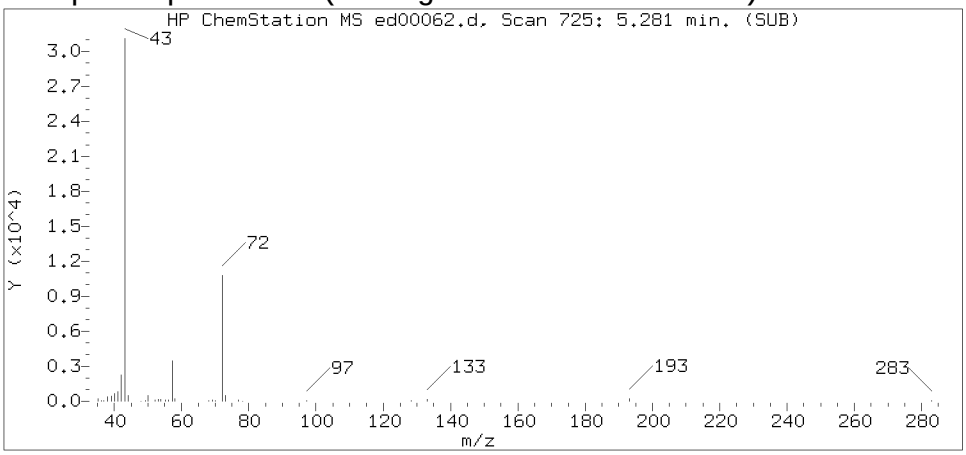
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

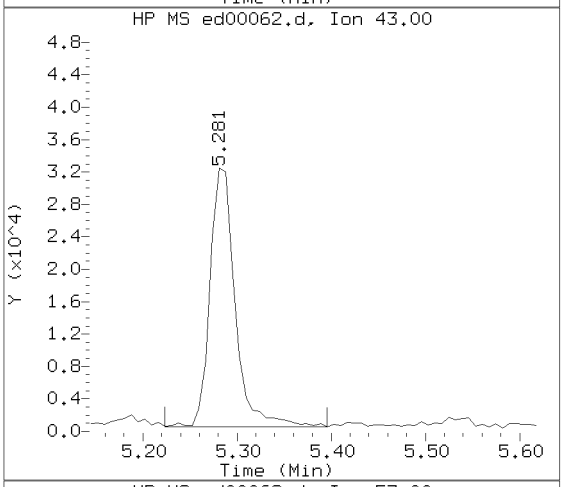
Reference Standard Spectrum for 2-Butanone



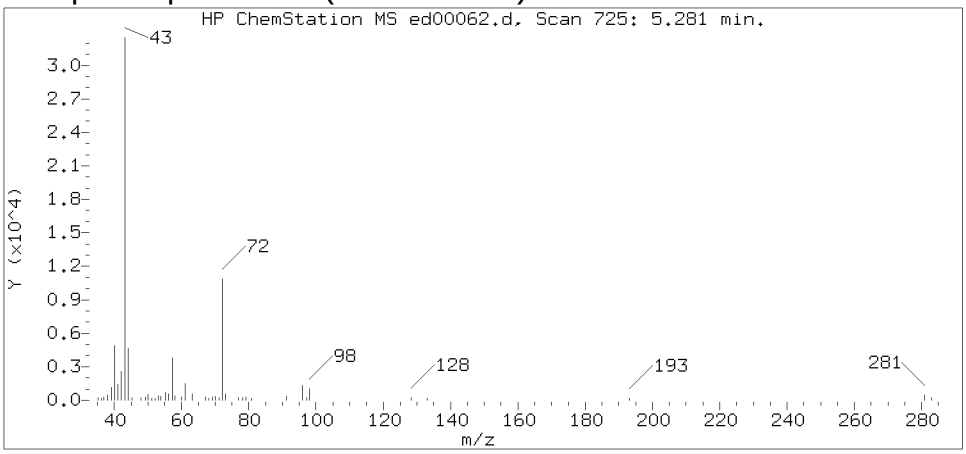


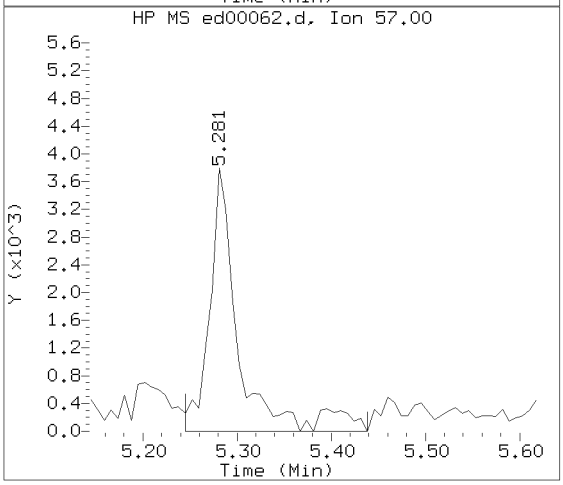
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

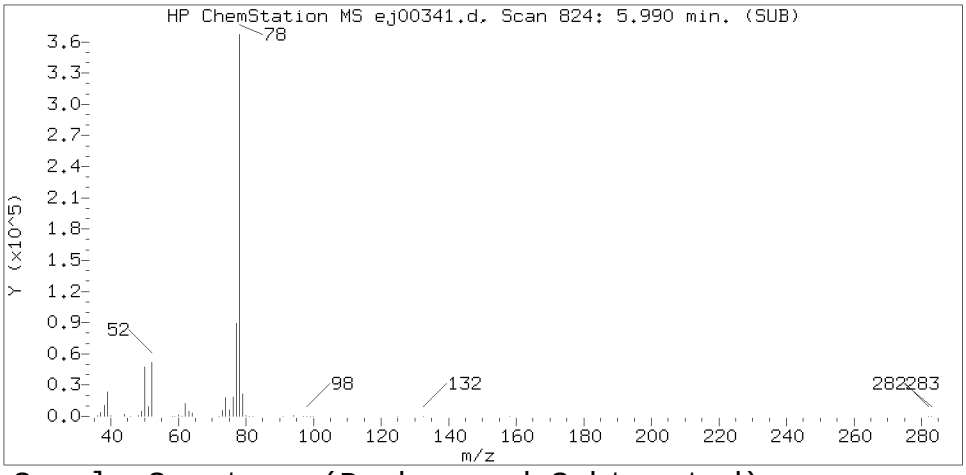
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

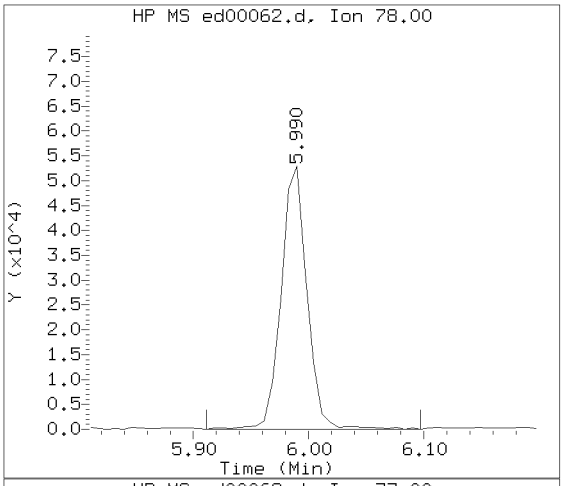
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time :-0.00126
Quant Ion : 72.00
Area (flag) : 19692
Concentration (ppb(v)) : 1.5473

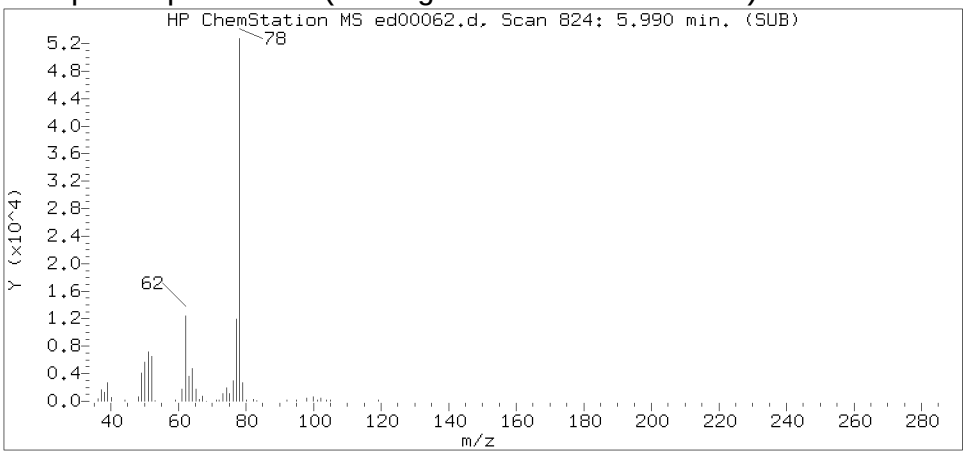
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

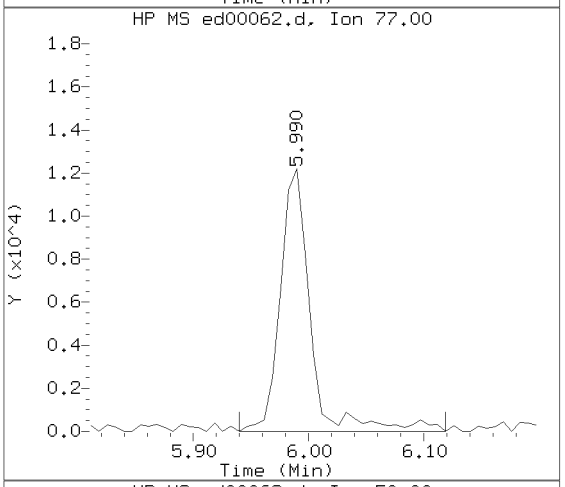
Reference Standard Spectrum for Benzene



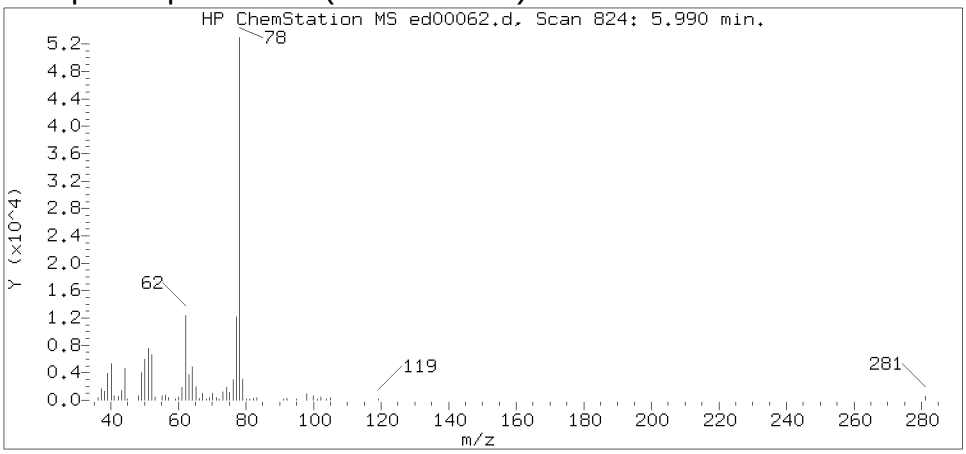


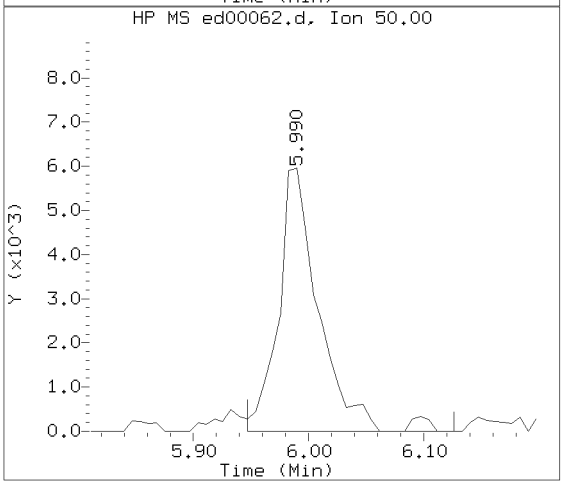
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time :-0.00108
Quant Ion : 78.00
Area (flag) : 83145
Concentration (ppb(v)) : 0.9980

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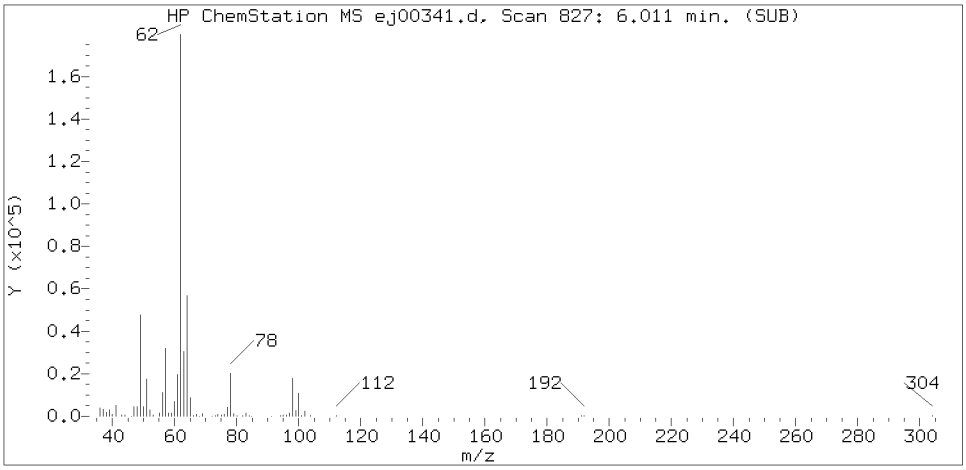
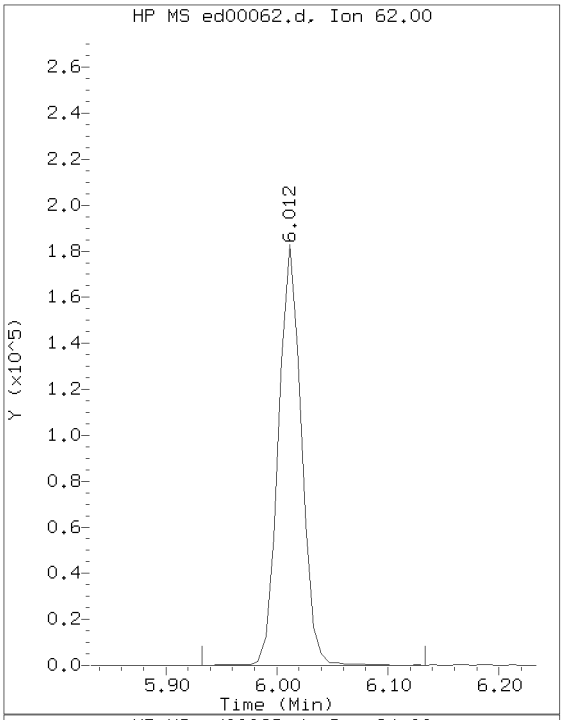
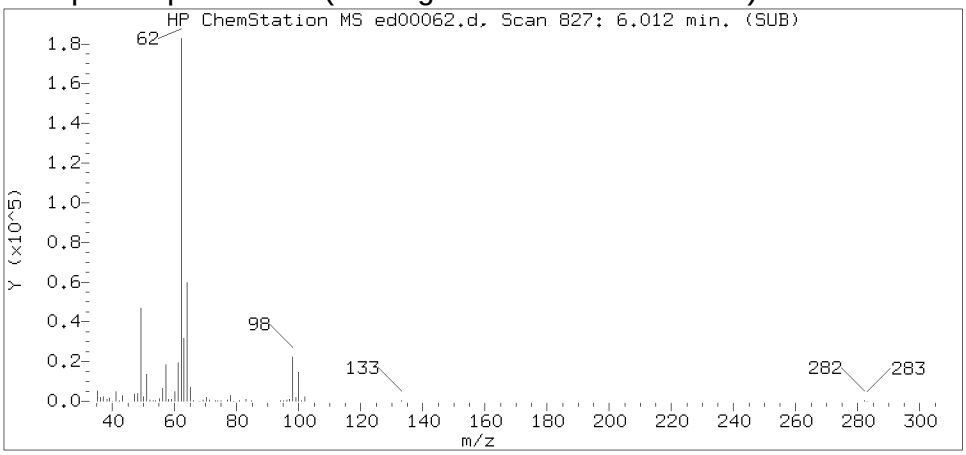
Target 3.5 esignature user ID: jeb07445

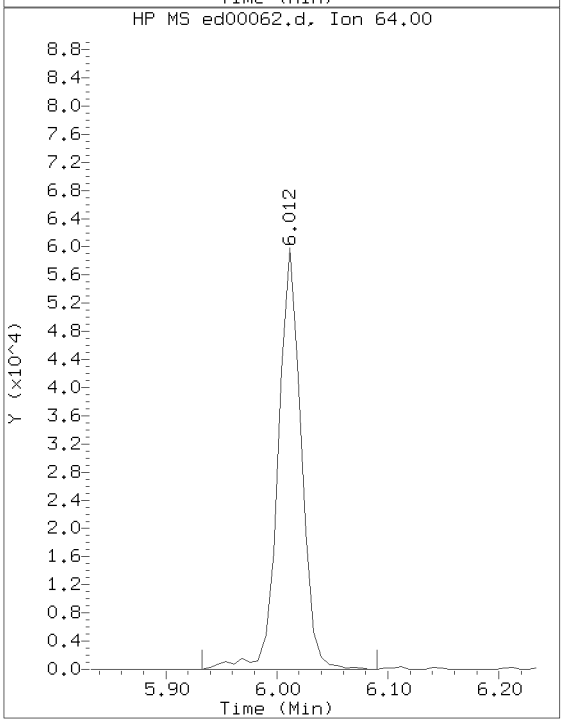
Reference Standard Spectrum for 1,2-Dichloroethane



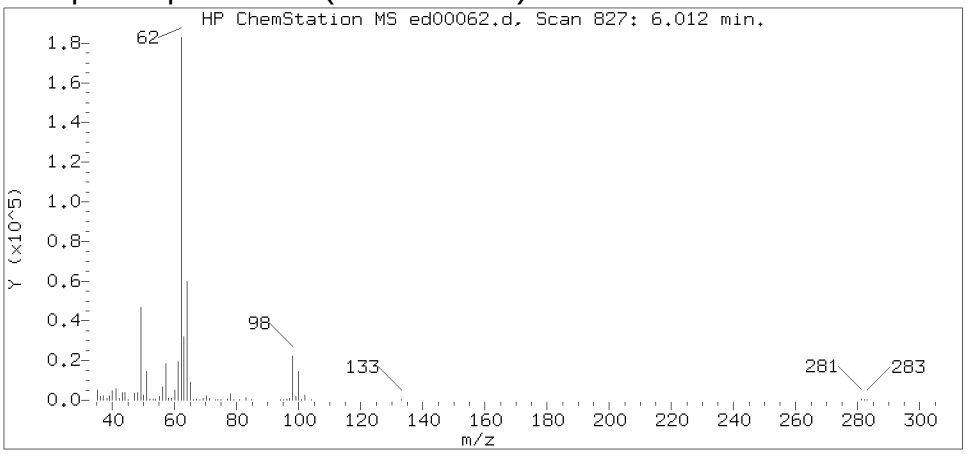


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.012
Relative Retention Time :-0.00109
Quant Ion : 62.00
Area (flag) : 262411
Concentration (ppb(v)) : 8.3613

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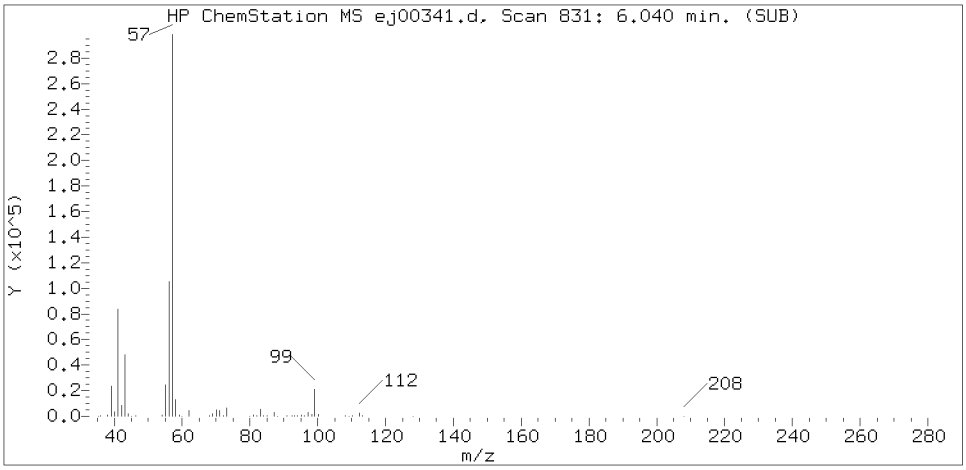
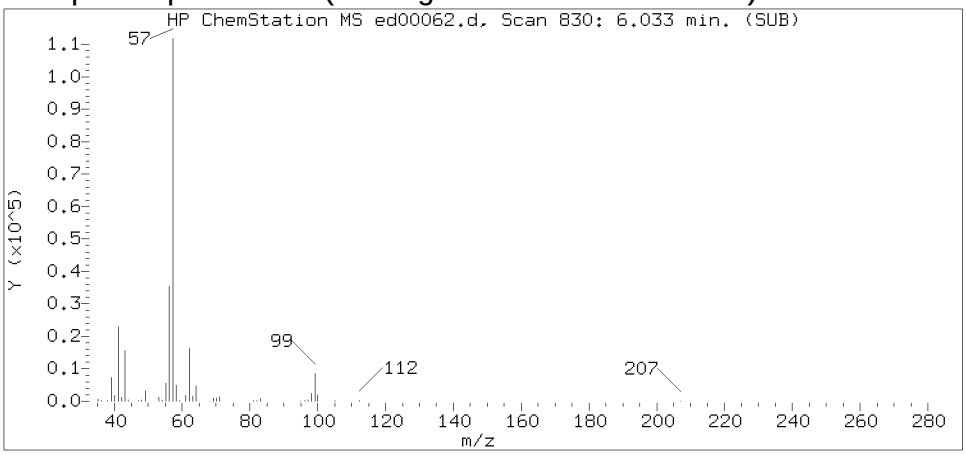
Target 3.5 esignature user ID: jeb07445

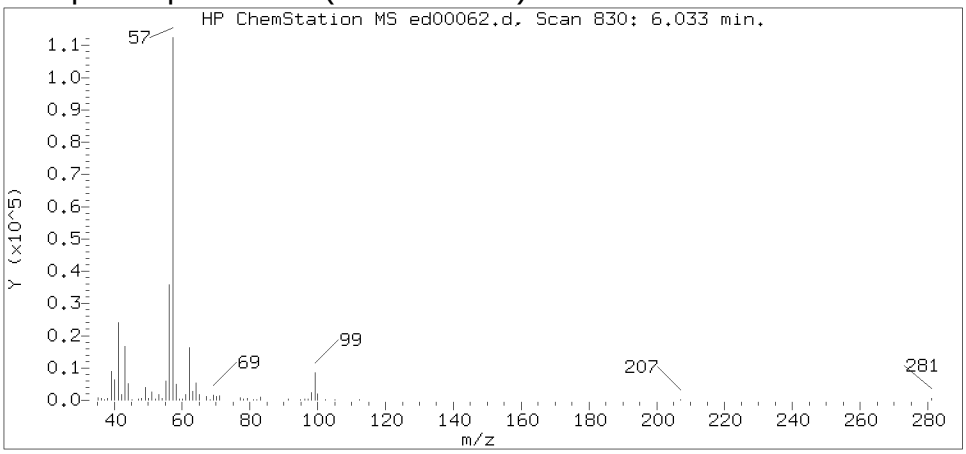
Reference Standard Spectrum for Isooctane

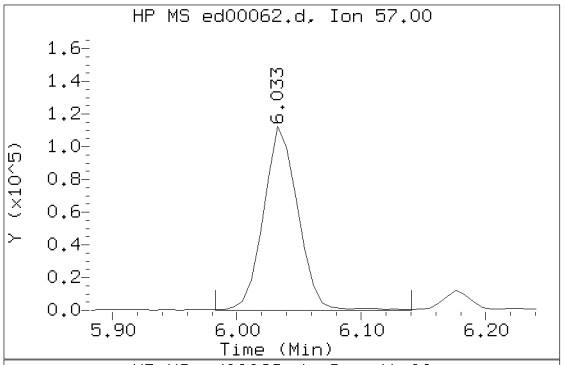


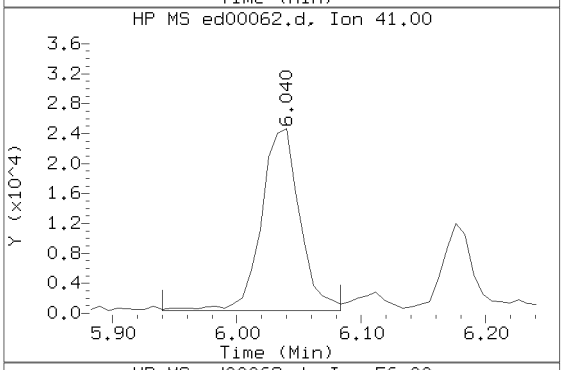
Sample Spectrum (Background Subtracted)

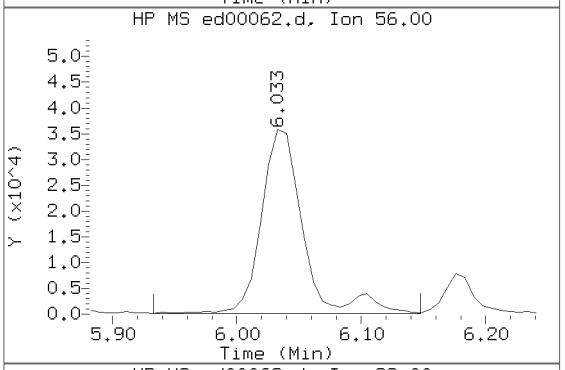


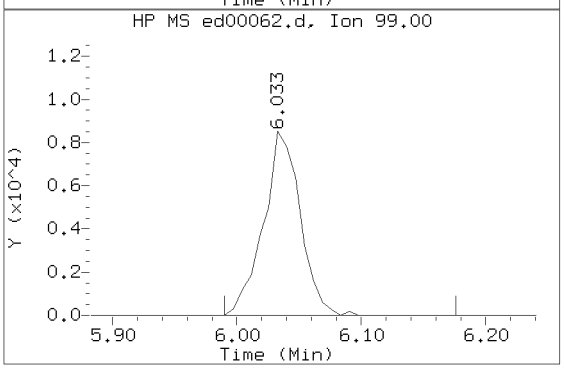
Sample Spectrum (Unaltered)











Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 48
Compound Name : Isooctane
Scan Number : 830
Retention Time (minutes): 6.033
Relative Retention Time : 0.00005
Quant Ion : 57.00
Area (flag) : 215601
Concentration (ppb(v)) : 1.8810

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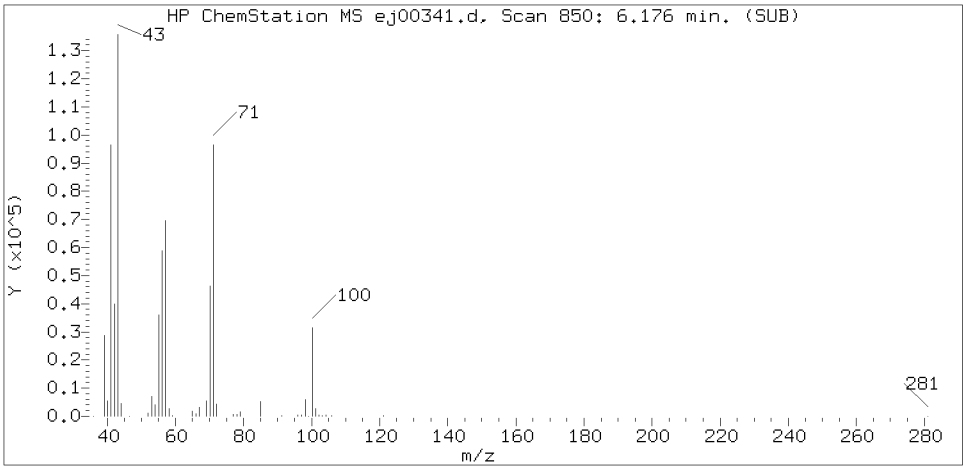
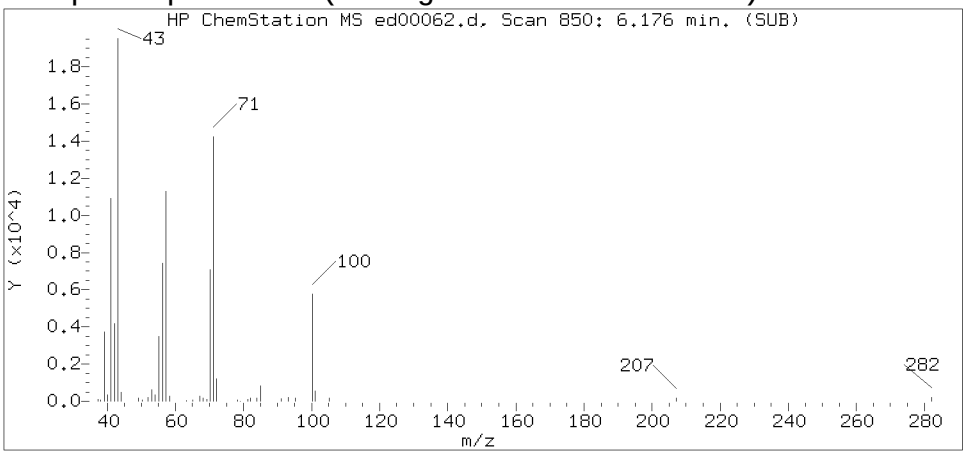
Target 3.5 esignature user ID: jeb07445

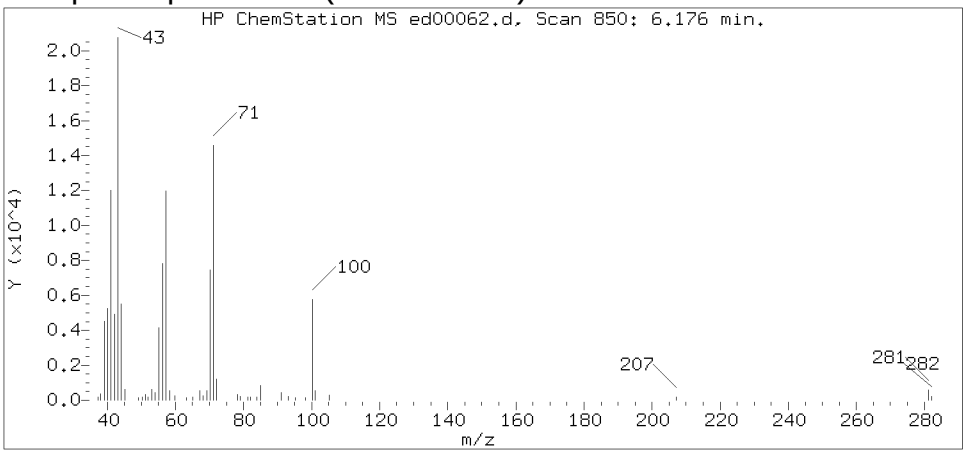
Reference Standard Spectrum for Heptane

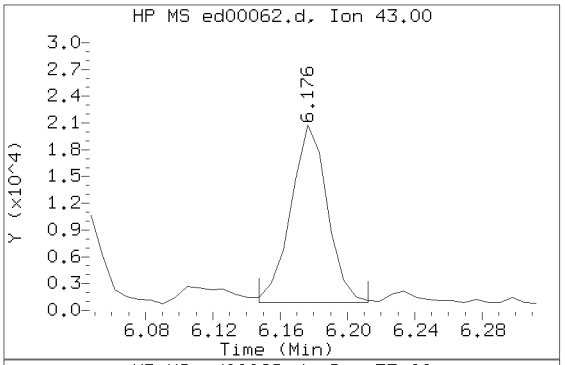


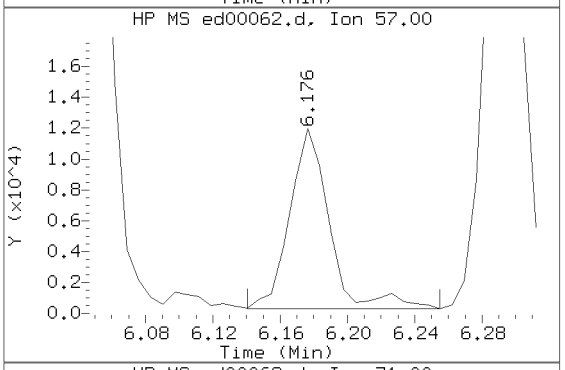
Sample Spectrum (Background Subtracted)

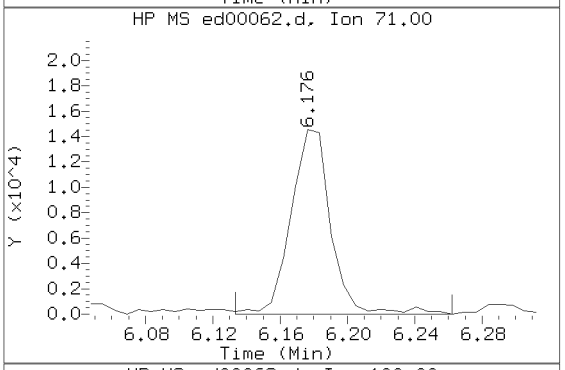


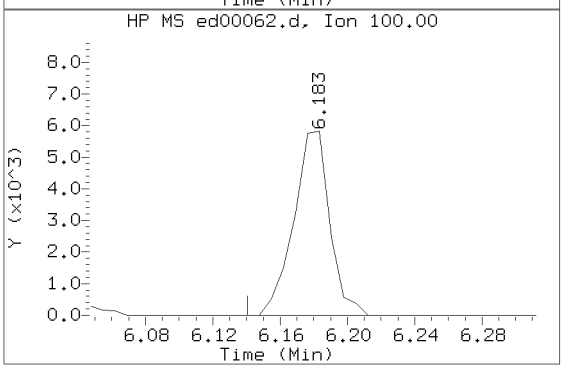
Sample Spectrum (Unaltered)











Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

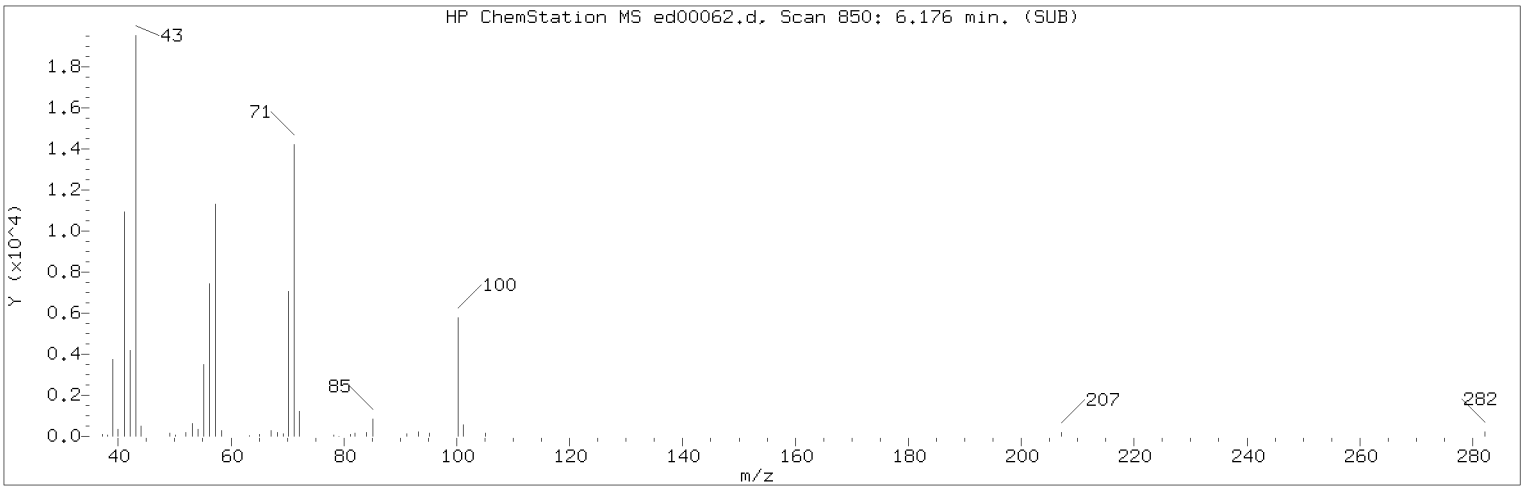
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

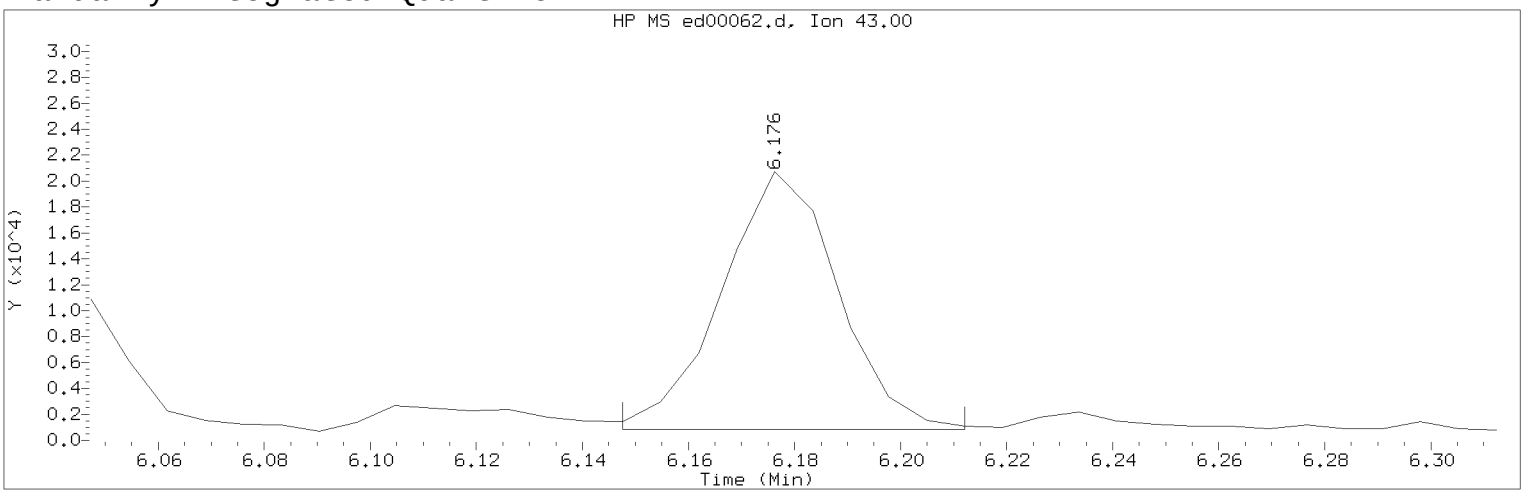
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Relative Retention Time :-0.00112
Quant Ion : 43.00
Area (flag) : 30358M
Concentration (ppb(v)) : 0.7999

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

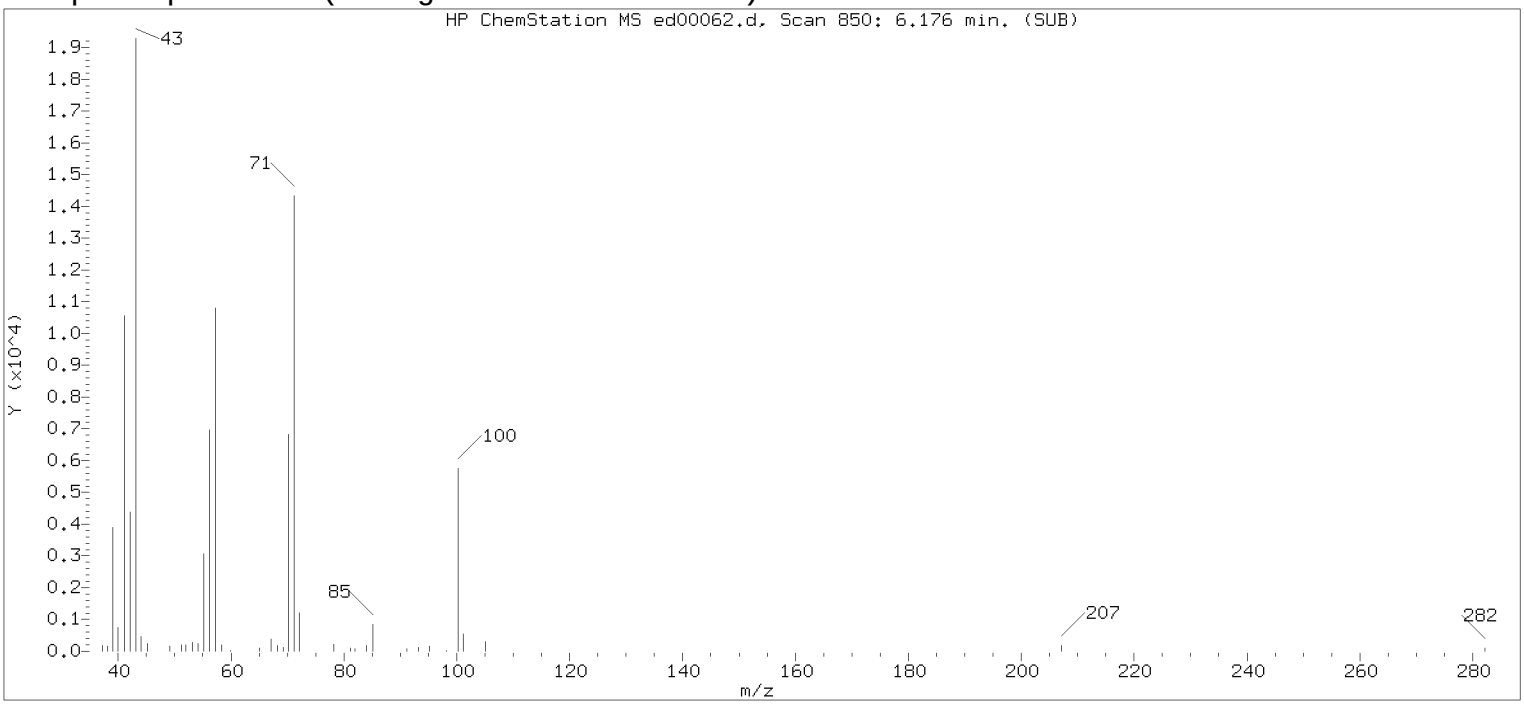
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 30358M
Concentration (ppb(v)) : 0.7999
Integration start scan : 845 Integration stop scan: 854
Y at integration start : 834 Y at integration end: 834

Reason for manual integration: improper integration

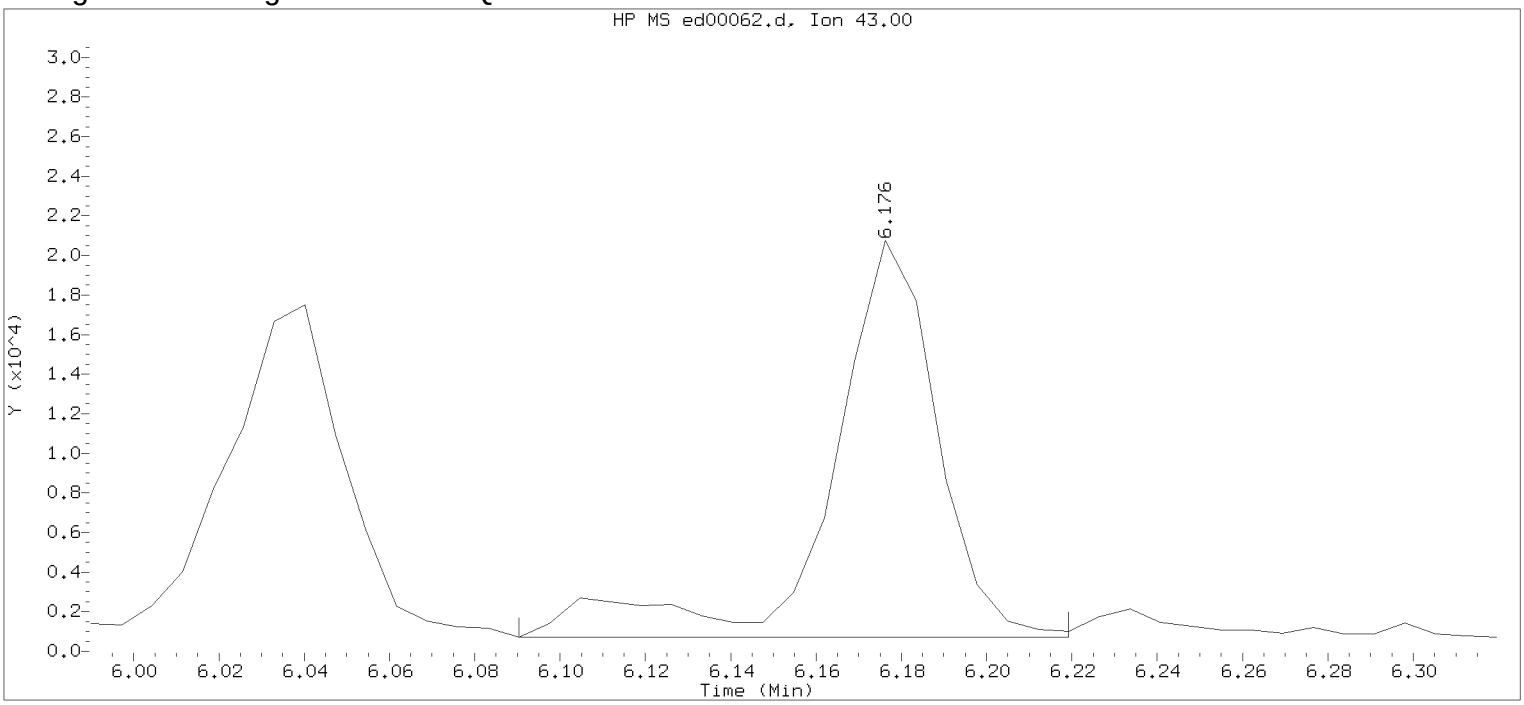
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 20:28 Unknown

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 35128
Concentration (ppb(v)) : 0.9256
Integration start scan : 837 Integration stop scan: 855
Y at integration start : 700 Y at integration end: 700

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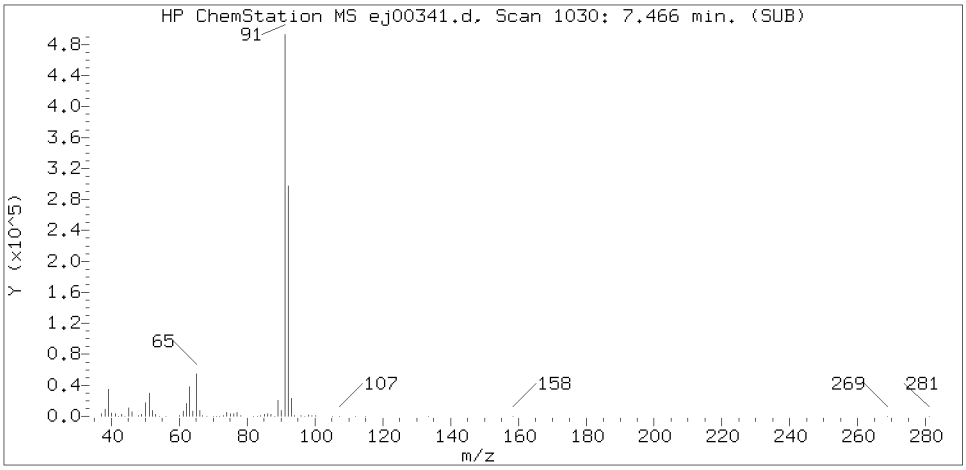
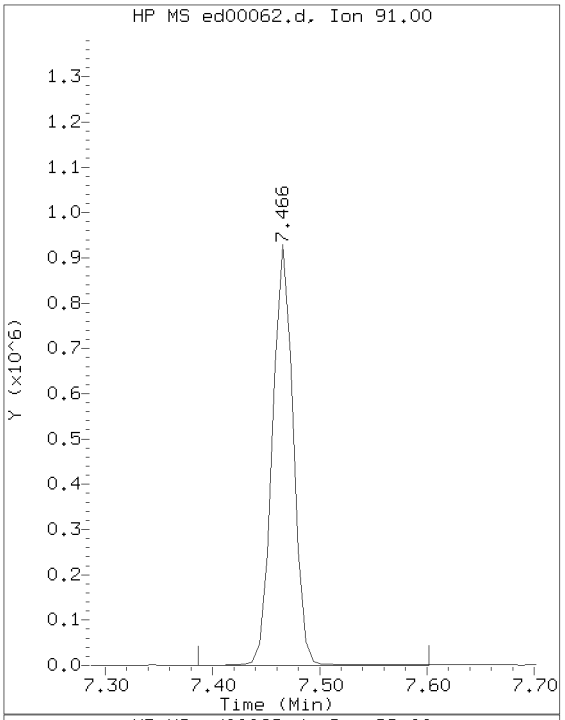
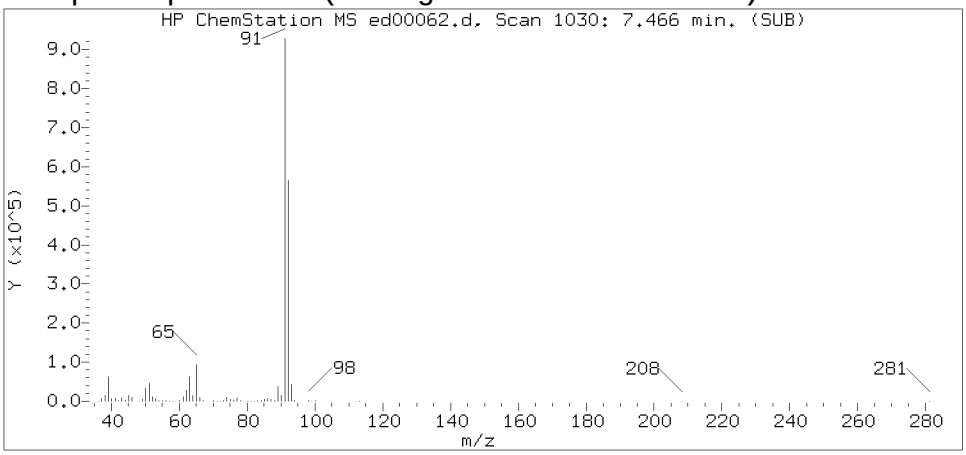
Target 3.5 esignature user id: jeb07445

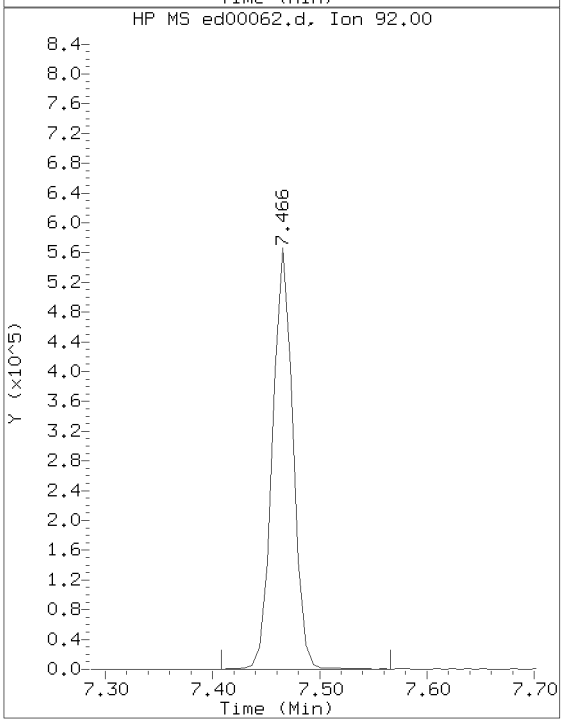
Reference Standard Spectrum for Toluene



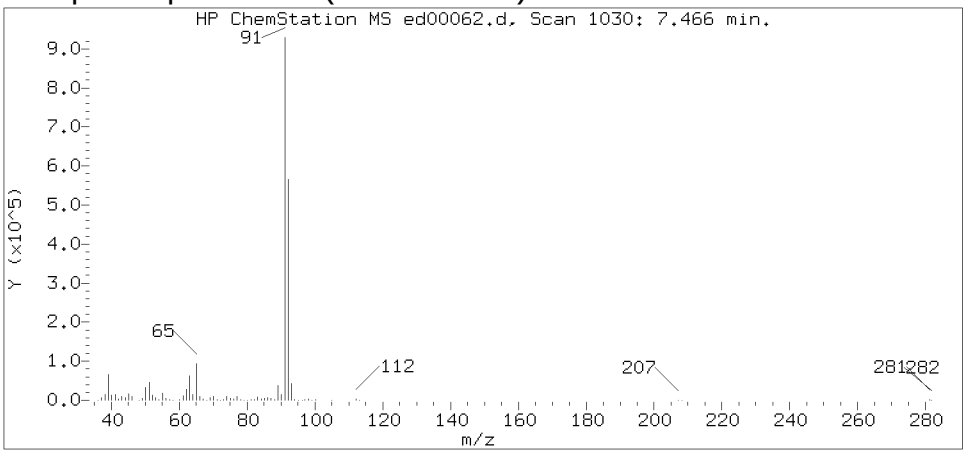


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.466
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 1252481
Concentration (ppb(v)) : 11.6943

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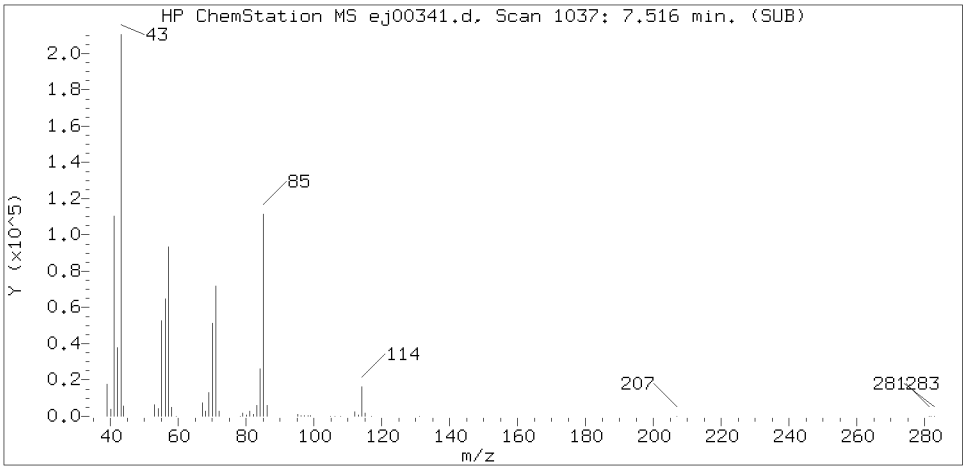
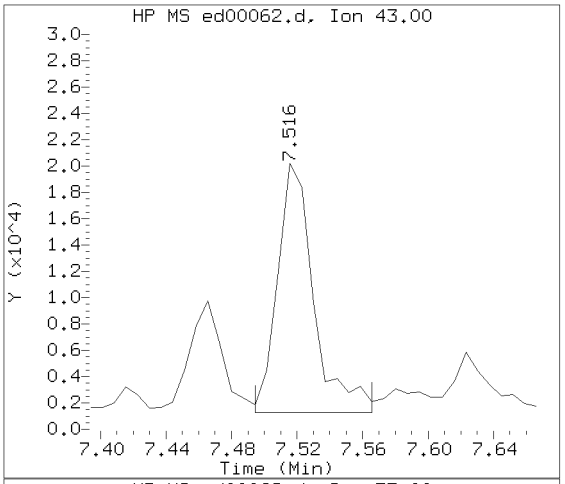
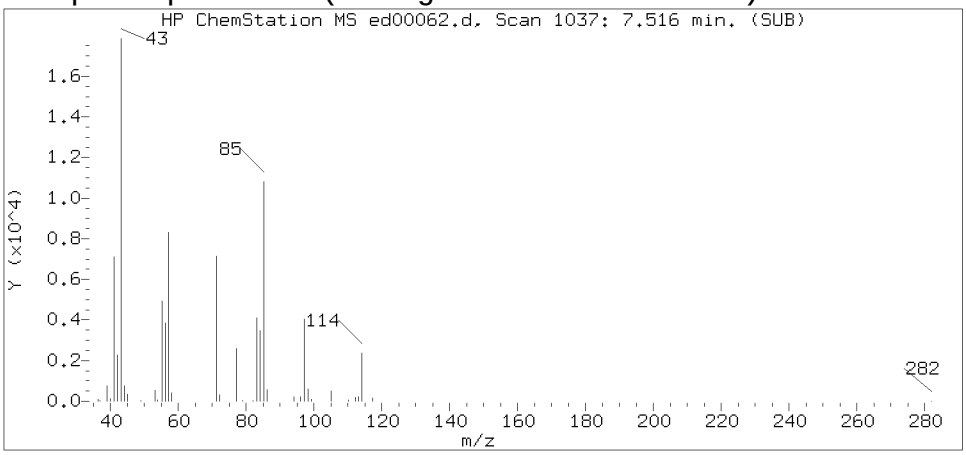
Target 3.5 esignature user ID: jeb07445

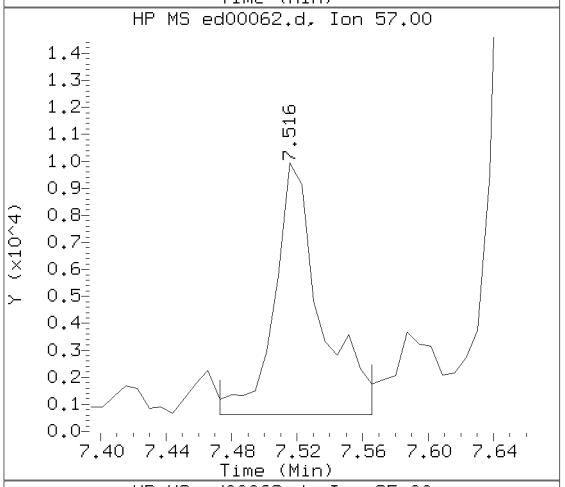
Reference Standard Spectrum for Octane



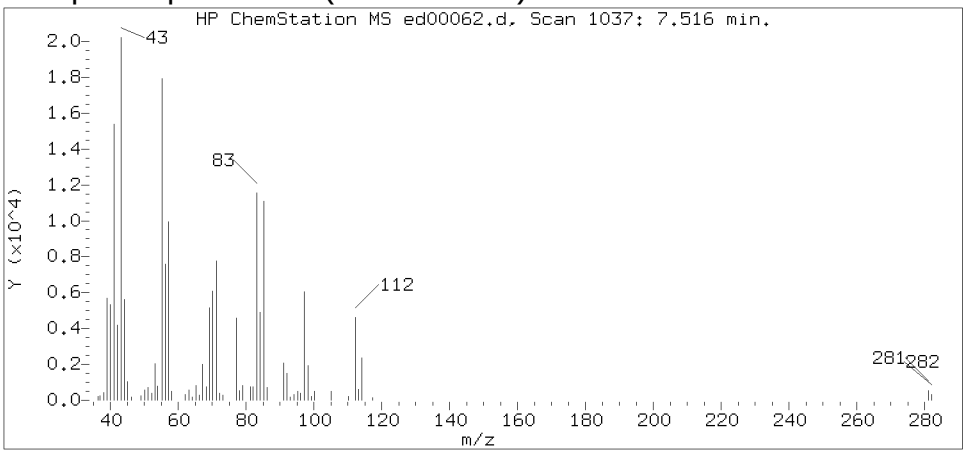


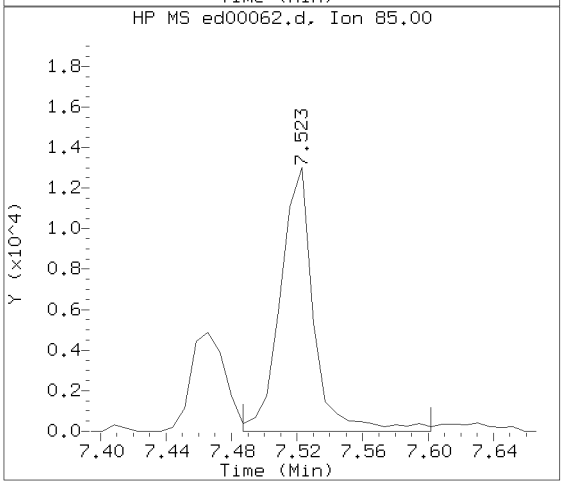
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 29013
Concentration (ppb(v)) : 0.5518

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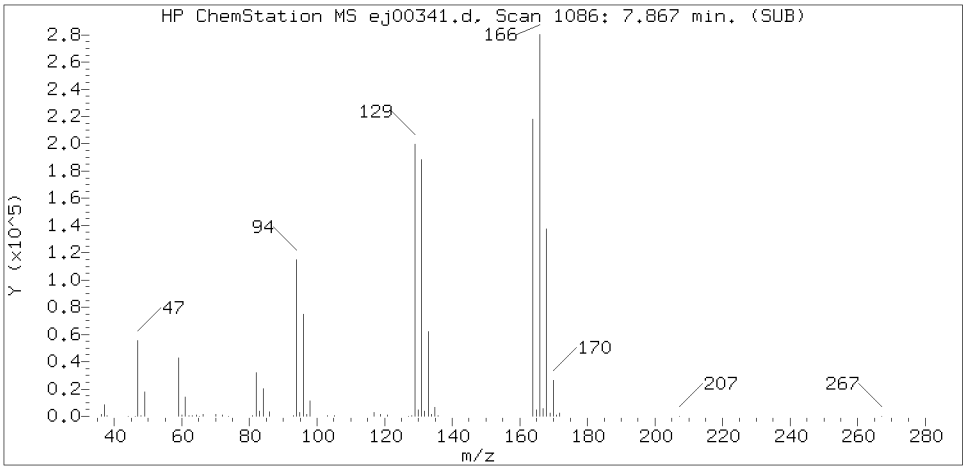
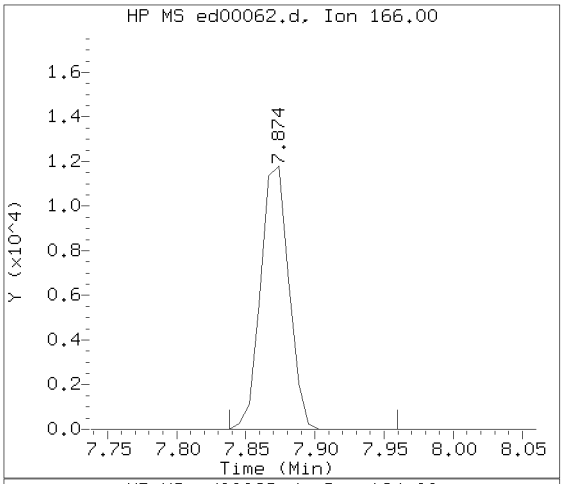
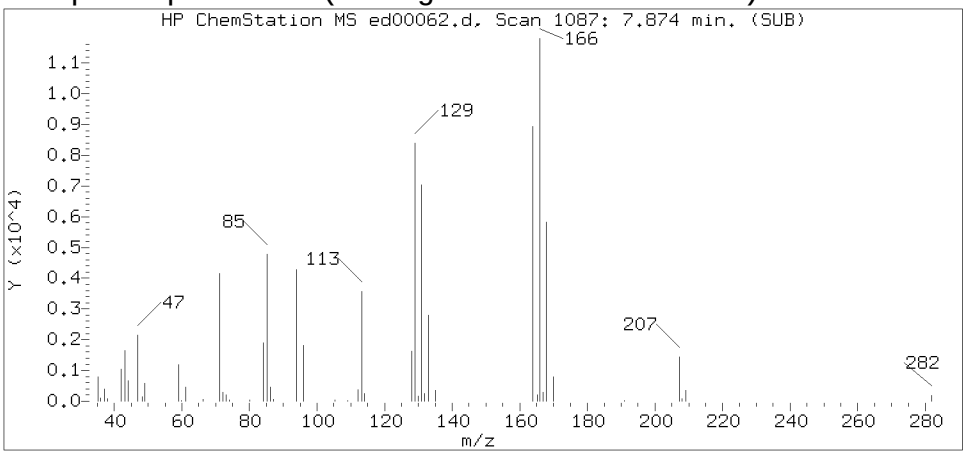
Target 3.5 esignature user ID: jeb07445

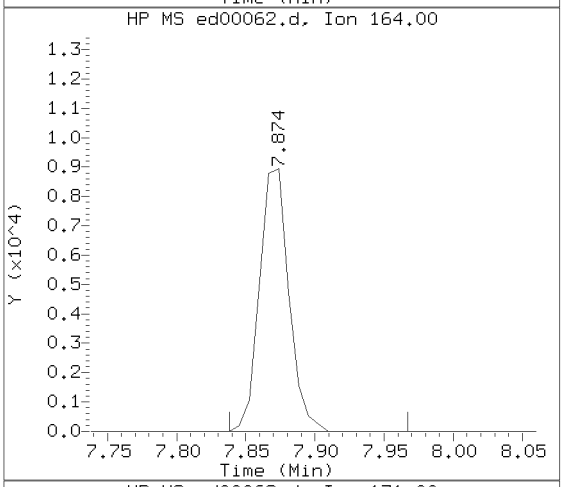
Reference Standard Spectrum for Tetrachloroethene



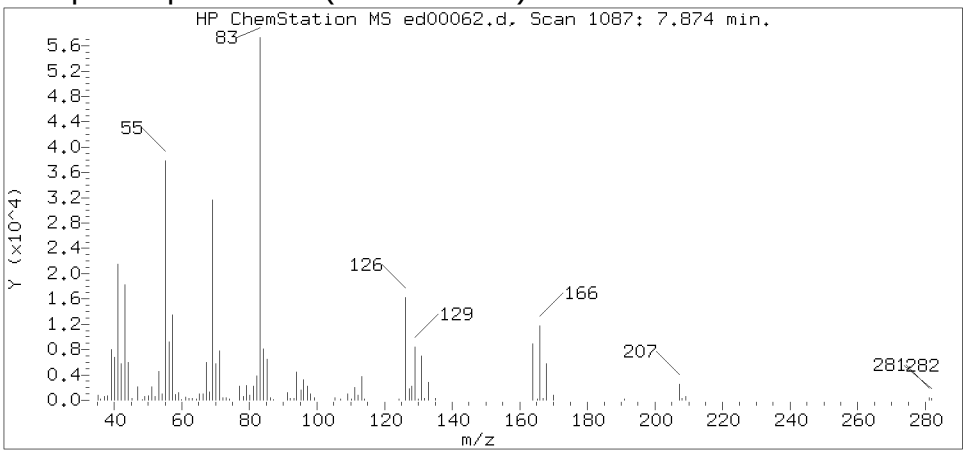


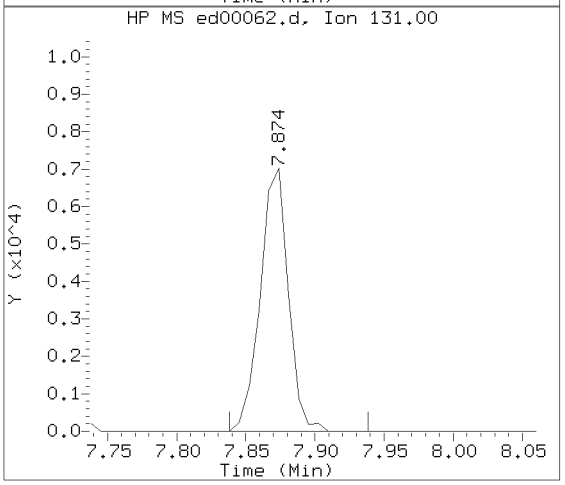
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

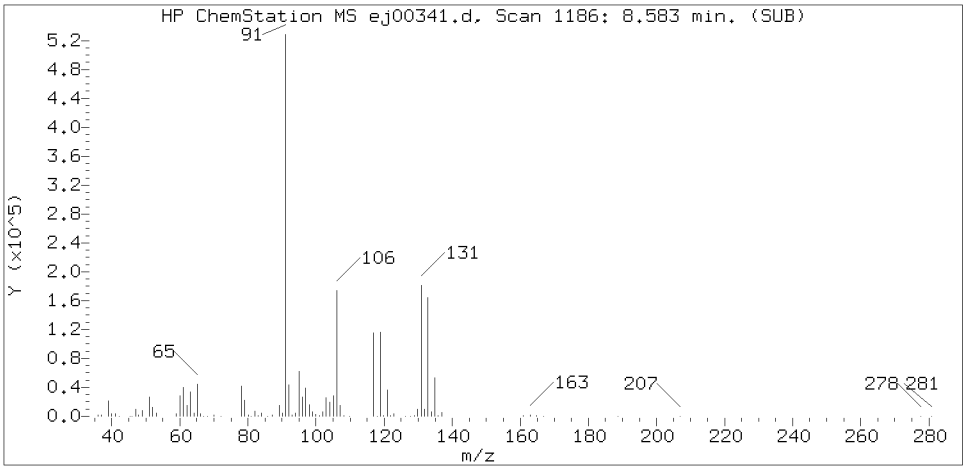
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

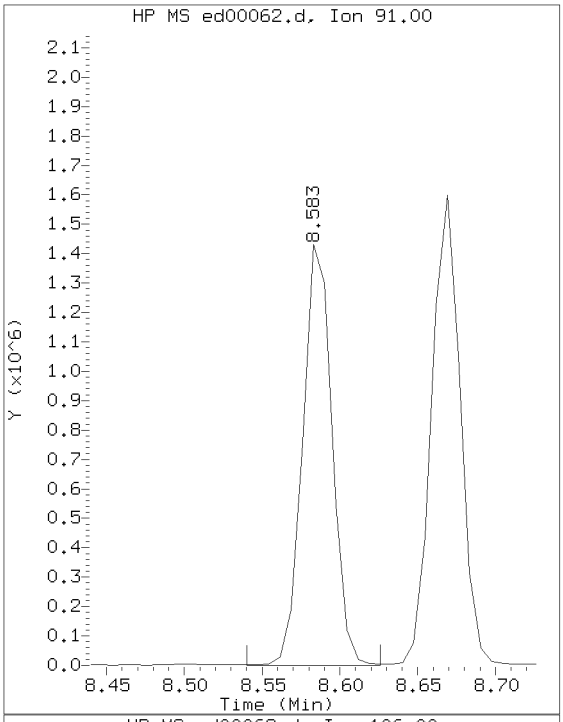
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 16814
Concentration (ppb(v)) : 0.2667

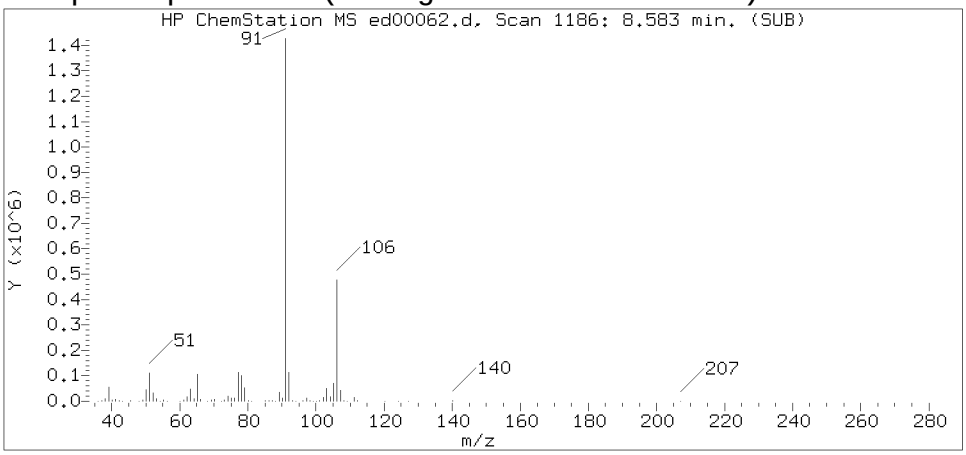
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

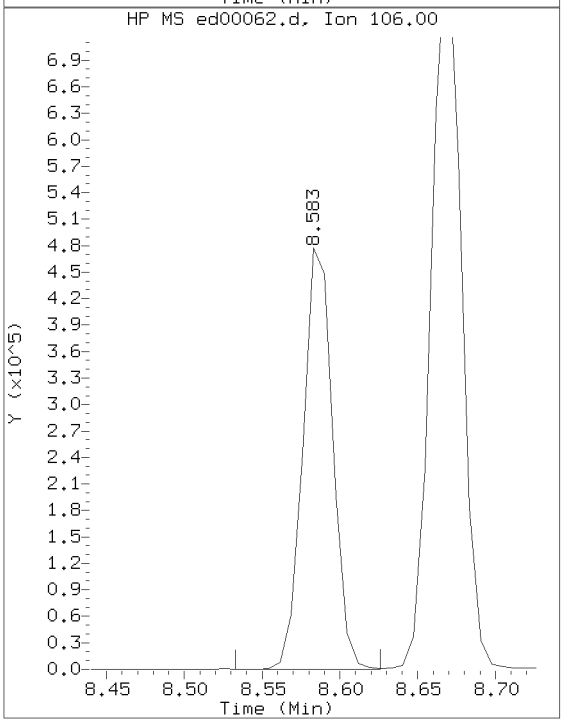
Reference Standard Spectrum for Ethylbenzene



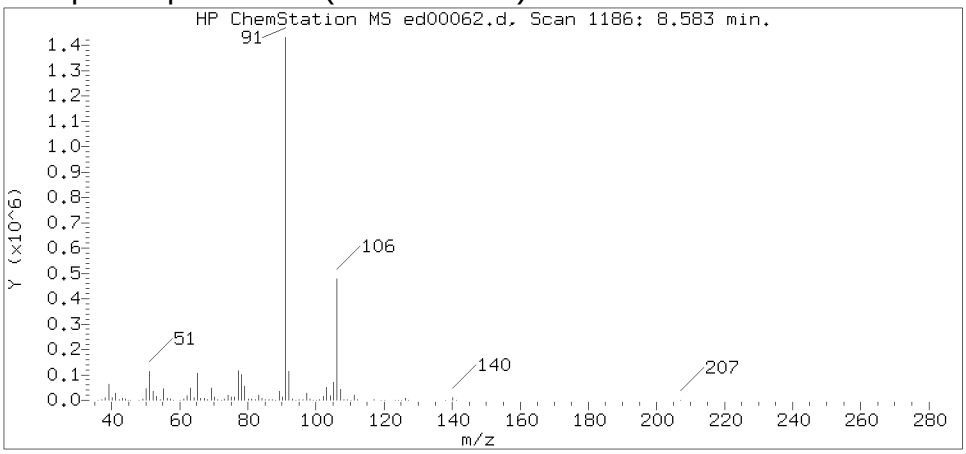


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 1887918
Concentration (ppb(v)) : 13.7563

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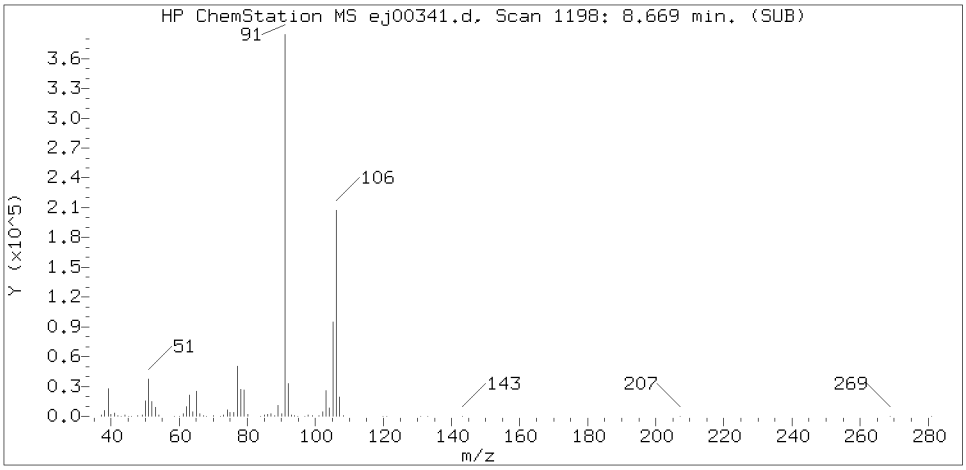
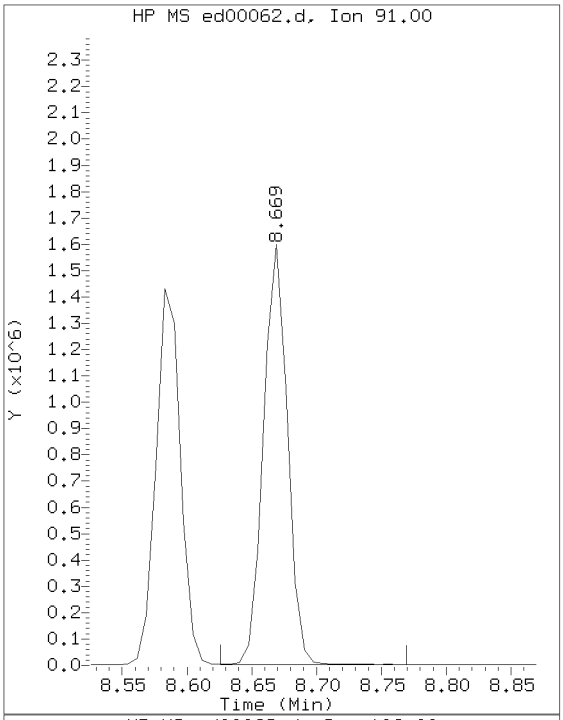
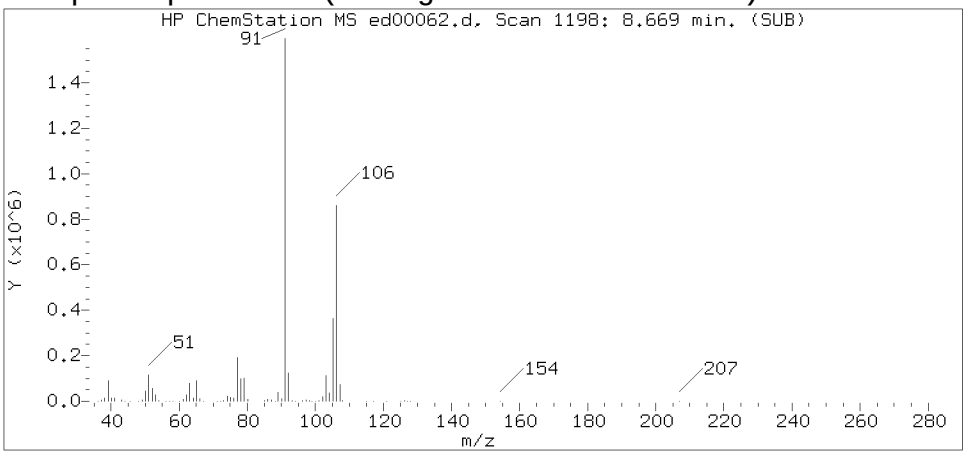
Target 3.5 esignature user ID: jeb07445

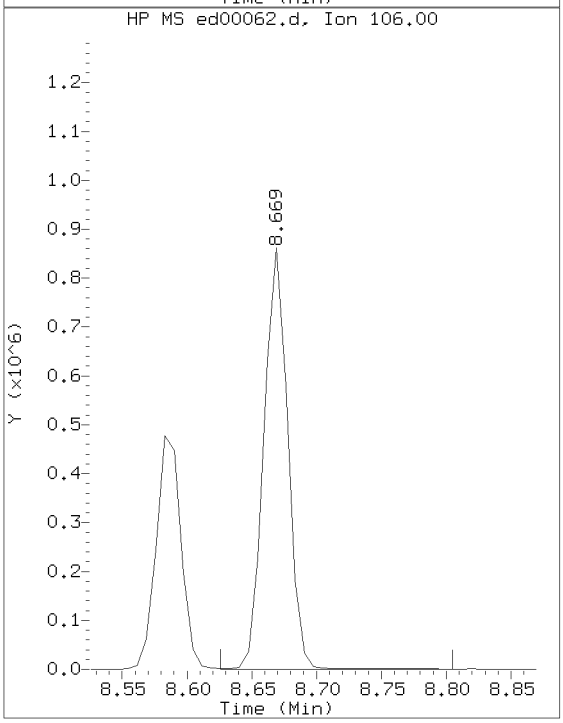
Reference Standard Spectrum for m/p-Xylene



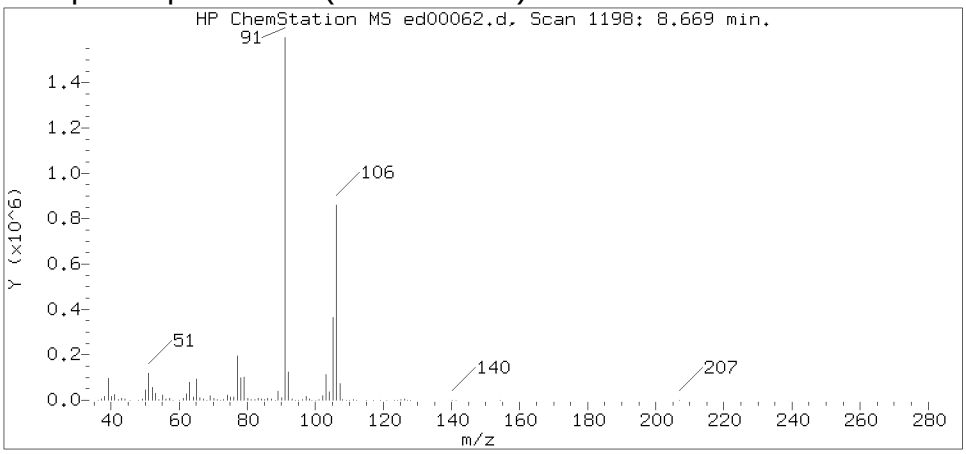


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1198
Retention Time (minutes): 8.669
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 2058207
Concentration (ppb(v)) : 18.9882

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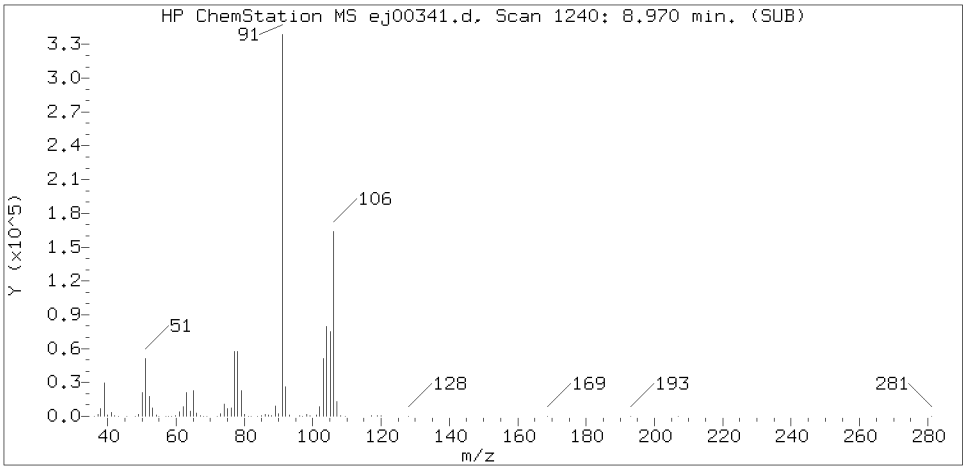
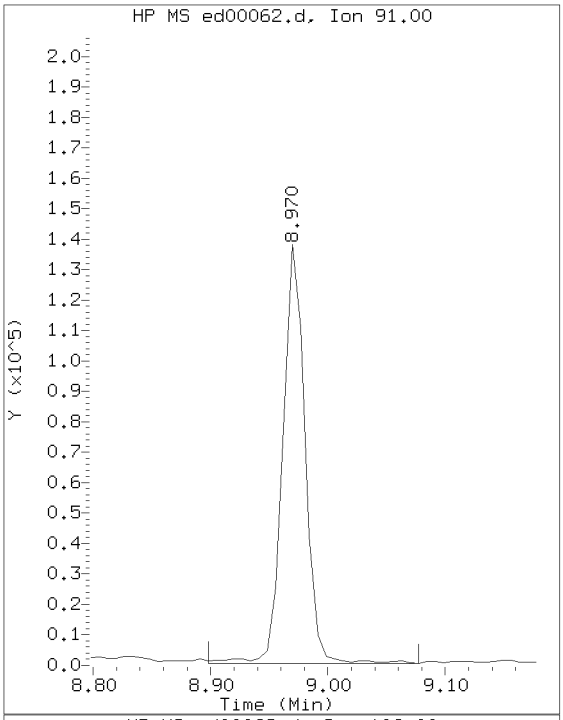
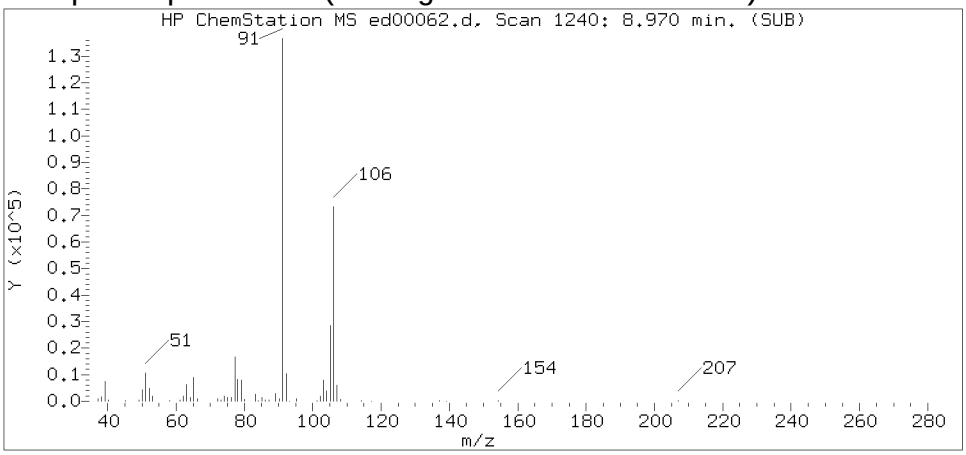
Target 3.5 esignature user ID: jeb07445

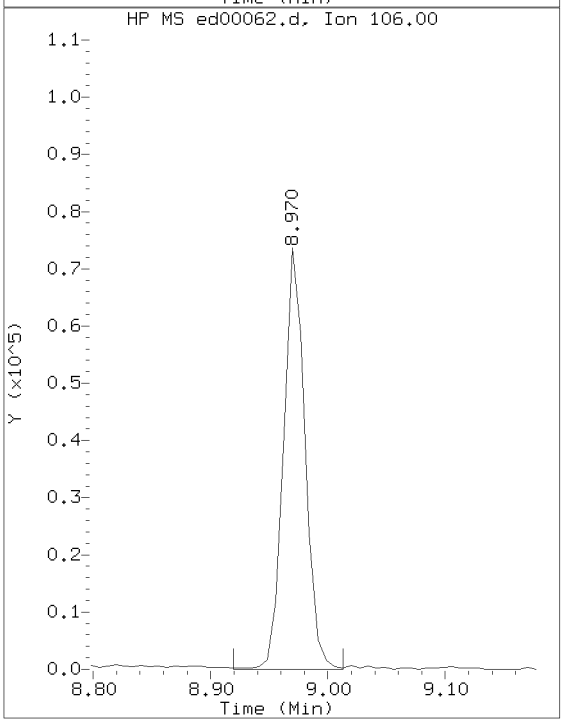
Reference Standard Spectrum for o-Xylene



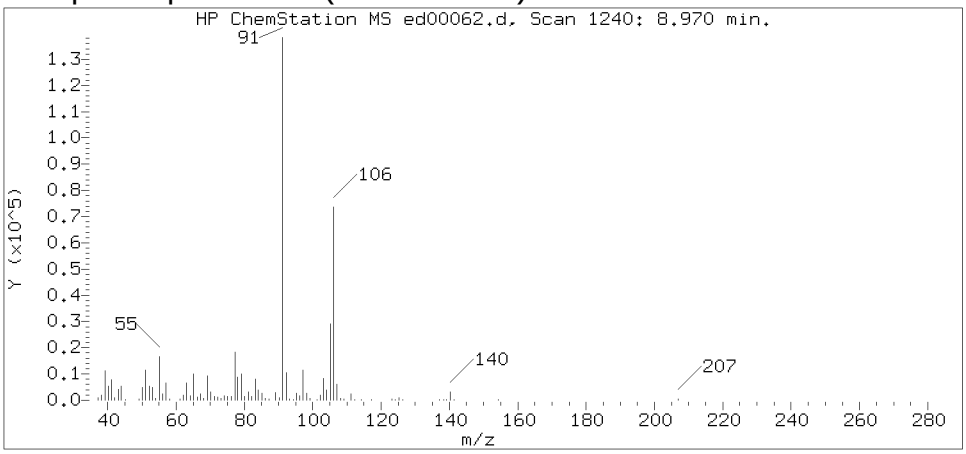


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 183101
Concentration (ppb(v)) : 1.7429

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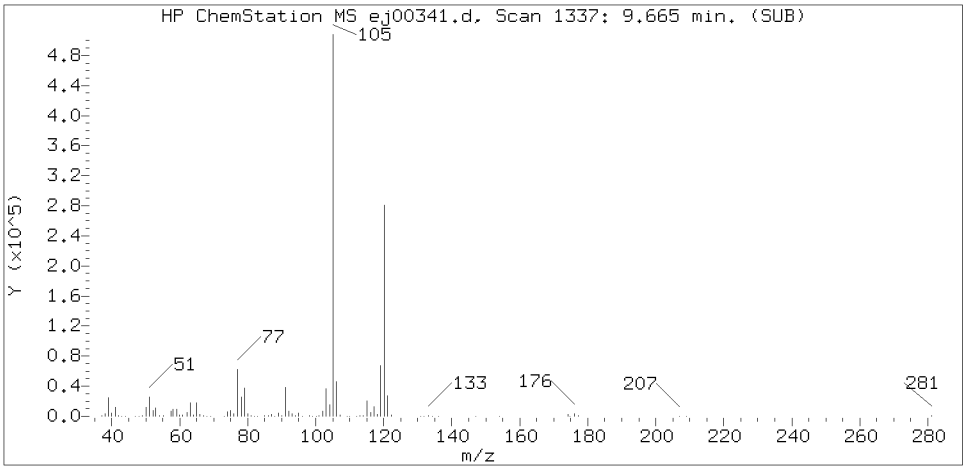
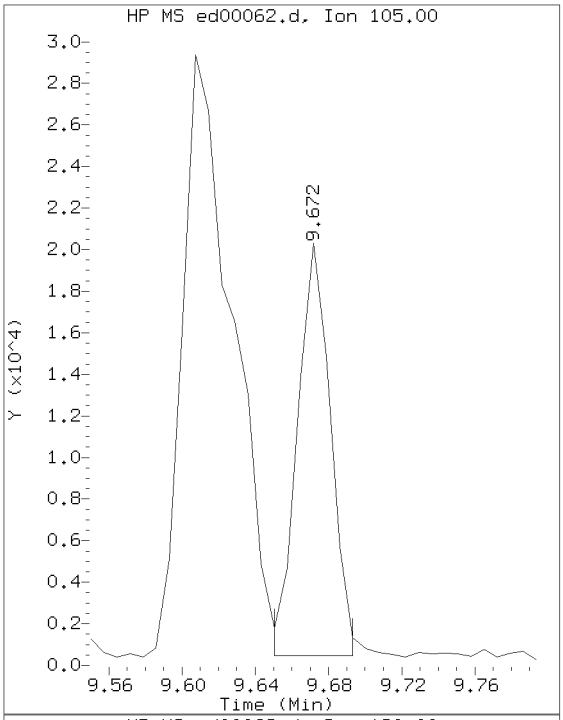
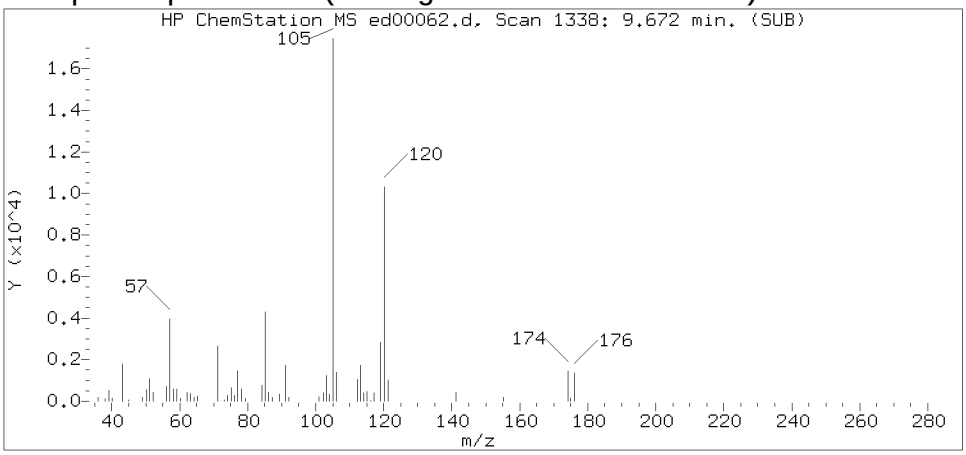
Target 3.5 esignature user ID: jeb07445

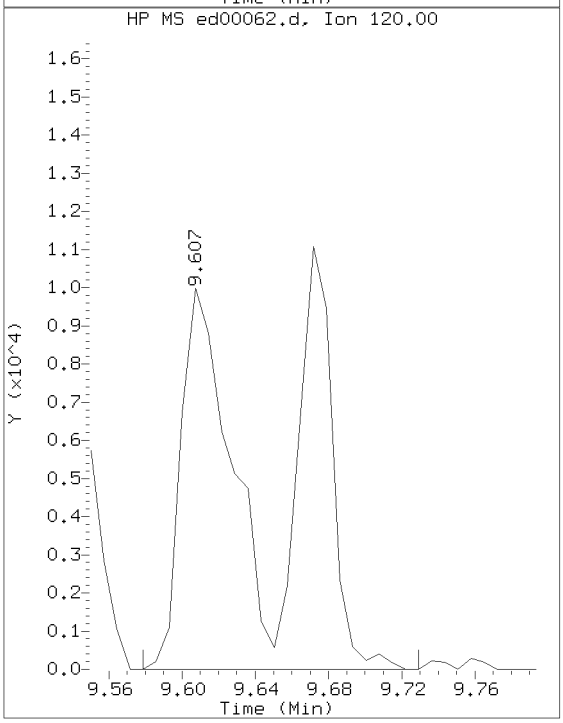
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



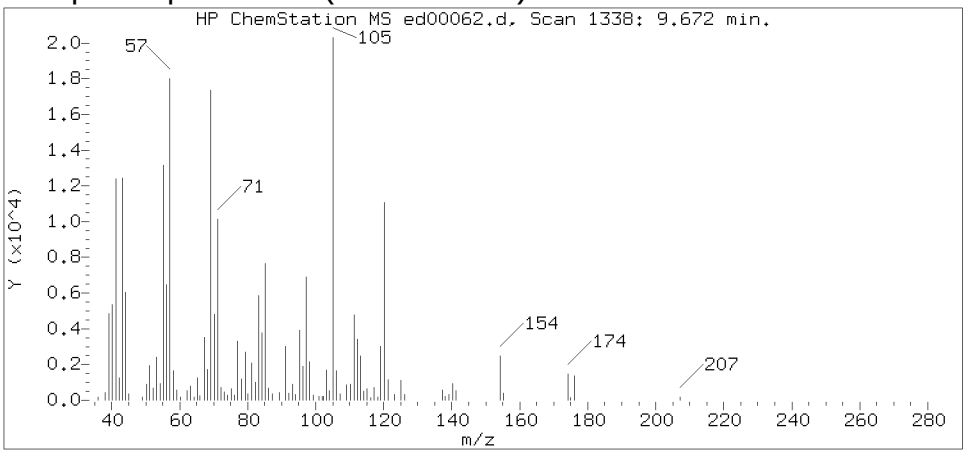


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

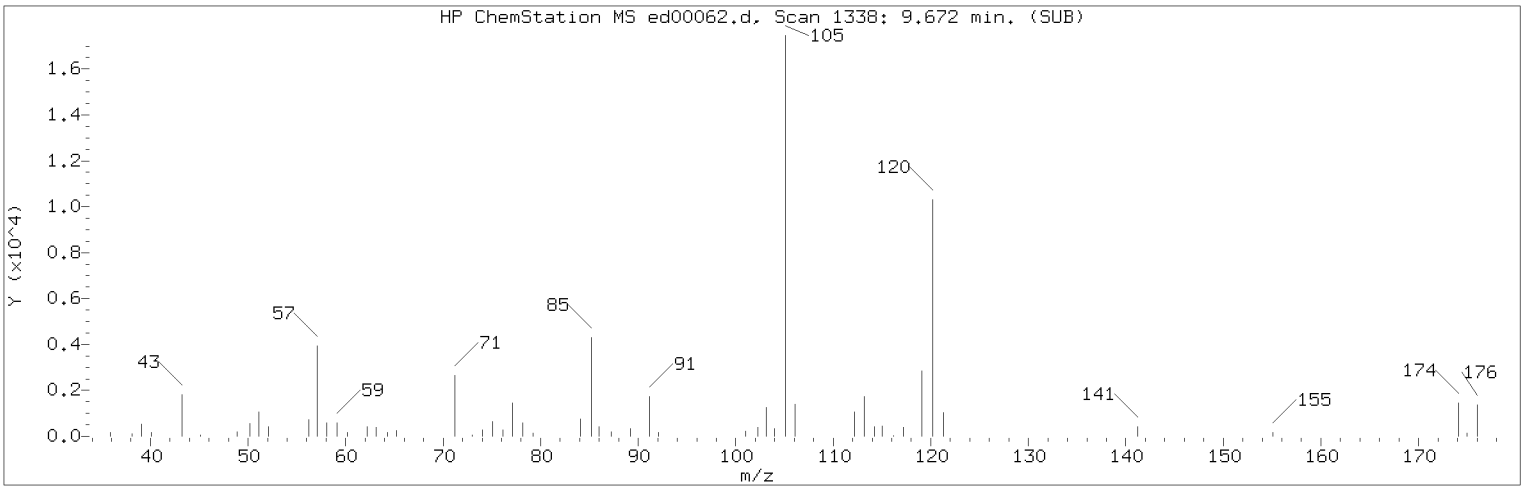
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

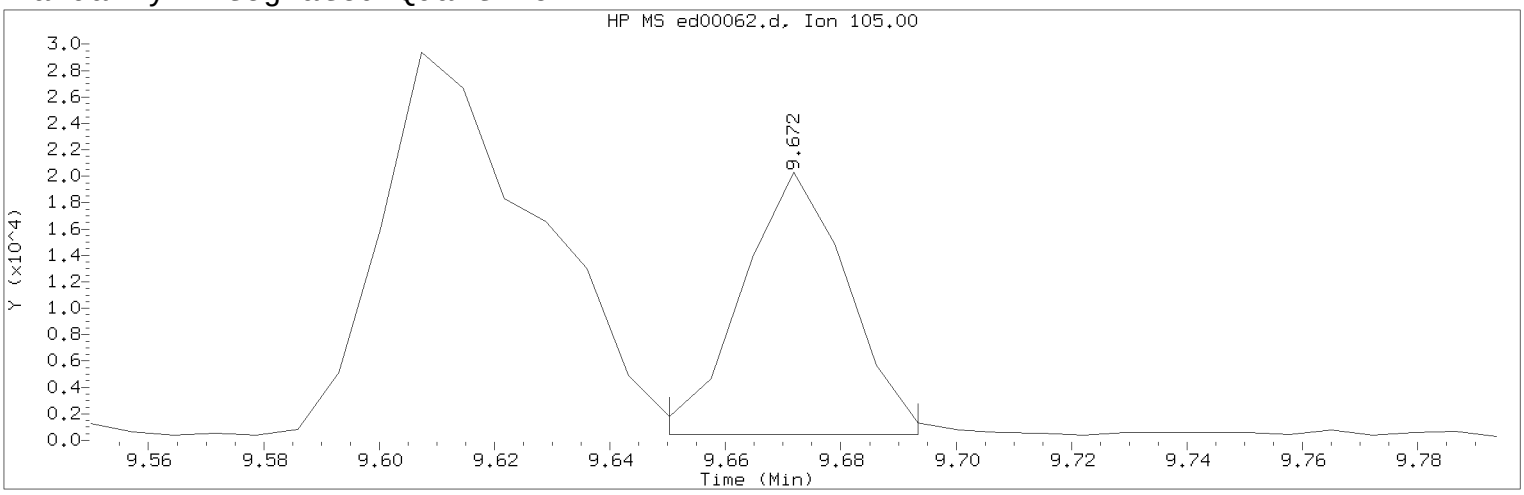
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 25527M
Concentration (ppb(v)) : 0.2104

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

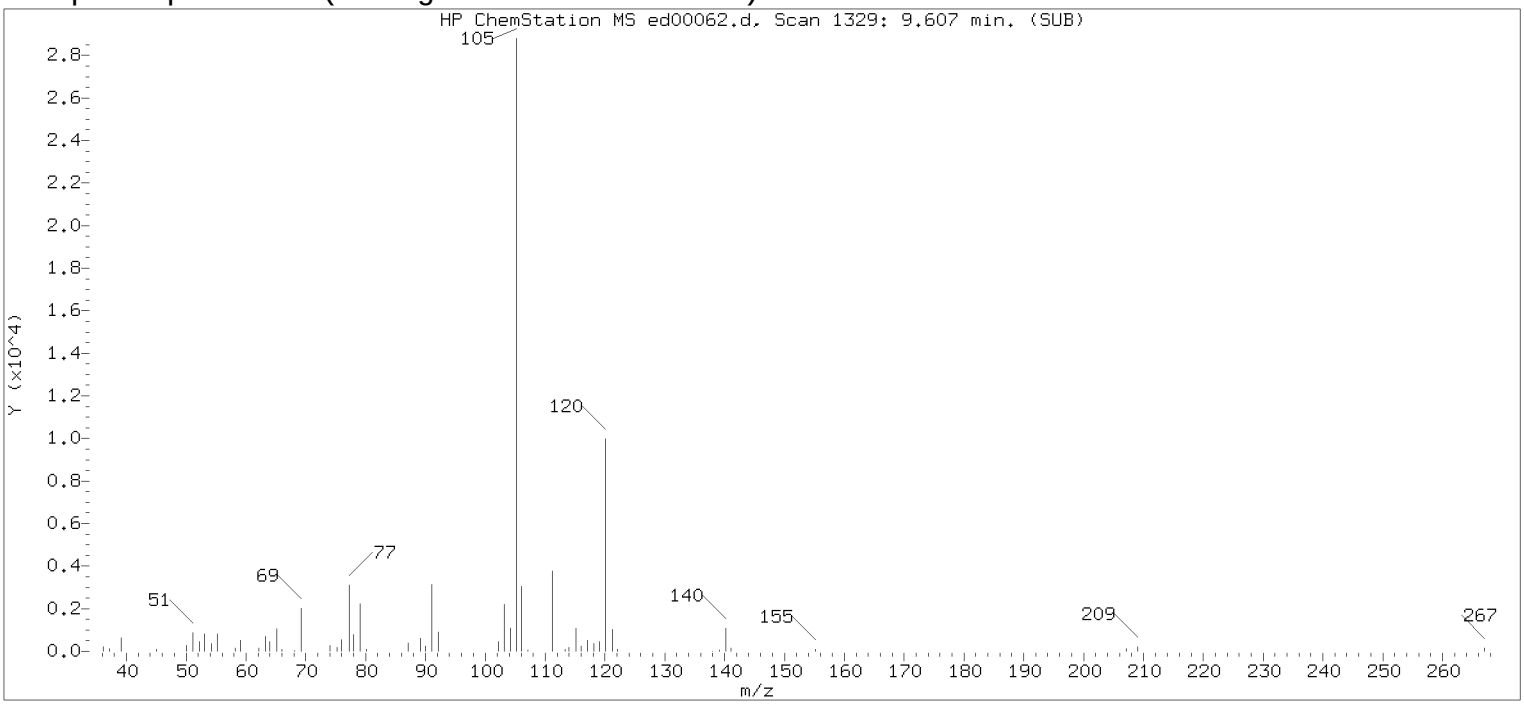
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 25527M
Concentration (ppb(v)) : 0.2104
Integration start scan : 1334 Integration stop scan: 1340
Y at integration start : 447 Y at integration end: 447

Reason for manual integration: improper integration

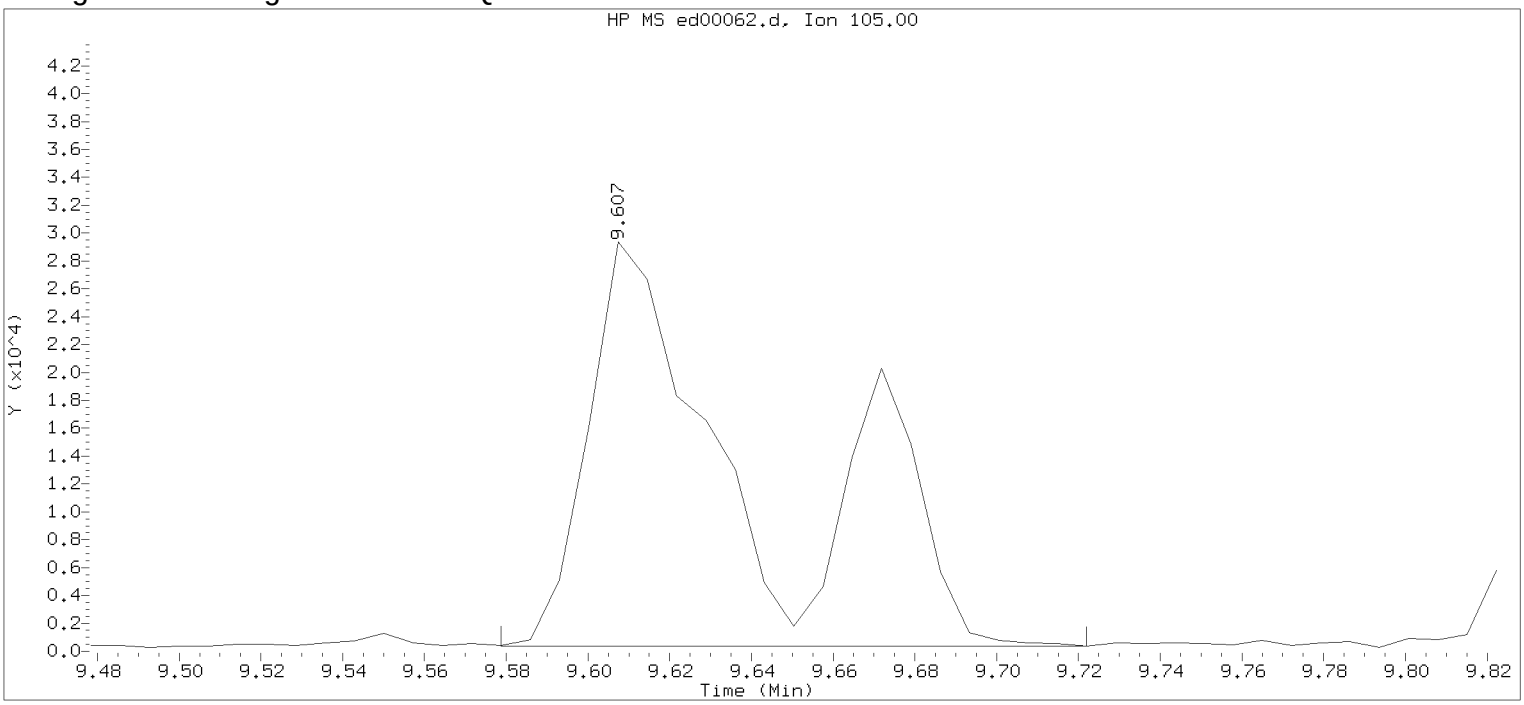
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

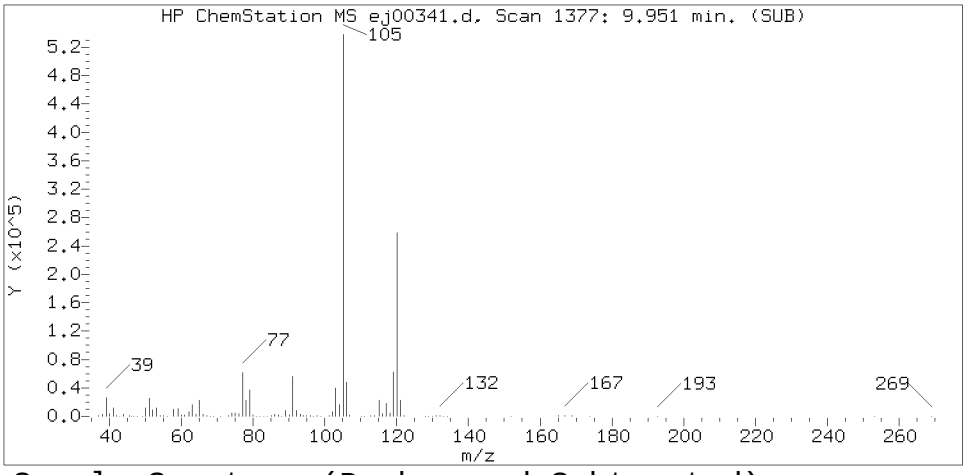
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 20:28 Unknown

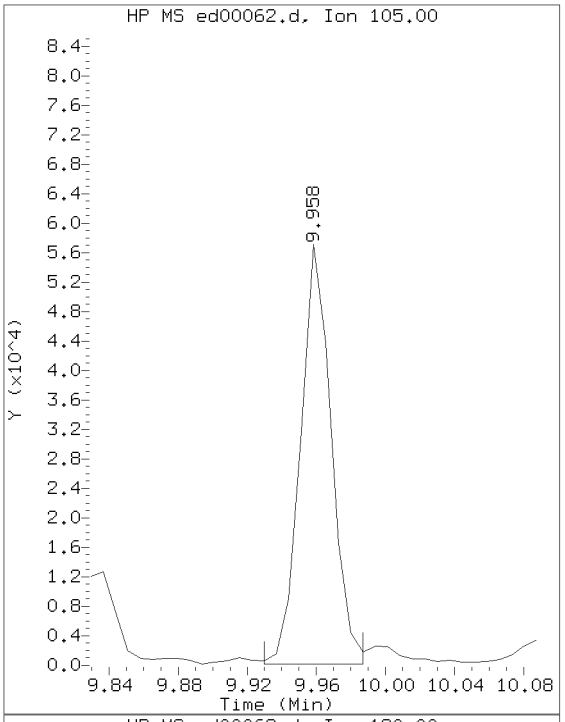
Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 80775
Concentration (ppb(v)) : 0.6657
Integration start scan : 1324 Integration stop scan: 1344
Y at integration start : 390 Y at integration end: 390

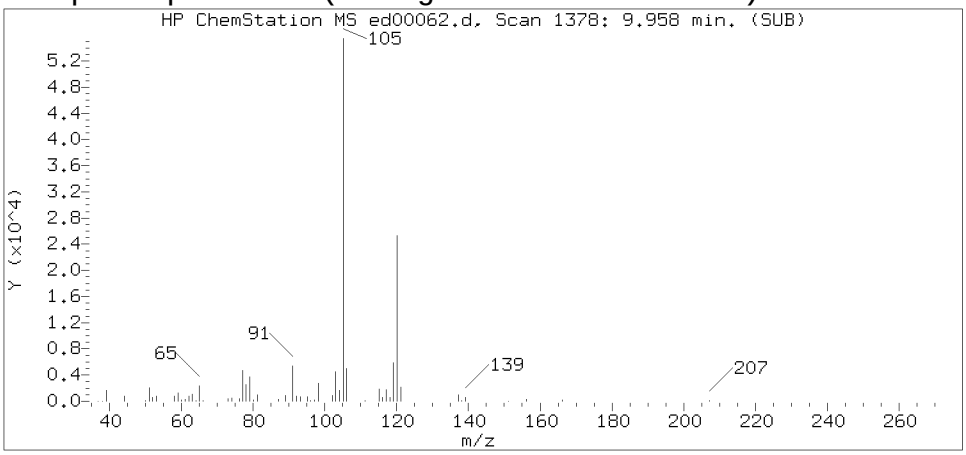
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

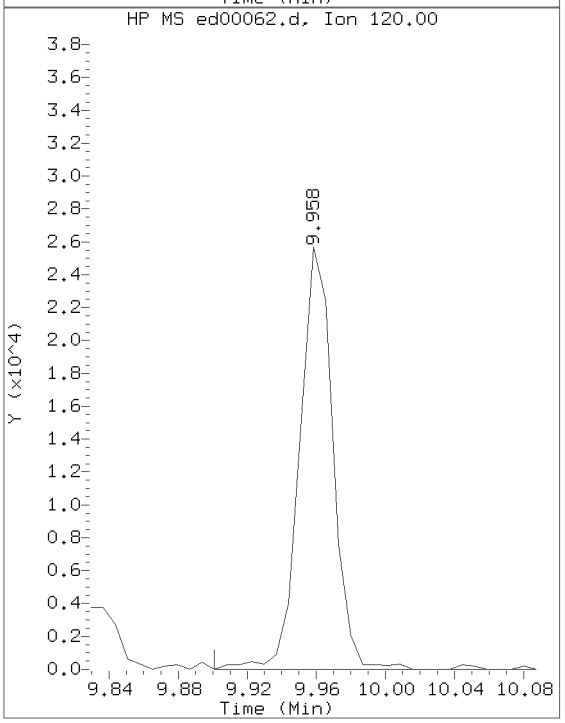
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



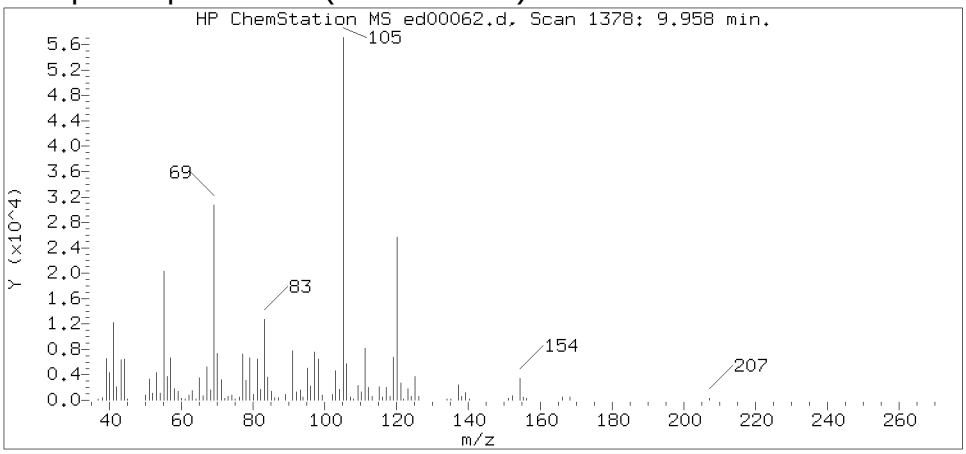


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

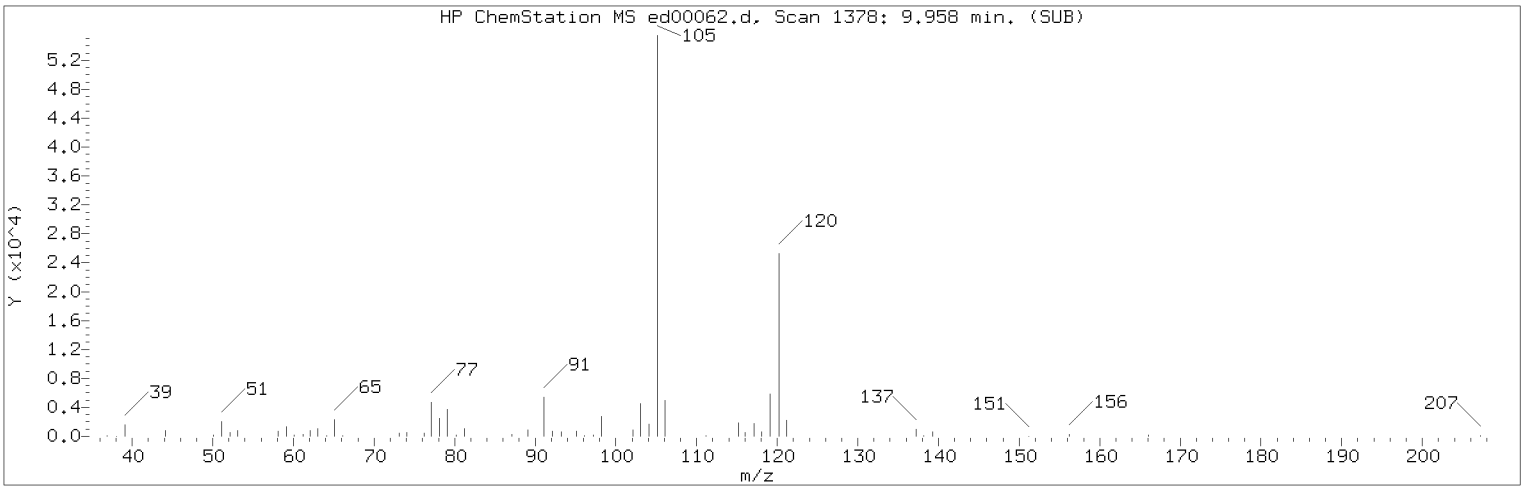
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

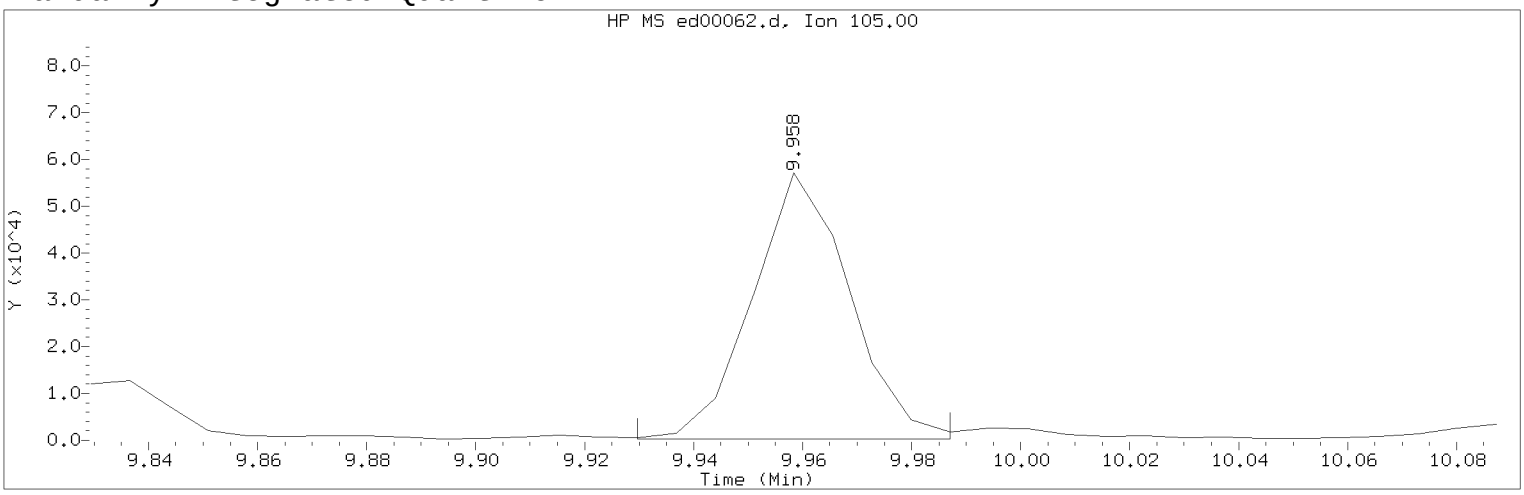
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 70797M
Concentration (ppb(v)) : 0.6168

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7102 Lab Sample ID: 8920248DL

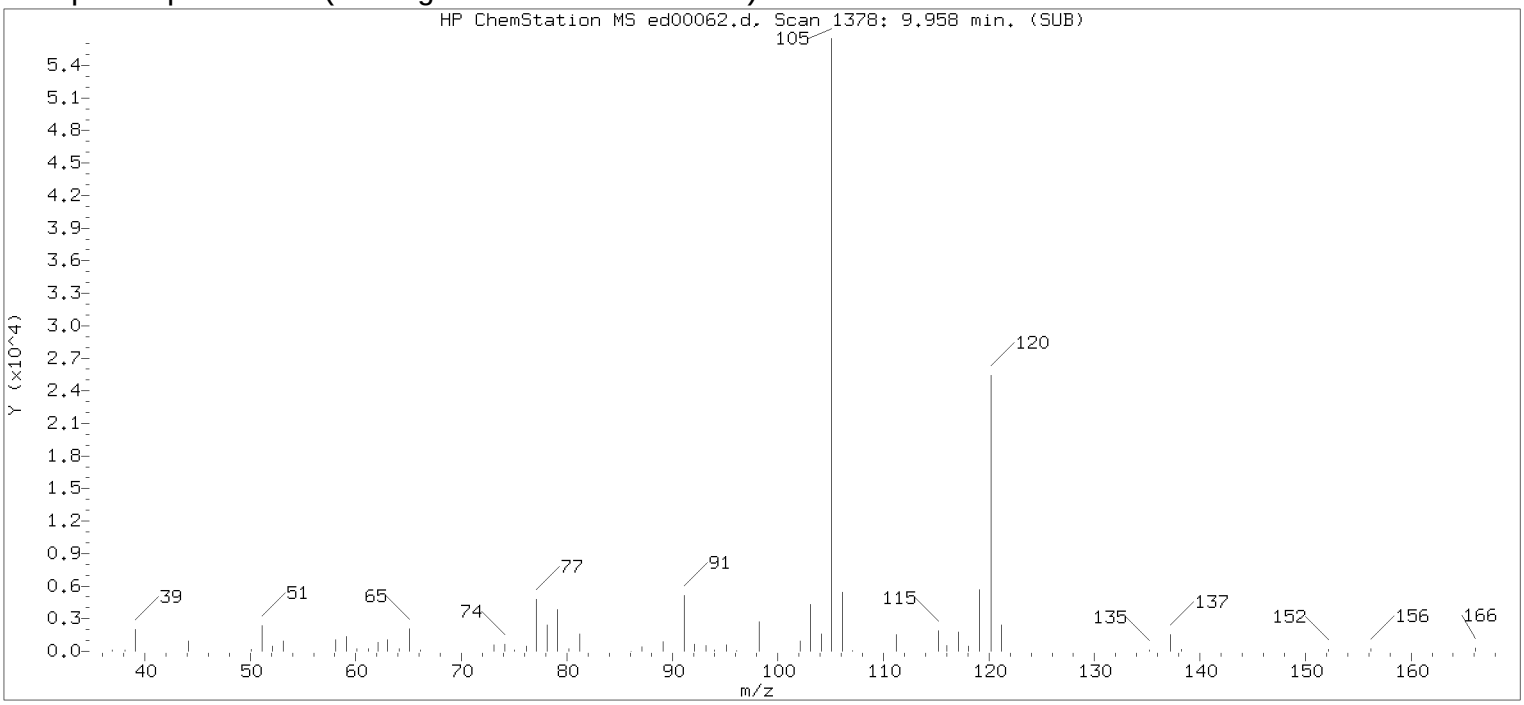
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area (flag) : 70797M
Concentration (ppb(v)) : 0.6168
Integration start scan : 1373 Integration stop scan: 1381
Y at integration start : 215 Y at integration end: 215

Reason for manual integration: improper integration

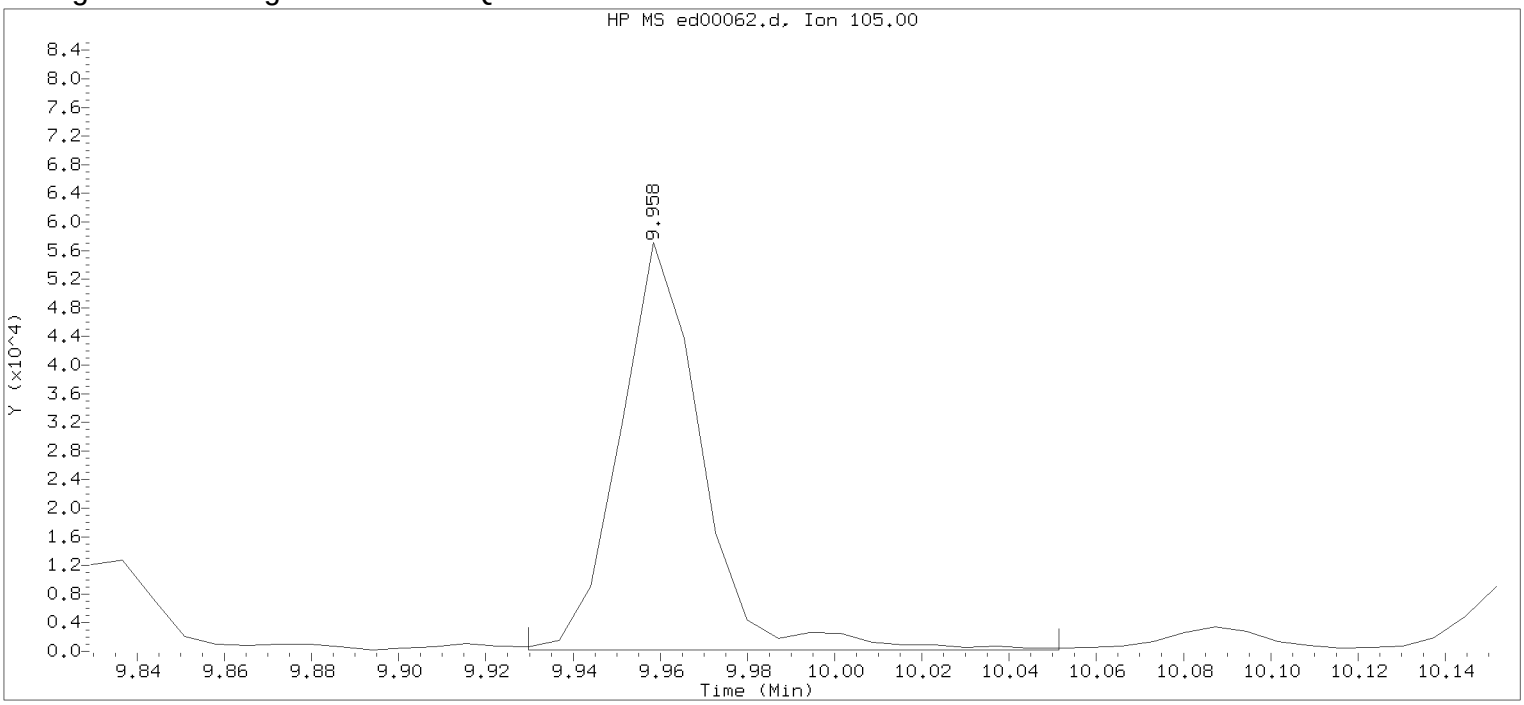
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00062.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:08 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 20:28 Unknown

Sample Name: S7102 Lab Sample ID: 8920248DL

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area : 74246
Concentration (ppb(v)) : 0.6469
Integration start scan : 1373 Integration stop scan: 1390
Y at integration start : 215 Y at integration end: 215

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

S7103 Lancaster Laboratories, Inc. 8920249
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00061.d Injection date and time: **05-APR-2017 19:29**
Data file Sample Info. Line: 8920249;400;E1709530AA;S7103;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.2 psia Canister Pressure before dilution (Ya): 13.6 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
40) Bromochloromethane	5.474(0.000)	752	130	216598 (-4)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	897933 (8)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	893746 (8)	10.00		498344 - 1162802

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)	1.649(-0.001)	85	23991	0.440	0.44		J	0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)	1.971(-0.001)	62	4788	0.233	0.23		J	0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.874(-0.001)	43	29811	0.971	0.97		J	0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.533(-0.001)	43	550014	22.363	22.36			0.5	2
21) Carbon Disulfide	(1)	3.662(-0.001)	76	139653	2.222	2.22			0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	28672	0.974	0.97		J	0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.557(0.000)	57	19328	0.607	0.61		J	0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.000)	61	201623	7.188	7.19			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	97490	8.659	8.66			0.5	2
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(0.000)	78	57126	0.686	0.69		J	0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)	6.033(0.001)	57	15707465	137.054	137.05		E	0.2	1
50) Heptane	(2)	6.176(0.000)	43	35547M	0.937	0.94		J	0.2	1
52) Trichloroethene	(2)	6.491(-0.000)	130	57991	1.351	1.35			0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.465(0.000)	91	3924559	36.377	36.38			0.2	1
62) Octane	(3)	7.516(0.000)	43	64475M	1.217	1.22			0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	459070	7.229	7.23			0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07. Target 3.5 esignature user ID: jeb07445

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

Data file: /chem/HP22820.i/17apr05.b/ed00061.d Injection date and time: **05-APR-2017 19:29**
Data file Sample Info. Line: 8920249;400;E1709530AA;S7103;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.2 psia Canister Pressure before dilution (Ya): 13.6 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
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	2085259	15.084	15.08			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	4038599	36.988	36.99			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	315511	2.982	2.98			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)	9.242(-0.000)	105	40411	0.271	0.27		J	0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)	9.629(-0.000)	105	53339M	0.363	0.36		J	0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.679(-0.000)	105	58678	0.480	0.48		J	0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.965(-0.000)	105	151929M	1.314	1.31			0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Total number of targets = 62

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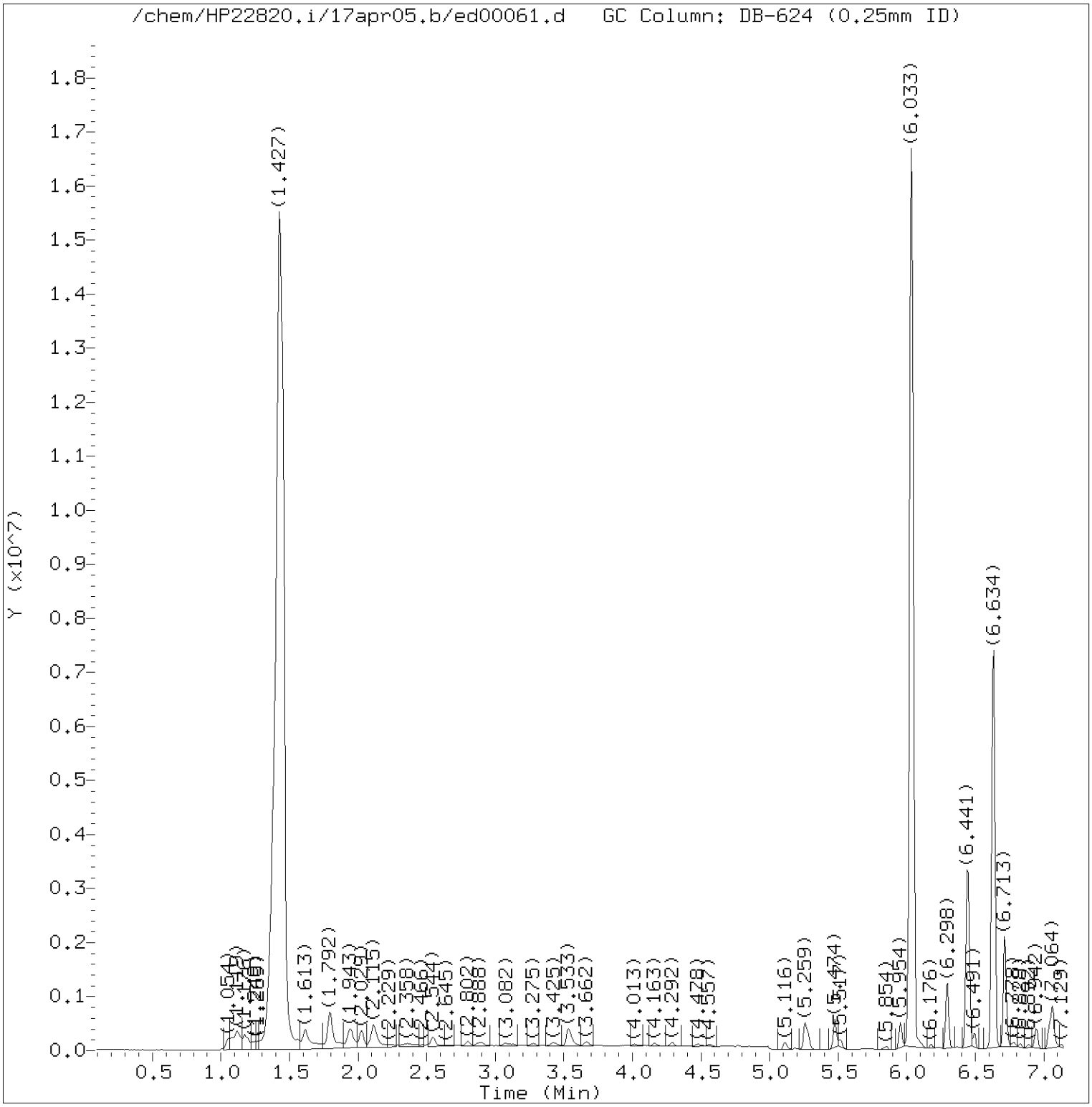
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

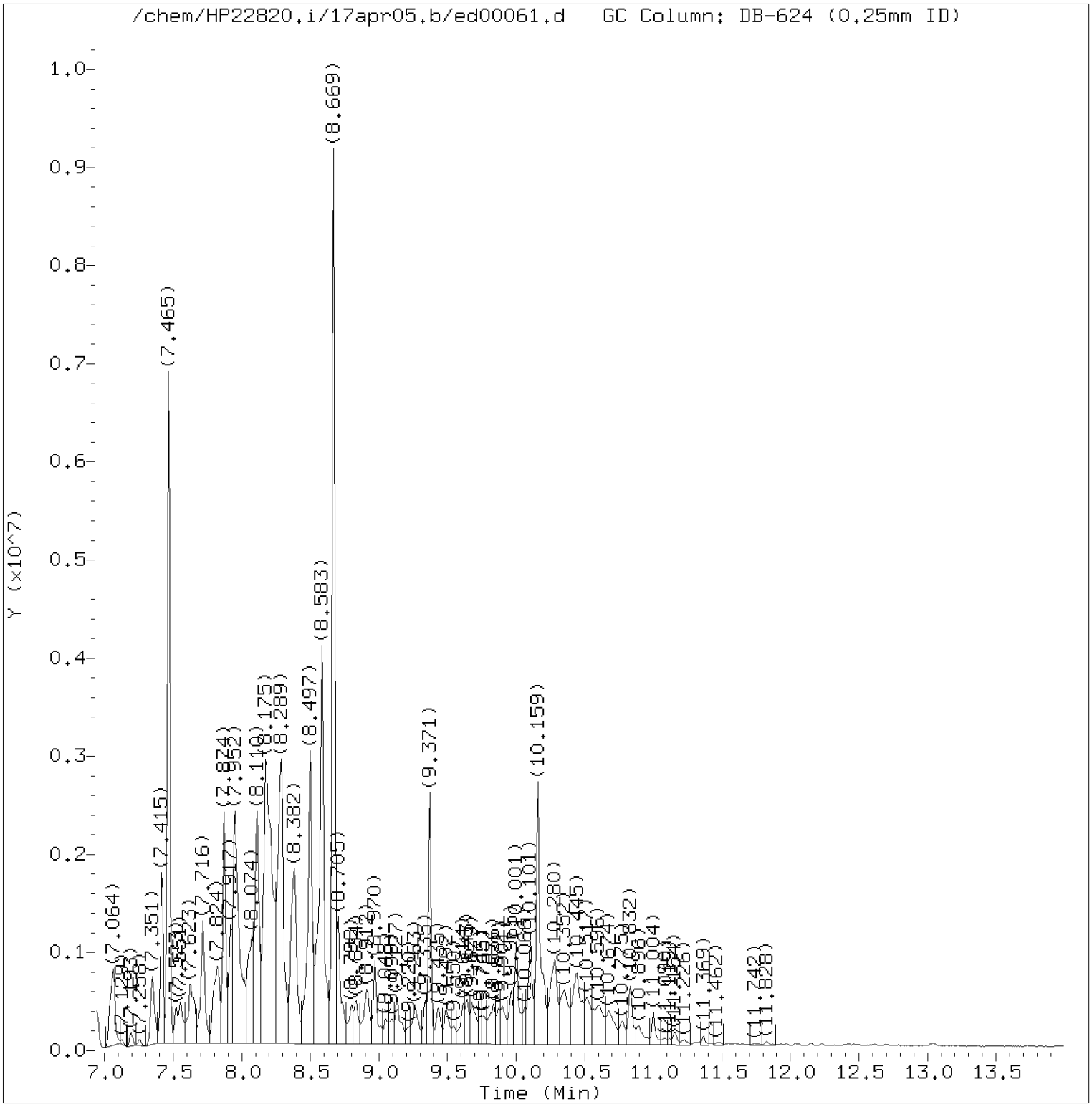
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	1.649	85	23991	0.440
6) Vinyl Chloride	(1)	1.971	62	4788	0.233
13) Pentane	(1)	2.874	43	29811	0.971
19) Acetone	(1)	3.533	43	550014	22.363
21) Carbon Disulfide	(1)	3.662	76	139653	2.222
28) trans-1,2-Dichloroethene	(1)	4.292	61	28672	0.974
30) Hexane	(1)	4.557	57	19328	0.607
35) cis-1,2-Dichloroethene	(1)	5.259	61	201623	7.188
37) 2-Butanone	(1)	5.281	72	97490	8.659
40)*Bromochloromethane	(1)	5.474	130	216598	10.000
46) Benzene	(2)	5.990	78	57126	0.686
48) Isooctane	(2)	6.033	57	15707465	137.054
50) Heptane	(2)	6.176	43	35547M	0.937
51)*1,4-Difluorobenzene	(2)	6.298	114	897933	10.000
52) Trichloroethene	(2)	6.491	130	57991	1.351
61) Toluene	(3)	7.465	91	3924559	36.377
62) Octane	(3)	7.516	43	64475M	1.217
67) Tetrachloroethene	(3)	7.874	166	459070	7.229
71)*Chlorobenzene-d5	(3)	8.497	117	893746	10.000
74) Ethylbenzene	(3)	8.583	91	2085259	15.084
75) m/p-Xylene	(3)	8.669	91	4038599	36.988
76) o-Xylene	(3)	8.970	91	315511	2.982
80) Cumene	(3)	9.242	105	40411	0.271
86) 4-Ethyltoluene	(3)	9.629	105	53339M	0.363
87) 1,3,5-Trimethylbenzene	(3)	9.679	105	58678	0.480
90) 1,2,4-Trimethylbenzene	(3)	9.965	105	151929M	1.314

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

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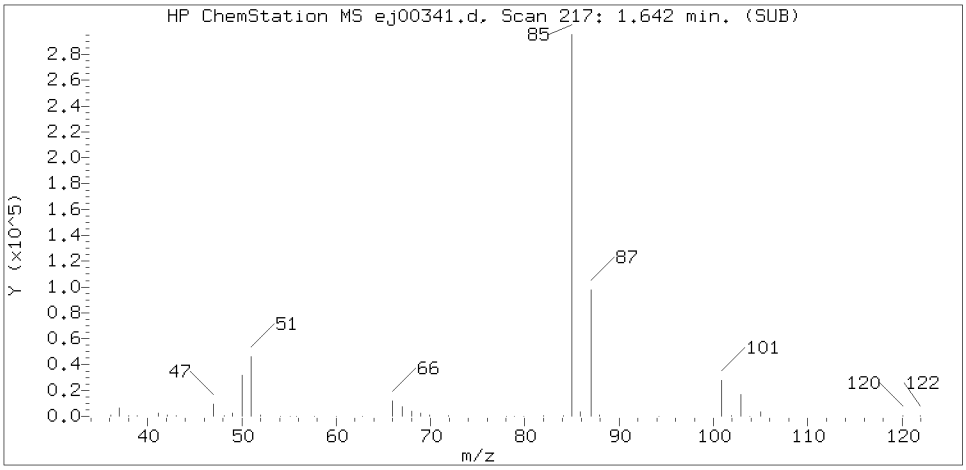
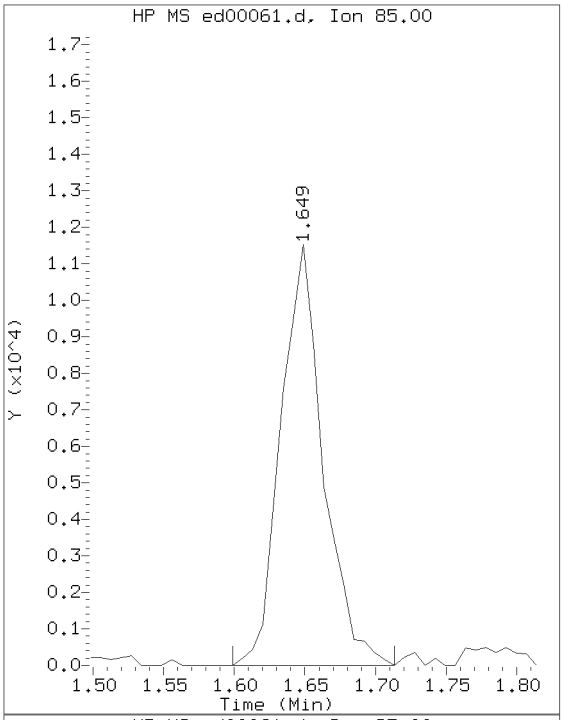
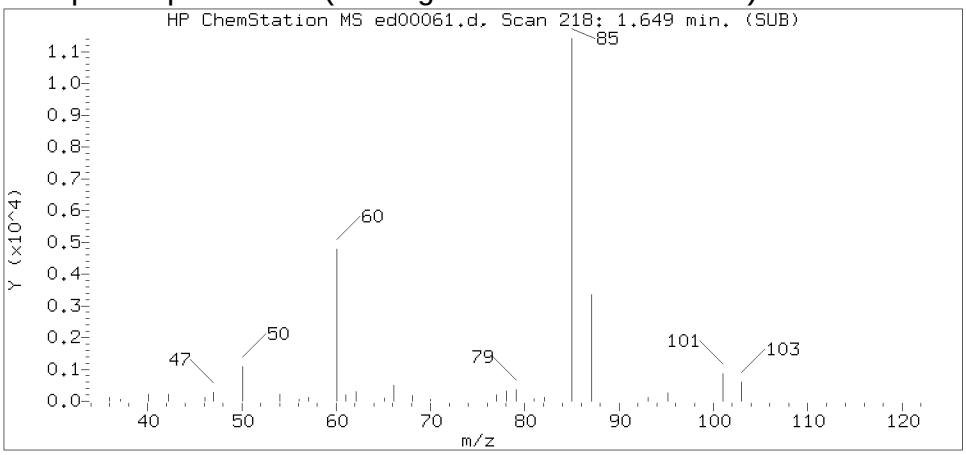
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

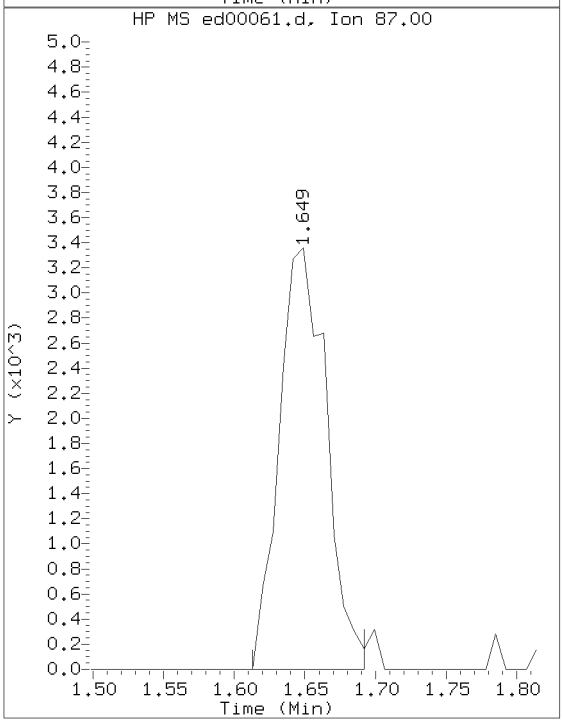
Reference Standard Spectrum for Dichlorodifluoromethane



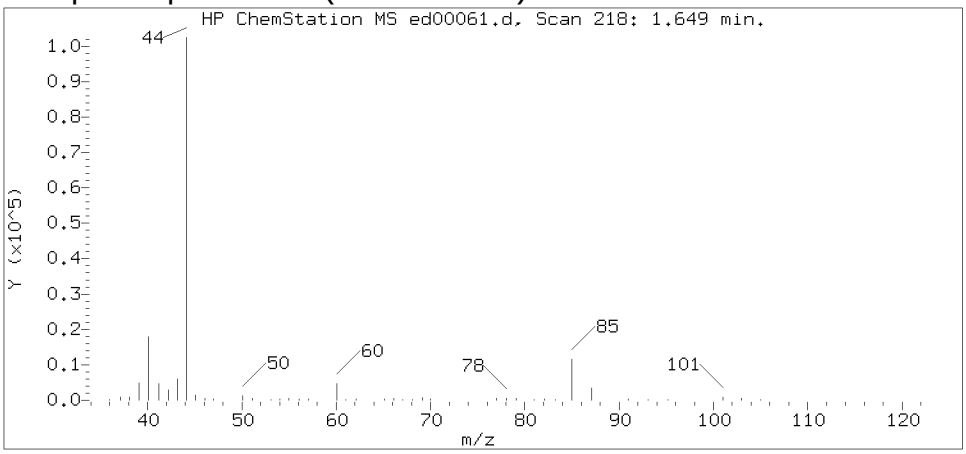


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 218
Retention Time (minutes): 1.649
Relative Retention Time :-0.00126
Quant Ion : 85.00
Area (flag) : 23991
Concentration (ppb(v)) : 0.4399

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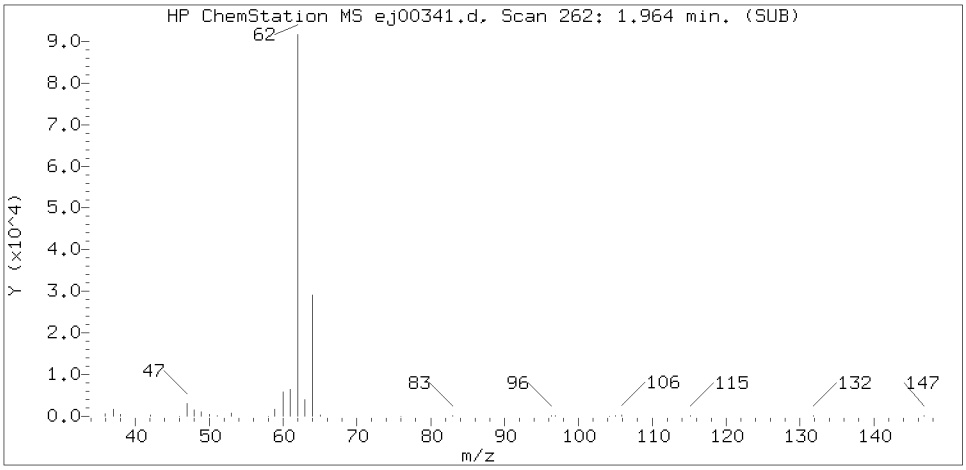
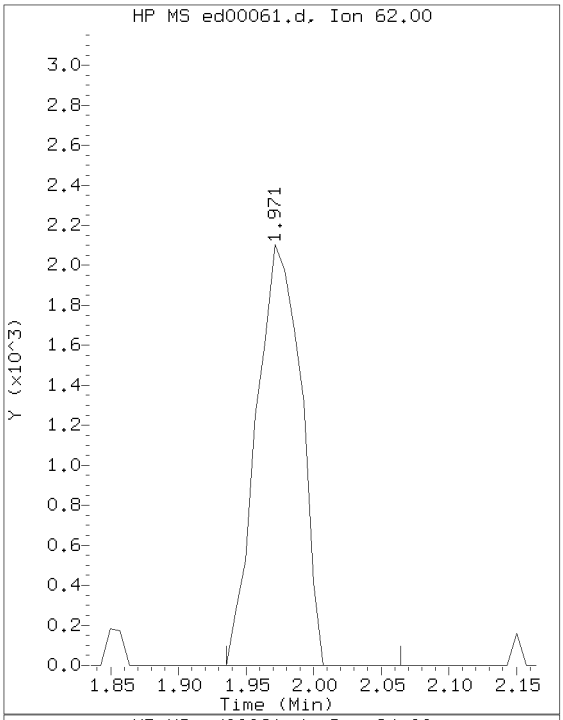
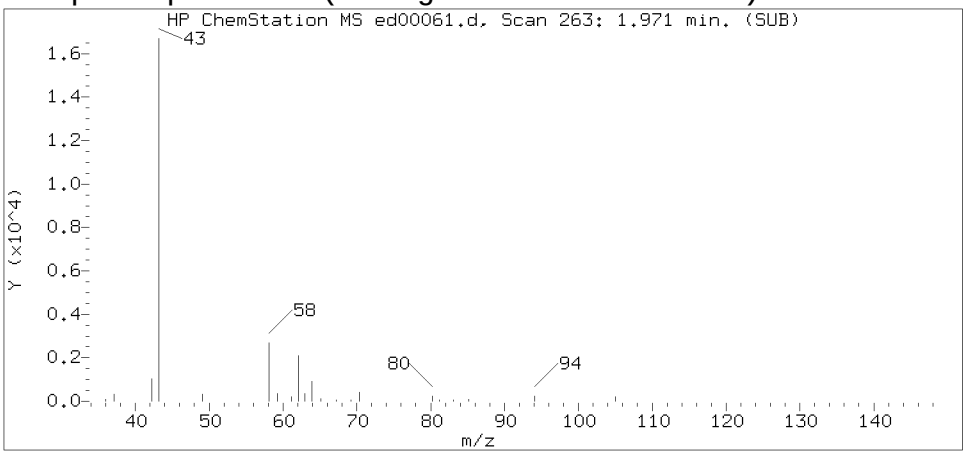
Target 3.5 esignature user ID: jeb07445

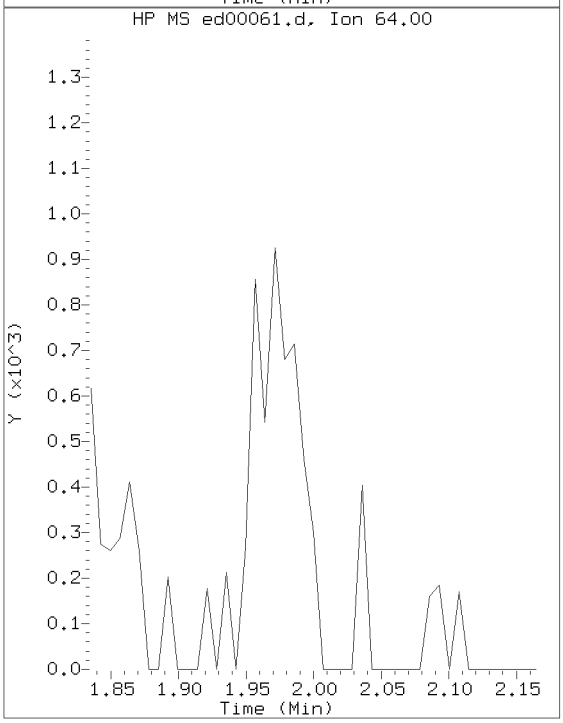
Reference Standard Spectrum for Vinyl Chloride



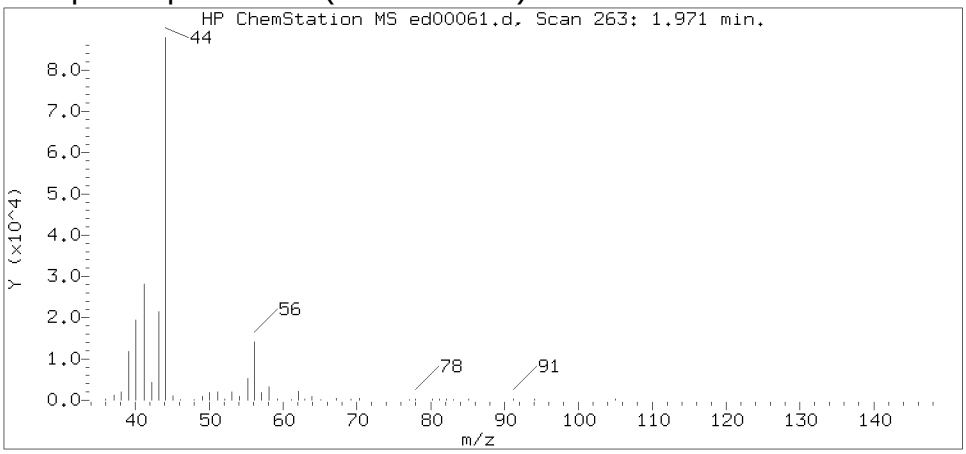


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 263
Retention Time (minutes): 1.971
Relative Retention Time :-0.00126
Quant Ion : 62.00
Area (flag) : 4788
Concentration (ppb(v)) : 0.2333

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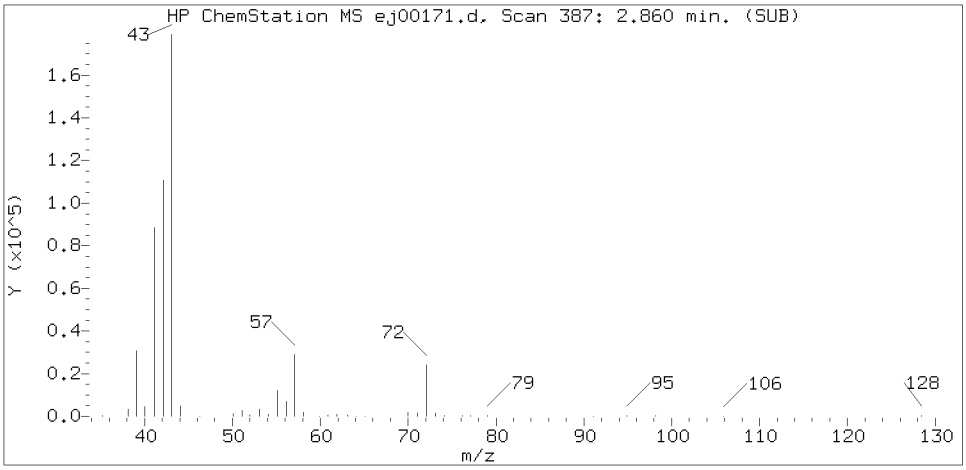
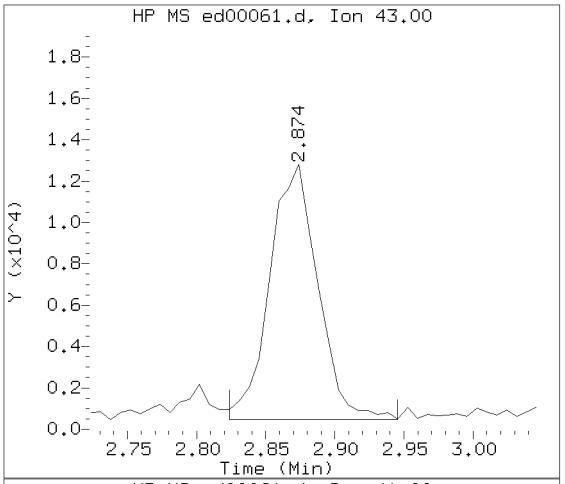
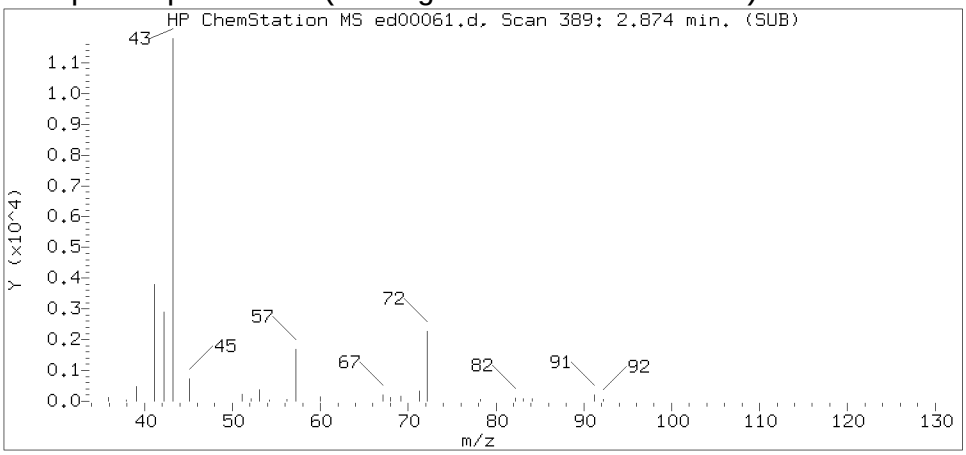
Target 3.5 esignature user ID: jeb07445

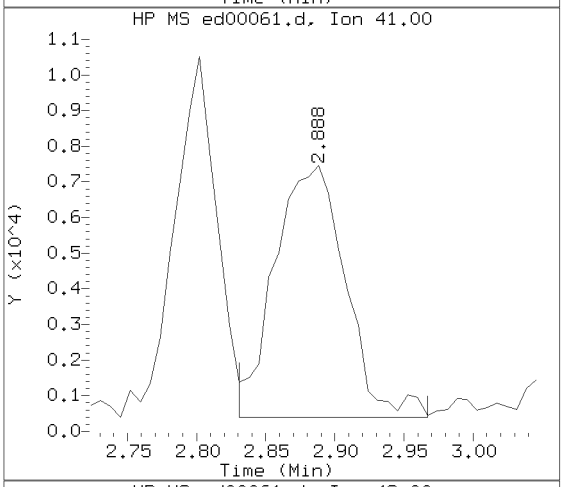
Reference Standard Spectrum for Pentane



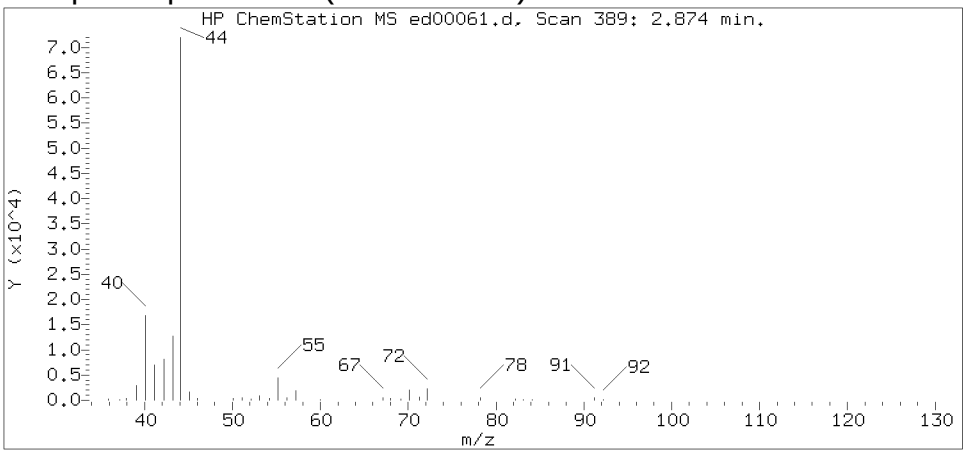


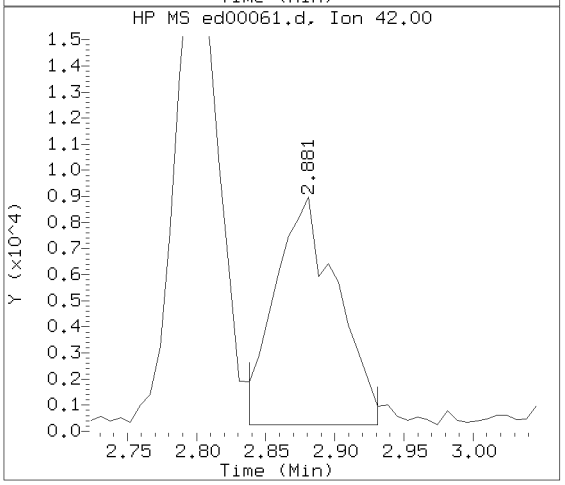
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

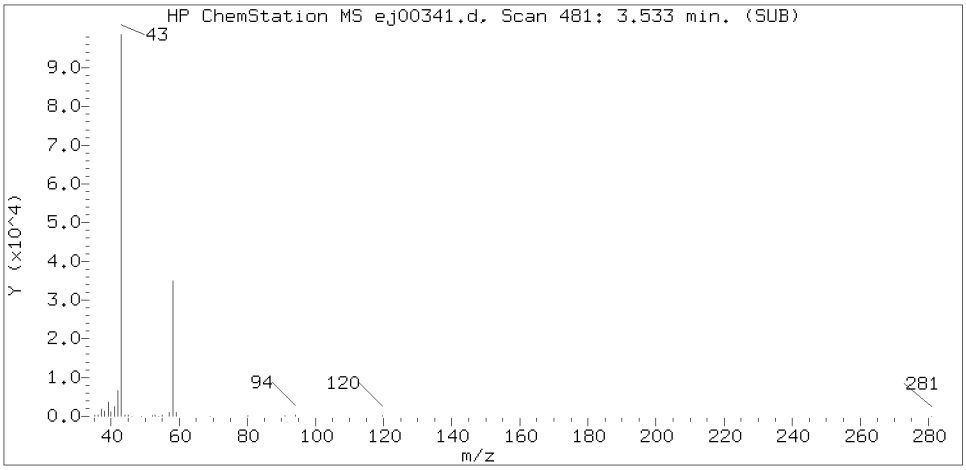
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

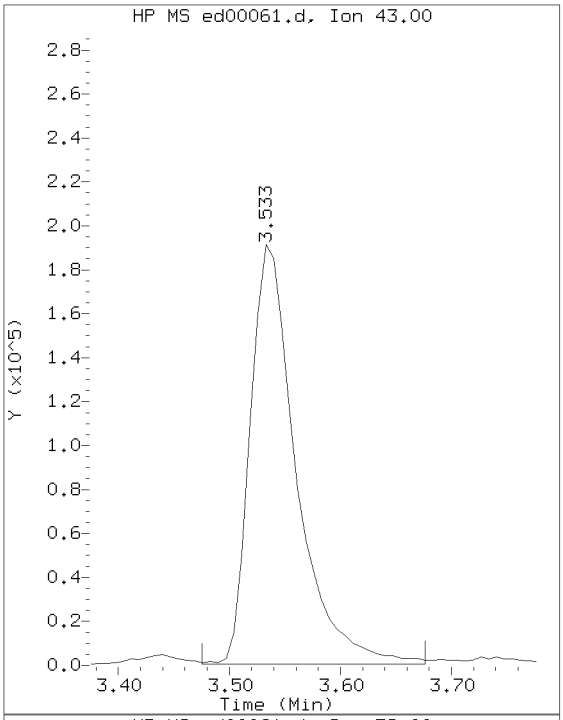
Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 13
Compound Name : Pentane
Scan Number : 389
Retention Time (minutes): 2.874
Relative Retention Time :-0.00128
Quant Ion : 43.00
Area (flag) : 29811
Concentration (ppb(v)) : 0.9715

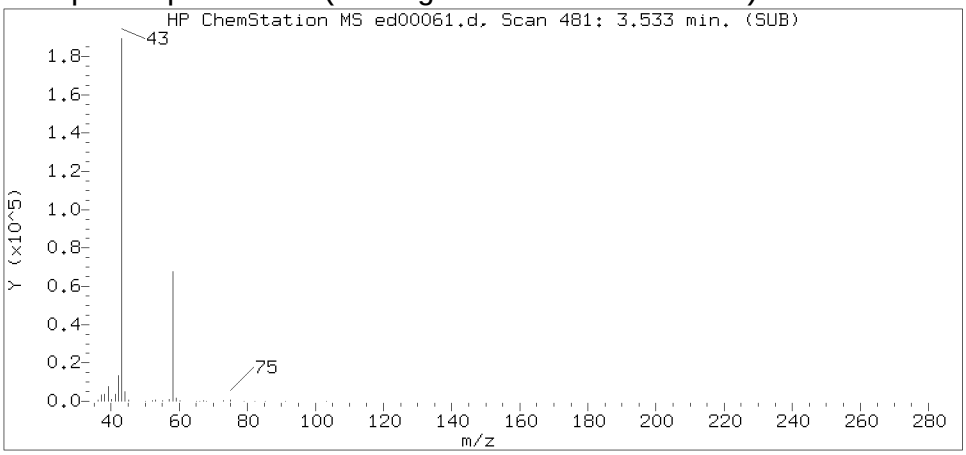
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

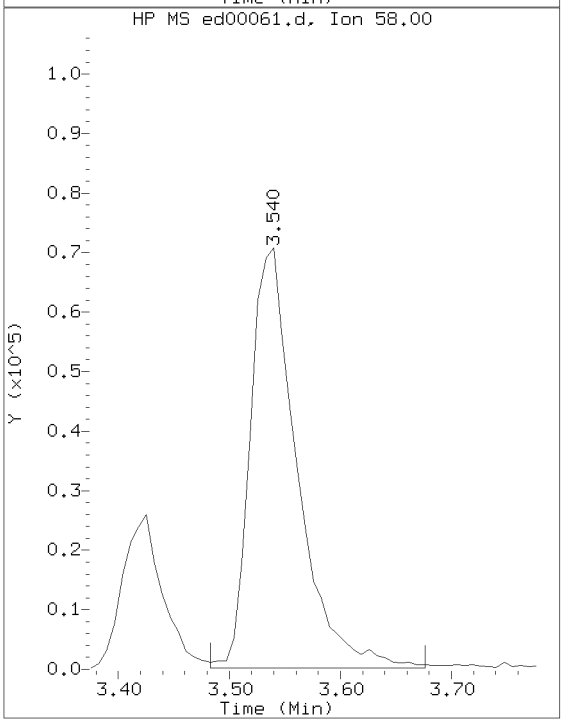
Reference Standard Spectrum for Acetone



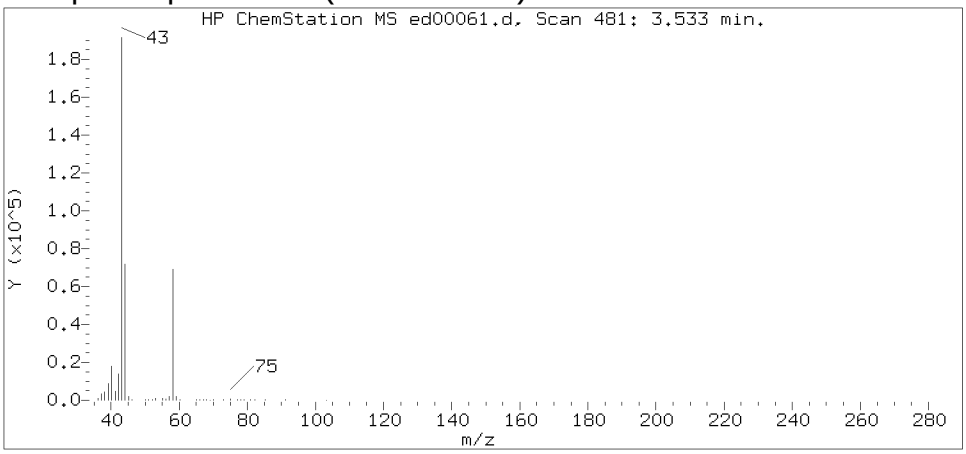


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Relative Retention Time :-0.00129
Quant Ion : 43.00
Area (flag) : 550014
Concentration (ppb(v)) : 22.3626

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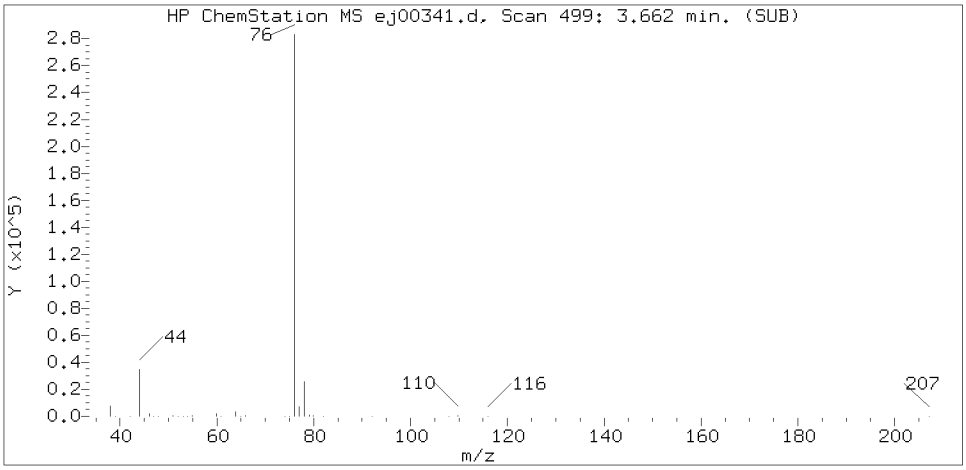
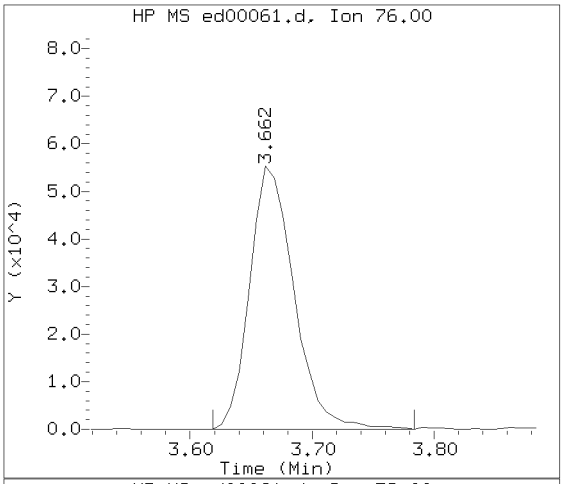
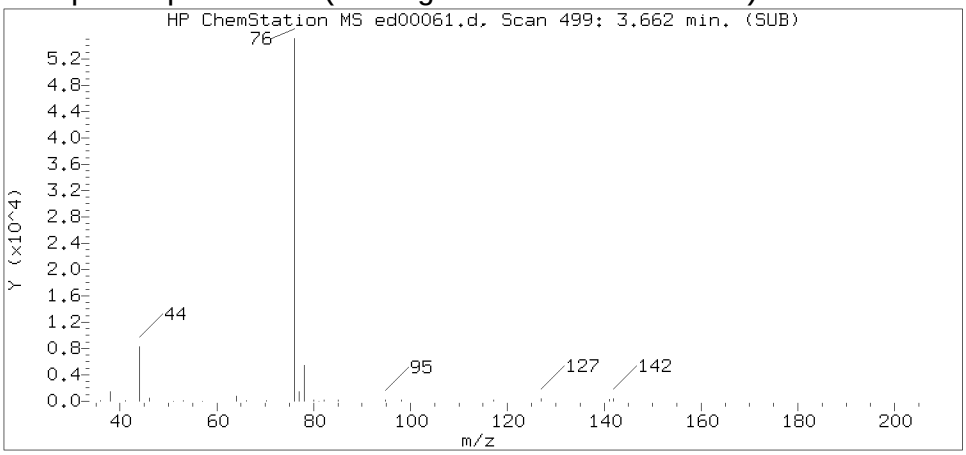
Target 3.5 esignature user ID: jeb07445

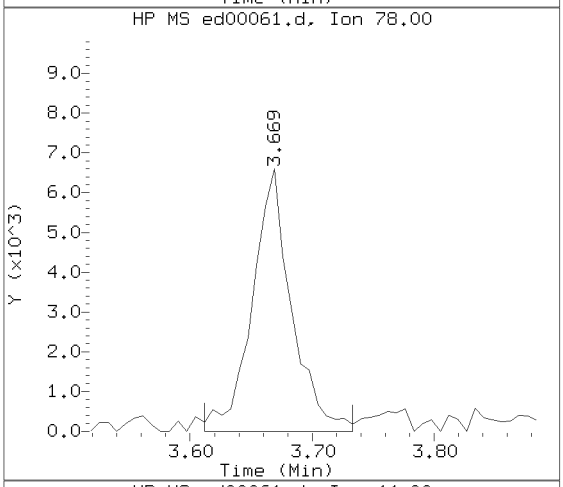
Reference Standard Spectrum for Carbon Disulfide



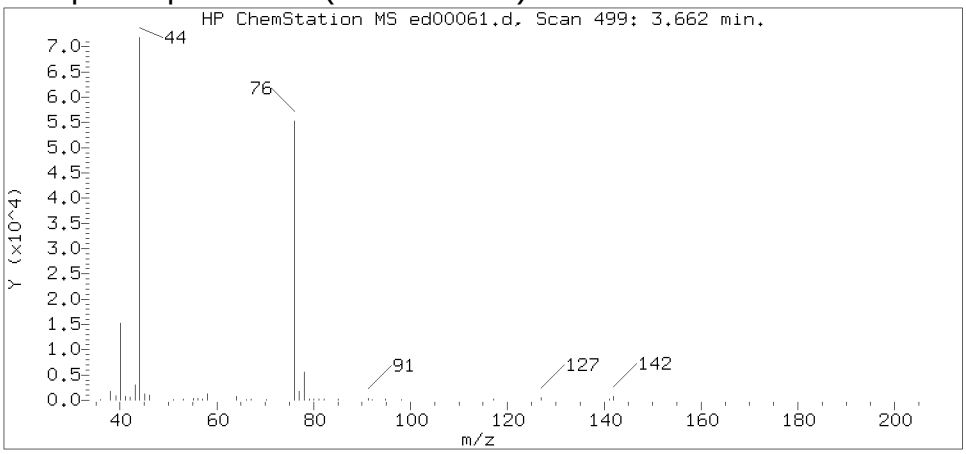


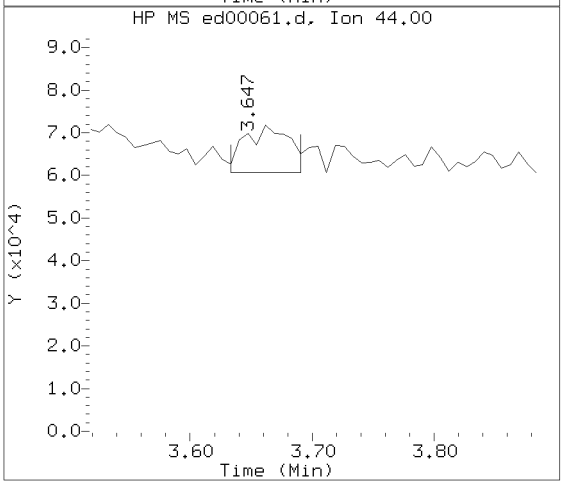
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 21
Compound Name : Carbon Disulfide
Scan Number : 499
Retention Time (minutes): 3.662
Relative Retention Time :-0.00129
Quant Ion : 76.00
Area (flag) : 139653
Concentration (ppb(v)) : 2.2219

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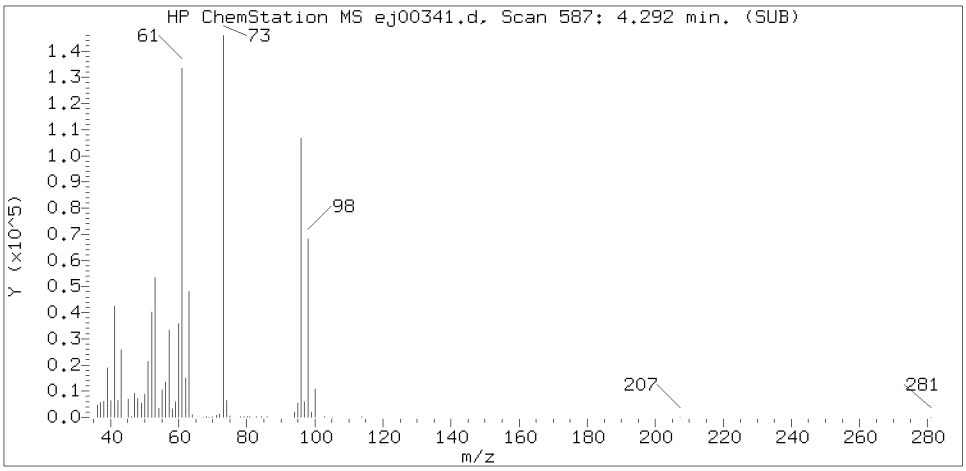
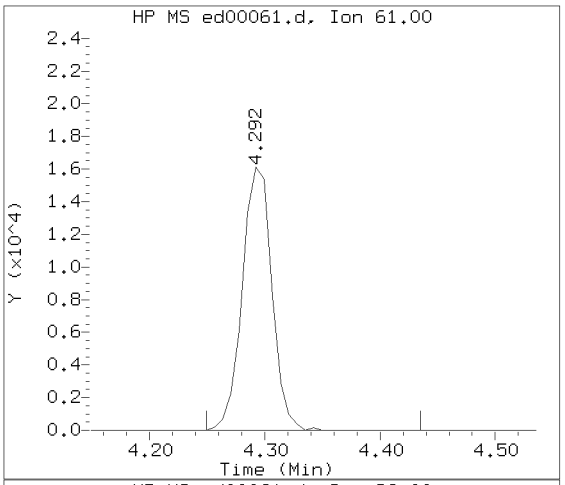
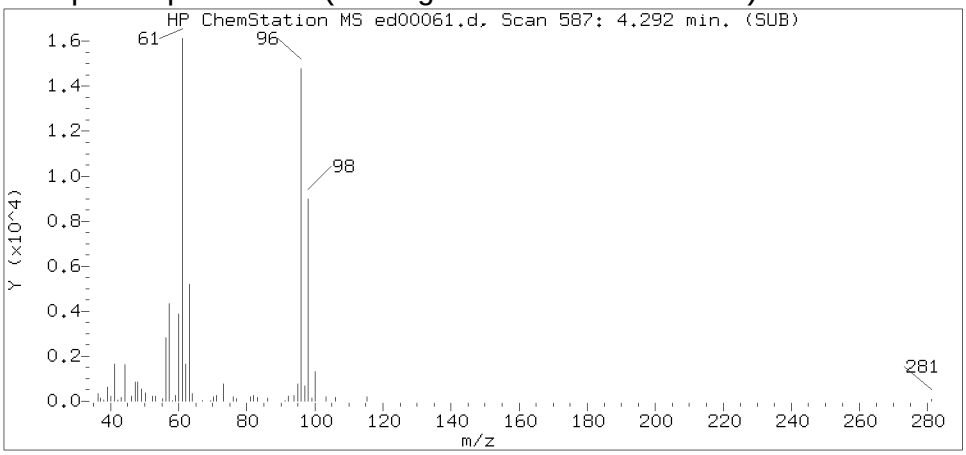
Target 3.5 esignature user ID: jeb07445

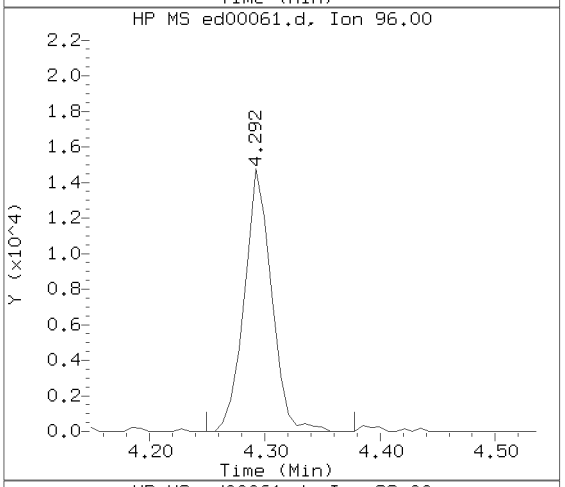
Reference Standard Spectrum for trans-1,2-Dichloroethene



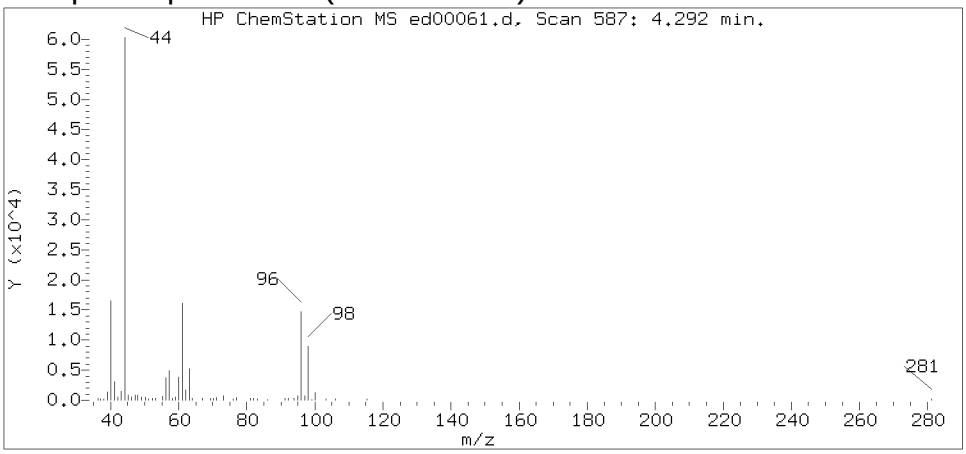


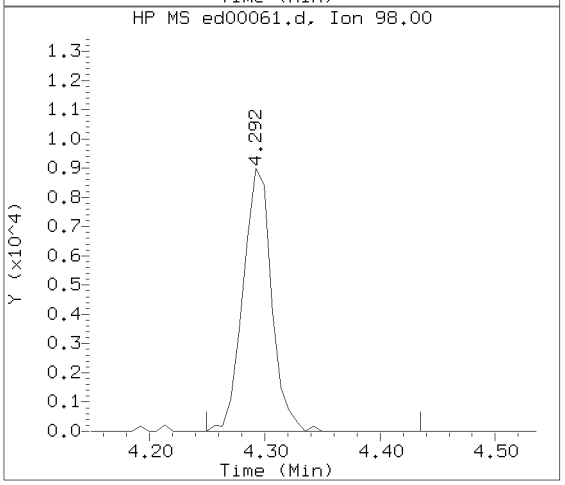
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 587
Retention Time (minutes): 4.292
Relative Retention Time : 0.00001
Quant Ion : 61.00
Area (flag) : 28672
Concentration (ppb(v)) : 0.9743

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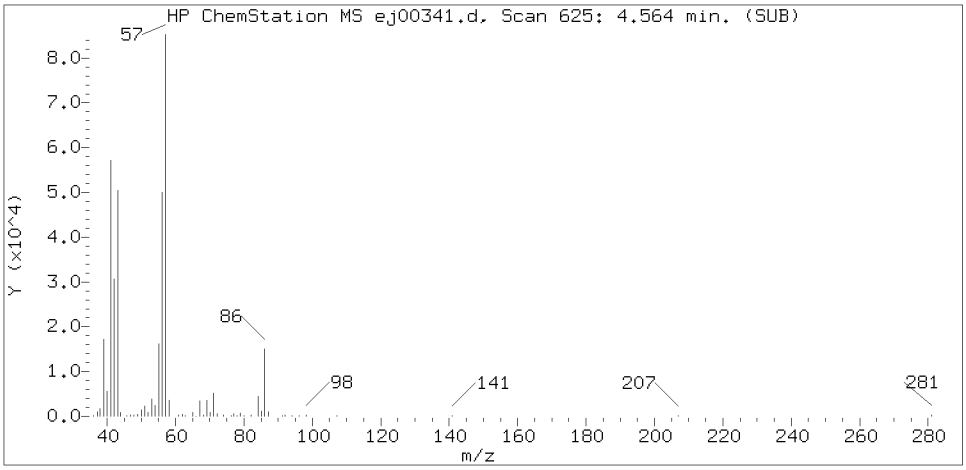
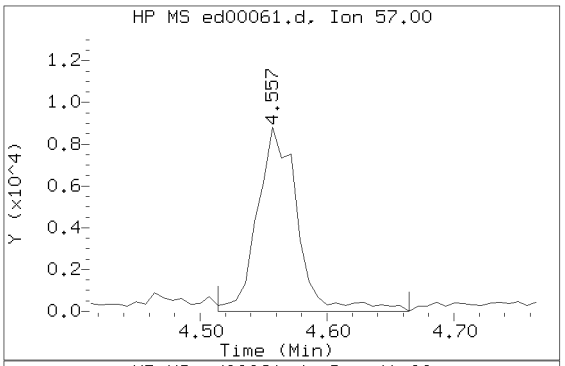
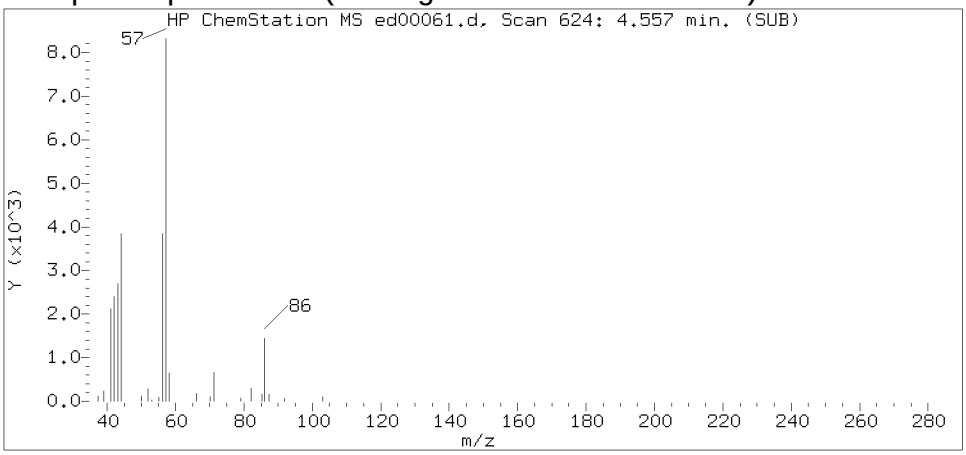
Target 3.5 esignature user ID: jeb07445

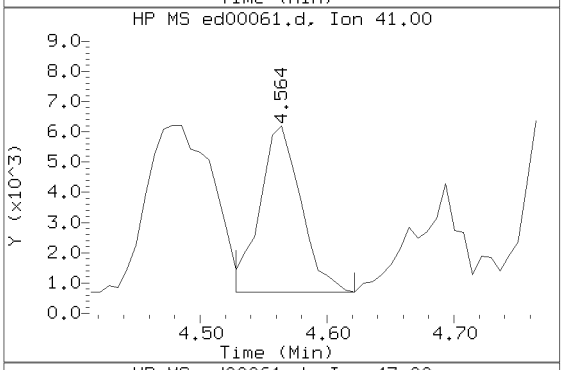
Reference Standard Spectrum for Hexane

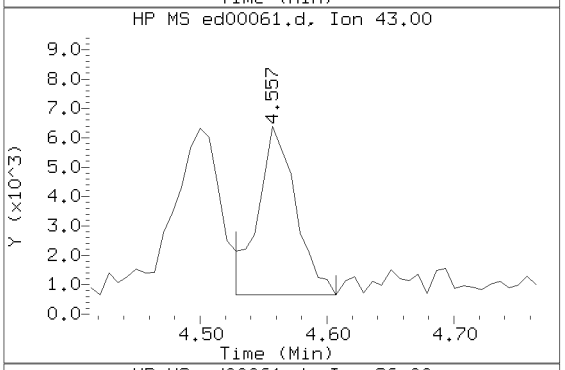




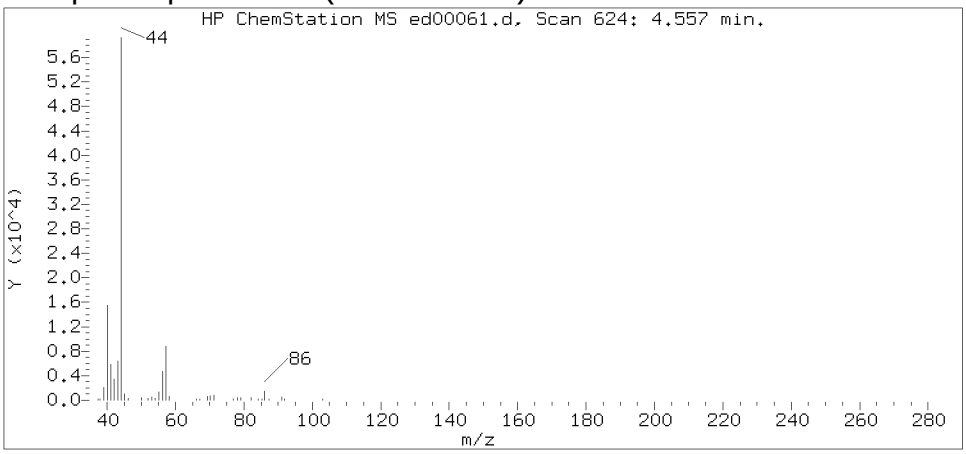
Sample Spectrum (Background Subtracted)

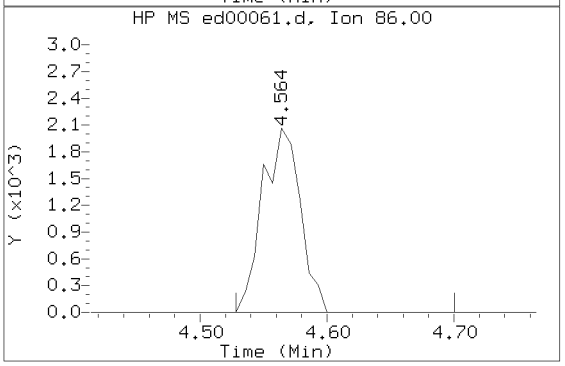






Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Relative Retention Time : 0.00001
Quant Ion : 57.00
Area (flag) : 19328
Concentration (ppb(v)) : 0.6066

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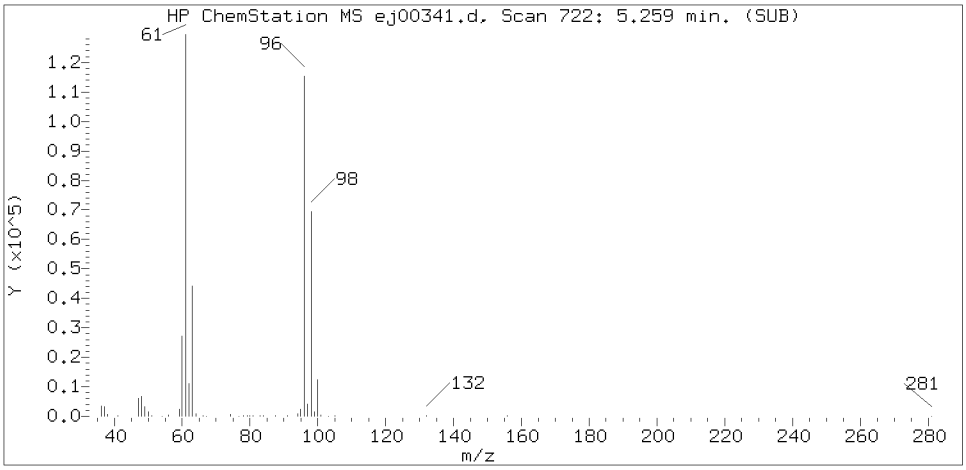
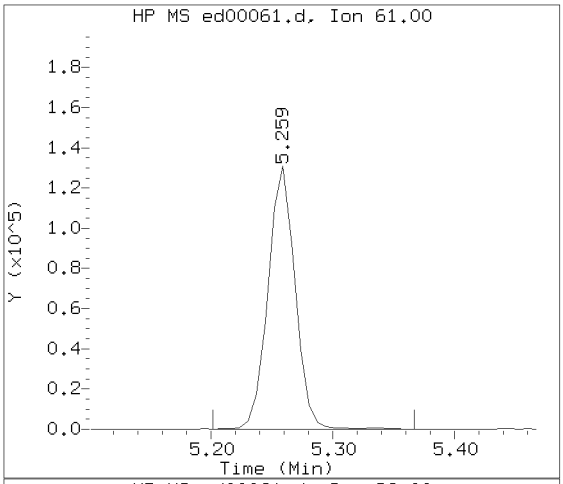
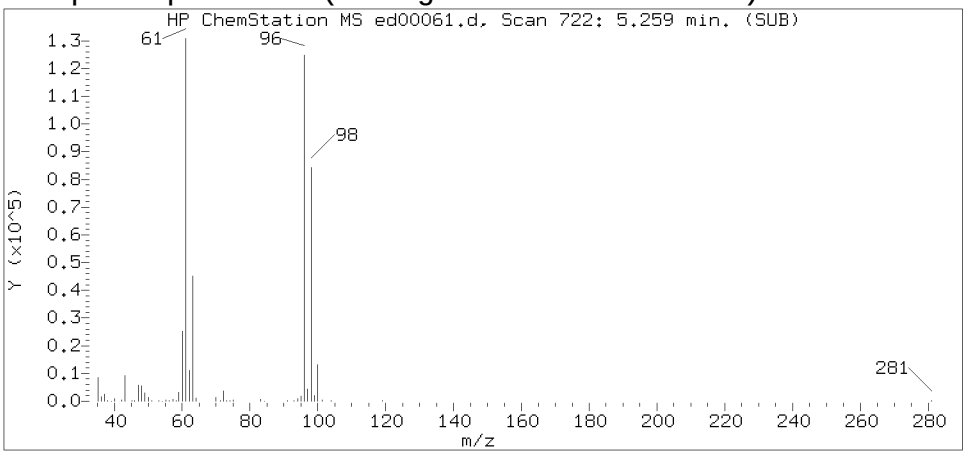
Target 3.5 esignature user ID: jeb07445

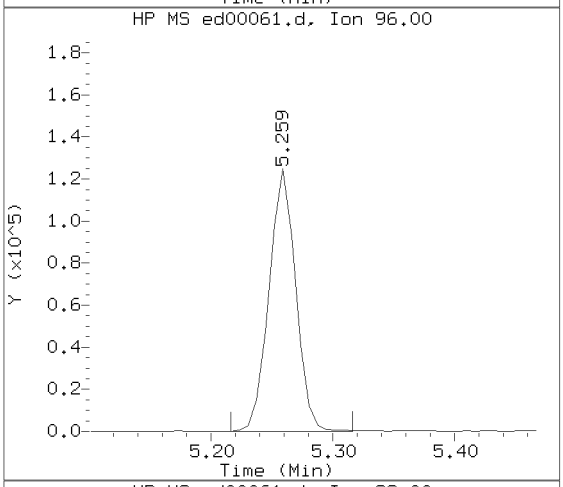
Reference Standard Spectrum for cis-1,2-Dichloroethene



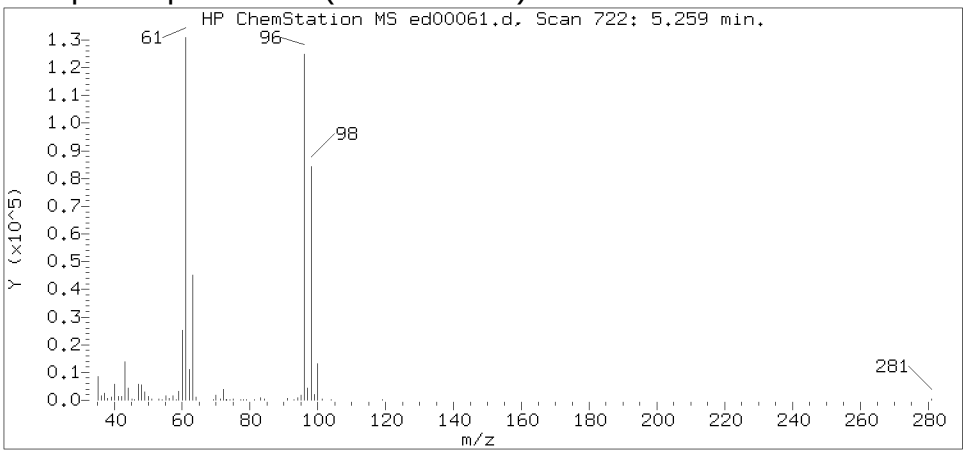


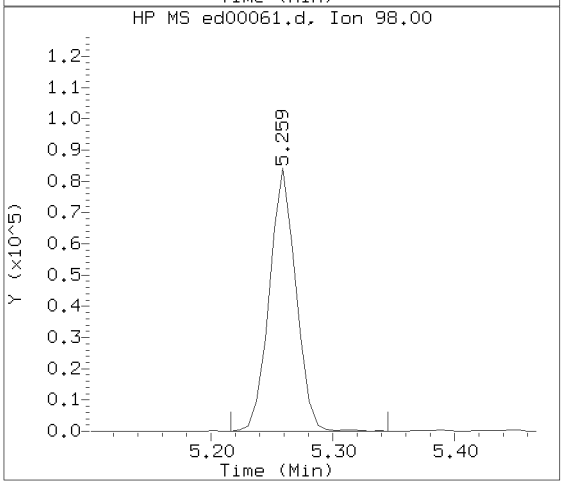
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time : 0.00000
Quant Ion : 61.00
Area (flag) : 201623
Concentration (ppb(v)) : 7.1884

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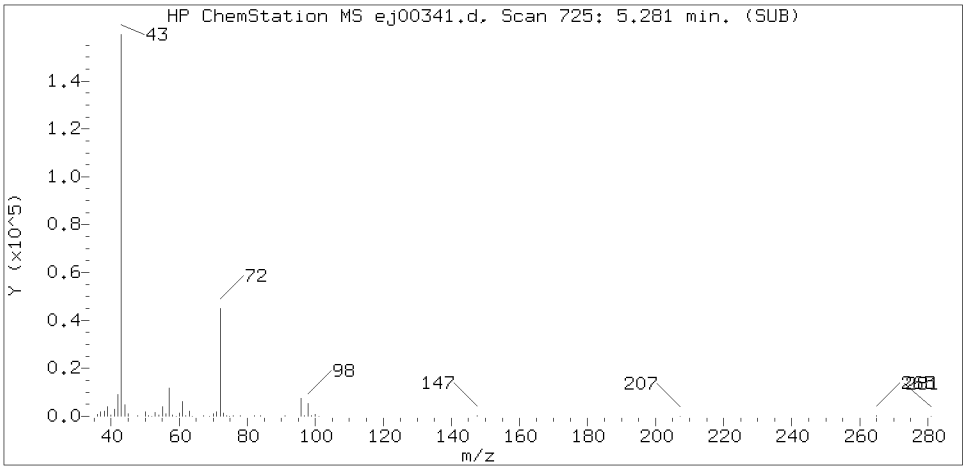
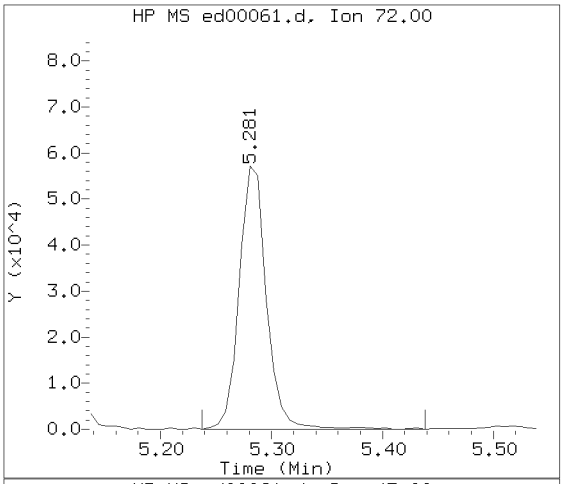
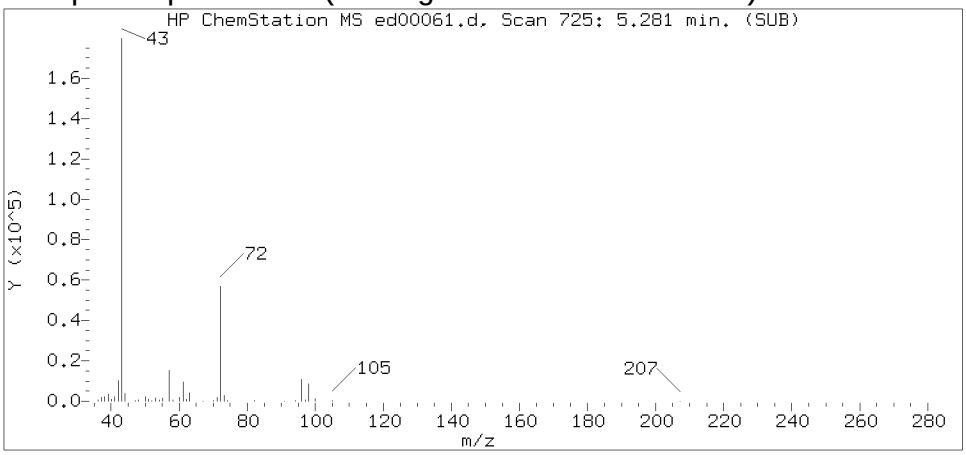
Target 3.5 esignature user ID: jeb07445

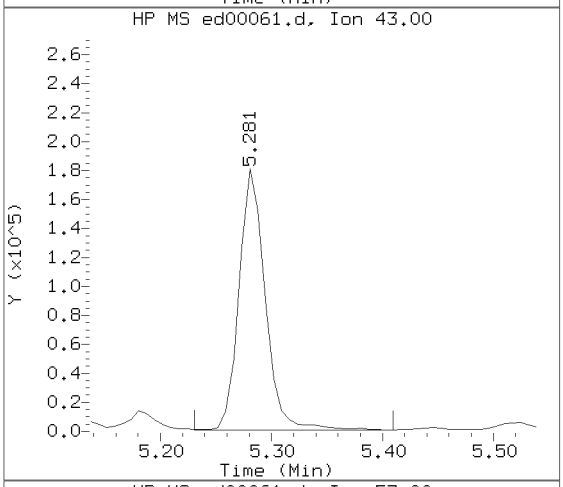
Reference Standard Spectrum for 2-Butanone



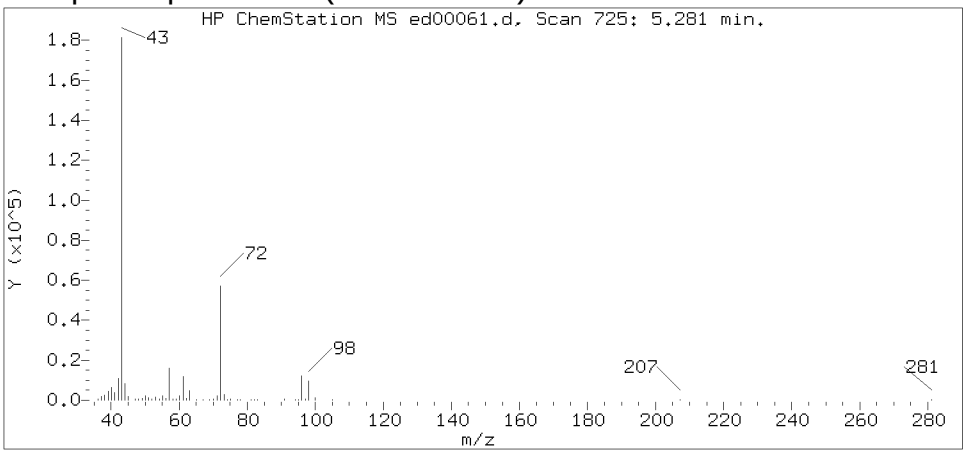


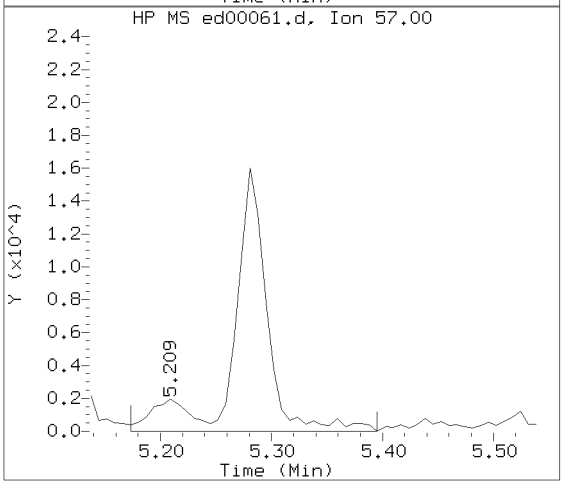
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time : 0.00000
Quant Ion : 72.00
Area (flag) : 97490
Concentration (ppb(v)) : 8.6588

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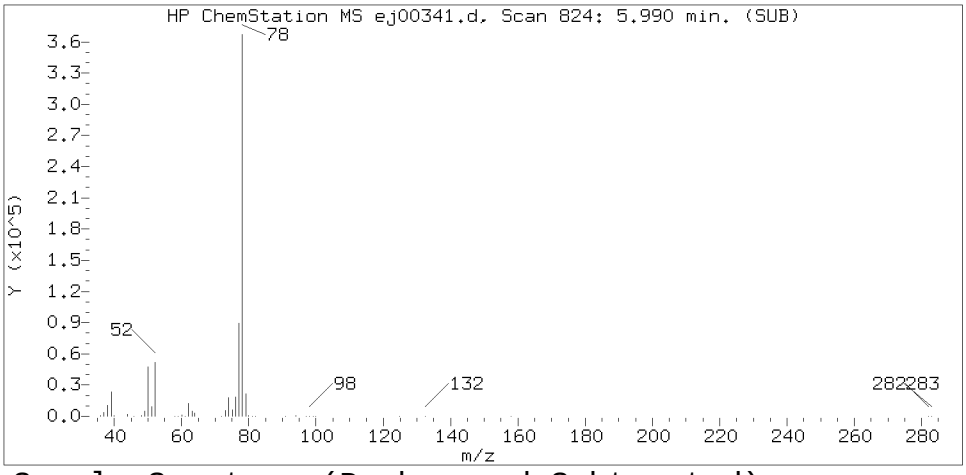
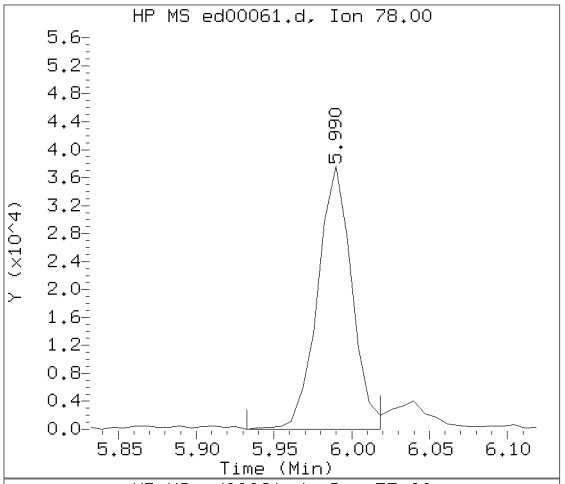
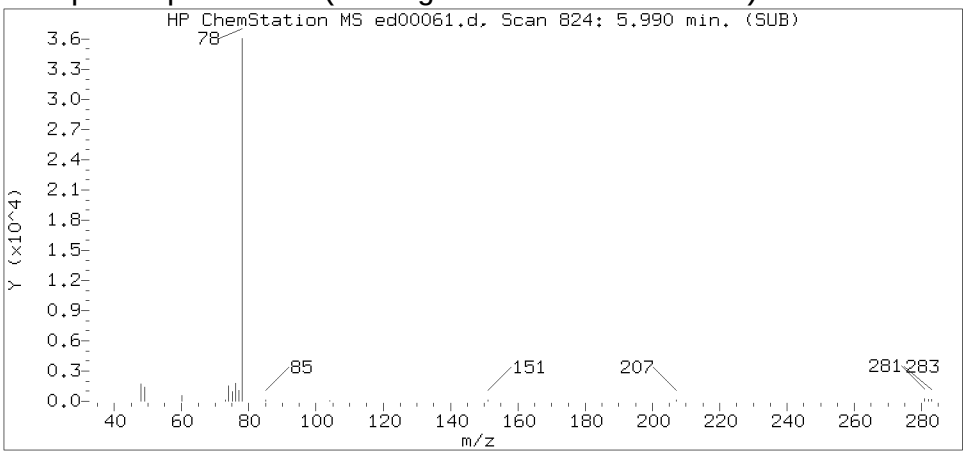
Target 3.5 esignature user ID: jeb07445

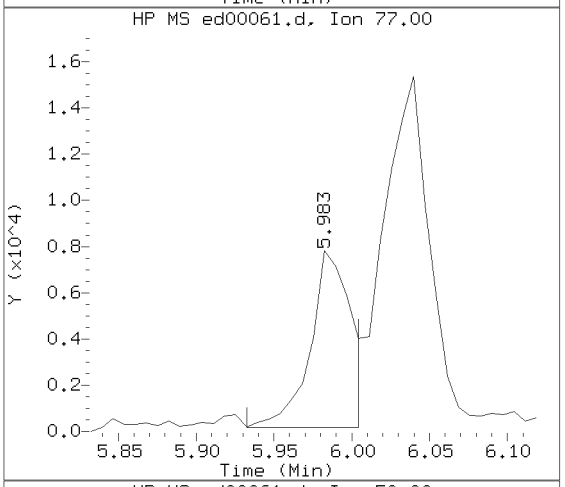
Reference Standard Spectrum for Benzene



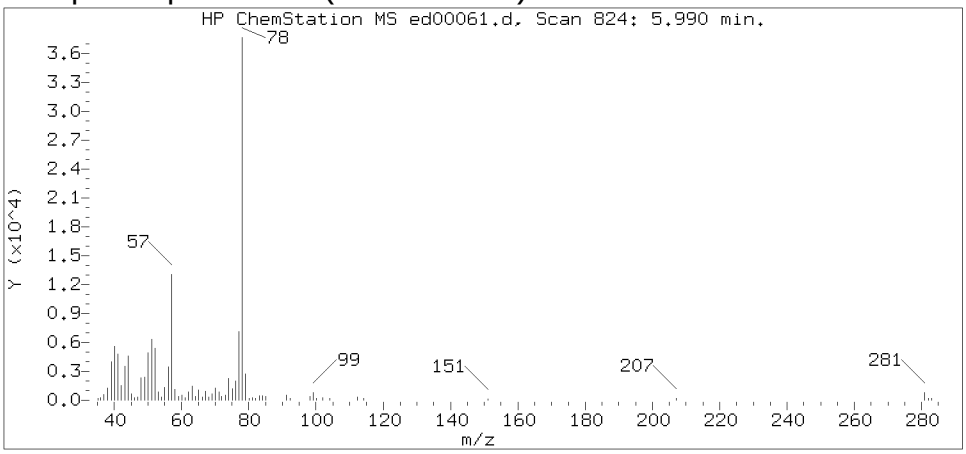


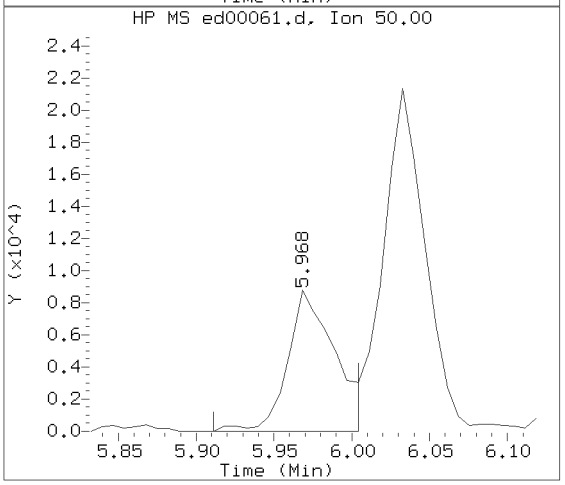
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time : 0.00000
Quant Ion : 78.00
Area (flag) : 57126
Concentration (ppb(v)) : 0.6858

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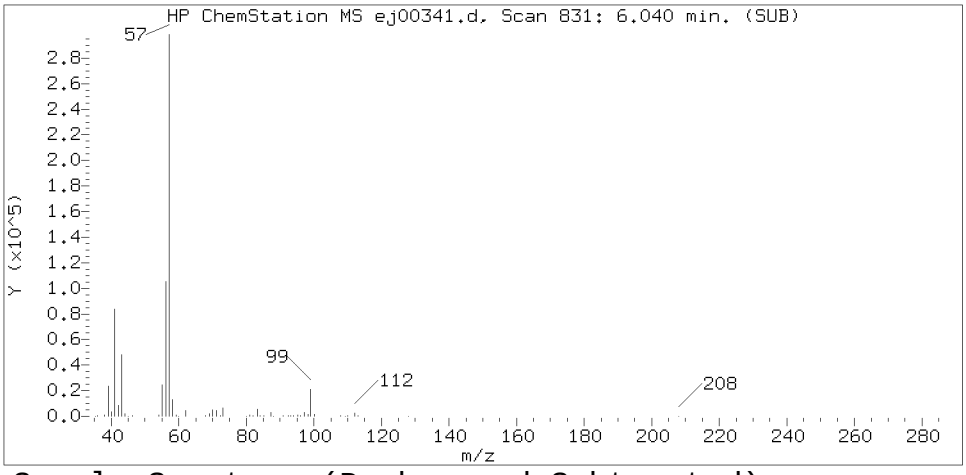
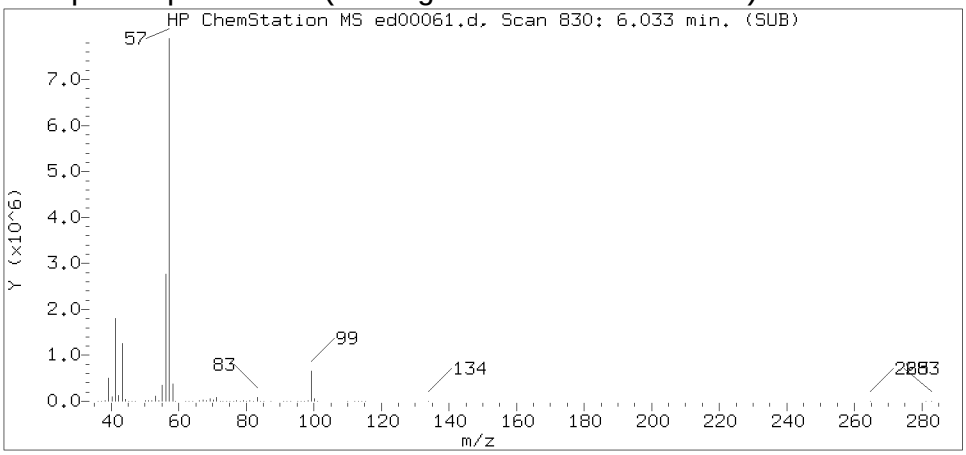
Target 3.5 esignature user ID: jeb07445

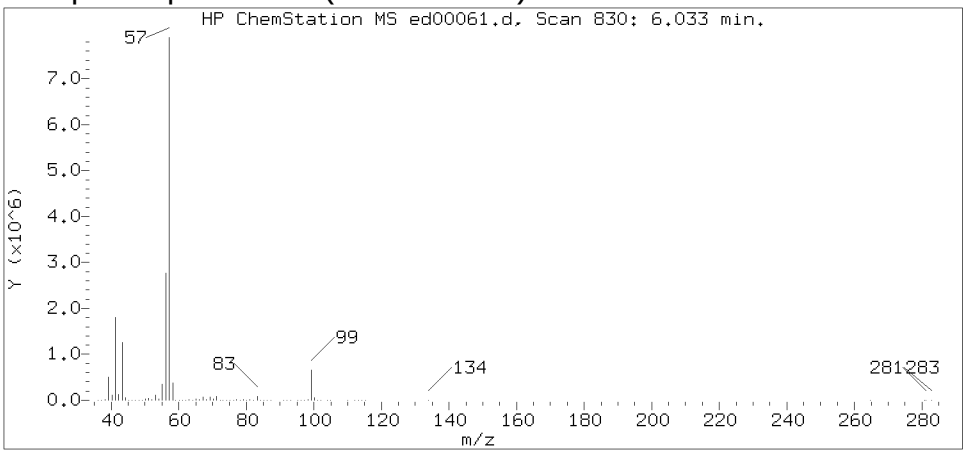
Reference Standard Spectrum for Isooctane

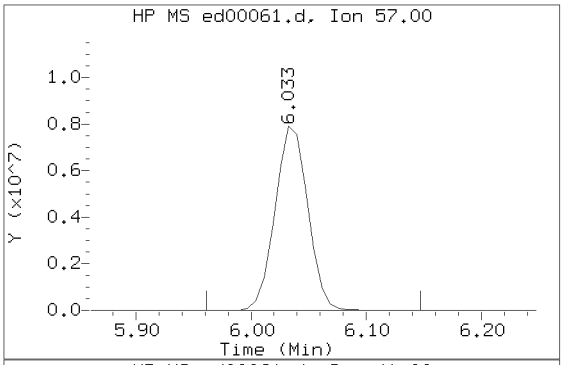


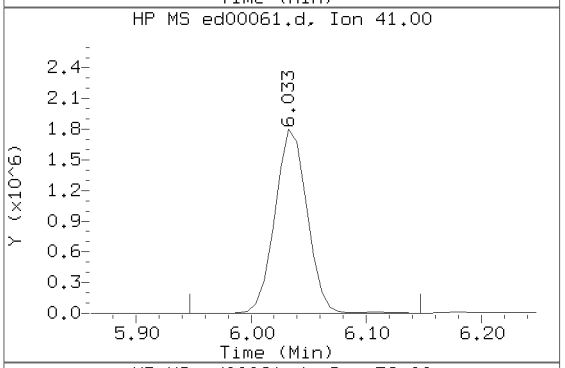
Sample Spectrum (Background Subtracted)

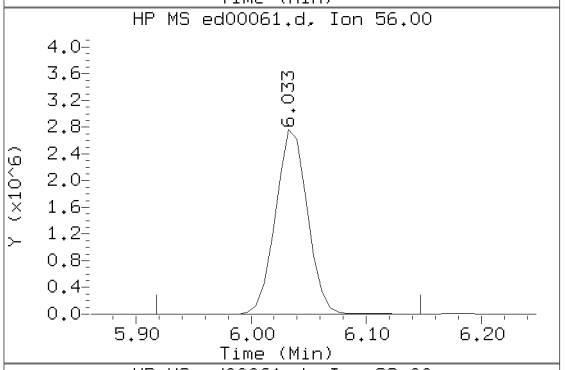


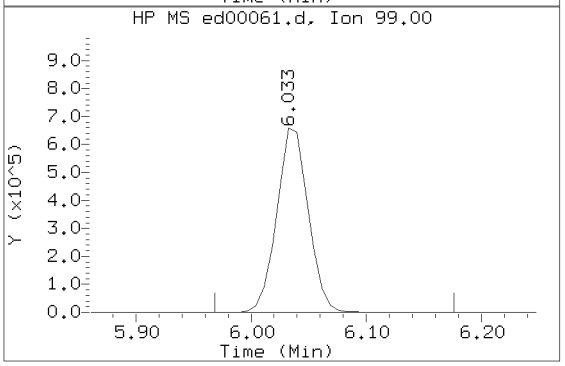
Sample Spectrum (Unaltered)











Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 48
Compound Name : Isooctane
Scan Number : 830
Retention Time (minutes): 6.033
Relative Retention Time : 0.00114
Quant Ion : 57.00
Area (flag) : 15707465
Concentration (ppb(v)) : 137.0541

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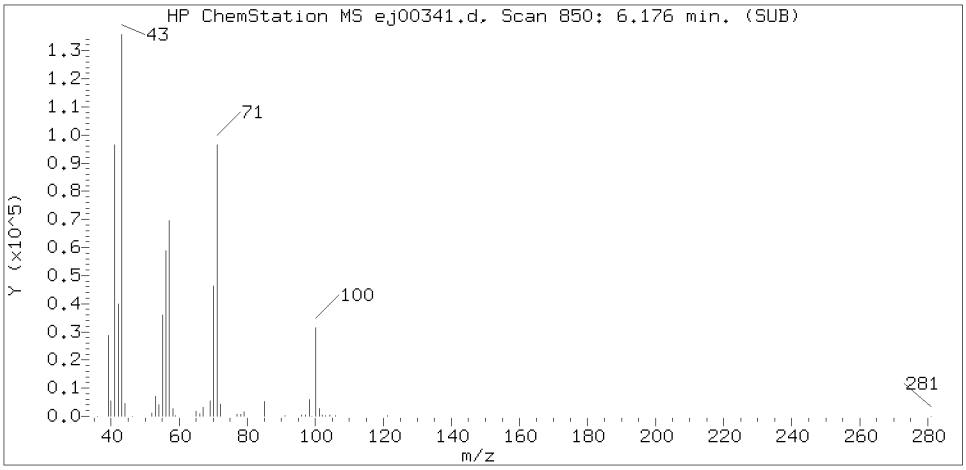
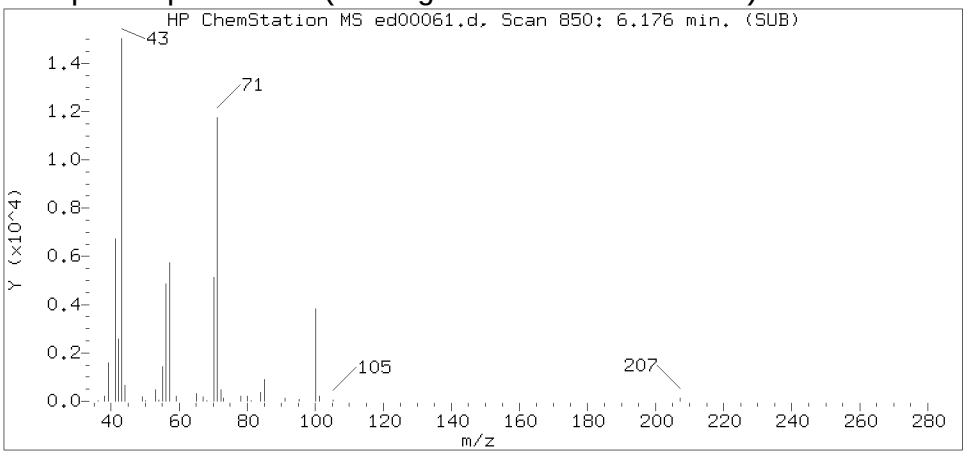
Target 3.5 esignature user ID: jeb07445

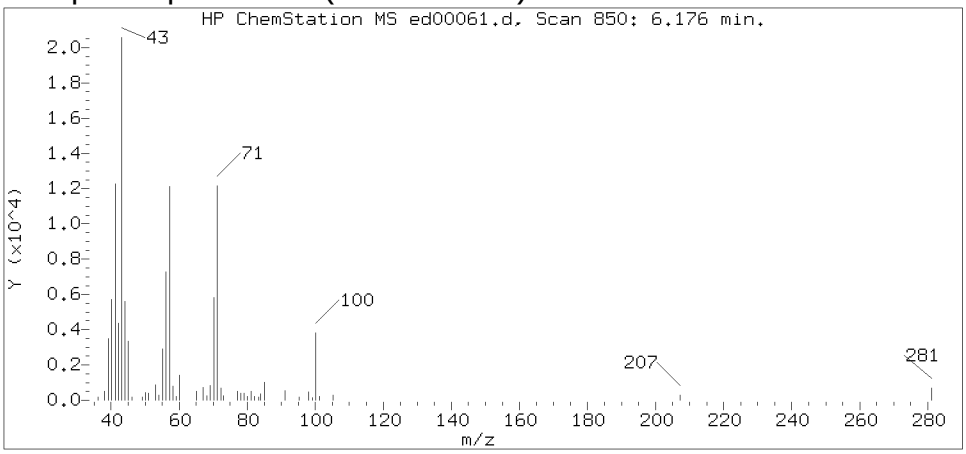
Reference Standard Spectrum for Heptane

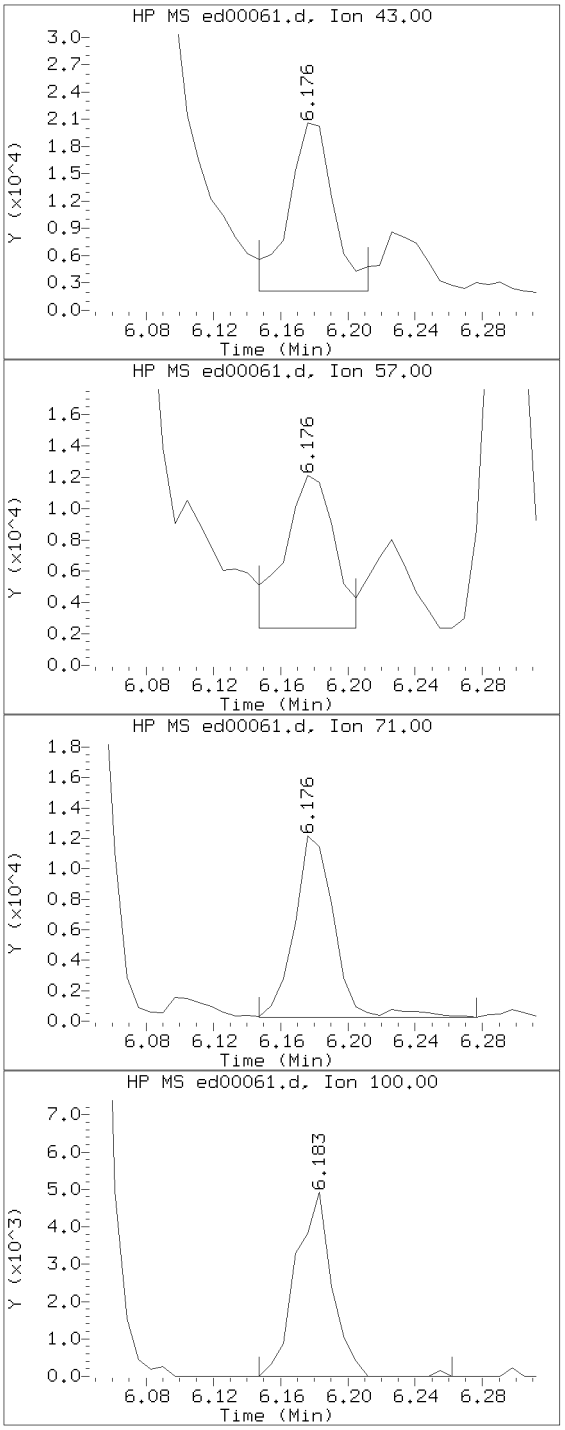


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

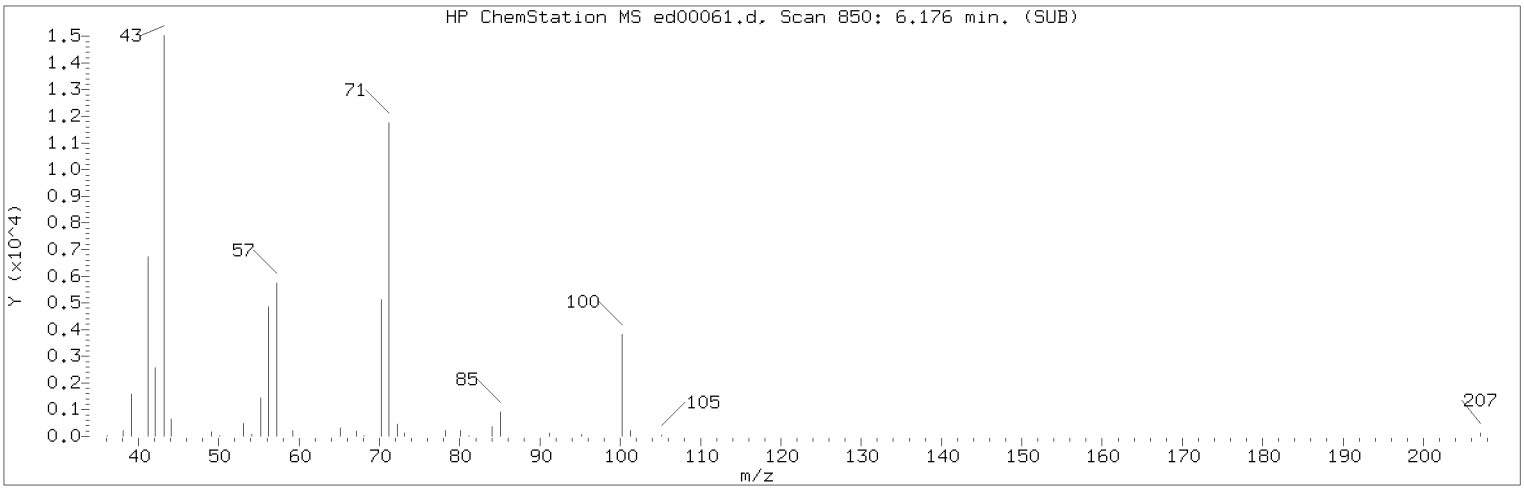
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

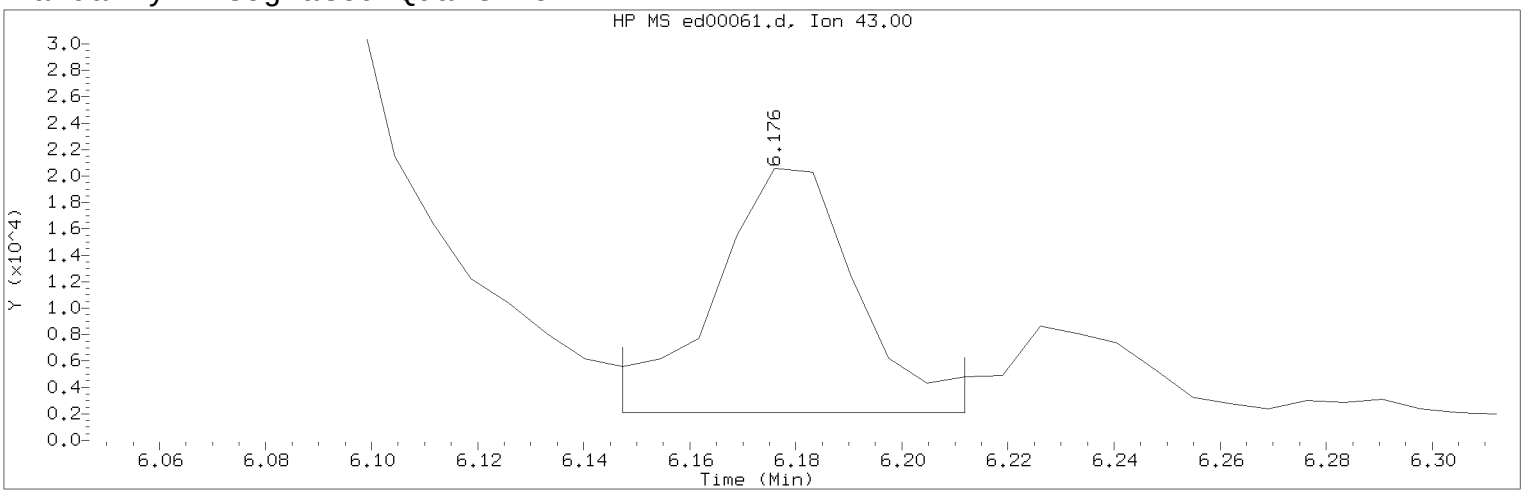
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 35547M
Concentration (ppb(v)) : 0.9367

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

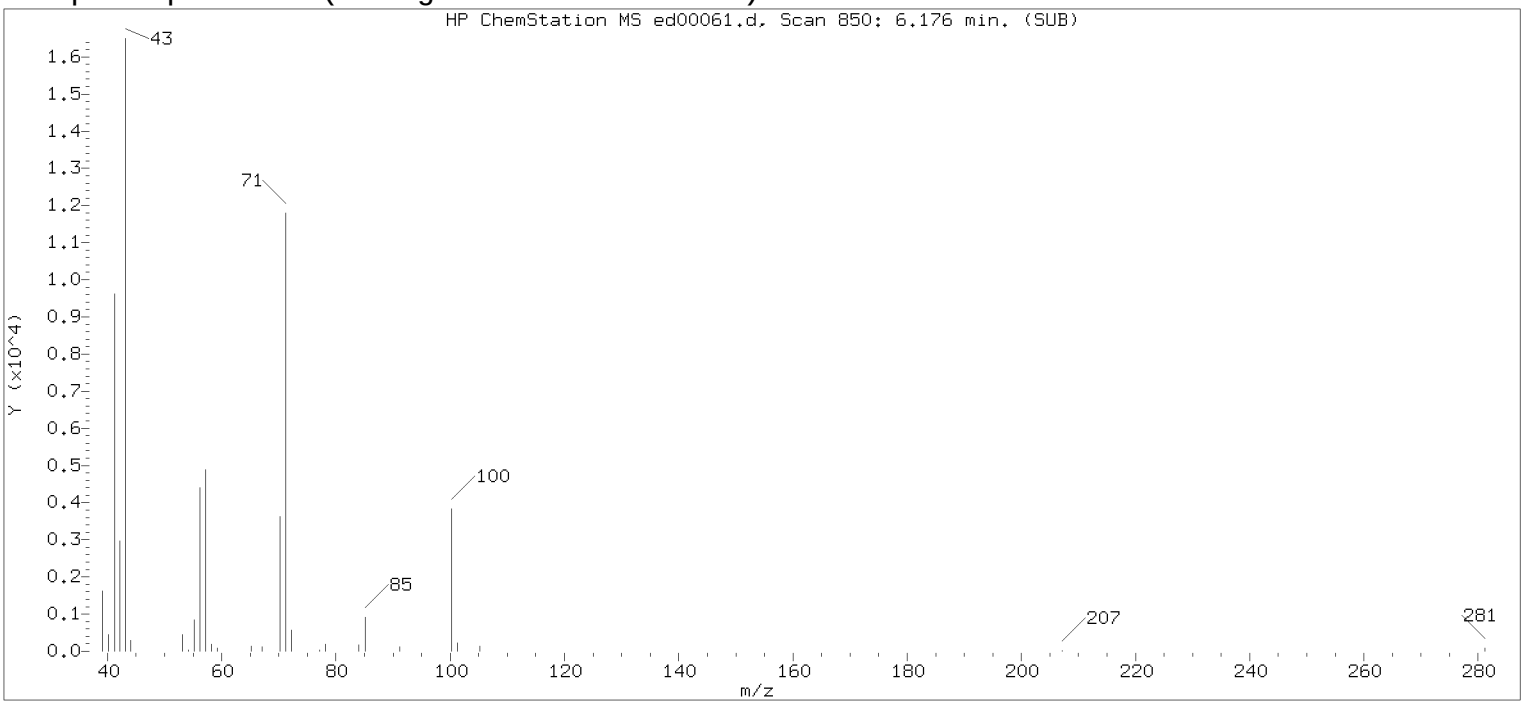
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 35547M
Concentration (ppb(v)) : 0.9367
Integration start scan : 845 Integration stop scan: 854
Y at integration start : 2093 Y at integration end: 2093

Reason for manual integration: improper integration

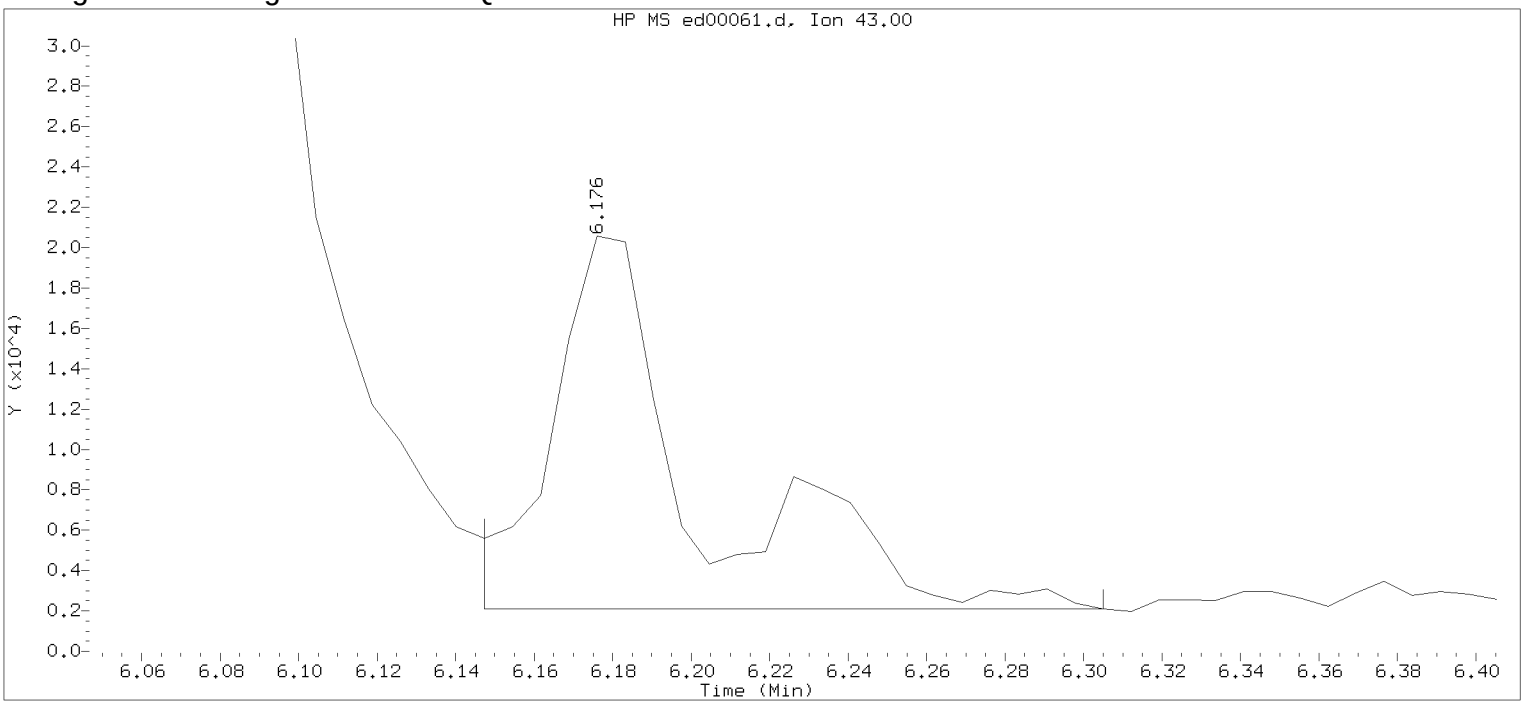
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

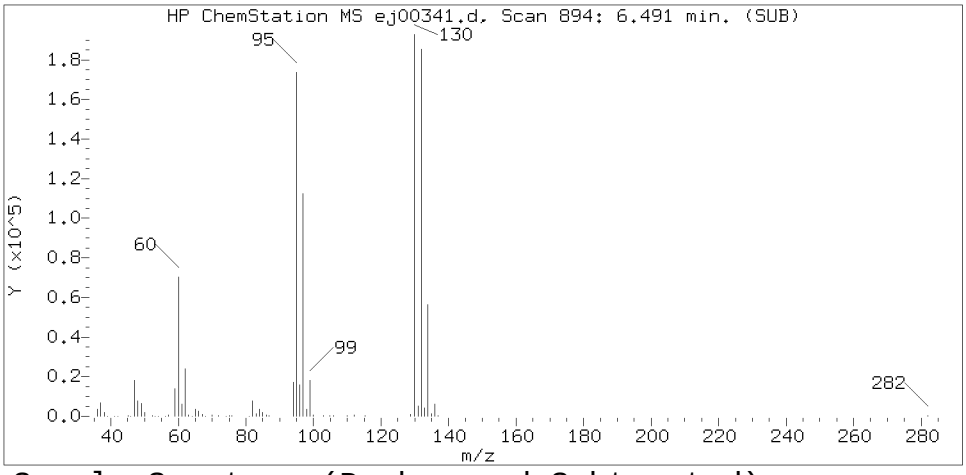
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:49 Unknown

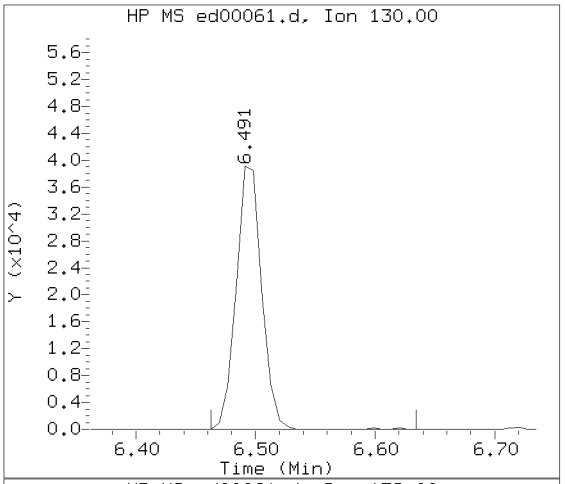
Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 47266
Concentration (ppb(v)) : 1.2455
Integration start scan : 845 Integration stop scan: 867
Y at integration start : 2093 Y at integration end: 2093

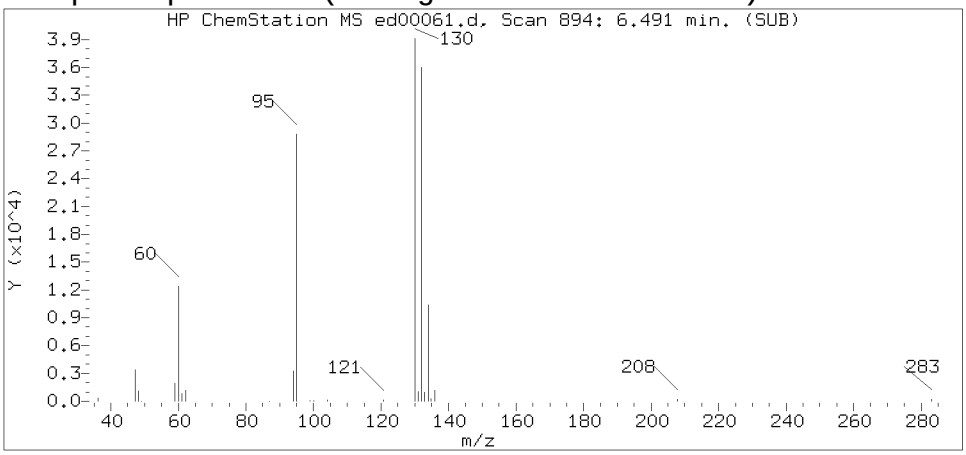
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

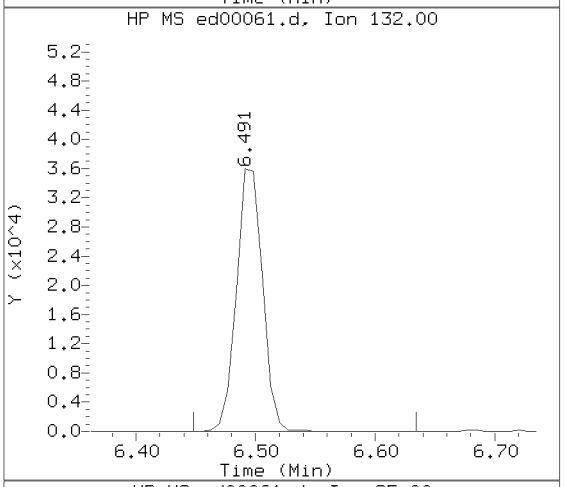
Reference Standard Spectrum for Trichloroethene



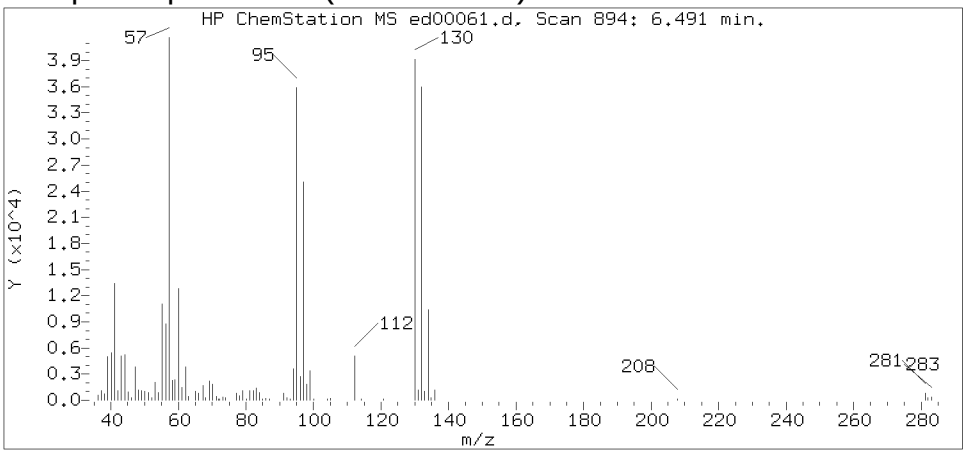


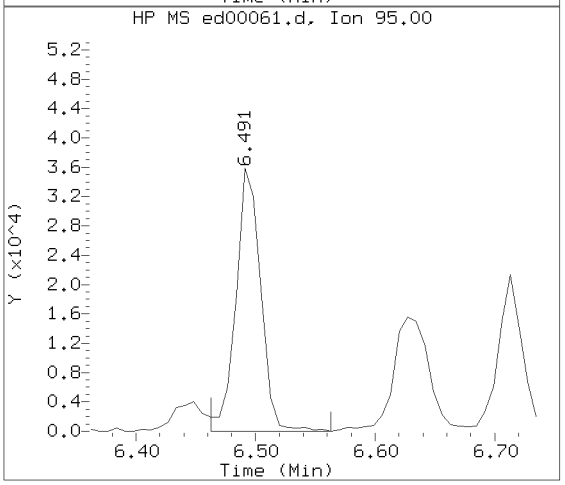
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 52
Compound Name : Trichloroethene
Scan Number : 894
Retention Time (minutes): 6.491
Relative Retention Time :-0.00000
Quant Ion : 130.00
Area (flag) : 57991
Concentration (ppb(v)) : 1.3509

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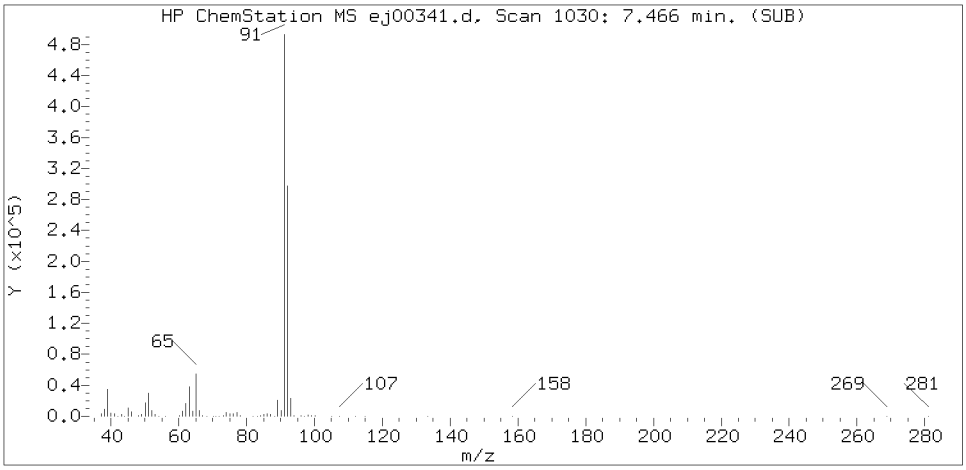
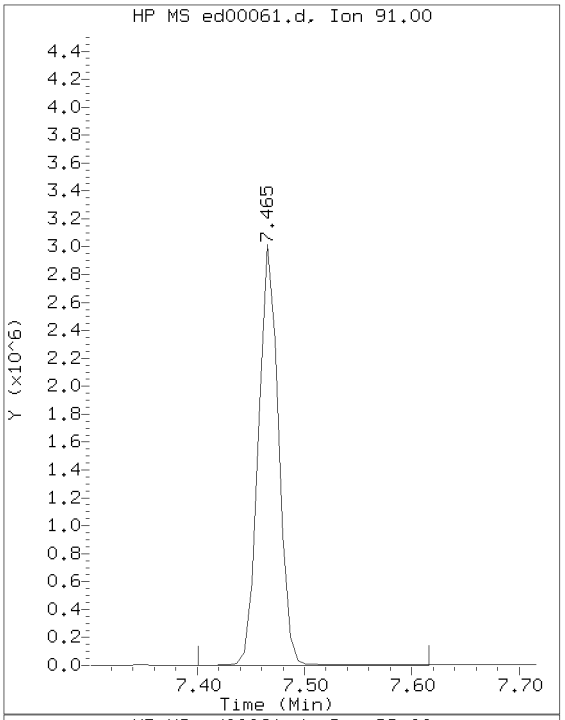
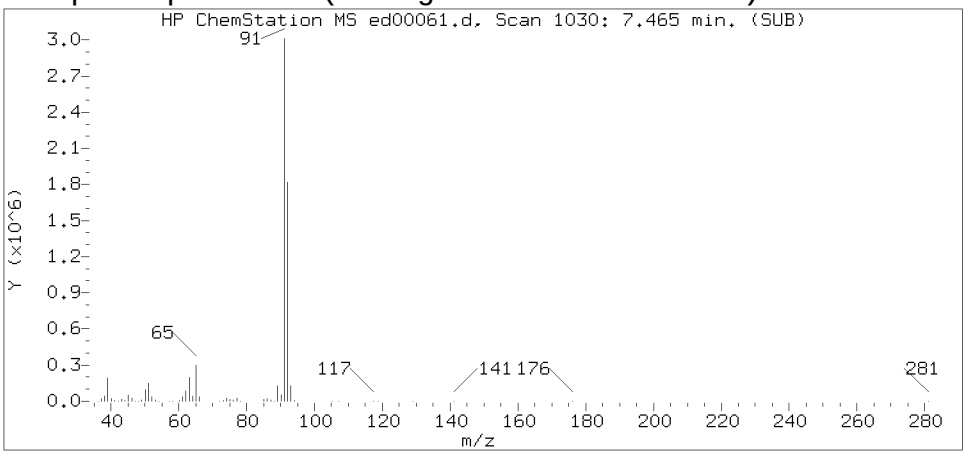
Target 3.5 esignature user ID: jeb07445

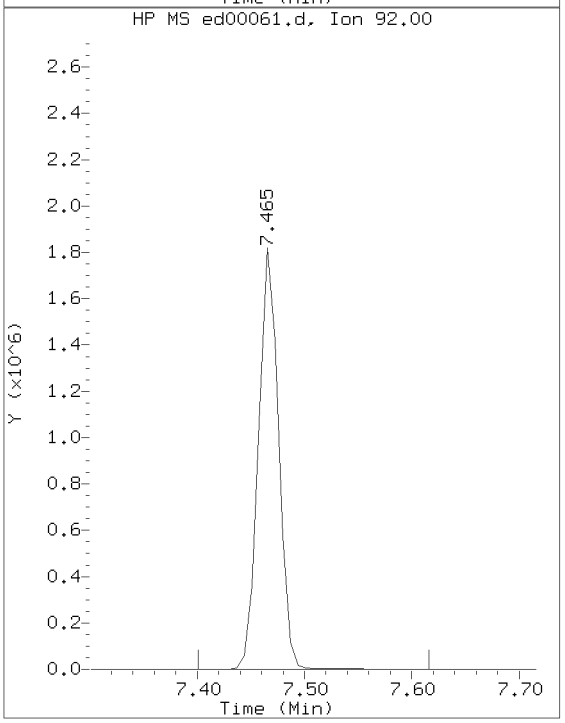
Reference Standard Spectrum for Toluene



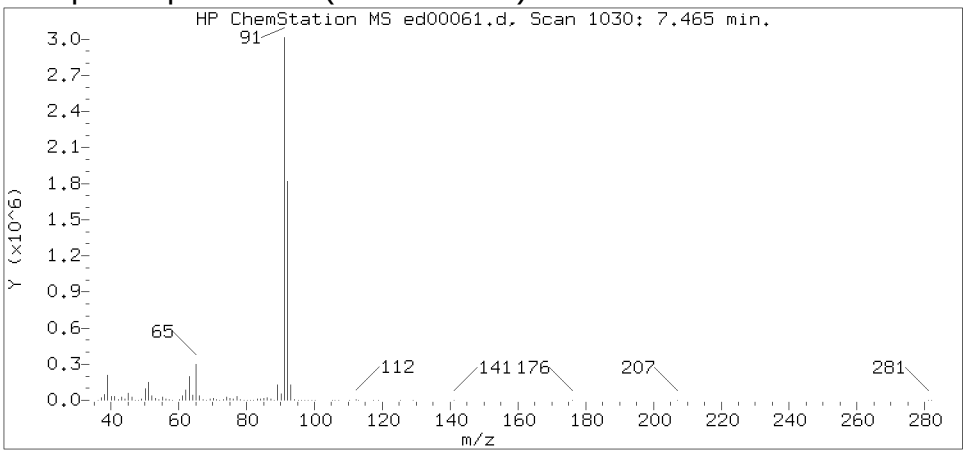


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.465
Relative Retention Time : 0.00001
Quant Ion : 91.00
Area (flag) : 3924559
Concentration (ppb(v)) : 36.3772

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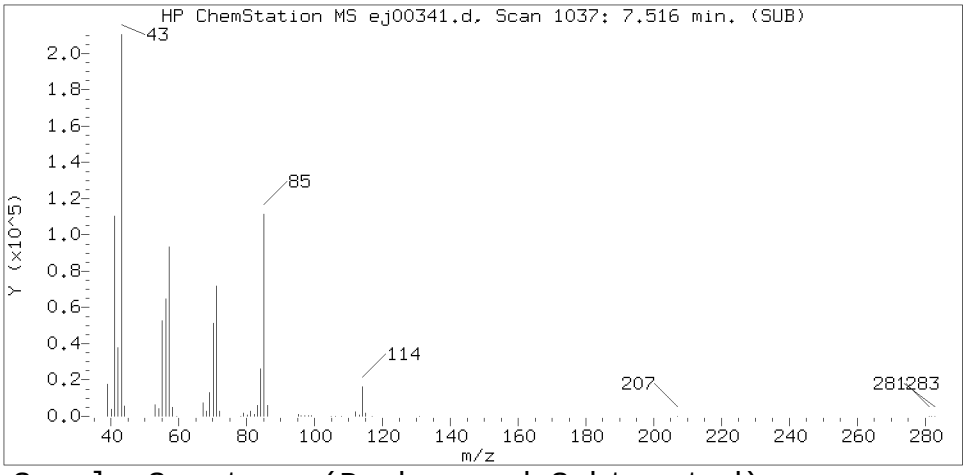
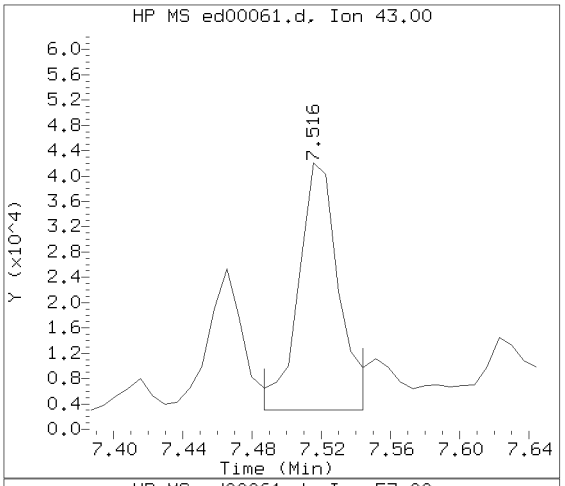
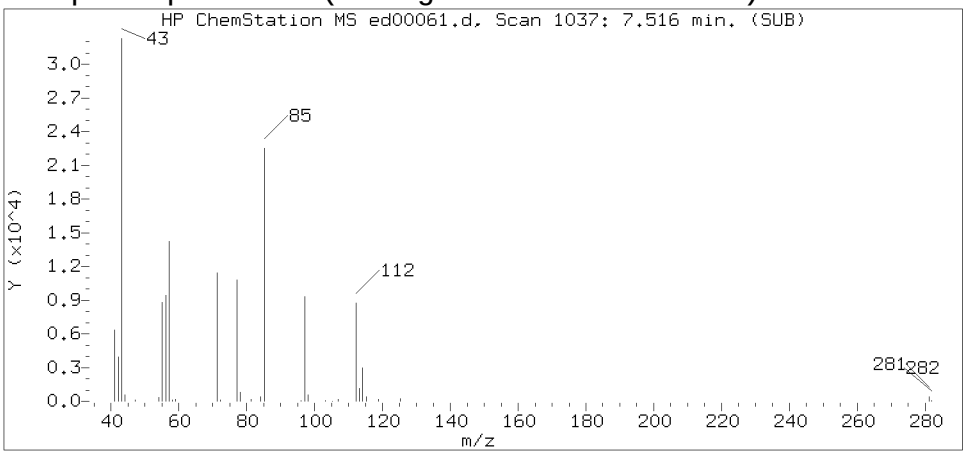
Target 3.5 esignature user ID: jeb07445

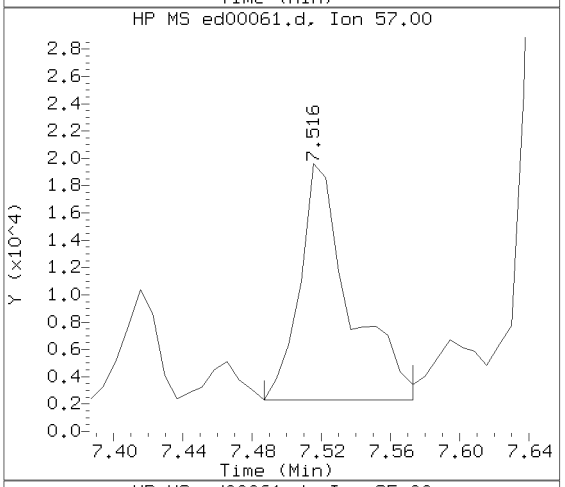
Reference Standard Spectrum for Octane



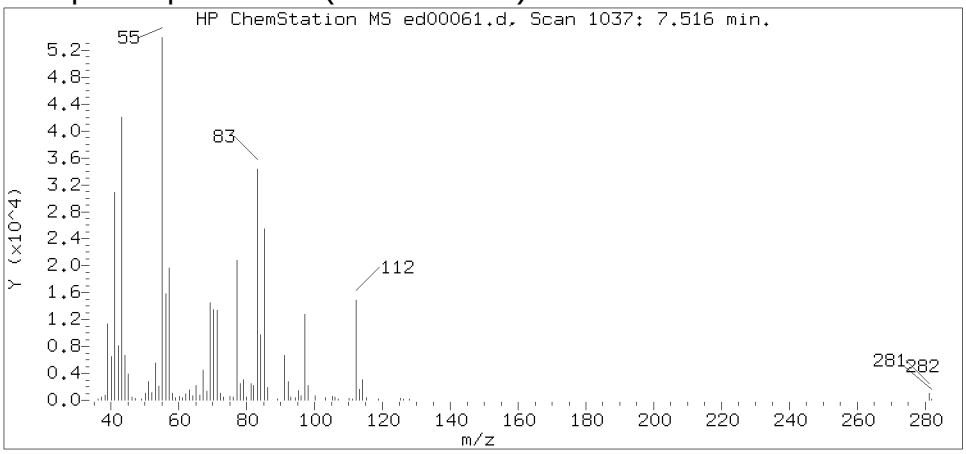


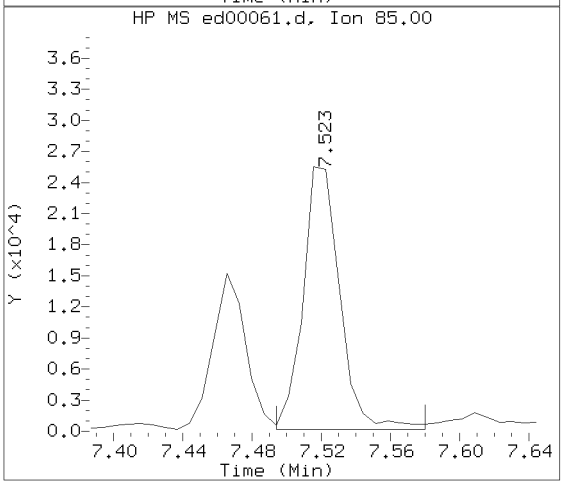
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

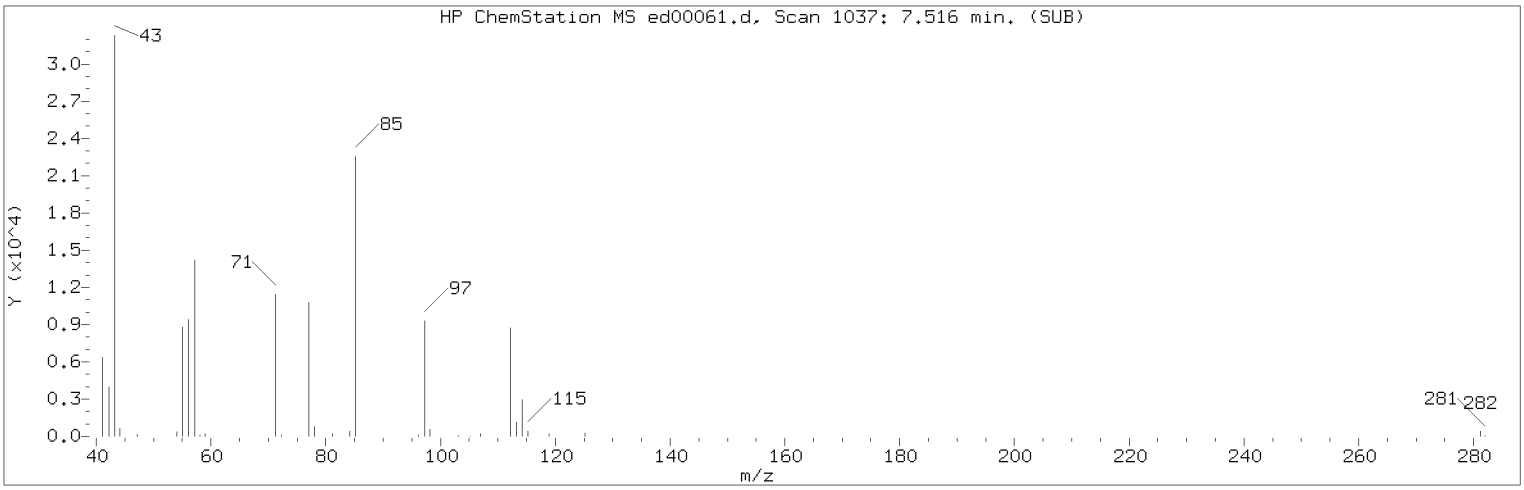
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

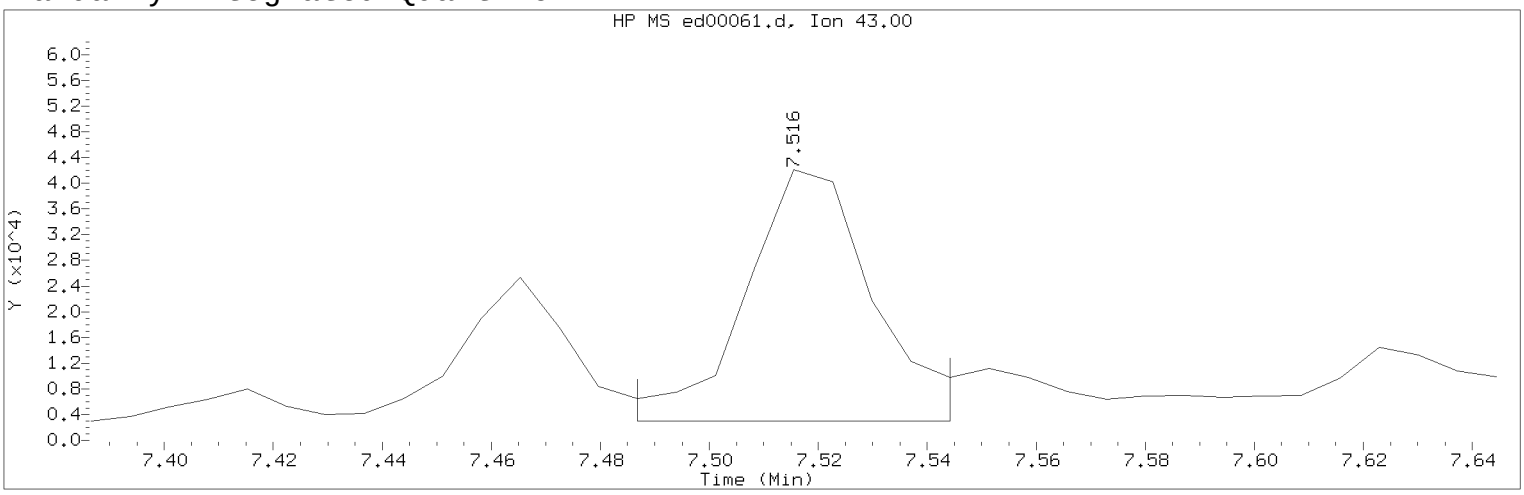
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 64475M
Concentration (ppb(v)) : 1.2174

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

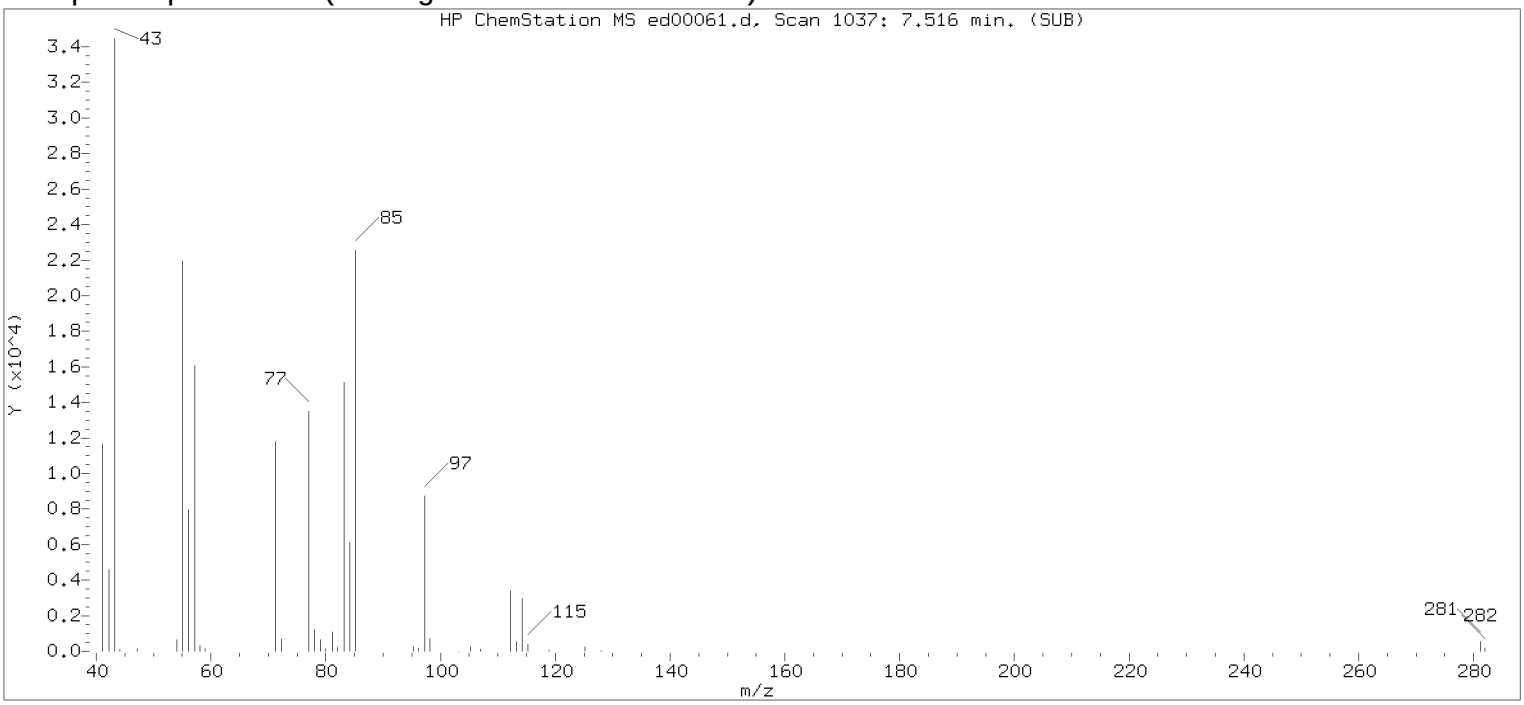
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area (flag) : 64475M
Concentration (ppb(v)) : 1.2174
Integration start scan : 1032 Integration stop scan: 1040
Y at integration start : 2993 Y at integration end: 2993

Reason for manual integration: improper integration

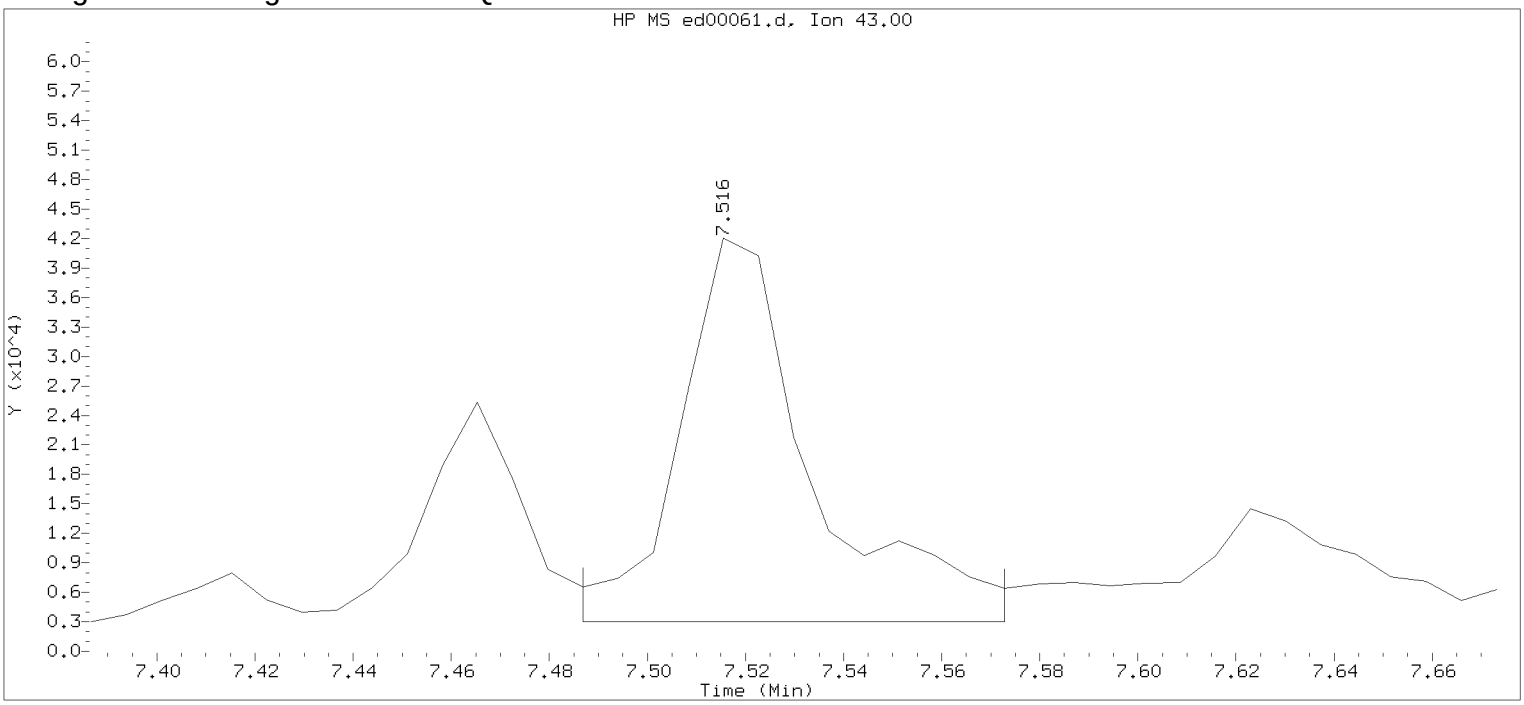
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

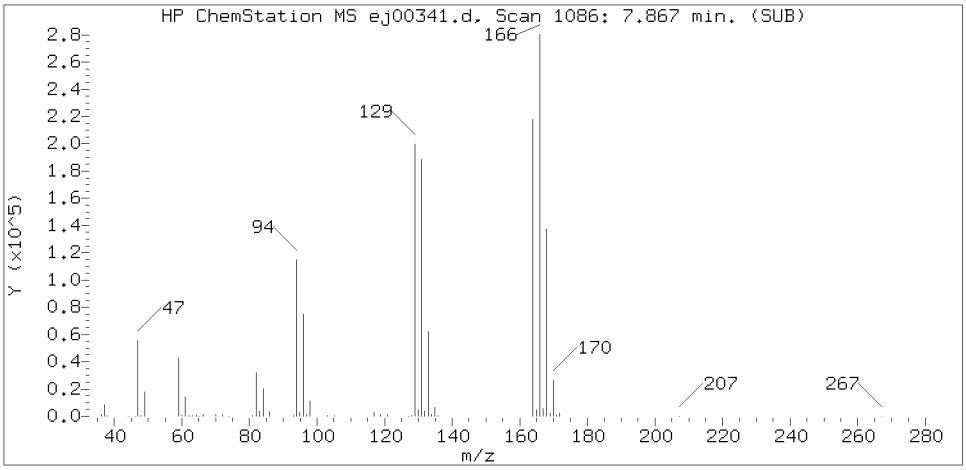
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:49 Unknown

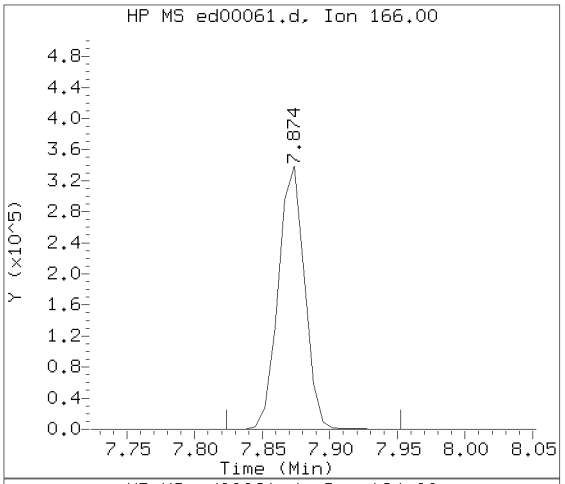
Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area : 72864
Concentration (ppb(v)) : 1.3758
Integration start scan : 1032 Integration stop scan: 1044
Y at integration start : 2993 Y at integration end: 2993

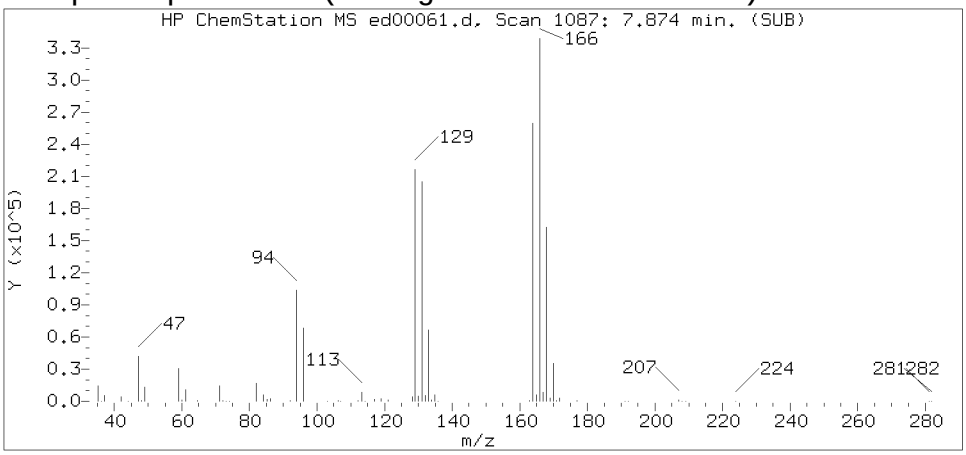
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

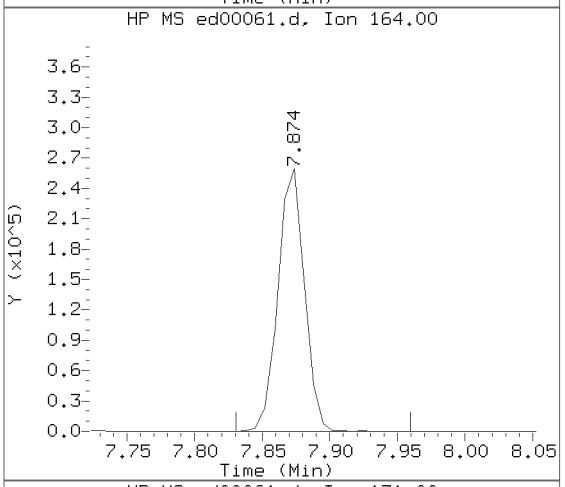
Reference Standard Spectrum for Tetrachloroethene



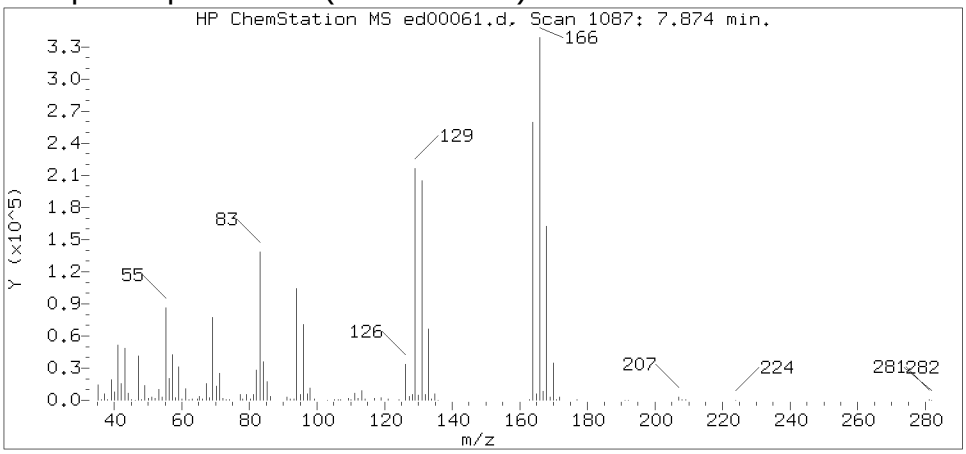


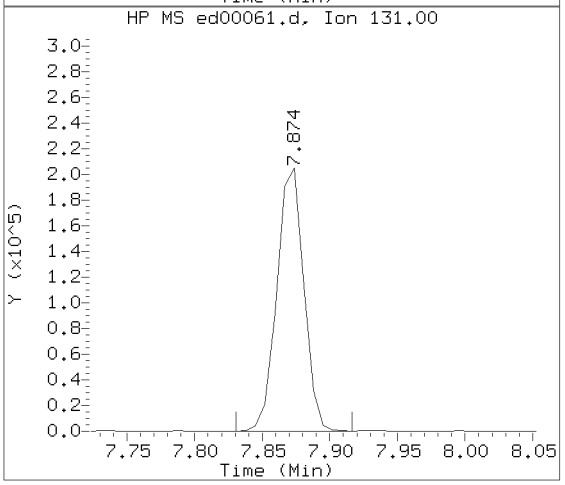
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

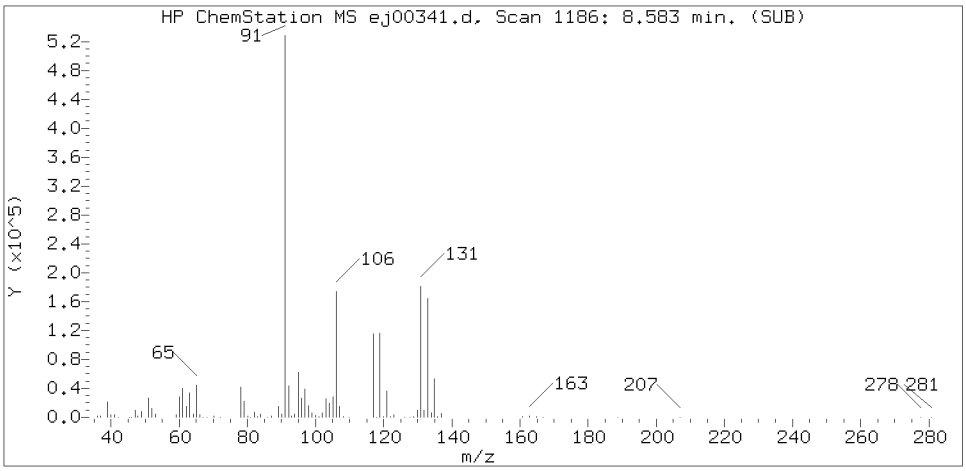
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

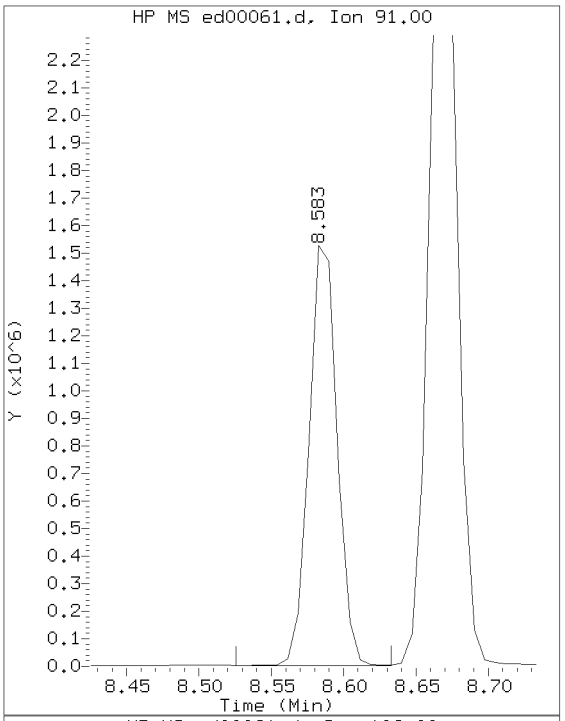
Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 459070
Concentration (ppb(v)) : 7.2288

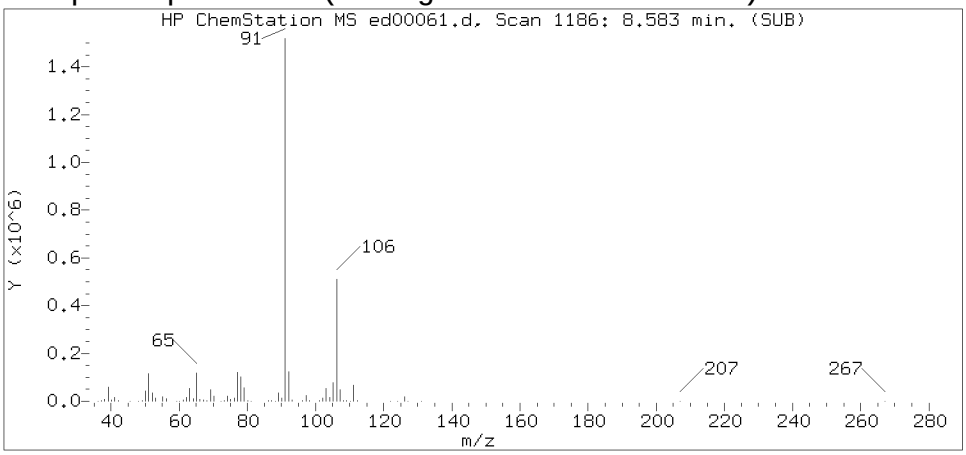
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

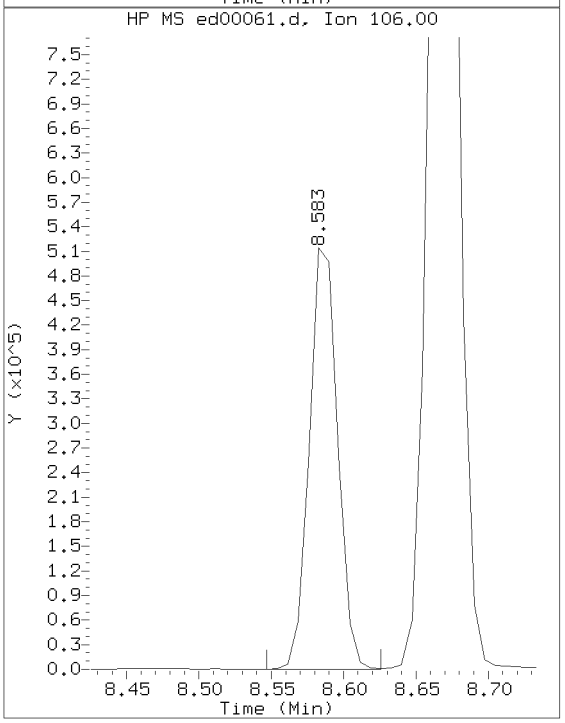
Reference Standard Spectrum for Ethylbenzene



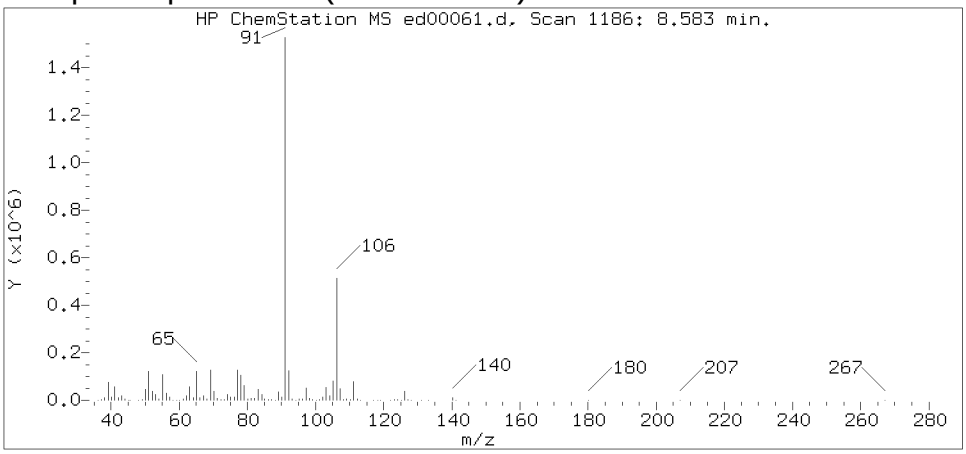


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 2085259
Concentration (ppb(v)) : 15.0840

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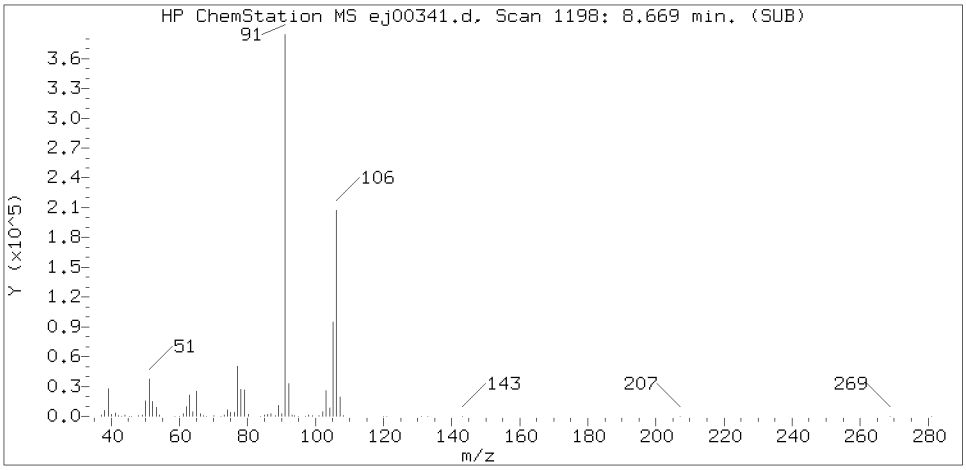
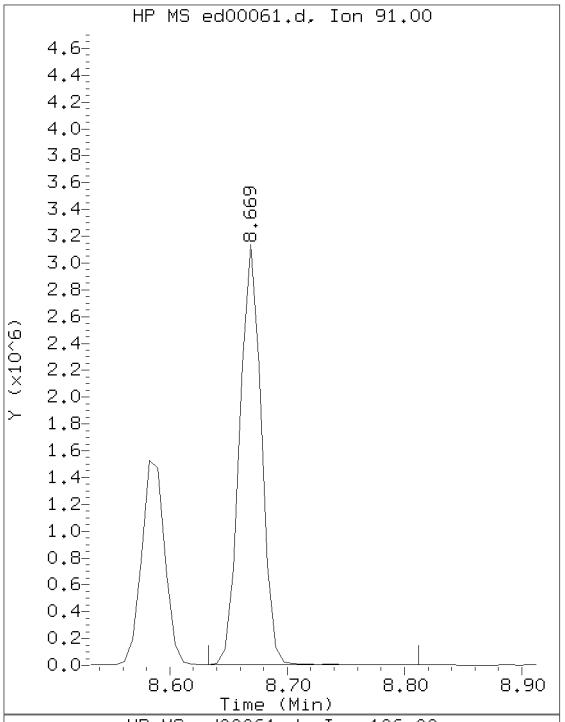
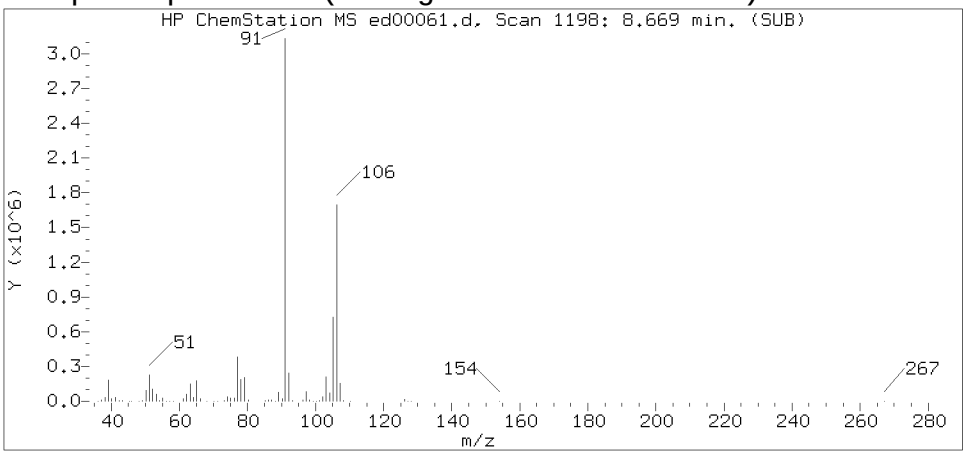
Target 3.5 esignature user ID: jeb07445

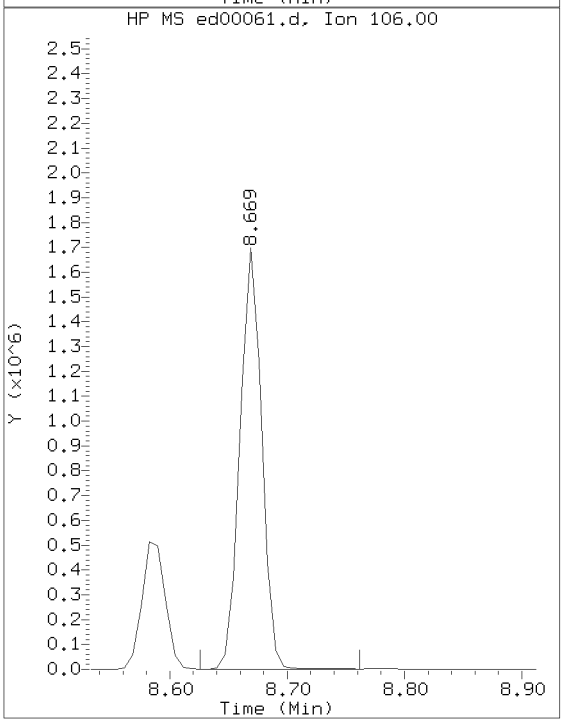
Reference Standard Spectrum for m/p-Xylene



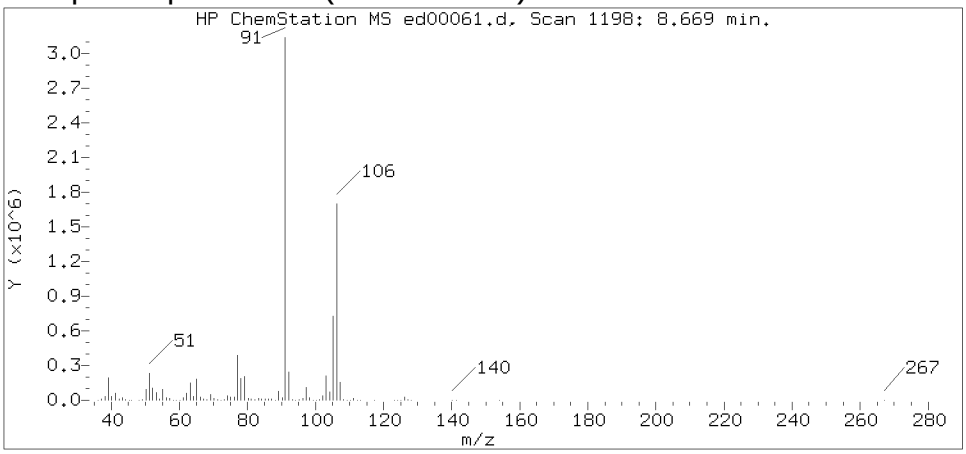


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1198
Retention Time (minutes): 8.669
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 4038599
Concentration (ppb(v)) : 36.9881

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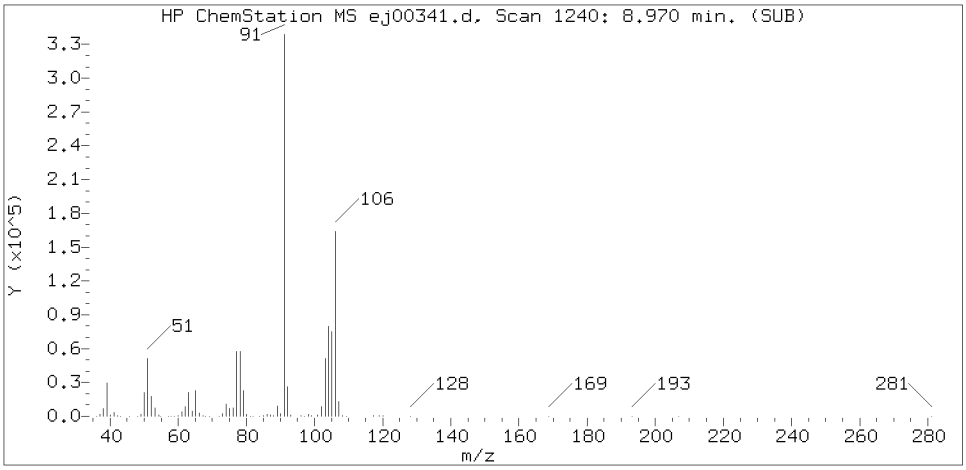
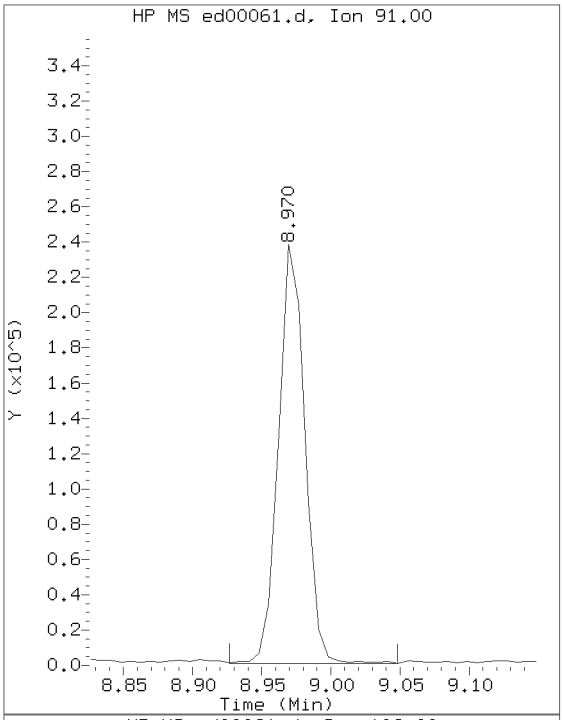
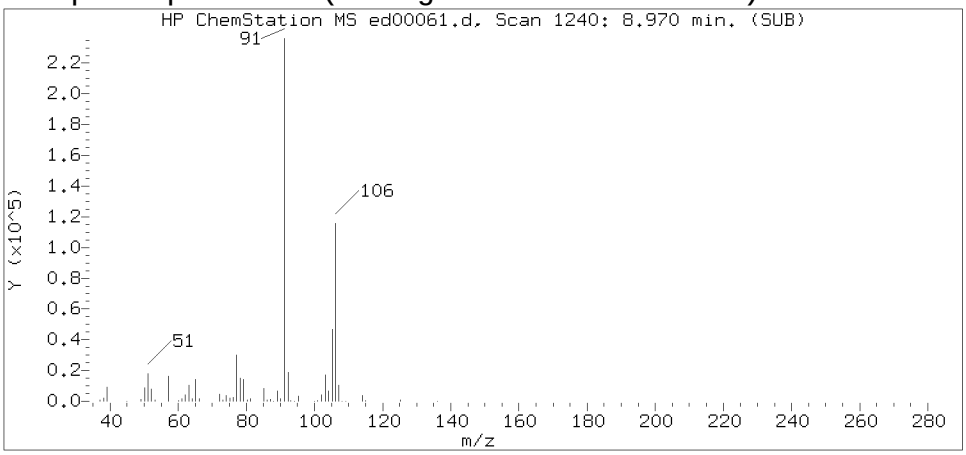
Target 3.5 esignature user ID: jeb07445

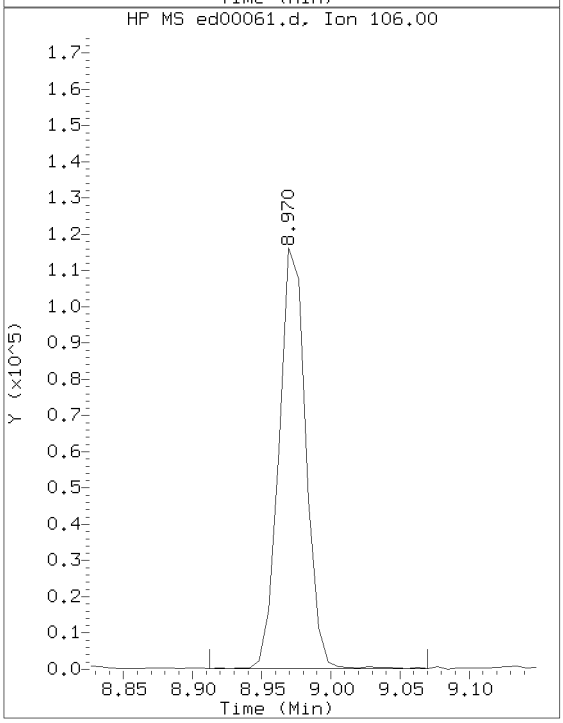
Reference Standard Spectrum for o-Xylene



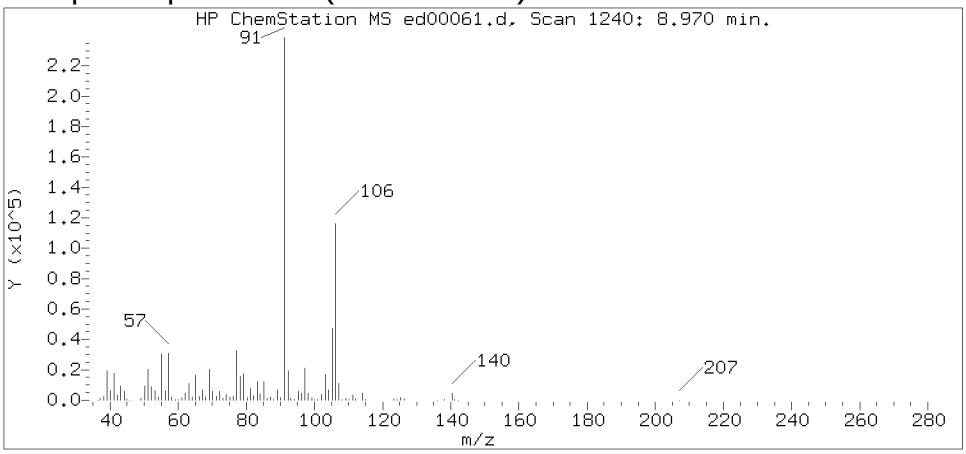


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 315511
Concentration (ppb(v)) : 2.9815

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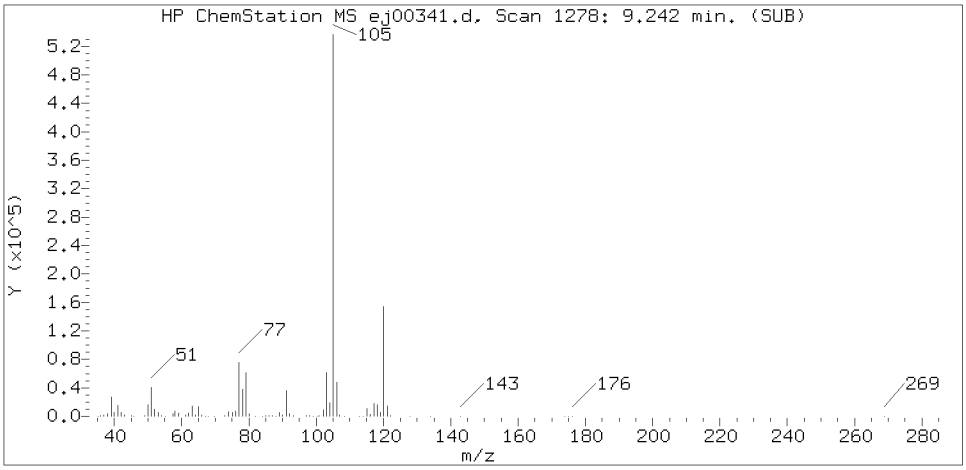
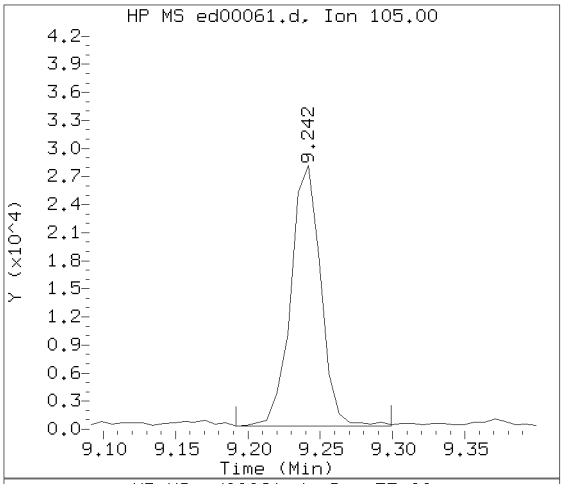
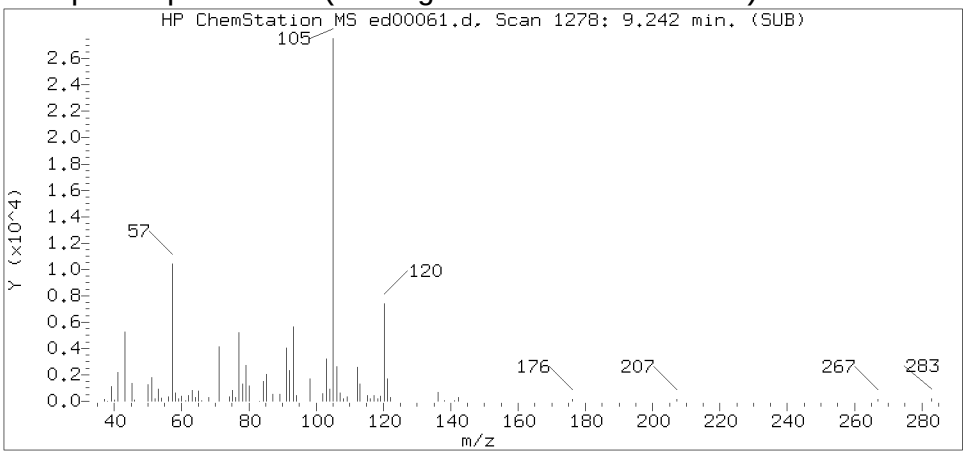
Target 3.5 esignature user ID: jeb07445

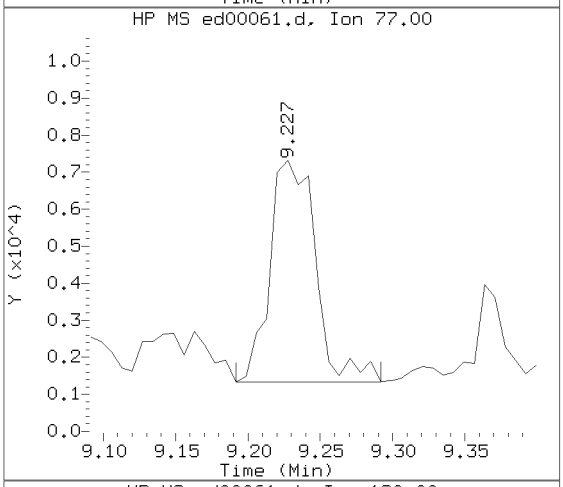
Reference Standard Spectrum for Cumene



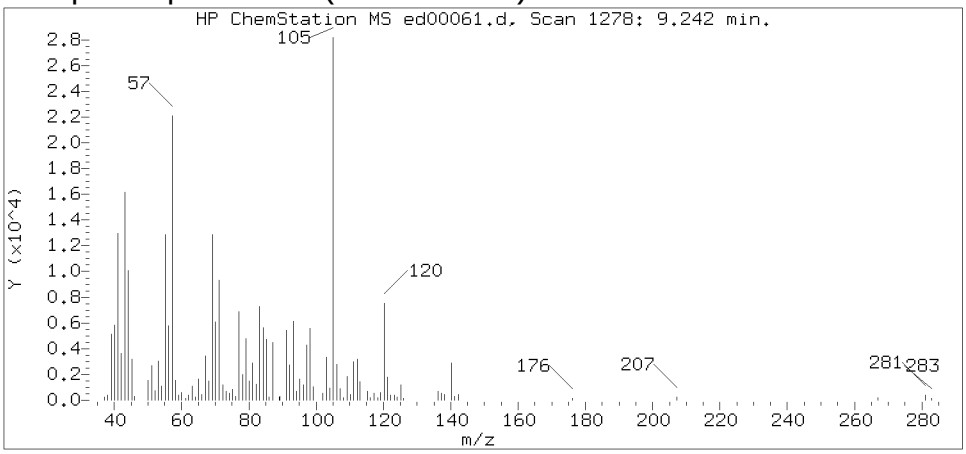


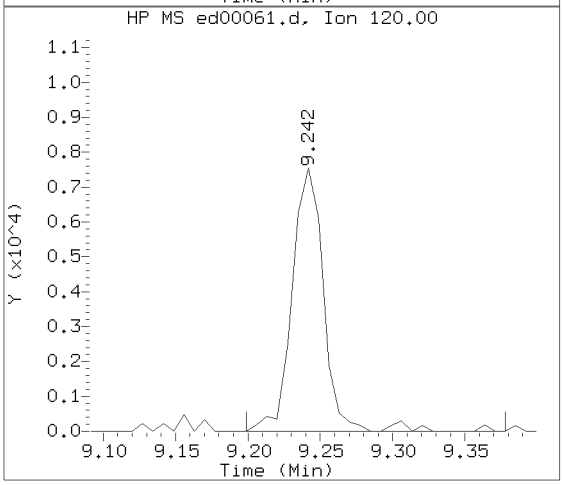
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 80
Compound Name : Cumene
Scan Number : 1278
Retention Time (minutes): 9.242
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 40411
Concentration (ppb(v)) : 0.2713

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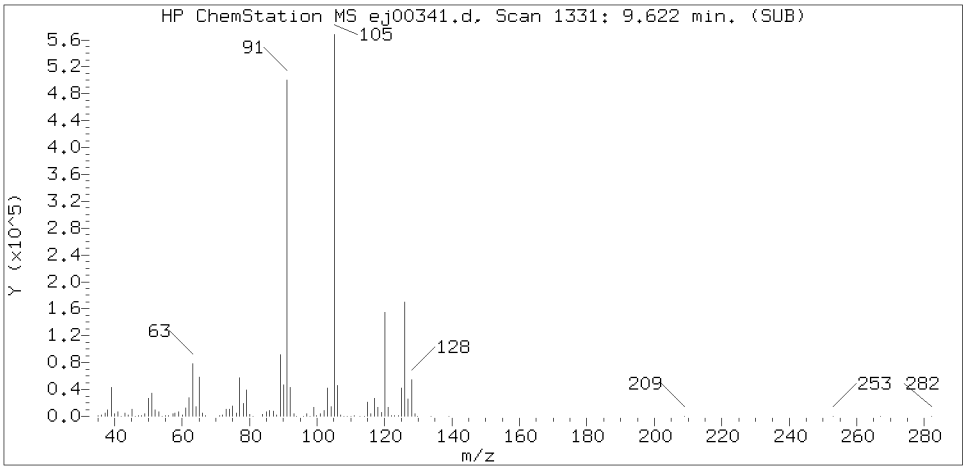
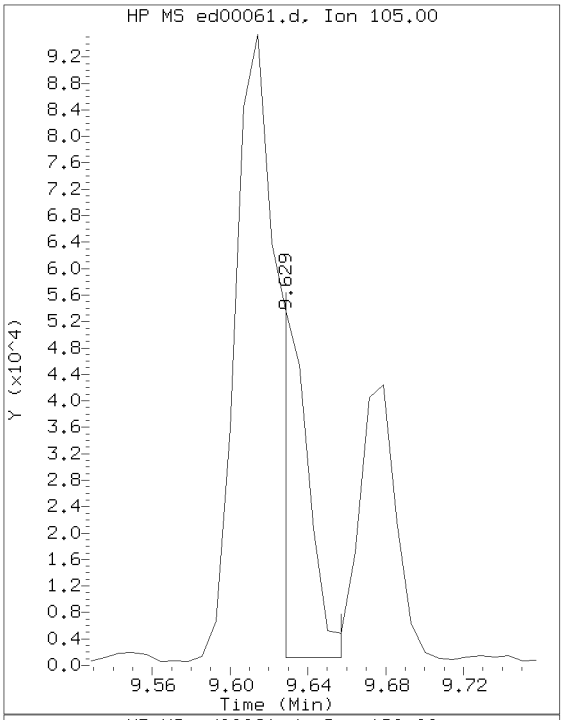
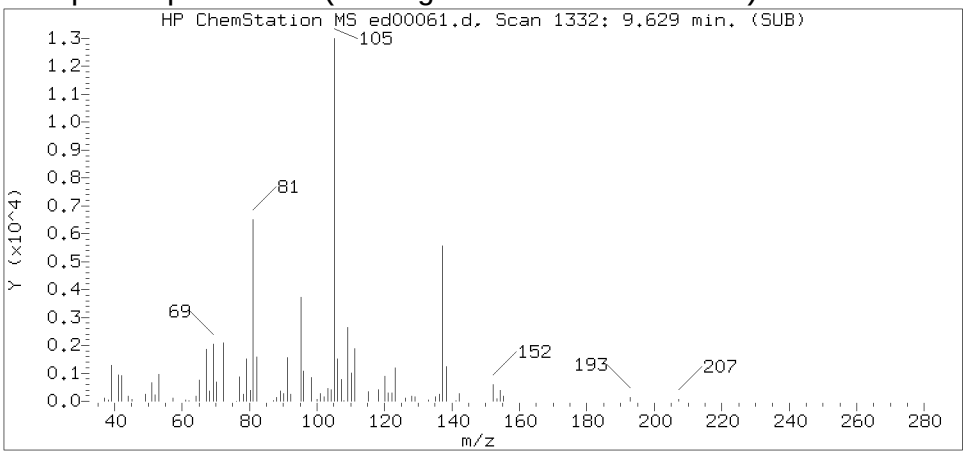
Target 3.5 esignature user ID: jeb07445

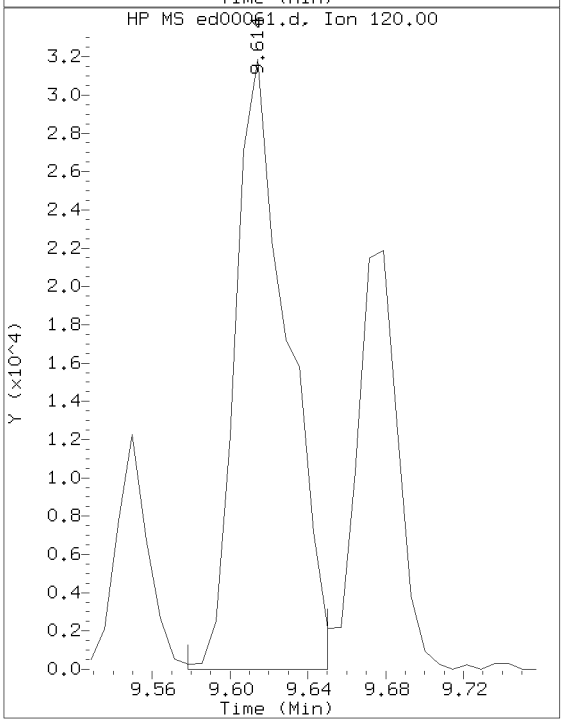
Reference Standard Spectrum for 4-Ethyltoluene



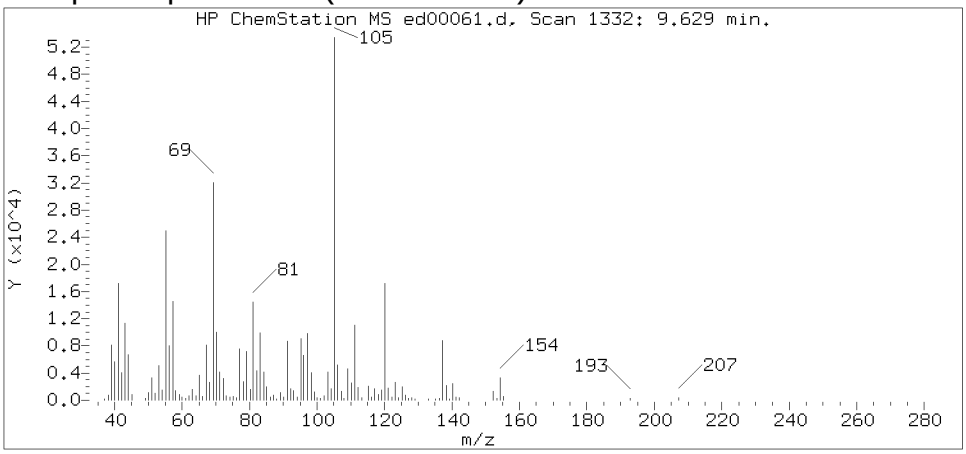


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 53339M
Concentration (ppb(v)) : 0.3627

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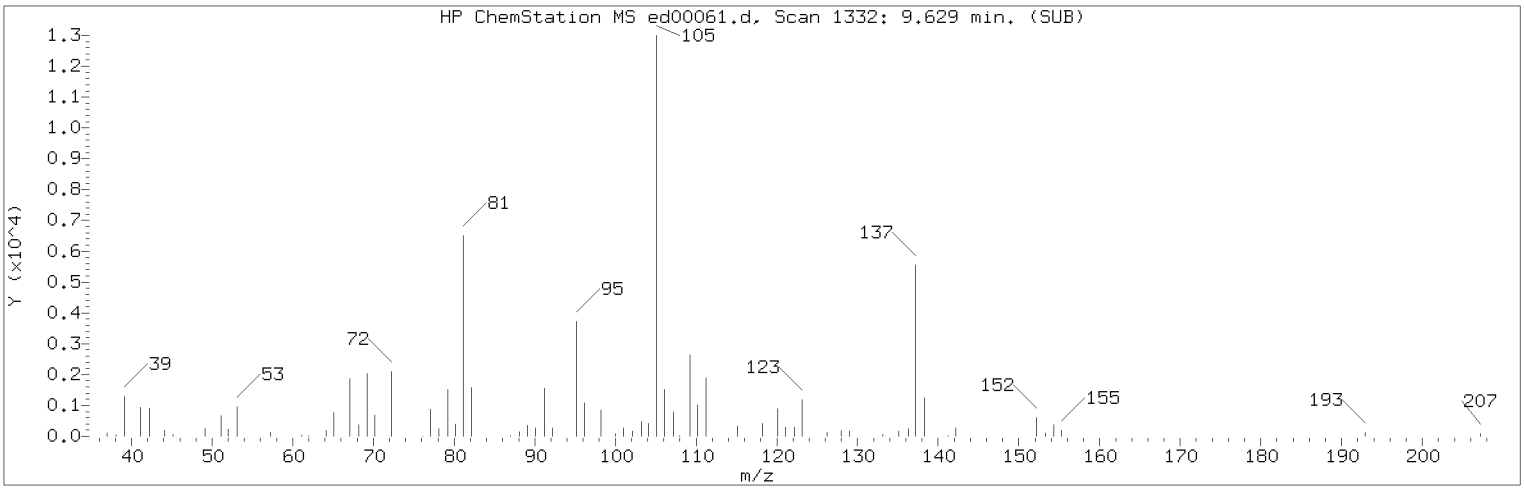
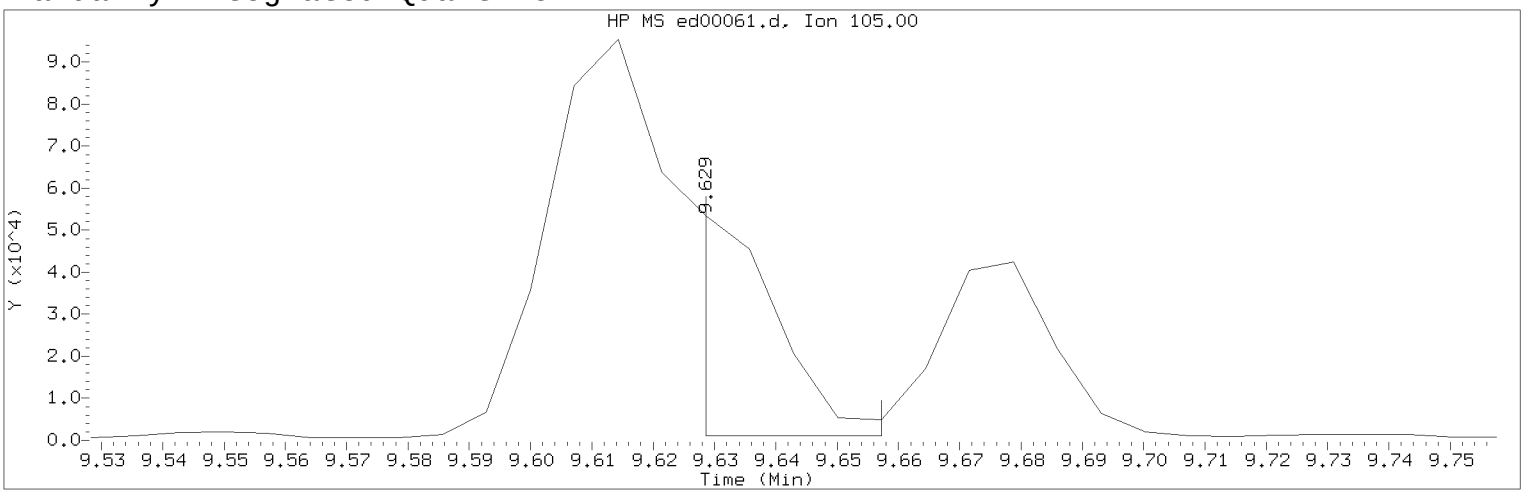
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

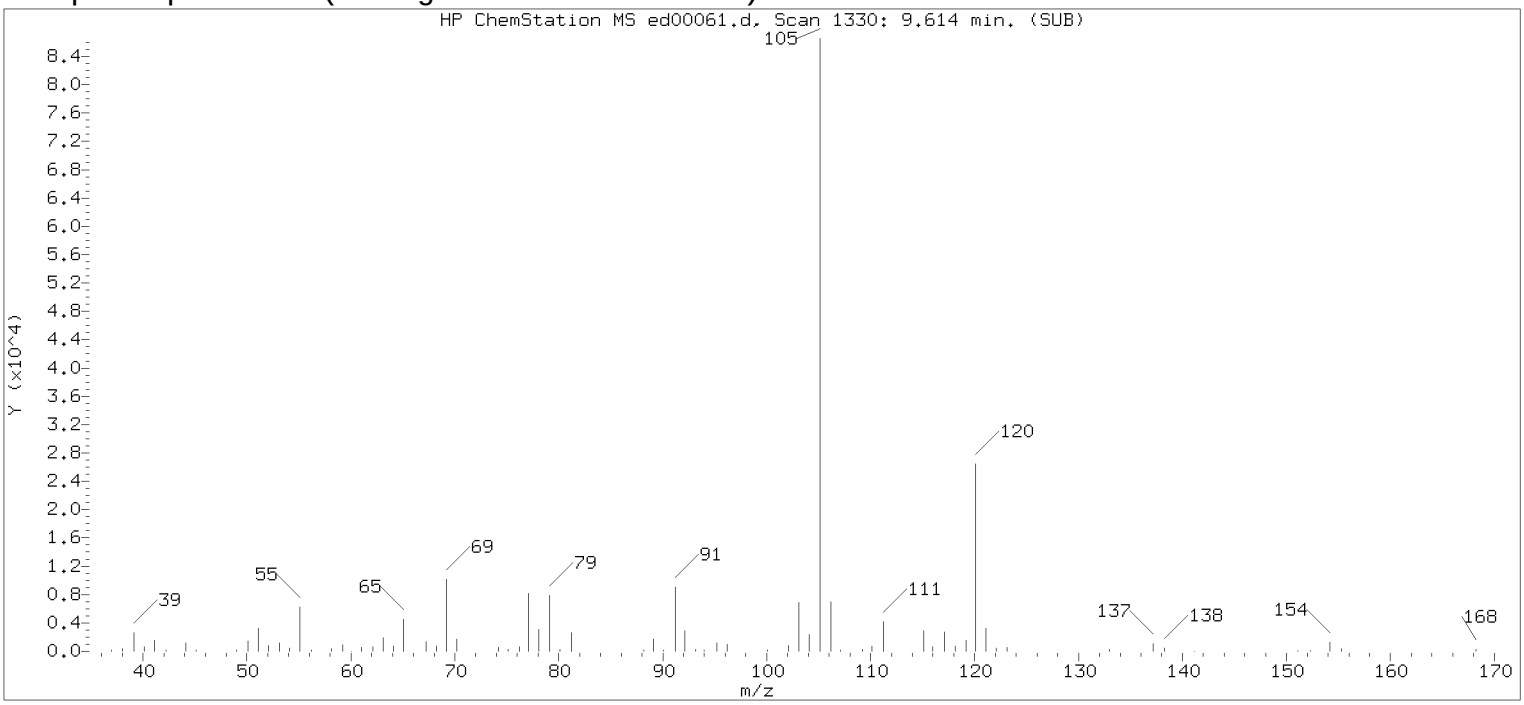
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 53339M
Concentration (ppb(v)) : 0.3627
Integration start scan : 1331 Integration stop scan: 1335
Y at integration start : 1121 Y at integration end: 1121

Reason for manual integration: improper integration

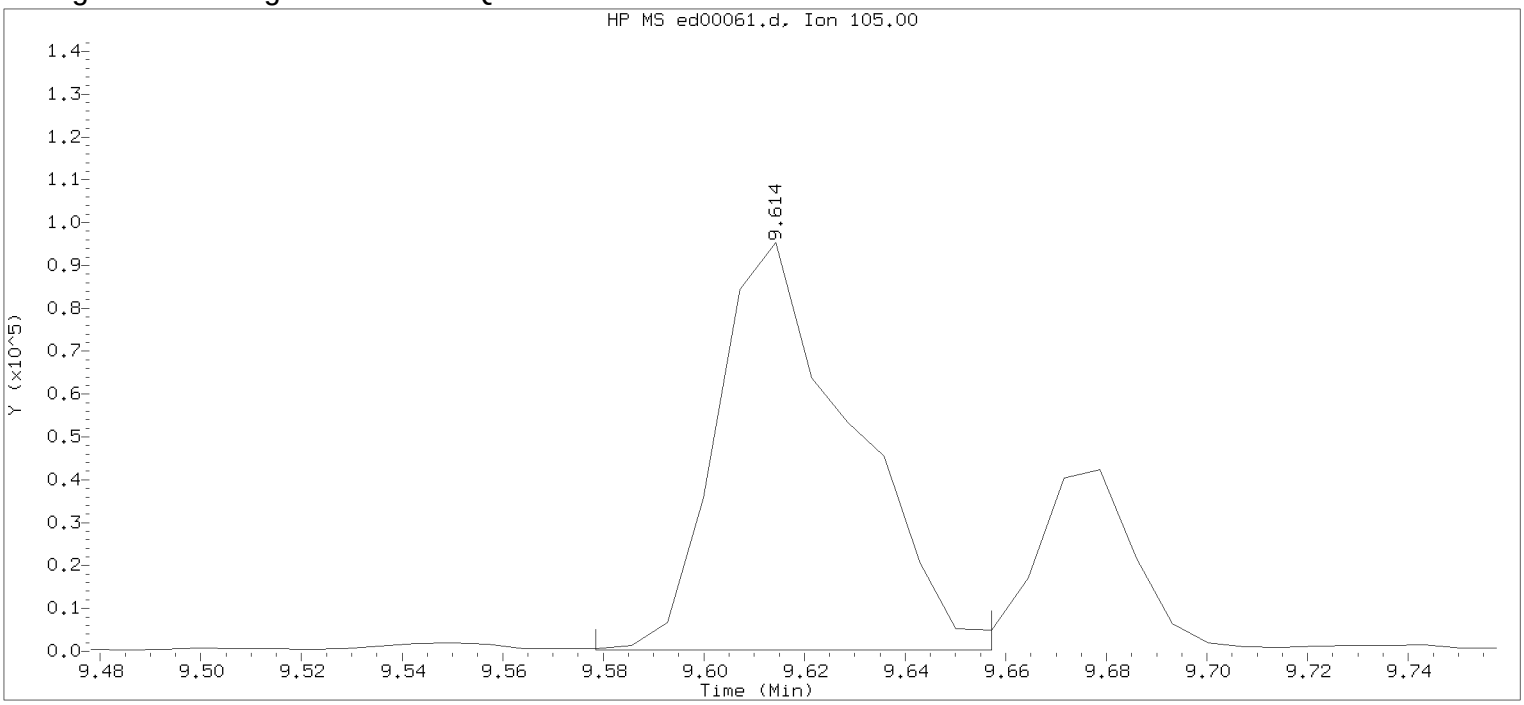
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:49 Unknown

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1330
Retention Time (minutes): 9.614
Quant Ion : 105.00
Area : 176664
Concentration (ppb(v)) : 1.2014
Integration start scan : 1324 Integration stop scan: 1335
Y at integration start : 363 Y at integration end: 363

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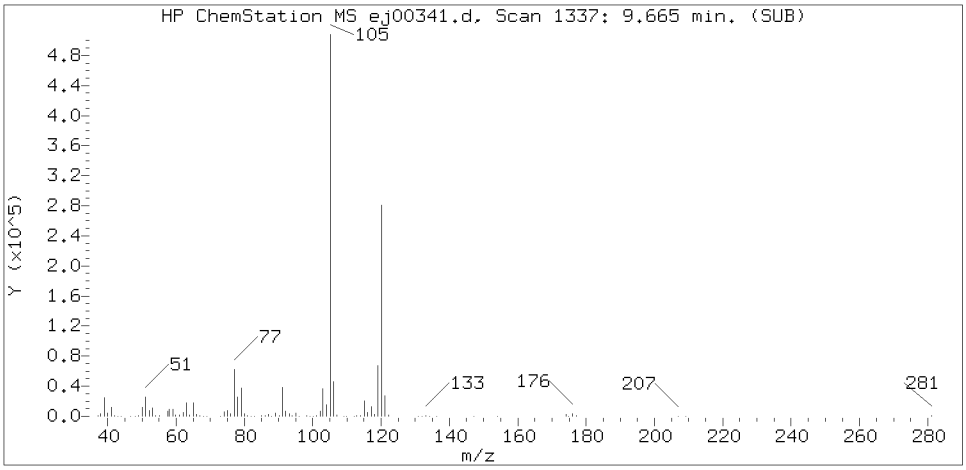
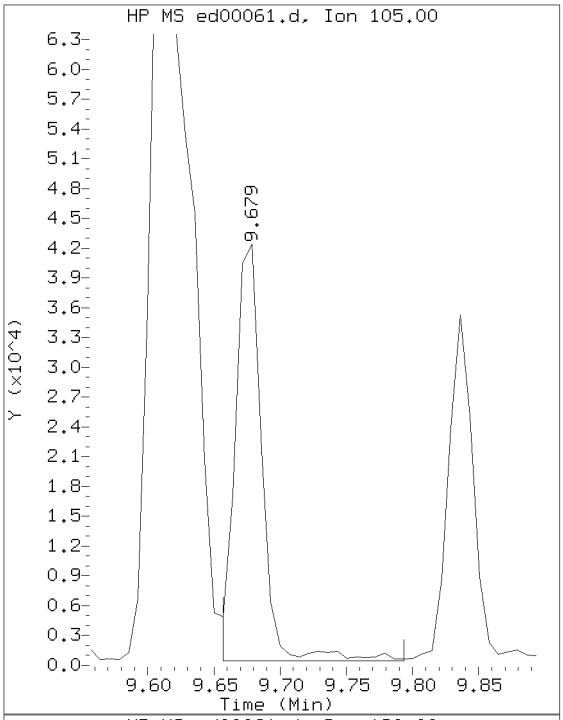
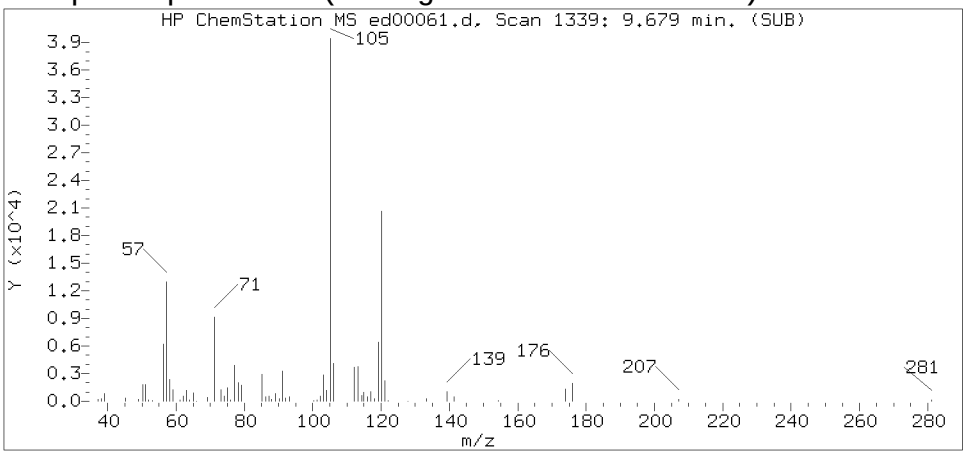
Target 3.5 esignature user id: jeb07445

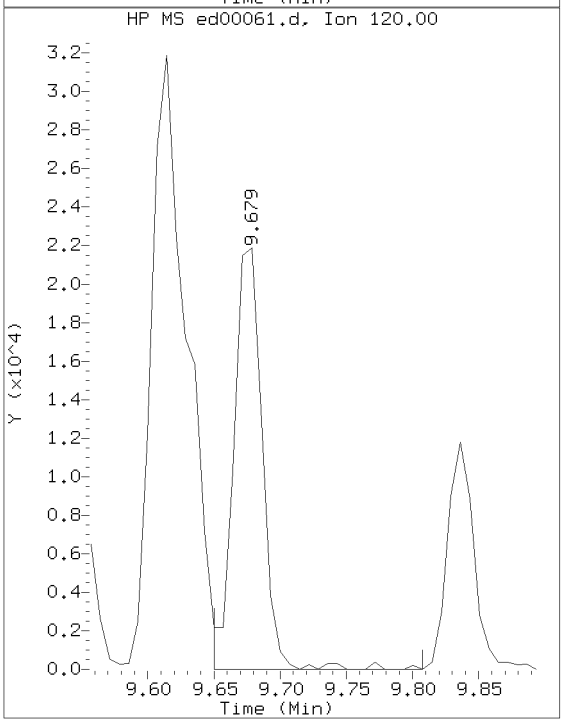
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



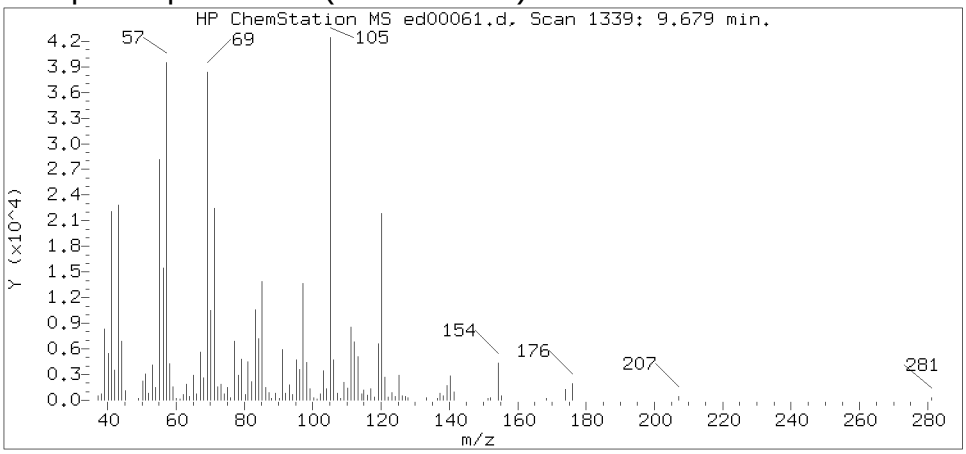


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1339
Retention Time (minutes): 9.679
Relative Retention Time :-0.00085
Quant Ion : 105.00
Area (flag) : 58678
Concentration (ppb(v)) : 0.4801

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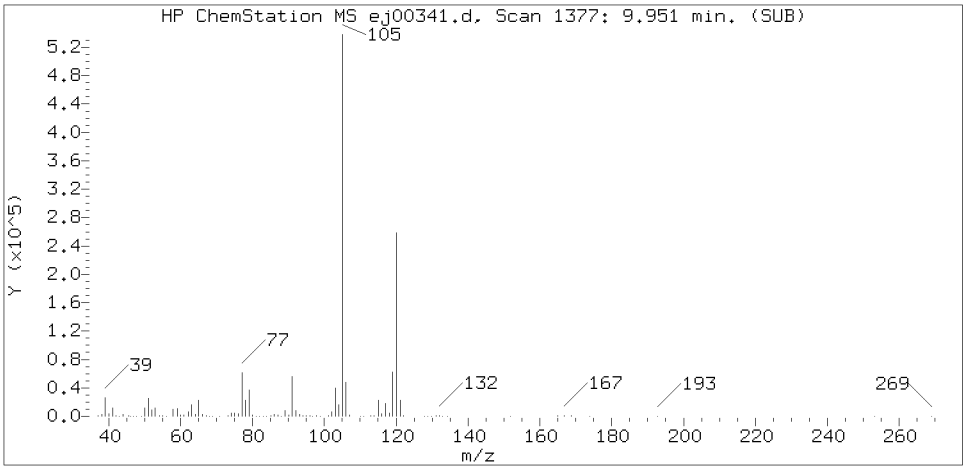
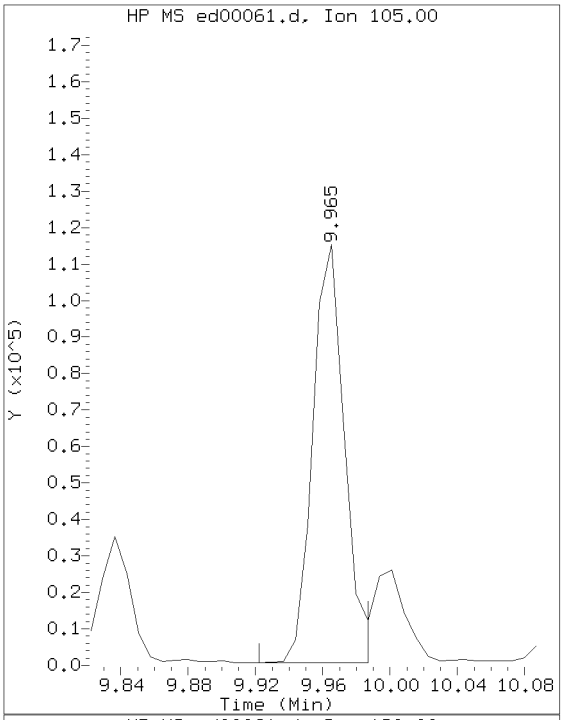
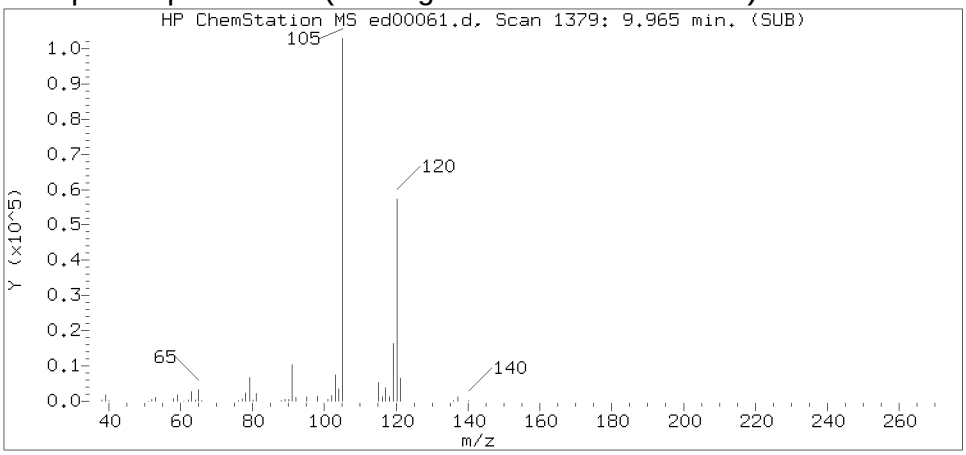
Target 3.5 esignature user ID: jeb07445

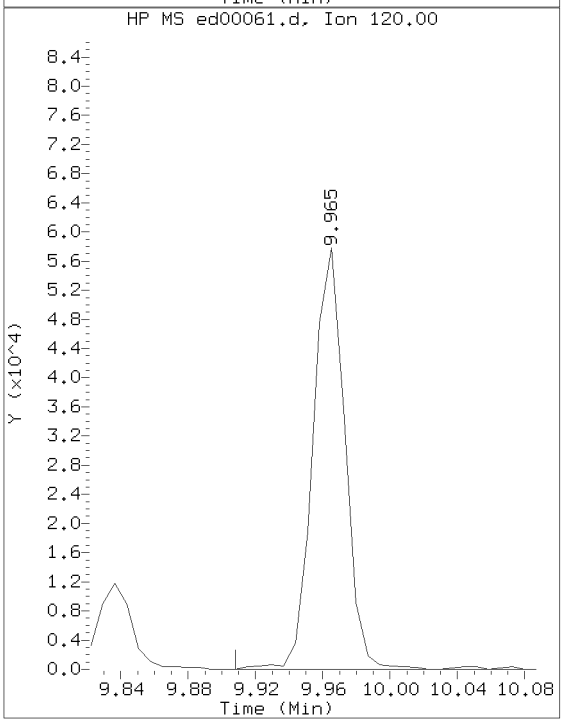
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



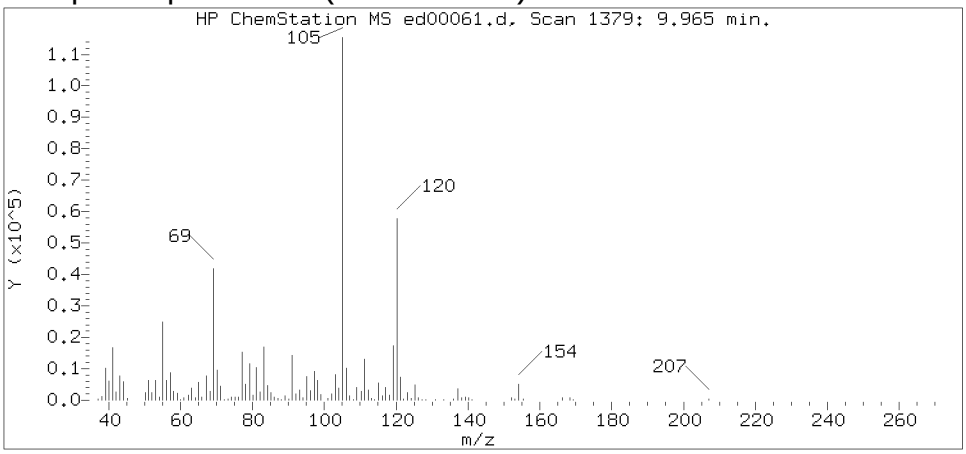


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1379
Retention Time (minutes): 9.965
Relative Retention Time :-0.00001
Quant Ion : 105.00
Area (flag) : 151929M
Concentration (ppb(v)) : 1.3141

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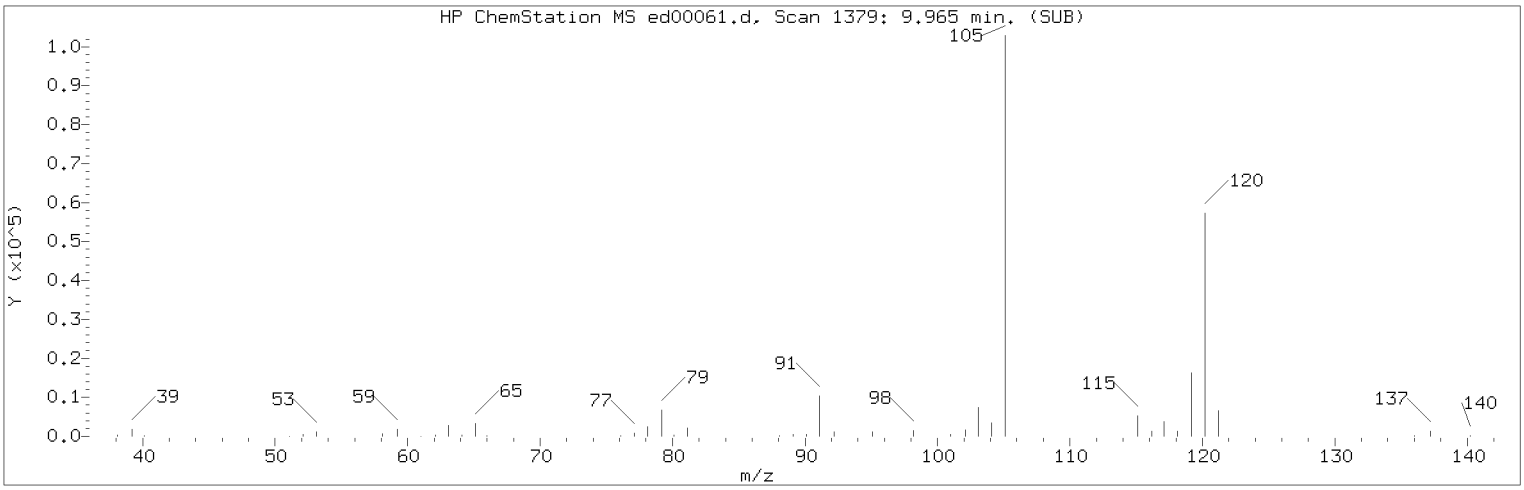
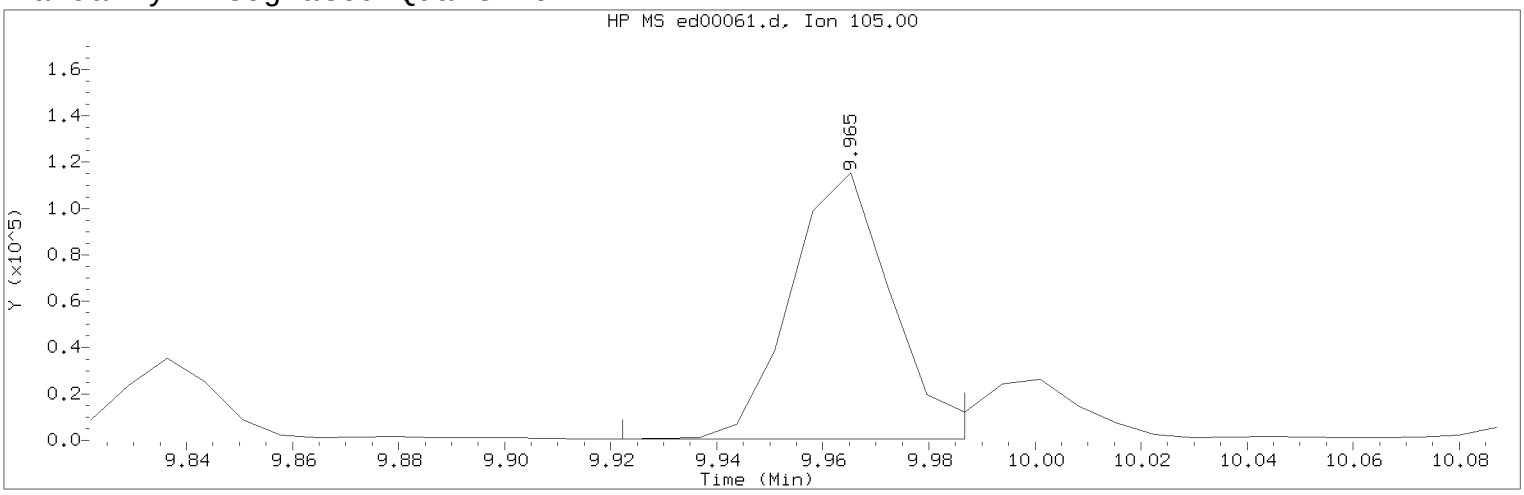
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 00:59 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249

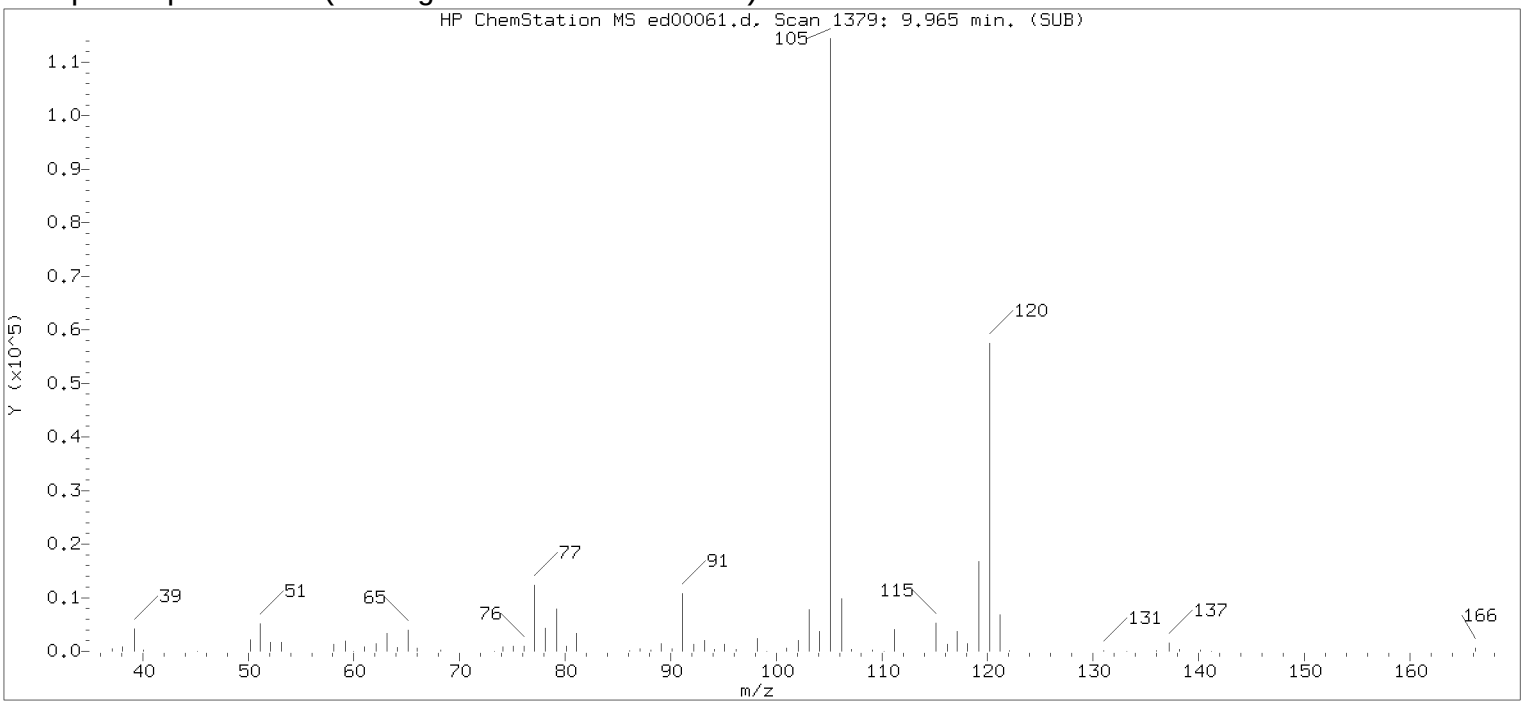
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1379
Retention Time (minutes): 9.965
Quant Ion : 105.00
Area (flag) : 151929M
Concentration (ppb(v)) : 1.3141
Integration start scan : 1372 Integration stop scan: 1381
Y at integration start : 641 Y at integration end: 641

Reason for manual integration: improper integration

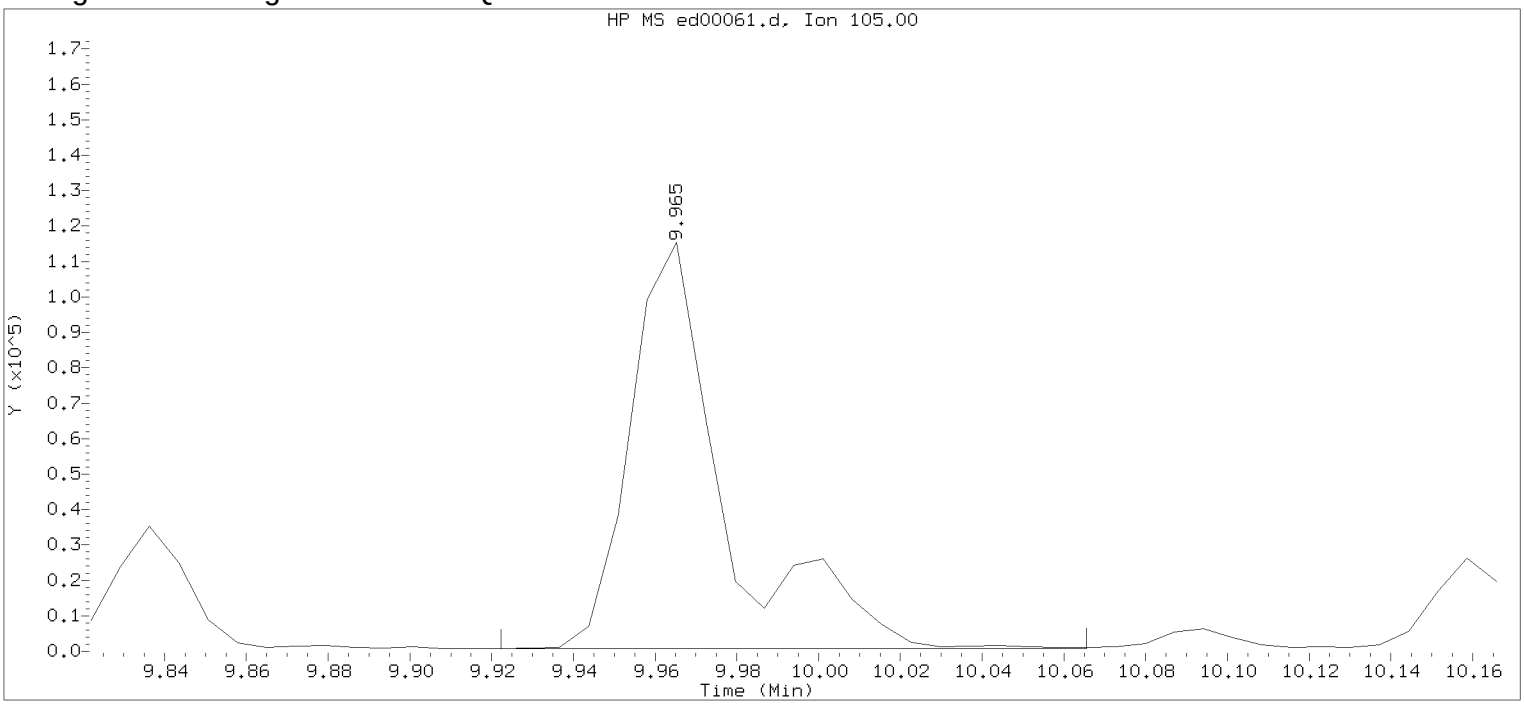
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00061.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 19:29 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 19:49 Unknown

Sample Name: S7103 Lab Sample ID: 8920249

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1379
Retention Time (minutes): 9.965
Quant Ion : 105.00
Area : 184456
Concentration (ppb(v)) : 1.5955
Integration start scan : 1372 Integration stop scan: 1392
Y at integration start : 641 Y at integration end: 641

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Target 3.5 esignature user id: jeb07445

S7103 Lancaster Laboratories, Inc. 8920249DL

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00063.d Injection date and time: **05-APR-2017 20:34**
Data file Sample Info. Line: 8920249DL;40;E1709530AA;S7103;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.2 psia Canister Pressure before dilution (Ya): 13.6 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
40) Bromochloromethane	5.467(0.007)	751	130	236671 (5)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	893131 (7)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	868103 (5)	10.00		498344 - 1162802

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)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.526(-0.000)	43	57139	2.126	21.26			0.5	2
21) Carbon Disulfide	(1)			Not Detected					0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
28) trans-1,2-Dichloroethene	(1)			Not Detected					0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)			Not Detected					0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(-0.001)	61	20762	0.677	6.77		J	0.2	1
37) 2-Butanone	(1)	5.288(-0.002)	72	9443	0.768	7.68		J	0.5	2
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)			Not Detected					0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)	6.033(0.001)	57	1544655	13.550	135.50			0.2	1
50) Heptane	(2)			Not Detected					0.2	1
52) Trichloroethene	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.466(0.000)	91	380699	3.633	36.33			0.2	1
62) Octane	(3)			Not Detected					0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	44212	0.717	7.17		J	0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00063.d Injection date and time: **05-APR-2017 20:34**
Data file Sample Info. Line: 8920249DL;40;E1709530AA;S7103;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.2 psia Canister Pressure before dilution (Ya): 13.6 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	206577	1.538	15.38			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	399031	3.763	37.63			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	33089	0.322	3.22		J	0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.2	1
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

Total number of targets = 62

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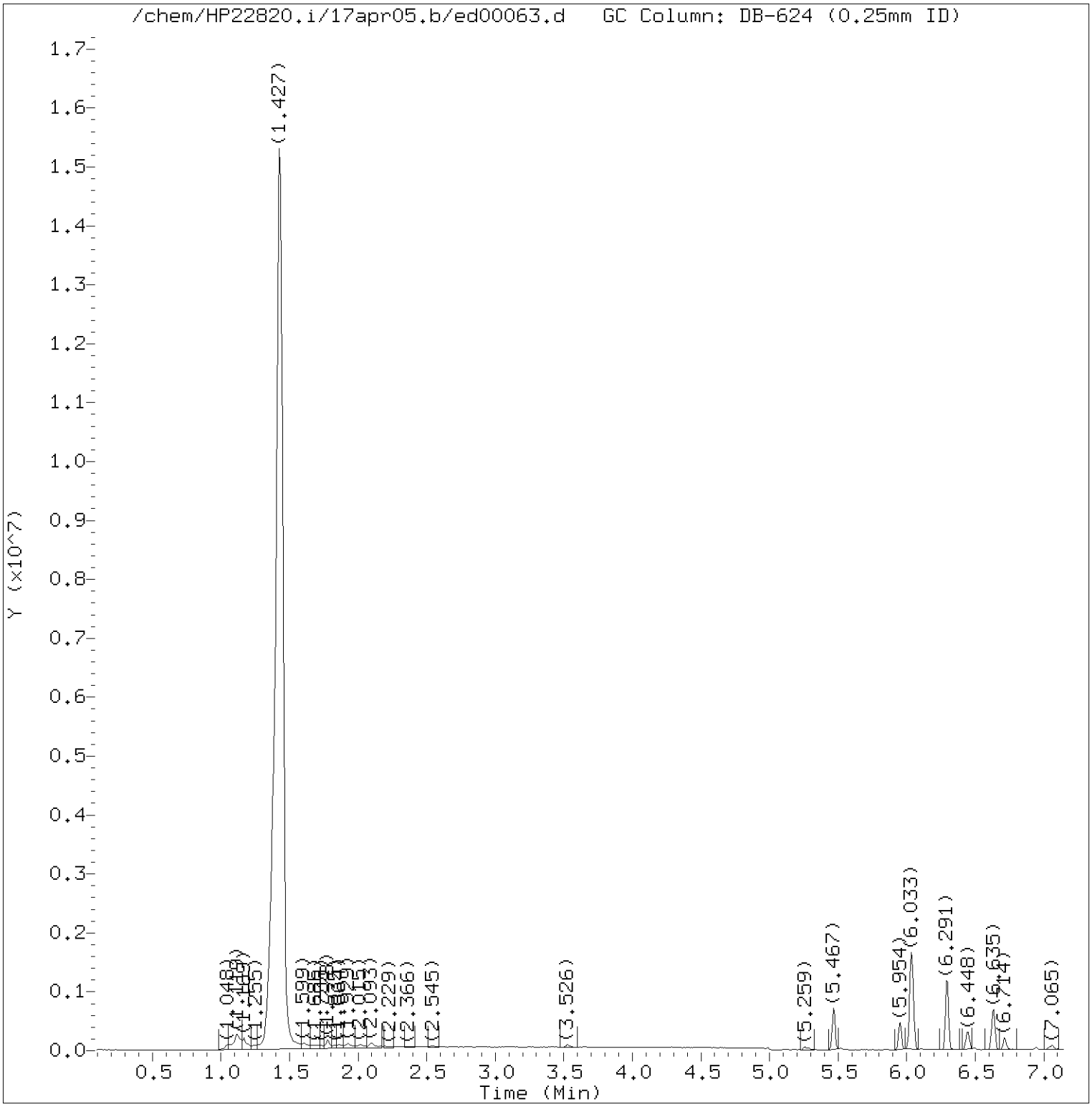
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

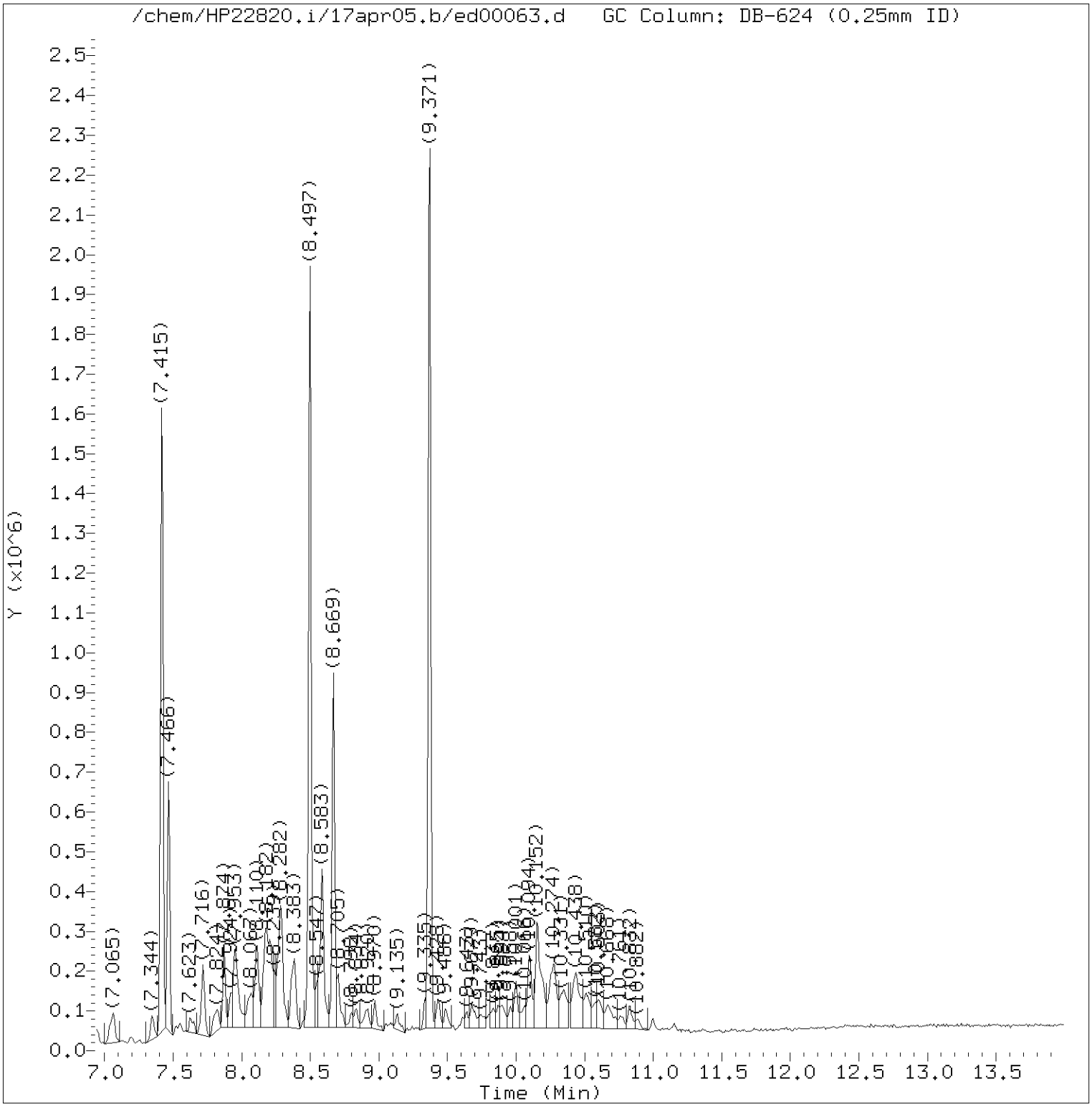
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

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on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
19) Acetone	(1)	3.526	43	57139	2.126
35) cis-1,2-Dichloroethene	(1)	5.259	61	20762	0.677
37) 2-Butanone	(1)	5.288	72	9443	0.768
40)*Bromochloromethane	(1)	5.467	130	236671	10.000
48) Isooctane	(2)	6.033	57	1544655	13.550
51)*1,4-Difluorobenzene	(2)	6.298	114	893131	10.000
61) Toluene	(3)	7.466	91	380699	3.633
67) Tetrachloroethene	(3)	7.874	166	44212	0.717
71)*Chlorobenzene-d5	(3)	8.497	117	868103	10.000
74) Ethylbenzene	(3)	8.583	91	206577	1.538
75) m/p-Xylene	(3)	8.669	91	399031	3.763
76) o-Xylene	(3)	8.970	91	33089	0.322

* = Compound is an internal standard.

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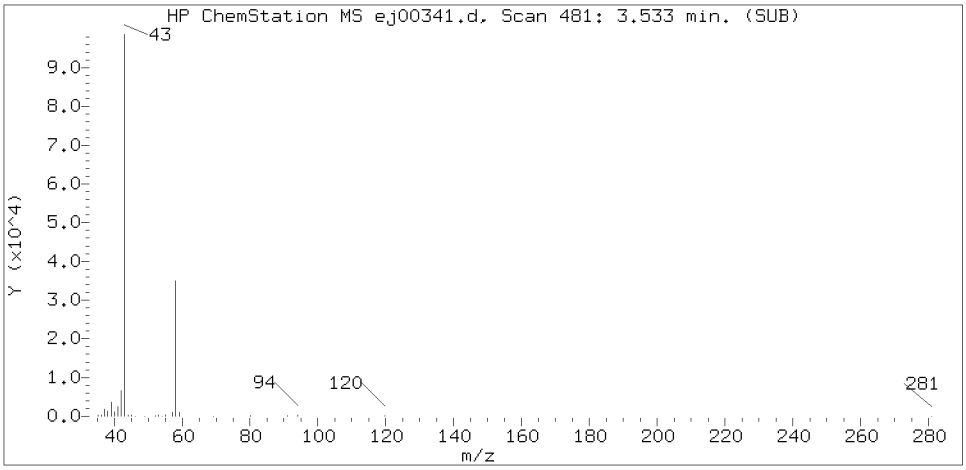
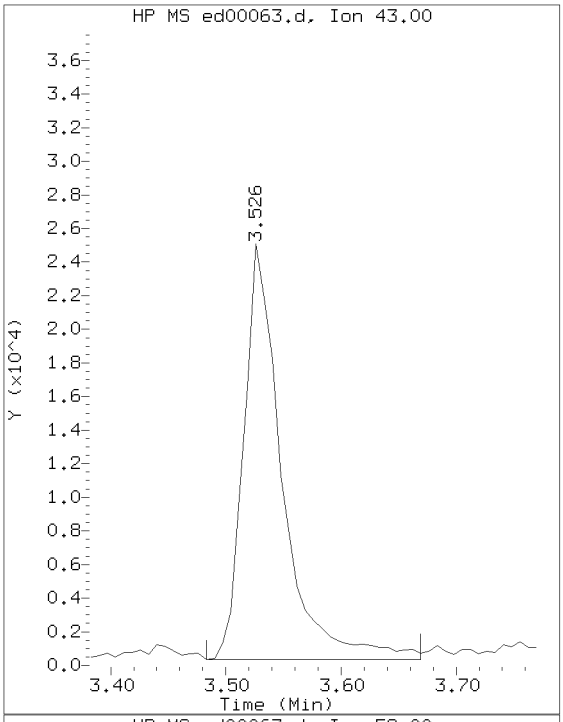
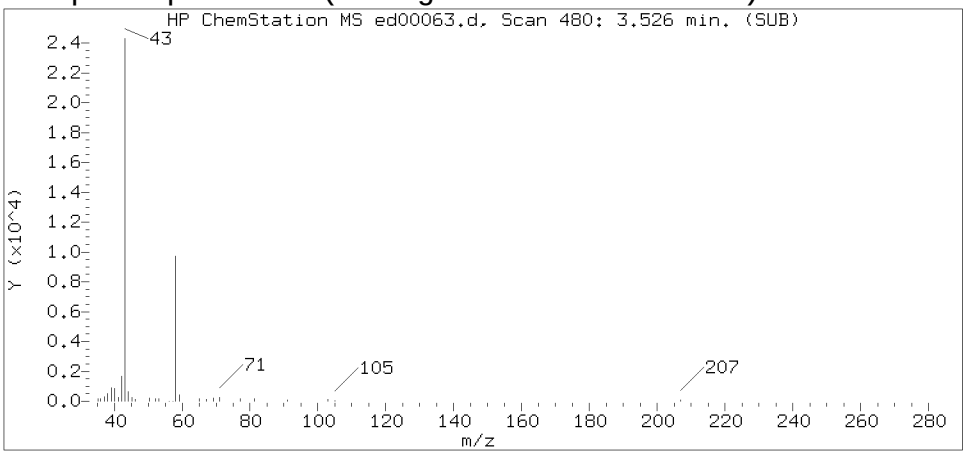
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

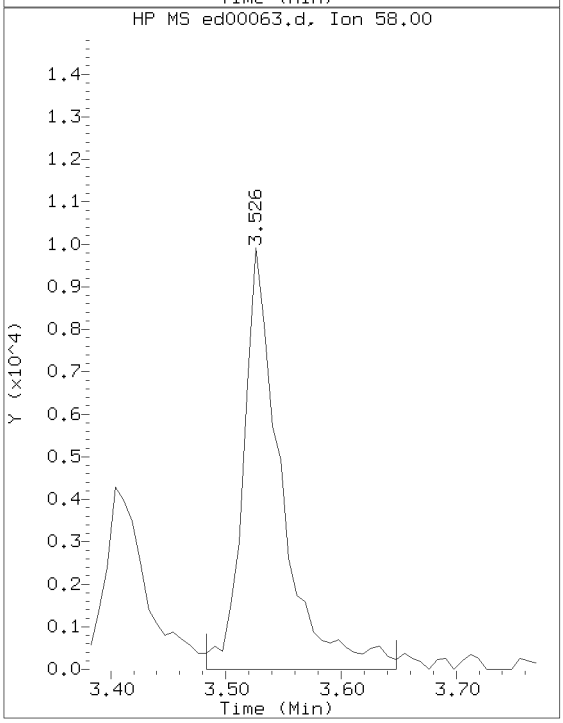
Reference Standard Spectrum for Acetone



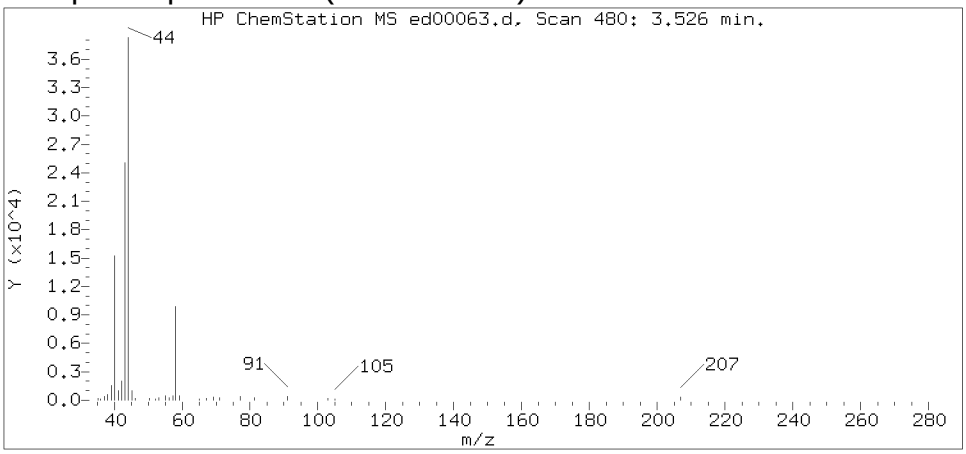


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 19
Compound Name : Acetone
Scan Number : 480
Retention Time (minutes): 3.526
Relative Retention Time :-0.00084
Quant Ion : 43.00
Area (flag) : 57139
Concentration (ppb(v)) : 2.1261

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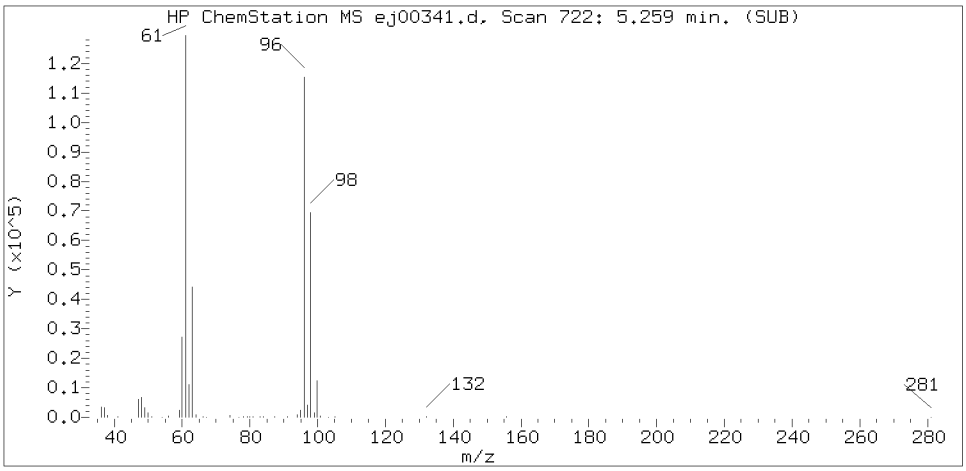
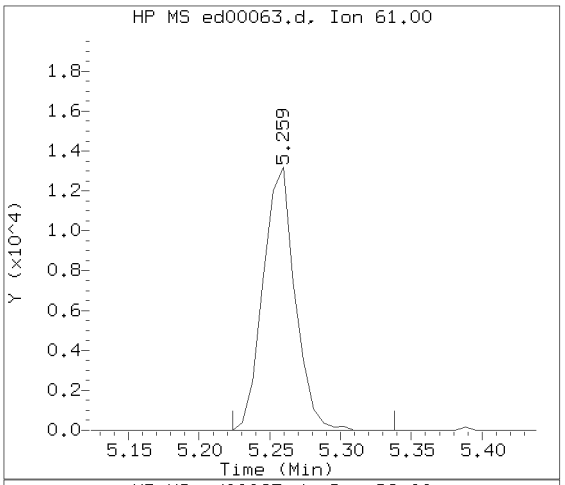
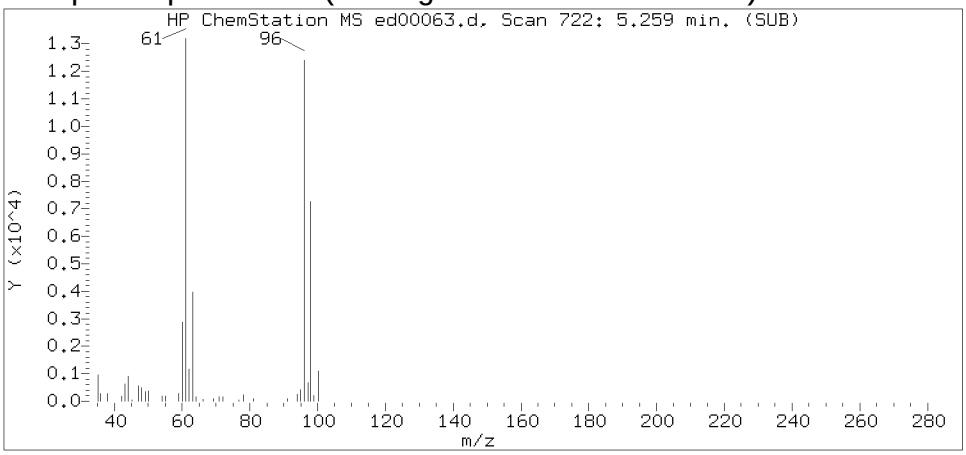
Target 3.5 esignature user ID: jeb07445

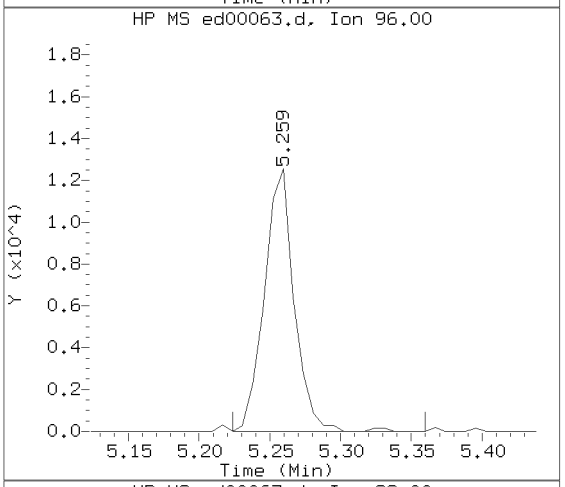
Reference Standard Spectrum for cis-1,2-Dichloroethene



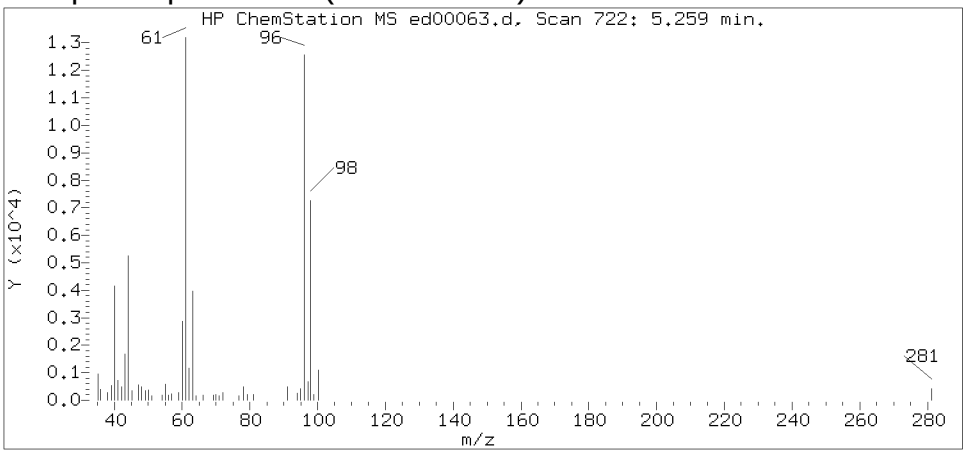


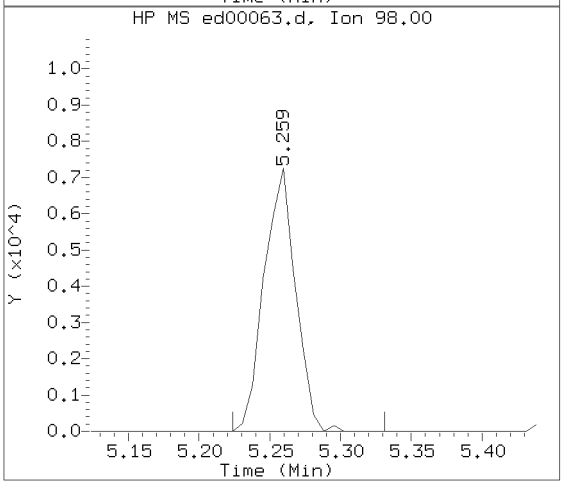
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time :-0.00126
Quant Ion : 61.00
Area (flag) : 20762
Concentration (ppb(v)) : 0.6774

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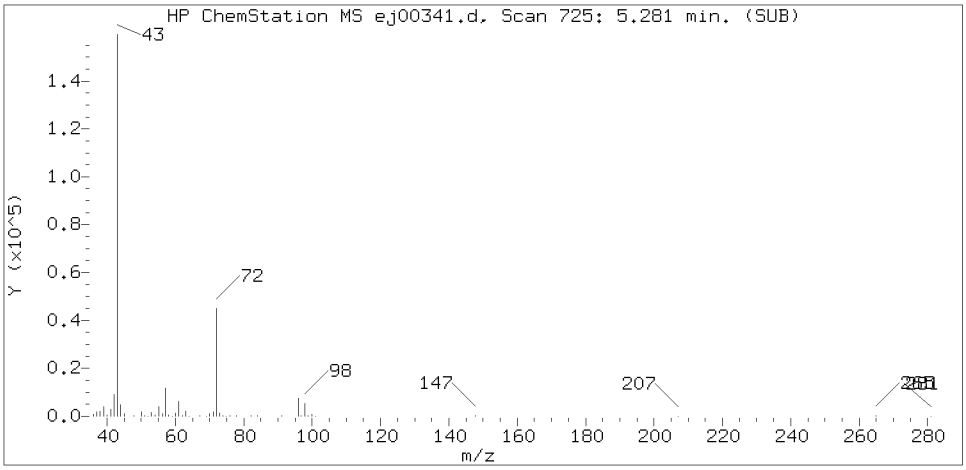
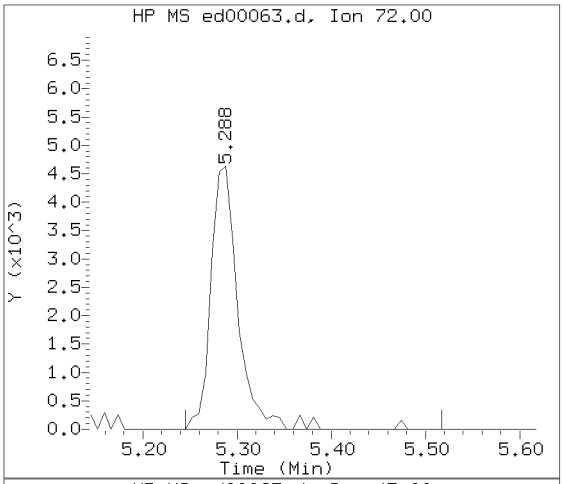
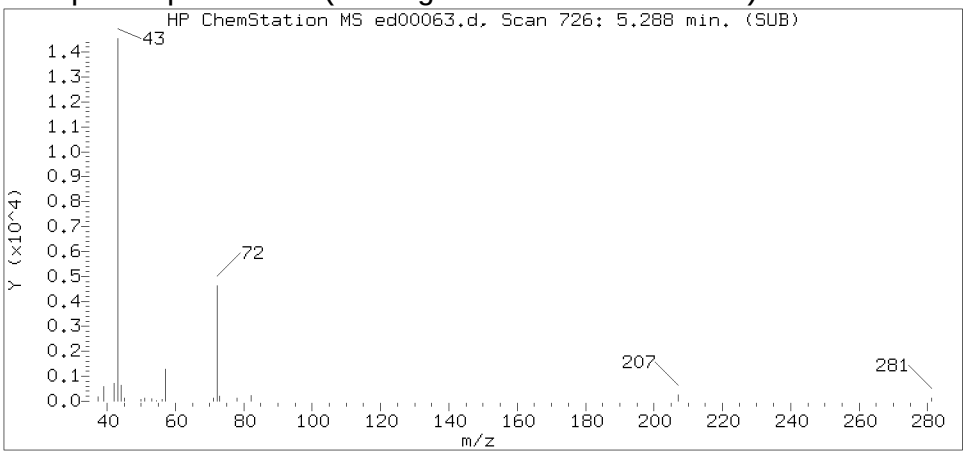
Target 3.5 esignature user ID: jeb07445

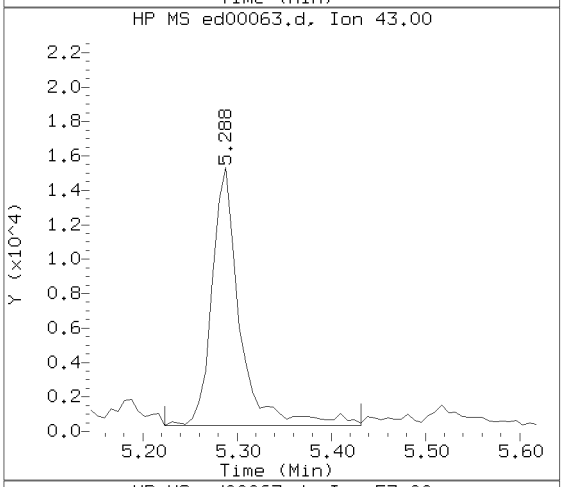
Reference Standard Spectrum for 2-Butanone



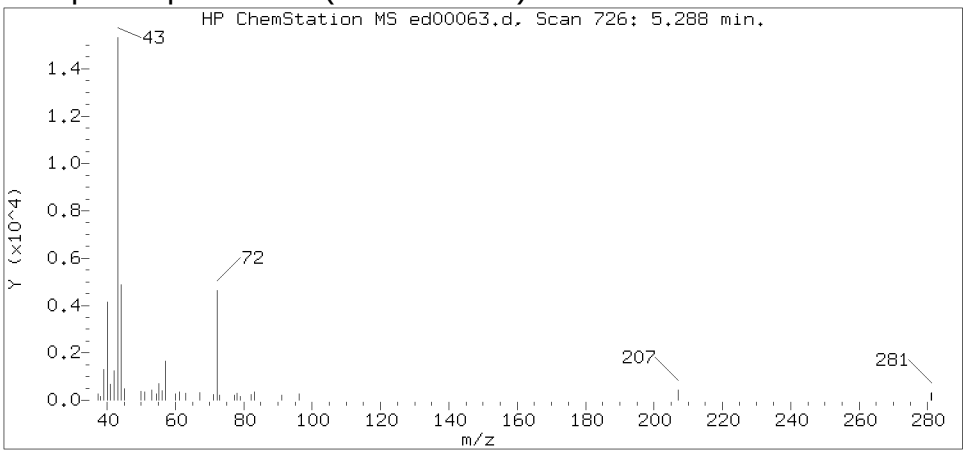


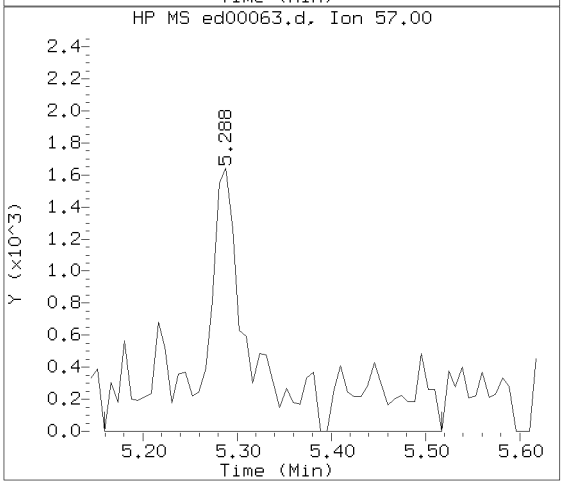
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 726
Retention Time (minutes): 5.288
Relative Retention Time :-0.00257
Quant Ion : 72.00
Area (flag) : 9443
Concentration (ppb(v)) : 0.7676

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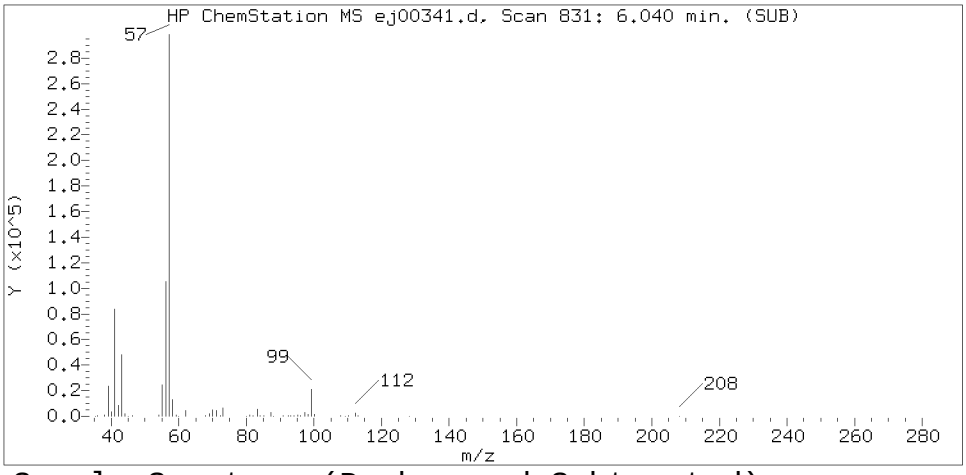
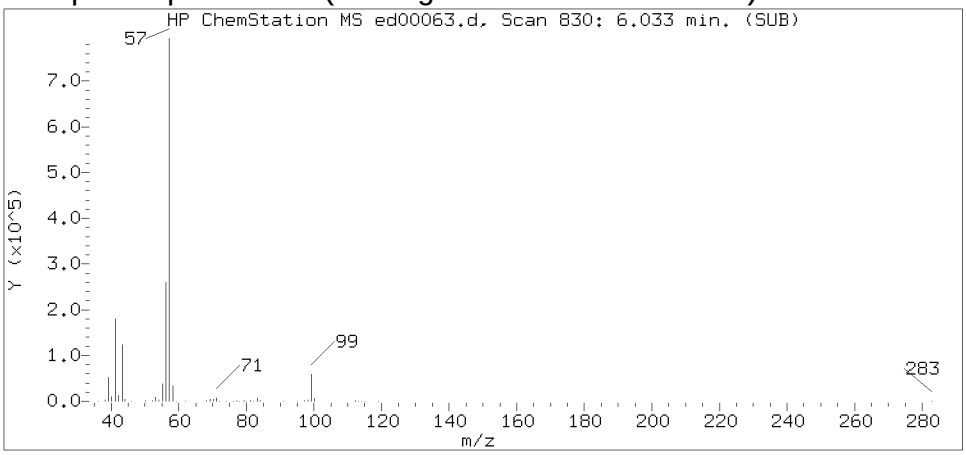
Target 3.5 esignature user ID: jeb07445

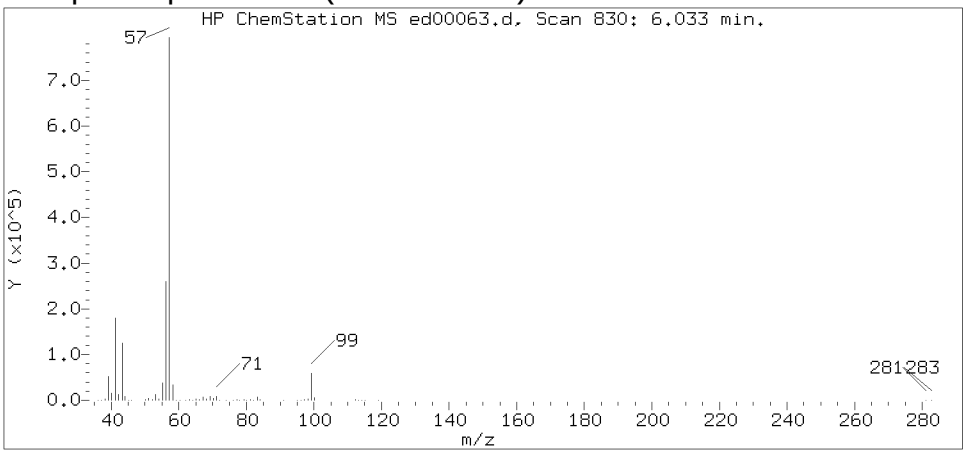
Reference Standard Spectrum for Isooctane

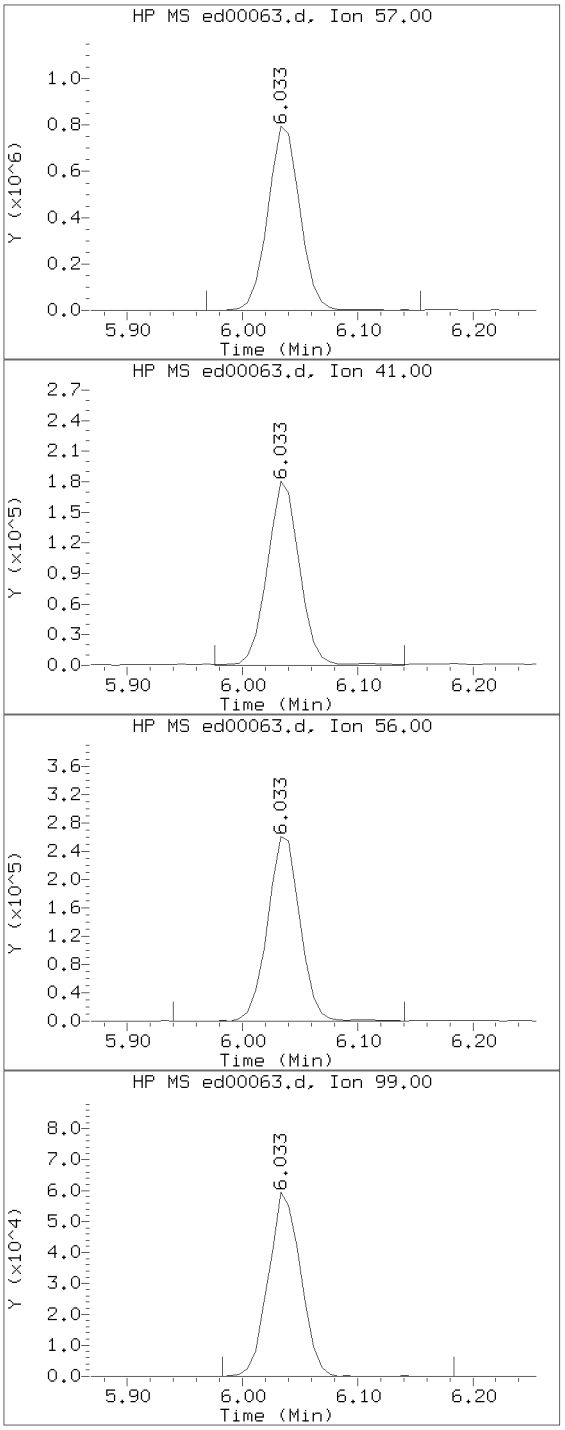


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

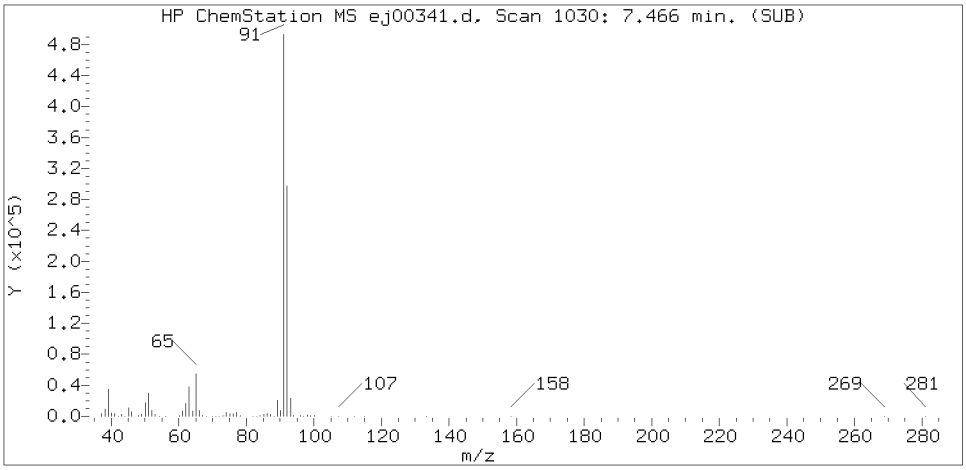
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

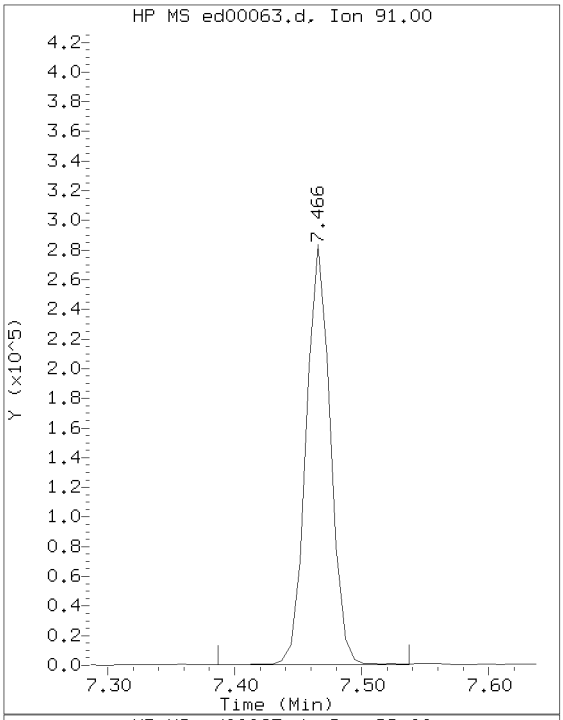
Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 48
Compound Name : Isooctane
Scan Number : 830
Retention Time (minutes): 6.033
Relative Retention Time : 0.00114
Quant Ion : 57.00
Area (flag) : 1544655
Concentration (ppb(v)) : 13.5502

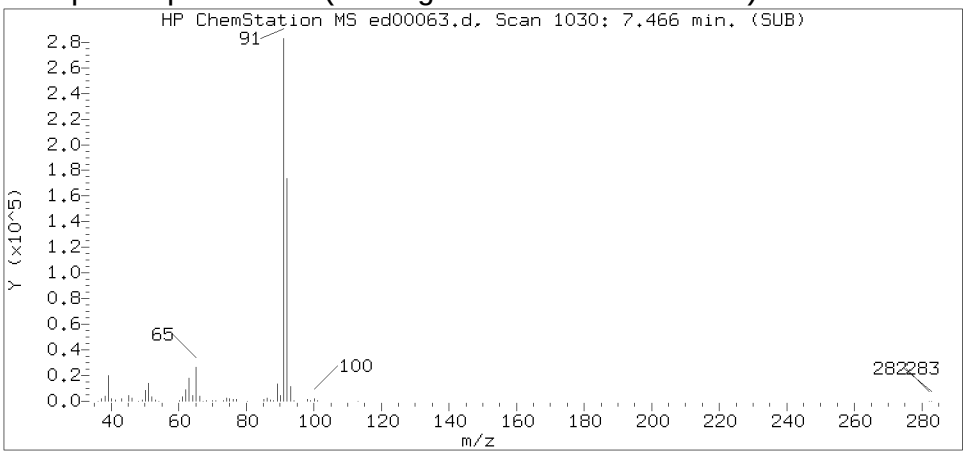
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

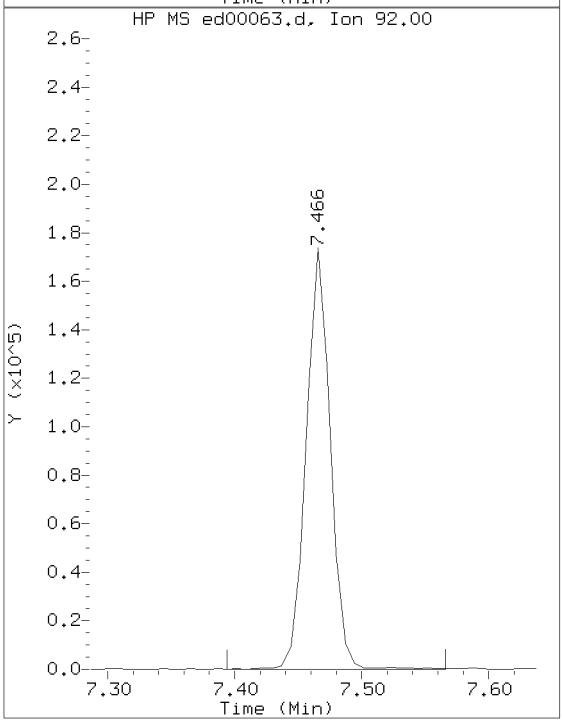
Reference Standard Spectrum for Toluene



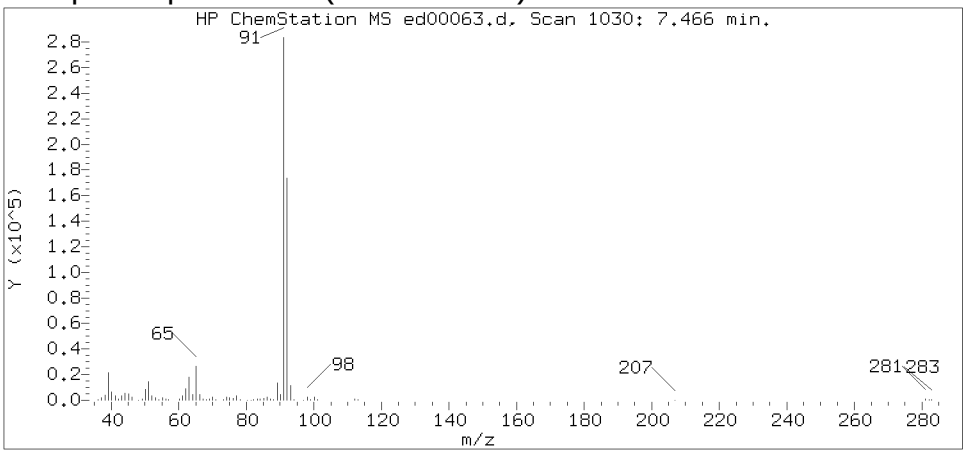


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.466
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 380699
Concentration (ppb(v)) : 3.6330

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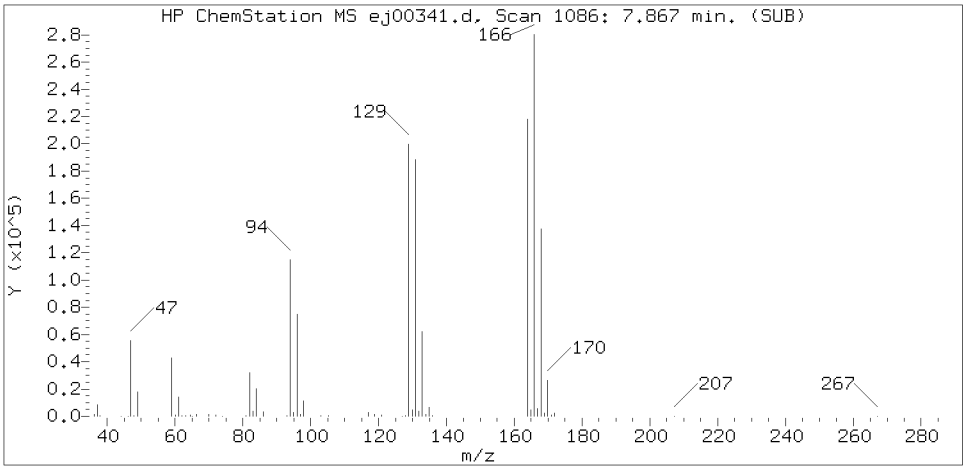
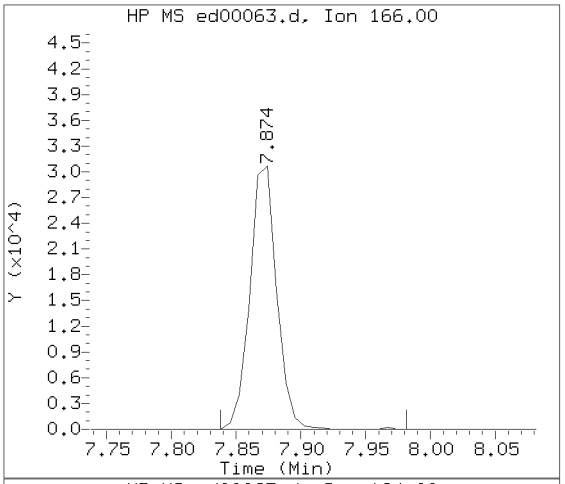
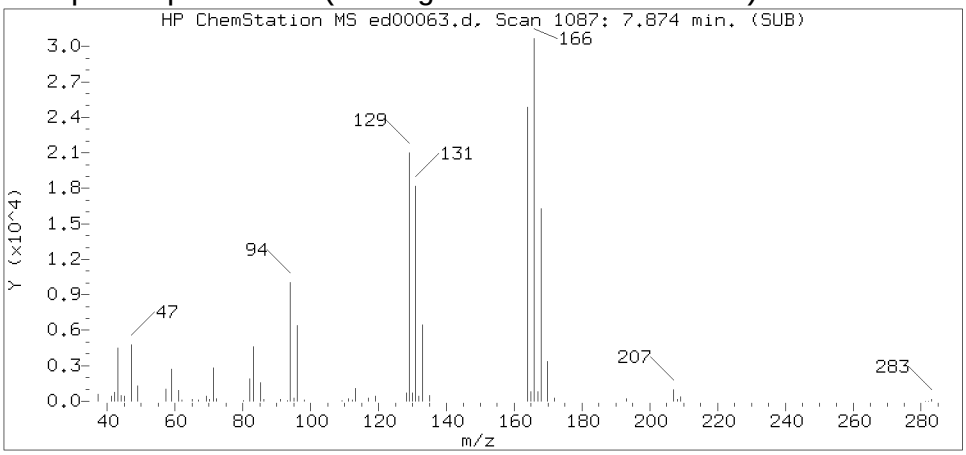
Target 3.5 esignature user ID: jeb07445

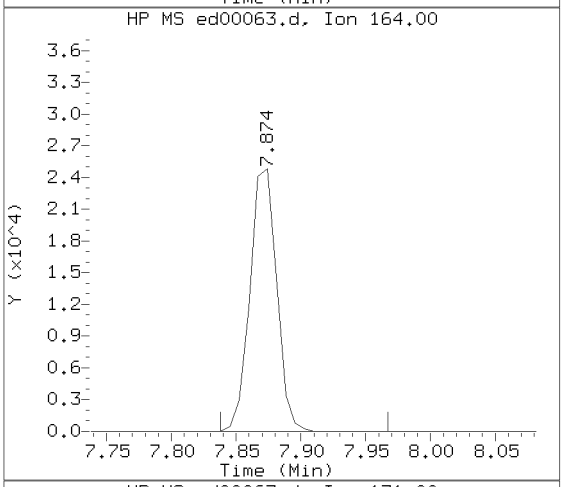
Reference Standard Spectrum for Tetrachloroethene



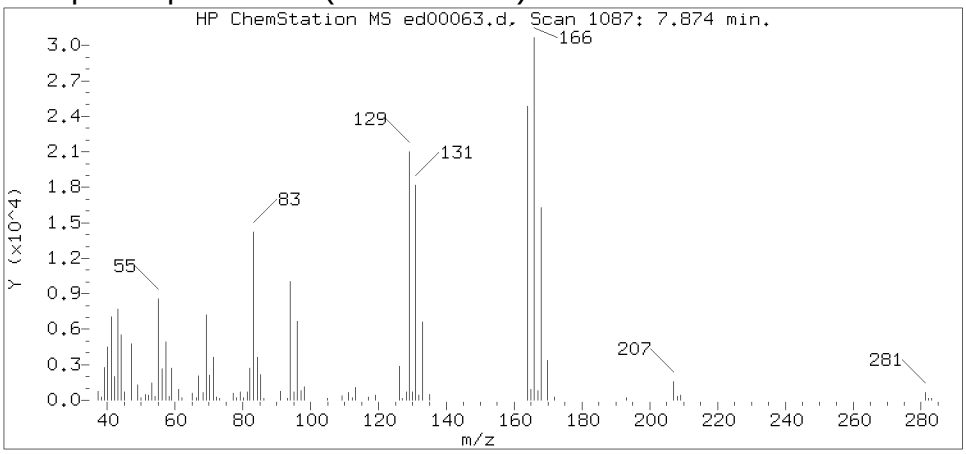


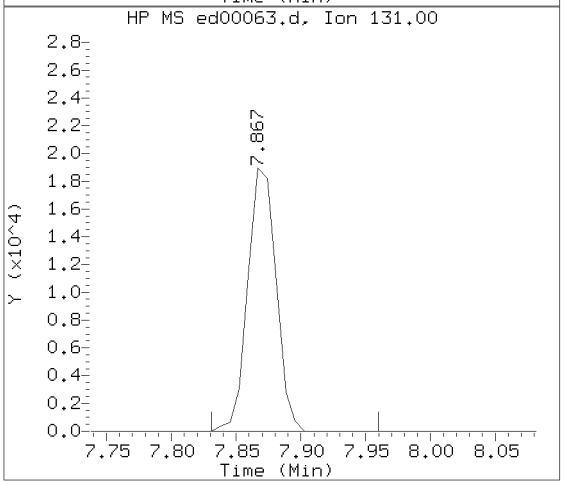
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 44212
Concentration (ppb(v)) : 0.7168

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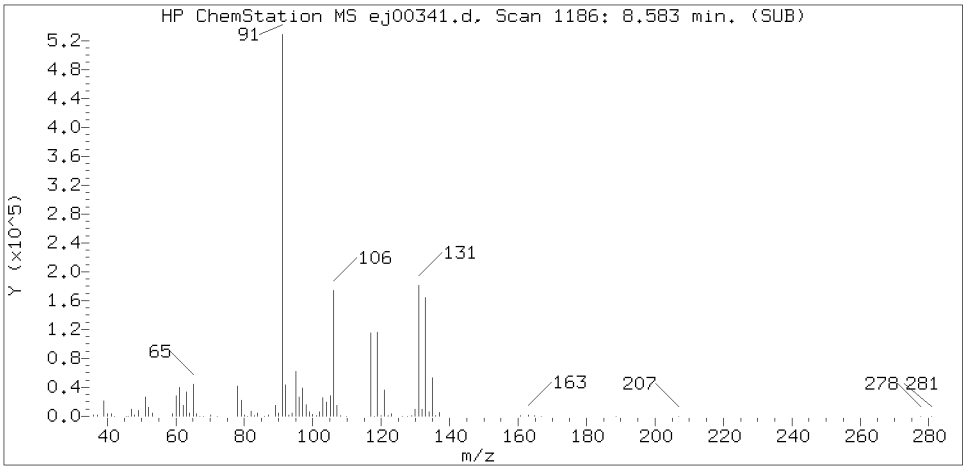
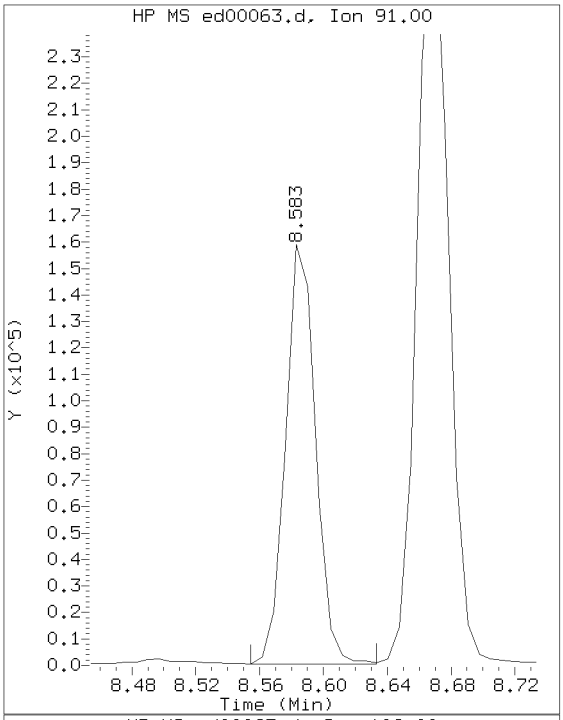
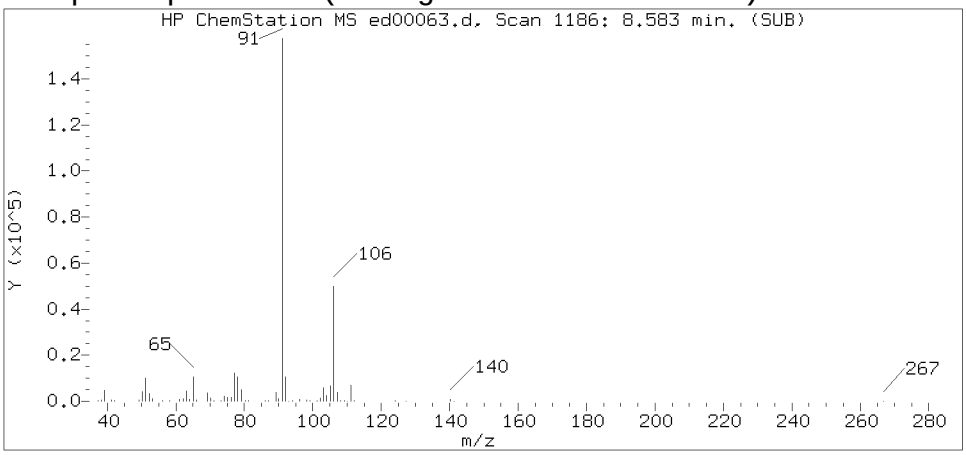
Target 3.5 esignature user ID: jeb07445

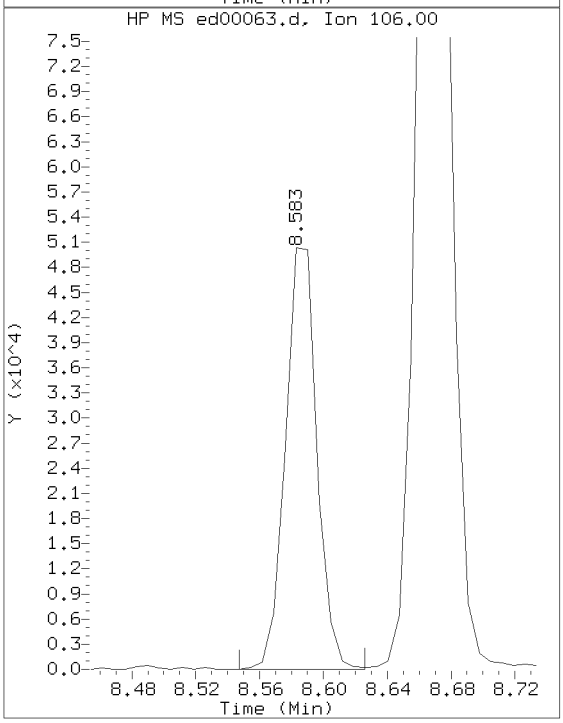
Reference Standard Spectrum for Ethylbenzene



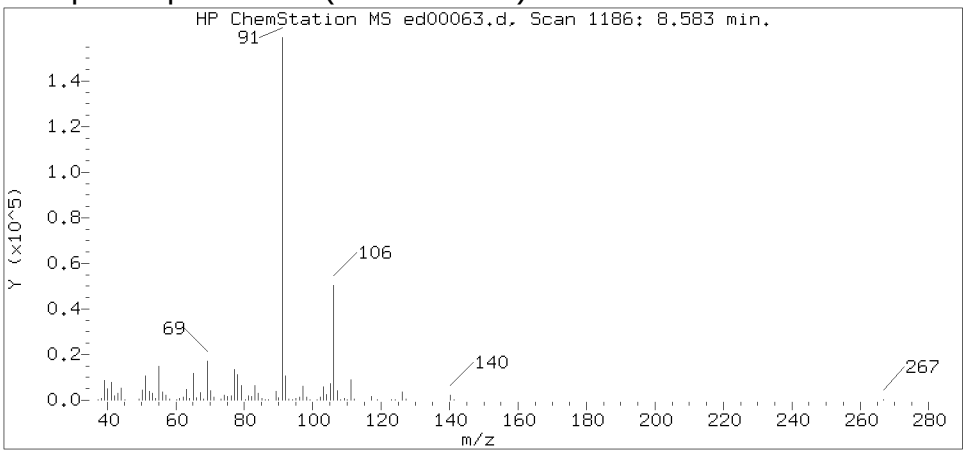


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 206577
Concentration (ppb(v)) : 1.5384

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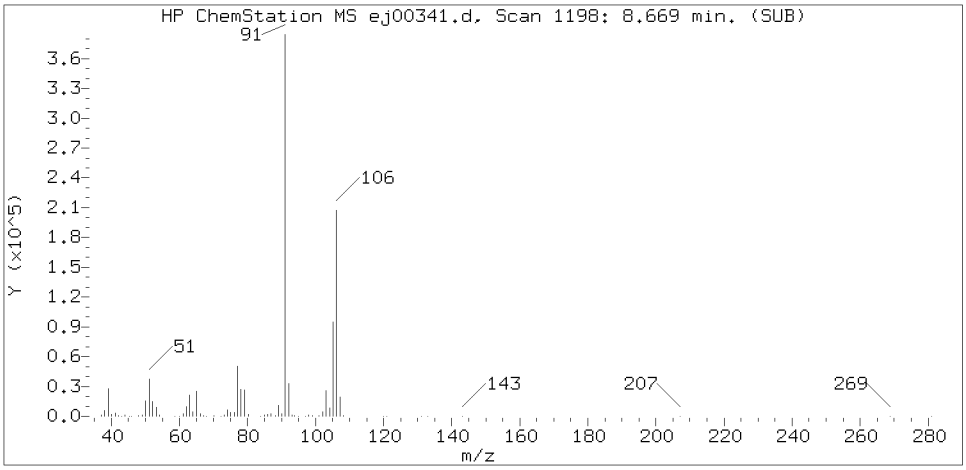
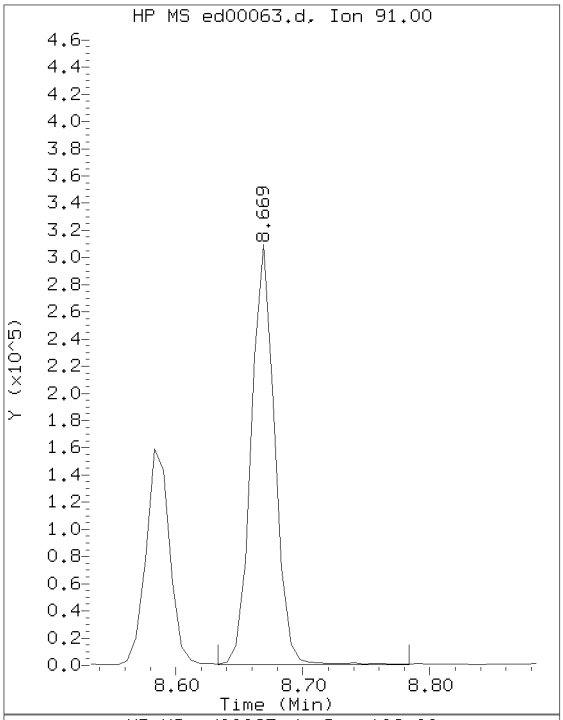
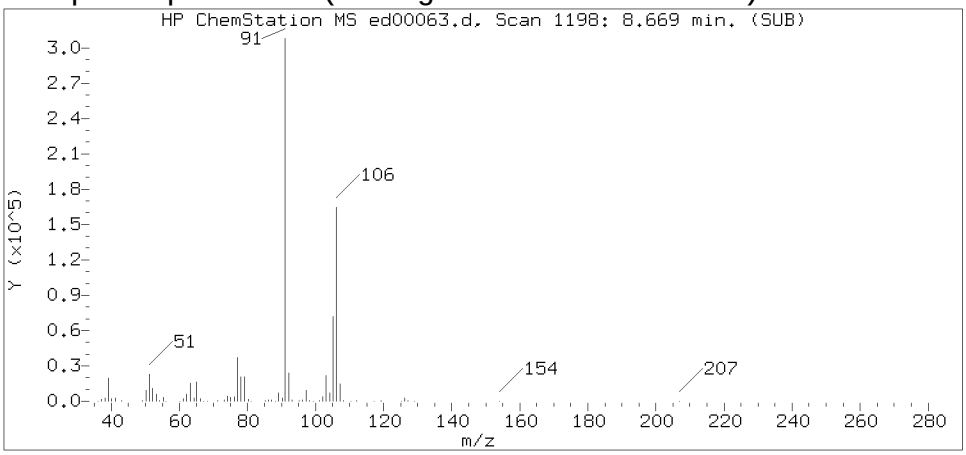
Target 3.5 esignature user ID: jeb07445

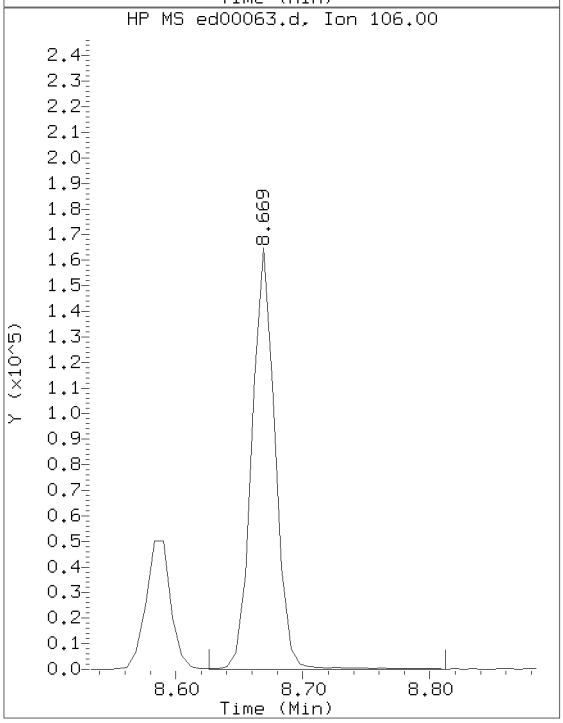
Reference Standard Spectrum for m/p-Xylene



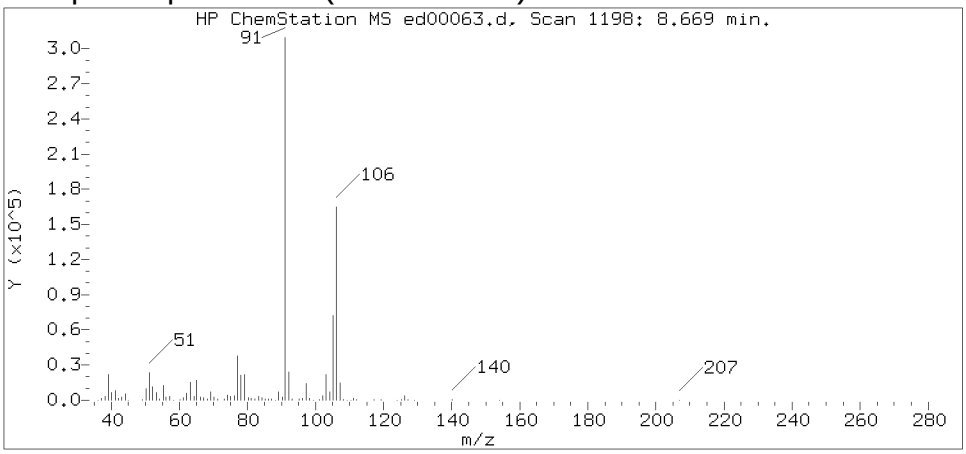


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1198
Retention Time (minutes): 8.669
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 399031
Concentration (ppb(v)) : 3.7625

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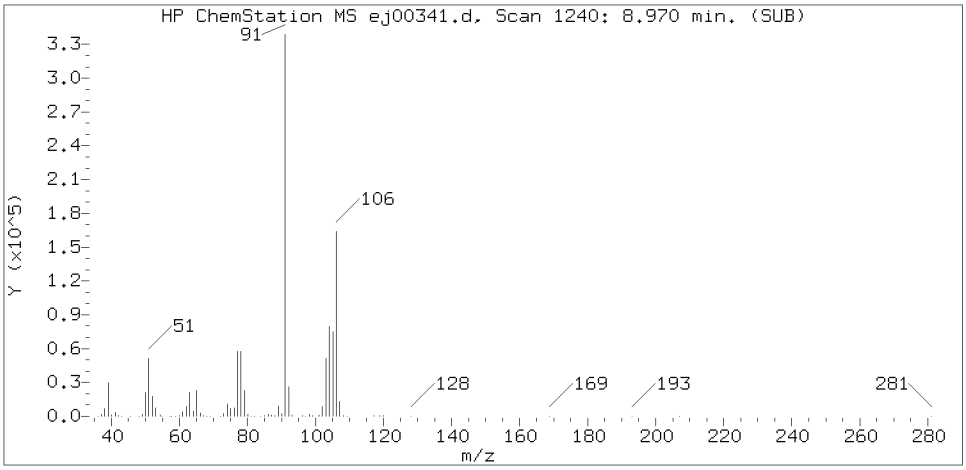
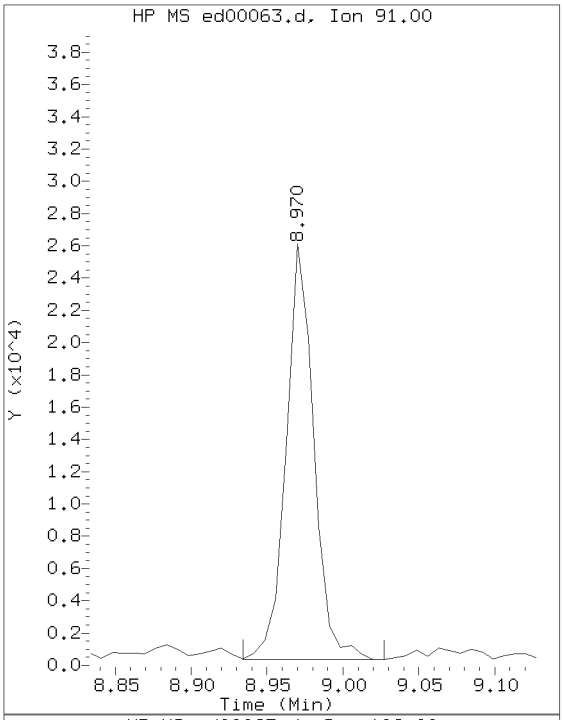
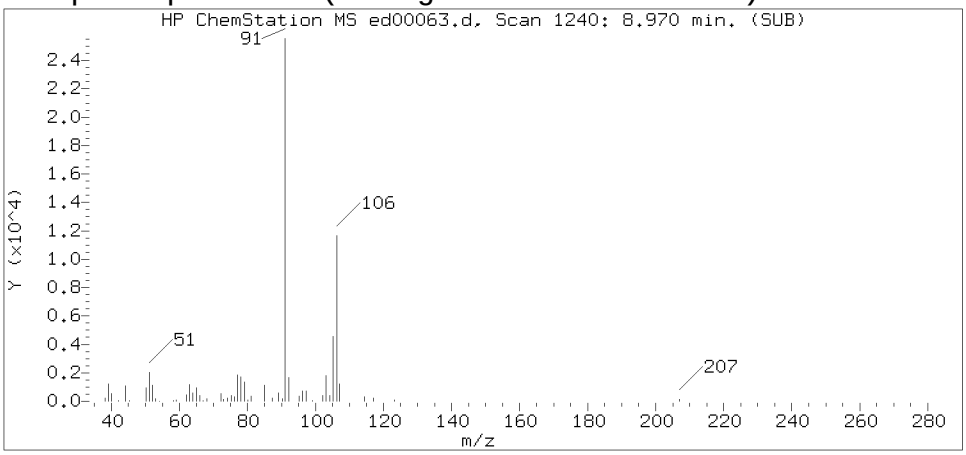
Target 3.5 esignature user ID: jeb07445

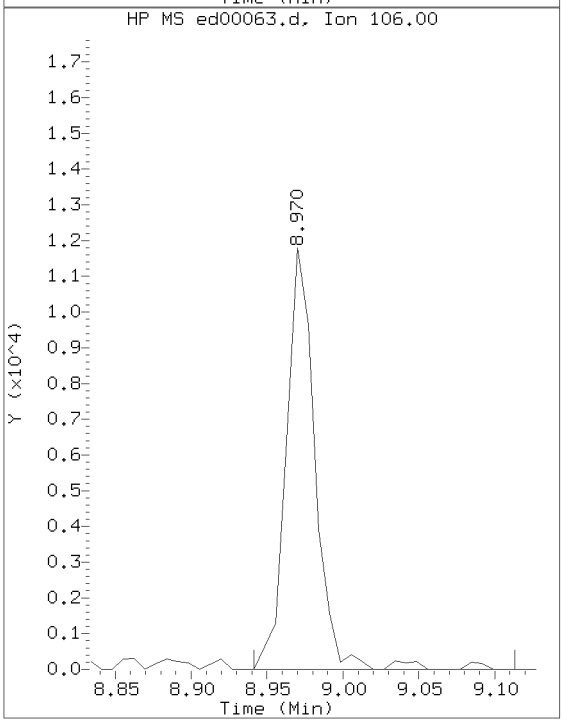
Reference Standard Spectrum for o-Xylene



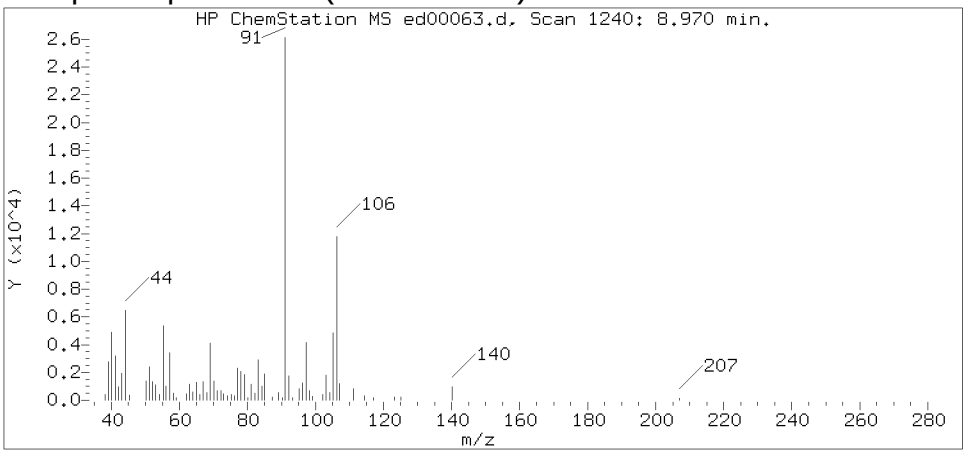


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00063.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 20:34 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:01 jeb07445

Sample Name: S7103 Lab Sample ID: 8920249DL

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 33089
Concentration (ppb(v)) : 0.3219

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Target 3.5 esignature user ID: jeb07445

S7104

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

8920250

Data file: /chem/HP22820.i/17apr05.b/ed00064.d Injection date and time: **05-APR-2017 21:18**
Data file Sample Info. Line: 8920250;400;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 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
40) Bromochloromethane	5.474(0.000)	752	130	211523 (-7)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	861652 (3)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	889045 (7)	10.00		498344 - 1162802

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)	1.642(0.000)	85	26921	0.505	0.51		J	0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)	1.971(-0.001)	62	45159	2.253	2.25			0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.874(-0.001)	43	128196	4.278	4.28			0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.533(-0.001)	43	233409	9.718	9.72			0.5	2
21) Carbon Disulfide	(1)	3.662(-0.001)	76	340323	5.545	5.54			0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)	4.020(-0.001)	84	20785	1.138	1.14			0.2	1
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	176316	6.135	6.14			0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.564(-0.001)	57	469755	15.096	15.10			0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(-0.000)	61	435632	15.904	15.90			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	194471	17.687	17.69			0.5	2
42) Chloroform	(1)	5.539(-0.000)	83	47248	0.992	0.99		J	0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(0.000)	78	862434	10.789	10.79			0.2	1
47) 1,2-Dichloroethane	(2)	6.011(0.000)	62	2786000	92.518	92.52		E	0.2	1
48) Isooctane	(2)	6.033(0.001)	57	2243024	20.395	20.40			0.2	1
50) Heptane	(2)	6.176(0.000)	43	316837M	8.701	8.70			0.2	1
52) Trichloroethene	(2)	6.498(-0.001)	130	56778	1.378	1.38			0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.465(0.000)	91	12277375	114.402	114.40		E	0.2	1
62) Octane	(3)	7.516(0.000)	43	324793	6.165	6.17			0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	175712	2.781	2.78			0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07. Target 3.5 esignature user ID: jeb07445

S7104 Lancaster Laboratories, Inc. 8920250
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00064.d Injection date and time: **05-APR-2017 21:18**
Data file Sample Info. Line: 8920250;400;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

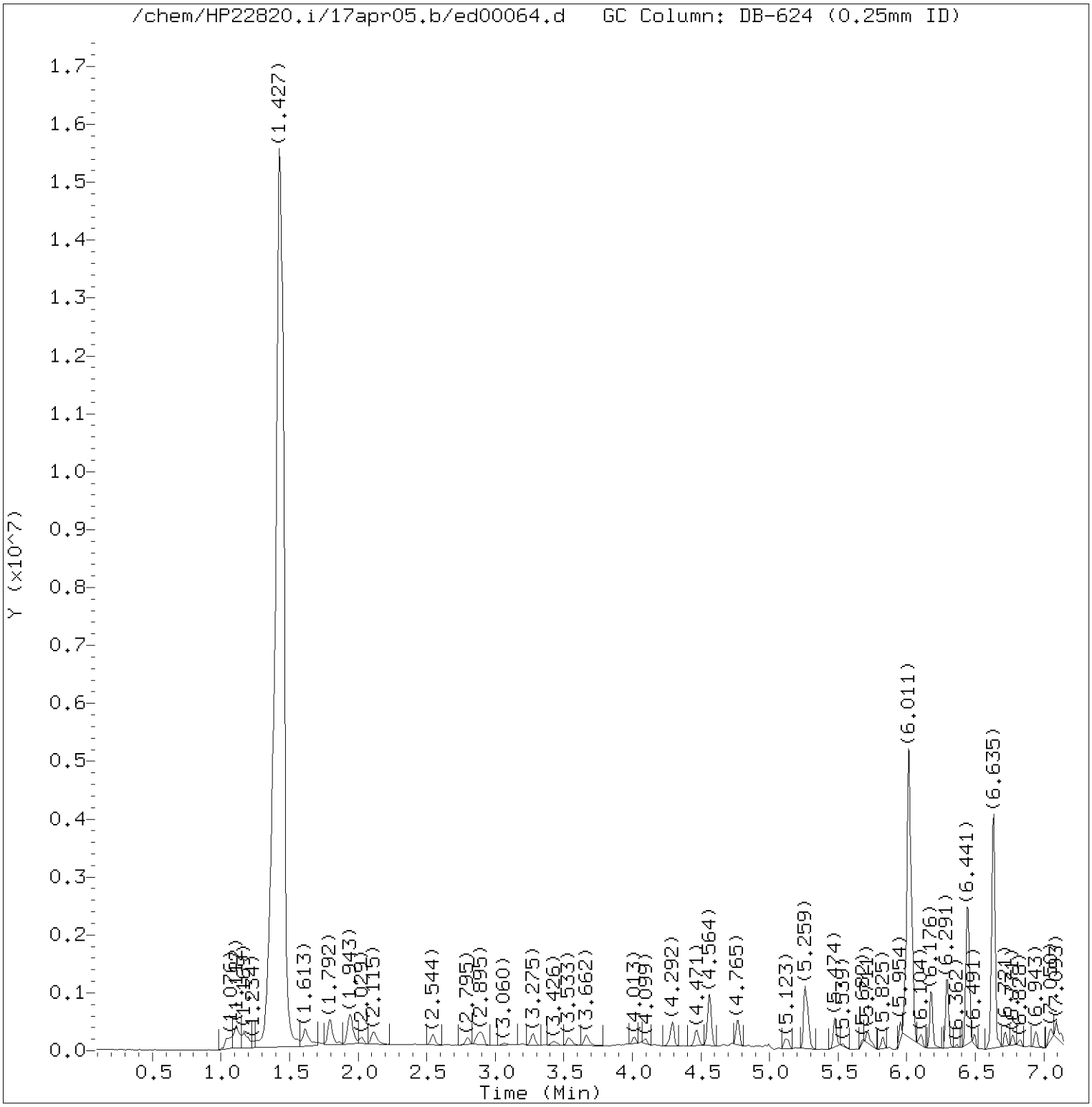
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.590(-0.000)	91	14515877	105.558	105.56		E	0.2	1
75) m/p-Xylene	(3)	8.676(-0.000)	91	14952684	137.670	137.67		E	0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	1985117	18.858	18.86			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)	9.242(-0.000)	105	229044	1.546	1.55			0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)	9.622(0.000)	105	248948M	1.702	1.70			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	295029M	2.427	2.43			0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	772157	6.714	6.71			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.194(-0.000)	146	17958	0.206	0.21		J	0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

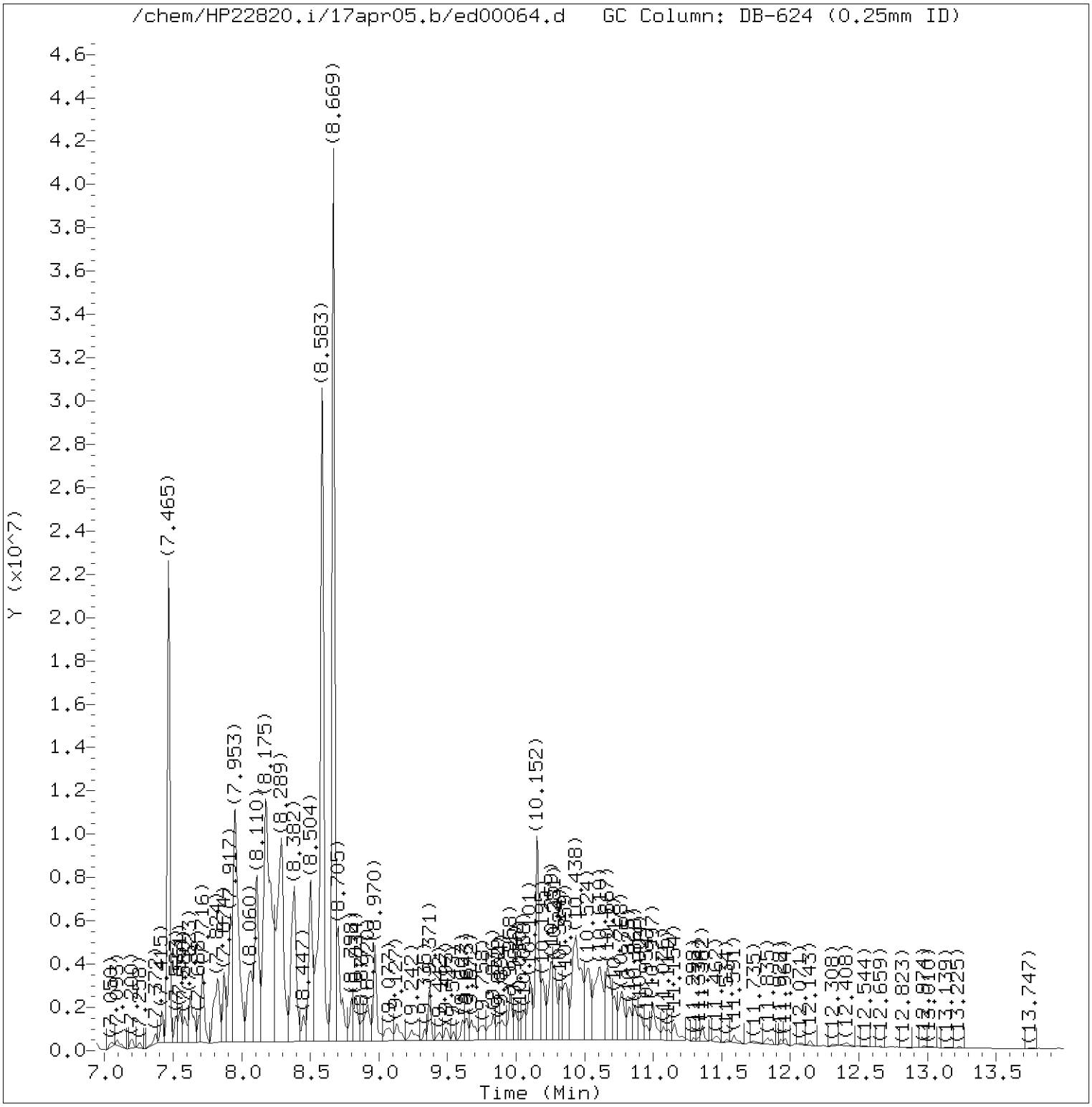
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	1.642	85	26921	0.505
6) Vinyl Chloride	(1)	1.971	62	45159	2.253
13) Pentane	(1)	2.874	43	128196	4.278
19) Acetone	(1)	3.533	43	233409	9.718
21) Carbon Disulfide	(1)	3.662	76	340323	5.545
25) Methylene Chloride	(1)	4.020	84	20785	1.138
28) trans-1,2-Dichloroethene	(1)	4.292	61	176316	6.135
30) Hexane	(1)	4.564	57	469755	15.096
35) cis-1,2-Dichloroethene	(1)	5.259	61	435632	15.904
37) 2-Butanone	(1)	5.281	72	194471	17.687
40)*Bromochloromethane	(1)	5.474	130	211523	10.000
42) Chloroform	(1)	5.539	83	47248	0.992
46) Benzene	(2)	5.990	78	862434	10.789
47) 1,2-Dichloroethane	(2)	6.011	62	2786000	92.518
48) Isooctane	(2)	6.033	57	2243024	20.395
50) Heptane	(2)	6.176	43	316837M	8.701
51)*1,4-Difluorobenzene	(2)	6.298	114	861652	10.000
52) Trichloroethene	(2)	6.498	130	56778	1.378
61) Toluene	(3)	7.465	91	12277375	114.402
62) Octane	(3)	7.516	43	324793	6.165
67) Tetrachloroethene	(3)	7.874	166	175712	2.781
71)*Chlorobenzene-d5	(3)	8.497	117	889045	10.000
74) Ethylbenzene	(3)	8.590	91	14515877	105.558
75) m/p-Xylene	(3)	8.676	91	14952684	137.670
76) o-Xylene	(3)	8.970	91	1985117	18.858
80) Cumene	(3)	9.242	105	229044	1.546
86) 4-Ethyltoluene	(3)	9.622	105	248948M	1.702
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	295029M	2.427
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	772157	6.714
92) 1,3-Dichlorobenzene	(3)	10.195	146	17958	0.206

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

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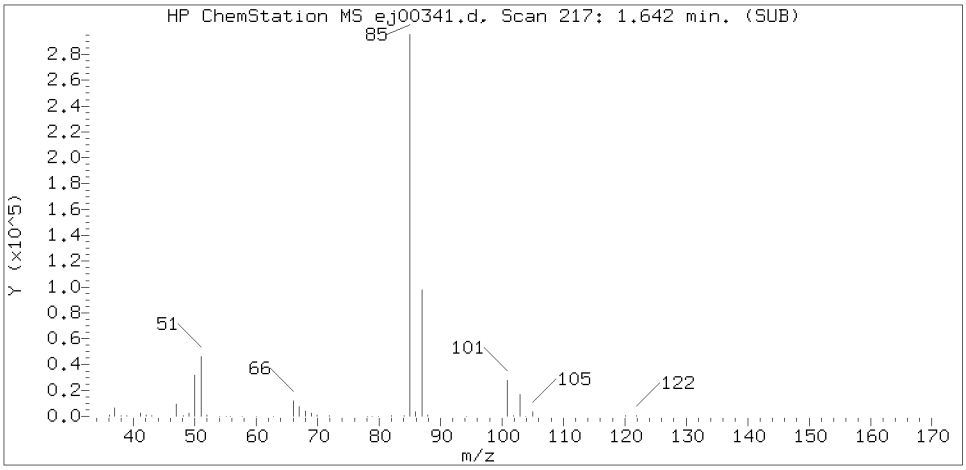
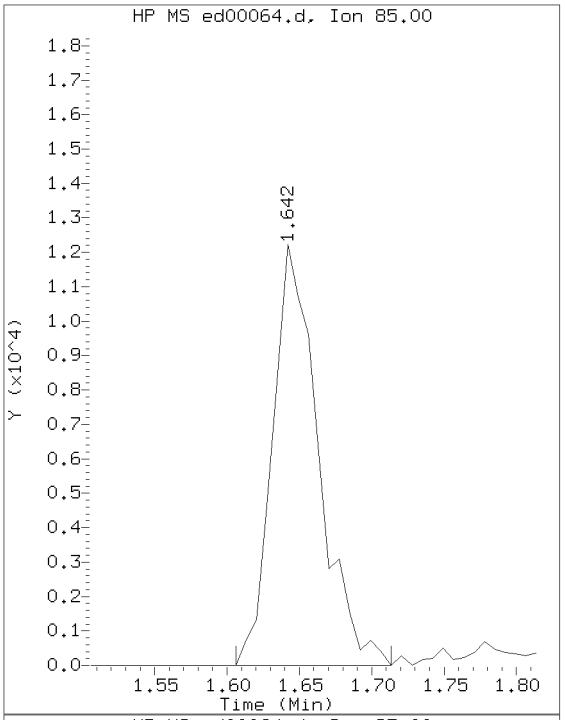
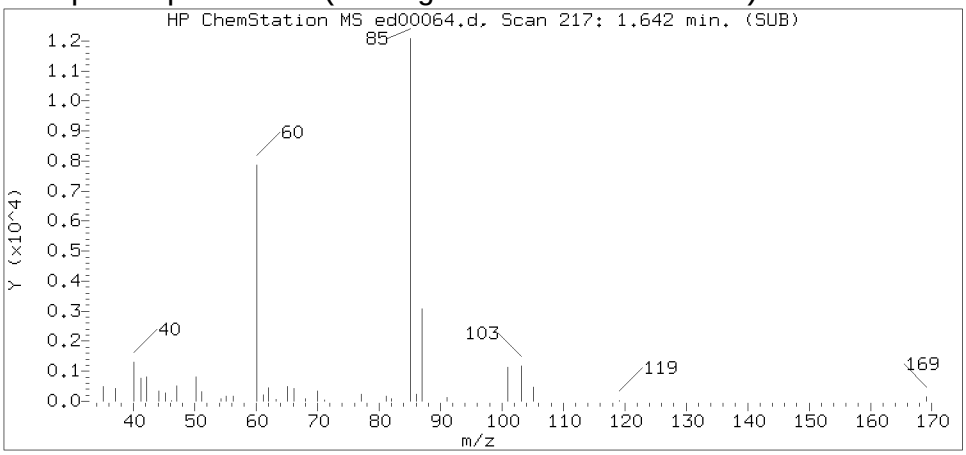
on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

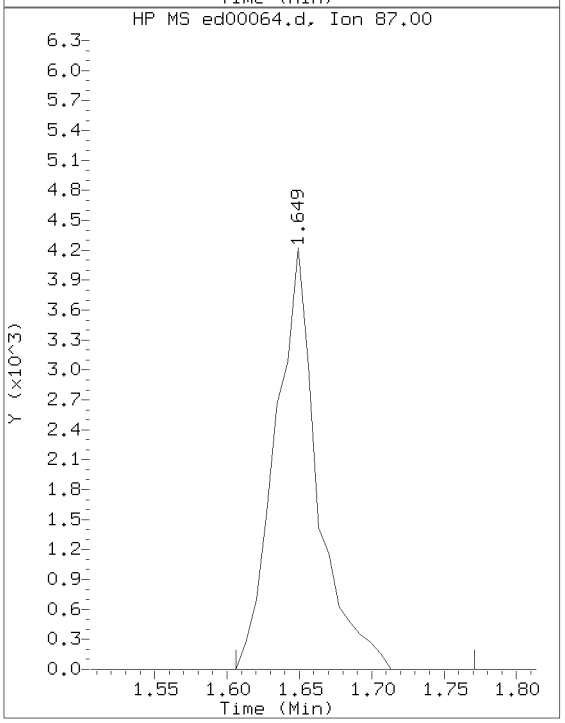
Reference Standard Spectrum for Dichlorodifluoromethane



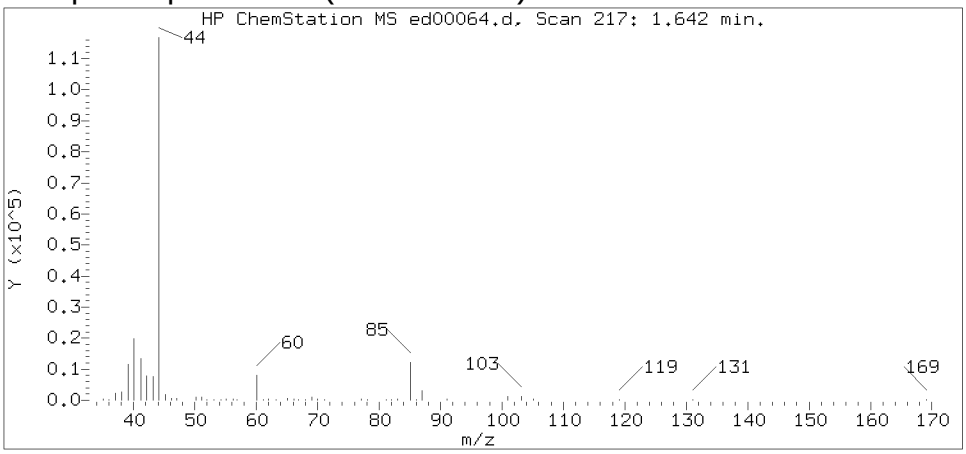


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 217
Retention Time (minutes): 1.642
Relative Retention Time : 0.00003
Quant Ion : 85.00
Area (flag) : 26921
Concentration (ppb(v)) : 0.5054

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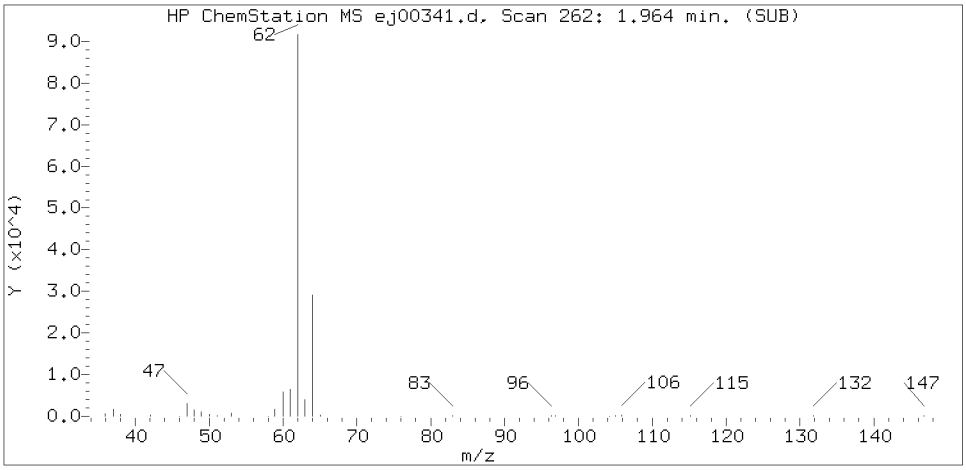
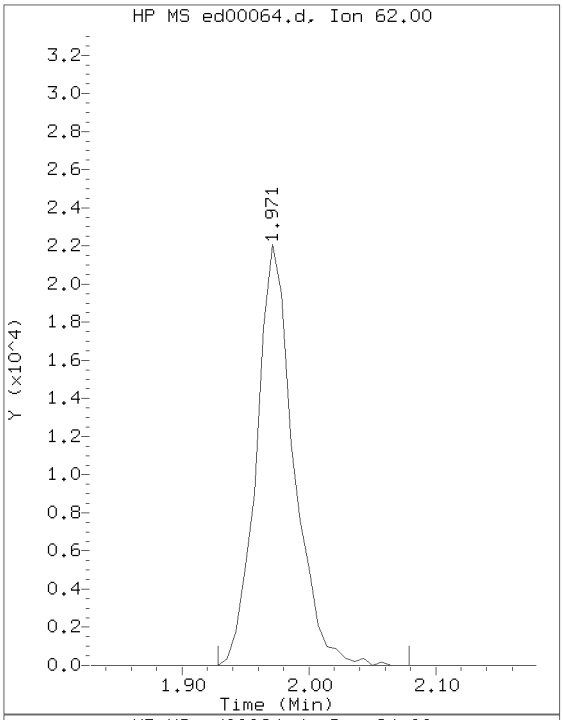
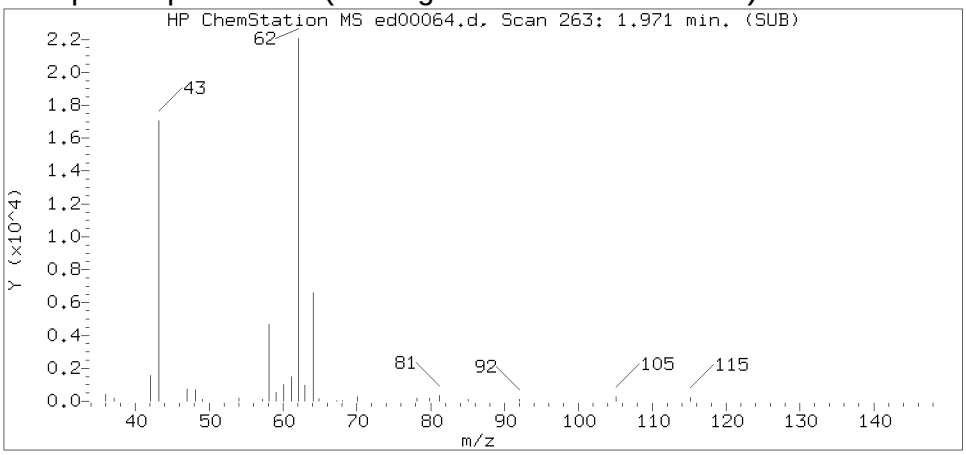
Target 3.5 esignature user ID: jeb07445

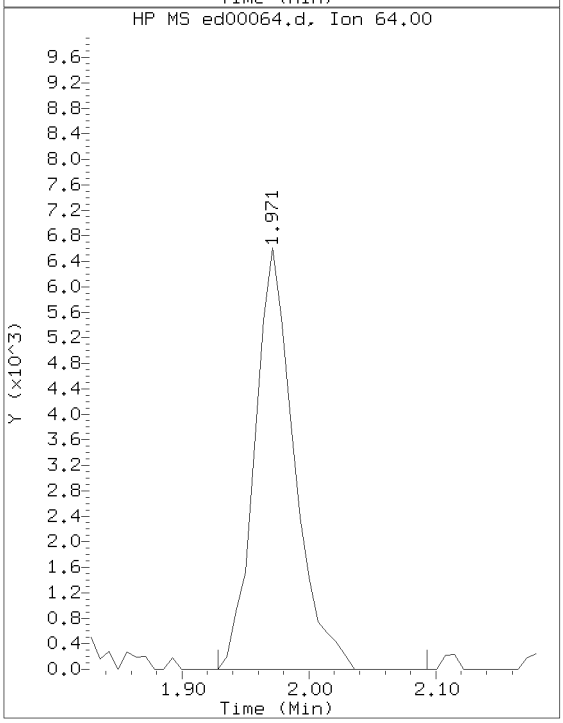
Reference Standard Spectrum for Vinyl Chloride



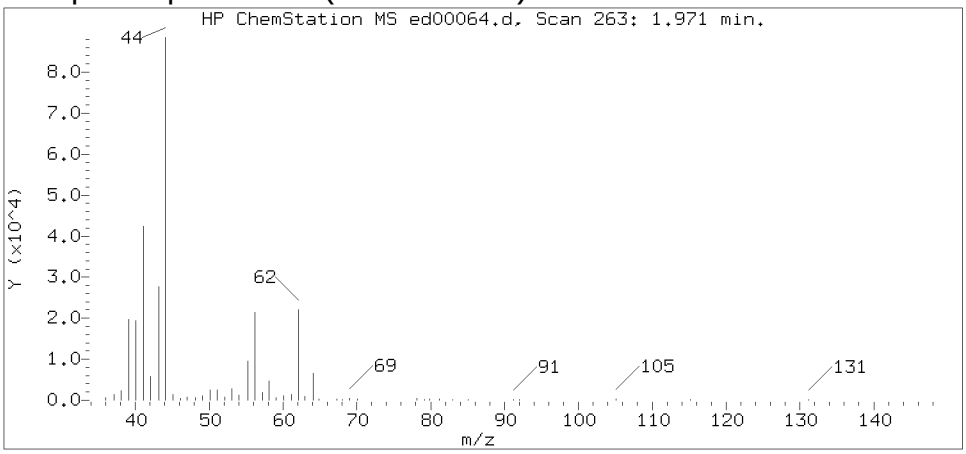


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 6
Compound Name : Vinyl Chloride
Scan Number : 263
Retention Time (minutes): 1.971
Relative Retention Time :-0.00128
Quant Ion : 62.00
Area (flag) : 45159
Concentration (ppb(v)) : 2.2533

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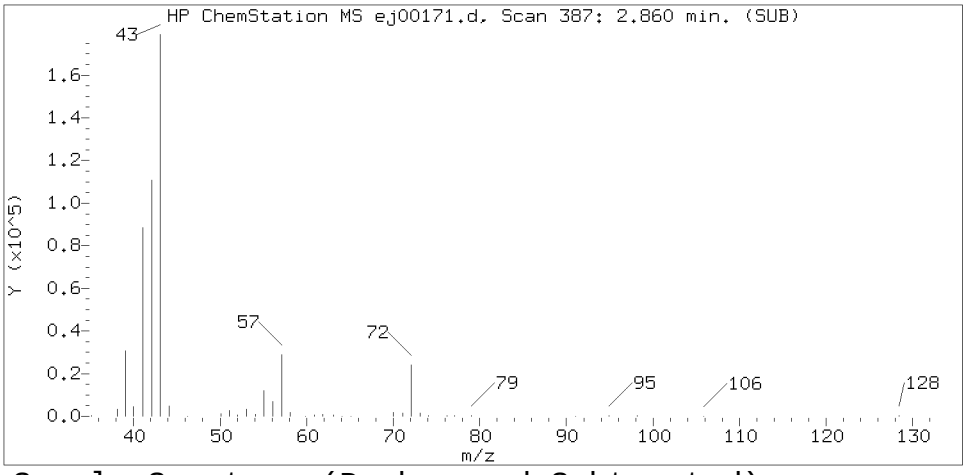
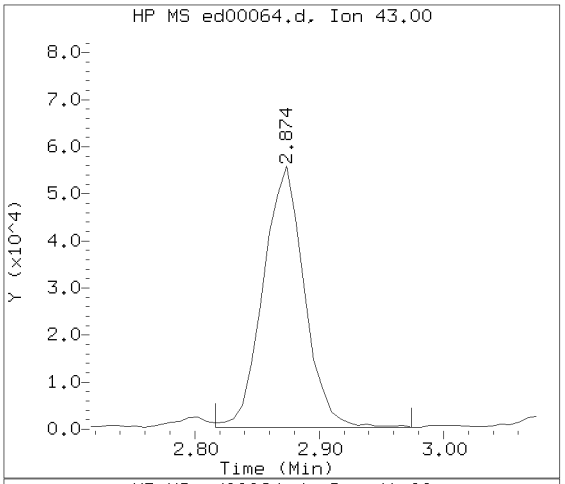
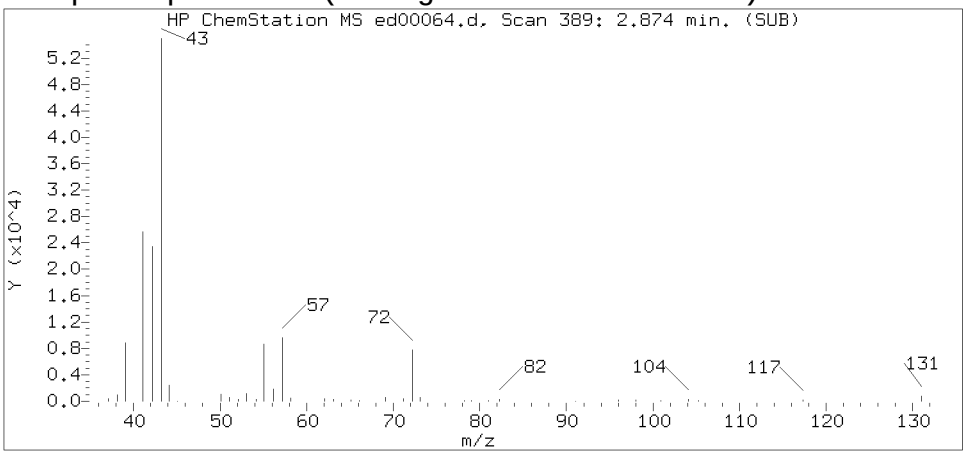
Target 3.5 esignature user ID: jeb07445

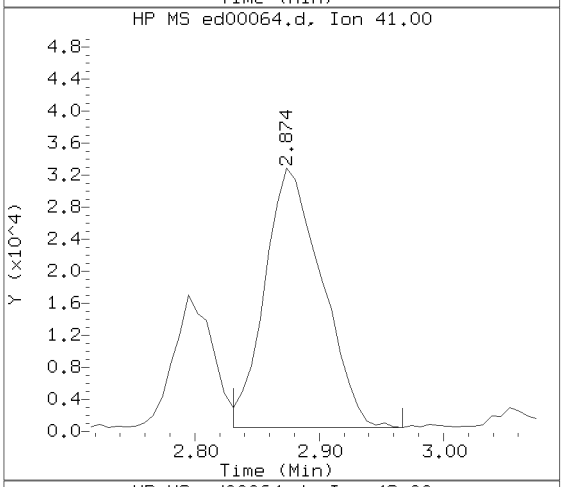
Reference Standard Spectrum for Pentane



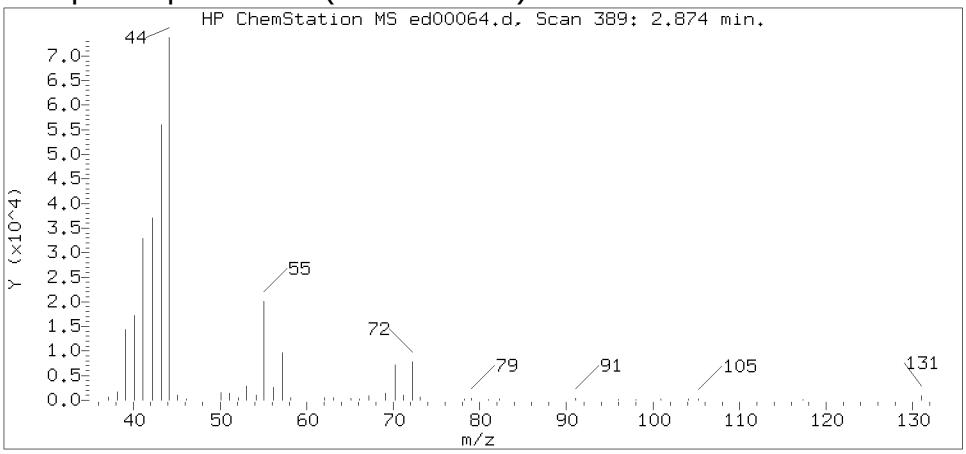


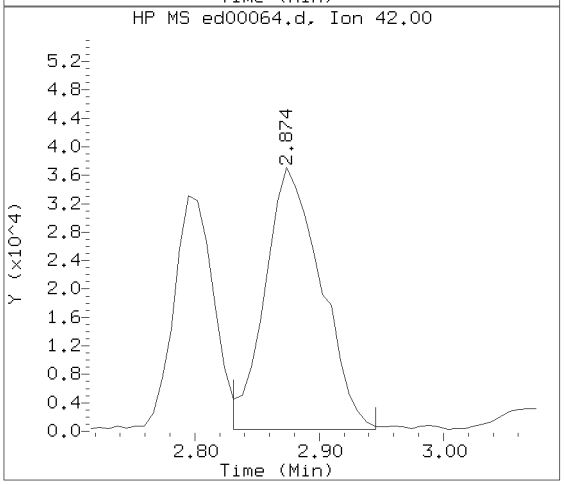
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 13
Compound Name : Pentane
Scan Number : 389
Retention Time (minutes): 2.874
Relative Retention Time :-0.00128
Quant Ion : 43.00
Area (flag) : 128196
Concentration (ppb(v)) : 4.2778

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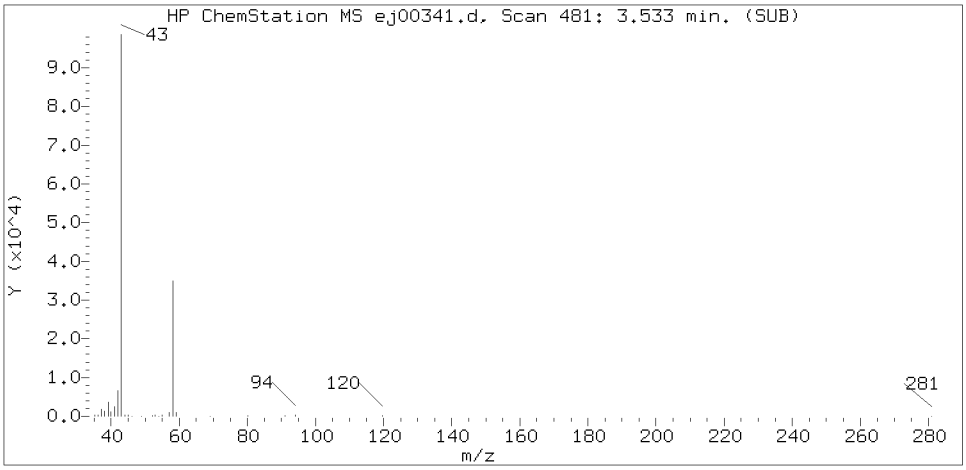
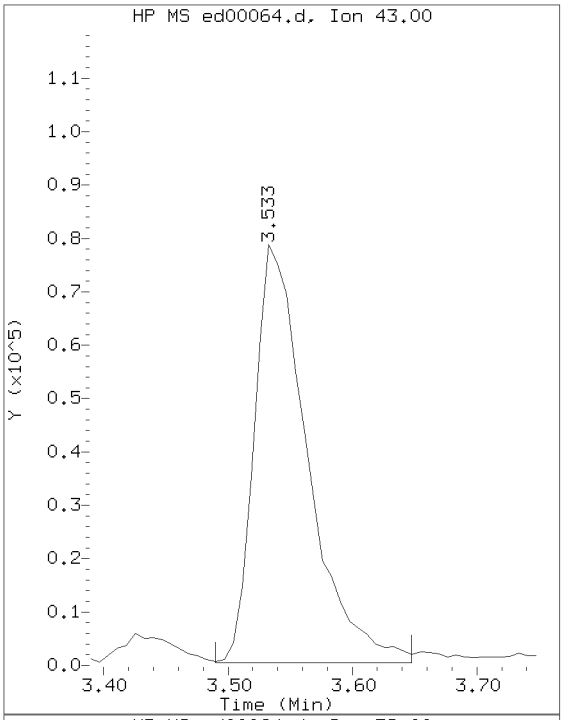
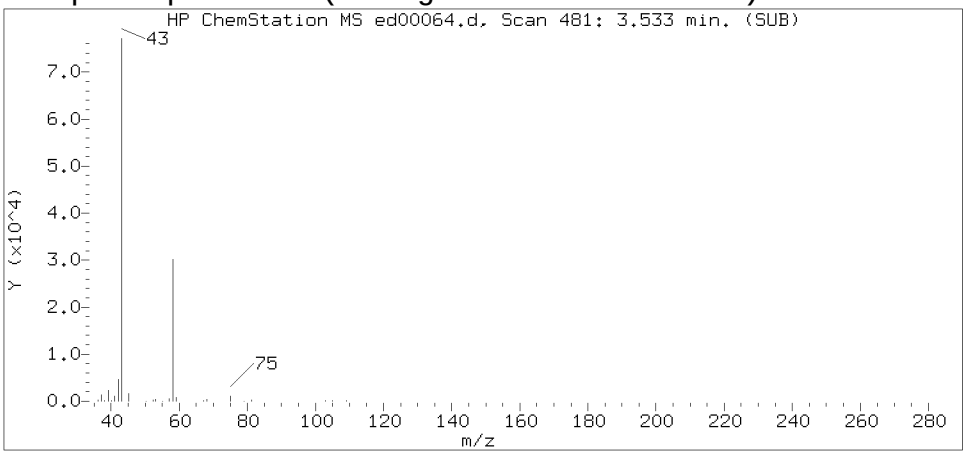
Target 3.5 esignature user ID: jeb07445

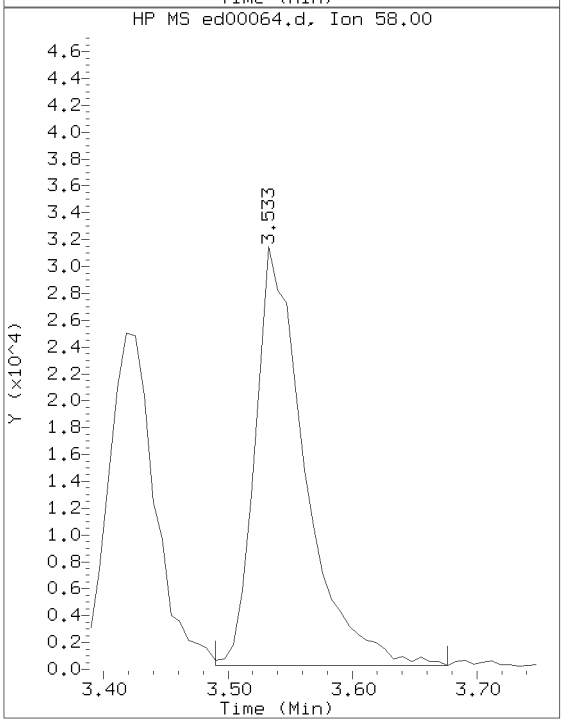
Reference Standard Spectrum for Acetone



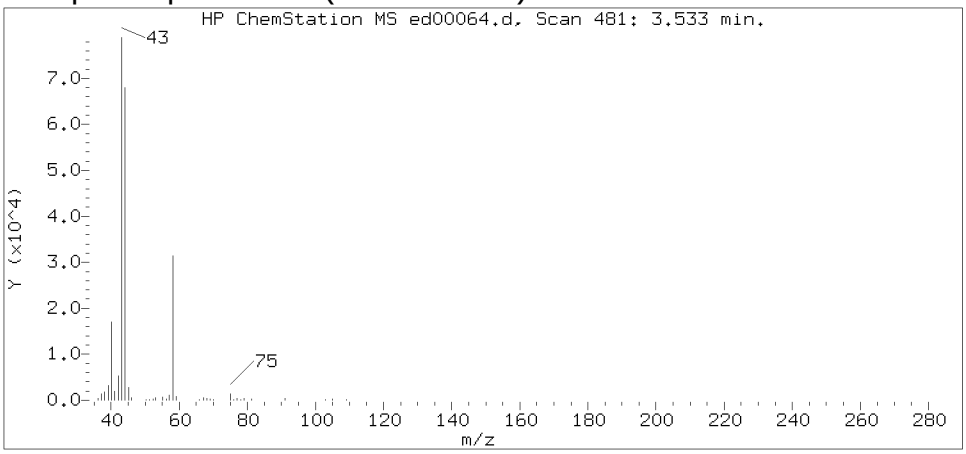


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Relative Retention Time :-0.00129
Quant Ion : 43.00
Area (flag) : 233409
Concentration (ppb(v)) : 9.7177

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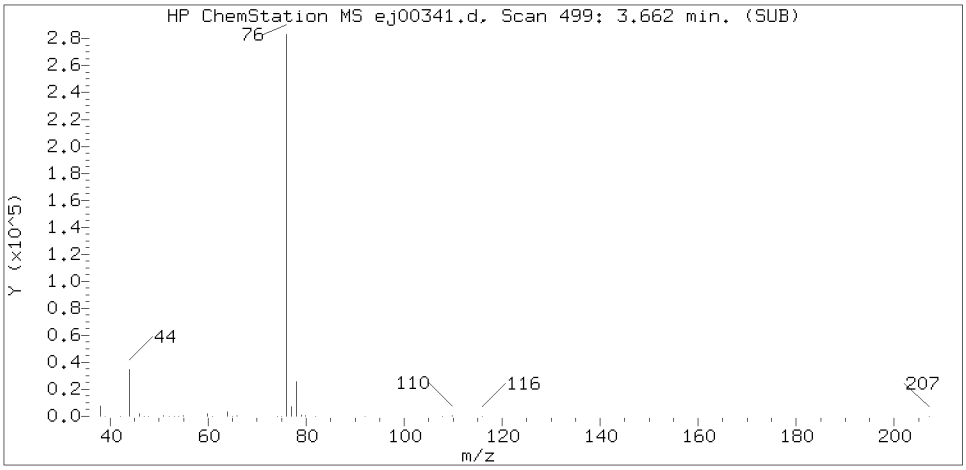
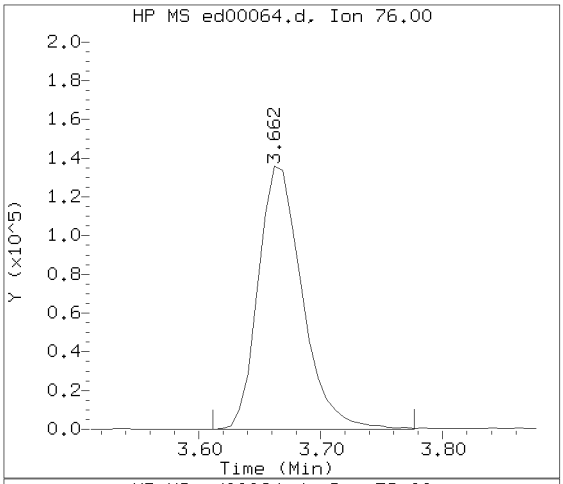
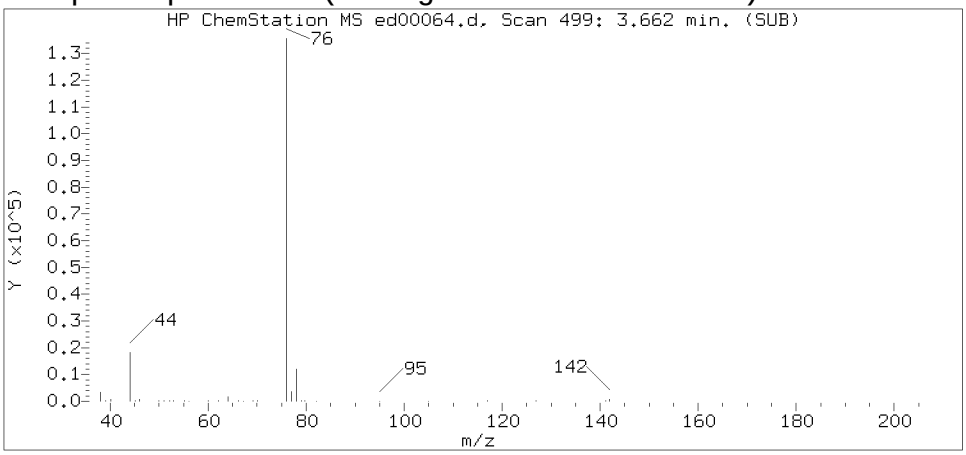
Target 3.5 esignature user ID: jeb07445

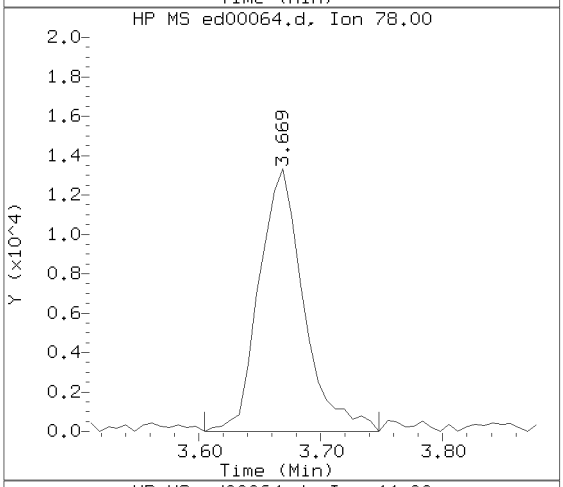
Reference Standard Spectrum for Carbon Disulfide



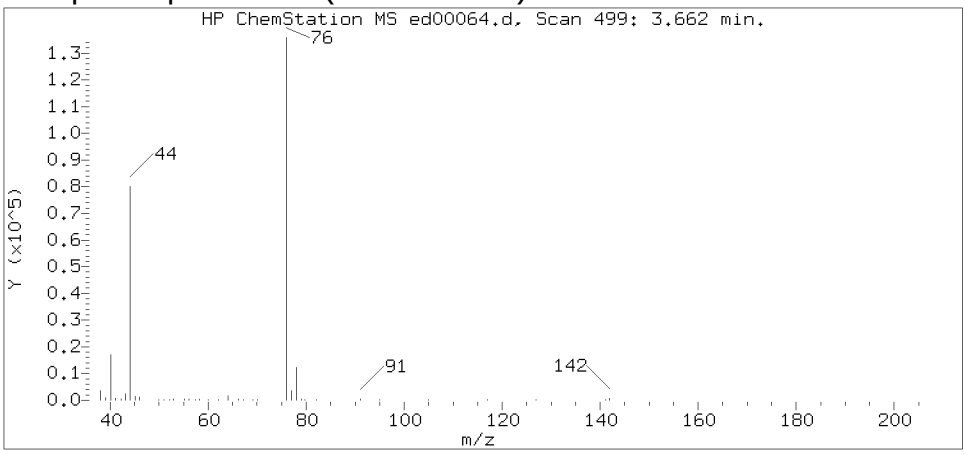


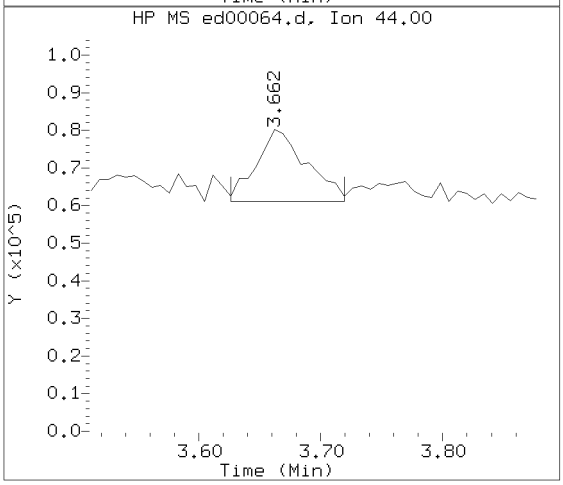
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 21
Compound Name : Carbon Disulfide
Scan Number : 499
Retention Time (minutes): 3.662
Relative Retention Time :-0.00129
Quant Ion : 76.00
Area (flag) : 340323
Concentration (ppb(v)) : 5.5446

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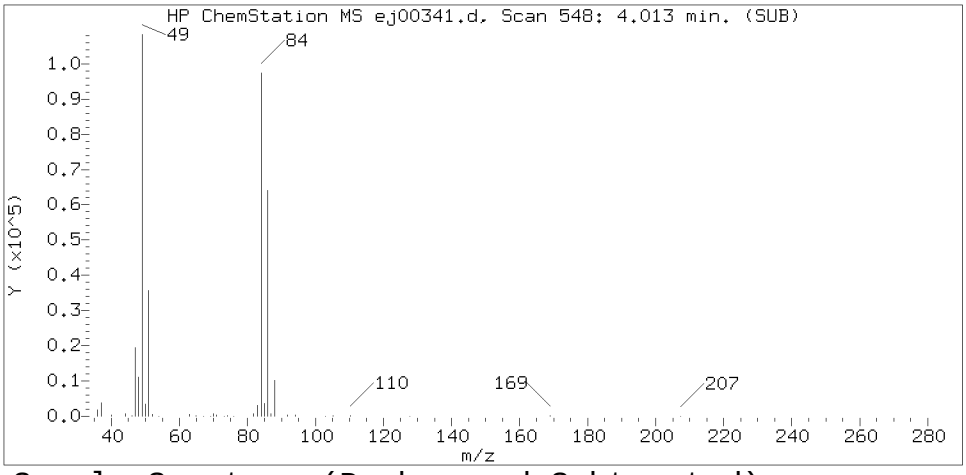
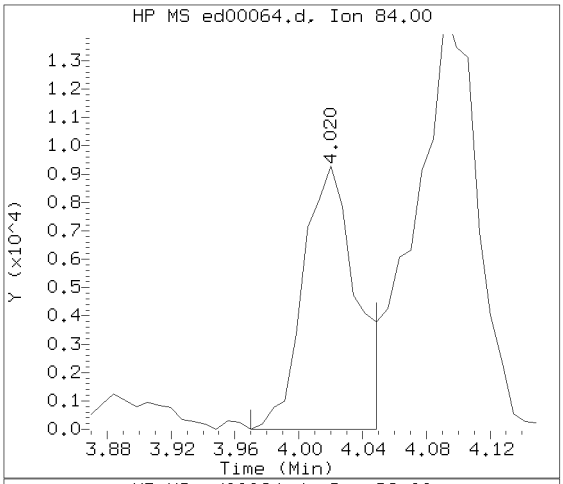
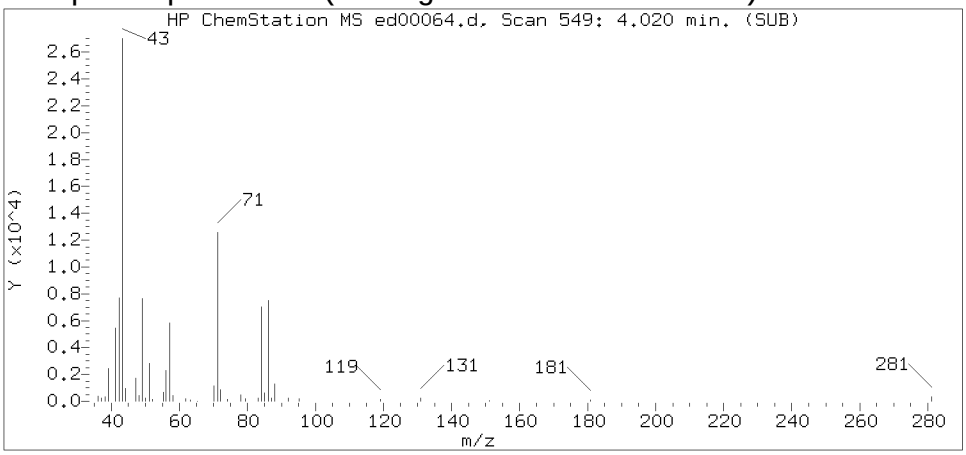
Target 3.5 esignature user ID: jeb07445

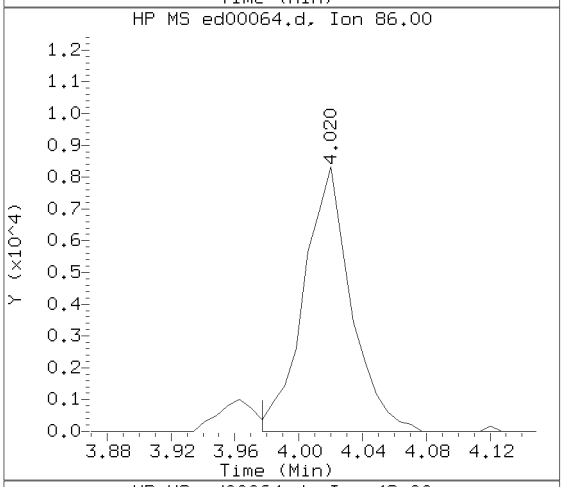
Reference Standard Spectrum for Methylene Chloride



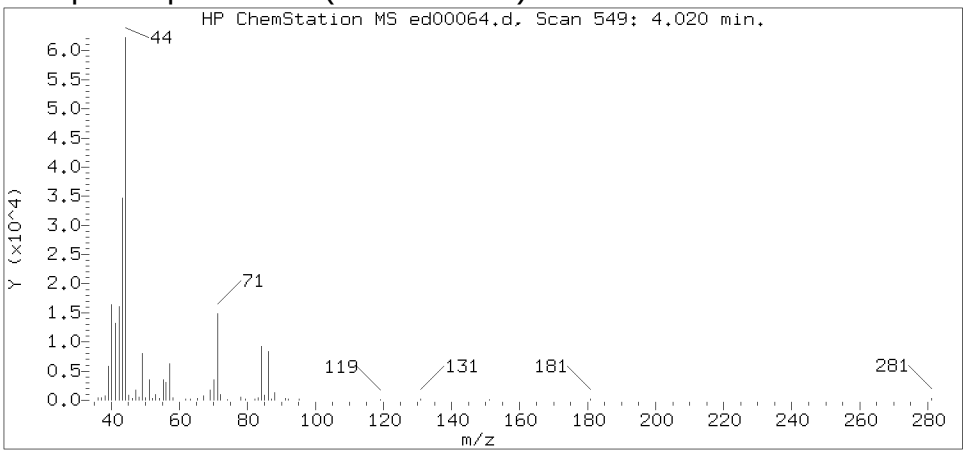


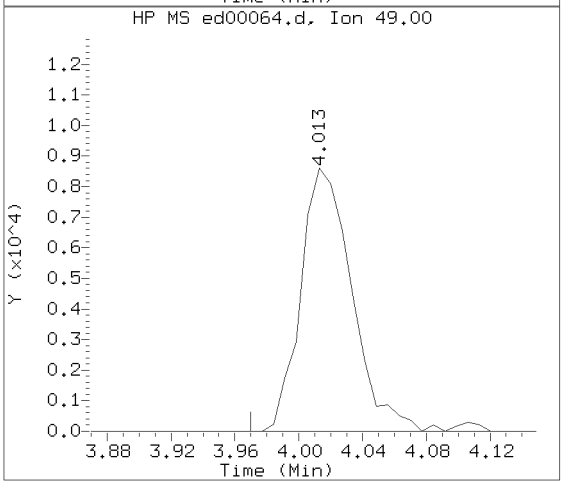
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 25
Compound Name : Methylene Chloride
Scan Number : 549
Retention Time (minutes): 4.020
Relative Retention Time :-0.00130
Quant Ion : 84.00
Area (flag) : 20785
Concentration (ppb(v)) : 1.1376

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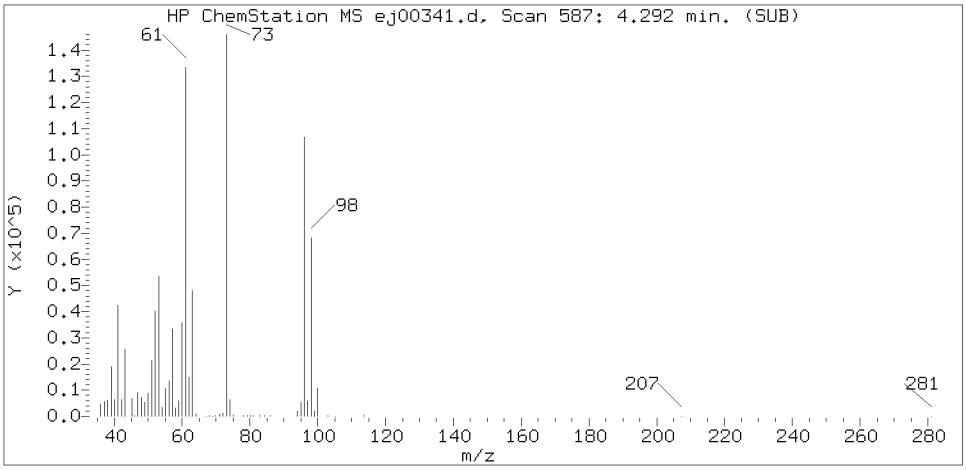
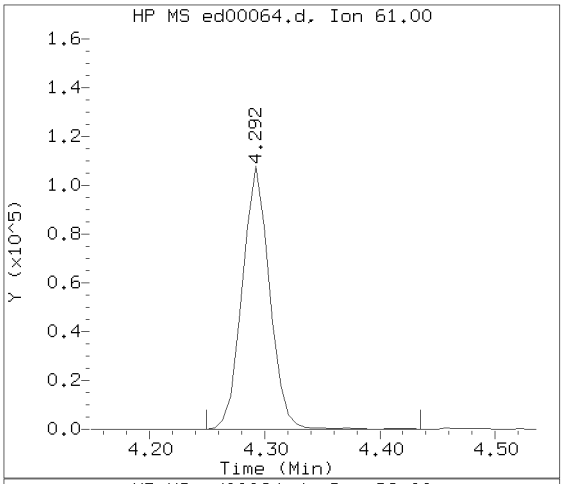
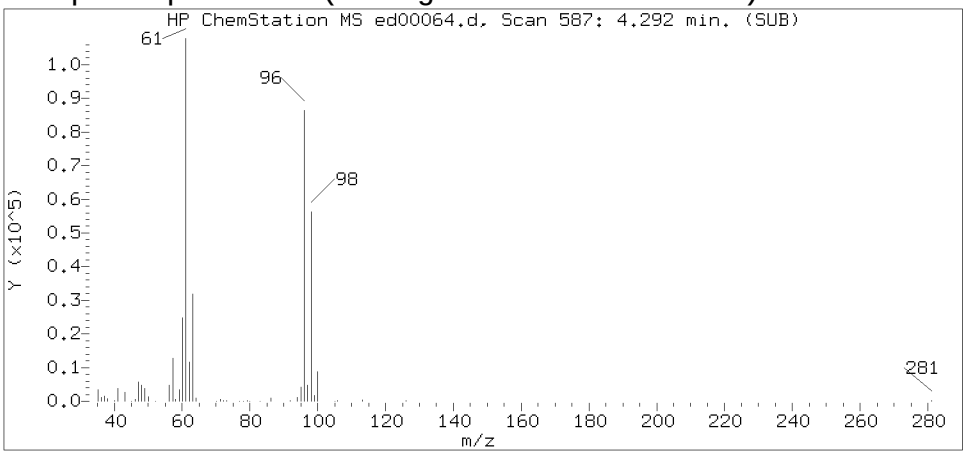
Target 3.5 esignature user ID: jeb07445

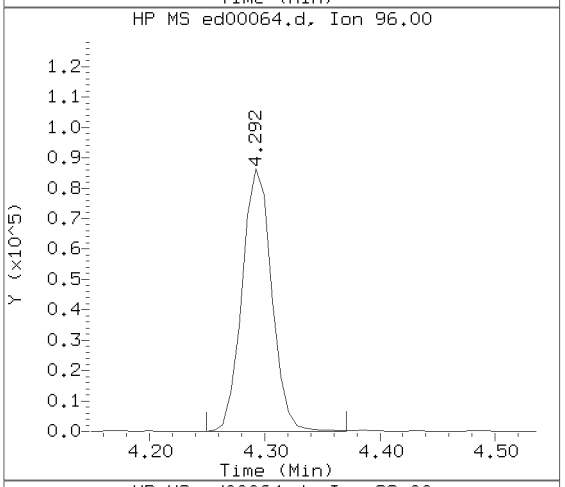
Reference Standard Spectrum for trans-1,2-Dichloroethene



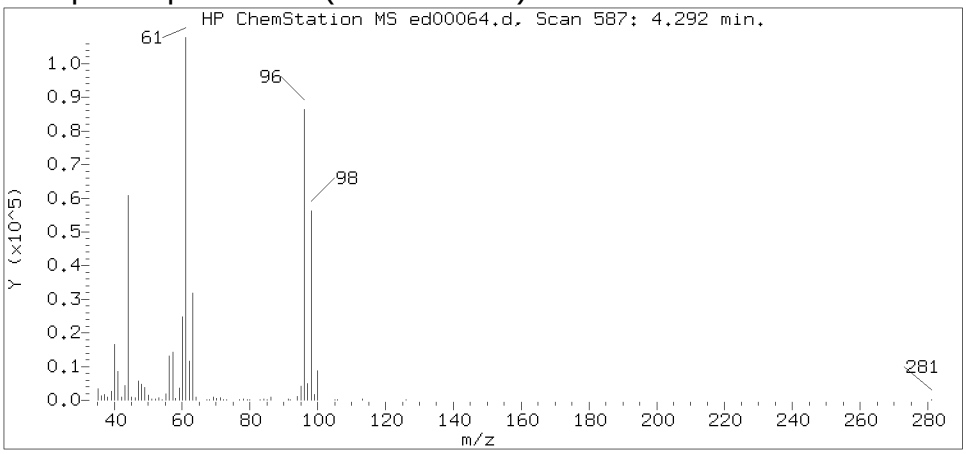


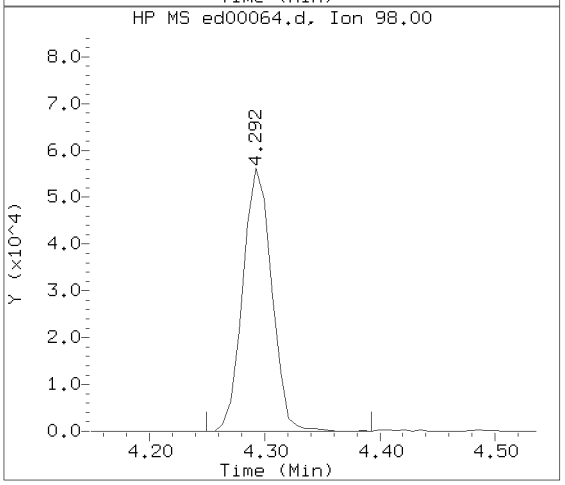
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 587
Retention Time (minutes): 4.292
Relative Retention Time : 0.00001
Quant Ion : 61.00
Area (flag) : 176316
Concentration (ppb(v)) : 6.1353

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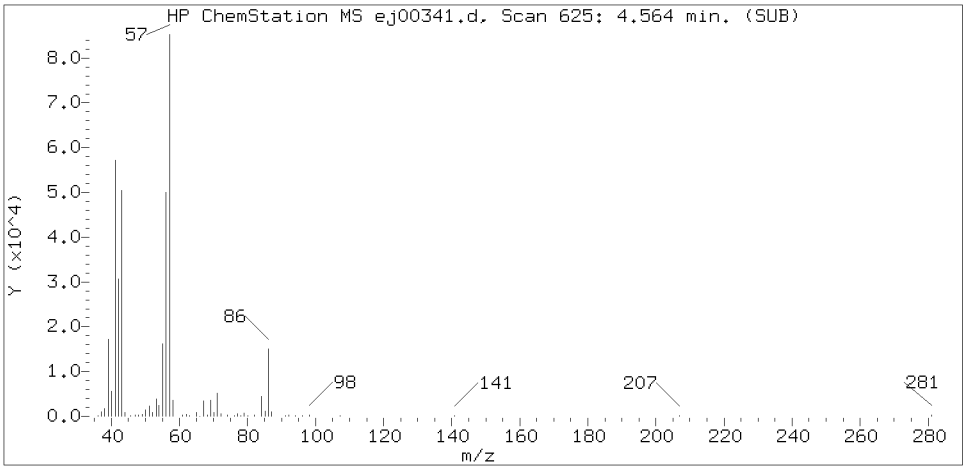
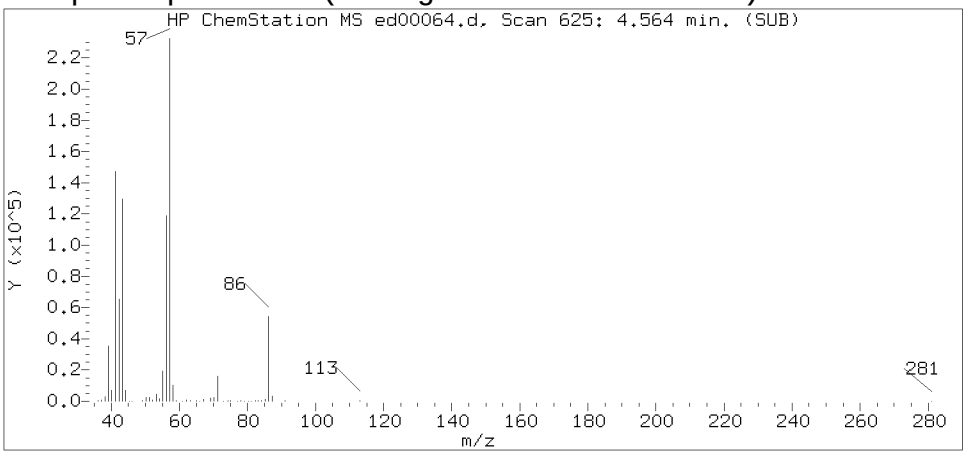
Target 3.5 esignature user ID: jeb07445

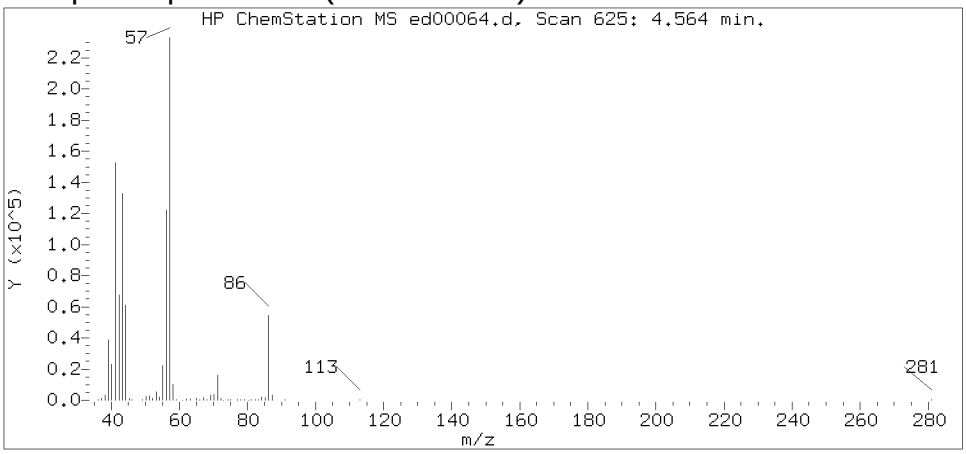
Reference Standard Spectrum for Hexane

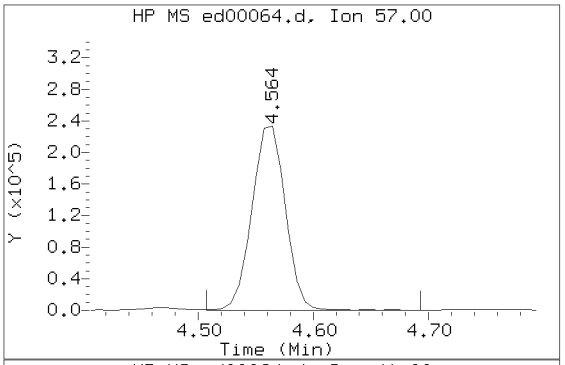


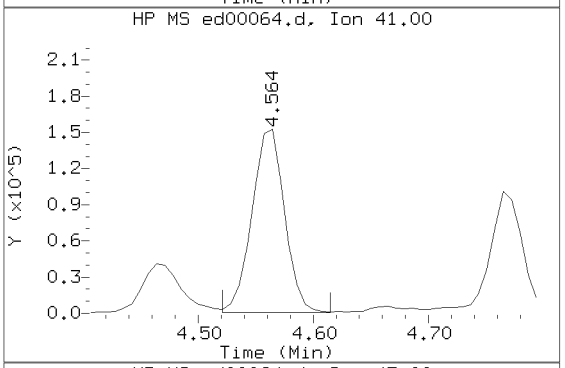
Sample Spectrum (Background Subtracted)

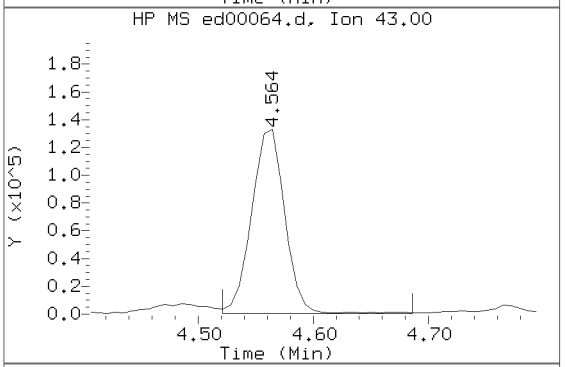


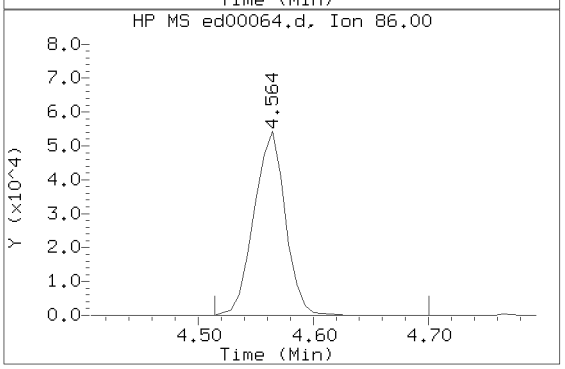
Sample Spectrum (Unaltered)











Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 30
Compound Name : Hexane
Scan Number : 625
Retention Time (minutes): 4.564
Relative Retention Time :-0.00130
Quant Ion : 57.00
Area (flag) : 469755
Concentration (ppb(v)) : 15.0961

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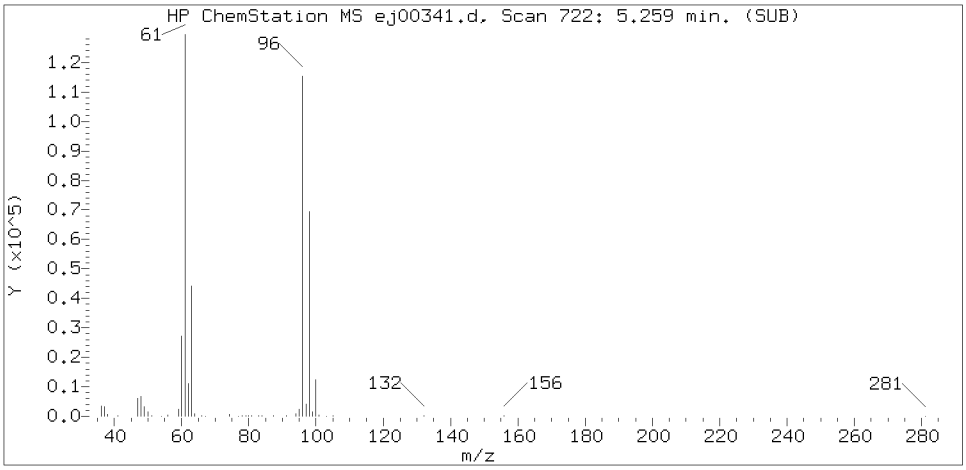
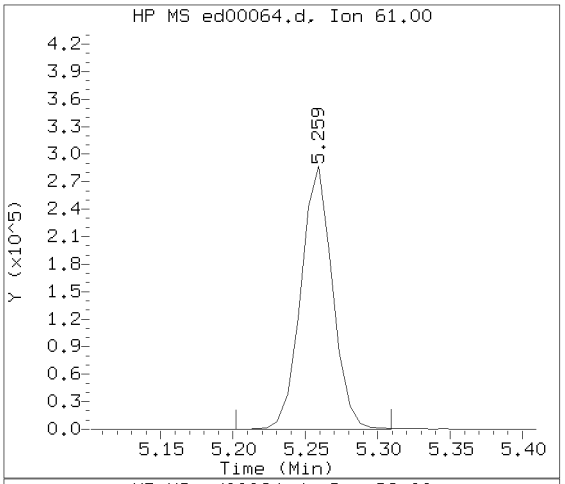
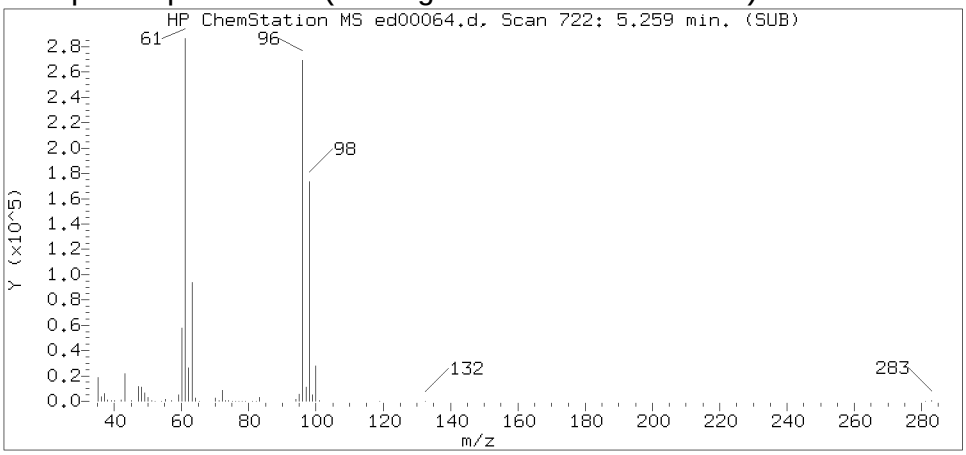
Target 3.5 esignature user ID: jeb07445

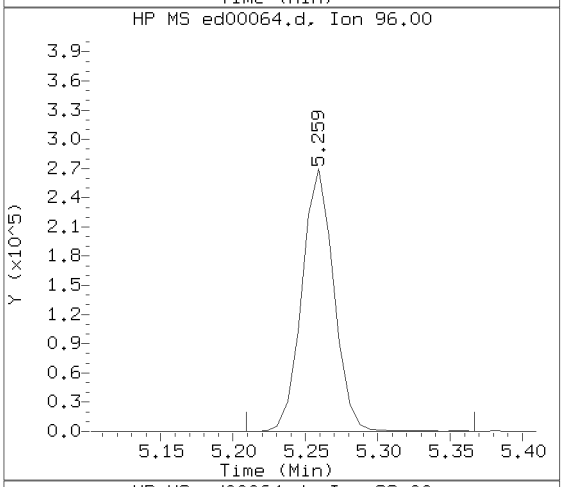
Reference Standard Spectrum for cis-1,2-Dichloroethene



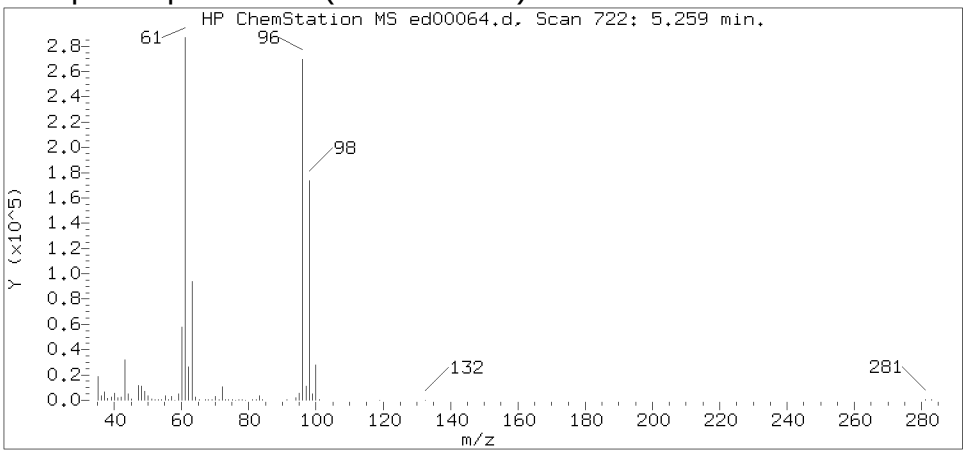


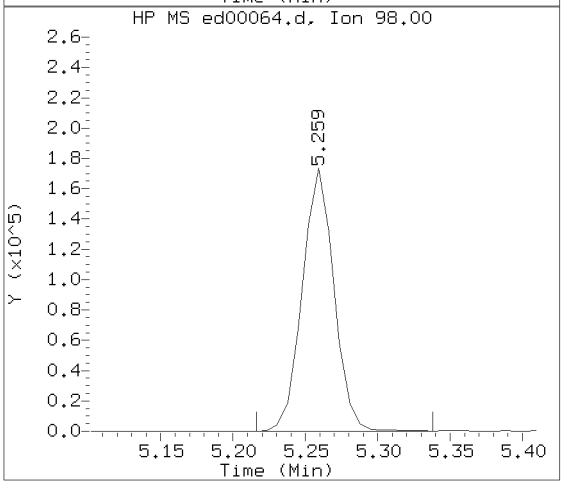
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time :-0.00000
Quant Ion : 61.00
Area (flag) : 435632
Concentration (ppb(v)) : 15.9042

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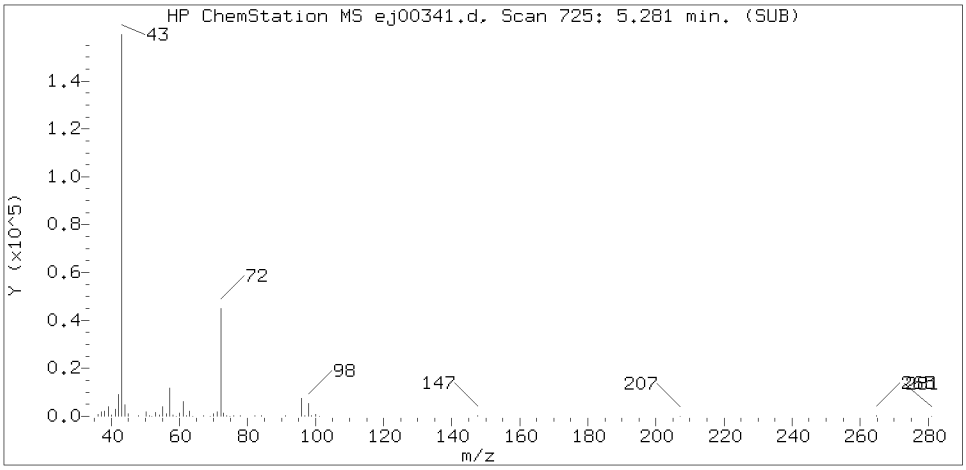
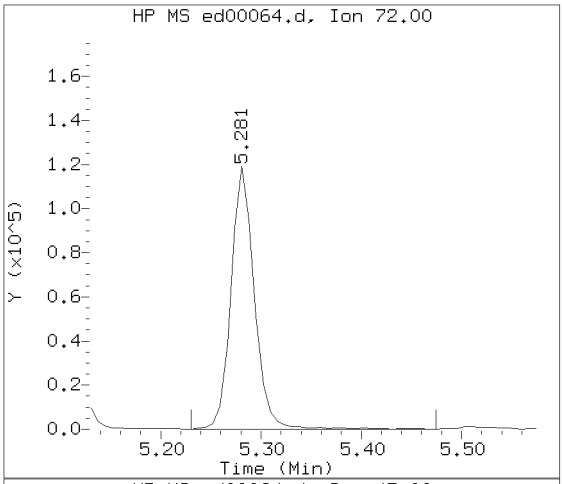
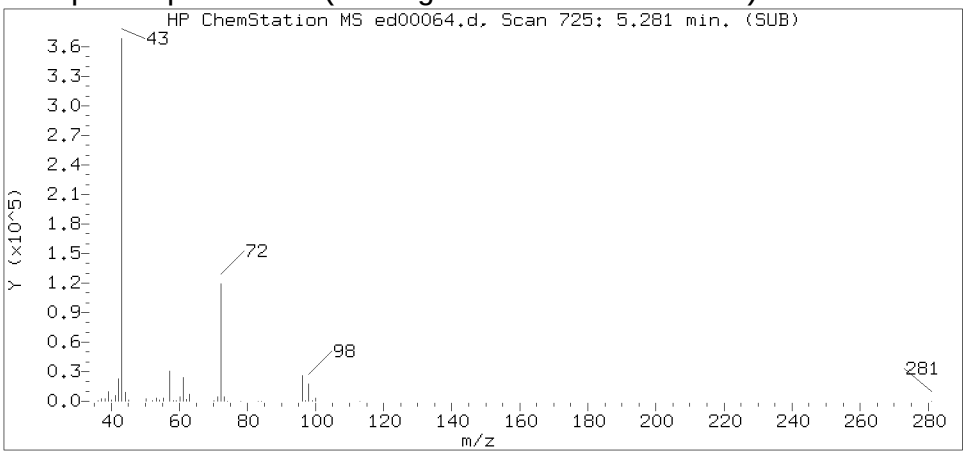
Target 3.5 esignature user ID: jeb07445

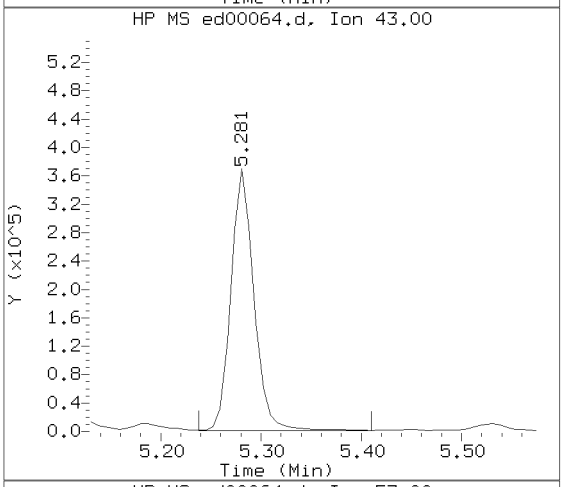
Reference Standard Spectrum for 2-Butanone



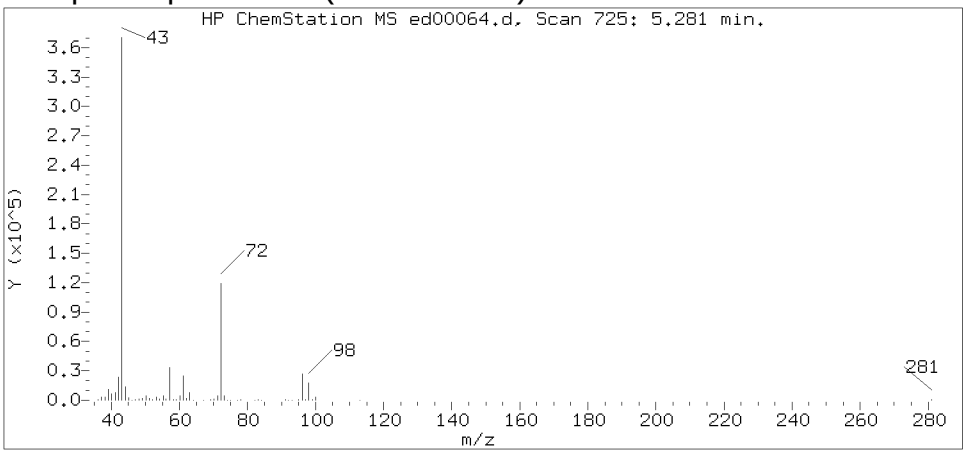


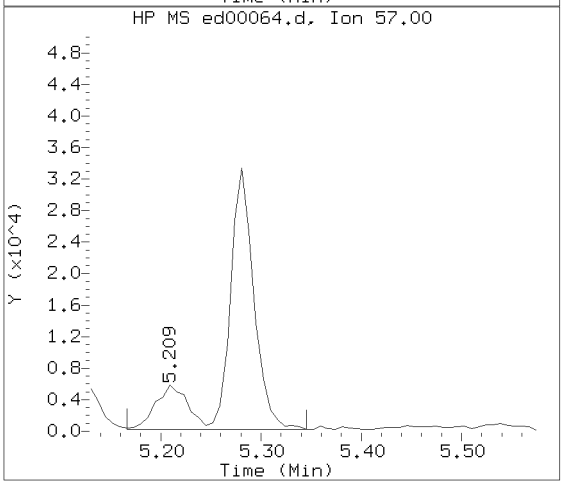
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time : 0.00000
Quant Ion : 72.00
Area (flag) : 194471
Concentration (ppb(v)) : 17.6868

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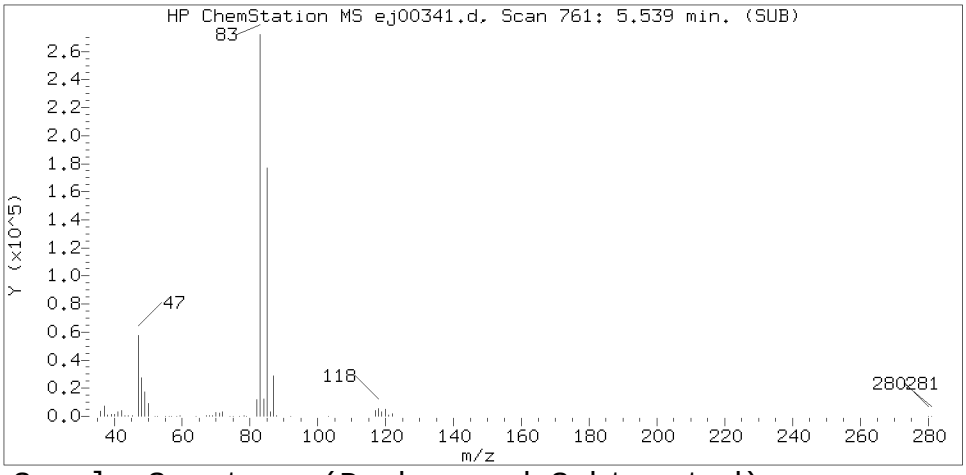
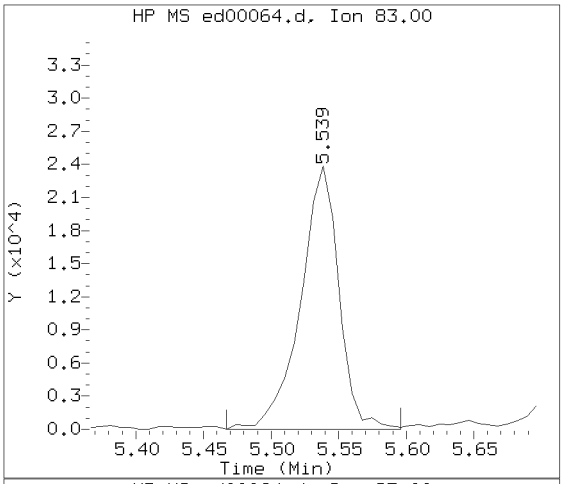
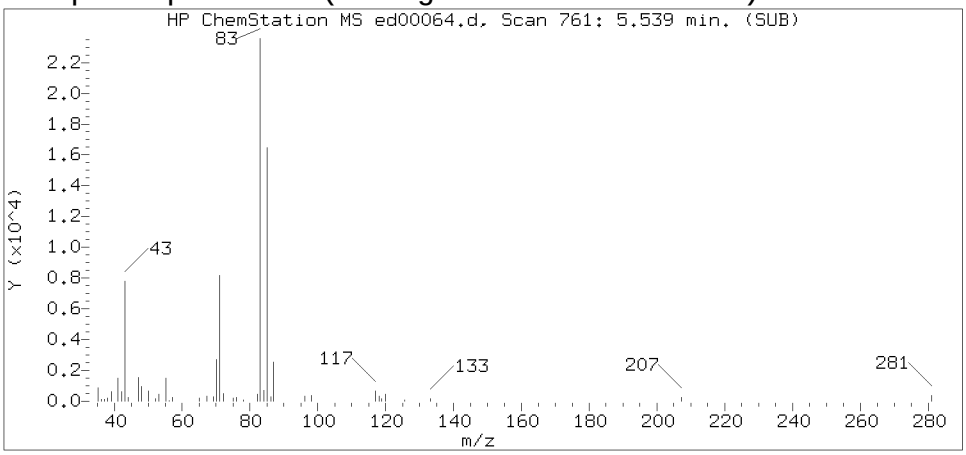
Target 3.5 esignature user ID: jeb07445

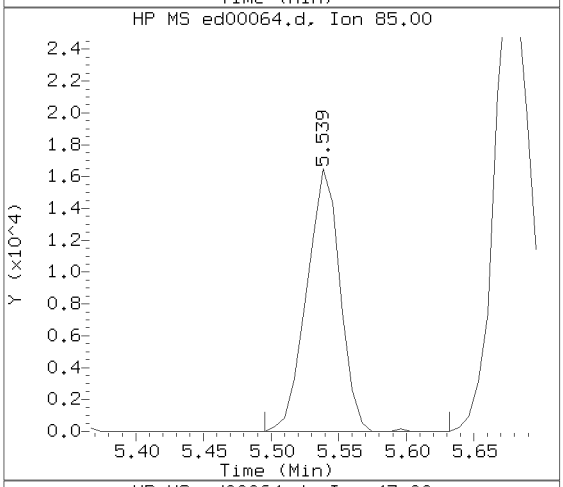
Reference Standard Spectrum for Chloroform



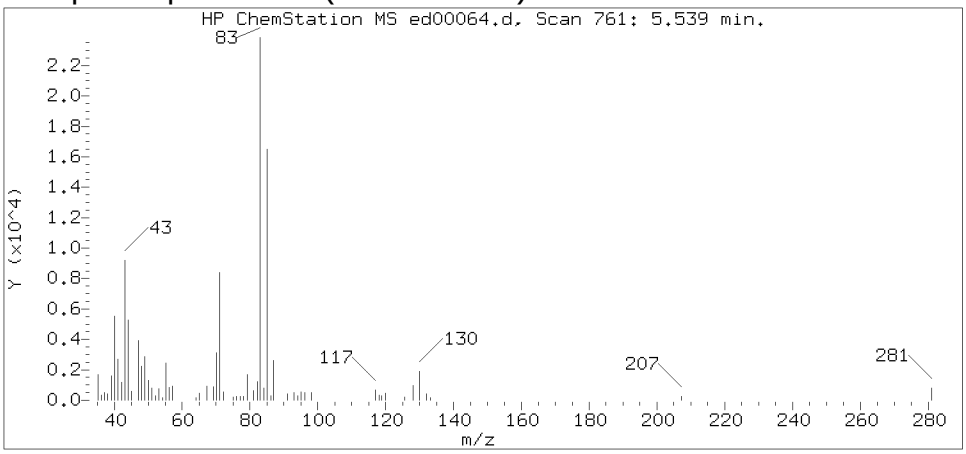


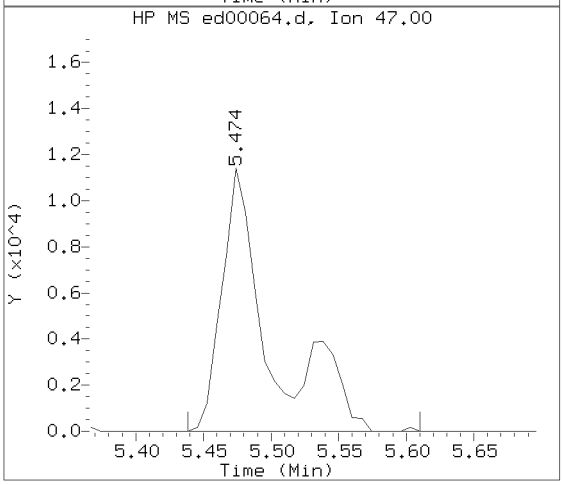
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 42
Compound Name : Chloroform
Scan Number : 761
Retention Time (minutes): 5.539
Relative Retention Time :-0.00000
Quant Ion : 83.00
Area (flag) : 47248
Concentration (ppb(v)) : 0.9922

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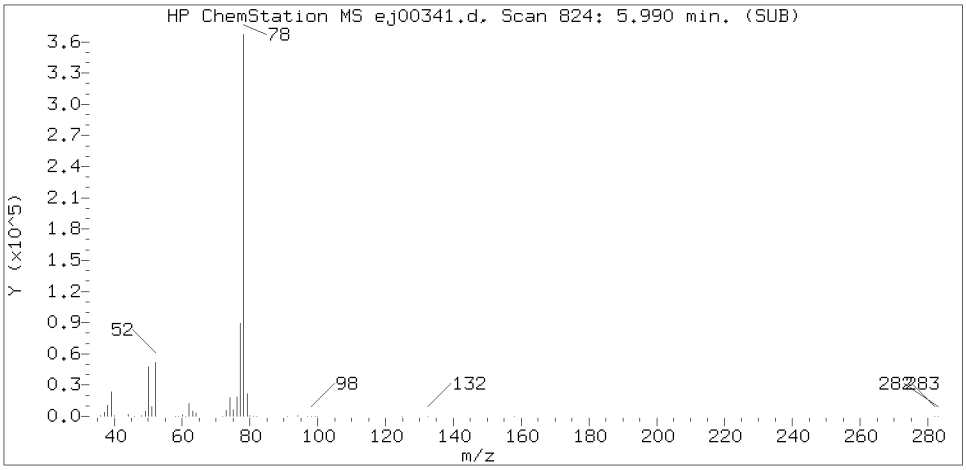
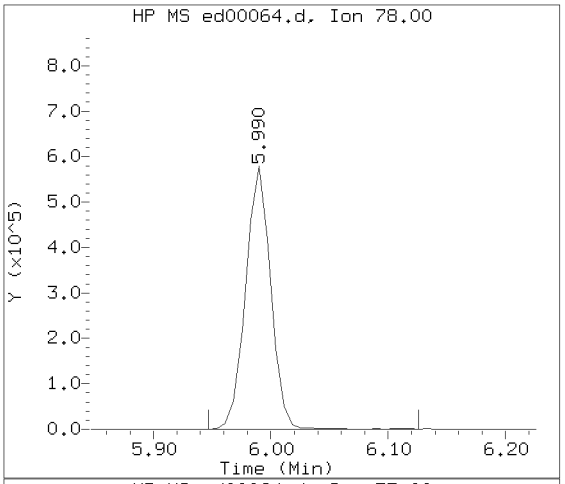
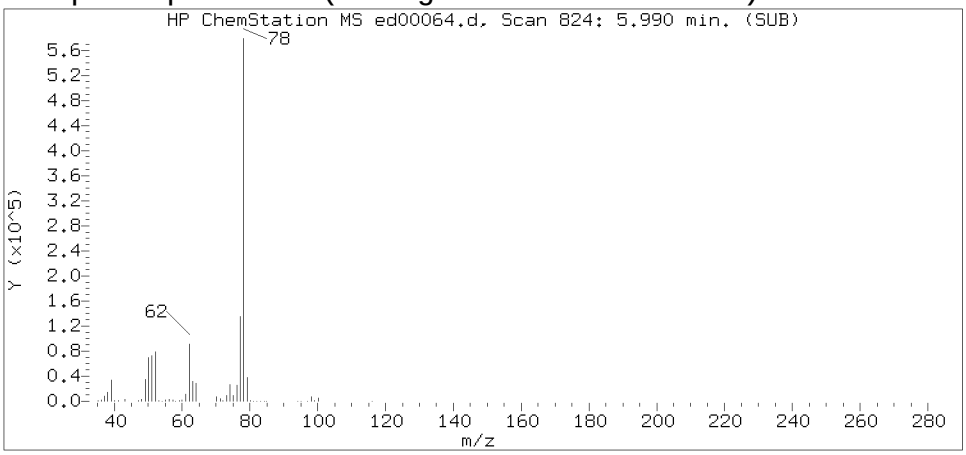
Target 3.5 esignature user ID: jeb07445

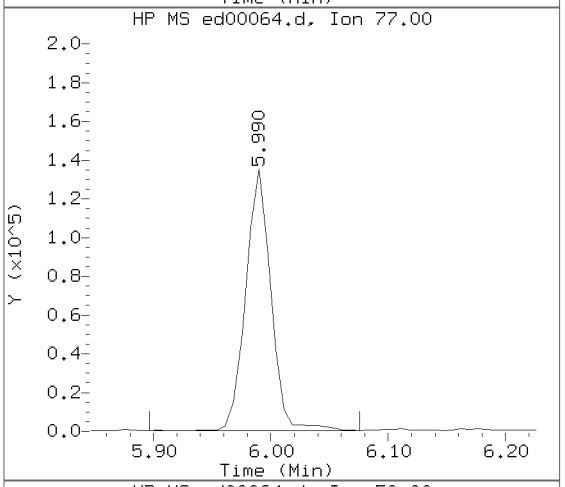
Reference Standard Spectrum for Benzene



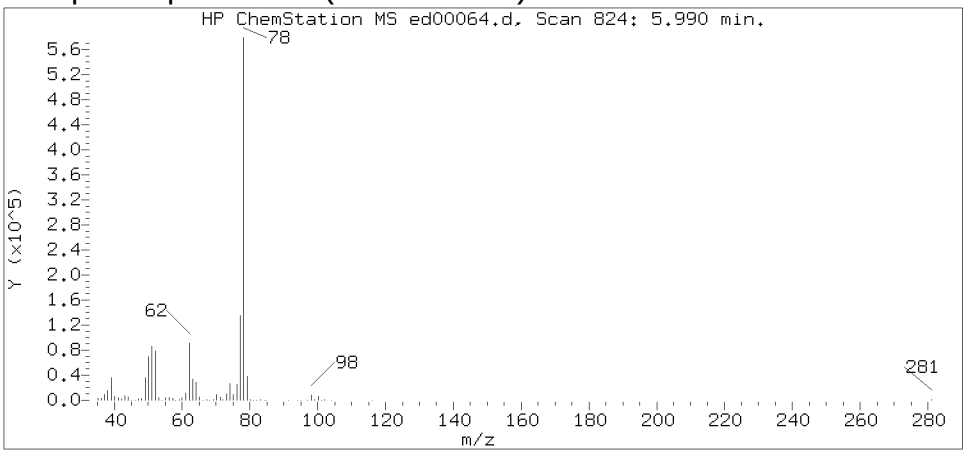


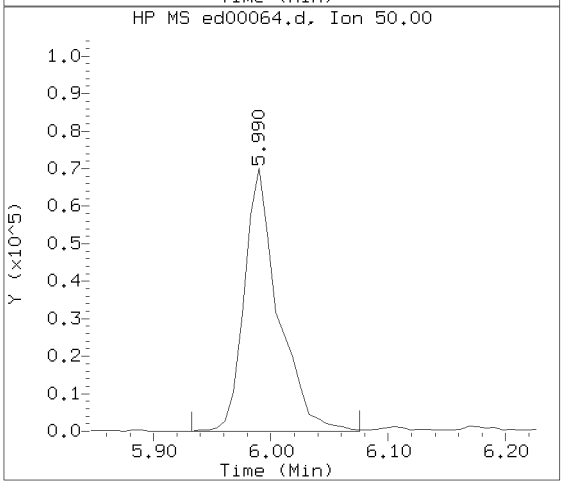
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time : 0.00000
Quant Ion : 78.00
Area (flag) : 862434
Concentration (ppb(v)) : 10.7890

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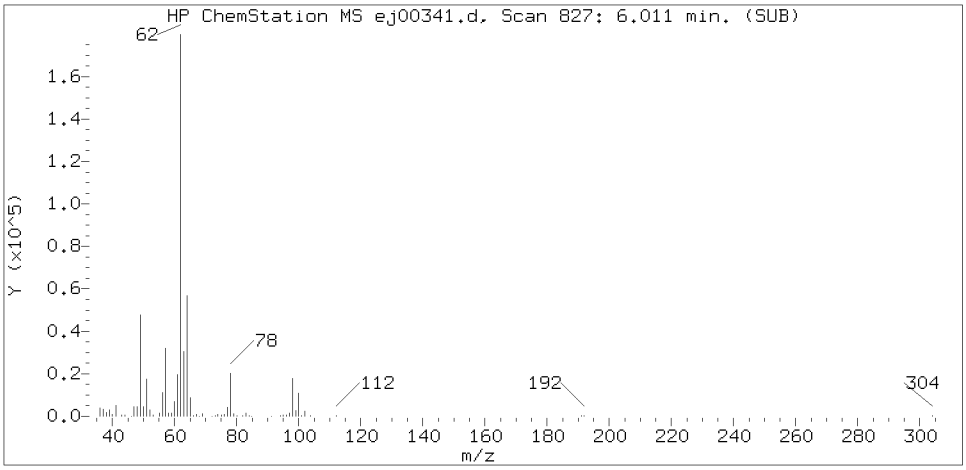
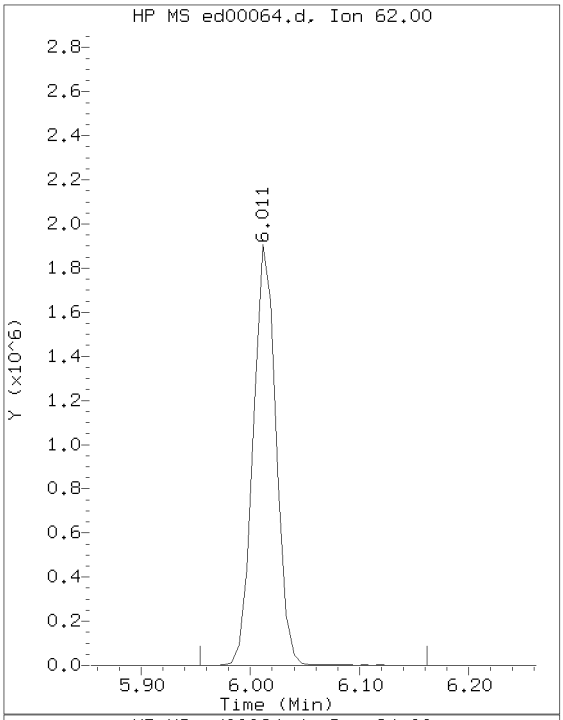
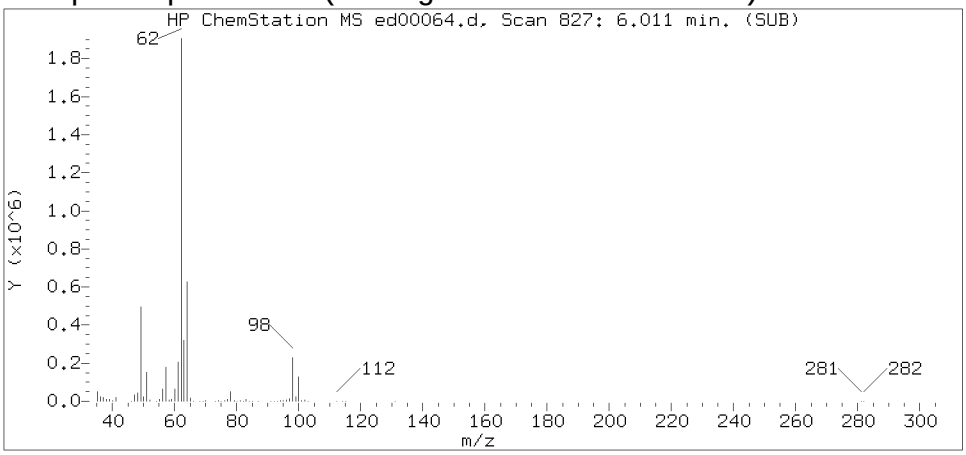
Target 3.5 esignature user ID: jeb07445

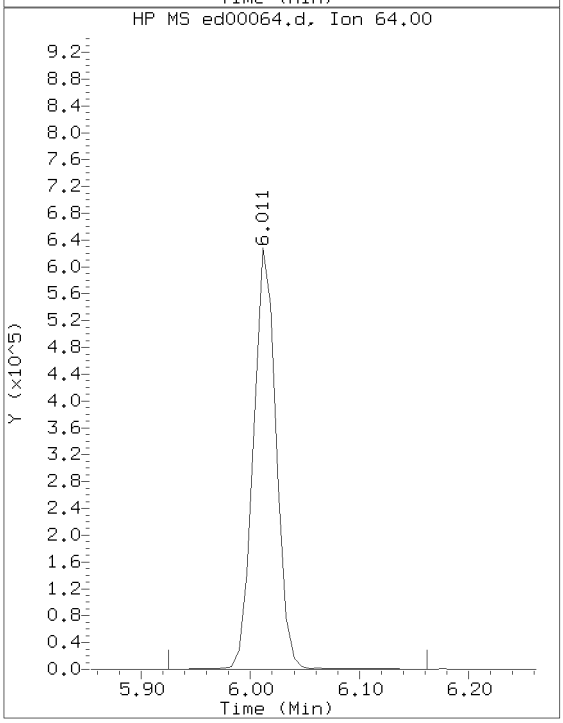
Reference Standard Spectrum for 1,2-Dichloroethane



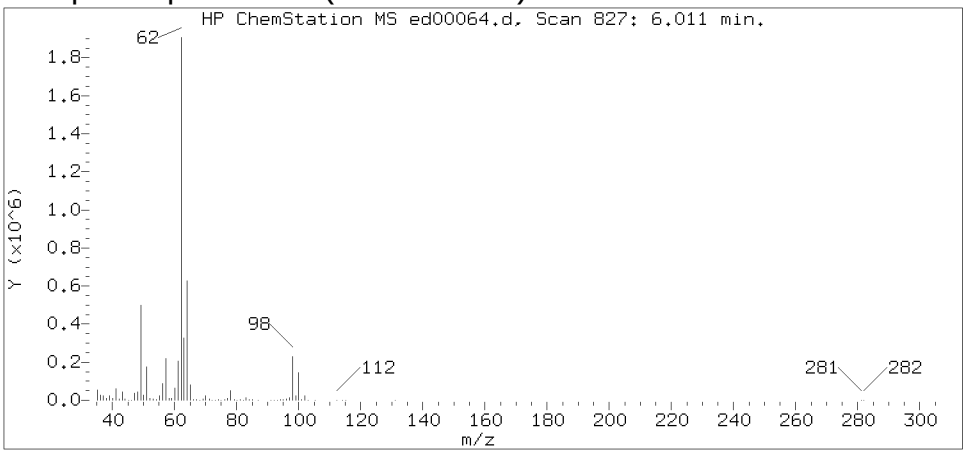


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.011
Relative Retention Time : 0.00000
Quant Ion : 62.00
Area (flag) : 2786000
Concentration (ppb(v)) : 92.5179

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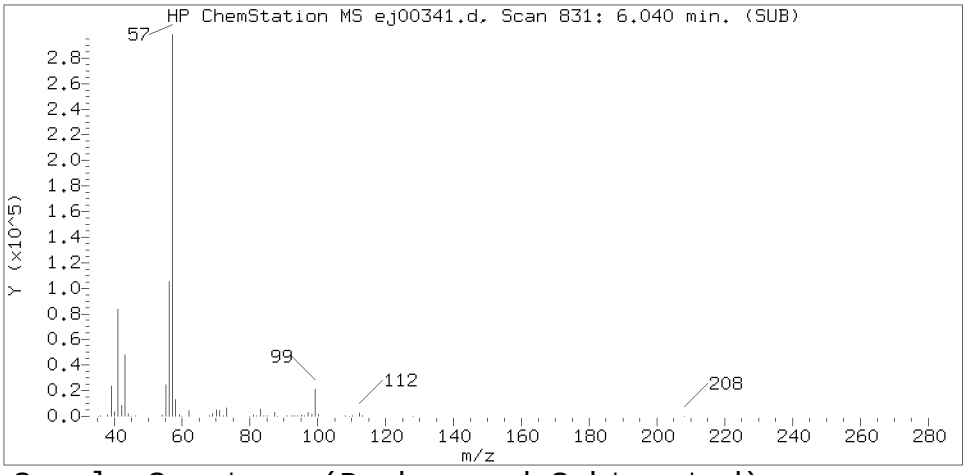
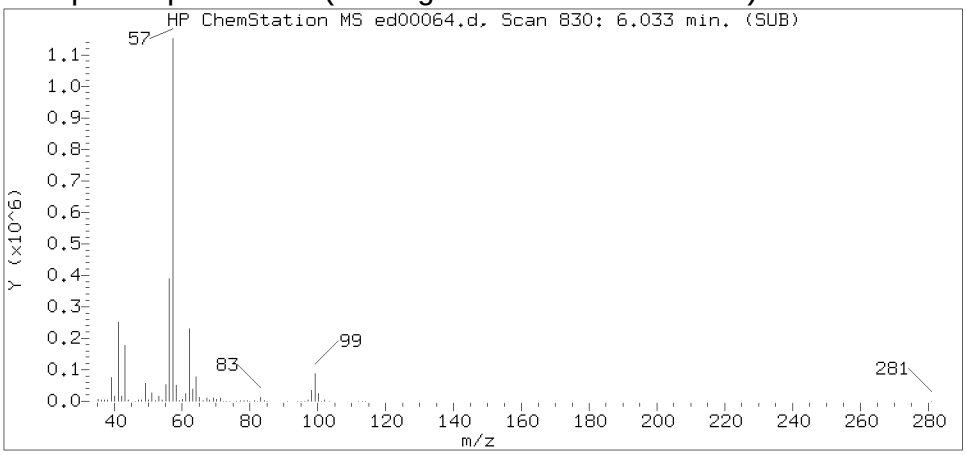
Target 3.5 esignature user ID: jeb07445

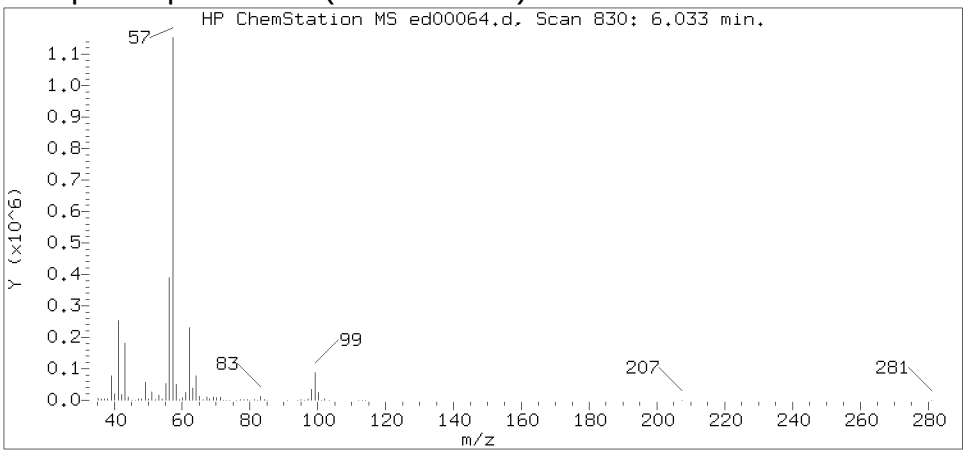
Reference Standard Spectrum for Isooctane

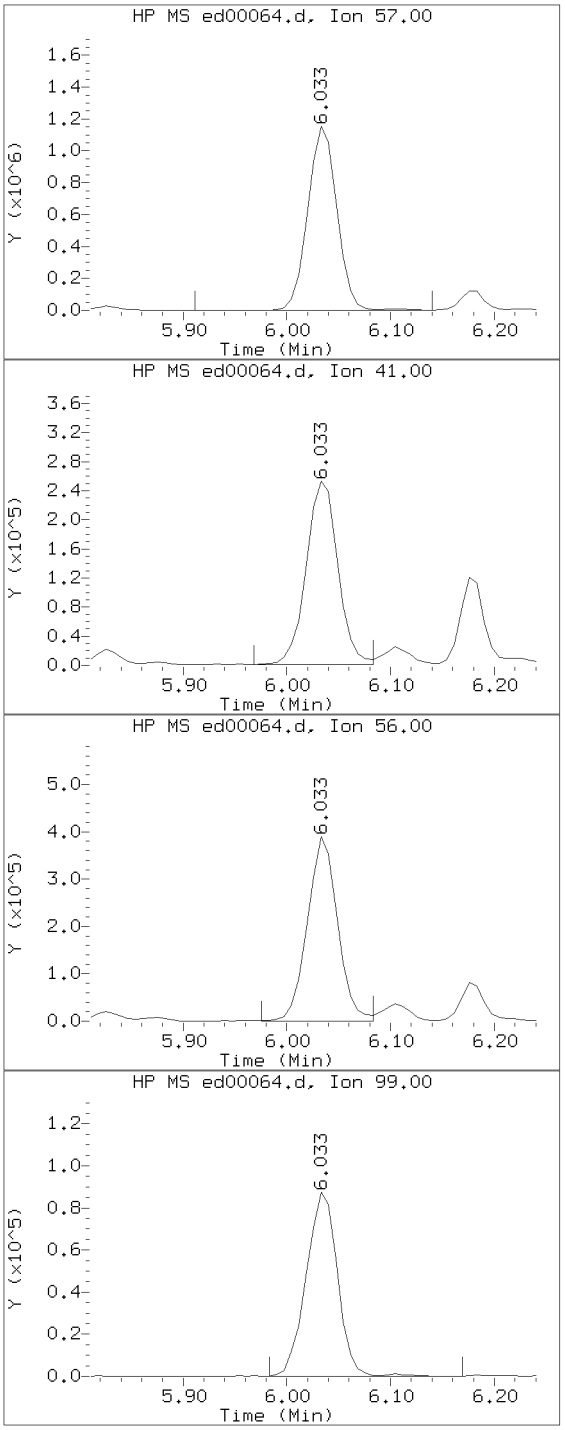


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number	: 48
Compound Name	: Isooctane
Scan Number	: 830
Retention Time (minutes)	: 6.033
Relative Retention Time	: 0.00114
Quant Ion	: 57.00
Area (flag)	: 2243024
Concentration (ppb(v))	: 20.3954

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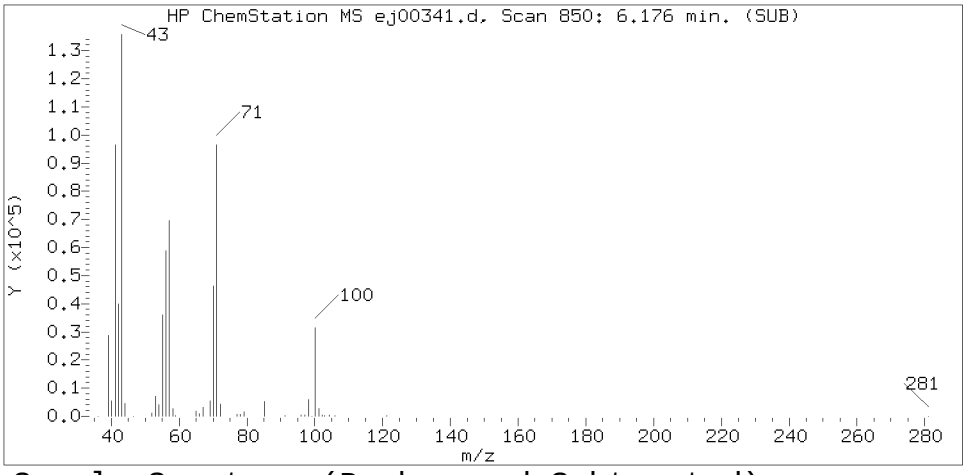
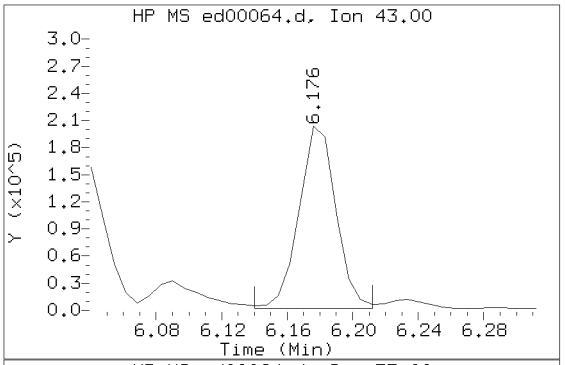
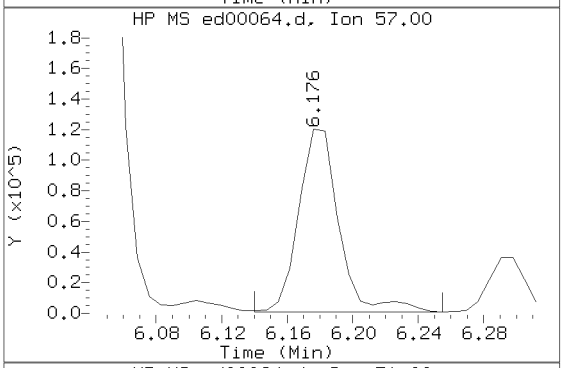
Target 3.5 esignature user ID: jeb07445

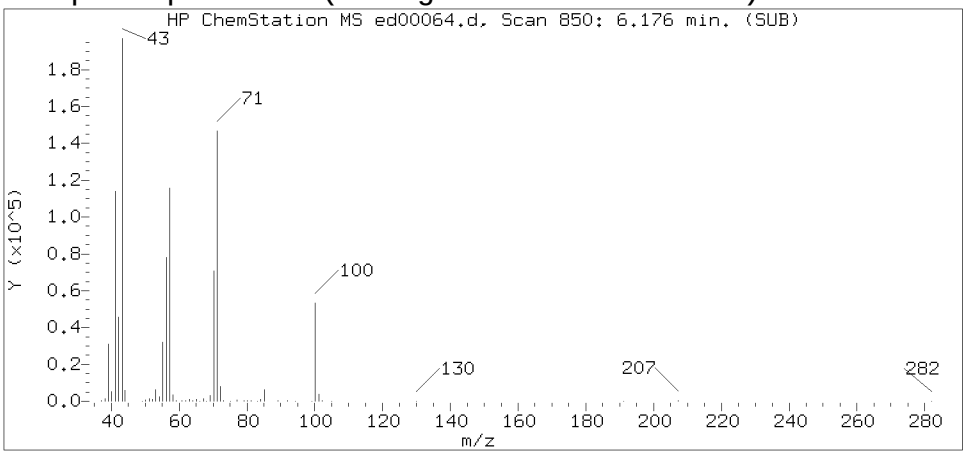
Reference Standard Spectrum for Heptane

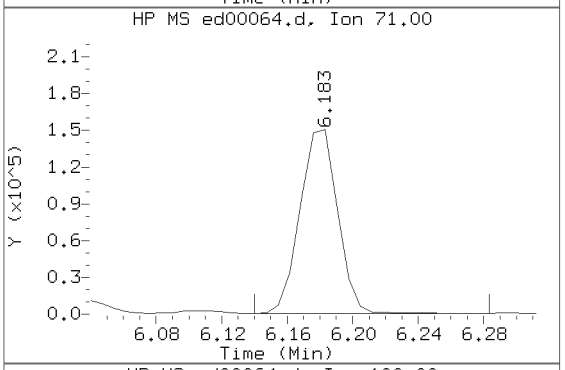




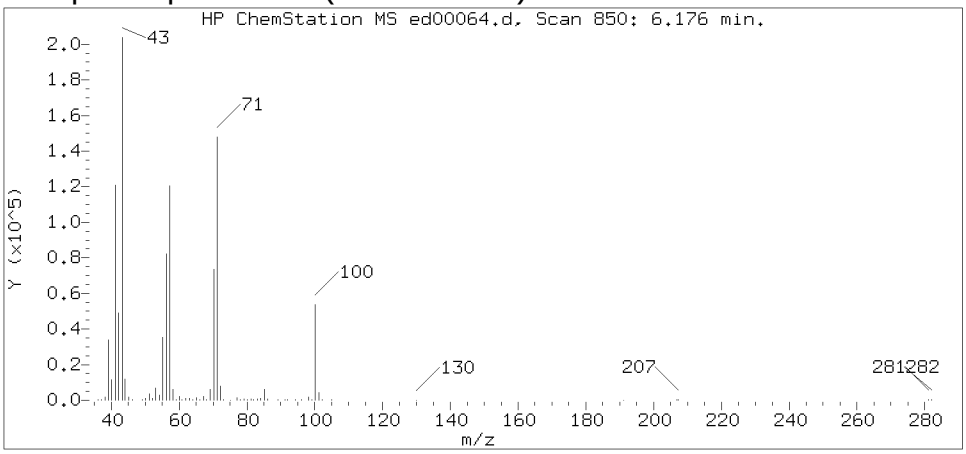


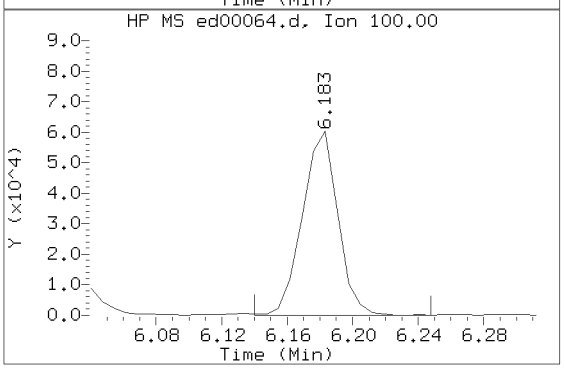
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

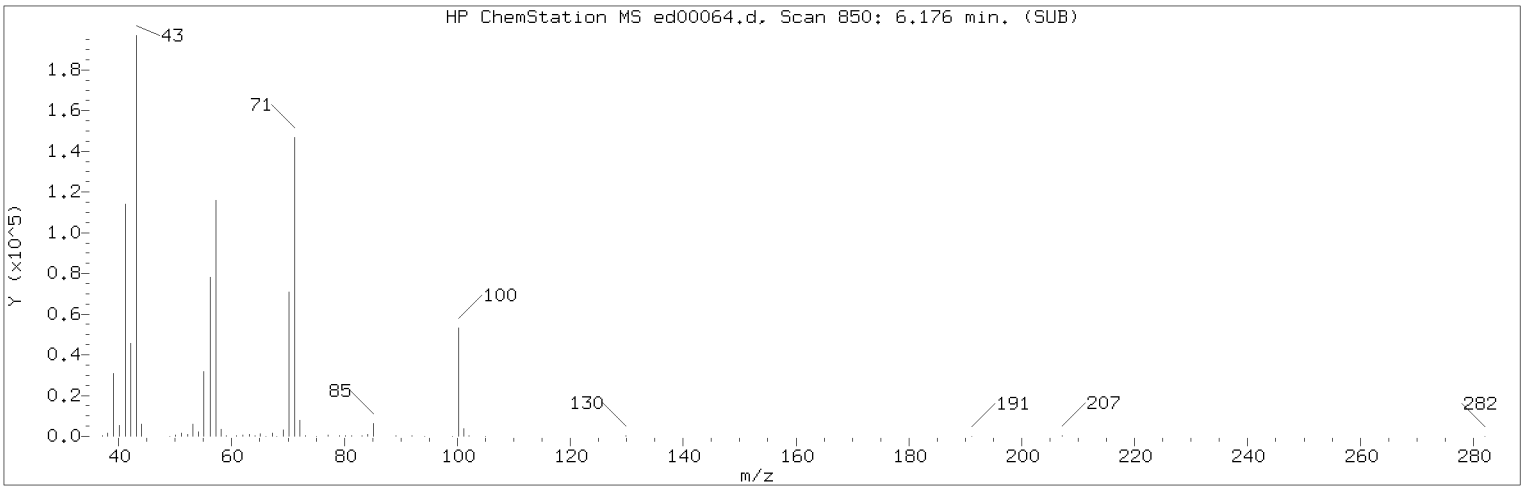
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

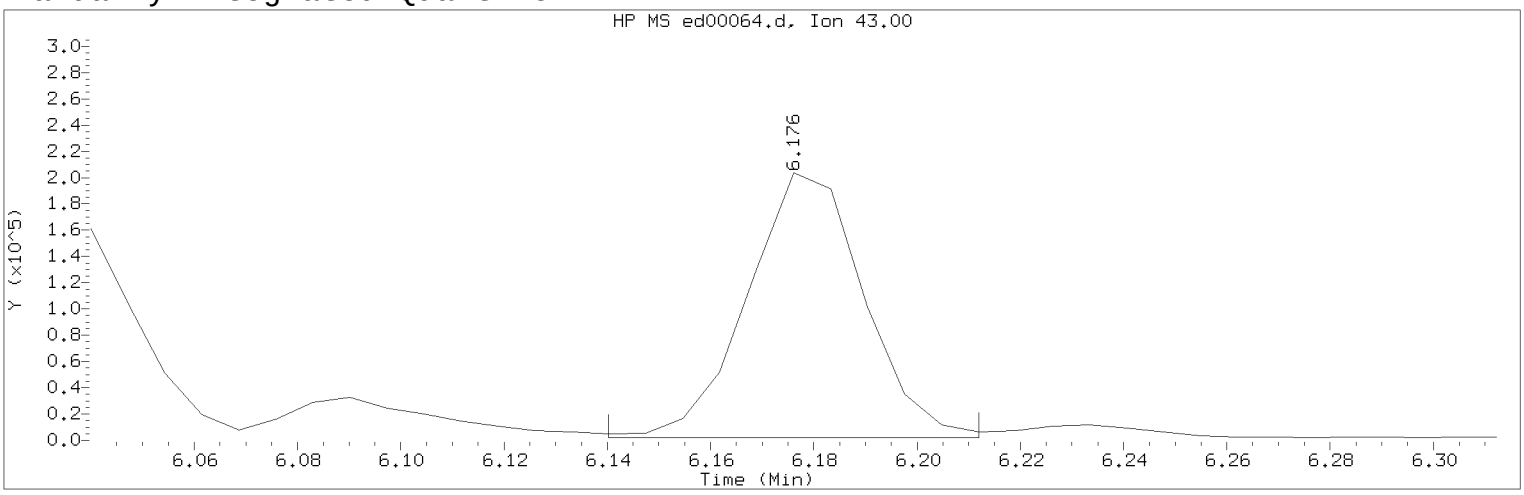
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 316837M
Concentration (ppb(v)) : 8.7006

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

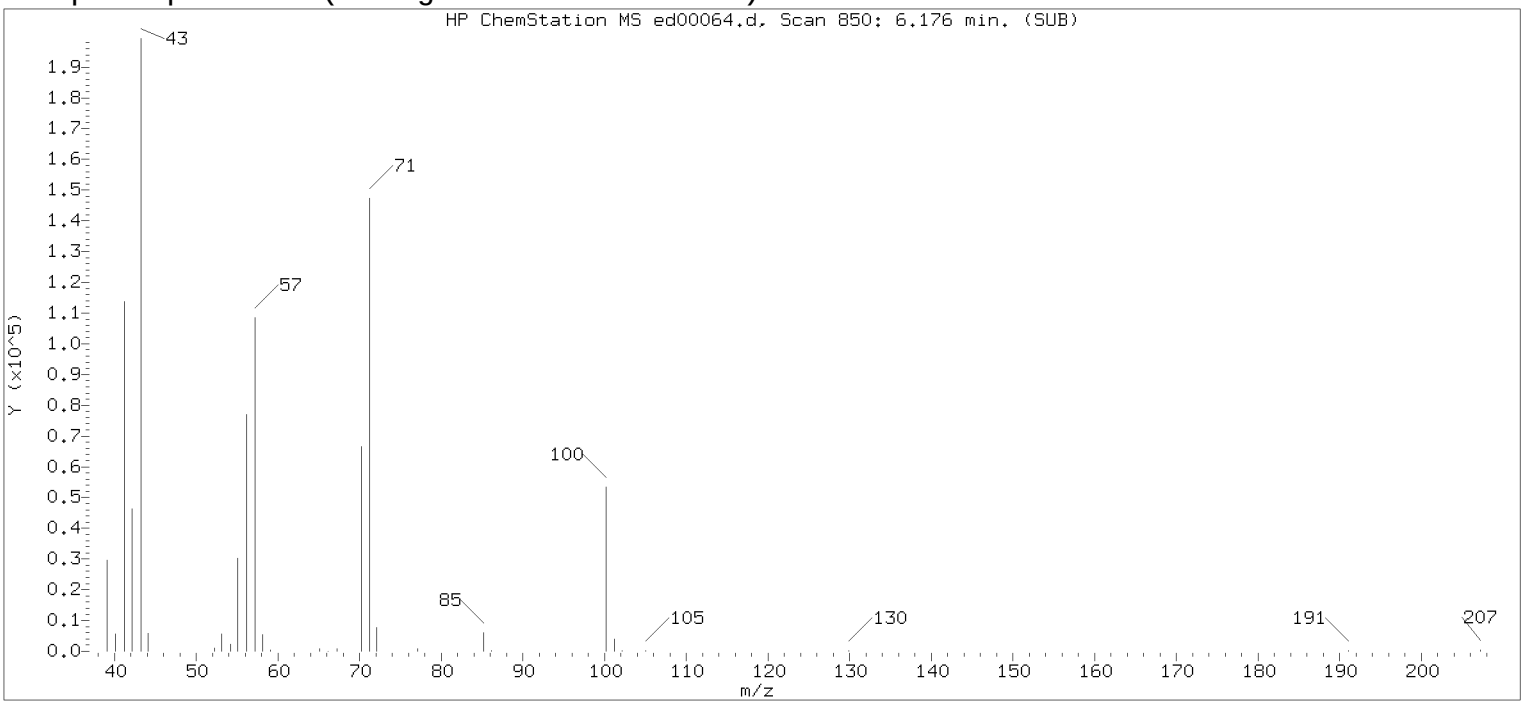
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 316837M
Concentration (ppb(v)) : 8.7006
Integration start scan : 844 Integration stop scan: 854
Y at integration start : 1986 Y at integration end: 1986

Reason for manual integration: improper integration

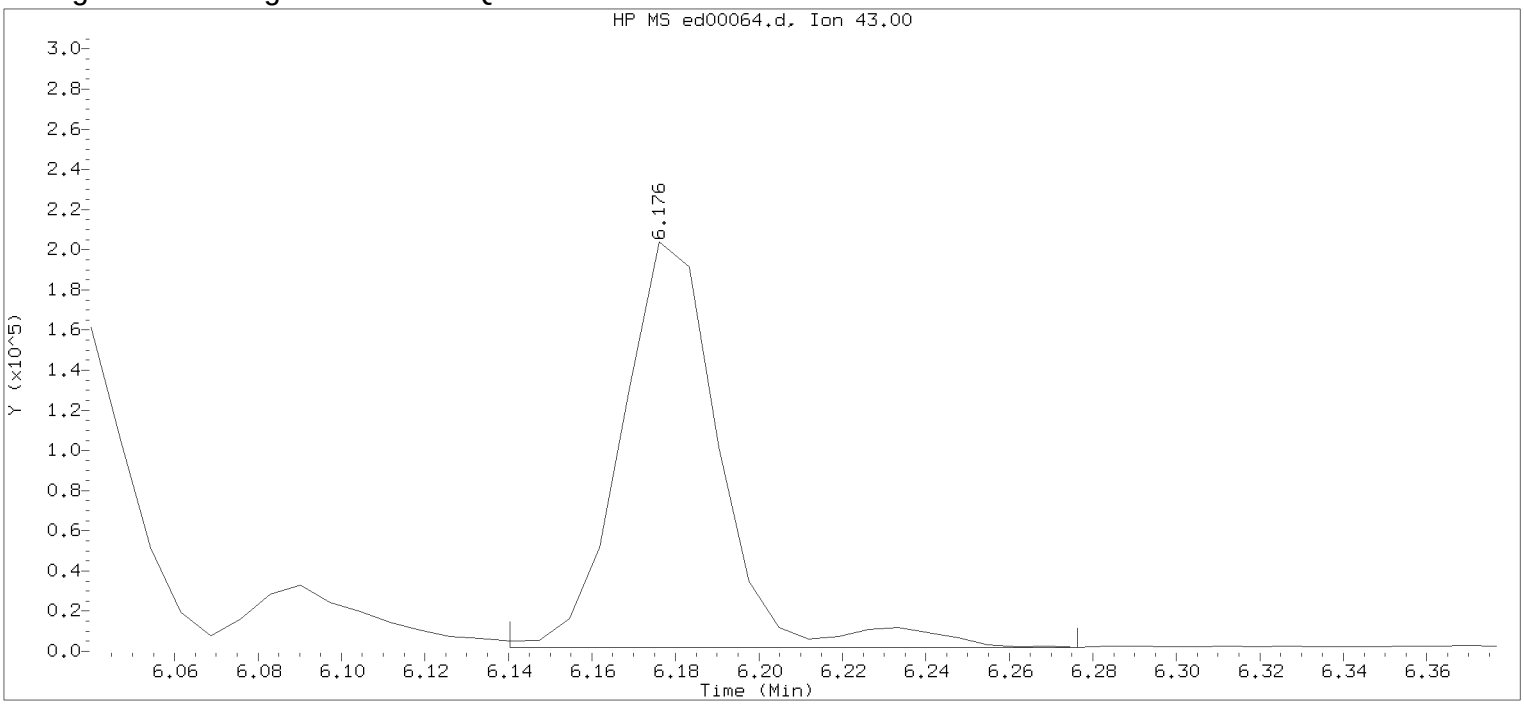
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

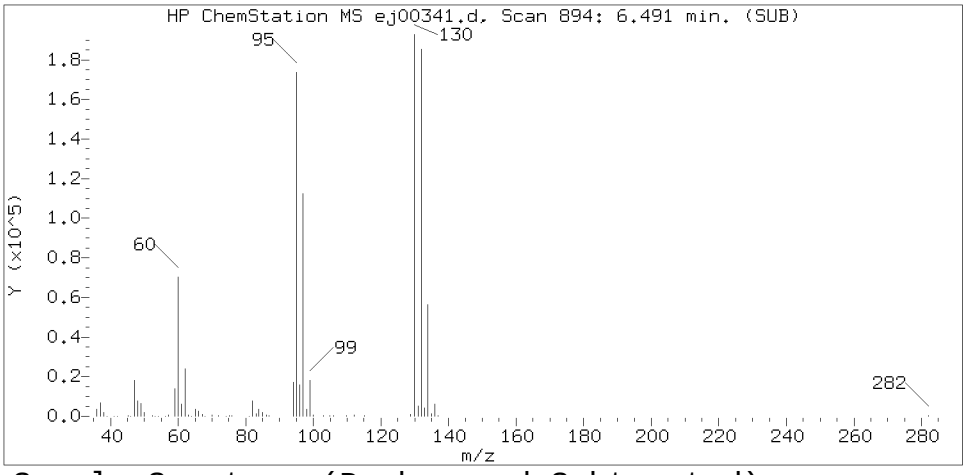
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 21:37 Unknown

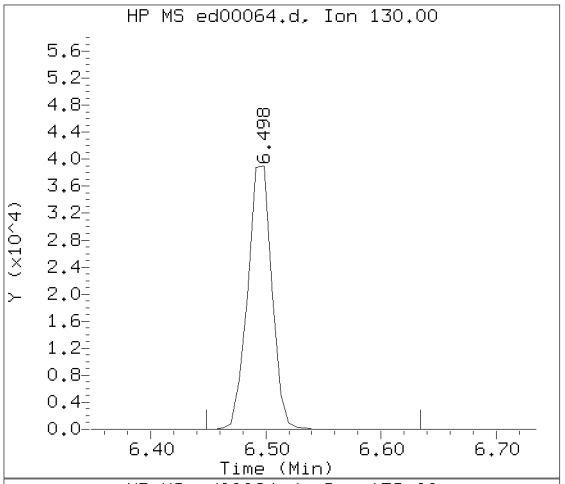
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 332355
Concentration (ppb(v)) : 9.1268
Integration start scan : 844 Integration stop scan: 863
Y at integration start : 1986 Y at integration end: 1986

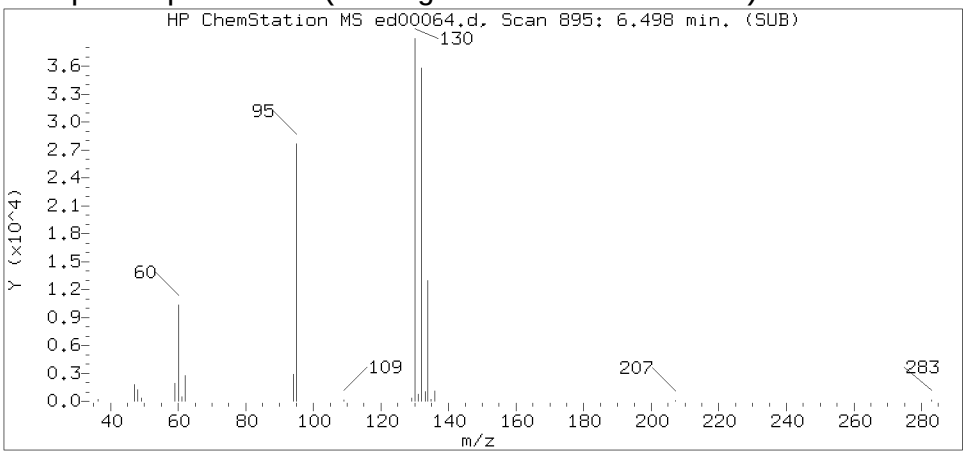
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

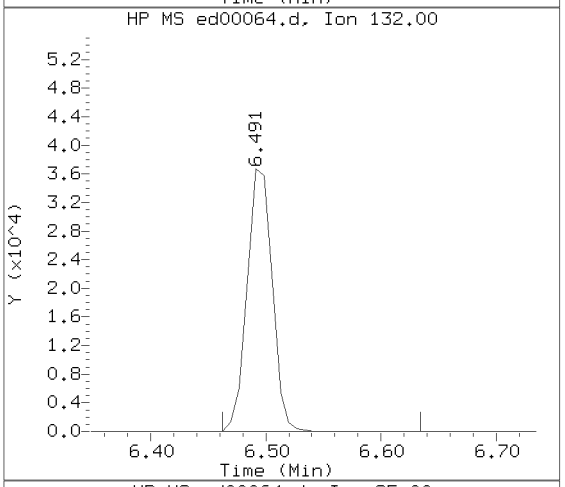
Reference Standard Spectrum for Trichloroethene



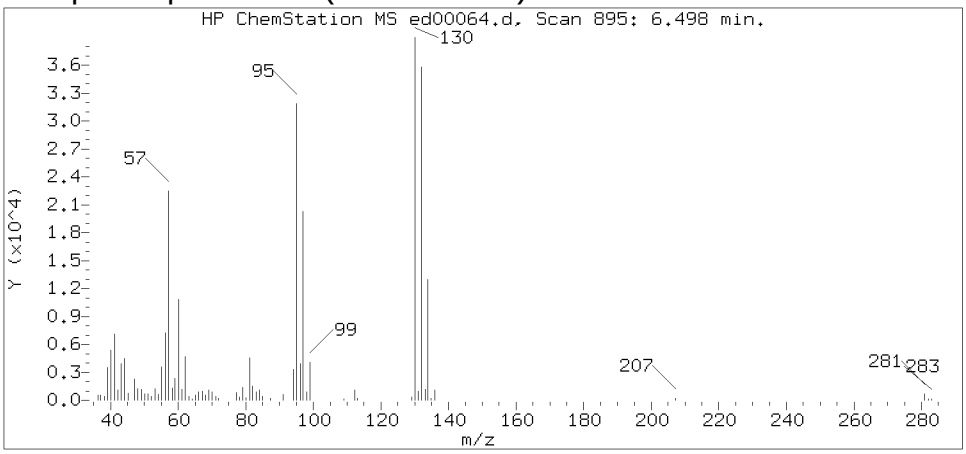


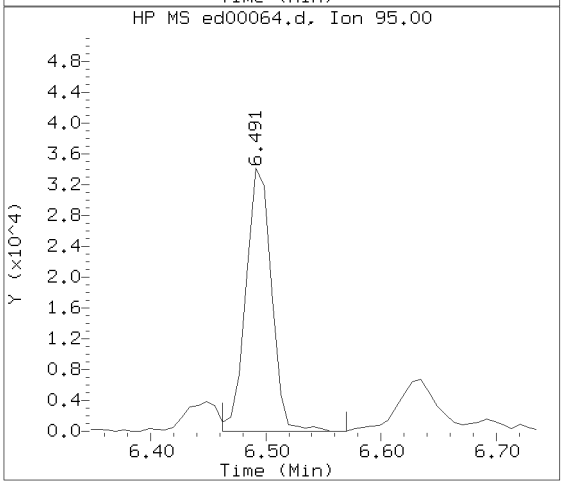
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 52
Compound Name : Trichloroethene
Scan Number : 895
Retention Time (minutes): 6.498
Relative Retention Time :-0.00114
Quant Ion : 130.00
Area (flag) : 56778
Concentration (ppb(v)) : 1.3784

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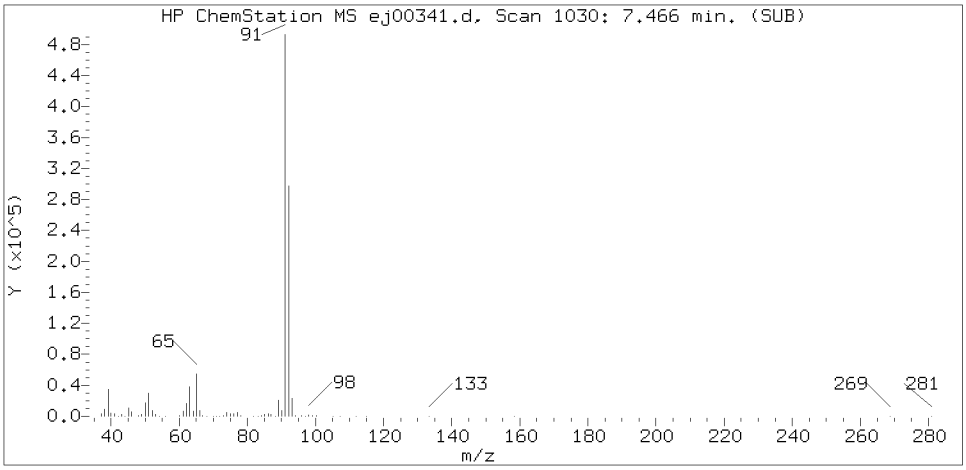
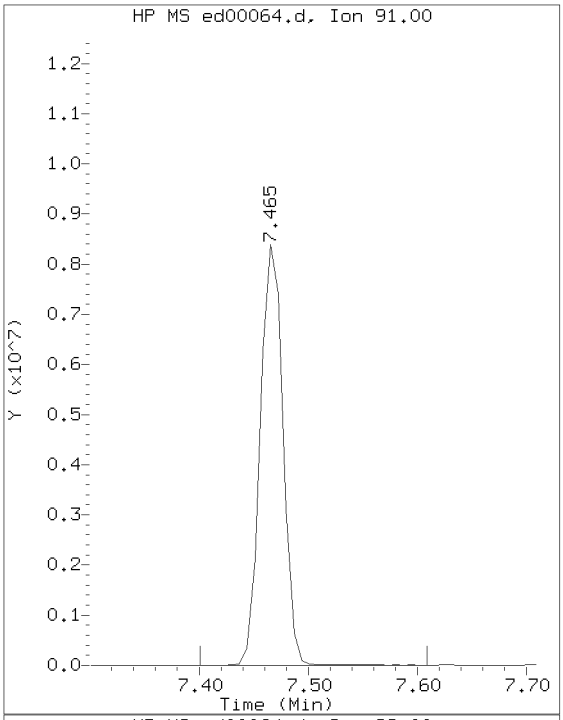
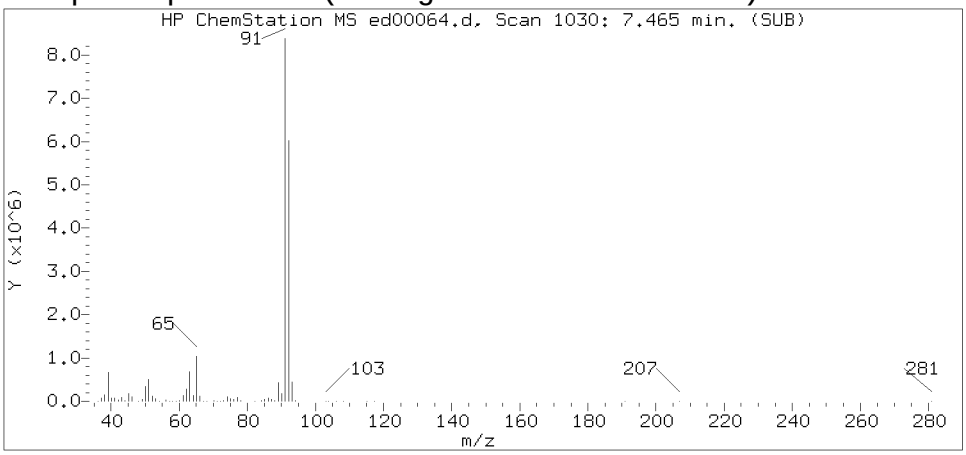
Target 3.5 esignature user ID: jeb07445

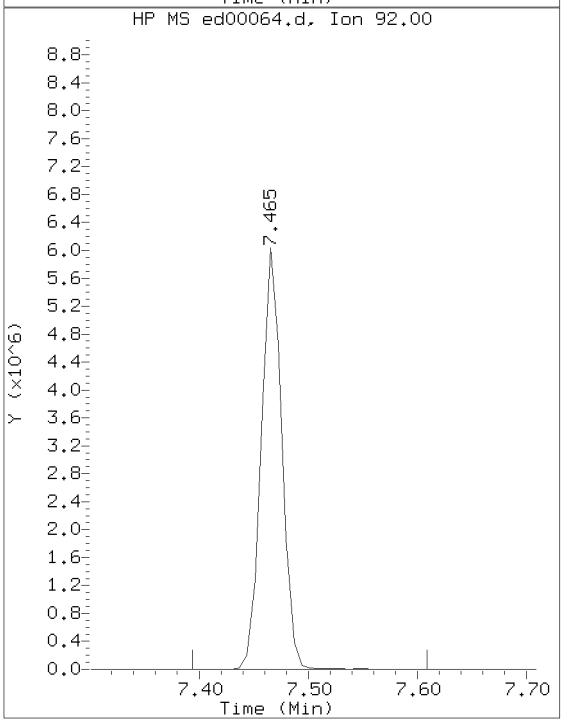
Reference Standard Spectrum for Toluene



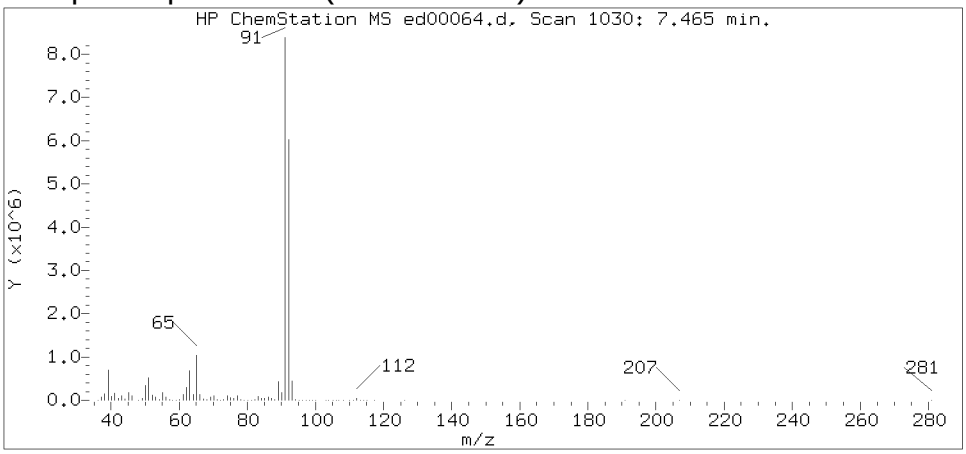


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.465
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 12277375
Concentration (ppb(v)) : 114.4022

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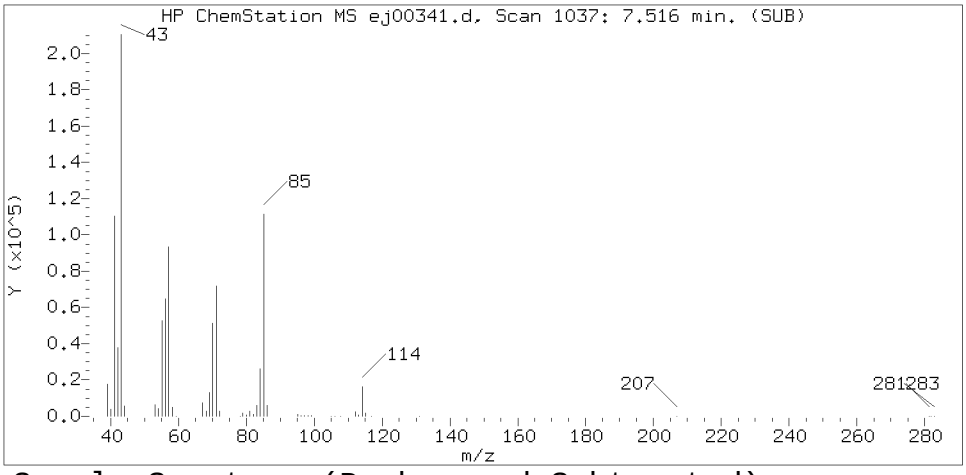
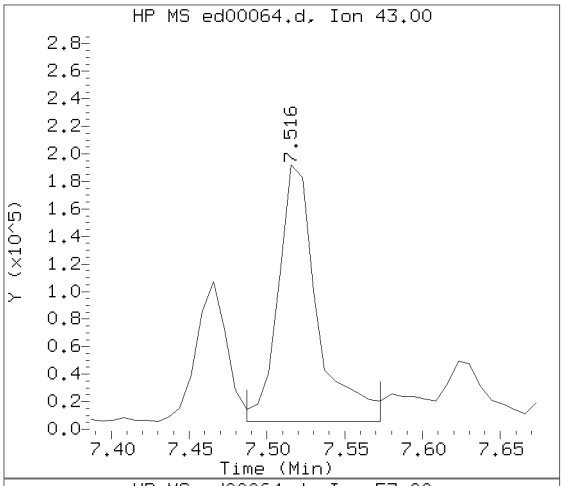
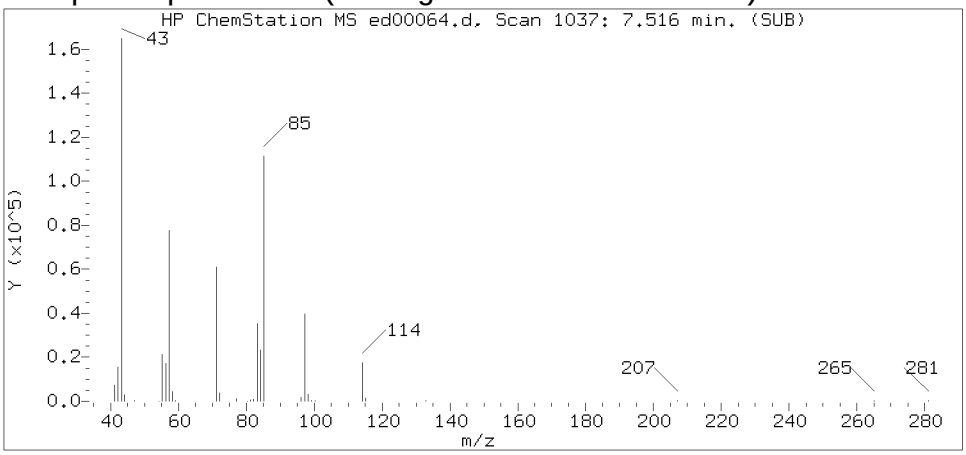
Target 3.5 esignature user ID: jeb07445

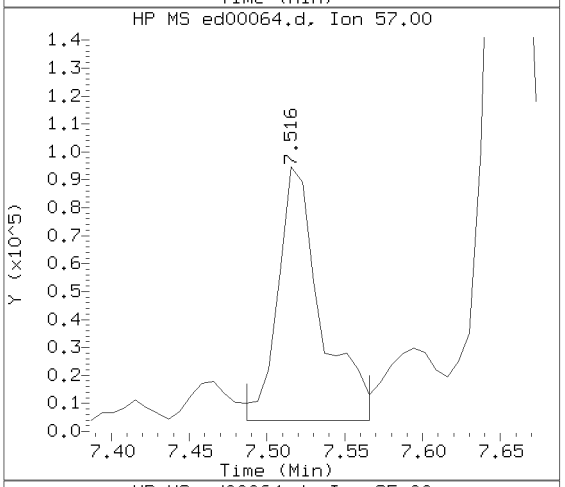
Reference Standard Spectrum for Octane



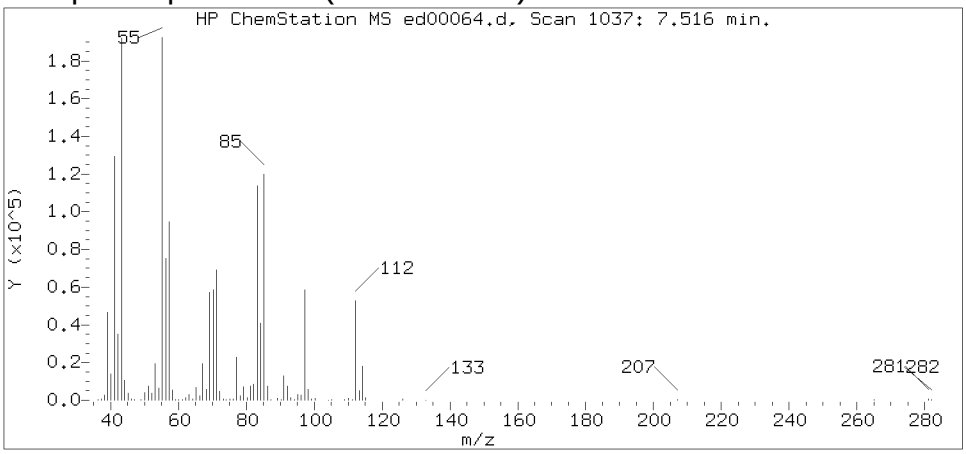


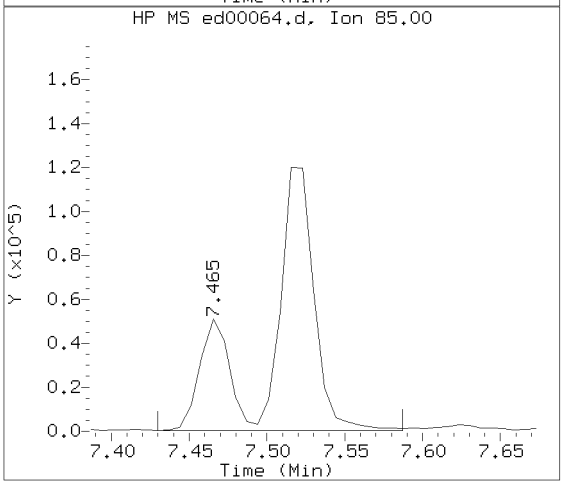
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

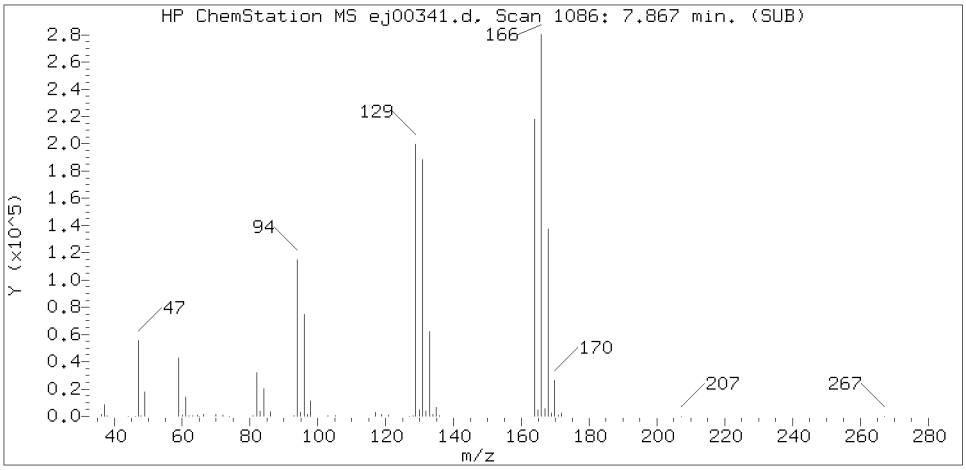
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

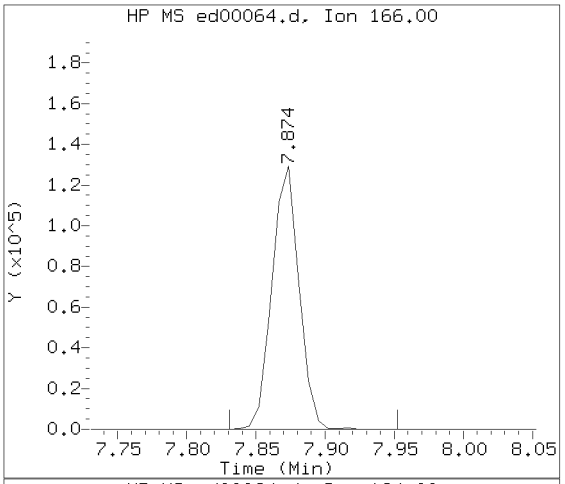
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 324793
Concentration (ppb(v)) : 6.1651

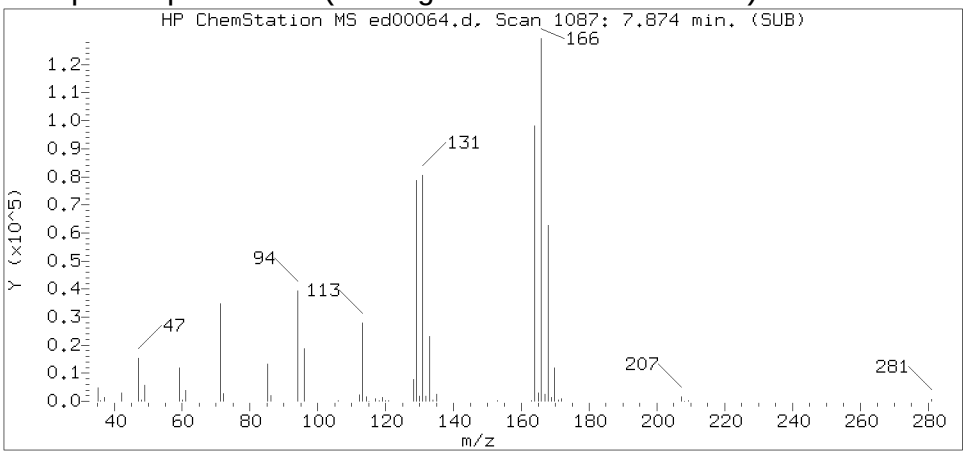
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

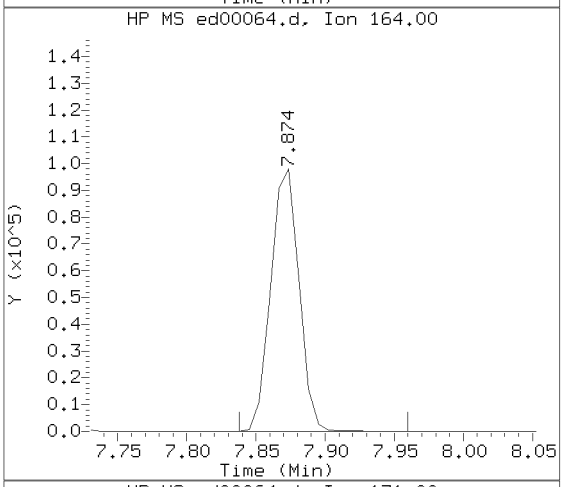
Reference Standard Spectrum for Tetrachloroethene



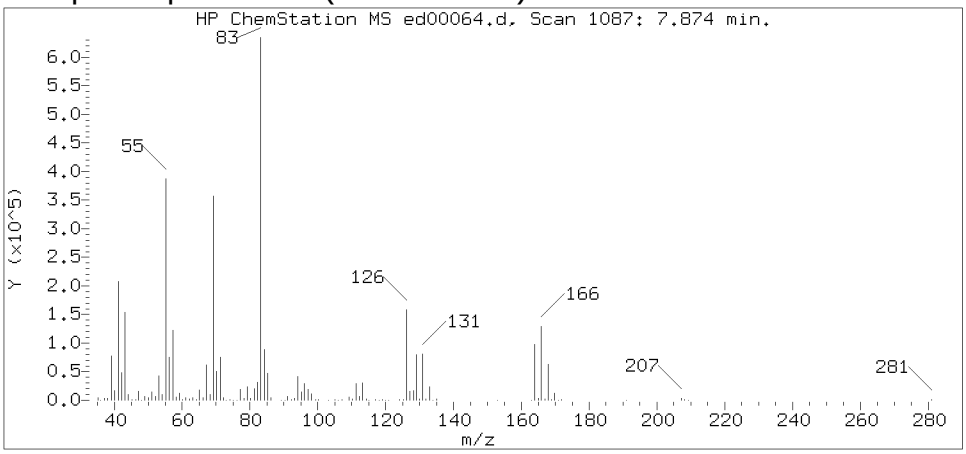


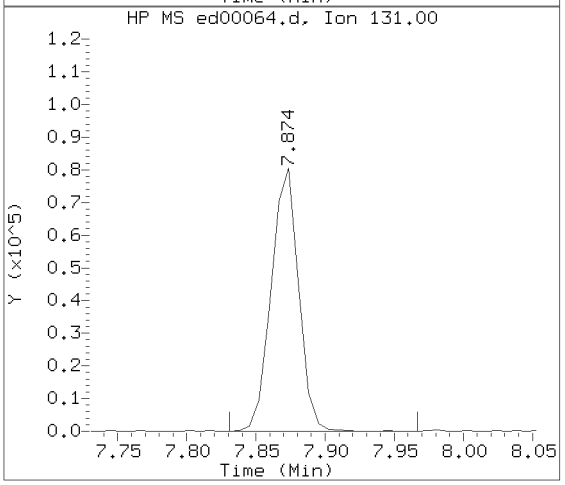
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

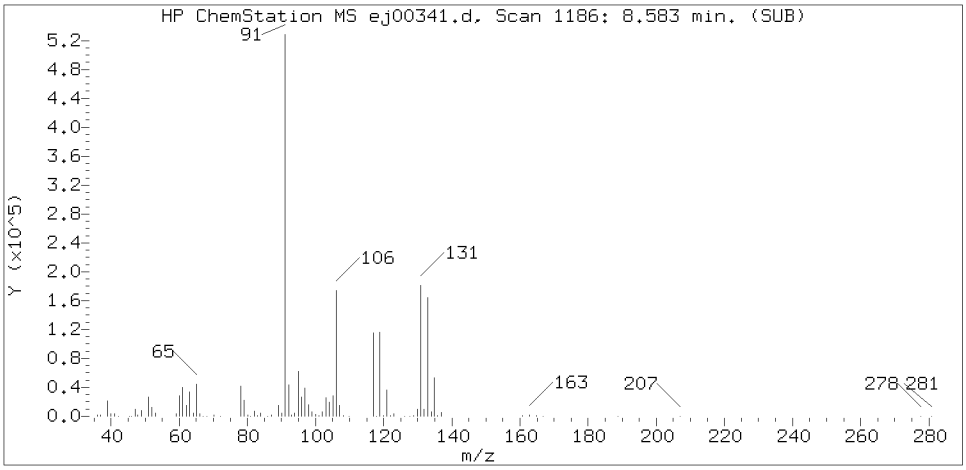
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

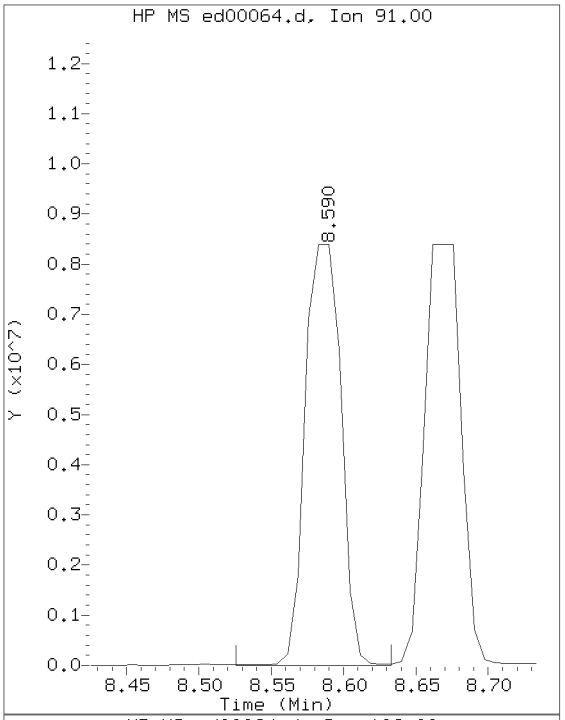
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1087
Retention Time (minutes): 7.874
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 175712
Concentration (ppb(v)) : 2.7815

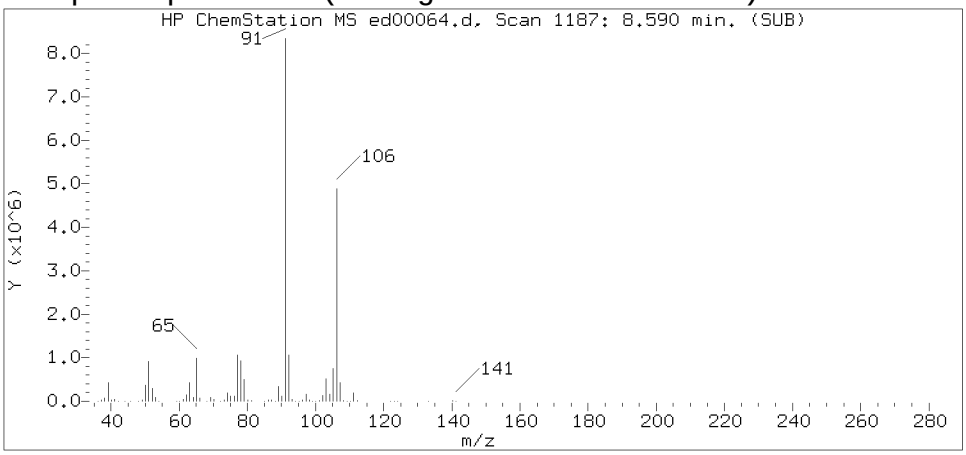
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

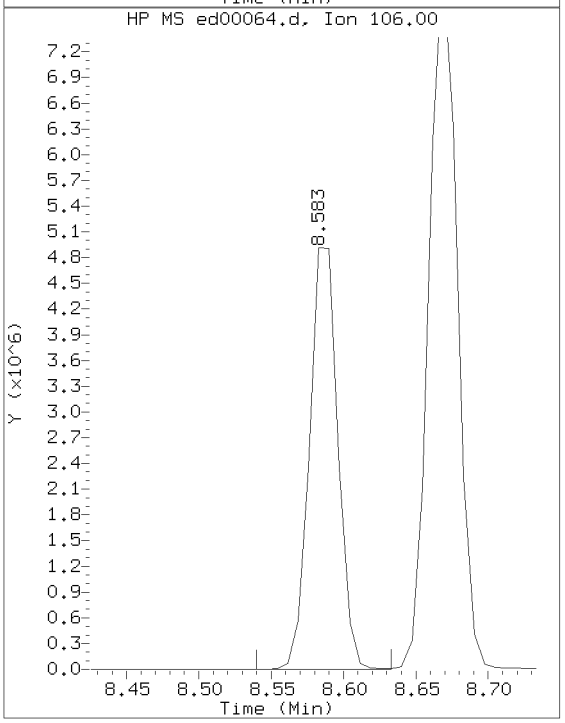
Reference Standard Spectrum for Ethylbenzene



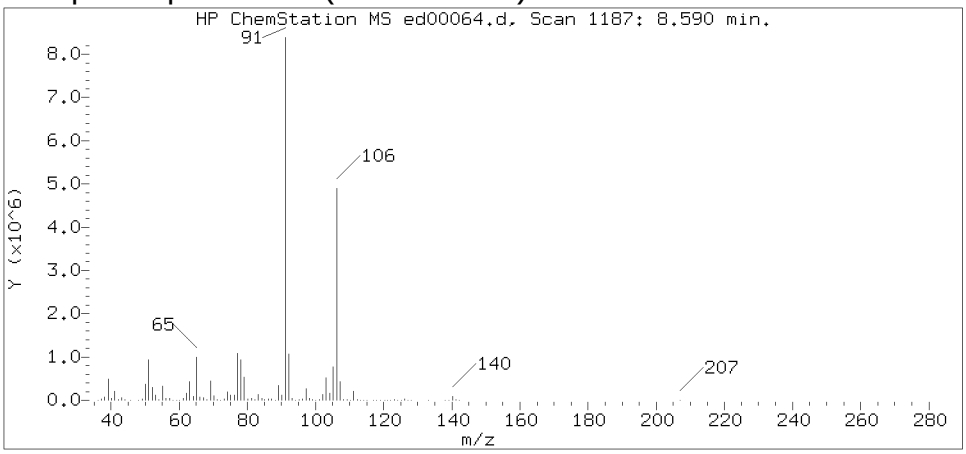


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

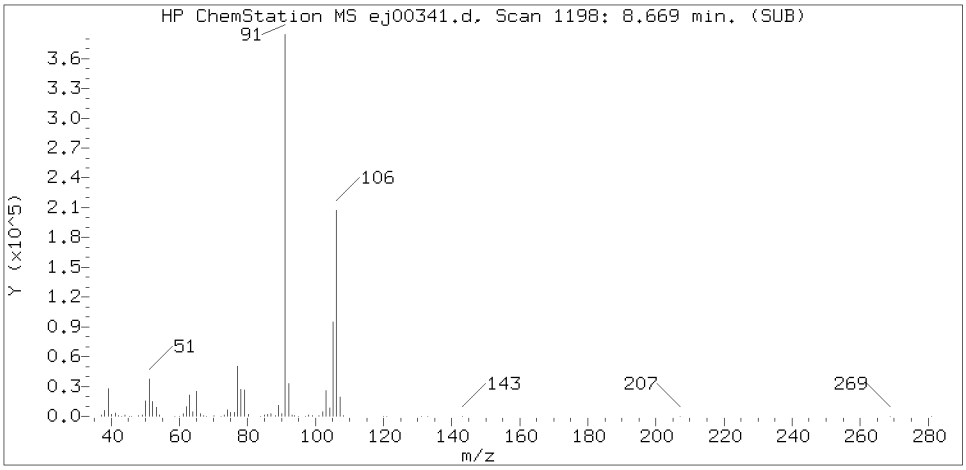
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

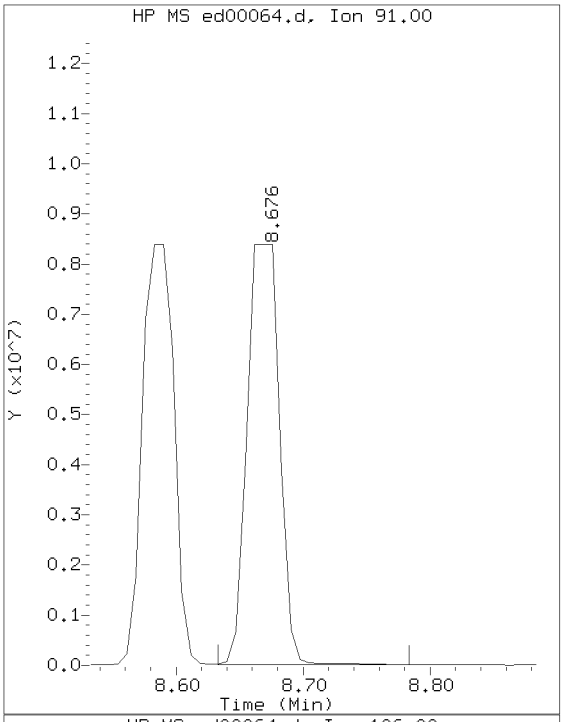
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1187
Retention Time (minutes): 8.590
Relative Retention Time :-0.00084
Quant Ion : 91.00
Area (flag) : 14515877
Concentration (ppb(v)) : 105.5576

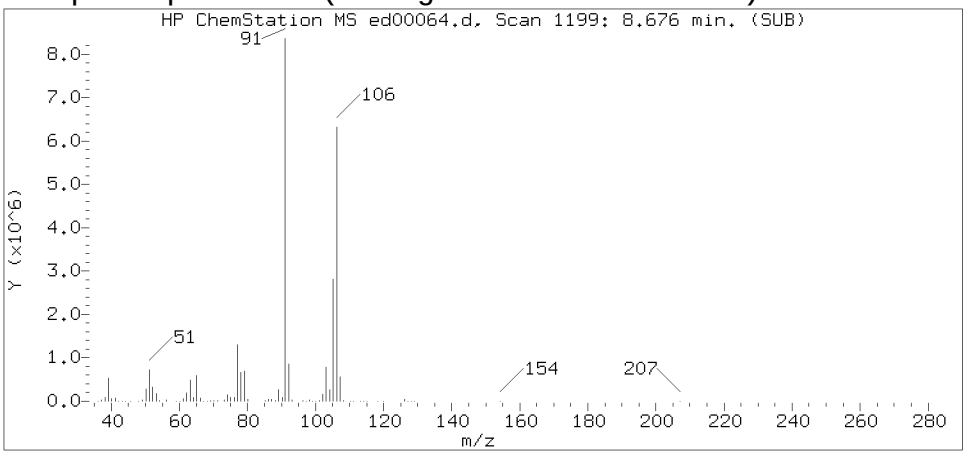
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

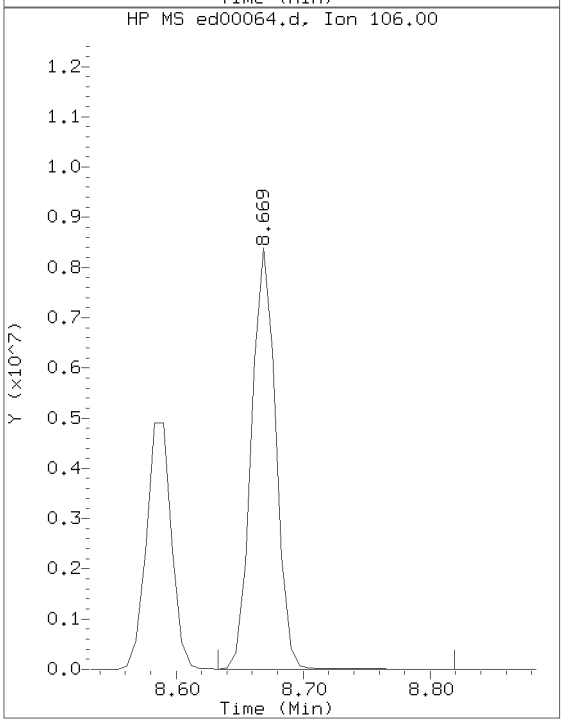
Reference Standard Spectrum for m/p-Xylene



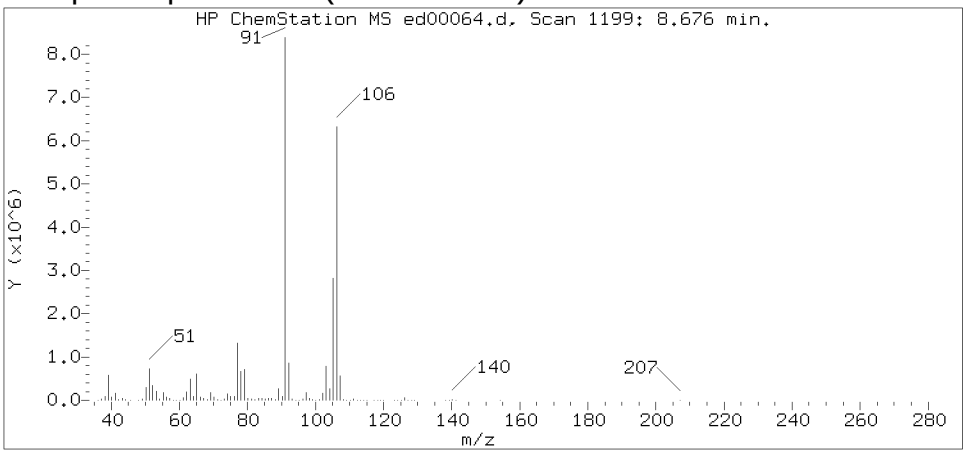


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

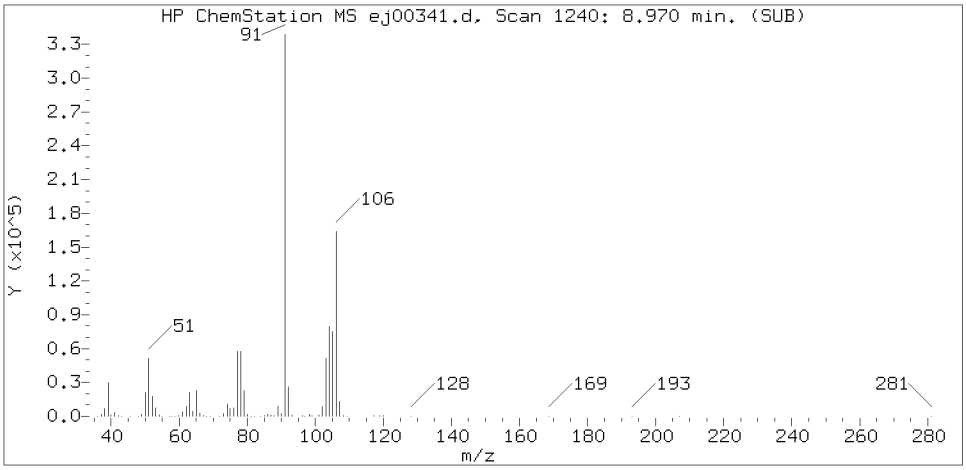
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

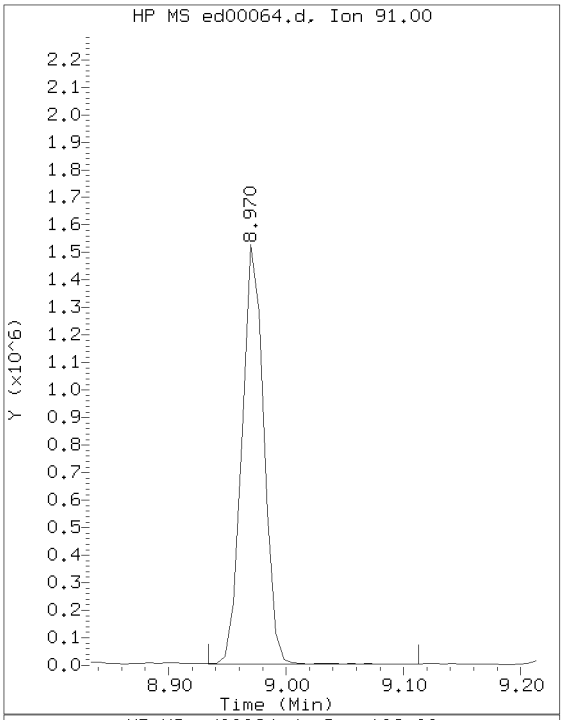
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1199
Retention Time (minutes): 8.676
Relative Retention Time :-0.00084
Quant Ion : 91.00
Area (flag) : 14952684
Concentration (ppb(v)) : 137.6704

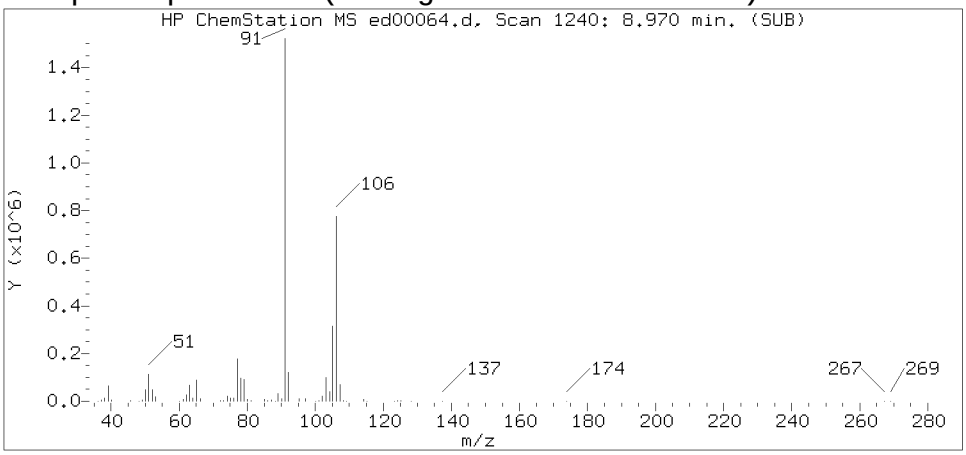
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

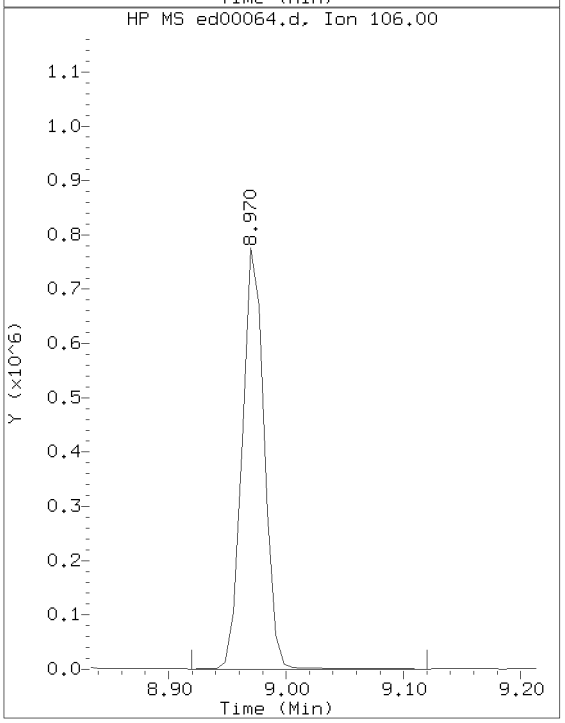
Reference Standard Spectrum for o-Xylene



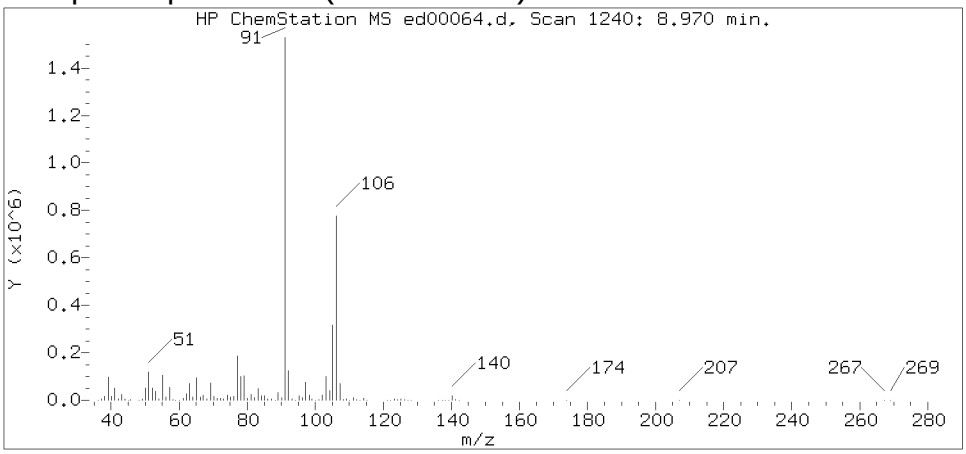


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 1985117
Concentration (ppb(v)) : 18.8583

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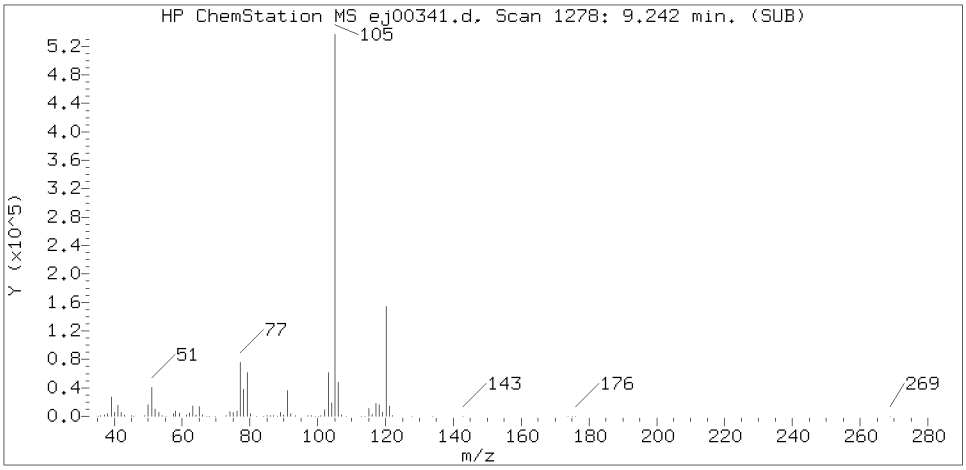
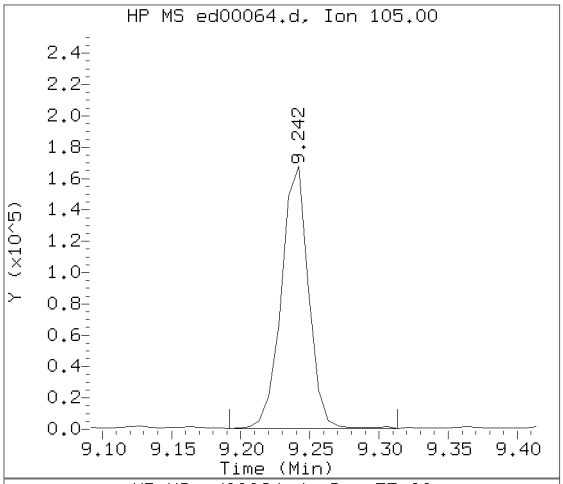
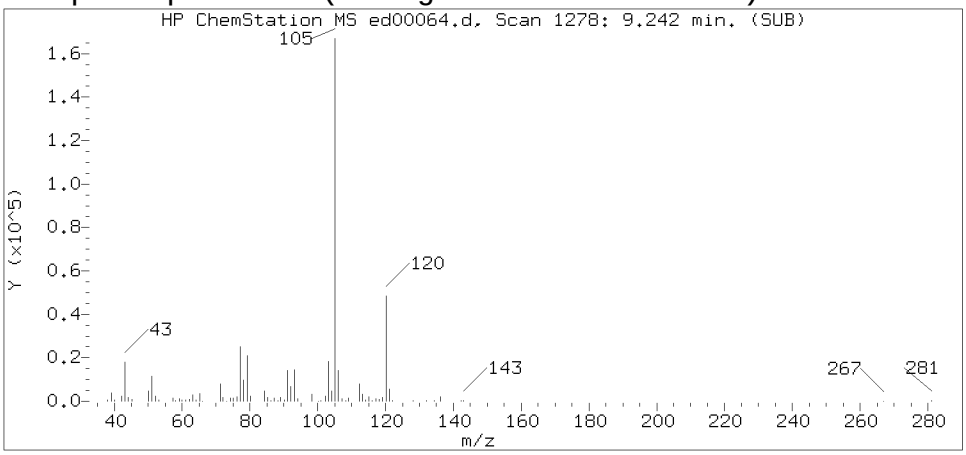
Target 3.5 esignature user ID: jeb07445

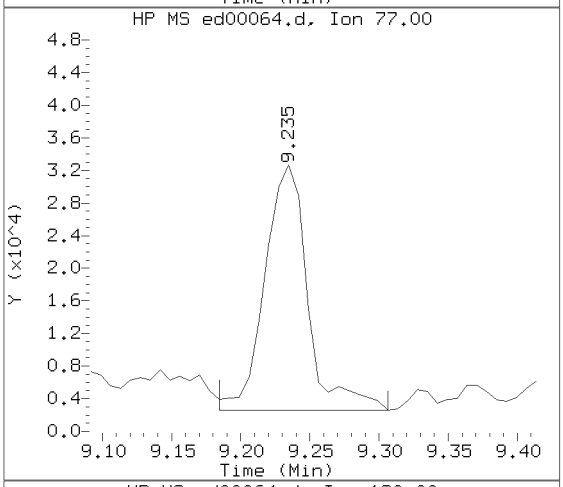
Reference Standard Spectrum for Cumene



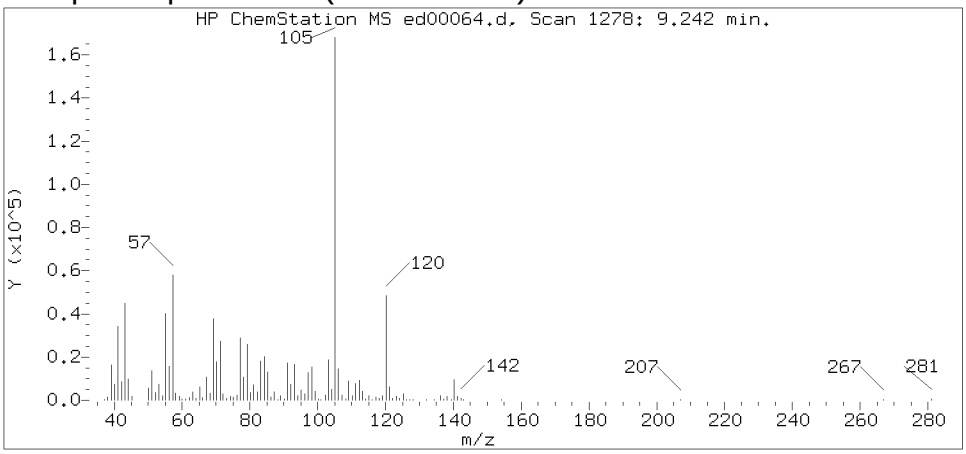


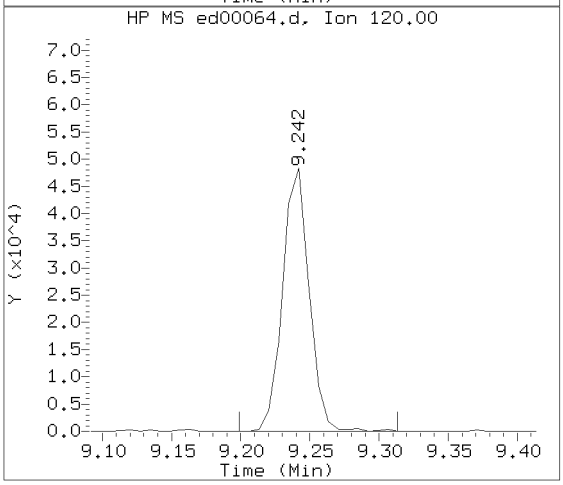
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 80
Compound Name : Cumene
Scan Number : 1278
Retention Time (minutes): 9.242
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 229044
Concentration (ppb(v)) : 1.5460

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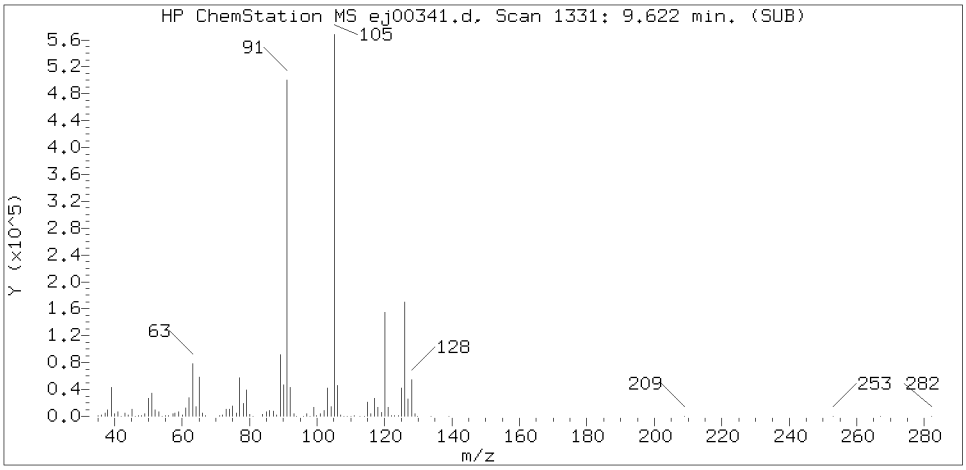
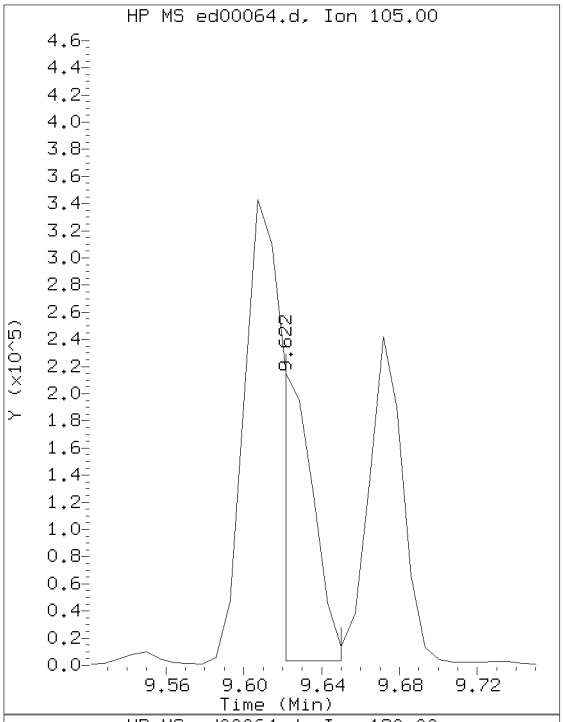
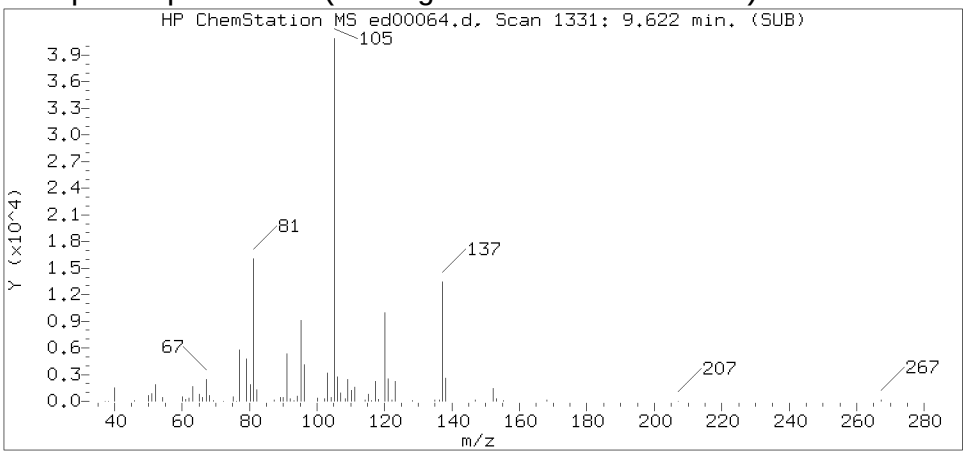
Target 3.5 esignature user ID: jeb07445

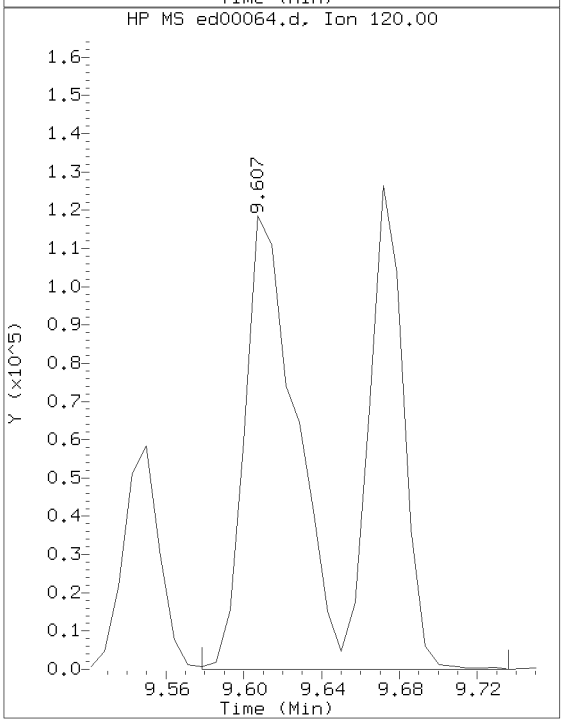
Reference Standard Spectrum for 4-Ethyltoluene



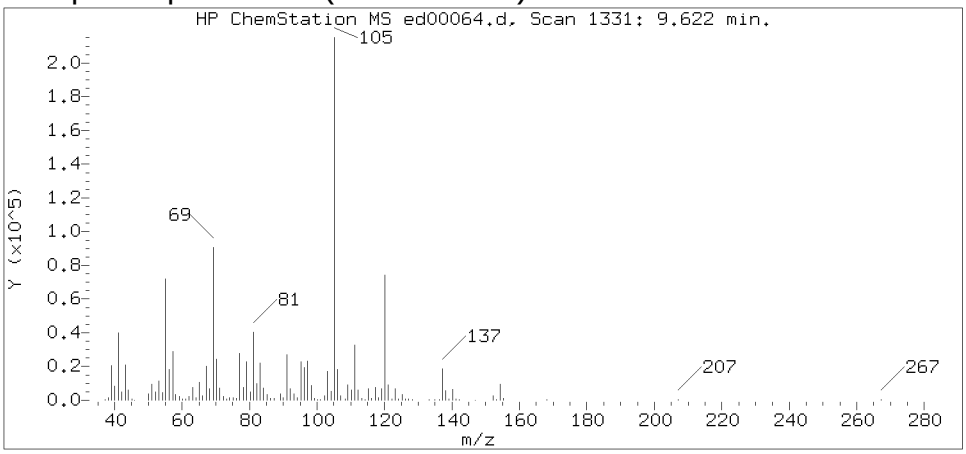


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 248948M
Concentration (ppb(v)) : 1.7019

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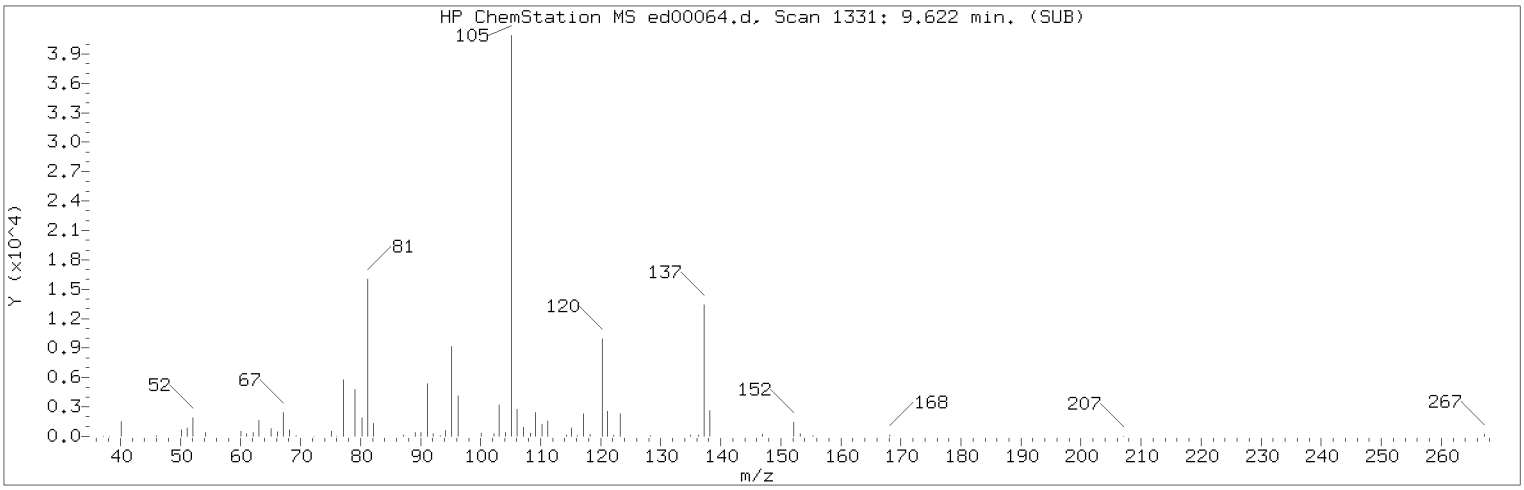
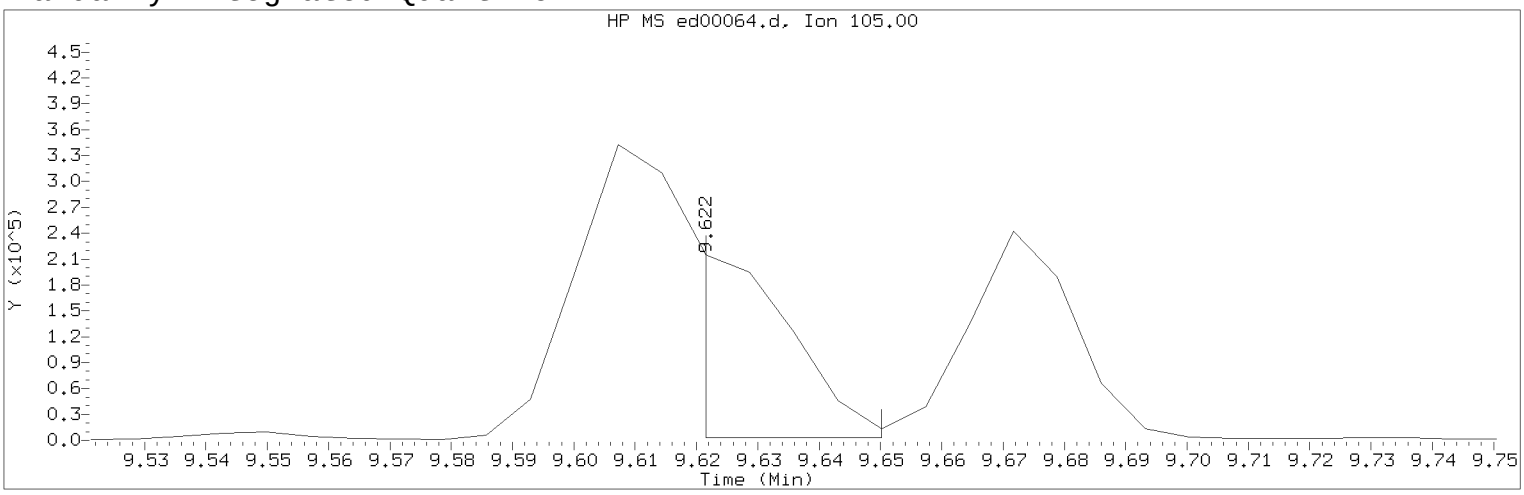
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

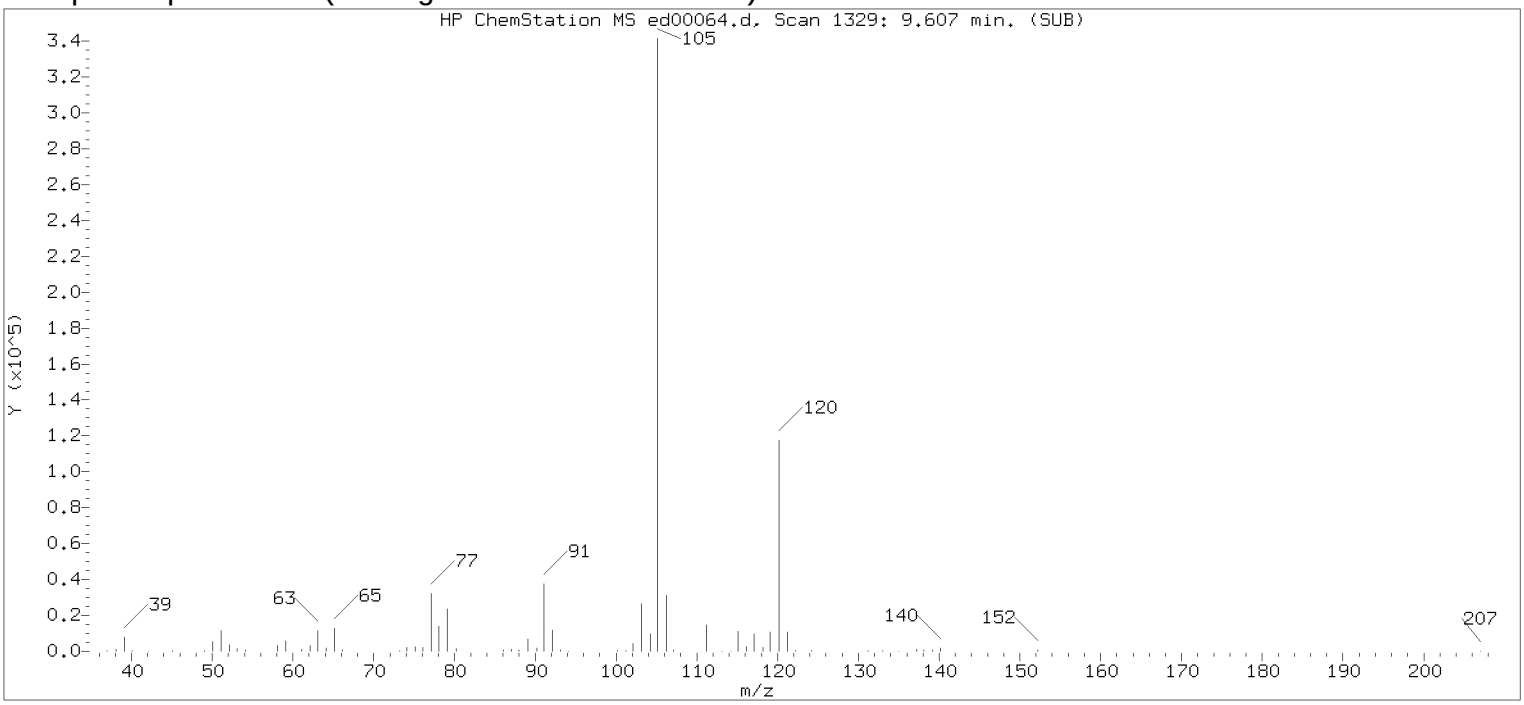
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Quant Ion : 105.00
Area (flag) : 248948M
Concentration (ppb(v)) : 1.7019
Integration start scan : 1330 Integration stop scan: 1334
Y at integration start : 3129 Y at integration end: 3129

Reason for manual integration: improper integration

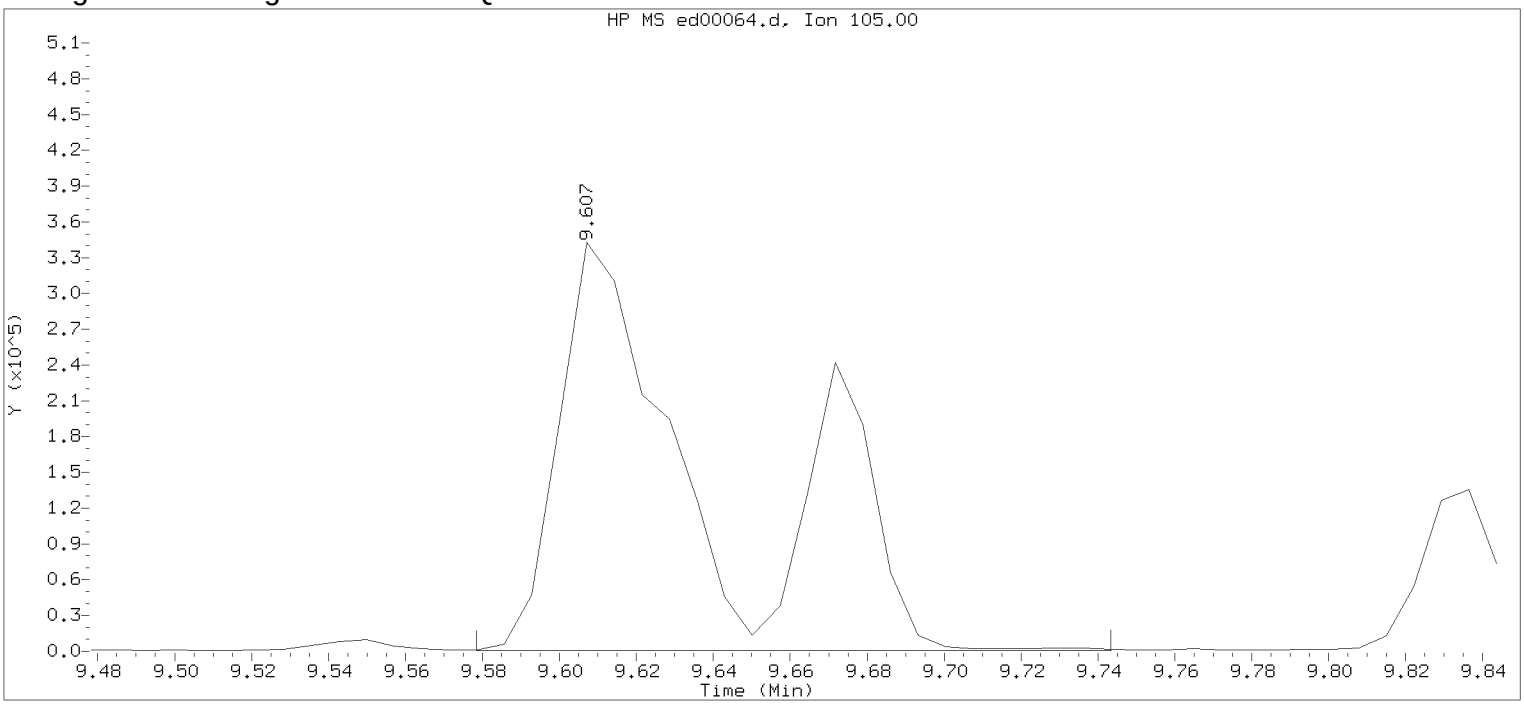
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

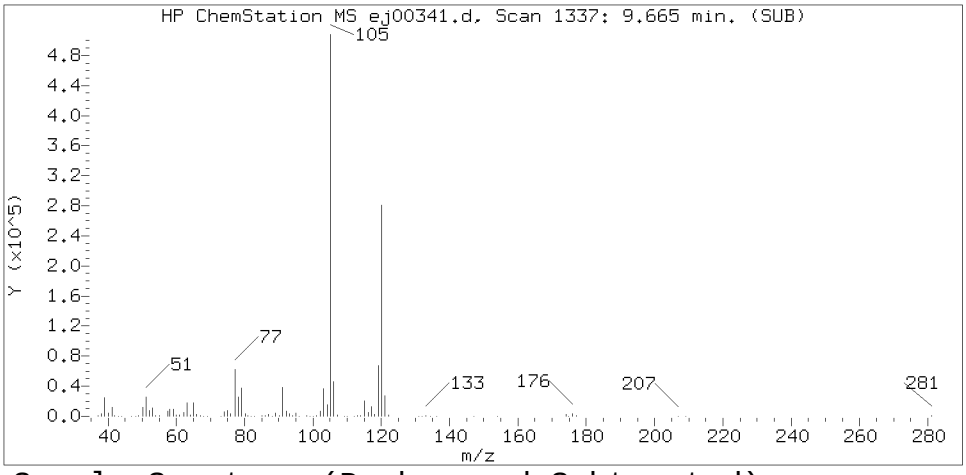
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 21:37 Unknown

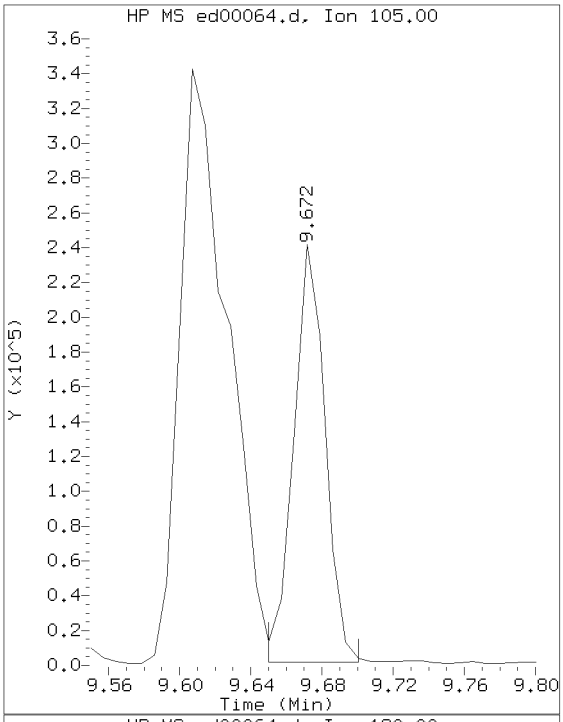
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 935576
Concentration (ppb(v)) : 6.3959
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 724 Y at integration end: 724

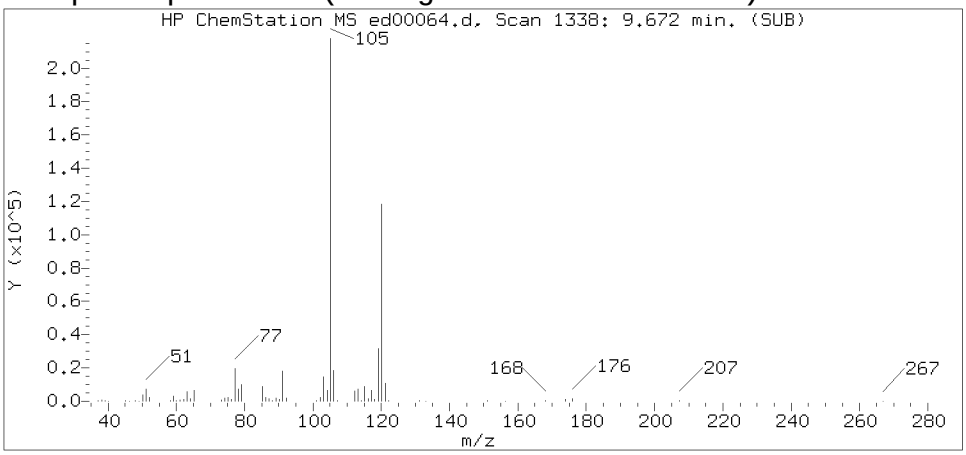
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

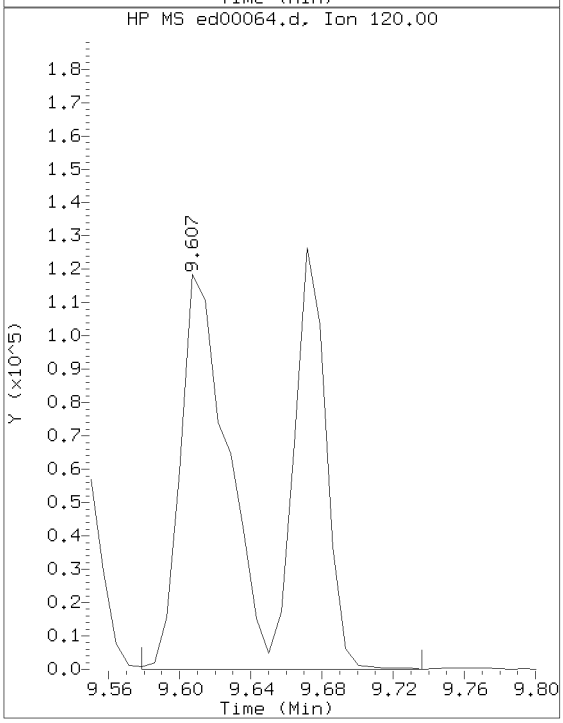
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



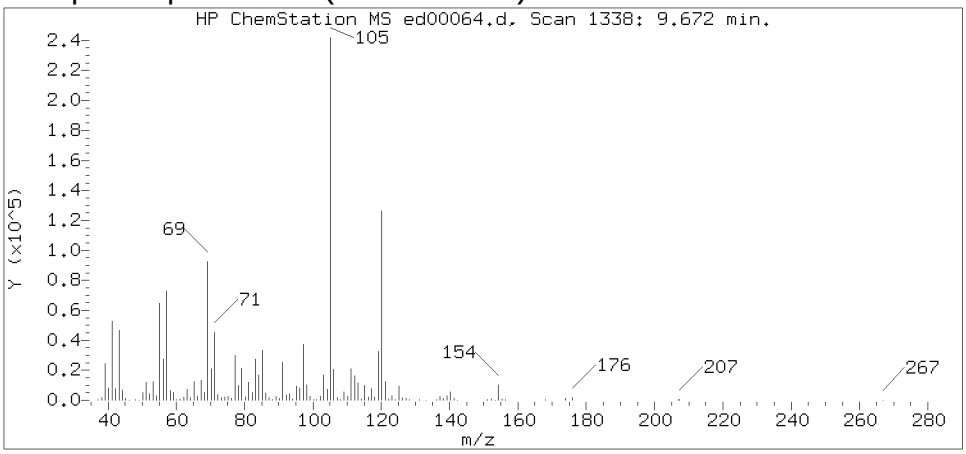


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

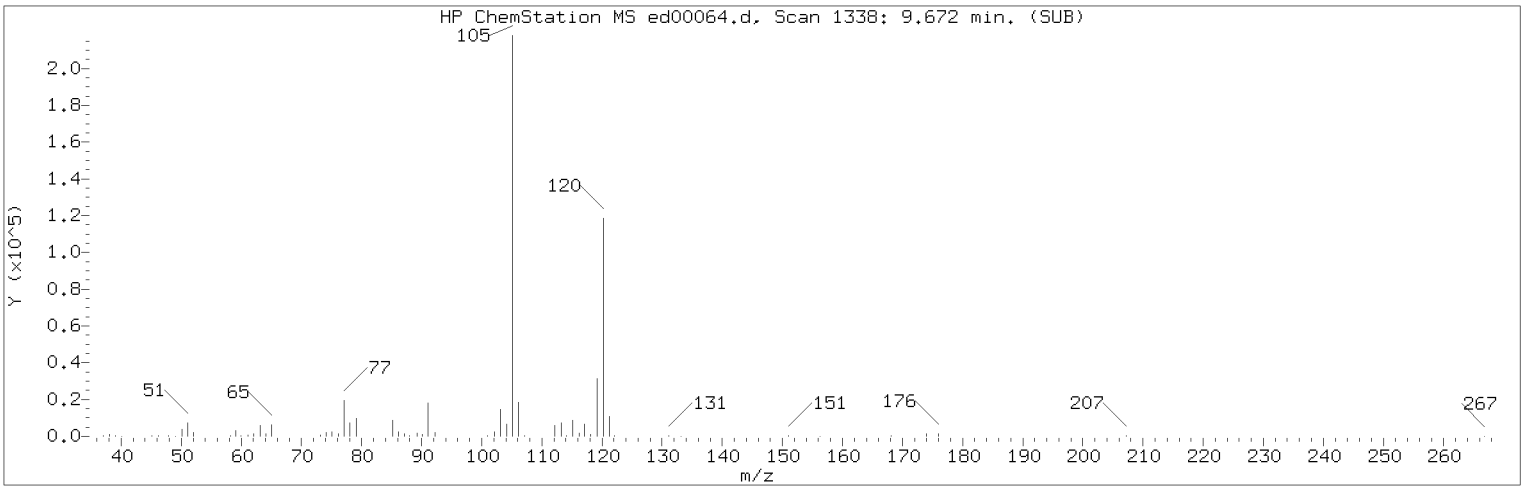
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

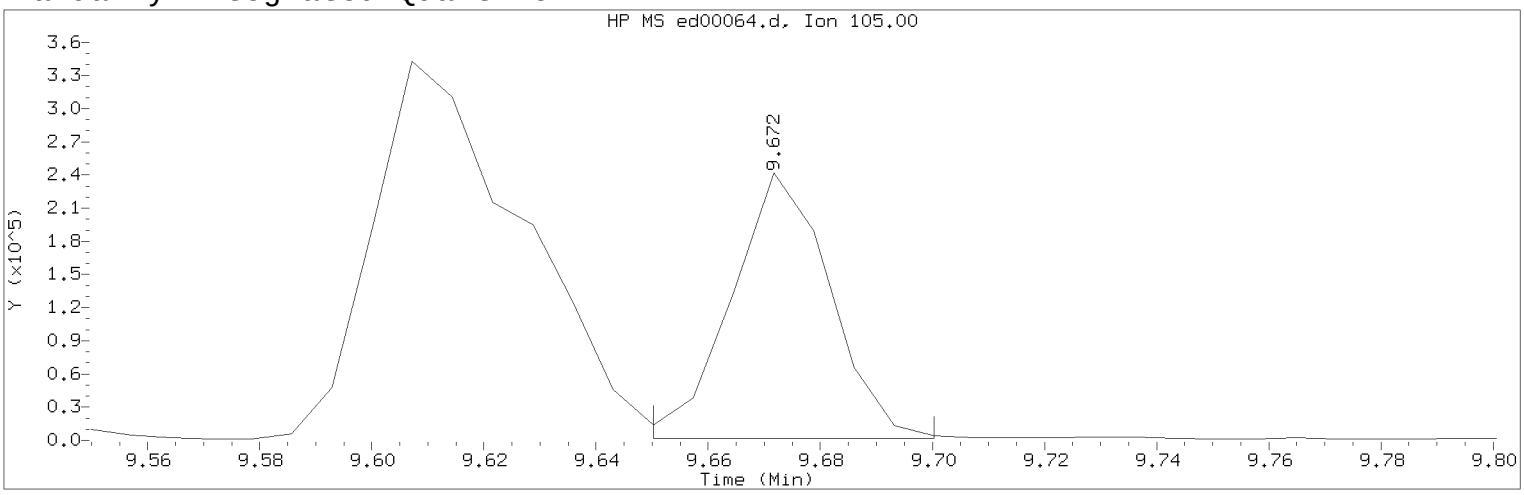
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 295029M
Concentration (ppb(v)) : 2.4267

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

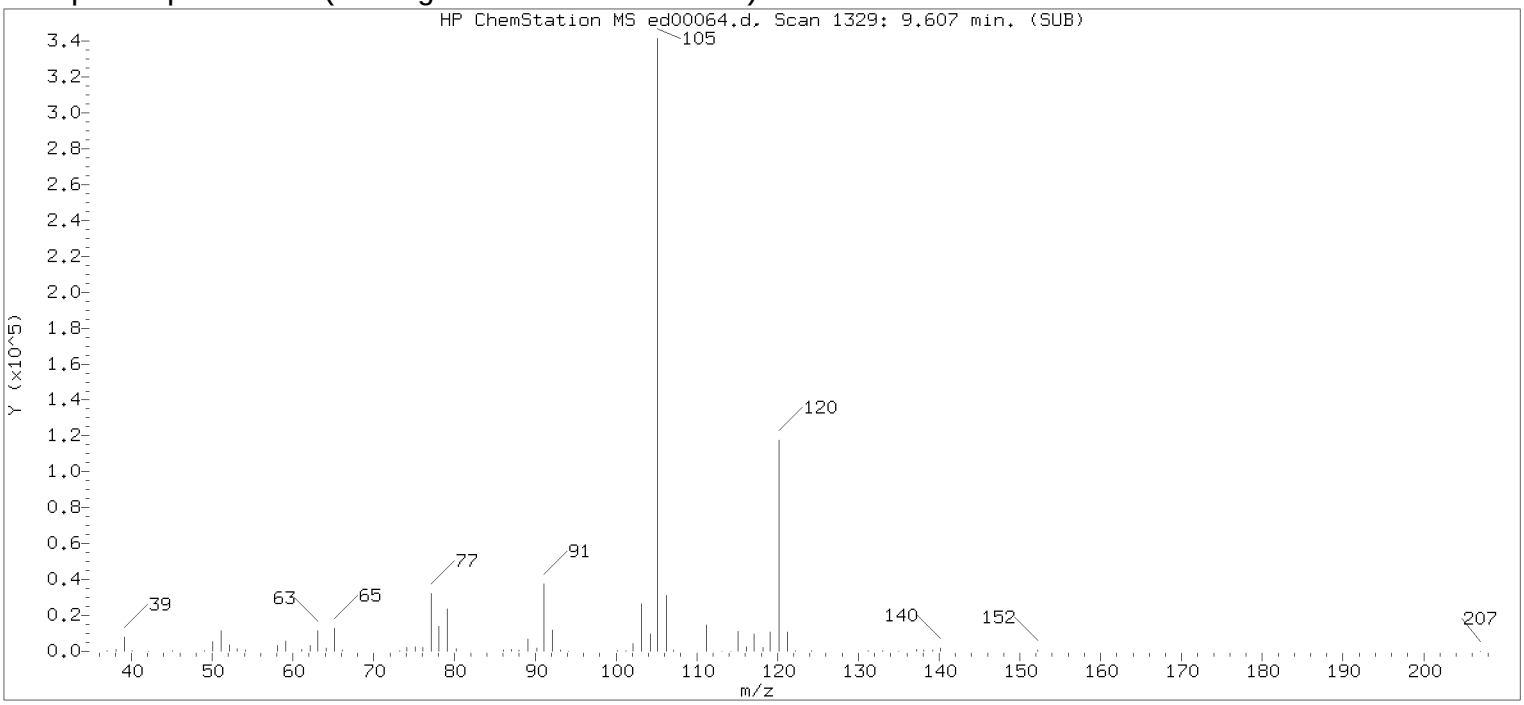
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 295029M
Concentration (ppb(v)) : 2.4267
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 1801 Y at integration end: 1801

Reason for manual integration: improper integration

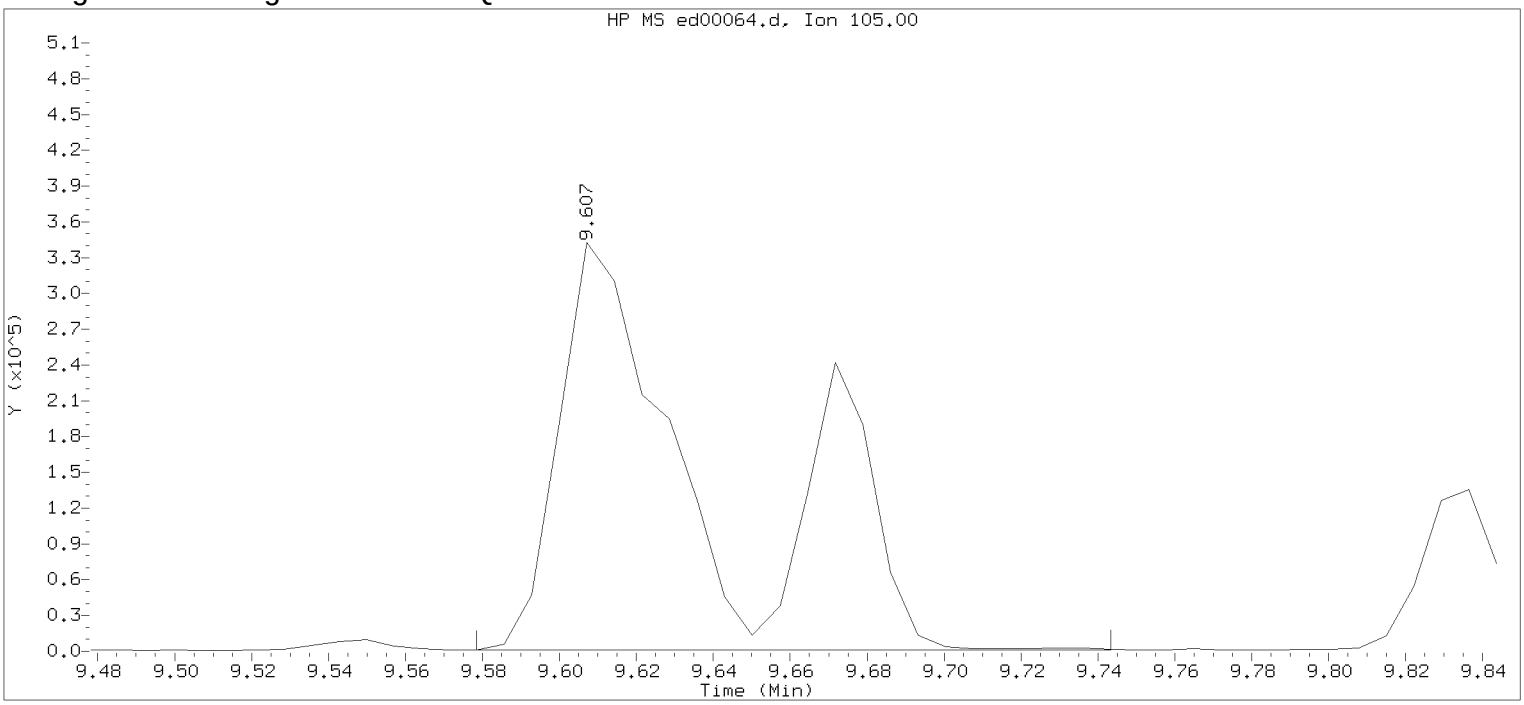
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

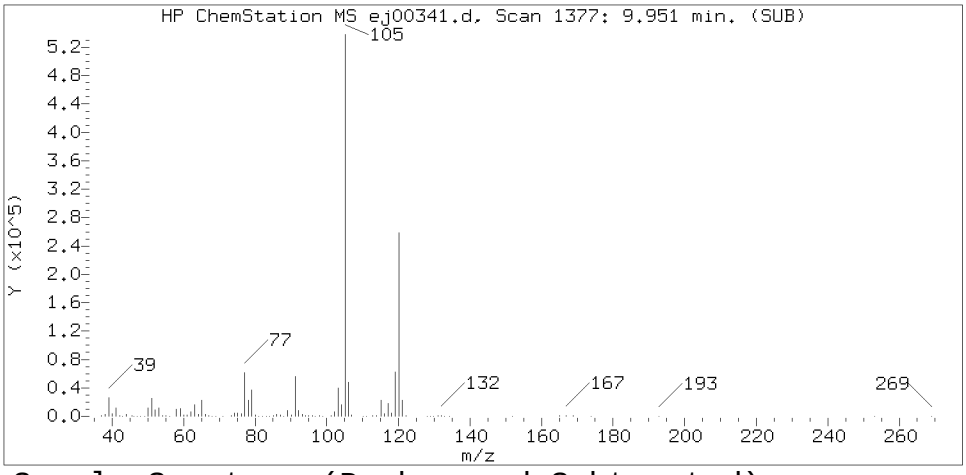
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 21:37 Unknown

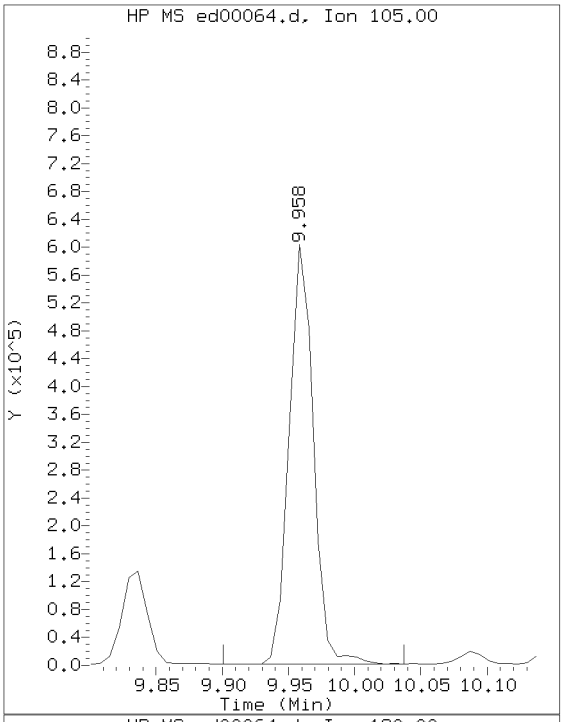
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 932502
Concentration (ppb(v)) : 7.6701
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 1035 Y at integration end: 1035

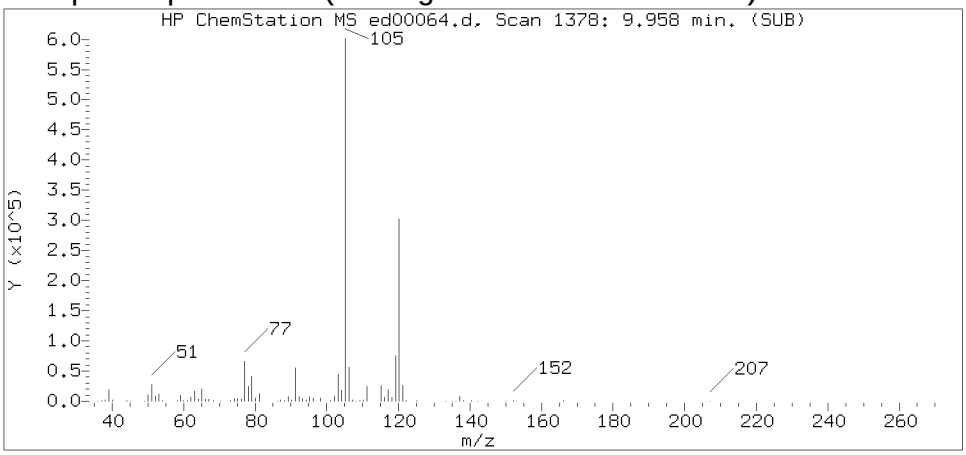
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user id: jeb07445

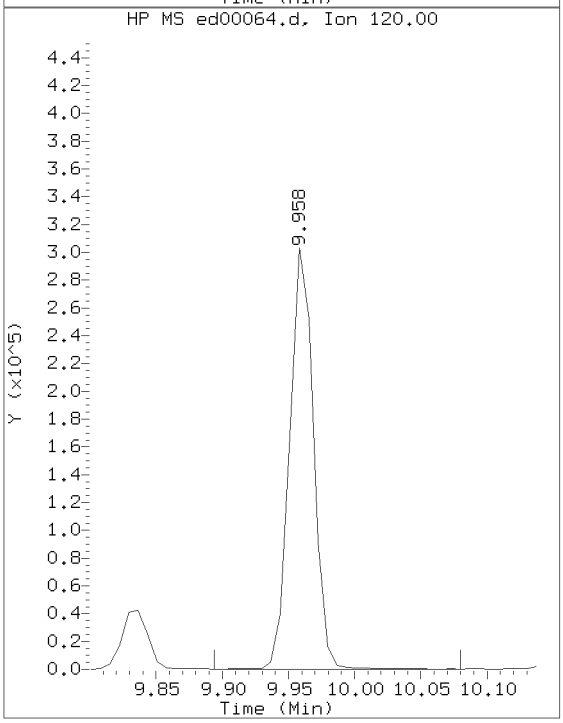
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



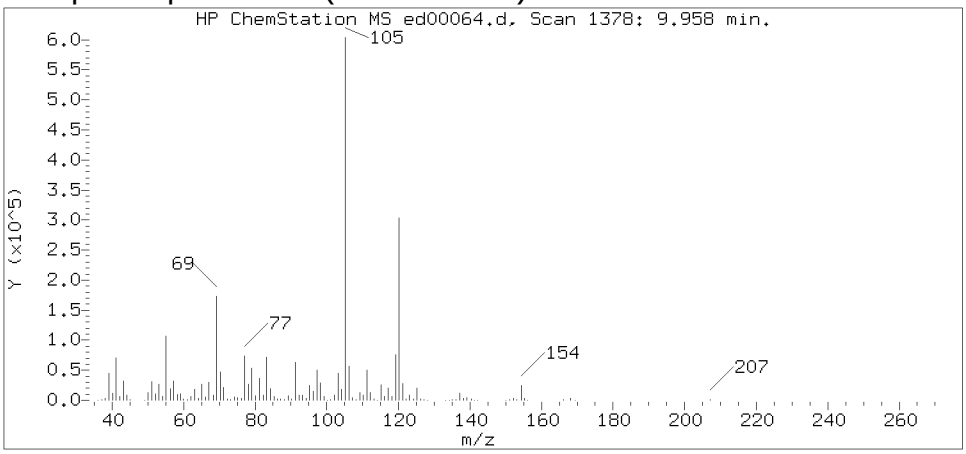


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

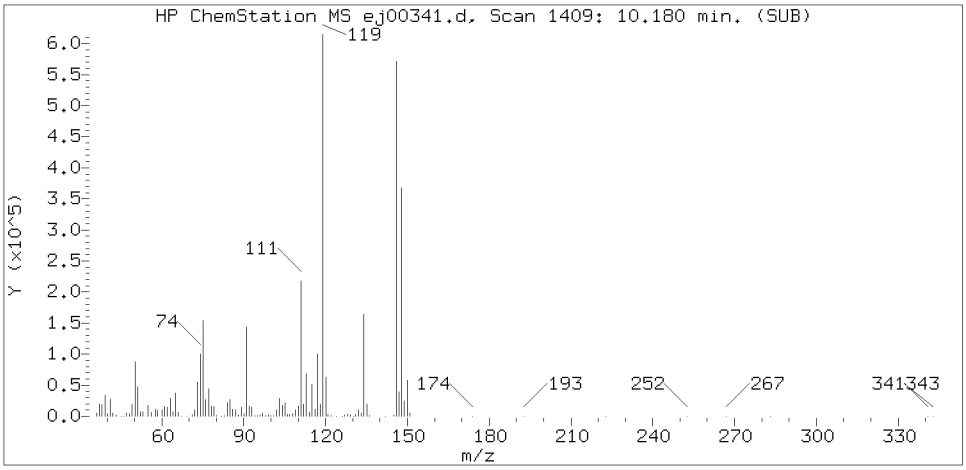
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

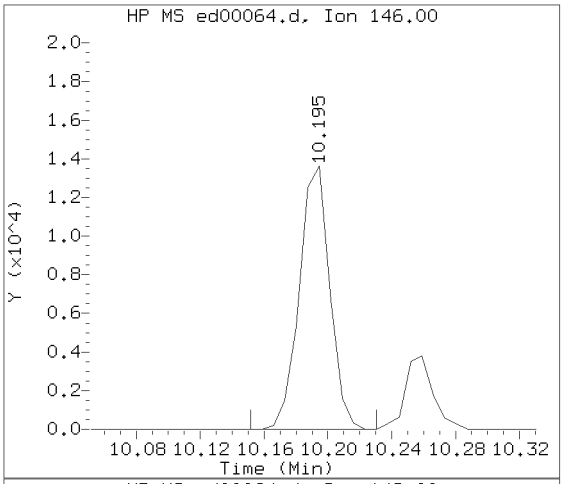
Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 772157
Concentration (ppb(v)) : 6.7142

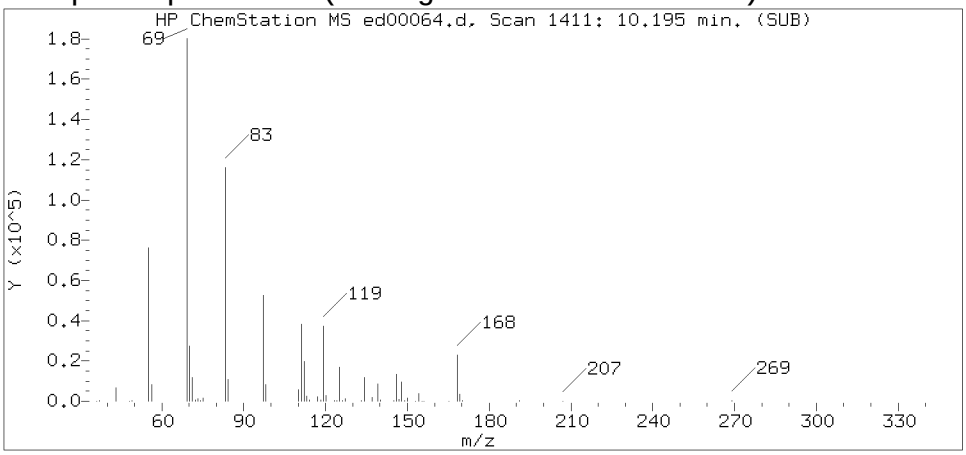
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

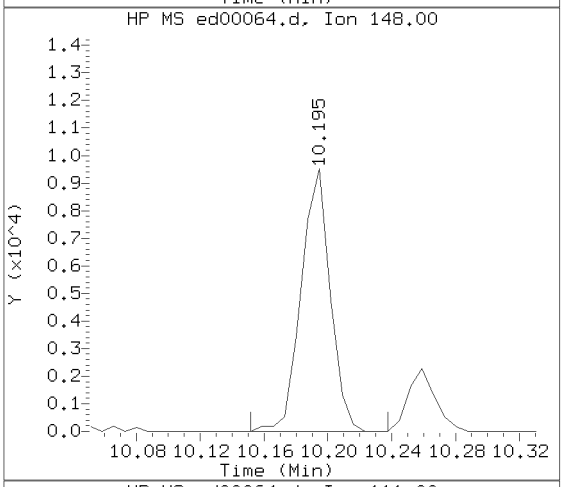
Reference Standard Spectrum for 1,3-Dichlorobenzene



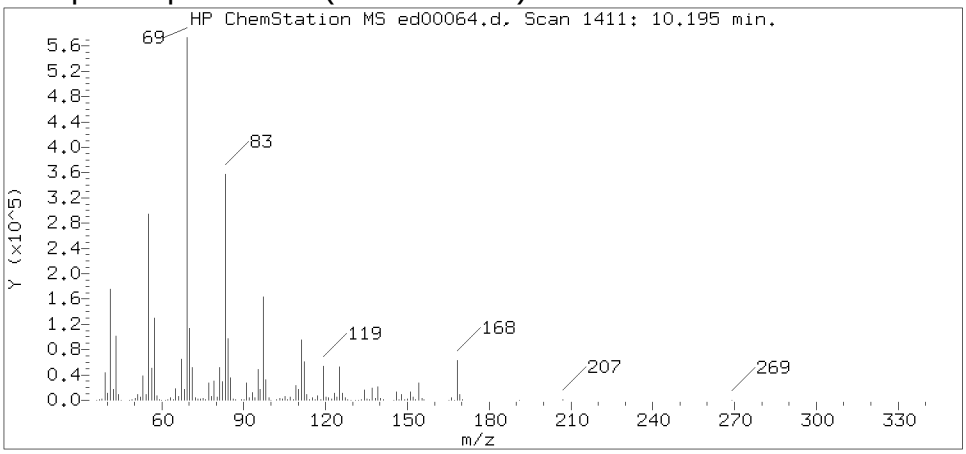


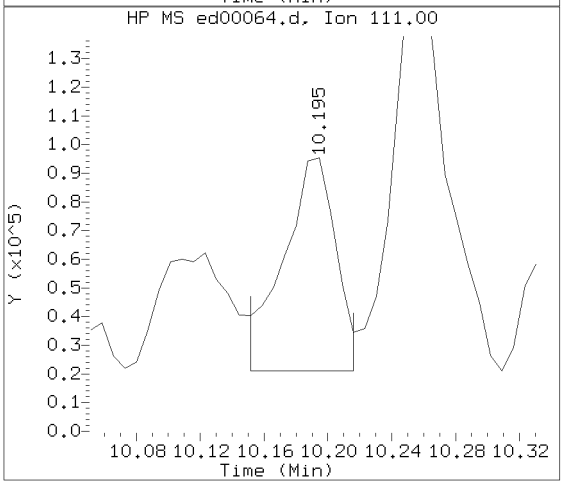
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00064.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 21:18 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 92
Compound Name : 1,3-Dichlorobenzene
Scan Number : 1411
Retention Time (minutes): 10.195
Relative Retention Time :-0.00001
Quant Ion : 146.00
Area (flag) : 17958
Concentration (ppb(v)) : 0.2064

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:07.
Target 3.5 esignature user ID: jeb07445

S7104 Lancaster Laboratories, Inc. 8920250DL

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00066.d Injection date and time: **05-APR-2017 22:27**
Data file Sample Info. Line: 8920250DL;40;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
40) Bromochloromethane	5.467(0.007)	751	130	252067 (11)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.291(0.007)	866	114	951541 (14)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	933242 (12)	10.00		498344 - 1162802

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)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.874(-0.001)	43	13726	0.384	3.84		J	0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.533(-0.002)	43	26895	0.940	9.40		J	0.5	2
21) Carbon Disulfide	(1)			Not Detected					0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
28) trans-1,2-Dichloroethene	(1)	4.285(0.000)	61	18477	0.540	5.40		J	0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.557(-0.001)	57	52221	1.408	14.08			0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(-0.001)	61	46229	1.416	14.16			0.2	1
37) 2-Butanone	(1)	5.281(-0.001)	72	21468	1.638	16.38		J	0.5	2
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(-0.001)	78	90081	1.020	10.20			0.2	1
47) 1,2-Dichloroethane	(2)	6.012(-0.001)	62	290304	8.730	87.30			0.2	1
48) Isooctane	(2)	6.033(0.000)	57	239682	1.974	19.74			0.2	1
50) Heptane	(2)	6.176(-0.001)	43	36015M	0.896	8.96		J	0.2	1
52) Trichloroethene	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.466(0.000)	91	1445912	12.835	128.35			0.2	1
62) Octane	(3)	7.516(0.000)	43	32831M	0.594	5.94		J	0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.867(0.000)	166	19530	0.295	2.95		J	0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00066.d Injection date and time: **05-APR-2017 22:27**
Data file Sample Info. Line: 8920250DL;40;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 40 cc

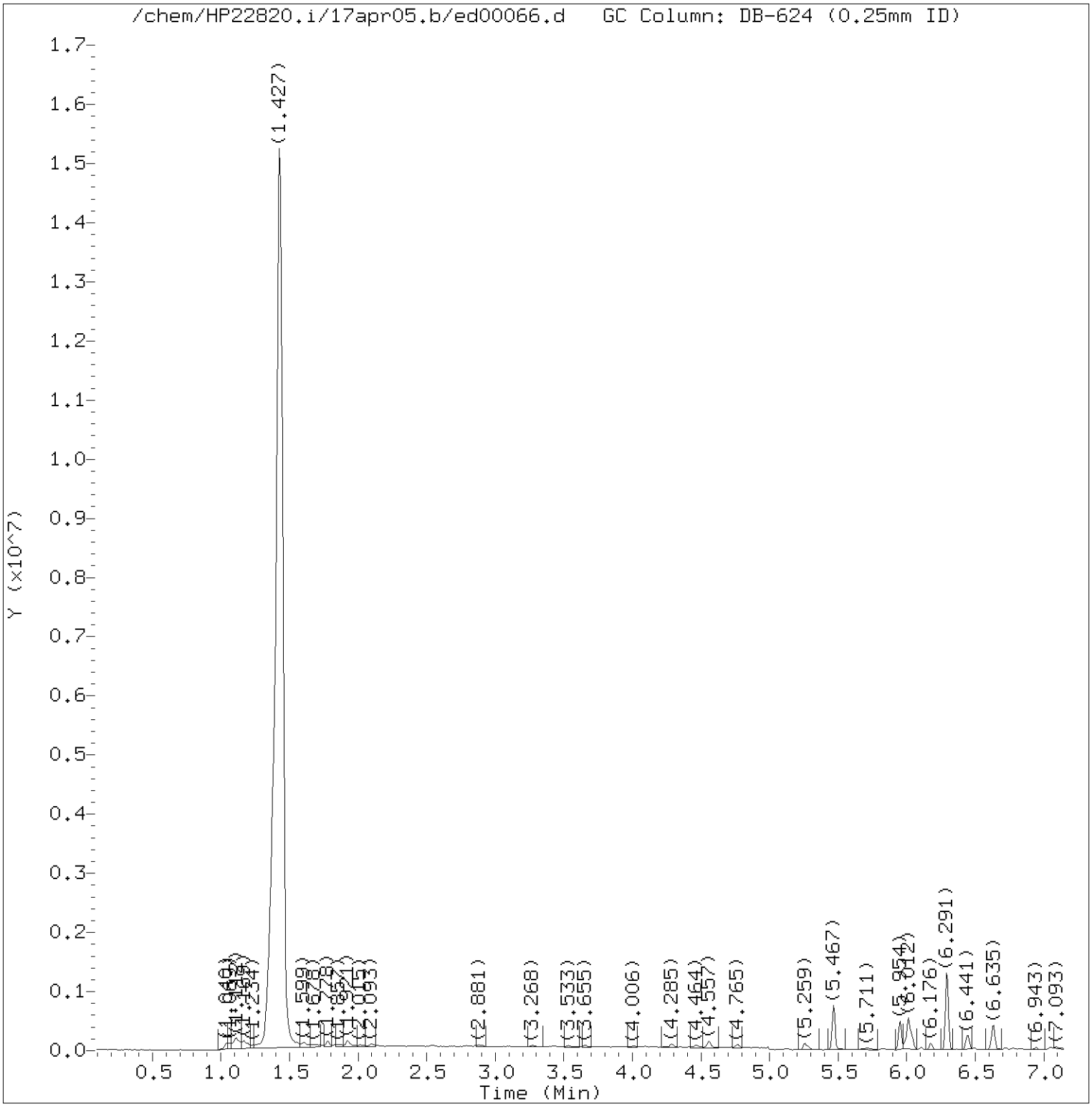
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	2147764	14.879	148.79			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	2362478	20.721	207.21			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	214735	1.943	19.43			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	33347M	0.261	2.61		J	0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	83821M	0.694	6.94		J	0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

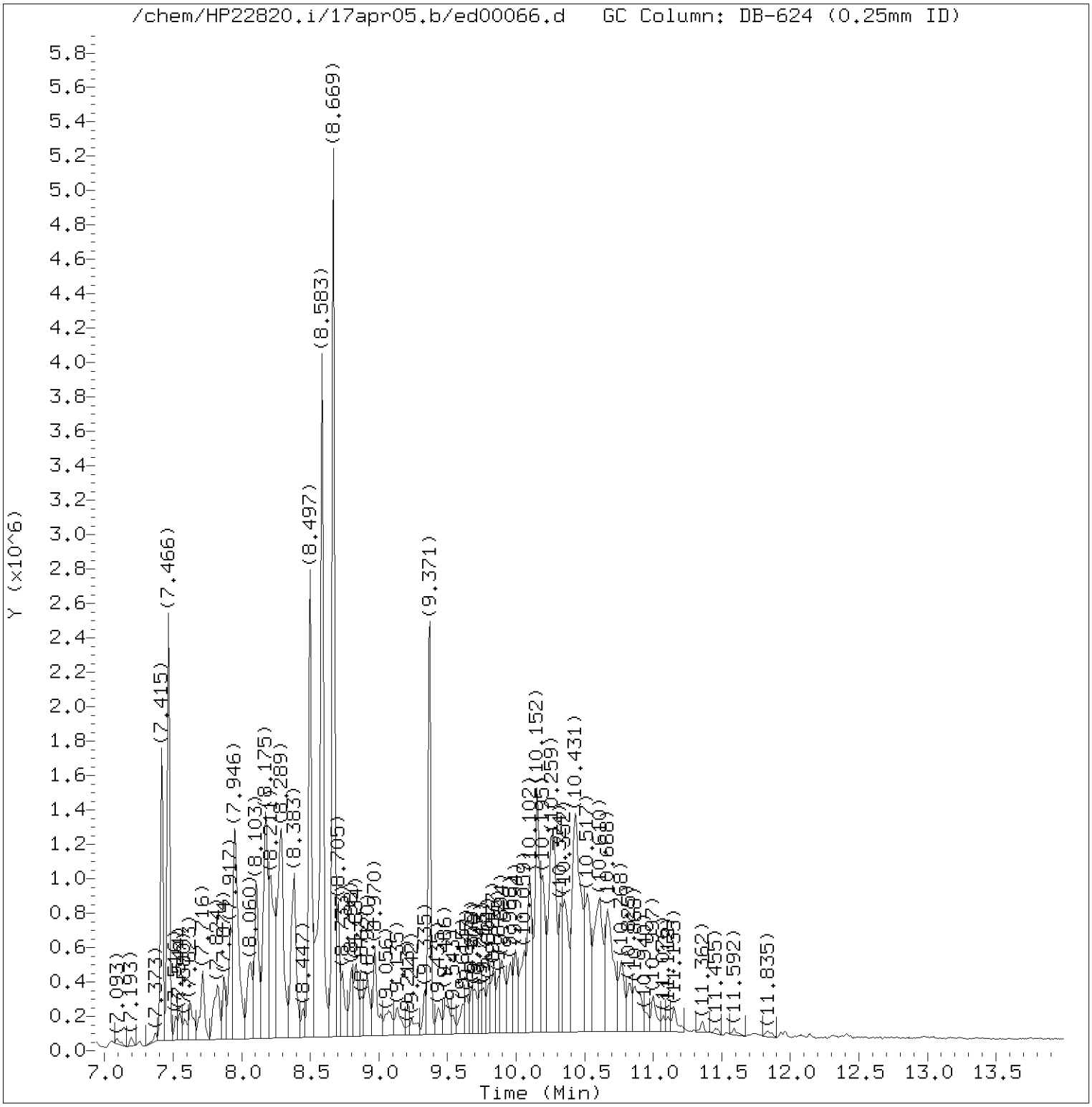
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
13) Pentane	(1)	2.874	43	13726	0.384
19) Acetone	(1)	3.533	43	26895	0.940
28) trans-1,2-Dichloroethene	(1)	4.285	61	18477	0.540
30) Hexane	(1)	4.557	57	52221	1.408
35) cis-1,2-Dichloroethene	(1)	5.259	61	46229	1.416
37) 2-Butanone	(1)	5.281	72	21468	1.638
40)*Bromochloromethane	(1)	5.467	130	252067	10.000
46) Benzene	(2)	5.990	78	90081	1.020
47) 1,2-Dichloroethane	(2)	6.012	62	290304	8.730
48) Isooctane	(2)	6.033	57	239682	1.974
50) Heptane	(2)	6.176	43	36015M	0.896
51)*1,4-Difluorobenzene	(2)	6.291	114	951541	10.000
61) Toluene	(3)	7.466	91	1445912	12.835
62) Octane	(3)	7.516	43	32831M	0.594
67) Tetrachloroethene	(3)	7.867	166	19530	0.295
71)*Chlorobenzene-d5	(3)	8.497	117	933242	10.000
74) Ethylbenzene	(3)	8.583	91	2147764	14.879
75) m/p-Xylene	(3)	8.669	91	2362478	20.721
76) o-Xylene	(3)	8.970	91	214735	1.943
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	33347M	0.261
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	83821M	0.694

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

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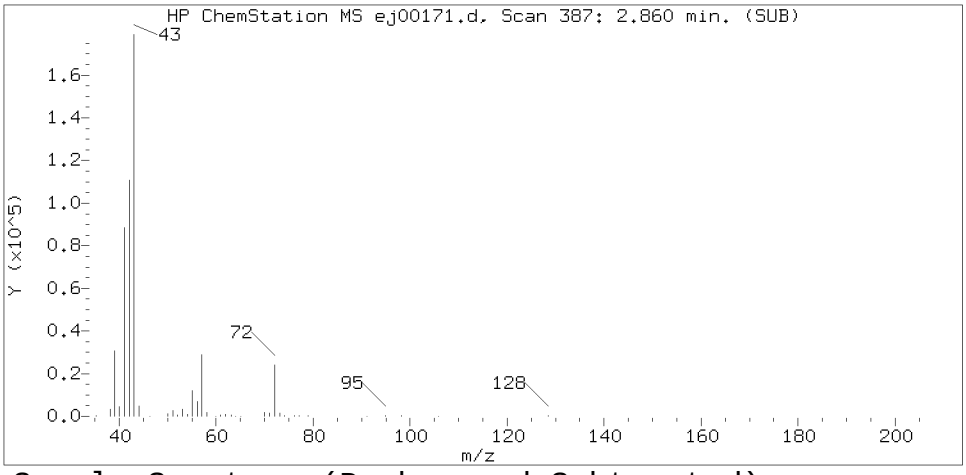
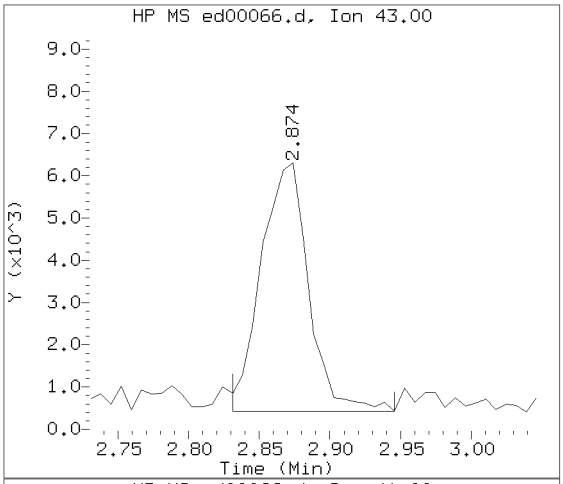
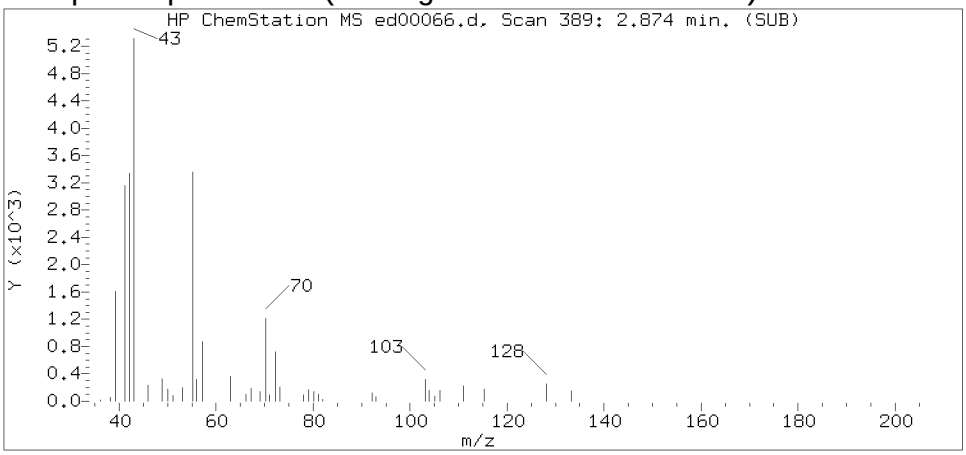
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

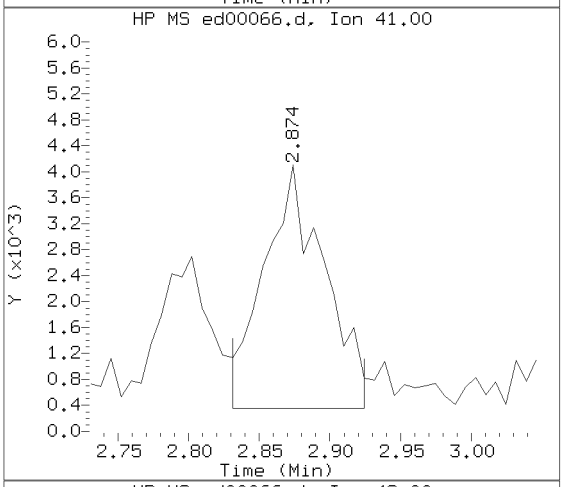
Reference Standard Spectrum for Pentane



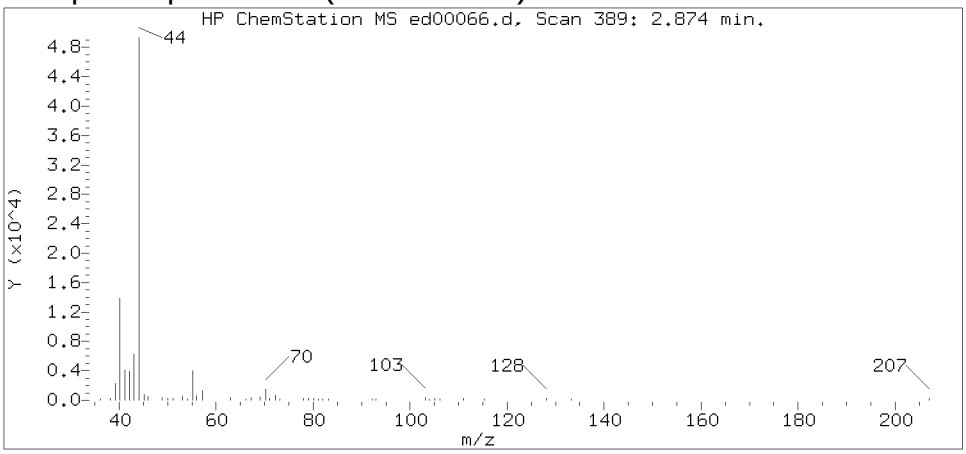


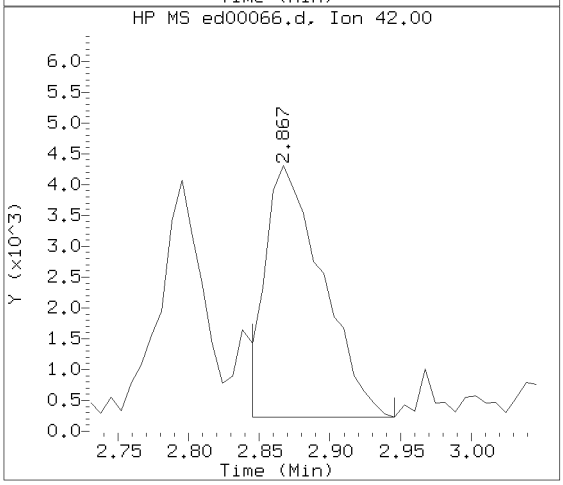
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

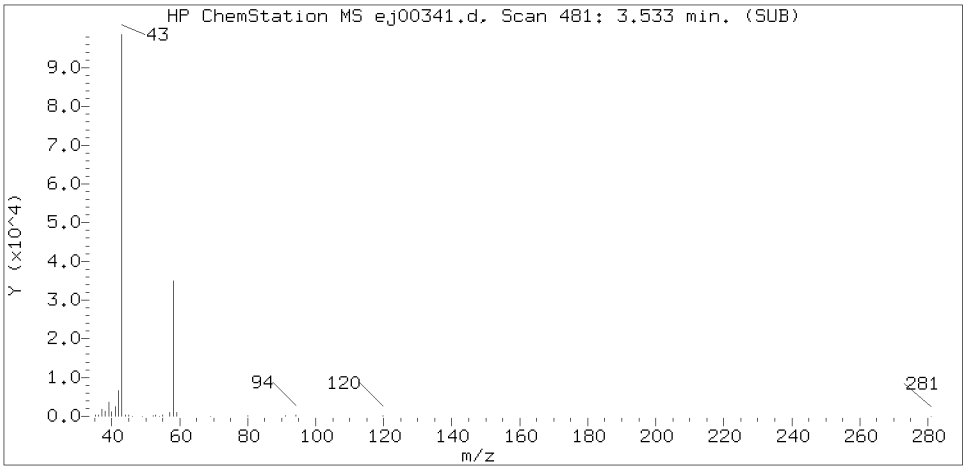
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

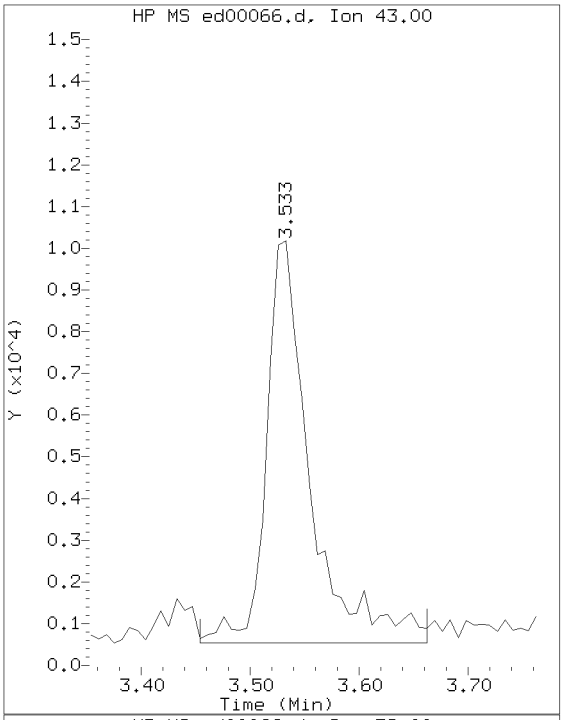
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 13
Compound Name : Pentane
Scan Number : 389
Retention Time (minutes): 2.874
Relative Retention Time :-0.00199
Quant Ion : 43.00
Area (flag) : 13726
Concentration (ppb(v)) : 0.3844

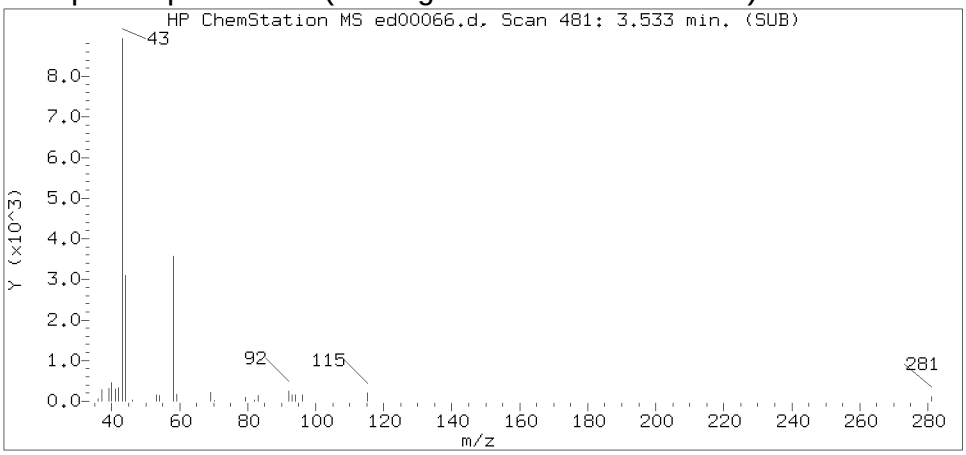
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

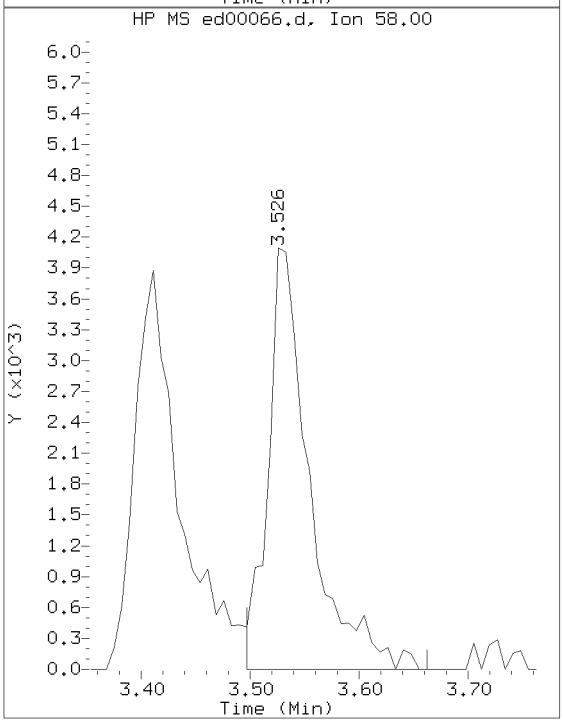
Reference Standard Spectrum for Acetone



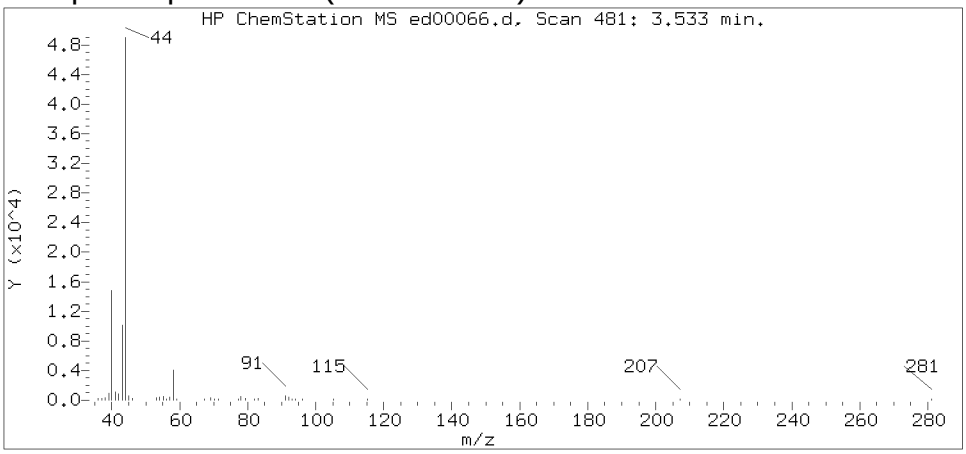


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

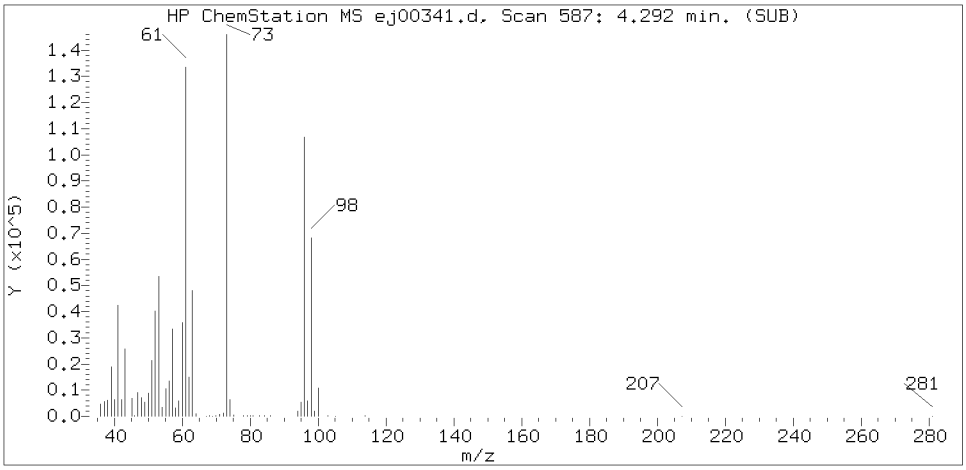
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

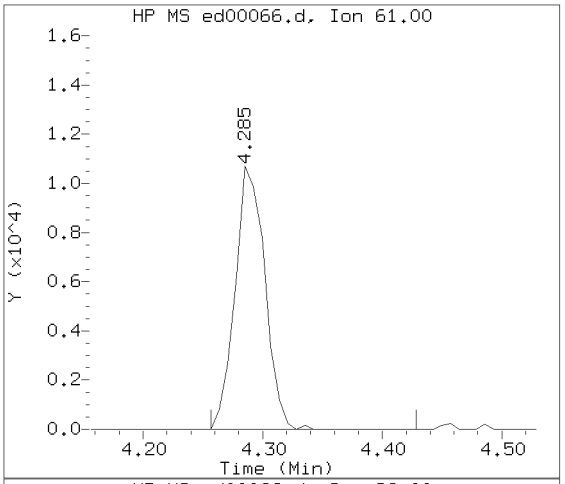
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Relative Retention Time :-0.00215
Quant Ion : 43.00
Area (flag) : 26895
Concentration (ppb(v)) : 0.9396

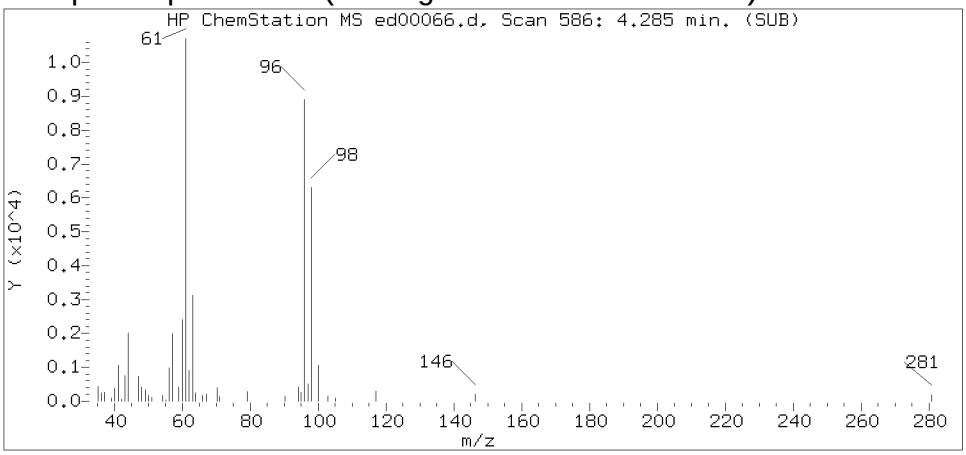
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

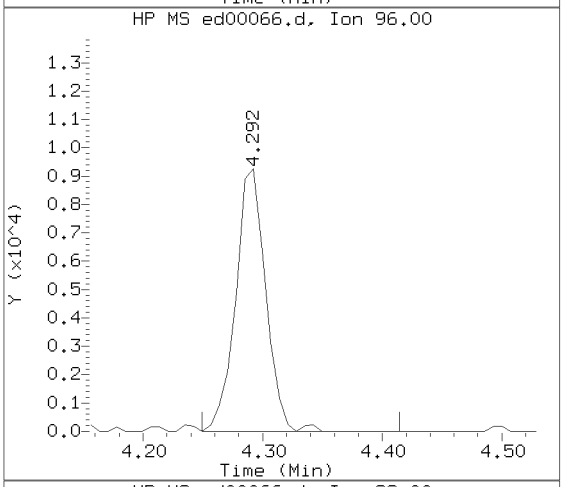
Reference Standard Spectrum for trans-1,2-Dichloroethene



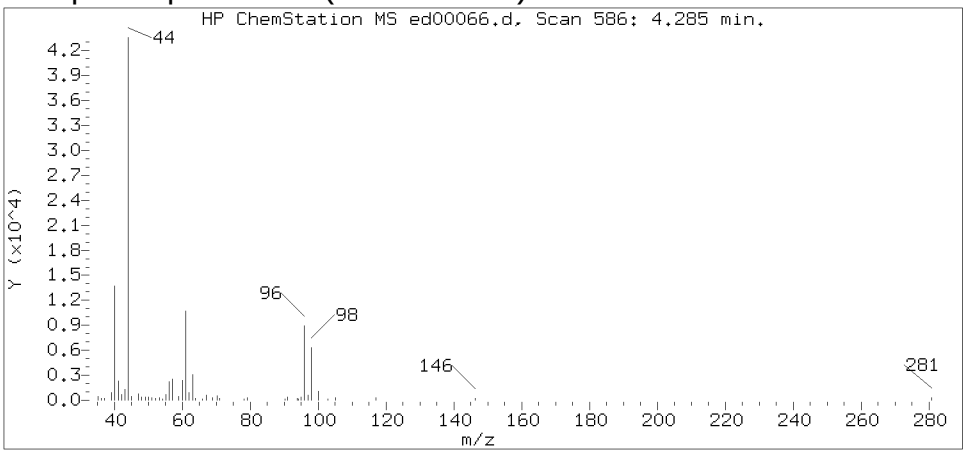


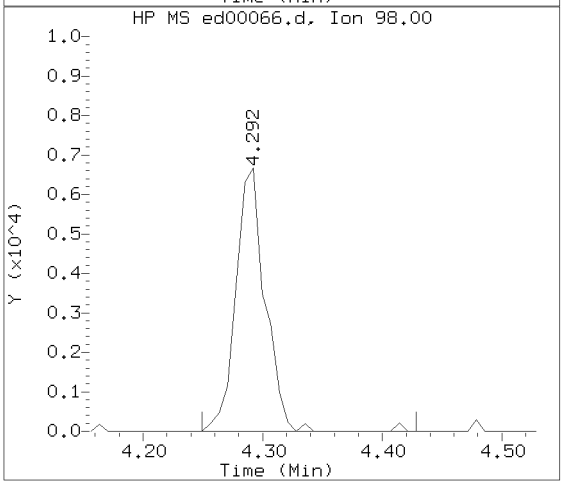
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 586
Retention Time (minutes): 4.285
Relative Retention Time : 0.00029
Quant Ion : 61.00
Area (flag) : 18477
Concentration (ppb(v)) : 0.5395

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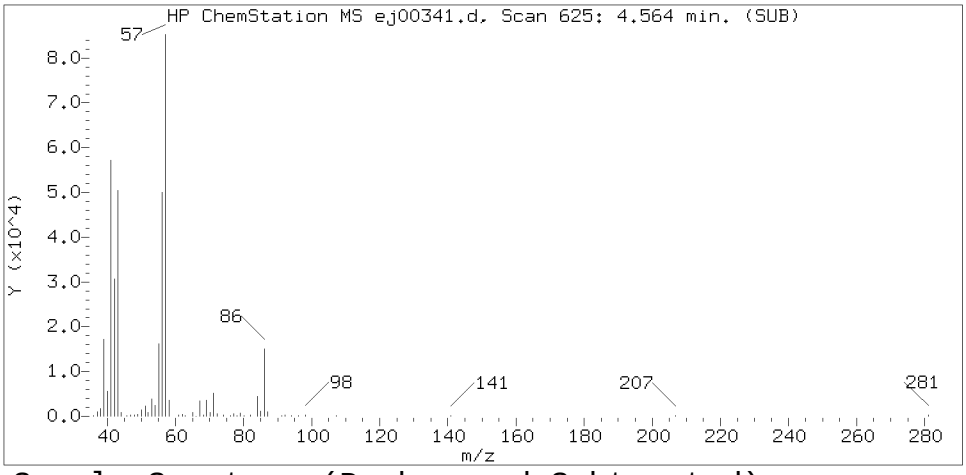
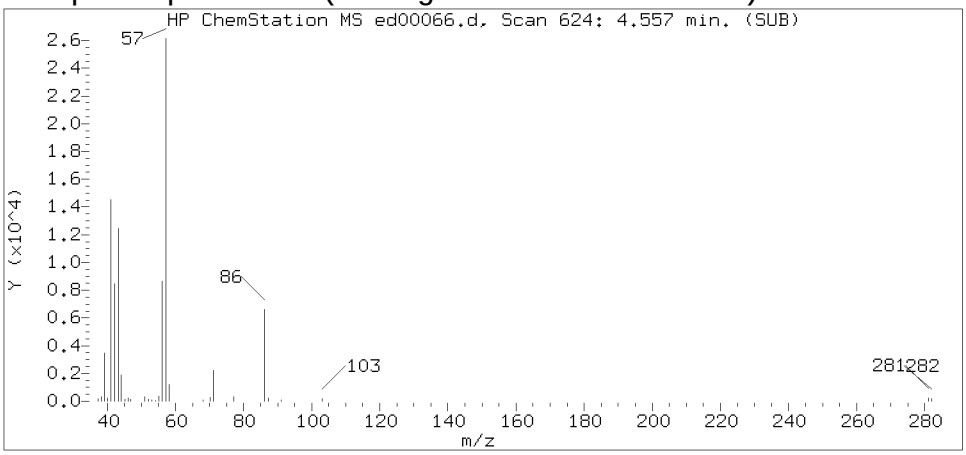
Target 3.5 esignature user ID: jeb07445

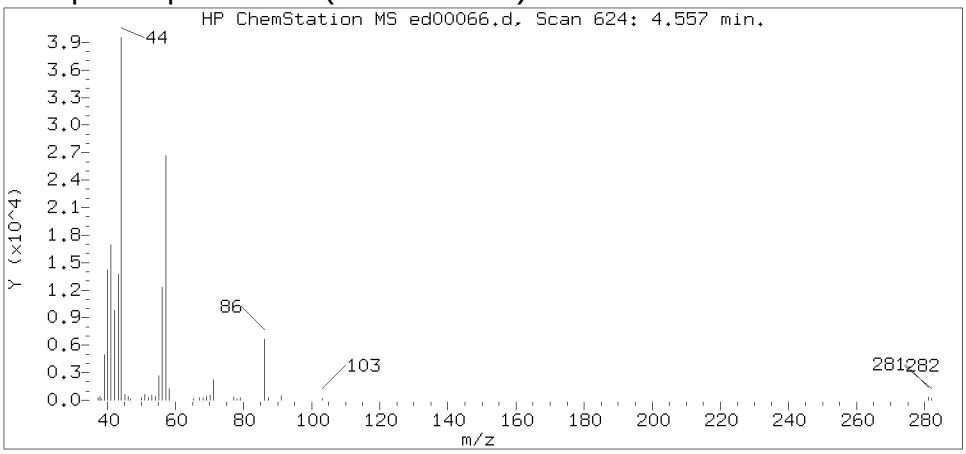
Reference Standard Spectrum for Hexane

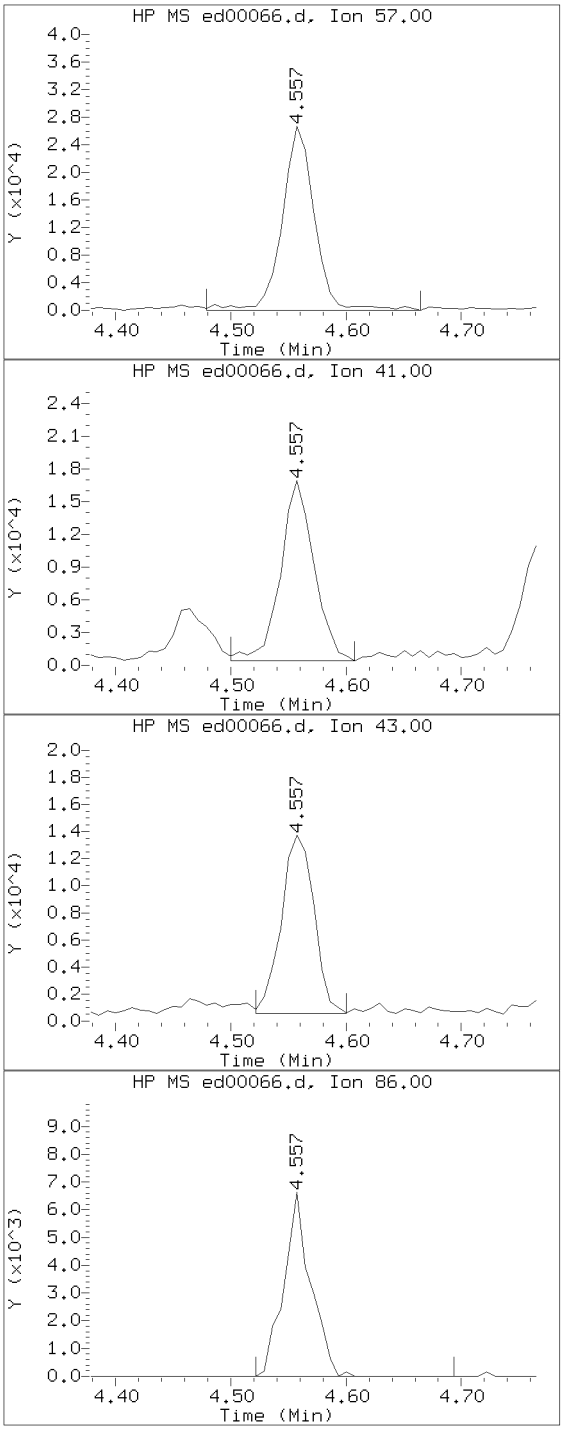


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Relative Retention Time :-0.00109
Quant Ion : 57.00
Area (flag) : 52221
Concentration (ppb(v)) : 1.4083

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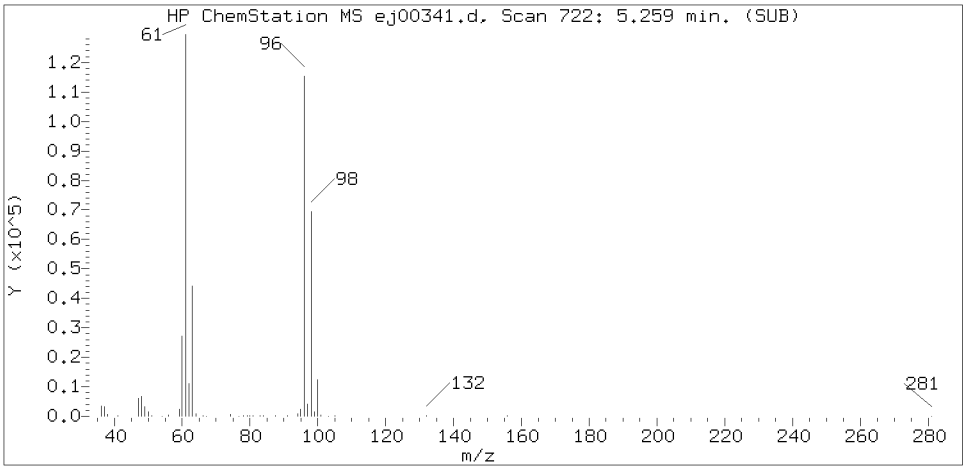
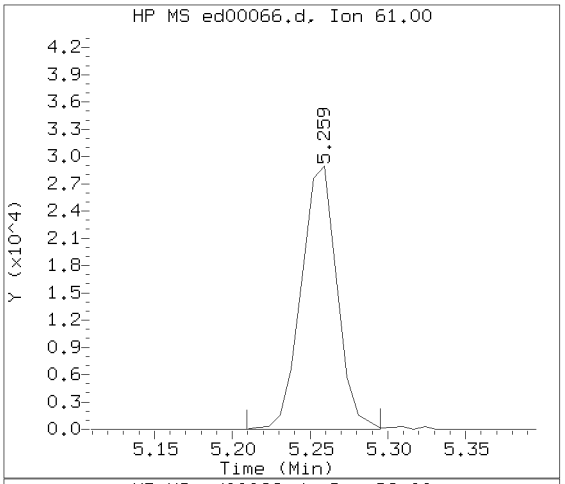
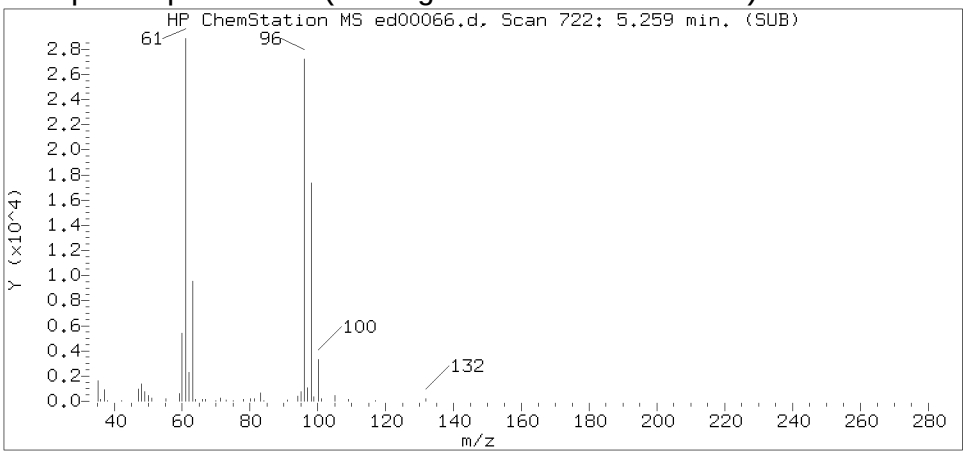
Target 3.5 esignature user ID: jeb07445

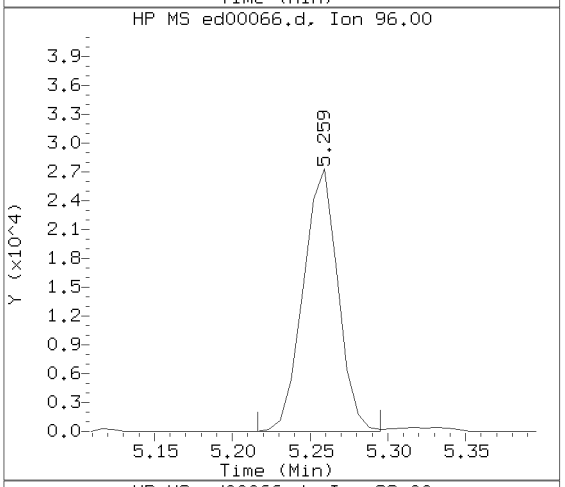
Reference Standard Spectrum for cis-1,2-Dichloroethene



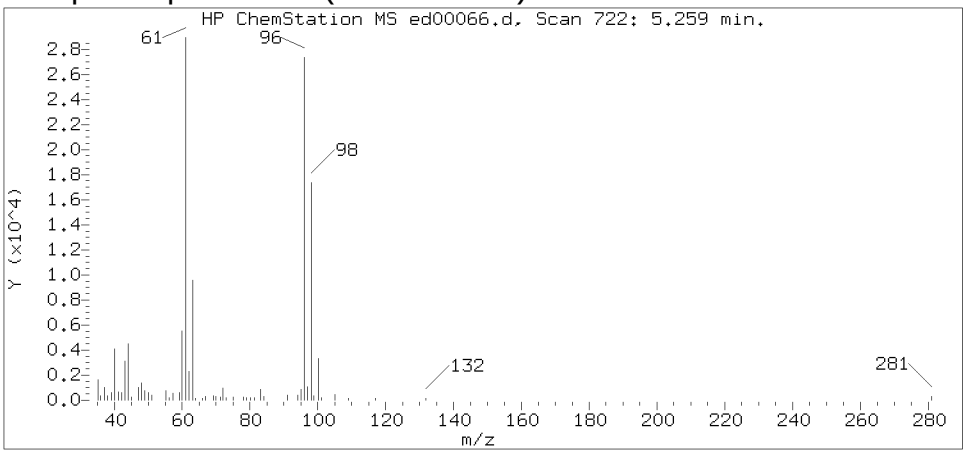


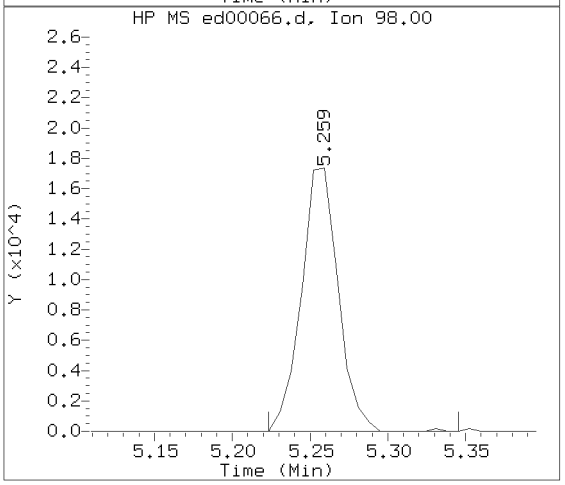
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 35
Compound Name : cis-1,2-Dichloroethene
Scan Number : 722
Retention Time (minutes): 5.259
Relative Retention Time :-0.00126
Quant Ion : 61.00
Area (flag) : 46229
Concentration (ppb(v)) : 1.4163

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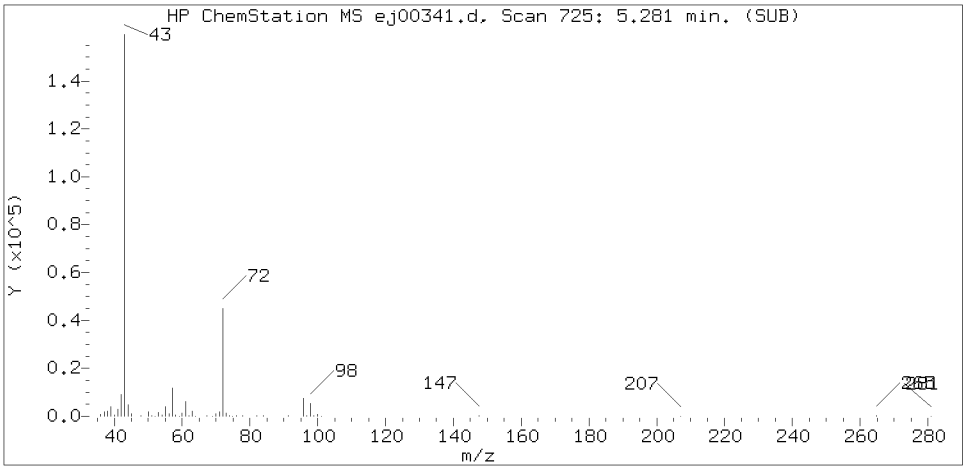
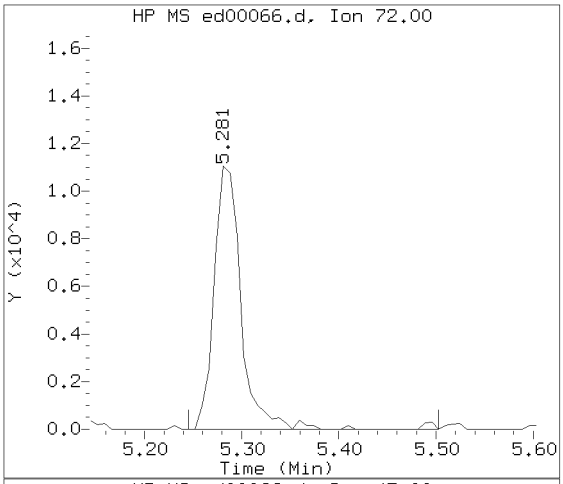
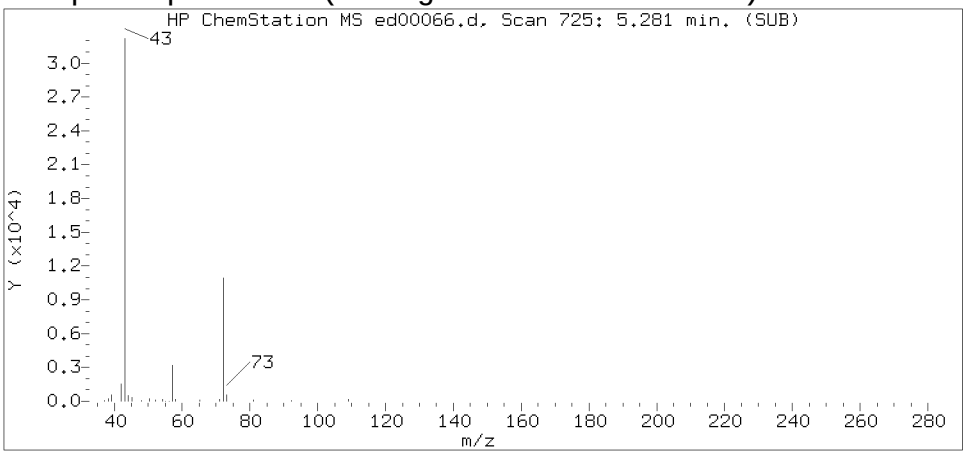
Target 3.5 esignature user ID: jeb07445

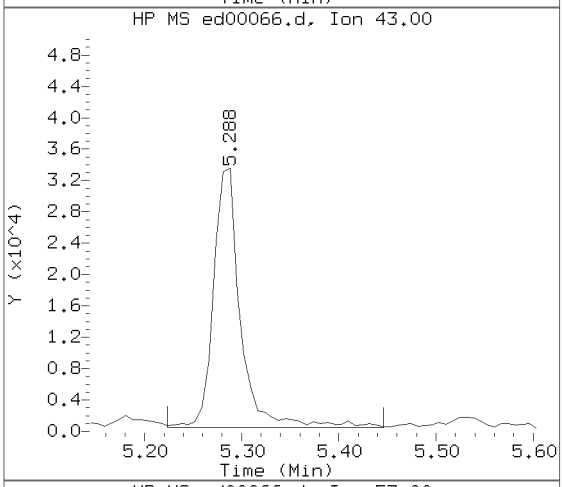
Reference Standard Spectrum for 2-Butanone



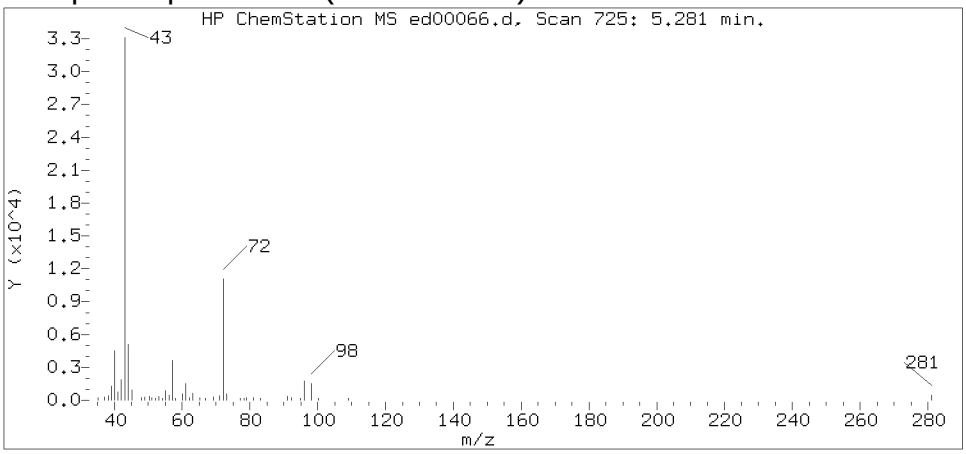


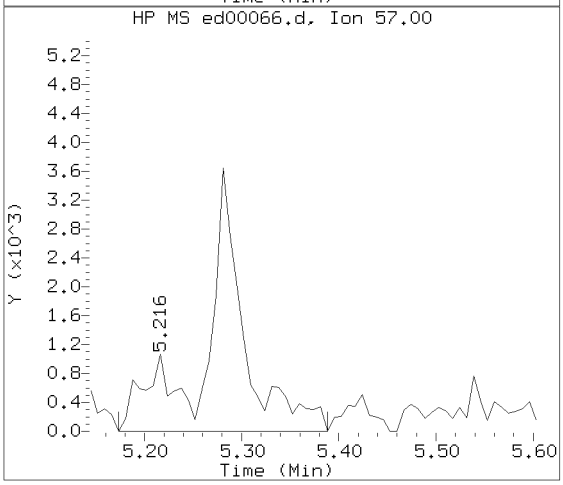
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 725
Retention Time (minutes): 5.281
Relative Retention Time :-0.00126
Quant Ion : 72.00
Area (flag) : 21468
Concentration (ppb(v)) : 1.6384

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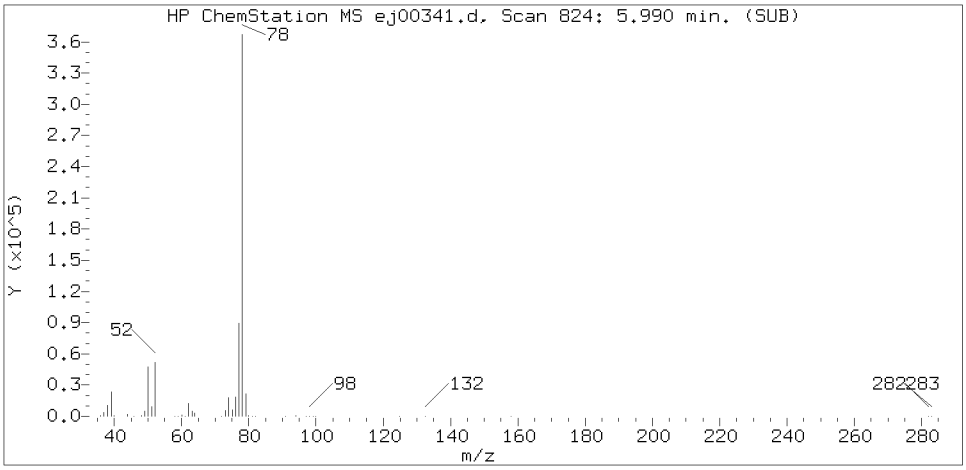
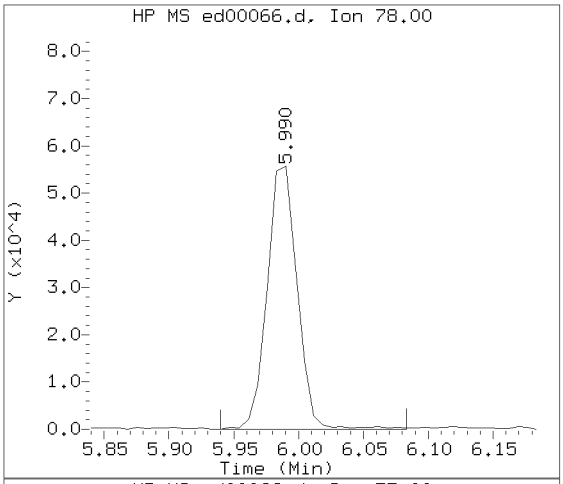
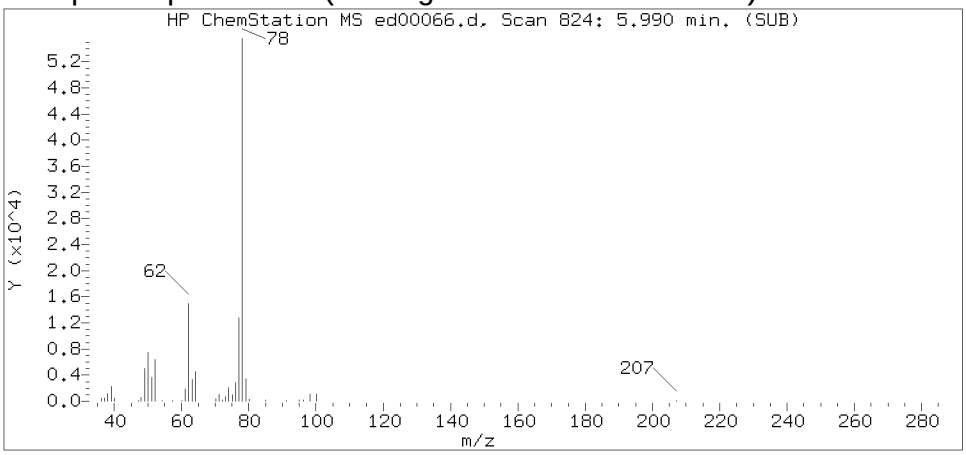
Target 3.5 esignature user ID: jeb07445

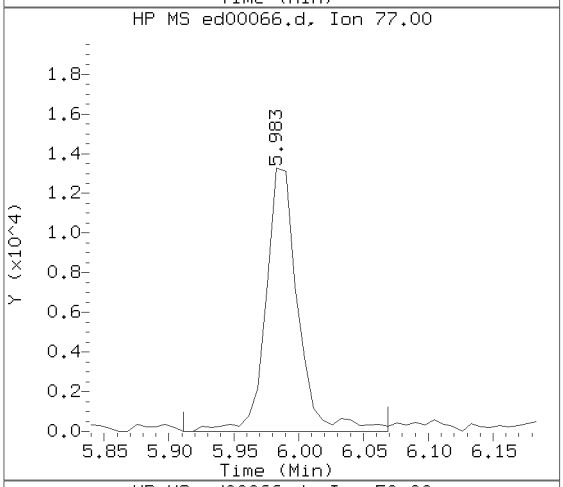
Reference Standard Spectrum for Benzene



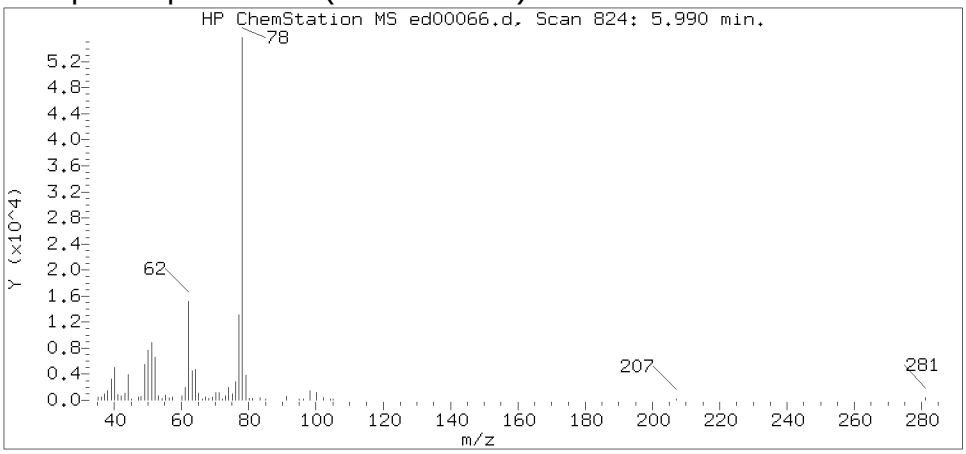


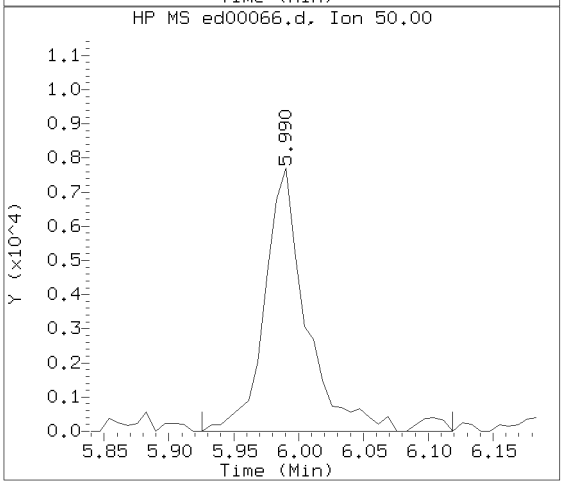
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 46
Compound Name : Benzene
Scan Number : 824
Retention Time (minutes): 5.990
Relative Retention Time :-0.00108
Quant Ion : 78.00
Area (flag) : 90081
Concentration (ppb(v)) : 1.0205

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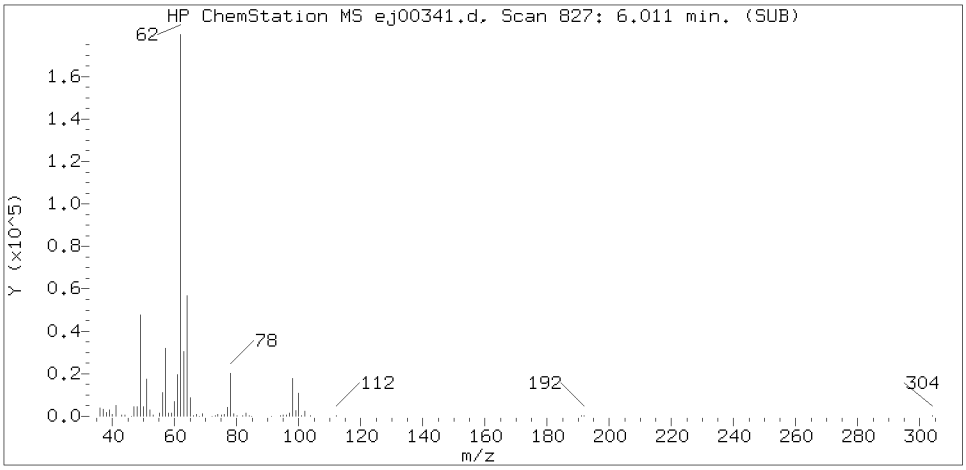
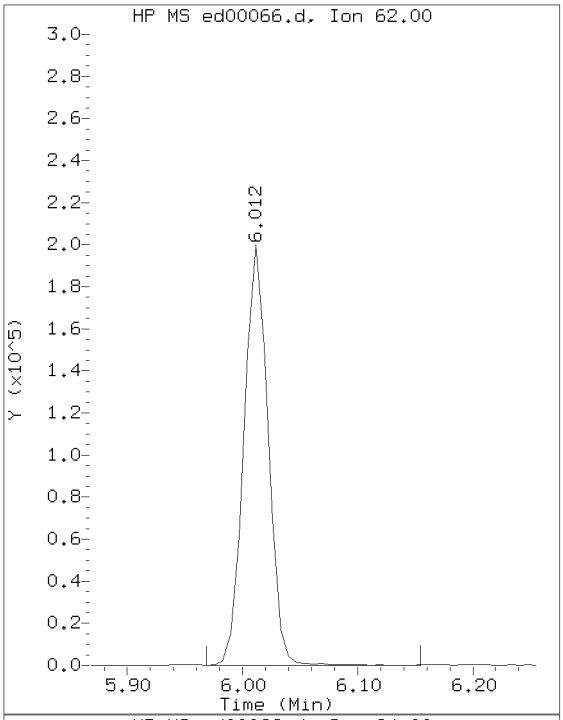
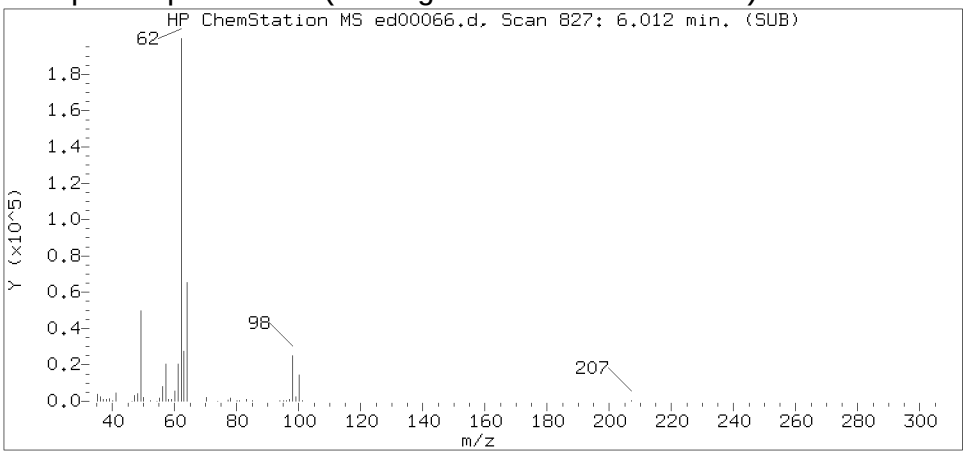
Target 3.5 esignature user ID: jeb07445

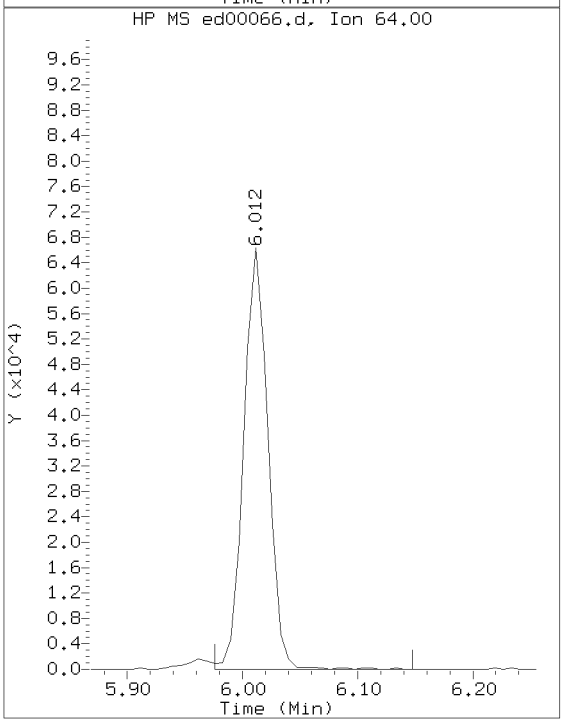
Reference Standard Spectrum for 1,2-Dichloroethane



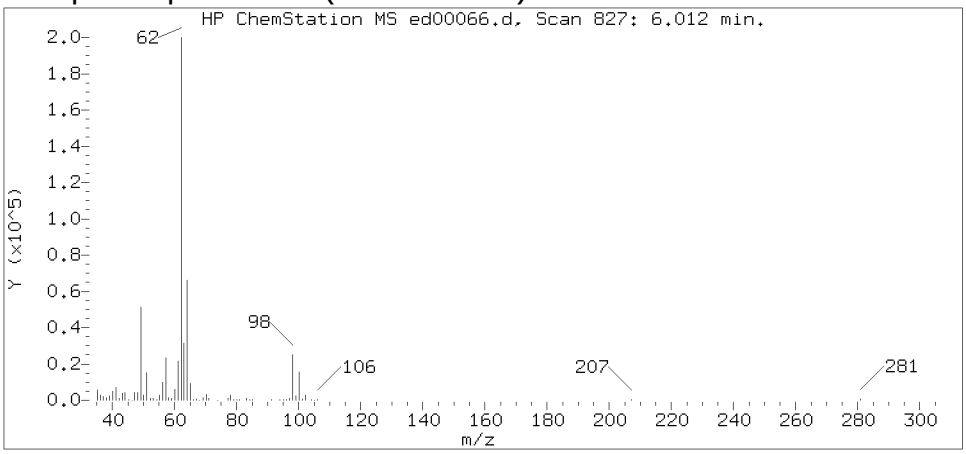


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.012
Relative Retention Time :-0.00109
Quant Ion : 62.00
Area (flag) : 290304
Concentration (ppb(v)) : 8.7298

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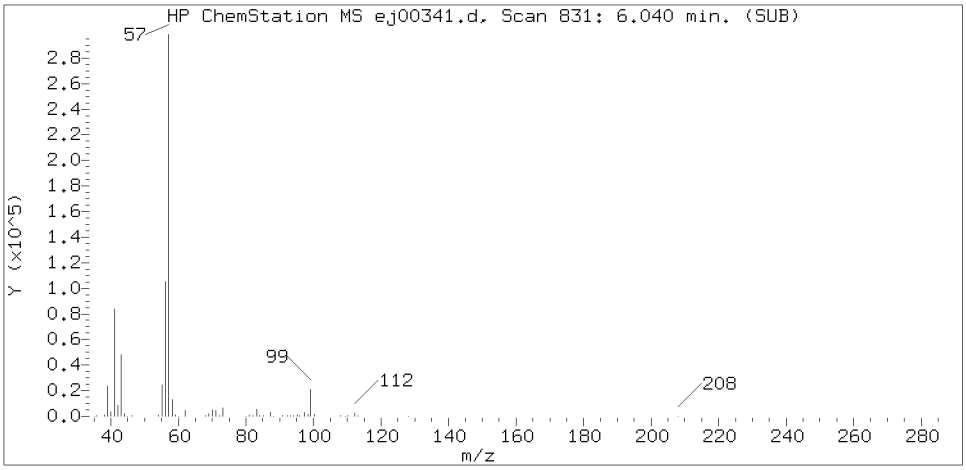
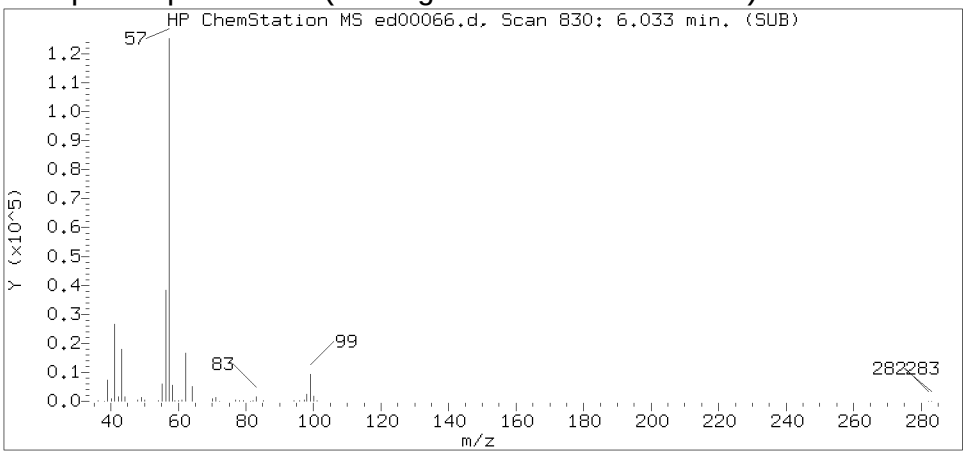
Target 3.5 esignature user ID: jeb07445

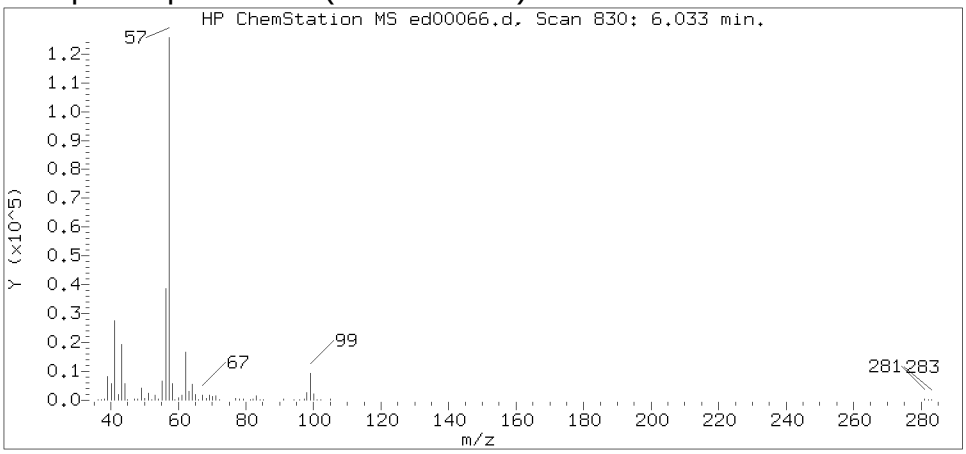
Reference Standard Spectrum for Isooctane

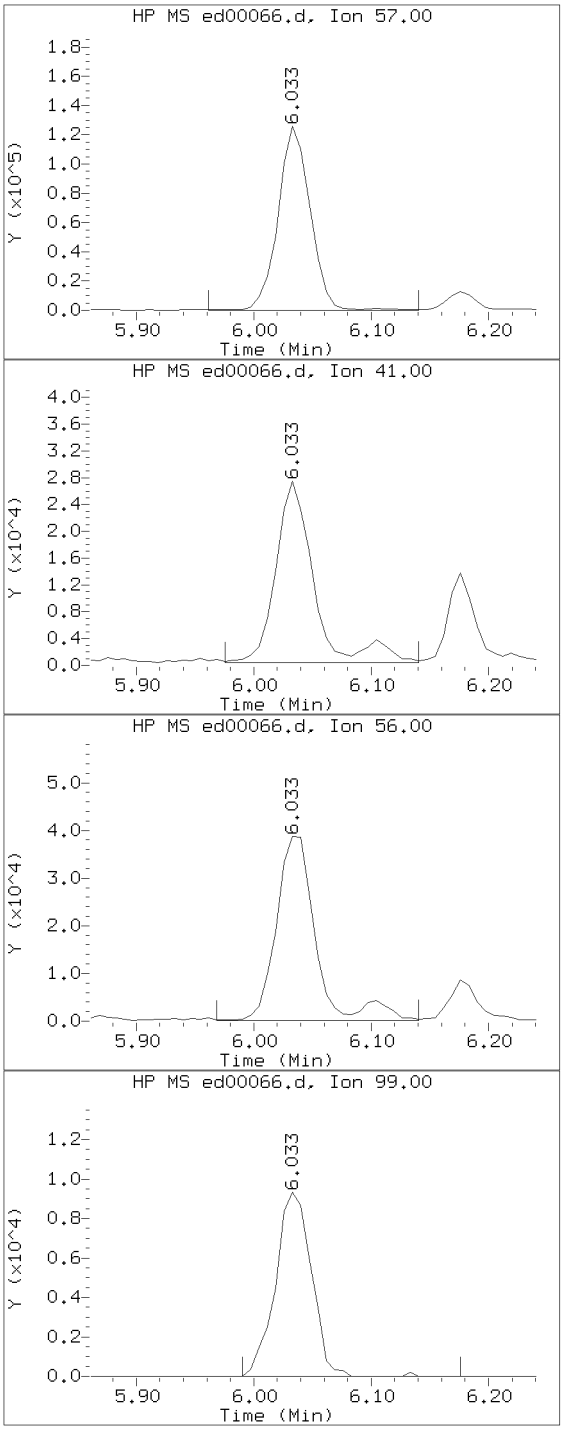


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

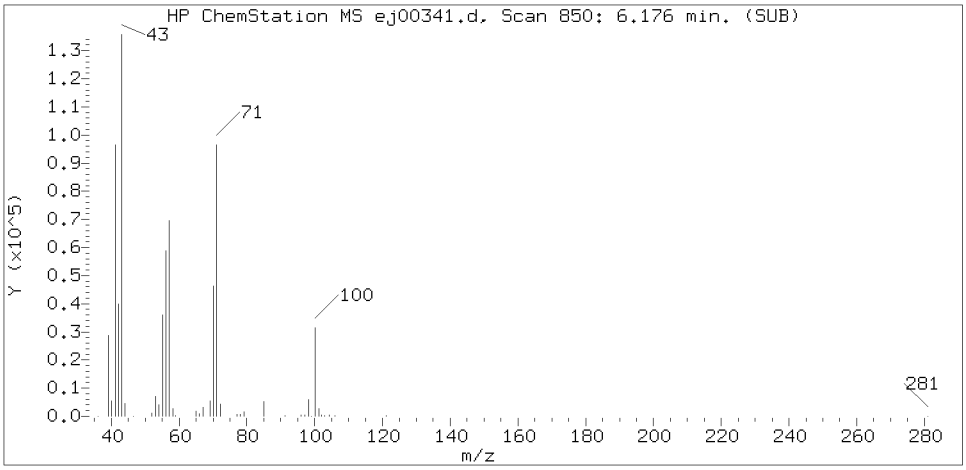
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

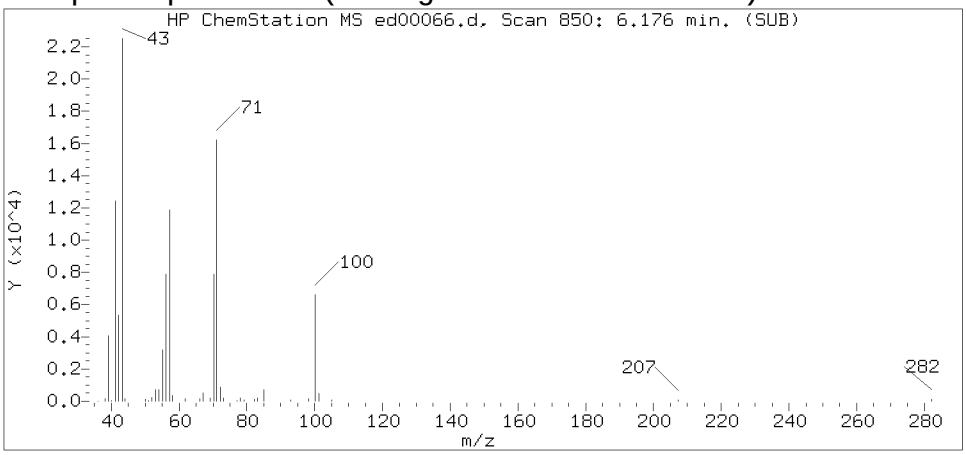
Compound Number : 48
Compound Name : Isooctane
Scan Number : 830
Retention Time (minutes): 6.033
Relative Retention Time : 0.00005
Quant Ion : 57.00
Area (flag) : 239682
Concentration (ppb(v)) : 1.9735

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

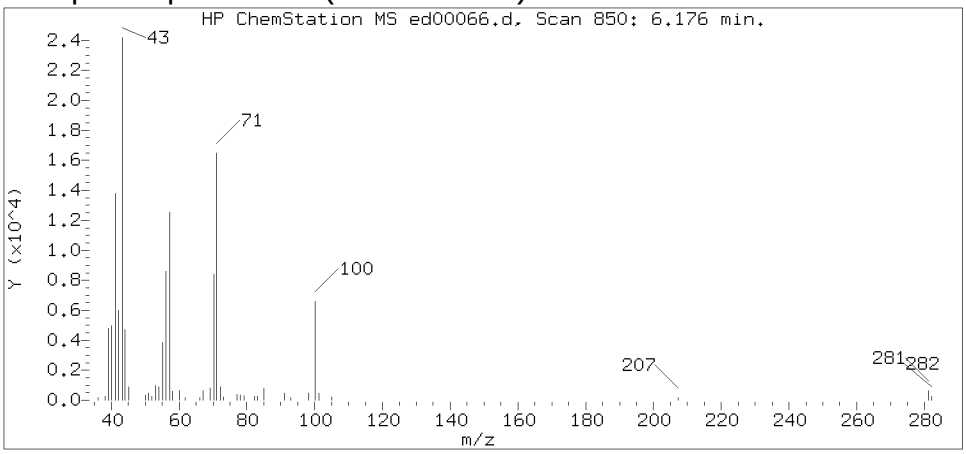
Reference Standard Spectrum for Heptane

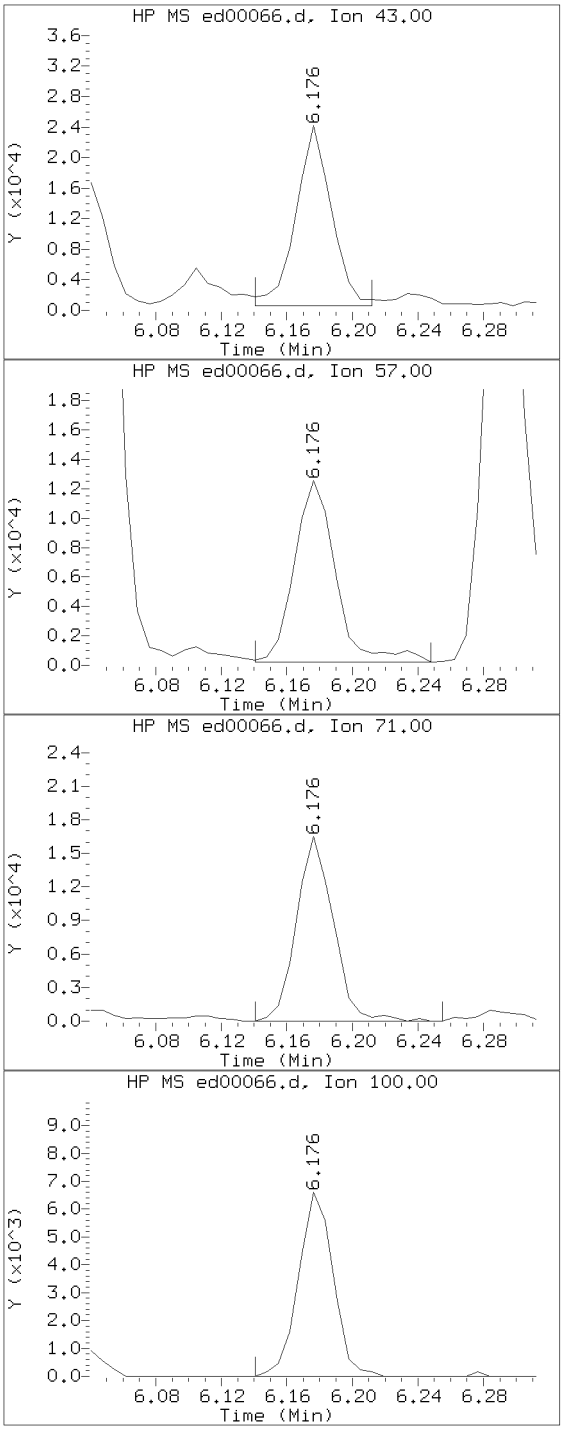


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

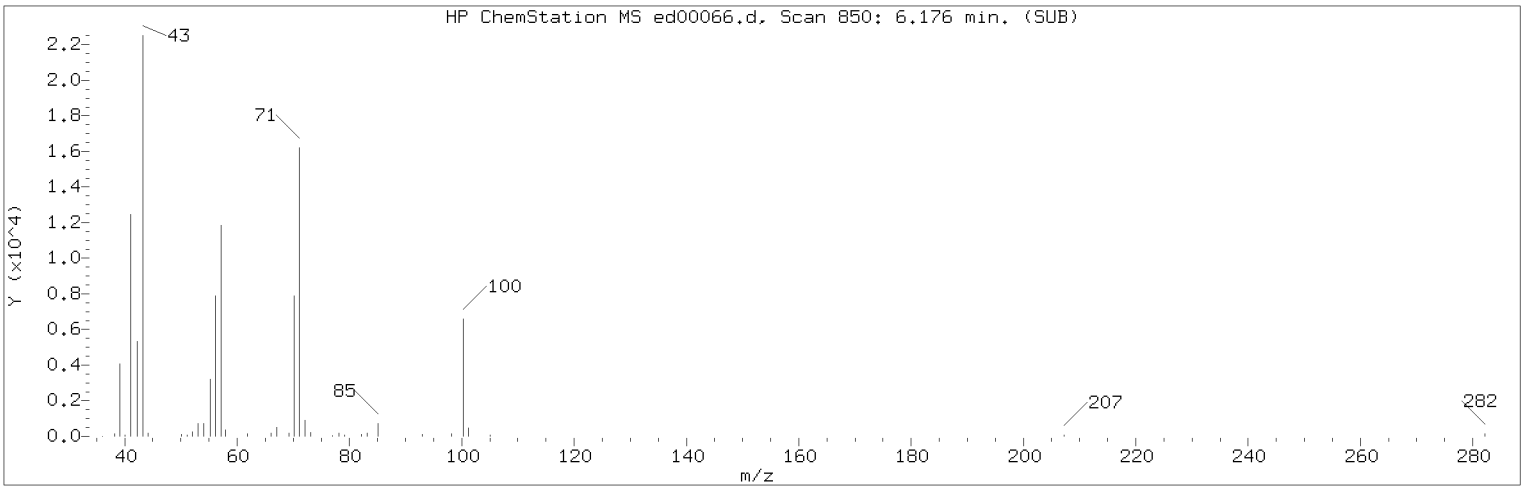
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

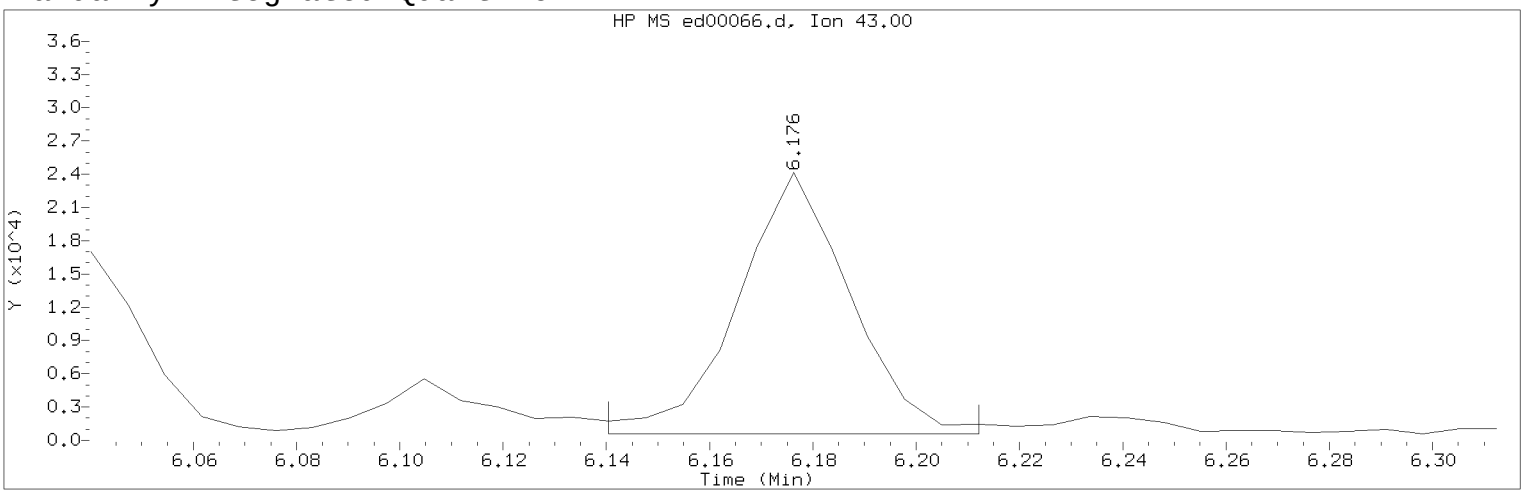
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Relative Retention Time :-0.00112
Quant Ion : 43.00
Area (flag) : 36015M
Concentration (ppb(v)) : 0.8956

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

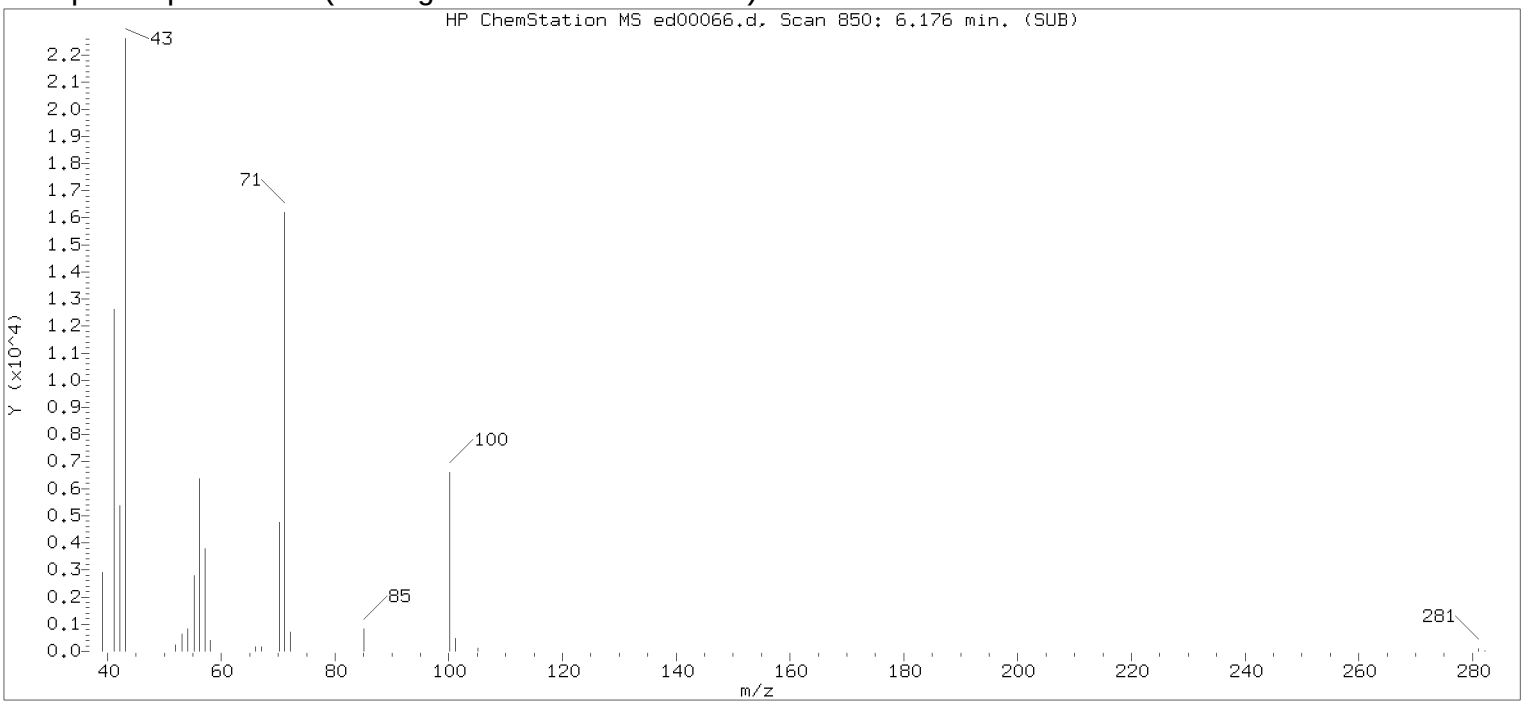
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 36015M
Concentration (ppb(v)) : 0.8956
Integration start scan : 844 Integration stop scan: 854
Y at integration start : 567 Y at integration end: 567

Reason for manual integration: improper integration

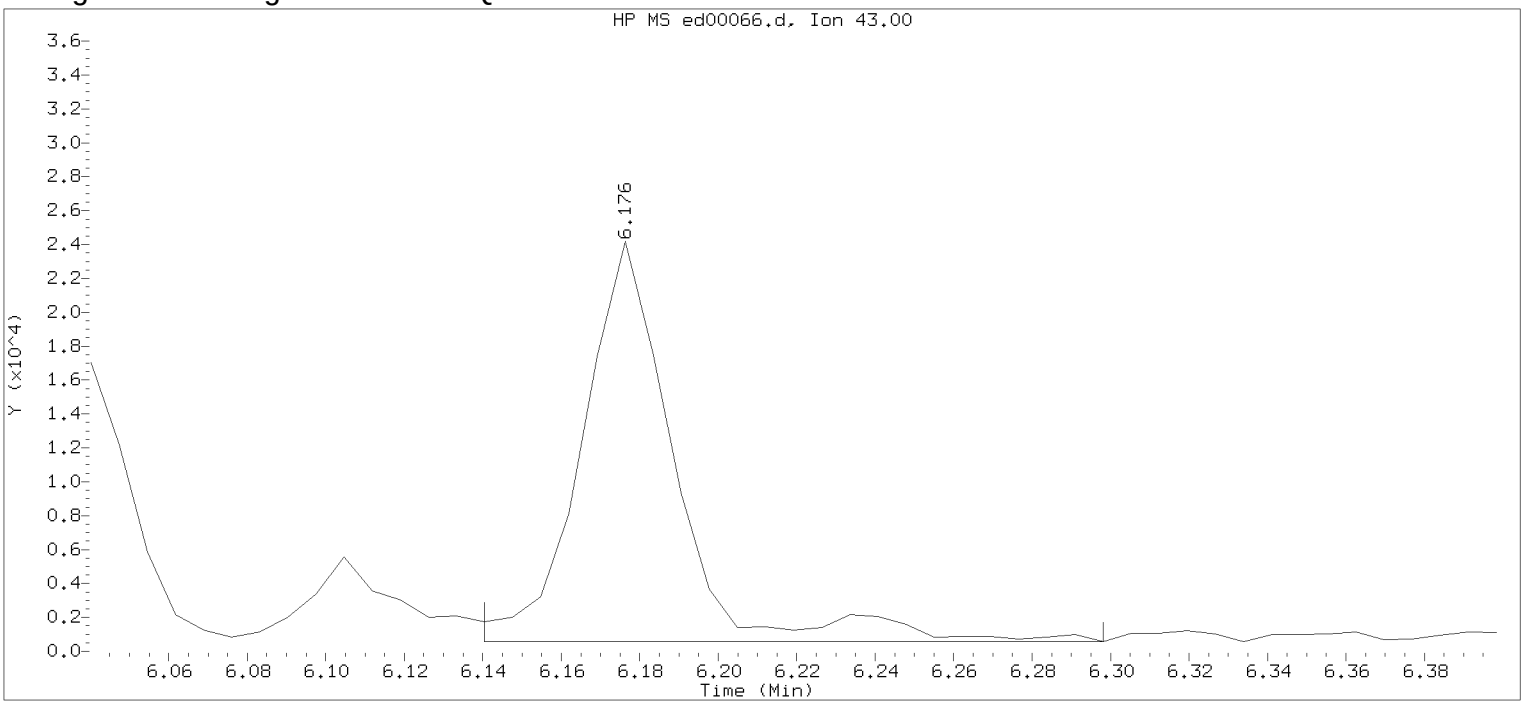
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

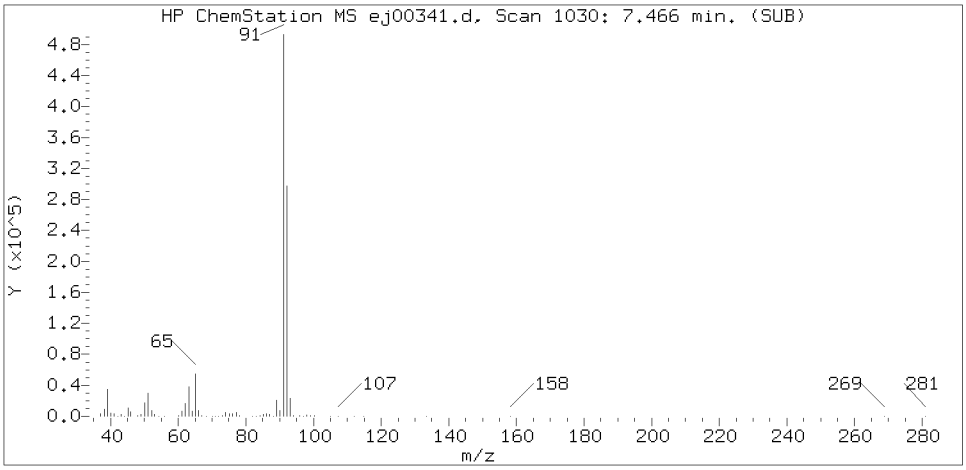
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:47 Unknown

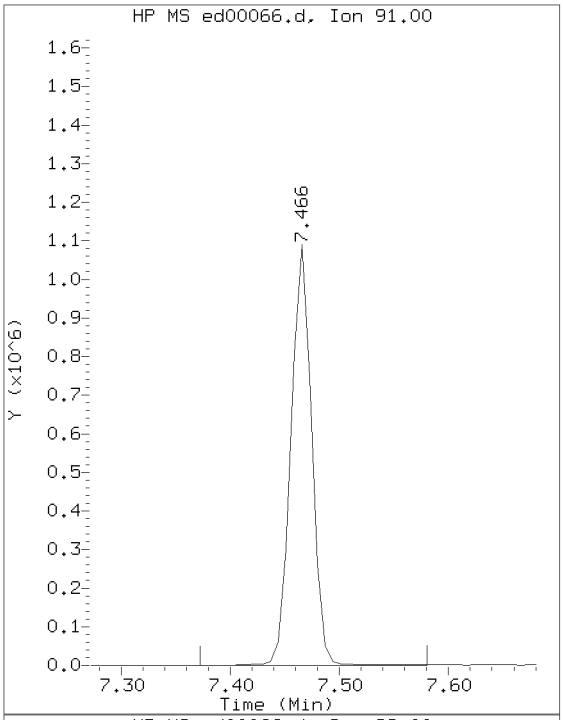
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 38920
Concentration (ppb(v)) : 0.9678
Integration start scan : 844 Integration stop scan: 866
Y at integration start : 567 Y at integration end: 567

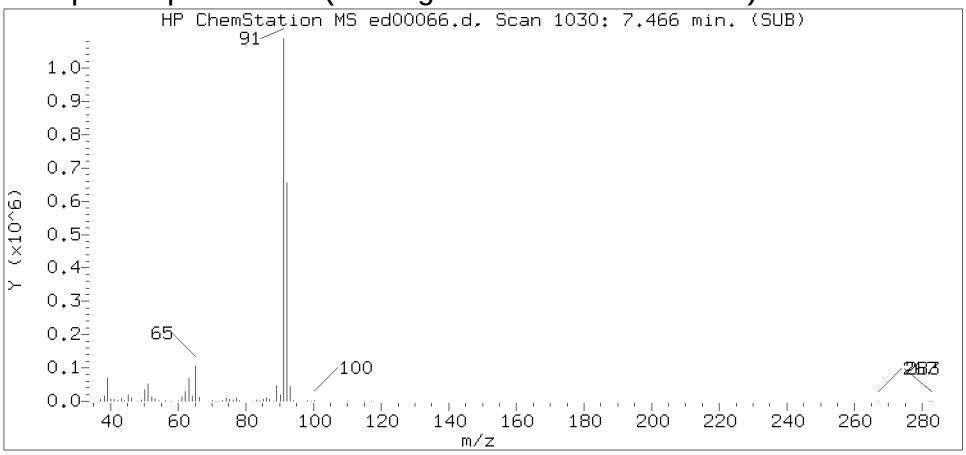
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

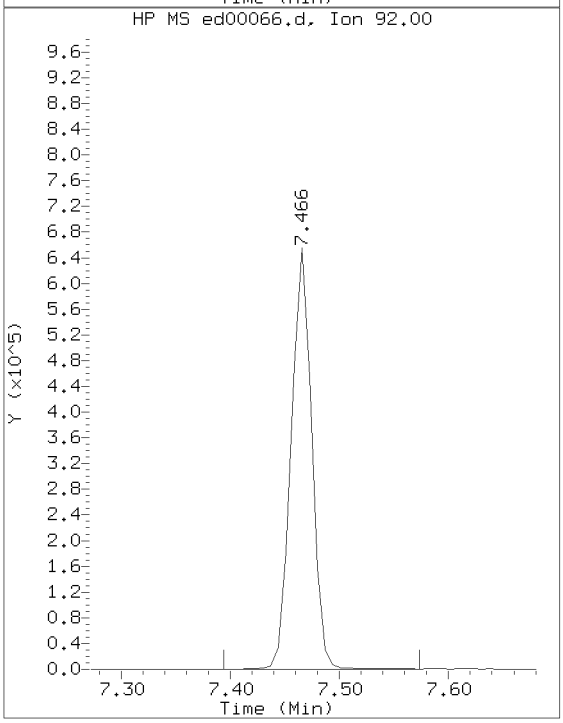
Reference Standard Spectrum for Toluene



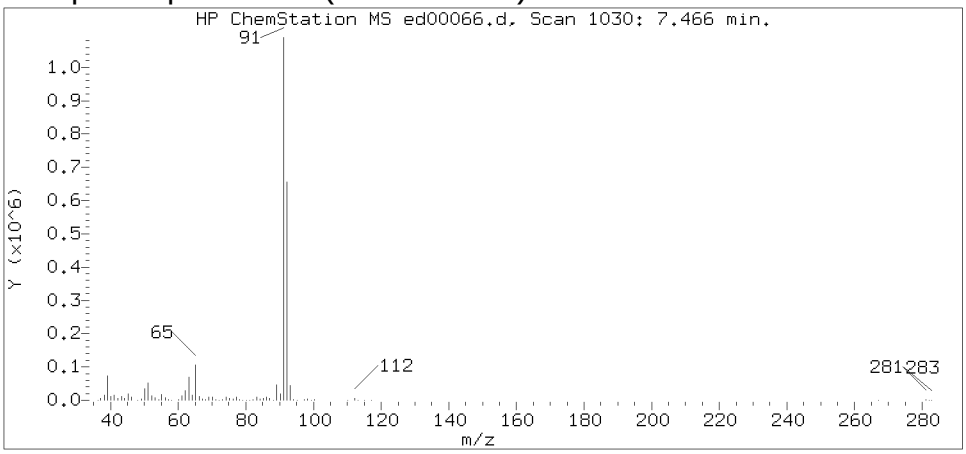


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 61
Compound Name : Toluene
Scan Number : 1030
Retention Time (minutes): 7.466
Relative Retention Time : 0.00000
Quant Ion : 91.00
Area (flag) : 1445912
Concentration (ppb(v)) : 12.8351

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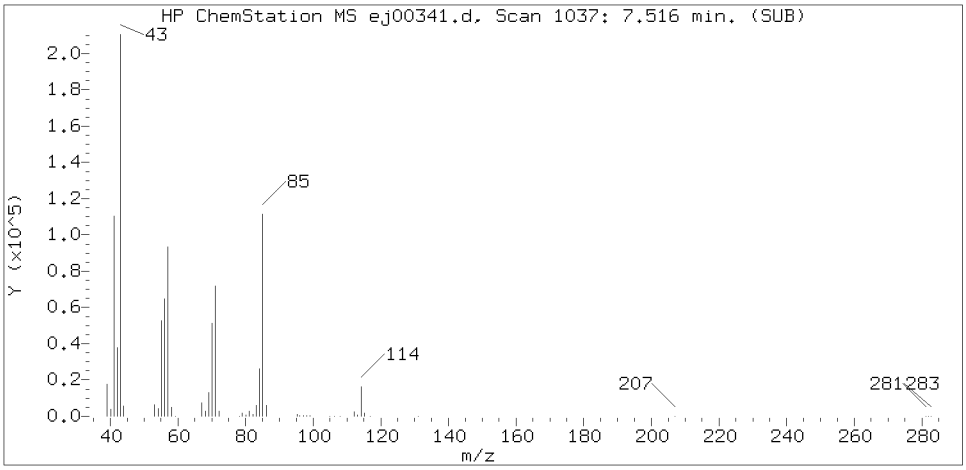
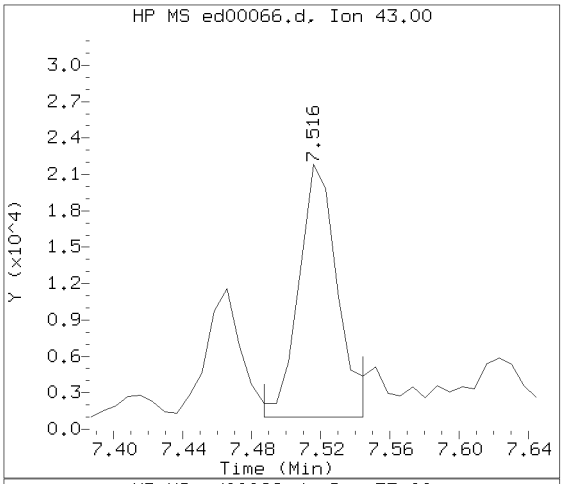
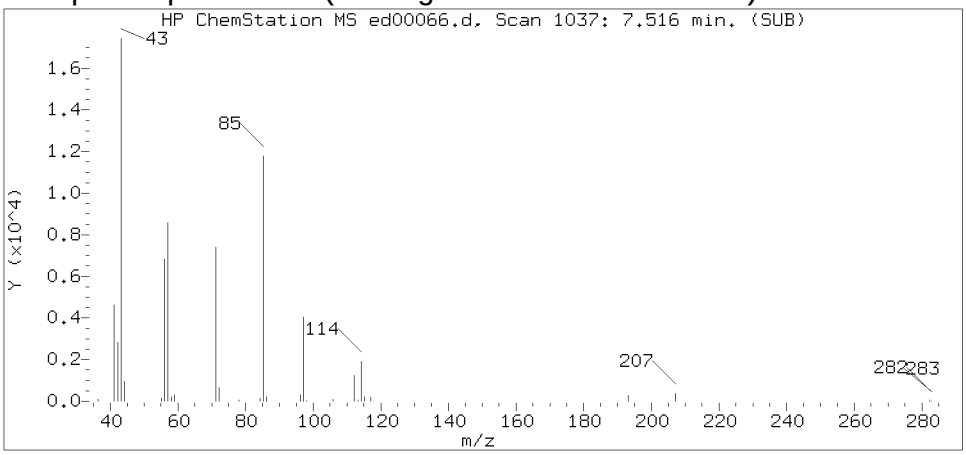
Target 3.5 esignature user ID: jeb07445

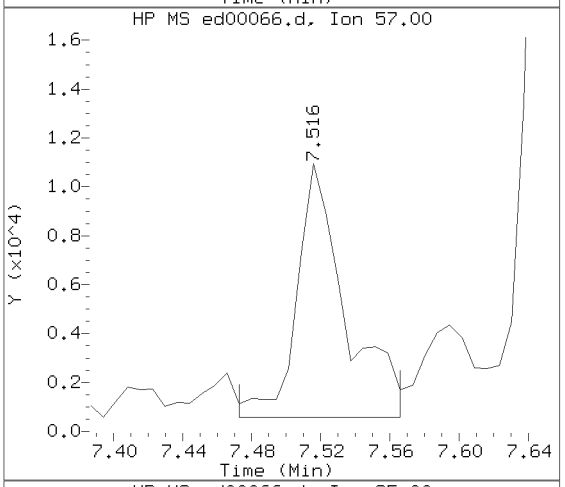
Reference Standard Spectrum for Octane



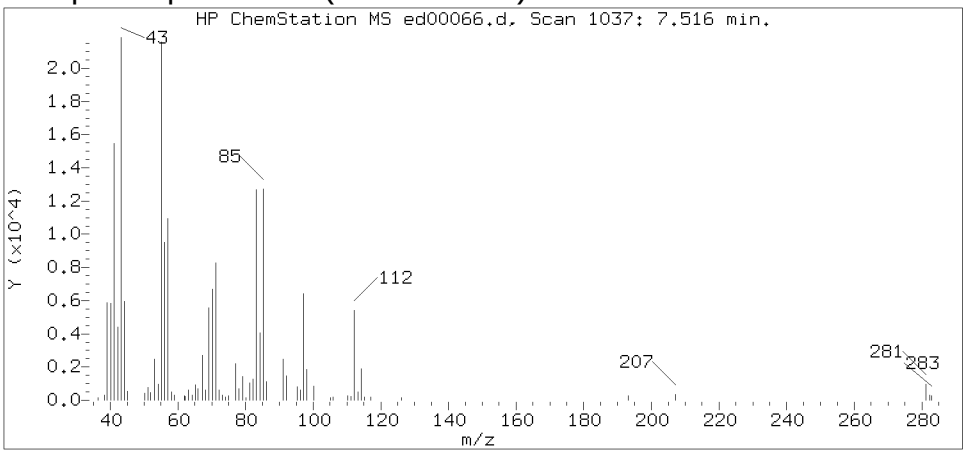


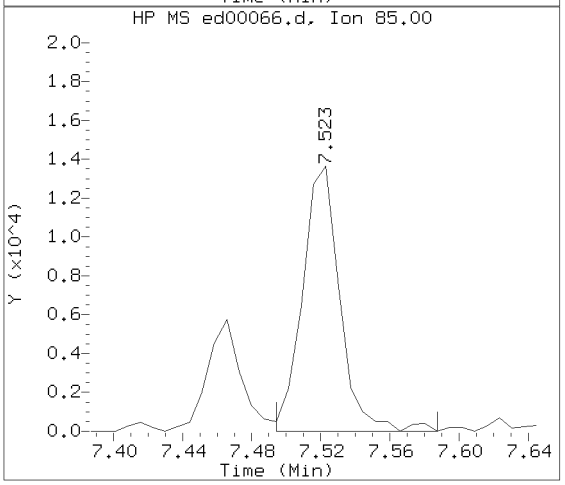
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

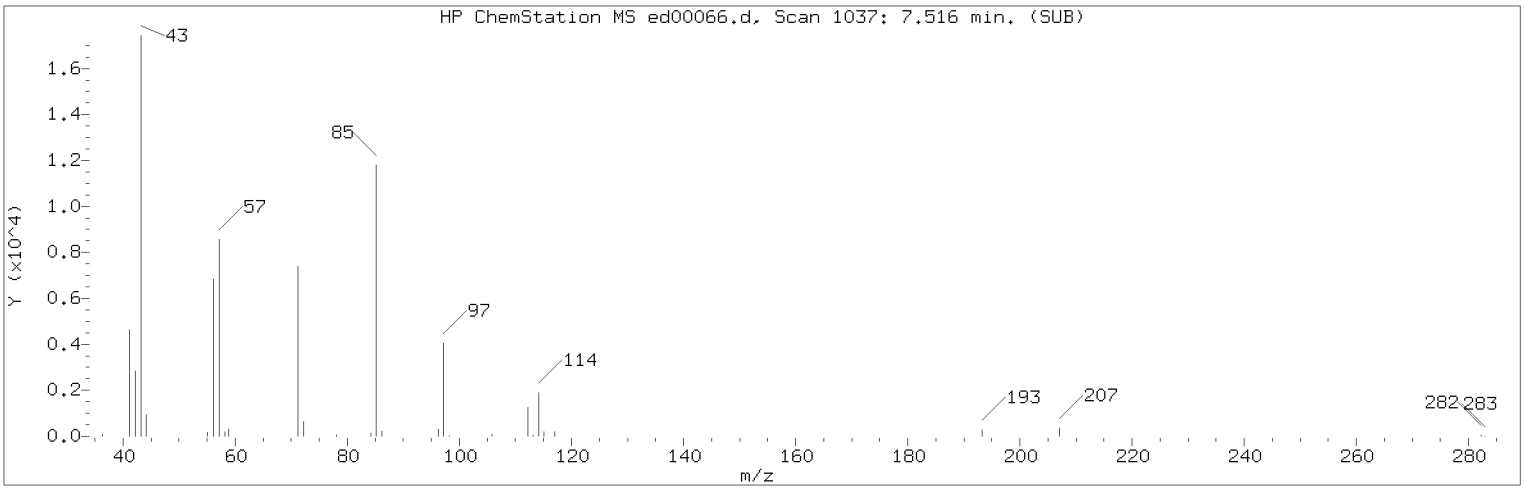
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

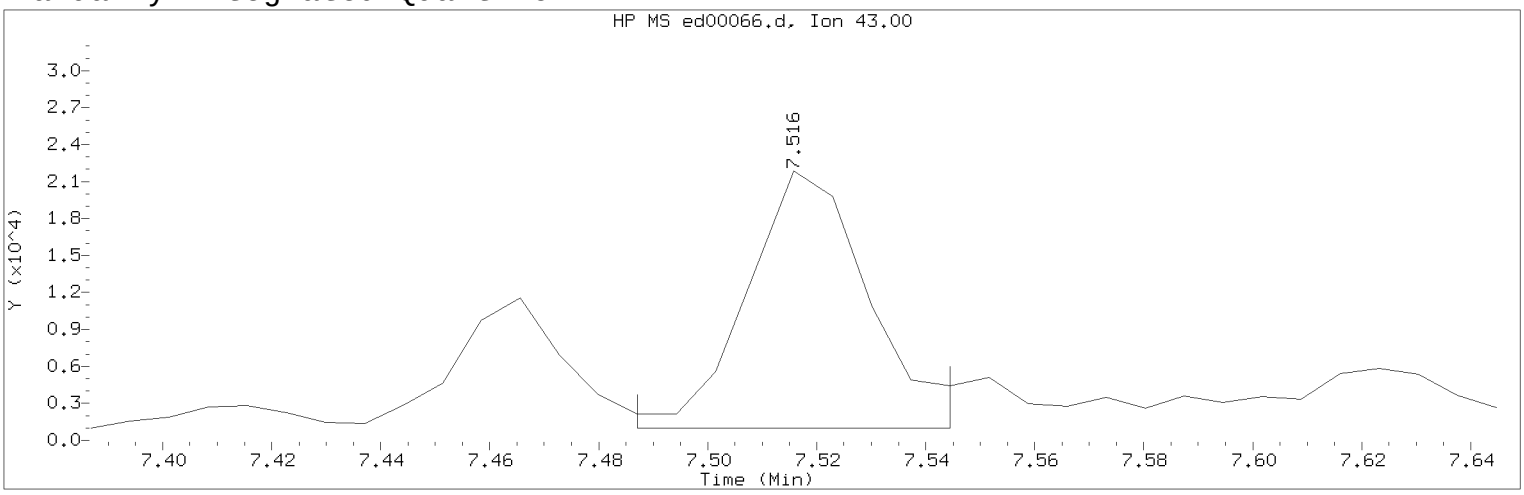
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Relative Retention Time : 0.00000
Quant Ion : 43.00
Area (flag) : 32831M
Concentration (ppb(v)) : 0.5937

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

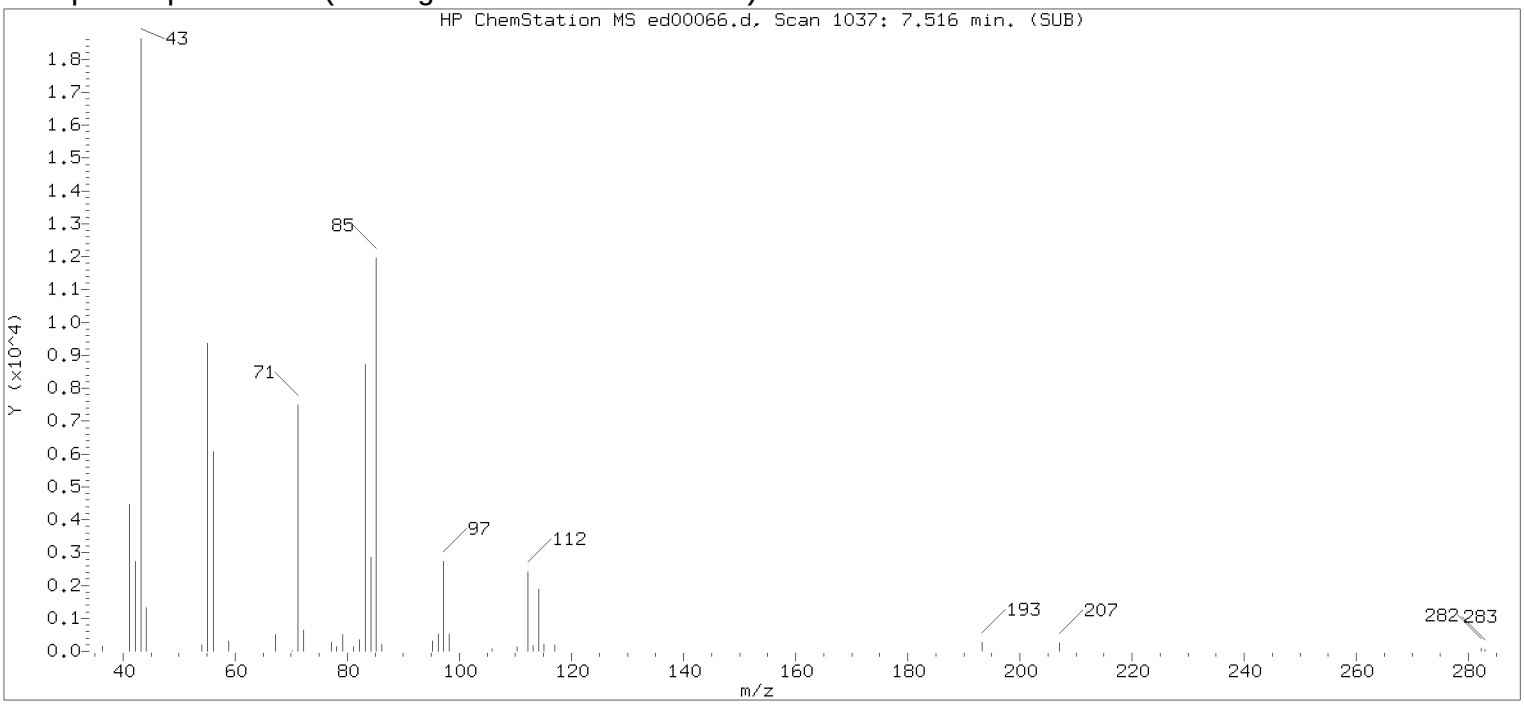
Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area (flag) : 32831M
Concentration (ppb(v)) : 0.5937
Integration start scan : 1032 Integration stop scan: 1040
Y at integration start : 993 Y at integration end: 993

Reason for manual integration: improper integration

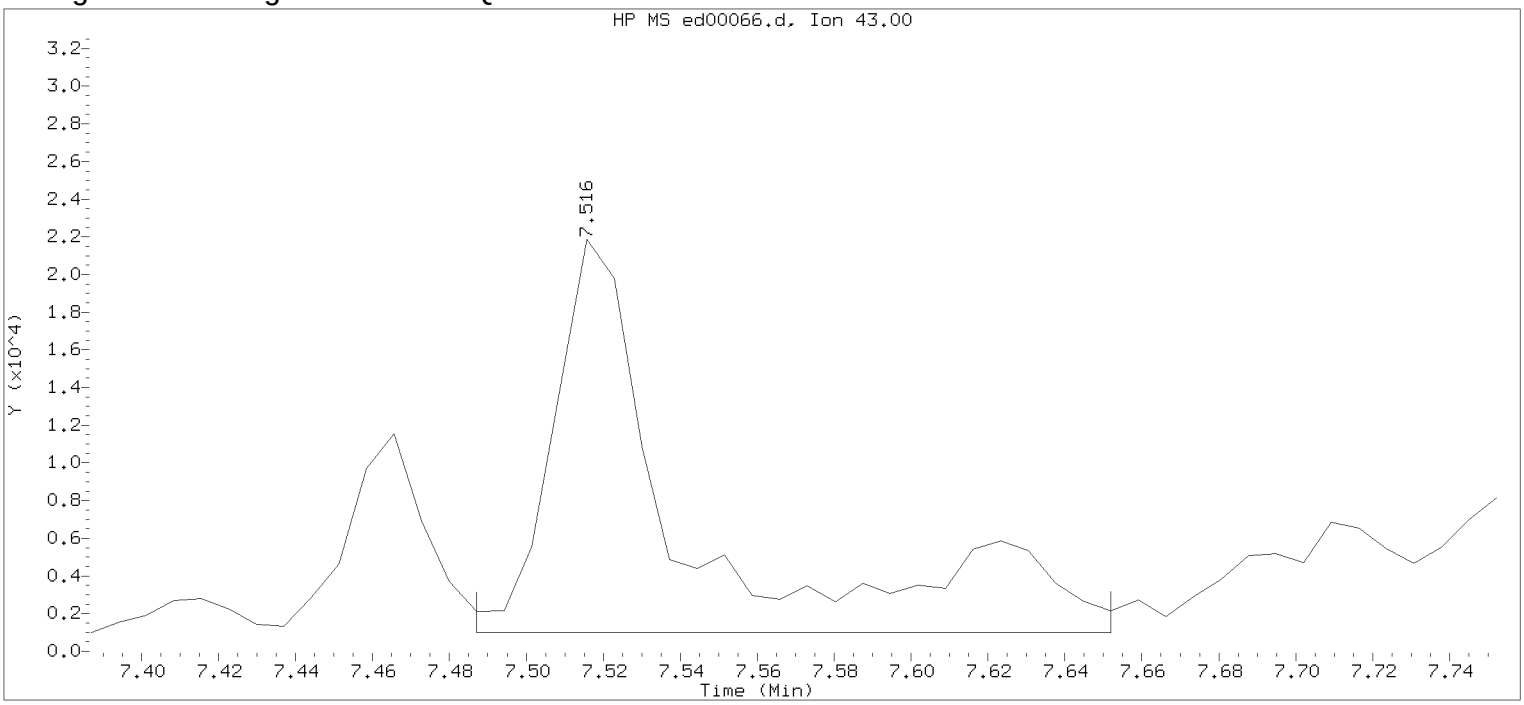
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

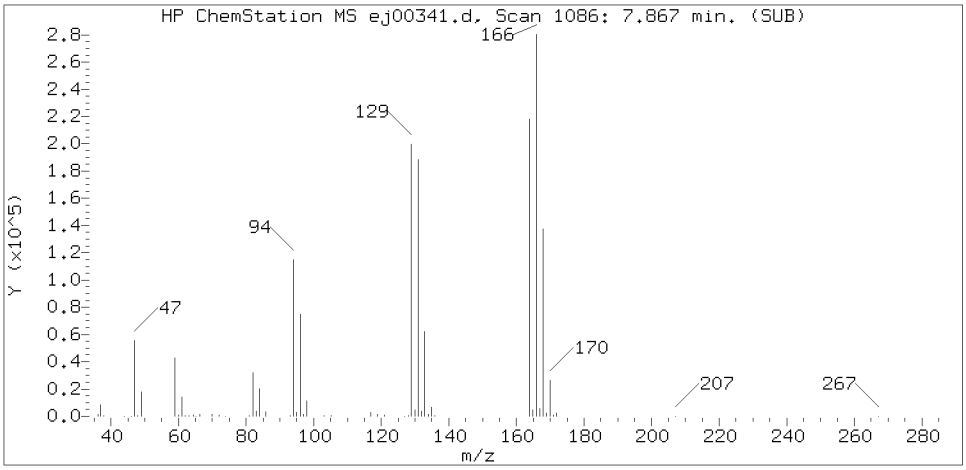
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:47 Unknown

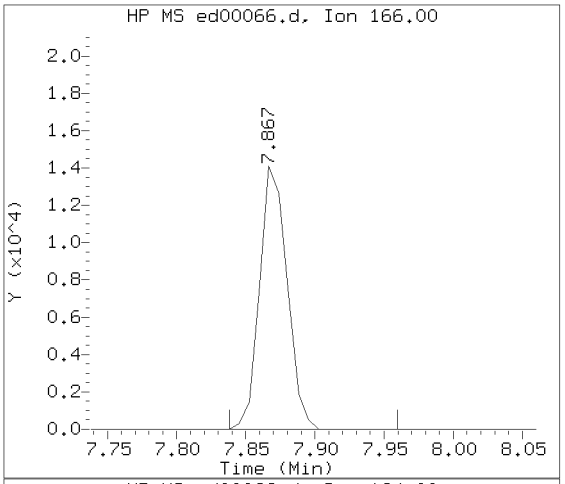
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 62
Compound Name : Octane
Scan Number : 1037
Retention Time (minutes): 7.516
Quant Ion : 43.00
Area : 49792
Concentration (ppb(v)) : 0.9004
Integration start scan : 1032 Integration stop scan: 1055
Y at integration start : 993 Y at integration end: 993

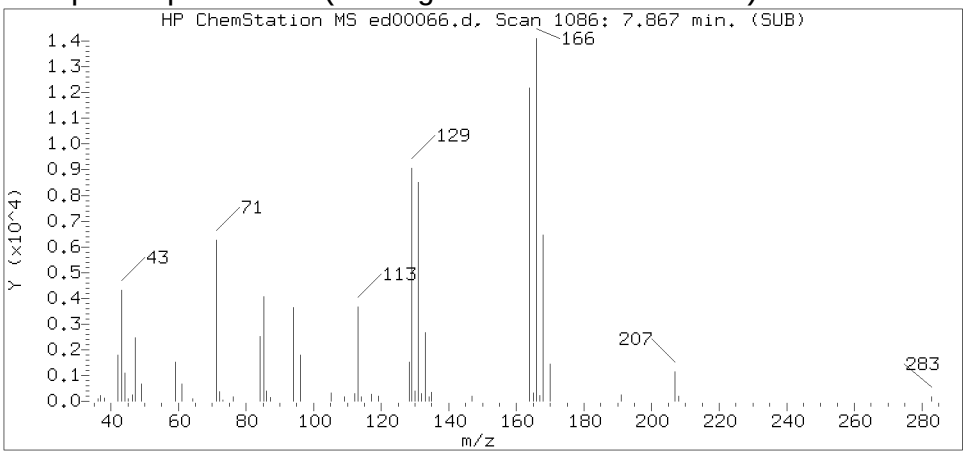
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

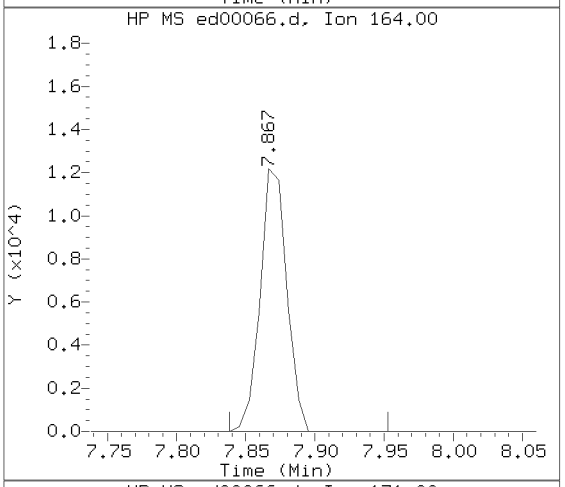
Reference Standard Spectrum for Tetrachloroethene



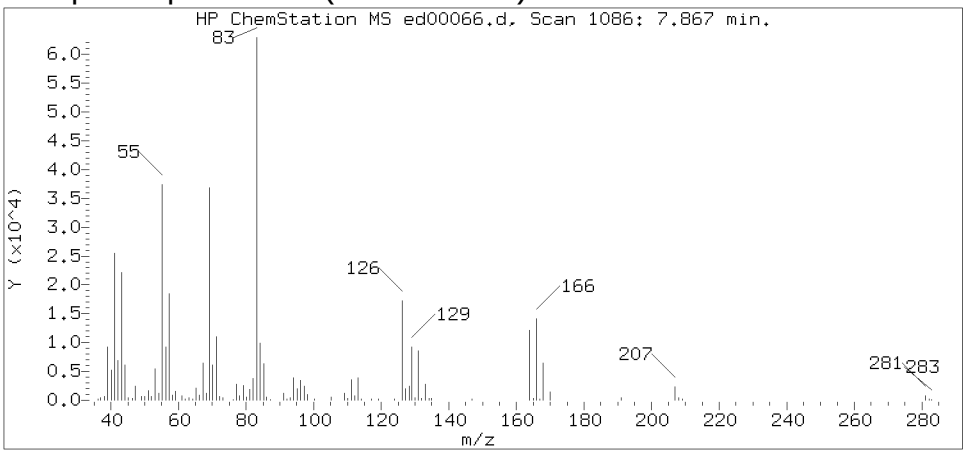


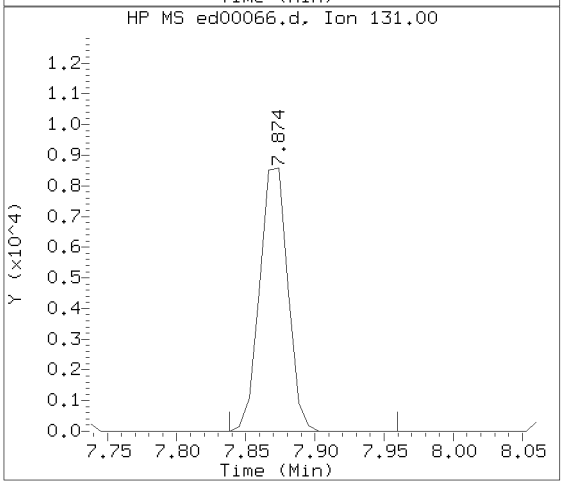
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 1086
Retention Time (minutes): 7.867
Relative Retention Time : 0.00084
Quant Ion : 166.00
Area (flag) : 19530
Concentration (ppb(v)) : 0.2945

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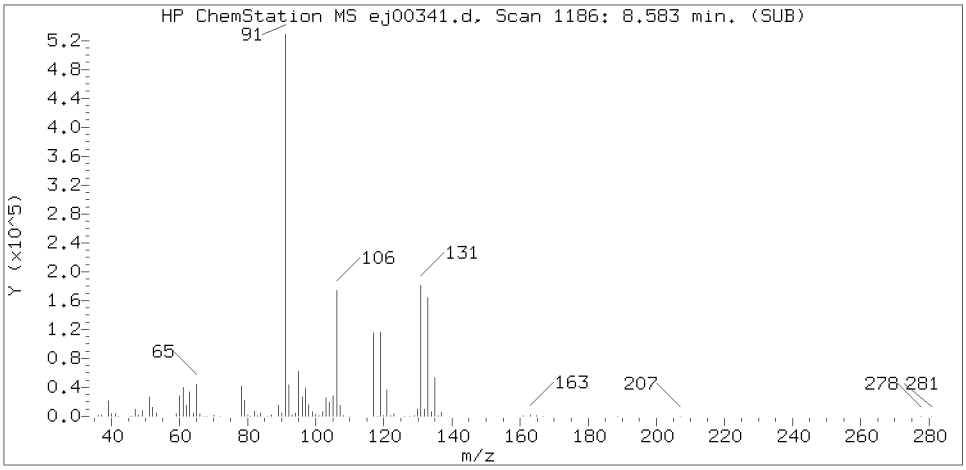
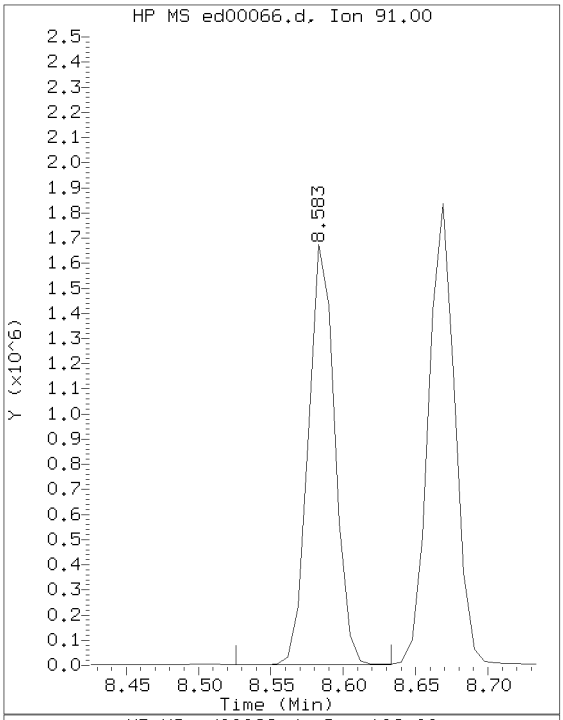
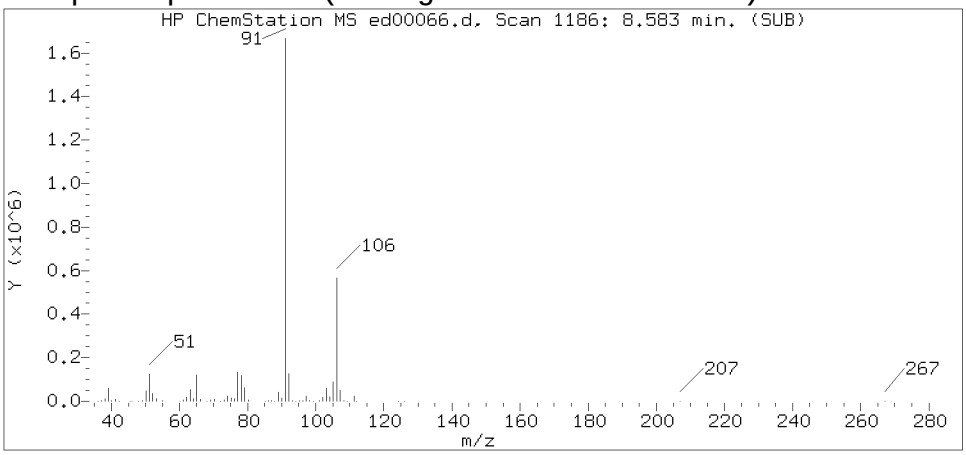
Target 3.5 esignature user ID: jeb07445

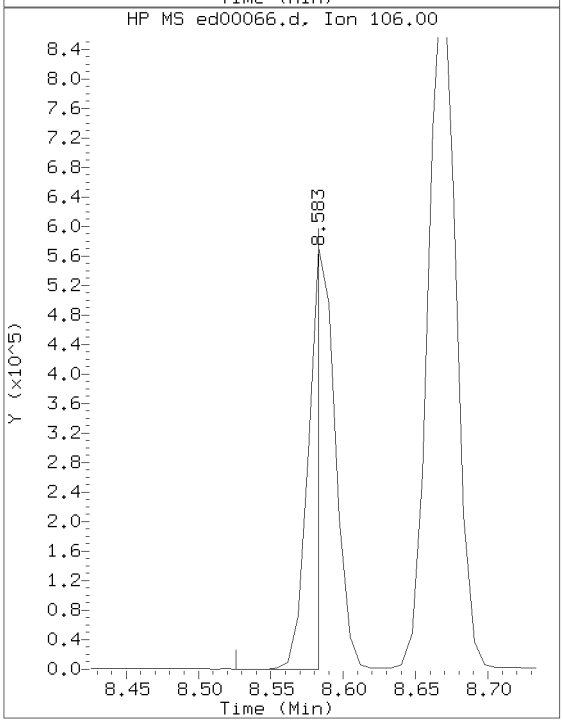
Reference Standard Spectrum for Ethylbenzene



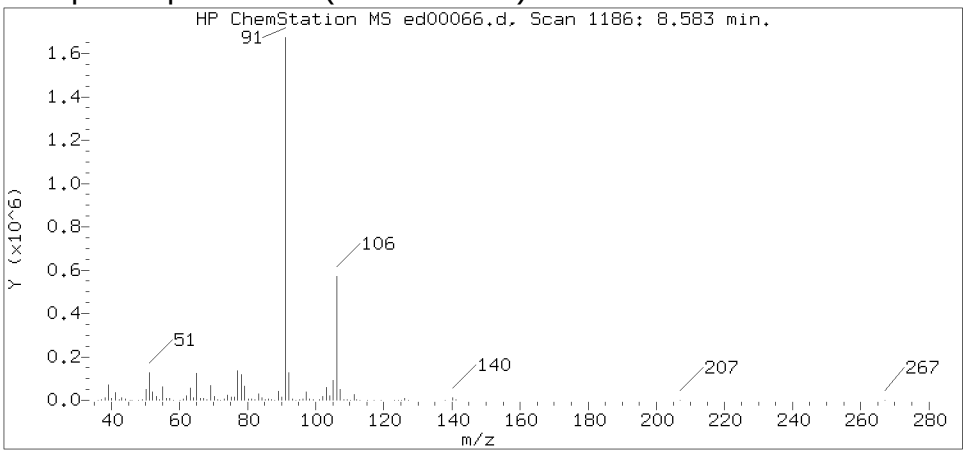


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 2147764
Concentration (ppb(v)) : 14.8786

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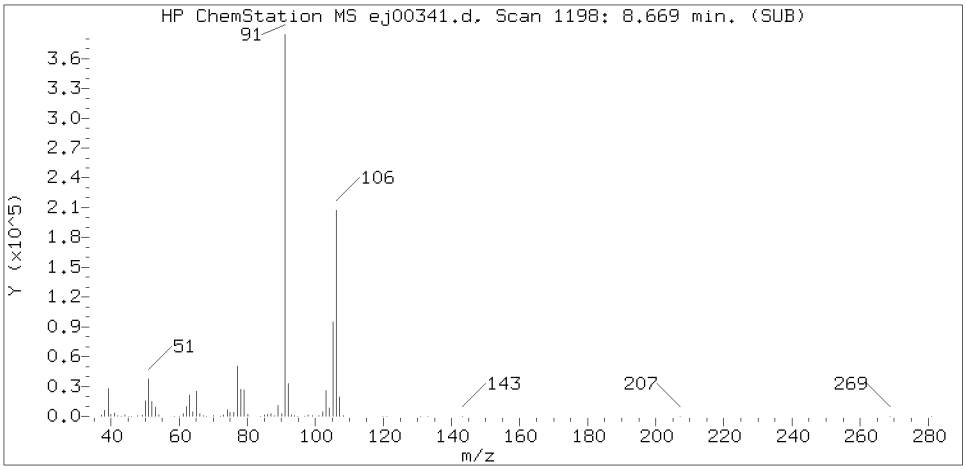
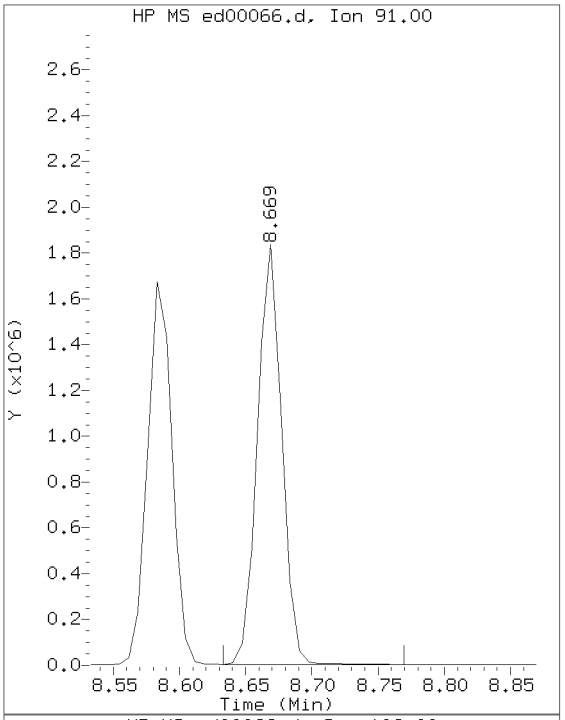
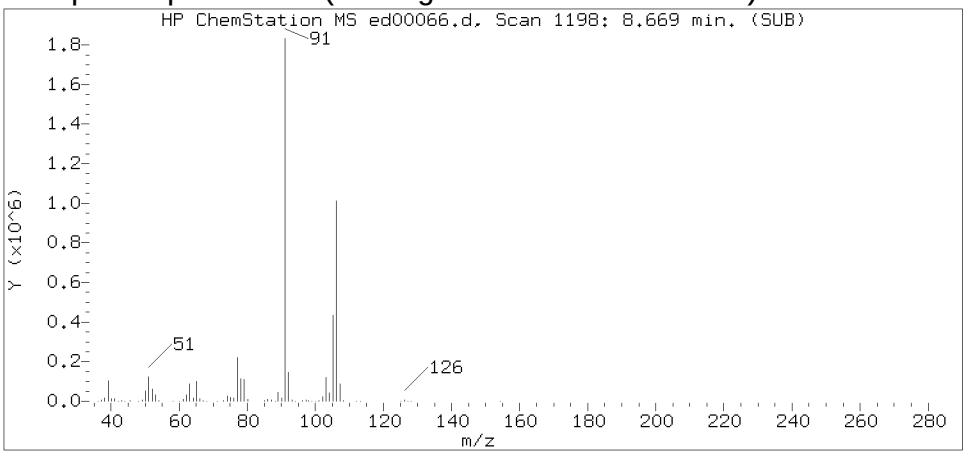
Target 3.5 esignature user ID: jeb07445

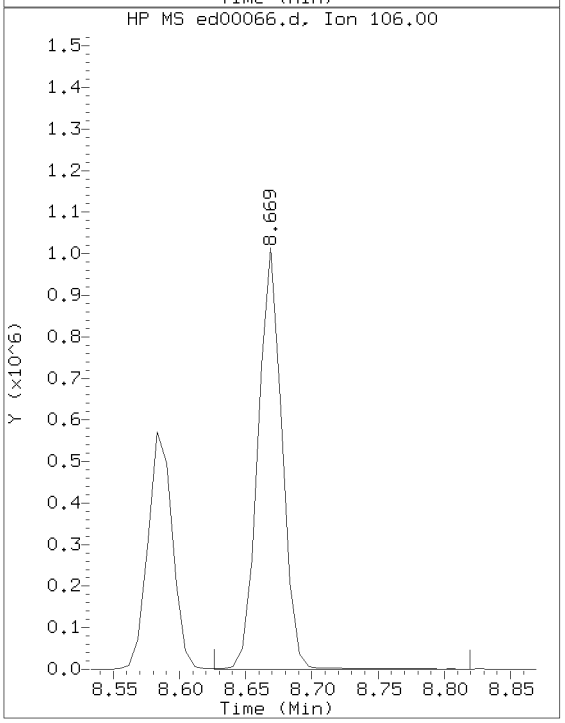
Reference Standard Spectrum for m/p-Xylene



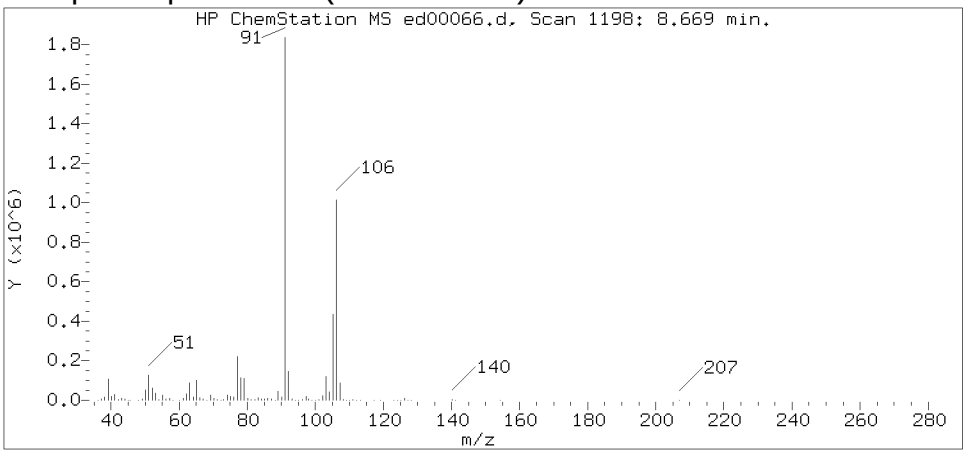


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 75
Compound Name : m/p-Xylene
Scan Number : 1198
Retention Time (minutes): 8.669
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 2362478
Concentration (ppb(v)) : 20.7214

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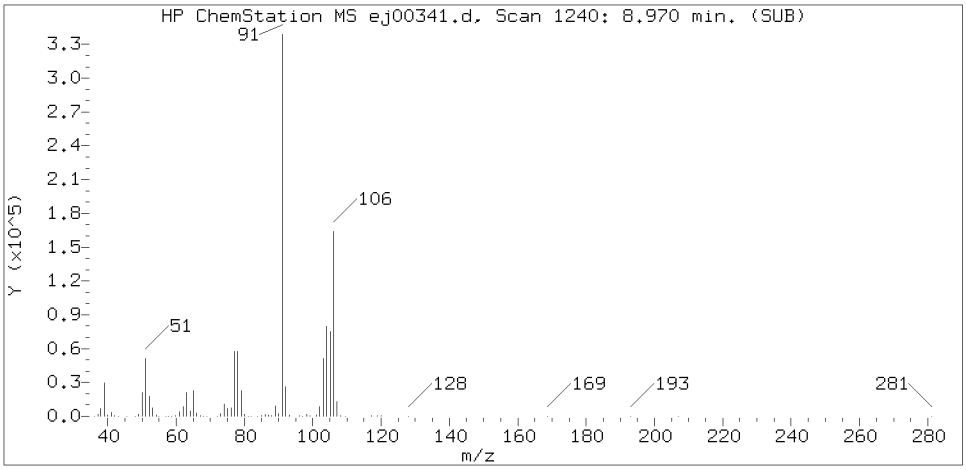
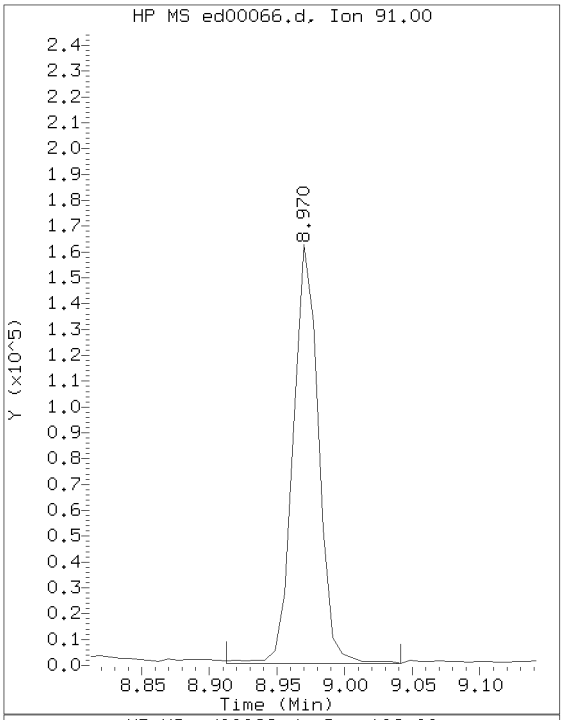
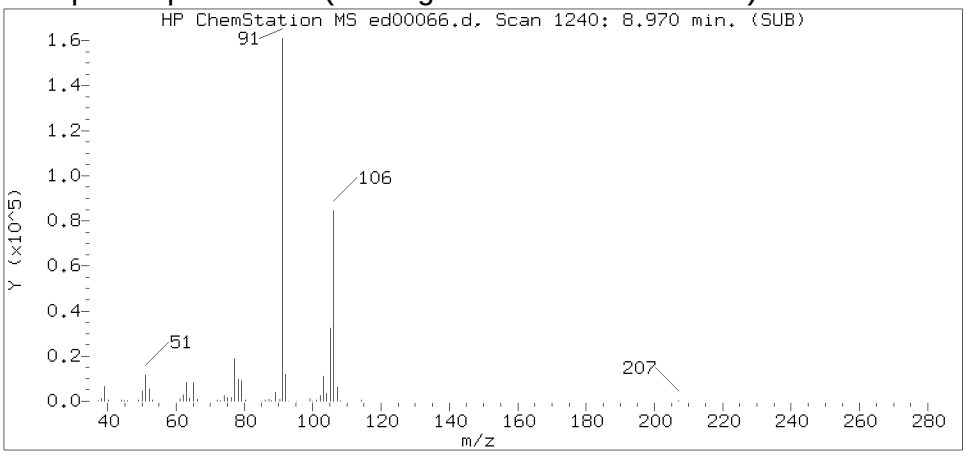
Target 3.5 esignature user ID: jeb07445

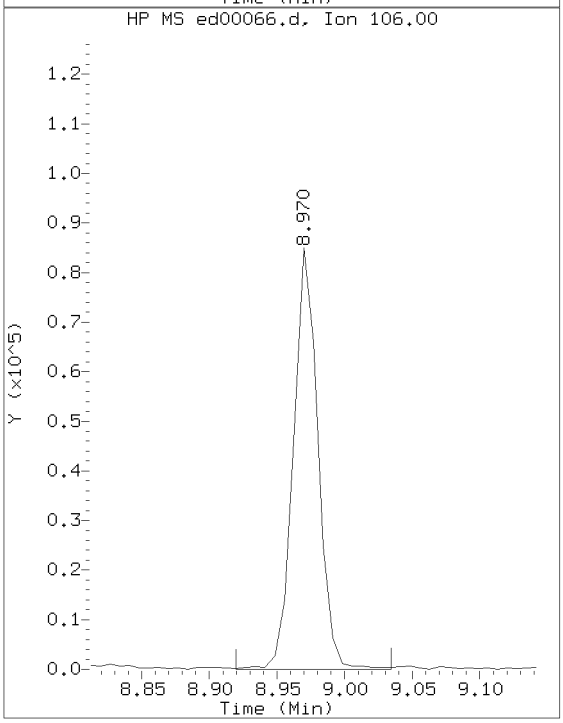
Reference Standard Spectrum for o-Xylene



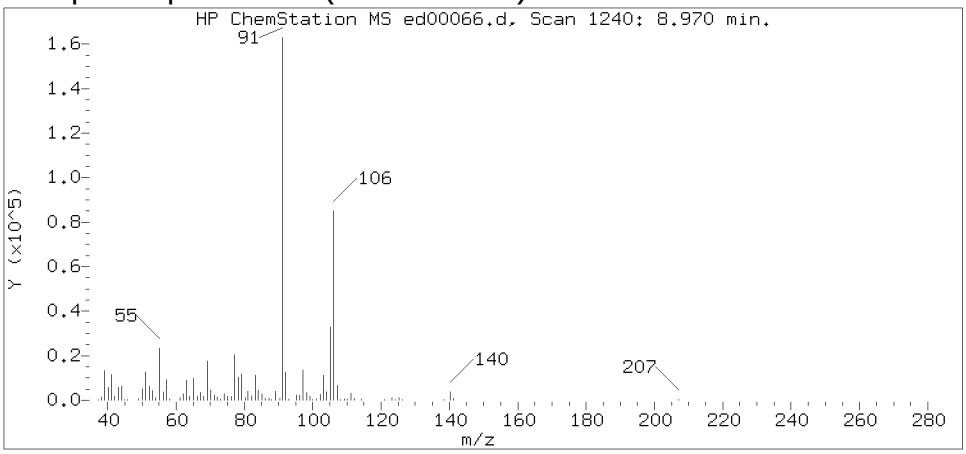


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

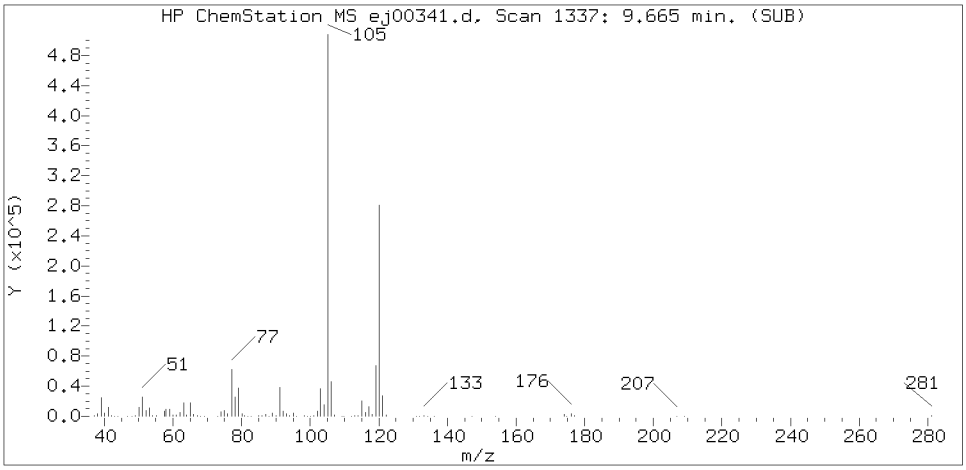
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

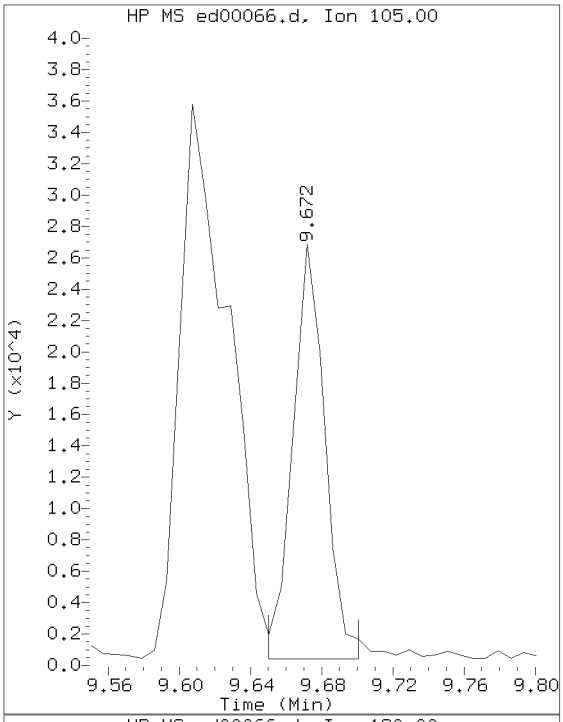
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1240
Retention Time (minutes): 8.970
Relative Retention Time :-0.00000
Quant Ion : 91.00
Area (flag) : 214735
Concentration (ppb(v)) : 1.9433

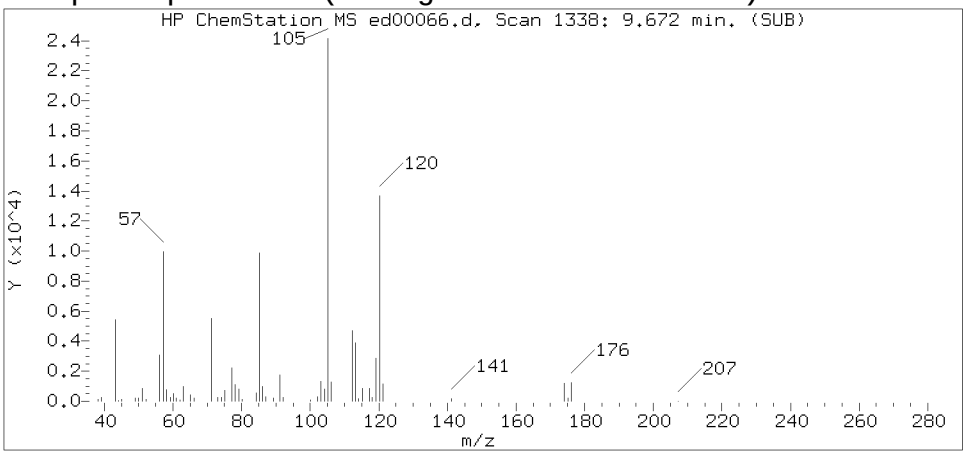
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

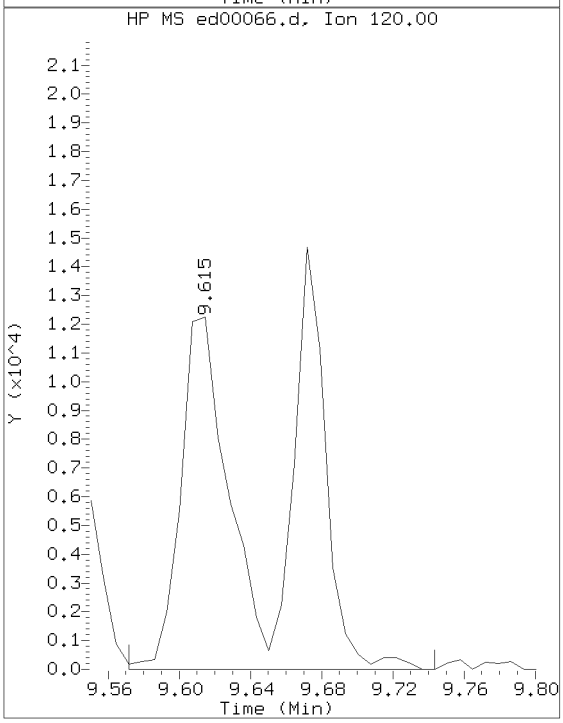
Reference Standard Spectrum for 1,3,5-Trimethylbenzene



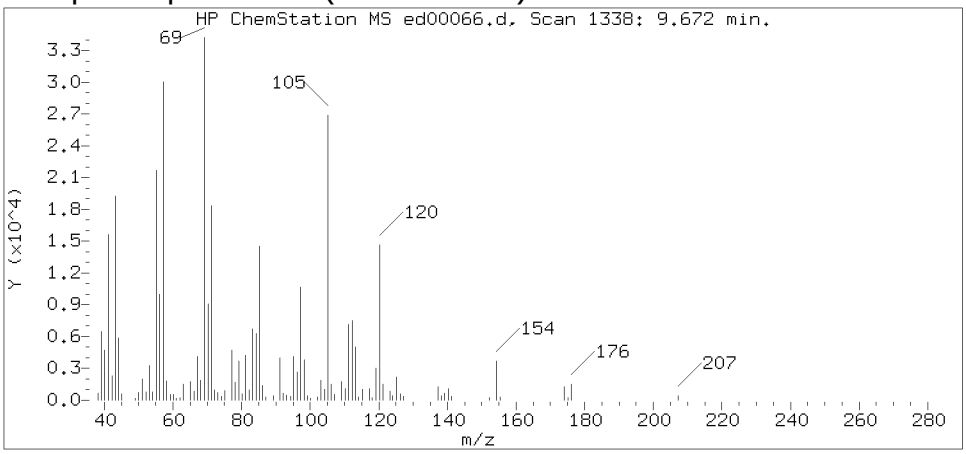


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

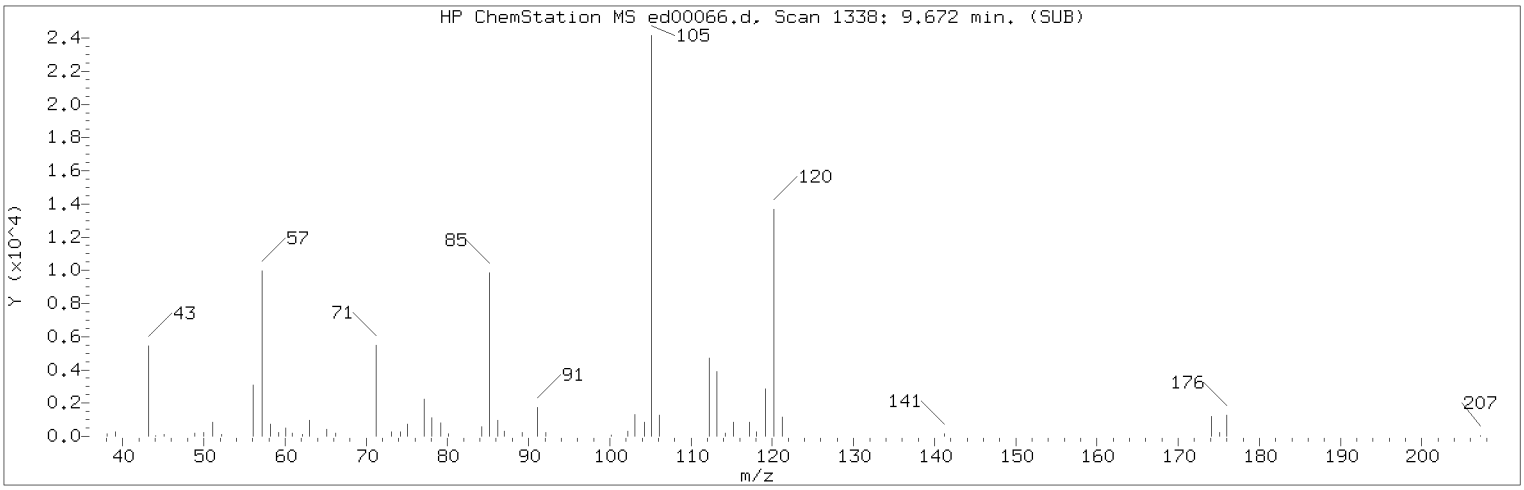
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

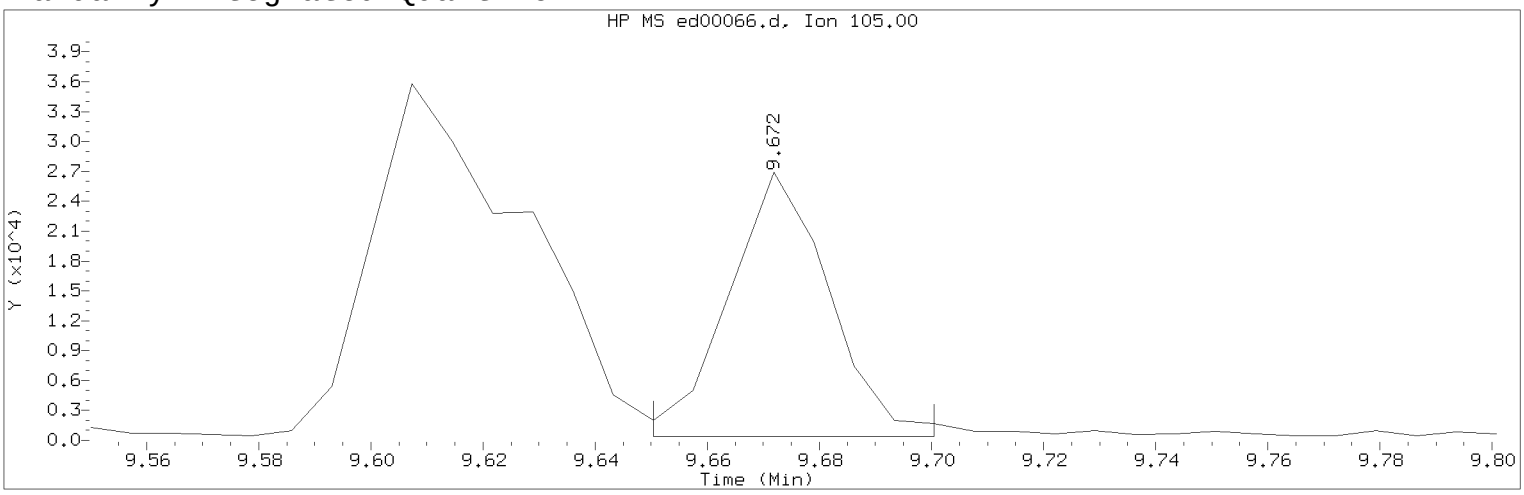
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Relative Retention Time :-0.00000
Quant Ion : 105.00
Area (flag) : 33347M
Concentration (ppb(v)) : 0.2613

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

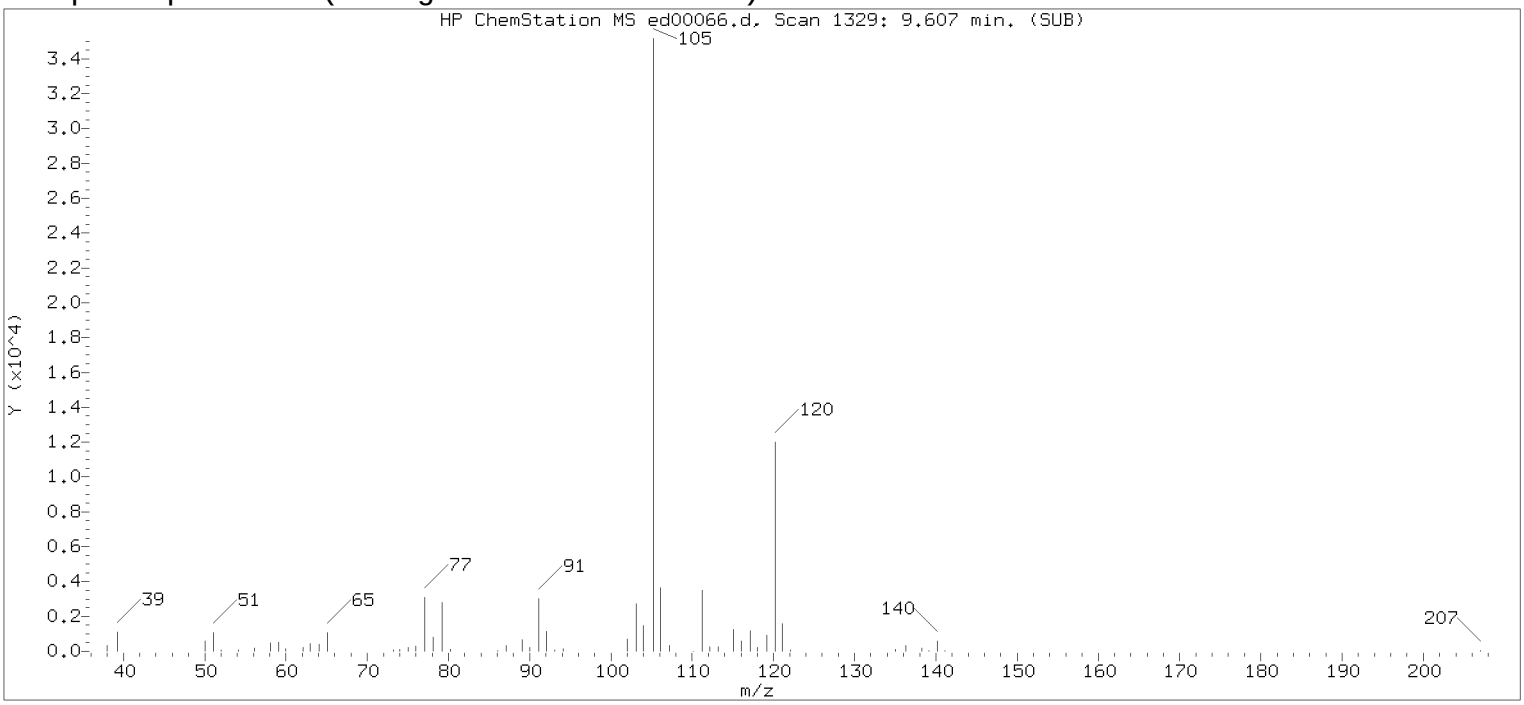
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 33347M
Concentration (ppb(v)) : 0.2613
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 416 Y at integration end: 416

Reason for manual integration: improper integration

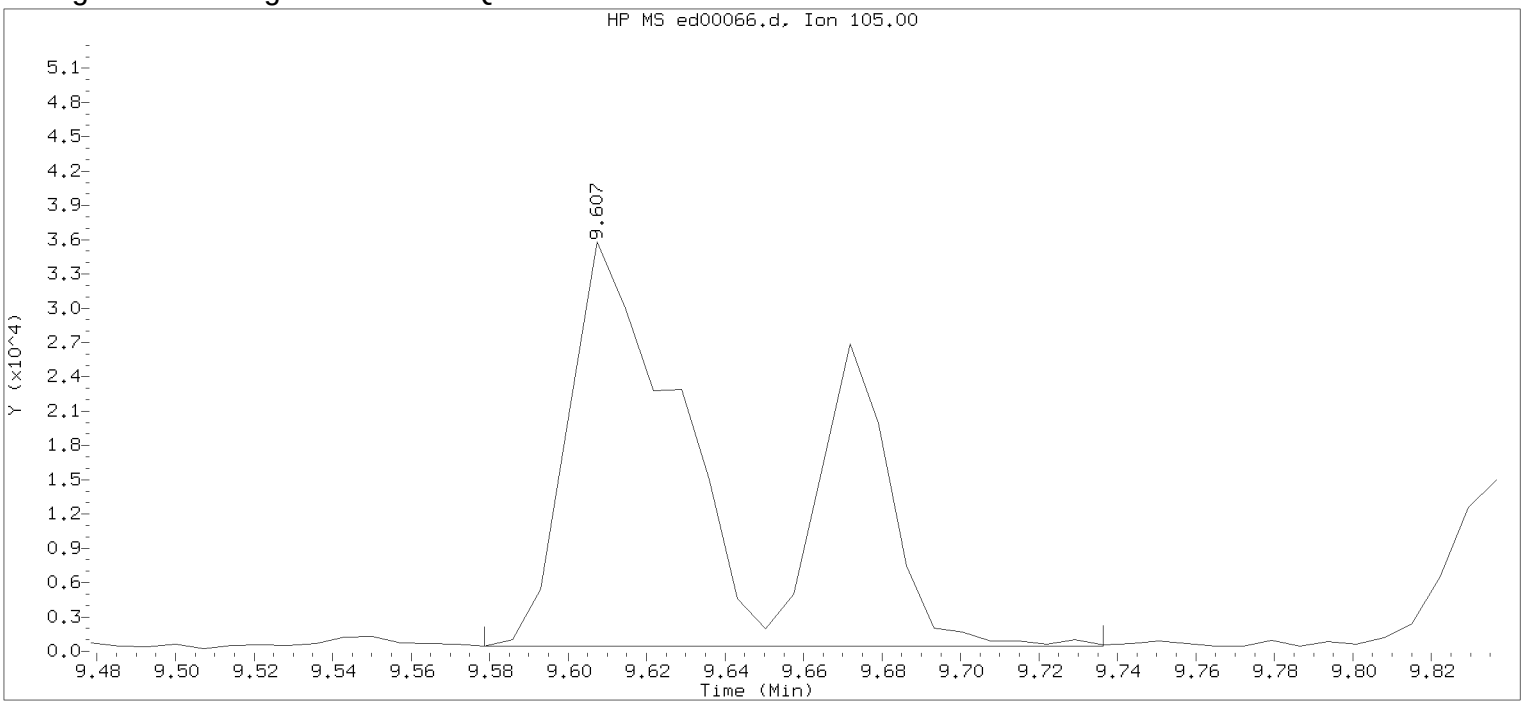
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

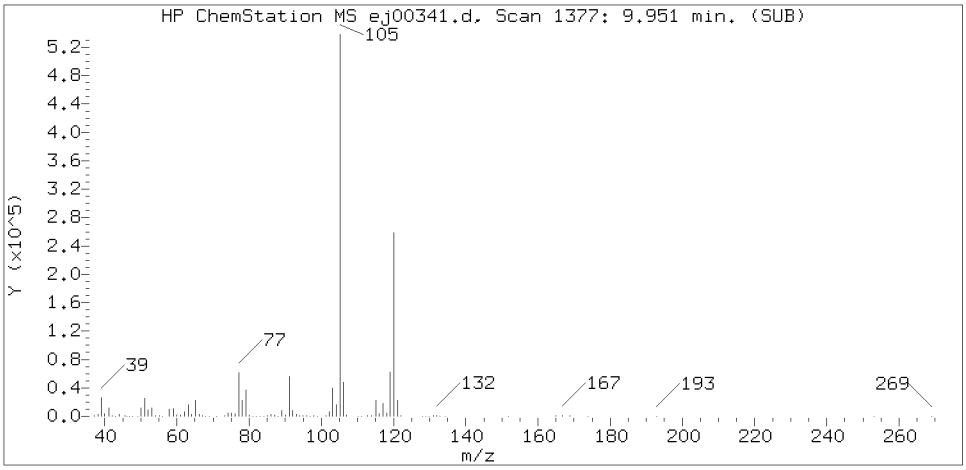
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:47 Unknown

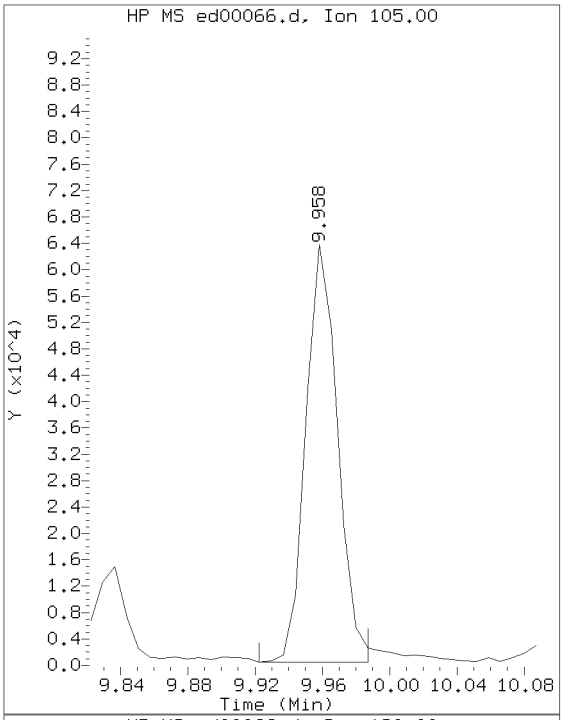
Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 100393
Concentration (ppb(v)) : 0.7867
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 435 Y at integration end: 435

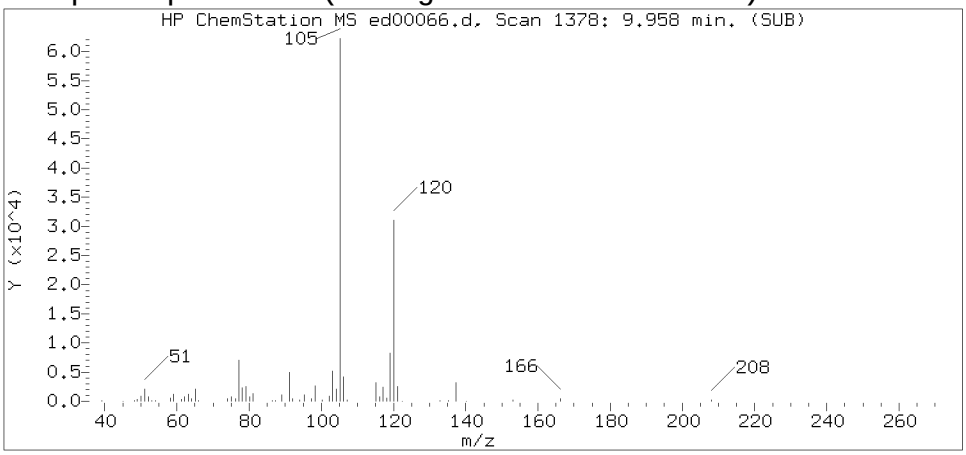
Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

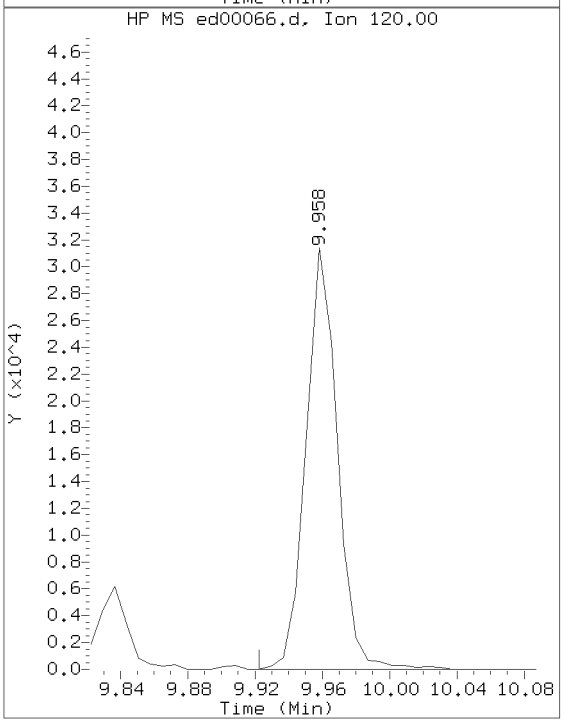
Reference Standard Spectrum for 1,2,4-Trimethylbenzene



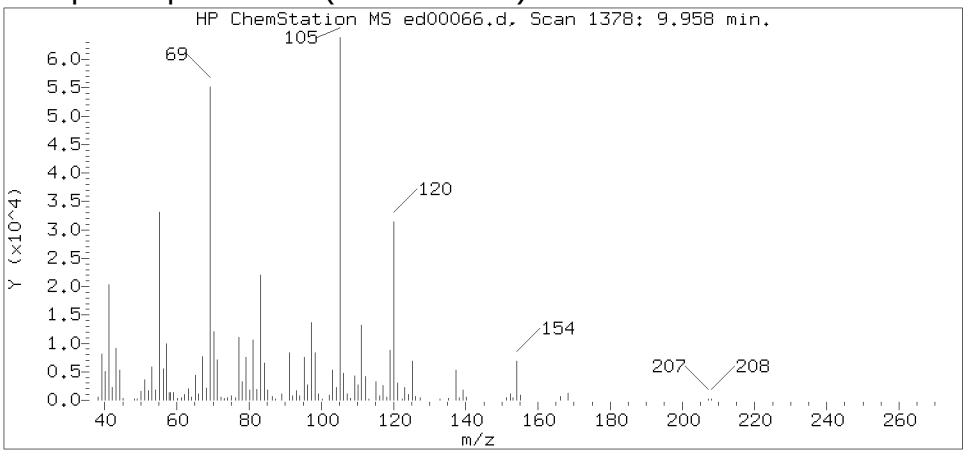


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

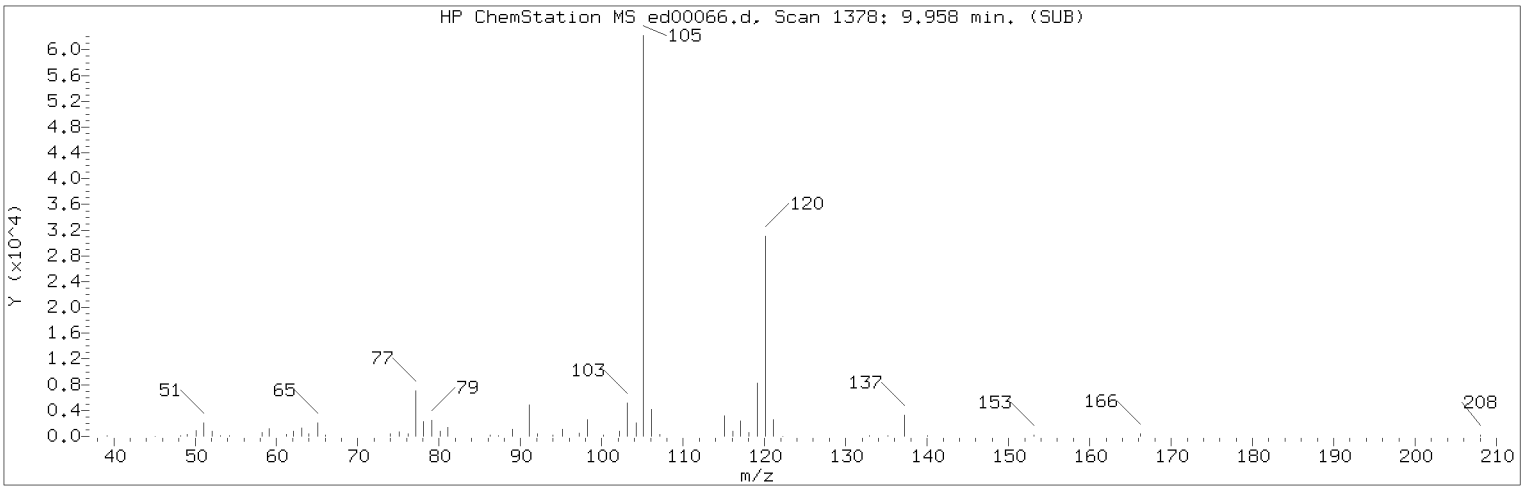
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

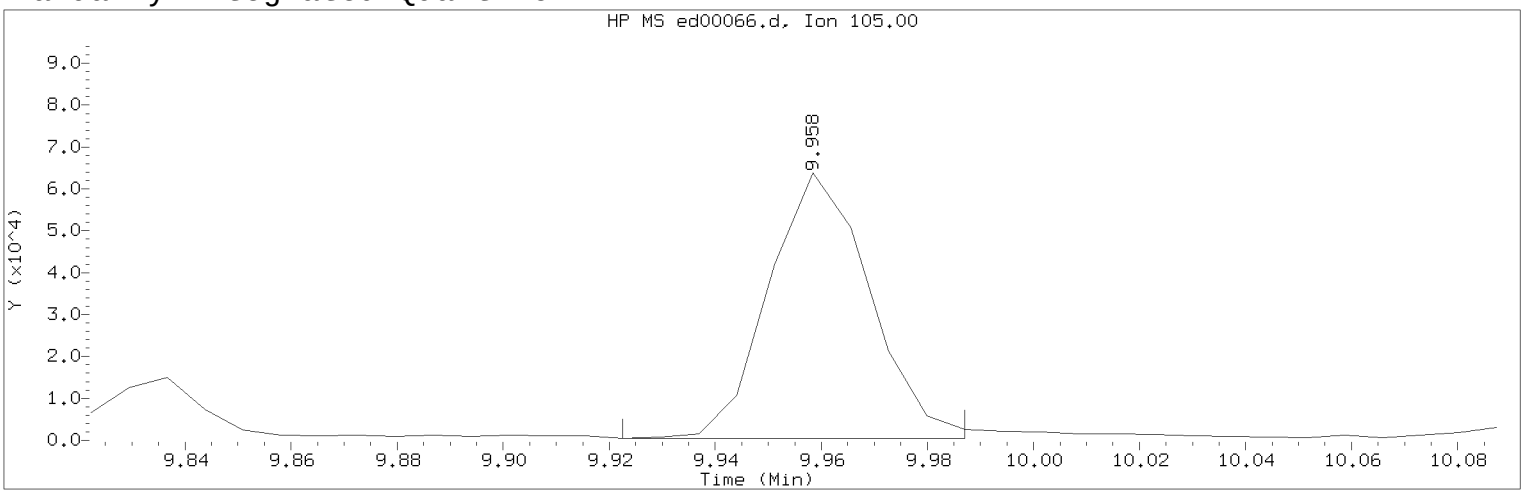
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Relative Retention Time : 0.00084
Quant Ion : 105.00
Area (flag) : 83821M
Concentration (ppb(v)) : 0.6943

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:06 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250DL

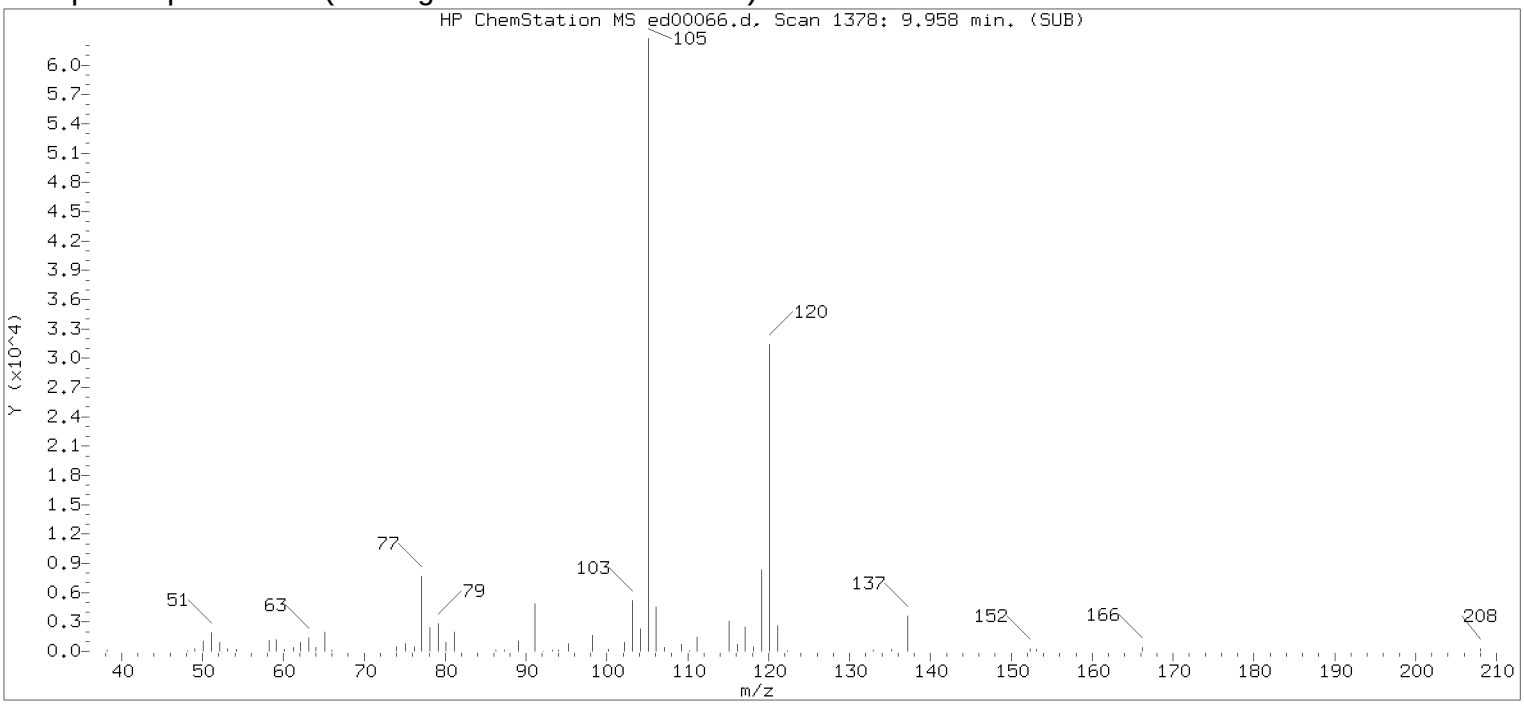
Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area (flag) : 83821M
Concentration (ppb(v)) : 0.6943
Integration start scan : 1372 Integration stop scan: 1381
Y at integration start : 479 Y at integration end: 479

Reason for manual integration: improper integration

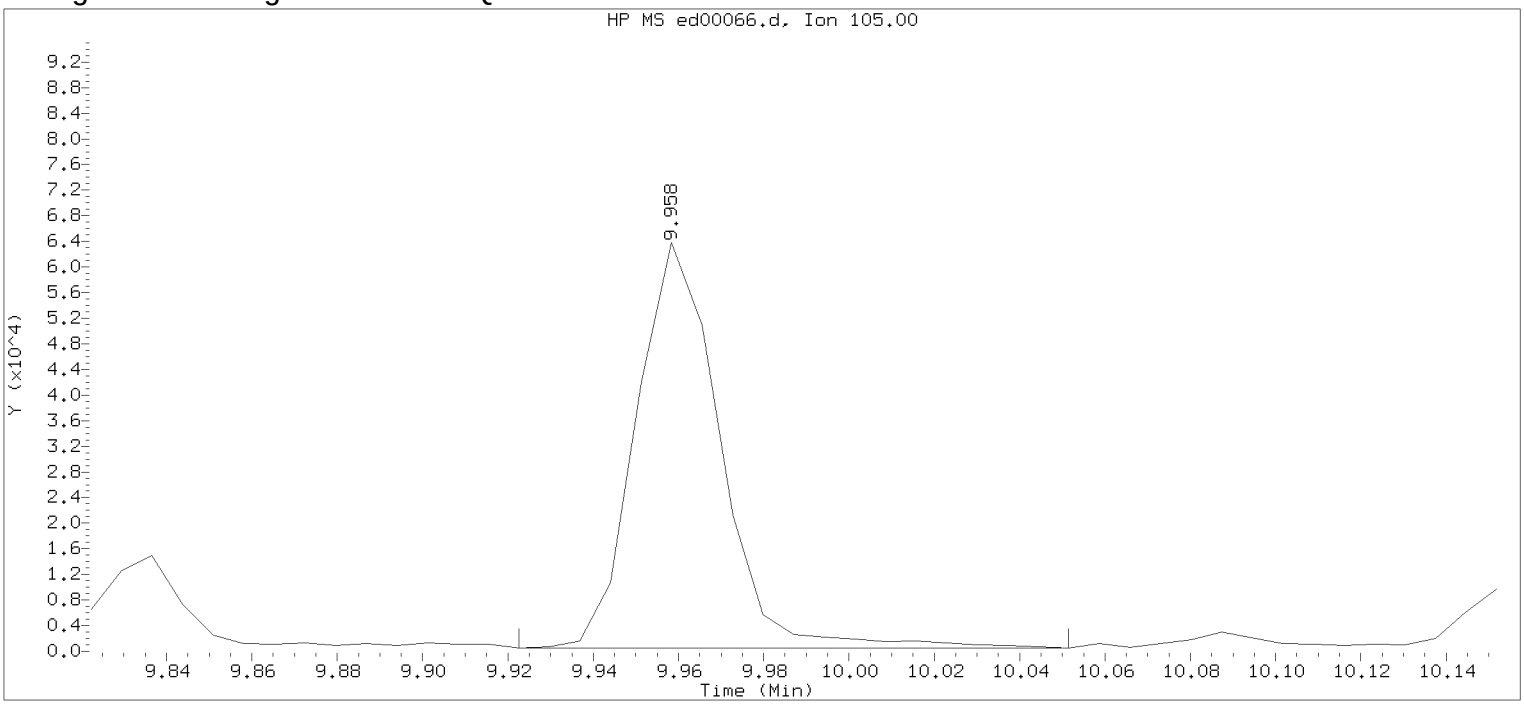
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:41.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00066.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:27 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:47 Unknown

Sample Name: S7104 Lab Sample ID: 8920250DL

Compound Number : 90
Compound Name : 1,2,4-Trimethylbenzene
Scan Number : 1378
Retention Time (minutes): 9.958
Quant Ion : 105.00
Area : 86948
Concentration (ppb(v)) : 0.7202
Integration start scan : 1372 Integration stop scan: 1390
Y at integration start : 479 Y at integration end: 479

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

Standards Data

Volatile Organics in Air by GC/MS

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	

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/30/2017 Calibration End Date: 03/30/2017

Calibration Start Time: 19:49 Calibration End Time: 22:21

LAB FILE IDs:
RRF 1 = ec00847.d RRF 2 = ec00848.d RRF 5 = ec00849.d RRF 10 = ec00850.d RRF 25 = ec00851.d
RRF 70 = ec00852.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Propene	0.634	0.628	0.642	0.619	0.620	0.625	0.628	1	AVG
Dichlorodifluoromethane	2.256	2.426	2.628	2.594	2.580	2.624	2.518	6	AVG
Chlorodifluoromethane	1.277	1.271	1.335	1.327	1.333	1.321	1.311	2	AVG
Freon 114	2.414	2.545	2.782	2.693	2.701	2.687	2.637	5	AVG
Chloromethane	0.764	0.691	0.712	0.659	0.655	0.573	0.676	10	AVG
Vinyl Chloride	0.829	0.931	1.003	0.971	0.966	0.985	0.947	7	AVG
1,3-Butadiene	0.661	0.700	0.703	0.697	0.701	0.715	0.696	3	AVG
Bromomethane	0.887	0.930	1.014	1.035	0.976	0.973	0.969	6	AVG
Chloroethane	0.510	0.497	0.546	0.536	0.533	0.544	0.528	4	AVG
Bromoethene	0.972	1.002	1.093	1.076	1.080	1.103	1.054	5	AVG
Dichlorofluoromethane	1.894	2.027	2.146	2.093	2.111	2.126	2.066	5	AVG
Trichlorofluoromethane	2.573	2.591	2.815	2.761	2.737	2.778	2.709	4	AVG
Pentane	1.346	1.376	1.482	1.447	1.407	1.443	1.417	4	AVG
Ethanol	0.237	0.231	0.198	0.212	0.269	0.281	0.238	14	AVG
Freon123a	2.005	1.977	2.038	2.023	1.982	1.997	2.004	1	AVG
Acrolein	0.330	0.338	0.384	0.372	0.378	0.389	0.365	7	AVG
1,1-Dichloroethene	1.333	1.407	1.505	1.527	1.503	1.515	1.465	5	AVG
Freon 113	1.639	1.576	1.603	1.592	1.581	1.582	1.596	1	AVG
Acetone	1.011	1.151	1.157	1.141	1.184	1.170	1.136	6	AVG
Methyl Iodide	2.759	3.094	3.009	2.748	3.200	3.058	2.978	6	AVG
Carbon Disulfide	2.555	2.795	3.033	3.014	3.004	3.010	2.902	7	AVG
Isopropanol	0.935	0.922	1.024	1.015	1.154	****	1.010	9	AVG
Acetonitrile	0.609	0.528	0.551	0.524	0.482	0.465	0.526	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/30/2017 Calibration End Date: 03/30/2017

Calibration Start Time: 19:49 Calibration End Time: 22:21

LAB FILE IDs:
RRF 1 = ec00847.d RRF 2 = ec00848.d RRF 5 = ec00849.d RRF 10 = ec00850.d RRF 25 = ec00851.d
RRF 70 = ec00852.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
3-Chloropropene	0.407	0.415	0.441	0.457	0.449	0.465	0.439	5	AVG
Methylene Chloride	0.746	0.848	0.909	0.893	0.890	0.896	0.864	7	AVG
tert-Butyl Alcohol	1.591	1.603	1.664	1.668	1.802	****	1.666	5	AVG
Acrylonitrile	0.691	0.749	0.765	0.747	0.799	0.786	0.756	5	AVG
trans-1,2-Dichloroethene	1.205	1.306	1.422	1.413	1.400	1.406	1.359	6	AVG
Methyl t-Butyl Ether	2.854	2.869	3.043	2.961	2.966	2.982	2.946	2	AVG
Hexane	1.512	1.382	1.503	1.464	1.467	1.499	1.471	3	AVG
1,1-Dichloroethane	1.662	1.734	1.828	1.835	1.819	1.841	1.786	4	AVG
Vinyl Acetate	0.187	0.233	0.248	0.265	0.278	****	0.242	15	AVG
Di-Isopropyl Ether	2.805	2.757	2.877	2.870	2.888	2.882	2.846	2	AVG
Ethyl Tert-Butyl Ether	2.850	2.831	3.052	2.990	3.055	3.103	2.980	4	AVG
cis-1,2-Dichloroethene	1.109	1.266	1.369	1.341	1.333	1.352	1.295	8	AVG
2-Butanone	0.457	0.496	0.522	0.533	0.551	0.560	0.520	7	AVG
Ethyl Acetate	0.307	0.274	0.285	0.263	0.271	0.275	0.279	6	AVG
Methyl Acrylate	1.418	1.461	1.560	1.600	1.666	1.712	1.569	7	AVG
Tetrahydrofuran	0.824	0.952	0.937	0.964	0.972	0.970	0.936	6	AVG
Chloroform	2.059	2.191	2.379	2.292	2.282	2.304	2.251	5	AVG
1,1,1-Trichloroethane	2.179	2.219	2.301	2.293	2.313	2.354	2.277	3	AVG
Cyclohexane	1.509	1.537	1.553	1.523	1.560	1.566	1.541	1	AVG
Carbon Tetrachloride	2.315	2.279	2.299	2.346	2.429	2.513	2.364	4	AVG
Benzene	0.900	0.906	0.930	0.943	0.944	0.943	0.928	2	AVG
1,2-Dichloroethane	0.325	0.334	0.364	0.358	0.357	0.359	0.349	4	AVG
Isooctane	1.237	1.231	1.272	1.301	1.314	1.303	1.276	3	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/30/2017 Calibration End Date: 03/30/2017

Calibration Start Time: 19:49 Calibration End Time: 22:21

LAB FILE IDs:
RRF 1 = ec00847.d RRF 2 = ec00848.d RRF 5 = ec00849.d RRF 10 = ec00850.d RRF 25 = ec00851.d
RRF 70 = ec00852.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Tert-Amyl Methyl Ether	0.788	0.818	0.828	0.853	0.883	0.879	0.842	4	AVG
Heptane	0.427	0.427	0.414	0.418	0.429	0.422	0.423	1	AVG
Trichloroethene	0.450	0.457	0.476	0.482	0.495	0.507	0.478	5	AVG
Ethyl Acrylate	0.504	0.502	0.506	0.545	0.582	0.599	0.540	8	AVG
1,2-Dichloropropane	0.311	0.316	0.317	0.322	0.318	0.320	0.317	1	AVG
Dibromomethane	0.423	0.458	0.460	0.480	0.497	0.506	0.471	6	AVG
1,4-Dioxane	0.211	0.209	0.215	0.223	0.238	0.239	0.222	6	AVG
Methyl Methacrylate	0.310	0.292	0.294	0.311	0.317	0.332	0.309	5	AVG
Bromodichloromethane	0.562	0.574	0.582	0.611	0.646	0.654	0.605	6	AVG
cis-1,3-Dichloropropene	0.515	0.494	0.516	0.542	0.573	0.585	0.538	7	AVG
4-Methyl-2-Pentanone	0.518	0.522	0.522	0.537	0.567	0.566	0.539	4	AVG
Toluene	1.294	1.220	1.172	1.163	1.208	1.185	1.207	4	AVG
Octane	0.637	0.583	0.599	0.572	0.599	0.565	0.593	4	AVG
trans-1,3-Dichloropropene	0.452	0.436	0.441	0.460	0.492	0.512	0.466	7	AVG
Ethyl Methacrylate	0.502	0.463	0.487	0.499	0.554	****	0.501	7	AVG
1,1,2-Trichloroethane	0.405	0.388	0.391	0.396	0.416	0.423	0.403	3	AVG
Tetrachloroethene	0.722	0.702	0.694	0.698	0.718	0.729	0.711	2	AVG
2-Hexanone	0.517	0.477	0.485	0.483	0.546	0.541	0.508	6	AVG
Dibromochloromethane	0.482	0.471	0.492	0.514	0.577	0.613	0.525	11	AVG
1,2-Dibromoethane	0.606	0.599	0.614	0.617	0.675	0.682	0.632	6	AVG
Chlorobenzene	1.073	1.030	0.990	0.990	1.061	1.066	1.035	4	AVG
1,1,1,2-Tetrachloroethane	0.494	0.483	0.487	0.506	0.565	0.586	0.520	8	AVG
Ethylbenzene	1.578	1.546	1.512	1.508	1.608	1.528	1.547	3	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/30/2017 Calibration End Date: 03/30/2017

Calibration Start Time: 19:49 Calibration End Time: 22:21

LAB FILE IDs:
RRF 1 = ec00847.d RRF 2 = ec00848.d RRF 5 = ec00849.d RRF 10 = ec00850.d RRF 25 = ec00851.d
RRF 70 = ec00852.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
m/p-Xylene	1.268	1.229	1.186	1.202	1.235	1.210	1.222	2	AVG
o-Xylene	1.222	1.164	1.136	1.143	1.234	1.206	1.184	4	AVG
Styrene	0.860	0.857	0.858	0.892	1.012	****	0.896	7	AVG
Bromoform	0.561	0.556	0.570	0.624	0.797	0.875	0.664	21	AVG
Cumene	1.672	1.628	1.615	1.622	1.795	****	1.666	5	AVG
Bromobenzene	0.622	0.607	0.606	0.599	0.698	0.698	0.638	7	AVG
1,1,2,2-Tetrachloroethane	0.759	0.725	0.723	0.731	0.879	0.870	0.781	9	AVG
1,2,3-Trichloropropane	0.268	0.250	0.251	0.241	0.278	0.277	0.261	6	AVG
n-Propylbenzene	0.509	0.482	0.472	0.481	0.552	0.556	0.509	7	AVG
2-Chlorotoluene	0.451	0.439	0.429	0.433	0.501	0.499	0.458	7	AVG
4-Ethyltoluene	1.631	1.554	1.582	1.606	1.854	****	1.645	7	AVG
1,3,5-Trimethylbenzene	1.359	1.317	1.274	1.289	1.507	1.459	1.367	7	AVG
Alpha Methyl Styrene	0.615	0.598	0.606	0.635	0.801	****	0.651	13	AVG
tert-Butylbenzene	1.302	1.316	1.290	1.315	1.512	****	1.347	7	AVG
1,2,4-Trimethylbenzene	1.279	1.236	1.228	1.231	1.493	****	1.294	9	AVG
sec-Butylbenzene	1.833	1.828	1.810	1.819	2.189	****	1.896	9	AVG
1,3-Dichlorobenzene	0.984	0.926	0.910	0.916	1.158	****	0.979	11	AVG
1,4-Dichlorobenzene	0.988	0.962	0.919	0.926	1.170	****	0.993	10	AVG
p-Isopropyltoluene	1.554	1.514	1.509	1.536	1.936	****	1.610	11	AVG
Benzyl Chloride	0.778	0.725	0.766	0.804	1.201	****	0.855	23	AVG
1,2-Dichlorobenzene	0.872	0.826	0.819	0.818	1.081	****	0.883	13	AVG
n-Butylbenzene	1.294	1.203	1.243	1.261	1.672	****	1.335	14	AVG
Hexachloroethane	0.316	0.316	0.335	0.372	0.539	****	0.376	25	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/30/2017 Calibration End Date: 03/30/2017

Calibration Start Time: 19:49 Calibration End Time: 22:21

LAB FILE IDs:
RRF 1 = ec00847.d RRF 2 = ec00848.d RRF 5 = ec00849.d RRF 10 = ec00850.d RRF 25 = ec00851.d
RRF 70 = ec00852.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane *	0.283	0.289	0.295	0.319	0.541	****	0.345	32	AVG *
1,2,4-Trichlorobenzene	0.482	0.455	0.456	0.458	0.798	****	0.530	28	AVG
Hexachlorobutadiene	0.421	0.420	0.406	0.411	0.722	****	0.476	29	AVG
Naphthalene *	0.836	0.791	0.802	0.840	1.536	****	0.961	34	AVG *

Average % RSD: 7

* 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/HP22820.i/17mar30.b/ec00847.d VSTD001
/chem/HP22820.i/17mar30.b/ec00848.d VSTD002
/chem/HP22820.i/17mar30.b/ec00849.d VSTD005
/chem/HP22820.i/17mar30.b/ec00850.d VSTD010
/chem/HP22820.i/17mar30.b/ec00851.d VSTD025
/chem/HP22820.i/17mar30.b/ec00852.d VSTD070

Area Summary

File ID:

Internal Standard Name	ec00847.d	ec00848.d	ec00849.d	ec00850.d	ec00851.d	ec00852.d	Avg. Area	%RSD	In Spec
Bromochloromethane	249117	247599	239020	246234	246075	247499	245924	1	Yes
1,4-Difluorobenzene	933809	923863	924716	914576	914086	929368	923403	1	Yes
Chlorobenzene-d5	889701	896034	905228	912023	905013	921145	904857	1	Yes

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

RT Summary

File ID:

Internal Standard Name	ec00847.d	ec00848.d	ec00849.d	ec00850.d	ec00851.d	ec00852.d	Avg. RT
Bromochloromethane	5.467	5.467	5.467	5.467	5.467	5.474	5.468
1,4-Difluorobenzene	6.291	6.298	6.298	6.298	6.298	6.298	6.297
Chlorobenzene-d5	8.497	8.497	8.497	8.497	8.497	8.497	8.497

Comments:_____

_____

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Report generated on 03/31/2017 at 08:51

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00860.d LCSD File ID: ec00861.d

Batch: E1708930AA LCS Injected: 03/31/2017 LCSD Injected: 03/31/2017

Method: EPA TO-15 LCS Client ID: LCSE48 LCSD Client ID: LCSDE48

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	10.18	10.32	102	103	66-127	1	25	YES
Dichlorodifluoromethane	10.00	10.82	10.69	108	107	74-133	1	25	YES
Chlorodifluoromethane	10.00	11.28	11.13	113	111	70-138	1	25	YES
Freon 114	10.00	10.86	10.76	109	108	66-126	1	25	YES
Chloromethane	10.00	10.57	10.07	106	101	65-140	5	25	YES
Vinyl Chloride	10.00	11.01	10.90	110	109	75-130	1	25	YES
1,3-Butadiene	10.00	10.40	10.21	104	102	72-122	2	25	YES
Bromomethane	10.00	11.03	10.89	110	109	71-133	1	25	YES
Chloroethane	10.00	11.04	10.82	110	108	76-129	2	25	YES
Bromoethene	10.00	11.00	10.97	110	110	77-123	0	25	YES
Dichlorofluoromethane	10.00	11.16	11.02	112	110	75-137	1	25	YES
Trichlorofluoromethane	10.00	10.73	10.55	107	105	73-132	2	25	YES
Pentane	10.00	10.42	10.10	104	101	69-125	3	25	YES
Ethanol	10.00	13.19	13.00	132	130	38-150	1	25	YES
Acrolein	10.00	11.42	11.62	114	116	54-132	2	25	YES
1,1-Dichloroethene	10.00	10.91	10.82	109	108	70-129	1	25	YES
Freon 113	10.00	10.47	10.26	105	103	66-119	2	25	YES
Acetone	10.00	10.98	10.59	110	106	71-136	4	25	YES
Methyl Iodide	10.00	10.30	10.25	103	103	46-114	0	25	YES
Carbon Disulfide	10.00	10.52	10.42	105	104	72-128	1	25	YES
Isopropanol	10.00	13.77	13.45	138	135	41-157	2	25	YES
Acetonitrile	10.00	11.21	11.35	112	113	56-136	1	25	YES
3-Chloropropene	10.00	12.94	12.67	129	127	67-141	2	25	YES
Methylene Chloride	10.00	12.00	11.80	120	118	69-128	2	25	YES
tert-Butyl Alcohol	10.00	12.37	12.18	124	122	63-139	2	25	YES
Acrylonitrile	10.00	11.21	11.05	112	111	68-135	1	25	YES
trans-1,2-Dichloroethene	10.00	10.75	10.59	108	106	77-128	2	25	YES
Methyl t-Butyl Ether	10.00	10.54	10.38	105	104	71-119	2	25	YES
Hexane	10.00	10.73	10.48	107	105	70-118	2	25	YES
1,1-Dichloroethane	10.00	10.64	10.54	106	105	74-129	1	25	YES
Vinyl Acetate	10.00	13.68	13.41	137*	134*	47-131	2	25	NO
Di-Isopropyl Ether	10.00	10.77	10.54	108	105	71-122	2	25	YES
Ethyl Tert-Butyl Ether	10.00	10.64	10.42	106	104	68-121	2	25	YES
cis-1,2-Dichloroethene	10.00	10.87	10.69	109	107	76-126	2	25	YES
2-Butanone	10.00	11.25	11.12	113	111	75-126	1	25	YES
Ethyl Acetate	10.00	9.74	10.14	97	101	62-160	4	25	YES

COMMENTS:
Applies to Sample(s): 8896789-8896791

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00860.d LCSD File ID: ec00861.d

Batch: E1708930AA LCS Injected: 03/31/2017 LCSD Injected: 03/31/2017

Method: EPA TO-15 LCS Client ID: LCSE48 LCSD Client ID: LCSDE48

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	11.08	11.00	111	110	75-125	1	25	YES
Tetrahydrofuran	10.00	10.86	10.99	109	110	67-127	1	25	YES
Chloroform	10.00	10.62	10.55	106	105	75-127	1	25	YES
1,1,1-Trichloroethane	10.00	10.68	10.54	107	105	74-122	1	25	YES
Cyclohexane	10.00	10.69	10.56	107	106	70-118	1	25	YES
Carbon Tetrachloride	10.00	10.63	10.59	106	106	72-127	0	25	YES
Benzene	10.00	10.34	10.55	103	105	76-123	2	25	YES
1,2-Dichloroethane	10.00	10.56	10.77	106	108	72-138	2	25	YES
Isooctane	10.00	10.30	10.44	103	104	74-127	1	25	YES
Tert-Amyl Methyl Ether	10.00	10.37	10.43	104	104	78-124	1	25	YES
Heptane	10.00	10.18	10.33	102	103	74-122	1	25	YES
Trichloroethene	10.00	10.55	10.72	105	107	76-118	2	25	YES
Ethyl Acrylate	10.00	10.78	11.15	108	112	71-126	3	25	YES
1,2-Dichloropropane	10.00	10.17	10.29	102	103	75-127	1	25	YES
Dibromomethane	10.00	10.58	10.69	106	107	76-124	1	25	YES
1,4-Dioxane	10.00	10.84	11.23	108	112	76-124	4	25	YES
Methyl Methacrylate	10.00	10.43	10.61	104	106	73-117	2	25	YES
Bromodichloromethane	10.00	10.40	10.63	104	106	75-134	2	25	YES
cis-1,3-Dichloropropene	10.00	10.40	10.60	104	106	51-120	2	25	YES
4-Methyl-2-Pentanone	10.00	10.62	10.92	106	109	68-133	3	25	YES
Toluene	10.00	10.38	10.41	104	104	78-119	0	25	YES
Octane	10.00	10.41	10.49	104	105	73-122	1	25	YES
trans-1,3-Dichloropropene	10.00	10.56	10.65	106	106	72-119	1	25	YES
Ethyl Methacrylate	10.00	10.88	11.11	109	111	71-123	2	25	YES
1,1,2-Trichloroethane	10.00	10.65	10.91	107	109	76-127	2	25	YES
Tetrachloroethene	10.00	10.31	10.38	103	104	68-123	1	25	YES
2-Hexanone	10.00	11.42	11.26	114	113	63-144	1	25	YES
Dibromochloromethane	10.00	10.82	10.93	108	109	74-131	1	25	YES
1,2-Dibromoethane	10.00	10.86	10.87	109	109	73-121	0	25	YES
Chlorobenzene	10.00	10.52	10.47	105	105	76-117	0	25	YES
1,1,1,2-Tetrachloroethane	10.00	10.86	10.78	109	108	73-124	1	25	YES
Ethylbenzene	10.00	10.65	10.67	106	107	77-117	0	25	YES
m/p-Xylene	10.00	10.56	10.67	106	107	78-119	1	25	YES
o-Xylene	10.00	10.76	10.70	108	107	78-121	1	25	YES
Xylene (total)	20.00	21.32	21.37	107	107	79-120	0	25	YES
Styrene	10.00	11.47	11.43	115	114	76-127	0	25	YES

COMMENTS:
Applies to Sample(s): 8896789-8896791

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00860.d LCSD File ID: ec00861.d

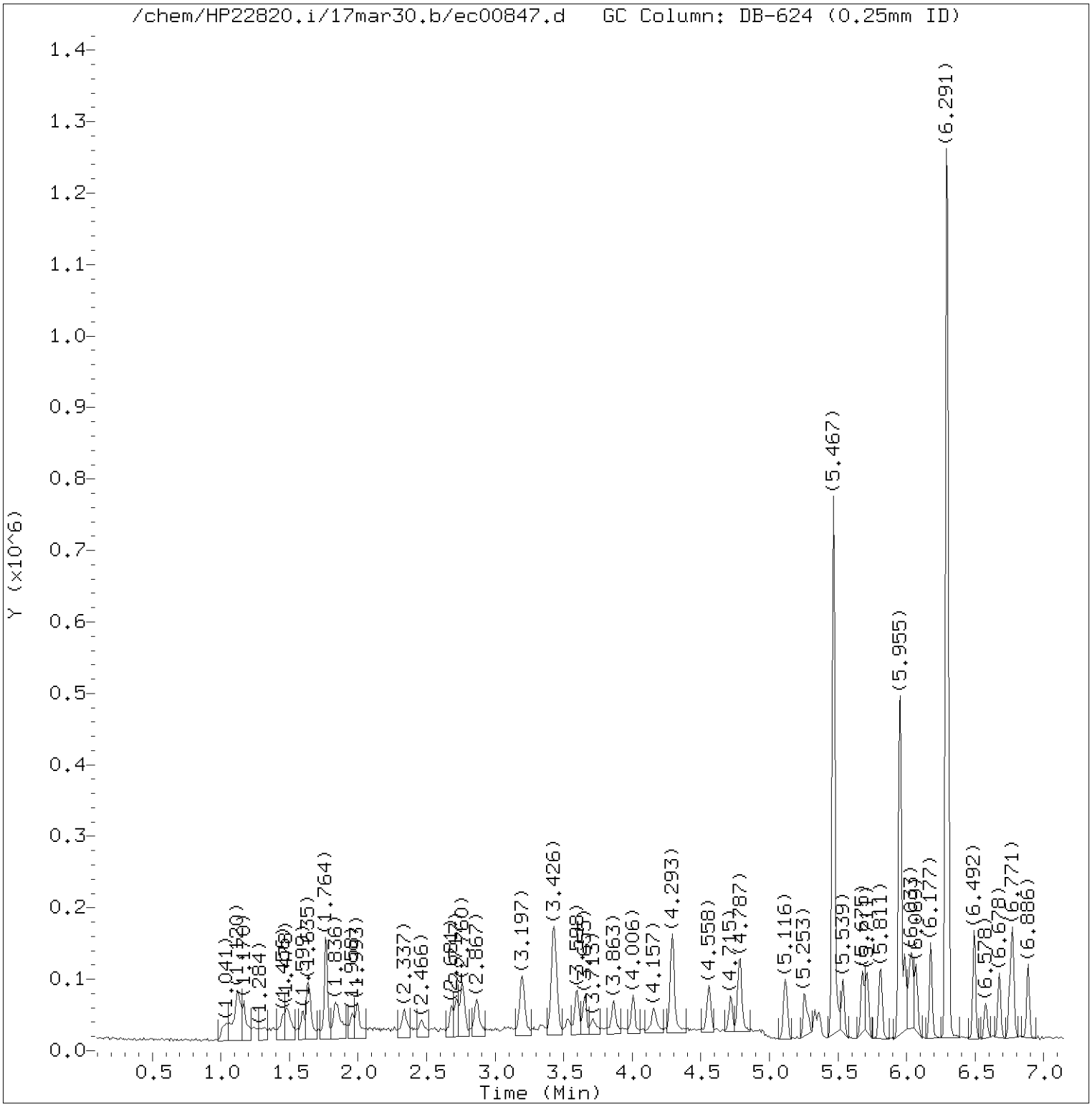
Batch: E1708930AA LCS Injected: 03/31/2017 LCSD Injected: 03/31/2017

Method: EPA TO-15 LCS Client ID: LCSE48 LCSD Client ID: LCSDE48

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	11.15	11.31	111	113	69-128	1	25	YES
Cumene	10.00	11.16	11.14	112	111	74-121	0	25	YES
Bromobenzene	10.00	10.72	10.98	107	110	74-118	2	25	YES
1,1,2,2-Tetrachloroethane	10.00	11.41	11.34	114	113	72-133	1	25	YES
1,2,3-Trichloropropane	10.00	11.23	11.20	112	112	71-127	0	25	YES
n-Propylbenzene	10.00	10.60	10.60	106	106	73-120	0	25	YES
2-Chlorotoluene	10.00	11.14	11.04	111	110	74-123	1	25	YES
4-Ethyltoluene	10.00	11.29	11.34	113	113	73-130	0	25	YES
1,3,5-Trimethylbenzene	10.00	11.33	11.30	113	113	72-130	0	25	YES
Alpha Methyl Styrene	10.00	11.94	11.94	119*	119*	67-118	0	25	NO
tert-Butylbenzene	10.00	11.37	11.52	114	115	68-124	1	25	YES
1,2,4-Trimethylbenzene	10.00	11.60	11.79	116	118	70-138	2	25	YES
sec-Butylbenzene	10.00	11.56	11.73	116	117	73-125	1	25	YES
1,3-Dichlorobenzene	10.00	11.71	11.87	117	119	75-129	1	25	YES
1,4-Dichlorobenzene	10.00	11.61	11.72	116	117	74-123	1	25	YES
p-Isopropyltoluene	10.00	11.82	11.94	118	119	70-131	1	25	YES
Benzyl Chloride	10.00	13.10	13.02	131	130	60-136	1	25	YES
1,2-Dichlorobenzene	10.00	12.07	11.94	121	119	71-126	1	25	YES
n-Butylbenzene	10.00	12.07	12.11	121	121	70-129	0	25	YES
Hexachloroethane	10.00	12.95	13.19	130	132	59-135	2	25	YES
1,2-Dibromo-3-chloropropane	10.00	14.87	14.78	149*	148*	56-129	1	25	NO
1,2,4-Trichlorobenzene	10.00	14.81	15.08	148*	151*	48-135	2	25	NO
Hexachlorobutadiene	10.00	13.82	14.01	138*	140*	55-127	1	25	NO
Naphthalene	10.00	16.04	16.26	160*	163*	39-152	1	25	NO

COMMENTS:
Applies to Sample(s): 8896789-8896791



Total Ion Chromatogram (TIC)

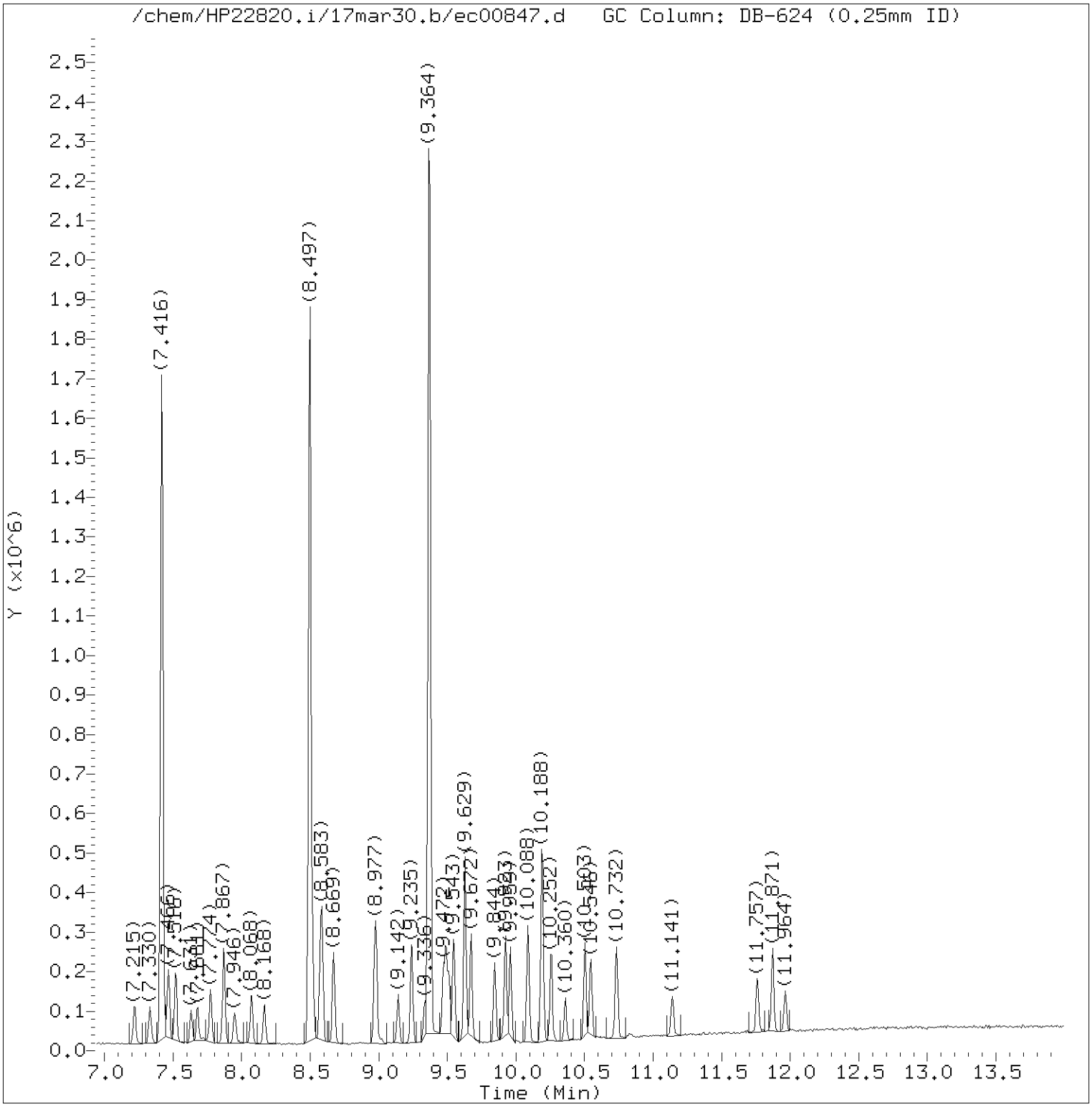
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.592	41	15784	1.000
2) Dichlorodifluoromethane	(1)	1.635	85	56196	1.000
3) Chlorodifluoromethane	(1)	1.650	51	31800	1.000
4) Freon 114	(1)	1.764	85	60143	1.000
5) Chloromethane	(1)	1.829	50	19025	1.000
6) Vinyl Chloride	(1)	1.958	62	20643	1.000
7) 1,3-Butadiene	(1)	1.993	54	16475	1.000
8) Bromomethane	(1)	2.337	94	22086	1.000
9) Chloroethane	(1)	2.466	64	12717	1.000
10) Bromoethene	(1)	2.681	106	24206	1.000
11) Dichlorofluoromethane	(1)	2.717	67	47172	1.000
12) Trichlorofluoromethane	(1)	2.760	101	64094	1.000
13) Pentane	(1)	2.867	43	33527	1.000
14) Ethanol	(1)	3.075	45	5893	1.000
15) Freon123a	(1)	3.197	67	49941	1.000
16) Acrolein	(1)	3.340	56	8217	1.000
17) 1,1-Dichloroethene	(1)	3.419	61	33198	1.000
18) Freon 113	(1)	3.433	103	40826	1.000
19) Acetone	(1)	3.526	43	25177	1.000
20) Methyl Iodide	(1)	3.598	142	68732	1.000
21) Carbon Disulfide	(1)	3.655	76	63642	1.000
22) Isopropanol	(1)	3.713	45	26324	1.130
24) 3-Chloropropene	(1)	3.863	76	11368	1.120
23) Acetonitrile	(1)	3.870	40	15181	1.000
25) Methylene Chloride	(1)	4.006	84	20828	1.120
26) tert-Butyl Alcohol	(1)	4.157	59	44398	1.120
29) Methyl t-Butyl Ether	(1)	4.293	73	71101	1.000
28) trans-1,2-Dichloroethene	(1)	4.293	61	30019	1.000
27) Acrylonitrile	(1)	4.300	53	17204	1.000
30) Hexane	(1)	4.558	57	37674	1.000
31) 1,1-Dichloroethane	(1)	4.715	63	41404	1.000
33) Di-Isopropyl Ether	(1)	4.780	45	69867	1.000
32) Vinyl Acetate	(1)	4.787	86	5251	1.130
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	70987	1.000
35) cis-1,2-Dichloroethene	(1)	5.253	61	27622	1.000
37) 2-Butanone	(1)	5.288	72	11380	1.000
38) Ethyl Acetate	(1)	5.331	70	7643	1.000
39) Methyl Acrylate	(1)	5.360	55	35326	1.000

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	249117	10.000
41) Tetrahydrofuran	(1)	5.503	42	20519	1.000
42) Chloroform	(1)	5.539	83	51294	1.000
43) 1,1,1-Trichloroethane	(1)	5.675	97	54285	1.000
44) Cyclohexane	(1)	5.711	56	37592	1.000
45) Carbon Tetrachloride	(1)	5.811	117	57681	1.000
46) Benzene	(2)	5.983	78	84008	1.000
47) 1,2-Dichloroethane	(2)	6.012	62	30378	1.000
48) Isooctane	(2)	6.033	57	115498	1.000
49) Tert-Amyl Methyl Ether	(2)	6.069	73	73582	1.000
50) Heptane	(2)	6.177	43	39873	1.000
51)*1,4-Difluorobenzene	(2)	6.291	114	933809	10.000
52) Trichloroethene	(2)	6.492	130	42035	1.000
53) Ethyl Acrylate	(2)	6.578	55	47022	1.000
36) 1,2-Dichloroethene (total)	(1)		61	57641	2.000
54) 1,2-Dichloropropane	(2)	6.678	63	29079	1.000
57) Methyl Methacrylate	(2)	6.750	69	28968	1.000
55) Dibromomethane	(2)	6.771	174	39521	1.000
56) 1,4-Dioxane	(2)	6.778	88	19671	1.000
58) Bromodichloromethane	(2)	6.886	83	52463	1.000
59) cis-1,3-Dichloropropene	(2)	7.222	75	48116	1.000
60) 4-Methyl-2-Pentanone	(2)	7.330	43	48346	1.000
61) Toluene	(3)	7.466	91	115158	1.000
62) Octane	(3)	7.516	43	56673	1.000
63) trans-1,3-Dichloropropene	(3)	7.631	75	40179	1.000
65) Ethyl Methacrylate	(3)	7.681	69	44680	1.000
66) 1,1,2-Trichloroethane	(3)	7.774	97	36020	1.000
67) Tetrachloroethene	(3)	7.867	166	64280	1.000
68) 2-Hexanone	(3)	7.946	43	46032	1.000
69) Dibromochloromethane	(3)	8.068	127	42915	1.000
70) 1,2-Dibromoethane	(3)	8.168	107	53916	1.000
71)*Chlorobenzene-d5	(3)	8.497	117	889701	10.000
72) Chlorobenzene	(3)	8.519	112	95484	1.000
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	43989	1.000
74) Ethylbenzene	(3)	8.583	91	140383	1.000
75) m/p-Xylene	(3)	8.669	91	112804	1.000
76) o-Xylene	(3)	8.970	91	108678	1.000
78) Styrene	(3)	8.985	104	76556	1.000

* = Compound is an internal standard.

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	49928	1.000
80) Cumene	(3)	9.235	105	148776	1.000
82) 1,1,2,2-Tetrachloroethane	(3)	9.472	83	67557	1.000
81) Bromobenzene	(3)	9.493	156	55306	1.000
83) 1,2,3-Trichloropropane	(3)	9.515	110	23849	1.000
84) n-Propylbenzene	(3)	9.550	120	45315	1.000
86) 4-Ethyltoluene	(3)	9.629	105	145102M	1.000
85) 2-Chlorotoluene	(3)	9.629	126	40099	1.000
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	120927M	1.000
88) Alpha Methyl Styrene	(3)	9.844	118	54700	1.000
89) tert-Butylbenzene	(3)	9.923	119	115882M	1.000
90) 1,2,4-Trimethylbenzene	(3)	9.959	105	113793	1.000
91) sec-Butylbenzene	(3)	10.088	105	163124	1.000
92) 1,3-Dichlorobenzene	(3)	10.188	146	87564	1.000
94) p-Isopropyltoluene	(3)	10.188	119	138263	1.000
93) 1,4-Dichlorobenzene	(3)	10.260	146	87873	1.000
95) Benzyl Chloride	(3)	10.360	91	69254	1.000
97) n-Butylbenzene	(3)	10.503	91	115136	1.000
96) 1,2-Dichlorobenzene	(3)	10.546	146	77542	1.000
98) Hexachloroethane	(3)	10.732	117	28147	1.000
99) 1,2-Dibromo-3-chloropropane	(3)	11.141	157	25178	1.000
100) 1,2,4-Trichlorobenzene	(3)	11.764	180	42899	1.000
101) Hexachlorobutadiene	(3)	11.871	225	37459	1.000
102) Naphthalene	(3)	11.964	128	74350	1.000
64) 1,3-Dichloropropene (total)	(3)		75	88295	2.000
77) Xylene (total)	(3)		91	221482	2.000

M = Compound was manually integrated.

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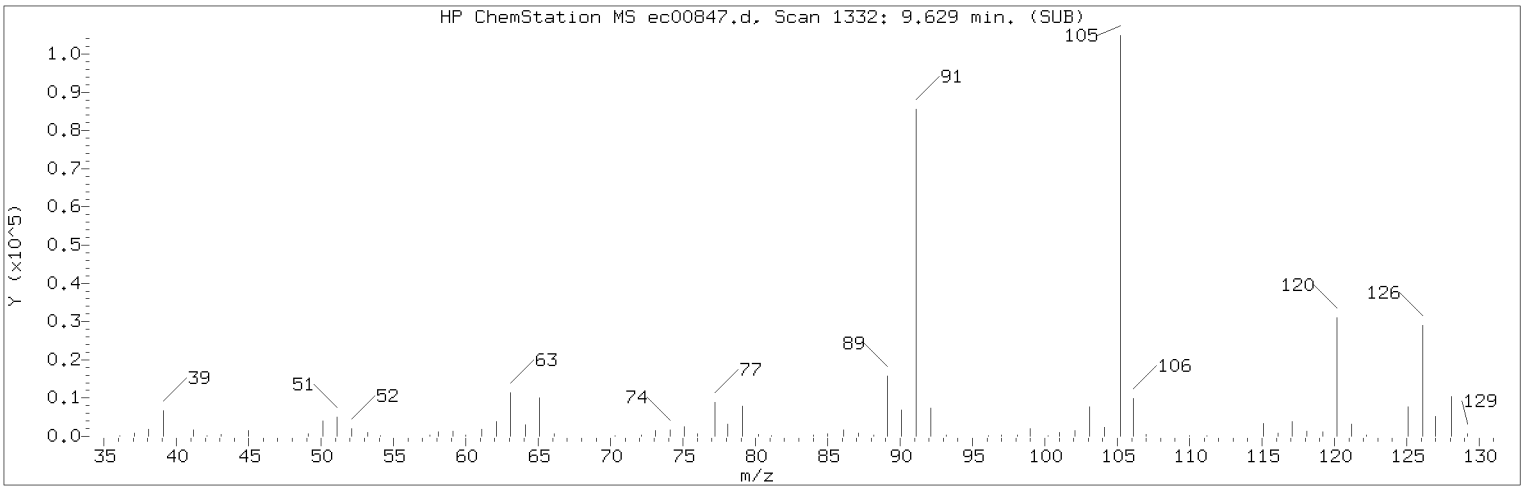
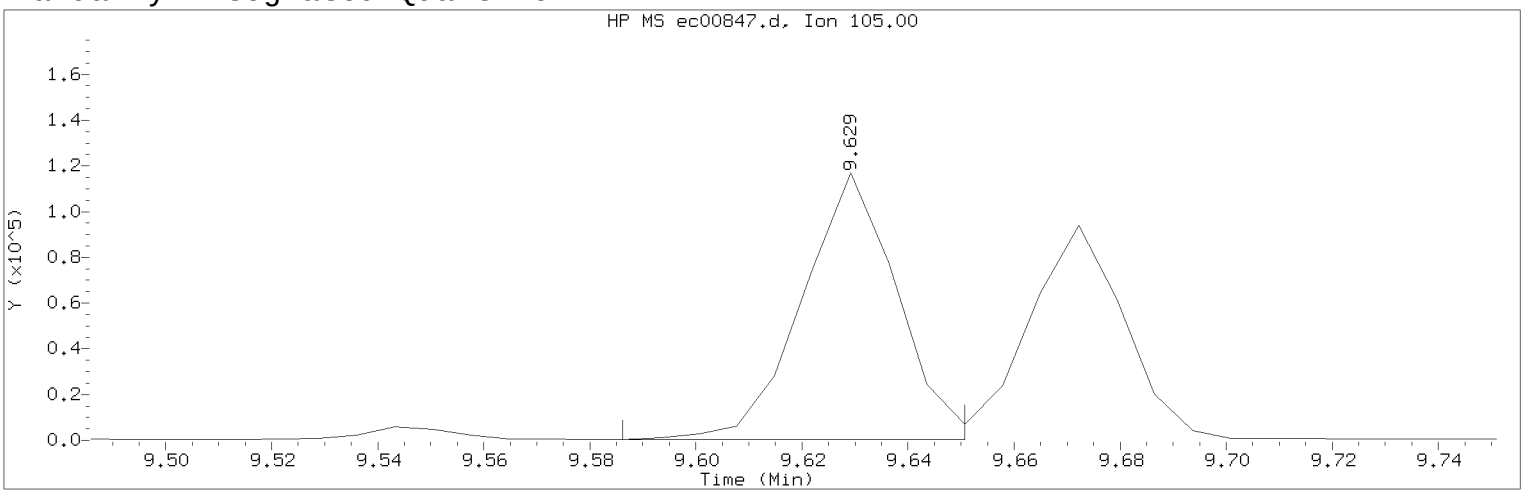
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

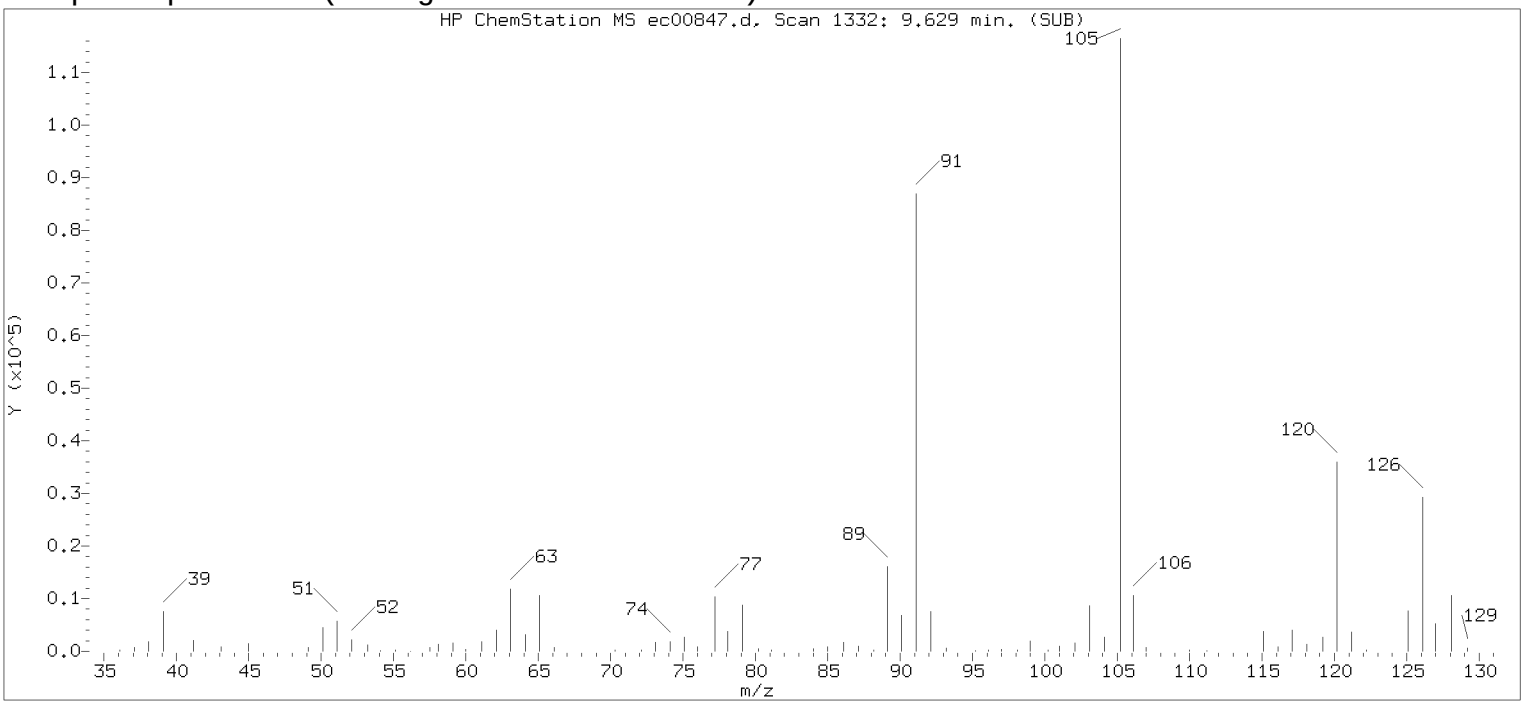
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 145102M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1325 Integration stop scan: 1334
Y at integration start : 276 Y at integration end: 276

Reason for manual integration: improper integration

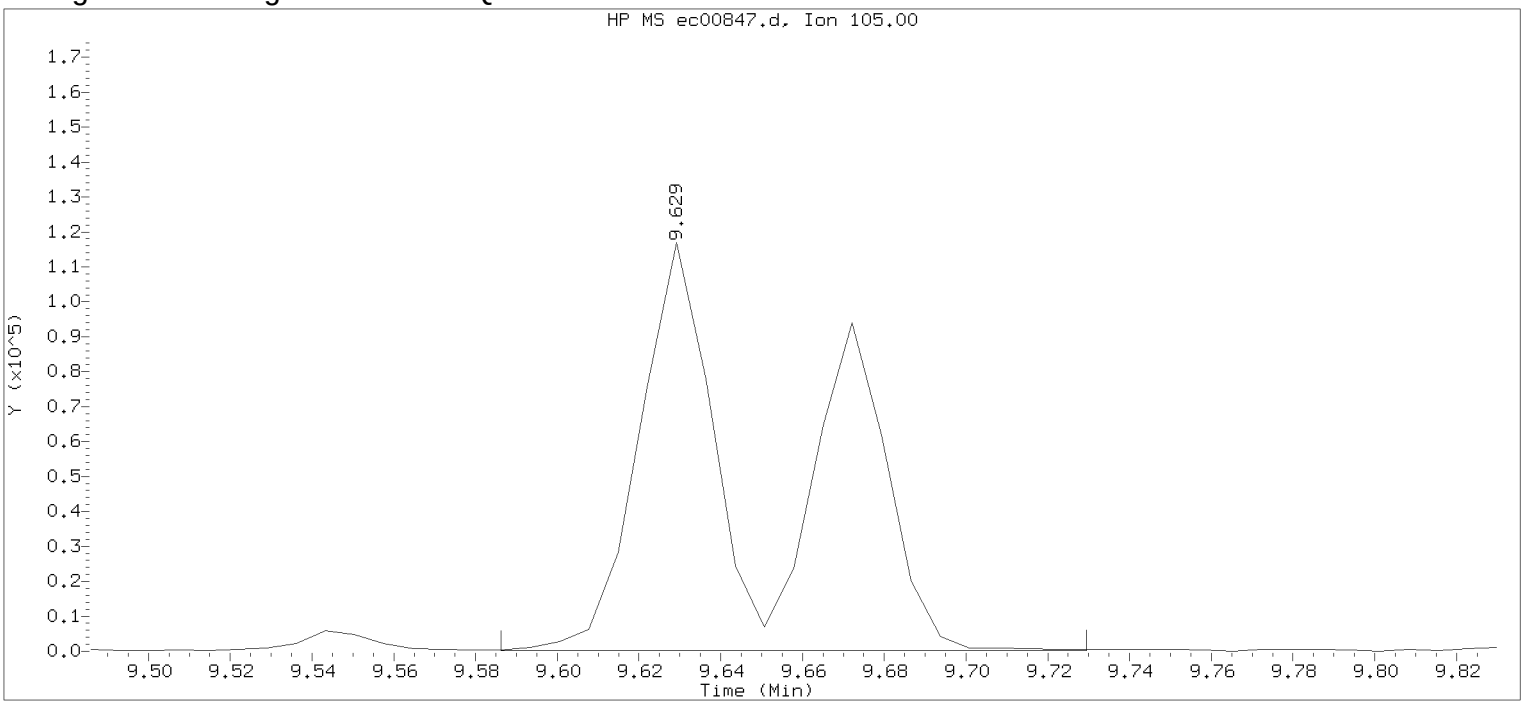
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

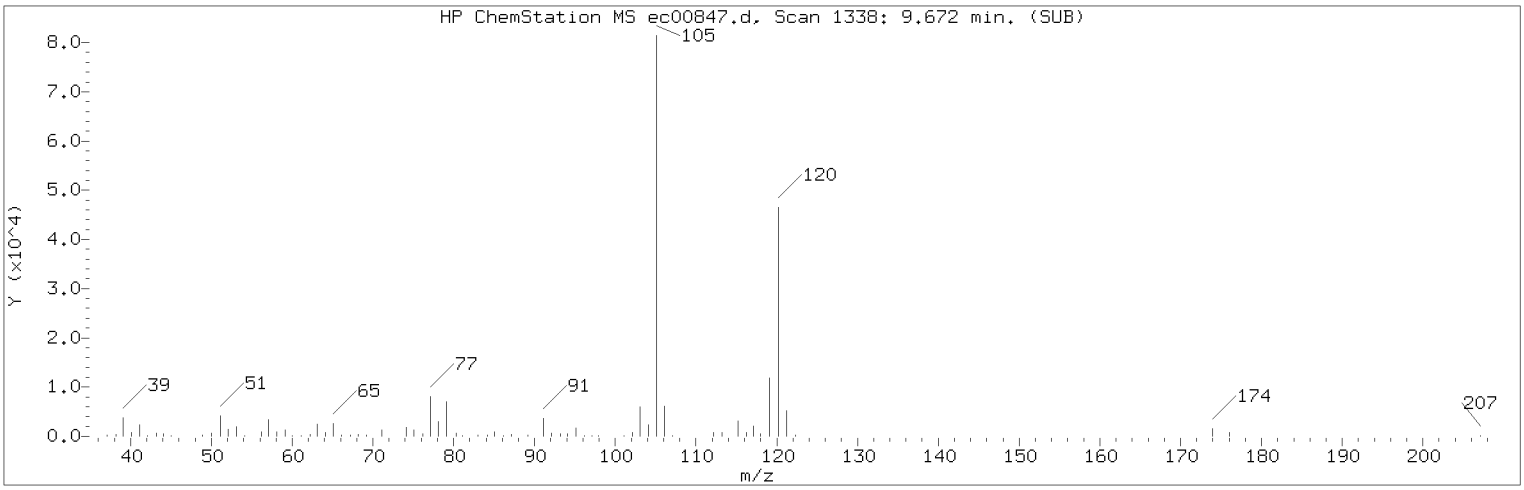
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:08 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

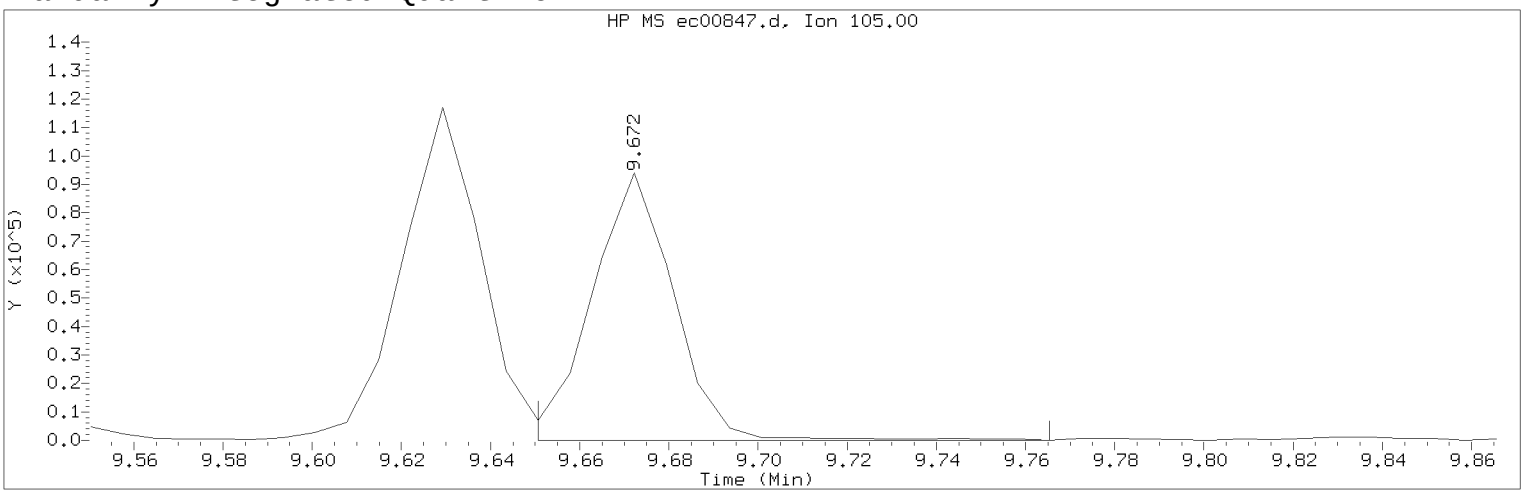
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 261751
Concentration (ppb(v)) : 1.3291
Integration start scan : 1325 Integration stop scan: 1345
Y at integration start : 161 Y at integration end: 161

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user id: 71 and 07821

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

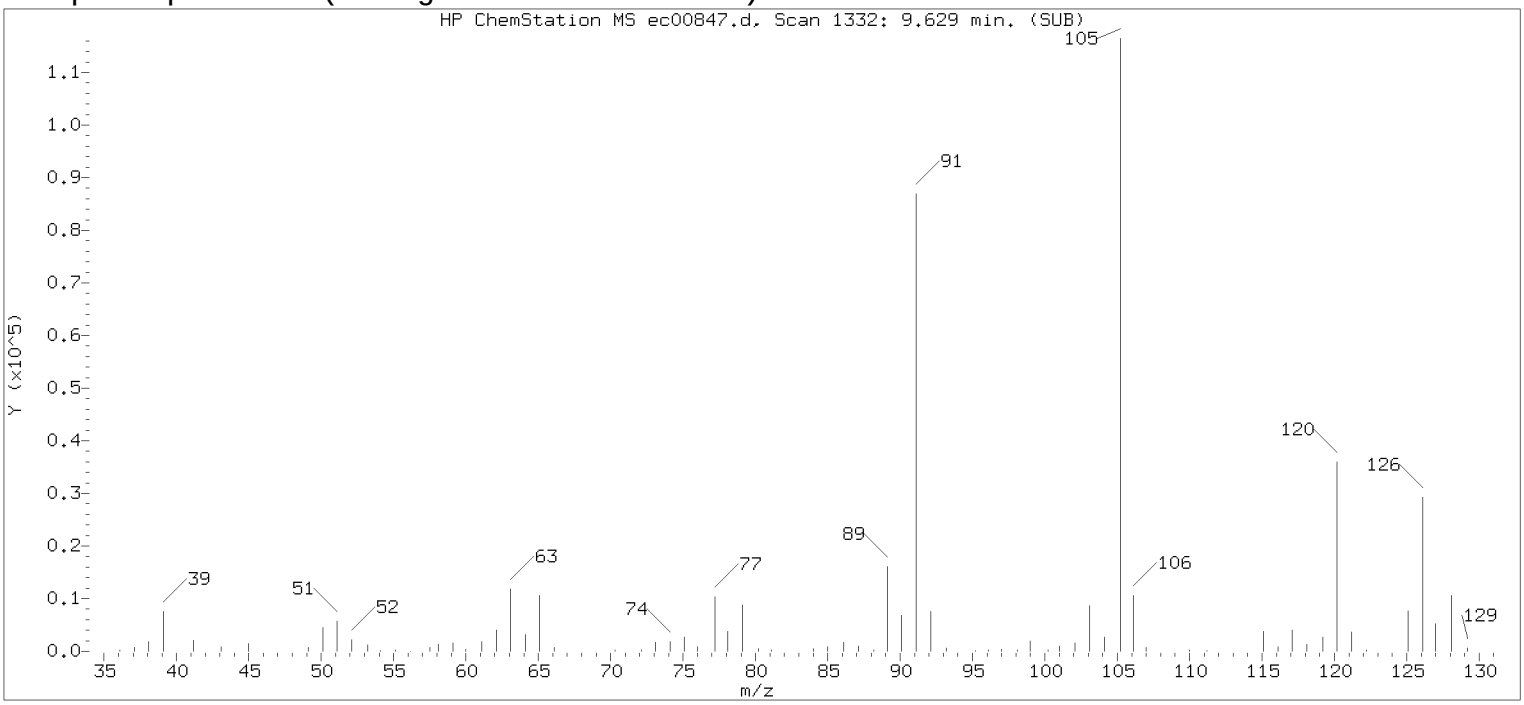
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 120927M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1334 Integration stop scan: 1350
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

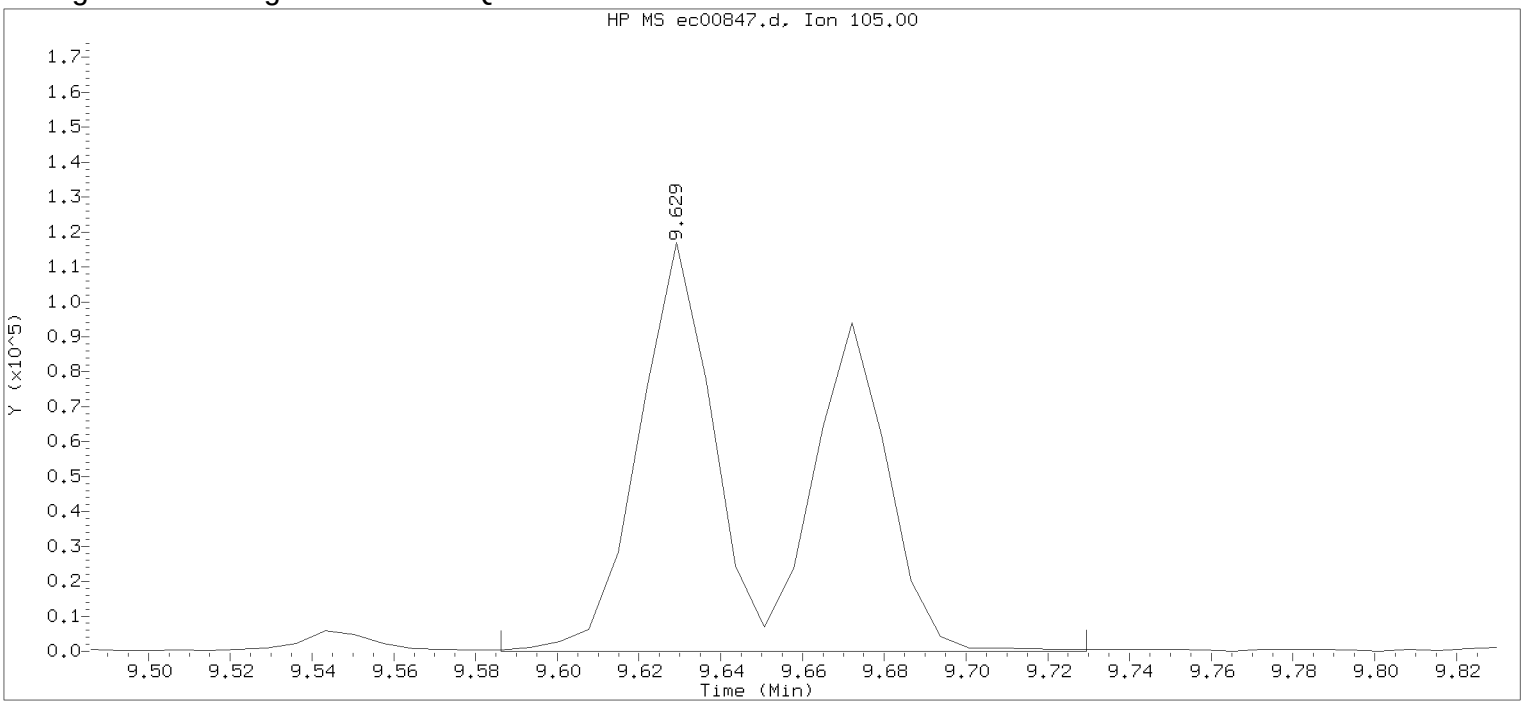
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

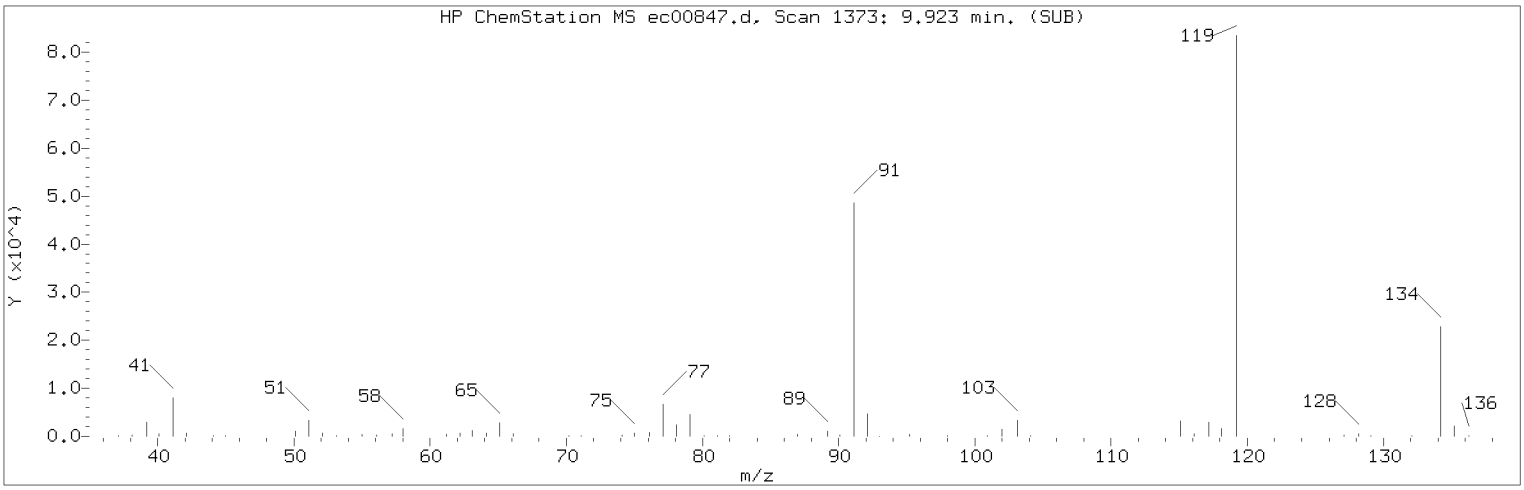
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:08 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

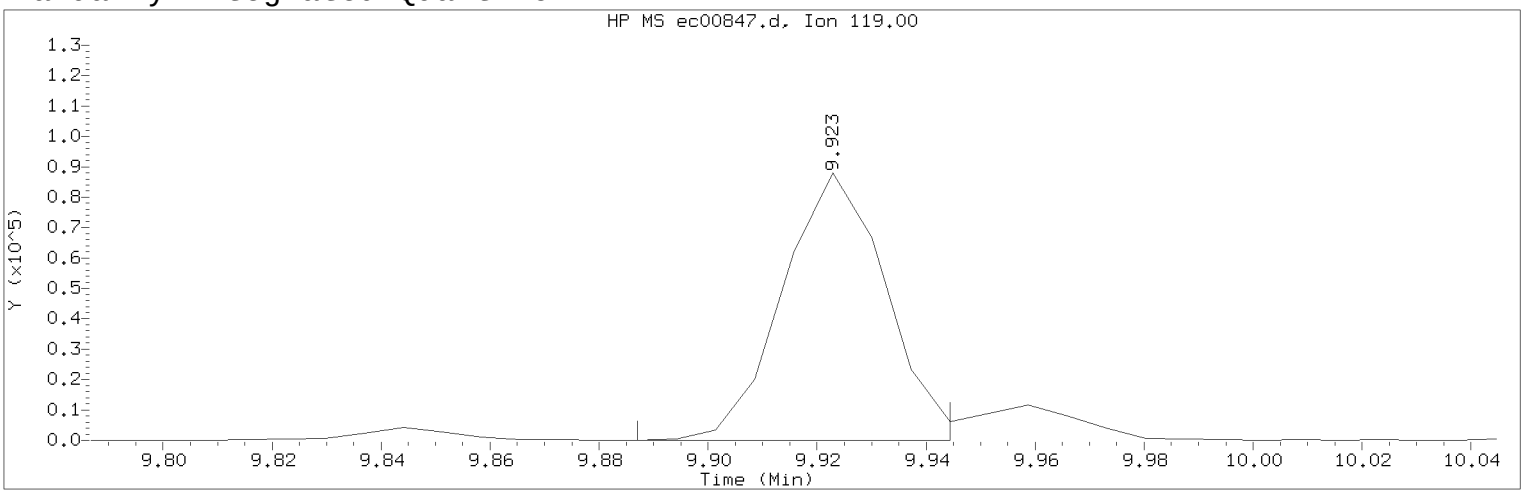
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 263135
Concentration (ppb(v)) : 1.6109
Integration start scan : 1325 Integration stop scan: 1345
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user id: 71 and 07823

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD001 Lab Sample ID: VSTD001

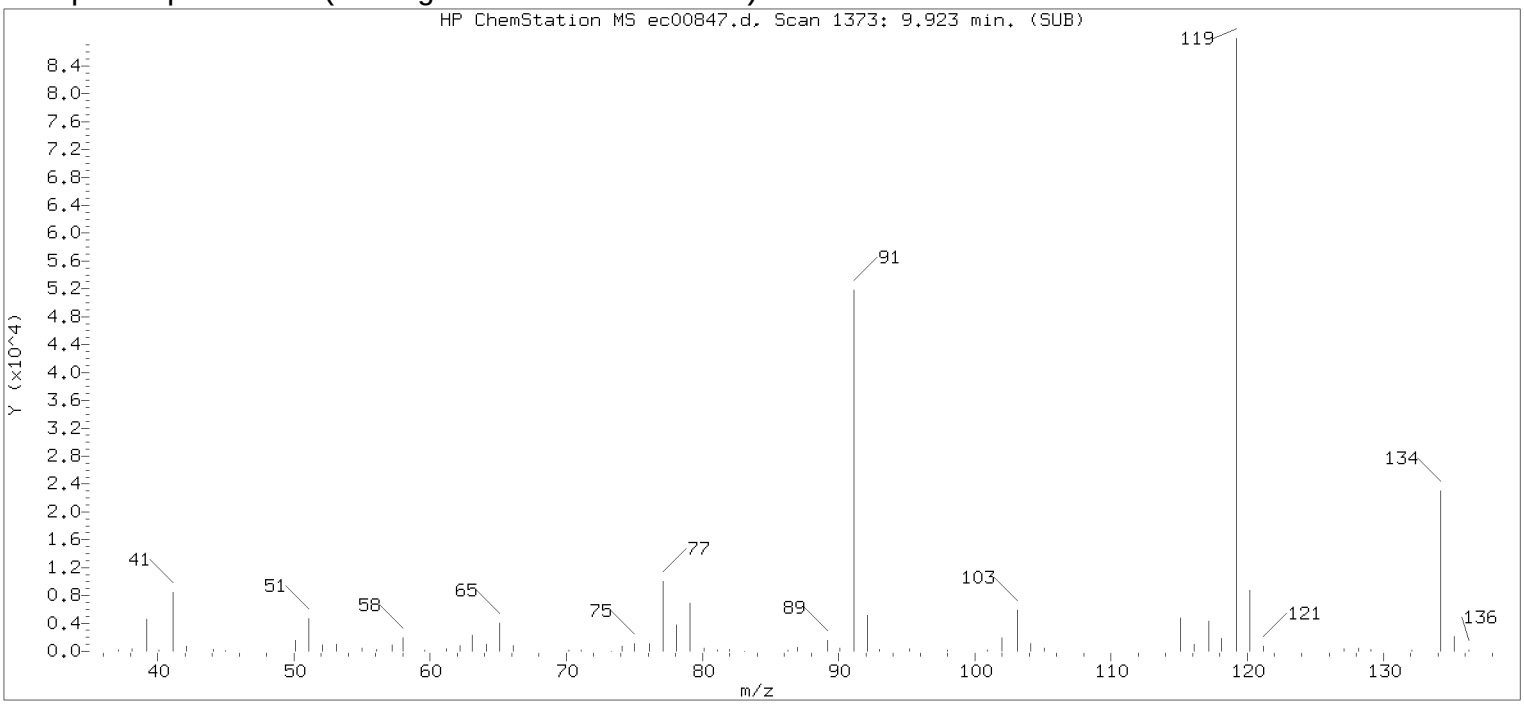
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 115882M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1367 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

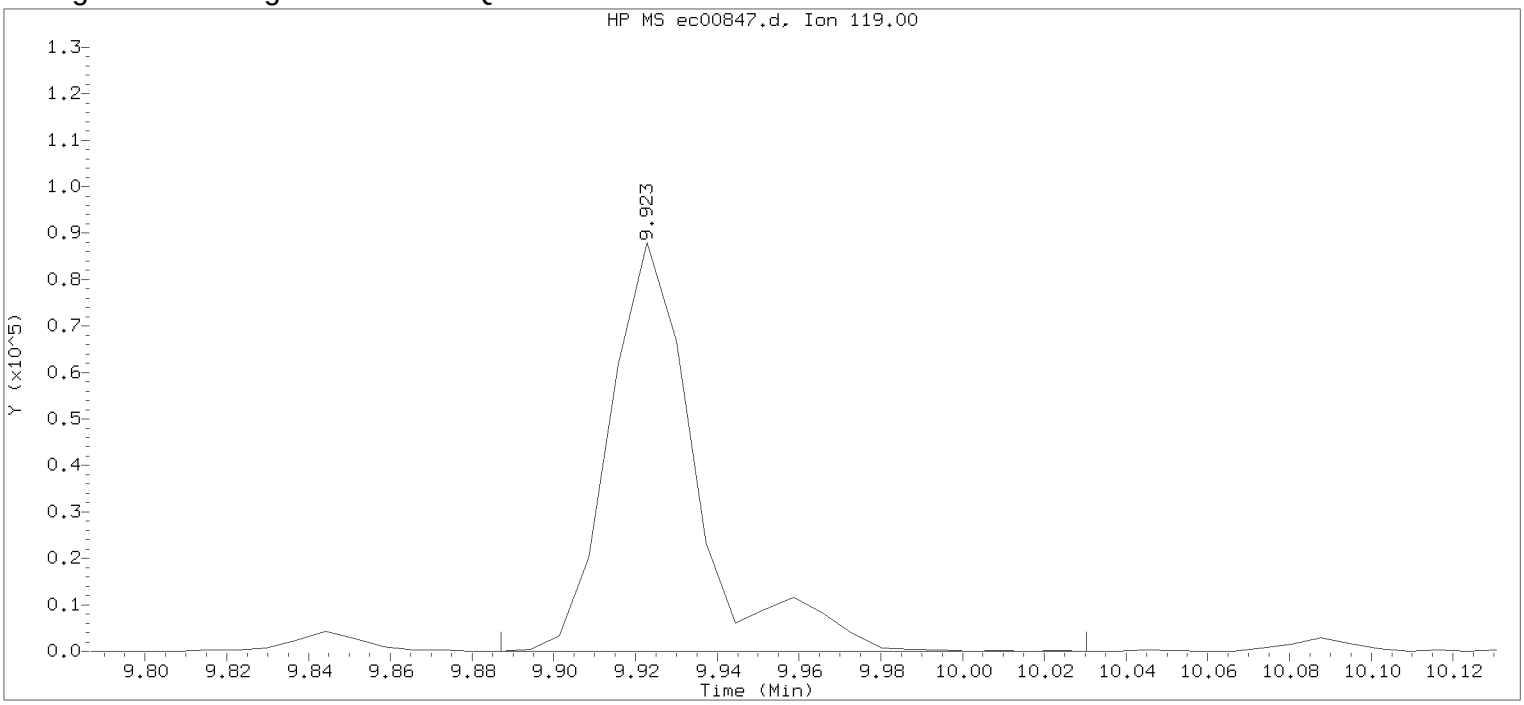
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00847.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 19:49 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:08 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 130583
Concentration (ppb(v)) : 0.7955
Integration start scan : 1367 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

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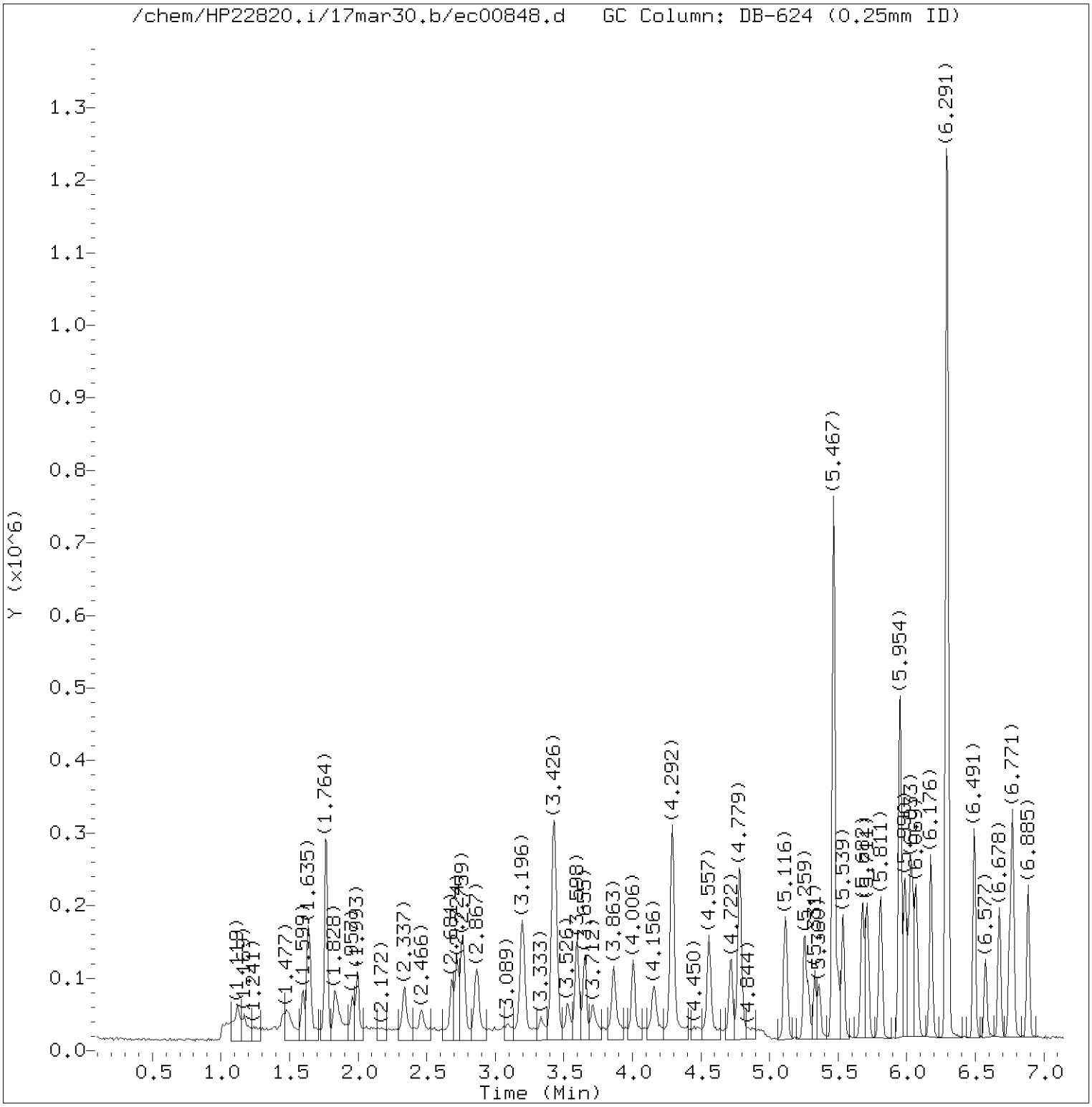
Target 3.5 esignature user id: 07825



Total Ion Chromatogram (TIC)

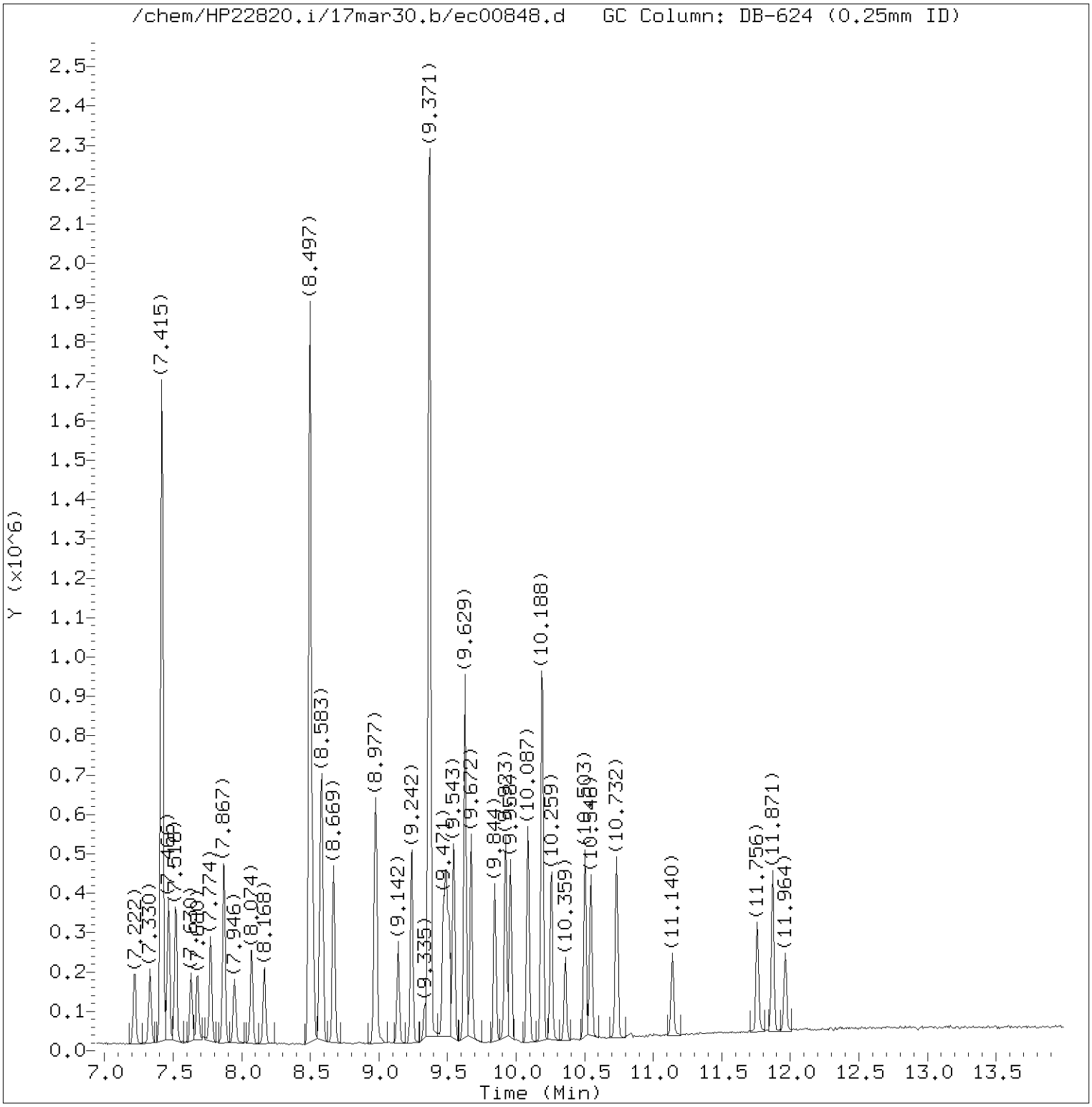
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.599	41	31088	1.991
2) Dichlorodifluoromethane	(1)	1.635	85	120148	2.073
3) Chlorodifluoromethane	(1)	1.649	51	62945	1.996
4) Freon 114	(1)	1.764	85	126027	2.053
5) Chloromethane	(1)	1.828	50	34224	1.900
6) Vinyl Chloride	(1)	1.957	62	46116	2.117
7) 1,3-Butadiene	(1)	1.993	54	34688	2.057
8) Bromomethane	(1)	2.344	94	46045	2.048
9) Chloroethane	(1)	2.459	64	24622	1.974
10) Bromoethene	(1)	2.681	106	49637	2.031
11) Dichlorofluoromethane	(1)	2.724	67	100382	2.068
12) Trichlorofluoromethane	(1)	2.767	101	128296	2.007
13) Pentane	(1)	2.867	43	68143	2.022
14) Ethanol	(1)	3.082	45	11445	1.977
15) Freon123a	(1)	3.196	67	97881	1.986
16) Acrolein	(1)	3.333	56	16745	2.025
17) 1,1-Dichloroethene	(1)	3.418	61	69675	2.054
18) Freon 113	(1)	3.440	103	78045	1.961
19) Acetone	(1)	3.533	43	56990	2.130
20) Methyl Iodide	(1)	3.598	142	153232	2.115
21) Carbon Disulfide	(1)	3.655	76	138425	2.090
22) Isopropanol	(1)	3.712	45	51597	2.244
24) 3-Chloropropene	(1)	3.863	76	23034	2.261
23) Acetonitrile	(1)	3.870	40	26130	1.856
25) Methylene Chloride	(1)	4.006	84	47056	2.383
26) tert-Butyl Alcohol	(1)	4.156	59	88905	2.248
28) trans-1,2-Dichloroethene	(1)	4.285	61	64676	2.080
29) Methyl t-Butyl Ether	(1)	4.292	73	142075	2.005
27) Acrylonitrile	(1)	4.300	53	37101	2.081
30) Hexane	(1)	4.557	57	68412	1.910
31) 1,1-Dichloroethane	(1)	4.722	63	85889	2.043
32) Vinyl Acetate	(1)	4.779	86	13048	2.511
33) Di-Isopropyl Ether	(1)	4.779	45	136510	1.983
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	140174	1.993
35) cis-1,2-Dichloroethene	(1)	5.259	61	62676	2.132
37) 2-Butanone	(1)	5.288	72	24575	2.083
38) Ethyl Acetate	(1)	5.331	70	13577	1.888
39) Methyl Acrylate	(1)	5.360	55	72324	2.029

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	247599	10.000
41) Tetrahydrofuran	(1)	5.503	42	47140	2.144
42) Chloroform	(1)	5.539	83	108516	2.062
43) 1,1,1-Trichloroethane	(1)	5.675	97	109906	2.018
44) Cyclohexane	(1)	5.711	56	76096	2.018
45) Carbon Tetrachloride	(1)	5.811	117	112874	1.984
46) Benzene	(2)	5.990	78	167401	2.007
47) 1,2-Dichloroethane	(2)	6.011	62	61776	2.027
48) Isooctane	(2)	6.033	57	227432	1.995
49) Tert-Amyl Methyl Ether	(2)	6.069	73	151222	2.038
50) Heptane	(2)	6.176	43	78834	1.999
51)*1,4-Difluorobenzene	(2)	6.298	114	923863	10.000
52) Trichloroethene	(2)	6.491	130	84486	2.016
53) Ethyl Acrylate	(2)	6.577	55	92677	1.996
36) 1,2-Dichloroethene (total)	(1)		61	127352	4.213
54) 1,2-Dichloropropane	(2)	6.678	63	58440	2.016
57) Methyl Methacrylate	(2)	6.749	69	53899	1.939
55) Dibromomethane	(2)	6.771	174	84685	2.080
56) 1,4-Dioxane	(2)	6.778	88	38657	1.993
58) Bromodichloromethane	(2)	6.885	83	106099	2.022
59) cis-1,3-Dichloropropene	(2)	7.215	75	91313	1.958
60) 4-Methyl-2-Pentanone	(2)	7.330	43	96474	2.008
61) Toluene	(3)	7.466	91	218635	1.941
62) Octane	(3)	7.516	43	104521	1.912
63) trans-1,3-Dichloropropene	(3)	7.630	75	78142	1.965
65) Ethyl Methacrylate	(3)	7.673	69	82961	1.919
66) 1,1,2-Trichloroethane	(3)	7.774	97	69590	1.958
67) Tetrachloroethene	(3)	7.874	166	125734	1.971
68) 2-Hexanone	(3)	7.946	43	85523	1.919
69) Dibromochloromethane	(3)	8.074	127	84358	1.976
70) 1,2-Dibromoethane	(3)	8.168	107	107322	1.988
71)*Chlorobenzene-d5	(3)	8.497	117	896034	10.000
72) Chlorobenzene	(3)	8.519	112	184592	1.959
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	86539	1.976
74) Ethylbenzene	(3)	8.583	91	277008	1.979
75) m/p-Xylene	(3)	8.669	91	220187	1.969
76) o-Xylene	(3)	8.970	91	208558	1.952
78) Styrene	(3)	8.984	104	153536	1.996

* = Compound is an internal standard.

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	99608	1.990
80) Cumene	(3)	9.242	105	291738	1.973
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	129954	1.954
81) Bromobenzene	(3)	9.493	156	108765	1.976
83) 1,2,3-Trichloropropane	(3)	9.514	110	44730	1.929
84) n-Propylbenzene	(3)	9.550	120	86428	1.945
86) 4-Ethyltoluene	(3)	9.629	105	278542M	1.952
85) 2-Chlorotoluene	(3)	9.629	126	78590	1.973
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	235970M	1.968
88) Alpha Methyl Styrene	(3)	9.844	118	107233	1.973
89) tert-Butylbenzene	(3)	9.923	119	235831M	2.010
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	221490	1.966
91) sec-Butylbenzene	(3)	10.087	105	327586	1.997
94) p-Isopropyltoluene	(3)	10.188	119	271260	1.974
92) 1,3-Dichlorobenzene	(3)	10.195	146	165909	1.939
93) 1,4-Dichlorobenzene	(3)	10.259	146	172430	1.974
95) Benzyl Chloride	(3)	10.359	91	129937	1.929
97) n-Butylbenzene	(3)	10.503	91	215605	1.927
96) 1,2-Dichlorobenzene	(3)	10.546	146	148019	1.946
98) Hexachloroethane	(3)	10.732	117	56637	1.999
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	51805	2.021
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	81530	1.942
101) Hexachlorobutadiene	(3)	11.871	225	75185	1.996
102) Naphthalene	(3)	11.964	128	141761	1.945
64) 1,3-Dichloropropene (total)	(3)		75	169455	3.903
77) Xylene (total)	(3)		91	428745	3.921

M = Compound was manually integrated.

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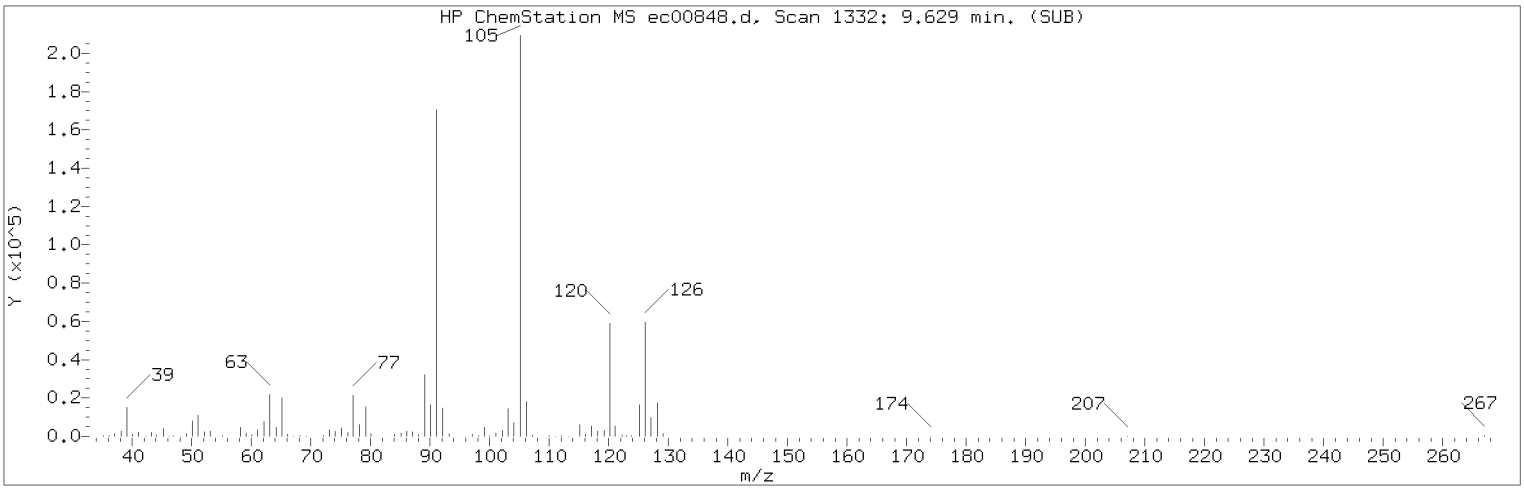
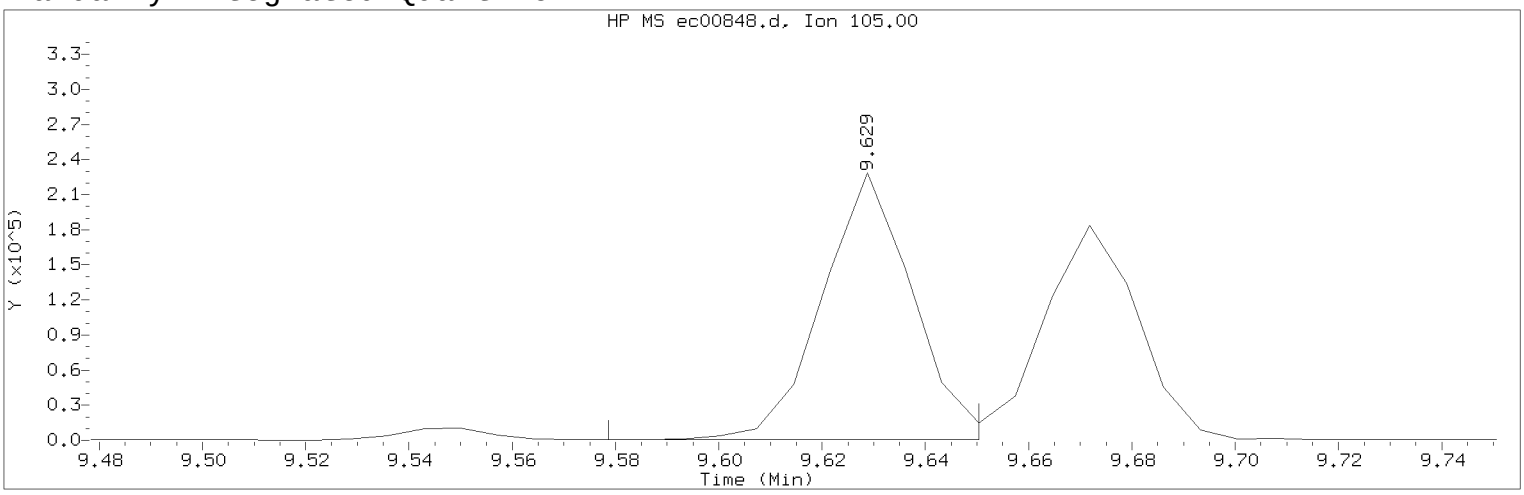
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

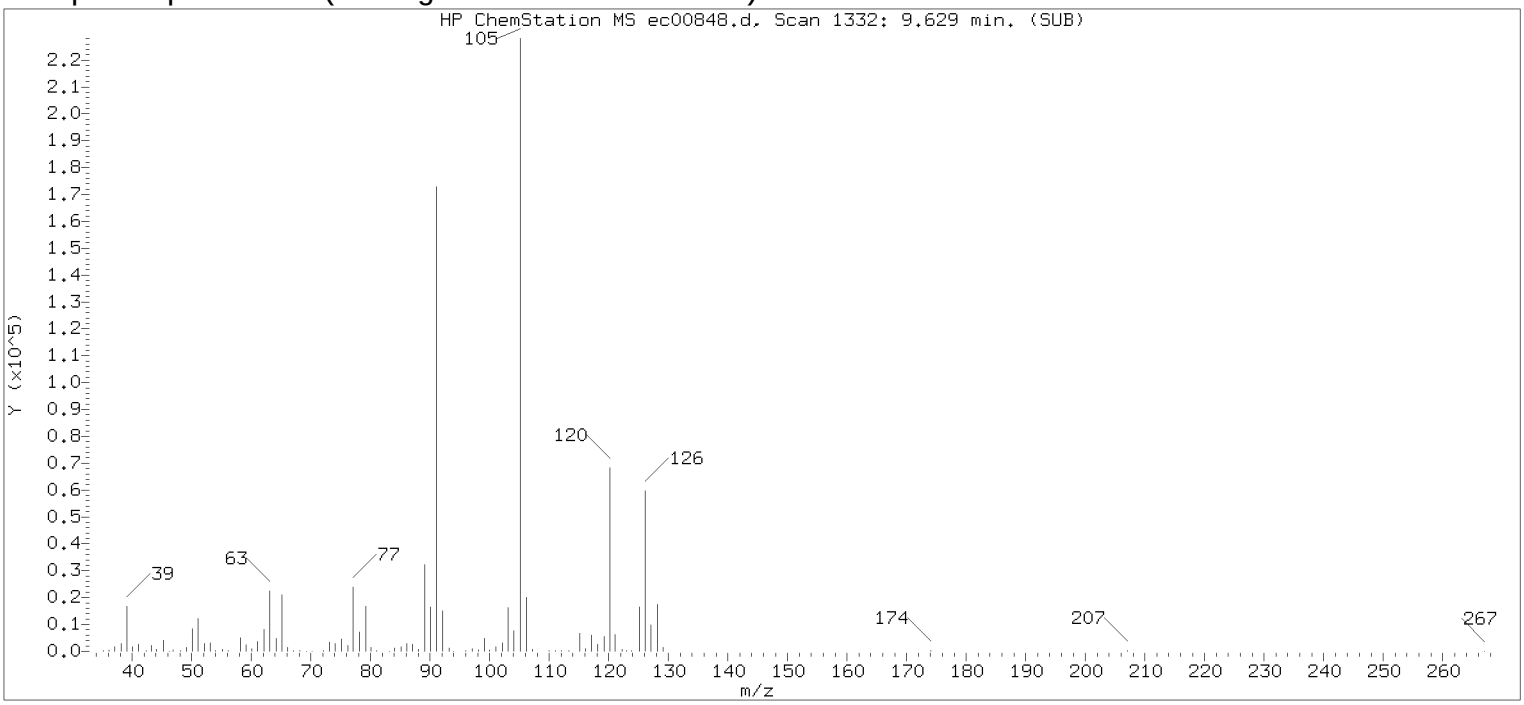
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 278542M
Concentration (ppb(v)) : 1.9519
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 335 Y at integration end: 335

Reason for manual integration: improper integration

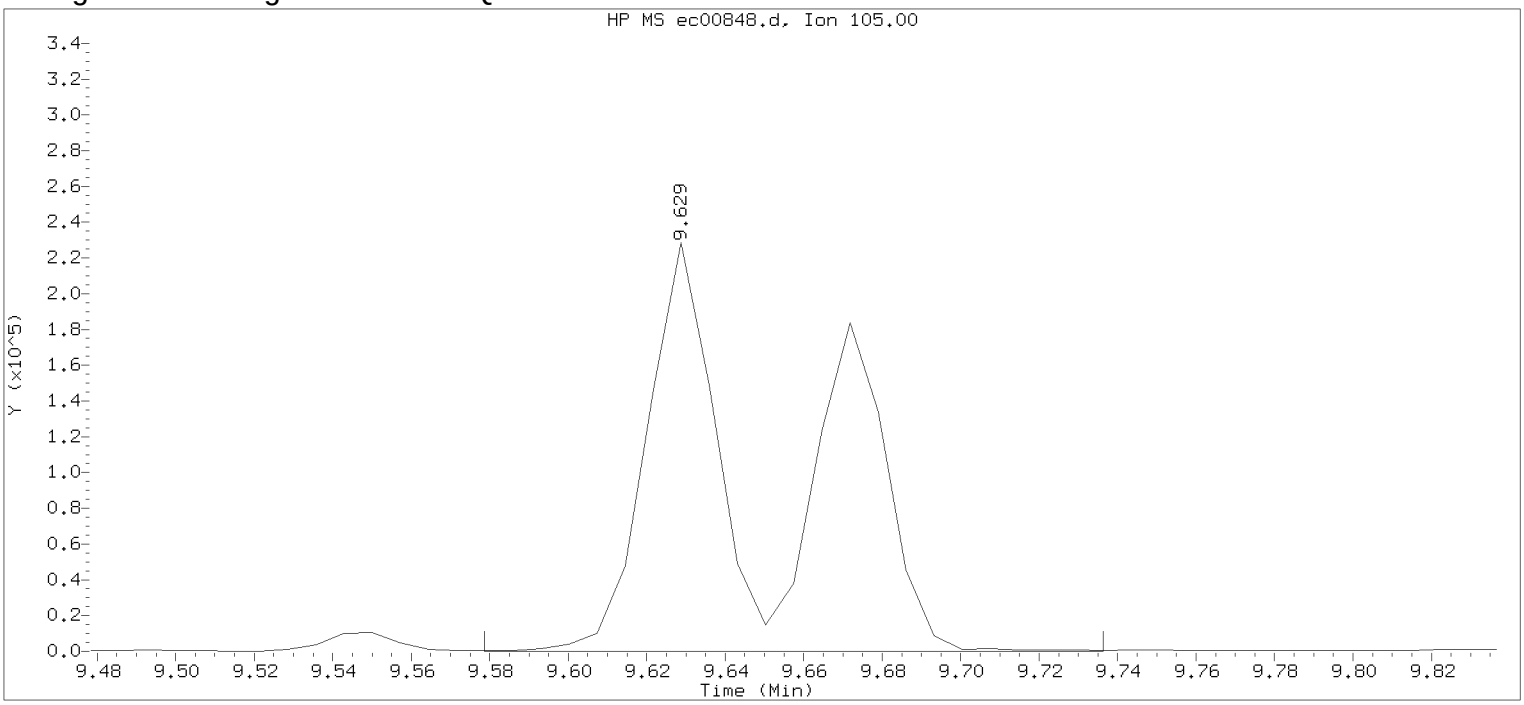
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:34 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 511377
Concentration (ppb(v)) : 2.5783
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

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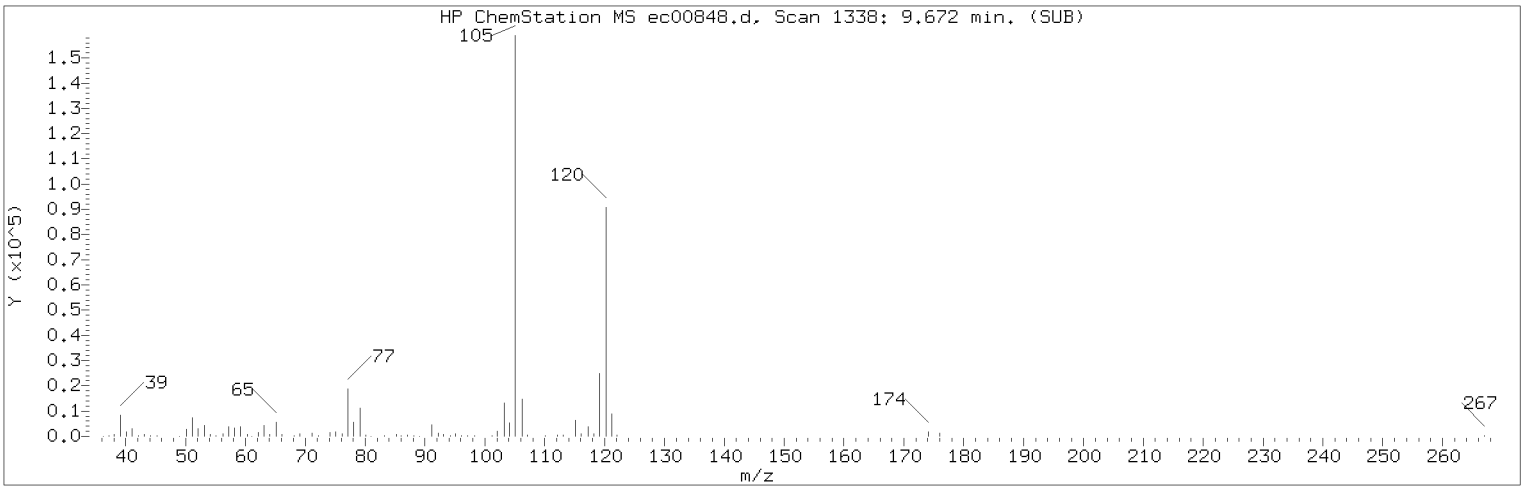
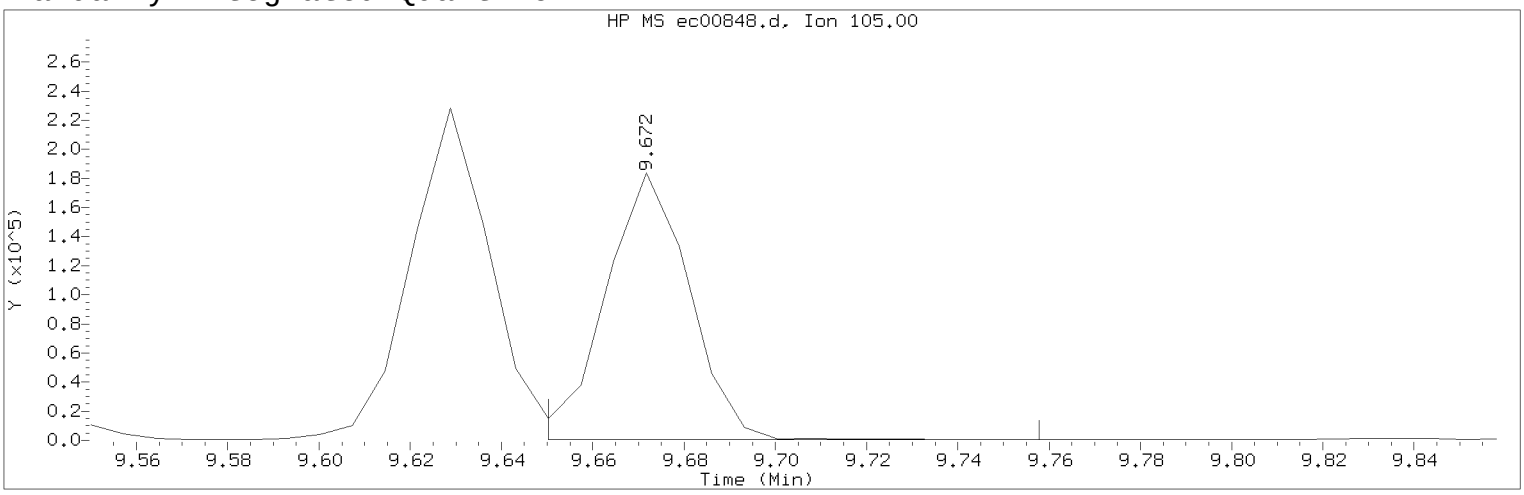
Target 3.5 esignature user id: 71 and Page 332 of 746
SVOC71 Page 332

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

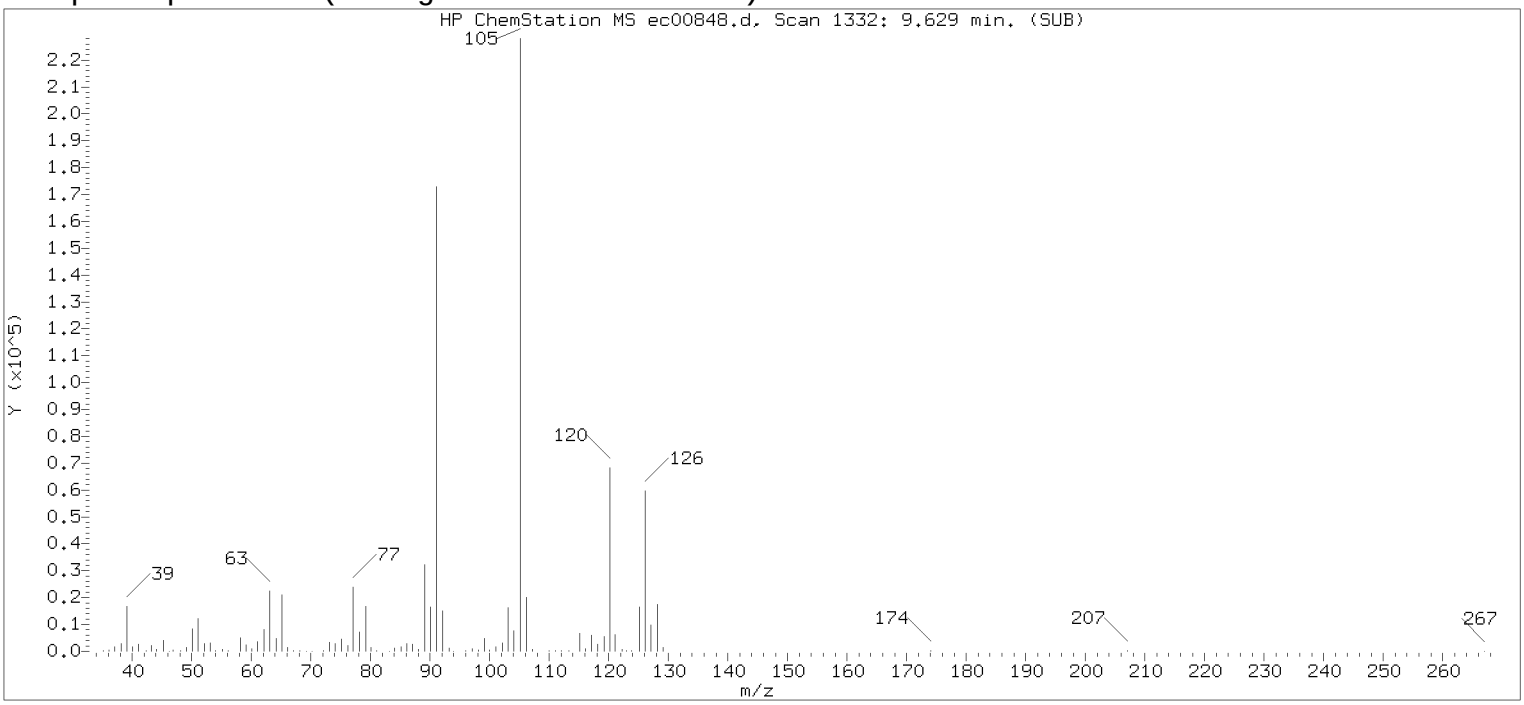
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 235970M
Concentration (ppb(v)) : 1.9683
Integration start scan : 1334 Integration stop scan: 1349
Y at integration start : 374 Y at integration end: 374

Reason for manual integration: improper integration

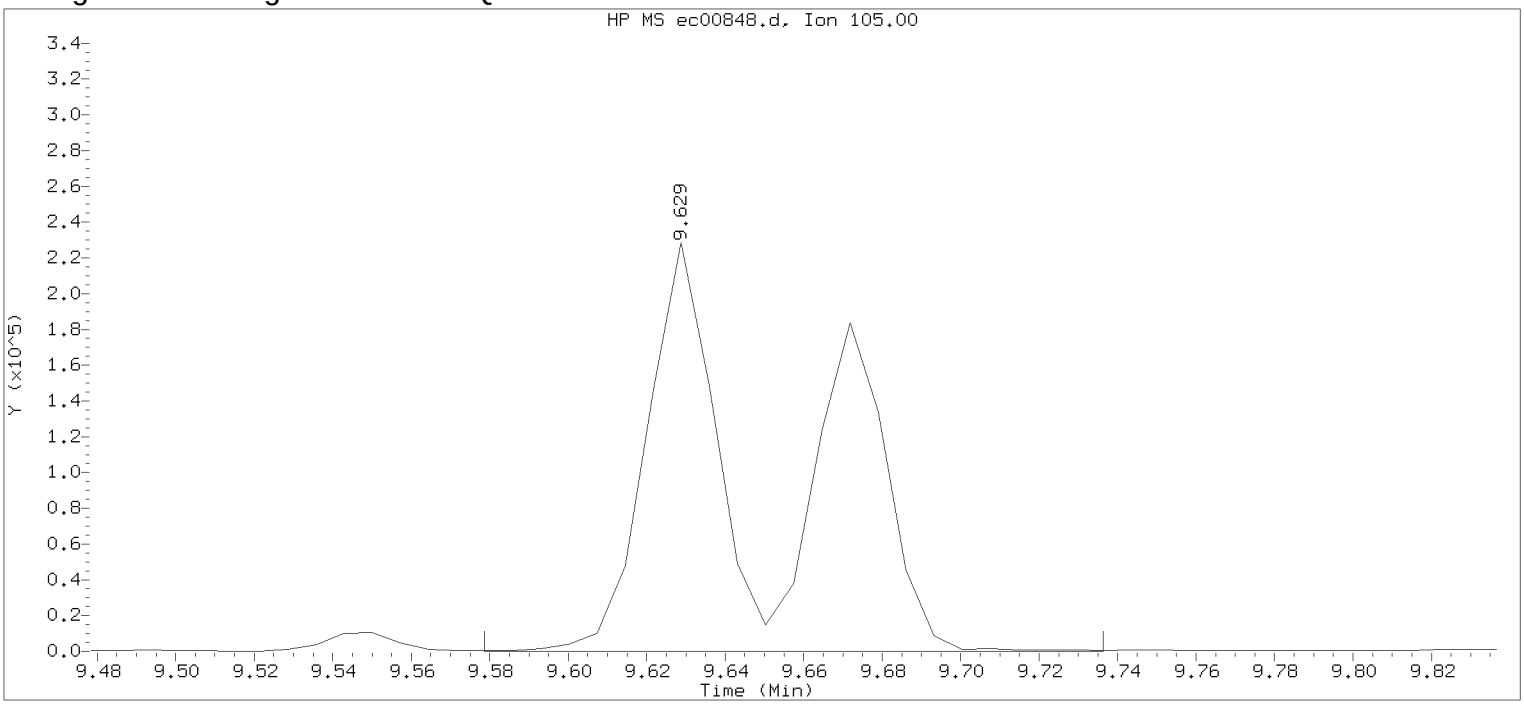
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:34 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 509978
Concentration (ppb(v)) : 3.1000
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 151 Y at integration end: 151

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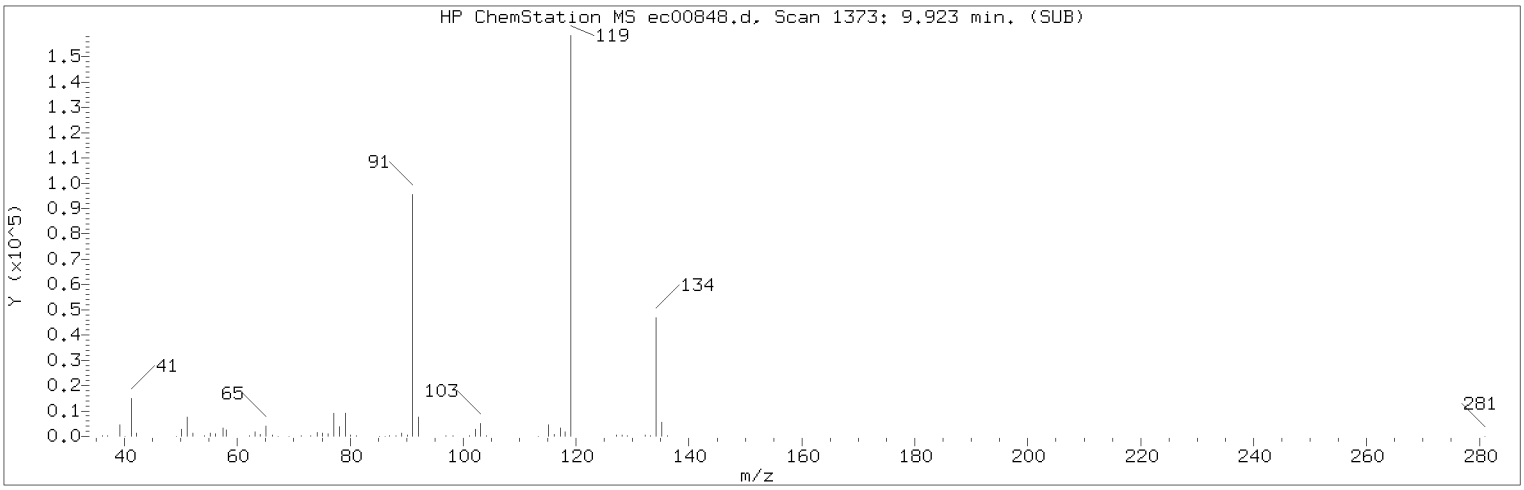
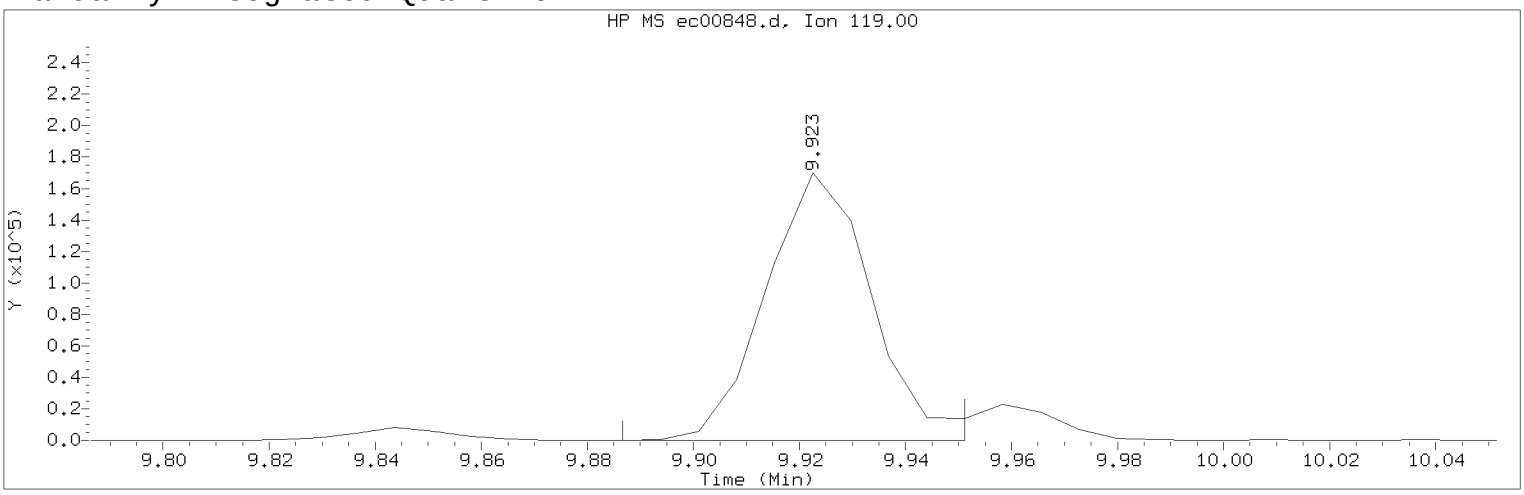
Target 3.5 esignature user id: 71 and Page 334

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD002 Lab Sample ID: VSTD002

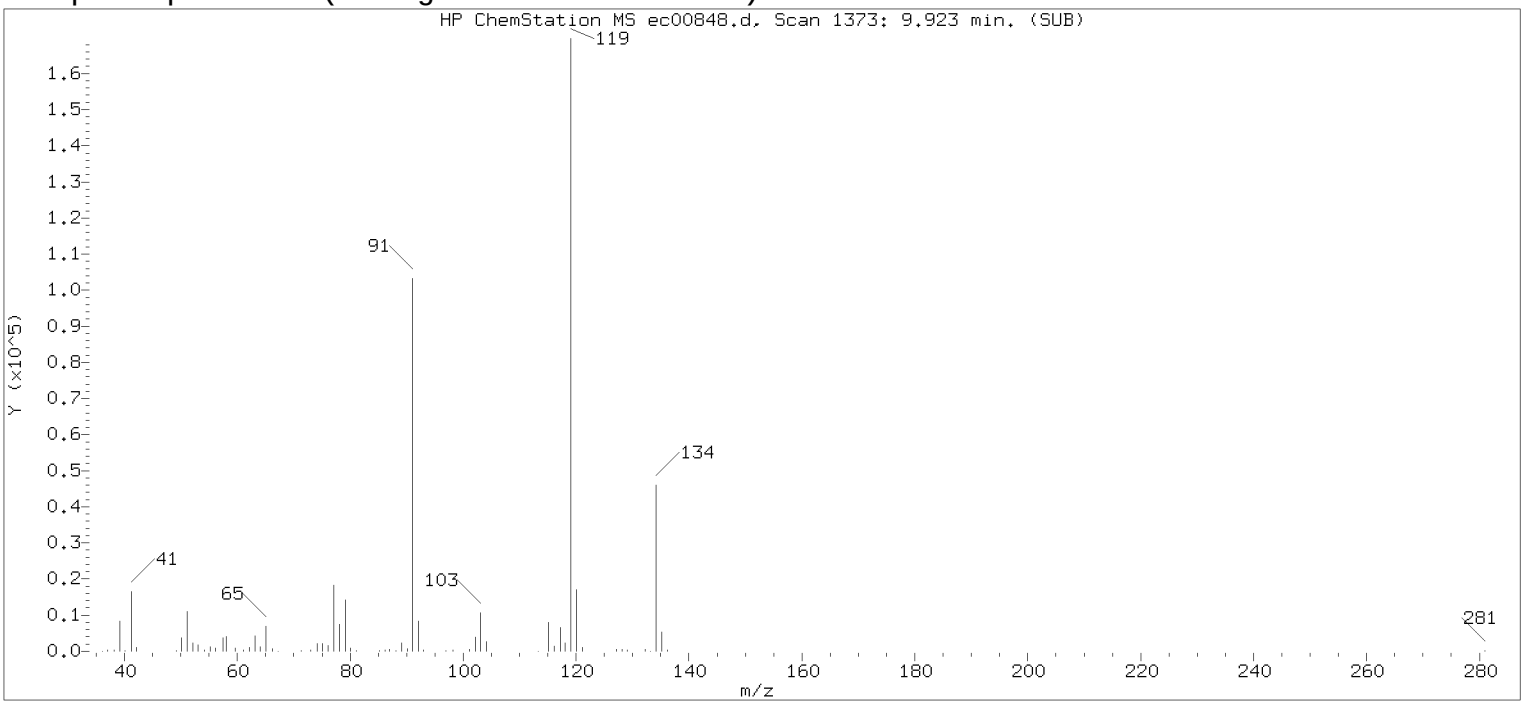
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 235831M
Concentration (ppb(v)) : 2.0103
Integration start scan : 1367 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

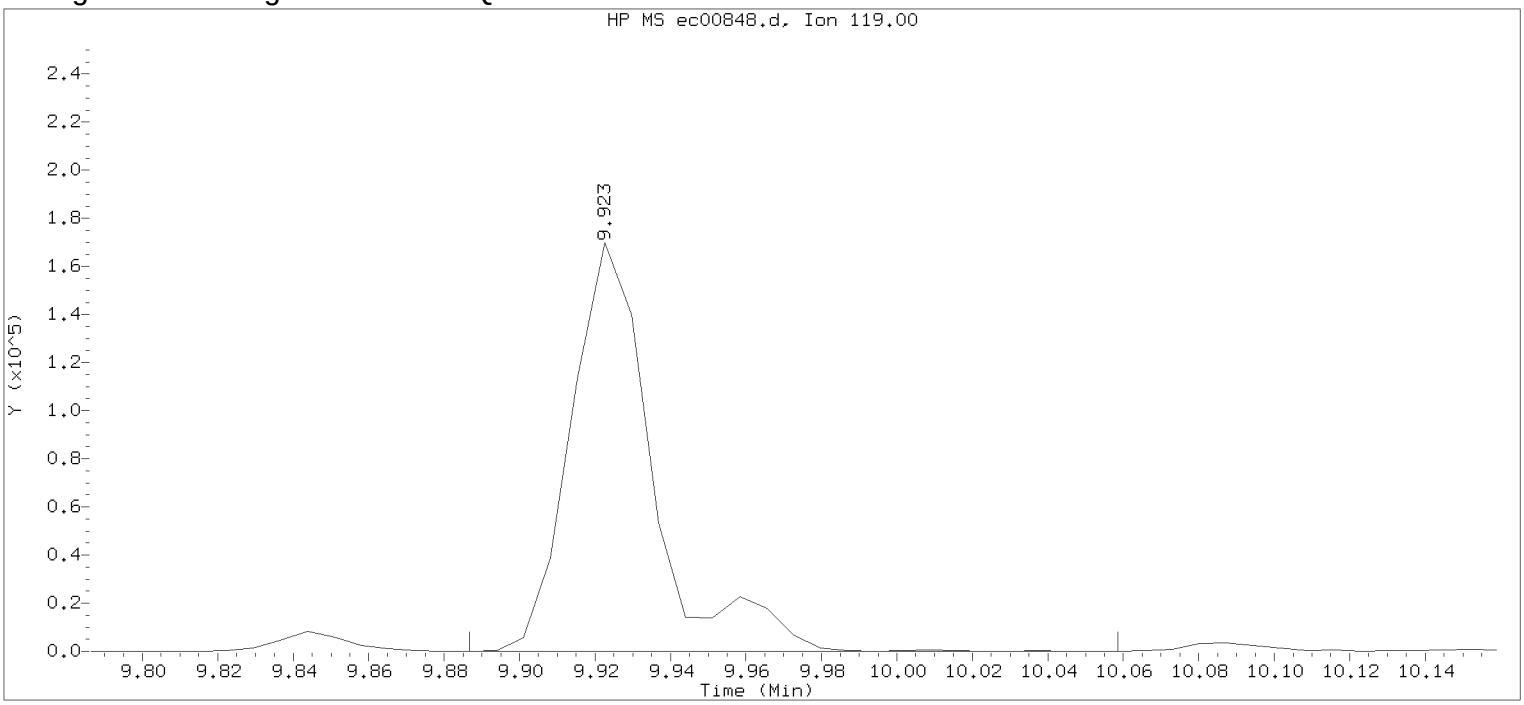
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00848.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 20:34 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 257385
Concentration (ppb(v)) : 1.5568
Integration start scan : 1367 Integration stop scan: 1391
Y at integration start : 0 Y at integration end: 0

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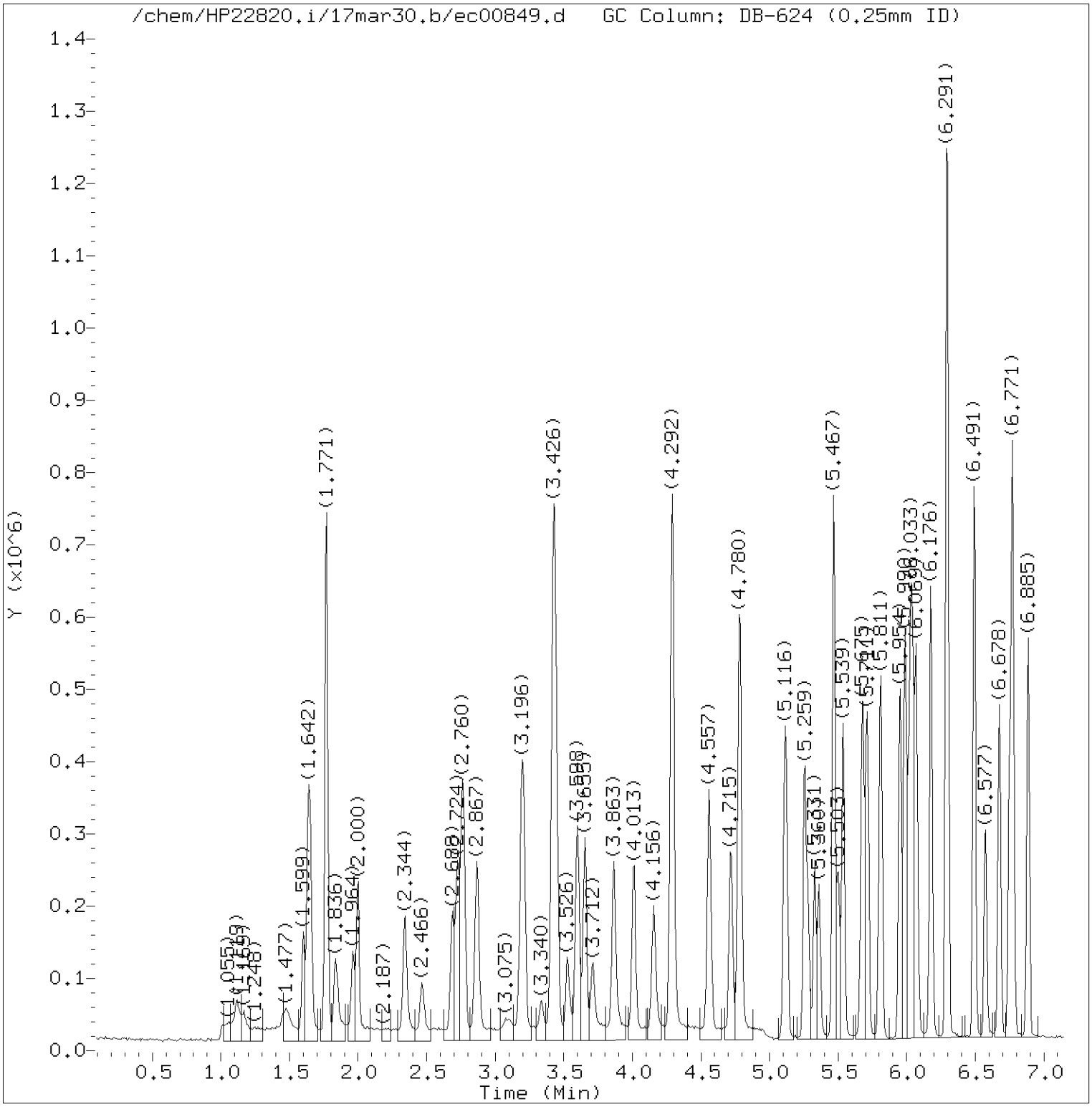
Target 3.5 esignature user id: 71 and Page 336 of 746
SVOC71a_07836



Total Ion Chromatogram (TIC)

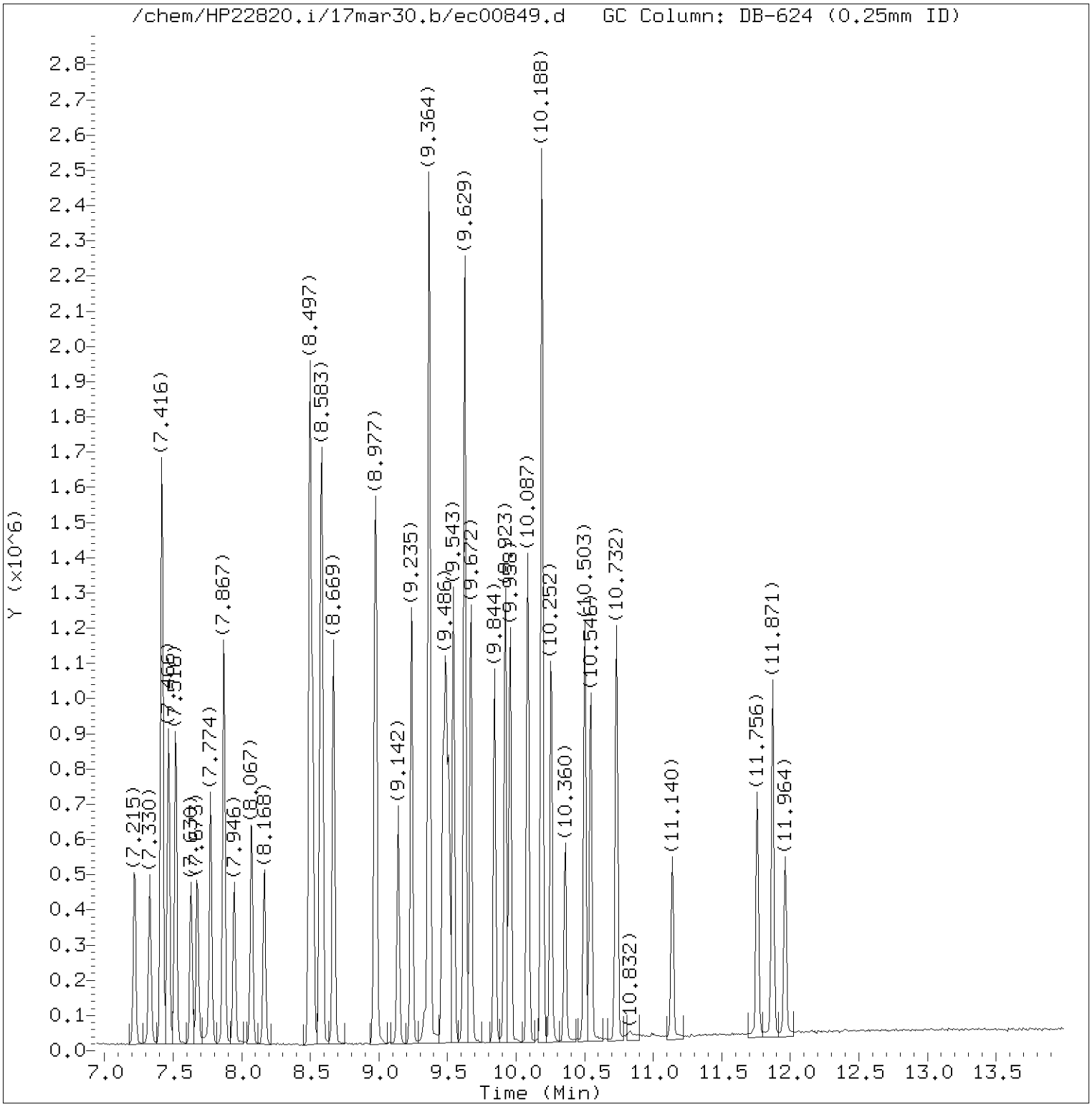
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.599	41	76692	5.058
2)	Dichlorodifluoromethane	(1)	1.635	85	314043	5.392
3)	Chlorodifluoromethane	(1)	1.656	51	159490	5.156
4)	Freon 114	(1)	1.771	85	332469	5.391
5)	Chloromethane	(1)	1.836	50	85097	4.929
6)	Vinyl Chloride	(1)	1.964	62	119810	5.444
7)	1,3-Butadiene	(1)	2.000	54	84053	5.108
8)	Bromomethane	(1)	2.344	94	121227	5.375
9)	Chloroethane	(1)	2.466	64	65261	5.272
10)	Bromoethene	(1)	2.688	106	130646	5.346
11)	Dichlorofluoromethane	(1)	2.724	67	256427	5.305
12)	Trichlorofluoromethane	(1)	2.767	101	336449	5.293
13)	Pentane	(1)	2.867	43	177099	5.288
14)	Ethanol	(1)	3.075	45	23643	4.459
15)	Freon123a	(1)	3.196	67	243550	5.078
16)	Acrolein	(1)	3.333	56	45842	5.472
17)	1,1-Dichloroethene	(1)	3.419	61	179880	5.319
18)	Freon 113	(1)	3.433	103	191619	4.992
19)	Acetone	(1)	3.526	43	138260	5.229
20)	Methyl Iodide	(1)	3.598	142	359661	5.093
21)	Carbon Disulfide	(1)	3.655	76	362429	5.427
22)	Isopropanol	(1)	3.712	45	138247	6.023
24)	3-Chloropropene	(1)	3.863	76	59056	5.864
23)	Acetonitrile	(1)	3.870	40	65884	4.898
25)	Methylene Chloride	(1)	4.013	84	121605	6.097
26)	tert-Butyl Alcohol	(1)	4.156	59	222792	5.755
28)	trans-1,2-Dichloroethene	(1)	4.285	61	169923	5.423
29)	Methyl t-Butyl Ether	(1)	4.292	73	363664	5.207
27)	Acrylonitrile	(1)	4.300	53	91398	5.204
30)	Hexane	(1)	4.557	57	179601	5.127
31)	1,1-Dichloroethane	(1)	4.715	63	218430	5.248
33)	Di-Isopropyl Ether	(1)	4.780	45	343807	5.114
32)	Vinyl Acetate	(1)	4.787	86	33461	6.292
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	364705	5.242
35)	cis-1,2-Dichloroethene	(1)	5.252	61	163597	5.485
37)	2-Butanone	(1)	5.281	72	62356	5.307
38)	Ethyl Acetate	(1)	5.331	70	34069	4.937
39)	Methyl Acrylate	(1)	5.360	55	186448	5.272

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on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	239020	10.000
41) Tetrahydrofuran	(1)	5.503	42	112006	5.182
42) Chloroform	(1)	5.539	83	284332	5.383
43) 1,1,1-Trichloroethane	(1)	5.675	97	275017	5.152
44) Cyclohexane	(1)	5.711	56	185565	5.065
45) Carbon Tetrachloride	(1)	5.811	117	274789	5.003
46) Benzene	(2)	5.990	78	430049	5.100
47) 1,2-Dichloroethane	(2)	6.012	62	168242	5.333
48) Isooctane	(2)	6.040	57	588183	5.102
49) Tert-Amyl Methyl Ether	(2)	6.069	73	382938	5.103
50) Heptane	(2)	6.176	43	191327	4.897
51)*1,4-Difluorobenzene	(2)	6.298	114	924716	10.000
52) Trichloroethene	(2)	6.491	130	220118	5.162
53) Ethyl Acrylate	(2)	6.577	55	234127	5.025
36) 1,2-Dichloroethene (total)	(1)		61	333520	10.908
54) 1,2-Dichloropropane	(2)	6.678	63	146559	5.033
57) Methyl Methacrylate	(2)	6.749	69	135968	4.923
55) Dibromomethane	(2)	6.771	174	212568	5.141
56) 1,4-Dioxane	(2)	6.778	88	99499	5.083
58) Bromodichloromethane	(2)	6.885	83	269288	5.084
59) cis-1,3-Dichloropropene	(2)	7.215	75	238669	5.075
60) 4-Methyl-2-Pentanone	(2)	7.330	43	241536	5.016
61) Toluene	(3)	7.466	91	530640	4.770
62) Octane	(3)	7.516	43	271051	4.938
63) trans-1,3-Dichloropropene	(3)	7.630	75	199499	4.977
65) Ethyl Methacrylate	(3)	7.673	69	220439	5.031
66) 1,1,2-Trichloroethane	(3)	7.774	97	177113	4.955
67) Tetrachloroethene	(3)	7.867	166	314161	4.915
68) 2-Hexanone	(3)	7.946	43	219639	4.919
69) Dibromochloromethane	(3)	8.075	127	222647	5.106
70) 1,2-Dibromoethane	(3)	8.168	107	277709	5.061
71)*Chlorobenzene-d5	(3)	8.497	117	905228	10.000
72) Chlorobenzene	(3)	8.519	112	448091	4.801
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	220288	4.987
74) Ethylbenzene	(3)	8.583	91	684479	4.893
75) m/p-Xylene	(3)	8.669	91	536772	4.831
76) o-Xylene	(3)	8.970	91	514125	4.839
78) Styrene	(3)	8.984	104	388360	4.998

* = Compound is an internal standard.

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79)	Bromoform	(3)	9.142	173	258074	5.069
80)	Cumene	(3)	9.235	105	730828M	4.928
82)	1,1,2,2-Tetrachloroethane	(3)	9.464	83	327153	4.912
81)	Bromobenzene	(3)	9.493	156	274076	4.952
83)	1,2,3-Trichloropropane	(3)	9.507	110	113483	4.895
84)	n-Propylbenzene	(3)	9.543	120	213696	4.838
85)	2-Chlorotoluene	(3)	9.622	126	194225	4.882
86)	4-Ethyltoluene	(3)	9.629	105	715863M	4.977
87)	1,3,5-Trimethylbenzene	(3)	9.672	105	576438M	4.837
88)	Alpha Methyl Styrene	(3)	9.844	118	274494	4.999
89)	tert-Butylbenzene	(3)	9.923	119	583814M	4.950
90)	1,2,4-Trimethylbenzene	(3)	9.958	105	555899	4.922
91)	sec-Butylbenzene	(3)	10.087	105	819430	4.963
92)	1,3-Dichlorobenzene	(3)	10.188	146	411991	4.841
94)	p-Isopropyltoluene	(3)	10.188	119	682865	4.945
93)	1,4-Dichlorobenzene	(3)	10.252	146	416122	4.806
95)	Benzyl Chloride	(3)	10.360	91	346539	5.061
97)	n-Butylbenzene	(3)	10.503	91	562592	4.985
96)	1,2-Dichlorobenzene	(3)	10.546	146	370551	4.881
98)	Hexachloroethane	(3)	10.732	117	151660	5.195
99)	1,2-Dibromo-3-chloropropane	(3)	11.140	157	133687	5.108
100)	1,2,4-Trichlorobenzene	(3)	11.756	180	206393	4.910
101)	Hexachlorobutadiene	(3)	11.871	225	183654	4.883
102)	Naphthalene	(3)	11.964	128	362861	4.952
64)	1,3-Dichloropropene (total)	(3)		75	438168	9.994
77)	Xylene (total)	(3)		91	1050897	9.669

M = Compound was manually integrated.

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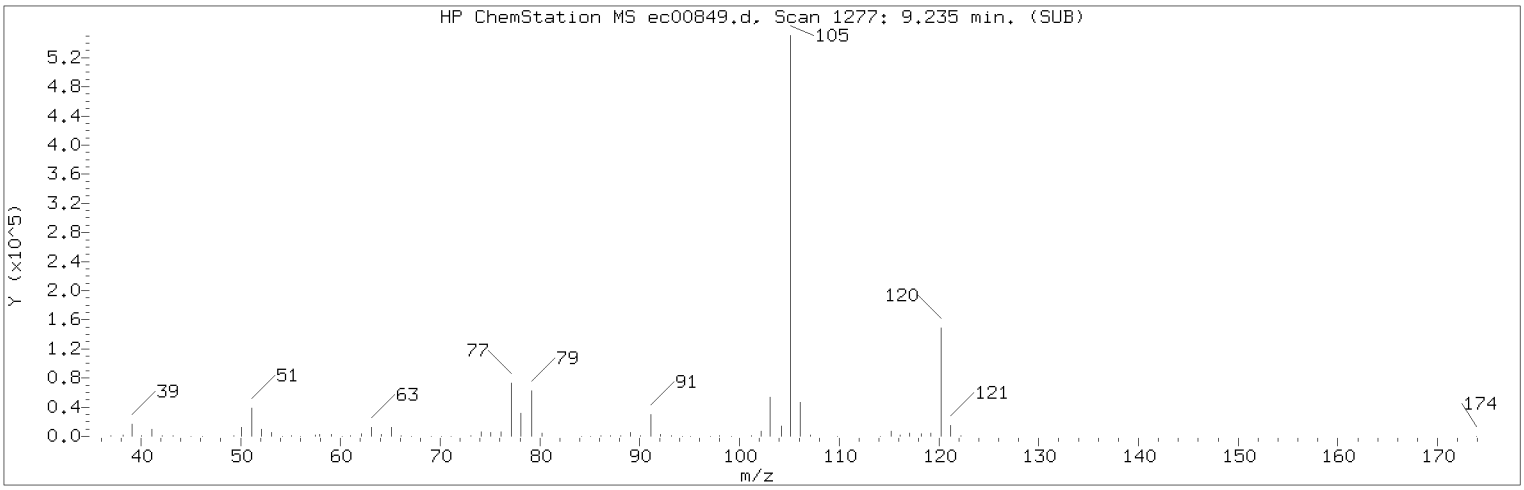
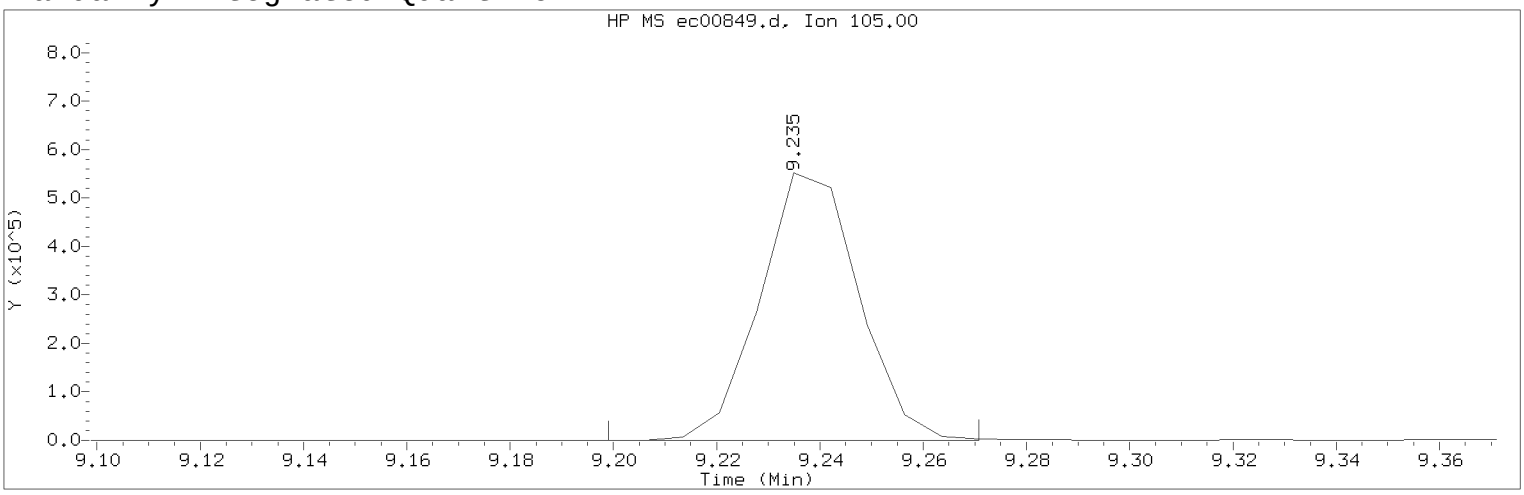
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

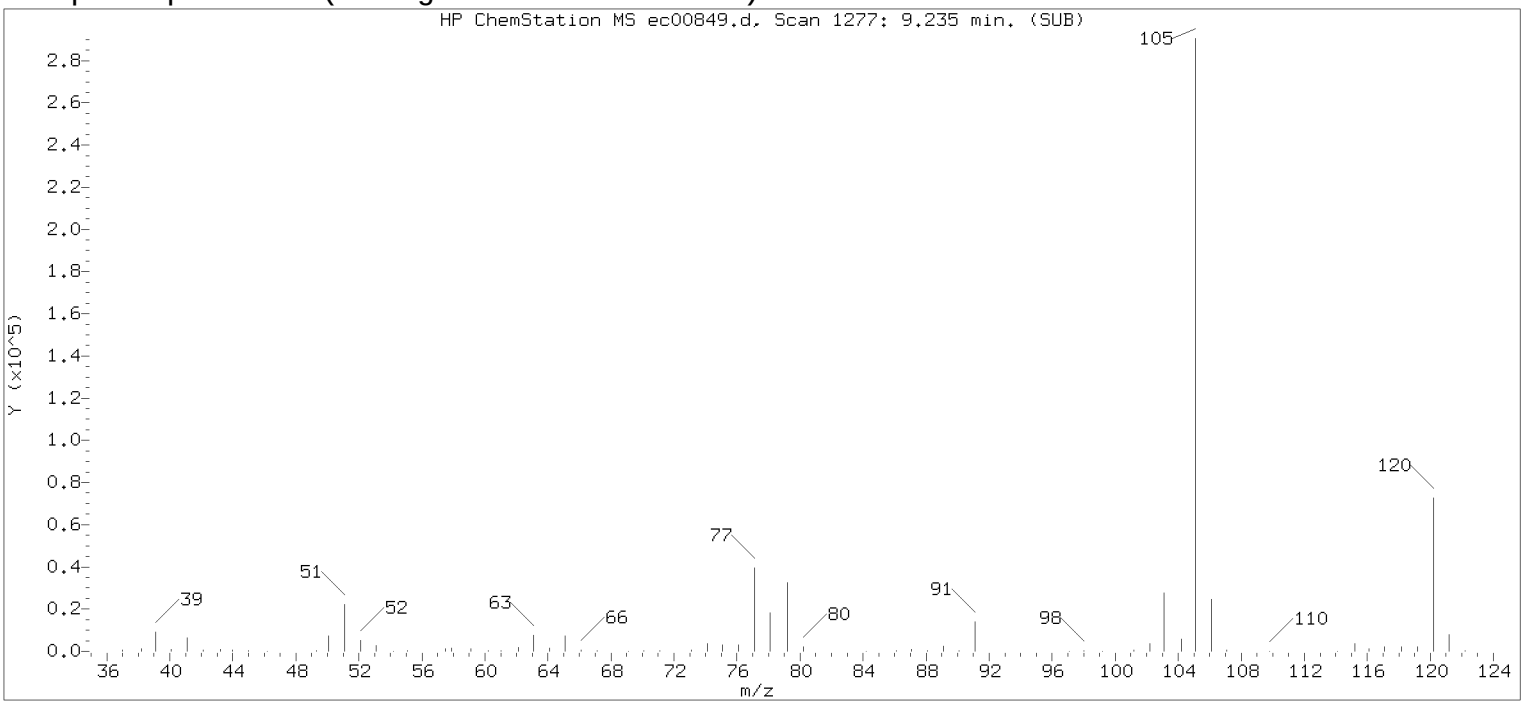
Compound Number : 80
Compound Name : Cumene
Scan Number : 1277
Retention Time (minutes): 9.235
Quant Ion : 105.00
Area (flag) : 730828M
Concentration (ppb(v)) : 4.9280
Integration start scan : 1271 Integration stop scan: 1281
Y at integration start : 152 Y at integration end: 152

Reason for manual integration: improper integration

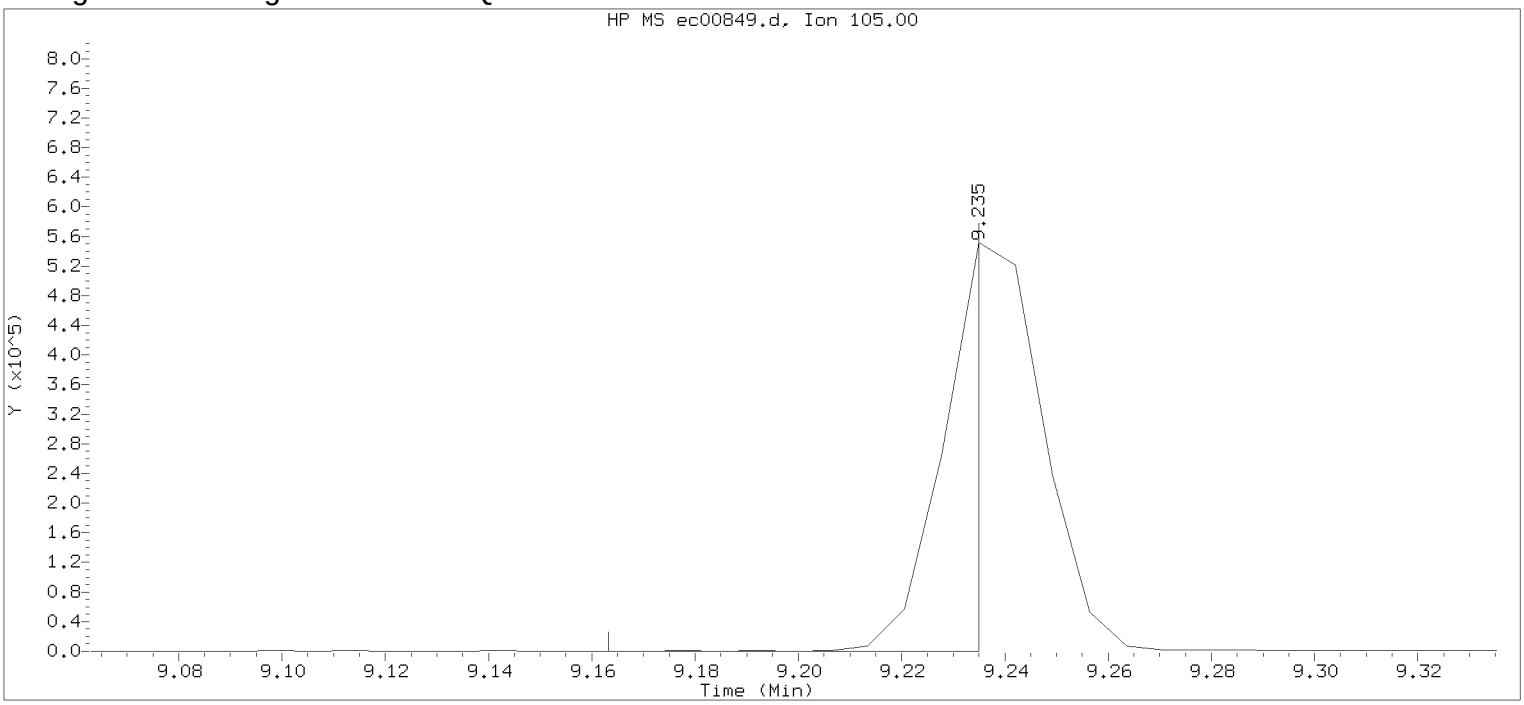
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

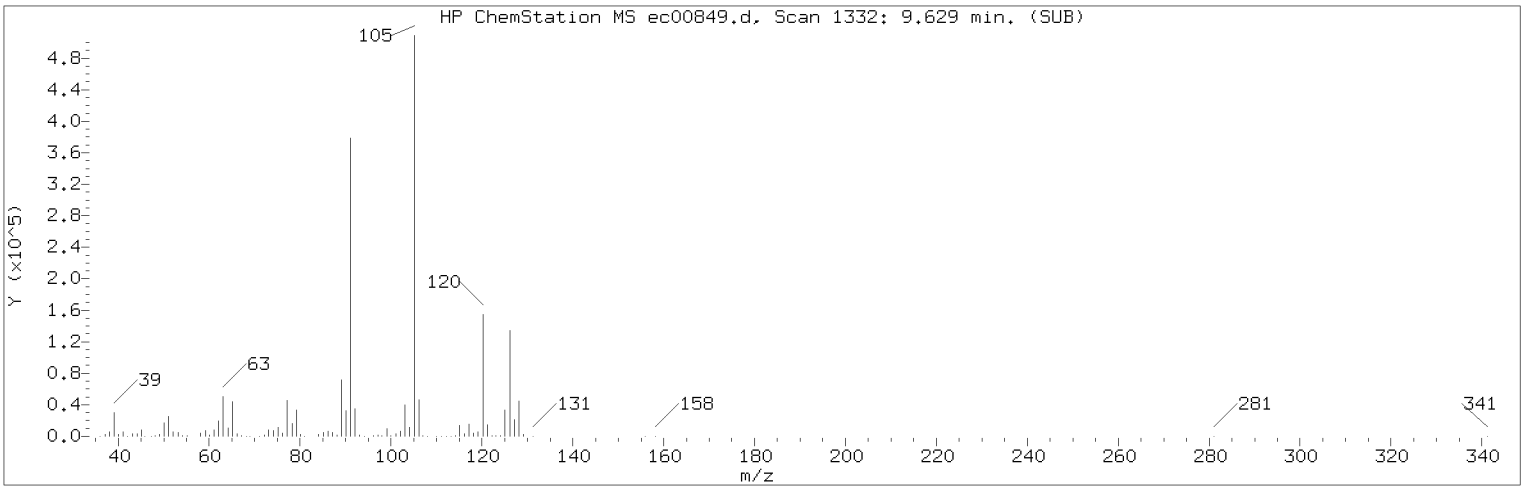
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:01 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

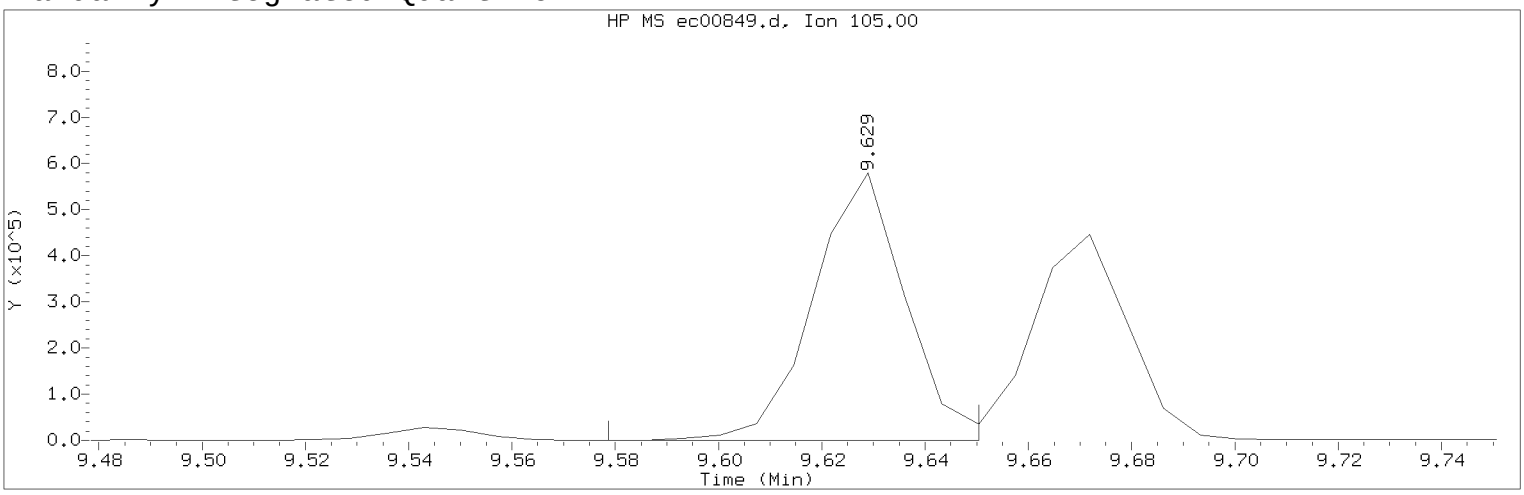
Compound Number : 80
Compound Name : Cumene
Scan Number : 1277
Retention Time (minutes): 9.235
Quant Ion : 105.00
Area : 260289
Concentration (ppb(v)) : 1.2779
Integration start scan : 1266 Integration stop scan: 1276
Y at integration start : 154 Y at integration end: 154

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user id: 71 and Page 343 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

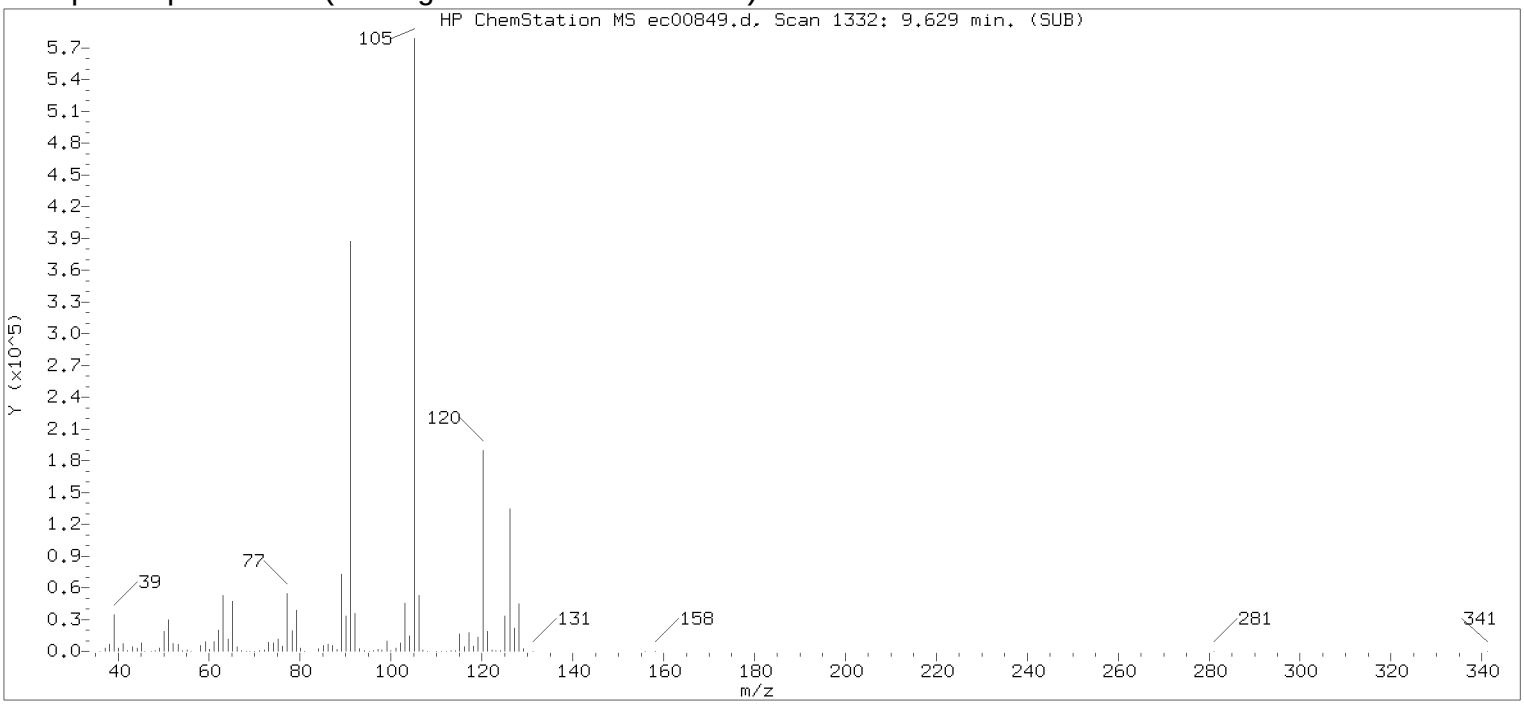
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 715863M
Concentration (ppb(v)) : 4.9770
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 288 Y at integration end: 288

Reason for manual integration: improper integration

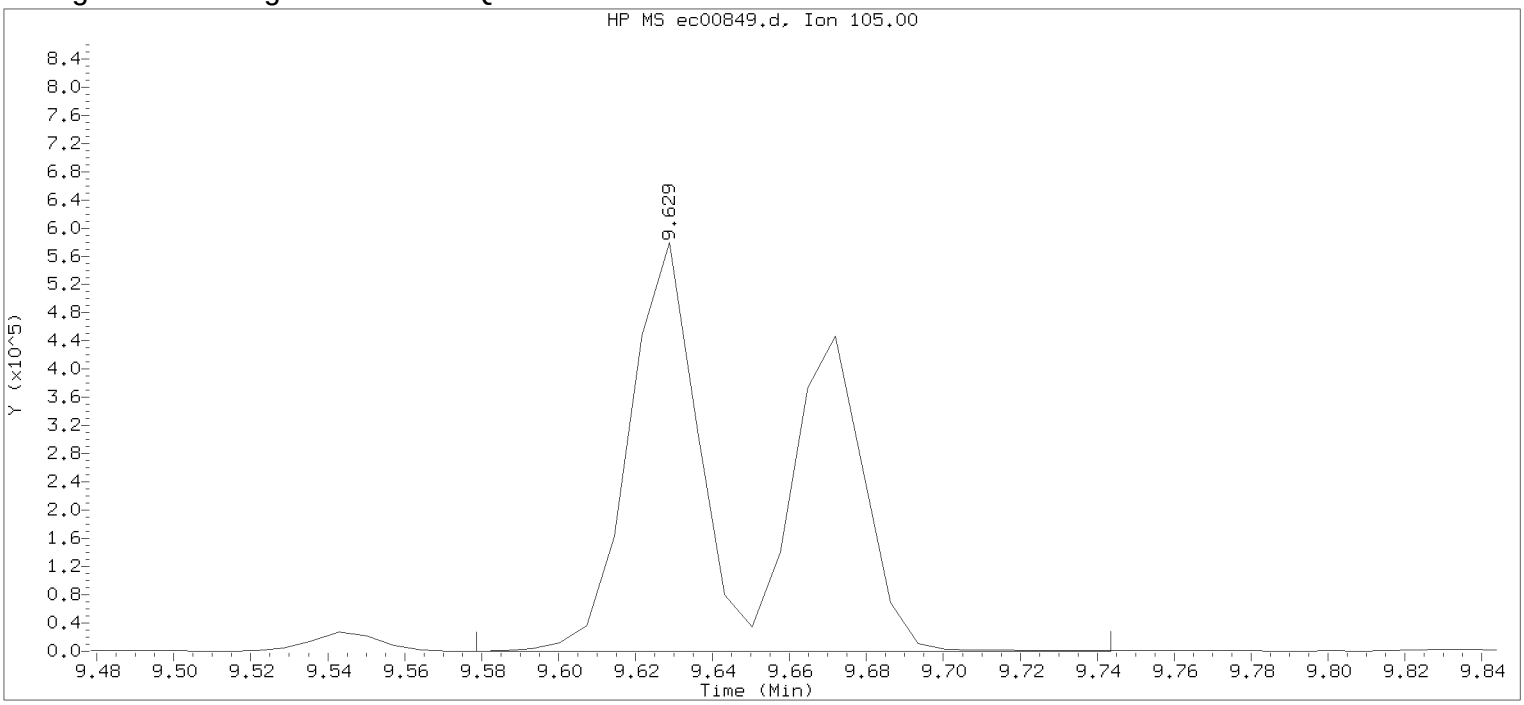
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:01 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 1277230
Concentration (ppb(v)) : 6.3743
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 227 Y at integration end: 227

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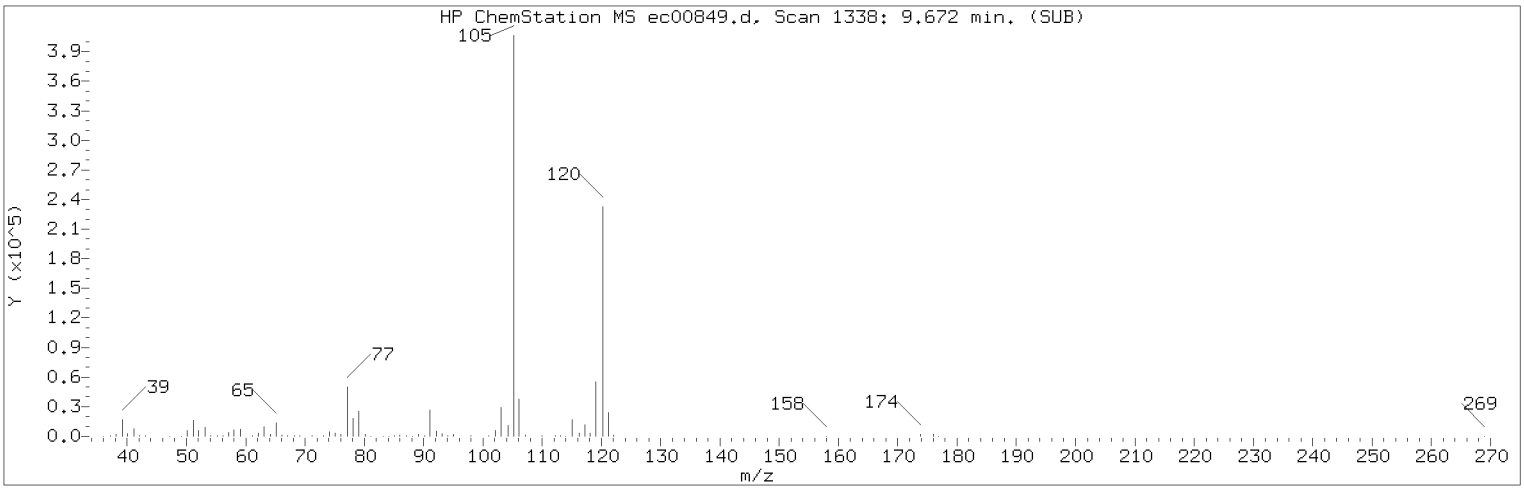
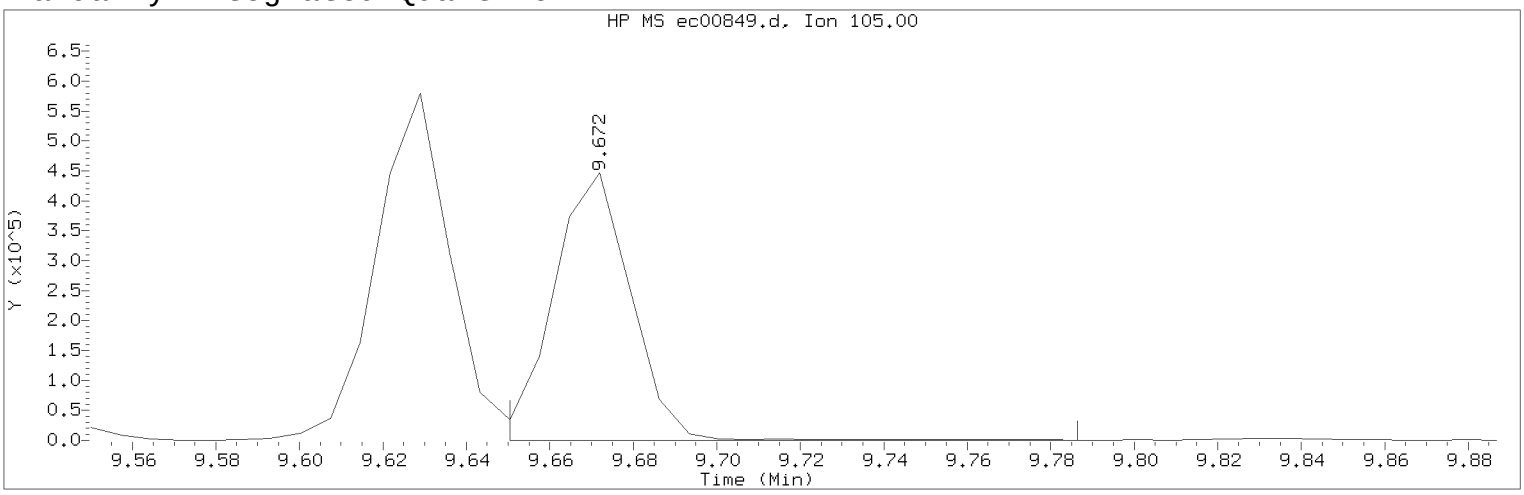
Target 3.5 esignature user ID: 7445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

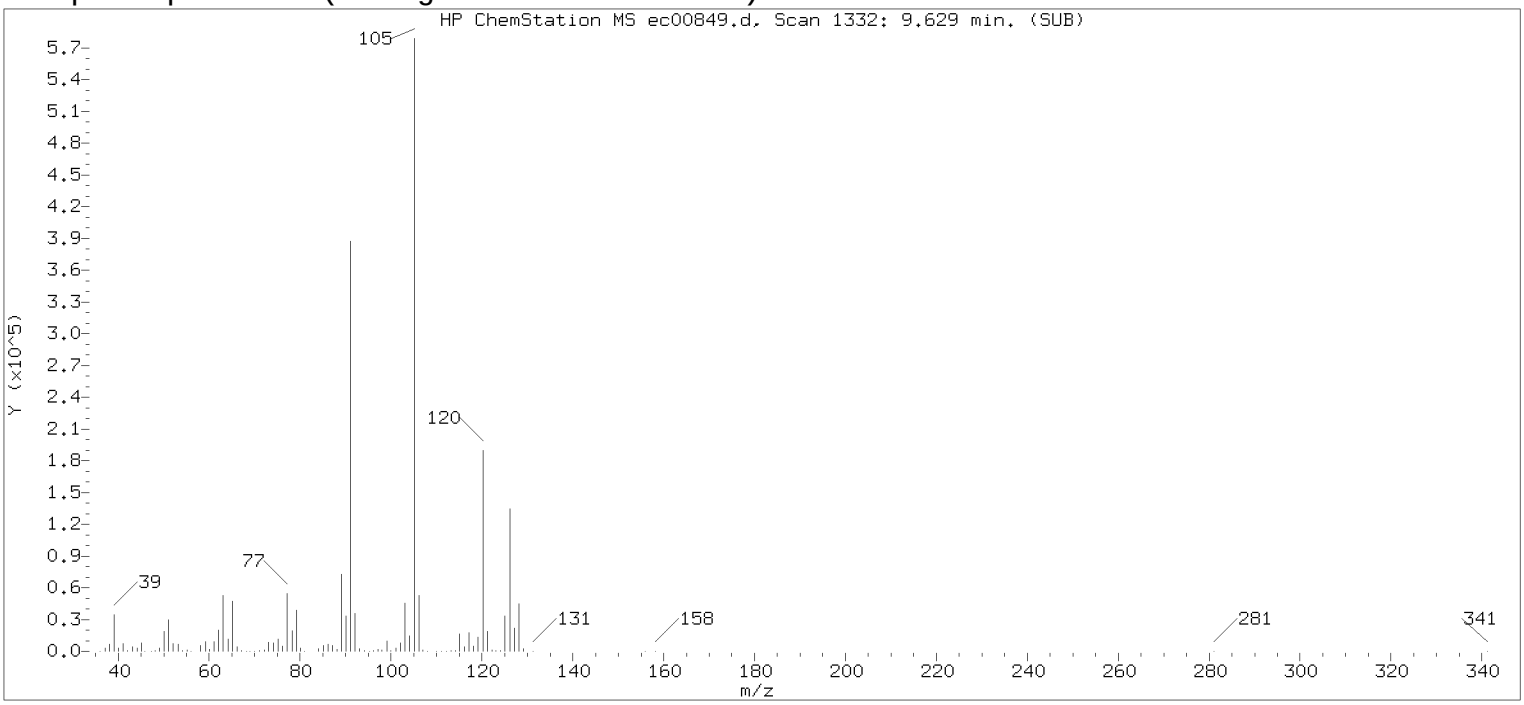
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 576438M
Concentration (ppb(v)) : 4.8370
Integration start scan : 1334 Integration stop scan: 1353
Y at integration start : 293 Y at integration end: 293

Reason for manual integration: improper integration

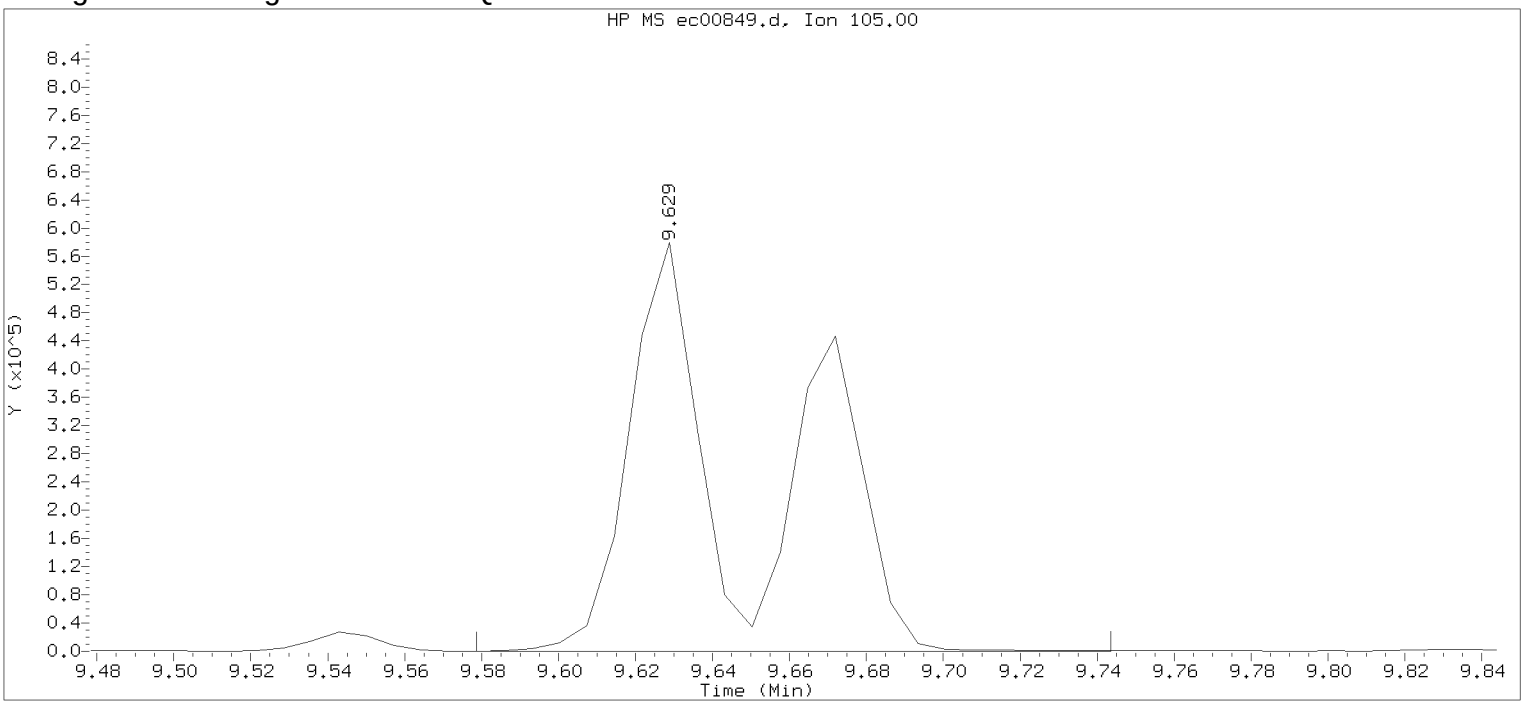
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:01 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 1276627
Concentration (ppb(v)) : 7.6815
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 288 Y at integration end: 288

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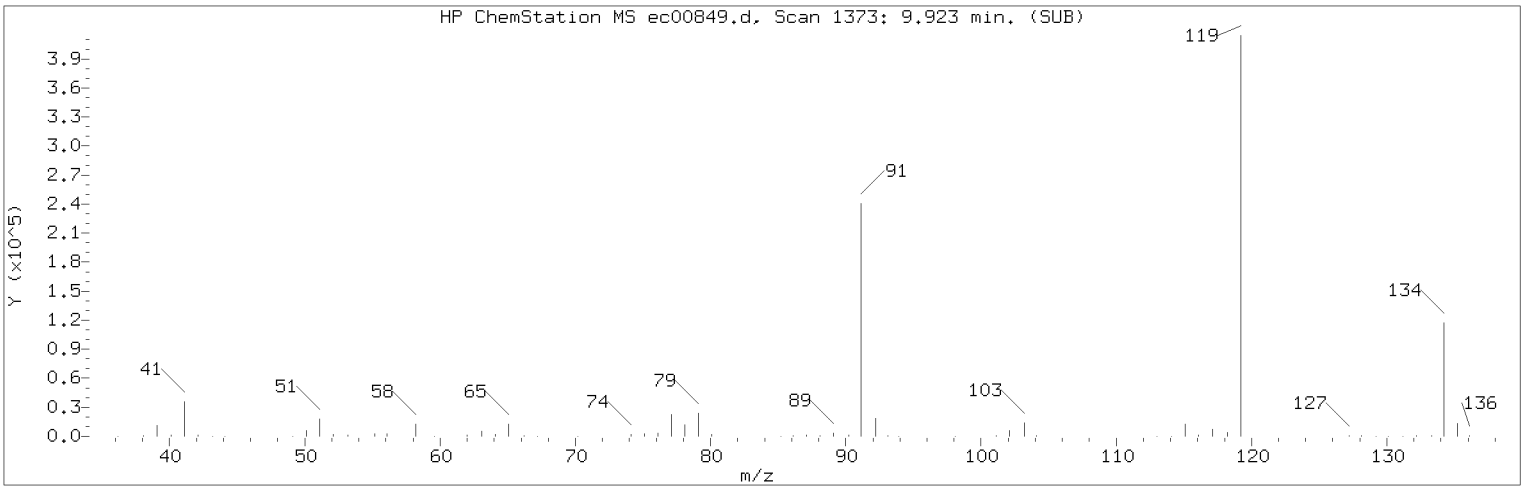
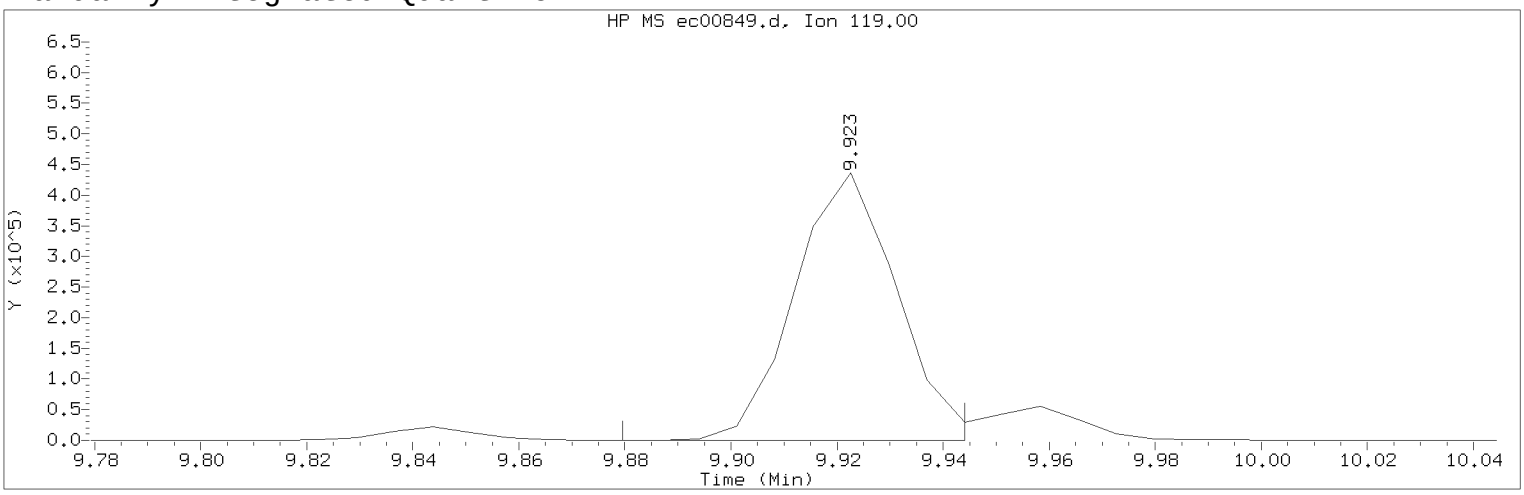
Target 3.5 esignature user id: 71 and Page 348

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD005 Lab Sample ID: VSTD005

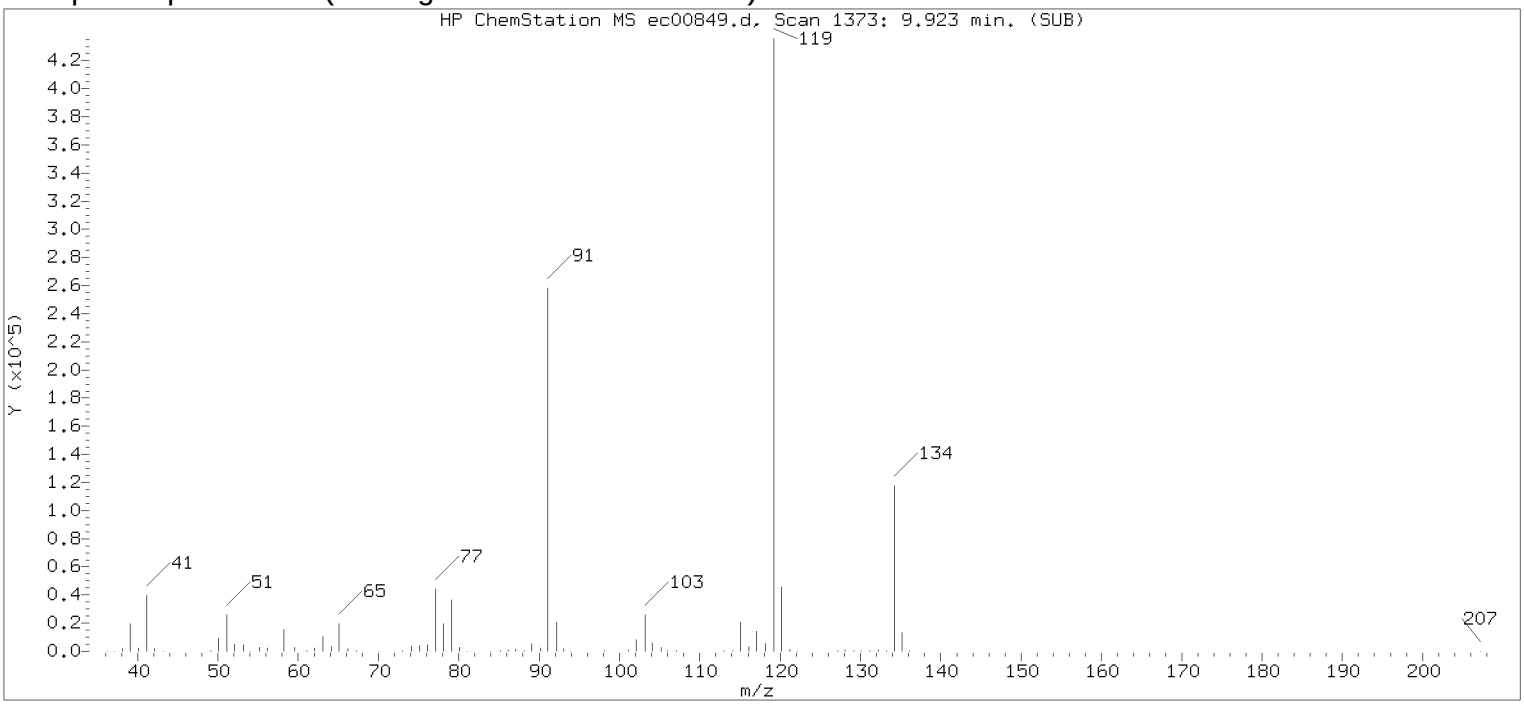
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 583814M
Concentration (ppb(v)) : 4.9505
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

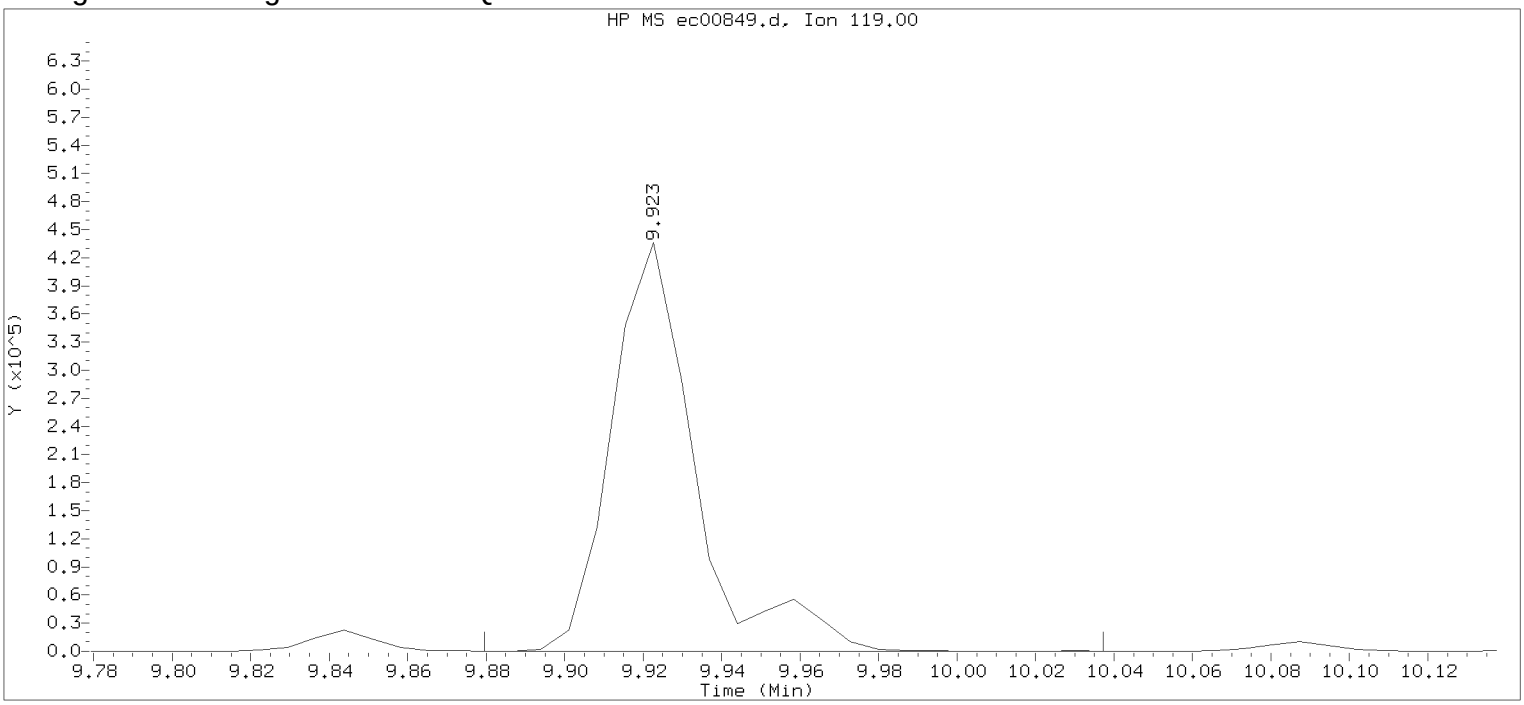
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00849.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 20:42 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:01 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 647088
Concentration (ppb(v)) : 3.8742
Integration start scan : 1366 Integration stop scan: 1388
Y at integration start : 0 Y at integration end: 0

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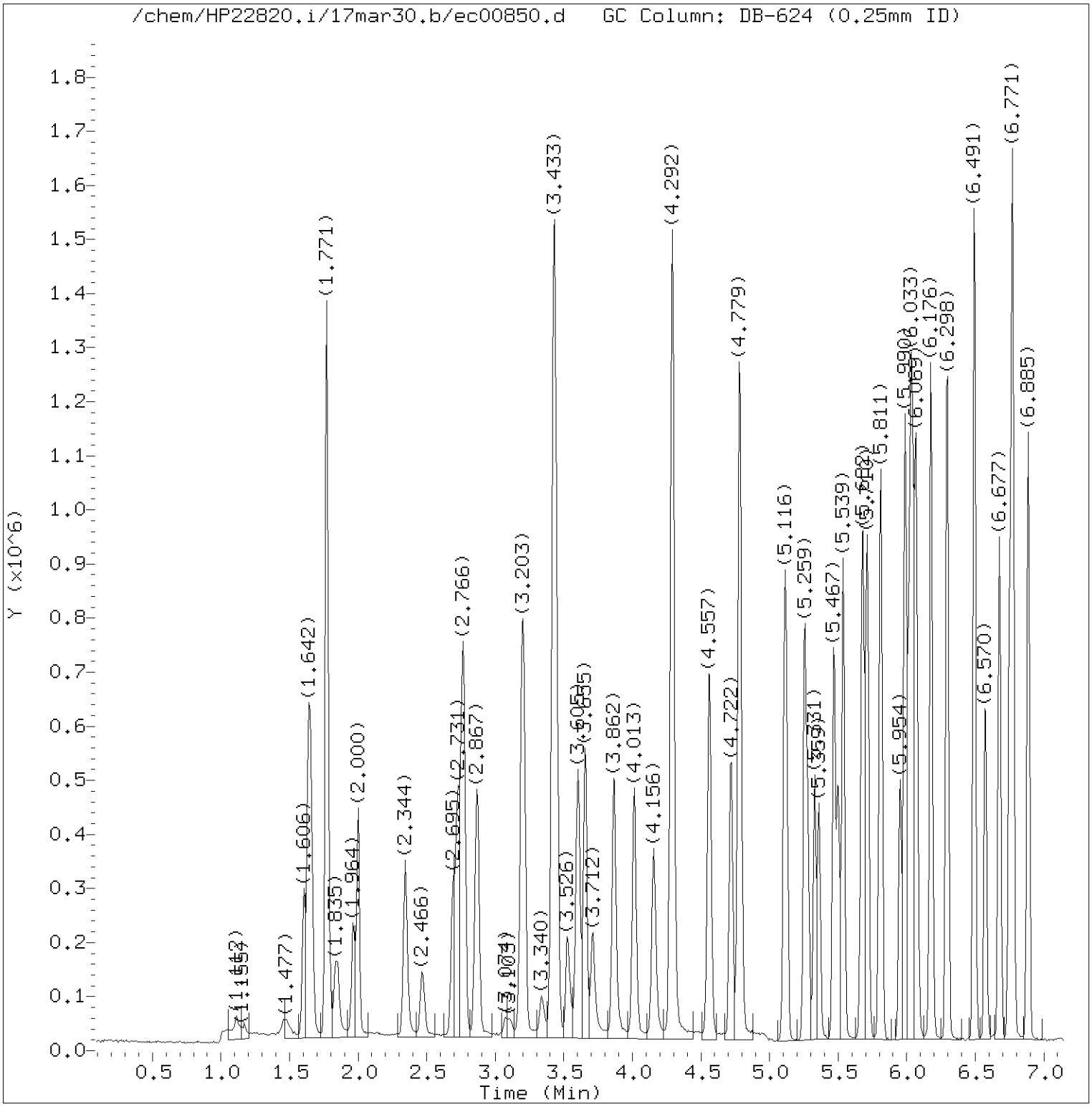
Target 3.5 esignature user id: 71 and Page 349



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

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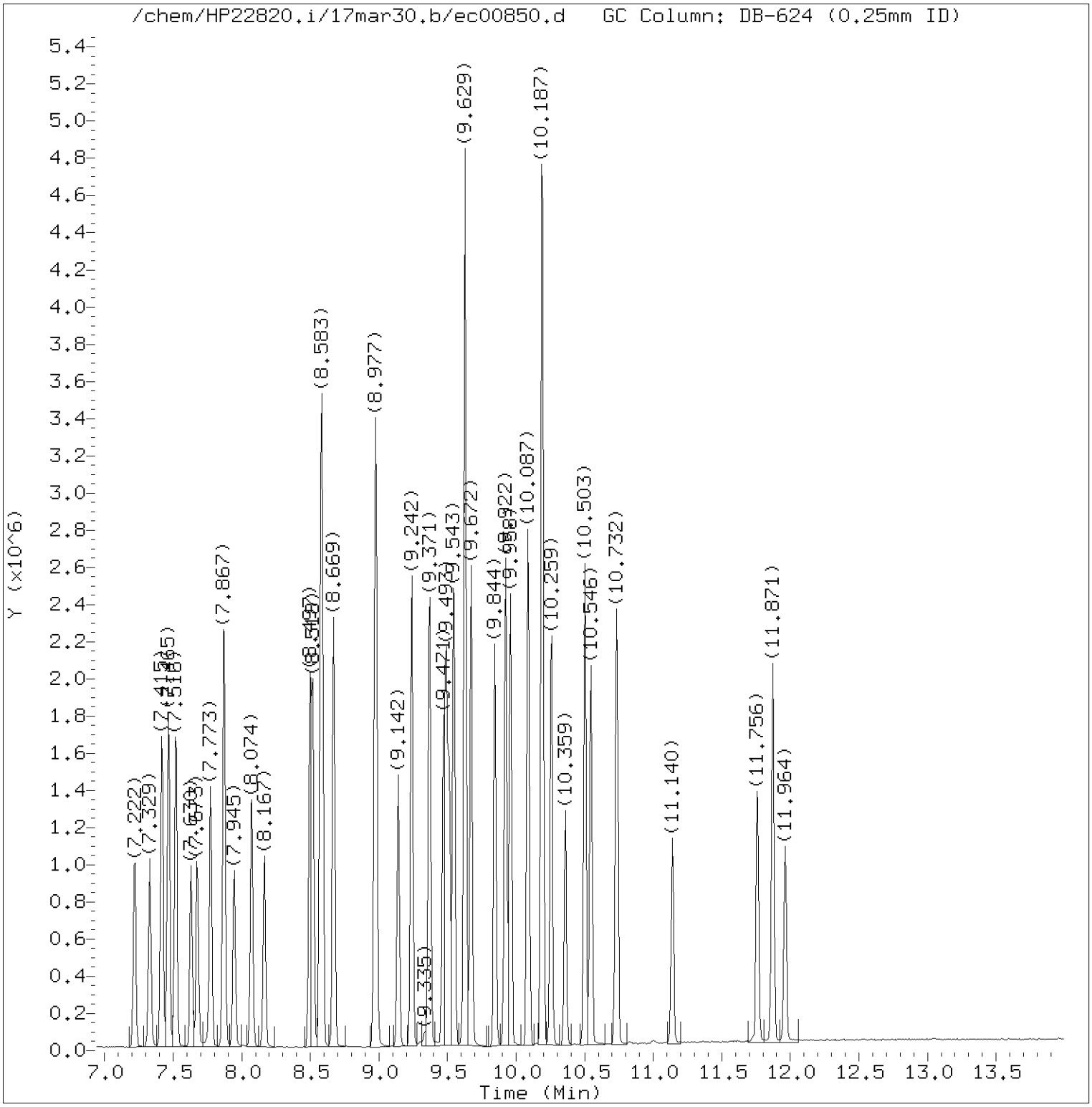
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.606	41	152338	9.813
2)	Dichlorodifluoromethane	(1)	1.642	85	638741	10.477
3)	Chlorodifluoromethane	(1)	1.663	51	326799	10.191
4)	Freon 114	(1)	1.771	85	663034	10.323
5)	Chloromethane	(1)	1.835	50	162305	9.330
6)	Vinyl Chloride	(1)	1.964	62	239050	10.402
7)	1,3-Butadiene	(1)	2.000	54	171613	10.093
8)	Bromomethane	(1)	2.344	94	254945	10.712
9)	Chloroethane	(1)	2.466	64	132073	10.265
10)	Bromoethene	(1)	2.688	106	264915	10.387
11)	Dichlorofluoromethane	(1)	2.731	67	515474	10.262
12)	Trichlorofluoromethane	(1)	2.766	101	679932	10.284
13)	Pentane	(1)	2.867	43	356238	10.241
14)	Ethanol	(1)	3.074	45	52079	9.647
15)	Freon123a	(1)	3.203	67	498238	10.063
16)	Acrolein	(1)	3.340	56	91551	10.449
17)	1,1-Dichloroethene	(1)	3.425	61	375878	10.580
18)	Freon 113	(1)	3.433	103	392049	9.935
19)	Acetone	(1)	3.526	43	281056	10.237
20)	Methyl Iodide	(1)	3.605	142	676639	9.467
21)	Carbon Disulfide	(1)	3.655	76	742195	10.579
22)	Isopropanol	(1)	3.712	45	282426	11.776
24)	3-Chloropropene	(1)	3.862	76	125984	11.893
23)	Acetonitrile	(1)	3.877	40	128910	9.468
25)	Methylene Chloride	(1)	4.013	84	246173	11.775
26)	tert-Butyl Alcohol	(1)	4.156	59	459942	11.448
28)	trans-1,2-Dichloroethene	(1)	4.285	61	347923	10.572
29)	Methyl t-Butyl Ether	(1)	4.292	73	729114	10.100
27)	Acrylonitrile	(1)	4.299	53	183890	10.121
30)	Hexane	(1)	4.557	57	360418	9.991
31)	1,1-Dichloroethane	(1)	4.722	63	451791	10.397
32)	Vinyl Acetate	(1)	4.779	86	73660	12.836
33)	Di-Isopropyl Ether	(1)	4.779	45	706644	10.152
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	736354	10.204
35)	cis-1,2-Dichloroethene	(1)	5.252	61	330132	10.548
37)	2-Butanone	(1)	5.281	72	131254	10.619
38)	Ethyl Acetate	(1)	5.331	70	64664	9.307
39)	Methyl Acrylate	(1)	5.359	55	393997	10.599

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Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	246234	10.000
41) Tetrahydrofuran	(1)	5.496	42	237318	10.486
42) Chloroform	(1)	5.539	83	564424	10.277
43) 1,1,1-Trichloroethane	(1)	5.675	97	564732	10.201
44) Cyclohexane	(1)	5.710	56	375019	9.952
45) Carbon Tetrachloride	(1)	5.811	117	577754	10.157
46) Benzene	(2)	5.990	78	862808	10.257
47) 1,2-Dichloroethane	(2)	6.011	62	327011	10.356
48) Isooctane	(2)	6.033	57	1189789	10.323
49) Tert-Amyl Methyl Ether	(2)	6.069	73	780202	10.379
50) Heptane	(2)	6.176	43	382361	9.922
51)*1,4-Difluorobenzene	(2)	6.298	114	914576	10.000
52) Trichloroethene	(2)	6.491	130	441244	10.342
53) Ethyl Acrylate	(2)	6.570	55	498223	10.597
36) 1,2-Dichloroethene (total)	(1)		61	678055	21.121
54) 1,2-Dichloropropane	(2)	6.677	63	294842	10.177
57) Methyl Methacrylate	(2)	6.749	69	284545	10.310
55) Dibromomethane	(2)	6.771	174	438755	10.538
56) 1,4-Dioxane	(2)	6.778	88	203514	10.379
58) Bromodichloromethane	(2)	6.885	83	558835	10.492
59) cis-1,3-Dichloropropene	(2)	7.222	75	495967	10.489
60) 4-Methyl-2-Pentanone	(2)	7.329	43	491123	10.232
61) Toluene	(3)	7.465	91	1061070	9.595
62) Octane	(3)	7.516	43	521943	9.573
63) trans-1,3-Dichloropropene	(3)	7.630	75	419792	10.293
65) Ethyl Methacrylate	(3)	7.673	69	454779	10.224
66) 1,1,2-Trichloroethane	(3)	7.773	97	361306	10.025
67) Tetrachloroethene	(3)	7.874	166	636308	9.911
68) 2-Hexanone	(3)	7.945	43	440362	9.840
69) Dibromochloromethane	(3)	8.074	127	468520	10.491
70) 1,2-Dibromoethane	(3)	8.167	107	562682	10.133
71)*Chlorobenzene-d5	(3)	8.497	117	912023	10.000
72) Chlorobenzene	(3)	8.518	112	902606	9.696
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	461645	10.277
74) Ethylbenzene	(3)	8.583	91	1375320	9.818
75) m/p-Xylene	(3)	8.669	91	1096185	9.843
76) o-Xylene	(3)	8.970	91	1042344	9.802
78) Styrene	(3)	8.984	104	813108	10.287

* = Compound is an internal standard.

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Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	569294	10.802
80) Cumene	(3)	9.242	105	1479019	9.924
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	666953	9.954
81) Bromobenzene	(3)	9.493	156	546178	9.846
83) 1,2,3-Trichloropropane	(3)	9.514	110	219822	9.551
84) n-Propylbenzene	(3)	9.550	120	438547	9.891
86) 4-Ethyltoluene	(3)	9.629	105	1464275M	10.078
85) 2-Chlorotoluene	(3)	9.629	126	394792	9.887
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1175855M	9.844
88) Alpha Methyl Styrene	(3)	9.844	118	579505	10.353
89) tert-Butylbenzene	(3)	9.922	119	1199095M	10.069
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1123054	9.902
91) sec-Butylbenzene	(3)	10.087	105	1658638	9.978
92) 1,3-Dichlorobenzene	(3)	10.187	146	835108	9.804
94) p-Isopropyltoluene	(3)	10.187	119	1401018	10.052
93) 1,4-Dichlorobenzene	(3)	10.259	146	844810	9.762
95) Benzyl Chloride	(3)	10.359	91	733549	10.468
97) n-Butylbenzene	(3)	10.503	91	1150223	10.087
96) 1,2-Dichlorobenzene	(3)	10.546	146	746421	9.817
98) Hexachloroethane	(3)	10.732	117	338859	11.099
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	291210	10.762
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	417370	9.891
101) Hexachlorobutadiene	(3)	11.871	225	374480	9.912
102) Naphthalene	(3)	11.964	128	766117	10.280
64) 1,3-Dichloropropene (total)	(3)		75	915759	20.543
77) Xylene (total)	(3)		91	2138529	19.646

M = Compound was manually integrated.

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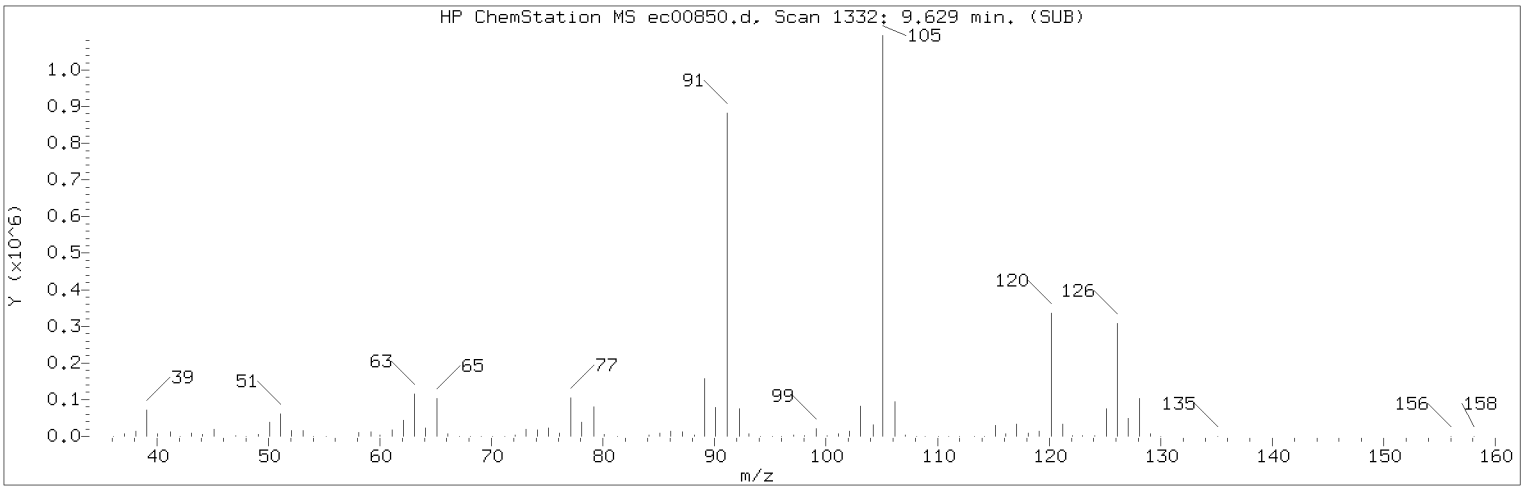
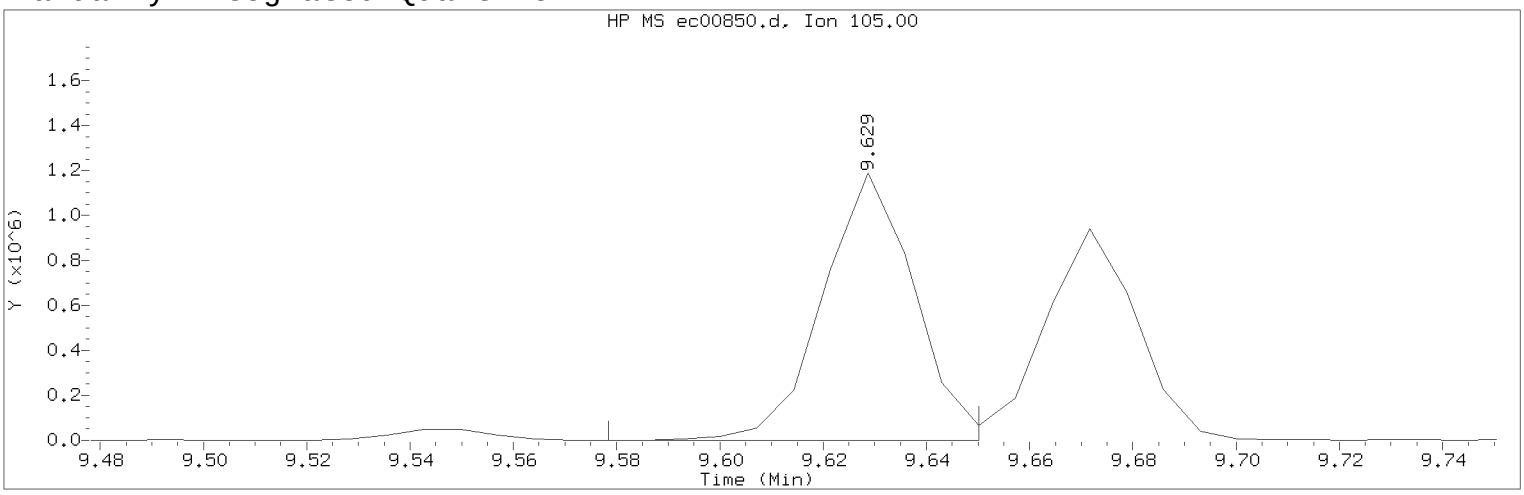
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

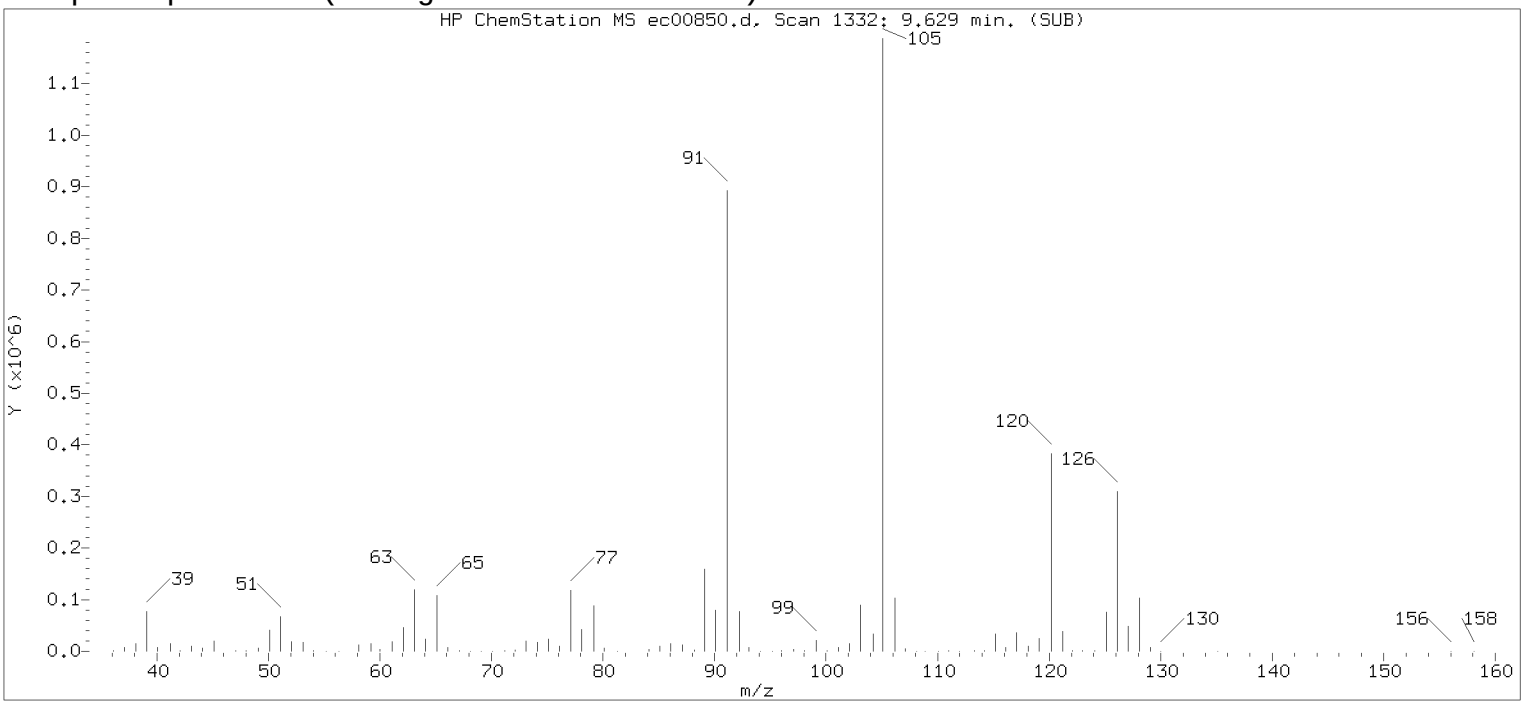
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1464275M
Concentration (ppb(v)) : 10.0781
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 715 Y at integration end: 715

Reason for manual integration: improper integration

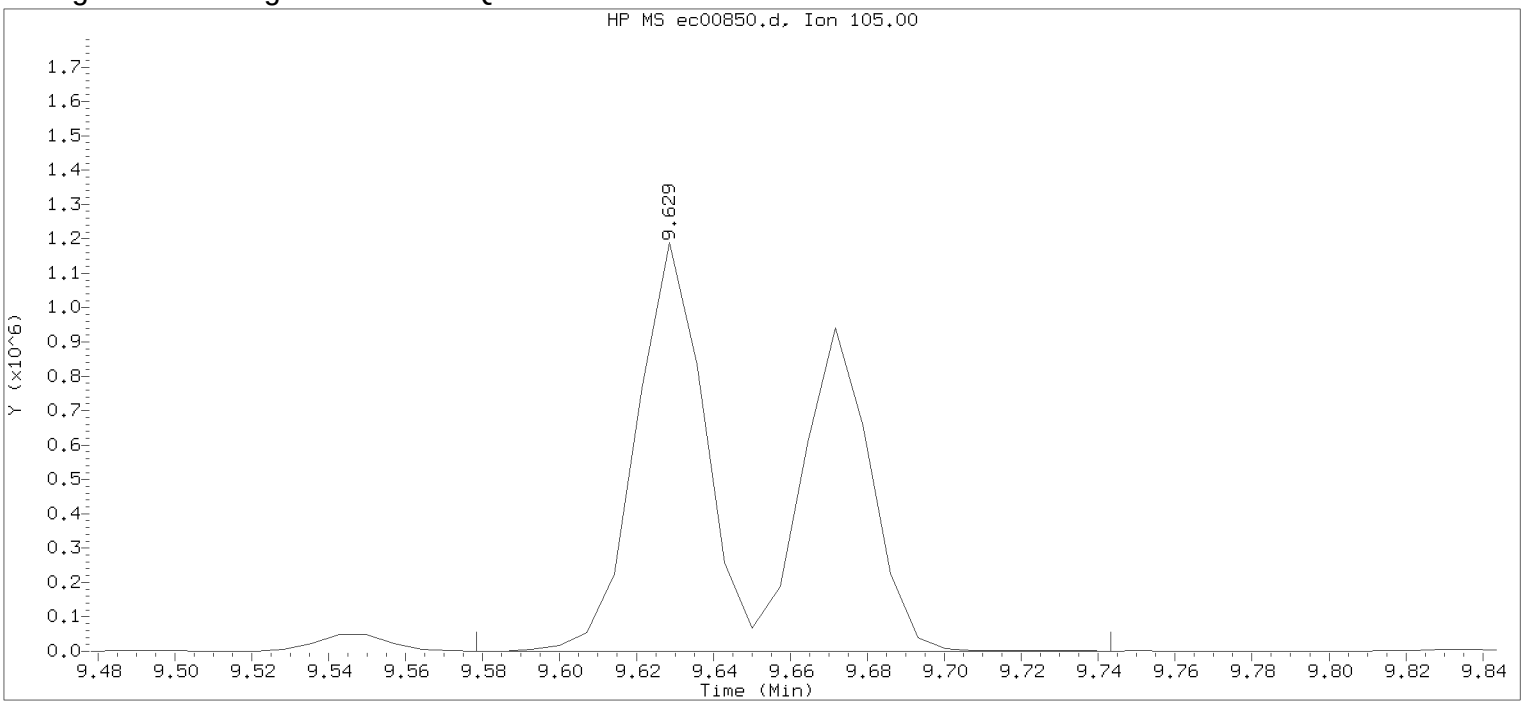
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:35 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2613970
Concentration (ppb(v)) : 12.9483
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 387 Y at integration end: 387

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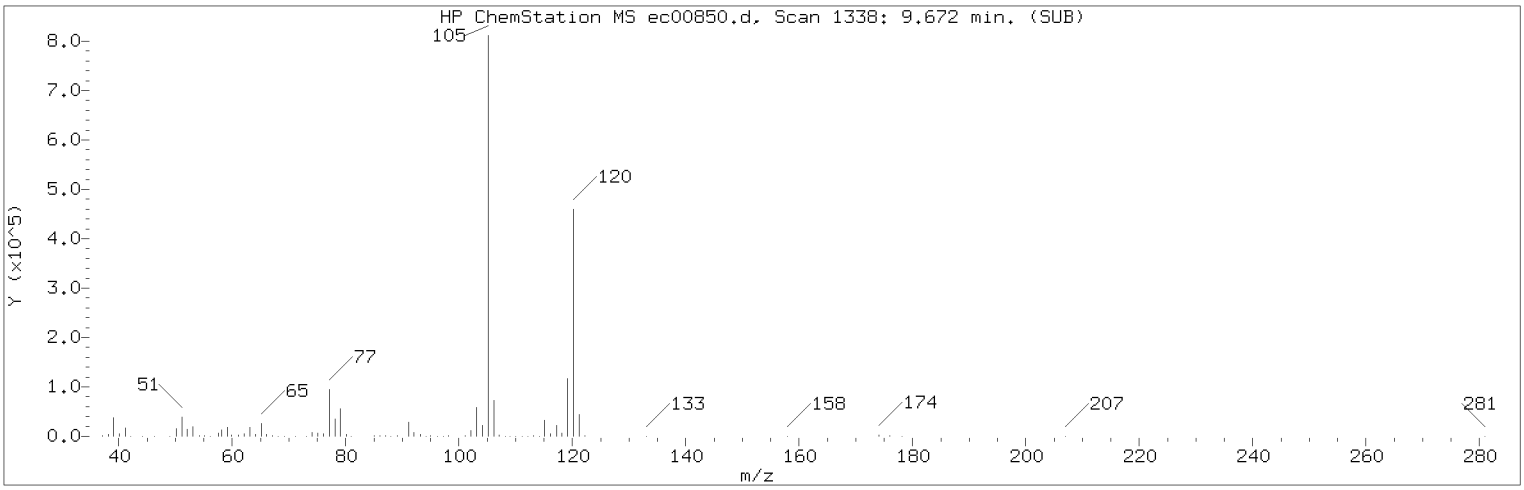
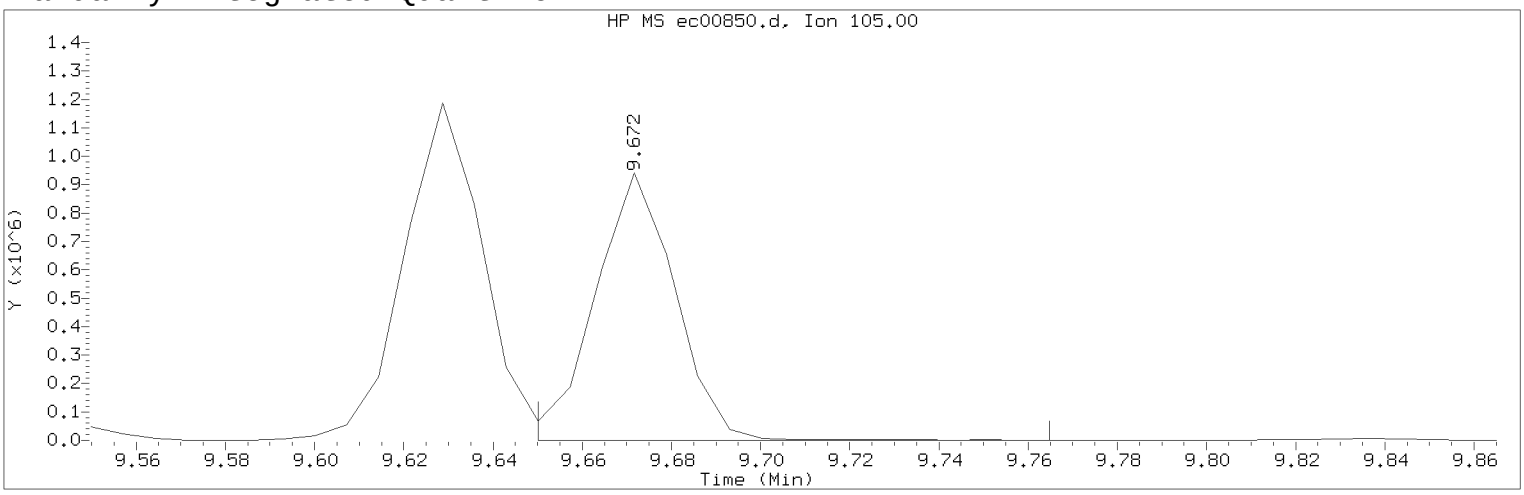
Target 3.5 esignature user id: 71 and 07856

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

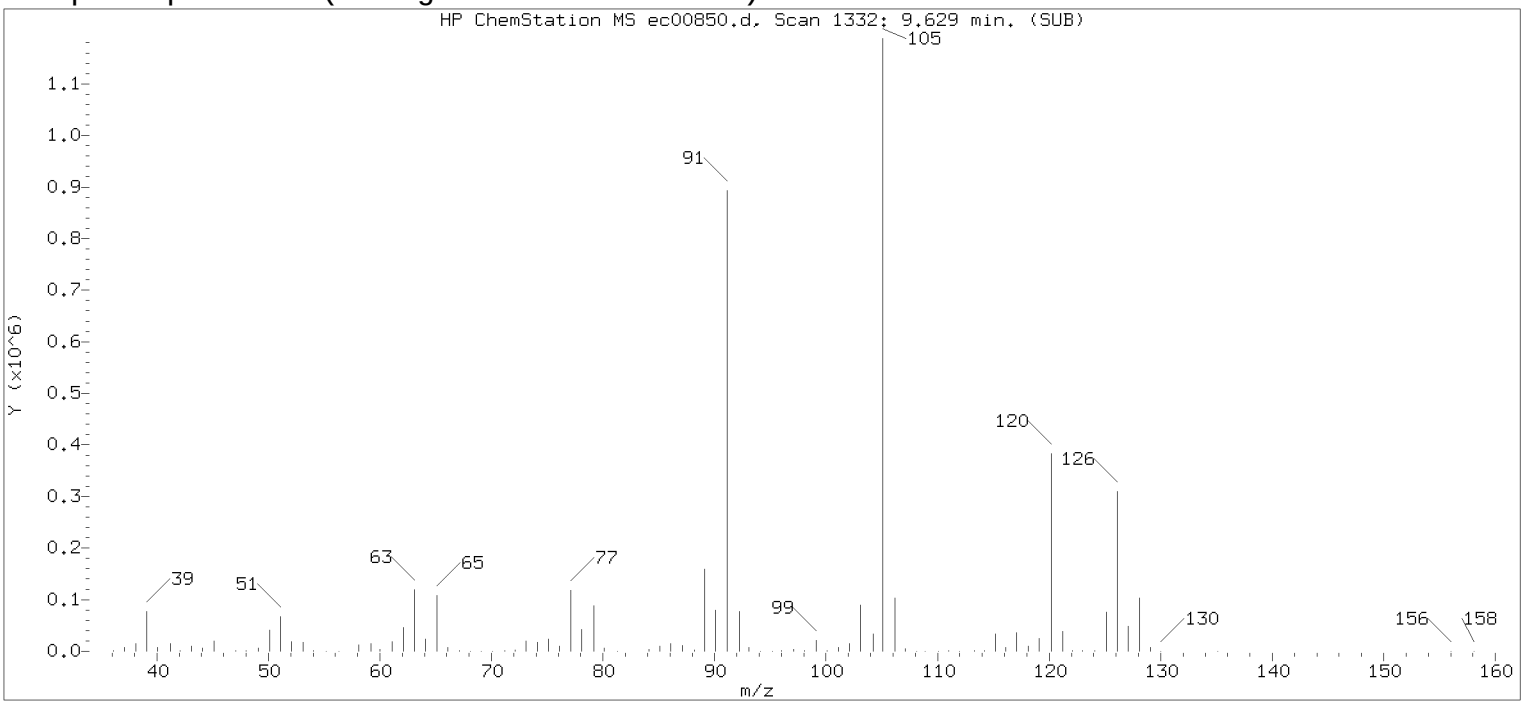
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1175855M
Concentration (ppb(v)) : 9.8441
Integration start scan : 1334 Integration stop scan: 1350
Y at integration start : 640 Y at integration end: 640

Reason for manual integration: improper integration

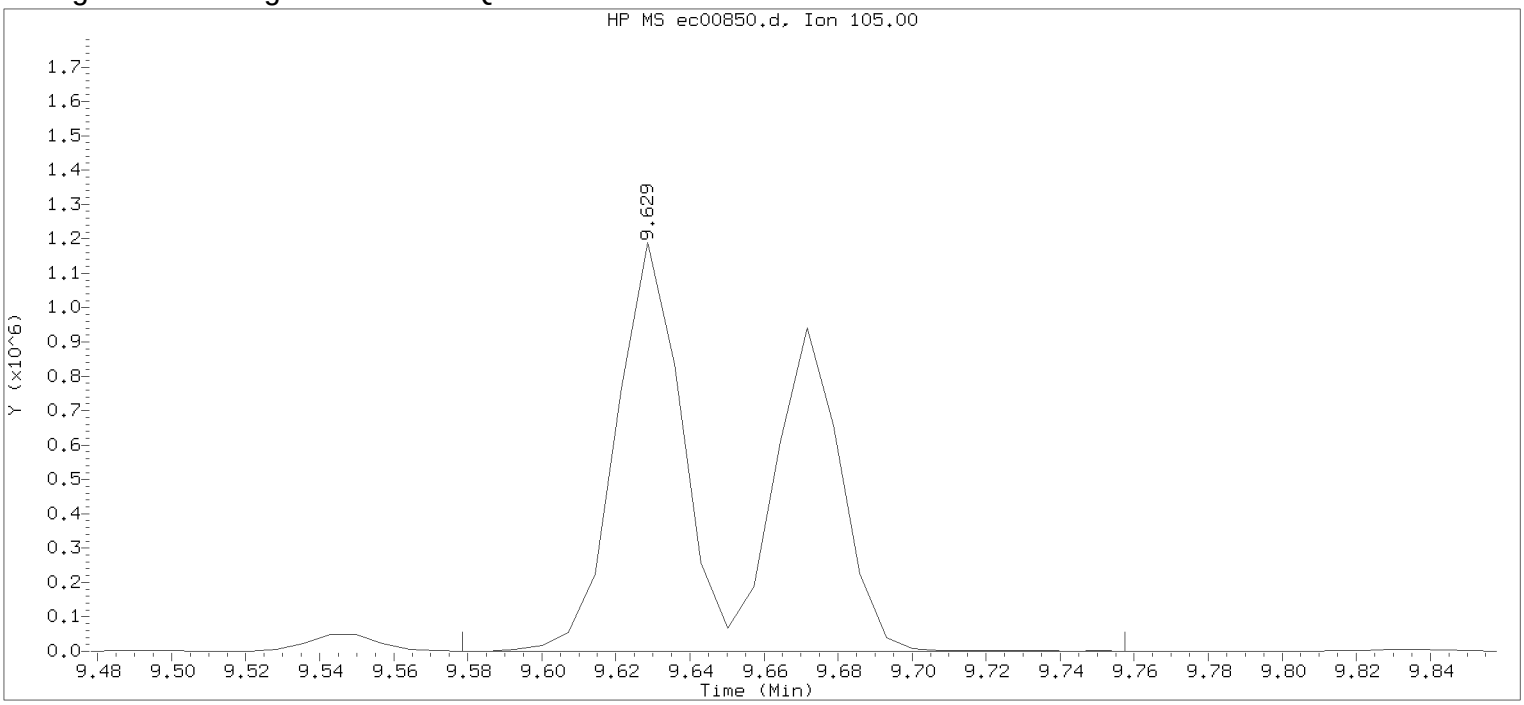
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:35 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2611132
Concentration (ppb(v)) : 15.5942
Integration start scan : 1324 Integration stop scan: 1349
Y at integration start : 715 Y at integration end: 715

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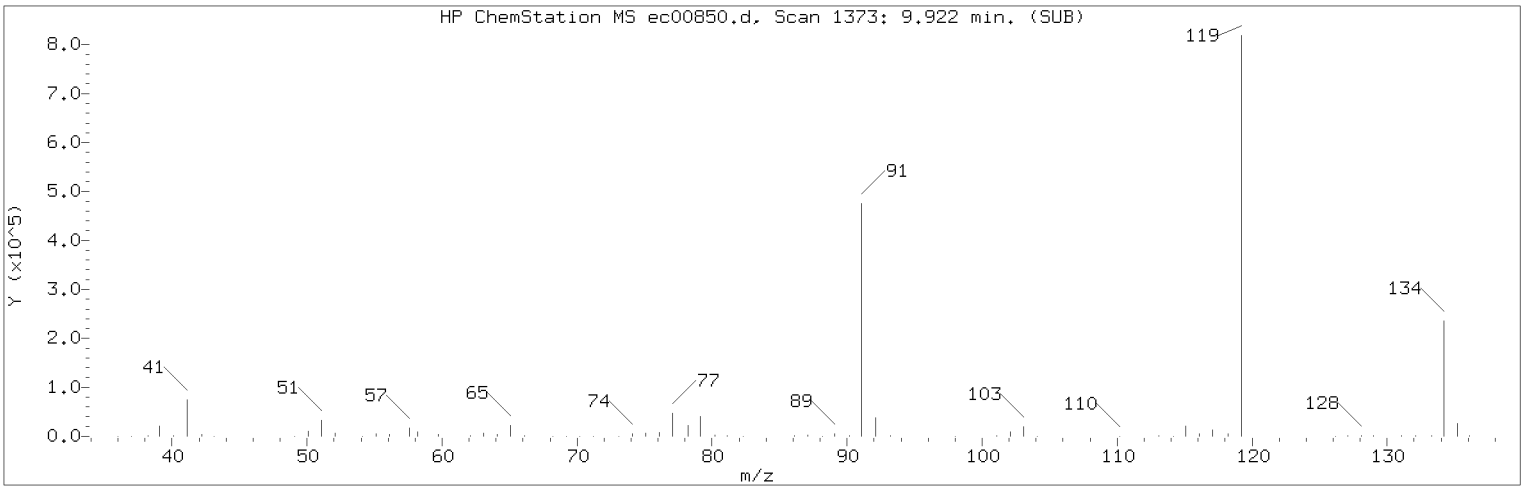
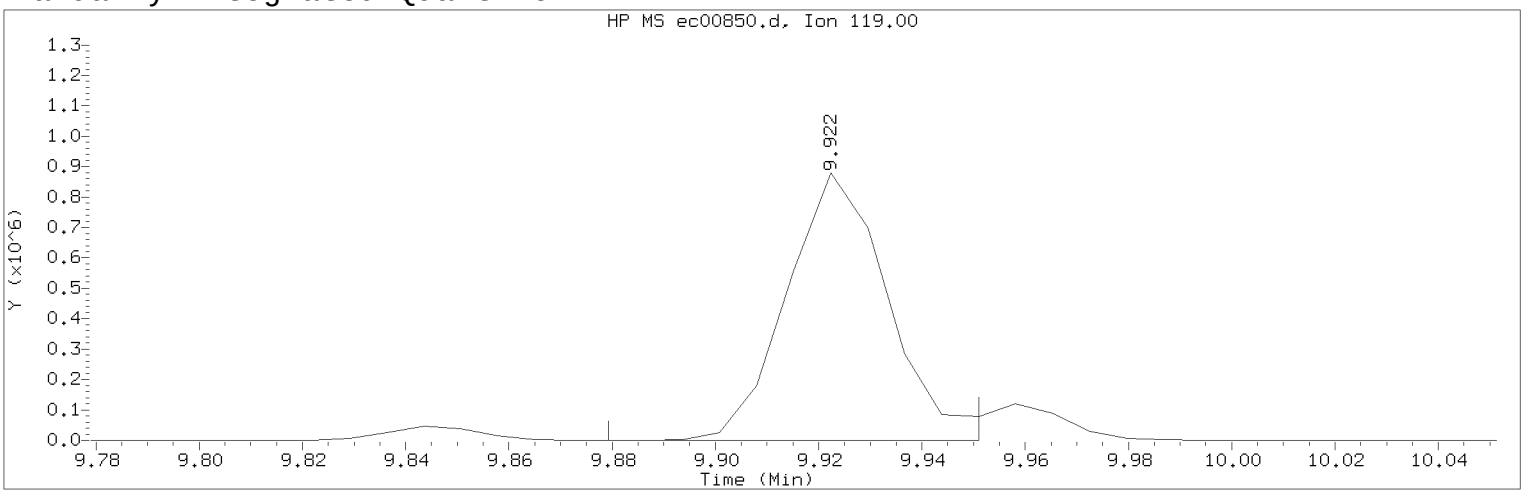
Target 3.5 esignature user id: 71 and Page 358

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD010 Lab Sample ID: VSTD010

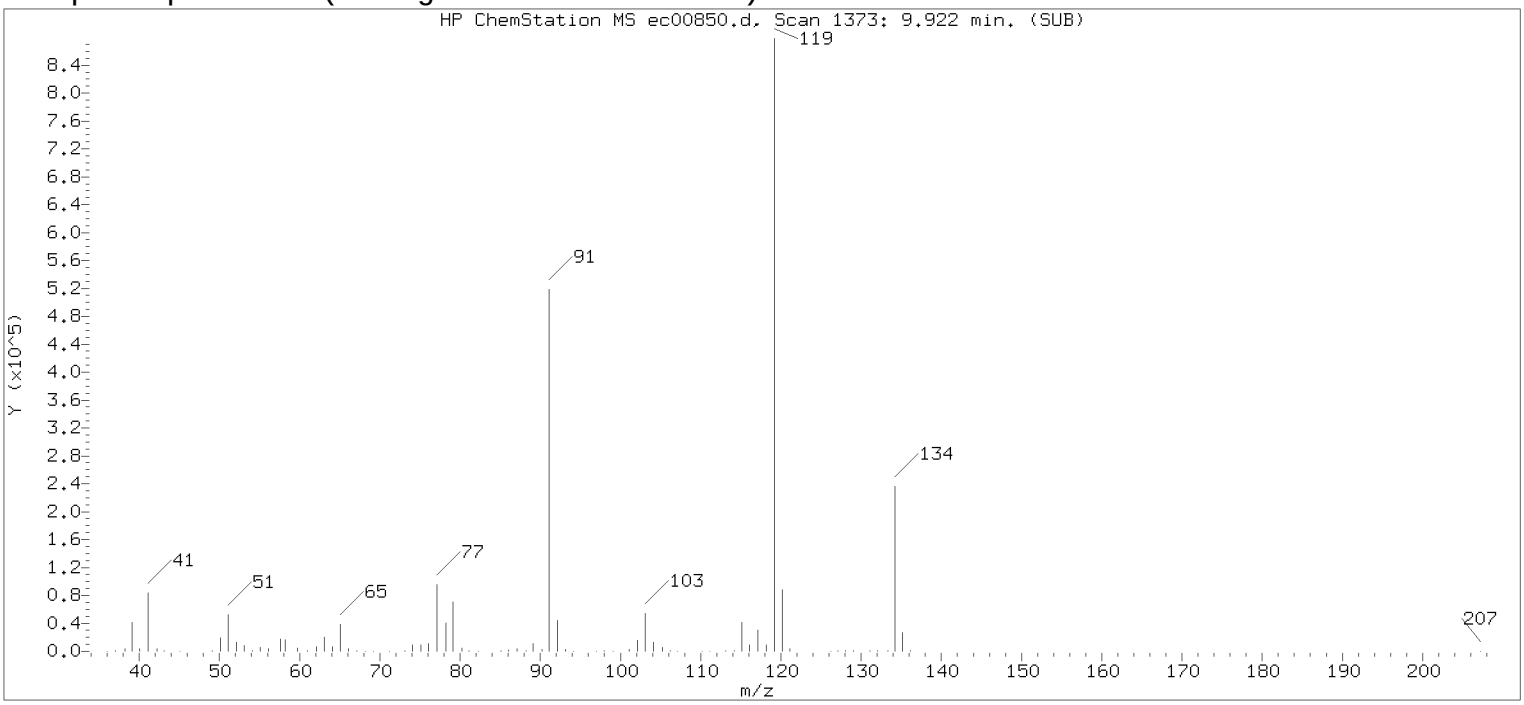
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 1199095M
Concentration (ppb(v)) : 10.0689
Integration start scan : 1366 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

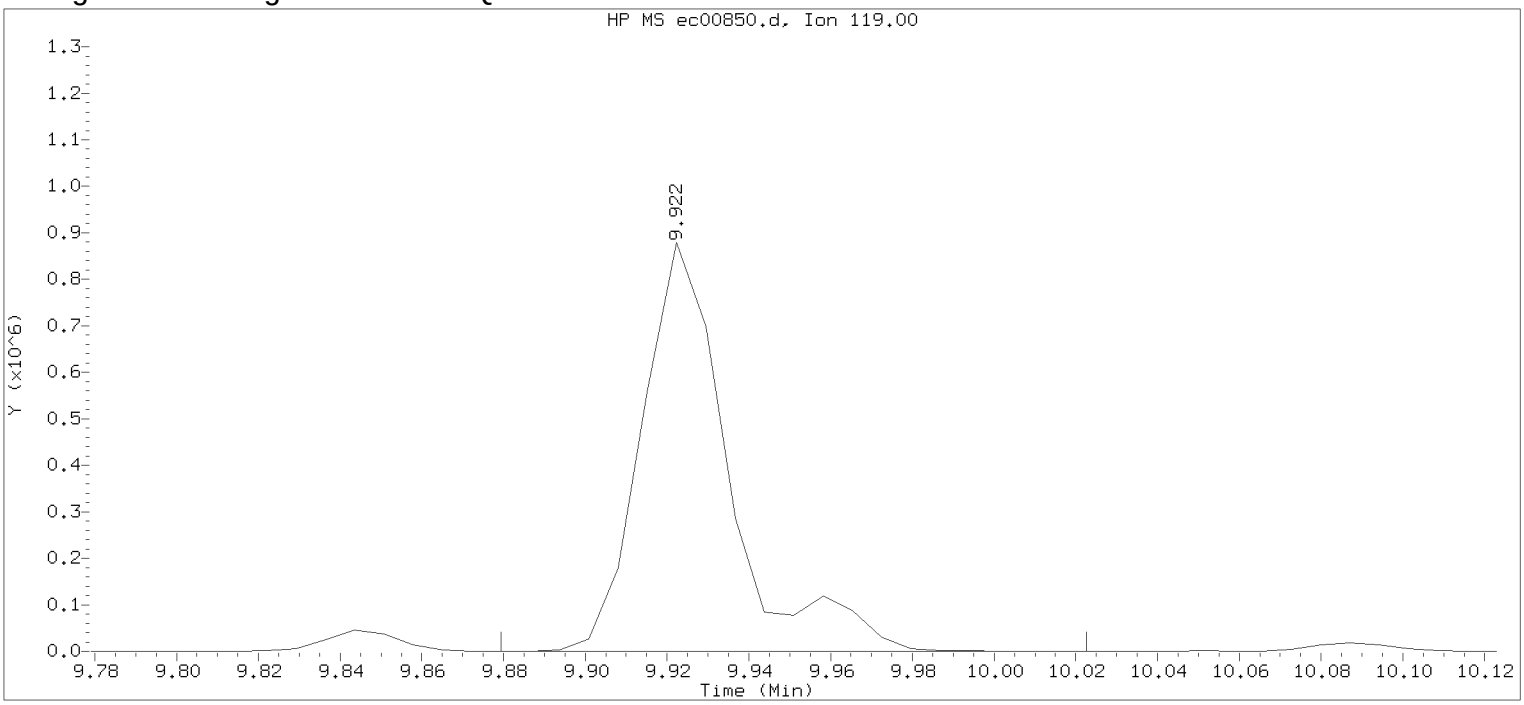
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00850.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:16 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 21:35 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 1305275
Concentration (ppb(v)) : 7.7567
Integration start scan : 1366 Integration stop scan: 1386
Y at integration start : 0 Y at integration end: 0

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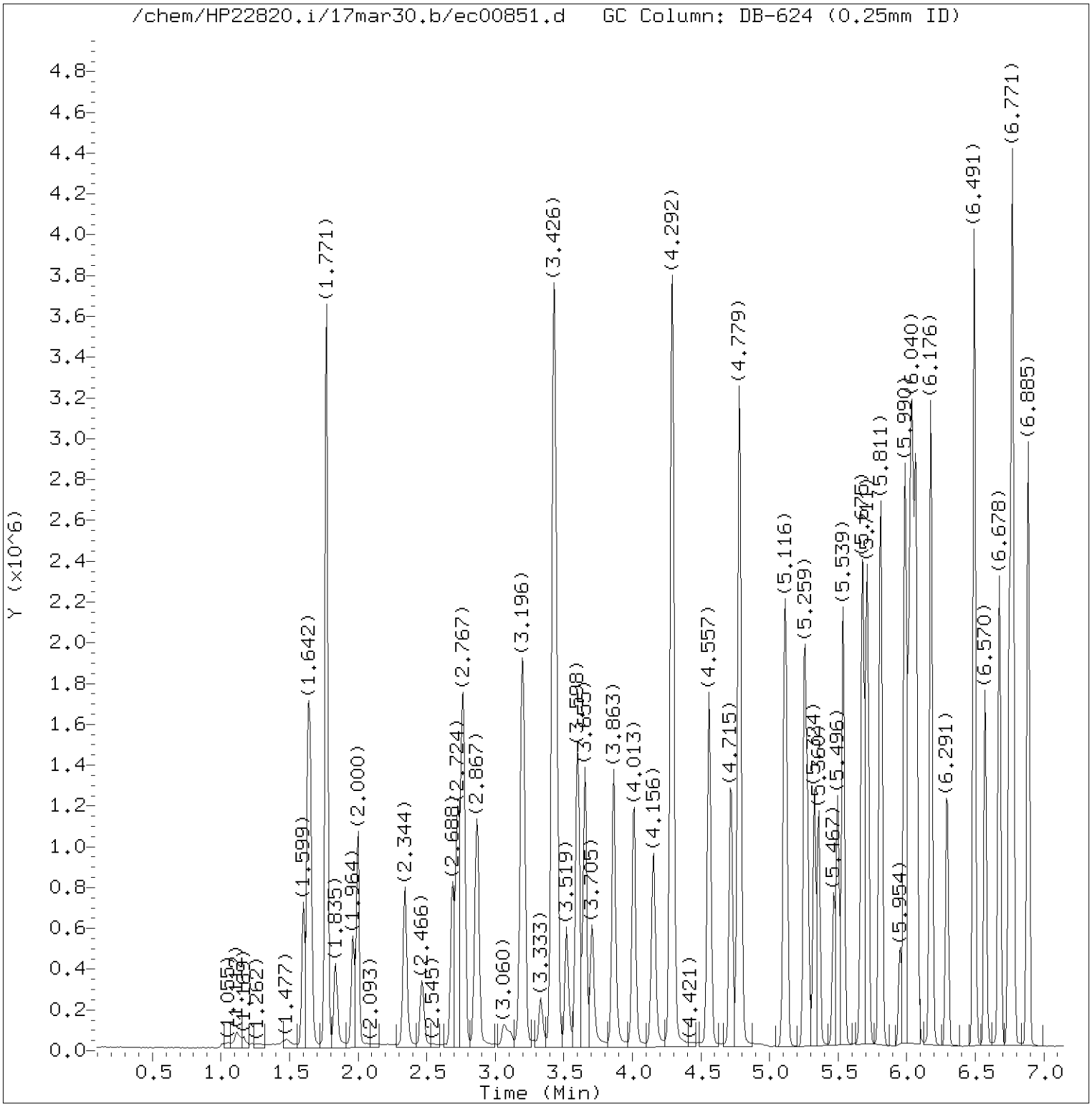
Target 3.5 esignature user id: 71 and Page 368



Total Ion Chromatogram (TIC)

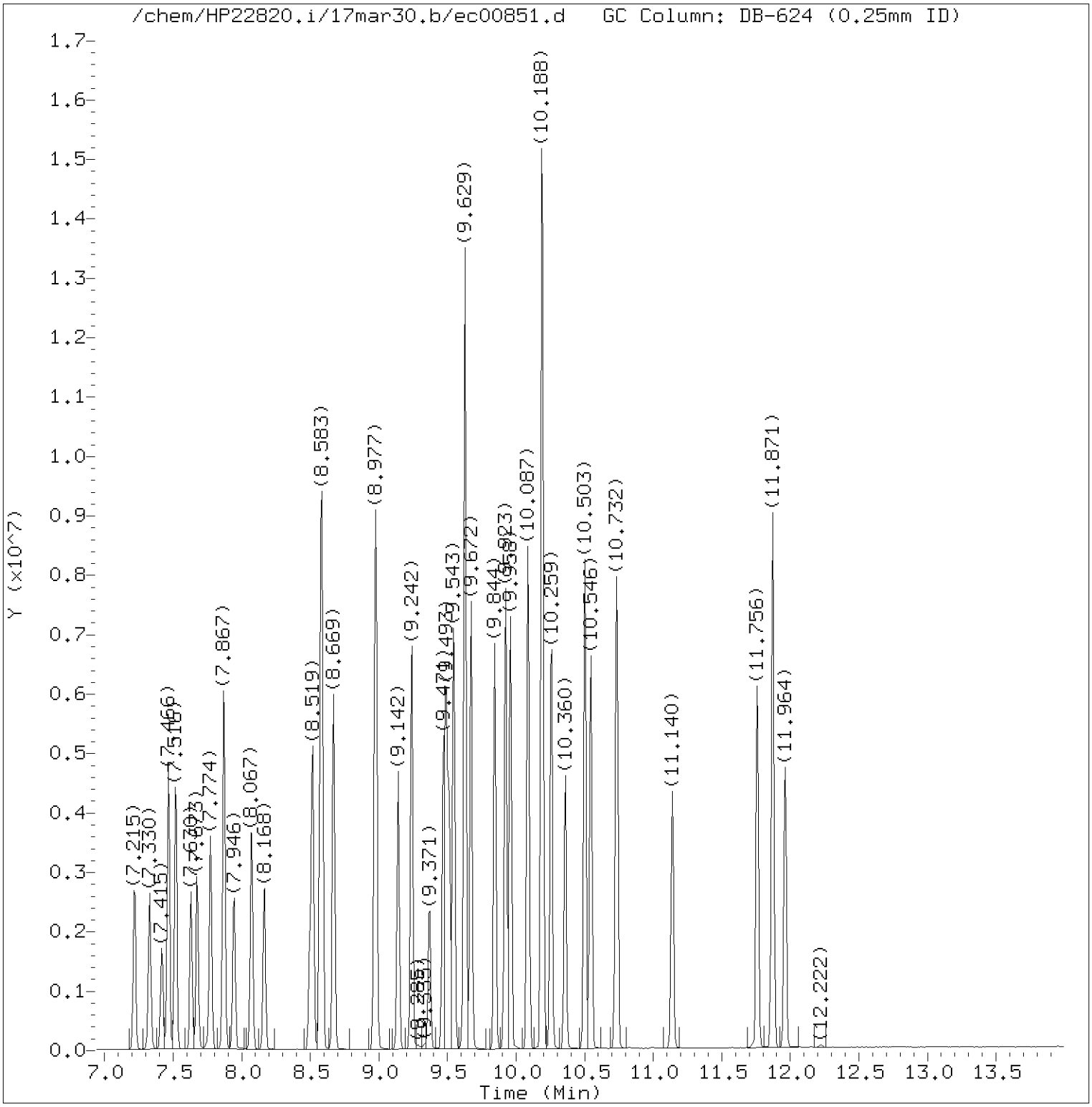
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.599	41	381198	24.656
2)	Dichlorodifluoromethane	(1)	1.635	85	1586969	25.831
3)	Chlorodifluoromethane	(1)	1.656	51	820291	25.475
4)	Freon 114	(1)	1.771	85	1661589	25.704
5)	Chloromethane	(1)	1.835	50	403083	23.527
6)	Vinyl Chloride	(1)	1.964	62	594466	25.702
7)	1,3-Butadiene	(1)	2.000	54	431530	25.316
8)	Bromomethane	(1)	2.344	94	600679	25.204
9)	Chloroethane	(1)	2.466	64	327836	25.395
10)	Bromoethene	(1)	2.688	106	664650	25.854
11)	Dichlorofluoromethane	(1)	2.724	67	1298907	25.696
12)	Trichlorofluoromethane	(1)	2.767	101	1683950	25.388
13)	Pentane	(1)	2.867	43	865713	24.924
14)	Ethanol	(1)	3.060	45	165594	29.356
15)	Freon123a	(1)	3.196	67	1219603	24.719
16)	Acrolein	(1)	3.333	56	232664	26.241
17)	1,1-Dichloroethene	(1)	3.419	61	924329	25.821
18)	Freon 113	(1)	3.433	103	972901	24.736
19)	Acetone	(1)	3.519	43	728238	26.219
20)	Methyl Iodide	(1)	3.598	142	1968657	27.008
21)	Carbon Disulfide	(1)	3.655	76	1848149	26.076
22)	Isopropanol	(1)	3.705	45	801901	32.268
23)	Acetonitrile	(1)	3.863	40	296339M	22.354
24)	3-Chloropropene	(1)	3.863	76	309021	28.945
25)	Methylene Chloride	(1)	4.013	84	613308	29.074
26)	tert-Butyl Alcohol	(1)	4.156	59	1241482	30.289
28)	trans-1,2-Dichloroethene	(1)	4.285	61	861012	25.936
29)	Methyl t-Butyl Ether	(1)	4.285	73	1824616	25.232
27)	Acrylonitrile	(1)	4.292	53	491565	26.632
30)	Hexane	(1)	4.557	57	902710	25.031
31)	1,1-Dichloroethane	(1)	4.715	63	1118813	25.607
32)	Vinyl Acetate	(1)	4.779	86	193190	32.438
33)	Di-Isopropyl Ether	(1)	4.779	45	1776923	25.433
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	1879583	25.844
35)	cis-1,2-Dichloroethene	(1)	5.252	61	820325	25.973
37)	2-Butanone	(1)	5.281	72	338937	26.914
38)	Ethyl Acetate	(1)	5.324	70	166663	24.196
39)	Methyl Acrylate	(1)	5.360	55	1024931	27.029

M = Compound was manually integrated.

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on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	246075	10.000
41) Tetrahydrofuran	(1)	5.496	42	597758	26.130
42) Chloroform	(1)	5.539	83	1403926	25.461
43) 1,1,1-Trichloroethane	(1)	5.675	97	1422677	25.569
44) Cyclohexane	(1)	5.711	56	959829	25.389
45) Carbon Tetrachloride	(1)	5.811	117	1494312	26.019
46) Benzene	(2)	5.990	78	2157504	25.526
47) 1,2-Dichloroethane	(2)	6.012	62	815617	25.670
48) Isooctane	(2)	6.033	57	3003655	25.853
49) Tert-Amyl Methyl Ether	(2)	6.069	73	2018675	26.473
50) Heptane	(2)	6.176	43	979661	25.346
51)*1,4-Difluorobenzene	(2)	6.298	114	914086	10.000
52) Trichloroethene	(2)	6.491	130	1131878	26.221
53) Ethyl Acrylate	(2)	6.570	55	1330450	27.582
36) 1,2-Dichloroethene (total)	(1)		61	1681337	51.909
54) 1,2-Dichloropropane	(2)	6.678	63	726402	25.070
57) Methyl Methacrylate	(2)	6.749	69	724086M	25.989
56) 1,4-Dioxane	(2)	6.771	88	543015	27.120
55) Dibromomethane	(2)	6.771	174	1135184	26.790
58) Bromodichloromethane	(2)	6.885	83	1476483	27.142
59) cis-1,3-Dichloropropene	(2)	7.215	75	1309679	27.125
60) 4-Methyl-2-Pentanone	(2)	7.330	43	1296666	26.598
61) Toluene	(3)	7.466	91	2732986	24.924
62) Octane	(3)	7.516	43	1355684	25.045
63) trans-1,3-Dichloropropene	(3)	7.630	75	1114101	26.983
65) Ethyl Methacrylate	(3)	7.673	69	1254552	27.666
66) 1,1,2-Trichloroethane	(3)	7.774	97	941334	26.046
67) Tetrachloroethene	(3)	7.874	166	1625392	25.408
68) 2-Hexanone	(3)	7.946	43	1234826	27.196
69) Dibromochloromethane	(3)	8.067	127	1305819	28.449
70) 1,2-Dibromoethane	(3)	8.168	107	1526914	27.123
71)*Chlorobenzene-d5	(3)	8.497	117	905013	10.000
72) Chlorobenzene	(3)	8.519	112	2401381	25.790
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	1278202	27.856
74) Ethylbenzene	(3)	8.583	91	3638907M	25.933
75) m/p-Xylene	(3)	8.669	91	2795070	25.233
76) o-Xylene	(3)	8.970	91	2791707	26.151
78) Styrene	(3)	8.984	104	2289083	28.238

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

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on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

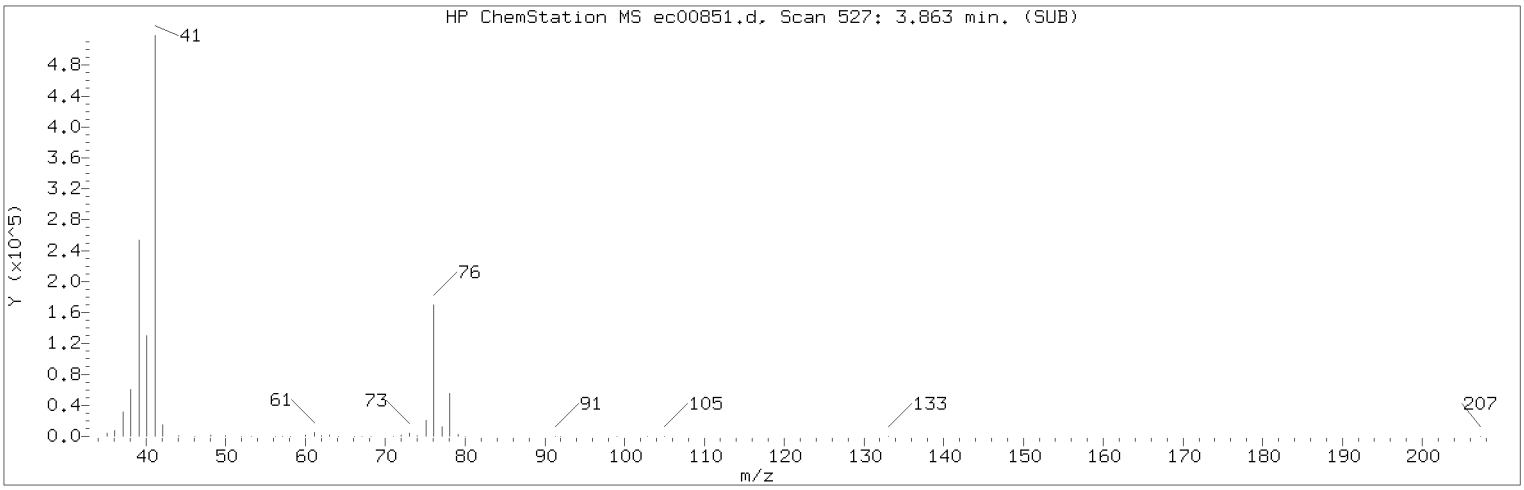
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	1802709	32.043
80) Cumene	(3)	9.242	105	4062324	26.936
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	1988409	28.777
81) Bromobenzene	(3)	9.493	156	1580336	27.882
83) 1,2,3-Trichloropropane	(3)	9.514	110	629848	27.021
84) n-Propylbenzene	(3)	9.550	120	1248820	27.636
86) 4-Ethyltoluene	(3)	9.629	105	4195556M	28.176
85) 2-Chlorotoluene	(3)	9.629	126	1133809	27.811
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	3408938M	27.920
88) Alpha Methyl Styrene	(3)	9.844	118	1813033	30.760
89) tert-Butylbenzene	(3)	9.923	119	3422002M	28.069
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	3378666	28.860
91) sec-Butylbenzene	(3)	10.087	105	4953541	28.869
92) 1,3-Dichlorobenzene	(3)	10.188	146	2618908	29.568
94) p-Isopropyltoluene	(3)	10.188	119	4380917	30.071
93) 1,4-Dichlorobenzene	(3)	10.259	146	2646045	29.444
95) Benzyl Chloride	(3)	10.360	91	2718279	35.131
97) n-Butylbenzene	(3)	10.503	91	3783548	31.322
96) 1,2-Dichlorobenzene	(3)	10.546	146	2446768	30.611
98) Hexachloroethane	(3)	10.732	117	1220633	35.899
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	1223427	39.127
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	1806182	37.669
101) Hexachlorobutadiene	(3)	11.871	225	1634384	37.951
102) Naphthalene	(3)	11.964	128	3474330	39.956
64) 1,3-Dichloropropene (total)	(3)		75	2423780	53.763
77) Xylene (total)	(3)		91	5586777	51.367

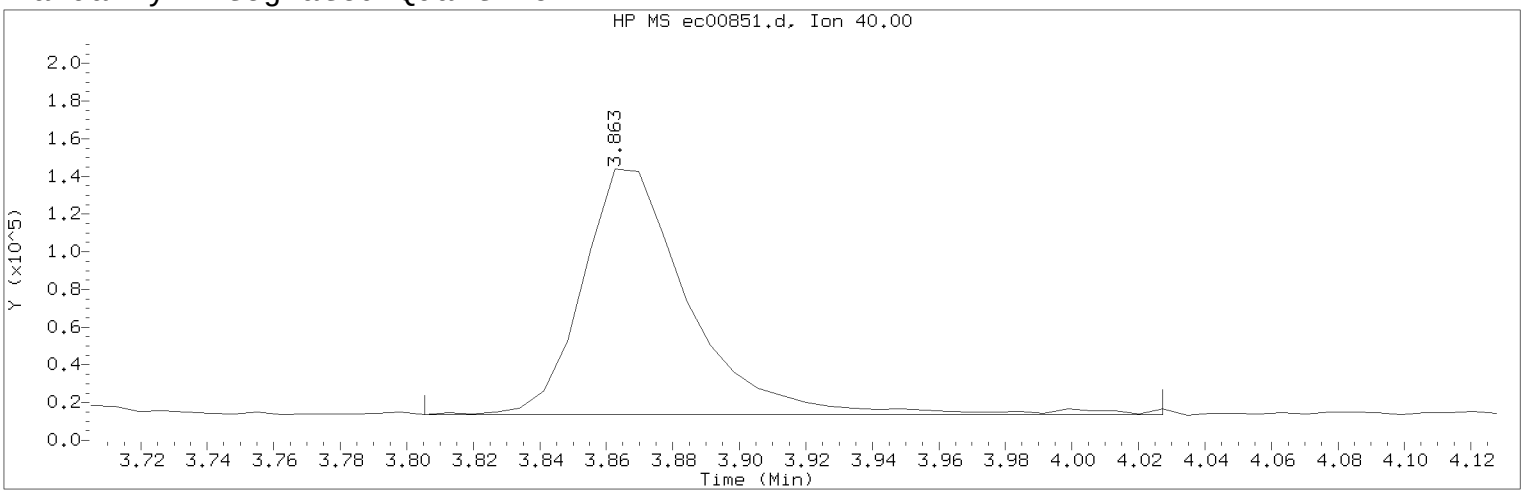
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

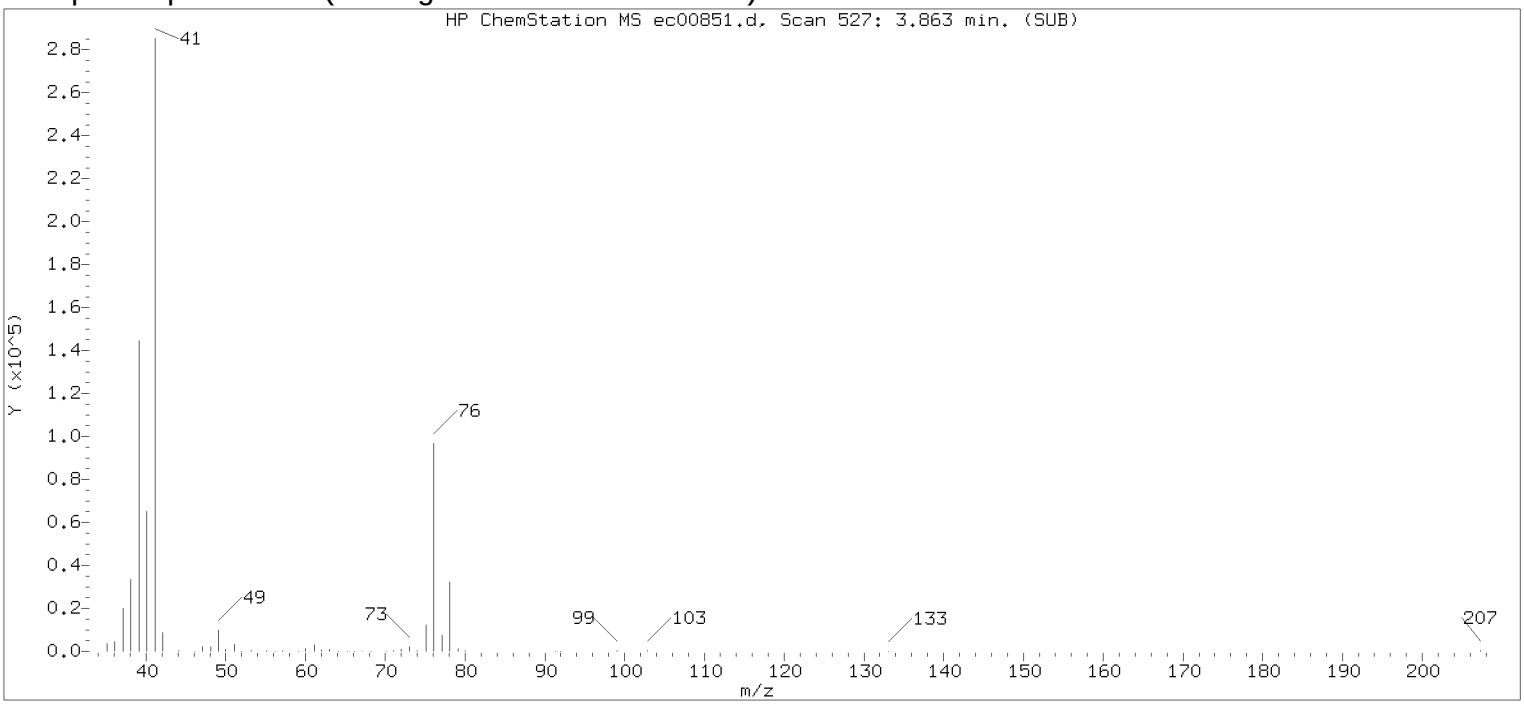
Compound Number : 23
Compound Name : Acetonitrile
Scan Number : 527
Retention Time (minutes): 3.863
Quant Ion : 40.00
Area (flag) : 296339M
Concentration (ppb(v)) : 22.3544
Integration start scan : 518 Integration stop scan: 549
Y at integration start : 13505 Y at integration end: 13505

Reason for manual integration: improper integration

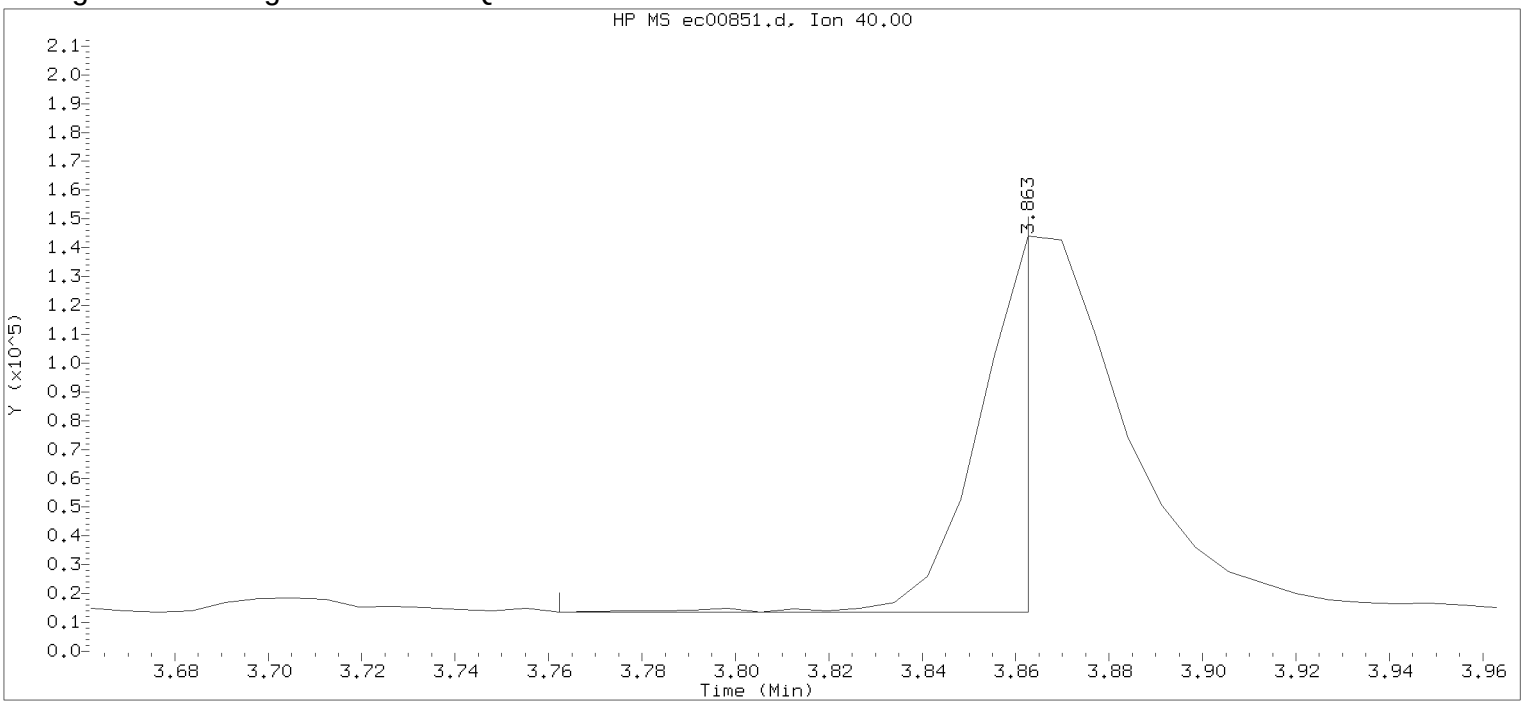
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

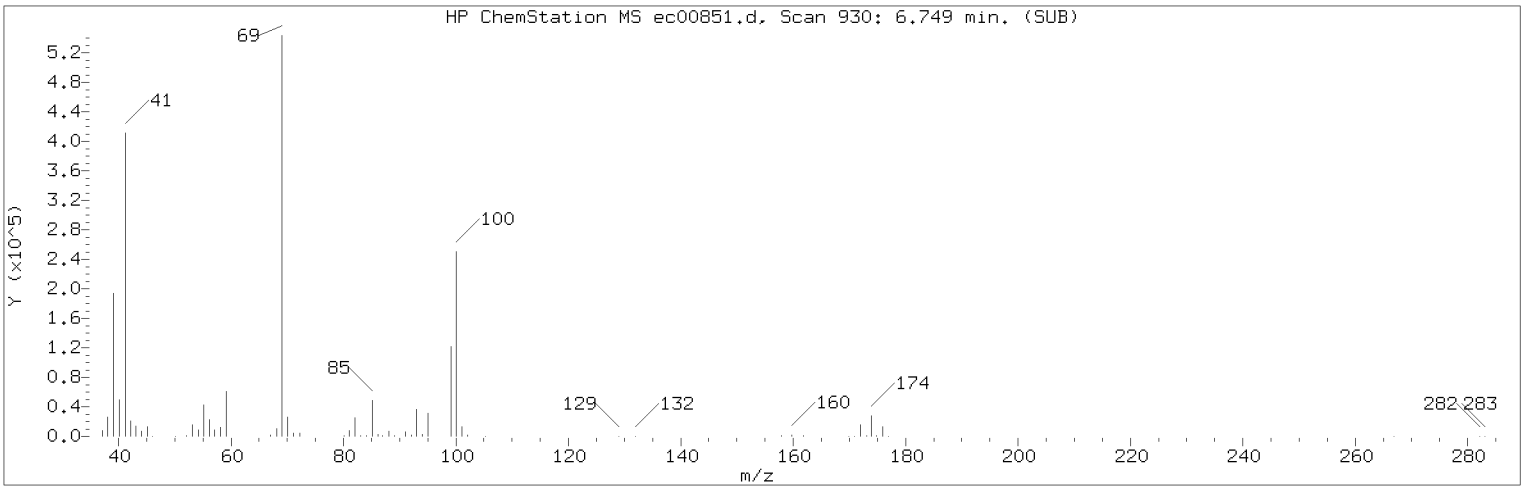
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

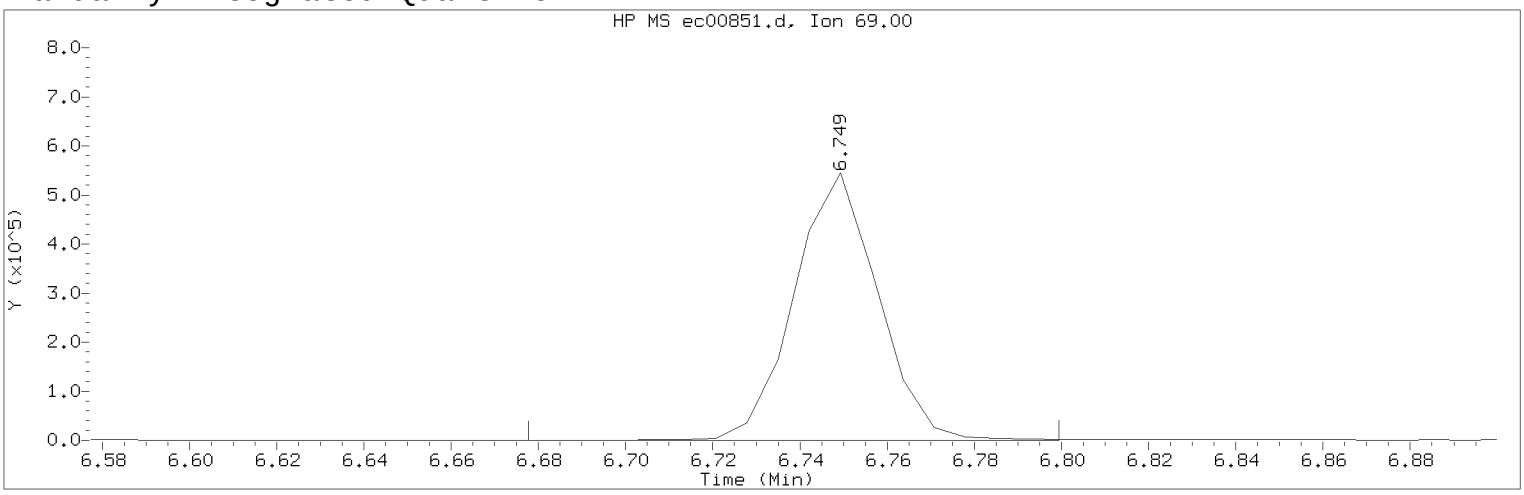
Compound Number : 23
Compound Name : Acetonitrile
Scan Number : 527
Retention Time (minutes): 3.863
Quant Ion : 40.00
Area : 92024
Concentration (ppb(v)) : 6.7877
Integration start scan : 512 Integration stop scan: 526
Y at integration start : 13650 Y at integration end: 13650

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user id: 07817

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

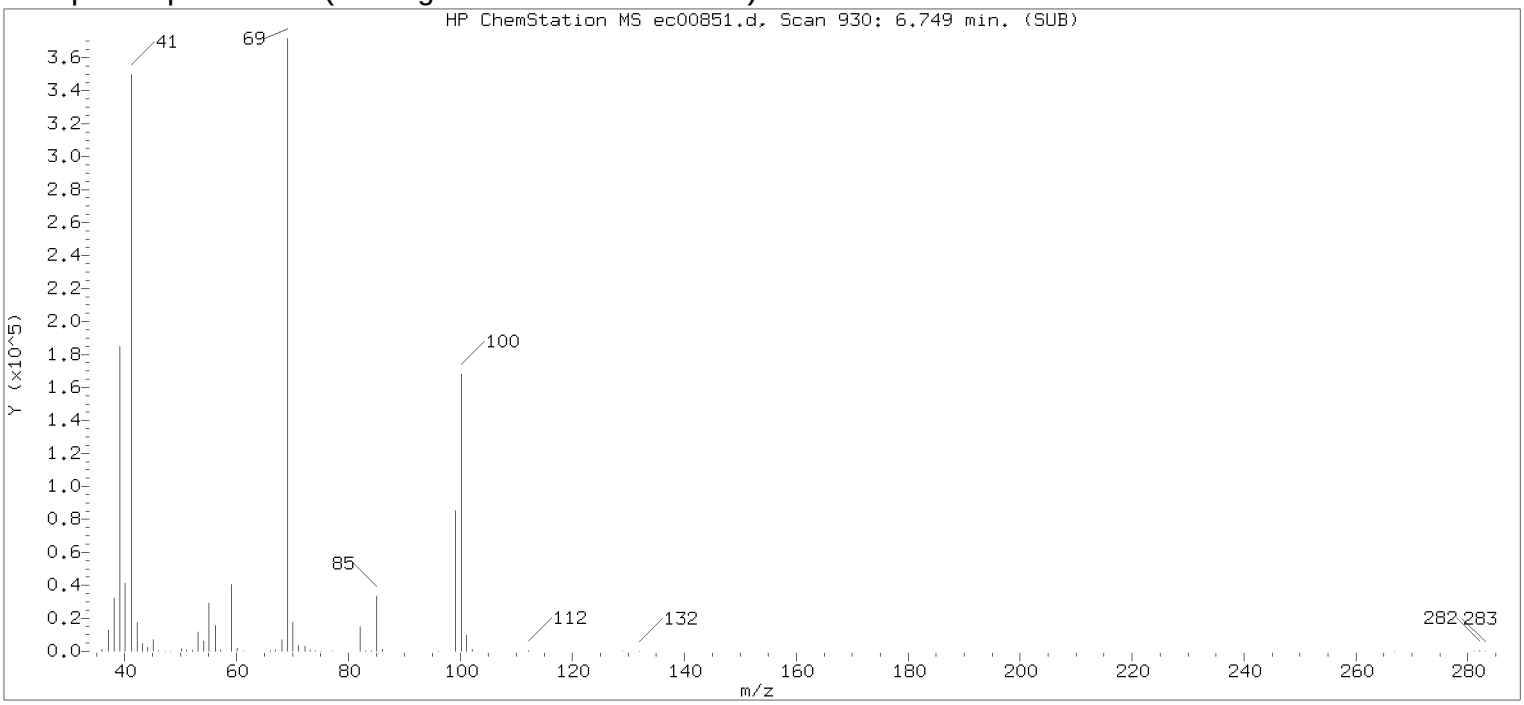
Compound Number : 57
Compound Name : Methyl Methacrylate
Scan Number : 930
Retention Time (minutes): 6.749
Quant Ion : 69.00
Area (flag) : 724086M
Concentration (ppb(v)) : 25.9894
Integration start scan : 919 Integration stop scan: 936
Y at integration start : 170 Y at integration end: 170

Reason for manual integration: improper integration

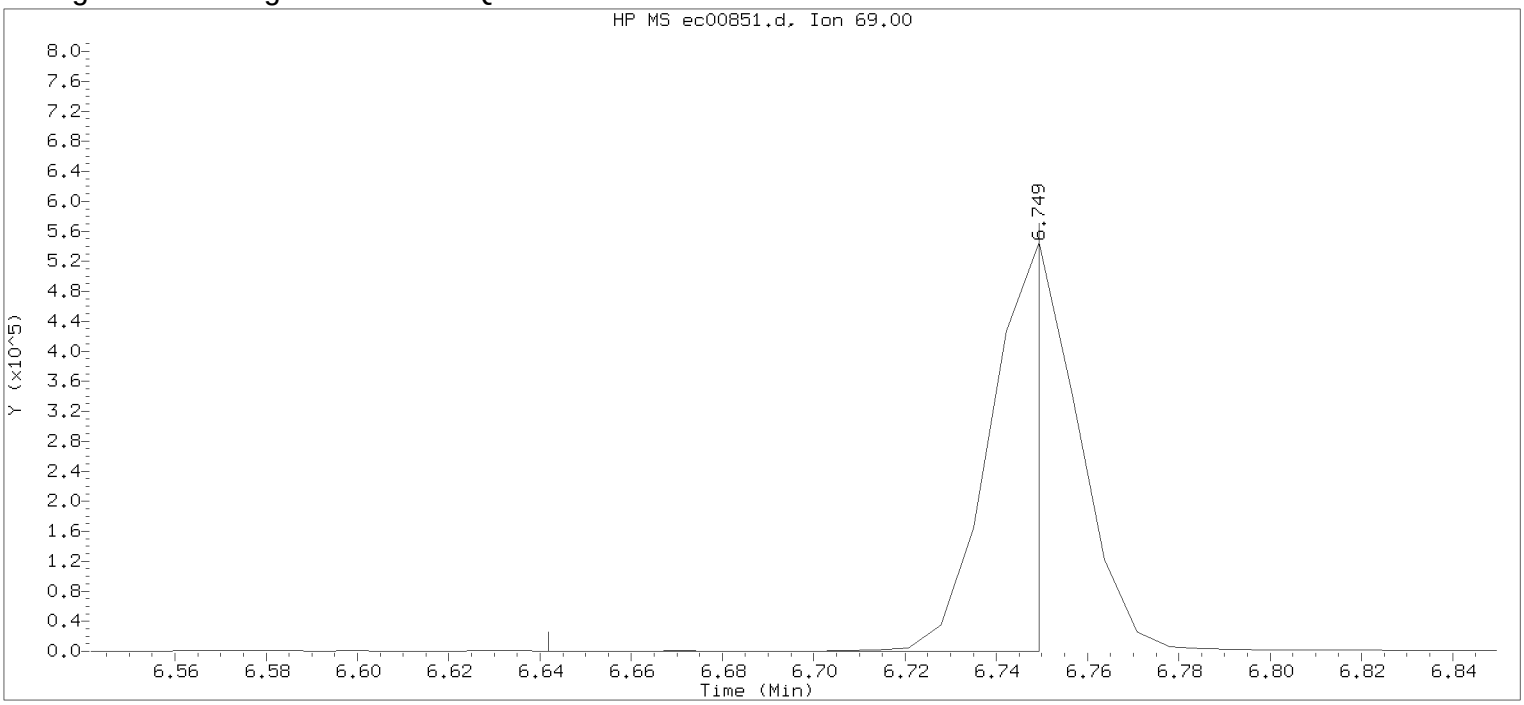
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 57
Compound Name : Methyl Methacrylate
Scan Number : 930
Retention Time (minutes): 6.749
Quant Ion : 69.00
Area : 389528
Concentration (ppb(v)) : 10.4644
Integration start scan : 914 Integration stop scan: 929
Y at integration start : 221 Y at integration end: 221

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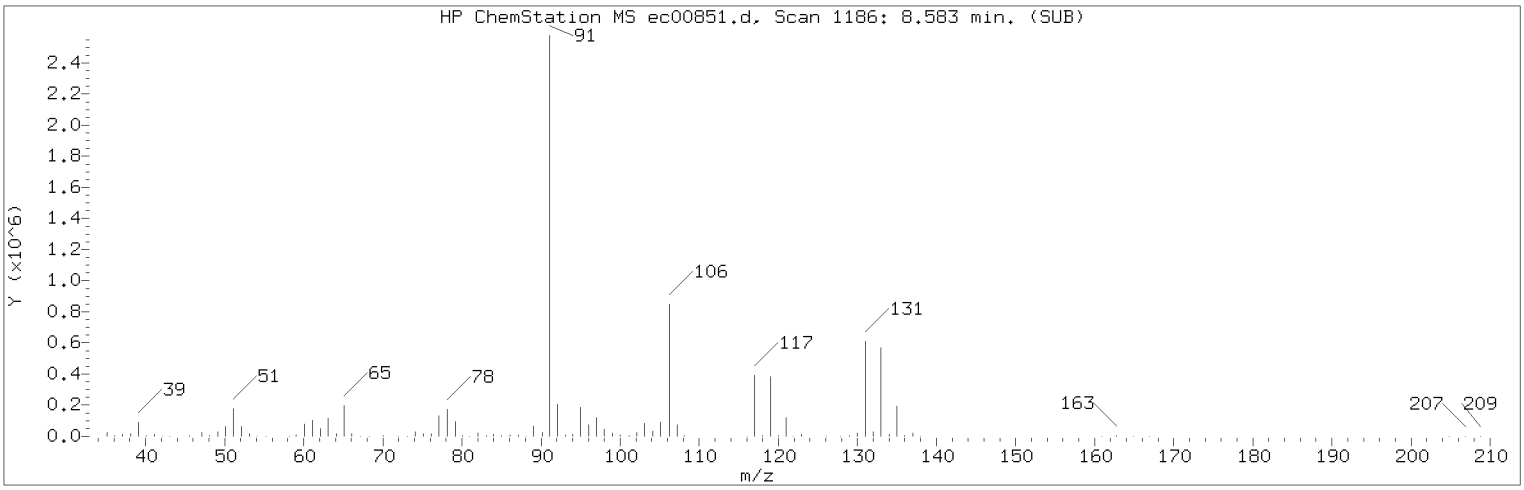
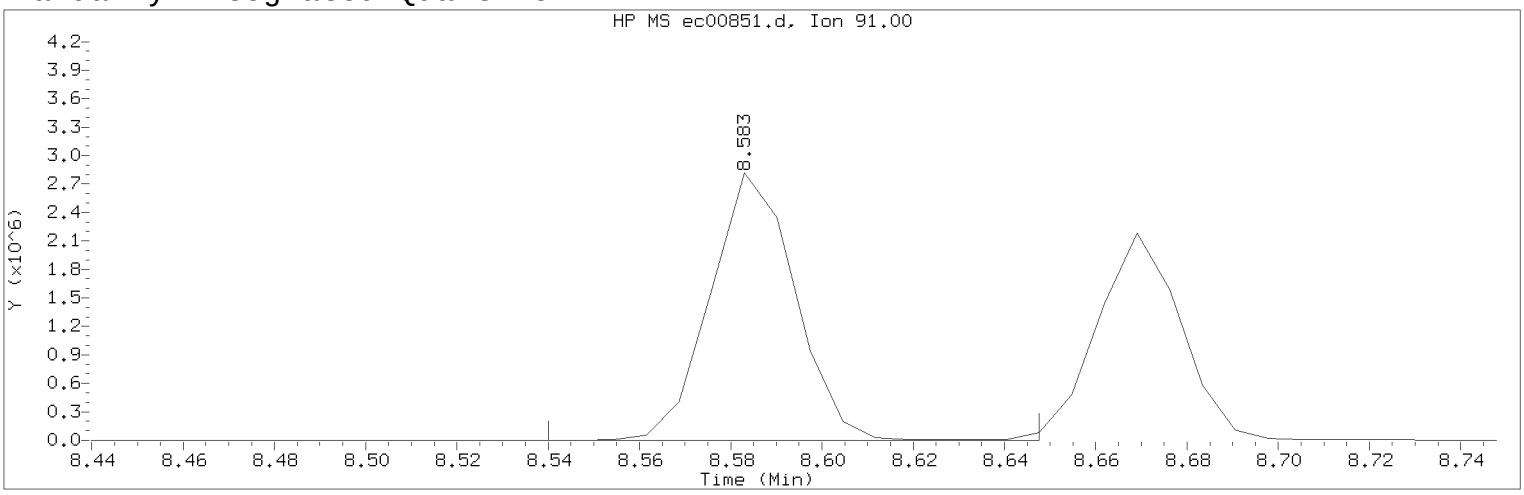
Target 3.5 esignature user id: 71 and 07869

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

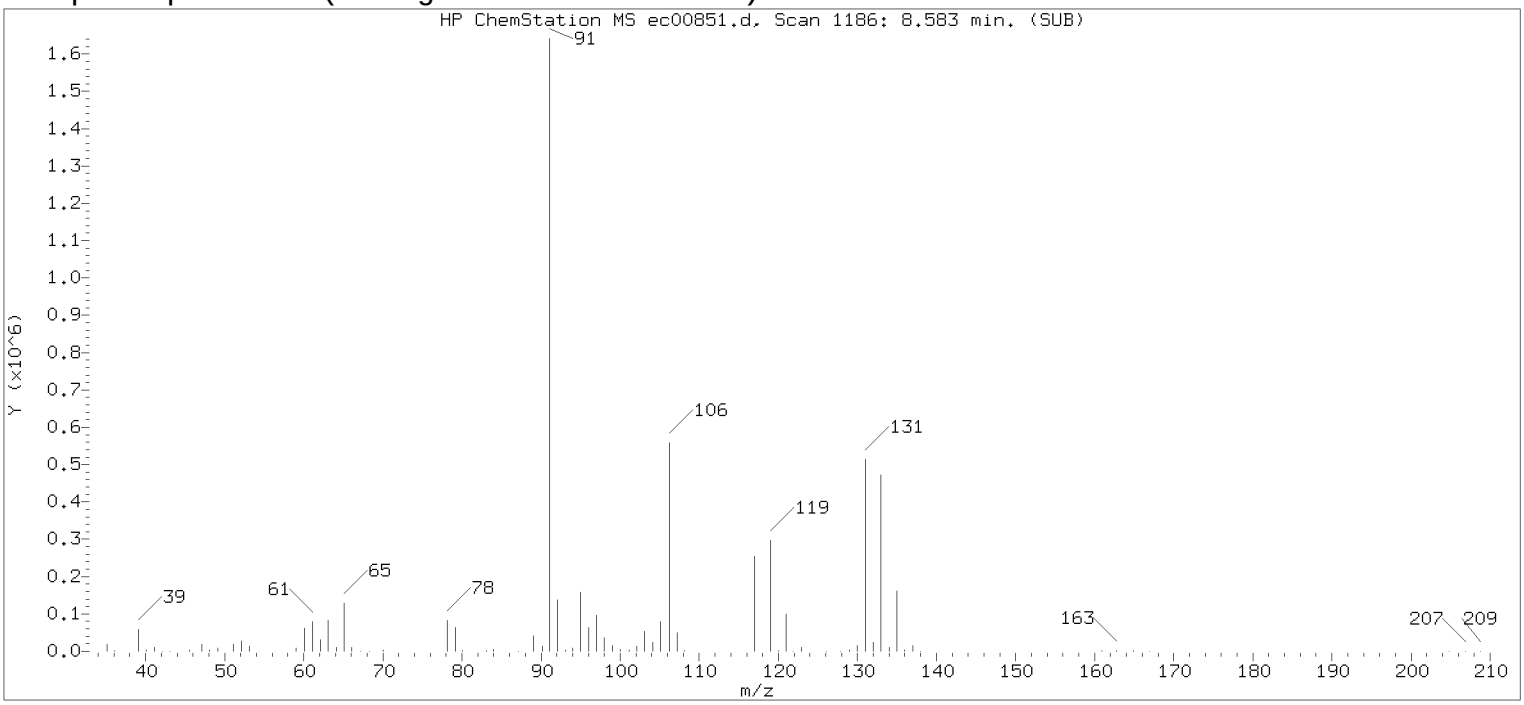
Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Quant Ion : 91.00
Area (flag) : 3638907M
Concentration (ppb(v)) : 25.9335
Integration start scan : 1179 Integration stop scan: 1194
Y at integration start : 525 Y at integration end: 525

Reason for manual integration: improper integration

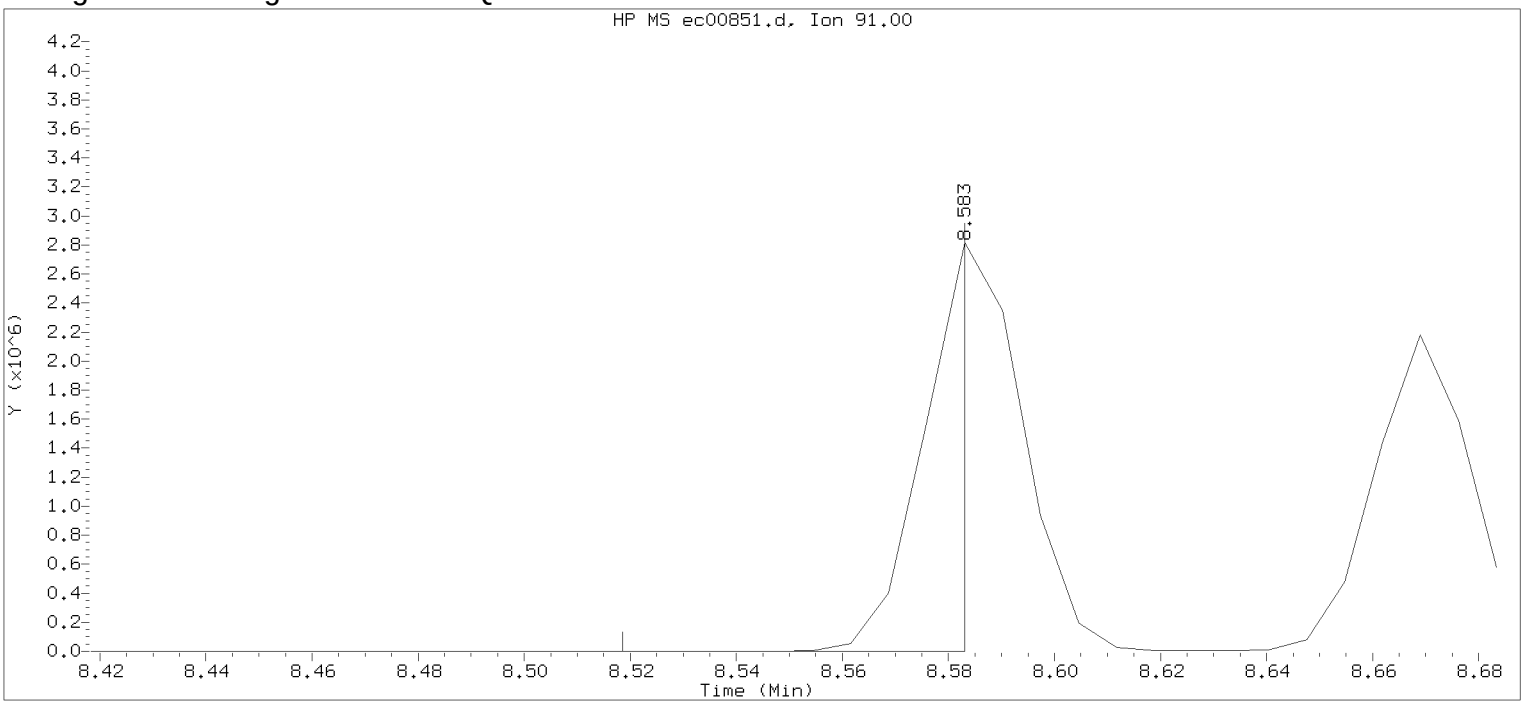
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

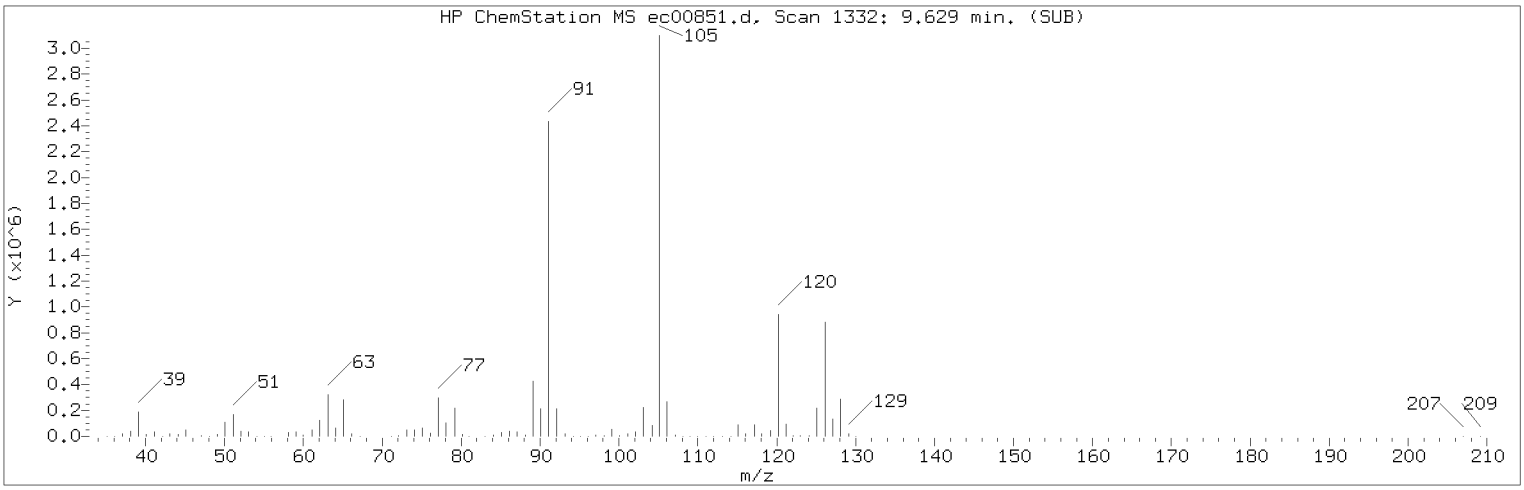
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

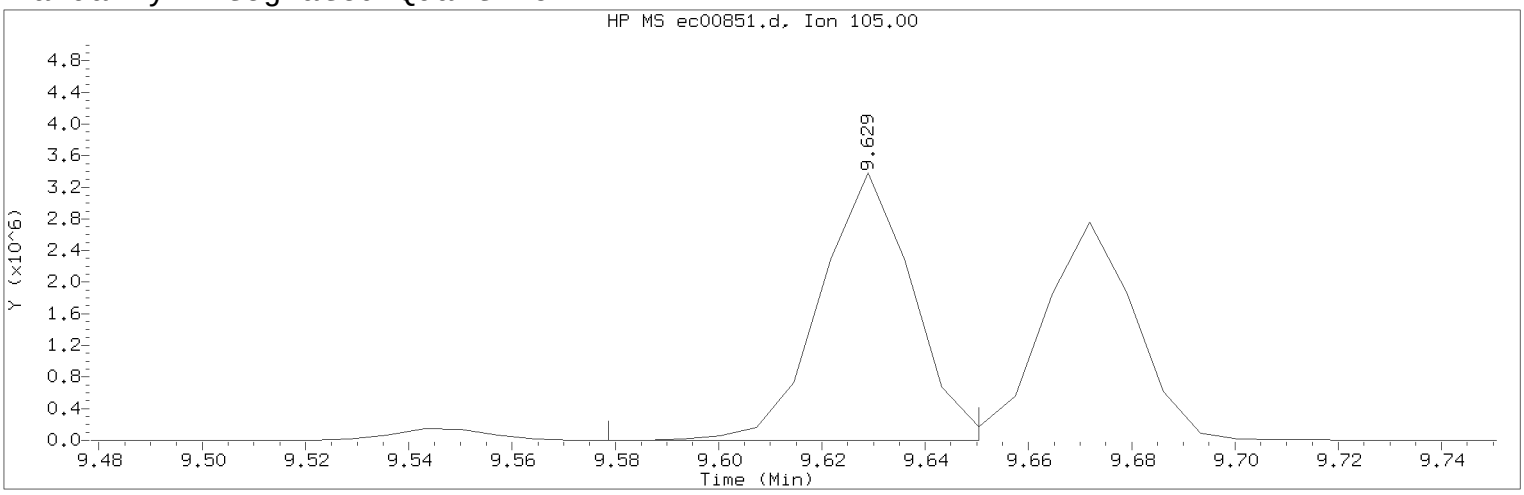
Compound Number : 74
Compound Name : Ethylbenzene
Scan Number : 1186
Retention Time (minutes): 8.583
Quant Ion : 91.00
Area : 1483652
Concentration (ppb(v)) : 8.4991
Integration start scan : 1176 Integration stop scan: 1185
Y at integration start : 575 Y at integration end: 575

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user id: 71 and Page 371 of 746
SVOC71ap07373

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

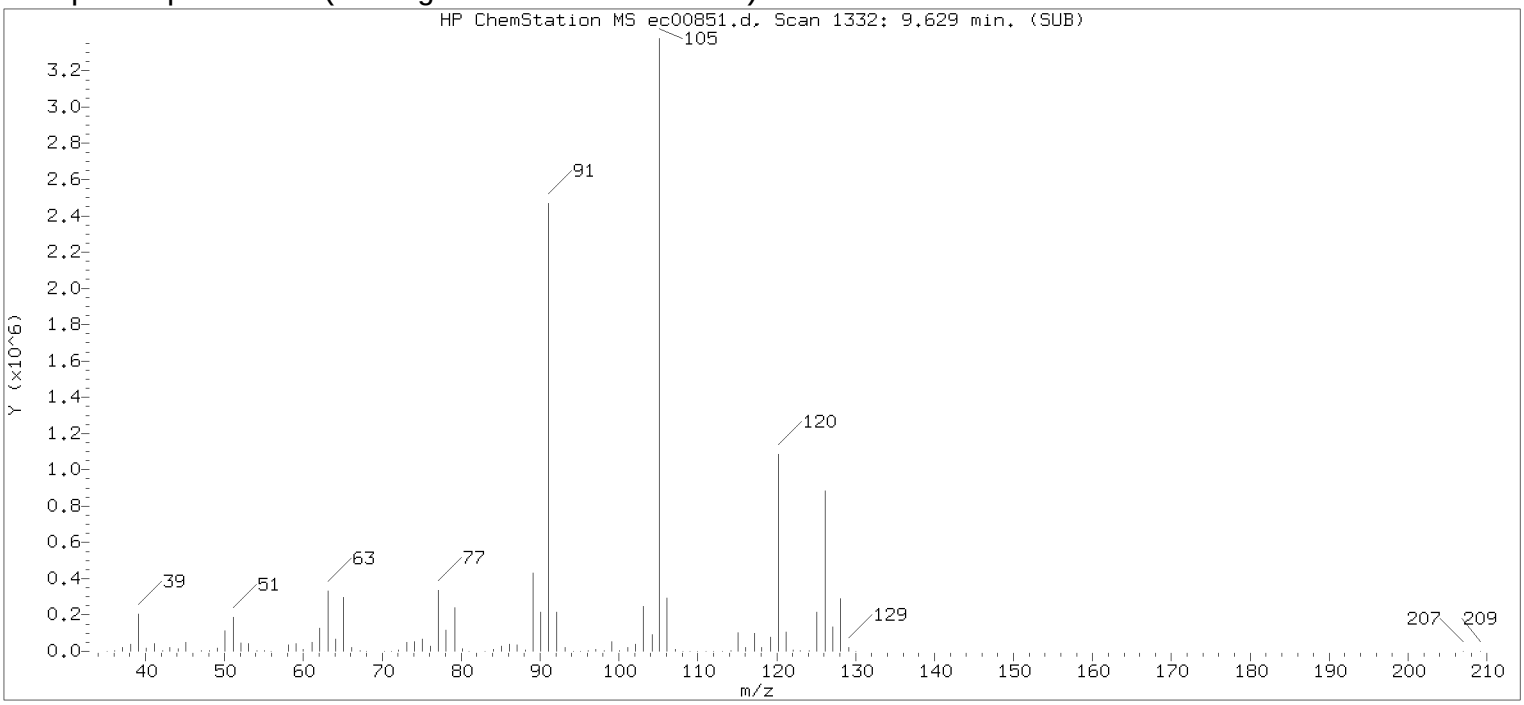
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 4195556M
Concentration (ppb(v)) : 28.1759
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 1381 Y at integration end: 1381

Reason for manual integration: improper integration

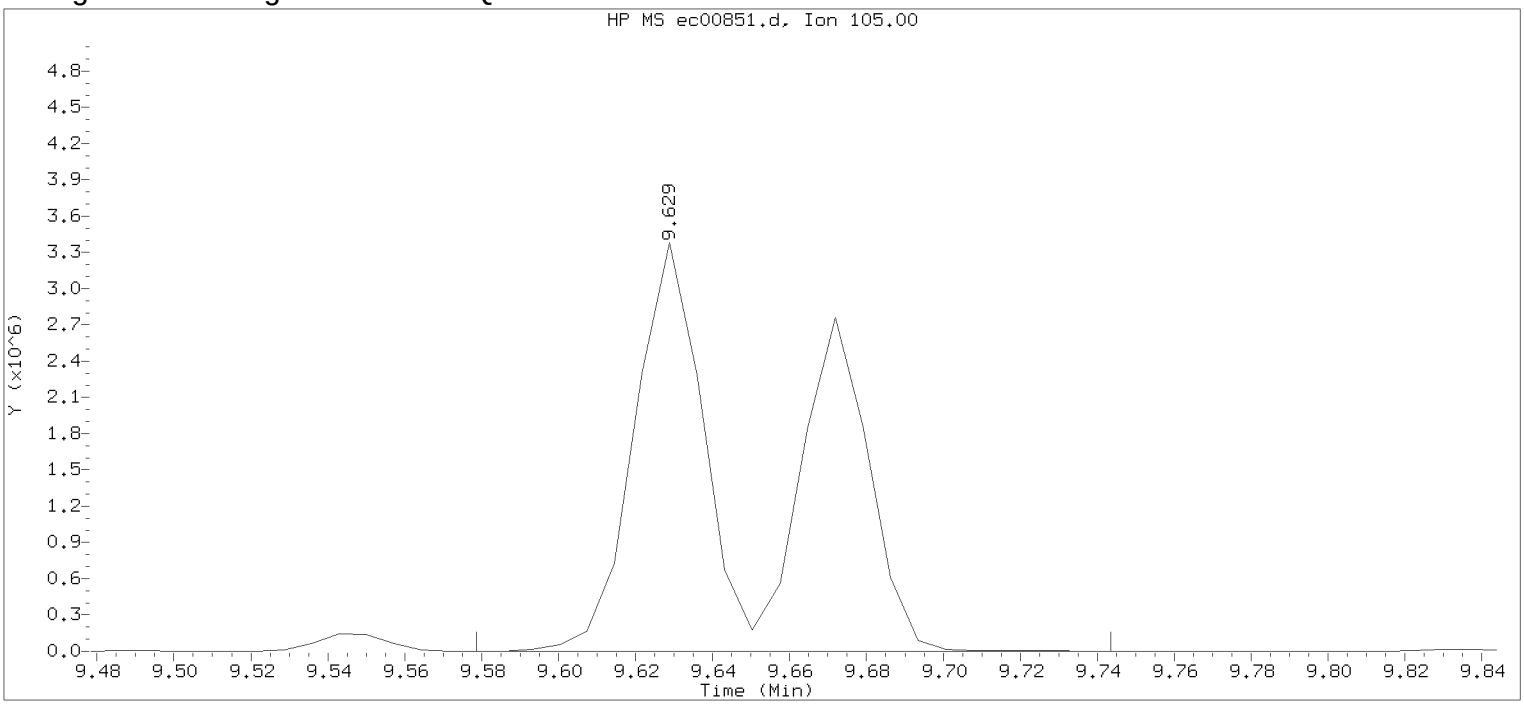
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 7540176
Concentration (ppb(v)) : 37.6397
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 642 Y at integration end: 642

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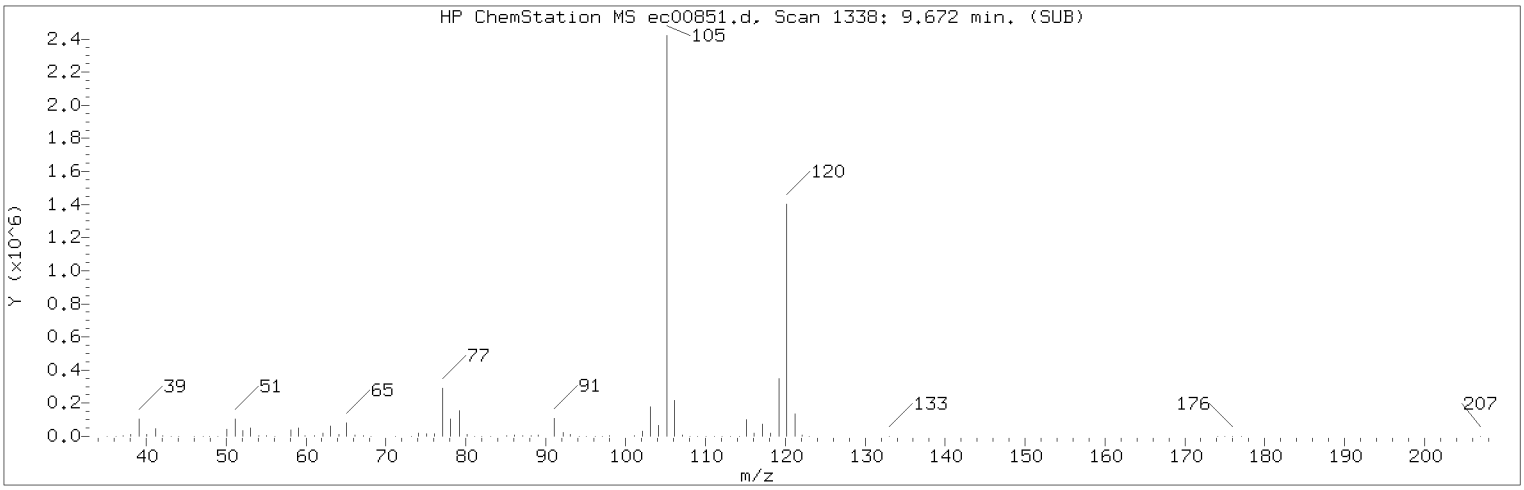
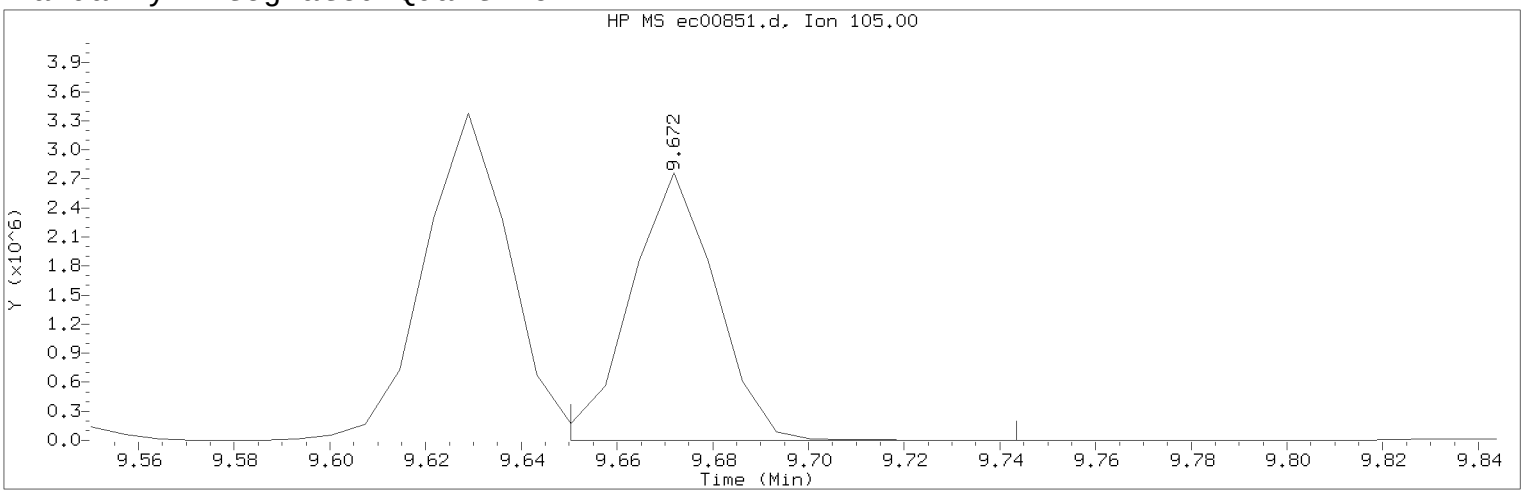
Target 3.5 esignature user id: 71 and Page 373

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

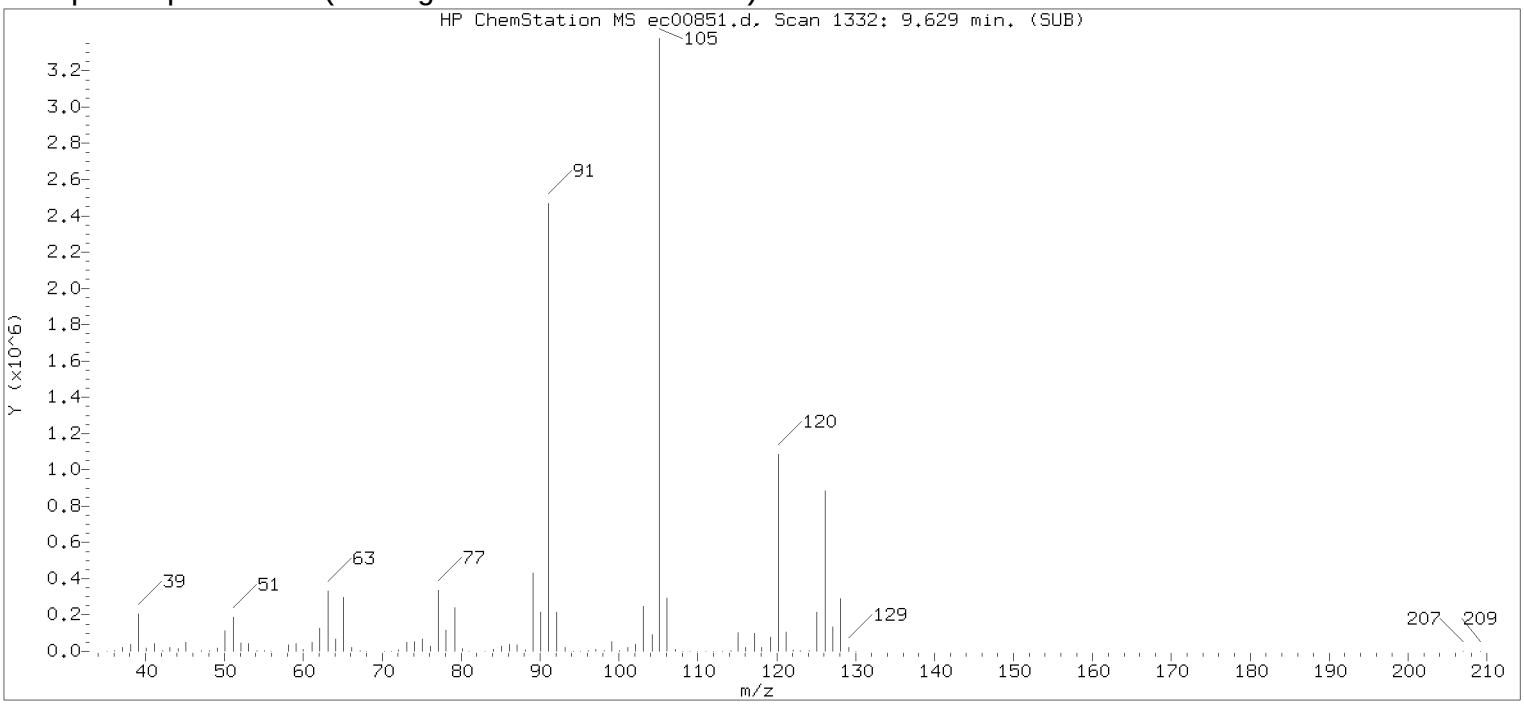
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 3408938M
Concentration (ppb(v)) : 27.9204
Integration start scan : 1334 Integration stop scan: 1347
Y at integration start : 1739 Y at integration end: 1739

Reason for manual integration: improper integration

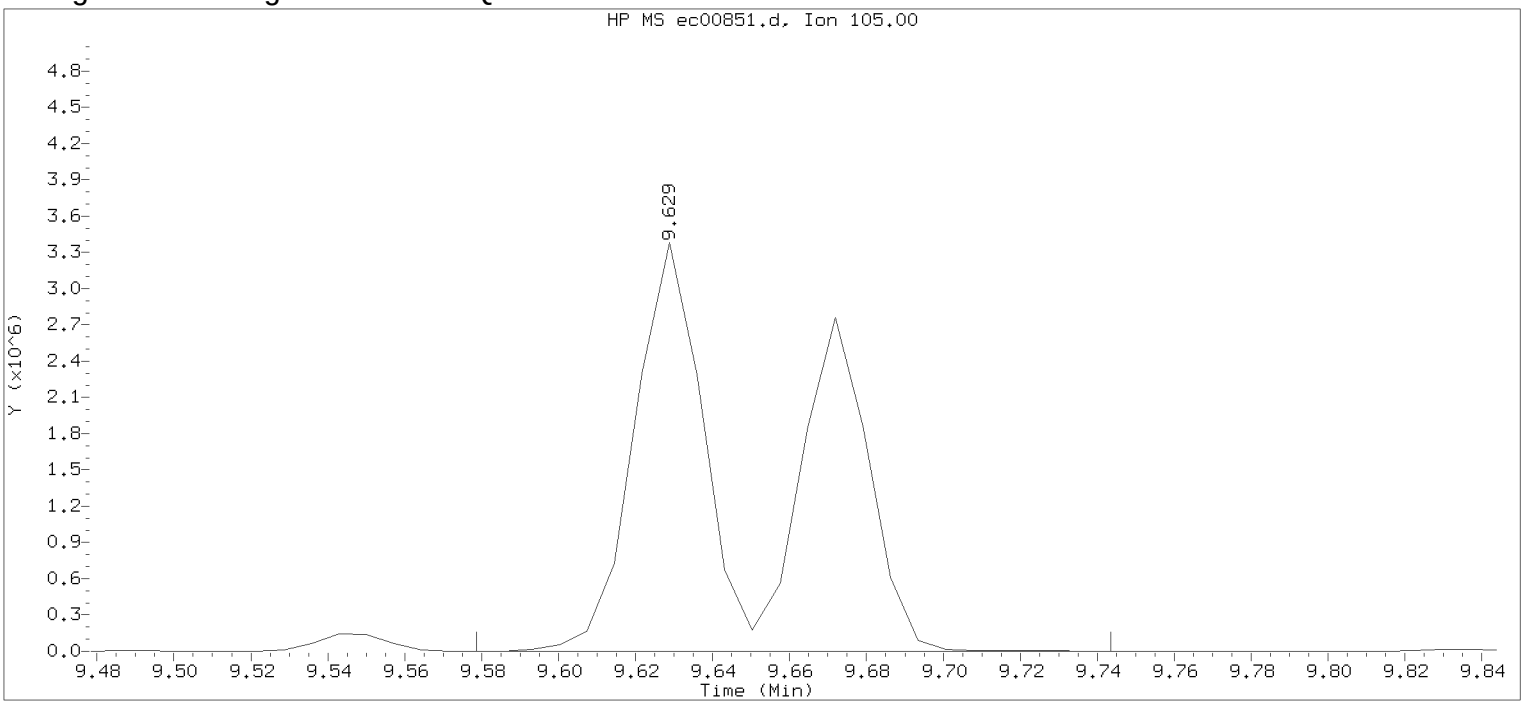
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 7532870
Concentration (ppb(v)) : 45.3362
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 1381 Y at integration end: 1381

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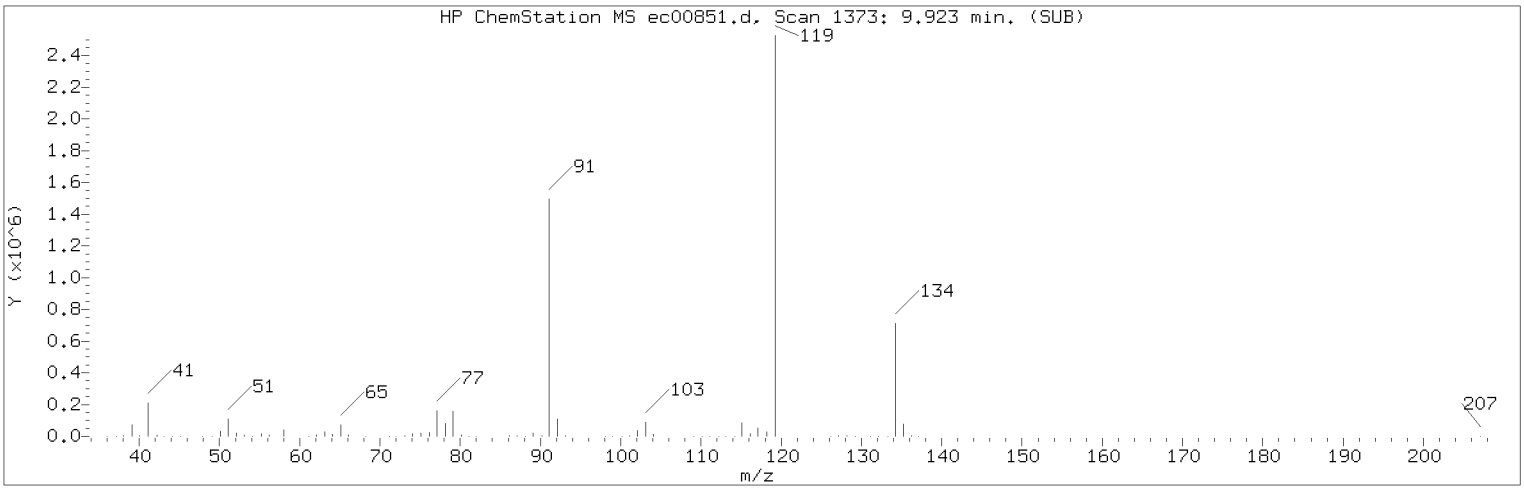
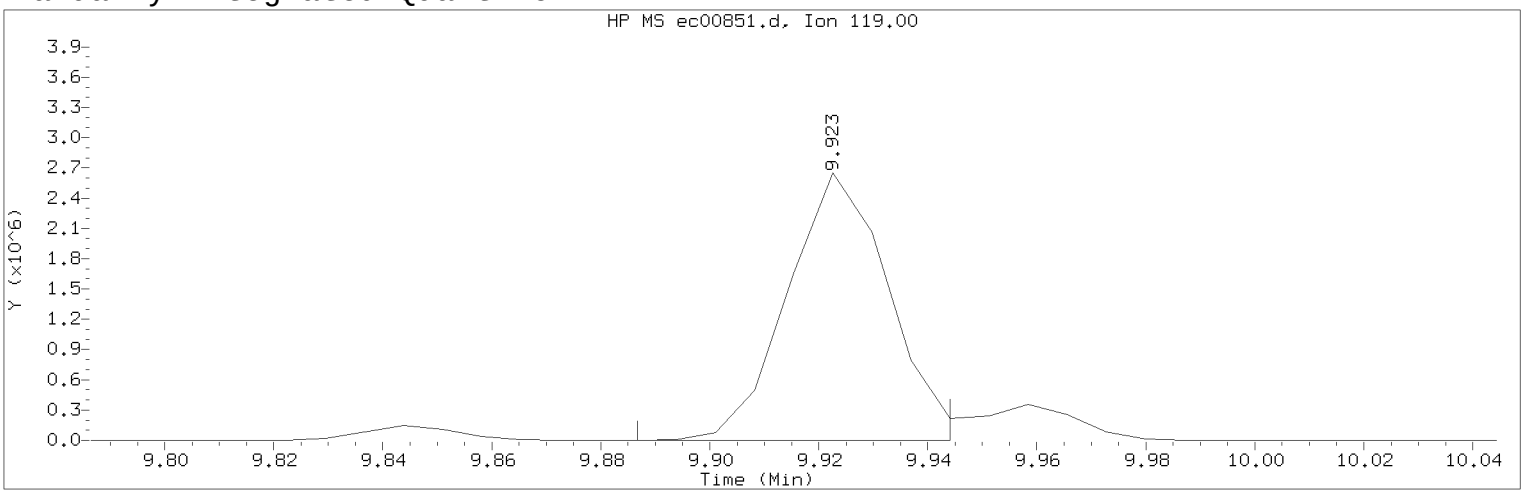
Target 3.5 esignature user id: 71 and 07875

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD025 Lab Sample ID: VSTD025

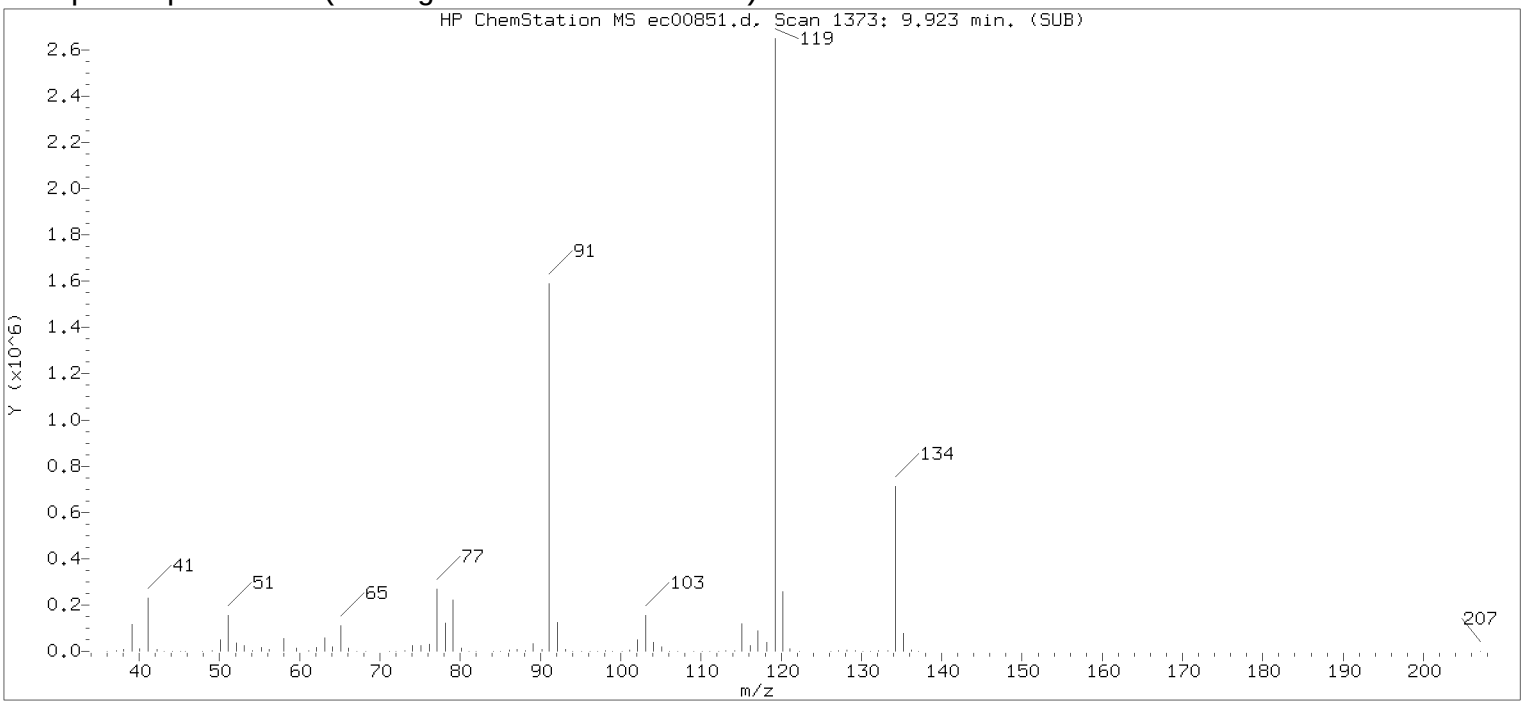
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 3422002M
Concentration (ppb(v)) : 28.0687
Integration start scan : 1367 Integration stop scan: 1375
Y at integration start : 354 Y at integration end: 354

Reason for manual integration: improper integration

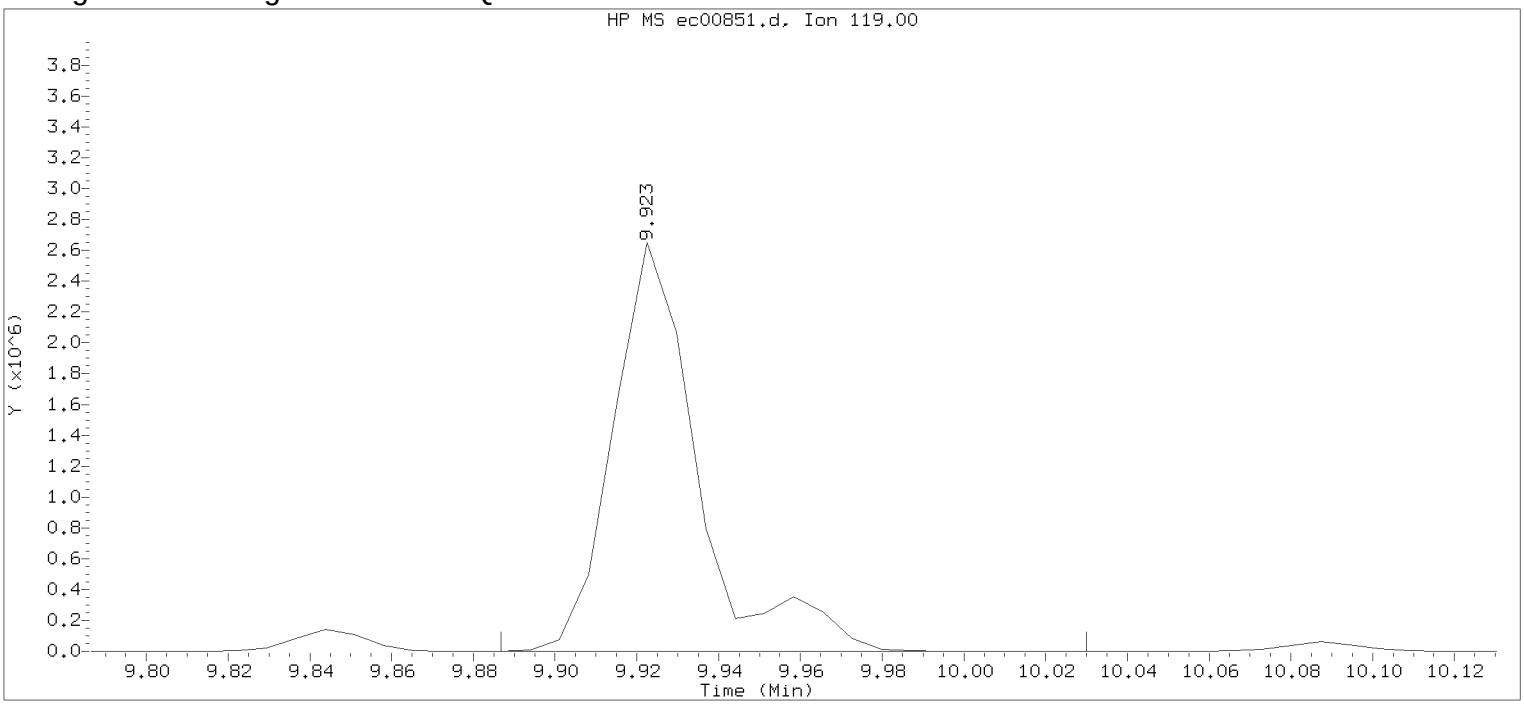
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00851.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 21:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:02 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 3833923
Concentration (ppb(v)) : 22.9598
Integration start scan : 1367 Integration stop scan: 1387
Y at integration start : 211 Y at integration end: 211

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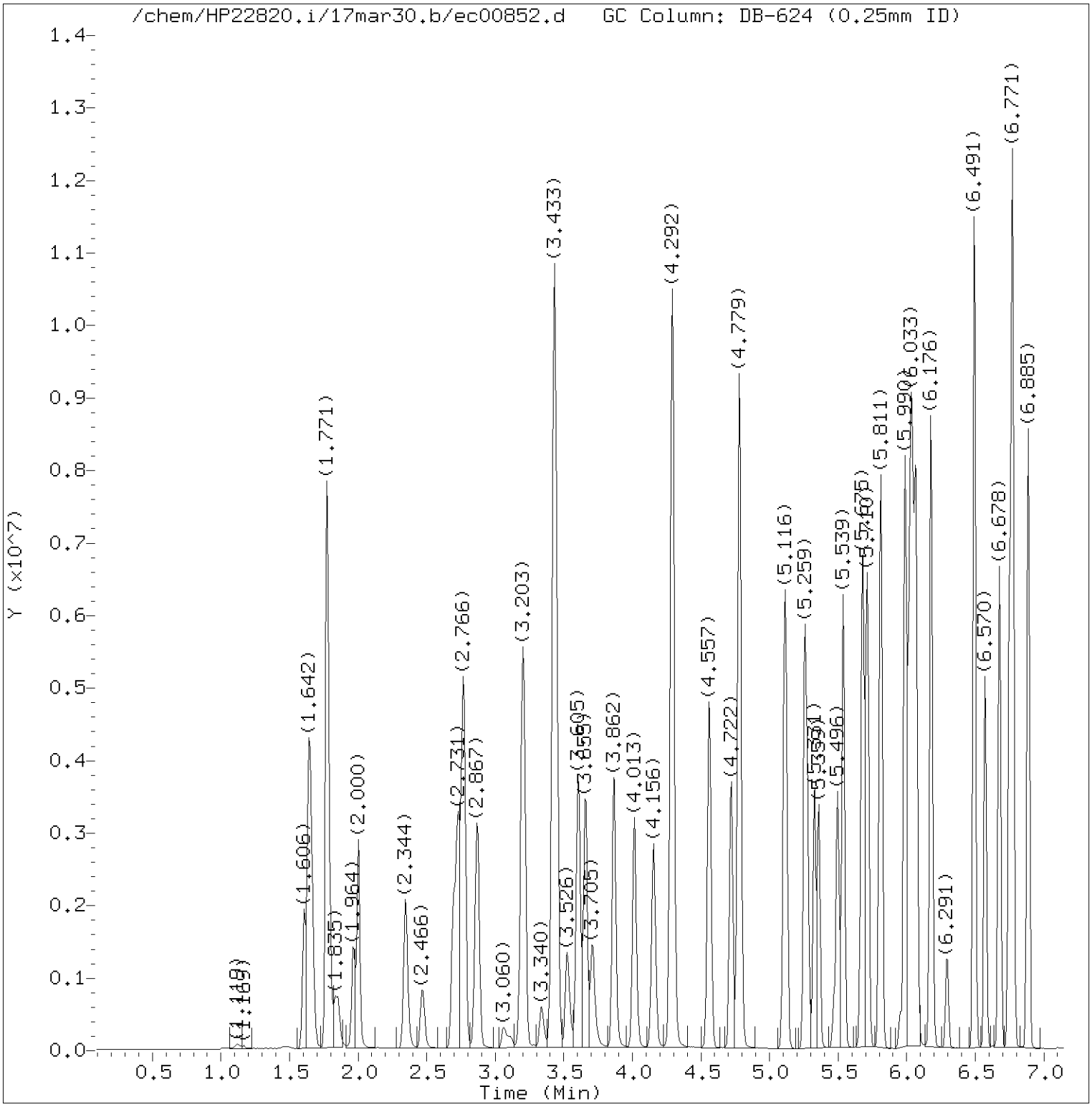
Target 3.5 esignature user id: 71 and Page 378



Total Ion Chromatogram (TIC)

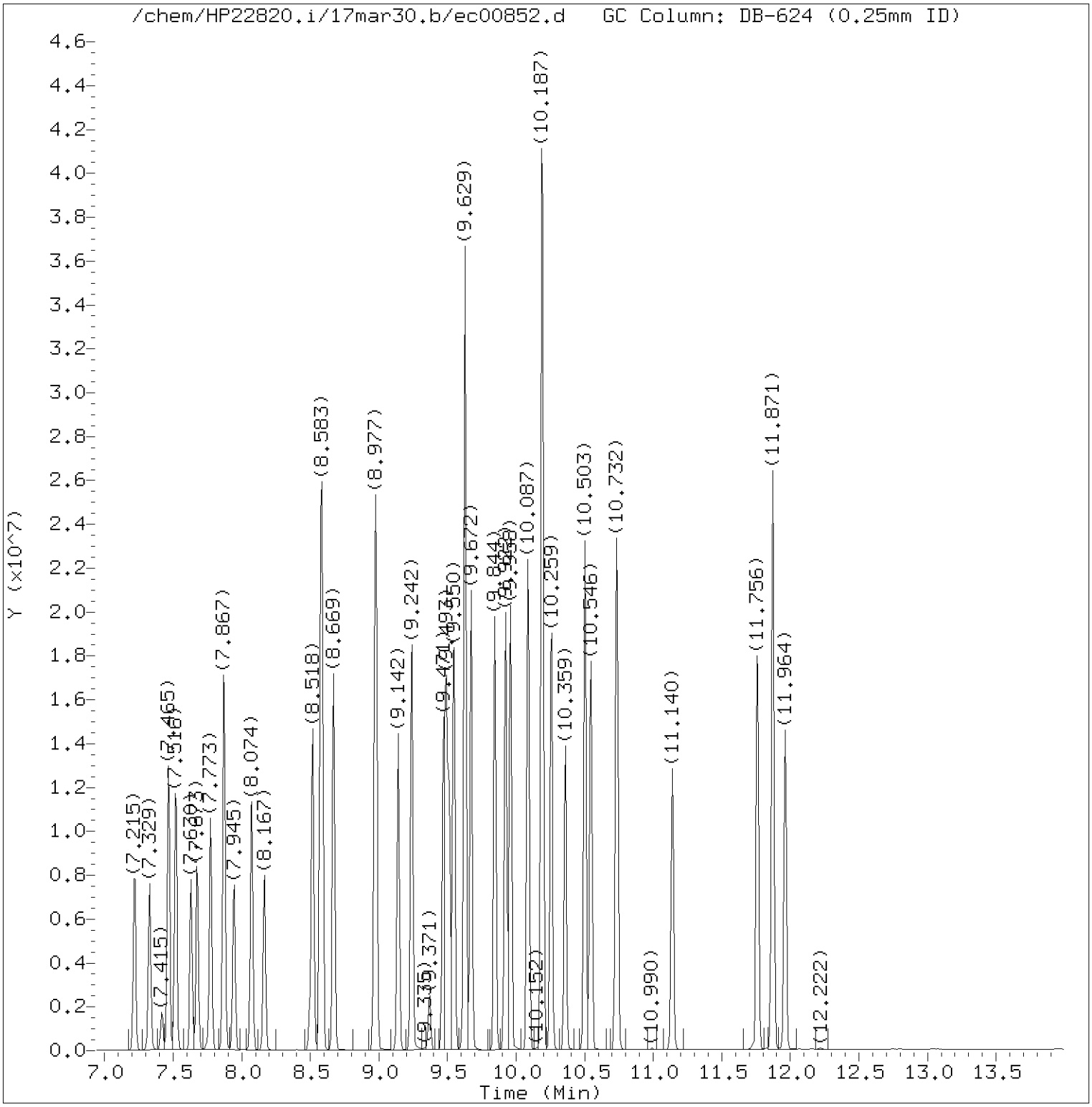
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.606	41	1083486	69.731
2)	Dichlorodifluoromethane	(1)	1.642	85	4546918	72.960
3)	Chlorodifluoromethane	(1)	1.663	51	2288980	70.563
4)	Freon 114	(1)	1.771	85	4654876	71.324
5)	Chloromethane	(1)	1.850	50	992142	59.331
6)	Vinyl Chloride	(1)	1.964	62	1706825	72.787
7)	1,3-Butadiene	(1)	2.000	54	1238440	71.853
8)	Bromomethane	(1)	2.344	94	1686321	70.291
9)	Chloroethane	(1)	2.466	64	942862	72.167
10)	Bromoethene	(1)	2.695	106	1910320	73.206
11)	Dichlorofluoromethane	(1)	2.731	67	3683585	72.031
12)	Trichlorofluoromethane	(1)	2.766	101	4813703	71.787
13)	Pentane	(1)	2.867	43	2499730	71.289
14)	Ethanol	(1)	3.060	45	486322M	82.625
15)	Freon123a	(1)	3.203	67	3460260	69.774
16)	Acrolein	(1)	3.340	56	674114	74.599
17)	1,1-Dichloroethene	(1)	3.425	61	2624622	72.396
18)	Freon 113	(1)	3.440	103	2740449	69.394
19)	Acetone	(1)	3.526	43	2026282	72.099
20)	Methyl Iodide	(1)	3.605	142	5297392	71.870
21)	Carbon Disulfide	(1)	3.662	76	5214192	72.602
22)	Isopropanol	(1)	3.712	45	2240026	89.620
24)	3-Chloropropene	(1)	3.862	76	902992	83.088
23)	Acetonitrile	(1)	3.870	40	804955	61.789
25)	Methylene Chloride	(1)	4.013	84	1739127	81.353
26)	tert-Butyl Alcohol	(1)	4.156	59	3682558	89.328
29)	Methyl t-Butyl Ether	(1)	4.285	73	5166706	70.864
28)	trans-1,2-Dichloroethene	(1)	4.292	61	2436389	72.456
27)	Acrylonitrile	(1)	4.299	53	1361494	72.760
30)	Hexane	(1)	4.557	57	2596998	71.326
31)	1,1-Dichloroethane	(1)	4.722	63	3189563	72.139
32)	Vinyl Acetate	(1)	4.779	86	593203	99.031
33)	Di-Isopropyl Ether	(1)	4.779	45	4992620	70.871
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	5376585	72.894
35)	cis-1,2-Dichloroethene	(1)	5.259	61	2342547	73.091
37)	2-Butanone	(1)	5.281	72	970280	75.418
38)	Ethyl Acetate	(1)	5.331	70	477206	69.066
39)	Methyl Acrylate	(1)	5.359	55	2966342	76.364

M = Compound was manually integrated.

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on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	247499	10.000
41) Tetrahydrofuran	(1)	5.496	42	1681059	72.533
42) Chloroform	(1)	5.539	83	3991222	71.632
43) 1,1,1-Trichloroethane	(1)	5.675	97	4077822	72.372
44) Cyclohexane	(1)	5.710	56	2713226	71.126
45) Carbon Tetrachloride	(1)	5.811	117	4354185	74.426
46) Benzene	(2)	5.990	78	6134768	71.154
47) 1,2-Dichloroethane	(2)	6.011	62	2334807	71.885
48) Isooctane	(2)	6.033	57	8476385	71.458
49) Tert-Amyl Methyl Ether	(2)	6.069	73	5719804	73.119
50) Heptane	(2)	6.176	43	2742161	69.816
51)*1,4-Difluorobenzene	(2)	6.298	114	929368	10.000
52) Trichloroethene	(2)	6.491	130	3299005	74.254
53) Ethyl Acrylate	(2)	6.570	55	3895740	77.691
36) 1,2-Dichloroethene (total)	(1)		61	4778936	145.547
54) 1,2-Dichloropropane	(2)	6.678	63	2078654	70.466
57) Methyl Methacrylate	(2)	6.749	69	2158887	75.103
56) 1,4-Dioxane	(2)	6.771	88	1553326	75.176
55) Dibromomethane	(2)	6.771	174	3290875	75.243
58) Bromodichloromethane	(2)	6.885	83	4254817	75.680
59) cis-1,3-Dichloropropene	(2)	7.215	75	3808056	76.199
60) 4-Methyl-2-Pentanone	(2)	7.329	43	3683411	73.558
61) Toluene	(3)	7.465	91	7638062	68.692
62) Octane	(3)	7.516	43	3642271	66.727
63) trans-1,3-Dichloropropene	(3)	7.630	75	3301381	76.989
65) Ethyl Methacrylate	(3)	7.673	69	3690725	79.964
66) 1,1,2-Trichloroethane	(3)	7.773	97	2729953	73.477
67) Tetrachloroethene	(3)	7.874	166	4700913	71.822
68) 2-Hexanone	(3)	7.945	43	3485568	74.461
69) Dibromochloromethane	(3)	8.074	127	3955787	81.815
70) 1,2-Dibromoethane	(3)	8.167	107	4399880	75.565
71)*Chlorobenzene-d5	(3)	8.497	117	921145	10.000
72) Chlorobenzene	(3)	8.518	112	6876033	72.114
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	3779722	78.876
74) Ethylbenzene	(3)	8.583	91	9855754	69.172
75) m/p-Xylene	(3)	8.669	91	7803622	69.345
76) o-Xylene	(3)	8.970	91	7777345	71.309
78) Styrene	(3)	8.984	104	6529073	79.133

* = Compound is an internal standard.

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

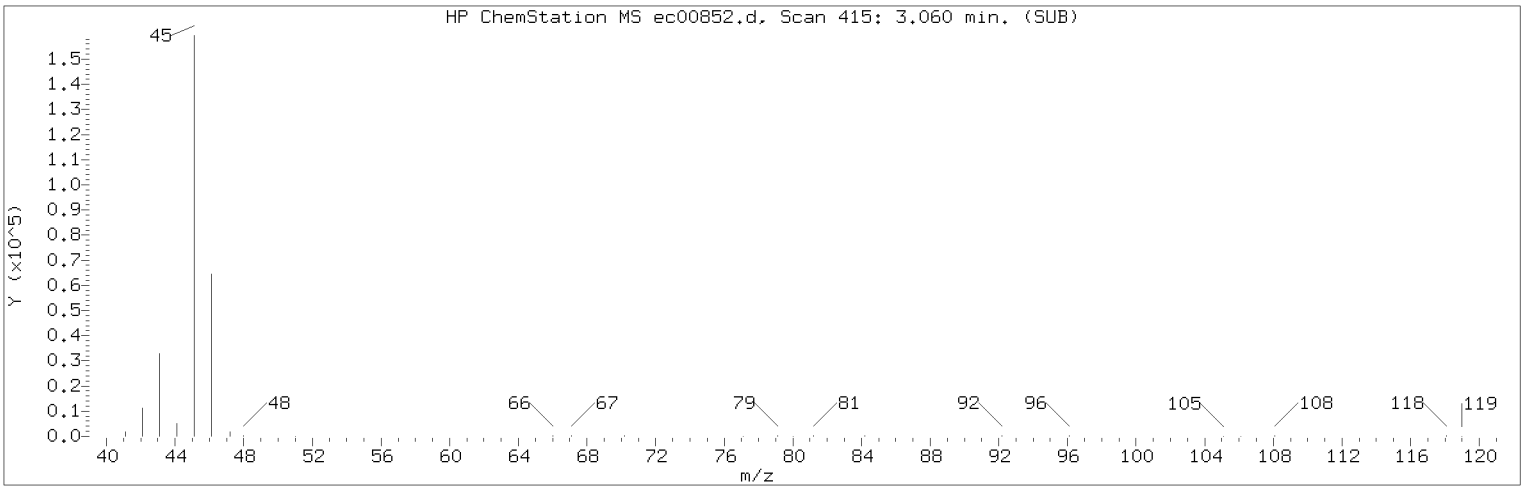
Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	5641711	92.259
80) Cumene	(3)	9.242	105	11128690	72.500
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	5606983	77.922
81) Bromobenzene	(3)	9.493	156	4499025	76.531
83) 1,2,3-Trichloropropane	(3)	9.514	110	1788858	74.443
84) n-Propylbenzene	(3)	9.550	120	3587093	76.535
86) 4-Ethyltoluene	(3)	9.629	105	11166738M	73.679
85) 2-Chlorotoluene	(3)	9.629	126	3215052	76.125
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	9410633M	74.708
88) Alpha Methyl Styrene	(3)	9.844	118	5359892	89.343
89) tert-Butylbenzene	(3)	9.922	119	8905299M	71.766
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	9336304	78.353
91) sec-Butylbenzene	(3)	10.087	105	12553804	71.881
92) 1,3-Dichlorobenzene	(3)	10.195	146	7312528	81.114
94) p-Isopropyltoluene	(3)	10.195	119	11746970	79.220
93) 1,4-Dichlorobenzene	(3)	10.259	146	7433213	81.264
95) Benzyl Chloride	(3)	10.359	91	8185516	103.936
97) n-Butylbenzene	(3)	10.503	91	10317863	83.921
96) 1,2-Dichlorobenzene	(3)	10.546	146	6884892	84.626
98) Hexachloroethane	(3)	10.732	117	3920123M	113.272
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	3719106	116.861
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	5621362	115.184
101) Hexachlorobutadiene	(3)	11.871	225	5011219	114.323
102) Naphthalene	(3)	11.964	128	10287762	116.240
64) 1,3-Dichloropropene (total)	(3)		75	7109437	152.229
77) Xylene (total)	(3)		91	15580967	140.623

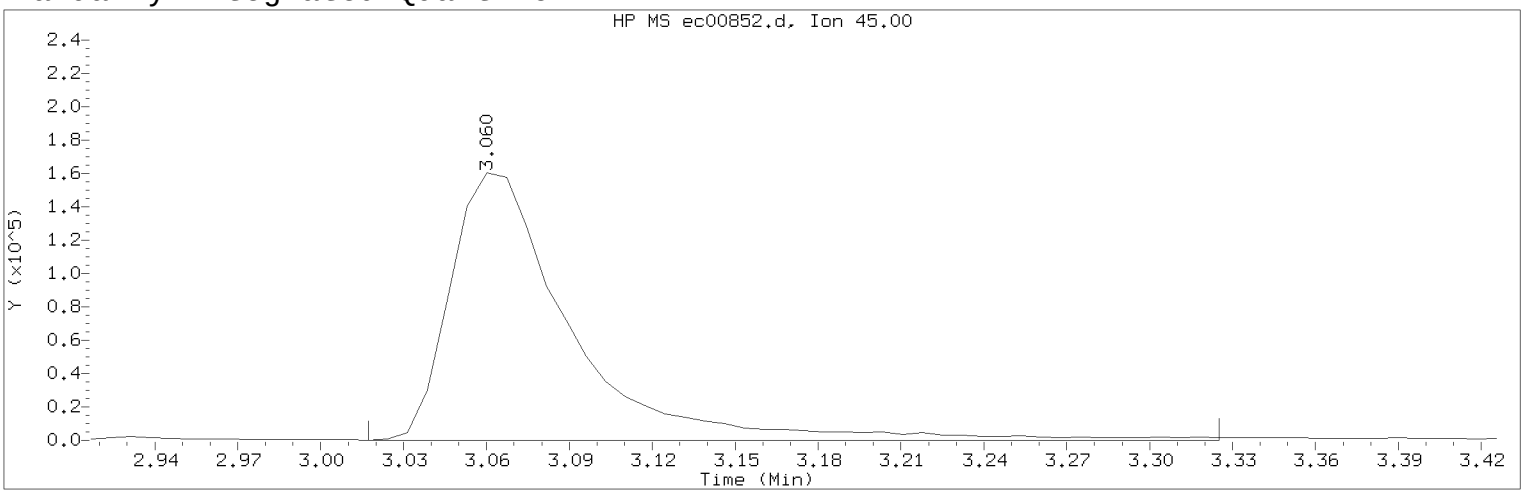
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

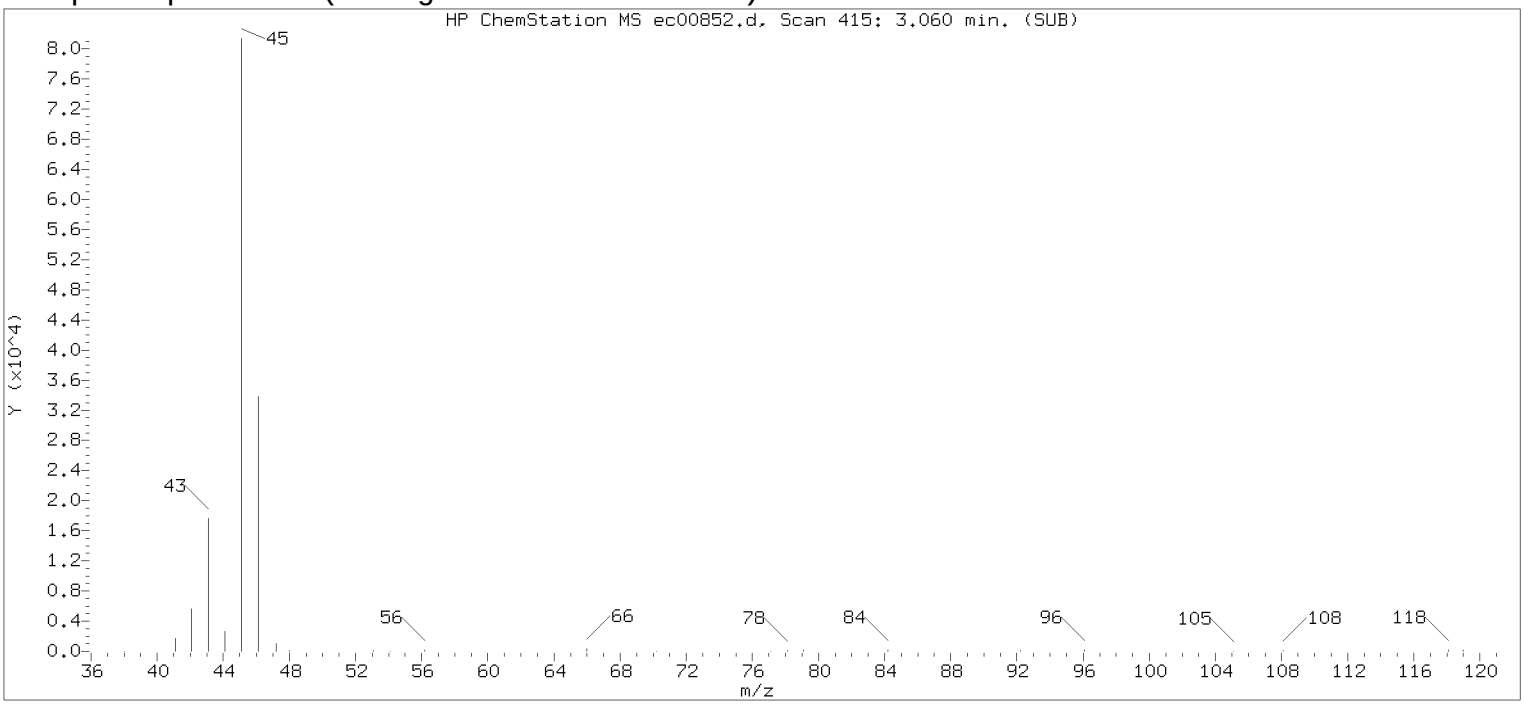
Compound Number : 14
Compound Name : Ethanol
Scan Number : 415
Retention Time (minutes): 3.060
Quant Ion : 45.00
Area (flag) : 486322M
Concentration (ppb(v)) : 82.6248
Integration start scan : 408 Integration stop scan: 451
Y at integration start : 160 Y at integration end: 160

Reason for manual integration: improper integration

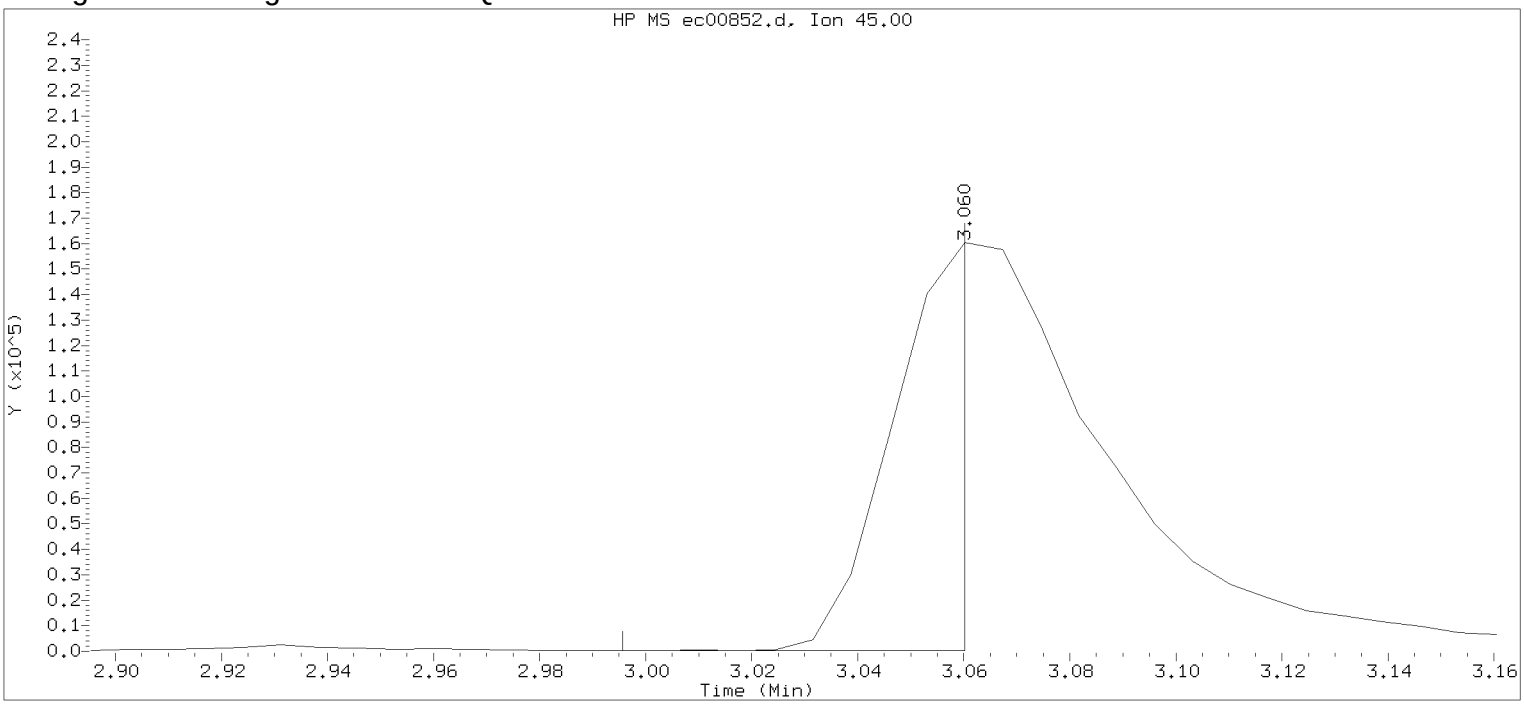
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

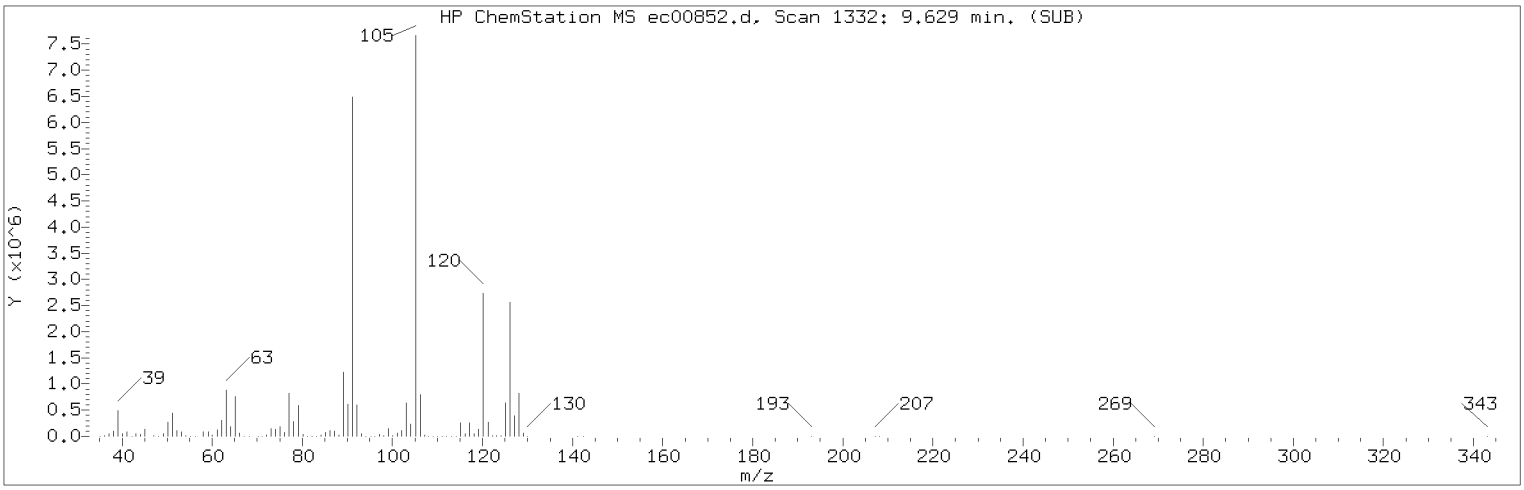
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:40 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

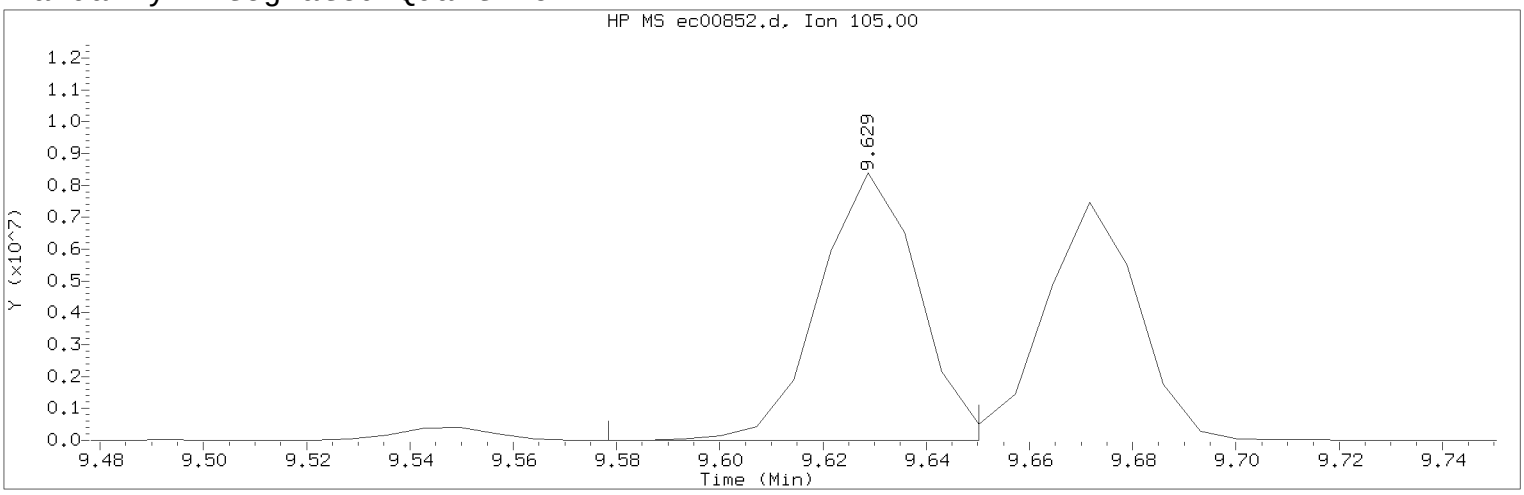
Compound Number : 14
Compound Name : Ethanol
Scan Number : 415
Retention Time (minutes): 3.060
Quant Ion : 45.00
Area : 145390
Concentration (ppb(v)) : 19.0085
Integration start scan : 405 Integration stop scan: 414
Y at integration start : 263 Y at integration end: 263

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user id: 71 and 07884

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

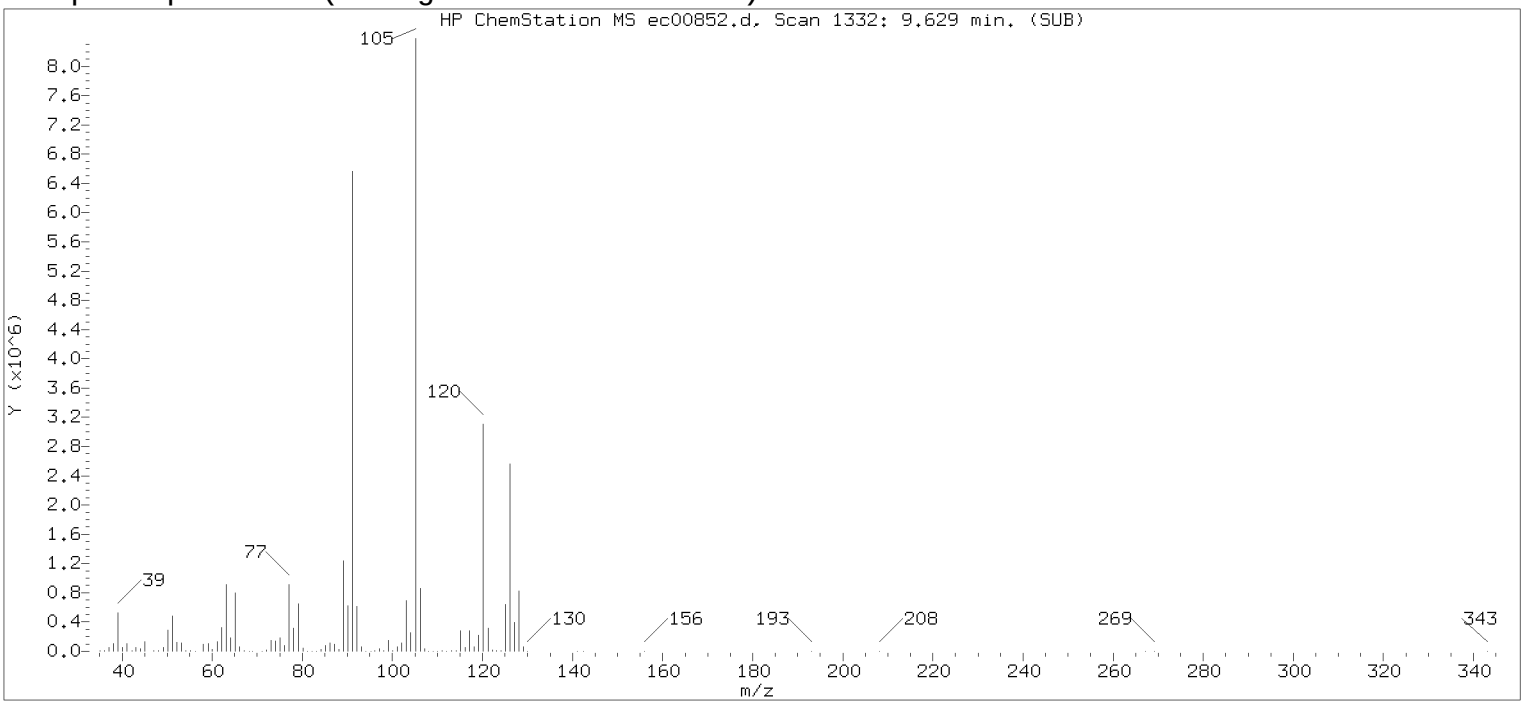
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 11166738M
Concentration (ppb(v)) : 73.6787
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 2674 Y at integration end: 2674

Reason for manual integration: improper integration

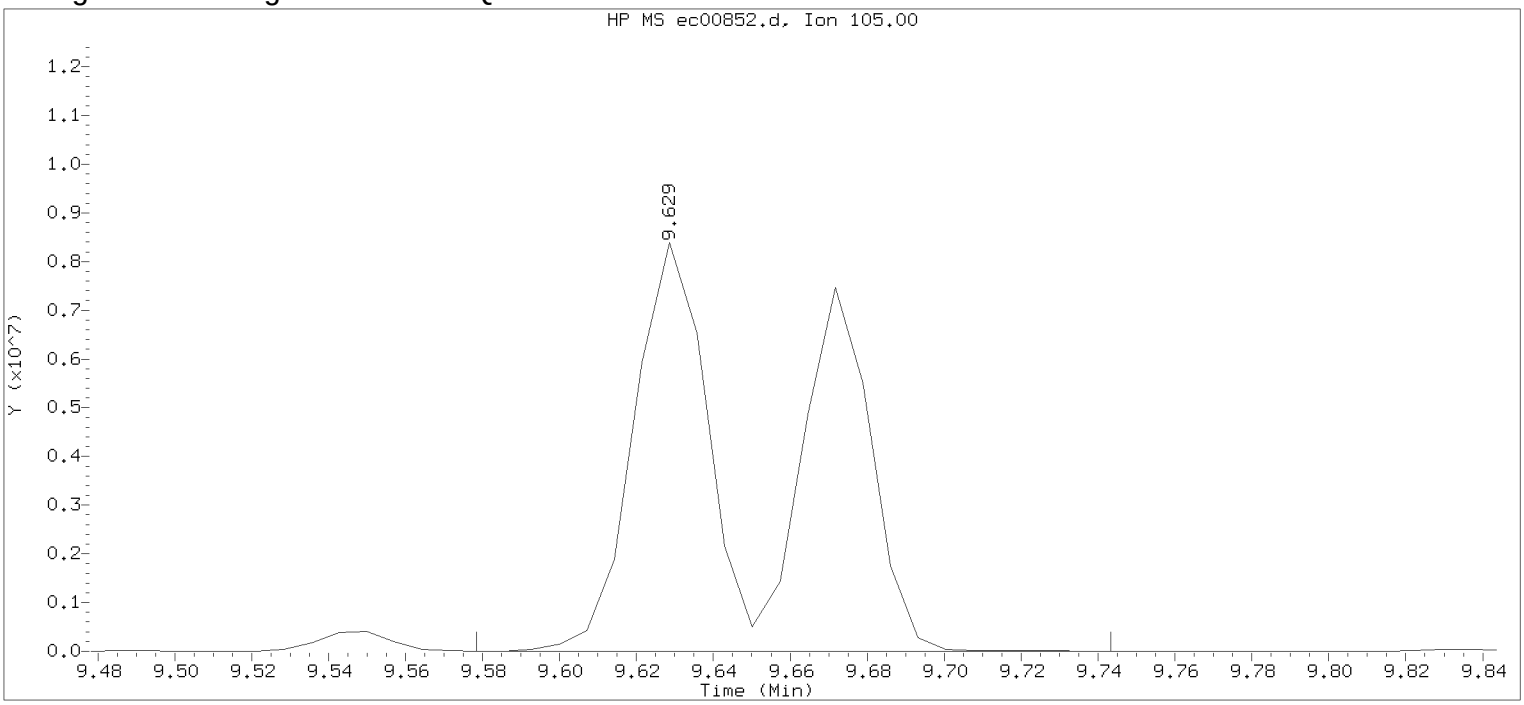
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

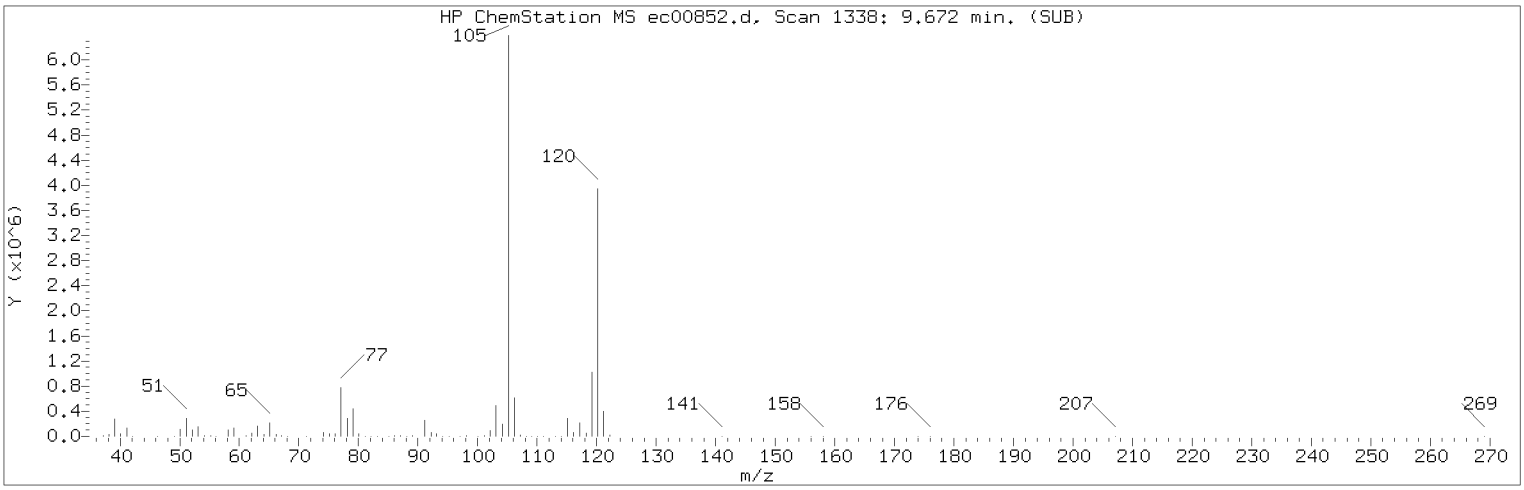
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:40 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

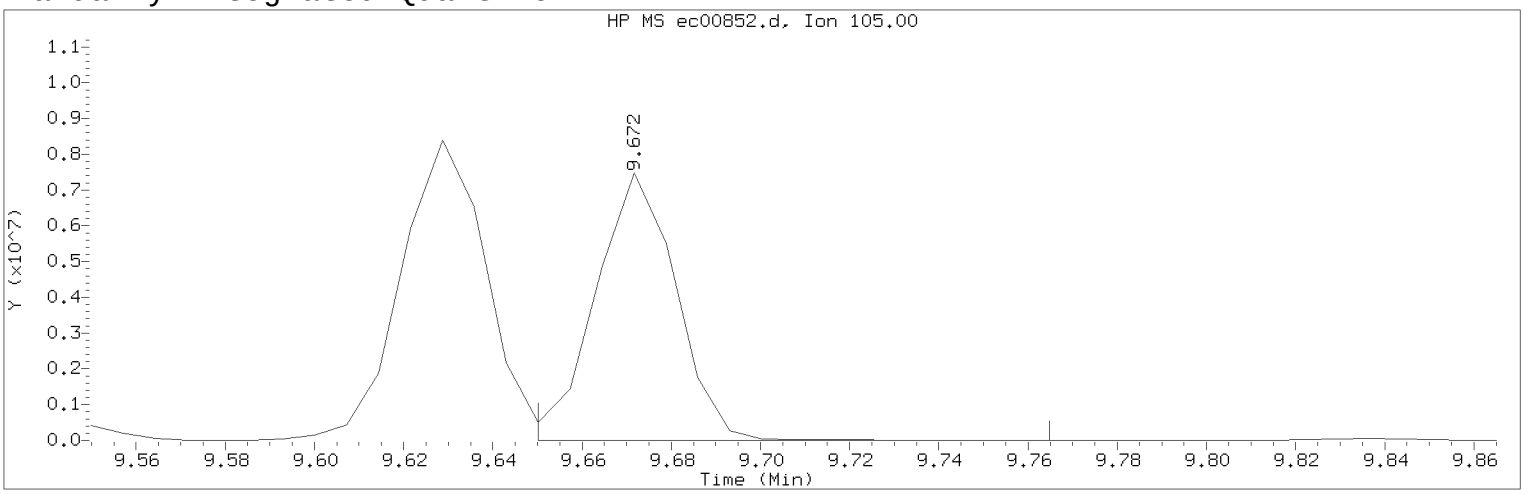
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 20371962
Concentration (ppb(v)) : 99.9136
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 1340 Y at integration end: 1340

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user id: 07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

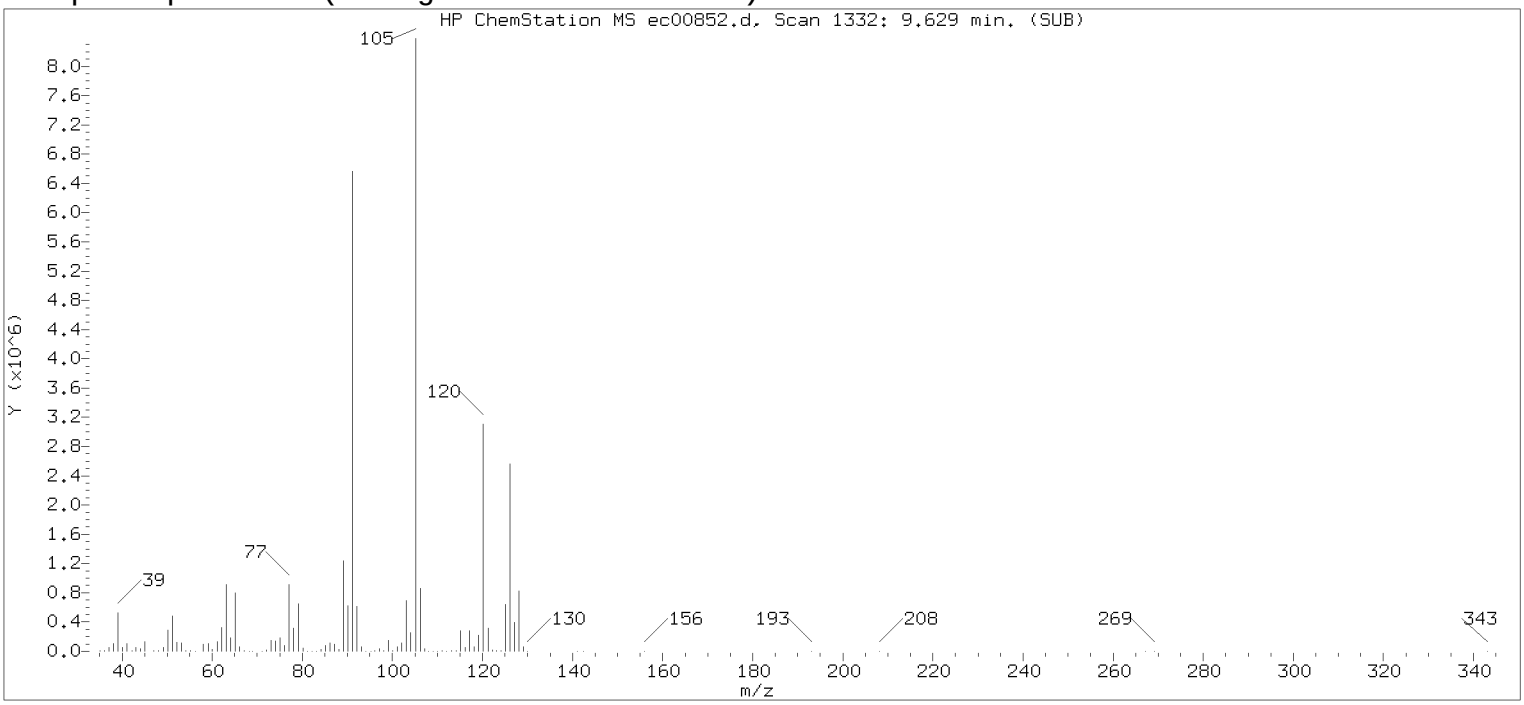
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 9410633M
Concentration (ppb(v)) : 74.7079
Integration start scan : 1334 Integration stop scan: 1350
Y at integration start : 2264 Y at integration end: 2264

Reason for manual integration: improper integration

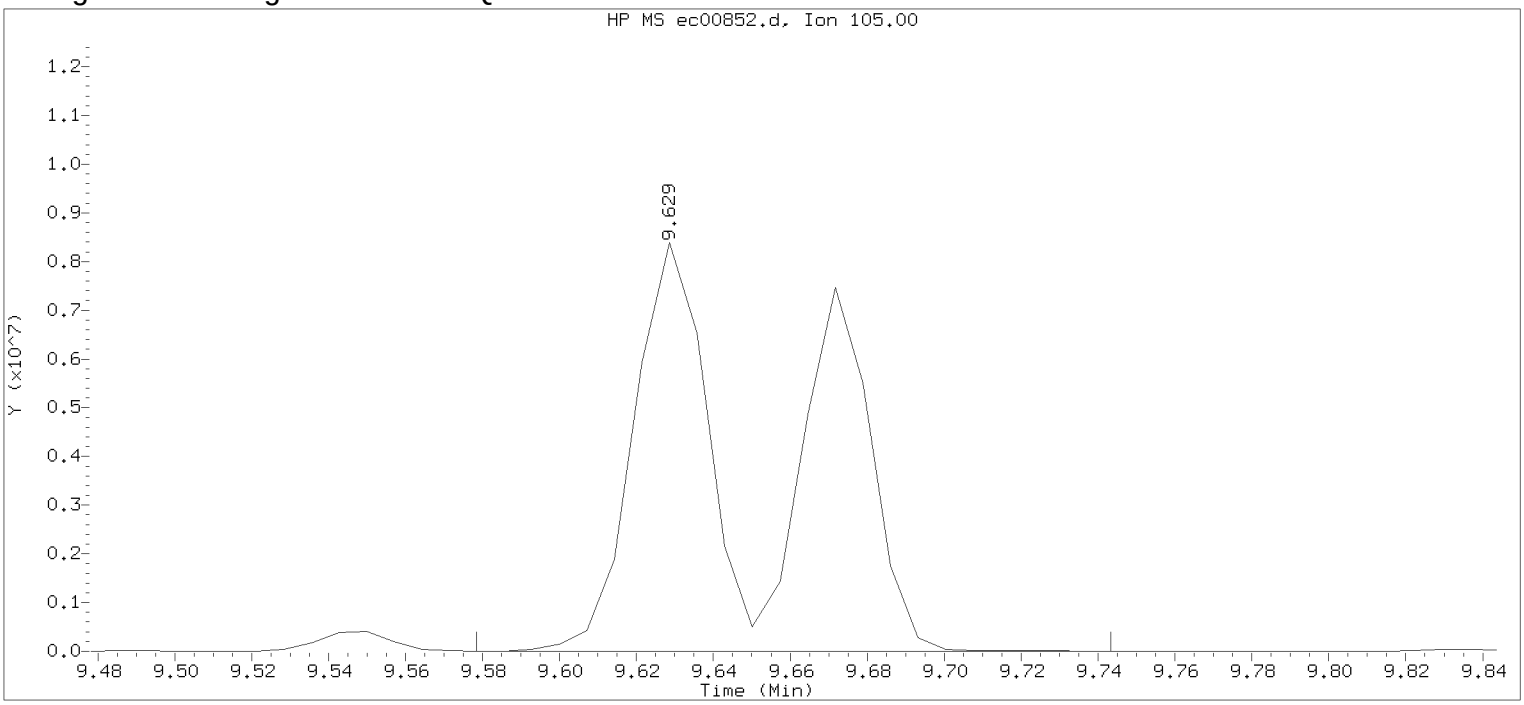
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:40 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 20358775
Concentration (ppb(v)) : 120.3824
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 2674 Y at integration end: 2674

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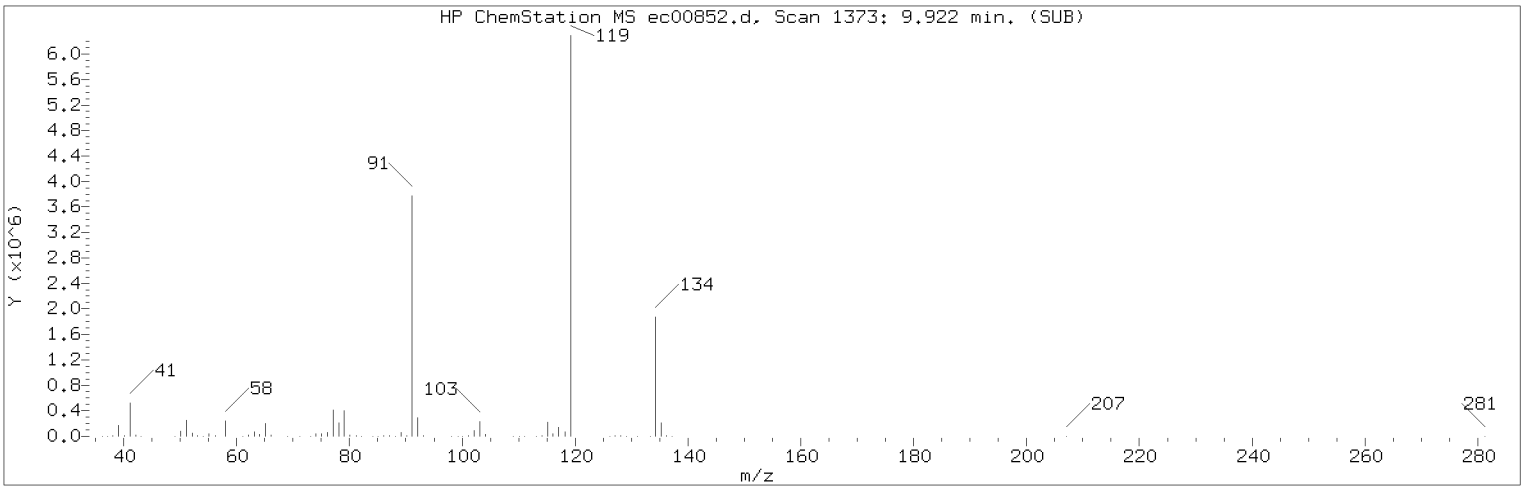
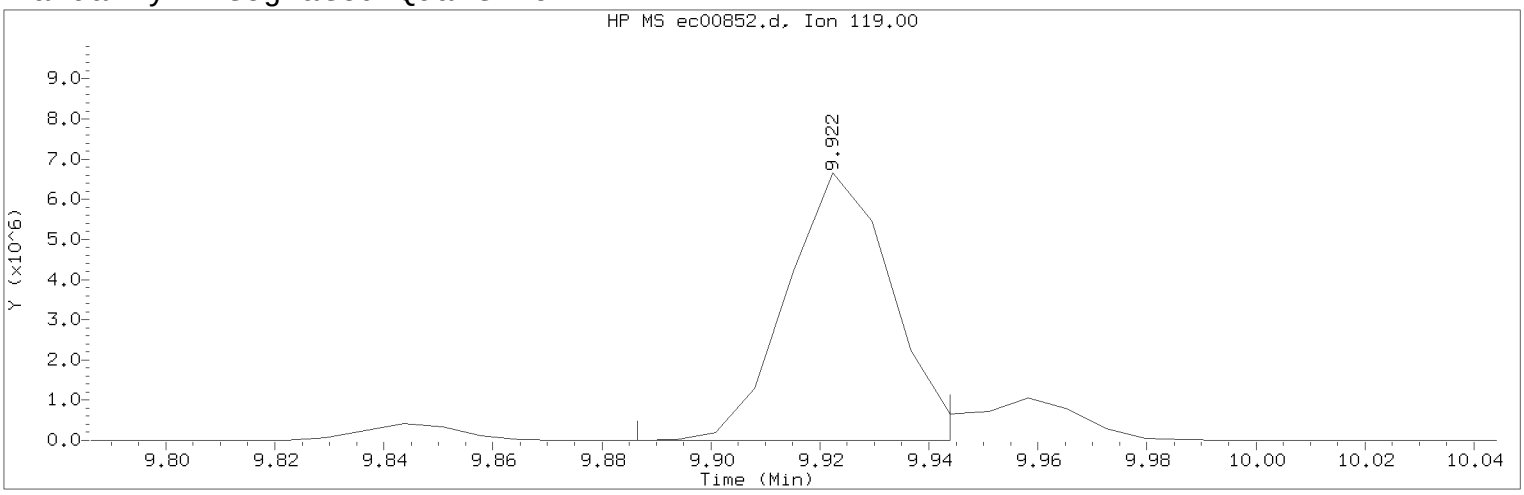
Target 3.5 esignature user id: 71 and Page 358

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

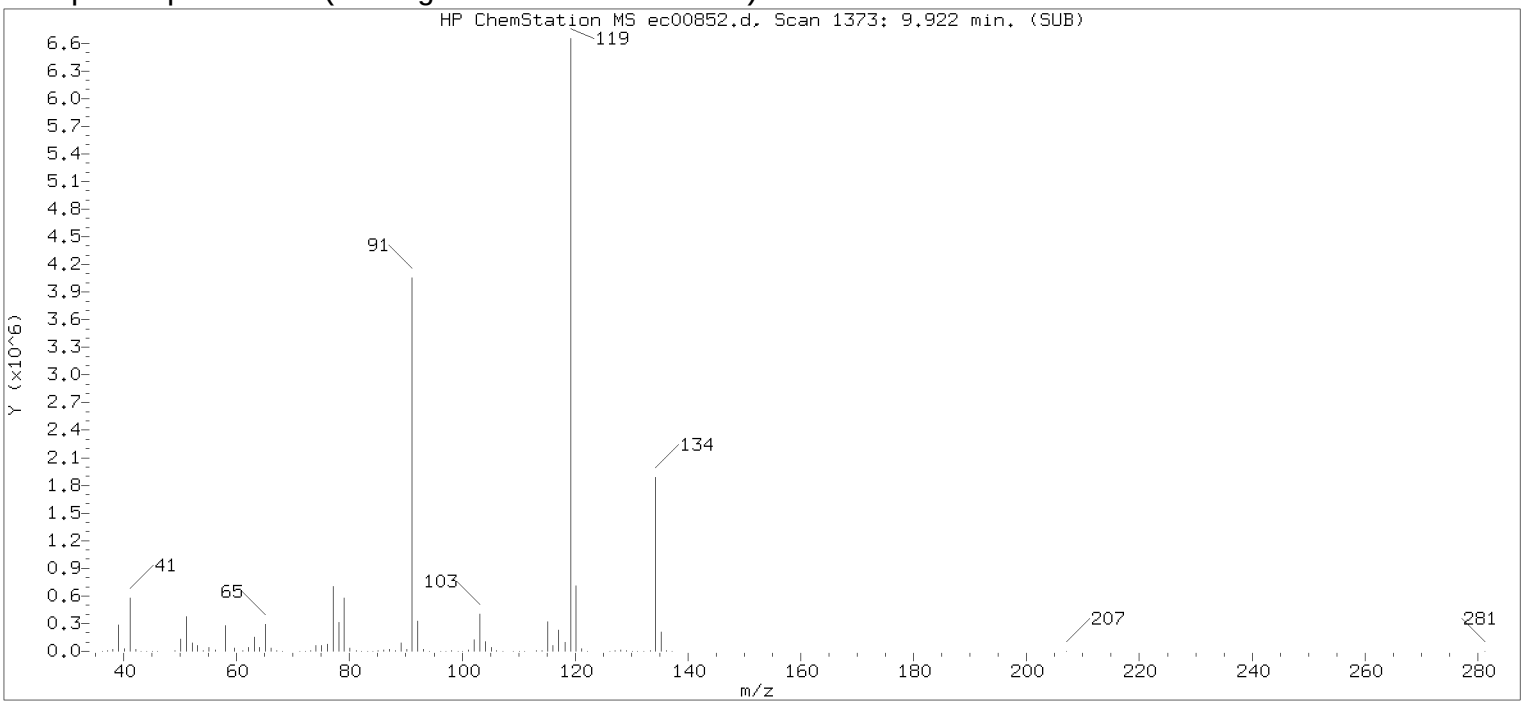
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 8905299M
Concentration (ppb(v)) : 71.7657
Integration start scan : 1367 Integration stop scan: 1375
Y at integration start : 1100 Y at integration end: 1100

Reason for manual integration: improper integration

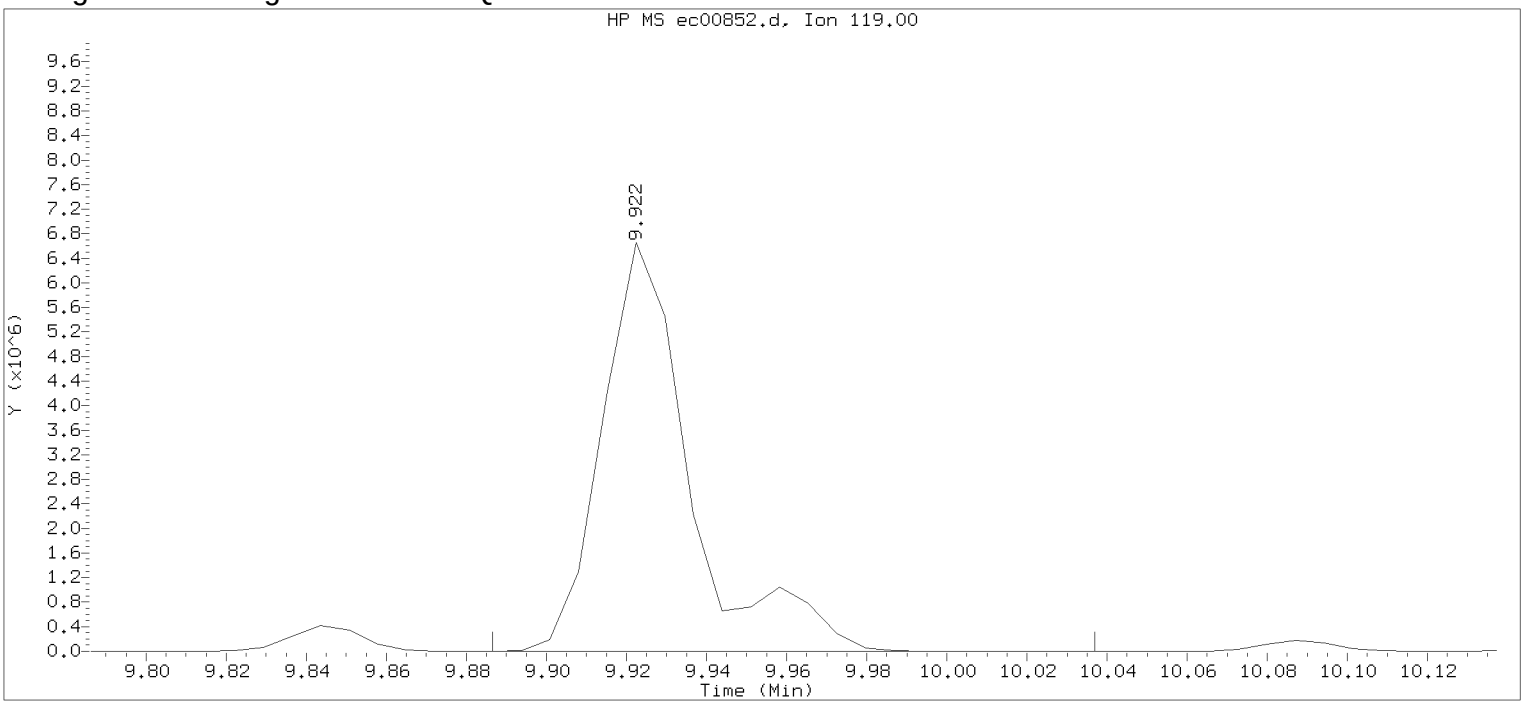
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:40 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 10161559
Concentration (ppb(v)) : 59.7876
Integration start scan : 1367 Integration stop scan: 1388
Y at integration start : 379 Y at integration end: 379

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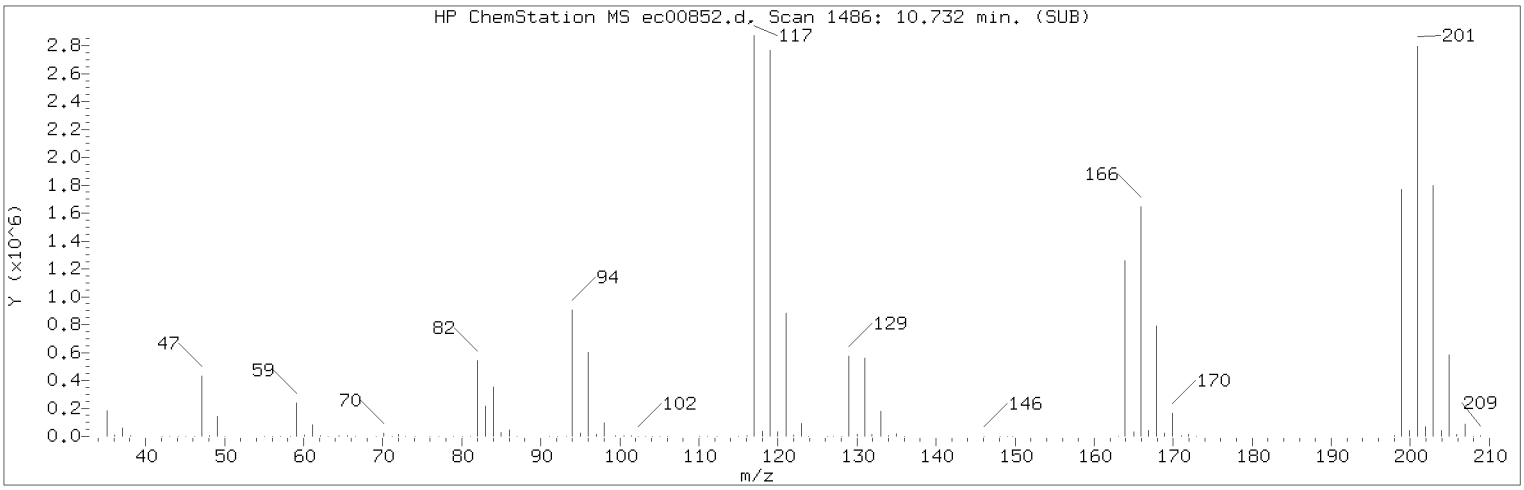
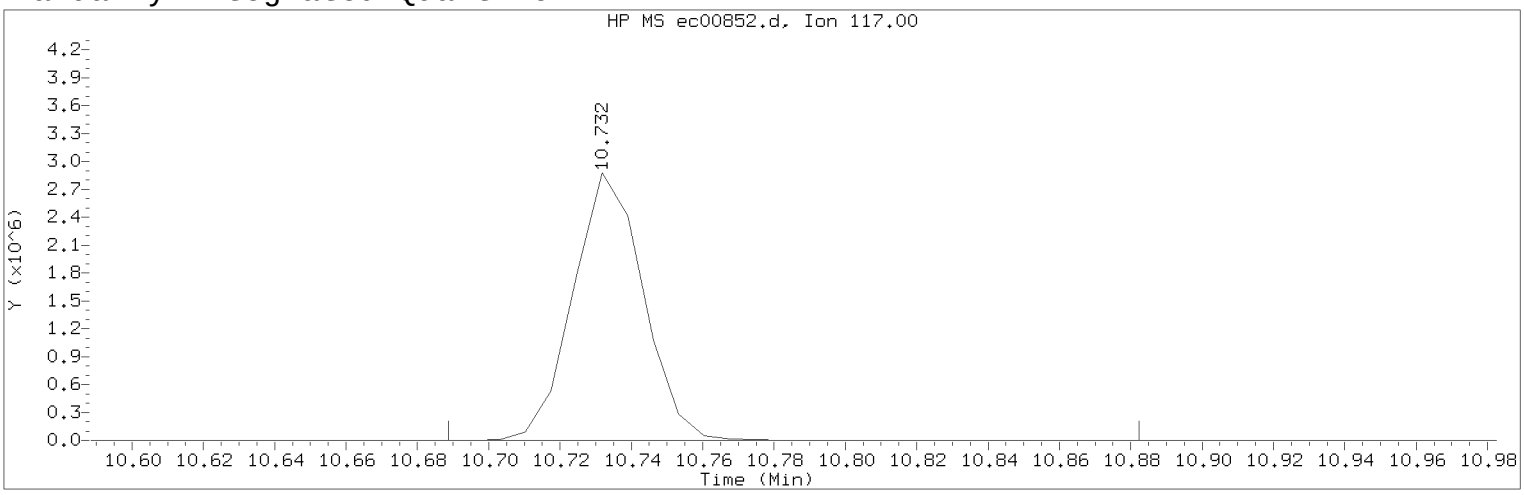
Target 3.5 esignature user id: 71 and Page 318 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:47
Date, time and analyst ID of latest file update: 31-Mar-2017 08:47 ads07818

Sample Name: VSTD070 Lab Sample ID: VSTD070

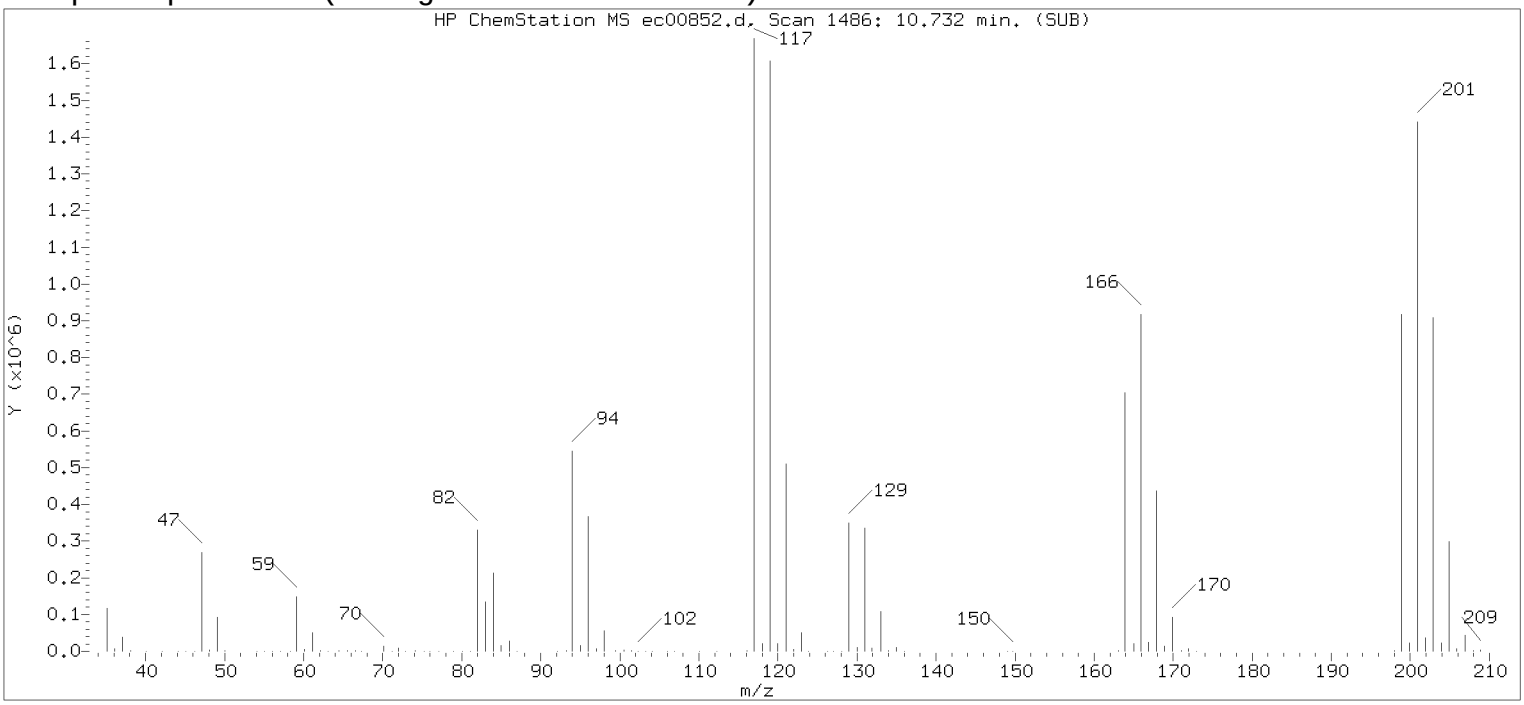
Compound Number : 98
Compound Name : Hexachloroethane
Scan Number : 1486
Retention Time (minutes): 10.732
Quant Ion : 117.00
Area (flag) : 3920123M
Concentration (ppb(v)) : 113.2724
Integration start scan : 1479 Integration stop scan: 1506
Y at integration start : 283 Y at integration end: 283

Reason for manual integration: improper integration

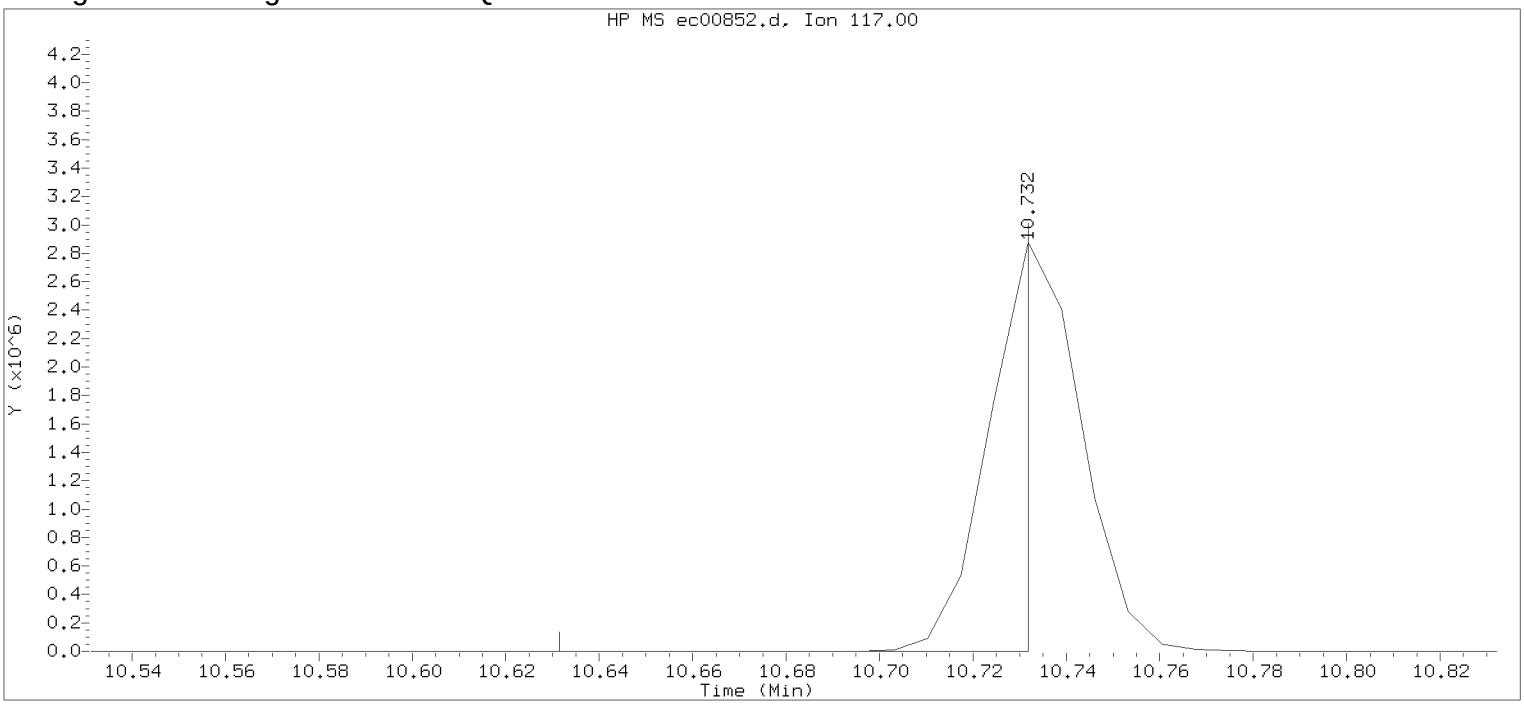
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:06.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:12.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00852.d Instrument ID: HP22820.i
Injection date and time: 30-MAR-2017 22:21 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 30-Mar-2017 22:40 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 98
Compound Name : Hexachloroethane
Scan Number : 1486
Retention Time (minutes): 10.732
Quant Ion : 117.00
Area : 1651418
Concentration (ppb(v)) : 25.3403
Integration start scan : 1471 Integration stop scan: 1485
Y at integration start : 327 Y at integration end: 327

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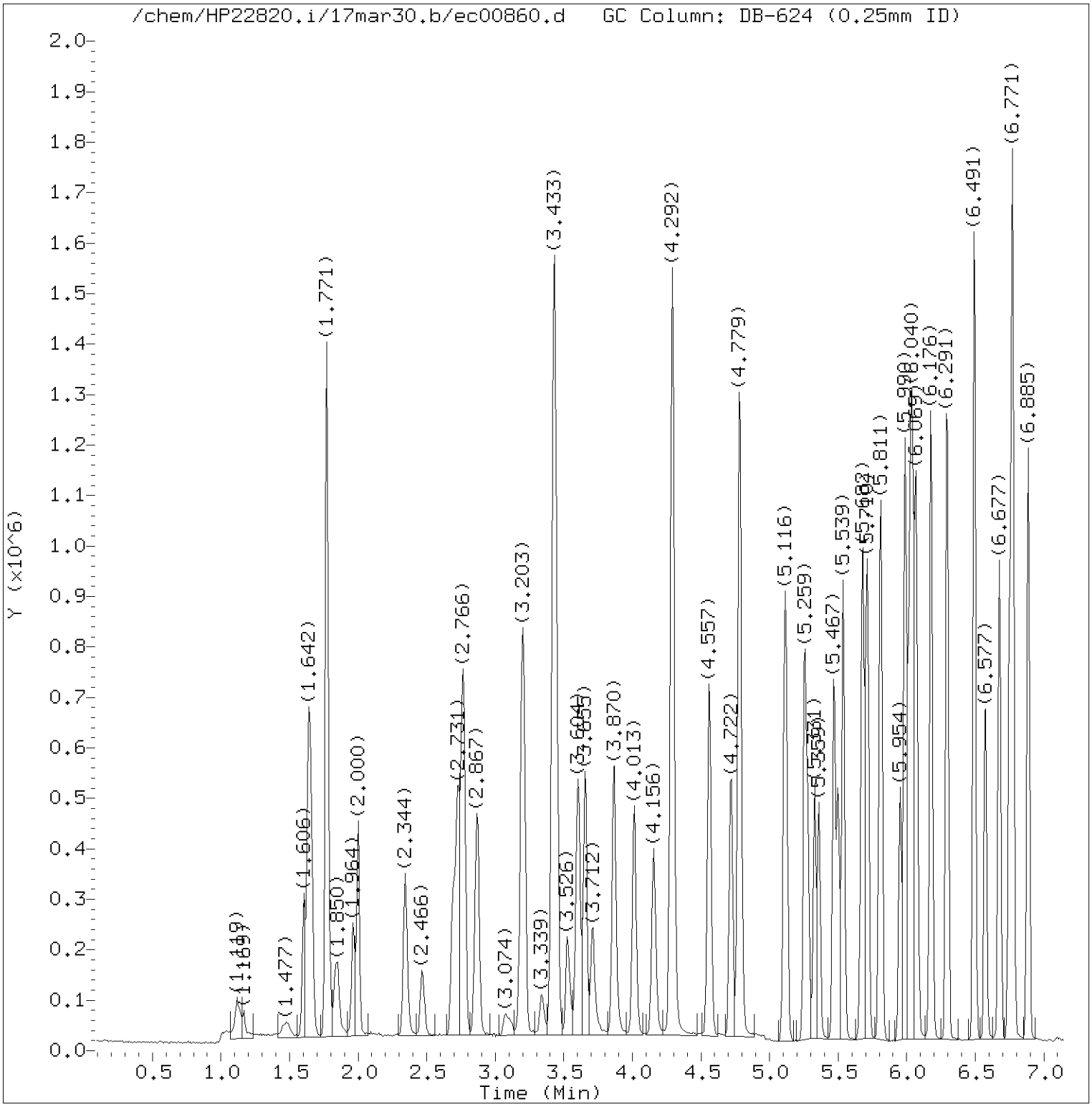
Target 3.5 esignature user id: 71 and Page 392



Total Ion Chromatogram (TIC)

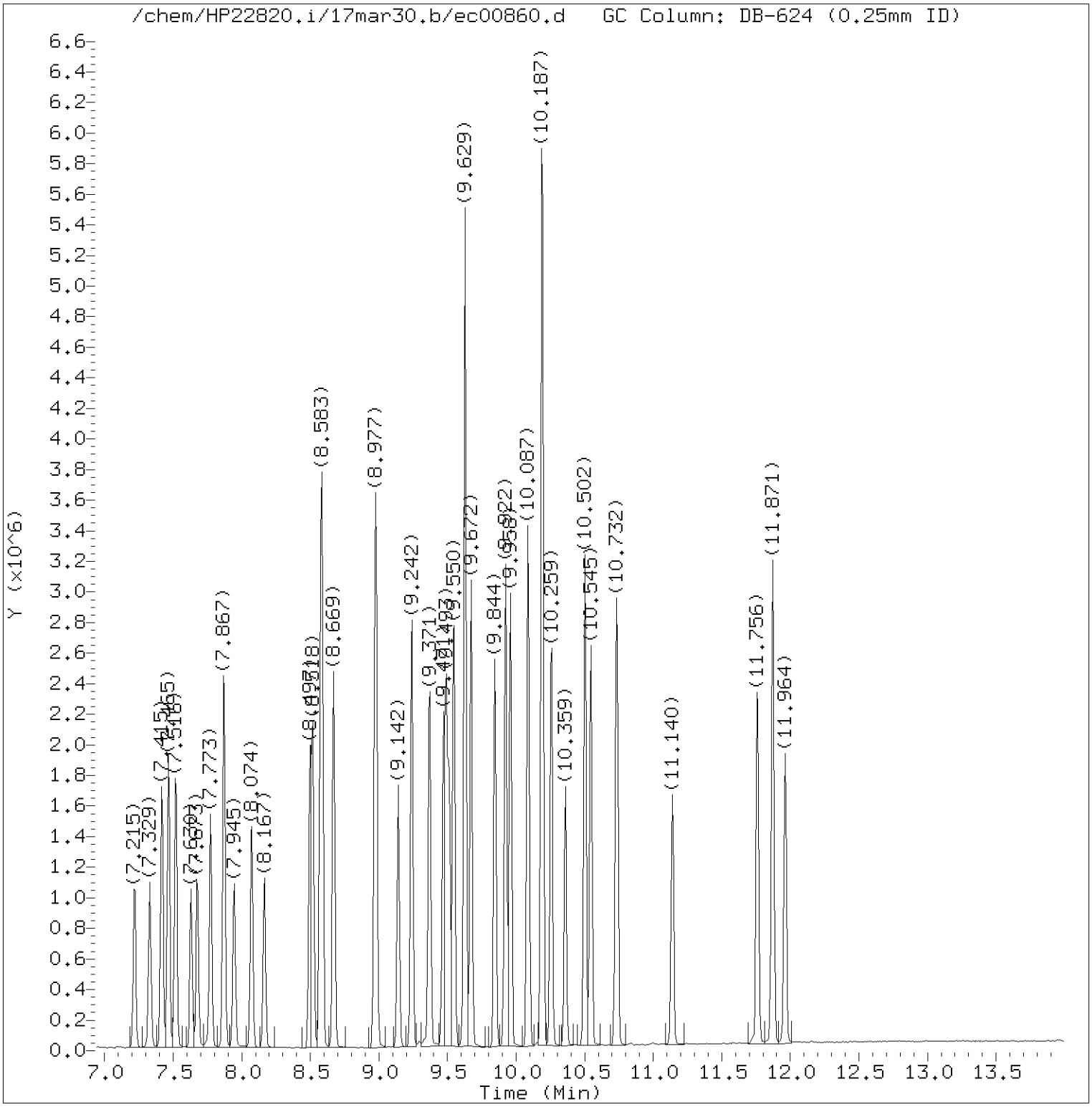
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	151689	10.177
2) Dichlorodifluoromethane	(1)	1.642	85	646804	10.819
3) Chlorodifluoromethane	(1)	1.663	51	351141	11.284
4) Freon 114	(1)	1.771	85	679703	10.856
5) Chloromethane	(1)	1.835	50	169526	10.568
6) Vinyl Chloride	(1)	1.964	62	247664	11.010
7) 1,3-Butadiene	(1)	2.000	54	171894	10.396
8) Bromomethane	(1)	2.344	94	253798	11.028
9) Chloroethane	(1)	2.466	64	138374	11.041
10) Bromoethene	(1)	2.695	106	275482	11.005
11) Dichlorofluoromethane	(1)	2.723	67	547407	11.158
12) Trichlorofluoromethane	(1)	2.766	101	690508	10.734
13) Pentane	(1)	2.867	43	350516	10.420
14) Ethanol	(1)	3.067	45	74485	13.192
15) Freon123a	(1)	3.203	67	510454	10.730
16) Acrolein	(1)	3.339	56	99017	11.422
17) 1,1-Dichloroethene	(1)	3.425	61	379386	10.909
18) Freon 113	(1)	3.440	103	396762	10.473
19) Acetone	(1)	3.526	43	296083	10.982
20) Methyl Iodide	(1)	3.604	142	728187	10.298
21) Carbon Disulfide	(1)	3.655	76	724601	10.517
22) Isopropanol	(1)	3.712	45	330084	13.766
24) 3-Chloropropene	(1)	3.862	76	134901	12.939
23) Acetonitrile	(1)	3.870	40	140120	11.212
25) Methylene Chloride	(1)	4.013	84	246164	12.003
26) tert-Butyl Alcohol	(1)	4.156	59	489313	12.373
28) trans-1,2-Dichloroethene	(1)	4.292	61	346901	10.754
29) Methyl t-Butyl Ether	(1)	4.292	73	737242	10.540
27) Acrylonitrile	(1)	4.299	53	201213	11.209
30) Hexane	(1)	4.557	57	374808	10.731
31) 1,1-Dichloroethane	(1)	4.722	63	451202	10.638
32) Vinyl Acetate	(1)	4.779	86	78608	13.680
33) Di-Isopropyl Ether	(1)	4.779	45	728164	10.775
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	753124	10.644
35) cis-1,2-Dichloroethene	(1)	5.252	61	334111	10.867
37) 2-Butanone	(1)	5.281	72	138904	11.255
38) Ethyl Acetate	(1)	5.331	70	64560	9.740
39) Methyl Acrylate	(1)	5.359	55	412824	11.078

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	237428	10.000
41) Tetrahydrofuran	(1)	5.496	42	241549	10.864
42) Chloroform	(1)	5.539	83	567639	10.620
43) 1,1,1-Trichloroethane	(1)	5.675	97	577311	10.681
44) Cyclohexane	(1)	5.710	56	391085	10.687
45) Carbon Tetrachloride	(1)	5.811	117	596801	10.634
46) Benzene	(2)	5.990	78	879569	10.339
47) 1,2-Dichloroethane	(2)	6.011	62	338528	10.563
48) Isooctane	(2)	6.040	57	1205804	10.302
49) Tert-Amyl Methyl Ether	(2)	6.069	73	800274	10.368
50) Heptane	(2)	6.176	43	394682	10.184
51)*1,4-Difluorobenzene	(2)	6.298	114	917008	10.000
52) Trichloroethene	(2)	6.491	130	462454	10.549
53) Ethyl Acrylate	(2)	6.570	55	533338	10.780
36) 1,2-Dichloroethene (total)	(1)		61	681012	21.621
54) 1,2-Dichloropropane	(2)	6.677	63	296039	10.171
57) Methyl Methacrylate	(2)	6.749	69	295726	10.426
55) Dibromomethane	(2)	6.771	174	456705	10.583
56) 1,4-Dioxane	(2)	6.778	88	220954	10.838
58) Bromodichloromethane	(2)	6.885	83	577174	10.405
59) cis-1,3-Dichloropropene	(2)	7.215	75	512864	10.401
60) 4-Methyl-2-Pentanone	(2)	7.329	43	524928	10.624
61) Toluene	(3)	7.465	91	1119317	10.383
62) Octane	(3)	7.516	43	551027	10.412
63) trans-1,3-Dichloropropene	(3)	7.630	75	438999	10.559
65) Ethyl Methacrylate	(3)	7.673	69	486963	10.882
66) 1,1,2-Trichloroethane	(3)	7.773	97	383645	10.650
67) Tetrachloroethene	(3)	7.874	166	654223	10.309
68) 2-Hexanone	(3)	7.945	43	518429	11.423
69) Dibromochloromethane	(3)	8.074	127	507155	10.819
70) 1,2-Dibromoethane	(3)	8.167	107	612800	10.855
71)*Chlorobenzene-d5	(3)	8.497	117	893081	10.000
72) Chlorobenzene	(3)	8.518	112	972256	10.517
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	504621	10.861
74) Ethylbenzene	(3)	8.583	91	1470933	10.648
75) m/p-Xylene	(3)	8.669	91	1152238	10.561
76) o-Xylene	(3)	8.970	91	1137525	10.757
78) Styrene	(3)	8.984	104	917904	11.475

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

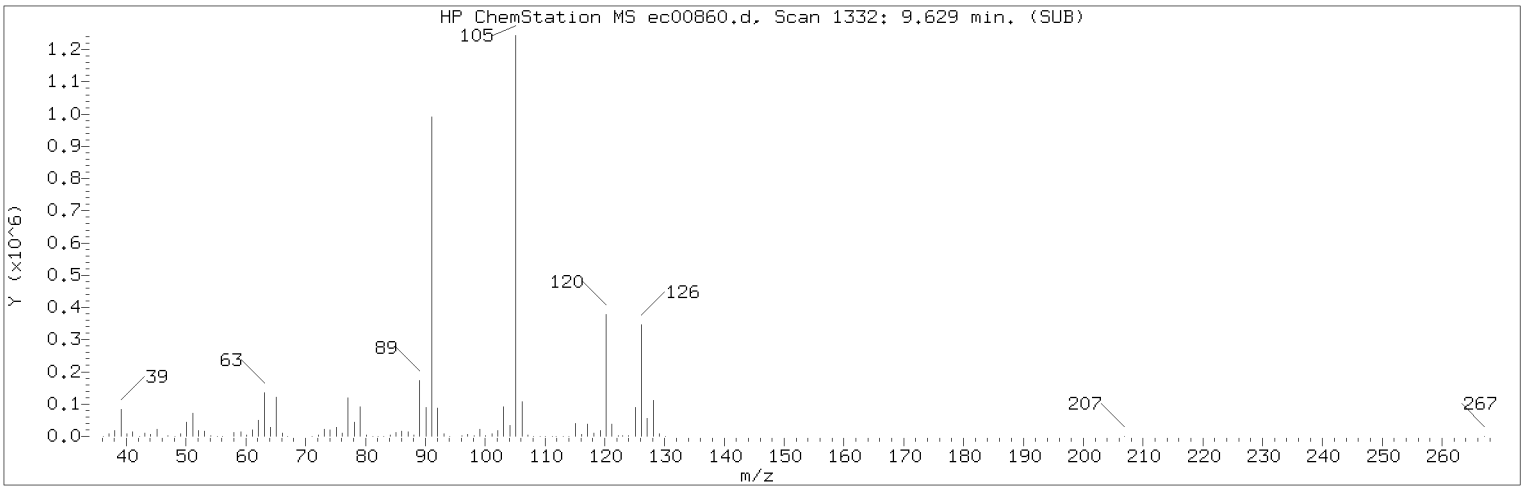
Sample Name: LCSE48 Lab Sample ID: LCSE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	661049	11.150
80) Cumene	(3)	9.242	105	1660263	11.156
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	796063	11.411
81) Bromobenzene	(3)	9.493	156	610996	10.720
83) 1,2,3-Trichloropropane	(3)	9.514	110	261609	11.229
84) n-Propylbenzene	(3)	9.550	120	481592	10.598
86) 4-Ethyltoluene	(3)	9.629	105	1659467M	11.293
85) 2-Chlorotoluene	(3)	9.629	126	456119	11.139
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1383978M	11.332
88) Alpha Methyl Styrene	(3)	9.844	118	694473	11.940
89) tert-Butylbenzene	(3)	9.922	119	1367692M	11.368
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1340171	11.601
91) sec-Butylbenzene	(3)	10.087	105	1957560	11.561
94) p-Isopropyltoluene	(3)	10.187	119	1698669	11.816
92) 1,3-Dichlorobenzene	(3)	10.194	146	1023257	11.707
93) 1,4-Dichlorobenzene	(3)	10.259	146	1029396	11.608
95) Benzyl Chloride	(3)	10.359	91	999948	13.096
97) n-Butylbenzene	(3)	10.502	91	1439340	12.075
96) 1,2-Dichlorobenzene	(3)	10.545	146	952270	12.073
98) Hexachloroethane	(3)	10.732	117	434588	12.952
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	458877	14.872
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	700797	14.811
101) Hexachlorobutadiene	(3)	11.871	225	587278	13.819
102) Naphthalene	(3)	11.964	128	1376695	16.044
64) 1,3-Dichloropropene (total)	(3)		75	951863	20.960
77) Xylene (total)	(3)		91	2289763	21.318

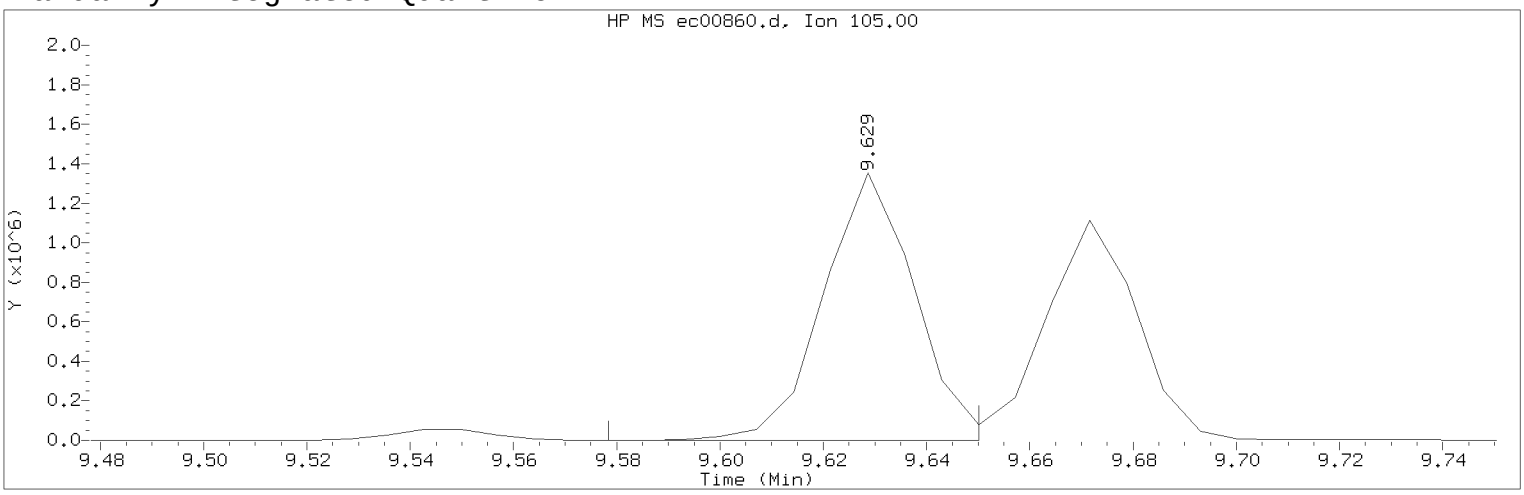
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

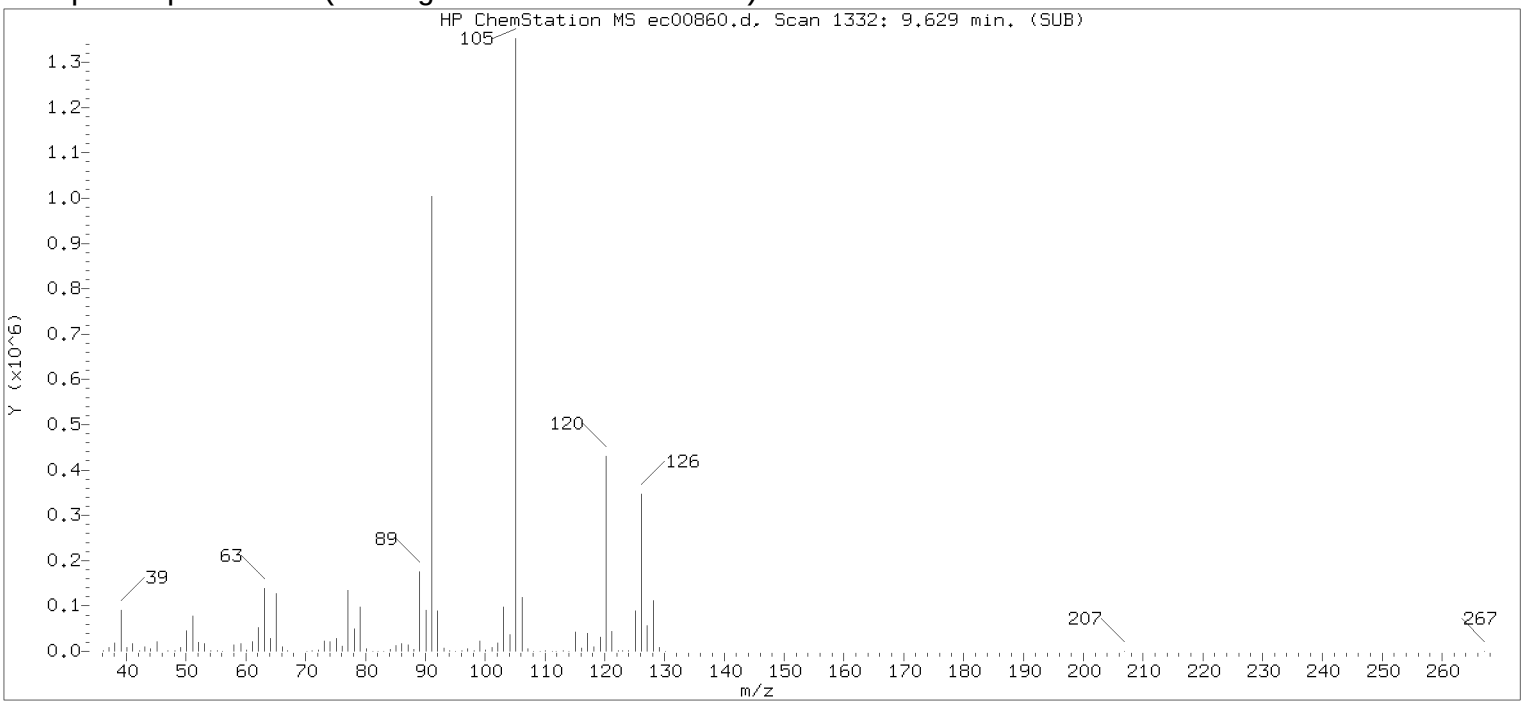
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1659467M
Concentration (ppb(v)) : 11.2933
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 794 Y at integration end: 794

Reason for manual integration: improper integration

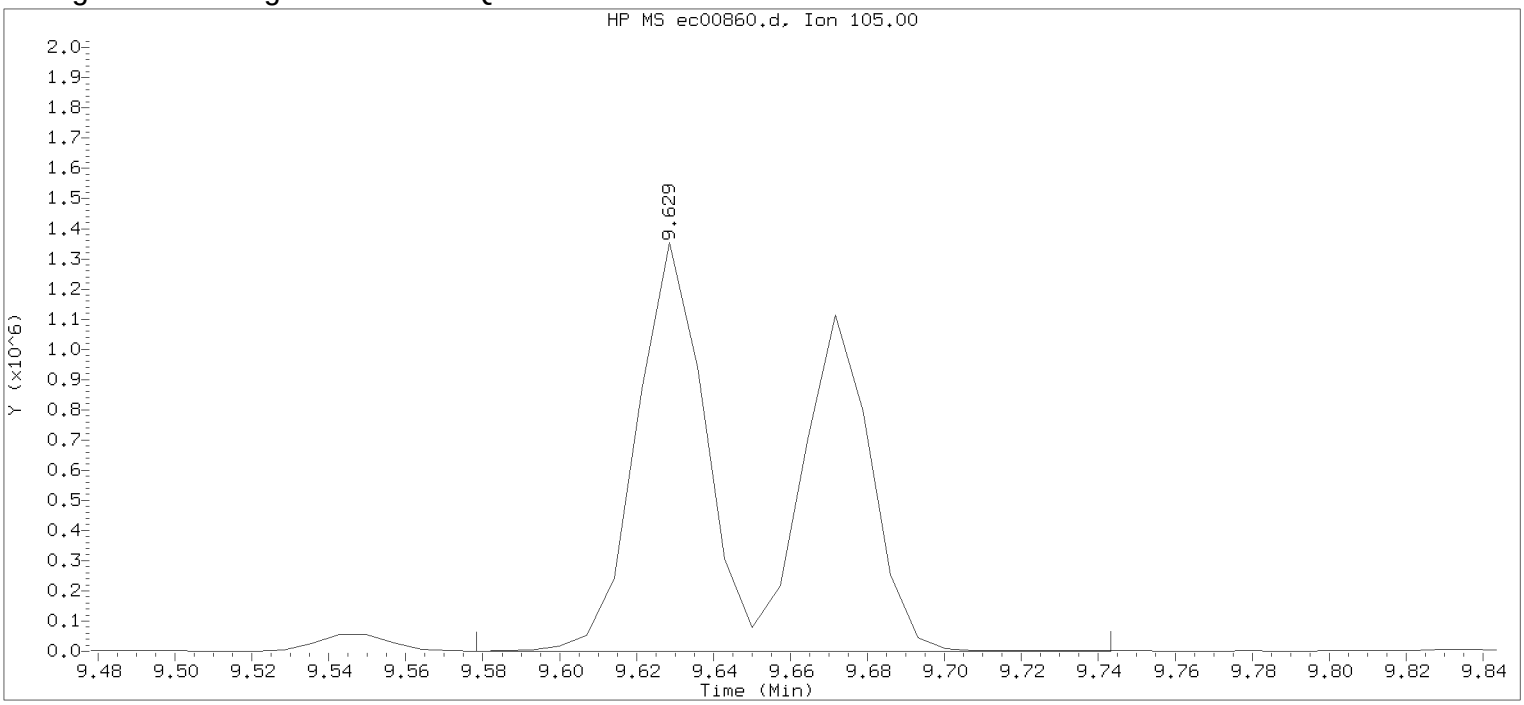
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

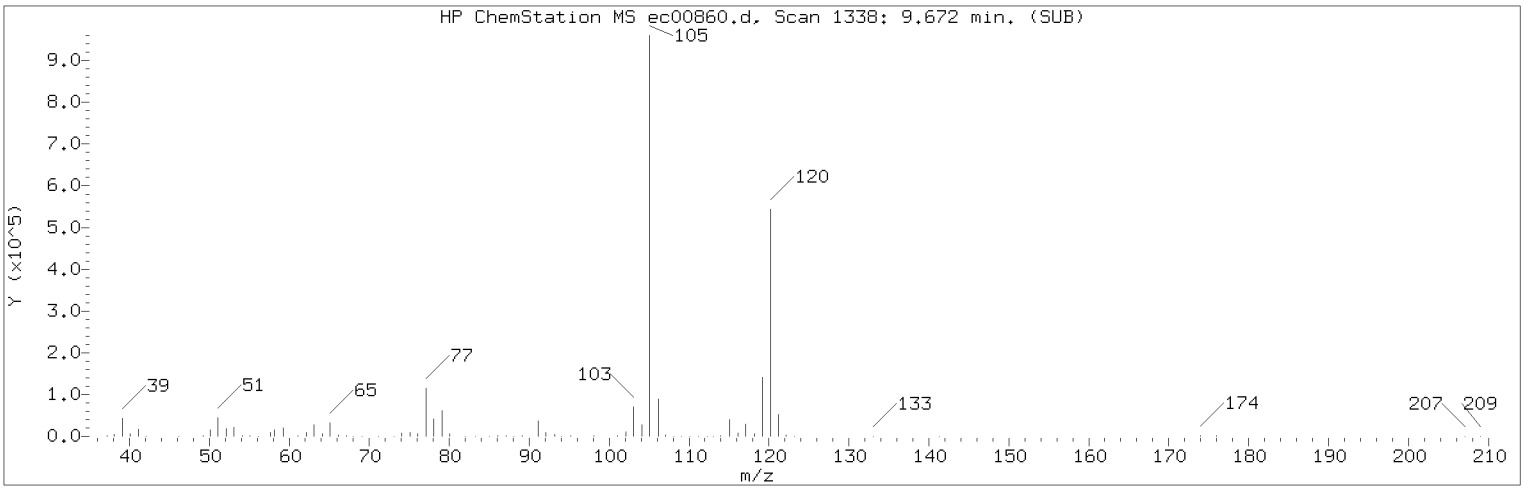
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:10 Unknown

Sample Name: LCSE48 Lab Sample ID: LCSE48

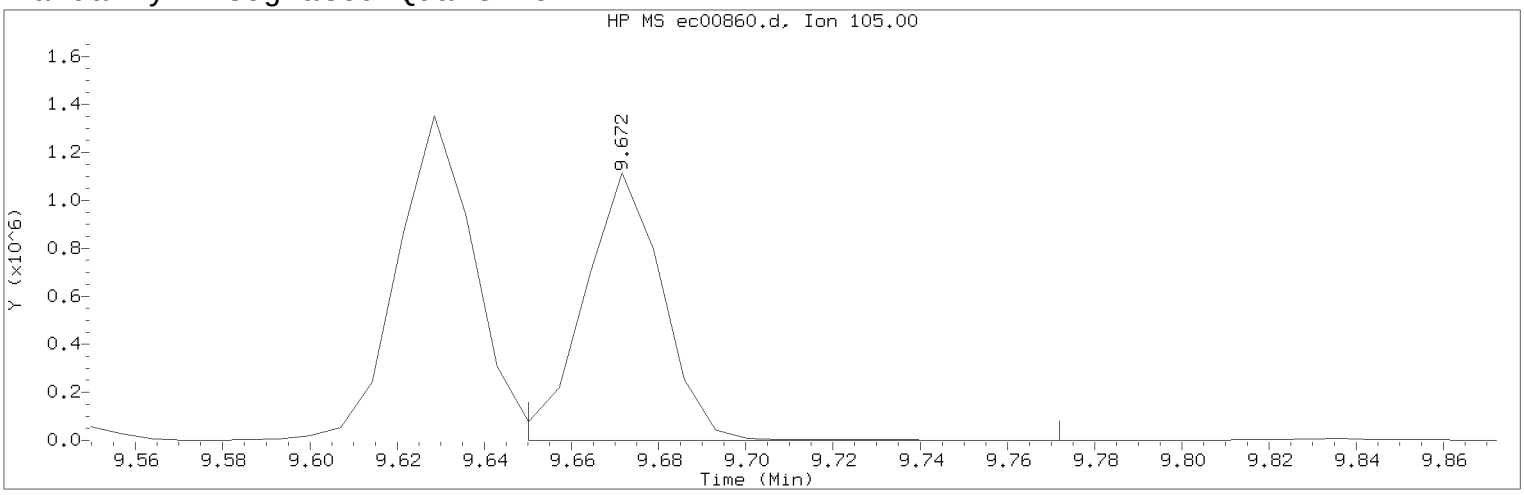
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 3008173
Concentration (ppb(v)) : 15.2171
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 791 Y at integration end: 791

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

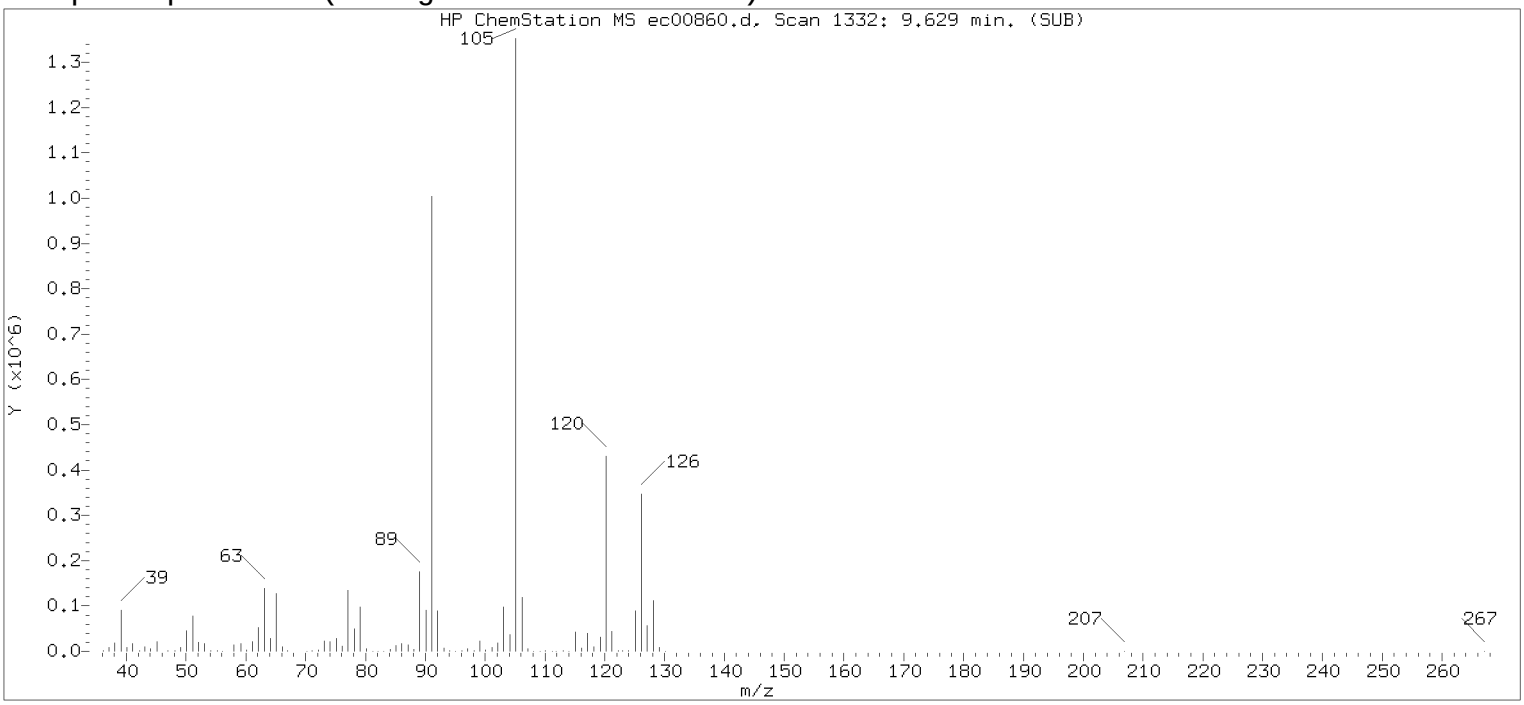
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1383978M
Concentration (ppb(v)) : 11.3322
Integration start scan : 1334 Integration stop scan: 1351
Y at integration start : 527 Y at integration end: 527

Reason for manual integration: improper integration

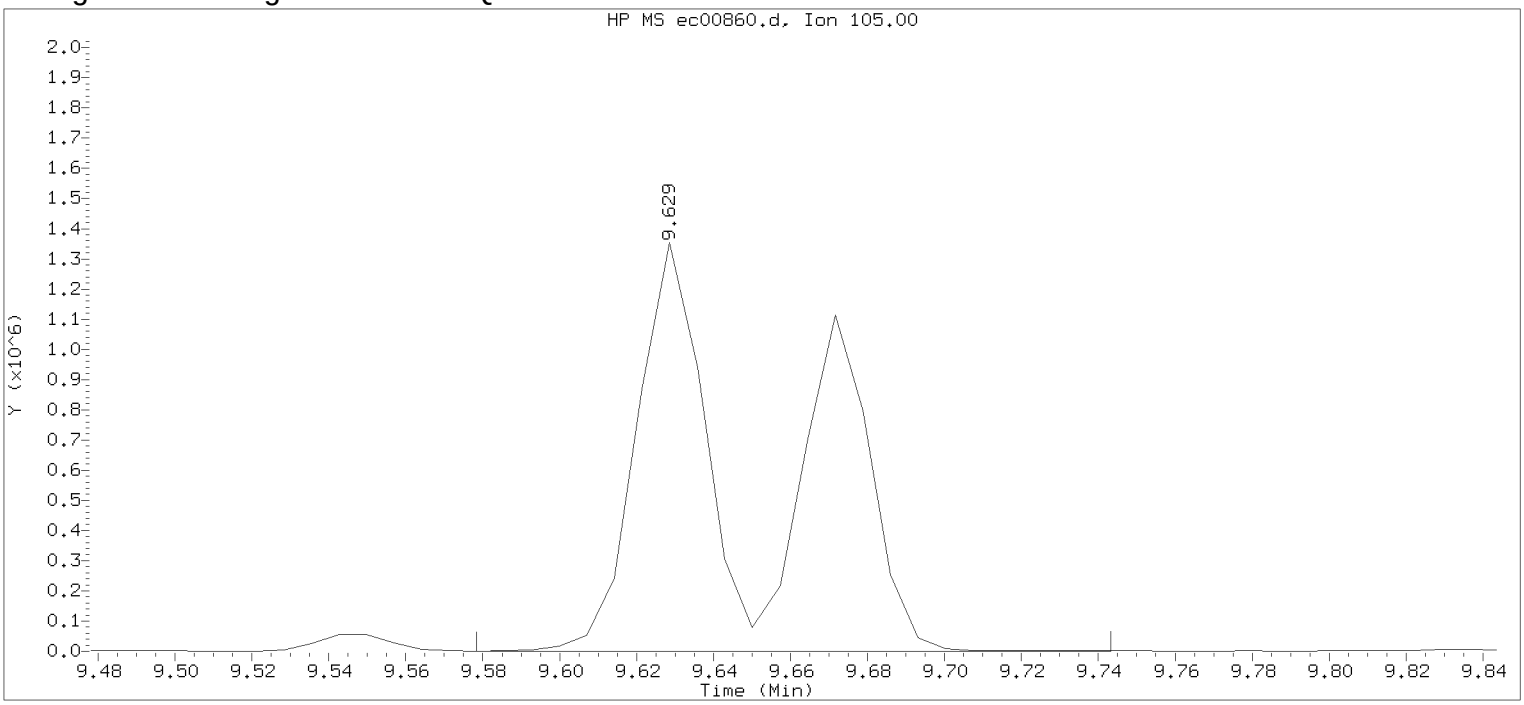
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

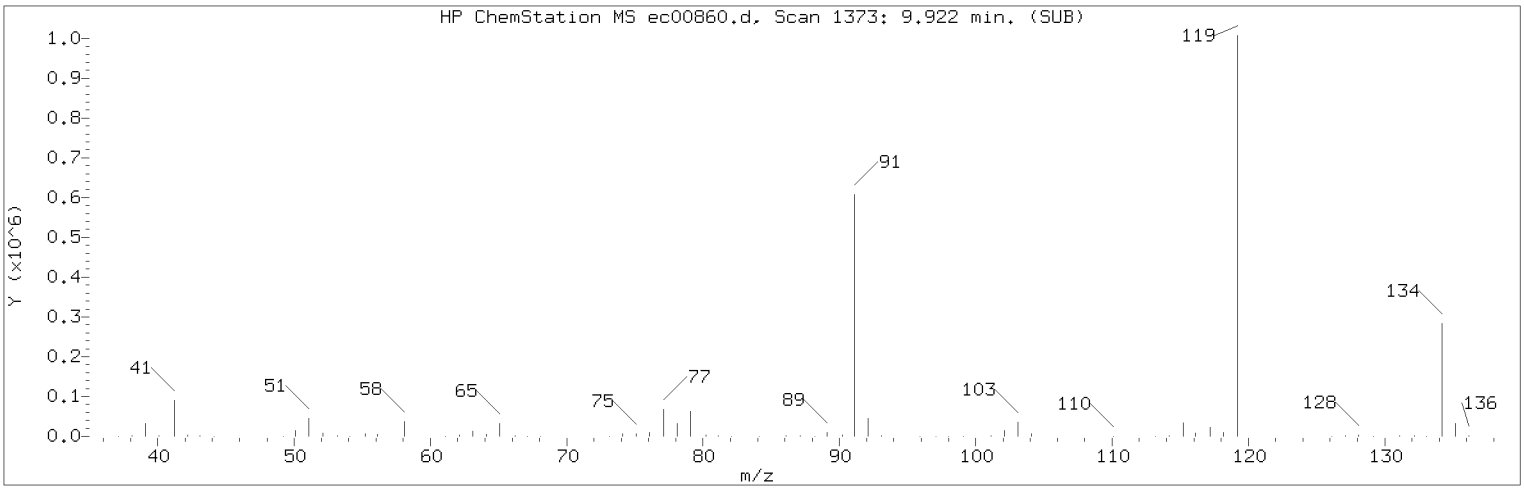
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:10 Unknown

Sample Name: LCSE48 Lab Sample ID: LCSE48

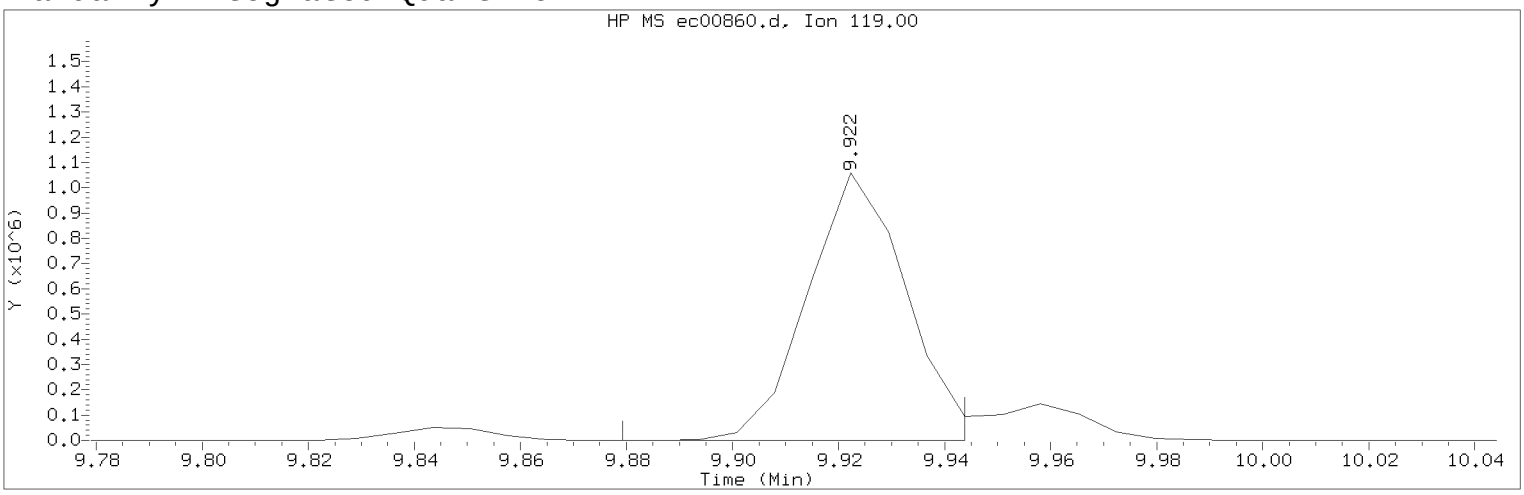
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 3008143
Concentration (ppb(v)) : 18.3462
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 794 Y at integration end: 794

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:06 jeb07445

Sample Name: LCSE48 Lab Sample ID: LCSE48

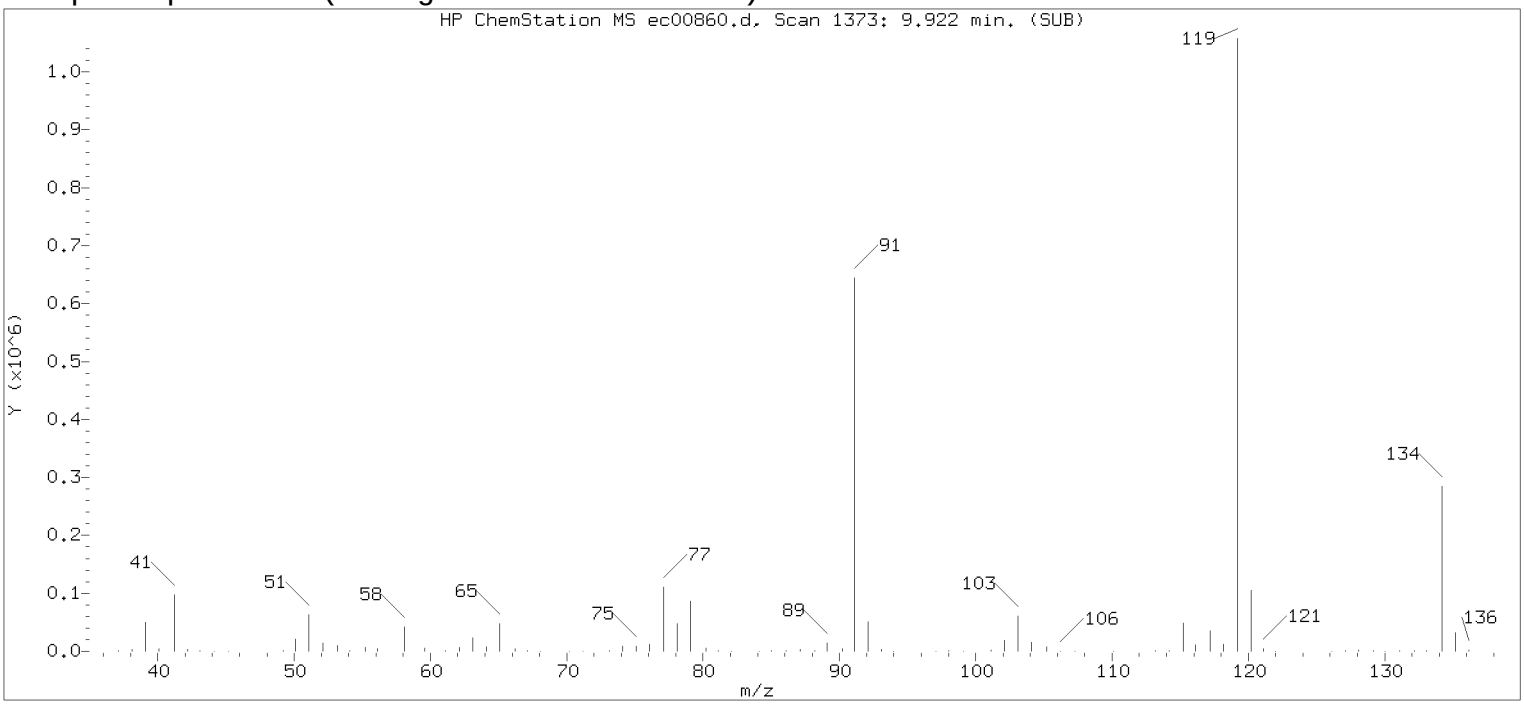
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 1367692M
Concentration (ppb(v)) : 11.3683
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 200 Y at integration end: 200

Reason for manual integration: improper integration

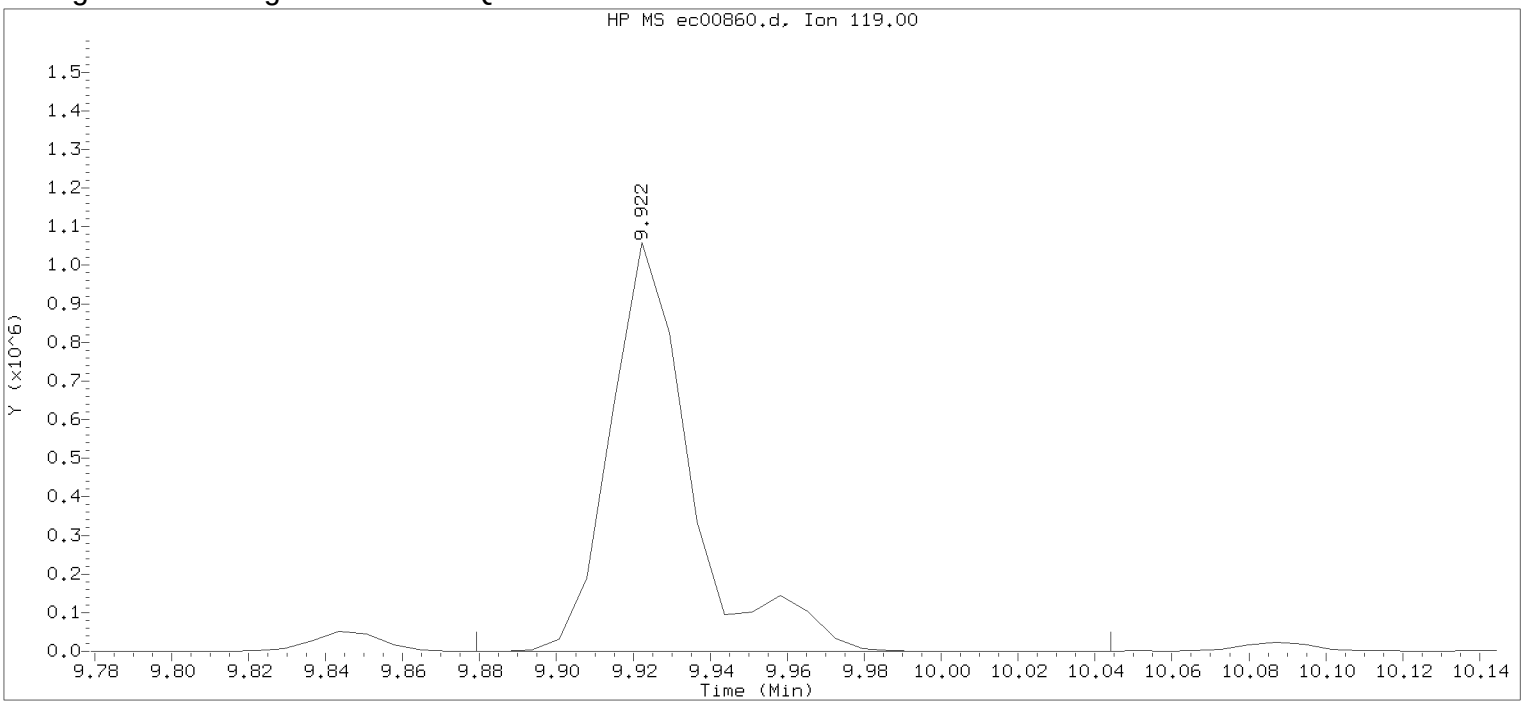
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



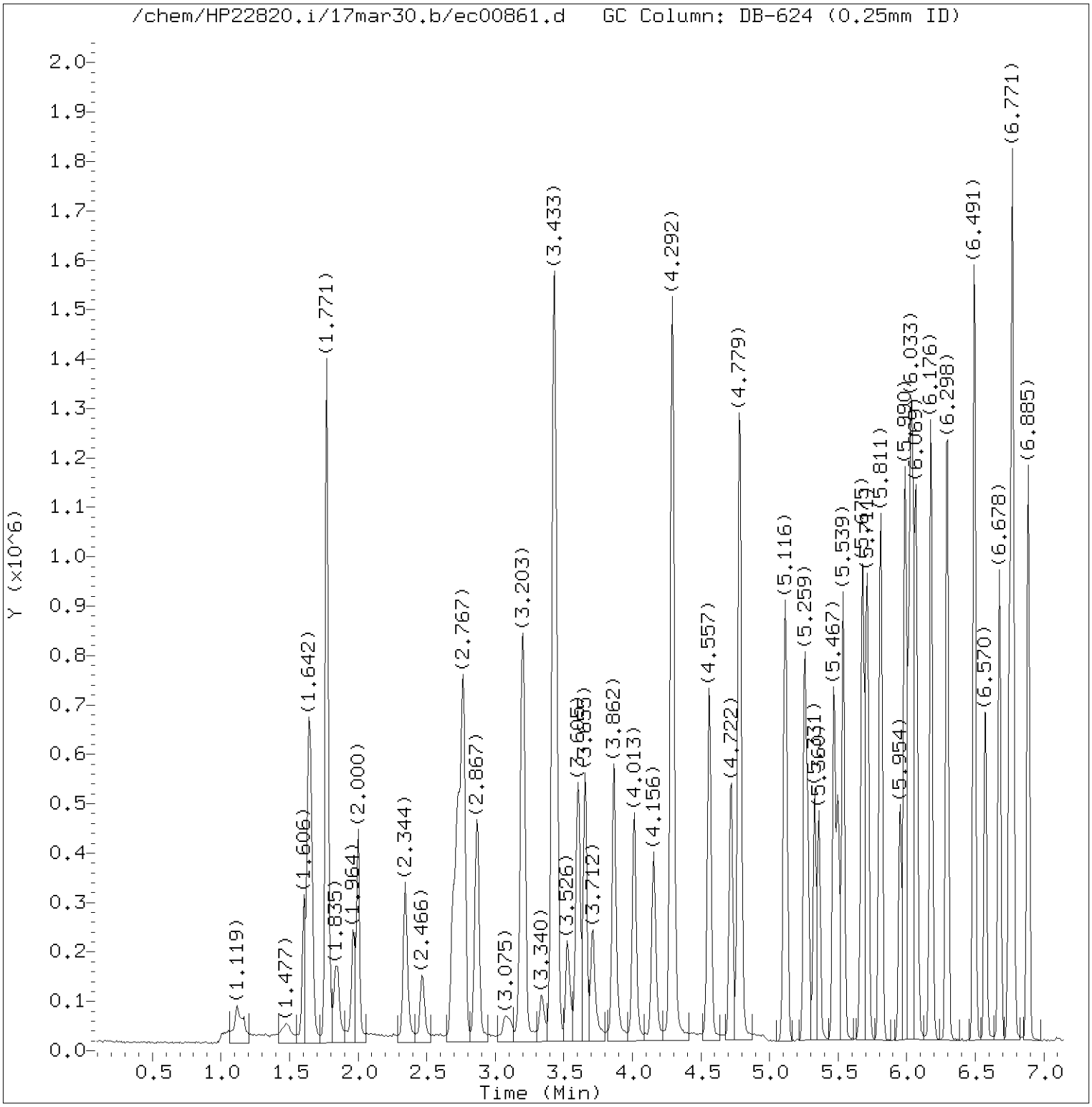
Data File: /chem/HP22820.i/17mar30.b/ec00860.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 02:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:10 Unknown

Sample Name: LCSE48 Lab Sample ID: LCSE48

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 1536136
Concentration (ppb(v)) : 9.3222
Integration start scan : 1366 Integration stop scan: 1389
Y at integration start : 169 Y at integration end: 169

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445



Total Ion Chromatogram (TIC)

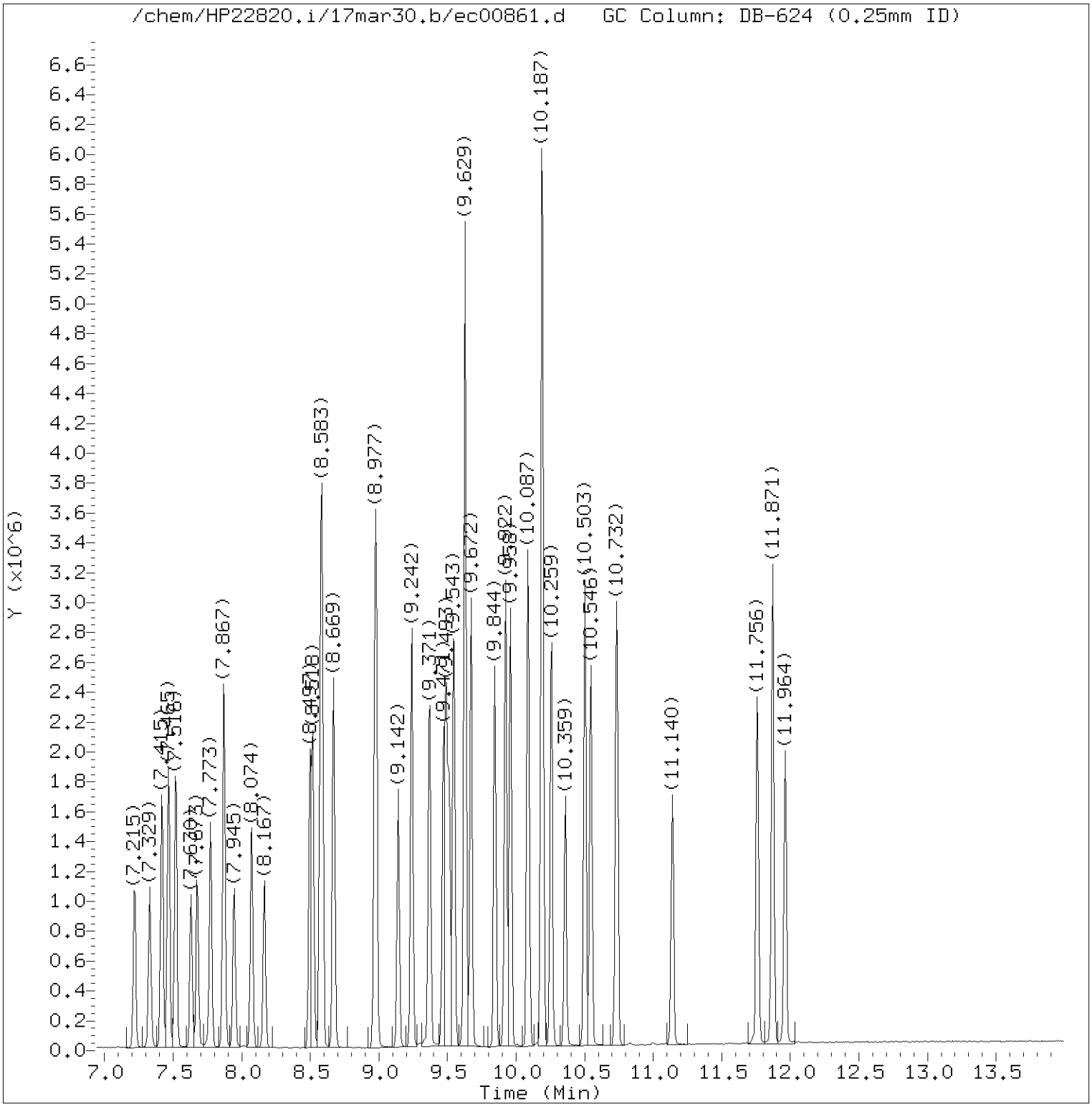
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	156640	10.323
2) Dichlorodifluoromethane	(1)	1.642	85	650845	10.694
3) Chlorodifluoromethane	(1)	1.663	51	352494	11.127
4) Freon 114	(1)	1.771	85	685627	10.757
5) Chloromethane	(1)	1.835	50	164529	10.075
6) Vinyl Chloride	(1)	1.964	62	249671	10.902
7) 1,3-Butadiene	(1)	2.000	54	171912	10.213
8) Bromomethane	(1)	2.344	94	255119	10.889
9) Chloroethane	(1)	2.466	64	138058	10.820
10) Bromoethene	(1)	2.695	106	279650	10.973
11) Dichlorofluoromethane	(1)	2.731	67	550535	11.024
12) Trichlorofluoromethane	(1)	2.767	101	690732	10.548
13) Pentane	(1)	2.867	43	345992	10.104
14) Ethanol	(1)	3.075	45	74728	13.000
15) Freon123a	(1)	3.196	67	518608	10.708
16) Acrolein	(1)	3.340	56	102515	11.616
17) 1,1-Dichloroethene	(1)	3.426	61	382958	10.817
18) Freon 113	(1)	3.433	103	395663	10.259
19) Acetone	(1)	3.526	43	290711	10.592
20) Methyl Iodide	(1)	3.605	142	738116	10.254
21) Carbon Disulfide	(1)	3.655	76	730582	10.416
22) Isopropanol	(1)	3.712	45	328408	13.454
24) 3-Chloropropene	(1)	3.862	76	134512	12.674
23) Acetonitrile	(1)	3.870	40	144393	11.349
25) Methylene Chloride	(1)	4.013	84	246415	11.803
26) tert-Butyl Alcohol	(1)	4.156	59	490441	12.182
28) trans-1,2-Dichloroethene	(1)	4.285	61	347693	10.588
29) Methyl t-Butyl Ether	(1)	4.292	73	739206	10.382
27) Acrylonitrile	(1)	4.299	53	201977	11.053
30) Hexane	(1)	4.557	57	372611	10.479
31) 1,1-Dichloroethane	(1)	4.722	63	454897	10.535
32) Vinyl Acetate	(1)	4.779	86	78452	13.411
33) Di-Isopropyl Ether	(1)	4.779	45	725393	10.544
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	750602	10.420
35) cis-1,2-Dichloroethene	(1)	5.259	61	334715	10.694
37) 2-Butanone	(1)	5.281	72	139656	11.115
38) Ethyl Acetate	(1)	5.331	70	68428	10.141
39) Methyl Acrylate	(1)	5.360	55	417123	10.996

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	241705	10.000
41) Tetrahydrofuran	(1)	5.496	42	248755	10.990
42) Chloroform	(1)	5.539	83	574013	10.549
43) 1,1,1-Trichloroethane	(1)	5.675	97	579815	10.537
44) Cyclohexane	(1)	5.711	56	393324	10.558
45) Carbon Tetrachloride	(1)	5.811	117	604837	10.586
46) Benzene	(2)	5.990	78	888012	10.546
47) 1,2-Dichloroethane	(2)	6.011	62	341657	10.771
48) Isooctane	(2)	6.033	57	1209783	10.443
49) Tert-Amyl Methyl Ether	(2)	6.069	73	796938	10.432
50) Heptane	(2)	6.176	43	396411	10.334
51)*1,4-Difluorobenzene	(2)	6.298	114	907620	10.000
52) Trichloroethene	(2)	6.491	130	465298	10.724
53) Ethyl Acrylate	(2)	6.570	55	546215	11.154
36) 1,2-Dichloroethene (total)	(1)		61	682408	21.282
54) 1,2-Dichloropropane	(2)	6.678	63	296337	10.286
57) Methyl Methacrylate	(2)	6.749	69	297913	10.612
55) Dibromomethane	(2)	6.771	174	456560	10.689
56) 1,4-Dioxane	(2)	6.778	88	226571	11.228
58) Bromodichloromethane	(2)	6.885	83	583428	10.626
59) cis-1,3-Dichloropropene	(2)	7.215	75	517561	10.604
60) 4-Methyl-2-Pentanone	(2)	7.329	43	534166	10.923
61) Toluene	(3)	7.465	91	1121222	10.408
62) Octane	(3)	7.516	43	554821	10.492
63) trans-1,3-Dichloropropene	(3)	7.630	75	442315	10.647
65) Ethyl Methacrylate	(3)	7.673	69	496760	11.110
66) 1,1,2-Trichloroethane	(3)	7.773	97	392661	10.909
67) Tetrachloroethene	(3)	7.874	166	658485	10.385
68) 2-Hexanone	(3)	7.945	43	510595	11.259
69) Dibromochloromethane	(3)	8.074	127	512202	10.935
70) 1,2-Dibromoethane	(3)	8.167	107	613250	10.871
71)*Chlorobenzene-d5	(3)	8.497	117	892402	10.000
72) Chlorobenzene	(3)	8.518	112	967068	10.469
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	500333	10.777
74) Ethylbenzene	(3)	8.583	91	1472994	10.671
75) m/p-Xylene	(3)	8.669	91	1163205	10.669
76) o-Xylene	(3)	8.970	91	1130524	10.699
78) Styrene	(3)	8.984	104	913863	11.433

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

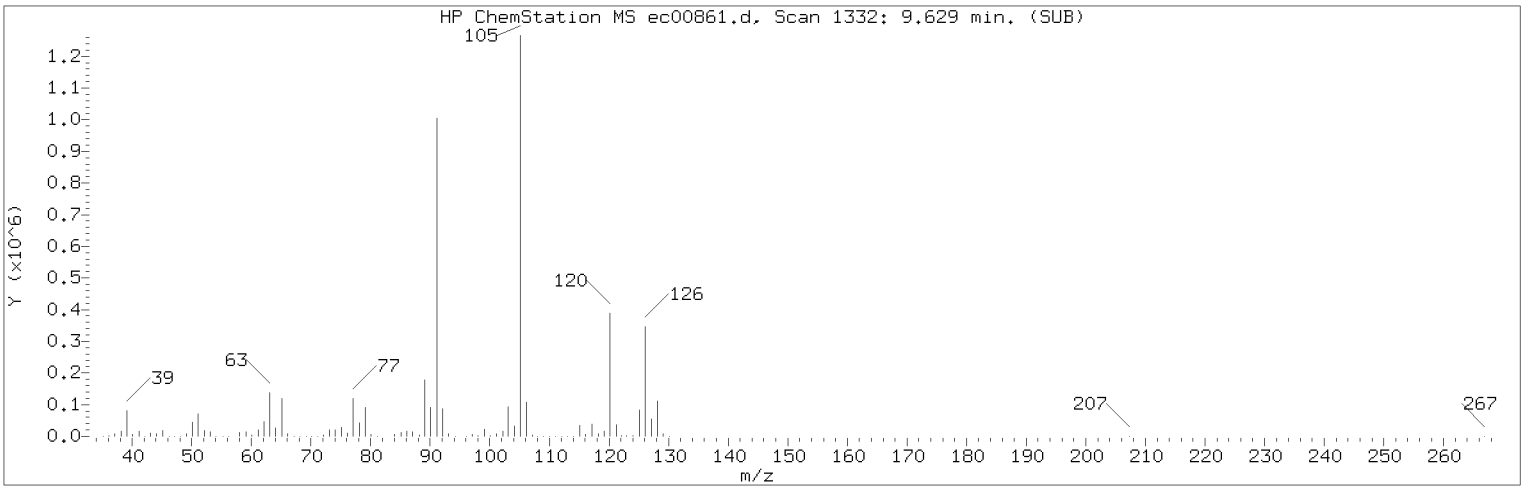
Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	669913	11.308
80) Cumene	(3)	9.242	105	1656011	11.136
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	790831	11.344
81) Bromobenzene	(3)	9.493	156	625365	10.980
83) 1,2,3-Trichloropropane	(3)	9.514	110	260701	11.198
84) n-Propylbenzene	(3)	9.550	120	481322	10.600
86) 4-Ethyltoluene	(3)	9.629	105	1665083M	11.340
85) 2-Chlorotoluene	(3)	9.629	126	451553	11.036
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1379490M	11.304
88) Alpha Methyl Styrene	(3)	9.844	118	693864	11.938
89) tert-Butylbenzene	(3)	9.922	119	1385435M	11.525
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1361300	11.792
91) sec-Butylbenzene	(3)	10.087	105	1984196	11.727
92) 1,3-Dichlorobenzene	(3)	10.187	146	1036588	11.869
94) p-Isopropyltoluene	(3)	10.187	119	1715471	11.941
93) 1,4-Dichlorobenzene	(3)	10.259	146	1038959	11.724
95) Benzyl Chloride	(3)	10.359	91	993142	13.017
97) n-Butylbenzene	(3)	10.503	91	1442586	12.111
96) 1,2-Dichlorobenzene	(3)	10.546	146	941419	11.944
98) Hexachloroethane	(3)	10.732	117	442185	13.189
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	455700	14.780
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	712768	15.075
101) Hexachlorobutadiene	(3)	11.871	225	595048	14.012
102) Naphthalene	(3)	11.964	128	1394103	16.259
64) 1,3-Dichloropropene (total)	(3)		75	959876	21.252
77) Xylene (total)	(3)		91	2293729	21.369

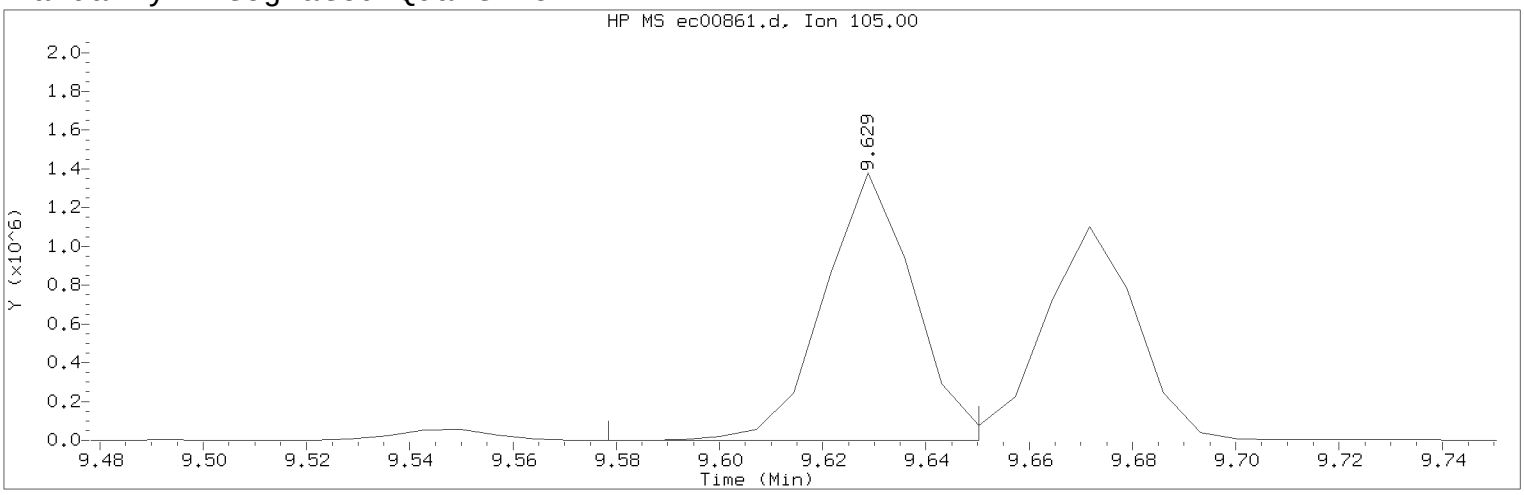
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

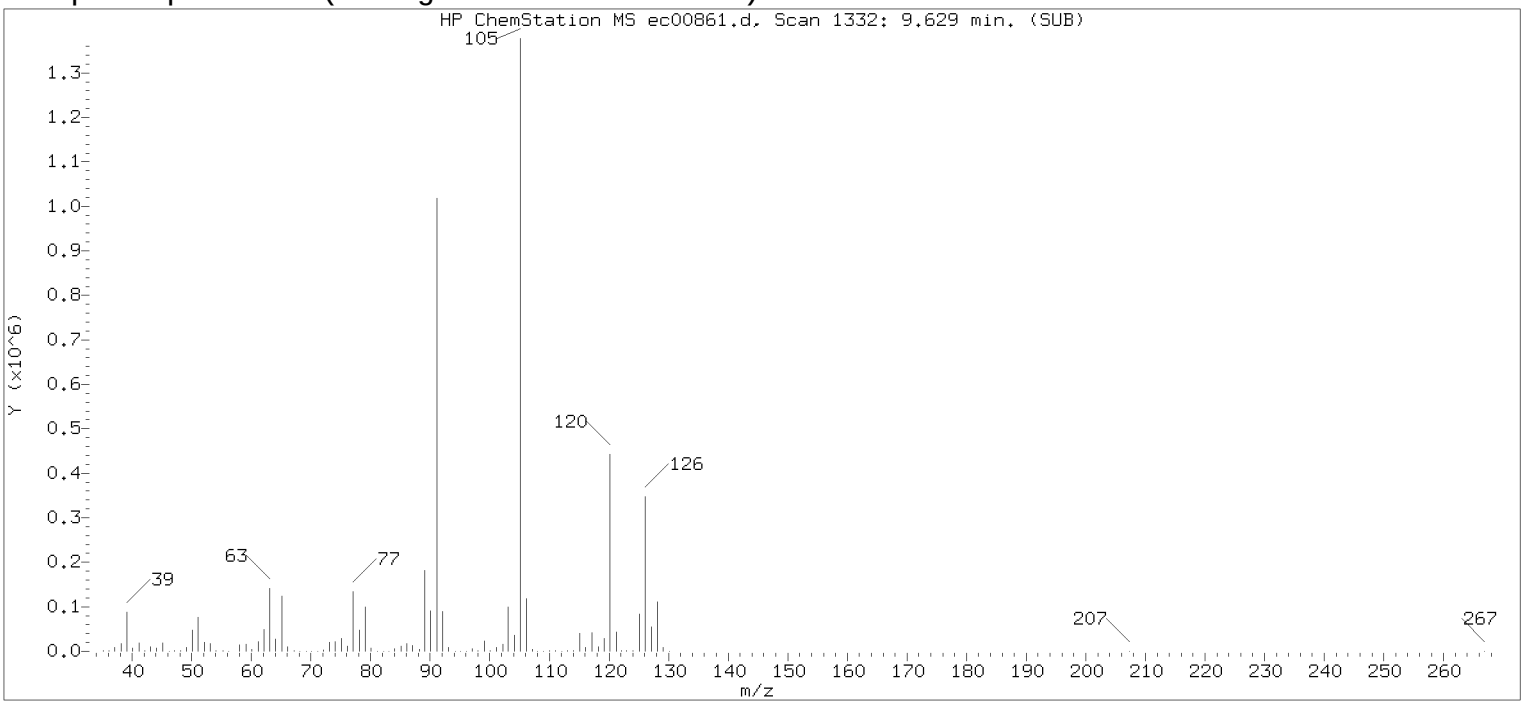
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1665083M
Concentration (ppb(v)) : 11.3401
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 986 Y at integration end: 986

Reason for manual integration: improper integration

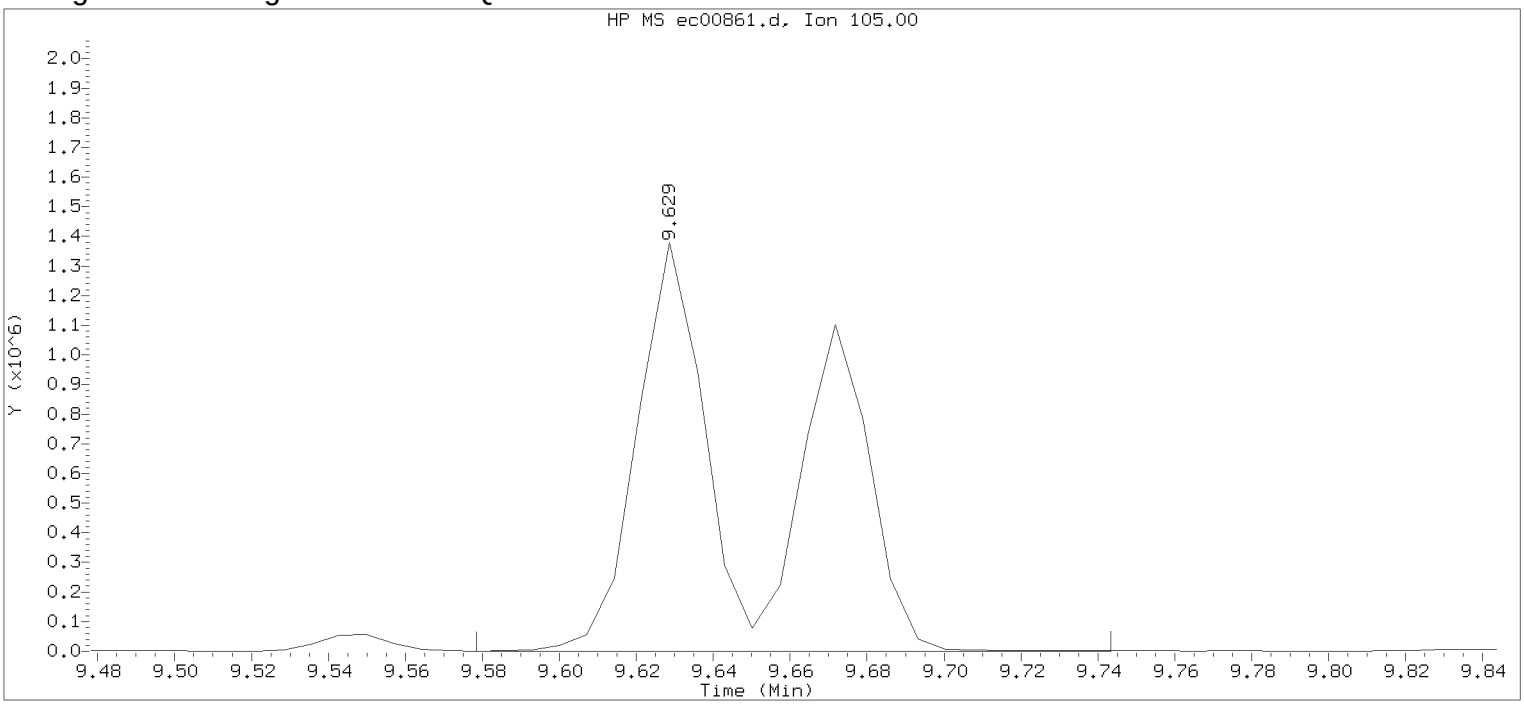
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

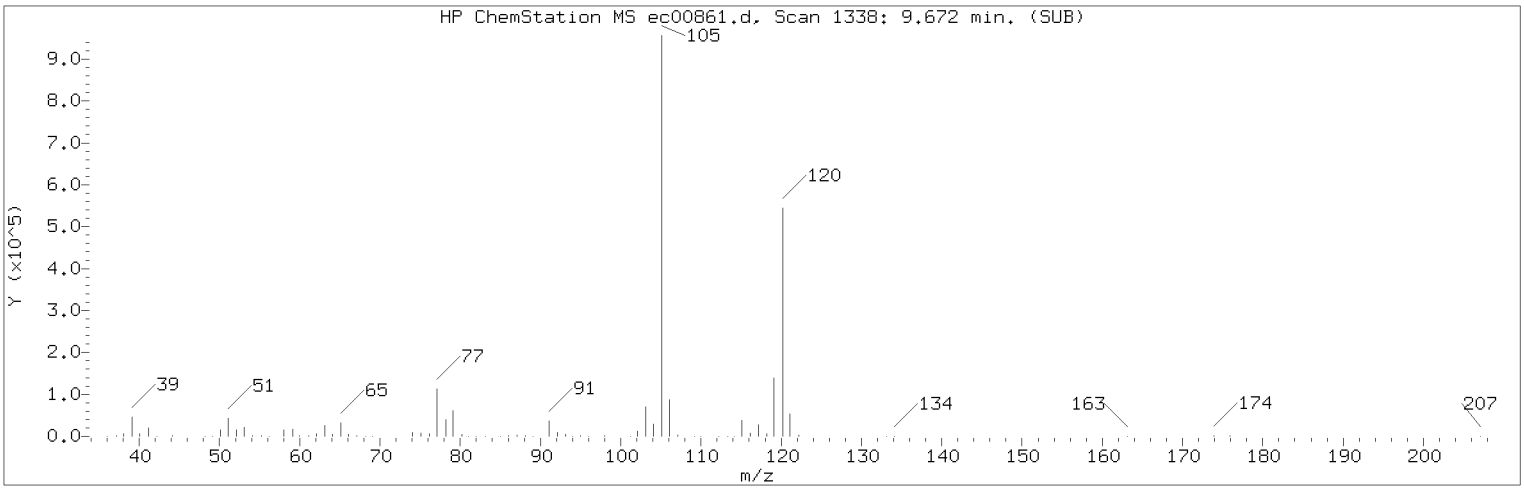
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:44 Unknown

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

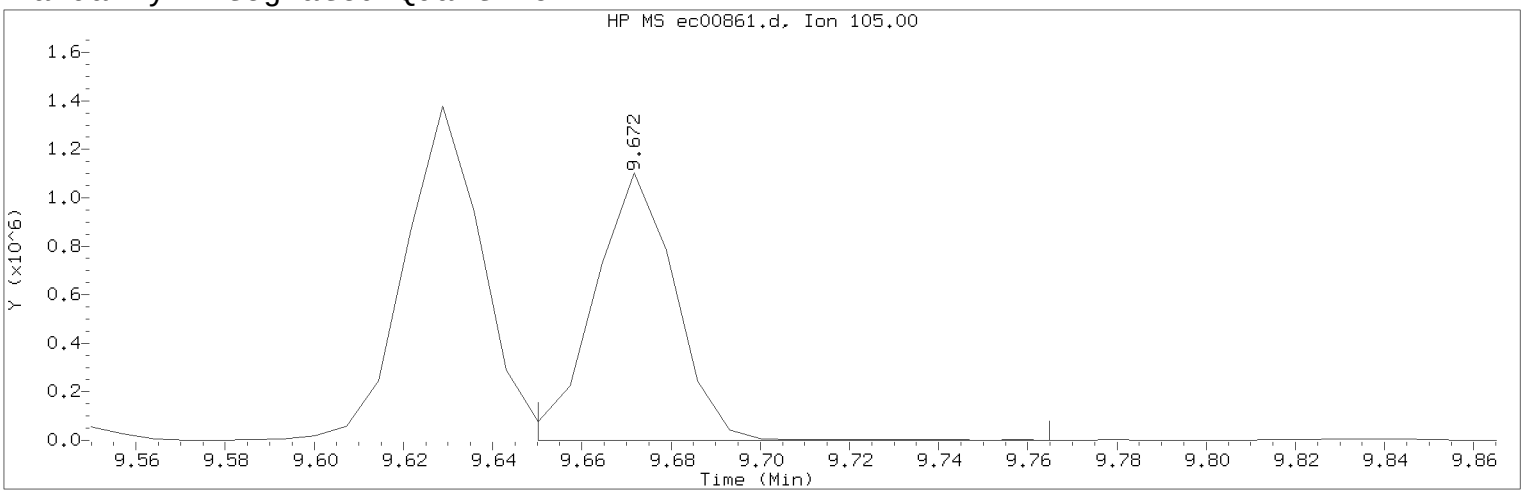
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 3011398
Concentration (ppb(v)) : 15.2450
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 942 Y at integration end: 942

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

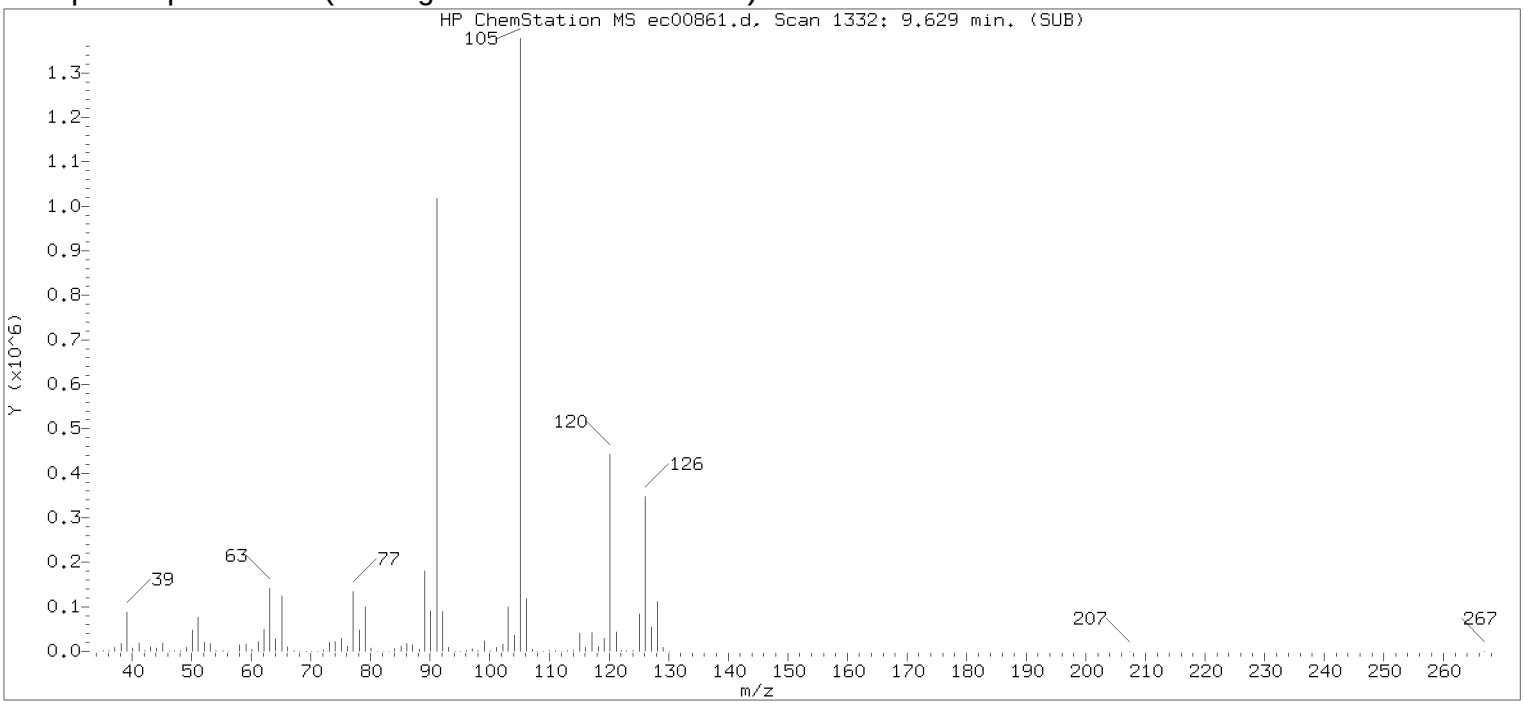
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1379490M
Concentration (ppb(v)) : 11.3040
Integration start scan : 1334 Integration stop scan: 1350
Y at integration start : 948 Y at integration end: 948

Reason for manual integration: improper integration

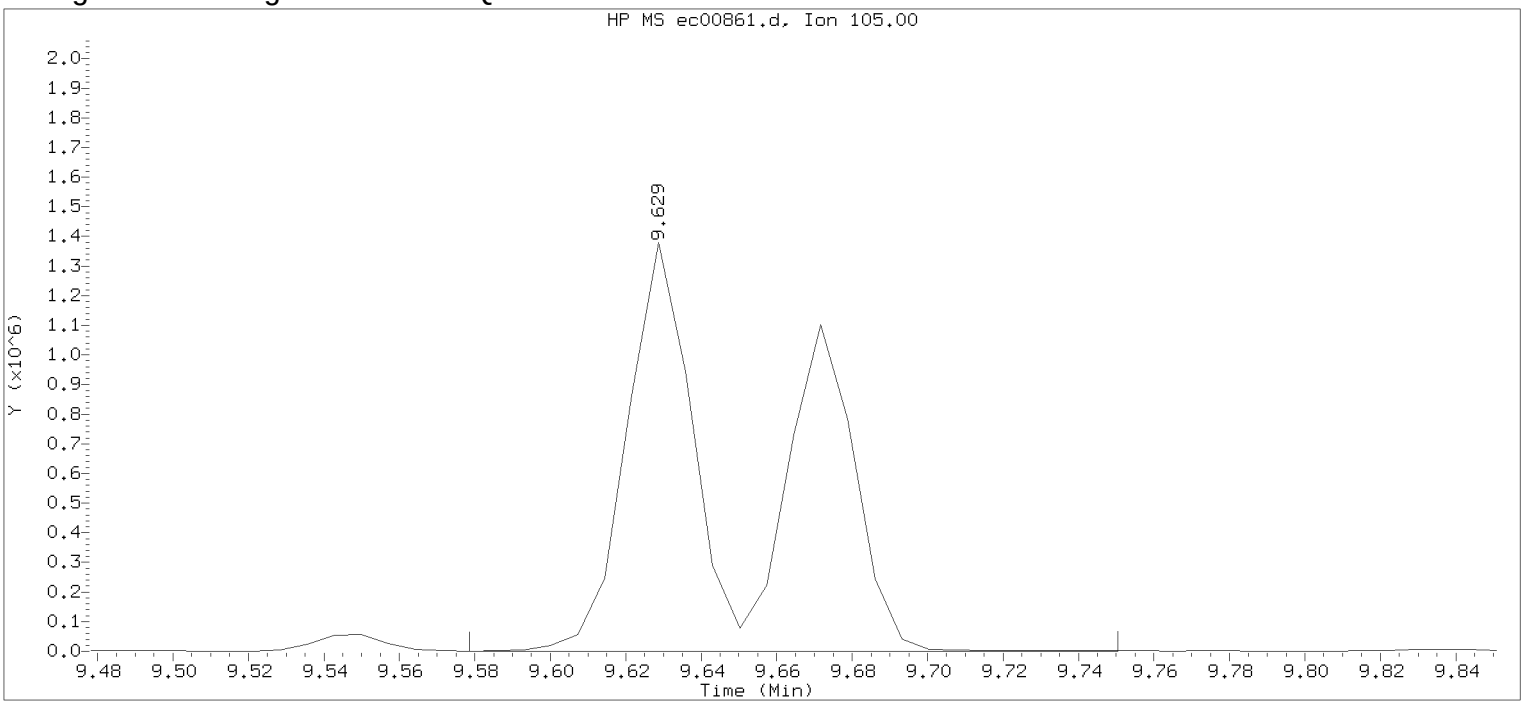
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

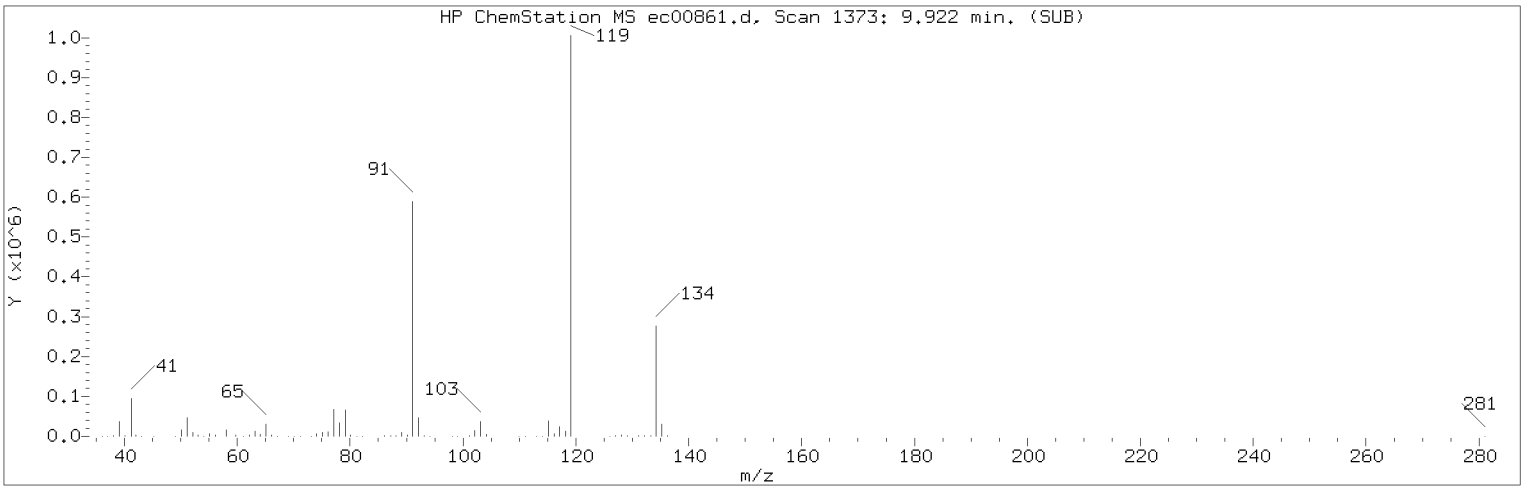
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:44 Unknown

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

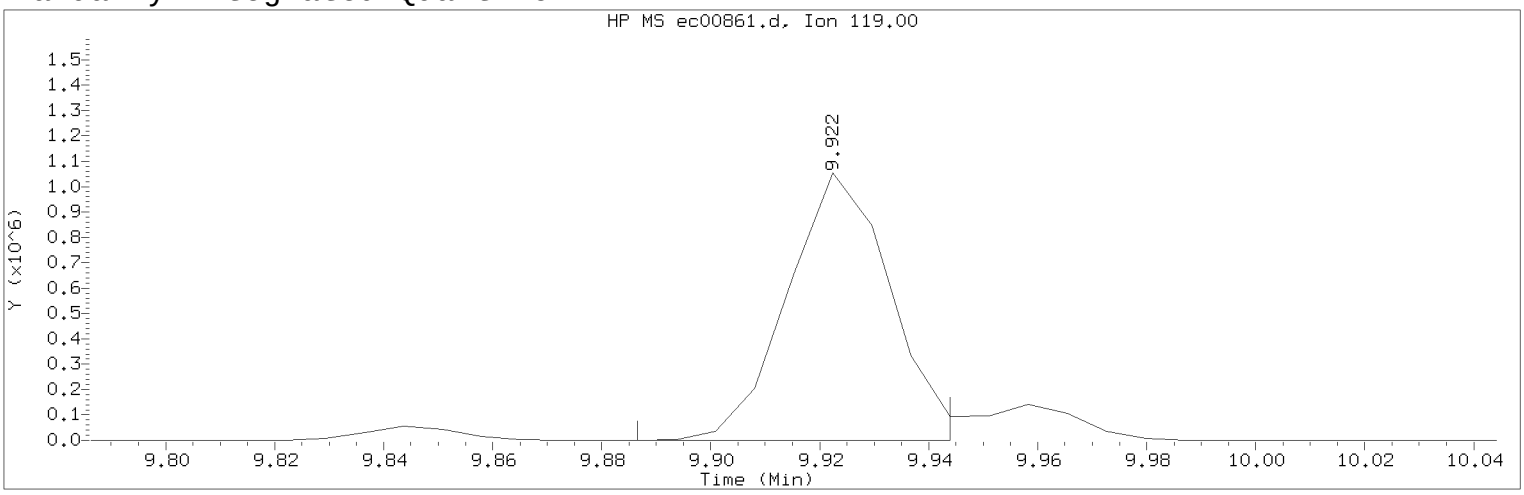
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 3011263
Concentration (ppb(v)) : 18.3792
Integration start scan : 1324 Integration stop scan: 1348
Y at integration start : 972 Y at integration end: 972

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 31-Mar-2017 15:07 jeb07445

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

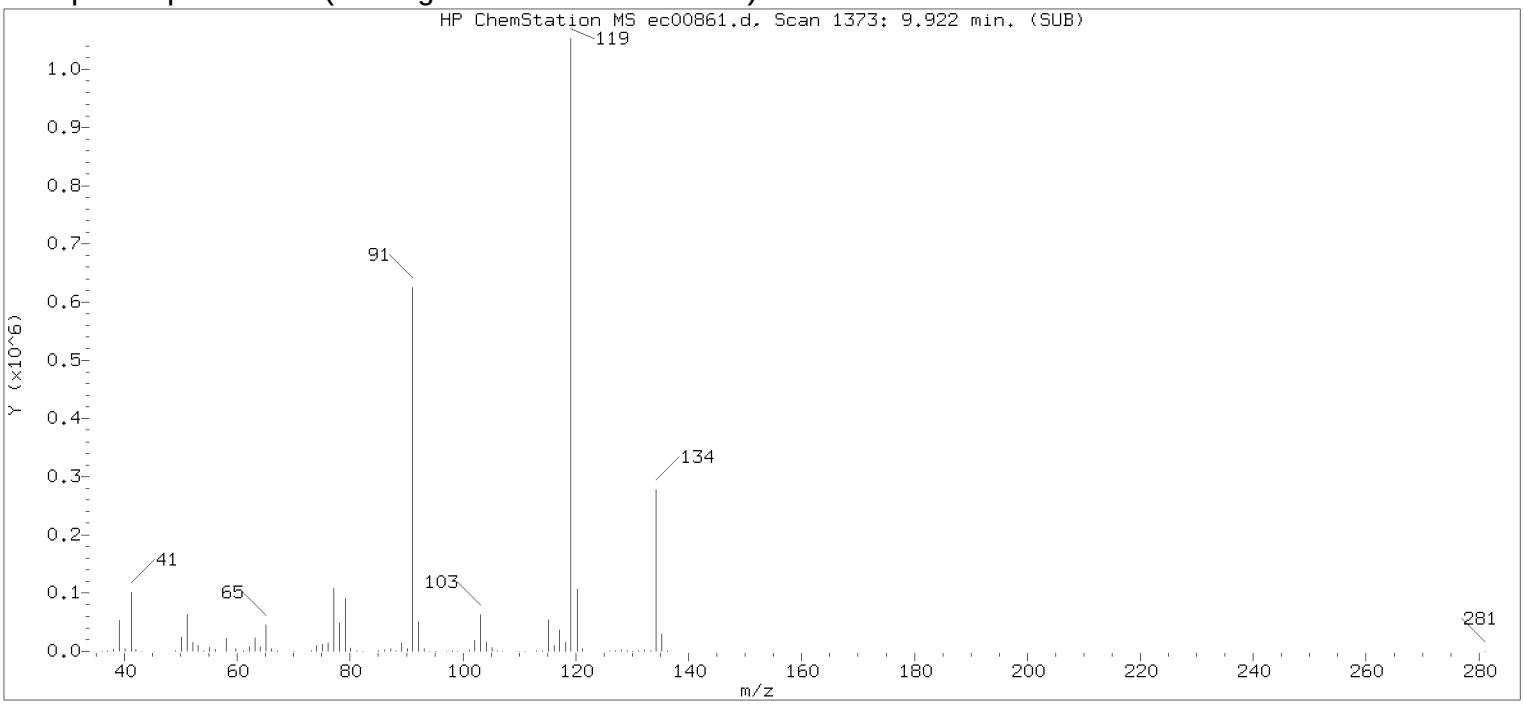
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 1385435M
Concentration (ppb(v)) : 11.5245
Integration start scan : 1367 Integration stop scan: 1375
Y at integration start : 348 Y at integration end: 348

Reason for manual integration: improper integration

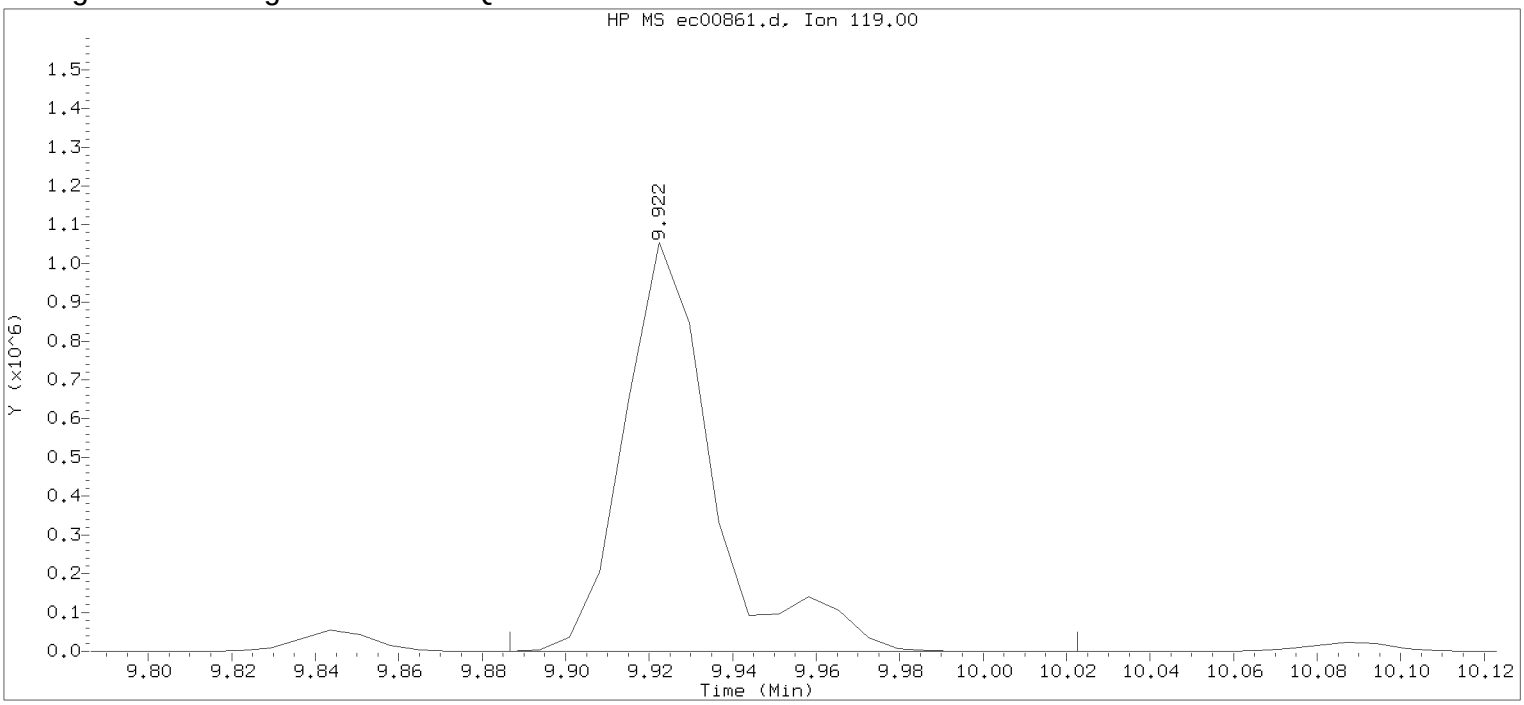
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:17.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



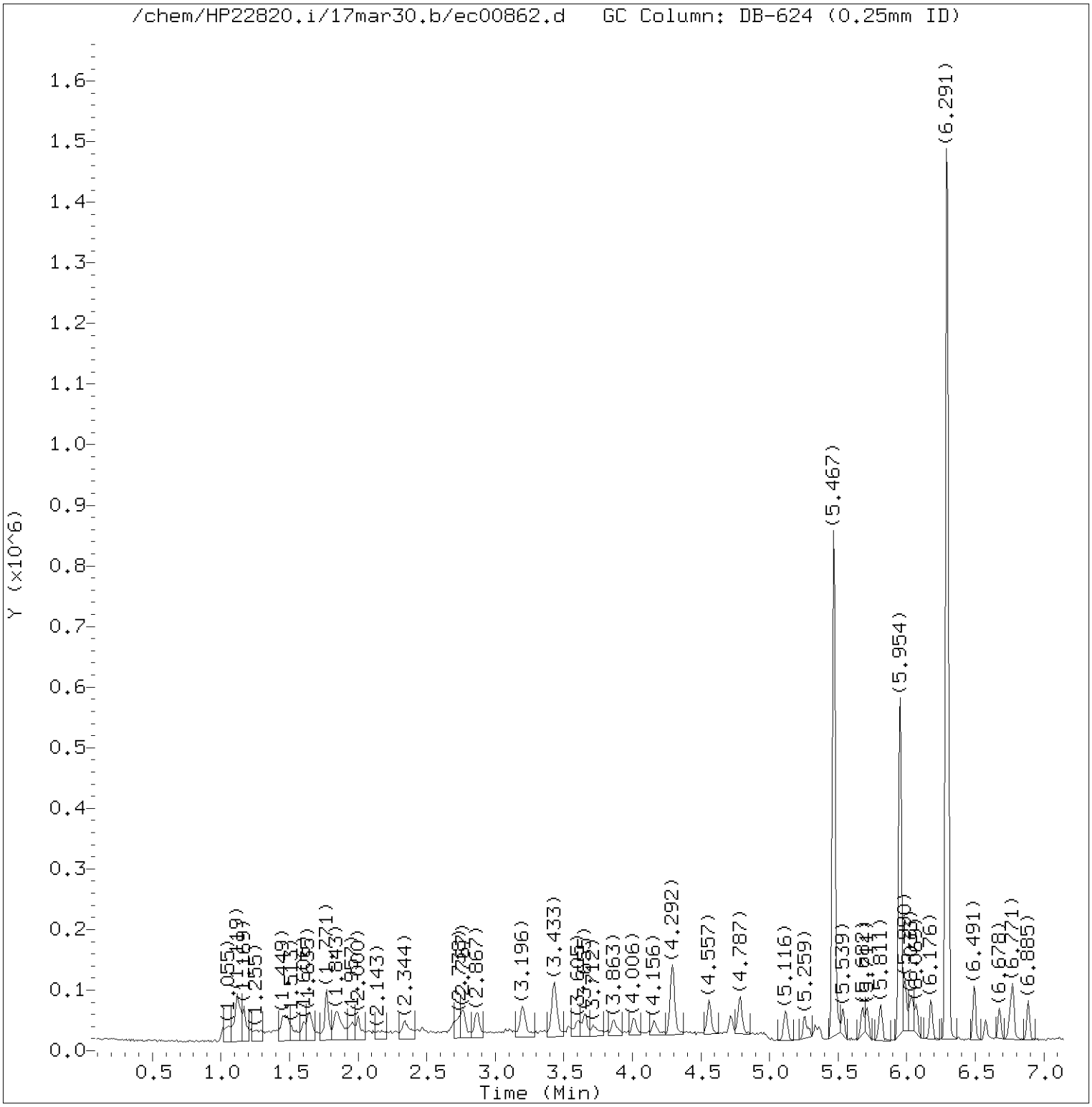
Data File: /chem/HP22820.i/17mar30.b/ec00861.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 03:44 Unknown

Sample Name: LCSDE48 Lab Sample ID: LCSDE48

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 1553956
Concentration (ppb(v)) : 9.4375
Integration start scan : 1367 Integration stop scan: 1386
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 03/31/2017 at 15:08.
Target 3.5 esignature user id: jeb07445



Total Ion Chromatogram (TIC)

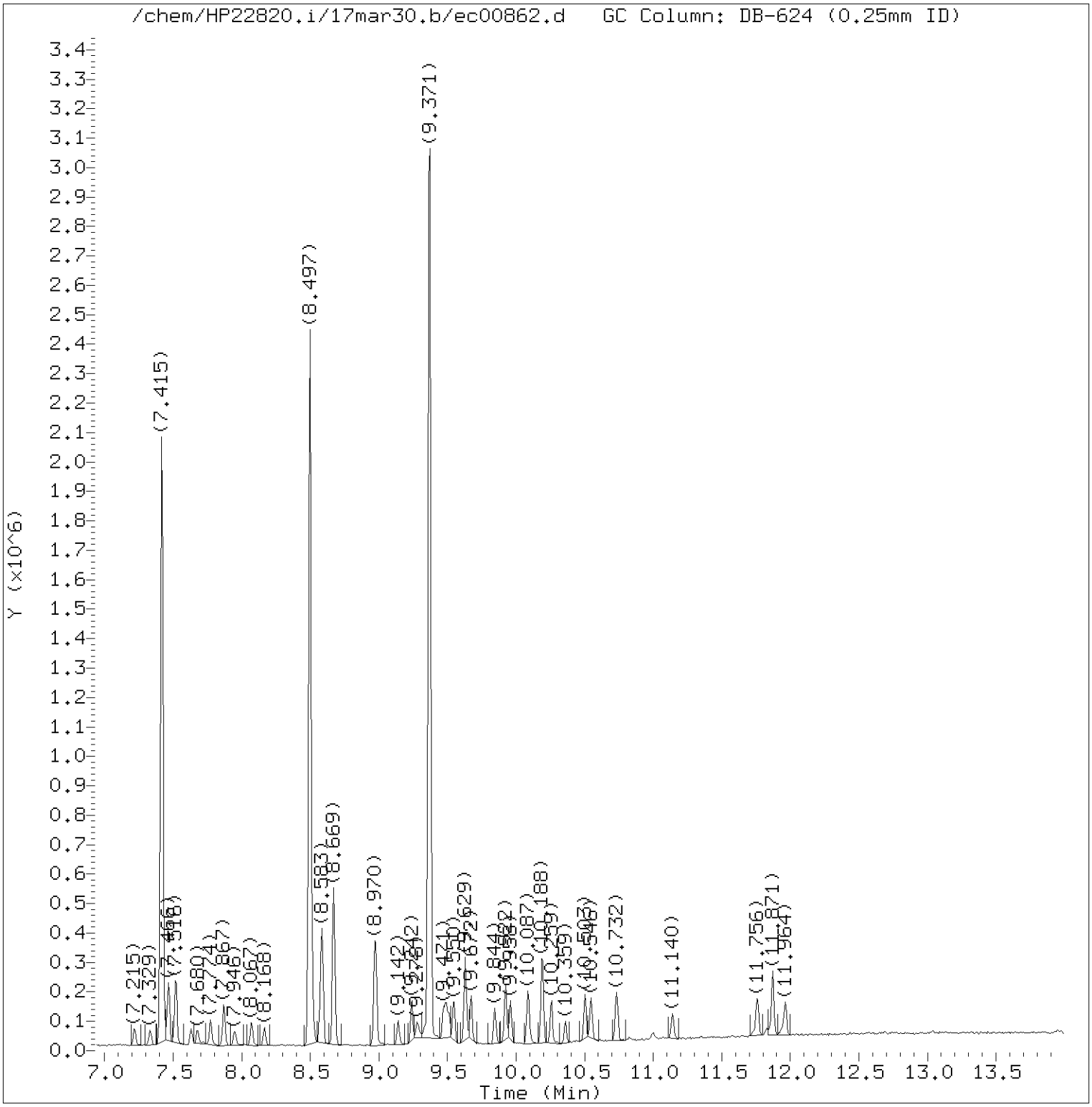
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 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)	1.599	41	9257	0.514
2) Dichlorodifluoromethane	(1)	1.642	85	33774	0.468
3) Chlorodifluoromethane	(1)	1.656	51	17976	0.478
4) Freon 114	(1)	1.771	85	35613	0.471
5) Chloromethane	(1)	1.835	50	11687	0.603
6) Vinyl Chloride	(1)	1.964	62	11807	0.435
7) 1,3-Butadiene	(1)	2.000	54	8567	0.429
8) Bromomethane	(1)	2.337	94	20205	0.727
9) Chloroethane	(1)	2.473	64	6634	0.438
10) Bromoethene	(1)	2.695	106	13884	0.459
11) Dichlorofluoromethane	(1)	2.731	67	26740	0.451
12) Trichlorofluoromethane	(1)	2.759	101	36321	0.467
13) Pentane	(1)	2.874	43	27163	0.669
14) Ethanol	(1)	3.082	45	9215	1.351
15) Freon123a	(1)	3.204	67	30501	0.531
16) Acrolein	(1)	3.340	56	6203	0.592
17) 1,1-Dichloroethene	(1)	3.418	61	20262	0.482
18) Freon 113	(1)	3.433	103	21646	0.473
19) Acetone	(1)	3.540	43	22620	0.695
20) Methyl Iodide	(1)	3.605	142	41319	0.484
21) Carbon Disulfide	(1)	3.655	76	39685	0.477
22) Isopropanol	(1)	3.712	45	24502	0.846
24) 3-Chloropropene	(1)	3.863	76	6692	0.531
23) Acetonitrile	(1)	3.891	40	8658	0.574
25) Methylene Chloride	(1)	4.006	84	14303	0.577
26) tert-Butyl Alcohol	(1)	4.156	59	27842	0.583
28) trans-1,2-Dichloroethene	(1)	4.292	61	19333	0.496
29) Methyl t-Butyl Ether	(1)	4.292	73	83391	0.987
27) Acrylonitrile	(1)	4.314	53	10140	0.468
30) Hexane	(1)	4.557	57	30626	0.726
31) 1,1-Dichloroethane	(1)	4.722	63	26396	0.515
32) Vinyl Acetate	(1)	4.787	86	3914	0.564
33) Di-Isopropyl Ether	(1)	4.787	45	38328	0.470
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	40457	0.473
35) cis-1,2-Dichloroethene	(1)	5.259	61	17576	0.473
37) 2-Butanone	(1)	5.288	72	7749M	0.520
38) Ethyl Acetate	(1)	5.331	70	5581	0.697
39) Methyl Acrylate	(1)	5.360	55	21574	0.479

M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	286790	10.000
41) Tetrahydrofuran	(1)	5.503	42	14453	0.538
42) Chloroform	(1)	5.539	83	31752	0.492
43) 1,1,1-Trichloroethane	(1)	5.675	97	31257	0.479
44) Cyclohexane	(1)	5.711	56	21939	0.496
45) Carbon Tetrachloride	(1)	5.811	117	32399	0.478
46) Benzene	(2)	5.990	78	76342	0.757
47) 1,2-Dichloroethane	(2)	6.011	62	18301	0.481
48) Isooctane	(2)	6.033	57	66168	0.477
49) Tert-Amyl Methyl Ether	(2)	6.076	73	43160	0.471
50) Heptane	(2)	6.176	43	22256	0.484
51)*1,4-Difluorobenzene	(2)	6.291	114	1087775	10.000
52) Trichloroethene	(2)	6.491	130	25061	0.482
53) Ethyl Acrylate	(2)	6.577	55	28226	0.481
36) 1,2-Dichloroethene (total)	(1)		61	36909	0.969
54) 1,2-Dichloropropane	(2)	6.678	63	16169	0.468
57) Methyl Methacrylate	(2)	6.749	69	18044	0.536
55) Dibromomethane	(2)	6.771	174	26103	0.510
56) 1,4-Dioxane	(2)	6.778	88	11114	0.460
58) Bromodichloromethane	(2)	6.885	83	31595	0.480
59) cis-1,3-Dichloropropene	(2)	7.222	75	26866	0.459
60) 4-Methyl-2-Pentanone	(2)	7.329	43	31623	0.540
61) Toluene	(3)	7.466	91	122833	0.879
62) Octane	(3)	7.516	43	66841	0.975
63) trans-1,3-Dichloropropene	(3)	7.630	75	23561	0.437
65) Ethyl Methacrylate	(3)	7.680	69	27519	0.475
66) 1,1,2-Trichloroethane	(3)	7.774	97	22324	0.478
67) Tetrachloroethene	(3)	7.874	166	36774	0.447
68) 2-Hexanone	(3)	7.946	43	29357	0.499
69) Dibromochloromethane	(3)	8.067	127	26450	0.435
70) 1,2-Dibromoethane	(3)	8.168	107	33028	0.451
71)*Chlorobenzene-d5	(3)	8.497	117	1157328	10.000
72) Chlorobenzene	(3)	8.519	112	53961	0.450
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	25300	0.420
74) Ethylbenzene	(3)	8.583	91	198634	1.110
75) m/p-Xylene	(3)	8.669	91	255398	1.806
76) o-Xylene	(3)	8.970	91	161405	1.178
78) Styrene	(3)	8.984	104	47248	0.456

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

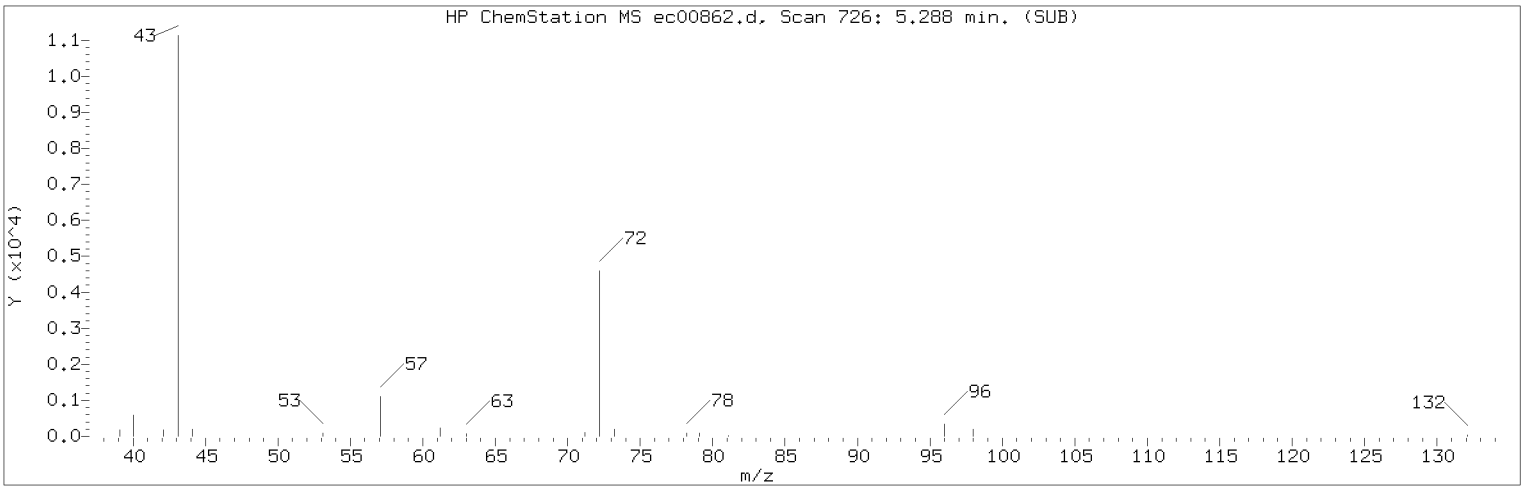
Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	30786	0.401
80) Cumene	(3)	9.242	105	88274	0.458
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	43364	0.480
81) Bromobenzene	(3)	9.493	156	33274	0.451
83) 1,2,3-Trichloropropane	(3)	9.514	110	13864	0.459
84) n-Propylbenzene	(3)	9.550	120	25740	0.437
86) 4-Ethyltoluene	(3)	9.629	105	80022M	0.420
85) 2-Chlorotoluene	(3)	9.629	126	22972	0.433
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	69730M	0.441
88) Alpha Methyl Styrene	(3)	9.844	118	31555	0.419
89) tert-Butylbenzene	(3)	9.922	119	102860	0.660
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	66982	0.447
91) sec-Butylbenzene	(3)	10.087	105	109101	0.497
92) 1,3-Dichlorobenzene	(3)	10.188	146	53936	0.476
94) p-Isopropyltoluene	(3)	10.188	119	84206	0.452
93) 1,4-Dichlorobenzene	(3)	10.259	146	56166	0.489
95) Benzyl Chloride	(3)	10.359	91	45576	0.461
97) n-Butylbenzene	(3)	10.503	91	72938	0.472
96) 1,2-Dichlorobenzene	(3)	10.546	146	51257	0.501
98) Hexachloroethane	(3)	10.732	117	23536	0.541
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	22768	0.569
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	47466	0.774
101) Hexachlorobutadiene	(3)	11.871	225	41448	0.753
102) Naphthalene	(3)	11.964	128	103522	0.931
64) 1,3-Dichloropropene (total)	(3)		75	50427	0.897
77) Xylene (total)	(3)		91	416803	2.984

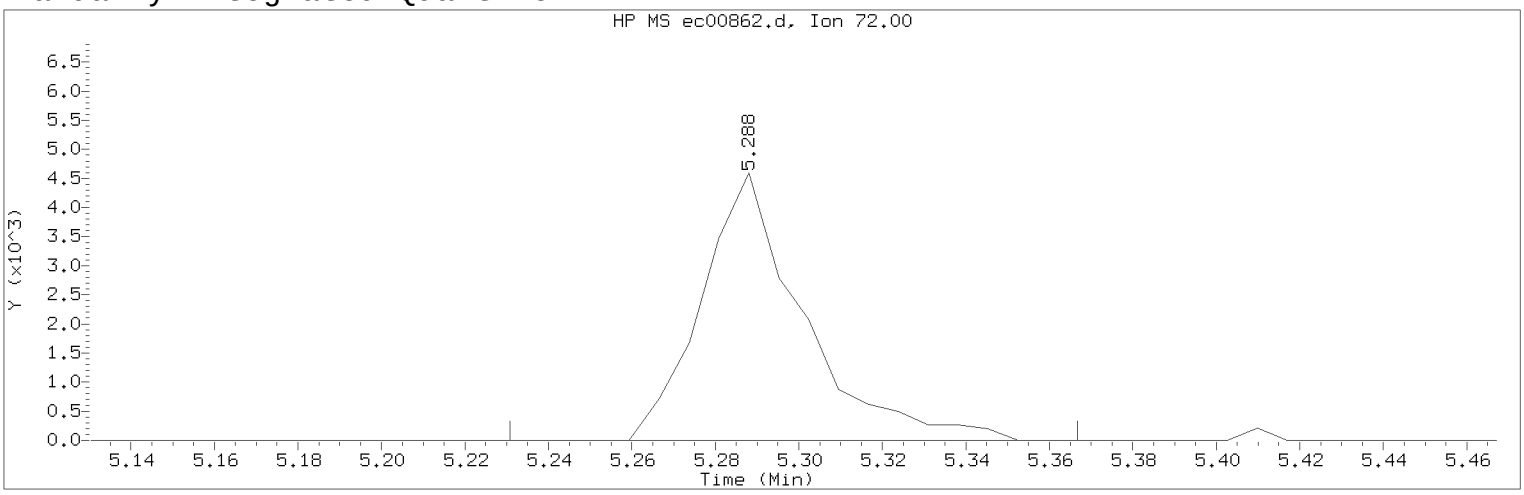
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

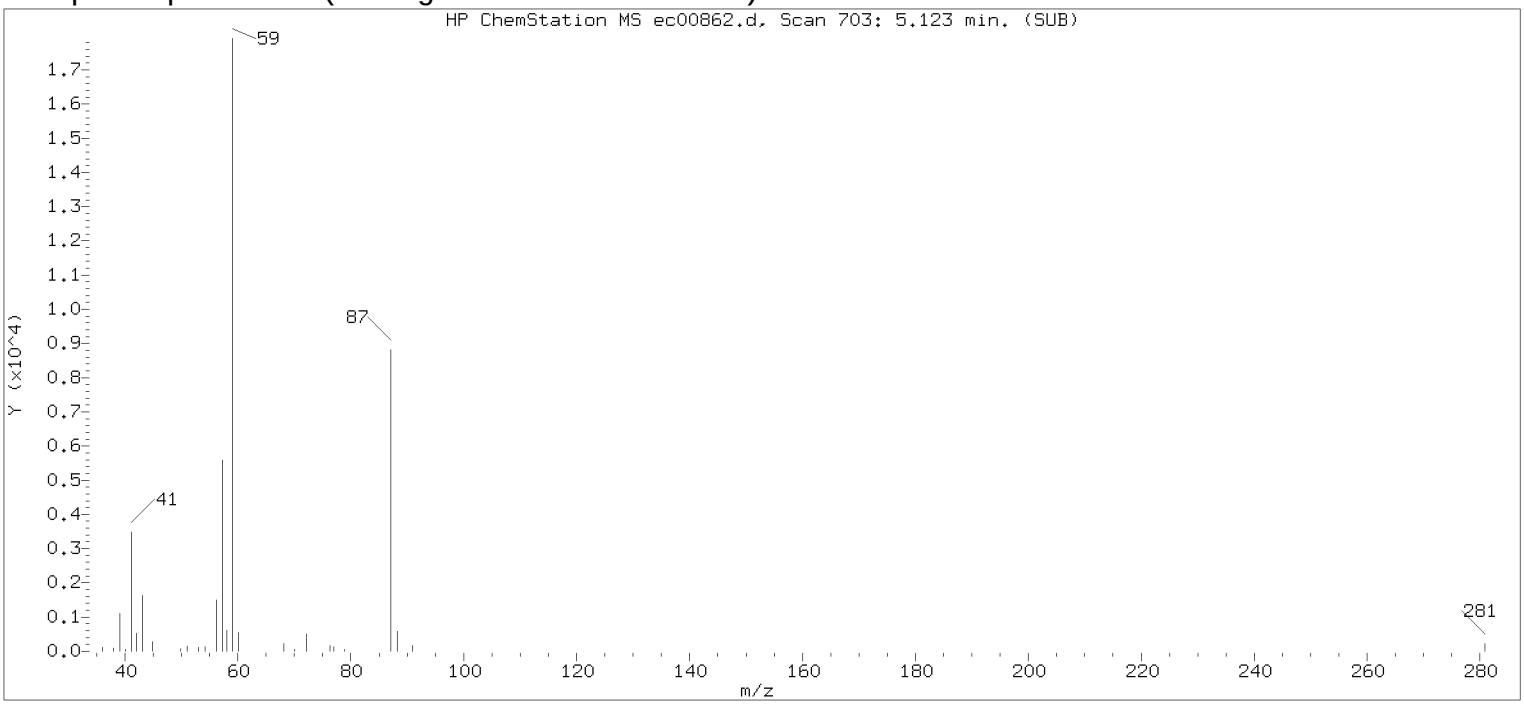
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 726
Retention Time (minutes): 5.288
Quant Ion : 72.00
Area (flag) : 7749M
Concentration (ppb(v)) : 0.5198
Integration start scan : 717 Integration stop scan: 736
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

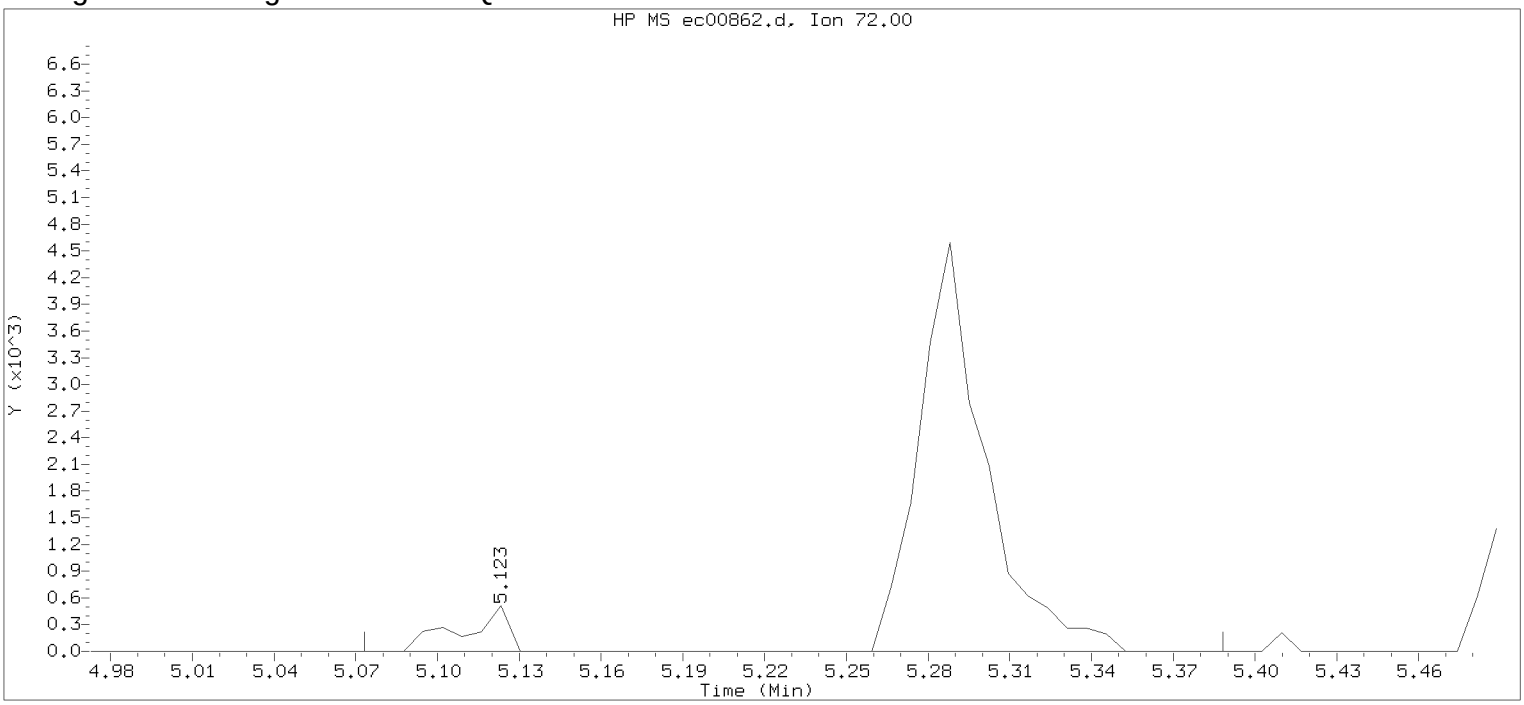
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:18 Unknown

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

Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 703
Retention Time (minutes): 5.123
Quant Ion : 72.00
Area : 8342
Concentration (ppb(v)) : 0.4216
Integration start scan : 695 Integration stop scan: 739
Y at integration start : 0 Y at integration end: 0

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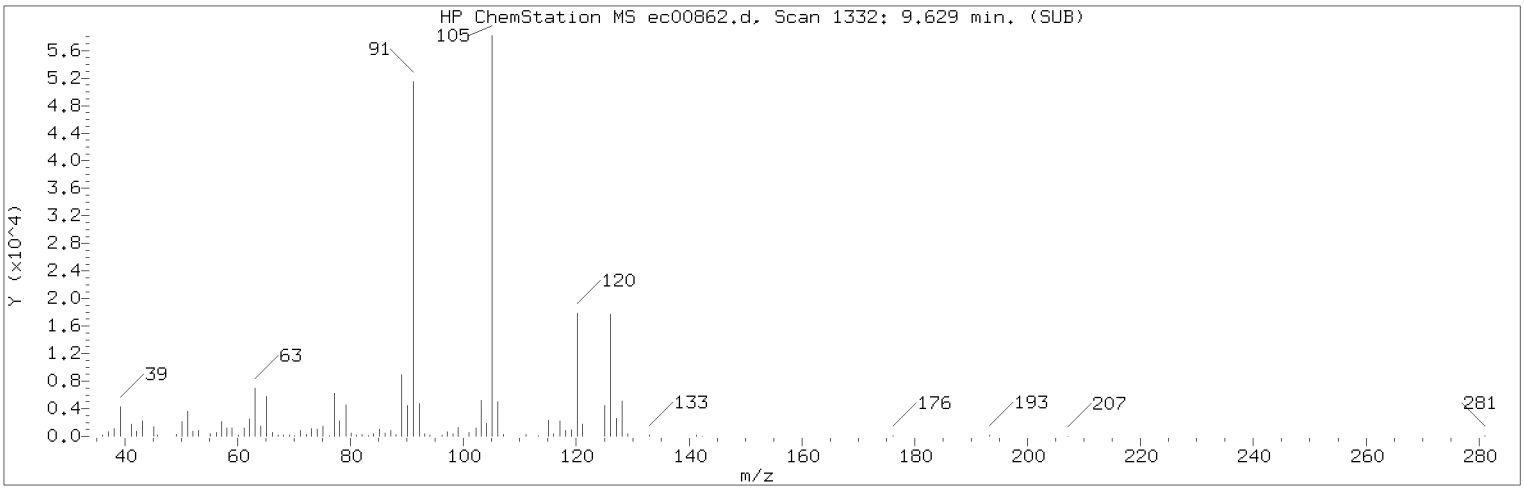
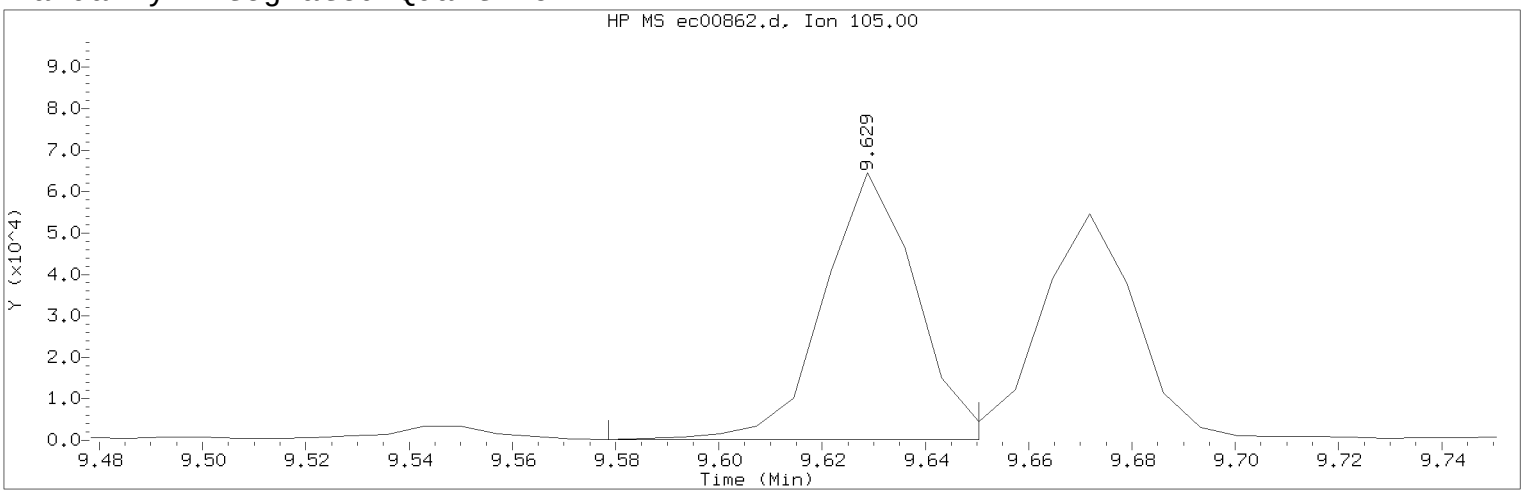
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

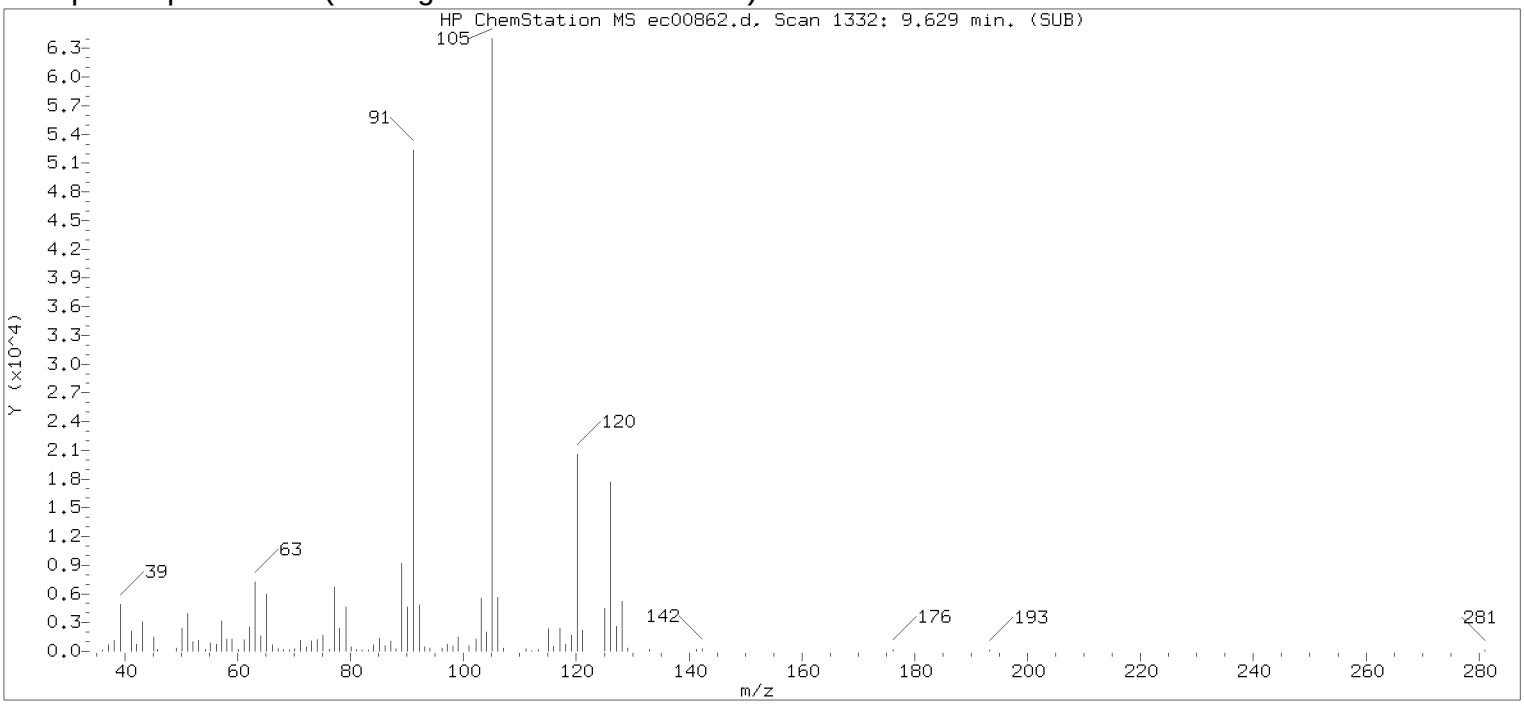
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 80022M
Concentration (ppb(v)) : 0.4202
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 184 Y at integration end: 184

Reason for manual integration: improper integration

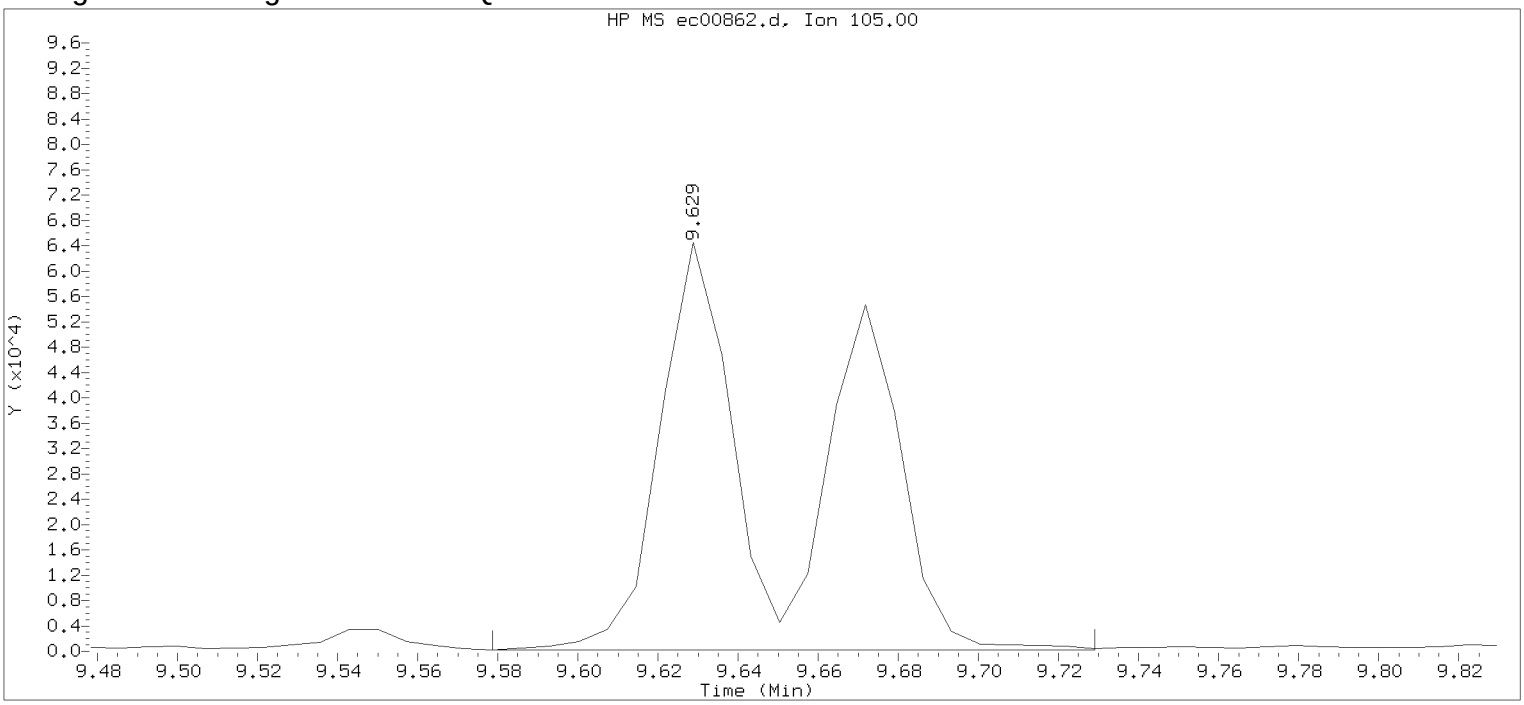
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:18 Unknown

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

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 149012
Concentration (ppb(v)) : 0.5817
Integration start scan : 1324 Integration stop scan: 1345
Y at integration start : 184 Y at integration end: 184

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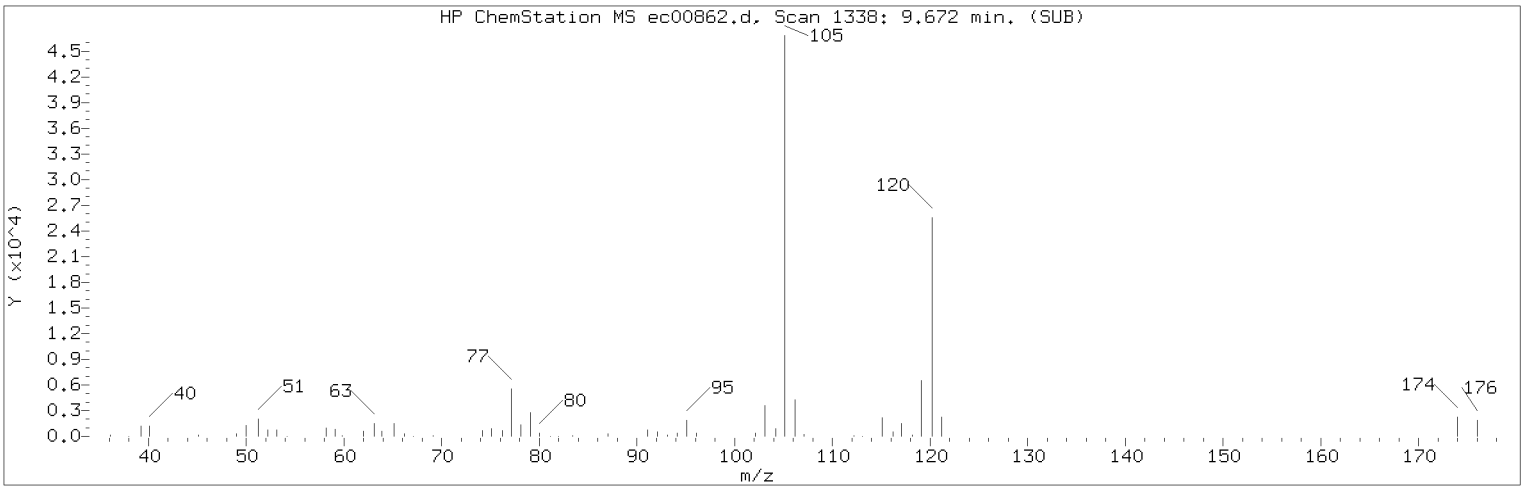
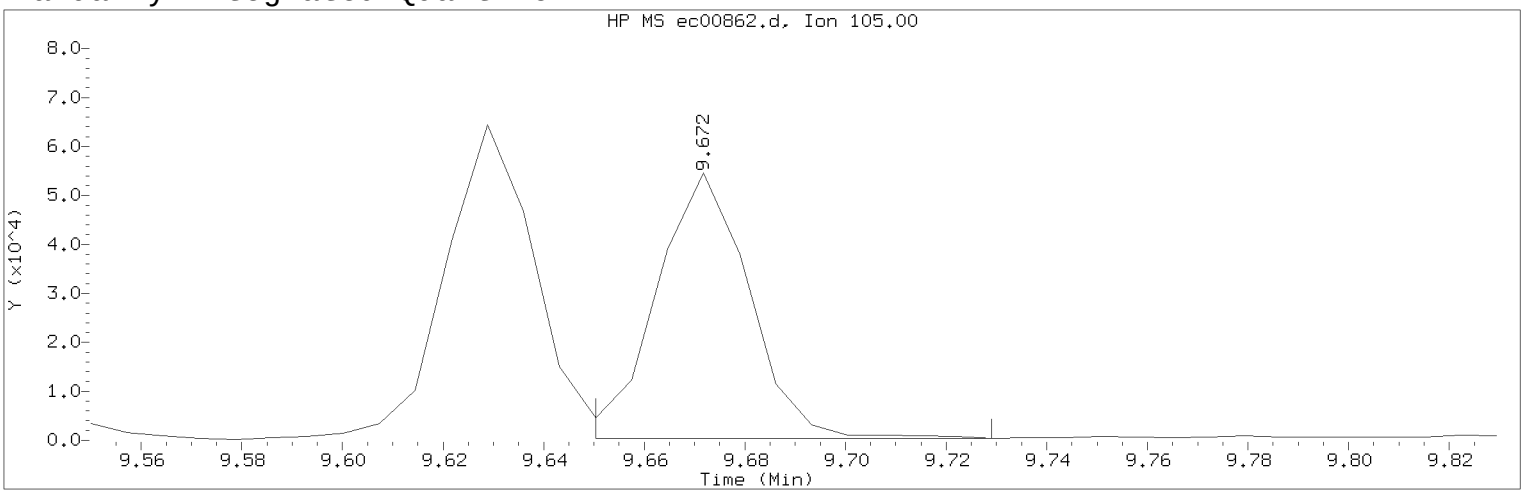
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

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

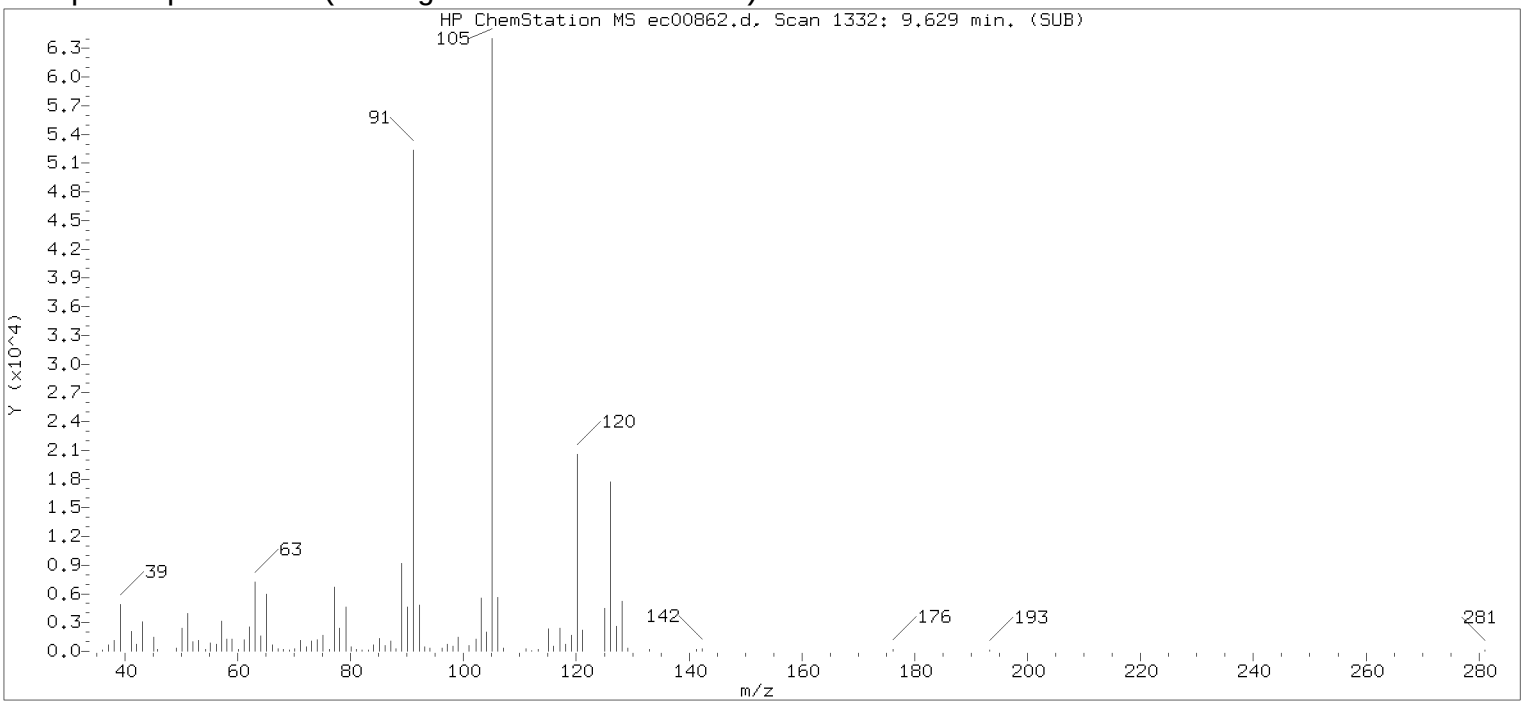
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 69730M
Concentration (ppb(v)) : 0.4406
Integration start scan : 1334 Integration stop scan: 1345
Y at integration start : 413 Y at integration end: 413

Reason for manual integration: improper integration

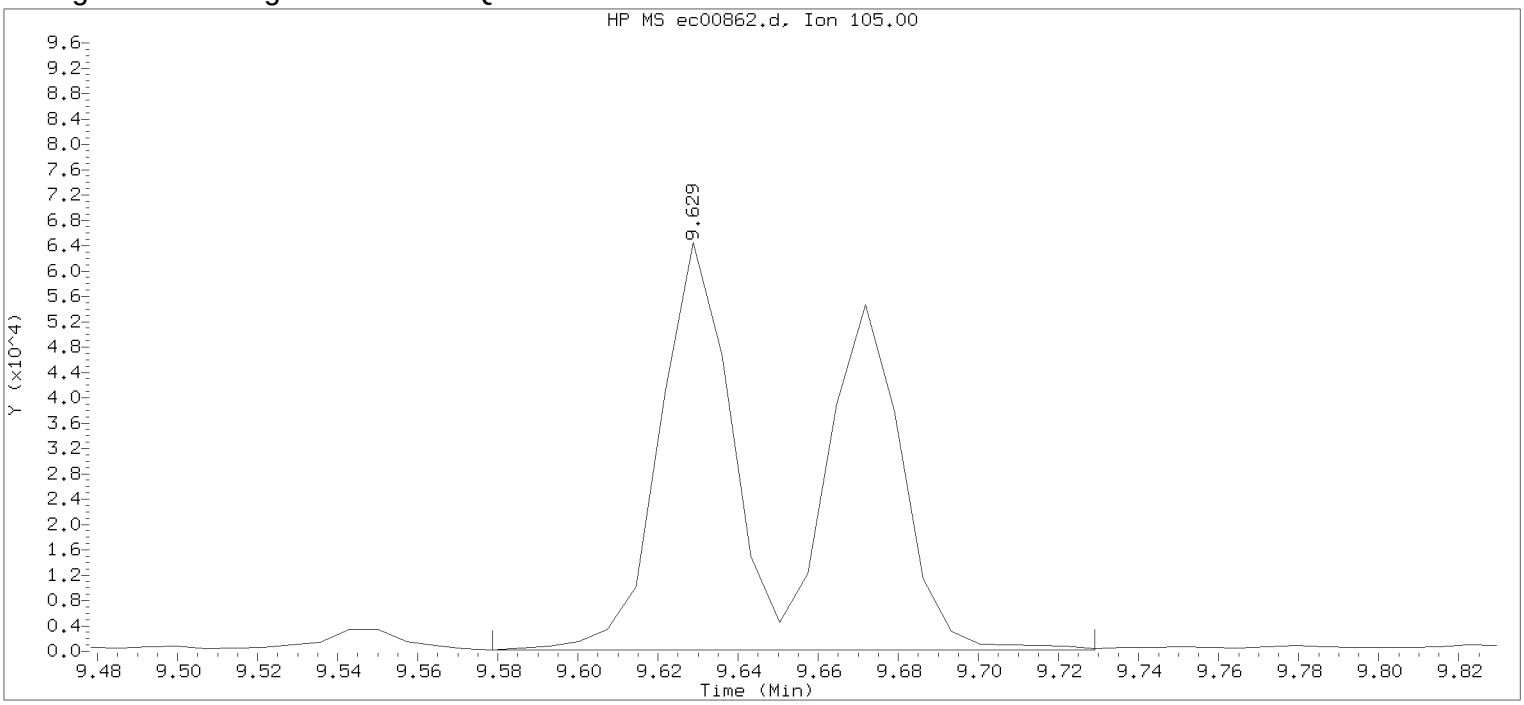
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00862.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 03:59 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:18 Unknown

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

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 149012
Concentration (ppb(v)) : 0.7013
Integration start scan : 1324 Integration stop scan: 1345
Y at integration start : 184 Y at integration end: 184

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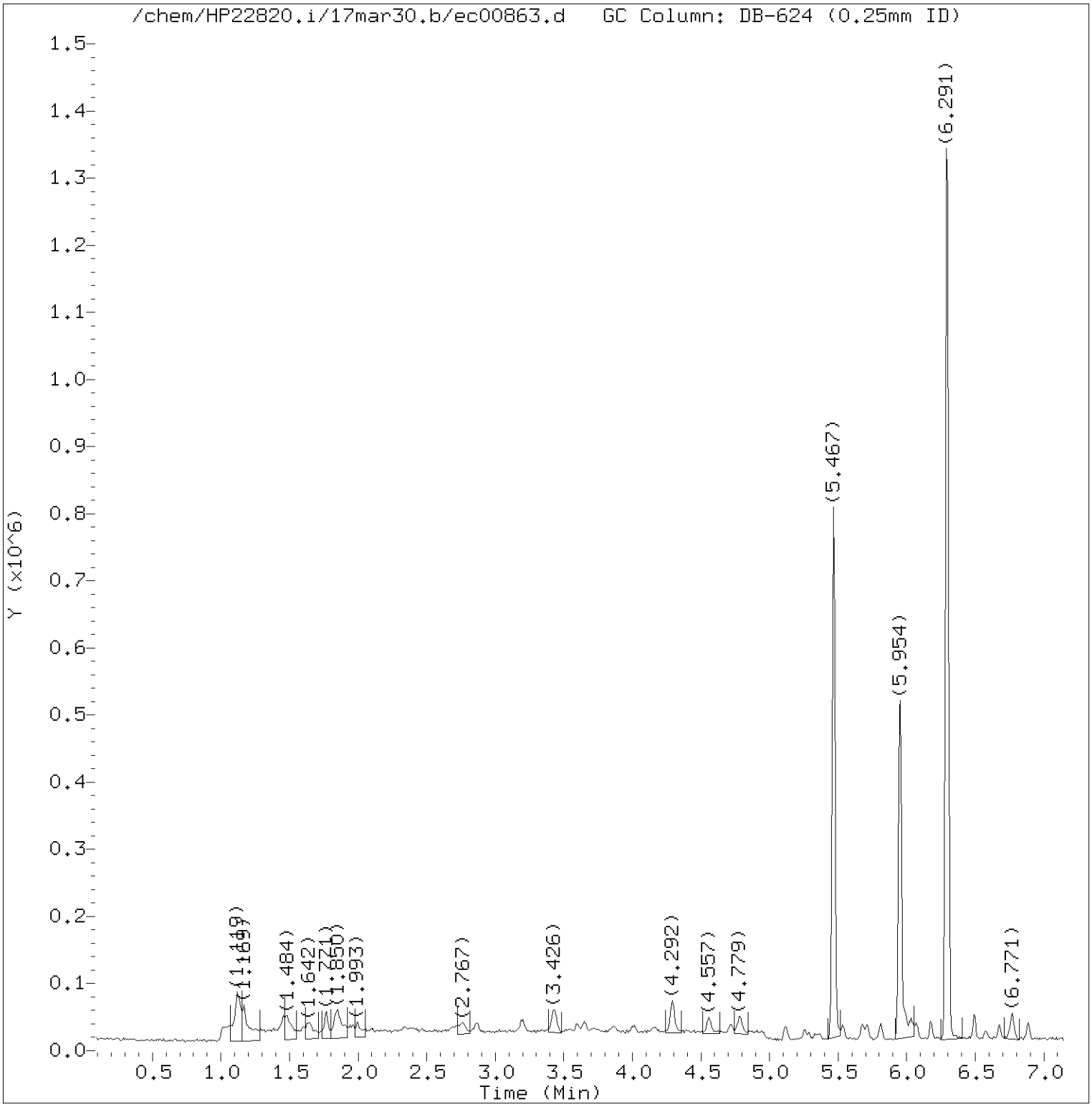
Target 3.5 esignature user id: jeb07445



Total Ion Chromatogram (TIC)

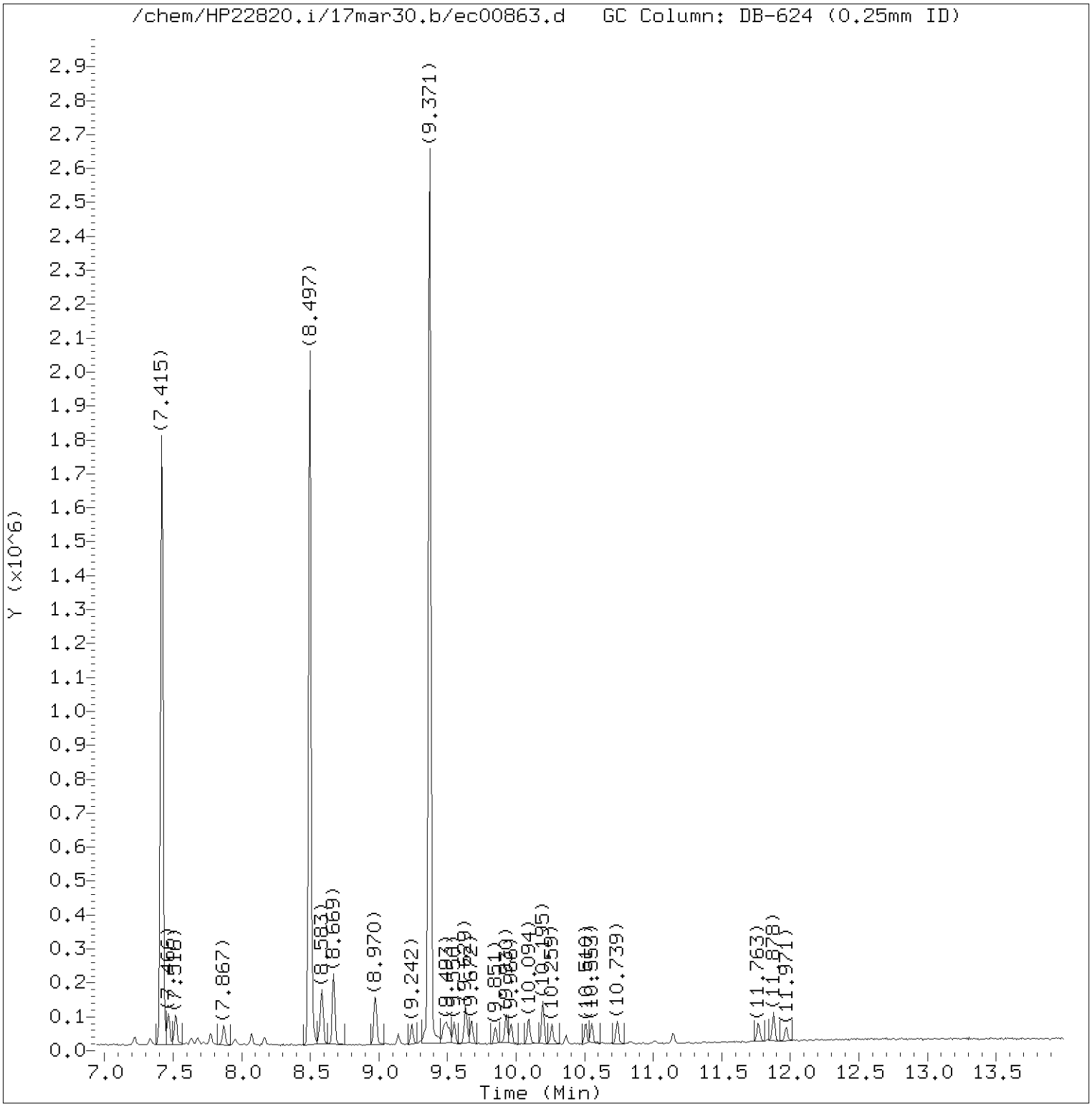
Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 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)	1.599	41	3807M	0.235
2) Dichlorodifluoromethane	(1)	1.635	85	14325	0.220
3) Chlorodifluoromethane	(1)	1.649	51	7127	0.211
4) Freon 114	(1)	1.764	85	14445	0.212
5) Chloromethane	(1)	1.835	50	5179	0.297
6) Vinyl Chloride	(1)	1.957	62	4855	0.199
7) 1,3-Butadiene	(1)	1.993	54	4204	0.234
8) Bromomethane	(1)	2.337	94	7926	0.317
9) Chloroethane	(1)	2.459	64	2614M	0.192
10) Bromoethene	(1)	2.688	106	5862	0.215
11) Dichlorofluoromethane	(1)	2.724	67	10851	0.203
12) Trichlorofluoromethane	(1)	2.767	101	13208	0.189
13) Pentane	(1)	2.860	43	10793	0.295
15) Freon123a	(1)	3.196	67	12769	0.247
16) Acrolein	(1)	3.340	56	3831	0.407
17) 1,1-Dichloroethene	(1)	3.426	61	7500	0.198
18) Freon 113	(1)	3.440	103	9149	0.222
19) Acetone	(1)	3.540	43	9092	0.310
20) Methyl Iodide	(1)	3.598	142	18063	0.235
21) Carbon Disulfide	(1)	3.655	76	15157	0.202
22) Isopropanol	(1)	3.719	45	11222	0.431
23) Acetonitrile	(1)	3.834	40	15581	1.147
24) 3-Chloropropene	(1)	3.855	76	2669M	0.236
25) Methylene Chloride	(1)	4.013	84	5057	0.227
26) tert-Butyl Alcohol	(1)	4.149	59	9954	0.232
28) trans-1,2-Dichloroethene	(1)	4.292	61	7152	0.204
29) Methyl t-Butyl Ether	(1)	4.292	73	31661	0.416
27) Acrylonitrile	(1)	4.300	53	5860	0.300
30) Hexane	(1)	4.557	57	14377	0.379
31) 1,1-Dichloroethane	(1)	4.715	63	10160	0.220
32) Vinyl Acetate	(1)	4.758	86	1630	0.261
33) Di-Isopropyl Ether	(1)	4.787	45	17266	0.235
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	16186	0.210
35) cis-1,2-Dichloroethene	(1)	5.259	61	7444	0.223
37) 2-Butanone	(1)	5.288	72	2840M	0.212
38) Ethyl Acetate	(1)	5.331	70	1773M	0.246
39) Methyl Acrylate	(1)	5.367	55	9694	0.239
40)*Bromochloromethane	(1)	5.467	130	258082	10.000

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

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
41) Tetrahydrofuran	(1)	5.503	42	5907	0.244
42) Chloroform	(1)	5.532	83	12707	0.219
43) 1,1,1-Trichloroethane	(1)	5.675	97	13176	0.224
44) Cyclohexane	(1)	5.711	56	10424	0.262
45) Carbon Tetrachloride	(1)	5.811	117	12614	0.207
46) Benzene	(2)	5.983	78	30214	0.334
47) 1,2-Dichloroethane	(2)	6.012	62	8250M	0.242
48) Isooctane	(2)	6.033	57	27929	0.224
49) Tert-Amyl Methyl Ether	(2)	6.076	73	18267	0.222
50) Heptane	(2)	6.176	43	12586	0.305
51)*1,4-Difluorobenzene	(2)	6.291	114	975943	10.000
52) Trichloroethene	(2)	6.499	130	10133	0.217
53) Ethyl Acrylate	(2)	6.577	55	10739	0.204
36) 1,2-Dichloroethene (total)	(1)		61	14596	0.427
54) 1,2-Dichloropropane	(2)	6.678	63	7598	0.245
57) Methyl Methacrylate	(2)	6.749	69	7954	0.263
55) Dibromomethane	(2)	6.771	174	9204	0.200
56) 1,4-Dioxane	(2)	6.778	88	3760	0.173
58) Bromodichloromethane	(2)	6.885	83	13084	0.222
59) cis-1,3-Dichloropropene	(2)	7.222	75	11419	0.218
60) 4-Methyl-2-Pentanone	(2)	7.330	43	12376	0.235
61) Toluene	(3)	7.466	91	51282	0.433
62) Octane	(3)	7.516	43	26126	0.449
63) trans-1,3-Dichloropropene	(3)	7.638	75	8668	0.190
65) Ethyl Methacrylate	(3)	7.681	69	11436	0.233
66) 1,1,2-Trichloroethane	(3)	7.774	97	9391	0.237
67) Tetrachloroethene	(3)	7.867	166	15257	0.219
68) 2-Hexanone	(3)	7.946	43	12264	0.246
69) Dibromochloromethane	(3)	8.074	127	11347	0.220
70) 1,2-Dibromoethane	(3)	8.168	107	13047	0.210
71)*Chlorobenzene-d5	(3)	8.497	117	981598	10.000
72) Chlorobenzene	(3)	8.519	112	21344	0.210
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	10268	0.201
74) Ethylbenzene	(3)	8.583	91	80025	0.527
75) m/p-Xylene	(3)	8.669	91	100864	0.841
76) o-Xylene	(3)	8.970	91	64247	0.553
78) Styrene	(3)	8.984	104	18753	0.213
79) Bromoform	(3)	9.142	173	11834	0.182

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

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

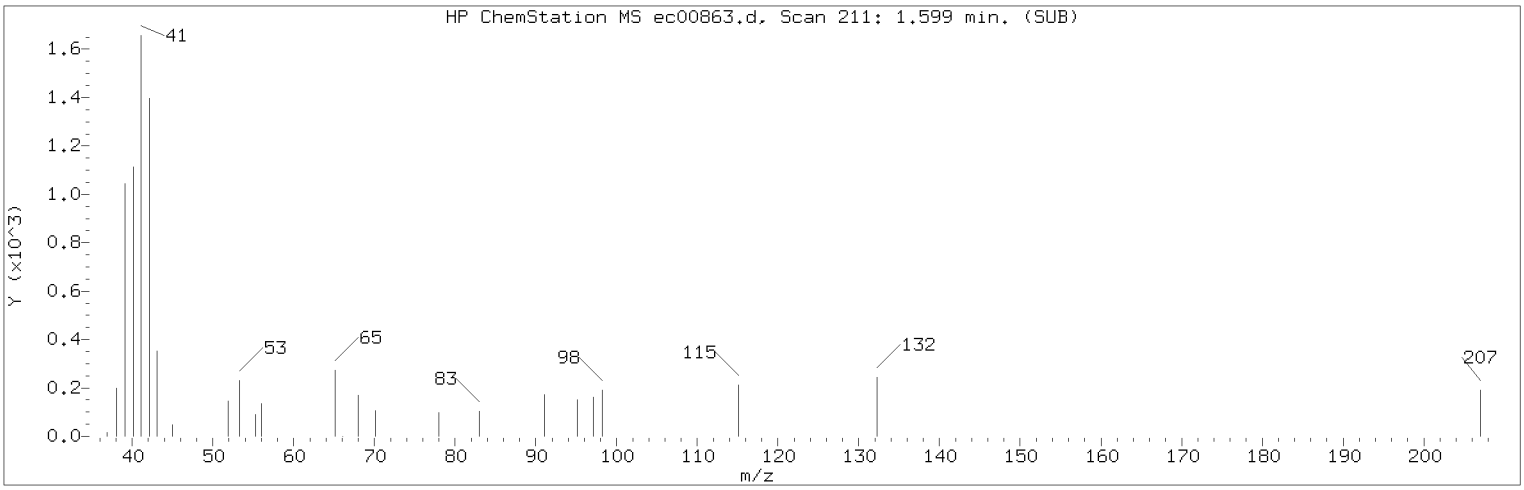
Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
80) Cumene	(3)	9.242	105	36156	0.221
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	17783	0.232
81) Bromobenzene	(3)	9.493	156	13195M	0.211
83) 1,2,3-Trichloropropane	(3)	9.514	110	6049	0.236
84) n-Propylbenzene	(3)	9.550	120	10255	0.205
86) 4-Ethyltoluene	(3)	9.629	105	35404M	0.219
85) 2-Chlorotoluene	(3)	9.629	126	9137	0.203
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	29234M	0.218
88) Alpha Methyl Styrene	(3)	9.851	118	12269	0.192
89) tert-Butylbenzene	(3)	9.930	119	45384	0.343
90) 1,2,4-Trimethylbenzene	(3)	9.966	105	26948	0.212
91) sec-Butylbenzene	(3)	10.094	105	41426	0.223
92) 1,3-Dichlorobenzene	(3)	10.195	146	22740	0.237
94) p-Isopropyltoluene	(3)	10.195	119	33056	0.209
93) 1,4-Dichlorobenzene	(3)	10.259	146	23139	0.237
95) Benzyl Chloride	(3)	10.367	91	19604	0.234
97) n-Butylbenzene	(3)	10.510	91	28994	0.221
96) 1,2-Dichlorobenzene	(3)	10.553	146	20498	0.236
98) Hexachloroethane	(3)	10.739	117	7988	0.217
99) 1,2-Dibromo-3-chloropropane	(3)	11.147	157	8477	0.250
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	16162	0.311
101) Hexachlorobutadiene	(3)	11.878	225	14956	0.320
102) Naphthalene	(3)	11.971	128	32810	0.348
64) 1,3-Dichloropropene (total)	(3)		75	20087	0.407
77) Xylene (total)	(3)		91	165111	1.394

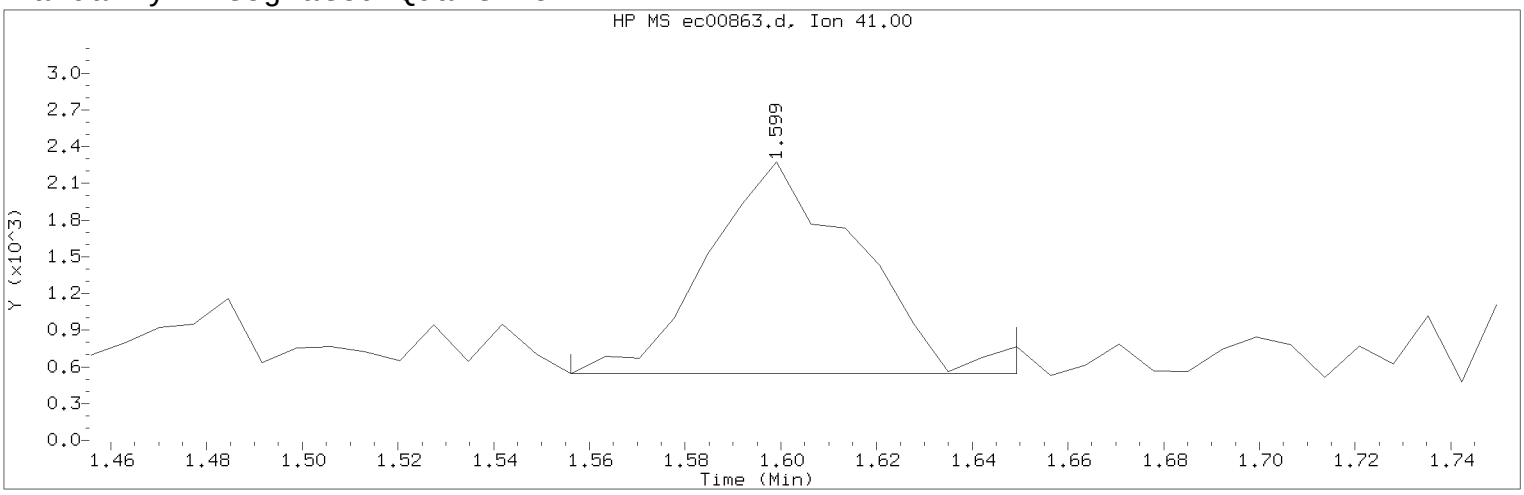
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

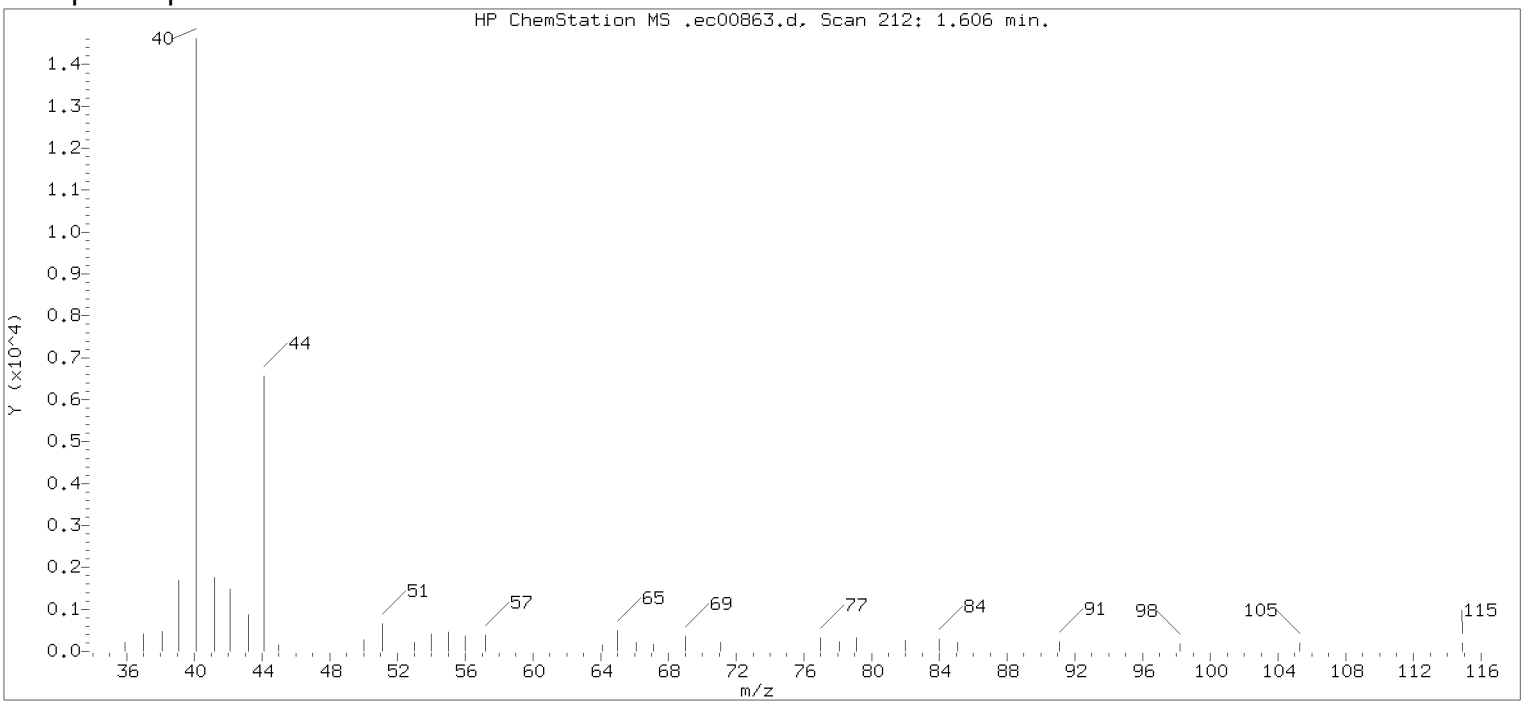
Compound Number : 1
Compound Name : Propene
Scan Number : 211
Retention Time (minutes): 1.599
Quant Ion : 41.00
Area (flag) : 3807M
Concentration (ppb(v)) : 0.2350
Integration start scan : 204 Integration stop scan: 217
Y at integration start : 547 Y at integration end: 547

Reason for manual integration: missed peak

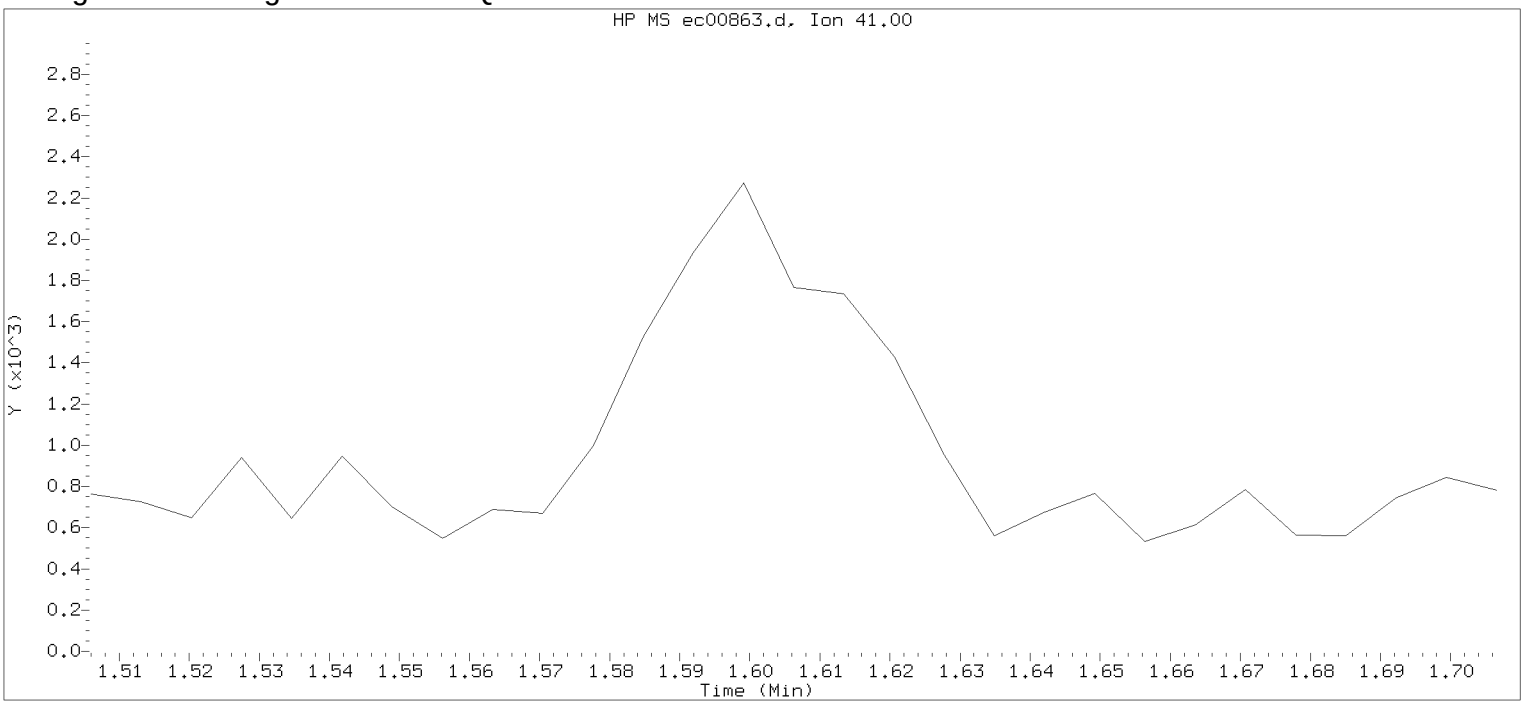
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

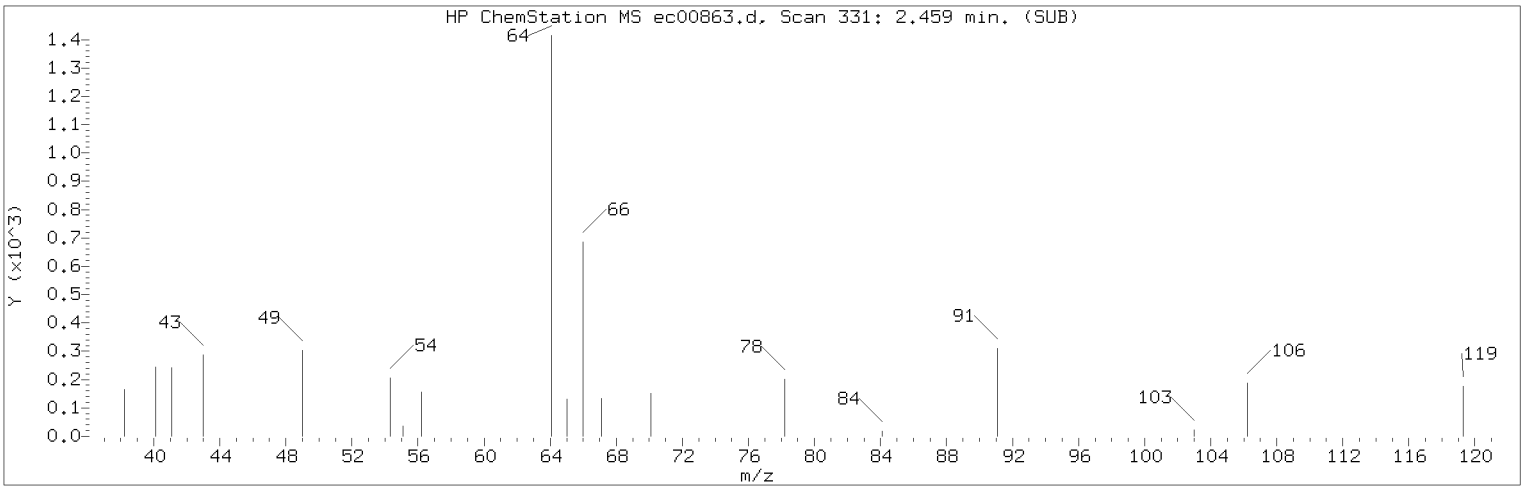
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

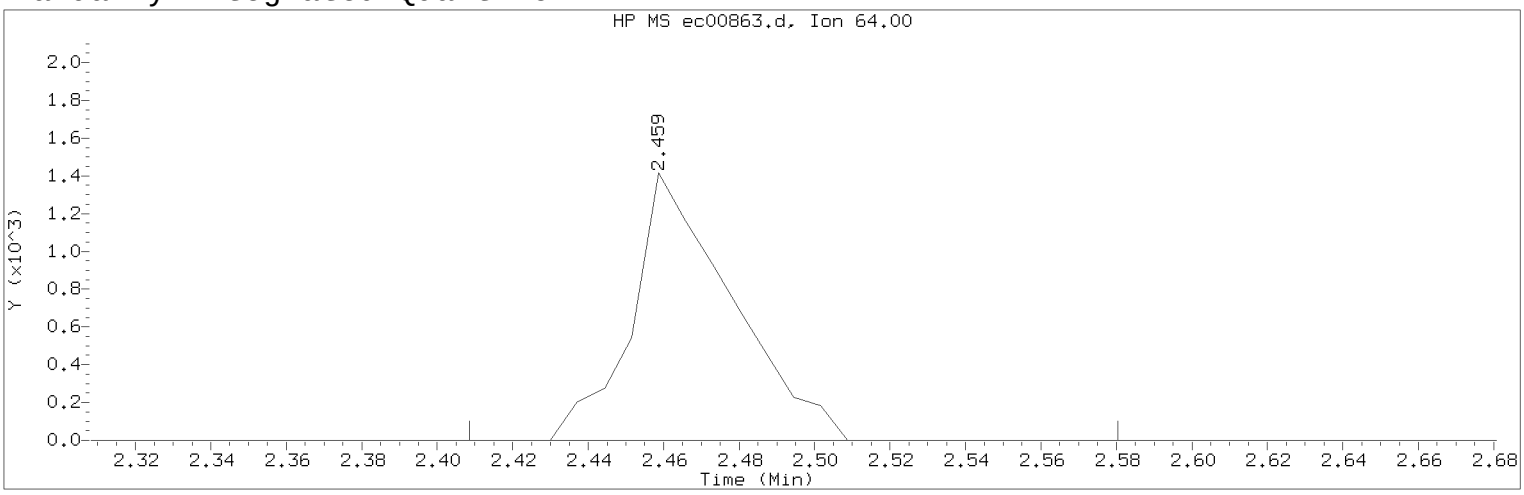
Compound Number : 1
Compound Name : Propene
Expected RT (minutes) : 1.606
Quant Ion : 41.00

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

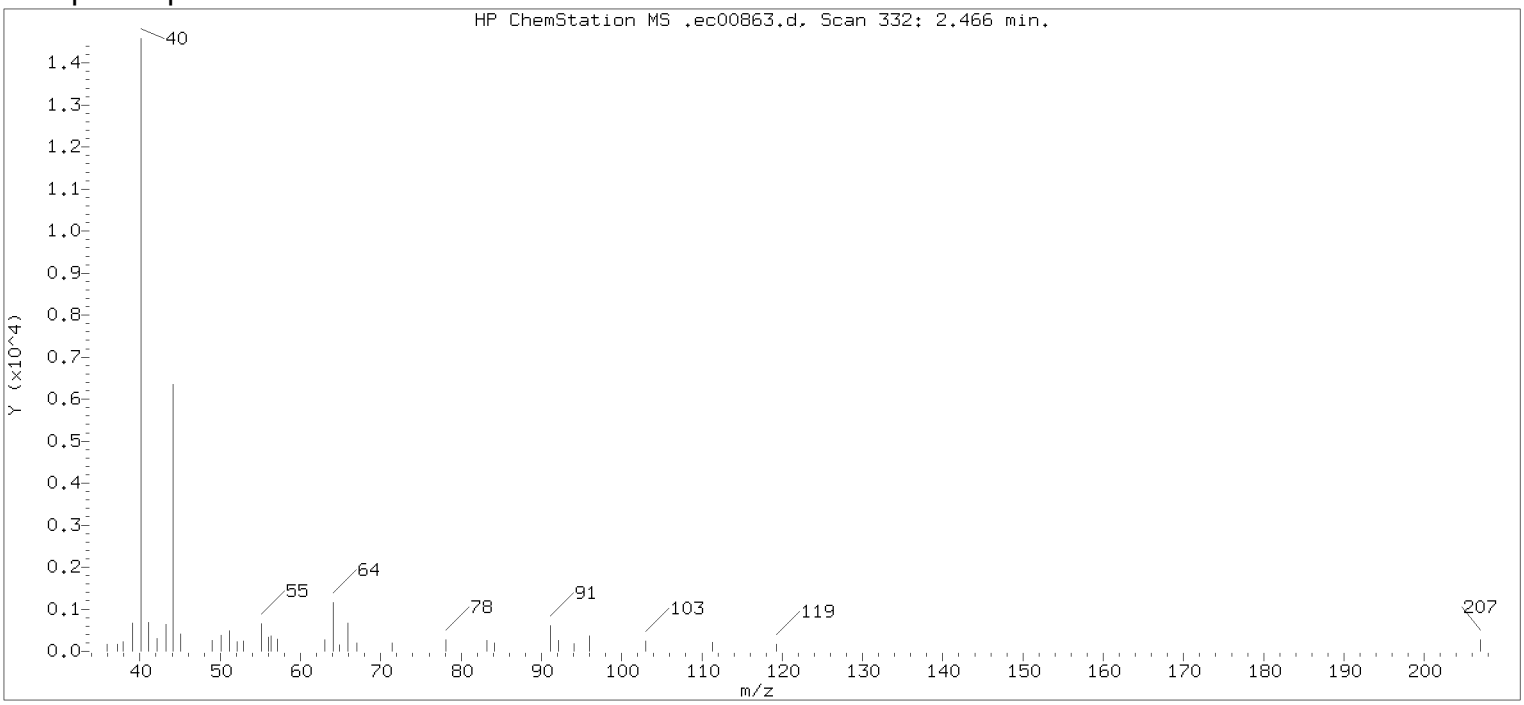
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 331
Retention Time (minutes): 2.459
Quant Ion : 64.00
Area (flag) : 2614M
Concentration (ppb(v)) : 0.1919
Integration start scan : 323 Integration stop scan: 347
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

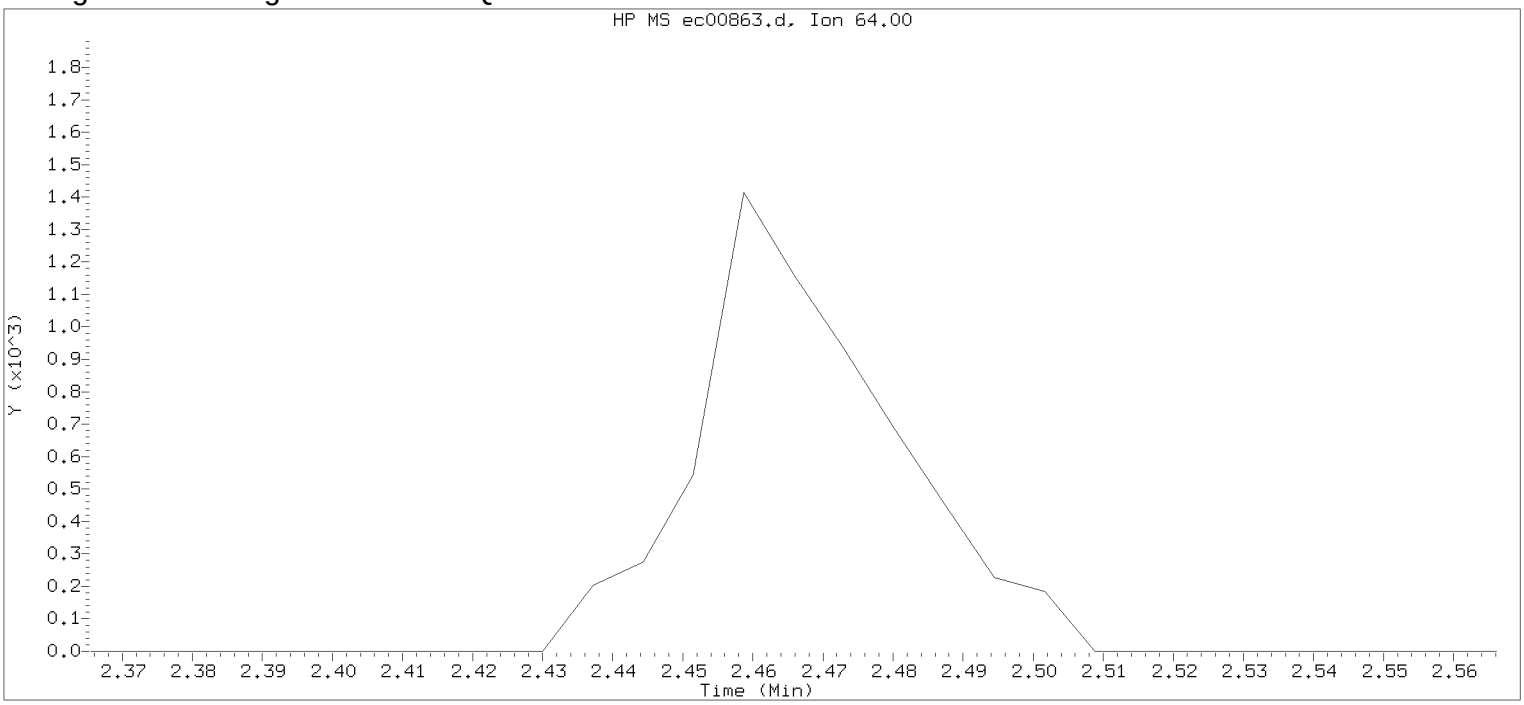
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

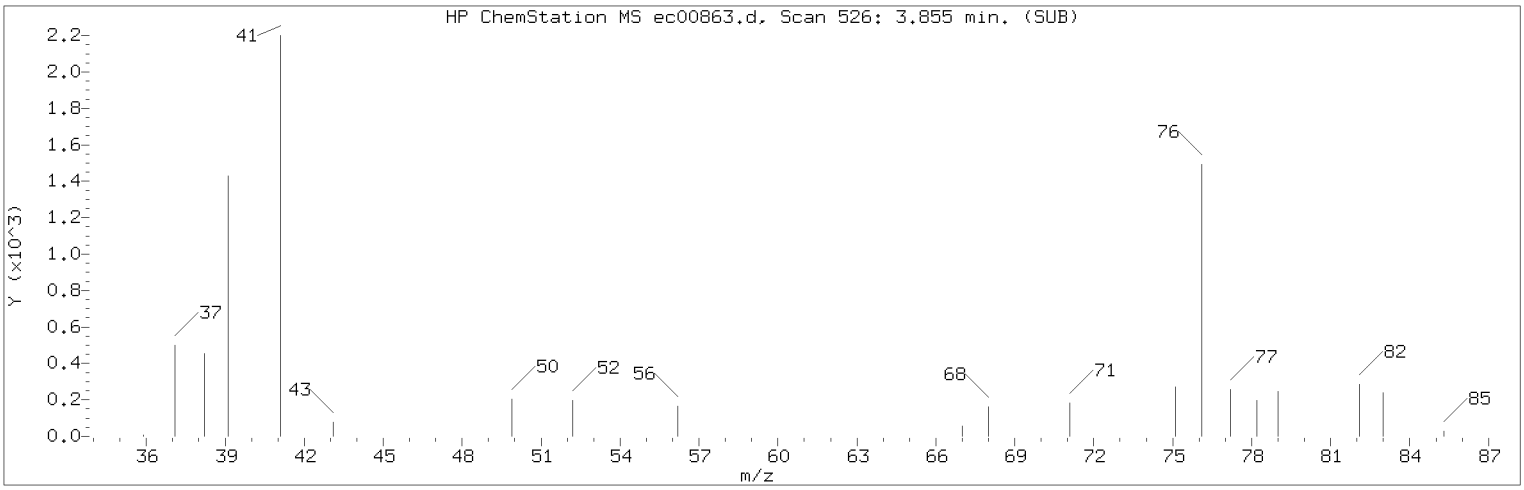
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

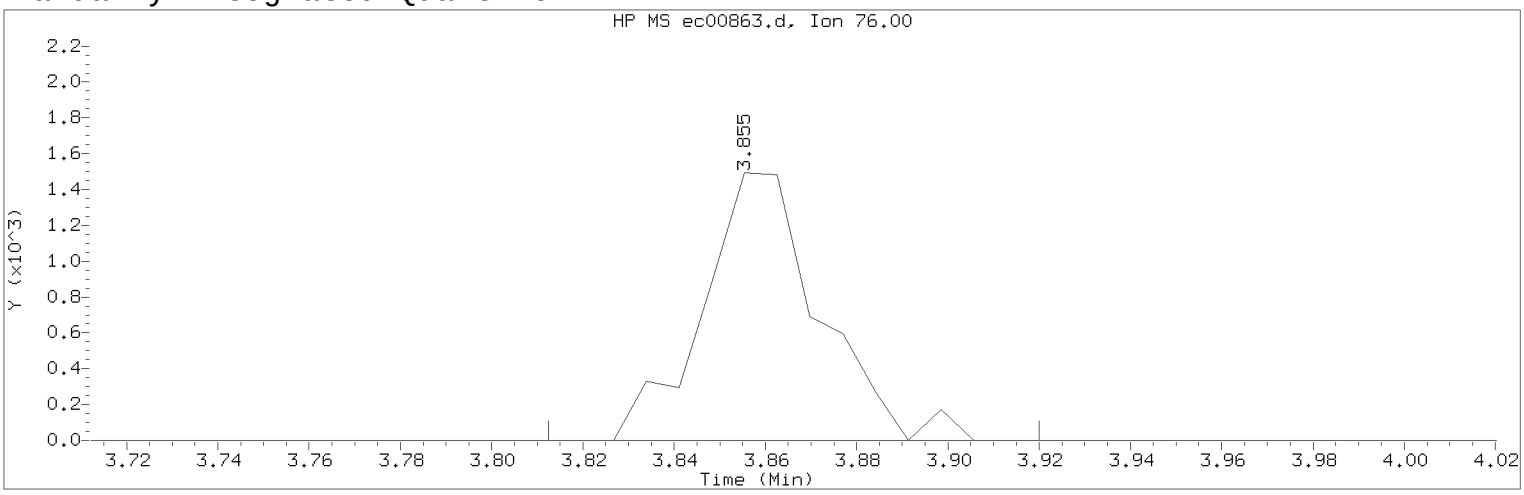
Compound Number : 9
Compound Name : Chloroethane
Expected RT (minutes) : 2.466
Quant Ion : 64.00

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

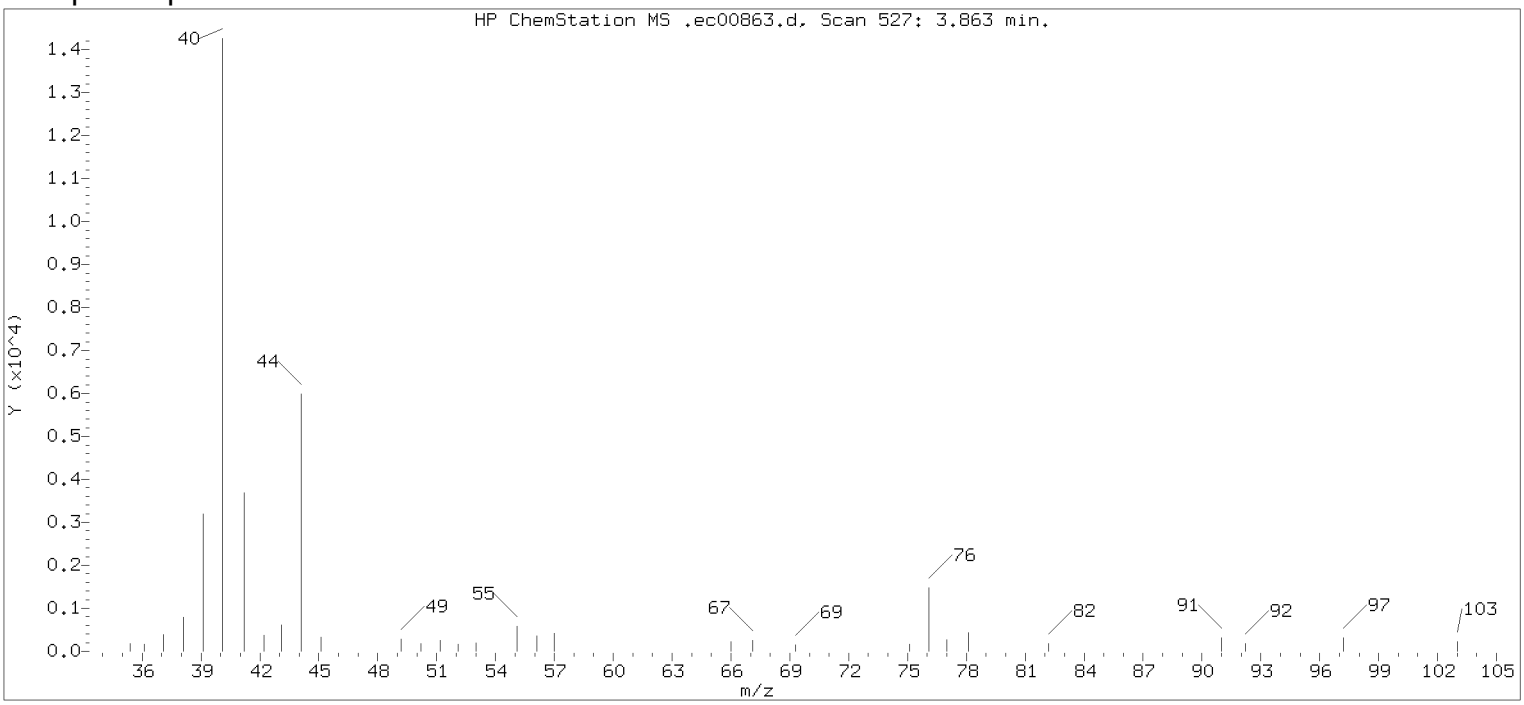
Compound Number : 24
Compound Name : 3-Chloropropene
Scan Number : 526
Retention Time (minutes): 3.855
Quant Ion : 76.00
Area (flag) : 2669M
Concentration (ppb(v)) : 0.2355
Integration start scan : 519 Integration stop scan: 534
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

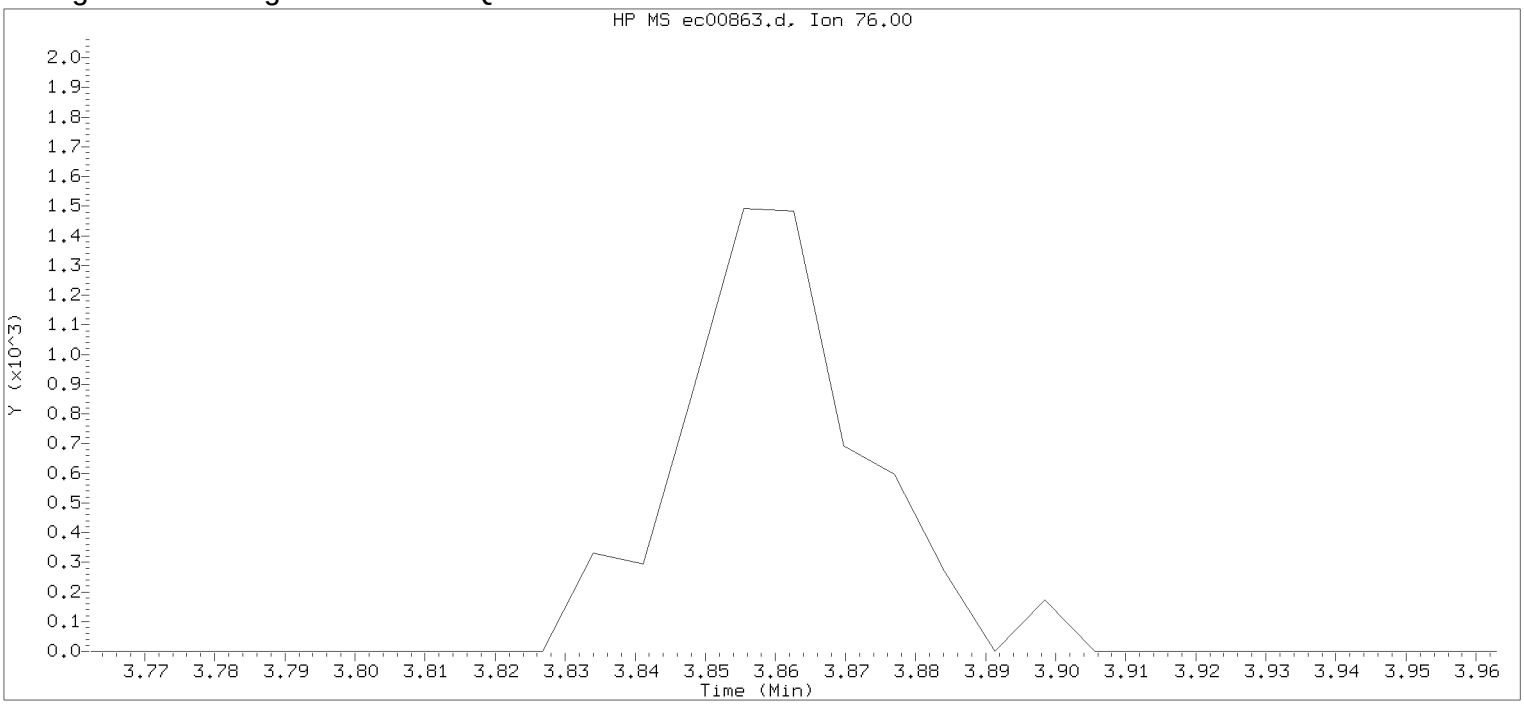
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

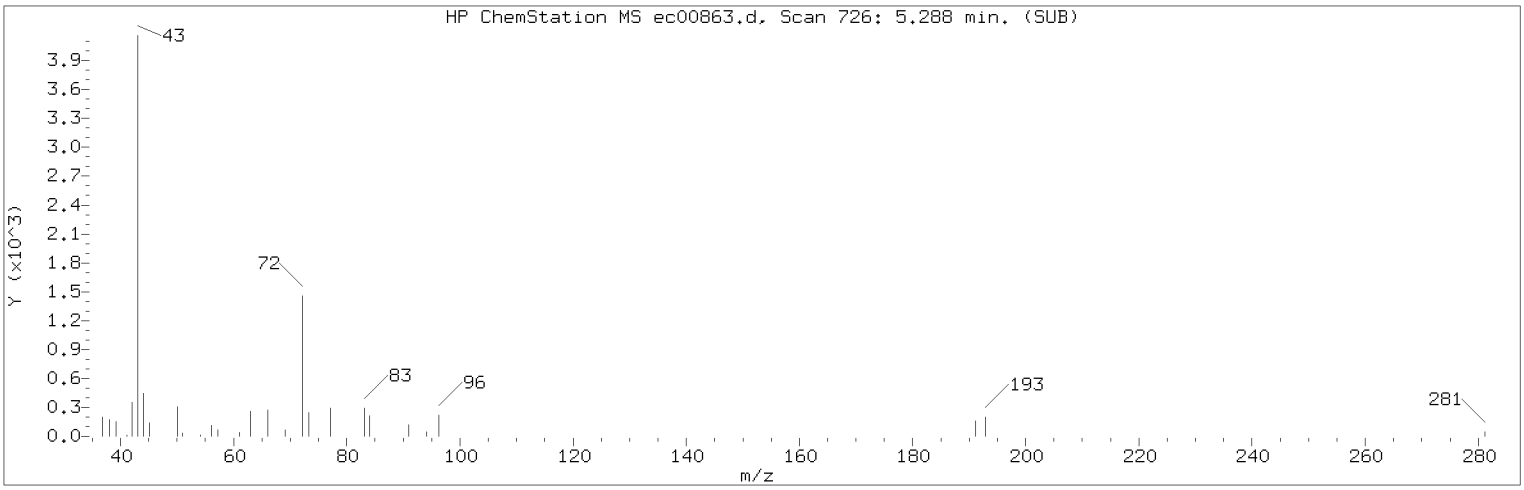
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

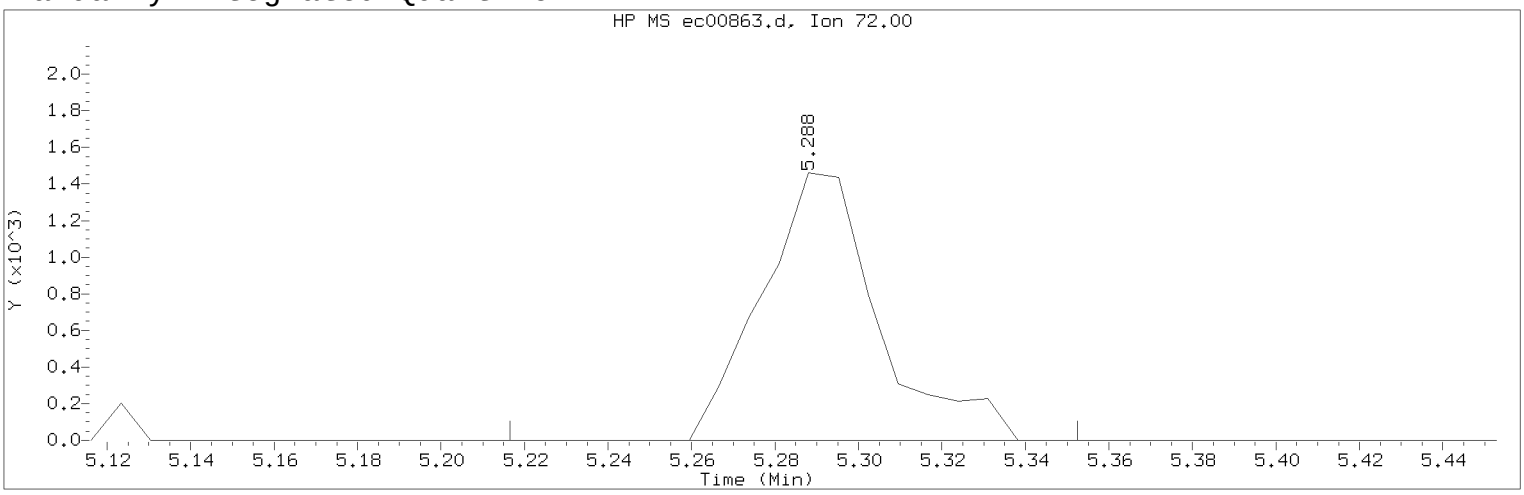
Compound Number : 24
Compound Name : 3-Chloropropene
Expected RT (minutes) : 3.862
Quant Ion : 76.00

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

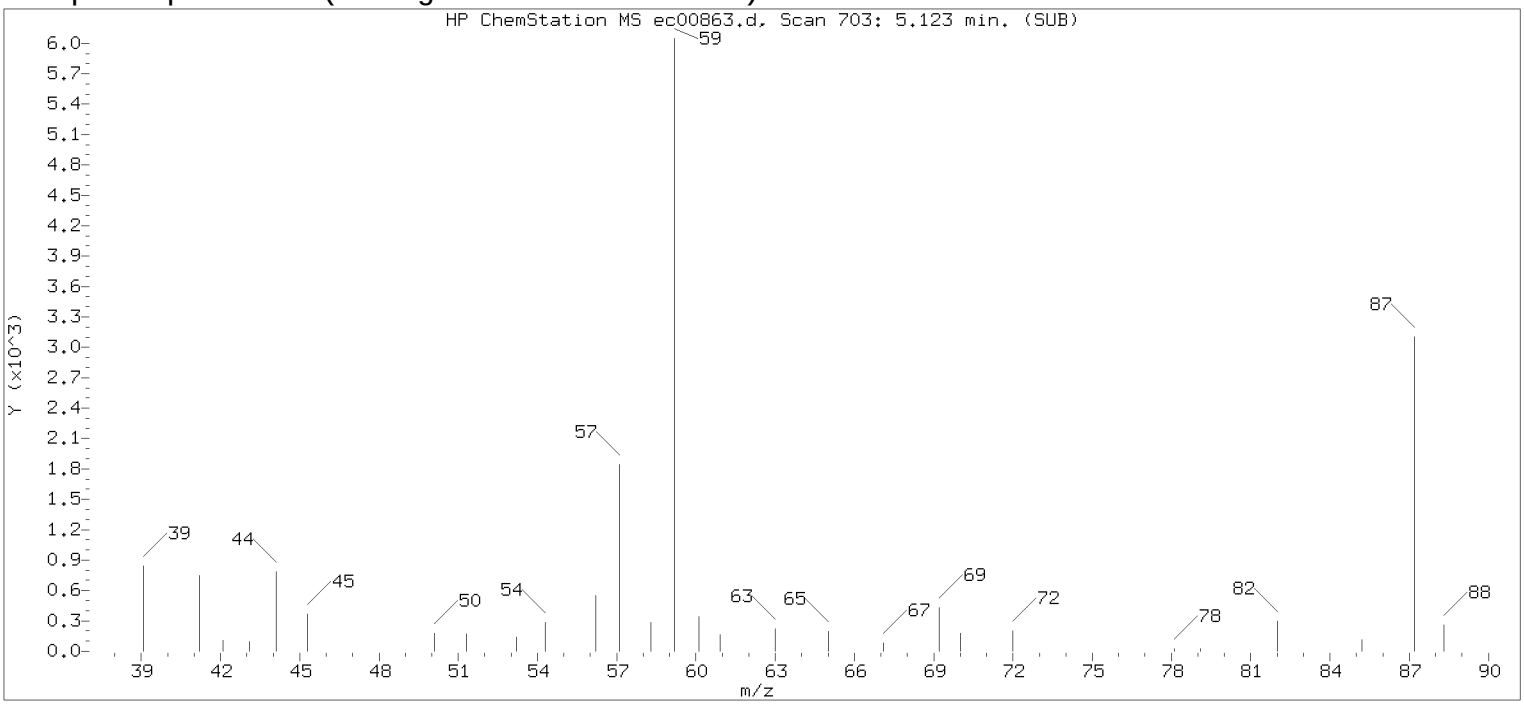
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 726
Retention Time (minutes): 5.288
Quant Ion : 72.00
Area (flag) : 2840M
Concentration (ppb(v)) : 0.2117
Integration start scan : 715 Integration stop scan: 734
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

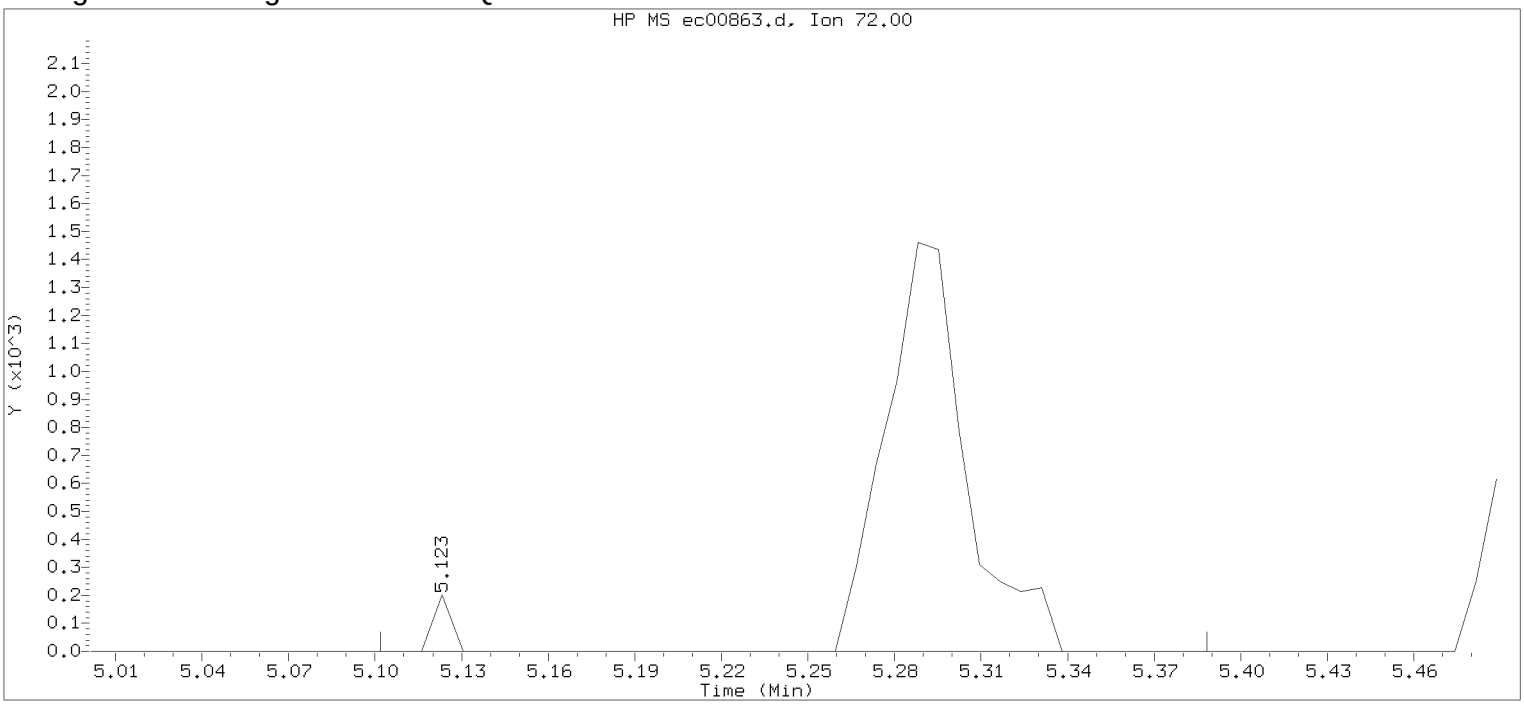
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

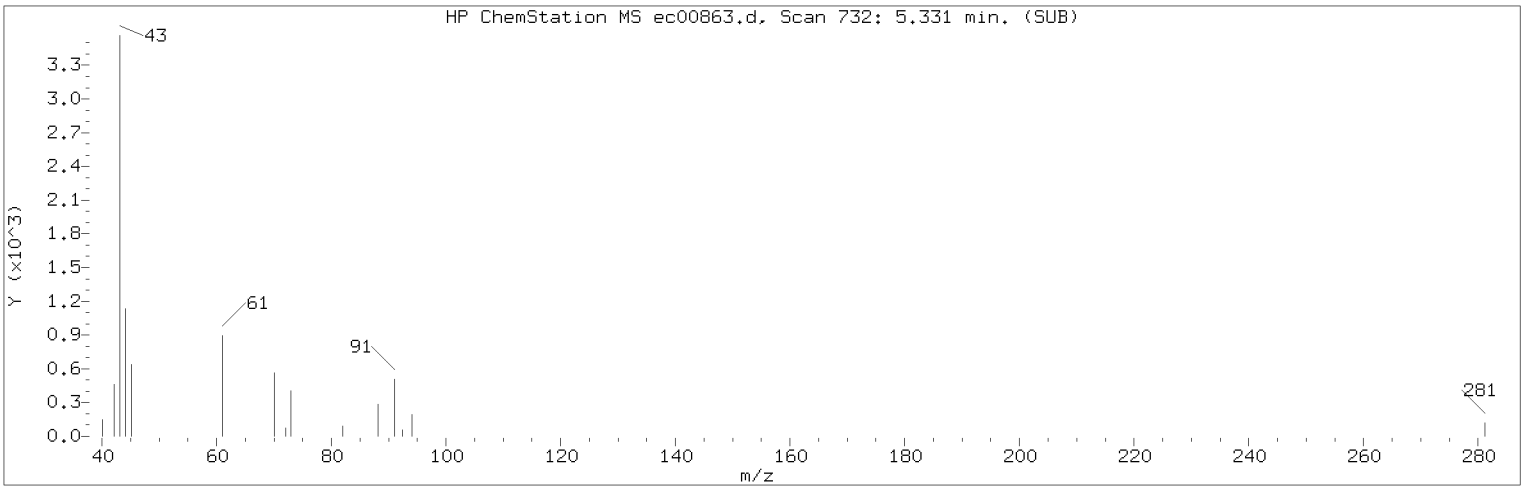
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

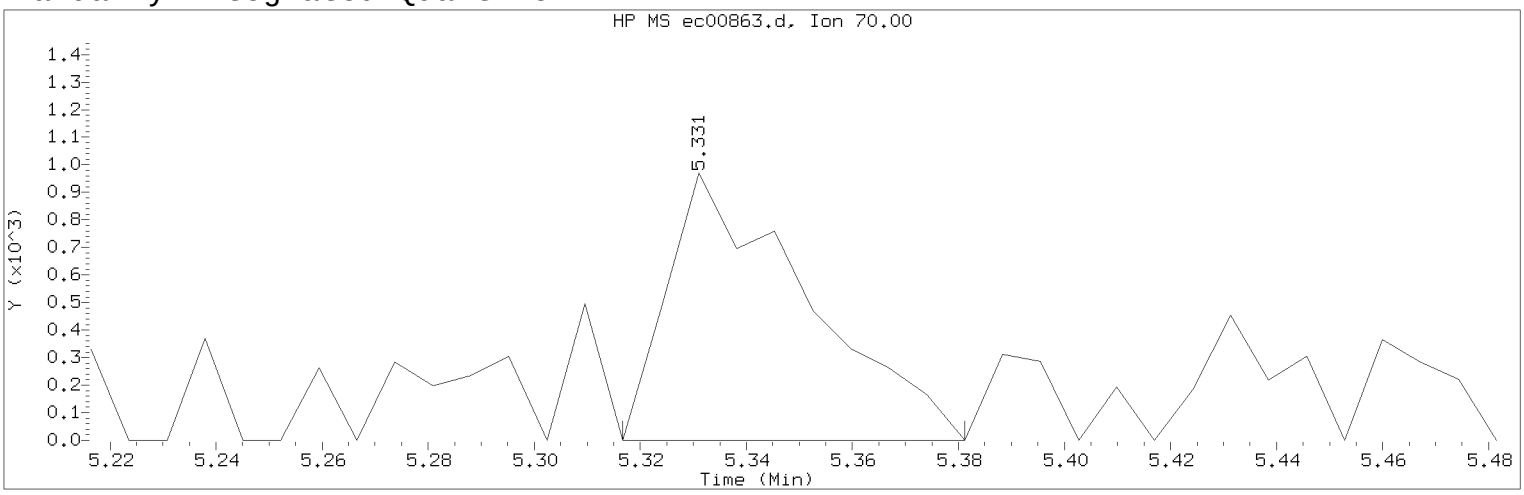
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 703
Retention Time (minutes): 5.123
Quant Ion : 72.00
Area : 2927
Concentration (ppb(v)) : 0.1644
Integration start scan : 699 Integration stop scan: 739
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

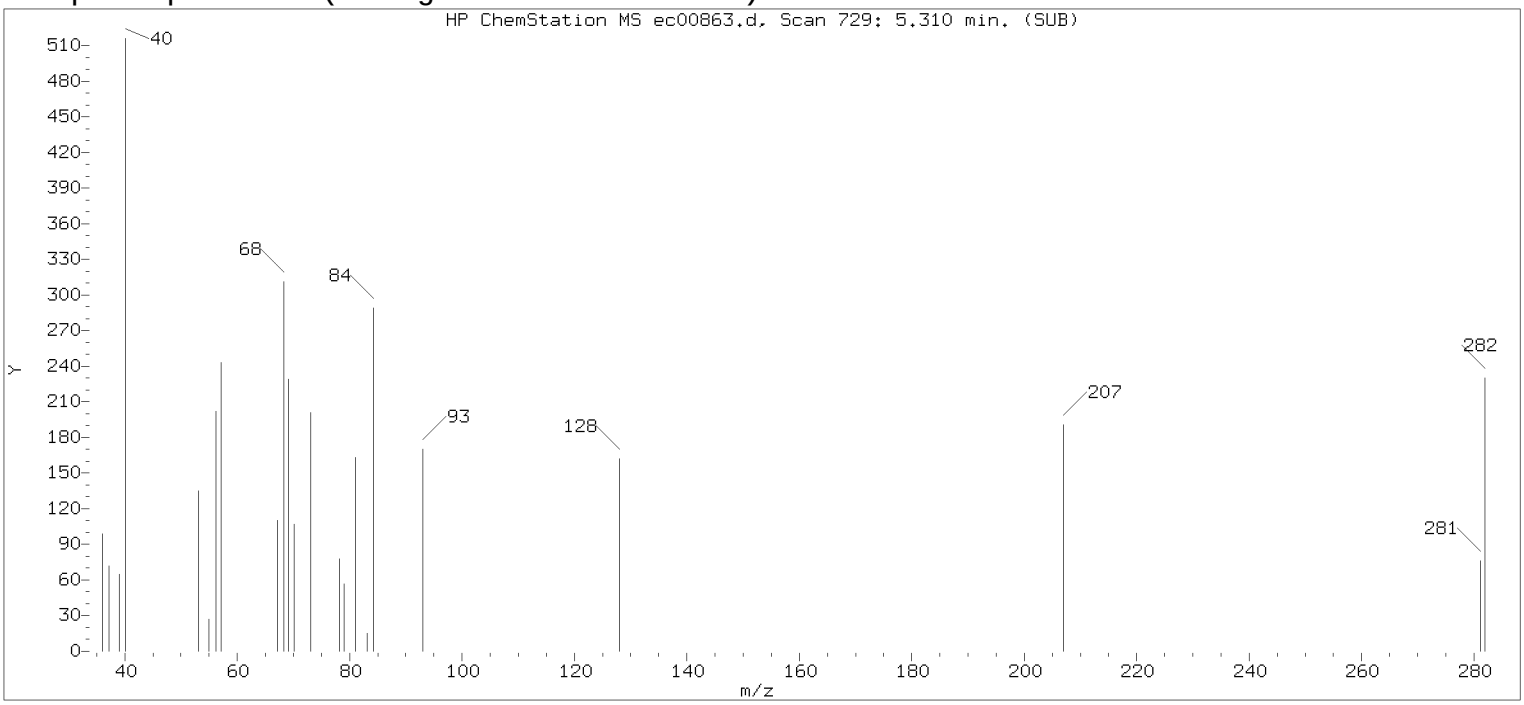
Compound Number : 38
Compound Name : Ethyl Acetate
Scan Number : 732
Retention Time (minutes): 5.331
Quant Ion : 70.00
Area (flag) : 1773M
Concentration (ppb(v)) : 0.2461
Integration start scan : 729 Integration stop scan: 738
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

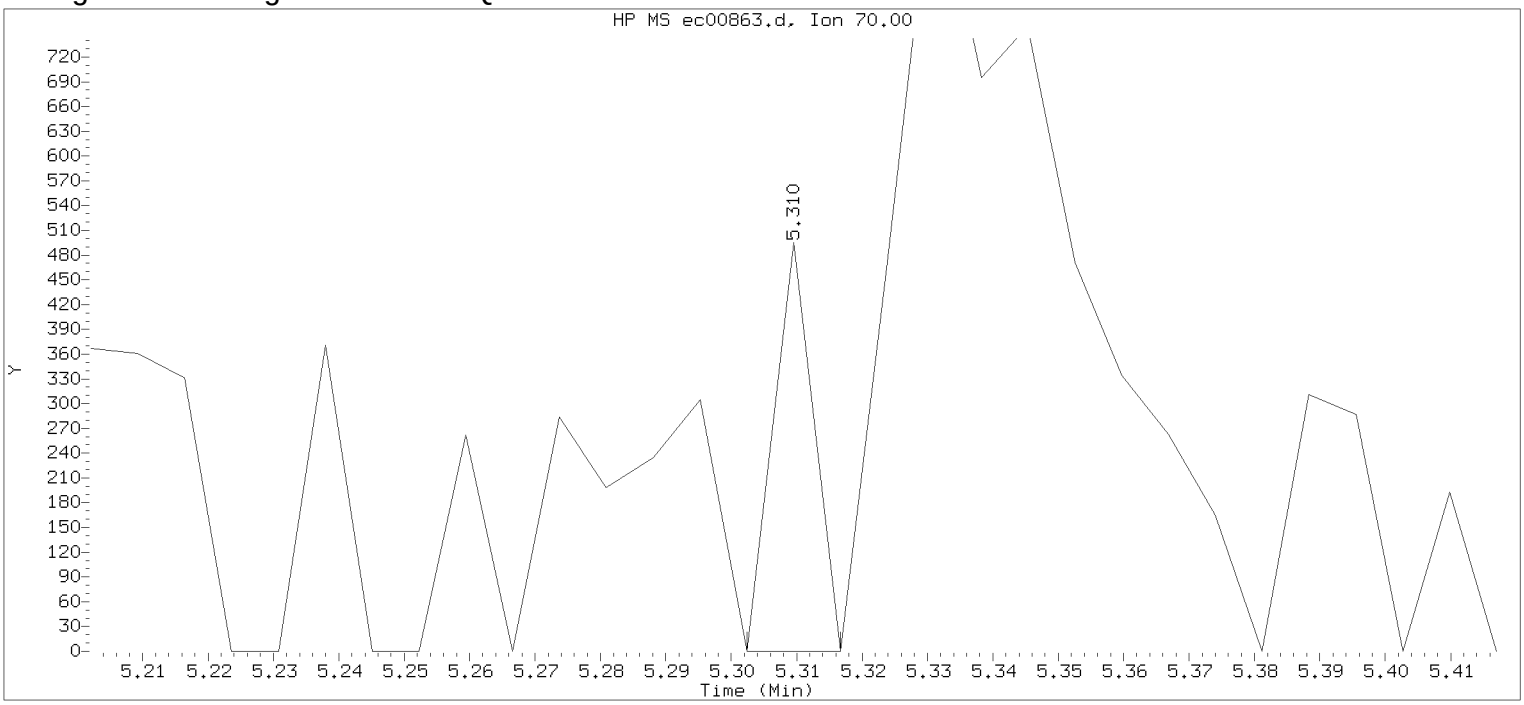
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

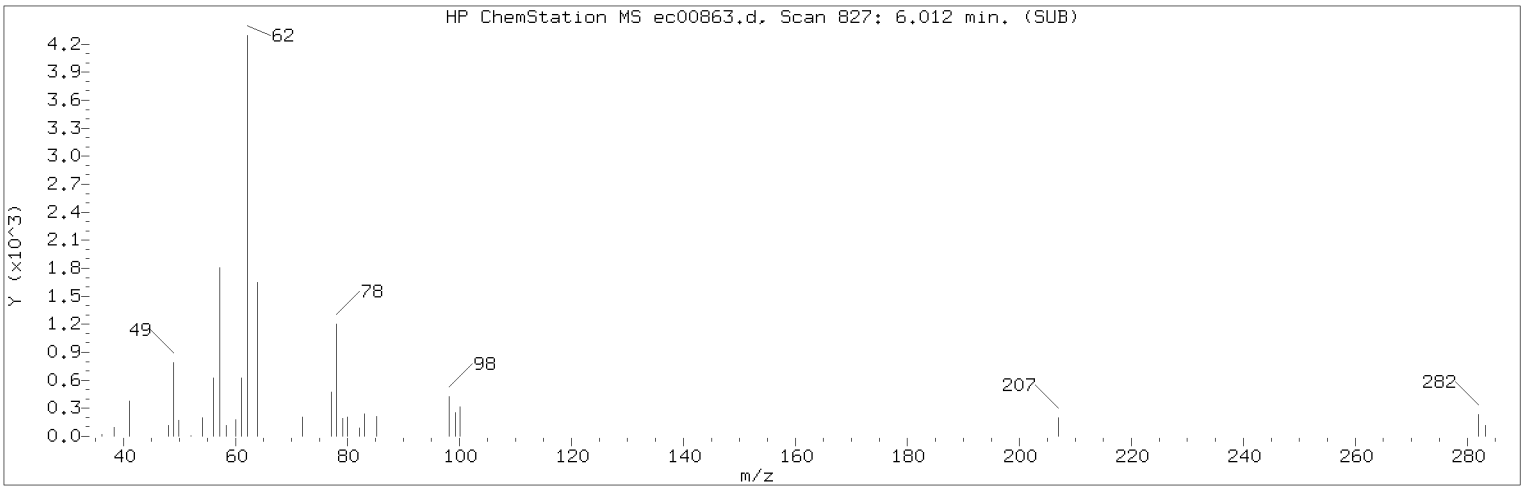
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

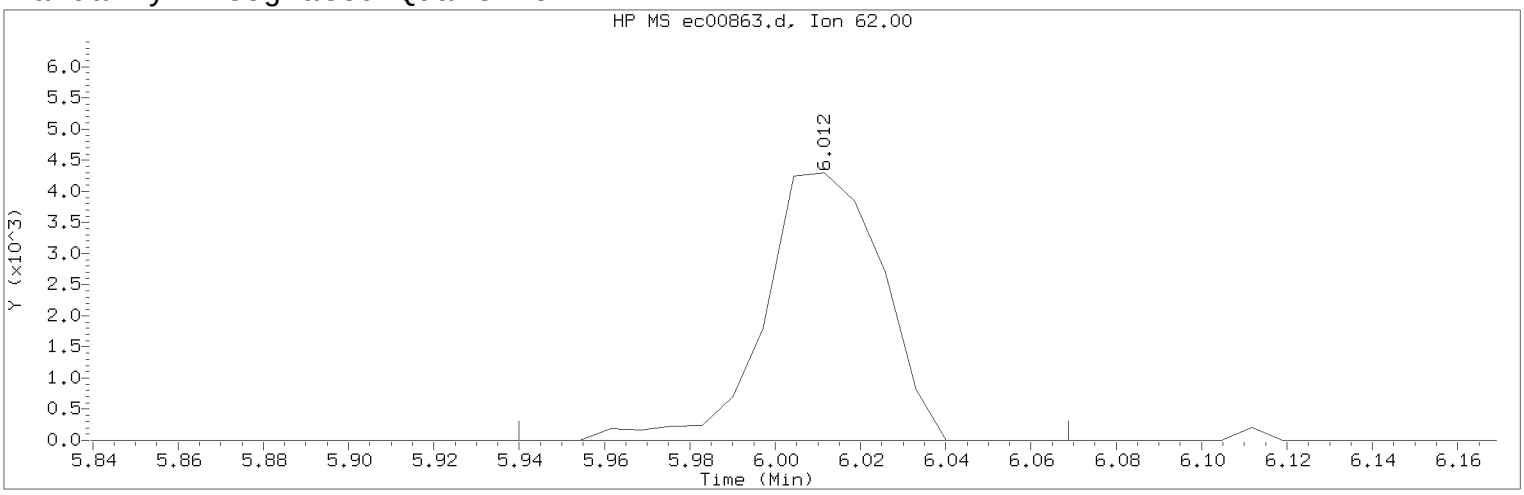
Compound Number : 38
Compound Name : Ethyl Acetate
Scan Number : 729
Retention Time (minutes): 5.310
Quant Ion : 70.00
Area : 212
Concentration (ppb(v)) : 0.0241
Integration start scan : 727 Integration stop scan: 729
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

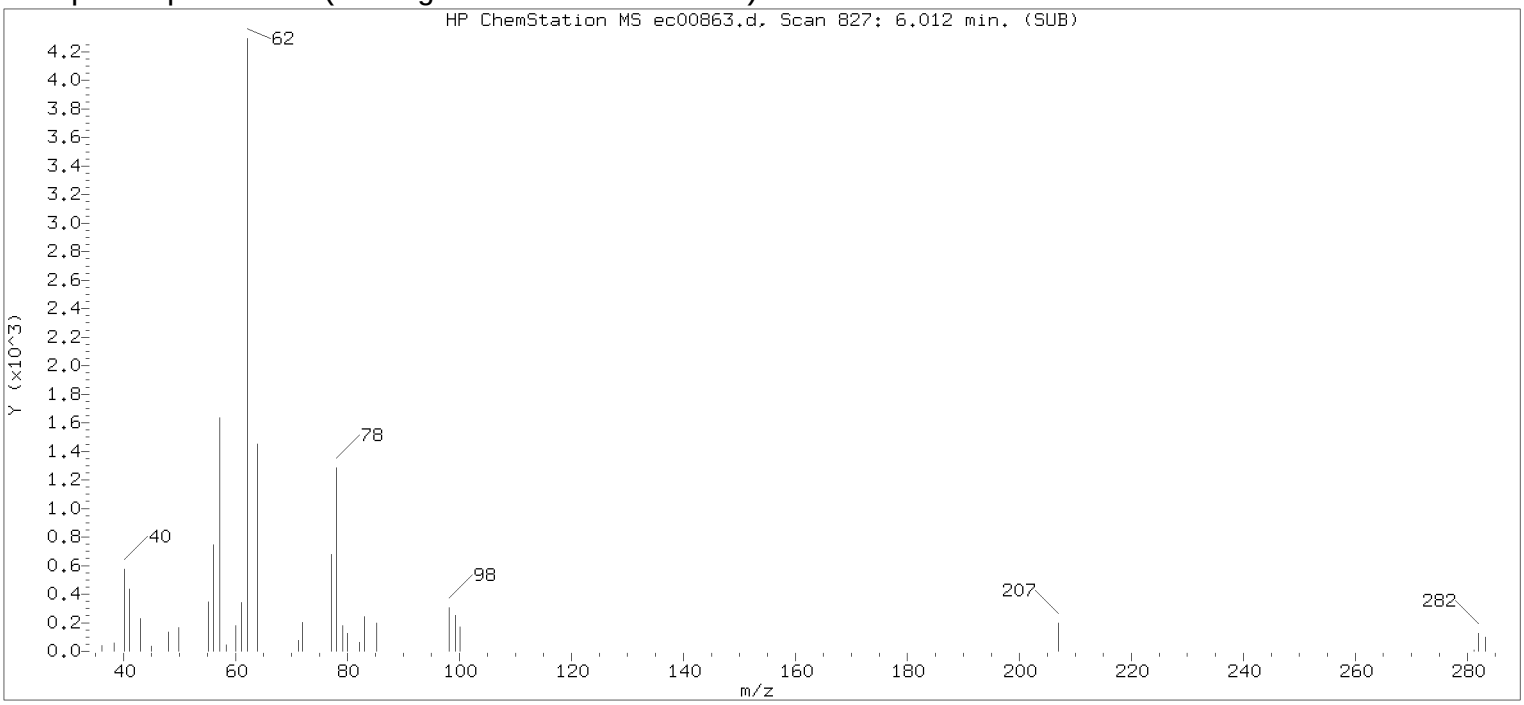
Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.012
Quant Ion : 62.00
Area (flag) : 8250M
Concentration (ppb(v)) : 0.2419
Integration start scan : 816 Integration stop scan: 834
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

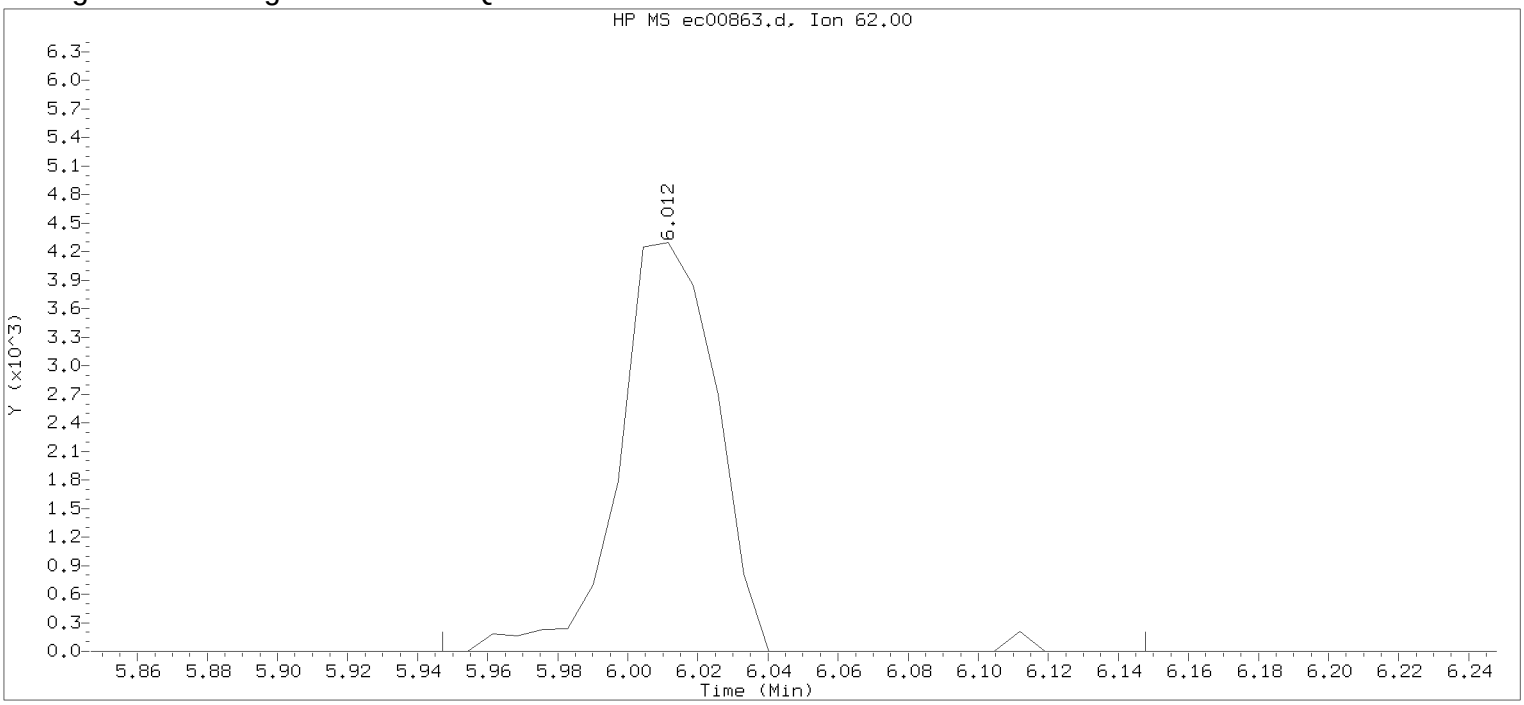
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

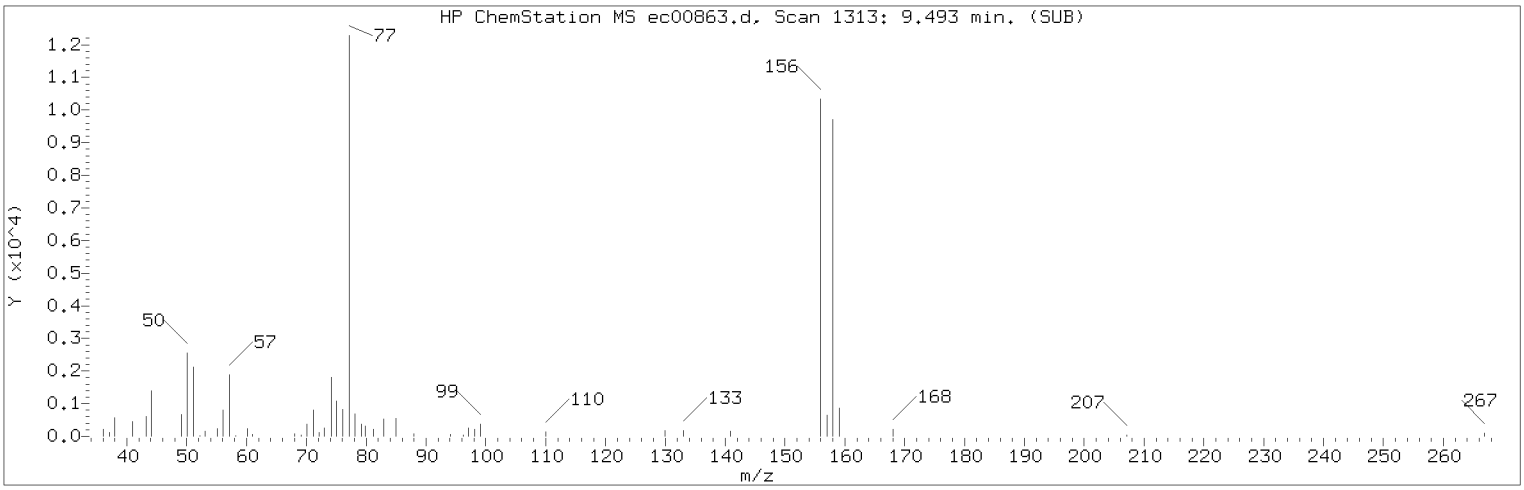
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

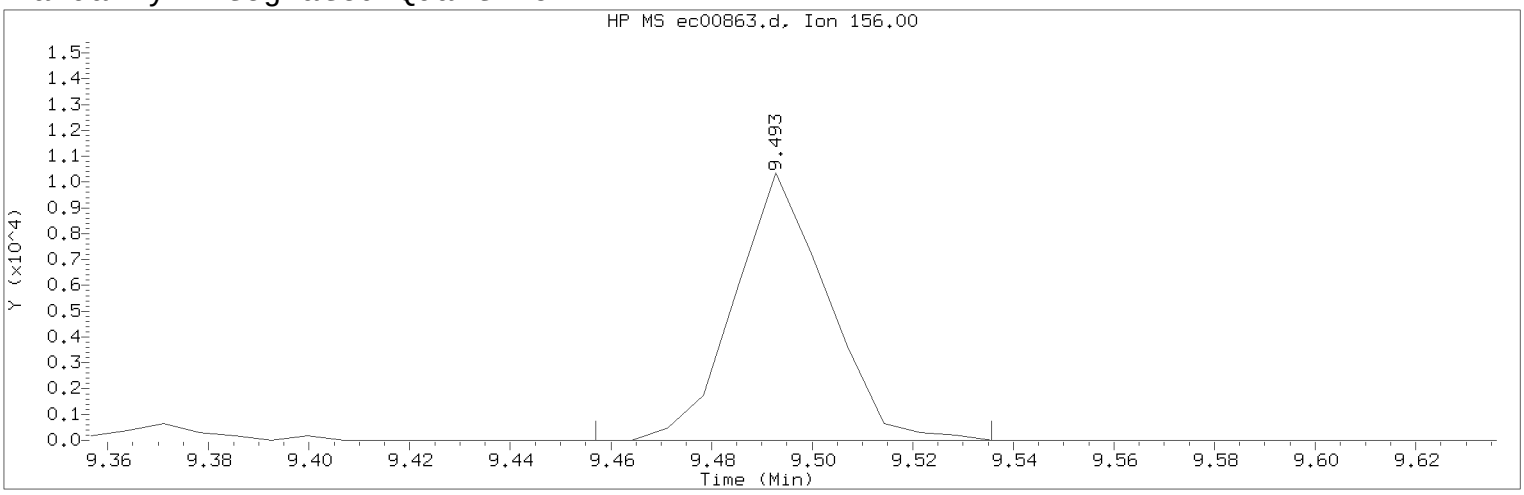
Compound Number : 47
Compound Name : 1,2-Dichloroethane
Scan Number : 827
Retention Time (minutes): 6.012
Quant Ion : 62.00
Area : 8340
Concentration (ppb(v)) : 0.2249
Integration start scan : 817 Integration stop scan: 845
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

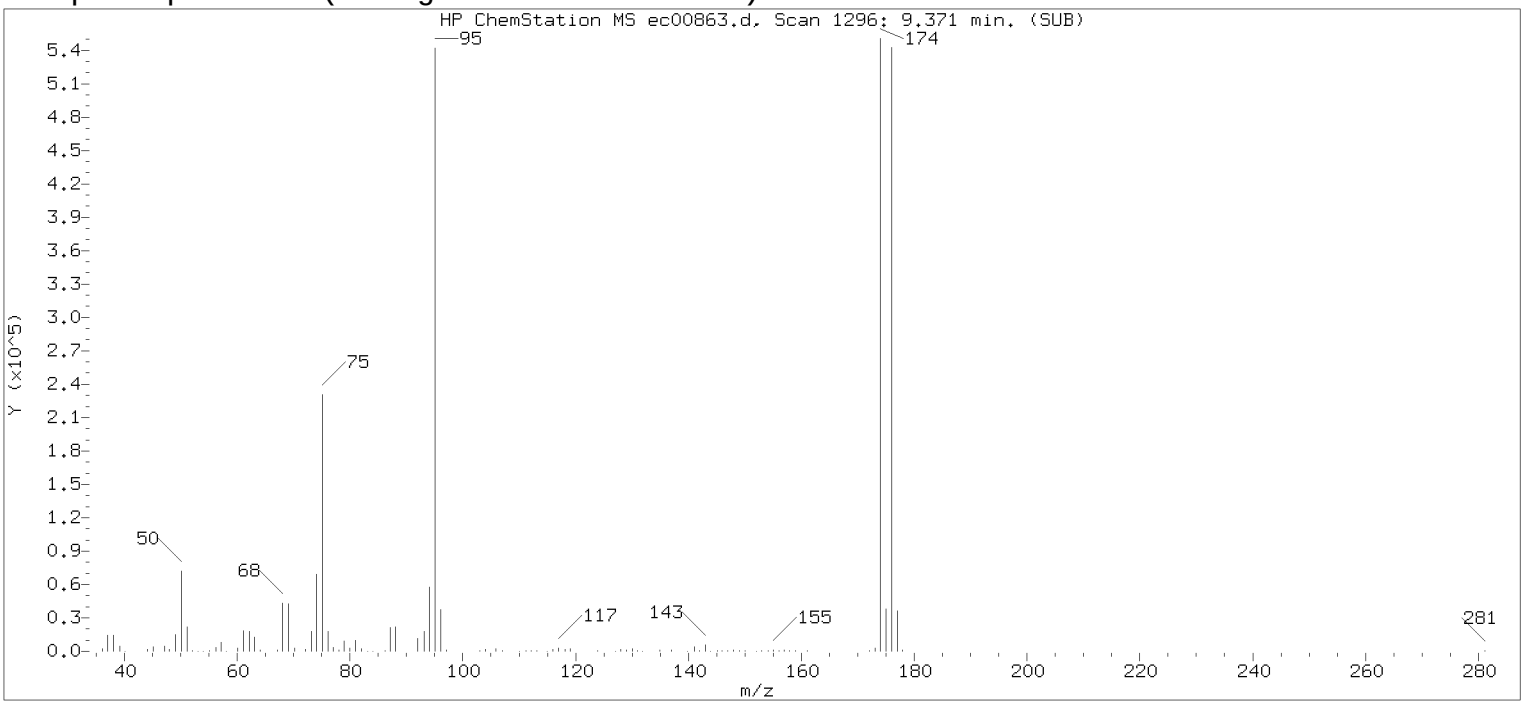
Compound Number : 81
Compound Name : Bromobenzene
Scan Number : 1313
Retention Time (minutes): 9.493
Quant Ion : 156.00
Area (flag) : 13195M
Concentration (ppb(v)) : 0.2106
Integration start scan : 1307 Integration stop scan: 1318
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

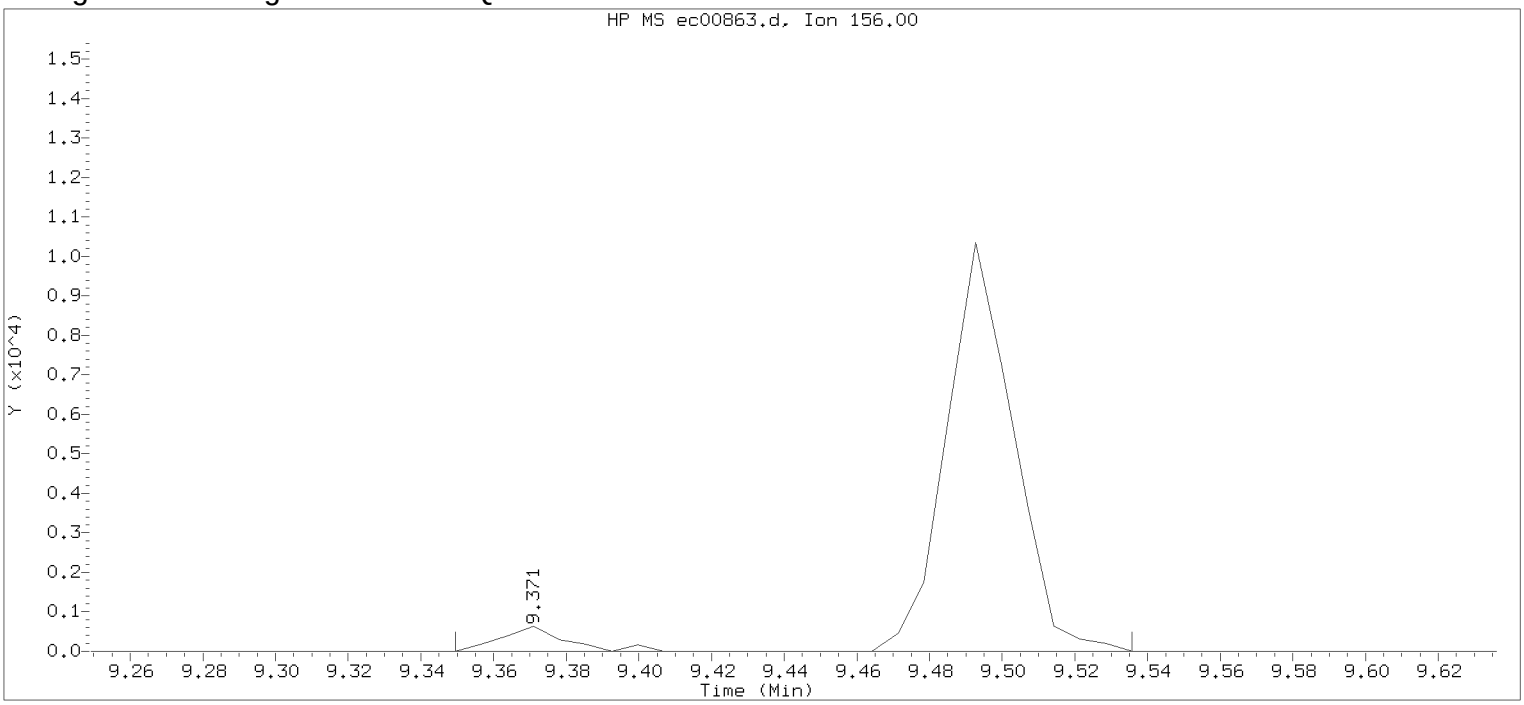
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

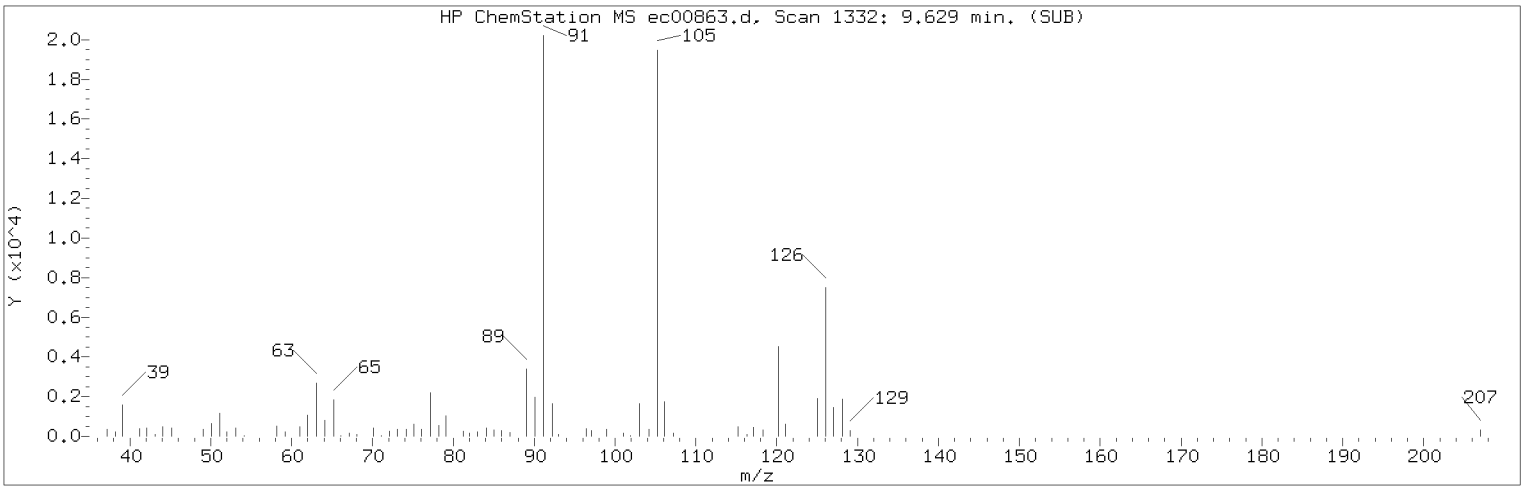
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

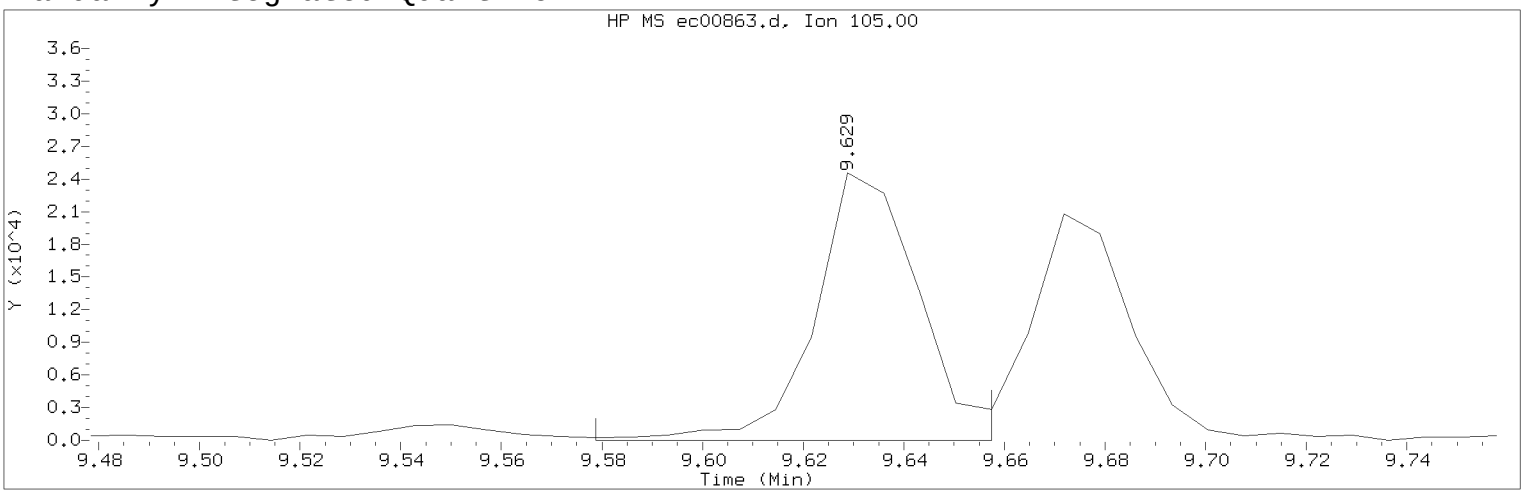
Compound Number : 81
Compound Name : Bromobenzene
Scan Number : 1296
Retention Time (minutes): 9.371
Quant Ion : 156.00
Area : 13986
Concentration (ppb(v)) : 0.1738
Integration start scan : 1292 Integration stop scan: 1318
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

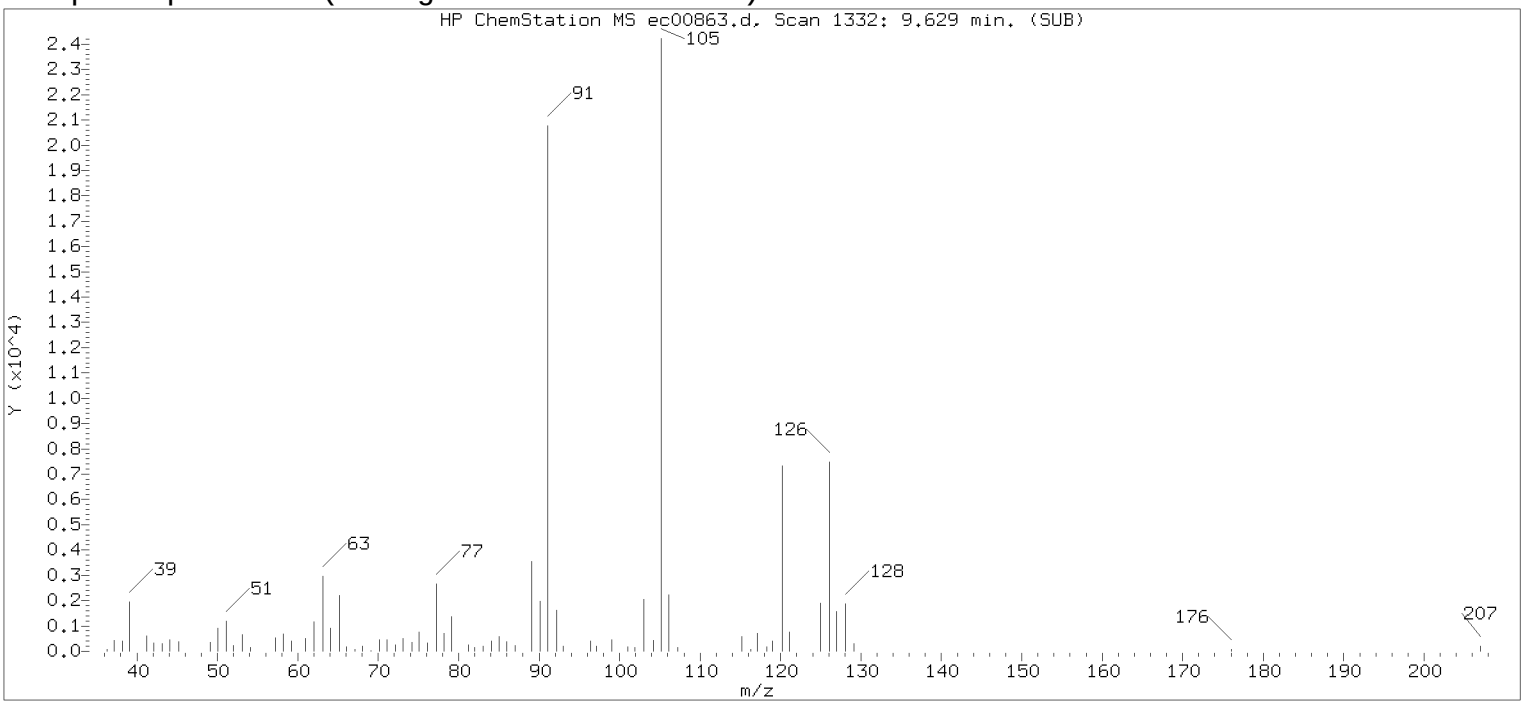
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 35404M
Concentration (ppb(v)) : 0.2192
Integration start scan : 1324 Integration stop scan: 1335
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

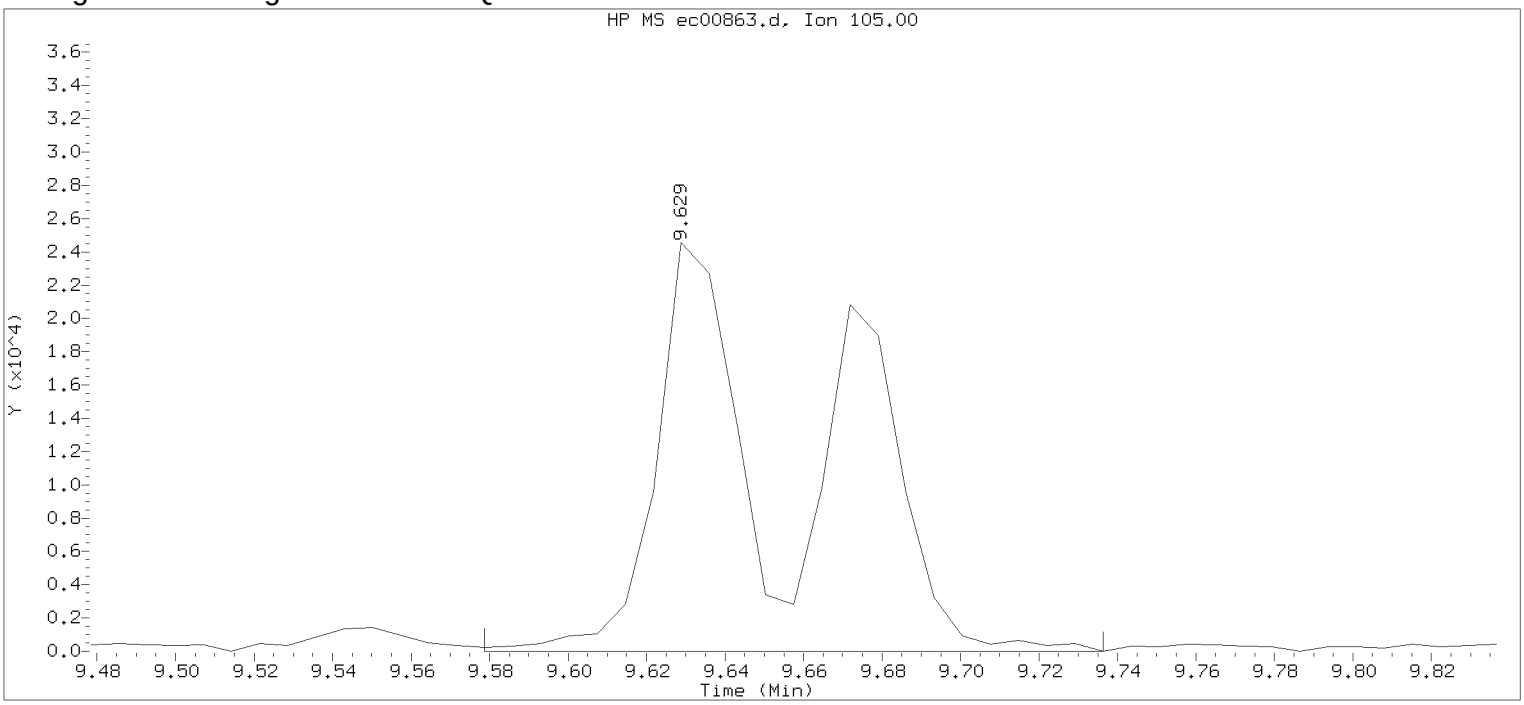
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

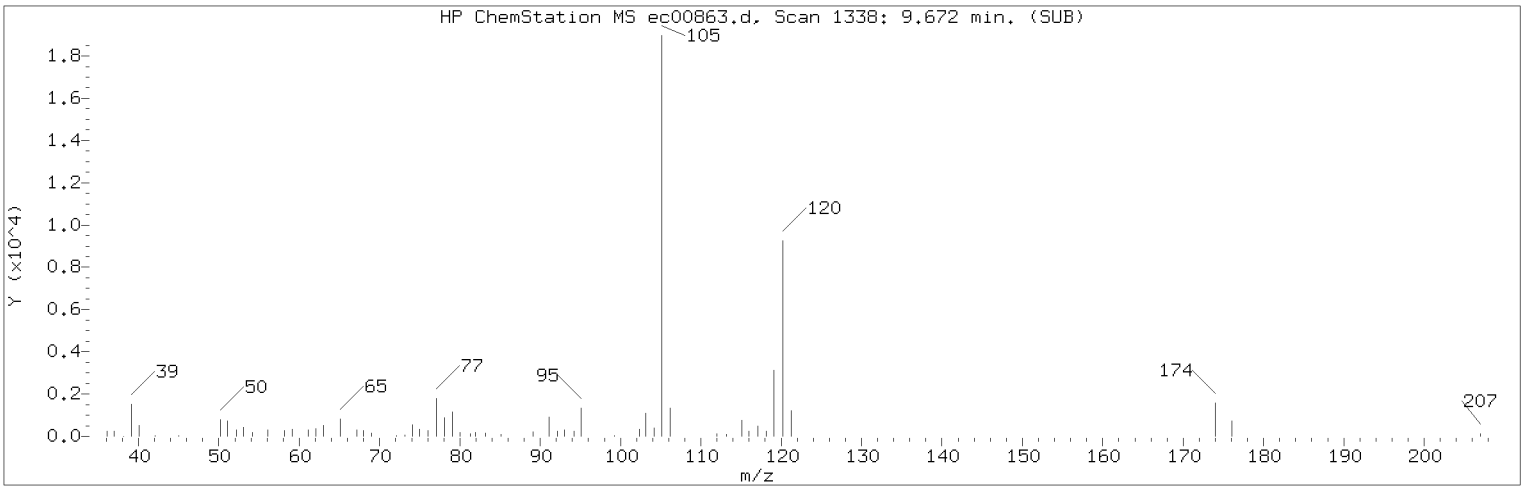
Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

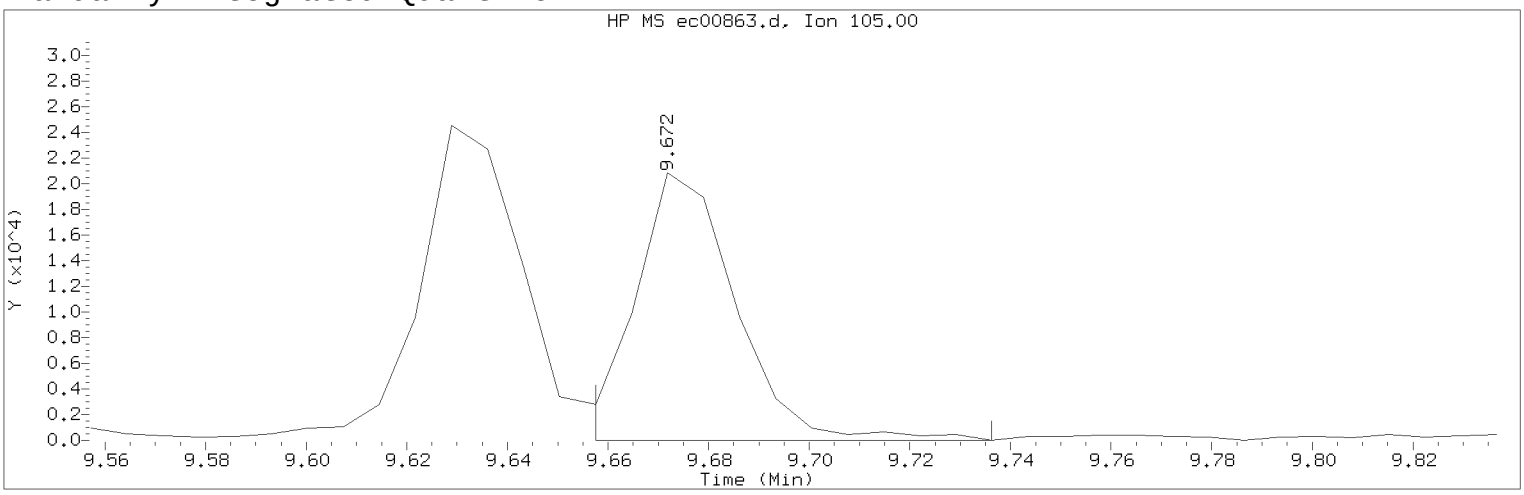
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 63380
Concentration (ppb(v)) : 0.2917
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 31-MAR-2017 08:50
Date, time and analyst ID of latest file update: 04-Apr-2017 14:16 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

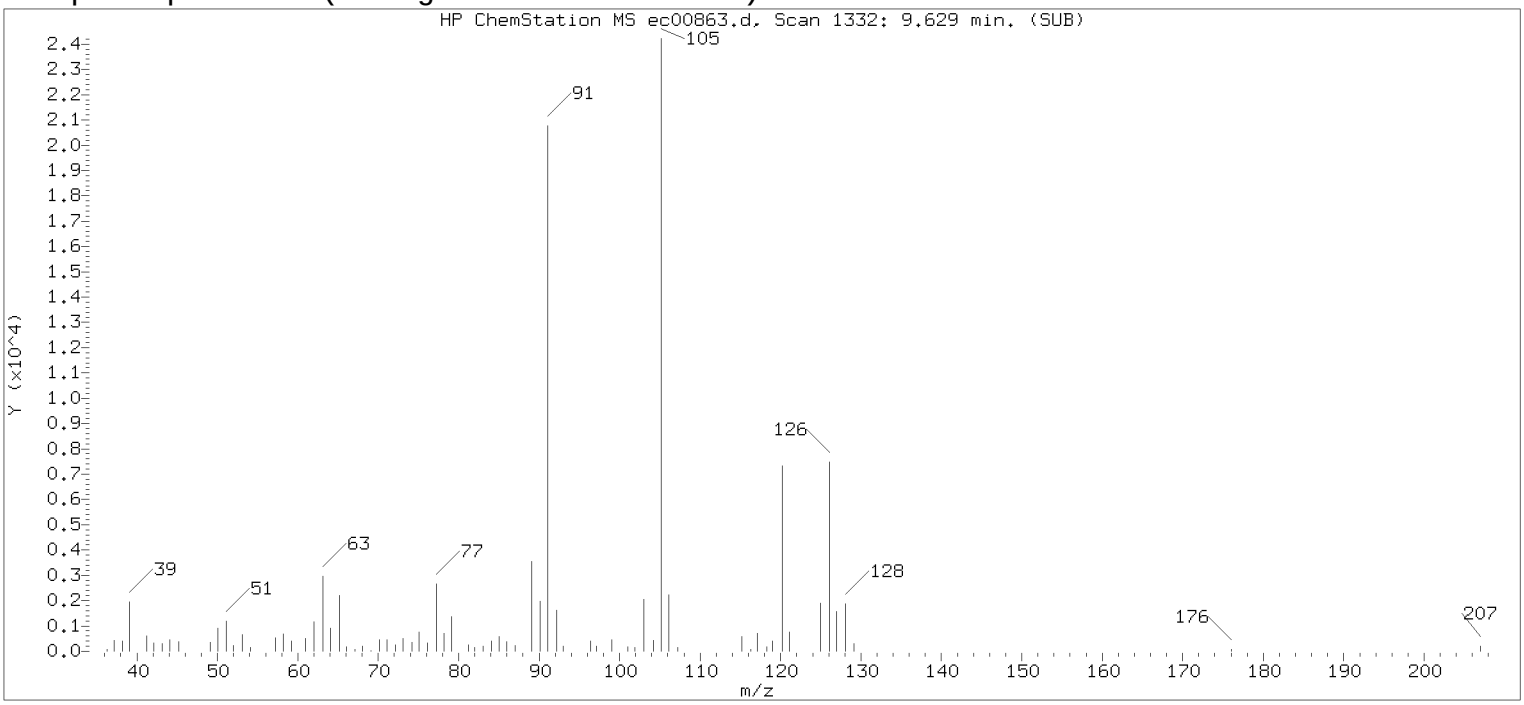
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 29234M
Concentration (ppb(v)) : 0.2178
Integration start scan : 1335 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

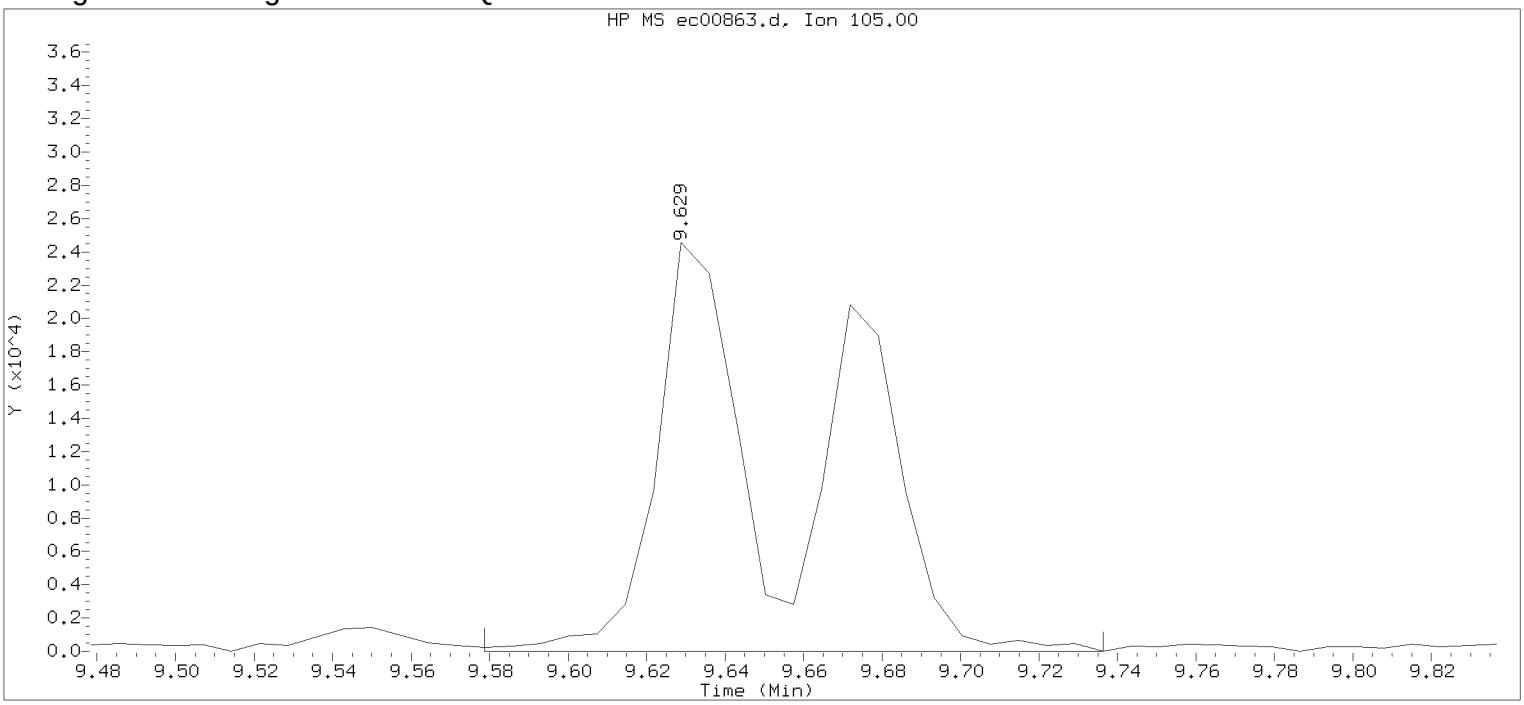
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:15.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar30.b/ec00863.d Instrument ID: HP22820.i
Injection date and time: 31-MAR-2017 04:26 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar30.b/to-15.m Sublist used: all
Calibration date and time: 30-MAR-2017 13:40
Date, time and analyst ID of latest file update: 31-Mar-2017 04:46 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 63380
Concentration (ppb(v)) : 0.3517
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 04/04/2017 at 14:16.
Target 3.5 esignature user id: jeb07445

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: ed00051.d

Calibration Date: 04/05/2017

Instrument ID: 22820

Calibration Time: 12:02

Init. Calib. Date(s): 04/03/2017 - 04/04/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	0.628	0.667	10.621	10	6
Dichlorodifluoromethane	2.518	2.802	11.127	10	11
Chlorodifluoromethane	1.311	1.444	11.017	10	10
Freon 114	2.637	2.918	11.066	10	11
Chloromethane	0.676	0.699	10.344	10	3
Vinyl Chloride	0.947	1.026	10.828	10	8
1,3-Butadiene	0.696	0.741	10.642	10	6
Bromomethane	0.969	1.174	12.110	10	21
Chloroethane	0.528	0.557	10.548	10	5
Bromoethene	1.054	1.149	10.901	10	9
Dichlorofluoromethane	2.066	2.310	11.182	10	12
Trichlorofluoromethane	2.709	3.021	11.151	10	12
Pentane	1.417	1.503	10.607	10	6
Ethanol	0.238	0.262	11.007	10	10
Freon123a	2.004	2.151	10.733	10	7
Acrolein	0.365	0.375	10.266	10	3
1,1-Dichloroethene	1.465	1.647	11.247	10	12
Freon 113	1.596	1.703	10.671	10	7
Acetone	1.136	1.261	11.107	10	11
Methyl Iodide	2.978	2.702	9.072	10	-9
Carbon Disulfide	2.902	3.225	11.113	10	11
Isopropanol	1.010	1.266	14.164	11.3	25
Acetonitrile	0.526	0.533	10.124	10	1
3-Chloropropene	0.439	0.486	12.398	11.2	11
Methylene Chloride	0.864	0.945	12.259	11.2	9
tert-Butyl Alcohol	1.666	1.957	13.157	11.2	17
Acrylonitrile	0.756	0.807	10.671	10	7
trans-1,2-Dichloroethene	1.359	1.500	11.038	10	10
Methyl t-Butyl Ether	2.946	3.124	10.604	10	6
Hexane	1.471	1.529	10.392	10	4
1,1-Dichloroethane	1.786	1.926	10.782	10	8
Vinyl Acetate	0.242	0.300	14.005	11.3	24
Di-Isopropyl Ether	2.846	3.086	10.842	10	8
Ethyl Tert-Butyl Ether	2.980	3.193	10.714	10	7
cis-1,2-Dichloroethene	1.295	1.428	11.028	10	10
2-Butanone	0.520	0.565	10.860	10	9
Ethyl Acetate	0.279	0.285	10.202	10	2
Methyl Acrylate	1.569	1.697	10.813	10	8
Tetrahydrofuran	0.936	1.011	10.796	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: ed00051.d

Calibration Date: 04/05/2017

Instrument ID: 22820

Calibration Time: 12:02

Init. Calib. Date(s): 04/03/2017 - 04/04/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	2.251	2.447	10.869	10	9
1,1,1-Trichloroethane	2.277	2.503	10.993	10	10
Cyclohexane	1.541	1.610	10.444	10	4
Carbon Tetrachloride	2.364	2.614	11.057	10	11
Benzene	0.928	1.000	10.776	10	8
1,2-Dichloroethane	0.349	0.396	11.345	10	13
Isooctane	1.276	1.383	10.833	10	8
Tert-Amyl Methyl Ether	0.842	0.926	10.996	10	10
Heptane	0.423	0.457	10.802	10	8
Trichloroethene	0.478	0.529	11.060	10	11
Ethyl Acrylate	0.540	0.591	10.947	10	9
1,2-Dichloropropane	0.317	0.336	10.580	10	6
Dibromomethane	0.471	0.515	10.945	10	9
1,4-Dioxane	0.222	0.230	10.363	10	4
Methyl Methacrylate	0.309	0.333	10.762	10	8
Bromodichloromethane	0.605	0.678	11.208	10	12
cis-1,3-Dichloropropene	0.538	0.575	10.698	10	7
4-Methyl-2-Pentanone	0.539	0.590	10.953	10	10
Toluene	1.207	1.244	10.309	10	3
Octane	0.593	0.625	10.547	10	5
trans-1,3-Dichloropropene	0.466	0.495	10.636	10	6
Ethyl Methacrylate	0.501	0.559	11.154	10	12
1,1,2-Trichloroethane	0.403	0.430	10.649	10	6
Tetrachloroethene	0.711	0.751	10.564	10	6
2-Hexanone	0.508	0.535	10.526	10	5
Dibromochloromethane	0.525	0.563	10.717	10	7
1,2-Dibromoethane	0.632	0.673	10.645	10	6
Chlorobenzene	1.035	1.053	10.174	10	2
1,1,1,2-Tetrachloroethane	0.520	0.562	10.813	10	8
Ethylbenzene	1.547	1.604	10.367	10	4
m/p-Xylene	1.222	1.269	10.390	10	4
o-Xylene	1.184	1.194	10.082	10	1
Styrene	0.896	0.931	10.400	10	4
Bromoform	0.664	0.705	10.618	10	6
Cumene	1.666	1.697	10.186	10	2
Bromobenzene	0.638	0.632	9.903	10	-1
1,1,2,2-Tetrachloroethane	0.781	0.776	9.940	10	-1
1,2,3-Trichloropropane	0.261	0.257	9.858	10	-1
n-Propylbenzene	0.509	0.507	9.969	10	0

* 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: ed00051.d

Calibration Date: 04/05/2017

Instrument ID: 22820

Calibration Time: 12:02

Init. Calib. Date(s): 04/03/2017 - 04/04/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.458	0.454	9.892	10	-1
4-Ethyltoluene	1.645	1.674	10.175	10	2
1,3,5-Trimethylbenzene	1.367	1.331	9.731	10	-3
Alpha Methyl Styrene	0.651	0.656	10.070	10	1
tert-Butylbenzene	1.347	1.325	9.839	10	-2
1,2,4-Trimethylbenzene	1.294	1.300	10.049	10	0
sec-Butylbenzene	1.896	1.927	10.162	10	2
1,3-Dichlorobenzene	0.979	0.967	9.885	10	-1
1,4-Dichlorobenzene	0.993	0.983	9.903	10	-1
p-Isopropyltoluene	1.610	1.617	10.046	10	0
Benzyl Chloride	0.855	0.915	10.708	10	7
1,2-Dichlorobenzene	0.883	0.859	9.730	10	-3
n-Butylbenzene	1.335	1.332	9.977	10	0
Hexachloroethane	0.376	0.429	11.419	10	14
1,2-Dibromo-3-chloropropane	0.345	0.330	9.546	10	-5
1,2,4-Trichlorobenzene	0.530	0.467	8.823	10	-12
Hexachlorobutadiene	0.476	0.419	8.803	10	-12
Naphthalene	0.961	0.822	8.559	10	-14

* 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/HP22820.i/17mar30.b/ec00847.d
/chem/HP22820.i/17mar30.b/ec00848.d
/chem/HP22820.i/17mar30.b/ec00849.d
/chem/HP22820.i/17mar30.b/ec00850.d
/chem/HP22820.i/17mar30.b/ec00851.d
/chem/HP22820.i/17mar30.b/ec00852.d

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

Current Continuing Calibration Standard:

/chem/HP22820.i/17apr05.b/ed00051.d

Area Summary

Internal Standard Name	File ID: ed00051.d	ICAL Area	Low Limit	High Limit	In Spec
Bromochloromethane	226272	245924	147554	344294	Yes
1,4-Difluorobenzene	834510	923403	554042	1292764	Yes
Chlorobenzene-d5	830573	904857	542914	1266800	Yes

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

RT Summary

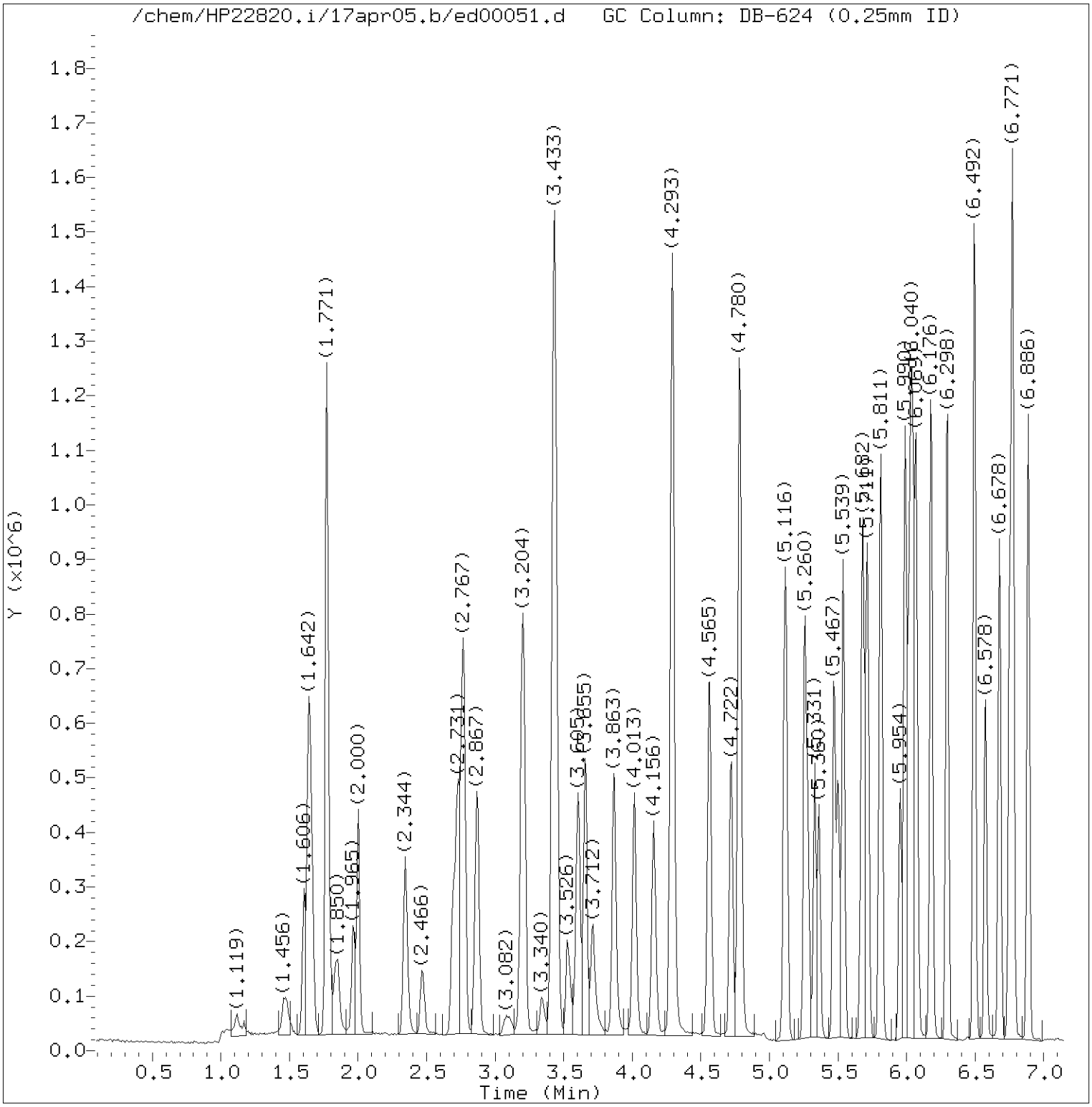
Internal Standard Name	File ID: ed00051.d	ICAL RT	In Spec
Bromochloromethane	5.474	5.468	Yes
1,4-Difluorobenzene	6.298	6.297	Yes
Chlorobenzene-d5	8.497	8.497	Yes

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

Comments:_____

_____

Report generated on 04/05/2017 at 12:22



Total Ion Chromatogram (TIC)

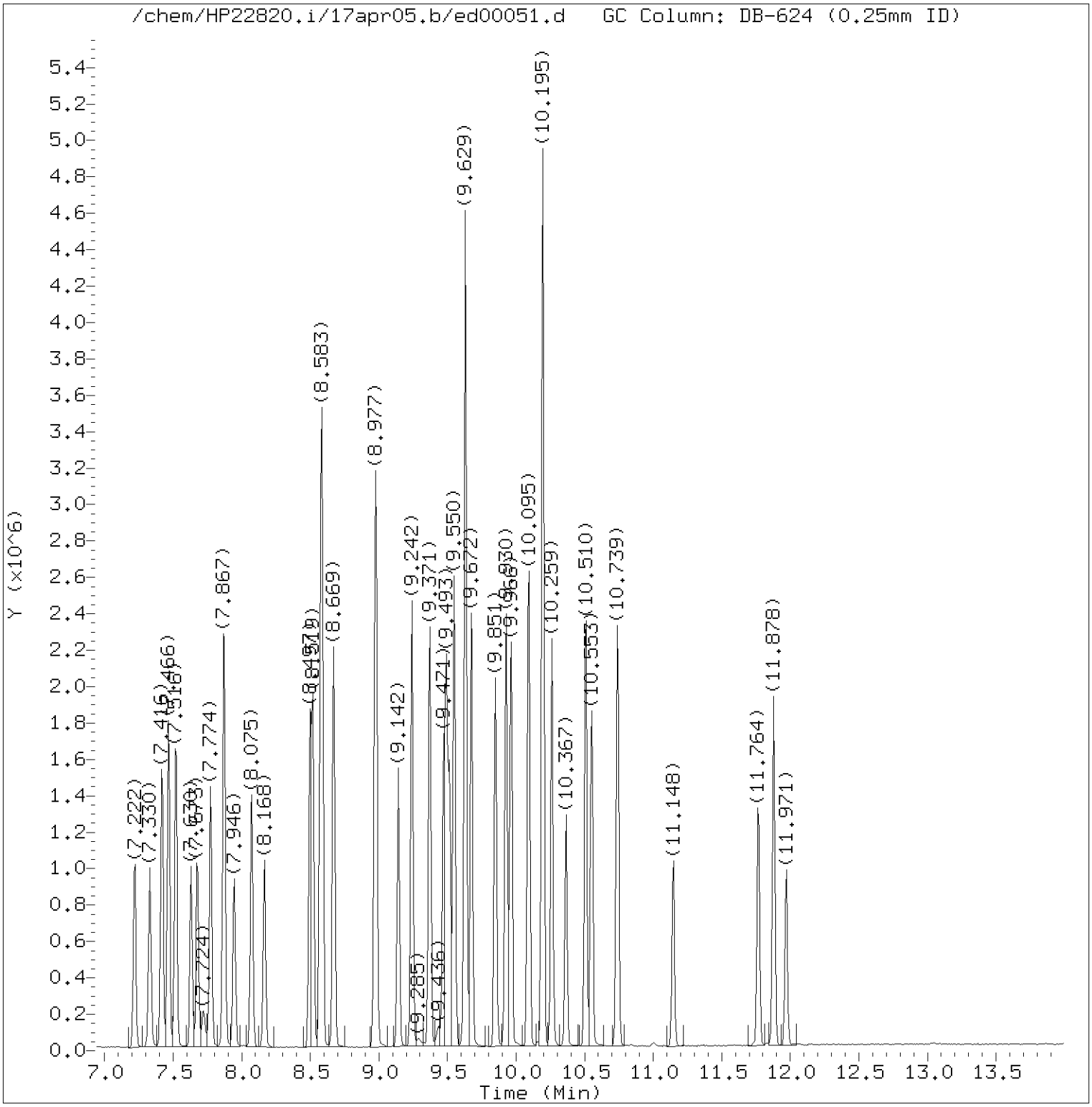
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.606	41	150880	10.621
2)	Dichlorodifluoromethane	(1)	1.642	85	633967	11.127
3)	Chlorodifluoromethane	(1)	1.664	51	326712	11.017
4)	Freon 114	(1)	1.771	85	660250	11.066
5)	Chloromethane	(1)	1.850	50	158139	10.344
6)	Vinyl Chloride	(1)	1.965	62	232125	10.828
7)	1,3-Butadiene	(1)	2.000	54	167685	10.642
8)	Bromomethane	(1)	2.344	94	265618	12.110
9)	Chloroethane	(1)	2.466	64	125991	10.548
10)	Bromoethene	(1)	2.695	106	260063	10.901
11)	Dichlorofluoromethane	(1)	2.731	67	522785	11.182
12)	Trichlorofluoromethane	(1)	2.767	101	683610	11.151
13)	Pentane	(1)	2.867	43	340047	10.607
14)	Ethanol	(1)	3.075	45	59229	11.007
15)	Freon123a	(1)	3.204	67	486620	10.733
16)	Acrolein	(1)	3.340	56	84813	10.266
17)	1,1-Dichloroethene	(1)	3.426	61	372776	11.247
18)	Freon 113	(1)	3.433	103	385266	10.671
19)	Acetone	(1)	3.526	43	285373	11.107
20)	Methyl Iodide	(1)	3.605	142	611338	9.072
21)	Carbon Disulfide	(1)	3.655	76	729704	11.113
22)	Isopropanol	(1)	3.712	45	323659	14.164
24)	3-Chloropropene	(1)	3.863	76	123183	12.398
23)	Acetonitrile	(1)	3.870	40	120573	10.124
25)	Methylene Chloride	(1)	4.013	84	239601	12.259
26)	tert-Butyl Alcohol	(1)	4.156	59	495884	13.157
28)	trans-1,2-Dichloroethene	(1)	4.293	61	339318	11.038
29)	Methyl t-Butyl Ether	(1)	4.293	73	706813	10.604
27)	Acrylonitrile	(1)	4.300	53	182560	10.671
30)	Hexane	(1)	4.558	57	345908	10.392
31)	1,1-Dichloroethane	(1)	4.722	63	435846	10.782
32)	Vinyl Acetate	(1)	4.780	86	76696	14.005
33)	Di-Isopropyl Ether	(1)	4.780	45	698281	10.842
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	722470	10.714
35)	cis-1,2-Dichloroethene	(1)	5.260	61	323122	11.028
37)	2-Butanone	(1)	5.281	72	127740	10.860
38)	Ethyl Acetate	(1)	5.331	70	64446	10.202
39)	Methyl Acrylate	(1)	5.360	55	384010	10.813

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	226272	10.000
41) Tetrahydrofuran	(1)	5.503	42	228757	10.796
42) Chloroform	(1)	5.539	83	553657	10.869
43) 1,1,1-Trichloroethane	(1)	5.682	97	566292	10.993
44) Cyclohexane	(1)	5.711	56	364226	10.444
45) Carbon Tetrachloride	(1)	5.811	117	591405	11.057
46) Benzene	(2)	5.990	78	834254	10.776
47) 1,2-Dichloroethane	(2)	6.012	62	330868	11.345
48) Isooctane	(2)	6.040	57	1153832	10.833
49) Tert-Amyl Methyl Ether	(2)	6.069	73	772350	10.996
50) Heptane	(2)	6.176	43	380957	10.802
51)*1,4-Difluorobenzene	(2)	6.298	114	834510	10.000
52) Trichloroethene	(2)	6.492	130	441239	11.060
53) Ethyl Acrylate	(2)	6.578	55	492886	10.947
36) 1,2-Dichloroethene (total)	(1)		61	662440	22.065
54) 1,2-Dichloropropane	(2)	6.678	63	280249	10.580
57) Methyl Methacrylate	(2)	6.749	69	277775	10.762
55) Dibromomethane	(2)	6.771	174	429818	10.945
56) 1,4-Dioxane	(2)	6.778	88	192272	10.363
58) Bromodichloromethane	(2)	6.886	83	565800	11.208
59) cis-1,3-Dichloropropene	(2)	7.222	75	480061	10.698
60) 4-Methyl-2-Pentanone	(2)	7.330	43	492497	10.953
61) Toluene	(3)	7.466	91	1033536	10.309
62) Octane	(3)	7.516	43	519082	10.547
63) trans-1,3-Dichloropropene	(3)	7.630	75	411226	10.636
65) Ethyl Methacrylate	(3)	7.673	69	464199	11.154
66) 1,1,2-Trichloroethane	(3)	7.774	97	356751	10.649
67) Tetrachloroethene	(3)	7.874	166	623456	10.564
68) 2-Hexanone	(3)	7.946	43	444271	10.526
69) Dibromochloromethane	(3)	8.075	127	467218	10.717
70) 1,2-Dibromoethane	(3)	8.168	107	558866	10.645
71)*Chlorobenzene-d5	(3)	8.497	117	830573	10.000
72) Chlorobenzene	(3)	8.519	112	874694	10.174
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	467191	10.813
74) Ethylbenzene	(3)	8.583	91	1331918	10.367
75) m/p-Xylene	(3)	8.669	91	1054304	10.390
76) o-Xylene	(3)	8.970	91	991505	10.082
78) Styrene	(3)	8.984	104	773678	10.400

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

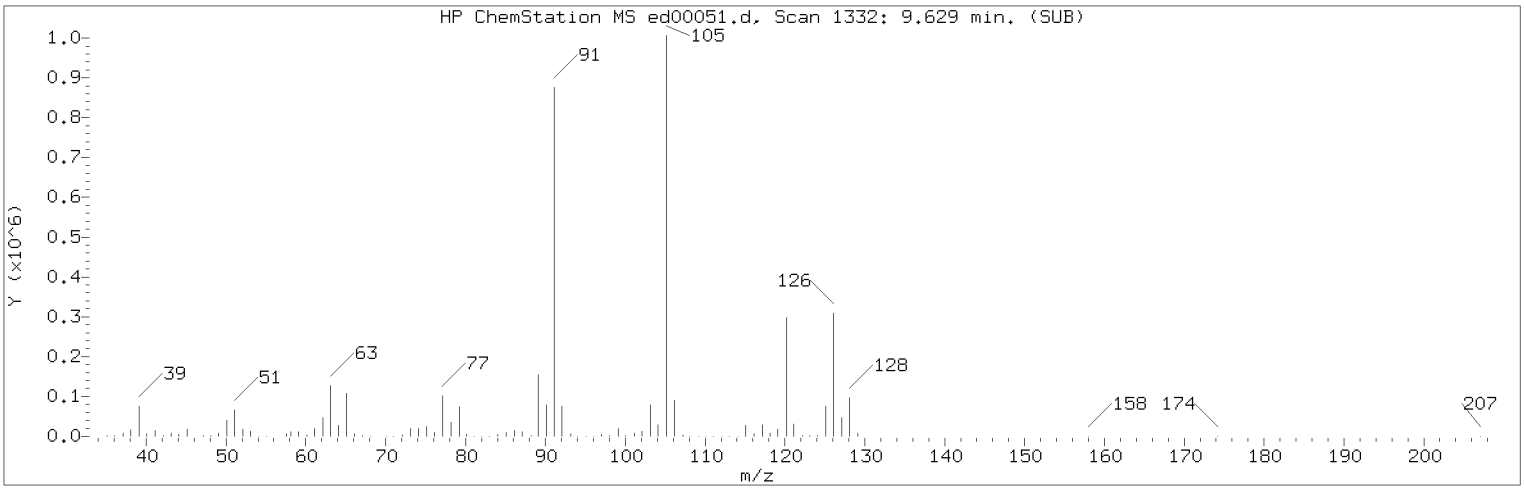
Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79)	Bromoform	(3)	9.142	173	585436	10.618
80)	Cumene	(3)	9.242	105	1409848	10.186
82)	1,1,2,2-Tetrachloroethane	(3)	9.471	83	644926	9.940
81)	Bromobenzene	(3)	9.493	156	524922	9.903
83)	1,2,3-Trichloropropane	(3)	9.514	110	213585	9.858
84)	n-Propylbenzene	(3)	9.550	120	421311	9.969
86)	4-Ethyltoluene	(3)	9.629	105	1390536M	10.175
85)	2-Chlorotoluene	(3)	9.629	126	376703	9.892
87)	1,3,5-Trimethylbenzene	(3)	9.672	105	1105230M	9.731
88)	Alpha Methyl Styrene	(3)	9.851	118	544700	10.070
89)	tert-Butylbenzene	(3)	9.930	119	1100870M	9.839
90)	1,2,4-Trimethylbenzene	(3)	9.966	105	1079666	10.049
91)	sec-Butylbenzene	(3)	10.095	105	1600185	10.162
92)	1,3-Dichlorobenzene	(3)	10.195	146	803532	9.885
94)	p-Isopropyltoluene	(3)	10.195	119	1343217	10.046
93)	1,4-Dichlorobenzene	(3)	10.259	146	816798	9.903
95)	Benzyl Chloride	(3)	10.367	91	760384M	10.708
97)	n-Butylbenzene	(3)	10.510	91	1106090	9.977
96)	1,2-Dichlorobenzene	(3)	10.553	146	713771	9.730
98)	Hexachloroethane	(3)	10.739	117	356316	11.419
99)	1,2-Dibromo-3-chloropropane	(3)	11.148	157	273932	9.546
100)	1,2,4-Trichlorobenzene	(3)	11.764	180	388271	8.823
101)	Hexachlorobutadiene	(3)	11.878	225	347930	8.803
102)	Naphthalene	(3)	11.971	128	683027	8.559
64)	1,3-Dichloropropene (total)	(3)		75	891287	21.166
77)	Xylene (total)	(3)		91	2045809	20.477

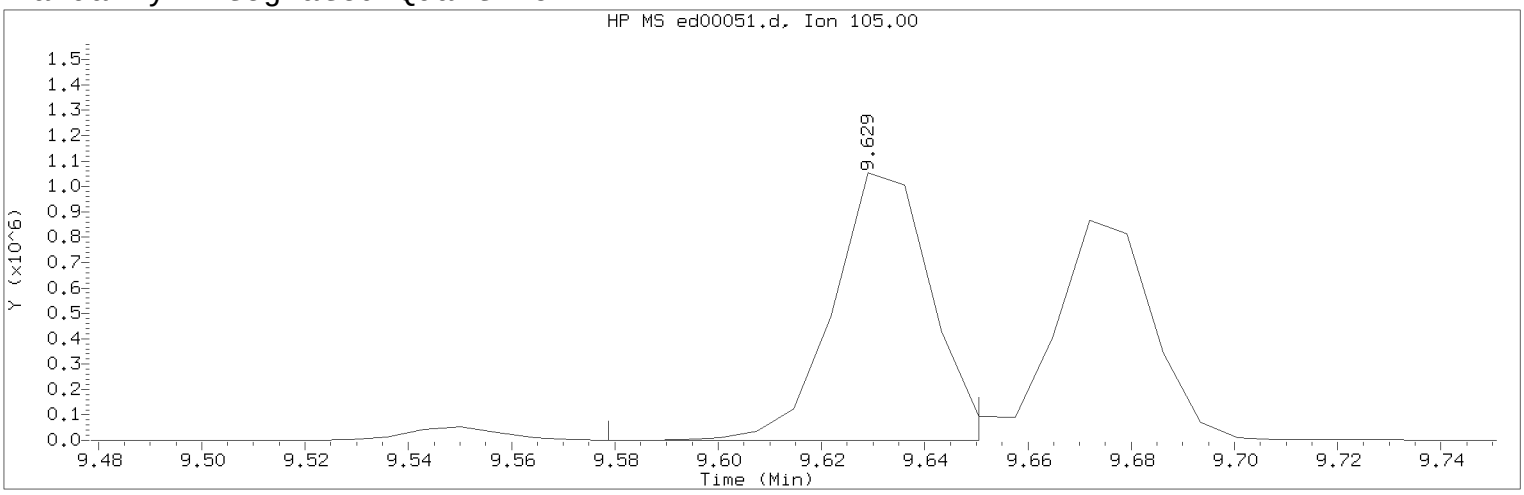
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

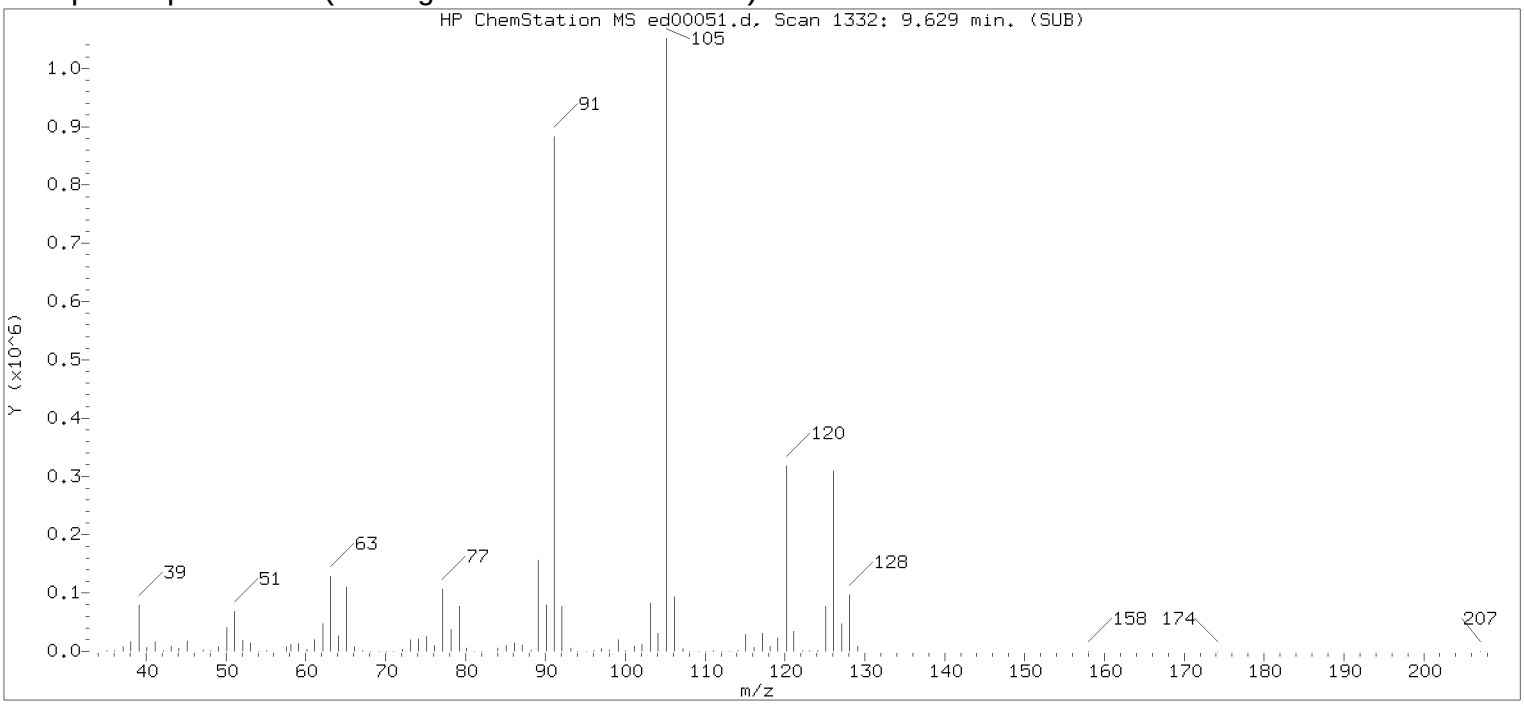
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1390536M
Concentration (ppb(v)) : 10.1753
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 153 Y at integration end: 153

Reason for manual integration: improper integration

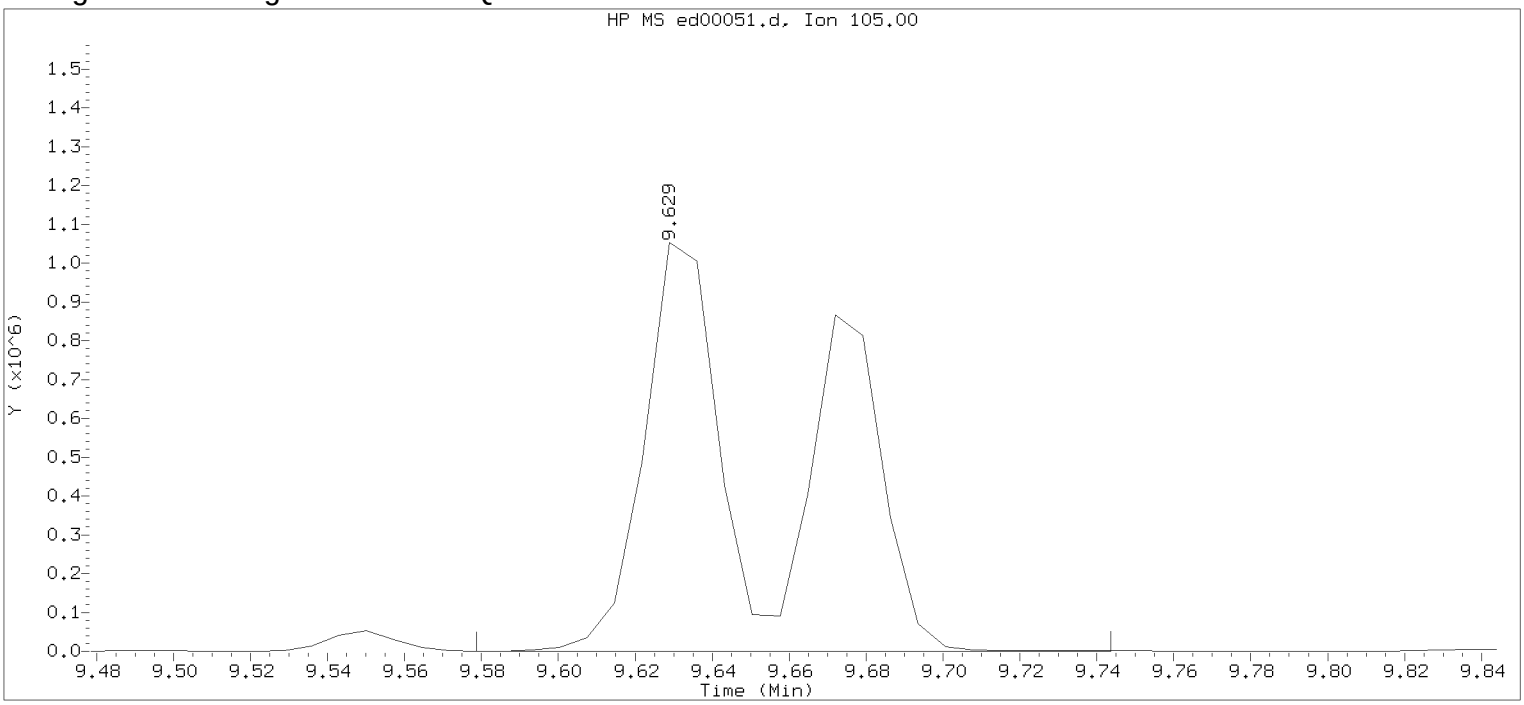
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

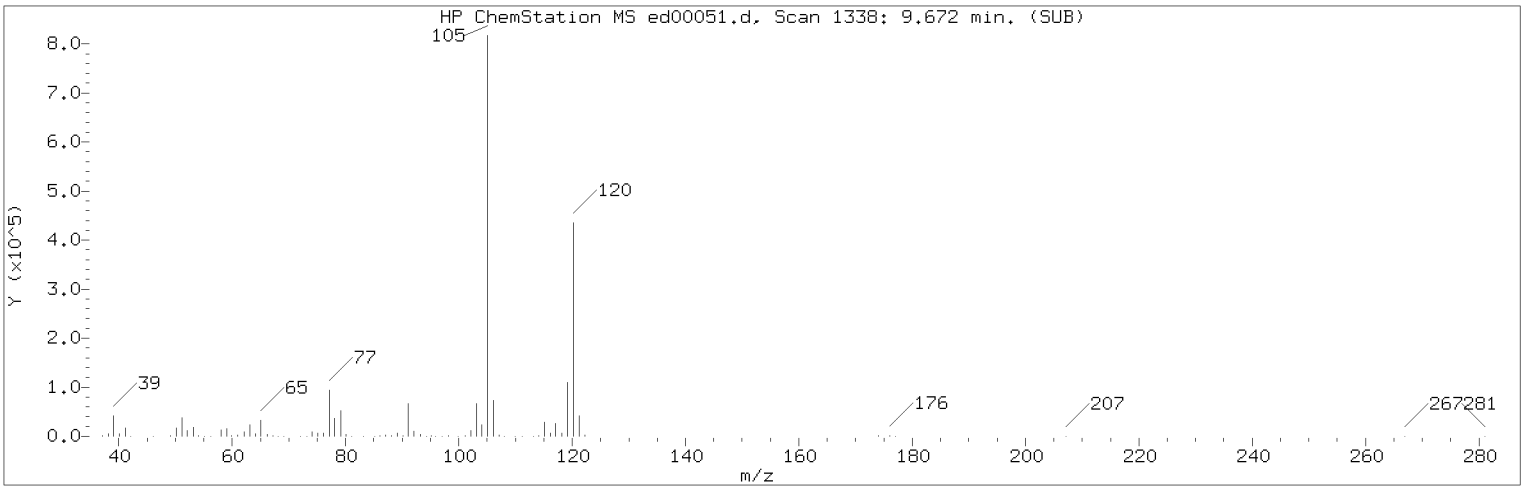
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 04-APR-2017 11:56
Date, time and analyst ID of latest file update: 05-Apr-2017 12:22 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

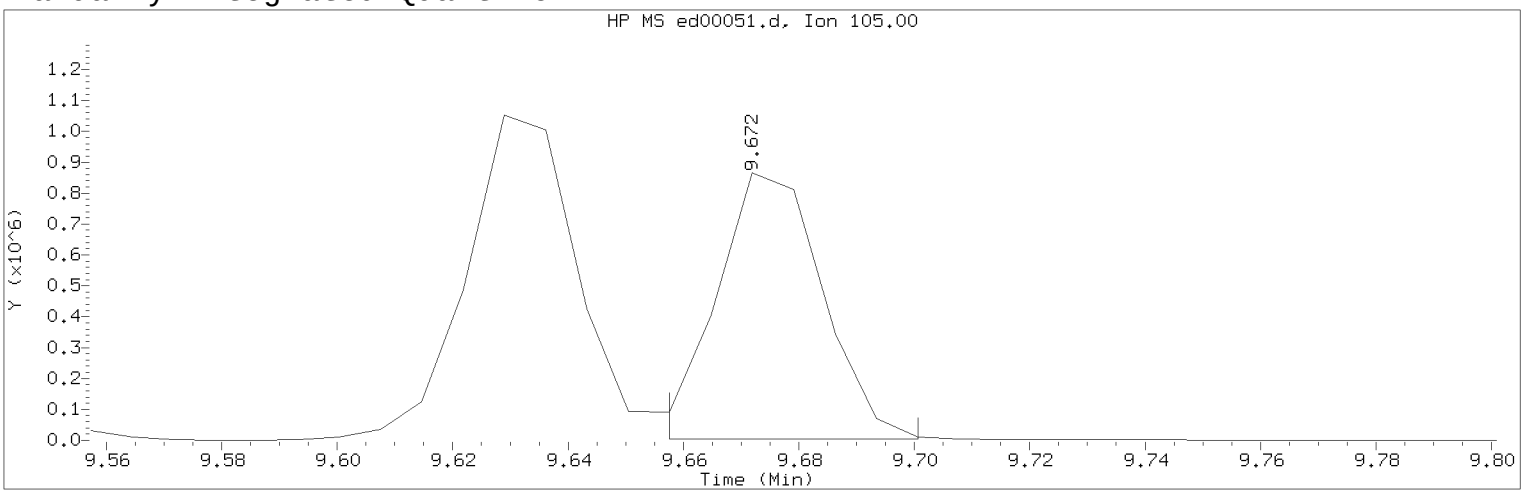
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2511458
Concentration (ppb(v)) : 18.3777
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 153 Y at integration end: 153

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

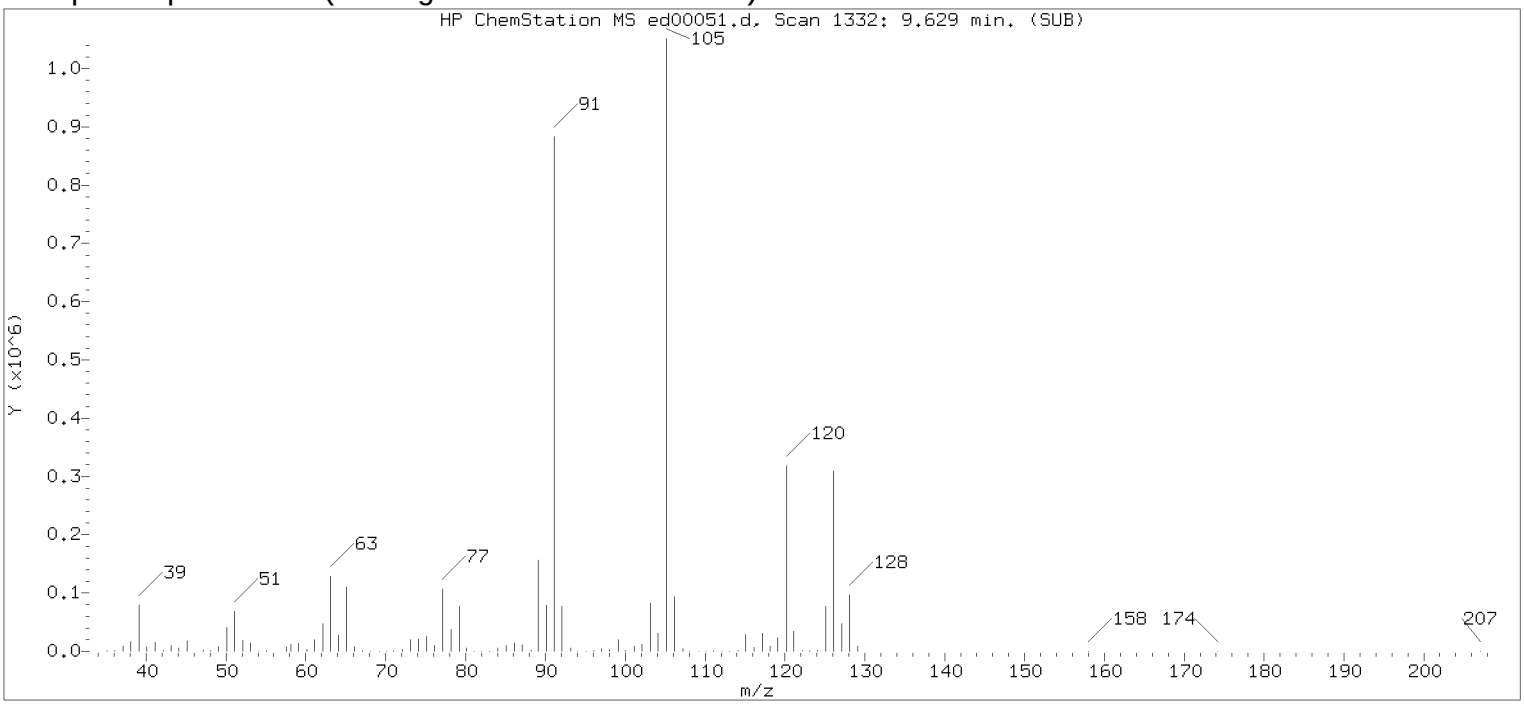
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1105230M
Concentration (ppb(v)) : 9.7308
Integration start scan : 1335 Integration stop scan: 1341
Y at integration start : 4090 Y at integration end: 4090

Reason for manual integration: improper integration

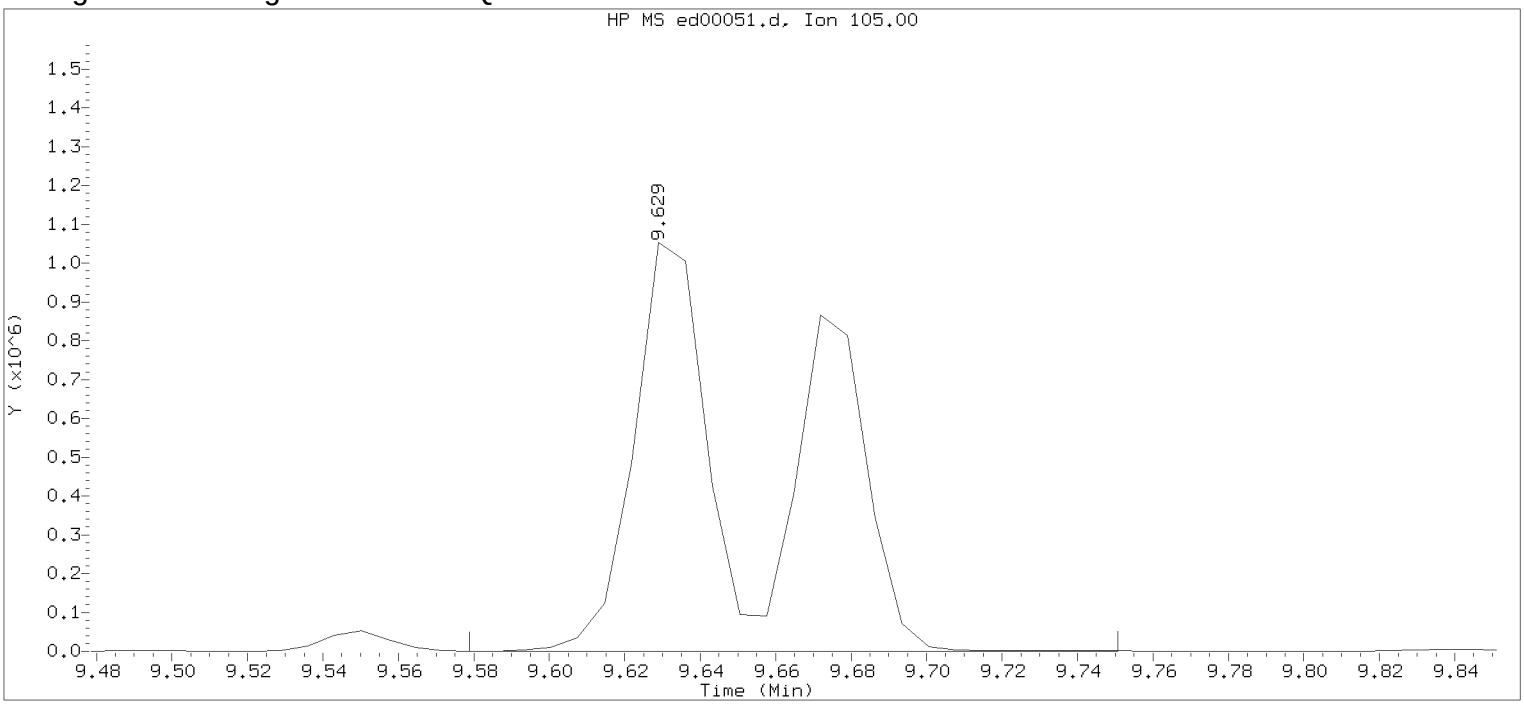
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

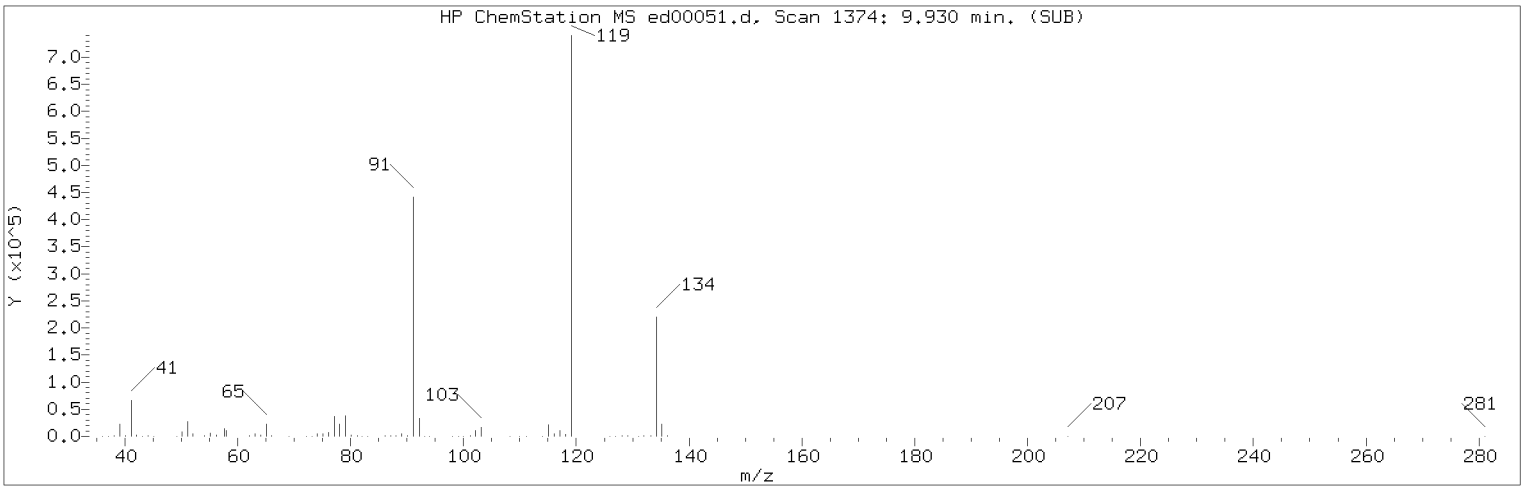
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 04-APR-2017 11:56
Date, time and analyst ID of latest file update: 05-Apr-2017 12:22 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

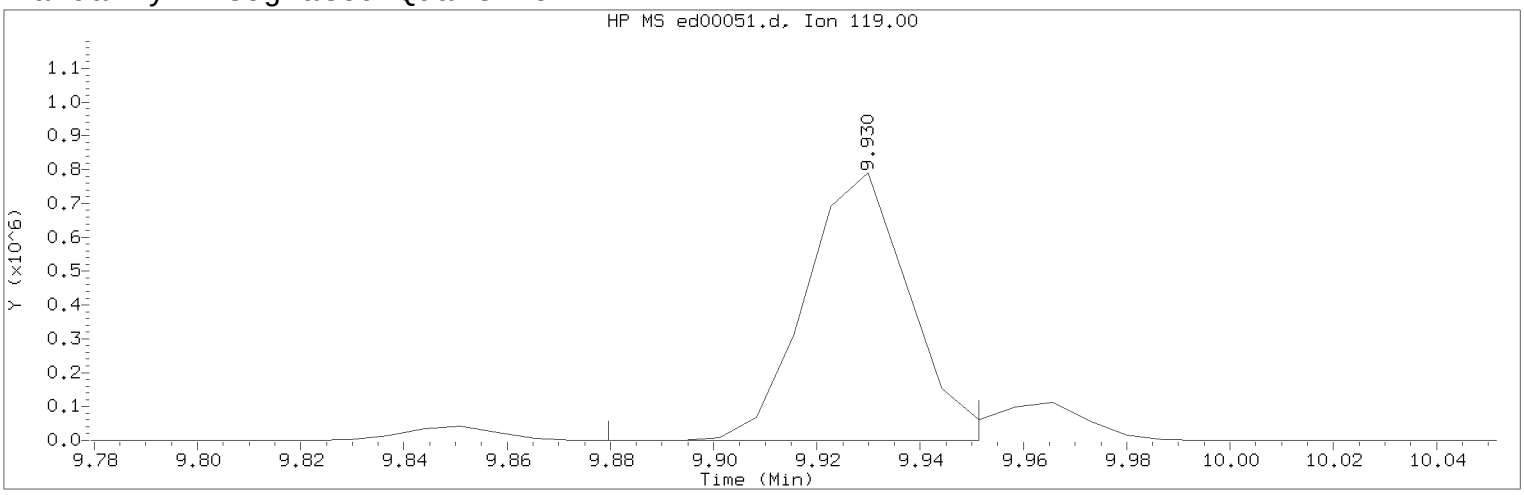
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2510647
Concentration (ppb(v)) : 22.1046
Integration start scan : 1324 Integration stop scan: 1348
Y at integration start : 269 Y at integration end: 269

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

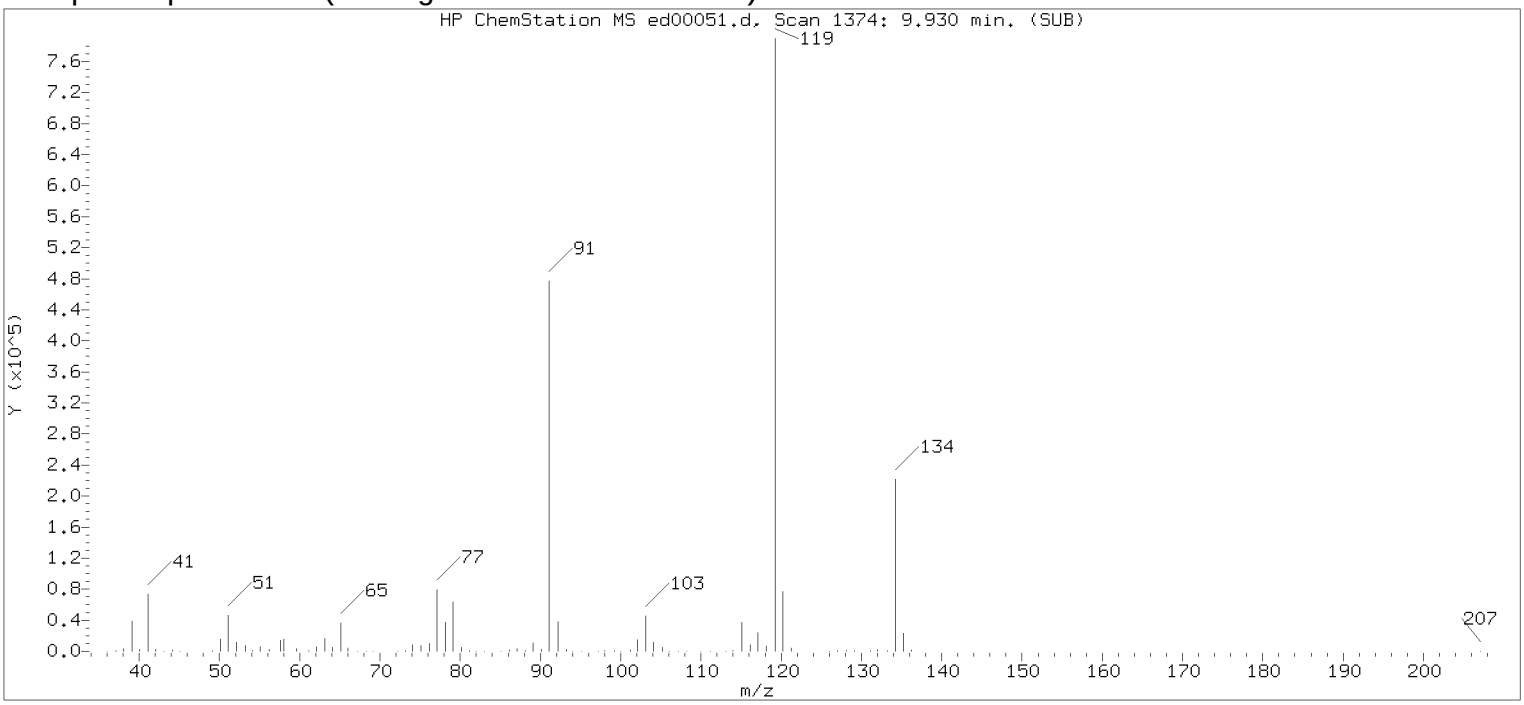
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area (flag) : 1100870M
Concentration (ppb(v)) : 9.8391
Integration start scan : 1366 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

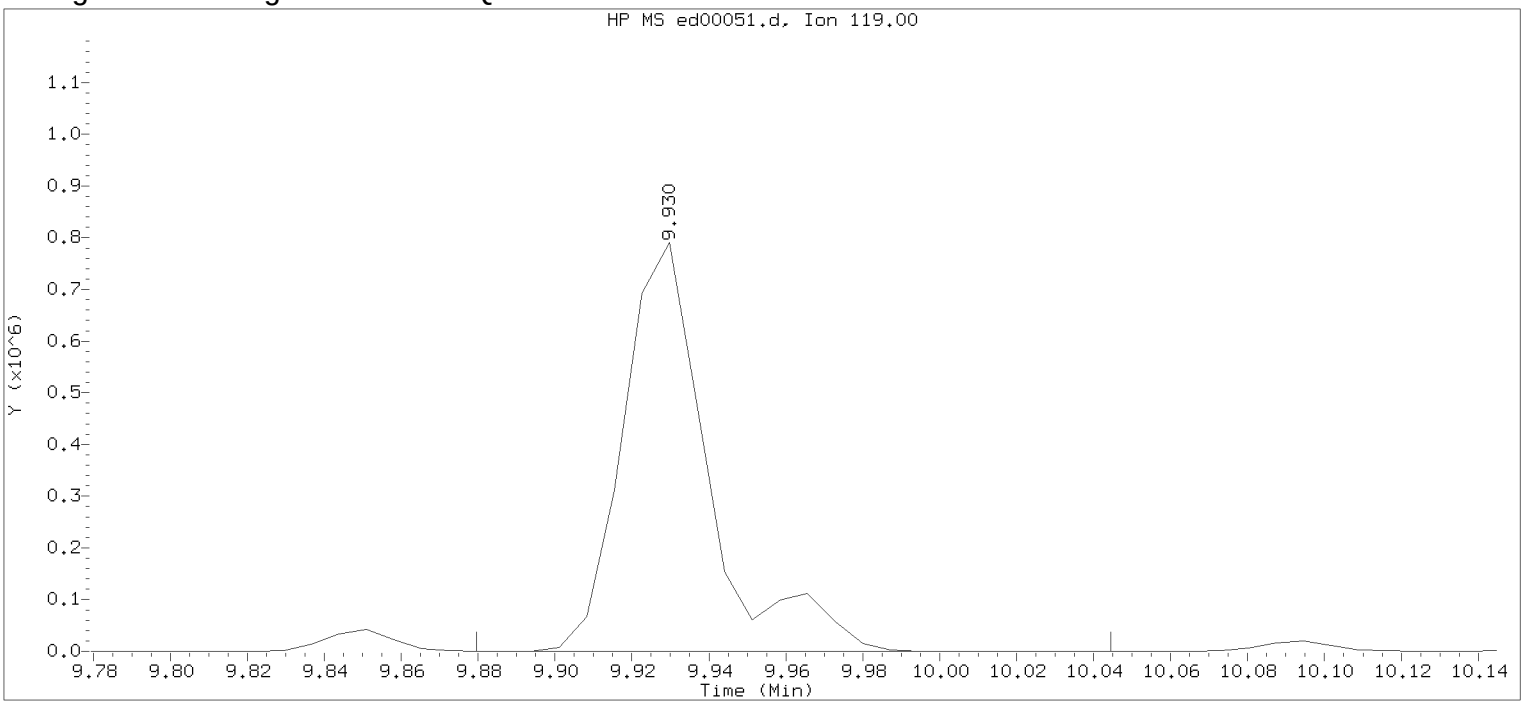
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

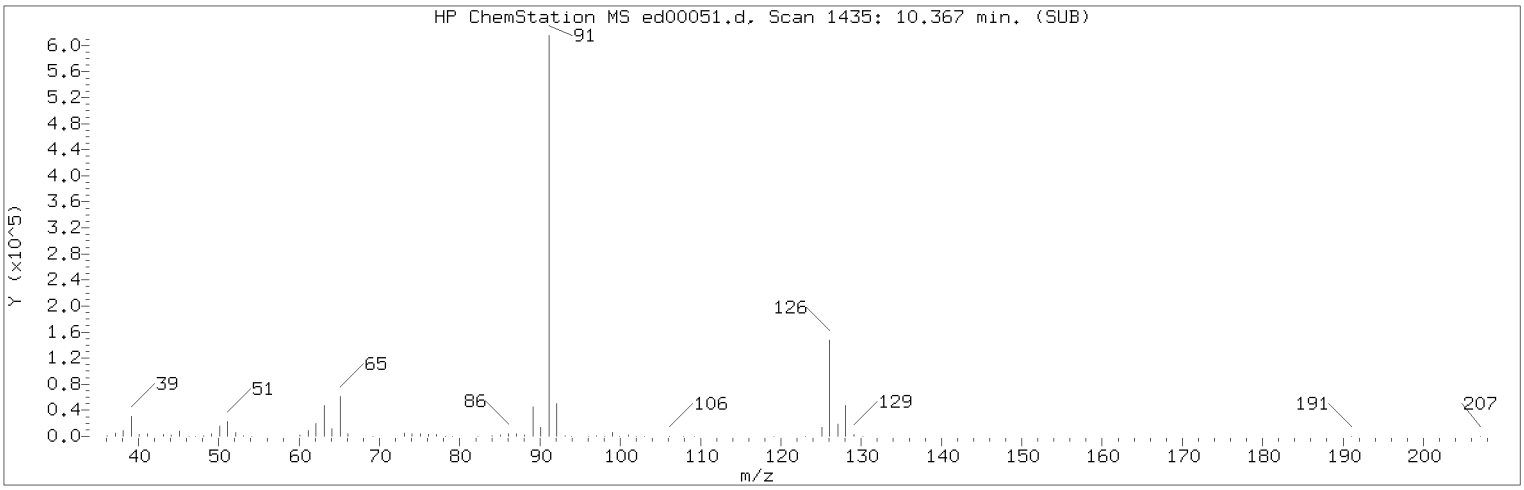
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 04-APR-2017 11:56
Date, time and analyst ID of latest file update: 05-Apr-2017 12:22 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

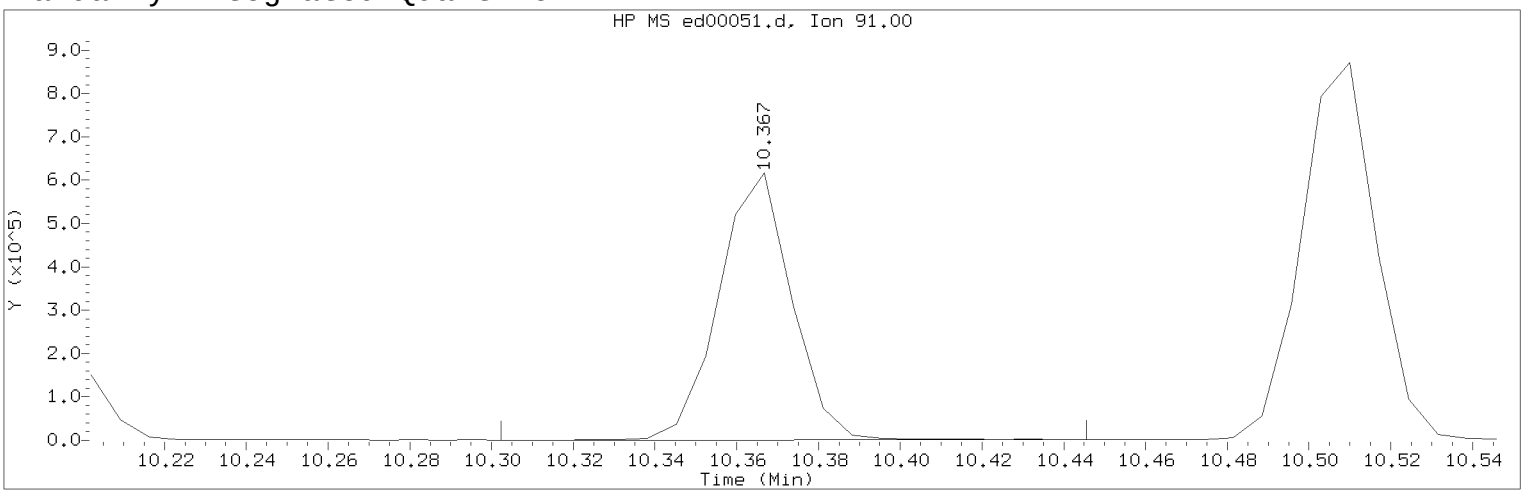
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area : 1224790
Concentration (ppb(v)) : 10.9466
Integration start scan : 1366 Integration stop scan: 1389
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:41 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

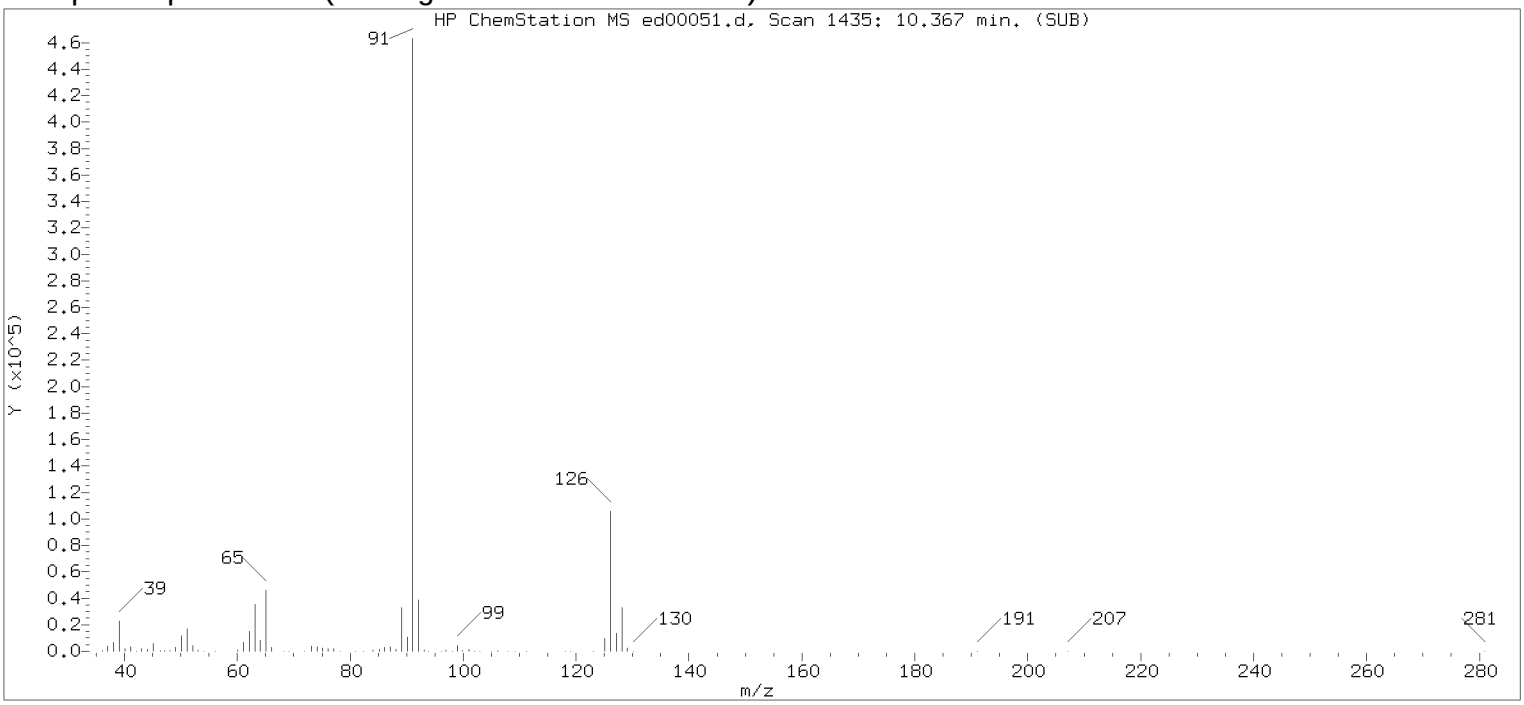
Compound Number : 95
Compound Name : Benzyl Chloride
Scan Number : 1435
Retention Time (minutes): 10.367
Quant Ion : 91.00
Area (flag) : 760384M
Concentration (ppb(v)) : 10.7079
Integration start scan : 1425 Integration stop scan: 1445
Y at integration start : 579 Y at integration end: 1250

Reason for manual integration: improper integration

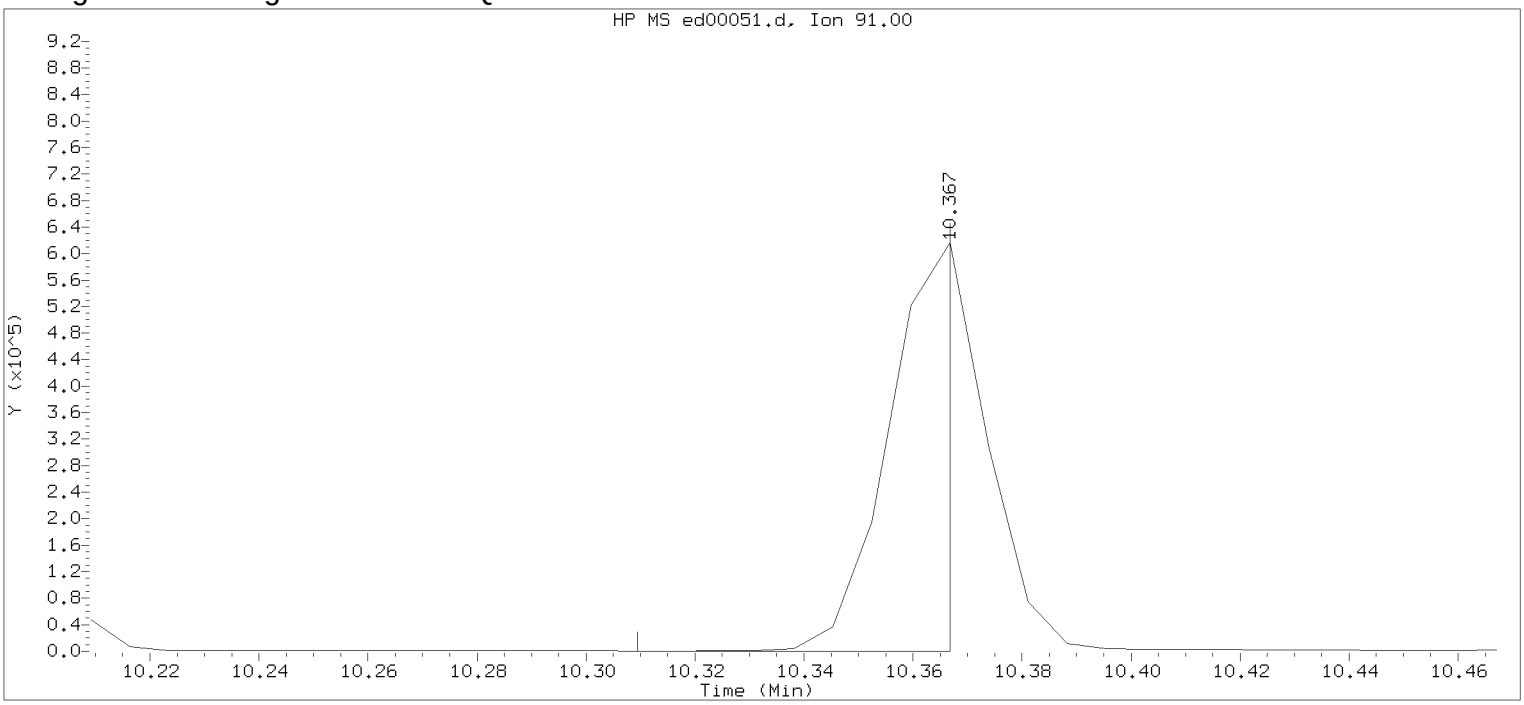
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00051.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 12:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 04-APR-2017 11:56
Date, time and analyst ID of latest file update: 05-Apr-2017 12:22 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 95
Compound Name : Benzyl Chloride
Scan Number : 1435
Retention Time (minutes): 10.367
Quant Ion : 91.00
Area : 457531
Concentration (ppb(v)) : 6.4431
Integration start scan : 1426 Integration stop scan: 1434
Y at integration start : 462 Y at integration end: 462

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:42.
Target 3.5 esignature user id: jeb07445

Raw QC Data

Volatile Organics in Air by GC/MS

Data File: /chem/HP22820.i/17mar30.b/ec00840.d

Date : 30-MAR-2017 16:00

Client ID: 50NGBFB

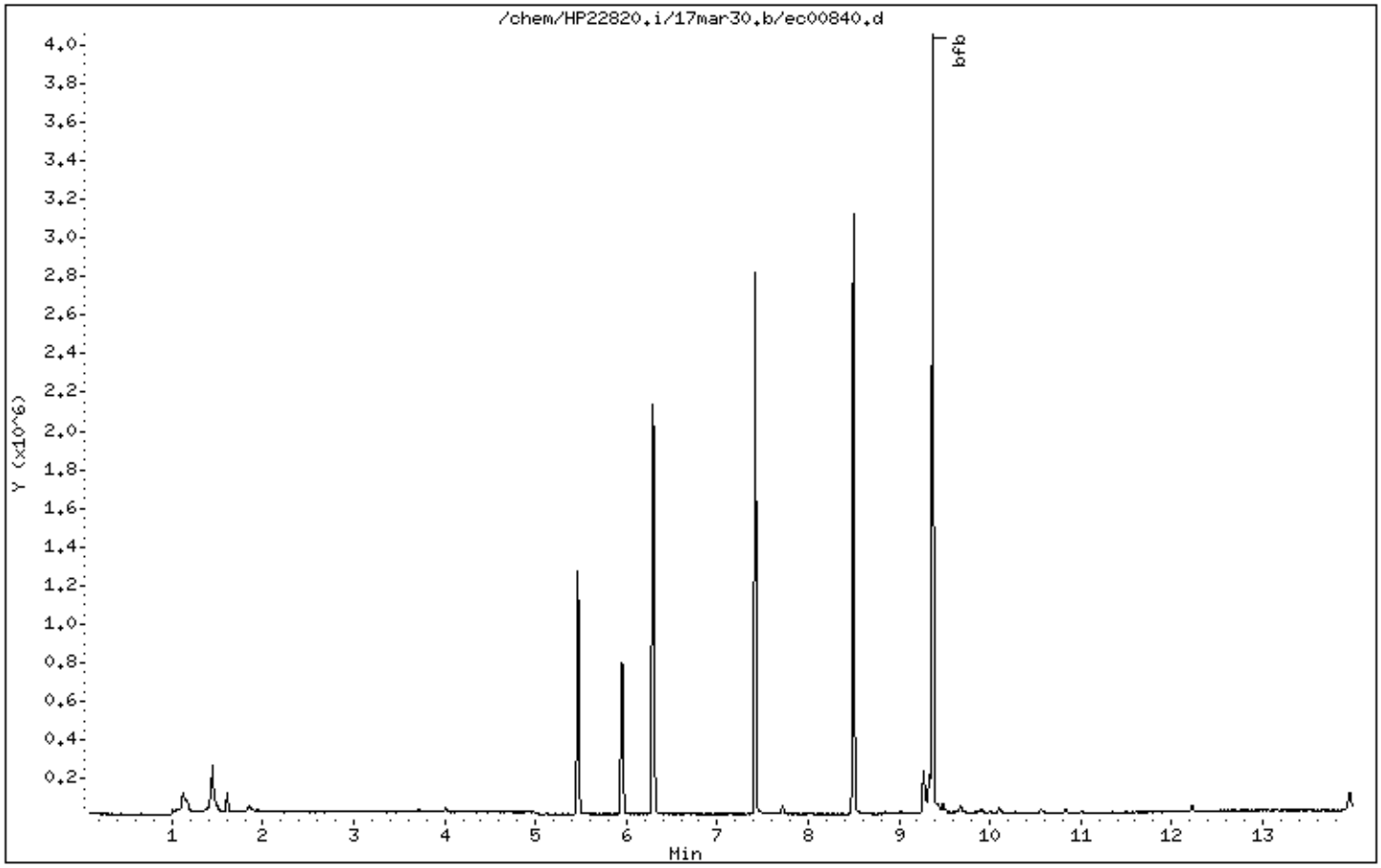
Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Data File: /chem/HP22820.i/17mar30.b/ec00840.d

Date : 30-MAR-2017 16:00

Client ID: 50NGBFB

Instrument: HP22820.i

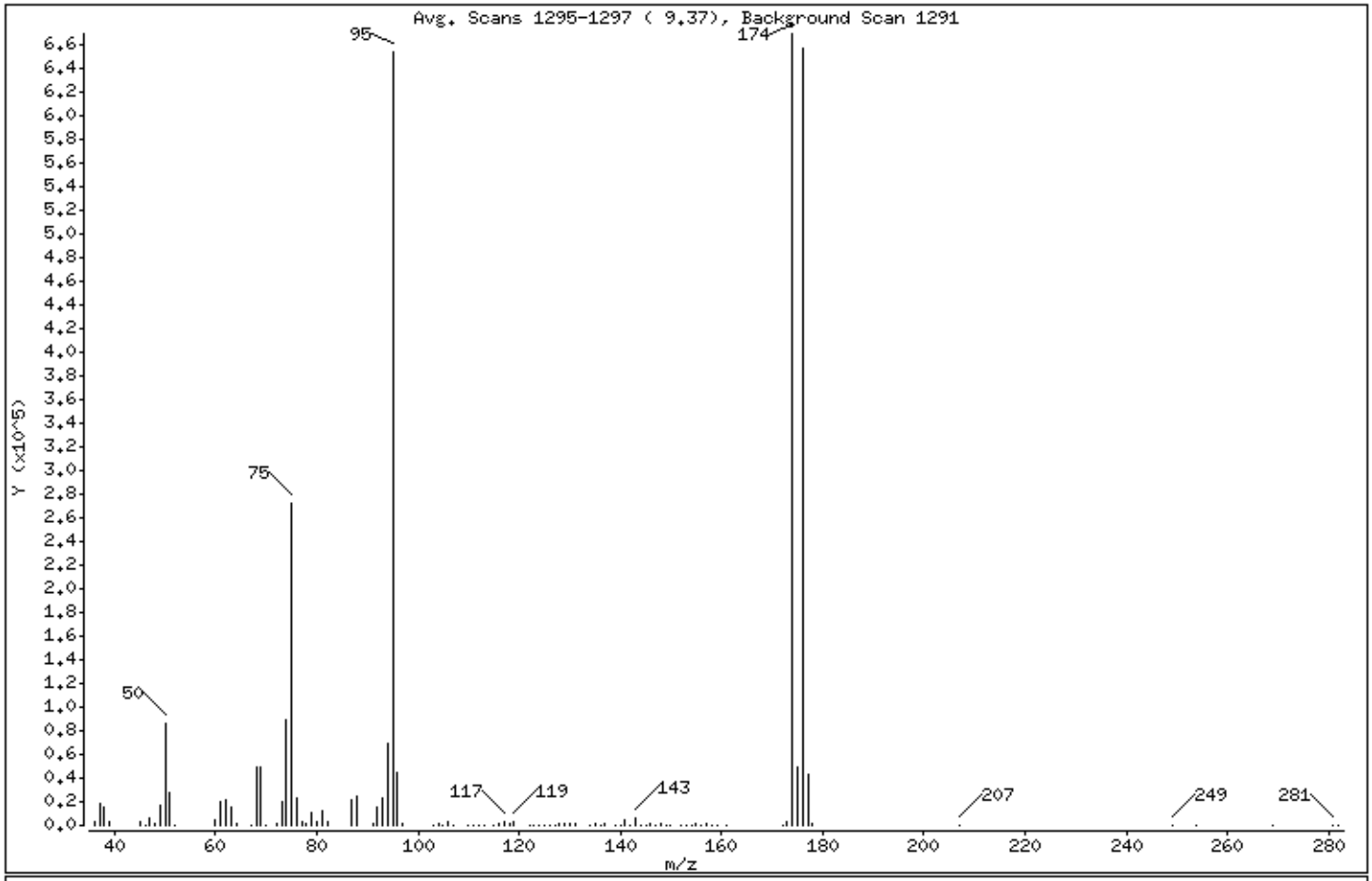
Sample Info: 50NGBFB;;;50NGBFB;;;;

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	13.11
75	30.00 - 66.00% of mass 95	41.74
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.57 (0.56)
174	50.00 - 120.00% of mass 95	102.47
175	4.00 - 9.00% of mass 174	7.42 (7.24)
176	93.00 - 101.00% of mass 174	100.52 (98.10)
177	5.00 - 9.00% of mass 176	6.66 (6.63)

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Data File: /chem/HP22820.i/17mar30.b/ec00840.d

Date : 30-MAR-2017 16:00

Client ID: 50NGBFB Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: ec00840.d
Spectrum: Avg. Scans 1295-1297 (9.37), Background Scan 1291
Location of Maximum: 174.00
Number of points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2744	77.00	3369	117.00	3687	148.00	1432
37.00	18144	78.00	1929	118.00	2145	149.00	553
38.00	15796	79.00	11355	119.00	2974	150.00	491
39.00	3701	80.00	3298	122.00	180	152.00	248
45.00	2471	81.00	12030	123.00	220	153.00	697
46.00	447	82.00	2384	124.00	361	154.00	703
47.00	6107	87.00	21872	125.00	140	155.00	1687
48.00	2094	88.00	24208	126.00	140	156.00	485
49.00	16808	91.00	1629	127.00	150	157.00	1155
50.00	85704	92.00	15161	128.00	1983	158.00	348
51.00	27816	93.00	23608	129.00	990	159.00	732
52.00	519	94.00	69176	130.00	2267	161.00	524
60.00	4070	95.00	653760	131.00	936	172.00	549
61.00	19608	96.00	44592	134.00	153	173.00	3744
62.00	21928	97.00	816	135.00	790	174.00	669888
63.00	15959	103.00	193	136.00	72	175.00	48528
64.00	1452	104.00	2268	137.00	925	176.00	657152
67.00	530	105.00	662	139.00	246	177.00	43544
68.00	49984	106.00	2412	140.00	394	178.00	1351
69.00	49976	107.00	446	141.00	4092	207.00	148
70.00	767	110.00	281	142.00	634	249.00	82
72.00	1599	111.00	426	143.00	5699	254.00	58
73.00	20368	112.00	265	144.00	457	269.00	65
74.00	89200	113.00	156	145.00	536	281.00	236
75.00	272896	115.00	698	146.00	930	282.00	157
76.00	23360	116.00	2027	147.00	552		

Digitally signed by Alexander D. Sechrist on 03/31/2017 at 09:05.
Target 3.5 esignature user ID: ads07818

Data File: /chem/HP22820.i/17apr05.b/ed00050.d

Date : 05-APR-2017 11:14

Client ID: 50NGBFB

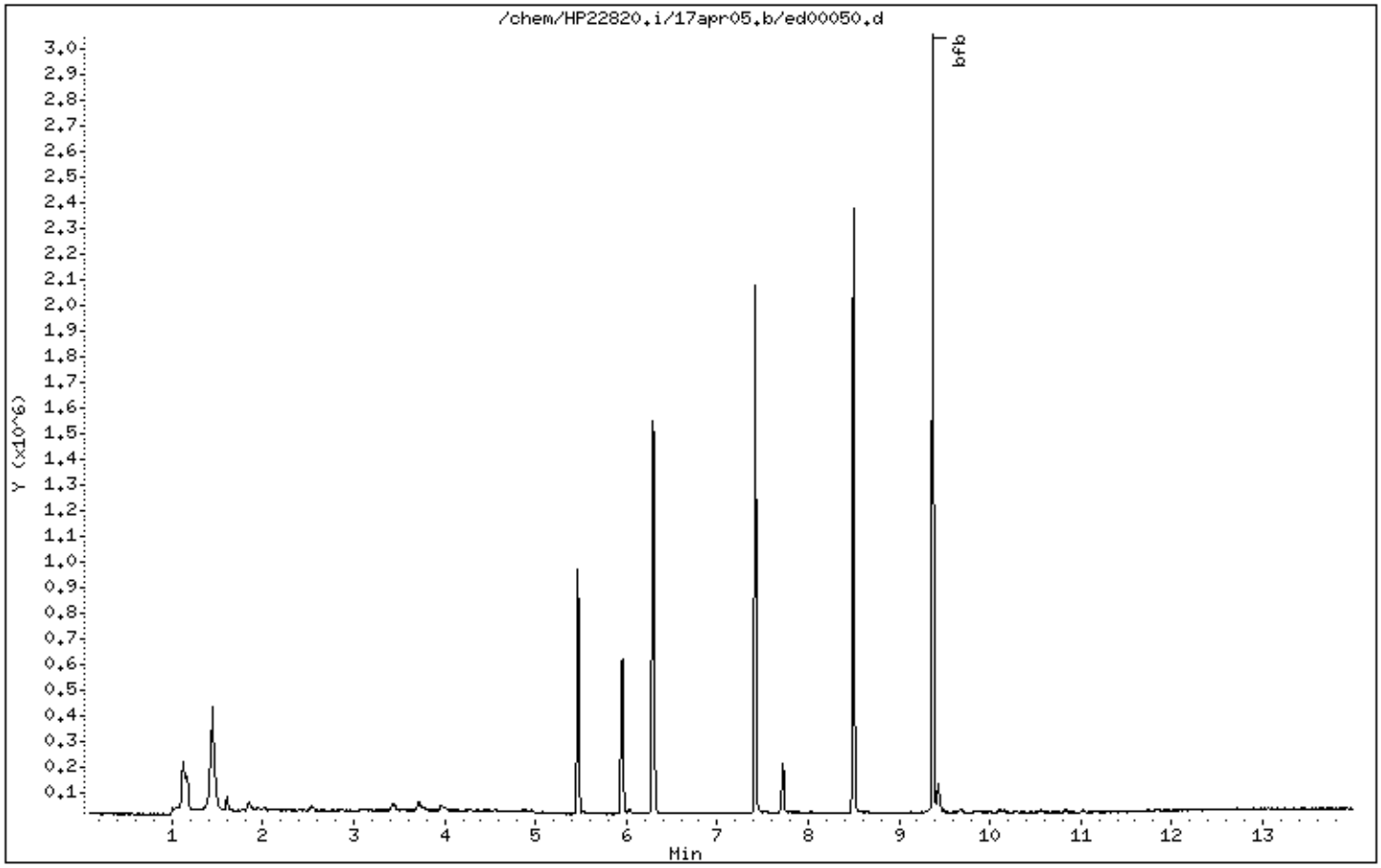
Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP22820.i/17apr05.b/ed00050.d

Date : 05-APR-2017 11:14

Client ID: 50NGBFB

Instrument: HP22820.i

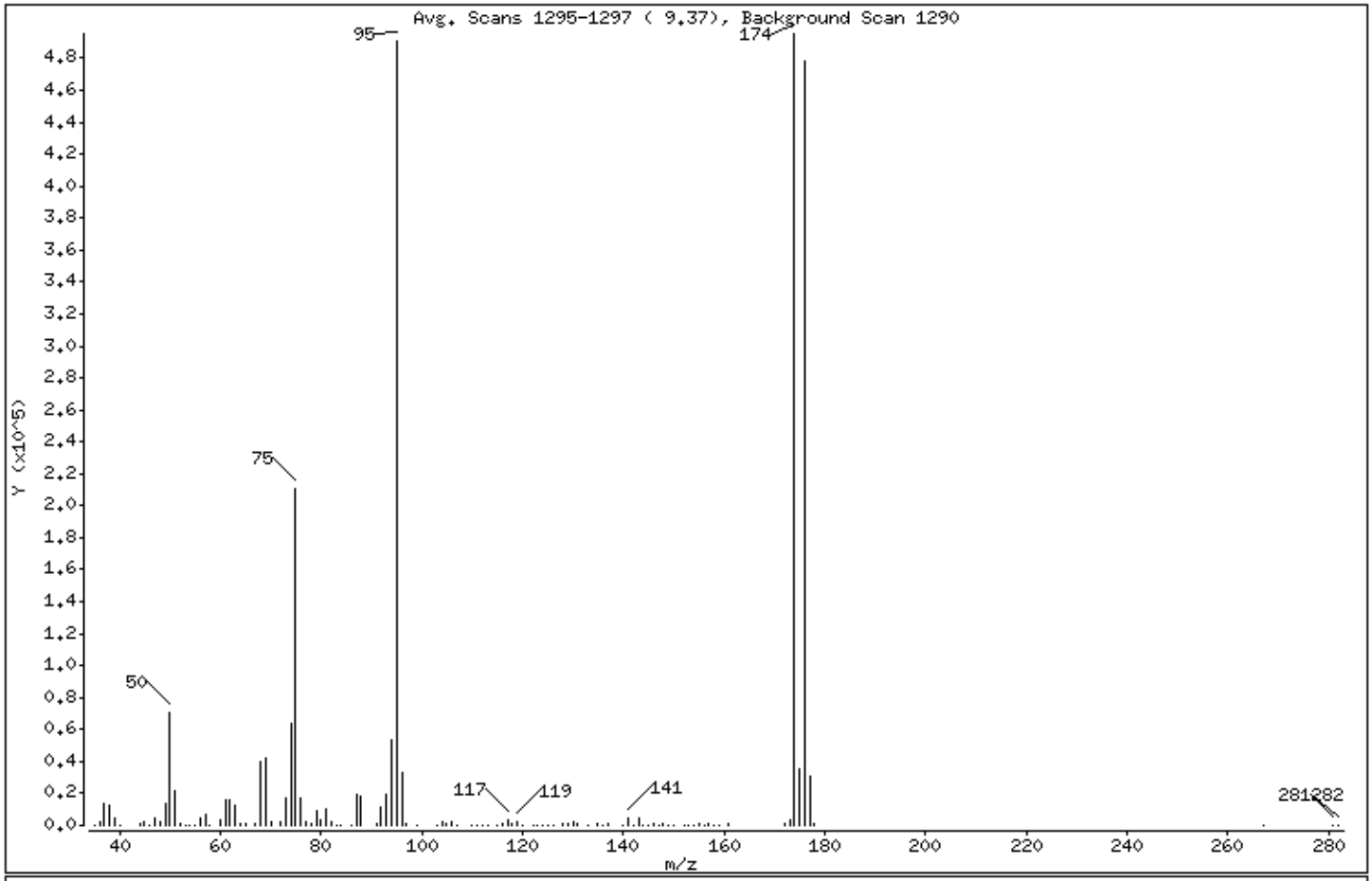
Sample Info: 50NGBFB;;;50NGBFB;;;;

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	14.44
75	30.00 - 66.00% of mass 95	42.94
96	5.00 - 9.00% of mass 95	6.78
173	Less than 2.00% of mass 174	0.62 (0.62)
174	50.00 - 120.00% of mass 95	100.95
175	4.00 - 9.00% of mass 174	7.12 (7.06)
176	93.00 - 101.00% of mass 174	97.51 (96.59)
177	5.00 - 9.00% of mass 176	6.35 (6.52)

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP22820.i/17apr05.b/ed00050.d

Date : 05-APR-2017 11:14

Client ID: 50NGBFB

Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

Data File: ed00050.d
Spectrum: Avg. Scans 1295-1297 (9.37), Background Scan 1290
Location of Maximum: 174.00
Number of points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	53	69.00	41616	106.00	1789	144.00	265
36.00	2194	70.00	2832	107.00	548	145.00	319
37.00	13420	72.00	1817	110.00	221	146.00	712
38.00	12098	73.00	16848	111.00	361	147.00	429
39.00	4804	74.00	64336	112.00	361	148.00	1300
40.00	198	75.00	210688	113.00	387	149.00	305
44.00	1337	76.00	16728	115.00	415	150.00	499
45.00	2355	77.00	2634	116.00	1463	152.00	184
46.00	261	78.00	1620	117.00	2974	153.00	417
47.00	4867	79.00	9039	118.00	1492	154.00	257
48.00	2049	80.00	2896	119.00	2342	155.00	1333
49.00	14145	81.00	10627	120.00	59	156.00	409
50.00	70848	82.00	2845	122.00	111	157.00	868
51.00	21744	83.00	364	123.00	51	158.00	244
52.00	920	84.00	135	124.00	198	159.00	437
53.00	182	86.00	506	125.00	137	161.00	572
54.00	67	87.00	18832	126.00	83	172.00	774
55.00	511	88.00	18608	128.00	1501	173.00	3056
56.00	4782	91.00	1076	129.00	724	174.00	495360
57.00	7215	92.00	11909	130.00	1944	175.00	34960
58.00	213	93.00	19264	131.00	638	176.00	478464
60.00	3135	94.00	53872	133.00	61	177.00	31176
61.00	15771	95.00	490688	135.00	747	178.00	831
62.00	16073	96.00	33280	136.00	60	267.00	54
63.00	12673	97.00	986	137.00	802	281.00	61
64.00	1349	99.00	57	140.00	322	282.00	66
65.00	610	103.00	289	141.00	4328		
67.00	582	104.00	2047	142.00	540		
68.00	40096	105.00	789	143.00	4318		

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Target 3.5 esignature user ID: jeb07445

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

VBLKE53

Data file: /chem/HP22820.i/17apr05.b/ed00053.d Injection date and time: **05-APR-2017 14:12**
Data file Sample Info. Line: VBLKE53;200;E1709530AA;VBLKE53;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
40) Bromochloromethane	5.474(0.000)	752	130	226153 (0)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	840733 (1)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	825407 (-1)	10.00		498344 - 1162802

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					0.5	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.5	1
9) Chloroethane	(1)			Not Detected					0.2	1
10) Bromoethene	(1)			Not Detected					0.4	2
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)			Not Detected					0.5	1
14) Ethanol	(1)			Not Detected					0.5	2
15) Freon123a	(1)			Not Detected					0.2	1
16) Acrolein	(1)			Not Detected					1	2
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)			Not Detected					0.5	2
20) Methyl Iodide	(1)			Not Detected					0.2	1
21) Carbon Disulfide	(1)			Not Detected					0.5	1
22) Isopropanol	(1)			Not Detected					0.5	2
23) Acetonitrile	(1)			Not Detected					0.5	2
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
26) tert-Butyl Alcohol	(1)			Not Detected					0.5	1
27) Acrylonitrile	(1)			Not Detected					0.5	2
28) trans-1,2-Dichloroethene	(1)			Not Detected					0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)			Not Detected					0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
32) Vinyl Acetate	(1)			Not Detected					1	1
33) Di-Isopropyl Ether	(1)			Not Detected					0.2	1
34) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.2	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
37) 2-Butanone	(1)			Not Detected					0.5	2
38) Ethyl Acetate	(1)			Not Detected					0.5	1
39) Methyl Acrylate	(1)			Not Detected					0.2	1
41) Tetrahydrofuran	(1)			Not Detected					0.5	1
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
44) Cyclohexane	(1)			Not Detected					0.2	1

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

VBLKE53

Data file: /chem/HP22820.i/17apr05.b/ed00053.d Injection date and time: **05-APR-2017 14:12**
Data file Sample Info. Line: VBLKE53;200;E1709530AA;VBLKE53;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)			Not Detected					0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)			Not Detected					0.2	1
49) Tert-Amyl Methyl Ether	(2)			Not Detected					0.2	1
50) Heptane	(2)			Not Detected					0.5	1
52) Trichloroethene	(2)			Not Detected					0.2	1
53) Ethyl Acrylate	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
56) 1,4-Dioxane	(2)			Not Detected					0.5	1
57) Methyl Methacrylate	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)			Not Detected					0.2	1
62) Octane	(3)			Not Detected					0.5	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
64) 1,3-Dichloropropene (total)	(3)			Not Detected					0.2	1
65) Ethyl Methacrylate	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)			Not Detected					0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)			Not Detected					0.2	1
75) m/p-Xylene	(3)			Not Detected					0.2	1
76) o-Xylene	(3)			Not Detected					0.2	1
77) Xylene (total)	(3)			Not Detected					0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
84) n-Propylbenzene	(3)			Not Detected					0.5	1
85) 2-Chlorotoluene	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.2	1
88) Alpha Methyl Styrene	(3)			Not Detected					0.2	1
89) tert-Butylbenzene	(3)			Not Detected					0.5	1
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.2	1
91) sec-Butylbenzene	(3)			Not Detected					0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
94) p-Isopropyltoluene	(3)			Not Detected					0.2	1
95) Benzyl Chloride	(3)			Not Detected					0.5	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) n-Butylbenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)			Not Detected					0.2	1
100) 1,2,4-Trichlorobenzene	(3)			Not Detected					0.5	2

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

VBLKE53

Data file: /chem/HP22820.i/17apr05.b/ed00053.d Injection date and time: **05-APR-2017 14:12**
Data file Sample Info. Line: VBLKE53;200;E1709530AA;VBLKE53;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
101) Hexachlorobutadiene	(3)			Not Detected					0.4	2
102) Naphthalene	(3)			Not Detected					0.4	1

Total number of targets = 99

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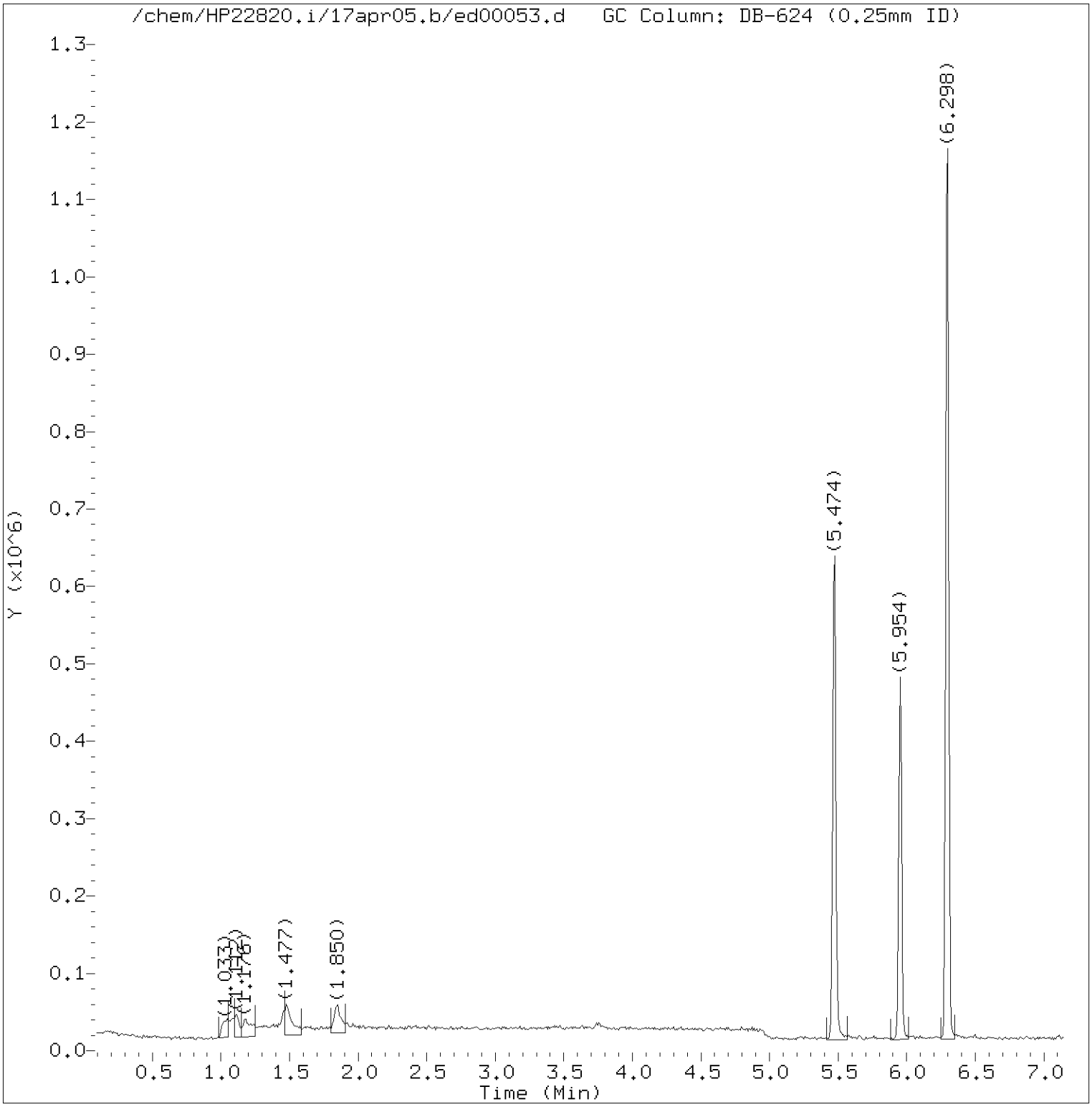
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

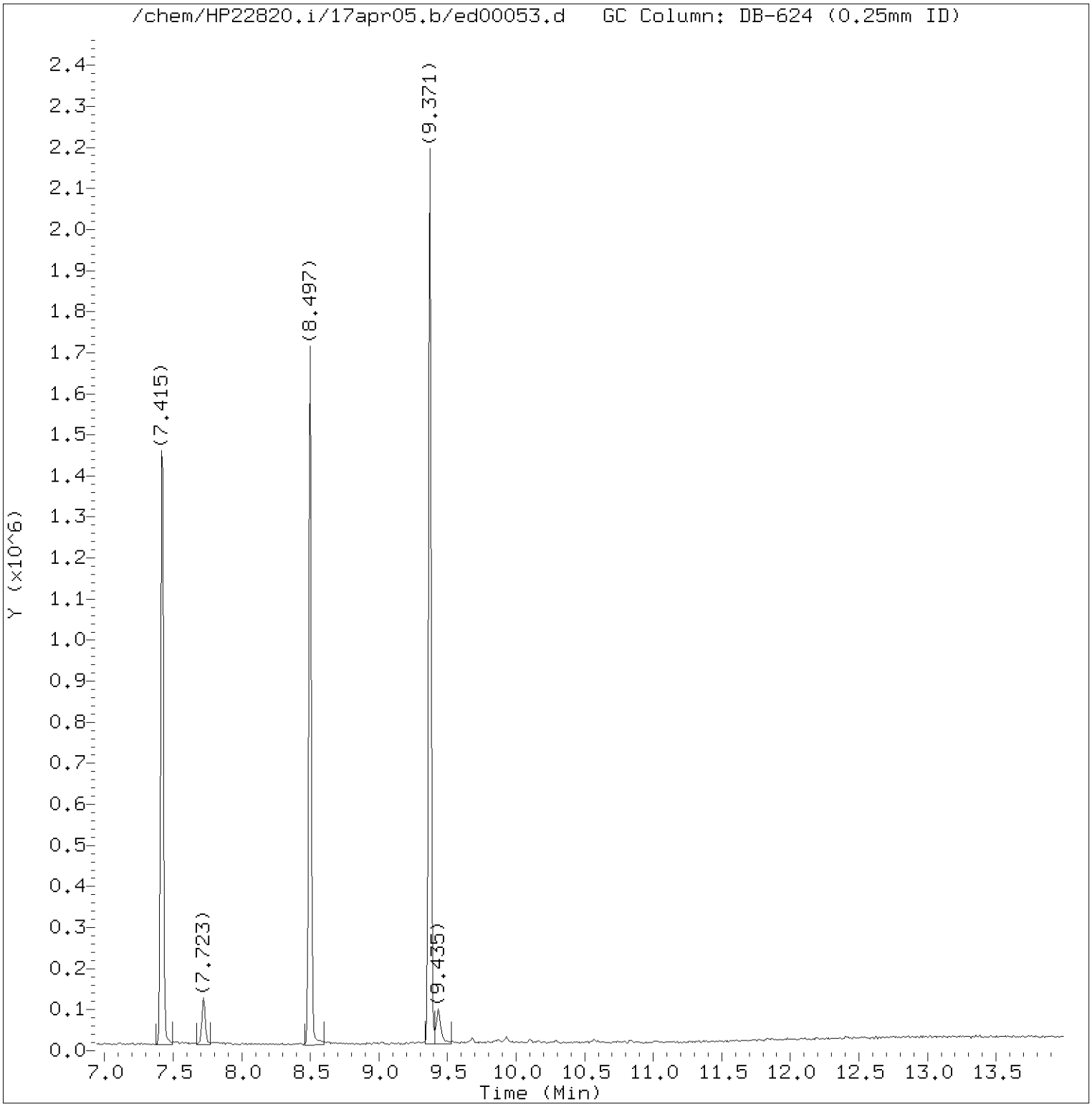
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00053.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:12 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Sample Name: VBLKE53 Lab Sample ID: VBLKE53

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00053.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:12 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Sample Name: VBLKE53 Lab Sample ID: VBLKE53

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on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00053.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:12 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 14:32 jeb07445

Sample Name: VBLKE53 Lab Sample ID: VBLKE53

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	226153	10.000
51)*1,4-Difluorobenzene	(2)	6.298	114	840733	10.000
71)*Chlorobenzene-d5	(3)	8.497	117	825407	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

S7104 Lancaster Laboratories, Inc. 8920250
Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP22820.i/17apr05.b/ed00065.d Injection date and time: **05-APR-2017 22:01**
Data file Sample Info. Line: 8920250;400;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

Analysis Comments:DUP

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on column)	QC Flag	QC Limits
40) Bromochloromethane	5.474(0.000)	752	130	231037 (2)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	923754 (11)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	932120 (12)	10.00		498344 - 1162802

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)	1.649(-0.001)	85	27657	0.475	0.48		J	0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)	1.972(-0.001)	62	47291	2.160	2.16			0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.2	1
9) Chloroethane	(1)			Not Detected					0.2	1
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)	2.867(0.000)	43	132551	4.050	4.05			0.2	1
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)	3.533(-0.001)	43	238046	9.074	9.07			0.5	2
21) Carbon Disulfide	(1)	3.662(-0.001)	76	360035	5.370	5.37			0.5	1
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)	4.013(0.000)	84	20669	1.036	1.04			0.2	1
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	179757	5.727	5.73			0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)	4.558(0.000)	57	489713	14.408	14.41			0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.000)	61	461243	15.417	15.42			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	207565	17.283	17.28			0.5	2
42) Chloroform	(1)	5.539(-0.000)	83	49222	0.946	0.95		J	0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)	5.990(0.000)	78	901285	10.517	10.52			0.2	1
47) 1,2-Dichloroethane	(2)	6.012(0.000)	62	2826831	87.563	87.56		E	0.2	1
48) Isooctane	(2)	6.033(0.001)	57	2334101	19.797	19.80			0.2	1
50) Heptane	(2)	6.176(0.000)	43	332983M	8.529	8.53			0.2	1
52) Trichloroethene	(2)	6.499(-0.001)	130	59764	1.353	1.35			0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)	7.466(0.000)	91	12566398	111.684	111.68		E	0.2	1
62) Octane	(3)	7.516(0.000)	43	330226	5.979	5.98			0.2	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	184552	2.786	2.79			0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2

E = Compound concentration above calibration range. M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08. Target 3.5 esignature user ID: jeb07445

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

Data file: /chem/HP22820.i/17apr05.b/ed00065.d Injection date and time: **05-APR-2017 22:01**
Data file Sample Info. Line: 8920250;400;E1709530AA;S7104;0;0;SAMPLE; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **23166**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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): 27.0 psia Canister Pressure before dilution (Ya): 13.5 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 400 cc

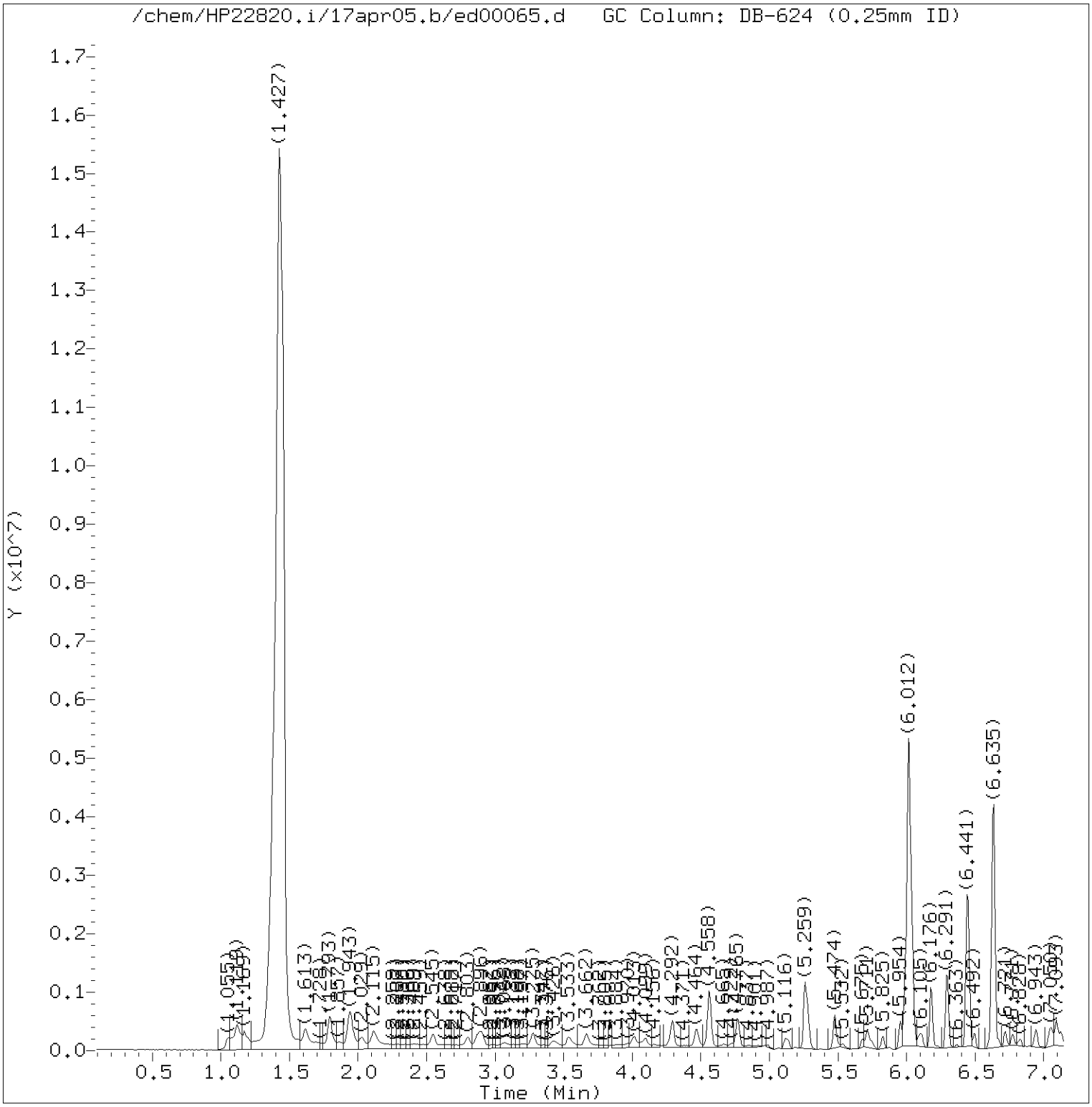
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
69) Dibromochloromethane	(3)			Not Detected					0.2	1
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)	8.590(-0.000)	91	14656955	101.658	101.66		E	0.2	1
75) m/p-Xylene	(3)	8.676(-0.000)	91	15019806	131.898	131.90		E	0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	2049074	18.566	18.57			0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)	9.242(-0.000)	105	240424	1.548	1.55			0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)	9.622(0.000)	105	253184M	1.651	1.65			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	303502M	2.381	2.38			0.2	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	809606	6.714	6.71			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.195(-0.000)	146	19581	0.215	0.21		J	0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.2	1

E = Compound concentration above calibration range. M = Compound was manually integrated.

Total number of targets = 62

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:58. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

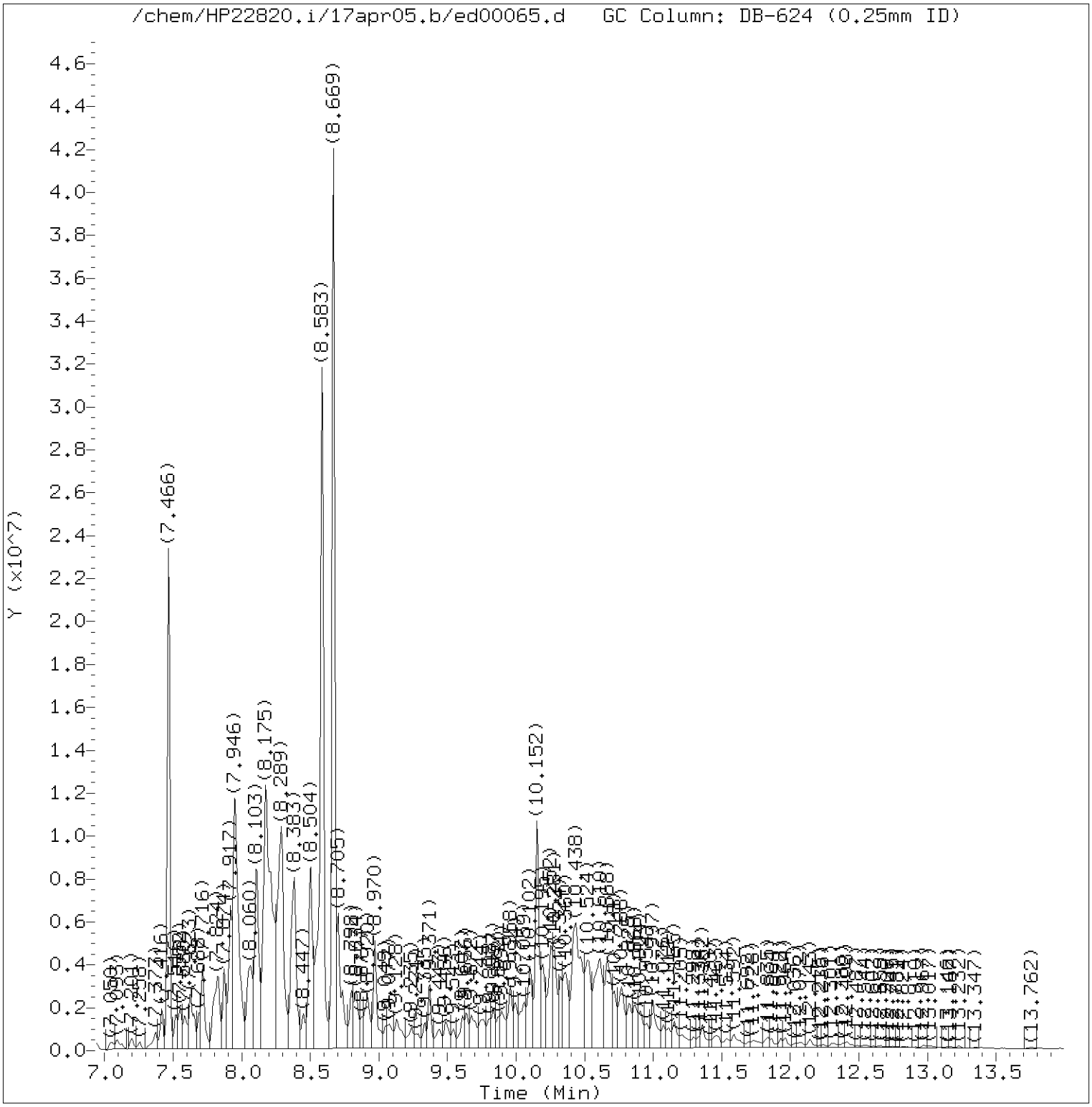
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

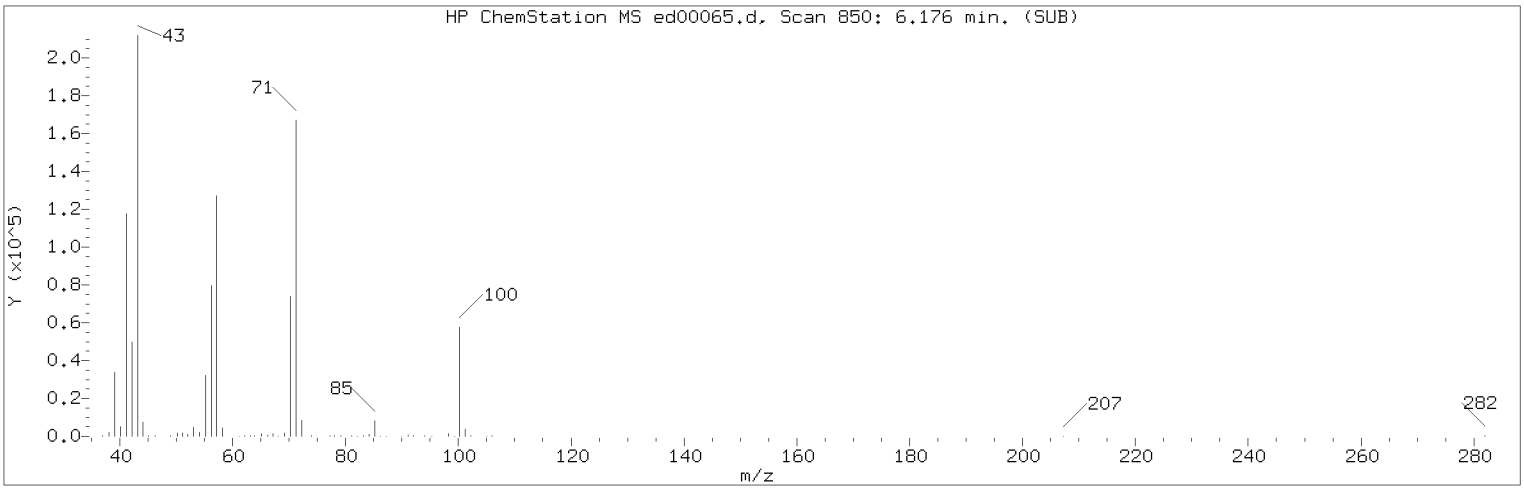
Sample Name: S7104 Lab Sample ID: 8920250

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
2) Dichlorodifluoromethane	(1)	1.649	85	27657	0.475
6) Vinyl Chloride	(1)	1.972	62	47291	2.160
13) Pentane	(1)	2.867	43	132551	4.050
19) Acetone	(1)	3.533	43	238046	9.074
21) Carbon Disulfide	(1)	3.662	76	360035	5.370
25) Methylene Chloride	(1)	4.013	84	20669	1.036
28) trans-1,2-Dichloroethene	(1)	4.292	61	179757	5.727
30) Hexane	(1)	4.558	57	489713	14.408
35) cis-1,2-Dichloroethene	(1)	5.259	61	461243	15.417
37) 2-Butanone	(1)	5.281	72	207565	17.283
40)*Bromochloromethane	(1)	5.474	130	231037	10.000
42) Chloroform	(1)	5.539	83	49222	0.946
46) Benzene	(2)	5.990	78	901285	10.517
47) 1,2-Dichloroethane	(2)	6.012	62	2826831	87.563
48) Isooctane	(2)	6.033	57	2334101	19.797
50) Heptane	(2)	6.176	43	332983M	8.529
51)*1,4-Difluorobenzene	(2)	6.298	114	923754	10.000
52) Trichloroethene	(2)	6.499	130	59764	1.353
61) Toluene	(3)	7.466	91	12566398	111.684
62) Octane	(3)	7.516	43	330226	5.979
67) Tetrachloroethene	(3)	7.874	166	184552	2.786
71)*Chlorobenzene-d5	(3)	8.497	117	932120	10.000
74) Ethylbenzene	(3)	8.590	91	14656955	101.658
75) m/p-Xylene	(3)	8.676	91	15019806	131.898
76) o-Xylene	(3)	8.970	91	2049074	18.566
80) Cumene	(3)	9.242	105	240424	1.548
86) 4-Ethyltoluene	(3)	9.622	105	253184M	1.651
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	303502M	2.381
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	809606	6.714
92) 1,3-Dichlorobenzene	(3)	10.195	146	19581	0.215

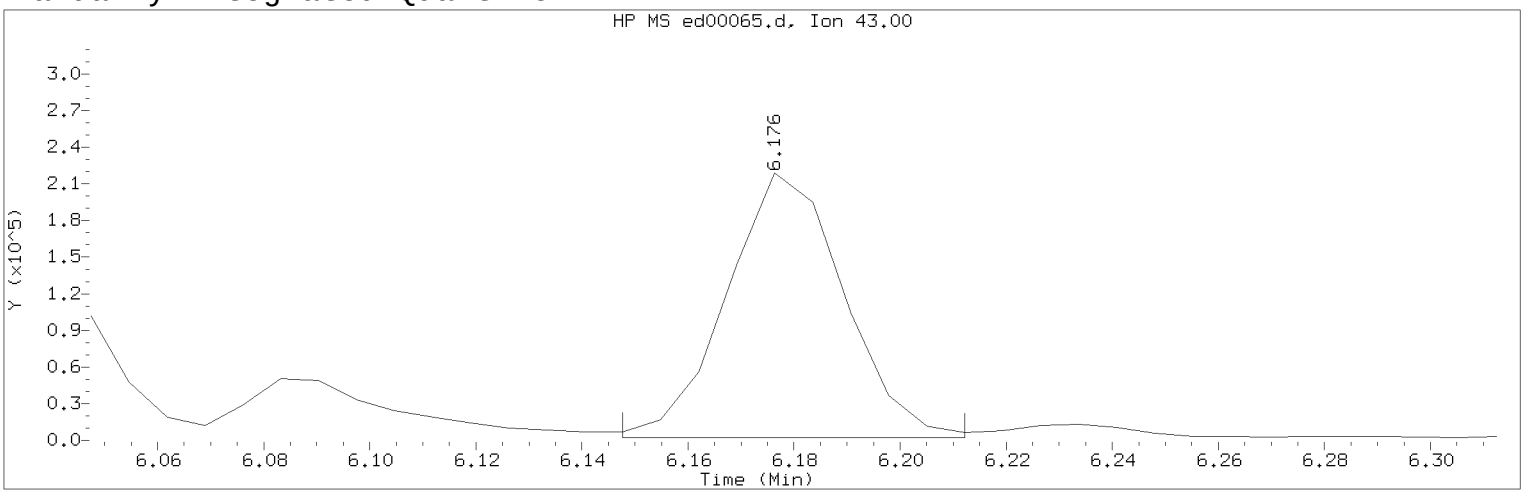
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

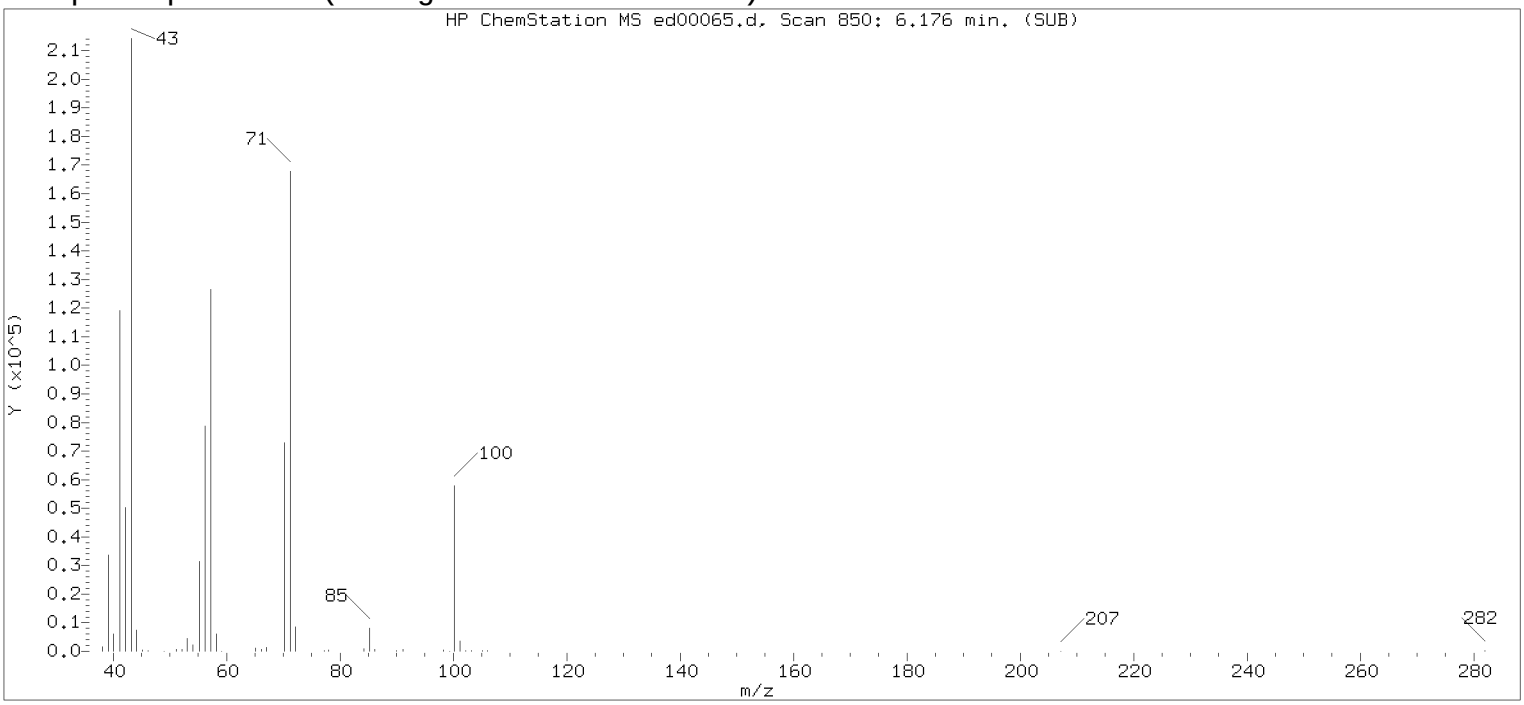
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area (flag) : 332983M
Concentration (ppb(v)) : 8.5293
Integration start scan : 845 Integration stop scan: 854
Y at integration start : 2190 Y at integration end: 2190

Reason for manual integration: improper integration

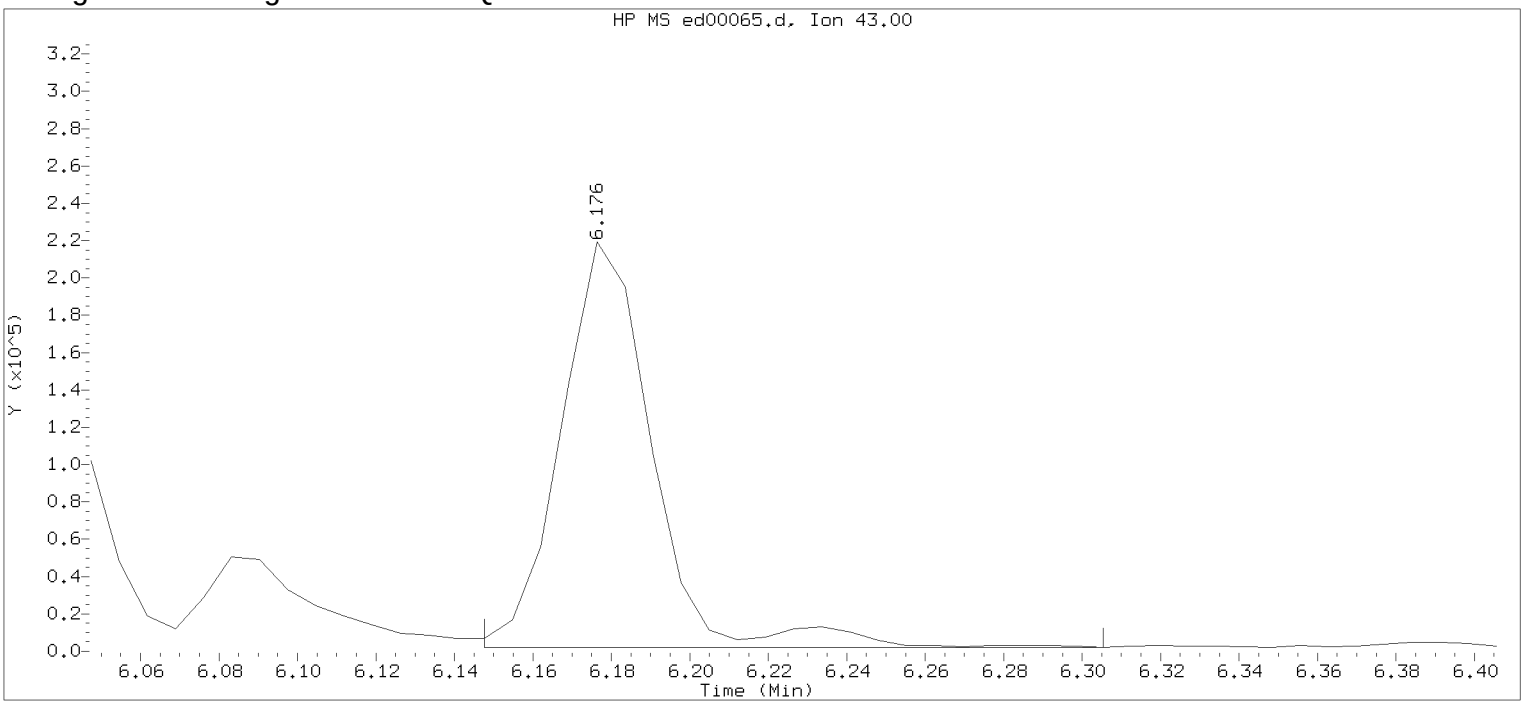
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:58.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

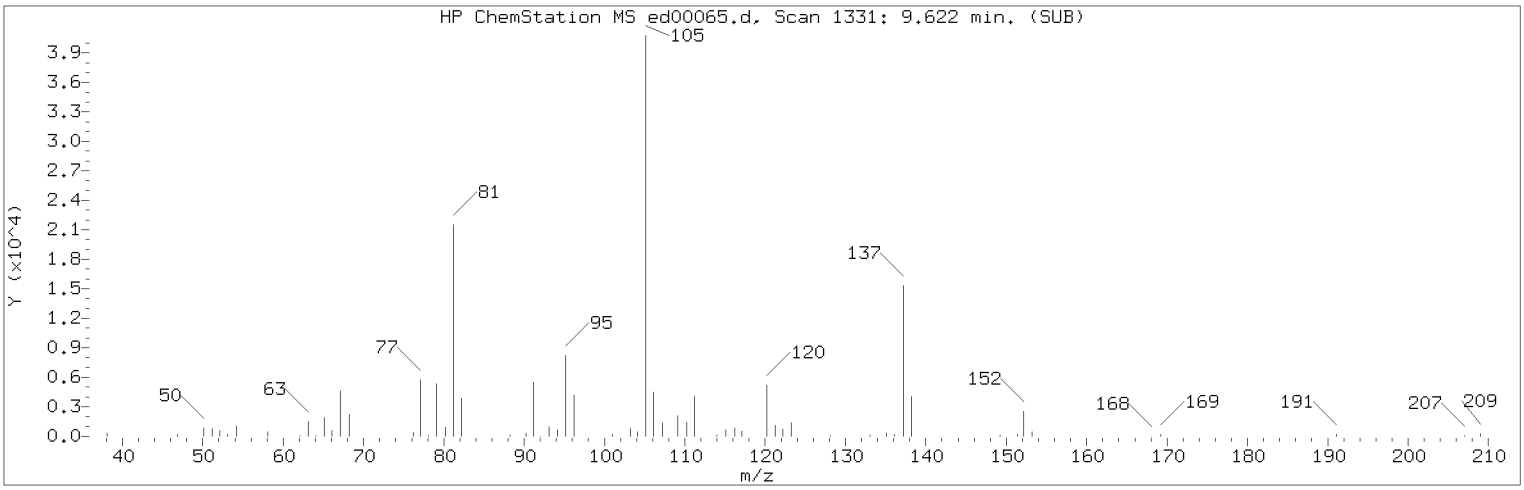
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:21 Unknown

Sample Name: S7104 Lab Sample ID: 8920250

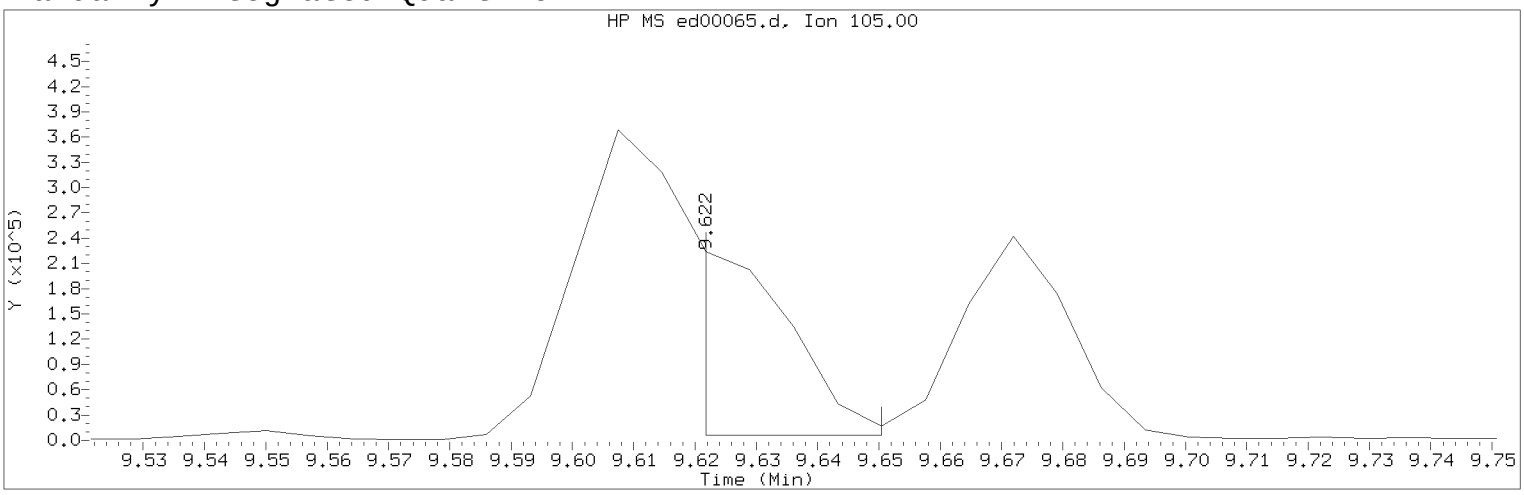
Compound Number : 50
Compound Name : Heptane
Scan Number : 850
Retention Time (minutes): 6.176
Quant Ion : 43.00
Area : 350659
Concentration (ppb(v)) : 8.9821
Integration start scan : 845 Integration stop scan: 867
Y at integration start : 2190 Y at integration end: 2190

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

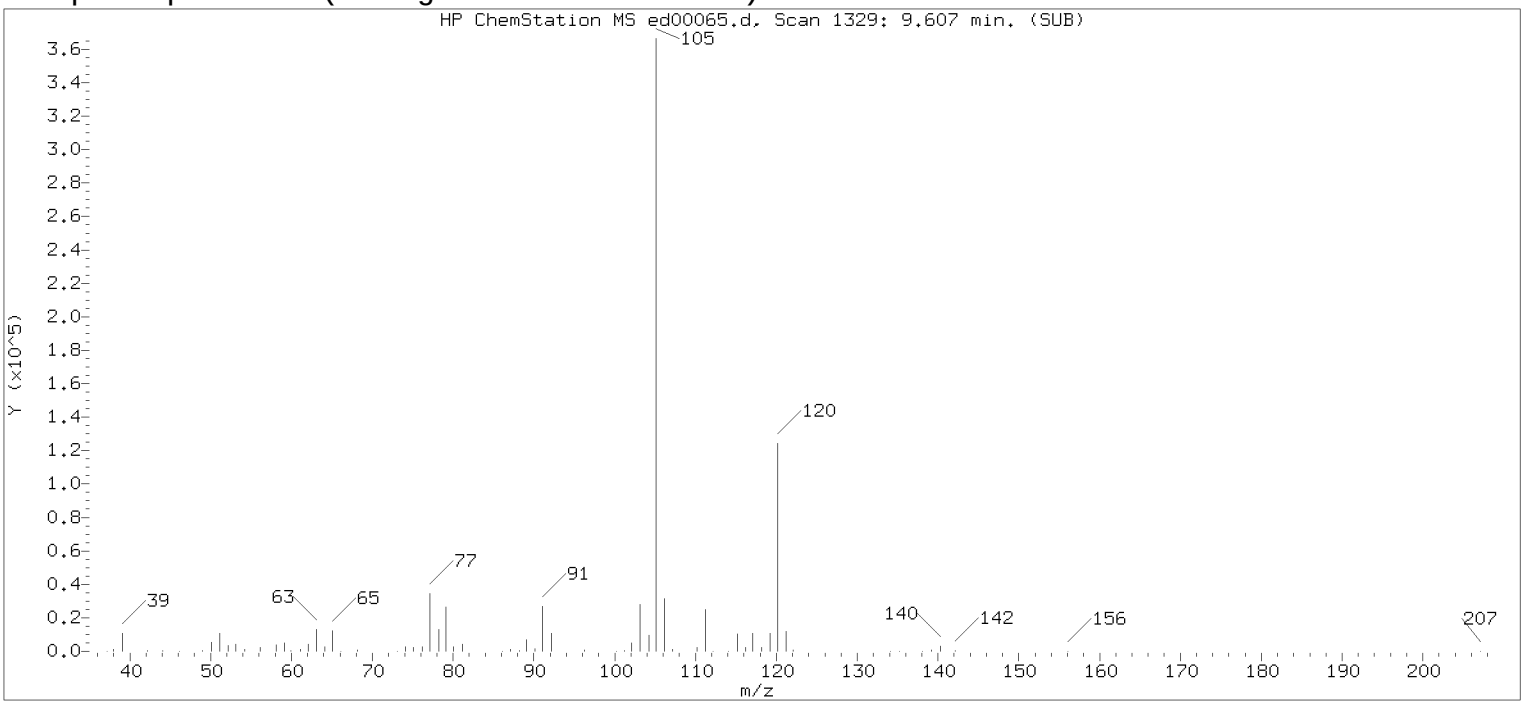
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Quant Ion : 105.00
Area (flag) : 253184M
Concentration (ppb(v)) : 1.6509
Integration start scan : 1330 Integration stop scan: 1334
Y at integration start : 6444 Y at integration end: 6444

Reason for manual integration: improper integration

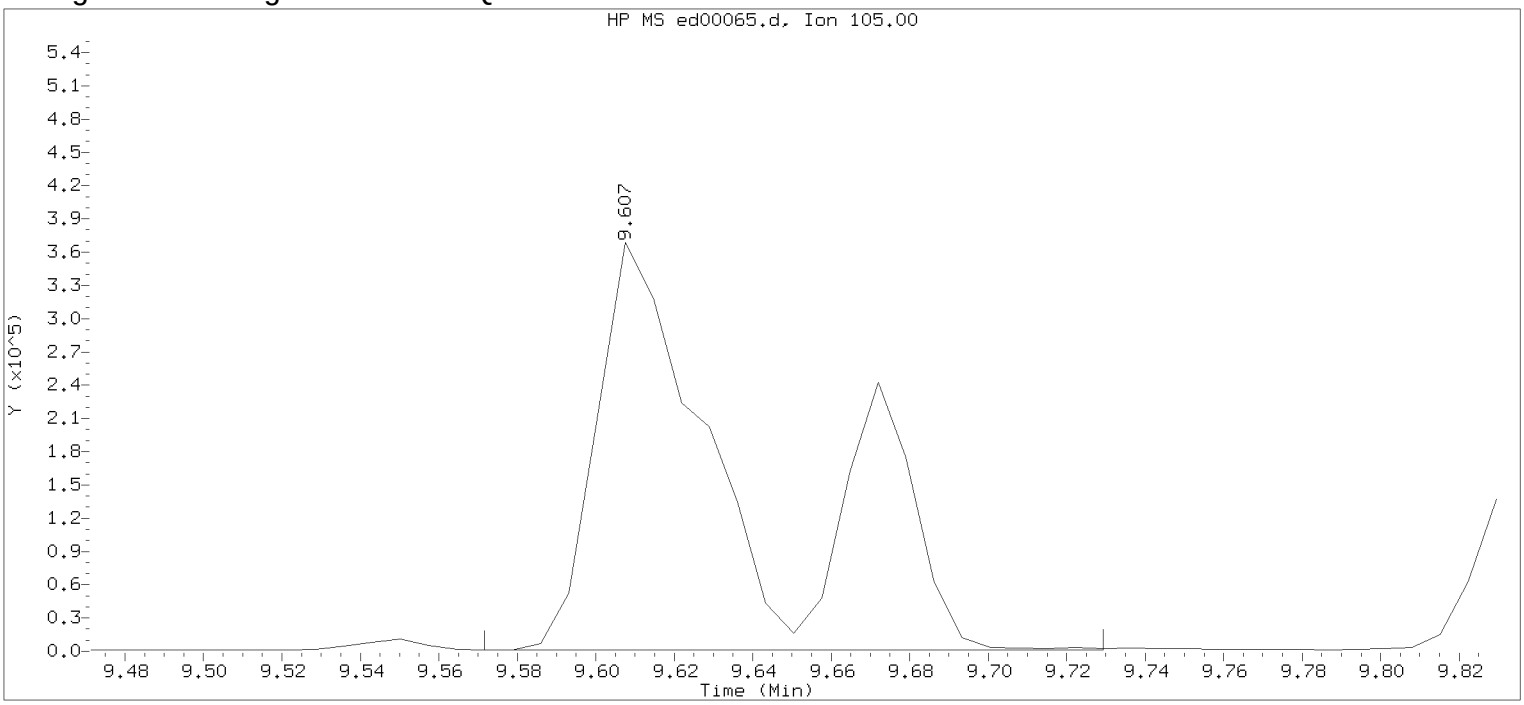
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:58.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

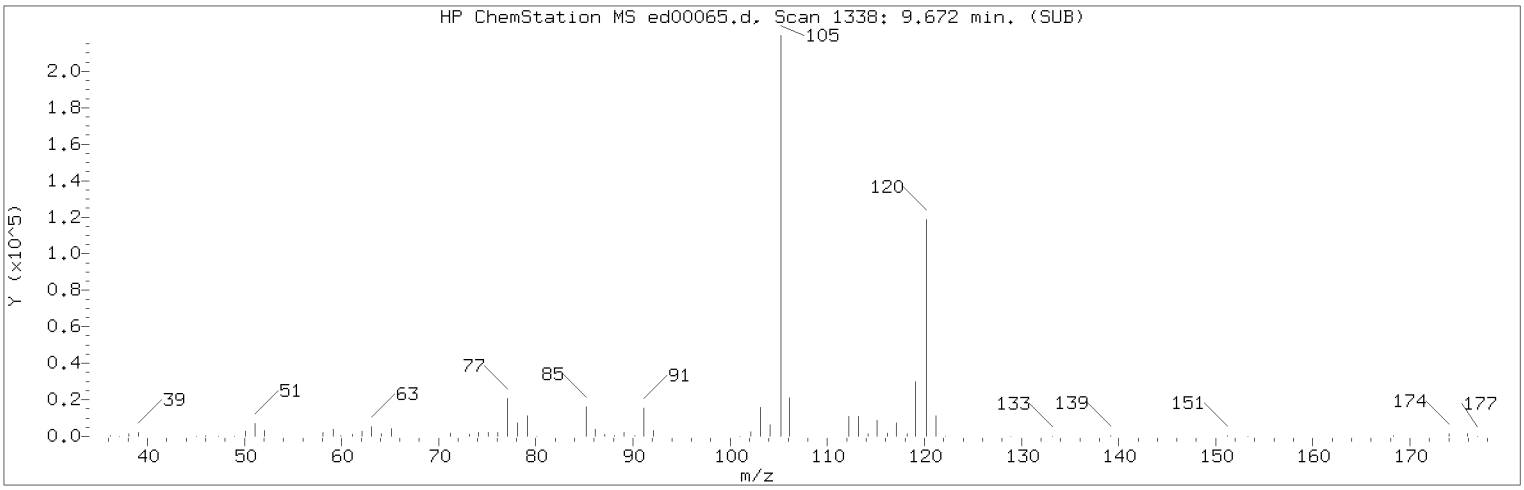
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:21 Unknown

Sample Name: S7104 Lab Sample ID: 8920250

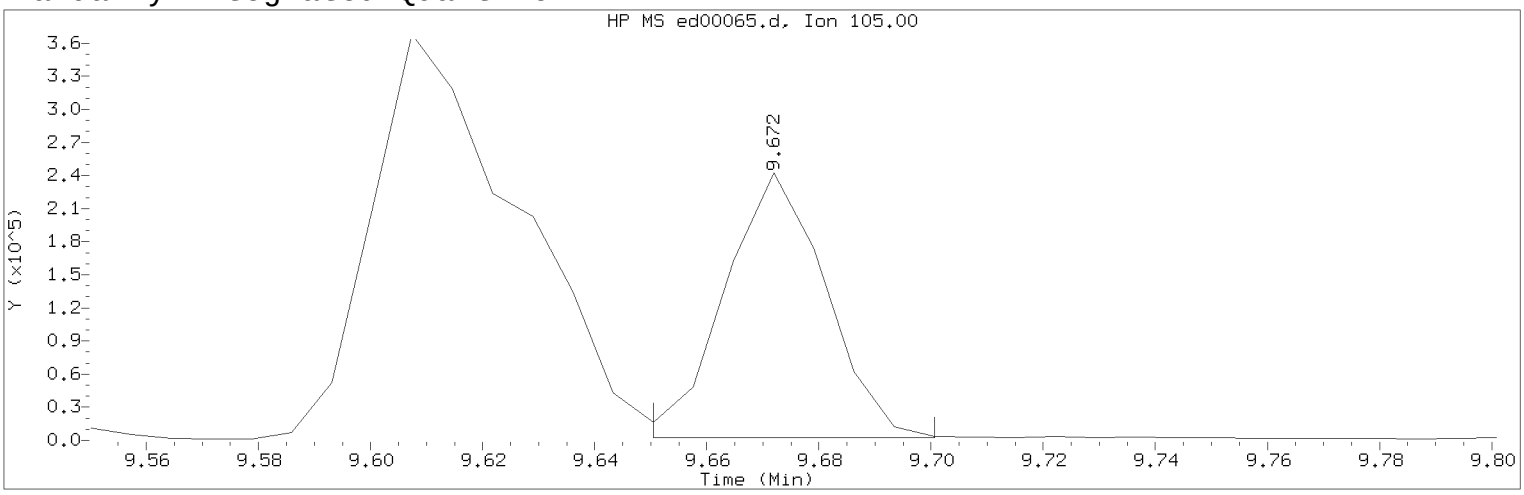
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 977610
Concentration (ppb(v)) : 6.3744
Integration start scan : 1323 Integration stop scan: 1345
Y at integration start : 889 Y at integration end: 889

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 06-Apr-2017 01:05 jeb07445

Sample Name: S7104 Lab Sample ID: 8920250

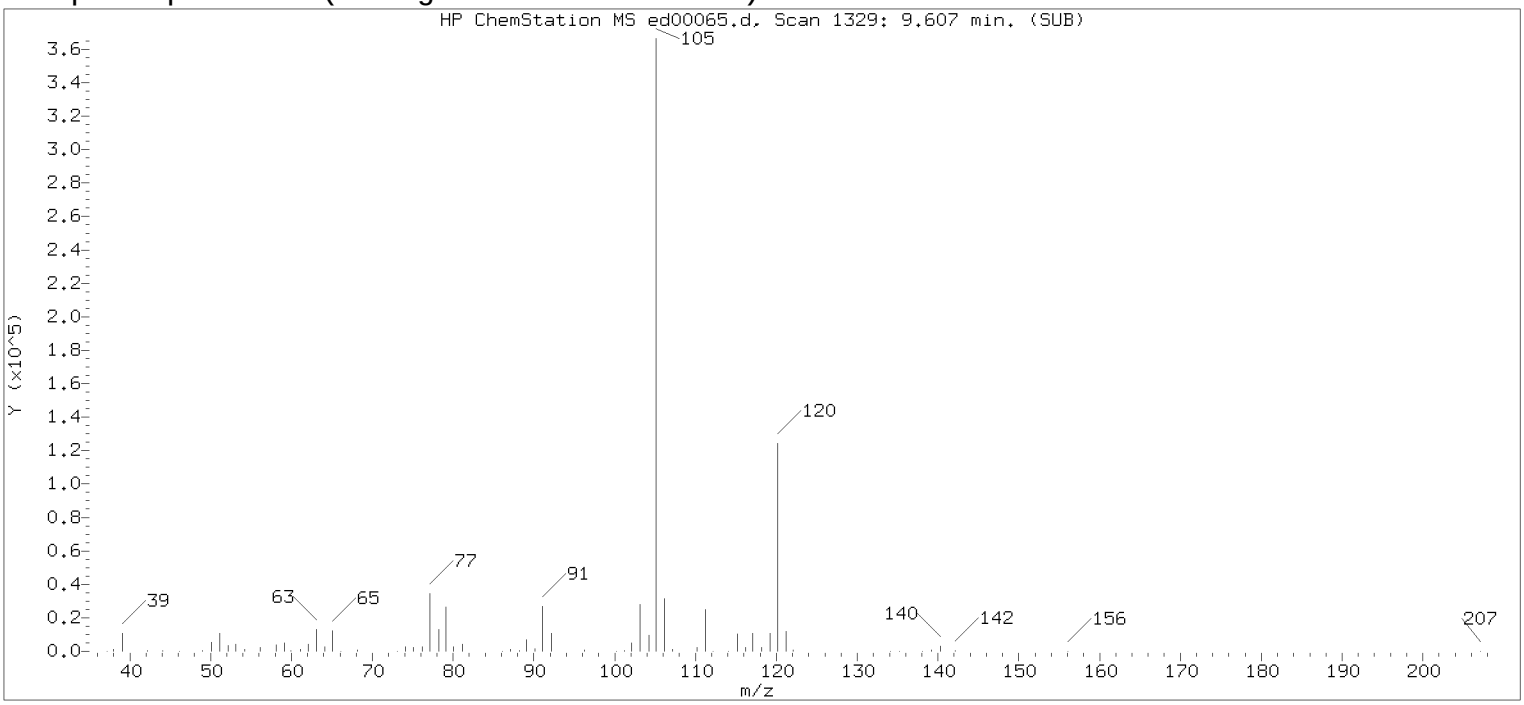
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 303502M
Concentration (ppb(v)) : 2.3810
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 2047 Y at integration end: 2047

Reason for manual integration: improper integration

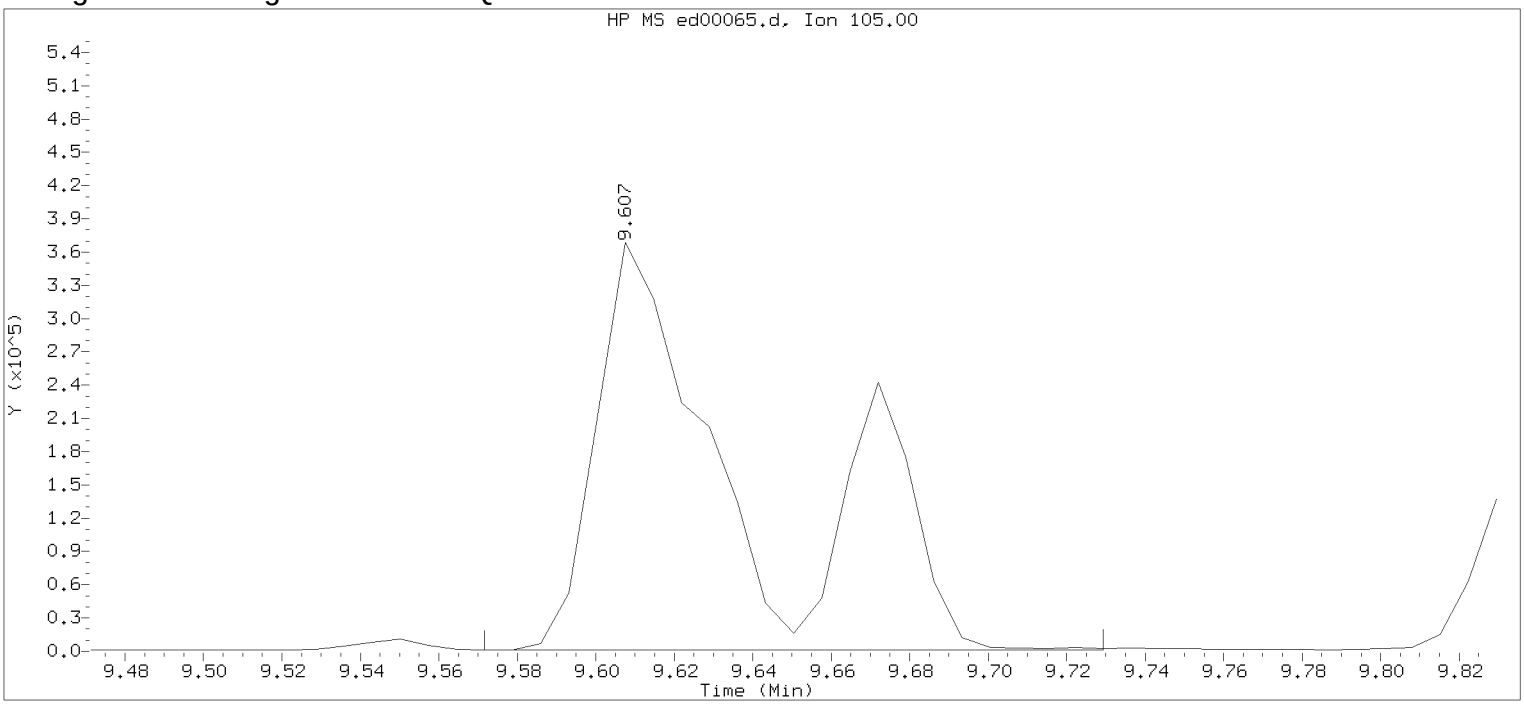
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:58.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00065.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 22:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: 23166
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 22:21 Unknown

Sample Name: S7104 Lab Sample ID: 8920250

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1329
Retention Time (minutes): 9.607
Quant Ion : 105.00
Area : 977156
Concentration (ppb(v)) : 7.6660
Integration start scan : 1323 Integration stop scan: 1345
Y at integration start : 937 Y at integration end: 937

Digitally signed by Jacob E. Bailey on 04/06/2017 at 01:08.
Target 3.5 esignature user id: jeb07445

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

LCSE53

Data file: /chem/HP22820.i/17apr05.b/ed00054.d
Data file Sample Info. Line: LCSE53;200;E1709530AA;LCSE53;0;3;LCS;
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Injection date and time: **05-APR-2017 14:56**
Instrument ID: **HP22820.i** Batch: **E1709530AA**

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
40) Bromochloromethane	5.474(0.000)	752	130	225456 (0)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	843221 (1)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	836421 (1)	10.00		498344 - 1162802

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)	1.606(0.000)	41	145172	10.256	10.26			0.5	1
2) Dichlorodifluoromethane	(1)	1.642(0.000)	85	631799	11.129	11.13			0.2	1
3) Chlorodifluoromethane	(1)	1.664(0.000)	51	342773	11.600	11.60			0.2	1
4) Freon 114	(1)	1.771(0.000)	85	655418	11.024	11.02			0.2	1
5) Chloromethane	(1)	1.835(0.002)	50	160201	10.517	10.52			0.2	1
6) Vinyl Chloride	(1)	1.964(0.000)	62	238393	11.160	11.16			0.2	1
7) 1,3-Butadiene	(1)	2.000(0.000)	54	164816	10.497	10.50			0.4	2
8) Bromomethane	(1)	2.344(0.000)	94	263344	12.050	12.05			0.5	1
9) Chloroethane	(1)	2.473(-0.001)	64	132378	11.123	11.12			0.2	1
10) Bromoethene	(1)	2.695(0.000)	106	264047	11.108	11.11			0.4	2
11) Dichlorofluoromethane	(1)	2.731(0.000)	67	531262	11.404	11.40			0.2	1
12) Trichlorofluoromethane	(1)	2.767(0.000)	101	683468	11.189	11.19			0.2	1
13) Pentane	(1)	2.867(0.000)	43	334571	10.474	10.47			0.5	1
14) Ethanol	(1)	3.075(0.000)	45	64613	12.051	12.05			0.5	2
15) Freon123a	(1)	3.204(0.000)	67	503285	11.141	11.14			0.2	1
16) Acrolein	(1)	3.340(0.000)	56	89756	10.904	10.90			1	2
17) 1,1-Dichloroethene	(1)	3.426(0.000)	61	371294	11.243	11.24			0.2	1
18) Freon 113	(1)	3.433(0.000)	103	389007	10.814	10.81			0.5	2
19) Acetone	(1)	3.526(0.000)	43	297890	11.636	11.64			0.5	2
20) Methyl Iodide	(1)	3.605(0.000)	142	657057	9.786	9.79			0.2	1
21) Carbon Disulfide	(1)	3.655(0.000)	76	703626	10.755	10.76			0.5	1
22) Isopropanol	(1)	3.712(0.000)	45	320599	14.081	14.08			0.5	2
23) Acetonitrile	(1)	3.870(0.000)	40	123442	10.402	10.40			0.5	2
24) 3-Chloropropene	(1)	3.863(0.000)	76	130190	13.151	13.15			0.2	1
25) Methylene Chloride	(1)	4.013(0.000)	84	238685	12.257	12.26			0.2	1
26) tert-Butyl Alcohol	(1)	4.156(0.000)	59	497959	13.260	13.26			0.5	1
27) Acrylonitrile	(1)	4.300(0.000)	53	187918	11.024	11.02			0.5	2
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	332457	10.854	10.85			0.2	1
29) Methyl t-Butyl Ether	(1)	4.292(0.000)	73	713928	10.749	10.75			0.2	1
30) Hexane	(1)	4.557(0.000)	57	350317	10.562	10.56			0.2	1
31) 1,1-Dichloroethane	(1)	4.722(0.000)	63	443284	11.006	11.01			0.2	1
32) Vinyl Acetate	(1)	4.779(0.000)	86	76691	14.055	14.05			1	1
33) Di-Isopropyl Ether	(1)	4.779(0.000)	45	698258	10.881	10.88			0.2	1
34) Ethyl Tert-Butyl Ether	(1)	5.116(0.000)	59	727060	10.821	10.82			0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(-0.000)	61	322658	11.052	11.05			0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	655115	21.905	21.91			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	129261	11.030	11.03			0.5	2
38) Ethyl Acetate	(1)	5.331(-0.000)	70	64568	10.259	10.26			0.5	1
39) Methyl Acrylate	(1)	5.360(-0.000)	55	393552	11.122	11.12			0.2	1
41) Tetrahydrofuran	(1)	5.503(-0.000)	42	232787	11.026	11.03			0.5	1
42) Chloroform	(1)	5.539(-0.000)	83	559835	11.030	11.03			0.2	1
43) 1,1,1-Trichloroethane	(1)	5.675(0.001)	97	571907	11.142	11.14			0.2	1
44) Cyclohexane	(1)	5.711(-0.000)	56	376716	10.841	10.84			0.2	1

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

LCSE53

Data file: /chem/HP22820.i/17apr05.b/ed00054.d Injection date and time: **05-APR-2017 14:56**
Data file Sample Info. Line: LCSE53;200;E1709530AA;LCSE53;0;3;LCS; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
45) Carbon Tetrachloride	(1)	5.811(-0.000)	117	594489	11.155	11.16			0.2	1
46) Benzene	(2)	5.990(-0.000)	78	839011	10.725	10.73			0.2	1
47) 1,2-Dichloroethane	(2)	6.012(0.000)	62	334512	11.351	11.35			0.2	1
48) Isooctane	(2)	6.040(0.000)	57	1149807	10.683	10.68			0.2	1
49) Tert-Amyl Methyl Ether	(2)	6.069(0.000)	73	762311	10.741	10.74			0.2	1
50) Heptane	(2)	6.176(0.000)	43	388436	10.900	10.90			0.5	1
52) Trichloroethene	(2)	6.491(-0.000)	130	459862	11.408	11.41			0.2	1
53) Ethyl Acrylate	(2)	6.570(0.001)	55	505362	11.108	11.11			0.2	1
54) 1,2-Dichloropropane	(2)	6.678(-0.000)	63	283420	10.589	10.59			0.2	1
55) Dibromomethane	(2)	6.771(-0.000)	174	438007	11.038	11.04			0.2	1
56) 1,4-Dioxane	(2)	6.778(-0.000)	88	202328	10.792	10.79			0.5	1
57) Methyl Methacrylate	(2)	6.749(-0.000)	69	278247	10.669	10.67			0.2	1
58) Bromodichloromethane	(2)	6.885(-0.000)	83	565622	11.089	11.09			0.2	1
59) cis-1,3-Dichloropropene	(2)	7.222(-0.000)	75	490482	10.817	10.82			0.2	1
60) 4-Methyl-2-Pentanone	(2)	7.330(-0.000)	43	494990	10.895	10.89			0.5	2
61) Toluene	(3)	7.466(-0.000)	91	1076948	10.667	10.67			0.2	1
62) Octane	(3)	7.516(0.000)	43	517518	10.441	10.44			0.5	1
63) trans-1,3-Dichloropropene	(3)	7.630(-0.000)	75	421862	10.834	10.83			0.2	1
64) 1,3-Dichloropropene (total)	(3)		75	912344	21.652	21.65			0.2	1
65) Ethyl Methacrylate	(3)	7.673(0.000)	69	462361	11.032	11.03			0.2	1
66) 1,1,2-Trichloroethane	(3)	7.774(0.000)	97	358811	10.636	10.64			0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	636244	10.705	10.71			0.2	1
68) 2-Hexanone	(3)	7.946(0.000)	43	455393	10.714	10.71			0.5	2
69) Dibromochloromethane	(3)	8.074(0.000)	127	482041	10.980	10.98			0.2	1
70) 1,2-Dibromoethane	(3)	8.168(0.000)	107	562630	10.642	10.64			0.2	1
72) Chlorobenzene	(3)	8.518(-0.000)	112	883749	10.207	10.21			0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)	8.576(-0.000)	131	474076	10.895	10.90			0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	1391960	10.759	10.76			0.2	1
75) m/p-Xylene	(3)	8.669(-0.000)	91	1143343	11.189	11.19			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	1087457	10.981	10.98			0.2	1
77) Xylene (total)	(3)		91	2230800	22.170	22.17			0.2	1
78) Styrene	(3)	8.984(-0.000)	104	815434	10.884	10.88			0.2	1
79) Bromoform	(3)	9.142(-0.000)	173	607315	10.937	10.94			0.2	1
80) Cumene	(3)	9.242(-0.000)	105	1467638	10.530	10.53			0.2	1
81) Bromobenzene	(3)	9.493(-0.000)	156	547767	10.262	10.26			0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)	9.471(-0.000)	83	647174	9.905	9.90			0.2	1
83) 1,2,3-Trichloropropane	(3)	9.514(-0.000)	110	225196	10.321	10.32			0.2	1
84) n-Propylbenzene	(3)	9.550(-0.000)	120	429370	10.089	10.09			0.5	1
85) 2-Chlorotoluene	(3)	9.629(-0.000)	126	403551	10.523	10.52			0.2	1
86) 4-Ethyltoluene	(3)	9.629(-0.000)	105	1438523M	10.453	10.45			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(-0.000)	105	1185033M	10.361	10.36			0.2	1
88) Alpha Methyl Styrene	(3)	9.844(0.000)	118	569093	10.447	10.45			0.2	1
89) tert-Butylbenzene	(3)	9.922(0.000)	119	1198497M	10.637	10.64			0.5	1
90) 1,2,4-Trimethylbenzene	(3)	9.958(0.000)	105	1149936	10.628	10.63			0.2	1
91) sec-Butylbenzene	(3)	10.087(0.000)	105	1696428	10.697	10.70			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.188(0.000)	146	850817	10.394	10.39			0.2	1
93) 1,4-Dichlorobenzene	(3)	10.259(-0.000)	146	877910	10.570	10.57			0.2	1
94) p-Isopropyltoluene	(3)	10.188(0.000)	119	1438909	10.687	10.69			0.2	1
95) Benzyl Chloride	(3)	10.359(0.000)	91	834186	11.665	11.67			0.5	1
96) 1,2-Dichlorobenzene	(3)	10.546(0.000)	146	775917	10.503	10.50			0.2	1
97) n-Butylbenzene	(3)	10.503(0.000)	91	1192830	10.685	10.68			0.2	1
98) Hexachloroethane	(3)	10.732(0.000)	117	376925	11.995	11.99			0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)	11.140(0.000)	157	349824	12.106	12.11			0.2	1
100) 1,2,4-Trichlorobenzene	(3)	11.763(-0.000)	180	525788	11.865	11.86			0.5	2

M = Compound was manually integrated.

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

LCSE53

Data file: /chem/HP22820.i/17apr05.b/ed00054.d
Injection date and time: **05-APR-2017 14:56**
Data file Sample Info. Line: LCSE53;200;E1709530AA;LCSE53;0;3;LCS;
Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 12:23
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
101) Hexachlorobutadiene	(3)	11.871(0.000)	225	464328	11.666	11.67			0.4	2
102) Naphthalene	(3)	11.964(0.000)	128	978169	12.172	12.17			0.4	1

Total number of targets = 99

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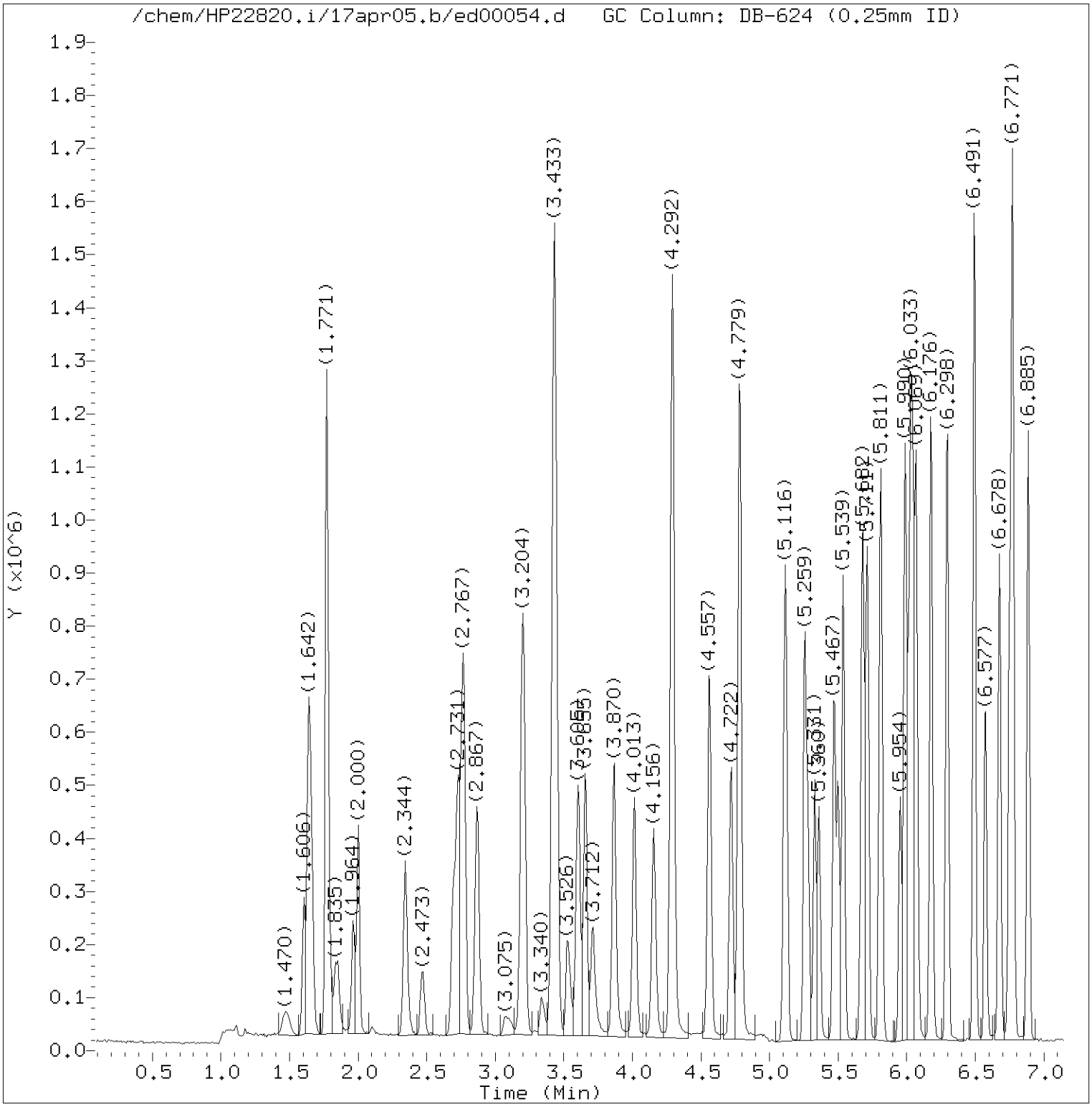
Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

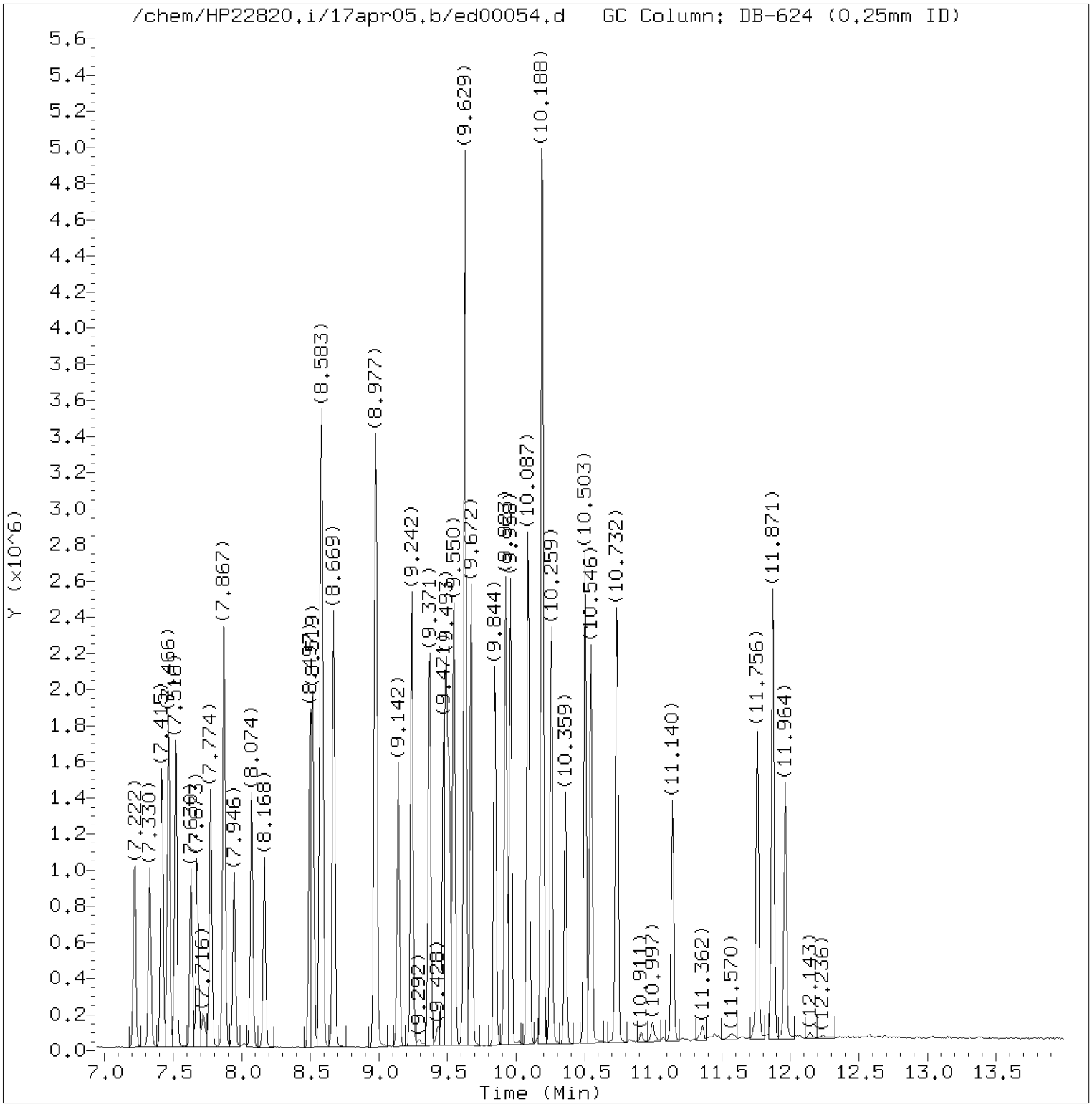
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.606	41	145172	10.256
2)	Dichlorodifluoromethane	(1)	1.642	85	631799	11.129
3)	Chlorodifluoromethane	(1)	1.664	51	342773	11.600
4)	Freon 114	(1)	1.771	85	655418	11.024
5)	Chloromethane	(1)	1.835	50	160201	10.517
6)	Vinyl Chloride	(1)	1.964	62	238393	11.160
7)	1,3-Butadiene	(1)	2.000	54	164816	10.497
8)	Bromomethane	(1)	2.344	94	263344	12.050
9)	Chloroethane	(1)	2.473	64	132378	11.123
10)	Bromoethene	(1)	2.695	106	264047	11.108
11)	Dichlorofluoromethane	(1)	2.731	67	531262	11.404
12)	Trichlorofluoromethane	(1)	2.767	101	683468	11.189
13)	Pentane	(1)	2.867	43	334571	10.474
14)	Ethanol	(1)	3.075	45	64613	12.051
15)	Freon123a	(1)	3.204	67	503285	11.141
16)	Acrolein	(1)	3.340	56	89756	10.904
17)	1,1-Dichloroethene	(1)	3.426	61	371294	11.243
18)	Freon 113	(1)	3.433	103	389007	10.814
19)	Acetone	(1)	3.526	43	297890	11.636
20)	Methyl Iodide	(1)	3.605	142	657057	9.786
21)	Carbon Disulfide	(1)	3.655	76	703626	10.755
22)	Isopropanol	(1)	3.712	45	320599	14.081
24)	3-Chloropropene	(1)	3.863	76	130190	13.151
23)	Acetonitrile	(1)	3.870	40	123442	10.402
25)	Methylene Chloride	(1)	4.013	84	238685	12.257
26)	tert-Butyl Alcohol	(1)	4.156	59	497959	13.260
28)	trans-1,2-Dichloroethene	(1)	4.292	61	332457	10.854
29)	Methyl t-Butyl Ether	(1)	4.292	73	713928	10.749
27)	Acrylonitrile	(1)	4.300	53	187918	11.024
30)	Hexane	(1)	4.557	57	350317	10.562
31)	1,1-Dichloroethane	(1)	4.722	63	443284	11.006
32)	Vinyl Acetate	(1)	4.779	86	76691	14.055
33)	Di-Isopropyl Ether	(1)	4.779	45	698258	10.881
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	727060	10.821
35)	cis-1,2-Dichloroethene	(1)	5.259	61	322658	11.052
37)	2-Butanone	(1)	5.281	72	129261	11.030
38)	Ethyl Acetate	(1)	5.331	70	64568	10.259
39)	Methyl Acrylate	(1)	5.360	55	393552	11.122

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on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	225456	10.000
41) Tetrahydrofuran	(1)	5.503	42	232787	11.026
42) Chloroform	(1)	5.539	83	559835	11.030
43) 1,1,1-Trichloroethane	(1)	5.675	97	571907	11.142
44) Cyclohexane	(1)	5.711	56	376716	10.841
45) Carbon Tetrachloride	(1)	5.811	117	594489	11.155
46) Benzene	(2)	5.990	78	839011	10.725
47) 1,2-Dichloroethane	(2)	6.012	62	334512	11.351
48) Isooctane	(2)	6.040	57	1149807	10.683
49) Tert-Amyl Methyl Ether	(2)	6.069	73	762311	10.741
50) Heptane	(2)	6.176	43	388436	10.900
51)*1,4-Difluorobenzene	(2)	6.298	114	843221	10.000
52) Trichloroethene	(2)	6.491	130	459862	11.408
53) Ethyl Acrylate	(2)	6.570	55	505362	11.108
36) 1,2-Dichloroethene (total)	(1)		61	655115	21.905
54) 1,2-Dichloropropane	(2)	6.678	63	283420	10.589
57) Methyl Methacrylate	(2)	6.749	69	278247	10.669
55) Dibromomethane	(2)	6.771	174	438007	11.038
56) 1,4-Dioxane	(2)	6.778	88	202328	10.792
58) Bromodichloromethane	(2)	6.885	83	565622	11.089
59) cis-1,3-Dichloropropene	(2)	7.222	75	490482	10.817
60) 4-Methyl-2-Pentanone	(2)	7.330	43	494990	10.895
61) Toluene	(3)	7.466	91	1076948	10.667
62) Octane	(3)	7.516	43	517518	10.441
63) trans-1,3-Dichloropropene	(3)	7.630	75	421862	10.834
65) Ethyl Methacrylate	(3)	7.673	69	462361	11.032
66) 1,1,2-Trichloroethane	(3)	7.774	97	358811	10.636
67) Tetrachloroethene	(3)	7.874	166	636244	10.705
68) 2-Hexanone	(3)	7.946	43	455393	10.714
69) Dibromochloromethane	(3)	8.074	127	482041	10.980
70) 1,2-Dibromoethane	(3)	8.168	107	562630	10.642
71)*Chlorobenzene-d5	(3)	8.497	117	836421	10.000
72) Chlorobenzene	(3)	8.519	112	883749	10.207
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	474076	10.895
74) Ethylbenzene	(3)	8.583	91	1391960	10.759
75) m/p-Xylene	(3)	8.669	91	1143343	11.189
76) o-Xylene	(3)	8.970	91	1087457	10.981
78) Styrene	(3)	8.984	104	815434	10.884

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	607315	10.937
80) Cumene	(3)	9.242	105	1467638	10.530
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	647174	9.905
81) Bromobenzene	(3)	9.493	156	547767	10.262
83) 1,2,3-Trichloropropane	(3)	9.514	110	225196	10.321
84) n-Propylbenzene	(3)	9.550	120	429370	10.089
86) 4-Ethyltoluene	(3)	9.629	105	1438523M	10.453
85) 2-Chlorotoluene	(3)	9.629	126	403551	10.523
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1185033M	10.361
88) Alpha Methyl Styrene	(3)	9.844	118	569093	10.447
89) tert-Butylbenzene	(3)	9.923	119	1198497M	10.637
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1149936	10.628
91) sec-Butylbenzene	(3)	10.087	105	1696428	10.697
92) 1,3-Dichlorobenzene	(3)	10.188	146	850817	10.394
94) p-Isopropyltoluene	(3)	10.188	119	1438909	10.687
93) 1,4-Dichlorobenzene	(3)	10.259	146	877910	10.570
95) Benzyl Chloride	(3)	10.359	91	834186	11.665
97) n-Butylbenzene	(3)	10.503	91	1192830	10.685
96) 1,2-Dichlorobenzene	(3)	10.546	146	775917	10.503
98) Hexachloroethane	(3)	10.732	117	376925	11.995
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	349824	12.106
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	525788	11.865
101) Hexachlorobutadiene	(3)	11.871	225	464328	11.666
102) Naphthalene	(3)	11.964	128	978169	12.172
64) 1,3-Dichloropropene (total)	(3)		75	912344	21.652
77) Xylene (total)	(3)		91	2230800	22.170

M = Compound was manually integrated.

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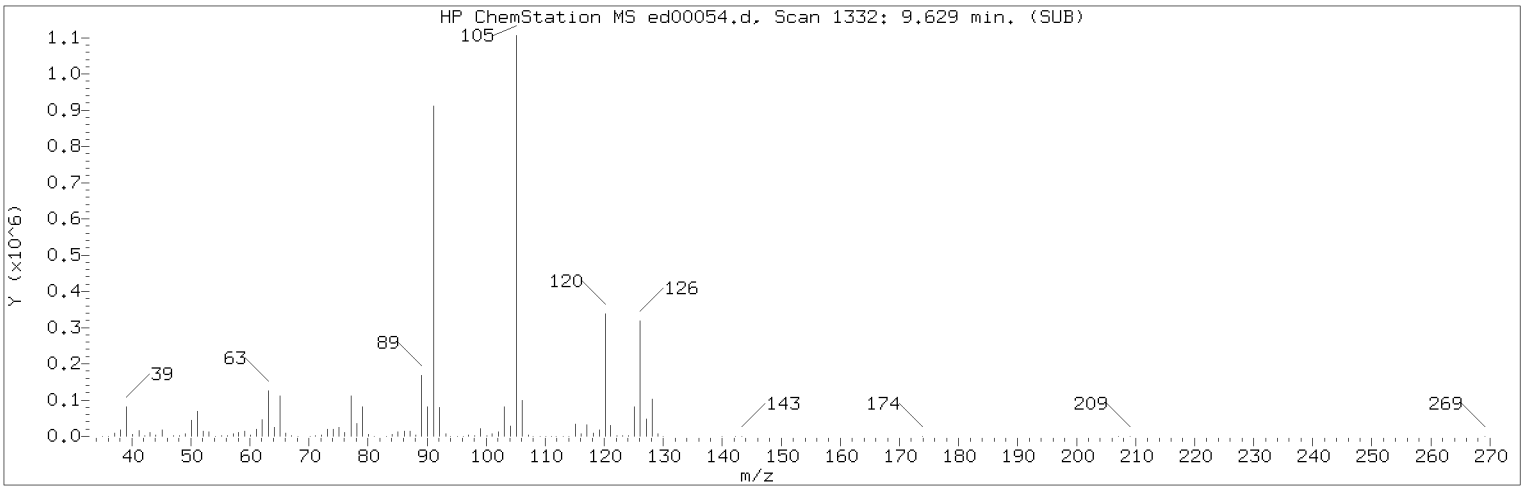
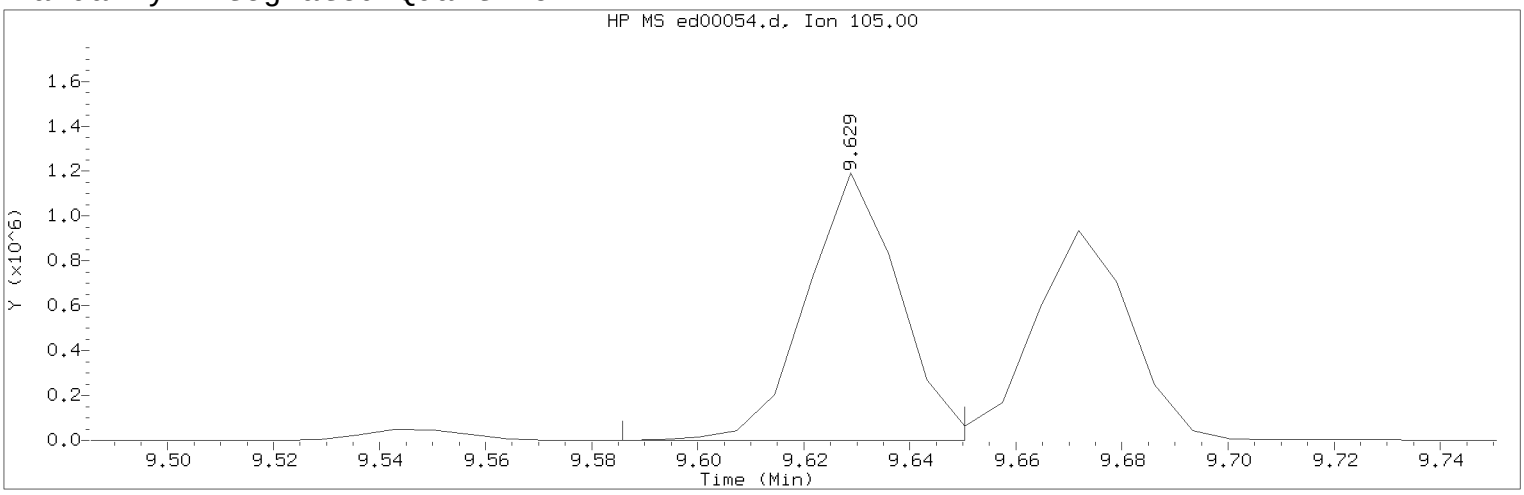
on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

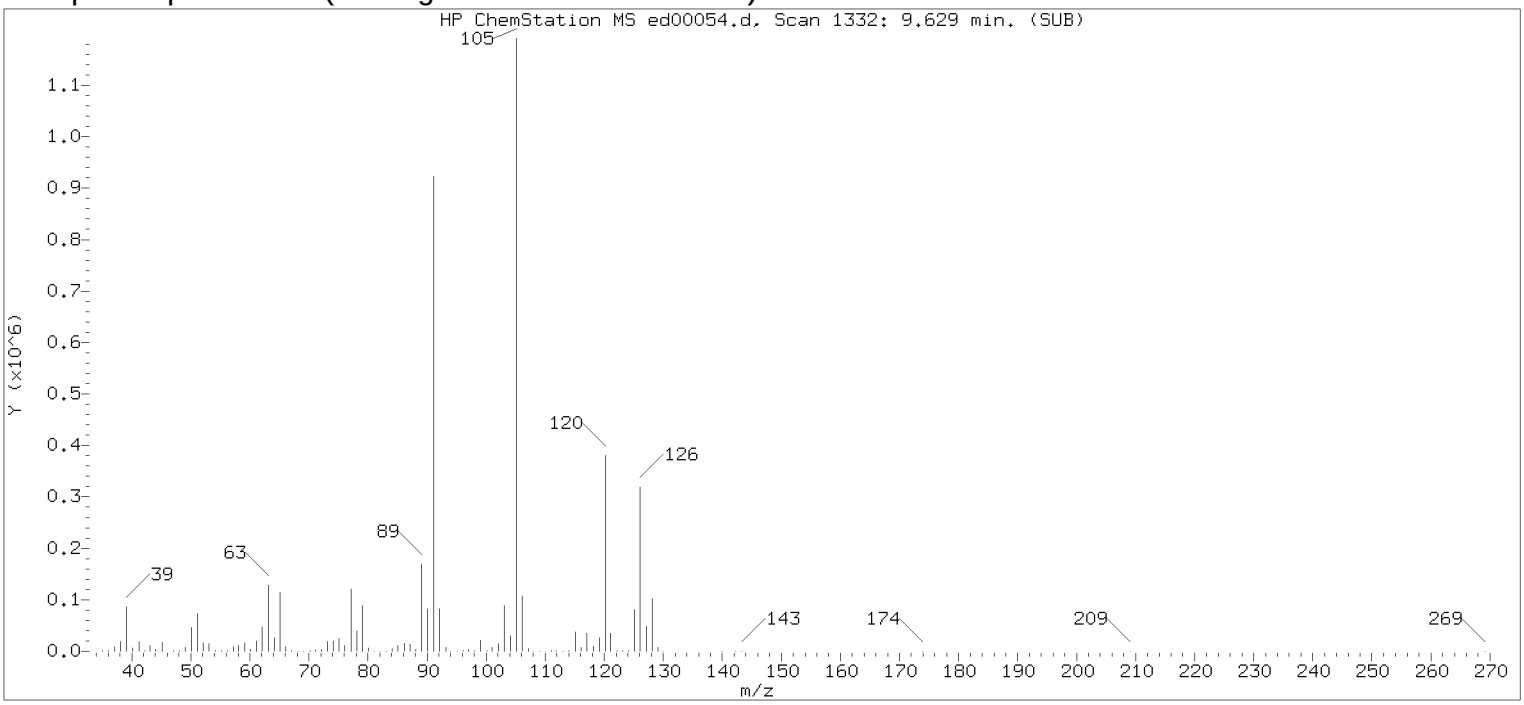
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1438523M
Concentration (ppb(v)) : 10.4529
Integration start scan : 1325 Integration stop scan: 1334
Y at integration start : 258 Y at integration end: 258

Reason for manual integration: improper integration

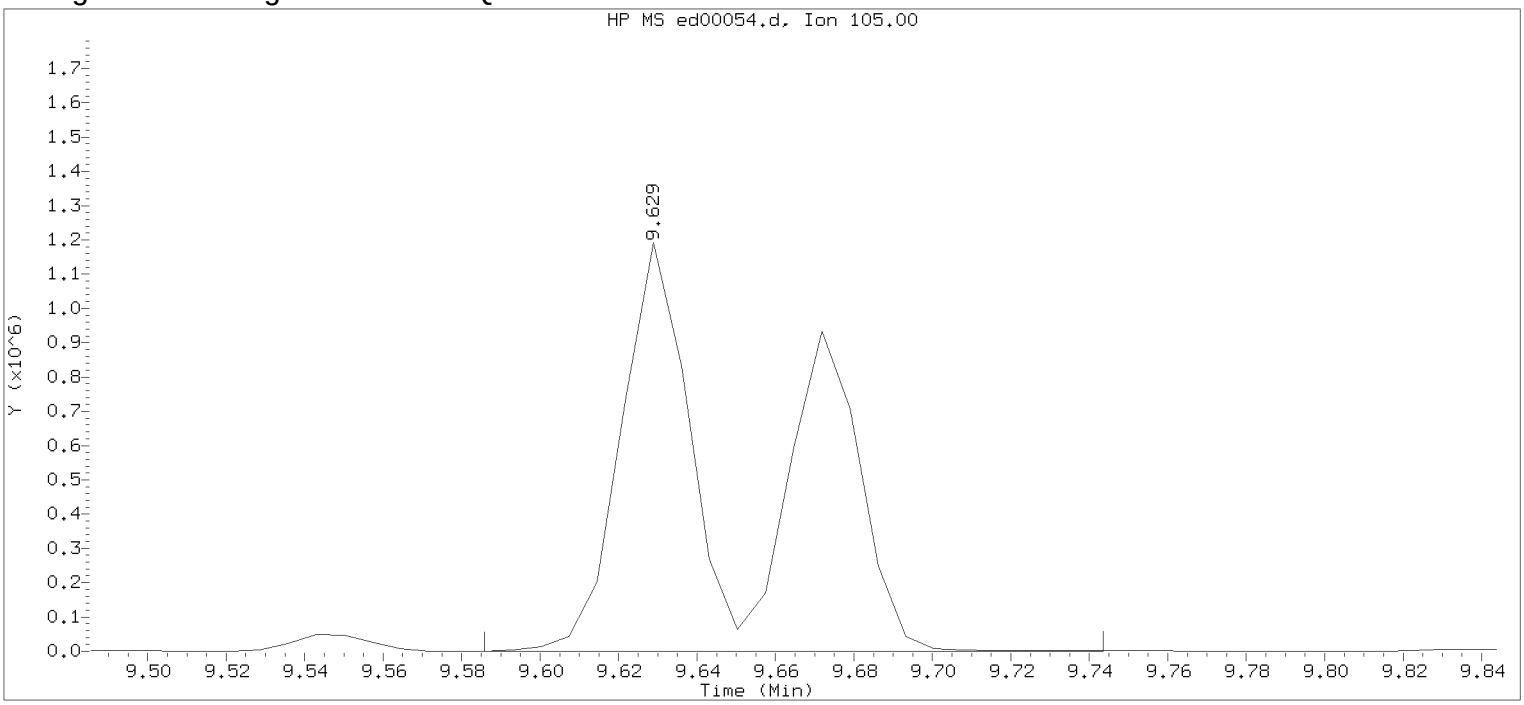
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:16 Unknown

Sample Name: LCSE53 Lab Sample ID: LCSE53

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2603834
Concentration (ppb(v)) : 18.9205
Integration start scan : 1325 Integration stop scan: 1347
Y at integration start : 258 Y at integration end: 258

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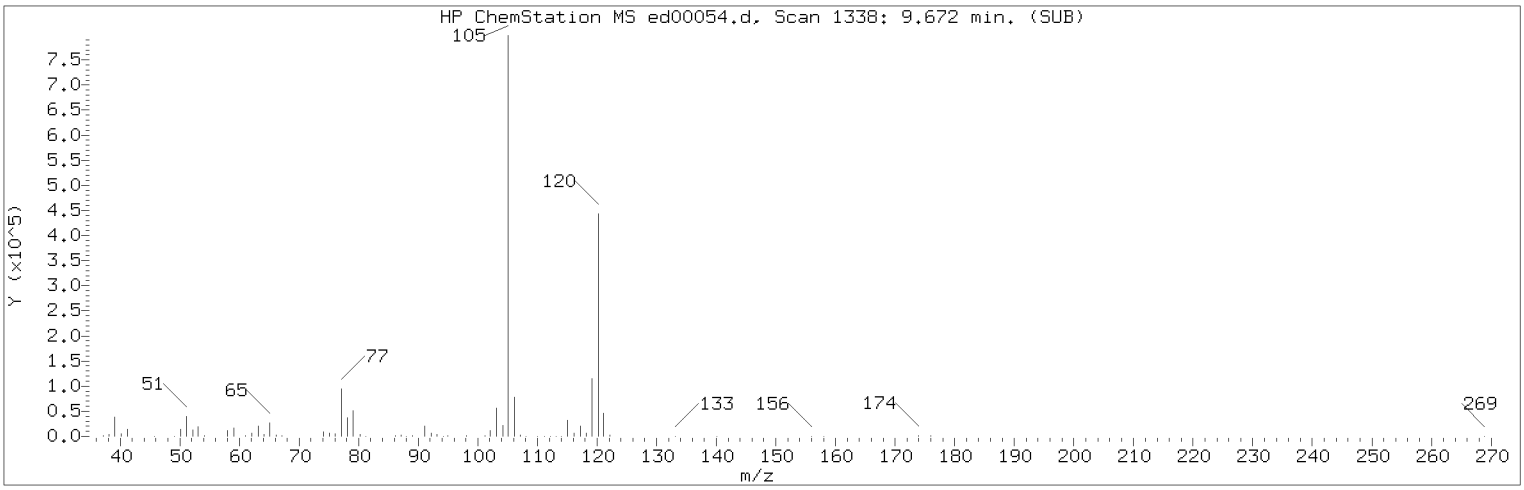
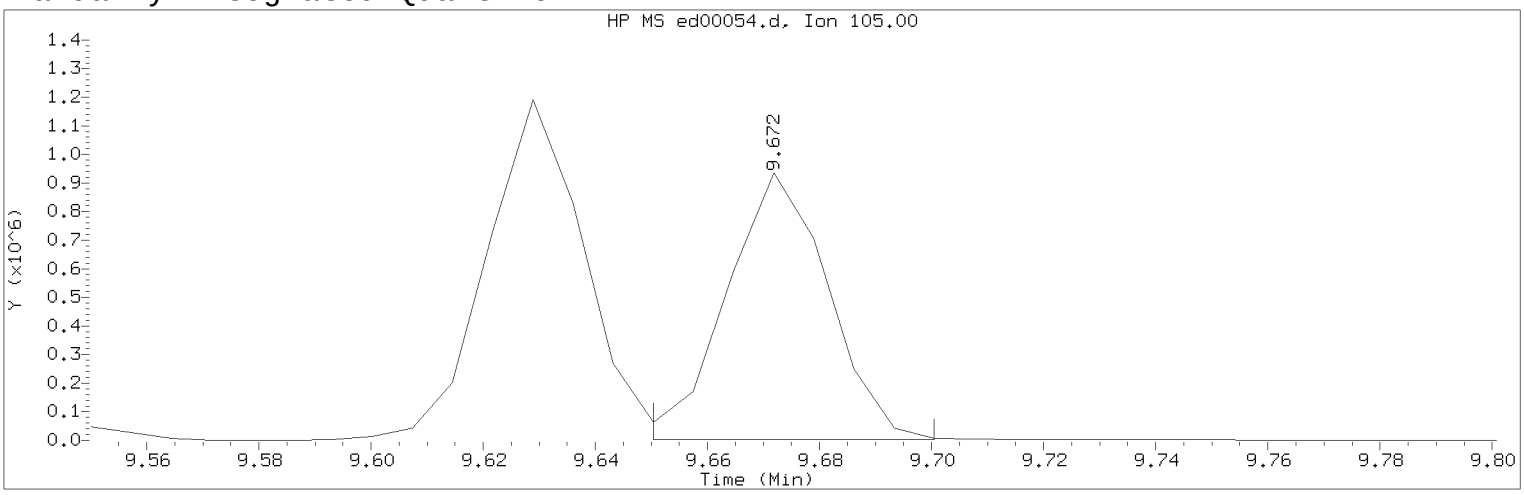
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

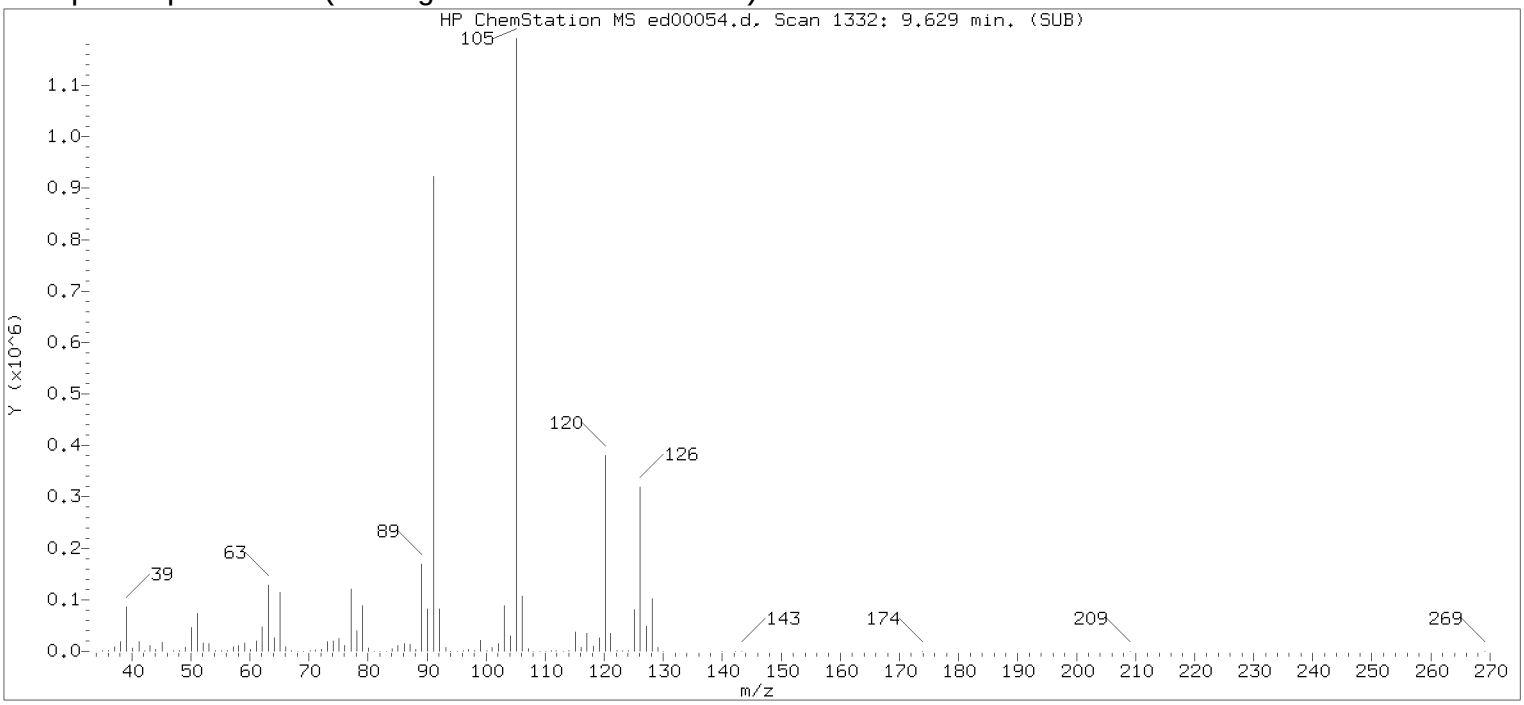
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1185033M
Concentration (ppb(v)) : 10.3605
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 1413 Y at integration end: 1413

Reason for manual integration: improper integration

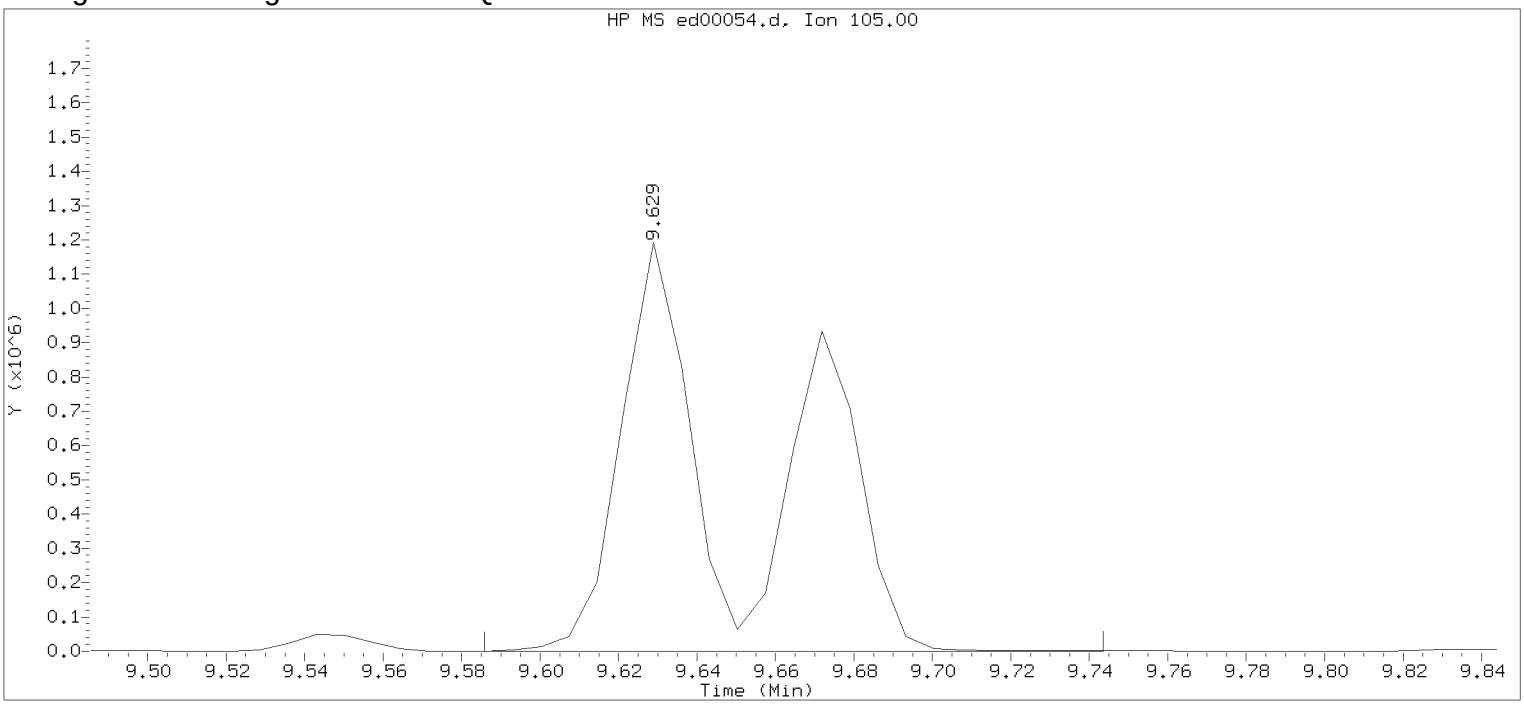
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

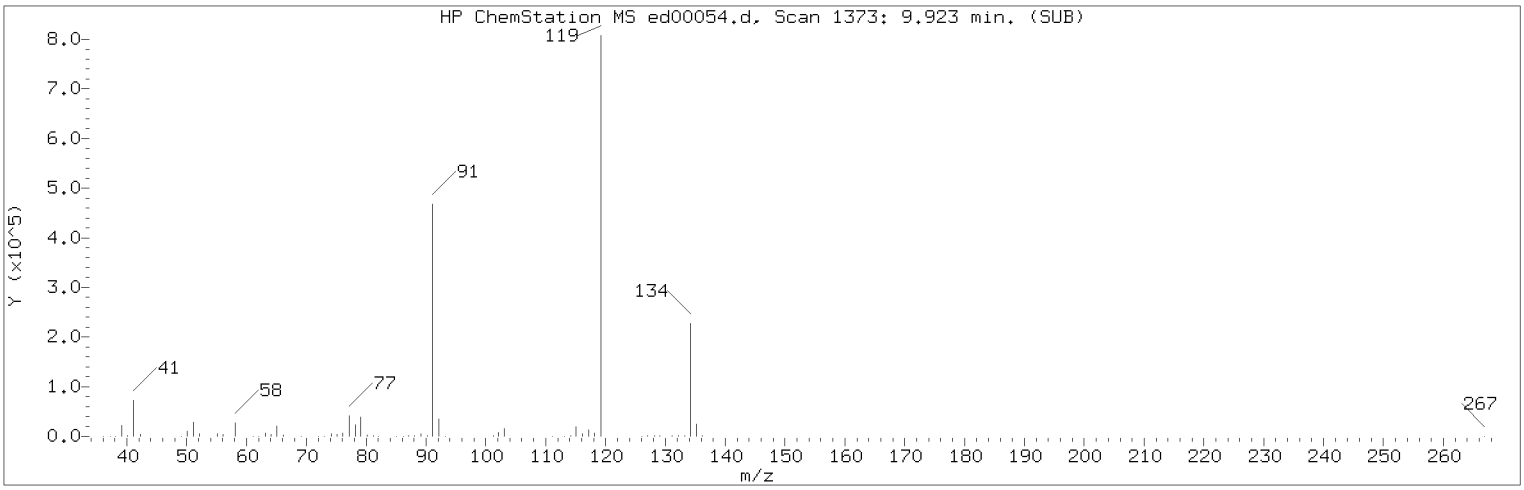
Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:16 Unknown

Sample Name: LCSE53 Lab Sample ID: LCSE53

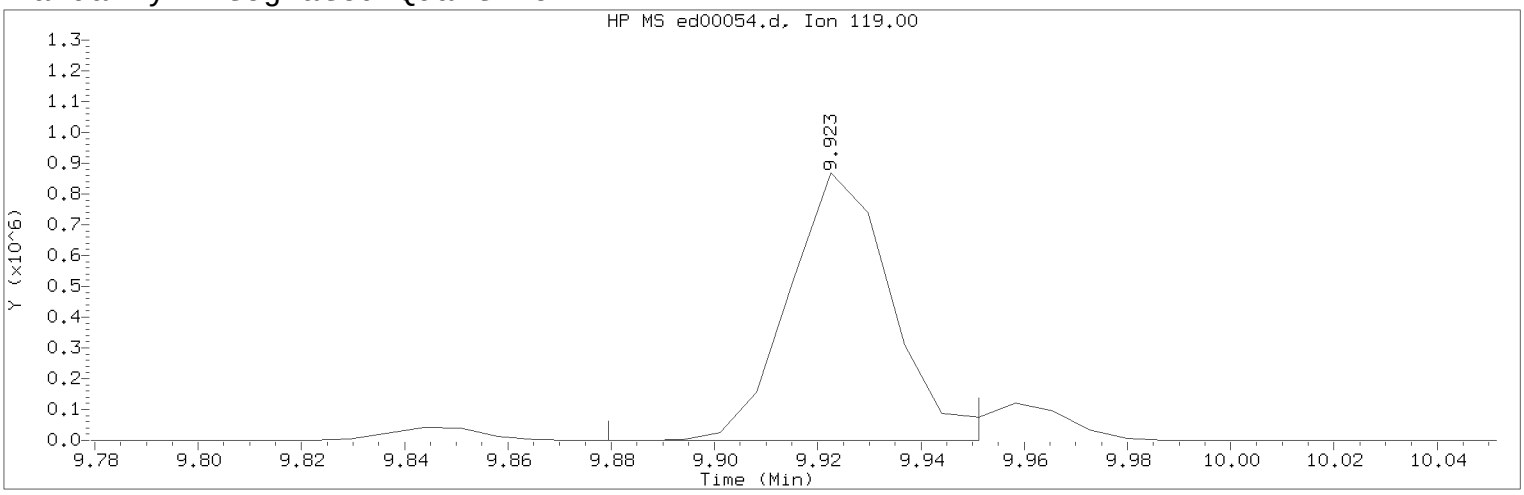
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2600347
Concentration (ppb(v)) : 22.7343
Integration start scan : 1325 Integration stop scan: 1347
Y at integration start : 642 Y at integration end: 642

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:39 jeb07445

Sample Name: LCSE53 Lab Sample ID: LCSE53

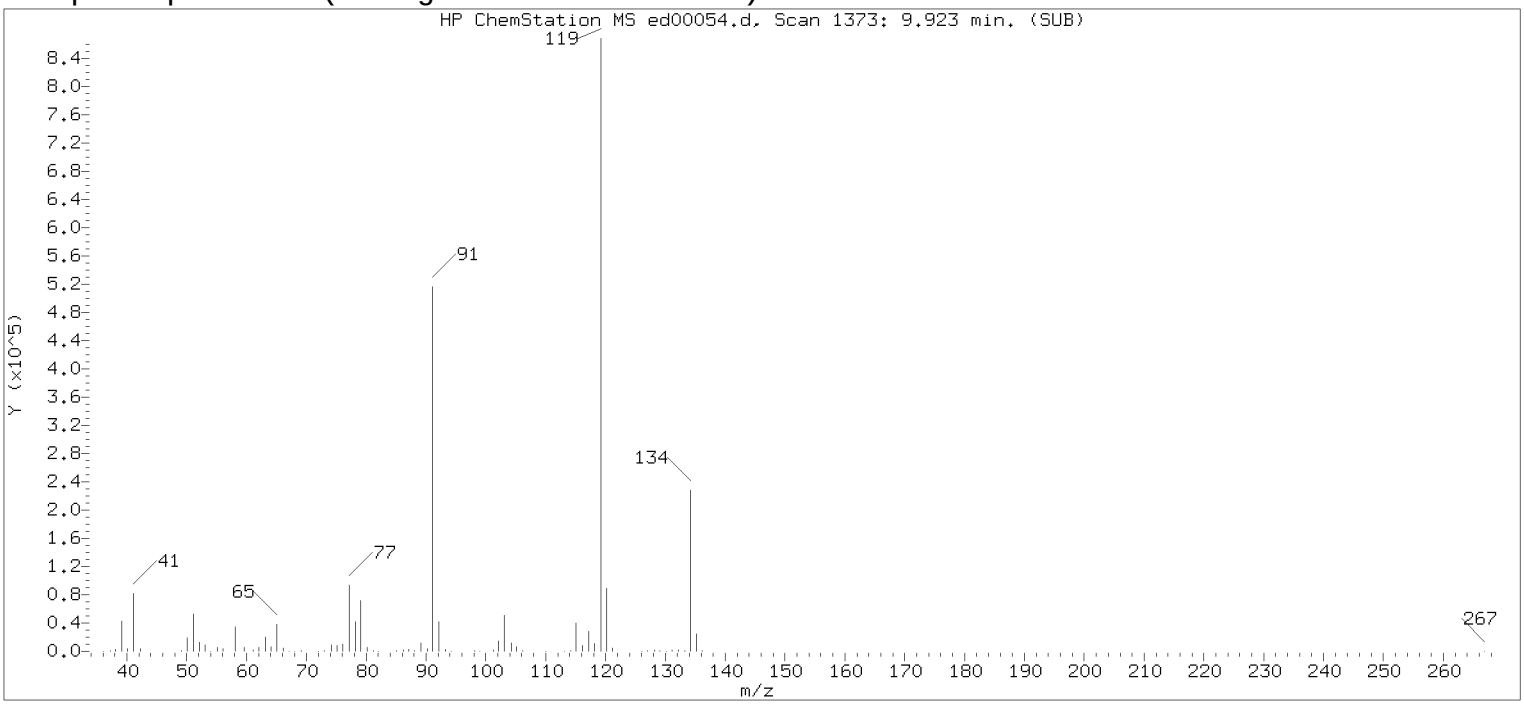
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 1198497M
Concentration (ppb(v)) : 10.6367
Integration start scan : 1366 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

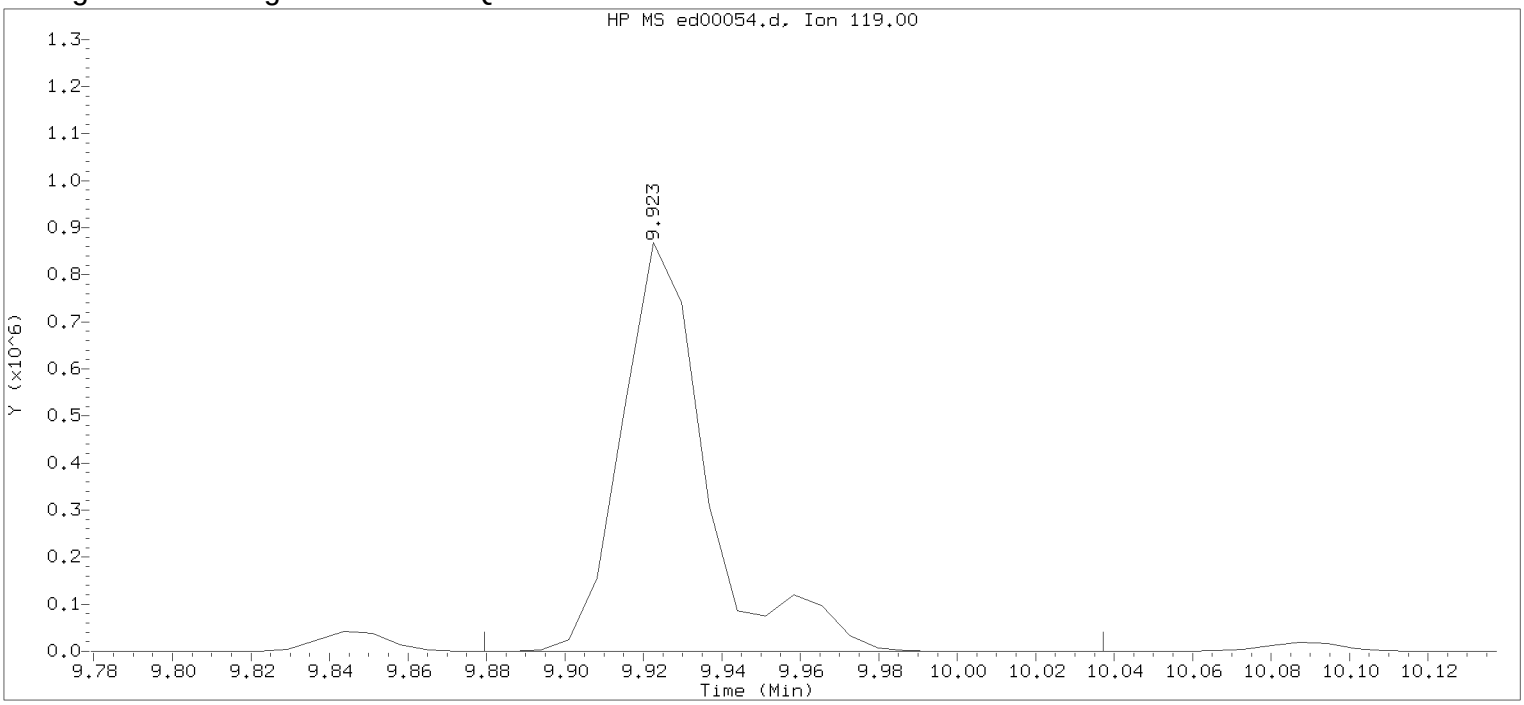
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00054.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 14:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 12:23
Date, time and analyst ID of latest file update: 05-Apr-2017 15:16 Unknown

Sample Name: LCSE53 Lab Sample ID: LCSE53

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 1309992
Concentration (ppb(v)) : 11.6263
Integration start scan : 1366 Integration stop scan: 1388
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:40.
Target 3.5 esignature user id: jeb07445

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

LCSDE53

Data file: /chem/HP22820.i/17apr05.b/ed00055.d Injection date and time: **05-APR-2017 15:30**
Data file Sample Info. Line: LCSDE53;200;E1709530AA;LCSDE53;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
40) Bromochloromethane	5.474(0.000)	752	130	220130 (-3)	10.00		135764 - 316780
51) 1,4-Difluorobenzene	6.298(0.000)	867	114	833240 (0)	10.00		500706 - 1168314
71) Chlorobenzene-d5	8.497(0.000)	1174	117	816889 (-2)	10.00		498344 - 1162802

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)	1.606(0.000)	41	149677	10.831	10.83			0.5	1
2) Dichlorodifluoromethane	(1)	1.642(0.000)	85	638171	11.513	11.51			0.2	1
3) Chlorodifluoromethane	(1)	1.663(0.000)	51	339239	11.758	11.76			0.2	1
4) Freon 114	(1)	1.771(0.000)	85	650506	11.207	11.21			0.2	1
5) Chloromethane	(1)	1.850(0.000)	50	161258	10.842	10.84			0.2	1
6) Vinyl Chloride	(1)	1.964(0.000)	62	234708	11.254	11.25			0.2	1
7) 1,3-Butadiene	(1)	2.000(0.000)	54	163633	10.674	10.67			0.4	2
8) Bromomethane	(1)	2.344(0.000)	94	251473	11.785	11.79			0.5	1
9) Chloroethane	(1)	2.466(0.000)	64	131677	11.332	11.33			0.2	1
10) Bromoethene	(1)	2.695(0.000)	106	261535	11.268	11.27			0.4	2
11) Dichlorofluoromethane	(1)	2.731(0.000)	67	534647	11.755	11.75			0.2	1
12) Trichlorofluoromethane	(1)	2.766(0.000)	101	676463	11.342	11.34			0.2	1
13) Pentane	(1)	2.867(0.000)	43	334806	10.735	10.74			0.5	1
14) Ethanol	(1)	3.074(0.000)	45	64449	12.311	12.31			0.5	2
15) Freon123a	(1)	3.203(0.000)	67	493129	11.180	11.18			0.2	1
16) Acrolein	(1)	3.340(0.000)	56	93155	11.590	11.59			1	2
17) 1,1-Dichloroethene	(1)	3.425(0.000)	61	366703	11.373	11.37			0.2	1
18) Freon 113	(1)	3.440(-0.001)	103	381209	10.853	10.85			0.5	2
19) Acetone	(1)	3.526(0.000)	43	294254	11.772	11.77			0.5	2
20) Methyl Iodide	(1)	3.604(0.000)	142	664512	10.136	10.14			0.2	1
21) Carbon Disulfide	(1)	3.655(0.000)	76	681449	10.668	10.67			0.5	1
22) Isopropanol	(1)	3.712(0.000)	45	323090	14.533	14.53			0.5	2
23) Acetonitrile	(1)	3.870(0.000)	40	108150	9.334	9.33			0.5	2
24) 3-Chloropropene	(1)	3.862(0.000)	76	127083	13.147	13.15			0.2	1
25) Methylene Chloride	(1)	4.013(0.000)	84	236953	12.462	12.46			0.2	1
26) tert-Butyl Alcohol	(1)	4.156(0.000)	59	500391	13.647	13.65			0.5	1
27) Acrylonitrile	(1)	4.299(0.000)	53	184017	11.057	11.06			0.5	2
28) trans-1,2-Dichloroethene	(1)	4.292(0.000)	61	334383	11.181	11.18			0.2	1
29) Methyl t-Butyl Ether	(1)	4.292(0.000)	73	705688	10.882	10.88			0.2	1
30) Hexane	(1)	4.557(0.000)	57	353669	10.921	10.92			0.2	1
31) 1,1-Dichloroethane	(1)	4.722(0.000)	63	437309	11.120	11.12			0.2	1
32) Vinyl Acetate	(1)	4.779(0.000)	86	73705	13.834	13.83			1	1
33) Di-Isopropyl Ether	(1)	4.779(0.000)	45	691727	11.040	11.04			0.2	1
34) Ethyl Tert-Butyl Ether	(1)	5.116(0.000)	59	715895	10.913	10.91			0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.000)	61	316349	11.098	11.10			0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	650732	22.278	22.28			0.2	1
37) 2-Butanone	(1)	5.281(0.000)	72	130782	11.429	11.43			0.5	2
38) Ethyl Acetate	(1)	5.331(0.000)	70	62326	10.142	10.14			0.5	1
39) Methyl Acrylate	(1)	5.360(0.000)	55	388902	11.256	11.26			0.2	1
41) Tetrahydrofuran	(1)	5.503(-0.000)	42	231270	11.219	11.22			0.5	1
42) Chloroform	(1)	5.538(-0.000)	83	553532	11.170	11.17			0.2	1
43) 1,1,1-Trichloroethane	(1)	5.682(0.000)	97	563799	11.250	11.25			0.2	1
44) Cyclohexane	(1)	5.710(0.000)	56	370499	10.920	10.92			0.2	1

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:59. Target 3.5 esignature user ID: jeb07445

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

LCSDE53

Data file: /chem/HP22820.i/17apr05.b/ed00055.d Injection date and time: **05-APR-2017 15:30**
Data file Sample Info. Line: LCSDE53;200;E1709530AA;LCSDE53;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.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
45) Carbon Tetrachloride	(1)	5.811(-0.000)	117	594452	11.424	11.42			0.2	1
46) Benzene	(2)	5.990(-0.000)	78	834150	10.791	10.79			0.2	1
47) 1,2-Dichloroethane	(2)	6.011(0.000)	62	332369	11.414	11.41			0.2	1
48) Isooctane	(2)	6.040(0.000)	57	1139494	10.714	10.71			0.2	1
49) Tert-Amyl Methyl Ether	(2)	6.069(0.000)	73	757961	10.807	10.81			0.2	1
50) Heptane	(2)	6.176(0.000)	43	379408	10.774	10.77			0.5	1
52) Trichloroethene	(2)	6.491(-0.000)	130	453632	11.388	11.39			0.2	1
53) Ethyl Acrylate	(2)	6.577(-0.000)	55	507622	11.291	11.29			0.2	1
54) 1,2-Dichloropropane	(2)	6.678(-0.000)	63	282370	10.677	10.68			0.2	1
55) Dibromomethane	(2)	6.771(-0.000)	174	436306	11.127	11.13			0.2	1
56) 1,4-Dioxane	(2)	6.778(-0.000)	88	204440	11.036	11.04			0.5	1
57) Methyl Methacrylate	(2)	6.749(-0.000)	69	273110	10.597	10.60			0.2	1
58) Bromodichloromethane	(2)	6.885(-0.000)	83	550631	10.924	10.92			0.2	1
59) cis-1,3-Dichloropropene	(2)	7.222(-0.000)	75	484464	10.812	10.81			0.2	1
60) 4-Methyl-2-Pentanone	(2)	7.329(-0.000)	43	500634	11.151	11.15			0.5	2
61) Toluene	(3)	7.465(0.000)	91	1071142	10.863	10.86			0.2	1
62) Octane	(3)	7.516(0.000)	43	518021	10.701	10.70			0.5	1
63) trans-1,3-Dichloropropene	(3)	7.630(0.000)	75	421126	11.074	11.07			0.2	1
64) 1,3-Dichloropropene (total)	(3)		75	905590	21.887	21.89			0.2	1
65) Ethyl Methacrylate	(3)	7.673(0.000)	69	460433	11.249	11.25			0.2	1
66) 1,1,2-Trichloroethane	(3)	7.773(0.000)	97	359711	10.917	10.92			0.2	1
67) Tetrachloroethene	(3)	7.874(0.000)	166	638508	11.000	11.00			0.2	1
68) 2-Hexanone	(3)	7.945(0.000)	43	459509	11.069	11.07			0.5	2
69) Dibromochloromethane	(3)	8.074(0.000)	127	476845	11.121	11.12			0.2	1
70) 1,2-Dibromoethane	(3)	8.167(0.000)	107	558717	10.820	10.82			0.2	1
72) Chlorobenzene	(3)	8.518(-0.000)	112	882649	10.438	10.44			0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)	8.576(0.000)	131	470334	11.068	11.07			0.2	1
74) Ethylbenzene	(3)	8.583(-0.000)	91	1389880	11.000	11.00			0.2	1
75) m/p-Xylene	(3)	8.669(0.000)	91	1138042	11.404	11.40			0.2	1
76) o-Xylene	(3)	8.970(-0.000)	91	1080576	11.172	11.17			0.2	1
77) Xylene (total)	(3)		91	2218618	22.576	22.58			0.2	1
78) Styrene	(3)	8.984(-0.000)	104	806599	11.024	11.02			0.2	1
79) Bromoform	(3)	9.142(-0.000)	173	602764	11.115	11.12			0.2	1
80) Cumene	(3)	9.242(-0.000)	105	1465517	10.766	10.77			0.2	1
81) Bromobenzene	(3)	9.492(-0.000)	156	542424	10.405	10.40			0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)	9.471(-0.000)	83	650415	10.193	10.19			0.2	1
83) 1,2,3-Trichloropropane	(3)	9.514(-0.000)	110	230614	10.822	10.82			0.2	1
84) n-Propylbenzene	(3)	9.550(-0.000)	120	428388	10.307	10.31			0.5	1
85) 2-Chlorotoluene	(3)	9.629(-0.000)	126	389623	10.403	10.40			0.2	1
86) 4-Ethyltoluene	(3)	9.629(-0.000)	105	1452833	10.809	10.81			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.679(-0.000)	105	1140045	10.206	10.21			0.2	1
88) Alpha Methyl Styrene	(3)	9.851(-0.000)	118	571992	10.751	10.75			0.2	1
89) tert-Butylbenzene	(3)	9.930(-0.000)	119	1168948M	10.623	10.62			0.5	1
90) 1,2,4-Trimethylbenzene	(3)	9.965(-0.000)	105	1149865	10.882	10.88			0.2	1
91) sec-Butylbenzene	(3)	10.094(-0.000)	105	1701763	10.988	10.99			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.194(-0.000)	146	863810	10.805	10.80			0.2	1
93) 1,4-Dichlorobenzene	(3)	10.259(-0.000)	146	868281	10.704	10.70			0.2	1
94) p-Isopropyltoluene	(3)	10.194(-0.000)	119	1438167	10.937	10.94			0.2	1
95) Benzyl Chloride	(3)	10.366(-0.000)	91	829306	11.874	11.87			0.5	1
96) 1,2-Dichlorobenzene	(3)	10.553(-0.000)	146	778169	10.786	10.79			0.2	1
97) n-Butylbenzene	(3)	10.510(-0.000)	91	1187766	10.894	10.89			0.2	1
98) Hexachloroethane	(3)	10.739(-0.000)	117	374745	12.210	12.21			0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)	11.147(-0.000)	157	347044	12.296	12.30			0.2	1
100) 1,2,4-Trichlorobenzene	(3)	11.770(-0.000)	180	549183	12.689	12.69			0.5	2

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:59. Target 3.5 esignature user ID: jeb07445

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

LCSDE53

Data file: /chem/HP22820.i/17apr05.b/ed00055.d Injection date and time: **05-APR-2017 15:30**
Data file Sample Info. Line: LCSDE53;200;E1709530AA;LCSDE53;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1709530AA**
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Blank Data file reference: **/chem/HP22820.i/17apr05.b/ed00053.d**

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-APR-2017 15:41
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17apr05.b/ed00051.d**

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

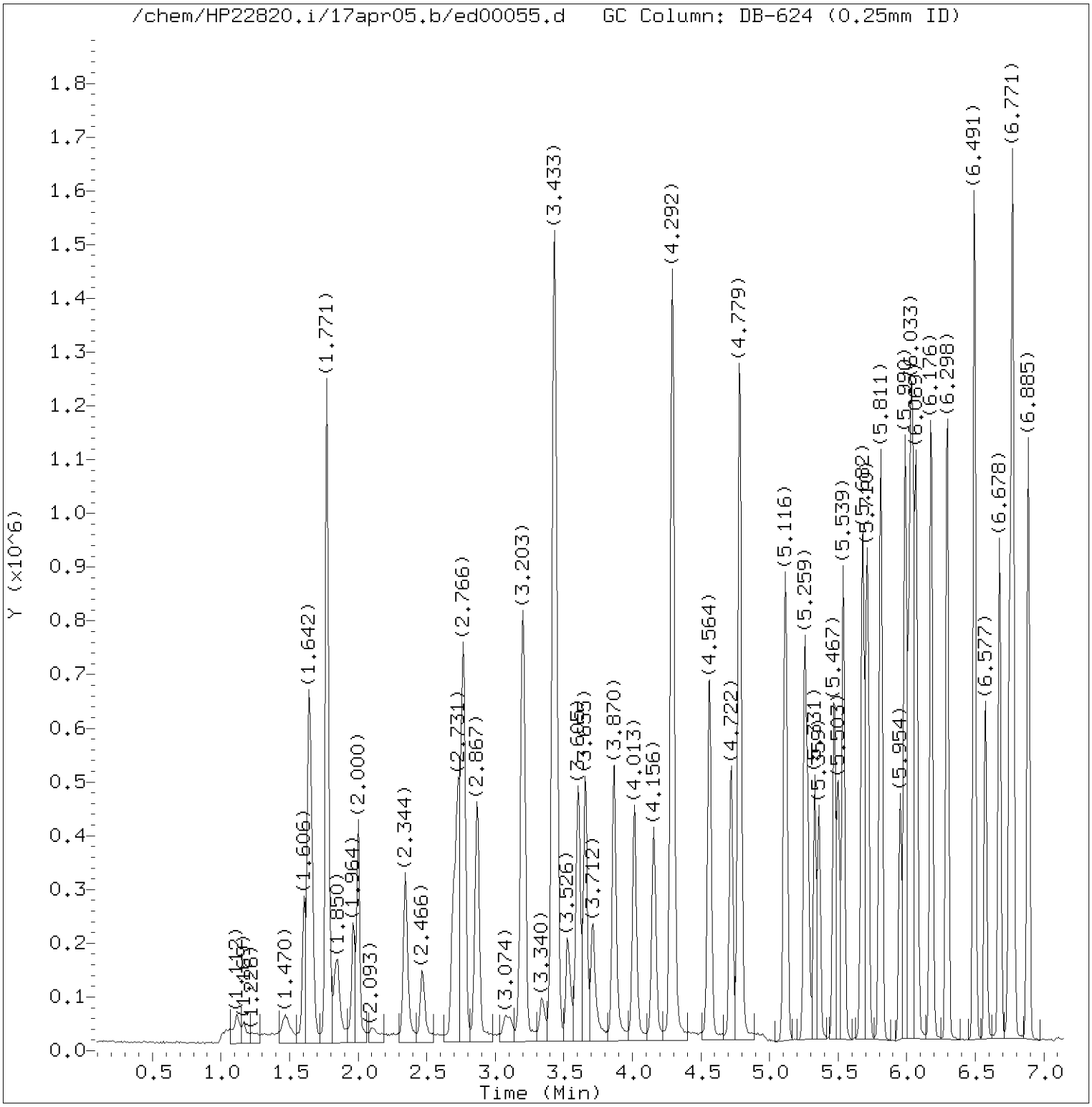
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
101) Hexachlorobutadiene	(3)	11.878(-0.000)	225	476351	12.254	12.25			0.4	2
102) Naphthalene	(3)	11.971(-0.000)	128	1017213	12.960	12.96			0.4	1

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:59. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

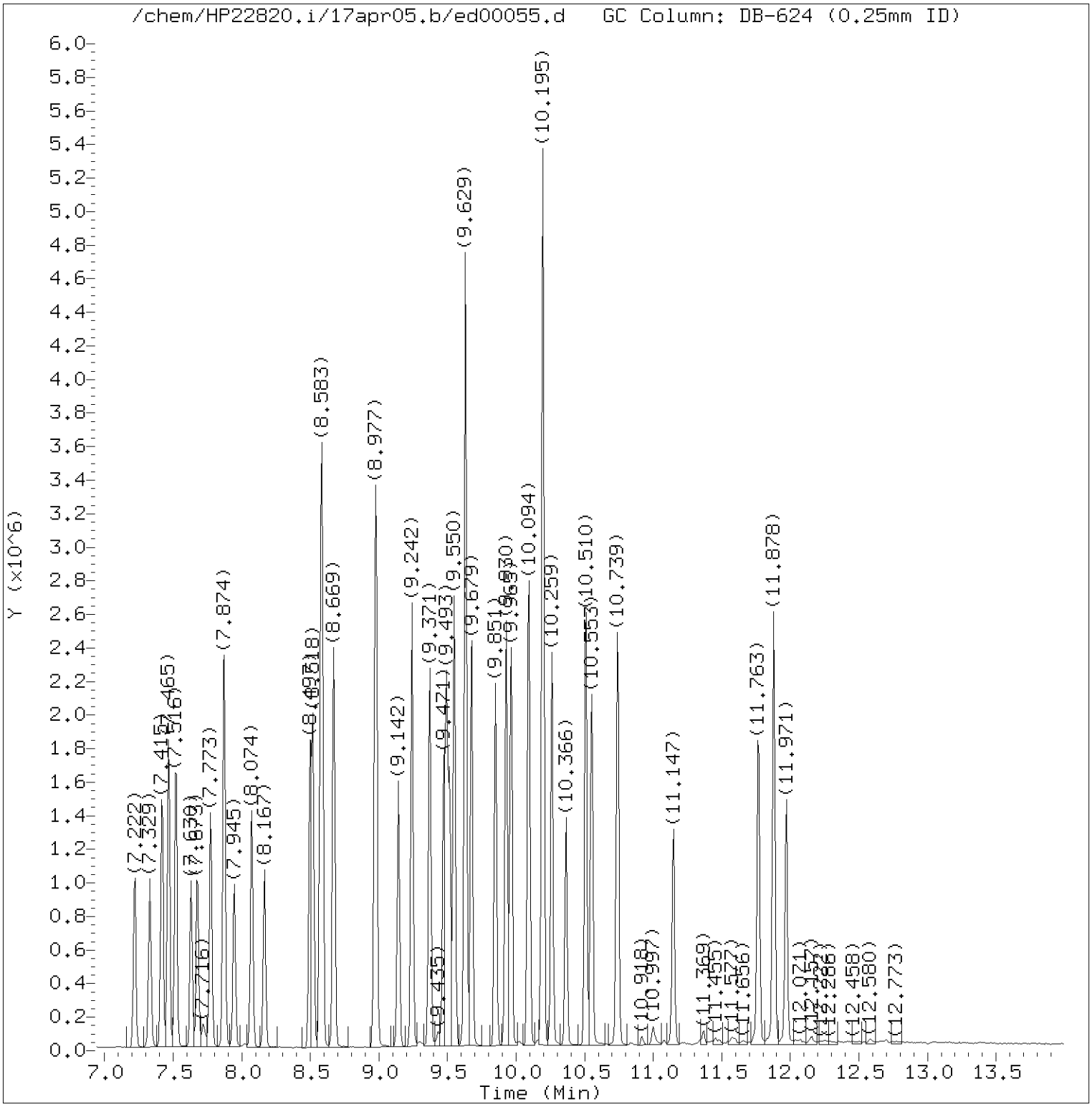
Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1)	Propene	(1)	1.606	41	149677	10.831
2)	Dichlorodifluoromethane	(1)	1.642	85	638171	11.513
3)	Chlorodifluoromethane	(1)	1.663	51	339239	11.758
4)	Freon 114	(1)	1.771	85	650506	11.207
5)	Chloromethane	(1)	1.850	50	161258	10.842
6)	Vinyl Chloride	(1)	1.964	62	234708	11.254
7)	1,3-Butadiene	(1)	2.000	54	163633	10.674
8)	Bromomethane	(1)	2.344	94	251473	11.785
9)	Chloroethane	(1)	2.466	64	131677	11.332
10)	Bromoethene	(1)	2.695	106	261535	11.268
11)	Dichlorofluoromethane	(1)	2.731	67	534647	11.755
12)	Trichlorofluoromethane	(1)	2.766	101	676463	11.342
13)	Pentane	(1)	2.867	43	334806	10.735
14)	Ethanol	(1)	3.074	45	64449	12.311
15)	Freon123a	(1)	3.203	67	493129	11.180
16)	Acrolein	(1)	3.340	56	93155	11.590
17)	1,1-Dichloroethene	(1)	3.425	61	366703	11.373
18)	Freon 113	(1)	3.440	103	381209	10.853
19)	Acetone	(1)	3.526	43	294254	11.772
20)	Methyl Iodide	(1)	3.605	142	664512	10.136
21)	Carbon Disulfide	(1)	3.655	76	681449	10.668
22)	Isopropanol	(1)	3.712	45	323090	14.533
24)	3-Chloropropene	(1)	3.862	76	127083	13.147
23)	Acetonitrile	(1)	3.870	40	108150	9.334
25)	Methylene Chloride	(1)	4.013	84	236953	12.462
26)	tert-Butyl Alcohol	(1)	4.156	59	500391	13.647
28)	trans-1,2-Dichloroethene	(1)	4.292	61	334383	11.181
29)	Methyl t-Butyl Ether	(1)	4.292	73	705688	10.882
27)	Acrylonitrile	(1)	4.299	53	184017	11.057
30)	Hexane	(1)	4.557	57	353669	10.921
31)	1,1-Dichloroethane	(1)	4.722	63	437309	11.120
32)	Vinyl Acetate	(1)	4.779	86	73705	13.834
33)	Di-Isopropyl Ether	(1)	4.779	45	691727	11.040
34)	Ethyl Tert-Butyl Ether	(1)	5.116	59	715895	10.913
35)	cis-1,2-Dichloroethene	(1)	5.259	61	316349	11.098
37)	2-Butanone	(1)	5.281	72	130782	11.429
38)	Ethyl Acetate	(1)	5.331	70	62326	10.142
39)	Methyl Acrylate	(1)	5.359	55	388902	11.256

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on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	220130	10.000
41) Tetrahydrofuran	(1)	5.503	42	231270	11.219
42) Chloroform	(1)	5.539	83	553532	11.170
43) 1,1,1-Trichloroethane	(1)	5.682	97	563799	11.250
44) Cyclohexane	(1)	5.710	56	370499	10.920
45) Carbon Tetrachloride	(1)	5.811	117	594452	11.424
46) Benzene	(2)	5.990	78	834150	10.791
47) 1,2-Dichloroethane	(2)	6.011	62	332369	11.414
48) Isooctane	(2)	6.040	57	1139494	10.714
49) Tert-Amyl Methyl Ether	(2)	6.069	73	757961	10.807
50) Heptane	(2)	6.176	43	379408	10.774
51)*1,4-Difluorobenzene	(2)	6.298	114	833240	10.000
52) Trichloroethene	(2)	6.491	130	453632	11.388
53) Ethyl Acrylate	(2)	6.577	55	507622	11.291
36) 1,2-Dichloroethene (total)	(1)		61	650732	22.278
54) 1,2-Dichloropropane	(2)	6.678	63	282370	10.677
57) Methyl Methacrylate	(2)	6.749	69	273110	10.597
55) Dibromomethane	(2)	6.771	174	436306	11.127
56) 1,4-Dioxane	(2)	6.778	88	204440	11.036
58) Bromodichloromethane	(2)	6.885	83	550631	10.924
59) cis-1,3-Dichloropropene	(2)	7.222	75	484464	10.812
60) 4-Methyl-2-Pentanone	(2)	7.329	43	500634	11.151
61) Toluene	(3)	7.465	91	1071142	10.863
62) Octane	(3)	7.516	43	518021	10.701
63) trans-1,3-Dichloropropene	(3)	7.630	75	421126	11.074
65) Ethyl Methacrylate	(3)	7.673	69	460433	11.249
66) 1,1,2-Trichloroethane	(3)	7.773	97	359711	10.917
67) Tetrachloroethene	(3)	7.874	166	638508	11.000
68) 2-Hexanone	(3)	7.945	43	459509	11.069
69) Dibromochloromethane	(3)	8.074	127	476845	11.121
70) 1,2-Dibromoethane	(3)	8.167	107	558717	10.820
71)*Chlorobenzene-d5	(3)	8.497	117	816889	10.000
72) Chlorobenzene	(3)	8.518	112	882649	10.438
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	470334	11.068
74) Ethylbenzene	(3)	8.583	91	1389880	11.000
75) m/p-Xylene	(3)	8.669	91	1138042	11.404
76) o-Xylene	(3)	8.970	91	1080576	11.172
78) Styrene	(3)	8.984	104	806599	11.024

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

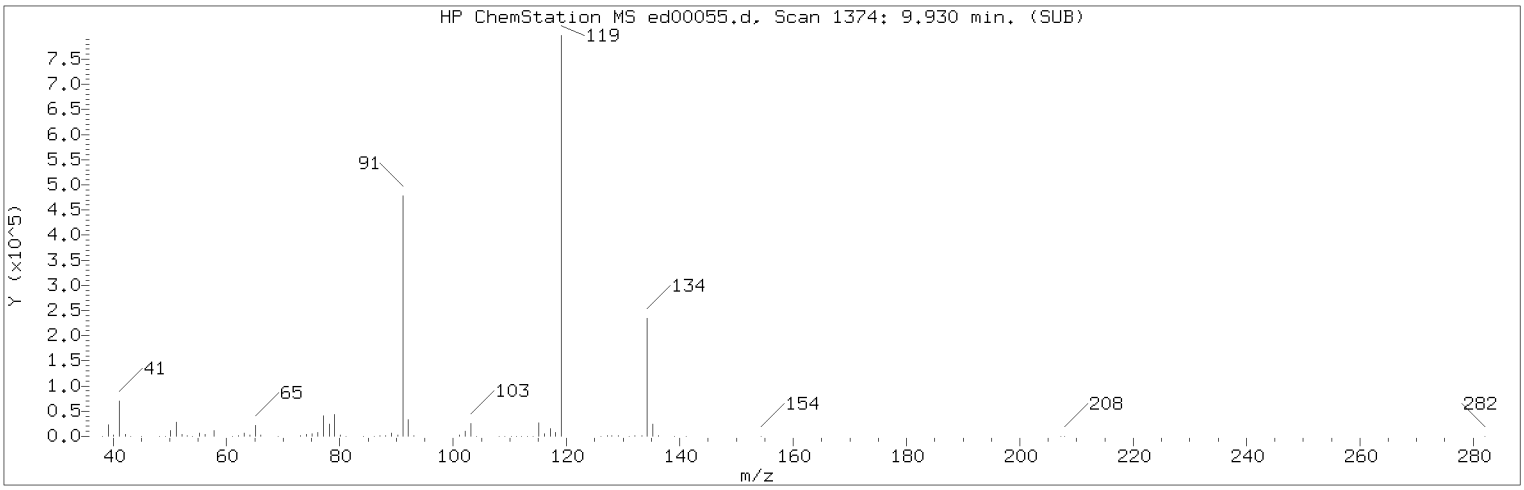
Sample Name: LCSDE53 Lab Sample ID: LCSDE53

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79)	Bromoform	(3)	9.142	173	602764	11.115
80)	Cumene	(3)	9.242	105	1465517	10.766
82)	1,1,2,2-Tetrachloroethane	(3)	9.471	83	650415	10.193
81)	Bromobenzene	(3)	9.493	156	542424	10.405
83)	1,2,3-Trichloropropane	(3)	9.514	110	230614	10.822
84)	n-Propylbenzene	(3)	9.550	120	428388	10.307
86)	4-Ethyltoluene	(3)	9.629	105	1452833	10.809
85)	2-Chlorotoluene	(3)	9.629	126	389623	10.403
87)	1,3,5-Trimethylbenzene	(3)	9.679	105	1140045	10.206
88)	Alpha Methyl Styrene	(3)	9.851	118	571992	10.751
89)	tert-Butylbenzene	(3)	9.930	119	1168948M	10.623
90)	1,2,4-Trimethylbenzene	(3)	9.965	105	1149865	10.882
91)	sec-Butylbenzene	(3)	10.094	105	1701763	10.988
92)	1,3-Dichlorobenzene	(3)	10.195	146	863810	10.805
94)	p-Isopropyltoluene	(3)	10.195	119	1438167	10.937
93)	1,4-Dichlorobenzene	(3)	10.259	146	868281	10.704
95)	Benzyl Chloride	(3)	10.366	91	829306	11.874
97)	n-Butylbenzene	(3)	10.510	91	1187766	10.894
96)	1,2-Dichlorobenzene	(3)	10.553	146	778169	10.786
98)	Hexachloroethane	(3)	10.739	117	374745	12.210
99)	1,2-Dibromo-3-chloropropane	(3)	11.147	157	347044	12.296
100)	1,2,4-Trichlorobenzene	(3)	11.770	180	549183	12.689
101)	Hexachlorobutadiene	(3)	11.878	225	476351	12.254
102)	Naphthalene	(3)	11.971	128	1017213	12.960
64)	1,3-Dichloropropene (total)	(3)		75	905590	21.887
77)	Xylene (total)	(3)		91	2218618	22.576

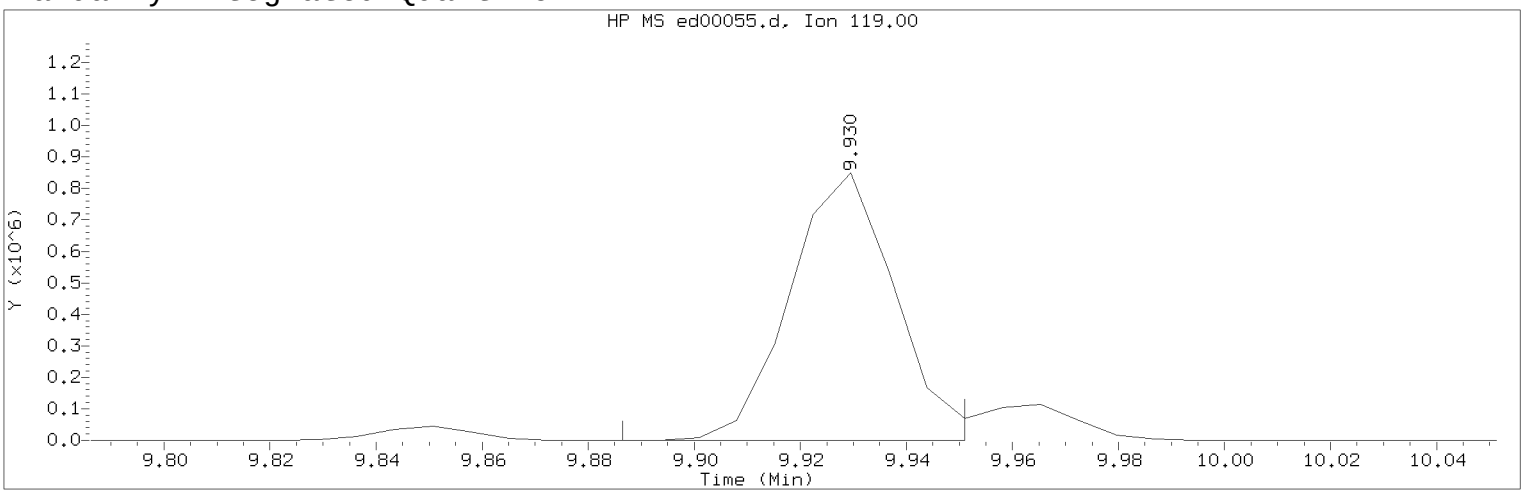
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:59 jeb07445

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

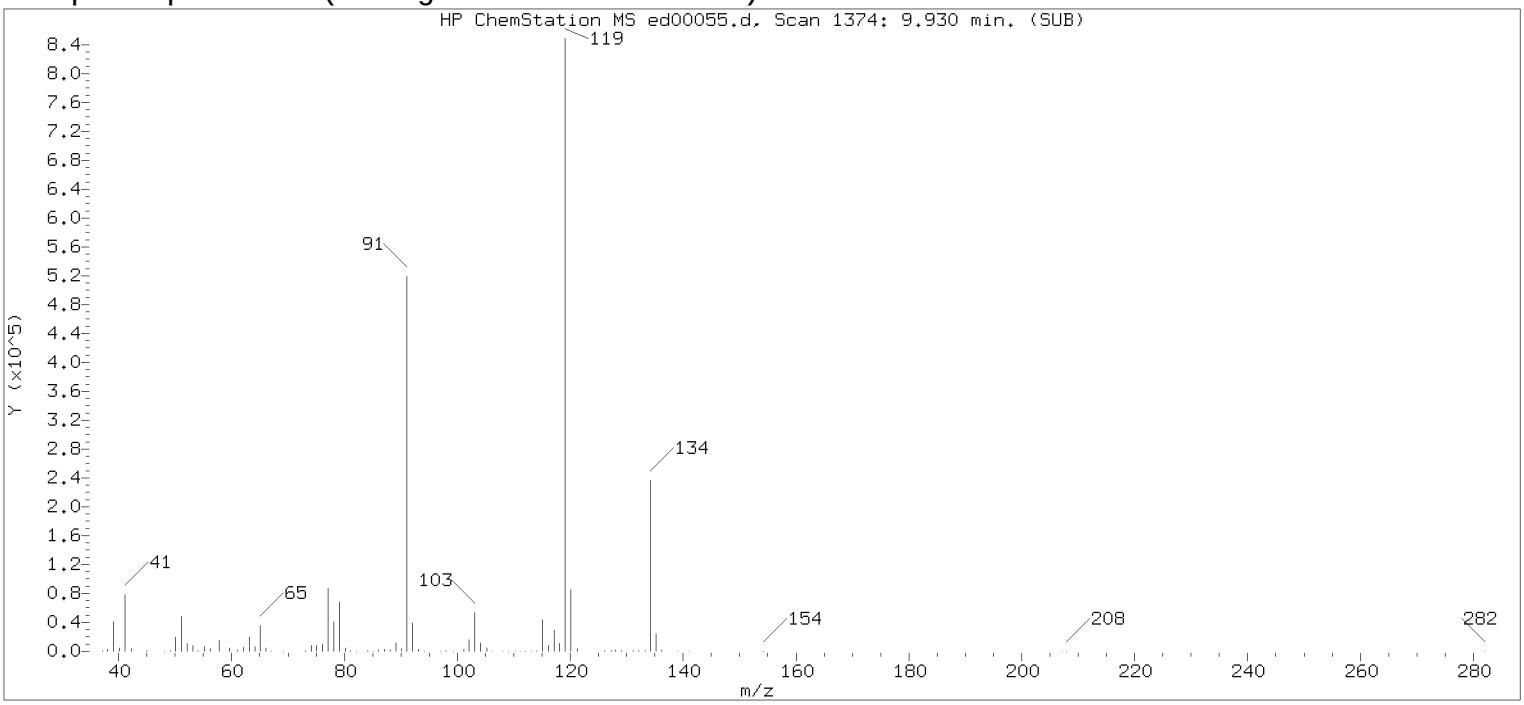
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area (flag) : 1168948M
Concentration (ppb(v)) : 10.6226
Integration start scan : 1367 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

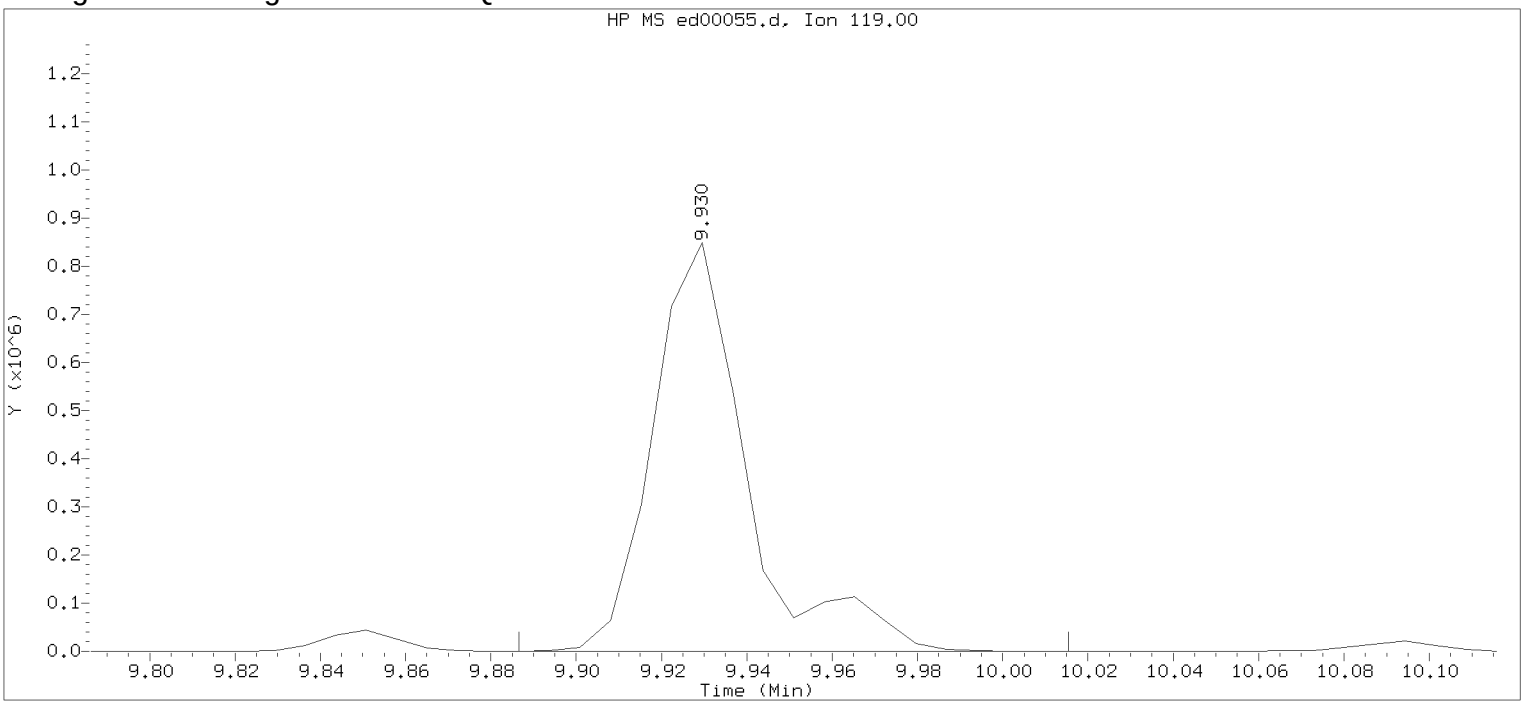
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:59.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 04/06/2017 at 14:30.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17apr05.b/ed00055.d Instrument ID: HP22820.i
Injection date and time: 05-APR-2017 15:30 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17apr05.b/to-15.m Sublist used: all
Calibration date and time: 05-APR-2017 15:41
Date, time and analyst ID of latest file update: 05-Apr-2017 15:50 Unknown

Sample Name: LCSDE53 Lab Sample ID: LCSDE53

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area : 1298623
Concentration (ppb(v)) : 11.8009
Integration start scan : 1367 Integration stop scan: 1385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 04/05/2017 at 15:59.
Target 3.5 esignature user id: jeb07445

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP22820 **HP #05**

Data Directory Path is - D:\data\17mar30\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	EC00830.D	50NGBFB	03/30/2017	12:36		
jeb07445	EC00831.D	VSTD010	03/30/2017	13:19		
jeb07445	EC00832.D	VBLKE47	03/30/2017	14:41	E1708830AA	
jeb07445	EC00833.D	VBLKE47	03/30/2017	15:25	E1708830AA	
jeb07445	EC00840.D	50NGBFB	03/30/2017	16:00		
jeb07445	EC00842.D	VSTD0.20	03/30/2017	17:18		
jeb07445	EC00843.D	VSTD0.20	03/30/2017	17:52		
jeb07445	EC00844.D	VSTD0.50	03/30/2017	18:25		
jeb07445	EC00845.D	VSTD0.50	03/30/2017	18:59		
jeb07445	EC00846.D	VSTD001	03/30/2017	19:24		
jeb07445	EC00847.D	VSTD001	03/30/2017	19:49		
jeb07445	EC00848.D	VSTD002	03/30/2017	20:15		
jeb07445	EC00849.D	VSTD005	03/30/2017	20:42		
jeb07445	EC00850.D	VSTD010	03/30/2017	21:16		
jeb07445	EC00851.D	VSTD025	03/30/2017	21:43		
jeb07445	EC00852.D	VSTD070	03/30/2017	22:21		
jeb07445	EC00853.D	VBLKE48	03/30/2017	22:55	E1708930AA	
jeb07445	EC00854.D	VBLKE48	03/30/2017	23:28	E1708930AA	
jeb07445	EC00855.D	VBLKE48	03/31/2017	00:02	E1708930AA	
jeb07445	EC00856.D	VBLKE48	03/31/2017	00:36	E1708930AA	
jeb07445	EC00857.D	VBLKE48	03/31/2017	01:10	E1708930AA	
jeb07445	EC00858.D	LCSE48	03/31/2017	01:44	E1708930AA	
jeb07445	EC00859.D	LCSDE48	03/31/2017	02:17	E1708930AA	
jeb07445	EC00860.D	LCSE48	03/31/2017	02:51	E1708930AA	
jeb07445	EC00861.D	LCSDE48	03/31/2017	03:25	E1708930AA	
jeb07445	EC00862.D	mdlv0.5	03/31/2017	03:59	E1708930AA	
jeb07445	EC00863.D	mdlv0.2	03/31/2017	04:26	E1708930AA	
jeb07445	EC00864.D	cc927	03/31/2017	09:15	E1708930AA	
jeb07445	EC00865.D	fc1	03/31/2017	09:53	E1708930AA	
jeb07445	EC00866.D	8896789DL	03/31/2017	10:57	E1708930AA	
jeb07445	EC00867.D	8896790DL	03/31/2017	11:22	E1708930AA	
jeb07445	EC00868.D	8896791DL	03/31/2017	11:48	E1708930AA	
jeb07445	EC00869.D	8902732	03/31/2017	12:32	E1708930AA	
jeb07445	EC00870.D	8902733	03/31/2017	13:16	E1708930AA	
jeb07445	EC00871.D	8902733	03/31/2017	14:00	E1708930AA	
jeb07445	EC00872.D	LCSE48	03/31/2017	14:35	E1708930AA	

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP22820 **HP #05**

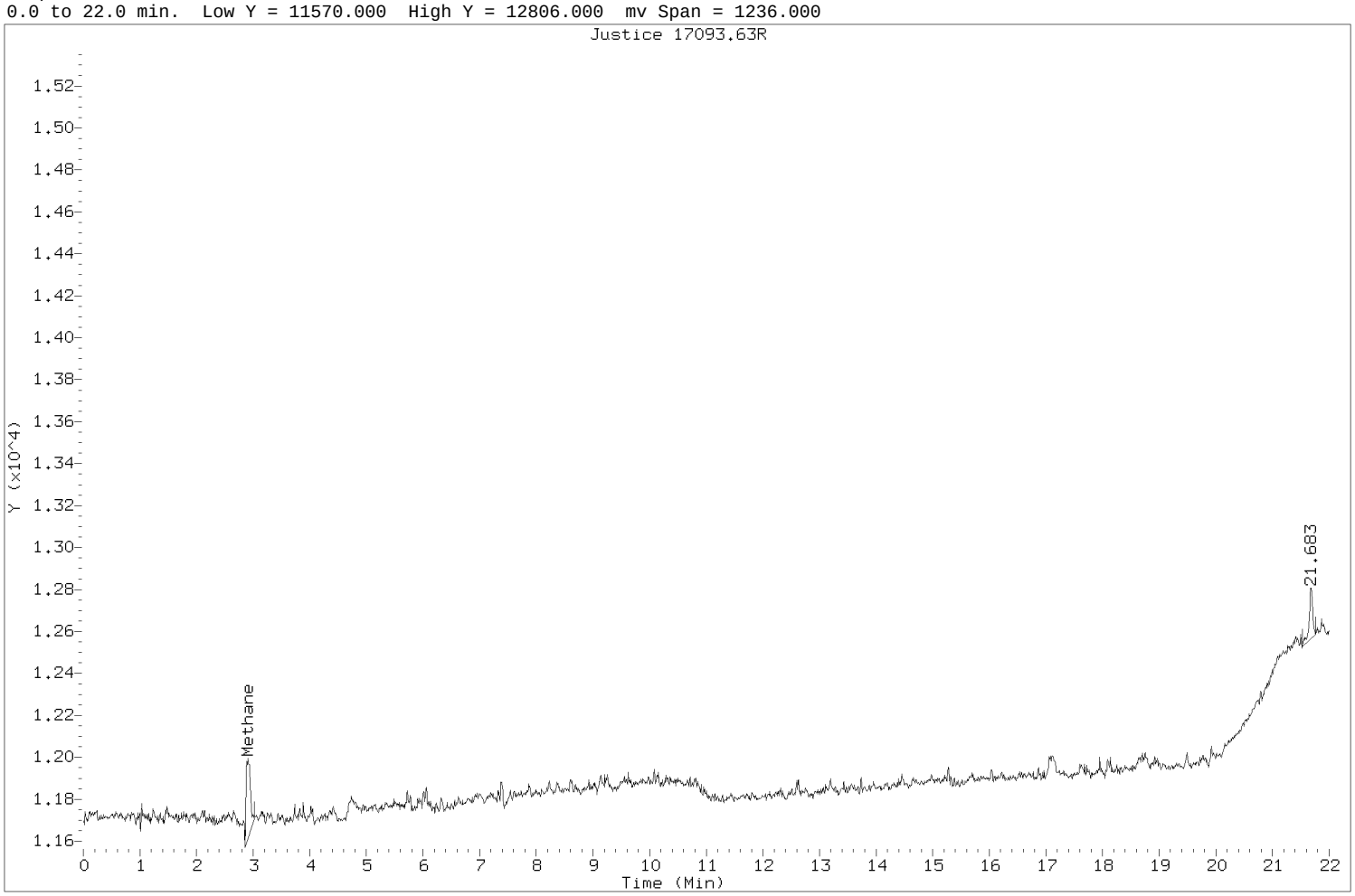
Data Directory Path is - D:\data\17apr05\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	ED00050.D	50NGBFB	04/05/2017	11:14		
jeb07445	ED00051.D	VSTD010	04/05/2017	12:02		
jeb07445	ED00052.D	VBLKE53	04/05/2017	12:50	E1709530AA	
jeb07445	ED00053.D	VBLKE53	04/05/2017	14:12	E1709530AA	
jeb07445	ED00054.D	LCSE53	04/05/2017	14:56	E1709530AA	
jeb07445	ED00055.D	LCSDE53	04/05/2017	15:30	E1709530AA	
jeb07445	ED00056.D	8900928DL	04/05/2017	16:25	E1709530AA	
jeb07445	ED00057.D	8900931DL	04/05/2017	16:50	E1709530AA	
jeb07445	ED00058.D	8900932DL	04/05/2017	17:15	E1709530AA	
jeb07445	ED00059.D	8920247	04/05/2017	18:01	E1709530AA	
jeb07445	ED00060.D	8920248	04/05/2017	18:45	E1709530AA	
jeb07445	ED00061.D	8920249	04/05/2017	19:29	E1709530AA	
jeb07445	ED00062.D	8920248DL	04/05/2017	20:08	E1709530AA	
jeb07445	ED00063.D	8920249DL	04/05/2017	20:34	E1709530AA	
jeb07445	ED00064.D	8920250	04/05/2017	21:18	E1709530AA	
jeb07445	ED00065.D	8920250	04/05/2017	22:01	E1709530AA	
jeb07445	ED00066.D	8920250DL	04/05/2017	22:27	E1709530AA	
jeb07445	ED00067.D	8901870DL	04/05/2017	22:52	E1709430AA	
jeb07445	ED00068.D	8901871DL	04/05/2017	23:18	E1709530AA	
jeb07445	ED00069.D	8901872DL	04/05/2017	23:44	E1709530AA	
jeb07445	ED00070.D	8901873DL	04/06/2017	00:10	E1709530AA	
jeb07445	ED00071.D	8901874DL	04/06/2017	00:35	E1709530AA	
jeb07445	ED00072.D	8901875DL	04/06/2017	01:01	E1709530AA	
jeb07445	ED00073.D	8901876	04/06/2017	01:45	E1709530AA	
jeb07445	ED00074.D	8901877DL	04/06/2017	02:10	E1709530AA	
jeb07445	ED00075.D	8901878DL	04/06/2017	02:35	E1709530AA	
jeb07445	ED00076.D	8901879DL	04/06/2017	03:01	E1709530AA	
jeb07445	ED00077.D	8901880DL	04/06/2017	03:26	E1709530AA	
jeb07445	ED00078.D	8901881DL	04/06/2017	03:51	E1709530AA	
jeb07445	ED00079.D	8901882	04/06/2017	09:09	E1709530AA	
jeb07445	ED00080.D	8901883	04/06/2017	09:35	E1709530AA	
jeb07445	ED00081.D	LCSDE54	04/06/2017	10:16	E1709530CA	
jeb07445	ED00082.D	LCSDE54	04/06/2017	10:50	E1709530CA	

Screening Data

Volatile Organics in Air by GC/MS

File = /chem/A58309.i/17apr03.b/17093-63R.d Date printed = 04/05/2017 Time = 14:32
Sample Name = 8920247 BC095A +PRE
0.0 to 22.0 min. Low Y = 11570.000 High Y = 12806.000 mv Span = 1236.000

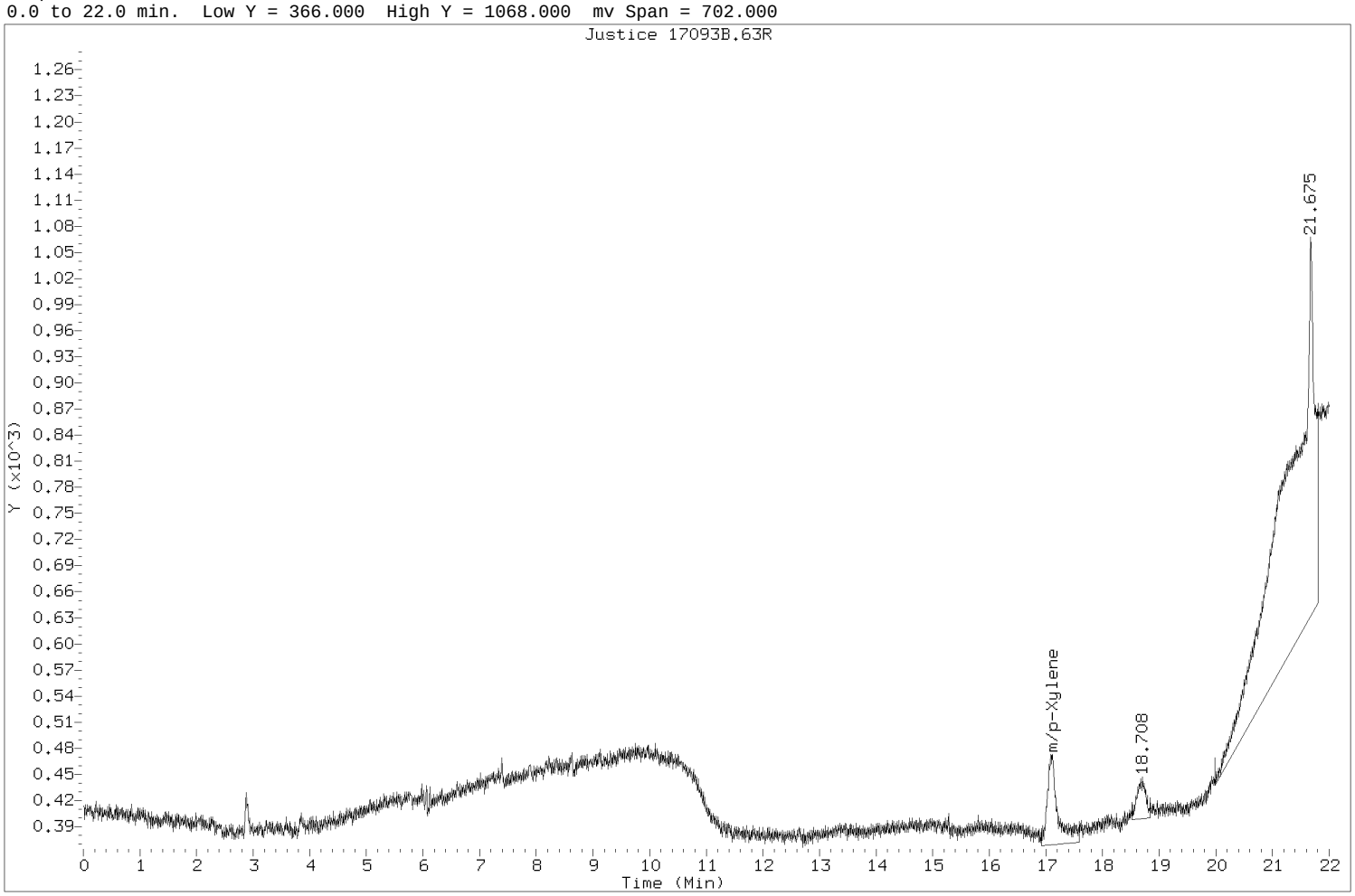


Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920247 BC095A +PRE
Date Analyzed: 05-APR-2017 14:22
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: /chem/A58309.i/17apr03.b/17093-63R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_fid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.908	1969	Methane	1.2929
21.683	1052		

Total Area: 3021.0000

File = /chem/A58309.i/17apr03.b/17093B-63R.d Date printed = 04/05/2017 Time = 14:32
Sample Name = 8920247 BC095A +PRE
0.0 to 22.0 min. Low Y = 366.000 High Y = 1068.000 mv Span = 702.000

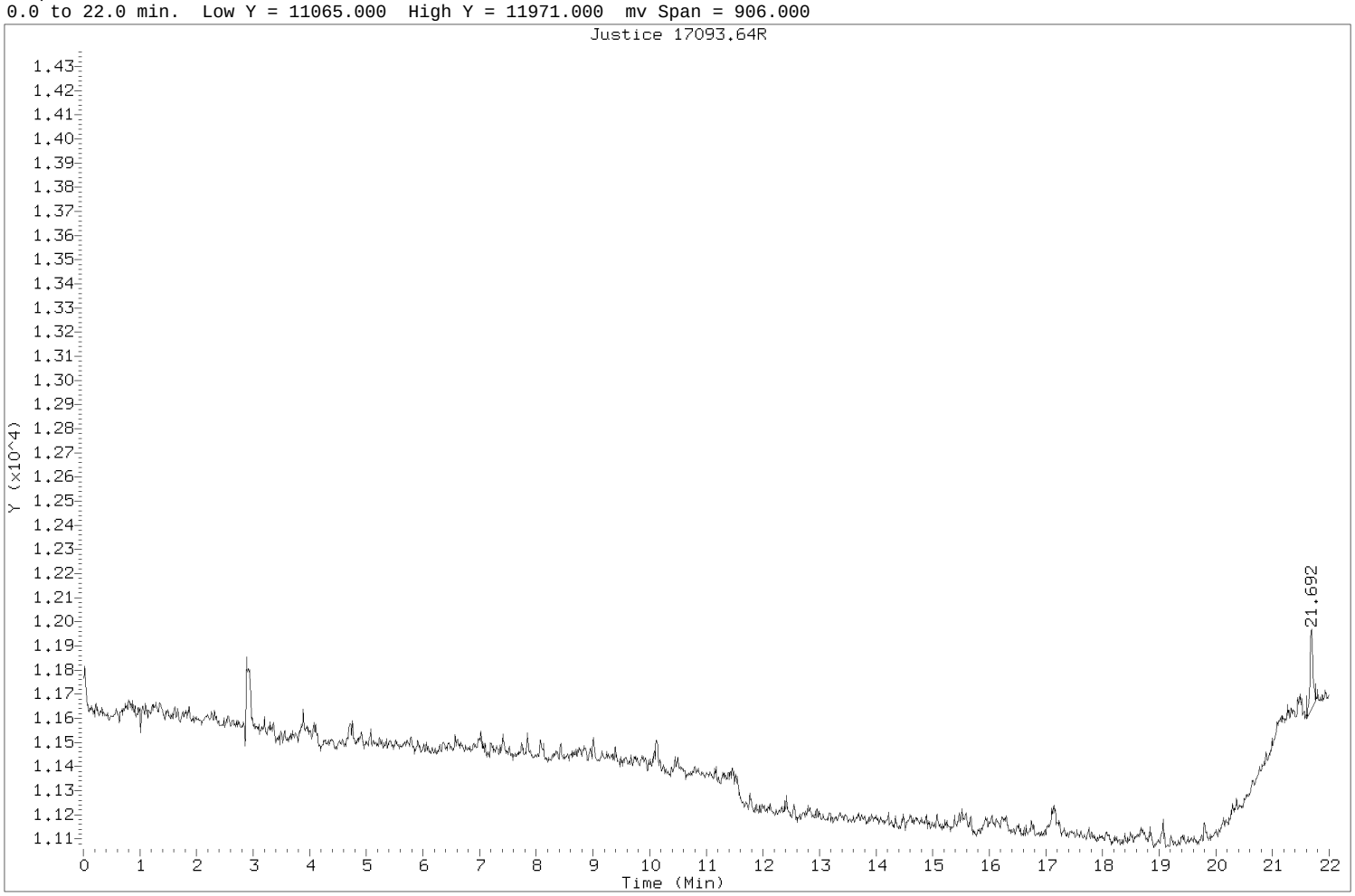


Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920247 BC095A +PRE
Date Analyzed: 05-APR-2017 14:22
Nominal Vol: 100 uL
Instr. ID: A58309--PID
Lab File ID: /chem/A58309.i/17apr03.b/17093B-63R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_pid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
17.117	1361	m/p-Xylene	0.2990
18.050	1361	Xylene (total)	0.2990
18.708	490		
21.675	14733		

Total Area: 17945.7500

File = /chem/A58309.i/17apr03.b/17093-64R.d Date printed = 04/05/2017 Time = 15:01
Sample Name = 8920248 BC095A +PRE
0.0 to 22.0 min. Low Y = 11065.000 High Y = 11971.000 mv Span = 906.000



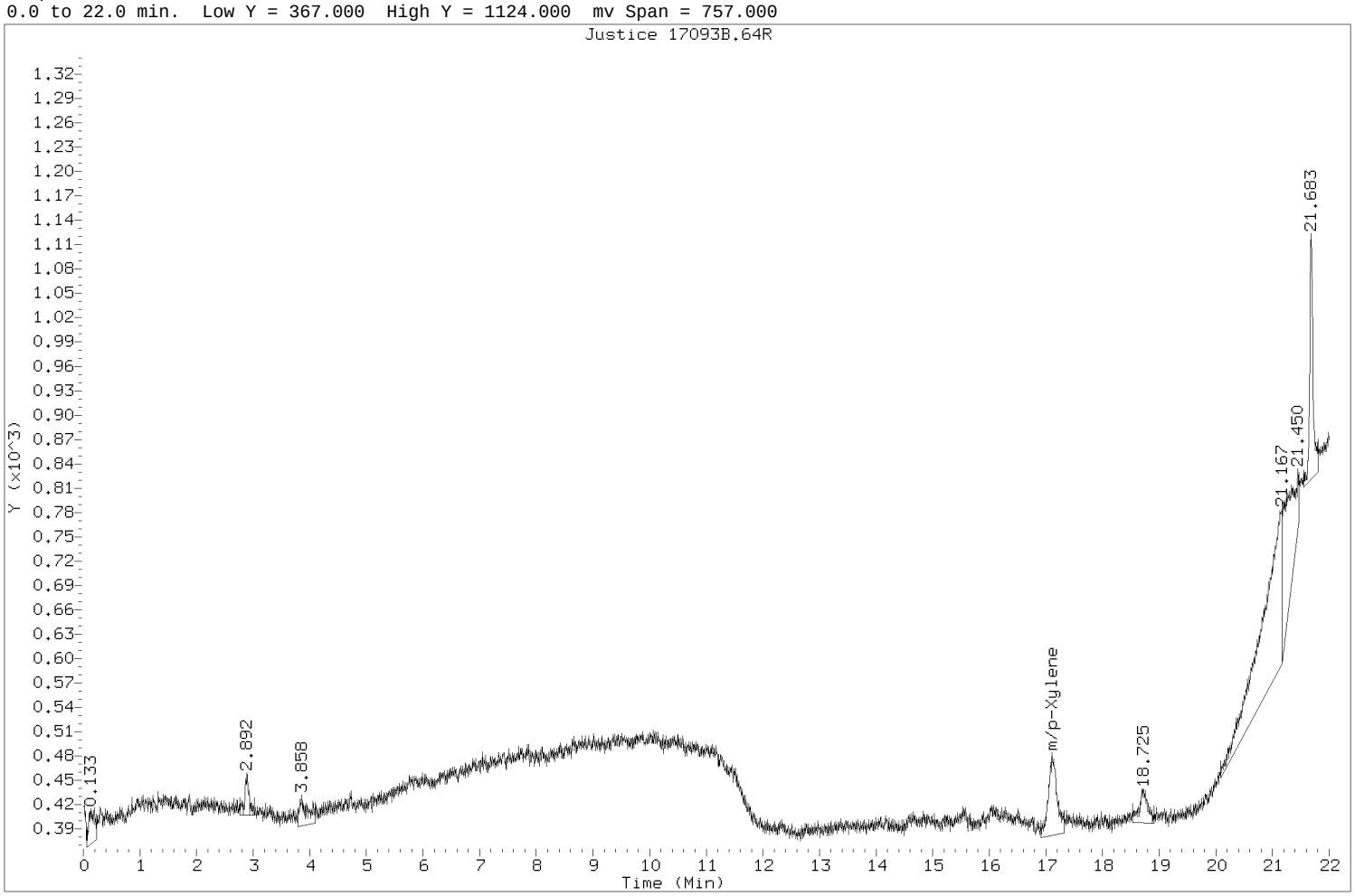
Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920248 BC095A +PRE
Date Analyzed: 05-APR-2017 14:51
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: /chem/A58309.i/17apr03.b/17093-64R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_fid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
21.692	1161		

Total Area: 1161.5000

Page 1 of 1
Date printed = 04/05/2017 Time = 15:01

File = /chem/A58309.i/17apr03.b/17093B-64R.d Date printed = 04/05/2017 Time = 15:01
Sample Name = 8920248 BC095A +PRE
0.0 to 22.0 min. Low Y = 367.000 High Y = 1124.000 mv Span = 757.000

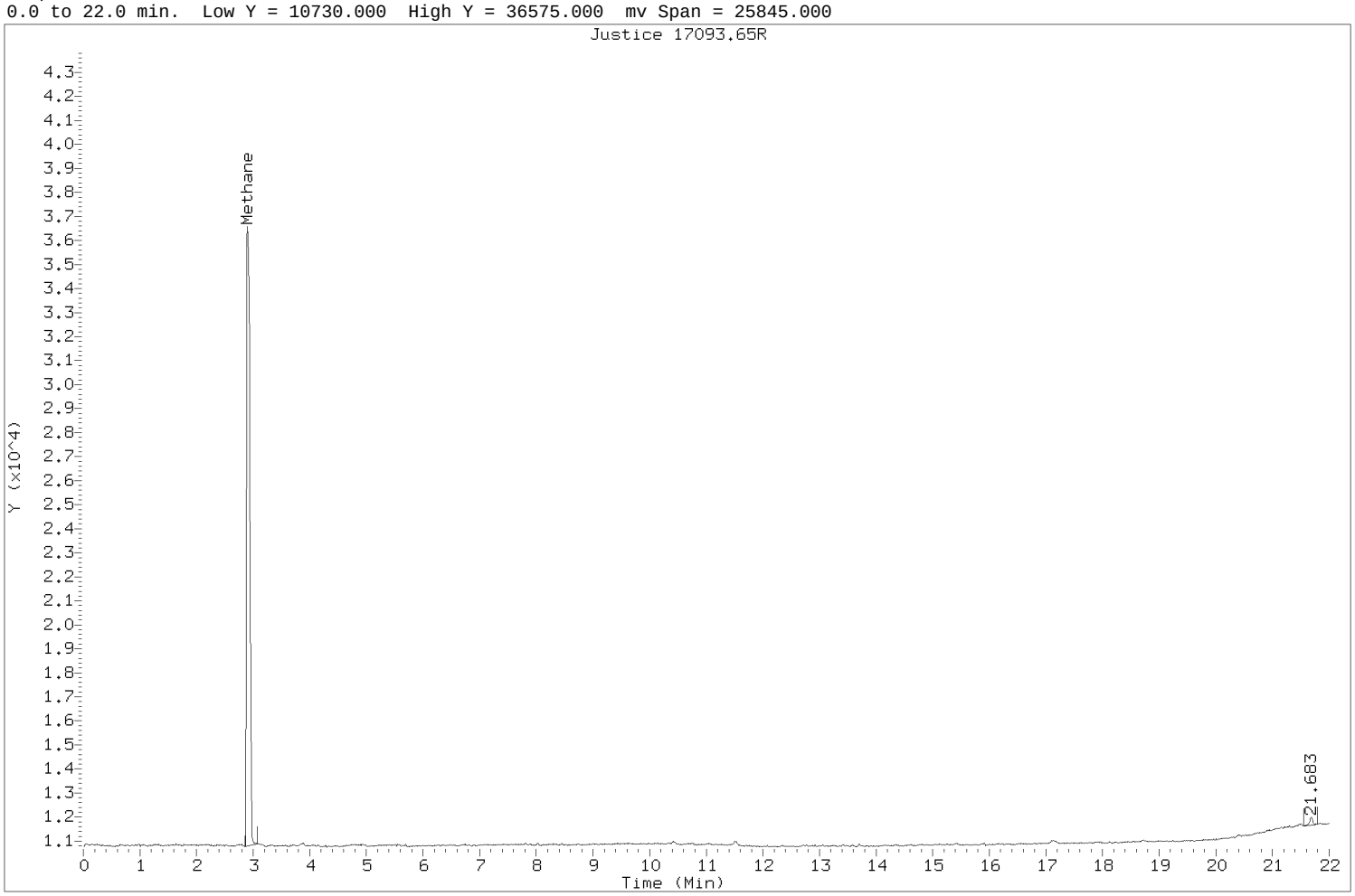


Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920248 BC095A +PRE
Date Analyzed: 05-APR-2017 14:51
Nominal Vol: 100 uL
Instr. ID: A58309--PID
Lab File ID: /chem/A58309.i/17apr03.b/17093B-64R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_pid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
0.133	293		
2.892	278		
3.858	344		
17.108	1078	m/p-Xylene	0.2368
18.050	1078	Xylene (total)	0.2368
18.725	429		
21.167	4860		
21.450	2080		
21.683	1245		

Total Area: 11685.7500

File = /chem/A58309.i/17apr03.b/17093-65R.d Date printed = 04/05/2017 Time = 15:30
Sample Name = 8920249 BC095A +PRE
0.0 to 22.0 min. Low Y = 10730.000 High Y = 36575.000 mv Span = 25845.000



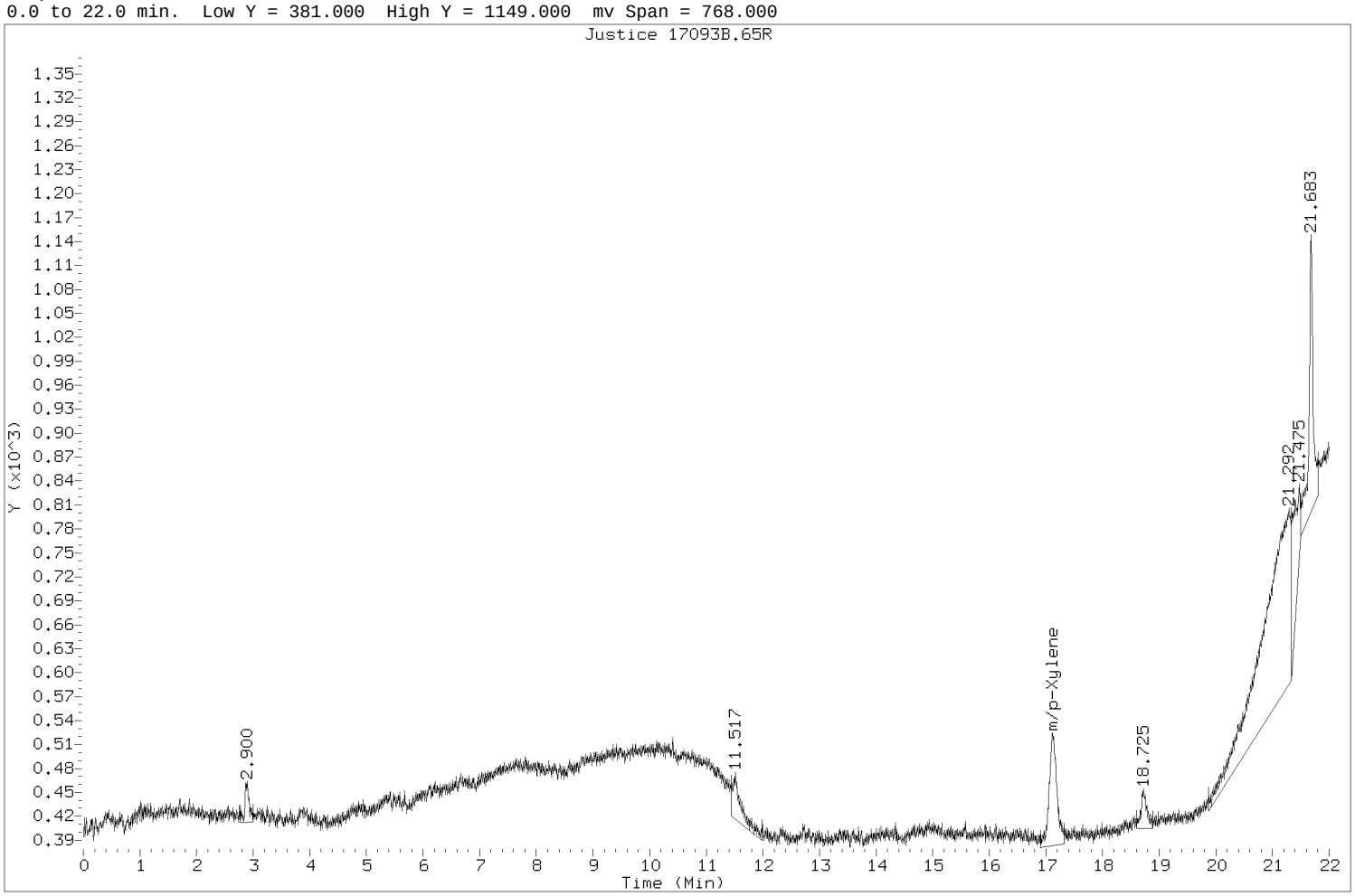
Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920249 BC095A +PRE
Date Analyzed: 05-APR-2017 15:19
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: /chem/A58309.i/17apr03.b/17093-65R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_fid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.900	106148	Methane	69.6997
21.683	1426		

Total Area: 107575.0000

Page 1 of 1
Date printed = 04/05/2017 Time = 15:30

File = /chem/A58309.i/17apr03.b/17093B-65R.d Date printed = 04/05/2017 Time = 15:30
Sample Name = 8920249 BC095A +PRE
0.0 to 22.0 min. Low Y = 381.000 High Y = 1149.000 mv Span = 768.000

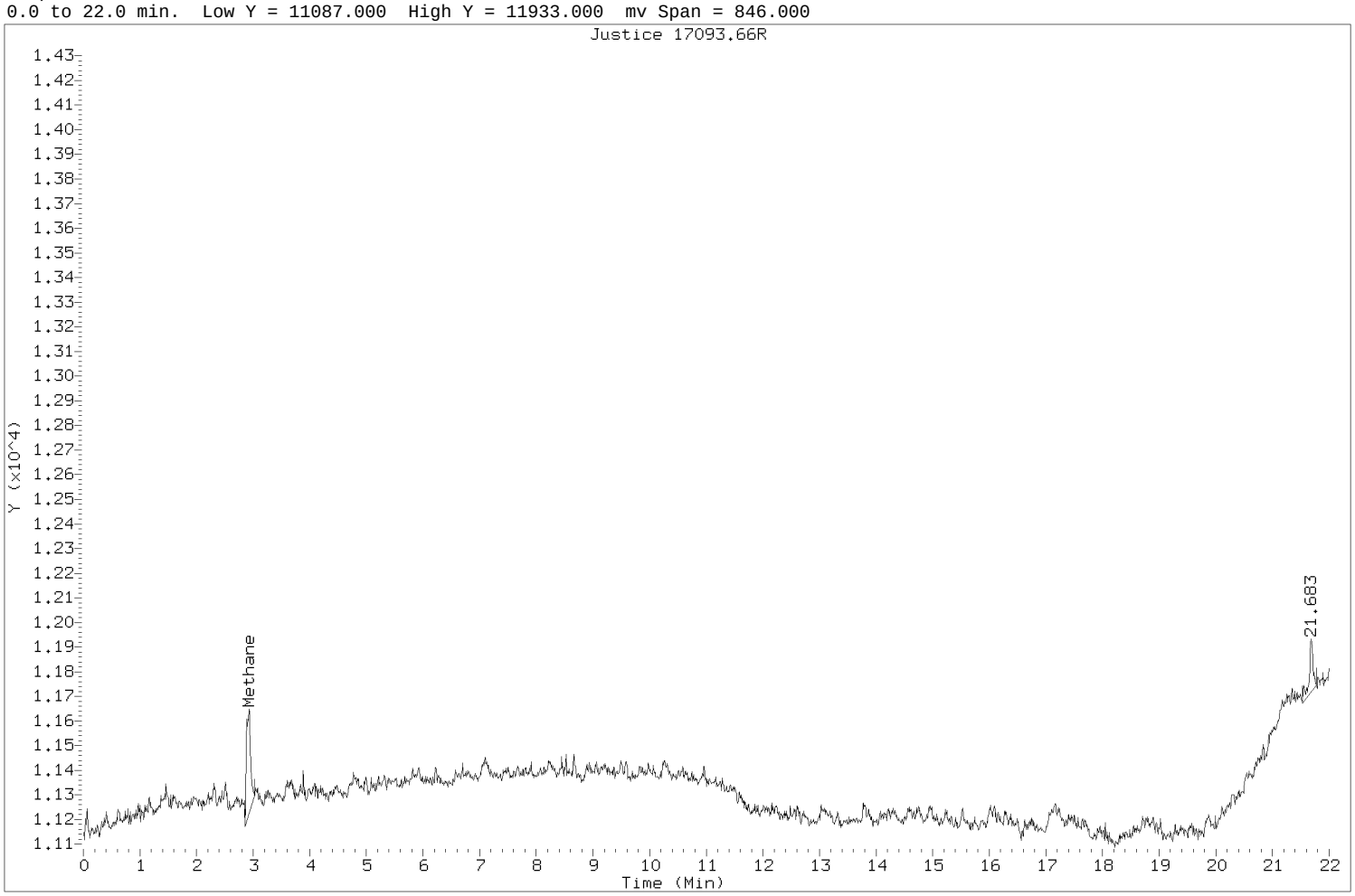


Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920249 BC095A +PRE
Date Analyzed: 05-APR-2017 15:19
Nominal Vol: 100 uL
Instr. ID: A58309--PID
Lab File ID: /chem/A58309.i/17apr03.b/17093B-65R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_pid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.900	264		
11.517	631		
17.117	1372	m/p-Xylene	0.3015
18.050	1372	Xylene (total)	0.3015
18.725	357		
21.292	7804		
21.475	1257		
21.683	1806		

Total Area: 14862.0000

File = /chem/A58309.i/17apr03.b/17093-66R.d Date printed = 04/05/2017 Time = 15:59
Sample Name = 8920250 BC095A +PRE
0.0 to 22.0 min. Low Y = 11087.000 High Y = 11933.000 mv Span = 846.000



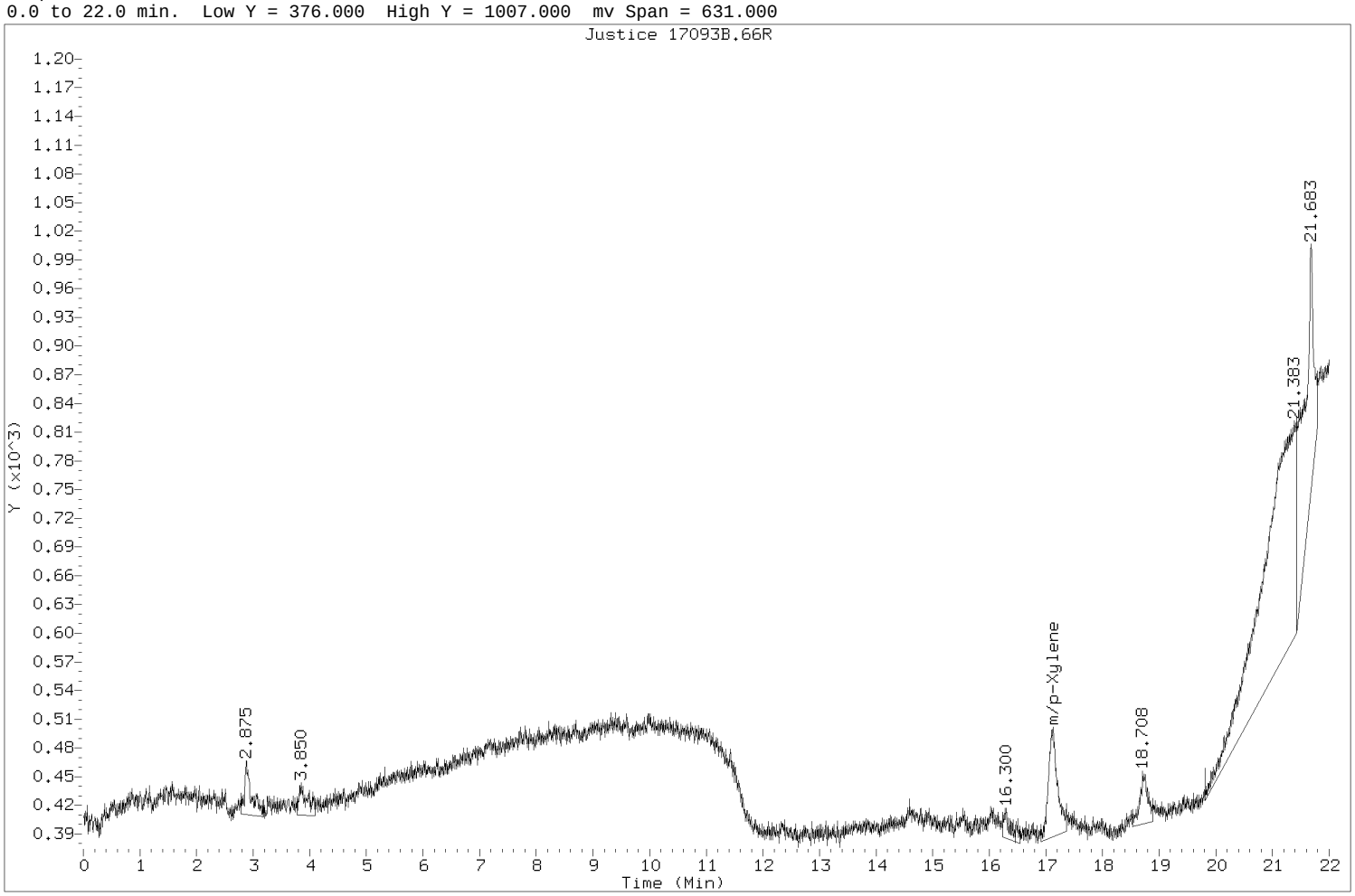
Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920250 BC095A +PRE
Date Analyzed: 05-APR-2017 15:48
Nominal Vol: 100 uL
Instr. ID: A58309--FID
Lab File ID: /chem/A58309.i/17apr03.b/17093-66R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_fid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.925	2231	Methane	1.4652
21.683	1035		

Total Area: 3266.0000

Page 1 of 1
Date printed = 04/05/2017 Time = 15:59

File = /chem/A58309.i/17apr03.b/17093B-66R.d Date printed = 04/05/2017 Time = 15:59
Sample Name = 8920250 BC095A +PRE
0.0 to 22.0 min. Low Y = 376.000 High Y = 1007.000 mv Span = 631.000



Lancaster Laboratories
Analysis Data Sheet
ADS07818 Analysis:
Sample No:
Lab Sample: 8920250 BC095A +PRE
Date Analyzed: 05-APR-2017 15:48
Nominal Vol: 100 uL
Instr. ID: A58309--PID
Lab File ID: /chem/A58309.i/17apr03.b/17093B-66R.d
Calibration File: /chem/A58309.i/17apr03.b/gc_pid.m
Calibration Version: 03-APR-2017 11:37

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.875	476		
3.850	334		
16.300	281		
17.125	1260	m/p-Xylene	0.2768
18.050	1260	Xylene (total)	0.2768
18.708	539		
21.383	9530		
21.683	3502		

Total Area: 17180.7500

Canister Dilution Calc/Pressure Gauge Readings

Volatile Organics in Air by GC/MS

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Summa Sample Prep Worksheet

Sample	Can_ID	Initial Pressure	Units	Final Pressure (PSIG)	Dilution Factor	SDG
8920247	895	-2.0	"Hg	12.7	2	SWL71
8920248	1440	-4.8	"Hg	10.0	2	SWL71
8920249	1480	-2.2	"Hg	12.5	2	SWL71
8920250	1481	-2.4	"Hg	12.3	2	SWL71

Clean Canister Certification Data

Volatile Organics in Air by GC/MS

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Cleaning Data Summary
SDG# SWL71

Sample #	Can ID	Certified File	Instrument #
8920247	895	ec00546	HP22820
8920248	1440	ec00546	HP22820
8920249	1480	ec00546	HP22820
8920250	1481	ec00546	HP22820

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP22820 **HP #05**

Data Directory Path is - D:\data\17mar13\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	EC00350.D	50NGBFB	03/13/2017	13:30		
jeb07445	EC00351.D	VSTD0.50	03/13/2017	14:20		
jeb07445	EC00352.D	VSTD0.50	03/13/2017	14:48		
jeb07445	EC00353.D	VSTD001	03/13/2017	15:22		
jeb07445	EC00354.D	VSTD001	03/13/2017	15:56		
jeb07445	EC00355.D	VSTD002	03/13/2017	17:40		
jeb07445	EC00356.D	VSTD005	03/13/2017	18:14		
jeb07445	EC00357.D	VSTD010	03/13/2017	18:43		
jeb07445	EC00358.D	VSTD025	03/13/2017	19:19		
jeb07445	EC00359.D	VSTD070	03/13/2017	19:57		
jeb07445	EC00360.D	VBLKE34	03/13/2017	20:52	E1707230AA	
jeb07445	EC00361.D	VBLKE34	03/13/2017	21:26	E1707230AA	
jeb07445	EC00362.D	VBLKE34	03/13/2017	21:59	E1707230AA	
jeb07445	EC00363.D	VBLKE34	03/13/2017	22:33	E1707230AA	
jeb07445	EC00364.D	VBLKE34	03/13/2017	23:07	E1707230AA	
jeb07445	EC00365.D	LCSE34	03/13/2017	23:41	E1707230AA	
jeb07445	EC00366.D	LCSDE34	03/14/2017	00:15	E1707230AA	
jeb07445	EC00367.D	LCSE34	03/14/2017	00:49	E1707230AA	
jeb07445	EC00368.D	LCSDE34	03/14/2017	01:22	E1707230AA	
jeb07445	EC00369.D	mdlv0.5	03/14/2017	01:51	E1707230AA	
jeb07445	EC00370.D	mdlv0.2	03/14/2017	02:25	E1707230AA	
jeb07445	EC00371.D	8860337DL	03/14/2017	02:51	E1707230AA	
jeb07445	EC00372.D	8860338DL	03/14/2017	03:17	E1707230AA	
jeb07445	EC00373.D	8860339DL	03/14/2017	03:43	E1707230AA	
jeb07445	EC00374.D	8860340DL	03/14/2017	04:09	E1707230AA	
jeb07445	EC00375.D	8870417	03/14/2017	04:35	E1707230AA	
jeb07445	EC00376.D	8870418	03/14/2017	05:09	E1707230AA	
jeb07445	EC00377.D	8870418	03/14/2017	05:45	E1707230AA	
jeb07445	EC00378.D	8870419	03/14/2017	06:19	E1707230AA	
jeb07445	EC00379.D	8870420	03/14/2017	06:45	E1707230AA	
jeb07445	EC00380.D	8880149	03/14/2017	07:18	E1707230AA	
jeb07445	EC00381.D	8880149	03/14/2017	07:54	E1707230AA	
jeb07445	EC00382.D	8880150	03/14/2017	08:28	E1707230AA	
jeb07445	EC00383.D	8880150	03/14/2017	09:03	E1707230AA	
jeb07445	EC00384.D	fc1	03/14/2017	09:46	E1707230AA	
jeb07445	EC00385.D	fc2	03/14/2017	10:31	E1707230AA	
jeb07445	EC00386.D	fc3	03/14/2017	11:05	E1707230AA	
jeb07445	EC00387.D	fc4	03/14/2017	11:45	E1707230AA	
jeb07445	EC00388.D	8880150	03/14/2017	12:20	E1707230AA	
jeb07445	EC00389.D	8860337DL	03/14/2017	13:37	E1707230AA	
jeb07445	EC00390.D	8860338DL	03/14/2017	14:08	E1707230AA	

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

SDG No.:

Lab File ID: ec00350.d

BFB Injection Date: 03/13/2017

Instrument ID: 22820

BFB Injection Time: 13:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	16.96
75	30.0% - 66.0% of mass 95	48.45
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.63
173	< 2.0% of mass 174	0.56 (0.63)
174	> 50.0% of mass 95	89.22
175	4.0% - 9.0% of mass 174	6.32 (7.08)
176	93.0% - 101.0% of mass 174	88.05 (98.69)
177	5.0% - 9.0% of mass 176	5.46 (6.20)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	ec00354.d	03/13/2017	15:56
VSTD002	ec00355.d	03/13/2017	17:40
VSTD005	ec00356.d	03/13/2017	18:14
VSTD010	ec00357.d	03/13/2017	18:43
VSTD025	ec00358.d	03/13/2017	19:19
VSTD070	ec00359.d	03/13/2017	19:57
VBLKE34	ec00364.d	03/13/2017	23:07
LCSE34	ec00365.d	03/13/2017	23:41
LCSDE34	ec00366.d	03/14/2017	00:15
mdlv0.5	ec00369.d	03/14/2017	01:51
mdlv0.2	ec00370.d	03/14/2017	02:25
8870417	ec00375.d	03/14/2017	04:35
8870418	ec00376.d	03/14/2017	05:09
8870418	ec00377.d	03/14/2017	05:45
8870419	ec00378.d	03/14/2017	06:19
8870420	ec00379.d	03/14/2017	06:45

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/13/2017 Calibration End Date: 03/13/2017

Calibration Start Time: 15:56 Calibration End Time: 19:57

LAB FILE IDs:
RRF 1 = ec00354.d RRF 2 = ec00355.d RRF 5 = ec00356.d RRF 10 = ec00357.d RRF 25 = ec00358.d
RRF 70 = ec00359.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Propene	1.019	0.880	0.846	0.841	0.855	0.853	0.882	8	AVG
Dichlorodifluoromethane	3.686	3.434	3.503	3.417	3.596	3.474	3.518	3	AVG
Chlorodifluoromethane	2.034	1.891	1.882	1.860	1.907	1.821	1.899	4	AVG
Freon 114	3.657	3.438	3.467	3.457	3.523	3.398	3.490	3	AVG
Chloromethane	1.290	1.170	1.086	1.097	0.950	0.888	1.080	14	AVG
Vinyl Chloride	1.298	1.189	1.223	1.222	1.266	1.224	1.237	3	AVG
1,3-Butadiene	0.874	0.851	0.835	0.847	0.916	0.901	0.870	4	AVG
Bromomethane	1.648	1.259	1.363	1.193	1.230	1.145	1.306	14	AVG
Chloroethane	0.736	0.632	0.690	0.669	0.687	0.671	0.681	5	AVG
Bromoethene	1.188	1.169	1.222	1.212	1.266	1.267	1.221	3	AVG
Dichlorofluoromethane	2.911	2.848	2.851	2.801	2.913	2.797	2.854	2	AVG
Trichlorofluoromethane	3.702	3.652	3.670	3.614	3.800	3.671	3.685	2	AVG
Pentane	1.828	1.828	1.871	1.841	1.997	1.947	1.885	4	AVG
Ethanol	0.381	0.334	0.314	0.312	0.353	0.490	0.364	18	AVG
Freon123a	2.689	2.626	2.670	2.583	2.715	2.611	2.649	2	AVG
Acrolein	0.383	0.411	0.385	0.434	0.457	0.493	0.427	10	AVG
1,1-Dichloroethene	1.911	1.979	1.987	1.989	2.100	2.062	2.004	3	AVG
Freon 113	2.024	1.900	1.943	1.930	1.979	1.951	1.954	2	AVG
Acetone	2.276	1.571	1.740	1.669	1.733	1.733	1.787	14	AVG
Methyl Iodide	1.801	2.722	2.445	3.086	3.075	3.216	2.724	20	AVG
Carbon Disulfide	3.626	3.534	3.618	3.607	3.747	3.660	3.632	2	AVG
Isopropanol	1.582	1.354	1.294	1.409	1.491	****	1.426	8	AVG
Acetonitrile	1.113	1.051	0.738	0.707	0.675	0.729	0.835	23	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/13/2017 Calibration End Date: 03/13/2017

Calibration Start Time: 15:56 Calibration End Time: 19:57

LAB FILE IDs:
RRF 1 = ec00354.d RRF 2 = ec00355.d RRF 5 = ec00356.d RRF 10 = ec00357.d RRF 25 = ec00358.d
RRF 70 = ec00359.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
3-Chloropropene	0.517	0.498	0.517	0.506	0.542	0.561	0.523	5	AVG
Methylene Chloride	1.102	1.044	1.119	1.066	1.095	1.068	1.082	3	AVG
tert-Butyl Alcohol	1.978	1.990	2.035	2.151	2.340	****	2.099	7	AVG
Acrylonitrile	0.937	0.924	0.990	0.991	1.051	1.094	0.998	7	AVG
trans-1,2-Dichloroethene	1.773	1.711	1.818	1.809	1.915	1.900	1.821	4	AVG
Methyl t-Butyl Ether	3.274	3.205	3.374	3.502	3.739	3.799	3.482	7	AVG
Hexane	1.671	1.611	1.761	1.766	1.908	1.917	1.772	7	AVG
1,1-Dichloroethane	2.321	2.315	2.318	2.318	2.430	2.391	2.349	2	AVG
Vinyl Acetate	0.296	0.285	0.283	0.299	0.348	****	0.302	9	AVG
Di-Isopropyl Ether	3.401	3.532	3.634	3.709	3.944	3.961	3.697	6	AVG
Ethyl Tert-Butyl Ether	3.190	3.305	3.459	3.577	3.840	3.988	3.560	9	AVG
cis-1,2-Dichloroethene	1.666	1.621	1.710	1.733	1.808	1.813	1.725	4	AVG
2-Butanone	0.670	0.579	0.615	0.639	0.679	0.713	0.649	7	AVG
Ethyl Acetate	0.332	0.290	0.314	0.318	0.326	0.341	0.320	6	AVG
Methyl Acrylate	1.752	1.847	1.906	2.043	2.203	2.331	2.014	11	AVG
Tetrahydrofuran	1.158	1.201	1.213	1.277	1.337	1.402	1.265	7	AVG
Chloroform	2.909	2.746	2.867	2.895	3.037	2.996	2.908	4	AVG
1,1,1-Trichloroethane	2.754	2.753	2.826	2.870	3.035	3.080	2.886	5	AVG
Cyclohexane	1.838	1.786	1.848	1.887	2.051	2.050	1.910	6	AVG
Carbon Tetrachloride	2.717	2.760	2.887	2.978	3.216	3.223	2.964	7	AVG
Benzene	1.067	1.072	1.115	1.102	1.135	1.096	1.098	2	AVG
1,2-Dichloroethane	0.483	0.506	0.512	0.508	0.515	0.500	0.504	2	AVG
Isooctane	1.432	1.469	1.552	1.586	1.698	1.656	1.566	7	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/13/2017 Calibration End Date: 03/13/2017

Calibration Start Time: 15:56 Calibration End Time: 19:57

LAB FILE IDs:
RRF 1 = ec00354.d RRF 2 = ec00355.d RRF 5 = ec00356.d RRF 10 = ec00357.d RRF 25 = ec00358.d
RRF 70 = ec00359.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
Tert-Amyl Methyl Ether	0.853	0.918	0.965	0.986	1.056	1.056	0.972	8	AVG
Heptane	0.483	0.497	0.538	0.556	0.574	0.571	0.536	7	AVG
Trichloroethene	0.512	0.561	0.572	0.544	0.563	0.549	0.550	4	AVG
Ethyl Acrylate	0.527	0.550	0.621	0.644	0.724	0.776	0.640	15	AVG
1,2-Dichloropropane	0.367	0.374	0.389	0.383	0.400	0.394	0.384	3	AVG
Dibromomethane	0.481	0.475	0.496	0.497	0.527	0.538	0.502	5	AVG
1,4-Dioxane	0.228	0.245	0.251	0.266	0.285	0.300	0.262	10	AVG
Methyl Methacrylate	0.289	0.281	0.328	0.348	0.383	0.406	0.339	15	AVG
Bromodichloromethane	0.690	0.713	0.787	0.783	0.827	0.826	0.771	7	AVG
cis-1,3-Dichloropropene	0.529	0.550	0.604	0.614	0.680	0.709	0.615	11	AVG
4-Methyl-2-Pentanone	0.521	0.585	0.643	0.678	0.755	0.794	0.663	15	AVG
Toluene	1.214	1.345	1.347	1.386	1.399	1.375	1.344	5	AVG
Octane	0.662	0.704	0.757	0.785	0.803	0.790	0.750	7	AVG
trans-1,3-Dichloropropene	0.451	0.514	0.527	0.565	0.591	0.646	0.549	12	AVG
Ethyl Methacrylate	0.425	0.472	0.523	0.585	0.639	****	0.529	16	AVG
1,1,2-Trichloroethane	0.447	0.460	0.487	0.481	0.486	0.492	0.475	4	AVG
Tetrachloroethene	0.711	0.851	0.846	0.771	0.770	0.952	0.817	10	AVG
2-Hexanone	0.534	0.559	0.624	0.675	0.717	0.830	0.657	17	AVG
Dibromochloromethane	0.494	0.562	0.579	0.627	0.656	0.718	0.606	13	AVG
1,2-Dibromoethane	0.638	0.695	0.719	0.747	0.769	0.812	0.730	8	AVG
Chlorobenzene	1.058	1.158	1.153	1.157	1.168	1.204	1.150	4	AVG
1,1,1,2-Tetrachloroethane	0.519	0.531	0.589	0.603	0.629	0.680	0.592	10	AVG
Ethylbenzene	1.465	1.601	1.676	1.773	1.828	1.825	1.695	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/13/2017 Calibration End Date: 03/13/2017

Calibration Start Time: 15:56 Calibration End Time: 19:57

LAB FILE IDs:
RRF 1 = ec00354.d RRF 2 = ec00355.d RRF 5 = ec00356.d RRF 10 = ec00357.d RRF 25 = ec00358.d
RRF 70 = ec00359.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
m/p-Xylene	1.125	1.227	1.280	1.380	1.394	1.447	1.309	9	AVG
o-Xylene	1.052	1.176	1.243	1.353	1.391	1.472	1.281	12	AVG
Styrene	0.625	0.743	0.848	0.962	1.044	****	0.844	20	AVG
Bromoform	0.538	0.617	0.649	0.752	0.835	0.981	0.729	22	AVG
Cumene	1.452	1.612	1.771	1.942	1.971	****	1.750	13	AVG
Bromobenzene	0.564	0.627	0.645	0.704	0.705	0.782	0.671	11	AVG
1,1,2,2-Tetrachloroethane	0.815	0.796	0.820	0.969	0.958	1.144	0.917	15	AVG
1,2,3-Trichloropropane	0.272	0.293	0.303	0.319	0.318	0.354	0.310	9	AVG
n-Propylbenzene	0.433	0.492	0.506	0.563	0.577	0.636	0.535	13	AVG
2-Chlorotoluene	0.412	0.464	0.489	0.526	0.534	0.592	0.503	12	AVG
4-Ethyltoluene	1.415	1.605	1.768	1.988	2.021	****	1.759	15	AVG
1,3,5-Trimethylbenzene	1.139	1.359	1.454	1.608	1.638	1.751	1.491	15	AVG
Alpha Methyl Styrene	0.387	0.472	0.551	0.689	0.763	****	0.572	27	AVG
tert-Butylbenzene	1.209	1.367	1.430	1.590	1.574	****	1.434	11	AVG
1,2,4-Trimethylbenzene	1.111	1.265	1.391	1.578	1.608	****	1.391	15	AVG
sec-Butylbenzene	1.679	1.926	2.033	2.307	2.342	****	2.057	13	AVG
1,3-Dichlorobenzene	0.917	1.006	1.037	1.154	1.152	****	1.053	10	AVG
1,4-Dichlorobenzene	0.968	1.020	1.036	1.140	1.138	****	1.060	7	AVG
p-Isopropyltoluene	1.287	1.436	1.636	1.880	2.001	****	1.648	18	AVG
Benzyl Chloride	0.610	0.656	0.744	0.958	1.140	****	0.821	27	AVG
1,2-Dichlorobenzene	0.838	0.903	0.899	1.035	1.042	****	0.943	10	AVG
n-Butylbenzene	1.140	1.274	1.389	1.700	1.791	****	1.459	19	AVG
Hexachloroethane *	0.370	0.293	0.315	0.529	0.594	****	0.420	32	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.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 22820 Calibration Start Date: 03/13/2017 Calibration End Date: 03/13/2017

Calibration Start Time: 15:56 Calibration End Time: 19:57

LAB FILE IDs:
RRF 1 = ec00354.d RRF 2 = ec00355.d RRF 5 = ec00356.d RRF 10 = ec00357.d RRF 25 = ec00358.d
RRF 70 = ec00359.d

COMPOUND	RFF 1	RFF 2	RFF 5	RFF 10	RFF 25	RFF 70	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane	0.295	0.277	0.309	0.403	0.436	****	0.344	21	AVG
1,2,4-Trichlorobenzene	0.571	0.474	0.513	0.613	0.663	****	0.567	13	AVG
Hexachlorobutadiene	0.540	0.461	0.491	0.576	0.600	****	0.534	11	AVG
Naphthalene	0.895	0.840	0.923	1.180	1.306	****	1.029	20	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/HP22820.i/17mar13.b/ec00354.d VSTD001
/chem/HP22820.i/17mar13.b/ec00355.d VSTD002
/chem/HP22820.i/17mar13.b/ec00356.d VSTD005
/chem/HP22820.i/17mar13.b/ec00357.d VSTD010
/chem/HP22820.i/17mar13.b/ec00358.d VSTD025
/chem/HP22820.i/17mar13.b/ec00359.d VSTD070

Area Summary

Internal Standard Name	File ID: ec00354.d	ec00355.d	ec00356.d	ec00357.d	ec00358.d	ec00359.d	Avg. Area	%RSD	In Spec
Bromochloromethane	211361	222393	218754	215541	213685	221659	217232	2	Yes
1,4-Difluorobenzene	801401	821696	805669	811647	816434	871437	821381	3	Yes
Chlorobenzene-d5	785284	784860	781039	780078	818994	860210	801744	4	Yes

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

RT Summary

Internal Standard Name	File ID: ec00354.d	ec00355.d	ec00356.d	ec00357.d	ec00358.d	ec00359.d	Avg. RT
Bromochloromethane	5.467	5.467	5.467	5.467	5.467	5.474	5.468
1,4-Difluorobenzene	6.291	6.291	6.298	6.291	6.291	6.291	6.292
Chlorobenzene-d5	8.497	8.497	8.497	8.497	8.497	8.497	8.497

Comments:_____

_____

Page 1 of 1

Report generated on 03/13/2017 at 20:18

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00365.d LCSD File ID: ec00366.d

Batch: E1707230AA LCS Injected: 03/13/2017 LCSD Injected: 03/14/2017

Method: EPA TO-15 LCS Client ID: LCSE34 LCSD Client ID: LCSDE34

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	9.72	9.79	97	98	66-127	1	25	YES
Dichlorodifluoromethane	10.00	10.45	10.37	105	104	74-133	1	25	YES
Chlorodifluoromethane	10.00	10.66	10.55	107	105	70-138	1	25	YES
Freon 114	10.00	10.32	10.32	103	103	66-126	0	25	YES
Chloromethane	10.00	8.90	8.82	89	88	65-140	1	25	YES
Vinyl Chloride	10.00	10.61	10.58	106	106	75-130	0	25	YES
1,3-Butadiene	10.00	10.16	10.13	102	101	72-122	0	25	YES
Bromomethane	10.00	10.07	9.66	101	97	71-133	4	25	YES
Chloroethane	10.00	10.69	10.61	107	106	76-129	1	25	YES
Bromoethene	10.00	10.47	10.67	105	107	77-123	2	25	YES
Dichlorofluoromethane	10.00	10.85	10.72	108	107	75-137	1	25	YES
Trichlorofluoromethane	10.00	10.47	10.43	105	104	73-132	0	25	YES
Pentane	10.00	10.08	10.05	101	101	69-125	0	25	YES
Ethanol	10.00	7.56	7.47	76	75	38-150	1	25	YES
Acrolein	10.00	10.18	10.90	102	109	54-132	7	25	YES
1,1-Dichloroethene	10.00	10.52	10.49	105	105	70-129	0	25	YES
Freon 113	10.00	10.39	10.28	104	103	66-119	1	25	YES
Acetone	10.00	9.59	9.59	96	96	71-136	0	25	YES
Methyl Iodide	10.00	11.19	11.64	112	116*	46-114	4	25	NO
Carbon Disulfide	10.00	10.10	10.18	101	102	72-128	1	25	YES
Isopropanol	10.00	10.51	11.02	105	110	41-157	5	25	YES
Acetonitrile	10.00	8.49	7.92	85	79	56-136	7	25	YES
3-Chloropropene	10.00	12.91	12.62	129	126	67-141	2	25	YES
Methylene Chloride	10.00	11.56	11.41	116	114	69-128	1	25	YES
tert-Butyl Alcohol	10.00	11.15	11.40	111	114	63-139	2	25	YES
Acrylonitrile	10.00	10.53	10.27	105	103	68-135	2	25	YES
trans-1,2-Dichloroethene	10.00	10.48	10.42	105	104	77-128	1	25	YES
Methyl t-Butyl Ether	10.00	10.55	10.52	106	105	71-119	0	25	YES
Hexane	10.00	10.55	10.59	105	106	70-118	0	25	YES
1,1-Dichloroethane	10.00	10.58	10.50	106	105	74-129	1	25	YES
Vinyl Acetate	10.00	11.52	12.00	115	120	47-131	4	25	YES
Di-Isopropyl Ether	10.00	10.58	10.68	106	107	71-122	1	25	YES
Ethyl Tert-Butyl Ether	10.00	10.51	10.43	105	104	68-121	1	25	YES
cis-1,2-Dichloroethene	10.00	10.50	10.41	105	104	76-126	1	25	YES
2-Butanone	10.00	9.82	9.97	98	100	75-126	1	25	YES
Ethyl Acetate	10.00	9.58	9.40	96	94	62-160	2	25	YES

COMMENTS:
Applies to Sample(s): 8870417-8870420

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00365.d LCSD File ID: ec00366.d

Batch: E1707230AA LCS Injected: 03/13/2017 LCSD Injected: 03/14/2017

Method: EPA TO-15 LCS Client ID: LCSE34 LCSD Client ID: LCSDE34

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	10.53	10.35	105	104	75-125	2	25	YES
Tetrahydrofuran	10.00	10.59	10.59	106	106	67-127	0	25	YES
Chloroform	10.00	10.47	10.46	105	105	75-127	0	25	YES
1,1,1-Trichloroethane	10.00	10.53	10.53	105	105	74-122	0	25	YES
Cyclohexane	10.00	10.81	10.60	108	106	70-118	2	25	YES
Carbon Tetrachloride	10.00	10.70	10.55	107	106	72-127	1	25	YES
Benzene	10.00	10.26	10.40	103	104	76-123	1	25	YES
1,2-Dichloroethane	10.00	10.41	10.55	104	105	72-138	1	25	YES
Isooctane	10.00	10.26	10.54	103	105	74-127	3	25	YES
Tert-Amyl Methyl Ether	10.00	10.30	10.42	103	104	78-124	1	25	YES
Heptane	10.00	10.55	10.45	106	104	74-122	1	25	YES
Trichloroethene	10.00	9.95	9.88	99	99	76-118	1	25	YES
Ethyl Acrylate	10.00	10.29	10.32	103	103	71-126	0	25	YES
1,2-Dichloropropane	10.00	10.30	10.46	103	105	75-127	2	25	YES
Dibromomethane	10.00	10.22	10.32	102	103	76-124	1	25	YES
1,4-Dioxane	10.00	9.81	9.85	98	99	76-124	0	25	YES
Methyl Methacrylate	10.00	10.24	10.61	102	106	73-117	4	25	YES
Bromodichloromethane	10.00	10.25	10.41	103	104	75-134	2	25	YES
cis-1,3-Dichloropropene	10.00	10.06	10.26	101	103	51-120	2	25	YES
4-Methyl-2-Pentanone	10.00	10.30	10.55	103	106	68-133	2	25	YES
Toluene	10.00	10.39	10.40	104	104	78-119	0	25	YES
Octane	10.00	10.42	10.35	104	103	73-122	1	25	YES
trans-1,3-Dichloropropene	10.00	9.99	10.21	100	102	72-119	2	25	YES
Ethyl Methacrylate	10.00	11.01	10.96	110	110	71-123	0	25	YES
1,1,2-Trichloroethane	10.00	10.56	10.31	106	103	76-127	2	25	YES
Tetrachloroethene	10.00	9.52	9.34	95	93	68-123	2	25	YES
2-Hexanone	10.00	9.62	9.64	96	96	63-144	0	25	YES
Dibromochloromethane	10.00	10.31	10.48	103	105	74-131	2	25	YES
1,2-Dibromoethane	10.00	10.23	10.41	102	104	73-121	2	25	YES
Chlorobenzene	10.00	9.89	9.92	99	99	76-117	0	25	YES
1,1,1,2-Tetrachloroethane	10.00	10.19	10.28	102	103	73-124	1	25	YES
Ethylbenzene	10.00	10.42	10.37	104	104	77-117	1	25	YES
m/p-Xylene	10.00	10.41	10.40	104	104	78-119	0	25	YES
o-Xylene	10.00	10.49	10.36	105	104	78-121	1	25	YES
Xylene (total)	20.00	20.90	20.76	105	104	79-120	1	25	YES
Styrene	10.00	11.49	11.44	115	114	76-127	0	25	YES

COMMENTS:
Applies to Sample(s): 8870417-8870420

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00365.d LCSD File ID: ec00366.d

Batch: E1707230AA LCS Injected: 03/13/2017 LCSD Injected: 03/14/2017

Method: EPA TO-15 LCS Client ID: LCSE34 LCSD Client ID: LCSDE34

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	9.73	9.76	97	98	69-128	0	25	YES
Cumene	10.00	10.82	10.67	108	107	74-121	1	25	YES
Bromobenzene	10.00	9.96	10.07	100	101	74-118	1	25	YES
1,1,2,2-Tetrachloroethane	10.00	10.57	10.39	106	104	72-133	2	25	YES
1,2,3-Trichloropropane	10.00	10.20	10.13	102	101	71-127	1	25	YES
n-Propylbenzene	10.00	9.98	9.87	100	99	73-120	1	25	YES
2-Chlorotoluene	10.00	10.08	10.23	101	102	74-123	2	25	YES
4-Ethyltoluene	10.00	10.74	10.69	107	107	73-130	1	25	YES
1,3,5-Trimethylbenzene	10.00	10.47	10.38	105	104	72-130	1	25	YES
Alpha Methyl Styrene	10.00	11.47	11.36	115	114	67-118	1	25	YES
tert-Butylbenzene	10.00	10.31	10.42	103	104	68-124	1	25	YES
1,2,4-Trimethylbenzene	10.00	10.94	10.88	109	109	70-138	1	25	YES
sec-Butylbenzene	10.00	10.69	10.68	107	107	73-125	0	25	YES
1,3-Dichlorobenzene	10.00	10.41	10.44	104	104	75-129	0	25	YES
1,4-Dichlorobenzene	10.00	10.09	10.10	101	101	74-123	0	25	YES
p-Isopropyltoluene	10.00	10.86	10.89	109	109	70-131	0	25	YES
Benzyl Chloride	10.00	10.62	10.76	106	108	60-136	1	25	YES
1,2-Dichlorobenzene	10.00	10.32	10.42	103	104	71-126	1	25	YES
n-Butylbenzene	10.00	10.74	10.65	107	106	70-129	1	25	YES
Hexachloroethane	10.00	12.16	11.77	122	118	59-135	3	25	YES
1,2-Dibromo-3-chloropropane	10.00	11.66	11.49	117	115	56-129	1	25	YES
1,2,4-Trichlorobenzene	10.00	11.51	11.64	115	116	48-135	1	25	YES
Hexachlorobutadiene	10.00	10.63	10.74	106	107	55-127	1	25	YES
Naphthalene	10.00	12.50	12.68	125	127	39-152	1	25	YES

COMMENTS:
Applies to Sample(s): 8870417-8870420

Data File: /chem/HP22820.i/17mar13.b/ec00350.d

Date : 13-MAR-2017 13:30

Client ID: 50NGBFB

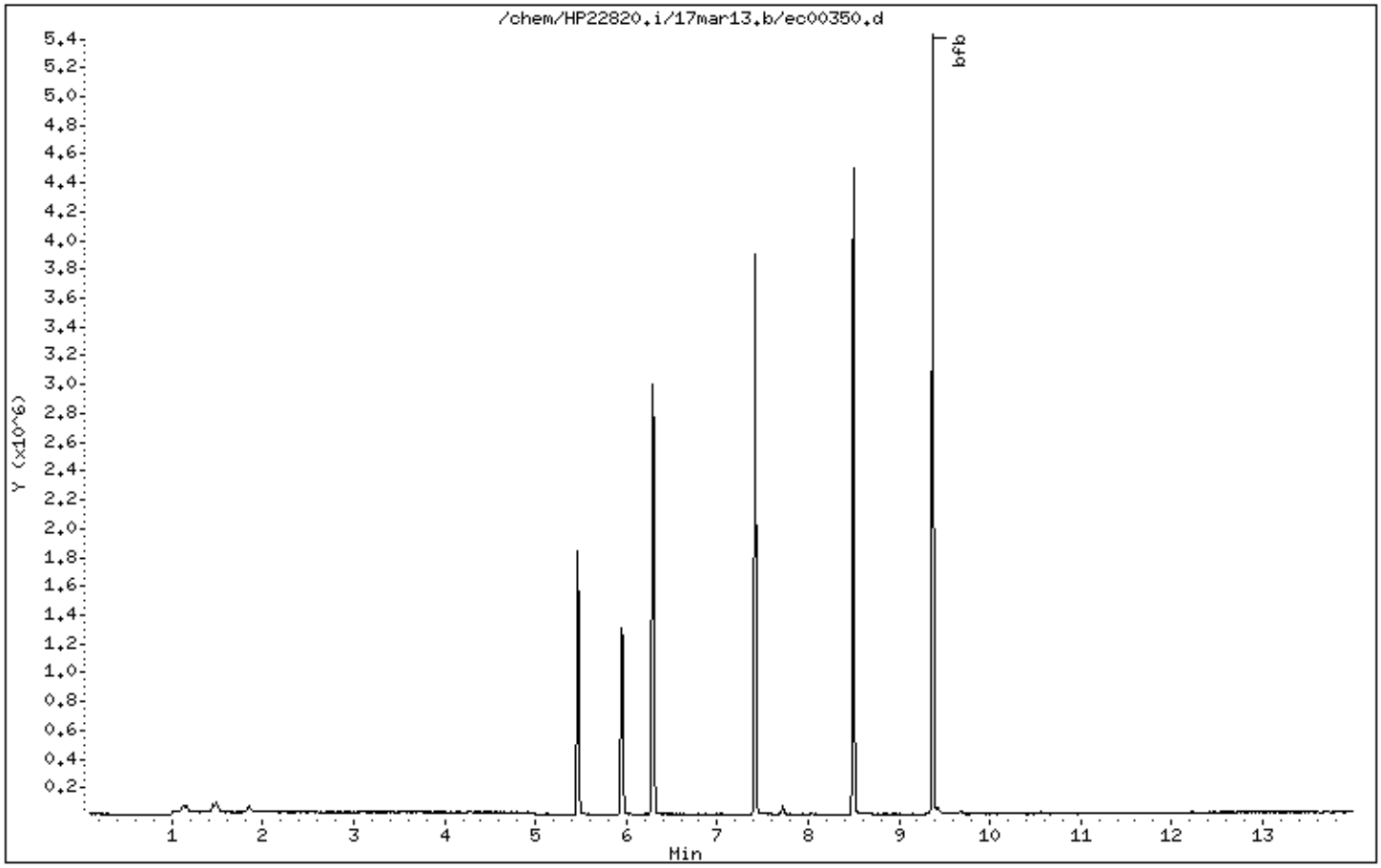
Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



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Target 3.5 esignature user ID: ads07818

Data File: /chem/HP22820.i/17mar13.b/ec00350.d

Date : 13-MAR-2017 13:30

Client ID: 50NGBFB

Instrument: HP22820.i

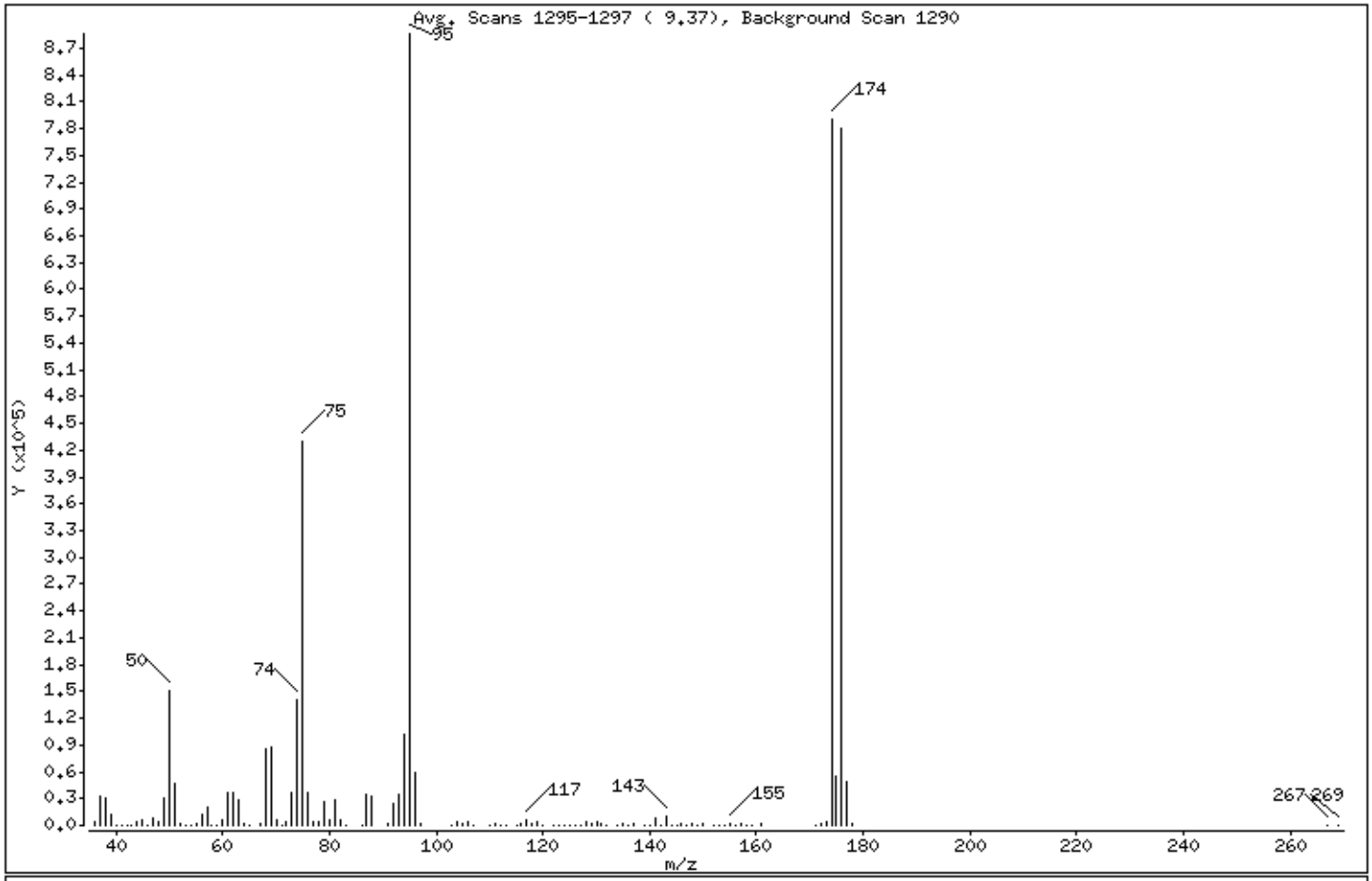
Sample Info: 50NGBFB;;;50NGBFB;;;;

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	16.96
75	30.00 - 66.00% of mass 95	48.45
96	5.00 - 9.00% of mass 95	6.63
173	Less than 2.00% of mass 174	0.56 (0.63)
174	50.00 - 120.00% of mass 95	89.22
175	4.00 - 9.00% of mass 174	6.32 (7.08)
176	93.00 - 101.00% of mass 174	88.05 (98.69)
177	5.00 - 9.00% of mass 176	5.46 (6.20)

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Target 3.5 esignature user ID: ads07818

Data File: /chem/HP22820.i/17mar13.b/ec00350.d

Date : 13-MAR-2017 13:30

Client ID: 50NGBFB

Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

Data File: ec00350.d
Spectrum: Avg. Scans 1295-1297 (9.37), Background Scan 1290
Location of Maximum: 95.00
Number of points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4816	67.00	2001	106.00	3763	142.00	833
37.00	32568	68.00	85360	107.00	861	143.00	9291
38.00	29952	69.00	86600	110.00	606	144.00	354
39.00	11936	70.00	6802	111.00	1064	145.00	867
40.00	874	71.00	263	112.00	605	146.00	1265
41.00	42	72.00	3616	113.00	467	147.00	484
42.00	199	73.00	36800	115.00	887	148.00	2008
43.00	331	74.00	140096	116.00	2861	149.00	447
44.00	4959	75.00	429376	117.00	6187	150.00	1171
45.00	5996	76.00	37216	118.00	3046	152.00	445
46.00	834	77.00	4661	119.00	4789	153.00	747
47.00	8904	78.00	3201	120.00	132	154.00	566
48.00	4052	79.00	25752	122.00	335	155.00	2287
49.00	30088	80.00	6984	123.00	186	156.00	559
50.00	150336	81.00	27672	124.00	559	157.00	1874
51.00	46264	82.00	5726	125.00	512	158.00	597
52.00	2133	83.00	724	126.00	254	159.00	946
53.00	52	86.00	925	127.00	309	161.00	1027
54.00	220	87.00	34720	128.00	3159	171.00	82
55.00	1754	88.00	32128	129.00	1230	172.00	1079
56.00	11678	91.00	2880	130.00	3385	173.00	4984
57.00	20248	92.00	24144	131.00	1398	174.00	790656
58.00	867	93.00	34560	132.00	52	175.00	55976
59.00	318	94.00	102040	134.00	377	176.00	780288
60.00	6528	95.00	886208	135.00	1714	177.00	48400
61.00	36672	96.00	58792	136.00	432	178.00	1513
62.00	36184	97.00	1578	137.00	1905	267.00	113
63.00	28312	103.00	671	139.00	346	269.00	51
64.00	2713	104.00	4201	140.00	607		
65.00	812	105.00	1356	141.00	9013		

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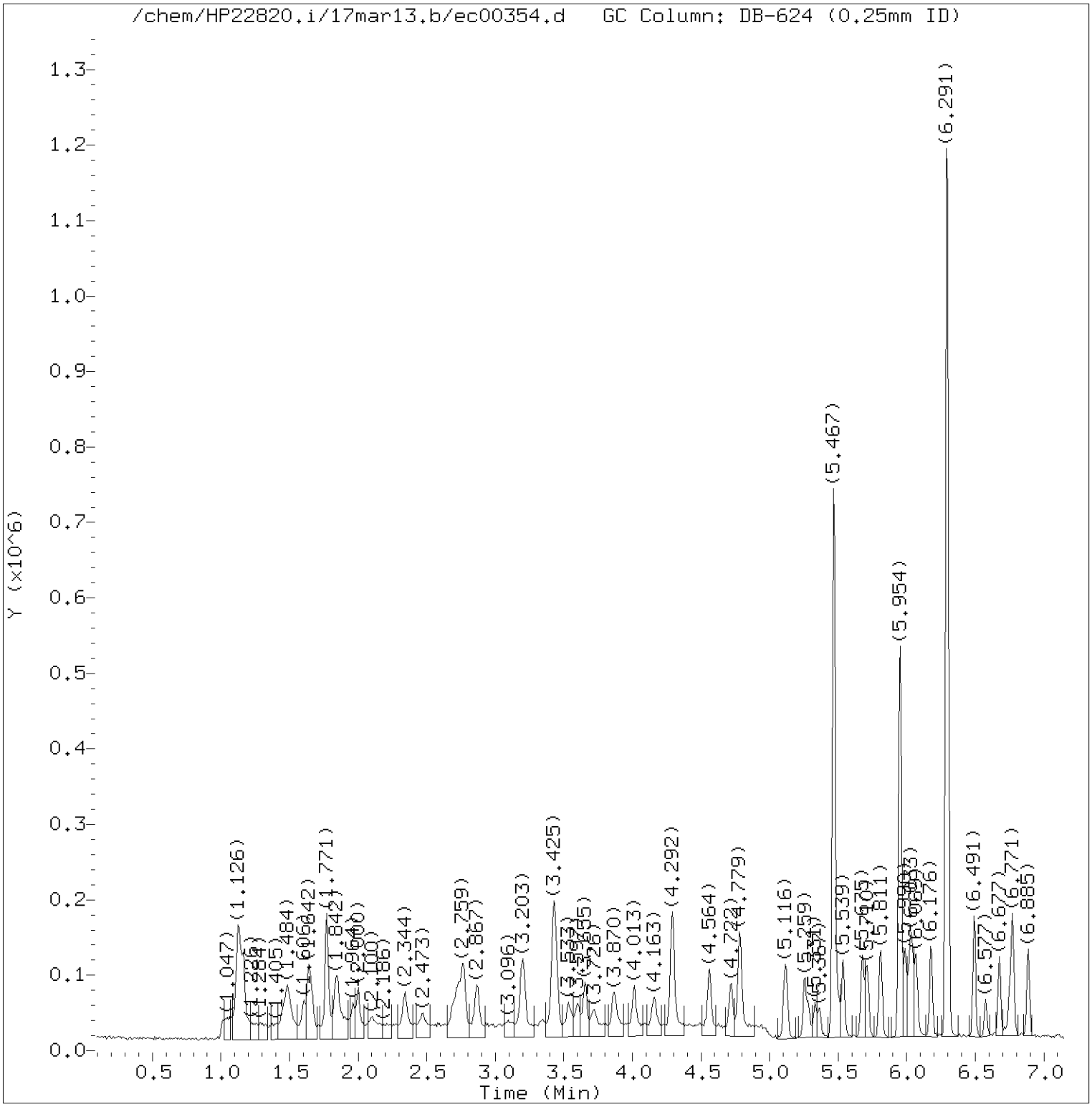
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

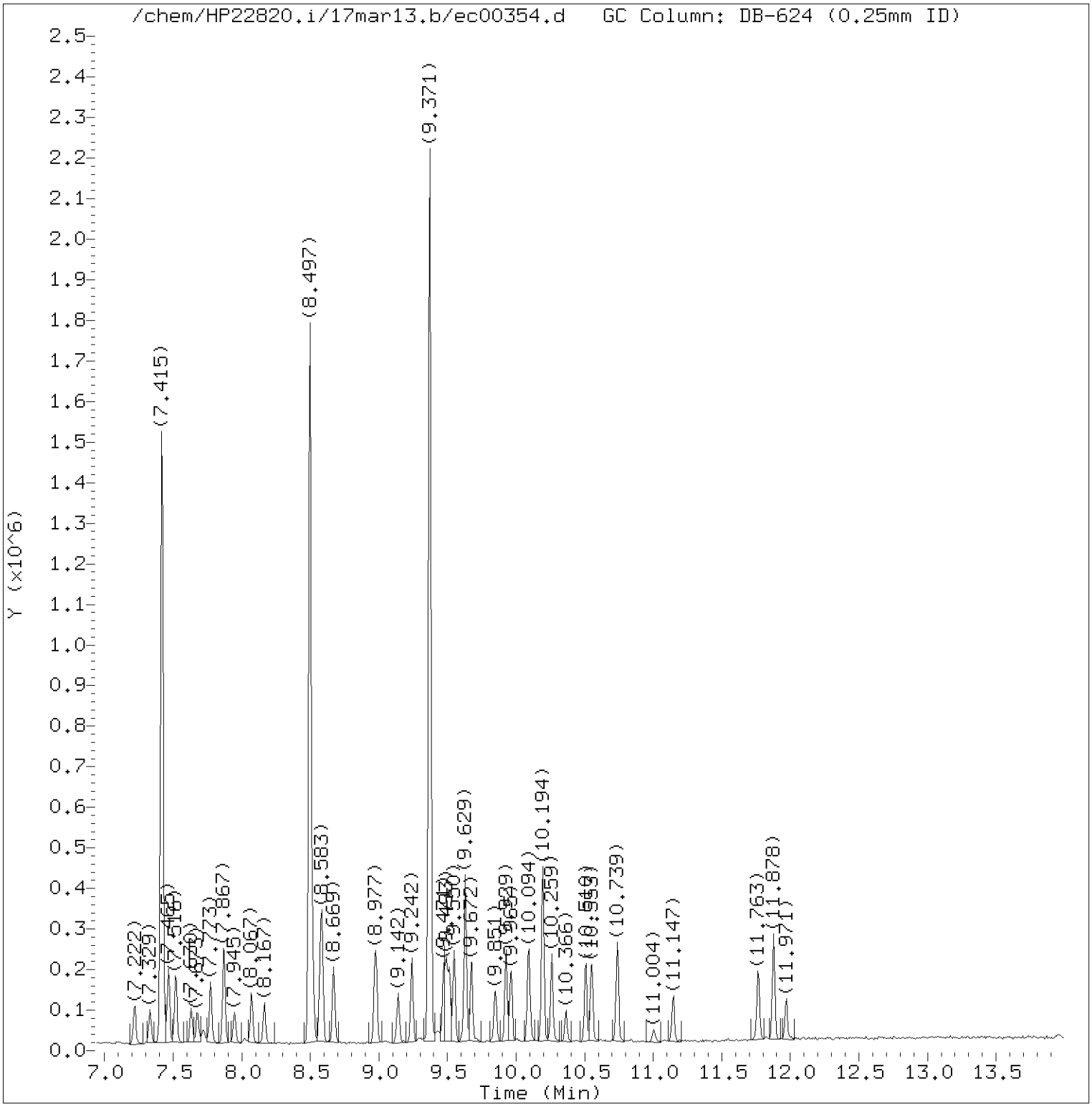
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	21533	1.000
2) Dichlorodifluoromethane	(1)	1.635	85	77902	1.000
3) Chlorodifluoromethane	(1)	1.656	51	42993	1.000
4) Freon 114	(1)	1.771	85	77286	1.000
5) Chloromethane	(1)	1.835	50	27259	1.000
6) Vinyl Chloride	(1)	1.957	62	27443	1.000
7) 1,3-Butadiene	(1)	2.000	54	18466	1.000
8) Bromomethane	(1)	2.344	94	34836	1.000
9) Chloroethane	(1)	2.473	64	15561	1.000
10) Bromoethene	(1)	2.688	106	25111	1.000
11) Dichlorofluoromethane	(1)	2.731	67	61517	1.000
12) Trichlorofluoromethane	(1)	2.766	101	78236	1.000
13) Pentane	(1)	2.867	43	38633	1.000
14) Ethanol	(1)	3.074	45	8045	1.000
15) Freon123a	(1)	3.196	67	56836	1.000
16) Acrolein	(1)	3.339	56	8085	1.000
17) 1,1-Dichloroethene	(1)	3.425	61	40383	1.000
18) Freon 113	(1)	3.433	103	42775	1.000
19) Acetone	(1)	3.533	43	48105M	1.000
20) Methyl Iodide	(1)	3.604	142	38067	1.000
21) Carbon Disulfide	(1)	3.655	76	76639	1.000
22) Isopropanol	(1)	3.712	45	37779	1.130
24) 3-Chloropropene	(1)	3.862	76	12241	1.120
23) Acetonitrile	(1)	3.884	40	23518	1.000
25) Methylene Chloride	(1)	4.013	84	26091	1.120
26) tert-Butyl Alcohol	(1)	4.156	59	46818	1.120
28) trans-1,2-Dichloroethene	(1)	4.292	61	37482	1.000
29) Methyl t-Butyl Ether	(1)	4.292	73	69197	1.000
27) Acrylonitrile	(1)	4.306	53	19799	1.000
30) Hexane	(1)	4.557	57	35327	1.000
31) 1,1-Dichloroethane	(1)	4.722	63	49049	1.000
32) Vinyl Acetate	(1)	4.779	86	7061	1.130
33) Di-Isopropyl Ether	(1)	4.779	45	71877	1.000
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	67418	1.000
35) cis-1,2-Dichloroethene	(1)	5.252	61	35206	1.000
37) 2-Butanone	(1)	5.288	72	14158	1.000
38) Ethyl Acetate	(1)	5.331	70	7017	1.000
39) Methyl Acrylate	(1)	5.367	55	37037	1.000

M = Compound was manually integrated.

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	211361	10.000
41) Tetrahydrofuran	(1)	5.503	42	24472	1.000
42) Chloroform	(1)	5.539	83	61485	1.000
43) 1,1,1-Trichloroethane	(1)	5.675	97	58216	1.000
44) Cyclohexane	(1)	5.710	56	38850	1.000
45) Carbon Tetrachloride	(1)	5.811	117	57426	1.000
46) Benzene	(2)	5.990	78	85518	1.000
47) 1,2-Dichloroethane	(2)	6.011	62	38685	1.000
48) Isooctane	(2)	6.033	57	114745	1.000
49) Tert-Amyl Methyl Ether	(2)	6.069	73	68389	1.000
50) Heptane	(2)	6.176	43	38679	1.000
51)*1,4-Difluorobenzene	(2)	6.291	114	801401	10.000
52) Trichloroethene	(2)	6.491	130	41020	1.000
53) Ethyl Acrylate	(2)	6.577	55	42204	1.000
36) 1,2-Dichloroethene (total)	(1)		61	72688	2.000
54) 1,2-Dichloropropane	(2)	6.677	63	29416	1.000
57) Methyl Methacrylate	(2)	6.749	69	23143	1.000
55) Dibromomethane	(2)	6.771	174	38514	1.000
56) 1,4-Dioxane	(2)	6.778	88	18235	1.000
58) Bromodichloromethane	(2)	6.885	83	55327	1.000
59) cis-1,3-Dichloropropene	(2)	7.215	75	42379	1.000
60) 4-Methyl-2-Pentanone	(2)	7.329	43	41716	1.000
61) Toluene	(3)	7.465	91	95326	1.000
62) Octane	(3)	7.516	43	51996	1.000
63) trans-1,3-Dichloropropene	(3)	7.630	75	35385	1.000
65) Ethyl Methacrylate	(3)	7.673	69	33396	1.000
66) 1,1,2-Trichloroethane	(3)	7.773	97	35104	1.000
67) Tetrachloroethene	(3)	7.867	166	55835	1.000
68) 2-Hexanone	(3)	7.945	43	41955	1.000
69) Dibromochloromethane	(3)	8.074	127	38757	1.000
70) 1,2-Dibromoethane	(3)	8.167	107	50109	1.000
71)*Chlorobenzene-d5	(3)	8.497	117	785284	10.000
72) Chlorobenzene	(3)	8.518	112	83068	1.000
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	40790	1.000
74) Ethylbenzene	(3)	8.583	91	115025	1.000
75) m/p-Xylene	(3)	8.669	91	88329	1.000
76) o-Xylene	(3)	8.970	91	82593	1.000
78) Styrene	(3)	8.984	104	49067	1.000

* = Compound is an internal standard.

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	42276	1.000
80) Cumene	(3)	9.242	105	114050	1.000
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	63964	1.000
81) Bromobenzene	(3)	9.493	156	44325	1.000
83) 1,2,3-Trichloropropane	(3)	9.514	110	21386	1.000
84) n-Propylbenzene	(3)	9.550	120	34033	1.000
86) 4-Ethyltoluene	(3)	9.629	105	111089M	1.000
85) 2-Chlorotoluene	(3)	9.629	126	32360	1.000
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	89451M	1.000
88) Alpha Methyl Styrene	(3)	9.851	118	30410	1.000
89) tert-Butylbenzene	(3)	9.929	119	94950M	1.000
90) 1,2,4-Trimethylbenzene	(3)	9.965	105	87227	1.000
91) sec-Butylbenzene	(3)	10.094	105	131884	1.000
92) 1,3-Dichlorobenzene	(3)	10.194	146	71996	1.000
94) p-Isopropyltoluene	(3)	10.194	119	101098	1.000
93) 1,4-Dichlorobenzene	(3)	10.259	146	76039	1.000
95) Benzyl Chloride	(3)	10.366	91	47882	1.000
97) n-Butylbenzene	(3)	10.510	91	89496	1.000
96) 1,2-Dichlorobenzene	(3)	10.553	146	65839	1.000
98) Hexachloroethane	(3)	10.739	117	29051	1.000
99) 1,2-Dibromo-3-chloropropane	(3)	11.147	157	23136	1.000
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	44840	1.000
101) Hexachlorobutadiene	(3)	11.878	225	42373	1.000
102) Naphthalene	(3)	11.971	128	70318	1.000
64) 1,3-Dichloropropene (total)	(3)		75	77764	2.000
77) Xylene (total)	(3)		91	170922	2.000

M = Compound was manually integrated.

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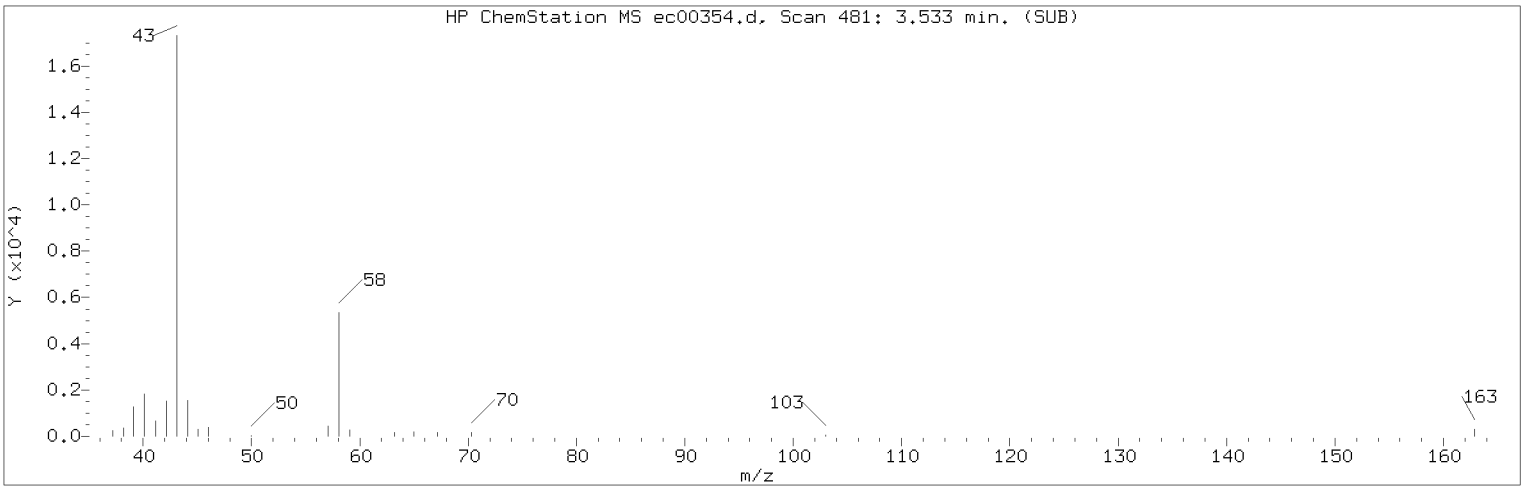
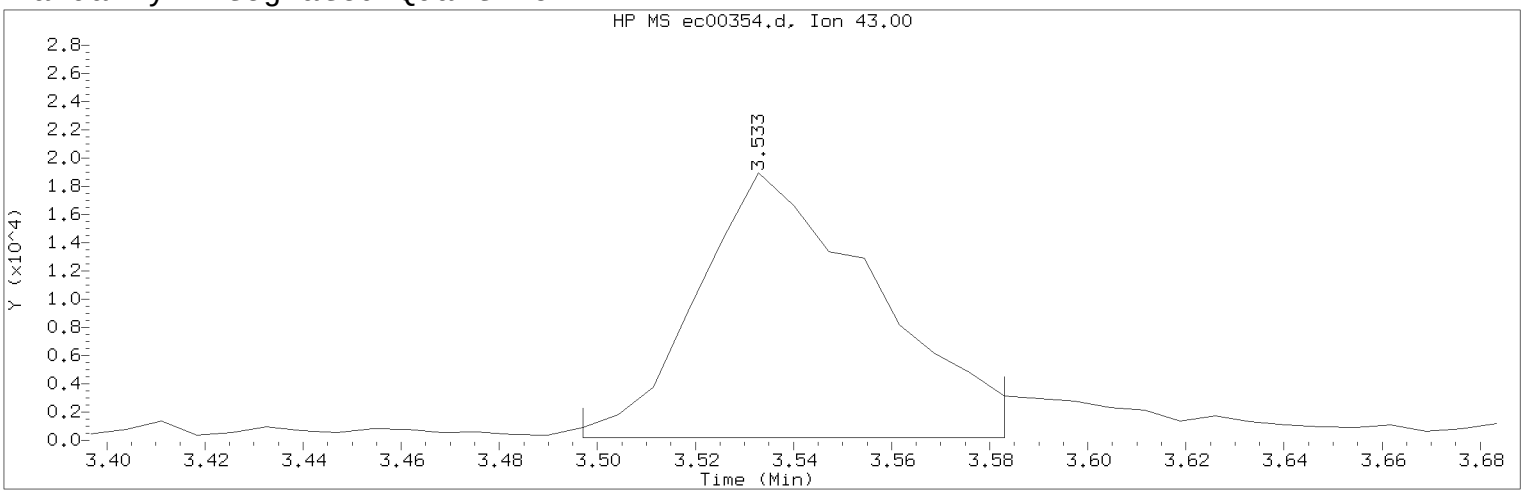
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

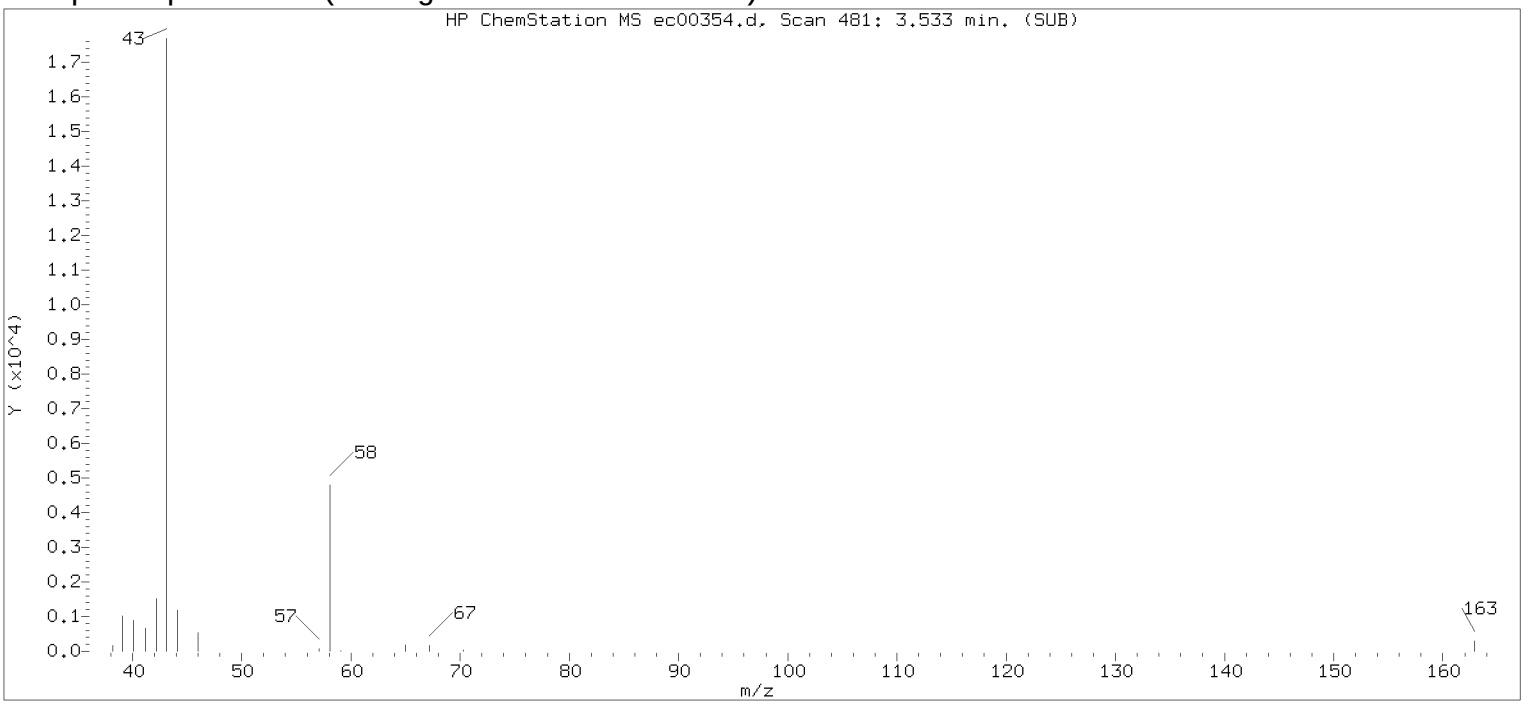
Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Quant Ion : 43.00
Area (flag) : 48105M
Concentration (ppb(v)) : 1.0000
Integration start scan : 475 Integration stop scan: 487
Y at integration start : 170 Y at integration end: 170

Reason for manual integration: improper integration

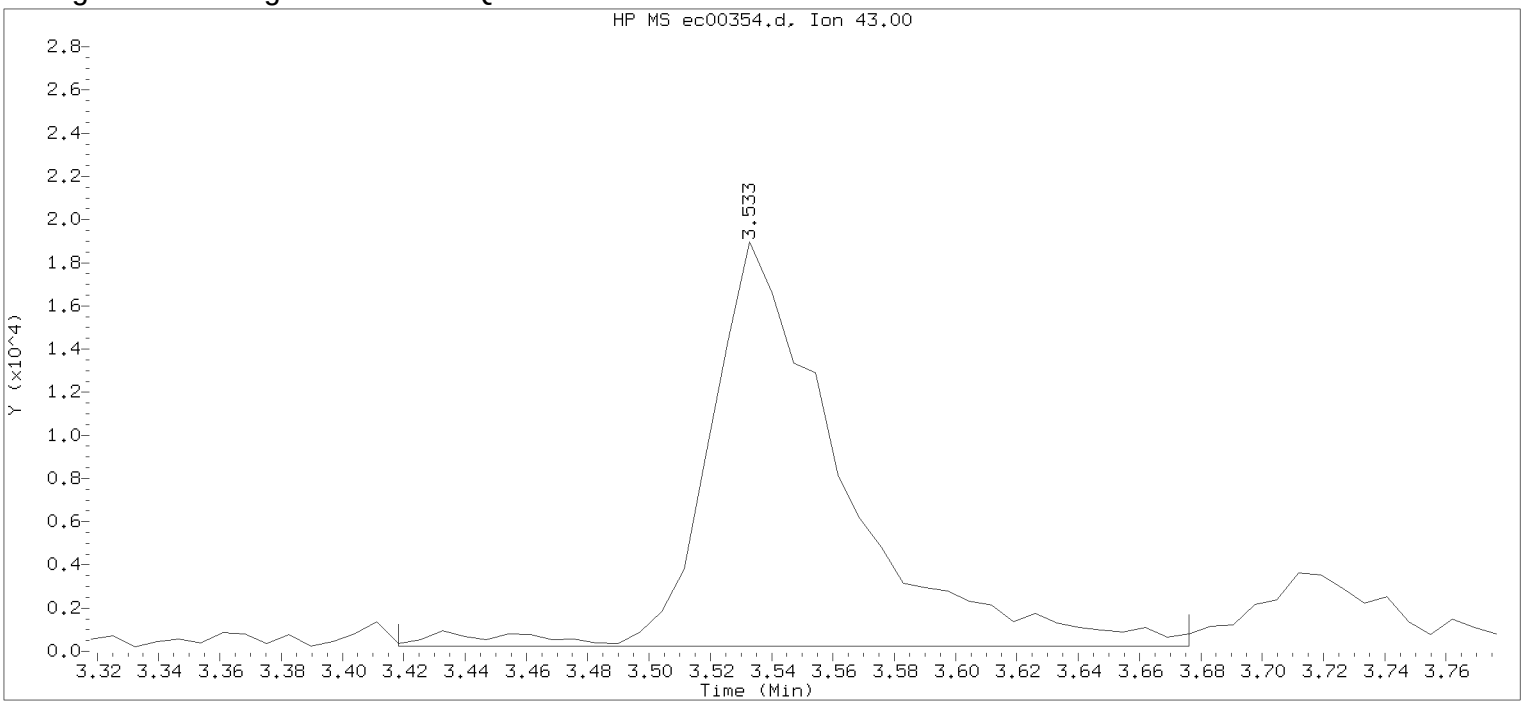
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

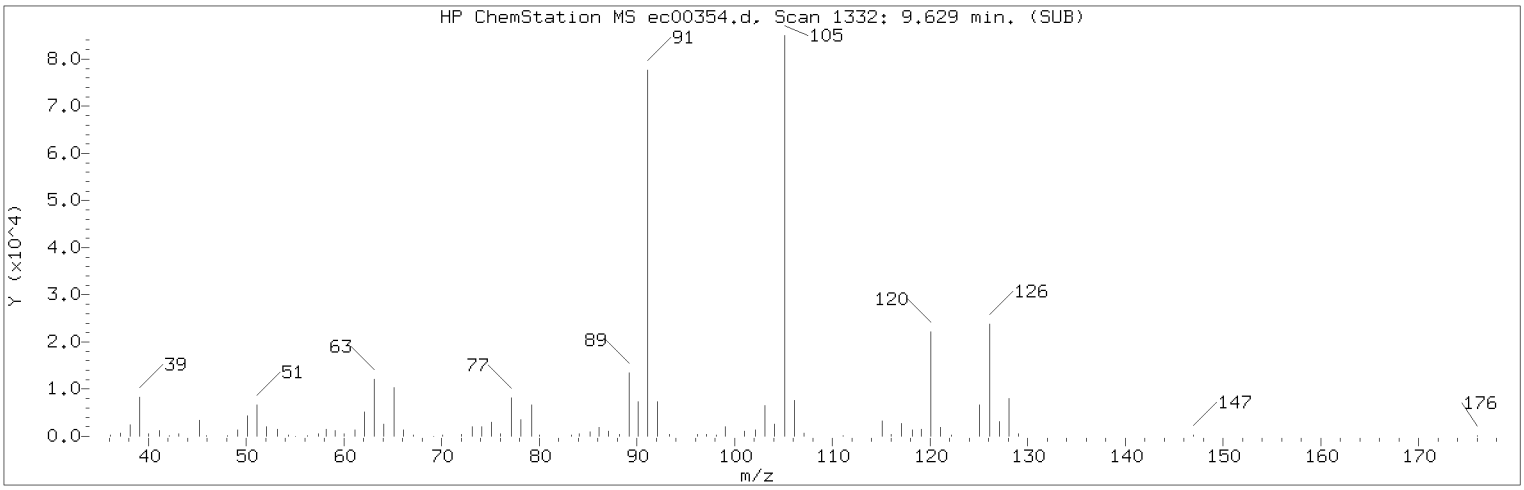
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 08-MAR-2017 11:15
Date, time and analyst ID of latest file update: 13-Mar-2017 16:15 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

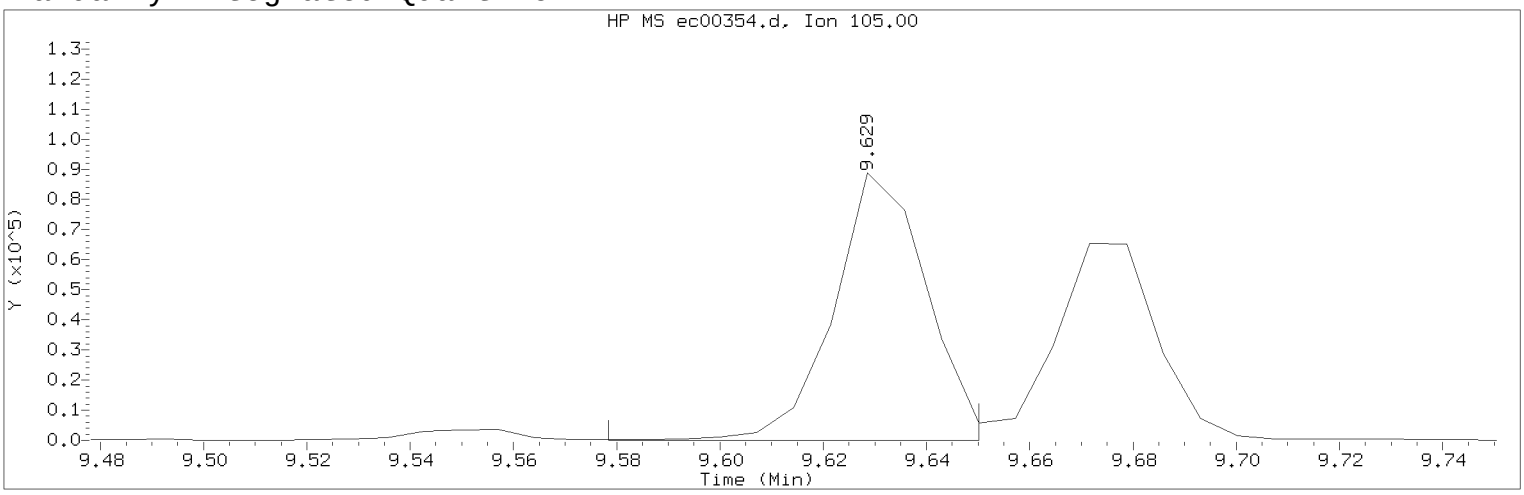
Compound Number : 19
Compound Name : Acetone
Scan Number : 481
Retention Time (minutes): 3.533
Quant Ion : 43.00
Area : 56509
Concentration (ppb(v)) : 1.6913
Integration start scan : 464 Integration stop scan: 500
Y at integration start : 243 Y at integration end: 243

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

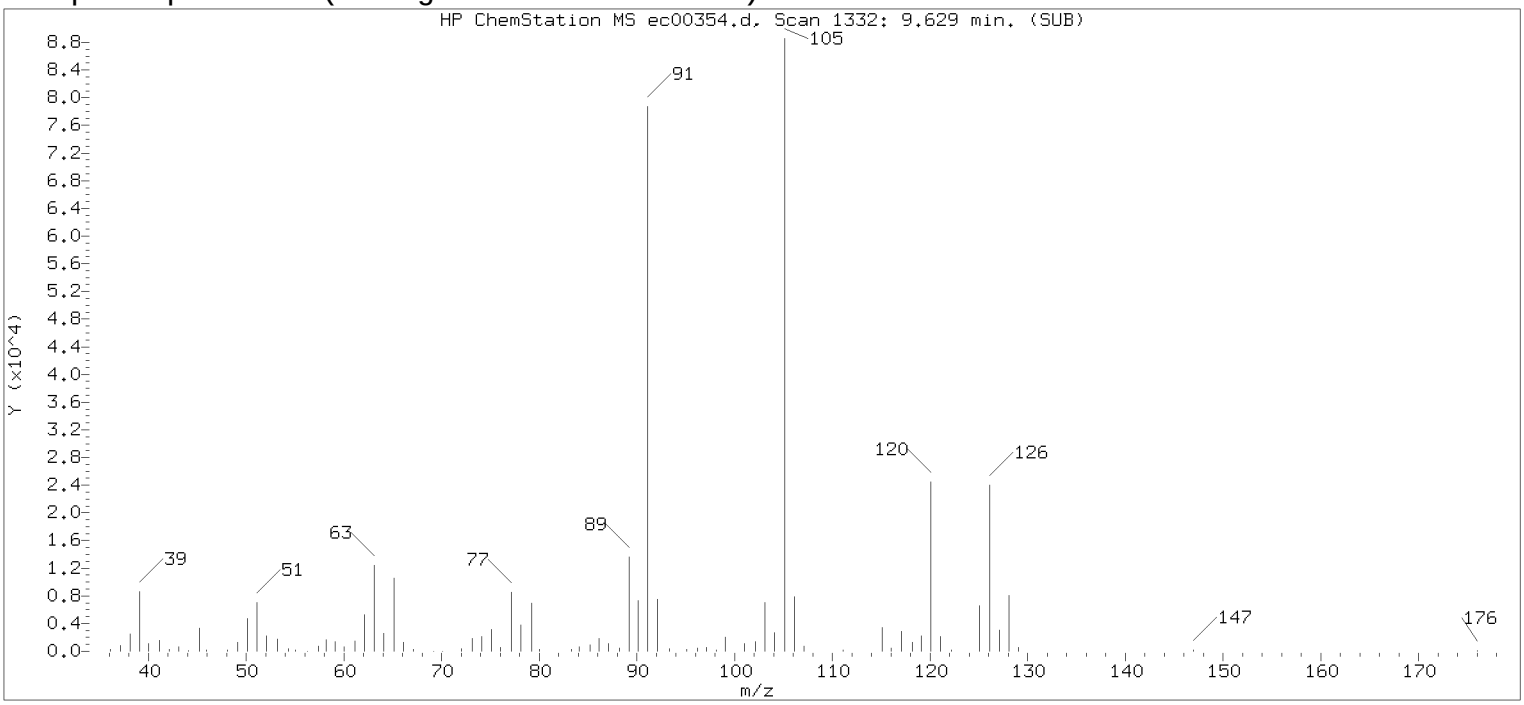
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 111089M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

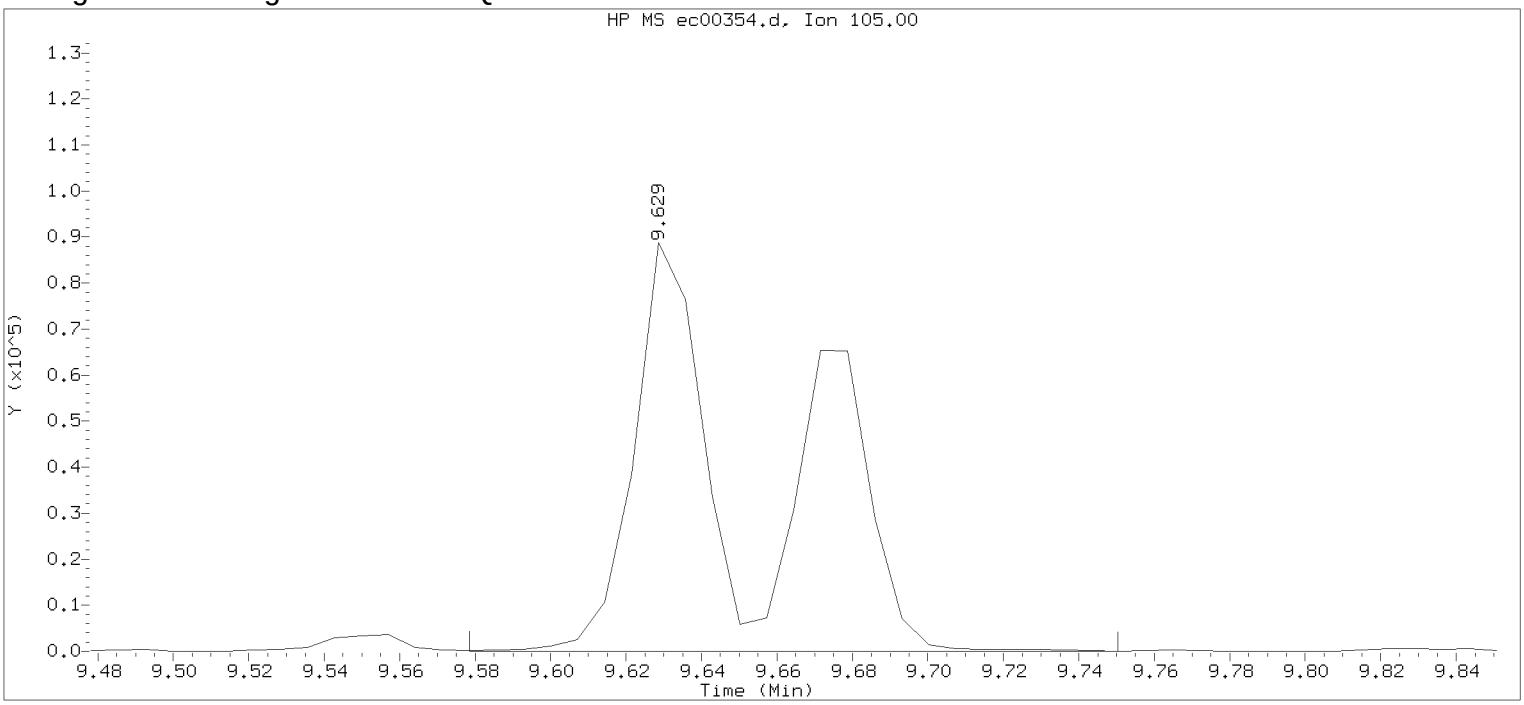
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 08-MAR-2017 11:15
Date, time and analyst ID of latest file update: 13-Mar-2017 16:15 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 200485
Concentration (ppb(v)) : 1.5649
Integration start scan : 1324 Integration stop scan: 1348
Y at integration start : 0 Y at integration end: 0

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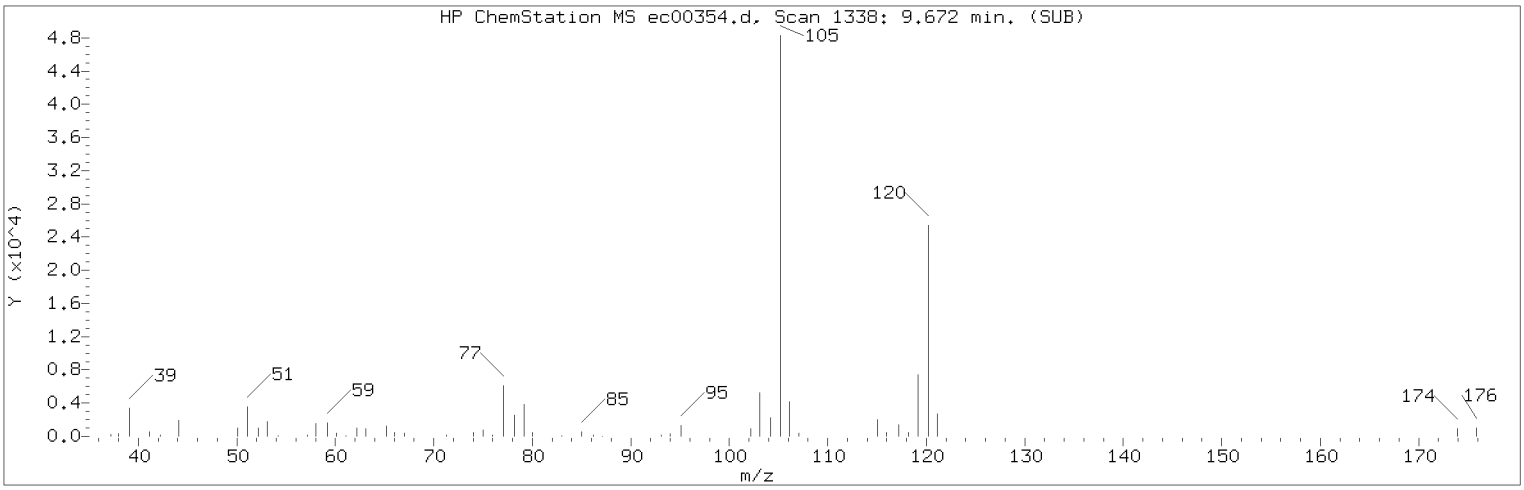
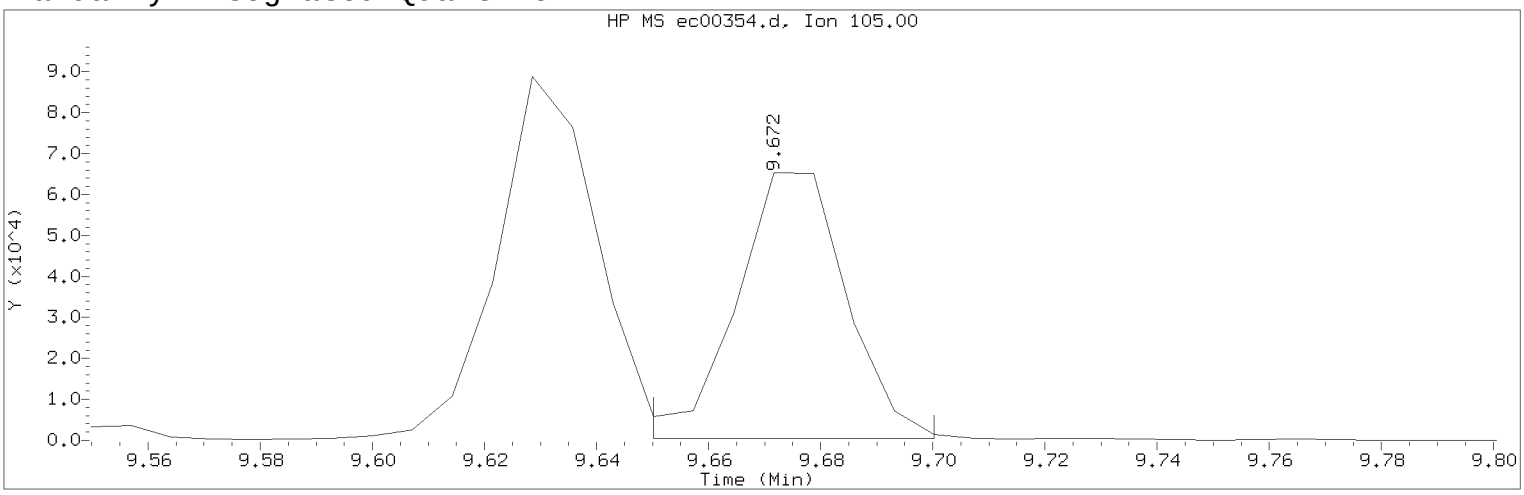
Target 3.5 esignature user id: 71 and Page 551 of 746
SVOC Page 551

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

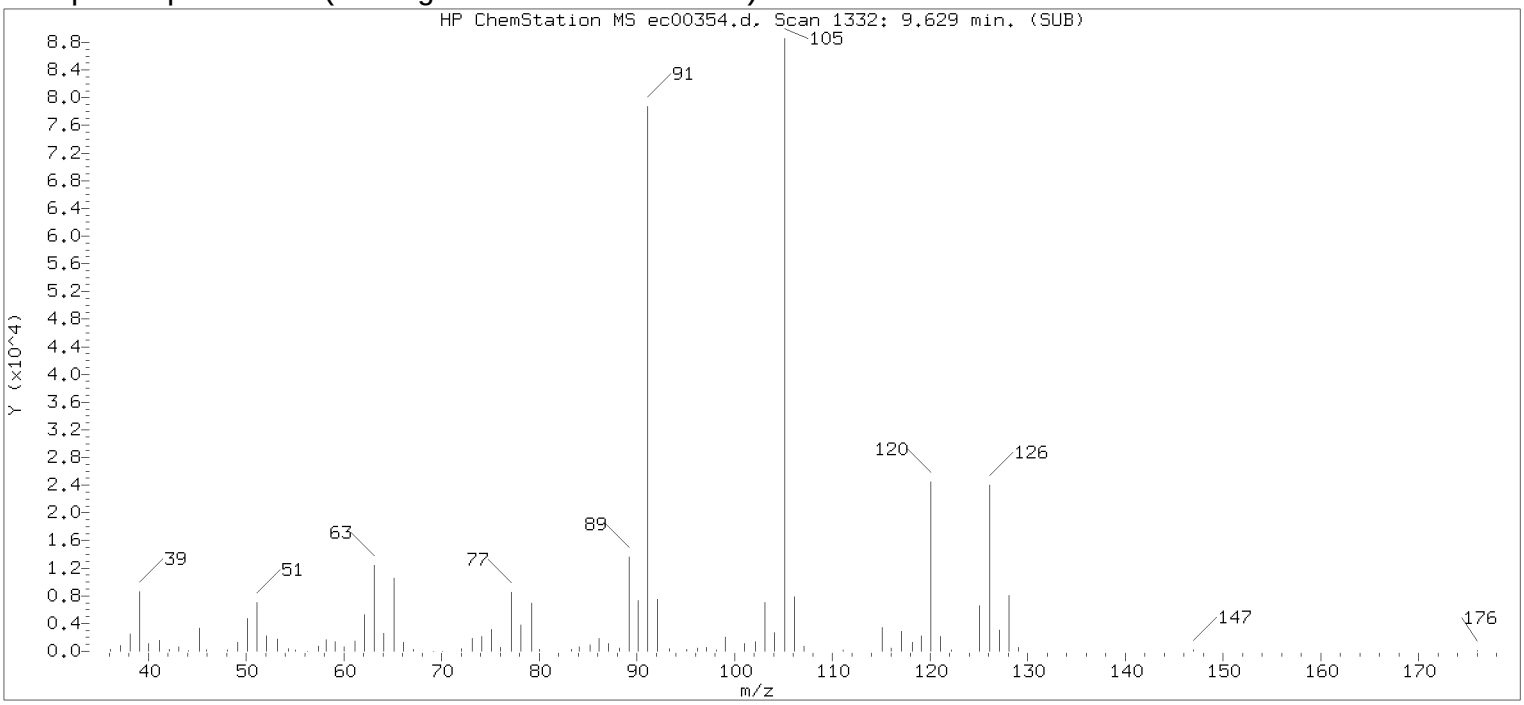
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 89451M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 447 Y at integration end: 447

Reason for manual integration: improper integration

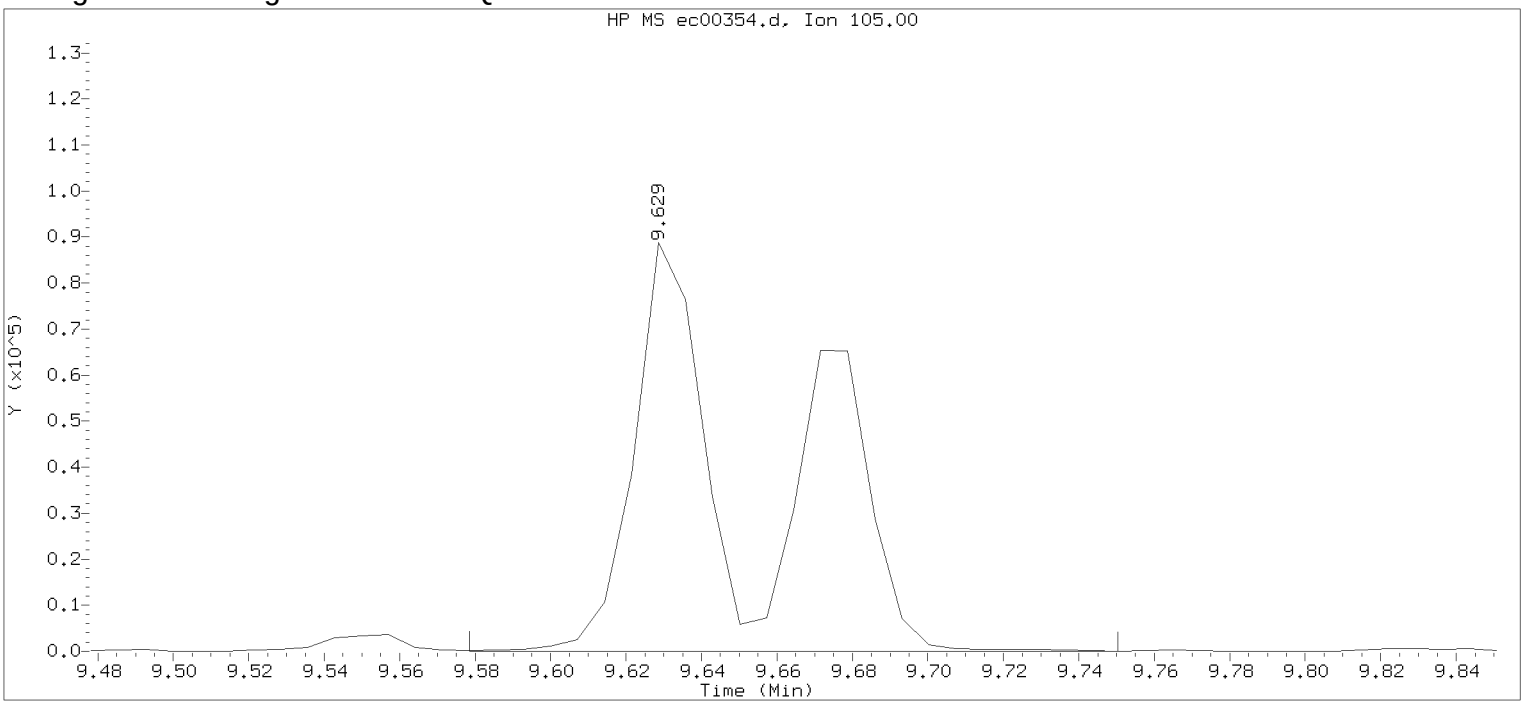
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 08-MAR-2017 11:15
Date, time and analyst ID of latest file update: 13-Mar-2017 16:15 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 200496
Concentration (ppb(v)) : 1.8526
Integration start scan : 1324 Integration stop scan: 1348
Y at integration start : 0 Y at integration end: 0

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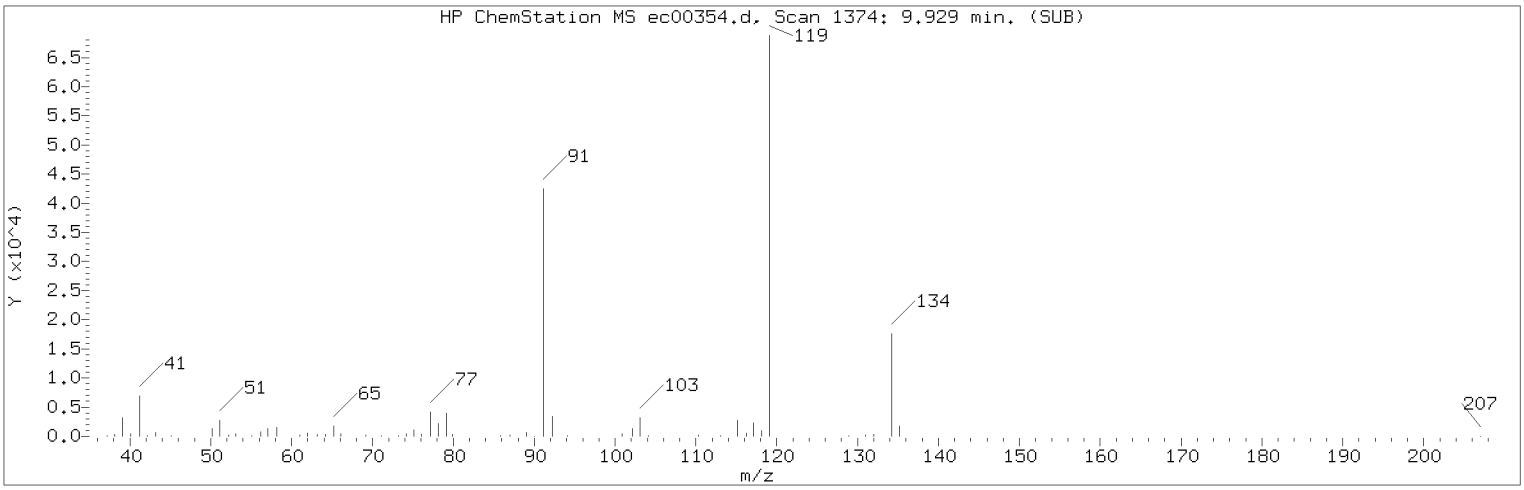
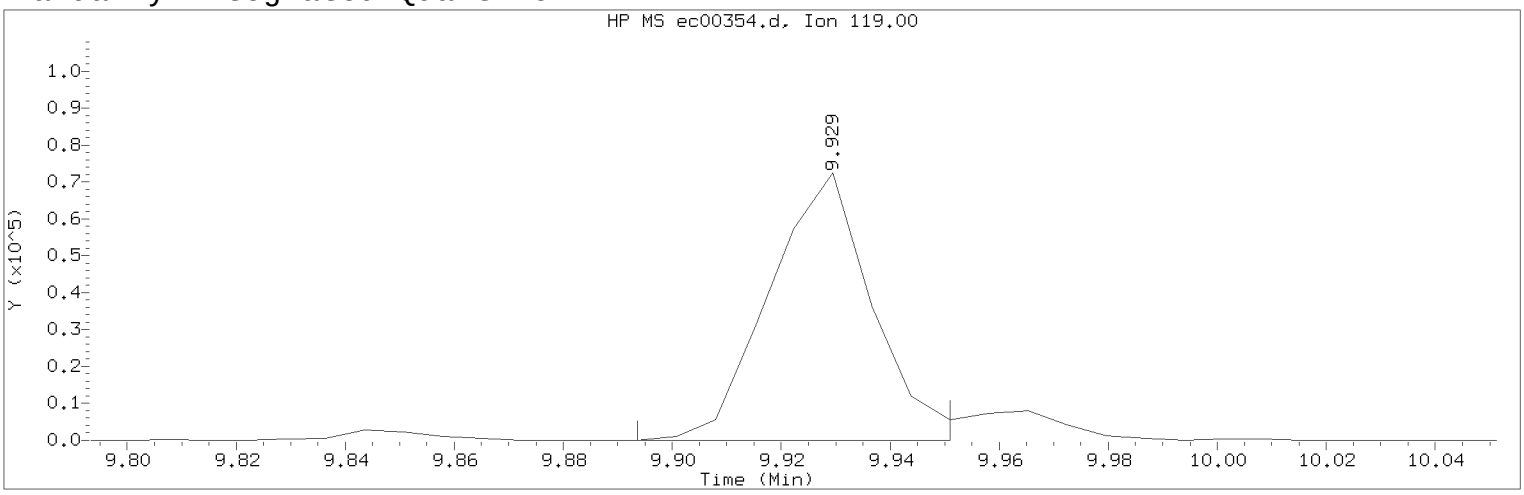
Target 3.5 esignature user id: 71 and Page 553 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD001 Lab Sample ID: VSTD001

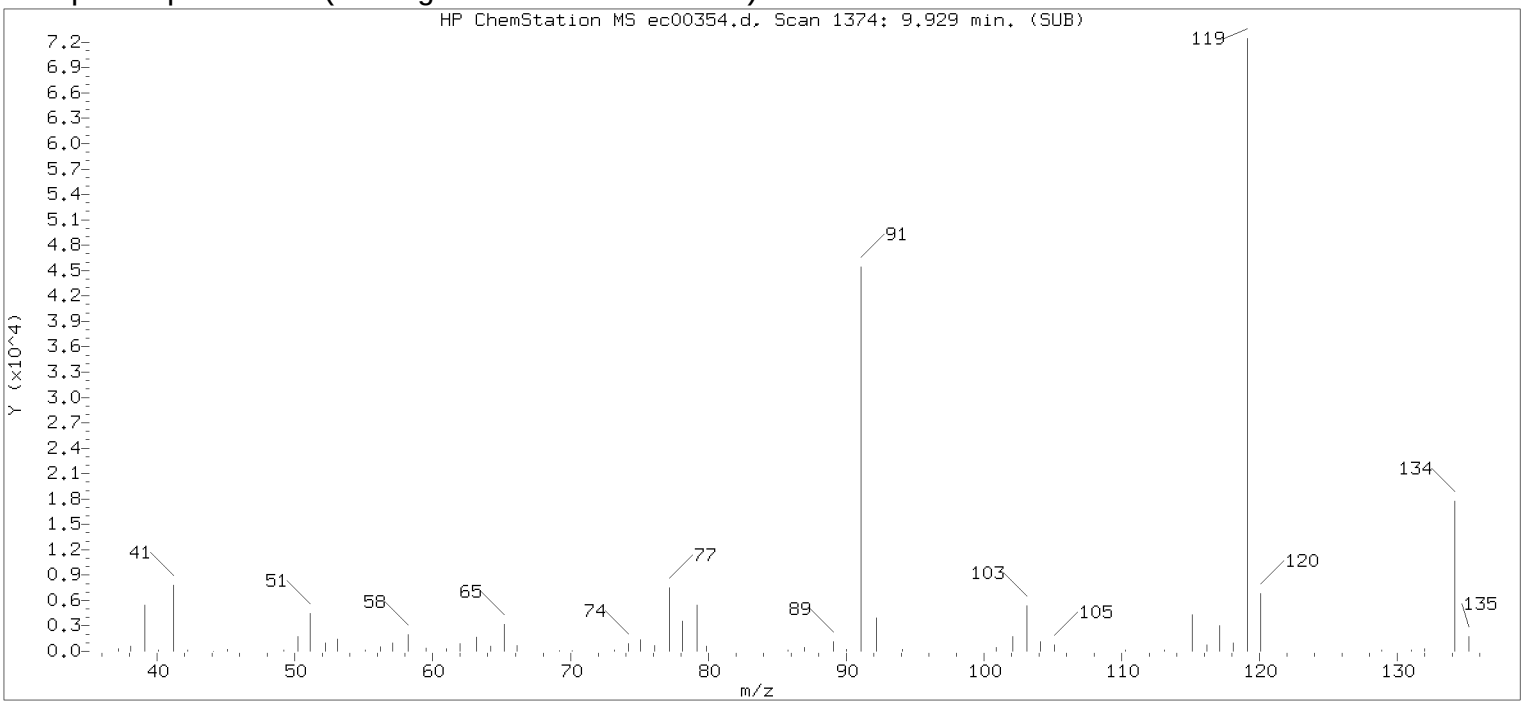
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.929
Quant Ion : 119.00
Area (flag) : 94950M
Concentration (ppb(v)) : 1.0000
Integration start scan : 1368 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

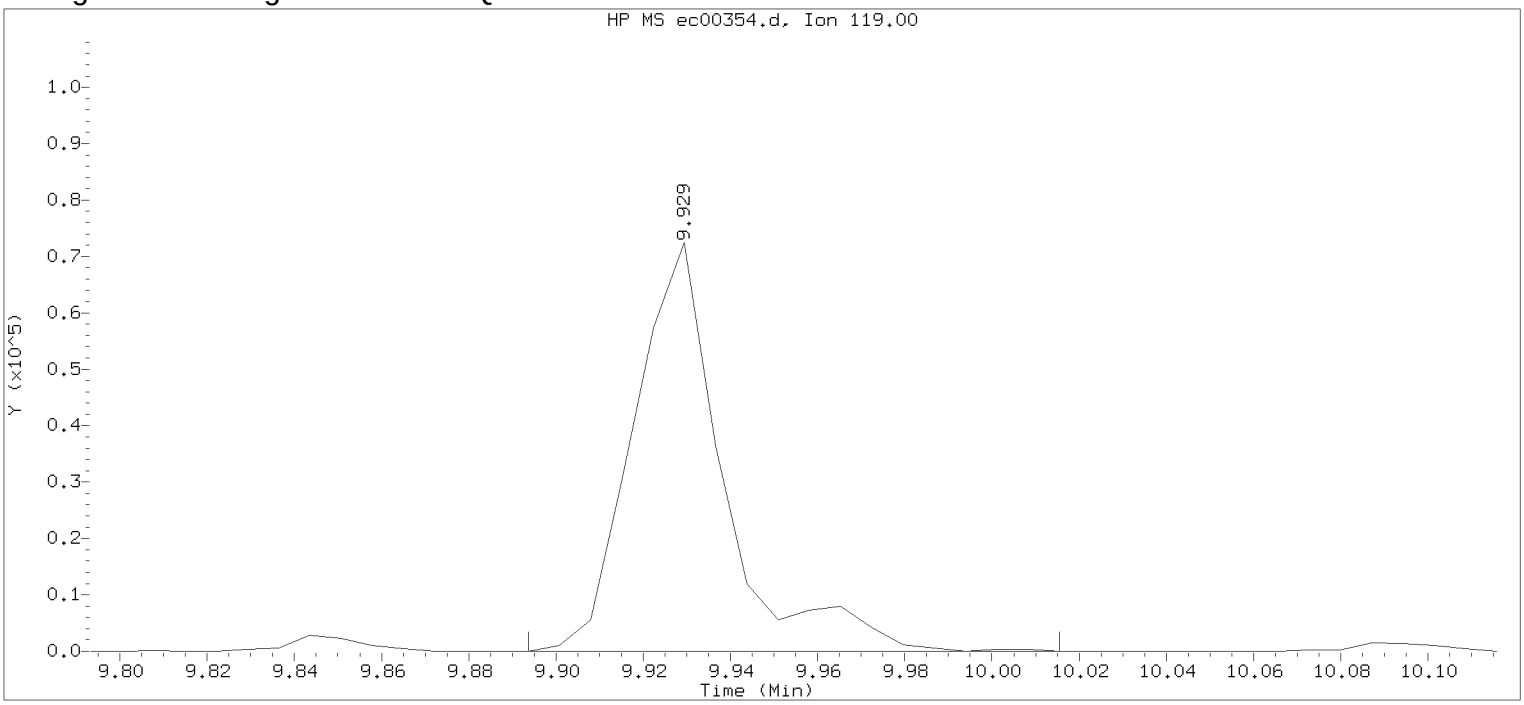
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



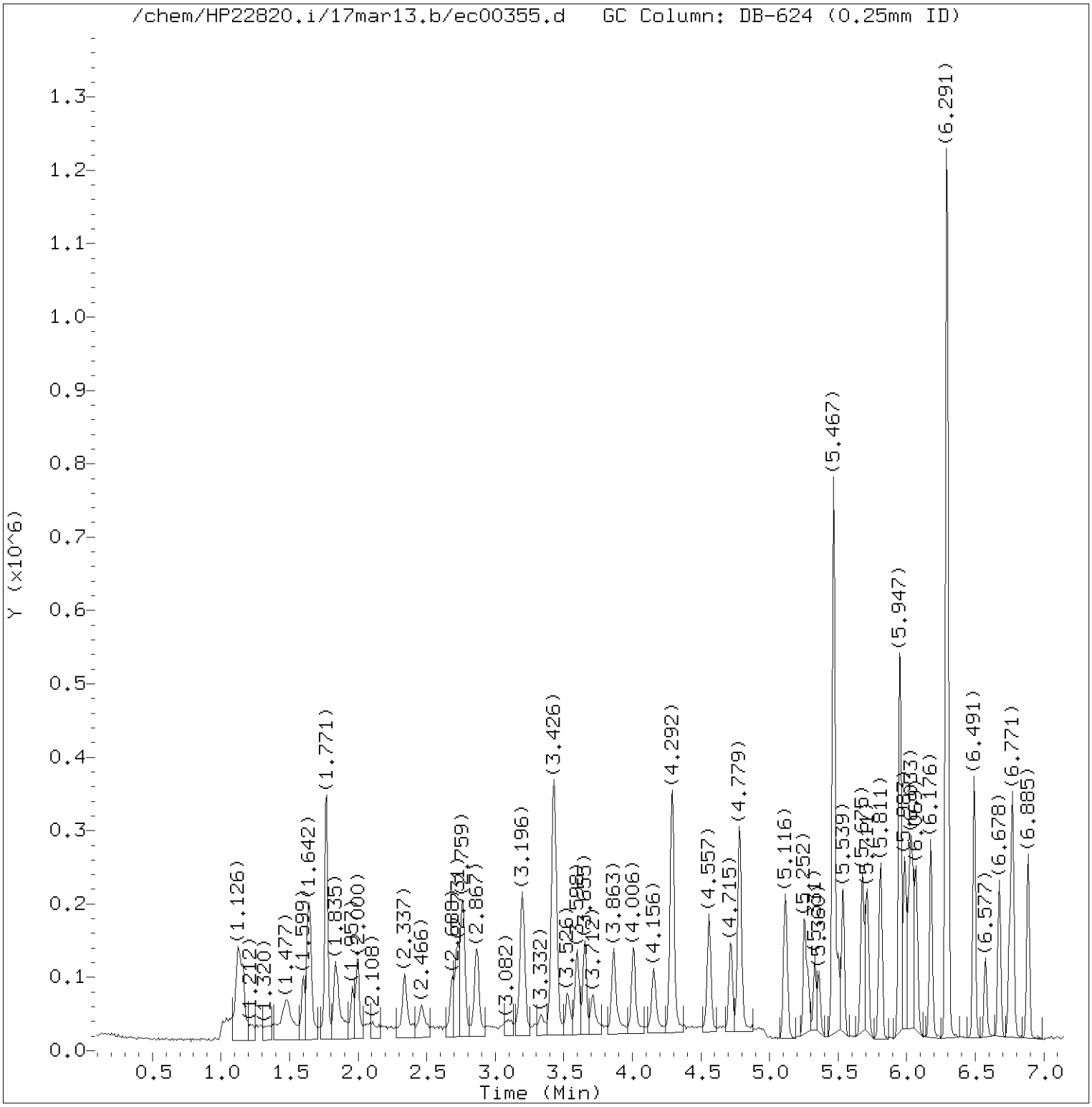
Data File: /chem/HP22820.i/17mar13.b/ec00354.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 15:56 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 08-MAR-2017 11:15
Date, time and analyst ID of latest file update: 13-Mar-2017 16:15 Unknown

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.929
Quant Ion : 119.00
Area : 104377
Concentration (ppb(v)) : 0.9756
Integration start scan : 1368 Integration stop scan: 1385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 07455



Total Ion Chromatogram (TIC)

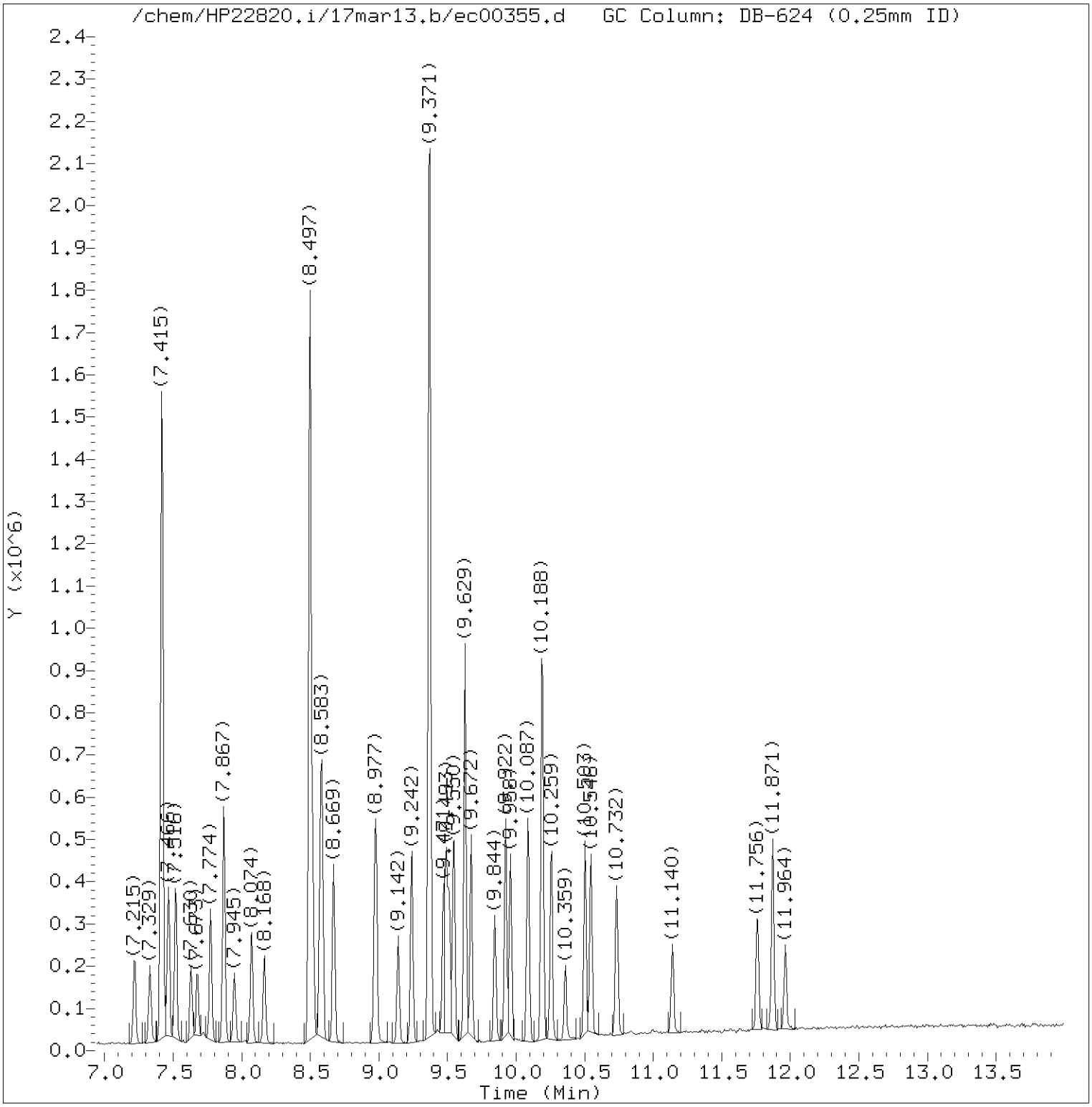
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.599	41	39151	1.854
2) Dichlorodifluoromethane	(1)	1.635	85	152720	1.929
3) Chlorodifluoromethane	(1)	1.656	51	84126	1.927
4) Freon 114	(1)	1.764	85	152937	1.939
5) Chloromethane	(1)	1.835	50	52043	1.903
6) Vinyl Chloride	(1)	1.957	62	52879	1.912
7) 1,3-Butadiene	(1)	2.000	54	37854	1.974
8) Bromomethane	(1)	2.337	94	56002	1.732
9) Chloroethane	(1)	2.466	64	28123	1.848
10) Bromoethene	(1)	2.688	106	52011	1.984
11) Dichlorofluoromethane	(1)	2.724	67	126693	1.978
12) Trichlorofluoromethane	(1)	2.759	101	162447	1.987
13) Pentane	(1)	2.867	43	81302	2.000
14) Ethanol	(1)	3.075	45	14840	1.868
15) Freon123a	(1)	3.196	67	116810	1.976
16) Acrolein	(1)	3.332	56	18262	2.071
17) 1,1-Dichloroethene	(1)	3.418	61	88005	2.035
18) Freon 113	(1)	3.433	103	84501	1.937
19) Acetone	(1)	3.526	43	69890M	1.634
20) Methyl Iodide	(1)	3.598	142	121079M	2.407
21) Carbon Disulfide	(1)	3.655	76	157174	1.974
22) Isopropanol	(1)	3.712	45	68053	2.085
24) 3-Chloropropene	(1)	3.855	76	24784	2.197
23) Acetonitrile	(1)	3.877	40	46729	1.943
25) Methylene Chloride	(1)	4.013	84	52013	2.179
26) tert-Butyl Alcohol	(1)	4.156	59	99151	2.247
28) trans-1,2-Dichloroethene	(1)	4.285	61	76093	1.964
29) Methyl t-Butyl Ether	(1)	4.285	73	142537	1.979
27) Acrylonitrile	(1)	4.292	53	41106	1.986
30) Hexane	(1)	4.557	57	71641	1.963
31) 1,1-Dichloroethane	(1)	4.715	63	102973	1.998
32) Vinyl Acetate	(1)	4.779	86	14302	2.217
33) Di-Isopropyl Ether	(1)	4.779	45	157115	2.038
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	147003	2.036
35) cis-1,2-Dichloroethene	(1)	5.252	61	72102	1.973
37) 2-Butanone	(1)	5.281	72	25753	1.855
38) Ethyl Acetate	(1)	5.331	70	12886	1.864
39) Methyl Acrylate	(1)	5.360	55	82135	2.052

M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	222393	10.000
41) Tetrahydrofuran	(1)	5.503	42	53407	2.036
42) Chloroform	(1)	5.539	83	122157	1.943
43) 1,1,1-Trichloroethane	(1)	5.675	97	122471	2.000
44) Cyclohexane	(1)	5.711	56	79427	1.971
45) Carbon Tetrachloride	(1)	5.811	117	122762	2.016
46) Benzene	(2)	5.983	78	176116	2.004
47) 1,2-Dichloroethane	(2)	6.011	62	83096	2.046
48) Isooctane	(2)	6.033	57	241472	2.026
49) Tert-Amyl Methyl Ether	(2)	6.069	73	150812	2.073
50) Heptane	(2)	6.176	43	81612	2.029
51)*1,4-Difluorobenzene	(2)	6.291	114	821696	10.000
52) Trichloroethene	(2)	6.491	130	92170	2.091
53) Ethyl Acrylate	(2)	6.577	55	90407	2.044
36) 1,2-Dichloroethene (total)	(1)		61	148195	3.937
54) 1,2-Dichloropropane	(2)	6.678	63	61494	2.019
57) Methyl Methacrylate	(2)	6.749	69	46235	1.974
55) Dibromomethane	(2)	6.771	174	78139	1.989
56) 1,4-Dioxane	(2)	6.778	88	40224	2.073
58) Bromodichloromethane	(2)	6.885	83	117234	2.033
59) cis-1,3-Dichloropropene	(2)	7.222	75	90466	2.040
60) 4-Methyl-2-Pentanone	(2)	7.329	43	96066	2.116
61) Toluene	(3)	7.466	91	211084	2.102
62) Octane	(3)	7.516	43	110556	2.062
63) trans-1,3-Dichloropropene	(3)	7.630	75	80616	2.131
65) Ethyl Methacrylate	(3)	7.673	69	74092	2.104
66) 1,1,2-Trichloroethane	(3)	7.774	97	72141	2.028
67) Tetrachloroethene	(3)	7.867	166	133653	2.180
68) 2-Hexanone	(3)	7.945	43	87702	2.045
69) Dibromochloromethane	(3)	8.074	127	88195	2.129
70) 1,2-Dibromoethane	(3)	8.168	107	109035	2.085
71)*Chlorobenzene-d5	(3)	8.497	117	784860	10.000
72) Chlorobenzene	(3)	8.519	112	181840	2.091
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	83313	2.022
74) Ethylbenzene	(3)	8.583	91	251245	2.089
75) m/p-Xylene	(3)	8.669	91	192588	2.087
76) o-Xylene	(3)	8.970	91	184674	2.112
78) Styrene	(3)	8.984	104	116554	2.172

* = Compound is an internal standard.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	96792	2.136
80) Cumene	(3)	9.242	105	252989	2.104
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	124892	1.977
81) Bromobenzene	(3)	9.493	156	98407	2.105
83) 1,2,3-Trichloropropane	(3)	9.514	110	45959	2.072
84) n-Propylbenzene	(3)	9.550	120	77202	2.126
86) 4-Ethyltoluene	(3)	9.629	105	251956	2.126
85) 2-Chlorotoluene	(3)	9.629	126	72779	2.118
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	213283	2.176
88) Alpha Methyl Styrene	(3)	9.844	118	74061	2.197
89) tert-Butylbenzene	(3)	9.922	119	214617M	2.123
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	198612	2.130
91) sec-Butylbenzene	(3)	10.087	105	302294	2.137
92) 1,3-Dichlorobenzene	(3)	10.188	146	157875	2.093
94) p-Isopropyltoluene	(3)	10.195	119	225355	2.109
93) 1,4-Dichlorobenzene	(3)	10.259	146	160067	2.052
95) Benzyl Chloride	(3)	10.359	91	102898	2.072
97) n-Butylbenzene	(3)	10.503	91	200053	2.112
96) 1,2-Dichlorobenzene	(3)	10.546	146	141769	2.074
98) Hexachloroethane	(3)	10.732	117	46063	1.769
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	43436	1.937
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	74458	1.815
101) Hexachlorobutadiene	(3)	11.871	225	72386	1.843
102) Naphthalene	(3)	11.964	128	131919	1.937
64) 1,3-Dichloropropene (total)	(3)		75	171082	4.192
77) Xylene (total)	(3)		91	377262	4.198

M = Compound was manually integrated.

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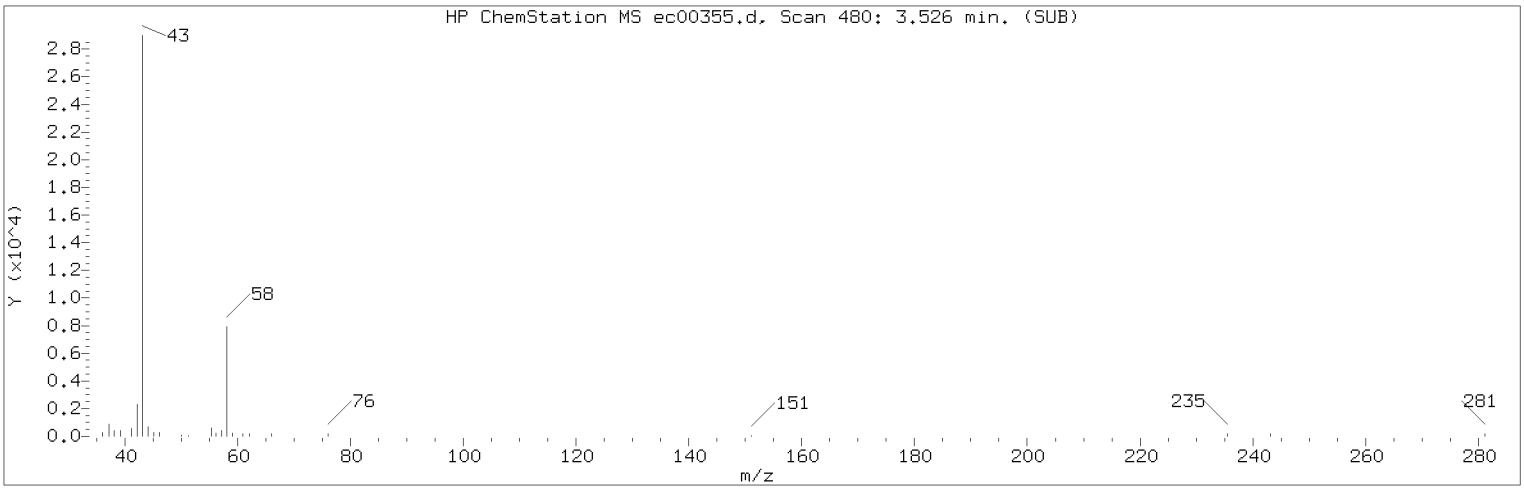
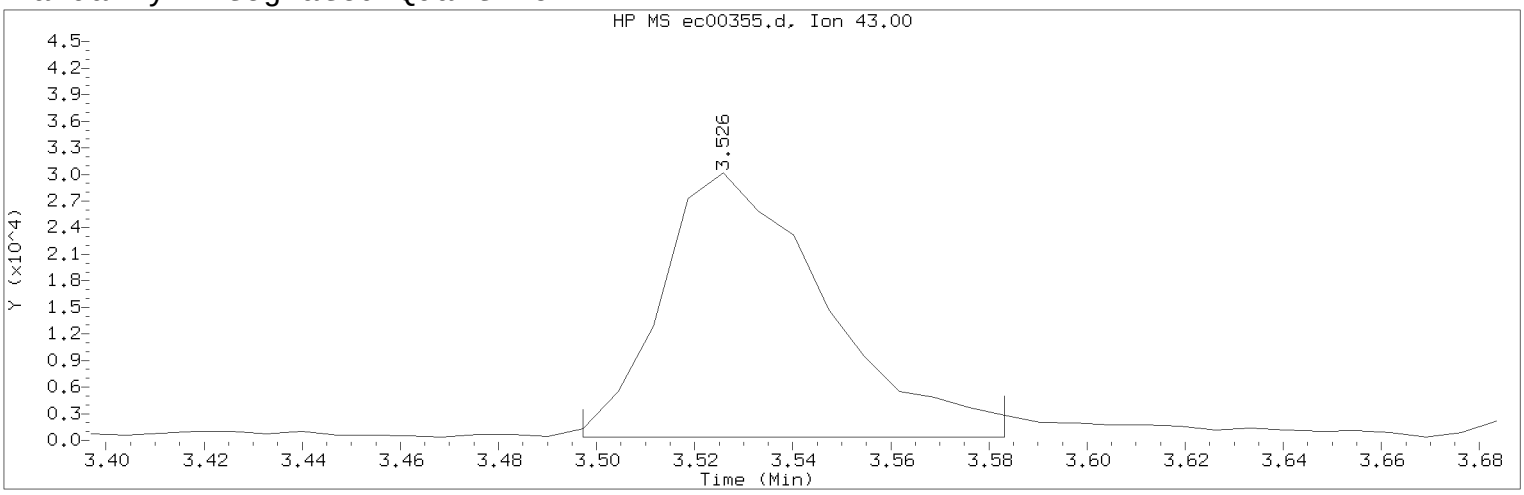
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

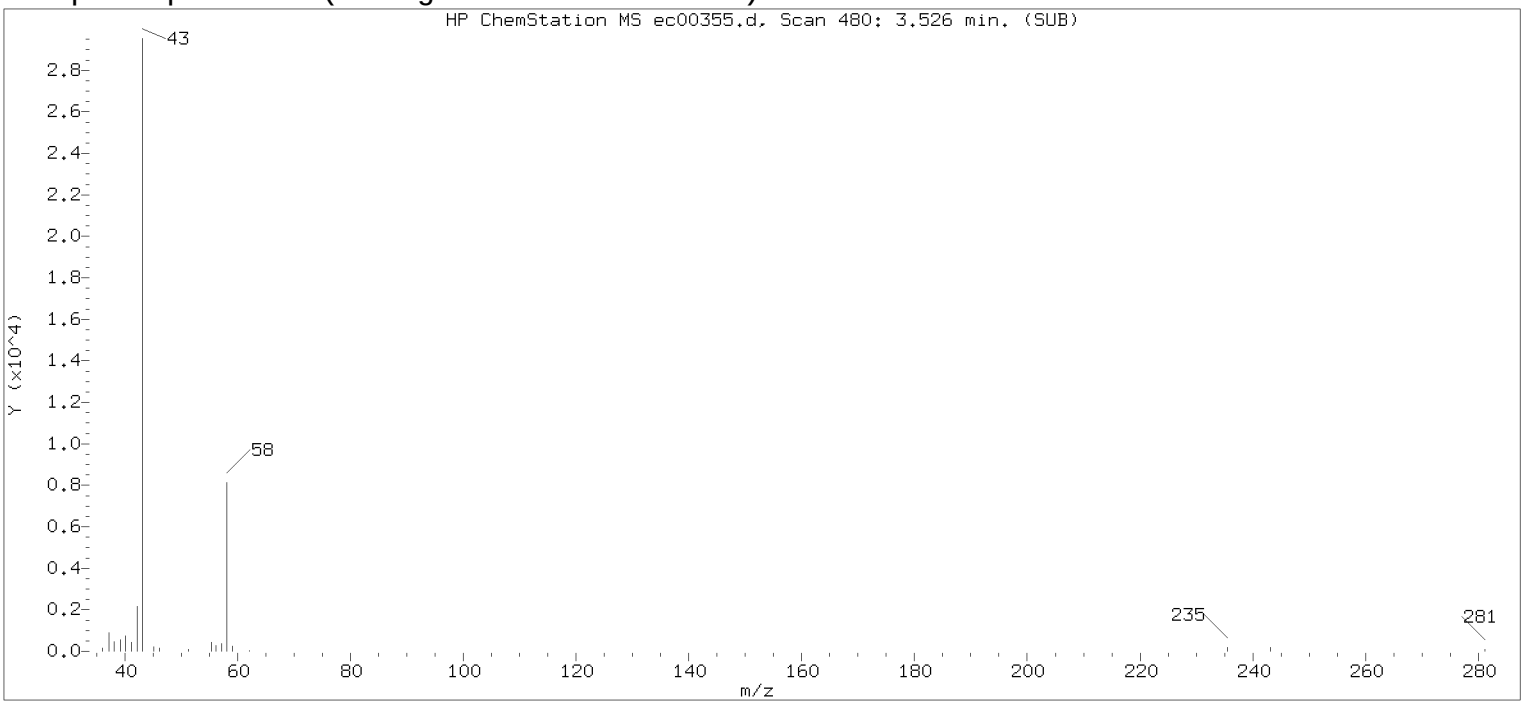
Compound Number : 19
Compound Name : Acetone
Scan Number : 480
Retention Time (minutes): 3.526
Quant Ion : 43.00
Area (flag) : 69890M
Concentration (ppb(v)) : 1.6337
Integration start scan : 475 Integration stop scan: 487
Y at integration start : 352 Y at integration end: 352

Reason for manual integration: improper integration

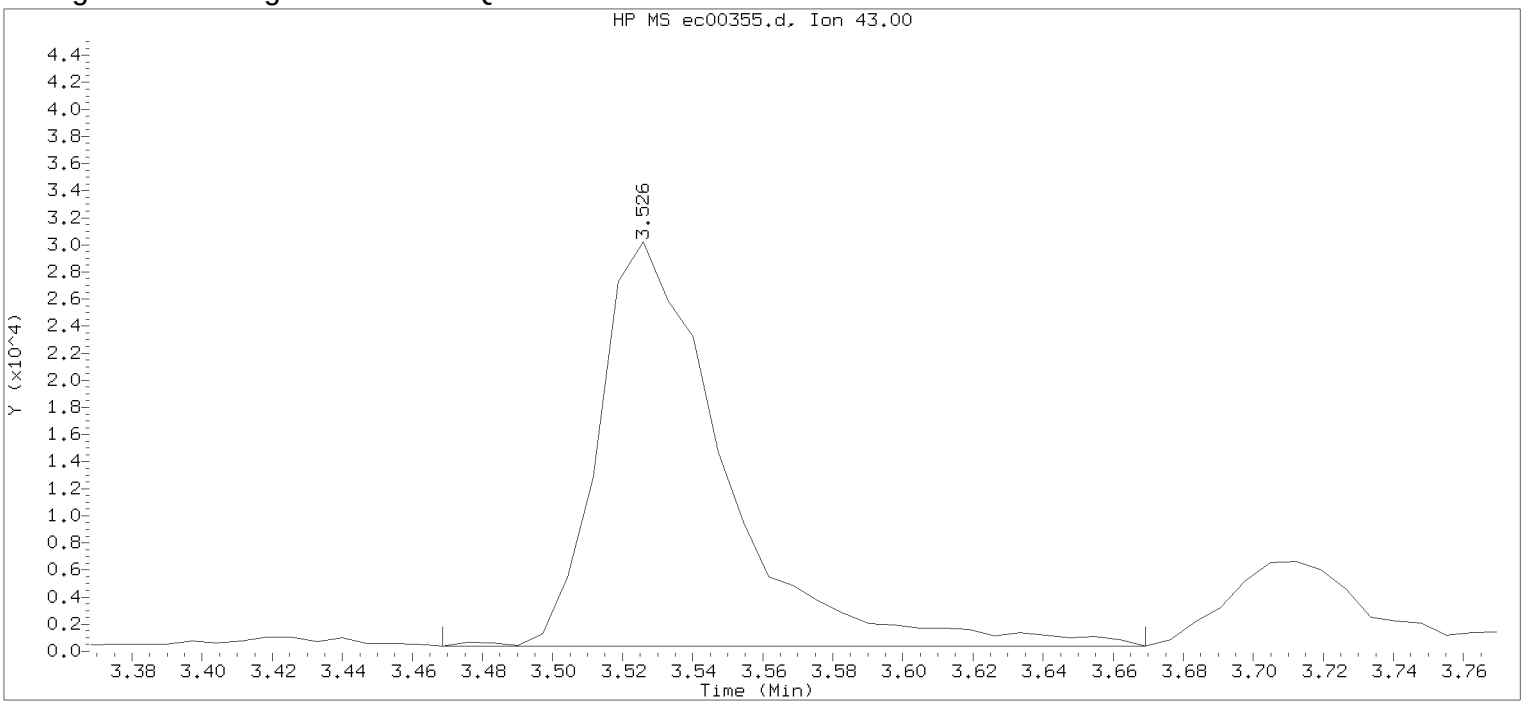
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:57
Date, time and analyst ID of latest file update: 13-Mar-2017 17:59 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 19
Compound Name : Acetone
Scan Number : 480
Retention Time (minutes): 3.526
Quant Ion : 43.00
Area : 74865
Concentration (ppb(v)) : 1.2591
Integration start scan : 471 Integration stop scan: 499
Y at integration start : 387 Y at integration end: 387

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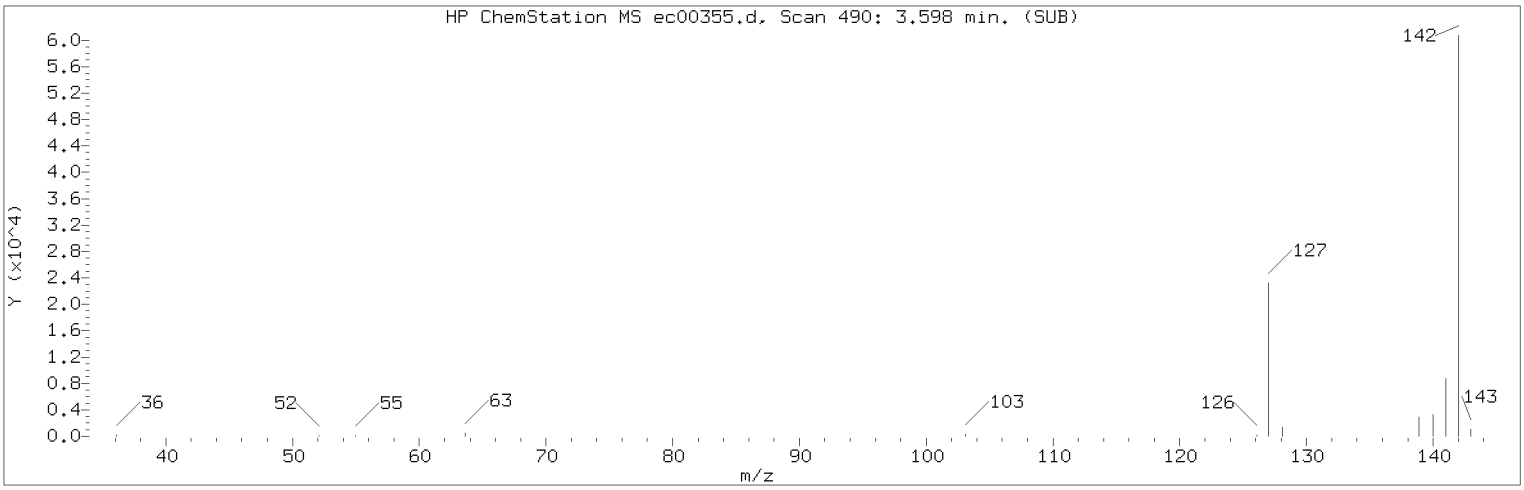
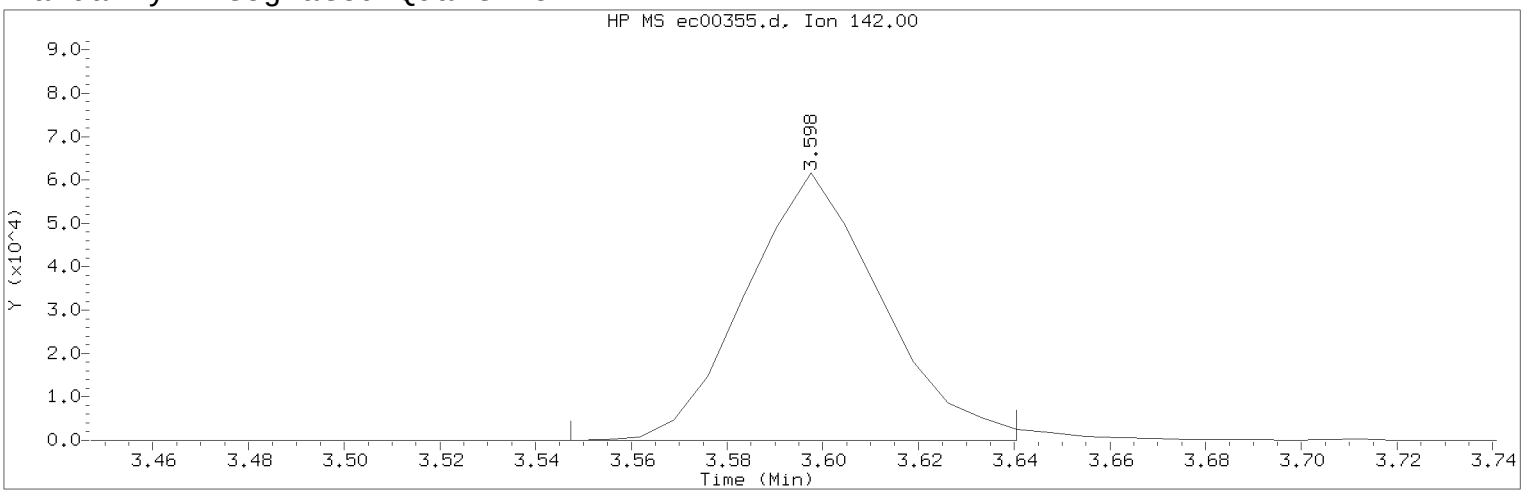
Target 3.5 esignature user id: 71 and 07852

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

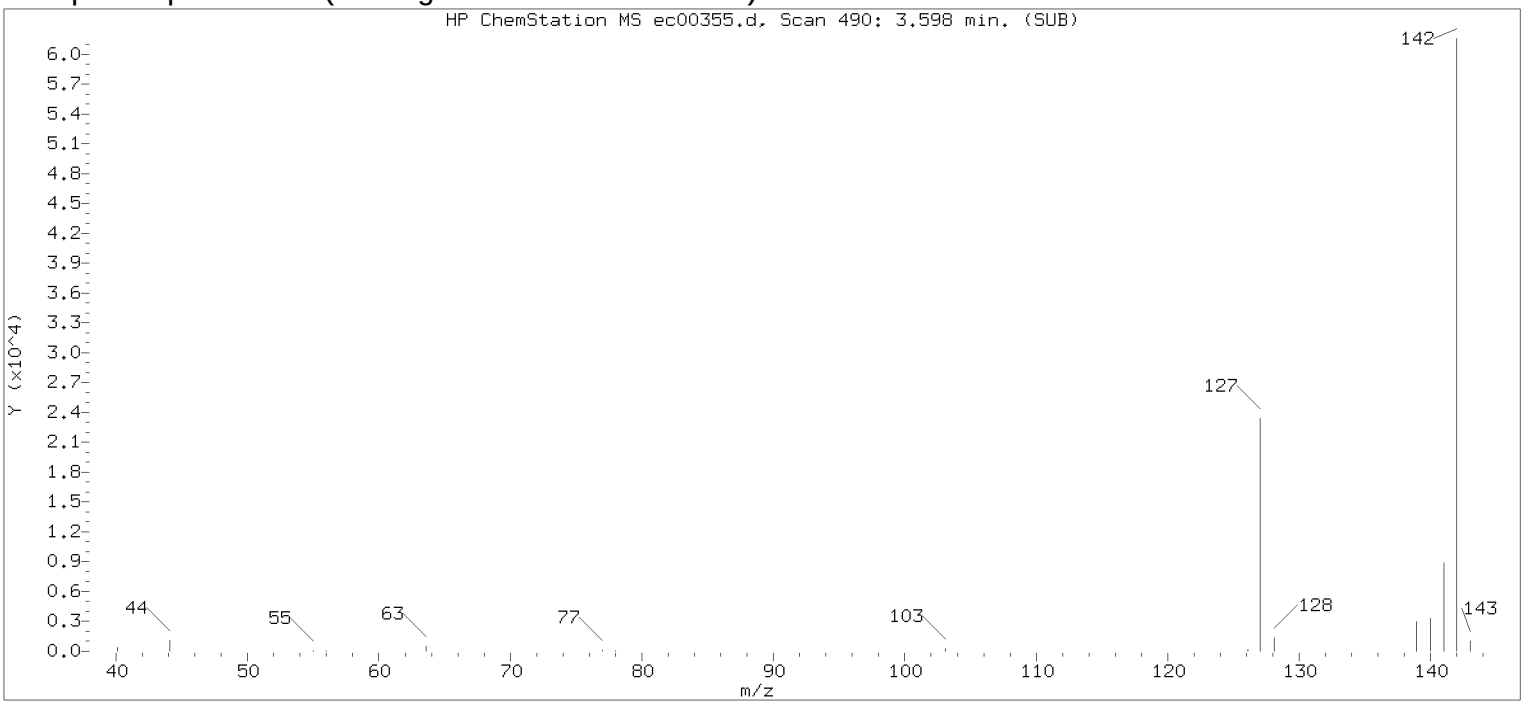
Compound Number : 20
Compound Name : Methyl Iodide
Scan Number : 490
Retention Time (minutes): 3.598
Quant Ion : 142.00
Area (flag) : 121079M
Concentration (ppb(v)) : 2.4073
Integration start scan : 482 Integration stop scan: 495
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

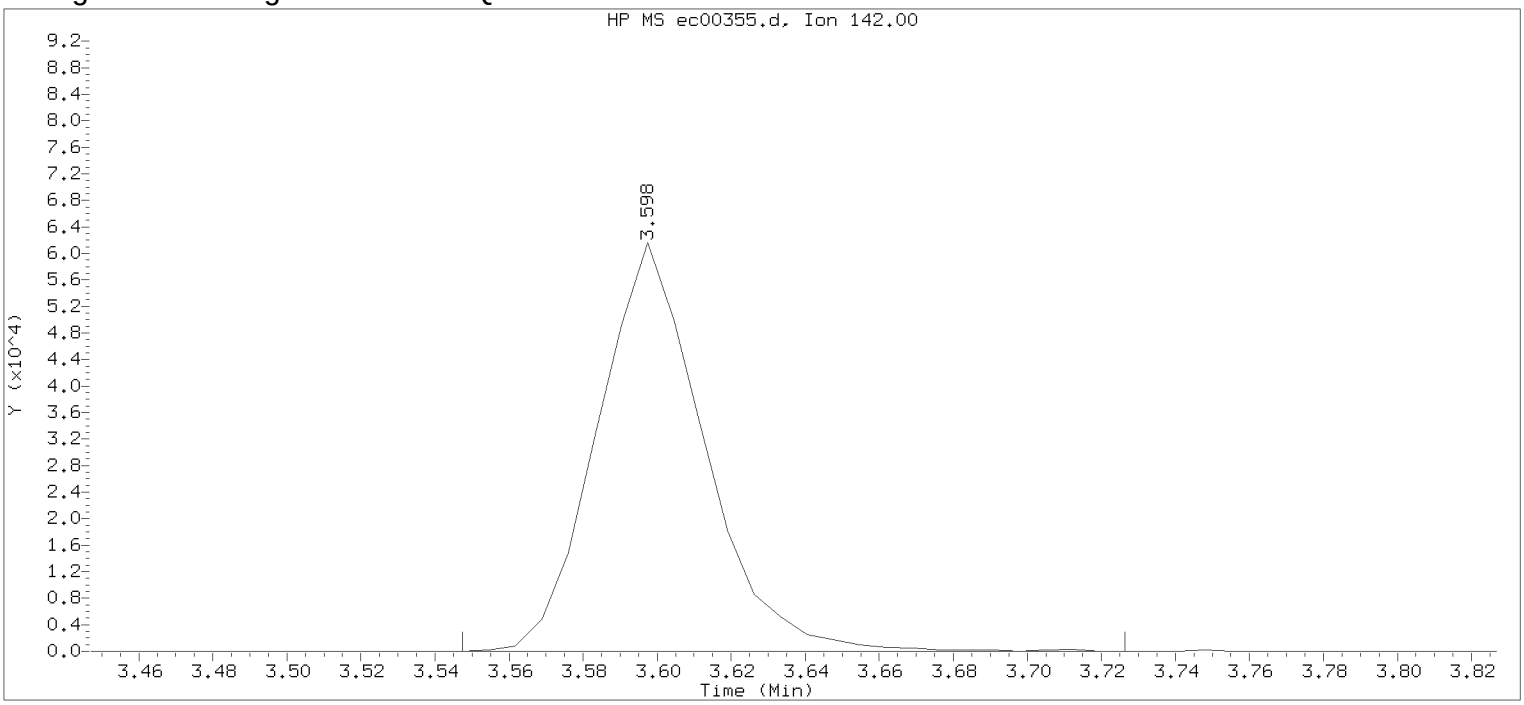
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:57
Date, time and analyst ID of latest file update: 13-Mar-2017 17:59 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 20
Compound Name : Methyl Iodide
Scan Number : 490
Retention Time (minutes): 3.598
Quant Ion : 142.00
Area : 123143
Concentration (ppb(v)) : 3.0744
Integration start scan : 482 Integration stop scan: 507
Y at integration start : 0 Y at integration end: 0

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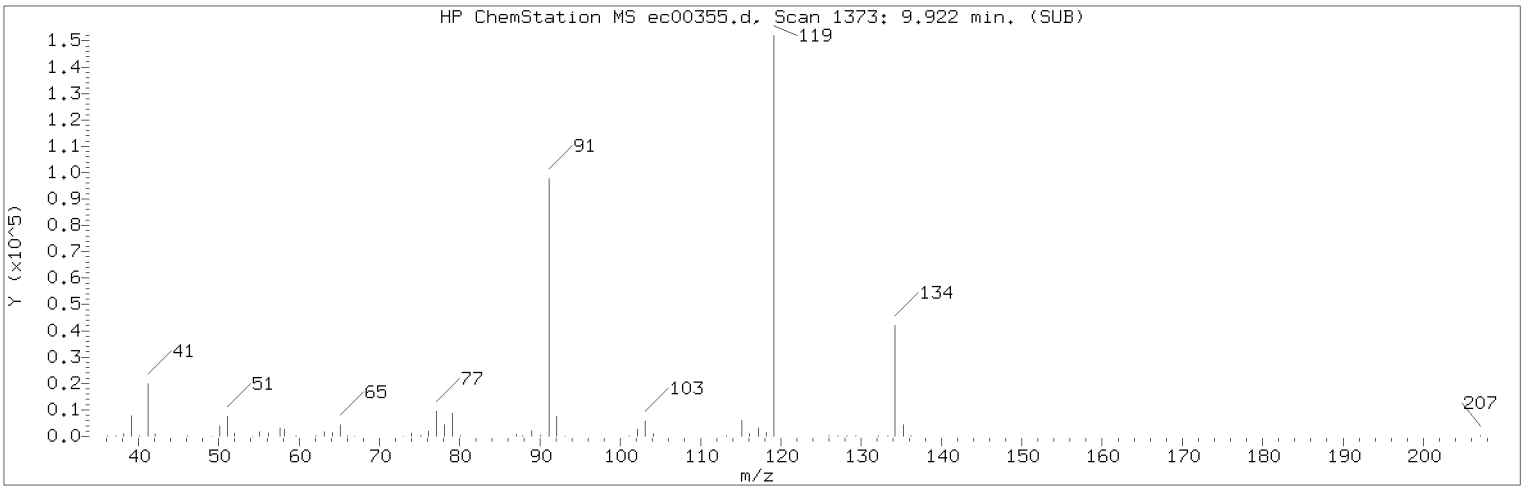
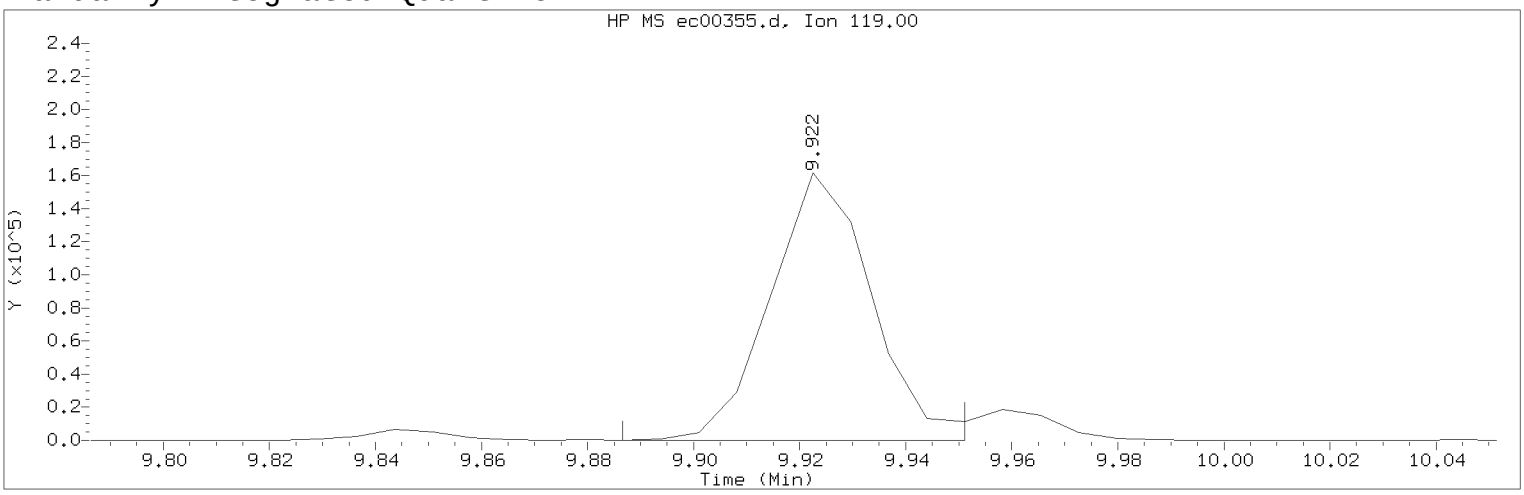
Target 3.5 esignature user id: 71 and Page 554

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD002 Lab Sample ID: VSTD002

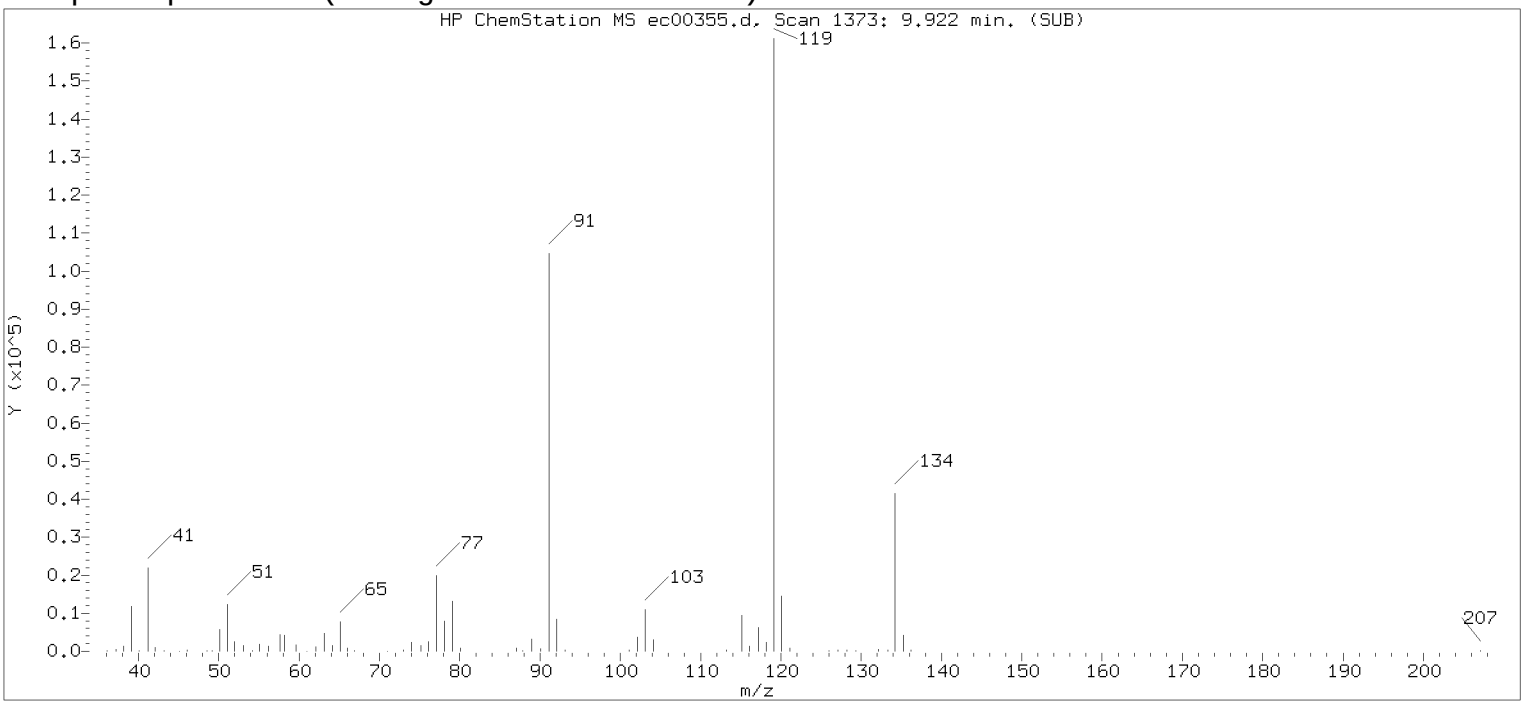
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 214617M
Concentration (ppb(v)) : 2.1227
Integration start scan : 1367 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

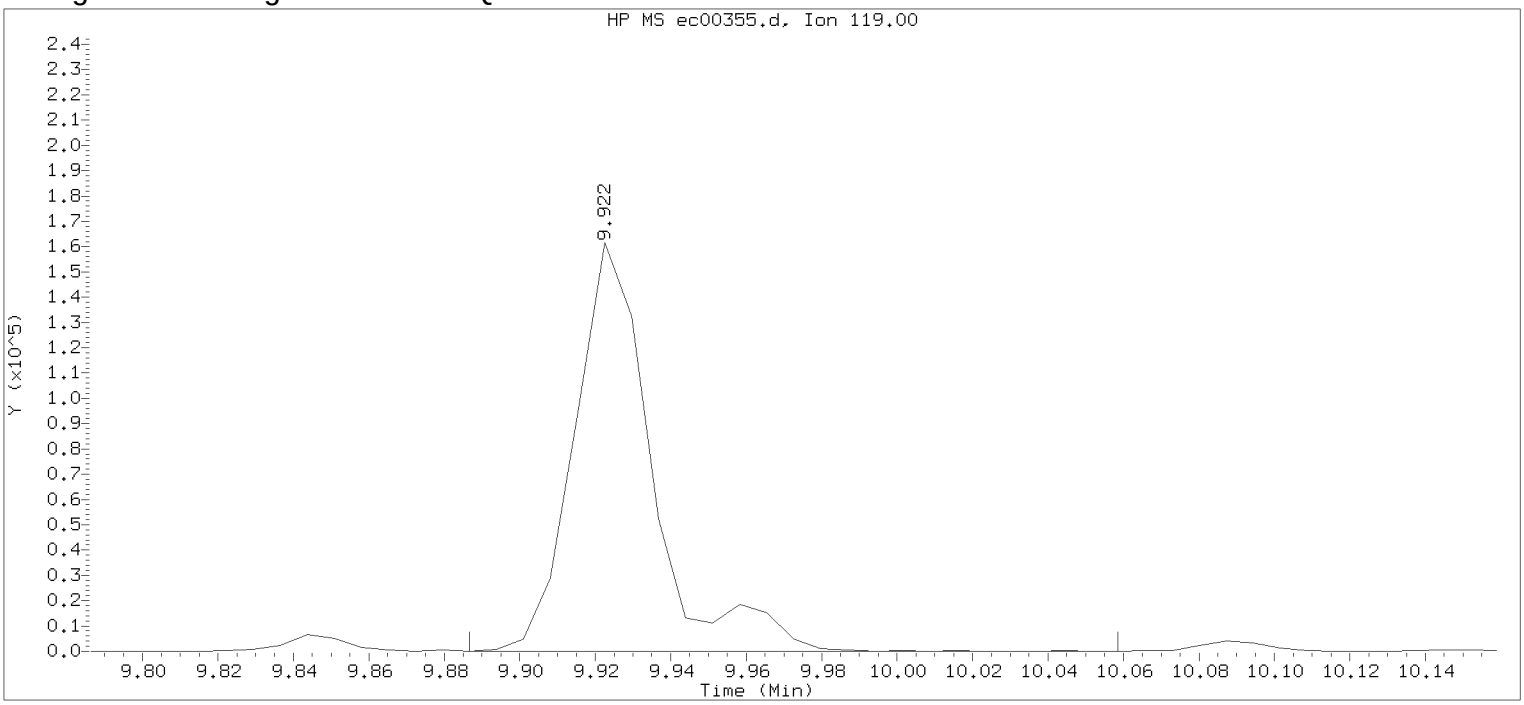
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00355.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 17:40 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:57
Date, time and analyst ID of latest file update: 13-Mar-2017 17:59 Unknown

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 232002
Concentration (ppb(v)) : 2.4447
Integration start scan : 1367 Integration stop scan: 1391
Y at integration start : 0 Y at integration end: 0

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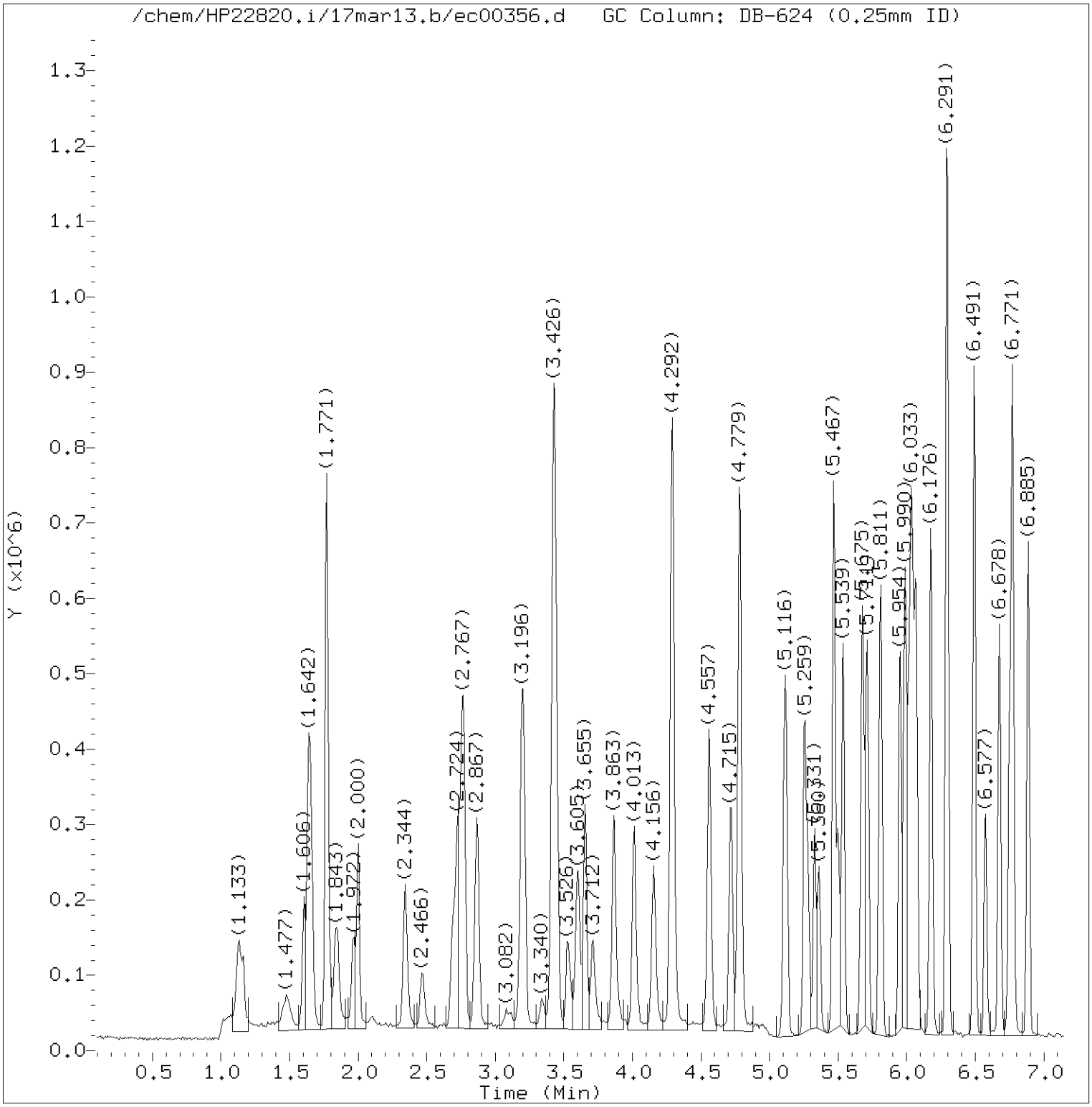
Target 3.5 esignature user id: 71 and 07556



Total Ion Chromatogram (TIC)

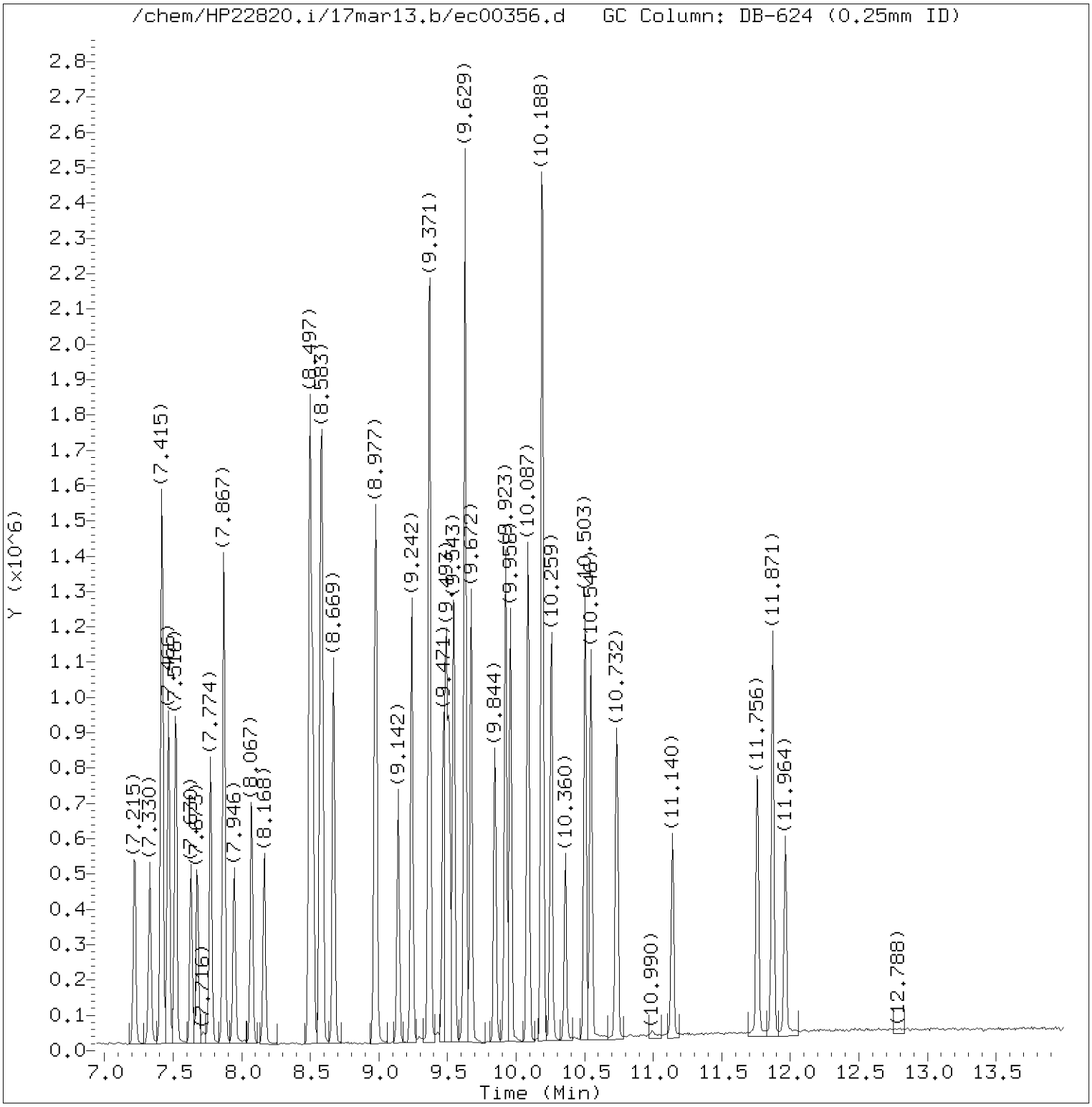
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	92503	4.622
2) Dichlorodifluoromethane	(1)	1.642	85	383094	4.946
3) Chlorodifluoromethane	(1)	1.664	51	205869	4.861
4) Freon 114	(1)	1.771	85	379204	4.924
5) Chloromethane	(1)	1.835	50	118779	4.594
6) Vinyl Chloride	(1)	1.972	62	133808	4.945
7) 1,3-Butadiene	(1)	2.000	54	91319	4.893
8) Bromomethane	(1)	2.344	94	149050	4.787
9) Chloroethane	(1)	2.466	64	75427	5.026
10) Bromoethene	(1)	2.695	106	133675	5.121
11) Dichlorofluoromethane	(1)	2.724	67	311881	4.967
12) Trichlorofluoromethane	(1)	2.767	101	401405	4.994
13) Pentane	(1)	2.867	43	204620	5.078
14) Ethanol	(1)	3.082	45	34318	4.578
15) Freon123a	(1)	3.196	67	291988	5.015
16) Acrolein	(1)	3.340	56	42071	4.899
17) 1,1-Dichloroethene	(1)	3.419	61	217316	5.072
18) Freon 113	(1)	3.433	103	212483	4.967
19) Acetone	(1)	3.533	43	190366	4.672
20) Methyl Iodide	(1)	3.605	142	267421	5.263
21) Carbon Disulfide	(1)	3.655	76	395673	5.035
22) Isopropanol	(1)	3.712	45	159937	5.186
23) Acetonitrile	(1)	3.870	40	80682	3.814
24) 3-Chloropropene	(1)	3.870	76	63337	5.671
25) Methylene Chloride	(1)	4.013	84	137071	5.757
26) tert-Butyl Alcohol	(1)	4.156	59	249257	5.695
28) trans-1,2-Dichloroethene	(1)	4.285	61	198856	5.143
29) Methyl t-Butyl Ether	(1)	4.285	73	369075	5.137
27) Acrylonitrile	(1)	4.300	53	108230	5.207
30) Hexane	(1)	4.557	57	192601	5.238
31) 1,1-Dichloroethane	(1)	4.722	63	253569	5.001
32) Vinyl Acetate	(1)	4.779	86	34952	5.554
33) Di-Isopropyl Ether	(1)	4.779	45	397519	5.159
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	378316	5.212
35) cis-1,2-Dichloroethene	(1)	5.252	61	187029	5.133
37) 2-Butanone	(1)	5.281	72	67214	4.947
38) Ethyl Acetate	(1)	5.324	70	34390	5.038
39) Methyl Acrylate	(1)	5.360	55	208515	5.194

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	218754	10.000
41) Tetrahydrofuran	(1)	5.496	42	132649	5.094
42) Chloroform	(1)	5.539	83	313579	5.046
43) 1,1,1-Trichloroethane	(1)	5.675	97	309095	5.086
44) Cyclohexane	(1)	5.711	56	202094	5.065
45) Carbon Tetrachloride	(1)	5.811	117	315745	5.177
46) Benzene	(2)	5.990	78	449359	5.142
47) 1,2-Dichloroethane	(2)	6.012	62	206204	5.118
48) Isooctane	(2)	6.033	57	625226	5.228
49) Tert-Amyl Methyl Ether	(2)	6.069	73	388872	5.292
50) Heptane	(2)	6.176	43	216892	5.321
51)*1,4-Difluorobenzene	(2)	6.298	114	805669	10.000
52) Trichloroethene	(2)	6.491	130	230578	5.219
53) Ethyl Acrylate	(2)	6.577	55	250076	5.485
36) 1,2-Dichloroethene (total)	(1)		61	385885	10.277
54) 1,2-Dichloropropane	(2)	6.678	63	156507	5.158
57) Methyl Methacrylate	(2)	6.749	69	132097	5.477
55) Dibromomethane	(2)	6.771	174	199745	5.123
56) 1,4-Dioxane	(2)	6.778	88	101131	5.206
58) Bromodichloromethane	(2)	6.885	83	316978	5.388
59) cis-1,3-Dichloropropene	(2)	7.215	75	243483	5.385
60) 4-Methyl-2-Pentanone	(2)	7.330	43	259167	5.519
61) Toluene	(3)	7.466	91	526055	5.173
62) Octane	(3)	7.516	43	295626	5.348
63) trans-1,3-Dichloropropene	(3)	7.630	75	205968	5.304
65) Ethyl Methacrylate	(3)	7.673	69	204287	5.524
66) 1,1,2-Trichloroethane	(3)	7.774	97	190166	5.242
67) Tetrachloroethene	(3)	7.874	166	330236	5.267
68) 2-Hexanone	(3)	7.946	43	243625	5.451
69) Dibromochloromethane	(3)	8.067	127	225989	5.312
70) 1,2-Dibromoethane	(3)	8.168	107	280806	5.257
71)*Chlorobenzene-d5	(3)	8.497	117	781039	10.000
72) Chlorobenzene	(3)	8.519	112	450316	5.134
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	230110	5.391
74) Ethylbenzene	(3)	8.583	91	654509	5.302
75) m/p-Xylene	(3)	8.669	91	499724	5.286
76) o-Xylene	(3)	8.970	91	485407	5.371
78) Styrene	(3)	8.984	104	331220	5.742

* = Compound is an internal standard.

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

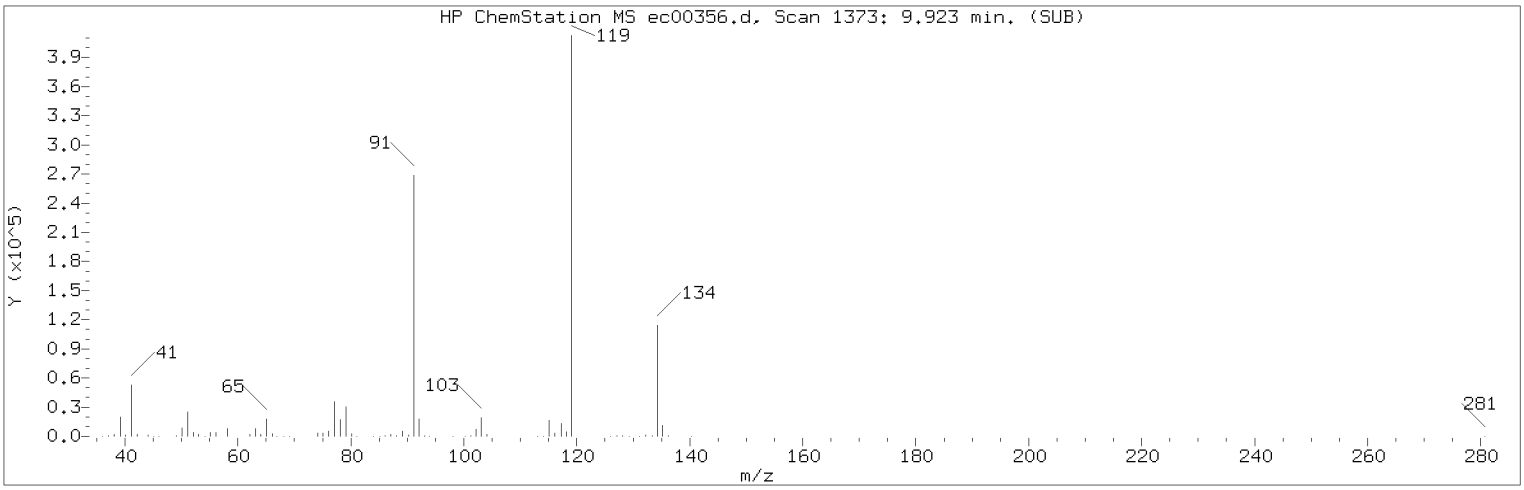
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	253371	5.395
80) Cumene	(3)	9.242	105	691756	5.495
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	320397	5.063
81) Bromobenzene	(3)	9.493	156	251759	5.267
83) 1,2,3-Trichloropropane	(3)	9.514	110	118240	5.233
84) n-Propylbenzene	(3)	9.550	120	197662	5.304
86) 4-Ethyltoluene	(3)	9.629	105	690462	5.539
85) 2-Chlorotoluene	(3)	9.629	126	190787	5.372
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	567770	5.519
88) Alpha Methyl Styrene	(3)	9.844	118	215209	5.862
89) tert-Butylbenzene	(3)	9.923	119	558635M	5.355
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	543260	5.539
91) sec-Butylbenzene	(3)	10.087	105	793913	5.409
92) 1,3-Dichlorobenzene	(3)	10.188	146	405091	5.257
94) p-Isopropyltoluene	(3)	10.188	119	638877	5.630
93) 1,4-Dichlorobenzene	(3)	10.259	146	404610	5.139
95) Benzyl Chloride	(3)	10.360	91	290597	5.555
97) n-Butylbenzene	(3)	10.503	91	542331	5.478
96) 1,2-Dichlorobenzene	(3)	10.546	146	351101	5.107
98) Hexachloroethane	(3)	10.732	117	123112	4.832
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	120520	5.261
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	200369	4.938
101) Hexachlorobutadiene	(3)	11.871	225	191765	4.938
102) Naphthalene	(3)	11.964	128	360361	5.206
64) 1,3-Dichloropropene (total)	(3)		75	449451	10.686
77) Xylene (total)	(3)		91	985131	10.655

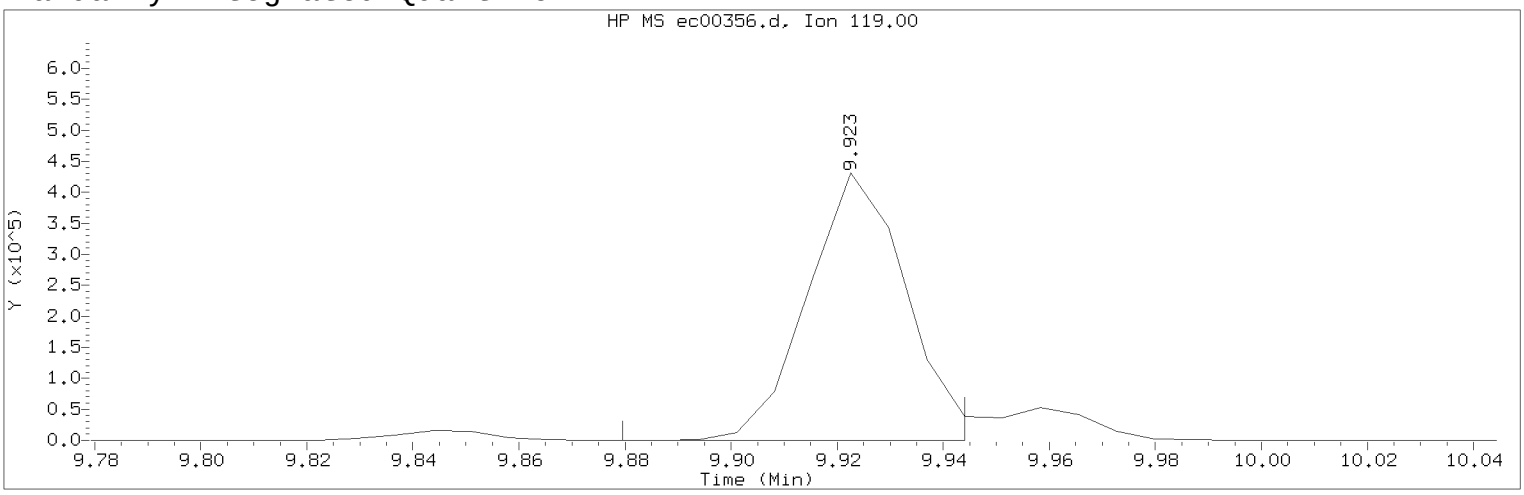
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 18:38 jeb07445

Sample Name: VSTD005 Lab Sample ID: VSTD005

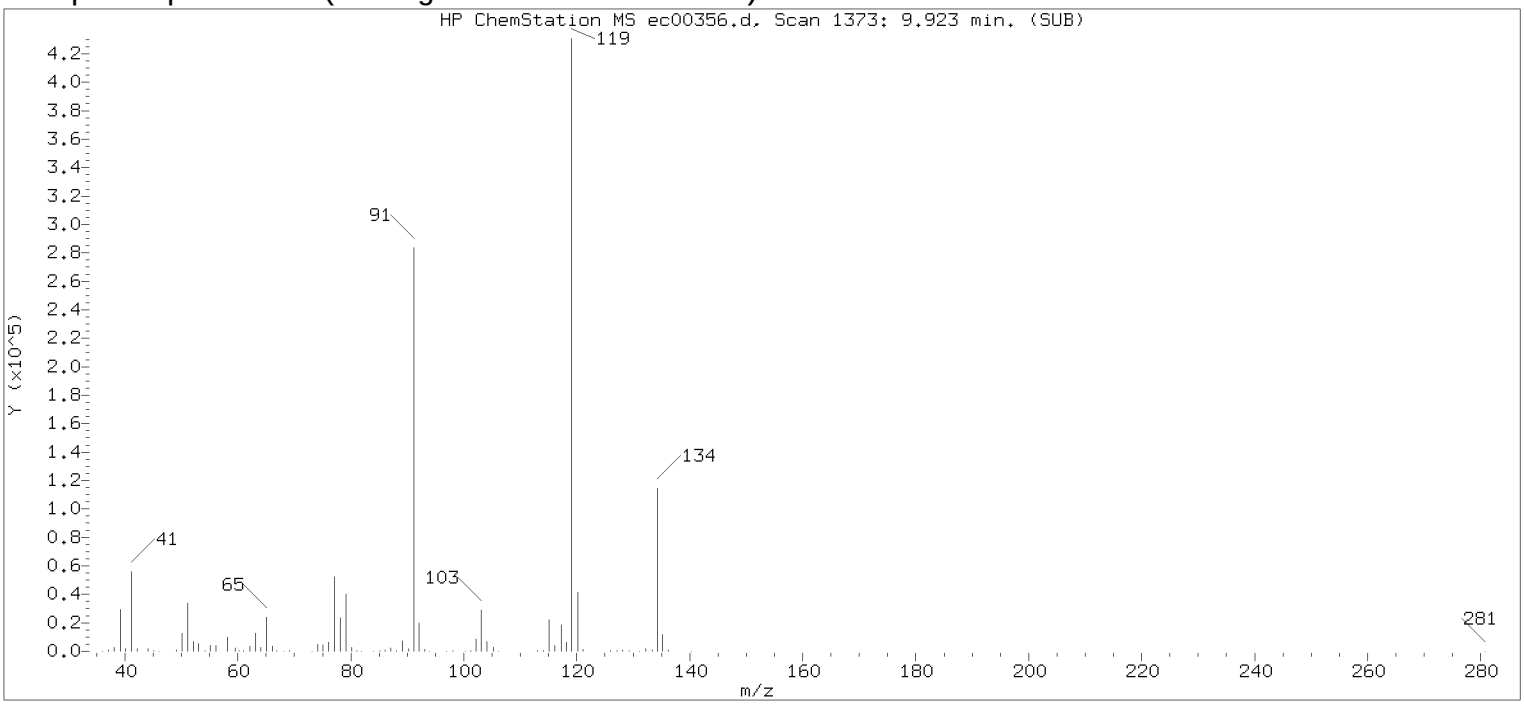
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 558635M
Concentration (ppb(v)) : 5.3552
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

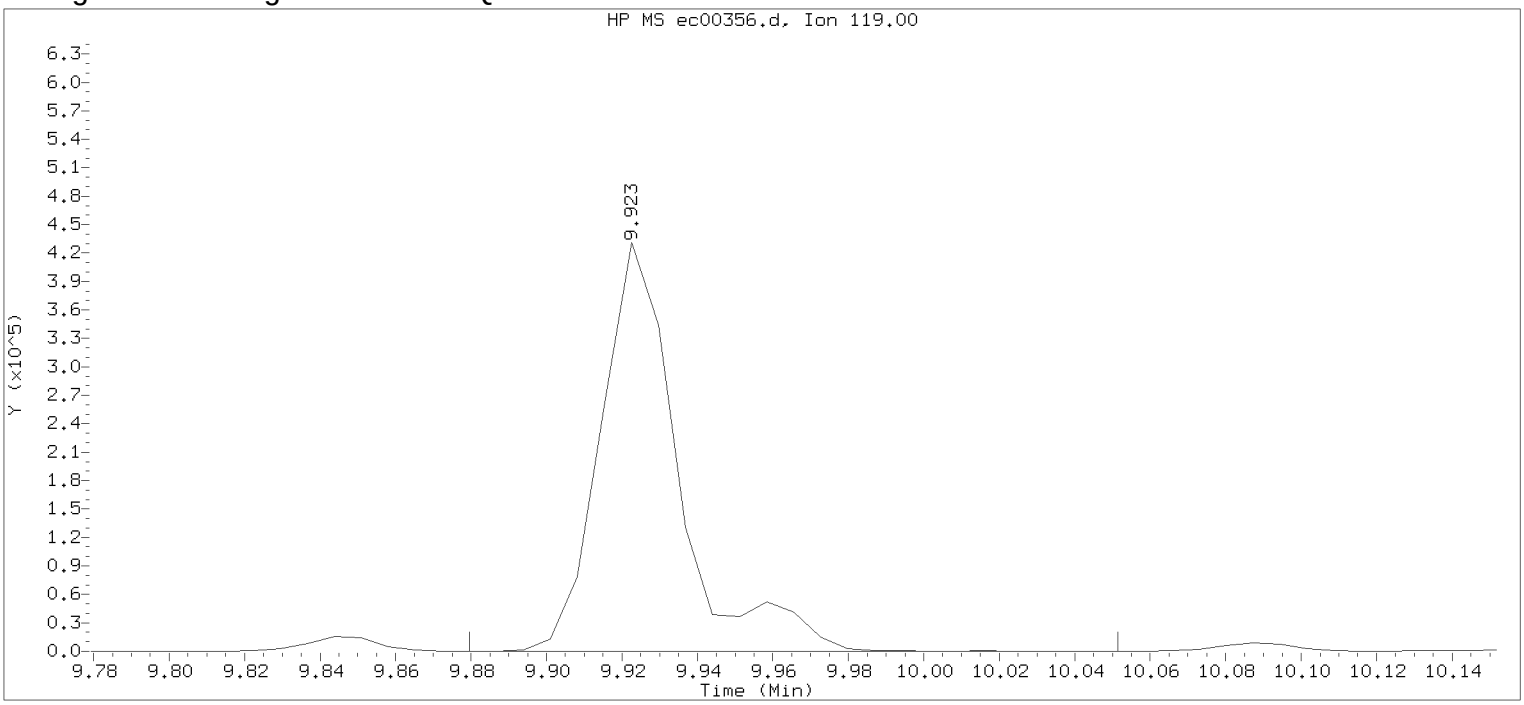
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



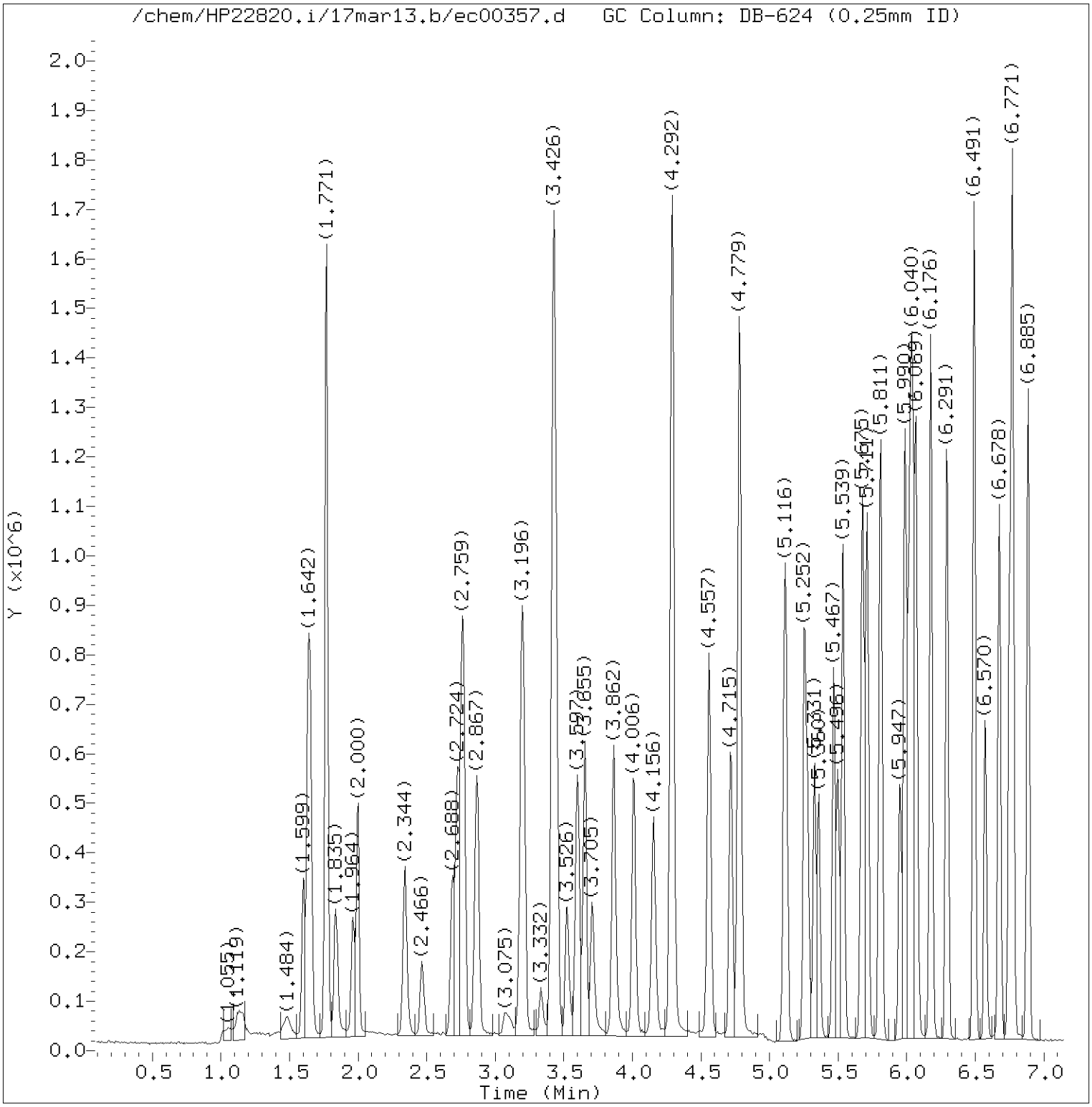
Data File: /chem/HP22820.i/17mar13.b/ec00356.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:23
Date, time and analyst ID of latest file update: 13-Mar-2017 18:33 Unknown

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 622802
Concentration (ppb(v)) : 6.1902
Integration start scan : 1366 Integration stop scan: 1390
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07513



Total Ion Chromatogram (TIC)

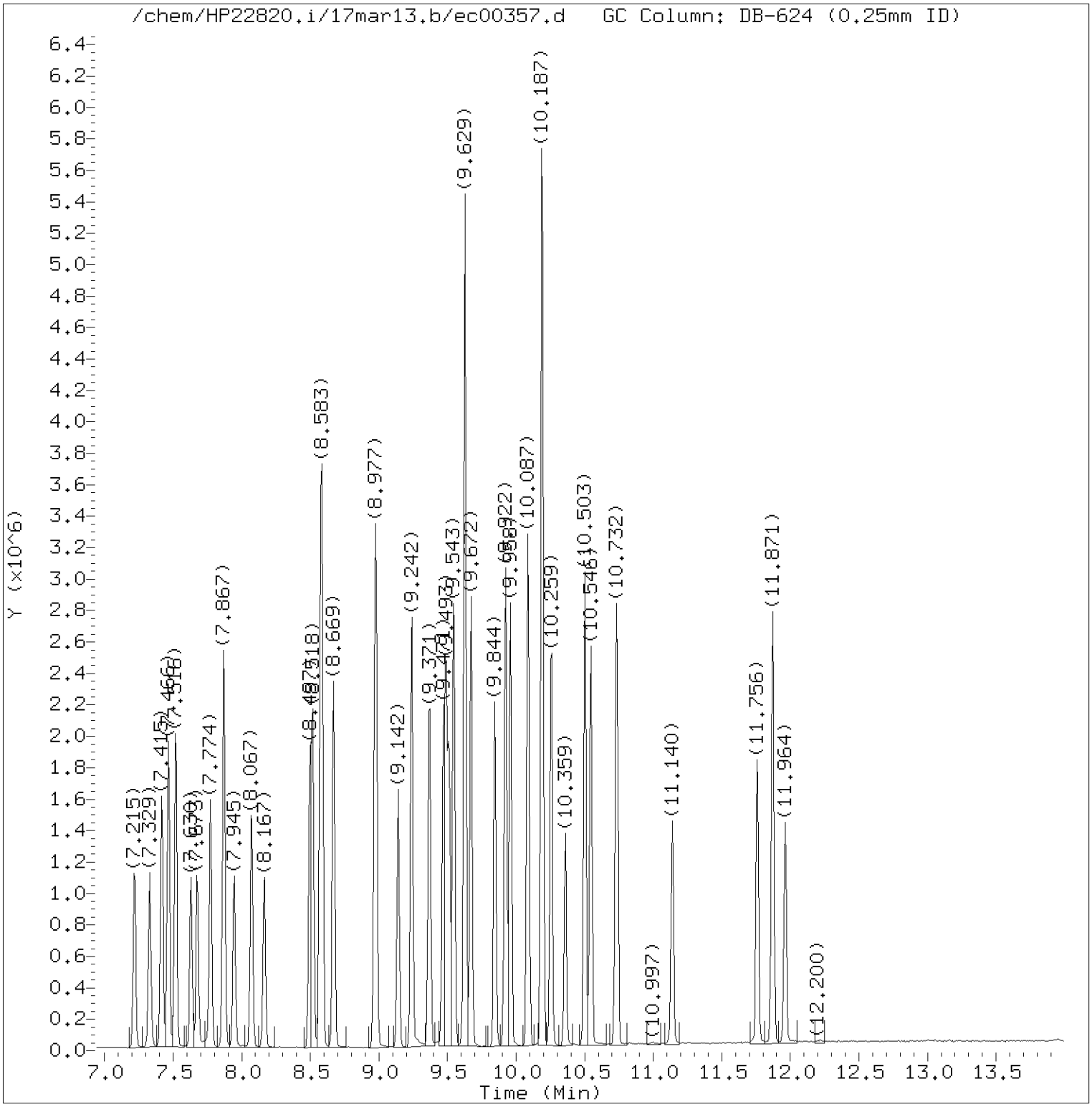
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.599	41	181270	9.382
2) Dichlorodifluoromethane	(1)	1.635	85	736502	9.736
3) Chlorodifluoromethane	(1)	1.656	51	400982	9.704
4) Freon 114	(1)	1.771	85	745187	9.864
5) Chloromethane	(1)	1.835	50	236519	9.454
6) Vinyl Chloride	(1)	1.964	62	263319	9.907
7) 1,3-Butadiene	(1)	2.000	54	182534	9.944
8) Bromomethane	(1)	2.344	94	257125	8.735
9) Chloroethane	(1)	2.466	64	144102	9.808
10) Bromoethene	(1)	2.688	106	261142	10.115
11) Dichlorofluoromethane	(1)	2.724	67	603753	9.819
12) Trichlorofluoromethane	(1)	2.767	101	779053	9.877
13) Pentane	(1)	2.867	43	396714	9.993
14) Ethanol	(1)	3.067	45	67338	9.323
15) Freon123a	(1)	3.196	67	556642	9.776
16) Acrolein	(1)	3.332	56	93599	10.776
17) 1,1-Dichloroethene	(1)	3.418	61	428683	10.115
18) Freon 113	(1)	3.440	103	415998	9.902
19) Acetone	(1)	3.526	43	359666	9.198
20) Methyl Iodide	(1)	3.597	142	665208	12.278
21) Carbon Disulfide	(1)	3.655	76	777431	10.030
22) Isopropanol	(1)	3.705	45	343087	11.292
24) 3-Chloropropene	(1)	3.862	76	122047	11.118
23) Acetonitrile	(1)	3.870	40	152376	7.838
25) Methylene Chloride	(1)	4.013	84	257385	11.028
26) tert-Butyl Alcohol	(1)	4.156	59	519244	11.818
28) trans-1,2-Dichloroethene	(1)	4.285	61	390019	10.178
27) Acrylonitrile	(1)	4.292	53	213565	10.318
29) Methyl t-Butyl Ether	(1)	4.292	73	754903	10.490
30) Hexane	(1)	4.557	57	380636	10.374
31) 1,1-Dichloroethane	(1)	4.715	63	499715	10.001
32) Vinyl Acetate	(1)	4.779	86	72802	11.628
33) Di-Isopropyl Ether	(1)	4.779	45	799507	10.393
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	771008	10.575
35) cis-1,2-Dichloroethene	(1)	5.252	61	373566	10.301
37) 2-Butanone	(1)	5.281	72	137820	10.219
38) Ethyl Acetate	(1)	5.331	70	68497	10.138
39) Methyl Acrylate	(1)	5.360	55	440299	10.825

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	215541	10.000
41) Tetrahydrofuran	(1)	5.496	42	275193	10.534
42) Chloroform	(1)	5.539	83	623978	10.142
43) 1,1,1-Trichloroethane	(1)	5.675	97	618593	10.246
44) Cyclohexane	(1)	5.711	56	406661	10.256
45) Carbon Tetrachloride	(1)	5.811	117	641851	10.502
46) Benzene	(2)	5.990	78	894070	10.116
47) 1,2-Dichloroethane	(2)	6.011	62	412128	10.115
48) Isooctane	(2)	6.040	57	1287652	10.507
49) Tert-Amyl Methyl Ether	(2)	6.069	73	800085	10.593
50) Heptane	(2)	6.176	43	451226	10.724
51)*1,4-Difluorobenzene	(2)	6.291	114	811647	10.000
52) Trichloroethene	(2)	6.491	130	441554	9.940
53) Ethyl Acrylate	(2)	6.570	55	522519	10.999
36) 1,2-Dichloroethene (total)	(1)		61	763585	20.479
54) 1,2-Dichloropropane	(2)	6.678	63	310657	10.122
57) Methyl Methacrylate	(2)	6.749	69	282323	11.168
55) Dibromomethane	(2)	6.771	174	403614	10.205
56) 1,4-Dioxane	(2)	6.778	88	215788	10.751
58) Bromodichloromethane	(2)	6.885	83	635438	10.532
59) cis-1,3-Dichloropropene	(2)	7.215	75	498340	10.689
60) 4-Methyl-2-Pentanone	(2)	7.329	43	550548	11.180
61) Toluene	(3)	7.466	91	1081381	10.478
62) Octane	(3)	7.516	43	612431	10.797
63) trans-1,3-Dichloropropene	(3)	7.630	75	440716	10.989
65) Ethyl Methacrylate	(3)	7.673	69	456426	11.670
66) 1,1,2-Trichloroethane	(3)	7.774	97	374930	10.258
67) Tetrachloroethene	(3)	7.867	166	601395	9.700
68) 2-Hexanone	(3)	7.945	43	526917M	11.294
69) Dibromochloromethane	(3)	8.074	127	489286	11.095
70) 1,2-Dibromoethane	(3)	8.167	107	582892	10.678
71)*Chlorobenzene-d5	(3)	8.497	117	780078	10.000
72) Chlorobenzene	(3)	8.518	112	902452	10.224
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	470686	10.761
74) Ethylbenzene	(3)	8.583	91	1383410	10.889
75) m/p-Xylene	(3)	8.669	91	1076352	11.014
76) o-Xylene	(3)	8.970	91	1055816	11.221
78) Styrene	(3)	8.984	104	750584	12.112

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

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

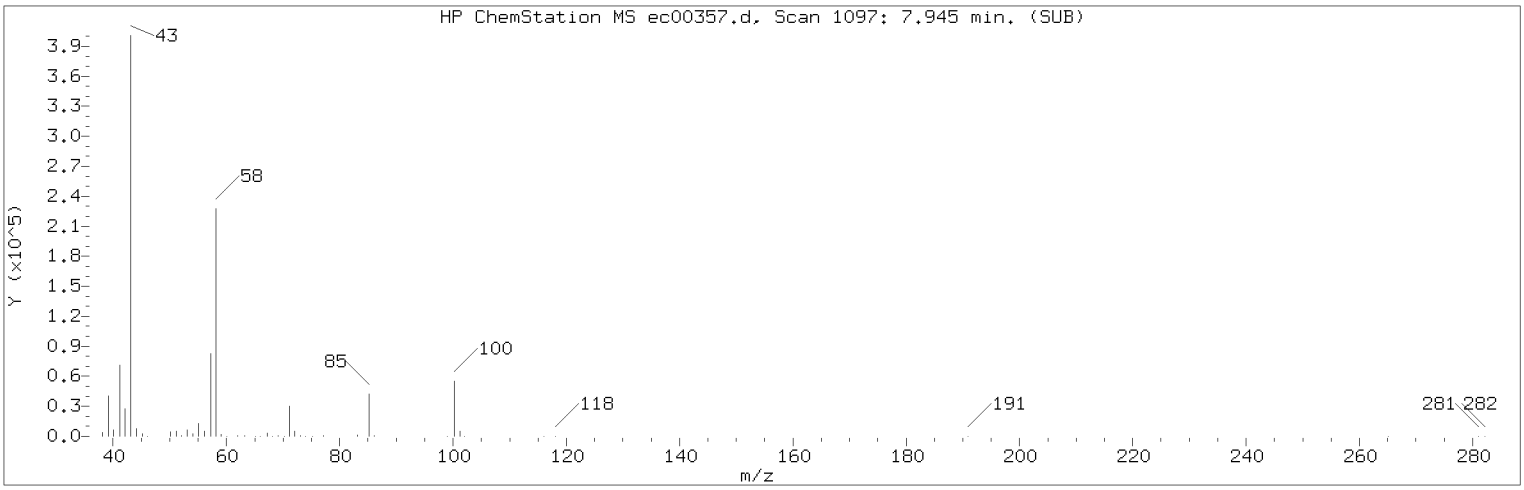
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	586796	11.772
80) Cumene	(3)	9.242	105	1515037	11.462
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	755936	11.402
81) Bromobenzene	(3)	9.493	156	549408	11.090
83) 1,2,3-Trichloropropane	(3)	9.514	110	249096	10.759
84) n-Propylbenzene	(3)	9.543	120	439142	11.291
86) 4-Ethyltoluene	(3)	9.629	105	1550530M	11.734
85) 2-Chlorotoluene	(3)	9.629	126	410017	11.125
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1254004M	11.567
88) Alpha Methyl Styrene	(3)	9.844	118	537263	13.126
89) tert-Butylbenzene	(3)	9.922	119	1240054M	11.362
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1231154	11.810
91) sec-Butylbenzene	(3)	10.087	105	1799750	11.615
92) 1,3-Dichlorobenzene	(3)	10.187	146	899862	11.217
94) p-Isopropyltoluene	(3)	10.187	119	1466403	12.052
93) 1,4-Dichlorobenzene	(3)	10.259	146	889092	10.949
95) Benzyl Chloride	(3)	10.359	91	746967	12.910
97) n-Butylbenzene	(3)	10.503	91	1326206	12.358
96) 1,2-Dichlorobenzene	(3)	10.546	146	807046	11.260
98) Hexachloroethane	(3)	10.732	117	412363	14.029
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	314326	12.564
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	478220	11.293
101) Hexachlorobutadiene	(3)	11.871	225	449352	11.143
102) Naphthalene	(3)	11.964	128	920302	12.294
64) 1,3-Dichloropropene (total)	(3)		75	939056	21.715
77) Xylene (total)	(3)		91	2132168	22.231

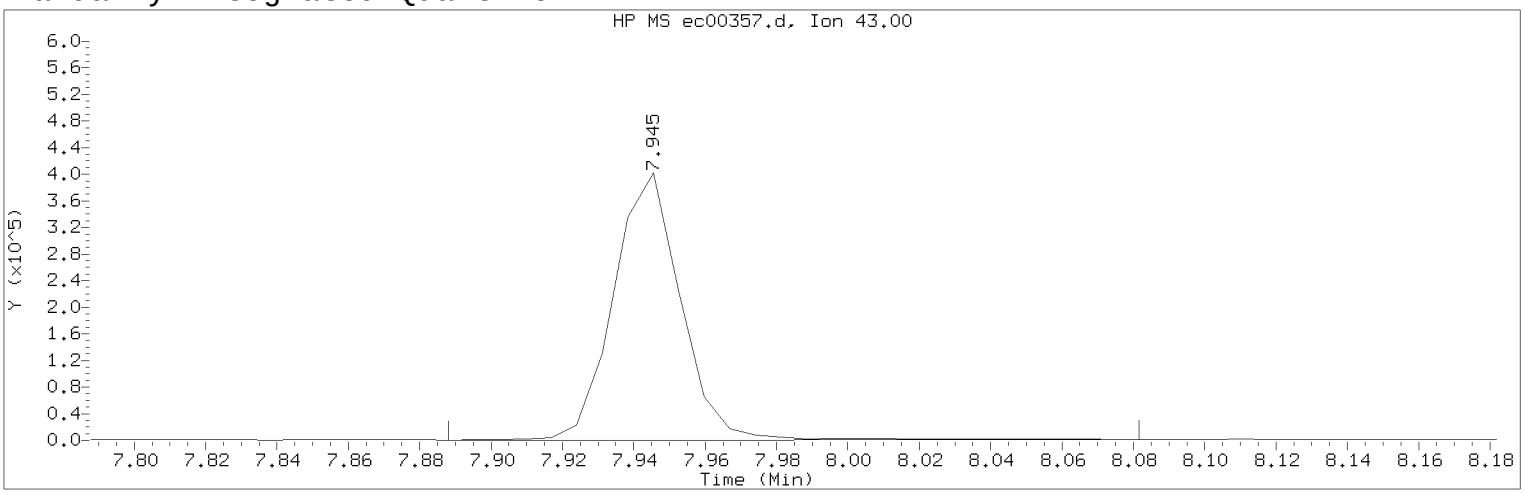
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

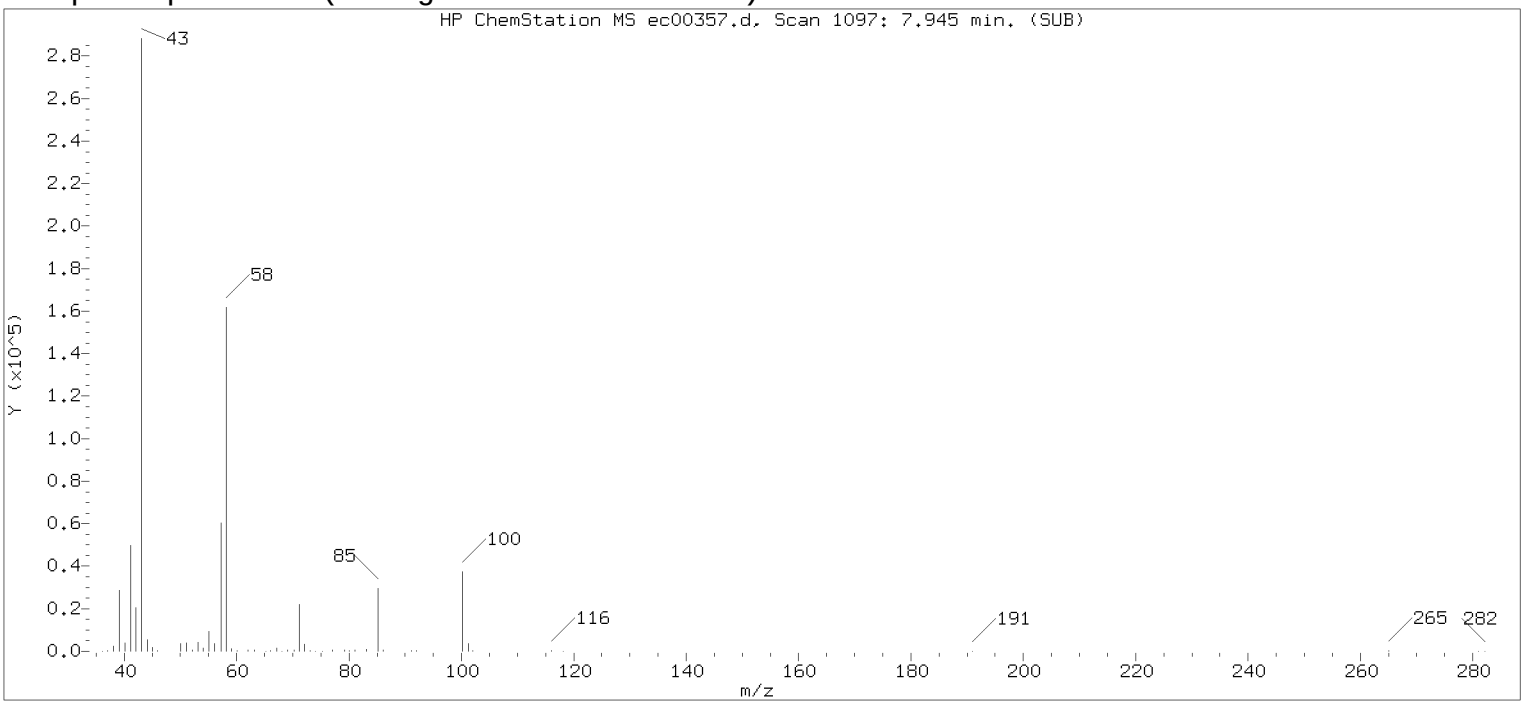
Compound Number : 68
Compound Name : 2-Hexanone
Scan Number : 1097
Retention Time (minutes): 7.945
Quant Ion : 43.00
Area (flag) : 526917M
Concentration (ppb(v)) : 11.2941
Integration start scan : 1088 Integration stop scan: 1115
Y at integration start : 425 Y at integration end: 1001

Reason for manual integration: improper integration

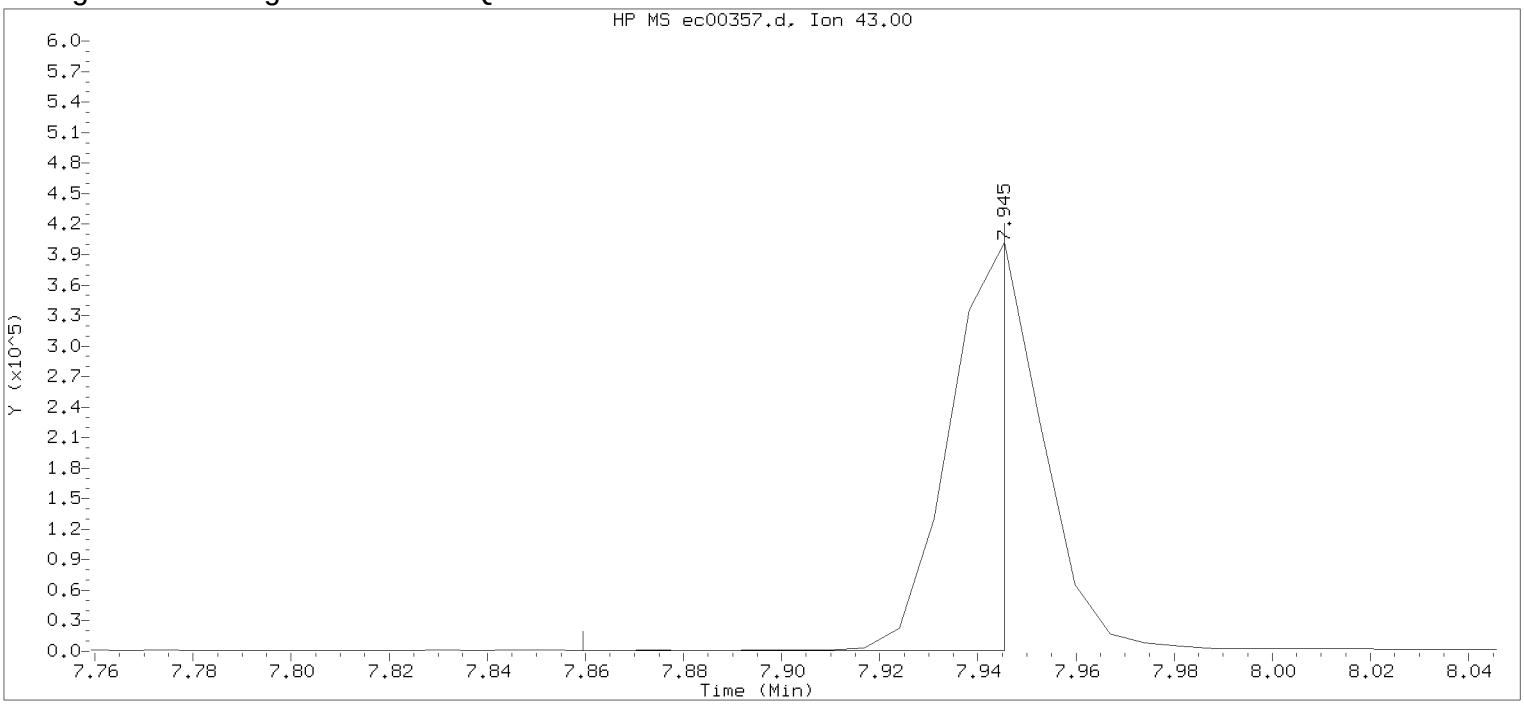
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

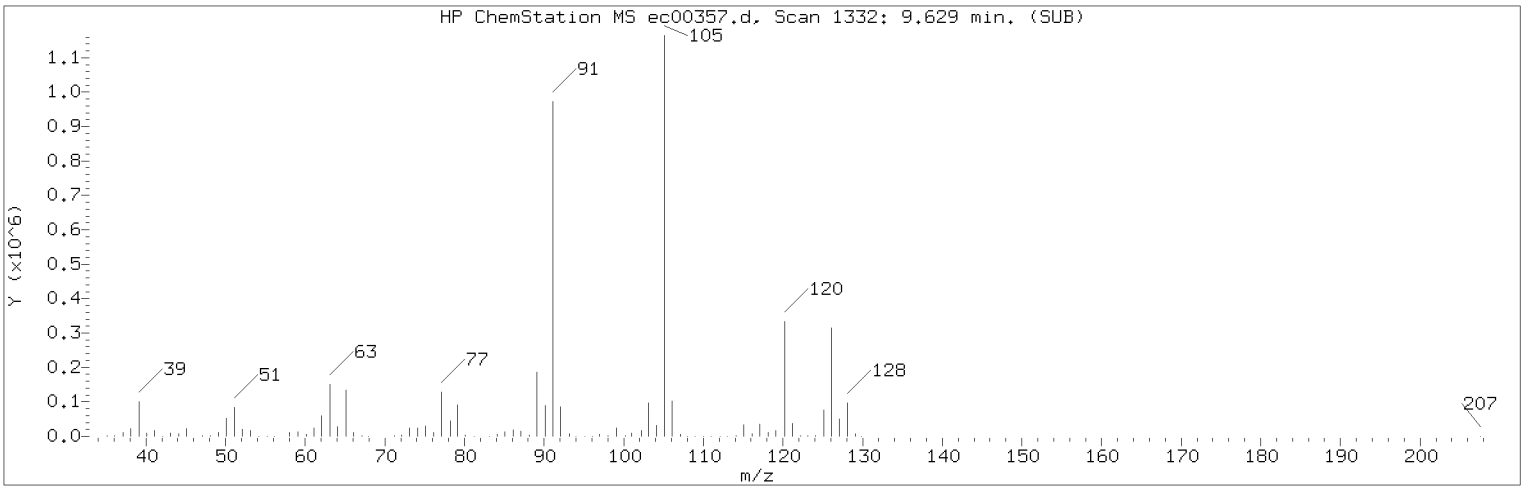
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 19:02 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

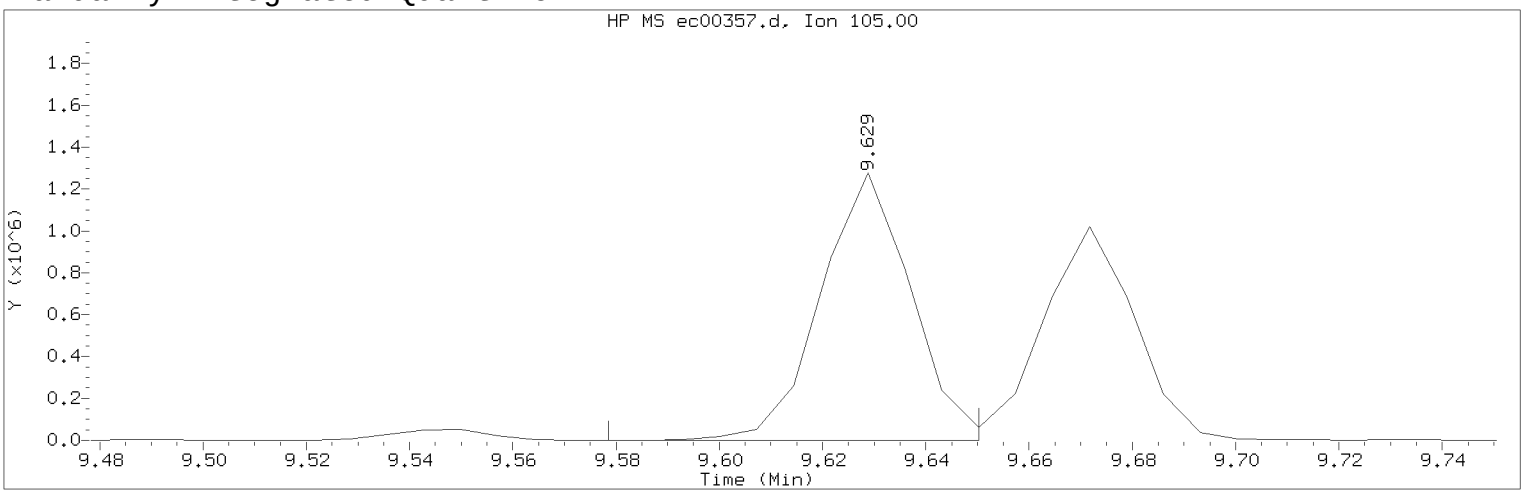
Compound Number : 68
Compound Name : 2-Hexanone
Scan Number : 1097
Retention Time (minutes): 7.945
Quant Ion : 43.00
Area : 297903
Concentration (ppb(v)) : 6.6732
Integration start scan : 1084 Integration stop scan: 1096
Y at integration start : 562 Y at integration end: 562

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07558

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

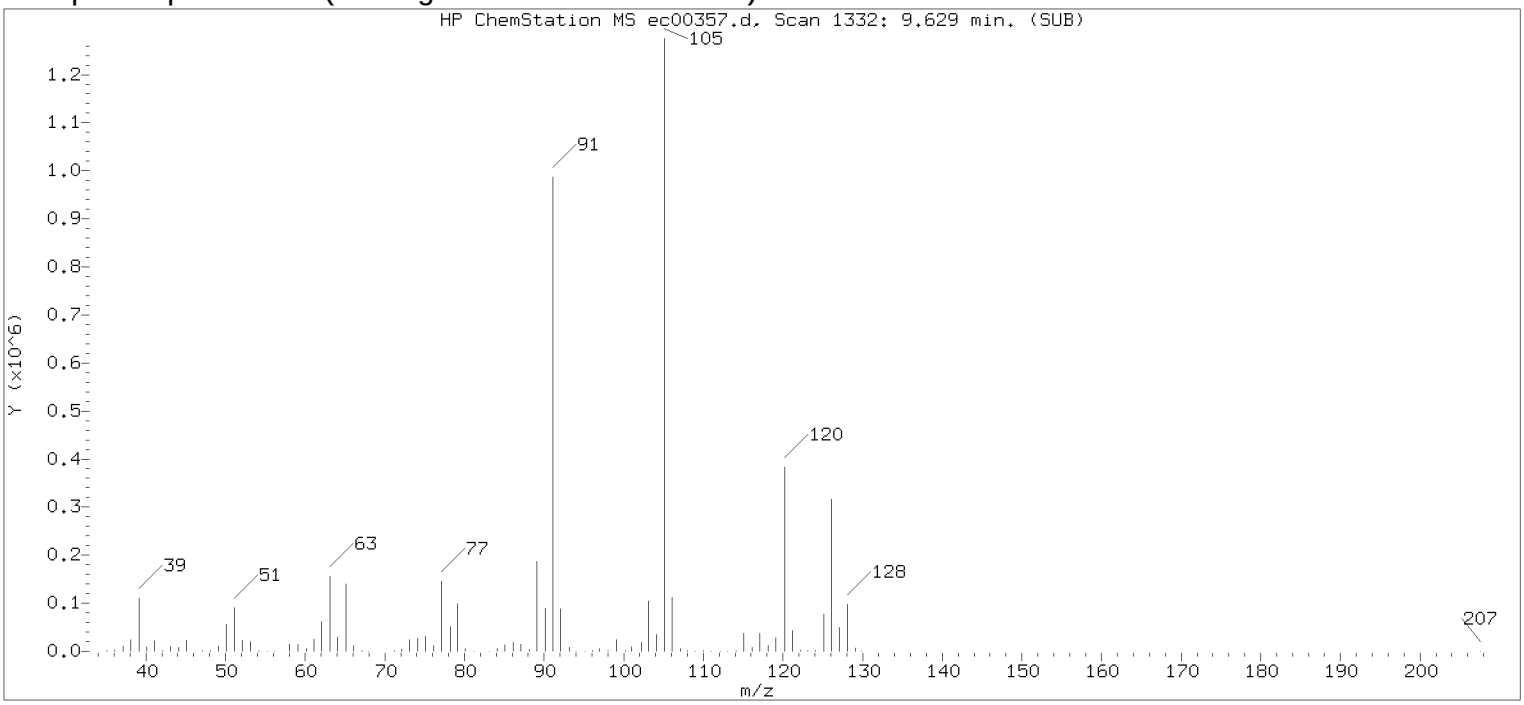
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1550530M
Concentration (ppb(v)) : 11.7345
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 210 Y at integration end: 210

Reason for manual integration: improper integration

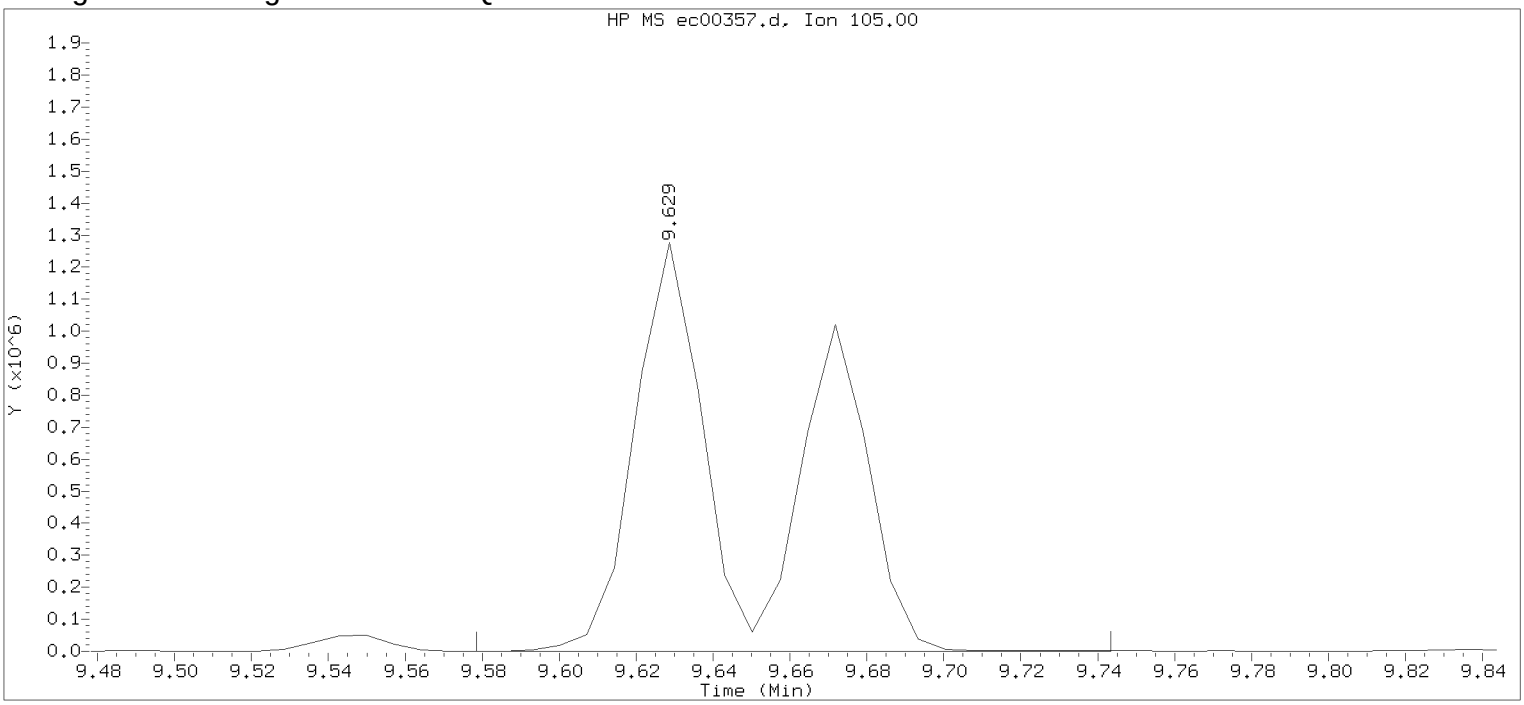
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

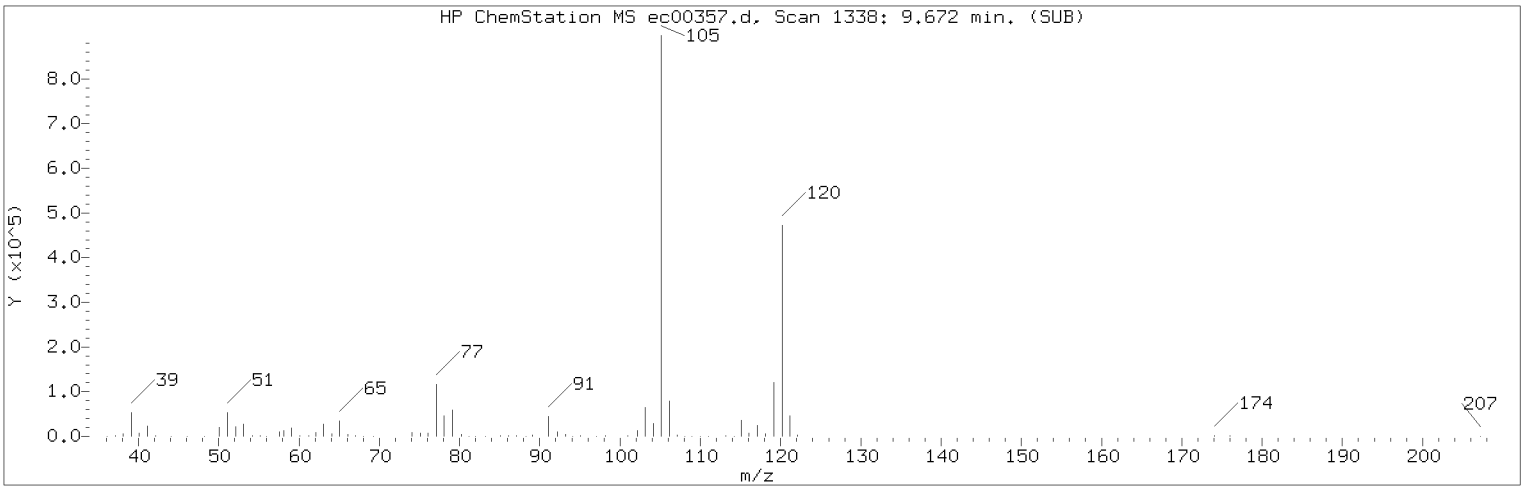
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 19:02 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

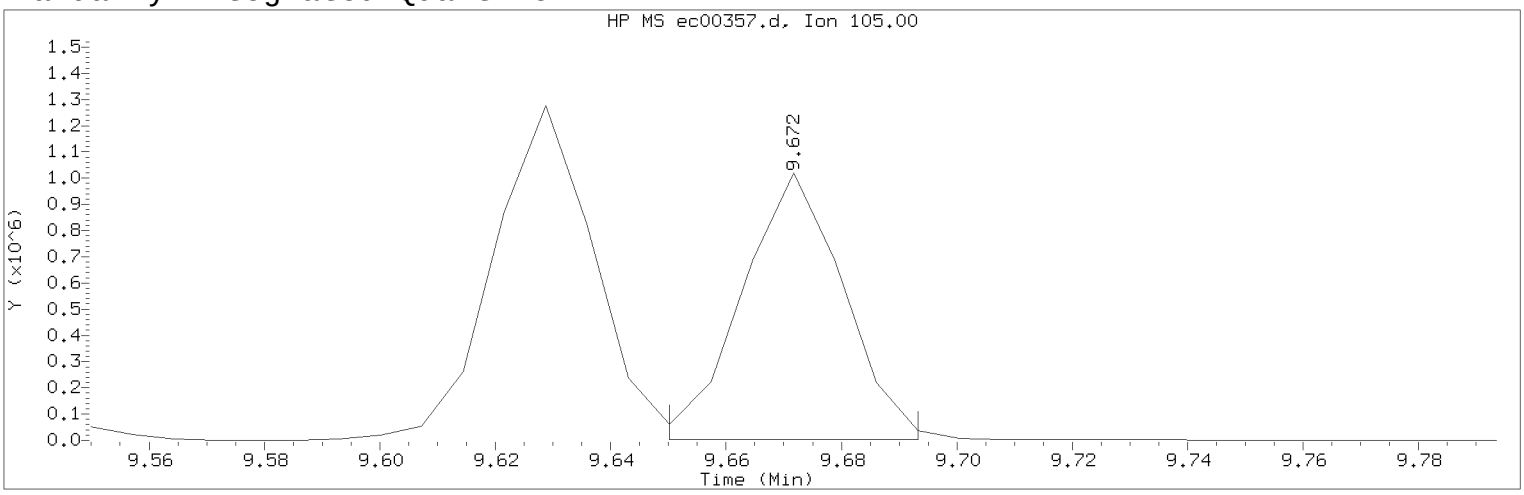
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2791744
Concentration (ppb(v)) : 22.4245
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 210 Y at integration end: 210

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and Page 552

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

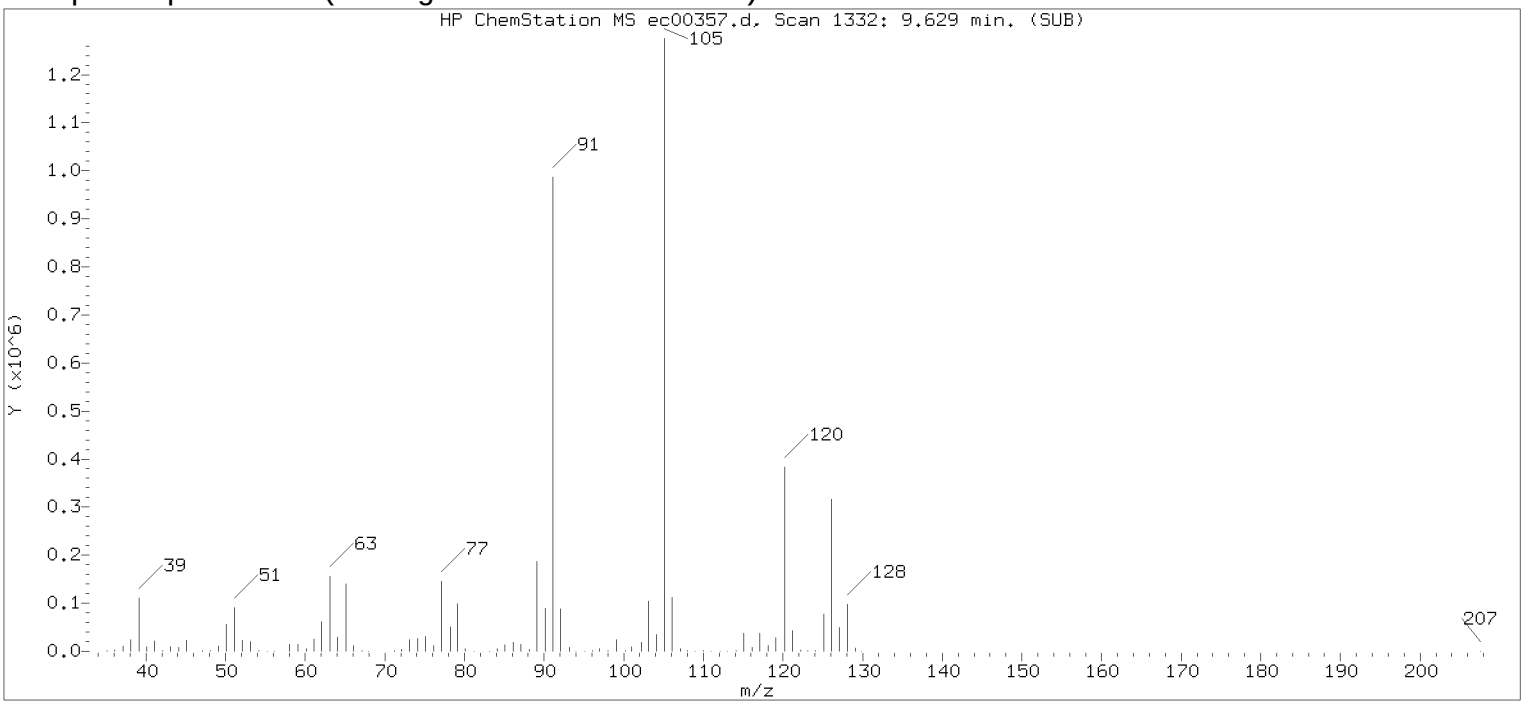
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1254004M
Concentration (ppb(v)) : 11.5666
Integration start scan : 1334 Integration stop scan: 1340
Y at integration start : 2412 Y at integration end: 2412

Reason for manual integration: improper integration

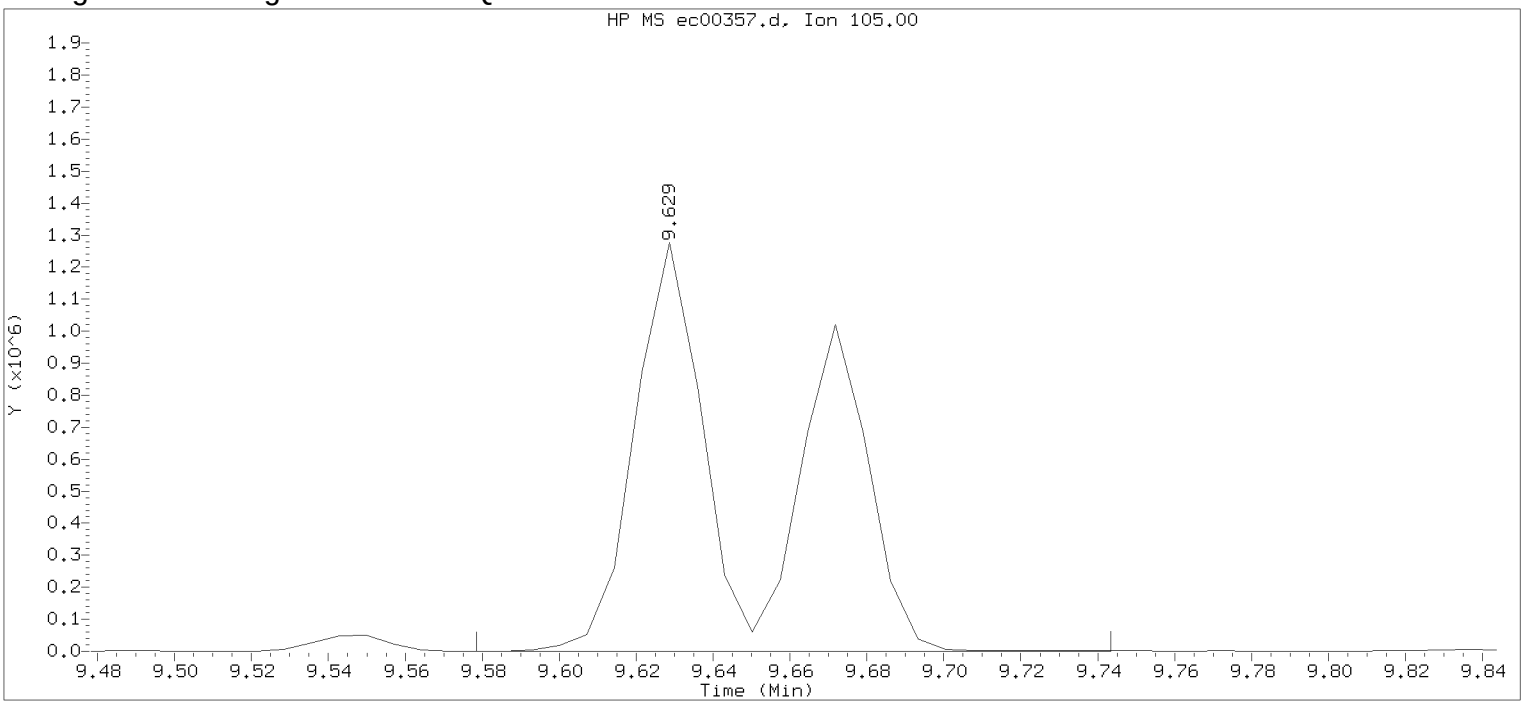
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

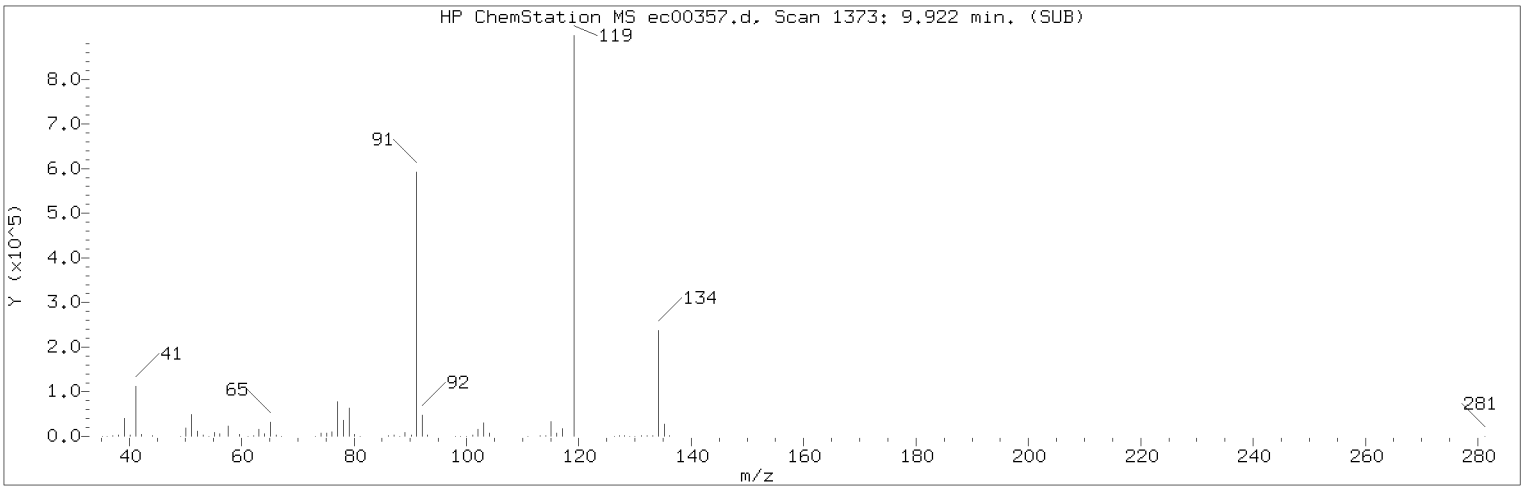
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 19:02 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

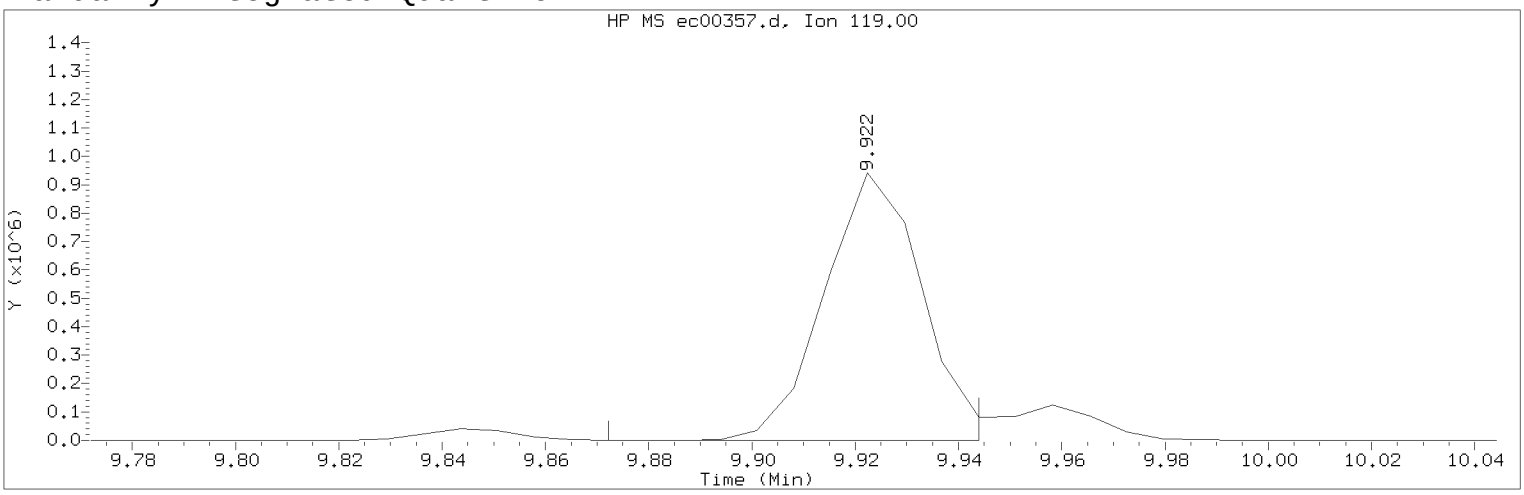
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2789431
Concentration (ppb(v)) : 27.1465
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 444 Y at integration end: 444

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: 71 and Page 554 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:09
Date, time and analyst ID of latest file update: 13-Mar-2017 19:09 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

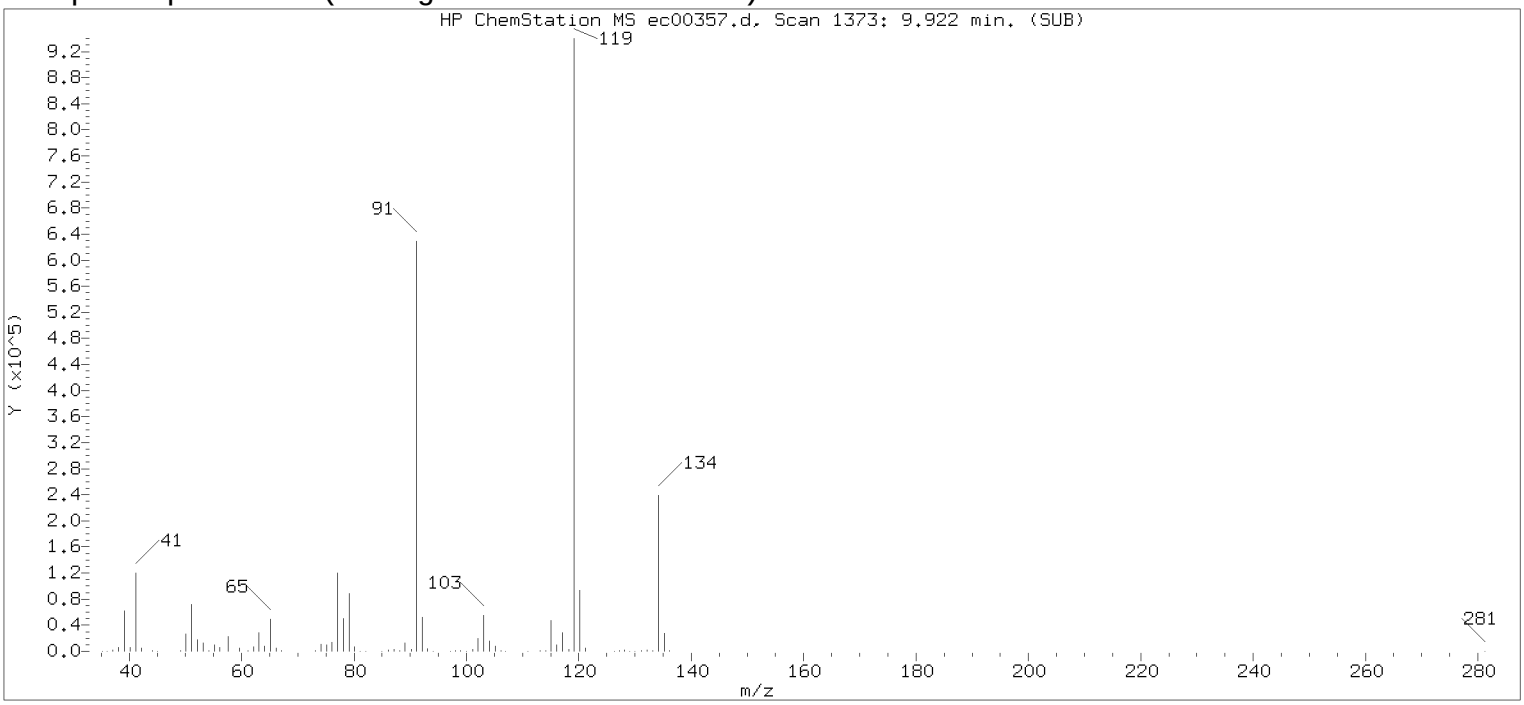
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 1240054M
Concentration (ppb(v)) : 11.3618
Integration start scan : 1365 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

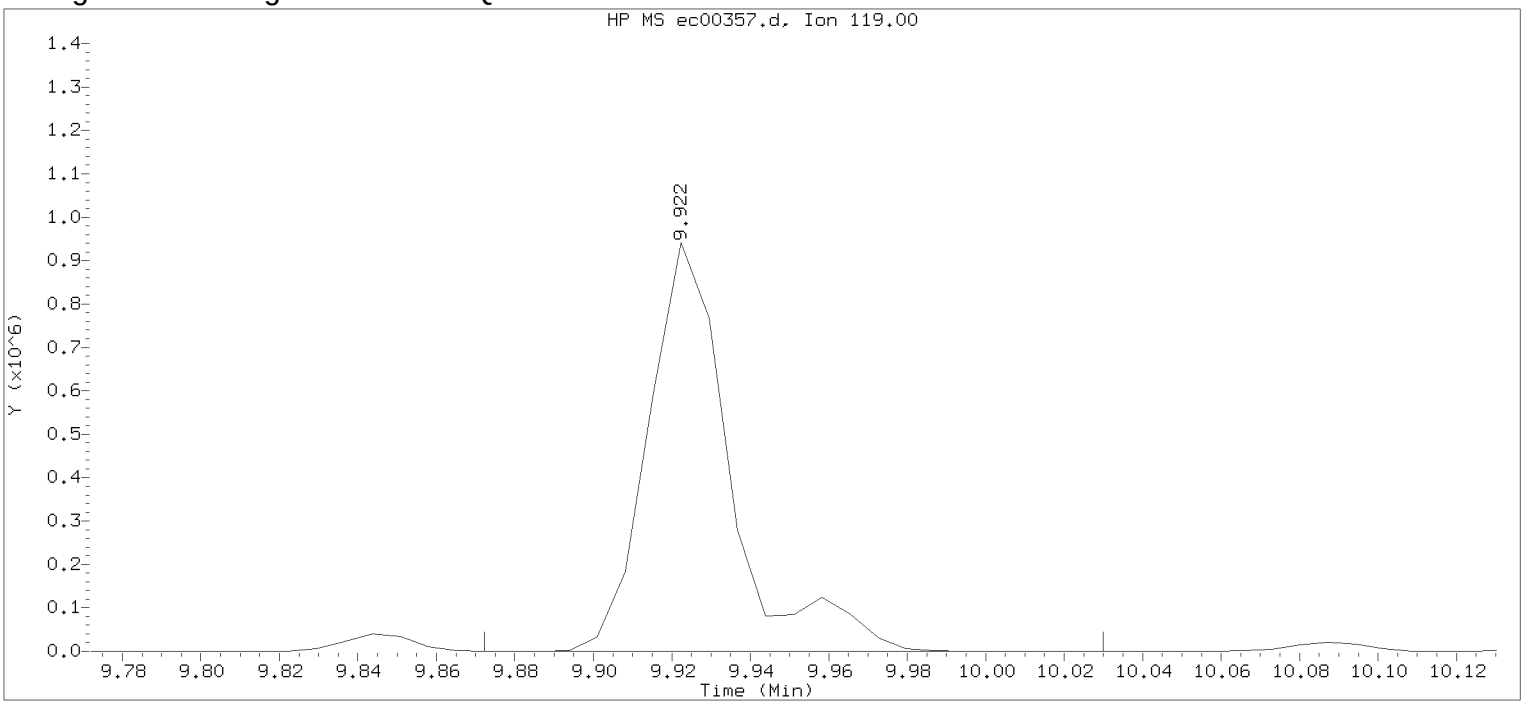
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



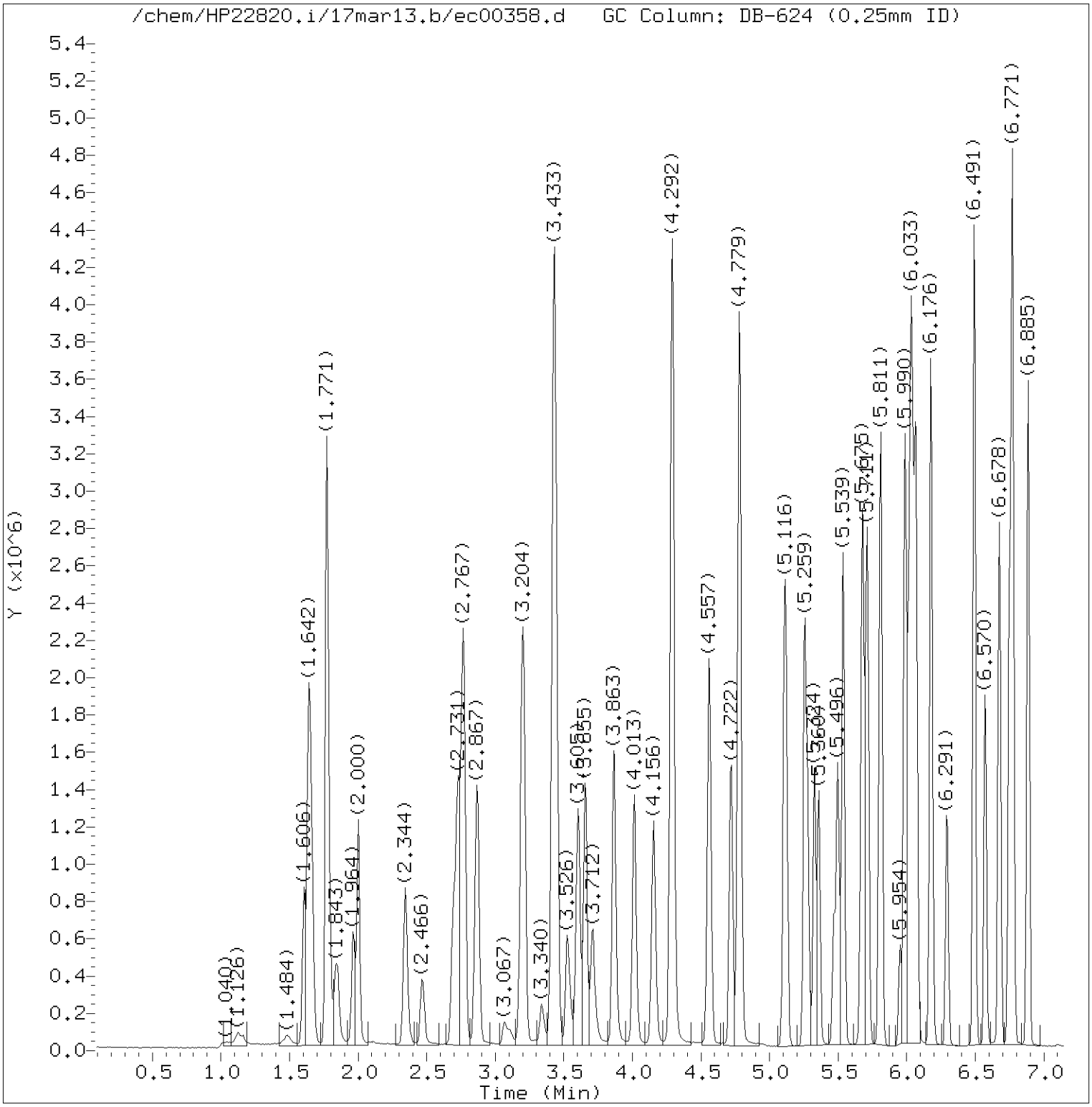
Data File: /chem/HP22820.i/17mar13.b/ec00357.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 18:43 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 18:38
Date, time and analyst ID of latest file update: 13-Mar-2017 19:02 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 1383404
Concentration (ppb(v)) : 13.2779
Integration start scan : 1365 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07858



Total Ion Chromatogram (TIC)

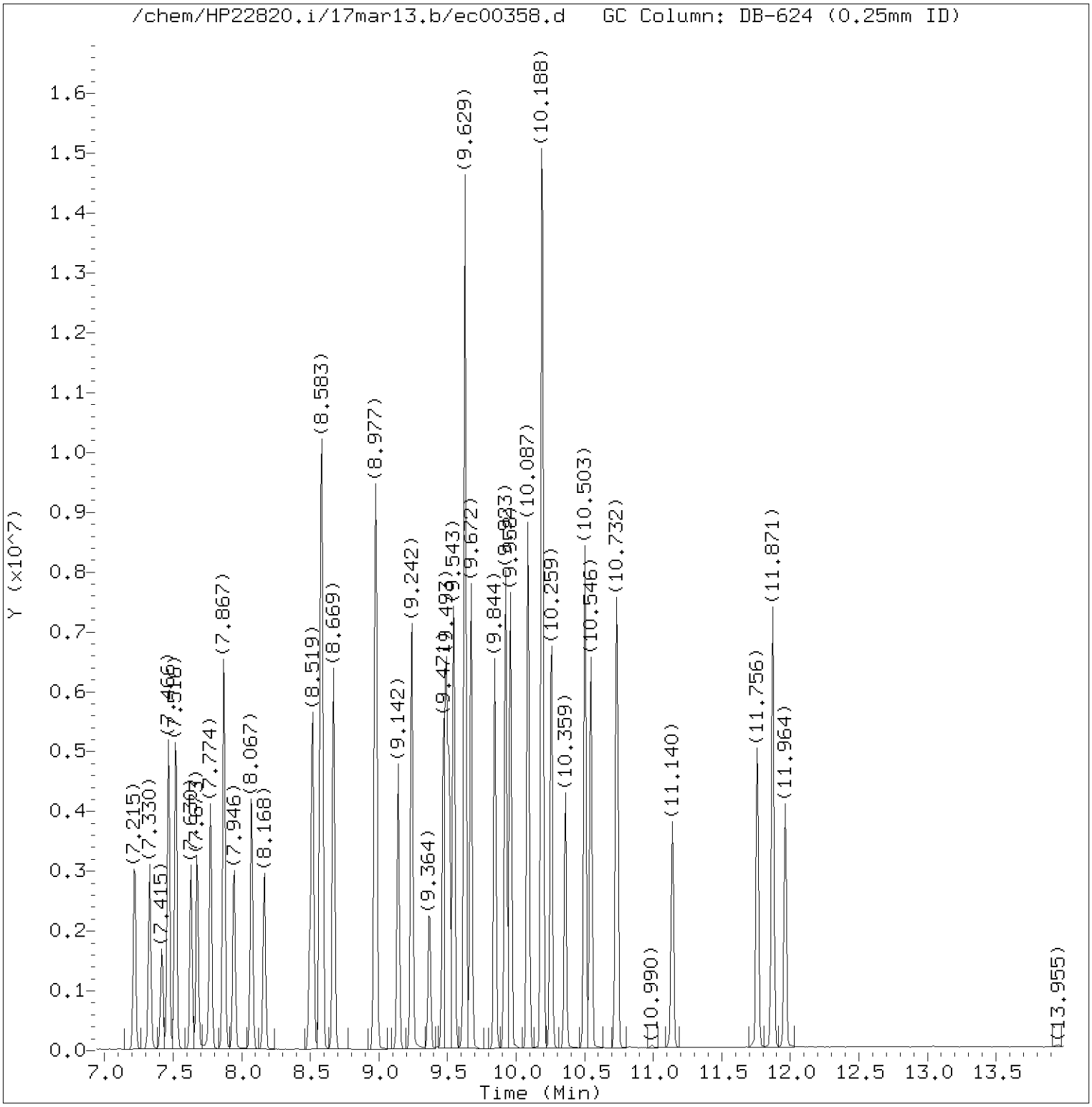
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	456491	24.056
2) Dichlorodifluoromethane	(1)	1.642	85	1920941	25.488
3) Chlorodifluoromethane	(1)	1.664	51	1018615	24.893
4) Freon 114	(1)	1.771	85	1881958	25.103
5) Chloromethane	(1)	1.843	50	507330	21.226
6) Vinyl Chloride	(1)	1.964	62	676077	25.524
7) 1,3-Butadiene	(1)	2.000	54	489208	26.484
8) Bromomethane	(1)	2.344	94	657217	22.976
9) Chloroethane	(1)	2.466	64	367156	25.164
10) Bromoethene	(1)	2.695	106	676379	26.128
11) Dichlorofluoromethane	(1)	2.731	67	1556039	25.418
12) Trichlorofluoromethane	(1)	2.767	101	2029938	25.761
13) Pentane	(1)	2.867	43	1067024	26.662
14) Ethanol	(1)	3.067	45	188511	26.049
15) Freon123a	(1)	3.204	67	1450215	25.548
16) Acrolein	(1)	3.340	56	244201	27.616
17) 1,1-Dichloroethene	(1)	3.426	61	1121907	26.344
18) Freon 113	(1)	3.433	103	1057292	25.308
19) Acetone	(1)	3.526	43	925590	24.094
20) Methyl Iodide	(1)	3.605	142	1642677	29.276
21) Carbon Disulfide	(1)	3.655	76	2001704	25.833
22) Isopropanol	(1)	3.712	45	900160	29.543
24) 3-Chloropropene	(1)	3.863	76	324569	29.440
23) Acetonitrile	(1)	3.870	40	360724	19.707
25) Methylene Chloride	(1)	4.013	84	655270	28.255
26) tert-Butyl Alcohol	(1)	4.156	59	1400158	31.220
29) Methyl t-Butyl Ether	(1)	4.285	73	1997388	27.341
28) trans-1,2-Dichloroethene	(1)	4.292	61	1023259	26.523
27) Acrylonitrile	(1)	4.300	53	561287	26.847
30) Hexane	(1)	4.557	57	1019077	27.356
31) 1,1-Dichloroethane	(1)	4.722	63	1298086	25.955
32) Vinyl Acetate	(1)	4.779	86	210113	32.560
33) Di-Isopropyl Ether	(1)	4.779	45	2106775	27.055
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	2051228	27.631
35) cis-1,2-Dichloroethene	(1)	5.259	61	965840	26.470
37) 2-Butanone	(1)	5.281	72	362592	26.667
38) Ethyl Acetate	(1)	5.331	70	173962	25.770
39) Methyl Acrylate	(1)	5.360	55	1177068	28.244

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	213685	10.000
41) Tetrahydrofuran	(1)	5.496	42	714499	27.028
42) Chloroform	(1)	5.539	83	1622618	26.267
43) 1,1,1-Trichloroethane	(1)	5.675	97	1621315	26.644
44) Cyclohexane	(1)	5.711	56	1095487	27.244
45) Carbon Tetrachloride	(1)	5.811	117	1718237	27.617
46) Benzene	(2)	5.990	78	2316117	25.834
47) 1,2-Dichloroethane	(2)	6.011	62	1051459	25.521
48) Isooctane	(2)	6.033	57	3465093	27.427
49) Tert-Amyl Methyl Ether	(2)	6.069	73	2154964	27.622
50) Heptane	(2)	6.176	43	1171718	27.102
51)*1,4-Difluorobenzene	(2)	6.291	114	816434	10.000
52) Trichloroethene	(2)	6.491	130	1148886	25.567
53) Ethyl Acrylate	(2)	6.570	55	1478019	29.528
36) 1,2-Dichloroethene (total)	(1)		61	1989099	52.994
54) 1,2-Dichloropropane	(2)	6.678	63	816784	26.153
57) Methyl Methacrylate	(2)	6.749	69	781637	29.389
56) 1,4-Dioxane	(2)	6.771	88	582066	27.972
55) Dibromomethane	(2)	6.771	174	1075685	26.604
58) Bromodichloromethane	(2)	6.885	83	1687819	27.198
59) cis-1,3-Dichloropropene	(2)	7.215	75	1388881	28.560
60) 4-Methyl-2-Pentanone	(2)	7.330	43	1540798	29.658
61) Toluene	(3)	7.466	91	2863614	26.130
62) Octane	(3)	7.516	43	1644690	27.051
63) trans-1,3-Dichloropropene	(3)	7.630	75	1210632	27.913
65) Ethyl Methacrylate	(3)	7.673	69	1307997	30.198
66) 1,1,2-Trichloroethane	(3)	7.774	97	994843	25.735
67) Tetrachloroethene	(3)	7.874	166	1577321	24.382
68) 2-Hexanone	(3)	7.946	43	1468986	28.839
69) Dibromochloromethane	(3)	8.067	127	1342487	28.097
70) 1,2-Dibromoethane	(3)	8.168	107	1574717	26.944
71)*Chlorobenzene-d5	(3)	8.497	117	818994	10.000
72) Chlorobenzene	(3)	8.519	112	2391095	25.637
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	1287927	27.379
74) Ethylbenzene	(3)	8.583	91	3742414	27.387
75) m/p-Xylene	(3)	8.669	91	2855031	27.211
76) o-Xylene	(3)	8.970	91	2848996	27.981
78) Styrene	(3)	8.984	104	2138083	30.917

* = Compound is an internal standard.

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	1708849	30.769
80) Cumene	(3)	9.242	105	4036187	28.165
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	1960814	27.473
81) Bromobenzene	(3)	9.493	156	1443894	27.161
83) 1,2,3-Trichloropropane	(3)	9.514	110	651252	26.413
84) n-Propylbenzene	(3)	9.550	120	1182092	28.063
86) 4-Ethyltoluene	(3)	9.629	105	4137085M	28.714
85) 2-Chlorotoluene	(3)	9.629	126	1093471	27.541
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	3353540M	28.447
88) Alpha Methyl Styrene	(3)	9.844	118	1563051	33.339
89) tert-Butylbenzene	(3)	9.923	119	3222279M	27.436
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	3291800	28.903
91) sec-Butylbenzene	(3)	10.087	105	4794970	28.456
92) 1,3-Dichlorobenzene	(3)	10.188	146	2359684	27.357
94) p-Isopropyltoluene	(3)	10.188	119	4096766	30.354
93) 1,4-Dichlorobenzene	(3)	10.259	146	2330621	26.836
95) Benzyl Chloride	(3)	10.359	91	2334818	34.705
97) n-Butylbenzene	(3)	10.503	91	3666171	30.688
96) 1,2-Dichlorobenzene	(3)	10.546	146	2133442	27.611
98) Hexachloroethane	(3)	10.732	117	1215184	35.315
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	893627	31.731
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	1356594	29.224
101) Hexachlorobutadiene	(3)	11.871	225	1227951	28.103
102) Naphthalene	(3)	11.964	128	2674922	31.742
64) 1,3-Dichloropropene (total)	(3)		75	2599513	55.641
77) Xylene (total)	(3)		91	5704027	55.180

M = Compound was manually integrated.

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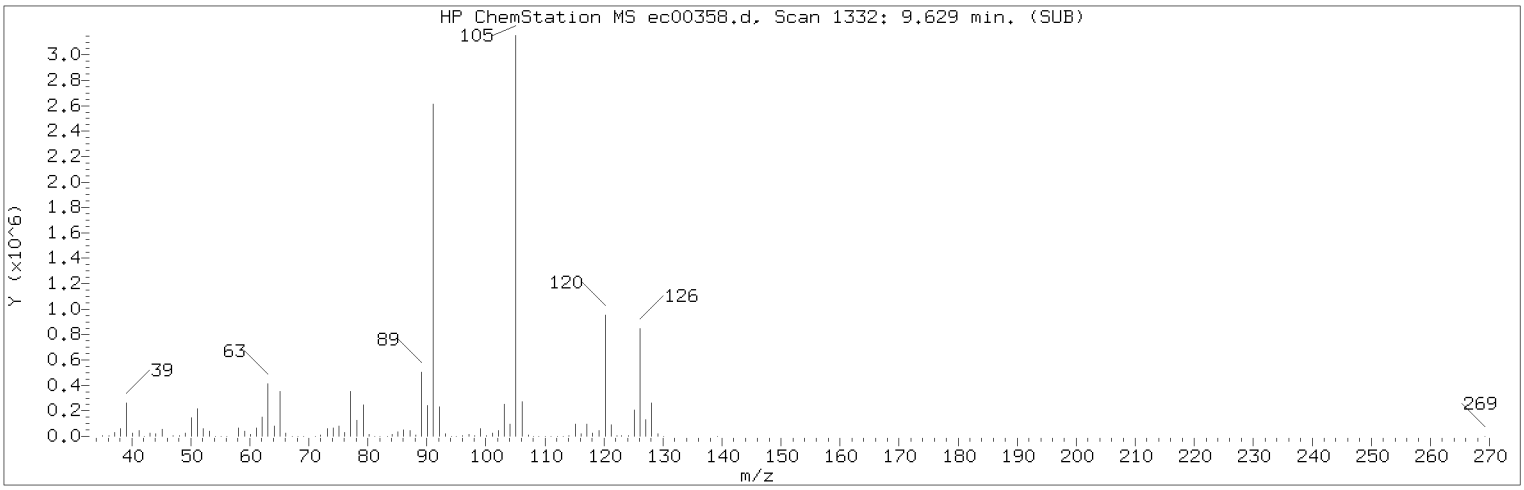
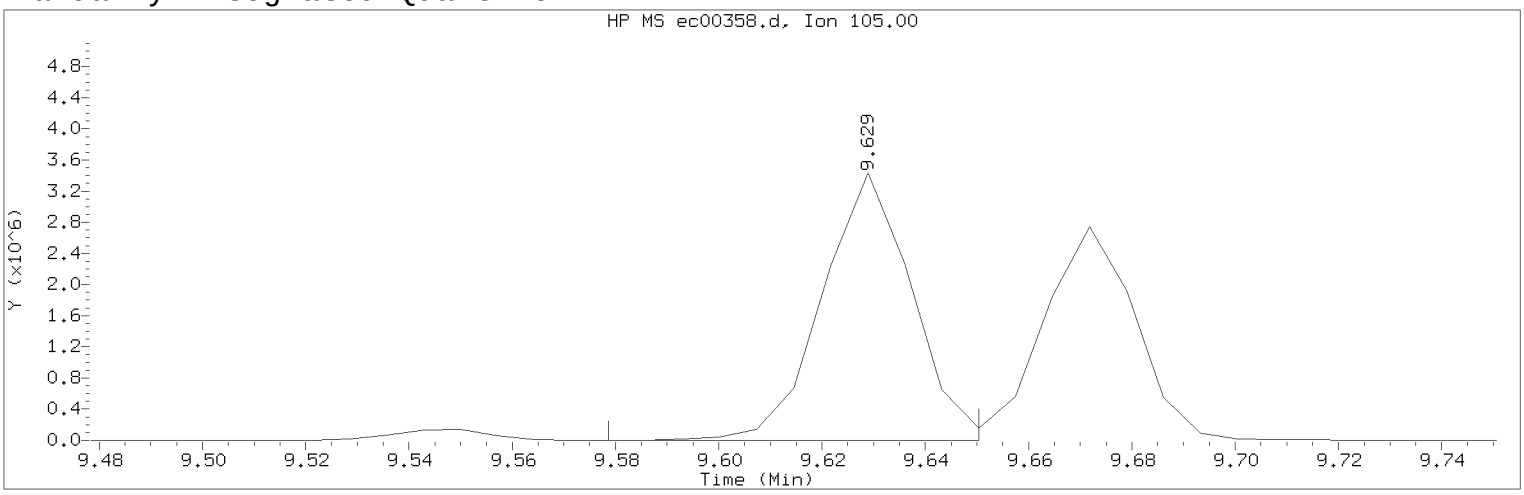
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

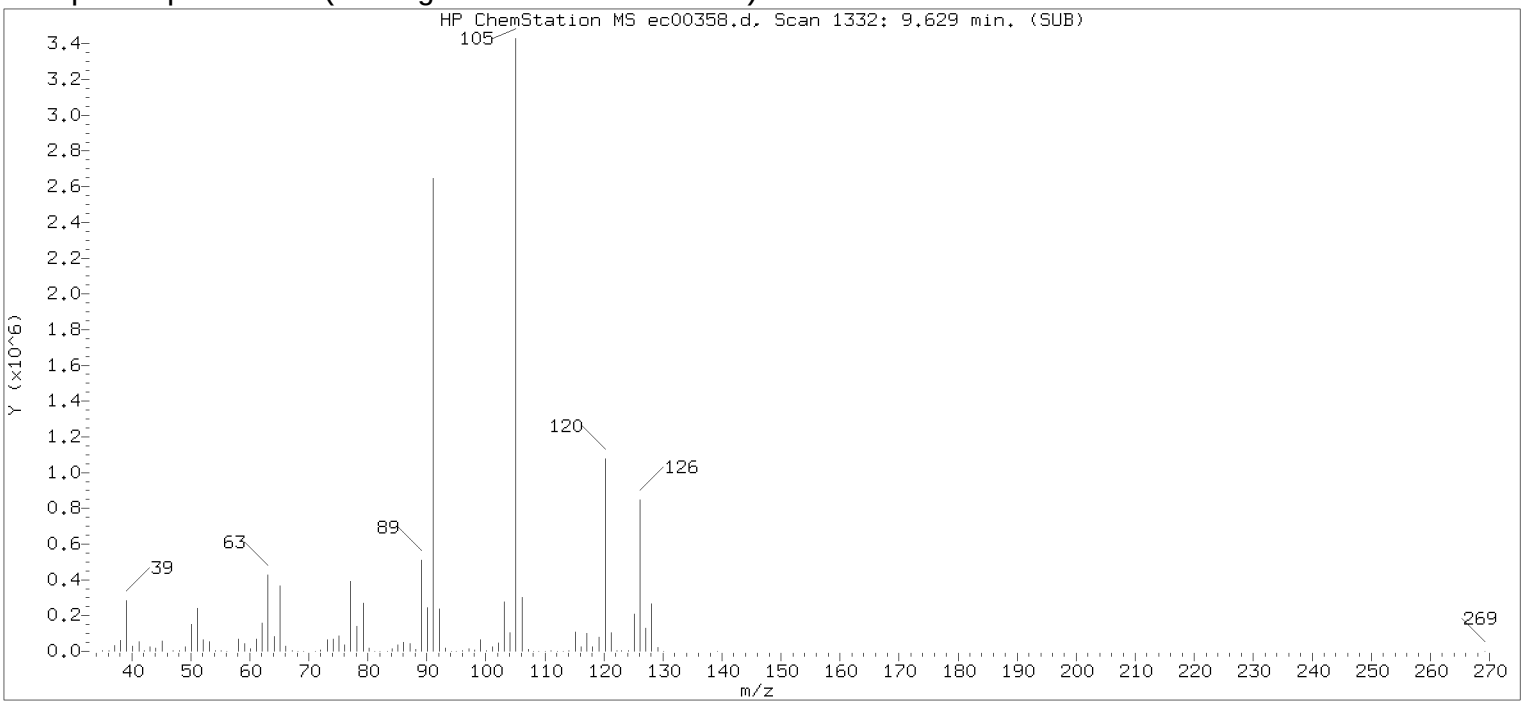
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 4137085M
Concentration (ppb(v)) : 28.7142
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 430 Y at integration end: 430

Reason for manual integration: improper integration

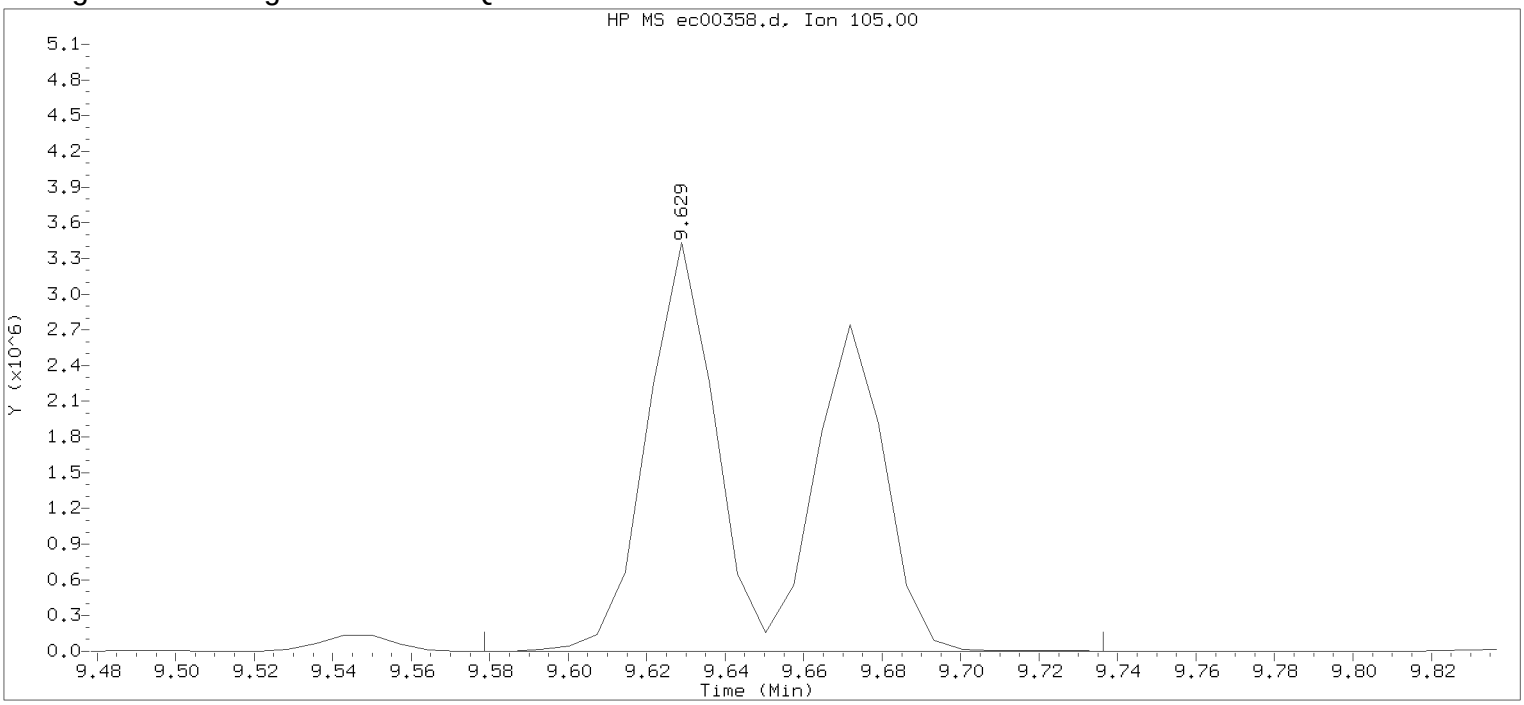
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

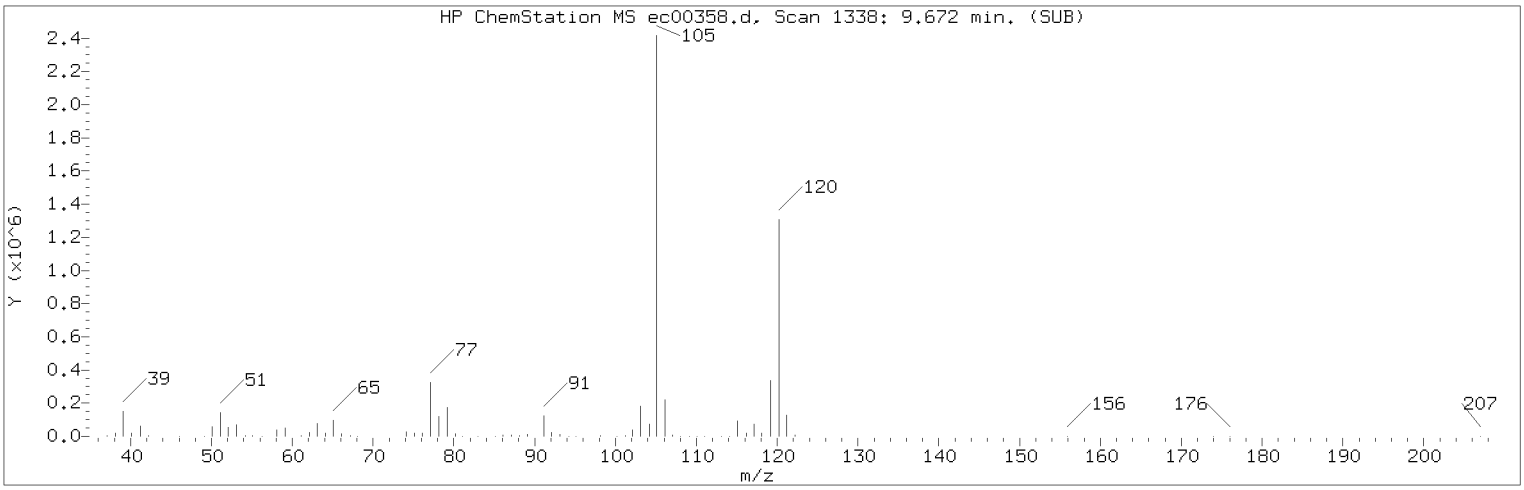
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:10
Date, time and analyst ID of latest file update: 13-Mar-2017 19:38 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

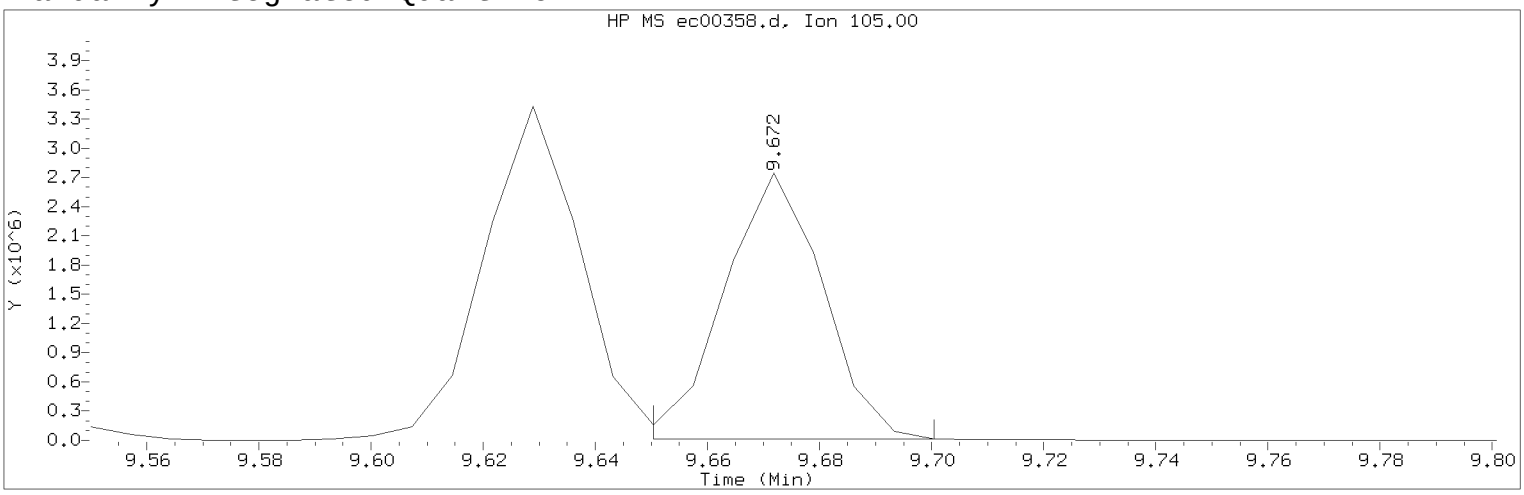
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 7466689
Concentration (ppb(v)) : 53.8231
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 430 Y at integration end: 430

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and Page 593

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

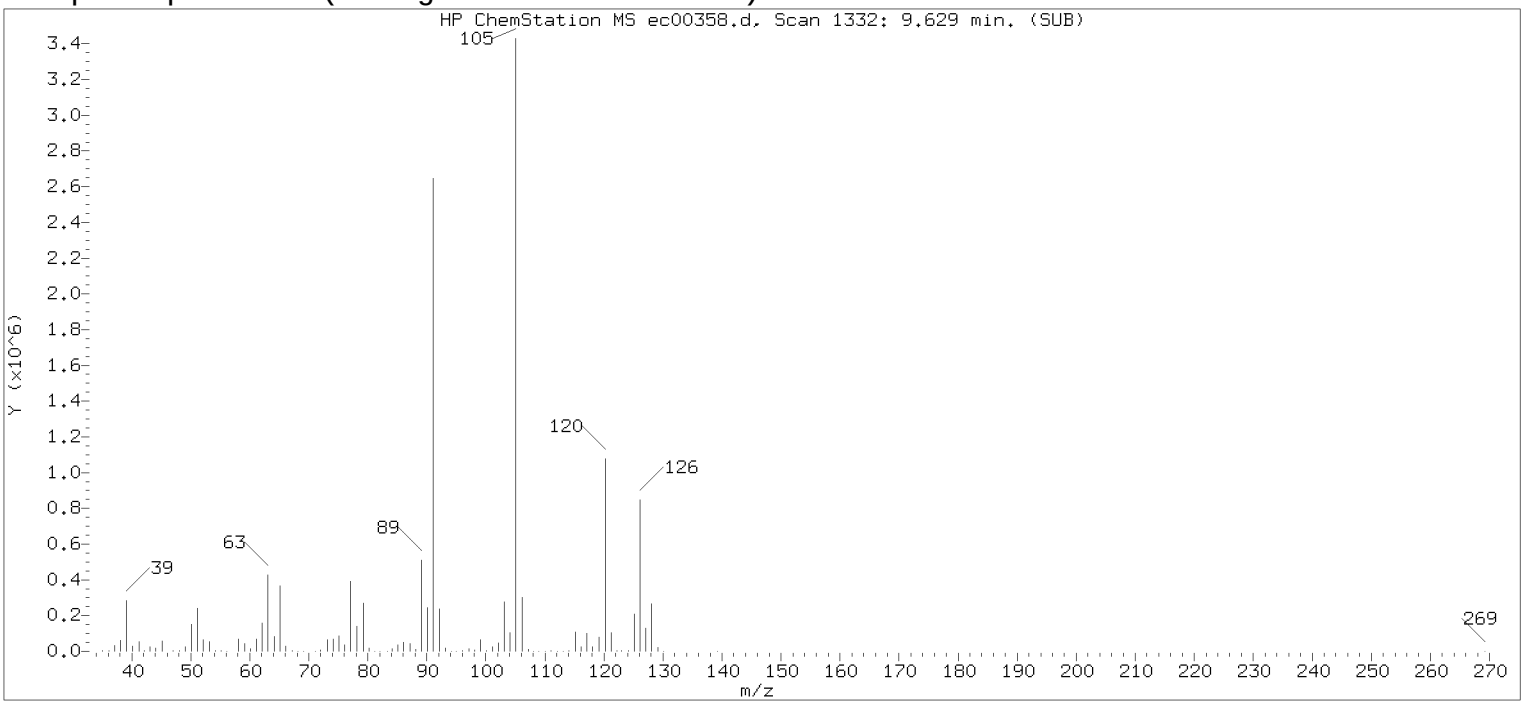
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 3353540M
Concentration (ppb(v)) : 28.4468
Integration start scan : 1334 Integration stop scan: 1341
Y at integration start : 11170 Y at integration end: 11170

Reason for manual integration: improper integration

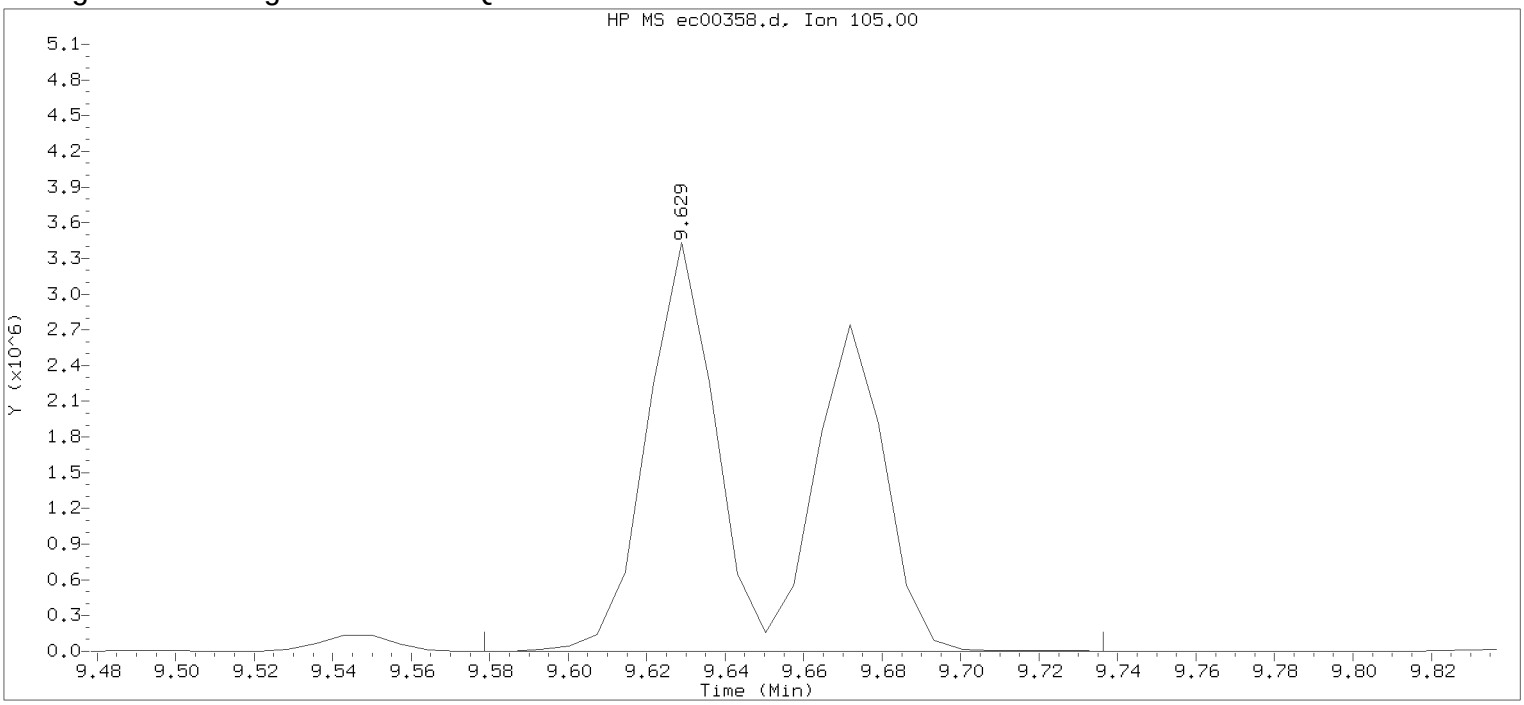
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

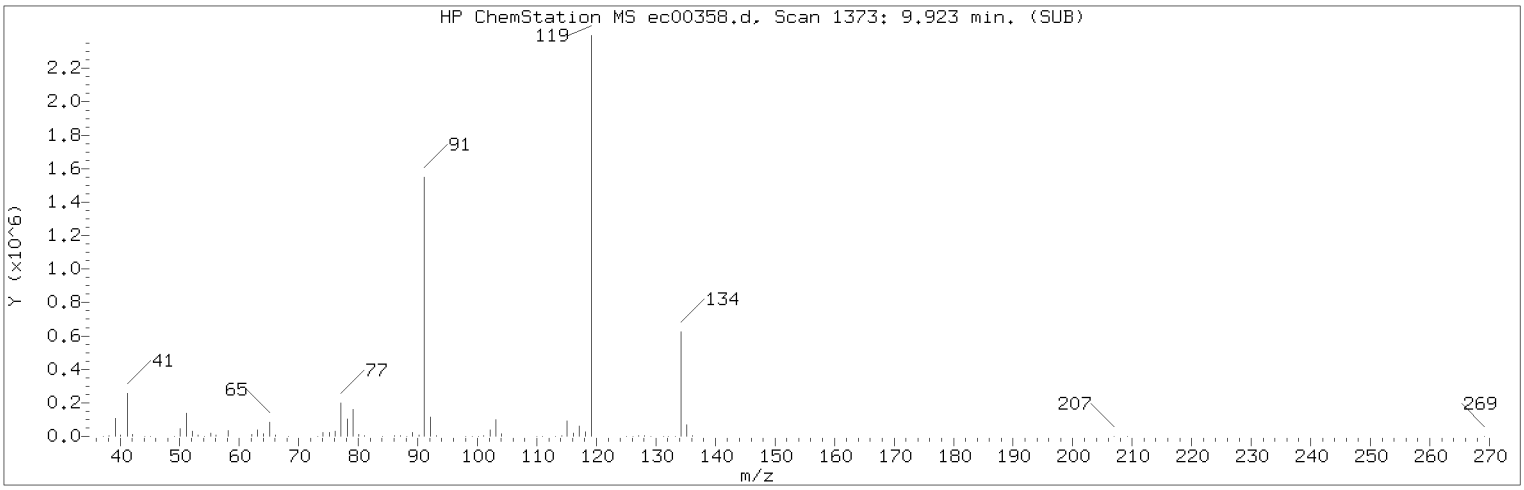
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:10
Date, time and analyst ID of latest file update: 13-Mar-2017 19:38 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

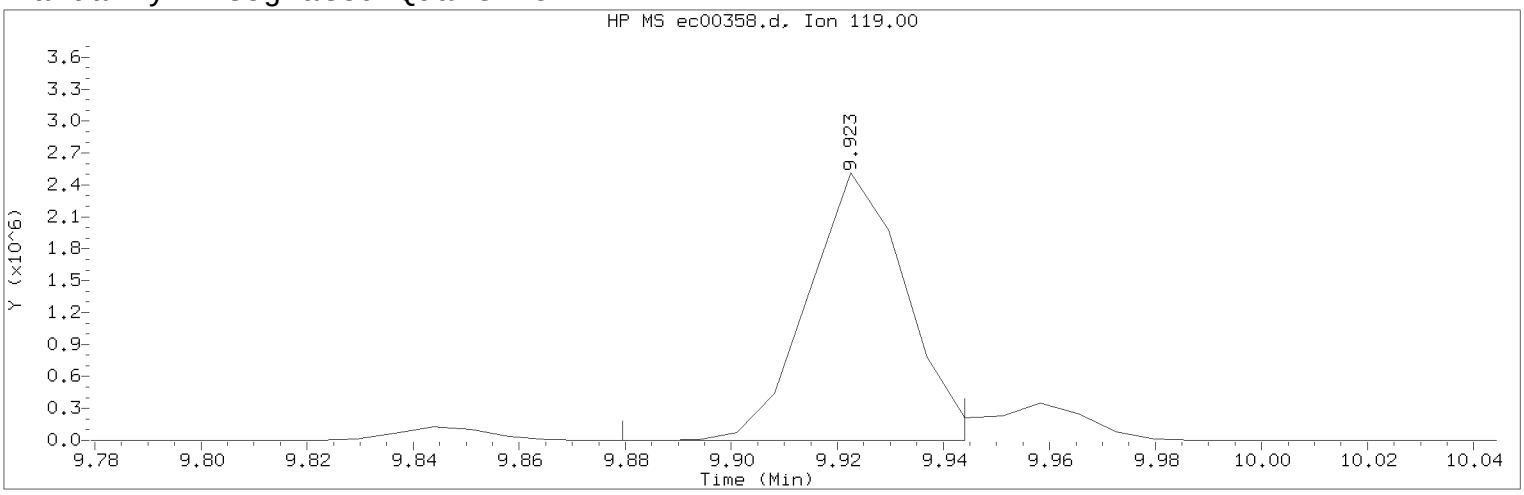
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 7466689
Concentration (ppb(v)) : 65.5981
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 430 Y at integration end: 430

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:39
Date, time and analyst ID of latest file update: 13-Mar-2017 19:40 jeb07445

Sample Name: VSTD025 Lab Sample ID: VSTD025

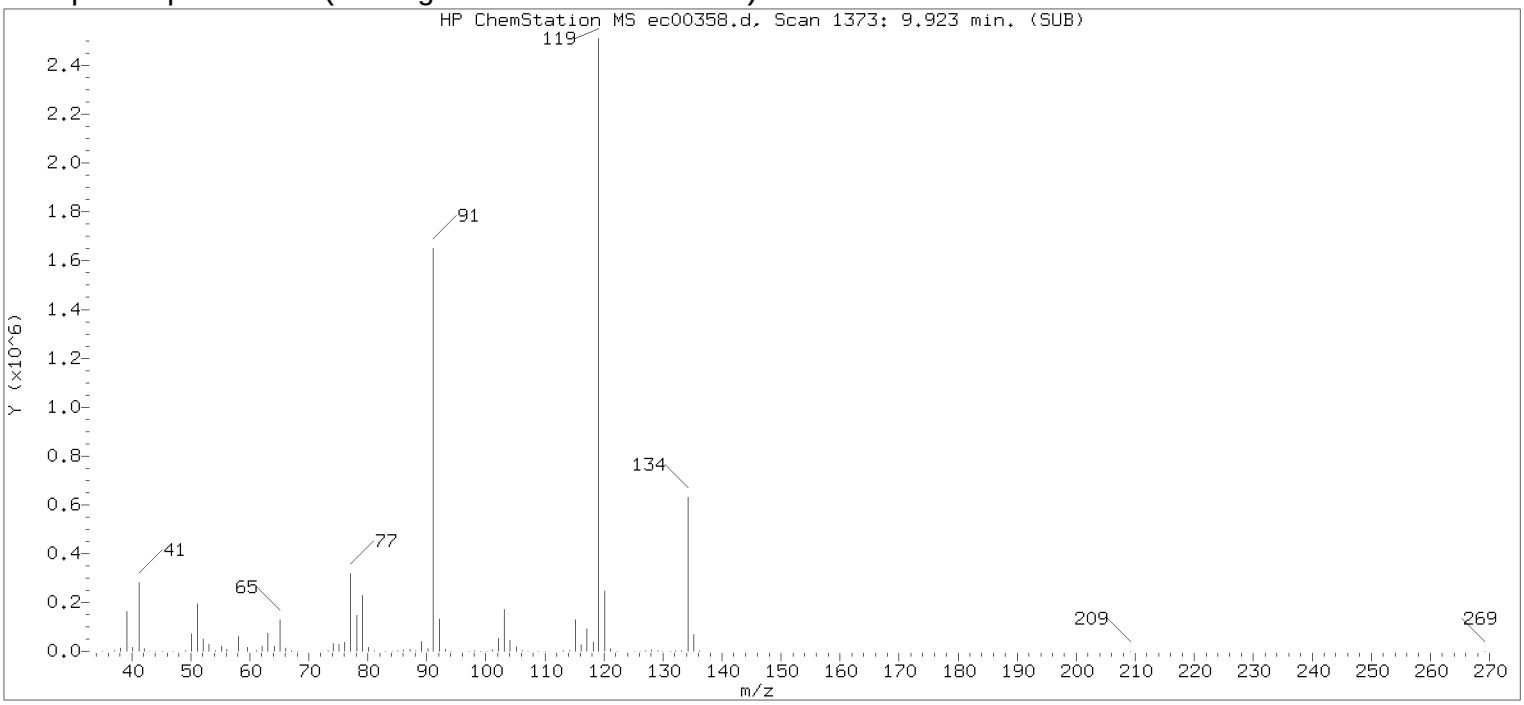
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 3222279M
Concentration (ppb(v)) : 27.4358
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

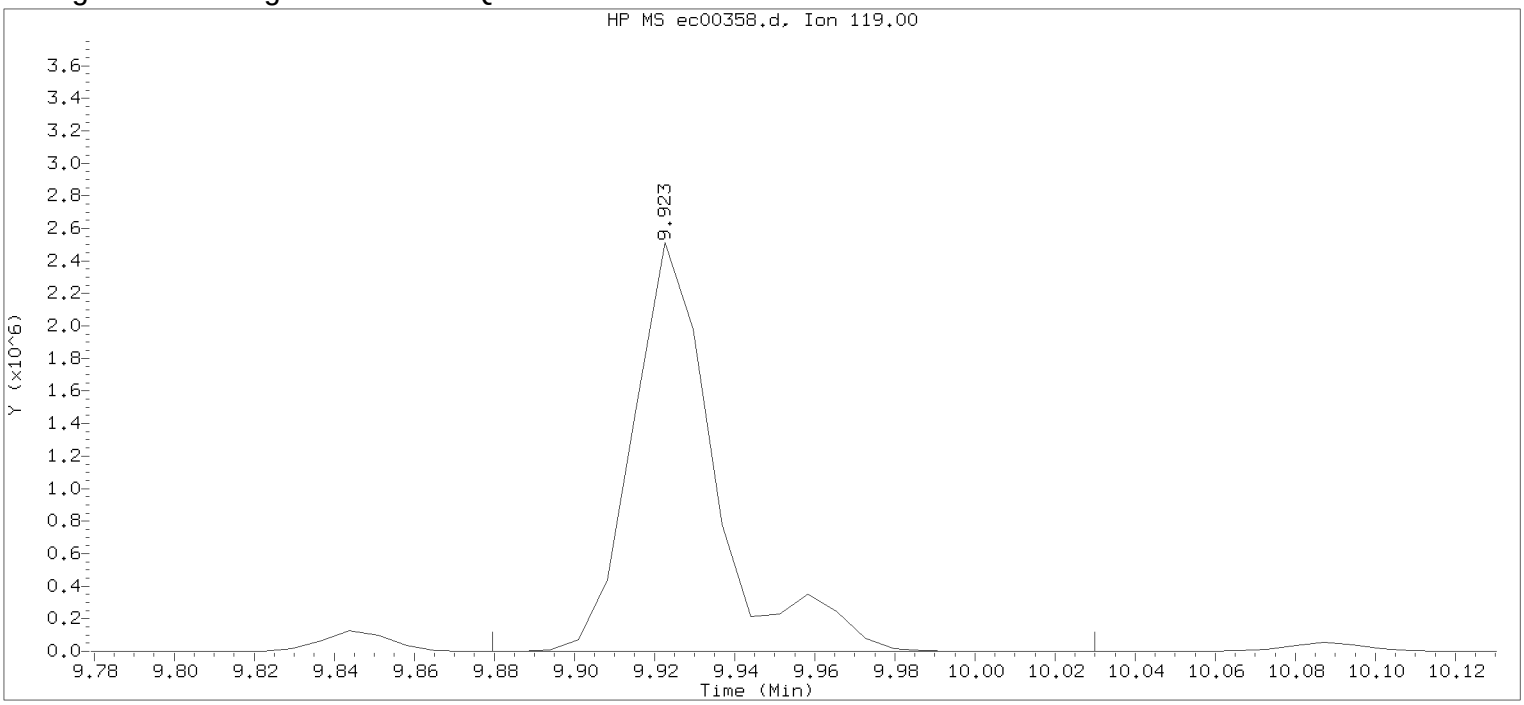
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



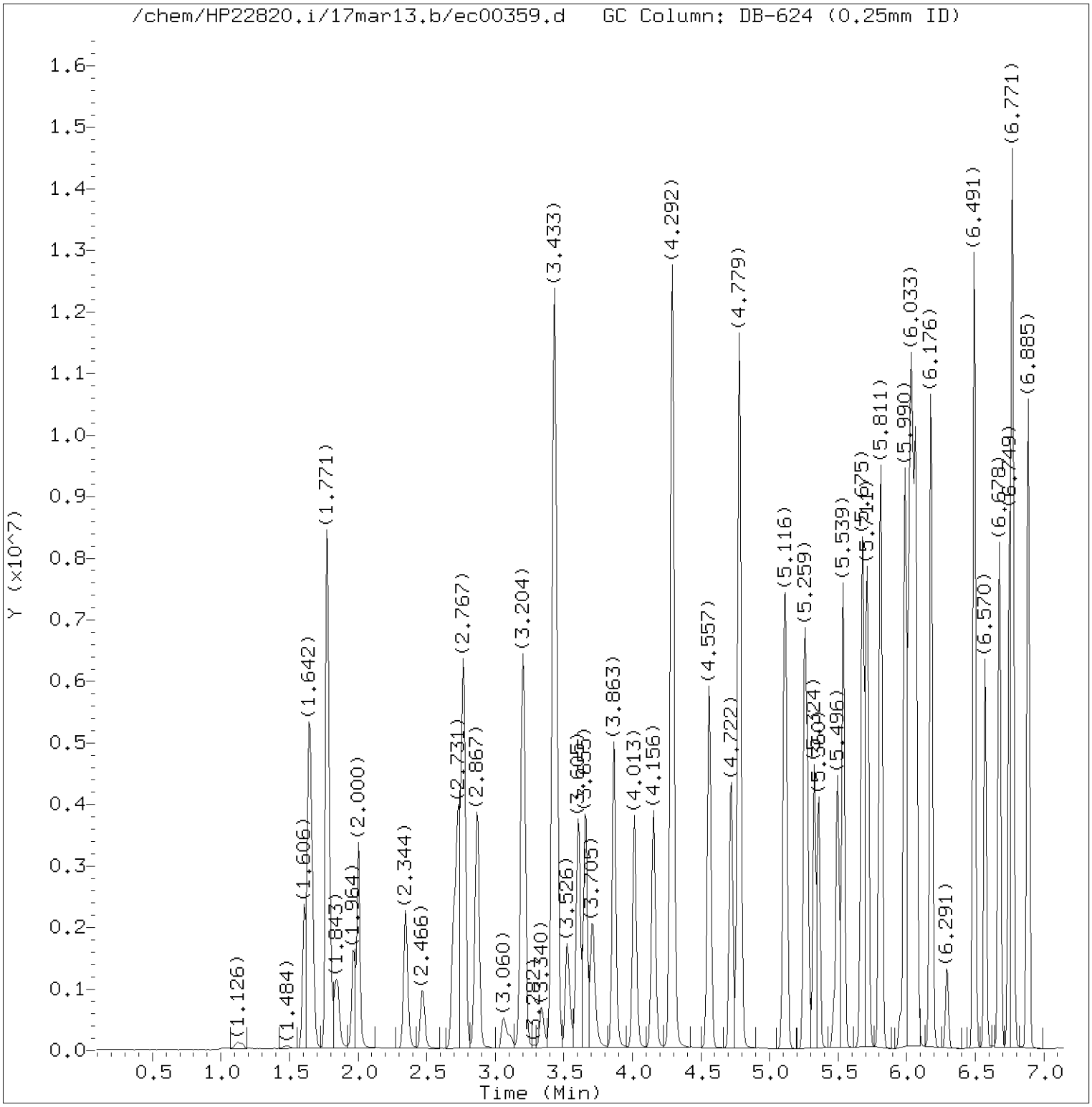
Data File: /chem/HP22820.i/17mar13.b/ec00358.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:19 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:10
Date, time and analyst ID of latest file update: 13-Mar-2017 19:38 Unknown

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 3620820
Concentration (ppb(v)) : 31.5988
Integration start scan : 1366 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07597



Total Ion Chromatogram (TIC)

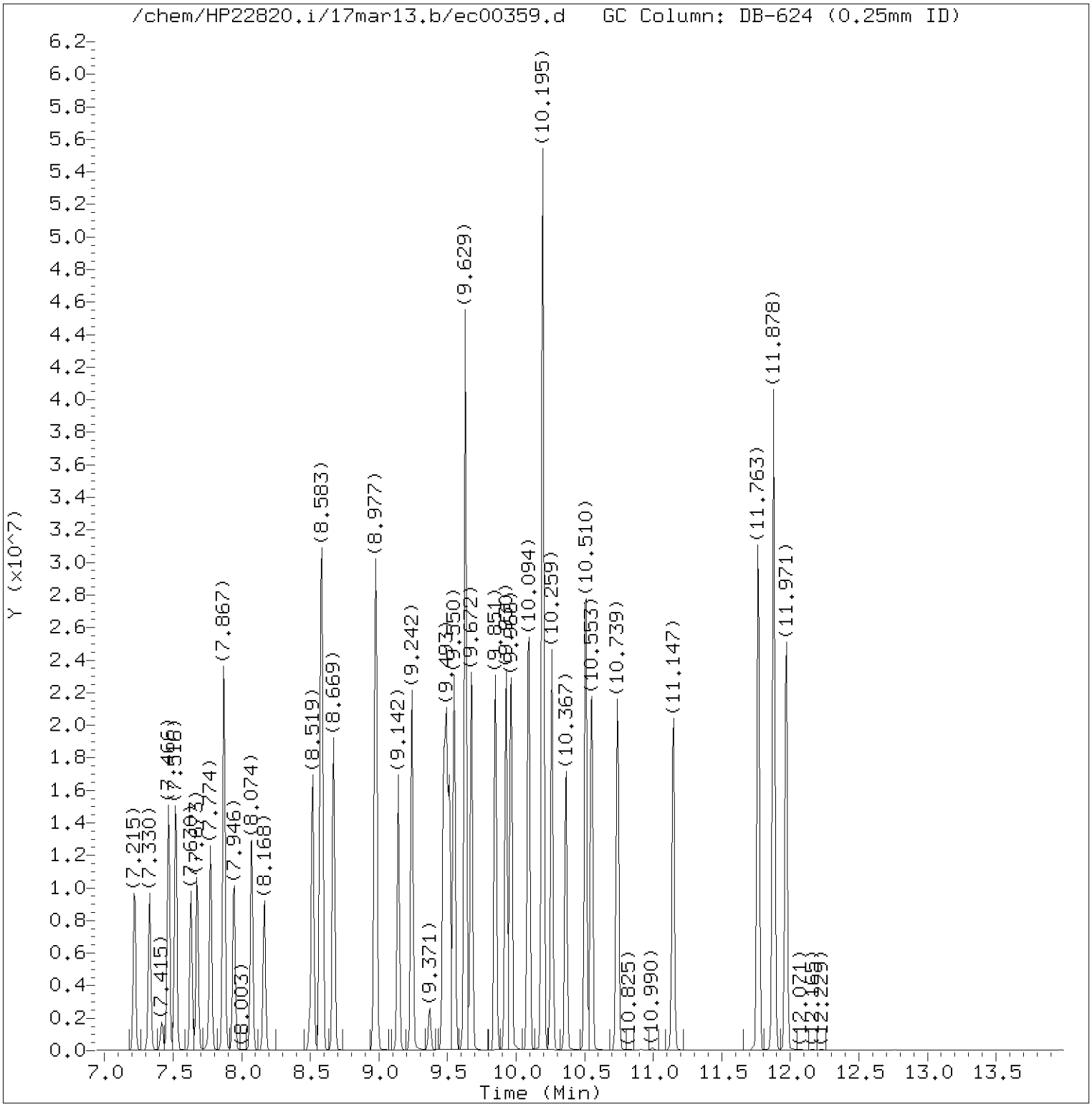
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	1323413	67.678
2) Dichlorodifluoromethane	(1)	1.642	85	5390217	69.122
3) Chlorodifluoromethane	(1)	1.664	51	2825374	67.112
4) Freon 114	(1)	1.771	85	5272306	68.154
5) Chloromethane	(1)	1.850	50	1377239	57.528
6) Vinyl Chloride	(1)	1.964	62	1898511	69.246
7) 1,3-Butadiene	(1)	2.000	54	1397424	72.424
8) Bromomethane	(1)	2.344	94	1776823	61.360
9) Chloroethane	(1)	2.473	64	1040582	68.959
10) Bromoethene	(1)	2.695	106	1966585	72.676
11) Dichlorofluoromethane	(1)	2.731	67	4339676	68.611
12) Trichlorofluoromethane	(1)	2.767	101	5696681	69.745
13) Pentane	(1)	2.867	43	3020564	72.285
14) Ethanol	(1)	3.060	45	760912	94.320
15) Freon123a	(1)	3.204	67	4051040	68.997
16) Acrolein	(1)	3.340	56	764671	80.793
17) 1,1-Dichloroethene	(1)	3.426	61	3198678	71.994
18) Freon 113	(1)	3.433	103	3026929	69.873
19) Acetone	(1)	3.526	43	2689282	67.892
20) Methyl Iodide	(1)	3.605	142	4990253	82.640
21) Carbon Disulfide	(1)	3.655	76	5678741	70.541
22) Isopropanol	(1)	3.712	45	3076938	97.350
23) Acetonitrile	(1)	3.863	40	1130616	61.064
24) 3-Chloropropene	(1)	3.863	76	974399	83.989
25) Methylene Chloride	(1)	4.013	84	1855333	77.332
26) tert-Butyl Alcohol	(1)	4.156	59	4614676	99.195
29) Methyl t-Butyl Ether	(1)	4.285	73	5893997	76.362
28) trans-1,2-Dichloroethene	(1)	4.292	61	2948767	73.043
27) Acrylonitrile	(1)	4.300	53	1697122	76.747
30) Hexane	(1)	4.557	57	2975161	75.732
31) 1,1-Dichloroethane	(1)	4.722	63	3709419	71.247
32) Vinyl Acetate	(1)	4.779	86	648323	96.853
33) Di-Isopropyl Ether	(1)	4.779	45	6145704	74.998
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	6188341	78.427
35) cis-1,2-Dichloroethene	(1)	5.252	61	2813266	73.569
37) 2-Butanone	(1)	5.281	72	1105840	76.867
38) Ethyl Acetate	(1)	5.324	70	529136	74.576
39) Methyl Acrylate	(1)	5.360	55	3616568	81.024

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Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	221659	10.000
41) Tetrahydrofuran	(1)	5.496	42	2175713	77.616
42) Chloroform	(1)	5.539	83	4648999	72.112
43) 1,1,1-Trichloroethane	(1)	5.675	97	4778247	74.685
44) Cyclohexane	(1)	5.711	56	3180753	75.137
45) Carbon Tetrachloride	(1)	5.811	117	5001500	76.138
46) Benzene	(2)	5.990	78	6682642	69.861
47) 1,2-Dichloroethane	(2)	6.011	62	3052558	69.512
48) Isooctane	(2)	6.033	57	10100518	74.037
49) Tert-Amyl Methyl Ether	(2)	6.069	73	6443203	76.039
50) Heptane	(2)	6.176	43	3481064	74.473
51)*1,4-Difluorobenzene	(2)	6.291	114	871437	10.000
52) Trichloroethene	(2)	6.491	130	3349648	69.864
53) Ethyl Acrylate	(2)	6.570	55	4735383	84.868
36) 1,2-Dichloroethene (total)	(1)		61	5762033	146.613
54) 1,2-Dichloropropane	(2)	6.678	63	2402615	71.719
57) Methyl Methacrylate	(2)	6.749	69	2478990	83.865
56) 1,4-Dioxane	(2)	6.771	88	1828414	79.974
55) Dibromomethane	(2)	6.771	174	3282693	74.981
58) Bromodichloromethane	(2)	6.885	83	5041637	75.023
59) cis-1,3-Dichloropropene	(2)	7.215	75	4324088	80.748
60) 4-Methyl-2-Pentanone	(2)	7.330	43	4842057	83.861
61) Toluene	(3)	7.466	91	8281625	71.616
62) Octane	(3)	7.516	43	4759194	73.732
63) trans-1,3-Dichloropropene	(3)	7.630	75	3887262	82.328
65) Ethyl Methacrylate	(3)	7.673	69	4271992	93.903
66) 1,1,2-Trichloroethane	(3)	7.774	97	2959726	72.395
67) Tetrachloroethene	(3)	7.874	166	5732108	81.573
68) 2-Hexanone	(3)	7.946	43	4999428	88.505
69) Dibromochloromethane	(3)	8.074	127	4323627	82.964
70) 1,2-Dibromoethane	(3)	8.168	107	4890472	77.875
71)*Chlorobenzene-d5	(3)	8.497	117	860210	10.000
72) Chlorobenzene	(3)	8.519	112	7249982	73.309
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	4095782	80.428
74) Ethylbenzene	(3)	8.583	91	10992108	75.403
75) m/p-Xylene	(3)	8.669	91	8713310	77.396
76) o-Xylene	(3)	8.970	91	8862765	80.409
78) Styrene	(3)	8.984	104	7013551	96.559

* = Compound is an internal standard.

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on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	5909742	94.282
80) Cumene	(3)	9.242	105	11794388	78.359
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	6888158	87.335
81) Bromobenzene	(3)	9.493	156	4706315	81.514
83) 1,2,3-Trichloropropane	(3)	9.514	110	2129564	79.904
84) n-Propylbenzene	(3)	9.550	120	3831870	83.315
86) 4-Ethyltoluene	(3)	9.629	105	12105366M	79.994
85) 2-Chlorotoluene	(3)	9.629	126	3563387	82.417
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	10544479M	82.193
88) Alpha Methyl Styrene	(3)	9.851	118	5758858	116.947
89) tert-Butylbenzene	(3)	9.930	119	10047905M	81.453
90) 1,2,4-Trimethylbenzene	(3)	9.966	105	10695993	89.414
91) sec-Butylbenzene	(3)	10.094	105	13158272	74.348
92) 1,3-Dichlorobenzene	(3)	10.195	146	8466927	93.458
94) p-Isopropyltoluene	(3)	10.195	119	12573857	88.700
93) 1,4-Dichlorobenzene	(3)	10.259	146	8230805	90.231
95) Benzyl Chloride	(3)	10.367	91	10160469M	143.789
97) n-Butylbenzene	(3)	10.510	91	11820317	94.201
96) 1,2-Dichlorobenzene	(3)	10.553	146	7831594	96.501
98) Hexachloroethane	(3)	10.739	117	3579897	99.051
99) 1,2-Dibromo-3-chloropropane	(3)	11.147	157	5072891	171.498
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	7902743	162.083
101) Hexachlorobutadiene	(3)	11.878	225	6646791	144.832
102) Naphthalene	(3)	11.971	128	14154362	159.914
64) 1,3-Dichloropropene (total)	(3)		75	8211350	162.064
77) Xylene (total)	(3)		91	17576075	157.772

M = Compound was manually integrated.

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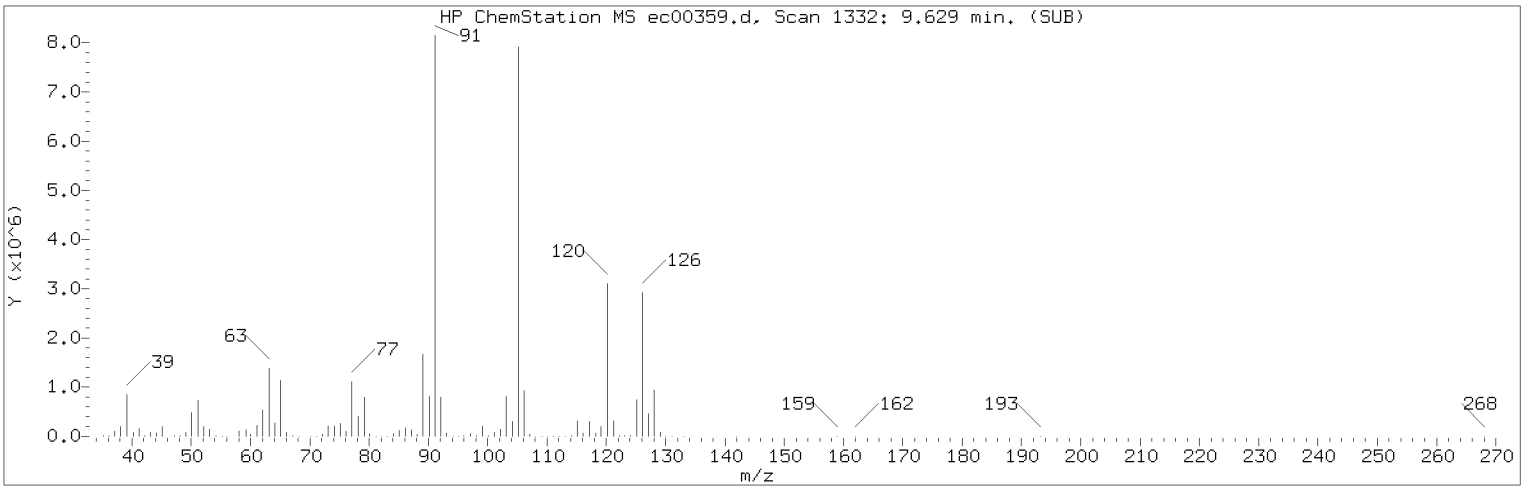
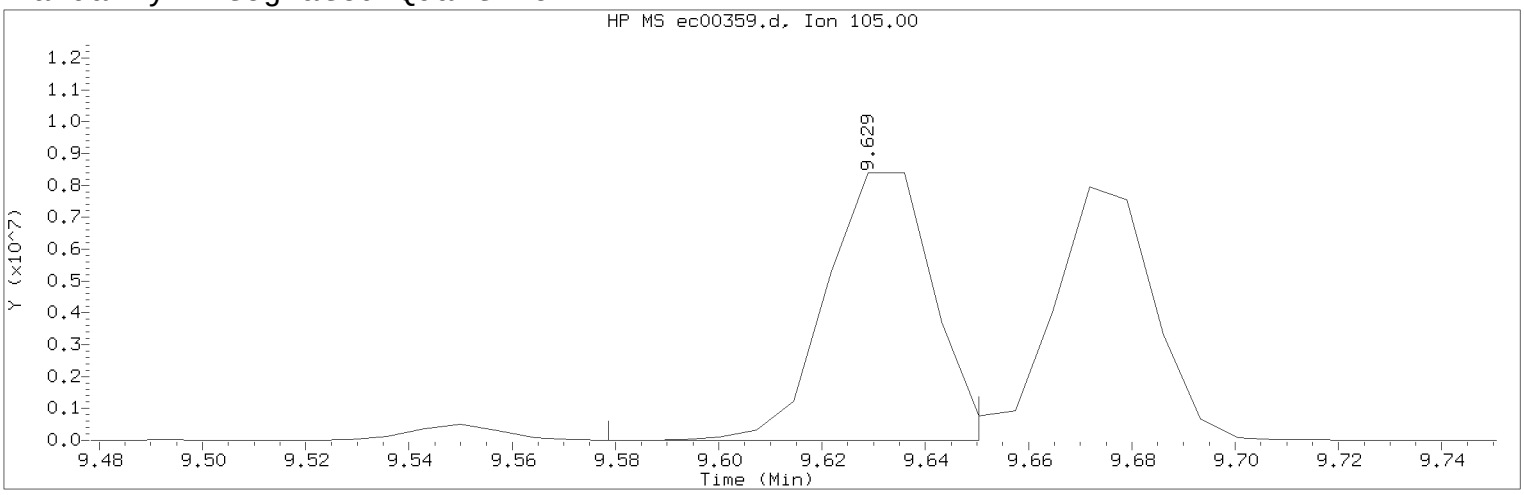
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

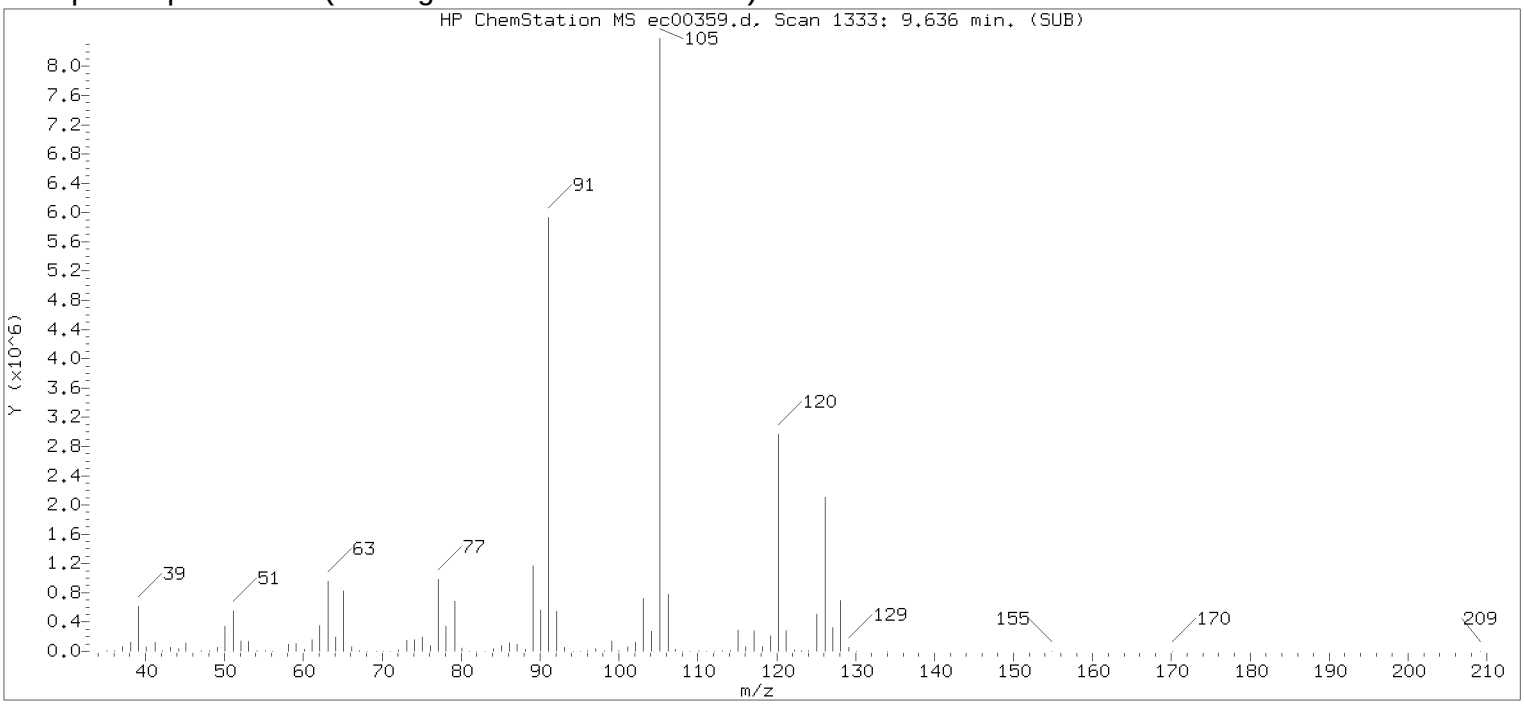
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 12105366M
Concentration (ppb(v)) : 79.9939
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 1225 Y at integration end: 1225

Reason for manual integration: improper integration

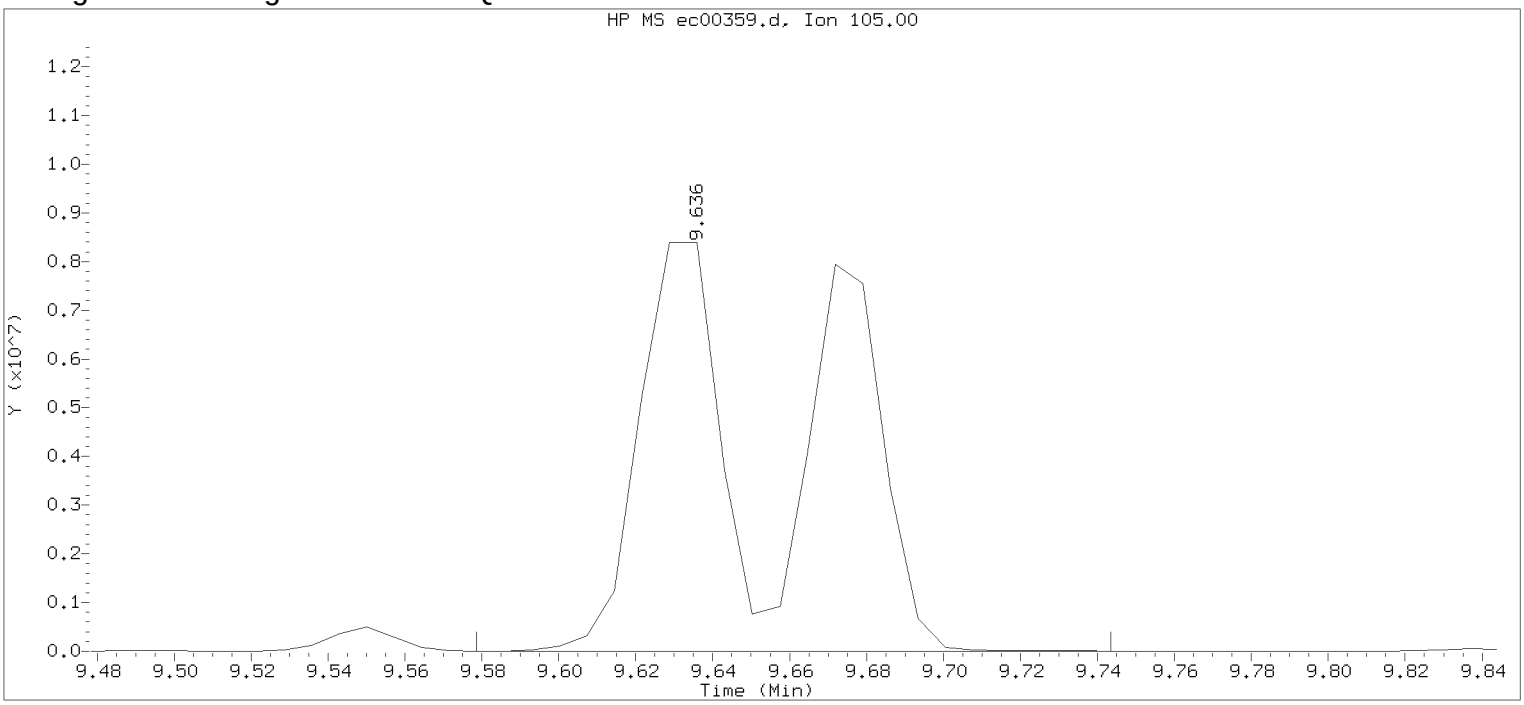
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:42
Date, time and analyst ID of latest file update: 13-Mar-2017 20:16 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1333
Retention Time (minutes): 9.636
Quant Ion : 105.00
Area : 22675385
Concentration (ppb(v)) : 149.8419
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 1225 Y at integration end: 1225

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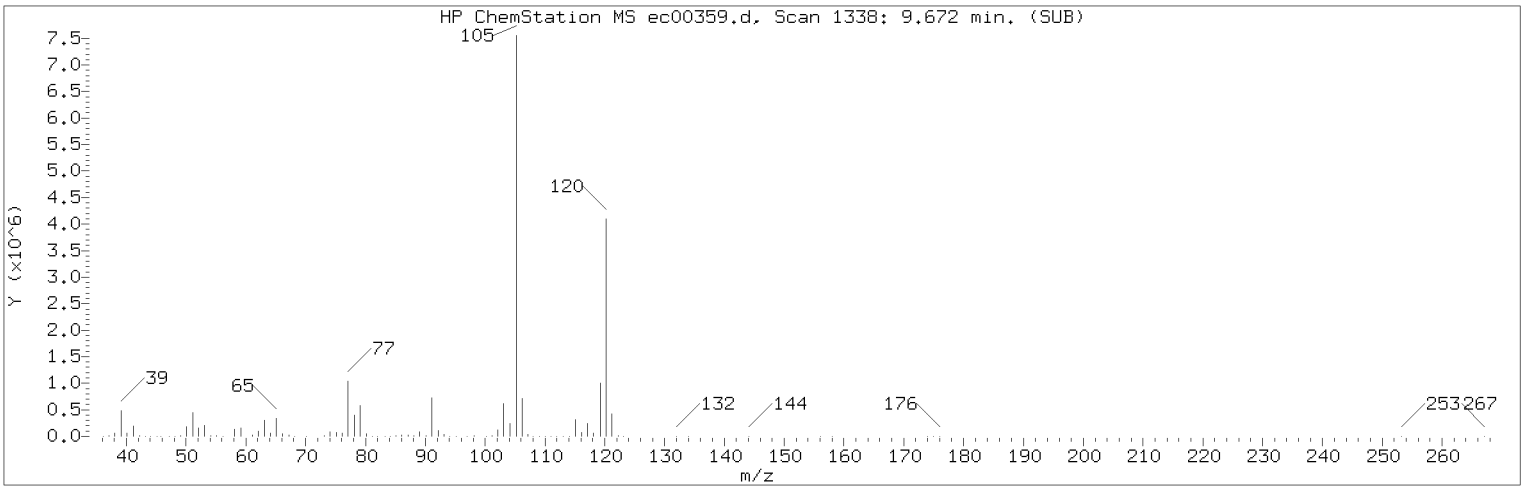
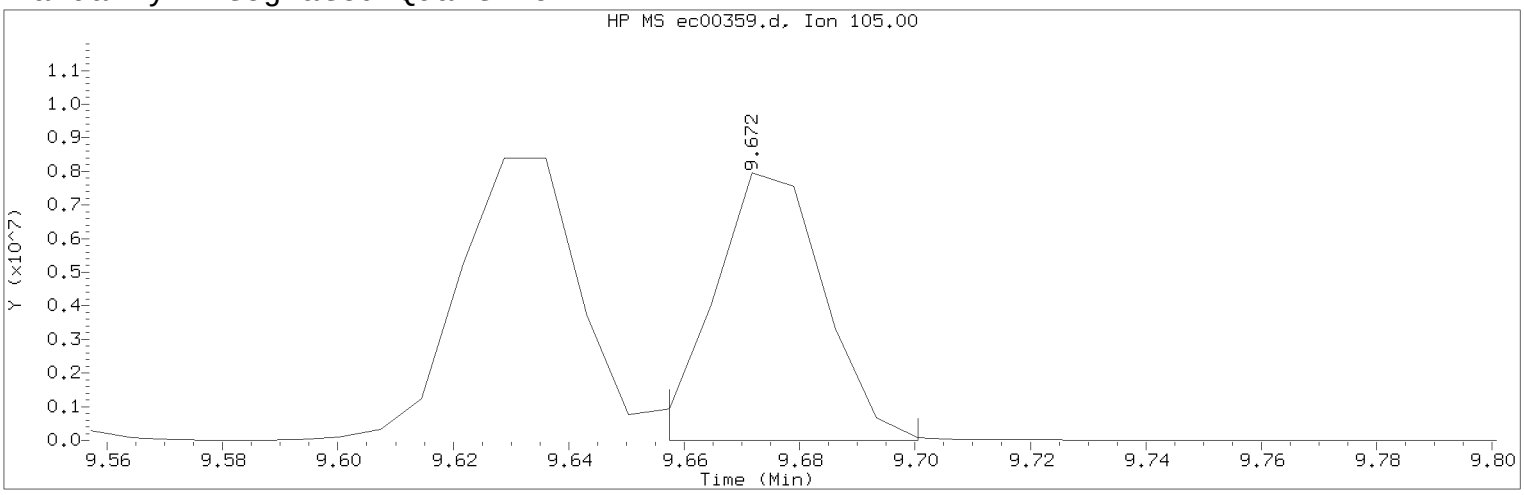
Target 3.5 esignature user id: 71 and Page 604 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

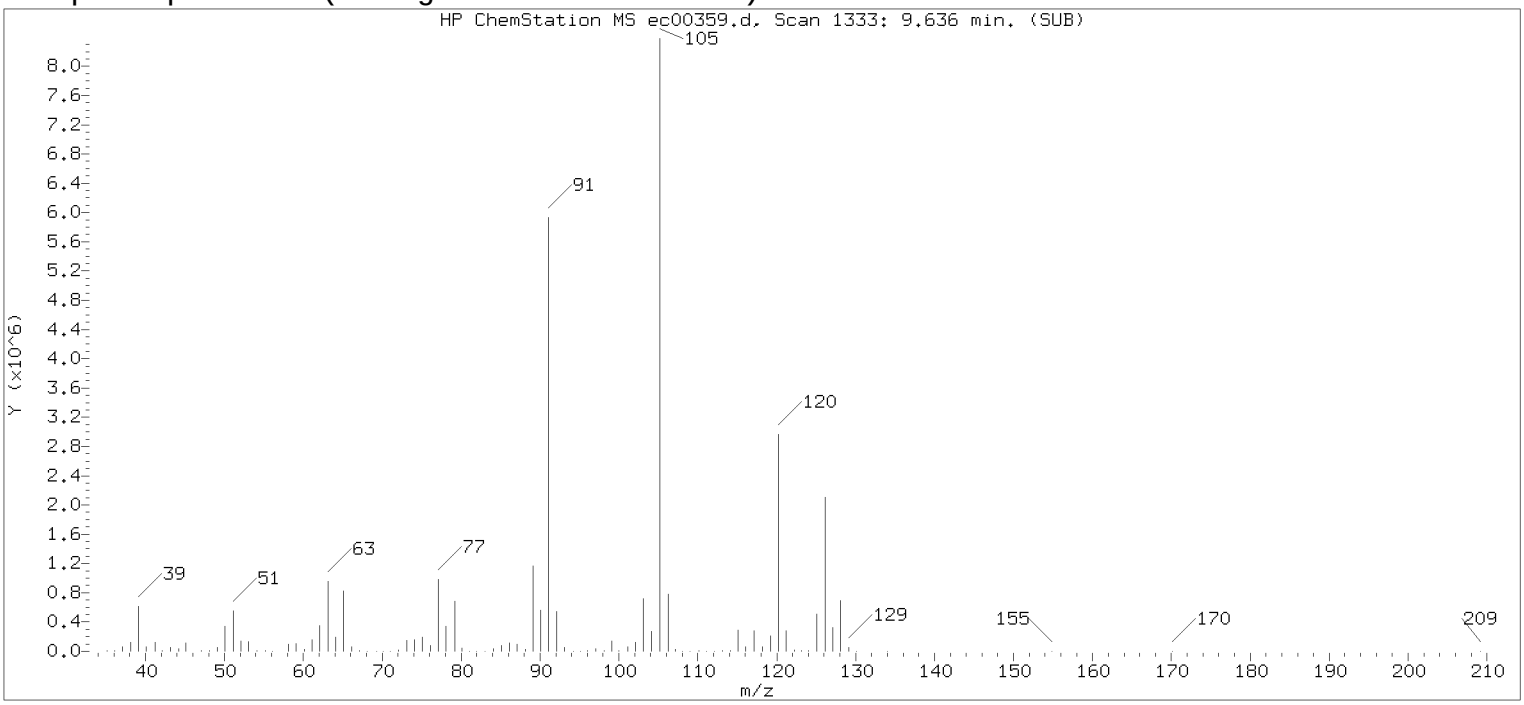
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 10544479M
Concentration (ppb(v)) : 82.1926
Integration start scan : 1335 Integration stop scan: 1341
Y at integration start : 562 Y at integration end: 562

Reason for manual integration: improper integration

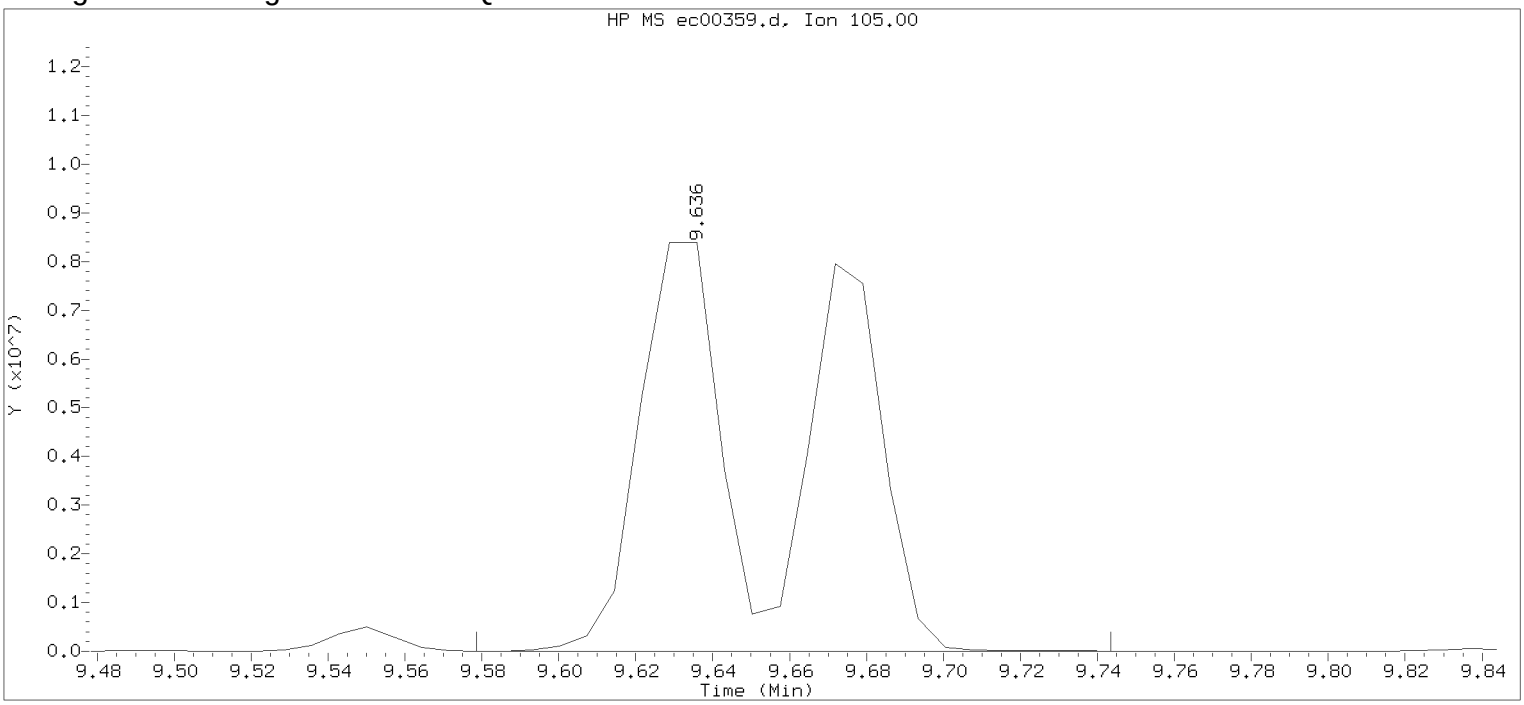
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

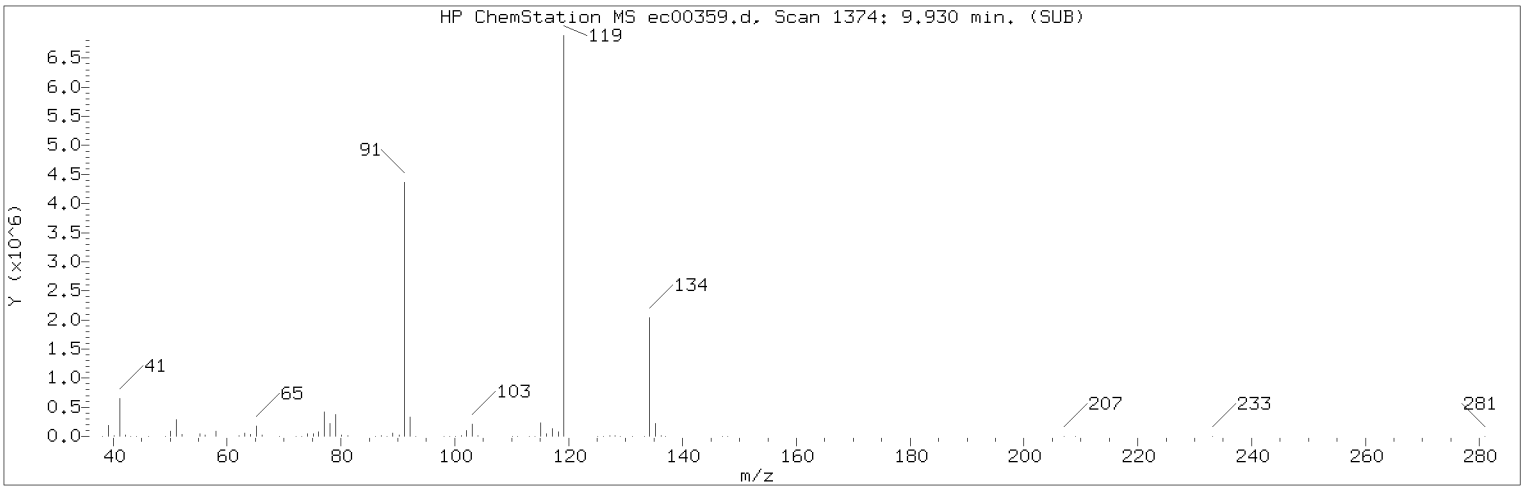
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:42
Date, time and analyst ID of latest file update: 13-Mar-2017 20:16 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

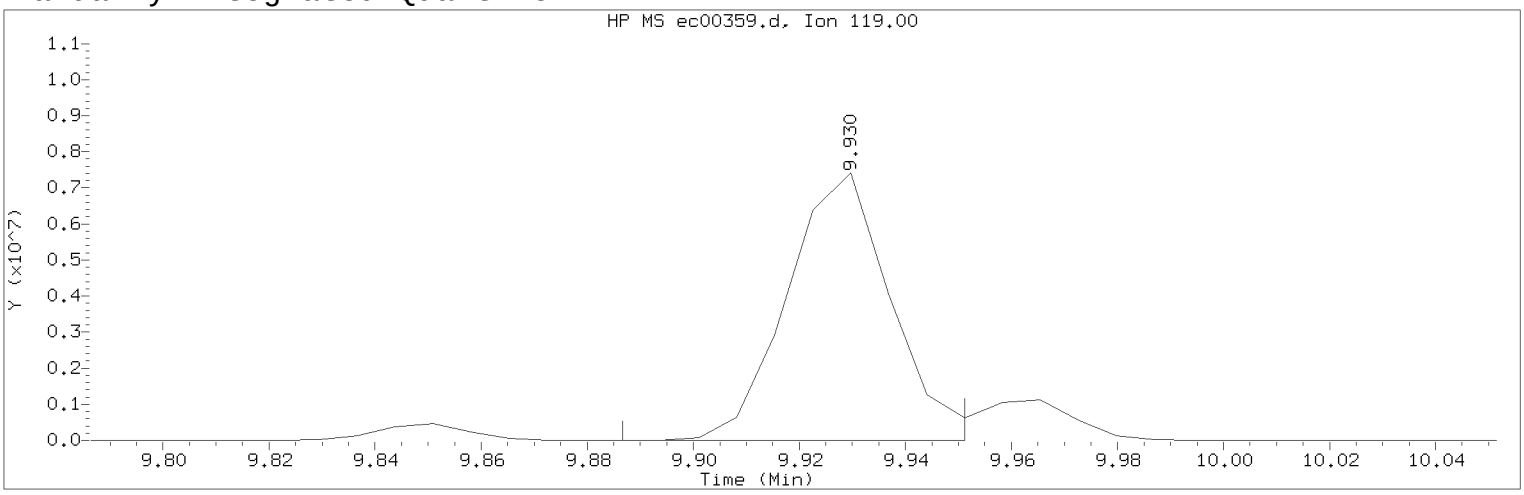
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1333
Retention Time (minutes): 9.636
Quant Ion : 105.00
Area : 22662979
Concentration (ppb(v)) : 183.0302
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 2480 Y at integration end: 2480

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07806

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

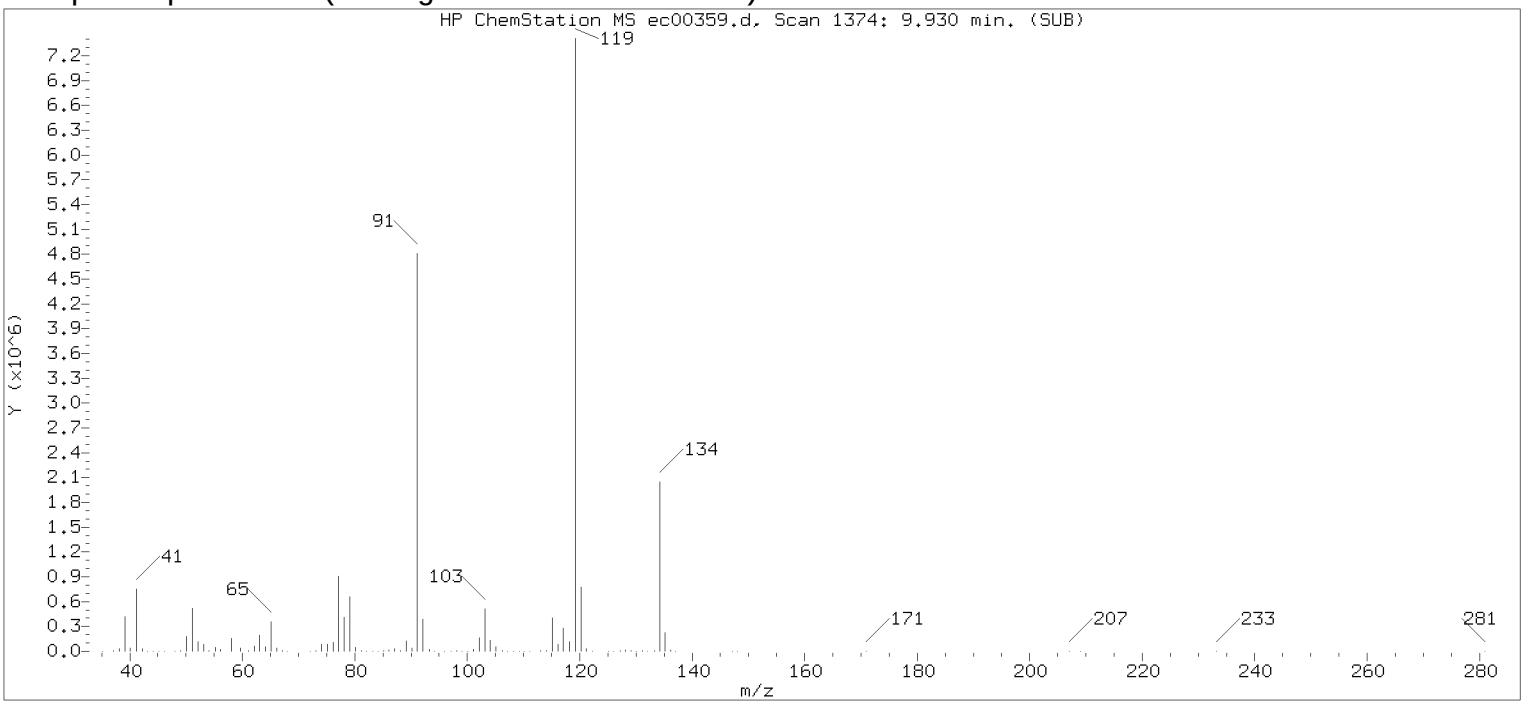
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area (flag) : 10047905M
Concentration (ppb(v)) : 81.4527
Integration start scan : 1367 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

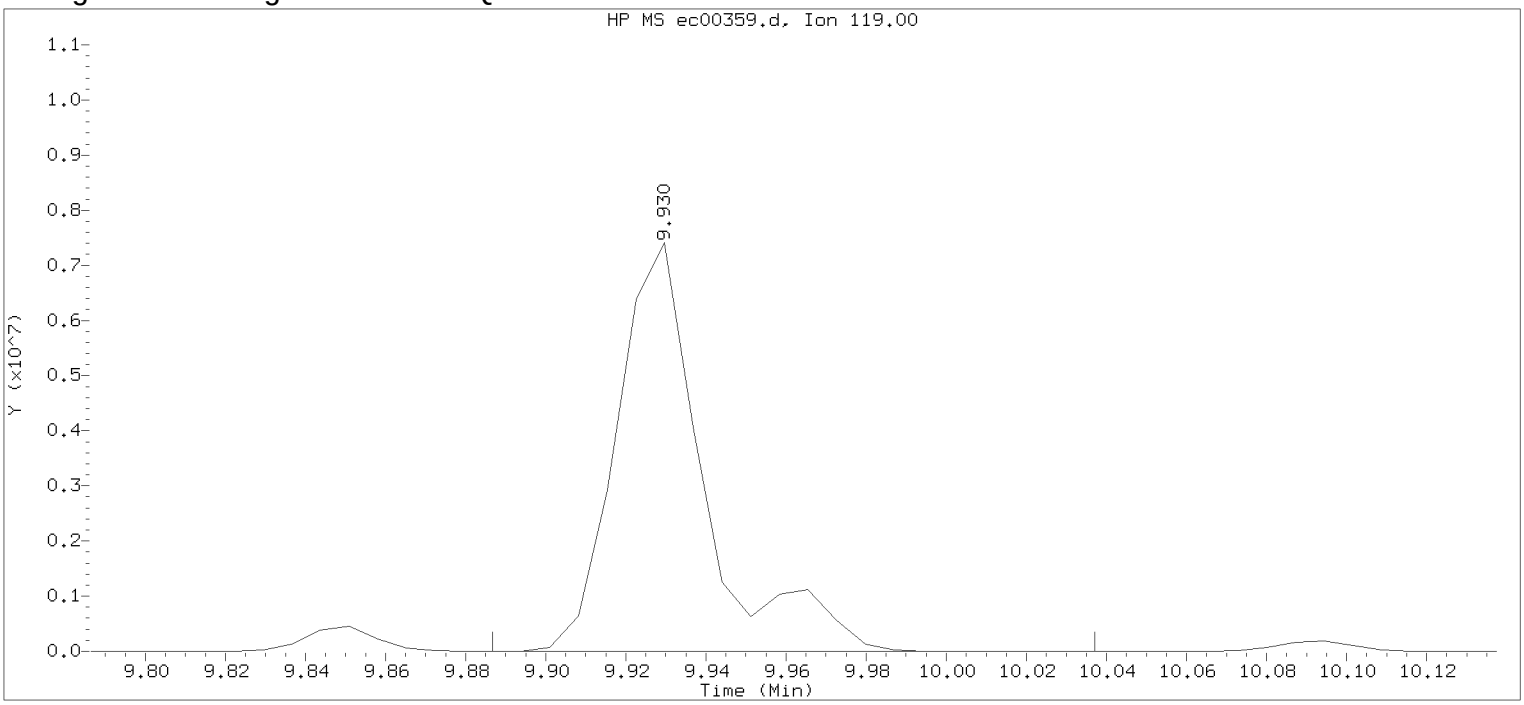
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

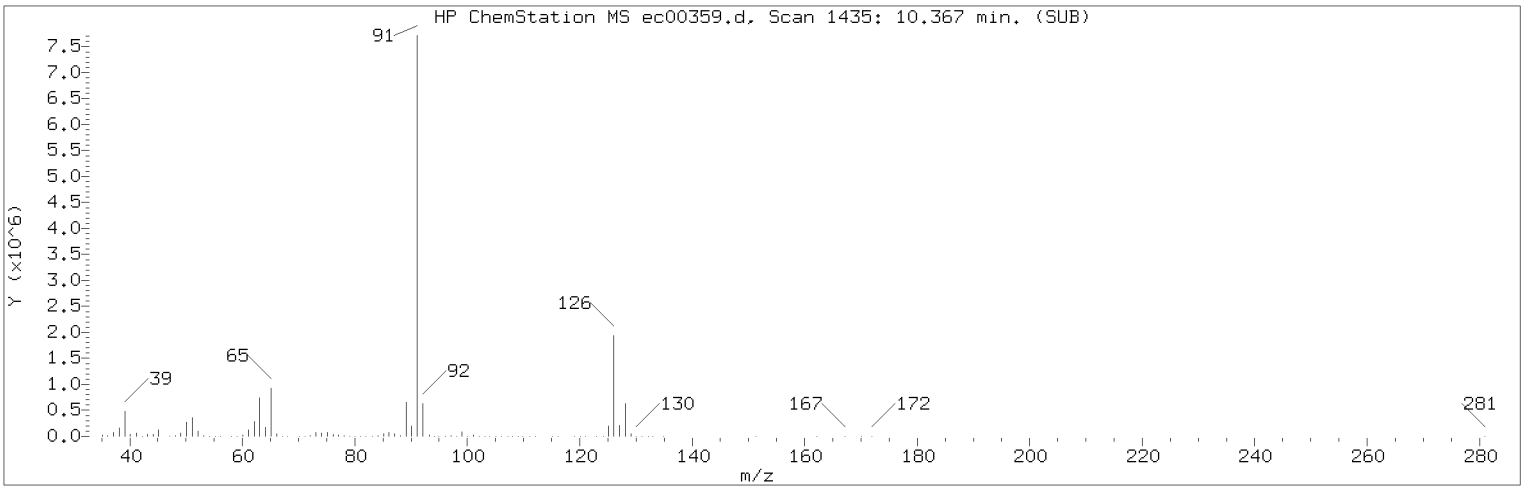
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:42
Date, time and analyst ID of latest file update: 13-Mar-2017 20:16 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

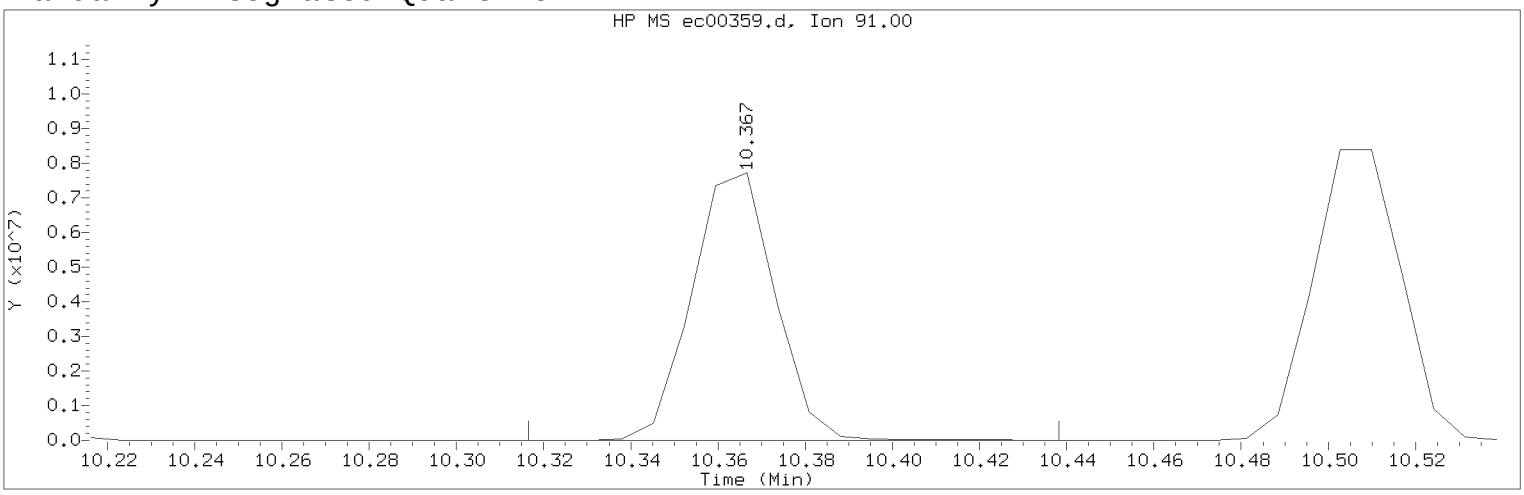
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area : 11283957
Concentration (ppb(v)) : 91.4726
Integration start scan : 1367 Integration stop scan: 1388
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07808

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 20:21 jeb07445

Sample Name: VSTD070 Lab Sample ID: VSTD070

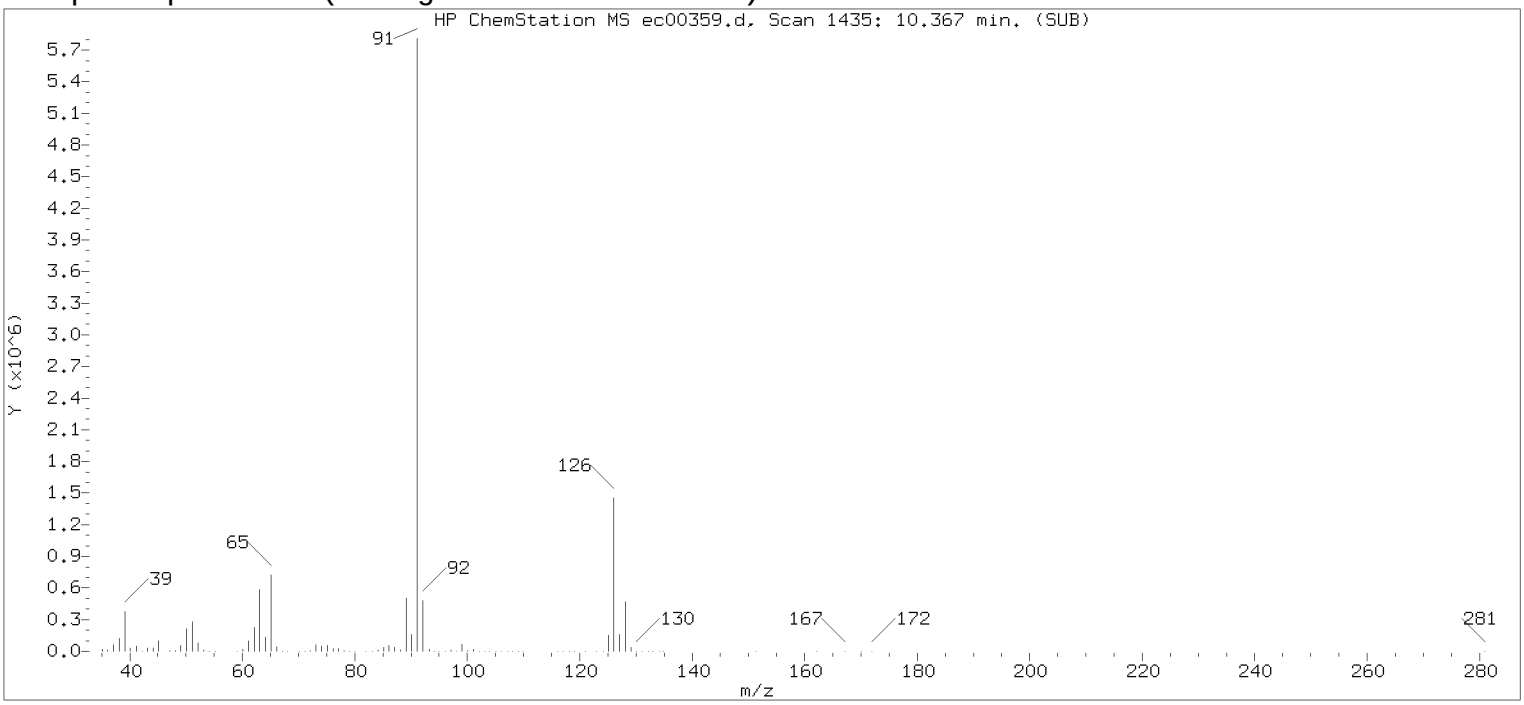
Compound Number : 95
Compound Name : Benzyl Chloride
Scan Number : 1435
Retention Time (minutes): 10.367
Quant Ion : 91.00
Area (flag) : 10160469M
Concentration (ppb(v)) : 143.7889
Integration start scan : 1427 Integration stop scan: 1444
Y at integration start : 1645 Y at integration end: 7580

Reason for manual integration: improper integration

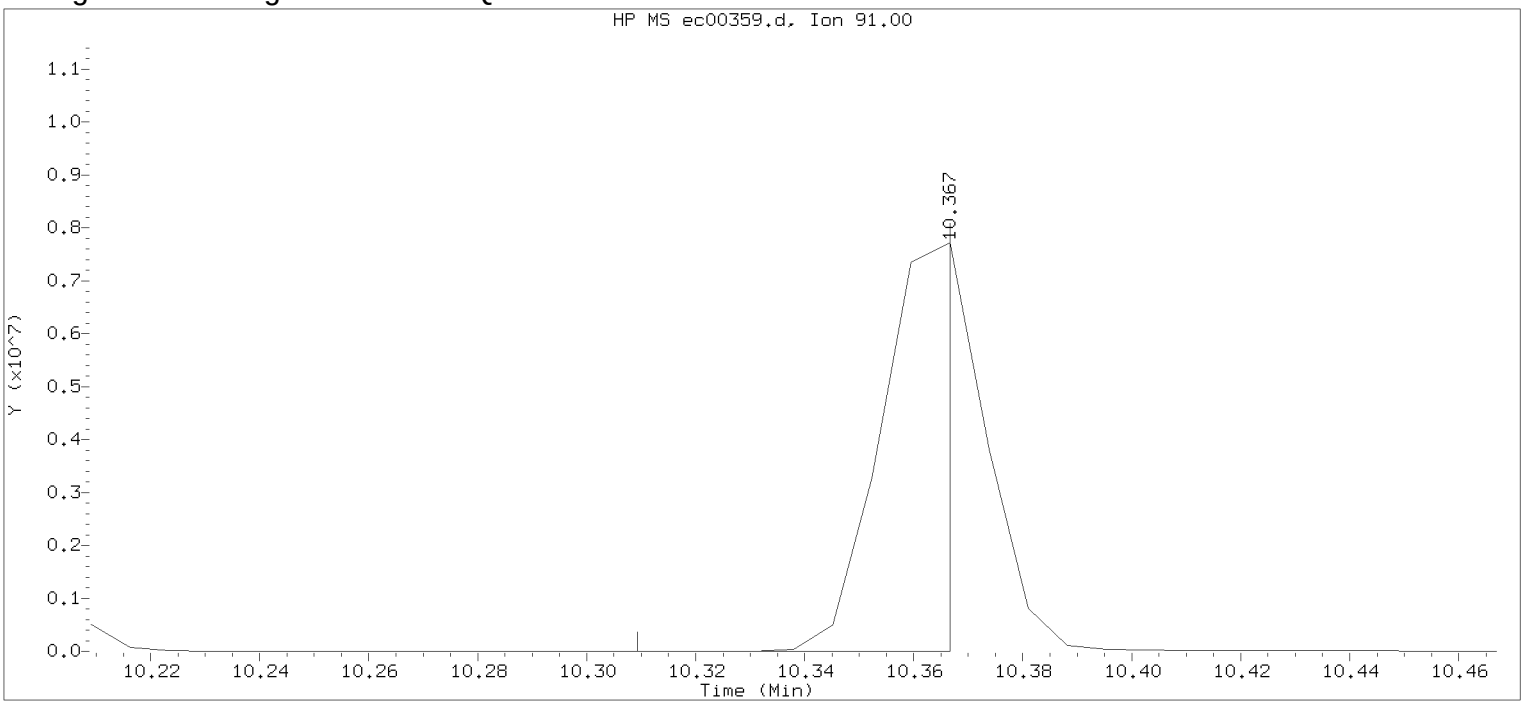
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:00.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



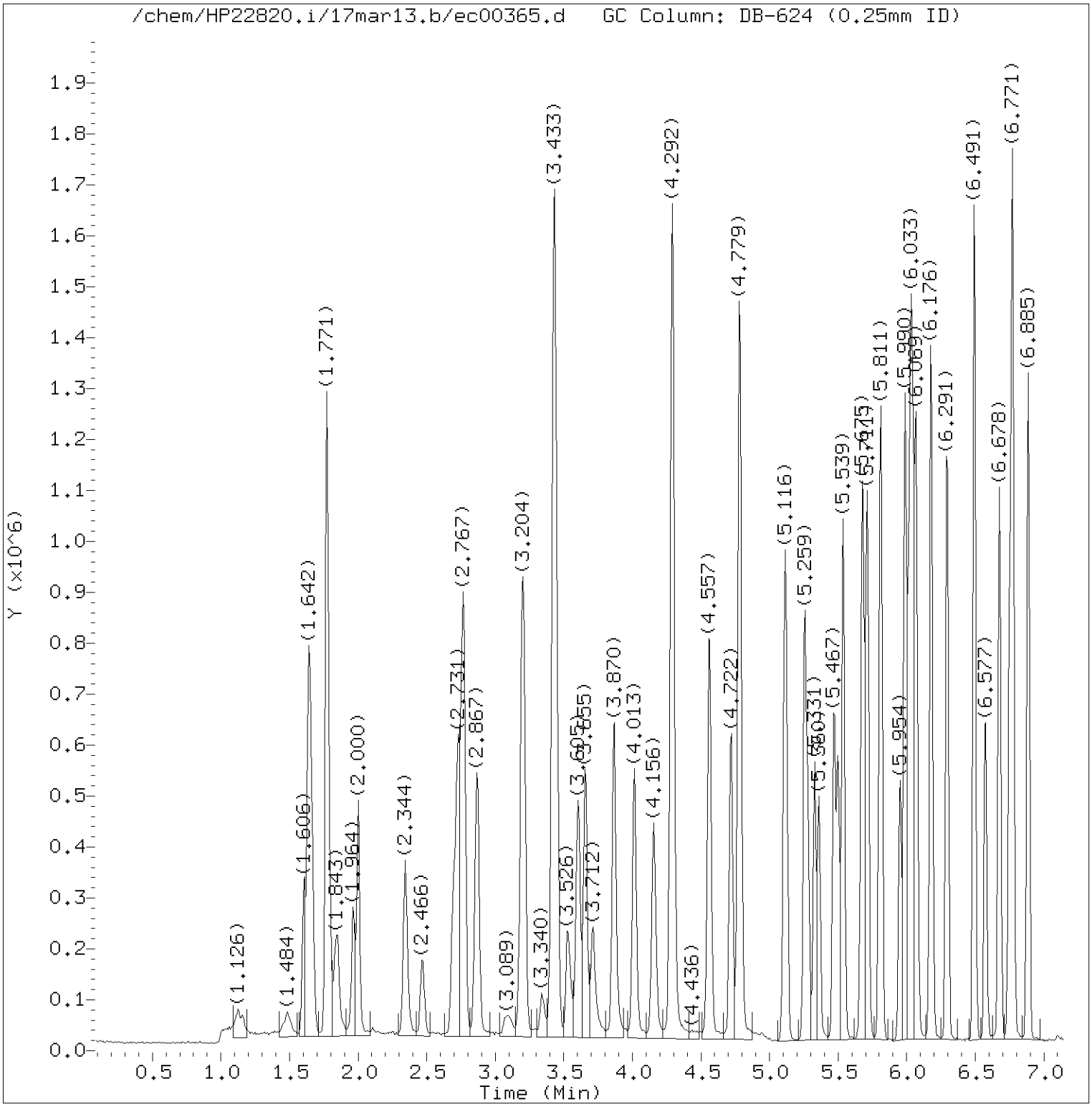
Data File: /chem/HP22820.i/17mar13.b/ec00359.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 19:57 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 19:42
Date, time and analyst ID of latest file update: 13-Mar-2017 20:16 Unknown

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 95
Compound Name : Benzyl Chloride
Scan Number : 1435
Retention Time (minutes): 10.367
Quant Ion : 91.00
Area : 6451746
Concentration (ppb(v)) : 91.3037
Integration start scan : 1426 Integration stop scan: 1434
Y at integration start : 1276 Y at integration end: 1276

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and 07818



Total Ion Chromatogram (TIC)

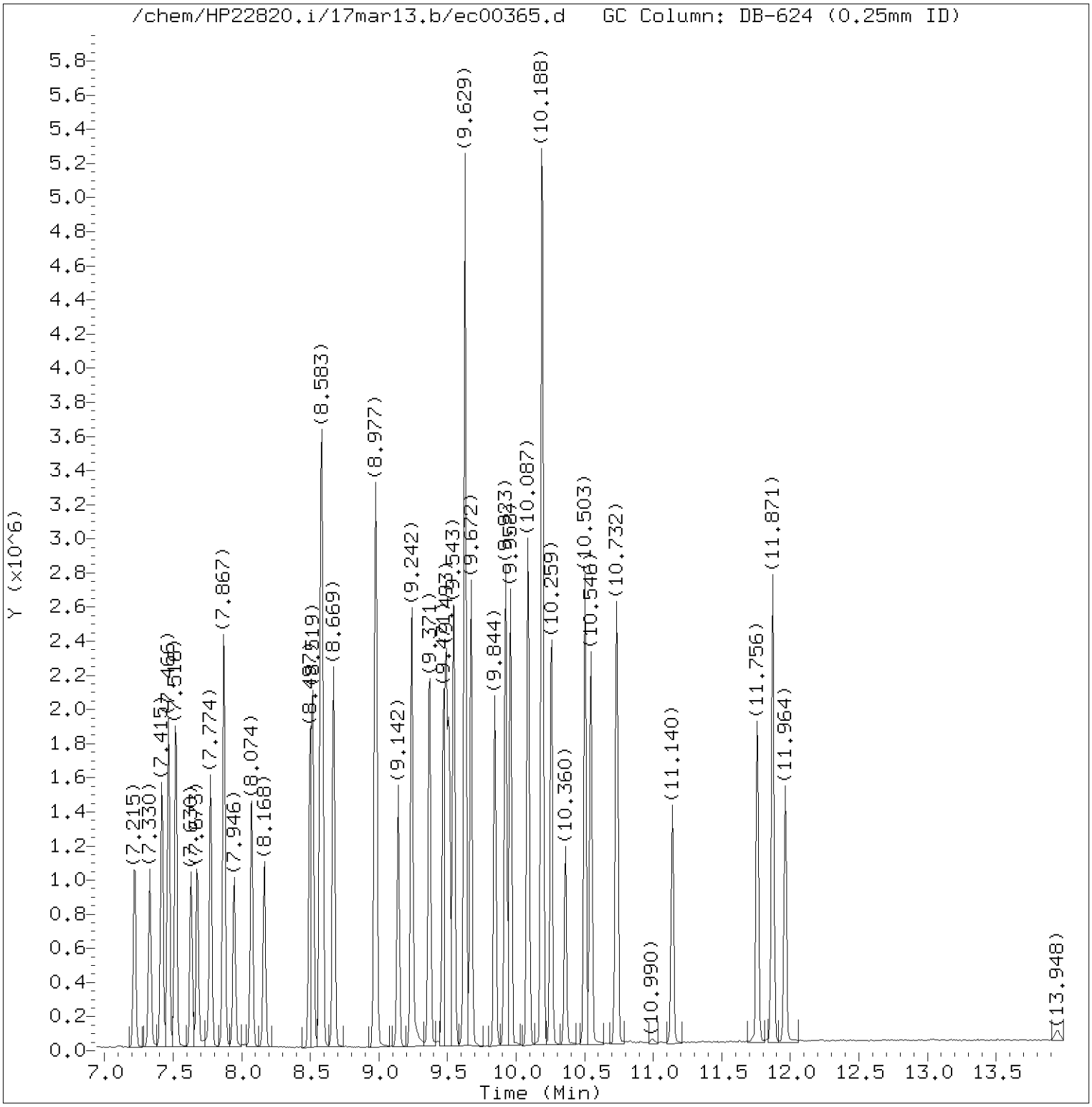
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	174459	9.717
2) Dichlorodifluoromethane	(1)	1.642	85	748313	10.452
3) Chlorodifluoromethane	(1)	1.664	51	411973	10.658
4) Freon 114	(1)	1.771	85	733165	10.322
5) Chloromethane	(1)	1.850	50	195598	8.899
6) Vinyl Chloride	(1)	1.964	62	267097	10.611
7) 1,3-Butadiene	(1)	2.000	54	179959	10.158
8) Bromomethane	(1)	2.344	94	267710	10.069
9) Chloroethane	(1)	2.466	64	148080	10.688
10) Bromoethene	(1)	2.695	106	260041	10.467
11) Dichlorofluoromethane	(1)	2.731	67	630019	10.849
12) Trichlorofluoromethane	(1)	2.767	101	785107	10.469
13) Pentane	(1)	2.867	43	386851	10.083
14) Ethanol	(1)	3.075	45	55981	7.558
15) Freon123a	(1)	3.204	67	587174	10.892
16) Acrolein	(1)	3.340	56	88490	10.183
17) 1,1-Dichloroethene	(1)	3.426	61	429143	10.520
18) Freon 113	(1)	3.440	103	413336	10.392
19) Acetone	(1)	3.526	43	348880	9.593
20) Methyl Iodide	(1)	3.605	142	620206	11.187
21) Carbon Disulfide	(1)	3.655	76	746541	10.100
22) Isopropanol	(1)	3.712	45	304851	10.505
24) 3-Chloropropene	(1)	3.863	76	137536	12.912
23) Acetonitrile	(1)	3.870	40	144273	8.487
25) Methylene Chloride	(1)	4.013	84	254627	11.560
26) tert-Butyl Alcohol	(1)	4.156	59	476140	11.148
28) trans-1,2-Dichloroethene	(1)	4.292	61	388617	10.485
29) Methyl t-Butyl Ether	(1)	4.292	73	747816	10.553
27) Acrylonitrile	(1)	4.300	53	213812	10.531
30) Hexane	(1)	4.565	57	380525	10.550
31) 1,1-Dichloroethane	(1)	4.722	63	505551	10.576
32) Vinyl Acetate	(1)	4.779	86	70812	11.522
33) Di-Isopropyl Ether	(1)	4.779	45	795987	10.580
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	761428	10.510
35) cis-1,2-Dichloroethene	(1)	5.259	61	368515	10.496
37) 2-Butanone	(1)	5.281	72	129762	9.824
38) Ethyl Acetate	(1)	5.331	70	62419	9.582
39) Methyl Acrylate	(1)	5.360	55	431517	10.530

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	203512	10.000
41) Tetrahydrofuran	(1)	5.503	42	272661	10.594
42) Chloroform	(1)	5.539	83	619580	10.467
43) 1,1,1-Trichloroethane	(1)	5.675	97	618462	10.529
44) Cyclohexane	(1)	5.711	56	420302	10.814
45) Carbon Tetrachloride	(1)	5.811	117	645377	10.701
46) Benzene	(2)	5.990	78	884431	10.263
47) 1,2-Dichloroethane	(2)	6.012	62	411843	10.410
48) Isooctane	(2)	6.033	57	1260671	10.257
49) Tert-Amyl Methyl Ether	(2)	6.069	73	786006	10.297
50) Heptane	(2)	6.176	43	444288	10.551
51)*1,4-Difluorobenzene	(2)	6.298	114	785061	10.000
52) Trichloroethene	(2)	6.491	130	429731	9.949
53) Ethyl Acrylate	(2)	6.570	55	517148	10.288
36) 1,2-Dichloroethene (total)	(1)		61	757132	20.981
54) 1,2-Dichloropropane	(2)	6.678	63	310923	10.302
57) Methyl Methacrylate	(2)	6.749	69	272809	10.245
55) Dibromomethane	(2)	6.771	174	403170	10.222
56) 1,4-Dioxane	(2)	6.778	88	202147	9.815
58) Bromodichloromethane	(2)	6.885	83	620715	10.253
59) cis-1,3-Dichloropropene	(2)	7.215	75	485410	10.062
60) 4-Methyl-2-Pentanone	(2)	7.330	43	535621	10.297
61) Toluene	(3)	7.466	91	1063409	10.388
62) Octane	(3)	7.516	43	595137	10.415
63) trans-1,3-Dichloropropene	(3)	7.630	75	417659	9.992
65) Ethyl Methacrylate	(3)	7.673	69	443479	11.012
66) 1,1,2-Trichloroethane	(3)	7.774	97	382077	10.557
67) Tetrachloroethene	(3)	7.874	166	592297	9.522
68) 2-Hexanone	(3)	7.946	43	481081	9.621
69) Dibromochloromethane	(3)	8.074	127	475517	10.307
70) 1,2-Dibromoethane	(3)	8.168	107	568775	10.231
71)*Chlorobenzene-d5	(3)	8.497	117	761493	10.000
72) Chlorobenzene	(3)	8.519	112	865820	9.890
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	459165	10.185
74) Ethylbenzene	(3)	8.583	91	1345227	10.424
75) m/p-Xylene	(3)	8.669	91	1037425	10.409
76) o-Xylene	(3)	8.970	91	1023655	10.491
78) Styrene	(3)	8.984	104	738933	11.492

* = Compound is an internal standard.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

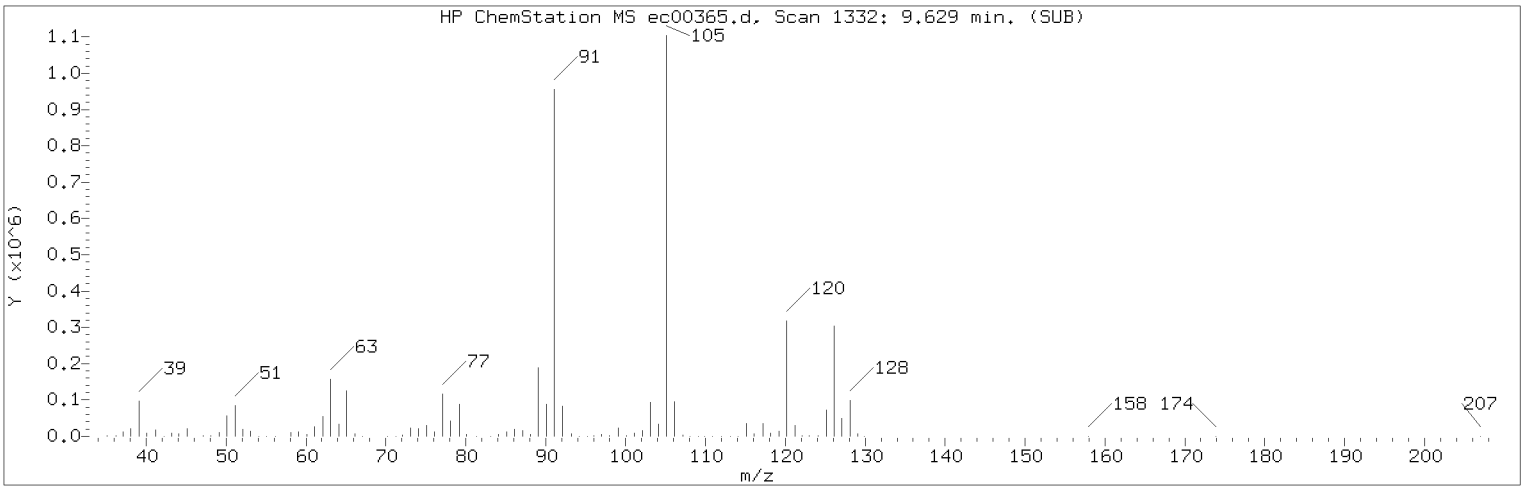
Sample Name: LCSE34 Lab Sample ID: LCSE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	539754	9.727
80) Cumene	(3)	9.242	105	1441614	10.819
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	737938	10.569
81) Bromobenzene	(3)	9.493	156	508941	9.958
83) 1,2,3-Trichloropropane	(3)	9.514	110	240693	10.202
84) n-Propylbenzene	(3)	9.550	120	406319	9.980
86) 4-Ethyltoluene	(3)	9.629	105	1438828M	10.741
85) 2-Chlorotoluene	(3)	9.629	126	385684	10.077
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1188765M	10.467
88) Alpha Methyl Styrene	(3)	9.844	118	499864	11.467
89) tert-Butylbenzene	(3)	9.923	119	1125765M	10.309
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1158566	10.941
91) sec-Butylbenzene	(3)	10.087	105	1675015	10.691
94) p-Isopropyltoluene	(3)	10.188	119	1362310	10.856
92) 1,3-Dichlorobenzene	(3)	10.195	146	834819	10.409
93) 1,4-Dichlorobenzene	(3)	10.259	146	814587	10.088
95) Benzyl Chloride	(3)	10.360	91	664551	10.624
97) n-Butylbenzene	(3)	10.503	91	1193354	10.743
96) 1,2-Dichlorobenzene	(3)	10.546	146	741322	10.319
98) Hexachloroethane	(3)	10.732	117	389189	12.164
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	305355	11.661
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	496904	11.513
101) Hexachlorobutadiene	(3)	11.871	225	432023	10.634
102) Naphthalene	(3)	11.964	128	979546	12.501
64) 1,3-Dichloropropene (total)	(3)		75	903069	20.054
77) Xylene (total)	(3)		91	2061080	20.901

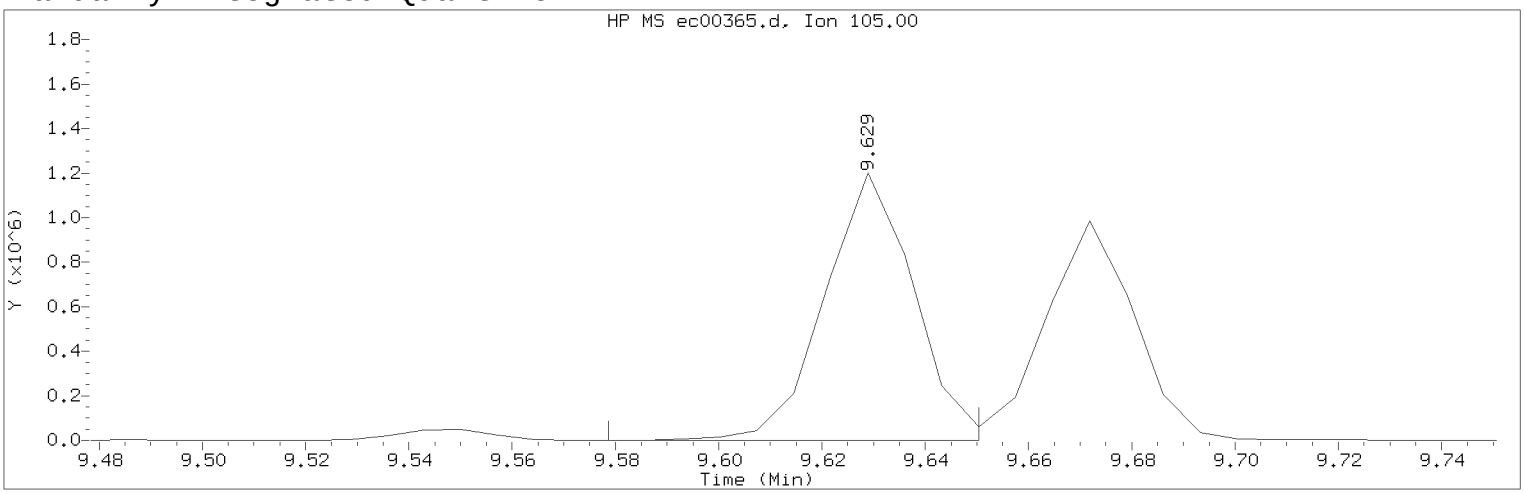
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

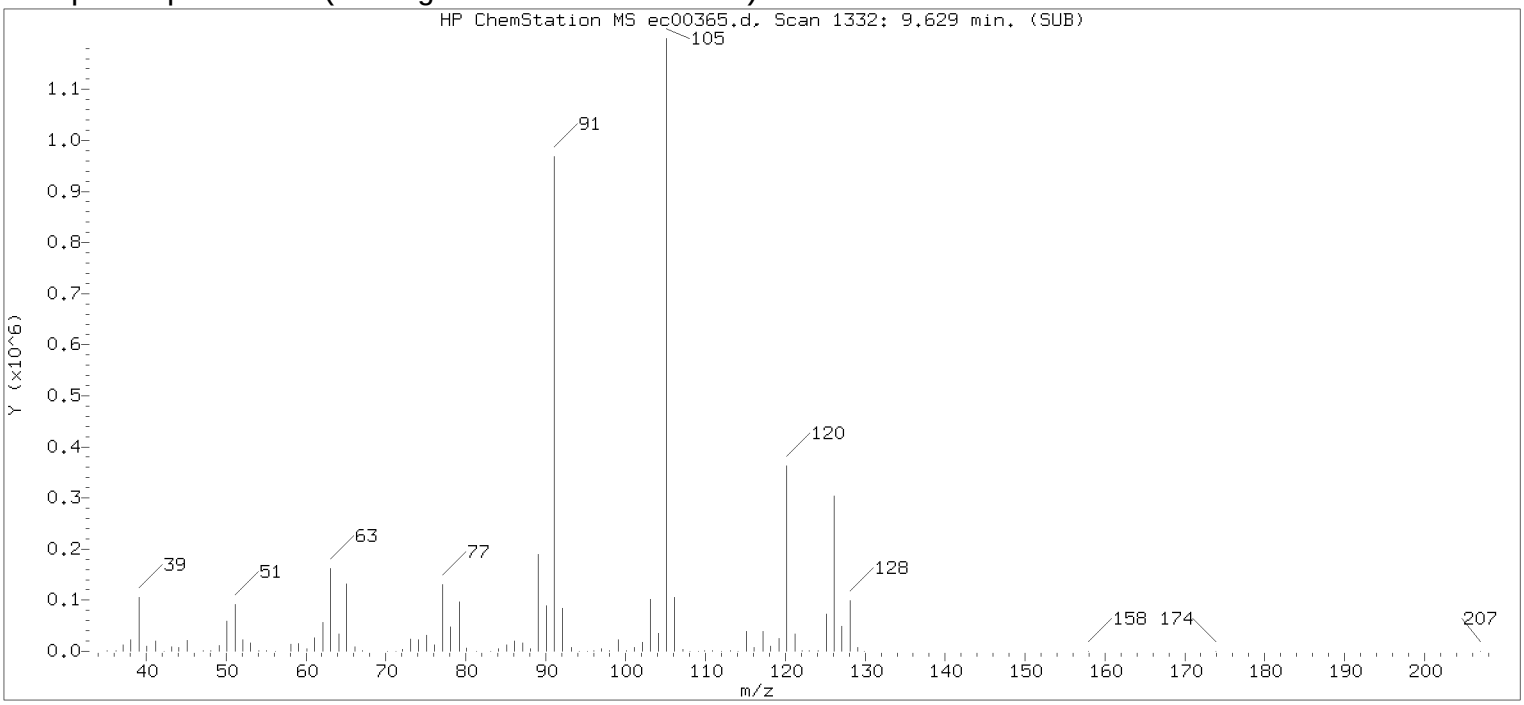
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1438828M
Concentration (ppb(v)) : 10.7406
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 597 Y at integration end: 597

Reason for manual integration: improper integration

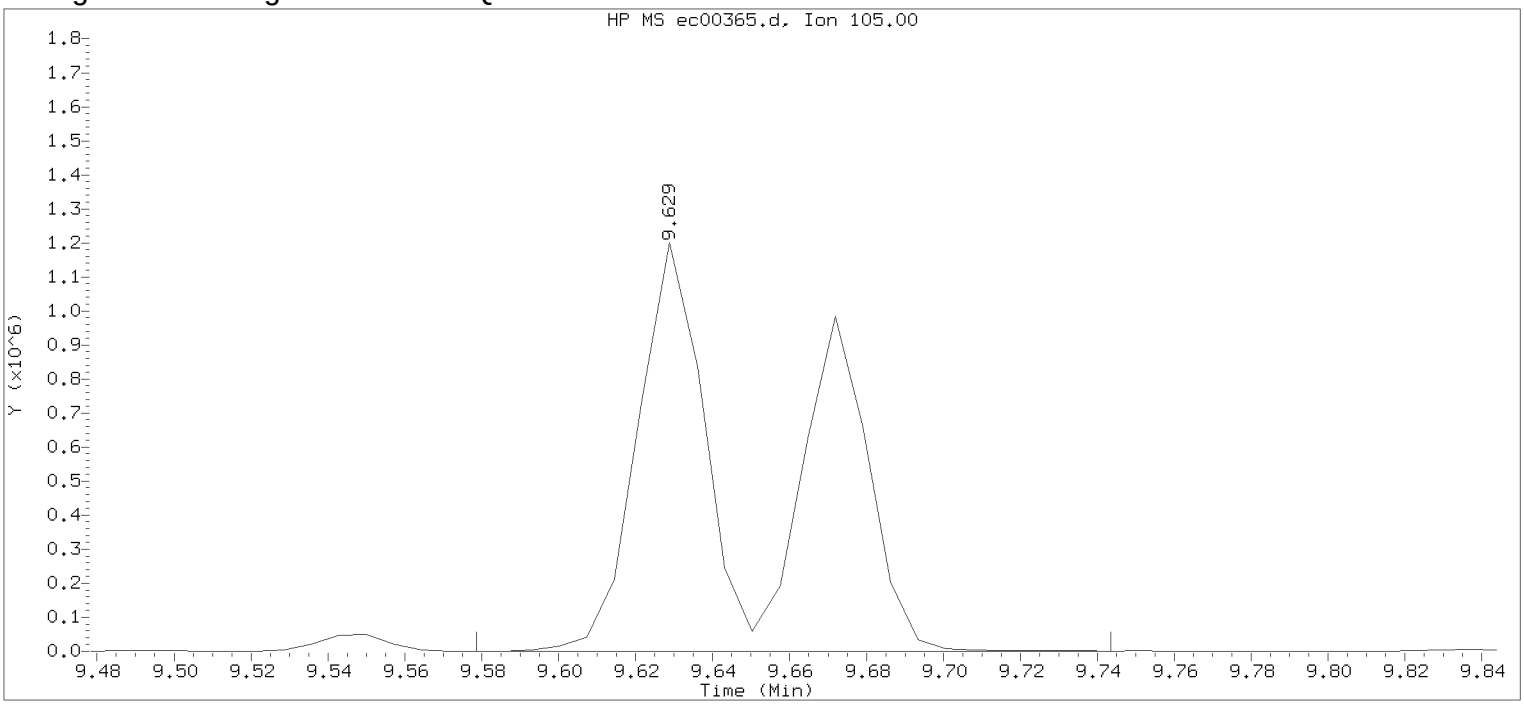
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

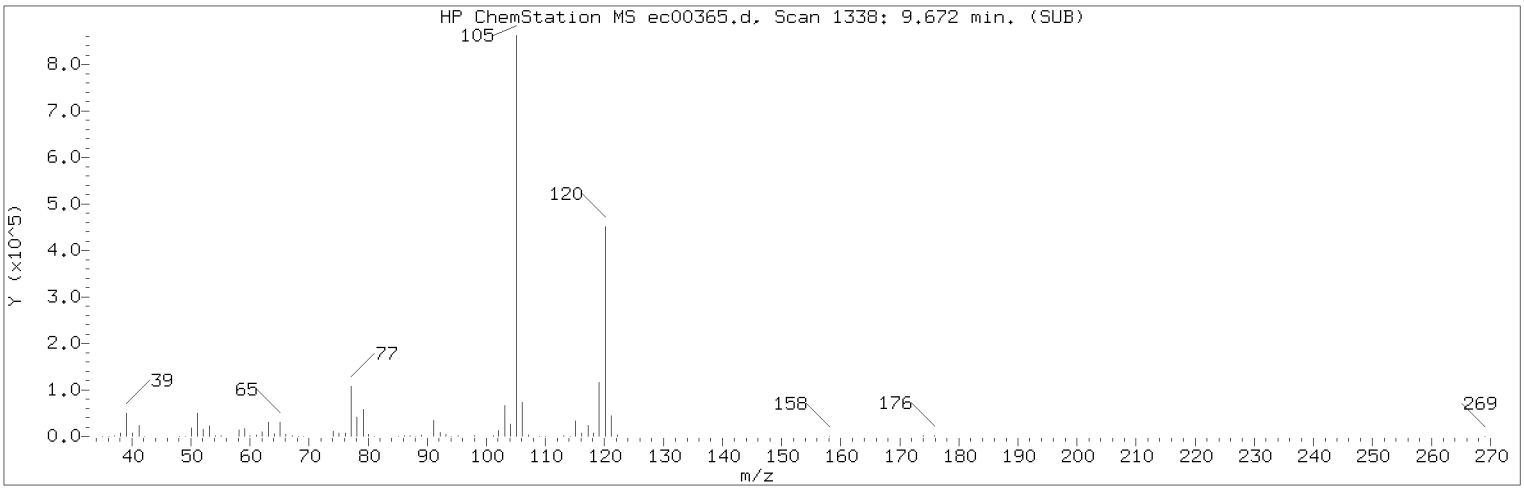
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 23:59 Unknown

Sample Name: LCSE34 Lab Sample ID: LCSE34

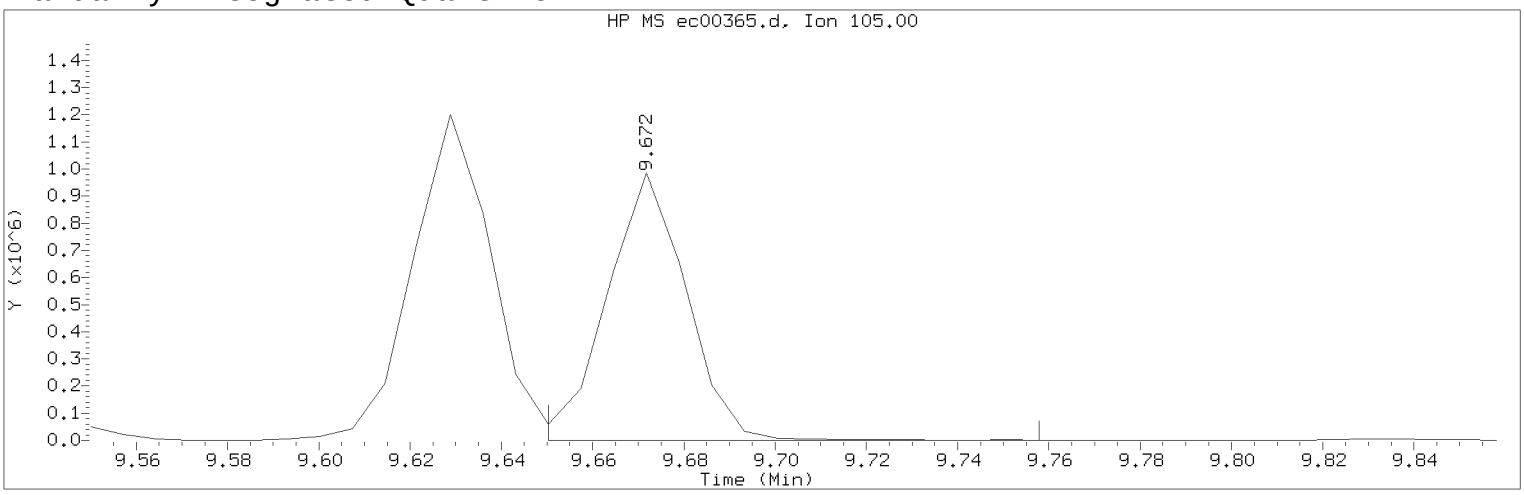
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2605604
Concentration (ppb(v)) : 19.4503
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 243 Y at integration end: 243

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: 71 and 07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

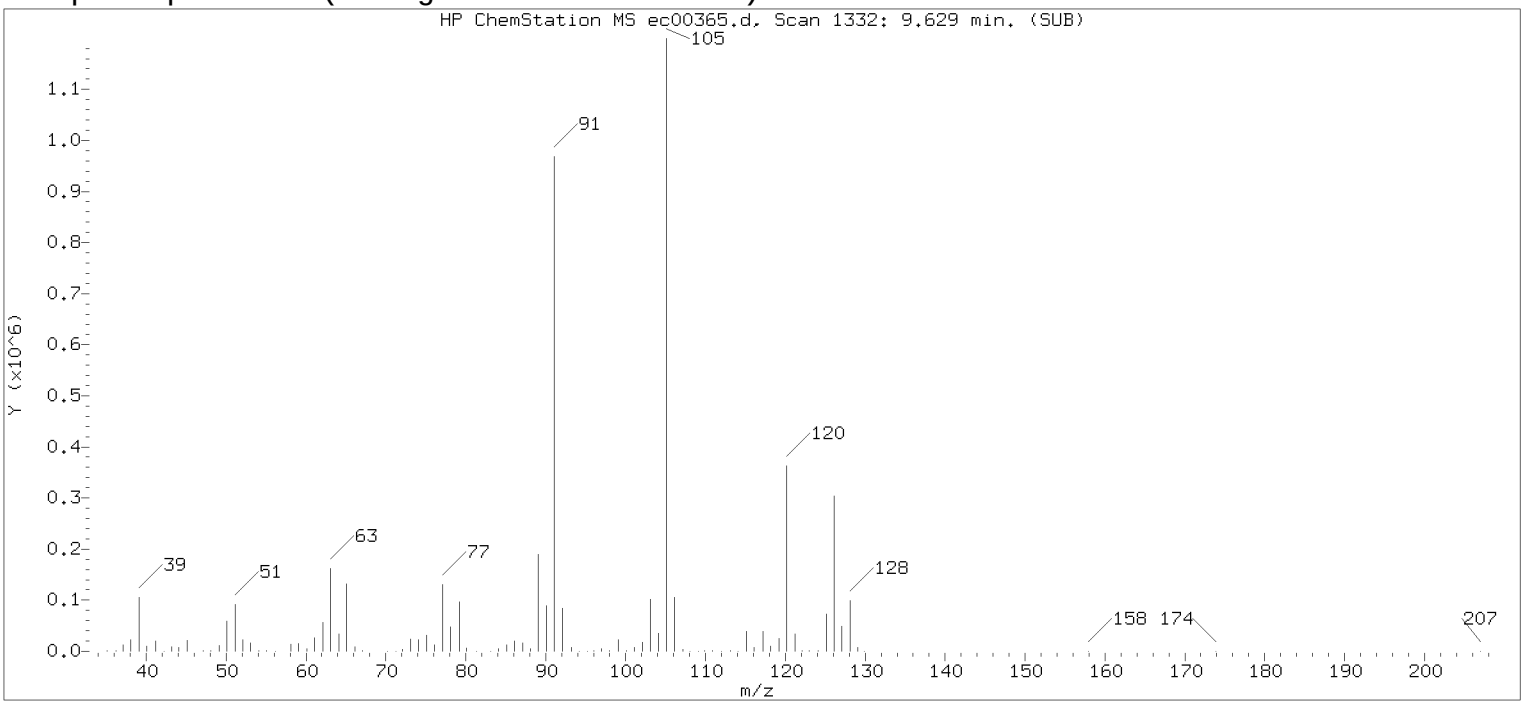
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1188765M
Concentration (ppb(v)) : 10.4675
Integration start scan : 1334 Integration stop scan: 1349
Y at integration start : 593 Y at integration end: 593

Reason for manual integration: improper integration

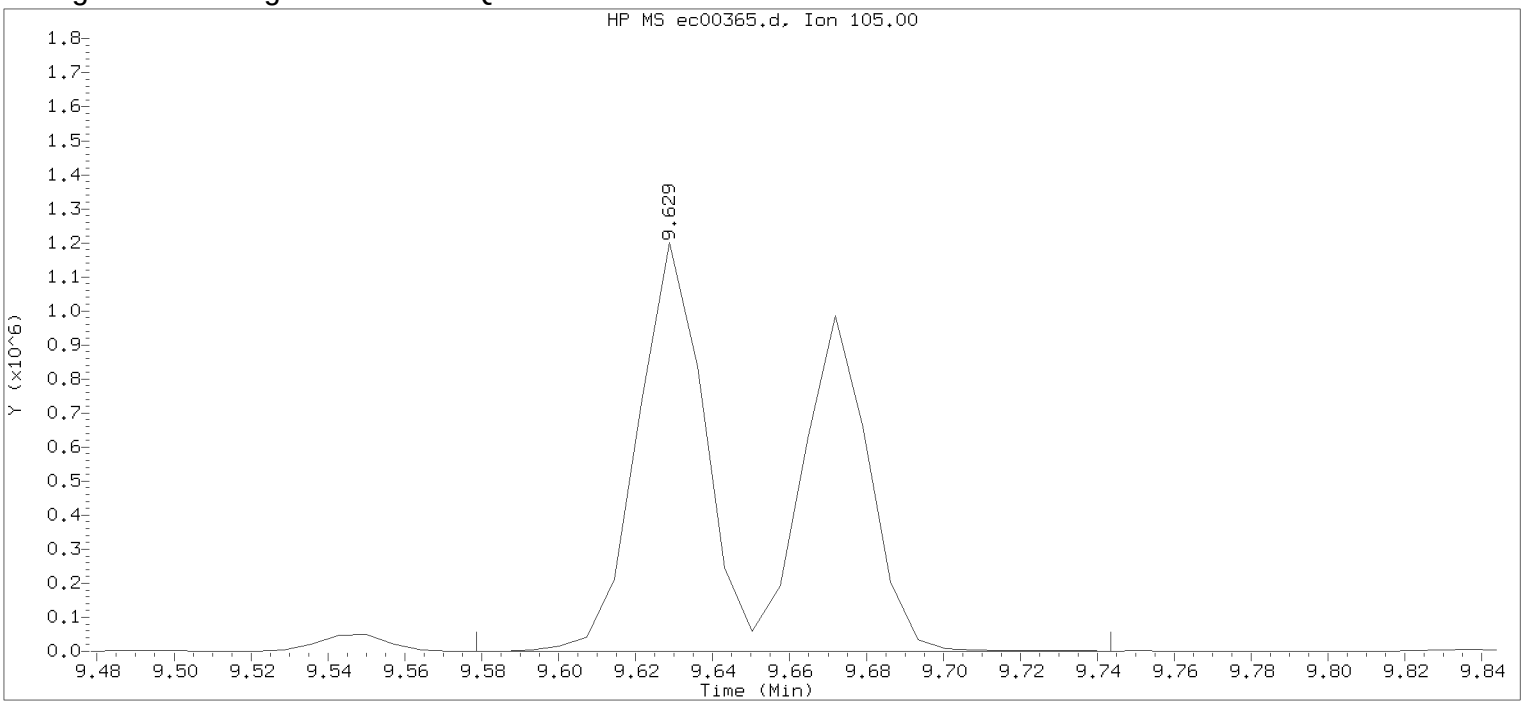
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

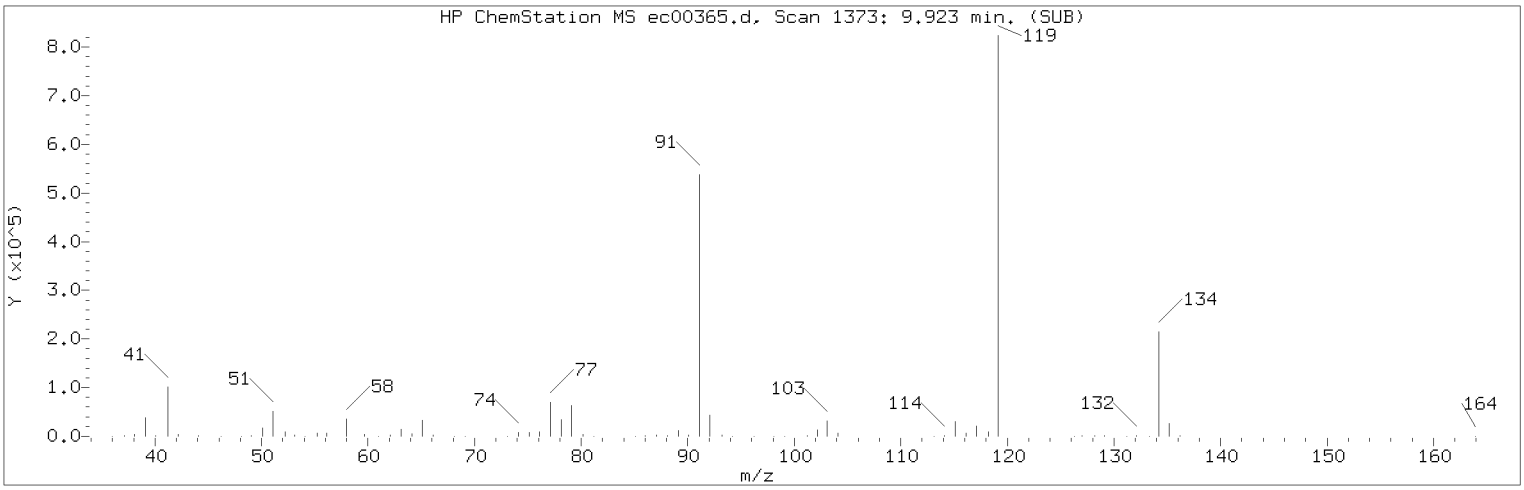
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 23:59 Unknown

Sample Name: LCSE34 Lab Sample ID: LCSE34

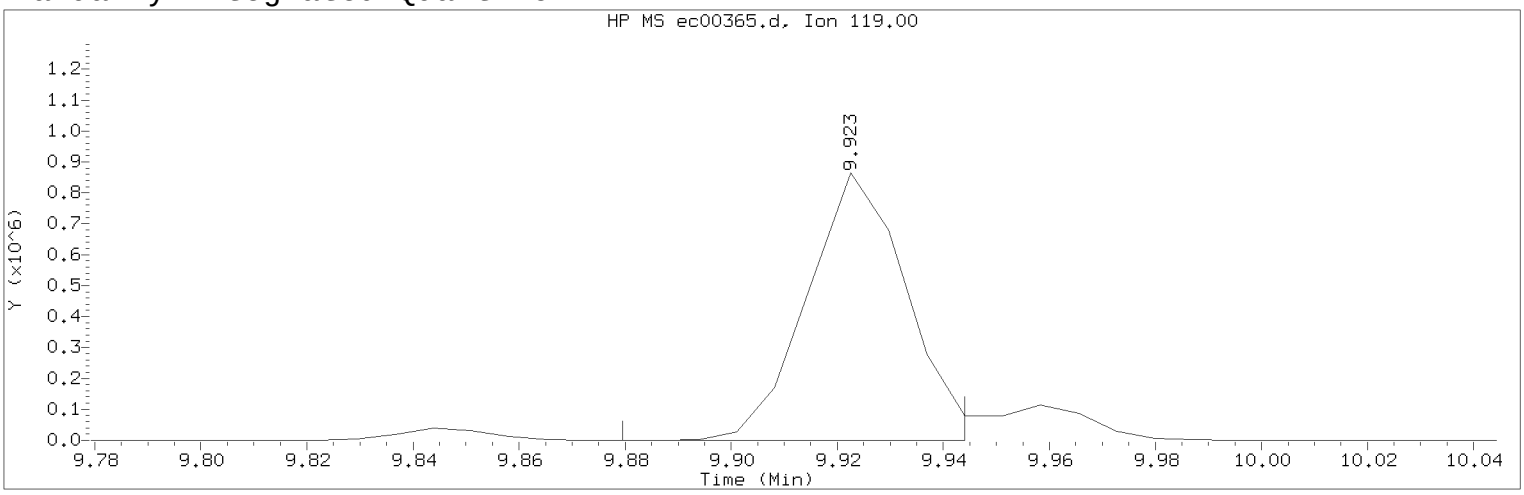
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2602104
Concentration (ppb(v)) : 22.9124
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 597 Y at integration end: 597

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: 71 and 07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:23 ads07818

Sample Name: LCSE34 Lab Sample ID: LCSE34

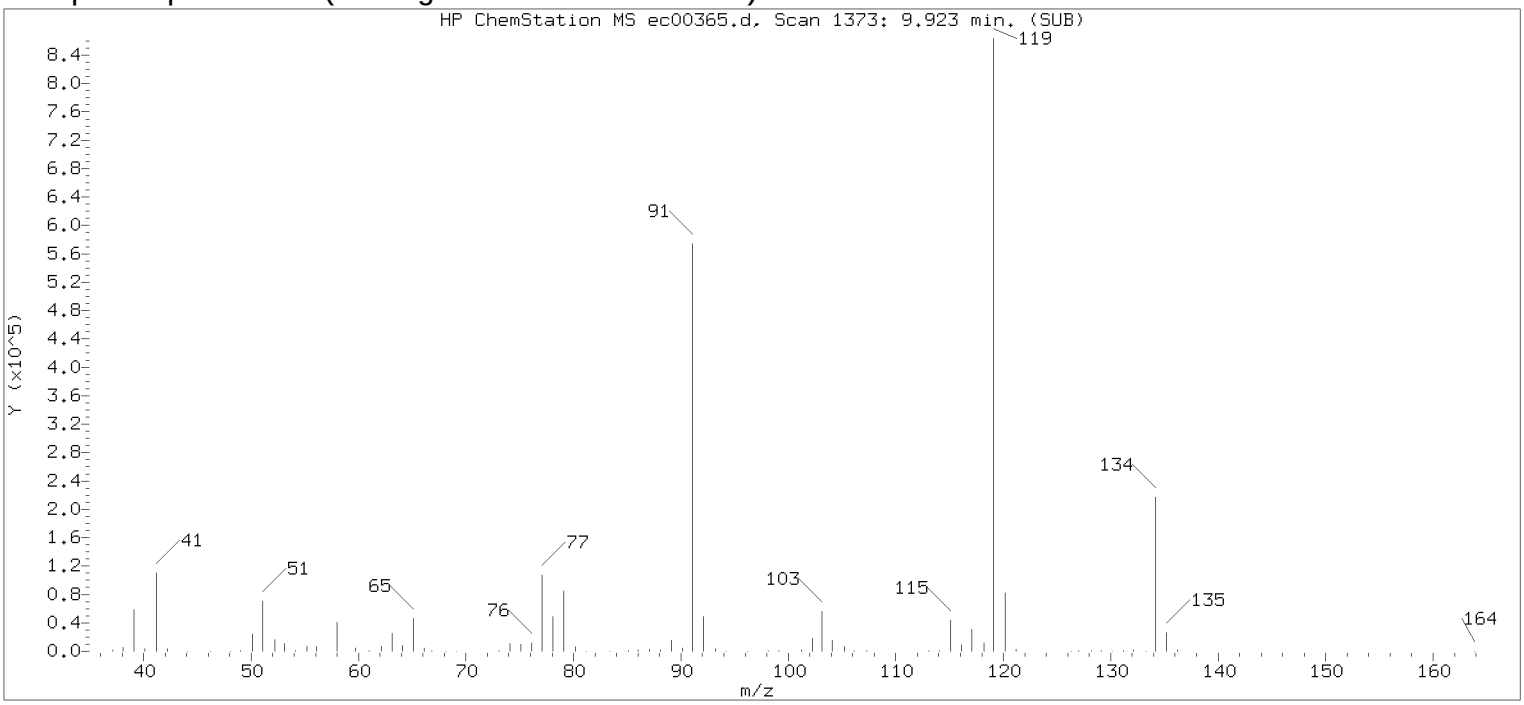
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area (flag) : 1125765M
Concentration (ppb(v)) : 10.3090
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

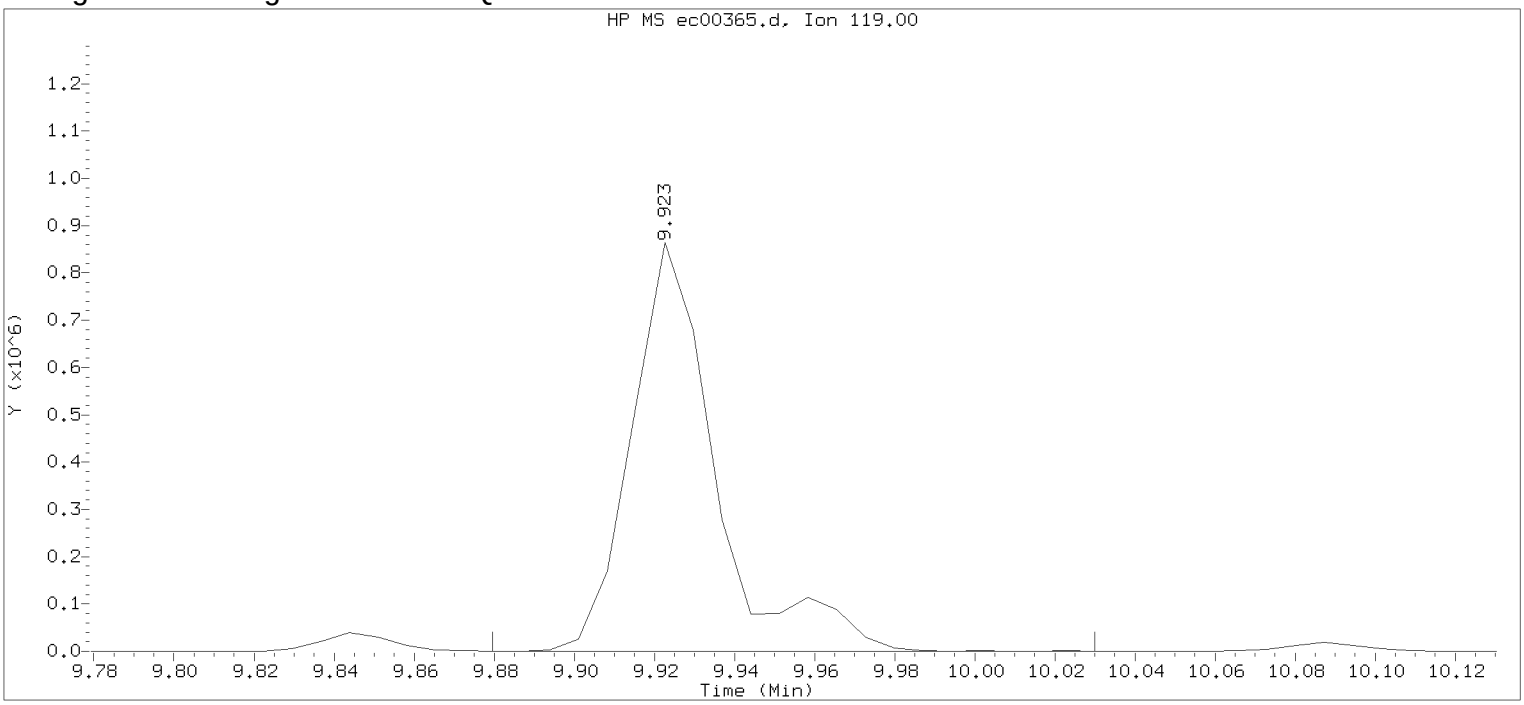
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



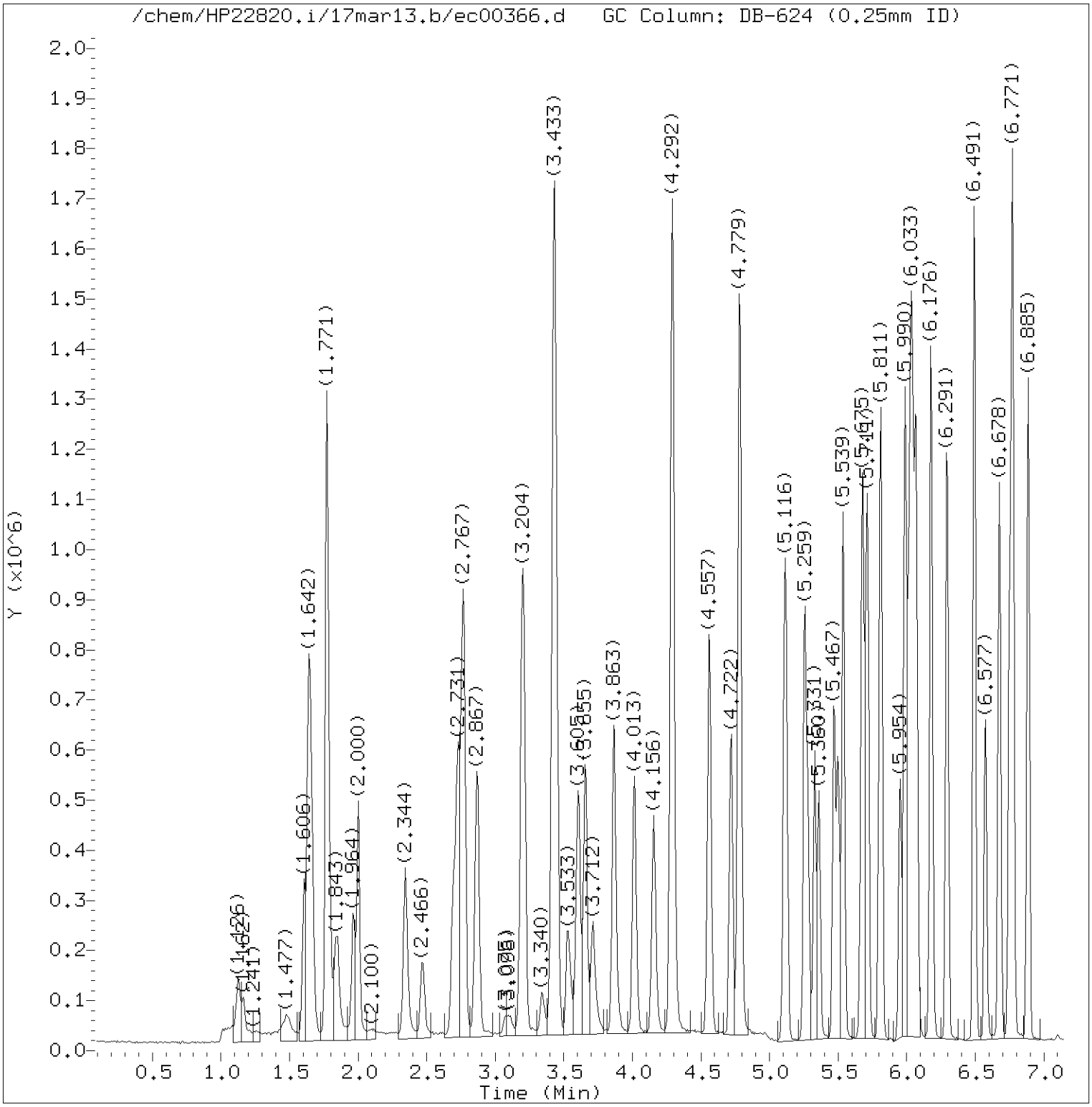
Data File: /chem/HP22820.i/17mar13.b/ec00365.d Instrument ID: HP22820.i
Injection date and time: 13-MAR-2017 23:41 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 13-Mar-2017 23:59 Unknown

Sample Name: LCSE34 Lab Sample ID: LCSE34

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.923
Quant Ion : 119.00
Area : 1263975
Concentration (ppb(v)) : 11.5746
Integration start scan : 1366 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and role: 23



Total Ion Chromatogram (TIC)

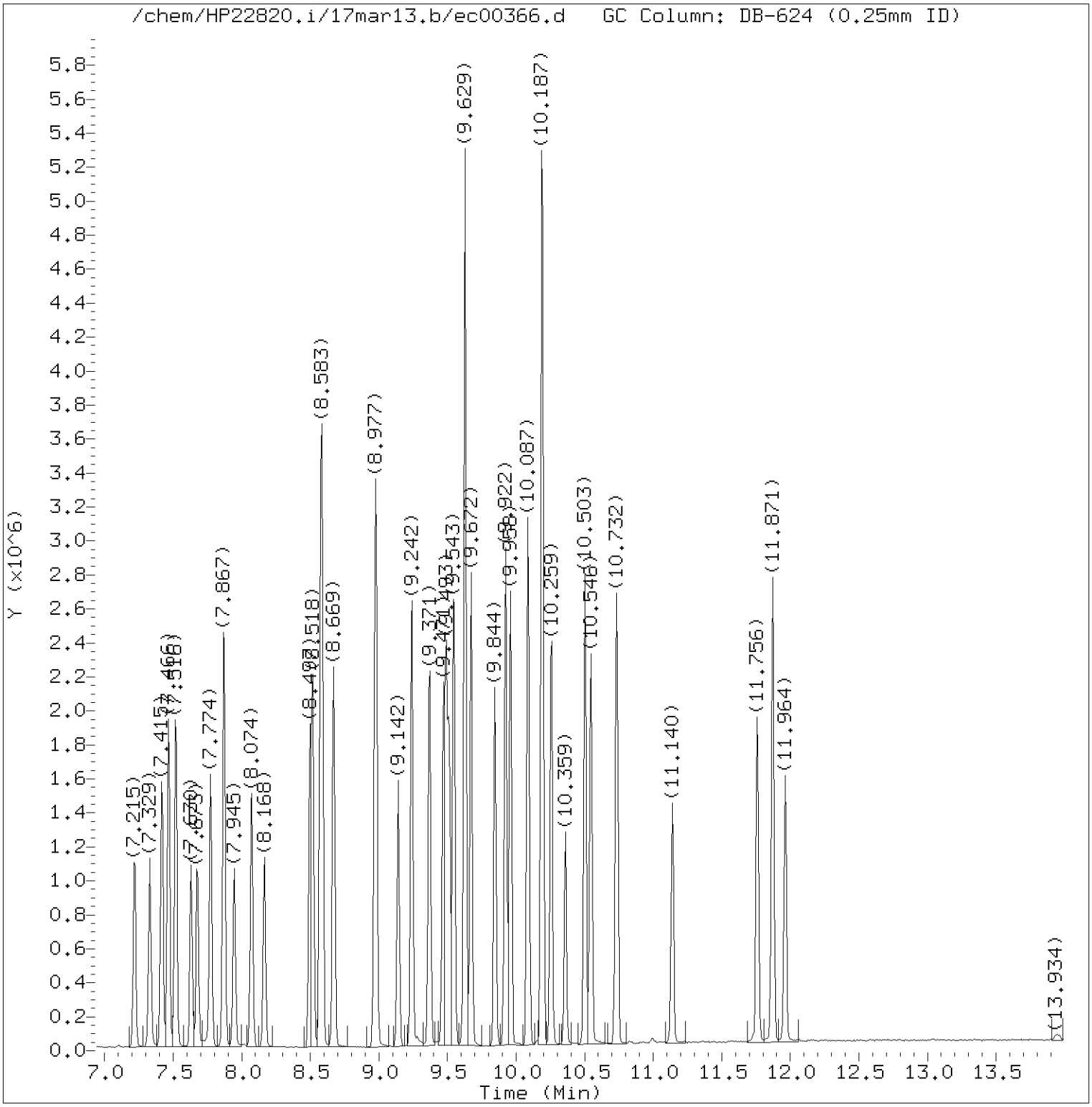
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.606	41	179605	9.788
2) Dichlorodifluoromethane	(1)	1.642	85	759100	10.373
3) Chlorodifluoromethane	(1)	1.663	51	416722	10.548
4) Freon 114	(1)	1.771	85	749255	10.321
5) Chloromethane	(1)	1.850	50	198258	8.825
6) Vinyl Chloride	(1)	1.964	62	272290	10.583
7) 1,3-Butadiene	(1)	2.000	54	183328	10.125
8) Bromomethane	(1)	2.344	94	262564	9.663
9) Chloroethane	(1)	2.466	64	150186	10.606
10) Bromoethene	(1)	2.695	106	270940	10.670
11) Dichlorofluoromethane	(1)	2.731	67	636563	10.725
12) Trichlorofluoromethane	(1)	2.767	101	799149	10.426
13) Pentane	(1)	2.867	43	394145	10.051
14) Ethanol	(1)	3.075	45	56562	7.471
15) Freon123a	(1)	3.196	67	596153	10.820
16) Acrolein	(1)	3.340	56	96814	10.901
17) 1,1-Dichloroethene	(1)	3.426	61	437529	10.494
18) Freon 113	(1)	3.440	103	417965	10.282
19) Acetone	(1)	3.533	43	356635	9.594
20) Methyl Iodide	(1)	3.605	142	659612	11.640
21) Carbon Disulfide	(1)	3.655	76	769172	10.182
22) Isopropanol	(1)	3.712	45	326900	11.022
24) 3-Chloropropene	(1)	3.863	76	137378	12.619
23) Acetonitrile	(1)	3.870	40	137656	7.923
25) Methylene Chloride	(1)	4.013	84	256817	11.407
26) tert-Butyl Alcohol	(1)	4.156	59	497723	11.401
28) trans-1,2-Dichloroethene	(1)	4.285	61	394877	10.424
29) Methyl t-Butyl Ether	(1)	4.292	73	761998	10.520
27) Acrylonitrile	(1)	4.299	53	213166	10.273
30) Hexane	(1)	4.557	57	390544	10.594
31) 1,1-Dichloroethane	(1)	4.722	63	512761	10.495
32) Vinyl Acetate	(1)	4.779	86	75375	11.999
33) Di-Isopropyl Ether	(1)	4.779	45	821216	10.679
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	772421	10.432
35) cis-1,2-Dichloroethene	(1)	5.259	61	373653	10.413
37) 2-Butanone	(1)	5.281	72	134562	9.967
38) Ethyl Acetate	(1)	5.331	70	62584	9.400
39) Methyl Acrylate	(1)	5.360	55	433570	10.351

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	208005	10.000
41) Tetrahydrofuran	(1)	5.496	42	278551	10.589
42) Chloroform	(1)	5.539	83	632538	10.456
43) 1,1,1-Trichloroethane	(1)	5.675	97	631927	10.525
44) Cyclohexane	(1)	5.711	56	420893	10.595
45) Carbon Tetrachloride	(1)	5.811	117	650558	10.554
46) Benzene	(2)	5.990	78	902219	10.400
47) 1,2-Dichloroethane	(2)	6.011	62	420096	10.549
48) Isooctane	(2)	6.033	57	1303681	10.537
49) Tert-Amyl Methyl Ether	(2)	6.069	73	800462	10.417
50) Heptane	(2)	6.176	43	442913	10.449
51)*1,4-Difluorobenzene	(2)	6.291	114	790286	10.000
52) Trichloroethene	(2)	6.491	130	429610	9.881
53) Ethyl Acrylate	(2)	6.577	55	521974	10.315
36) 1,2-Dichloroethene (total)	(1)		61	768530	20.836
54) 1,2-Dichloropropane	(2)	6.678	63	317731	10.458
57) Methyl Methacrylate	(2)	6.749	69	284443	10.611
55) Dibromomethane	(2)	6.771	174	409540	10.315
56) 1,4-Dioxane	(2)	6.778	88	204249	9.851
58) Bromodichloromethane	(2)	6.885	83	634328	10.409
59) cis-1,3-Dichloropropene	(2)	7.215	75	498104	10.257
60) 4-Methyl-2-Pentanone	(2)	7.329	43	552453	10.551
61) Toluene	(3)	7.466	91	1084770	10.403
62) Octane	(3)	7.516	43	602203	10.347
63) trans-1,3-Dichloropropene	(3)	7.630	75	434872	10.214
65) Ethyl Methacrylate	(3)	7.673	69	449699	10.962
66) 1,1,2-Trichloroethane	(3)	7.774	97	380191	10.313
67) Tetrachloroethene	(3)	7.874	166	591686	9.338
68) 2-Hexanone	(3)	7.945	43	490897	9.638
69) Dibromochloromethane	(3)	8.074	127	492363	10.478
70) 1,2-Dibromoethane	(3)	8.168	107	589332	10.407
71)*Chlorobenzene-d5	(3)	8.497	117	775657	10.000
72) Chlorobenzene	(3)	8.518	112	884540	9.919
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	471980	10.278
74) Ethylbenzene	(3)	8.583	91	1362632	10.366
75) m/p-Xylene	(3)	8.669	91	1055567	10.398
76) o-Xylene	(3)	8.970	91	1030109	10.365
78) Styrene	(3)	8.984	104	749043	11.437

* = Compound is an internal standard.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

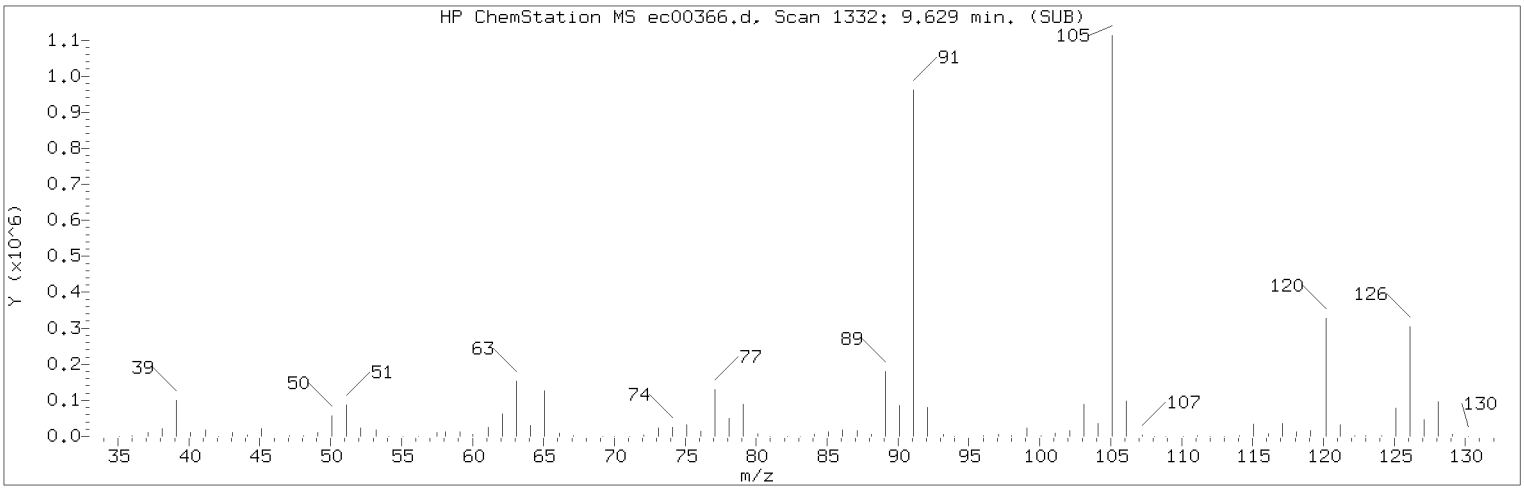
Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	551812	9.763
80) Cumene	(3)	9.242	105	1448482	10.672
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	739103	10.393
81) Bromobenzene	(3)	9.493	156	523995	10.065
83) 1,2,3-Trichloropropane	(3)	9.514	110	243376	10.127
84) n-Propylbenzene	(3)	9.550	120	409507	9.874
86) 4-Ethyltoluene	(3)	9.629	105	1458224M	10.687
85) 2-Chlorotoluene	(3)	9.629	126	398982	10.234
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1200902M	10.381
88) Alpha Methyl Styrene	(3)	9.844	118	504581	11.364
89) tert-Butylbenzene	(3)	9.922	119	1158920M	10.419
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	1174100	10.885
91) sec-Butylbenzene	(3)	10.087	105	1704727	10.682
92) 1,3-Dichlorobenzene	(3)	10.187	146	852466	10.435
94) p-Isopropyltoluene	(3)	10.187	119	1392200	10.892
93) 1,4-Dichlorobenzene	(3)	10.259	146	830722	10.100
95) Benzyl Chloride	(3)	10.359	91	685383	10.757
97) n-Butylbenzene	(3)	10.503	91	1204995	10.650
96) 1,2-Dichlorobenzene	(3)	10.546	146	762542	10.420
98) Hexachloroethane	(3)	10.732	117	383640	11.772
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	306554	11.493
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	511648	11.638
101) Hexachlorobutadiene	(3)	11.871	225	444612	10.744
102) Naphthalene	(3)	11.964	128	1012233	12.683
64) 1,3-Dichloropropene (total)	(3)		75	932976	20.471
77) Xylene (total)	(3)		91	2085676	20.763

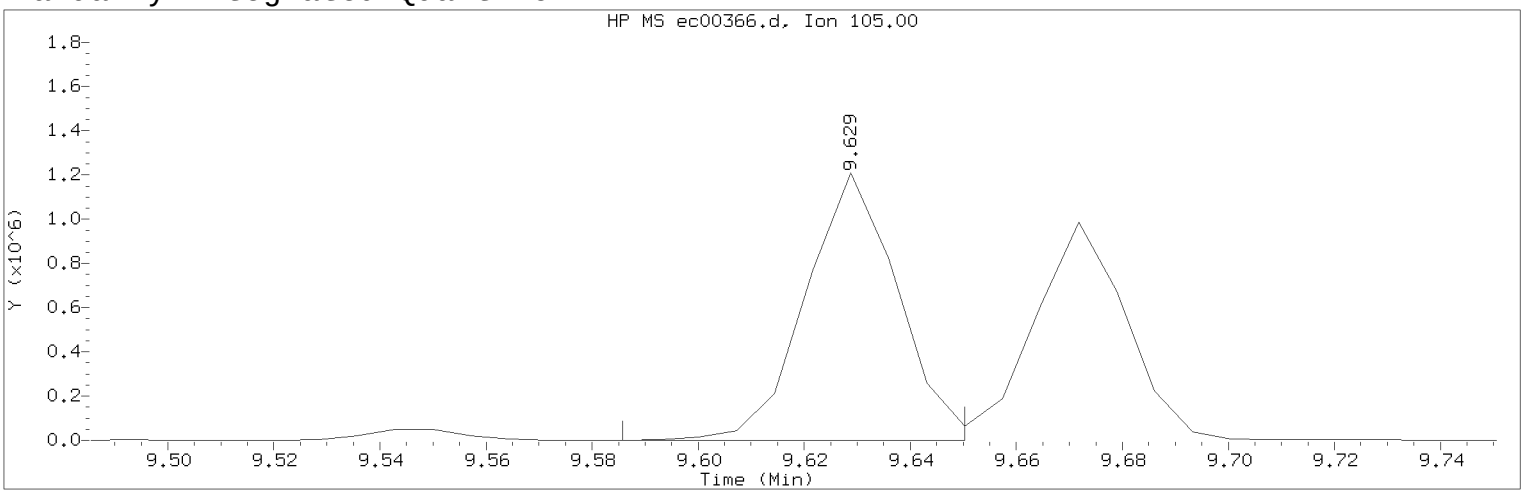
M = Compound was manually integrated.

Digitally signed by Alexander D. Sechrist
on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

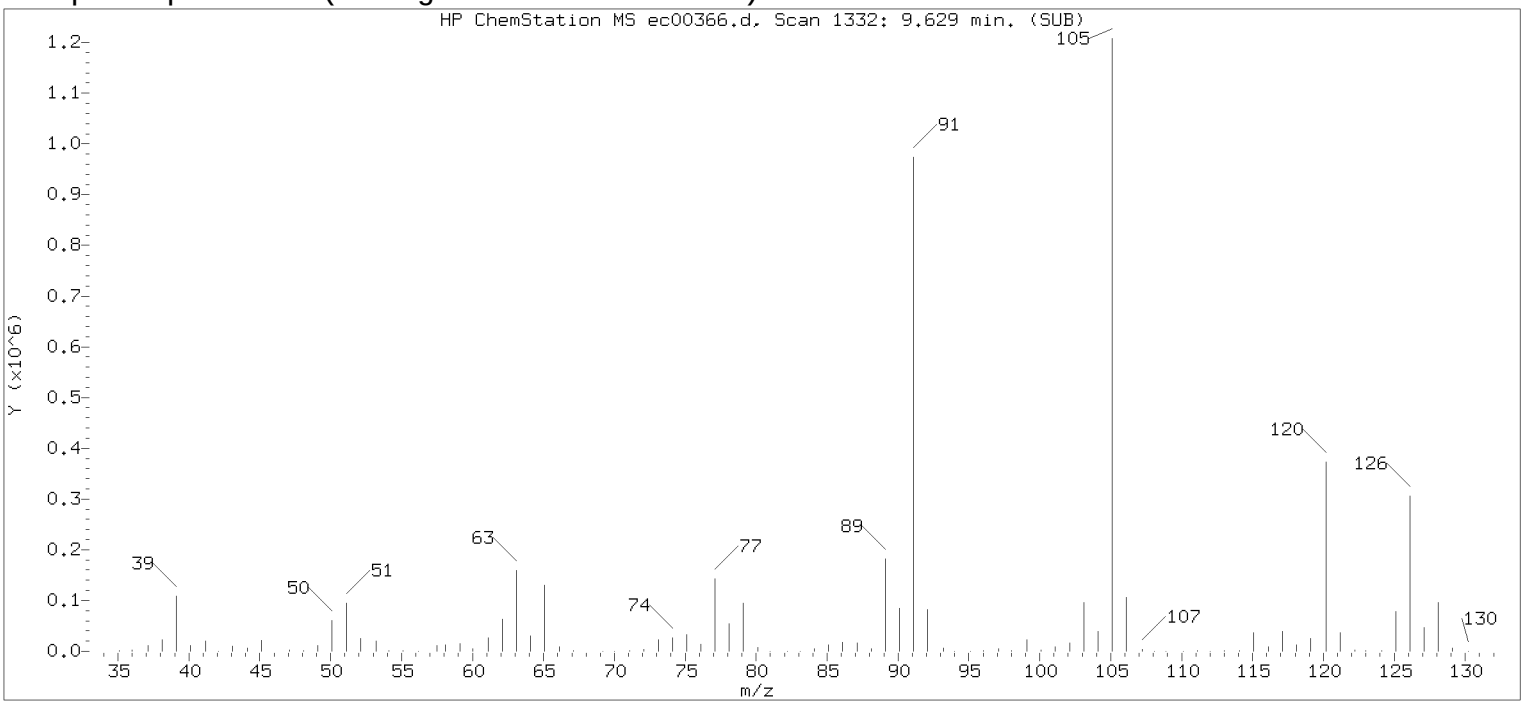
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 1458224M
Concentration (ppb(v)) : 10.6866
Integration start scan : 1325 Integration stop scan: 1334
Y at integration start : 565 Y at integration end: 565

Reason for manual integration: improper integration

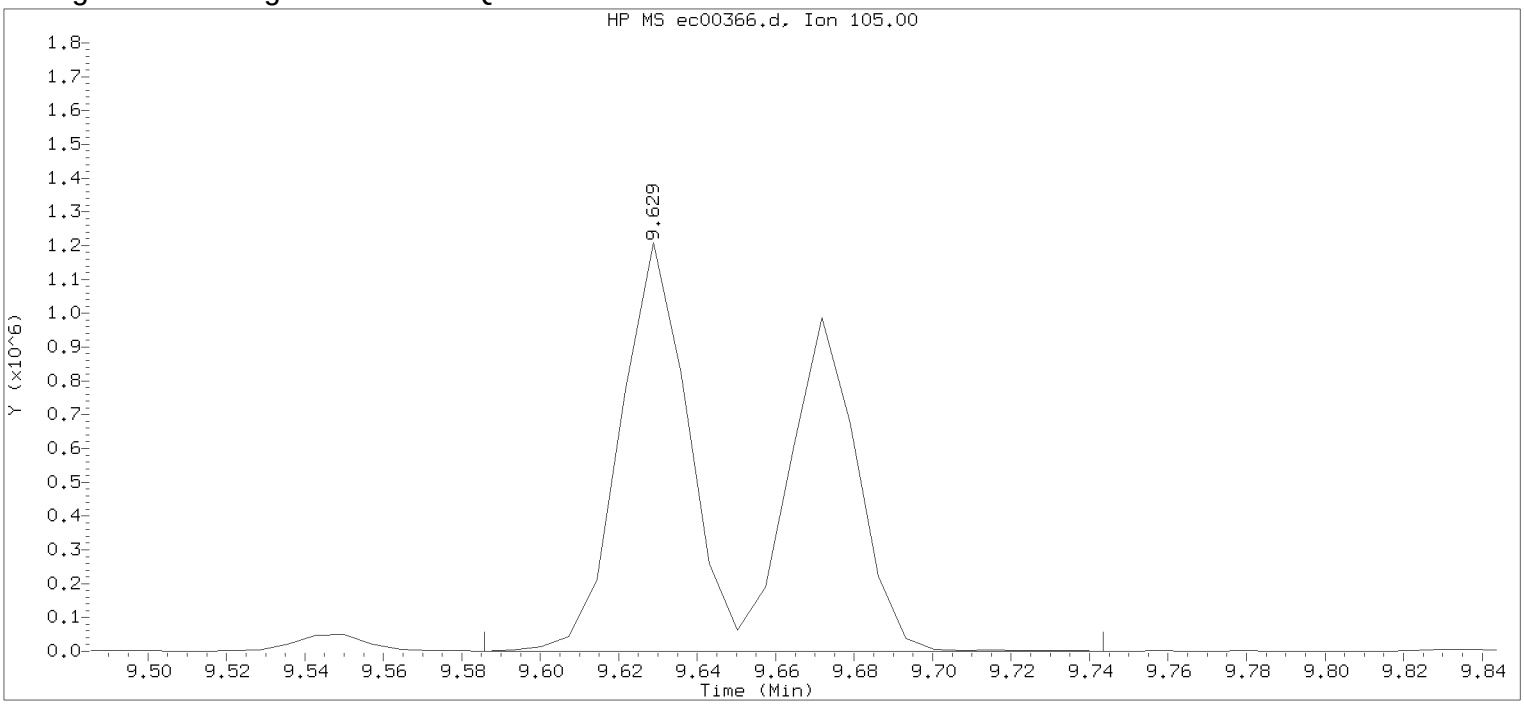
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

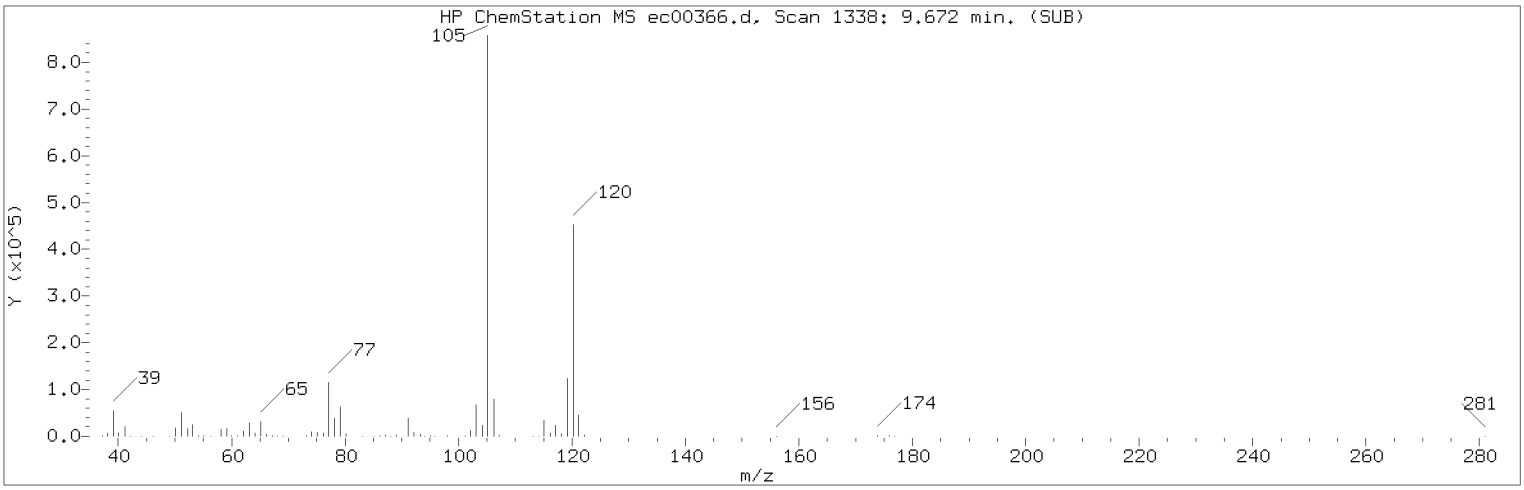
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 00:33 Unknown

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

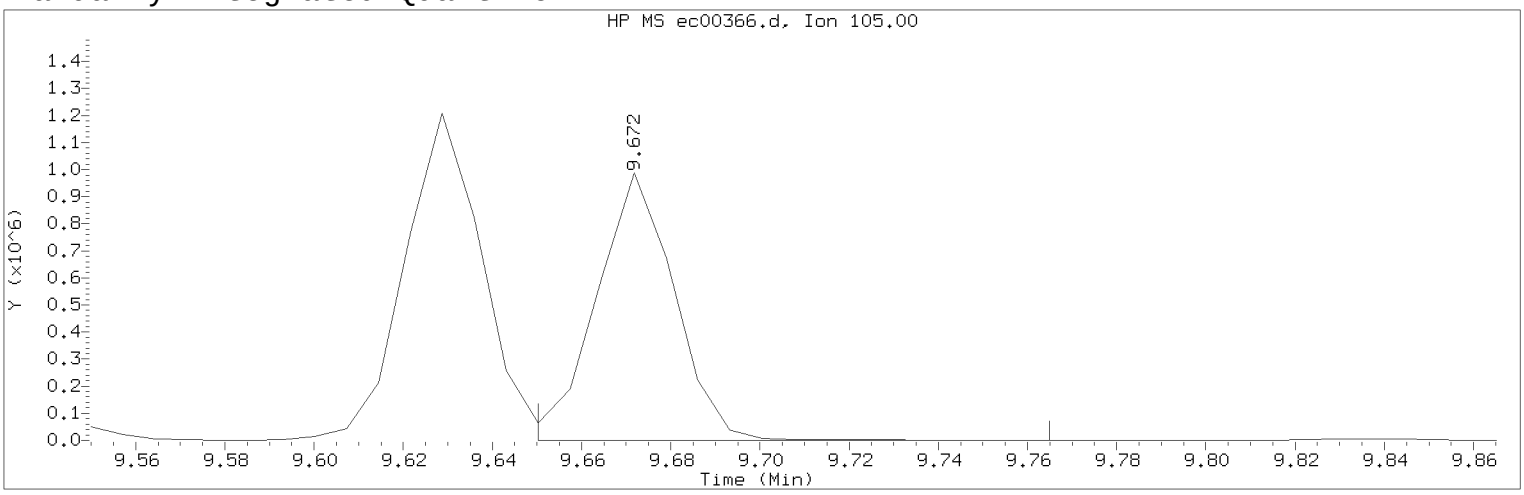
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2631116
Concentration (ppb(v)) : 19.2821
Integration start scan : 1325 Integration stop scan: 1347
Y at integration start : 565 Y at integration end: 565

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and cert: 6128

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

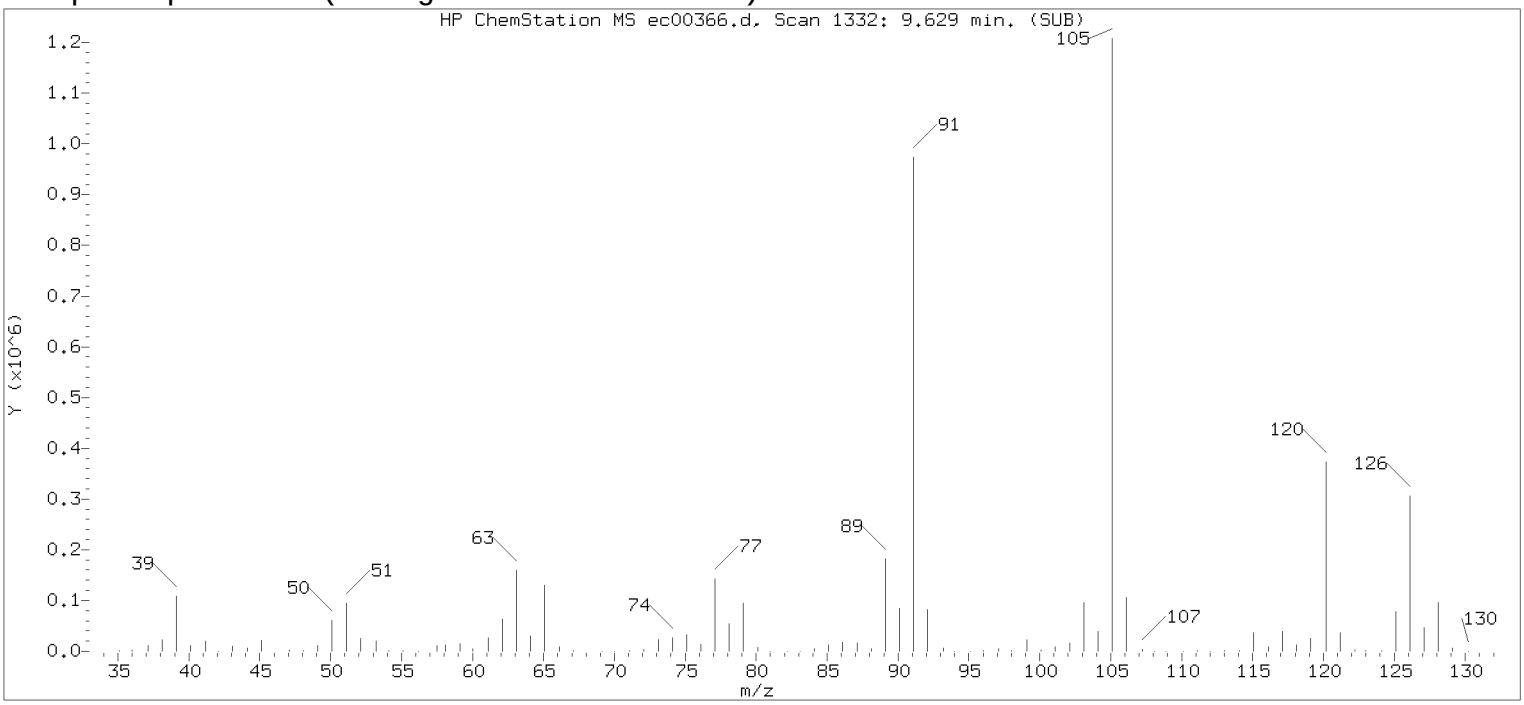
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1200902M
Concentration (ppb(v)) : 10.3813
Integration start scan : 1334 Integration stop scan: 1350
Y at integration start : 462 Y at integration end: 462

Reason for manual integration: improper integration

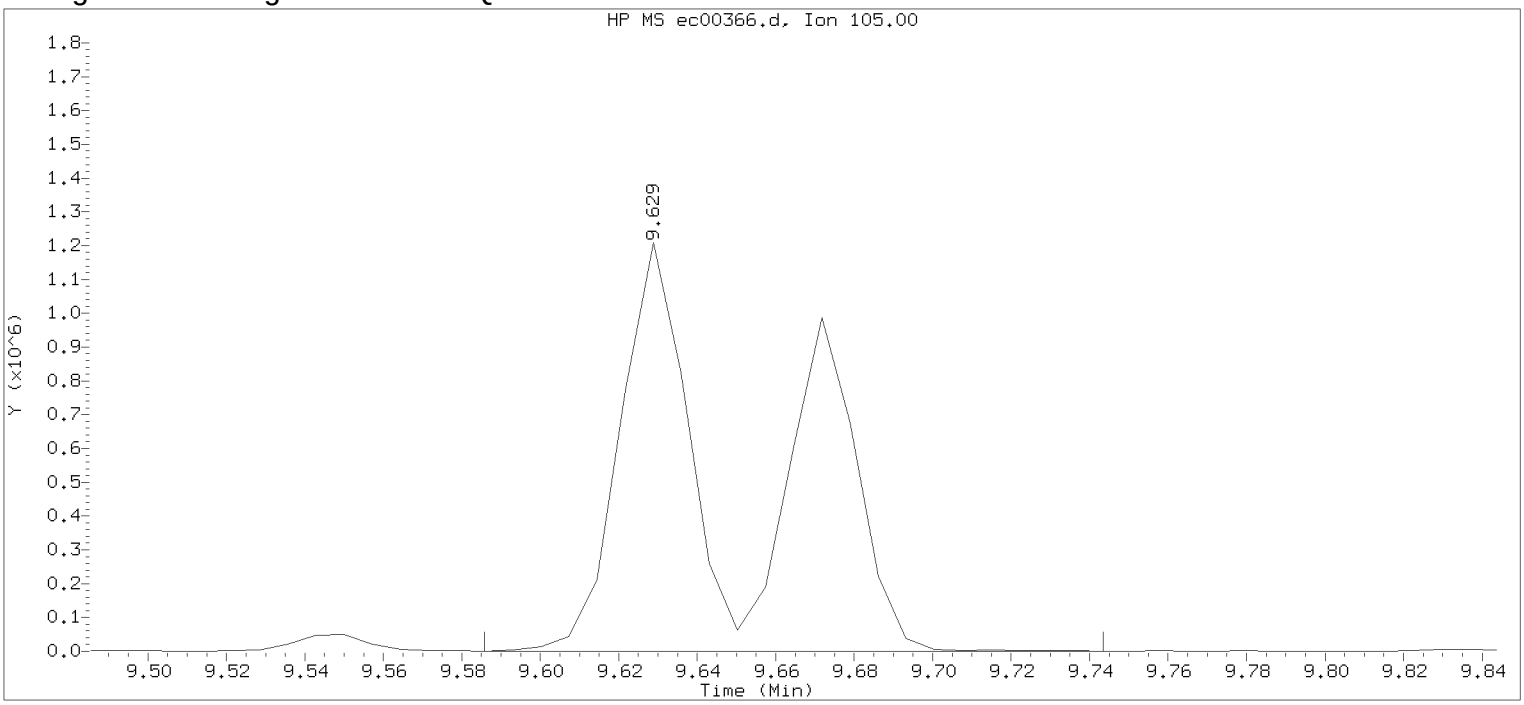
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

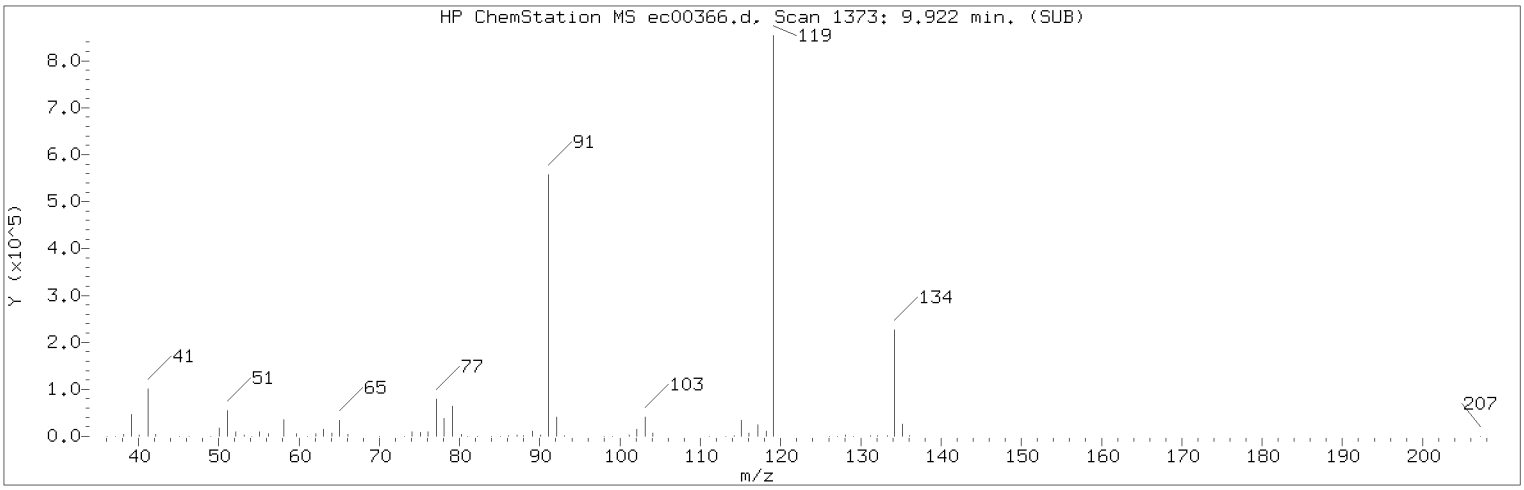
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 00:33 Unknown

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

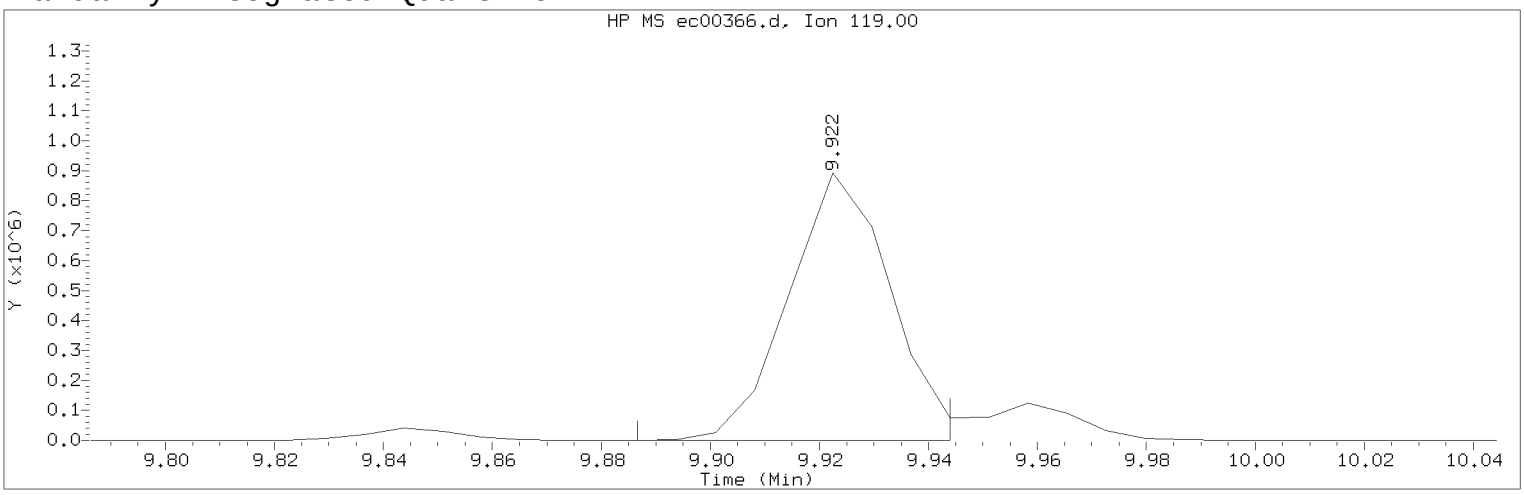
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2630970
Concentration (ppb(v)) : 22.7435
Integration start scan : 1325 Integration stop scan: 1347
Y at integration start : 565 Y at integration end: 565

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and Page 638 of 746

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 08:24 ads07818

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

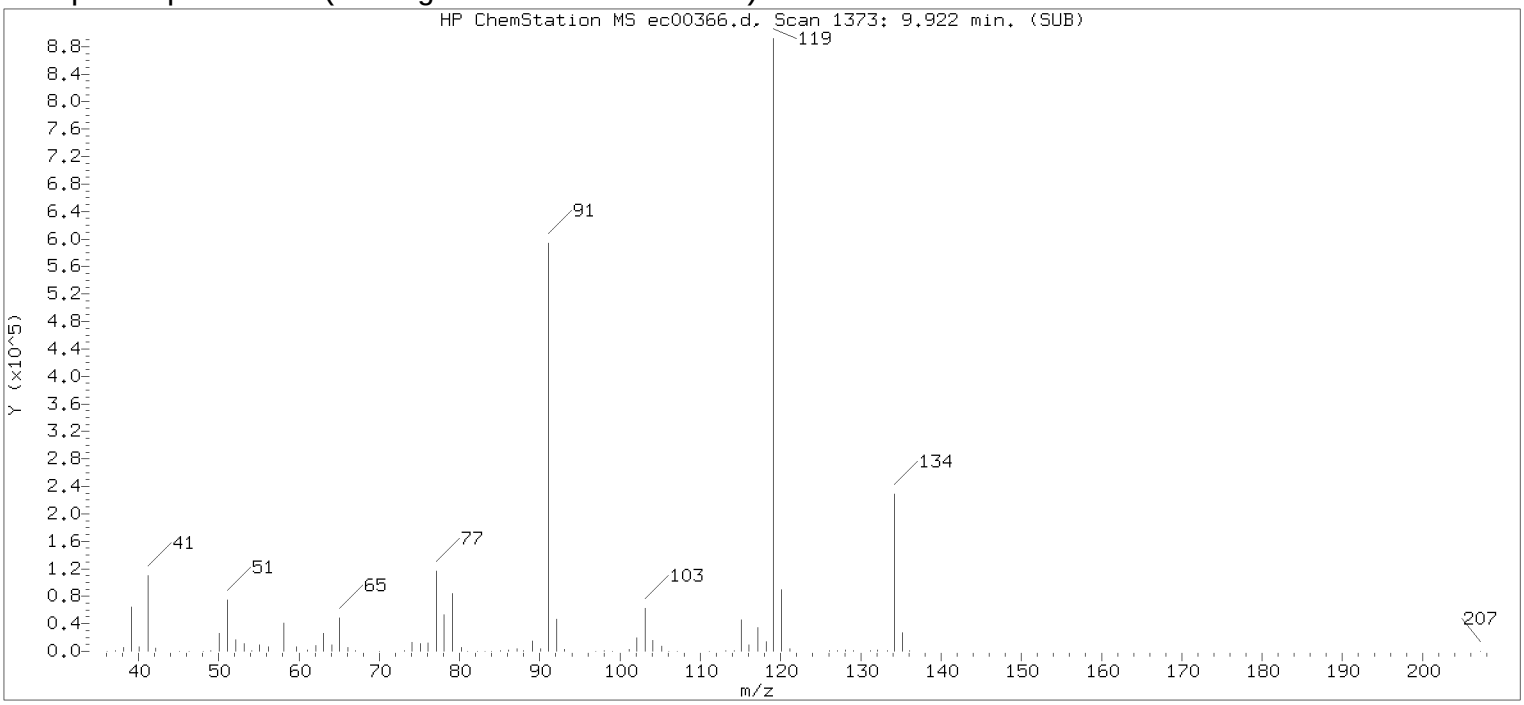
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 1158920M
Concentration (ppb(v)) : 10.4188
Integration start scan : 1367 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

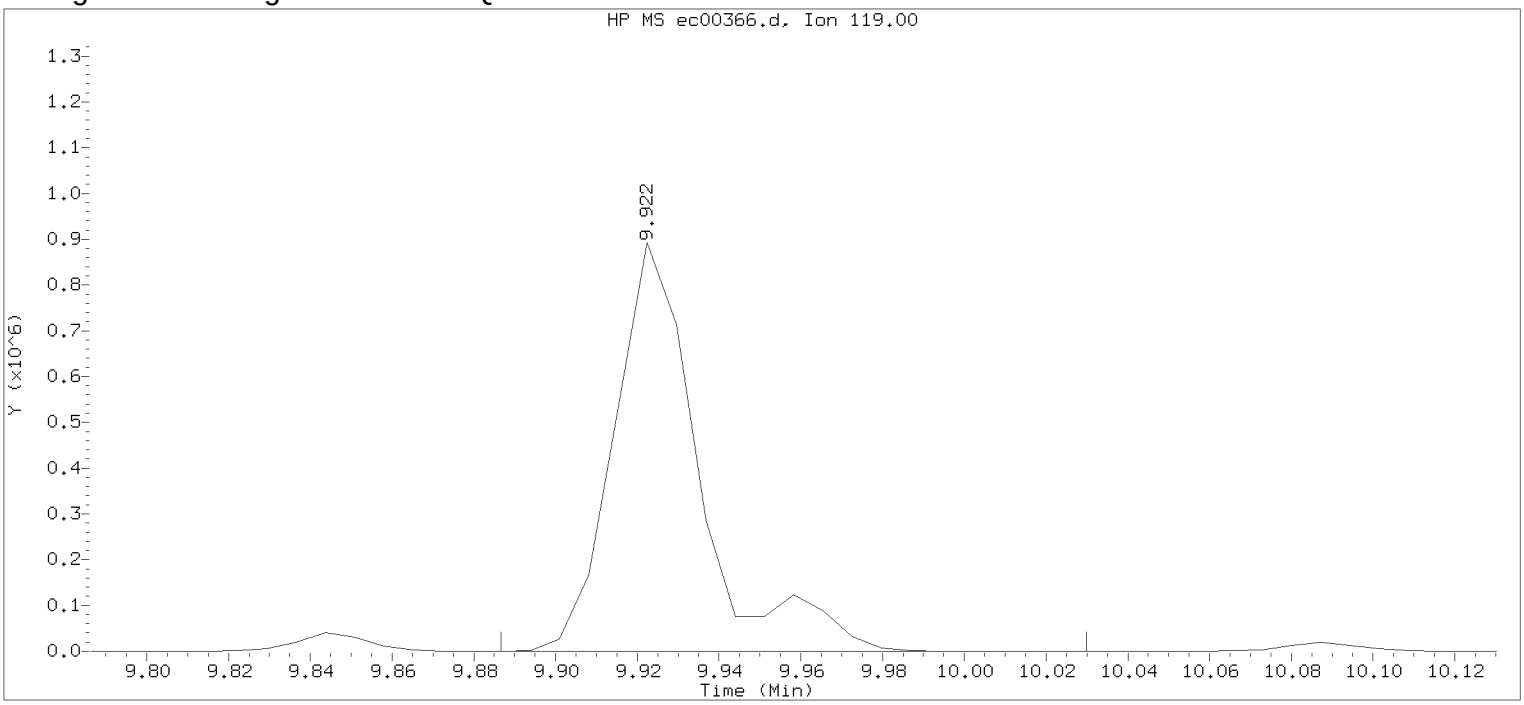
Analyst responsible for change: Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user ID: ads07818

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:03.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



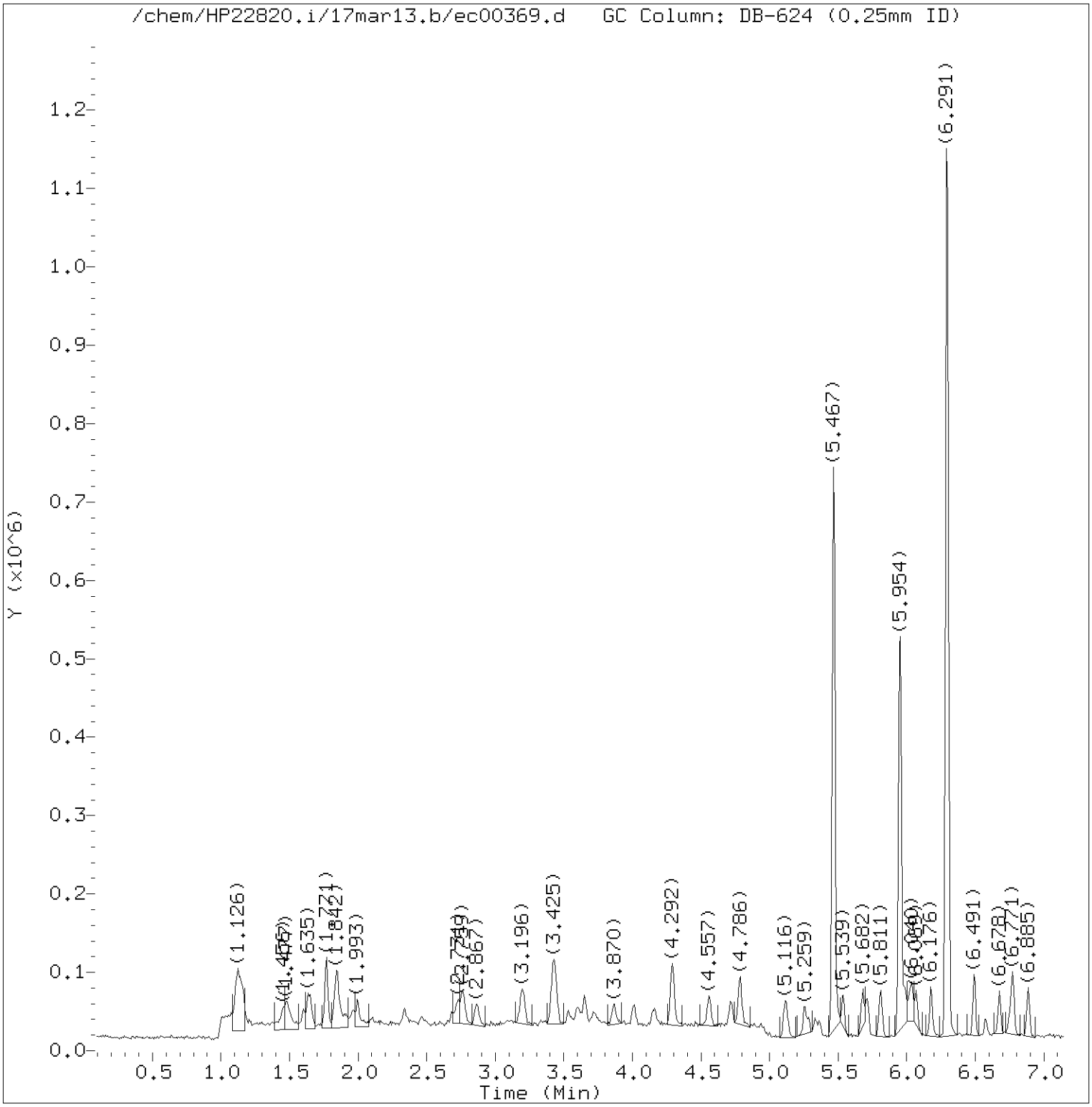
Data File: /chem/HP22820.i/17mar13.b/ec00366.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 00:15 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 00:33 Unknown

Sample Name: LCSDE34 Lab Sample ID: LCSDE34

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 1301052
Concentration (ppb(v)) : 11.6966
Integration start scan : 1367 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Alexander D. Sechrist on 03/14/2017 at 08:38.
Target 3.5 esignature user id: 71 and Page 632



Total Ion Chromatogram (TIC)

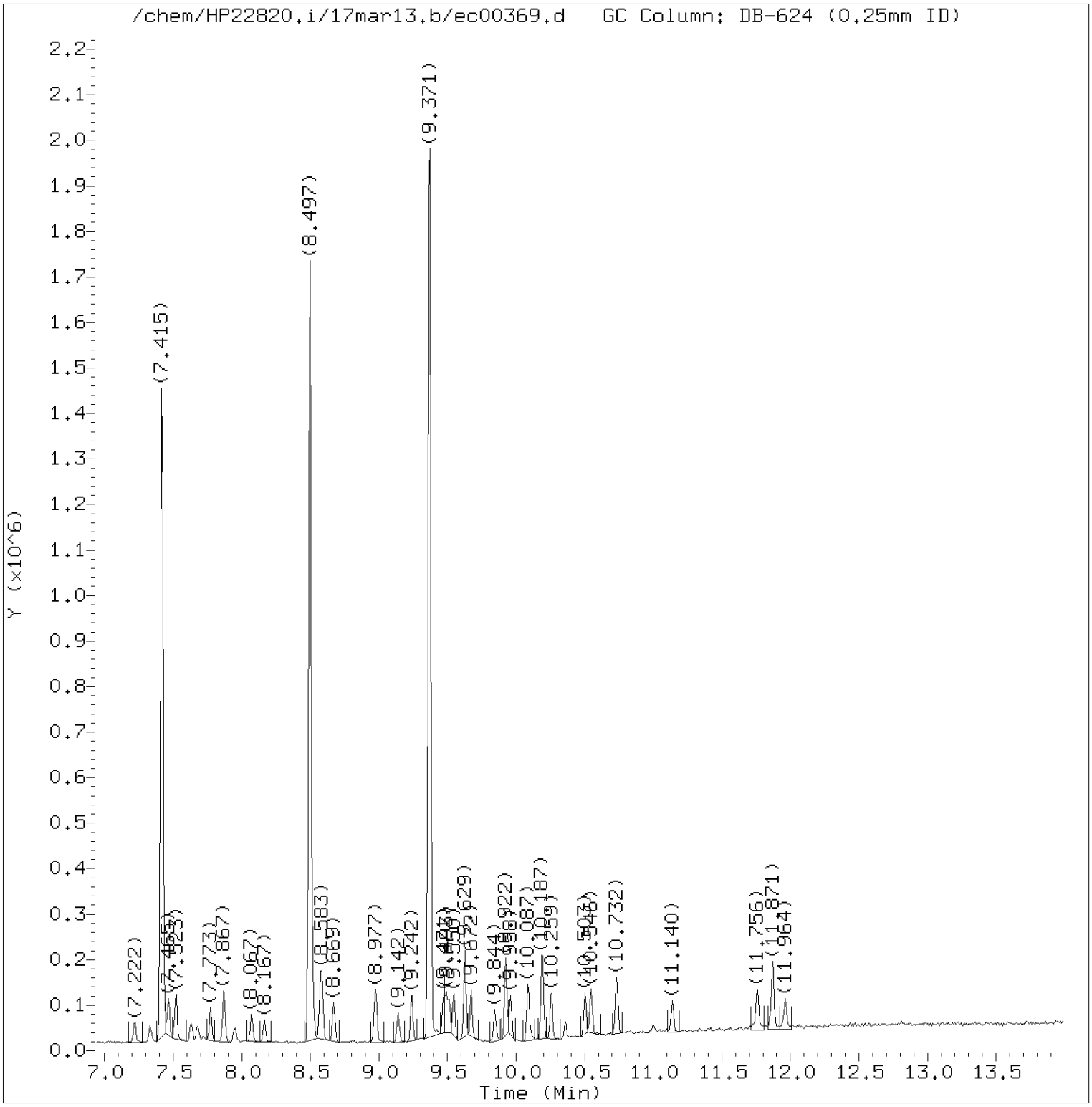
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 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)	1.606	41	12607	0.664
2) Dichlorodifluoromethane	(1)	1.635	85	37319	0.493
3) Chlorodifluoromethane	(1)	1.656	51	21259	0.520
4) Freon 114	(1)	1.771	85	39881	0.531
5) Chloromethane	(1)	1.835	50	17897	0.770
6) Vinyl Chloride	(1)	1.964	62	13069	0.491
7) 1,3-Butadiene	(1)	1.993	54	10494	0.560
8) Bromomethane	(1)	2.337	94	16021	0.570
9) Chloroethane	(1)	2.466	64	8264	0.564
10) Bromoethene	(1)	2.688	106	13687	0.521
11) Dichlorofluoromethane	(1)	2.731	67	31065	0.506
12) Trichlorofluoromethane	(1)	2.766	101	40005	0.504
13) Pentane	(1)	2.867	43	21558	0.531
14) Ethanol	(1)	3.096	45	11146	1.422
15) Freon123a	(1)	3.203	67	29349	0.515
16) Acrolein	(1)	3.340	56	5776	0.628
17) 1,1-Dichloroethene	(1)	3.425	61	20605	0.477
18) Freon 113	(1)	3.433	103	21762	0.517
19) Acetone	(1)	3.533	43	27947	0.726
20) Methyl Iodide	(1)	3.605	142	37344	0.637
21) Carbon Disulfide	(1)	3.655	76	40389	0.516
22) Isopropanol	(1)	3.719	45	30284	0.986
24) 3-Chloropropene	(1)	3.776	76	5804	0.515
23) Acetonitrile	(1)	3.877	40	19005	1.057
25) Methylene Chloride	(1)	4.013	84	13187	0.566
26) tert-Butyl Alcohol	(1)	4.163	59	25509	0.564
28) trans-1,2-Dichloroethene	(1)	4.292	61	19513	0.498
29) Methyl t-Butyl Ether	(1)	4.292	73	35868	0.478
27) Acrylonitrile	(1)	4.307	53	11694	0.544
30) Hexane	(1)	4.564	57	16820	0.441
31) 1,1-Dichloroethane	(1)	4.715	63	26398	0.522
32) Vinyl Acetate	(1)	4.779	86	3332	0.512
33) Di-Isopropyl Ether	(1)	4.786	45	38577	0.485
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	34785	0.454
35) cis-1,2-Dichloroethene	(1)	5.252	61	17849	0.481
37) 2-Butanone	(1)	5.288	72	6530M	0.467
38) Ethyl Acetate	(1)	5.338	70	3358M	0.487
39) Methyl Acrylate	(1)	5.359	55	19096	0.440

M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	215322	10.000
41) Tetrahydrofuran	(1)	5.503	42	12811	0.470
42) Chloroform	(1)	5.539	83	31198	0.498
43) 1,1,1-Trichloroethane	(1)	5.682	97	29847	0.480
44) Cyclohexane	(1)	5.710	56	20120	0.489
45) Carbon Tetrachloride	(1)	5.811	117	29594	0.464
46) Benzene	(2)	5.990	78	41979	0.501
47) 1,2-Dichloroethane	(2)	6.011	62	19846	0.516
48) Isooctane	(2)	6.040	57	56817	0.475
49) Tert-Amyl Methyl Ether	(2)	6.069	73	33808	0.455
50) Heptane	(2)	6.176	43	22155	0.541
51)*1,4-Difluorobenzene	(2)	6.291	114	763572	10.000
52) Trichloroethene	(2)	6.498	130	21724	0.517
53) Ethyl Acrylate	(2)	6.577	55	22043	0.451
36) 1,2-Dichloroethene (total)	(1)		61	37362	0.978
54) 1,2-Dichloropropane	(2)	6.678	63	14261	0.486
57) Methyl Methacrylate	(2)	6.749	69	12020	0.464
55) Dibromomethane	(2)	6.771	174	18236	0.475
56) 1,4-Dioxane	(2)	6.778	88	9534	0.476
58) Bromodichloromethane	(2)	6.885	83	28658	0.487
59) cis-1,3-Dichloropropene	(2)	7.222	75	21186	0.452
60) 4-Methyl-2-Pentanone	(2)	7.329	43	22420	0.443
61) Toluene	(3)	7.465	91	49535	0.496
62) Octane	(3)	7.523	43	32752	0.588
63) trans-1,3-Dichloropropene	(3)	7.630	75	17952	0.441
65) Ethyl Methacrylate	(3)	7.680	69	15962	0.407
66) 1,1,2-Trichloroethane	(3)	7.773	97	17338	0.491
67) Tetrachloroethene	(3)	7.874	166	26373	0.435
68) 2-Hexanone	(3)	7.945	43	19905	0.408
69) Dibromochloromethane	(3)	8.074	127	20525	0.456
70) 1,2-Dibromoethane	(3)	8.167	107	26314	0.485
71)*Chlorobenzene-d5	(3)	8.497	117	742422	10.000
72) Chlorobenzene	(3)	8.518	112	40673	0.477
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	20089	0.457
74) Ethylbenzene	(3)	8.583	91	54342	0.432
75) m/p-Xylene	(3)	8.669	91	42779	0.440
76) o-Xylene	(3)	8.970	91	39991	0.420
78) Styrene	(3)	8.984	104	21453	0.342

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

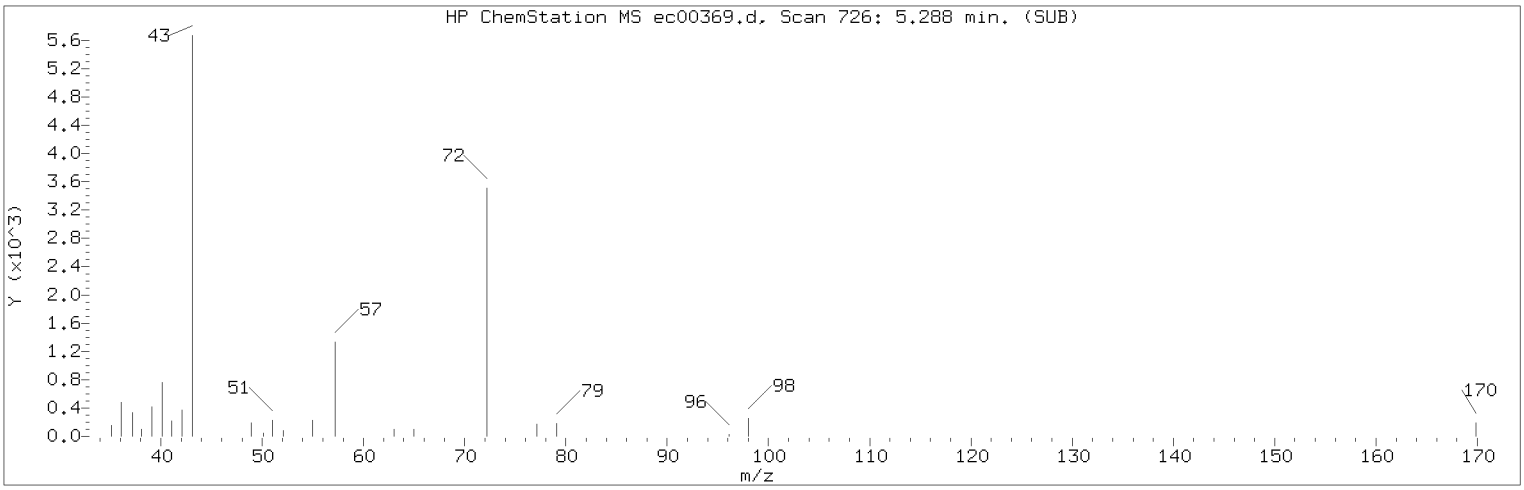
Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	21401	0.396
80) Cumene	(3)	9.242	105	58589	0.451
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	32643	0.480
81) Bromobenzene	(3)	9.493	156	23031	0.462
83) 1,2,3-Trichloropropane	(3)	9.514	110	10568	0.459
84) n-Propylbenzene	(3)	9.550	120	15367	0.387
86) 4-Ethyltoluene	(3)	9.629	105	48033M	0.368
85) 2-Chlorotoluene	(3)	9.629	126	15570	0.417
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	48244M	0.436
88) Alpha Methyl Styrene	(3)	9.844	118	15026	0.354
89) tert-Butylbenzene	(3)	9.922	119	77587M	0.729
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	42643	0.413
91) sec-Butylbenzene	(3)	10.087	105	71793	0.470
92) 1,3-Dichlorobenzene	(3)	10.187	146	36252	0.464
94) p-Isopropyltoluene	(3)	10.195	119	46588	0.381
93) 1,4-Dichlorobenzene	(3)	10.259	146	38727	0.492
95) Benzyl Chloride	(3)	10.359	91	23230	0.381
97) n-Butylbenzene	(3)	10.503	91	42796	0.395
96) 1,2-Dichlorobenzene	(3)	10.546	146	32282	0.461
98) Hexachloroethane	(3)	10.732	117	15487	0.496
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	12428	0.487
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	26011	0.618
101) Hexachlorobutadiene	(3)	11.871	225	24140	0.609
102) Naphthalene	(3)	11.964	128	46829	0.613
64) 1,3-Dichloropropene (total)	(3)		75	39138	0.892
77) Xylene (total)	(3)		91	82770	0.861

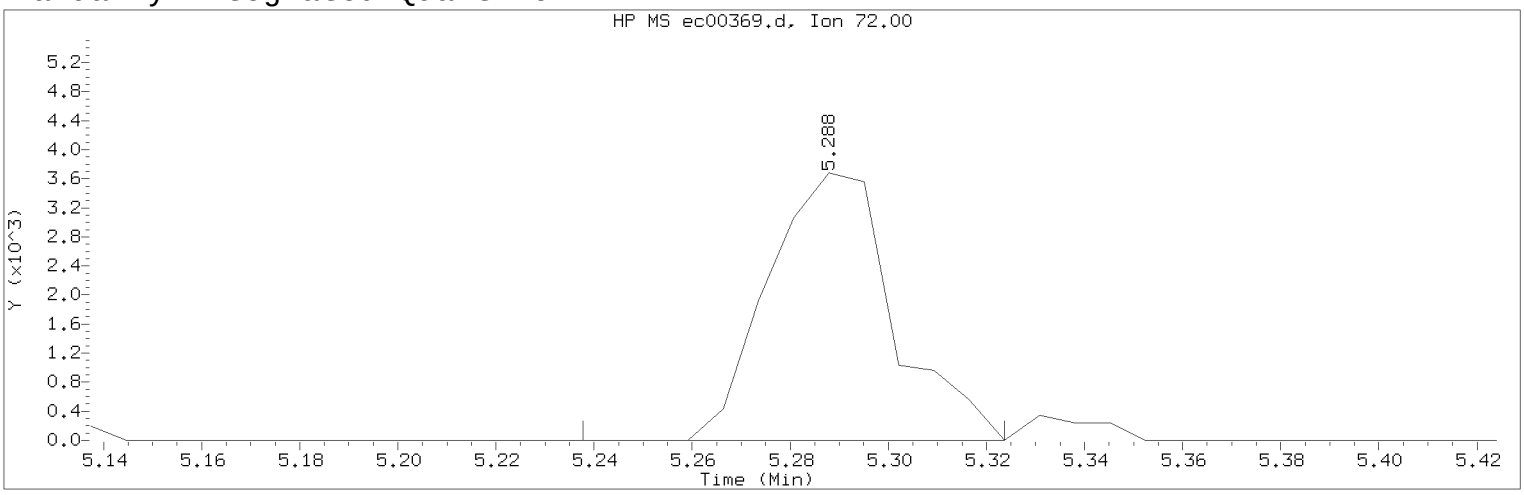
M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

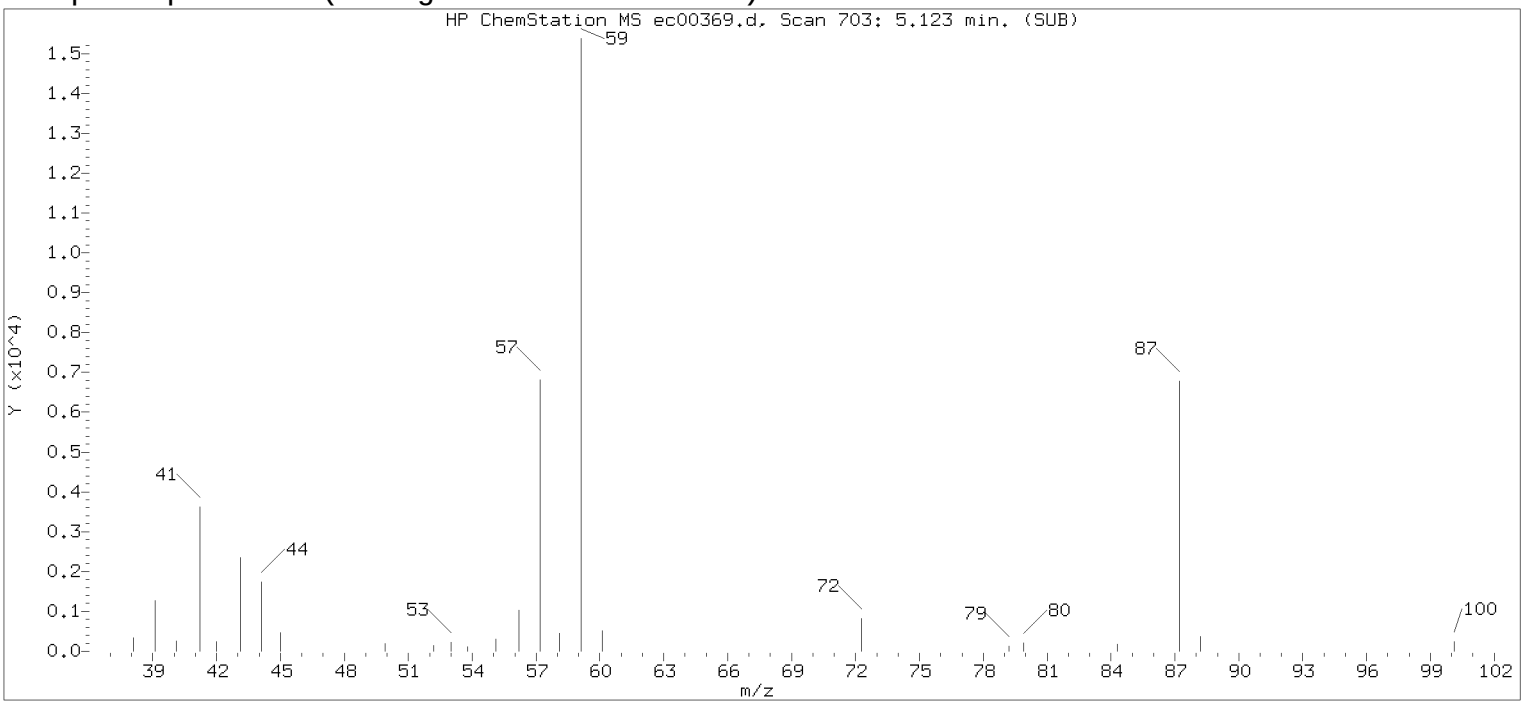
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 726
Retention Time (minutes): 5.288
Quant Ion : 72.00
Area (flag) : 6530M
Concentration (ppb(v)) : 0.4673
Integration start scan : 718 Integration stop scan: 730
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

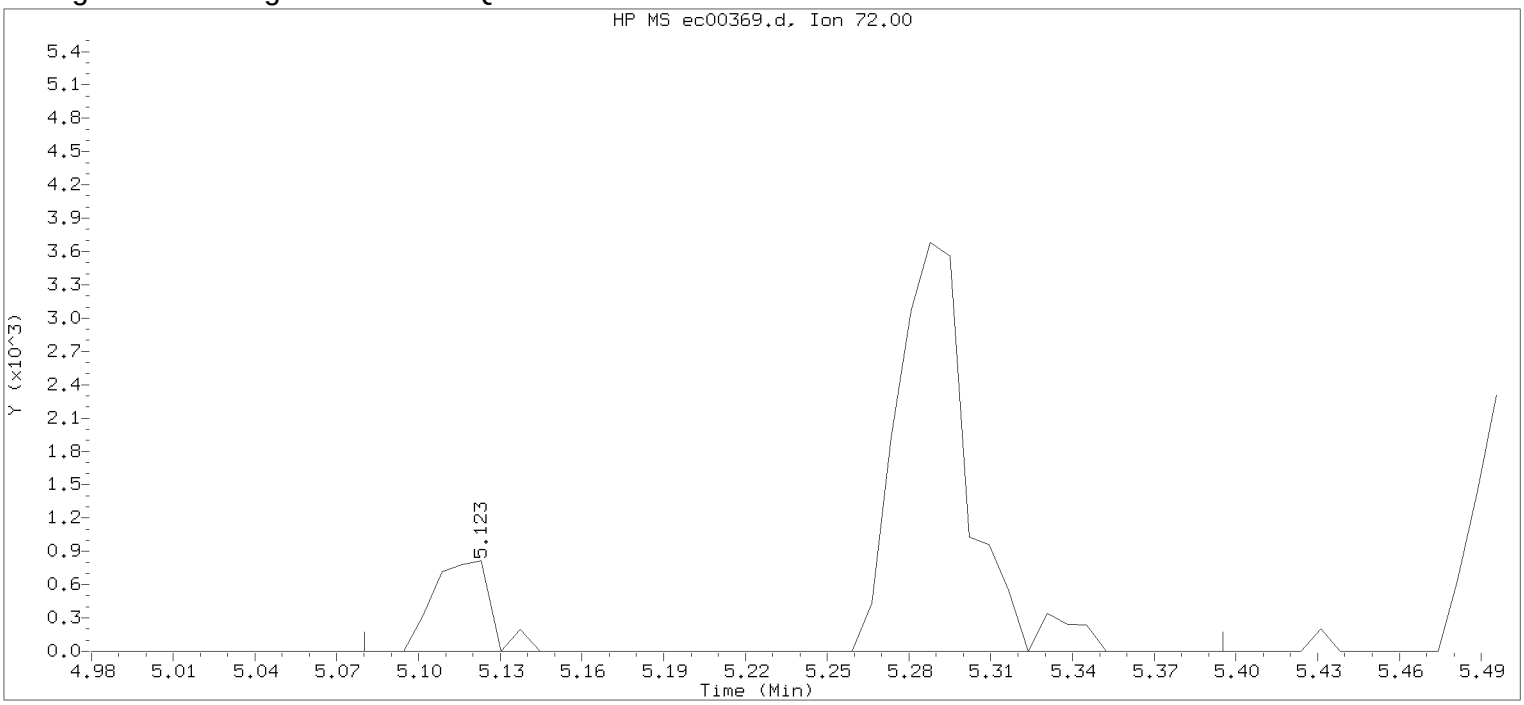
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

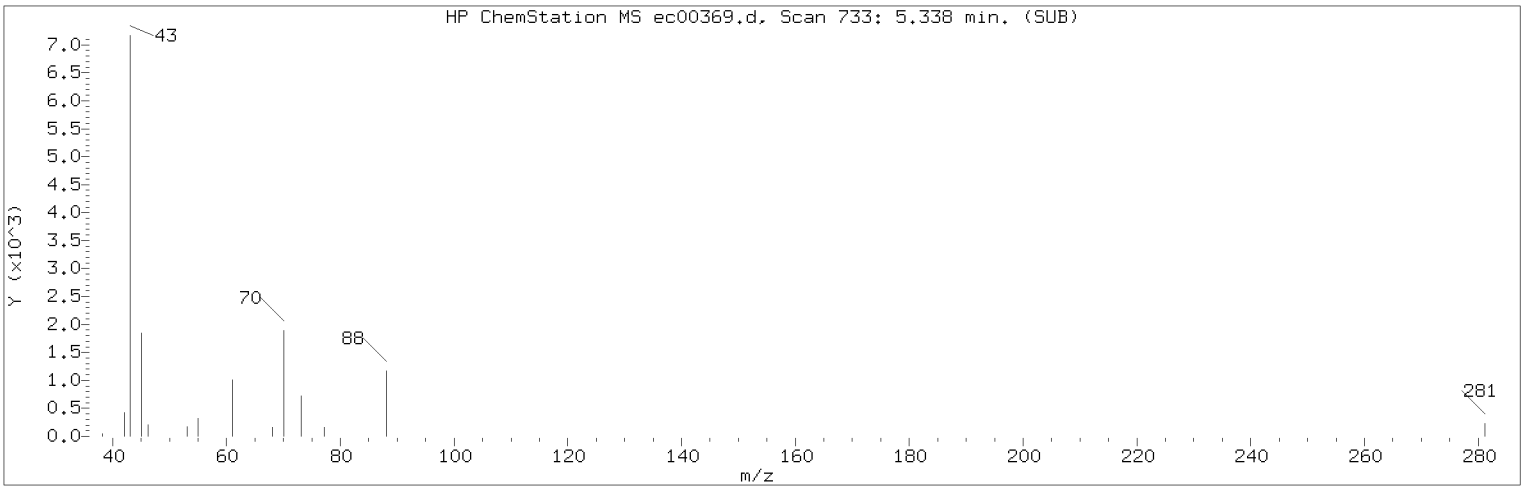
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:10 Unknown

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

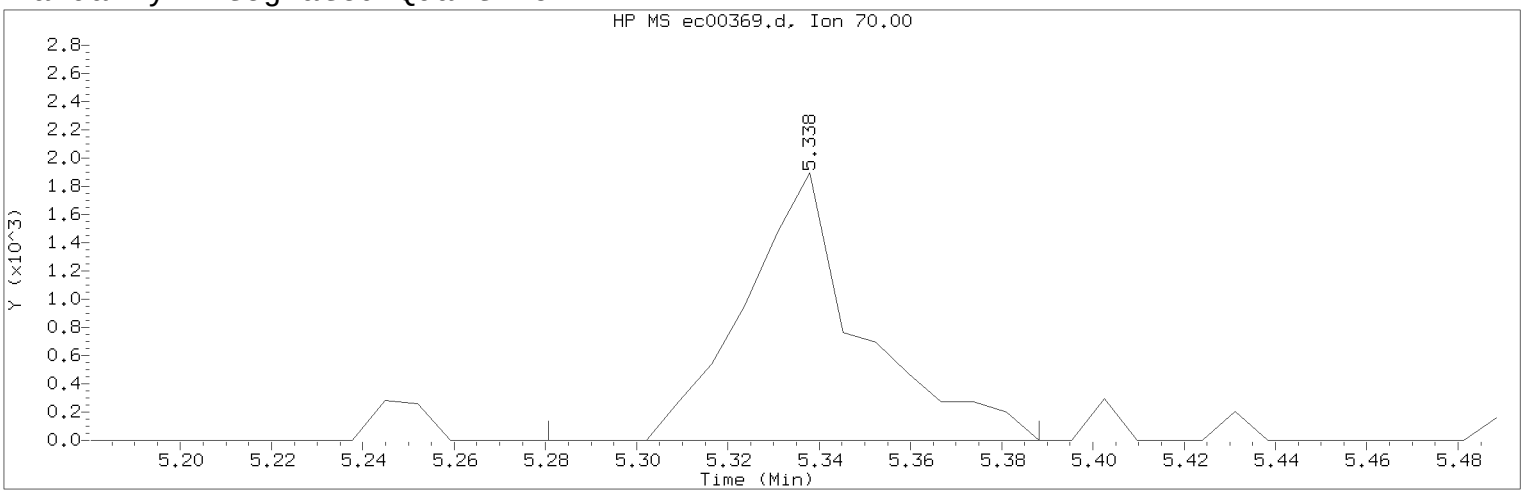
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 703
Retention Time (minutes): 5.123
Quant Ion : 72.00
Area : 8098
Concentration (ppb(v)) : 0.5795
Integration start scan : 696 Integration stop scan: 740
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user: WL71jbs01334

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

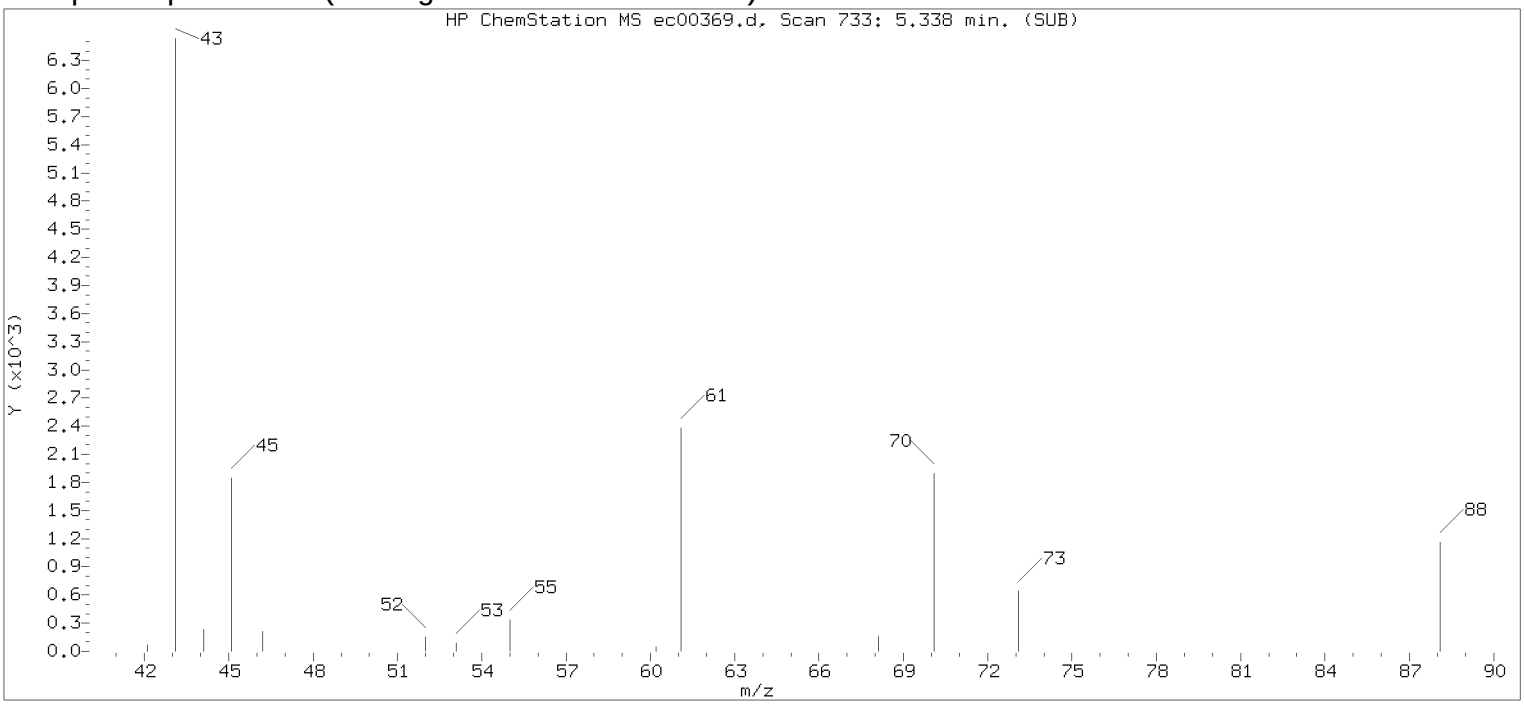
Compound Number : 38
Compound Name : Ethyl Acetate
Scan Number : 733
Retention Time (minutes): 5.338
Quant Ion : 70.00
Area (flag) : 3358M
Concentration (ppb(v)) : 0.4872
Integration start scan : 724 Integration stop scan: 739
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

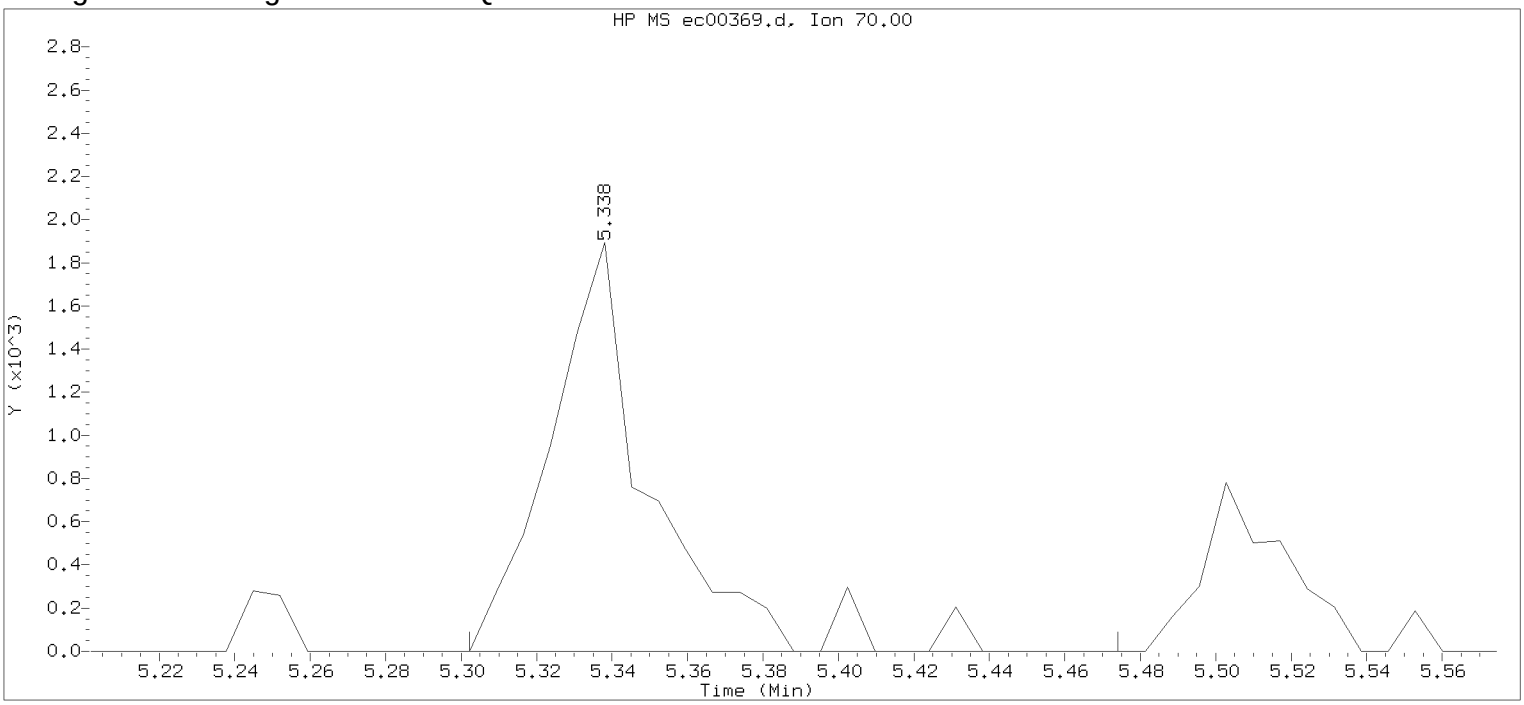
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

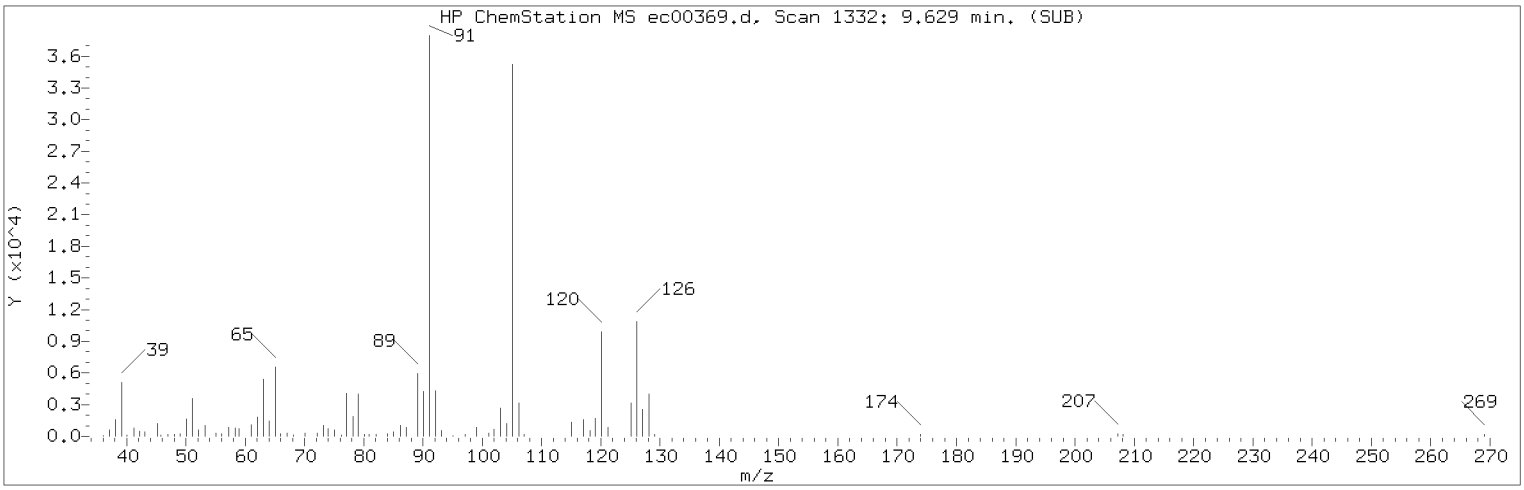
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:10 Unknown

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

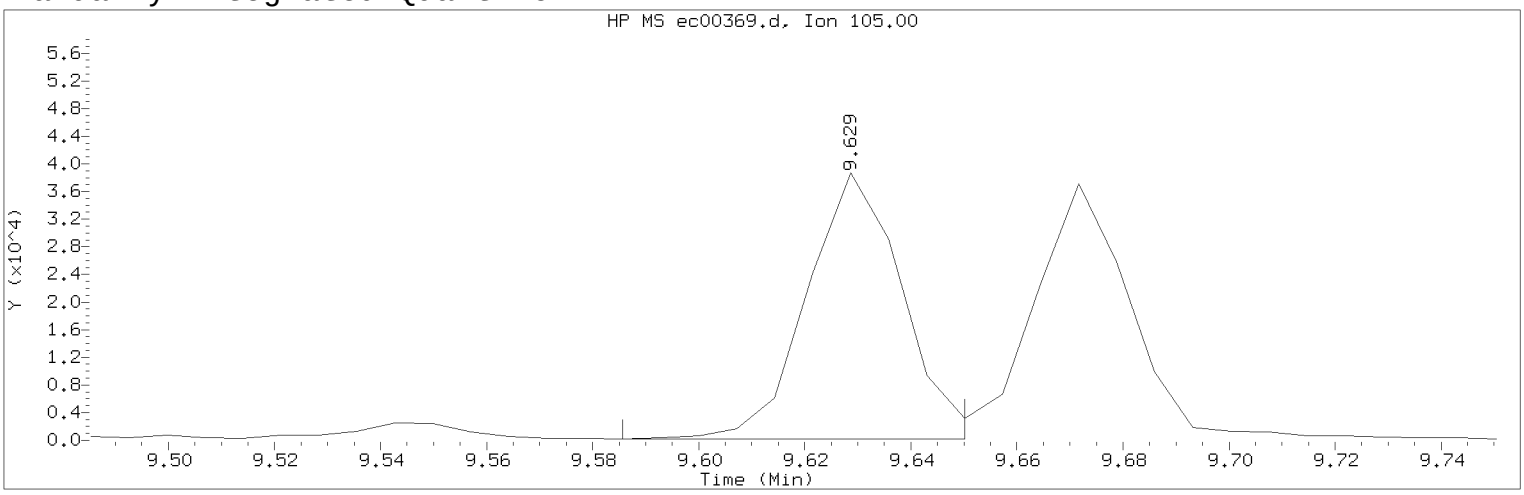
Compound Number : 38
Compound Name : Ethyl Acetate
Scan Number : 733
Retention Time (minutes): 5.338
Quant Ion : 70.00
Area : 3573
Concentration (ppb(v)) : 0.5184
Integration start scan : 727 Integration stop scan: 751
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

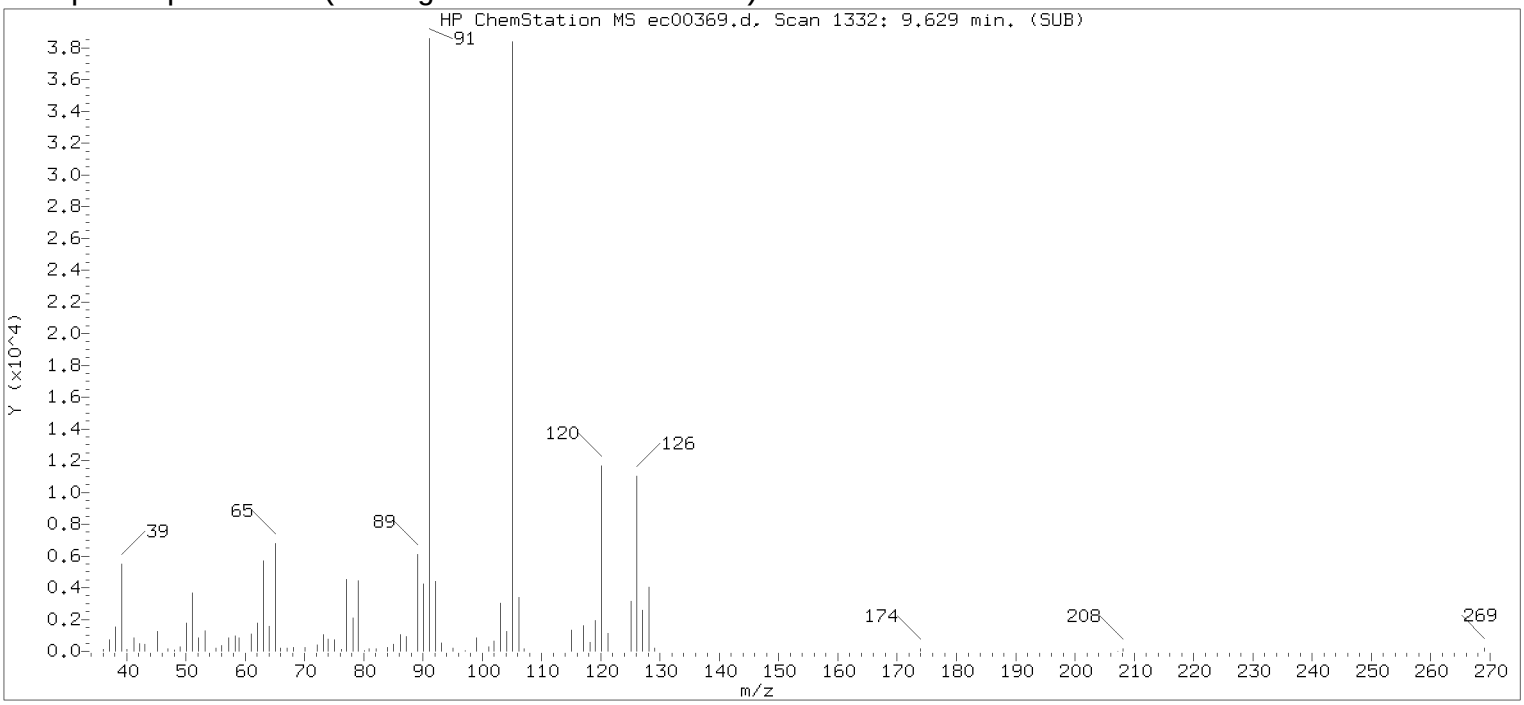
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 48033M
Concentration (ppb(v)) : 0.3678
Integration start scan : 1325 Integration stop scan: 1334
Y at integration start : 191 Y at integration end: 191

Reason for manual integration: improper integration

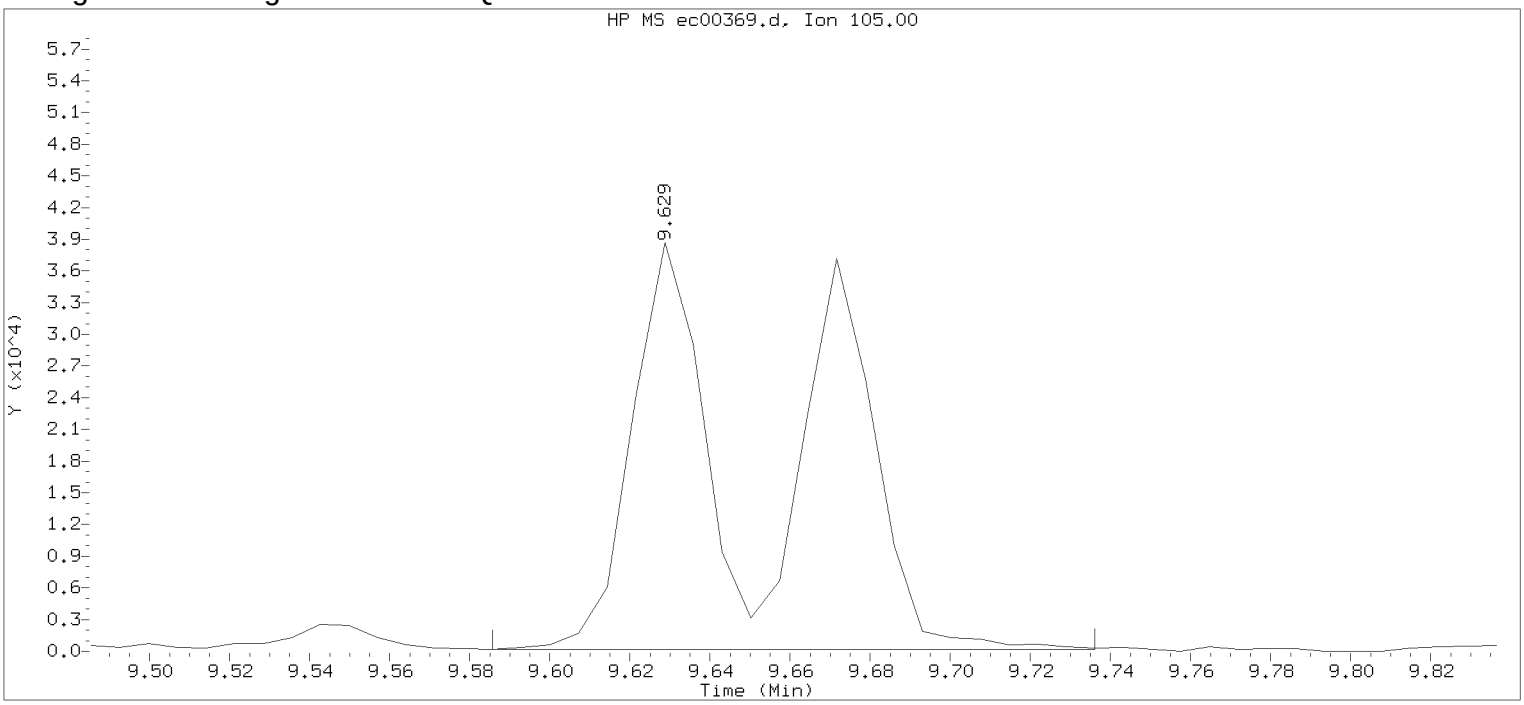
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

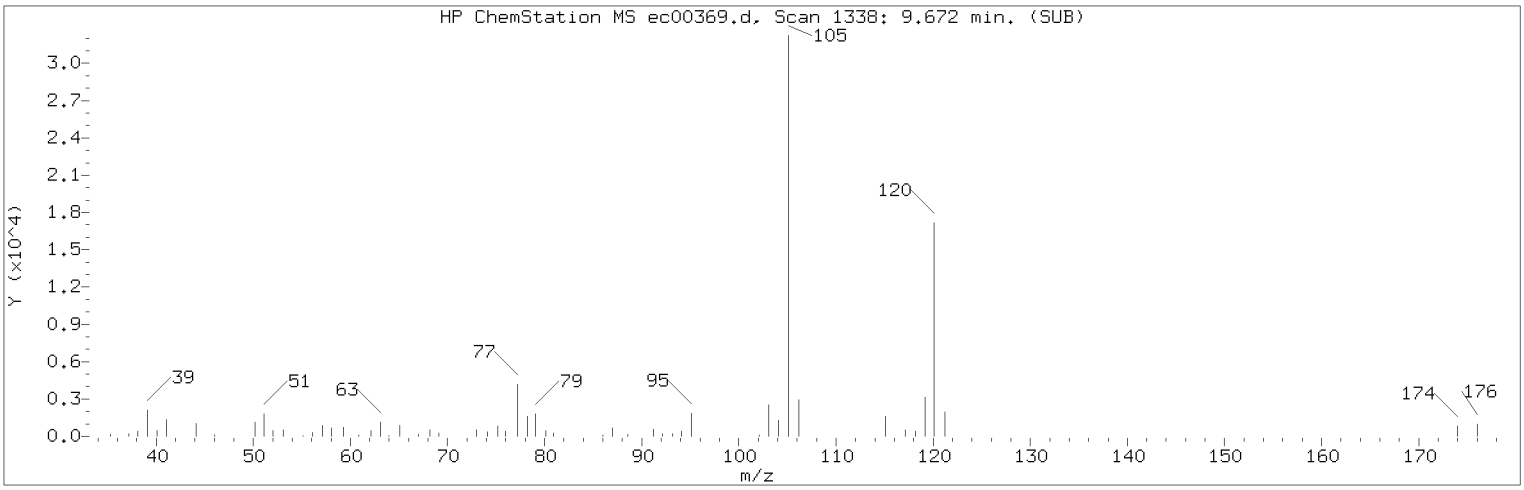
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:10 Unknown

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

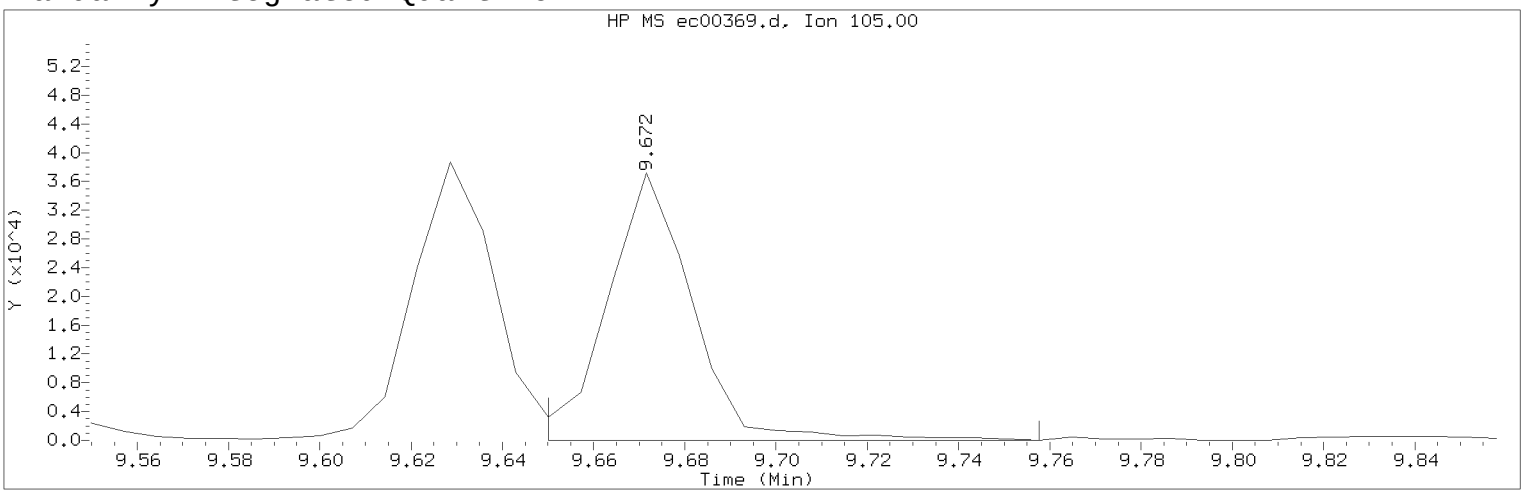
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 93642
Concentration (ppb(v)) : 0.7170
Integration start scan : 1325 Integration stop scan: 1346
Y at integration start : 191 Y at integration end: 191

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

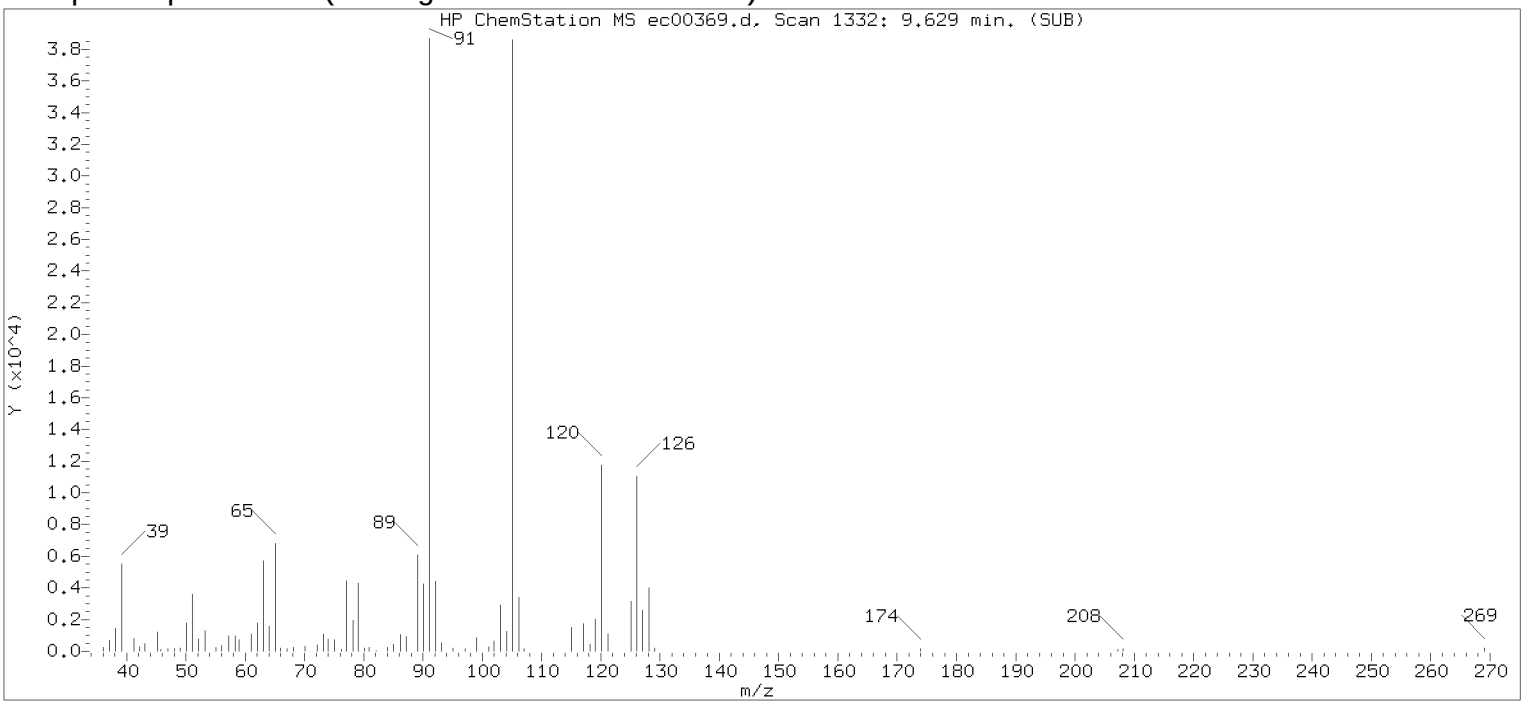
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 48244M
Concentration (ppb(v)) : 0.4357
Integration start scan : 1334 Integration stop scan: 1349
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

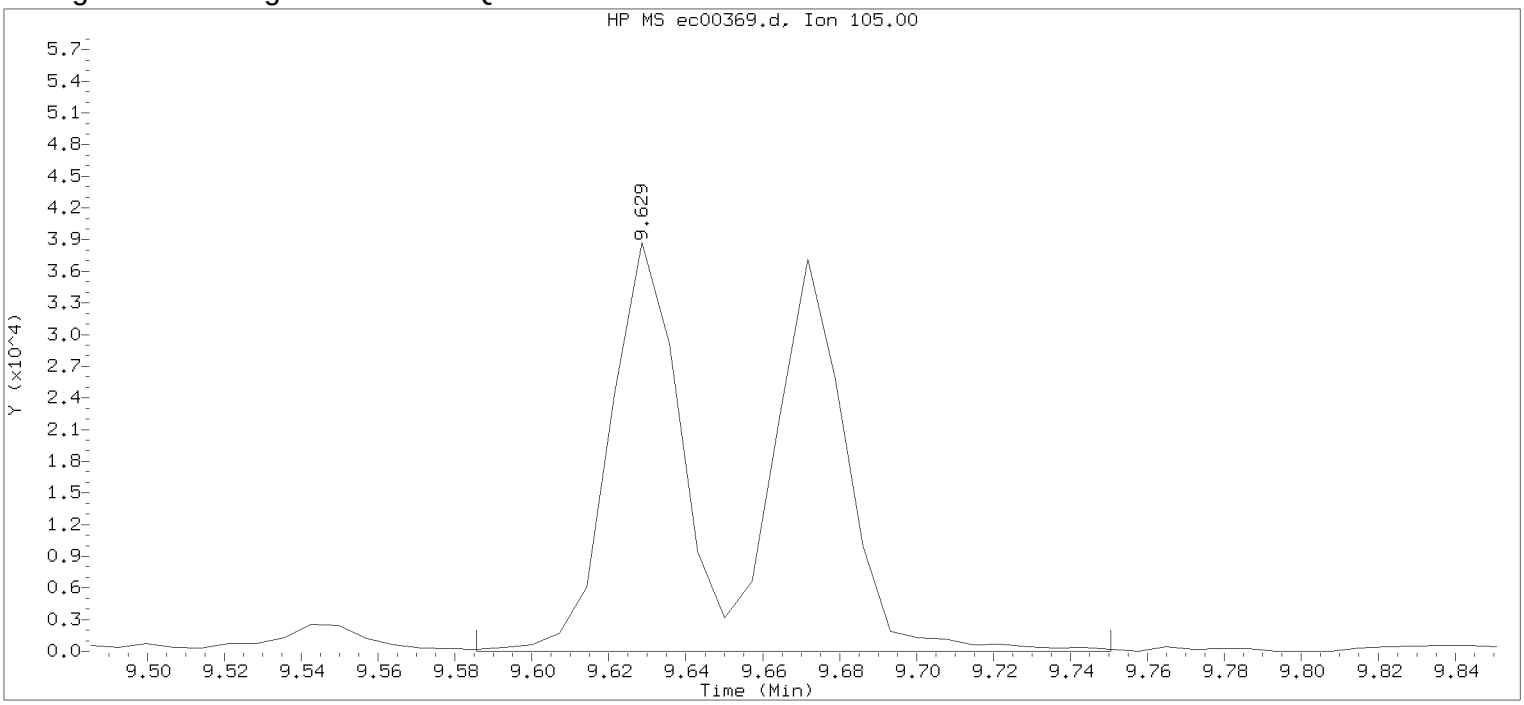
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

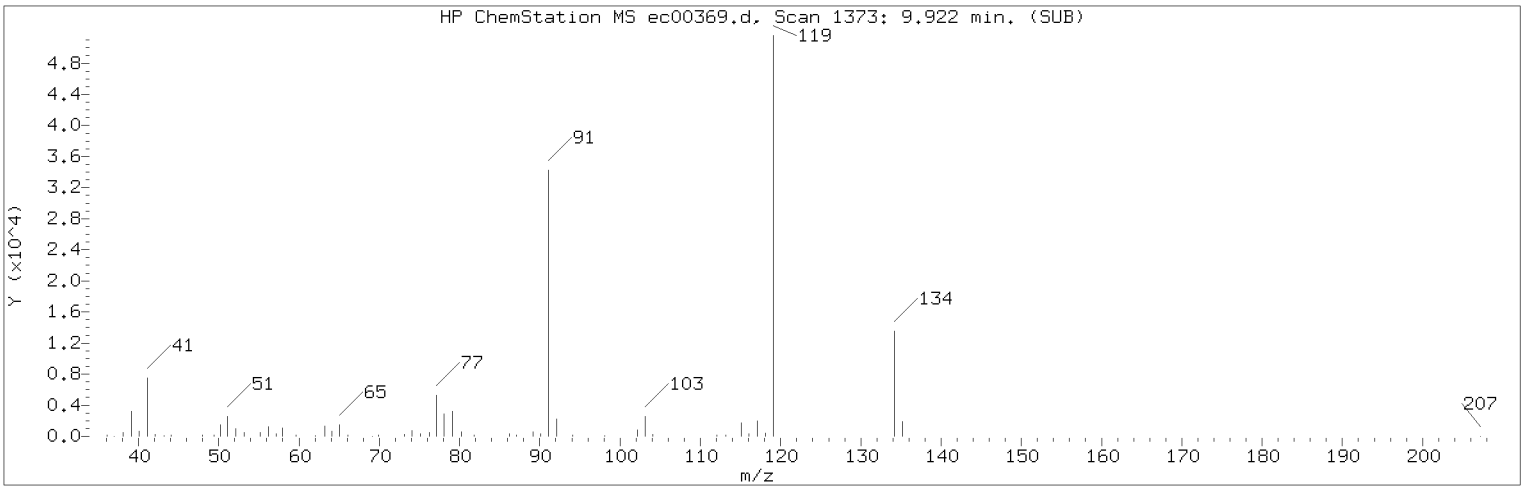
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:10 Unknown

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

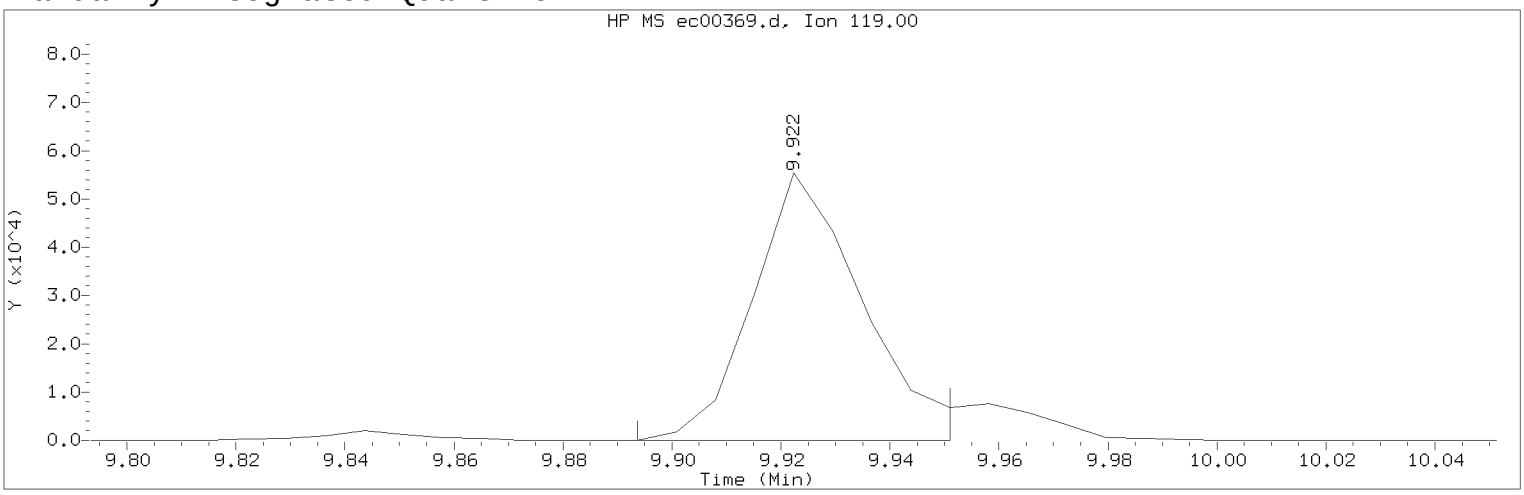
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 95647
Concentration (ppb(v)) : 0.8638
Integration start scan : 1325 Integration stop scan: 1348
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

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

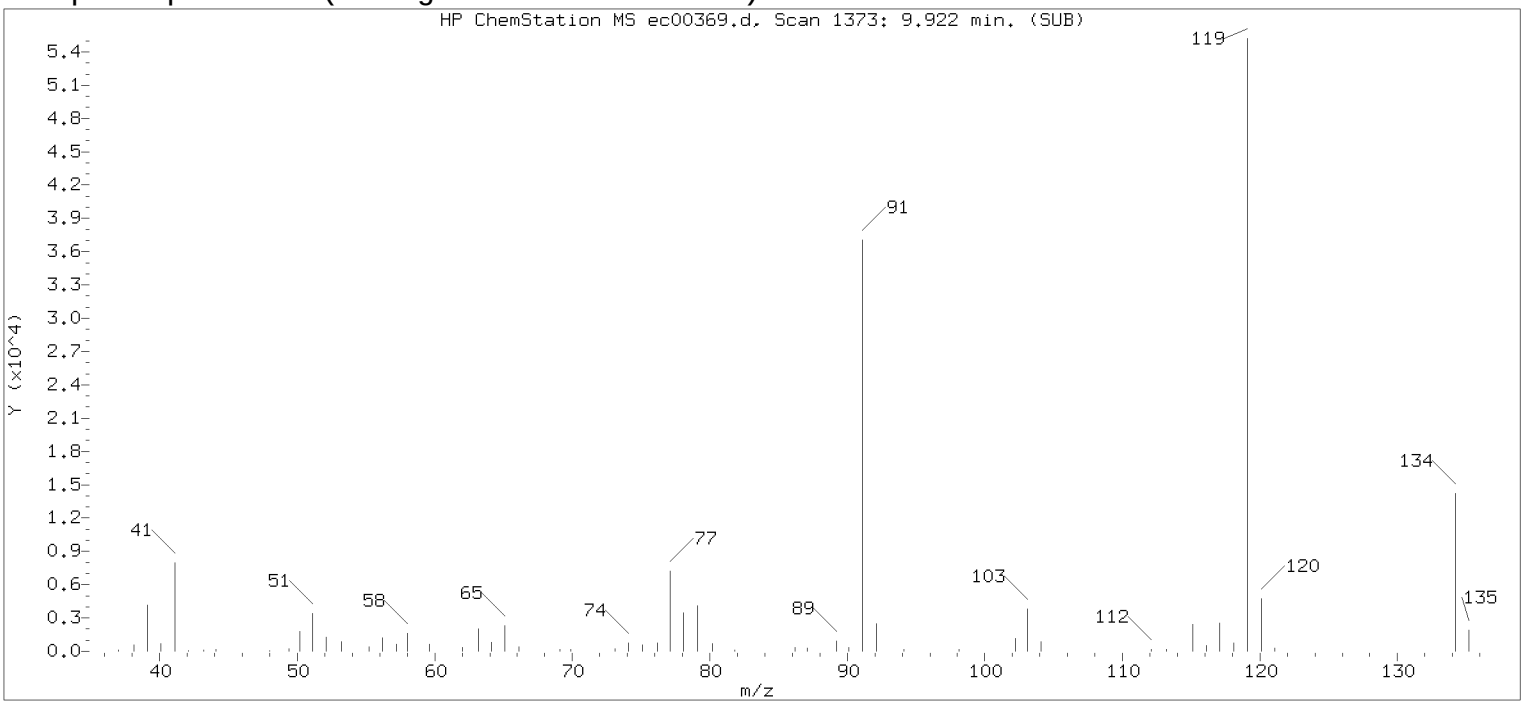
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area (flag) : 77587M
Concentration (ppb(v)) : 0.7287
Integration start scan : 1368 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

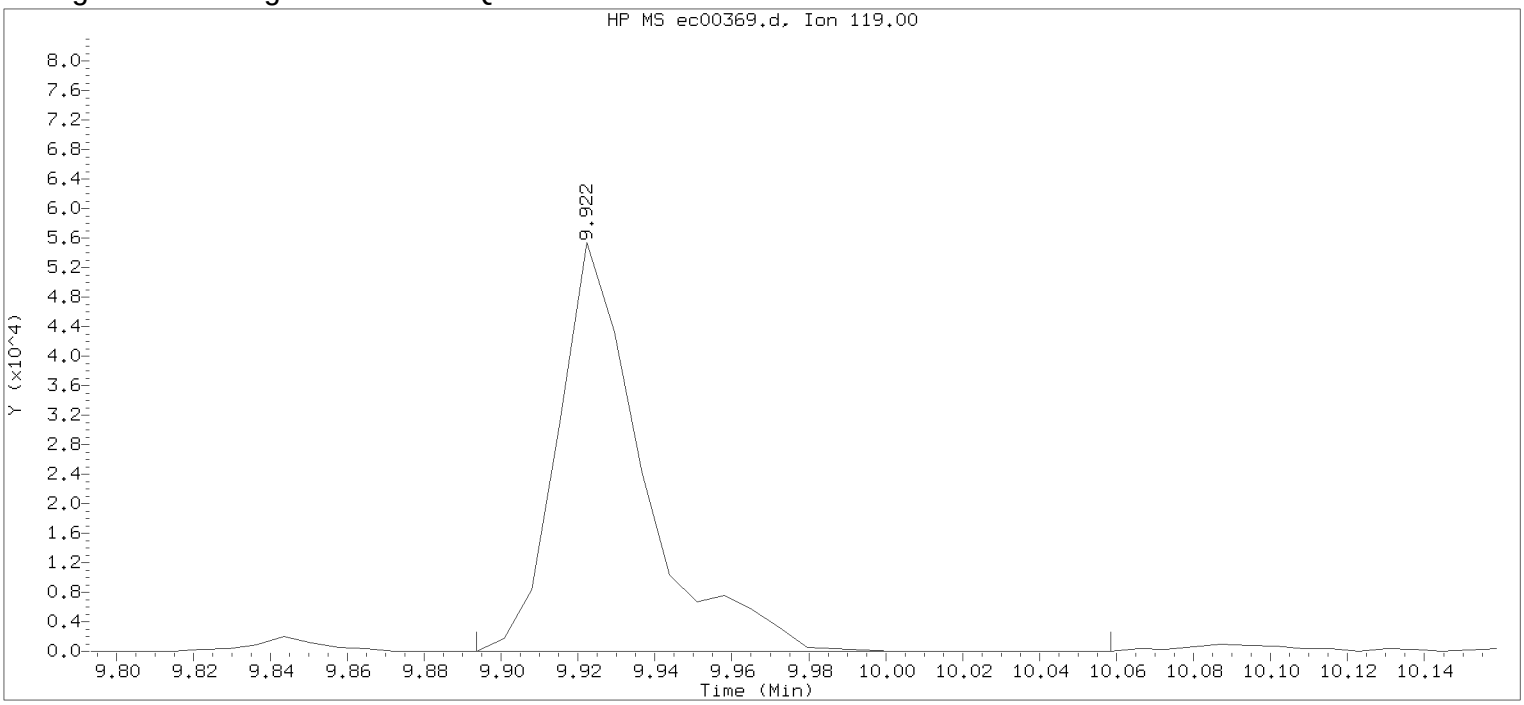
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



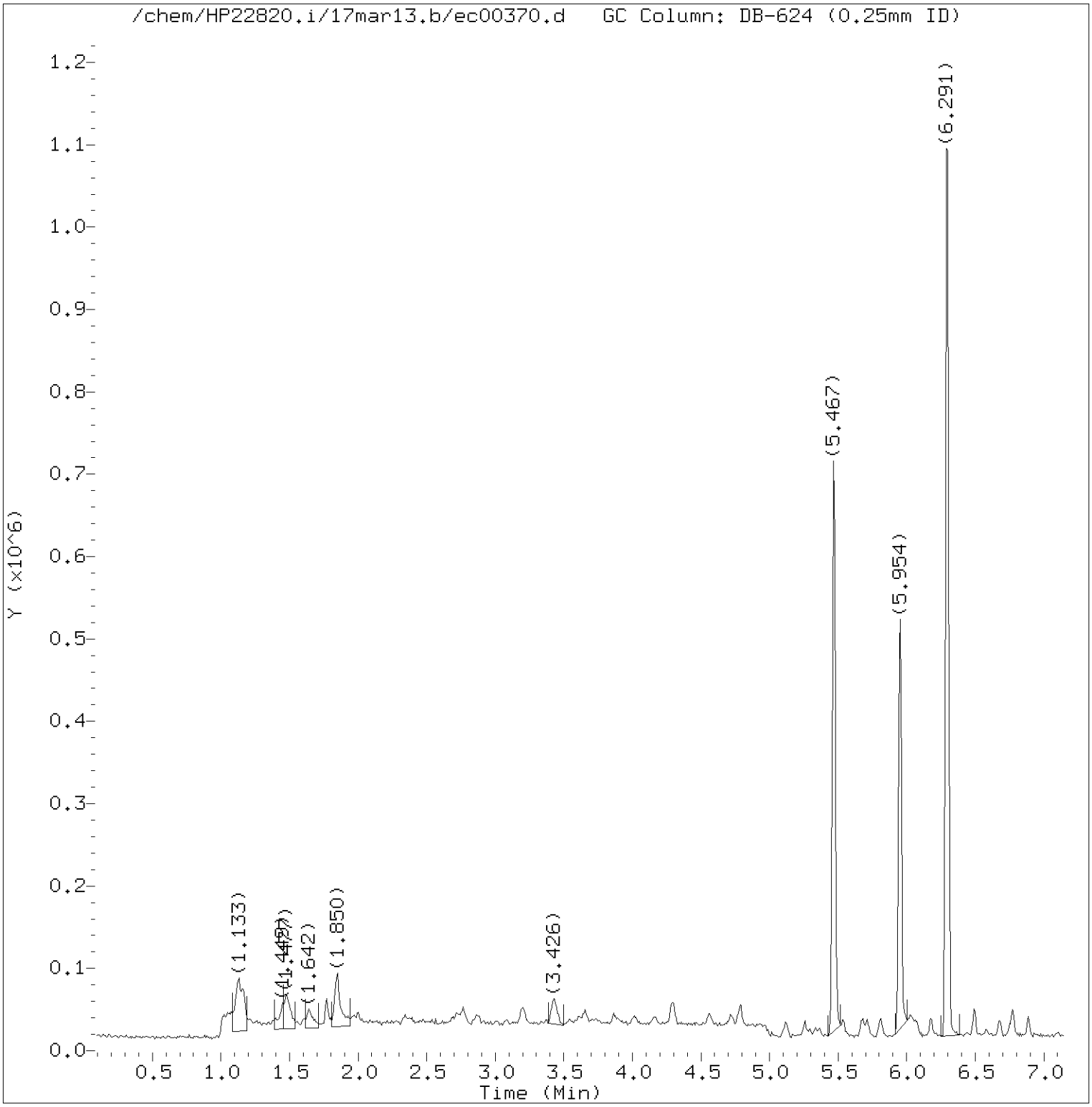
Data File: /chem/HP22820.i/17mar13.b/ec00369.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 01:51 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:10 Unknown

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

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1373
Retention Time (minutes): 9.922
Quant Ion : 119.00
Area : 85079
Concentration (ppb(v)) : 0.7991
Integration start scan : 1368 Integration stop scan: 1391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445



Total Ion Chromatogram (TIC)

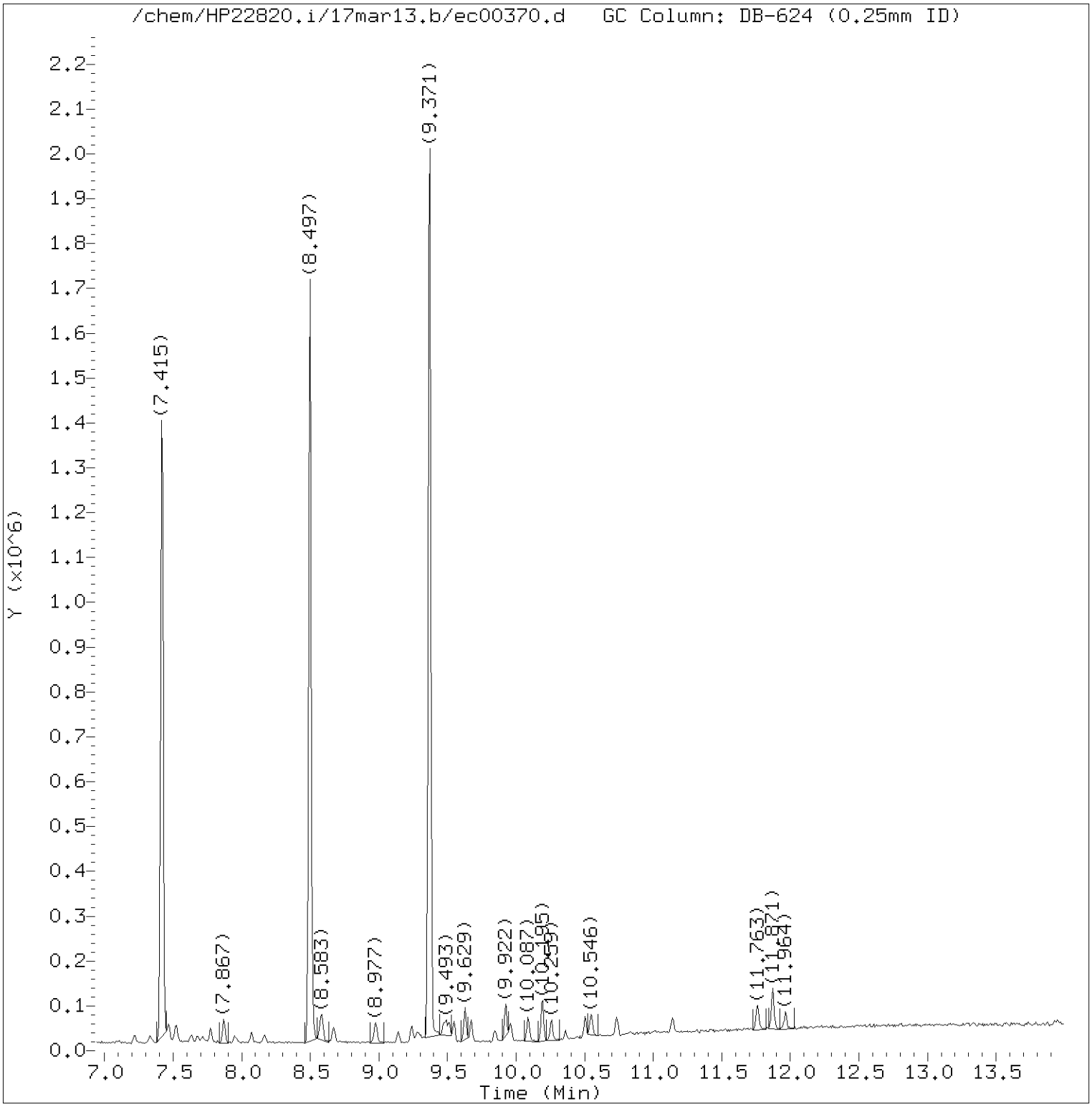
Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 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)	1.606	41	5897	0.325
2) Dichlorodifluoromethane	(1)	1.642	85	14913	0.206
3) Chlorodifluoromethane	(1)	1.656	51	8966	0.230
4) Freon 114	(1)	1.771	85	14583	0.203
5) Chloromethane	(1)	1.843	50	7417	0.334
6) Vinyl Chloride	(1)	1.957	62	4912	0.193
7) 1,3-Butadiene	(1)	2.000	54	3792M	0.212
8) Bromomethane	(1)	2.337	94	8026	0.299
9) Chloroethane	(1)	2.466	64	2880M	0.206
10) Bromoethene	(1)	2.681	106	4753	0.189
11) Dichlorofluoromethane	(1)	2.724	67	11968	0.204
12) Trichlorofluoromethane	(1)	2.774	101	14839	0.196
13) Pentane	(1)	2.860	43	10256	0.265
14) Ethanol	(1)	3.110	45	6364	0.850
15) Freon123a	(1)	3.204	67	11788	0.216
16) Acrolein	(1)	3.347	56	2075	0.236
17) 1,1-Dichloroethene	(1)	3.418	61	8704	0.211
18) Freon 113	(1)	3.440	103	8439	0.210
19) Acetone	(1)	3.547	43	12188	0.332
20) Methyl Iodide	(1)	3.633	142	16143	0.288
21) Carbon Disulfide	(1)	3.655	76	14728	0.197
22) Isopropanol	(1)	3.734	45	12893	0.440
23) Acetonitrile	(1)	3.855	40	4094	0.238
24) 3-Chloropropene	(1)	3.855	76	2335M	0.217
25) Methylene Chloride	(1)	4.013	84	5514	0.248
26) tert-Butyl Alcohol	(1)	4.163	59	9861	0.228
28) trans-1,2-Dichloroethene	(1)	4.285	61	7347M	0.196
29) Methyl t-Butyl Ether	(1)	4.285	73	12429	0.174
27) Acrylonitrile	(1)	4.307	53	4702	0.229
30) Hexane	(1)	4.557	57	7337M	0.201
31) 1,1-Dichloroethane	(1)	4.715	63	10735M	0.222
32) Vinyl Acetate	(1)	4.787	86	1136M	0.183
33) Di-Isopropyl Ether	(1)	4.787	45	16204	0.213
34) Ethyl Tert-Butyl Ether	(1)	5.123	59	13229M	0.181
35) cis-1,2-Dichloroethene	(1)	5.259	61	6410	0.181
37) 2-Butanone	(1)	5.288	72	2078M	0.156
38) Ethyl Acetate	(1)	5.338	70	1188	0.180
39) Methyl Acrylate	(1)	5.367	55	8440	0.204

M = Compound was manually integrated.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	205661	10.000
41) Tetrahydrofuran	(1)	5.503	42	7155	0.275
42) Chloroform	(1)	5.539	83	11067	0.185
43) 1,1,1-Trichloroethane	(1)	5.682	97	12233	0.206
44) Cyclohexane	(1)	5.711	56	7428	0.189
45) Carbon Tetrachloride	(1)	5.811	117	10976	0.180
46) Benzene	(2)	5.983	78	16644	0.204
47) 1,2-Dichloroethane	(2)	6.011	62	6961	0.186
48) Isooctane	(2)	6.040	57	20669	0.178
49) Tert-Amyl Methyl Ether	(2)	6.069	73	12897	0.178
50) Heptane	(2)	6.176	43	9849	0.247
51)*1,4-Difluorobenzene	(2)	6.298	114	743107	10.000
52) Trichloroethene	(2)	6.491	130	9022	0.221
53) Ethyl Acrylate	(2)	6.577	55	7746	0.163
36) 1,2-Dichloroethene (total)	(1)		61	13757	0.377
54) 1,2-Dichloropropane	(2)	6.678	63	5907	0.207
57) Methyl Methacrylate	(2)	6.749	69	4365	0.173
55) Dibromomethane	(2)	6.771	174	7906	0.212
56) 1,4-Dioxane	(2)	6.778	88	3916	0.201
58) Bromodichloromethane	(2)	6.885	83	10749	0.188
59) cis-1,3-Dichloropropene	(2)	7.222	75	8215	0.180
60) 4-Methyl-2-Pentanone	(2)	7.329	43	10091	0.205
61) Toluene	(3)	7.465	91	18142	0.185
62) Octane	(3)	7.516	43	12192	0.222
63) trans-1,3-Dichloropropene	(3)	7.630	75	7170	0.179
65) Ethyl Methacrylate	(3)	7.680	69	5655	0.146
66) 1,1,2-Trichloroethane	(3)	7.774	97	6468	0.186
67) Tetrachloroethene	(3)	7.874	166	13144	0.220
68) 2-Hexanone	(3)	7.945	43	9570	0.199
69) Dibromochloromethane	(3)	8.067	127	7103	0.160
70) 1,2-Dibromoethane	(3)	8.167	107	9052	0.170
71)*Chlorobenzene-d5	(3)	8.497	117	731133	10.000
72) Chlorobenzene	(3)	8.518	112	16357	0.195
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	7854	0.181
74) Ethylbenzene	(3)	8.590	91	22402	0.181
75) m/p-Xylene	(3)	8.669	91	17098	0.179
76) o-Xylene	(3)	8.970	91	14876	0.159
78) Styrene	(3)	8.984	104	9086	0.147

* = Compound is an internal standard.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

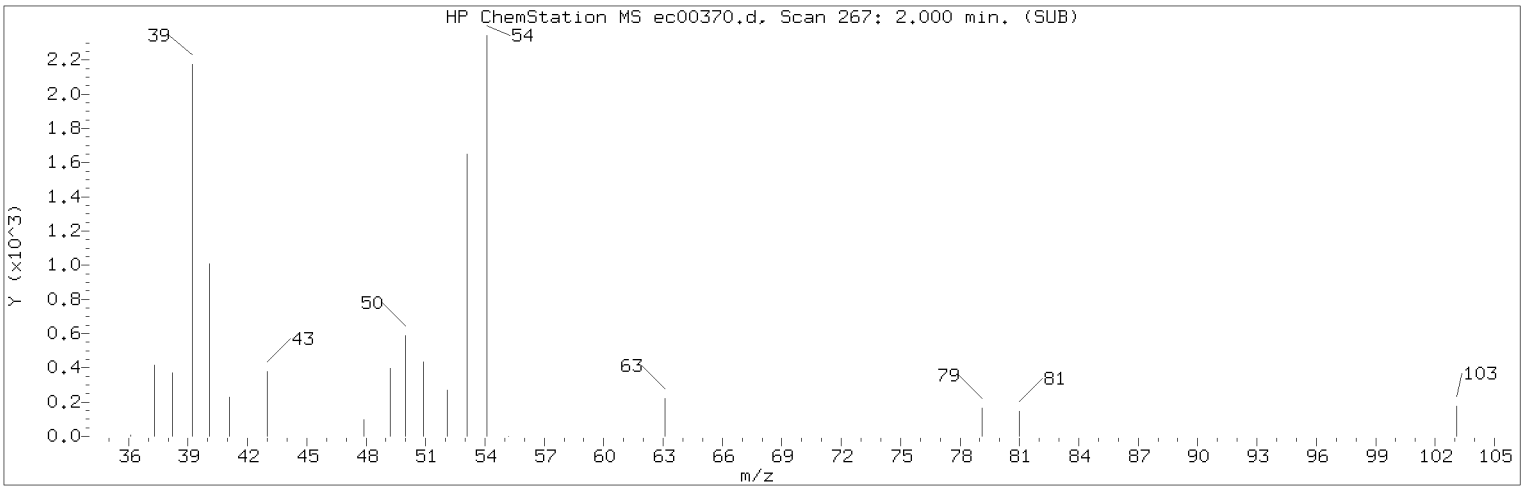
Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	7806	0.147
80) Cumene	(3)	9.242	105	20458	0.160
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	12198	0.182
81) Bromobenzene	(3)	9.493	156	9596	0.196
83) 1,2,3-Trichloropropane	(3)	9.514	110	4698	0.207
85) 2-Chlorotoluene	(3)	9.543	126	6579	0.179
84) n-Propylbenzene	(3)	9.550	120	6566MA	0.168
86) 4-Ethyltoluene	(3)	9.629	105	19831M	0.154
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	19957M	0.183
88) Alpha Methyl Styrene	(3)	9.844	118	6671	0.159
89) tert-Butylbenzene	(3)	9.930	119	38910	0.371
90) 1,2,4-Trimethylbenzene	(3)	9.958	105	17892	0.176
91) sec-Butylbenzene	(3)	10.087	105	28952	0.192
92) 1,3-Dichlorobenzene	(3)	10.187	146	15965	0.207
94) p-Isopropyltoluene	(3)	10.195	119	20243	0.168
93) 1,4-Dichlorobenzene	(3)	10.259	146	16278	0.210
95) Benzyl Chloride	(3)	10.359	91	10312	0.172
97) n-Butylbenzene	(3)	10.503	91	19394	0.182
96) 1,2-Dichlorobenzene	(3)	10.546	146	15087	0.219
98) Hexachloroethane	(3)	10.732	117	4848	0.158
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	6619	0.263
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	14938	0.360
101) Hexachlorobutadiene	(3)	11.871	225	14648	0.376
102) Naphthalene	(3)	11.964	128	26567	0.353
64) 1,3-Dichloropropene (total)	(3)		75	15385	0.359
77) Xylene (total)	(3)		91	31974	0.337

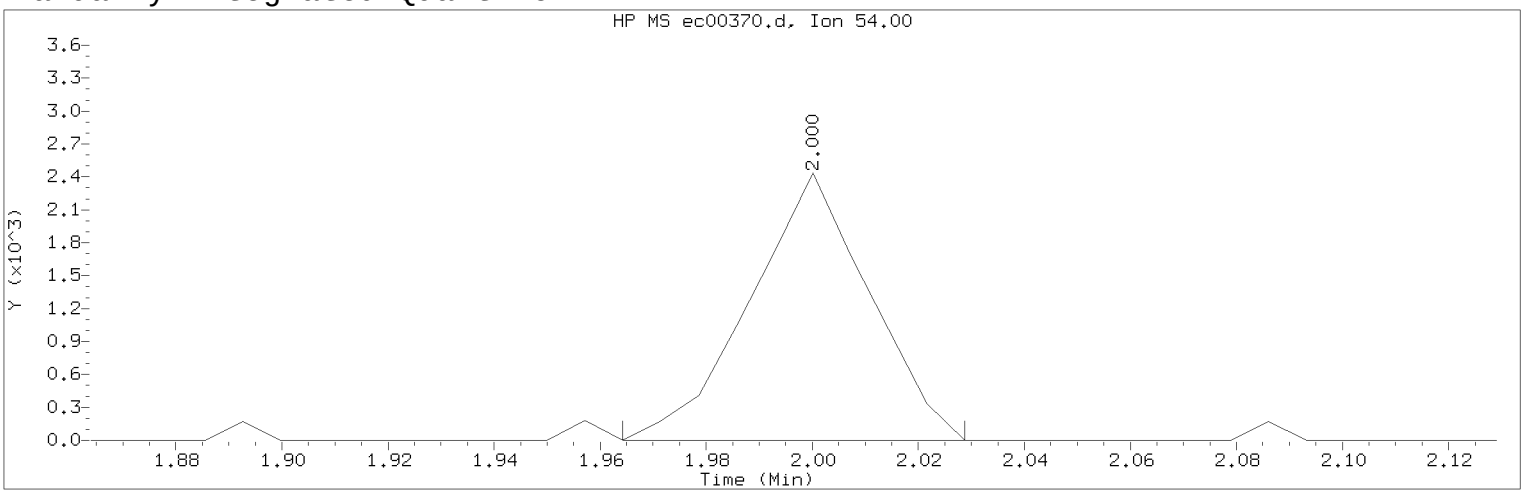
M = Compound was manually integrated.
A = User selected an alternate hit.

Digitally signed by Jeffrey B. Smith
on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

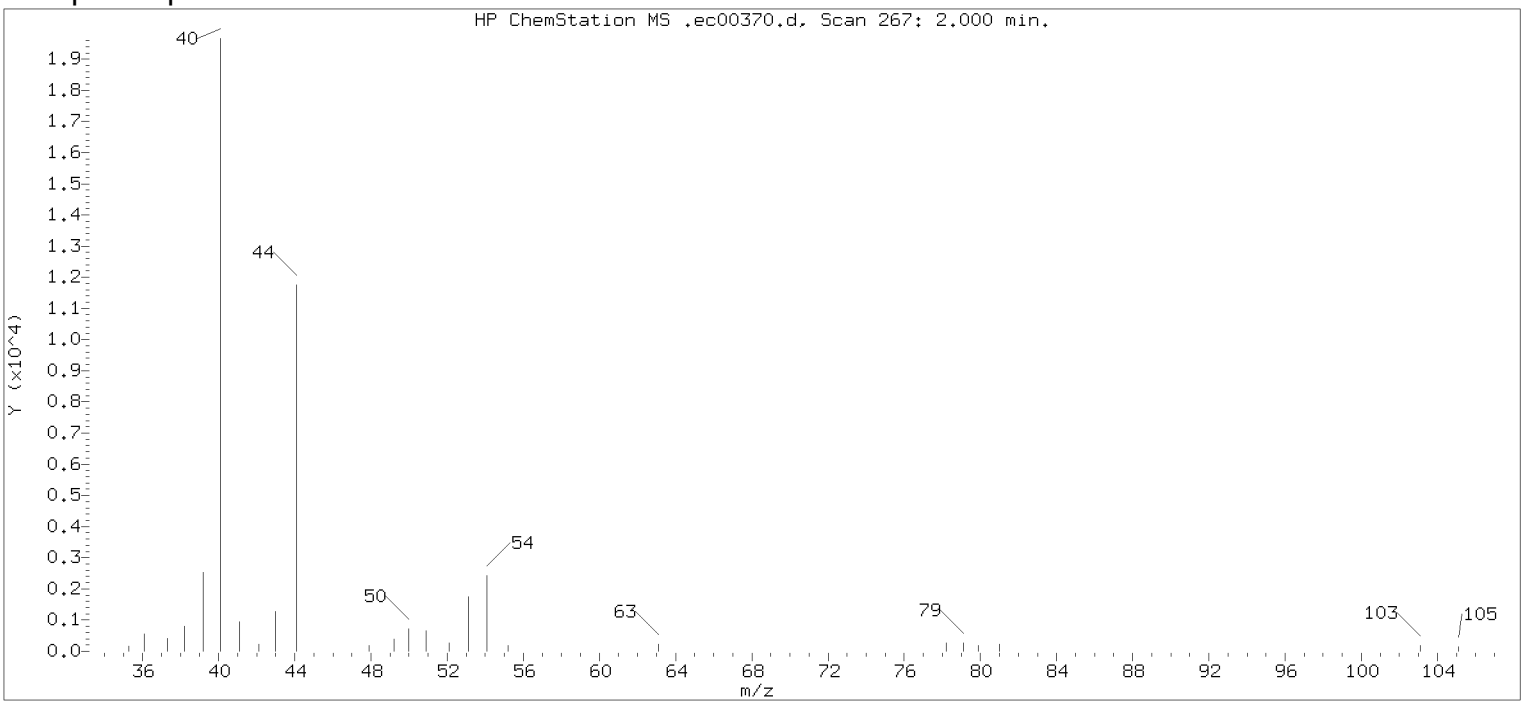
Compound Number : 7
Compound Name : 1,3-Butadiene
Scan Number : 267
Retention Time (minutes): 2.000
Quant Ion : 54.00
Area (flag) : 3792M
Concentration (ppb(v)) : 0.2118
Integration start scan : 261 Integration stop scan: 270
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

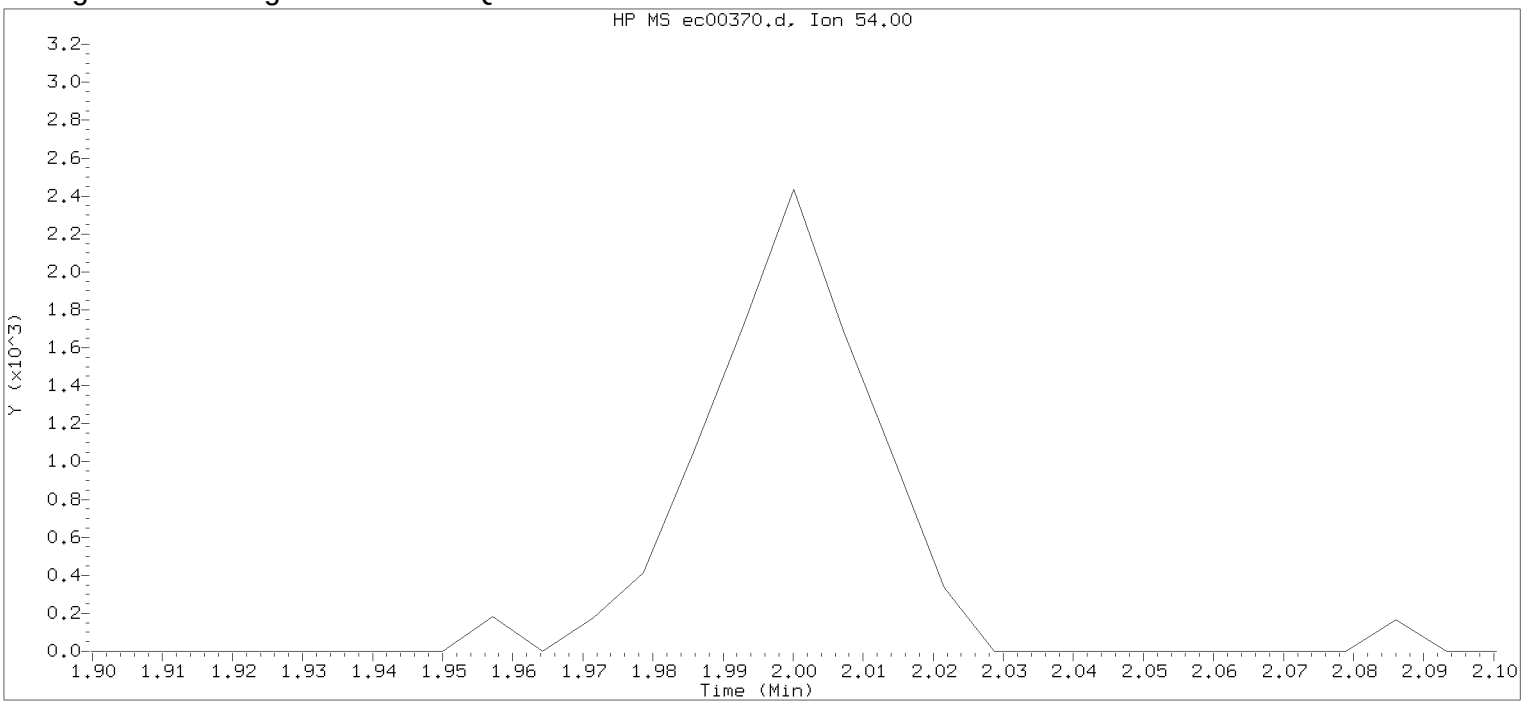
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

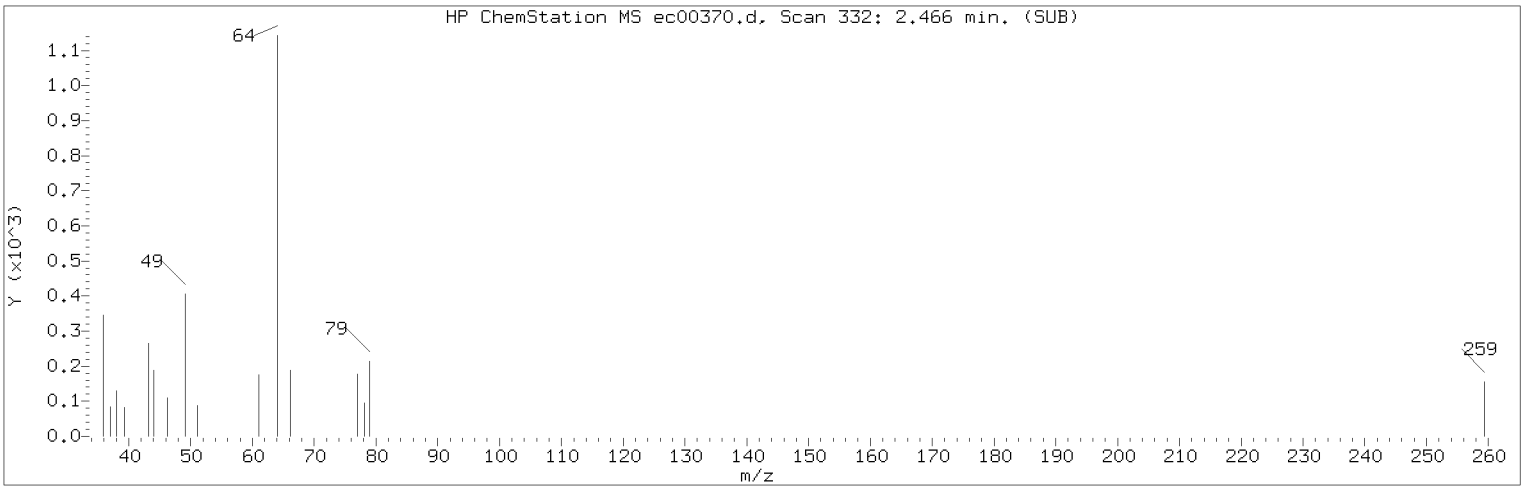
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

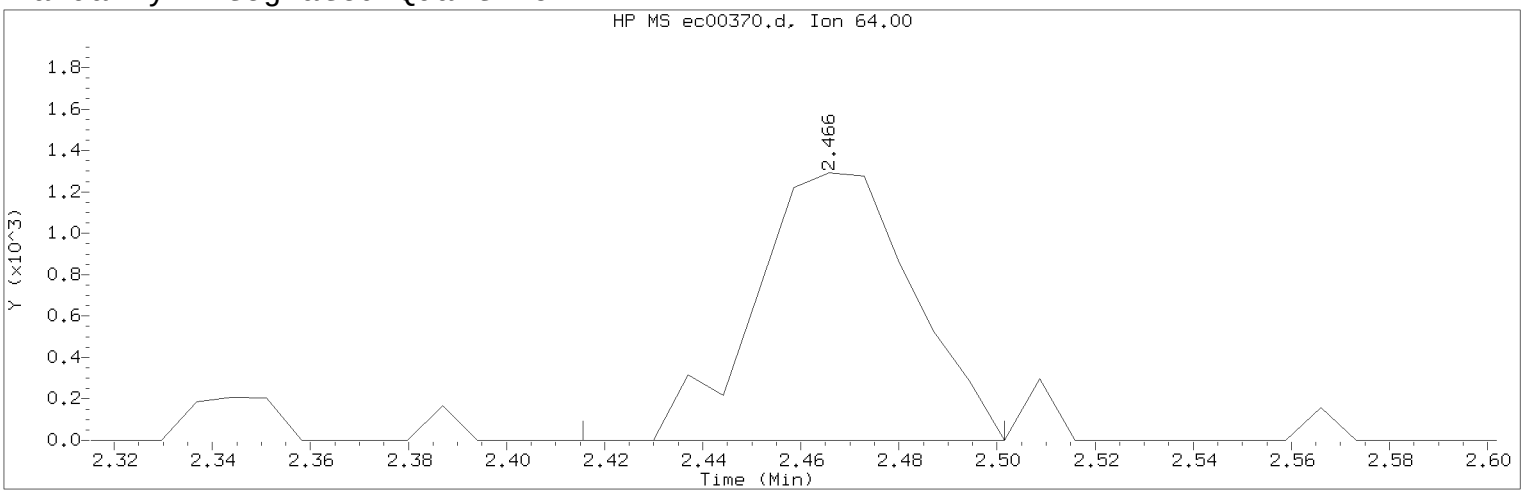
Compound Number : 7
Compound Name : 1,3-Butadiene
Expected RT (minutes) : 2.000
Quant Ion : 54.00

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

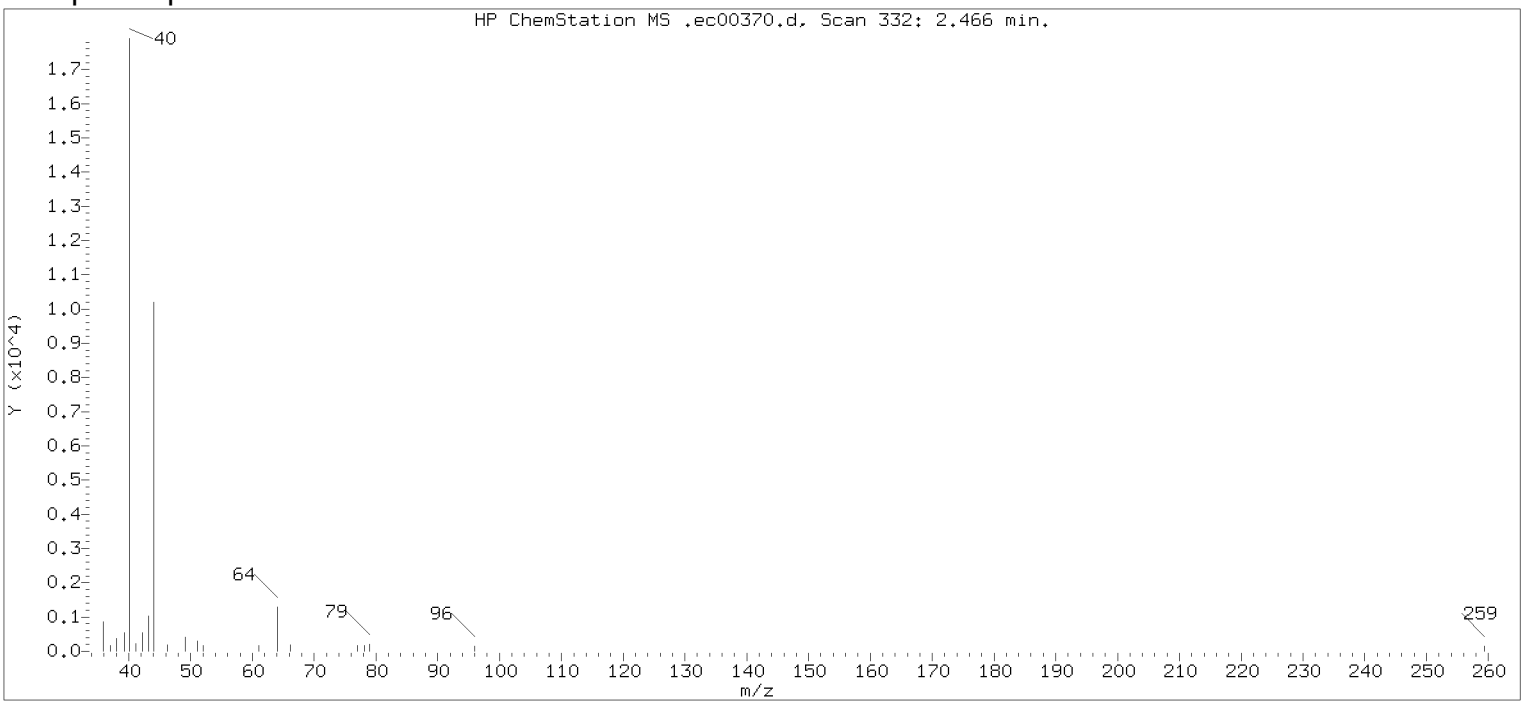
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 332
Retention Time (minutes): 2.466
Quant Ion : 64.00
Area (flag) : 2880M
Concentration (ppb(v)) : 0.2057
Integration start scan : 324 Integration stop scan: 336
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

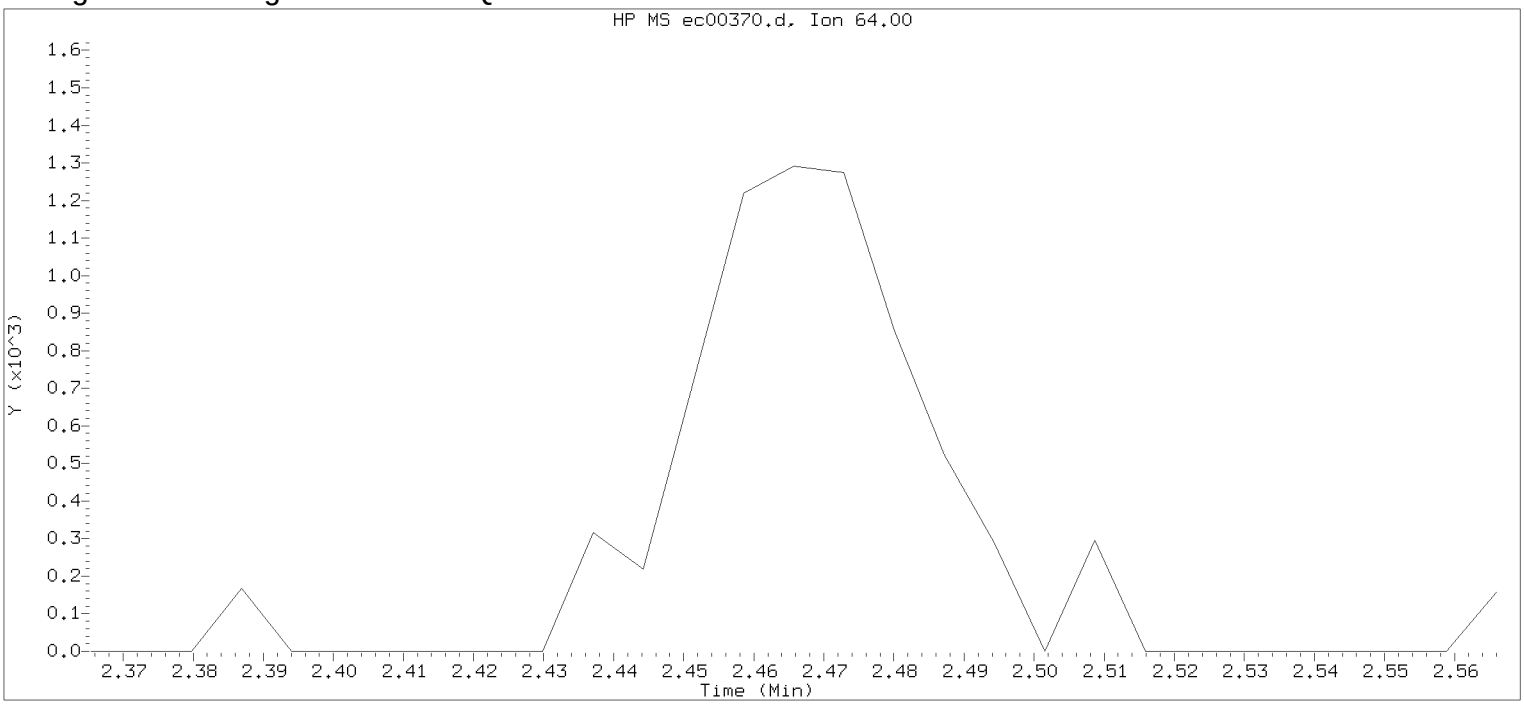
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

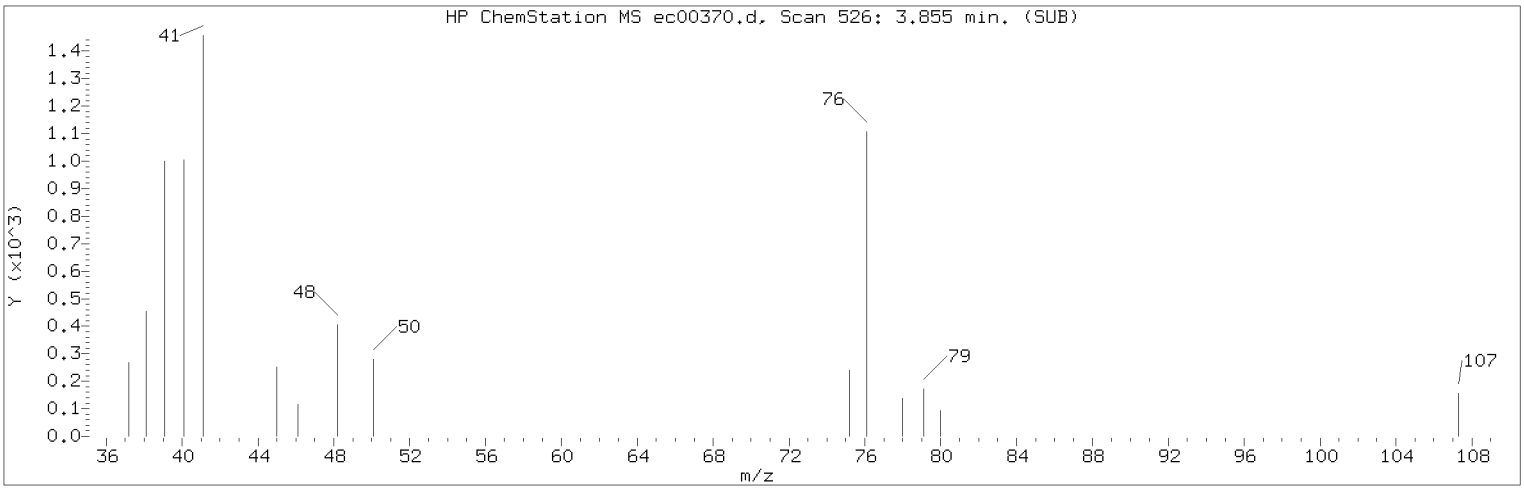
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

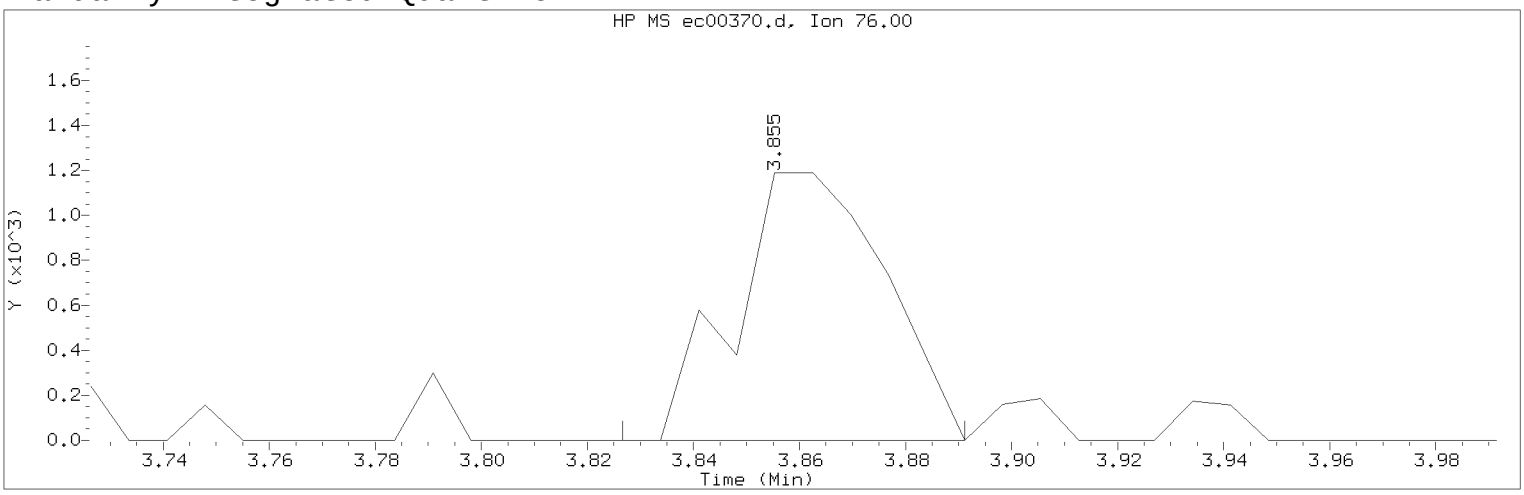
Compound Number : 9
Compound Name : Chloroethane
Expected RT (minutes) : 2.466
Quant Ion : 64.00

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

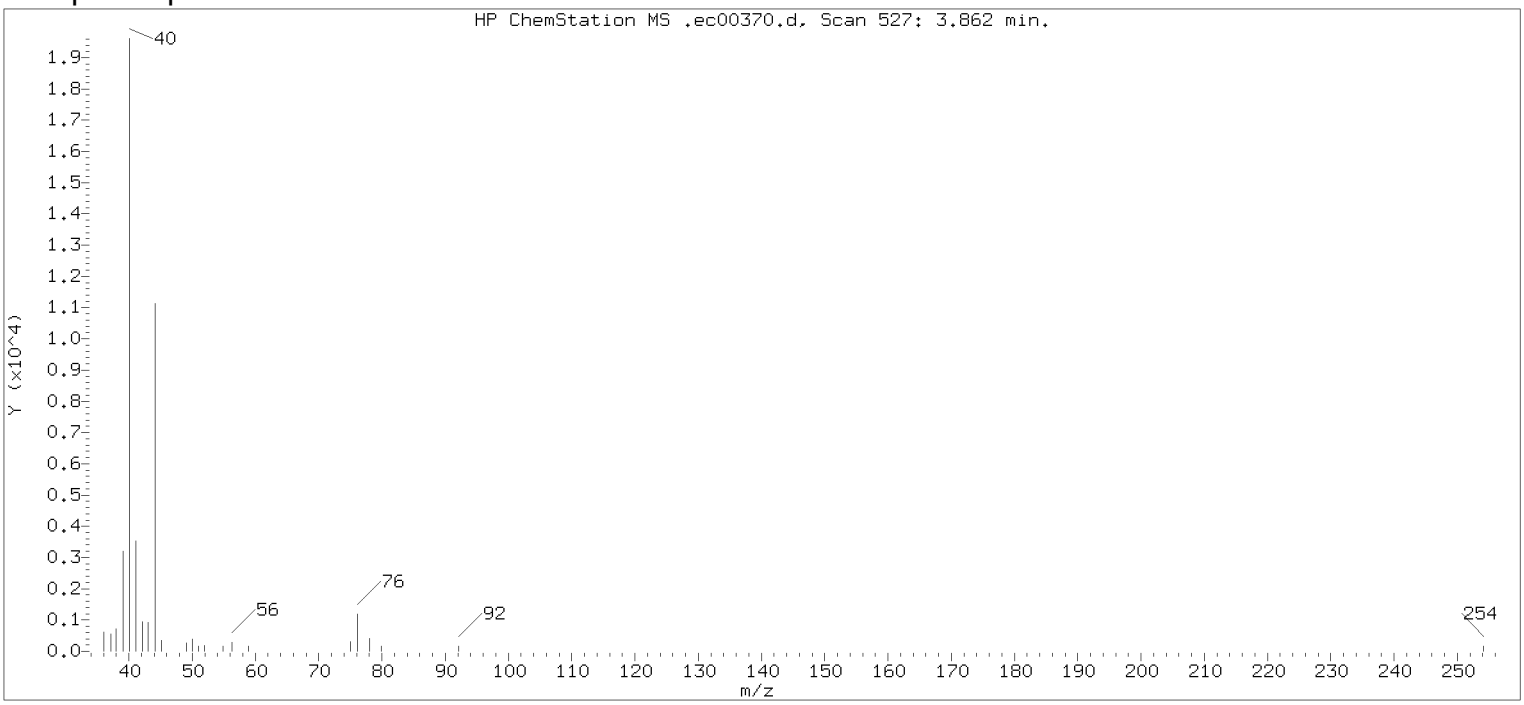
Compound Number : 24
Compound Name : 3-Chloropropene
Scan Number : 526
Retention Time (minutes): 3.855
Quant Ion : 76.00
Area (flag) : 2335M
Concentration (ppb(v)) : 0.2169
Integration start scan : 521 Integration stop scan: 530
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

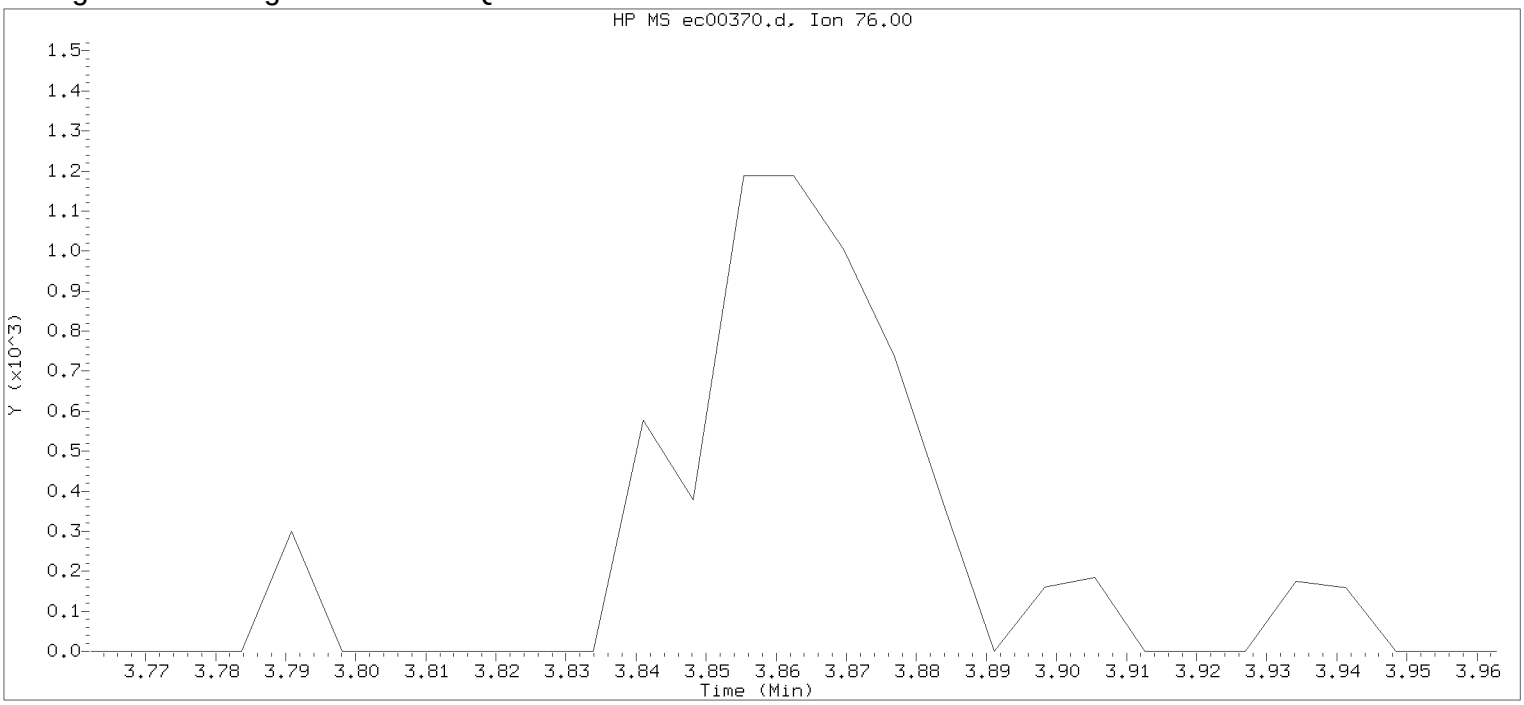
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

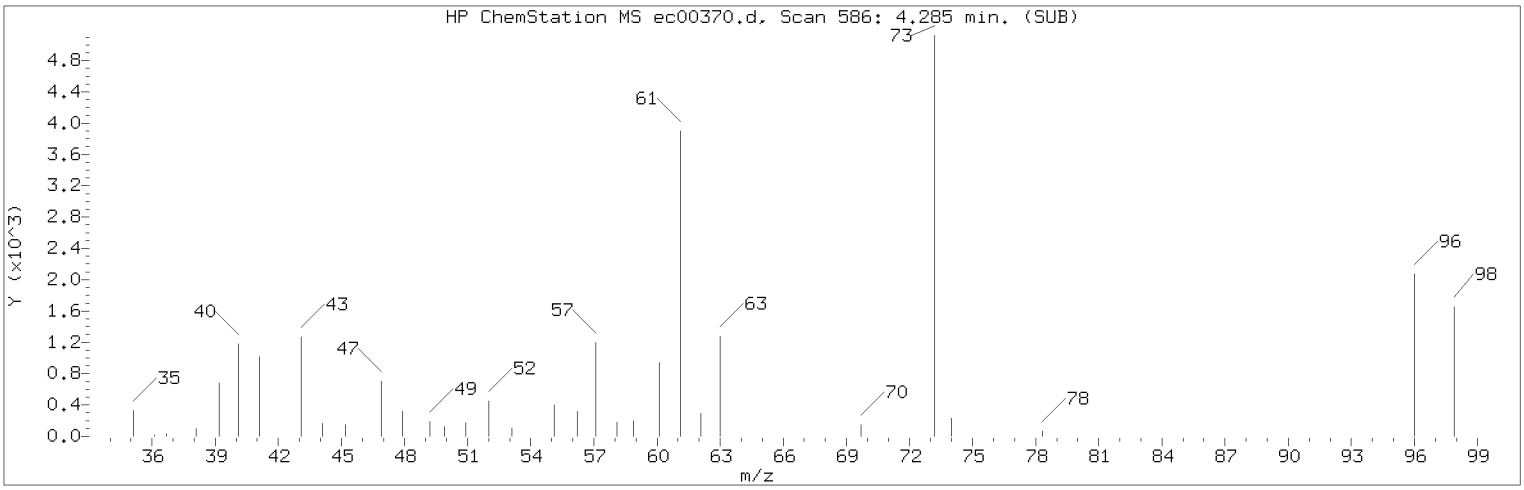
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

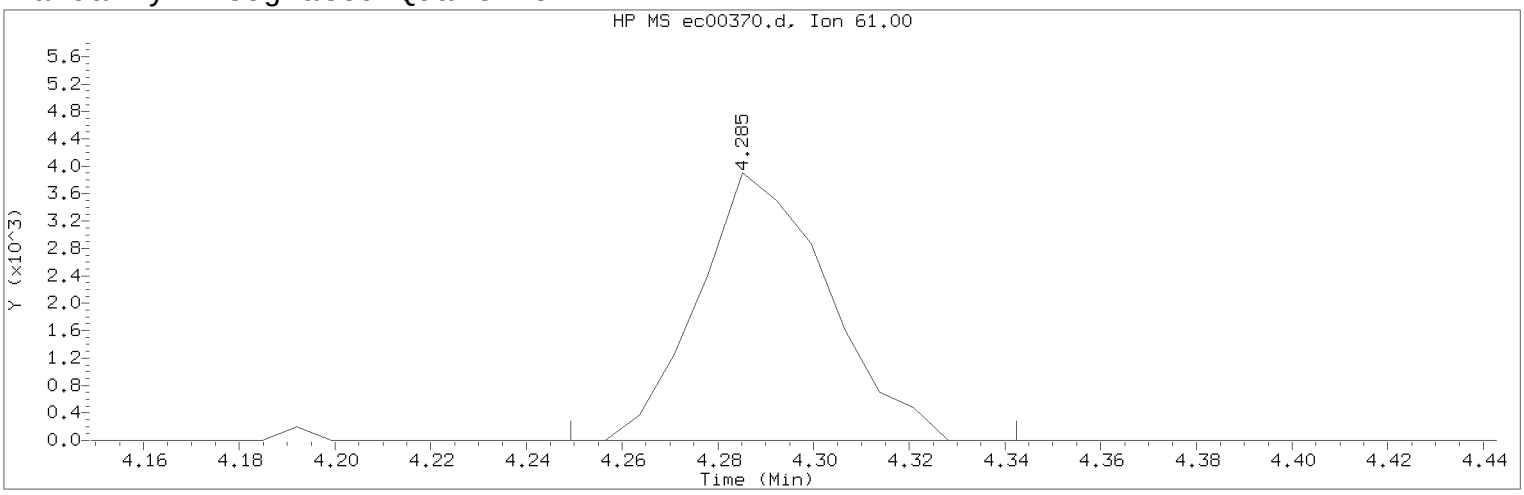
Compound Number : 24
Compound Name : 3-Chloropropene
Expected RT (minutes) : 3.862
Quant Ion : 76.00

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

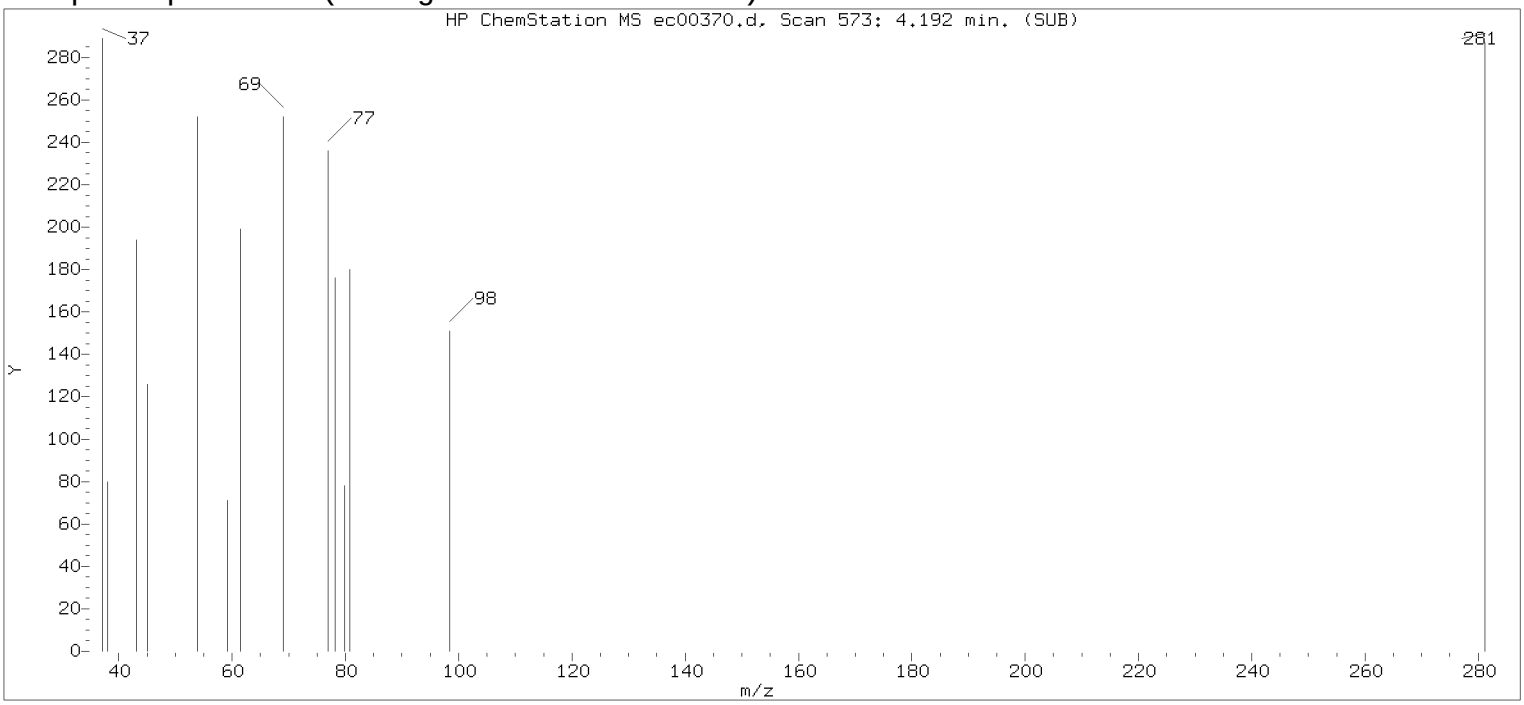
Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 586
Retention Time (minutes): 4.285
Quant Ion : 61.00
Area (flag) : 7347M
Concentration (ppb(v)) : 0.1961
Integration start scan : 580 Integration stop scan: 593
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

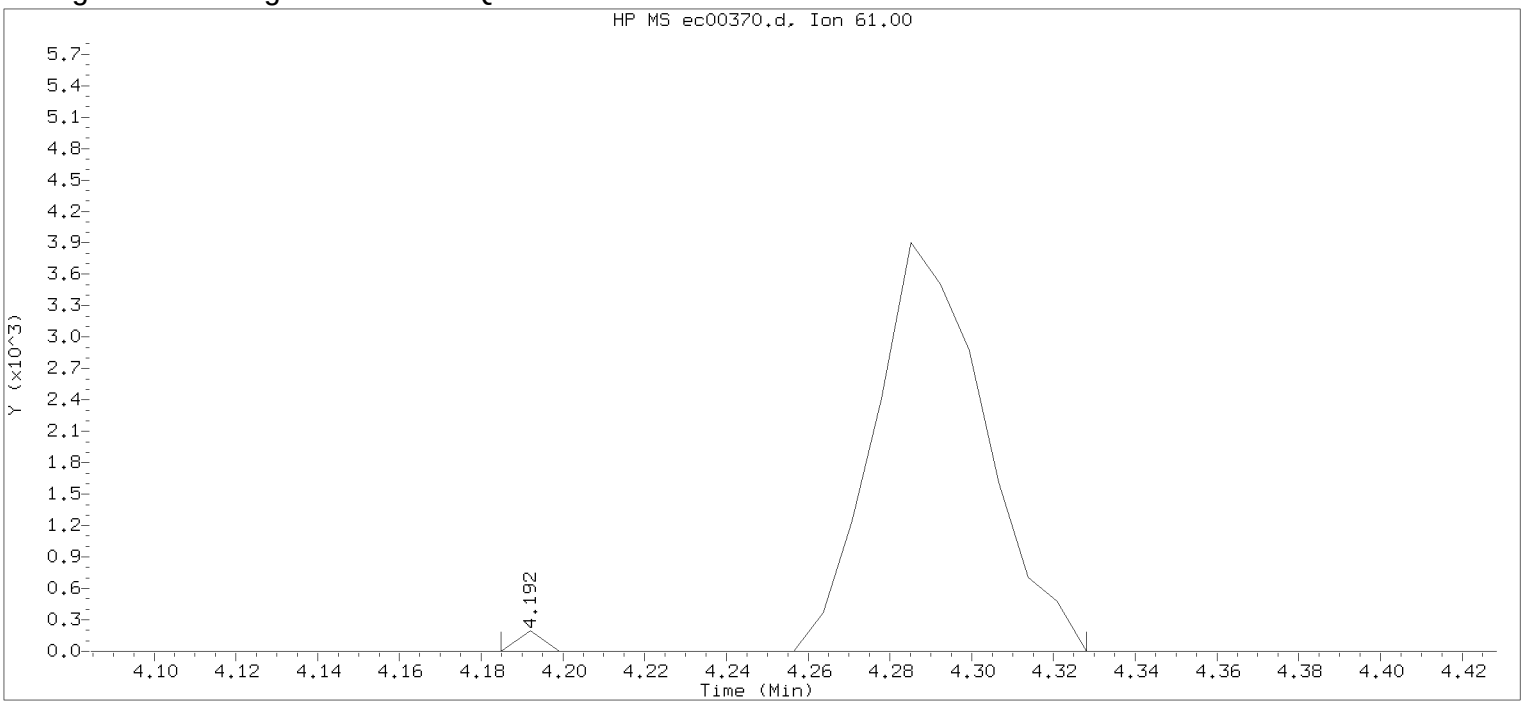
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

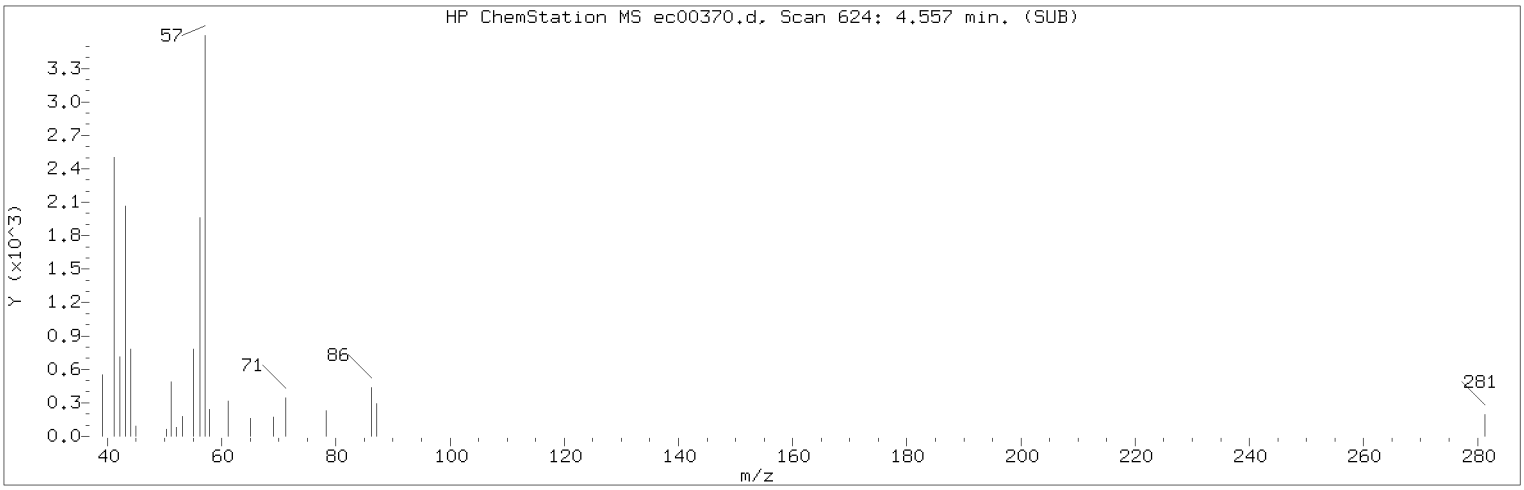
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

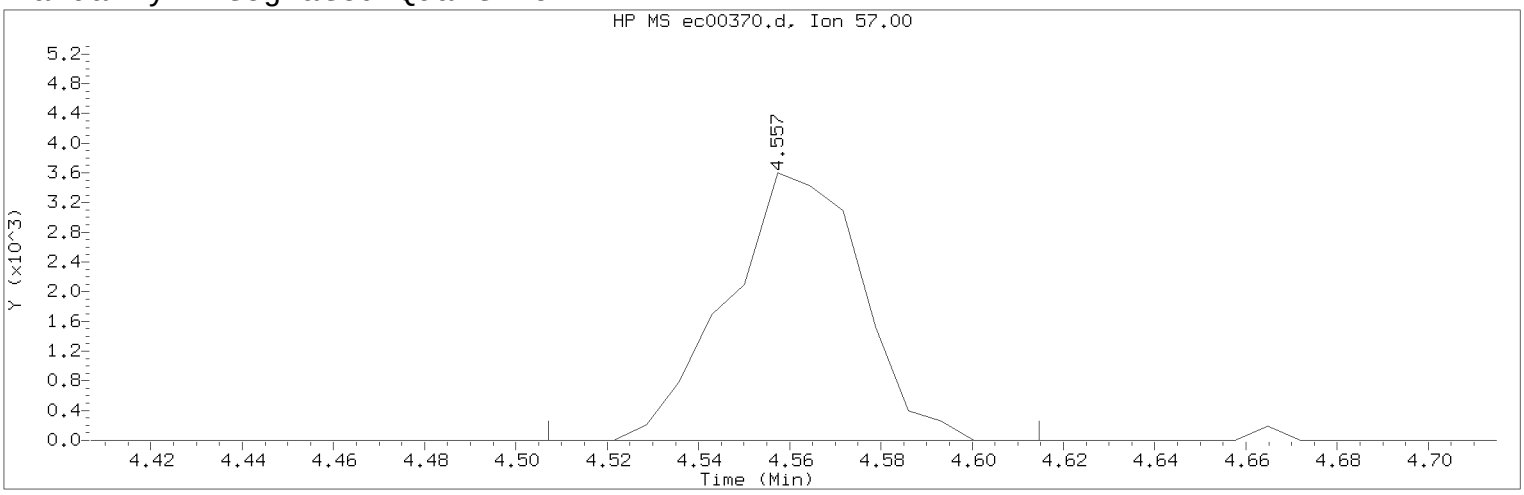
Compound Number : 28
Compound Name : trans-1,2-Dichloroethene
Scan Number : 573
Retention Time (minutes): 4.192
Quant Ion : 61.00
Area : 7433
Concentration (ppb(v)) : 0.1984
Integration start scan : 571 Integration stop scan: 591
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

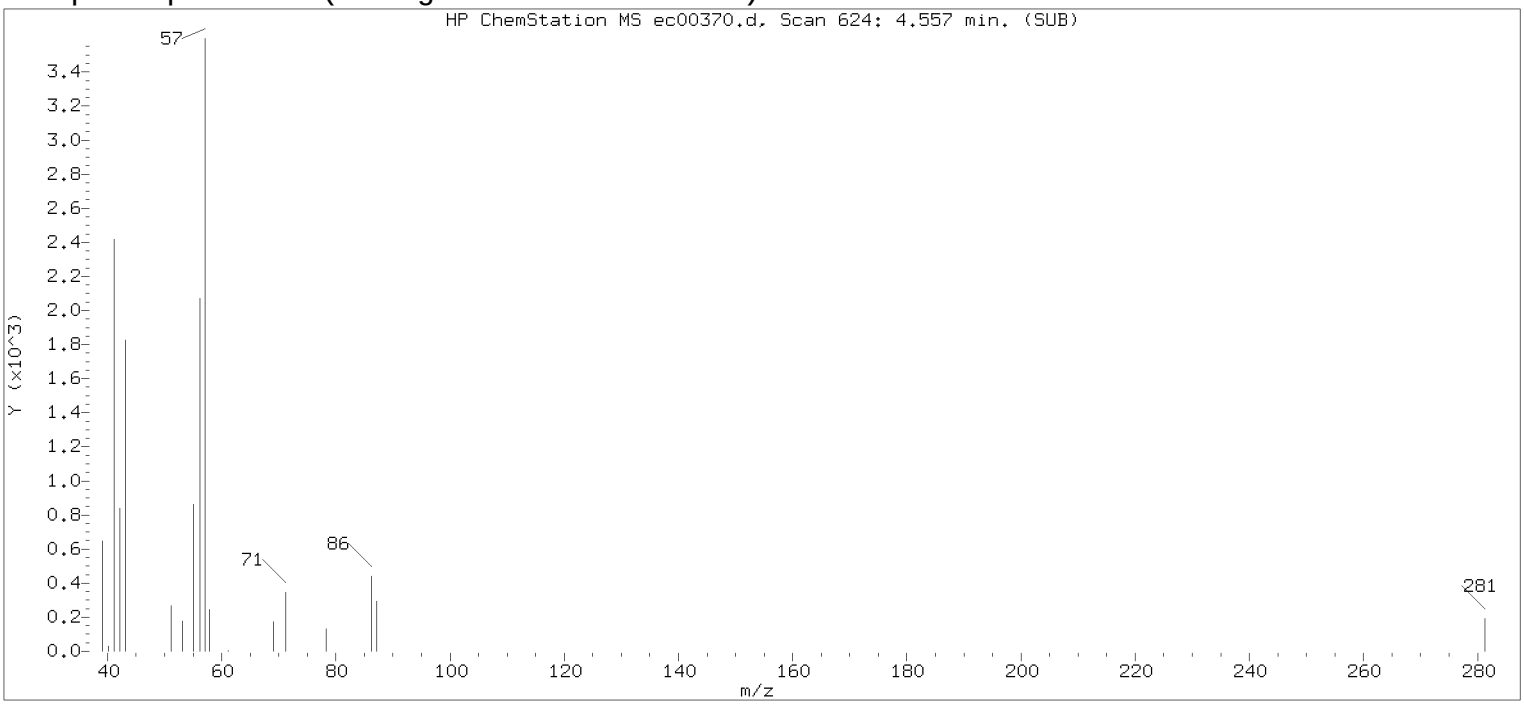
Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Quant Ion : 57.00
Area (flag) : 7337M
Concentration (ppb(v)) : 0.2013
Integration start scan : 616 Integration stop scan: 631
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

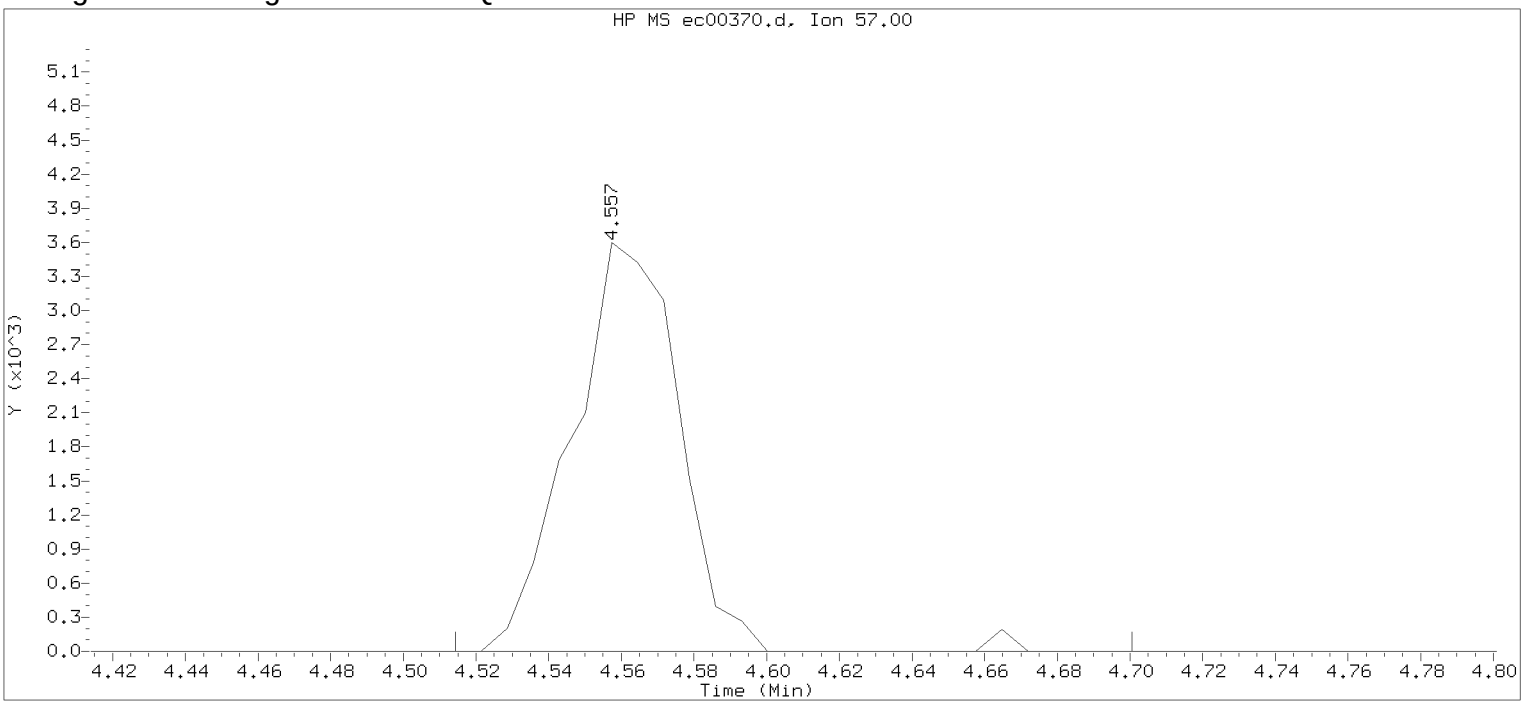
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

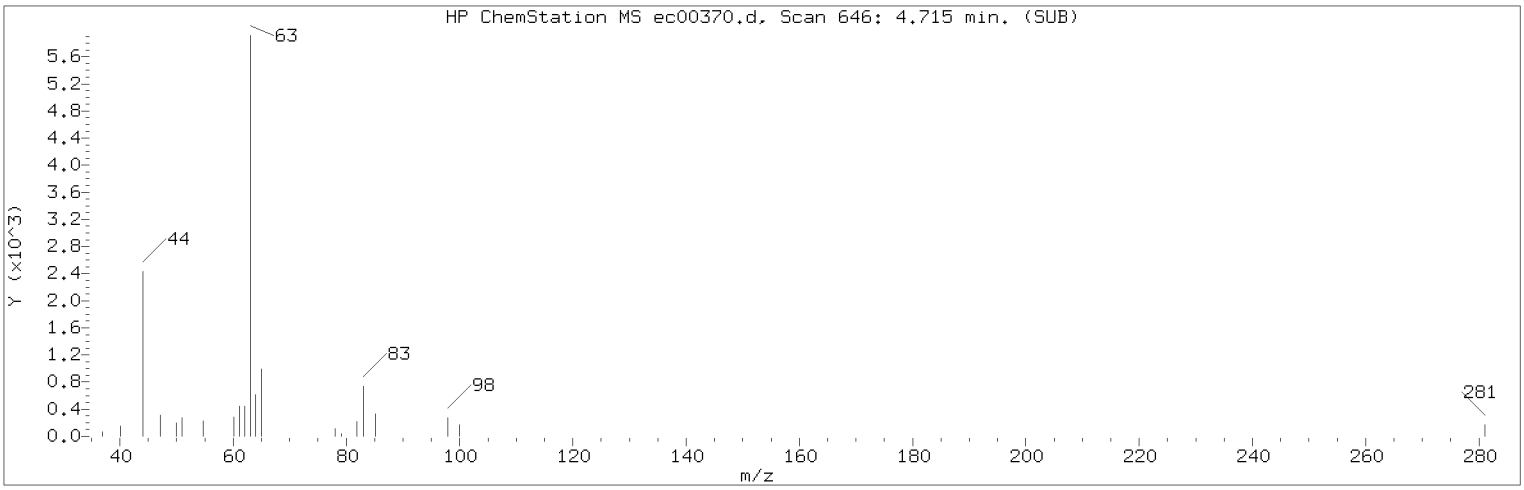
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

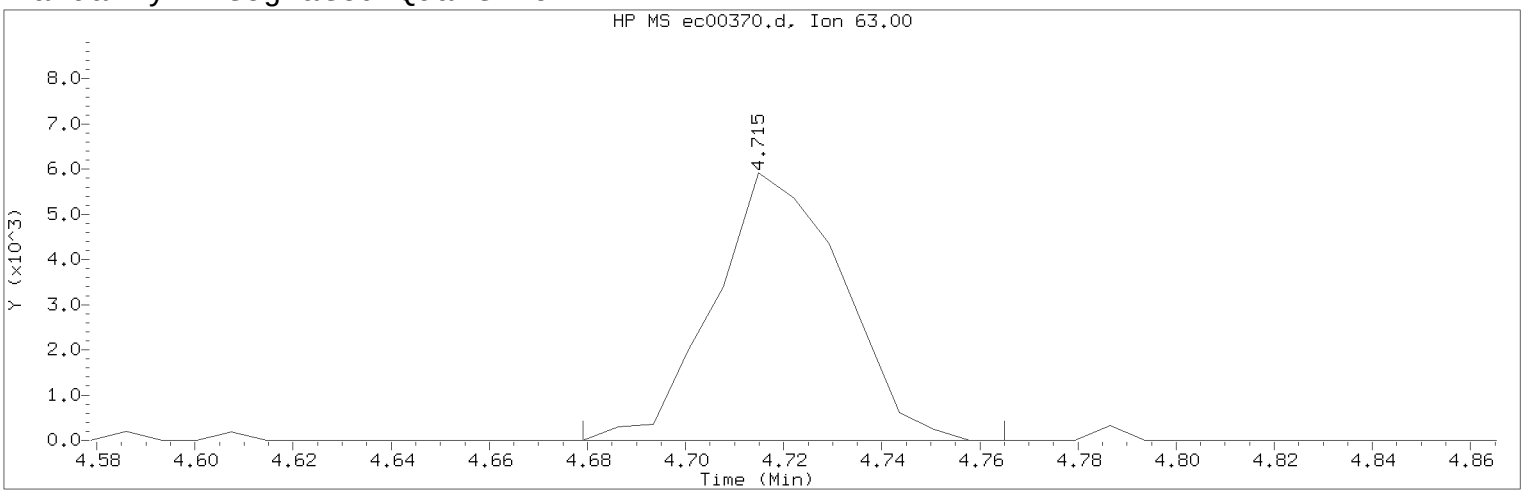
Compound Number : 30
Compound Name : Hexane
Scan Number : 624
Retention Time (minutes): 4.557
Quant Ion : 57.00
Area : 7421
Concentration (ppb(v)) : 0.2036
Integration start scan : 617 Integration stop scan: 643
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

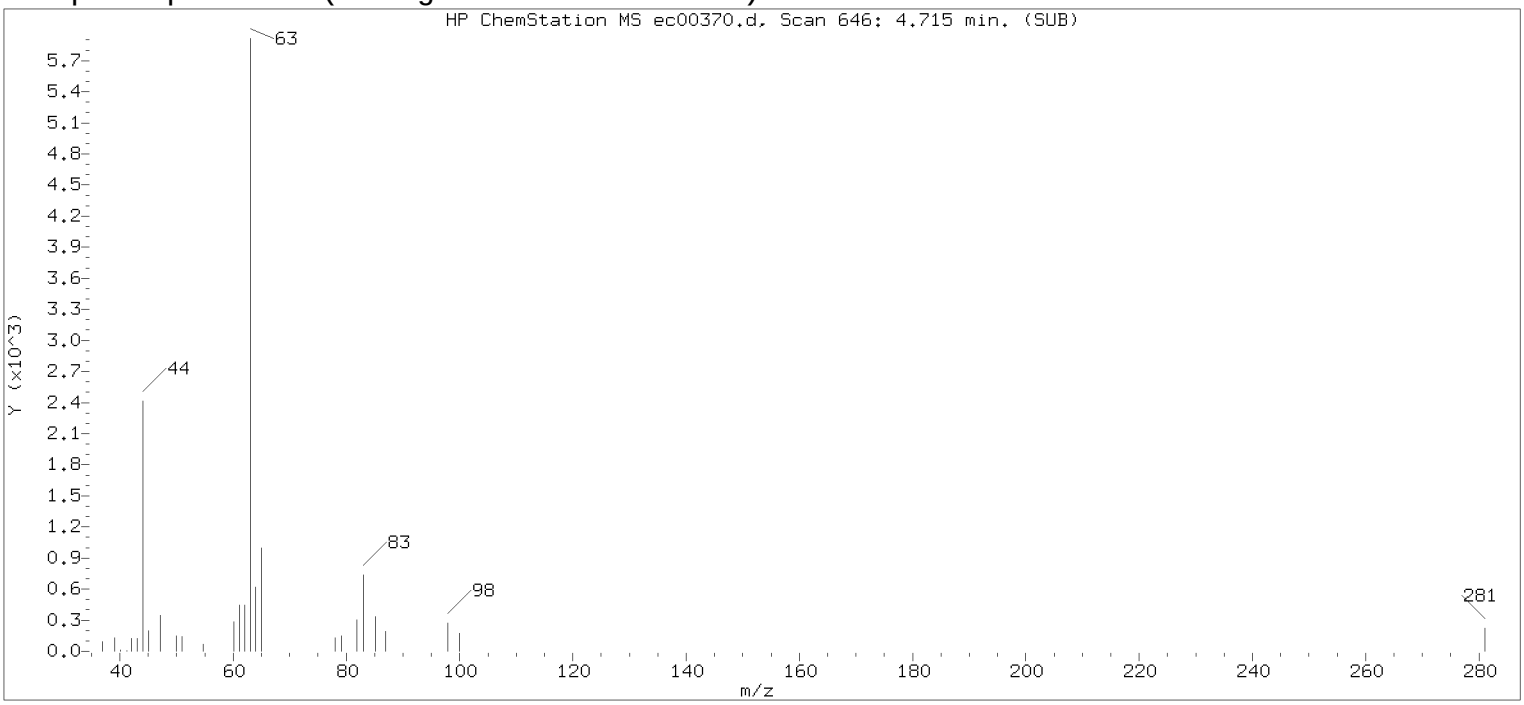
Compound Number : 31
Compound Name : 1,1-Dichloroethane
Scan Number : 646
Retention Time (minutes): 4.715
Quant Ion : 63.00
Area (flag) : 10735M
Concentration (ppb(v)) : 0.2222
Integration start scan : 640 Integration stop scan: 652
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

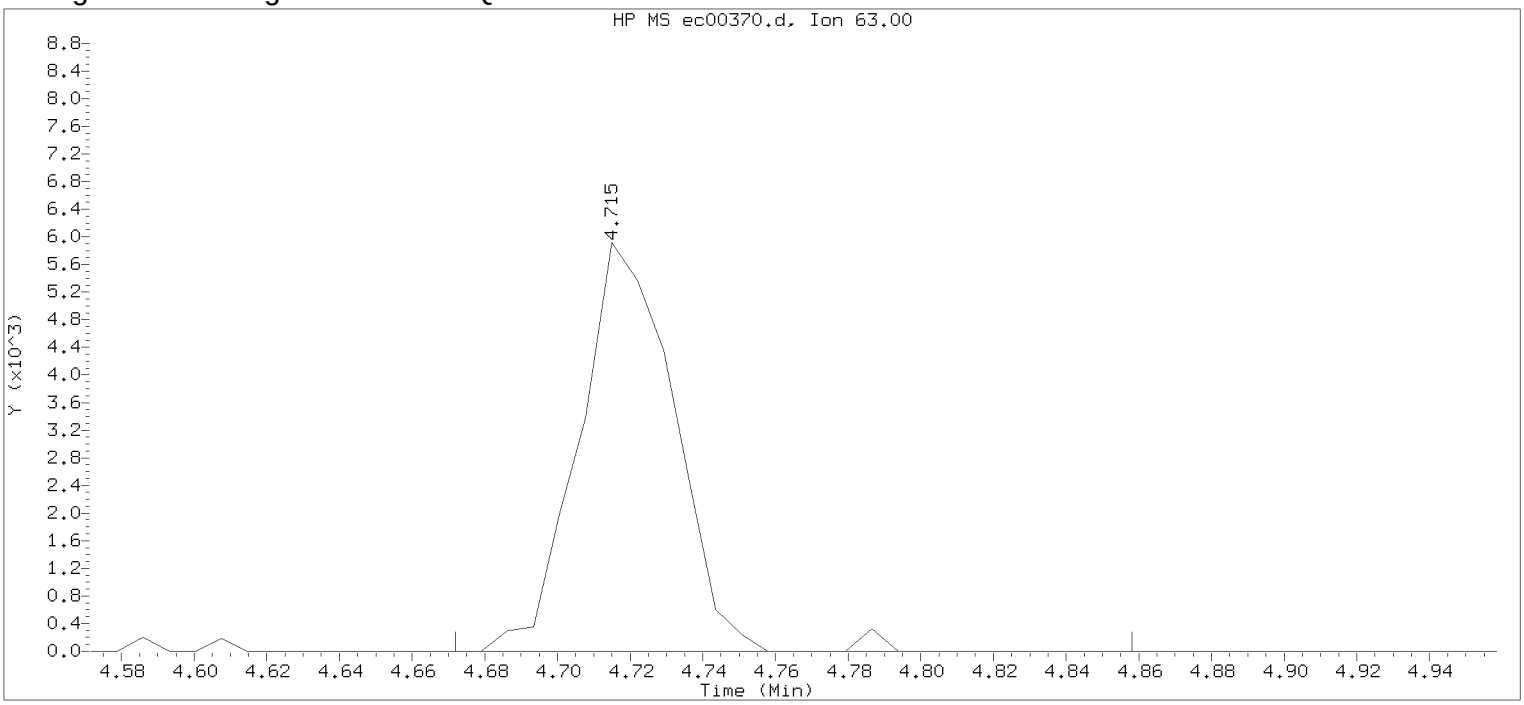
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

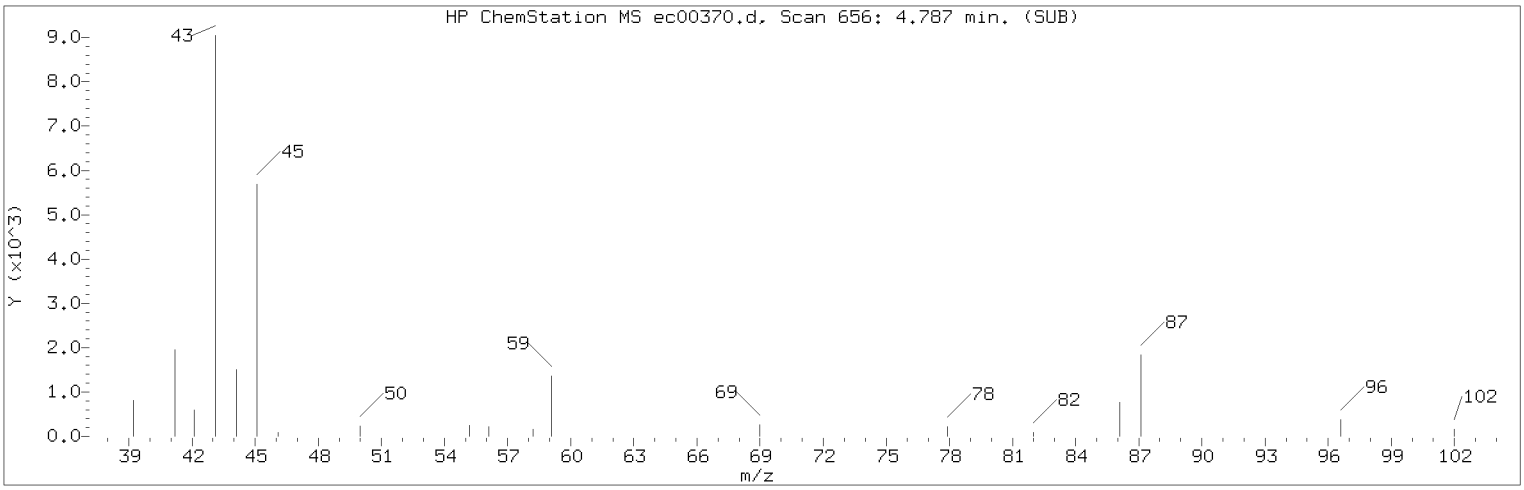
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

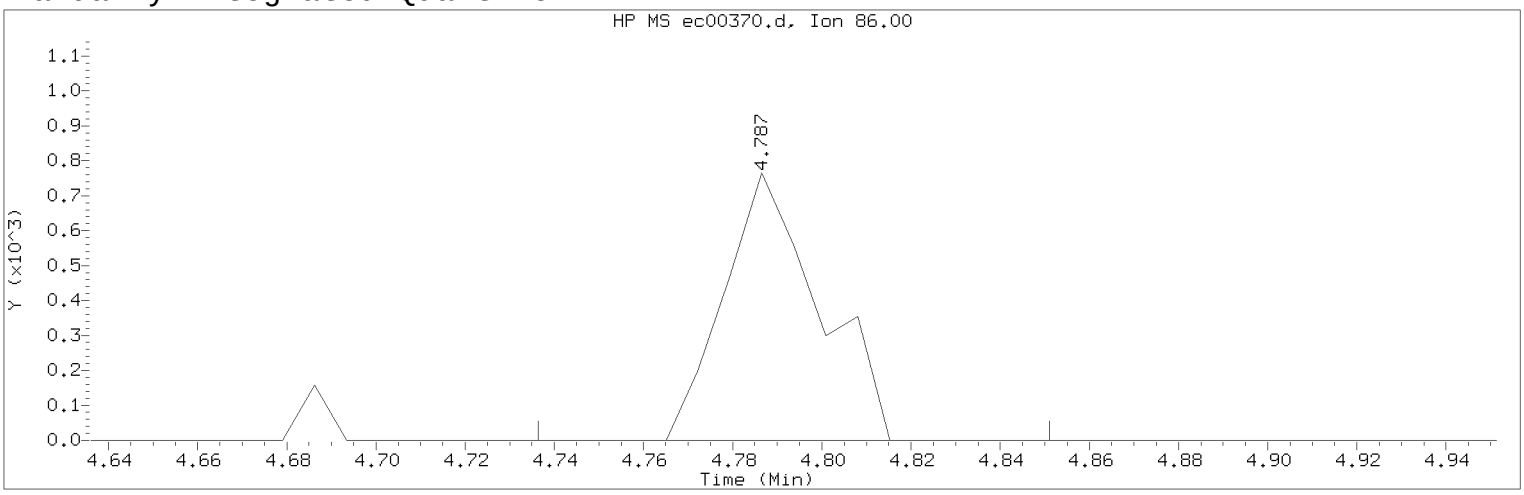
Compound Number : 31
Compound Name : 1,1-Dichloroethane
Scan Number : 646
Retention Time (minutes): 4.715
Quant Ion : 63.00
Area : 10874
Concentration (ppb(v)) : 0.2251
Integration start scan : 639 Integration stop scan: 665
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

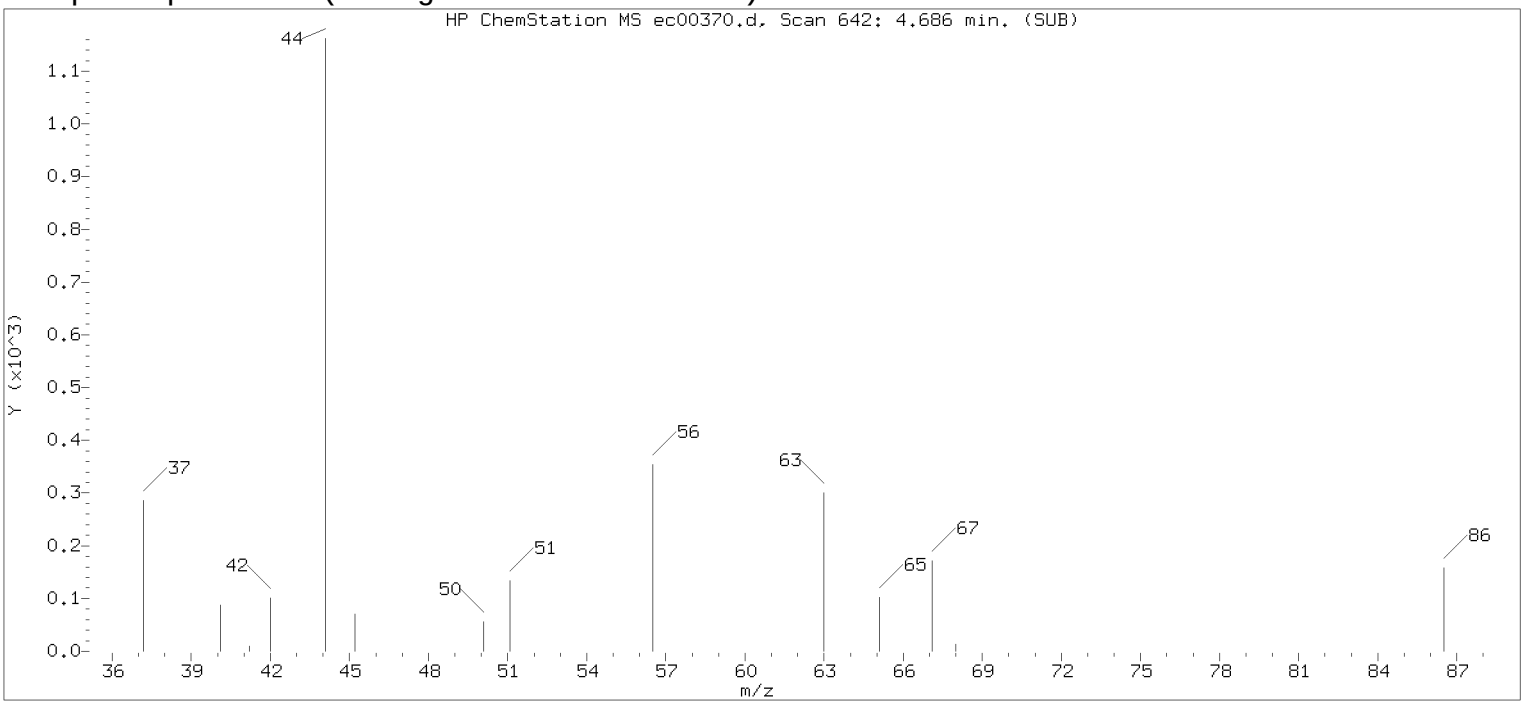
Compound Number : 32
Compound Name : Vinyl Acetate
Scan Number : 656
Retention Time (minutes): 4.787
Quant Ion : 86.00
Area (flag) : 1136M
Concentration (ppb(v)) : 0.1829
Integration start scan : 648 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

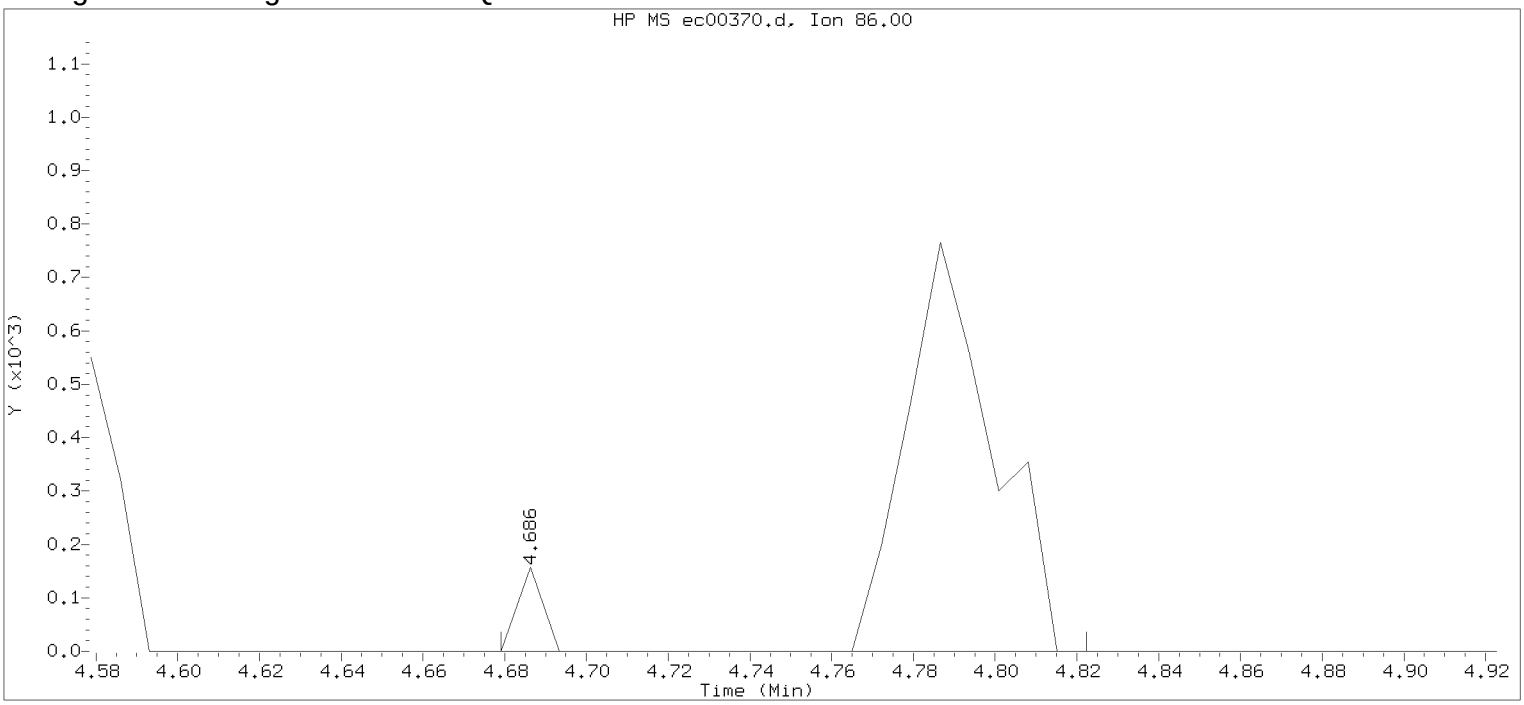
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

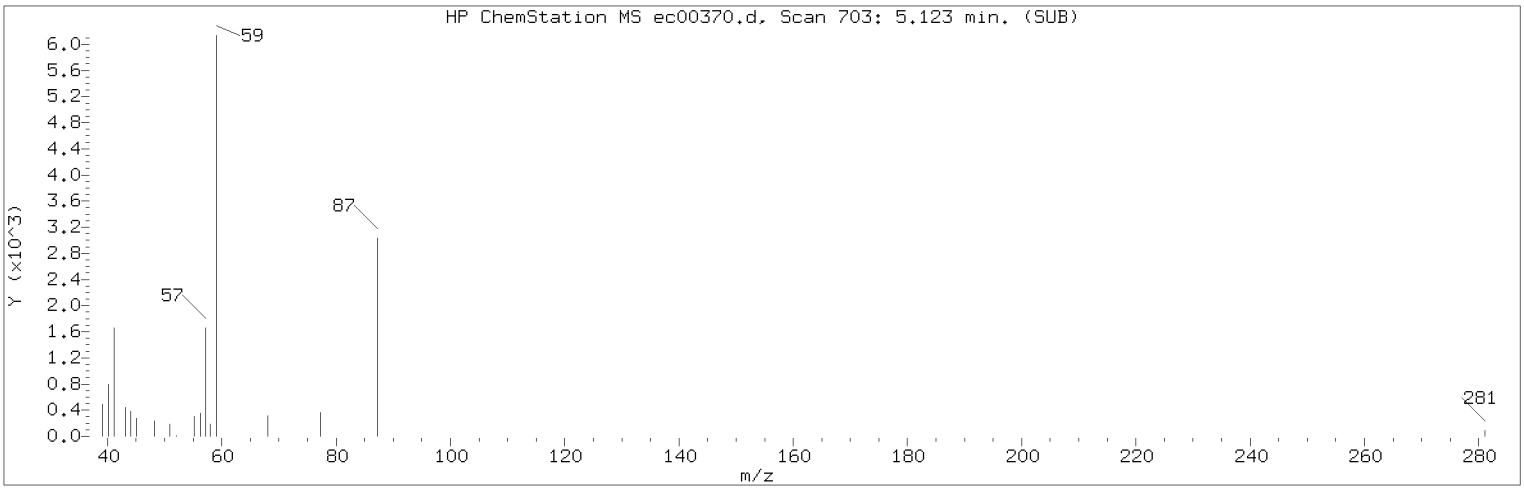
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

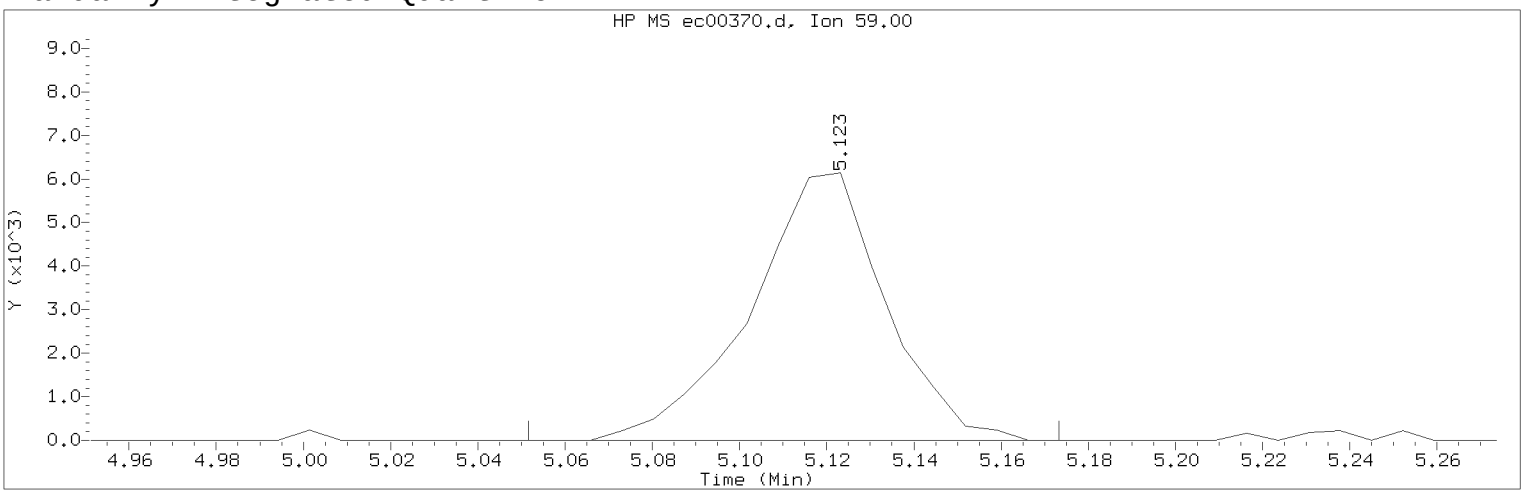
Compound Number : 32
Compound Name : Vinyl Acetate
Scan Number : 642
Retention Time (minutes): 4.686
Quant Ion : 86.00
Area : 1204
Concentration (ppb(v)) : 0.1940
Integration start scan : 640 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

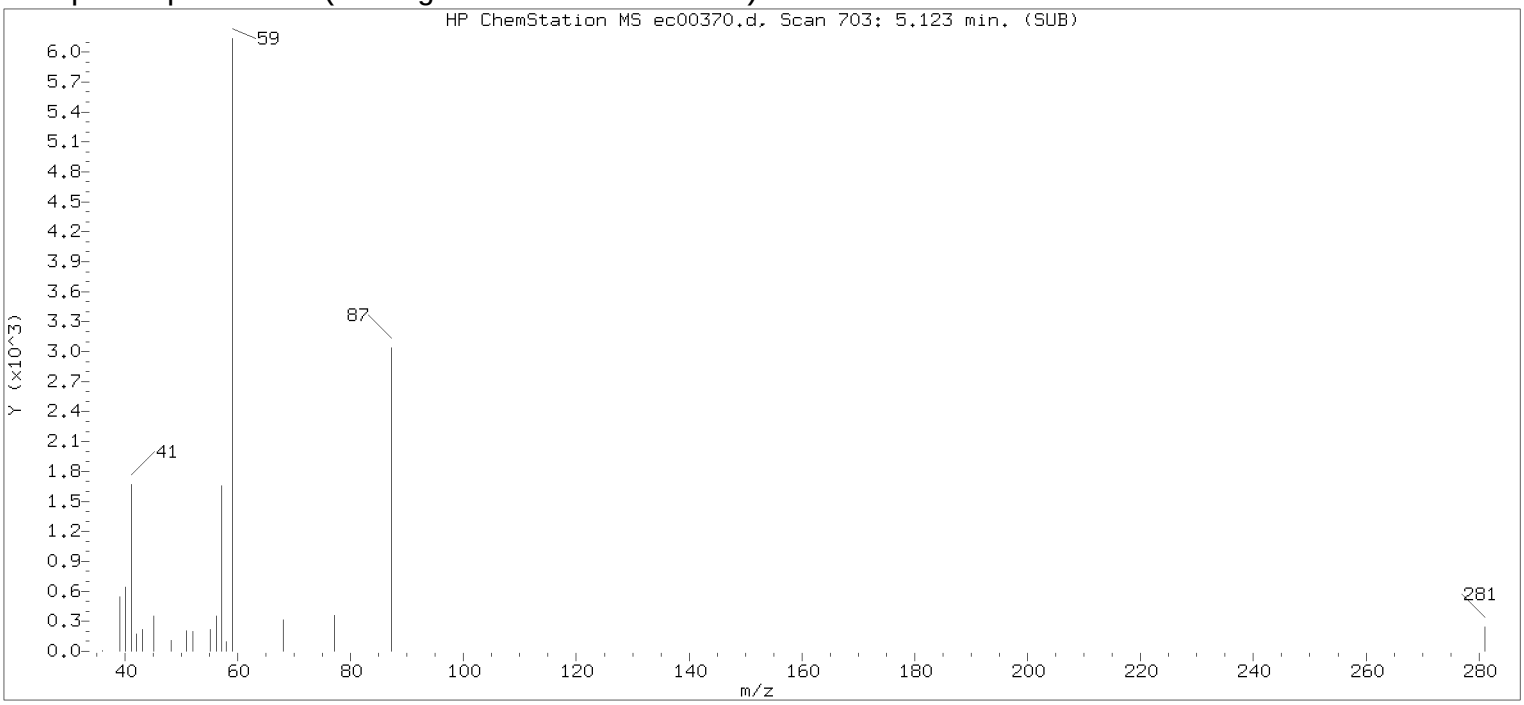
Compound Number : 34
Compound Name : Ethyl Tert-Butyl Ether
Scan Number : 703
Retention Time (minutes): 5.123
Quant Ion : 59.00
Area (flag) : 13229M
Concentration (ppb(v)) : 0.1807
Integration start scan : 692 Integration stop scan: 709
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

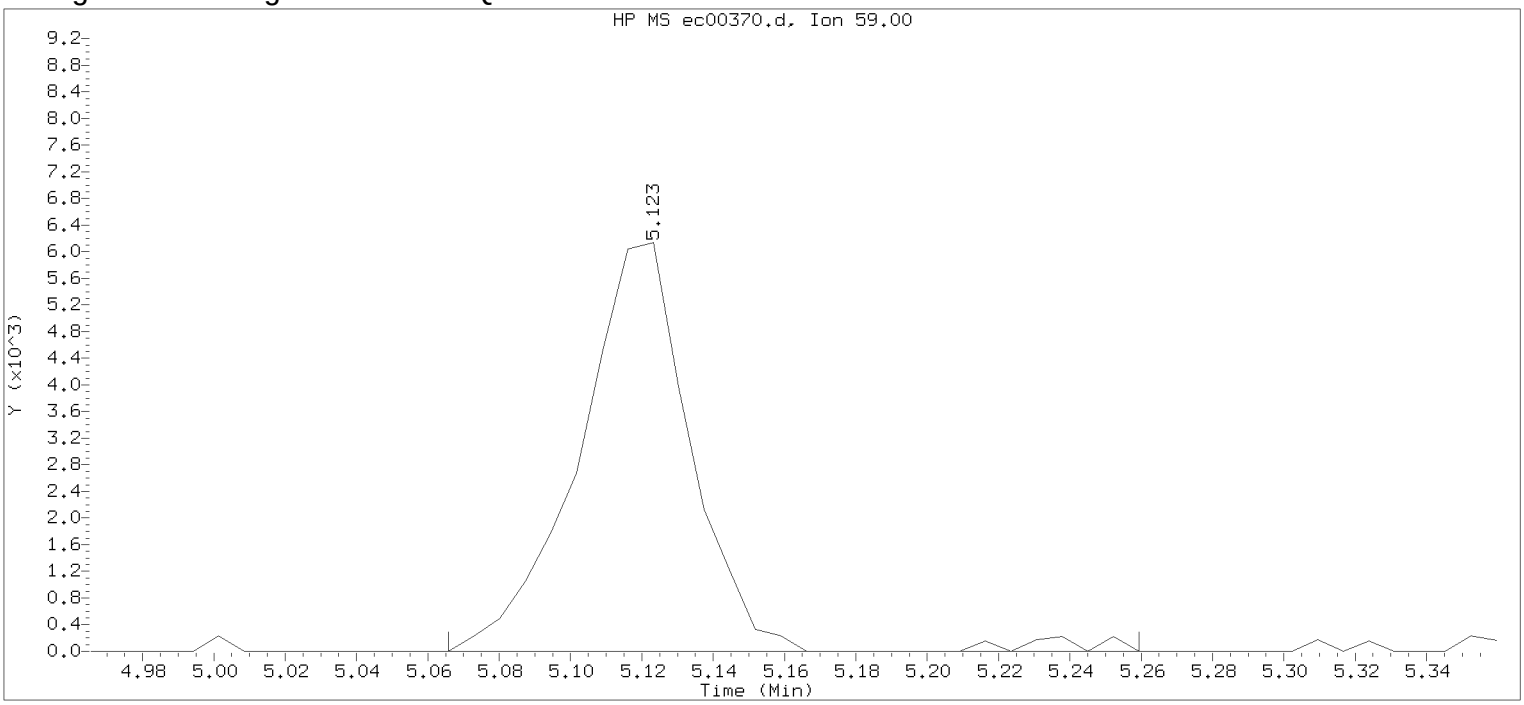
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

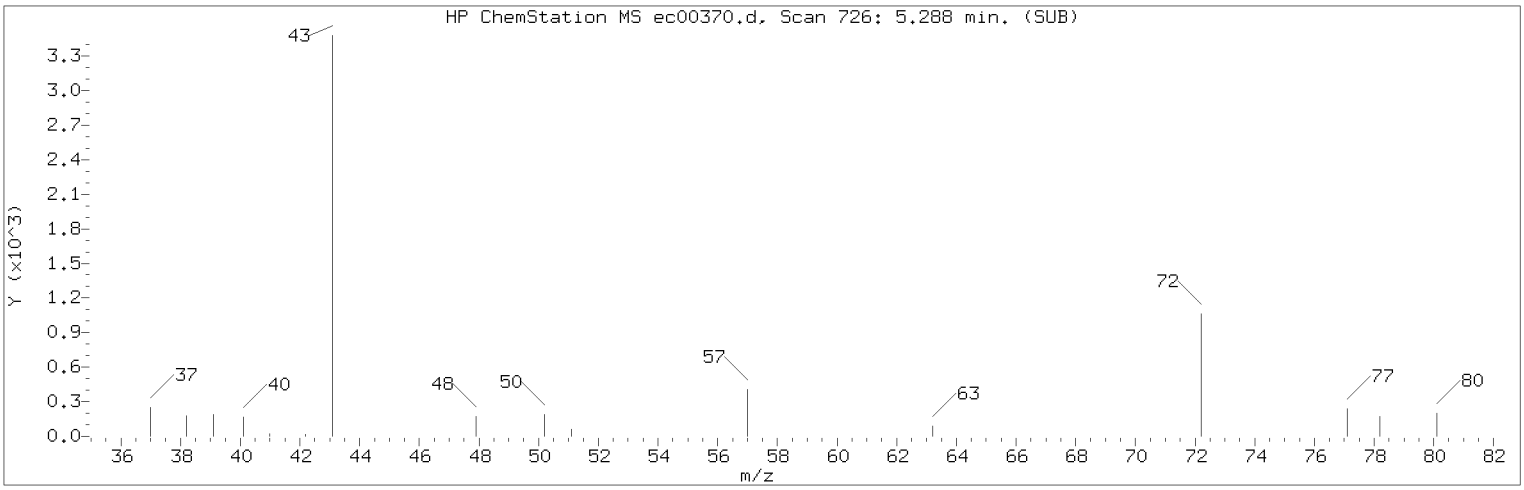
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

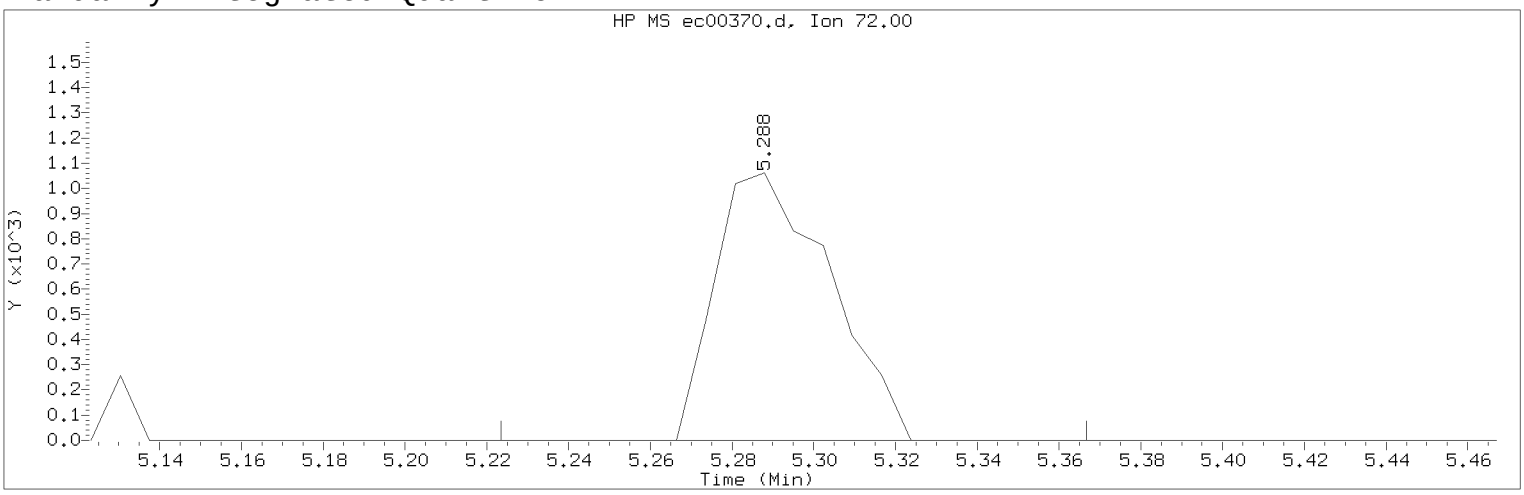
Compound Number : 34
Compound Name : Ethyl Tert-Butyl Ether
Scan Number : 703
Retention Time (minutes): 5.123
Quant Ion : 59.00
Area : 13562
Concentration (ppb(v)) : 0.1853
Integration start scan : 694 Integration stop scan: 721
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

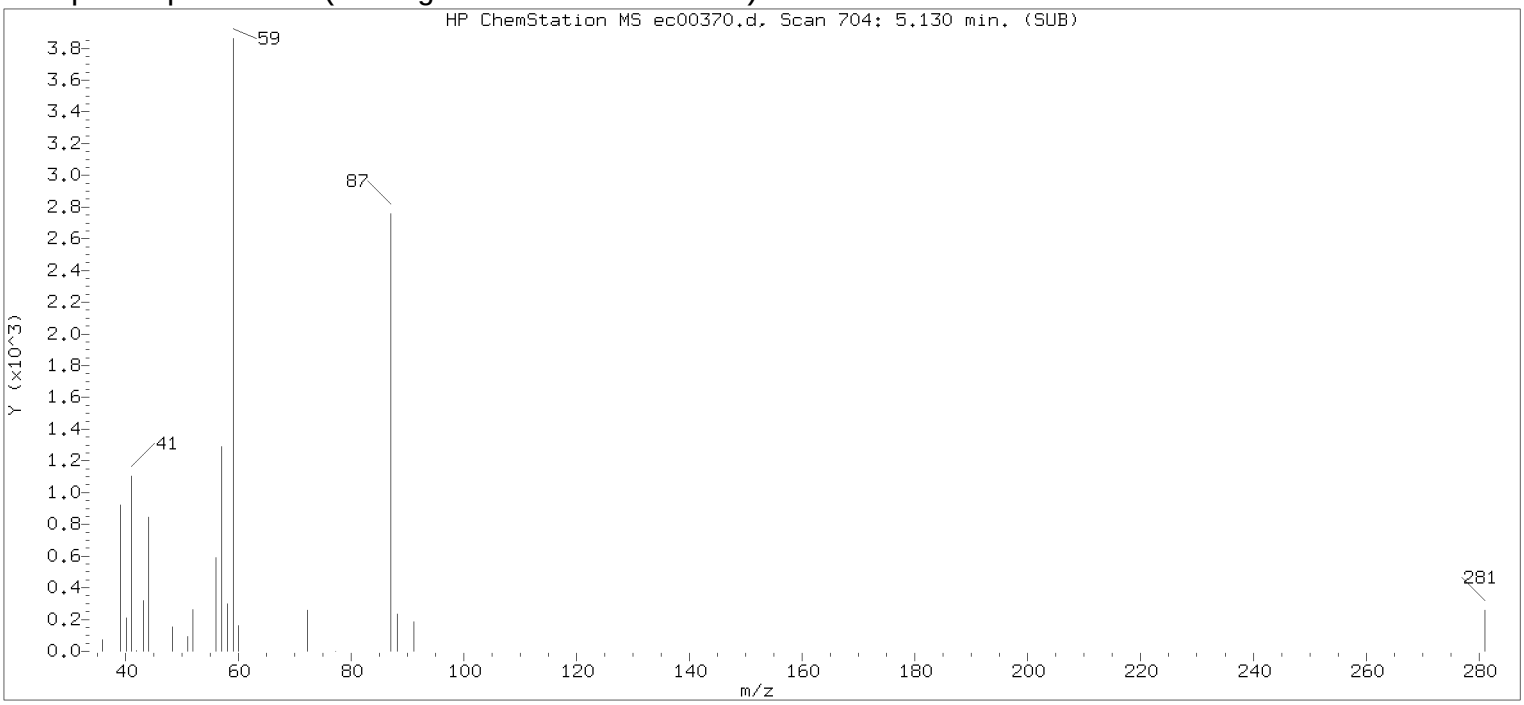
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 726
Retention Time (minutes): 5.288
Quant Ion : 72.00
Area (flag) : 2078M
Concentration (ppb(v)) : 0.1557
Integration start scan : 716 Integration stop scan: 736
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

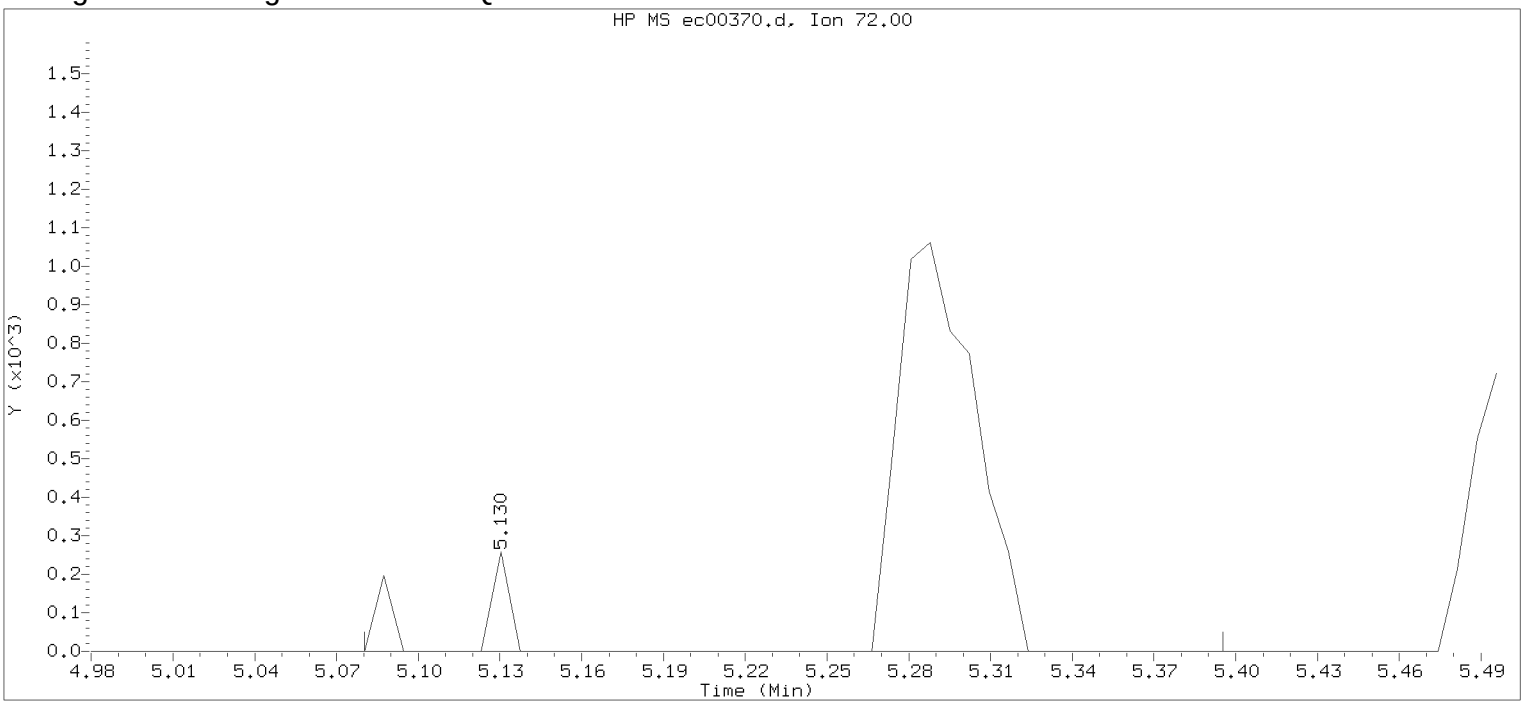
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

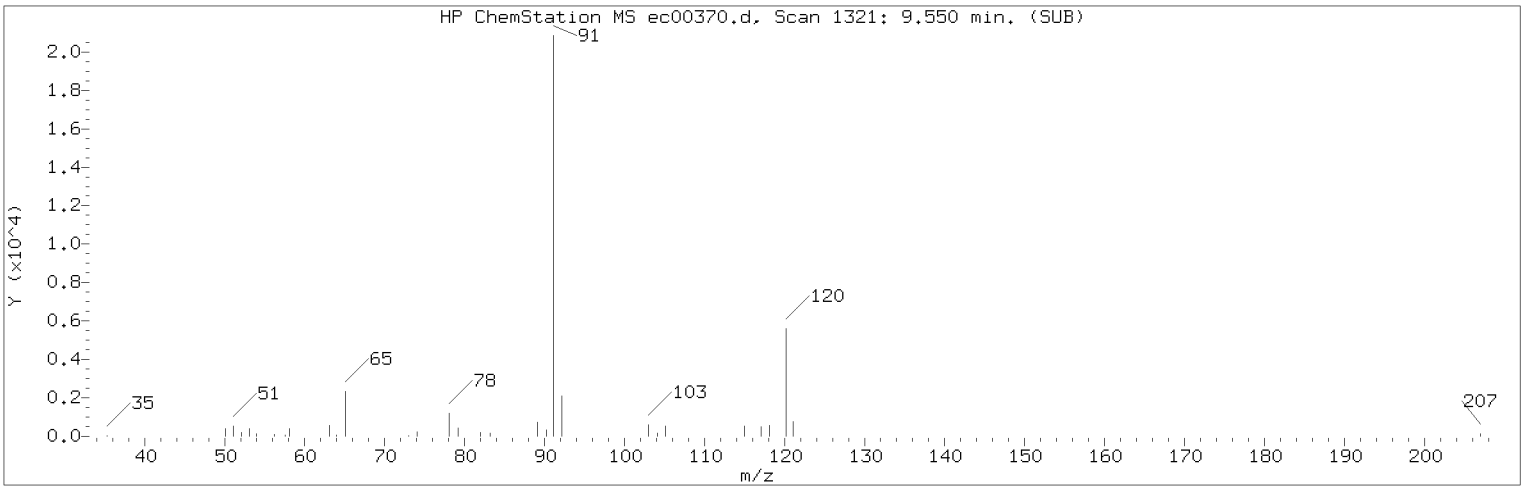
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

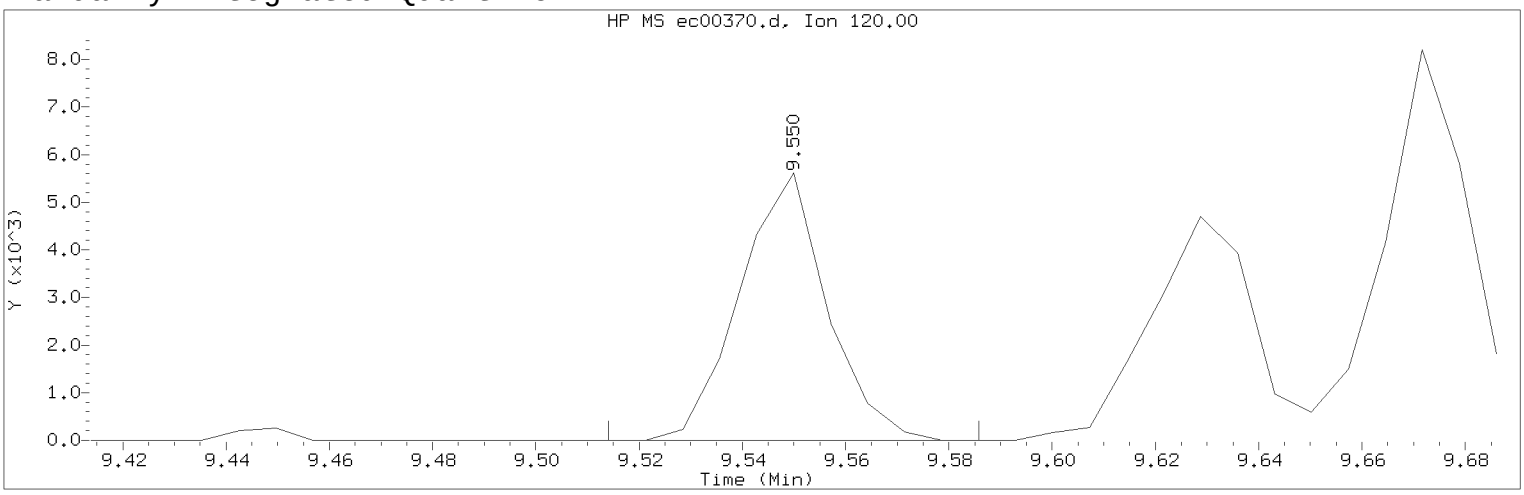
Compound Number : 37
Compound Name : 2-Butanone
Scan Number : 704
Retention Time (minutes): 5.130
Quant Ion : 72.00
Area : 2274
Concentration (ppb(v)) : 0.1704
Integration start scan : 696 Integration stop scan: 740
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

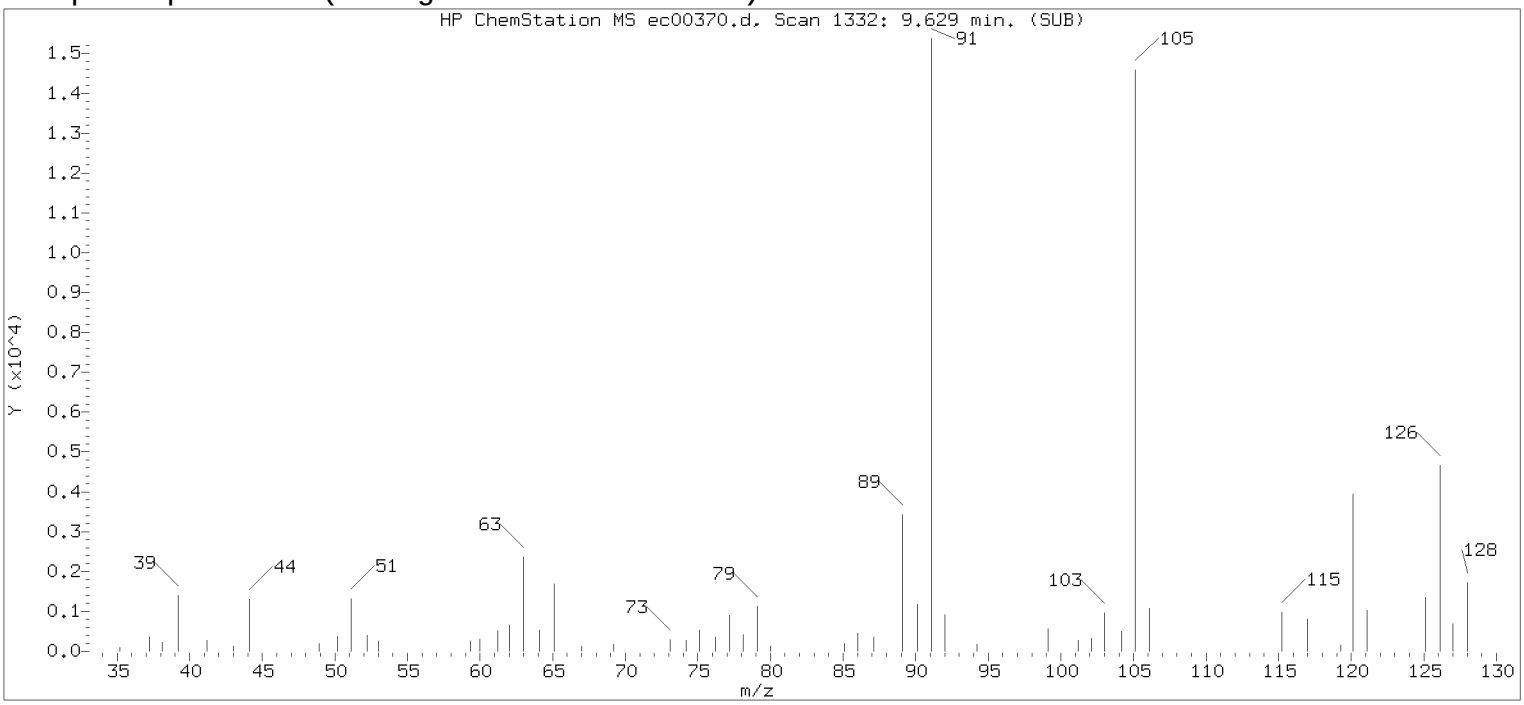
Compound Number : 84
Compound Name : n-Propylbenzene
Scan Number : 1321
Retention Time (minutes): 9.550
Quant Ion : 120.00
Area (flag) : 6566MA
Concentration (ppb(v)) : 0.1680
Integration start scan : 1315 Integration stop scan: 1325
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

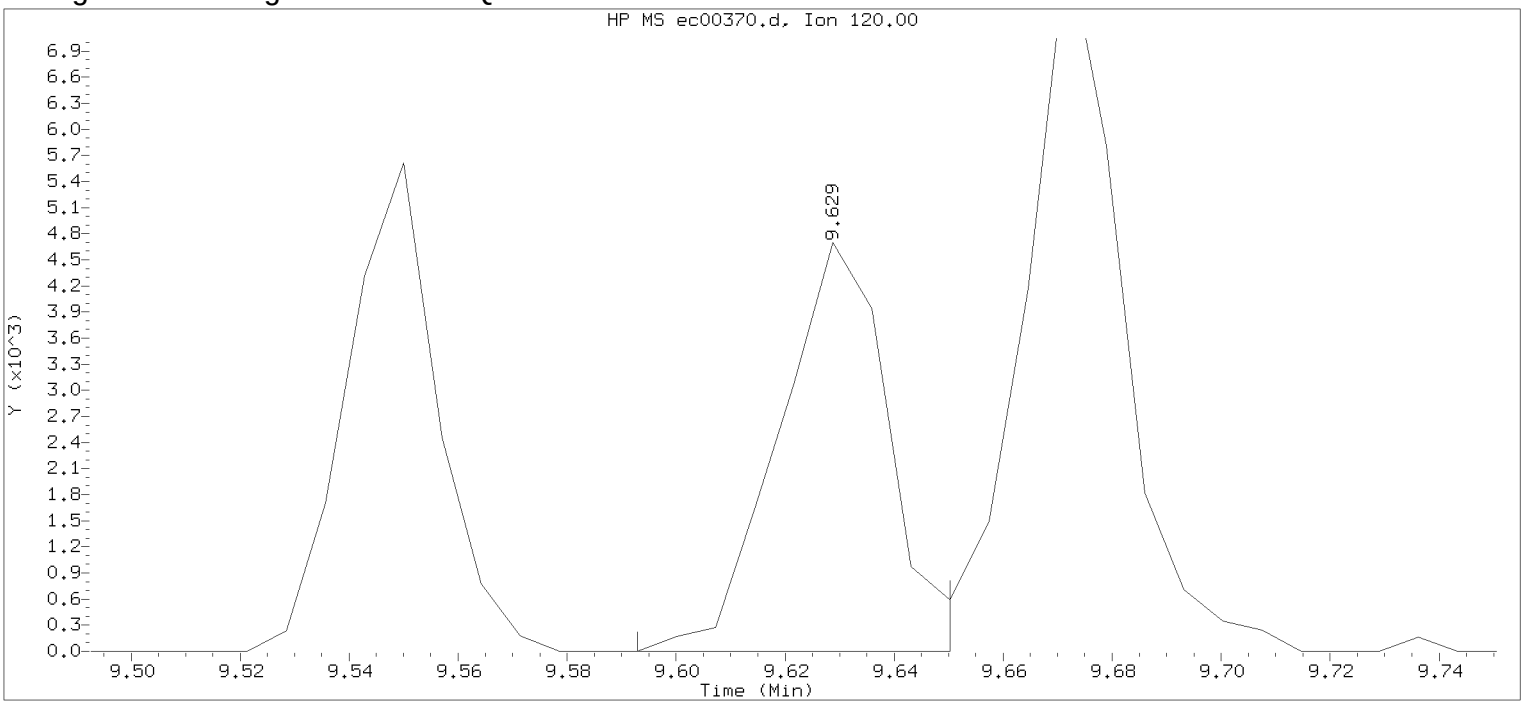
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

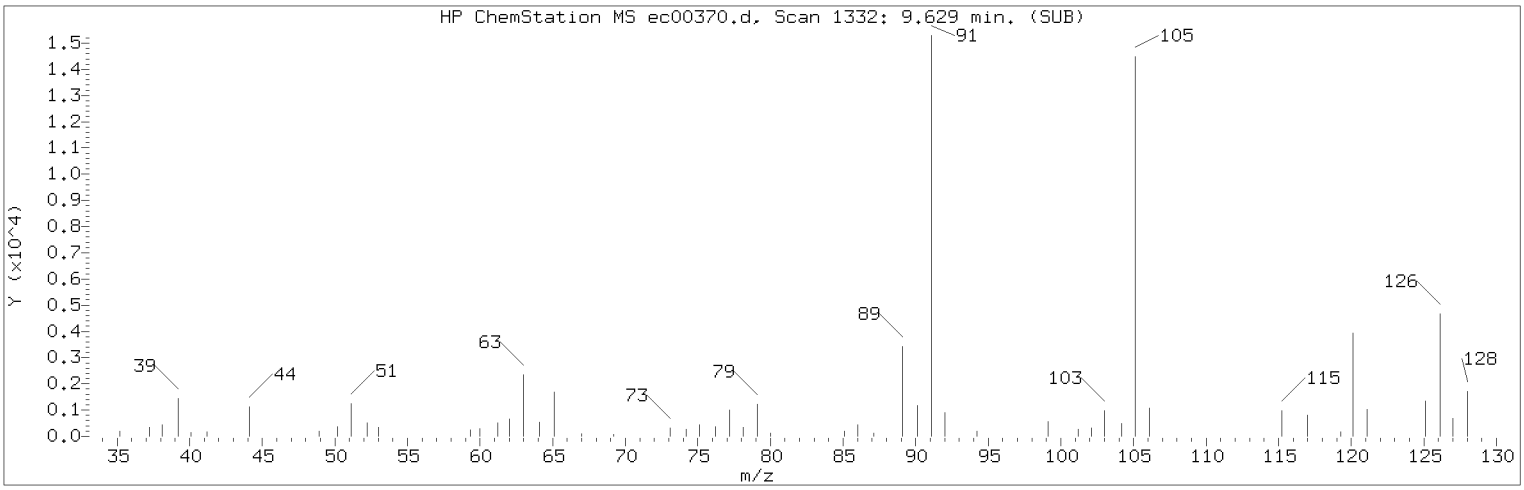
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

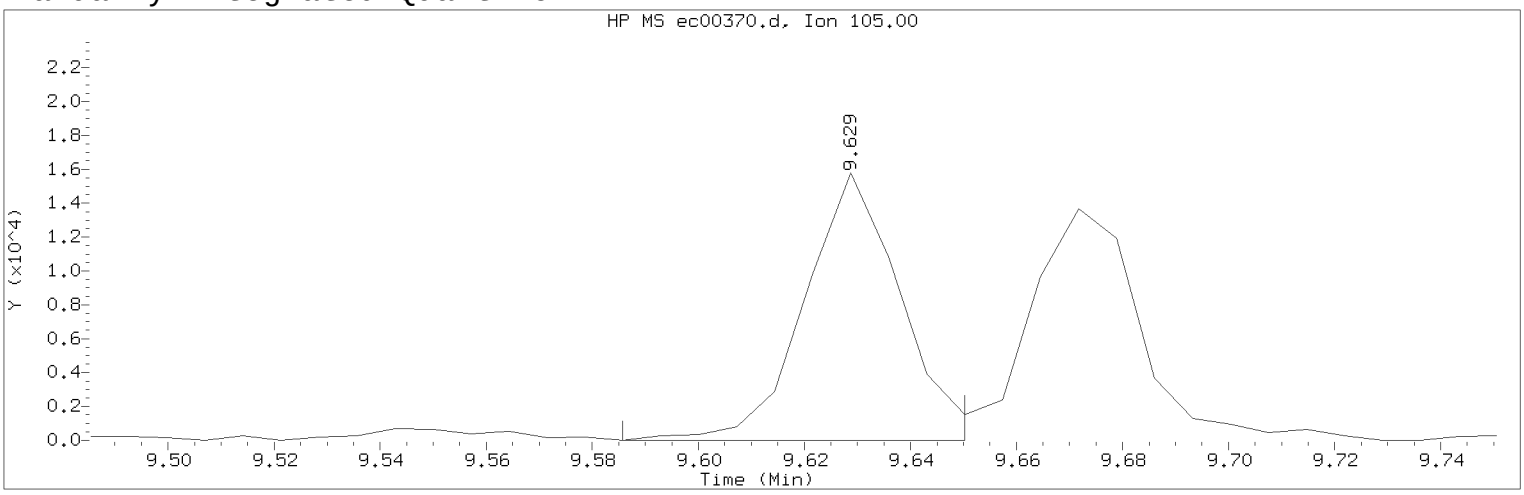
Compound Number : 84
Compound Name : n-Propylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 120.00
Area : 6470
Concentration (ppb(v)) : 0.1655
Integration start scan : 1326 Integration stop scan: 1334
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

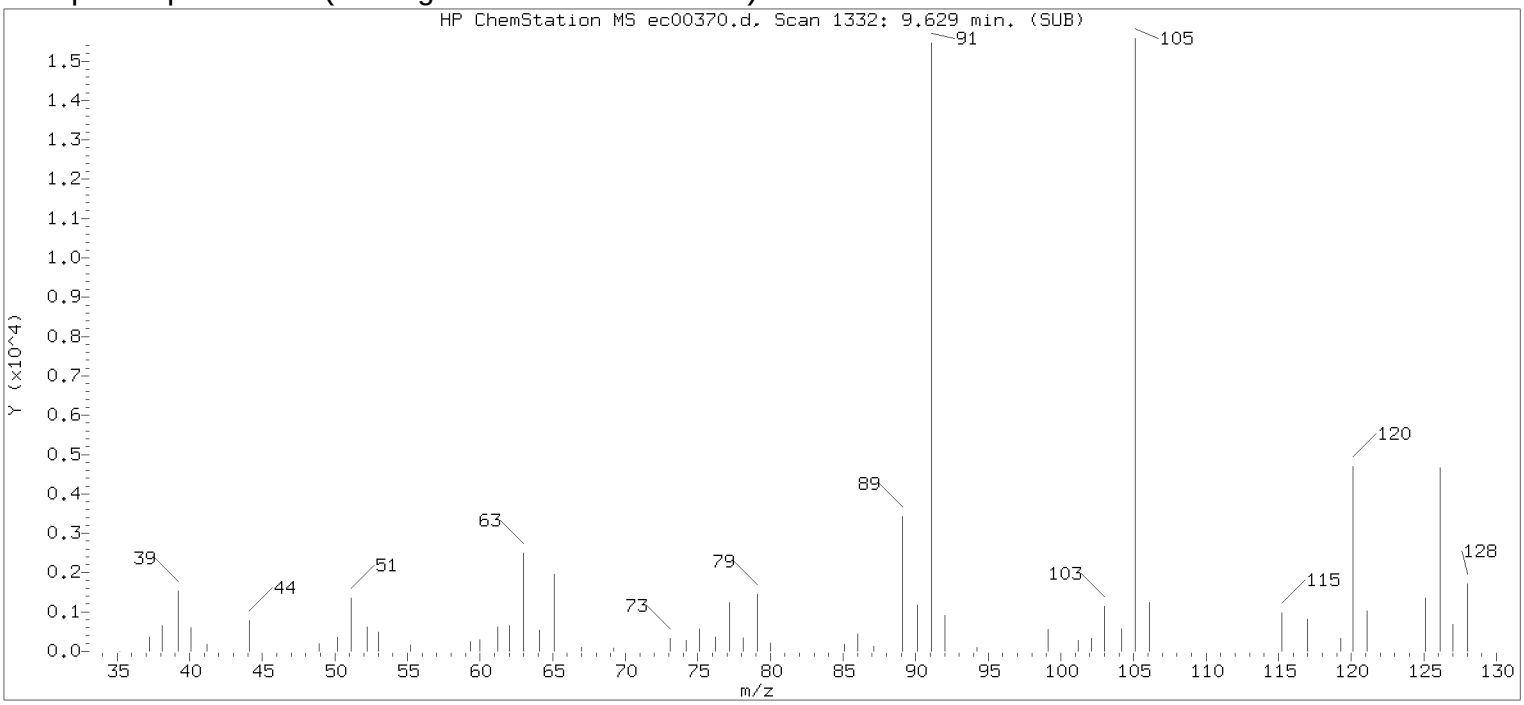
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area (flag) : 19831M
Concentration (ppb(v)) : 0.1542
Integration start scan : 1325 Integration stop scan: 1334
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

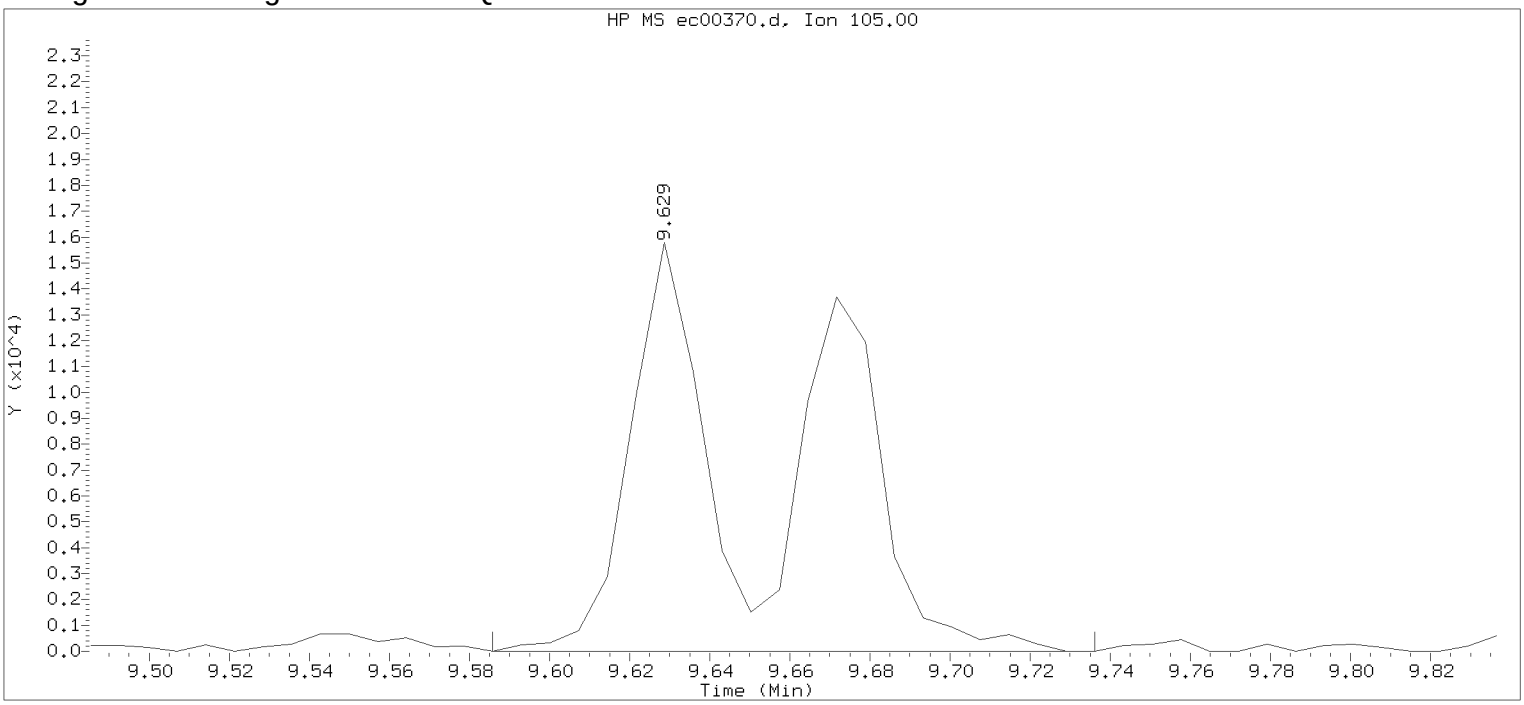
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

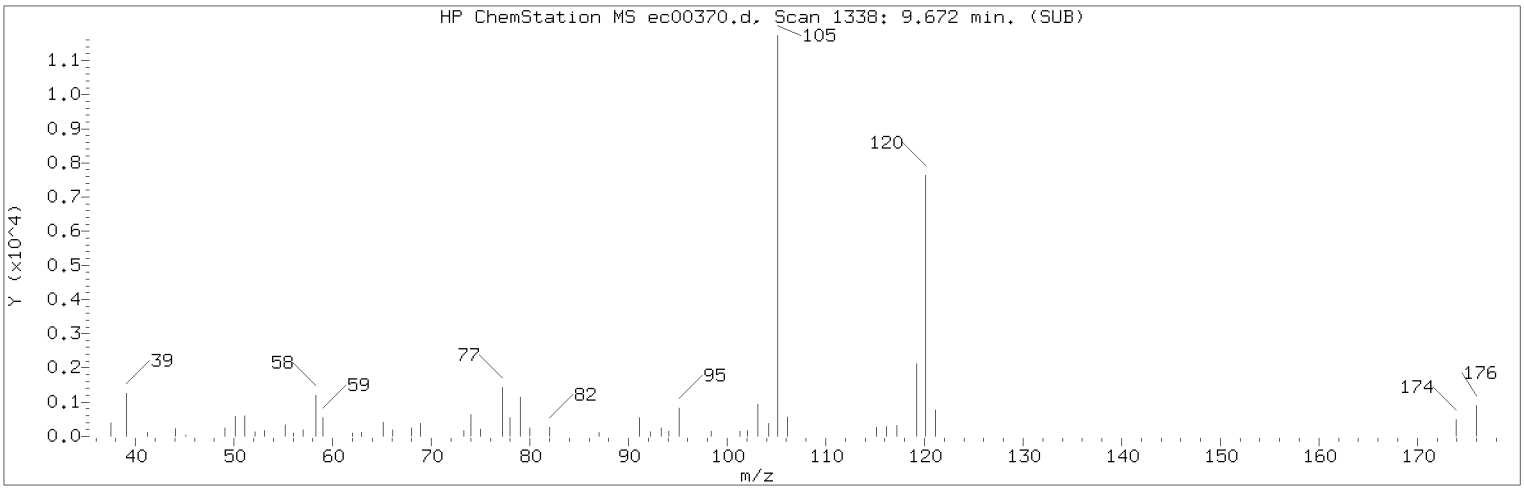
Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

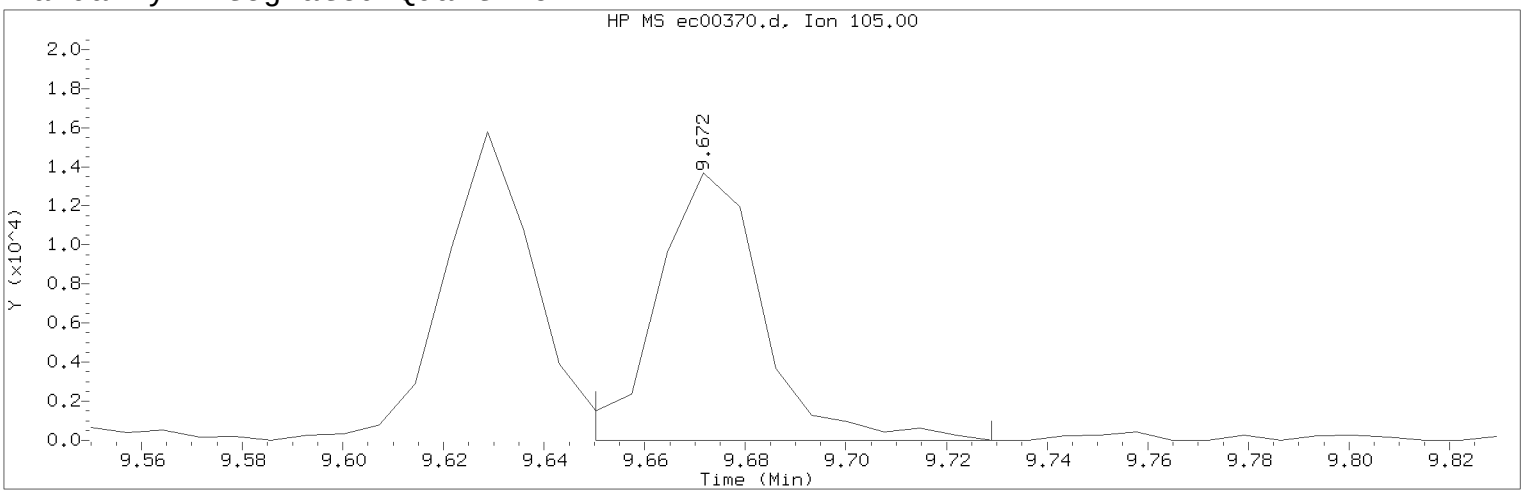
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 39136
Concentration (ppb(v)) : 0.3043
Integration start scan : 1325 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: 71jbs01374

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 15:39
Date, time and analyst ID of latest file update: 15-Mar-2017 15:05 jbs01304

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

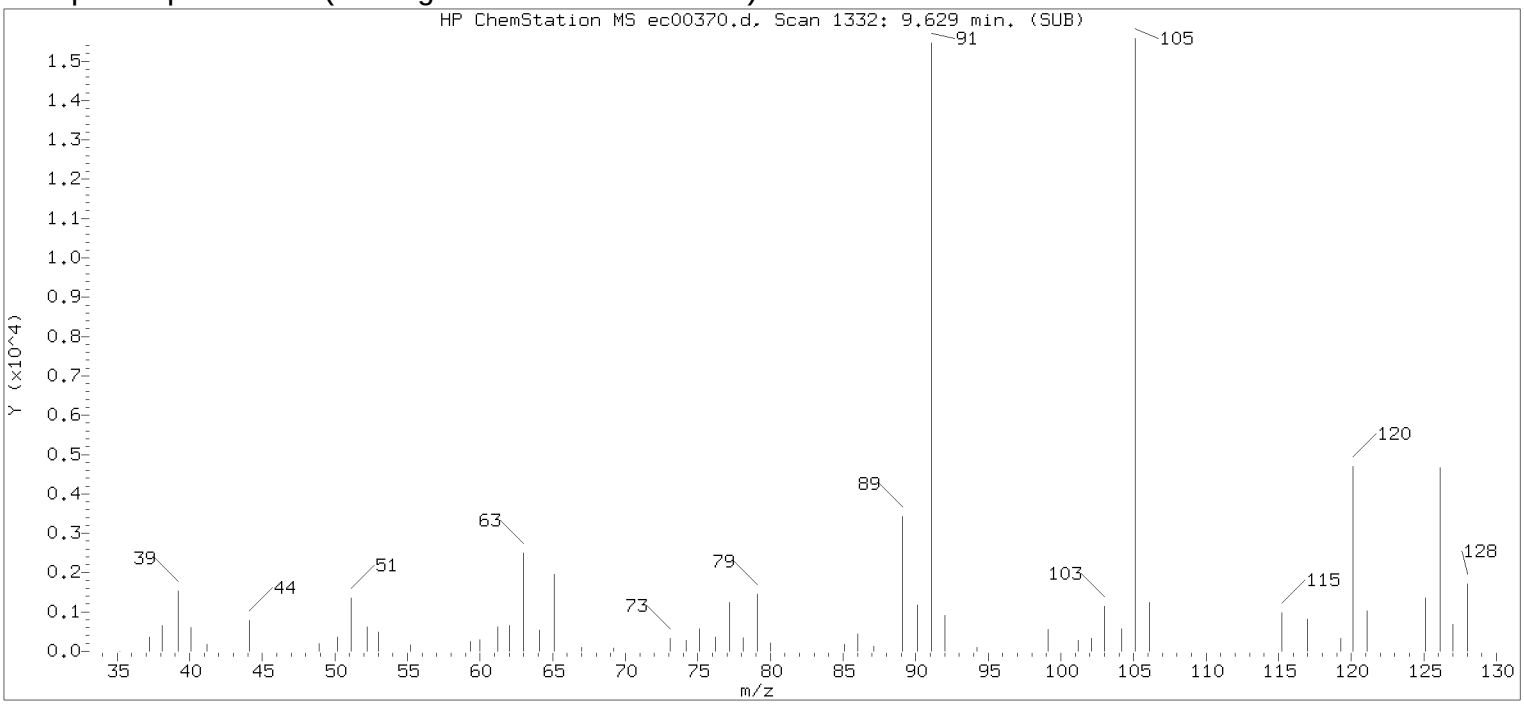
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 19957M
Concentration (ppb(v)) : 0.1830
Integration start scan : 1334 Integration stop scan: 1345
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

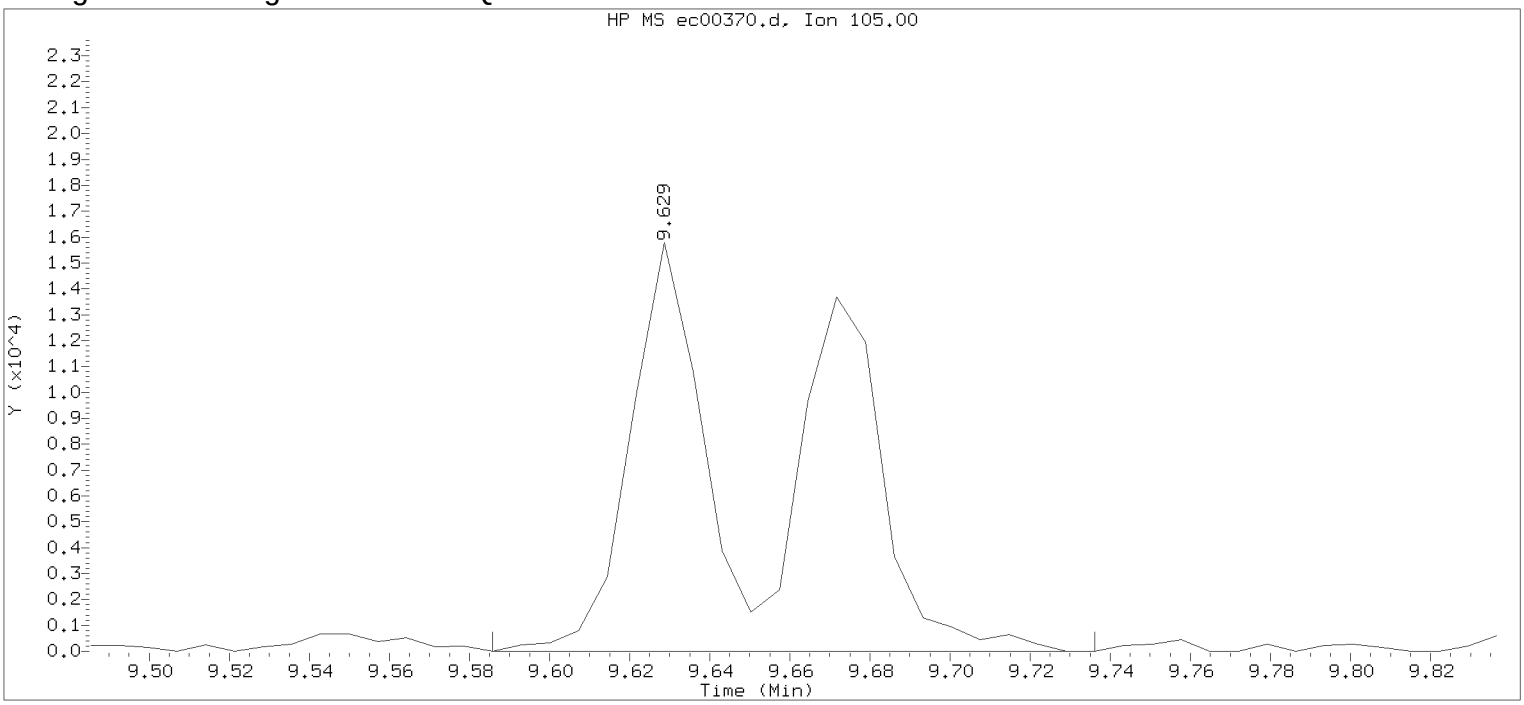
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:05.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar13.b/ec00370.d Instrument ID: HP22820.i
Injection date and time: 14-MAR-2017 02:25 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar13.b/to-15.m Sublist used: all
Calibration date and time: 13-MAR-2017 20:21
Date, time and analyst ID of latest file update: 14-Mar-2017 02:43 Unknown

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 39136
Concentration (ppb(v)) : 0.3589
Integration start scan : 1325 Integration stop scan: 1346
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jeffrey B. Smith on 03/15/2017 at 15:06.
Target 3.5 esignature user id: jeb07445

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP22820 **HP #05**

Data Directory Path is - D:\data\17mar19\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	EC00530.D	50NGBFB	03/19/2017	12:24		
jeb07445	EC00531.D	VSTD010	03/19/2017	13:01		
jeb07445	EC00532.D	VBLKE39	03/19/2017	13:45	E1707730AA	
jeb07445	EC00533.D	LCSE39	03/19/2017	14:28	E1707830AA	
jeb07445	EC00534.D	LCSDE39	03/19/2017	15:02	E1707830AA	
jeb07445	EC00535.D	LCSDE39	03/19/2017	16:16	E1707830AA	
jeb07445	EC00536.D	8877892DL	03/19/2017	17:21	E1707830AA	
jeb07445	EC00537.D	8877894	03/19/2017	18:05	E1707830AA	
jeb07445	EC00538.D	8877895	03/19/2017	18:31	E1707830AA	
jeb07445	EC00539.D	8877896	03/19/2017	19:04	E1707830AA	
jeb07445	EC00540.D	8877897	03/19/2017	19:30	E1707830AA	
jeb07445	EC00541.D	8877898	03/19/2017	19:55	E1707830AA	
jeb07445	EC00542.D	8880463	03/19/2017	20:39	E1707830AA	
jeb07445	EC00543.D	8880464	03/19/2017	21:23	E1707830AA	
jeb07445	EC00544.D	8880464	03/19/2017	22:07	E1707830AA	
jeb07445	EC00545.D	cc1178	03/19/2017	22:41	E1707730AA	
jeb07445	EC00546.D	cc1438	03/19/2017	23:14	E1707730AA	
jeb07445	EC00547.D	cc1439	03/19/2017	23:48	E1707730AA	
jeb07445	EC00548.D	ccB4742	03/20/2017	00:22	E1707730AA	
jeb07445	EC00549.D	cc1230	03/20/2017	00:56	E1707730AA	
jeb07445	EC00550.D	cc1012	03/20/2017	01:30	E1707730AA	
jeb07445	EC00551.D	fc1	03/20/2017	08:43	E1707730AA	
jeb07445	EC00552.D	fc2	03/20/2017	09:27	E1707730AA	
jeb07445	EC00553.D	fc3	03/20/2017	10:08	E1707730AA	
jeb07445	EC00554.D	fc4	03/20/2017	11:29	E1707730AA	
jeb07445	EC00555.D	fc5	03/20/2017	12:04	E1707730AA	
jeb07445	EC00556.D	VBLKE39	03/20/2017	17:32	E1707730AA	
jeb07445	EC00557.D	VBLKE39	03/20/2017	18:08	E1707730AA	
jeb07445	EC00558.D	VBLKE39	03/20/2017	18:42	E1707730AA	
jeb07445	EC00559.D	VBLKE39	03/20/2017	19:20	E1707730AA	
jeb07445	EC00560.D	VBLKE39	03/20/2017	19:54	E1707730AA	
jeb07445	EC00561.D	VBLKE39	03/20/2017	20:28	E1707730AA	
jeb07445	EC00562.D	VBLKE39	03/20/2017	21:02	E1707730AA	

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBLKE39
Canister ID:	N/A	Lab File ID:	ec00532.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	03/19/2017
Injection Volume:	200 cc	Analyzed Time:	13:45
Instrument ID:	22820	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
115-07-1	Propene	0.50	U
75-71-8	Dichlorodifluoromethane	0.20	U
75-45-6	Chlorodifluoromethane	0.20	U
76-14-2	Freon 114	0.20	U
74-87-3	Chloromethane	0.20	U
75-01-4	Vinyl Chloride	0.20	U
106-99-0	1,3-Butadiene	0.40	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.20	U
593-60-2	Bromoethene	0.40	U
75-43-4	Dichlorofluoromethane	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
109-66-0	Pentane	0.50	U
64-17-5	Ethanol	0.50	U
107-02-8	Acrolein	1.0	U
75-35-4	1,1-Dichloroethene	0.20	U
76-13-1	Freon 113	0.50	U
67-64-1	Acetone	0.50	U
74-88-4	Methyl Iodide	0.20	U
75-15-0	Carbon Disulfide	0.50	U
67-63-0	Isopropanol	0.50	U
75-05-8	Acetonitrile	0.50	U
107-05-1	3-Chloropropene	0.20	U
75-09-2	Methylene Chloride	0.20	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:	VBLKE39
Canister ID:	N/A	Lab File ID:	ec00532.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	03/19/2017
Injection Volume:	200 cc	Analyzed Time:	13:45
Instrument ID:	22820	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
75-65-0	tert-Butyl Alcohol	0.50	U
107-13-1	Acrylonitrile	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
1634-04-4	Methyl t-Butyl Ether	0.20	U
110-54-3	Hexane	0.20	U
75-34-3	1,1-Dichloroethane	0.20	U
108-05-4	Vinyl Acetate	1.0	U
108-20-3	Di-Isopropyl Ether	0.20	U
637-92-3	Ethyl Tert-Butyl Ether	0.20	U
156-59-2	cis-1,2-Dichloroethene	0.20	U
540-59-0	1,2-Dichloroethene (total)	0.20	U
78-93-3	2-Butanone	0.50	U
141-78-6	Ethyl Acetate	0.50	U
96-33-3	Methyl Acrylate	0.20	U
109-99-9	Tetrahydrofuran	0.50	U
67-66-3	Chloroform	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
110-82-7	Cyclohexane	0.20	U
56-23-5	Carbon Tetrachloride	0.20	U
71-43-2	Benzene	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
540-84-1	Isooctane	0.20	U
994-05-8	Tert-Amyl Methyl Ether	0.20	U
142-82-5	Heptane	0.50	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:	VBLKE39
Canister ID:	N/A	Lab File ID:	ec00532.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	03/19/2017
Injection Volume:	200 cc	Analyzed Time:	13:45
Instrument ID:	22820	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
79-01-6	Trichloroethene	0.20	U
140-88-5	Ethyl Acrylate	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
74-95-3	Dibromomethane	0.20	U
123-91-1	1,4-Dioxane	0.50	U
80-62-6	Methyl Methacrylate	0.20	U
75-27-4	Bromodichloromethane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
108-10-1	4-Methyl-2-Pentanone	0.50	U
108-88-3	Toluene	0.20	U
111-65-9	Octane	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
542-75-6	1,3-Dichloropropene (total)	0.20	U
97-63-2	Ethyl Methacrylate	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
591-78-6	2-Hexanone	0.50	U
124-48-1	Dibromochloromethane	0.20	U
106-93-4	1,2-Dibromoethane	0.20	U
108-90-7	Chlorobenzene	0.20	U
630-20-6	1,1,1,2-Tetrachloroethane	0.20	U
100-41-4	Ethylbenzene	0.20	U
179601-23-1	m/p-Xylene	0.20	U
95-47-6	o-Xylene	0.20	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:	VBLKE39
Canister ID:	N/A	Lab File ID:	ec00532.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	03/19/2017
Injection Volume:	200 cc	Analyzed Time:	13:45
Instrument ID:	22820	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
1330-20-7	Xylene (total)	0.20	U
100-42-5	Styrene	0.20	U
75-25-2	Bromoform	0.20	U
98-82-8	Cumene	0.20	U
108-86-1	Bromobenzene	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
96-18-4	1,2,3-Trichloropropane	0.20	U
103-65-1	n-Propylbenzene	0.50	U
95-49-8	2-Chlorotoluene	0.20	U
622-96-8	4-Ethyltoluene	0.20	U
108-67-8	1,3,5-Trimethylbenzene	0.20	U
98-83-9	Alpha Methyl Styrene	0.20	U
98-06-6	tert-Butylbenzene	0.50	U
95-63-6	1,2,4-Trimethylbenzene	0.20	U
135-98-8	sec-Butylbenzene	0.20	U
541-73-1	1,3-Dichlorobenzene	0.20	U
106-46-7	1,4-Dichlorobenzene	0.20	U
99-87-6	p-Isopropyltoluene	0.20	U
100-44-7	Benzyl Chloride	0.50	U
95-50-1	1,2-Dichlorobenzene	0.20	U
104-51-8	n-Butylbenzene	0.20	U
67-72-1	Hexachloroethane	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.20	U
120-82-1	1,2,4-Trichlorobenzene	0.50	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:	VBLKE39
Canister ID:	N/A	Lab File ID:	ec00532.d
Pressure Received:	14.7 psia	Date Collected:	
Final Pressure:	14.7 psia	Date Received:	
Nominal Volume:	200 cc	Analyzed Date:	03/19/2017
Injection Volume:	200 cc	Analyzed Time:	13:45
Instrument ID:	22820	Dilution Factor:	1

Concentration Units: ppb(v) Limit: MDL

CAS NO.	COMPOUND	CONCENTRATION	Q
87-68-3	Hexachlorobutadiene	0.40	U
91-20-3	Naphthalene	0.40	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 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00533.d LCSD File ID: ec00534.d

Batch: E1707830AA LCS Injected: 03/19/2017 LCSD Injected: 03/19/2017

Method: EPA TO-15 LCS Client ID: LCSE39 LCSD Client ID: LCSDE39

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	11.51	12.33	115	123	66-127	7	25	YES
Dichlorodifluoromethane	10.00	11.98	12.70	120	127	74-133	6	25	YES
Chlorodifluoromethane	10.00	5.84	4.72	58 *	47 *	70-138	21	25	NO
Freon 114	10.00	11.55	12.34	115	123	66-126	7	25	YES
Chloromethane	10.00	5.02	4.47	50 *	45 *	65-140	12	25	NO
Vinyl Chloride	10.00	12.46	13.48	125	135 *	75-130	8	25	NO
1,3-Butadiene	10.00	11.57	12.52	116	125 *	72-122	8	25	NO
Bromomethane	10.00	10.81	10.53	108	105	71-133	3	25	YES
Chloroethane	10.00	12.68	12.80	127	128	76-129	1	25	YES
Bromoethene	10.00	11.44	12.28	114	123	77-123	7	25	YES
Dichlorofluoromethane	10.00	12.81	13.54	128	135	75-137	6	25	YES
Trichlorofluoromethane	10.00	11.95	12.62	119	126	73-132	5	25	YES
Pentane	10.00	11.36	12.13	114	121	69-125	7	25	YES
Ethanol	10.00	8.58	9.45	86	95	38-150	10	25	YES
Acrolein	10.00	11.71	13.20	117	132	54-132	12	25	YES
1,1-Dichloroethene	10.00	11.94	12.77	119	128	70-129	7	25	YES
Freon 113	10.00	12.28	12.77	123 *	128 *	66-119	4	25	NO
Acetone	10.00	11.51	12.47	115	125	71-136	8	25	YES
Methyl Iodide	10.00	9.91	11.01	99	110	46-114	11	25	YES
Carbon Disulfide	10.00	11.90	12.81	119	128	72-128	7	25	YES
Isopropanol	10.00	9.68	11.98	97	120	41-157	21	25	YES
Acetonitrile	10.00	10.26	10.64	103	106	56-136	4	25	YES
3-Chloropropene	10.00	14.01	14.32	140	143 *	67-141	2	25	NO
Methylene Chloride	10.00	13.80	14.69	138 *	147 *	69-128	6	25	NO
tert-Butyl Alcohol	10.00	11.81	12.62	118	126	63-139	7	25	YES
Acrylonitrile	10.00	12.64	13.23	126	132	68-135	5	25	YES
trans-1,2-Dichloroethene	10.00	12.38	13.26	124	133 *	77-128	7	25	NO
Methyl t-Butyl Ether	10.00	11.17	12.04	112	120 *	71-119	7	25	NO
Hexane	10.00	11.79	12.64	118	126 *	70-118	7	25	NO
1,1-Dichloroethane	10.00	12.44	13.08	124	131 *	74-129	5	25	NO
Vinyl Acetate	10.00	12.72	13.03	127	130	47-131	2	25	YES
Di-Isopropyl Ether	10.00	12.29	13.18	123 *	132 *	71-122	7	25	NO
Ethyl Tert-Butyl Ether	10.00	10.82	12.00	108	120	68-121	10	25	YES
cis-1,2-Dichloroethene	10.00	11.89	12.68	119	127 *	76-126	6	25	NO
2-Butanone	10.00	11.38	12.82	114	128 *	75-126	12	25	NO
Ethyl Acetate	10.00	11.14	11.60	111	116	62-160	4	25	YES

COMMENTS:
Applies to Sample(s): 8877892, 8877894-8877898, 88804638880464

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00533.d LCSD File ID: ec00534.d

Batch: E1707830AA LCS Injected: 03/19/2017 LCSD Injected: 03/19/2017

Method: EPA TO-15 LCS Client ID: LCSE39 LCSD Client ID: LCSDE39

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	12.12	12.94	121	129*	75-125	7	25	NO
Tetrahydrofuran	10.00	12.22	12.82	122	128*	67-127	5	25	NO
Chloroform	10.00	12.21	12.92	122	129*	75-127	6	25	NO
1,1,1-Trichloroethane	10.00	12.04	12.95	120	129*	74-122	7	25	NO
Cyclohexane	10.00	11.71	12.77	117	128*	70-118	9	25	NO
Carbon Tetrachloride	10.00	12.11	13.24	121	132*	72-127	9	25	NO
Benzene	10.00	11.80	12.17	118	122	76-123	3	25	YES
1,2-Dichloroethane	10.00	11.82	12.41	118	124	72-138	5	25	YES
Isooctane	10.00	11.44	12.12	114	121	74-127	6	25	YES
Tert-Amyl Methyl Ether	10.00	11.16	11.56	112	116	78-124	3	25	YES
Heptane	10.00	11.79	12.12	118	121	74-122	3	25	YES
Trichloroethene	10.00	10.69	11.07	107	111	76-118	3	25	YES
Ethyl Acrylate	10.00	11.06	11.32	111	113	71-126	2	25	YES
1,2-Dichloropropane	10.00	11.95	12.64	119	126	75-127	6	25	YES
Dibromomethane	10.00	11.36	11.74	114	117	76-124	3	25	YES
1,4-Dioxane	10.00	10.96	11.30	110	113	76-124	3	25	YES
Methyl Methacrylate	10.00	10.77	11.65	108	116	73-117	8	25	YES
Bromodichloromethane	10.00	11.82	12.53	118	125	75-134	6	25	YES
cis-1,3-Dichloropropene	10.00	10.90	11.36	109	114	51-120	4	25	YES
4-Methyl-2-Pentanone	10.00	11.40	12.04	114	120	68-133	5	25	YES
Toluene	10.00	11.63	11.90	116	119	78-119	2	25	YES
Octane	10.00	10.67	11.28	107	113	73-122	6	25	YES
trans-1,3-Dichloropropene	10.00	11.22	11.76	112	118	72-119	5	25	YES
Ethyl Methacrylate	10.00	11.71	12.03	117	120	71-123	3	25	YES
1,1,2-Trichloroethane	10.00	12.03	12.29	120	123	76-127	2	25	YES
Tetrachloroethene	10.00	10.75	10.75	108	108	68-123	0	25	YES
2-Hexanone	10.00	10.92	11.12	109	111	63-144	2	25	YES
Dibromochloromethane	10.00	11.44	11.81	114	118	74-131	3	25	YES
1,2-Dibromoethane	10.00	11.54	12.01	115	120	73-121	4	25	YES
Chlorobenzene	10.00	11.02	11.23	110	112	76-117	2	25	YES
1,1,1,2-Tetrachloroethane	10.00	11.49	12.05	115	121	73-124	5	25	YES
Ethylbenzene	10.00	11.00	11.23	110	112	77-117	2	25	YES
m/p-Xylene	10.00	11.06	11.38	111	114	78-119	3	25	YES
o-Xylene	10.00	10.91	11.27	109	113	78-121	3	25	YES
Xylene (total)	20.00	21.97	22.66	110	113	79-120	3	25	YES
Styrene	10.00	12.53	12.96	125	130*	76-127	3	25	NO

COMMENTS:
Applies to Sample(s): 8877892, 8877894-8877898, 88804638880464

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 22820 LCS File ID: ec00533.d LCSD File ID: ec00534.d

Batch: E1707830AA LCS Injected: 03/19/2017 LCSD Injected: 03/19/2017

Method: EPA TO-15 LCS Client ID: LCSE39 LCSD Client ID: LCSDE39

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	10.63	10.75	106	108	69-128	1	25	YES
Cumene	10.00	10.82	11.30	108	113	74-121	4	25	YES
Bromobenzene	10.00	10.95	11.31	109	113	74-118	3	25	YES
1,1,2,2-Tetrachloroethane	10.00	12.78	12.74	128	127	72-133	0	25	YES
1,2,3-Trichloropropane	10.00	11.92	11.89	119	119	71-127	0	25	YES
n-Propylbenzene	10.00	10.47	10.64	105	106	73-120	2	25	YES
2-Chlorotoluene	10.00	11.26	11.48	113	115	74-123	2	25	YES
4-Ethyltoluene	10.00	11.45	11.33	115	113	73-130	1	25	YES
1,3,5-Trimethylbenzene	10.00	10.92	10.98	109	110	72-130	1	25	YES
Alpha Methyl Styrene	10.00	11.60	11.87	116	119*	67-118	2	25	NO
tert-Butylbenzene	10.00	9.44	9.80	94	98	68-124	4	25	YES
1,2,4-Trimethylbenzene	10.00	11.64	11.83	116	118	70-138	2	25	YES
sec-Butylbenzene	10.00	10.70	11.03	107	110	73-125	3	25	YES
1,3-Dichlorobenzene	10.00	11.65	11.76	116	118	75-129	1	25	YES
1,4-Dichlorobenzene	10.00	11.19	11.49	112	115	74-123	3	25	YES
p-Isopropyltoluene	10.00	11.21	11.53	112	115	70-131	3	25	YES
Benzyl Chloride	10.00	11.61	11.94	116	119	60-136	3	25	YES
1,2-Dichlorobenzene	10.00	11.52	11.93	115	119	71-126	3	25	YES
n-Butylbenzene	10.00	11.12	11.61	111	116	70-129	4	25	YES
Hexachloroethane	10.00	12.40	12.72	124	127	59-135	3	25	YES
1,2-Dibromo-3-chloropropane	10.00	12.35	11.80	124	118	56-129	5	25	YES
1,2,4-Trichlorobenzene	10.00	12.01	12.04	120	120	48-135	0	25	YES
Hexachlorobutadiene	10.00	11.89	11.91	119	119	55-127	0	25	YES
Naphthalene	10.00	12.78	12.89	128	129	39-152	1	25	YES

COMMENTS:
Applies to Sample(s): 8877892, 8877894-8877898, 88804638880464

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKE39

Analyzed Date: 03/19/2017

Lab File ID: ec00532.d

Analyzed Time: 13:45

Instrument ID: 22820

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

LAB SAMPLE ID	LAB FILE ID	CANISTER ID	DATE ANALYZED	TIME ANALYZED
LCSE39	ec00533.d	N/A	03/19/2017	14:28
LCSDE39	ec00534.d	N/A	03/19/2017	15:02
8877892DL	ec00536.d	961	03/19/2017	17:21
8877894	ec00537.d	1167	03/19/2017	18:05
8877895	ec00538.d	1210	03/19/2017	18:31
8877896	ec00539.d	1212	03/19/2017	19:04
8877897	ec00540.d	1313	03/19/2017	19:30
8877898	ec00541.d	1317	03/19/2017	19:55
8880463	ec00542.d	1474	03/19/2017	20:39
8880464	ec00543.d	836	03/19/2017	21:23
8880464	ec00544.d	836	03/19/2017	22:07
cc1178	ec00545.d	1178	03/19/2017	22:41
cc1438	ec00546.d	1438	03/19/2017	23:14
cc1439	ec00547.d	1439	03/19/2017	23:48
cc1230	ec00549.d	1230	03/20/2017	00:56
cc1012	ec00550.d	1012	03/20/2017	01:30

COMMENTS:

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

SDG No.:

Lab File ID: ec00530.d

BFB Injection Date: 03/19/2017

Instrument ID: 22820

BFB Injection Time: 12:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	17.21
75	30.0% - 66.0% of mass 95	48.14
95	Base peak, 100% relative abundance	100.00
96	5.0% - 9.0% of mass 95	6.83
173	< 2.0% of mass 174	0.57 (0.64)
174	> 50.0% of mass 95	87.72
175	4.0% - 9.0% of mass 174	6.15 (7.01)
176	93.0% - 101.0% of mass 174	84.91 (96.80)
177	5.0% - 9.0% of mass 176	5.43 (6.40)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	ec00531.d	03/19/2017	13:01
VBLKE39	ec00532.d	03/19/2017	13:45
LCSE39	ec00533.d	03/19/2017	14:28
LCSDE39	ec00534.d	03/19/2017	15:02
8877892DL	ec00536.d	03/19/2017	17:21
8877894	ec00537.d	03/19/2017	18:05
8877895	ec00538.d	03/19/2017	18:31
8877896	ec00539.d	03/19/2017	19:04
8877897	ec00540.d	03/19/2017	19:30
8877898	ec00541.d	03/19/2017	19:55
8880463	ec00542.d	03/19/2017	20:39
8880464	ec00543.d	03/19/2017	21:23
8880464	ec00544.d	03/19/2017	22:07
cc1178	ec00545.d	03/19/2017	22:41
cc1438	ec00546.d	03/19/2017	23:14
cc1439	ec00547.d	03/19/2017	23:48
cc1230	ec00549.d	03/20/2017	00:56
cc1012	ec00550.d	03/20/2017	01:30

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: ec00531.d

Calibration Date: 03/19/2017

Instrument ID: 22820

Calibration Time: 13:01

Init. Calib. Date(s): 03/13/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	0.882	0.909	10.308	10	3
Dichlorodifluoromethane	3.518	3.785	10.758	10	8
Chlorodifluoromethane	1.899	2.159	11.366	10	14
Freon 114	3.490	3.791	10.861	10	9
Chloromethane	1.080	1.254	11.609	10	16
Vinyl Chloride	1.237	1.353	10.938	10	9
1,3-Butadiene	0.870	0.940	10.794	10	8
Bromomethane	1.306	1.392	10.659	10	7
Chloroethane	0.681	0.760	11.161	10	12
Bromoethene	1.221	1.260	10.321	10	3
Dichlorofluoromethane	2.854	3.129	10.966	10	10
Trichlorofluoromethane	3.685	4.003	10.864	10	9
Pentane	1.885	2.024	10.738	10	7
Ethanol	0.364	0.332	9.110	10	-9
Freon123a	2.649	2.909	10.983	10	10
Acrolein	0.427	0.476	11.139	10	11
1,1-Dichloroethene	2.004	2.123	10.593	10	6
Freon 113	1.954	2.124	10.870	10	9
Acetone	1.787	1.916	10.722	10	7
Methyl Iodide	2.724	3.010	11.051	10	11
Carbon Disulfide	3.632	4.041	11.128	10	11
Isopropanol	1.426	1.509	11.958	11.3	6
Acetonitrile	0.835	0.750	8.982	10	-10
3-Chloropropene	0.523	0.551	11.785	11.2	5
Methylene Chloride	1.082	1.172	12.126	11.2	8
tert-Butyl Alcohol	2.099	2.110	11.260	11.2	1
Acrylonitrile	0.998	1.137	11.396	10	14
trans-1,2-Dichloroethene	1.821	2.024	11.111	10	11
Methyl t-Butyl Ether	3.482	3.593	10.317	10	3
Hexane	1.772	1.860	10.492	10	5
1,1-Dichloroethane	2.349	2.630	11.199	10	12
Vinyl Acetate	0.302	0.320	11.989	11.3	6
Di-Isopropyl Ether	3.697	4.034	10.912	10	9
Ethyl Tert-Butyl Ether	3.560	3.565	10.014	10	0
cis-1,2-Dichloroethene	1.725	1.875	10.868	10	9
2-Butanone	0.649	0.687	10.584	10	6
Ethyl Acetate	0.320	0.334	10.429	10	4
Methyl Acrylate	2.014	2.222	11.036	10	10
Tetrahydrofuran	1.265	1.356	10.722	10	7

* 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: ec00531.d

Calibration Date: 03/19/2017

Instrument ID: 22820

Calibration Time: 13:01

Init. Calib. Date(s): 03/13/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	2.908	3.244	11.153	10	12
1,1,1-Trichloroethane	2.886	3.140	10.880	10	9
Cyclohexane	1.910	1.984	10.388	10	4
Carbon Tetrachloride	2.964	3.218	10.860	10	9
Benzene	1.098	1.242	11.314	10	13
1,2-Dichloroethane	0.504	0.593	11.765	10	18
Isooctane	1.566	1.754	11.204	10	12
Tert-Amyl Methyl Ether	0.972	1.067	10.968	10	10
Heptane	0.536	0.619	11.532	10	15
Trichloroethene	0.550	0.602	10.947	10	9
Ethyl Acrylate	0.640	0.695	10.855	10	9
1,2-Dichloropropane	0.384	0.447	11.629	10	16
Dibromomethane	0.502	0.565	11.244	10	12
1,4-Dioxane	0.262	0.289	11.034	10	10
Methyl Methacrylate	0.339	0.376	11.078	10	11
Bromodichloromethane	0.771	0.911	11.812	10	18
cis-1,3-Dichloropropene	0.615	0.665	10.816	10	8
4-Methyl-2-Pentanone	0.663	0.769	11.607	10	16
Toluene	1.344	1.497	11.137	10	11
Octane	0.750	0.876	11.680	10	17
trans-1,3-Dichloropropene	0.549	0.628	11.446	10	14
Ethyl Methacrylate	0.529	0.620	11.722	10	17
1,1,2-Trichloroethane	0.475	0.550	11.565	10	16
Tetrachloroethene	0.817	0.855	10.466	10	5
2-Hexanone	0.657	0.771	11.735	10	17
Dibromochloromethane	0.606	0.686	11.326	10	13
1,2-Dibromoethane	0.730	0.835	11.440	10	14
Chlorobenzene	1.150	1.259	10.952	10	10
1,1,1,2-Tetrachloroethane	0.592	0.664	11.223	10	12
Ethylbenzene	1.695	1.890	11.153	10	12
m/p-Xylene	1.309	1.467	11.206	10	12
o-Xylene	1.281	1.402	10.938	10	9
Styrene	0.844	1.033	12.230	10	22
Bromoform	0.729	0.826	11.342	10	13
Cumene	1.750	2.008	11.477	10	15
Bromobenzene	0.671	0.759	11.308	10	13
1,1,2,2-Tetrachloroethane	0.917	1.066	11.625	10	16
1,2,3-Trichloropropane	0.310	0.363	11.701	10	17
n-Propylbenzene	0.535	0.596	11.148	10	11

* 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: ec00531.d

Calibration Date: 03/19/2017

Instrument ID: 22820

Calibration Time: 13:01

Init. Calib. Date(s): 03/13/2017

COMPOUND	$\overline{RRF}$	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.503	0.563	11.194	10	12
4-Ethyltoluene	1.801	2.113	11.730	10	17
1,3,5-Trimethylbenzene	1.491	1.729	11.594	10	16
Alpha Methyl Styrene	0.572	0.693	12.104	10	21
tert-Butylbenzene	1.434	1.630	11.366	10	14
1,2,4-Trimethylbenzene	1.391	1.690	12.153	10	22
sec-Butylbenzene	2.057	2.394	11.638	10	16
1,3-Dichlorobenzene	1.053	1.251	11.883	10	19
1,4-Dichlorobenzene	1.060	1.209	11.404	10	14
p-Isopropyltoluene	1.648	1.956	11.867	10	19
Benzyl Chloride	0.821	1.022	12.444	10	24
1,2-Dichlorobenzene	0.943	1.111	11.776	10	18
n-Butylbenzene	1.459	1.745	11.963	10	20
Hexachloroethane	0.420	0.544	12.951	10	30
1,2-Dibromo-3-chloropropane	0.344	0.399	11.594	10	16
1,2,4-Trichlorobenzene	0.567	0.571	10.076	10	1
Hexachlorobutadiene	0.534	0.582	10.902	10	9
Naphthalene	1.029	1.035	10.061	10	1

* 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/HP22820.i/17mar13.b/ec00354.d
/chem/HP22820.i/17mar13.b/ec00355.d
/chem/HP22820.i/17mar13.b/ec00356.d
/chem/HP22820.i/17mar13.b/ec00357.d
/chem/HP22820.i/17mar13.b/ec00358.d
/chem/HP22820.i/17mar13.b/ec00359.d

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

Current Continuing Calibration Standard:

/chem/HP22820.i/17mar19.b/ec00531.d

Area Summary

File ID:

Internal Standard Name	ec00531.d	ICAL Area	Low Limit	High Limit	In Spec
Bromochloromethane	205234	217232	130339	304125	Yes
1,4-Difluorobenzene	739196	821381	492829	1149933	Yes
Chlorobenzene-d5	723095	801744	481046	1122442	Yes

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

RT Summary

File ID:

Internal Standard Name	ec00531.d	ICAL RT	In Spec
Bromochloromethane	5.467	5.468	Yes
1,4-Difluorobenzene	6.291	6.292	Yes
Chlorobenzene-d5	8.497	8.497	Yes

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

Comments:_____

_____

Report generated on 03/19/2017 at 13:20

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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: 03/19/2017

Lab File ID: ec00531.d Analyzed Time: 13:01

Instrument ID: 22820

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	R.T.	Area	R.T.	Area	R.T.
24 HOUR STANDARD	205234	5.47	739196	6.29	723095	8.50
UPPER LIMIT	287328	5.80	1034874	6.62	1012333	8.83
LOWER LIMIT	123140	5.14	443518	5.96	433857	8.17
LAB SAMPLE ID						
VBLKE39	192302	5.47	618355	6.30	667414	8.50
LCSE39	180193	5.48	700494	6.30	677238	8.50
LCSDE39	174440	5.47	696823	6.30	682870	8.50
8877892DL	178948	5.47	726928	6.30	698380	8.50
8877894	180172	5.47	792536	6.30	772759	8.50
8877895	210380	5.47	815528	6.29	808616	8.50
8877896	214005	5.47	831338	6.29	801035	8.50
8877897	215319	5.47	840133	6.29	805973	8.50
8877898	214491	5.47	835564	6.29	841150	8.50
8880463	202498	5.47	767447	6.30	811488	8.50
8880464	198531	5.47	756099	6.30	778081	8.50
8880464	204310	5.47	751894	6.30	788292	8.50
cc1178	214119	5.47	723636	6.30	756307	8.50
cc1438	209291	5.47	673922	6.30	711080	8.50
cc1439	199805	5.47	642924	6.30	678293	8.50
cc1230	189150	5.47	598322	6.30	641035	8.50
cc1012	185819	5.47	566575	6.30	623238	8.50

* = 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/HP22820.i/17mar19.b/ec00530.d

Date : 19-MAR-2017 12:24

Client ID: 50NGBFB

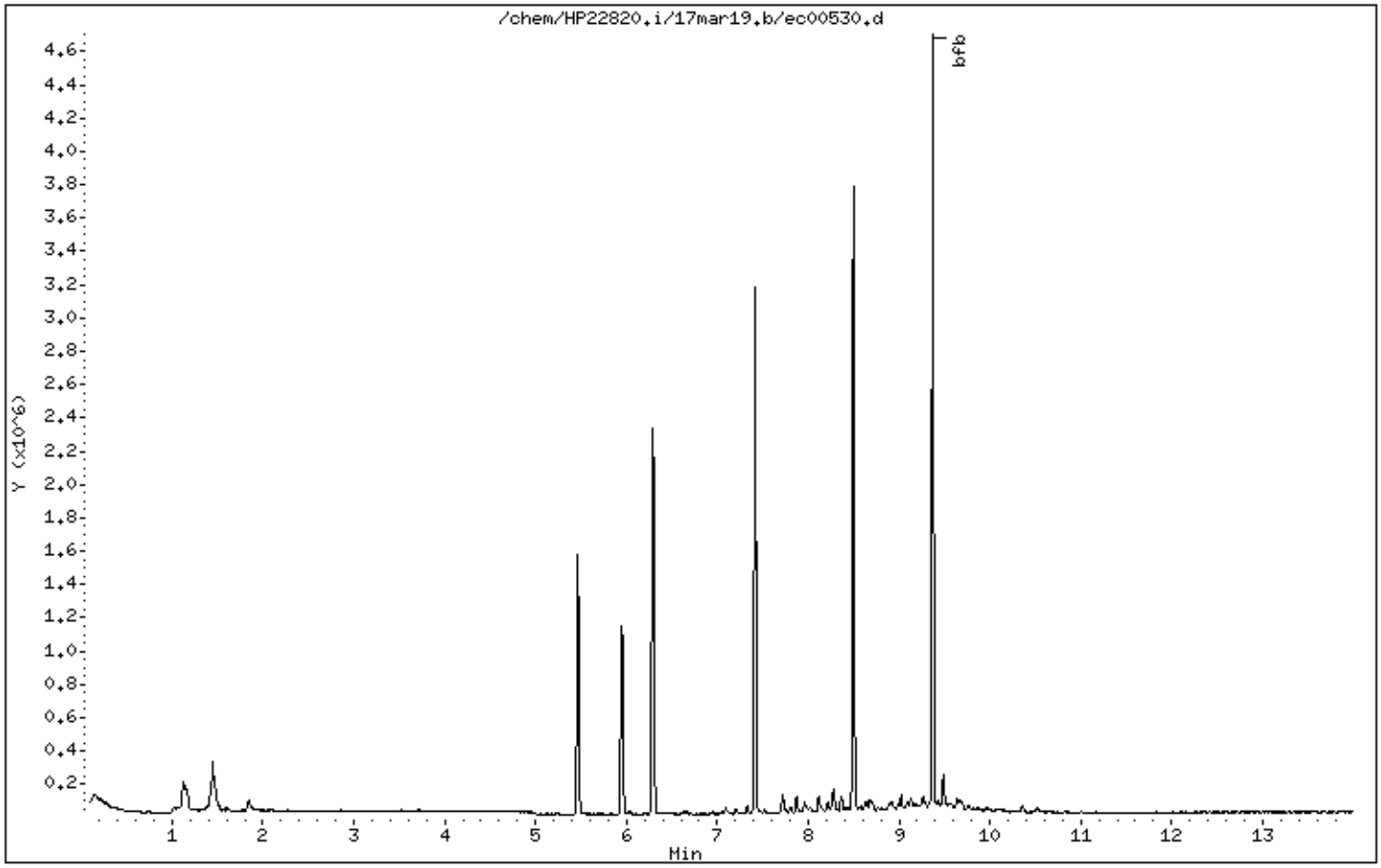
Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:35.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP22820.i/17mar19.b/ec00530.d

Date : 19-MAR-2017 12:24

Client ID: 50NGBFB

Instrument: HP22820.i

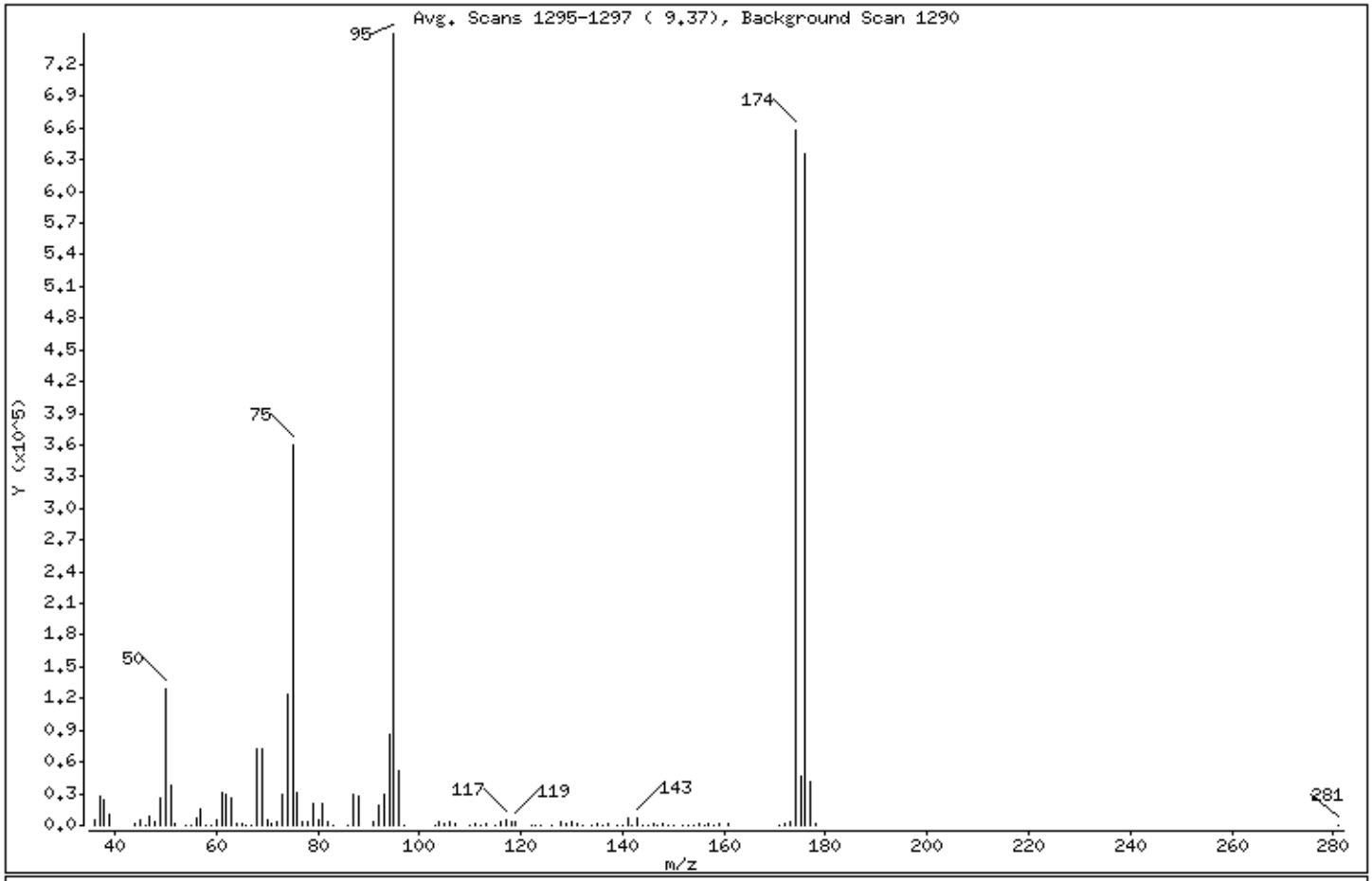
Sample Info: 50NGBFB;;;50NGBFB;;;;

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	17.21
75	30.00 - 66.00% of mass 95	48.14
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.57 (0.64)
174	50.00 - 120.00% of mass 95	87.72
175	4.00 - 9.00% of mass 174	6.15 (7.01)
176	93.00 - 101.00% of mass 174	84.91 (96.80)
177	5.00 - 9.00% of mass 176	5.43 (6.40)

Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:35.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP22820.i/17mar19.b/ec00530.d

Date : 19-MAR-2017 12:24

Client ID: 50NGBFB

Instrument: HP22820.i

Sample Info: 50NGBFB;;;50NGBFB;;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

Data File: ec00530.d
Spectrum: Avg. Scans 1295-1297 (9.37), Background Scan 1290
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4719	69.00	71840	106.00	3275	143.00	7708
37.00	27576	70.00	4908	107.00	963	144.00	549
38.00	24872	71.00	926	110.00	465	145.00	666
39.00	10295	72.00	3400	111.00	1161	146.00	1101
44.00	2306	73.00	29000	112.00	205	147.00	473
45.00	5030	74.00	124368	113.00	925	148.00	1833
46.00	475	75.00	360640	115.00	836	149.00	432
47.00	7795	76.00	30856	116.00	2845	150.00	691
48.00	4055	77.00	4056	117.00	4888	152.00	457
49.00	25192	78.00	2631	118.00	3321	153.00	508
50.00	128912	79.00	20088	119.00	3602	154.00	415
51.00	38632	80.00	5447	122.00	105	155.00	1729
52.00	1697	81.00	20832	123.00	142	156.00	402
54.00	182	82.00	4244	124.00	289	157.00	1202
55.00	300	83.00	260	126.00	253	158.00	364
56.00	7637	86.00	581	128.00	2745	159.00	1197
57.00	14753	87.00	29672	129.00	1432	161.00	898
58.00	778	88.00	28256	130.00	2800	171.00	99
59.00	225	91.00	2769	131.00	1056	172.00	2244
60.00	5445	92.00	19560	132.00	126	173.00	4239
61.00	30976	93.00	28640	134.00	142	174.00	657216
62.00	30048	94.00	85608	135.00	1482	175.00	46072
63.00	25376	95.00	749184	136.00	353	176.00	636160
64.00	2240	96.00	51136	137.00	1265	177.00	40712
65.00	953	97.00	813	139.00	248	178.00	1088
66.00	359	103.00	395	140.00	351	281.00	67
67.00	799	104.00	3210	141.00	7666		
68.00	71992	105.00	1013	142.00	845		

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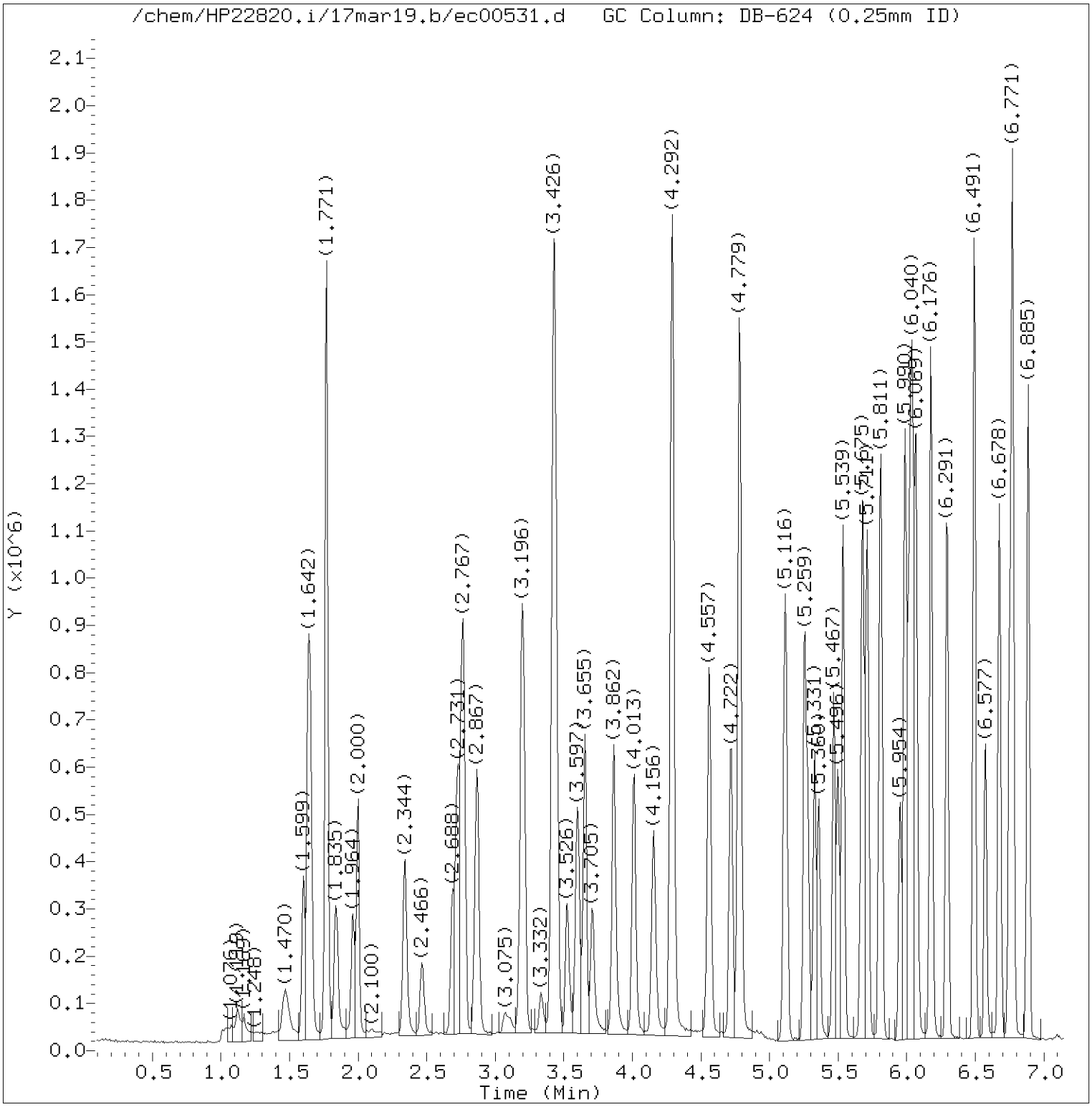
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

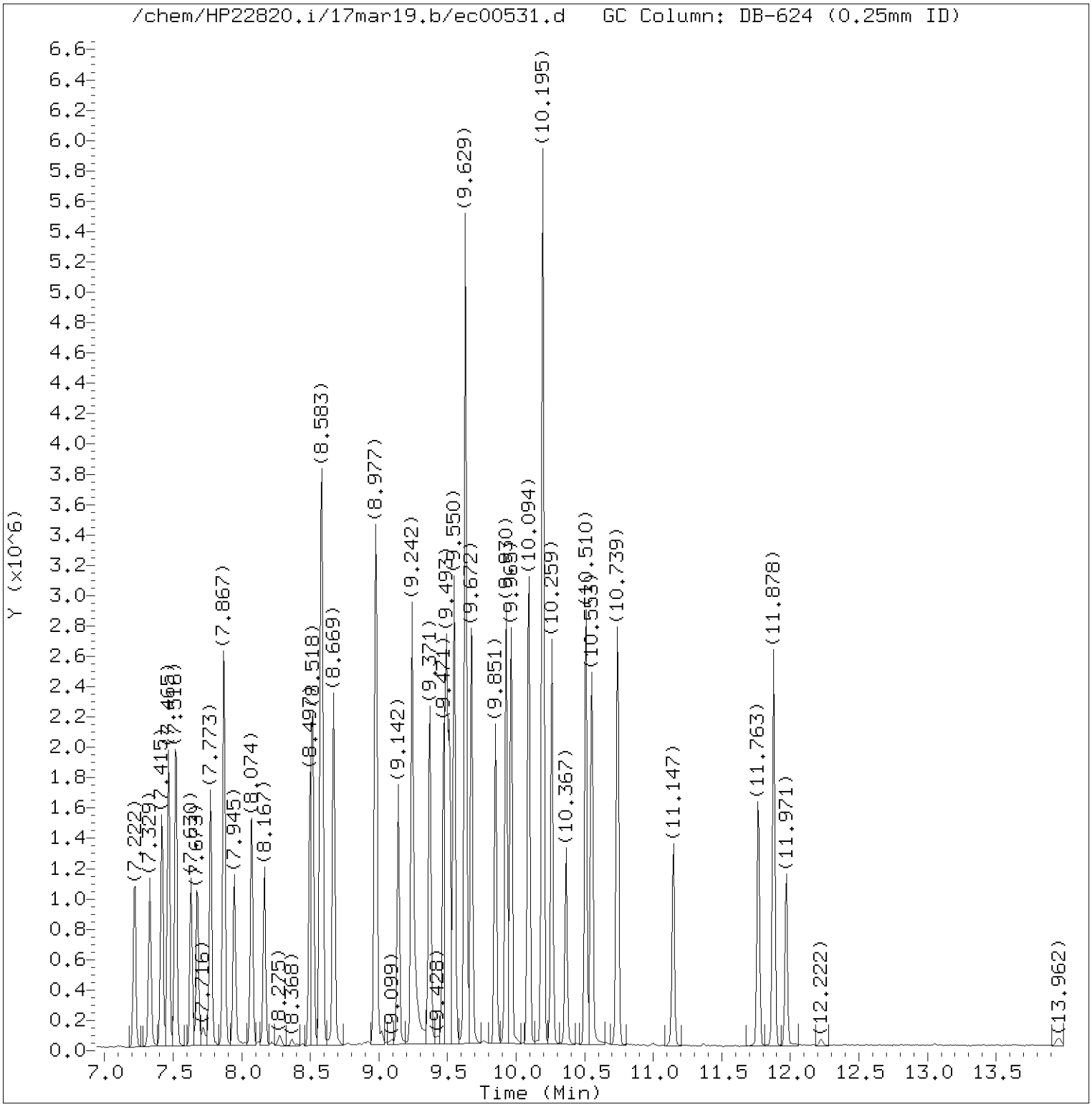
Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.599	41	186632	10.308
2) Dichlorodifluoromethane	(1)	1.635	85	776732	10.758
3) Chlorodifluoromethane	(1)	1.656	51	443064	11.366
4) Freon 114	(1)	1.771	85	777958	10.861
5) Chloromethane	(1)	1.835	50	257336	11.609
6) Vinyl Chloride	(1)	1.964	62	277677	10.938
7) 1,3-Butadiene	(1)	2.000	54	192845	10.794
8) Bromomethane	(1)	2.344	94	285781	10.659
9) Chloroethane	(1)	2.466	64	155936	11.161
10) Bromoethene	(1)	2.688	106	258577	10.321
11) Dichlorofluoromethane	(1)	2.724	67	642183	10.966
12) Trichlorofluoromethane	(1)	2.767	101	821605	10.864
13) Pentane	(1)	2.867	43	415440	10.738
14) Ethanol	(1)	3.075	45	68048	9.110
15) Freon123a	(1)	3.196	67	597040	10.983
16) Acrolein	(1)	3.332	56	97617	11.139
17) 1,1-Dichloroethene	(1)	3.426	61	435767	10.593
18) Freon 113	(1)	3.433	103	436012	10.870
19) Acetone	(1)	3.526	43	393238	10.722
20) Methyl Iodide	(1)	3.597	142	617845	11.051
21) Carbon Disulfide	(1)	3.655	76	829438	11.128
22) Isopropanol	(1)	3.705	45	349939	11.958
24) 3-Chloropropene	(1)	3.862	76	126594	11.785
23) Acetonitrile	(1)	3.870	40	153981	8.982
25) Methylene Chloride	(1)	4.013	84	269372	12.126
26) tert-Butyl Alcohol	(1)	4.156	59	485027	11.260
28) trans-1,2-Dichloroethene	(1)	4.292	61	415297	11.111
29) Methyl t-Butyl Ether	(1)	4.292	73	737339	10.317
27) Acrylonitrile	(1)	4.299	53	233319	11.396
30) Hexane	(1)	4.564	57	381640	10.492
31) 1,1-Dichloroethane	(1)	4.715	63	539841	11.199
32) Vinyl Acetate	(1)	4.779	86	74305	11.989
33) Di-Isopropyl Ether	(1)	4.779	45	827923	10.912
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	731631	10.014
35) cis-1,2-Dichloroethene	(1)	5.252	61	384789	10.868
37) 2-Butanone	(1)	5.281	72	140983	10.584
38) Ethyl Acetate	(1)	5.331	70	68512	10.429
39) Methyl Acrylate	(1)	5.360	55	456086	11.036

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	205234	10.000
41) Tetrahydrofuran	(1)	5.496	42	278292	10.722
42) Chloroform	(1)	5.539	83	665732	11.153
43) 1,1,1-Trichloroethane	(1)	5.682	97	644491	10.880
44) Cyclohexane	(1)	5.711	56	407184	10.388
45) Carbon Tetrachloride	(1)	5.811	117	660507	10.860
46) Benzene	(2)	5.990	78	918045	11.314
47) 1,2-Dichloroethane	(2)	6.011	62	438263	11.765
48) Isooctane	(2)	6.040	57	1296616	11.204
49) Tert-Amyl Methyl Ether	(2)	6.069	73	788359	10.968
50) Heptane	(2)	6.176	43	457245	11.532
51)*1,4-Difluorobenzene	(2)	6.291	114	739196	10.000
52) Trichloroethene	(2)	6.491	130	445213	10.947
53) Ethyl Acrylate	(2)	6.577	55	513762	10.855
36) 1,2-Dichloroethene (total)	(1)		61	800086	21.978
54) 1,2-Dichloropropane	(2)	6.678	63	330459	11.629
57) Methyl Methacrylate	(2)	6.749	69	277762	11.078
55) Dibromomethane	(2)	6.771	174	417558	11.244
56) 1,4-Dioxane	(2)	6.778	88	213989	11.034
58) Bromodichloromethane	(2)	6.885	83	673307	11.812
59) cis-1,3-Dichloropropene	(2)	7.222	75	491302	10.816
60) 4-Methyl-2-Pentanone	(2)	7.329	43	568479	11.607
61) Toluene	(3)	7.465	91	1082571	11.137
62) Octane	(3)	7.516	43	633757	11.680
63) trans-1,3-Dichloropropene	(3)	7.630	75	454280	11.446
65) Ethyl Methacrylate	(3)	7.673	69	448258	11.722
66) 1,1,2-Trichloroethane	(3)	7.773	97	397450	11.565
67) Tetrachloroethene	(3)	7.874	166	618213	10.466
68) 2-Hexanone	(3)	7.945	43	557229	11.735
69) Dibromochloromethane	(3)	8.074	127	496161	11.326
70) 1,2-Dibromoethane	(3)	8.167	107	603926	11.440
71)*Chlorobenzene-d5	(3)	8.497	117	723095	10.000
72) Chlorobenzene	(3)	8.518	112	910450	10.952
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	480447	11.223
74) Ethylbenzene	(3)	8.583	91	1366739	11.153
75) m/p-Xylene	(3)	8.669	91	1060517	11.206
76) o-Xylene	(3)	8.970	91	1013436	10.938
78) Styrene	(3)	8.984	104	746759	12.230

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

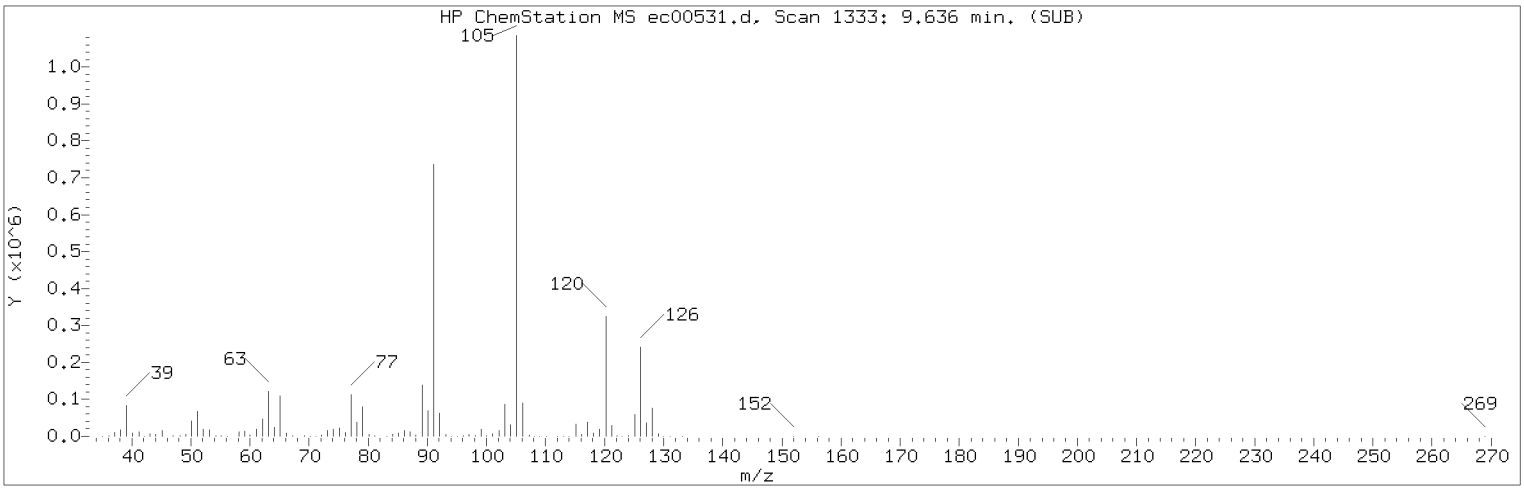
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	597617	11.342
80) Cumene	(3)	9.242	105	1452173	11.477
82) 1,1,2,2-Tetrachloroethane	(3)	9.471	83	770744	11.625
81) Bromobenzene	(3)	9.493	156	548793	11.308
83) 1,2,3-Trichloropropane	(3)	9.514	110	262148	11.701
84) n-Propylbenzene	(3)	9.550	120	430981	11.148
85) 2-Chlorotoluene	(3)	9.629	126	406840	11.194
86) 4-Ethyltoluene	(3)	9.636	105	1527621M	11.730
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1250330M	11.594
88) Alpha Methyl Styrene	(3)	9.851	118	501022	12.104
89) tert-Butylbenzene	(3)	9.930	119	1178576M	11.366
90) 1,2,4-Trimethylbenzene	(3)	9.965	105	1222035	12.153
91) sec-Butylbenzene	(3)	10.094	105	1731351	11.638
92) 1,3-Dichlorobenzene	(3)	10.195	146	904922	11.883
94) p-Isopropyltoluene	(3)	10.195	119	1414041	11.867
93) 1,4-Dichlorobenzene	(3)	10.259	146	874420	11.404
95) Benzyl Chloride	(3)	10.367	91	739181	12.444
97) n-Butylbenzene	(3)	10.510	91	1261812	11.963
96) 1,2-Dichlorobenzene	(3)	10.553	146	803374	11.776
98) Hexachloroethane	(3)	10.739	117	393457	12.951
99) 1,2-Dibromo-3-chloropropane	(3)	11.147	157	288290	11.594
100) 1,2,4-Trichlorobenzene	(3)	11.763	180	412987	10.076
101) Hexachlorobutadiene	(3)	11.878	225	420589	10.902
102) Naphthalene	(3)	11.971	128	748578	10.061
64) 1,3-Dichloropropene (total)	(3)		75	945582	22.201
77) Xylene (total)	(3)		91	2073953	22.147

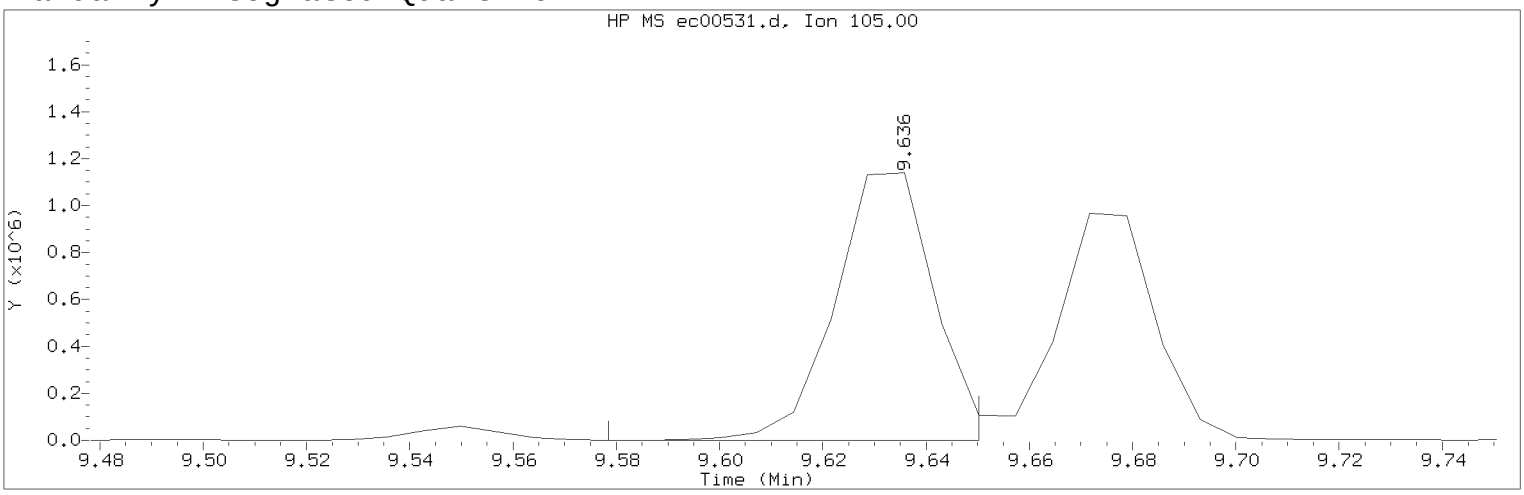
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

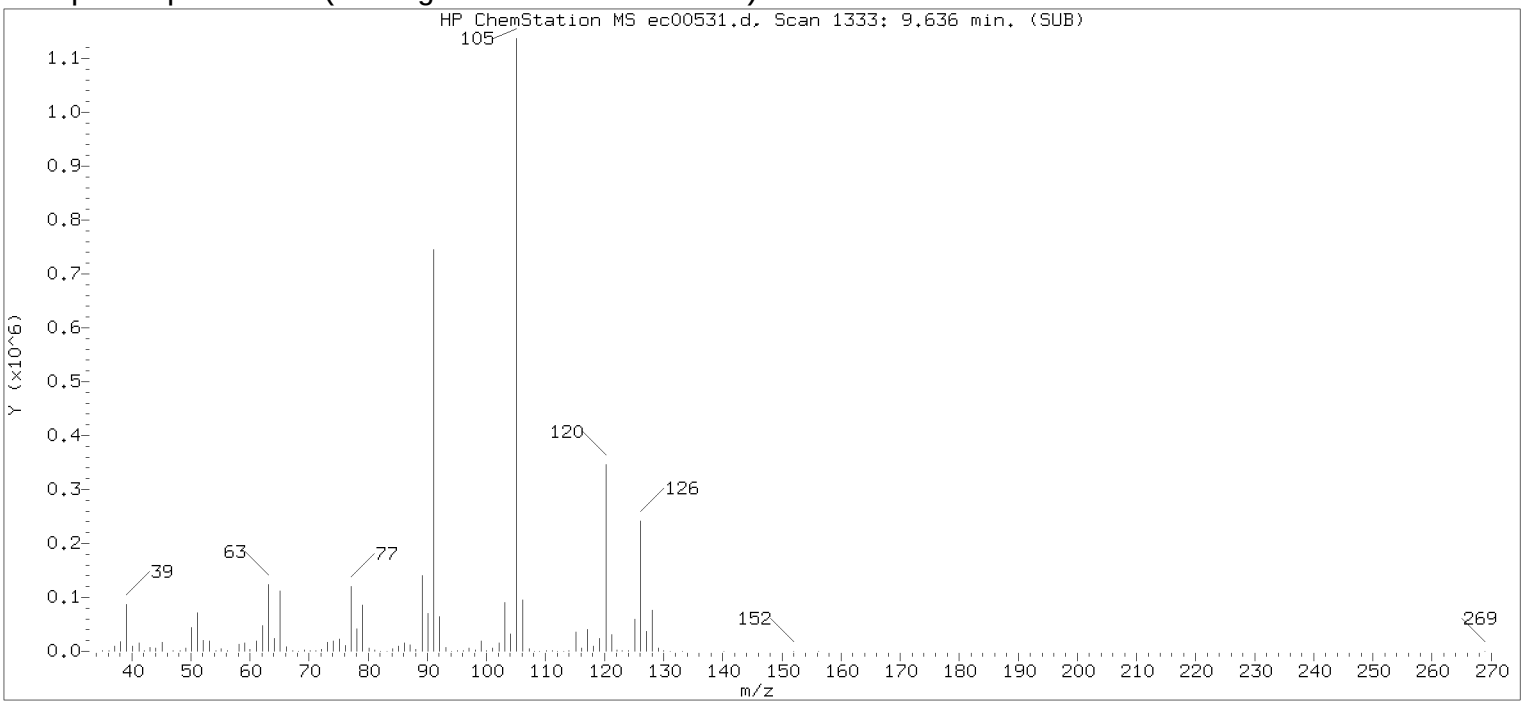
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1333
Retention Time (minutes): 9.636
Quant Ion : 105.00
Area (flag) : 1527621M
Concentration (ppb(v)) : 11.7298
Integration start scan : 1324 Integration stop scan: 1334
Y at integration start : 268 Y at integration end: 268

Reason for manual integration: improper integration

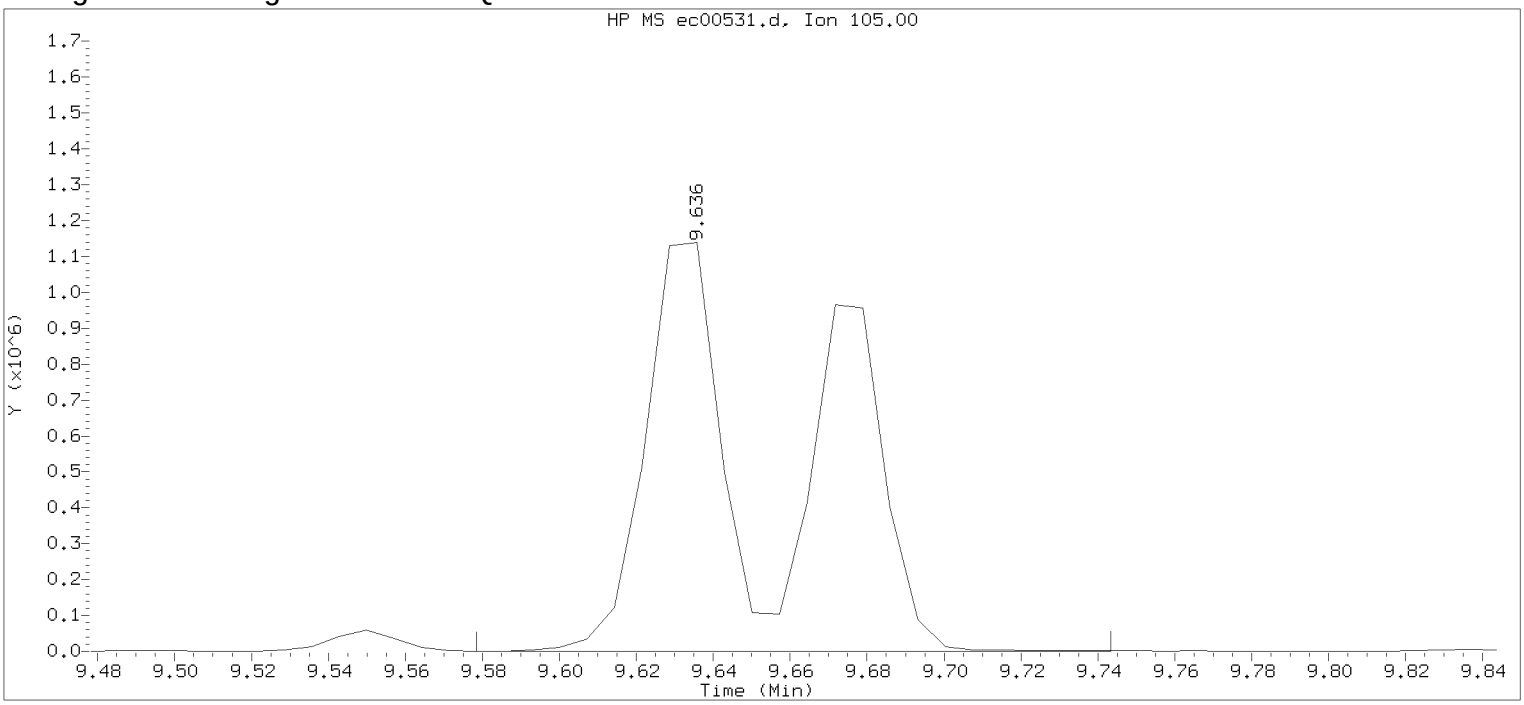
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

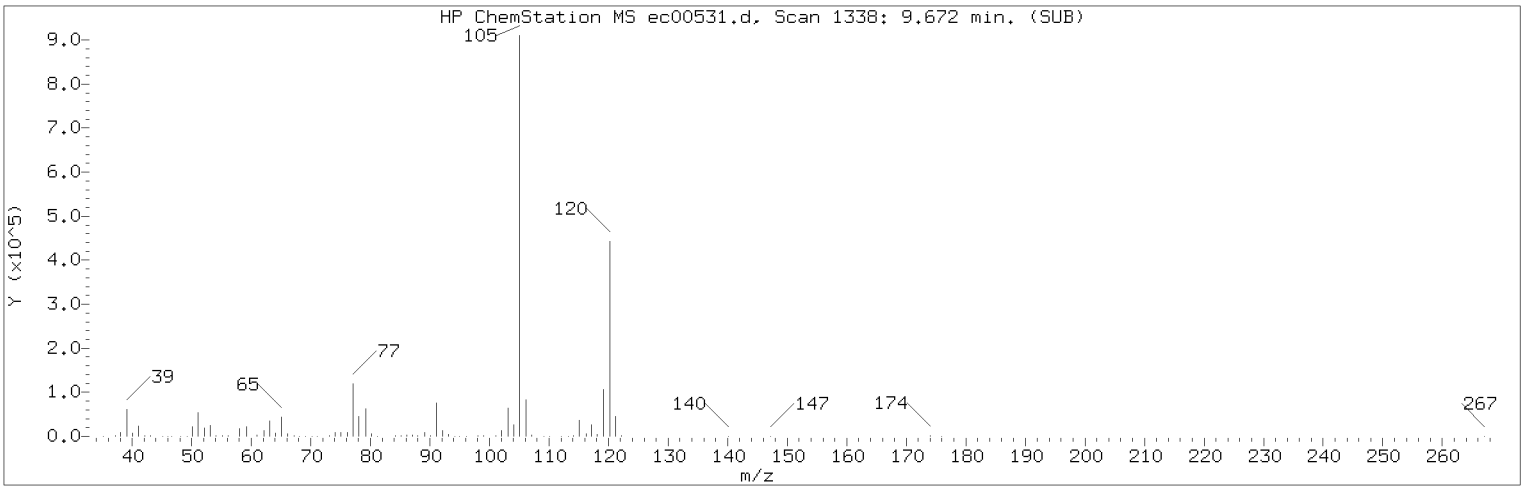
Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 16:43
Date, time and analyst ID of latest file update: 19-Mar-2017 13:20 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

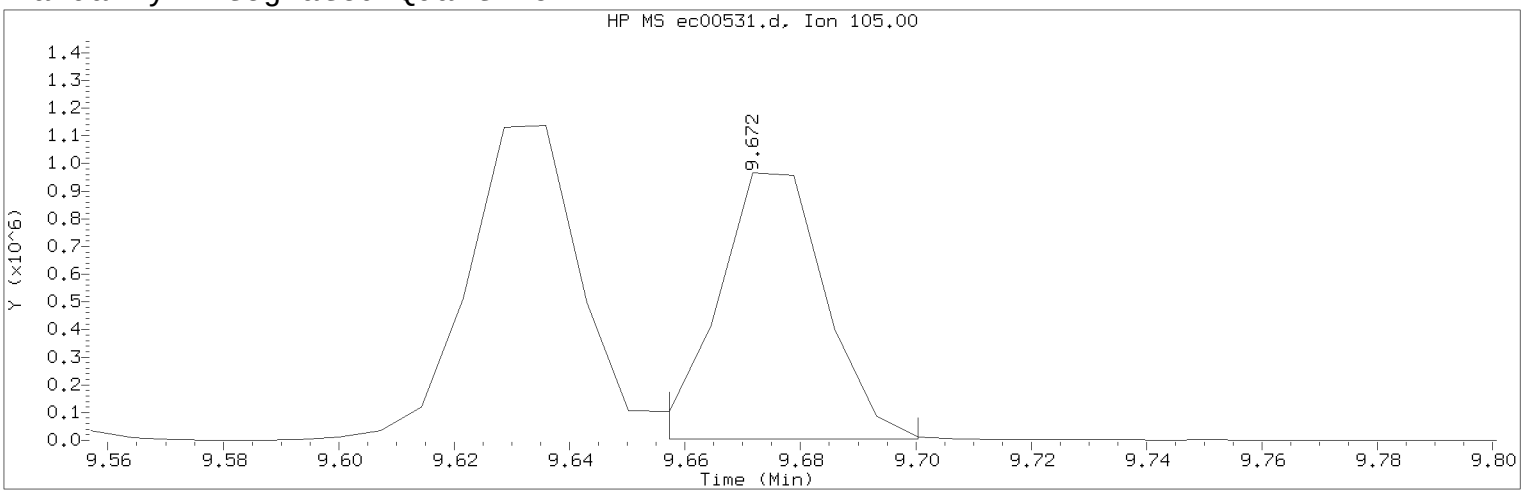
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1333
Retention Time (minutes): 9.636
Quant Ion : 105.00
Area : 2795708
Concentration (ppb(v)) : 21.4668
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 268 Y at integration end: 268

Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

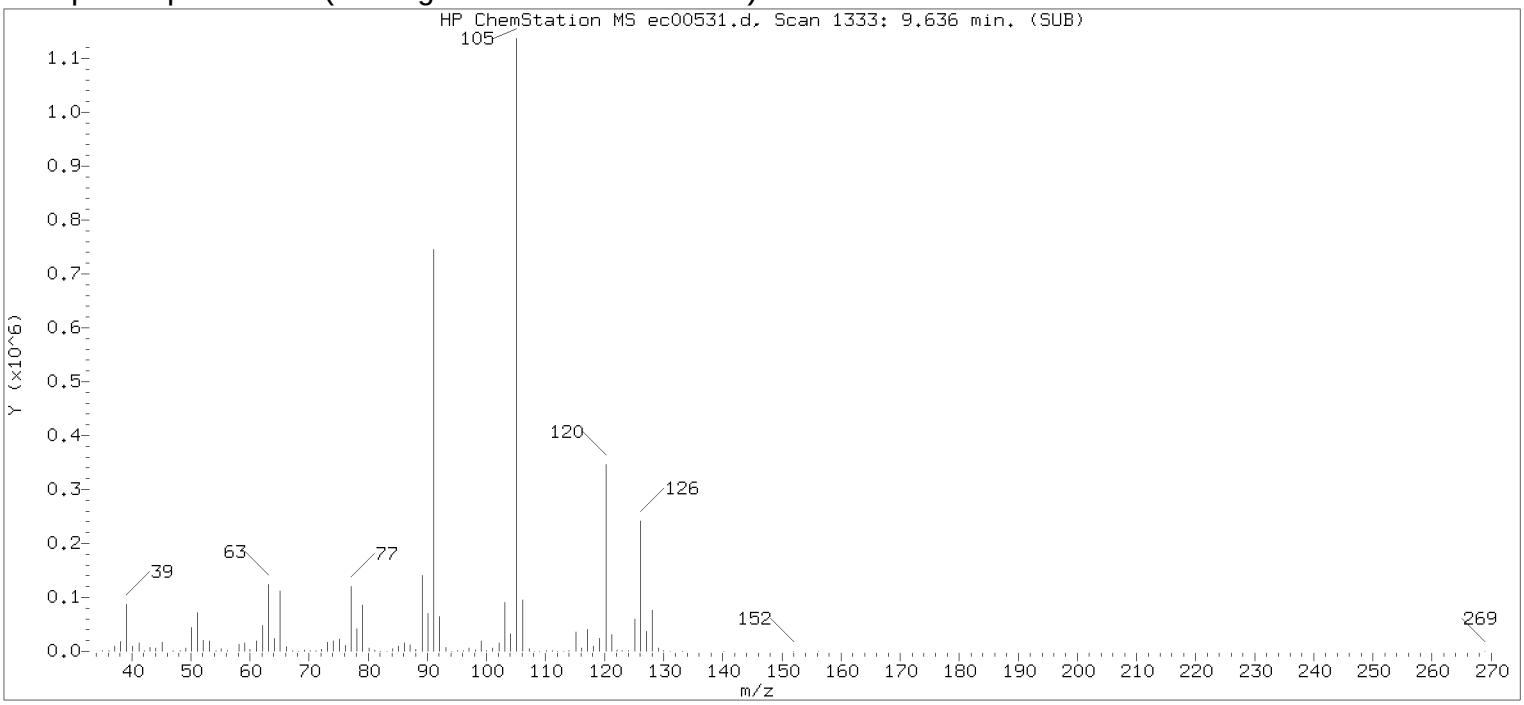
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1250330M
Concentration (ppb(v)) : 11.5942
Integration start scan : 1335 Integration stop scan: 1341
Y at integration start : 4477 Y at integration end: 4477

Reason for manual integration: improper integration

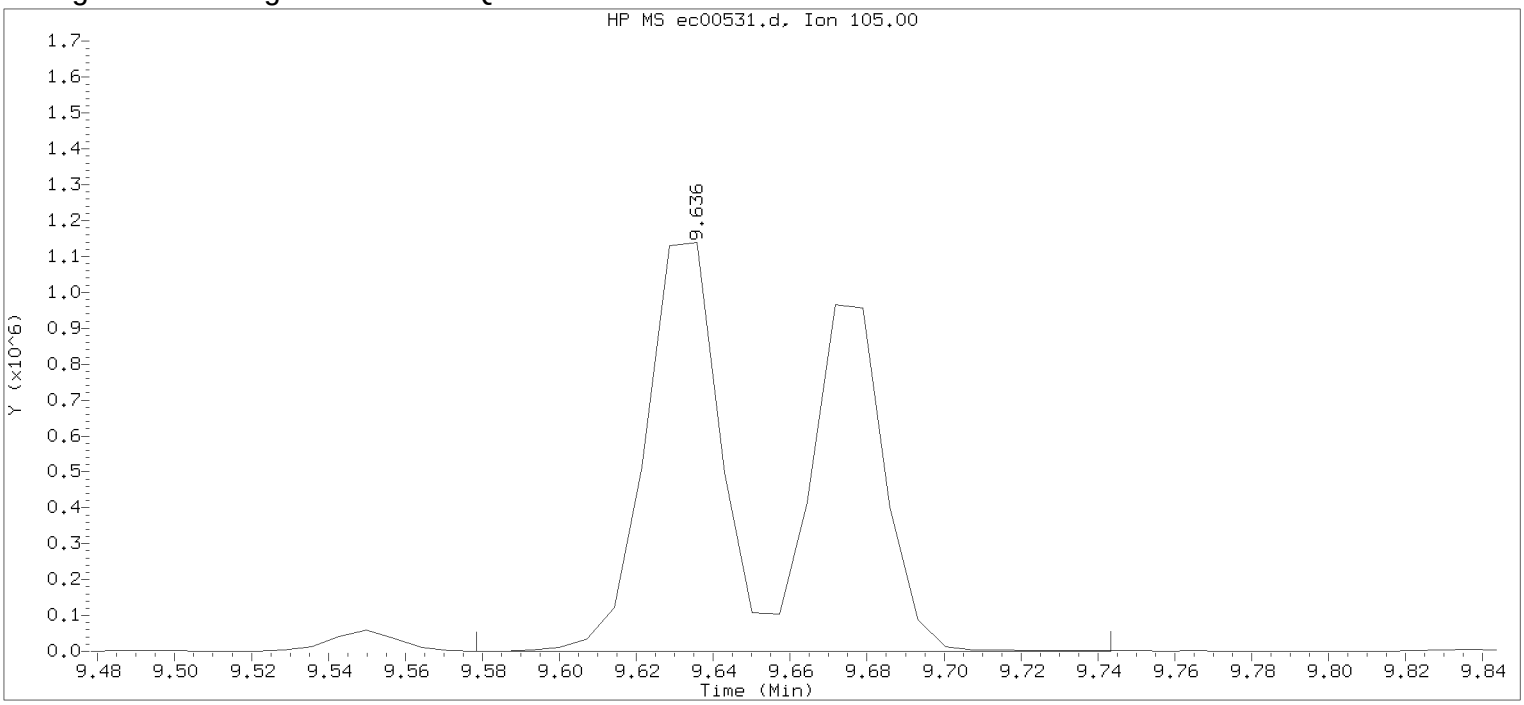
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

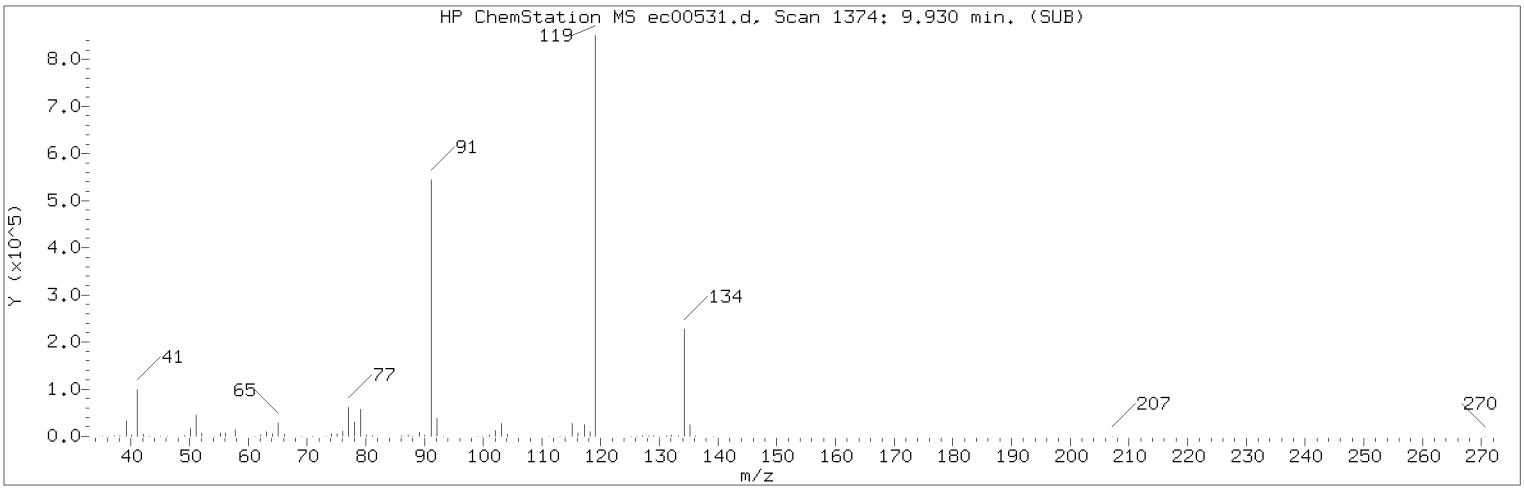
Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 16:43
Date, time and analyst ID of latest file update: 19-Mar-2017 13:20 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

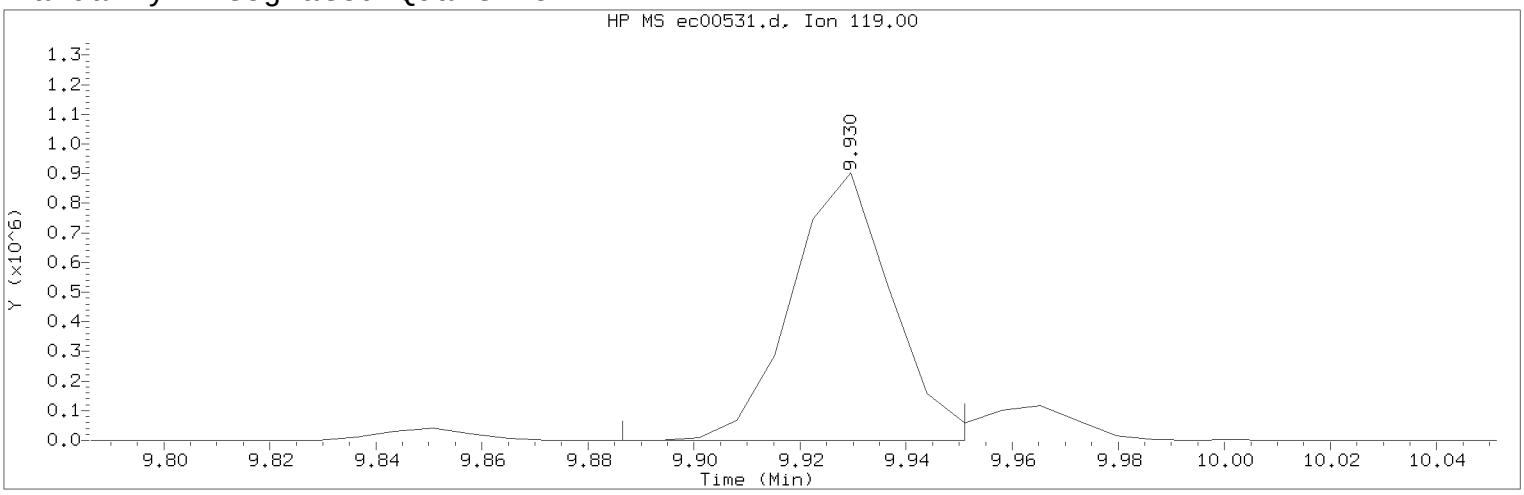
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1333
Retention Time (minutes): 9.636
Quant Ion : 105.00
Area : 2795708
Concentration (ppb(v)) : 25.9244
Integration start scan : 1324 Integration stop scan: 1347
Y at integration start : 268 Y at integration end: 268

Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 13:21 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

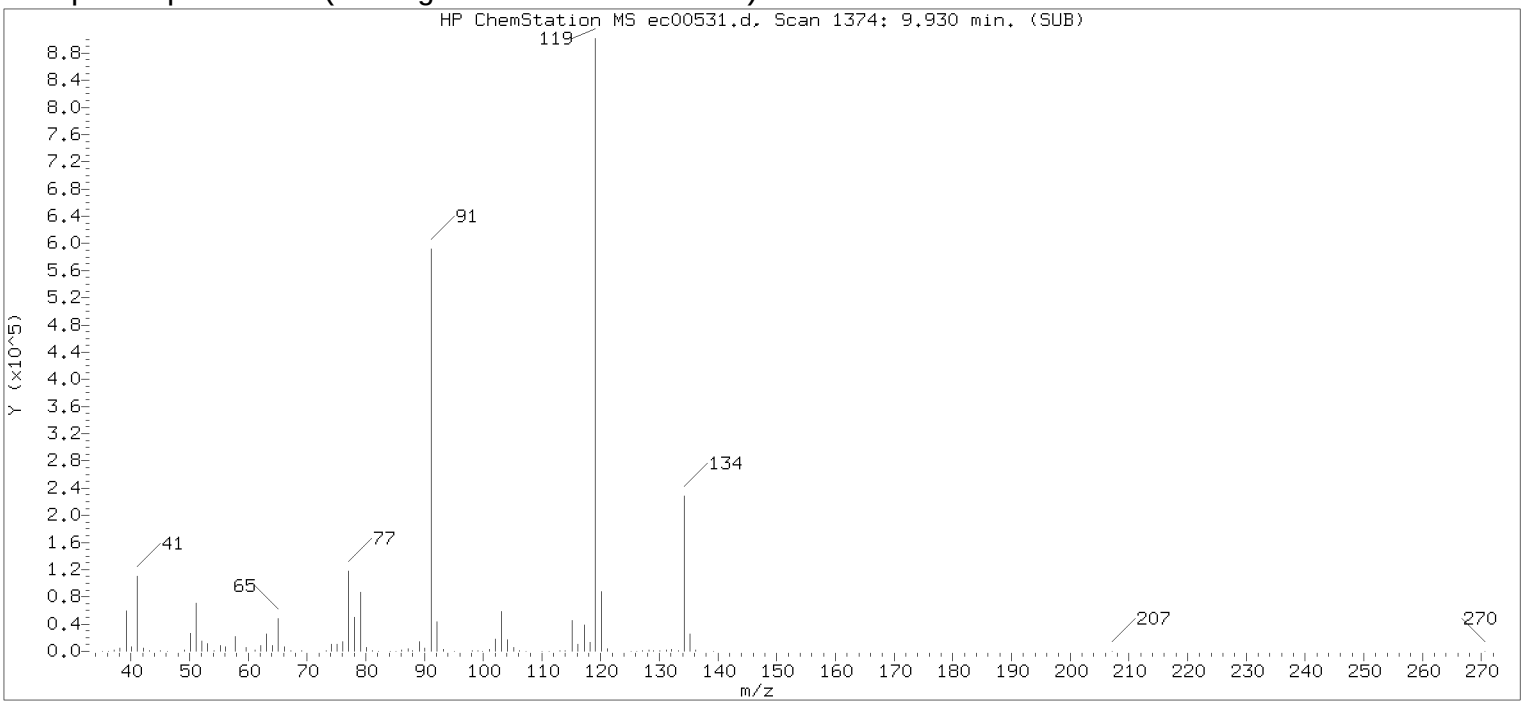
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area (flag) : 1178576M
Concentration (ppb(v)) : 11.3657
Integration start scan : 1367 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

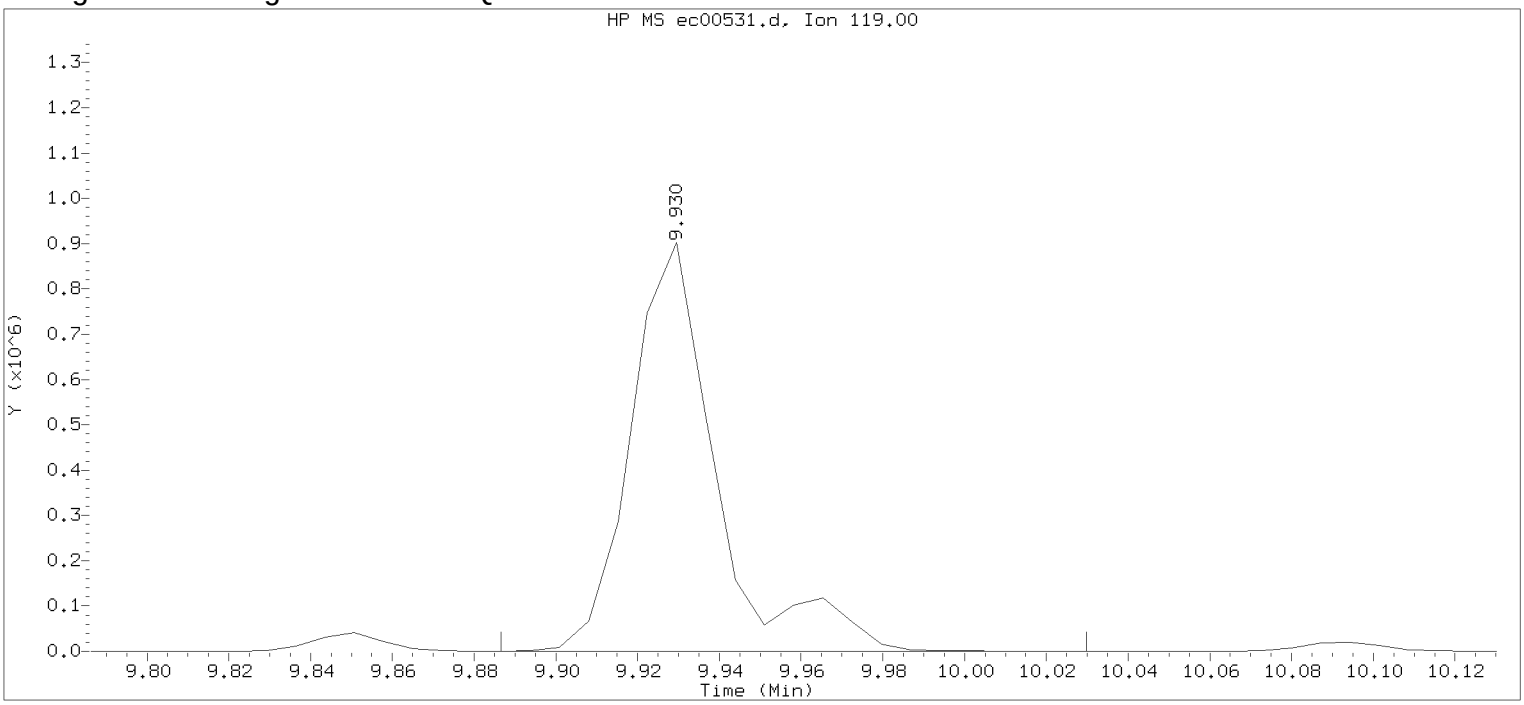
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00531.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:01 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 14-MAR-2017 16:43
Date, time and analyst ID of latest file update: 19-Mar-2017 13:20 Unknown

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area : 1310250
Concentration (ppb(v)) : 12.6355
Integration start scan : 1367 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 03/19/2017 at 13:36.
Target 3.5 esignature user id: jeb07445

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

VBLKE39

Data file: /chem/HP22820.i/17mar19.b/ec00532.d Injection date and time: **19-MAR-2017 13:45**
Data file Sample Info. Line: VBLKE39;200;E1707830AA;VBLKE39;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
40) Bromochloromethane	5.474(-0.007)	752	130	192302 (-6)	10.00		123141 - 287327
51) 1,4-Difluorobenzene	6.298(-0.007)	867	114	618355 (-16)	10.00		443518 - 1034874
71) Chlorobenzene-d5	8.497(0.000)	1174	117	667414 (-8)	10.00		433857 - 1012332

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					0.5	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.5	1
9) Chloroethane	(1)			Not Detected					0.2	1
10) Bromoethene	(1)			Not Detected					0.4	2
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)			Not Detected					0.5	1
14) Ethanol	(1)			Not Detected					0.5	2
15) Freon123a	(1)			Not Detected					0.2	1
16) Acrolein	(1)			Not Detected					1	2
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)			Not Detected					0.5	2
20) Methyl Iodide	(1)			Not Detected					0.2	1
21) Carbon Disulfide	(1)			Not Detected					0.5	1
22) Isopropanol	(1)			Not Detected					0.5	2
23) Acetonitrile	(1)			Not Detected					0.5	2
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
26) tert-Butyl Alcohol	(1)			Not Detected					0.5	1
27) Acrylonitrile	(1)			Not Detected					0.5	2
28) trans-1,2-Dichloroethene	(1)			Not Detected					0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)			Not Detected					0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
32) Vinyl Acetate	(1)			Not Detected					1	1
33) Di-Isopropyl Ether	(1)			Not Detected					0.2	1
34) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.2	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
37) 2-Butanone	(1)			Not Detected					0.5	2
38) Ethyl Acetate	(1)			Not Detected					0.5	1
39) Methyl Acrylate	(1)			Not Detected					0.2	1
41) Tetrahydrofuran	(1)			Not Detected					0.5	1
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
44) Cyclohexane	(1)			Not Detected					0.2	1

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

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

VBLKE39

Data file: /chem/HP22820.i/17mar19.b/ec00532.d Injection date and time: **19-MAR-2017 13:45**
Data file Sample Info. Line: VBLKE39;200;E1707830AA;VBLKE39;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)			Not Detected					0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)			Not Detected					0.2	1
49) Tert-Amyl Methyl Ether	(2)			Not Detected					0.2	1
50) Heptane	(2)			Not Detected					0.5	1
52) Trichloroethene	(2)			Not Detected					0.2	1
53) Ethyl Acrylate	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
56) 1,4-Dioxane	(2)			Not Detected					0.5	1
57) Methyl Methacrylate	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)			Not Detected					0.2	1
62) Octane	(3)			Not Detected					0.5	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
64) 1,3-Dichloropropene (total)	(3)			Not Detected					0.2	1
65) Ethyl Methacrylate	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)			Not Detected					0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)			Not Detected					0.2	1
75) m/p-Xylene	(3)			Not Detected					0.2	1
76) o-Xylene	(3)			Not Detected					0.2	1
77) Xylene (total)	(3)			Not Detected					0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
84) n-Propylbenzene	(3)			Not Detected					0.5	1
85) 2-Chlorotoluene	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.2	1
88) Alpha Methyl Styrene	(3)			Not Detected					0.2	1
89) tert-Butylbenzene	(3)			Not Detected					0.5	1
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.2	1
91) sec-Butylbenzene	(3)			Not Detected					0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
94) p-Isopropyltoluene	(3)			Not Detected					0.2	1
95) Benzyl Chloride	(3)			Not Detected					0.5	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) n-Butylbenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)			Not Detected					0.2	1
100) 1,2,4-Trichlorobenzene	(3)			Not Detected					0.5	2

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

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

VBLKE39

Data file: /chem/HP22820.i/17mar19.b/ec00532.d Injection date and time: **19-MAR-2017 13:45**
Data file Sample Info. Line: VBLKE39;200;E1707830AA;VBLKE39;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.d**

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

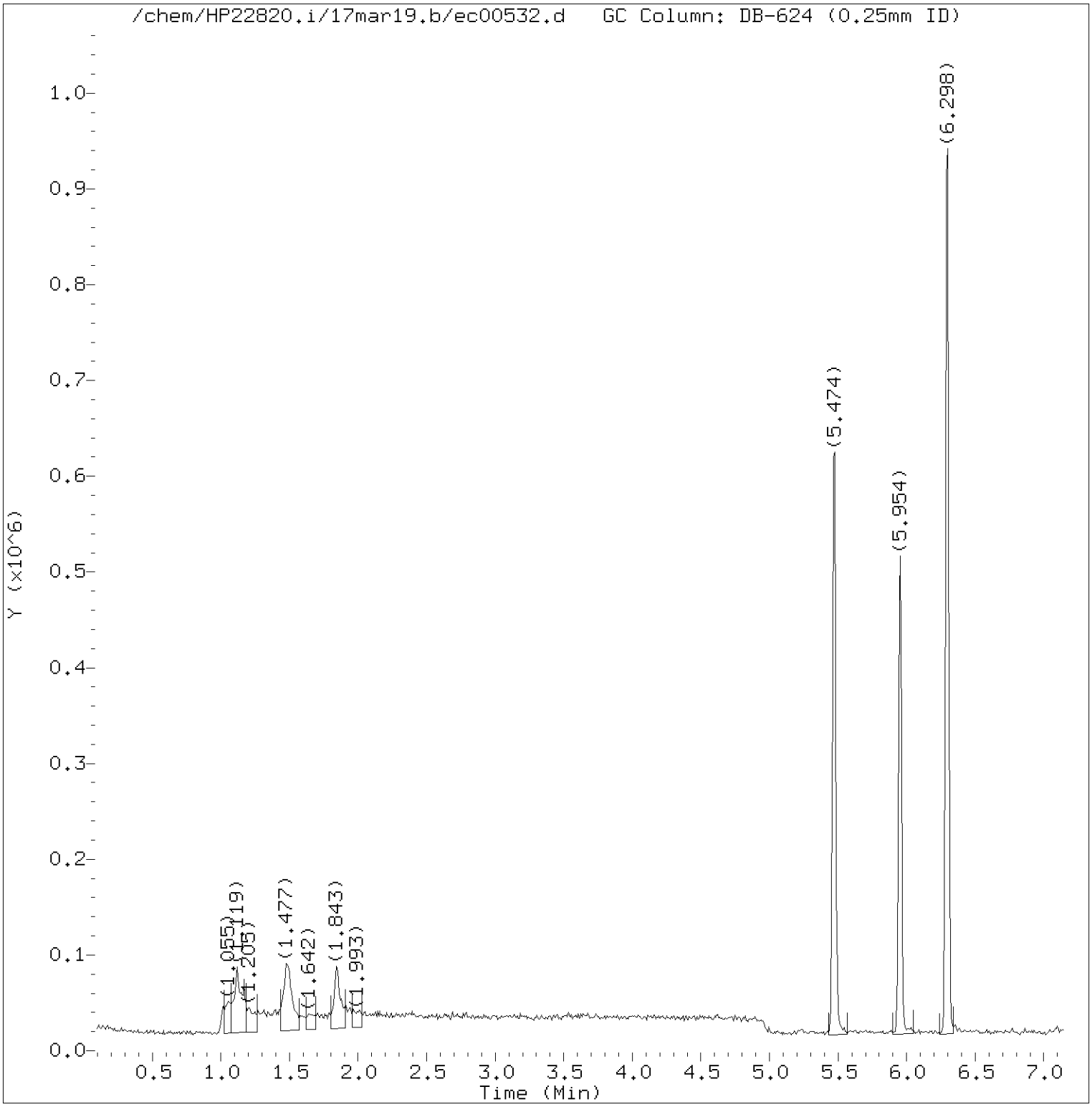
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
101) Hexachlorobutadiene	(3)				Not Detected					0.4	2
102) Naphthalene	(3)				Not Detected					0.4	1

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

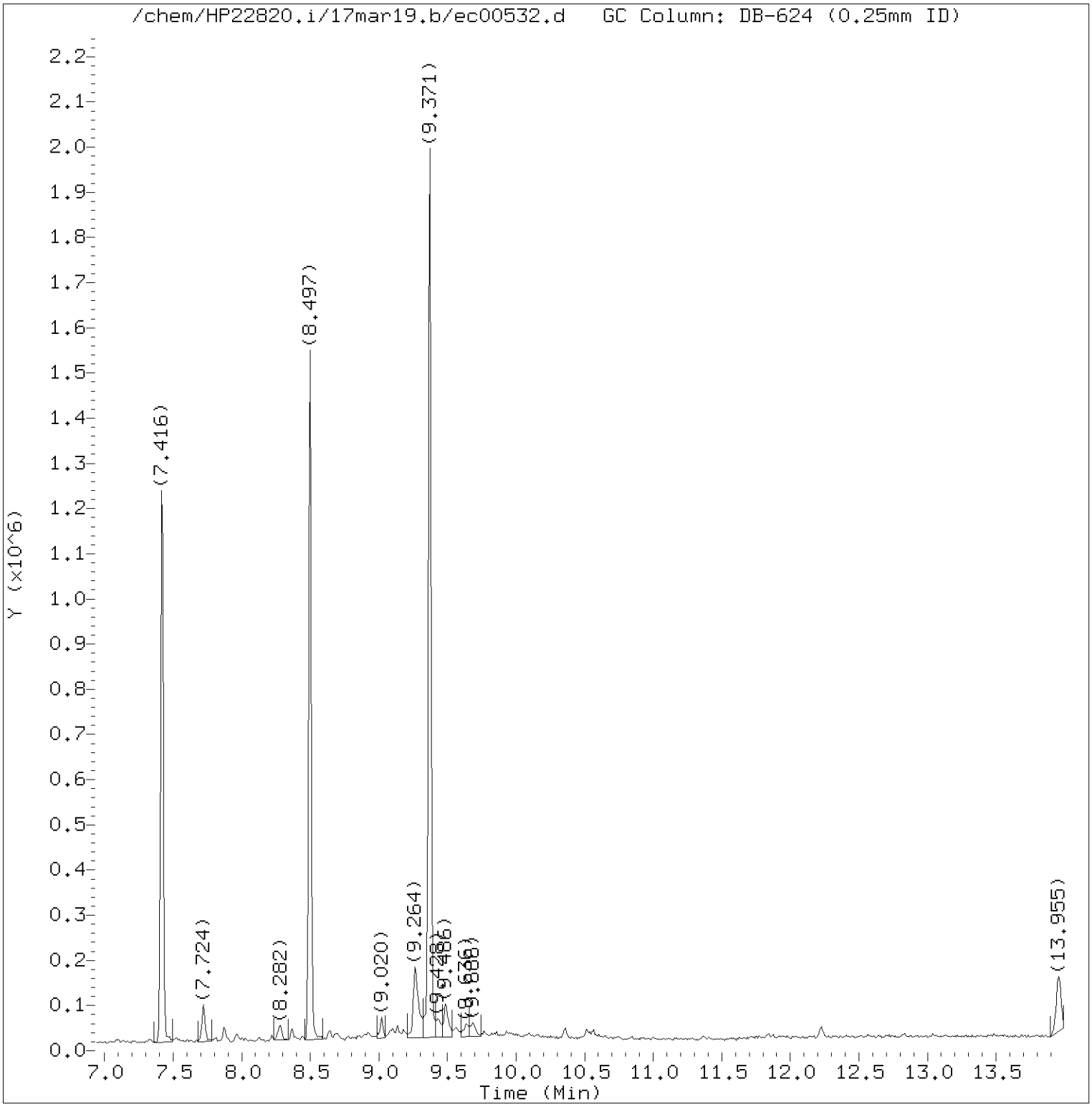
Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00532.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: VBLKE39 Lab Sample ID: VBLKE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00532.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: VBLKE39 Lab Sample ID: VBLKE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00532.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 13:45 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: VBLKE39 Lab Sample ID: VBLKE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.474	130	192302	10.000
51)*1,4-Difluorobenzene	(2)	6.298	114	618355	10.000
71)*Chlorobenzene-d5	(3)	8.497	117	667414	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

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

LCSE39

Data file: /chem/HP22820.i/17mar19.b/ec00533.d
Data file Sample Info. Line: LCSE39;200;E1707830AA;LCSE39;0;3;LCS;
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Injection date and time: **19-MAR-2017 14:28**
Instrument ID: **HP22820.i** Batch: **E1707830AA**

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
40) Bromochloromethane	5.481(-0.014)	753	130	180193 (-12)	10.00		123141 - 287327
51) 1,4-Difluorobenzene	6.298(-0.007)	867	114	700494 (-5)	10.00		443518 - 1034874
71) Chlorobenzene-d5	8.497(0.000)	1174	117	677238 (-6)	10.00		433857 - 1012332

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)	1.613(-0.001)	41	182937	11.508	11.51			0.5	1
2) Dichlorodifluoromethane	(1)	1.649(-0.001)	85	759151	11.975	11.98			0.2	1
3) Chlorodifluoromethane	(1)	1.671(-0.001)	51	199961	5.843	5.84			0.2	1
4) Freon 114	(1)	1.785(-0.001)	85	726179	11.547	11.55			0.2	1
5) Chloromethane	(1)	1.835(0.000)	50	97777	5.024	5.02			0.2	1
6) Vinyl Chloride	(1)	1.972(-0.000)	62	277733	12.461	12.46			0.2	1
7) 1,3-Butadiene	(1)	2.007(-0.000)	54	181547	11.574	11.57			0.4	2
8) Bromomethane	(1)	2.351(-0.000)	94	254432	10.808	10.81			0.5	1
9) Chloroethane	(1)	2.473(-0.000)	64	155585	12.683	12.68			0.2	1
10) Bromoethene	(1)	2.702(-0.001)	106	251744	11.444	11.44			0.4	2
11) Dichlorofluoromethane	(1)	2.731(-0.000)	67	658570	12.808	12.81			0.2	1
12) Trichlorofluoromethane	(1)	2.774(0.000)	101	793218	11.946	11.95			0.2	1
13) Pentane	(1)	2.874(0.000)	43	386032	11.364	11.36			0.5	1
14) Ethanol	(1)	3.075(0.001)	45	56294	8.584	8.58			0.5	2
15) Freon123a	(1)	3.204(0.000)	67	621218	13.015	13.02			0.2	1
16) Acrolein	(1)	3.347(-0.001)	56	90085	11.708	11.71			1	2
17) 1,1-Dichloroethene	(1)	3.426(0.001)	61	431275	11.941	11.94			0.2	1
18) Freon 113	(1)	3.440(0.000)	103	432312	12.276	12.28			0.5	2
19) Acetone	(1)	3.540(-0.000)	43	370717	11.513	11.51			0.5	2
20) Methyl Iodide	(1)	3.605(0.000)	142	486393	9.908	9.91			0.2	1
21) Carbon Disulfide	(1)	3.669(-0.000)	76	779063	11.904	11.90			0.5	1
22) Isopropanol	(1)	3.719(-0.000)	45	248767M	9.682	9.68			0.5	2
23) Acetonitrile	(1)	3.877(0.000)	40	154495	10.264	10.26			0.5	2
24) 3-Chloropropene	(1)	3.870(0.000)	76	132106	14.007	14.01			0.2	1
25) Methylene Chloride	(1)	4.020(0.000)	84	269079	13.796	13.80			0.2	1
26) tert-Butyl Alcohol	(1)	4.156(0.001)	59	446498	11.806	11.81			0.5	1
27) Acrylonitrile	(1)	4.307(0.000)	53	227145	12.636	12.64			0.5	2
28) trans-1,2-Dichloroethene	(1)	4.292(0.002)	61	406320	12.381	12.38			0.2	1
29) Methyl t-Butyl Ether	(1)	4.292(0.002)	73	700928	11.171	11.17			0.2	1
30) Hexane	(1)	4.565(0.002)	57	376563	11.791	11.79			0.2	1
31) 1,1-Dichloroethane	(1)	4.722(0.000)	63	526681	12.444	12.44			0.2	1
32) Vinyl Acetate	(1)	4.787(0.000)	86	69221	12.721	12.72			1	1
33) Di-Isopropyl Ether	(1)	4.787(0.000)	45	818385	12.285	12.29			0.2	1
34) Ethyl Tert-Butyl Ether	(1)	5.116(0.002)	59	694086	10.821	10.82			0.2	1
35) cis-1,2-Dichloroethene	(1)	5.259(0.001)	61	369730	11.894	11.89			0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	776050	24.275	24.27			0.2	1
37) 2-Butanone	(1)	5.281(0.002)	72	133107	11.381	11.38			0.5	2
38) Ethyl Acetate	(1)	5.331(0.002)	70	64269	11.143	11.14			0.5	1
39) Methyl Acrylate	(1)	5.360(0.002)	55	439812	12.121	12.12			0.2	1
41) Tetrahydrofuran	(1)	5.503(0.001)	42	278353	12.215	12.22			0.5	1
42) Chloroform	(1)	5.539(0.002)	83	640099	12.214	12.21			0.2	1
43) 1,1,1-Trichloroethane	(1)	5.682(0.002)	97	626165	12.039	12.04			0.2	1
44) Cyclohexane	(1)	5.711(0.002)	56	403142	11.715	11.71			0.2	1

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

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

LCSE39

Data file: /chem/HP22820.i/17mar19.b/ec00533.d Injection date and time: **19-MAR-2017 14:28**
Data file Sample Info. Line: LCSE39;200;E1707830AA;LCSE39;0;3;LCS; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
45) Carbon Tetrachloride	(1)	5.811(0.002)	117	646747	12.111	12.11			0.2	1
46) Benzene	(2)	5.990(0.001)	78	907068	11.797	11.80			0.2	1
47) 1,2-Dichloroethane	(2)	6.012(0.001)	62	417190	11.818	11.82			0.2	1
48) Isooctane	(2)	6.040(0.001)	57	1254327	11.438	11.44			0.2	1
49) Tert-Amyl Methyl Ether	(2)	6.069(0.001)	73	760459	11.165	11.16			0.2	1
50) Heptane	(2)	6.183(-0.000)	43	443055	11.792	11.79			0.5	1
52) Trichloroethene	(2)	6.491(0.001)	130	411943	10.689	10.69			0.2	1
53) Ethyl Acrylate	(2)	6.577(0.001)	55	496059	11.060	11.06			0.2	1
54) 1,2-Dichloropropane	(2)	6.678(0.001)	63	321796	11.950	11.95			0.2	1
55) Dibromomethane	(2)	6.771(0.001)	174	399937	11.364	11.36			0.2	1
56) 1,4-Dioxane	(2)	6.778(0.001)	88	201335	10.955	10.96			0.5	1
57) Methyl Methacrylate	(2)	6.749(0.001)	69	255953	10.772	10.77			0.2	1
58) Bromodichloromethane	(2)	6.885(0.001)	83	638310	11.816	11.82			0.2	1
59) cis-1,3-Dichloropropene	(2)	7.222(0.001)	75	469309	10.903	10.90			0.2	1
60) 4-Methyl-2-Pentanone	(2)	7.330(0.001)	43	529069	11.399	11.40			0.5	2
61) Toluene	(3)	7.466(-0.000)	91	1059132	11.633	11.63			0.2	1
62) Octane	(3)	7.523(-0.000)	43	542442	10.674	10.67			0.5	1
63) trans-1,3-Dichloropropene	(3)	7.630(-0.000)	75	417031	11.218	11.22			0.2	1
64) 1,3-Dichloropropene (total)	(3)		75	886340	22.121	22.12			0.2	1
65) Ethyl Methacrylate	(3)	7.680(-0.000)	69	419549	11.714	11.71			0.2	1
66) 1,1,2-Trichloroethane	(3)	7.774(-0.000)	97	387134	12.028	12.03			0.2	1
67) Tetrachloroethene	(3)	7.874(-0.000)	166	594953	10.754	10.75			0.2	1
68) 2-Hexanone	(3)	7.946(-0.000)	43	485802	10.924	10.92			0.5	2
69) Dibromochloromethane	(3)	8.074(-0.000)	127	469495	11.443	11.44			0.2	1
70) 1,2-Dibromoethane	(3)	8.168(0.000)	107	570413	11.537	11.54			0.2	1
72) Chlorobenzene	(3)	8.519(0.000)	112	858001	11.020	11.02			0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)	8.576(0.000)	131	460540	11.487	11.49			0.2	1
74) Ethylbenzene	(3)	8.583(0.000)	91	1262283	10.998	11.00			0.2	1
75) m/p-Xylene	(3)	8.669(0.000)	91	980118	11.058	11.06			0.2	1
76) o-Xylene	(3)	8.970(0.000)	91	947008	10.913	10.91			0.2	1
77) Xylene (total)	(3)		91	1927126	21.971	21.97			0.2	1
78) Styrene	(3)	8.984(0.000)	104	716815	12.535	12.53			0.2	1
79) Bromoform	(3)	9.142(0.000)	173	524620	10.631	10.63			0.2	1
80) Cumene	(3)	9.242(0.000)	105	1282429	10.822	10.82			0.2	1
81) Bromobenzene	(3)	9.486(0.000)	156	497657	10.948	10.95			0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)	9.464(0.000)	83	793579	12.780	12.78			0.2	1
83) 1,2,3-Trichloropropane	(3)	9.507(0.000)	110	250023	11.916	11.92			0.2	1
84) n-Propylbenzene	(3)	9.543(0.000)	120	379025	10.467	10.47			0.5	1
85) 2-Chlorotoluene	(3)	9.622(0.000)	126	383381	11.263	11.26			0.2	1
86) 4-Ethyltoluene	(3)	9.622(0.001)	105	1396748M	11.451	11.45			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.665(0.000)	105	1103236	10.923	10.92			0.2	1
88) Alpha Methyl Styrene	(3)	9.844(0.000)	118	449643	11.598	11.60			0.2	1
89) tert-Butylbenzene	(3)	9.915(0.001)	119	916751M	9.439	9.44			0.5	1
90) 1,2,4-Trimethylbenzene	(3)	9.951(0.001)	105	1096074	11.638	11.64			0.2	1
91) sec-Butylbenzene	(3)	10.080(0.001)	105	1490890M	10.700	10.70			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.188(0.000)	146	830760	11.647	11.65			0.2	1
93) 1,4-Dichlorobenzene	(3)	10.252(0.000)	146	803958	11.195	11.19			0.2	1
94) p-Isopropyltoluene	(3)	10.188(0.000)	119	1250944	11.209	11.21			0.2	1
95) Benzyl Chloride	(3)	10.352(0.001)	91	646066	11.613	11.61			0.5	1
96) 1,2-Dichlorobenzene	(3)	10.538(0.001)	146	736256	11.523	11.52			0.2	1
97) n-Butylbenzene	(3)	10.496(0.001)	91	1098509	11.120	11.12			0.2	1
98) Hexachloroethane	(3)	10.732(0.000)	117	352854	12.401	12.40			0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)	11.140(0.000)	157	287721	12.355	12.35			0.2	1
100) 1,2,4-Trichlorobenzene	(3)	11.756(0.000)	180	460882	12.006	12.01			0.5	2

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

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

LCSE39

Data file: /chem/HP22820.i/17mar19.b/ec00533.d Injection date and time: **19-MAR-2017 14:28**
Data file Sample Info. Line: LCSE39;200;E1707830AA;LCSE39;0;3;LCS; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.d**

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

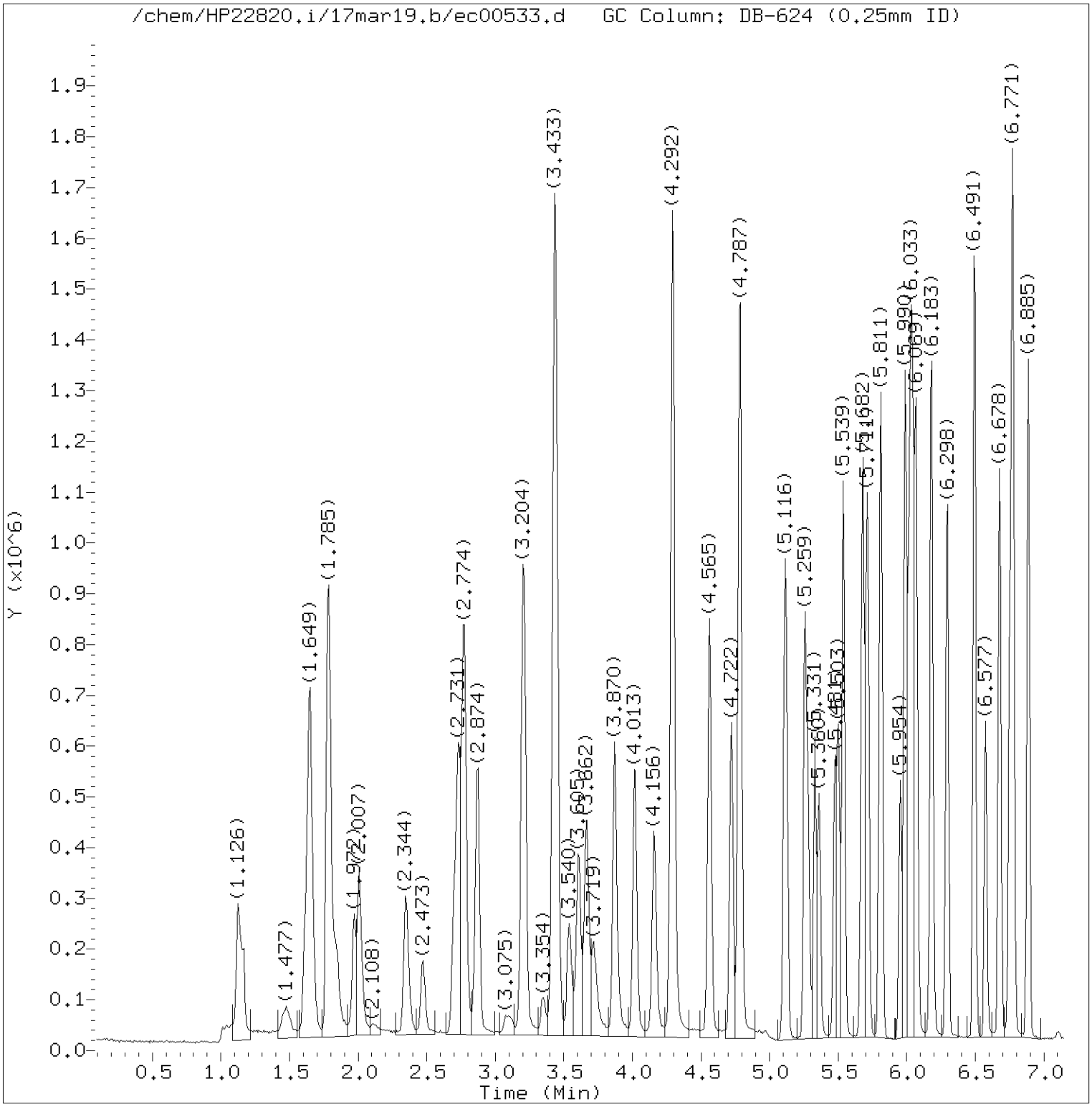
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
101) Hexachlorobutadiene	(3)	11.871(0.000)	225	429561	11.889	11.89			0.4	2
102) Naphthalene	(3)	11.964(0.000)	128	890777	12.783	12.78			0.4	1

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

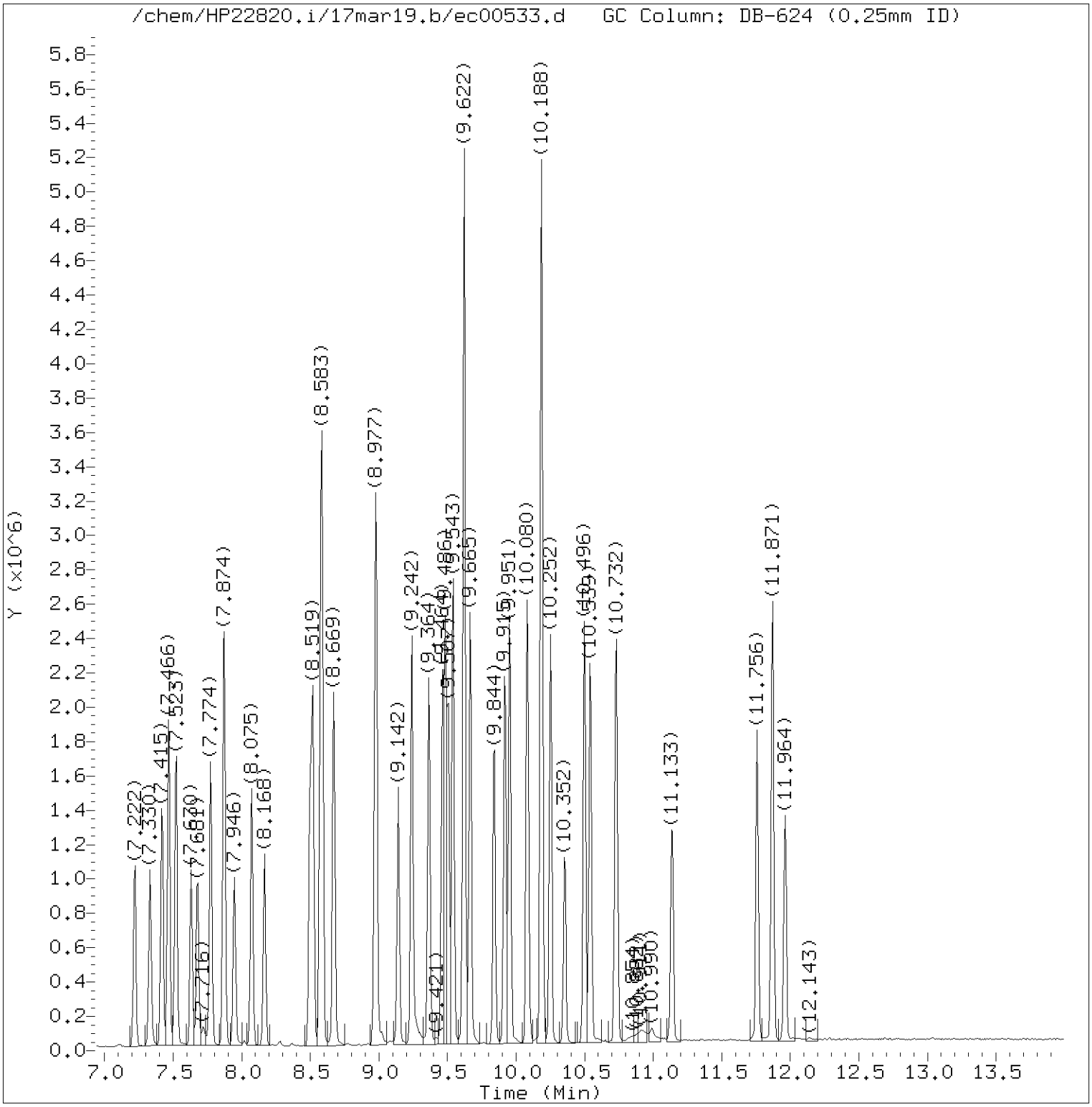
Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.613	41	182937	11.508
2) Dichlorodifluoromethane	(1)	1.649	85	759151	11.975
3) Chlorodifluoromethane	(1)	1.671	51	199961	5.843
4) Freon 114	(1)	1.785	85	726179	11.547
5) Chloromethane	(1)	1.835	50	97777	5.024
6) Vinyl Chloride	(1)	1.972	62	277733	12.461
7) 1,3-Butadiene	(1)	2.007	54	181547	11.574
8) Bromomethane	(1)	2.351	94	254432	10.808
9) Chloroethane	(1)	2.473	64	155585	12.683
10) Bromoethene	(1)	2.702	106	251744	11.444
11) Dichlorofluoromethane	(1)	2.731	67	658570	12.808
12) Trichlorofluoromethane	(1)	2.774	101	793218	11.946
13) Pentane	(1)	2.874	43	386032	11.364
14) Ethanol	(1)	3.075	45	56294	8.584
15) Freon123a	(1)	3.204	67	621218	13.015
16) Acrolein	(1)	3.347	56	90085	11.708
17) 1,1-Dichloroethene	(1)	3.426	61	431275	11.941
18) Freon 113	(1)	3.440	103	432312	12.276
19) Acetone	(1)	3.540	43	370717	11.513
20) Methyl Iodide	(1)	3.605	142	486393	9.908
21) Carbon Disulfide	(1)	3.669	76	779063	11.904
22) Isopropanol	(1)	3.719	45	248767M	9.682
24) 3-Chloropropene	(1)	3.870	76	132106	14.007
23) Acetonitrile	(1)	3.877	40	154495	10.264
25) Methylene Chloride	(1)	4.020	84	269079	13.796
26) tert-Butyl Alcohol	(1)	4.156	59	446498	11.806
28) trans-1,2-Dichloroethene	(1)	4.292	61	406320	12.381
29) Methyl t-Butyl Ether	(1)	4.292	73	700928	11.171
27) Acrylonitrile	(1)	4.307	53	227145	12.636
30) Hexane	(1)	4.565	57	376563	11.791
31) 1,1-Dichloroethane	(1)	4.722	63	526681	12.444
32) Vinyl Acetate	(1)	4.787	86	69221	12.721
33) Di-Isopropyl Ether	(1)	4.787	45	818385	12.285
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	694086	10.821
35) cis-1,2-Dichloroethene	(1)	5.259	61	369730	11.894
37) 2-Butanone	(1)	5.281	72	133107	11.381
38) Ethyl Acetate	(1)	5.331	70	64269	11.143
39) Methyl Acrylate	(1)	5.360	55	439812	12.121

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.481	130	180193	10.000
41) Tetrahydrofuran	(1)	5.503	42	278353	12.215
42) Chloroform	(1)	5.539	83	640099	12.214
43) 1,1,1-Trichloroethane	(1)	5.682	97	626165	12.039
44) Cyclohexane	(1)	5.711	56	403142	11.715
45) Carbon Tetrachloride	(1)	5.811	117	646747	12.111
46) Benzene	(2)	5.990	78	907068	11.797
47) 1,2-Dichloroethane	(2)	6.012	62	417190	11.818
48) Isooctane	(2)	6.040	57	1254327	11.438
49) Tert-Amyl Methyl Ether	(2)	6.069	73	760459	11.165
50) Heptane	(2)	6.183	43	443055	11.792
51)*1,4-Difluorobenzene	(2)	6.298	114	700494	10.000
52) Trichloroethene	(2)	6.491	130	411943	10.689
53) Ethyl Acrylate	(2)	6.577	55	496059	11.060
36) 1,2-Dichloroethene (total)	(1)		61	776050	24.275
54) 1,2-Dichloropropane	(2)	6.678	63	321796	11.950
57) Methyl Methacrylate	(2)	6.749	69	255953	10.772
55) Dibromomethane	(2)	6.771	174	399937	11.364
56) 1,4-Dioxane	(2)	6.778	88	201335	10.955
58) Bromodichloromethane	(2)	6.885	83	638310	11.816
59) cis-1,3-Dichloropropene	(2)	7.222	75	469309	10.903
60) 4-Methyl-2-Pentanone	(2)	7.330	43	529069	11.399
61) Toluene	(3)	7.466	91	1059132	11.633
62) Octane	(3)	7.523	43	542442	10.674
63) trans-1,3-Dichloropropene	(3)	7.630	75	417031	11.218
65) Ethyl Methacrylate	(3)	7.681	69	419549	11.714
66) 1,1,2-Trichloroethane	(3)	7.774	97	387134	12.028
67) Tetrachloroethene	(3)	7.874	166	594953	10.754
68) 2-Hexanone	(3)	7.946	43	485802	10.924
69) Dibromochloromethane	(3)	8.075	127	469495	11.443
70) 1,2-Dibromoethane	(3)	8.168	107	570413	11.537
71)*Chlorobenzene-d5	(3)	8.497	117	677238	10.000
72) Chlorobenzene	(3)	8.519	112	858001	11.020
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	460540	11.487
74) Ethylbenzene	(3)	8.583	91	1262283	10.998
75) m/p-Xylene	(3)	8.669	91	980118	11.058
76) o-Xylene	(3)	8.970	91	947008	10.913
78) Styrene	(3)	8.984	104	716815	12.535

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

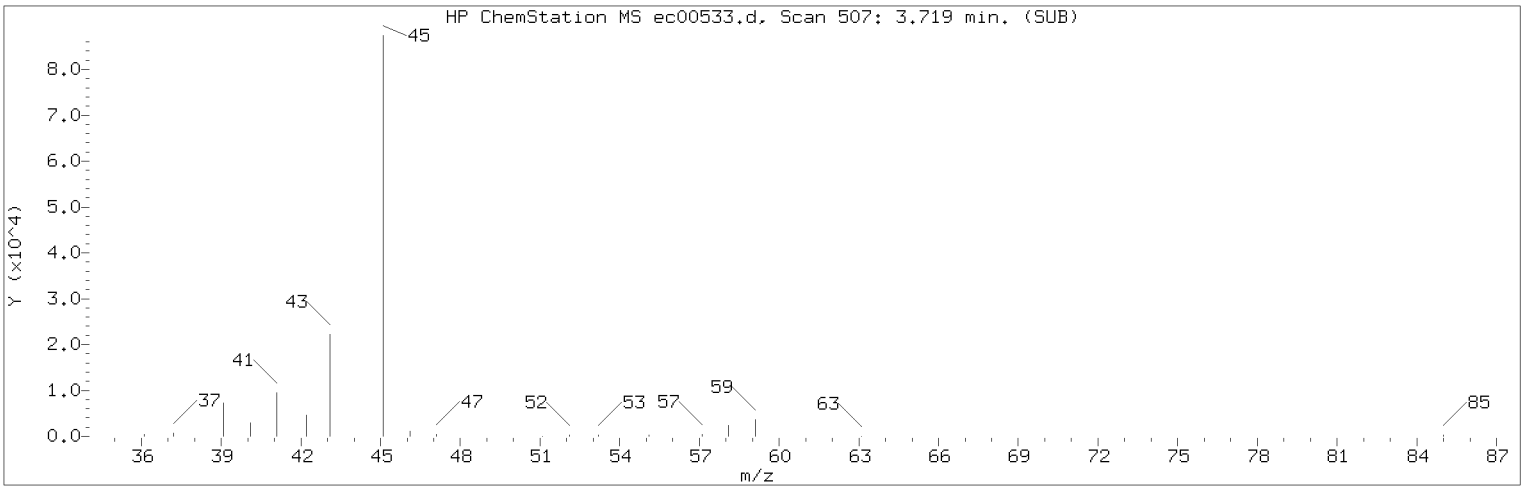
Sample Name: LCSE39 Lab Sample ID: LCSE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	524620	10.631
80) Cumene	(3)	9.242	105	1282429	10.822
82) 1,1,2,2-Tetrachloroethane	(3)	9.464	83	793579	12.780
81) Bromobenzene	(3)	9.486	156	497657	10.948
83) 1,2,3-Trichloropropane	(3)	9.507	110	250023	11.916
84) n-Propylbenzene	(3)	9.543	120	379025	10.467
86) 4-Ethyltoluene	(3)	9.622	105	1396748M	11.451
85) 2-Chlorotoluene	(3)	9.622	126	383381	11.263
87) 1,3,5-Trimethylbenzene	(3)	9.665	105	1103236	10.923
88) Alpha Methyl Styrene	(3)	9.844	118	449643	11.598
89) tert-Butylbenzene	(3)	9.915	119	916751M	9.439
90) 1,2,4-Trimethylbenzene	(3)	9.951	105	1096074	11.638
91) sec-Butylbenzene	(3)	10.080	105	1490890M	10.700
92) 1,3-Dichlorobenzene	(3)	10.188	146	830760	11.647
94) p-Isopropyltoluene	(3)	10.188	119	1250944	11.209
93) 1,4-Dichlorobenzene	(3)	10.252	146	803958	11.195
95) Benzyl Chloride	(3)	10.352	91	646066	11.613
97) n-Butylbenzene	(3)	10.496	91	1098509	11.120
96) 1,2-Dichlorobenzene	(3)	10.539	146	736256	11.523
98) Hexachloroethane	(3)	10.732	117	352854	12.401
99) 1,2-Dibromo-3-chloropropane	(3)	11.140	157	287721	12.355
100) 1,2,4-Trichlorobenzene	(3)	11.756	180	460882	12.006
101) Hexachlorobutadiene	(3)	11.871	225	429561	11.889
102) Naphthalene	(3)	11.964	128	890777	12.783
64) 1,3-Dichloropropene (total)	(3)		75	886340	22.121
77) Xylene (total)	(3)		91	1927126	21.971

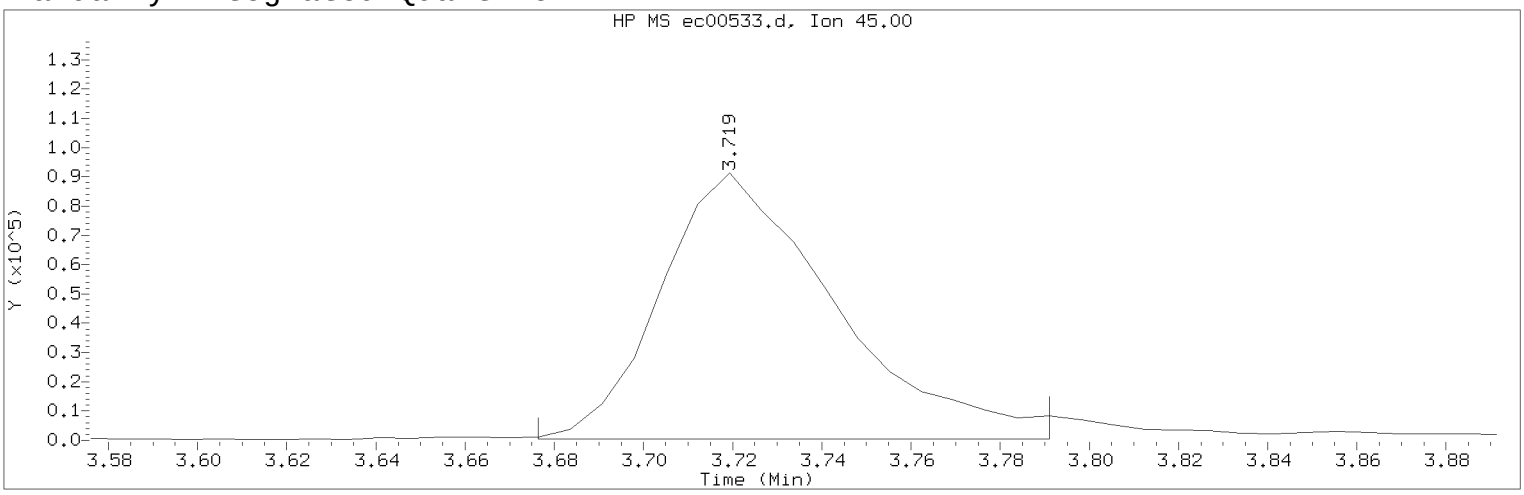
M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

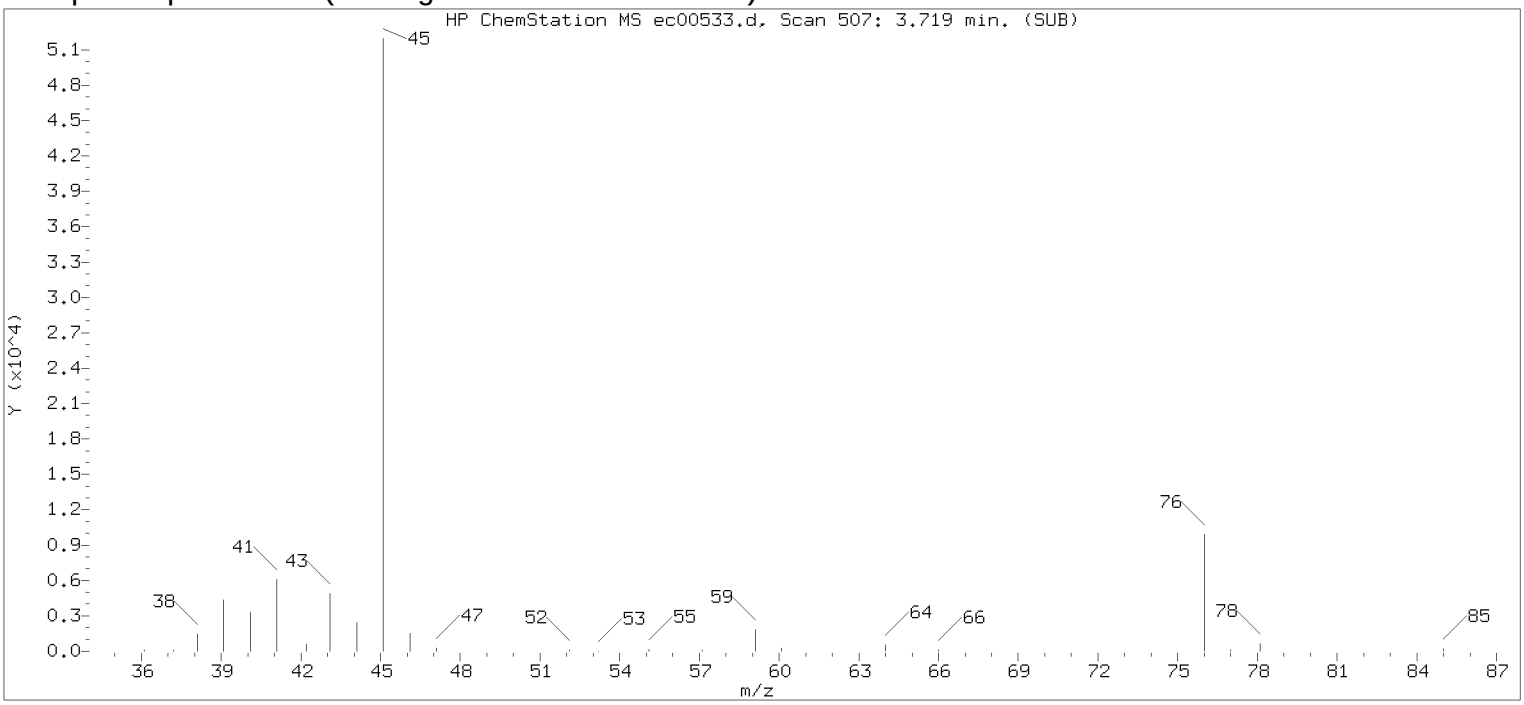
Compound Number : 22
Compound Name : Isopropanol
Scan Number : 507
Retention Time (minutes): 3.719
Quant Ion : 45.00
Area (flag) : 248767M
Concentration (ppb(v)) : 9.6819
Integration start scan : 500 Integration stop scan: 516
Y at integration start : 466 Y at integration end: 466

Reason for manual integration: improper integration

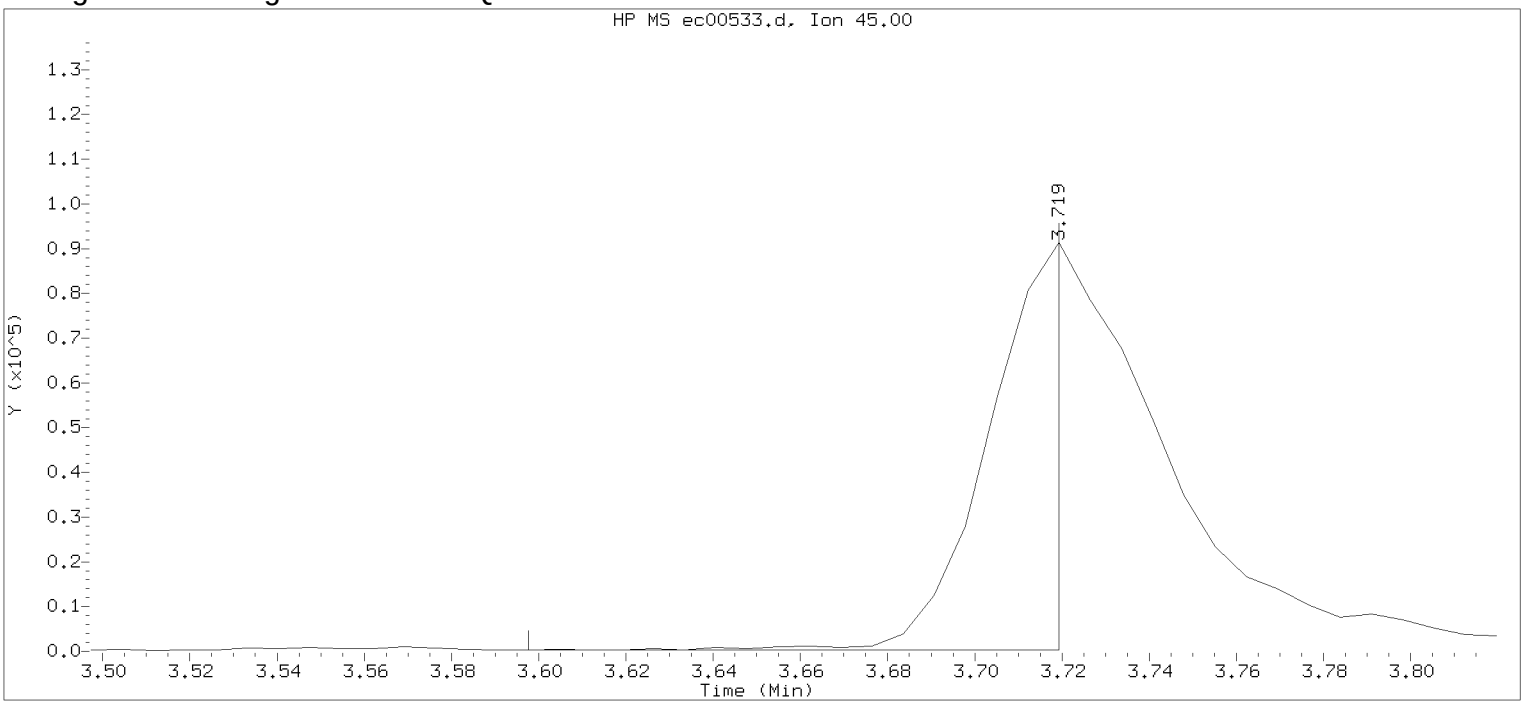
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

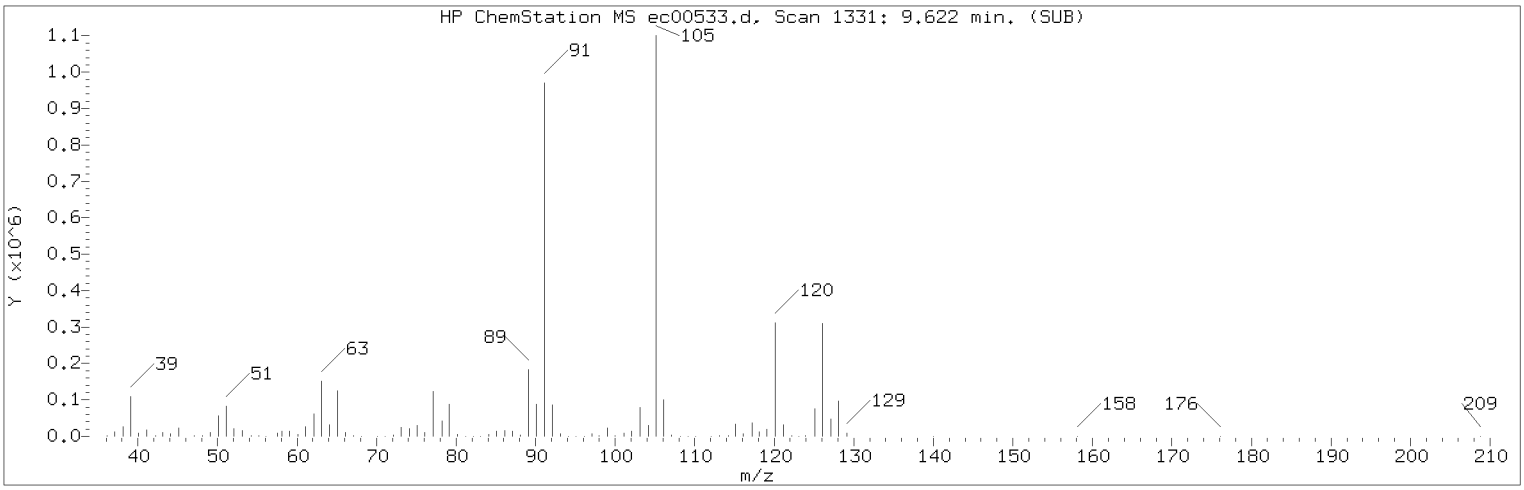
Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:46 Unknown

Sample Name: LCSE39 Lab Sample ID: LCSE39

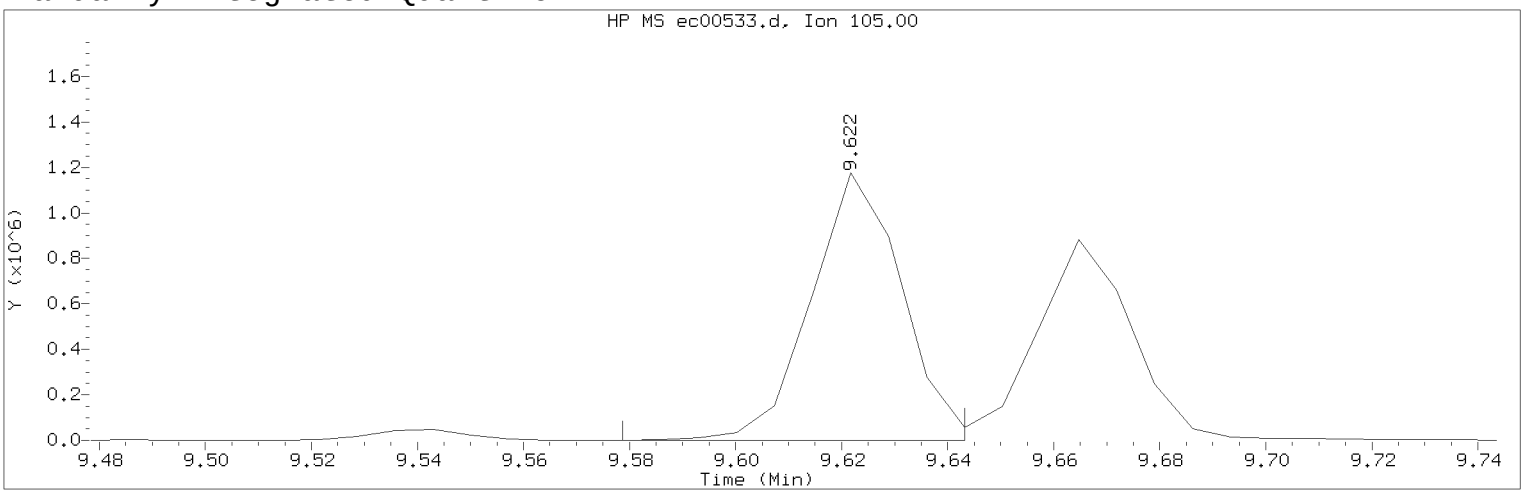
Compound Number : 22
Compound Name : Isopropanol
Scan Number : 507
Retention Time (minutes): 3.719
Quant Ion : 45.00
Area : 99195
Concentration (ppb(v)) : 3.8606
Integration start scan : 489 Integration stop scan: 506
Y at integration start : 227 Y at integration end: 227

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

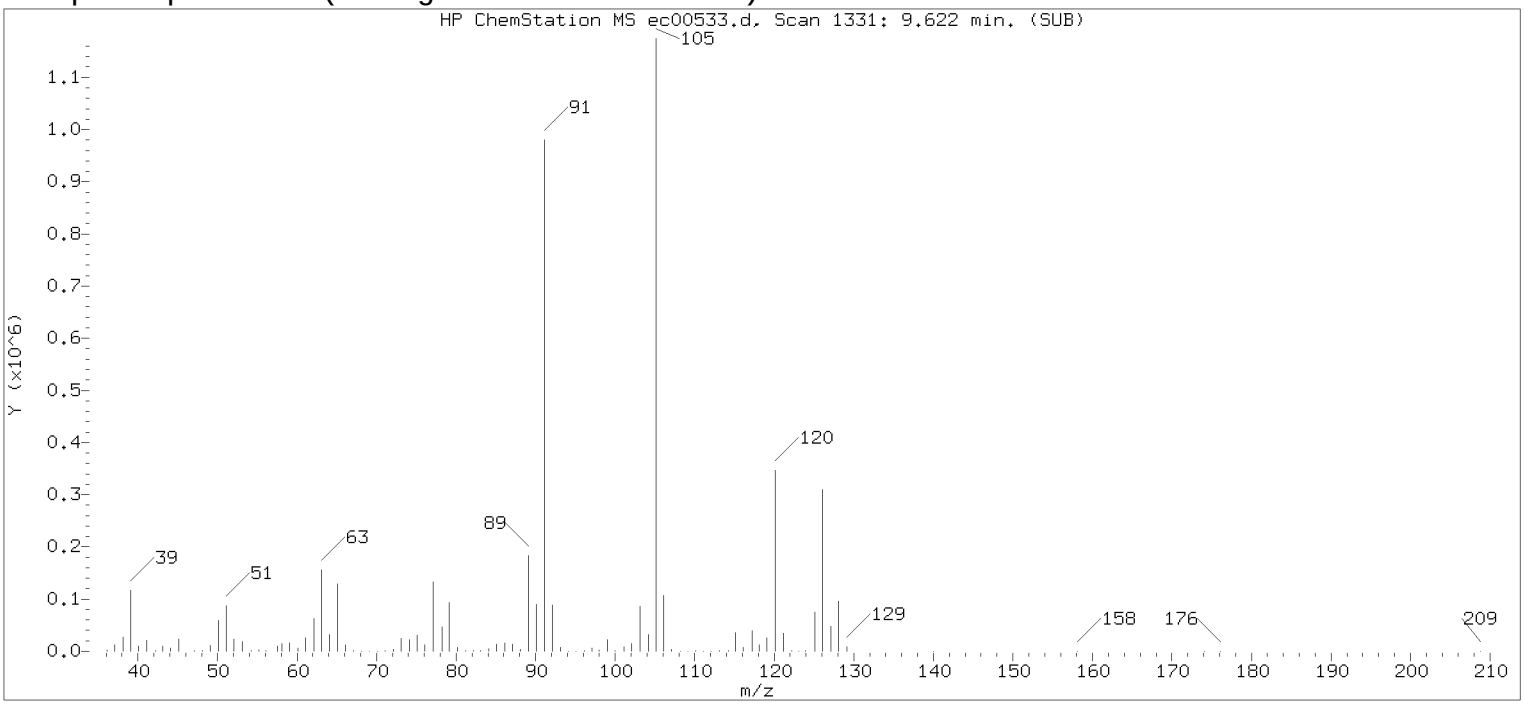
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Quant Ion : 105.00
Area (flag) : 1396748M
Concentration (ppb(v)) : 11.4511
Integration start scan : 1324 Integration stop scan: 1333
Y at integration start : 427 Y at integration end: 427

Reason for manual integration: improper integration

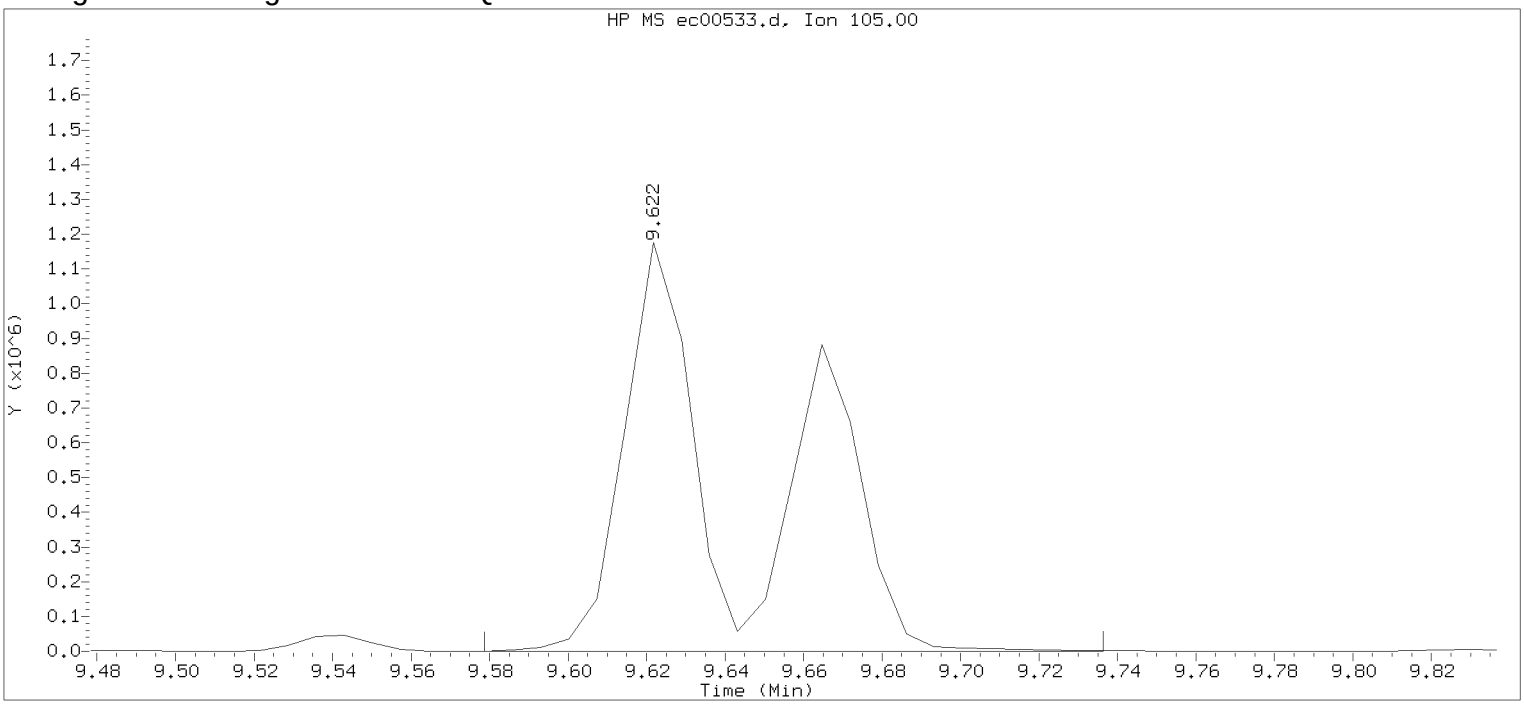
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

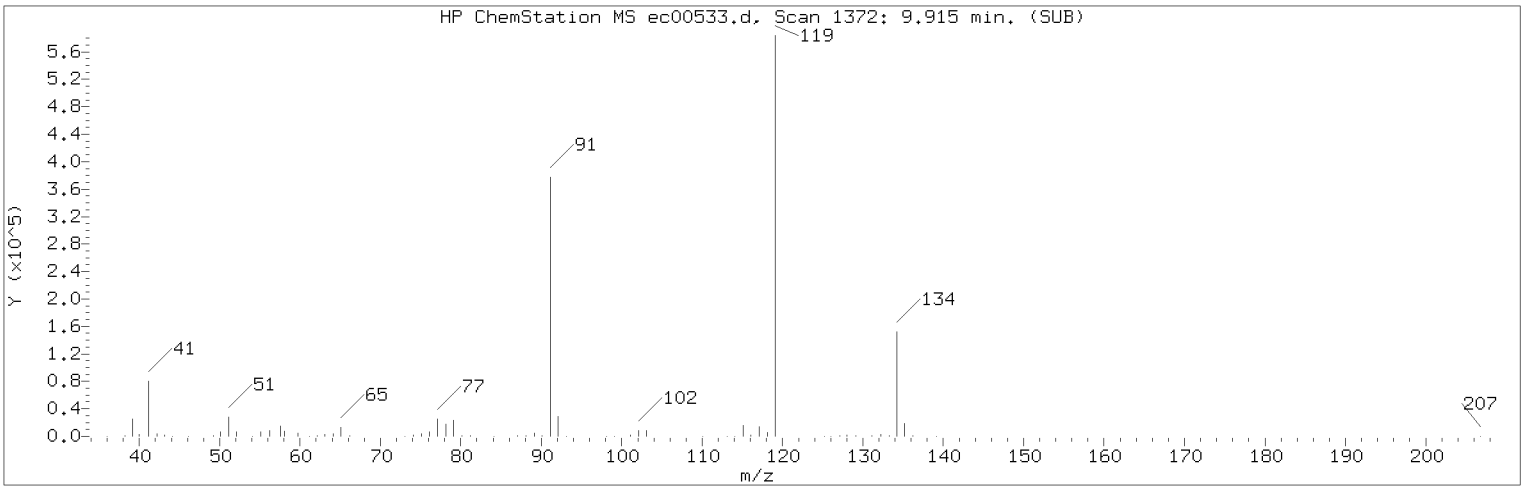
Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:46 Unknown

Sample Name: LCSE39 Lab Sample ID: LCSE39

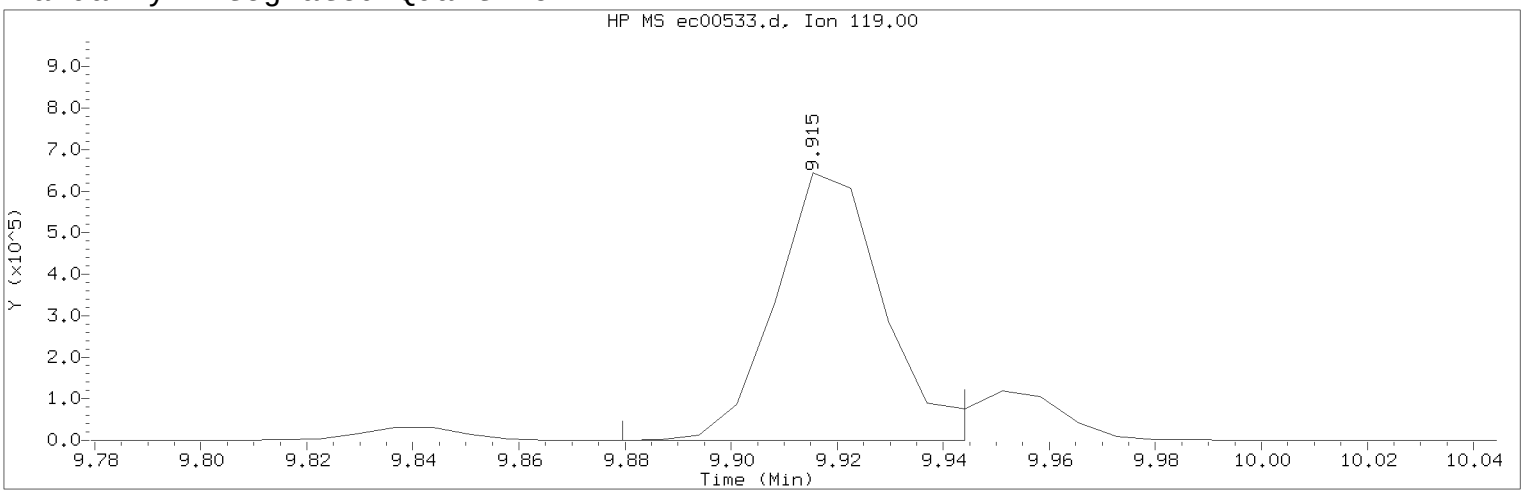
Compound Number : 86
Compound Name : 4-Ethyltoluene
Scan Number : 1331
Retention Time (minutes): 9.622
Quant Ion : 105.00
Area : 2486657
Concentration (ppb(v)) : 20.3866
Integration start scan : 1324 Integration stop scan: 1346
Y at integration start : 427 Y at integration end: 427

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

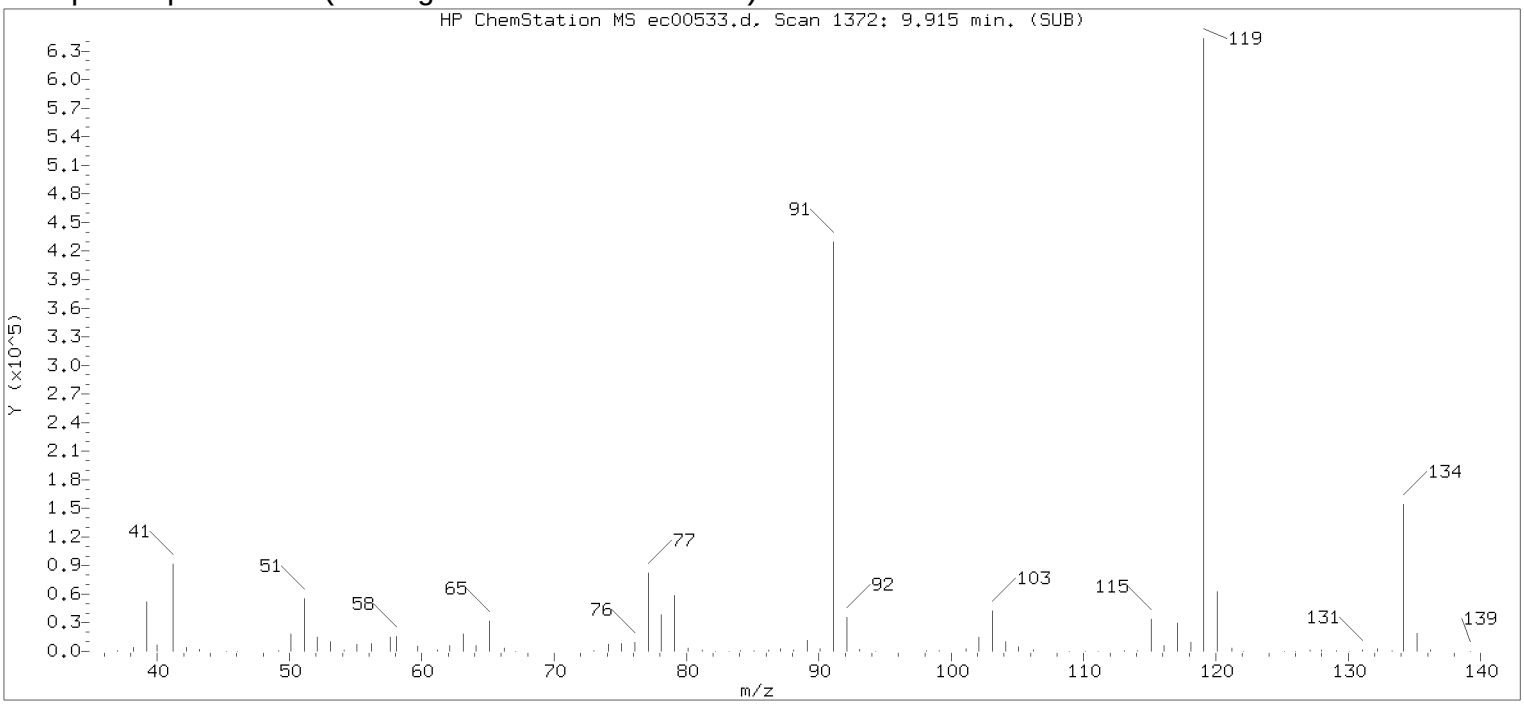
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1372
Retention Time (minutes): 9.915
Quant Ion : 119.00
Area (flag) : 916751M
Concentration (ppb(v)) : 9.4394
Integration start scan : 1366 Integration stop scan: 1375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

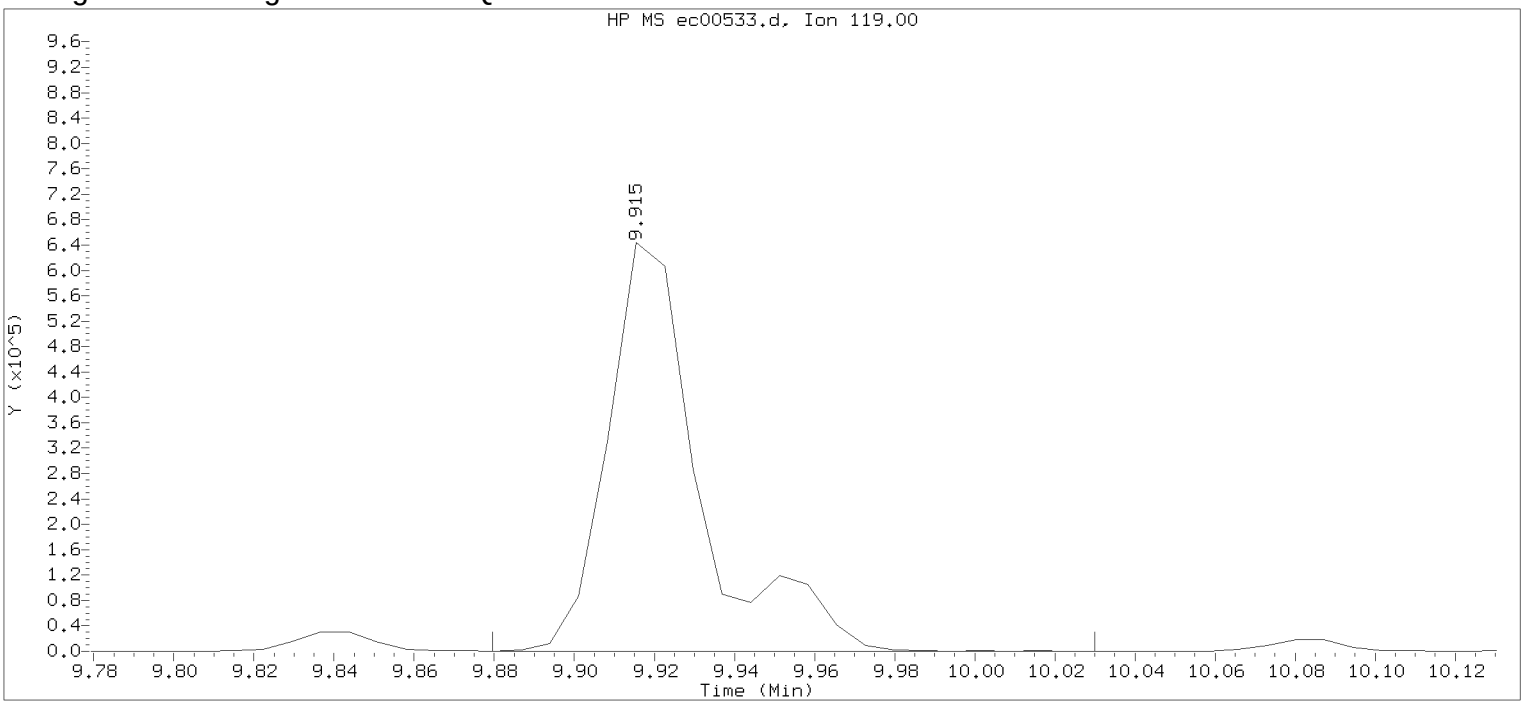
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

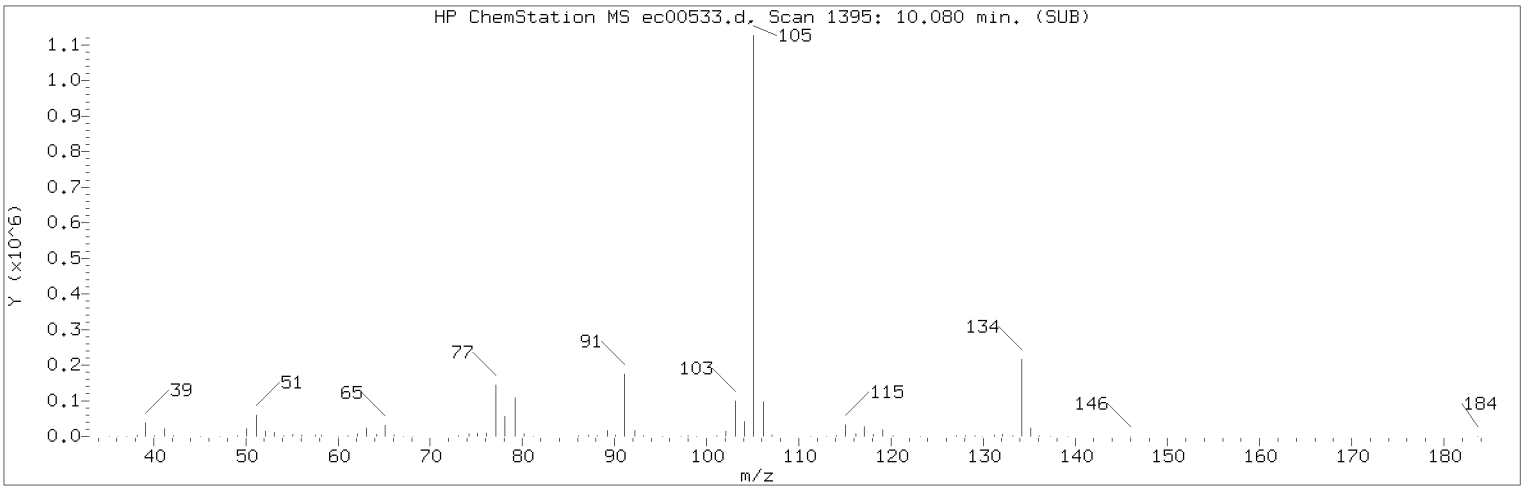
Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:46 Unknown

Sample Name: LCSE39 Lab Sample ID: LCSE39

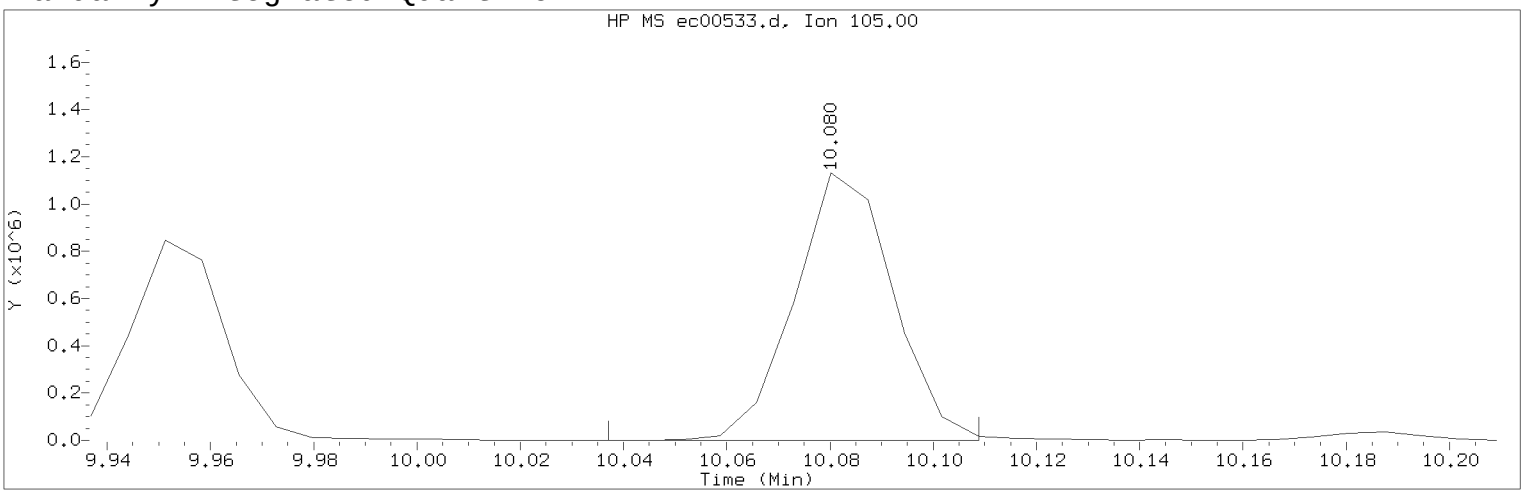
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1372
Retention Time (minutes): 9.915
Quant Ion : 119.00
Area : 1037008
Concentration (ppb(v)) : 10.6777
Integration start scan : 1366 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:48 jeb07445

Sample Name: LCSE39 Lab Sample ID: LCSE39

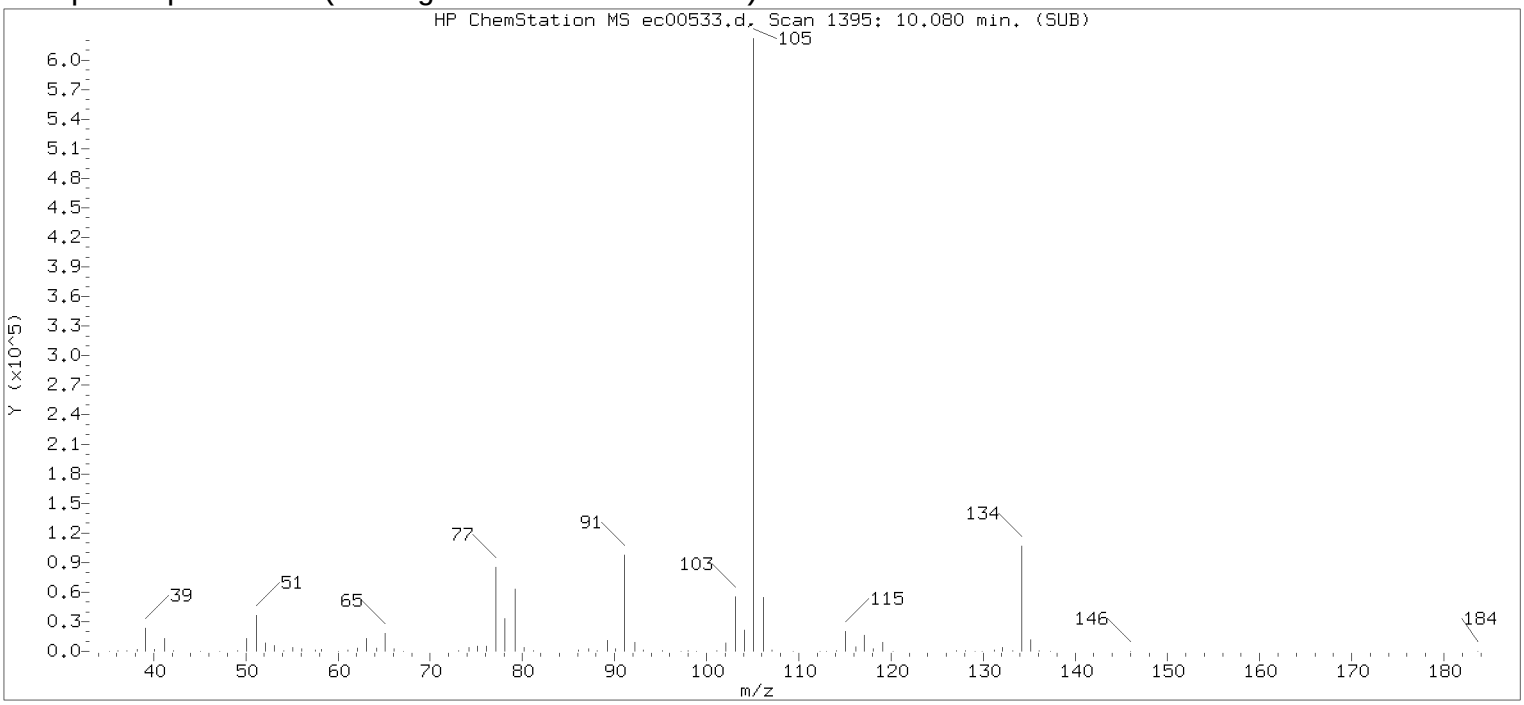
Compound Number : 91
Compound Name : sec-Butylbenzene
Scan Number : 1395
Retention Time (minutes): 10.080
Quant Ion : 105.00
Area (flag) : 1490890M
Concentration (ppb(v)) : 10.6998
Integration start scan : 1388 Integration stop scan: 1398
Y at integration start : 1257 Y at integration end: 943

Reason for manual integration: improper integration

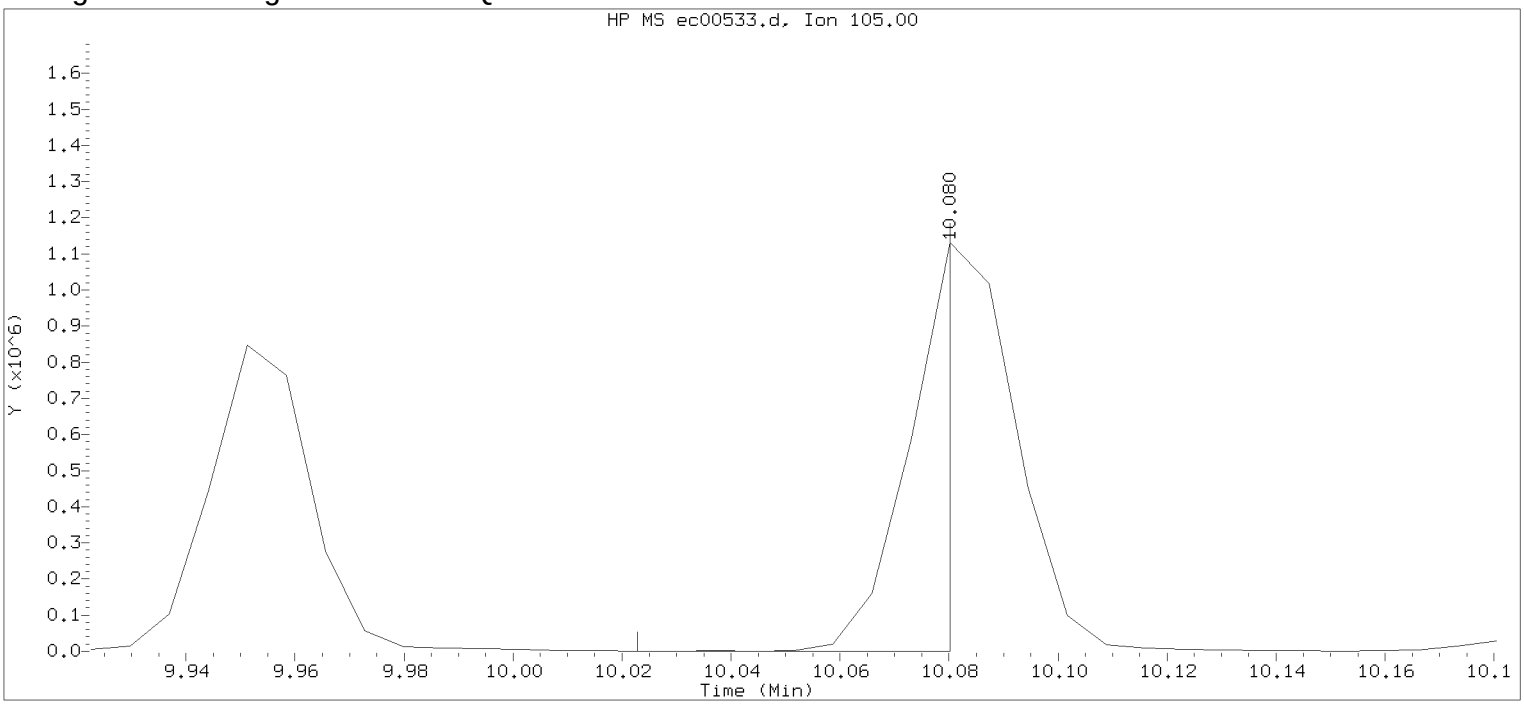
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00533.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 14:28 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 14:46 Unknown

Sample Name: LCSE39 Lab Sample ID: LCSE39

Compound Number : 91
Compound Name : sec-Butylbenzene
Scan Number : 1395
Retention Time (minutes): 10.080
Quant Ion : 105.00
Area : 569735
Concentration (ppb(v)) : 4.0889
Integration start scan : 1386 Integration stop scan: 1394
Y at integration start : 678 Y at integration end: 678

Digitally signed by Jacob E. Bailey on 03/19/2017 at 14:48.
Target 3.5 esignature user id: jeb07445

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

LCSDE39

Data file: /chem/HP22820.i/17mar19.b/ec00534.d Injection date and time: **19-MAR-2017 15:02**
Data file Sample Info. Line: LCSDE39;200;E1707830AA;LCSDE39;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
40) Bromochloromethane	5.475(-0.008)	752	130	174440 (-15)	10.00		123141 - 287327
51) 1,4-Difluorobenzene	6.298(-0.008)	867	114	696823 (-6)	10.00		443518 - 1034874
71) Chlorobenzene-d5	8.497(0.000)	1174	117	682870 (-6)	10.00		433857 - 1012332

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)	1.621(-0.003)	41	189680	12.326	12.33			0.5	1
2) Dichlorodifluoromethane	(1)	1.650(-0.002)	85	779167	12.696	12.70			0.2	1
3) Chlorodifluoromethane	(1)	1.671(-0.002)	51	156525	4.724	4.72			0.2	1
4) Freon 114	(1)	1.786(-0.002)	85	751451	12.343	12.34			0.2	1
5) Chloromethane	(1)	1.850(-0.002)	50	84292	4.474	4.47			0.2	1
6) Vinyl Chloride	(1)	1.972(-0.000)	62	290947	13.484	13.48			0.2	1
7) 1,3-Butadiene	(1)	2.008(-0.000)	54	190041	12.515	12.52			0.4	2
8) Bromomethane	(1)	2.344(0.000)	94	239957	10.530	10.53			0.5	1
9) Chloroethane	(1)	2.473(-0.000)	64	152056	12.804	12.80			0.2	1
10) Bromoethene	(1)	2.702(-0.002)	106	261407	12.275	12.28			0.4	2
11) Dichlorofluoromethane	(1)	2.731(-0.000)	67	673847	13.537	13.54			0.2	1
12) Trichlorofluoromethane	(1)	2.774(-0.000)	101	811237	12.620	12.62			0.2	1
13) Pentane	(1)	2.874(-0.000)	43	398921	12.131	12.13			0.5	1
14) Ethanol	(1)	3.089(-0.001)	45	59998	9.450	9.45			0.5	2
15) Freon123a	(1)	3.211(-0.001)	67	629342	13.620	13.62			0.2	1
16) Acrolein	(1)	3.347(-0.001)	56	98328	13.201	13.20			1	2
17) 1,1-Dichloroethene	(1)	3.433(-0.000)	61	446529	12.771	12.77			0.2	1
18) Freon 113	(1)	3.440(-0.000)	103	435464	12.773	12.77			0.5	2
19) Acetone	(1)	3.533(-0.000)	43	388767	12.471	12.47			0.5	2
20) Methyl Iodide	(1)	3.605(-0.000)	142	523047	11.006	11.01			0.2	1
21) Carbon Disulfide	(1)	3.670(-0.001)	76	811265	12.805	12.81			0.5	1
22) Isopropanol	(1)	3.720(-0.001)	45	297896	11.976	11.98			0.5	2
23) Acetonitrile	(1)	3.877(-0.000)	40	155061	10.642	10.64			0.5	2
24) 3-Chloropropene	(1)	3.870(-0.000)	76	130730	14.319	14.32			0.2	1
25) Methylene Chloride	(1)	4.013(0.000)	84	277294	14.687	14.69			0.2	1
26) tert-Butyl Alcohol	(1)	4.164(-0.000)	59	461861	12.615	12.62			0.5	1
27) Acrylonitrile	(1)	4.307(-0.000)	53	230247	13.231	13.23			0.5	2
28) trans-1,2-Dichloroethene	(1)	4.293(0.001)	61	421339	13.262	13.26			0.2	1
29) Methyl t-Butyl Ether	(1)	4.293(0.001)	73	731362	12.040	12.04			0.2	1
30) Hexane	(1)	4.565(0.001)	57	390885	12.643	12.64			0.2	1
31) 1,1-Dichloroethane	(1)	4.722(-0.000)	63	535726	13.075	13.08			0.2	1
32) Vinyl Acetate	(1)	4.787(-0.000)	86	68644	13.031	13.03			1	1
33) Di-Isopropyl Ether	(1)	4.787(-0.000)	45	849726	13.176	13.18			0.2	1
34) Ethyl Tert-Butyl Ether	(1)	5.116(0.001)	59	745315	12.002	12.00			0.2	1
35) cis-1,2-Dichloroethene	(1)	5.260(-0.000)	61	381546	12.679	12.68			0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	802885	25.941	25.94			0.2	1
37) 2-Butanone	(1)	5.281(0.001)	72	145130	12.819	12.82			0.5	2
38) Ethyl Acetate	(1)	5.331(0.001)	70	64775	11.601	11.60			0.5	1
39) Methyl Acrylate	(1)	5.360(0.001)	55	454509	12.939	12.94			0.2	1
41) Tetrahydrofuran	(1)	5.503(0.000)	42	282782	12.819	12.82			0.5	1
42) Chloroform	(1)	5.539(0.001)	83	655723	12.924	12.92			0.2	1
43) 1,1,1-Trichloroethane	(1)	5.682(0.001)	97	651869	12.947	12.95			0.2	1
44) Cyclohexane	(1)	5.711(0.001)	56	425531	12.773	12.77			0.2	1

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

LCSDE39

Data file: /chem/HP22820.i/17mar19.b/ec00534.d Injection date and time: **19-MAR-2017 15:02**
Data file Sample Info. Line: LCSDE39;200;E1707830AA;LCSDE39;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
45) Carbon Tetrachloride	(1)	5.811(0.001)	117	684489	13.241	13.24			0.2	1
46) Benzene	(2)	5.990(0.001)	78	930789	12.169	12.17			0.2	1
47) 1,2-Dichloroethane	(2)	6.012(0.001)	62	435746	12.409	12.41			0.2	1
48) Isooctane	(2)	6.040(0.001)	57	1322615	12.124	12.12			0.2	1
49) Tert-Amyl Methyl Ether	(2)	6.069(0.001)	73	782965	11.556	11.56			0.2	1
50) Heptane	(2)	6.184(-0.000)	43	453181	12.125	12.12			0.5	1
52) Trichloroethene	(2)	6.492(0.001)	130	424230	11.065	11.07			0.2	1
53) Ethyl Acrylate	(2)	6.578(0.001)	55	504977	11.318	11.32			0.2	1
54) 1,2-Dichloropropane	(2)	6.678(0.001)	63	338540	12.638	12.64			0.2	1
55) Dibromomethane	(2)	6.771(0.001)	174	410949	11.739	11.74			0.2	1
56) 1,4-Dioxane	(2)	6.778(0.001)	88	206492	11.295	11.30			0.5	1
57) Methyl Methacrylate	(2)	6.750(0.001)	69	275354	11.650	11.65			0.2	1
58) Bromodichloromethane	(2)	6.886(0.001)	83	673470	12.533	12.53			0.2	1
59) cis-1,3-Dichloropropene	(2)	7.222(0.001)	75	486576	11.363	11.36			0.2	1
60) 4-Methyl-2-Pentanone	(2)	7.330(0.001)	43	555762	12.037	12.04			0.5	2
61) Toluene	(3)	7.466(-0.000)	91	1092246	11.898	11.90			0.2	1
62) Octane	(3)	7.523(-0.000)	43	577899	11.278	11.28			0.5	1
63) trans-1,3-Dichloropropene	(3)	7.631(-0.000)	75	440862	11.762	11.76			0.2	1
64) 1,3-Dichloropropene (total)	(3)		75	927438	23.125	23.13			0.2	1
65) Ethyl Methacrylate	(3)	7.681(-0.000)	69	434470	12.030	12.03			0.2	1
66) 1,1,2-Trichloroethane	(3)	7.774(-0.000)	97	398960	12.293	12.29			0.2	1
67) Tetrachloroethene	(3)	7.874(-0.000)	166	599900	10.754	10.75			0.2	1
68) 2-Hexanone	(3)	7.946(-0.000)	43	498725	11.122	11.12			0.5	2
69) Dibromochloromethane	(3)	8.075(-0.000)	127	488560	11.809	11.81			0.2	1
70) 1,2-Dibromoethane	(3)	8.168(-0.000)	107	598550	12.006	12.01			0.2	1
72) Chlorobenzene	(3)	8.519(0.000)	112	881416	11.227	11.23			0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)	8.576(0.000)	131	487184	12.051	12.05			0.2	1
74) Ethylbenzene	(3)	8.583(0.000)	91	1299011	11.225	11.23			0.2	1
75) m/p-Xylene	(3)	8.669(0.000)	91	1017433	11.384	11.38			0.2	1
76) o-Xylene	(3)	8.970(0.000)	91	986186	11.271	11.27			0.2	1
77) Xylene (total)	(3)		91	2003619	22.655	22.66			0.2	1
78) Styrene	(3)	8.984(0.000)	104	747001	12.955	12.96			0.2	1
79) Bromoform	(3)	9.142(0.000)	173	535054	10.753	10.75			0.2	1
80) Cumene	(3)	9.242(0.000)	105	1349615	11.295	11.30			0.2	1
81) Bromobenzene	(3)	9.493(0.000)	156	518570	11.314	11.31			0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)	9.472(0.000)	83	797837	12.743	12.74			0.2	1
83) 1,2,3-Trichloropropane	(3)	9.514(0.000)	110	251561	11.890	11.89			0.2	1
84) n-Propylbenzene	(3)	9.550(0.000)	120	388619	10.644	10.64			0.5	1
85) 2-Chlorotoluene	(3)	9.629(0.000)	126	393902	11.477	11.48			0.2	1
86) 4-Ethyltoluene	(3)	9.629(0.000)	105	1392924	11.326	11.33			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	9.672(0.000)	105	1118496M	10.983	10.98			0.2	1
88) Alpha Methyl Styrene	(3)	9.851(0.000)	118	464054	11.871	11.87			0.2	1
89) tert-Butylbenzene	(3)	9.930(0.000)	119	959607M	9.799	9.80			0.5	1
90) 1,2,4-Trimethylbenzene	(3)	9.966(0.000)	105	1123605	11.832	11.83			0.2	1
91) sec-Butylbenzene	(3)	10.095(0.000)	105	1549309	11.027	11.03			0.2	1
92) 1,3-Dichlorobenzene	(3)	10.195(0.000)	146	845835	11.761	11.76			0.2	1
93) 1,4-Dichlorobenzene	(3)	10.260(0.000)	146	832375	11.495	11.49			0.2	1
94) p-Isopropyltoluene	(3)	10.195(0.000)	119	1297653	11.531	11.53			0.2	1
95) Benzyl Chloride	(3)	10.367(0.000)	91	669922	11.943	11.94			0.5	1
96) 1,2-Dichlorobenzene	(3)	10.553(0.000)	146	768674	11.931	11.93			0.2	1
97) n-Butylbenzene	(3)	10.510(0.000)	91	1156072	11.606	11.61			0.2	1
98) Hexachloroethane	(3)	10.739(0.000)	117	365015	12.722	12.72			0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)	11.148(0.000)	157	277188	11.804	11.80			0.2	1
100) 1,2,4-Trichlorobenzene	(3)	11.764(0.000)	180	466119	12.043	12.04			0.5	2

M = Compound was manually integrated.

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

LCSDE39

Data file: /chem/HP22820.i/17mar19.b/ec00534.d Injection date and time: **19-MAR-2017 15:02**
Data file Sample Info. Line: LCSDE39;200;E1707830AA;LCSDE39;0;3;LCSD; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
101) Hexachlorobutadiene	(3)	11.878(0.000)	225	434079	11.915	11.91			0.4	2
102) Naphthalene	(3)	11.971(0.000)	128	905707	12.890	12.89			0.4	1

Total number of targets = 99

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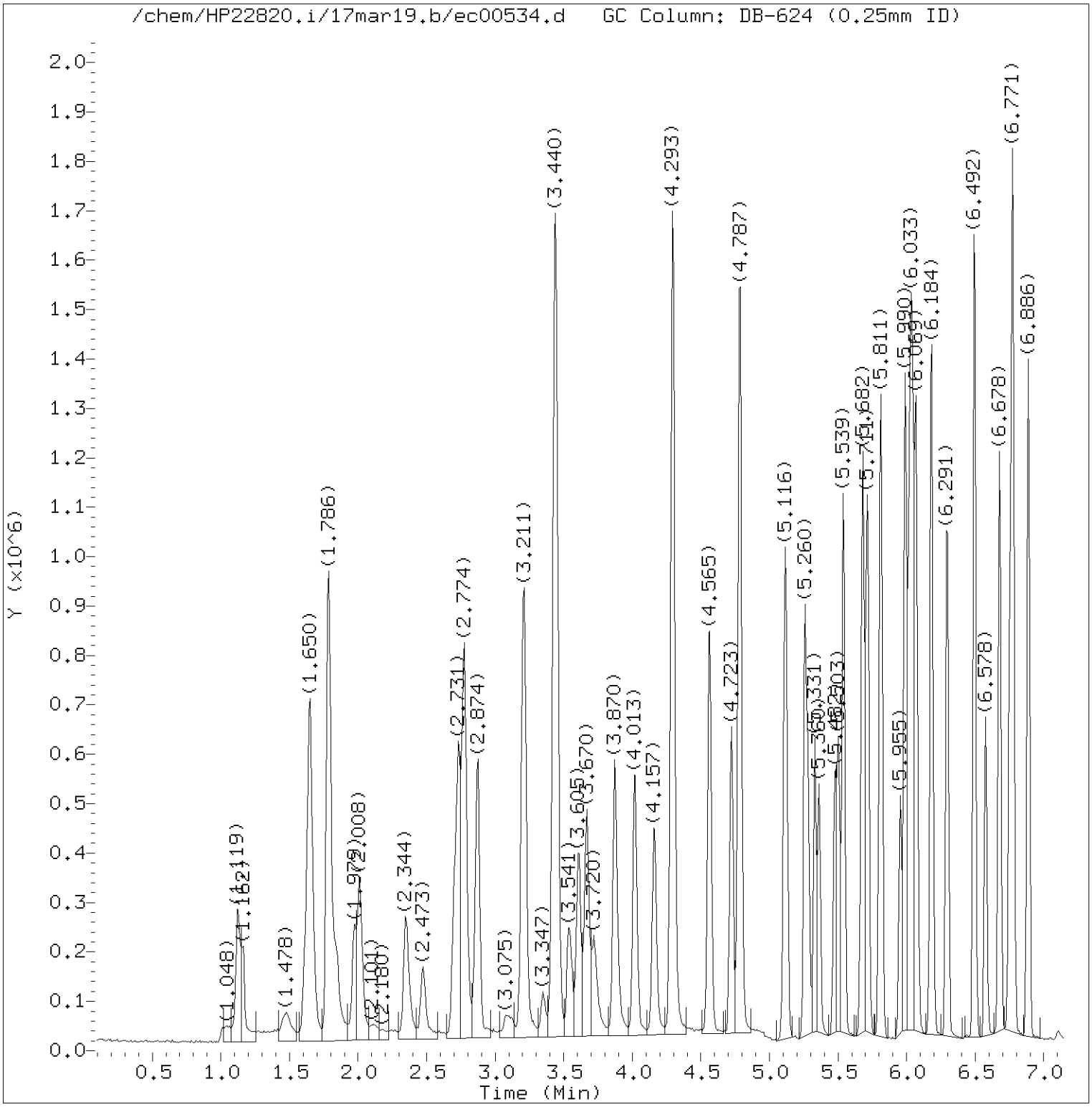
Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

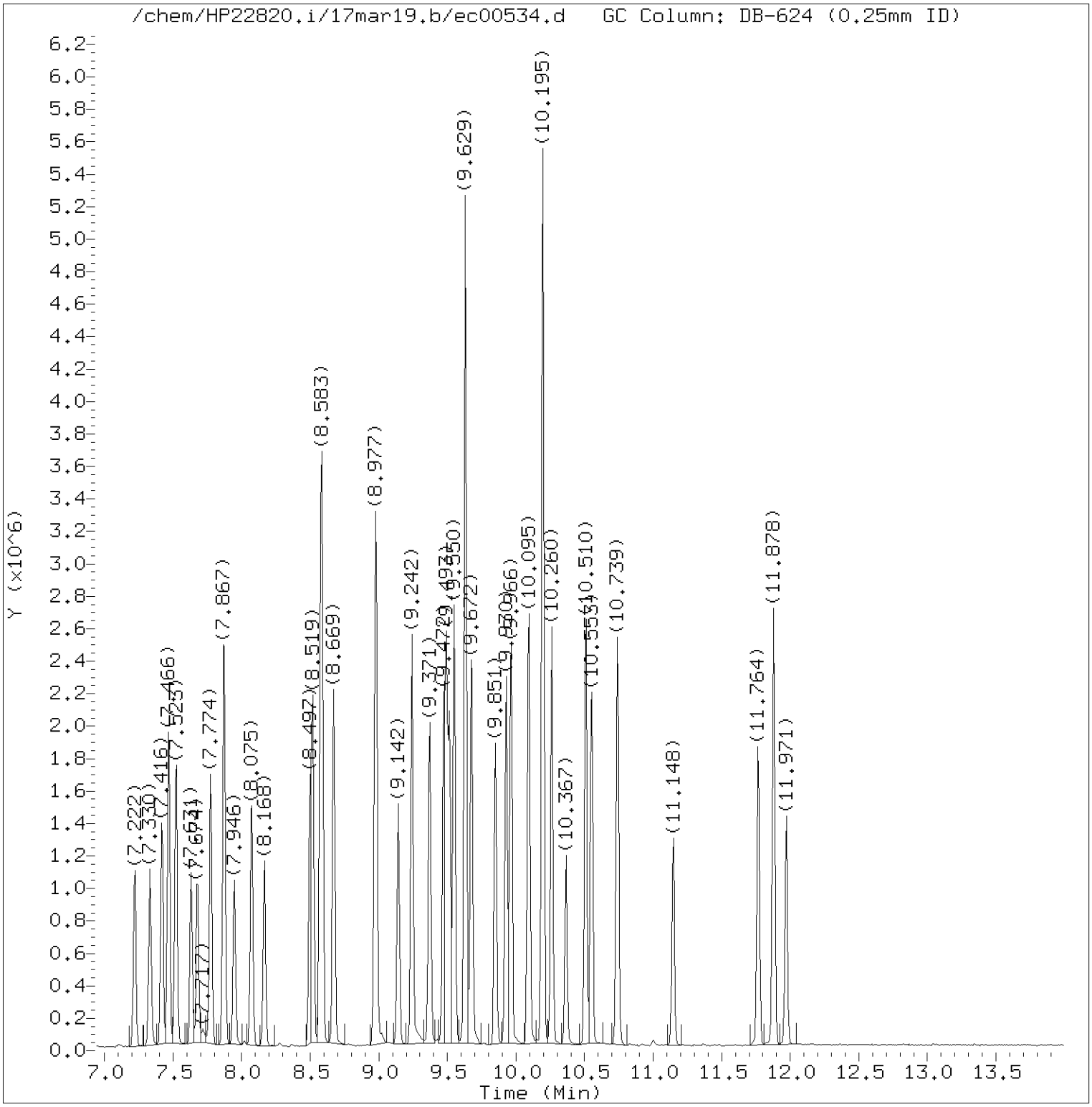
Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.621	41	189680	12.326
2) Dichlorodifluoromethane	(1)	1.650	85	779167	12.696
3) Chlorodifluoromethane	(1)	1.671	51	156525	4.724
4) Freon 114	(1)	1.786	85	751451	12.343
5) Chloromethane	(1)	1.850	50	84292	4.474
6) Vinyl Chloride	(1)	1.972	62	290947	13.484
7) 1,3-Butadiene	(1)	2.008	54	190041	12.515
8) Bromomethane	(1)	2.344	94	239957	10.530
9) Chloroethane	(1)	2.473	64	152056	12.804
10) Bromoethene	(1)	2.703	106	261407	12.275
11) Dichlorofluoromethane	(1)	2.731	67	673847	13.537
12) Trichlorofluoromethane	(1)	2.774	101	811237	12.620
13) Pentane	(1)	2.874	43	398921	12.131
14) Ethanol	(1)	3.089	45	59998	9.450
15) Freon123a	(1)	3.211	67	629342	13.620
16) Acrolein	(1)	3.347	56	98328	13.201
17) 1,1-Dichloroethene	(1)	3.433	61	446529	12.771
18) Freon 113	(1)	3.440	103	435464	12.773
19) Acetone	(1)	3.533	43	388767	12.471
20) Methyl Iodide	(1)	3.605	142	523047	11.006
21) Carbon Disulfide	(1)	3.670	76	811265	12.805
22) Isopropanol	(1)	3.720	45	297896	11.976
24) 3-Chloropropene	(1)	3.870	76	130730	14.319
23) Acetonitrile	(1)	3.877	40	155061	10.642
25) Methylene Chloride	(1)	4.013	84	277294	14.687
26) tert-Butyl Alcohol	(1)	4.164	59	461861	12.615
28) trans-1,2-Dichloroethene	(1)	4.293	61	421339	13.262
29) Methyl t-Butyl Ether	(1)	4.293	73	731362	12.040
27) Acrylonitrile	(1)	4.307	53	230247	13.231
30) Hexane	(1)	4.565	57	390885	12.643
31) 1,1-Dichloroethane	(1)	4.723	63	535726	13.075
32) Vinyl Acetate	(1)	4.787	86	68644	13.031
33) Di-Isopropyl Ether	(1)	4.787	45	849726	13.176
34) Ethyl Tert-Butyl Ether	(1)	5.116	59	745315	12.002
35) cis-1,2-Dichloroethene	(1)	5.260	61	381546	12.679
37) 2-Butanone	(1)	5.281	72	145130	12.819
38) Ethyl Acetate	(1)	5.331	70	64775	11.601
39) Methyl Acrylate	(1)	5.360	55	454509	12.939

Digitally signed by Jacob E. Bailey
on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.475	130	174440	10.000
41) Tetrahydrofuran	(1)	5.503	42	282782	12.819
42) Chloroform	(1)	5.539	83	655723	12.924
43) 1,1,1-Trichloroethane	(1)	5.682	97	651869	12.947
44) Cyclohexane	(1)	5.711	56	425531	12.773
45) Carbon Tetrachloride	(1)	5.811	117	684489	13.241
46) Benzene	(2)	5.990	78	930789	12.169
47) 1,2-Dichloroethane	(2)	6.012	62	435746	12.409
48) Isooctane	(2)	6.040	57	1322615	12.124
49) Tert-Amyl Methyl Ether	(2)	6.069	73	782965	11.556
50) Heptane	(2)	6.184	43	453181	12.125
51)*1,4-Difluorobenzene	(2)	6.298	114	696823	10.000
52) Trichloroethene	(2)	6.492	130	424230	11.065
53) Ethyl Acrylate	(2)	6.578	55	504977	11.318
36) 1,2-Dichloroethene (total)	(1)		61	802885	25.941
54) 1,2-Dichloropropane	(2)	6.678	63	338540	12.638
57) Methyl Methacrylate	(2)	6.750	69	275354	11.650
55) Dibromomethane	(2)	6.771	174	410949	11.739
56) 1,4-Dioxane	(2)	6.778	88	206492	11.295
58) Bromodichloromethane	(2)	6.886	83	673470	12.533
59) cis-1,3-Dichloropropene	(2)	7.222	75	486576	11.363
60) 4-Methyl-2-Pentanone	(2)	7.330	43	555762	12.037
61) Toluene	(3)	7.466	91	1092246	11.898
62) Octane	(3)	7.523	43	577899	11.278
63) trans-1,3-Dichloropropene	(3)	7.631	75	440862	11.762
65) Ethyl Methacrylate	(3)	7.681	69	434470	12.030
66) 1,1,2-Trichloroethane	(3)	7.774	97	398960	12.293
67) Tetrachloroethene	(3)	7.874	166	599900	10.754
68) 2-Hexanone	(3)	7.946	43	498725	11.122
69) Dibromochloromethane	(3)	8.075	127	488560	11.809
70) 1,2-Dibromoethane	(3)	8.168	107	598550	12.006
71)*Chlorobenzene-d5	(3)	8.497	117	682870	10.000
72) Chlorobenzene	(3)	8.519	112	881416	11.227
73) 1,1,1,2-Tetrachloroethane	(3)	8.576	131	487184	12.051
74) Ethylbenzene	(3)	8.583	91	1299011	11.225
75) m/p-Xylene	(3)	8.669	91	1017433	11.384
76) o-Xylene	(3)	8.970	91	986186	11.271
78) Styrene	(3)	8.985	104	747001	12.955

* = Compound is an internal standard.

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on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
79) Bromoform	(3)	9.142	173	535054	10.753
80) Cumene	(3)	9.242	105	1349615	11.295
82) 1,1,2,2-Tetrachloroethane	(3)	9.472	83	797837	12.743
81) Bromobenzene	(3)	9.493	156	518570	11.314
83) 1,2,3-Trichloropropane	(3)	9.515	110	251561	11.890
84) n-Propylbenzene	(3)	9.550	120	388619	10.644
86) 4-Ethyltoluene	(3)	9.629	105	1392924	11.326
85) 2-Chlorotoluene	(3)	9.629	126	393902	11.477
87) 1,3,5-Trimethylbenzene	(3)	9.672	105	1118496M	10.983
88) Alpha Methyl Styrene	(3)	9.851	118	464054	11.871
89) tert-Butylbenzene	(3)	9.930	119	959607M	9.799
90) 1,2,4-Trimethylbenzene	(3)	9.966	105	1123605	11.832
91) sec-Butylbenzene	(3)	10.095	105	1549309	11.027
92) 1,3-Dichlorobenzene	(3)	10.195	146	845835	11.761
94) p-Isopropyltoluene	(3)	10.195	119	1297653	11.531
93) 1,4-Dichlorobenzene	(3)	10.260	146	832375	11.495
95) Benzyl Chloride	(3)	10.367	91	669922	11.943
97) n-Butylbenzene	(3)	10.510	91	1156072	11.606
96) 1,2-Dichlorobenzene	(3)	10.553	146	768674	11.931
98) Hexachloroethane	(3)	10.739	117	365015	12.722
99) 1,2-Dibromo-3-chloropropane	(3)	11.148	157	277188	11.804
100) 1,2,4-Trichlorobenzene	(3)	11.764	180	466119	12.043
101) Hexachlorobutadiene	(3)	11.878	225	434079	11.915
102) Naphthalene	(3)	11.971	128	905707	12.890
64) 1,3-Dichloropropene (total)	(3)		75	927438	23.125
77) Xylene (total)	(3)		91	2003619	22.655

M = Compound was manually integrated.

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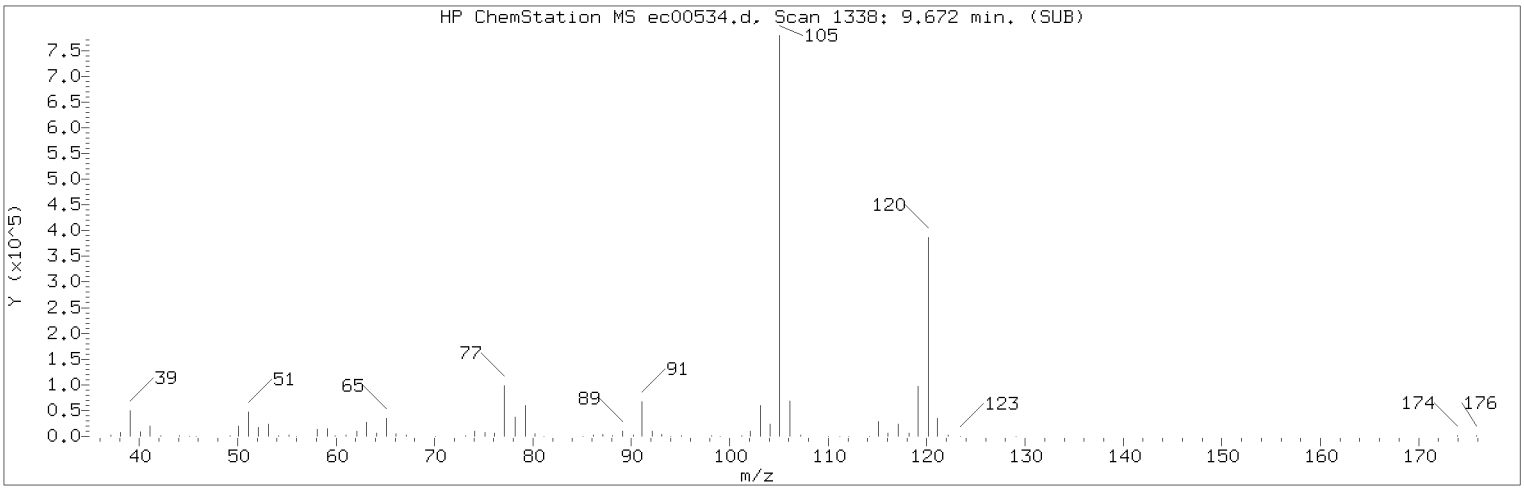
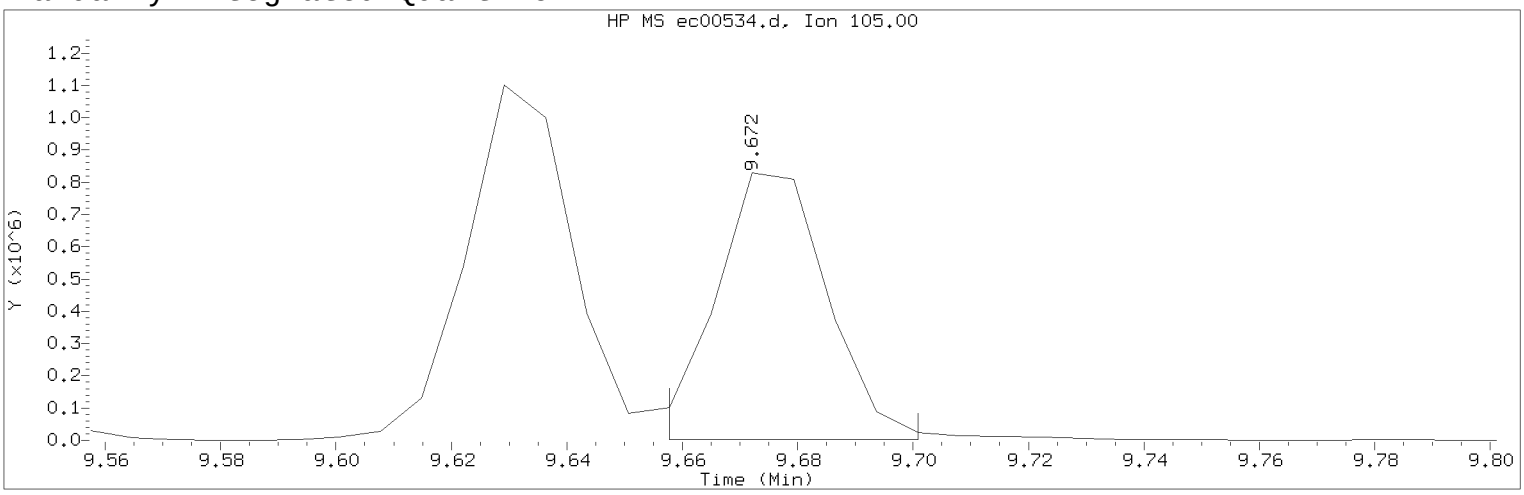
on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

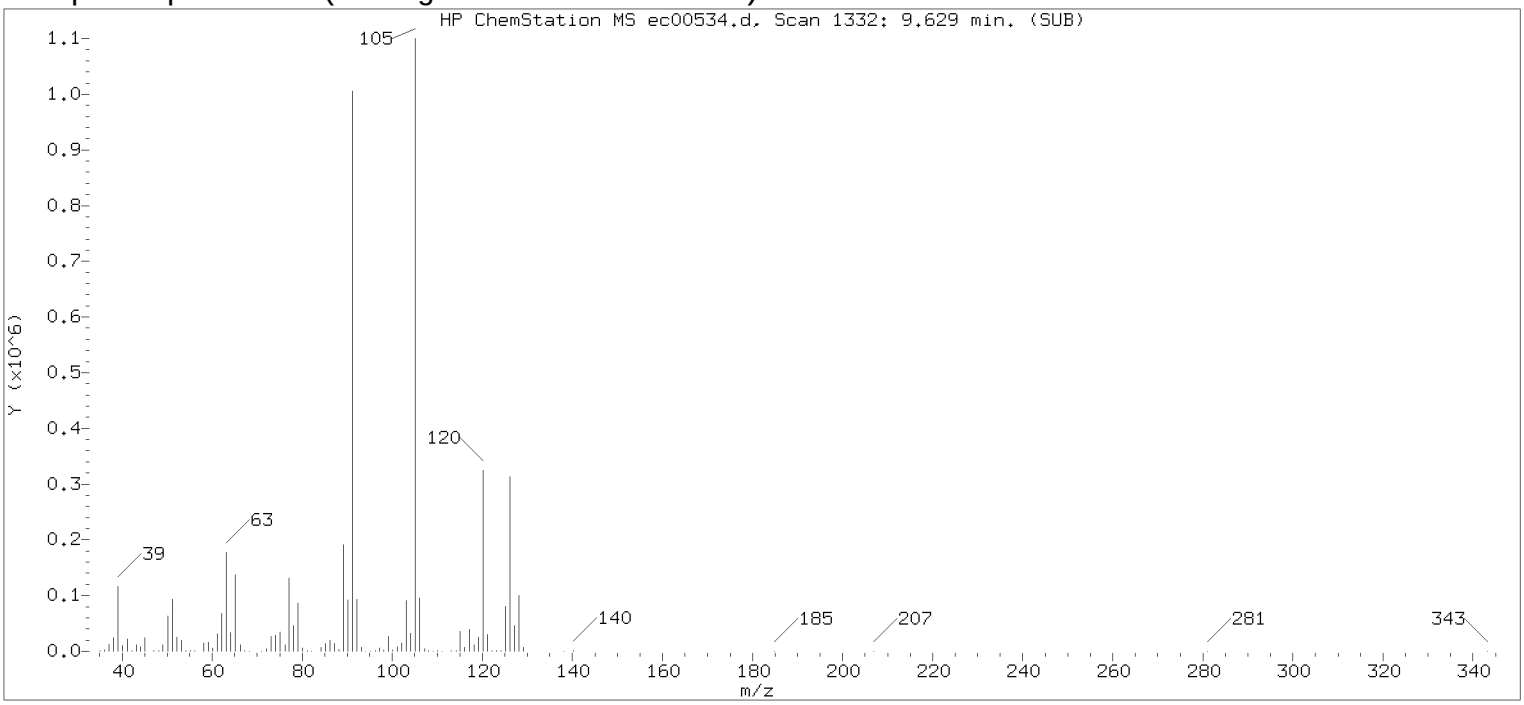
Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1338
Retention Time (minutes): 9.672
Quant Ion : 105.00
Area (flag) : 1118496M
Concentration (ppb(v)) : 10.9827
Integration start scan : 1335 Integration stop scan: 1341
Y at integration start : 1758 Y at integration end: 1758

Reason for manual integration: improper integration

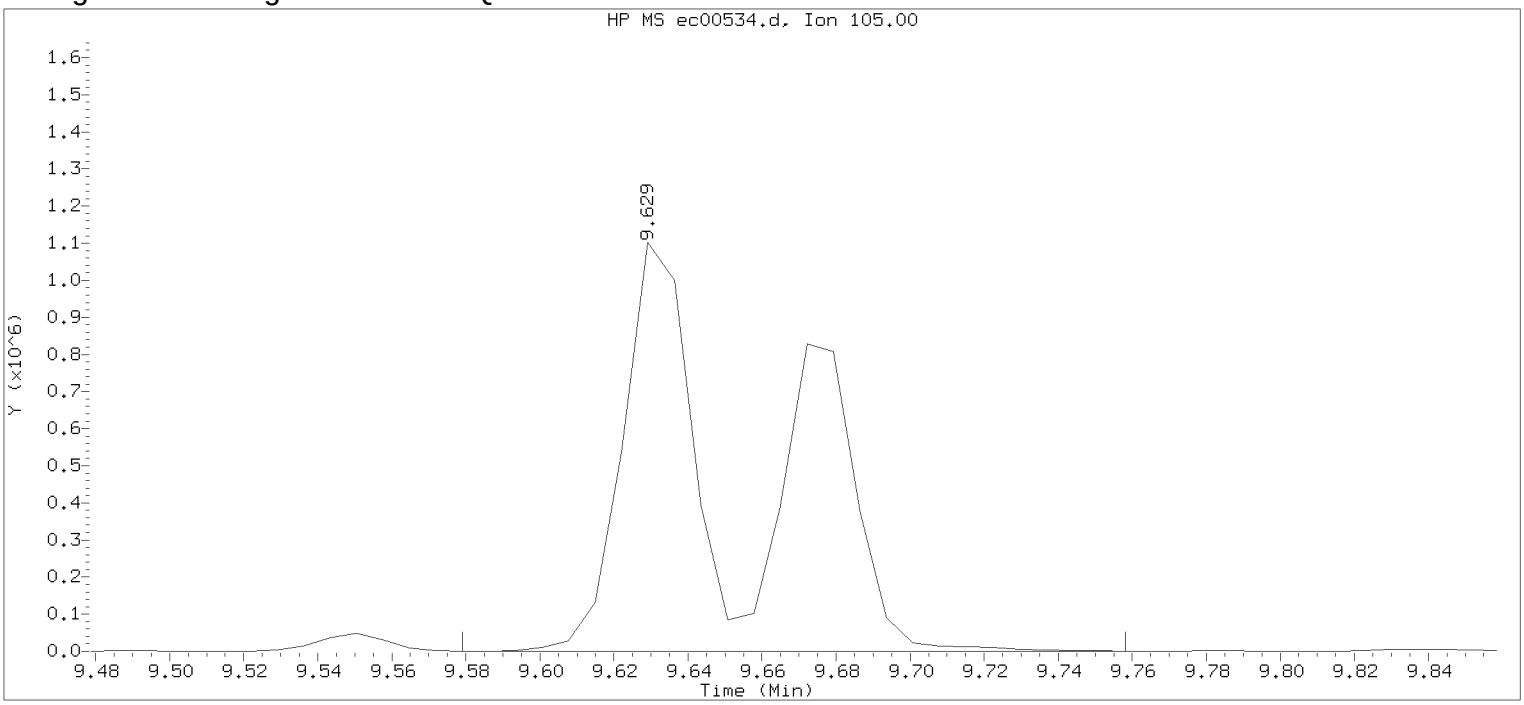
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 15:21 Unknown

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Compound Number : 87
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1332
Retention Time (minutes): 9.629
Quant Ion : 105.00
Area : 2553810
Concentration (ppb(v)) : 25.0762
Integration start scan : 1324 Integration stop scan: 1349
Y at integration start : 289 Y at integration end: 289

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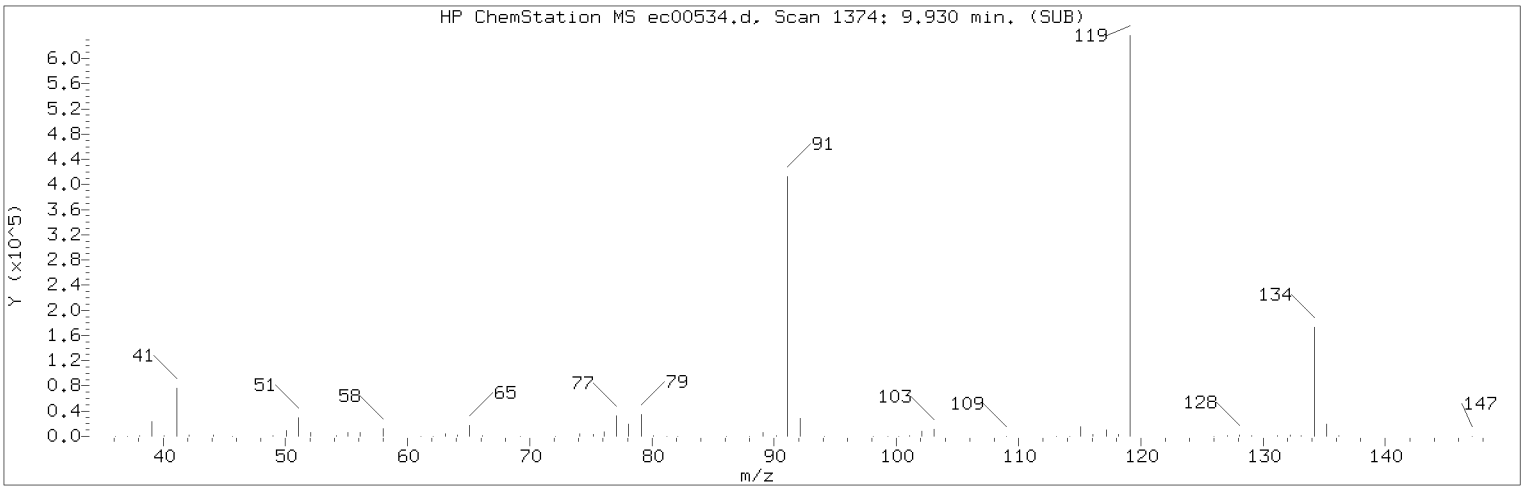
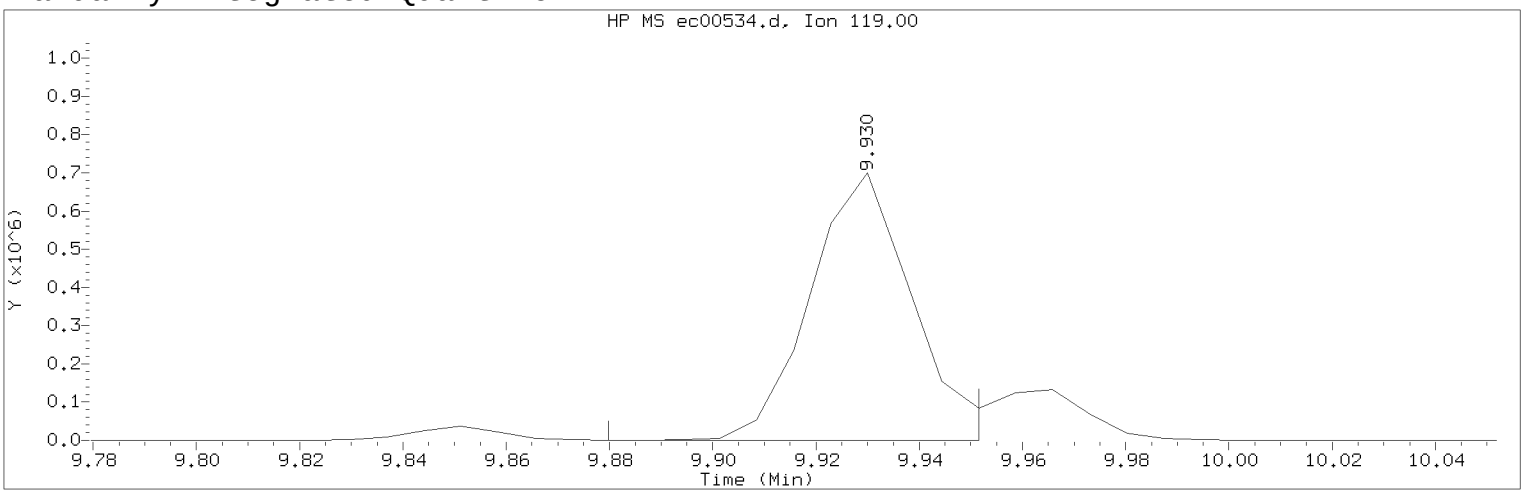
Target 3.5 esignature user id: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 16:42 jeb07445

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

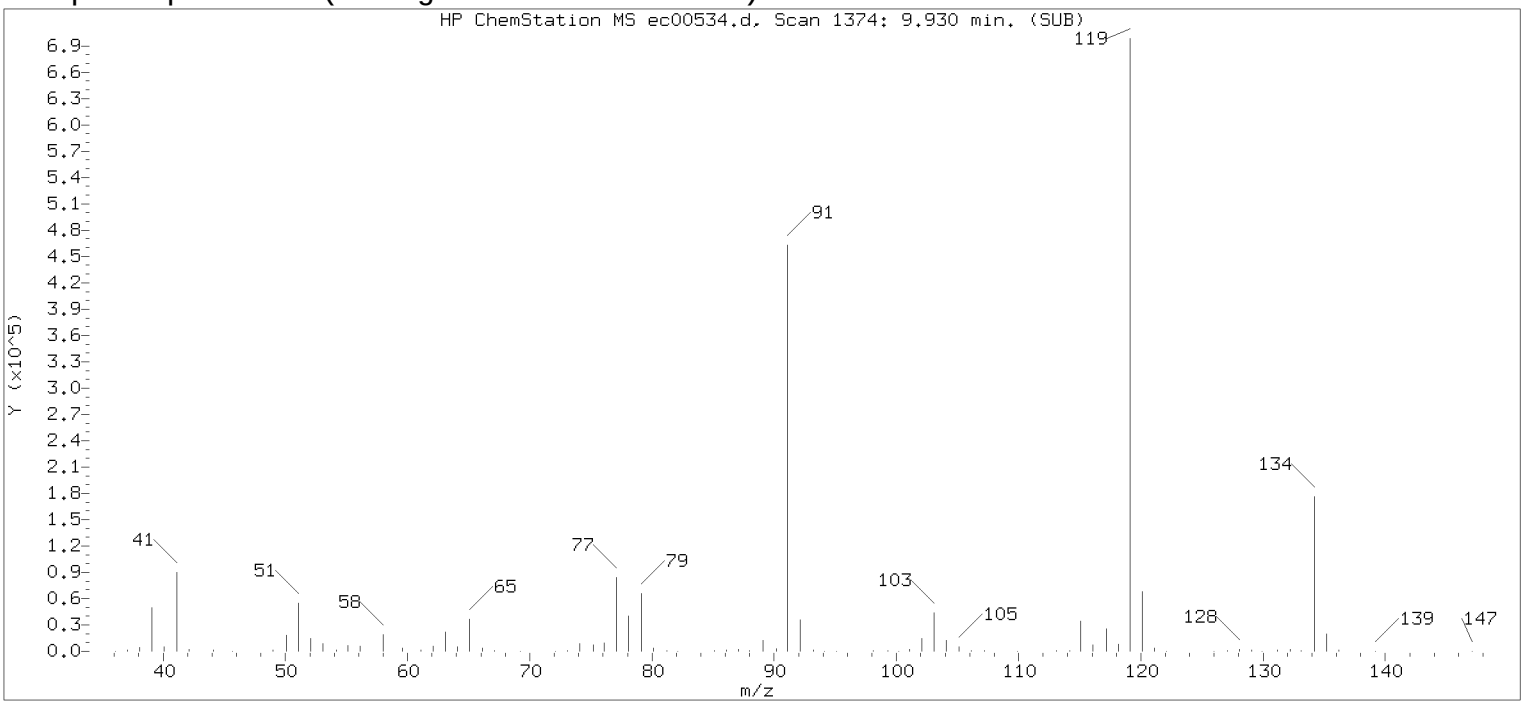
Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area (flag) : 959607M
Concentration (ppb(v)) : 9.7992
Integration start scan : 1366 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

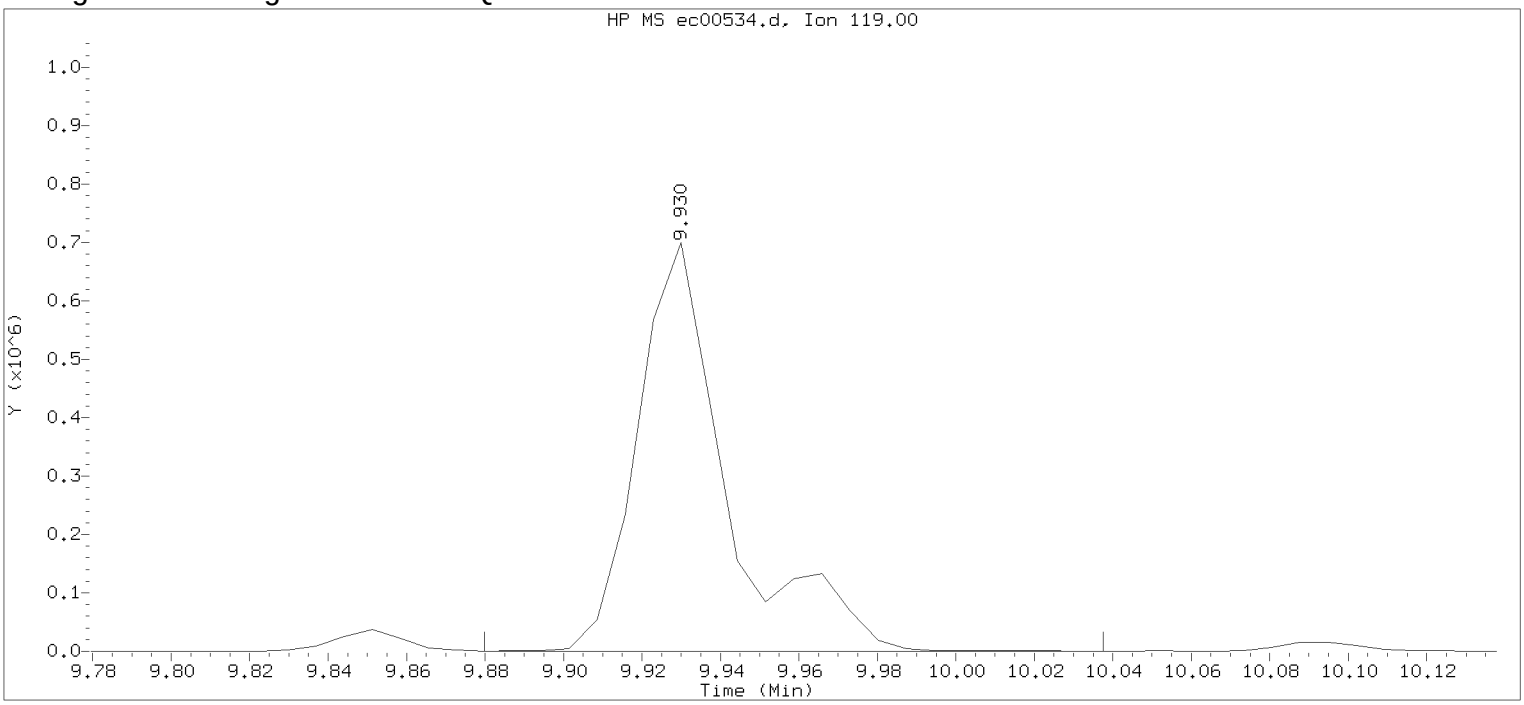
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 03/19/2017 at 16:57.
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:39.
PARALLAX ID: jbs01304

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP22820.i/17mar19.b/ec00534.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 15:02 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 19-Mar-2017 15:21 Unknown

Sample Name: LCSDE39 Lab Sample ID: LCSDE39

Compound Number : 89
Compound Name : tert-Butylbenzene
Scan Number : 1374
Retention Time (minutes): 9.930
Quant Ion : 119.00
Area : 1111409
Concentration (ppb(v)) : 11.3493
Integration start scan : 1366 Integration stop scan: 1388
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jacob E. Bailey on 03/19/2017 at 16:57.
Target 3.5 esignature user id: jeb07445

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

cc1438

Data file: /chem/HP22820.i/17mar19.b/ec00546.d Injection date and time: **19-MAR-2017 23:14**
Data file Sample Info. Line: cc1438;200;E1707830AA;cc1438;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
40) Bromochloromethane	5.467(0.000)	751	130	209291 (2)	10.00		123141 - 287327
51) 1,4-Difluorobenzene	6.298(-0.007)	867	114	673922 (-9)	10.00		443518 - 1034874
71) Chlorobenzene-d5	8.497(0.000)	1174	117	711080 (-2)	10.00		433857 - 1012332

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					0.5	1
2) Dichlorodifluoromethane	(1)			Not Detected					0.2	1
3) Chlorodifluoromethane	(1)			Not Detected					0.2	1
4) Freon 114	(1)			Not Detected					0.2	1
5) Chloromethane	(1)			Not Detected					0.2	1
6) Vinyl Chloride	(1)			Not Detected					0.2	1
7) 1,3-Butadiene	(1)			Not Detected					0.4	2
8) Bromomethane	(1)			Not Detected					0.5	1
9) Chloroethane	(1)			Not Detected					0.2	1
10) Bromoethene	(1)			Not Detected					0.4	2
11) Dichlorofluoromethane	(1)			Not Detected					0.2	1
12) Trichlorofluoromethane	(1)			Not Detected					0.2	1
13) Pentane	(1)			Not Detected					0.5	1
14) Ethanol	(1)			Not Detected					0.5	2
15) Freon123a	(1)			Not Detected					0.2	1
16) Acrolein	(1)			Not Detected					1	2
17) 1,1-Dichloroethene	(1)			Not Detected					0.2	1
18) Freon 113	(1)			Not Detected					0.5	2
19) Acetone	(1)			Not Detected					0.5	2
20) Methyl Iodide	(1)			Not Detected					0.2	1
21) Carbon Disulfide	(1)			Not Detected					0.5	1
22) Isopropanol	(1)			Not Detected					0.5	2
23) Acetonitrile	(1)			Not Detected					0.5	2
24) 3-Chloropropene	(1)			Not Detected					0.2	1
25) Methylene Chloride	(1)			Not Detected					0.2	1
26) tert-Butyl Alcohol	(1)			Not Detected					0.5	1
27) Acrylonitrile	(1)			Not Detected					0.5	2
28) trans-1,2-Dichloroethene	(1)			Not Detected					0.2	1
29) Methyl t-Butyl Ether	(1)			Not Detected					0.2	1
30) Hexane	(1)			Not Detected					0.2	1
31) 1,1-Dichloroethane	(1)			Not Detected					0.2	1
32) Vinyl Acetate	(1)			Not Detected					1	1
33) Di-Isopropyl Ether	(1)			Not Detected					0.2	1
34) Ethyl Tert-Butyl Ether	(1)			Not Detected					0.2	1
35) cis-1,2-Dichloroethene	(1)			Not Detected					0.2	1
36) 1,2-Dichloroethene (total)	(1)			Not Detected					0.2	1
37) 2-Butanone	(1)			Not Detected					0.5	2
38) Ethyl Acetate	(1)			Not Detected					0.5	1
39) Methyl Acrylate	(1)			Not Detected					0.2	1
41) Tetrahydrofuran	(1)			Not Detected					0.5	1
42) Chloroform	(1)			Not Detected					0.2	1
43) 1,1,1-Trichloroethane	(1)			Not Detected					0.2	1
44) Cyclohexane	(1)			Not Detected					0.2	1

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

cc1438

Data file: /chem/HP22820.i/17mar19.b/ec00546.d Injection date and time: **19-MAR-2017 23:14**
Data file Sample Info. Line: cc1438;200;E1707830AA;cc1438;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.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
45) Carbon Tetrachloride	(1)			Not Detected					0.2	1
46) Benzene	(2)			Not Detected					0.2	1
47) 1,2-Dichloroethane	(2)			Not Detected					0.2	1
48) Isooctane	(2)			Not Detected					0.2	1
49) Tert-Amyl Methyl Ether	(2)			Not Detected					0.2	1
50) Heptane	(2)			Not Detected					0.5	1
52) Trichloroethene	(2)			Not Detected					0.2	1
53) Ethyl Acrylate	(2)			Not Detected					0.2	1
54) 1,2-Dichloropropane	(2)			Not Detected					0.2	1
55) Dibromomethane	(2)			Not Detected					0.2	1
56) 1,4-Dioxane	(2)			Not Detected					0.5	1
57) Methyl Methacrylate	(2)			Not Detected					0.2	1
58) Bromodichloromethane	(2)			Not Detected					0.2	1
59) cis-1,3-Dichloropropene	(2)			Not Detected					0.2	1
60) 4-Methyl-2-Pentanone	(2)			Not Detected					0.5	2
61) Toluene	(3)			Not Detected					0.2	1
62) Octane	(3)			Not Detected					0.5	1
63) trans-1,3-Dichloropropene	(3)			Not Detected					0.2	1
64) 1,3-Dichloropropene (total)	(3)			Not Detected					0.2	1
65) Ethyl Methacrylate	(3)			Not Detected					0.2	1
66) 1,1,2-Trichloroethane	(3)			Not Detected					0.2	1
67) Tetrachloroethene	(3)			Not Detected					0.2	1
68) 2-Hexanone	(3)			Not Detected					0.5	2
69) Dibromochloromethane	(3)			Not Detected					0.2	1
70) 1,2-Dibromoethane	(3)			Not Detected					0.2	1
72) Chlorobenzene	(3)			Not Detected					0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					0.2	1
74) Ethylbenzene	(3)			Not Detected					0.2	1
75) m/p-Xylene	(3)			Not Detected					0.2	1
76) o-Xylene	(3)			Not Detected					0.2	1
77) Xylene (total)	(3)			Not Detected					0.2	1
78) Styrene	(3)			Not Detected					0.2	1
79) Bromoform	(3)			Not Detected					0.2	1
80) Cumene	(3)			Not Detected					0.2	1
81) Bromobenzene	(3)			Not Detected					0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					0.2	1
83) 1,2,3-Trichloropropane	(3)			Not Detected					0.2	1
84) n-Propylbenzene	(3)			Not Detected					0.5	1
85) 2-Chlorotoluene	(3)			Not Detected					0.2	1
86) 4-Ethyltoluene	(3)			Not Detected					0.2	1
87) 1,3,5-Trimethylbenzene	(3)			Not Detected					0.2	1
88) Alpha Methyl Styrene	(3)			Not Detected					0.2	1
89) tert-Butylbenzene	(3)			Not Detected					0.5	1
90) 1,2,4-Trimethylbenzene	(3)			Not Detected					0.2	1
91) sec-Butylbenzene	(3)			Not Detected					0.2	1
92) 1,3-Dichlorobenzene	(3)			Not Detected					0.2	1
93) 1,4-Dichlorobenzene	(3)			Not Detected					0.2	1
94) p-Isopropyltoluene	(3)			Not Detected					0.2	1
95) Benzyl Chloride	(3)			Not Detected					0.5	1
96) 1,2-Dichlorobenzene	(3)			Not Detected					0.2	1
97) n-Butylbenzene	(3)			Not Detected					0.2	1
98) Hexachloroethane	(3)			Not Detected					0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)			Not Detected					0.2	1
100) 1,2,4-Trichlorobenzene	(3)			Not Detected					0.5	2

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

cc1438

Data file: /chem/HP22820.i/17mar19.b/ec00546.d Injection date and time: **19-MAR-2017 23:14**
Data file Sample Info. Line: cc1438;200;E1707830AA;cc1438;0;3;BLANK; Instrument ID: **HP22820.i** Batch: **E1707830AA**
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Blank Data file reference: **/chem/HP22820.i/17mar19.b/ec00532.d**

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 19-MAR-2017 13:21
Mid Level Daily Calibration Standard Reference: **/chem/HP22820.i/17mar19.b/ec00531.d**

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

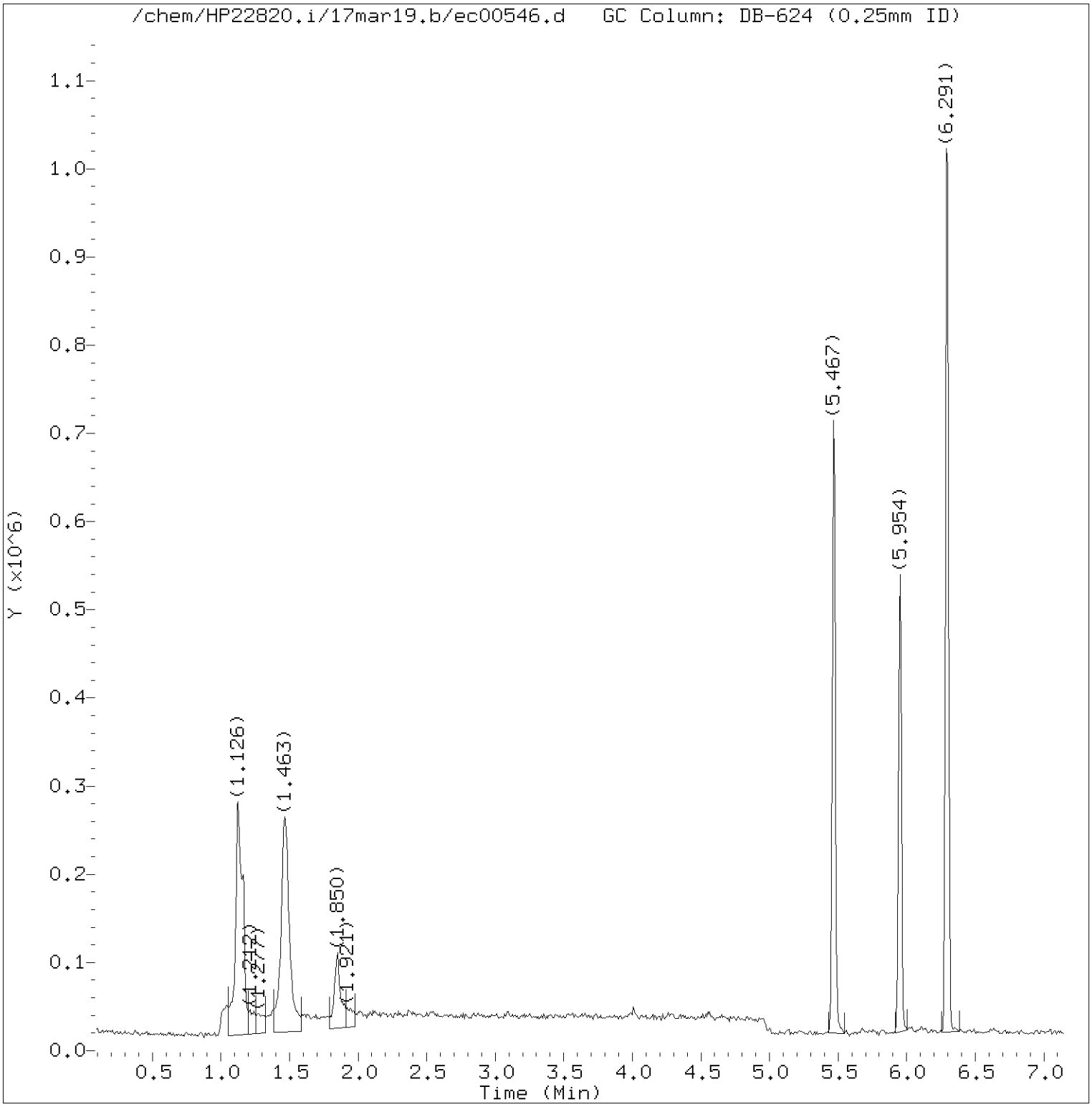
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 200 cc Actual injection Volume (IVa): 200 cc

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
101) Hexachlorobutadiene	(3)				Not Detected					0.4	2
102) Naphthalene	(3)				Not Detected					0.4	1

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 03/20/2017 at 13:58. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Jeffrey B. Smith on 03/21/2017 at 14:45. PARALLAX ID: jbs01304



Total Ion Chromatogram (TIC)

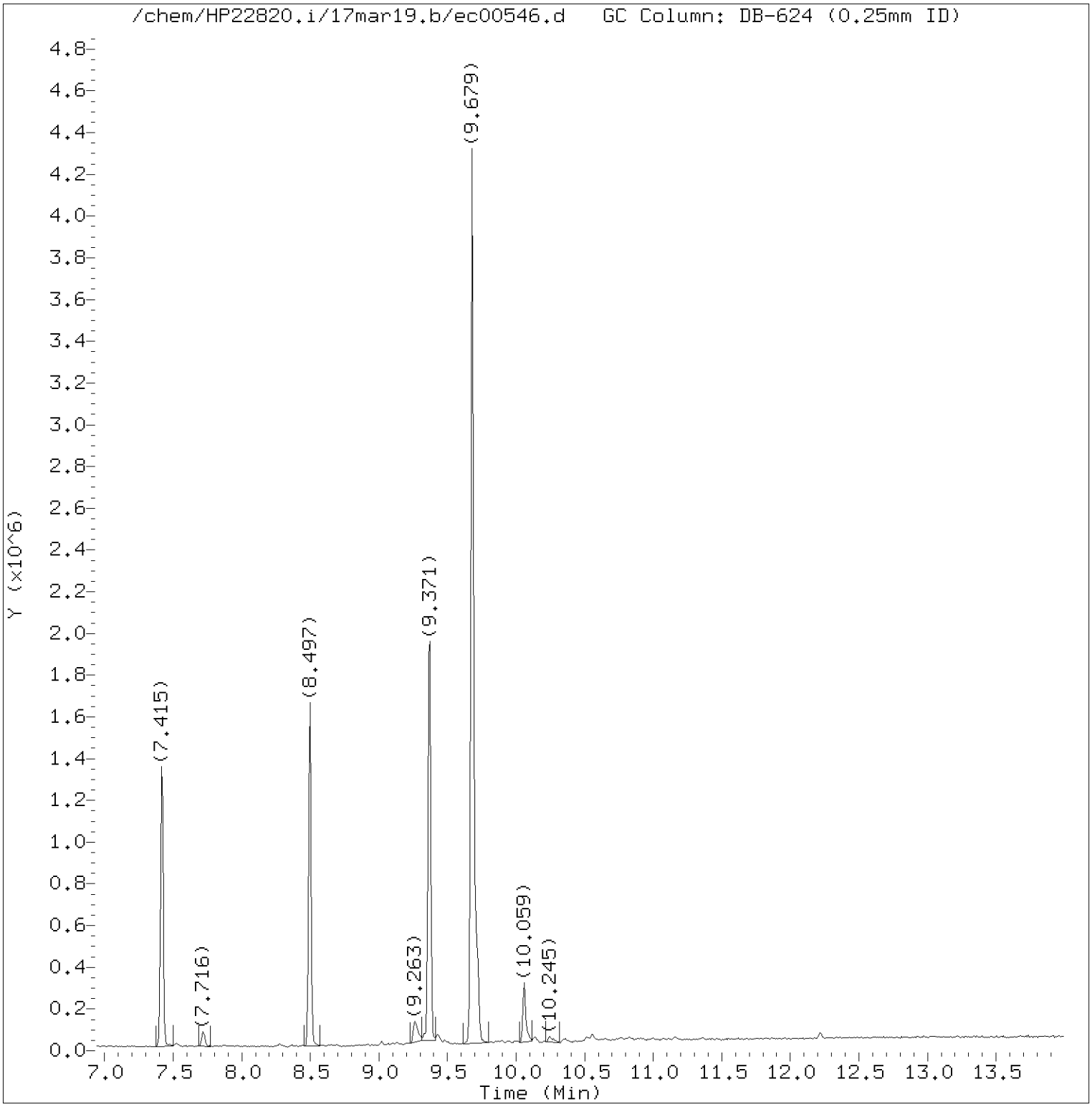
Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00546.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 23:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Sample Name: cc1438 Lab Sample ID: cc1438

Digitally signed by Jacob E. Bailey
on 03/20/2017 at 13:58.
Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00546.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 23:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Sample Name: cc1438 Lab Sample ID: cc1438

Digitally signed by Jacob E. Bailey
on 03/20/2017 at 13:58.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP22820.i/17mar19.b/ec00546.d Instrument ID: HP22820.i
Injection date and time: 19-MAR-2017 23:14 Analyst ID: jeb07445

Method used: /chem/HP22820.i/17mar19.b/to-15.m Sublist used: all
Calibration date and time: 19-MAR-2017 13:21
Date, time and analyst ID of latest file update: 20-Mar-2017 13:58 jeb07445

Sample Name: cc1438 Lab Sample ID: cc1438

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
40)*Bromochloromethane	(1)	5.467	130	209291	10.000
51)*1,4-Difluorobenzene	(2)	6.298	114	673922	10.000
71)*Chlorobenzene-d5	(3)	8.497	117	711080	10.000

* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey
on 03/20/2017 at 13:58.
Target 3.5 esignature user ID: jeb07445