

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062419\
 Data File : VL033937.D
 Acq On : 24 Jun 2019 15:18
 Operator : SY/AP
 Sample : K3481-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-B-2

Manual Integrations
 APPROVED

MMDadoda
 6/26/2019 8:15:35 AM

Quant Time: Jun 25 04:06:31 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 0
 QLast Update : Fri Jun 07 08:53:27 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.74	49	892876	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.26	114	2206338	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.21	117	2379090	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.55	95	1969814	10.08	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	49193	0.340	ppbv	97
3) Chlorodifluoromethane	3.00	51	145720m	1.386	ppbv	
4) Chloromethane	3.16	50	34235	0.571	ppbv	99
9) Propene	3.04	41	69258	1.761	ppbv #	66
10) Heptane	8.22	43	16931	0.170	ppbv #	83
11) Trichlorofluoromethane	3.99	101	43589	0.233	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.53	101	9598m	0.076	ppbv	
13) Ethanol	3.64	45	243854	19.056	ppbv	98
15) Acetone	3.89	43	767946	5.897	ppbv	97
17) tert-Butyl alcohol	4.35	59	69370	0.681	ppbv	98
19) Isopropyl Alcohol	4.02	45	85778	1.153	ppbv #	1
20) Methylene Chloride	4.40	84	97110	1.912	ppbv	89
26) Hexane	5.76	57	189818	2.102	ppbv #	41
34) 2-Butanone	5.31	43	247307	1.987	ppbv	99
35) Carbon Tetrachloride	7.11	117	10434m	0.061	ppbv	
36) Benzene	6.98	78	30467	0.181	ppbv #	89
41) Tetrahydrofuran	6.14	42	12289	0.195	ppbv #	85
44) 2,2,4-Trimethylpentane	7.97	57	32857m	0.110	ppbv	
52) Tetrachloroethene	11.35	164	6665m	0.112	ppbv	
53) Toluene	9.92	91	1874086	10.048	ppbv	100
58) Ethyl Benzene	12.83	91	982320	3.662	ppbv	99
59) m/p-Xylene	13.09	91	3826752	15.689	ppbv	97
60) o-Xylene	13.82	91	1315884	5.225	ppbv	99
72) 4-Ethyltoluene	15.97	105	44924	0.157	ppbv #	86
73) 1,3,5-Trimethylbenzene	16.13	105	55648m	0.197	ppbv	
74) 1,2,4-Trimethylbenzene	16.89	105	173020	0.532	ppbv #	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

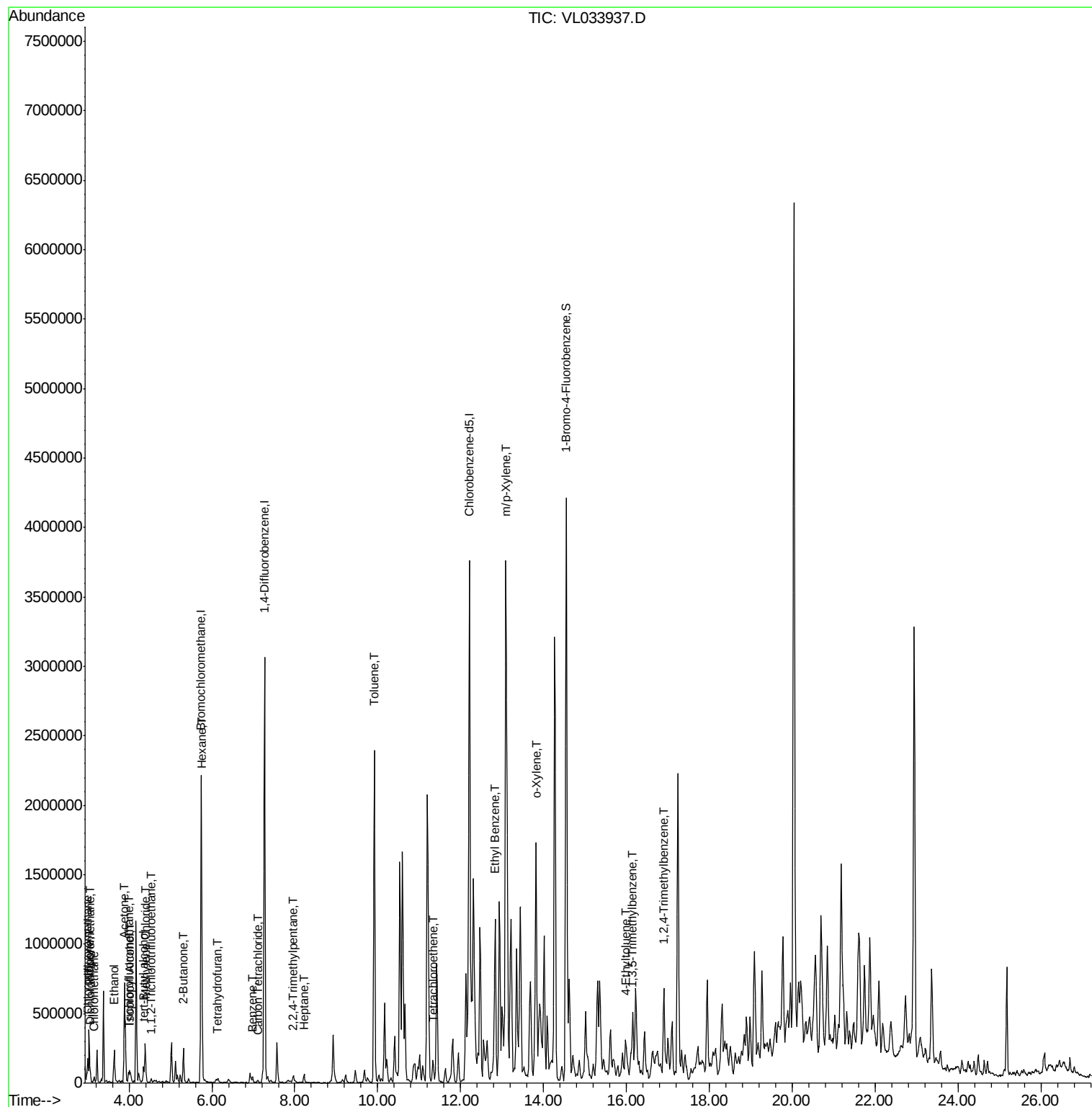
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062419\
Data File : VL033937.D
Acq On : 24 Jun 2019 15:18
Operator : SY/AP
Sample : K3481-04
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

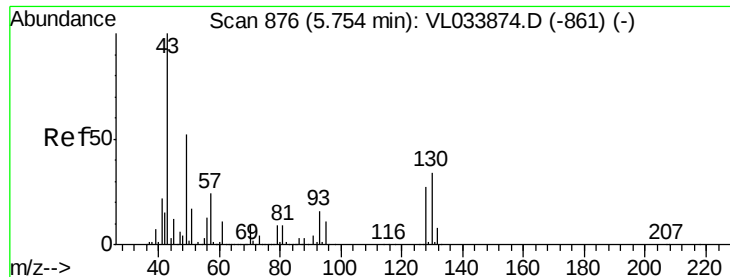
Instrument :
MSVOA_L
ClientSampleId :
TZX-SSDS-AREA-B-2

Manual Integrations
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6/26/2019 8:15:35 AM

Quant Time: Jun 25 04:06:31 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun
QLast Update : Fri Jun 07 08:53:27 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.74 min Scan# 871

Delta R.T. -0.02 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Instrument :

MSVOA_L

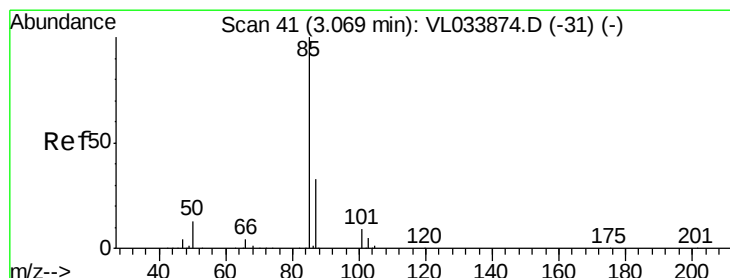
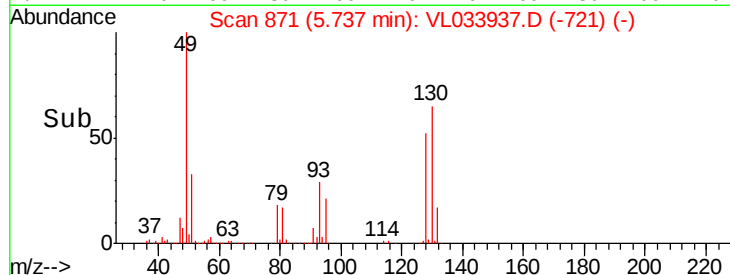
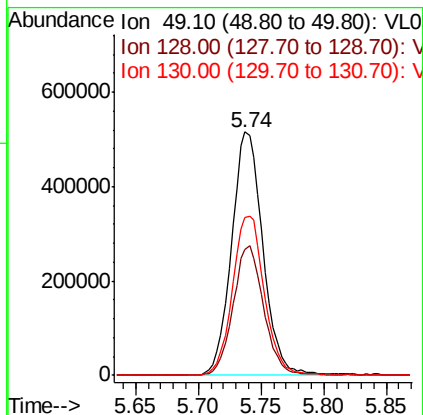
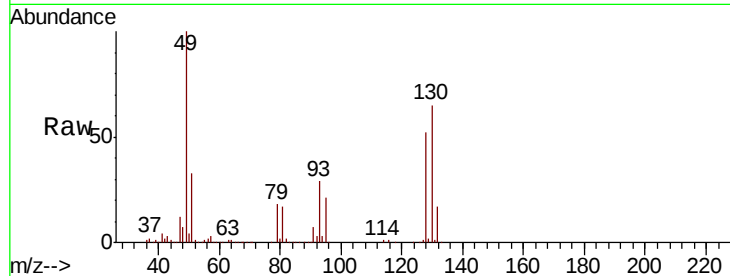
ClientSampleId :

TZC-SSDS-AREA-B-2

Tot Ion	49	Resp	892876
Ion Ratio	Lower	Upper	
49	100		
128	52.3	25.5	76.5
130	67.4	32.5	97.4

Manual Integrations
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#2

Dichlorodifluoromethane

Concen: 0.340 ppbv

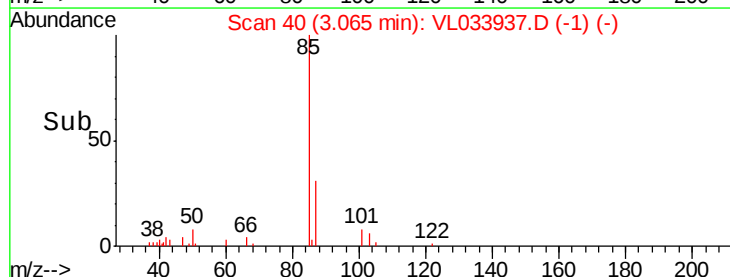
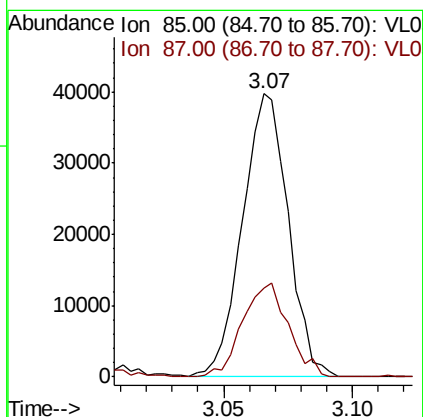
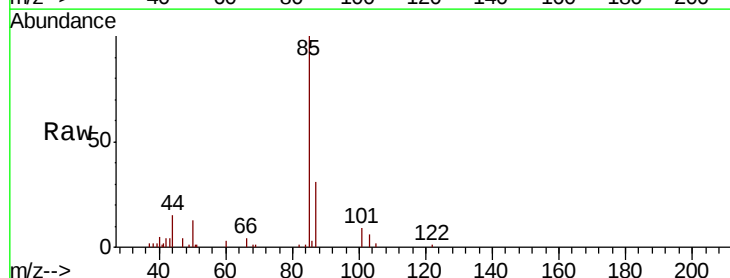
RT: 3.07 min Scan# 40

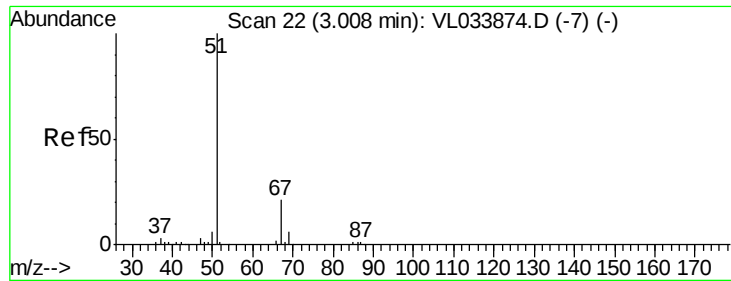
Delta R.T. -0.00 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Tgt Ion	85	Resp	49193
Ion Ratio	Lower	Upper	
85	100		
87	31.4	26.6	40.0





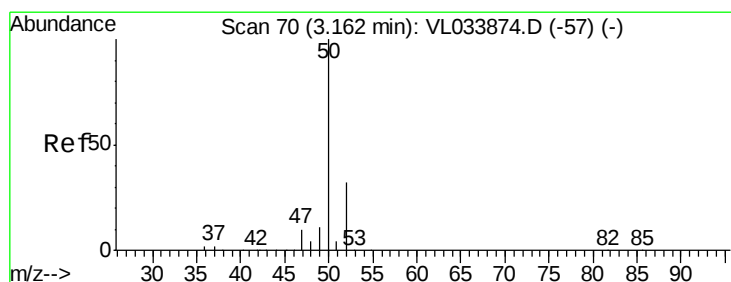
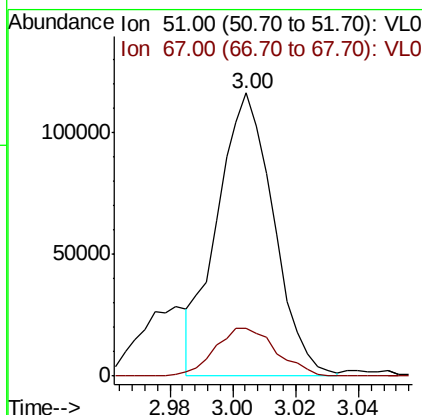
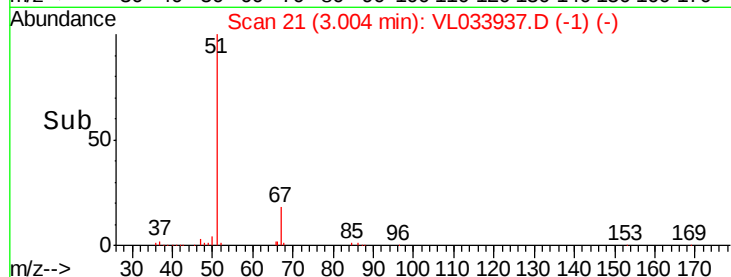
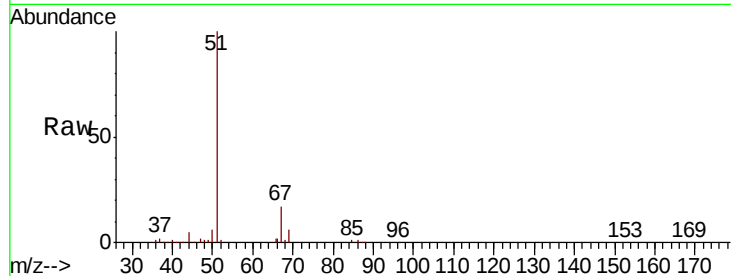
#3
Chlorodifluoromethane
Concen: 1.386 ppbv
RT: 3.00 min Scan# 21
Delta R.T. -0.00 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion: 51 Resp: 145720
Ion Ratio Lower Upper
51 100
67 18.4 16.4 24.6

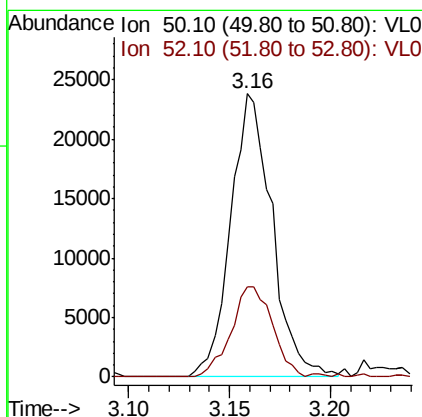
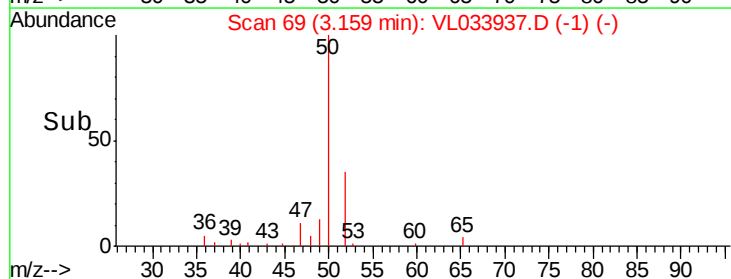
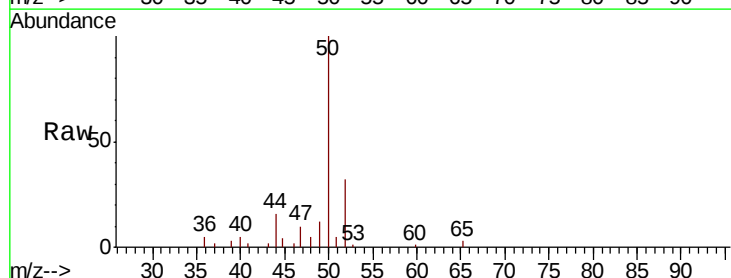
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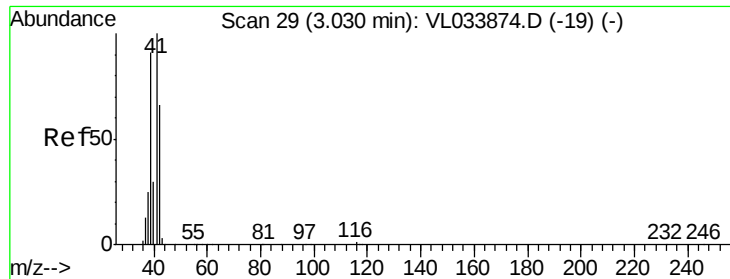
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#4
Chloromethane
Concen: 0.571 ppbv
RT: 3.16 min Scan# 69
Delta R.T. -0.00 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion: 50 Resp: 34235
Ion Ratio Lower Upper
50 100
52 32.4 25.4 38.0





#9

Propene

Concen: 1.761 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-B-2

Tot Ion: 41 Resp: 69258

Ion Ratio Lower Upper

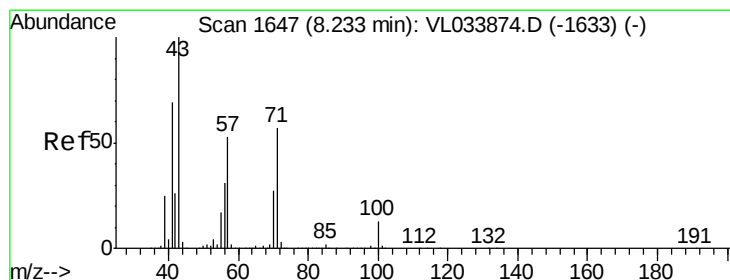
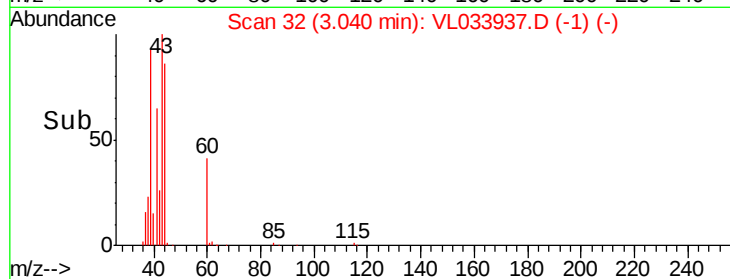
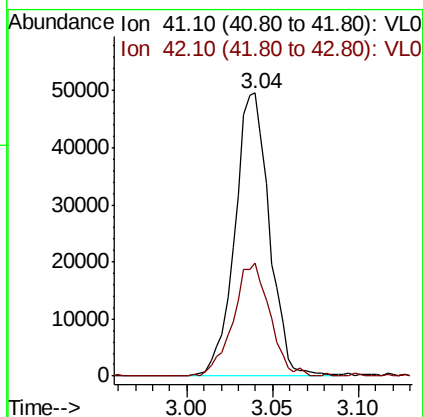
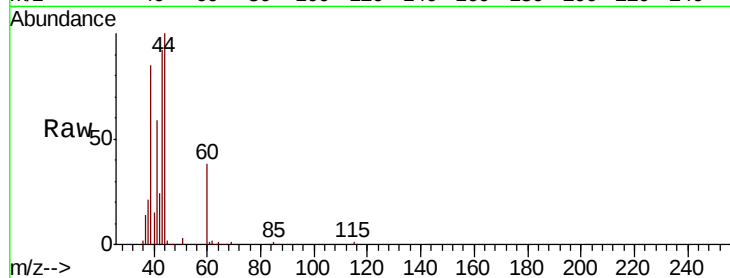
41 100

42 42.6 56.3 84.5#

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6/26/2019 8:15:35 AM



#10

Heptane

Concen: 0.170 ppbv

RT: 8.22 min Scan# 1643

Delta R.T. -0.01 min

Lab File: VL033937.D

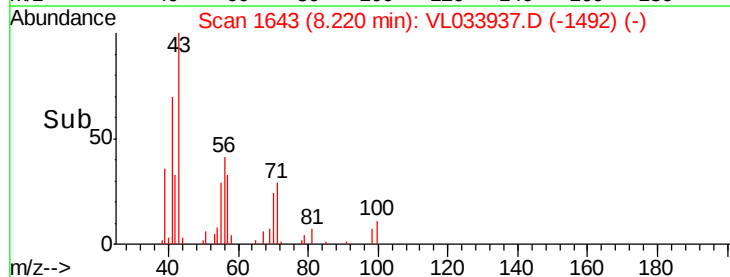
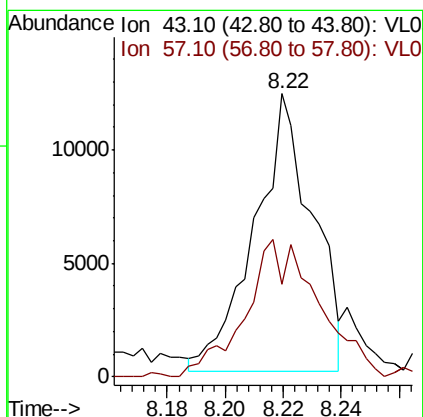
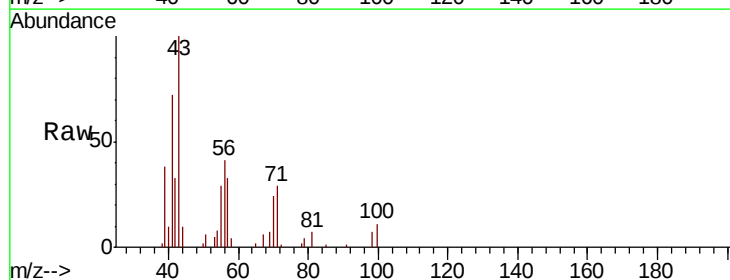
Acq: 24 Jun 2019 15:18

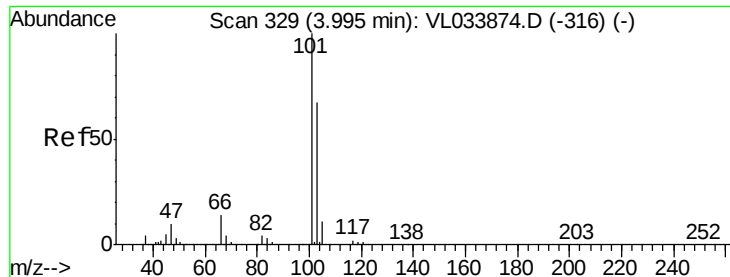
Tgt Ion: 43 Resp: 16931

Ion Ratio Lower Upper

43 100

57 64.4 41.7 62.5#





#11

Trichlorofluoromethane

Concen: 0.233 ppbv

RT: 3.99 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-B-2

Tot Ion:101 Resp: 43589

Ion Ratio Lower Upper

101 100

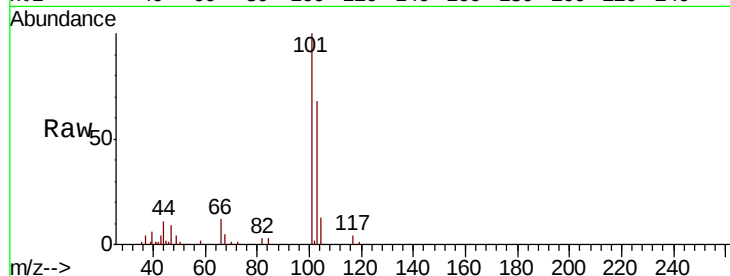
103 68.1 53.6 80.4

Manual Integrations

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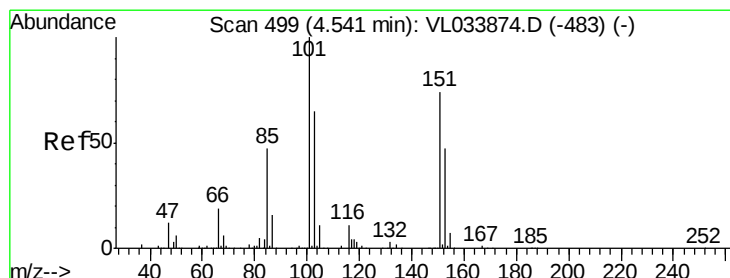
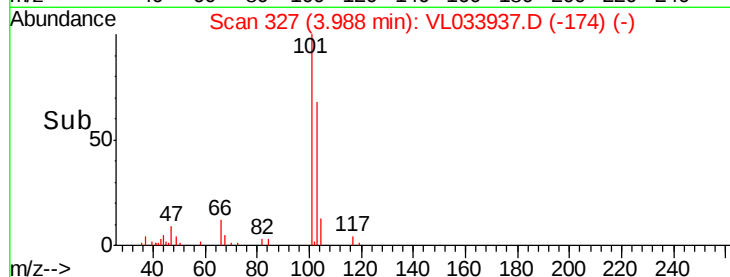
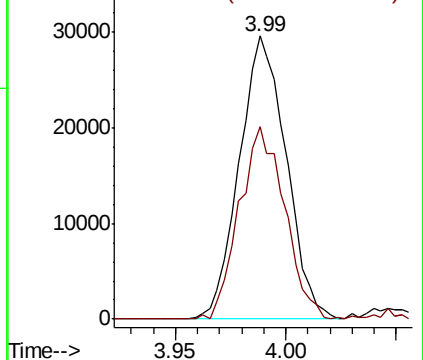
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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.076 ppbv m

RT: 4.53 min Scan# 496

Delta R.T. -0.01 min

Lab File: VL033937.D

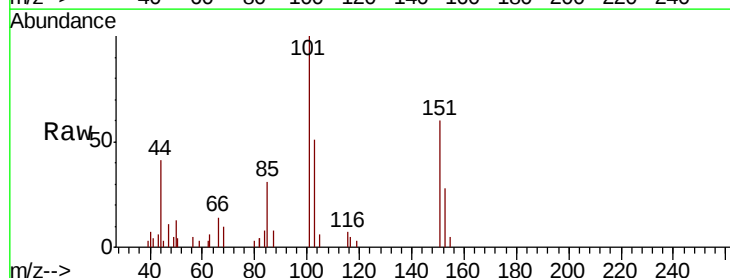
Acq: 24 Jun 2019 15:18

Tgt Ion:101 Resp: 9598

Ion Ratio Lower Upper

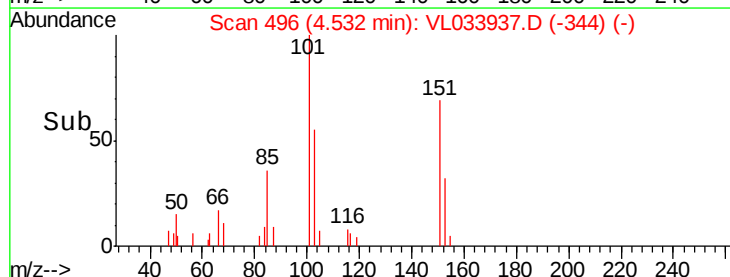
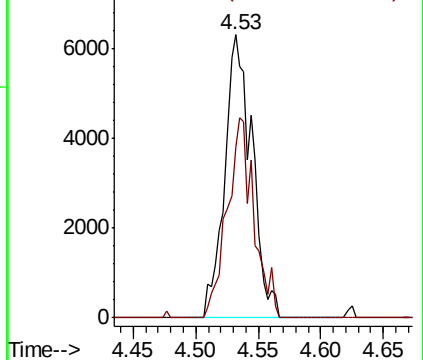
101 100

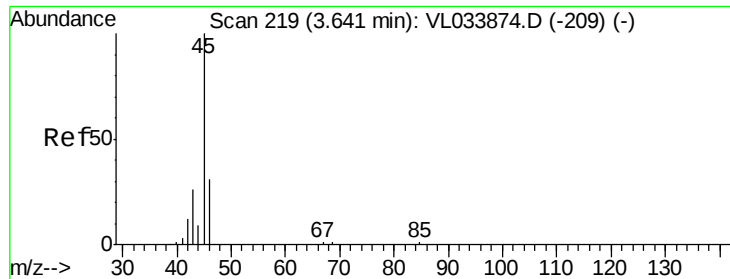
151 69.5 58.6 87.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 19.056 ppbv

RT: 3.64 min Scan# 219

Delta R.T. -0.00 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-B-2

Tot Ion: 45 Resp: 243854

Ion Ratio Lower Upper

45 100

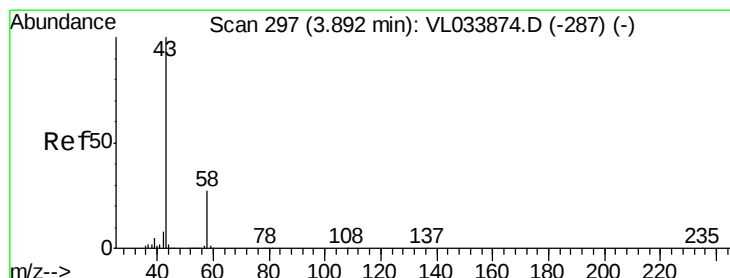
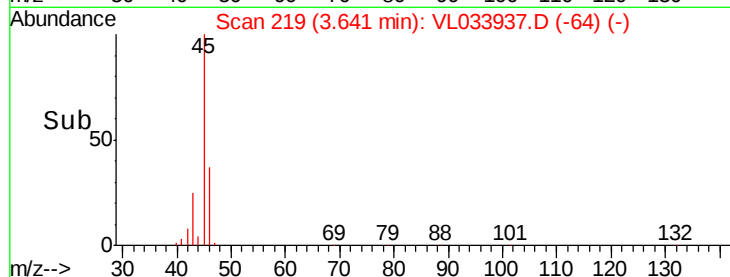
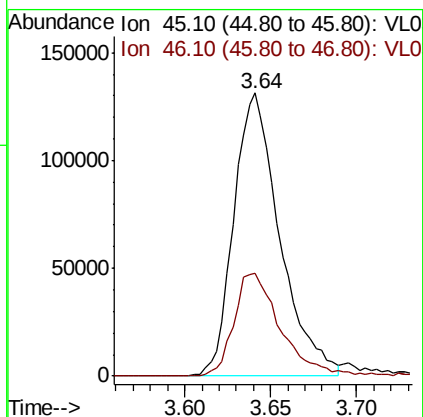
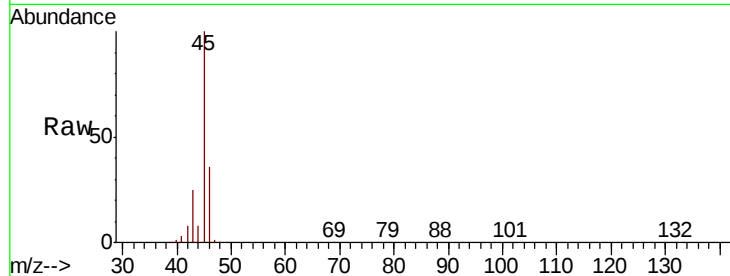
46 36.9 15.3 61.1

Manual Integrations

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#15

Acetone

Concen: 5.897 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL033937.D

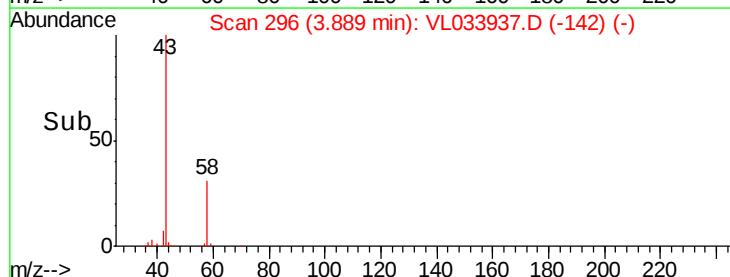
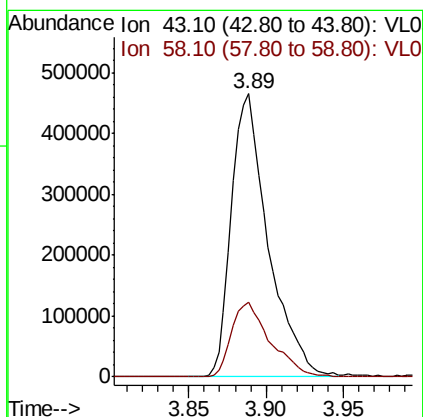
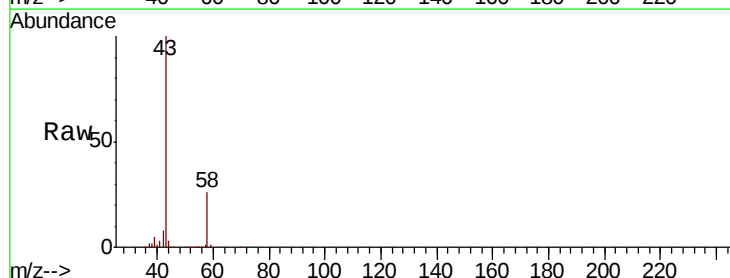
Acq: 24 Jun 2019 15:18

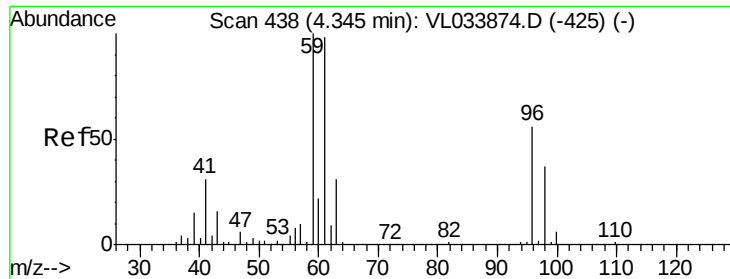
Tgt Ion: 43 Resp: 767946

Ion Ratio Lower Upper

43 100

58 28.0 21.3 31.9





#17

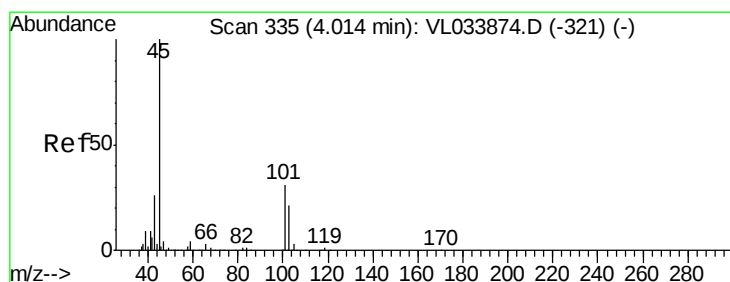
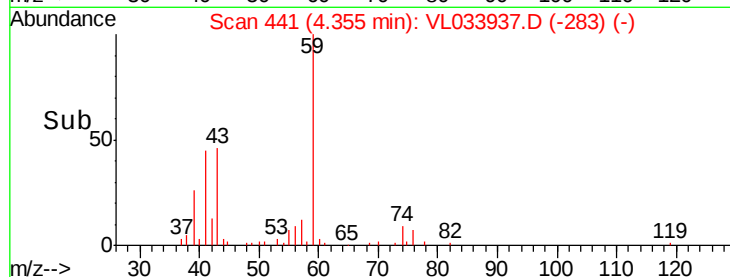
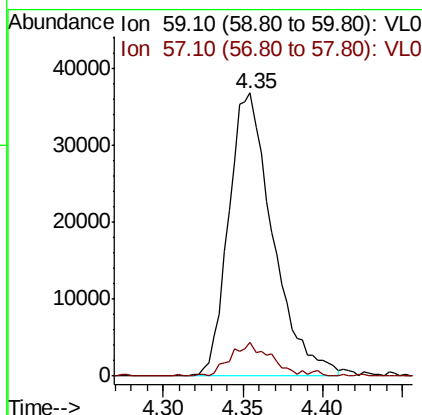
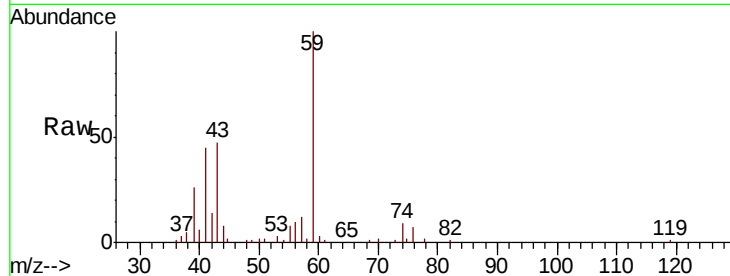
tert-Butyl alcohol
Concen: 0.681 ppbv
RT: 4.35 min Scan# 441
Delta R.T. 0.01 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion	59	57	Ratio	100	11.4	Resp	69370	Lower	8.4	Upper	12.6
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6/26/2019 8:15:35 AM



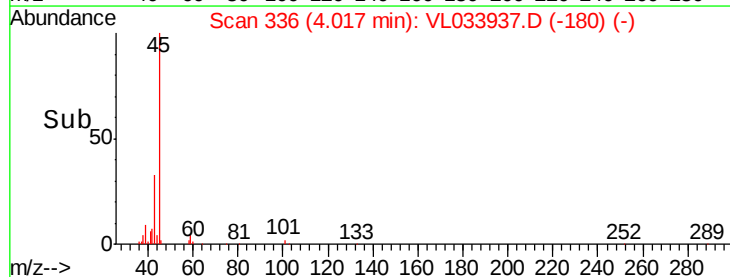
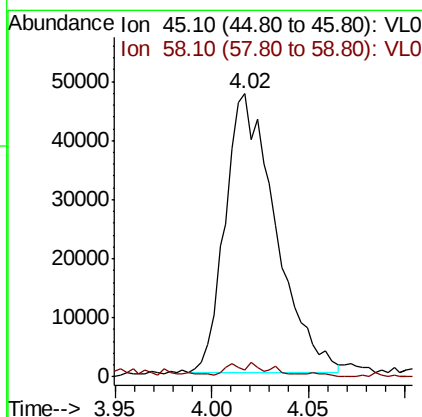
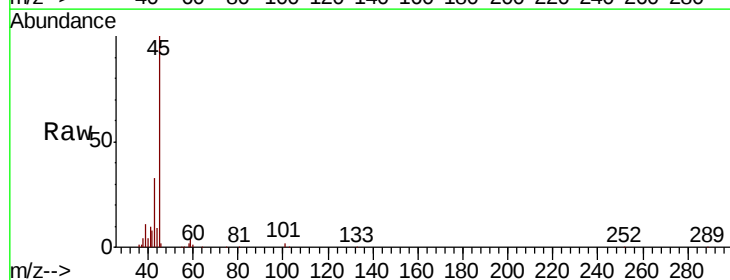
#19

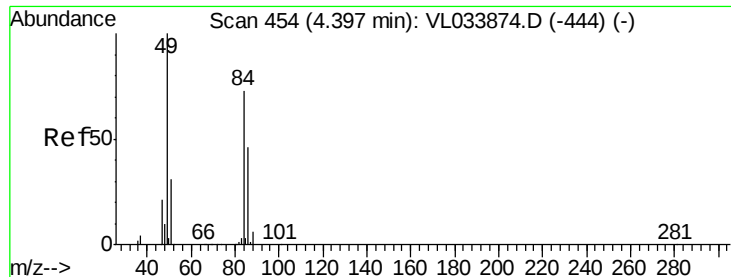
Isopropyl Alcohol
Concen: 1.153 ppbv
RT: 4.02 min Scan# 336
Delta R.T. 0.00 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion	45	58	Ratio	100	249.0	Resp	85778	Lower	1.8	Upper	2.6#
Manual Integrations											
APPROVED											
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6/26/2019 8:15:35 AM											

Manual Integrations
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MMDadoda
6/26/2019 8:15:35 AM





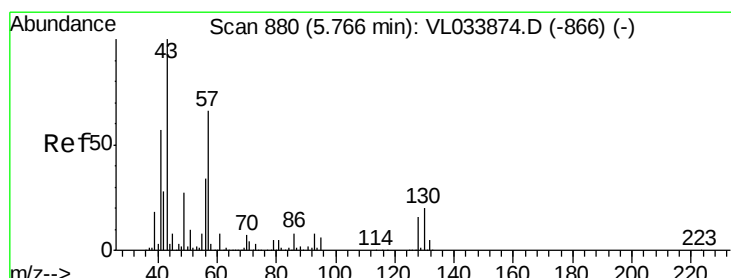
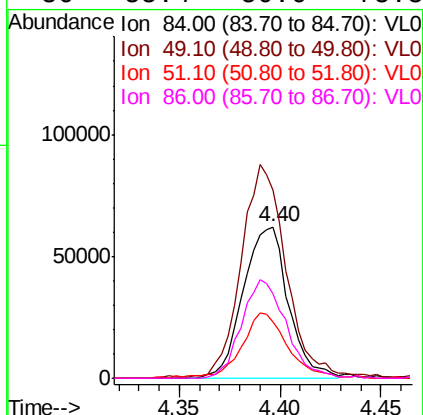
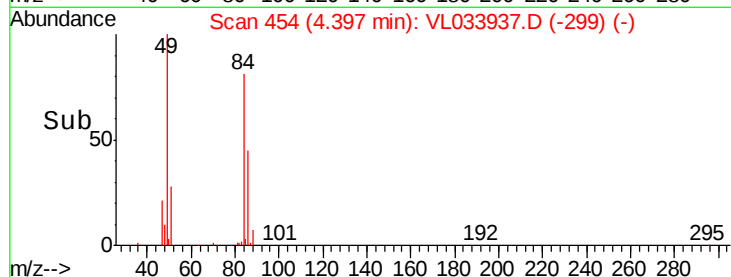
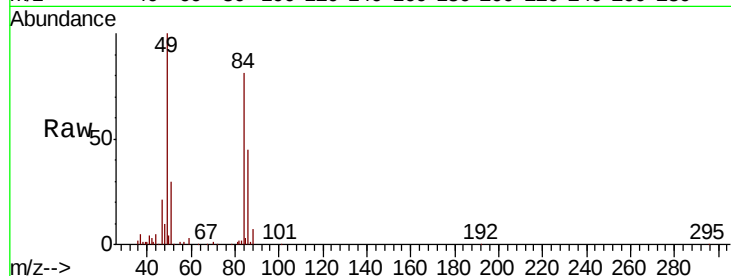
#20
Methvlene Chloride
Concen: 1.912 ppbv
RT: 4.40 min Scan# 454
Delta R.T. -0.00 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion:	84	Resp:	97110
Ion	Ratio	Lower	Upper
84	100		
49	123.1	110.0	165.0
51	35.9	34.6	51.8
86	55.4	50.6	75.8

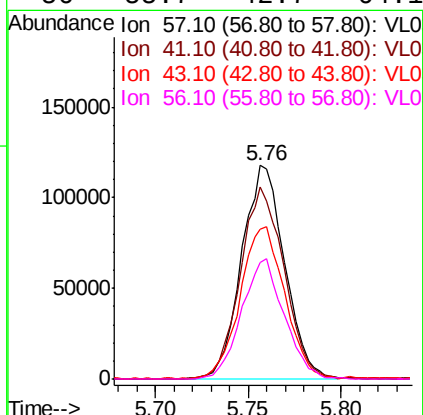
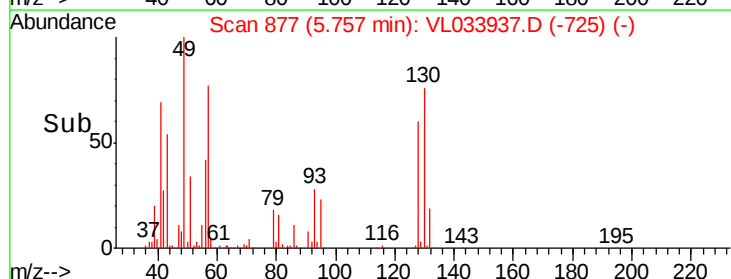
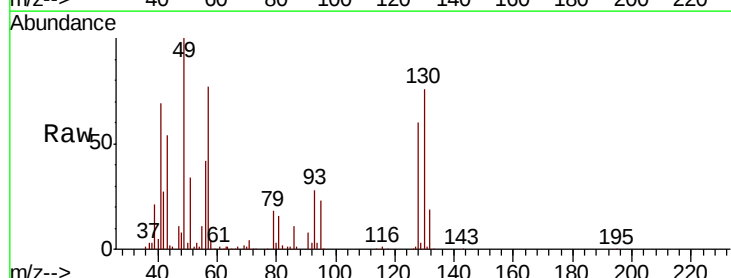
Manual Integrations
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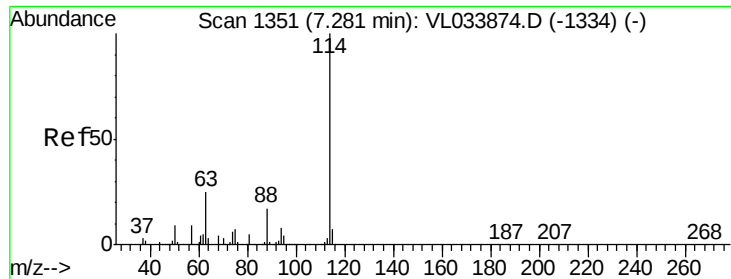
MMDadoda
6/26/2019 8:15:35 AM



#26
Hexane
Concen: 2.102 ppbv
RT: 5.76 min Scan# 877
Delta R.T. -0.01 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion:	57	Resp:	189818
Ion	Ratio	Lower	Upper
57	100		
41	91.6	71.4	107.2
43	75.6	183.7	275.5#
56	55.7	42.7	64.1





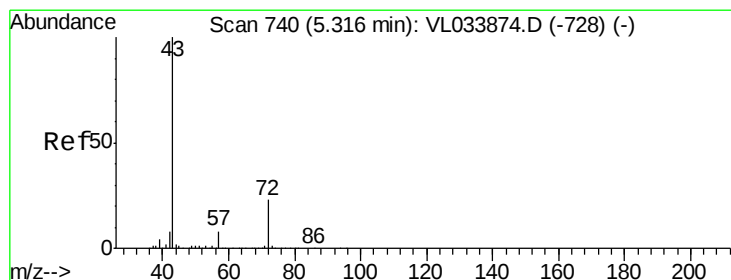
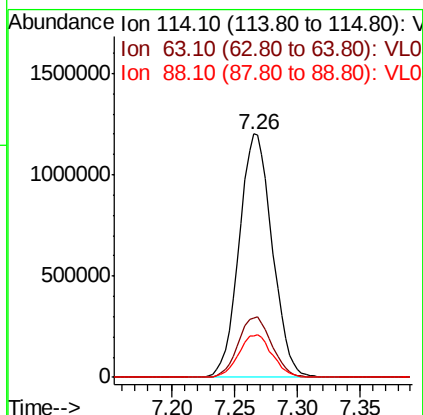
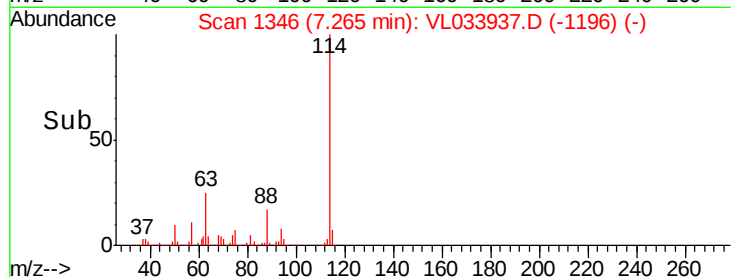
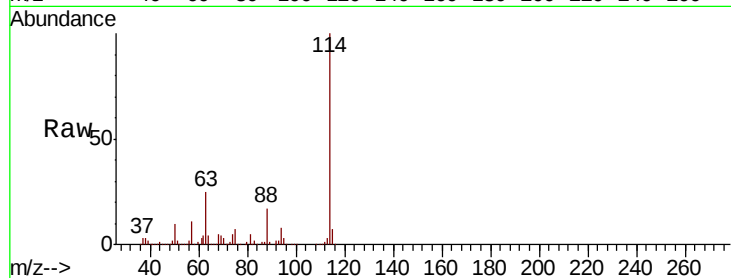
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.26 min Scan# 1346
 Delta R.T. -0.02 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-B-2

Tot Ion	Ratio	Lower	Upper
114	100		
63	25.3	21.1	31.7
88	17.7	14.2	21.4

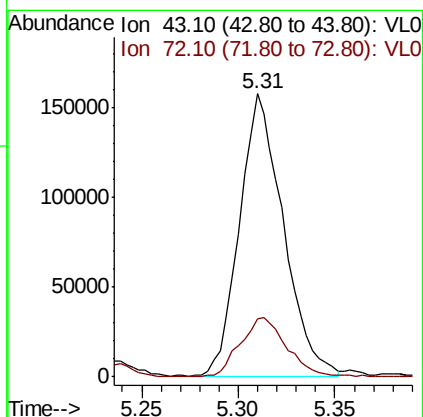
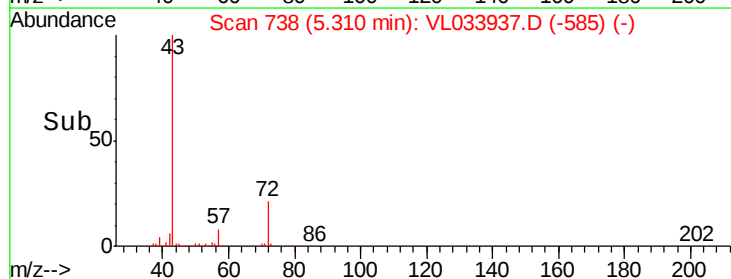
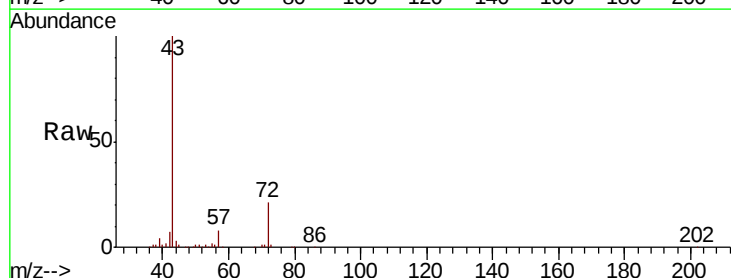
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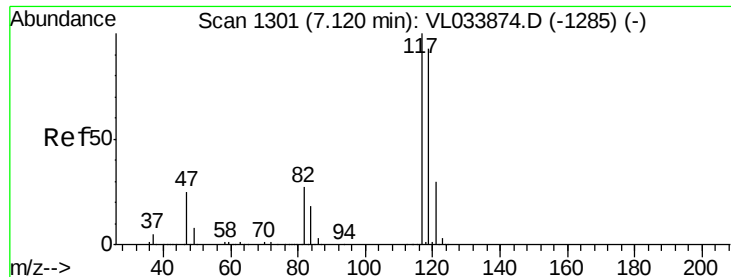
MMDadoda
 6/26/2019 8:15:35 AM



#34
 2-Butanone
 Concen: 1.987 ppbv
 RT: 5.31 min Scan# 738
 Delta R.T. -0.01 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.7	17.9	26.9





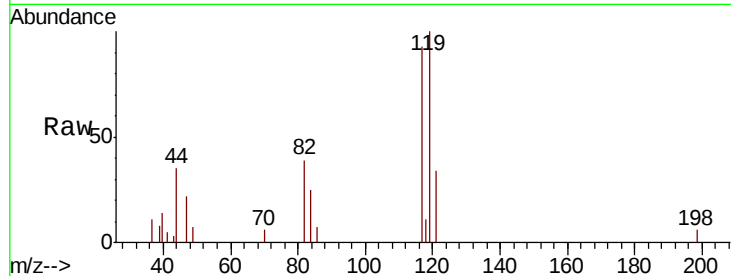
#35
Carbon Tetrachloride
Concen: 0.061 ppbv m
RT: 7.11 min Scan# 1297
Delta R.T. -0.01 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion	Ratio	Lower	Upper
117	100		
119	108.0	74.6	111.8
121	37.1	24.0	36.0

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6/26/2019 8:15:35 AM

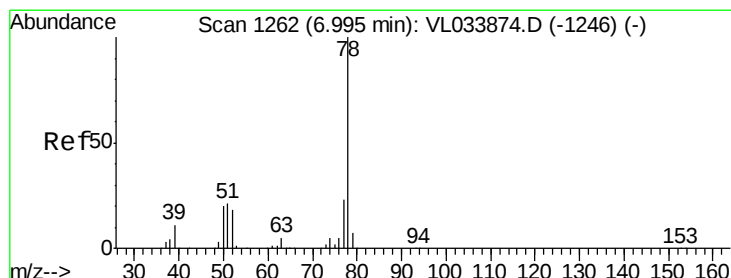
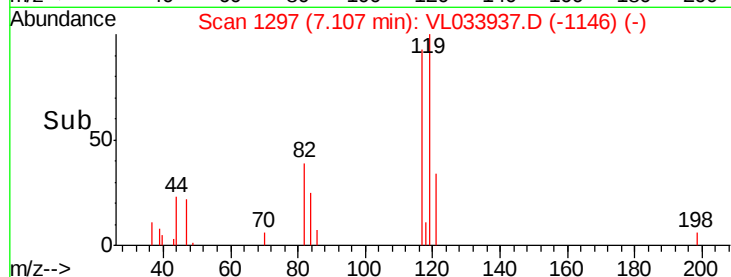
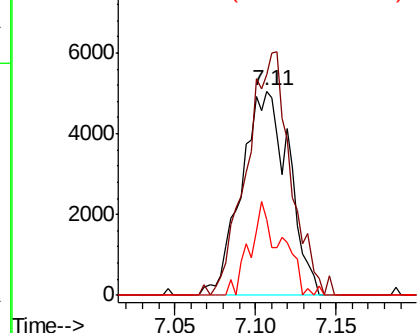


Abundance

Ion 117.00 (116.70 to 117.70): V

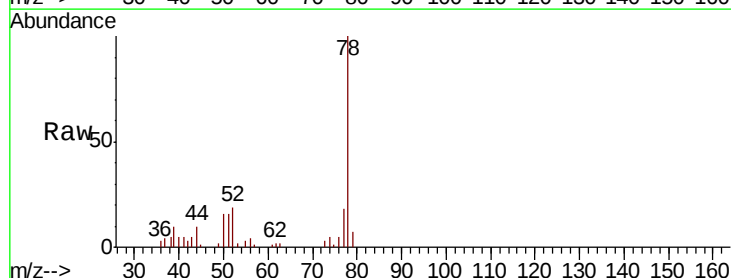
Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36
Benzene
Concen: 0.181 ppbv
RT: 6.98 min Scan# 1256
Delta R.T. -0.02 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion	Ratio	Lower	Upper
78	100		
77	16.4	18.2	27.2
50	16.3	15.9	23.9

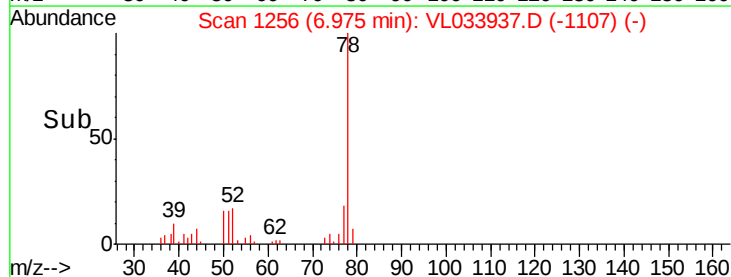
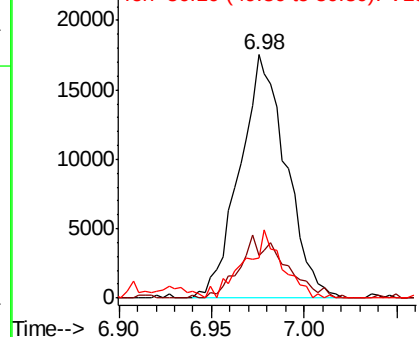


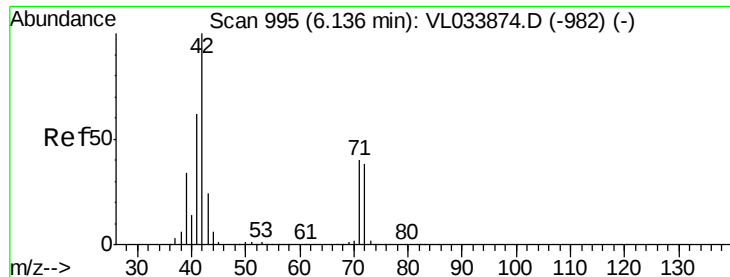
Abundance

Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#41

Tetrahydrofuran

Concen: 0.195 ppbv

RT: 6.14 min Scan# 997

Delta R.T. 0.01 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Instrument :

MSVOA_L

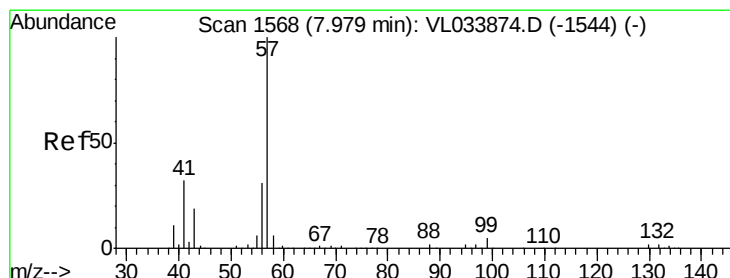
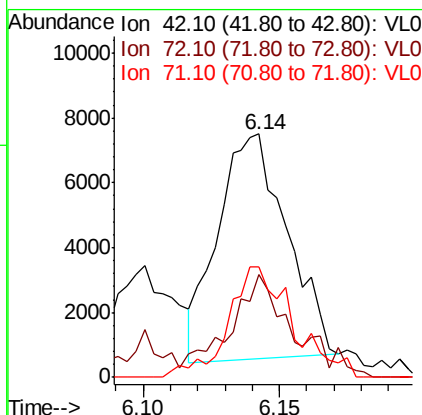
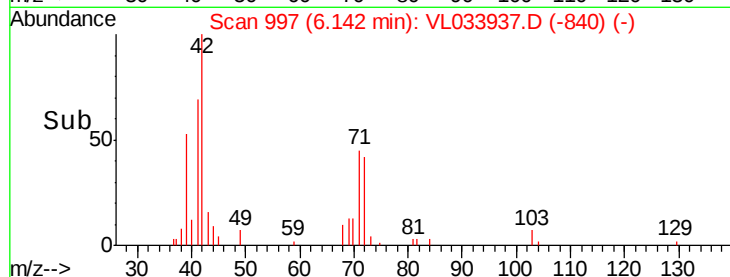
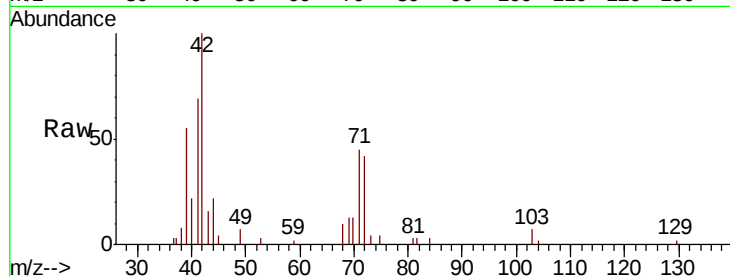
ClientSampleId :

TZC-SSDS-AREA-B-2

Tot Ion:	42	Resp:	12289
Ion Ratio	Lower	Upper	
42	100		
72	52.6	32.2	48.4#
71	45.7	31.7	47.5

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#44

2,2,4-Trimethylpentane

Concen: 0.110 ppbv m

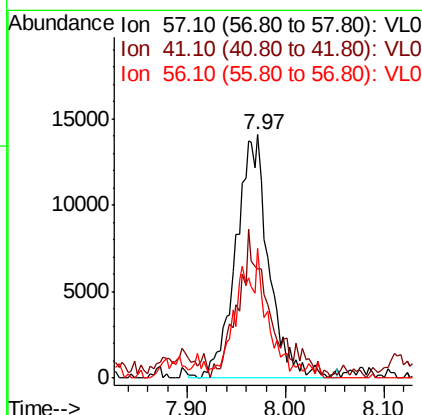
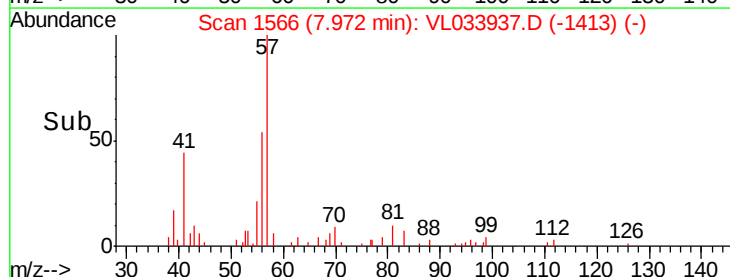
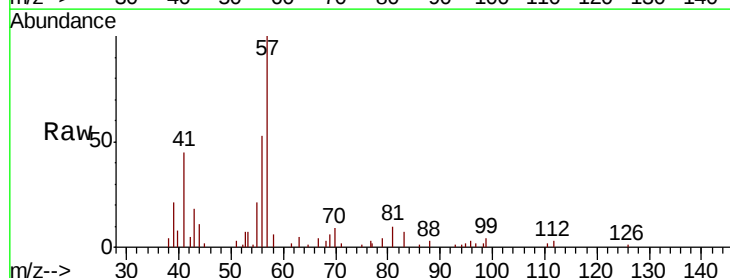
RT: 7.97 min Scan# 1566

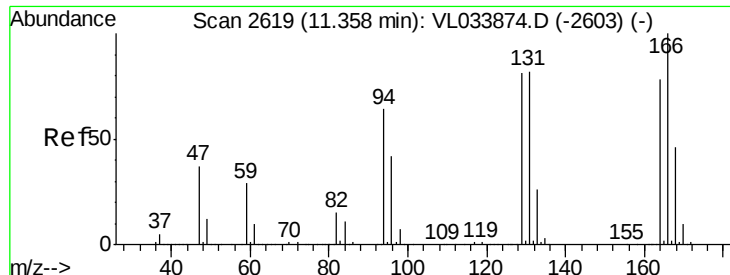
Delta R.T. -0.01 min

Lab File: VL033937.D

Acq: 24 Jun 2019 15:18

Tgt Ion:	57	Resp:	32857
Ion Ratio	Lower	Upper	
57	100		
41	59.9	26.1	39.1#
56	0.0	24.6	36.8#





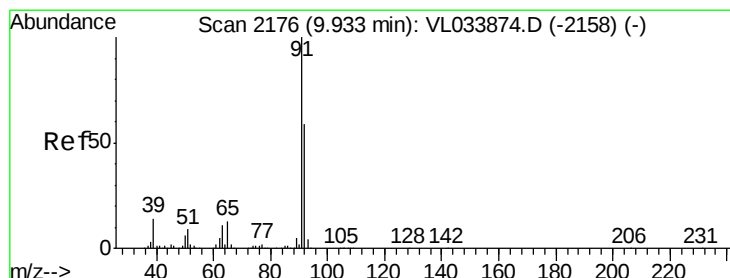
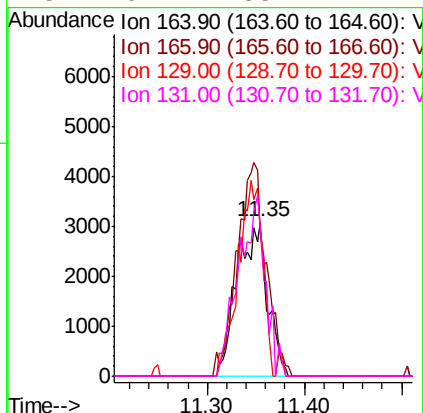
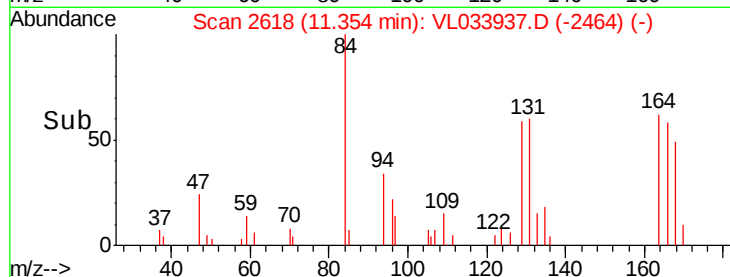
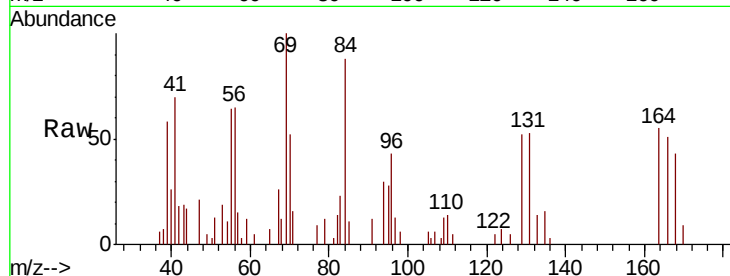
#52
Tetrachloroethene
Concen: 0.112 ppbv m
RT: 11.35 min Scan# 2618
Delta R.T. -0.00 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion:164 Resp: 6665
Ion Ratio Lower Upper
164 100
166 93.9 103.1 154.7#
129 94.8 83.9 125.9
131 97.1 85.1 127.7

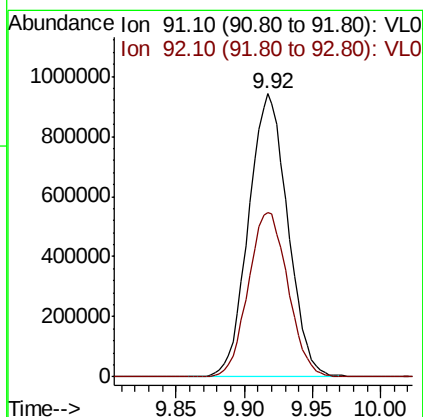
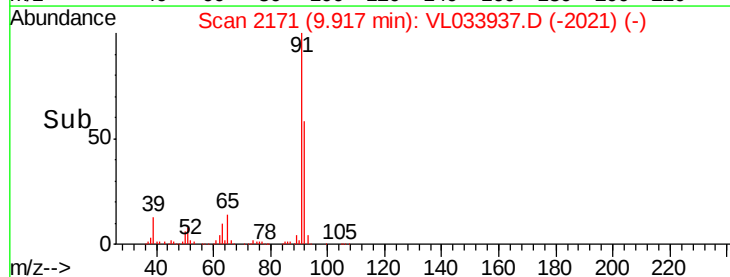
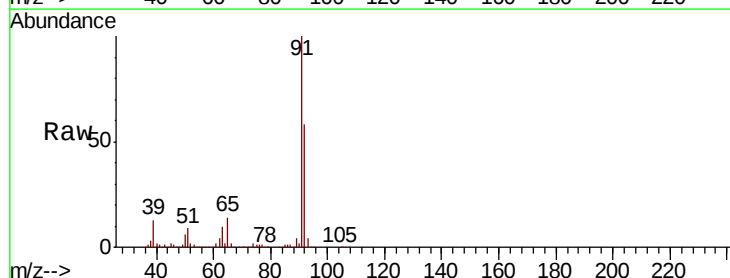
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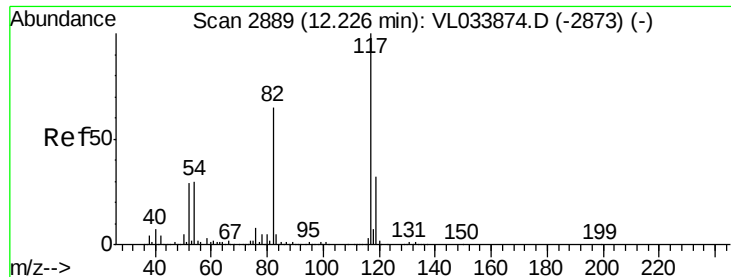
MMDadoda
6/26/2019 8:15:35 AM



#53
Toluene
Concen: 10.048 ppbv
RT: 9.92 min Scan# 2171
Delta R.T. -0.02 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion: 91 Resp: 1874086
Ion Ratio Lower Upper
91 100
92 59.1 47.0 70.6





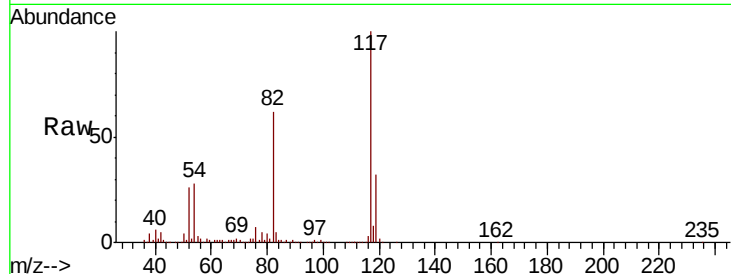
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.21 min Scan# 2884
Delta R.T. -0.02 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

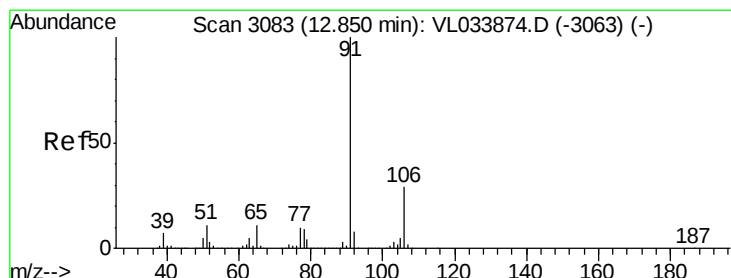
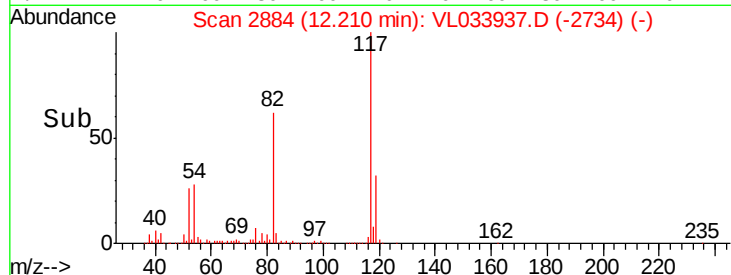
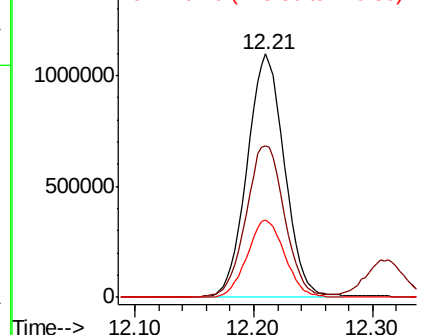
Tot Ion	Ratio	Lower	Upper
117	100		
82	64.4	50.2	75.2
119	32.6	24.8	37.2

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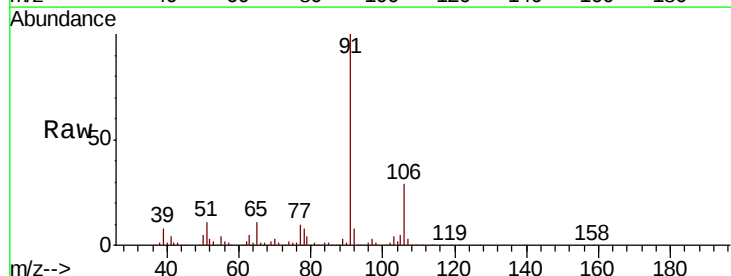


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

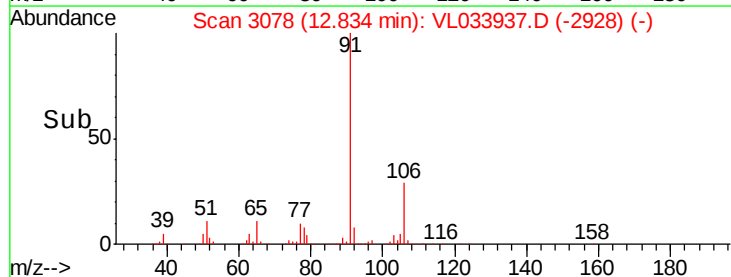
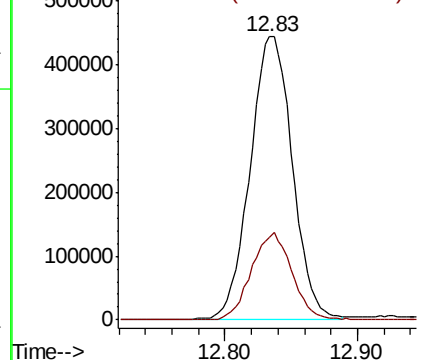


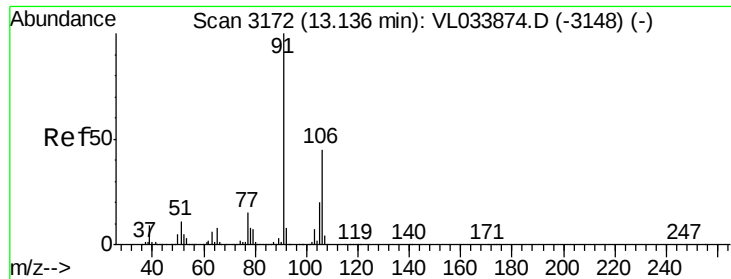
#58
Ethyl Benzene
Concen: 3.662 ppbv
RT: 12.83 min Scan# 3078
Delta R.T. -0.02 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.2	23.0	34.6



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





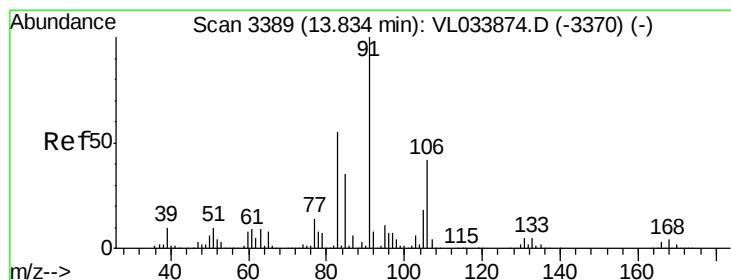
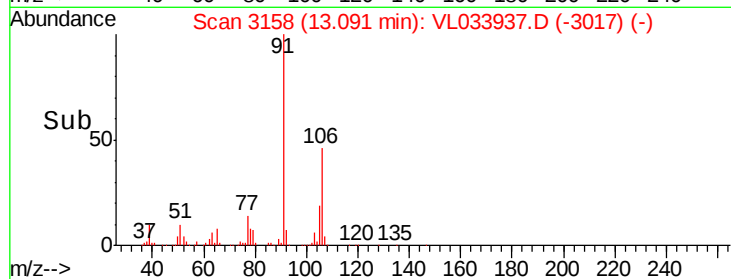
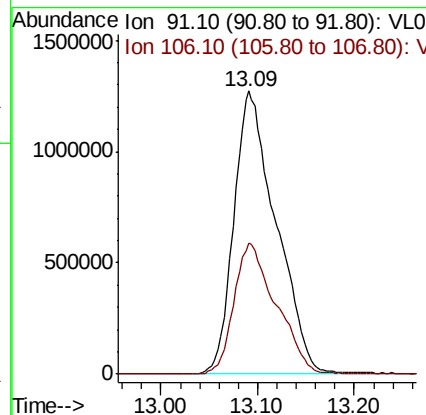
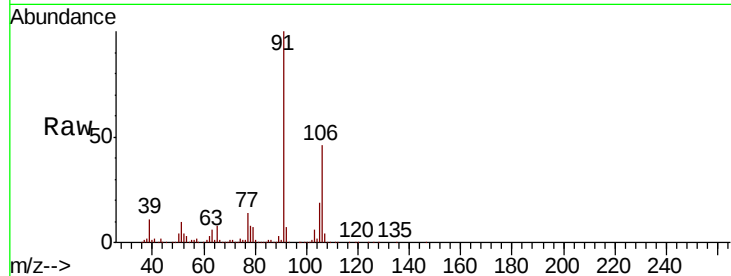
#59
m/p-Xylene
Concen: 15.689 ppbv
RT: 13.09 min Scan# 3158
Delta R.T. -0.05 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-B-2

Tot Ion: 91 Resp: 3826752
Ion Ratio Lower Upper
91 100
106 46.9 35.8 53.8

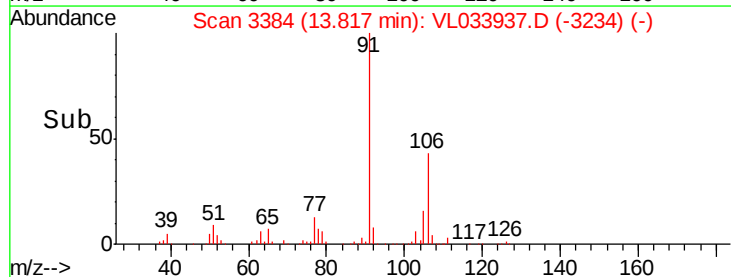
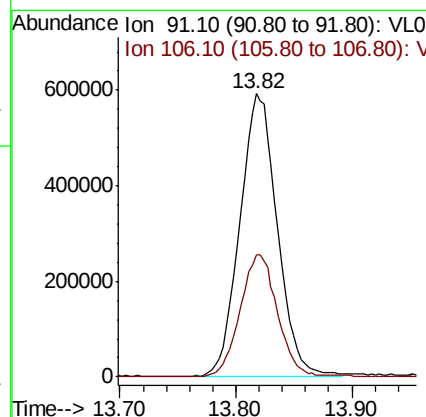
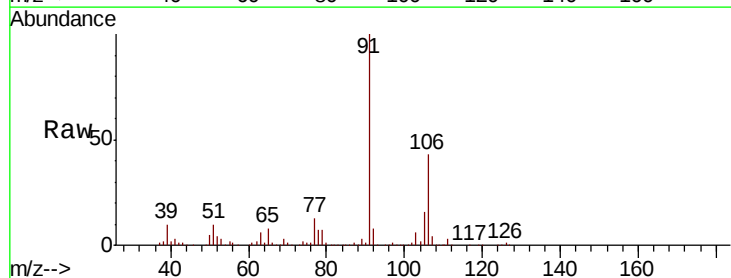
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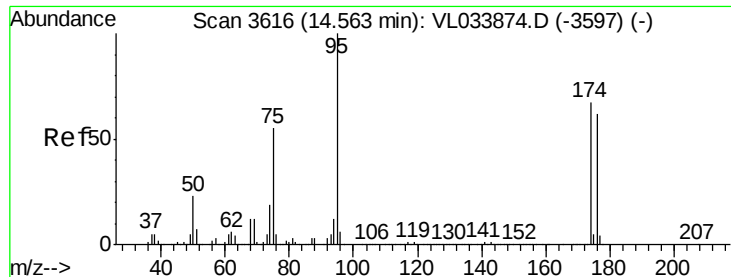
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#60
o-Xylene
Concen: 5.225 ppbv
RT: 13.82 min Scan# 3384
Delta R.T. -0.02 min
Lab File: VL033937.D
Acq: 24 Jun 2019 15:18

Tgt Ion: 91 Resp: 1315884
Ion Ratio Lower Upper
91 100
106 44.1 21.7 65.1





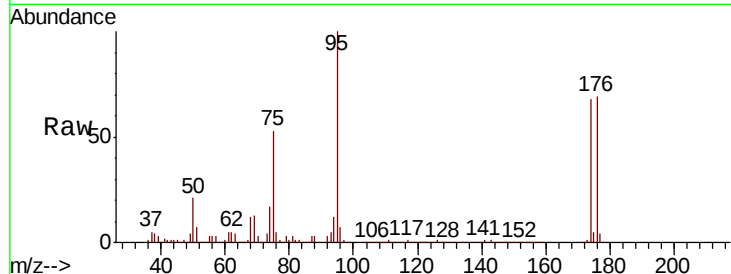
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.080 ppbv
 RT: 14.55 min Scan# 3611
 Delta R.T. -0.02 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-B-2

Tot Ion	Ratio	Lower	Upper
95	100		
174	68.8	54.0	81.0
175	4.8	3.8	5.8

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MMDadoda
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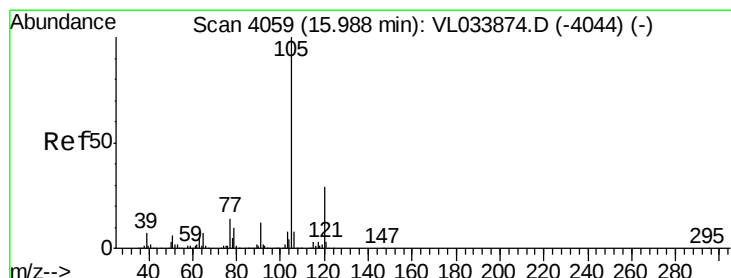
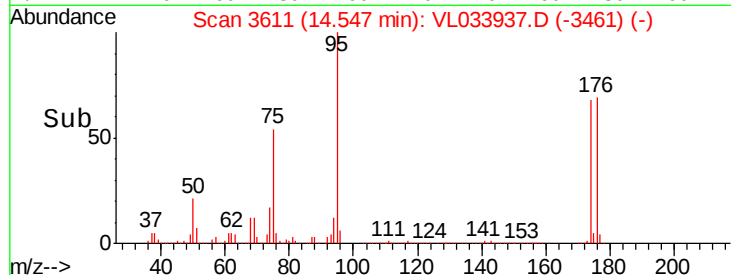
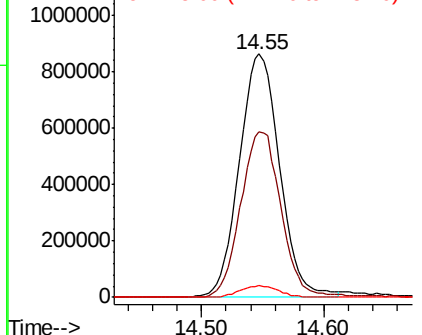


Abundance

Ion 95.10 (94.80 to 95.80): VL033874.D (-3597) (-)

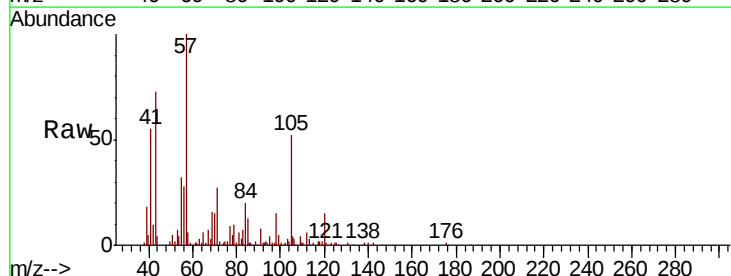
Ion 174.00 (173.70 to 174.70): VL033874.D (-3597) (-)

Ion 175.00 (174.70 to 175.70): VL033874.D (-3597) (-)



#72
 4-Ethyltoluene
 Concen: 0.157 ppbv
 RT: 15.97 min Scan# 4055
 Delta R.T. -0.01 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Tgt Ion	Ratio	Lower	Upper
105	100		
120	35.0	23.5	35.3
91	22.8	10.4	15.6
77	19.6	11.7	17.5



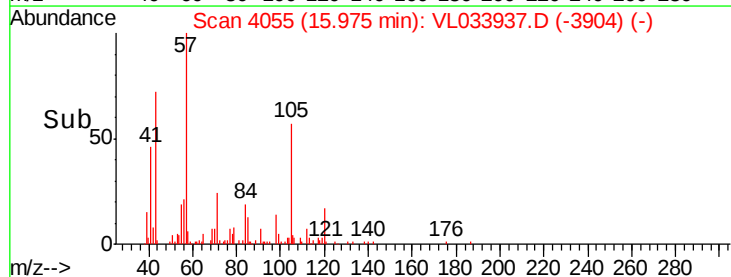
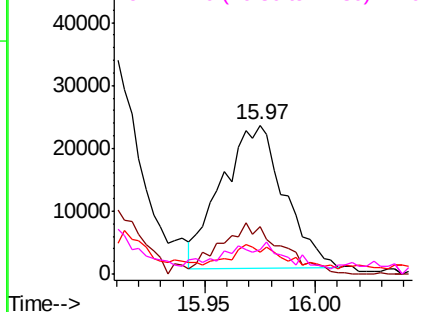
Abundance

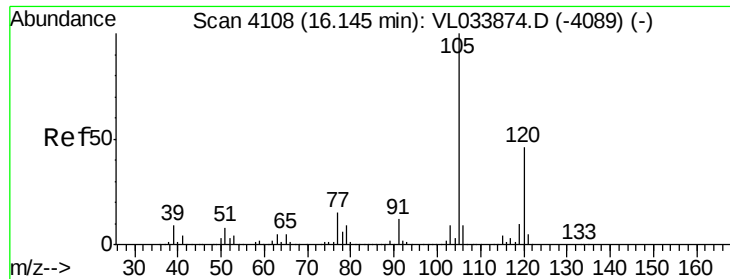
Ion 105.10 (104.80 to 105.80): VL033874.D (-4044) (-)

Ion 120.20 (119.90 to 120.90): VL033874.D (-4044) (-)

Ion 91.10 (90.80 to 91.80): VL033874.D (-4044) (-)

Ion 77.10 (76.80 to 77.80): VL033874.D (-4044) (-)





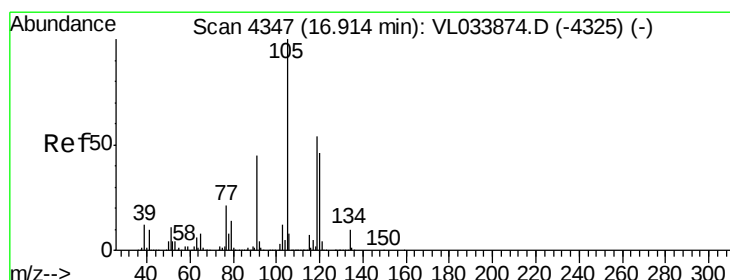
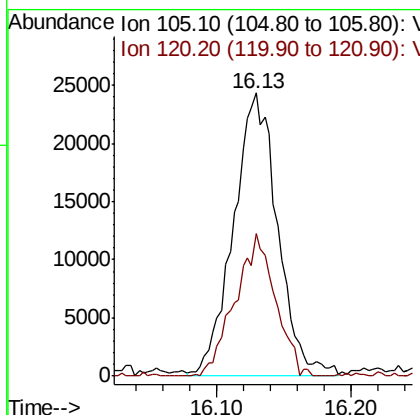
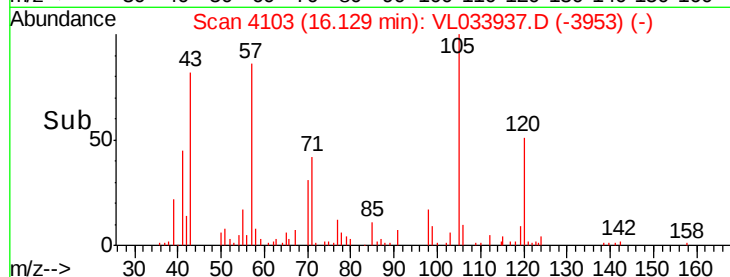
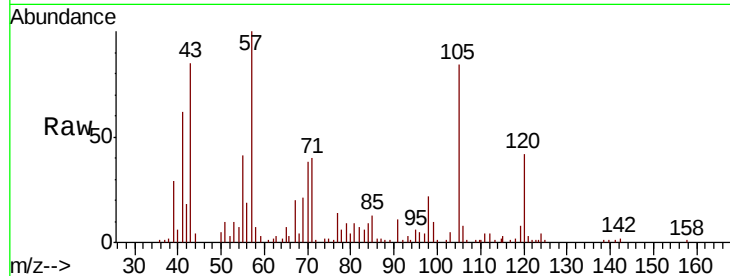
#73
 1,3,5-Trimethylbenzene
 Concen: 0.197 ppbv m
 RT: 16.13 min Scan# 4103
 Delta R.T. -0.02 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-B-2

Tot Ion	Ratio	Lower	Upper
105	100		
120	50.4	37.1	55.7

Manual Integrations
 APPROVED

MMDadoda
 6/26/2019 8:15:35 AM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.532 ppbv
 RT: 16.89 min Scan# 4341
 Delta R.T. -0.02 min
 Lab File: VL033937.D
 Acq: 24 Jun 2019 15:18

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.0	36.7	55.1
91	13.3	35.8	53.8
77	18.4	16.9	25.3

