

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052021\
 Data File : VL037033.D
 Acq On : 20 May 2021 21:05
 Operator : SY/AP
 Sample : M2424-12 2X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-10

Manual Integrations
 APPROVED

MMDadoda
 5/24/2021 3:27:20 PM

Quant Time: May 21 03:17:22 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1178975	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.14	114	3407832	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.04	117	3024386	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.37	95	2281278	10.04	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	20129m	0.101	ppbv	
3) Chlorodifluoromethane	2.96	51	24115	0.112	ppbv	98
4) Chloromethane	3.12	50	17338	0.236	ppbv #	76
9) Propene	2.98	41	569227	7.360	ppbv	98
10) Heptane	8.08	43	241880	1.255	ppbv	95
11) Trichlorofluoromethane	3.92	101	236383	1.277	ppbv	99
13) Ethanol	3.58	45	435784	42.230	ppbv	96
15) Acetone	3.82	43	21948009	181.751	ppbv #	77
17) tert-Butyl alcohol	4.27	59	424535	3.838	ppbv	95
19) Isopropyl Alcohol	3.94	45	477377	7.354	ppbv #	30
20) Methylene Chloride	4.32	84	136150	2.103	ppbv	95
26) Hexane	5.65	57	566365	3.821	ppbv #	11
27) Carbon Disulfide	4.52	76	75770	0.507	ppbv #	84
29) Chloroform	5.73	83	32126m	0.153	ppbv	
30) Cyclohexane	7.09	84	324891	2.579	ppbv	89
34) 2-Butanone	5.21	43	2523137	20.334	ppbv	99
36) Benzene	6.86	78	239376	0.815	ppbv	99
50) 4-Methyl-2-Pentanone	8.72	43	78611m	0.384	ppbv	
51) 2-Hexanone	10.10	43	294643	2.722	ppbv #	98
52) Tetrachloroethene	11.19	164	4764m	0.041	ppbv	
53) Toluene	9.76	91	802048	2.296	ppbv	97
58) Ethyl Benzene	12.67	91	123634	0.290	ppbv	96
59) m/p-Xylene	12.92	91	261436m	0.741	ppbv	
60) o-Xylene	13.65	91	80355	0.239	ppbv	99
61) Styrene	13.48	104	60005	0.317	ppbv #	82
72) 4-Ethyltoluene	15.80	105	108375	0.271	ppbv #	90
73) 1,3,5-Trimethylbenzene	15.96	105	110322	0.294	ppbv	98
74) 1,2,4-Trimethylbenzene	16.73	105	355621	0.917	ppbv #	71

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

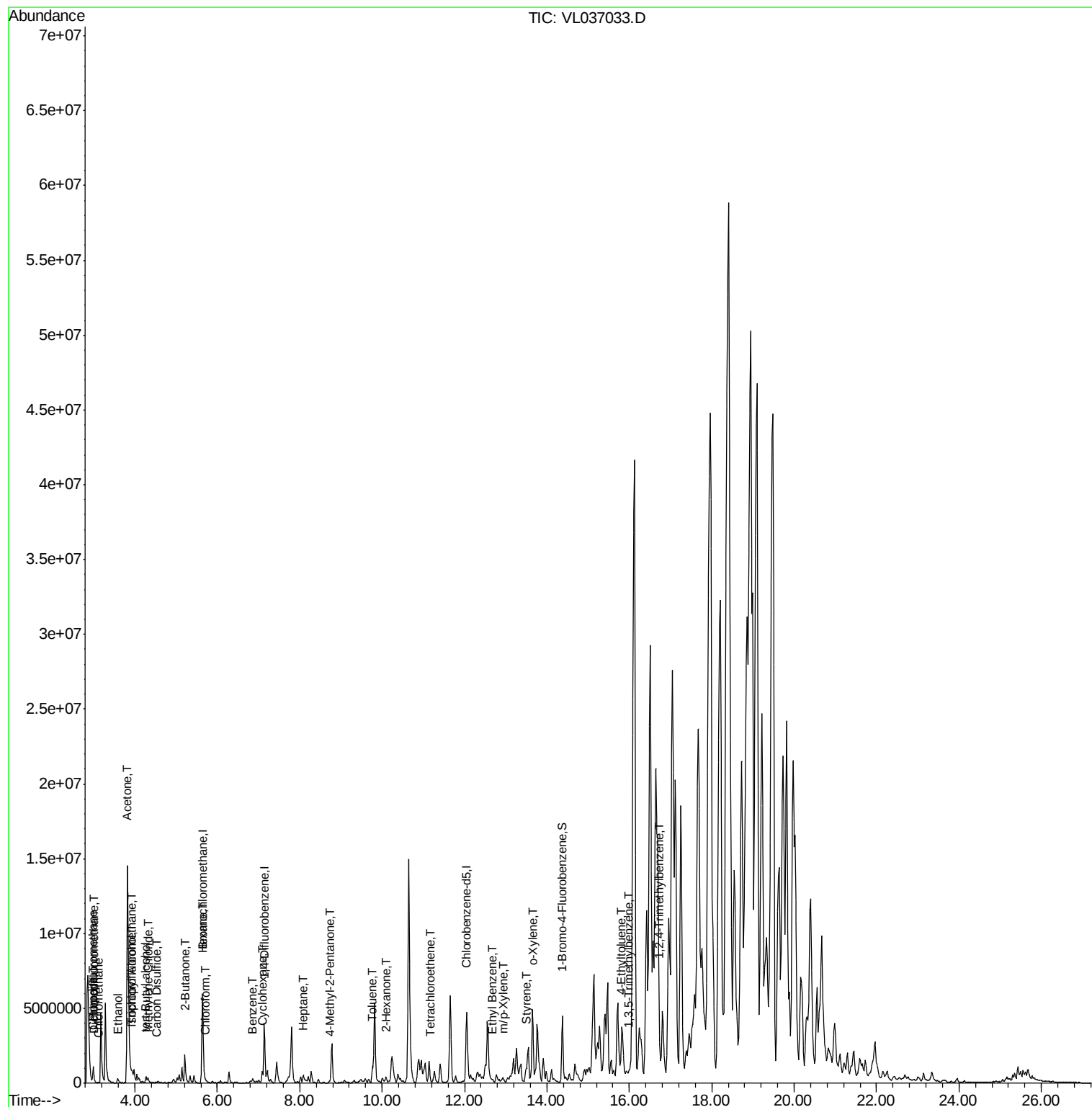
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052021\
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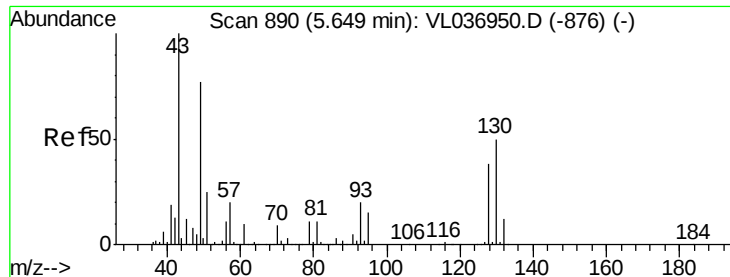
Instrument :
MSVOA_L
ClientSampleId :
KSV-10

Manual Integrations
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MMDadoda
5/24/2021 3:27:20 PM

Quant Time: May 21 03:17:22 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue May
QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.01 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampled :

KSV-10

Tot Ion: 49 Resp: 1178975

Ion Ratio Lower Upper

49 100

128 53.3 26.9 80.7

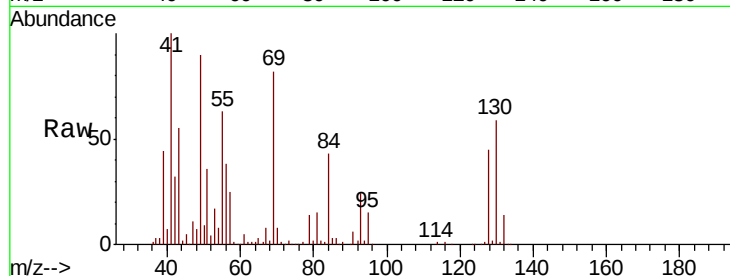
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Manual Integrations

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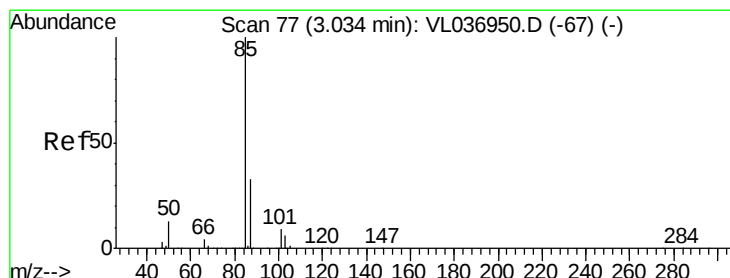
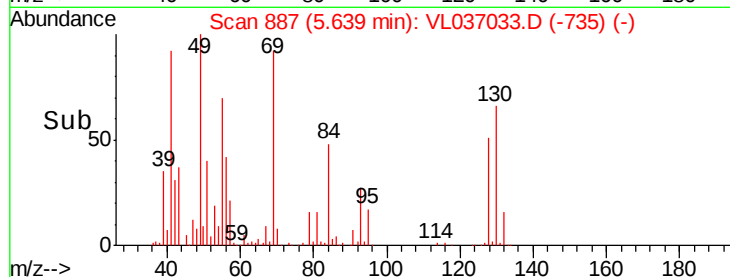
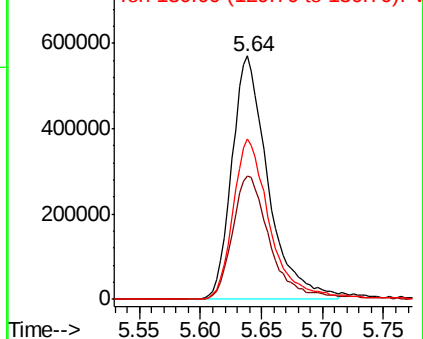
5/24/2021 3:27:20 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.101 ppbv m

RT: 3.02 min Scan# 72

Delta R.T. -0.02 min

Lab File: VL037033.D

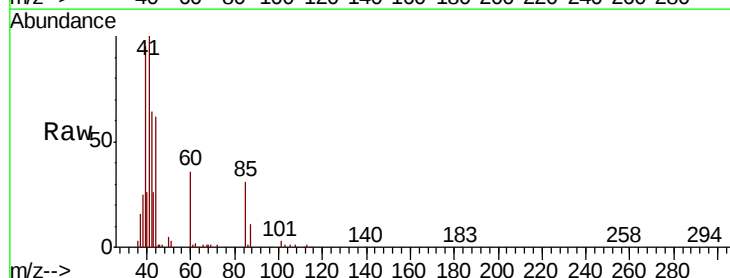
Acq: 20 May 2021 21:05

Tgt Ion: 85 Resp: 20129

Ion Ratio Lower Upper

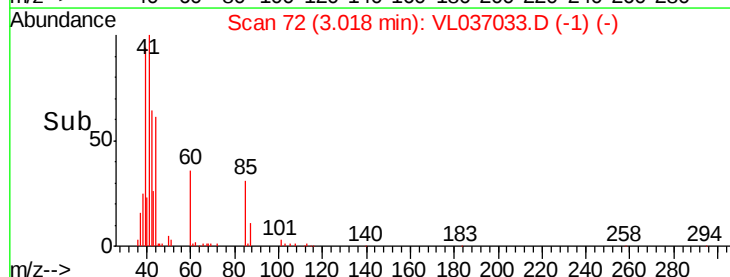
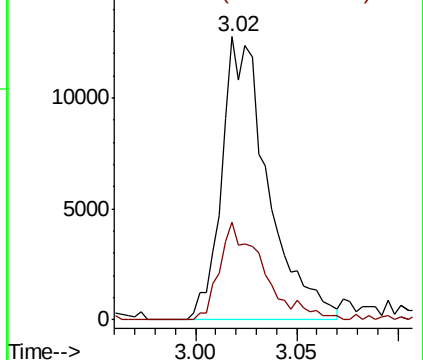
85 100

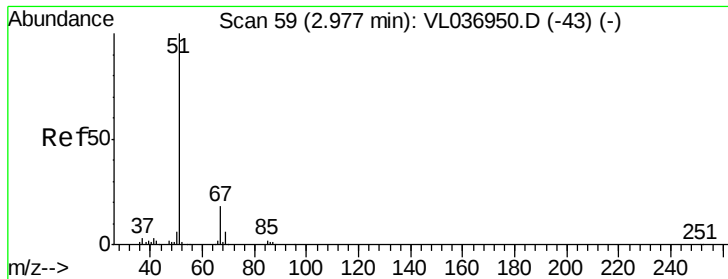
87 34.5 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.112 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.01 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-10

Tot Ion: 51 Resp: 24115

Ion Ratio Lower Upper

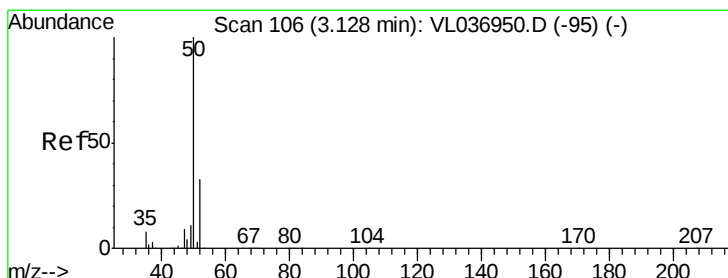
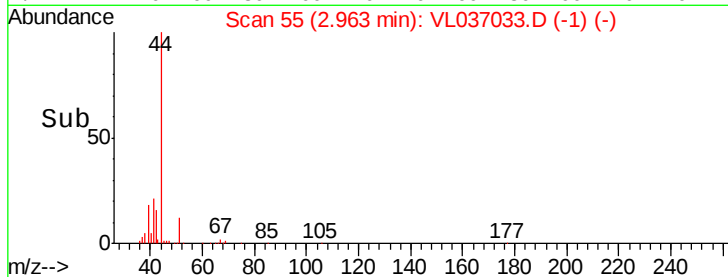
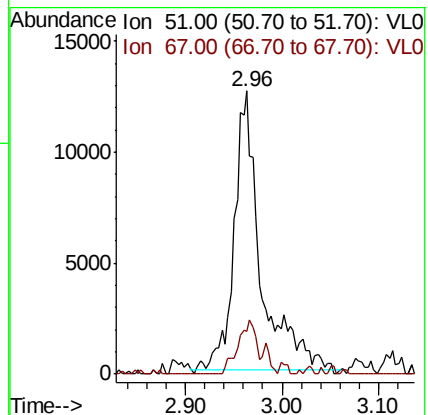
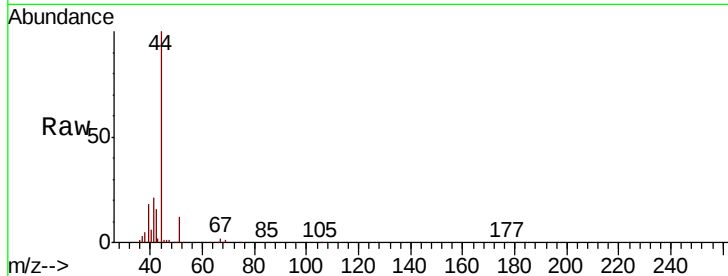
51 100

67 17.3 14.6 21.8

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#4

Chloromethane

Concen: 0.236 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL037033.D

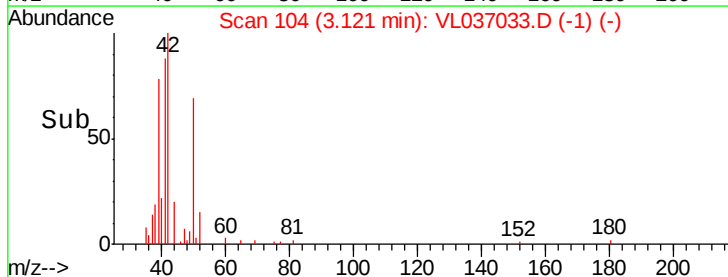
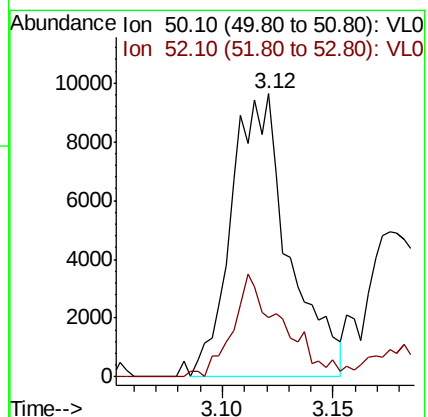
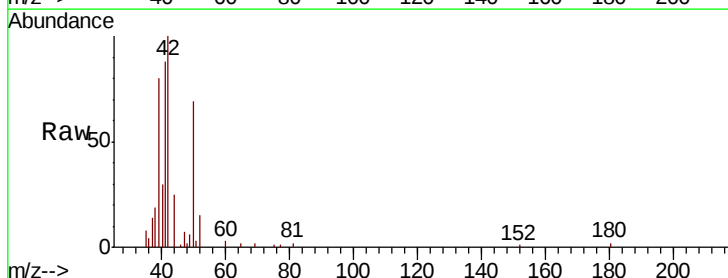
Acq: 20 May 2021 21:05

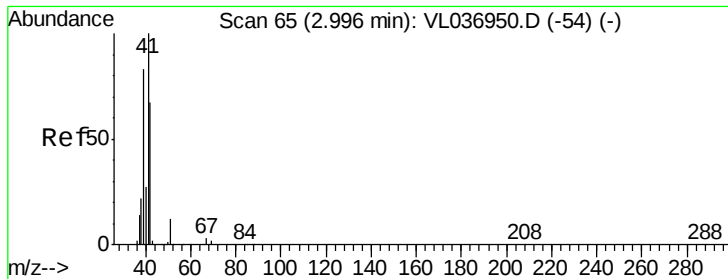
Tgt Ion: 50 Resp: 17338

Ion Ratio Lower Upper

50 100

52 18.9 26.1 39.1#





#9

Propene

Concen: 7.360 ppbv

RT: 2.98 min Scan# 61

Delta R.T. -0.01 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-10

Tot Ion: 41 Resp: 569227

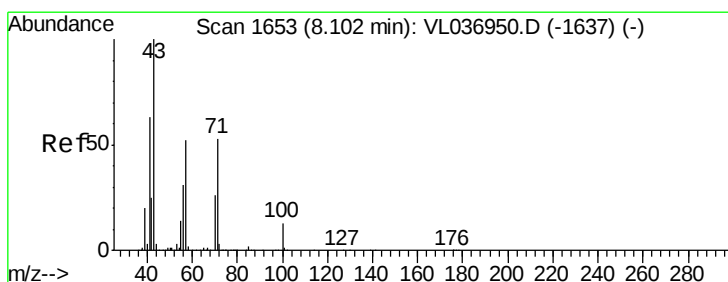
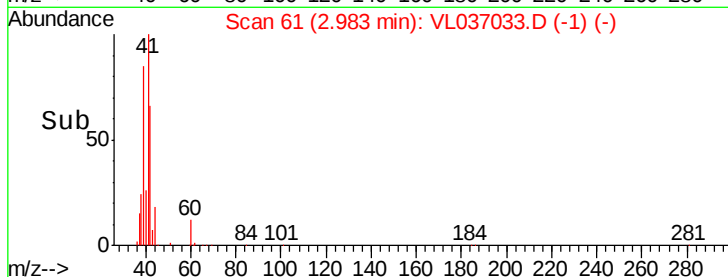
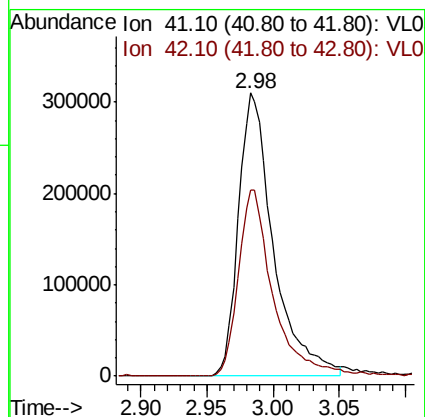
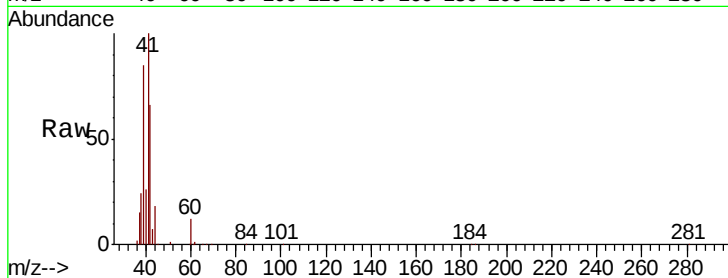
Ion Ratio Lower Upper

41 100

42 65.4 53.9 80.9

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#10

Heptane

Concen: 1.255 ppbv

RT: 8.08 min Scan# 1647

Delta R.T. -0.02 min

Lab File: VL037033.D

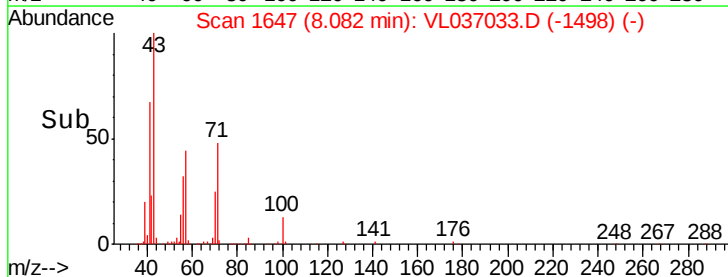
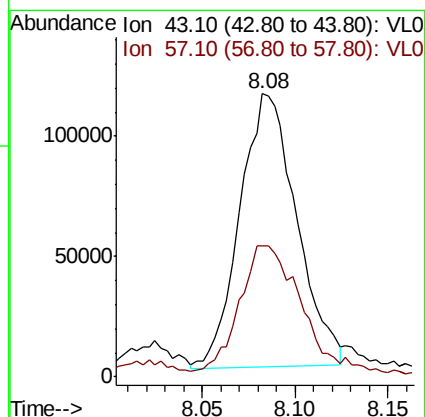
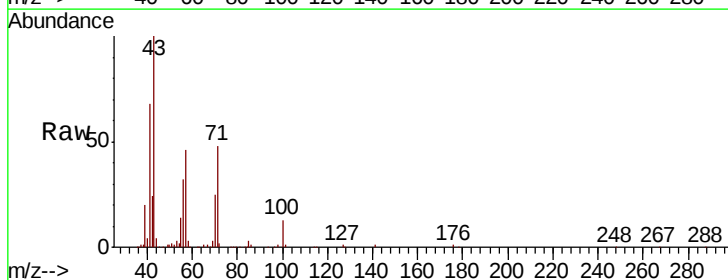
Acq: 20 May 2021 21:05

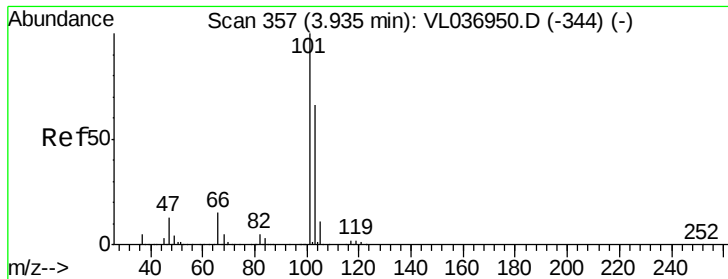
Tgt Ion: 43 Resp: 241880

Ion Ratio Lower Upper

43 100

57 54.5 41.0 61.6





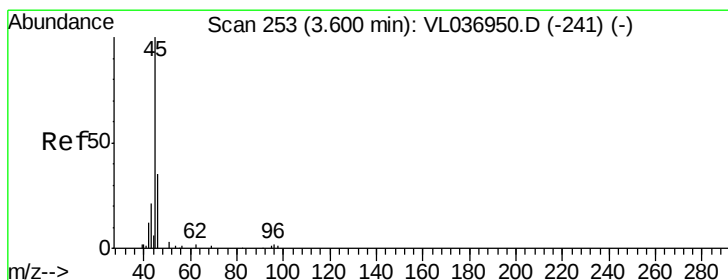
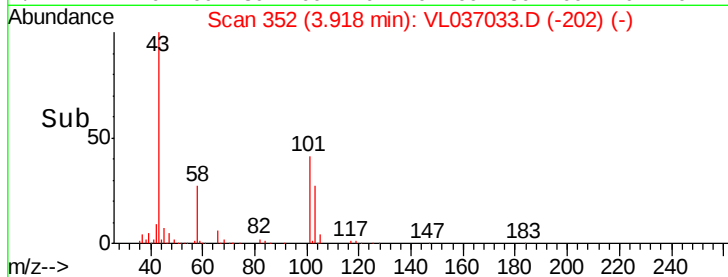
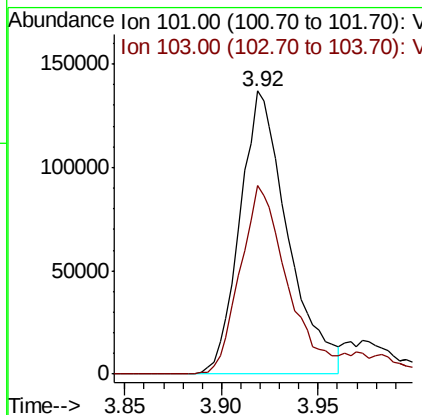
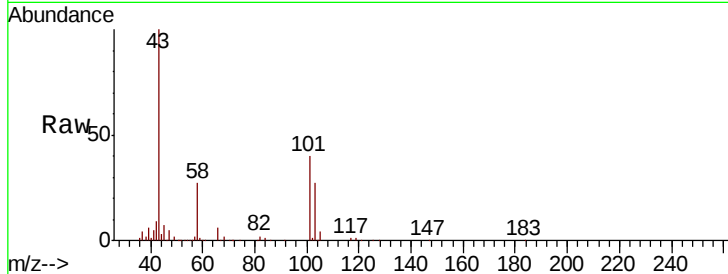
#11
 Trichlorofluoromethane
 Concen: 1.277 ppbv
 RT: 3.92 min Scan# 352
 Delta R.T. -0.02 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-10

Tot Ion	Ratio	Lower	Upper
101	100		
103	66.5	52.6	79.0

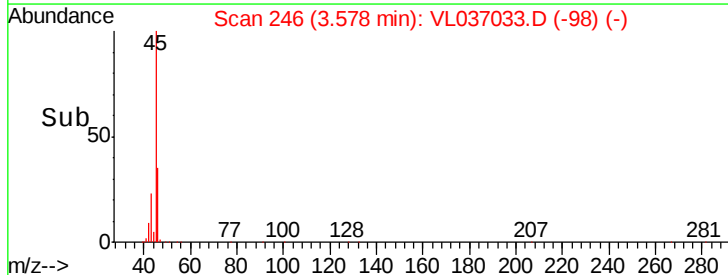
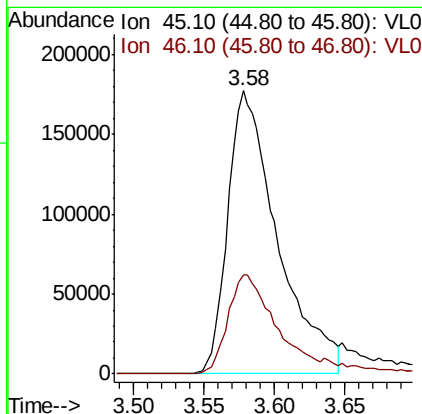
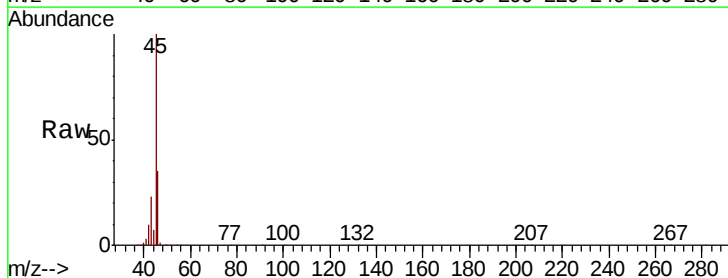
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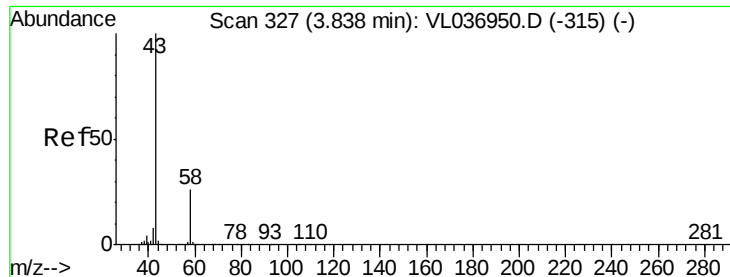
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#13
 Ethanol
 Concen: 42.230 ppbv
 RT: 3.58 min Scan# 246
 Delta R.T. -0.02 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Lower	Upper
45	100		
46	38.4	16.3	65.3





#15

Acetone

Concen: 181.751 ppbv

RT: 3.82 min Scan# 321

Delta R.T. -0.02 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-10

Tot Ion: 43 Resp: 21948009

Ion Ratio Lower Upper

43 100

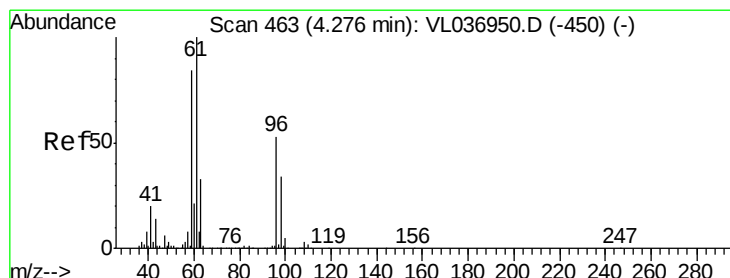
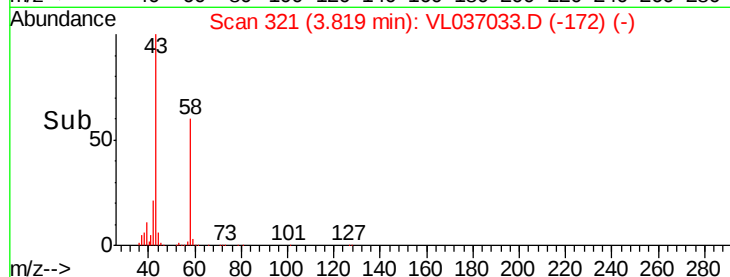
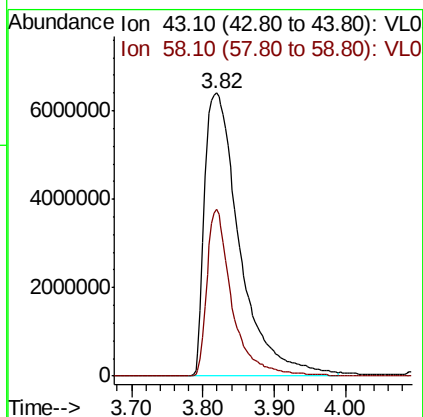
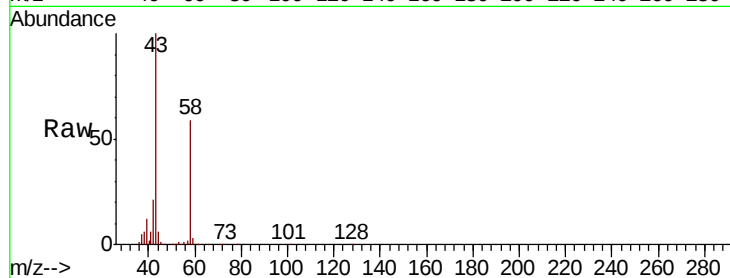
58 42.6 24.0 36.0#

Manual Integrations

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#17

tert-Butyl alcohol

Concen: 3.838 ppbv

RT: 4.27 min Scan# 461

Delta R.T. -0.01 min

Lab File: VL037033.D

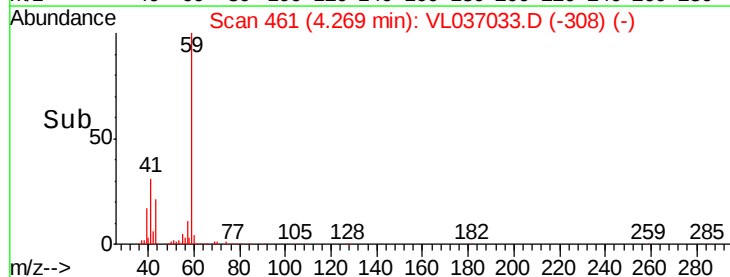
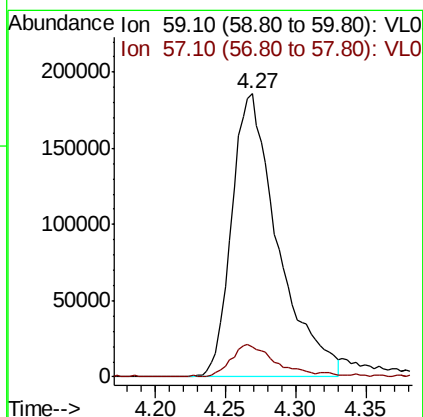
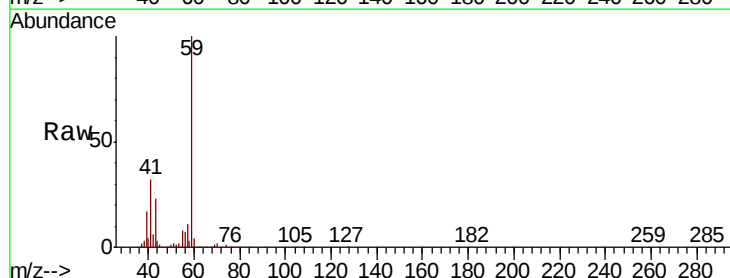
Acq: 20 May 2021 21:05

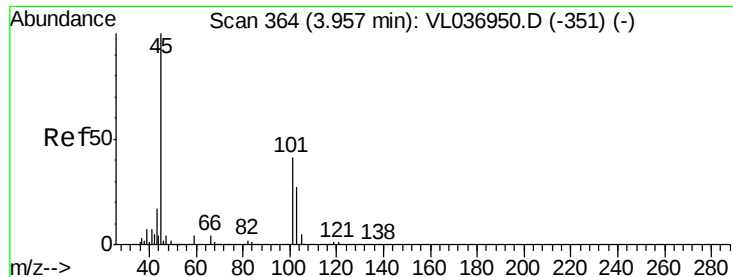
Tgt Ion: 59 Resp: 424535

Ion Ratio Lower Upper

59 100

57 12.4 8.3 12.5





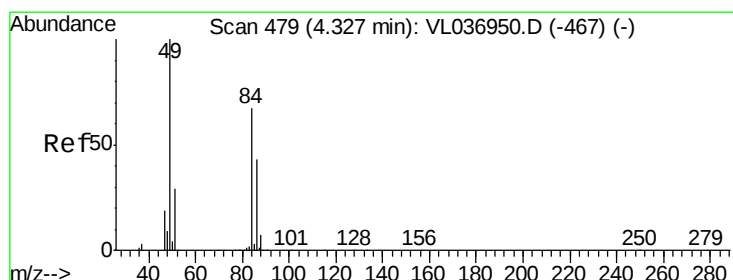
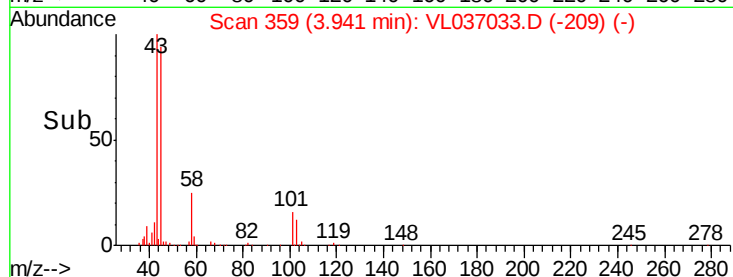
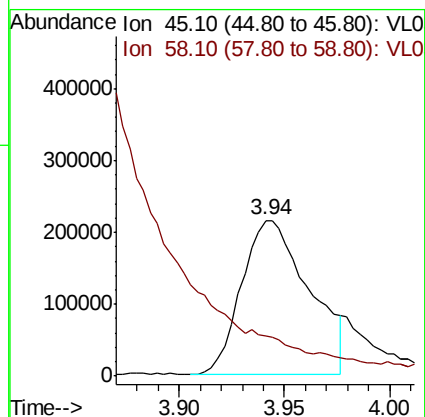
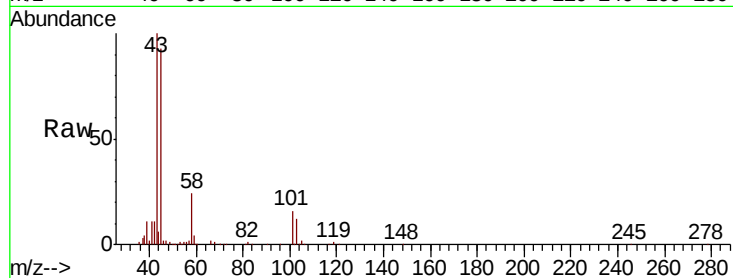
#19
Isopropyl Alcohol
Concen: 7.354 ppbv
RT: 3.94 min Scan# 359
Delta R.T. -0.02 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampled :
KSV-10

Tot Ion: 45 Resp: 477377
Ion Ratio Lower Upper
45 100
58 0.0 37.2 55.8#

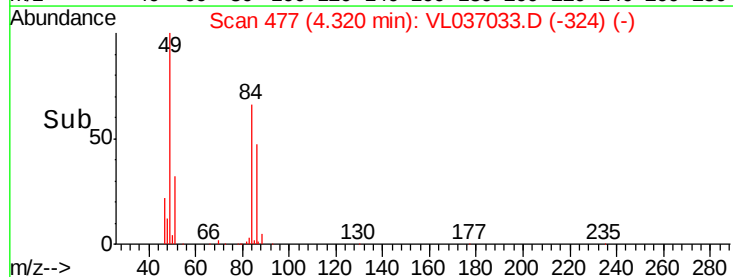
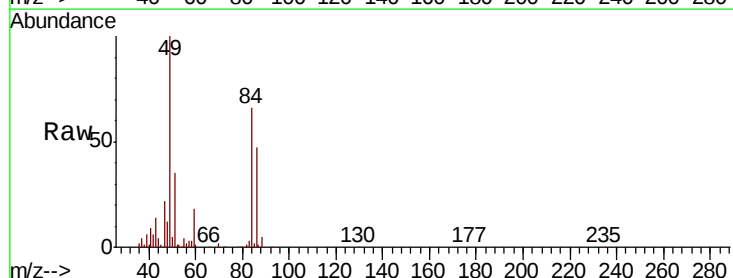
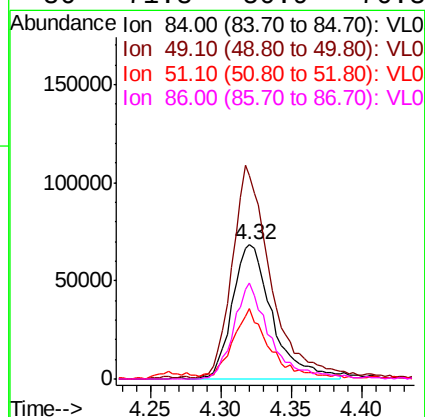
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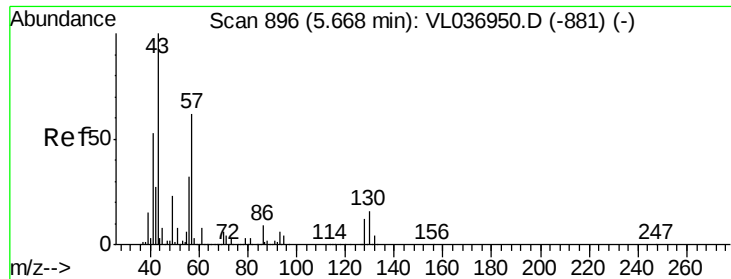
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#20
Methylene Chloride
Concen: 2.103 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion: 84 Resp: 136150
Ion Ratio Lower Upper
84 100
49 151.0 119.8 179.6
51 49.5 35.1 52.7
86 71.8 50.9 76.3





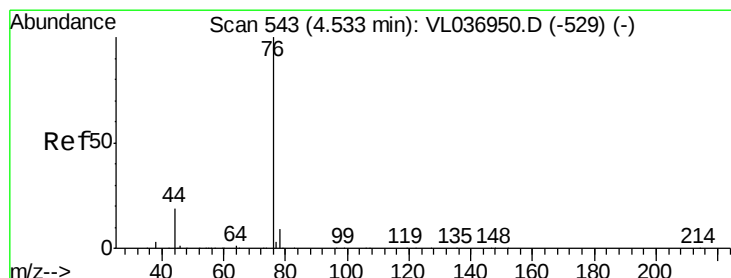
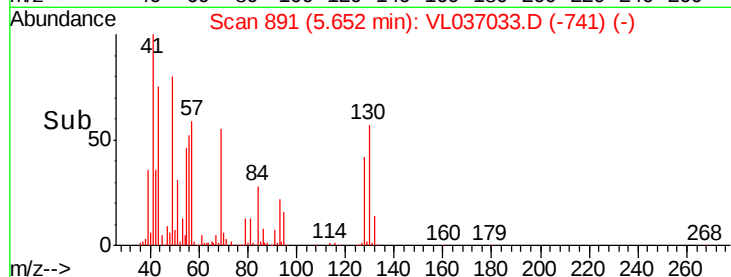
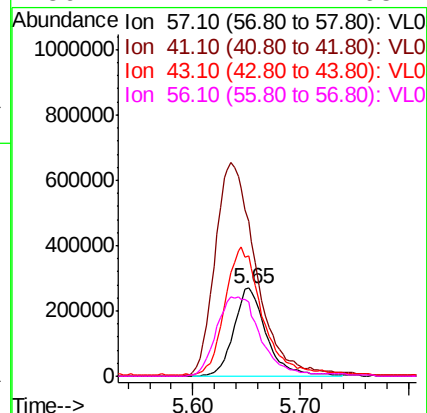
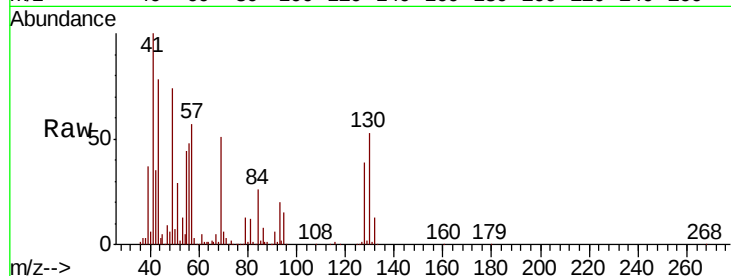
#26
Hexane
Concen: 3.821 ppbv
RT: 5.65 min Scan# 891
Delta R.T. -0.02 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampled :
KSV-10

Tot Ion	Ratio	Lower	Upper
57	100		
41	309.1	70.5	105.7#
43	171.4	165.8	248.8
56	124.7	42.2	63.4#

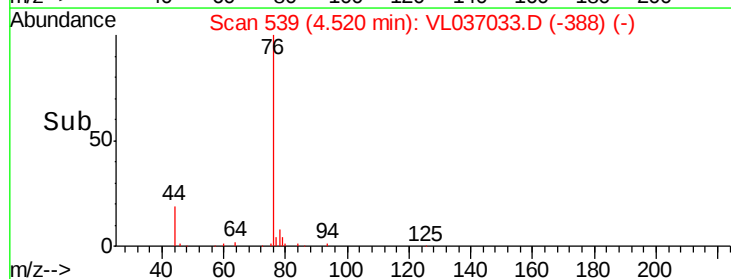
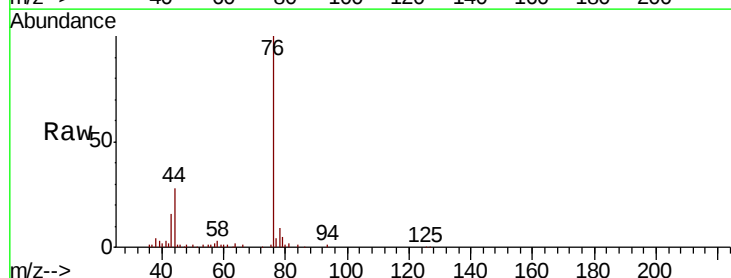
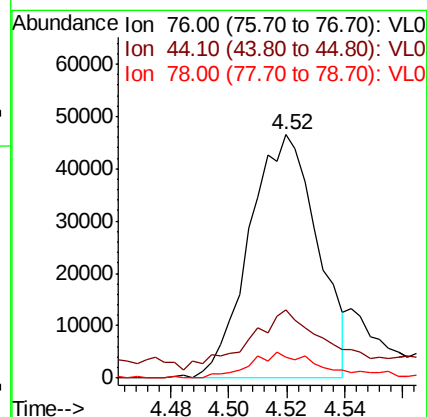
Manual Integrations
APPROVED

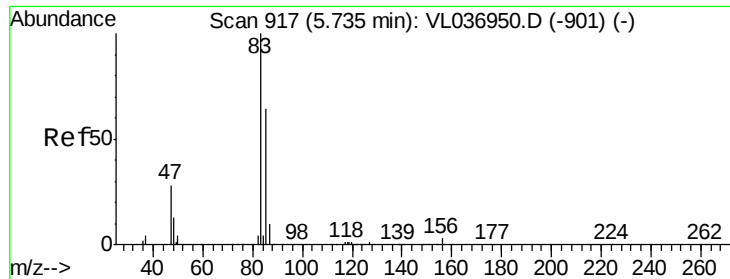
MMDadoda
5/24/2021 3:27:20 PM



#27
Carbon Disulfide
Concen: 0.507 ppbv
RT: 4.52 min Scan# 539
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Lower	Upper
76	100		
44	28.0	15.5	23.3#
78	13.1	7.8	11.6#





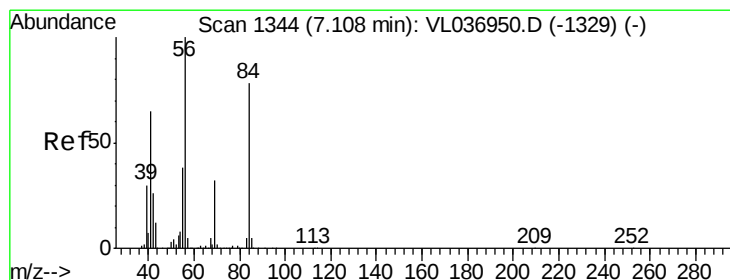
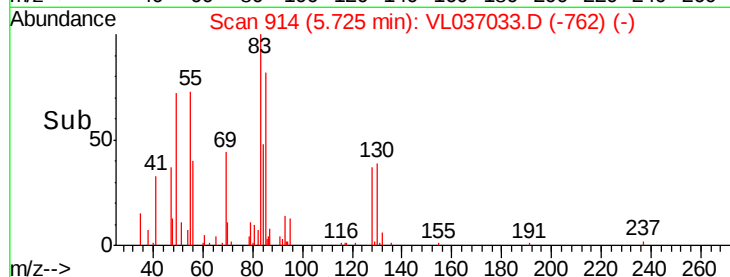
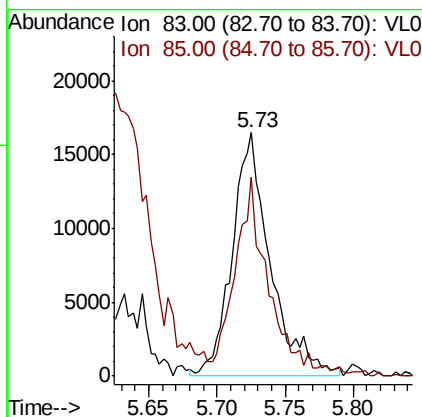
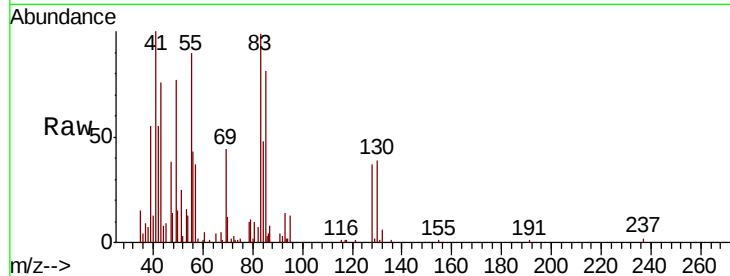
#29
Chloroform
Concen: 0.153 ppbv m
RT: 5.73 min Scan# 914
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampleId :
KSV-10

Tot Ion: 83 Resp: 32126
Ion Ratio Lower Upper
83 100
85 81.8 51.1 76.7#

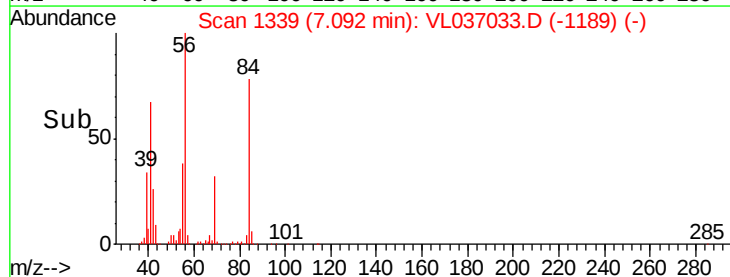
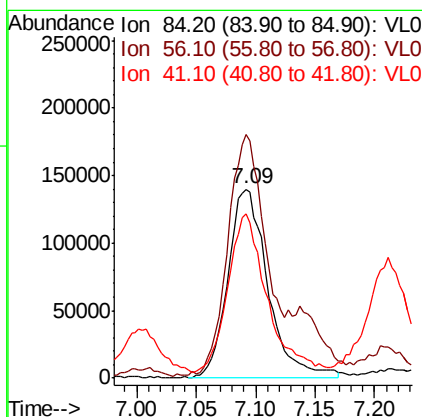
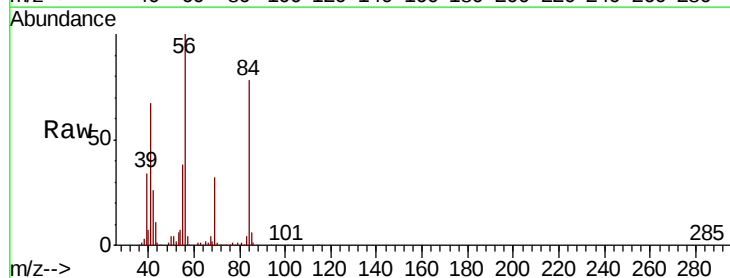
Manual Integrations
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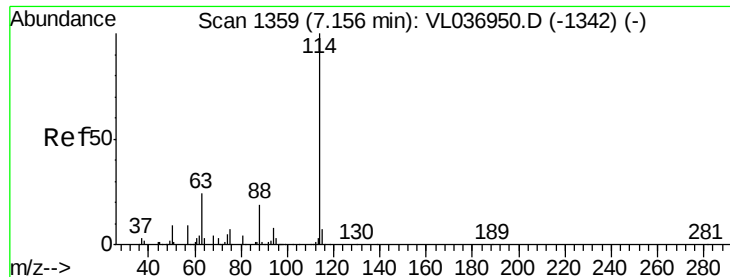
MMDadoda
5/24/2021 3:27:20 PM



#30
Cyclohexane
Concen: 2.579 ppbv
RT: 7.09 min Scan# 1339
Delta R.T. -0.02 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion: 84 Resp: 324891
Ion Ratio Lower Upper
84 100
56 152.1 107.9 161.9
41 87.6 65.5 98.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.14 min Scan# 1354

Delta R.T. -0.02 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-10

Tot Ion:114 Resp: 3407832

Ion Ratio Lower Upper

114 100

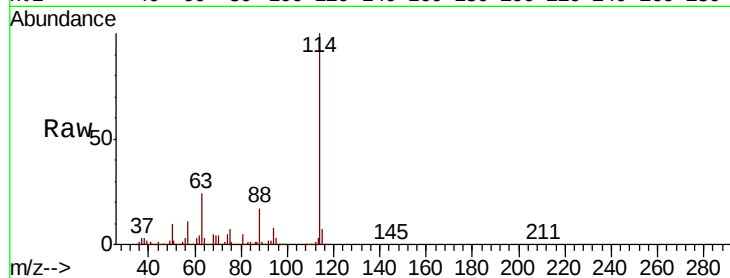
63 24.3 19.6 29.4

88 17.9 14.6 21.8

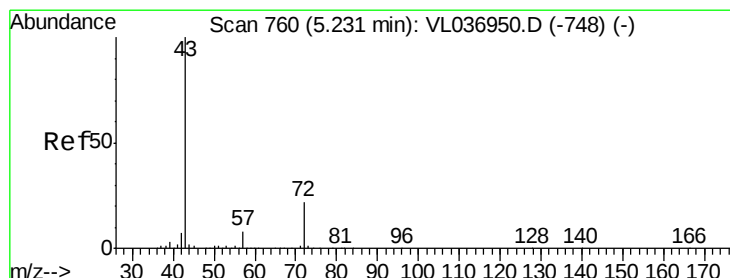
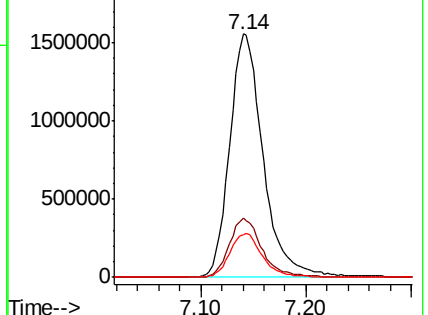
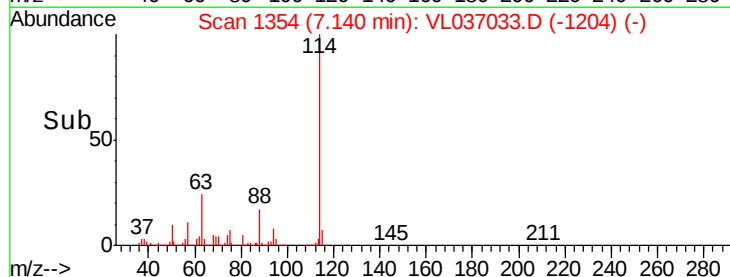
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Abundance Ion 114.10 (113.80 to 114.80): VL0
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 20.334 ppbv

RT: 5.21 min Scan# 754

Delta R.T. -0.02 min

Lab File: VL037033.D

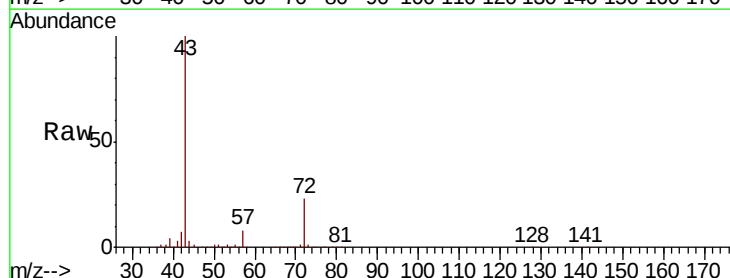
Acq: 20 May 2021 21:05

Tgt Ion: 43 Resp: 2523137

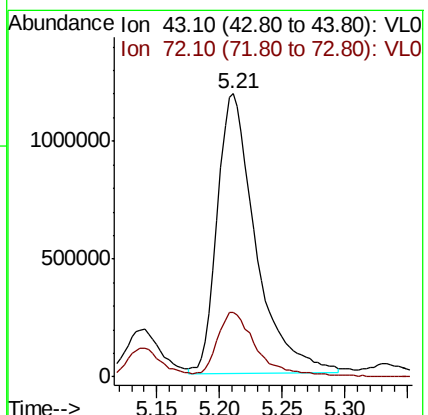
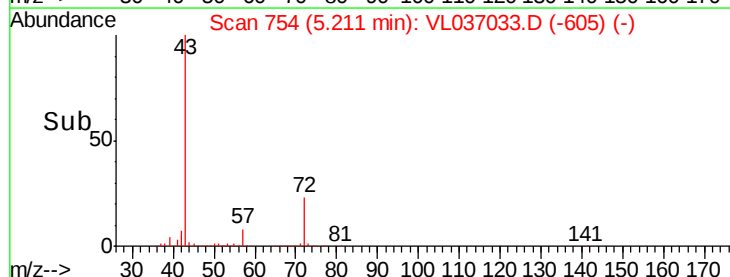
Ion Ratio Lower Upper

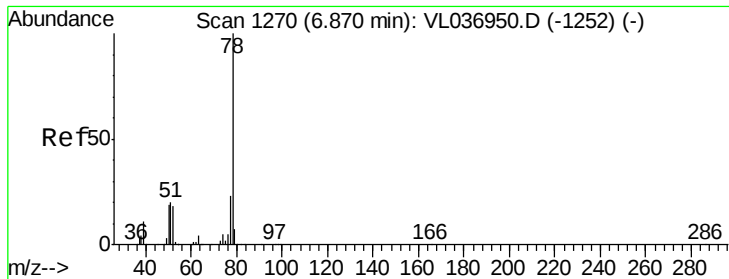
43 100

72 24.0 19.0 28.4



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 72.10 (71.80 to 72.80): VL0





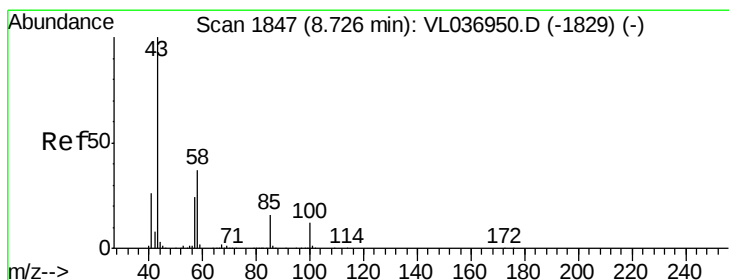
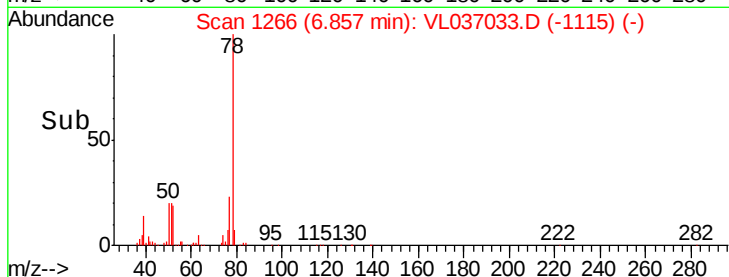
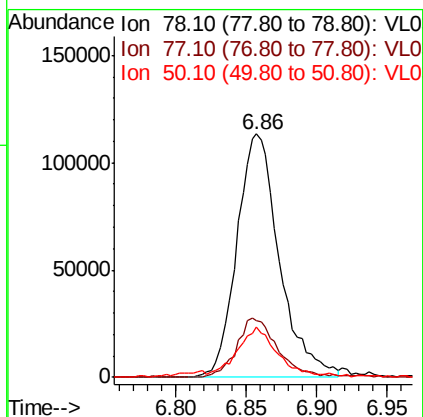
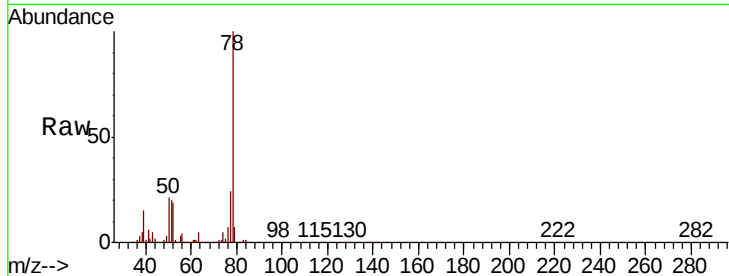
#36
Benzene
Concen: 0.815 ppbv
RT: 6.86 min Scan# 1266
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampleId :
KSV-10

Tot Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.6	28.0
50	19.9	15.0	22.4

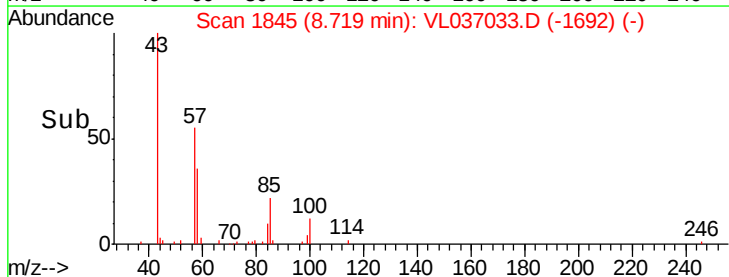
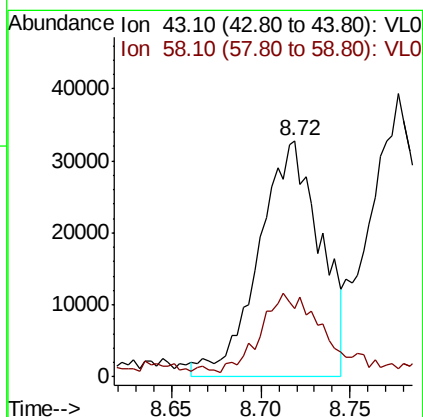
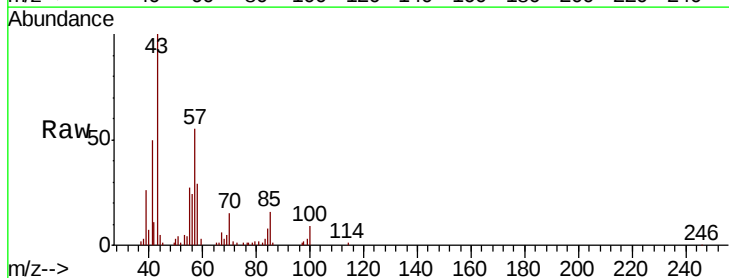
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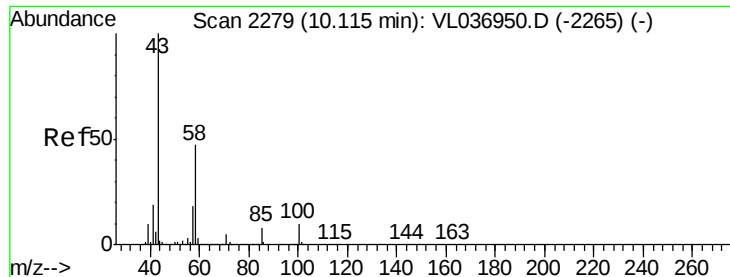
MMDadoda
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#50
4-Methyl-2-Pentanone
Concen: 0.384 ppbv m
RT: 8.72 min Scan# 1845
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.4	29.4	44.2





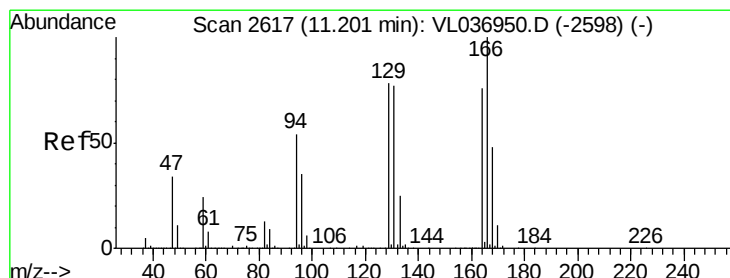
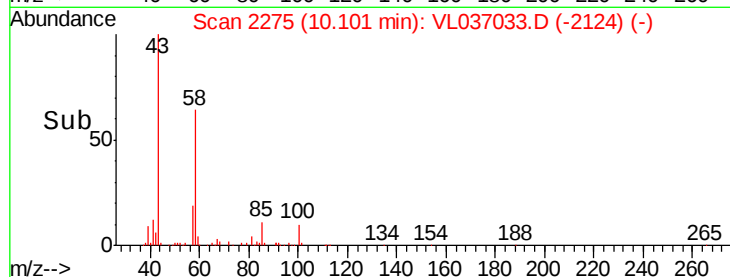
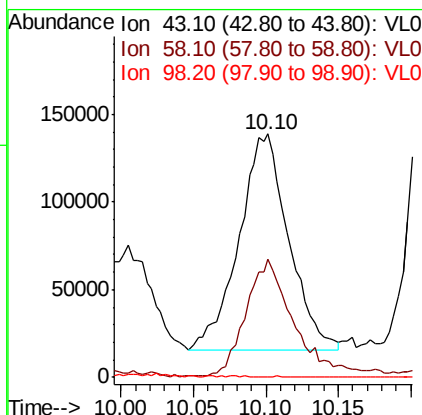
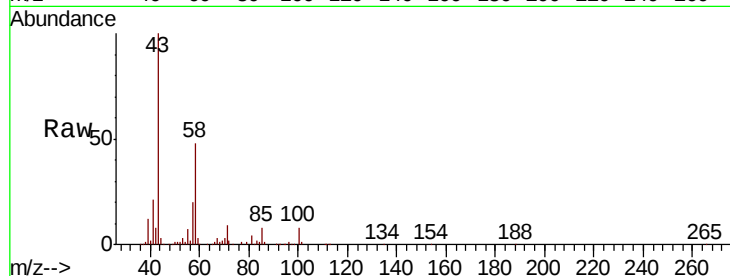
#51
2-Hexanone
Concen: 2.722 ppbv
RT: 10.10 min Scan# 2275
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampled :
KSV-10

Tot Ion	Ratio	Lower	Upper
43	100		
58	52.5	41.1	61.7
98	0.6	0.1	0.1#

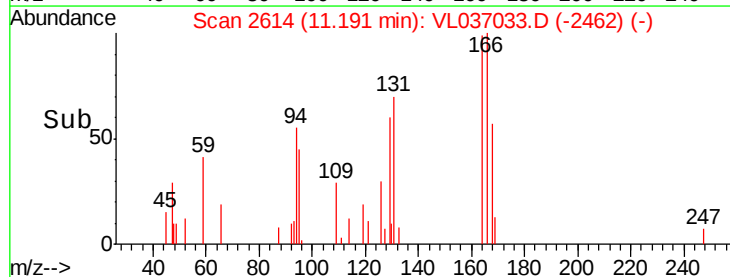
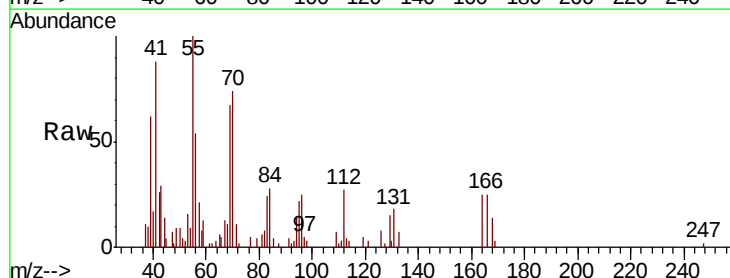
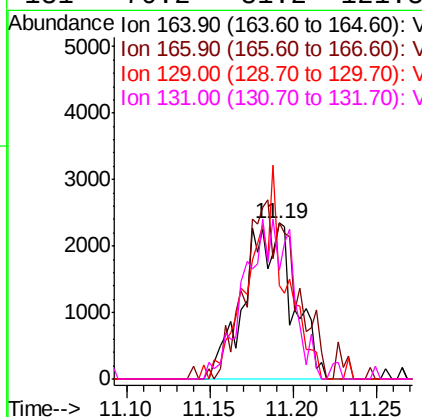
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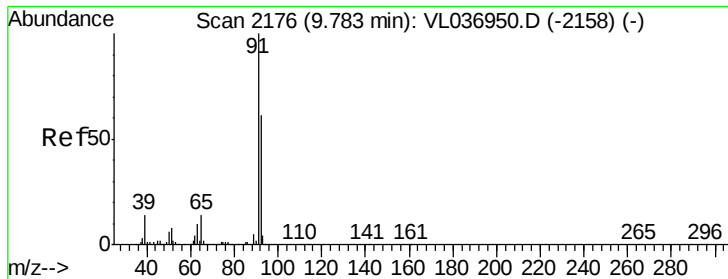
MMDadoda
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#52
Tetrachloroethene
Concen: 0.041 ppbv m
RT: 11.19 min Scan# 2614
Delta R.T. -0.01 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Lower	Upper
164	100		
166	100.6	105.5	158.3#
129	60.0	81.8	122.8#
131	70.2	81.2	121.8#





#53

Toluene

Concen: 2.296 ppbv

RT: 9.76 min Scan# 2170

Delta R.T. -0.02 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-10

Tot Ion: 91 Resp: 802048

Ion Ratio Lower Upper

91 100

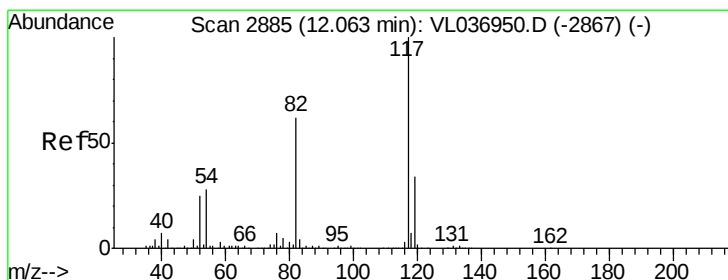
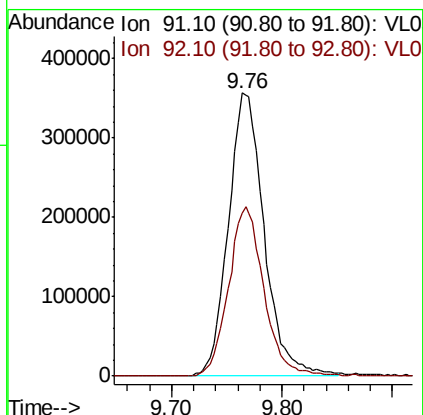
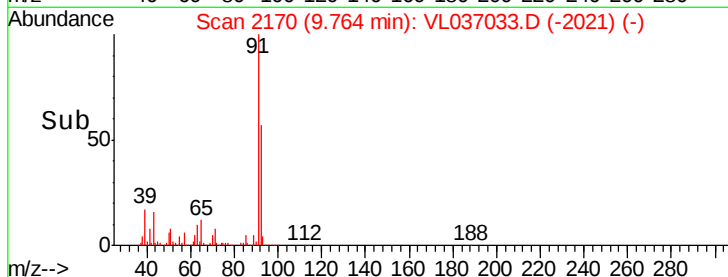
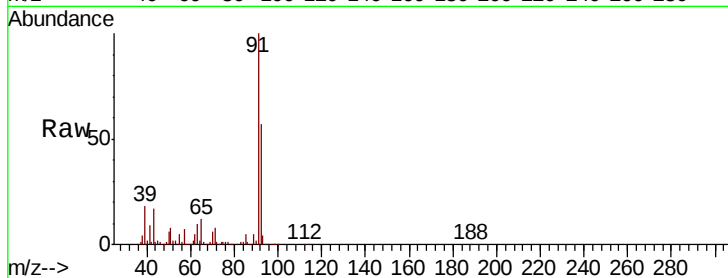
92 59.7 49.5 74.3

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.04 min Scan# 2879

Delta R.T. -0.02 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

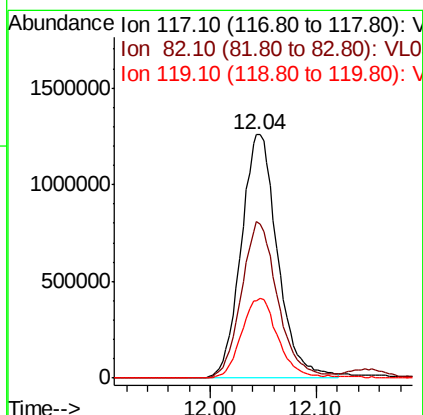
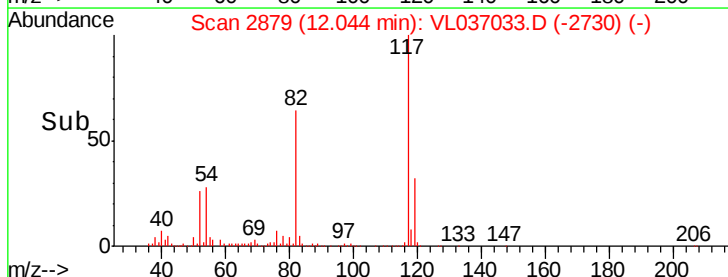
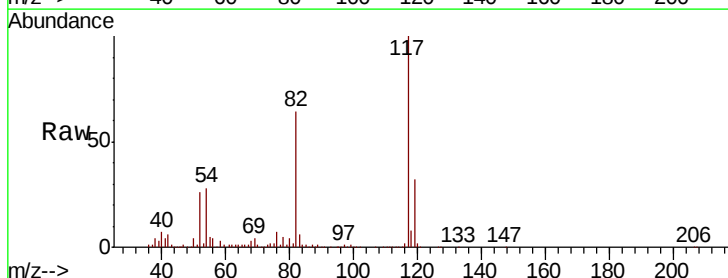
Tgt Ion: 117 Resp: 3024386

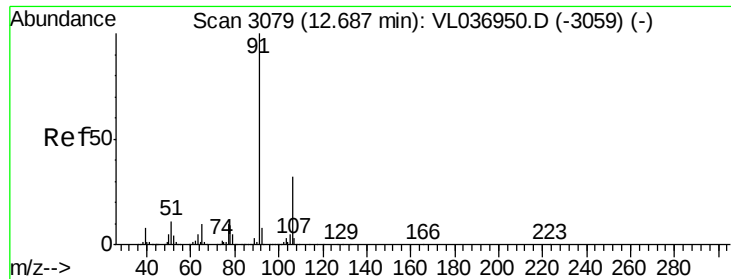
Ion Ratio Lower Upper

117 100

82 64.2 52.6 79.0

119 33.9 46.6 70.0#





#58

Ethyl Benzene

Concen: 0.290 ppbv

RT: 12.67 min Scan# 3075

Delta R.T. -0.01 min

Lab File: VL037033.D

Acq: 20 May 2021 21:05

Instrument :

MSVOA_L

ClientSampled :

KSV-10

Tot Ion: 91 Resp: 123634

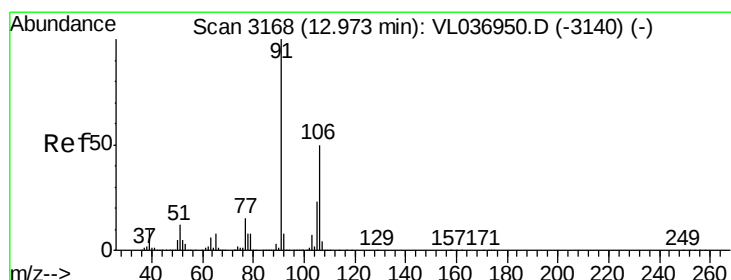
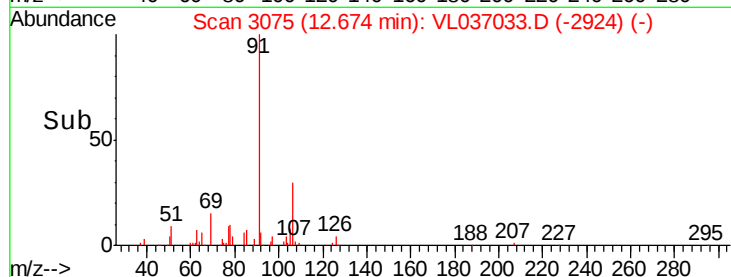
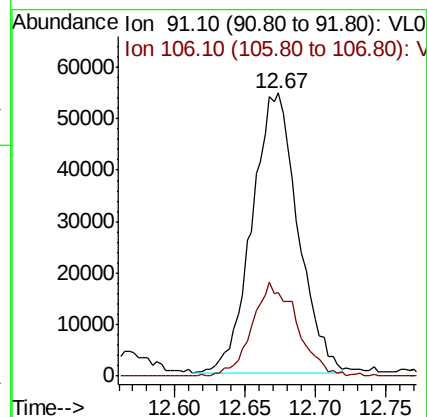
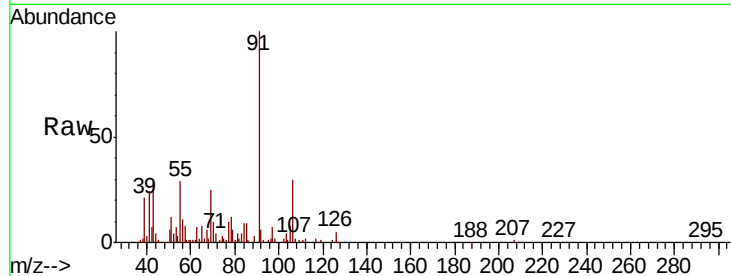
Ion Ratio Lower Upper

91 100

106 29.9 25.6 38.4

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#59

m/p-Xylene

Concen: 0.741 ppbv m

RT: 12.92 min Scan# 3152

Delta R.T. -0.05 min

Lab File: VL037033.D

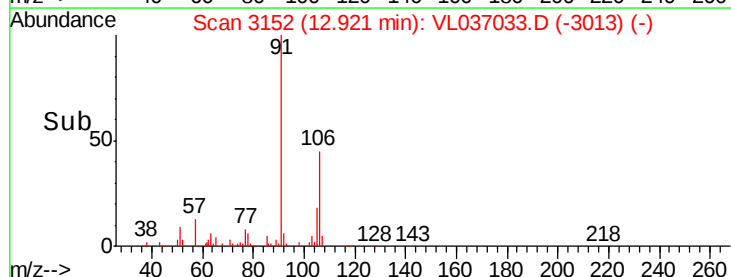
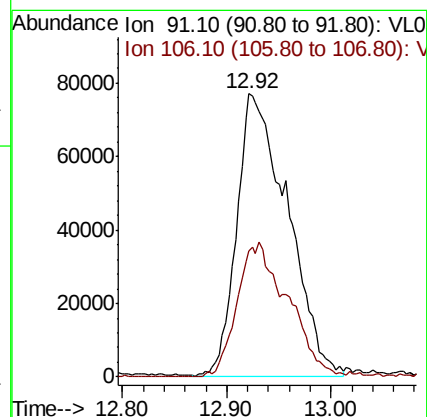
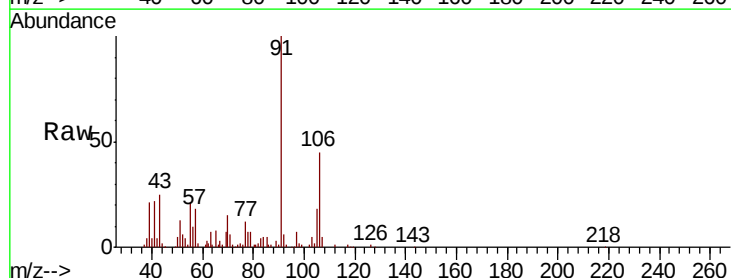
Acq: 20 May 2021 21:05

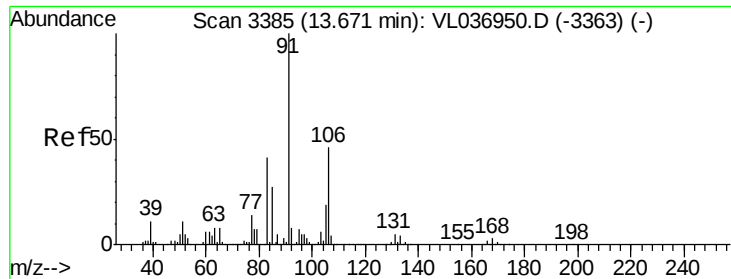
Tgt Ion: 91 Resp: 261436

Ion Ratio Lower Upper

91 100

106 0.0 37.4 56.2#





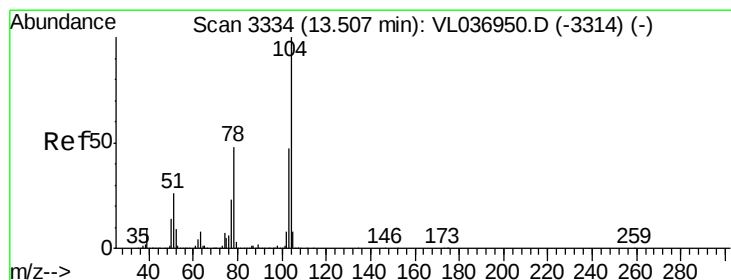
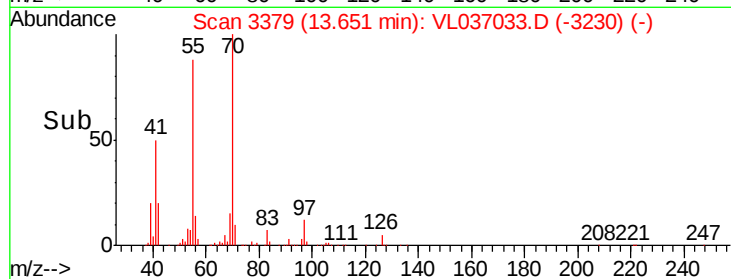
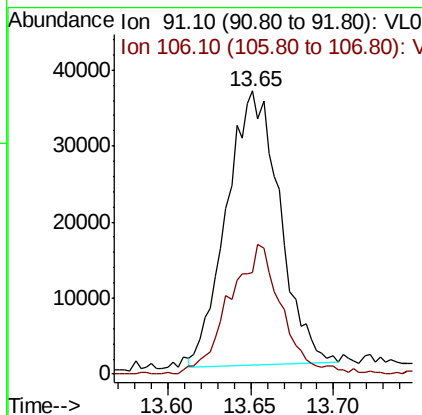
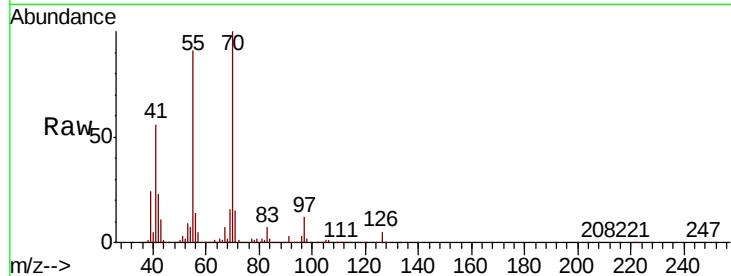
#60
o-Xylene
Concen: 0.239 ppbv
RT: 13.65 min Scan# 3379
Delta R.T. -0.02 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Instrument :
MSVOA_L
ClientSampled :
KSV-10

Tot Ion	Ratio	Lower	Upper
91	100		
106	46.4	23.4	70.3

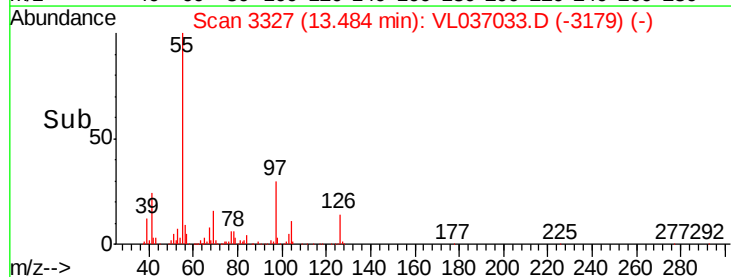
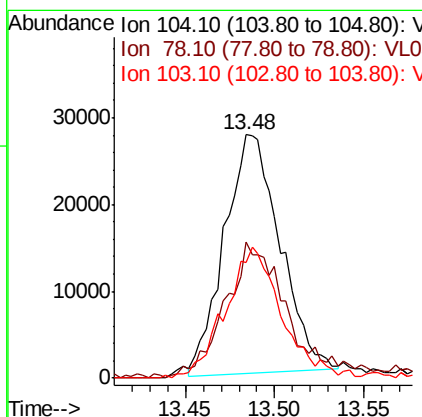
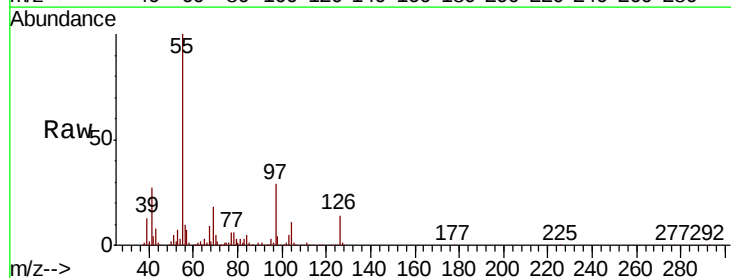
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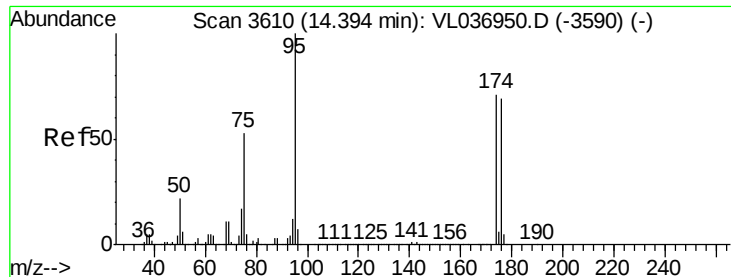
MMDadoda
5/24/2021 3:27:20 PM



#61
Styrene
Concen: 0.317 ppbv
RT: 13.48 min Scan# 3327
Delta R.T. -0.02 min
Lab File: VL037033.D
Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Lower	Upper
104	100		
78	64.7	39.0	58.6#
103	55.5	38.0	57.0





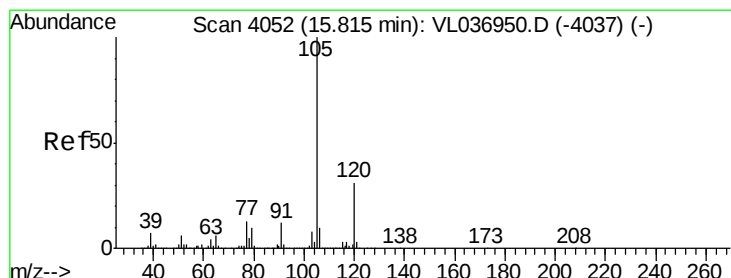
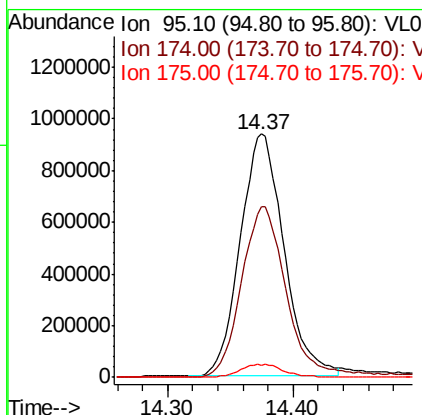
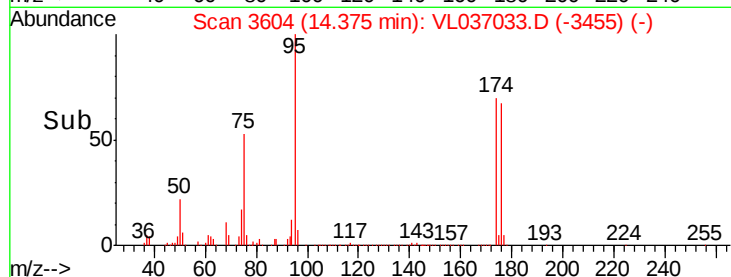
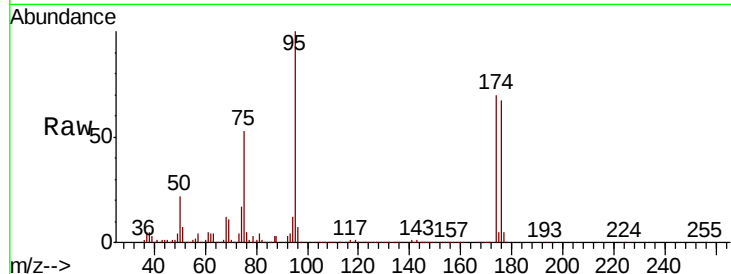
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.041 ppbv
 RT: 14.37 min Scan# 3604
 Delta R.T. -0.02 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-10

Tot Ion: 95 Resp: 2281278
 Ion Ratio Lower Upper
 95 100
 174 73.2 58.4 87.6
 175 5.6 4.4 6.6

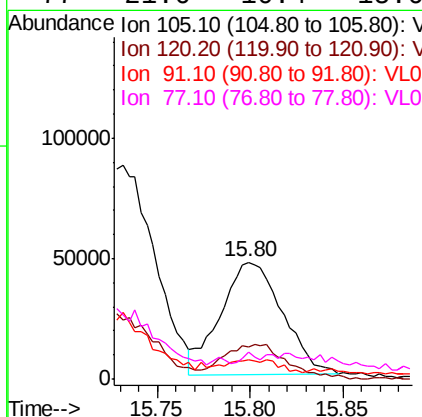
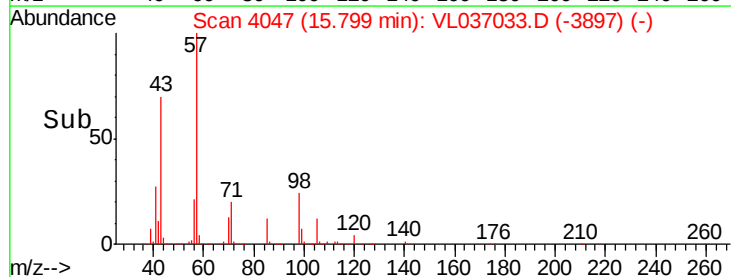
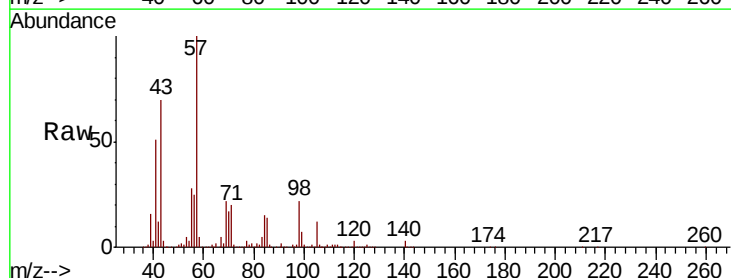
Manual Integrations
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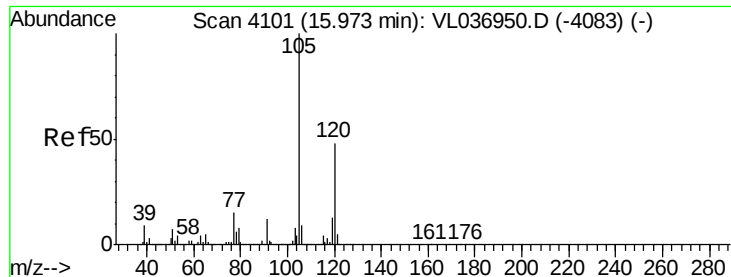
MMDadoda
 5/24/2021 3:27:20 PM



#72
 4-Ethyltoluene
 Concen: 0.271 ppbv
 RT: 15.80 min Scan# 4047
 Delta R.T. -0.02 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Tgt Ion: 105 Resp: 108375
 Ion Ratio Lower Upper
 105 100
 120 31.7 24.6 37.0
 91 18.9 9.8 14.6#
 77 21.6 10.4 15.6#





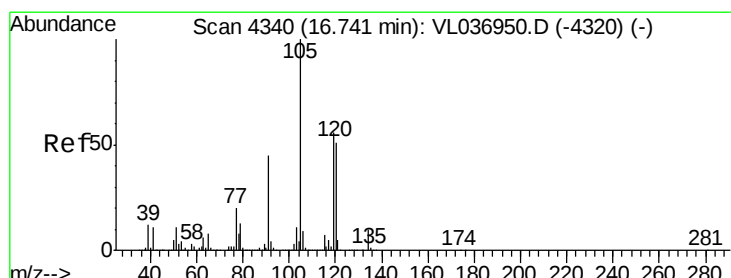
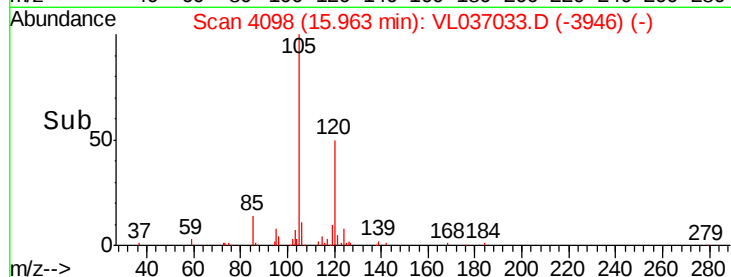
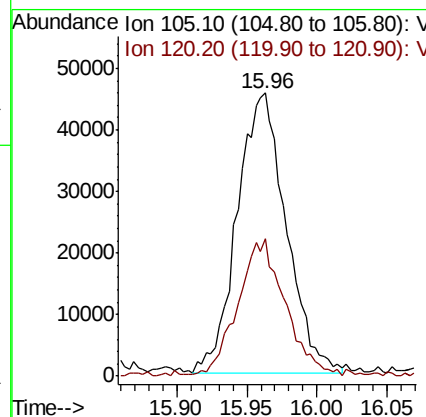
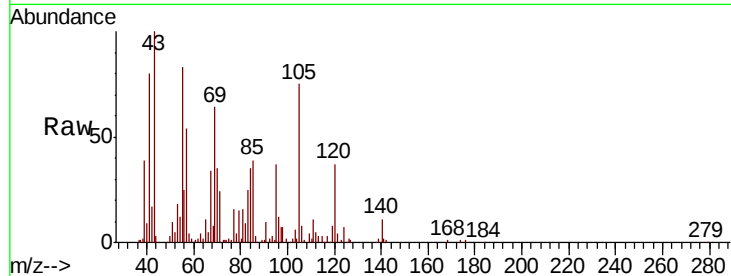
#73
 1,3,5-Trimethylbenzene
 Concen: 0.294 ppbv
 RT: 15.96 min Scan# 4098
 Delta R.T. -0.01 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Instrument :
 MSVOA_L
 ClientSampled :
 KSV-10

Tot Ion	Ratio	Resp	Lower	Upper
105	100	110322		
120	49.4	38.6	58.0	

Manual Integrations
 APPROVED

MMDadoda
 5/24/2021 3:27:20 PM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.917 ppbv
 RT: 16.73 min Scan# 4337
 Delta R.T. -0.01 min
 Lab File: VL037033.D
 Acq: 20 May 2021 21:05

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	355621		
120	41.1	40.6	61.0	
91	11.6	37.4	56.0#	
77	13.8	16.2	24.4#	

