

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041218\
 Data File : VL031873.D
 Acq On : 12 Apr 2018 20:05
 Operator : SY/AP
 Sample : J2191-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF3-040218

Manual Integrations
 APPROVED

MMDadoda
 4/15/2018 3:07:50 PM

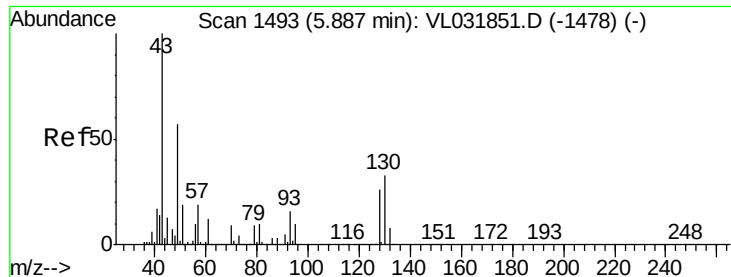
Quant Time: Apr 14 03:50:33 2018
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Apr 13 2018
 QLast Update : Fri Apr 13 16:50:02 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.89	49	1147086	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.43	114	2341474	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.39	117	2349661	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.73	95	1833502	9.70	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.16	85	197442	0.835	ppbv	97
3) Chlorodifluoromethane	3.10	51	38872m	0.291	ppbv	
4) Chloromethane	3.26	50	16098	0.236	ppbv	98
5) Vinyl Chloride	3.38	62	60276	0.786	ppbv	98
7) Chloroethane	3.70	64	14100	0.461	ppbv #	83
9) Propene	3.14	41	27179	0.589	ppbv	98
11) Trichlorofluoromethane	4.11	101	998388	4.304	ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.67	101	87517	0.581	ppbv	96
13) Ethanol	3.76	45	115284	7.364	ppbv	95
15) Acetone	4.01	43	1144384	6.482	ppbv	96
18) 1,1-Dichloroethene	4.47	96	56513	0.873	ppbv	95
20) Methylene Chloride	4.52	84	245263	3.814	ppbv	97
22) trans-1,2-Dichloroethene	5.09	96	25200	0.375	ppbv #	85
24) 1,1-Dichloroethane	5.21	63	2610355	14.636	ppbv	99
26) Hexane	5.91	57	57245m	0.446	ppbv	
29) Chloroform	5.97	83	70960	0.326	ppbv	91
31) cis-1,2-Dichloroethene	5.77	61	2241396	19.273	ppbv	99
32) 1,1,1-Trichloroethane	6.76	97	4634216	21.865	ppbv	100
34) 2-Butanone	5.47	43	42125	0.259	ppbv	97
35) Carbon Tetrachloride	7.27	117	15326m	0.075	ppbv	
36) Benzene	7.14	78	178557	0.848	ppbv	96
38) Trichloroethene	8.11	130	7980365	93.348	ppbv	93
52) Tetrachloroethene	11.53	164	82214	1.002	ppbv	92
53) Toluene	10.09	91	72857	0.310	ppbv	99

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.89 min Scan# 1494

Delta R.T. -0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 49 Resp: 1147086

Ion Ratio Lower Upper

49 100

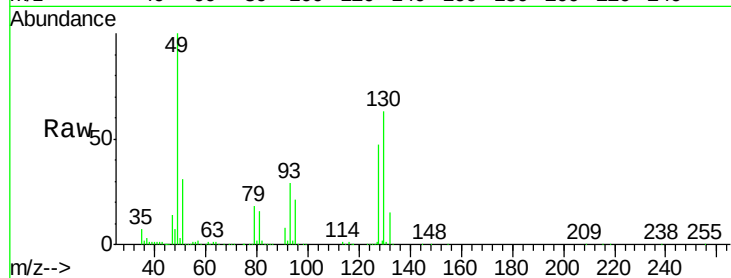
128 48.1 23.9 71.7

130 62.1 30.9 92.7

Manual Integrations
APPROVED

MMDadoda

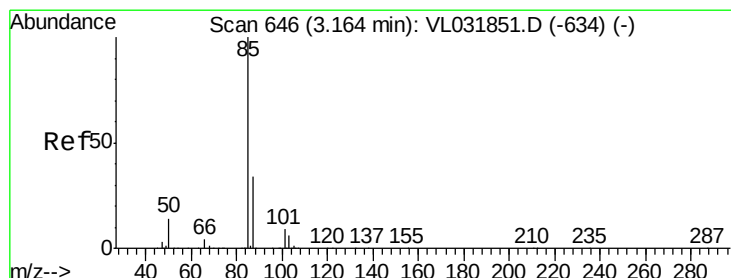
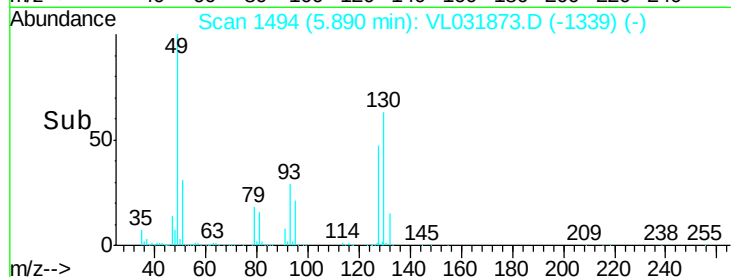
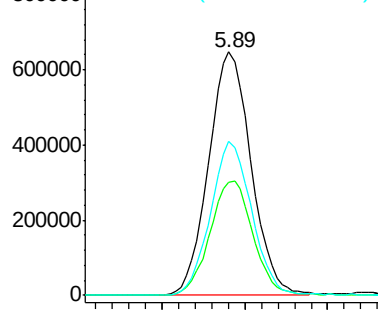
4/15/2018 3:07:50 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.835 ppbv

RT: 3.16 min Scan# 646

Delta R.T. -0.00 min

Lab File: VL031873.D

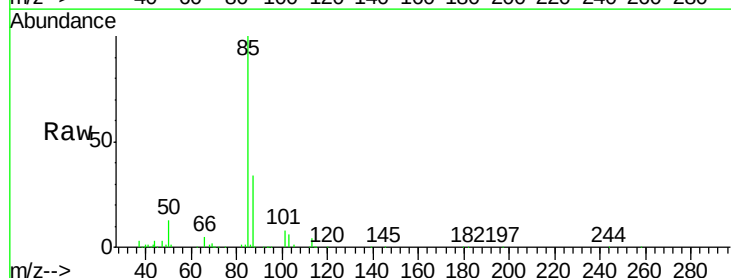
Acq: 12 Apr 2018 20:05

Tgt Ion: 85 Resp: 197442

Ion Ratio Lower Upper

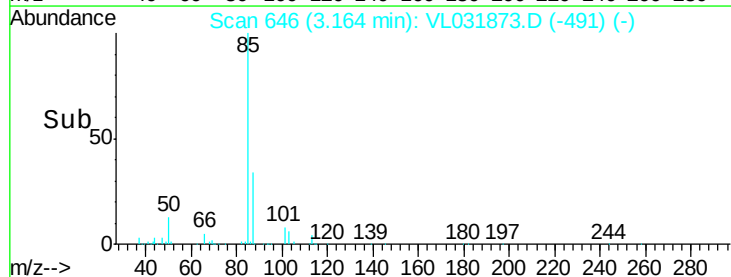
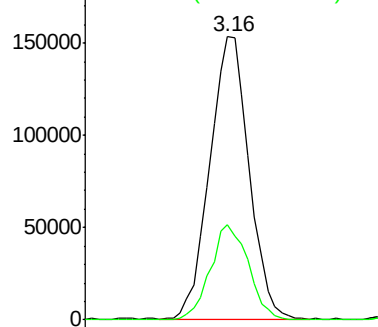
85 100

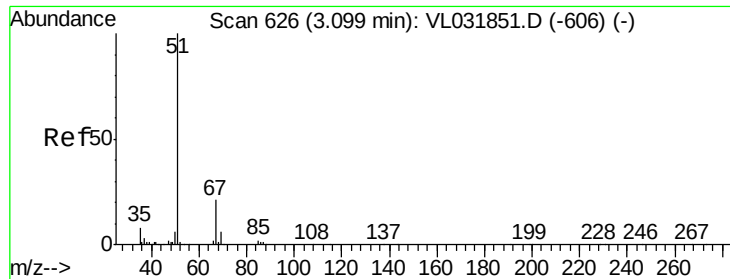
87 33.8 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.291 ppbv

RT: 3.10 min Scan# 627

Delta R.T. 0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 51 Resp: 38872

Ion Ratio Lower Upper

51 100

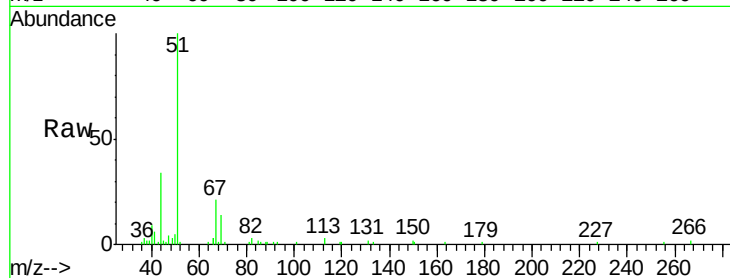
67 2.9 17.5 26.3#

Manual Integrations

APPROVED

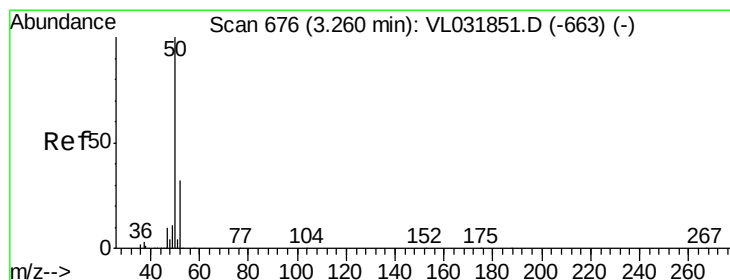
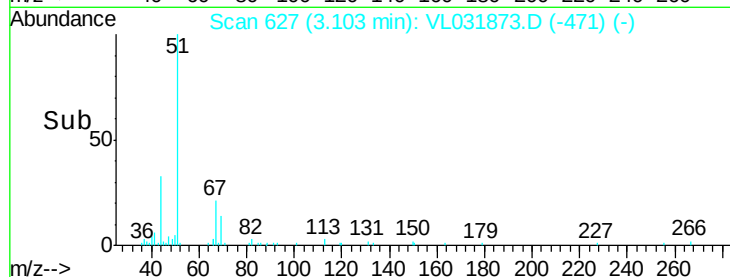
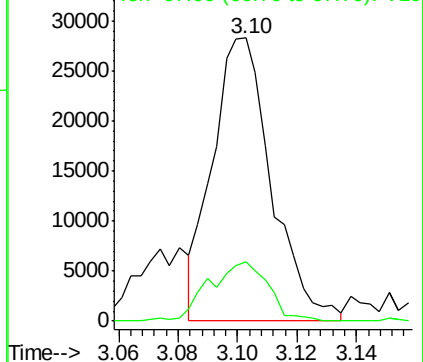
MMDadoda

4/15/2018 3:07:50 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.236 ppbv

RT: 3.26 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL031873.D

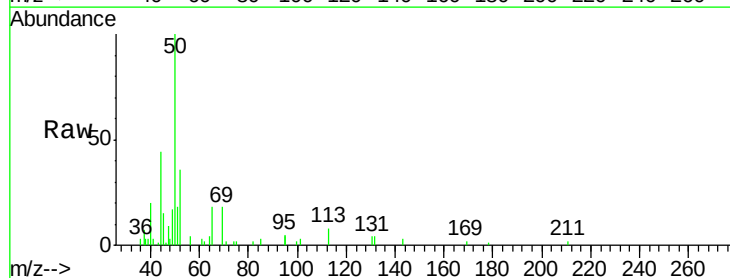
Acq: 12 Apr 2018 20:05

Tgt Ion: 50 Resp: 16098

Ion Ratio Lower Upper

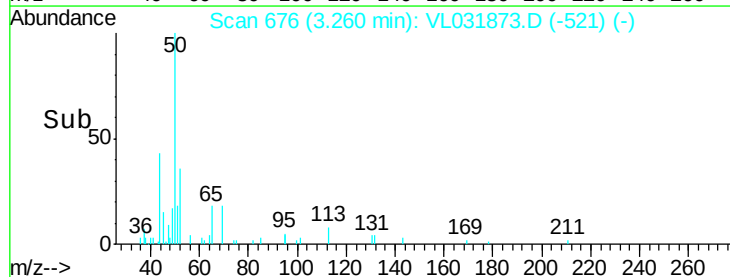
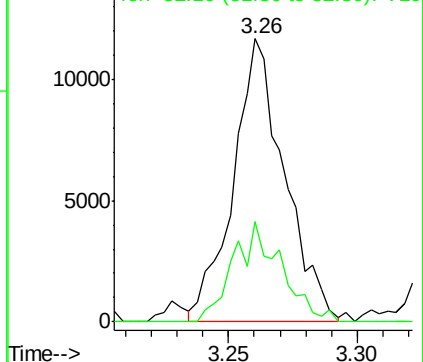
50 100

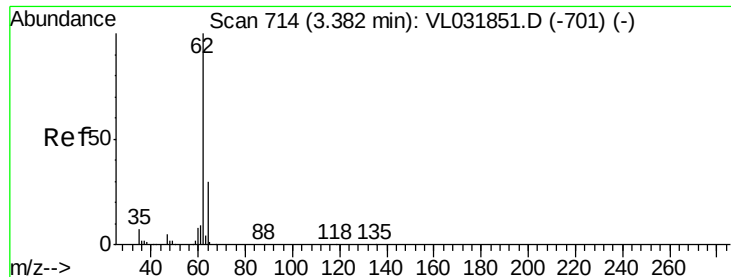
52 36.3 28.1 42.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.786 ppbv

RT: 3.38 min Scan# 714

Delta R.T. -0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 62 Resp: 60276

Ion Ratio Lower Upper

62 100

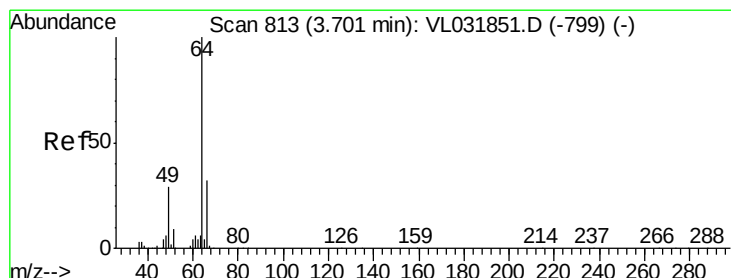
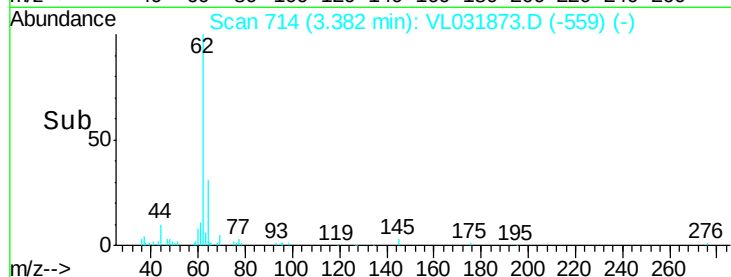
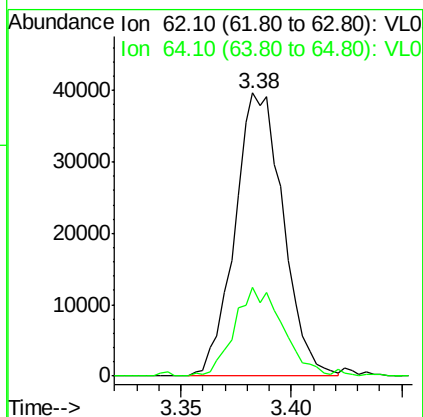
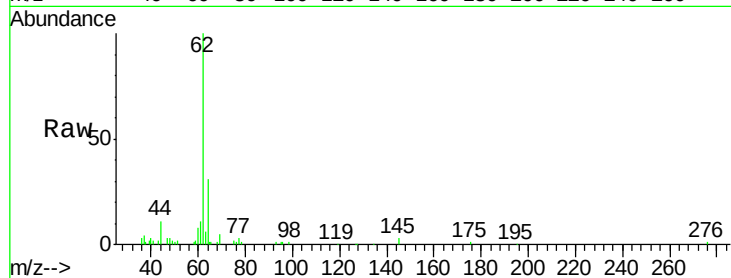
64 31.2 25.9 38.9

Manual Integrations

APPROVED

MMDadoda

4/15/2018 3:07:50 PM



#7

Chloroethane

Concen: 0.461 ppbv

RT: 3.70 min Scan# 814

Delta R.T. 0.01 min

Lab File: VL031873.D

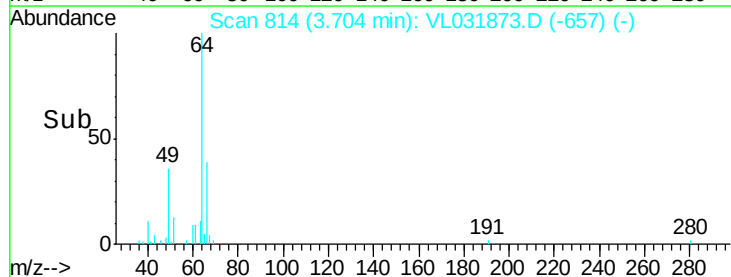
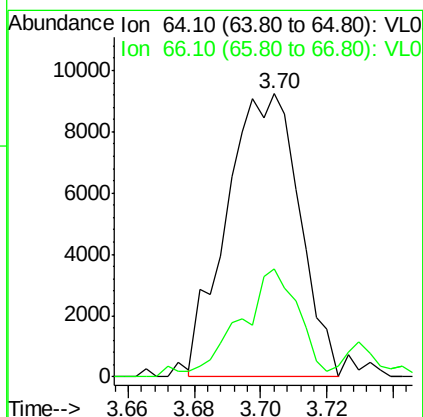
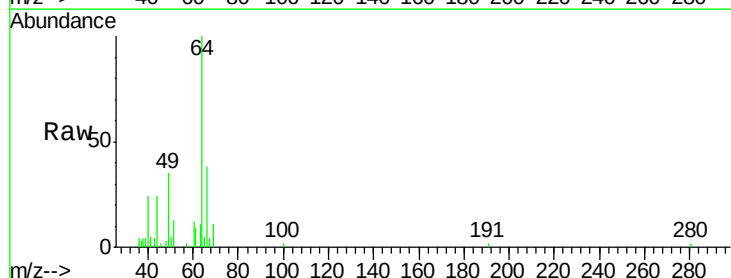
Acq: 12 Apr 2018 20:05

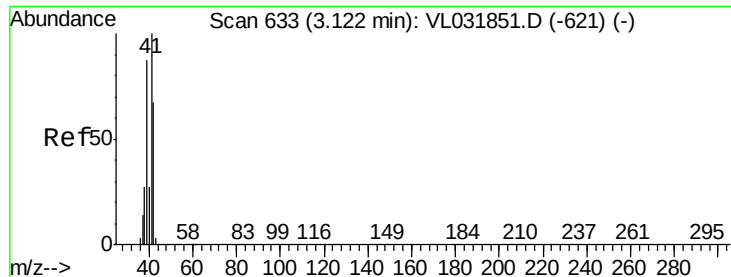
Tgt Ion: 64 Resp: 14100

Ion Ratio Lower Upper

64 100

66 38.2 23.4 35.0#





#9

Propene

Concen: 0.589 ppbv

RT: 3.14 min Scan# 638

Delta R.T. 0.02 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 41 Resp: 27179

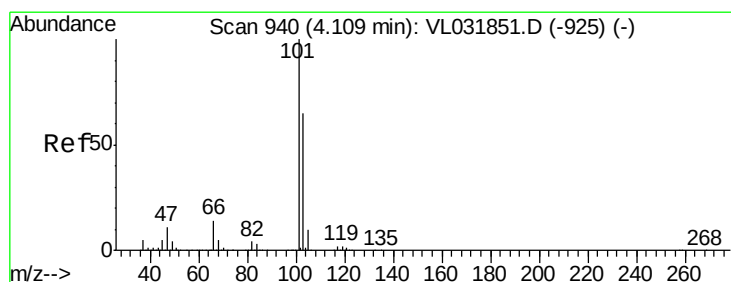
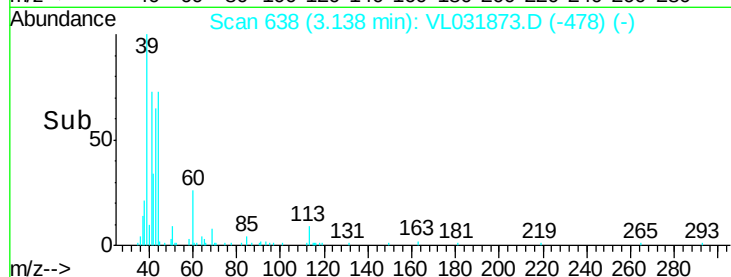
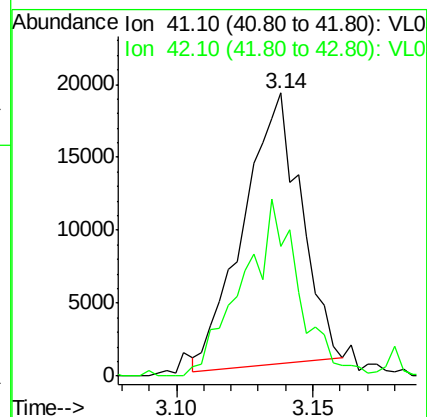
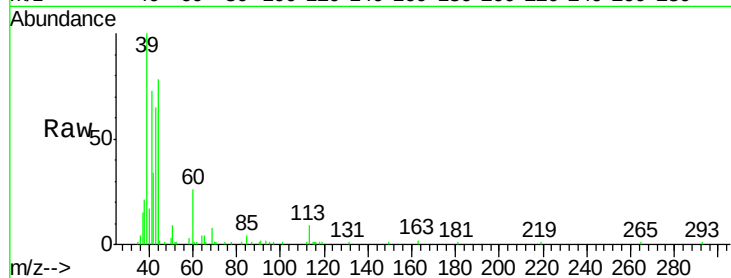
Ion Ratio Lower Upper

41 100

42 67.0 55.0 82.4

Manual Integrations
APPROVED

MMDadoda
4/15/2018 3:07:50 PM



#11

Trichlorofluoromethane

Concen: 4.304 ppbv

RT: 4.11 min Scan# 941

Delta R.T. 0.00 min

Lab File: VL031873.D

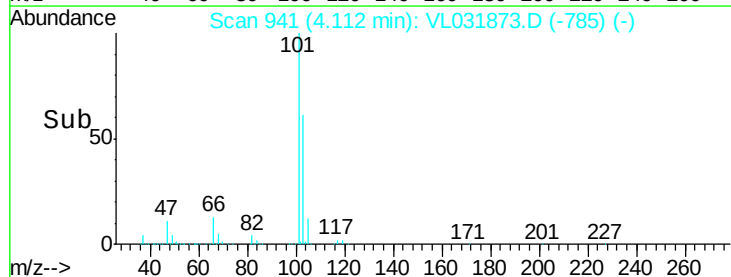
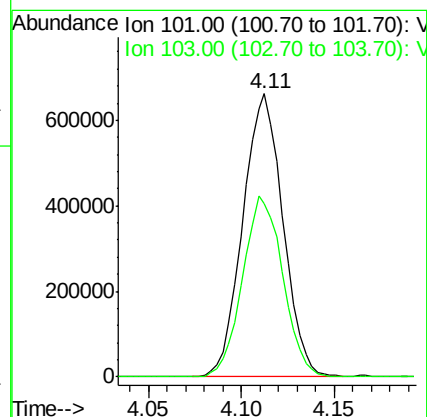
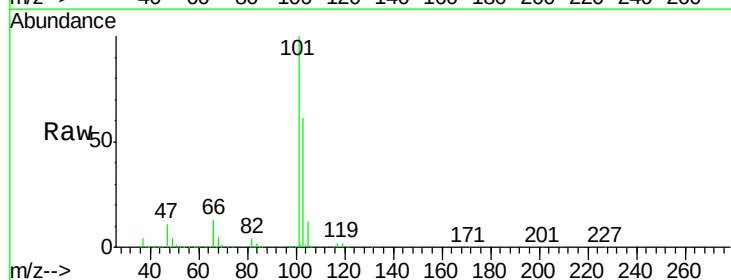
Acq: 12 Apr 2018 20:05

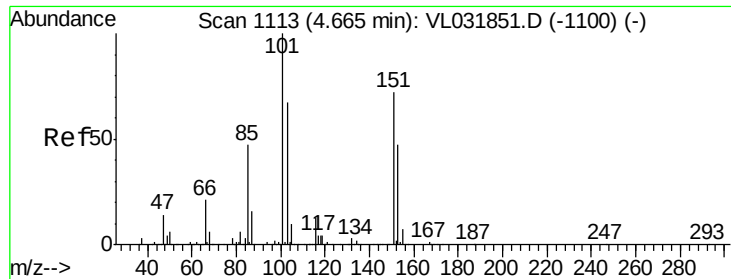
Tgt Ion: 101 Resp: 998388

Ion Ratio Lower Upper

101 100

103 61.0 51.8 77.8





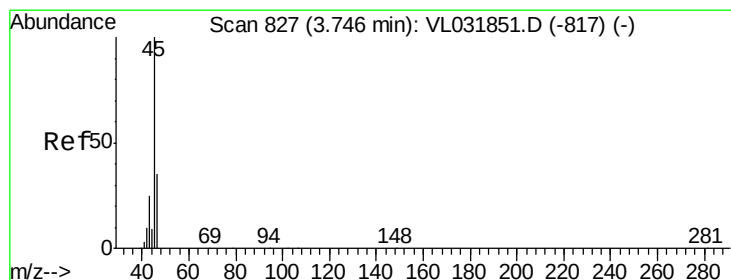
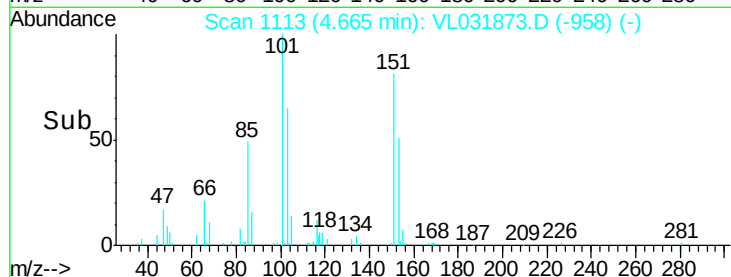
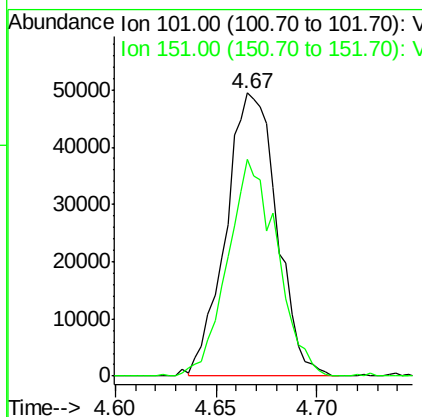
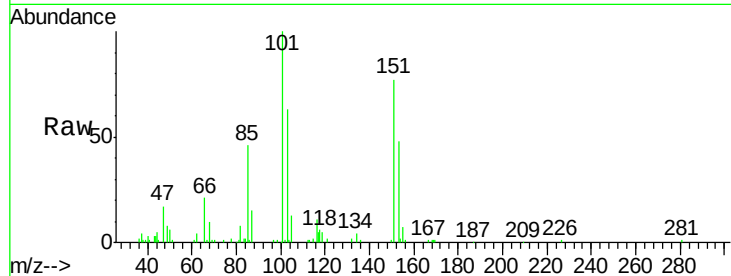
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.581 ppbv
 RT: 4.67 min Scan# 1113
 Delta R.T. -0.00 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF3-040218

Tot Ion:101 Resp: 87517
 Ion Ratio Lower Upper
 101 100
 151 74.4 57.0 85.6

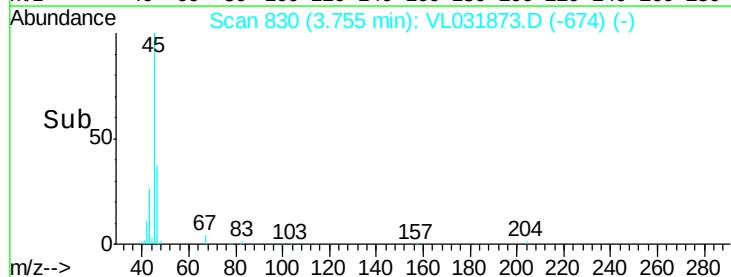
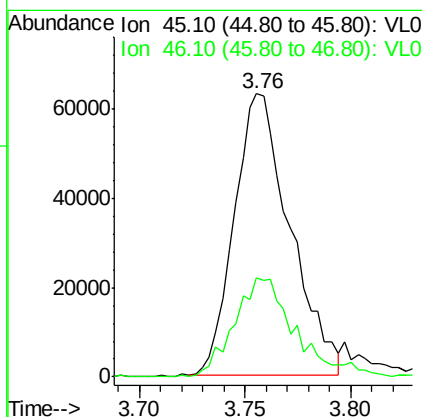
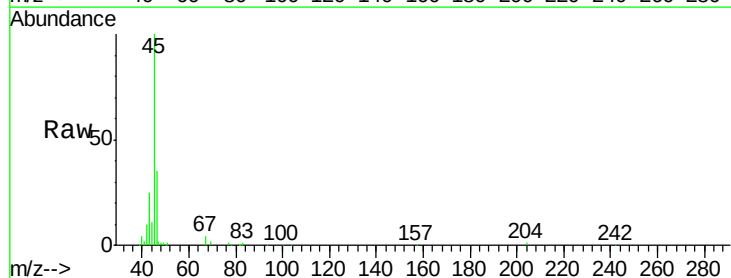
Manual Integrations
 APPROVED

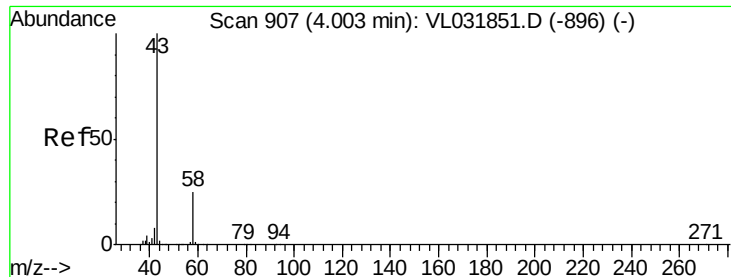
MMDadoda
 4/15/2018 3:07:50 PM



#13
 Ethanol
 Concen: 7.364 ppbv
 RT: 3.76 min Scan# 830
 Delta R.T. 0.00 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Tgt Ion: 45 Resp: 115284
 Ion Ratio Lower Upper
 45 100
 46 39.3 14.6 58.6





#15

Acetone

Concen: 6.482 ppbv

RT: 4.01 min Scan# 910

Delta R.T. 0.01 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 43 Resp: 1144384

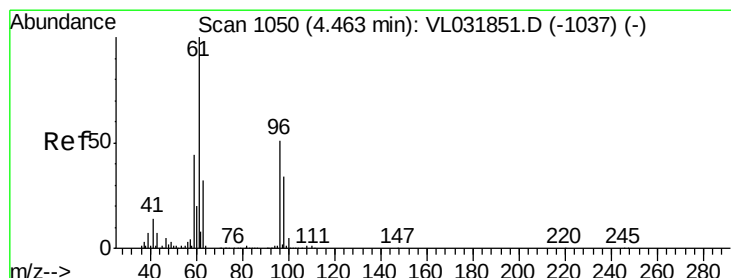
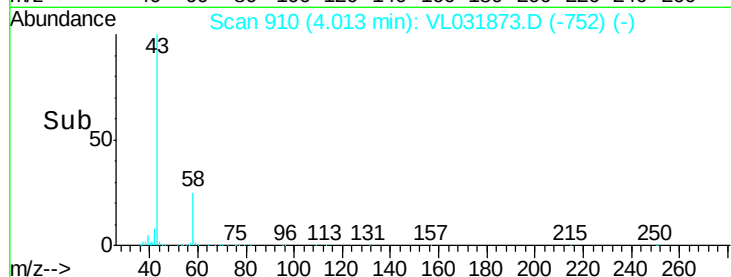
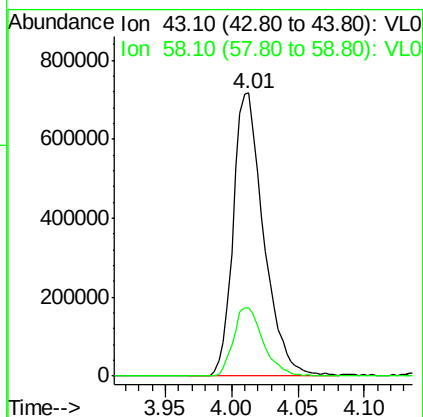
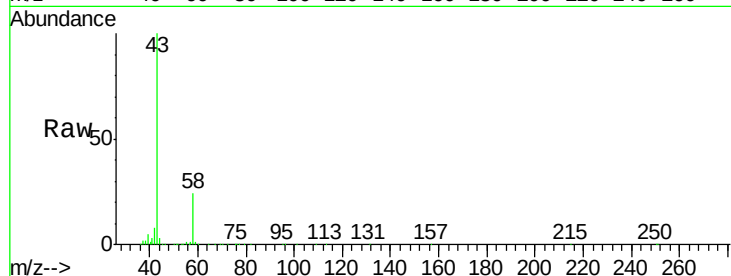
Ion Ratio Lower Upper

43 100

58 24.1 20.9 31.3

Manual Integrations
APPROVED

MMDadoda
4/15/2018 3:07:50 PM



#18

1,1-Dichloroethene

Concen: 0.873 ppbv

RT: 4.47 min Scan# 1051

Delta R.T. 0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

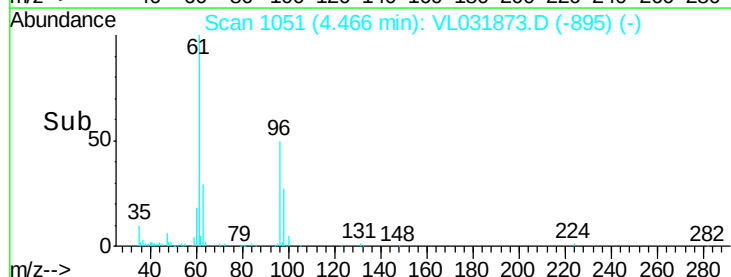
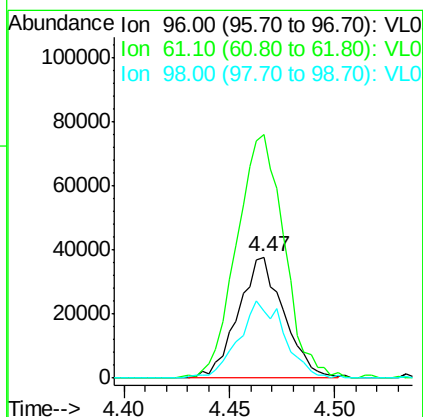
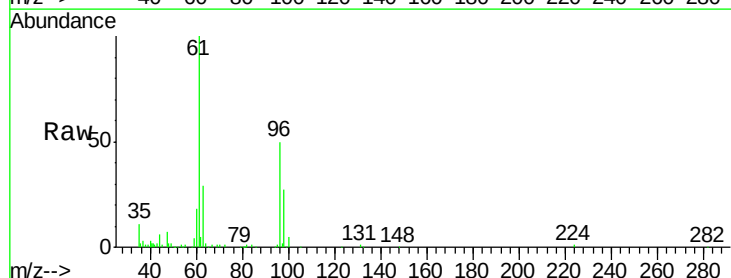
Tgt Ion: 96 Resp: 56513

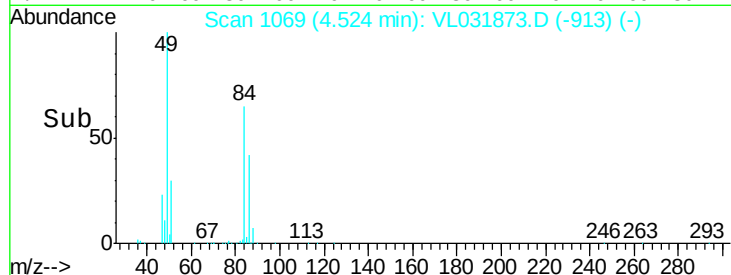
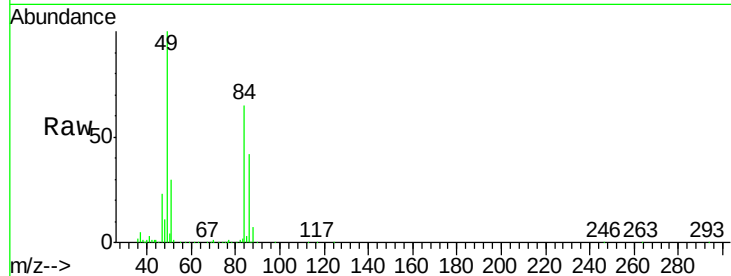
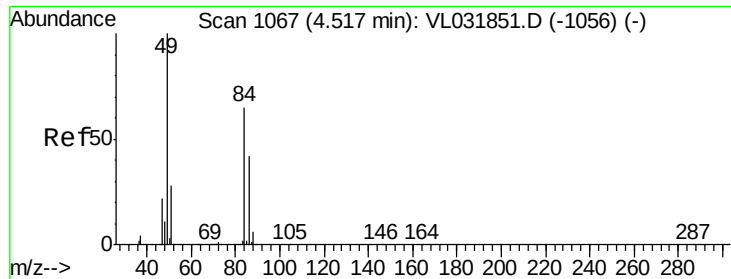
Ion Ratio Lower Upper

96 100

61 199.1 161.0 241.6

98 54.2 52.7 79.1





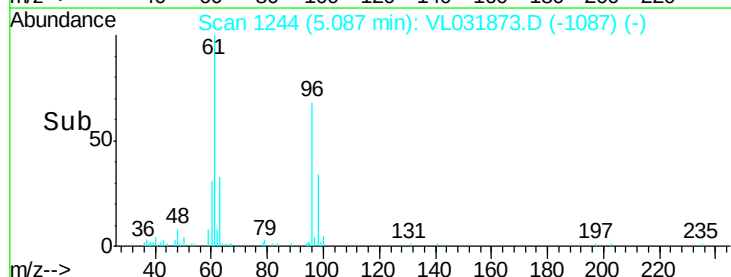
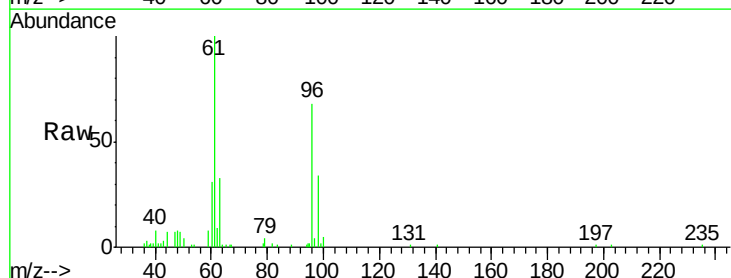
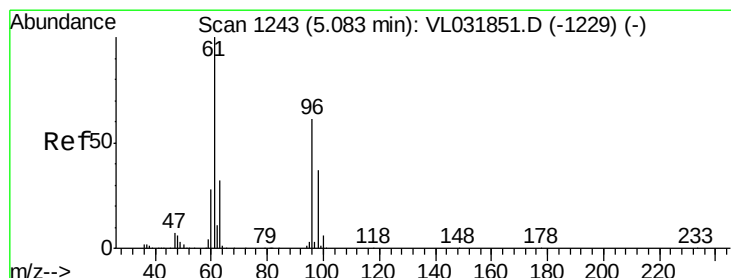
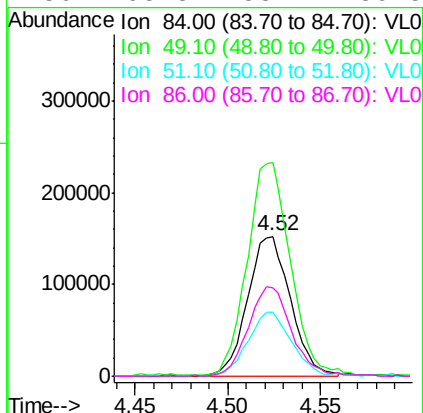
#20
Methvlene Chloride
Concen: 3.814 ppbv
RT: 4.52 min Scan# 1069
Delta R.T. 0.00 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Tot Ion	84	Resp	245263
Ion Ratio	Lower	Upper	
84	100		
49	152.1	125.6	188.4
51	45.4	36.4	54.6
86	63.3	53.7	80.5

Instrument :
MSVOA_L
ClientSampleId :
SVE-INF3-040218

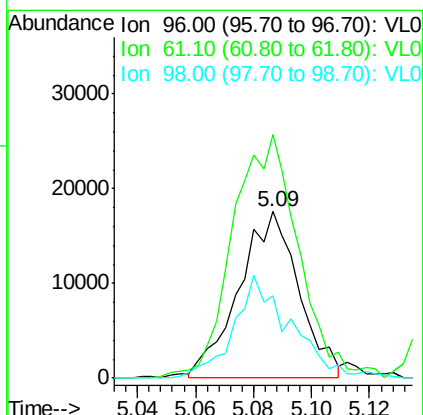
Manual Integrations
APPROVED

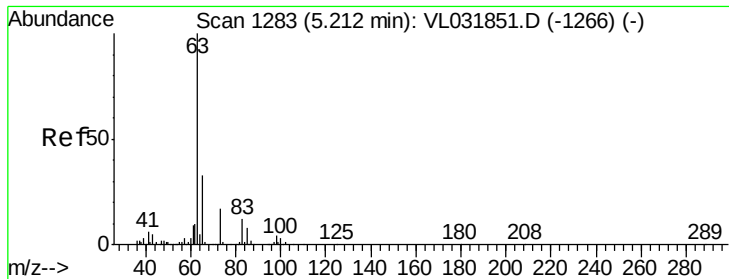
MMDadoda
4/15/2018 3:07:50 PM



#22
trans-1,2-Dichloroethene
Concen: 0.375 ppbv
RT: 5.09 min Scan# 1244
Delta R.T. 0.01 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Tgt Ion	96	Resp	25200
Ion Ratio	Lower	Upper	
96	100		
61	145.2	131.1	196.7
98	47.0	47.6	71.4#





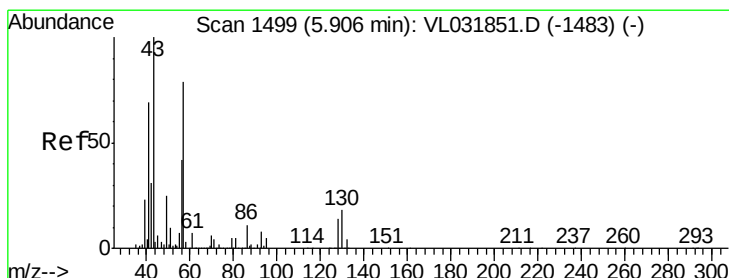
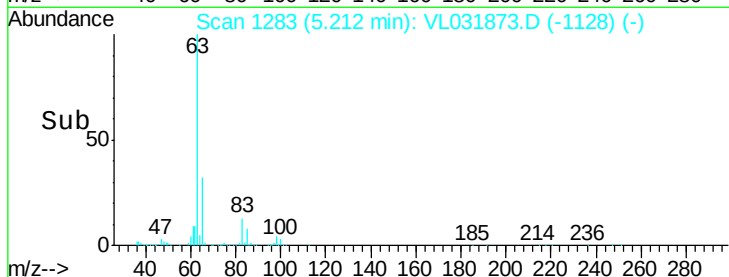
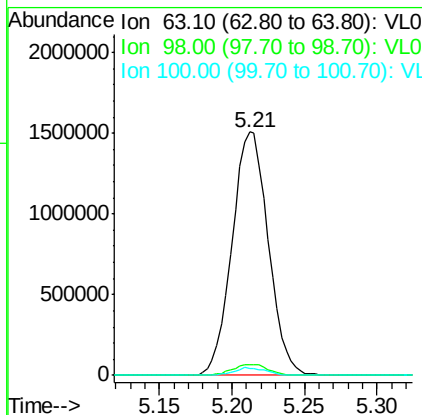
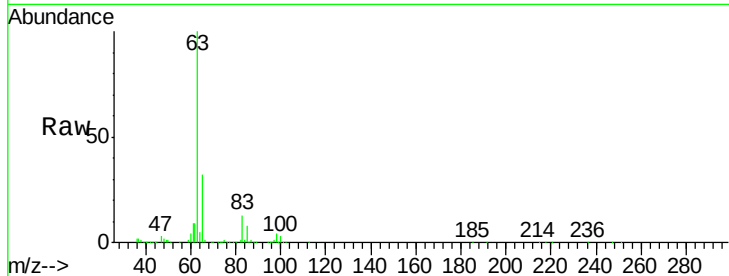
#24
 1,1-Dichloroethane
 Concen: 14.636 ppbv
 RT: 5.21 min Scan# 1283
 Delta R.T. -0.00 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF3-040218

Tot Ion	Ratio	Lower	Upper
63	100		
98	4.3	2.4	7.2
100	2.8	1.5	4.4

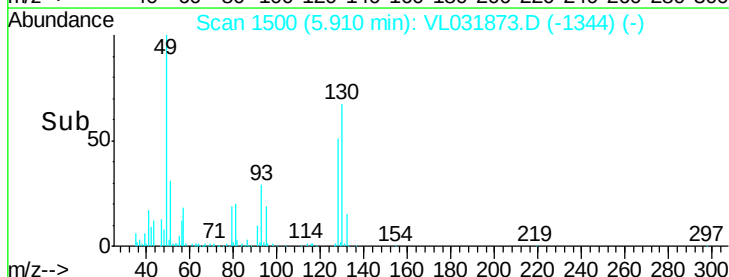
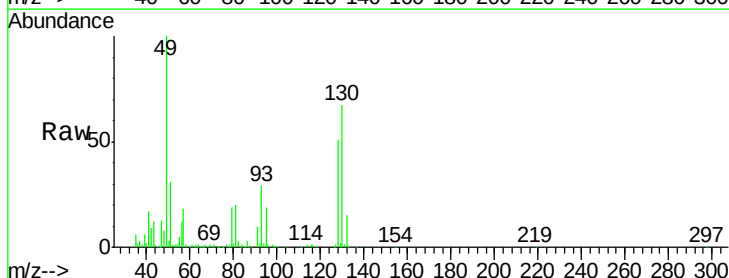
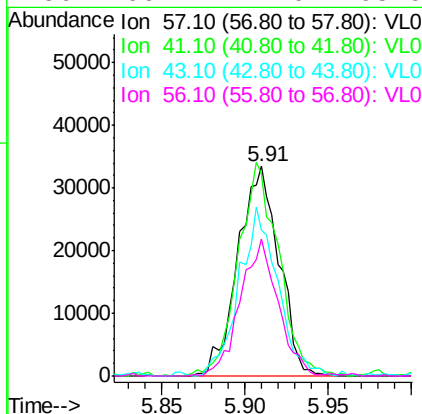
Manual Integrations
 APPROVED

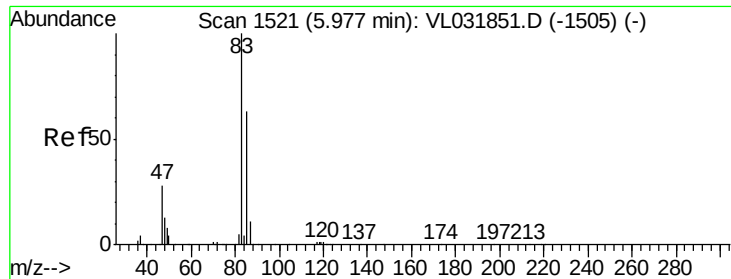
MMDadoda
 4/15/2018 3:07:50 PM



#26
 Hexane
 Concen: 0.446 ppbv m
 RT: 5.91 min Scan# 1500
 Delta R.T. 0.00 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Tgt Ion	Ratio	Lower	Upper
57	100		
41	100.6	72.0	108.0
43	76.7	169.8	254.8#
56	60.7	42.0	63.0





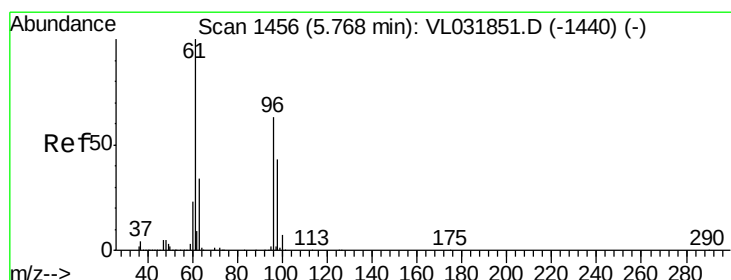
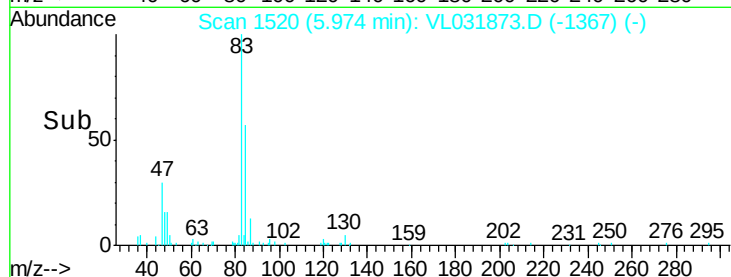
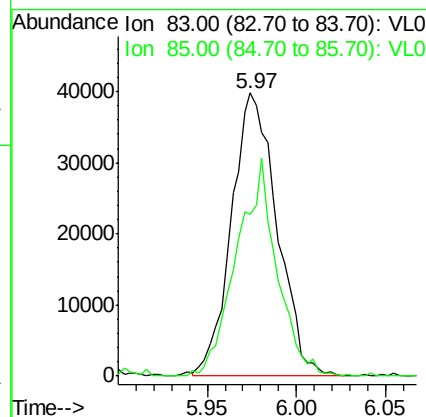
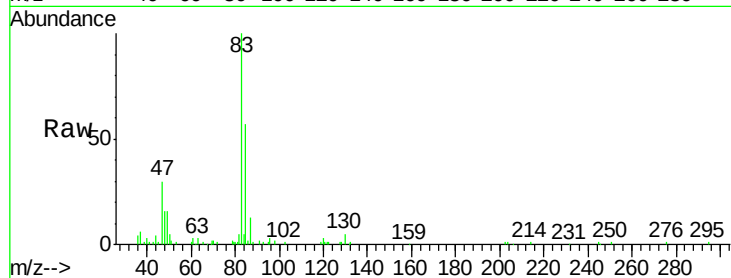
#29
Chloroform
Concen: 0.326 ppbv
RT: 5.97 min Scan# 1520
Delta R.T. -0.01 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Instrument :
MSVOA_L
ClientSampleId :
SVE-INF3-040218

Tot Ion: 83 Resp: 70960
Ion Ratio Lower Upper
83 100
85 57.1 51.4 77.0

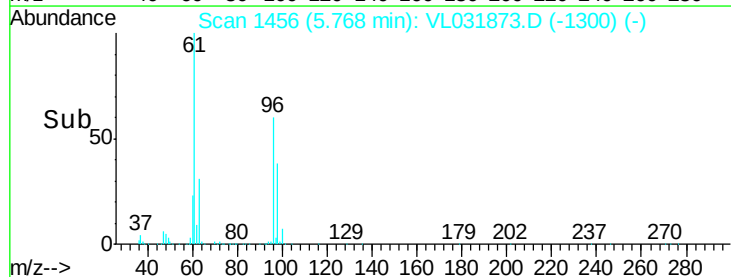
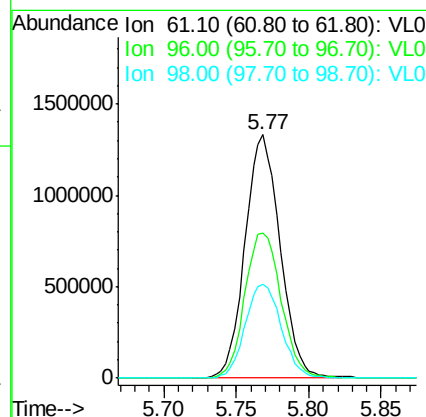
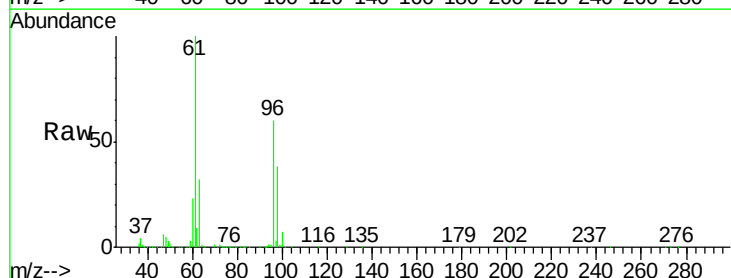
Manual Integrations
APPROVED

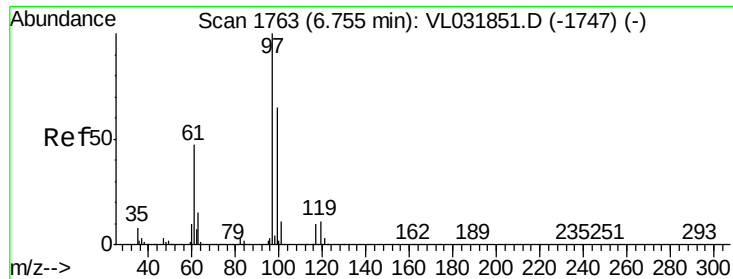
MMDadoda
4/15/2018 3:07:50 PM



#31
cis-1,2-Dichloroethene
Concen: 19.273 ppbv
RT: 5.77 min Scan# 1456
Delta R.T. 0.00 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Tgt Ion: 61 Resp: 2241396
Ion Ratio Lower Upper
61 100
96 59.8 47.6 71.4
98 38.4 30.3 45.5





#32

1,1,1-Trichloroethane

Concen: 21.865 ppbv

RT: 6.76 min Scan# 1763

Delta R.T. -0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF3-040218

Tot Ion: 97 Resp: 4634216

Ion Ratio Lower Upper

97 100

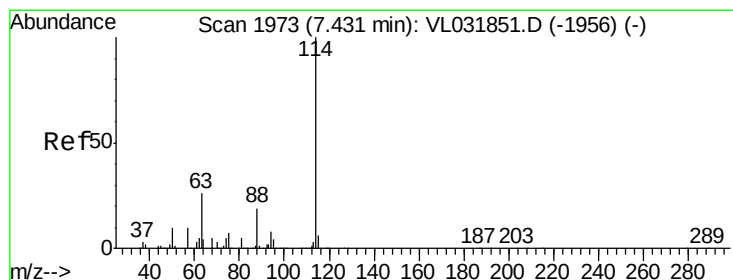
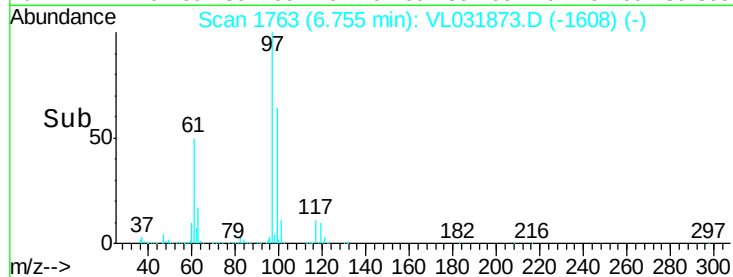
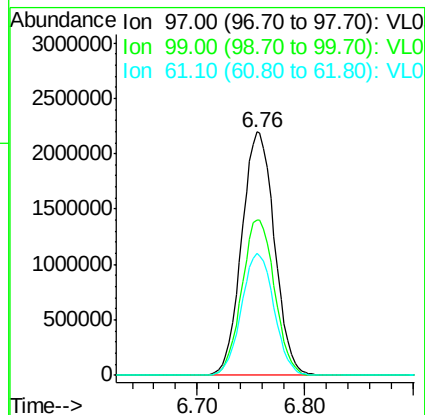
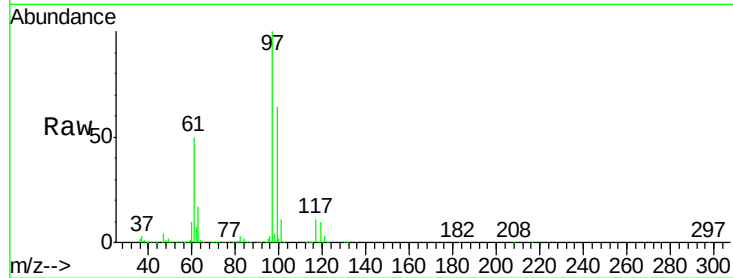
99 64.1 51.5 77.3

61 50.1 40.0 60.0

Manual Integrations
APPROVED

MMDadoda

4/15/2018 3:07:50 PM



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.43 min Scan# 1974

Delta R.T. -0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

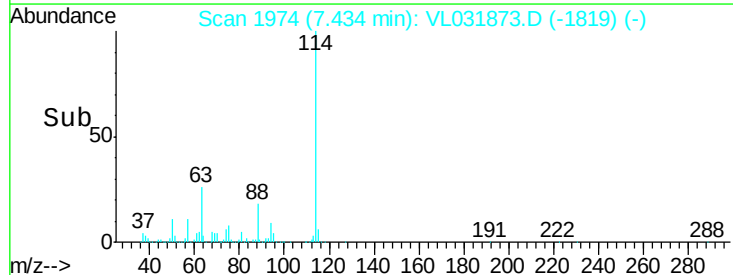
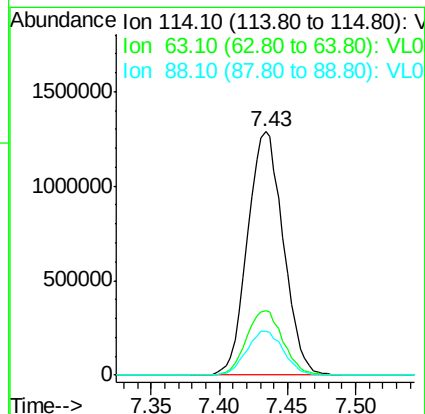
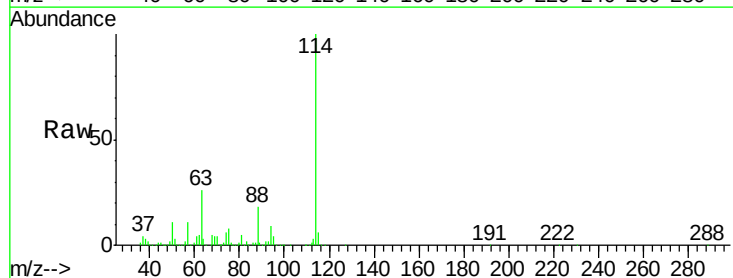
Tgt Ion: 114 Resp: 2341474

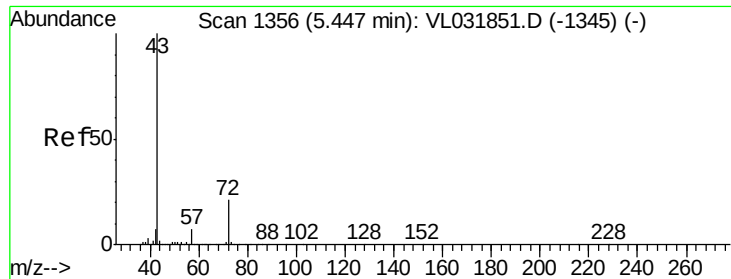
Ion Ratio Lower Upper

114 100

63 27.1 21.8 32.6

88 18.5 14.6 22.0





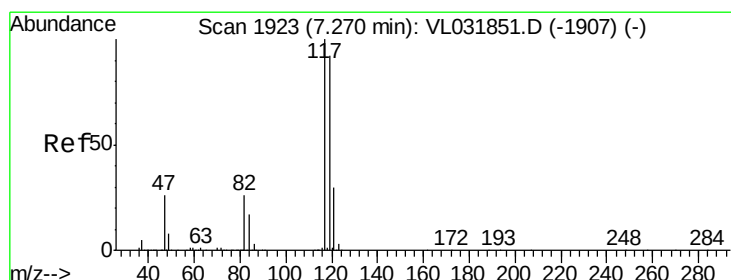
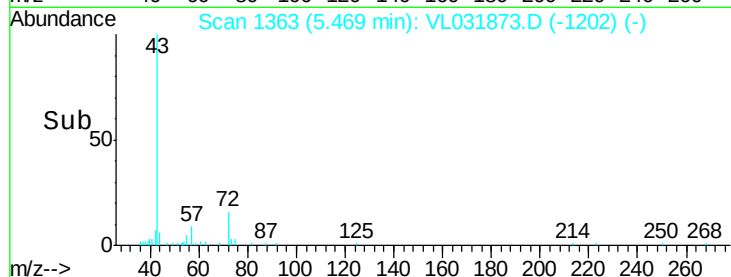
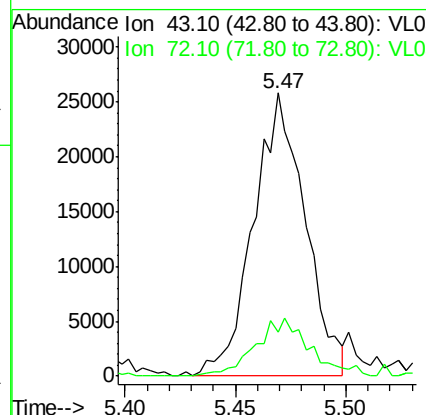
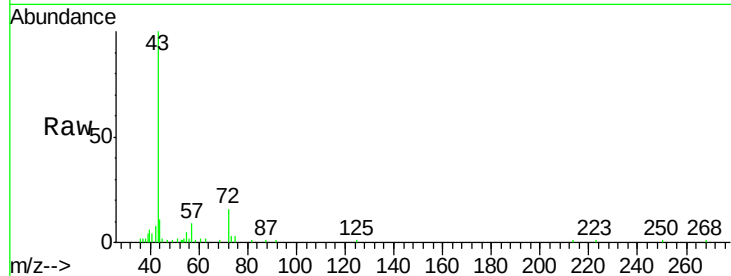
#34
 2-Butanone
 Concen: 0.259 ppbv
 RT: 5.47 min Scan# 1363
 Delta R.T. 0.02 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF3-040218

Tot Ion	Ratio	Lower	Upper
43	100		
72	21.8	18.6	27.8

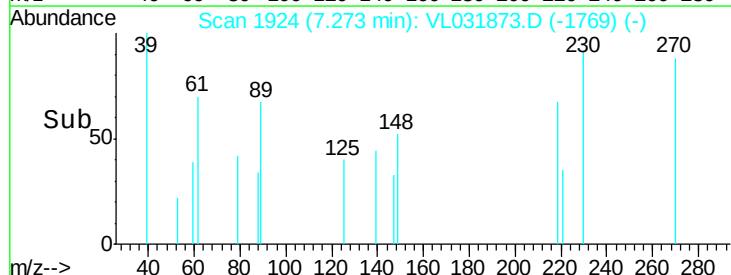
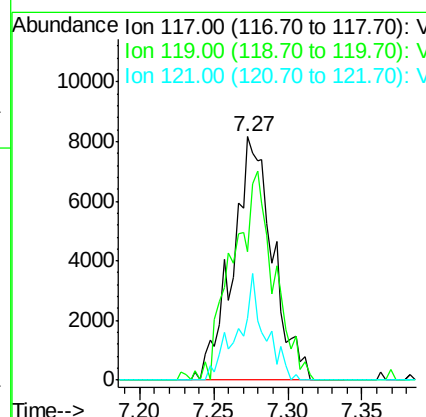
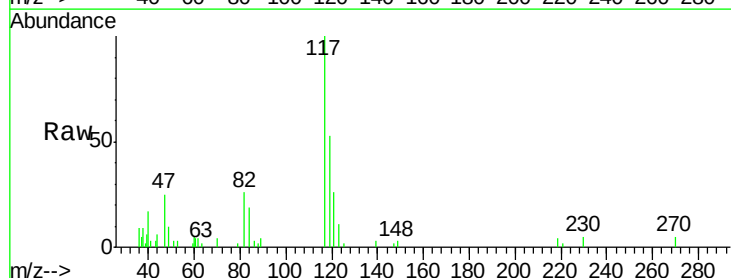
Manual Integrations
 APPROVED

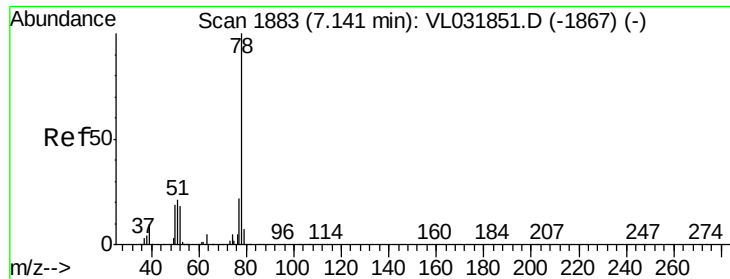
MMDadoda
 4/15/2018 3:07:50 PM



#35
 Carbon Tetrachloride
 Concen: 0.075 ppbv m
 RT: 7.27 min Scan# 1924
 Delta R.T. -0.00 min
 Lab File: VL031873.D
 Acq: 12 Apr 2018 20:05

Tgt Ion	Ratio	Lower	Upper
117	100		
119	52.5	76.9	115.3#
121	25.6	24.5	36.7





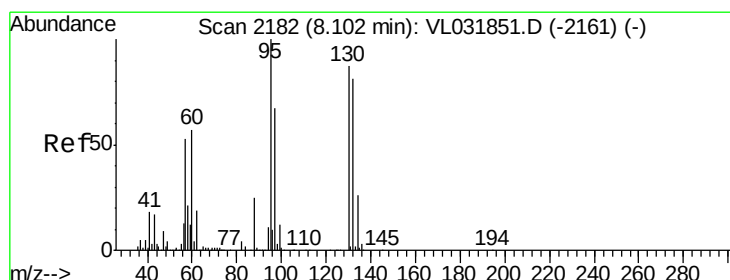
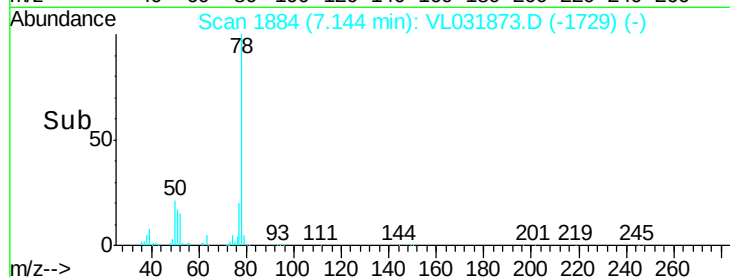
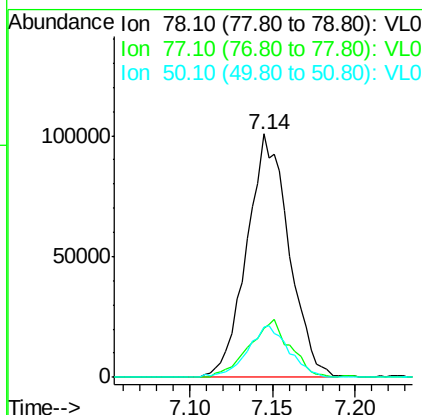
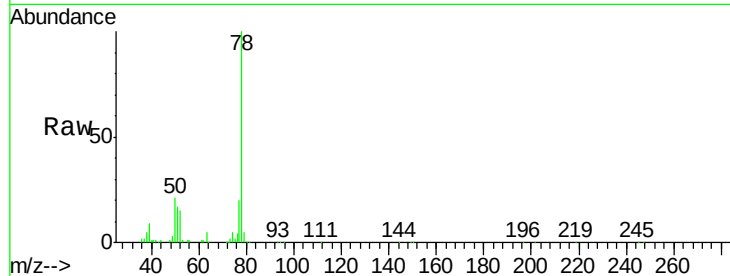
#36
Benzene
Concen: 0.848 ppbv
RT: 7.14 min Scan# 1884
Delta R.T. -0.00 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Instrument :
MSVOA_L
ClientSampleId :
SVE-INF3-040218

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.0	19.2	28.8
50	20.8	16.7	25.1

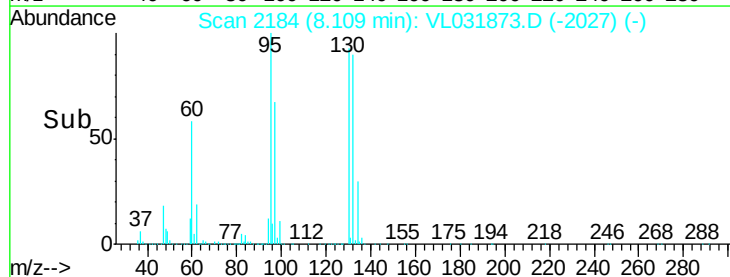
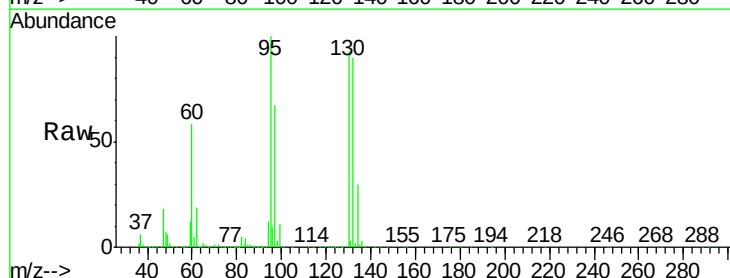
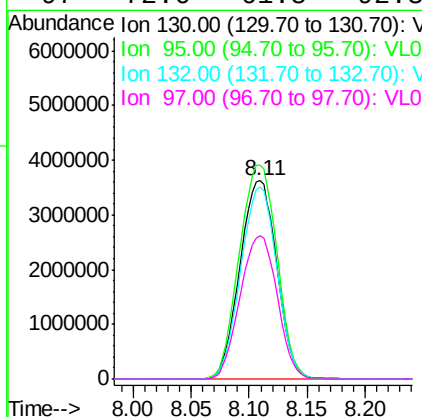
Manual Integrations
APPROVED

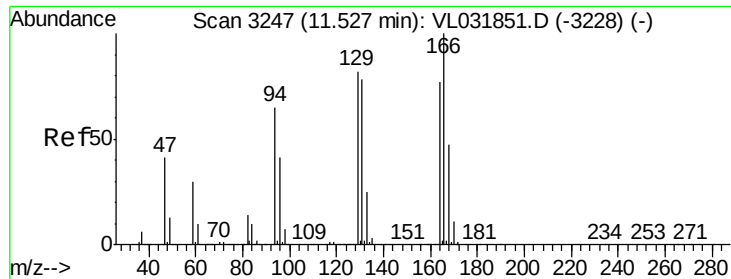
MMDadoda
4/15/2018 3:07:50 PM



#38
Trichloroethene
Concen: 93.348 ppbv
RT: 8.11 min Scan# 2184
Delta R.T. 0.01 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Tgt Ion	Ratio	Lower	Upper
130	100		
95	107.8	96.6	144.8
132	96.7	79.1	118.7
97	72.6	61.5	92.3





#52

Tetrachloroethene

Concen: 1.002 ppbv

RT: 11.53 min Scan# 3247

Delta R.T. 0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Instrument :

MSVOA_L

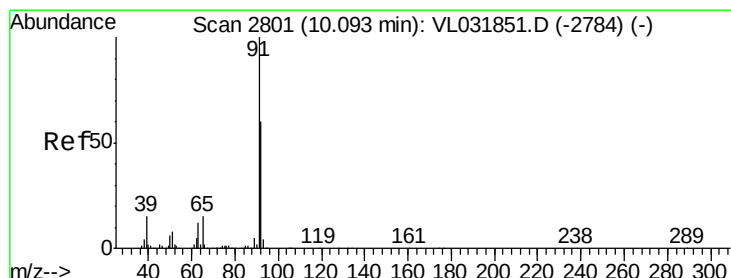
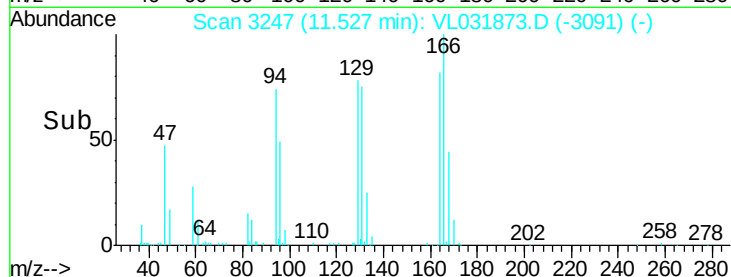
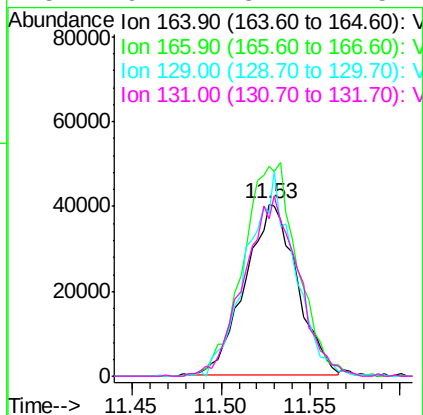
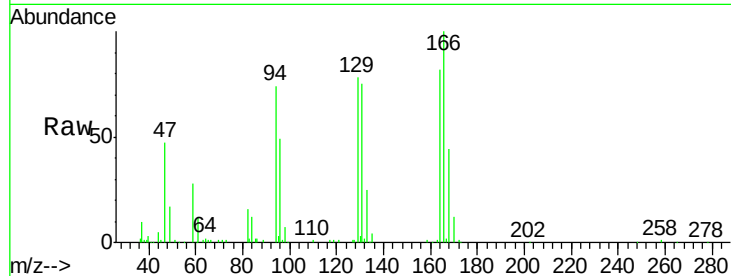
ClientSampleId :

SVE-INF3-040218

Tot Ion:	164	Resp:	82214
Ion	Ratio	Lower	Upper
164	100		
166	121.0	98.2	147.4
129	94.3	86.5	129.7
131	91.2	82.2	123.2

Manual Integrations
APPROVED

MMDadoda
4/15/2018 3:07:50 PM



#53

Toluene

Concen: 0.310 ppbv

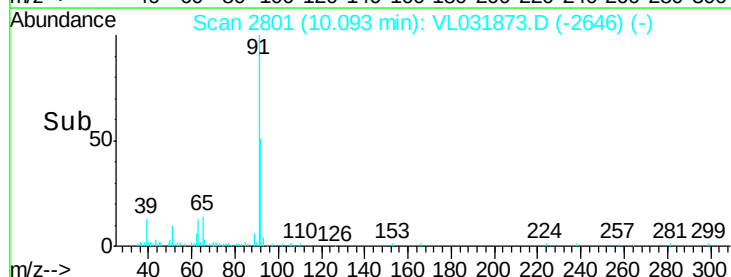
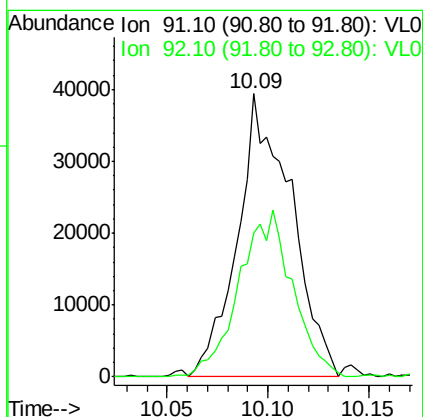
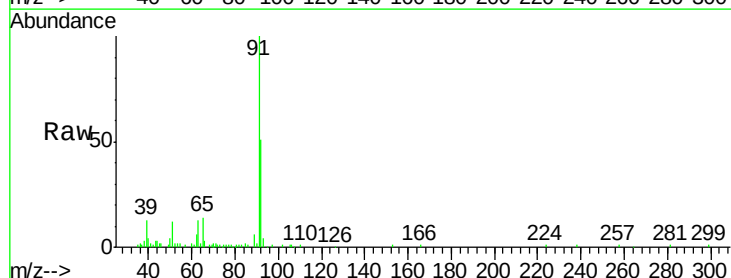
RT: 10.09 min Scan# 2801

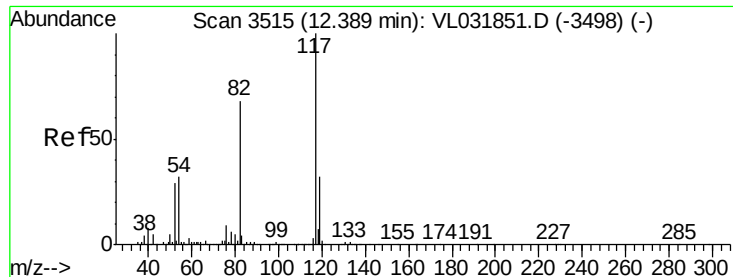
Delta R.T. -0.00 min

Lab File: VL031873.D

Acq: 12 Apr 2018 20:05

Tgt Ion:	91	Resp:	72857
Ion	Ratio	Lower	Upper
91	100		
92	58.9	47.4	71.2





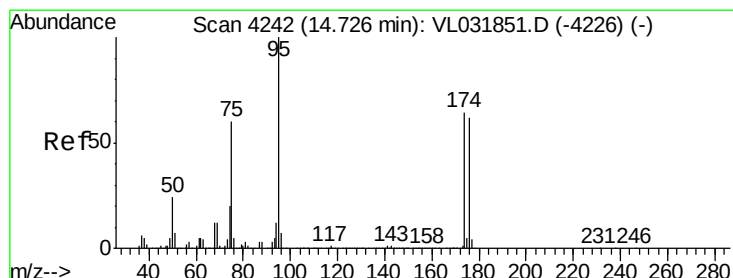
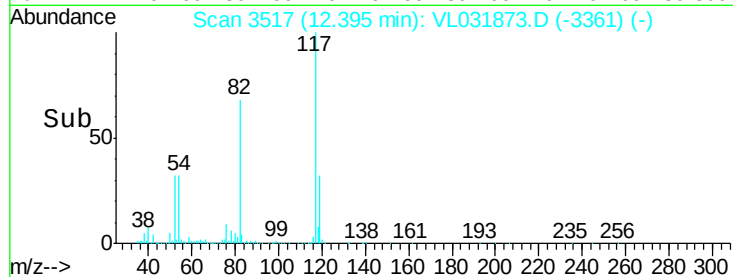
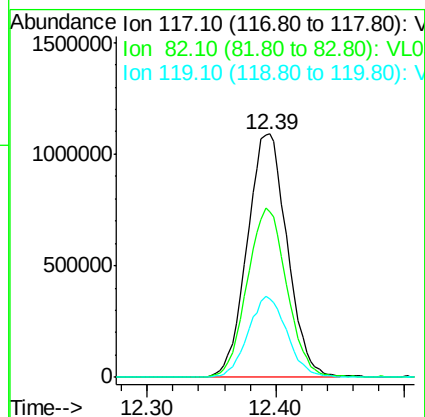
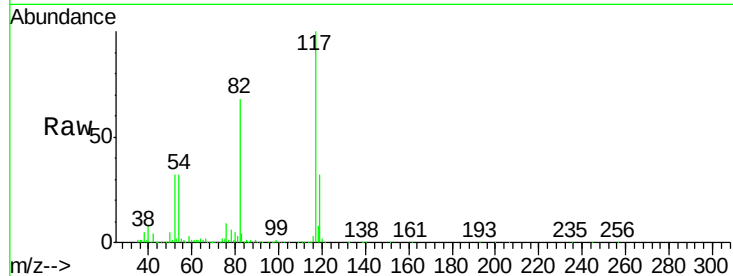
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.39 min Scan# 3517
Delta R.T. 0.00 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Instrument :
MSVOA_L
ClientSampleId :
SVE-INF3-040218

Tot Ion	Ratio	Lower	Upper
117	100		
82	69.4	54.6	81.8
119	32.5	26.0	39.0

Manual Integrations
APPROVED

MMDadoda
4/15/2018 3:07:50 PM



#68
1-Bromo-4-Fluorobenzene
Concen: 9.705 ppbv
RT: 14.73 min Scan# 4244
Delta R.T. 0.00 min
Lab File: VL031873.D
Acq: 12 Apr 2018 20:05

Tgt Ion	Ratio	Lower	Upper
95	100		
174	64.6	52.3	78.5
175	4.8	3.9	5.9

