

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN122118\
 Data File : VN053097.D
 Acq On : 21 Dec 2018 11:38
 Operator : MD\SY
 Sample : VSTDCCC020
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 28

Instrument :
 MSVOA_N
 ClientSampleID :
 VSTDCCC020EC

Manual Integrations
 APPROVED

MMDadoda
 12/22/2018 10:06:21 AM

Quant Time: Dec 22 01:05:47 2018

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\624N112618W.M

Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS

QLast Update : Tue Nov 27 00:48:33 2018

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	7.20	128	167738	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	8.59	114	991320	30.00	ug/l	0.00
57) Chlorobenzene-d5	11.41	117	875183	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	8.03	65	325137	28.45	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	94.83%
60) 4-Bromofluorobenzene	12.40	95	408769	30.55	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	101.83%
63) Toluene-d8	10.09	98	1154633	28.45	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	94.83%

Target Compounds

					Qvalue
2) Dichlorodifluoromethane	1.85	85	171354	17.937	ug/l 100
3) Chloromethane	2.06	50	228429	18.030	ug/l 99
4) Vinyl Chloride	2.19	62	236614	18.504	ug/l 97
5) Bromomethane	2.58	94	152595	20.929	ug/l 99
6) Chloroethane	2.71	64	147481	19.394	ug/l 100
7) Trichlorofluoromethane	3.02	101	305965	19.387	ug/l 99
8) Diethyl Ether	3.41	74	127349	21.854	ug/l 91
9) 1,1,2-Trichlorotrifluoroet	3.77	101	196596	19.651	ug/l 96
10) 1,1-Dichloroethene	3.74	96	190376	20.239	ug/l 96
11) Methyl Iodide	3.96	142	249458	19.101	ug/l 98
12) Methyl Acetate	4.33	43	190476	23.833	ug/l 97
13) Acrolein	3.61	56	86288	91.911	ug/l 99
14) Acrylonitrile	4.99	53	395398	116.110	ug/l 97
15) Acetone	3.82	58	84173	95.444	ug/l 94
16) Carbon Disulfide	4.06	76	527525	17.714	ug/l 100
17) Allyl chloride	4.33	41	318721	19.429	ug/l 99
18) Methylene Chloride	4.56	84	227567	20.895	ug/l 91
19) trans-1,2-Dichloroethene	5.05	96	205381	20.289	ug/l 92
20) Diisopropyl ether	5.95	45	697156	20.223	ug/l 98
21) 1,1-Dichloroethane	5.85	63	394891	20.098	ug/l 99
22) cis-1,2-Dichloroethene	6.83	96	245014	21.119	ug/l 96
23) tert-Butyl Alcohol	4.78	59	77024	152.047	ug/l # 100
24) Methyl tert-Butyl Ether	5.05	73	575600	23.326	ug/l 95
25) Chloroform	7.37	83	392388	20.701	ug/l 98
26) Cyclohexane	7.66	56	340082	18.352	ug/l # 96
29) 1,1-Dichloropropene	7.80	75	296095	19.559	ug/l 98
30) 2-Butanone	6.84	43	447550	110.484	ug/l 97
31) 2,2-Dichloropropane	6.83	77	292872	21.014	ug/l 99
32) 1,1,1-Trichloroethane	7.58	97	325778	20.682	ug/l 96
33) Carbon Tetrachloride	7.78	117	277229	20.114	ug/l 97
34) Benzene	8.05	78	920193	20.217	ug/l 96
35) Methacrylonitrile	7.18	41	106230	21.137	ug/l 95
36) 1,2-Dichloroethane	8.13	62	278806	20.215	ug/l 98
37) Trichloroethene	8.84	130	248966	21.572	ug/l 97
38) Methylcyclohexane	9.08	83	340204	18.154	ug/l 96
39) 1,2-Dichloropropane	9.12	63	244203	20.016	ug/l 100
40) Dibromomethane	9.21	93	143516	21.768	ug/l 95

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN122118\
 Data File : VN053097.D
 Acq On : 21 Dec 2018 11:38
 Operator : MD\SY
 Sample : VSTDCCC020
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 28

Instrument :
 MSVOA_N
 ClientSampleID :
 VSTDCCC020EC

Manual Integrations
 APPROVED

MMDadoda
 12/22/2018 10:06:21 AM

Quant Time: Dec 22 01:05:47 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\624N112618W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Tue Nov 27 00:48:33 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

41) Bromodichloromethane	9.40	83	296046	20.324	ug/l	98
42) Vinyl Acetate	5.90	43	2163328	98.704	ug/l	97
43) Ethyl Acetate	6.93	43	200740	23.305	ug/l #	69
44) Isopropyl Acetate	8.17	43	373555	24.728	ug/l	99
45) 1,4-Dioxane	9.20	88	46010	556.733	ug/l	93
46) Methyl methacrylate	9.20	41	179309	22.861	ug/l	96
47) n-amyl Acetate	12.07	43	320189	25.563	ug/l	97
48) t-1,3-Dichloropropene	10.38	75	304208	21.539	ug/l	99
49) cis-1,3-Dichloropropene	9.84	75	356281	20.705	ug/l	95
50) 1,1,2-Trichloroethane	10.56	97	208040	22.261	ug/l	99
51) Ethyl methacrylate	10.43	69	284307	24.222	ug/l	92
52) 1,3-Dichloropropane	10.71	76	356073	21.405	ug/l	100
53) Dibromochloromethane	10.90	129	227655	22.126	ug/l	99
54) 1,2-Dibromoethane	11.01	107	212663	23.287	ug/l	97
55) 2-Chloroethyl vinyl ether	9.70	63	755069	109.898	ug/l	98
56) Bromoform	12.13	173	156641	23.291	ug/l	99
58) 4-Methyl-2-Pentanone	9.99	43	1020387	120.262	ug/l	97
59) 2-Hexanone	10.75	43	700860	120.921	ug/l	96
61) Tetrachloroethene	10.63	164	267604	24.827	ug/l	95
62) Toluene	10.16	91	989836	20.516	ug/l	99
64) Chlorobenzene	11.44	112	628299	21.336	ug/l	100
65) 1,1,1,2-Tetrachloroethane	11.51	131	219813	21.505	ug/l	99
66) Ethyl Benzene	11.51	91	1081447	20.798	ug/l	98
67) m/p-Xylenes	11.62	106	816281	42.137	ug/l	98
68) o-Xylene	11.95	106	402420	21.402	ug/l	99
69) Styrene	11.97	104	653656	21.538	ug/l	99
70) Isopropylbenzene	12.25	105	1060088	21.190	ug/l	100
71) 1,1,2,2-Tetrachloroethane	12.51	83	248713	22.854	ug/l	100
72) 1,2,3-Trichloropropane	12.56	75	205768m	22.026	ug/l	
73) Bromobenzene	12.53	156	272633	22.532	ug/l	95
74) n-propylbenzene	12.59	91	1184530	20.321	ug/l	99
75) 2-Chlorotoluene	12.68	91	714546	21.119	ug/l	99
76) 1,3,5-Trimethylbenzene	12.73	105	837150	20.717	ug/l	99
77) t-1,4-Dichloro-2-butene	12.30	75	69460	23.537	ug/l	98
78) 4-Chlorotoluene	12.77	91	713762	21.125	ug/l	100
79) tert-butylbenzene	12.99	119	745701	21.190	ug/l	97
80) 1,2,4-Trimethylbenzene	13.04	105	841911	20.822	ug/l	100
81) sec-Butylbenzene	13.17	105	976500	19.922	ug/l	100
82) p-Isopropyltoluene	13.29	119	842521	20.186	ug/l	99
83) 1,3-Dichlorobenzene	13.28	146	459972	21.615	ug/l	98
84) 1,4-Dichlorobenzene	13.36	146	448267	21.803	ug/l	99
85) n-Butylbenzene	13.62	91	655141	18.274	ug/l	98
86) Hexachloroethane	13.88	117	130719	18.484	ug/l	93
87) 1,2-Dichlorobenzene	13.65	146	441794	21.816	ug/l	98
88) 1,2-Dibromo-3-Chloropropan	14.27	75	34784	22.818	ug/l	90
89) 1,2,4-Trichlorobenzene	14.91	180	212273	21.276	ug/l	99
90) Hexachlorobutadiene	15.01	225	131392	20.076	ug/l	99
91) Naphthalene	15.13	128	489908	24.316	ug/l	99
92) 1,2,3-Trichlorobenzene	15.32	180	198008	21.536	ug/l	100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN122118\
Data File : VN053097.D
Acq On : 21 Dec 2018 11:38
Operator : MD\SY
Sample : VSTDCCC020
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 28

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM

Quant Time: Dec 22 01:05:47 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\624N112618W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Tue Nov 27 00:48:33 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
--------------------	------	------	----------	------	-------	----------

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

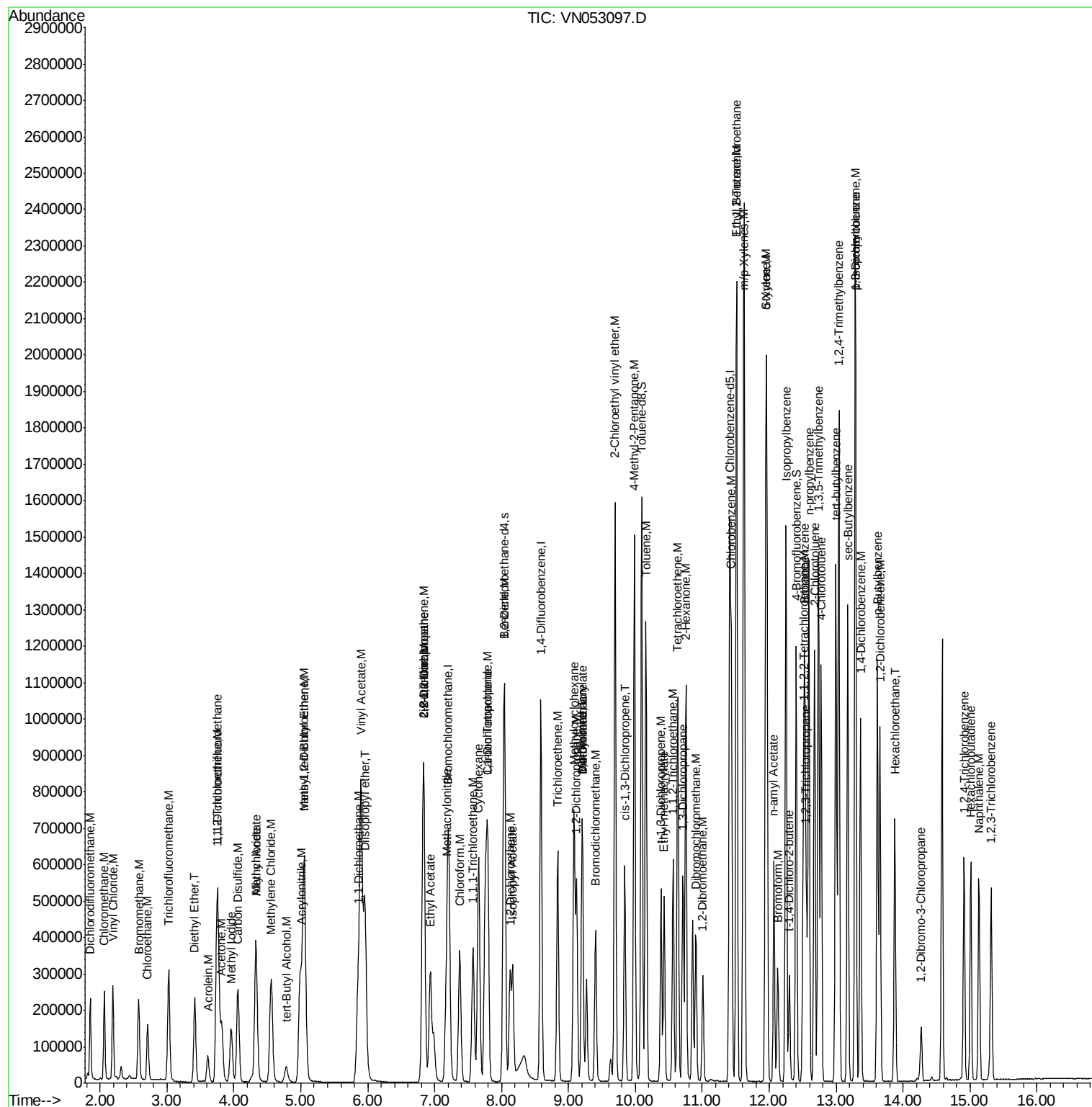
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN122118\
Data File : VN053097.D
Acq On : 21 Dec 2018 11:38
Operator : MD\SY
Sample : VSTDCCC020
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 28

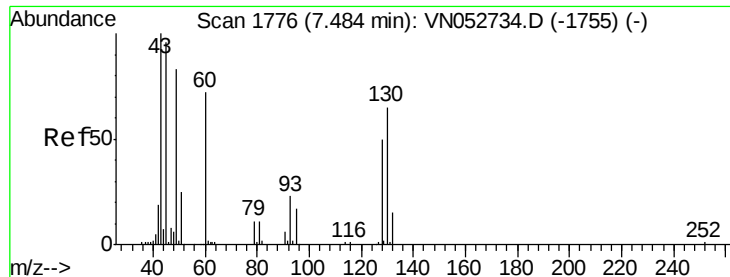
Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM

Quant Time: Dec 22 01:05:47 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\624N112618W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Tue Nov 27 00:48:33 2018
Response via : Initial Calibration





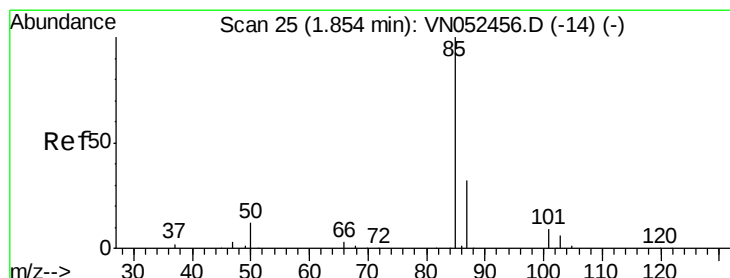
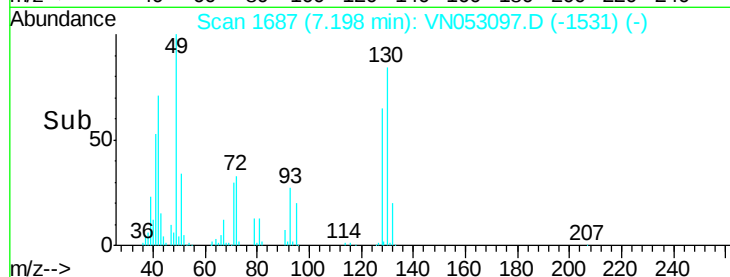
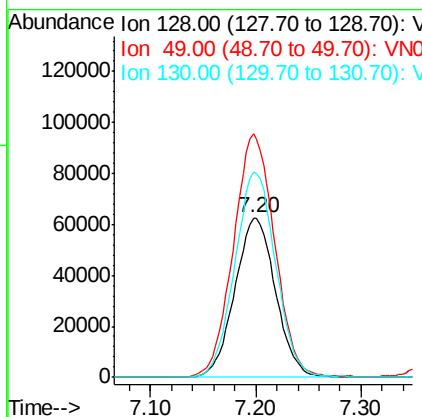
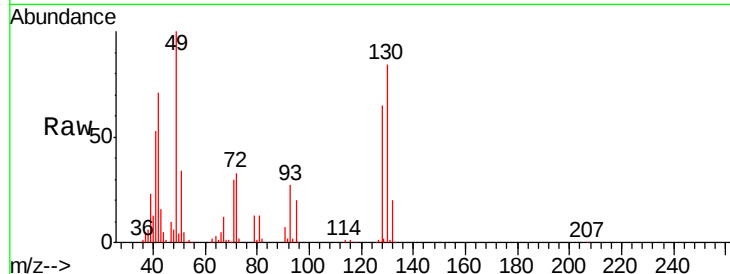
#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.20 min Scan# 1687
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
128	100		
49	154.8	0.0	431.8
130	129.8	0.0	317.0

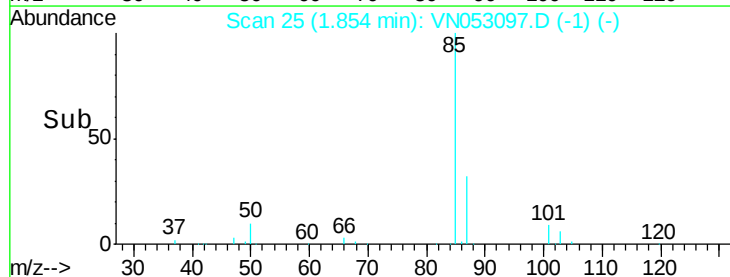
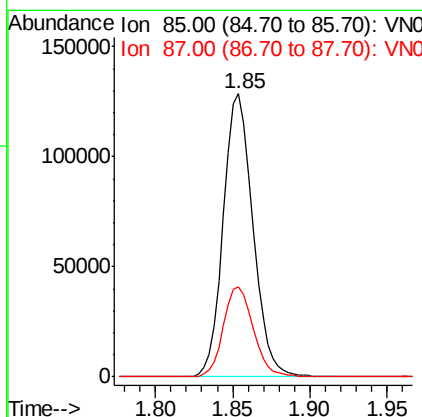
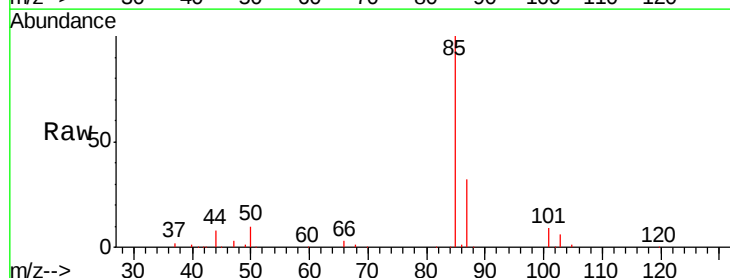
Manual Integrations
APPROVED

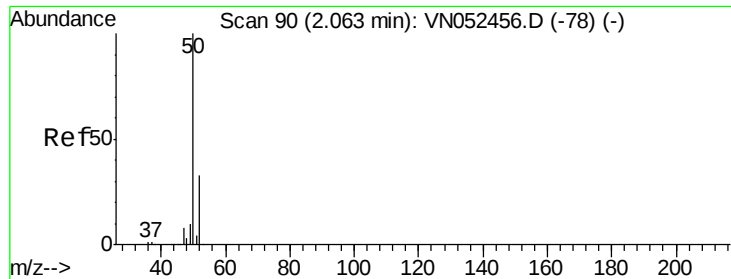
MMDadoda
12/22/2018 10:06:21 AM



#2
Dichlorodifluoromethane
Concen: 17.937 ug/l
RT: 1.85 min Scan# 25
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.0	16.1	48.3





#3

Chloromethane

Concen: 18.030 ug/l

RT: 2.06 min Scan# 90

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 50 Resp: 228429

Ion Ratio Lower Upper

50 100

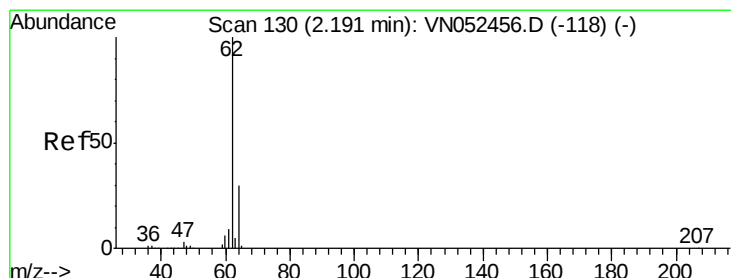
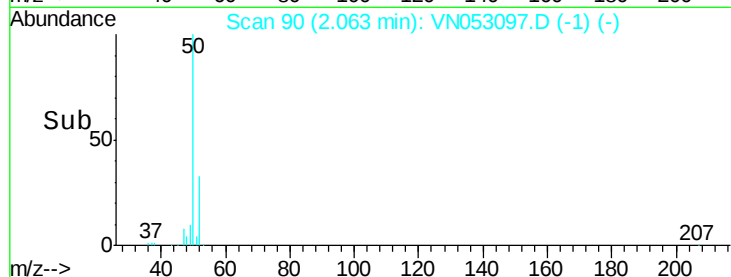
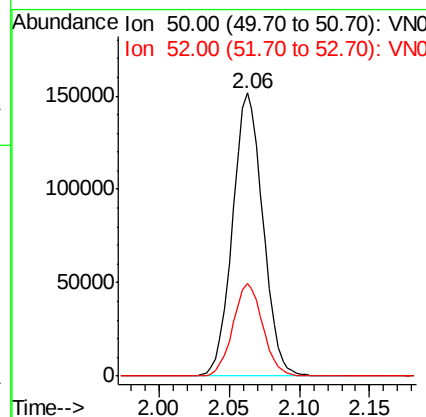
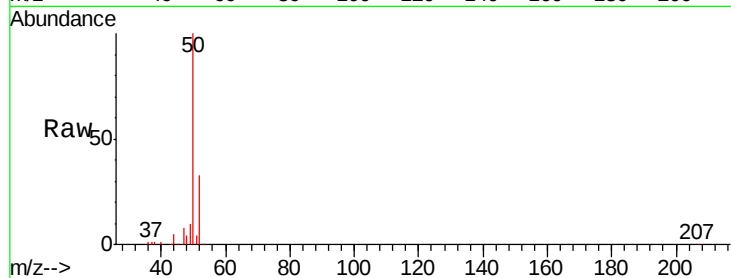
52 32.6 26.5 39.7

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



#4

Vinyl Chloride

Concen: 18.504 ug/l

RT: 2.19 min Scan# 130

Delta R.T. 0.00 min

Lab File: VN053097.D

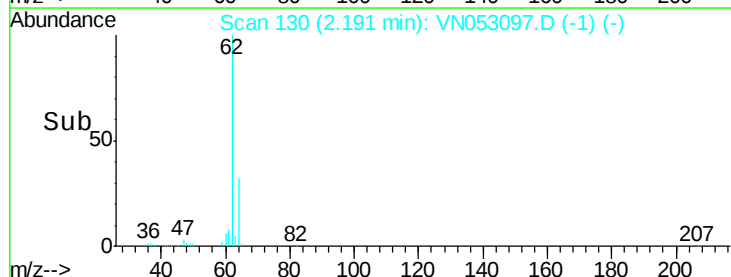
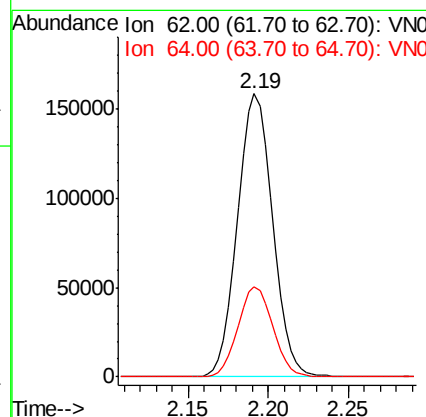
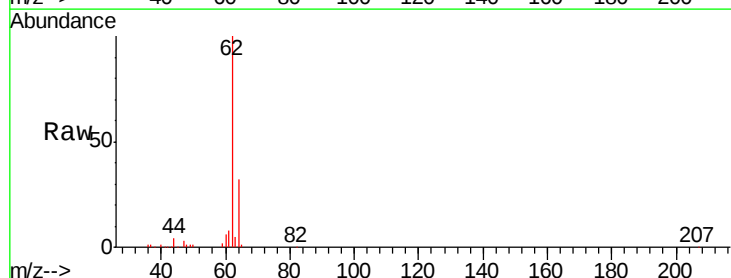
Acq: 21 Dec 2018 11:38

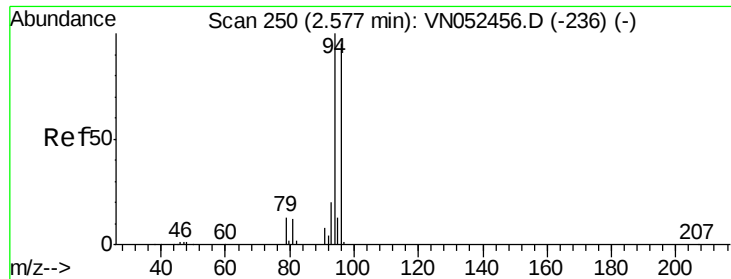
Tgt Ion: 62 Resp: 236614

Ion Ratio Lower Upper

62 100

64 32.0 24.2 36.4





#5

Bromomethane

Concen: 20.929 ug/l

RT: 2.58 min Scan# 250

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 94 Resp: 152595

Ion Ratio Lower Upper

94 100

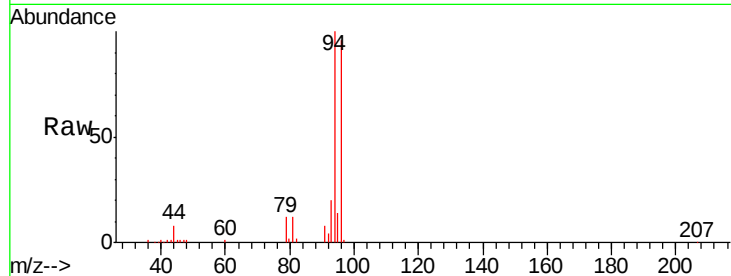
96 96.2 76.2 114.2

Manual Integrations

APPROVED

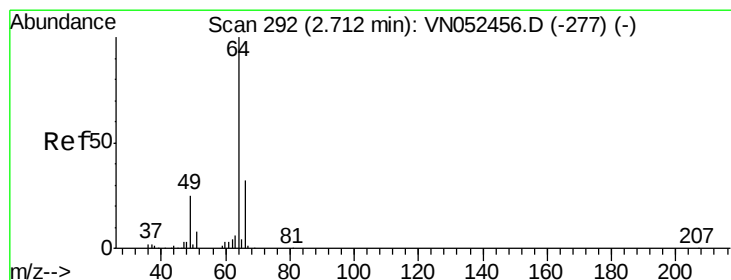
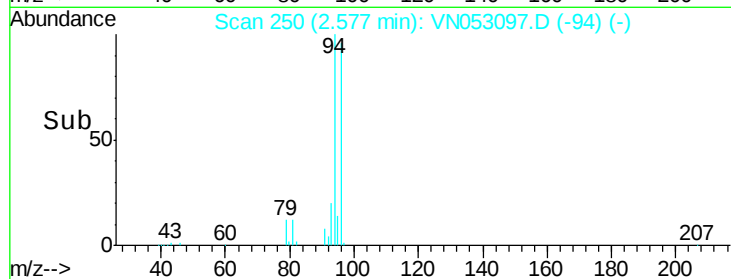
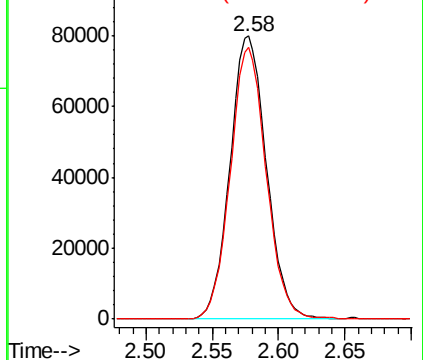
MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 94.00 (93.70 to 94.70): VN0

Ion 96.00 (95.70 to 96.70): VN0



#6

Chloroethane

Concen: 19.394 ug/l

RT: 2.71 min Scan# 292

Delta R.T. 0.00 min

Lab File: VN053097.D

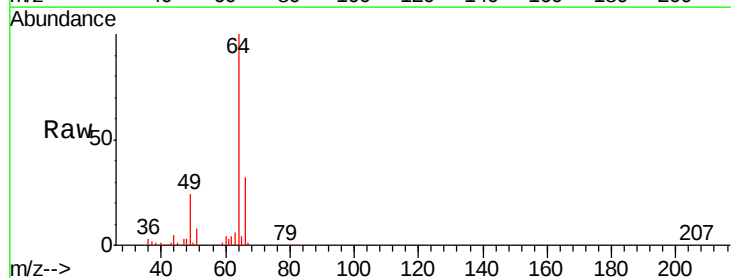
Acq: 21 Dec 2018 11:38

Tgt Ion: 64 Resp: 147481

Ion Ratio Lower Upper

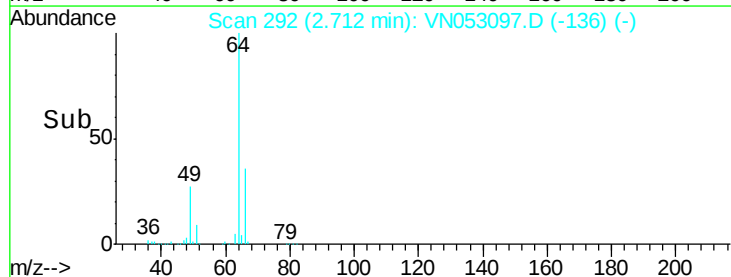
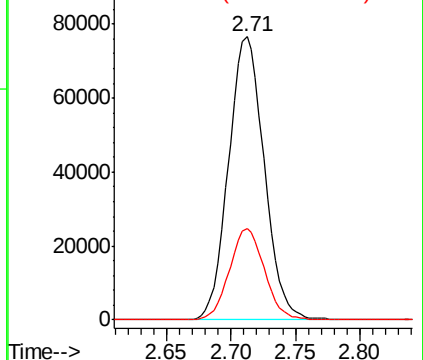
64 100

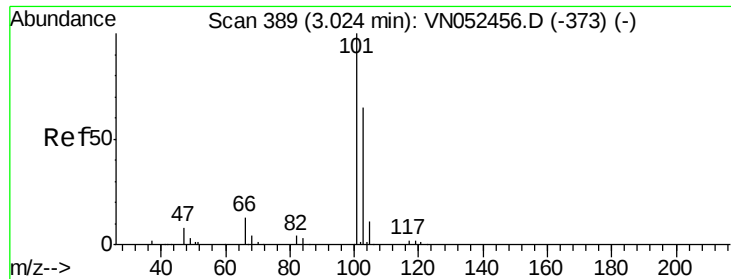
66 32.1 25.6 38.4



Abundance Ion 64.00 (63.70 to 64.70): VN0

Ion 66.00 (65.70 to 66.70): VN0





#7

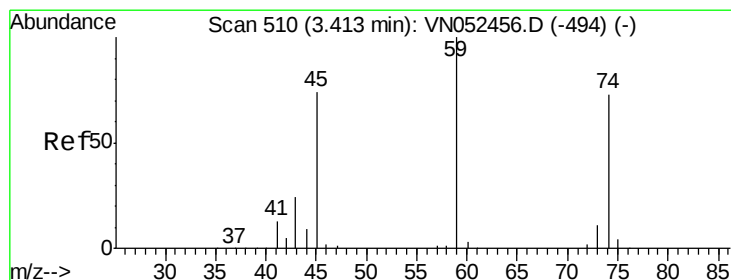
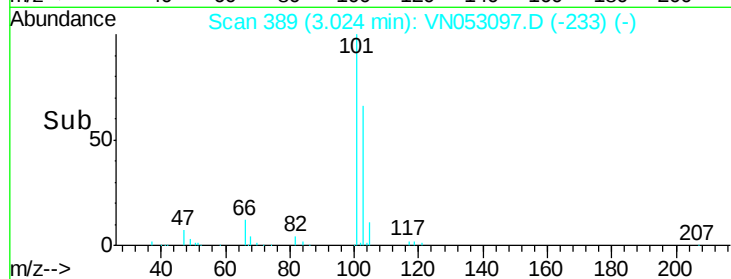
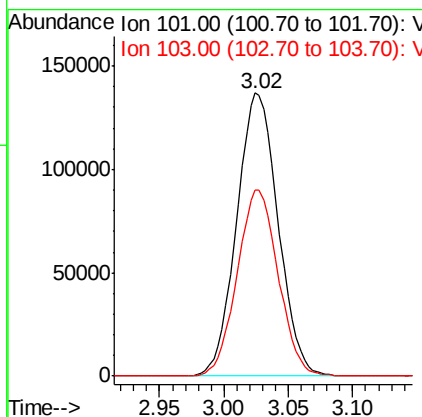
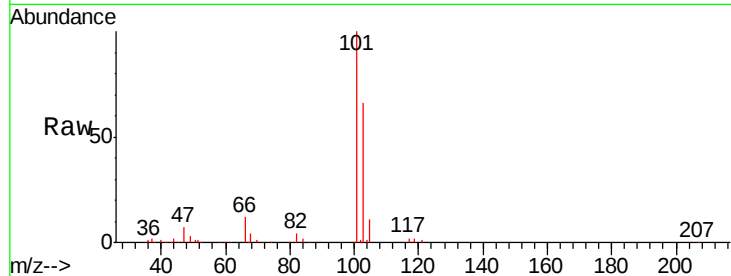
Trichlorofluoromethane
Concen: 19.387 ug/l
RT: 3.02 min Scan# 389
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
101	100		
103	65.9	52.1	78.1

Manual Integrations
APPROVED

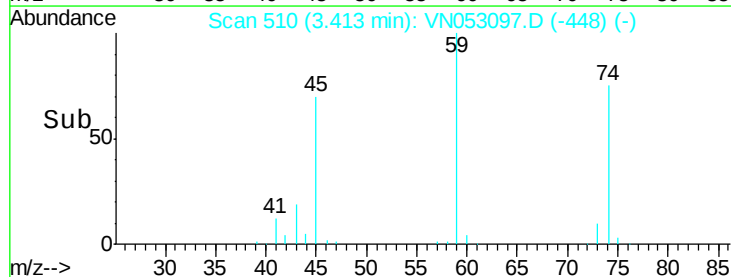
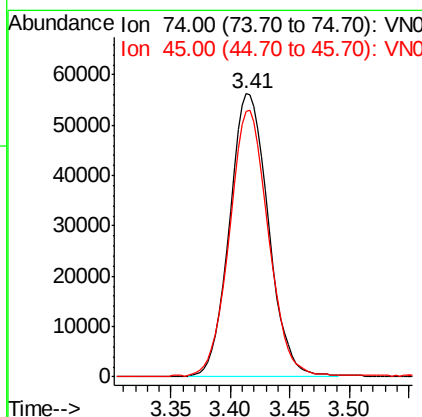
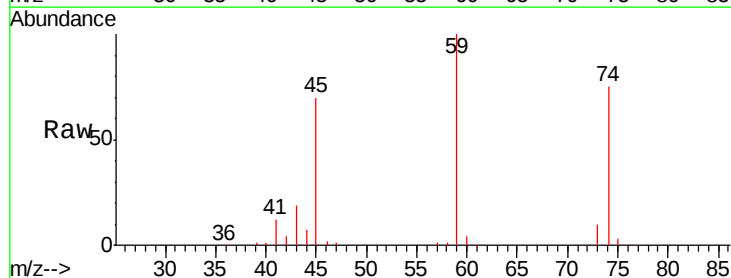
MMDadoda
12/22/2018 10:06:21 AM

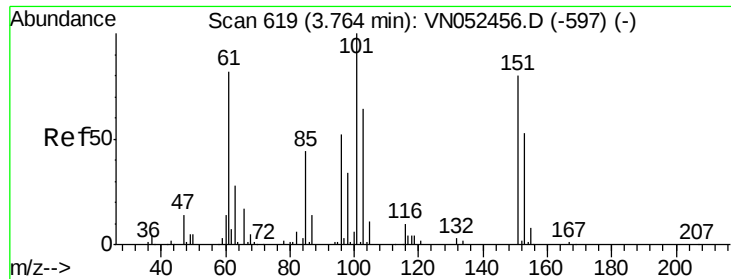


#8

Diethyl Ether
Concen: 21.854 ug/l
RT: 3.41 min Scan# 510
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
74	100		
45	94.2	20.6	185.8





#9

1,1,2-Trichlorotrifluoroethane

Concen: 19.651 ug/l

RT: 3.77 min Scan# 620

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

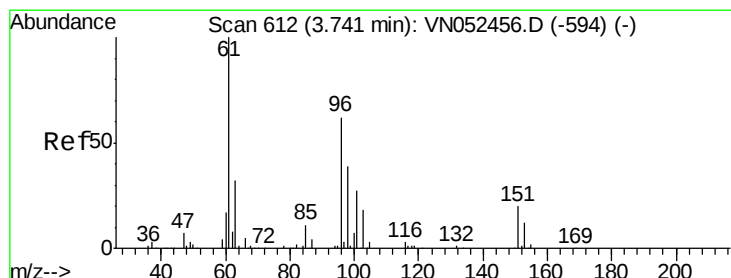
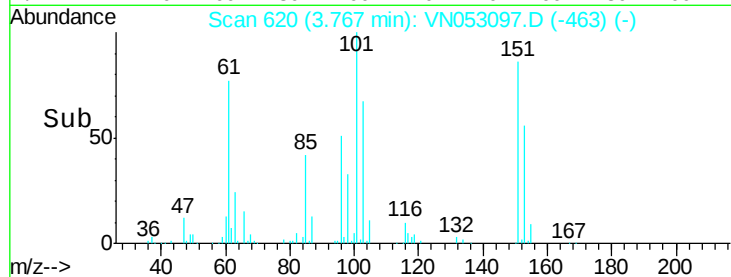
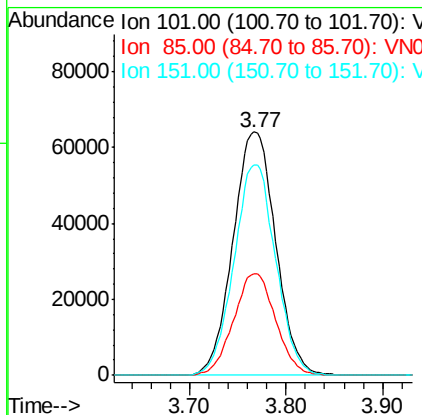
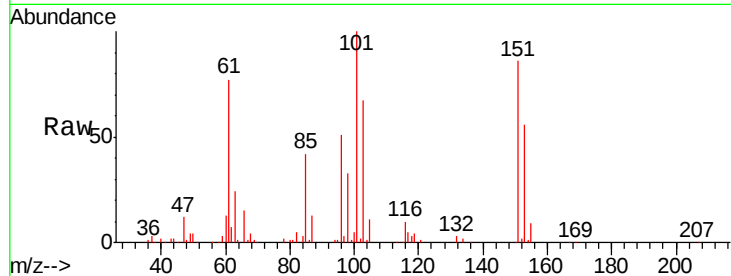
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	101	Resp:	196596
Ion Ratio	Lower	Upper	
101	100		
85	41.1	0.0	82.6
151	84.6	0.0	158.4

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#10

1,1-Dichloroethene

Concen: 20.239 ug/l

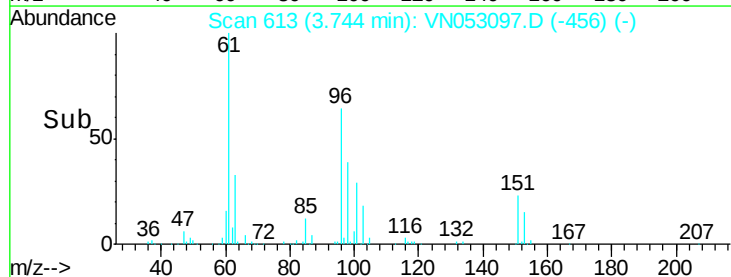
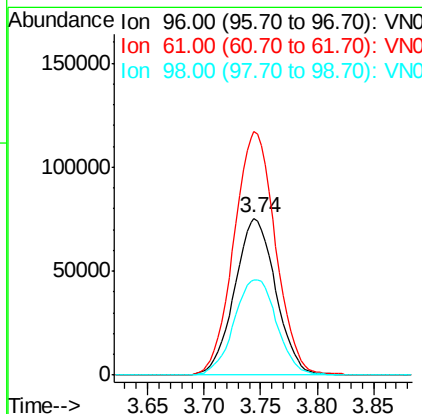
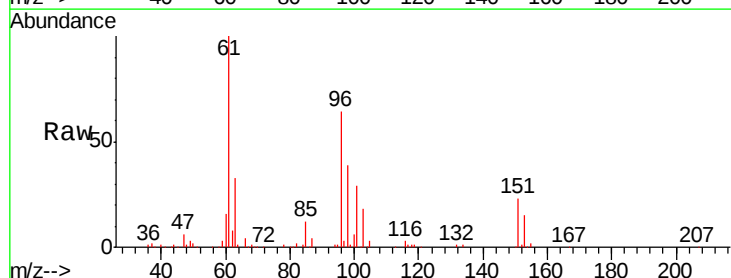
RT: 3.74 min Scan# 613

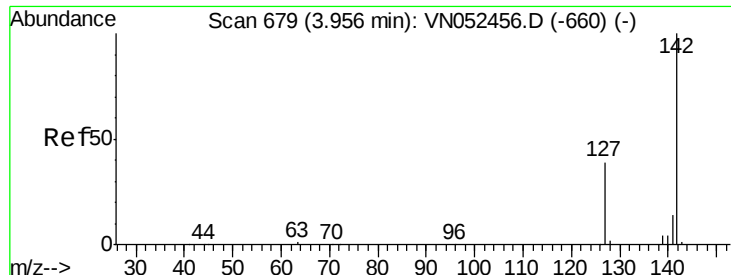
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	96	Resp:	190376
Ion Ratio	Lower	Upper	
96	100		
61	155.0	129.4	194.2
98	61.0	50.4	75.6





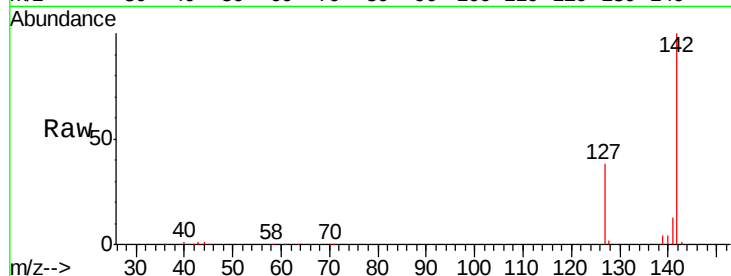
#11
Methyl Iodide
Concen: 19.101 ug/l
RT: 3.96 min Scan# 680
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

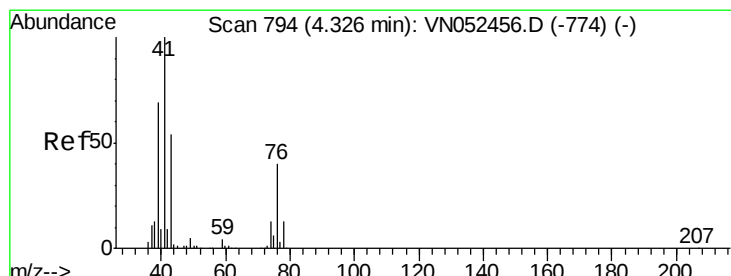
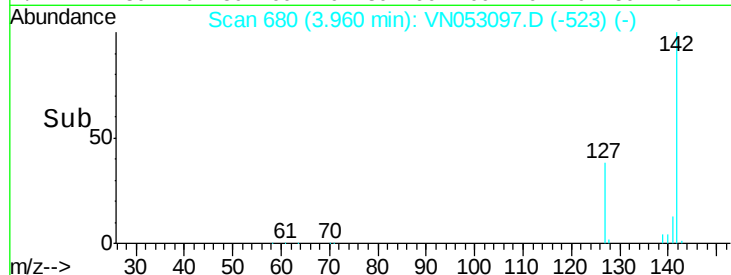
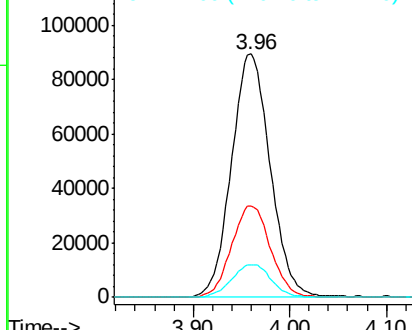
Tgt Ion	Ratio	Lower	Upper
142	100		
127	37.6	19.4	58.1
141	13.5	7.2	21.6

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM

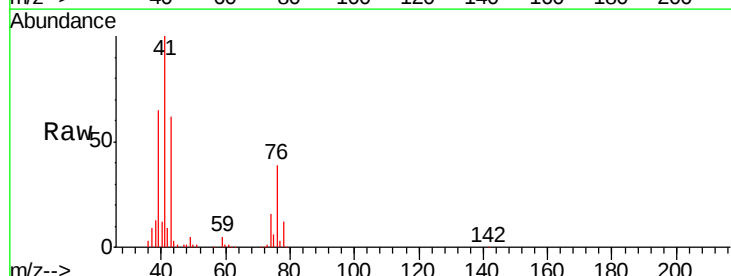


Abundance Ion 142.00 (141.70 to 142.70): V
Ion 127.00 (126.70 to 127.70): V
Ion 141.00 (140.70 to 141.70): V

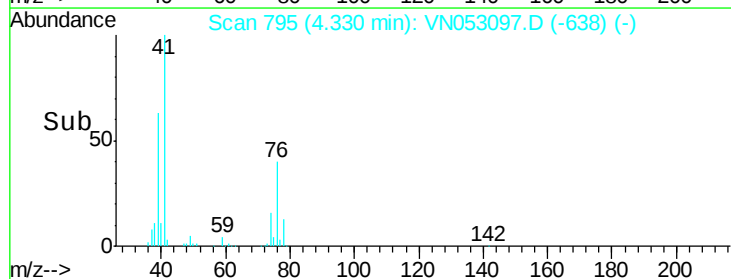
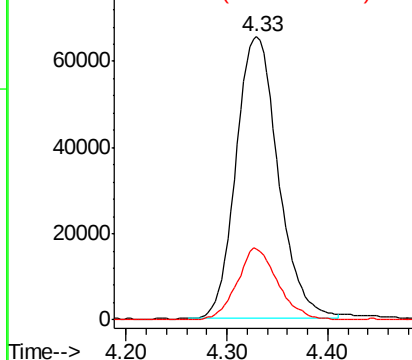


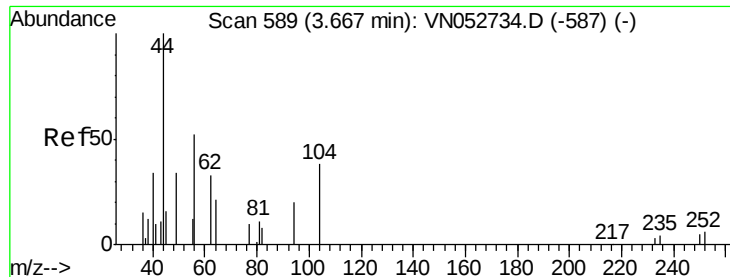
#12
Methyl Acetate
Concen: 23.833 ug/l
RT: 4.33 min Scan# 795
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
43	100		
74	25.3	18.9	28.3



Abundance Ion 43.00 (42.70 to 43.70): V
Ion 74.00 (73.70 to 74.70): V





#13

Acrolein

Concen: 91.911 ug/l

RT: 3.61 min Scan# 572

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 56 Resp: 86288

Ion Ratio Lower Upper

56 100

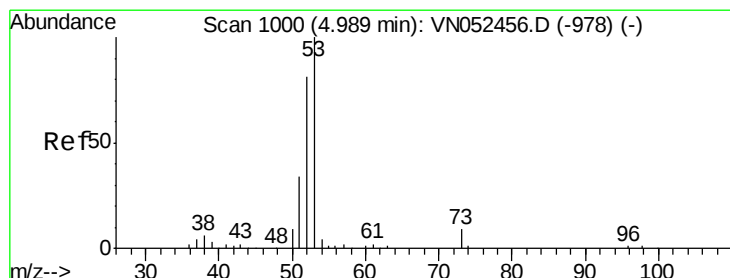
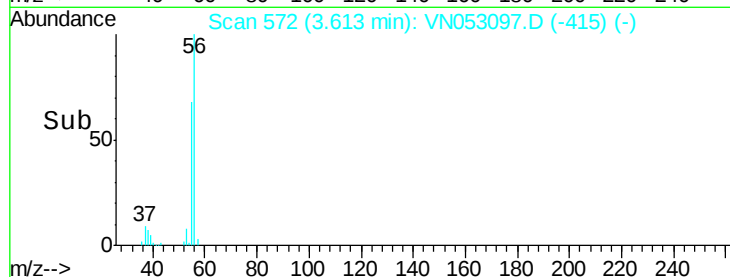
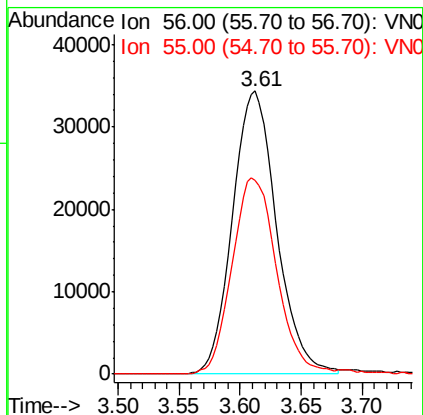
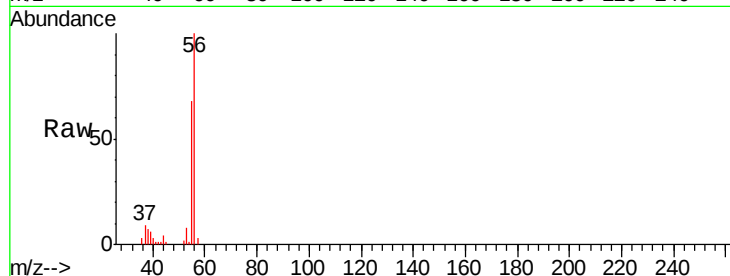
55 69.9 56.7 85.1

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



#14

Acrylonitrile

Concen: 116.110 ug/l

RT: 4.99 min Scan# 1001

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

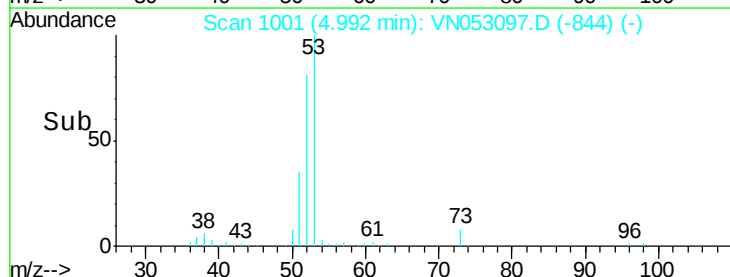
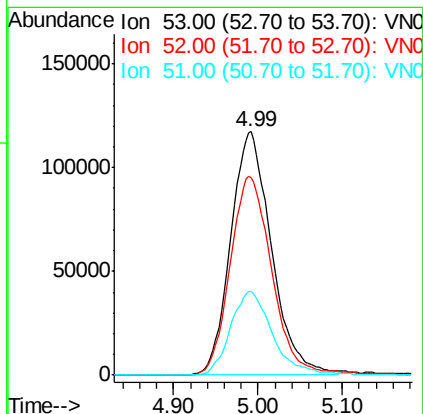
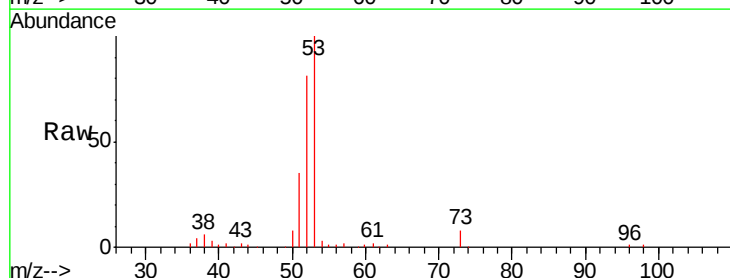
Tgt Ion: 53 Resp: 395398

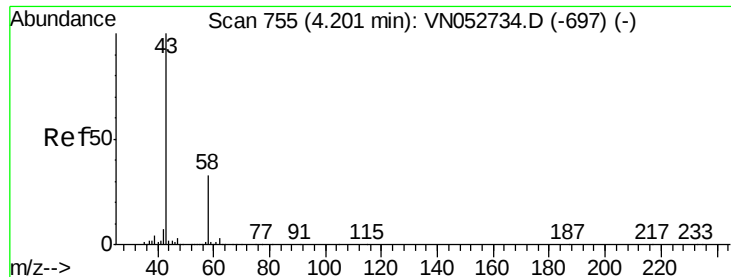
Ion Ratio Lower Upper

53 100

52 82.8 39.9 119.7

51 35.0 17.6 52.9





#15

Acetone

Concen: 95.444 ug/l

RT: 3.82 min Scan# 636

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 58 Resp: 84173

Ion Ratio Lower Upper

58 100

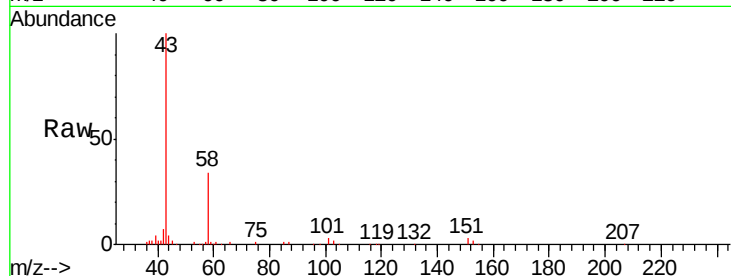
43 293.4 243.6 365.4

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 58.00 (57.70 to 58.70): VN0

Ion 43.00 (42.70 to 43.70): VN0

100000

80000

60000

40000

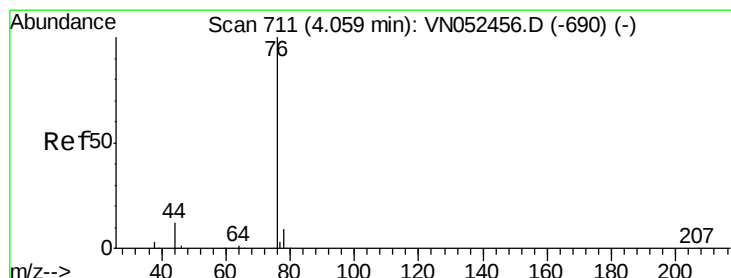
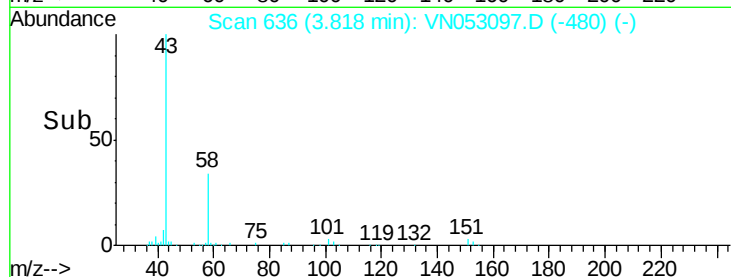
20000

0

3.70 3.80 3.90

3.82

Time-->



#16

Carbon Disulfide

Concen: 17.714 ug/l

RT: 4.06 min Scan# 711

Delta R.T. 0.00 min

Lab File: VN053097.D

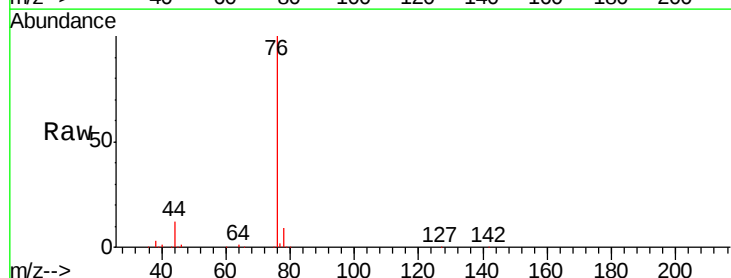
Acq: 21 Dec 2018 11:38

Tgt Ion: 76 Resp: 527525

Ion Ratio Lower Upper

76 100

78 9.0 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VN0

Ion 78.00 (77.70 to 78.70): VN0

200000

150000

100000

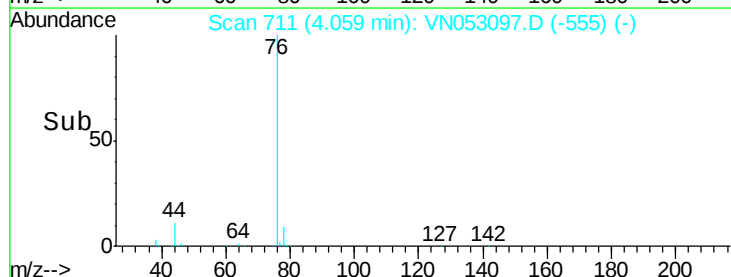
50000

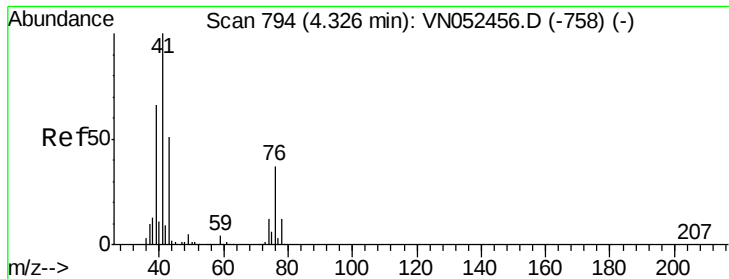
0

4.00 4.10 4.20

4.06

Time-->





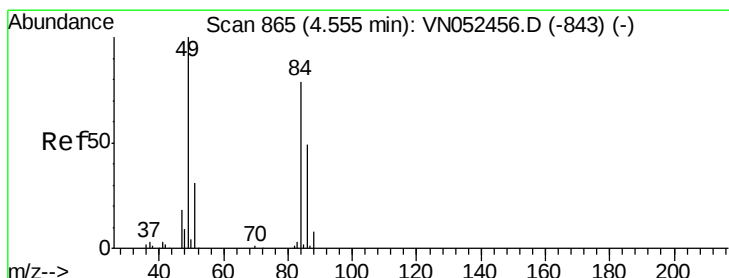
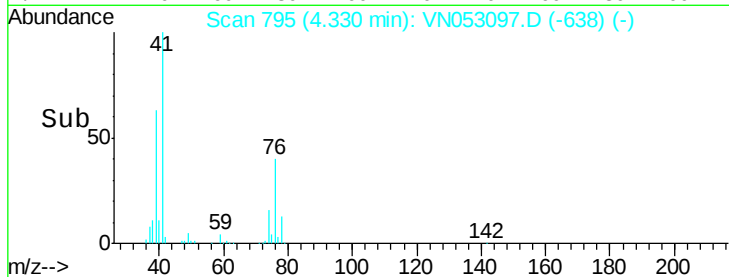
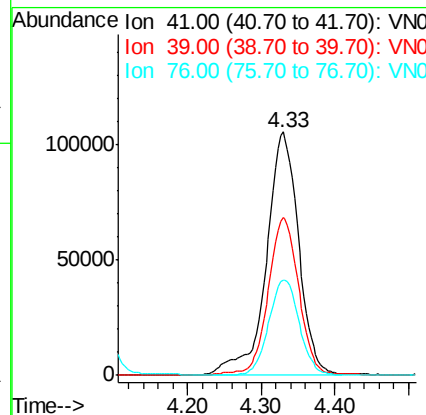
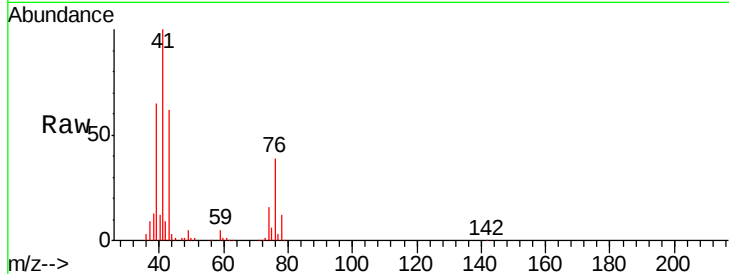
#17
 Allyl chloride
 Concen: 19.429 ug/l
 RT: 4.33 min Scan# 795
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
41	100		
39	65.2	32.8	98.3
76	39.0	18.6	55.8

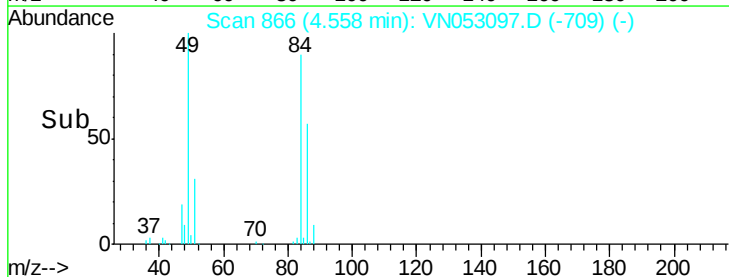
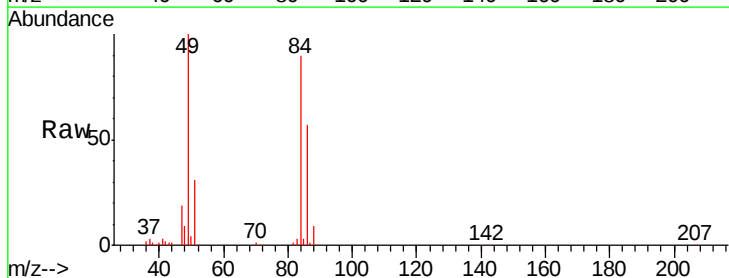
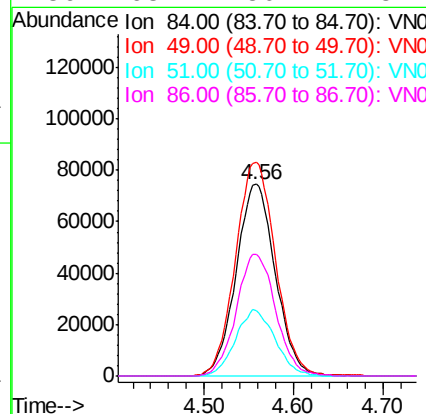
Manual Integrations
 APPROVED

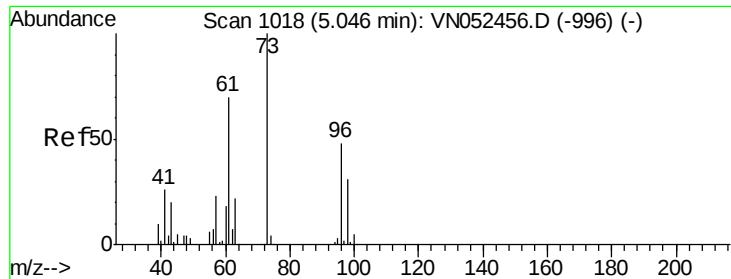
MMDadoda
 12/22/2018 10:06:21 AM



#18
 Methylene Chloride
 Concen: 20.895 ug/l
 RT: 4.56 min Scan# 866
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
84	100		
49	111.0	101.4	152.0
51	34.3	31.7	47.5
86	63.4	50.1	75.1





#19

trans-1,2-Dichloroethene

Concen: 20.289 ug/l

RT: 5.05 min Scan# 1019

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

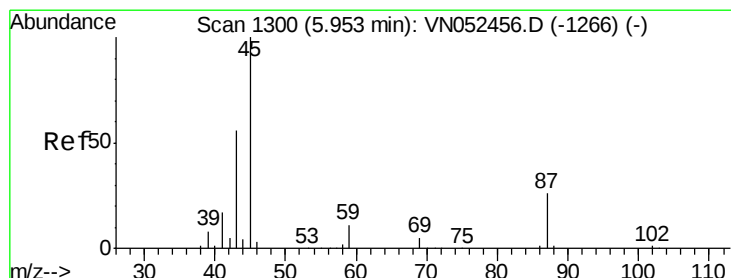
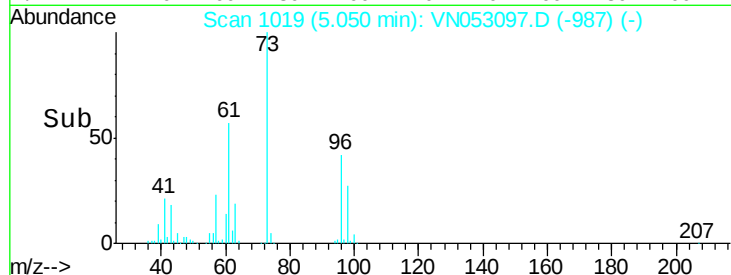
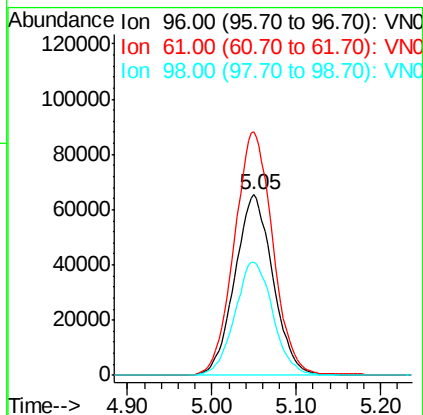
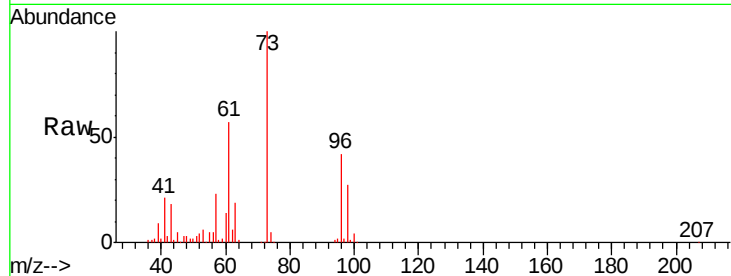
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	96	Resp:	205381
Ion	Ratio	Lower	Upper
96	100		
61	135.0	118.2	177.4
98	63.0	51.4	77.2

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#20

Diisopropyl ether

Concen: 20.223 ug/l

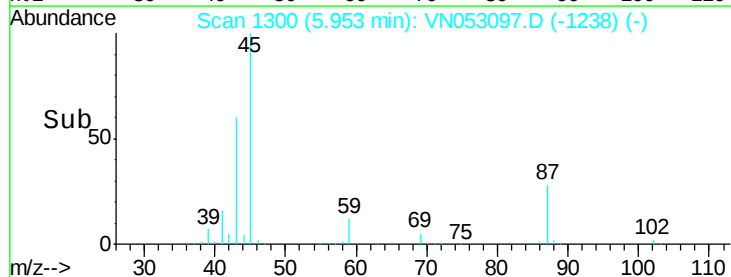
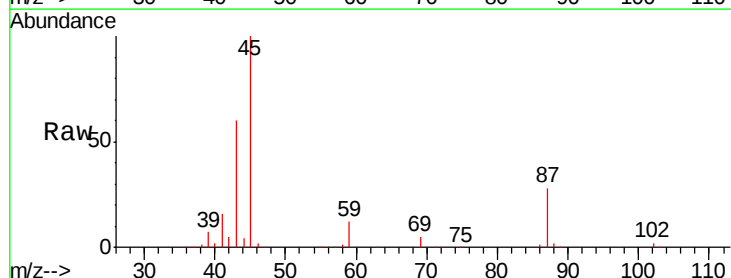
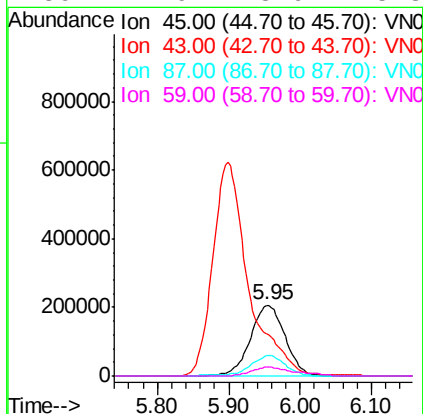
RT: 5.95 min Scan# 1300

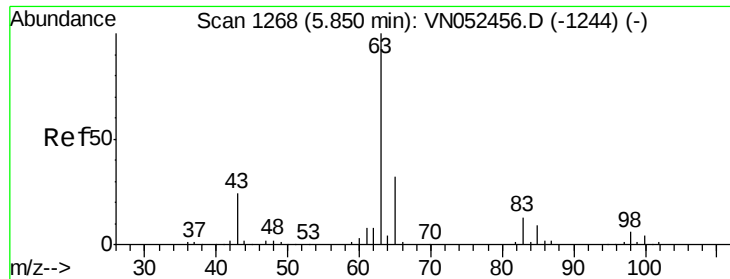
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	45	Resp:	697156
Ion	Ratio	Lower	Upper
45	100		
43	58.2	47.8	71.8
87	28.2	21.3	31.9
59	11.9	8.9	13.3





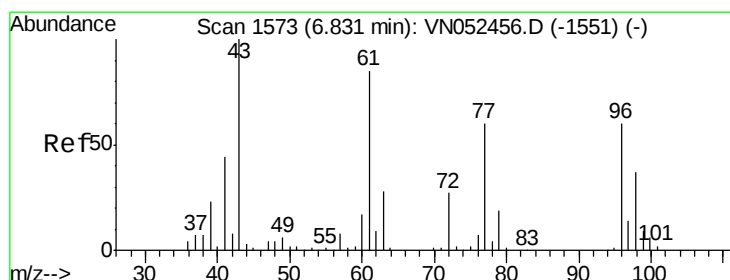
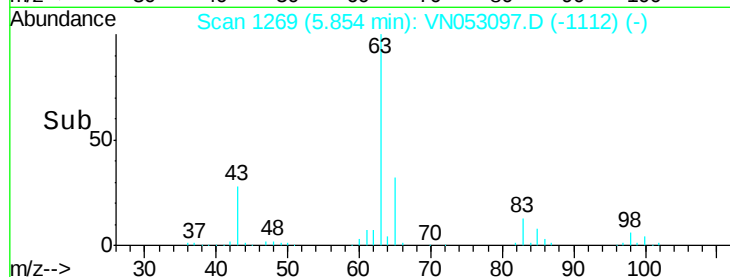
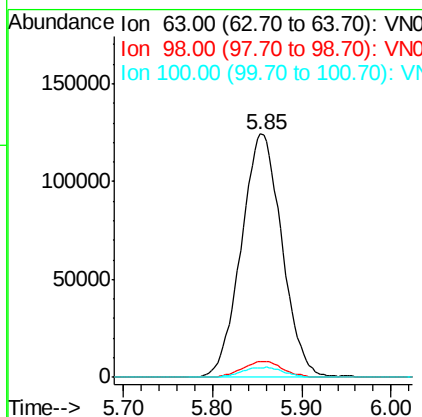
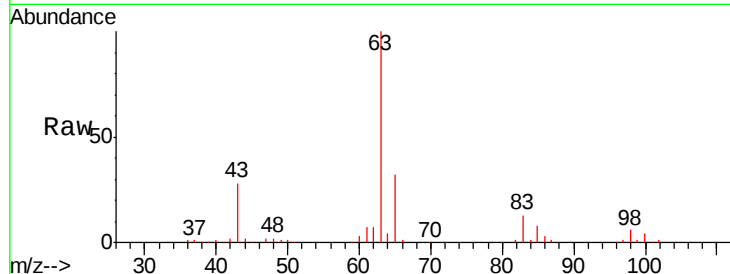
#21
 1,1-Dichloroethane
 Concen: 20.098 ug/l
 RT: 5.85 min Scan# 1269
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Resp Lower	Resp Upper
63	100		
98	6.4	3.0	9.2
100	3.9	1.8	5.5

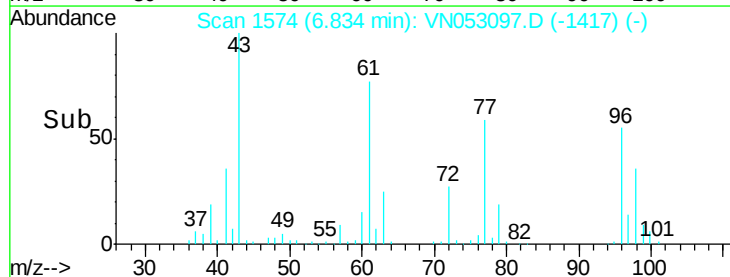
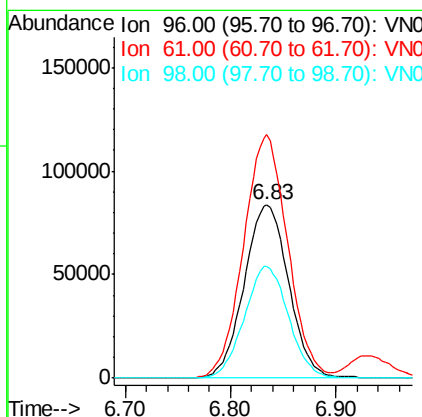
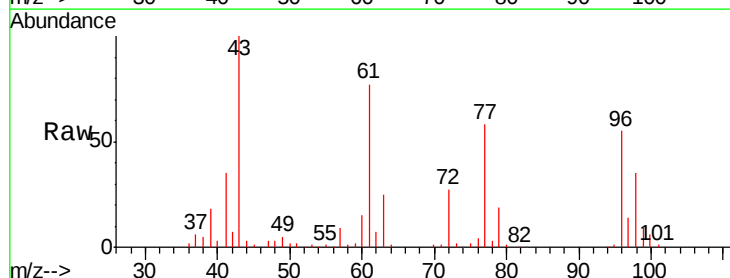
Manual Integrations
 APPROVED

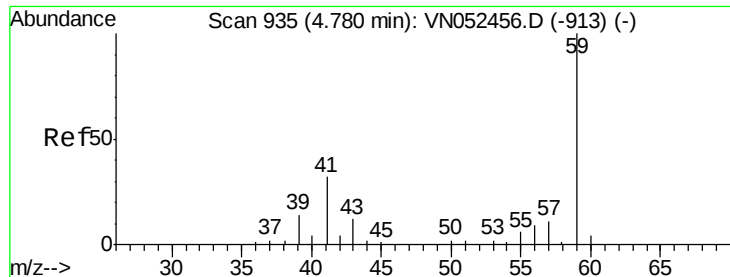
MMDadoda
 12/22/2018 10:06:21 AM



#22
 cis-1,2-Dichloroethene
 Concen: 21.119 ug/l
 RT: 6.83 min Scan# 1574
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp Lower	Resp Upper
96	100		
61	139.7	116.7	175.1
98	64.2	50.8	76.2





#23

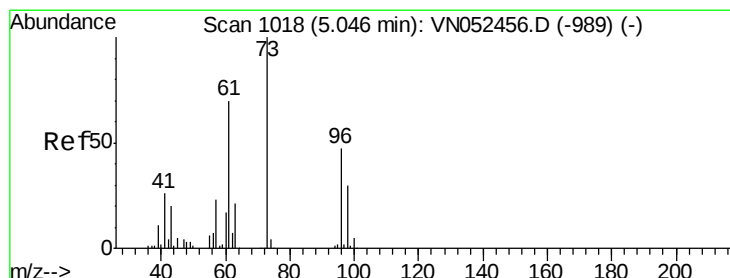
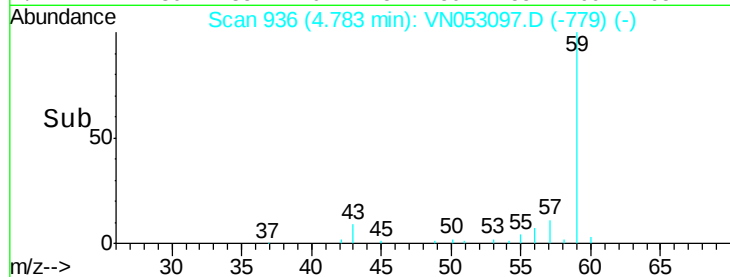
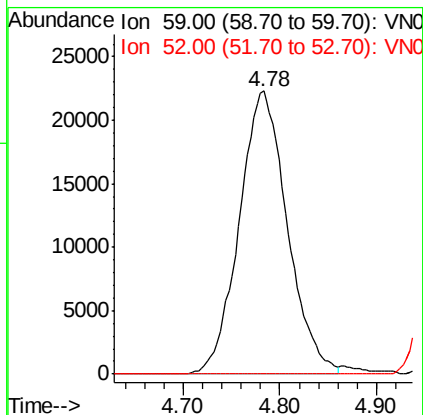
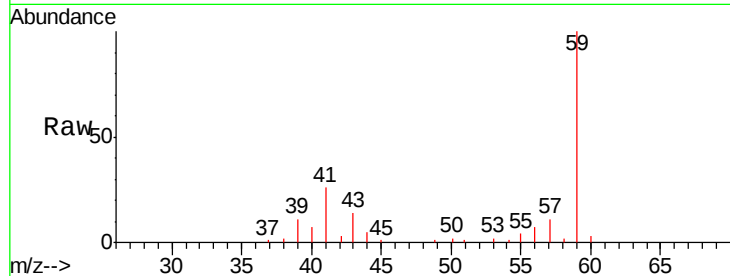
tert-Butyl Alcohol
 Concen: 152.047 ug/l
 RT: 4.78 min Scan# 936
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion: 59 Resp: 77024
 Ion Ratio Lower Upper
 59 100
 52 0.5 0.0 0.0#

Manual Integrations
 APPROVED

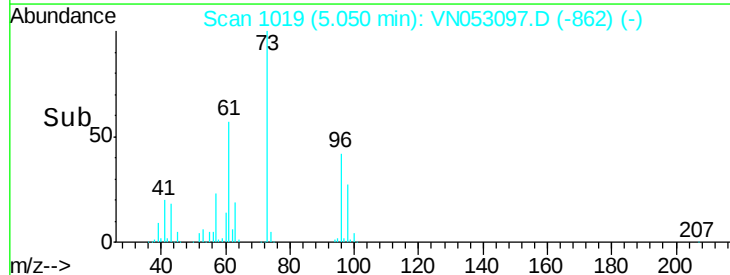
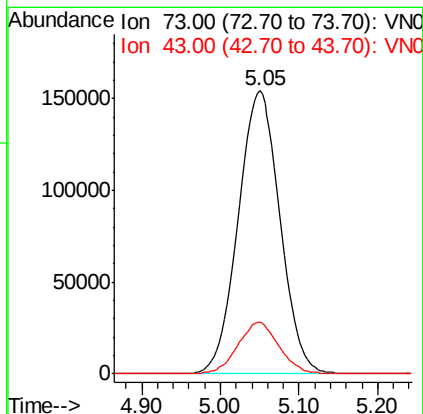
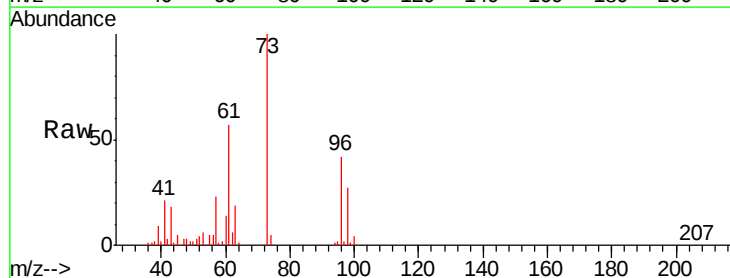
MMDadoda
 12/22/2018 10:06:21 AM

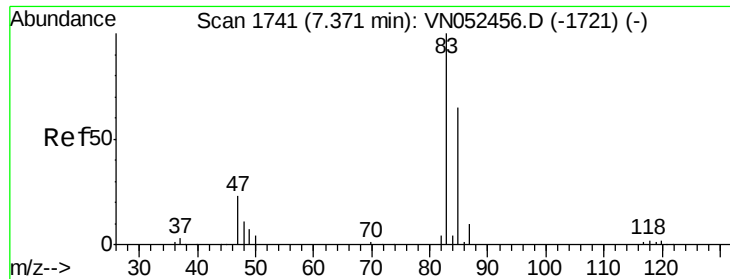


#24

Methyl tert-Butyl Ether
 Concen: 23.326 ug/l
 RT: 5.05 min Scan# 1019
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion: 73 Resp: 575600
 Ion Ratio Lower Upper
 73 100
 43 17.6 15.8 23.8





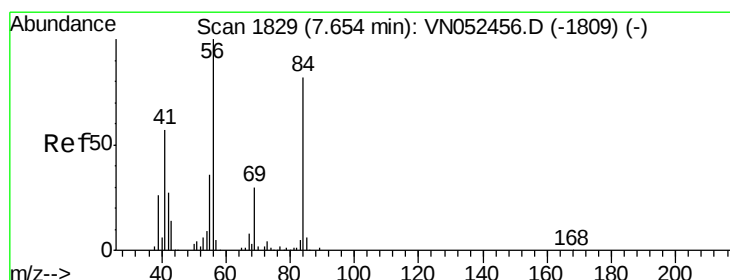
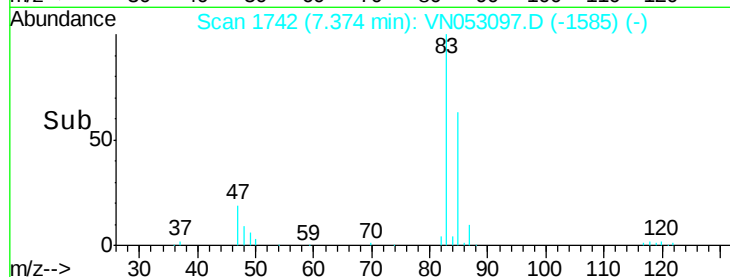
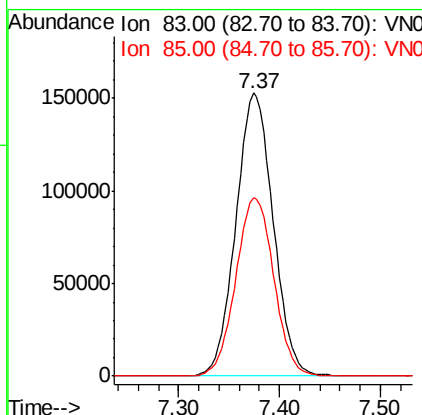
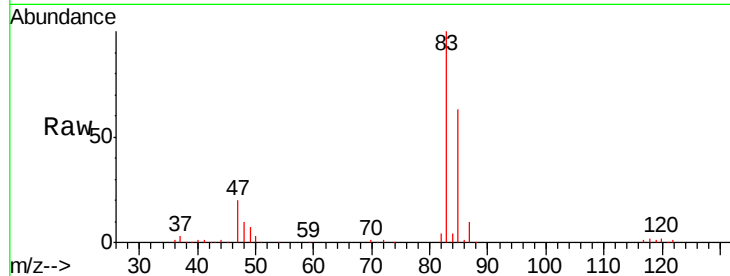
#25
Chloroform
Concen: 20.701 ug/l
RT: 7.37 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.0	51.7	77.5

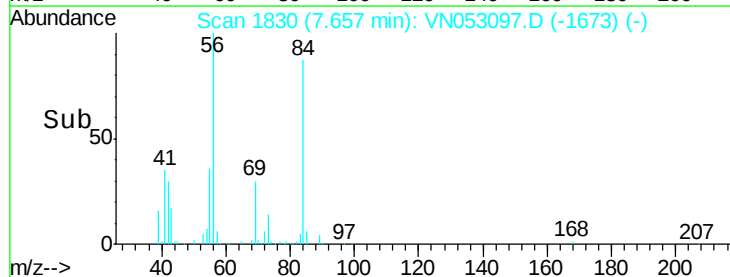
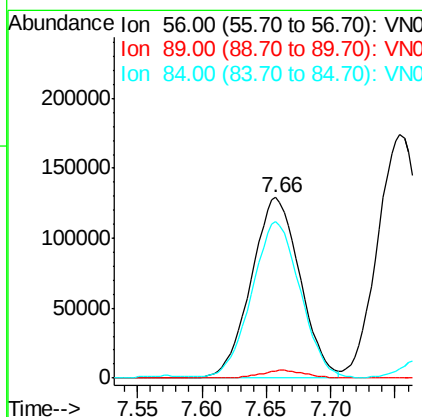
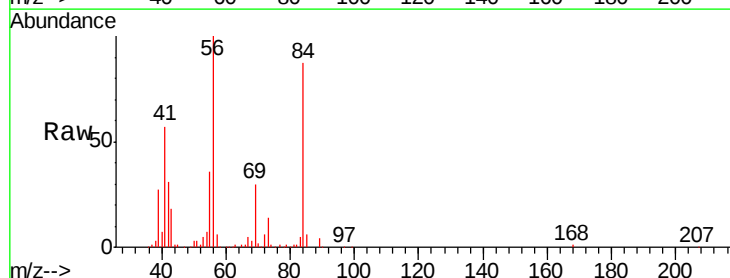
Manual Integrations
APPROVED

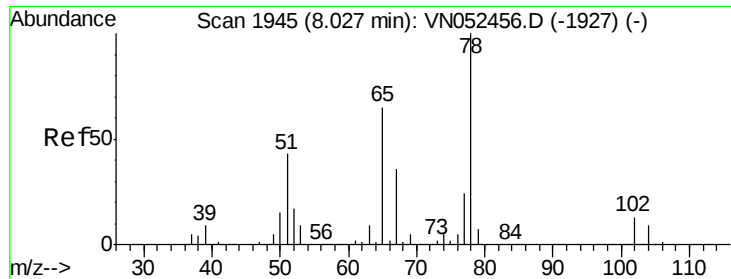
MMDadoda
12/22/2018 10:06:21 AM



#26
Cyclohexane
Concen: 18.352 ug/l
RT: 7.66 min Scan# 1830
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
56	100		
89	4.0	0.5	0.7#
84	86.5	66.2	99.2





#27

1,2-Dichloroethane-d4

Concen: 18.352 ug/l

RT: 8.03 min Scan# 1946

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 65 Resp: 325137

Ion Ratio Lower Upper

65 100

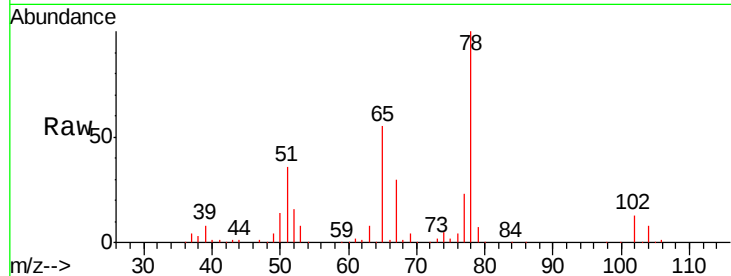
67 55.1 44.6 66.8

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 65.00 (64.70 to 65.70): VN052456.D (-1927) (-)

Ion 67.00 (66.70 to 67.70): VN052456.D (-1927) (-)

8.03

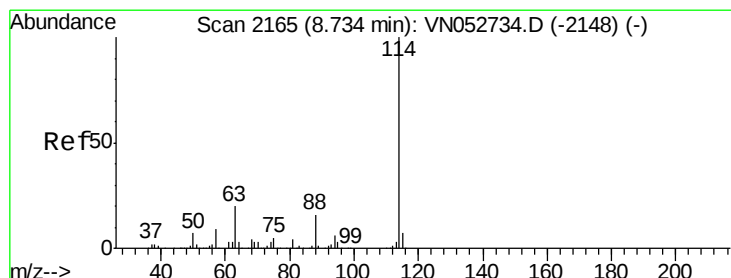
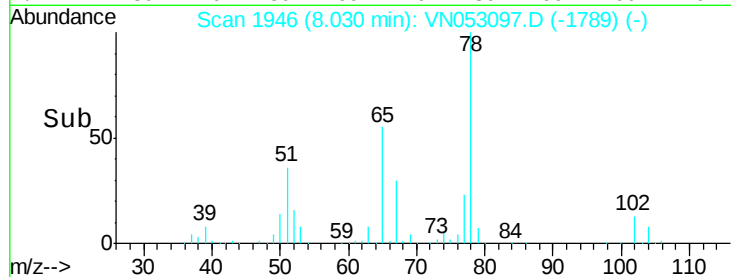
150000

100000

50000

0

Time-->



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 8.59 min Scan# 2119

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

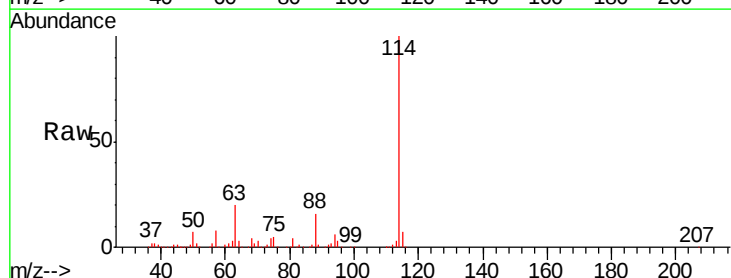
Tgt Ion: 114 Resp: 991320

Ion Ratio Lower Upper

114 100

63 19.4 16.9 25.3

88 15.4 12.8 19.2



Abundance Ion 114.00 (113.70 to 114.70): VN052734.D (-2148) (-)

Ion 63.00 (62.70 to 63.70): VN052734.D (-2148) (-)

Ion 88.00 (87.70 to 88.70): VN052734.D (-2148) (-)

8.59

600000

500000

400000

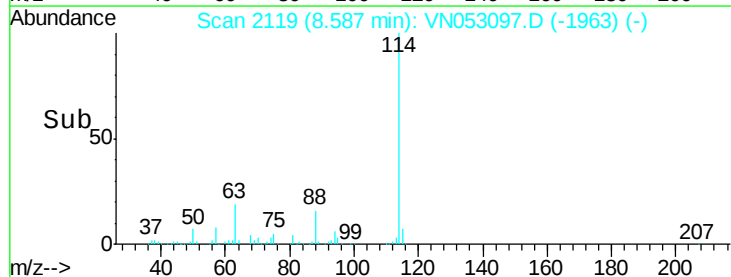
300000

200000

100000

0

Time-->





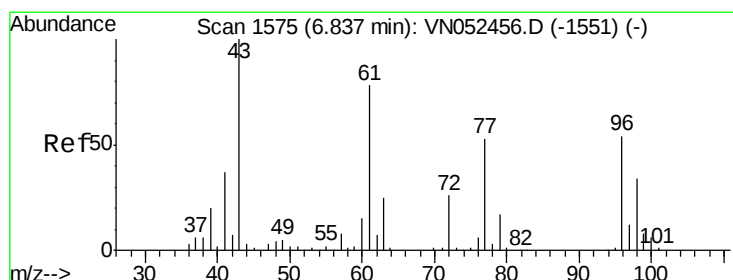
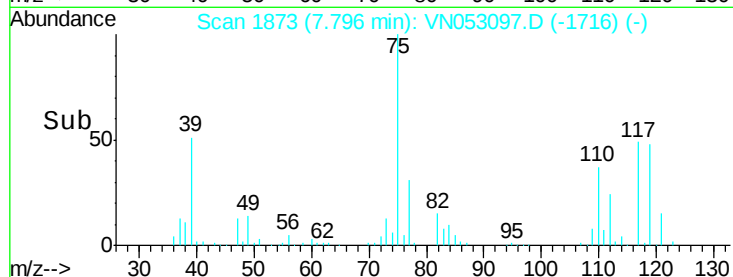
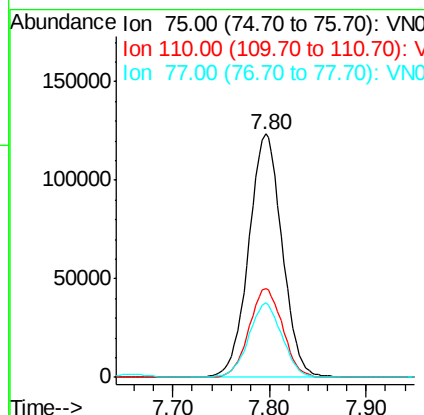
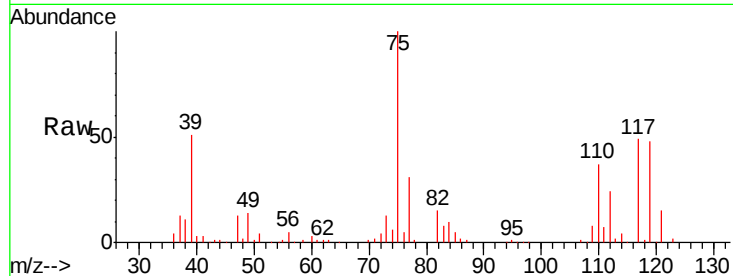
#29
 1,1-Dichloropropene
 Concen: 19.559 ug/l
 RT: 7.80 min Scan# 1873
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Resp Lower	Resp Upper
75	100		
110	36.5	0.0	70.2
77	30.5	0.0	62.6

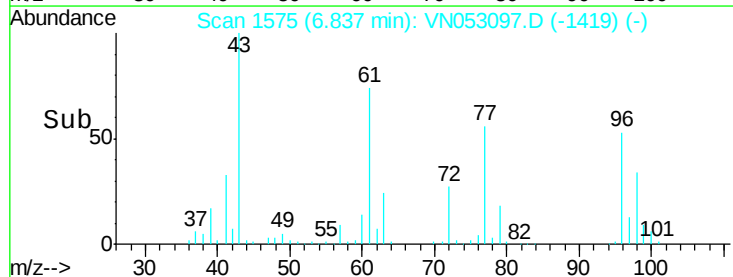
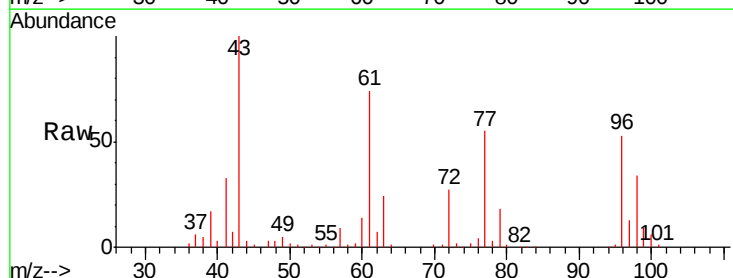
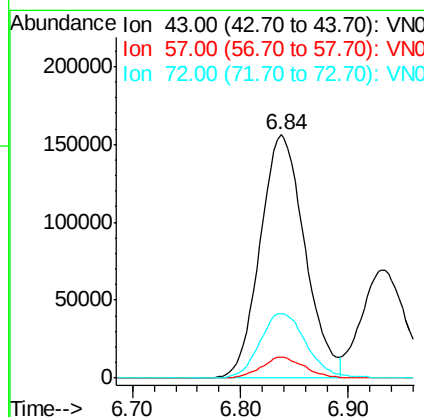
Manual Integrations
 APPROVED

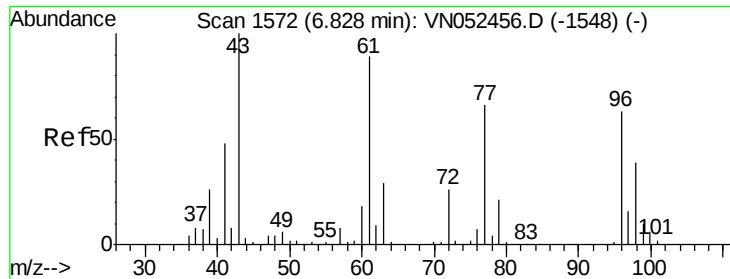
MMDadoda
 12/22/2018 10:06:21 AM



#30
 2-Butanone
 Concen: 110.484 ug/l
 RT: 6.84 min Scan# 1575
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp Lower	Resp Upper
43	100		
57	8.5	6.2	9.4
72	27.9	21.0	31.6





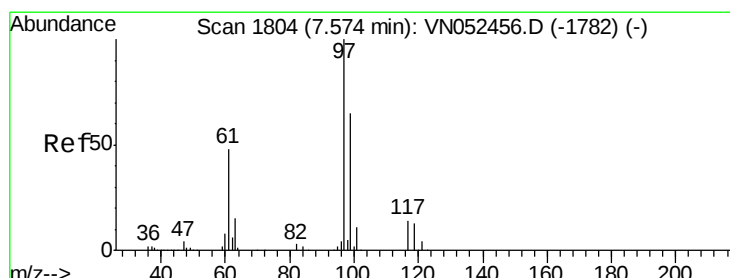
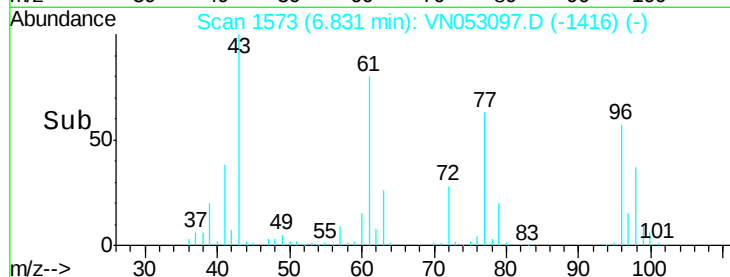
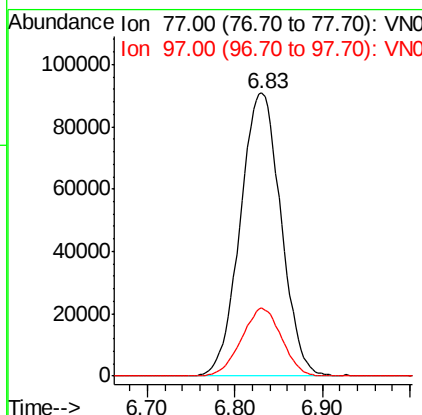
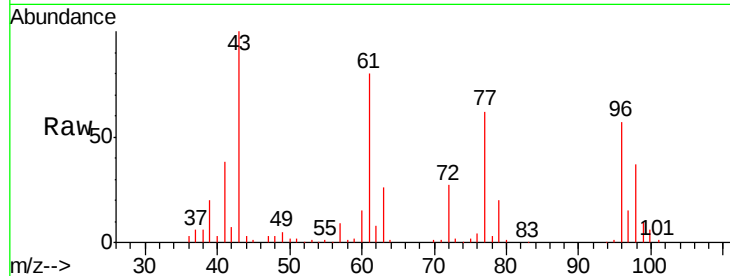
#31
 2,2-Dichloropropane
 Concen: 21.014 ug/l
 RT: 6.83 min Scan# 1573
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion: 77 Resp: 292872
 Ion Ratio Lower Upper
 77 100
 97 23.7 18.7 28.1

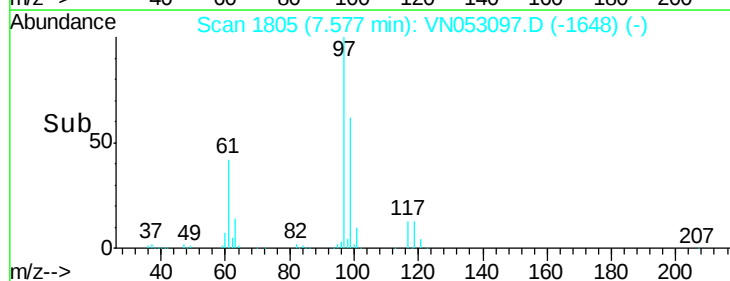
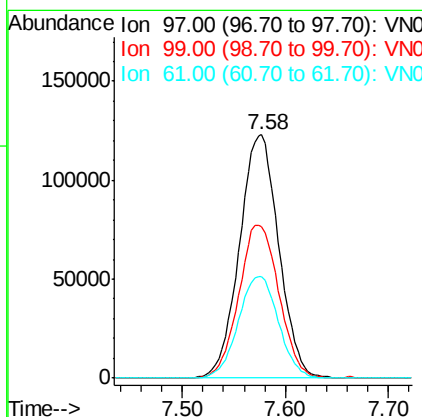
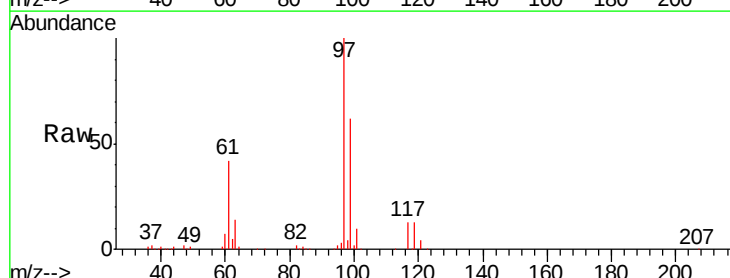
Manual Integrations
 APPROVED

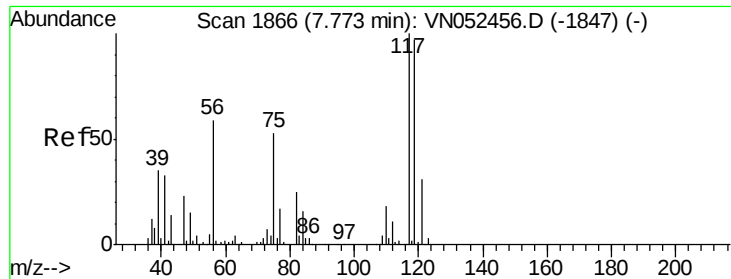
MMDadoda
 12/22/2018 10:06:21 AM



#32
 1,1,1-Trichloroethane
 Concen: 20.682 ug/l
 RT: 7.58 min Scan# 1805
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion: 97 Resp: 325778
 Ion Ratio Lower Upper
 97 100
 99 64.3 50.9 76.3
 61 42.7 38.1 57.1





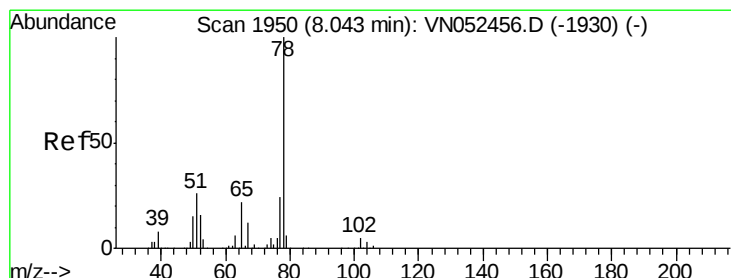
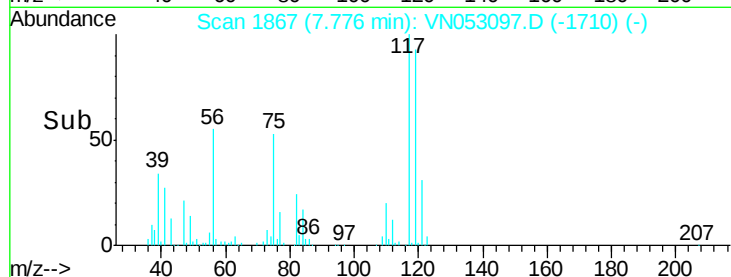
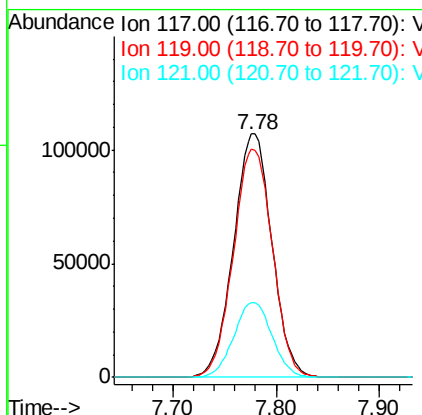
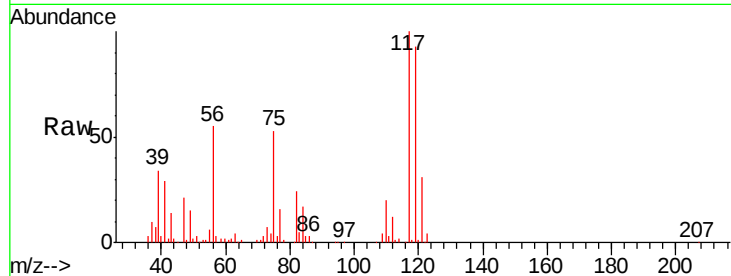
#33
Carbon Tetrachloride
Concen: 20.114 ug/l
RT: 7.78 min Scan# 1867
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
117	100		
119	93.5	77.3	115.9
121	30.8	24.9	37.3

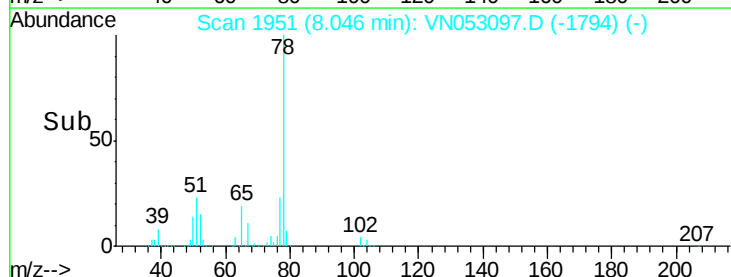
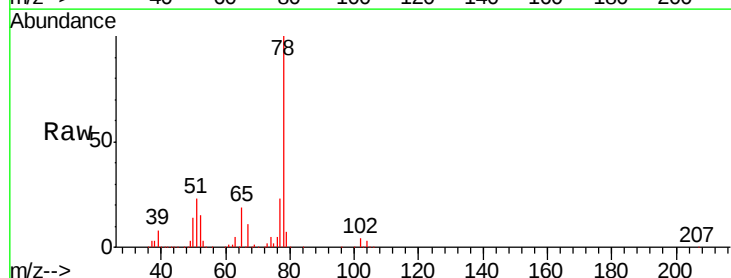
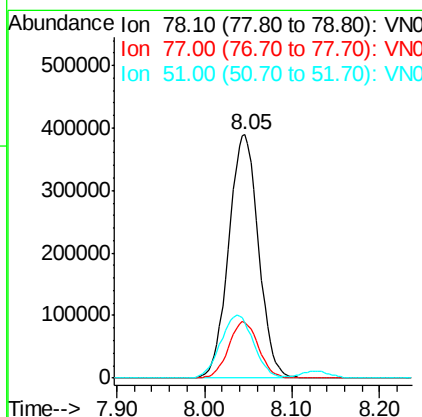
Manual Integrations
APPROVED

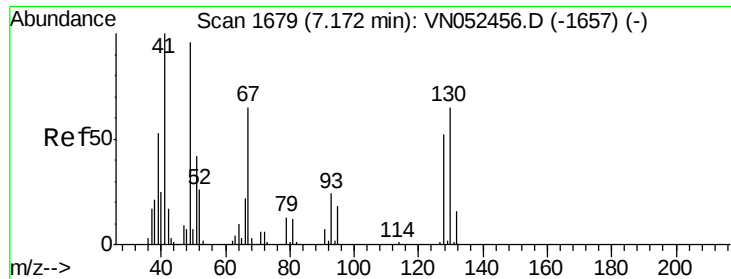
MMDadoda
12/22/2018 10:06:21 AM



#34
Benzene
Concen: 20.217 ug/l
RT: 8.05 min Scan# 1951
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.0	19.0	28.6
51	22.9	20.5	30.7





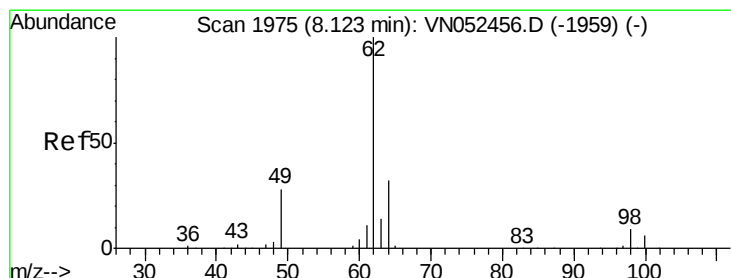
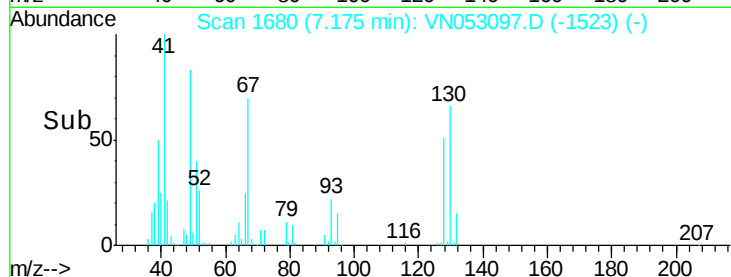
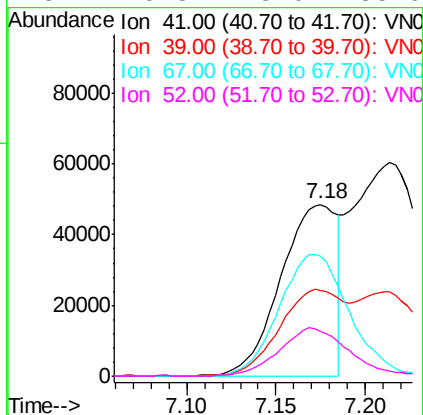
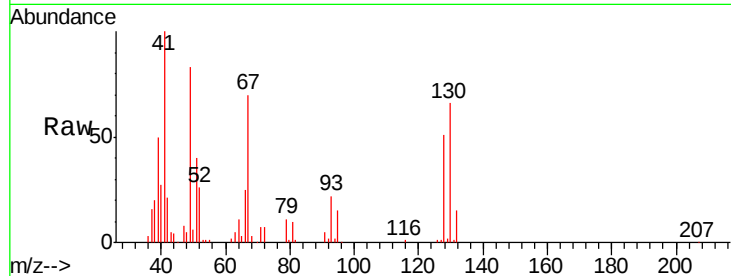
#35
Methacrylonitrile
Concen: 21.137 ug/l
RT: 7.18 min Scan# 1680
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:	41	Resp:	106230
Ion	Ratio	Lower	Upper
41	100		
39	50.2	26.6	79.7
67	69.8	32.3	96.9
52	26.3	13.0	38.9

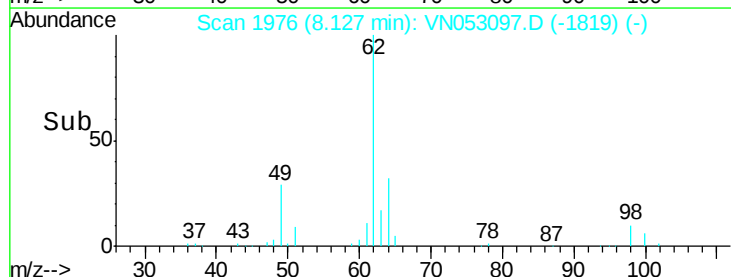
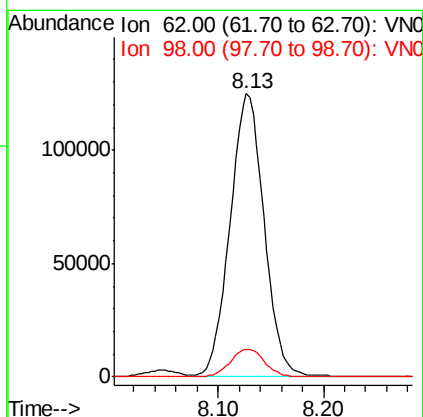
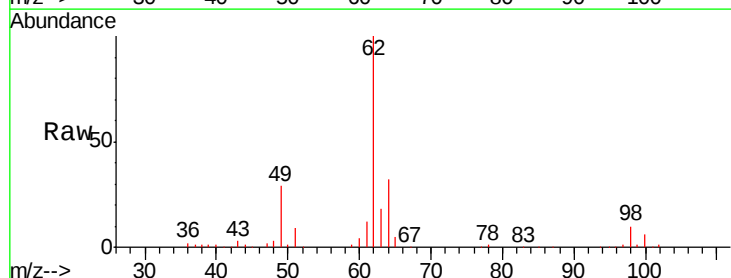
Manual Integrations
APPROVED

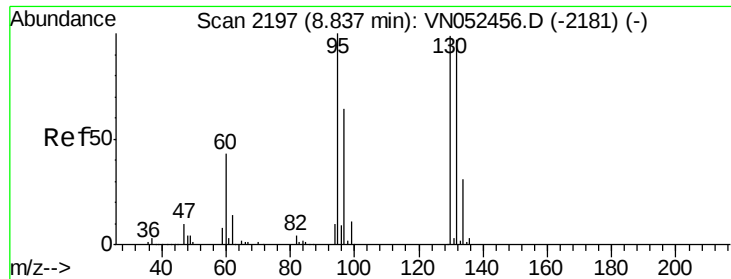
MMDadoda
12/22/2018 10:06:21 AM



#36
1,2-Dichloroethane
Concen: 20.215 ug/l
RT: 8.13 min Scan# 1976
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion:	62	Resp:	278806
Ion	Ratio	Lower	Upper
62	100		
98	9.9	7.4	11.2





#37

Trichloroethene

Concen: 21.572 ug/l

RT: 8.84 min Scan# 2197

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 130 Resp: 248966

Ion Ratio Lower Upper

130 100

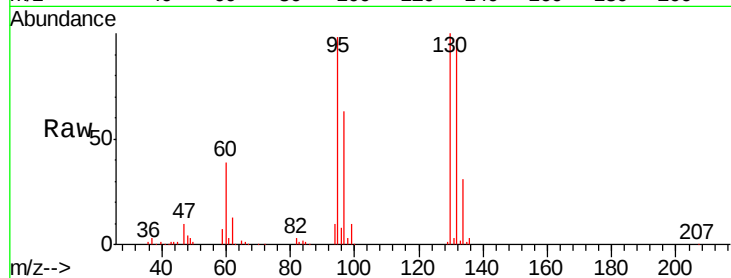
95 98.0 81.0 121.4

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 129.90 (129.60 to 130.60): V

Ion 94.90 (94.60 to 95.60): VNO

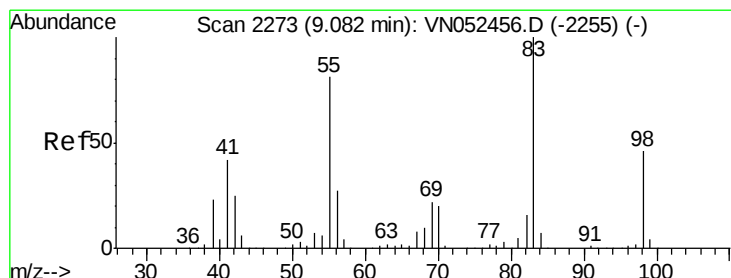
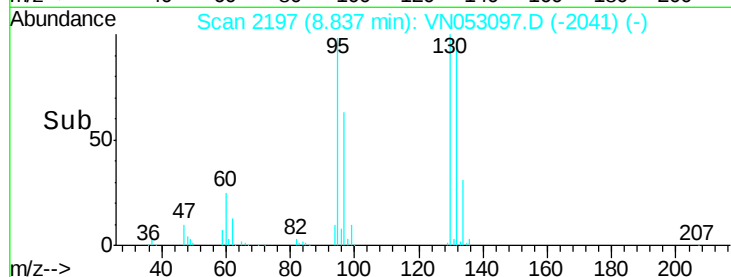
8.84

100000

50000

0

Time-->



#38

Methylcyclohexane

Concen: 18.154 ug/l

RT: 9.08 min Scan# 2273

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

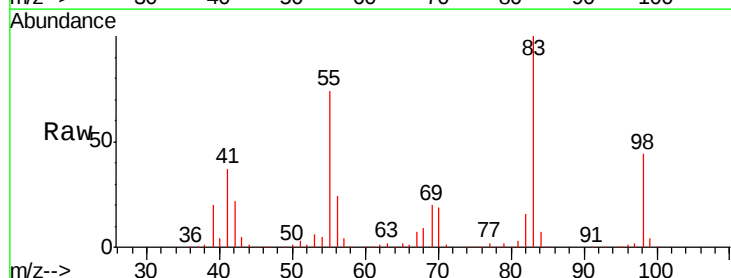
Tgt Ion: 83 Resp: 340204

Ion Ratio Lower Upper

83 100

55 74.2 39.8 119.4

98 45.0 22.9 68.5



Abundance Ion 83.00 (82.70 to 83.70): VNO

Ion 55.00 (54.70 to 55.70): VNO

Ion 98.00 (97.70 to 98.70): VNO

200000

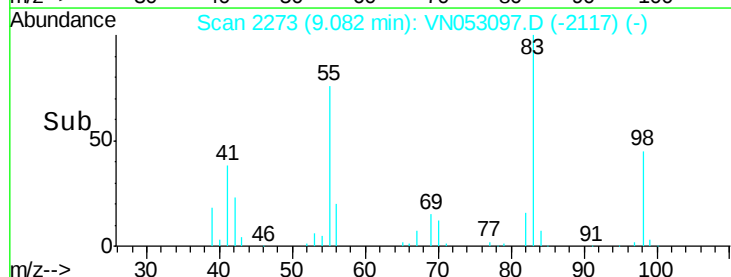
150000

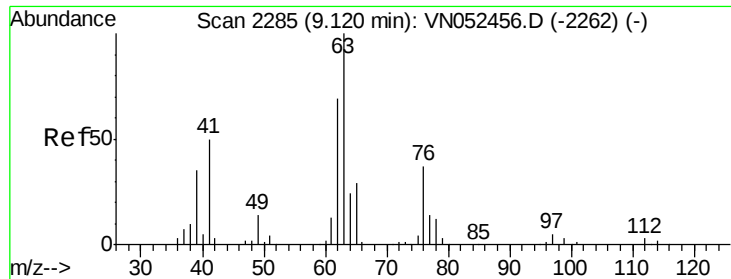
100000

50000

0

Time-->





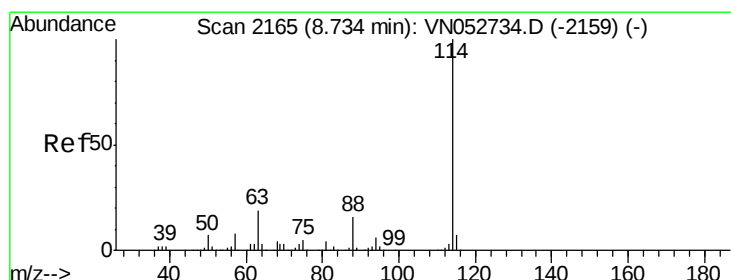
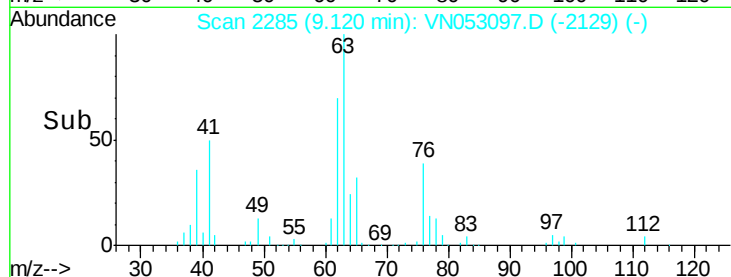
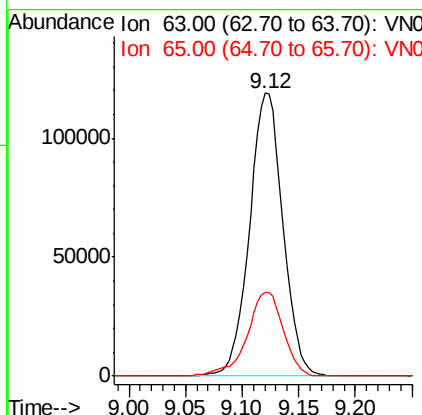
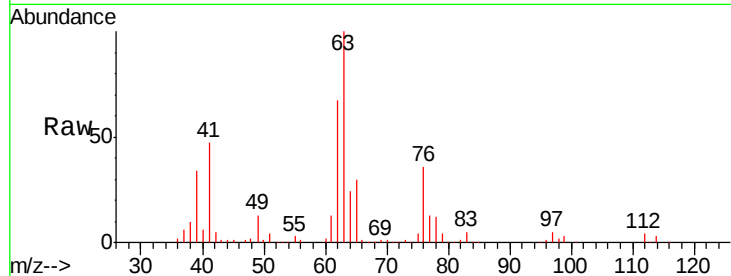
#39
 1,2-Dichloropropane
 Concen: 20.016 ug/l
 RT: 9.12 min Scan# 2285
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion: 63 Resp: 244203
 Ion Ratio Lower Upper
 63 100
 65 29.6 23.6 35.4

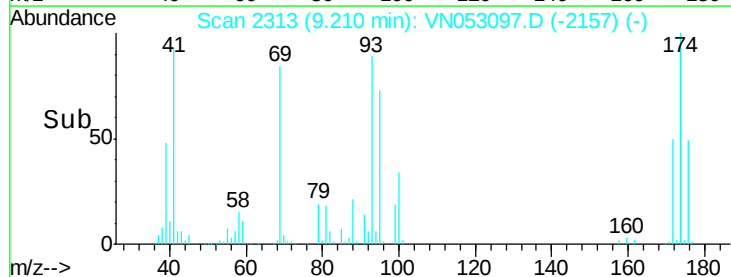
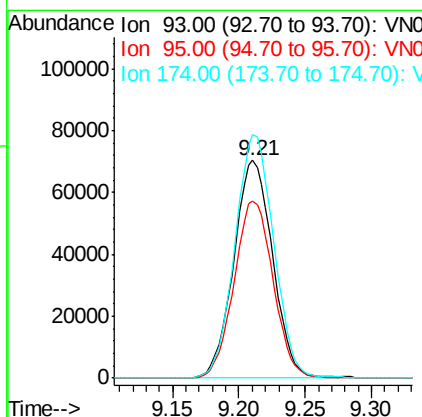
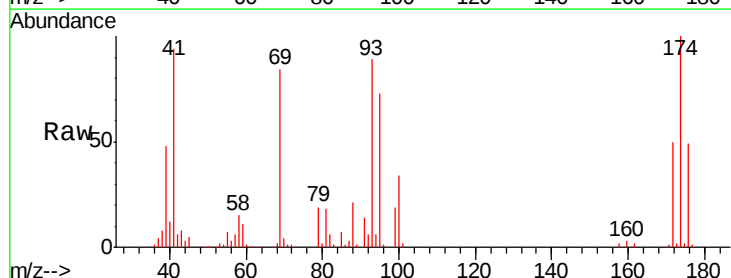
Manual Integrations
 APPROVED

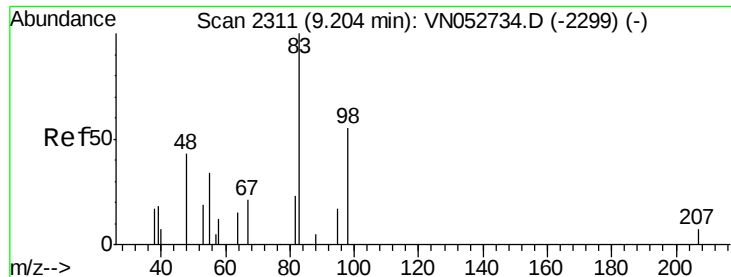
MMDadoda
 12/22/2018 10:06:21 AM



#40
 Dibromomethane
 Concen: 21.768 ug/l
 RT: 9.21 min Scan# 2313
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion: 93 Resp: 143516
 Ion Ratio Lower Upper
 93 100
 95 81.5 0.0 168.4
 174 111.7 0.0 210.0





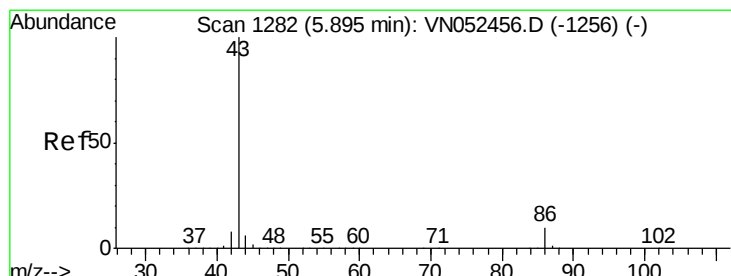
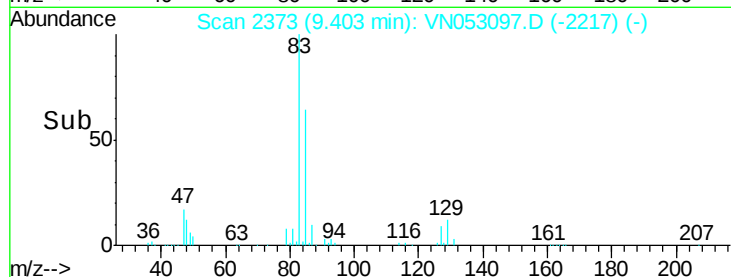
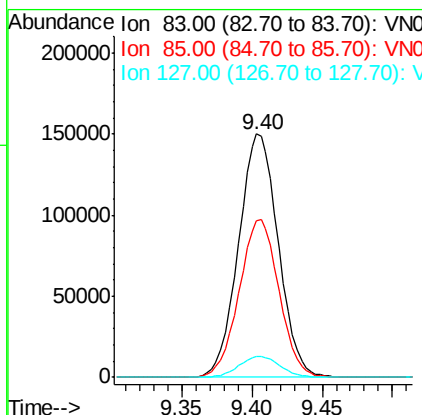
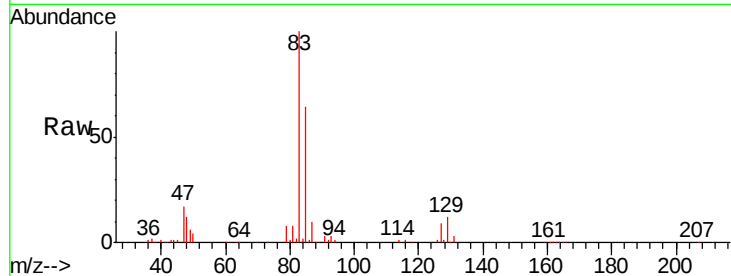
#41
Bromodichloromethane
Concen: 20.324 ug/l
RT: 9.40 min Scan# 2373
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
83	100		
85	64.3	52.4	78.6
127	8.7	6.6	9.8

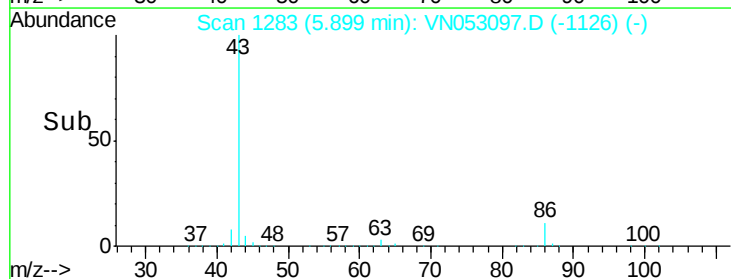
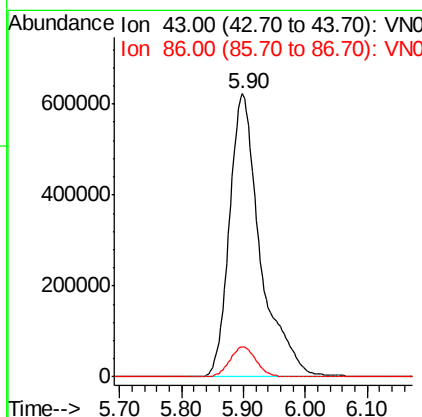
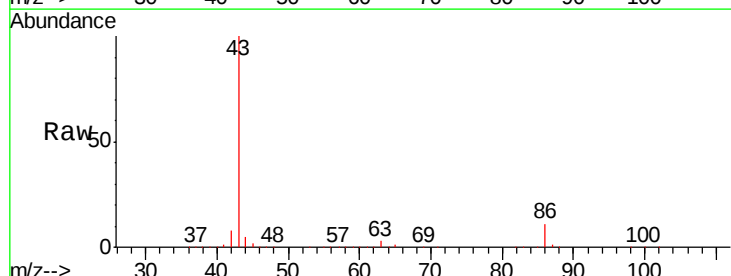
Manual Integrations
APPROVED

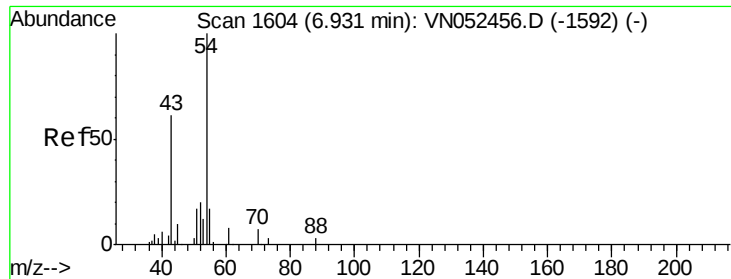
MMDadoda
12/22/2018 10:06:21 AM



#42
Vinyl Acetate
Concen: 98.704 ug/l
RT: 5.90 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
43	100		
86	9.0	6.5	9.7





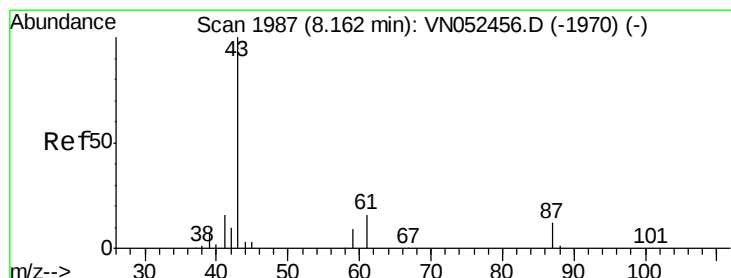
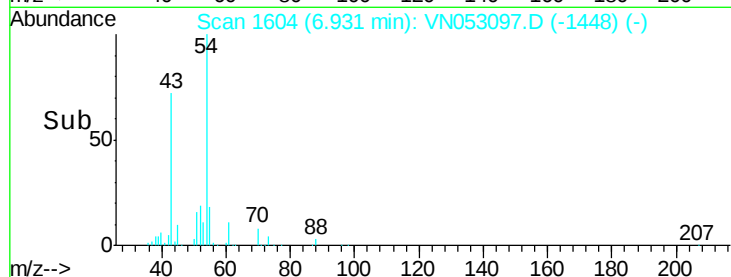
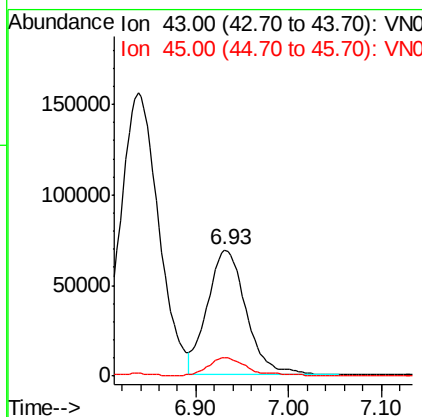
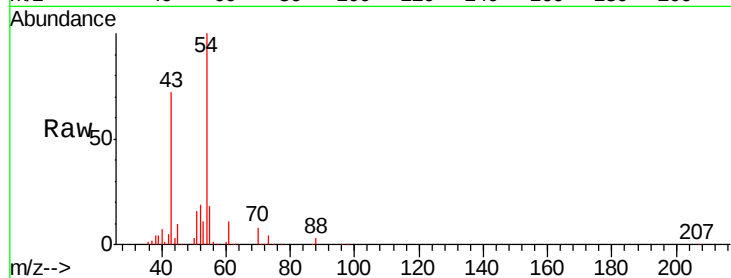
#43
Ethyl Acetate
Concen: 23.305 ug/l
RT: 6.93 min Scan# 1604
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 43 Resp: 200740
Ion Ratio Lower Upper
43 100
45 13.7 1.0 1.6#

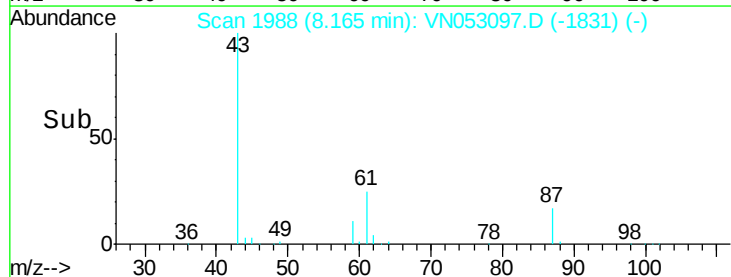
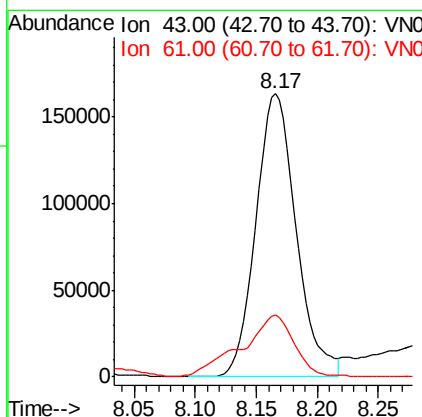
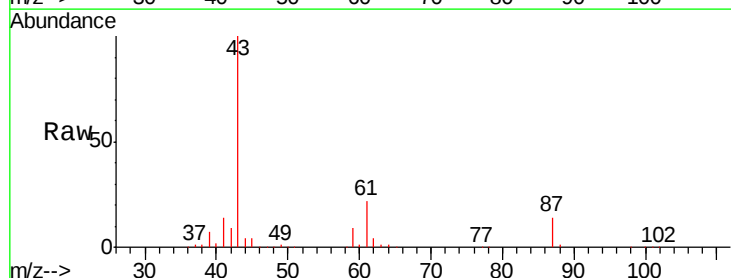
Manual Integrations
APPROVED

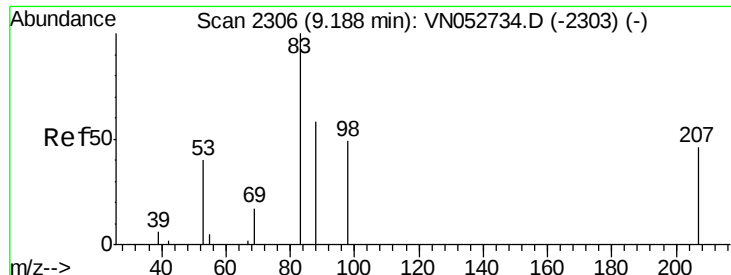
MMDadoda
12/22/2018 10:06:21 AM



#44
Isopropyl Acetate
Concen: 24.728 ug/l
RT: 8.17 min Scan# 1988
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion: 43 Resp: 373555
Ion Ratio Lower Upper
43 100
61 20.3 16.0 24.0





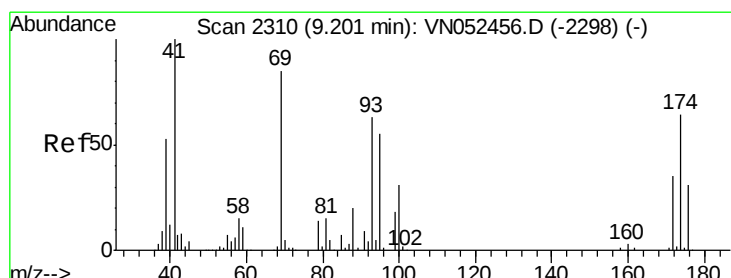
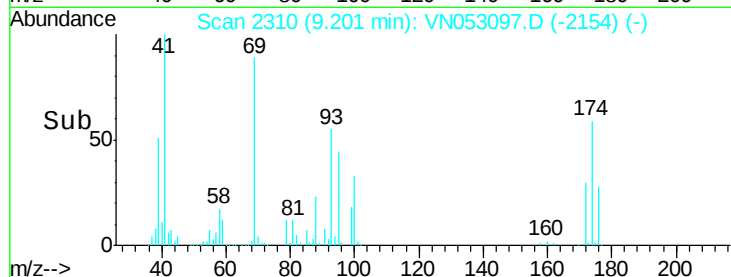
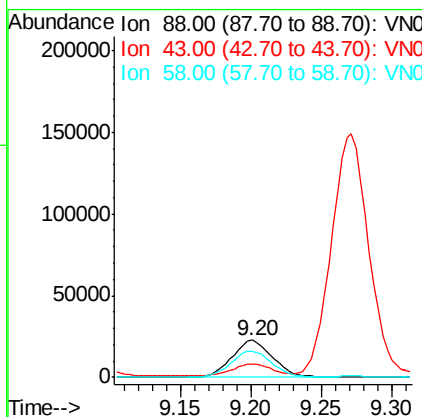
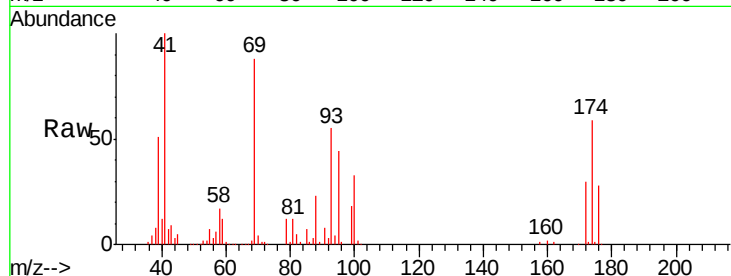
#45
 1,4-Dioxane
 Concen: 556.733 ug/l
 RT: 9.20 min Scan# 2310
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
88	100	46010		
43	31.9	29.5	44.3	
58	71.6	61.5	92.3	

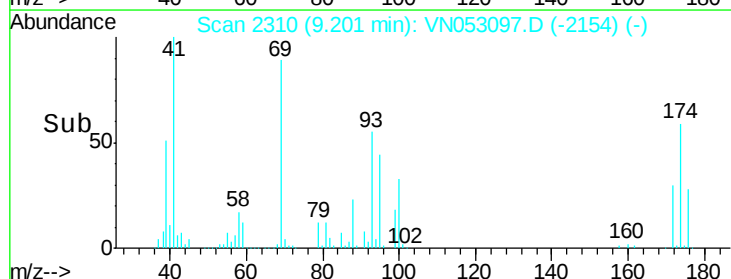
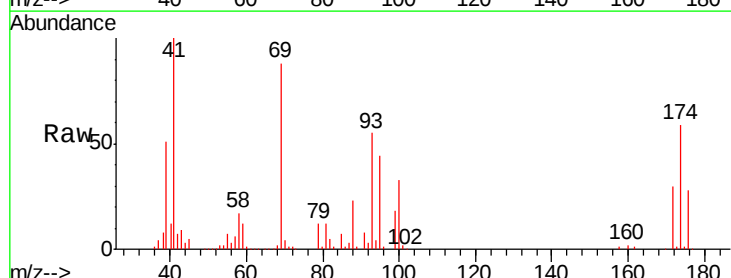
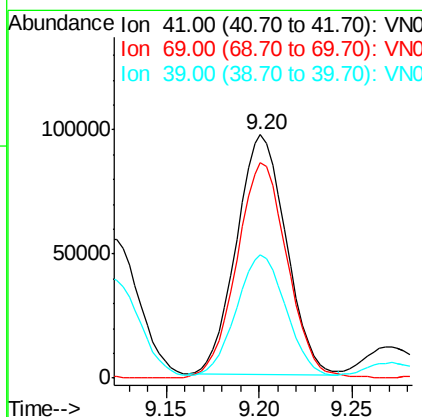
Manual Integrations
 APPROVED

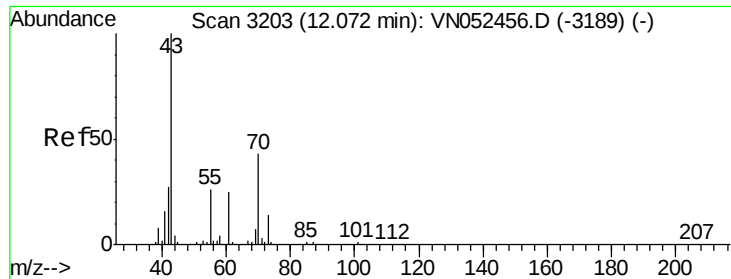
MMDadoda
 12/22/2018 10:06:21 AM



#46
 Methyl methacrylate
 Concen: 22.861 ug/l
 RT: 9.20 min Scan# 2310
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
41	100	179309		
69	89.3	42.5	127.6	
39	50.3	26.3	78.9	





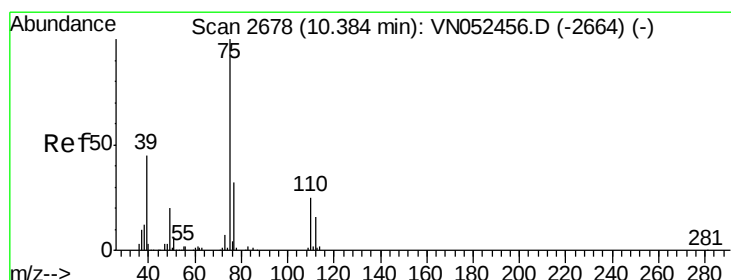
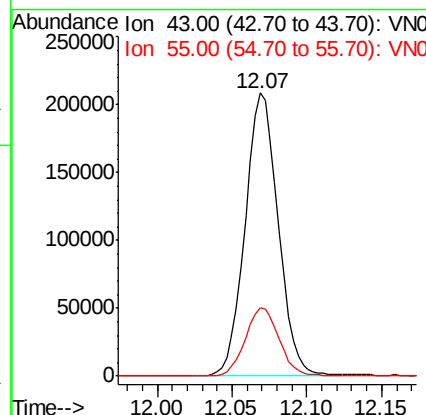
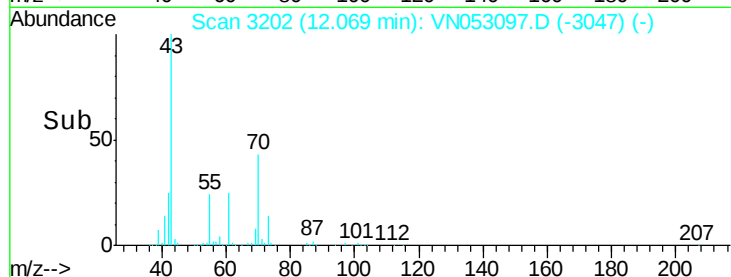
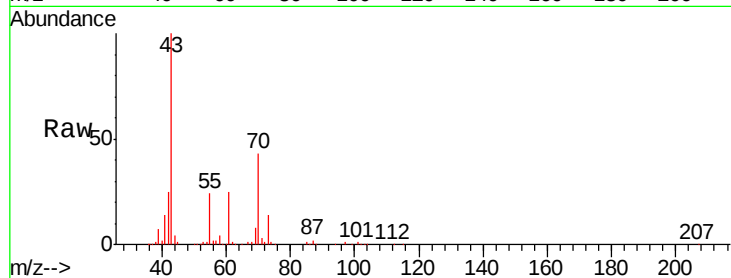
#47
n-amy1 Acetate
Concen: 25.563 ug/l
RT: 12.07 min Scan# 3202
Delta R.T. -0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion: 43 Resp: 320189
Ion Ratio Lower Upper
43 100
55 24.9 21.1 31.7

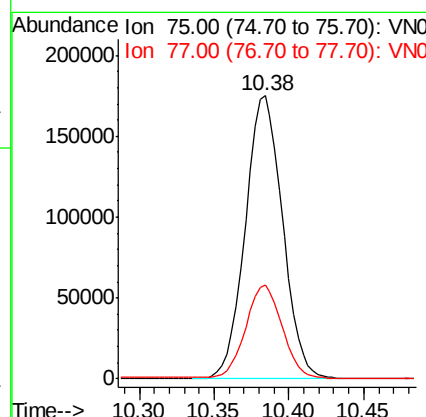
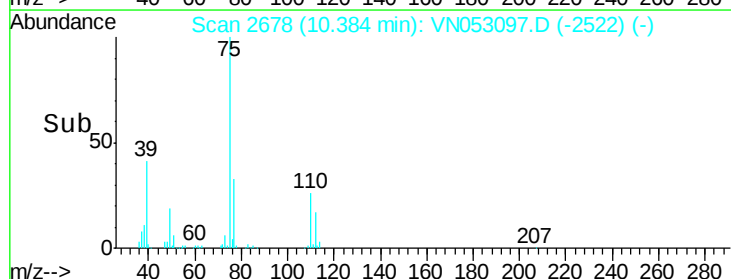
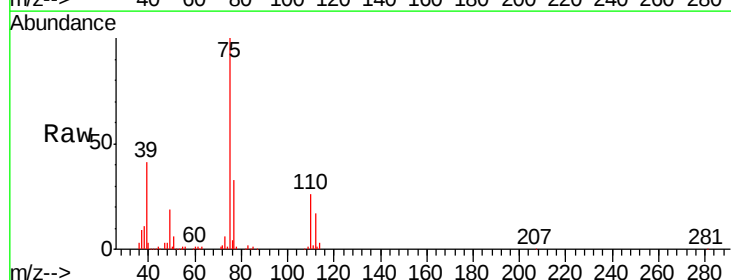
Manual Integrations
APPROVED

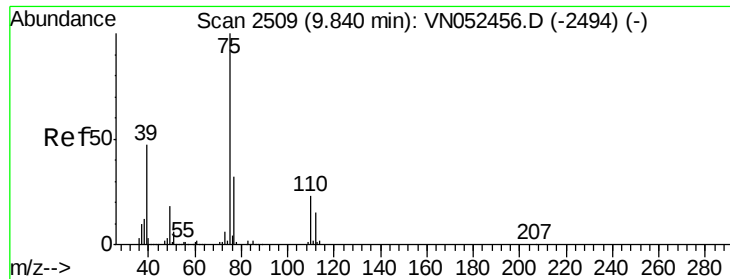
MMDadoda
12/22/2018 10:06:21 AM



#48
t-1,3-Dichloropropene
Concen: 21.539 ug/l
RT: 10.38 min Scan# 2678
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion: 75 Resp: 304208
Ion Ratio Lower Upper
75 100
77 32.8 25.6 38.4





#49

cis-1,3-Dichloropropene

Concen: 20.705 ug/l

RT: 9.84 min Scan# 2509

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

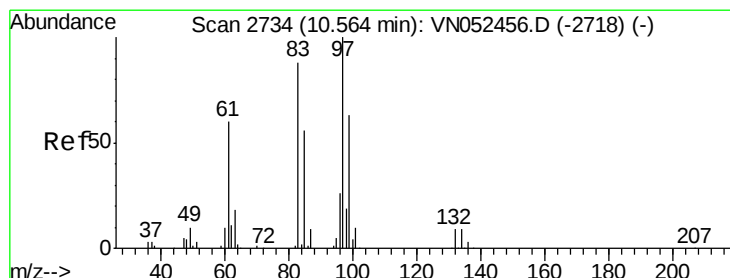
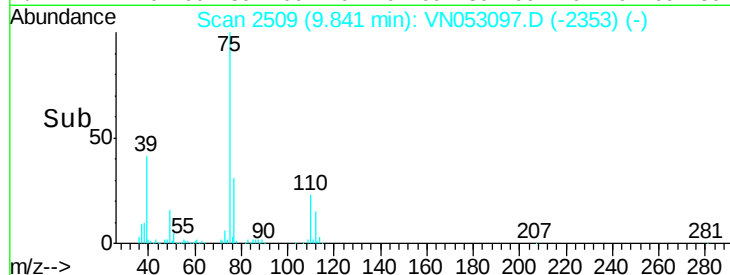
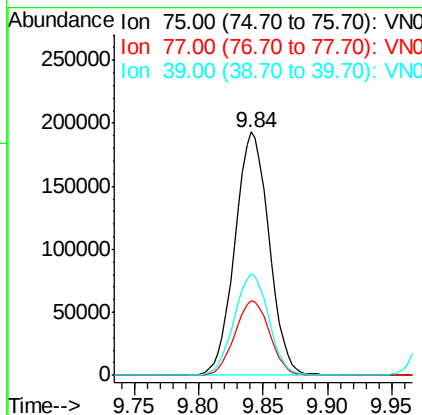
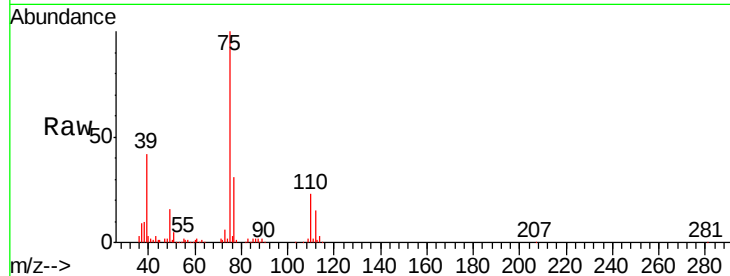
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	75	Resp:	356281
Ion Ratio	Lower	Upper	
75	100		
77	30.7	25.4	38.0
39	41.5	37.3	55.9

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#50

1,1,2-Trichloroethane

Concen: 22.261 ug/l

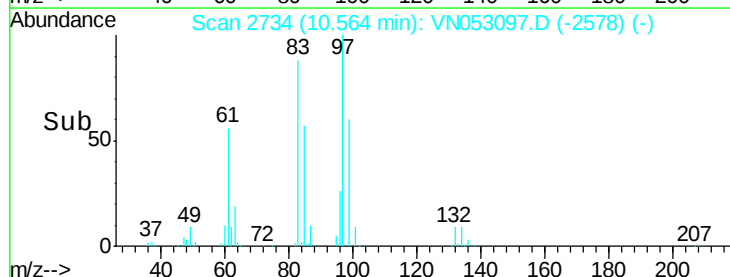
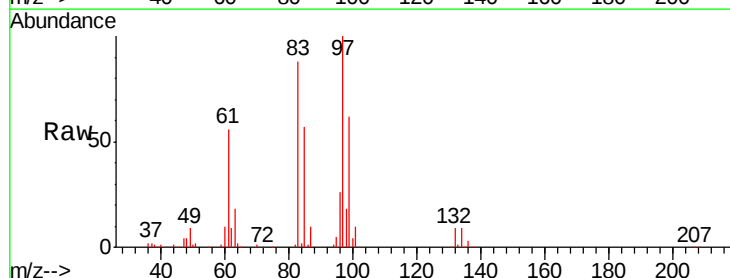
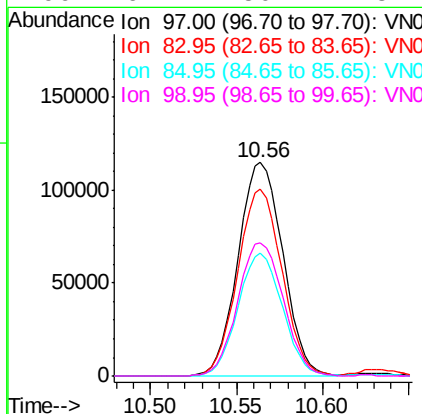
RT: 10.56 min Scan# 2734

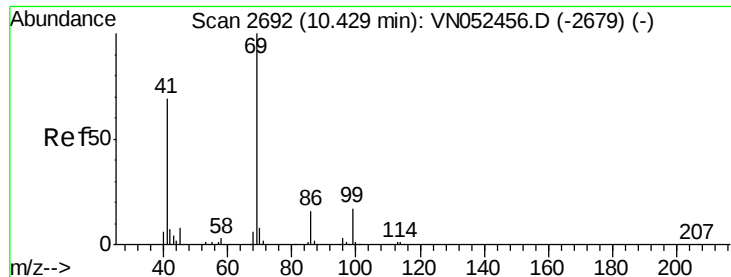
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	97	Resp:	208040
Ion Ratio	Lower	Upper	
97	100		
83	87.3	70.4	105.6
85	57.2	45.0	67.6
99	62.2	50.2	75.2





#51

Ethyl methacrylate

Concen: 24.222 ug/l

RT: 10.43 min Scan# 2693

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

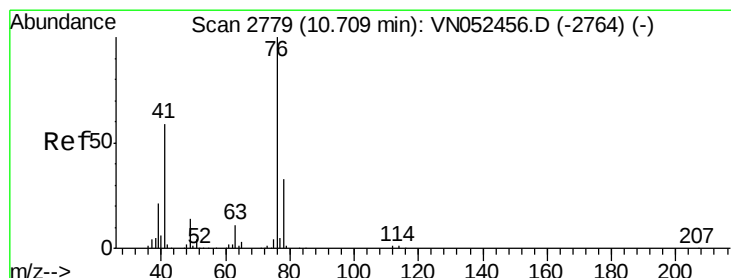
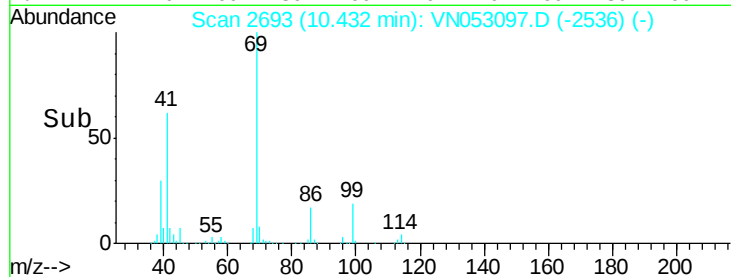
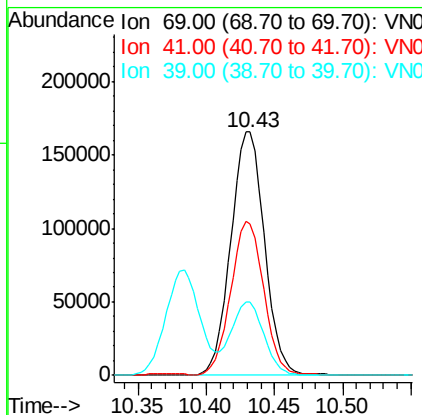
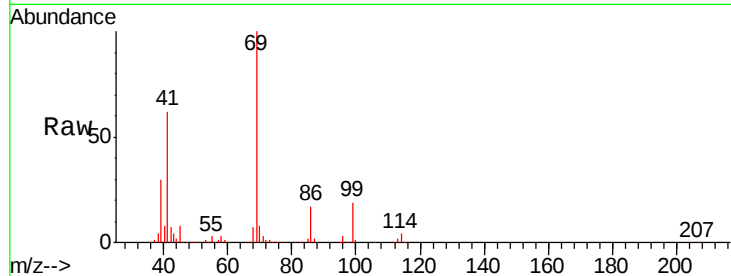
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	69	Resp:	284307
Ion Ratio	Lower	Upper	
69	100		
41	61.8	34.4	103.3
39	29.9	16.4	49.2

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#52

1,3-Dichloropropane

Concen: 21.405 ug/l

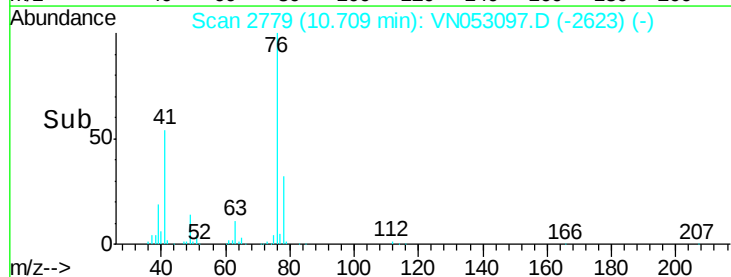
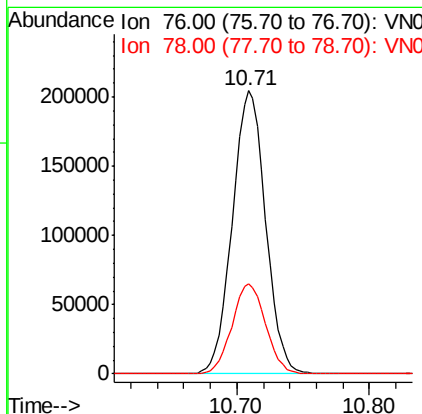
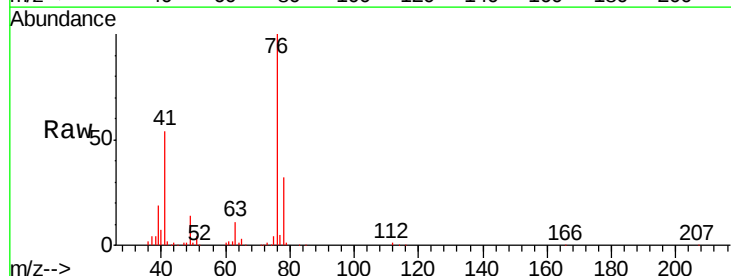
RT: 10.71 min Scan# 2779

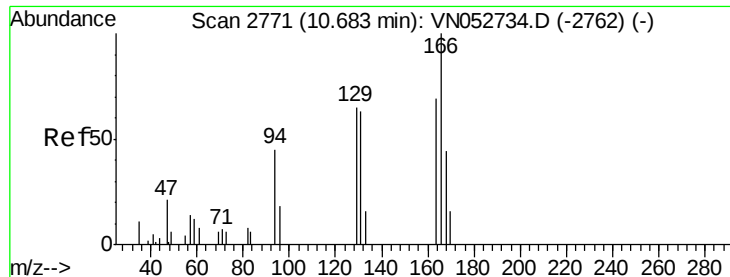
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	76	Resp:	356073
Ion Ratio	Lower	Upper	
76	100		
78	32.2	0.0	64.8





#53

Dibromochloromethane

Concen: 22.126 ug/l

RT: 10.90 min Scan# 2840

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion:129 Resp: 227655

Ion Ratio Lower Upper

129 100

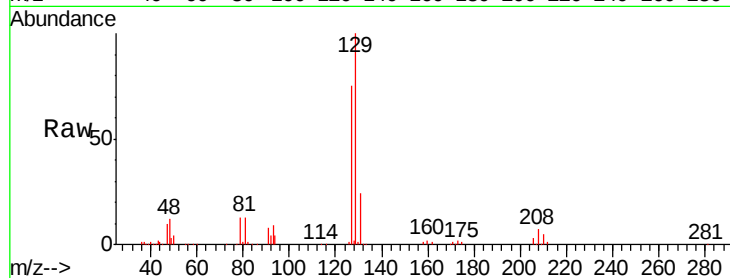
127 76.3 37.6 112.8

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

150000

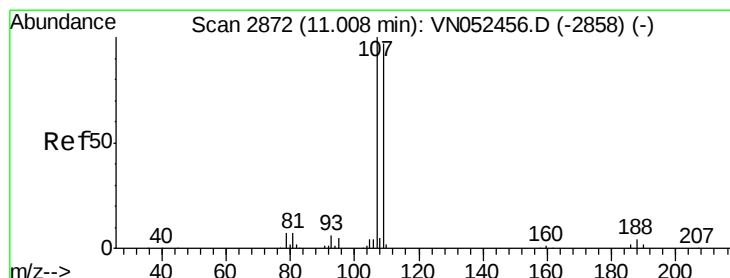
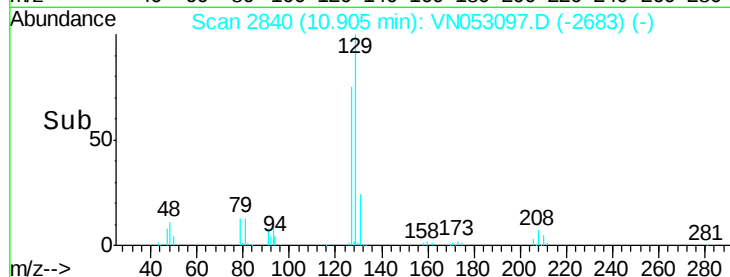
100000

50000

0

10.85 10.90 10.95

Time-->



#54

1,2-Dibromoethane

Concen: 23.287 ug/l

RT: 11.01 min Scan# 2872

Delta R.T. 0.00 min

Lab File: VN053097.D

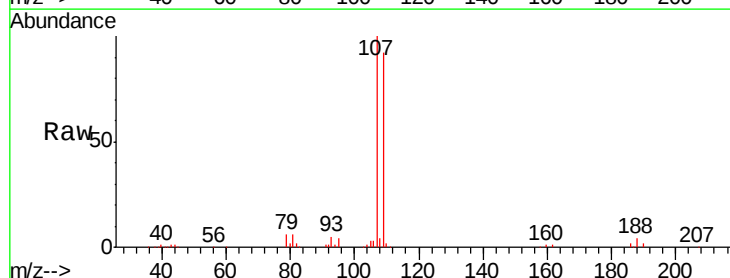
Acq: 21 Dec 2018 11:38

Tgt Ion:107 Resp: 212663

Ion Ratio Lower Upper

107 100

109 93.0 77.1 115.7



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

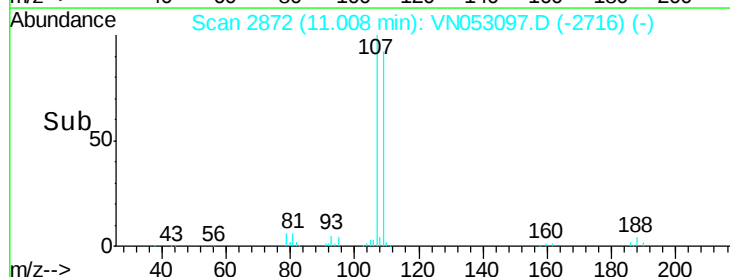
100000

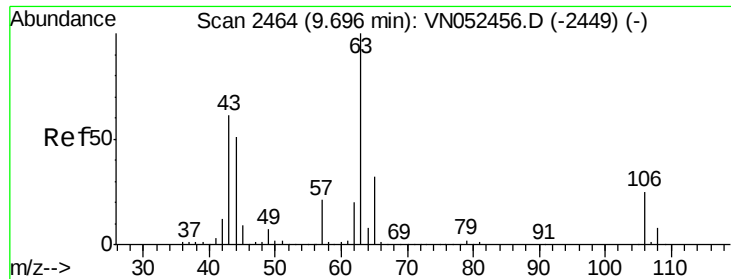
50000

0

10.95 11.00 11.05

Time-->





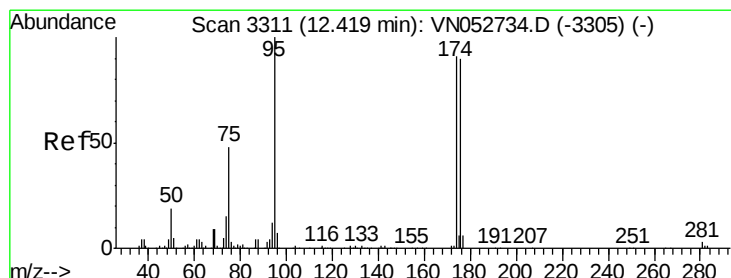
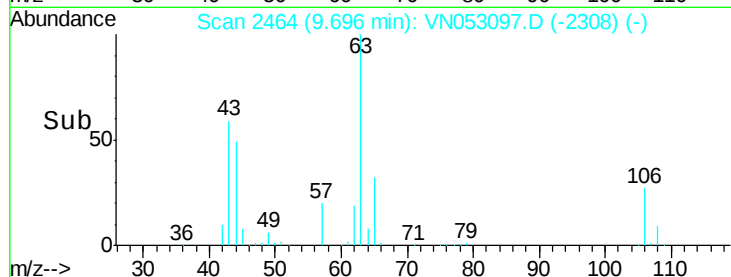
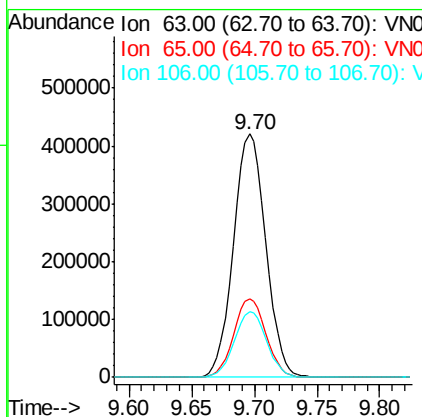
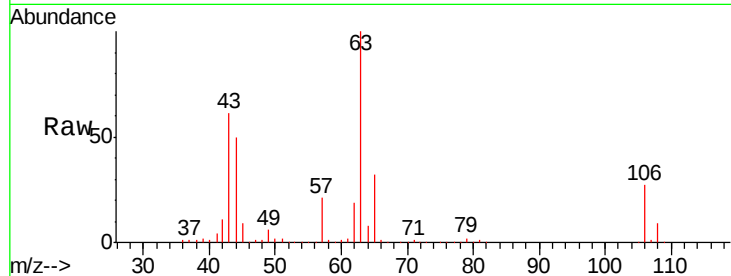
#55
2-Chloroethyl vinyl ether
Concen: 109.898 ug/l
RT: 9.70 min Scan# 2464
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
63	100		
65	32.3	25.4	38.2
106	27.0	20.4	30.6

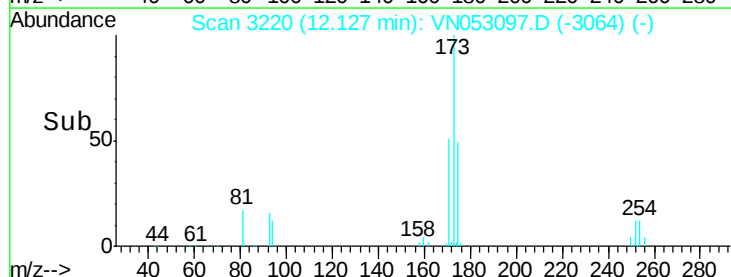
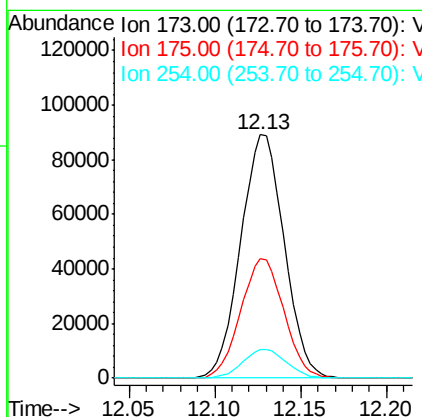
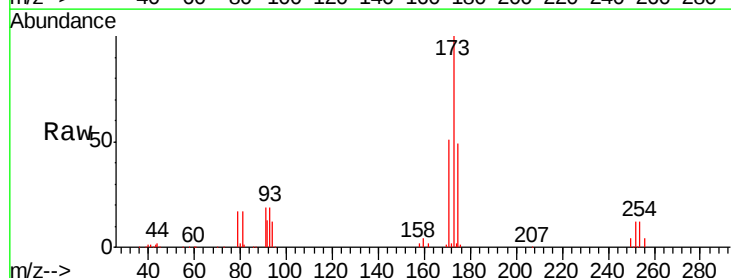
Manual Integrations
APPROVED

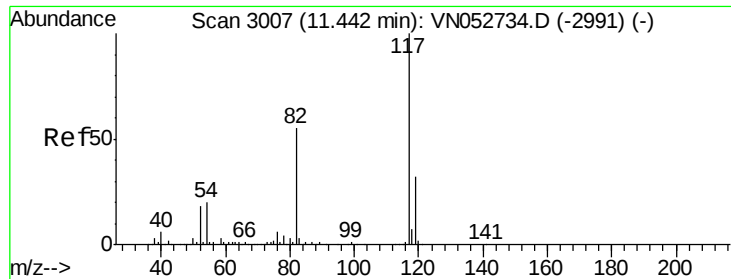
MMDadoda
12/22/2018 10:06:21 AM



#56
Bromoform
Concen: 23.291 ug/l
RT: 12.13 min Scan# 3220
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
173	100		
175	48.7	38.7	58.1
254	11.9	8.4	12.6





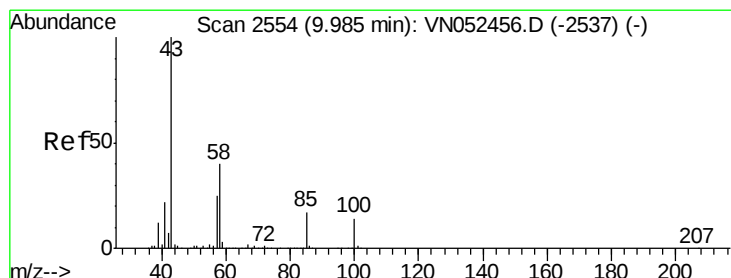
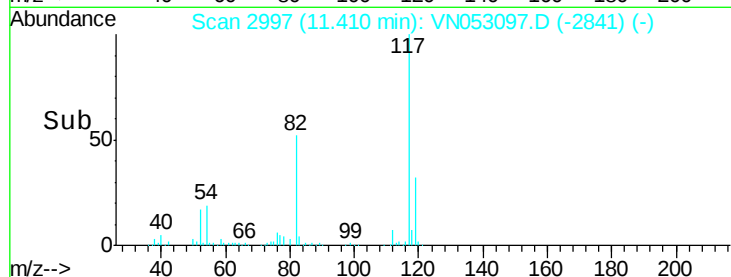
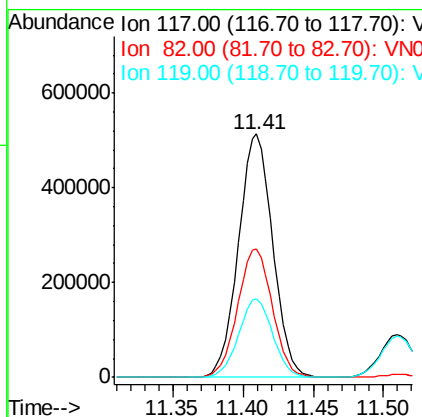
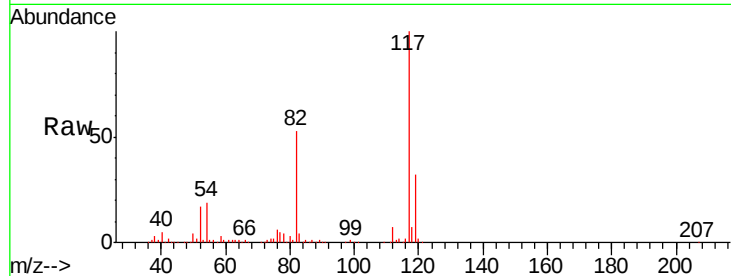
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.41 min Scan# 2997
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
117	100	875183		
82	53.4	44.2	66.2	
119	32.1	25.4	38.2	

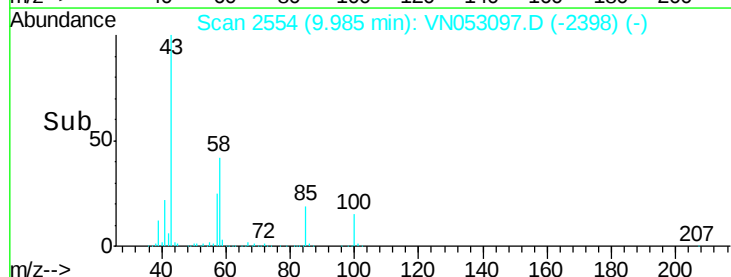
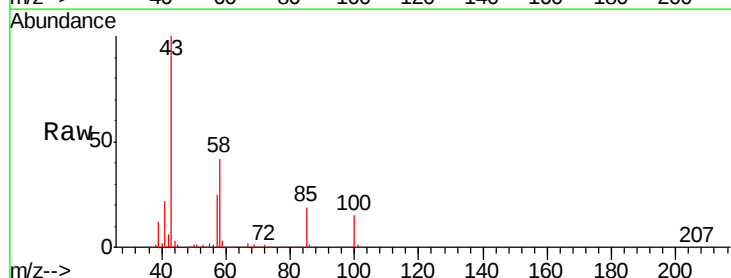
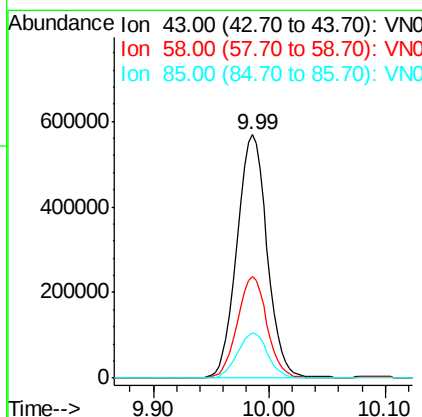
Manual Integrations
APPROVED

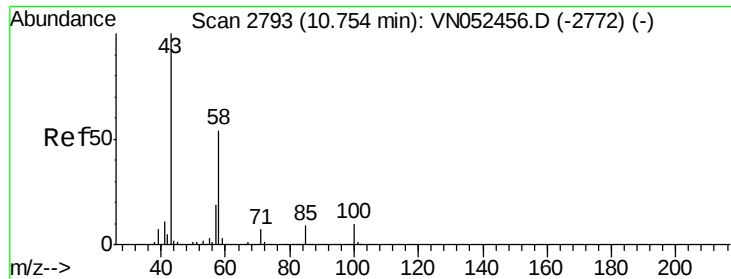
MMDadoda
12/22/2018 10:06:21 AM



#58
4-Methyl-2-Pentanone
Concen: 120.262 ug/l
RT: 9.99 min Scan# 2554
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
43	100	1020387		
58	41.2	31.6	47.4	
85	18.6	13.3	19.9	





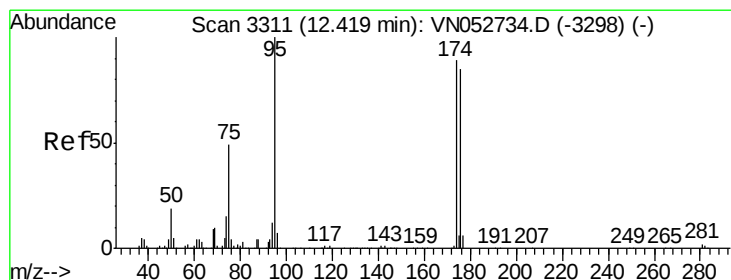
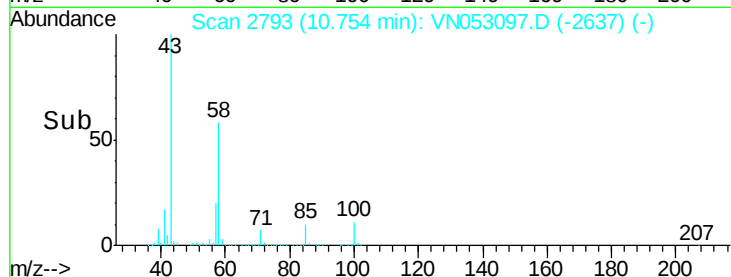
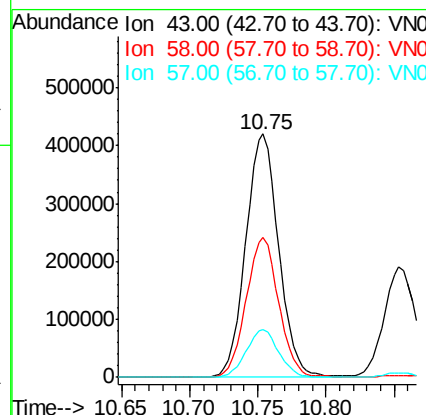
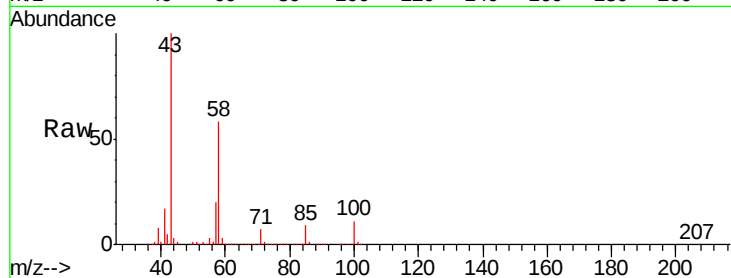
#59
2-Hexanone
Concen: 120.921 ug/l
RT: 10.75 min Scan# 2793
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
43	100		
58	57.2	43.2	64.8
57	19.6	14.9	22.3

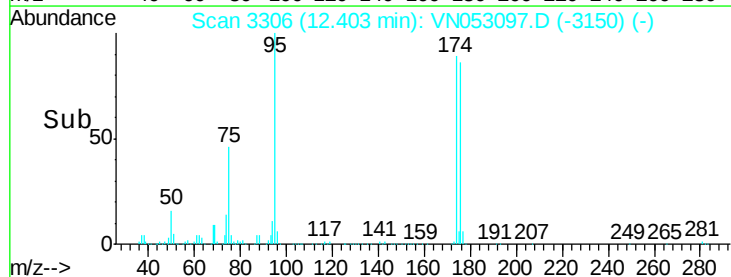
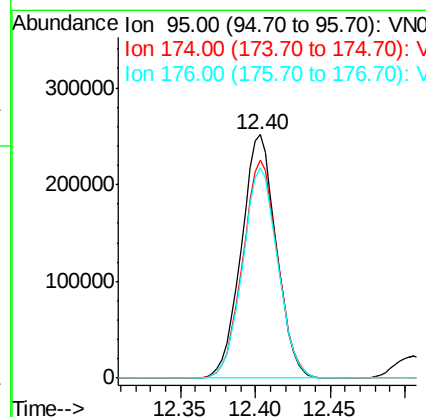
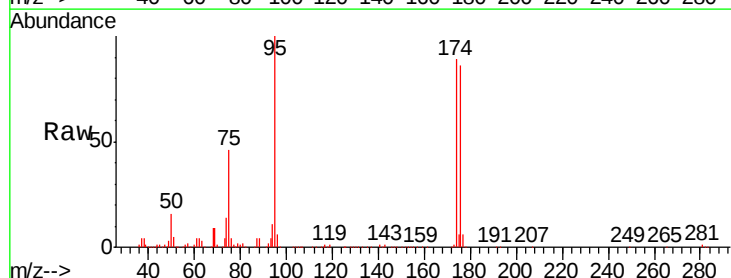
Manual Integrations
APPROVED

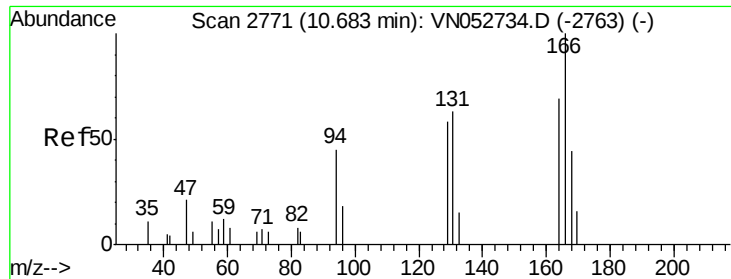
MMDadoda
12/22/2018 10:06:21 AM



#60
4-Bromofluorobenzene
Concen: 120.921 ug/l
RT: 12.40 min Scan# 3306
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
95	100		
174	89.6	67.9	101.9
176	86.7	66.4	99.6





#61

Tetrachloroethene

Concen: 24.827 ug/l

RT: 10.63 min Scan# 2755

Delta R.T. 0.00 min

Lab File: VN053097.D

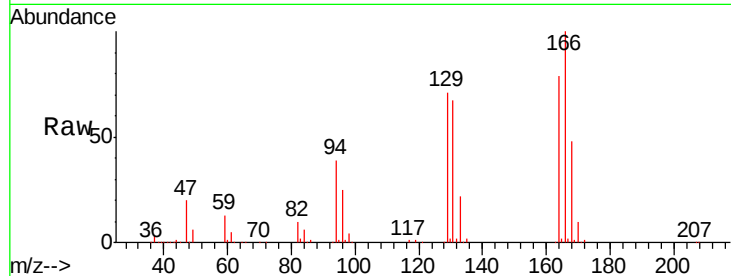
Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC



Tgt Ion: 164 Resp: 267604

Ion Ratio Lower Upper

164 100

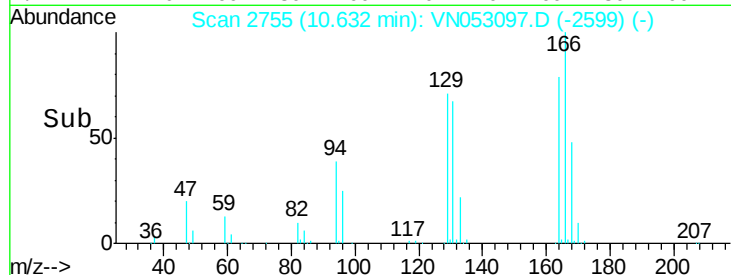
166 126.9 104.6 157.0

129 89.8 75.3 112.9

131 85.7 74.3 111.5

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM

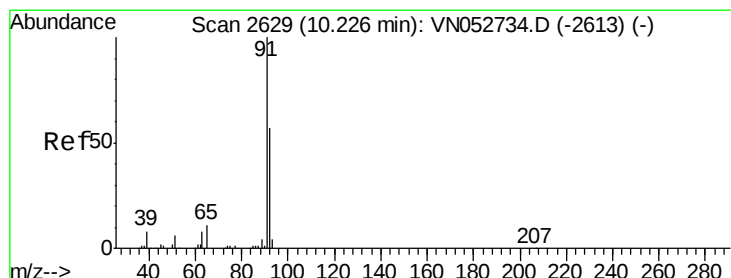
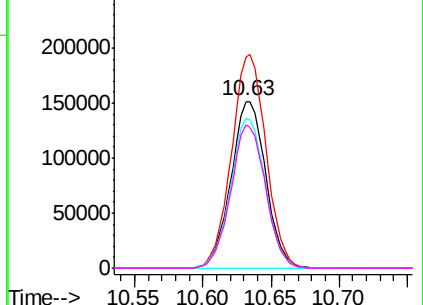


Abundance Ion 163.85 (163.55 to 164.55): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.90 (128.60 to 129.60): V

Ion 130.90 (130.60 to 131.60): V



#62

Toluene

Concen: 20.516 ug/l

RT: 10.16 min Scan# 2608

Delta R.T. 0.00 min

Lab File: VN053097.D

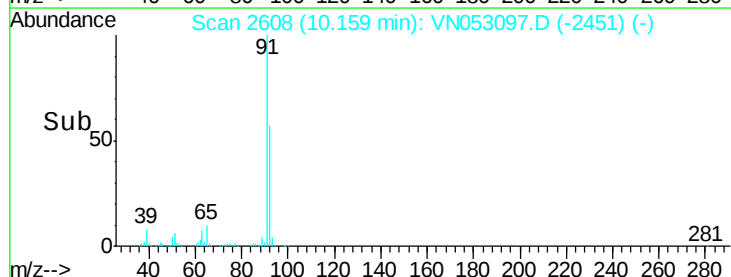
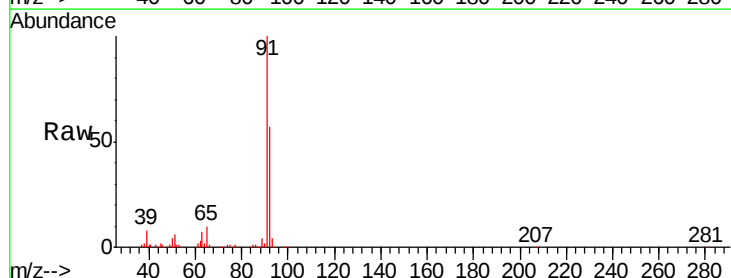
Acq: 21 Dec 2018 11:38

Tgt Ion: 91 Resp: 989836

Ion Ratio Lower Upper

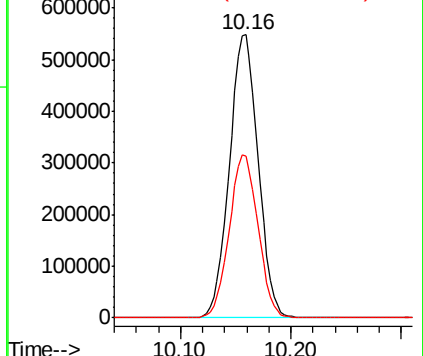
91 100

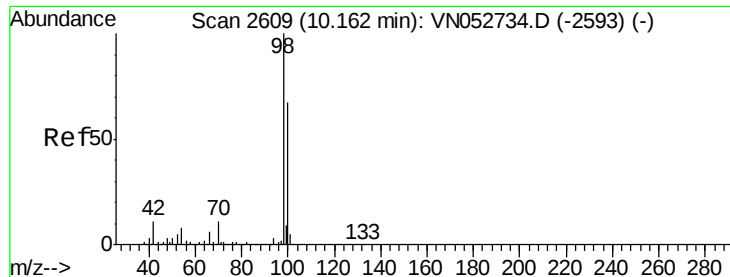
92 57.7 45.4 68.2



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 92.00 (91.70 to 92.70): VN0





#63

Toluene-d8

Concen: 20.516 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 98 Resp: 1154633

Ion Ratio Lower Upper

98 100

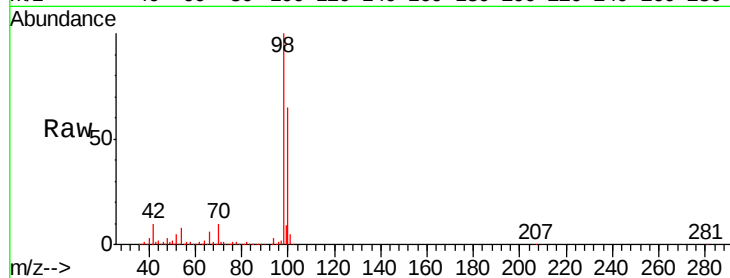
100 64.9 51.1 76.7

Manual Integrations

APPROVED

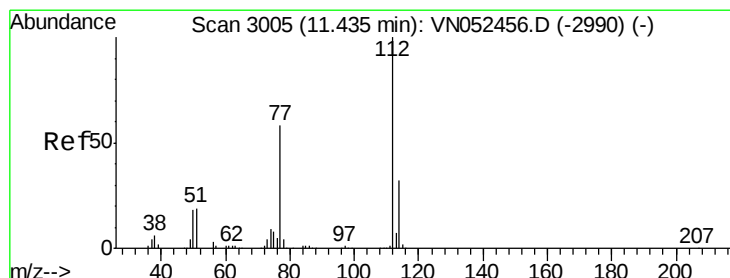
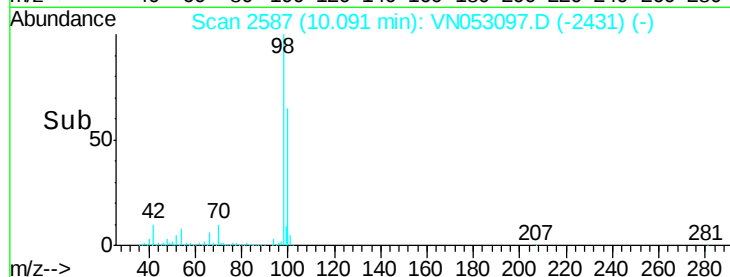
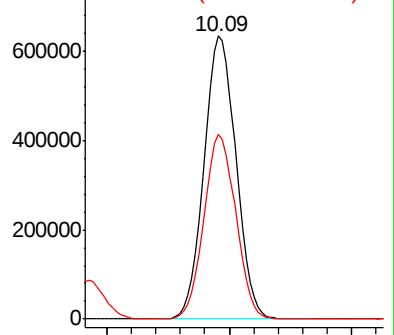
MMDadoda

12/22/2018 10:06:21 AM



Abundance Ion 98.00 (97.70 to 98.70): VN052734.D (-2593) (-)

Ion 100.00 (99.70 to 100.70): VN052734.D (-2593) (-)



#64

Chlorobenzene

Concen: 21.336 ug/l

RT: 11.44 min Scan# 3005

Delta R.T. 0.00 min

Lab File: VN053097.D

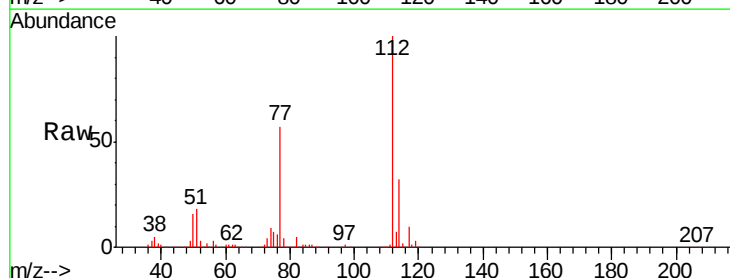
Acq: 21 Dec 2018 11:38

Tgt Ion: 112 Resp: 628299

Ion Ratio Lower Upper

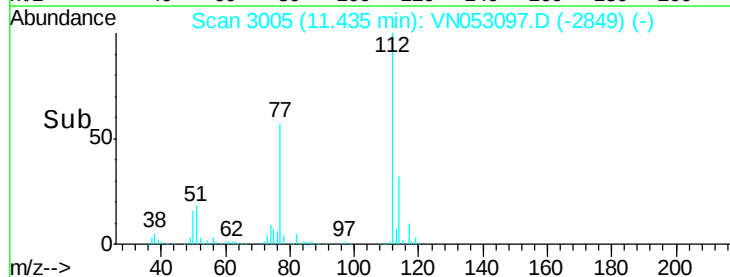
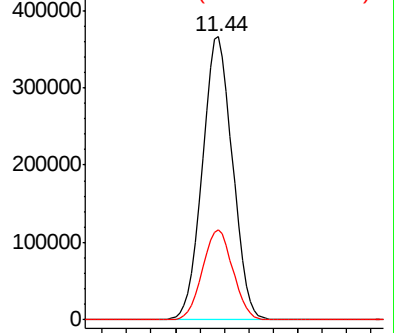
112 100

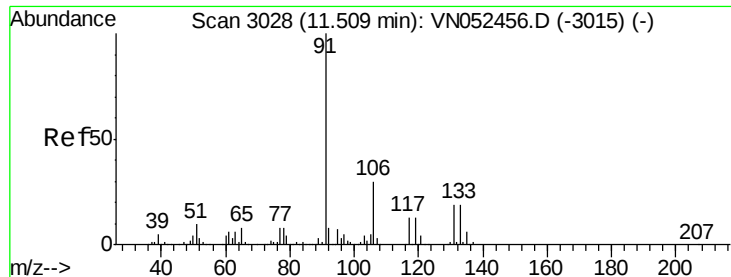
114 31.9 25.6 38.4



Abundance Ion 112.00 (111.70 to 112.70): VN052456.D (-2990) (-)

Ion 114.00 (113.70 to 114.70): VN052456.D (-2990) (-)





#65

1,1,1,2-Tetrachloroethane

Concen: 21.505 ug/l

RT: 11.51 min Scan# 3028

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

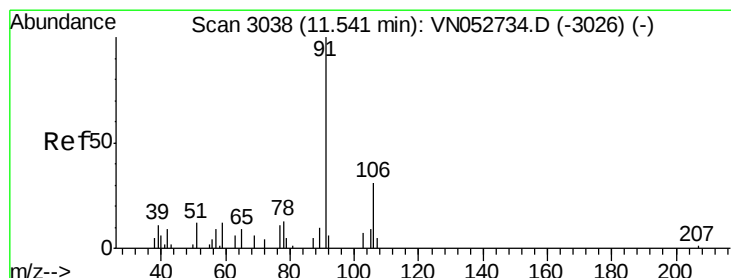
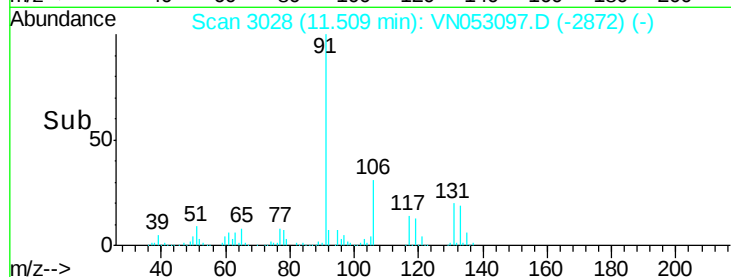
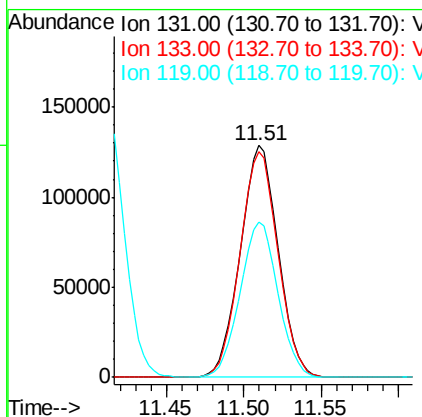
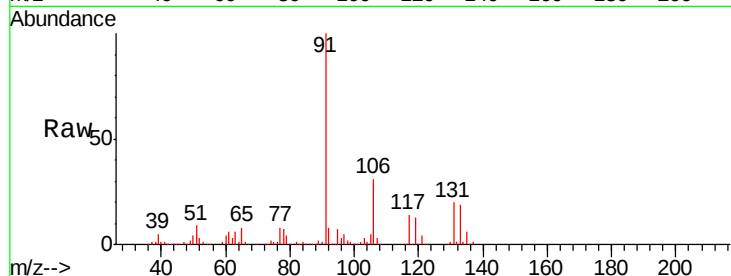
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	131	Resp:	219813
Ion Ratio	Lower	Upper	
131	100		
133	97.5	0.0	193.4
119	66.9	0.0	133.0

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#66

Ethyl Benzene

Concen: 20.798 ug/l

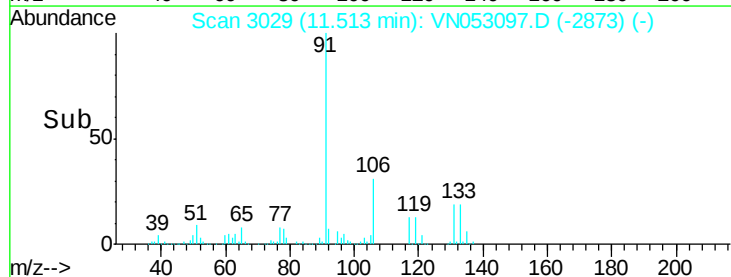
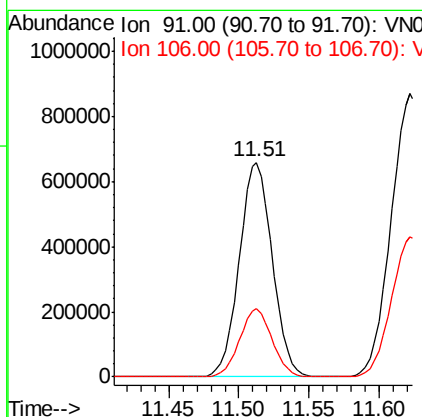
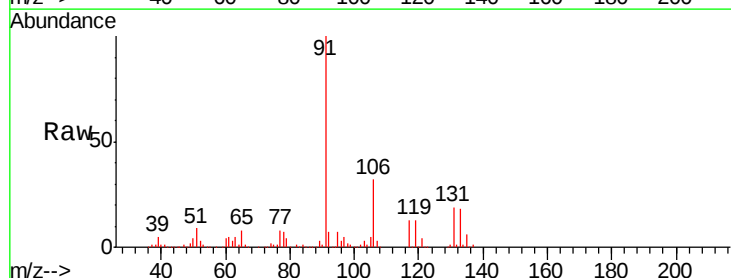
RT: 11.51 min Scan# 3029

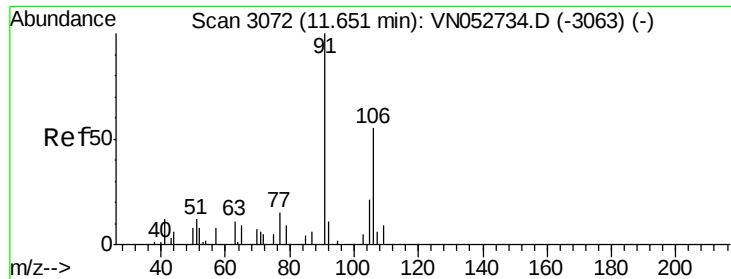
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	91	Resp:	1081447
Ion Ratio	Lower	Upper	
91	100		
106	31.7	24.3	36.5





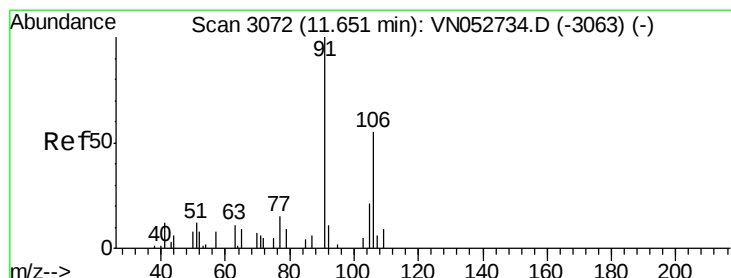
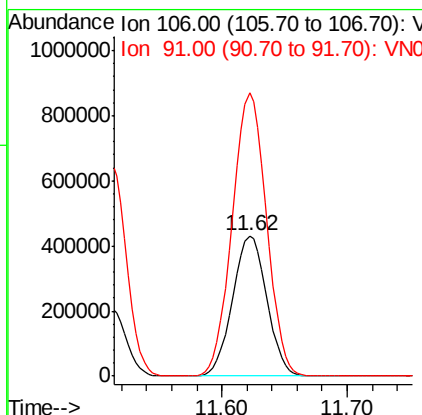
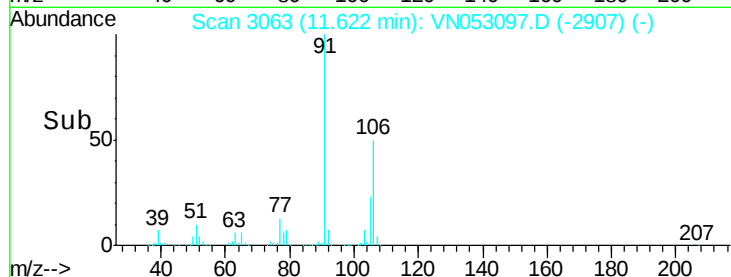
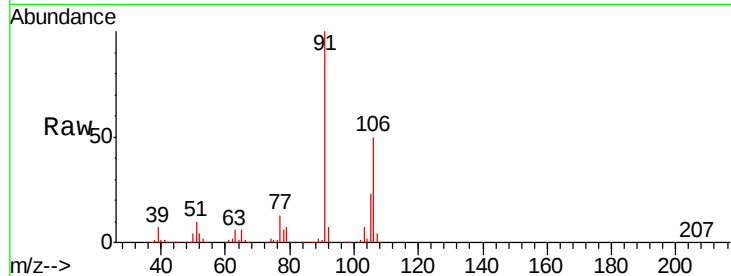
#67
m/p-Xylenes
Concen: 42.137 ug/l
RT: 11.62 min Scan# 3063
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion:106 Resp: 816281
Ion Ratio Lower Upper
106 100
91 202.2 163.9 245.9

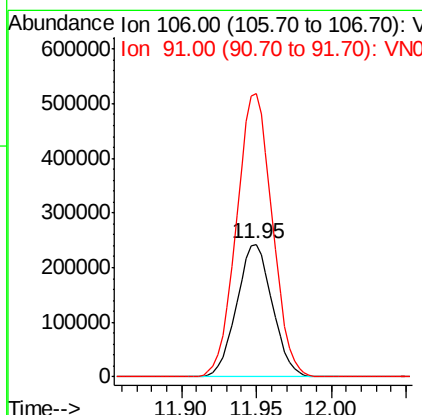
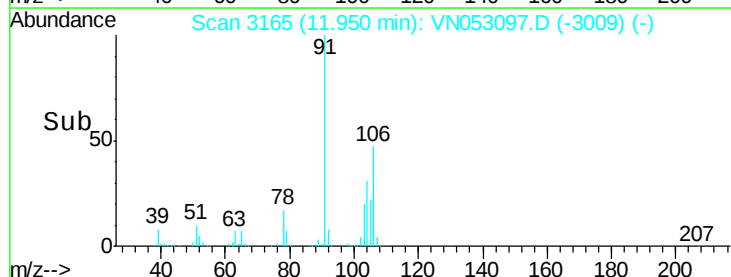
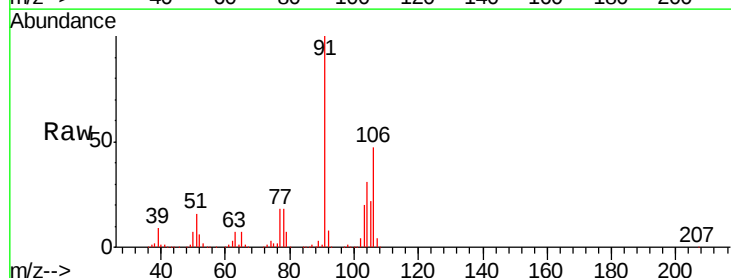
Manual Integrations
APPROVED

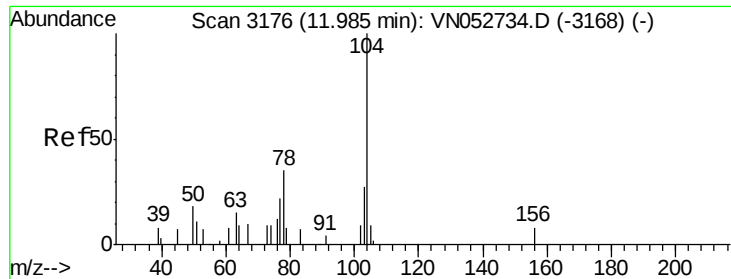
MMDadoda
12/22/2018 10:06:21 AM



#68
o-Xylene
Concen: 21.402 ug/l
RT: 11.95 min Scan# 3165
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion:106 Resp: 402420
Ion Ratio Lower Upper
106 100
91 214.4 107.8 323.4





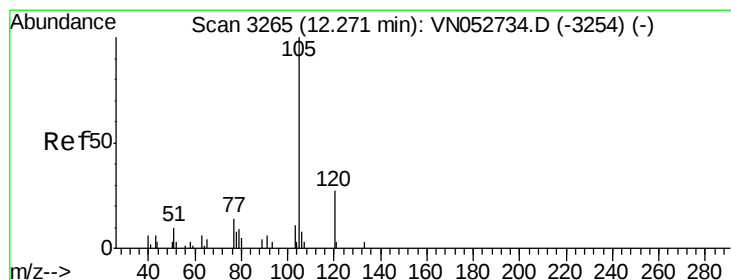
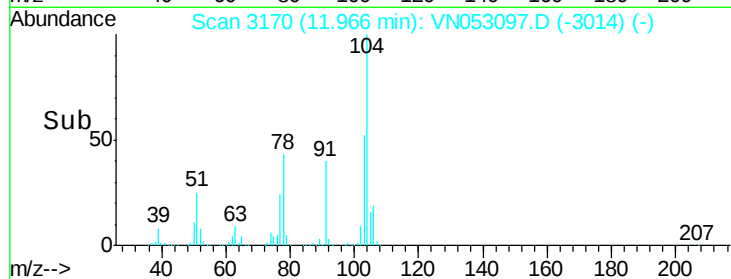
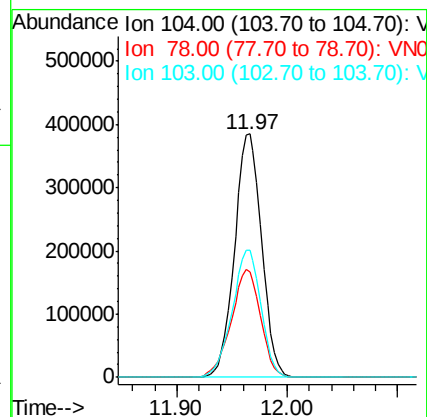
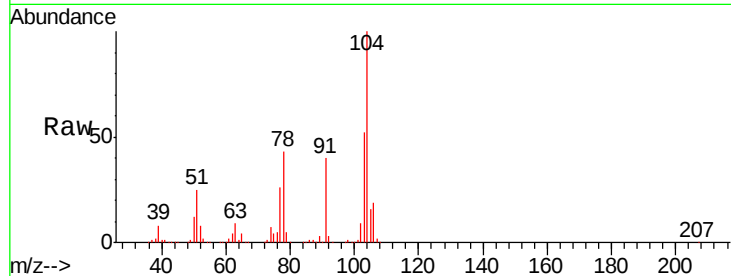
#69
Styrene
Concen: 21.538 ug/l
RT: 11.97 min Scan# 3170
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
104	100		
78	48.3	39.3	58.9
103	55.9	44.6	66.8

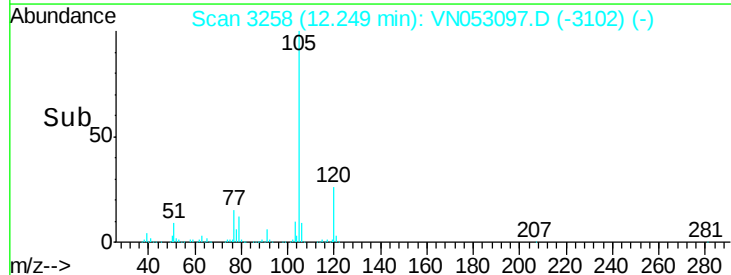
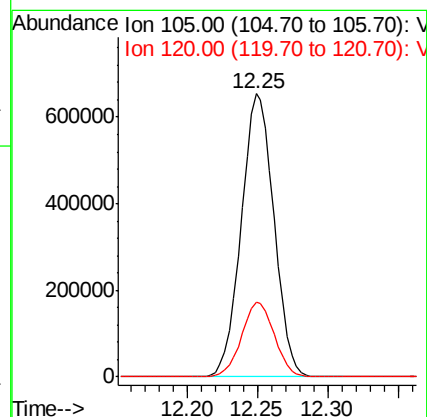
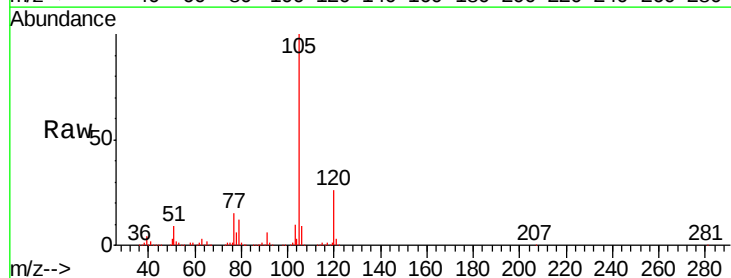
Manual Integrations
APPROVED

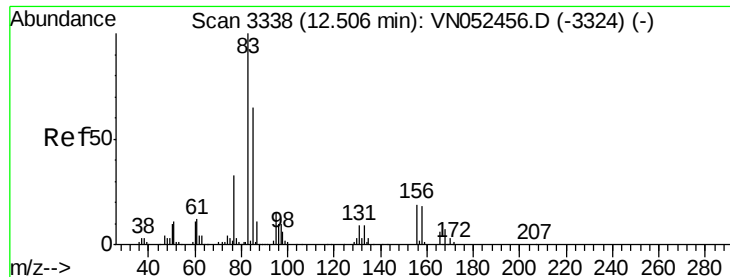
MMDadoda
12/22/2018 10:06:21 AM



#70
Isopropylbenzene
Concen: 21.190 ug/l
RT: 12.25 min Scan# 3258
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.4	18.6	34.6





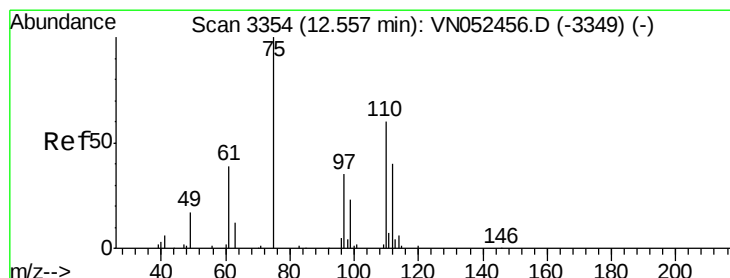
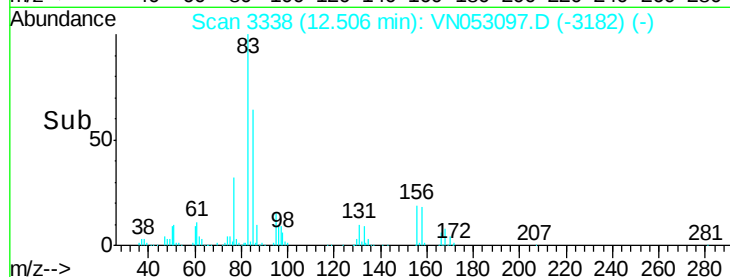
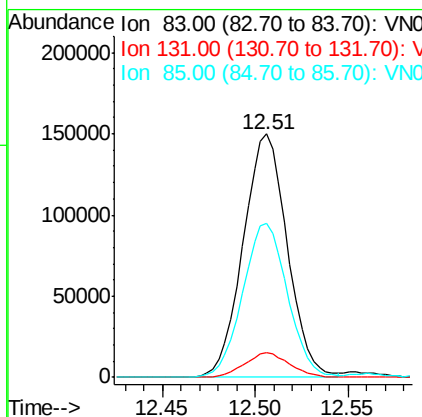
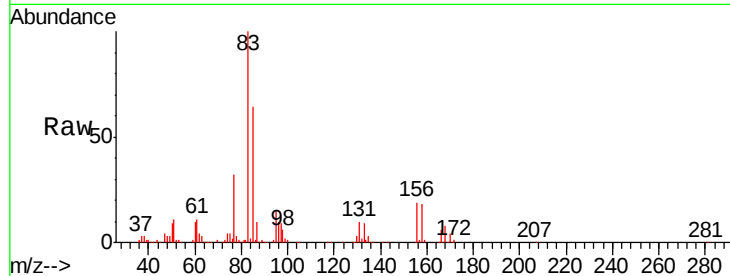
#71
 1,1,2,2-Tetrachloroethane
 Concen: 22.854 ug/l
 RT: 12.51 min Scan# 3338
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
83	100		
131	10.3	4.9	14.6
85	64.3	32.2	96.6

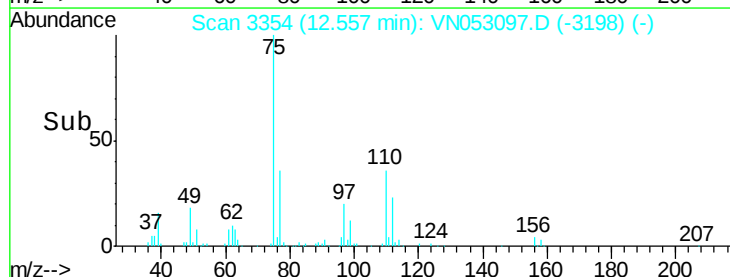
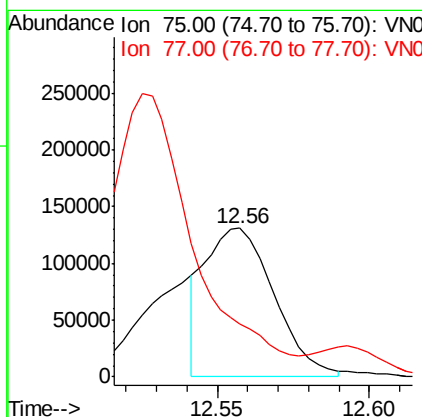
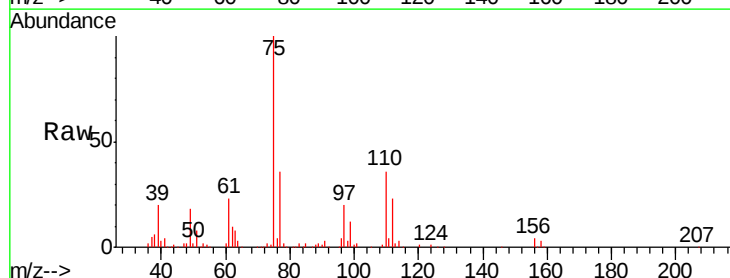
Manual Integrations
 APPROVED

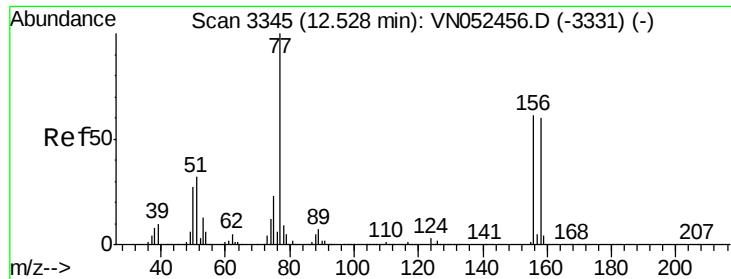
MMDadoda
 12/22/2018 10:06:21 AM



#72
 1,2,3-Trichloropropane
 Concen: 22.026 ug/l m
 RT: 12.56 min Scan# 3354
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
75	100		
77	240.1	0.0	514.8





#73

Bromobenzene

Concen: 22.532 ug/l

RT: 12.53 min Scan# 3344

Delta R.T. -0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

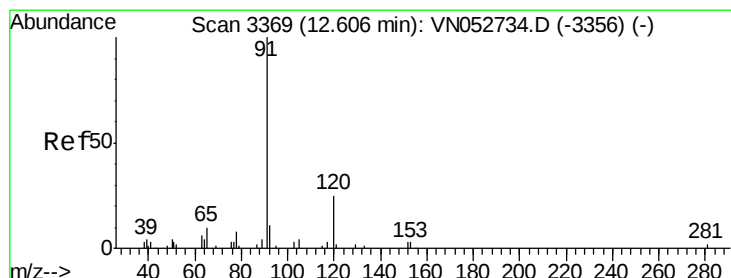
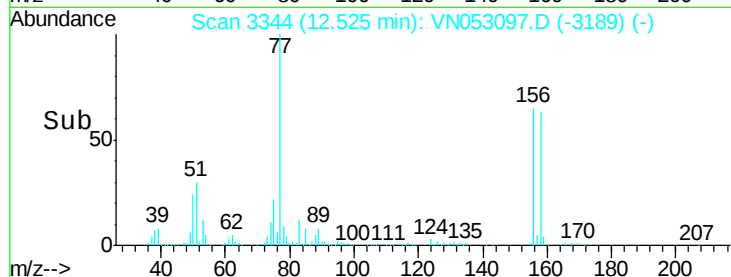
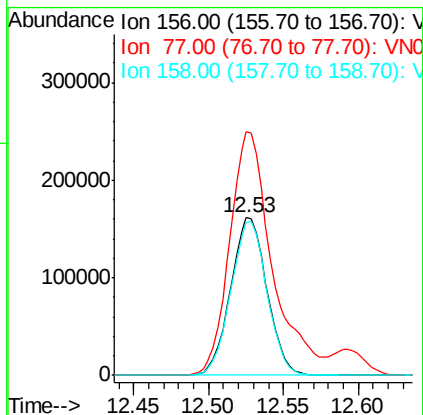
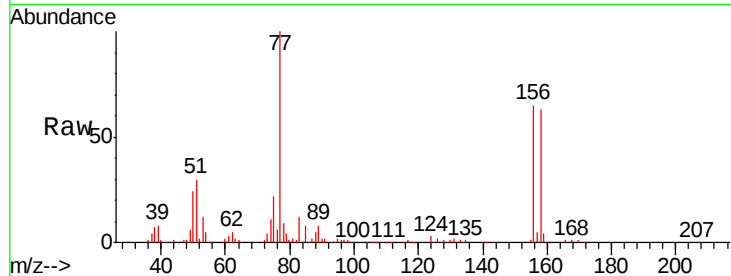
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	156	Resp:	272633
Ion Ratio	Lower	Upper	
156	100		
77	181.2	0.0	382.6
158	97.0	0.0	196.8

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#74

n-propylbenzene

Concen: 20.321 ug/l

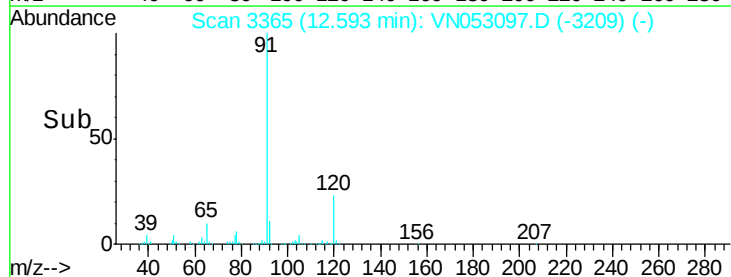
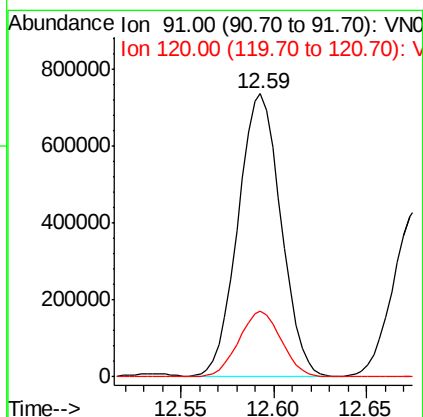
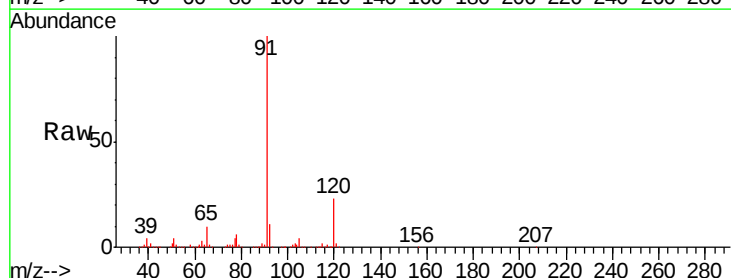
RT: 12.59 min Scan# 3365

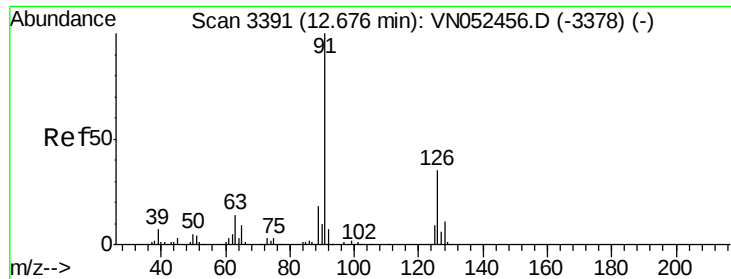
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	91	Resp:	1184530
Ion Ratio	Lower	Upper	
91	100		
120	23.0	0.0	44.6





#75

2-Chlorotoluene

Concen: 21.119 ug/l

RT: 12.68 min Scan# 3391

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

ClientSampleId :

VSTDCCC020EC

Tgt Ion: 91 Resp: 714546

Ion Ratio Lower Upper

91 100

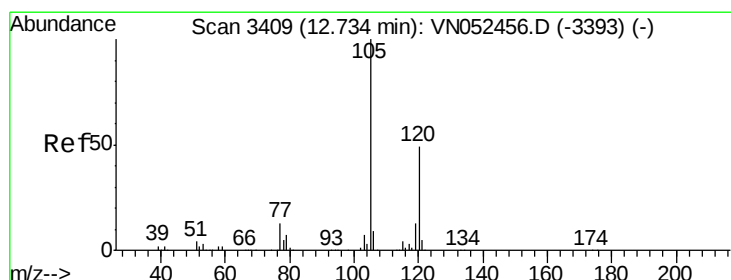
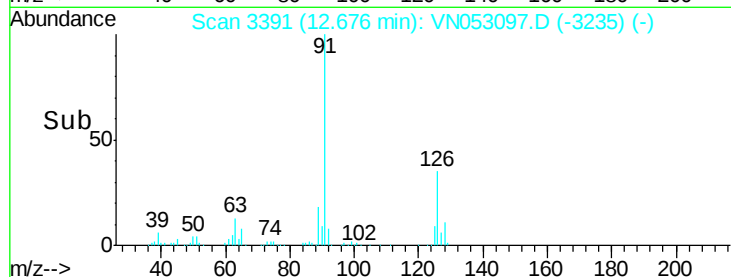
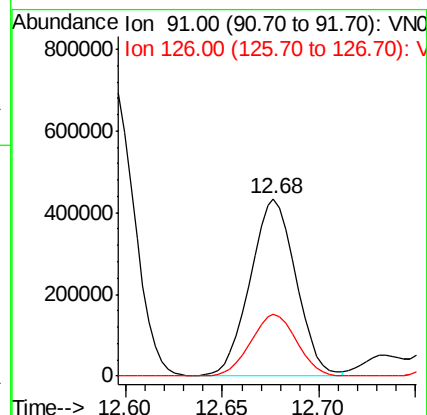
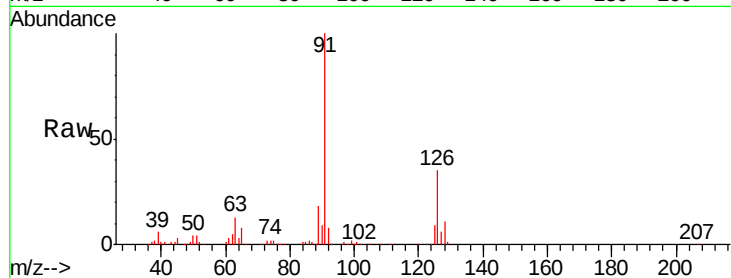
126 35.0 0.0 68.4

Manual Integrations

APPROVED

MMDadoda

12/22/2018 10:06:21 AM



#76

1,3,5-Trimethylbenzene

Concen: 20.717 ug/l

RT: 12.73 min Scan# 3409

Delta R.T. 0.00 min

Lab File: VN053097.D

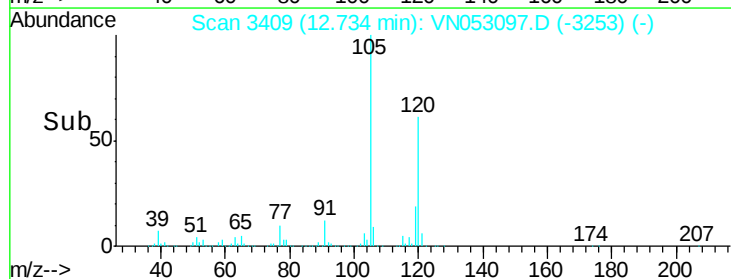
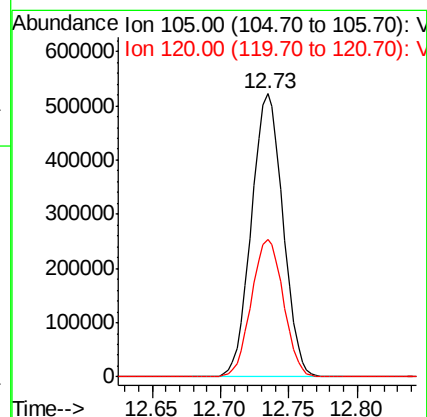
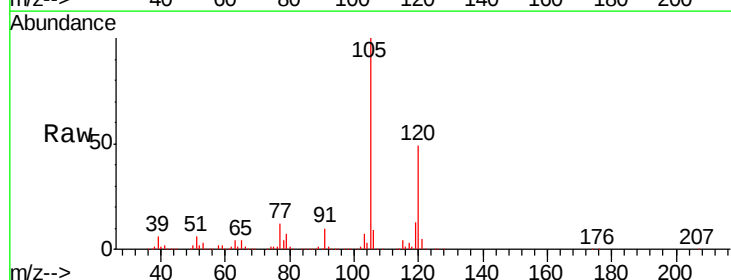
Acq: 21 Dec 2018 11:38

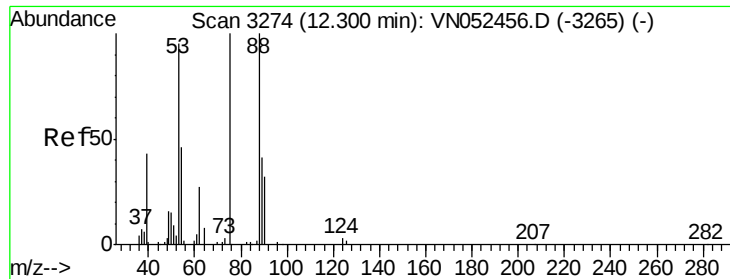
Tgt Ion: 105 Resp: 837150

Ion Ratio Lower Upper

105 100

120 49.3 0.0 97.4





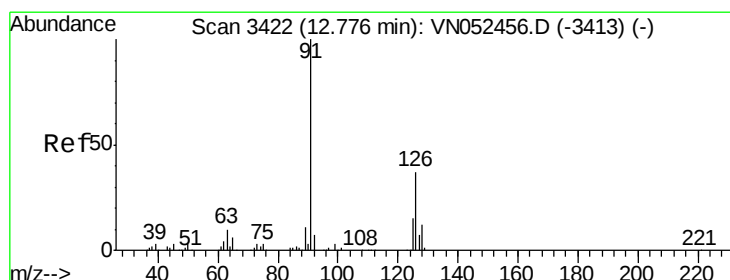
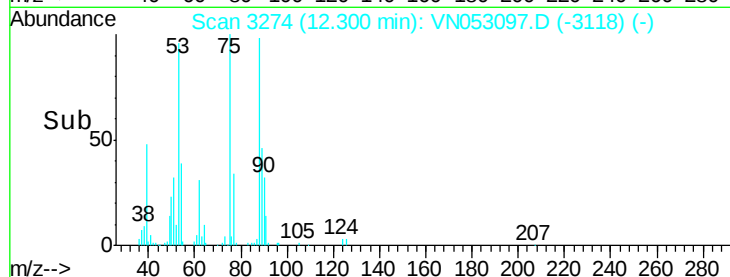
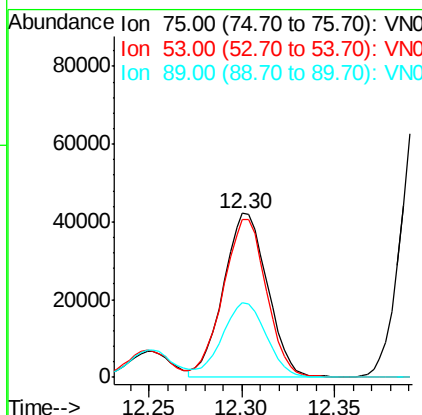
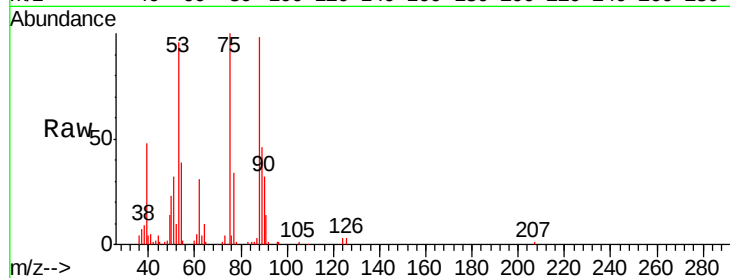
#77
t-1,4-Dichloro-2-butene
Concen: 23.537 ug/l
RT: 12.30 min Scan# 3274
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
75	100		
53	96.1	48.5	145.6
89	46.0	21.7	65.1

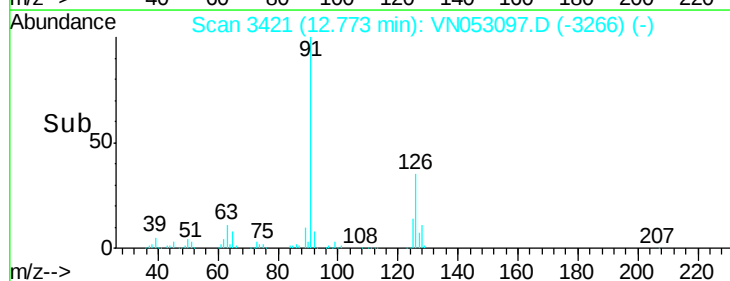
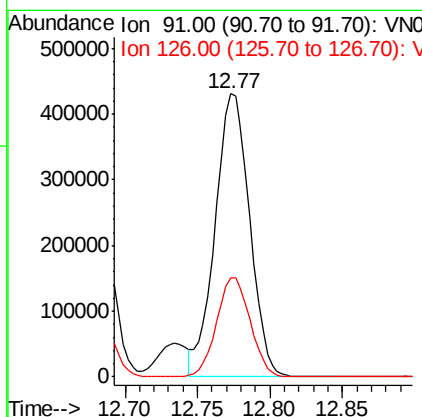
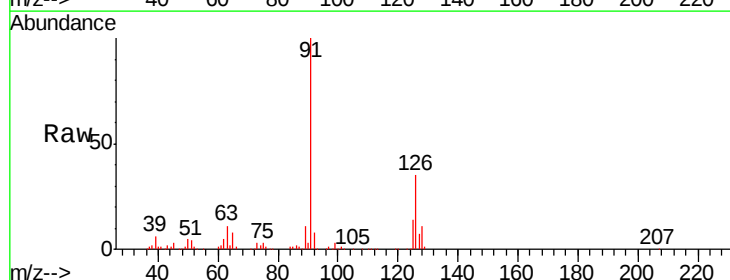
Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#78
4-Chlorotoluene
Concen: 21.125 ug/l
RT: 12.77 min Scan# 3421
Delta R.T. -0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
91	100		
126	34.2	0.0	68.2





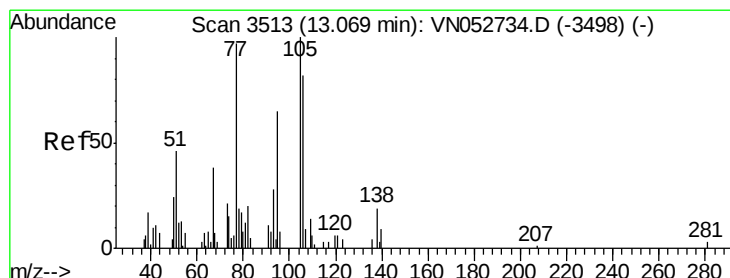
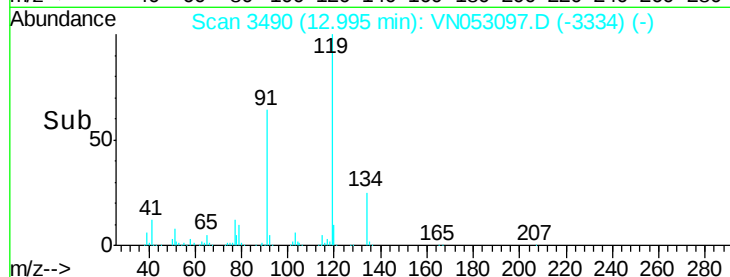
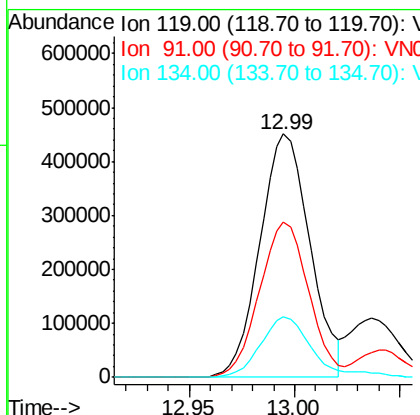
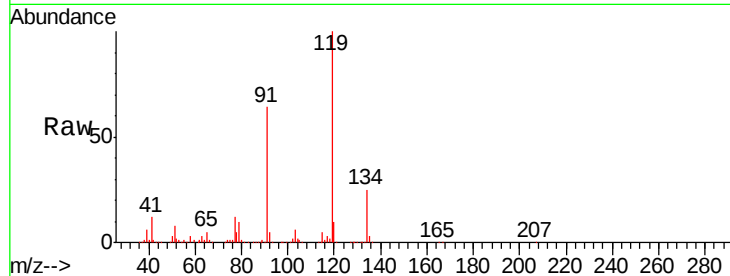
#79
tert-butylbenzene
Concen: 21.190 ug/l
RT: 12.99 min Scan# 3490
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
119	100	745701		
91	62.9	0.0	129.8	
134	24.5	0.0	52.2	

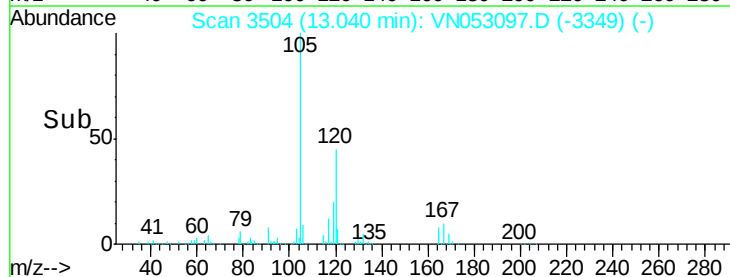
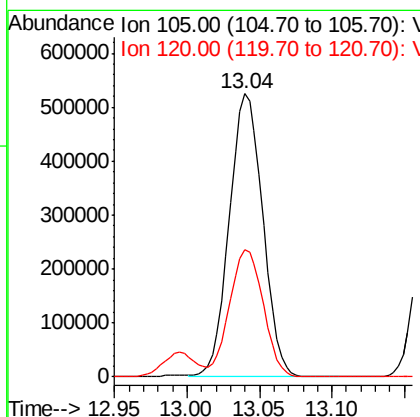
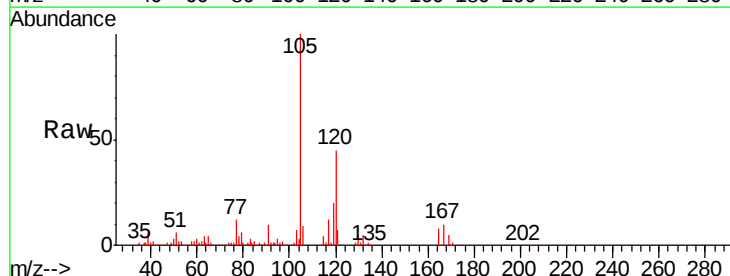
Manual Integrations
APPROVED

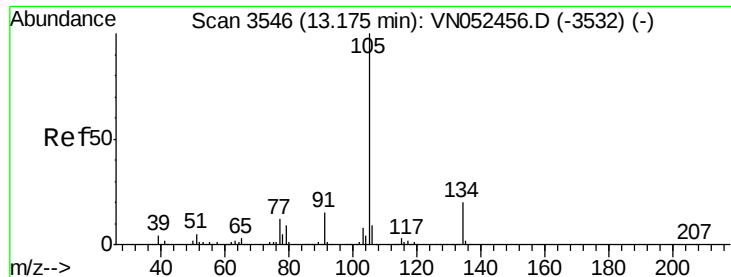
MMDadoda
12/22/2018 10:06:21 AM



#80
1,2,4-Trimethylbenzene
Concen: 20.822 ug/l
RT: 13.04 min Scan# 3504
Delta R.T. -0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	841911		
120	45.3	0.0	91.0	





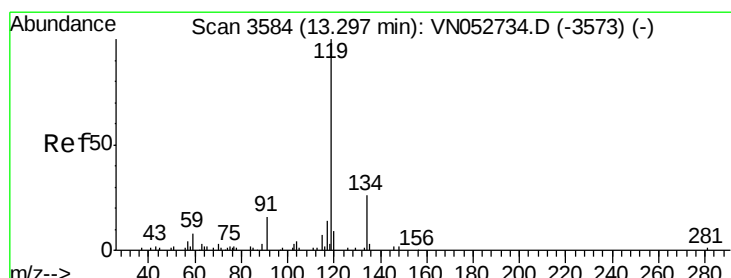
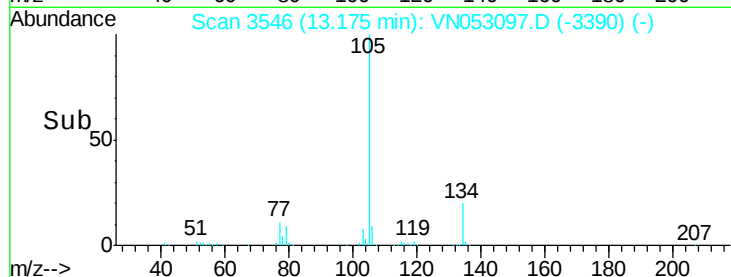
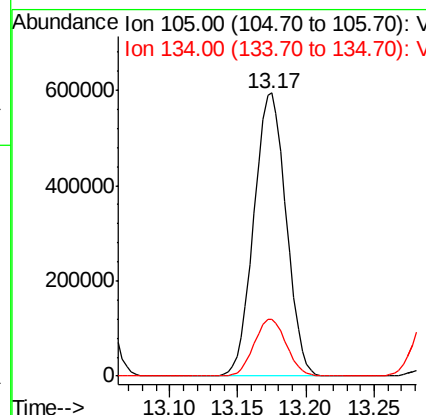
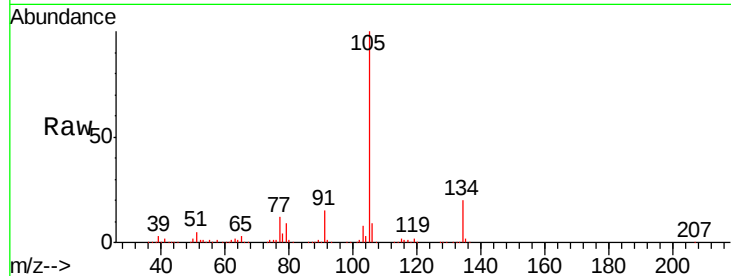
#81
 sec-Butylbenzene
 Concen: 19.922 ug/l
 RT: 13.17 min Scan# 3546
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	976500		
134	20.1	0.0	40.4	

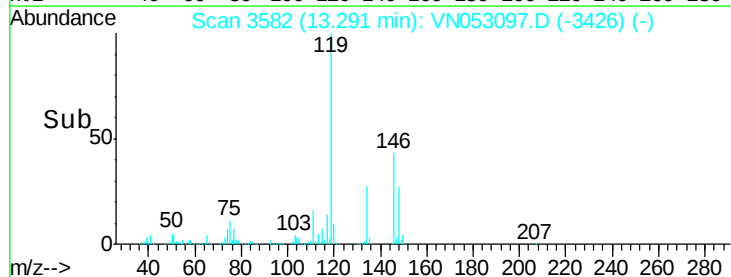
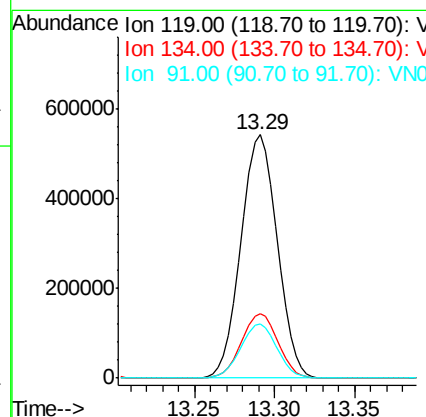
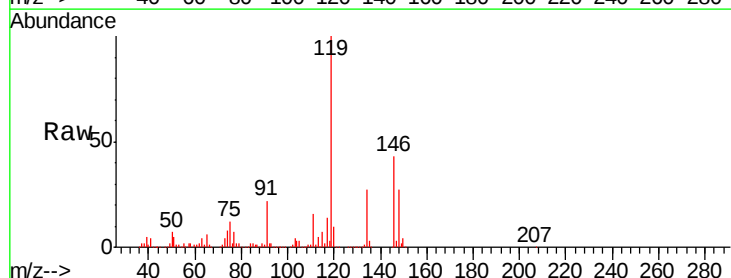
Manual Integrations
 APPROVED

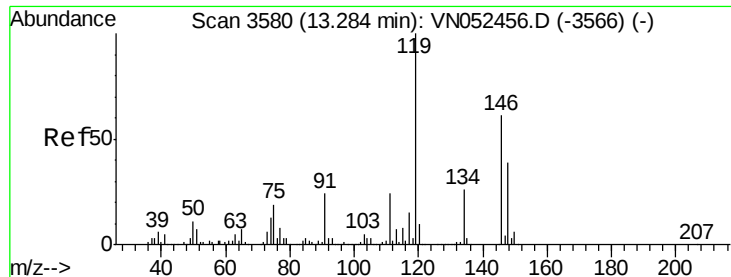
MMDadoda
 12/22/2018 10:06:21 AM



#82
 p-Isopropyltoluene
 Concen: 20.186 ug/l
 RT: 13.29 min Scan# 3582
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
119	100	842521		
134	26.5	0.0	52.6	
91	22.1	0.0	46.2	





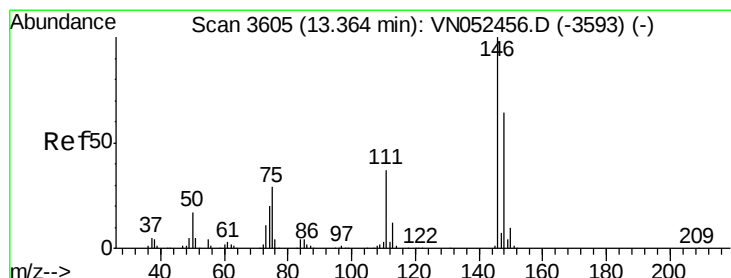
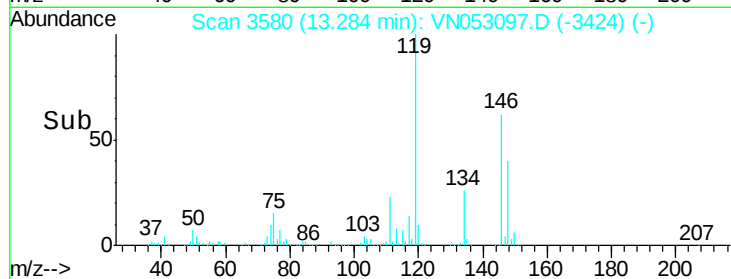
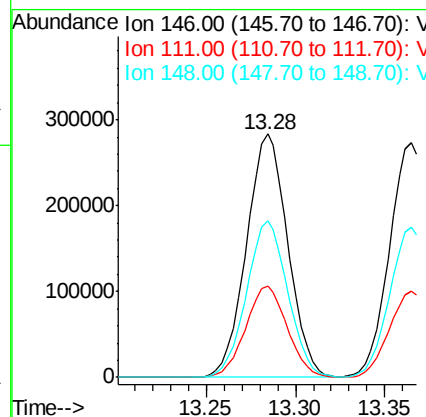
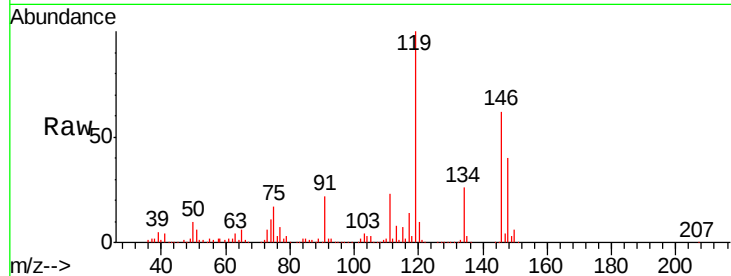
#83
 1,3-Dichlorobenzene
 Concen: 21.615 ug/l
 RT: 13.28 min Scan# 3580
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.5	19.7	59.0
148	64.0	32.3	96.8

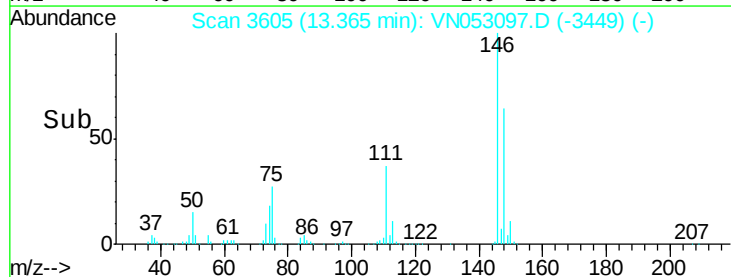
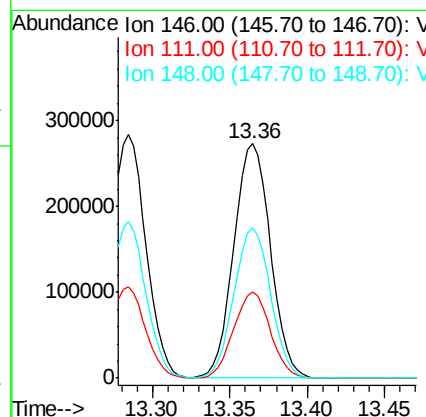
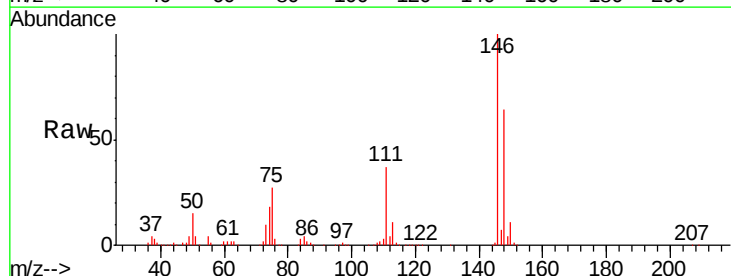
Manual Integrations
 APPROVED

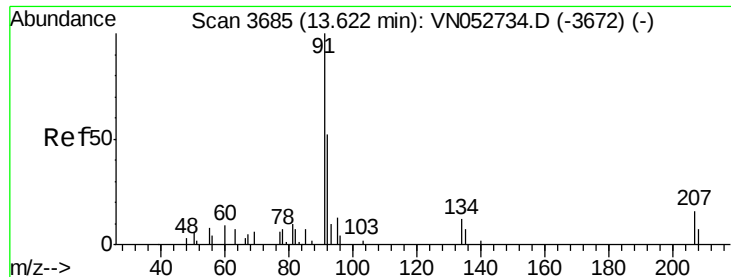
MMDadoda
 12/22/2018 10:06:21 AM



#84
 1,4-Dichlorobenzene
 Concen: 21.803 ug/l
 RT: 13.36 min Scan# 3605
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Lower	Upper
146	100		
111	36.8	18.8	56.3
148	64.1	32.5	97.4





#85

n-Butylbenzene

Concen: 18.274 ug/l

RT: 13.62 min Scan# 3683

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

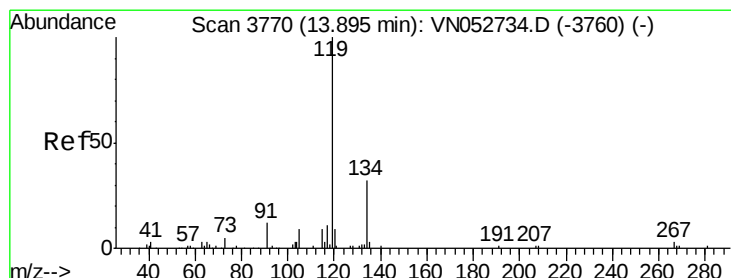
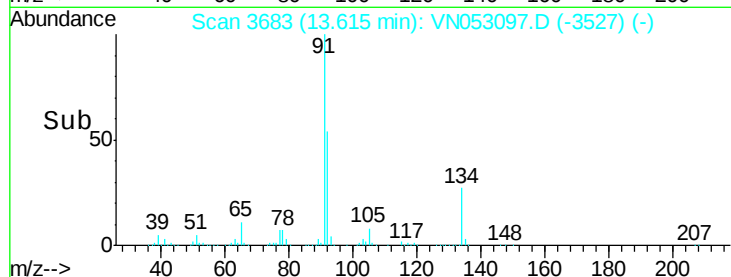
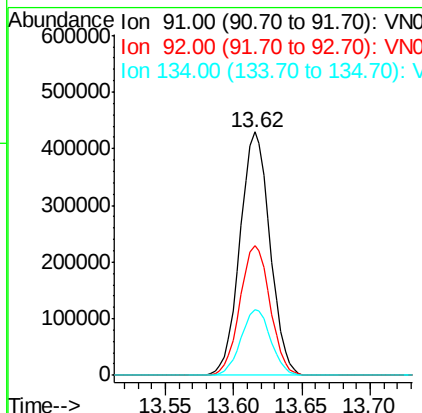
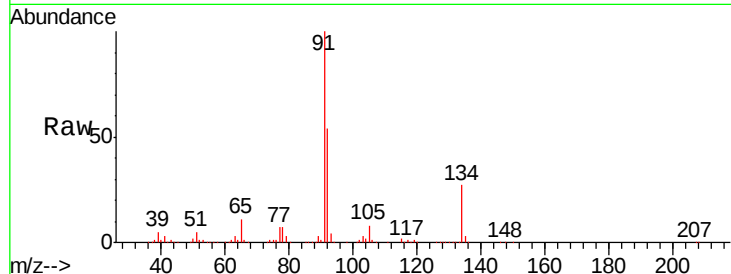
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	91	Resp:	655141
Ion Ratio	Lower	Upper	
91	100		
92	53.6	0.0	104.2
134	26.7	0.0	50.6

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#86

Hexachloroethane

Concen: 18.484 ug/l

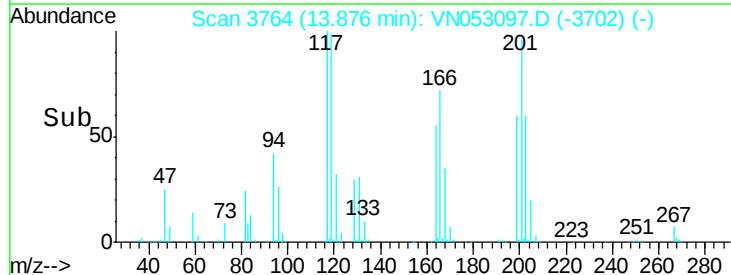
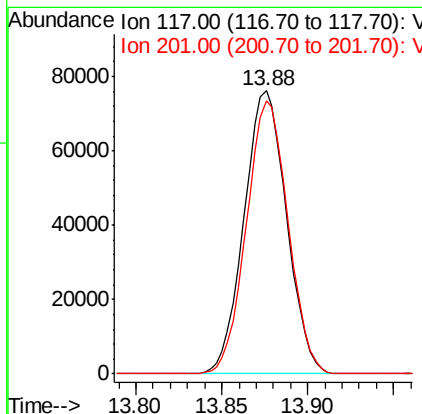
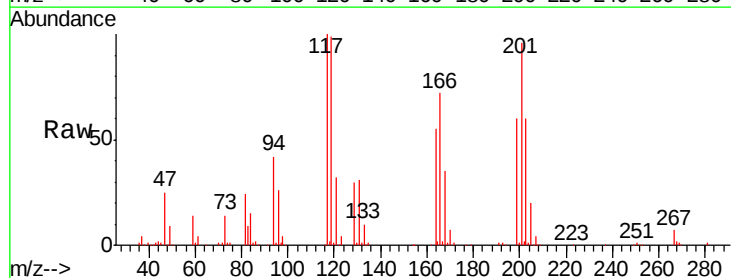
RT: 13.88 min Scan# 3764

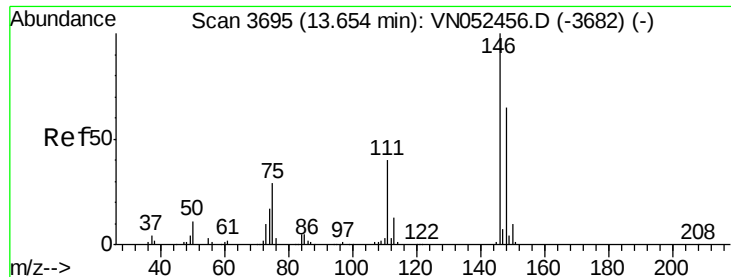
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	117	Resp:	130719
Ion Ratio	Lower	Upper	
117	100		
201	94.1	43.8	131.3





#87

1,2-Dichlorobenzene

Concen: 21.816 ug/l

RT: 13.65 min Scan# 3695

Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Instrument :

MSVOA_N

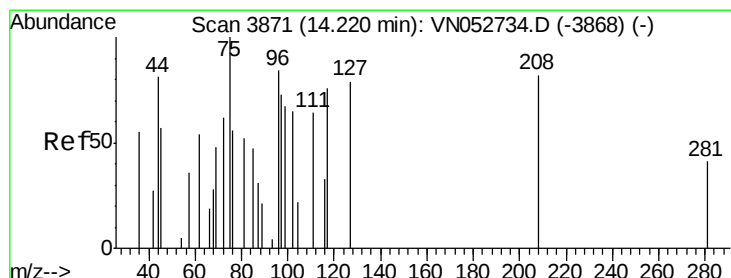
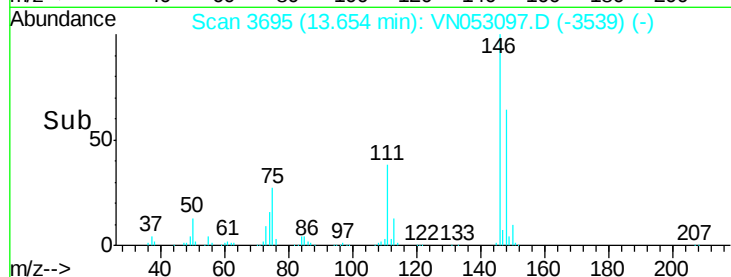
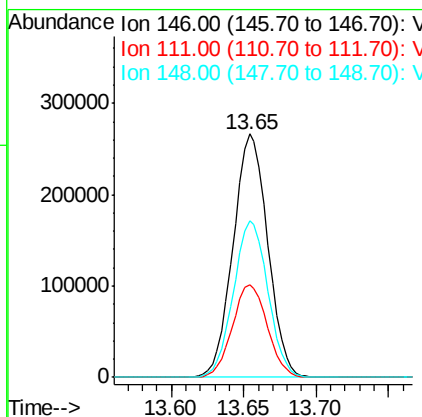
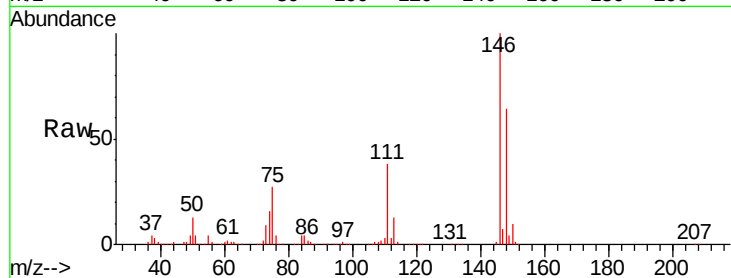
ClientSampleId :

VSTDCCC020EC

Tgt Ion:	146	Resp:	441794
Ion Ratio		Lower	Upper
146	100		
111	38.3	20.3	60.8
148	63.9	32.1	96.5

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#88

1,2-Dibromo-3-Chloropropane

Concen: 22.818 ug/l

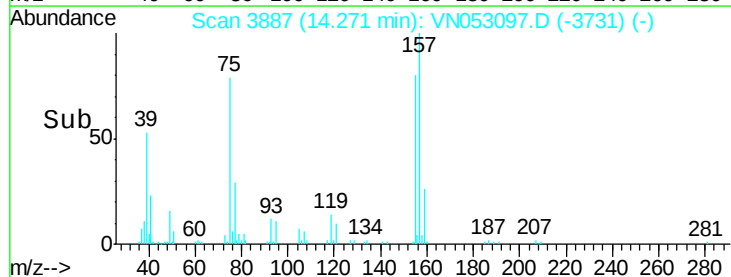
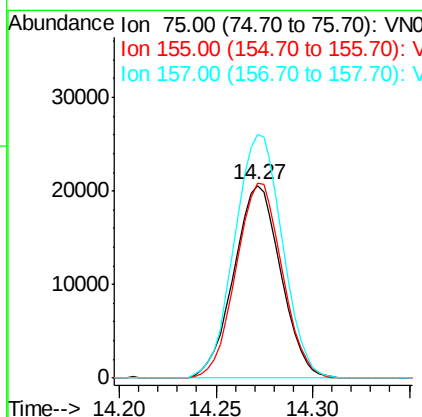
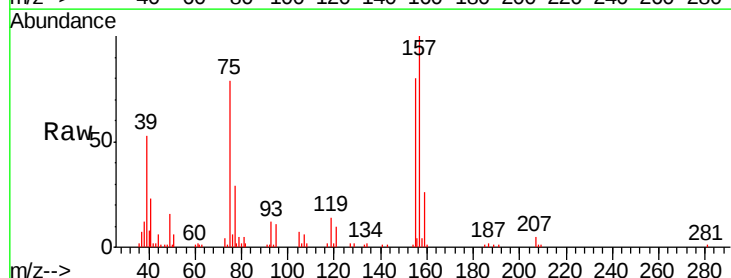
RT: 14.27 min Scan# 3887

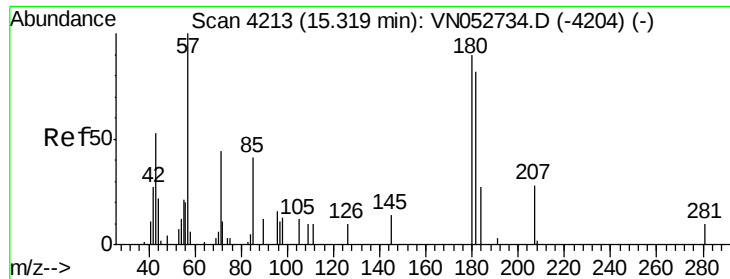
Delta R.T. 0.00 min

Lab File: VN053097.D

Acq: 21 Dec 2018 11:38

Tgt Ion:	75	Resp:	34784
Ion Ratio		Lower	Upper
75	100		
155	99.2	72.2	108.2
157	128.9	94.2	141.2





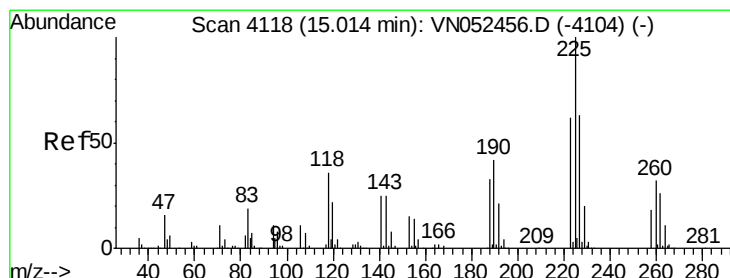
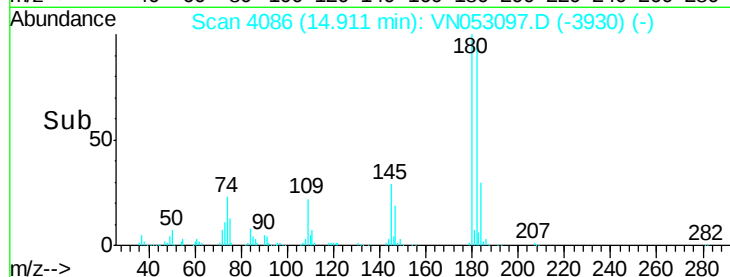
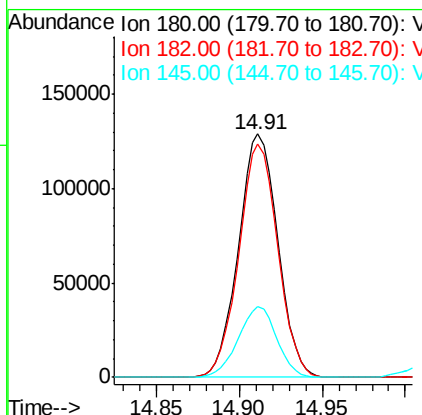
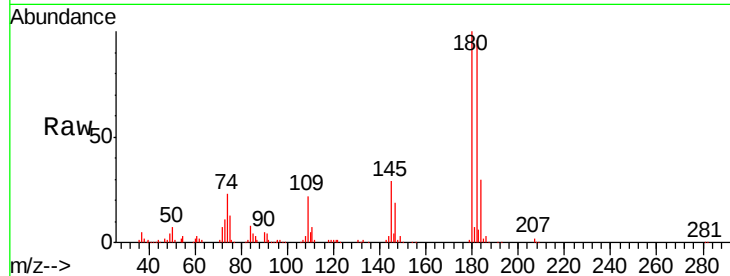
#89
 1,2,4-Trichlorobenzene
 Concen: 21.276 ug/l
 RT: 14.91 min Scan# 4086
 Delta R.T. 0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Instrument :
 MSVOA_N
 ClientSampleId :
 VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
180	100	212273		
182	94.8	76.6	114.8	
145	28.4	23.6	35.4	

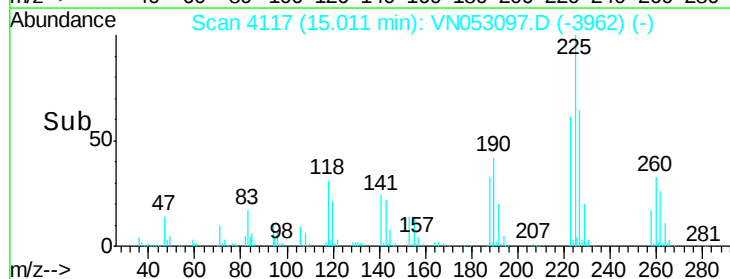
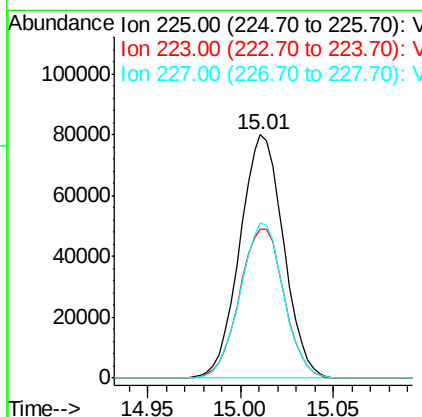
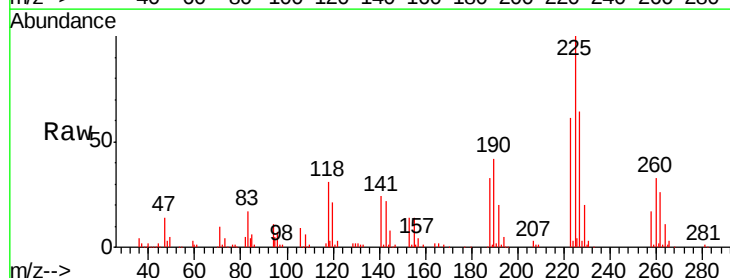
Manual Integrations
 APPROVED

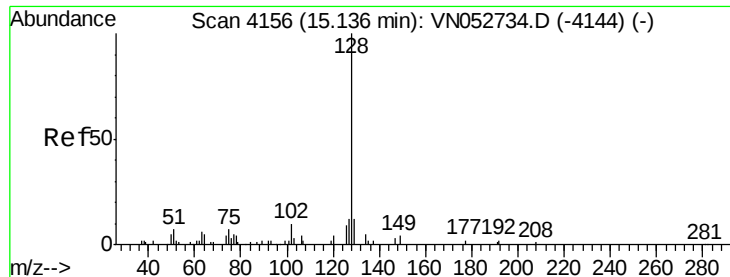
MMDadoda
 12/22/2018 10:06:21 AM



#90
 Hexachlorobutadiene
 Concen: 20.076 ug/l
 RT: 15.01 min Scan# 4117
 Delta R.T. -0.00 min
 Lab File: VN053097.D
 Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
225	100	131392		
223	62.5	0.0	125.6	
227	63.0	0.0	127.8	





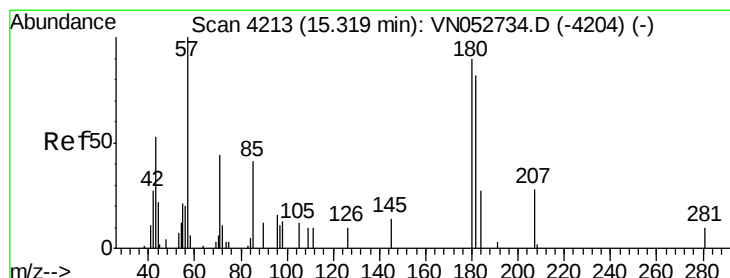
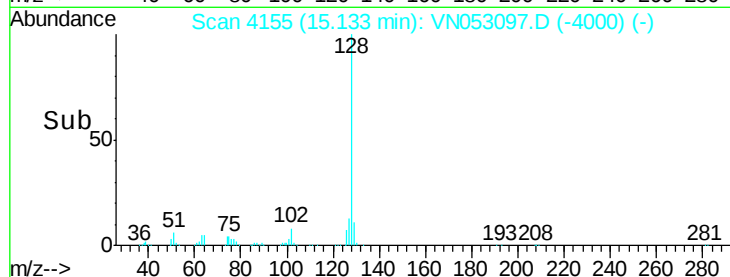
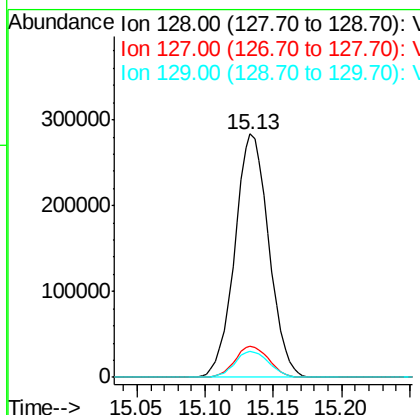
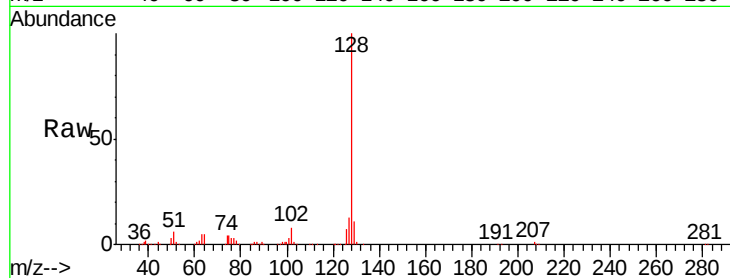
#91
Naphthalene
Concen: 24.316 ug/l
RT: 15.13 min Scan# 4155
Delta R.T. -0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC020EC

Tgt Ion	Ratio	Resp	Lower	Upper
128	100	489908		
127	12.8	9.9	14.9	
129	10.9	8.5	12.7	

Manual Integrations
APPROVED

MMDadoda
12/22/2018 10:06:21 AM



#92
1,2,3-Trichlorobenzene
Concen: 21.536 ug/l
RT: 15.32 min Scan# 4212
Delta R.T. 0.00 min
Lab File: VN053097.D
Acq: 21 Dec 2018 11:38

Tgt Ion	Ratio	Resp	Lower	Upper
180	100	198008		
182	97.8	0.0	196.2	
145	30.7	0.0	62.2	

