

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL020916\
 Data File : VL026847.D
 Acq On : 10 Feb 2016 9:33
 Operator : SY/AP
 Sample : H1404-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA-1

Manual Integrations
 APPROVED

MMDadoda
 2/11/2016 1:25:00 PM

Quant Time: Feb 11 02:45:24 2016
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL020916AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10 03:14:04 2016
 QLast Update : Wed Feb 10 03:14:04 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.69	49	1494260	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.36	114	4512824	10.00	ppbv	-0.02
55) Chlorobenzene-d5	13.79	117	2966800	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.33	95	2447653	11.49	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	114.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.67	85	210606	0.65	ppbv	97
3) Chlorodifluoromethane	3.60	51	610943	2.52	ppbv	96
4) Chloromethane	3.78	50	63026	0.66	ppbv	96
9) Propene	3.64	41	78191m	1.19	ppbv	
10) Heptane	9.40	43	25312	0.12	ppbv	98
11) Trichlorofluoromethane	4.73	101	105098	0.27	ppbv	99
13) Ethanol	4.38	45	110658	9.82	ppbv	93
15) Acetone	4.64	43	1052487	5.13	ppbv	89
19) Isopropyl Alcohol	4.83	45	76749	1.05	ppbv #	92
20) Methylene Chloride	5.18	84	84690	0.80	ppbv	95
26) Hexane	6.70	57	426758	2.46	ppbv #	49
34) 2-Butanone	6.26	43	65380	0.30	ppbv	93
35) Carbon Tetrachloride	8.20	117	24766	0.08	ppbv	87
36) Benzene	8.06	78	106475	0.30	ppbv	97
41) Tetrahydrofuran	7.21	42	35933	0.33	ppbv	97
44) 2,2,4-Trimethylpentane	9.12	57	90596	0.15	ppbv #	67
53) Toluene	11.27	91	851279	2.11	ppbv	100
58) Ethyl Benzene	14.46	91	48090	0.13	ppbv	91
59) m/p-Xylene	14.73	91	93919	0.31	ppbv	98
60) o-Xylene	15.53	91	36467	0.11	ppbv	99
74) 1,2,4-Trimethylbenzene	18.88	105	50622	0.15	ppbv #	65

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

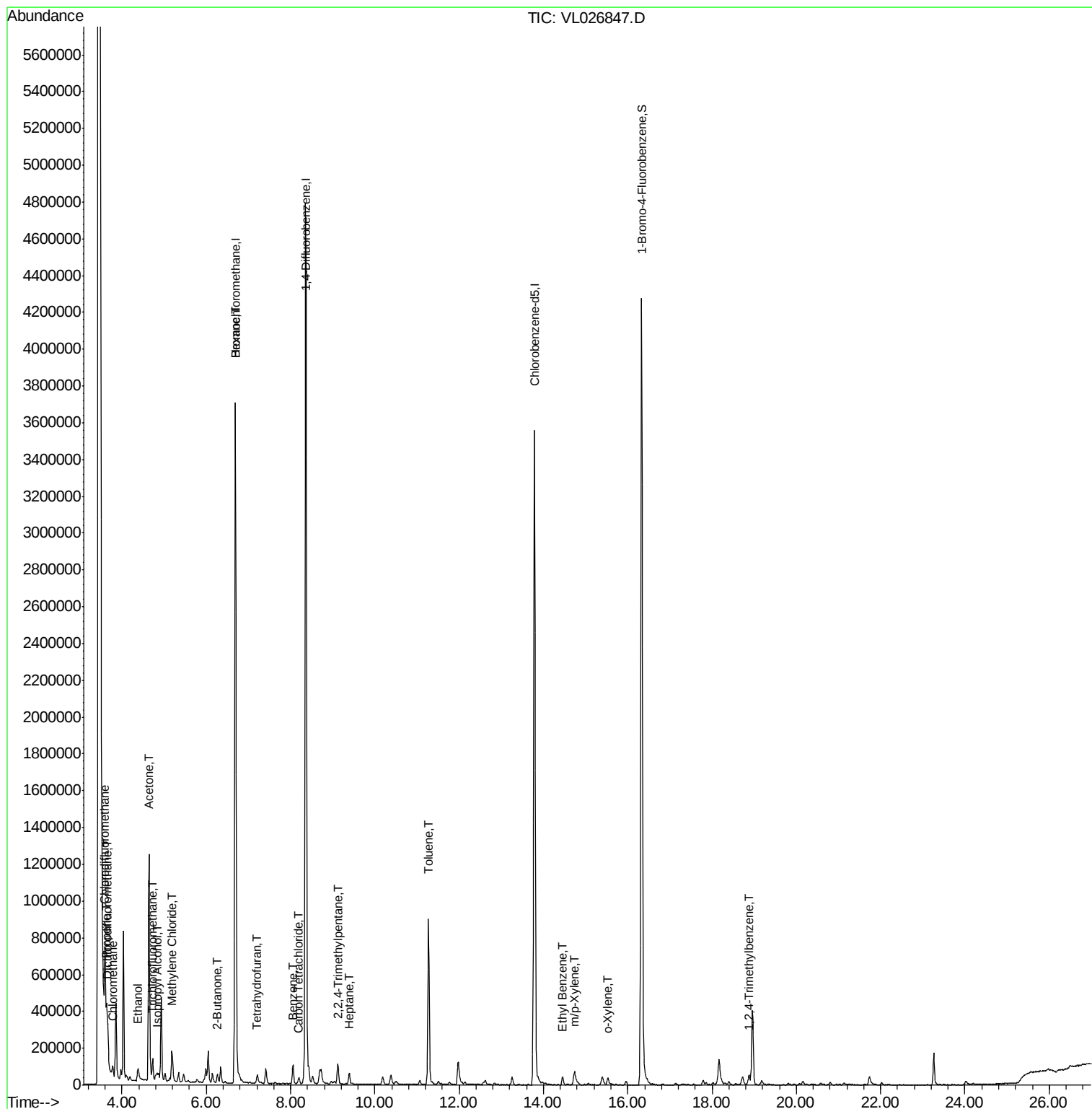
```
Data Path : W:\HPCHEM1\MSVOA L\DATA\VL020916\  
Data File : VL026847.D  
Acq On    : 10 Feb 2016    9:33  
Operator  : SY/AP  
Sample    : H1404-03  
Misc      : 400mL/MSVOA L  
ALS Vial  : 1    Sample Multiplier: 1
```

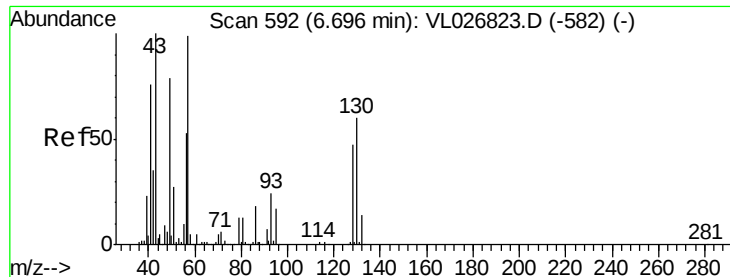
Instrument :
MSVOA_L
ClientSampleId :
OA-1

Manual Integrations APPROVED

MMDadoda
2/11/2016 1:25:00 PM

Quant Time: Feb 11 02:45:24 2016
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL020916AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb
QLast Update : Wed Feb 10 03:14:04 2016
Response via : Initial Calibration





#1

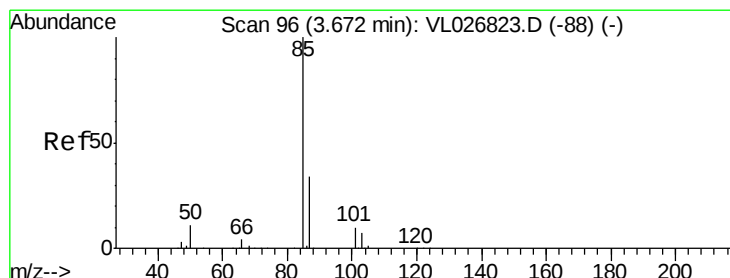
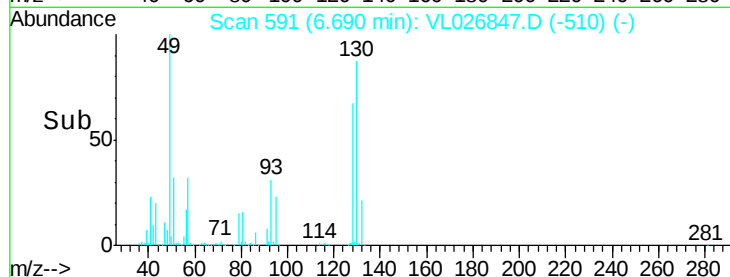
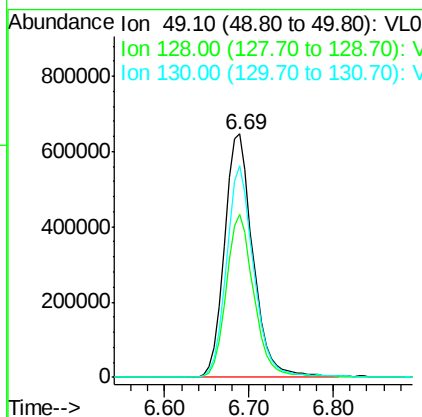
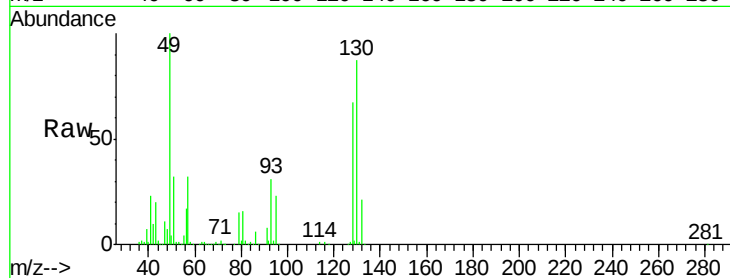
Bromochloromethane
 Concen: 10.00 ppbv
 RT: 6.69 min Scan# 591
 Delta R.T. -0.01 min
 Lab File: VL026847.D
 Acq: 10 Feb 2016 9:33

Instrument :
 MSVOA_L
 ClientSampled :
 OA-1

Tot Ion: 49 Resp: 1494260
 Ion Ratio Lower Upper
 49 100
 128 65.2 29.7 89.1
 130 84.5 38.3 114.8

Manual Integrations
 APPROVED

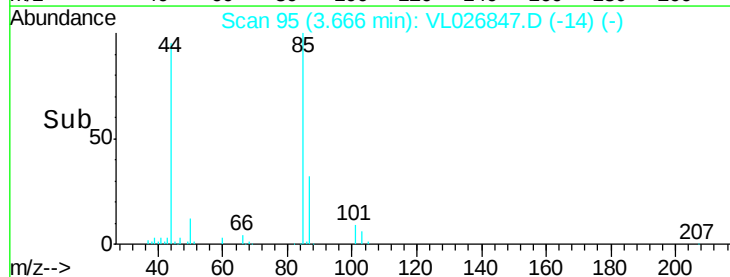
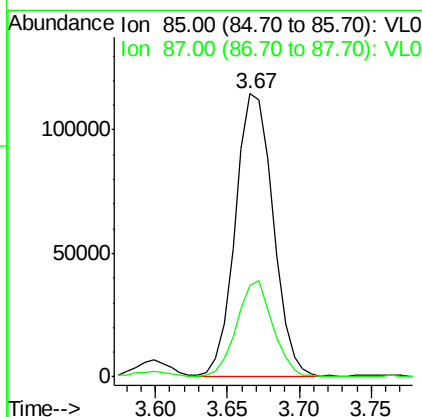
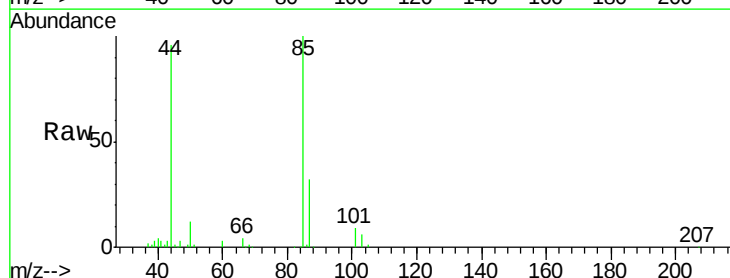
MMDadoda
 2/11/2016 1:25:00 PM

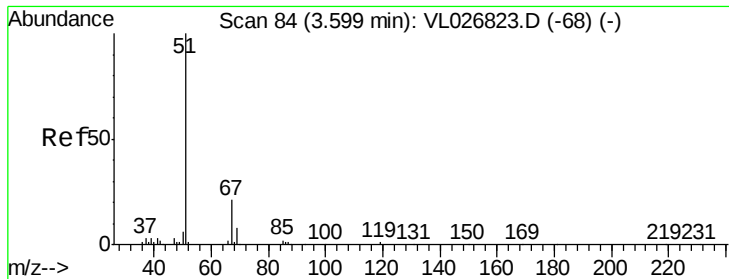


#2

Dichlorodifluoromethane
 Concen: 0.65 ppbv
 RT: 3.67 min Scan# 95
 Delta R.T. -0.01 min
 Lab File: VL026847.D
 Acq: 10 Feb 2016 9:33

Tgt Ion: 85 Resp: 210606
 Ion Ratio Lower Upper
 85 100
 87 32.5 27.3 40.9





#3

Chlorodifluoromethane

Concen: 2.52 ppbv

RT: 3.60 min Scan# 84

Delta R.T. -0.00 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Tot Ion: 51 Resp: 610943

Ion Ratio Lower Upper

51 100

67 18.8 16.4 24.6

Instrument :

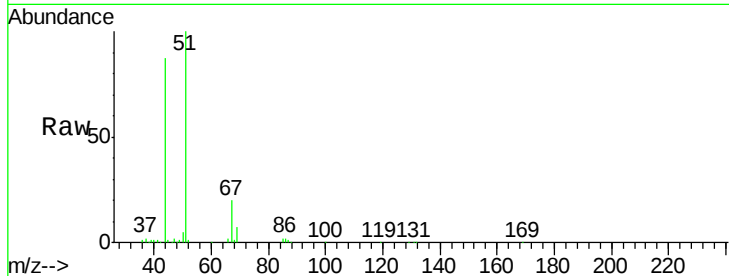
MSVOA_L

ClientSampleId :

QA-1

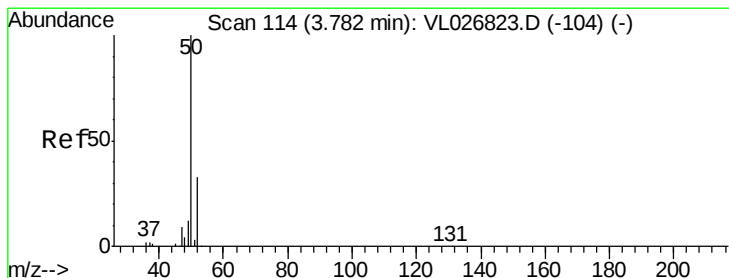
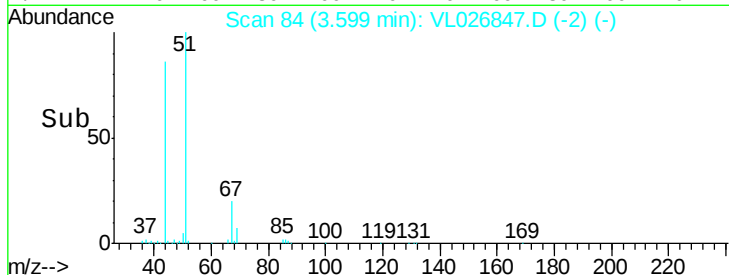
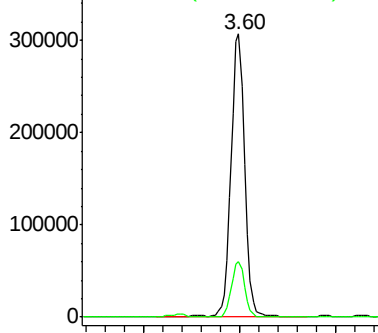
Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.66 ppbv

RT: 3.78 min Scan# 114

Delta R.T. -0.00 min

Lab File: VL026847.D

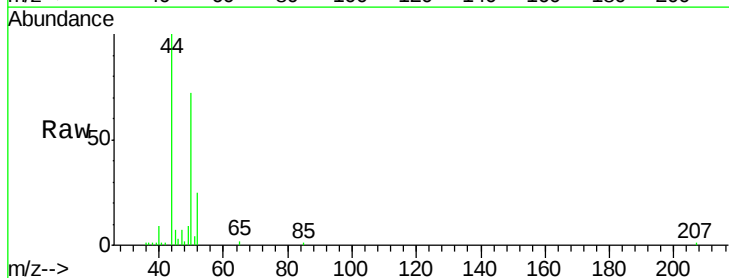
Acq: 10 Feb 2016 9:33

Tgt Ion: 50 Resp: 63026

Ion Ratio Lower Upper

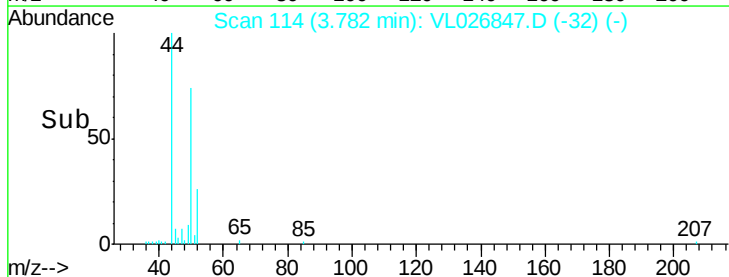
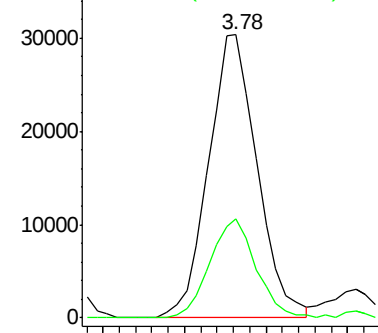
50 100

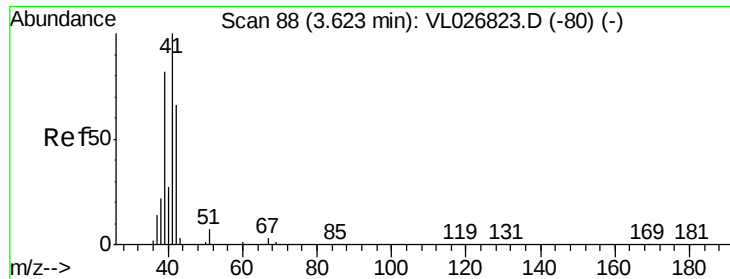
52 35.1 26.3 39.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.19 ppbv m

RT: 3.64 min Scan# 90

Delta R.T. 0.01 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

ClientSampleId :

QA-1

Tot Ion: 41 Resp: 78191

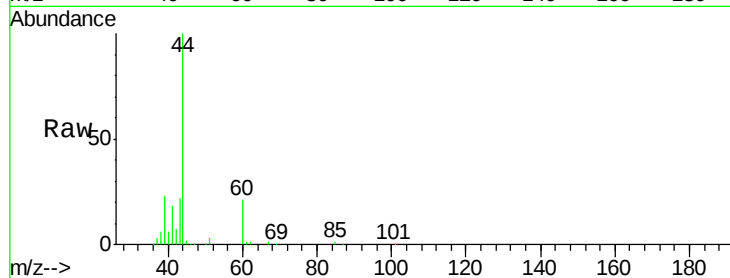
Ion Ratio Lower Upper

41 100

42 140.9 52.8 79.2#

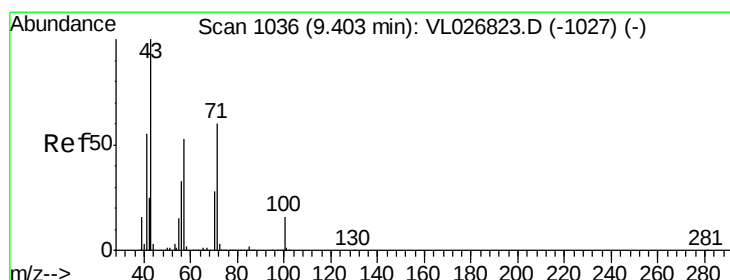
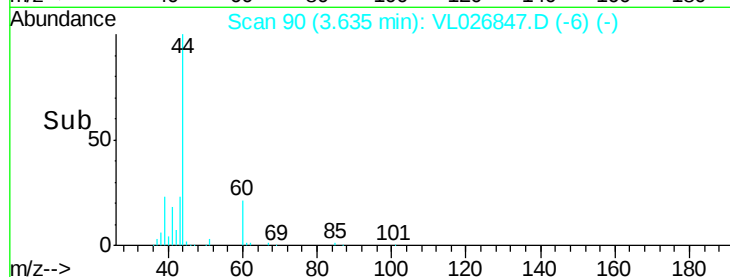
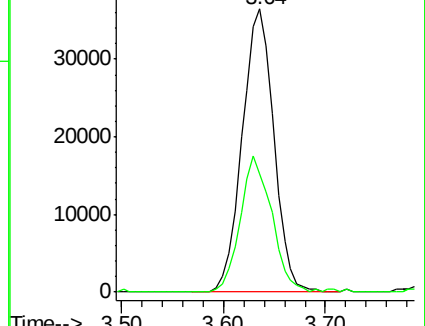
Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.12 ppbv

RT: 9.40 min Scan# 1035

Delta R.T. -0.01 min

Lab File: VL026847.D

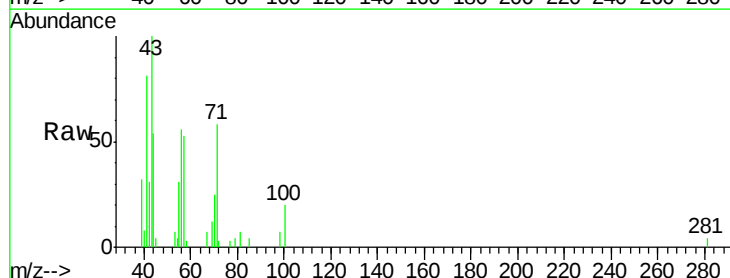
Acq: 10 Feb 2016 9:33

Tgt Ion: 43 Resp: 25312

Ion Ratio Lower Upper

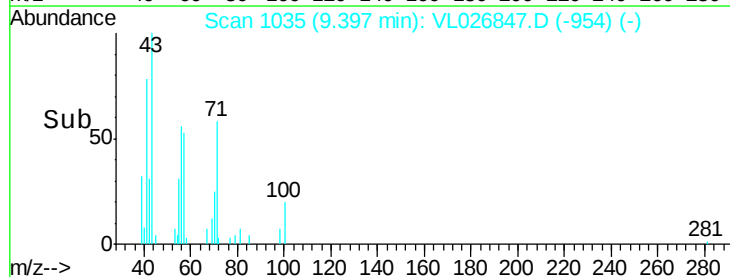
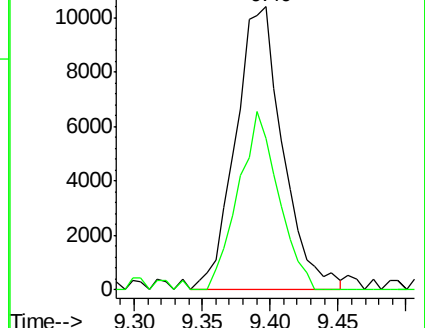
43 100

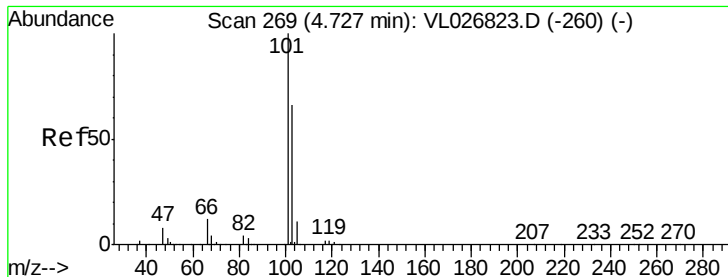
57 56.5 44.0 66.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 0.27 ppbv

RT: 4.73 min Scan# 269

Delta R.T. -0.00 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

ClientSampleId :

QA-1

Tot Ion:101 Resp: 105098

Ion Ratio Lower Upper

101 100

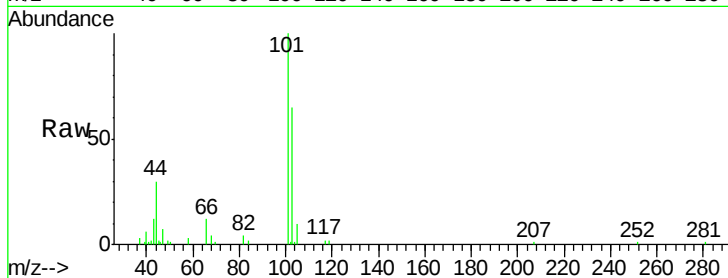
103 64.9 52.7 79.1

Manual Integrations

APPROVED

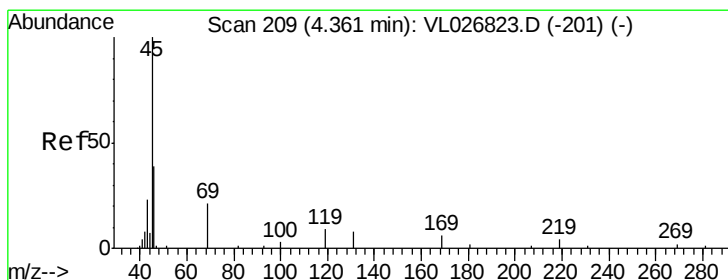
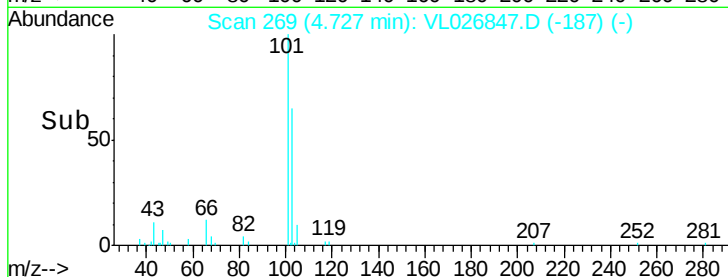
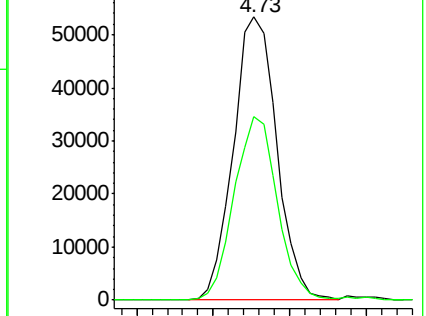
MMDadoda

2/11/2016 1:25:00 PM



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 9.82 ppbv

RT: 4.38 min Scan# 212

Delta R.T. 0.02 min

Lab File: VL026847.D

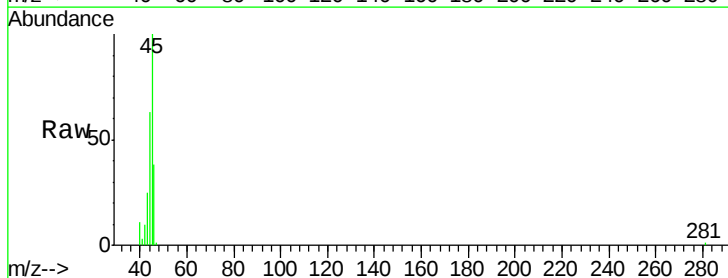
Acq: 10 Feb 2016 9:33

Tgt Ion: 45 Resp: 110658

Ion Ratio Lower Upper

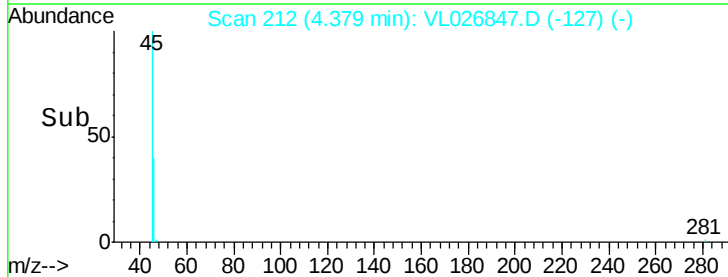
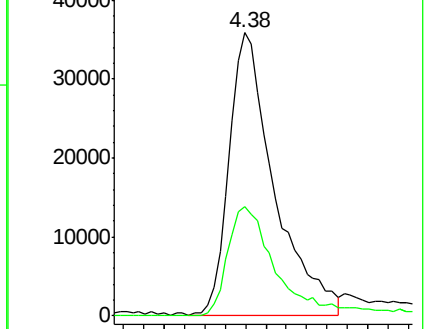
45 100

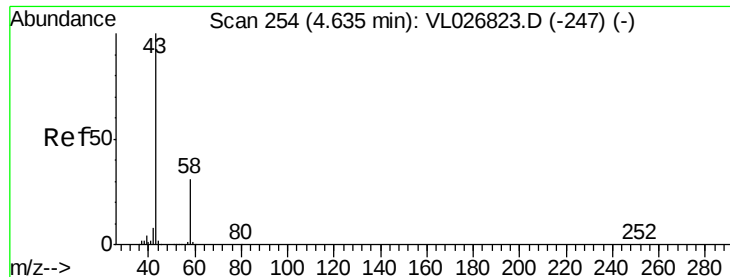
46 44.0 15.8 63.4



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 5.13 ppbv

RT: 4.64 min Scan# 255

Delta R.T. 0.01 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

ClientSampled :

QA-1

Tot Ion: 43 Resp: 1052487

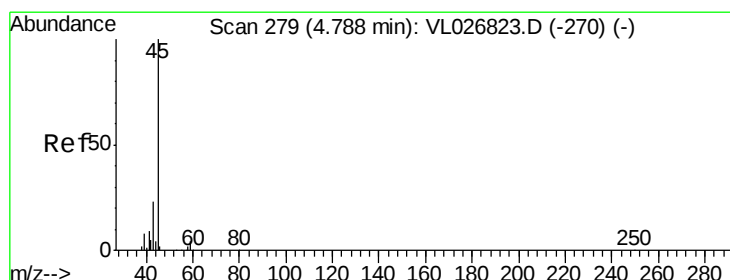
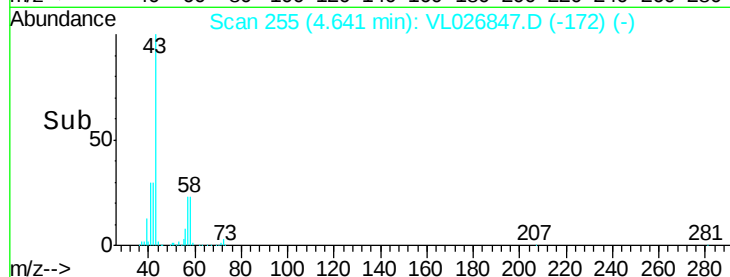
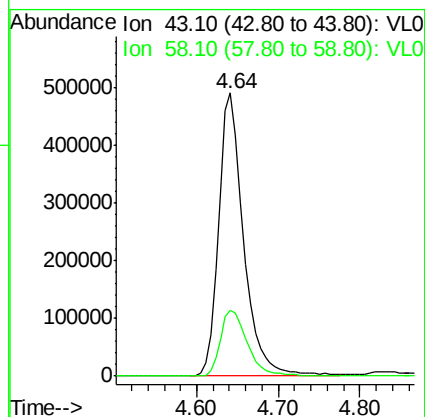
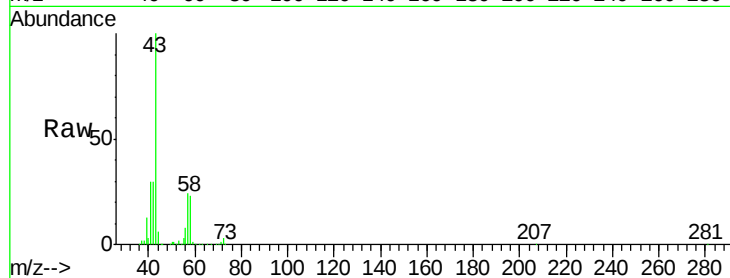
Ion Ratio Lower Upper

43 100

58 25.4 25.2 37.8

Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



#19

Isopropyl Alcohol

Concen: 1.05 ppbv

RT: 4.83 min Scan# 286

Delta R.T. 0.04 min

Lab File: VL026847.D

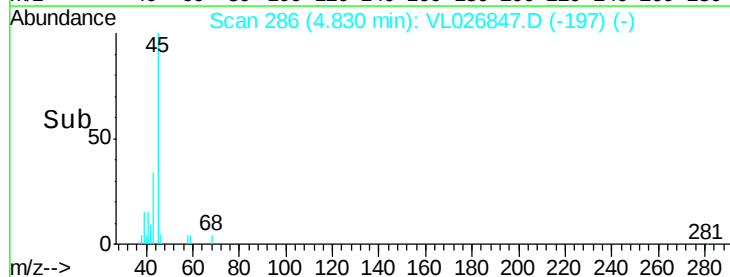
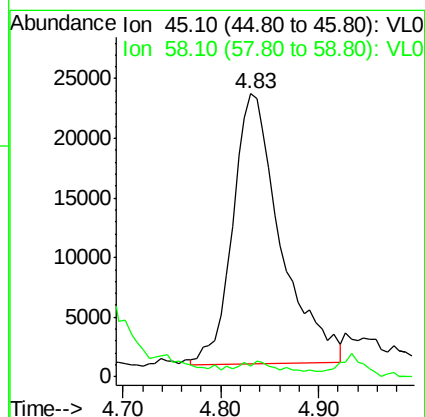
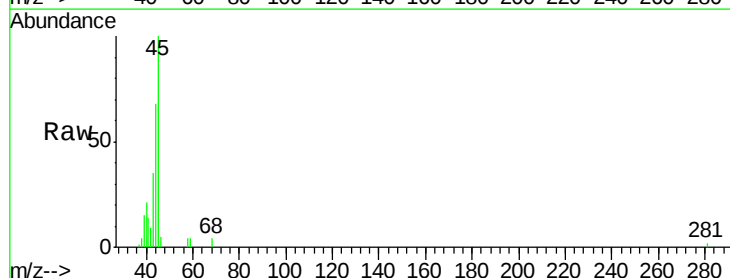
Acq: 10 Feb 2016 9:33

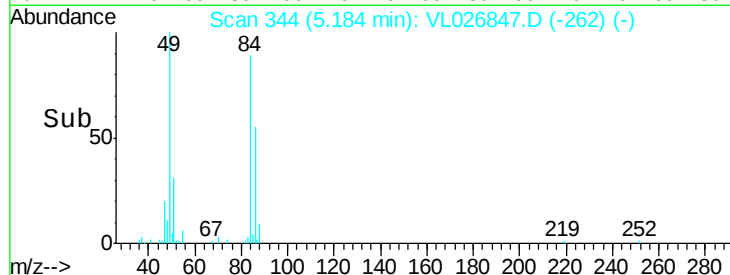
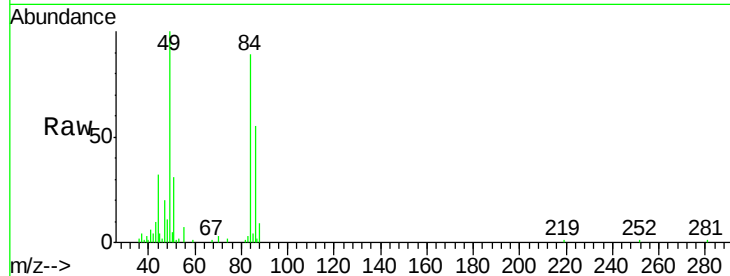
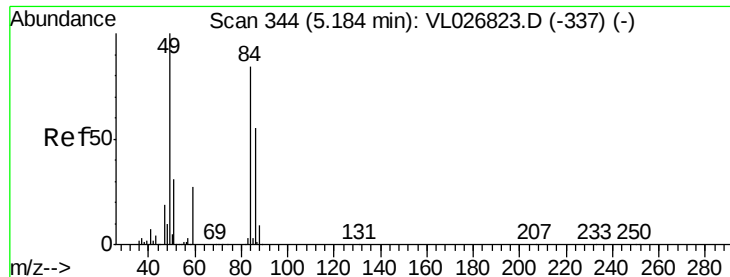
Tgt Ion: 45 Resp: 76749

Ion Ratio Lower Upper

45 100

58 0.0 2.2 3.2#





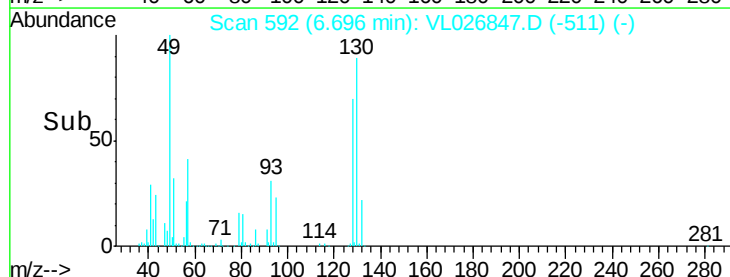
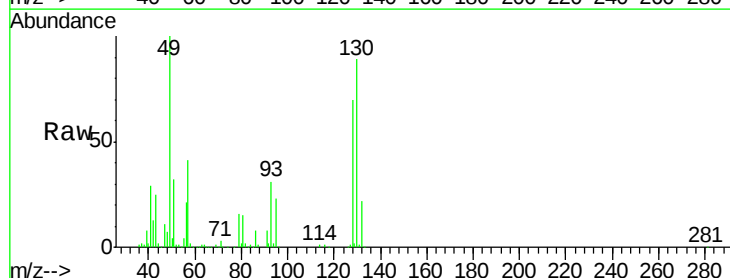
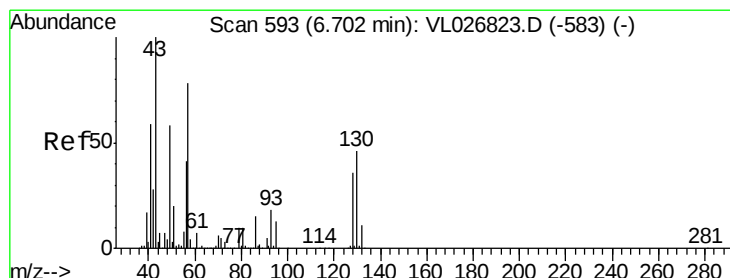
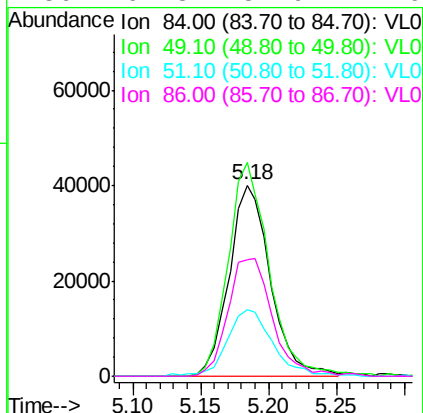
#20
Methvlene Chloride
Concen: 0.80 ppbv
RT: 5.18 min Scan# 344
Delta R.T. -0.00 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Tot Ion:	84	Resp:	84690
Ion Ratio	Lower	Upper	
84	100		
49	111.9	94.9	142.3
51	34.3	29.5	44.3
86	61.3	51.9	77.9

Instrument :
MSVOA_L
ClientSampleId :
QA-1

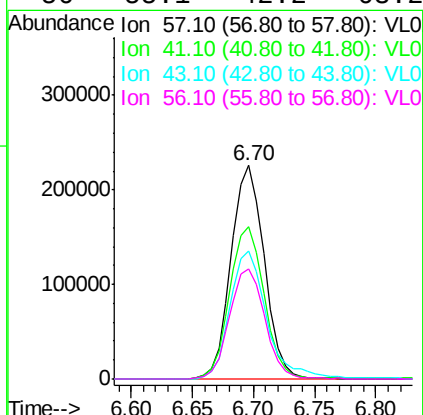
Manual Integrations
APPROVED

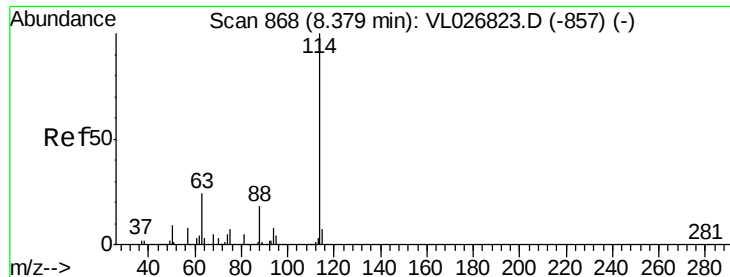
MMDadoda
2/11/2016 1:25:00 PM



#26
Hexane
Concen: 2.46 ppbv
RT: 6.70 min Scan# 592
Delta R.T. -0.01 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Tgt Ion:	57	Resp:	426758
Ion Ratio	Lower	Upper	
57	100		
41	74.7	63.3	94.9
43	67.7	151.4	227.2#
56	55.1	42.2	63.2





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 8.36 min Scan# 865

Delta R.T. -0.02 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

ClientSampled :

QA-1

Tot Ion:114 Resp: 4512824

Ion Ratio Lower Upper

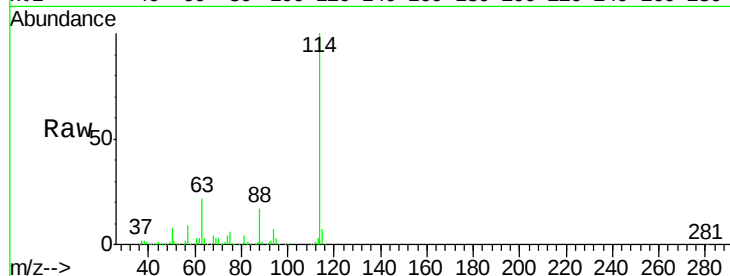
114 100

63 21.7 19.7 29.5

88 16.4 13.8 20.6

Manual Integrations
APPROVED

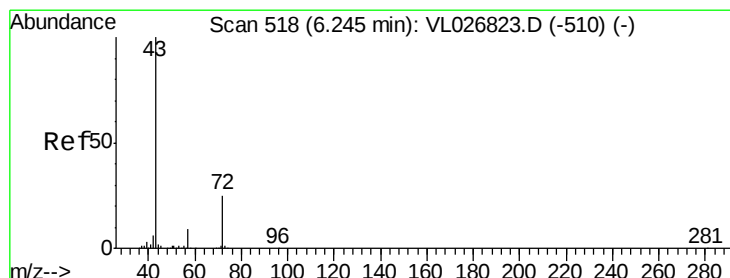
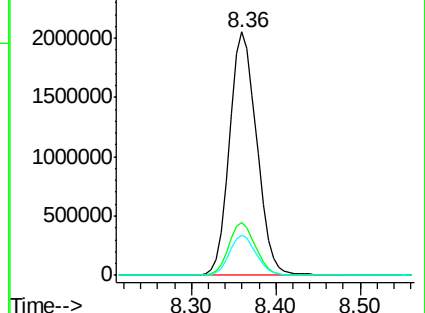
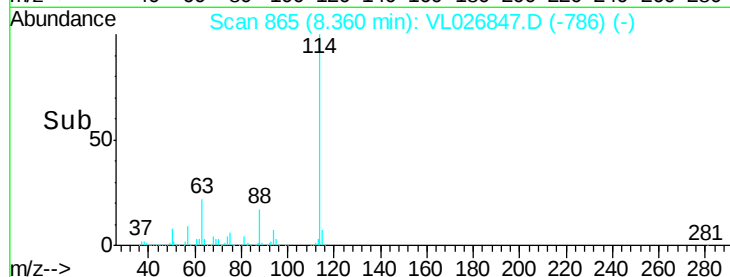
MMDadoda
2/11/2016 1:25:00 PM



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.30 ppbv

RT: 6.26 min Scan# 521

Delta R.T. 0.02 min

Lab File: VL026847.D

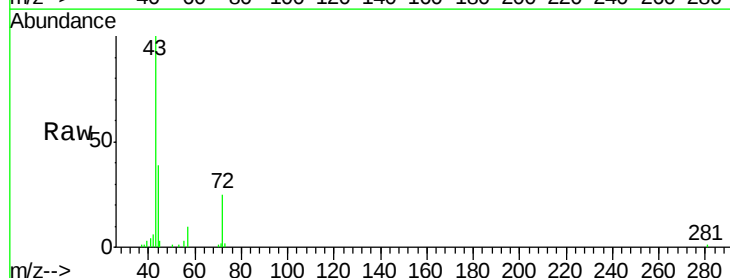
Acq: 10 Feb 2016 9:33

Tgt Ion: 43 Resp: 65380

Ion Ratio Lower Upper

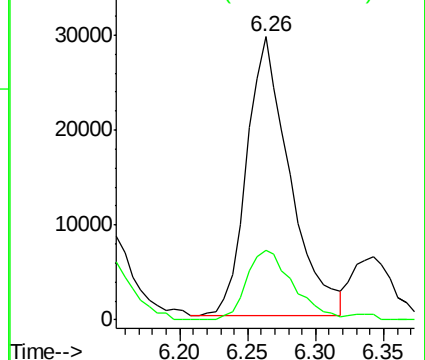
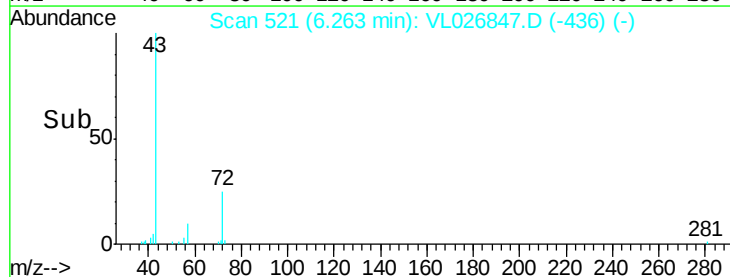
43 100

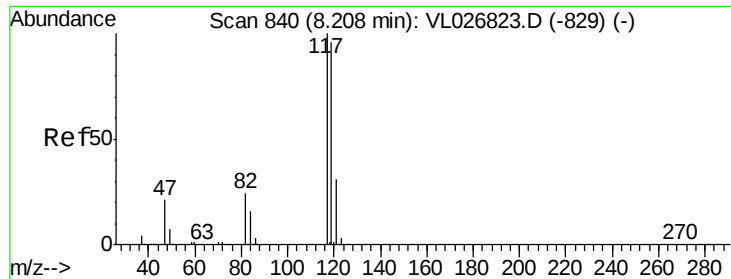
72 28.1 19.8 29.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.08 ppbv

RT: 8.20 min Scan# 839

Delta R.T. -0.01 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

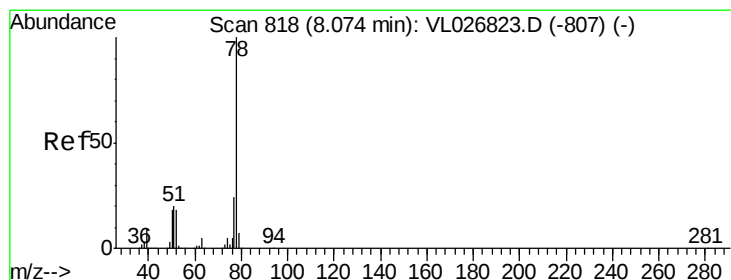
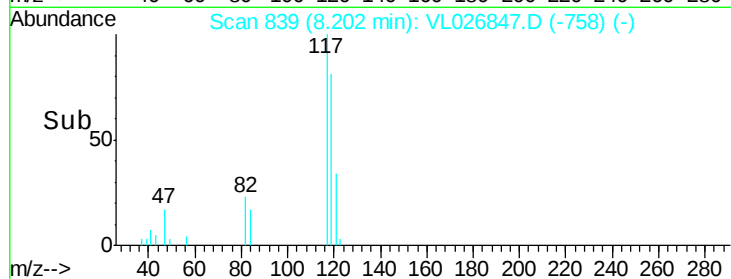
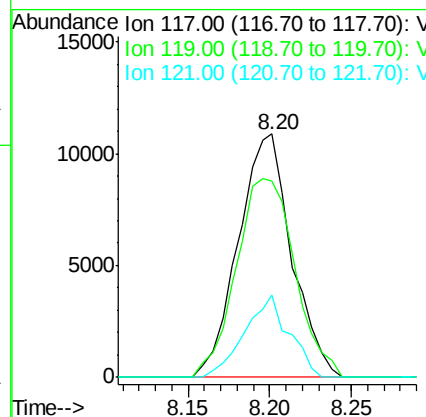
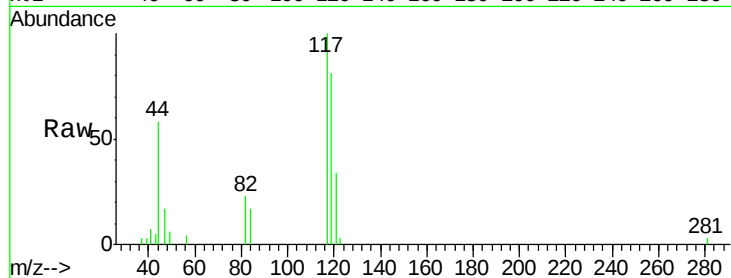
ClientSampleId :

QA-1

Tot Ion:	117	Resp:	24766
Ion Ratio	Lower	Upper	
117	100		
119	80.8	76.6	115.0
121	33.8	25.0	37.4

Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



#36

Benzene

Concen: 0.30 ppbv

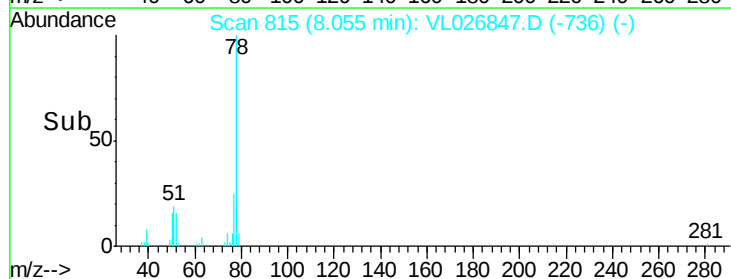
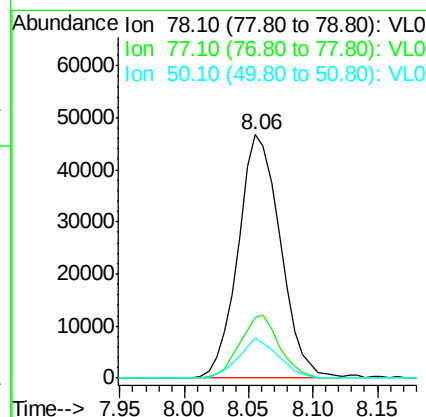
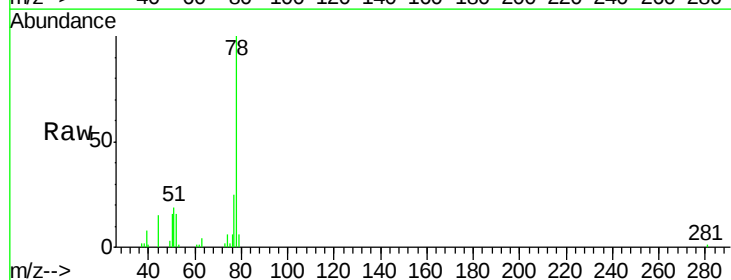
RT: 8.06 min Scan# 815

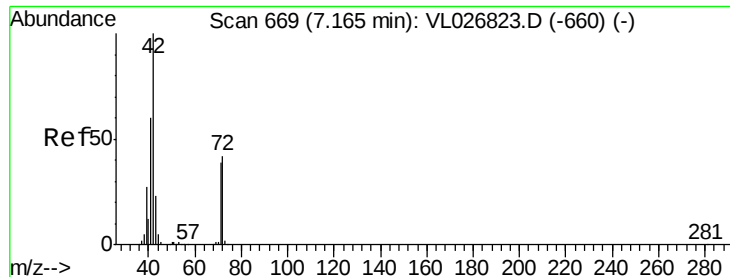
Delta R.T. -0.02 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Tgt Ion:	78	Resp:	106475
Ion Ratio	Lower	Upper	
78	100		
77	25.1	19.0	28.6
50	16.4	14.2	21.4





#41

Tetrahydrofuran

Concen: 0.33 ppbv

RT: 7.21 min Scan# 676

Delta R.T. 0.04 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

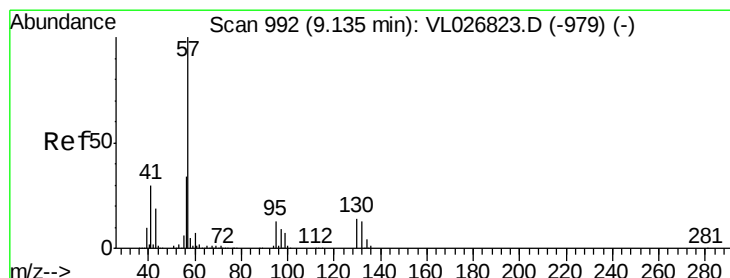
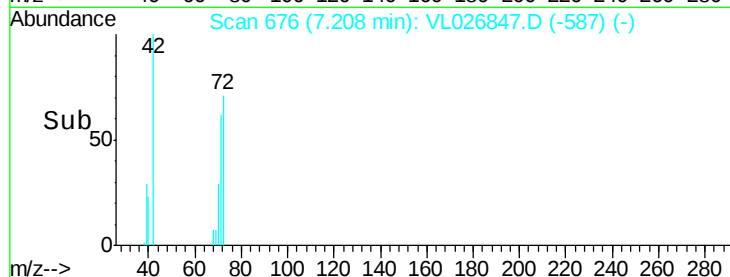
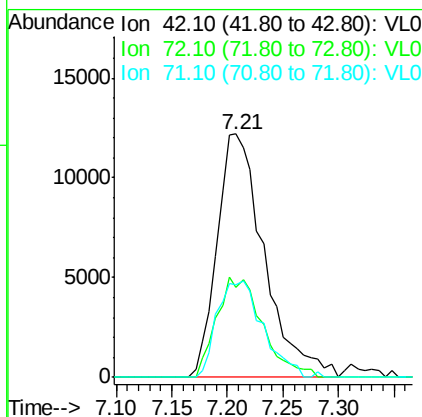
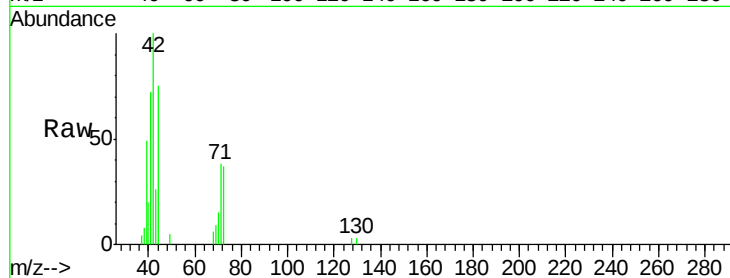
ClientSampleId :

QA-1

Tot Ion:	42	Resp:	35933
Ion Ratio		Lower	Upper
42	100		
72	40.0	33.4	50.0
71	38.6	32.1	48.1

Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



#44

2,2,4-Trimethylpentane

Concen: 0.15 ppbv

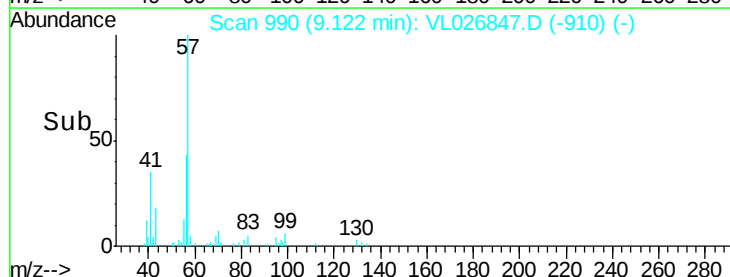
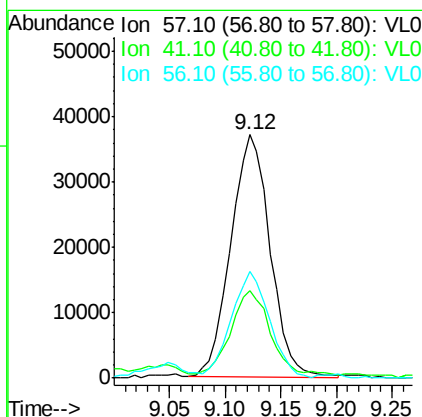
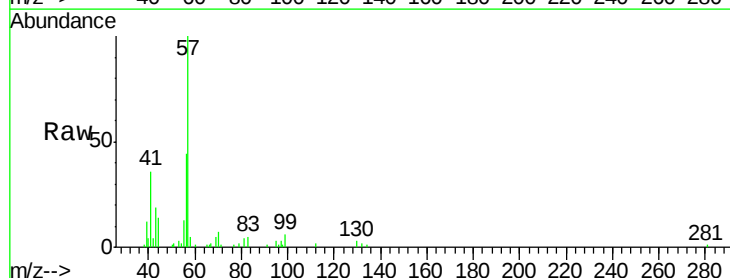
RT: 9.12 min Scan# 990

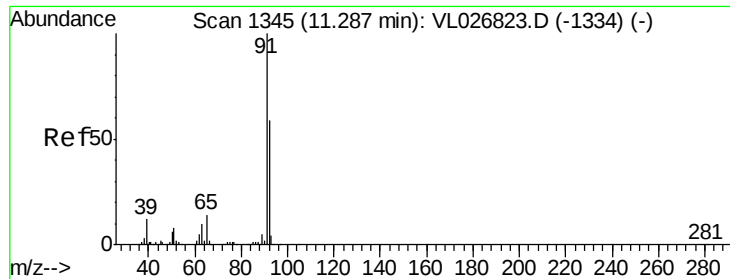
Delta R.T. -0.01 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Tgt Ion:	57	Resp:	90596
Ion Ratio		Lower	Upper
57	100		
41	48.3	23.2	34.8#
56	50.3	26.2	39.4#





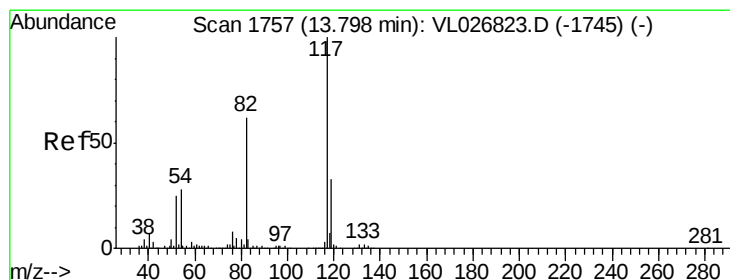
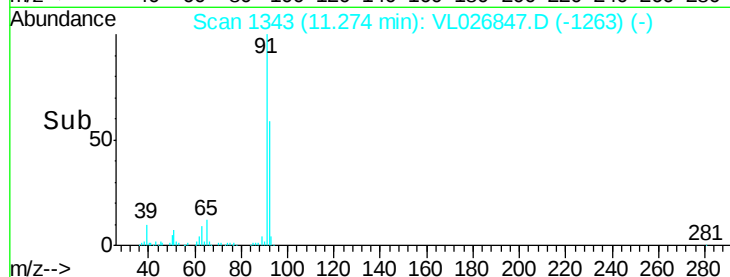
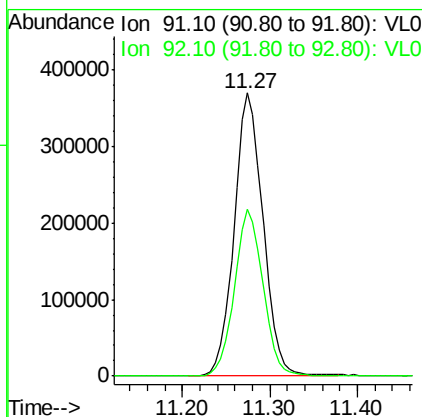
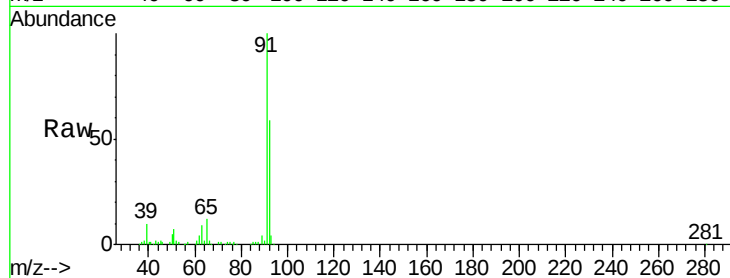
#53
Toluene
Concen: 2.11 ppbv
RT: 11.27 min Scan# 1343
Delta R.T. -0.01 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Instrument :
MSVOA_L
ClientSampleId :
QA-1

Tot Ion: 91 Resp: 851279
Ion Ratio Lower Upper
91 100
92 58.8 47.3 70.9

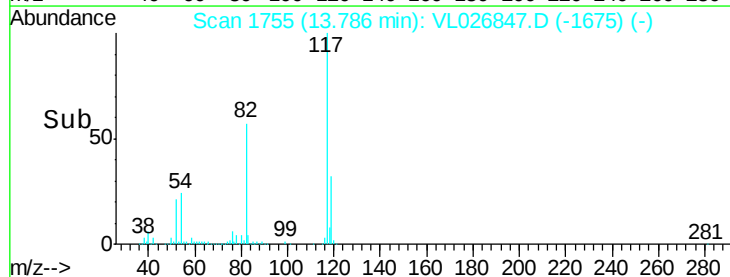
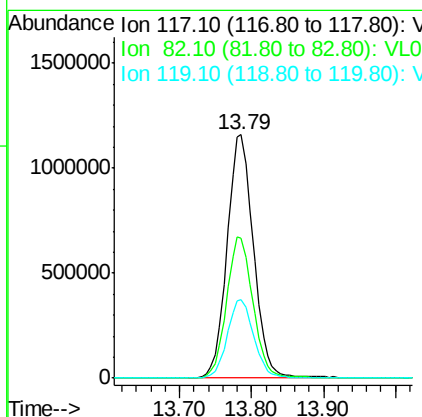
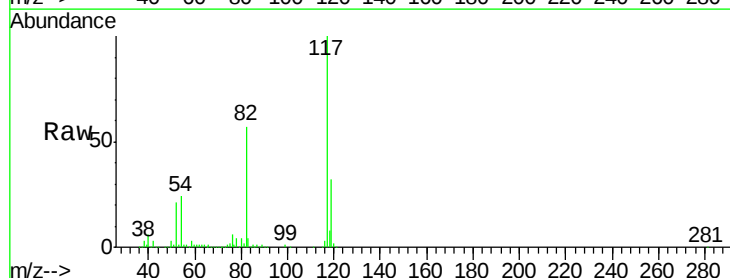
Manual Integrations
APPROVED

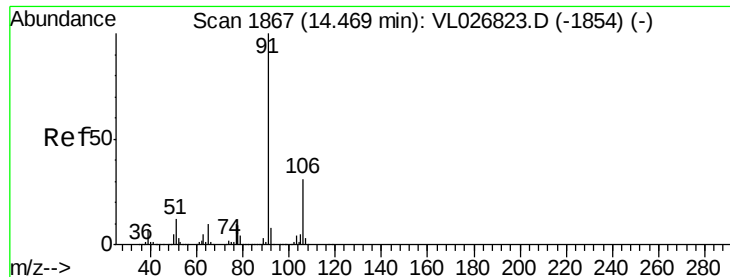
MMDadoda
2/11/2016 1:25:00 PM



#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.79 min Scan# 1755
Delta R.T. -0.01 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Tgt Ion: 117 Resp: 2966800
Ion Ratio Lower Upper
117 100
82 58.6 51.9 77.9
119 32.6 48.5 72.7#





#58

Ethyl Benzene

Concen: 0.13 ppbv

RT: 14.46 min Scan# 1865

Delta R.T. -0.01 min

Lab File: VL026847.D

Acq: 10 Feb 2016 9:33

Instrument :

MSVOA_L

ClientSampled :

QA-1

Tot Ion: 91 Resp: 48090

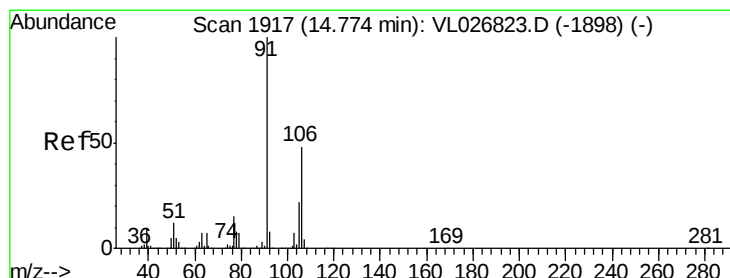
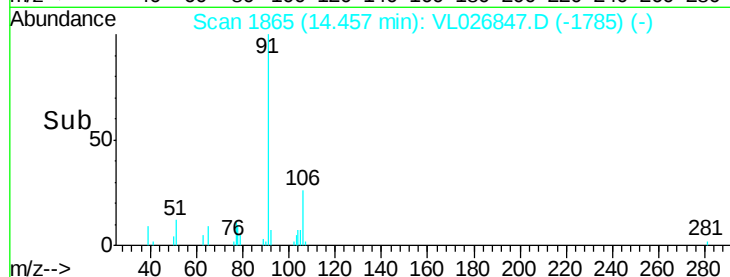
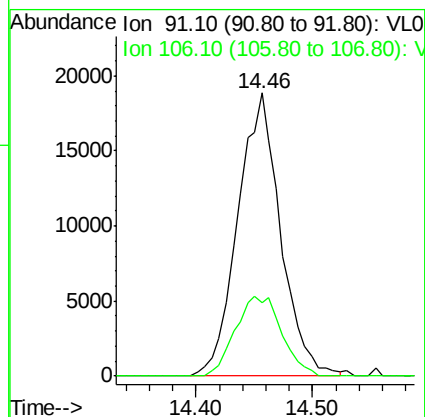
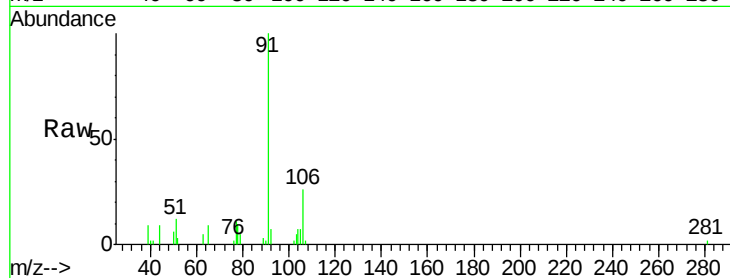
Ion Ratio Lower Upper

91 100

106 26.1 24.9 37.3

Manual Integrations
APPROVED

MMDadoda
2/11/2016 1:25:00 PM



#59

m/p-Xylene

Concen: 0.31 ppbv

RT: 14.73 min Scan# 1910

Delta R.T. -0.04 min

Lab File: VL026847.D

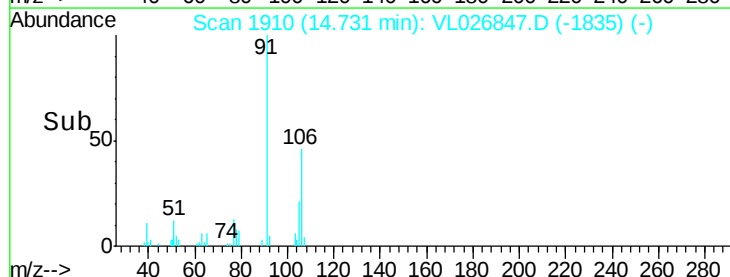
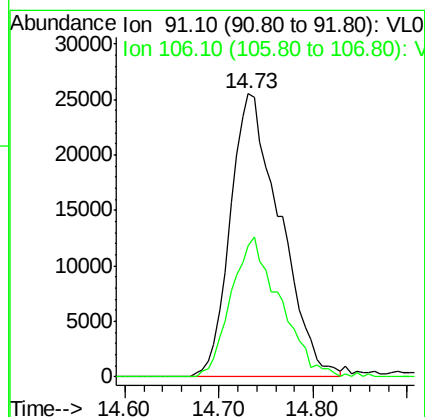
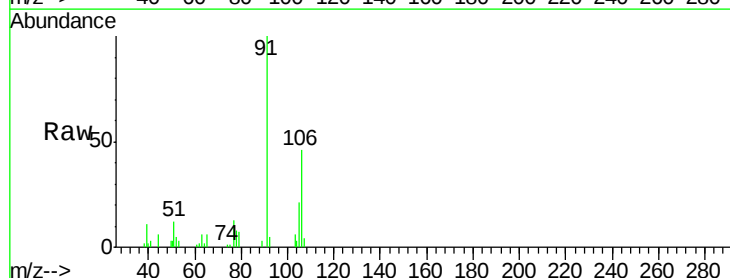
Acq: 10 Feb 2016 9:33

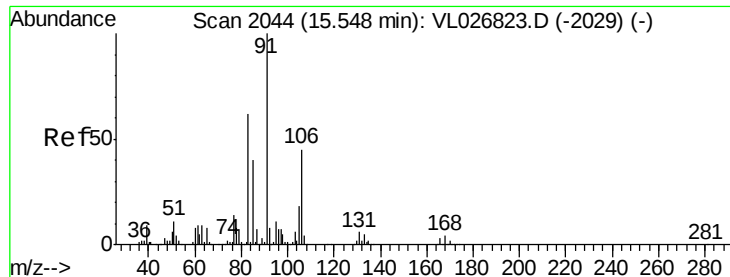
Tgt Ion: 91 Resp: 93919

Ion Ratio Lower Upper

91 100

106 48.8 38.2 57.2





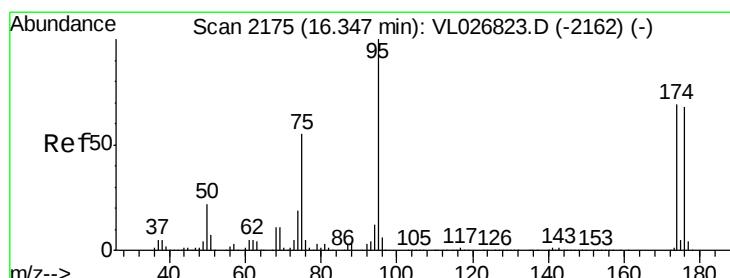
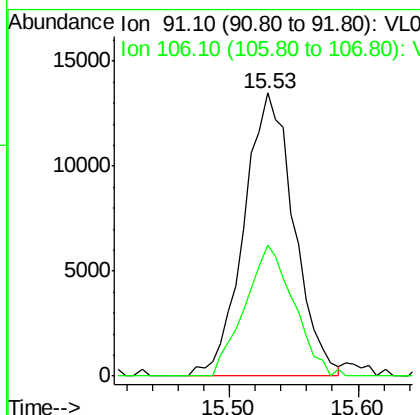
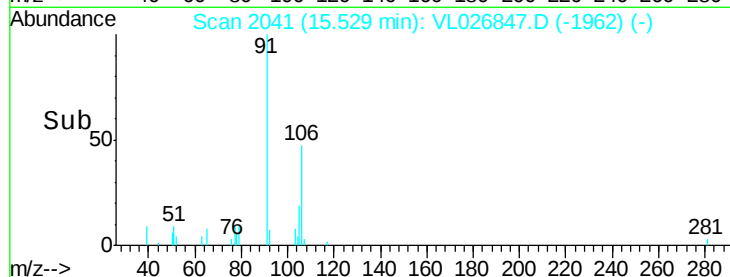
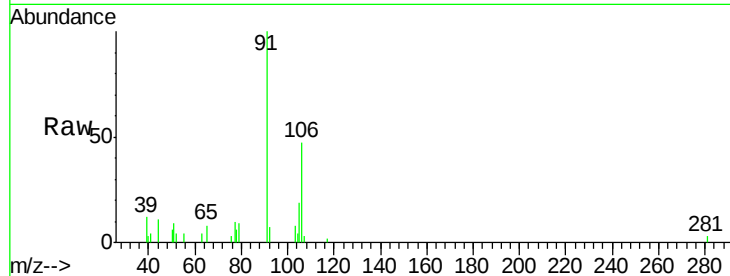
#60
o-Xylene
Concen: 0.11 ppbv
RT: 15.53 min Scan# 2041
Delta R.T. -0.02 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Instrument :
MSVOA_L
ClientSampleId :
OA-1

Tot Ion: 91 Resp: 36467
Ion Ratio Lower Upper
91 100
106 45.0 22.3 66.8

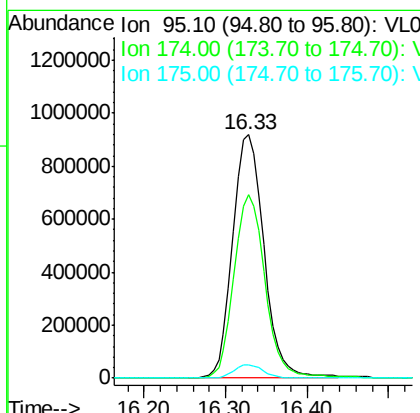
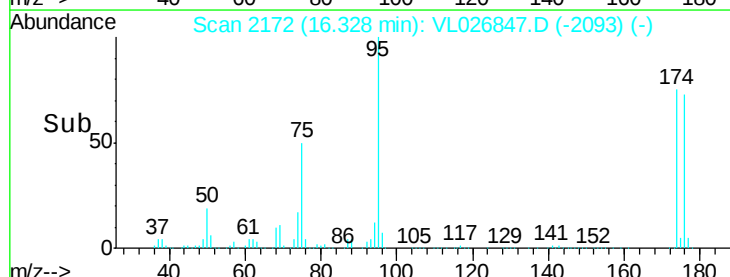
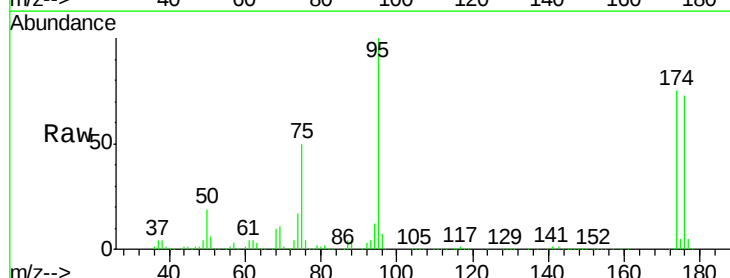
Manual Integrations
APPROVED

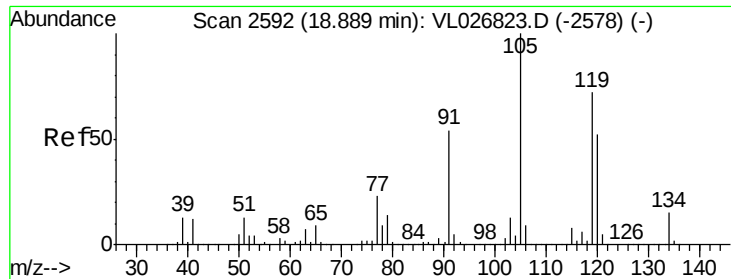
MMDadoda
2/11/2016 1:25:00 PM



#68
1-Bromo-4-Fluorobenzene
Concen: 11.49 ppbv
RT: 16.33 min Scan# 2172
Delta R.T. -0.02 min
Lab File: VL026847.D
Acq: 10 Feb 2016 9:33

Tgt Ion: 95 Resp: 2447653
Ion Ratio Lower Upper
95 100
174 75.7 55.6 83.4
175 5.3 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.15 ppbv
 RT: 18.88 min Scan# 2590
 Delta R.T. -0.01 min
 Lab File: VL026847.D
 Acq: 10 Feb 2016 9:33

Instrument :
 MSVOA_L
 ClientSampleId :
 OA-1

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	37.7	41.3	61.9#
91	11.9	43.3	64.9#
77	15.8	18.3	27.5#

Manual Integrations
 APPROVED

MMDadoda
 2/11/2016 1:25:00 PM

