

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
 Data File : VL039798.D  
 Acq On : 25 Oct 2022 21:57  
 Operator : SY/AP  
 Sample : N5227-08  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 H

Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 3

Min Area: 3 % of largest Peak

Start Thrs: 0.001

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 0

Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M

Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

Signal : TIC: VL039798.D\data.ms

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 2.658       | 10            | 17          | 23           | rBV      | 3891958        | 4410032       | 26.73%          | 3.210%        |
| 2         | 2.710       | 23            | 33          | 50           | rVV2     | 9584757        | 16501172      | 100.00%         | 12.013%       |
| 3         | 2.790       | 50            | 58          | 59           | rVV2     | 705415         | 935142        | 5.67%           | 0.681%        |
| 4         | 2.803       | 59            | 62          | 65           | rVV3     | 759046         | 814139        | 4.93%           | 0.593%        |
| 5         | 2.819       | 65            | 67          | 80           | rVB3     | 862310         | 1044612       | 6.33%           | 0.760%        |
| 6         | 2.890       | 80            | 89          | 103          | rVB      | 927084         | 1387550       | 8.41%           | 1.010%        |
| 7         | 2.986       | 111           | 119         | 129          | rBV2     | 4831615        | 9350468       | 56.67%          | 6.807%        |
| 8         | 3.028       | 129           | 132         | 141          | rVV2     | 2556229        | 3366671       | 20.40%          | 2.451%        |
| 9         | 3.076       | 141           | 147         | 160          | rVB2     | 1146996        | 1730523       | 10.49%          | 1.260%        |
| 10        | 3.153       | 165           | 171         | 184          | rVB      | 881231         | 1203735       | 7.29%           | 0.876%        |
| 11        | 3.279       | 202           | 210         | 218          | rVB4     | 118115         | 178071        | 1.08%           | 0.130%        |
| 12        | 3.362       | 225           | 236         | 251          | rVB3     | 551903         | 1015651       | 6.16%           | 0.739%        |
| 13        | 3.484       | 266           | 274         | 278          | rBV      | 1800461        | 2406272       | 14.58%          | 1.752%        |
| 14        | 3.507       | 278           | 281         | 300          | rVB3     | 1227971        | 2305641       | 13.97%          | 1.678%        |
| 15        | 3.636       | 312           | 321         | 335          | rBV      | 2123088        | 3229027       | 19.57%          | 2.351%        |
| 16        | 3.700       | 335           | 341         | 349          | rVV2     | 654441         | 935392        | 5.67%           | 0.681%        |
| 17        | 3.748       | 349           | 356         | 367          | rVV      | 1645638        | 2458028       | 14.90%          | 1.789%        |
| 18        | 3.806       | 367           | 374         | 376          | rVV      | 1025713        | 1255916       | 7.61%           | 0.914%        |
| 19        | 3.816       | 376           | 377         | 393          | rVB2     | 1009133        | 1347939       | 8.17%           | 0.981%        |
| 20        | 3.915       | 398           | 408         | 414          | rVV4     | 483444         | 712077        | 4.32%           | 0.518%        |
| 21        | 3.970       | 416           | 425         | 430          | rVV3     | 538338         | 964949        | 5.85%           | 0.702%        |
| 22        | 4.002       | 430           | 435         | 456          | rVB2     | 921795         | 1402702       | 8.50%           | 1.021%        |
| 23        | 4.160       | 468           | 484         | 501          | rBV5     | 1055520        | 2178338       | 13.20%          | 1.586%        |
| 24        | 4.253       | 505           | 513         | 521          | rBV2     | 126262         | 184693        | 1.12%           | 0.134%        |
| 25        | 4.449       | 556           | 574         | 578          | rBV2     | 410962         | 757549        | 4.59%           | 0.551%        |
| 26        | 4.494       | 585           | 588         | 602          | rVB4     | 215253         | 324768        | 1.97%           | 0.236%        |
| 27        | 4.623       | 617           | 628         | 636          | rBV3     | 275287         | 526820        | 3.19%           | 0.384%        |
| 28        | 4.674       | 636           | 644         | 656          | rVV4     | 440908         | 1049869       | 6.36%           | 0.764%        |
| 29        | 4.729       | 656           | 661         | 673          | rVV3     | 190996         | 315520        | 1.91%           | 0.230%        |
| 30        | 4.799       | 673           | 683         | 699          | rVV2     | 664073         | 1217679       | 7.38%           | 0.886%        |
| 31        | 4.922       | 712           | 721         | 735          | rBV      | 182503         | 317464        | 1.92%           | 0.231%        |
| 32        | 5.012       | 735           | 749         | 773          | rBV      | 1846260        | 3706515       | 22.46%          | 2.698%        |
| 33        | 5.124       | 773           | 784         | 796          | rVB5     | 154744         | 302104        | 1.83%           | 0.220%        |
| 34        | 5.211       | 796           | 811         | 831          | rBV4     | 2146884        | 6136344       | 37.19%          | 4.467%        |
| 35        | 5.304       | 831           | 840         | 848          | rVV4     | 410120         | 874370        | 5.30%           | 0.637%        |
| 36        | 5.349       | 848           | 854         | 869          | rVB3     | 276094         | 558854        | 3.39%           | 0.407%        |

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Instrument :  
 MSVOA\_L  
 ClientSampleId :  
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Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 3

Min Area: 3 % of largest Peak

Start Thrs: 0.001

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 0

Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M

Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

|    |       |     |      |      |      |        |        |       |        |
|----|-------|-----|------|------|------|--------|--------|-------|--------|
| 37 | 5.443 | 871 | 883  | 895  | rBV4 | 229066 | 551974 | 3.35% | 0.402% |
| 38 | 5.507 | 895 | 903  | 914  | rVB3 | 294631 | 508449 | 3.08% | 0.370% |
| 39 | 5.645 | 933 | 946  | 957  | rBV6 | 269583 | 577901 | 3.50% | 0.421% |
| 40 | 5.825 | 990 | 1002 | 1011 | rBV3 | 261123 | 503126 | 3.05% | 0.366% |

|    |       |      |      |      |      |        |         |       |        |
|----|-------|------|------|------|------|--------|---------|-------|--------|
| 41 | 5.886 | 1011 | 1021 | 1022 | rVV5 | 171042 | 257314  | 1.56% | 0.187% |
| 42 | 5.896 | 1022 | 1024 | 1036 | rVB4 | 179445 | 208614  | 1.26% | 0.152% |
| 43 | 5.976 | 1036 | 1049 | 1064 | rBV6 | 462539 | 1044839 | 6.33% | 0.761% |
| 44 | 6.060 | 1064 | 1075 | 1084 | rVV4 | 196862 | 380247  | 2.30% | 0.277% |
| 45 | 6.124 | 1084 | 1095 | 1110 | rVB7 | 169363 | 404720  | 2.45% | 0.295% |

|    |       |      |      |      |      |         |         |        |        |
|----|-------|------|------|------|------|---------|---------|--------|--------|
| 46 | 6.327 | 1145 | 1158 | 1164 | rBV4 | 367878  | 844523  | 5.12%  | 0.615% |
| 47 | 6.378 | 1164 | 1174 | 1195 | rVV  | 2266335 | 4561322 | 27.64% | 3.321% |
| 48 | 6.478 | 1195 | 1205 | 1206 | rVV8 | 191023  | 265957  | 1.61%  | 0.194% |
| 49 | 6.484 | 1206 | 1207 | 1219 | rVB4 | 193566  | 180726  | 1.10%  | 0.132% |
| 50 | 6.600 | 1231 | 1243 | 1249 | rBV7 | 164831  | 350625  | 2.12%  | 0.255% |

|    |       |      |      |      |      |         |         |        |        |
|----|-------|------|------|------|------|---------|---------|--------|--------|
| 51 | 6.661 | 1249 | 1262 | 1278 | rVV  | 3492378 | 7214828 | 43.72% | 5.252% |
| 52 | 6.735 | 1278 | 1285 | 1299 | rVV3 | 408005  | 905233  | 5.49%  | 0.659% |
| 53 | 6.809 | 1301 | 1308 | 1323 | rVB3 | 87329   | 203894  | 1.24%  | 0.148% |
| 54 | 6.957 | 1343 | 1354 | 1380 | rVB3 | 506403  | 1724857 | 10.45% | 1.256% |
| 55 | 7.208 | 1413 | 1432 | 1433 | rBV3 | 151293  | 291693  | 1.77%  | 0.212% |

|    |       |      |      |      |      |        |         |        |        |
|----|-------|------|------|------|------|--------|---------|--------|--------|
| 56 | 7.282 | 1441 | 1455 | 1471 | rBV3 | 927380 | 2023305 | 12.26% | 1.473% |
| 57 | 7.356 | 1477 | 1478 | 1497 | rVB6 | 98931  | 173673  | 1.05%  | 0.126% |
| 58 | 7.520 | 1517 | 1529 | 1537 | rBV9 | 94603  | 201572  | 1.22%  | 0.147% |
| 59 | 7.584 | 1537 | 1549 | 1564 | rVV2 | 708262 | 1720769 | 10.43% | 1.253% |
| 60 | 7.635 | 1564 | 1565 | 1579 | rVV6 | 147253 | 244199  | 1.48%  | 0.178% |

|    |       |      |      |      |      |        |        |       |        |
|----|-------|------|------|------|------|--------|--------|-------|--------|
| 61 | 7.706 | 1579 | 1587 | 1597 | rVB5 | 142977 | 263041 | 1.59% | 0.191% |
| 62 | 7.947 | 1645 | 1662 | 1680 | rVB8 | 149341 | 410811 | 2.49% | 0.299% |
| 63 | 8.066 | 1687 | 1699 | 1710 | rBV8 | 102989 | 224389 | 1.36% | 0.163% |
| 64 | 8.253 | 1748 | 1757 | 1771 | rVB7 | 192972 | 431286 | 2.61% | 0.314% |
| 65 | 9.073 | 1997 | 2012 | 2020 | rBV7 | 71723  | 177730 | 1.08% | 0.129% |

|    |       |      |      |      |      |         |         |        |        |
|----|-------|------|------|------|------|---------|---------|--------|--------|
| 66 | 9.224 | 2042 | 2059 | 2074 | rBV2 | 1635863 | 3453389 | 20.93% | 2.514% |
| 67 | 9.481 | 2124 | 2139 | 2140 | rBV4 | 171380  | 237371  | 1.44%  | 0.173% |
| 68 | 9.539 | 2150 | 2157 | 2174 | rVB4 | 119537  | 330783  | 2.00%  | 0.241% |
| 69 | 9.722 | 2198 | 2214 | 2228 | rBV4 | 125883  | 365861  | 2.22%  | 0.266% |
| 70 | 9.841 | 2228 | 2251 | 2279 | rVV3 | 652776  | 1839183 | 11.15% | 1.339% |

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 71 | 10.147 | 2334 | 2346 | 2361 | rBV5 | 415571  | 877061  | 5.32%  | 0.638% |
| 72 | 10.494 | 2436 | 2454 | 2473 | rVB4 | 490967  | 1162086 | 7.04%  | 0.846% |
| 73 | 11.118 | 2637 | 2648 | 2662 | rBV3 | 130783  | 306629  | 1.86%  | 0.223% |
| 74 | 11.468 | 2730 | 2757 | 2779 | rBV2 | 3073384 | 7457639 | 45.19% | 5.429% |
| 75 | 12.092 | 2933 | 2951 | 2964 | rBV3 | 199550  | 543757  | 3.30%  | 0.396% |

|    |        |      |      |      |      |        |        |       |        |
|----|--------|------|------|------|------|--------|--------|-------|--------|
| 76 | 12.346 | 3011 | 3030 | 3054 | rVB3 | 249343 | 947647 | 5.74% | 0.690% |
|----|--------|------|------|------|------|--------|--------|-------|--------|

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 MSVOA\_L  
 ClientSampleId :  
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Integration Parameters: RTEINT.P

Integrator: RTE

Smoothing : ON

Filtering: 5

Sampling : 3

Min Area: 3 % of largest Peak

Start Thrs: 0.001

Max Peaks: 100

Stop Thrs : 0

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 0

Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M

Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

|    |        |      |      |      |       |         |         |        |        |
|----|--------|------|------|------|-------|---------|---------|--------|--------|
| 77 | 12.484 | 3057 | 3073 | 3074 | rBV3  | 102216  | 173535  | 1.05%  | 0.126% |
| 78 | 12.709 | 3132 | 3143 | 3159 | rVB4  | 109724  | 281282  | 1.70%  | 0.205% |
| 79 | 12.944 | 3208 | 3216 | 3227 | rVB7  | 105917  | 240615  | 1.46%  | 0.175% |
| 80 | 13.060 | 3238 | 3252 | 3266 | rBV2  | 134918  | 302867  | 1.84%  | 0.220% |
| 81 | 13.188 | 3279 | 3292 | 3307 | rVB7  | 151415  | 335324  | 2.03%  | 0.244% |
| 82 | 13.532 | 3383 | 3399 | 3416 | rBV4  | 434361  | 1079962 | 6.54%  | 0.786% |
| 83 | 13.777 | 3457 | 3475 | 3497 | rBV2  | 2920522 | 7432577 | 45.04% | 5.411% |
| 84 | 13.851 | 3497 | 3498 | 3515 | rVB2  | 135128  | 227864  | 1.38%  | 0.166% |
| 85 | 14.606 | 3720 | 3733 | 3746 | rBV8  | 137775  | 315773  | 1.91%  | 0.230% |
| 86 | 15.127 | 3882 | 3895 | 3905 | rBV5  | 81651   | 195675  | 1.19%  | 0.142% |
| 87 | 15.674 | 4054 | 4065 | 4078 | rBV8  | 109976  | 250069  | 1.52%  | 0.182% |
| 88 | 16.378 | 4283 | 4284 | 4300 | rVB2  | 186721  | 229071  | 1.39%  | 0.167% |
| 89 | 16.481 | 4300 | 4316 | 4330 | rBV3  | 463336  | 1128055 | 6.84%  | 0.821% |
| 90 | 18.297 | 4876 | 4881 | 4894 | rVB10 | 80704   | 173726  | 1.05%  | 0.126% |
| 91 | 19.262 | 5163 | 5181 | 5196 | rBV5  | 372408  | 961290  | 5.83%  | 0.700% |
| 92 | 20.789 | 5639 | 5656 | 5672 | rBV   | 280894  | 827959  | 5.02%  | 0.603% |
| 93 | 22.008 | 6022 | 6035 | 6053 | rBV5  | 157436  | 470539  | 2.85%  | 0.343% |
| 94 | 24.030 | 6651 | 6664 | 6665 | rBV10 | 149852  | 211948  | 1.28%  | 0.154% |
| 95 | 24.529 | 6807 | 6819 | 6832 | rBV5  | 261367  | 566723  | 3.43%  | 0.413% |
| 96 | 24.908 | 6933 | 6937 | 6949 | rVB5  | 104007  | 182119  | 1.10%  | 0.133% |

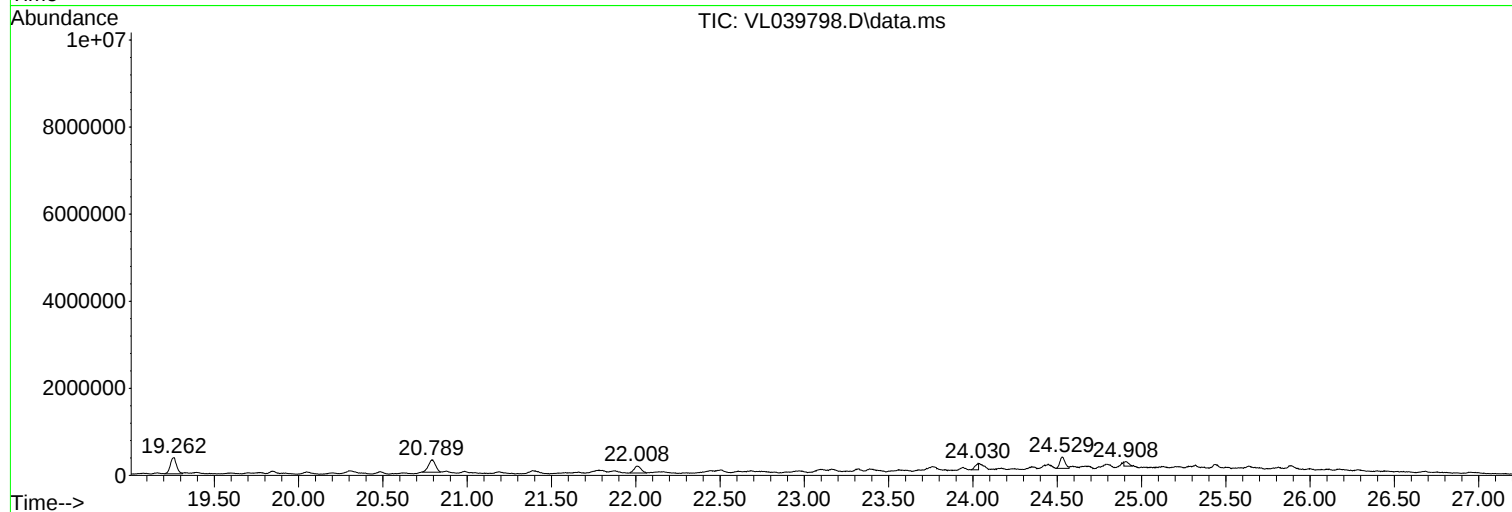
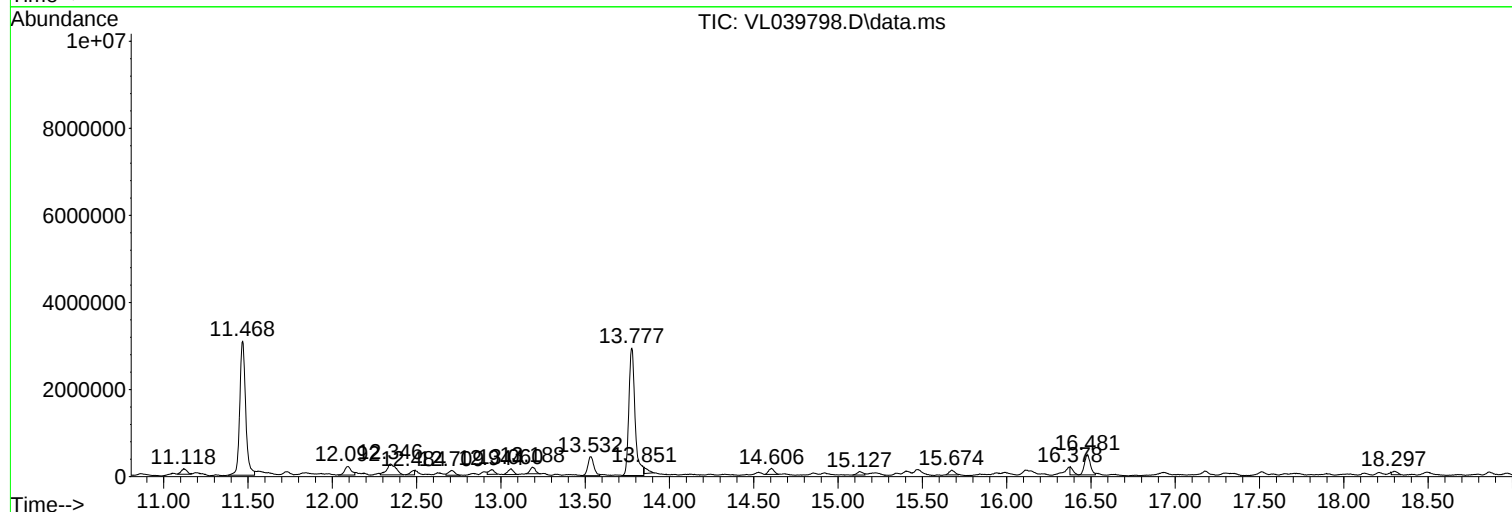
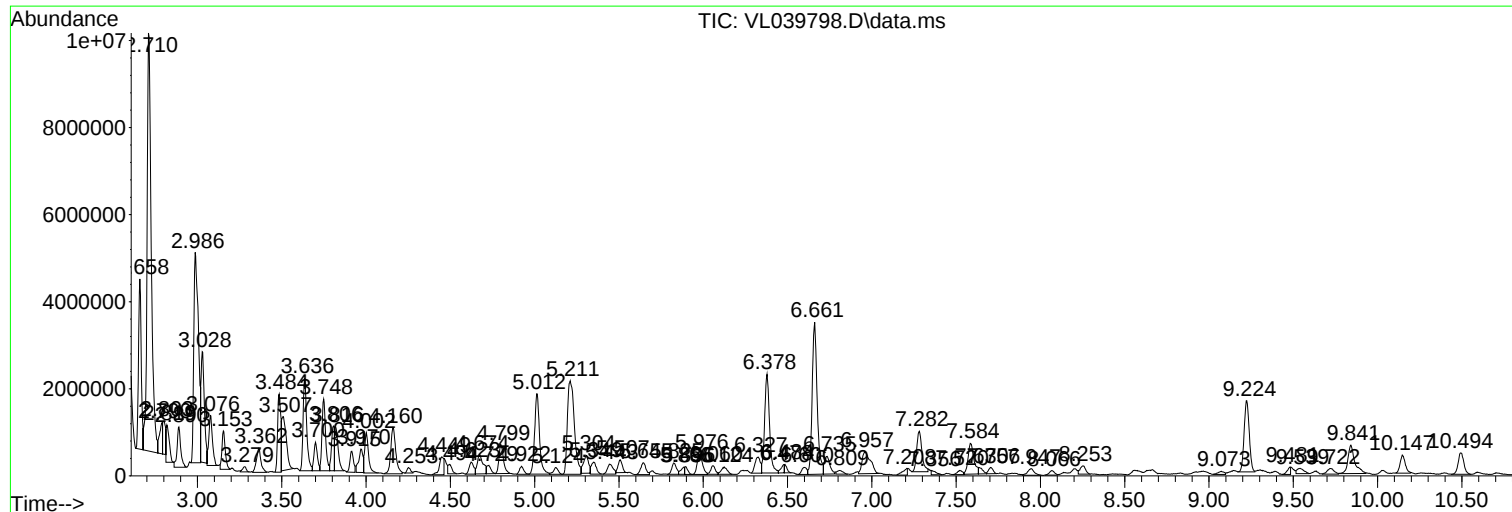
Sum of corrected areas: 137366592

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P



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Misc : 400mL/MSVOA\_L  
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ClientSampleId :  
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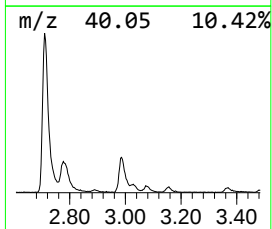
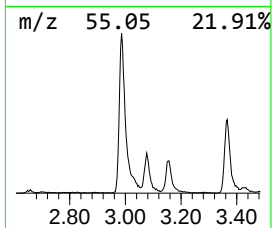
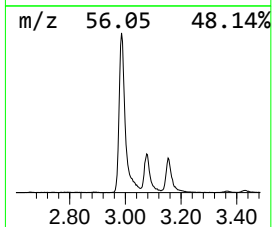
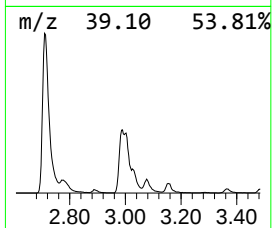
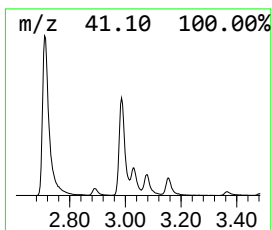
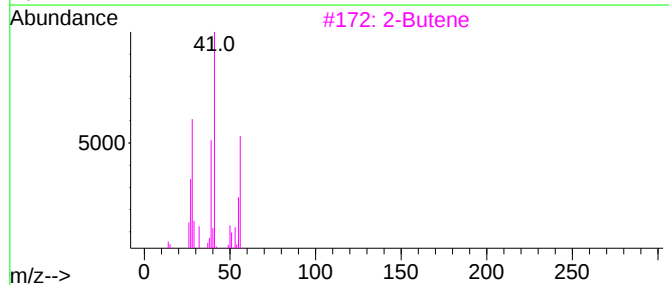
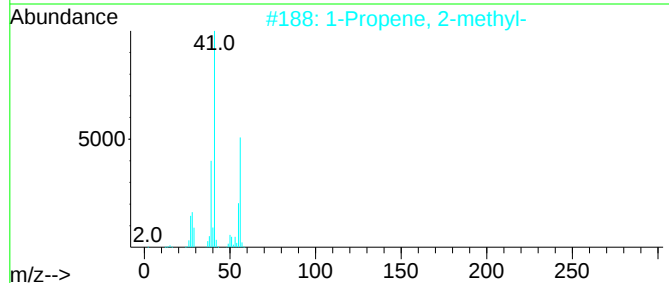
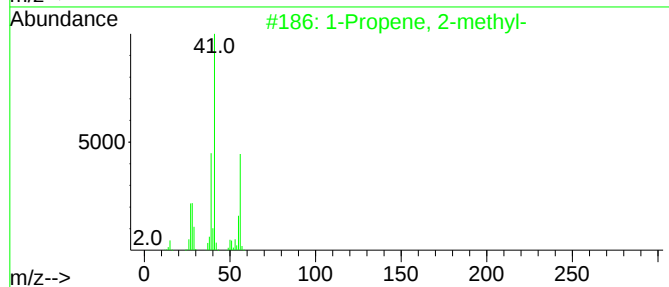
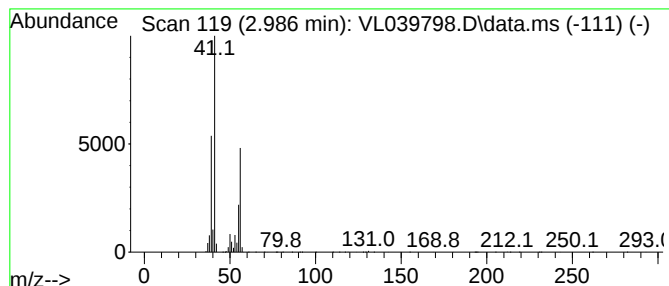
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 1-Propene, 2-methyl- Concentration Rank 1

| R.T.  | EstConc    | Area    | Relative to ISTD   | R.T.  |
|-------|------------|---------|--------------------|-------|
| 2.986 | 15.24 ppbv | 9350470 | Bromochloromethane | 5.205 |

| Hit# | of 5 | Tentative ID         | MW | MolForm | CAS#        | Qual |
|------|------|----------------------|----|---------|-------------|------|
| 1    |      | 1-Propene, 2-methyl- | 56 | C4H8    | 000115-11-7 | 91   |
| 2    |      | 1-Propene, 2-methyl- | 56 | C4H8    | 000115-11-7 | 90   |
| 3    |      | 2-Butene             | 56 | C4H8    | 000107-01-7 | 83   |
| 4    |      | 1-Propene, 2-methyl- | 56 | C4H8    | 000115-11-7 | 80   |
| 5    |      | 2-Butene             | 56 | C4H8    | 000107-01-7 | 80   |



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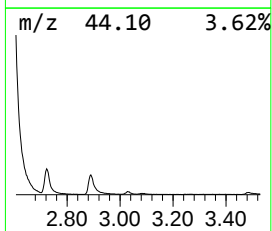
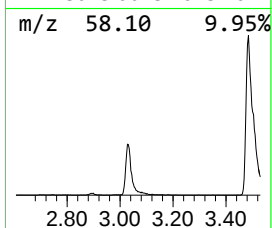
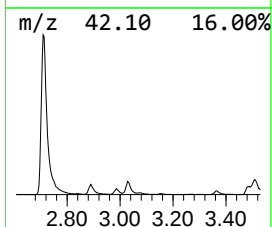
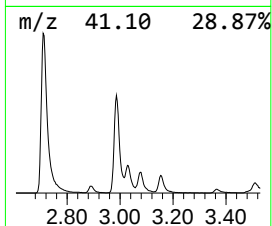
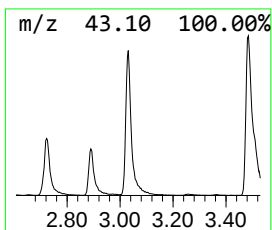
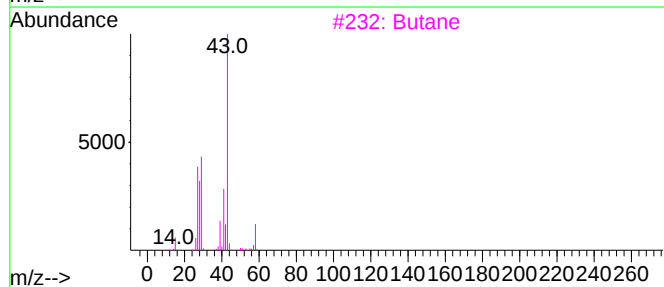
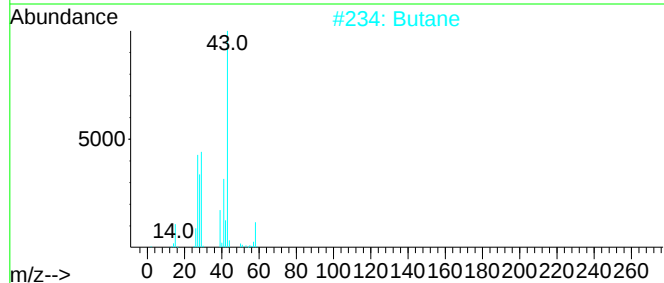
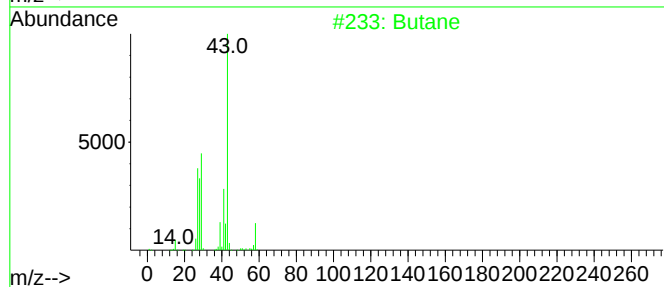
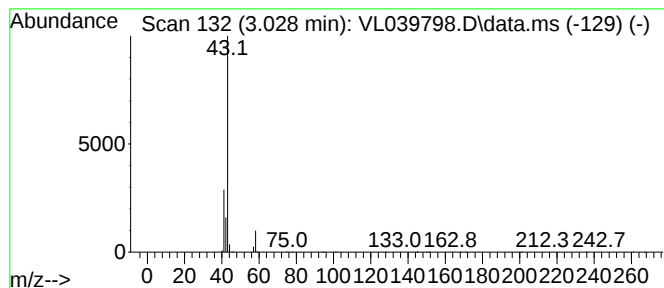
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Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 3 Butane Concentration Rank 4

| R.T.  | EstConc   | Area    | Relative to ISTD   | R.T.  |
|-------|-----------|---------|--------------------|-------|
| 3.028 | 5.49 ppbv | 3366670 | Bromochloromethane | 5.205 |

| Hit# | of                 | 5 | Tentative ID | MW | MolForm | CAS#        | Qual |
|------|--------------------|---|--------------|----|---------|-------------|------|
| 1    | Butane             |   |              | 58 | C4H10   | 000106-97-8 | 56   |
| 2    | Butane             |   |              | 58 | C4H10   | 000106-97-8 | 56   |
| 3    | Butane             |   |              | 58 | C4H10   | 000106-97-8 | 56   |
| 4    | Diazene, dimethyl- |   |              | 58 | C2H6N2  | 000503-28-6 | 4    |
| 5    | Hydrogen azide     |   |              | 43 | HN3     | 007782-79-8 | 4    |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

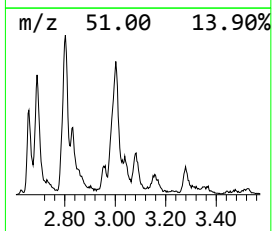
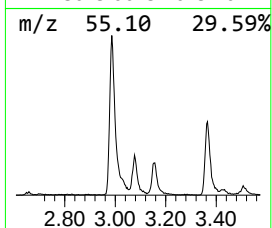
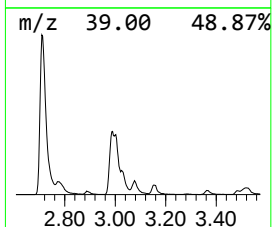
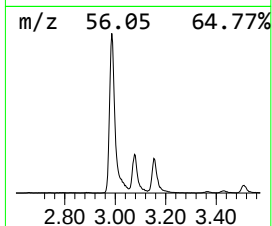
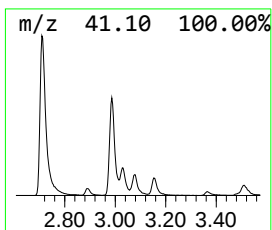
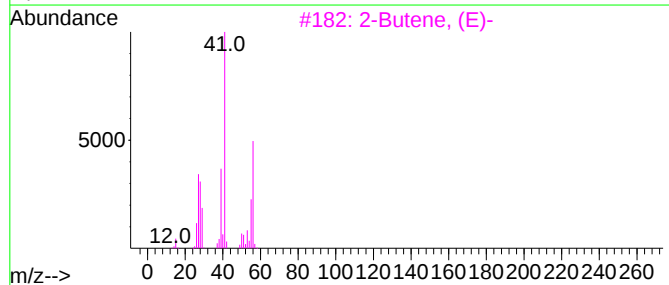
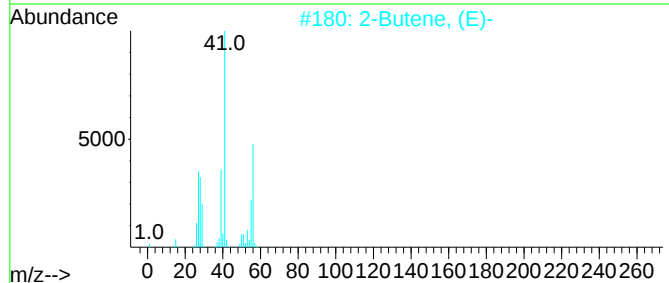
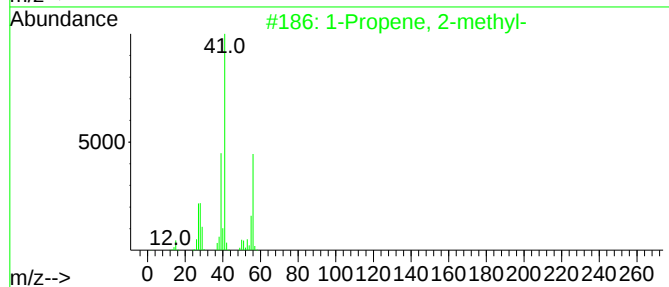
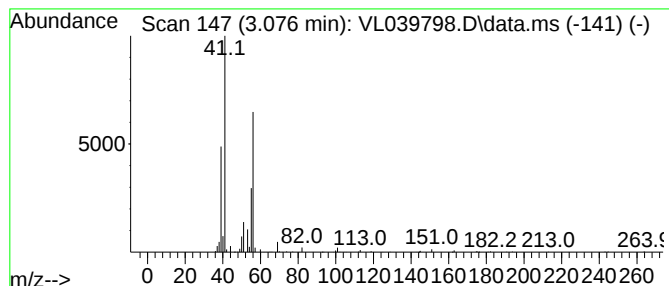
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TIC Integration Parameters: LSCINT.P

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Peak Number 4 1-Butene Concentration Rank 6

| R.T.  | EstConc   | Area    | Relative to ISTD   | R.T.  |
|-------|-----------|---------|--------------------|-------|
| 3.076 | 2.82 ppbv | 1730520 | Bromochloromethane | 5.205 |

| Hit# | of                   | 5 | Tentative ID | MW | MolForm | CAS#        | Qual |
|------|----------------------|---|--------------|----|---------|-------------|------|
| 1    | 1-Propene, 2-methyl- |   |              | 56 | C4H8    | 000115-11-7 | 80   |
| 2    | 2-Butene, (E)-       |   |              | 56 | C4H8    | 000624-64-6 | 64   |
| 3    | 2-Butene, (E)-       |   |              | 56 | C4H8    | 000624-64-6 | 64   |
| 4    | 1-Butene             |   |              | 56 | C4H8    | 000106-98-9 | 43   |
| 5    | 2-Butene, (Z)-       |   |              | 56 | C4H8    | 000590-18-1 | 43   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
H

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

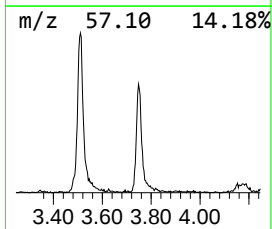
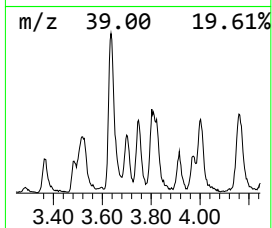
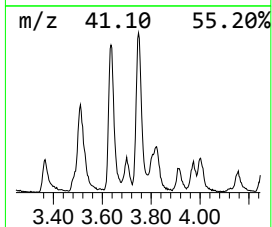
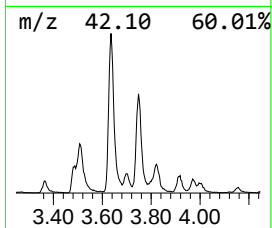
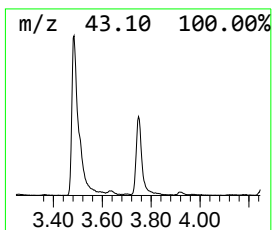
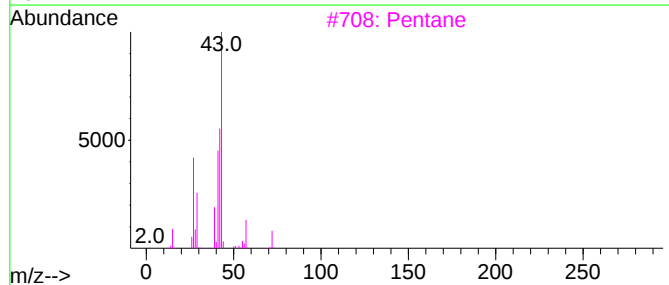
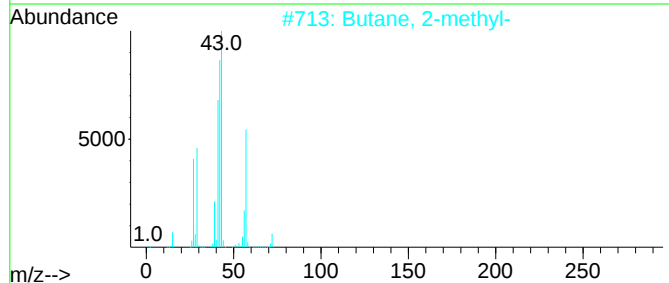
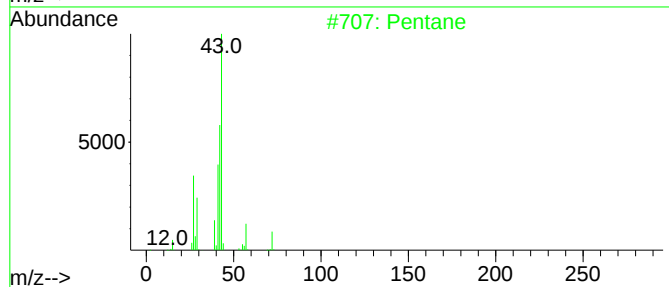
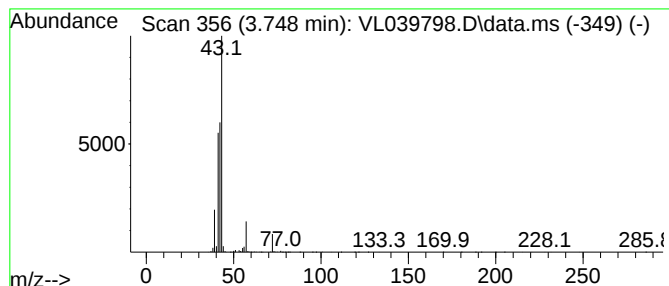
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TIC Integration Parameters: LSCINT.P

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Peak Number 5 Pentane Concentration Rank 5

| R.T.  | EstConc   | Area    | Relative to ISTD   | R.T.  |
|-------|-----------|---------|--------------------|-------|
| 3.748 | 4.01 ppbv | 2458030 | Bromochloromethane | 5.205 |

| Hit# | of | 5 | Tentative ID      | MW | MolForm | CAS#        | Qual |
|------|----|---|-------------------|----|---------|-------------|------|
| 1    |    |   | Pentane           | 72 | C5H12   | 000109-66-0 | 78   |
| 2    |    |   | Butane, 2-methyl- | 72 | C5H12   | 000078-78-4 | 64   |
| 3    |    |   | Pentane           | 72 | C5H12   | 000109-66-0 | 56   |
| 4    |    |   | Butane, 2-methyl- | 72 | C5H12   | 000078-78-4 | 53   |
| 5    |    |   | Pentane           | 72 | C5H12   | 000109-66-0 | 38   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

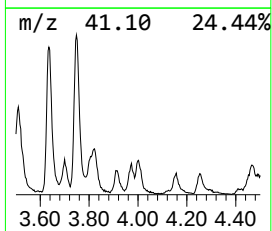
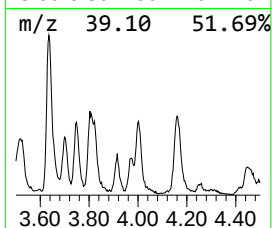
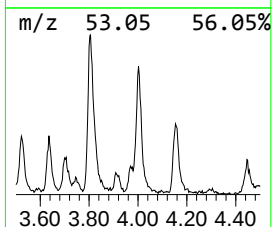
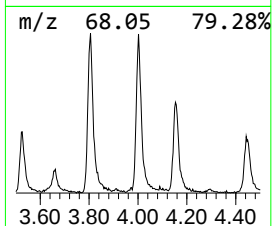
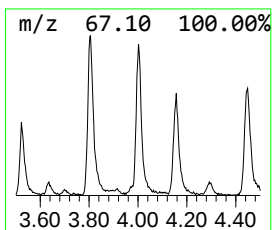
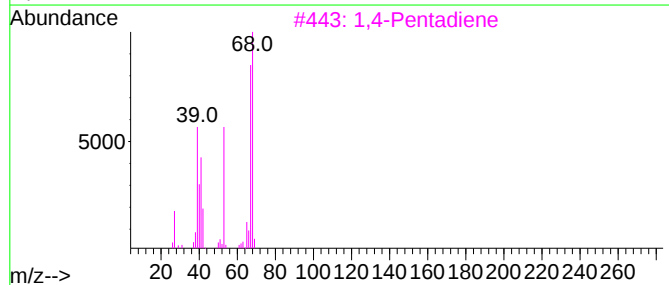
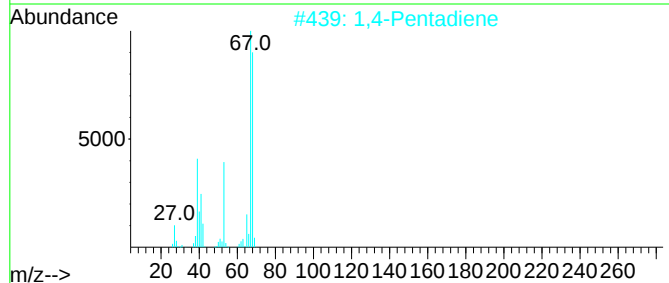
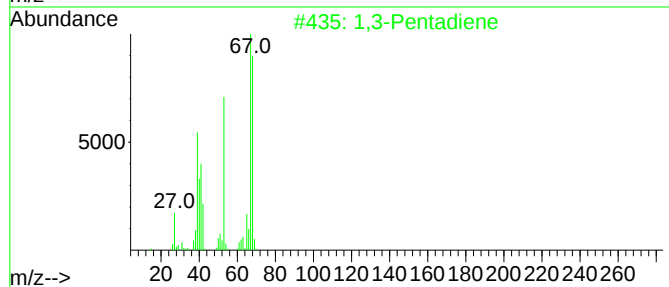
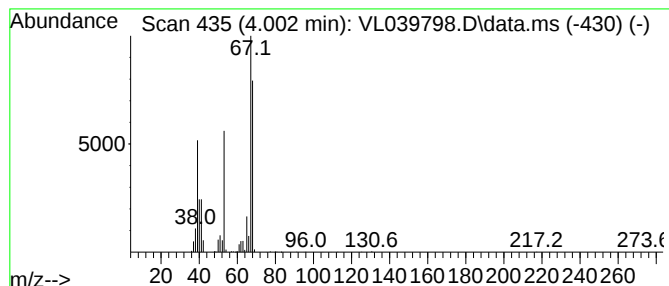
Instrument :  
MSVOA\_L  
ClientSampleId :  
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 1,3-Pentadiene Concentration Rank 10

| R.T.      | EstConc              | Area    | Relative to ISTD   | R.T.        |      |
|-----------|----------------------|---------|--------------------|-------------|------|
| 4.002     | 2.29 ppbv            | 1402700 | Bromochloromethane | 5.205       |      |
| Hit# of 5 | Tentative ID         | MW      | MolForm            | CAS#        | Qual |
| 1         | 1,3-Pentadiene       | 68      | C5H8               | 000504-60-9 | 94   |
| 2         | 1,4-Pentadiene       | 68      | C5H8               | 000591-93-5 | 91   |
| 3         | 1,4-Pentadiene       | 68      | C5H8               | 000591-93-5 | 91   |
| 4         | 1,4-Pentadiene       | 68      | C5H8               | 000591-93-5 | 91   |
| 5         | 1,3-Pentadiene, (E)- | 68      | C5H8               | 002004-70-8 | 91   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
H

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

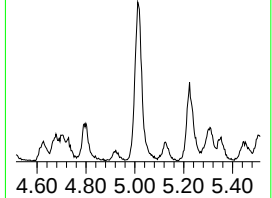
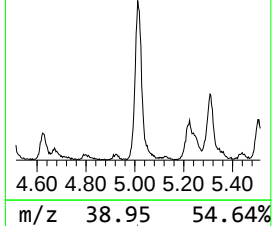
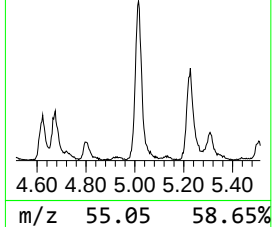
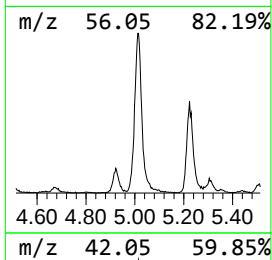
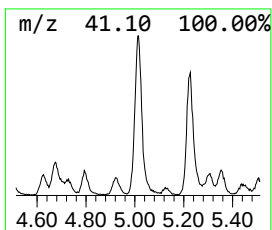
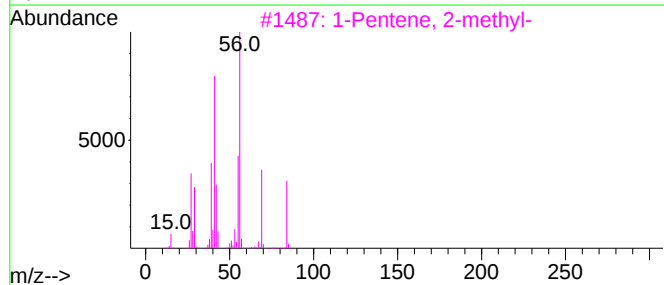
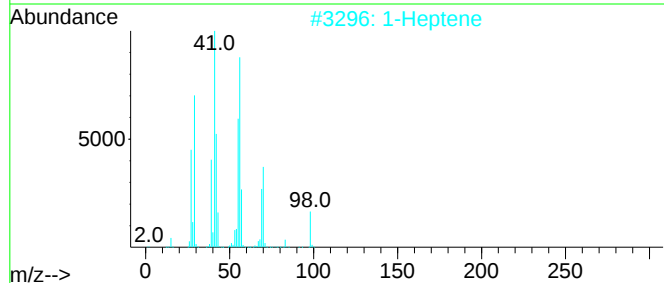
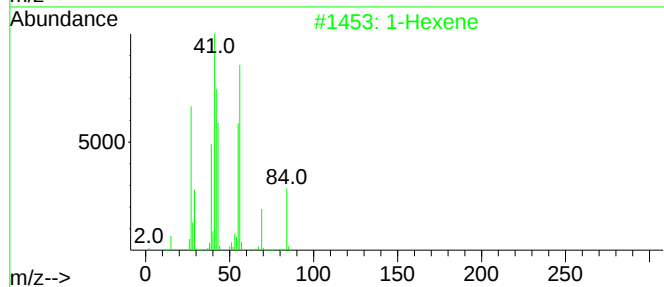
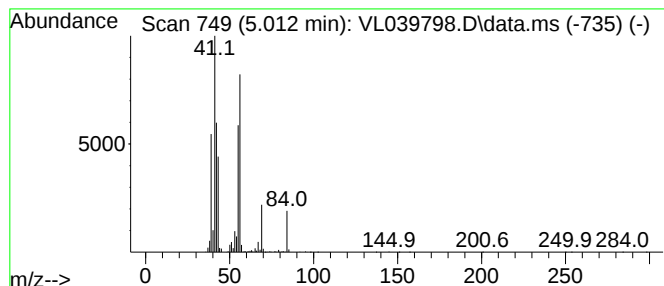
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Peak Number 7 1-Hexene Concentration Rank 3

| R.T.  | EstConc   | Area    | Relative to ISTD   | R.T.  |
|-------|-----------|---------|--------------------|-------|
| 5.012 | 6.04 ppbv | 3706520 | Bromochloromethane | 5.205 |

| Hit# | of 5                 | Tentative ID | MW | MolForm | CAS#        | Qual |
|------|----------------------|--------------|----|---------|-------------|------|
| 1    | 1-Hexene             |              | 84 | C6H12   | 000592-41-6 | 87   |
| 2    | 1-Heptene            |              | 98 | C7H14   | 000592-76-7 | 53   |
| 3    | 1-Pentene, 2-methyl- |              | 84 | C6H12   | 000763-29-1 | 49   |
| 4    | Cyclohexane          |              | 84 | C6H12   | 000110-82-7 | 49   |
| 5    | 1-Hexene, 5-methyl-  |              | 98 | C7H14   | 003524-73-0 | 47   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
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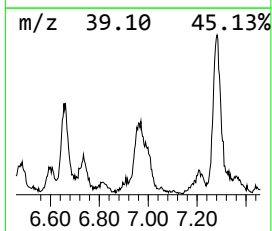
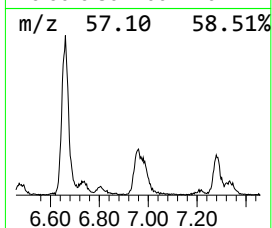
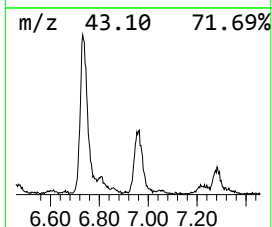
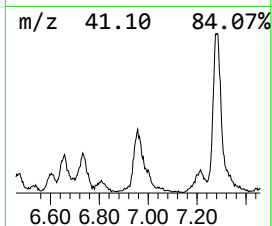
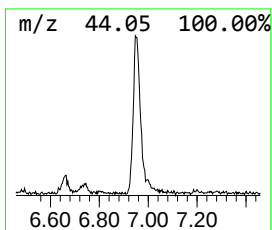
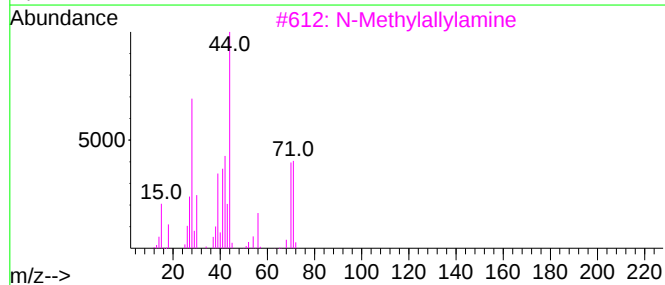
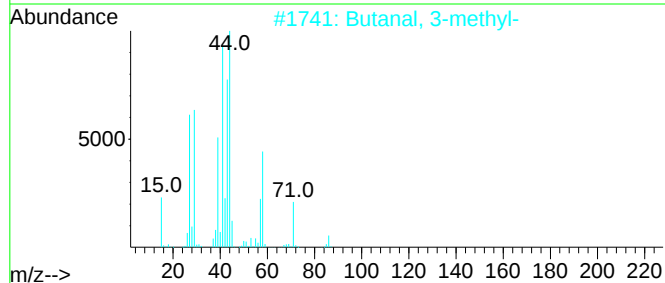
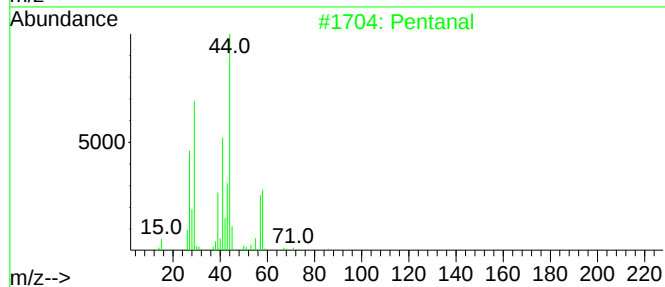
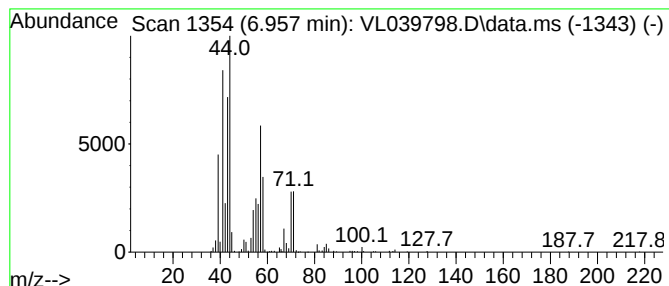
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 unknown6.957 Concentration Rank 9

| R.T.  | EstConc   | Area    | Relative to ISTD    | R.T.  |
|-------|-----------|---------|---------------------|-------|
| 6.957 | 2.39 ppbv | 1724860 | 1,4-Difluorobenzene | 6.661 |

| Hit# | of 5 | Tentative ID                  | MW | MolForm | CAS#        | Qual |
|------|------|-------------------------------|----|---------|-------------|------|
| 1    |      | Pentanal                      | 86 | C5H10O  | 000110-62-3 | 35   |
| 2    |      | Butanal, 3-methyl-            | 86 | C5H10O  | 000590-86-3 | 33   |
| 3    |      | N-Methylallylamine            | 71 | C4H9N   | 000627-37-2 | 27   |
| 4    |      | 1,3-Propanediamine, N-methyl- | 88 | C4H12N2 | 006291-84-5 | 25   |
| 5    |      | Butanal, 3-methyl-            | 86 | C5H10O  | 000590-86-3 | 17   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

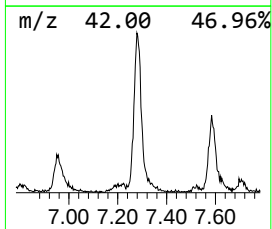
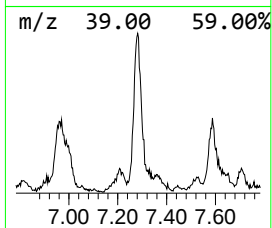
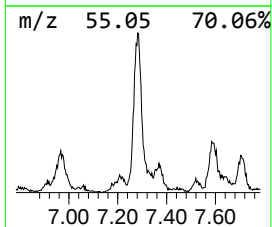
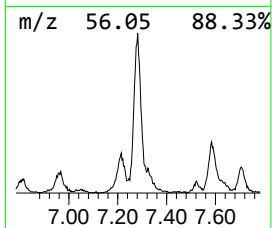
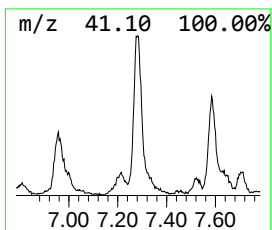
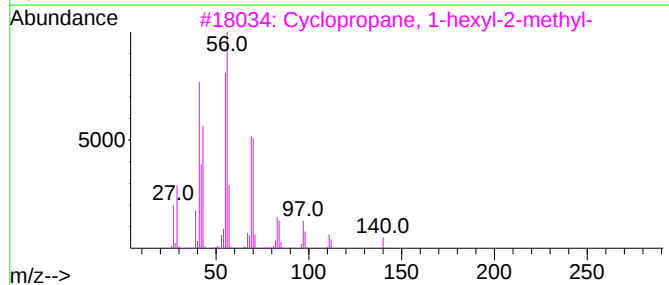
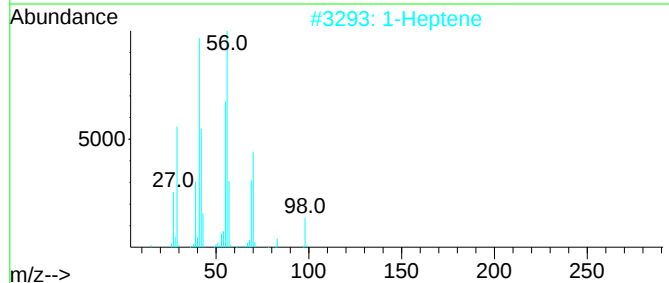
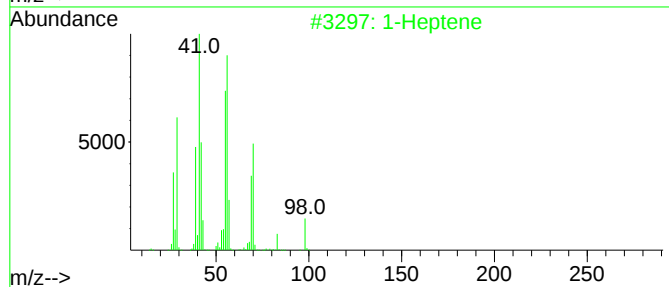
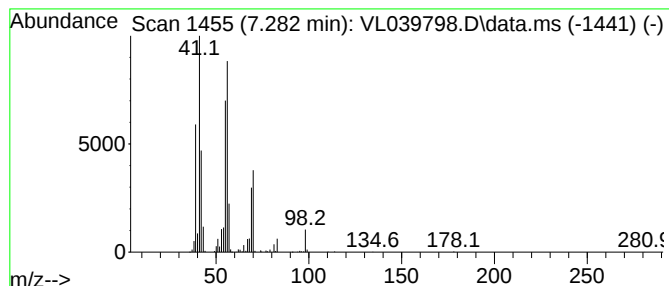
Instrument :  
MSVOA\_L  
ClientSampleId :  
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 1-Heptene Concentration Rank 7

| R.T.      | EstConc                         | Area    | Relative to ISTD    | R.T.        |      |
|-----------|---------------------------------|---------|---------------------|-------------|------|
| 7.282     | 2.80 ppbv                       | 2023310 | 1,4-Difluorobenzene | 6.661       |      |
| Hit# of 5 | Tentative ID                    | MW      | MolForm             | CAS#        | Qual |
| 1         | 1-Heptene                       | 98      | C7H14               | 000592-76-7 | 87   |
| 2         | 1-Heptene                       | 98      | C7H14               | 000592-76-7 | 81   |
| 3         | Cyclopropane, 1-hexyl-2-methyl- | 140     | C10H20              | 062238-09-9 | 59   |
| 4         | 1-Heptene                       | 98      | C7H14               | 000592-76-7 | 59   |
| 5         | Formic acid, heptyl ester       | 144     | C8H16O2             | 000112-23-2 | 50   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
H

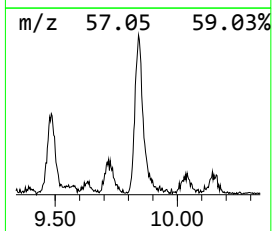
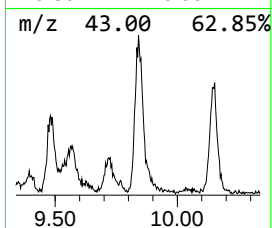
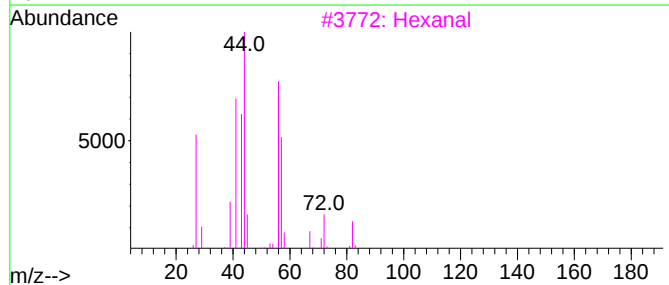
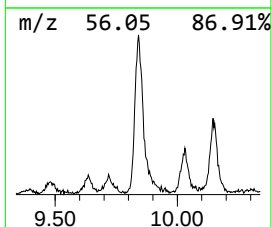
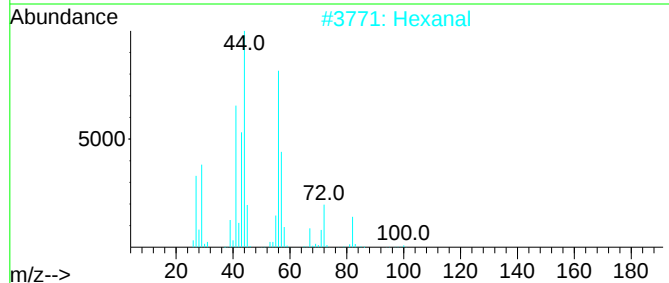
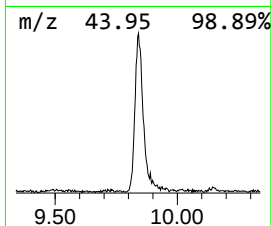
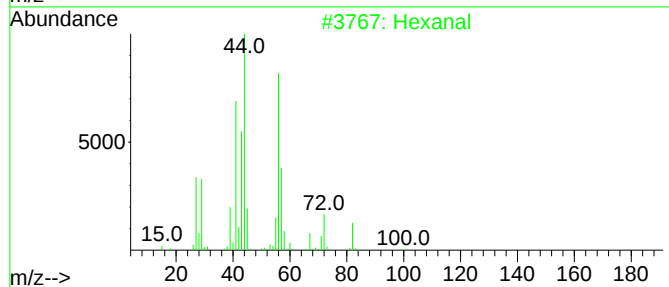
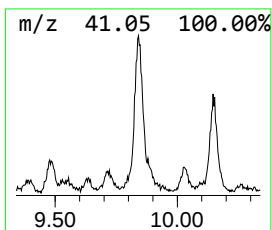
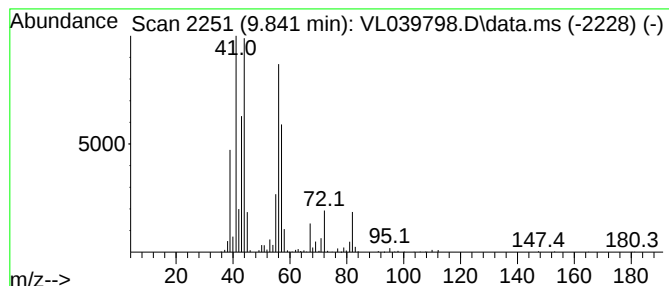
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 Hexanal Concentration Rank 8

| R.T.  | EstConc   | Area    | Relative to ISTD | R.T.   |
|-------|-----------|---------|------------------|--------|
| 9.841 | 2.47 ppbv | 1839180 | Chlorobenzene-d5 | 11.468 |

| Hit# | of             | 5 | Tentative ID | MW  | MolForm | CAS#        | Qual |
|------|----------------|---|--------------|-----|---------|-------------|------|
| 1    | Hexanal        |   |              | 100 | C6H12O  | 000066-25-1 | 72   |
| 2    | Hexanal        |   |              | 100 | C6H12O  | 000066-25-1 | 72   |
| 3    | Hexanal        |   |              | 100 | C6H12O  | 000066-25-1 | 64   |
| 4    | Hexanal        |   |              | 100 | C6H12O  | 000066-25-1 | 50   |
| 5    | Glutaraldehyde |   |              | 100 | C5H8O2  | 000111-30-8 | 35   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102522\  
Data File : VL039798.D  
Acq On : 25 Oct 2022 21:57  
Operator : SY/AP  
Sample : N5227-08  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
H

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL102422AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name   | RT    | EstConc | Units | Response | --Internal Standard-- |        |         |      |
|--------------------|-------|---------|-------|----------|-----------------------|--------|---------|------|
|                    |       |         |       |          | #                     | RT     | Resp    | Conc |
| 1-Propene, 2-me... | 2.986 | 15.2    | ppbv  | 9350470  | 1                     | 5.205  | 6136340 | 10.0 |
| Butane             | 3.028 | 5.5     | ppbv  | 3366670  | 1                     | 5.205  | 6136340 | 10.0 |
| 1-Butene           | 3.076 | 2.8     | ppbv  | 1730520  | 1                     | 5.205  | 6136340 | 10.0 |
| Pentane            | 3.748 | 4.0     | ppbv  | 2458030  | 1                     | 5.205  | 6136340 | 10.0 |
| 1,3-Pentadiene     | 4.002 | 2.3     | ppbv  | 1402700  | 1                     | 5.205  | 6136340 | 10.0 |
| 1-Hexene           | 5.012 | 6.0     | ppbv  | 3706520  | 1                     | 5.205  | 6136340 | 10.0 |
| unknown6.957       | 6.957 | 2.4     | ppbv  | 1724860  | 2                     | 6.661  | 7214830 | 10.0 |
| 1-Heptene          | 7.282 | 2.8     | ppbv  | 2023310  | 2                     | 6.661  | 7214830 | 10.0 |
| Hexanal            | 9.841 | 2.5     | ppbv  | 1839180  | 3                     | 11.468 | 7457640 | 10.0 |