LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Title : VOC Analysis

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.177 | 23 | 27 | 33 | rBV3 | 11210 | 12570 | 0.36% | 0.040% |
| 2 | 1.392 | 87 | 94 | 106 | rBV | 307723 | 320017 | 9.16% | 1.029% |
| 3 | 1.466 | 111 | 117 | 125 | rVV | 66075 | 69546 | 1.99% | 0.224% |
| 4 | 1.672 | 173 | 181 | 193 | rVB | 252048 | 318147 | 9.10% | 1.023% |
| 5 | 2.257 | 353 | 363 | 372 | rBV | 449676 | 688455 | 19.70% | 2.213% |
| 6 | 2.306 | 372 | 378 | 398 | rVB | 132683 | 214860 | 6.15% | 0.691% |
| 7 | 2.524 | 444 | 446 | 448 | rBV2 | 1301 | 577 | 0.02% | 0.002% |
| 8 | 2.569 | 458 | 460 | 462 | rBV2 | 1116 | 653 | 0.02% | 0.002% |
| 9 | 2.605 | 465 | 471 | 479 | rVV | 4858 | 7516 | 0.22% | 0.024% |
| 10 | 2.685 | 484 | 496 | 512 | rBV | 202598 | 369362 | 10.57% | 1.187% |
| 11 | 2.949 | 574 | 578 | 581 | rBV4 | 1210 | 927 | 0.03% | 0.003% |
| 12 | 2.974 | 584 | 586 | 589 | rVB3 | 988 | 617 | 0.02% | 0.002% |
| 13 | 3.103 | 623 | 626 | 629 | rVB4 | 1335 | 695 | 0.02% | 0.002% |
| 14 | 3.167 | 629 | 646 | 660 | rBV2 | 23192 | 53702 | 1.54% | 0.173% |
| 15 | 3.289 | 678 | 684 | 688 | rVB7 | 1463 | 1423 | 0.04% | 0.005% |
| 16 | 3.392 | 710 | 716 | 718 | rBV7 | 1499 | 1312 | 0.04% | 0.004% |
| 17 | 3.531 | 756 | 759 | 762 | rBV5 | 1650 | 1470 | 0.04% | 0.005% |
| 18 | 3.553 | 762 | 766 | 767 | rBV2 | 1722 | 1326 | 0.04% | 0.004% |
| 19 | 3.621 | 785 | 787 | 789 | rBV3 | 1225 | 765 | 0.02% | 0.002% |
| 20 | 3.794 | 837 | 841 | 843 | rBV4 | 804 | 569 | 0.02% | 0.002% |
| 21 | 3.842 | 852 | 856 | 858 | rBV4 | 1129 | 972 | 0.03% | 0.003% |
| 22 | 3.897 | 870 | 873 | 878 | rBV7 | 585 | 553 | 0.02% | 0.002% |
| 23 | 3.939 | 883 | 886 | 887 | rBV | 1262 | 642 | 0.02% | 0.002% |
| 24 | 3.981 | 892 | 899 | 906 | rVV8 | 2360 | 3609 | 0.10% | 0.012% |
| 25 | 4.151 | 939 | 952 | 972 | rBV | 242379 | 638251 | 18.26% | 2.052% |
| 26 | 4.521 | 1065 | 1067 | 1071 | rVB2 | 1580 | 989 | 0.03% | 0.003% |
| 27 | 4.543 | 1071 | 1074 | 1075 | rBV2 | 1312 | 680 | 0.02% | 0.002% |
| 28 | 4.624 | 1081 | 1099 | 1120 | rBV | 352228 | 834448 | 23.88% | 2.682% |
| 29 | 4.852 | 1164 | 1170 | 1172 | rBV7 | 1355 | 1628 | 0.05% | 0.005% |
| 30 | 4.865 | 1172 | 1174 | 1178 | rVB4 | 1765 | 1209 | 0.03% | 0.004% |
| 31 | 4.936 | 1192 | 1196 | 1197 | rBV4 | 1181 | 922 | 0.03% | 0.003% |
| 32 | 4.971 | 1200 | 1207 | 1217 | rVB4 | 4306 | 8678 | 0.25% | 0.028% |
| 33 | 5.055 | 1231 | 1233 | 1236 | rBV3 | 1162 | 637 | 0.02% | 0.002% |
| 34 | 5.141 | 1254 | 1260 | 1263 | rVB5 | 1599 | 1493 | 0.04% | 0.005% |

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
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Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Title : VOC Analysis

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 5.164 | 1263 | 1267 | 1269 | rBV4 | 705 | 652 | 0.02% | 0.002% |
| 36 | 5.183 | 1269 | 1273 | 1279 | rBV5 | 1421 | 1455 | 0.04% | 0.005% |
| 37 | 5.315 | 1289 | 1314 | 1350 | rBV2 | 744306 | 2251294 | 64.42% | 7.236% |
| 38 | 5.530 | 1369 | 1381 | 1407 | rVB2 | 89304 | 194328 | 5.56% | 0.625% |
| 39 | 5.762 | 1447 | 1453 | 1456 | rBV6 | 1868 | 2373 | 0.07% | 0.008% |
| 40 | 5.862 | 1469 | 1484 | 1504 | rBV | 609577 | 1325181 | 37.92% | 4.259% |
| 41 | 6.309 | 1610 | 1623 | 1641 | rBV | 510696 | 1012219 | 28.97% | 3.254% |
| 42 | 6.521 | 1681 | 1689 | 1693 | rBV4 | 8975 | 15049 | 0.43% | 0.048% |
| 43 | 6.685 | 1727 | 1740 | 1774 | rBV | 1931374 | 3494506 | 100.00% | 11.232% |
| 44 | 7.206 | 1890 | 1902 | 1923 | rBV | 288881 | 523121 | 14.97% | 1.681% |
| 45 | 7.399 | 1952 | 1962 | 1974 | rBV | 230590 | 395354 | 11.31% | 1.271% |
| 46 | 7.543 | 1995 | 2007 | 2025 | rBV | 1027896 | 1842693 | 52.73% | 5.923% |
| 47 | 7.826 | 2085 | 2095 | 2117 | rBV2 | 252899 | 460958 | 13.19% | 1.482% |
| 48 | 8.135 | 2179 | 2191 | 2206 | rBV | 412533 | 684967 | 19.60% | 2.202% |
| 49 | 8.215 | 2209 | 2216 | 2218 | rBV2 | 20735 | 26234 | 0.75% | 0.084% |
| 50 | 8.289 | 2229 | 2239 | 2261 | rVV | 927532 | 1588895 | 45.47% | 5.107% |
| 51 | 8.395 | 2262 | 2272 | 2298 | rVV | 703601 | 1135625 | 32.50% | 3.650% |
| 52 | 8.511 | 2302 | 2308 | 2324 | rVB3 | 32554 | 57402 | 1.64% | 0.185% |
| 53 | 8.881 | 2412 | 2423 | 2450 | rBV | 850066 | 1356188 | 38.81% | 4.359% |
| 54 | 9.067 | 2464 | 2481 | 2507 | rBV | 861259 | 1553352 | 44.45% | 4.993% |
| 55 | 9.228 | 2522 | 2531 | 2545 | rBV | 65303 | 109125 | 3.12% | 0.351% |
| 56 | 9.353 | 2560 | 2570 | 2585 | rVB2 | 133031 | 228886 | 6.55% | 0.736% |
| 57 | 9.550 | 2627 | 2631 | 2634 | rBV6 | 1847 | 1507 | 0.04% | 0.005% |
| 58 | 9.588 | 2634 | 2643 | 2652 | rBV2 | 20795 | 34115 | 0.98% | 0.110% |
| 59 | 9.755 | 2683 | 2695 | 2717 | rVB4 | 246829 | 470129 | 13.45% | 1.511% |
| 60 | 9.884 | 2732 | 2735 | 2736 | rBV3 | 1827 | 1127 | 0.03% | 0.004% |
| 61 | 9.923 | 2739 | 2747 | 2759 | rVV7 | 6971 | 15214 | 0.44% | 0.049% |
| 62 | 10.019 | 2772 | 2777 | 2781 | rBV7 | 3935 | 5007 | 0.14% | 0.016% |
| 63 | 10.106 | 2802 | 2804 | 2806 | rBV3 | 1740 | 861 | 0.02% | 0.003% |
| 64 | 10.144 | 2806 | 2816 | 2832 | rVV | 67526 | 110367 | 3.16% | 0.355% |
| 65 | 10.408 | 2886 | 2898 | 2917 | rBV | 704022 | 1138057 | 32.57% | 3.658% |
| 66 | 10.566 | 2934 | 2947 | 2961 | rBV | 88895 | 160630 | 4.60% | 0.516% |
| 67 | 10.659 | 2967 | 2976 | 2978 | rBV5 | 39108 | 46657 | 1.34% | 0.150% |
| 68 | 10.752 | 2997 | 3005 | 3013 | rBV3 | 29919 | 43896 | 1.26% | 0.141% |
| 69 | 10.894 | 3041 | 3049 | 3056 | rBV3 | 11463 | 18304 | 0.52% | 0.059% |
| 70 | 10.948 | 3057 | 3066 | 3086 | rVB | 117618 | 201738 | 5.77% | 0.648% |
| 71 | 11.125 | 3110 | 3121 | 3140 | rVB | 506662 | 769795 | 22.03% | 2.474% |

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
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Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Title : VOC Analysis

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 11.263 | 3160 | 3164 | 3167 | rBV7 | 5919 | 6429 | 0.18% | 0.021% |
| 73 | 11.299 | 3171 | 3175 | 3188 | rVB3 | 22184 | 32871 | 0.94% | 0.106% |
| 74 | 11.460 | 3214 | 3225 | 3243 | rBV | 840304 | 1373930 | 39.32% | 4.416% |
| 75 | 11.546 | 3244 | 3252 | 3269 | rVB | 158954 | 252611 | 7.23% | 0.812% |
| 76 | 11.742 | 3303 | 3313 | 3331 | rBV | 217309 | 383545 | 10.98% | 1.233% |
| 77 | 11.836 | 3331 | 3342 | 3368 | rVB | 987944 | 1718312 | 49.17% | 5.523% |
| 78 | 12.032 | 3398 | 3403 | 3415 | rVB2 | 28206 | 43112 | 1.23% | 0.139% |
| 79 | 12.125 | 3423 | 3432 | 3436 | rBV | 55047 | 82960 | 2.37% | 0.267% |
| 80 | 12.228 | 3456 | 3464 | 3472 | rBV | 100210 | 153384 | 4.39% | 0.493% |
| 81 | 12.331 | 3488 | 3496 | 3521 | rVB3 | 65829 | 147003 | 4.21% | 0.473% |
| 82 | 12.527 | 3549 | 3557 | 3567 | rVB4 | 27922 | 47480 | 1.36% | 0.153% |
| 83 | 12.595 | 3571 | 3578 | 3581 | rVV2 | 22597 | 29957 | 0.86% | 0.096% |
| 84 | 12.630 | 3582 | 3589 | 3597 | rVV | 79560 | 125431 | 3.59% | 0.403% |
| 85 | 12.681 | 3597 | 3605 | 3620 | rVB | 117025 | 185463 | 5.31% | 0.596% |
| 86 | 12.874 | 3656 | 3665 | 3678 | rBV4 | 96841 | 170060 | 4.87% | 0.547% |
| 87 | 12.942 | 3679 | 3686 | 3701 | rVB3 | 64835 | 103882 | 2.97% | 0.334% |
| 88 | 13.099 | 3726 | 3735 | 3750 | rVB2 | 184831 | 299992 | 8.58% | 0.964% |
| 89 | 13.273 | 3781 | 3789 | 3800 | rVB7 | 33969 | 57719 | 1.65% | 0.186% |
| 90 | 13.379 | 3815 | 3822 | 3831 | rVB8 | 25997 | 44112 | 1.26% | 0.142% |
| 91 | 13.440 | 3833 | 3841 | 3848 | rVB3 | 18640 | 29428 | 0.84% | 0.095% |
| 92 | 13.488 | 3848 | 3856 | 3871 | rBV6 | 29842 | 66131 | 1.89% | 0.213% |
| 93 | 13.723 | 3919 | 3929 | 3955 | rBV | 149247 | 293766 | 8.41% | 0.944% |
| 94 | 13.823 | 3956 | 3960 | 3974 | rVB | 12355 | 27142 | 0.78% | 0.087% |
| 95 | 14.131 | 4047 | 4056 | 4072 | rBV4 | 21661 | 45245 | 1.29% | 0.145% |
| 96 | 14.315 | 4106 | 4113 | 4127 | rBV6 | 18728 | 38869 | 1.11% | 0.125% |
| 97 | 14.517 | 4170 | 4176 | 4187 | rVB5 | 14901 | 25889 | 0.74% | 0.083% |
| 98 | 14.627 | 4203 | 4210 | 4213 | rBV9 | 7981 | 10401 | 0.30% | 0.033% |
| 99 | 14.858 | 4273 | 4282 | 4297 | rBV | 106597 | 196585 | 5.63% | 0.632% |
| 100 | 15.041 | 4328 | 4339 | 4357 | rBV | 154163 | 282998 | 8.10% | 0.910% |

Sum of corrected areas: 31111188

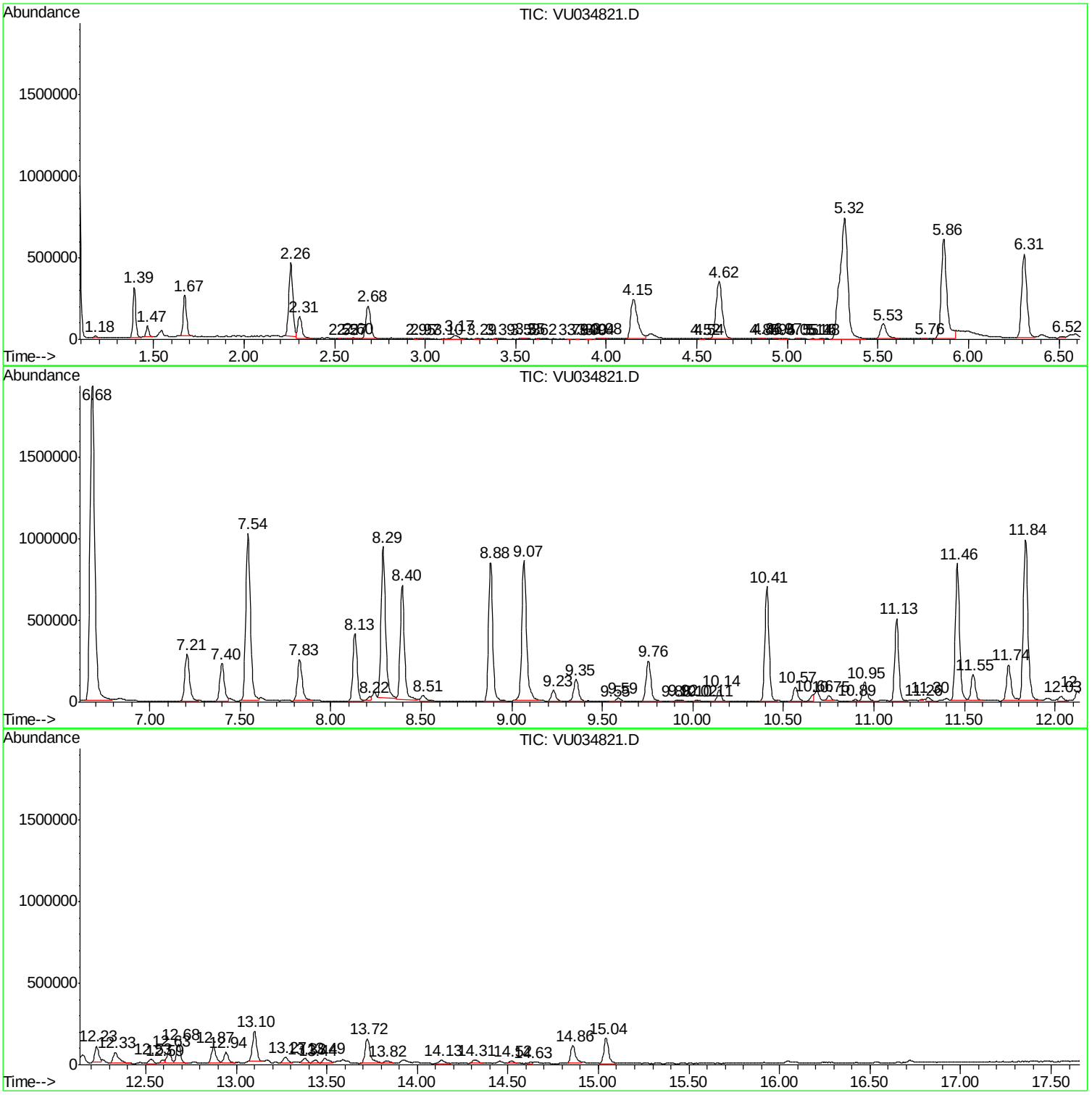
LSC Report - Integrated Chromatogram

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

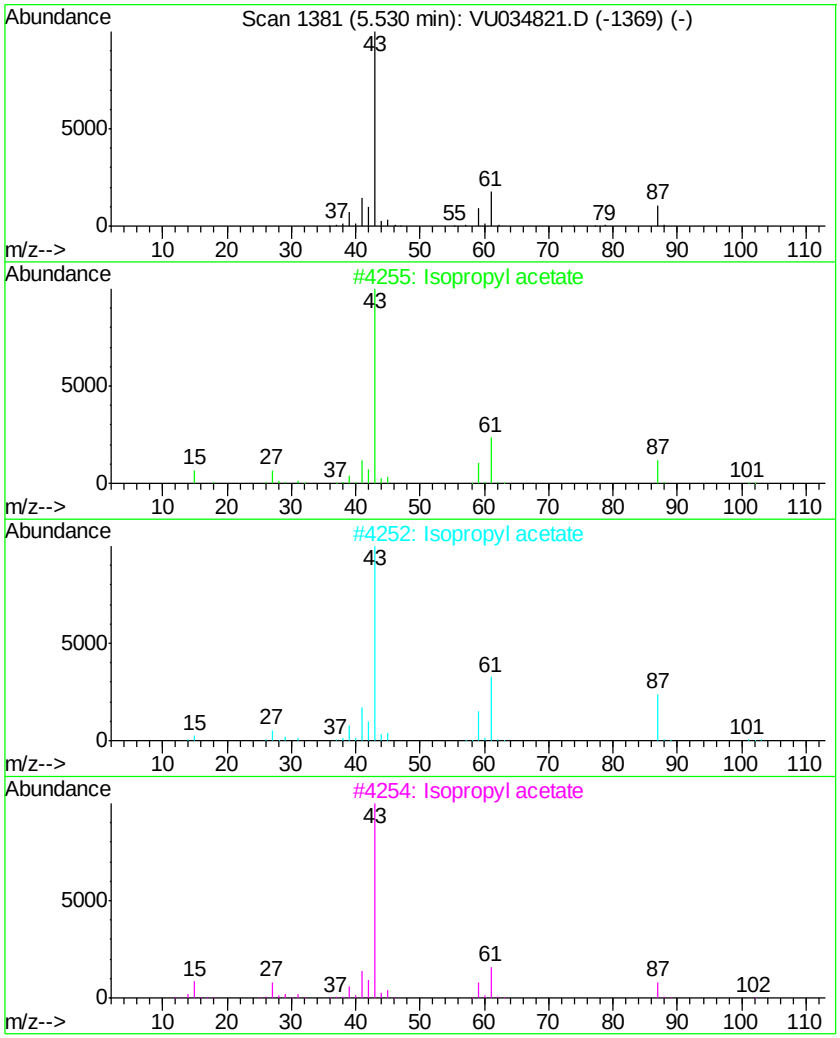
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

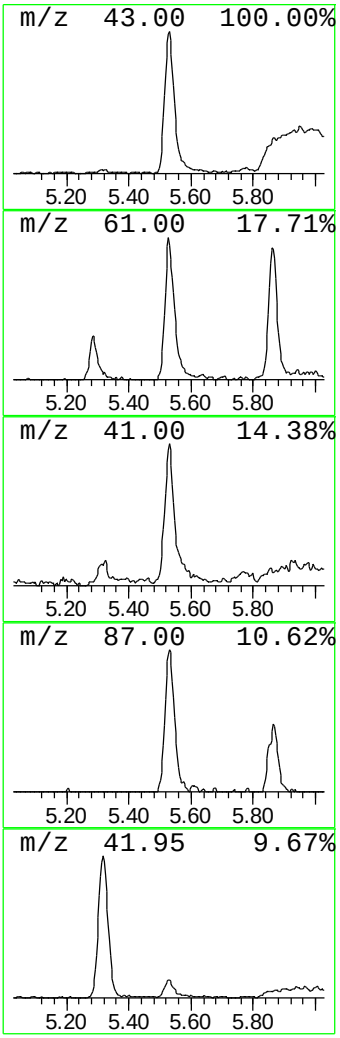
**********

Peak Number 2 Isopropyl acetate Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 5.53 | 7.33 ug/L | 194328 | 1,4-Difluorobenzene | 5.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 83 |
| 2 | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 78 |
| 3 | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 78 |
| 4 | 2-Pentanol, acetate | 130 | C7H14O2 | 000626-38-0 | 28 |
| 5 | Acetaldehyde, O-ethyloxime- | 87 | C4H9NO | 1000288-34-6 | 25 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

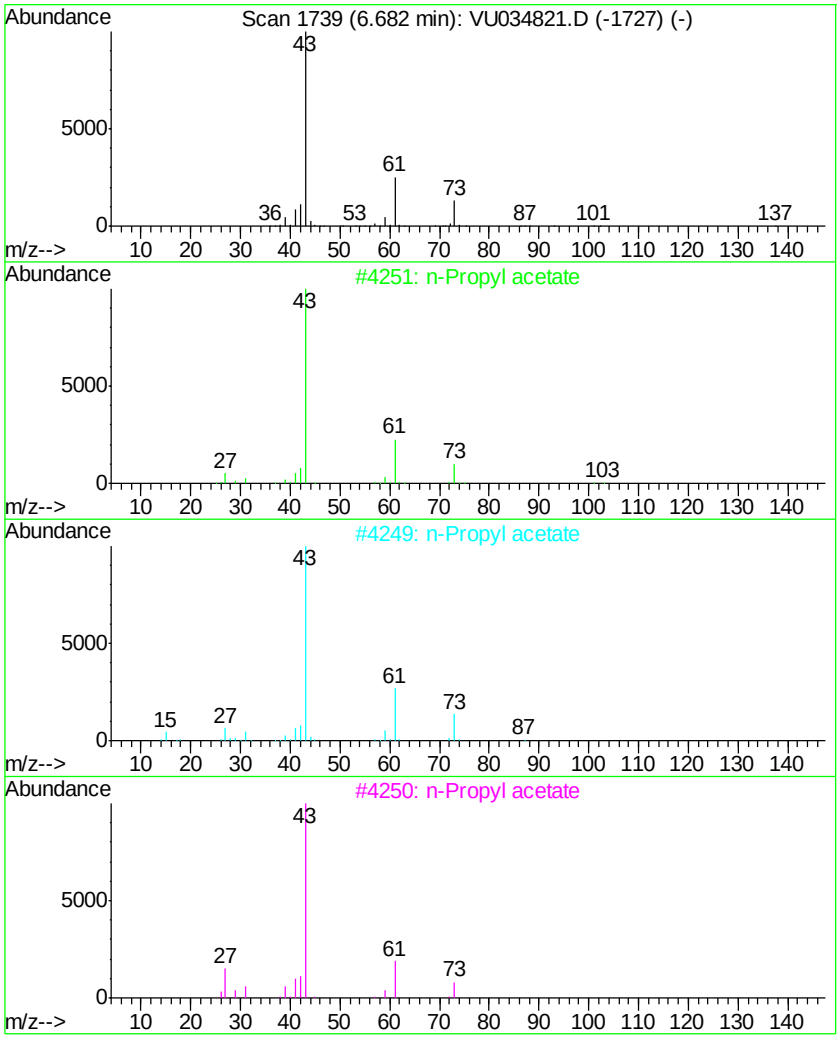
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

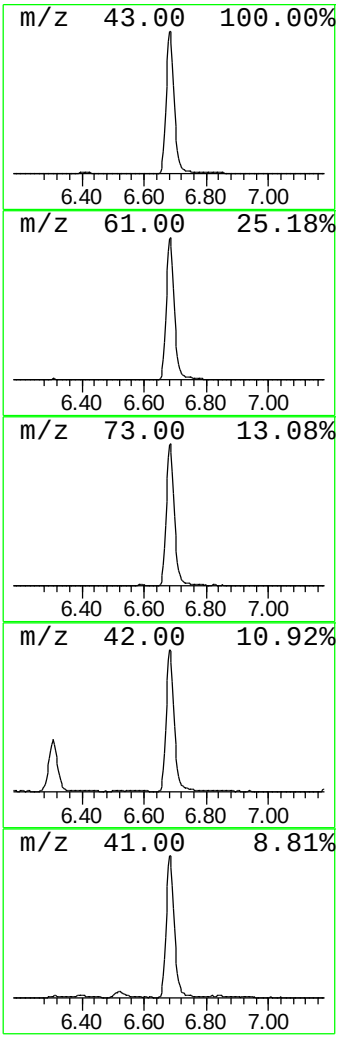
**********

Peak Number 3 n-Propyl acetate Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.68 | 131.85 ug/L | 3494510 | 1,4-Difluorobenzene | 5.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | n-Propyl acetate | 102 | C5H10O2 | 000109-60-4 | 83 |
| 2 | n-Propyl acetate | 102 | C5H10O2 | 000109-60-4 | 83 |
| 3 | n-Propyl acetate | 102 | C5H10O2 | 000109-60-4 | 78 |
| 4 | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 36 |
| 5 | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 9 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

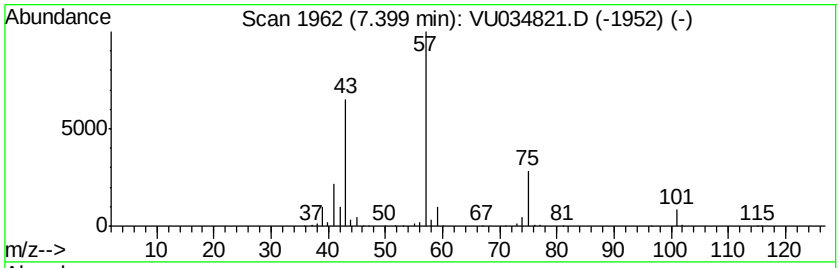
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

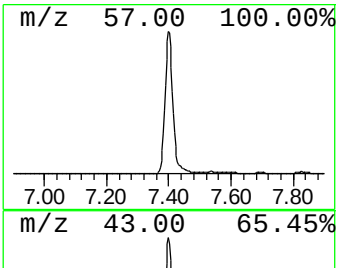
**********

Peak Number 5 Propanoic acid, 1-methyleth... Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.40 | 14.92 ug/L | 395354 | 1,4-Difluorobenzene | 5.86 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propanoic acid, 1-methylethyl ester | 116 | C6H12O2 | 000637-78-5 | 90 |
| 2 | Propanoic acid, 1-methylethyl ester | 116 | C6H12O2 | 000637-78-5 | 83 |
| 3 | Propanoic acid, 1-methylethyl ester | 116 | C6H12O2 | 000637-78-5 | 64 |
| 4 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 45 |
| 5 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 45 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

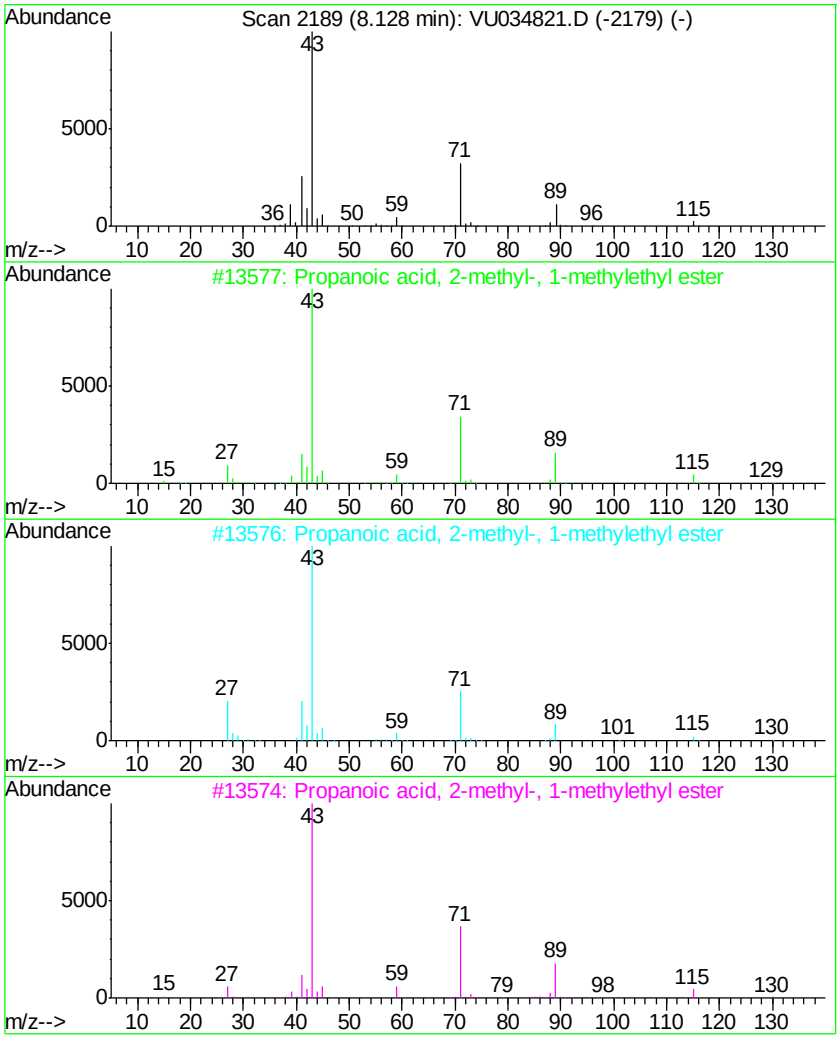
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

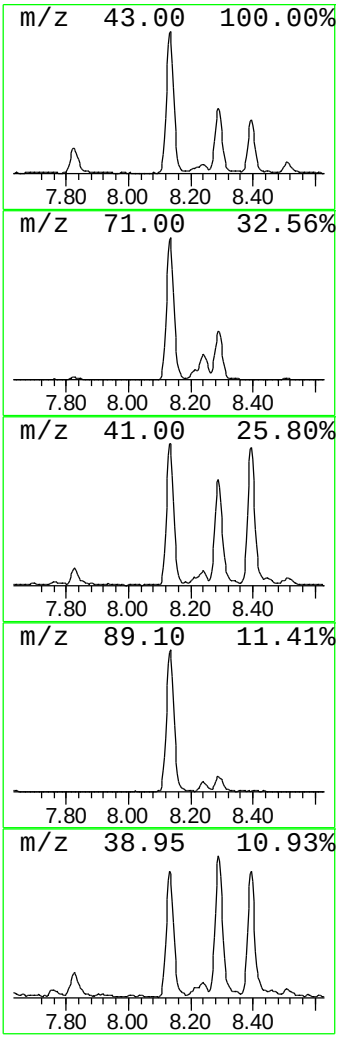
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

**********
Peak Number 6 Propanoic acid, 2-methyl-, ... Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 8.13 | 22.05 ug/L | 684967 | Chlorobenzene-d5 | 9.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 83 |
| 2 | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 83 |
| 3 | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 64 |
| 4 | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 59 |
| 5 | Propyl nitrite | 89 | C3H7NO2 | 000543-67-9 | 43 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

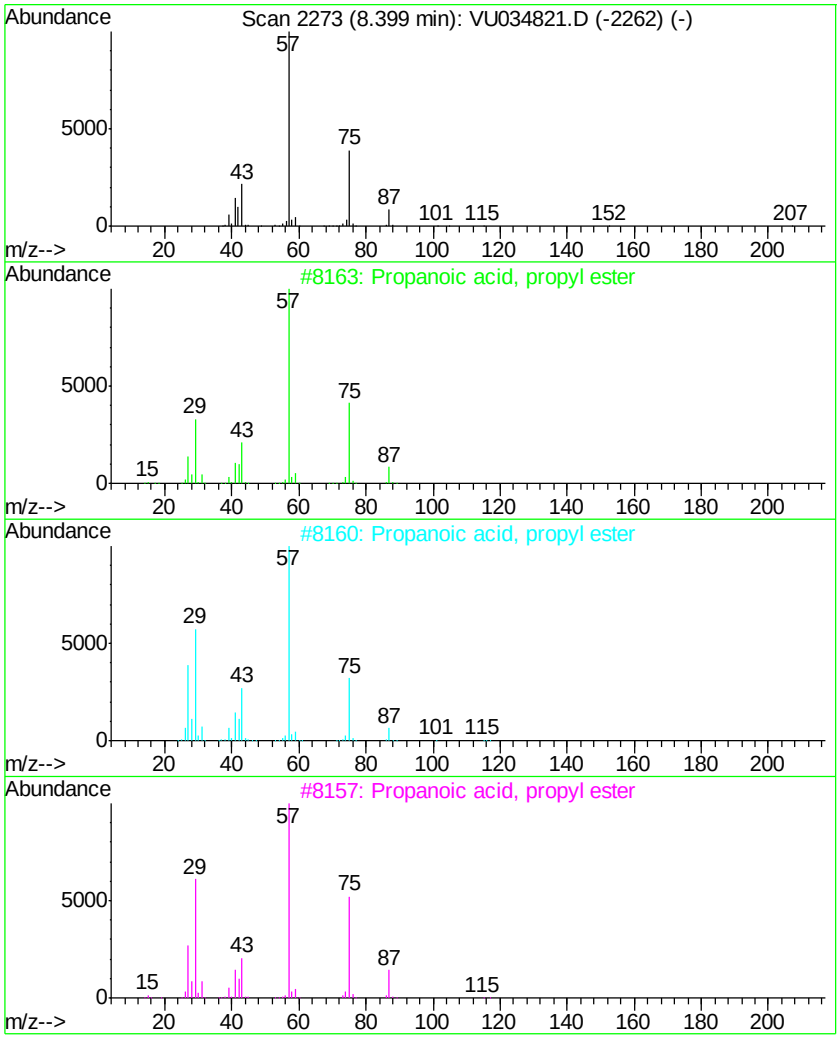
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

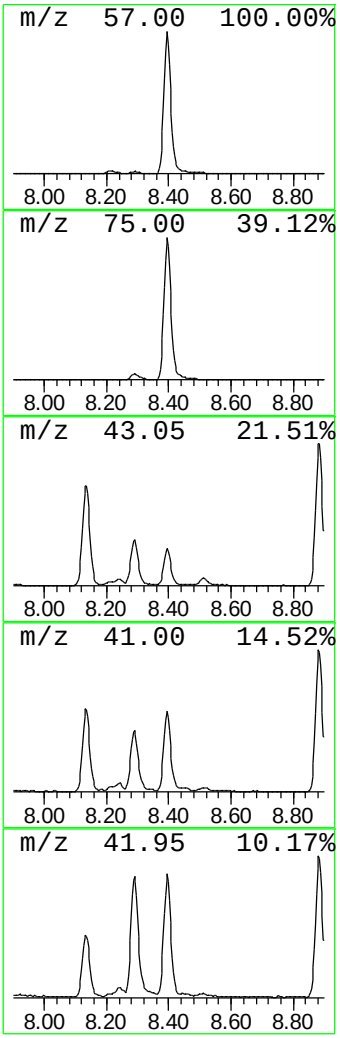
**********

Peak Number 7 Propanoic acid, propyl ester Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 8.40 | 36.55 ug/L | 1135630 | Chlorobenzene-d5 | 9.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 83 |
| 2 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 83 |
| 3 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 78 |
| 4 | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 78 |
| 5 | Propanoic acid, butyl ester | 130 | C7H14O2 | 000590-01-2 | 38 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

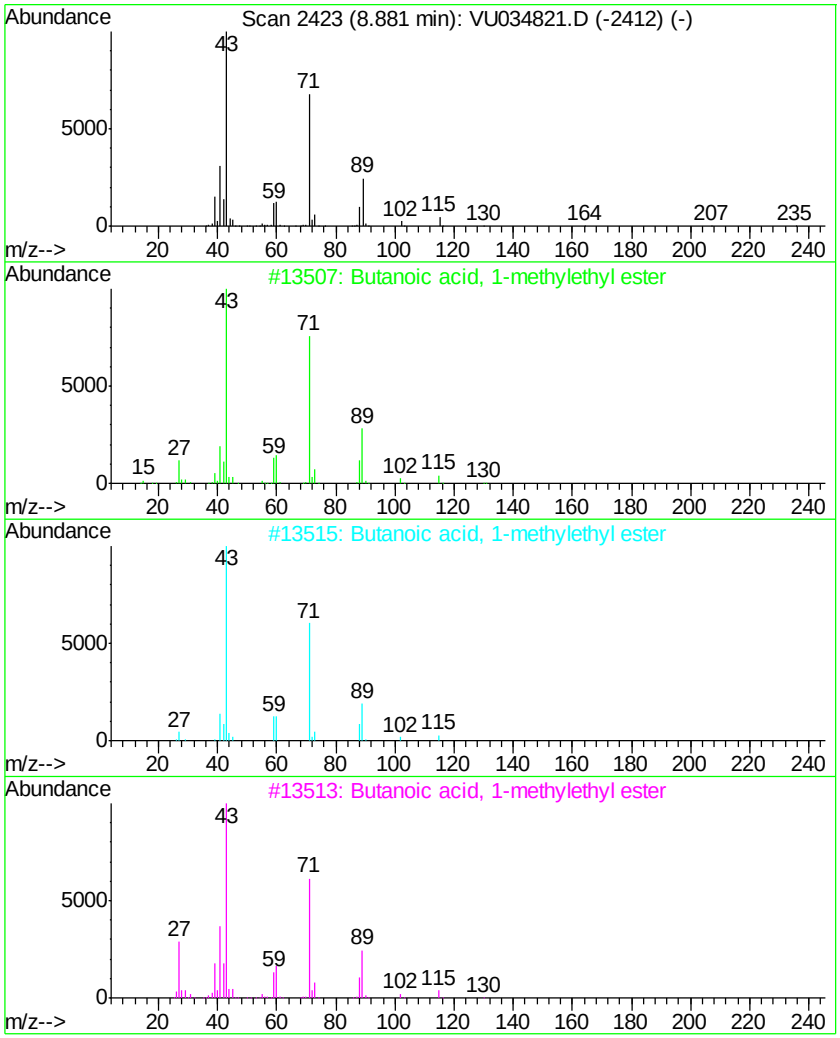
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

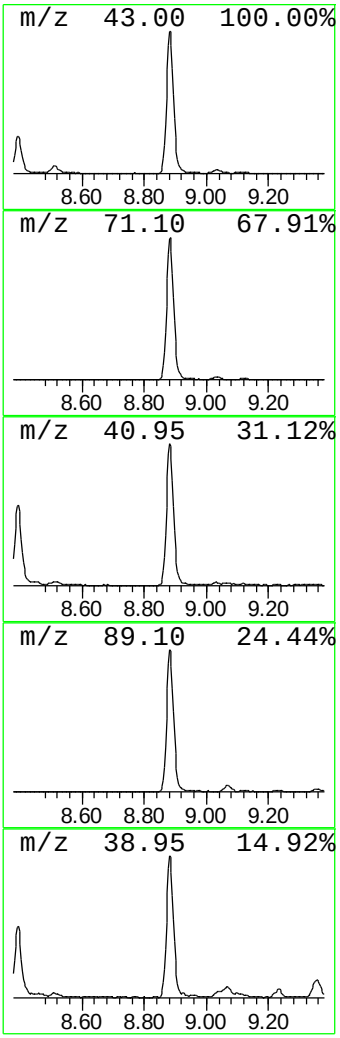
**********

Peak Number 8 Butanoic acid, 1-methylethy... Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 8.88 | 43.65 ug/L | 1356190 | Chlorobenzene-d5 | 9.07 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Butanoic acid, 1-methylethyl ester | 130 | C7H14O2 | 000638-11-9 | 90 |
| 2 | Butanoic acid, 1-methylethyl ester | 130 | C7H14O2 | 000638-11-9 | 90 |
| 3 | Butanoic acid, 1-methylethyl ester | 130 | C7H14O2 | 000638-11-9 | 90 |
| 4 | Butanoic acid, 1-methylethyl ester | 130 | C7H14O2 | 000638-11-9 | 86 |
| 5 | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 72 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

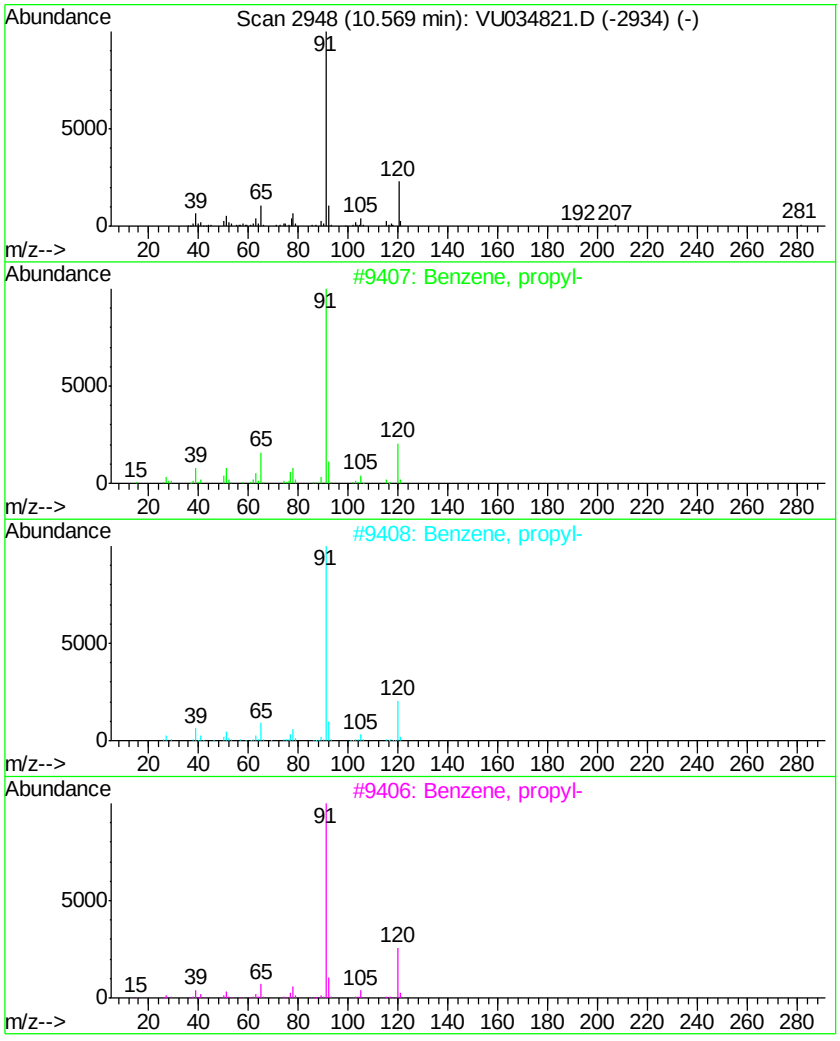
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

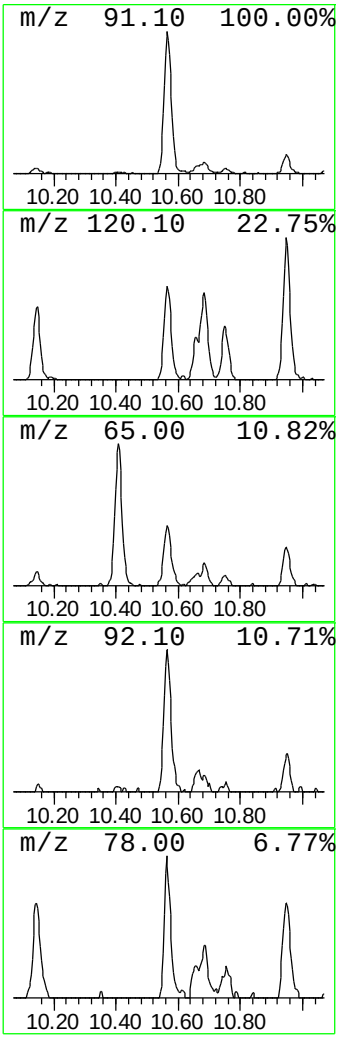
**********

Peak Number 9 Benzene, propyl- Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.57 | 5.85 ug/L | 160630 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, propyl- | 120 | C9H12 | 000103-65-1 | 90 |
| 2 | Benzene, propyl- | 120 | C9H12 | 000103-65-1 | 90 |
| 3 | Benzene, propyl- | 120 | C9H12 | 000103-65-1 | 87 |
| 4 | N-Benzyl-2-phenethylamine | 211 | C15H17N | 003647-71-0 | 72 |
| 5 | Ethanol, 2-[(phenylmethyl)amino]- | 151 | C9H13NO | 000104-63-2 | 72 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

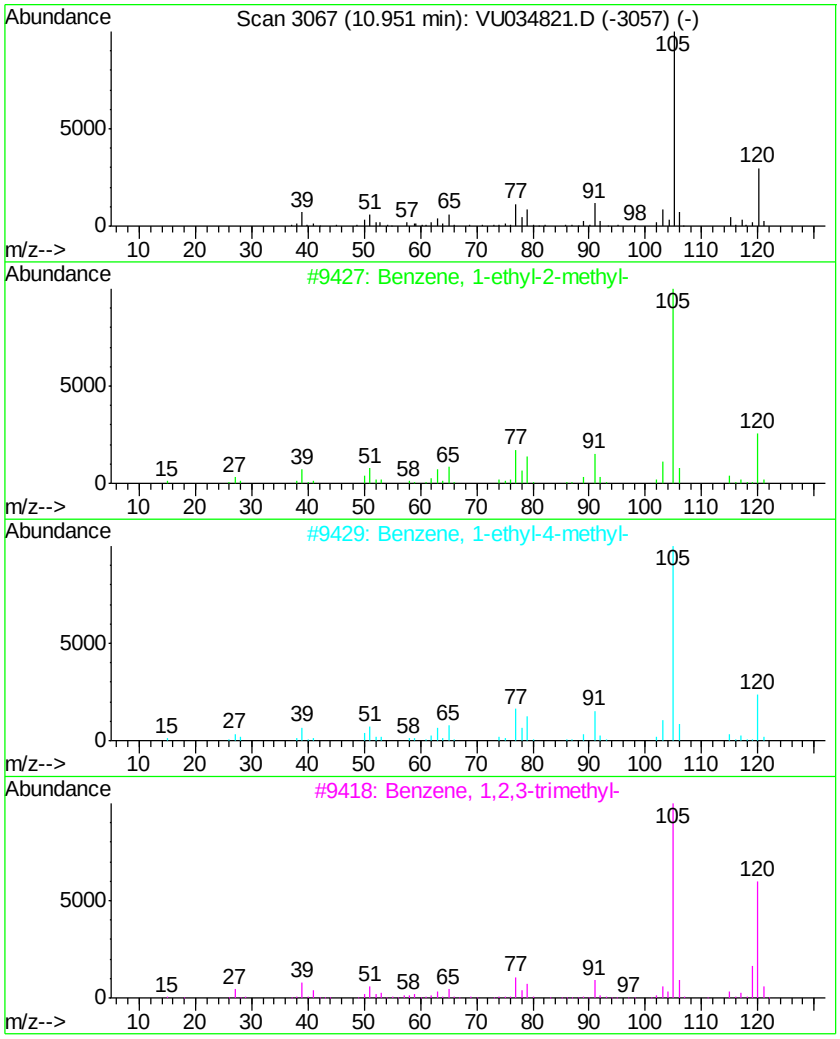
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

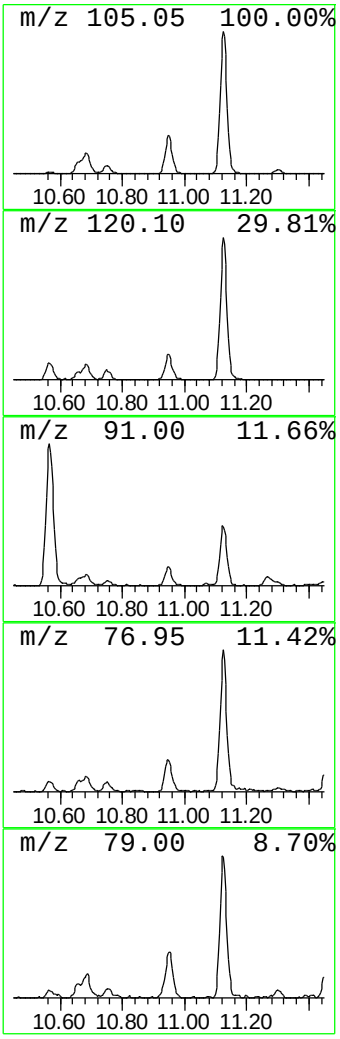
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

**********
Peak Number 10 Benzene, 1-ethyl-2-methyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.95 | 7.34 ug/L | 201738 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1-ethyl-2-methyl- | 120 | C9H12 | 000611-14-3 | 93 |
| 2 | Benzene, 1-ethyl-4-methyl- | 120 | C9H12 | 000622-96-8 | 93 |
| 3 | Benzene, 1,2,3-trimethyl- | 120 | C9H12 | 000526-73-8 | 91 |
| 4 | Benzene, 1-ethyl-3-methyl- | 120 | C9H12 | 000620-14-4 | 91 |
| 5 | Mesitylene | 120 | C9H12 | 000108-67-8 | 91 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

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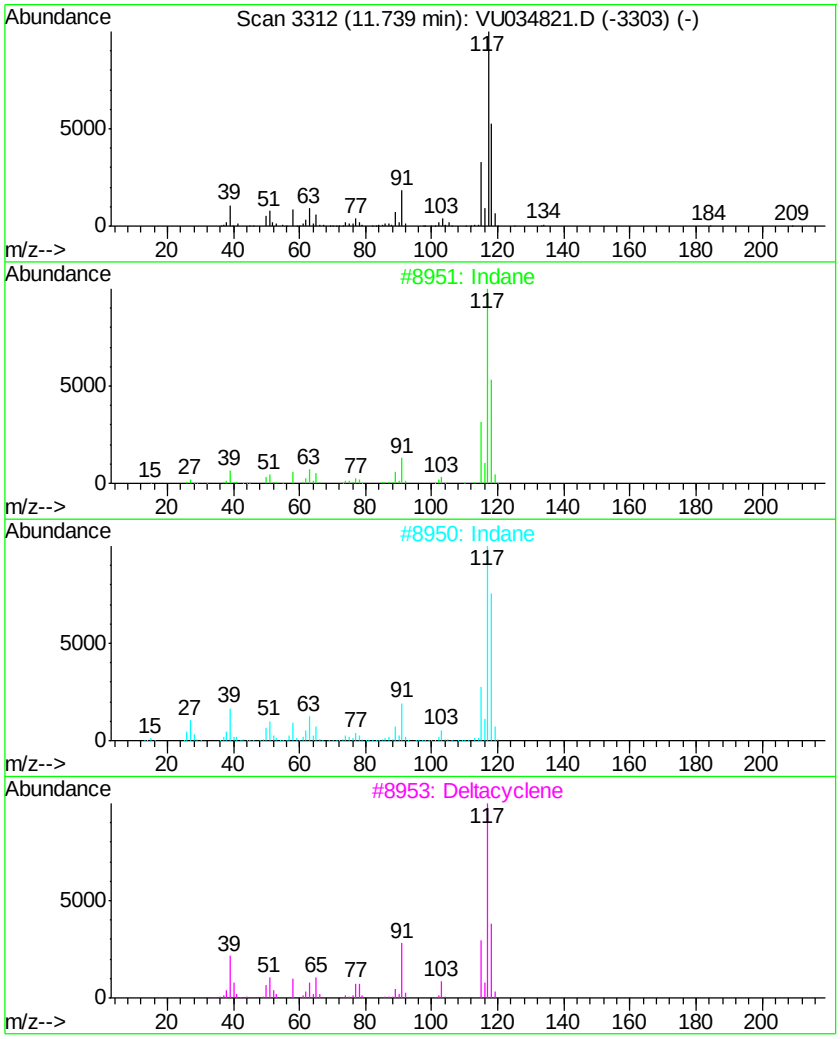
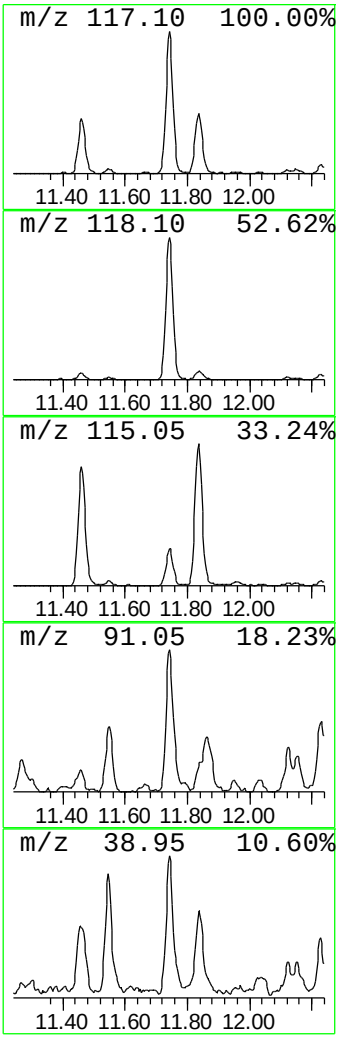
Peak Number 13 Indane Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.74 | 13.96 ug/L | 383545 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Indane | 118 | C9H10 | 000496-11-7 | 93 |
| 2 | Indane | 118 | C9H10 | 000496-11-7 | 87 |
| 3 | Deltacyclene | 118 | C9H10 | 007785-10-6 | 74 |
| 4 | Benzene, cyclopropyl- | 118 | C9H10 | 000873-49-4 | 74 |
| 5 | (Z)-1-Phenylpropene | 118 | C9H10 | 000766-90-5 | 74 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

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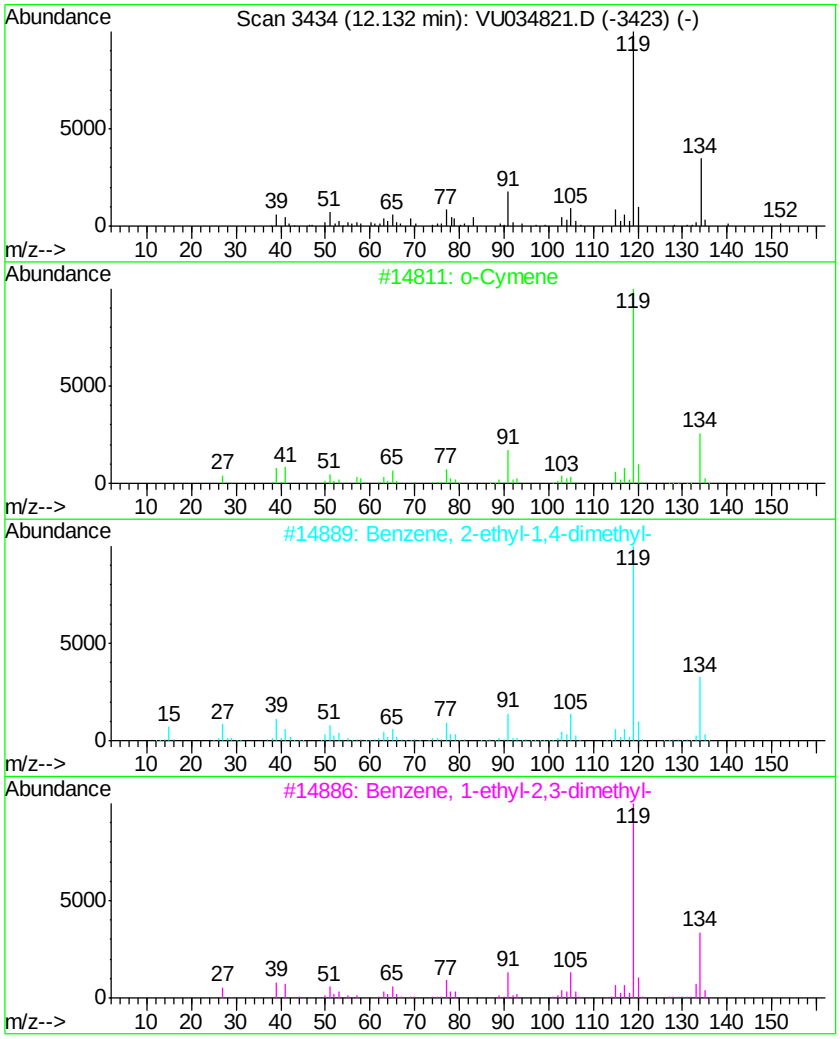
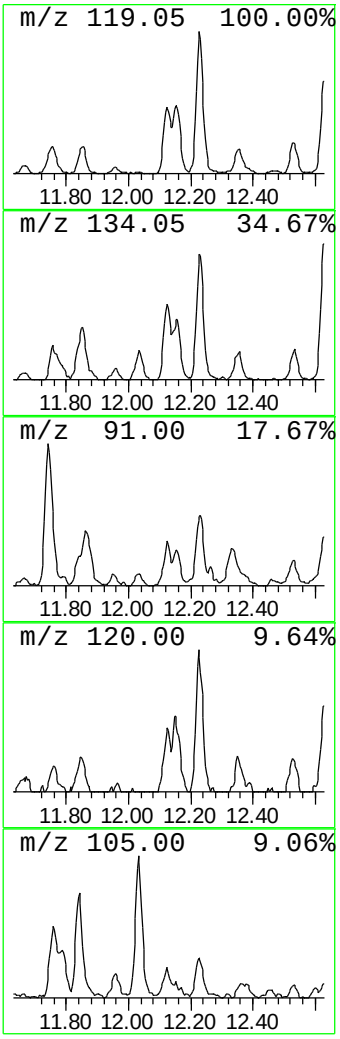
Peak Number 14 o-Cymene Concentration Rank 23

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.13 | 3.02 ug/L | 82960 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | o-Cymene | 134 | C10H14 | 000527-84-4 | 95 |
| 2 | Benzene, 2-ethyl-1,4-dimethyl- | 134 | C10H14 | 001758-88-9 | 94 |
| 3 | Benzene, 1-ethyl-2,3-dimethyl- | 134 | C10H14 | 000933-98-2 | 94 |
| 4 | Benzene, 1-methyl-3-(1-methyleth... | 134 | C10H14 | 000535-77-3 | 93 |
| 5 | Benzene, 2-ethyl-1,3-dimethyl- | 134 | C10H14 | 002870-04-4 | 93 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

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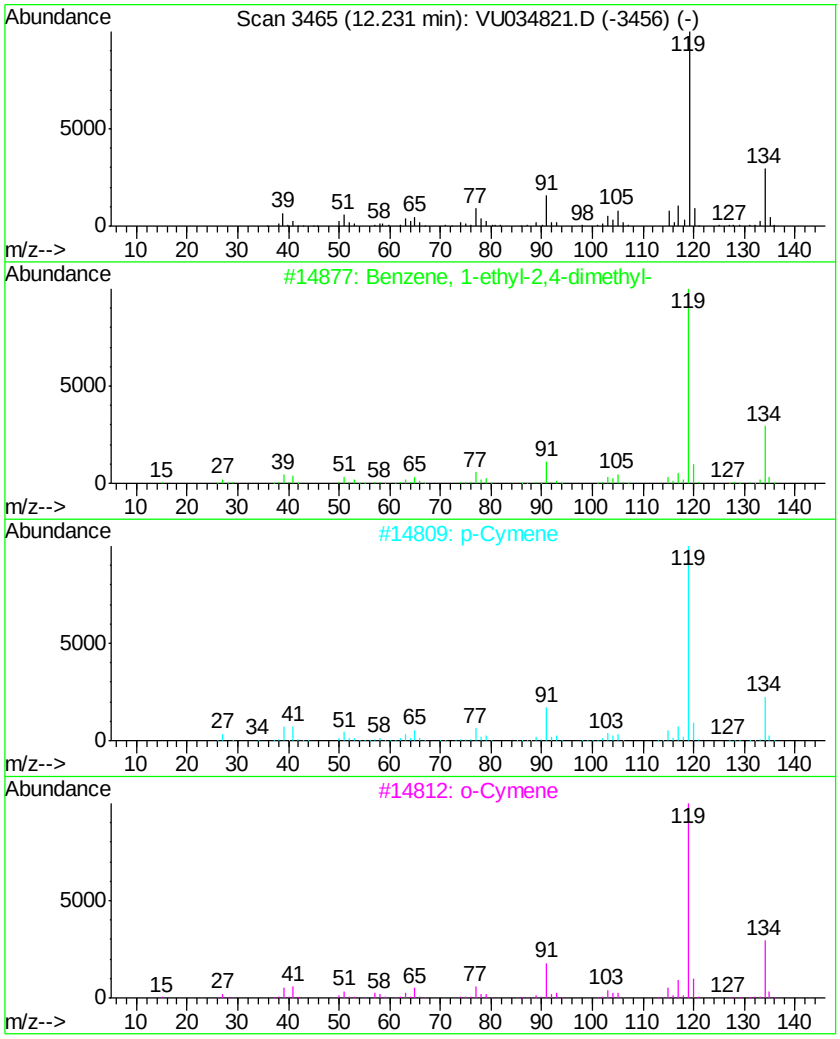
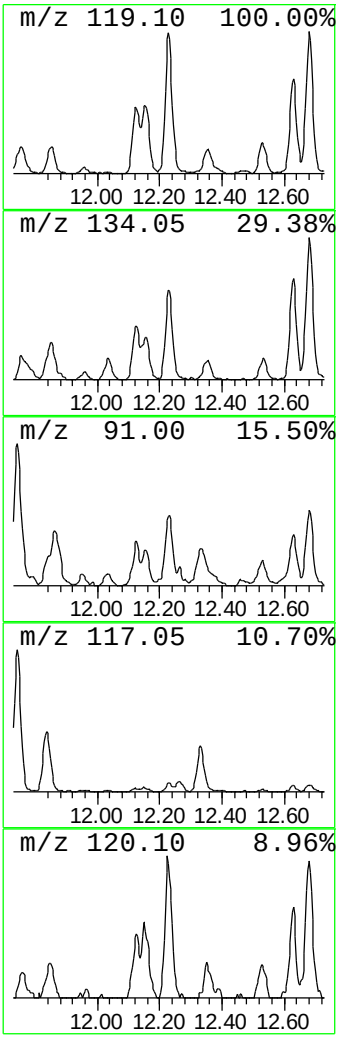
Peak Number 15 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.23 | 5.58 ug/L | 153384 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1-ethyl-2,4-dimethyl- | 134 | C10H14 | 000874-41-9 | 97 |
| 2 | p-Cymene | 134 | C10H14 | 000099-87-6 | 97 |
| 3 | o-Cymene | 134 | C10H14 | 000527-84-4 | 95 |
| 4 | Benzene, 4-ethyl-1,2-dimethyl- | 134 | C10H14 | 000934-80-5 | 95 |
| 5 | o-Cymene | 134 | C10H14 | 000527-84-4 | 95 |



# Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

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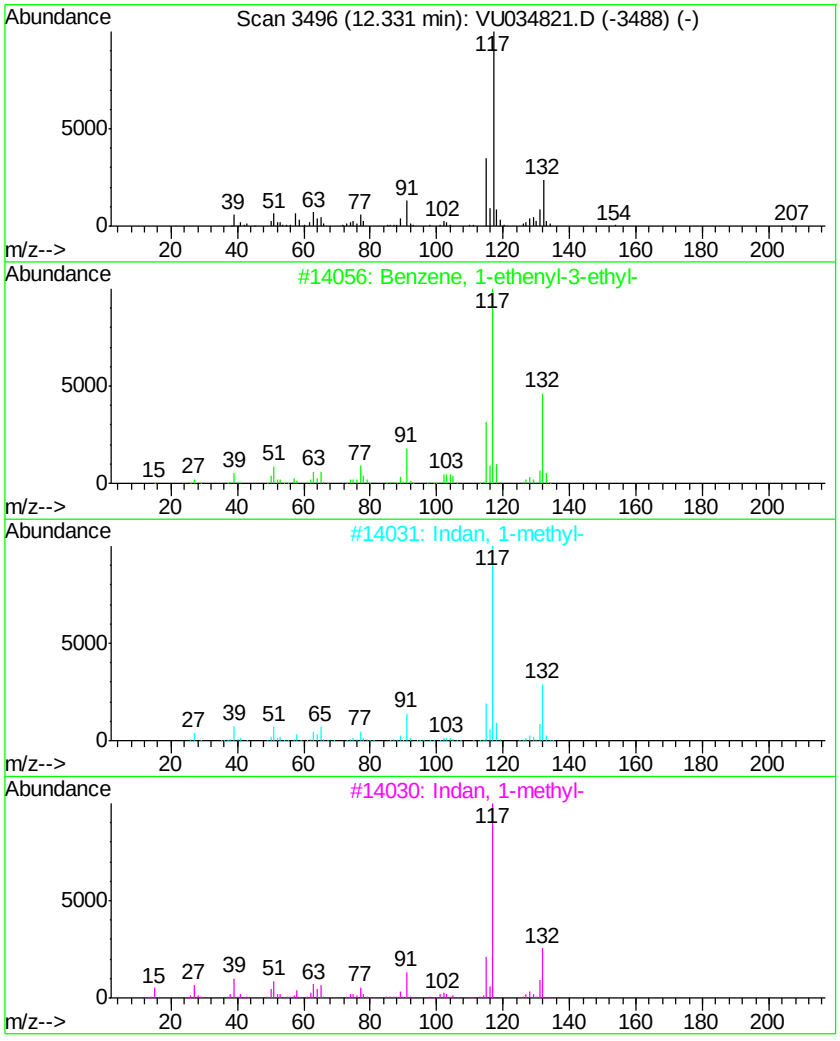
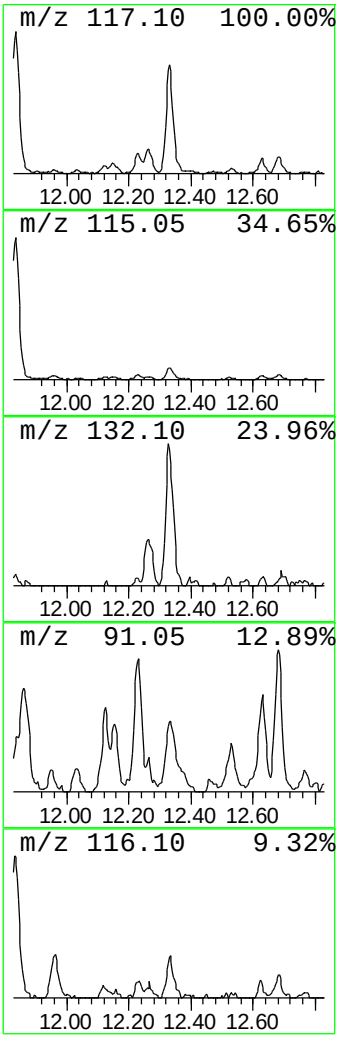
Peak Number 16 Benzene, 1-ethenyl-3-ethyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.33 | 5.35 ug/L | 147003 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1-ethenyl-3-ethyl- | 132 | C10H12 | 007525-62-4 | 91 |
| 2 | Indan, 1-methyl- | 132 | C10H12 | 000767-58-8 | 90 |
| 3 | Indan, 1-methyl- | 132 | C10H12 | 000767-58-8 | 90 |
| 4 | Benzene, (1-methyl-1-propenyl)-,... | 132 | C10H12 | 000768-00-3 | 87 |
| 5 | Benzene, 2-butenyl- | 132 | C10H12 | 001560-06-1 | 80 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

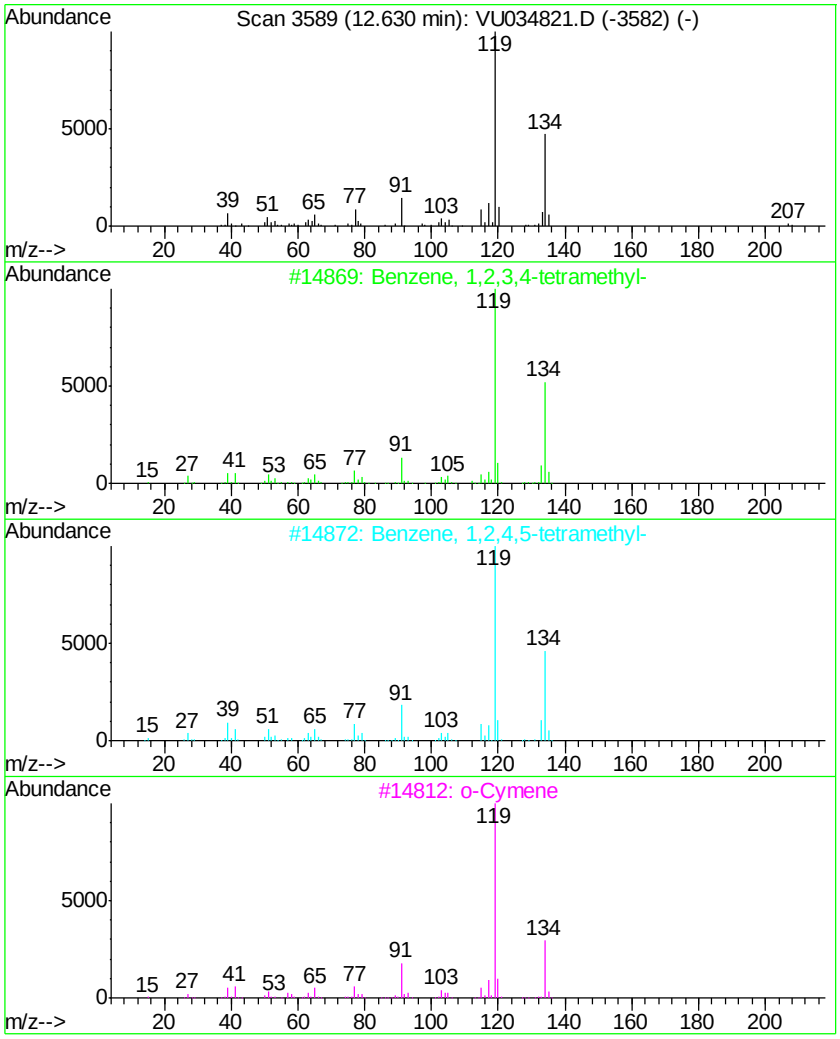
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

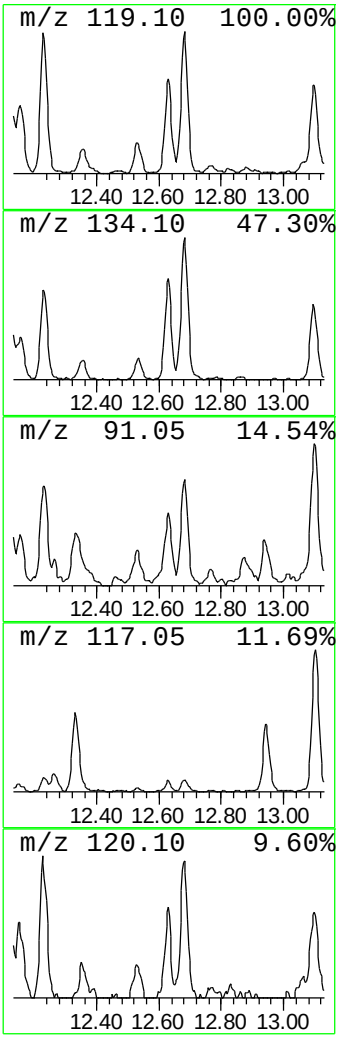
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

**********
Peak Number 17 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 21

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.63 | 4.56 ug/L | 125431 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1,2,3,4-tetramethyl- | 134 | C10H14 | 000488-23-3 | 94 |
| 2 | Benzene, 1,2,4,5-tetramethyl- | 134 | C10H14 | 000095-93-2 | 94 |
| 3 | o-Cymene | 134 | C10H14 | 000527-84-4 | 94 |
| 4 | Benzene, 1-ethyl-2,3-dimethyl- | 134 | C10H14 | 000933-98-2 | 94 |
| 5 | Benzene, 1-ethyl-3,5-dimethyl- | 134 | C10H14 | 000934-74-7 | 91 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

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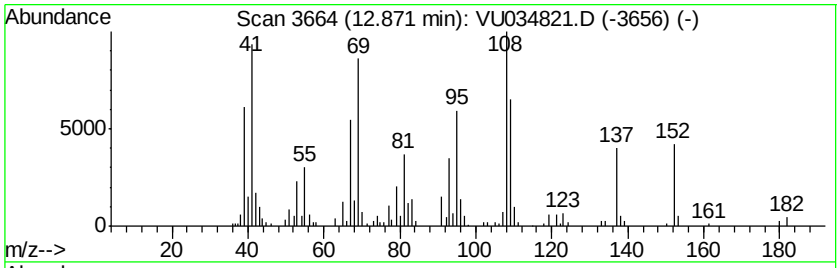
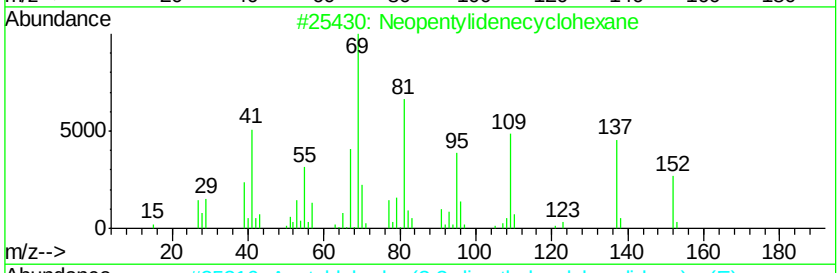
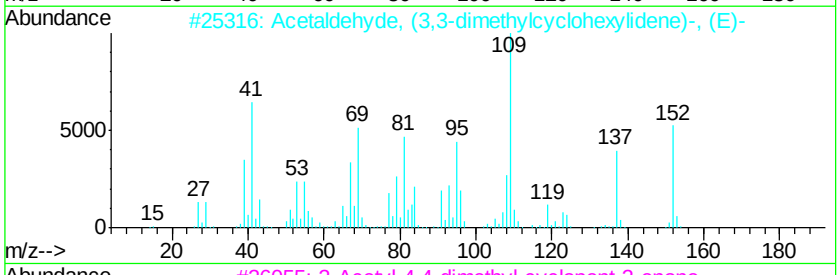
Peak Number 19 unknown-01 Concentration Rank 17

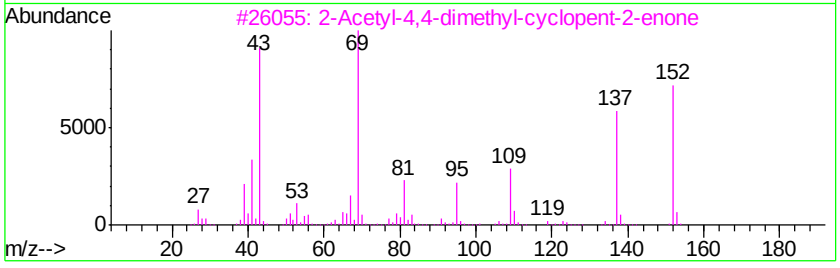
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.87 | 6.19 ug/L | 170060 | 1,4-Dichlorobenzene-d4 | 11.46 |

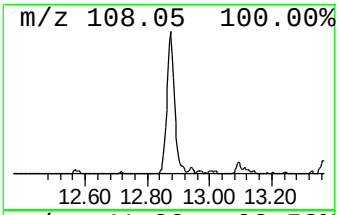
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Neopentylidenecyclohexane | 152 | C11H20 | 039546-80-0 | 45 |
| 2 | Acetaldehyde, (3,3-dimethylcyclo... | 152 | C10H16O | 026532-25-2 | 41 |
| 3 | 2-Acetyl-4,4-dimethyl-cyclopent-... | 152 | C9H12O2 | 081979-96-6 | 38 |
| 4 | Ethanone, 1-(1,4-dimethyl-3-cycl... | 152 | C10H16O | 043219-68-7 | 38 |
| 5 | Bicyclo[2.2.1]heptan-2-one, 4,7,... | 152 | C10H16O | 013854-85-8 | 38 |

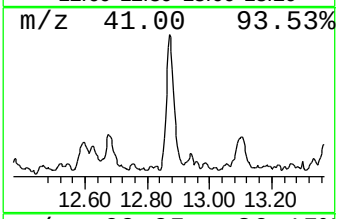


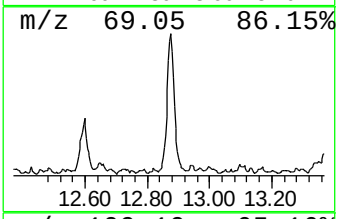



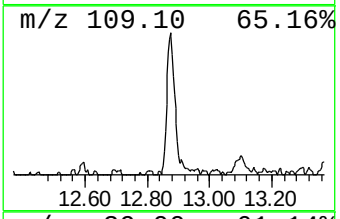



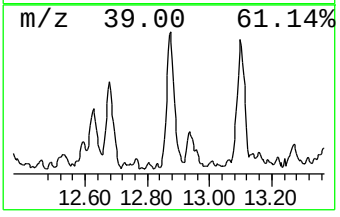



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

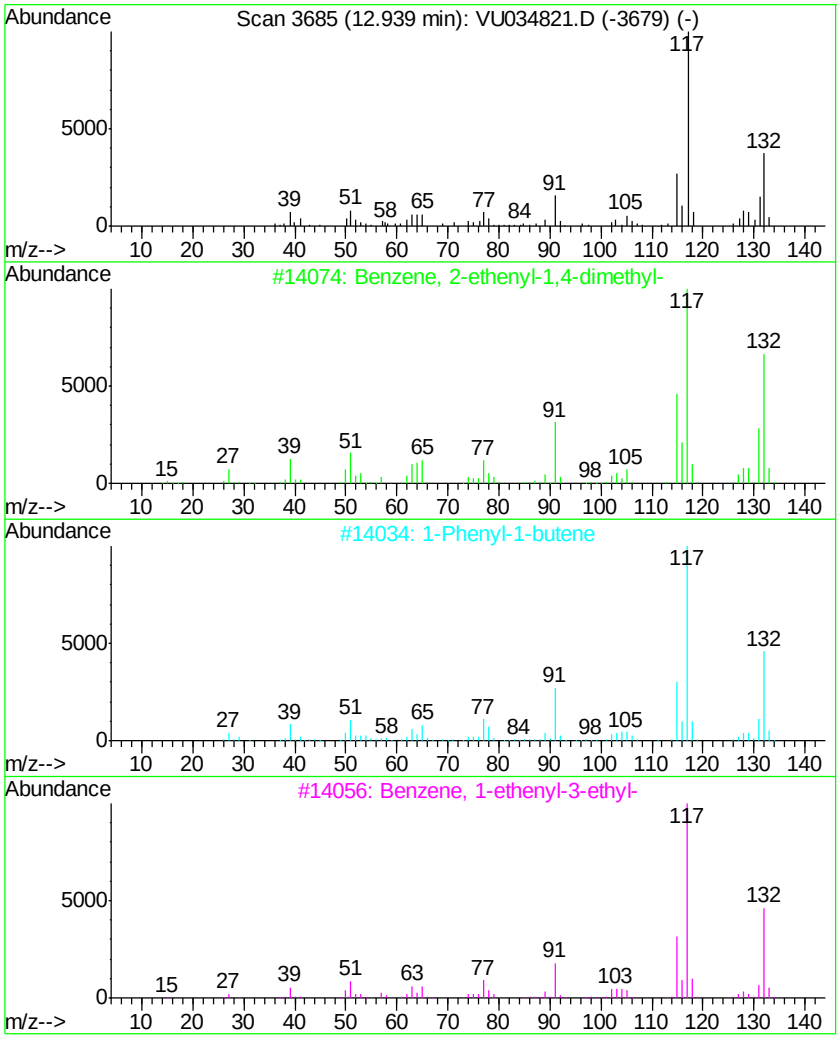
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

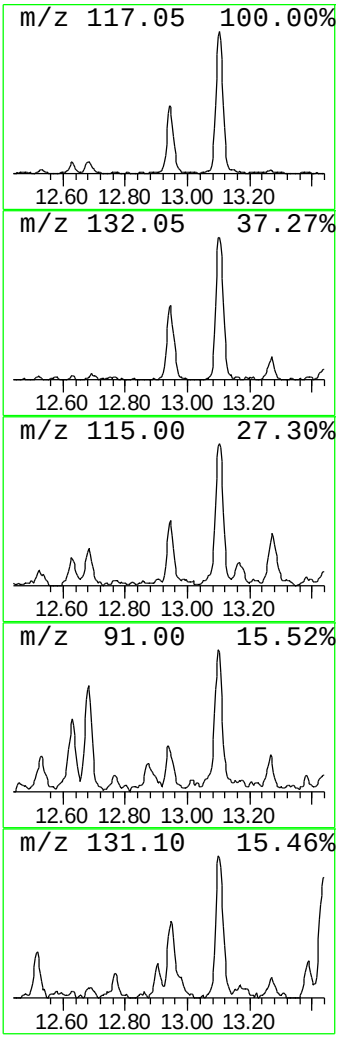
**********

Peak Number 20 Benzene, 2-ethenyl-1,4-dime... Concentration Rank 22

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.94 | 3.78 ug/L | 103882 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12 | 002039-89-6 | 92 |
| 2 | 1-Phenyl-1-butene | 132 | C10H12 | 000824-90-8 | 90 |
| 3 | Benzene, 1-ethenyl-3-ethyl- | 132 | C10H12 | 007525-62-4 | 87 |
| 4 | Indan, 1-methyl- | 132 | C10H12 | 000767-58-8 | 87 |
| 5 | Benzene, (2-methyl-2-propenyl)- | 132 | C10H12 | 003290-53-7 | 87 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

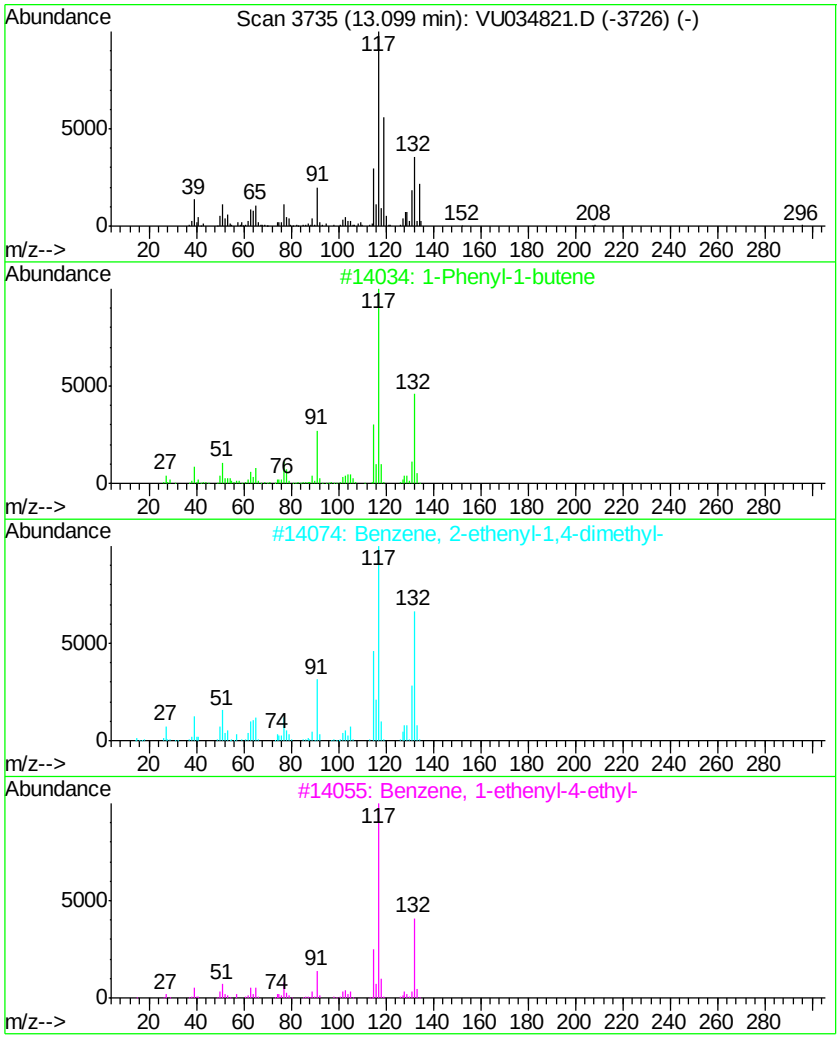
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

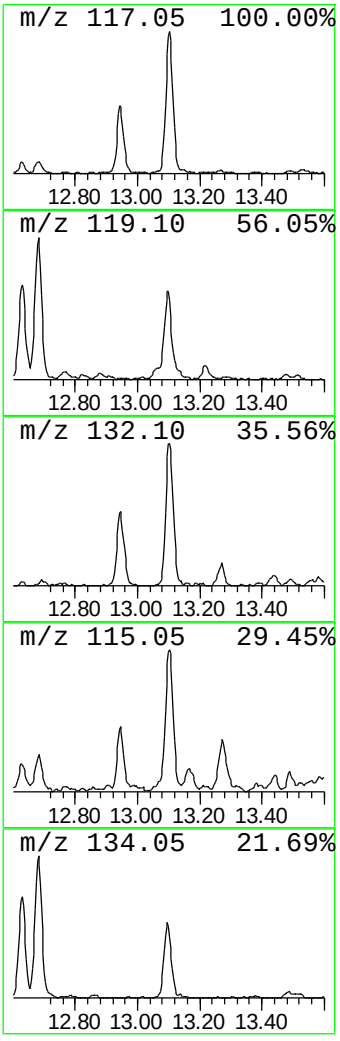
**********

Peak Number 21 1-Phenyl-1-butene Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.10 | 10.92 ug/L | 299992 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Phenyl-1-butene | 132 | C10H12 | 000824-90-8 | 70 |
| 2 | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12 | 002039-89-6 | 64 |
| 3 | Benzene, 1-ethenyl-4-ethyl- | 132 | C10H12 | 003454-07-7 | 64 |
| 4 | 1H-Indene, 2,3-dihydro-5-methyl- | 132 | C10H12 | 000874-35-1 | 64 |
| 5 | 2,4-Dimethylstyrene | 132 | C10H12 | 002234-20-0 | 64 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

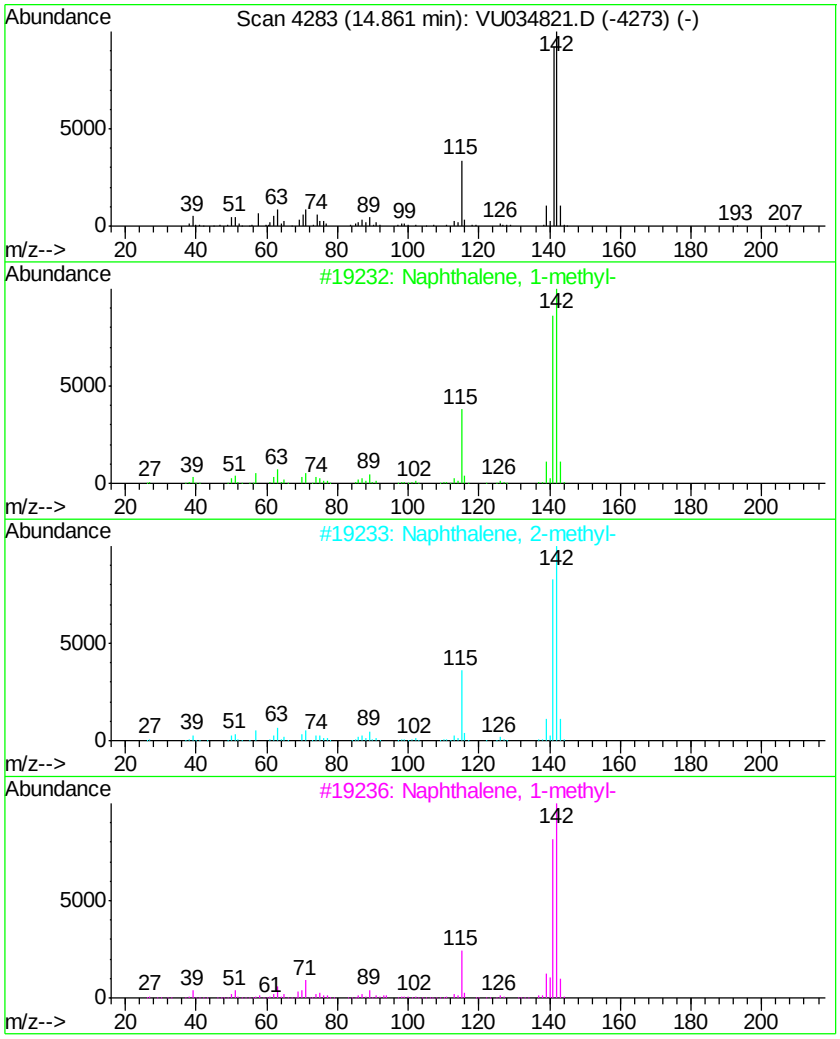
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

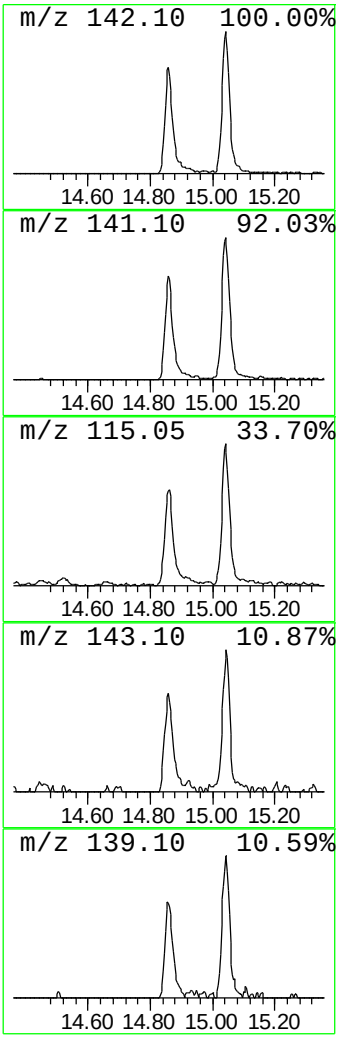
**********

Peak Number 23 Naphthalene, 1-methyl- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.86 | 7.15 ug/L | 196585 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 97 |
| 2 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 94 |
| 3 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 91 |
| 4 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 91 |
| 5 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 91 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU092519\
Data File : VU034821.D
Acq On : 25 Sep 2019 22:41
Operator : JC/SP
Sample : K4983-11
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 32 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** BFDJ4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM091919WMA.M
Quant Title : VOC Analysis

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

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| Isopropyl acetate | 5.53 | 7.3 | ug/L | 194328 | 1 | 5.86 | 1325180 | 50.0 |
| n-Propyl acetate | 6.68 | 131.8 | ug/L | 3494510 | 1 | 5.86 | 1325180 | 50.0 |
| Propanoic acid, 1... | 7.40 | 14.9 | ug/L | 395354 | 1 | 5.86 | 1325180 | 50.0 |
| Propanoic acid, 2... | 8.13 | 22.1 | ug/L | 684967 | 2 | 9.07 | 1553350 | 50.0 |
| Propanoic acid, p... | 8.40 | 36.5 | ug/L | 1135630 | 2 | 9.07 | 1553350 | 50.0 |
| Butanoic acid, 1-... | 8.88 | 43.6 | ug/L | 1356190 | 2 | 9.07 | 1553350 | 50.0 |
| Benzene, propyl- | 10.57 | 5.8 | ug/L | 160630 | 3 | 11.46 | 1373930 | 50.0 |
| Benzene, 1-ethyl-... | 10.95 | 7.3 | ug/L | 201738 | 3 | 11.46 | 1373930 | 50.0 |
| Indane | 11.74 | 14.0 | ug/L | 383545 | 3 | 11.46 | 1373930 | 50.0 |
| o-Cymene | 12.13 | 3.0 | ug/L | 82960 | 3 | 11.46 | 1373930 | 50.0 |
| Benzene, 1-ethyl-... | 12.23 | 5.6 | ug/L | 153384 | 3 | 11.46 | 1373930 | 50.0 |
| Benzene, 1-etheny... | 12.33 | 5.3 | ug/L | 147003 | 3 | 11.46 | 1373930 | 50.0 |
| Benzene, 1,2,3,4-... | 12.63 | 4.6 | ug/L | 125431 | 3 | 11.46 | 1373930 | 50.0 |
| unknown-01 | 12.87 | 6.2 | ug/L | 170060 | 3 | 11.46 | 1373930 | 50.0 |
| Benzene, 2-etheny... | 12.94 | 3.8 | ug/L | 103882 | 3 | 11.46 | 1373930 | 50.0 |
| 1-Phenyl-1-butene | 13.10 | 10.9 | ug/L | 299992 | 3 | 11.46 | 1373930 | 50.0 |
| Naphthalene, 1-me... | 14.86 | 7.2 | ug/L | 196585 | 3 | 11.46 | 1373930 | 50.0 |