LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

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\SOMULM042319WMA.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 | 1.180 | 23 | 28 | 36 | rVB2 | 20338 | 20195 | 0.61% | 0.063% |
| 2 | 1.396 | 88 | 95 | 109 | rVB | 344102 | 373848 | 11.38% | 1.160% |
| 3 | 1.679 | 176 | 183 | 197 | rBV | 279438 | 350123 | 10.66% | 1.087% |
| 4 | 1.881 | 241 | 246 | 259 | rVB2 | 26124 | 36898 | 1.12% | 0.115% |
| 5 | 2.267 | 356 | 366 | 380 | rVB | 589047 | 898507 | 27.35% | 2.789% |
| 6 | 2.473 | 424 | 430 | 431 | rBV4 | 1028 | 1052 | 0.03% | 0.003% |
| 7 | 2.630 | 474 | 479 | 482 | rVB5 | 971 | 859 | 0.03% | 0.003% |
| 8 | 2.695 | 495 | 499 | 500 | rBV3 | 1927 | 1199 | 0.04% | 0.004% |
| 9 | 2.769 | 518 | 522 | 525 | rVB2 | 1134 | 870 | 0.03% | 0.003% |
| 10 | 2.791 | 525 | 529 | 533 | rBV4 | 1052 | 880 | 0.03% | 0.003% |
| 11 | 2.830 | 537 | 541 | 545 | rBV3 | 923 | 752 | 0.02% | 0.002% |
| 12 | 2.855 | 545 | 549 | 555 | rVB5 | 1158 | 1259 | 0.04% | 0.004% |
| 13 | 2.881 | 555 | 557 | 559 | rBV2 | 924 | 516 | 0.02% | 0.002% |
| 14 | 2.897 | 559 | 562 | 567 | rBV3 | 746 | 661 | 0.02% | 0.002% |
| 15 | 2.984 | 585 | 589 | 594 | rVB6 | 955 | 872 | 0.03% | 0.003% |
| 16 | 3.151 | 639 | 641 | 645 | rVB4 | 730 | 516 | 0.02% | 0.002% |
| 17 | 3.203 | 650 | 657 | 662 | rVB4 | 871 | 1044 | 0.03% | 0.003% |
| 18 | 3.309 | 685 | 690 | 693 | rVB4 | 1129 | 908 | 0.03% | 0.003% |
| 19 | 3.495 | 746 | 748 | 752 | rVB2 | 763 | 570 | 0.02% | 0.002% |
| 20 | 3.518 | 752 | 755 | 759 | rBV3 | 1113 | 761 | 0.02% | 0.002% |
| 21 | 3.547 | 759 | 764 | 766 | rBV3 | 738 | 650 | 0.02% | 0.002% |
| 22 | 3.585 | 772 | 776 | 780 | rVB2 | 728 | 658 | 0.02% | 0.002% |
| 23 | 3.711 | 808 | 815 | 817 | rBV3 | 1030 | 1345 | 0.04% | 0.004% |
| 24 | 3.775 | 831 | 835 | 839 | rBV2 | 720 | 660 | 0.02% | 0.002% |
| 25 | 3.833 | 849 | 853 | 858 | rBV4 | 941 | 1339 | 0.04% | 0.004% |
| 26 | 3.926 | 878 | 882 | 885 | rBV2 | 1748 | 1174 | 0.04% | 0.004% |
| 27 | 3.945 | 885 | 888 | 891 | rBV | 782 | 500 | 0.02% | 0.002% |
| 28 | 3.994 | 900 | 903 | 908 | rBV2 | 973 | 851 | 0.03% | 0.003% |
| 29 | 4.087 | 929 | 932 | 937 | rVB3 | 861 | 568 | 0.02% | 0.002% |
| 30 | 4.186 | 950 | 963 | 997 | rBV2 | 229798 | 733125 | 22.31% | 2.276% |
| 31 | 4.643 | 1086 | 1105 | 1131 | rBV2 | 409473 | 972578 | 29.60% | 3.019% |
| 32 | 4.830 | 1160 | 1163 | 1164 | rBV2 | 1149 | 665 | 0.02% | 0.002% |
| 33 | 4.875 | 1175 | 1177 | 1181 | rBV4 | 857 | 686 | 0.02% | 0.002% |
| 34 | 4.977 | 1204 | 1209 | 1221 | rVB8 | 2633 | 4620 | 0.14% | 0.014% |

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

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\SOMULM042319WMA.M
Title : VOC Analysis

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 5.129 | 1251 | 1256 | 1261 | rVB5 | 1354 | 1573 | 0.05% | 0.005% |
| 36 | 5.334 | 1296 | 1320 | 1367 | rBV2 | 853796 | 2565760 | 78.09% | 7.964% |
| 37 | 5.662 | 1417 | 1422 | 1424 | rBV4 | 1086 | 829 | 0.03% | 0.003% |
| 38 | 5.881 | 1476 | 1490 | 1525 | rBV | 780941 | 1620361 | 49.32% | 5.030% |
| 39 | 6.180 | 1569 | 1583 | 1615 | rBV | 1647310 | 3285502 | 100.00% | 10.198% |
| 40 | 6.325 | 1616 | 1628 | 1656 | rVB | 541612 | 1123940 | 34.21% | 3.489% |
| 41 | 6.540 | 1692 | 1695 | 1697 | rBV3 | 1417 | 715 | 0.02% | 0.002% |
| 42 | 6.614 | 1716 | 1718 | 1722 | rBV3 | 893 | 709 | 0.02% | 0.002% |
| 43 | 6.704 | 1744 | 1746 | 1752 | rBV3 | 1198 | 1189 | 0.04% | 0.004% |
| 44 | 6.842 | 1786 | 1789 | 1793 | rBV4 | 745 | 677 | 0.02% | 0.002% |
| 45 | 6.868 | 1793 | 1797 | 1799 | rBV2 | 1016 | 683 | 0.02% | 0.002% |
| 46 | 6.900 | 1804 | 1807 | 1813 | rVB5 | 1312 | 1080 | 0.03% | 0.003% |
| 47 | 6.987 | 1830 | 1834 | 1839 | rVB4 | 1186 | 1408 | 0.04% | 0.004% |
| 48 | 7.161 | 1885 | 1888 | 1890 | rBV2 | 838 | 549 | 0.02% | 0.002% |
| 49 | 7.225 | 1896 | 1908 | 1934 | rBV2 | 321546 | 608121 | 18.51% | 1.888% |
| 50 | 7.408 | 1963 | 1965 | 1967 | rBV3 | 1211 | 679 | 0.02% | 0.002% |
| 51 | 7.498 | 1990 | 1993 | 1999 | rBV7 | 1828 | 1995 | 0.06% | 0.006% |
| 52 | 7.563 | 1999 | 2013 | 2046 | rBV | 1118671 | 2064204 | 62.83% | 6.407% |
| 53 | 7.849 | 2091 | 2102 | 2121 | rBV | 207208 | 381791 | 11.62% | 1.185% |
| 54 | 8.051 | 2161 | 2165 | 2168 | rBV4 | 858 | 760 | 0.02% | 0.002% |
| 55 | 8.119 | 2183 | 2186 | 2191 | rVB6 | 1352 | 1088 | 0.03% | 0.003% |
| 56 | 8.183 | 2202 | 2206 | 2209 | rBV3 | 1109 | 982 | 0.03% | 0.003% |
| 57 | 8.228 | 2209 | 2220 | 2233 | rBV4 | 23512 | 41767 | 1.27% | 0.130% |
| 58 | 8.308 | 2234 | 2245 | 2279 | rBV | 880071 | 1619767 | 49.30% | 5.028% |
| 59 | 8.514 | 2307 | 2309 | 2311 | rBV3 | 1457 | 591 | 0.02% | 0.002% |
| 60 | 8.546 | 2316 | 2319 | 2323 | rBV4 | 1371 | 1243 | 0.04% | 0.004% |
| 61 | 8.630 | 2343 | 2345 | 2348 | rBV4 | 1143 | 641 | 0.02% | 0.002% |
| 62 | 8.784 | 2391 | 2393 | 2397 | rVB3 | 1041 | 617 | 0.02% | 0.002% |
| 63 | 9.003 | 2458 | 2461 | 2463 | rBV3 | 1002 | 800 | 0.02% | 0.002% |
| 64 | 9.087 | 2474 | 2487 | 2518 | rBV | 1173504 | 2016484 | 61.38% | 6.259% |
| 65 | 9.283 | 2546 | 2548 | 2551 | rBV4 | 1639 | 1018 | 0.03% | 0.003% |
| 66 | 9.379 | 2571 | 2578 | 2590 | rVB6 | 9484 | 16584 | 0.50% | 0.051% |
| 67 | 9.685 | 2670 | 2673 | 2677 | rVB6 | 1358 | 1229 | 0.04% | 0.004% |
| 68 | 9.710 | 2679 | 2681 | 2686 | rVB5 | 1218 | 623 | 0.02% | 0.002% |
| 69 | 9.733 | 2686 | 2688 | 2692 | rBV4 | 792 | 529 | 0.02% | 0.002% |
| 70 | 9.755 | 2692 | 2695 | 2696 | rBV2 | 853 | 513 | 0.02% | 0.002% |
| 71 | 9.861 | 2725 | 2728 | 2729 | rBV2 | 1193 | 618 | 0.02% | 0.002% |

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

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\SOMULM042319WMA.M
Title : VOC Analysis

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 10.119 | 2805 | 2808 | 2812 | rBV3 | 1348 | 880 | 0.03% | 0.003% |
| 73 | 10.193 | 2829 | 2831 | 2833 | rBV3 | 1059 | 654 | 0.02% | 0.002% |
| 74 | 10.244 | 2845 | 2847 | 2849 | rBV3 | 1144 | 635 | 0.02% | 0.002% |
| 75 | 10.427 | 2891 | 2904 | 2925 | rBV | 734474 | 1200694 | 36.55% | 3.727% |
| 76 | 10.559 | 2943 | 2945 | 2950 | rBV4 | 1522 | 1056 | 0.03% | 0.003% |
| 77 | 10.652 | 2972 | 2974 | 2976 | rVB2 | 1290 | 503 | 0.02% | 0.002% |
| 78 | 10.765 | 3005 | 3009 | 3010 | rBV3 | 2804 | 2022 | 0.06% | 0.006% |
| 79 | 11.218 | 3142 | 3150 | 3158 | rBV5 | 12649 | 21586 | 0.66% | 0.067% |
| 80 | 11.479 | 3220 | 3231 | 3255 | rBV | 1106952 | 1799611 | 54.77% | 5.586% |
| 81 | 11.855 | 3336 | 3348 | 3370 | rBV | 1009833 | 1681477 | 51.18% | 5.219% |
| 82 | 12.951 | 3686 | 3689 | 3692 | rBV4 | 1750 | 1238 | 0.04% | 0.004% |
| 83 | 13.292 | 3789 | 3795 | 3808 | rVB6 | 15327 | 27394 | 0.83% | 0.085% |
| 84 | 13.434 | 3836 | 3839 | 3841 | rBV3 | 1855 | 1363 | 0.04% | 0.004% |
| 85 | 13.742 | 3925 | 3935 | 3960 | rVB | 210479 | 399692 | 12.17% | 1.241% |
| 86 | 14.874 | 4276 | 4287 | 4304 | rBV | 779005 | 1321176 | 40.21% | 4.101% |
| 87 | 15.057 | 4335 | 4344 | 4366 | rVB | 348723 | 600755 | 18.29% | 1.865% |
| 88 | 15.604 | 4506 | 4514 | 4526 | rBV | 108414 | 177756 | 5.41% | 0.552% |
| 89 | 15.794 | 4566 | 4573 | 4583 | rBV | 101574 | 162524 | 4.95% | 0.504% |
| 90 | 15.909 | 4598 | 4609 | 4624 | rBV | 739929 | 1254758 | 38.19% | 3.895% |
| 91 | 16.057 | 4644 | 4655 | 4661 | rBV | 549868 | 882852 | 26.87% | 2.740% |
| 92 | 16.093 | 4662 | 4666 | 4681 | rVB | 301501 | 421288 | 12.82% | 1.308% |
| 93 | 16.186 | 4686 | 4695 | 4708 | rBV | 365330 | 603844 | 18.38% | 1.874% |
| 94 | 16.279 | 4710 | 4724 | 4748 | rVB2 | 229311 | 515869 | 15.70% | 1.601% |
| 95 | 16.427 | 4763 | 4770 | 4783 | rBV | 100051 | 150512 | 4.58% | 0.467% |
| 96 | 16.524 | 4790 | 4800 | 4817 | rVB3 | 469533 | 902377 | 27.47% | 2.801% |
| 97 | 16.630 | 4826 | 4833 | 4844 | rVB2 | 129948 | 205575 | 6.26% | 0.638% |
| 98 | 17.163 | 4990 | 4999 | 5010 | rBV2 | 286406 | 474256 | 14.43% | 1.472% |
| 99 | 17.225 | 5011 | 5018 | 5028 | rVB | 175650 | 277515 | 8.45% | 0.861% |
| 100 | 17.527 | 5104 | 5112 | 5127 | rBV2 | 184118 | 347156 | 10.57% | 1.078% |

Sum of corrected areas: 32216346

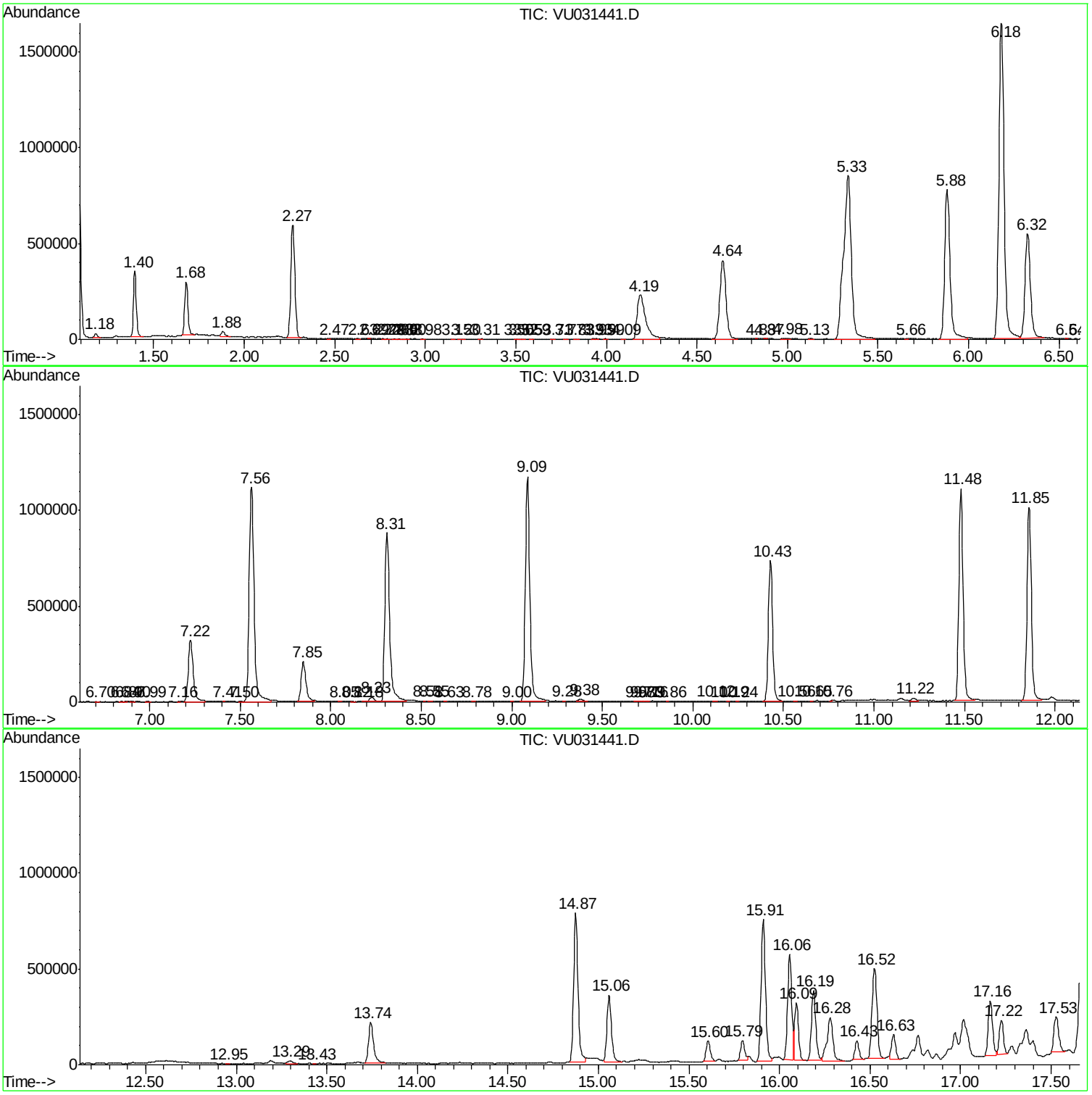
LSC Report - Integrated Chromatogram

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

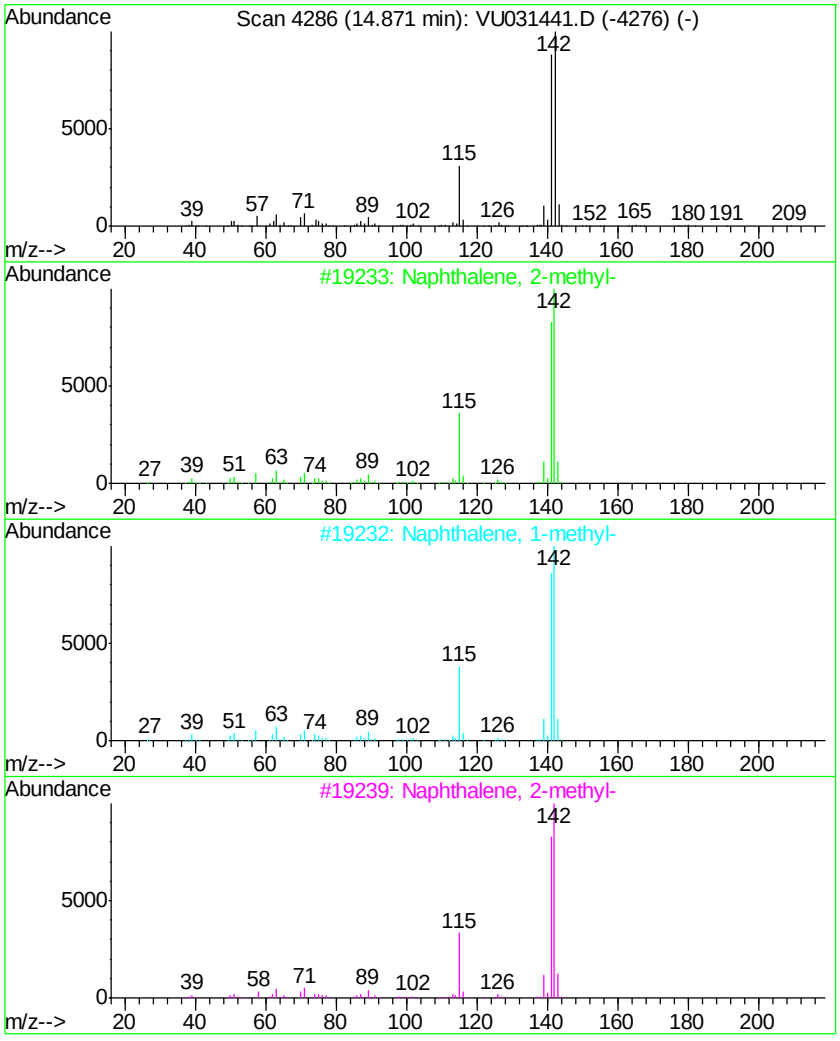
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

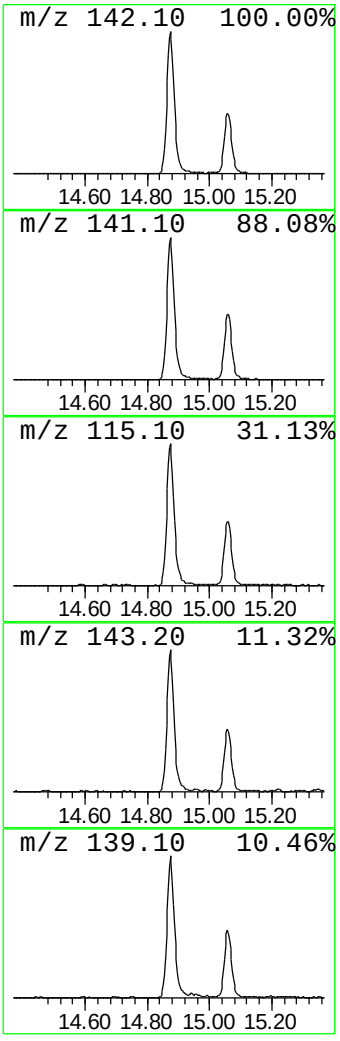
**********

Peak Number 3 Naphthalene, 1-methyl- Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.87 | 36.71 ug/L | 1321180 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 96 |
| 2 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 96 |
| 3 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 96 |
| 4 | Naphthalene, 2-methyl- | 142 | C11H10 | 000091-57-6 | 94 |
| 5 | Naphthalene, 1-methyl- | 142 | C11H10 | 000090-12-0 | 94 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

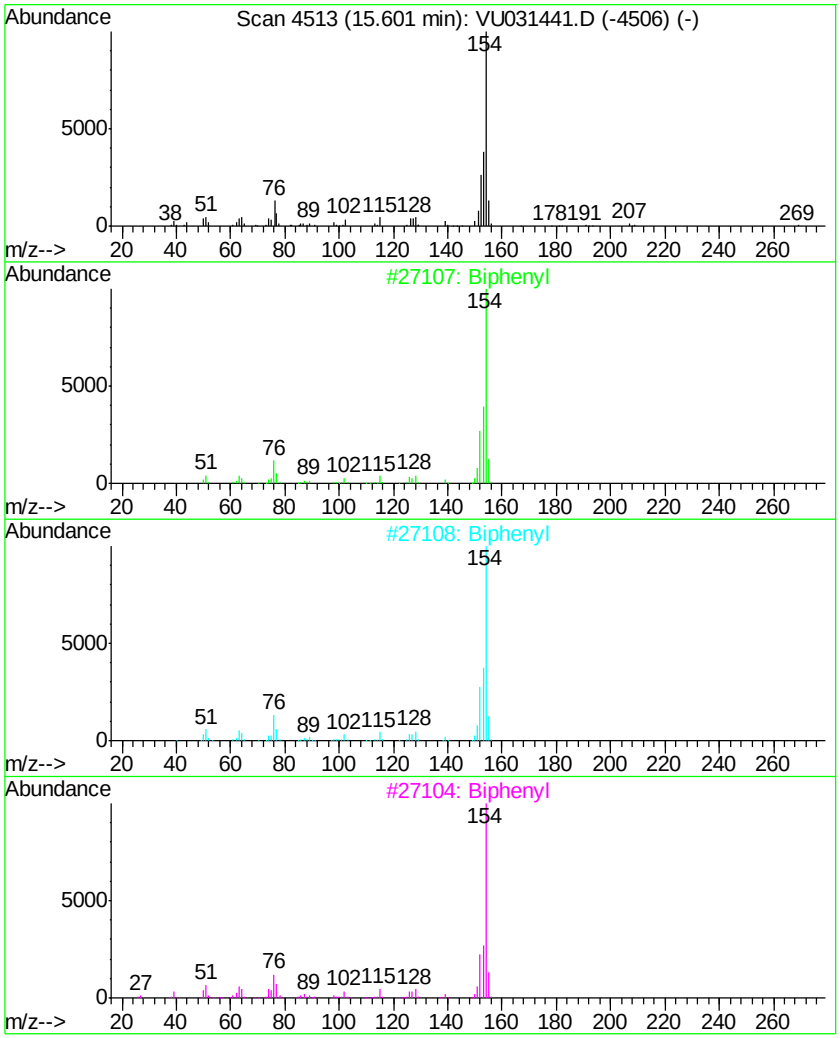
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

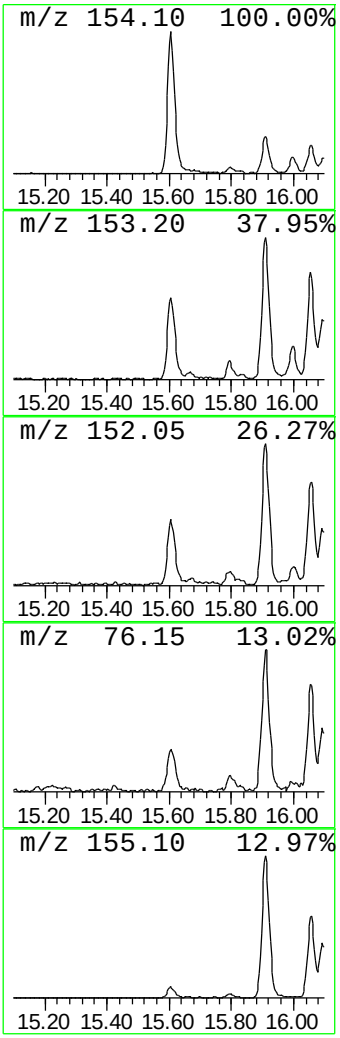
**********

Peak Number 5 Biphenyl Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.60 | 4.94 ug/L | 177756 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Biphenyl | 154 | C12H10 | 000092-52-4 | 95 |
| 2 | Biphenyl | 154 | C12H10 | 000092-52-4 | 95 |
| 3 | Biphenyl | 154 | C12H10 | 000092-52-4 | 94 |
| 4 | Biphenyl | 154 | C12H10 | 000092-52-4 | 93 |
| 5 | Biphenyl | 154 | C12H10 | 000092-52-4 | 91 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

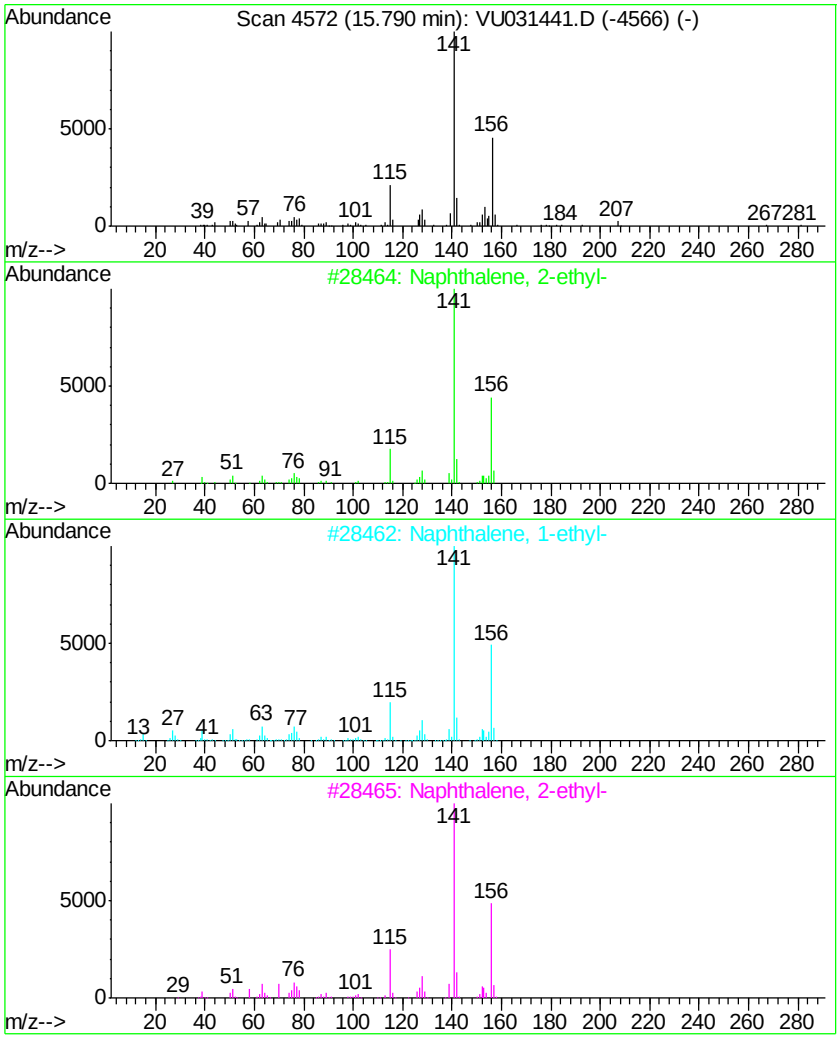
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

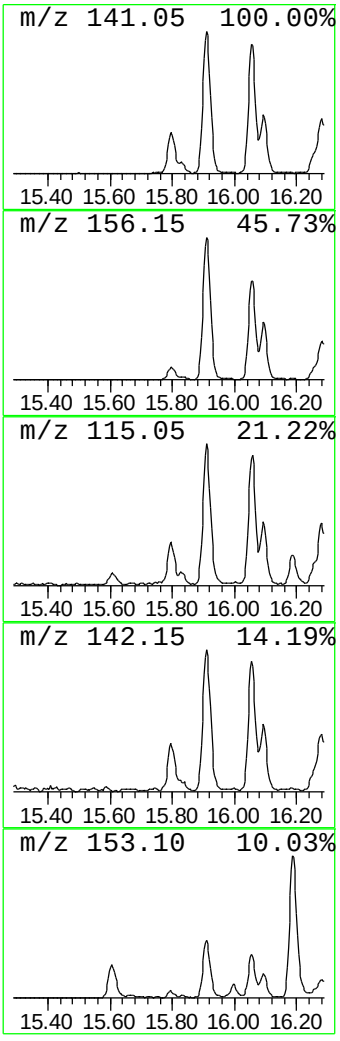
**********

Peak Number 6 Naphthalene, 2-ethyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.79 | 4.52 ug/L | 162524 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-ethyl- | 156 | C12H12 | 000939-27-5 | 94 |
| 2 | Naphthalene, 1-ethyl- | 156 | C12H12 | 001127-76-0 | 93 |
| 3 | Naphthalene, 2-ethyl- | 156 | C12H12 | 000939-27-5 | 91 |
| 4 | Naphthalene, 1-ethyl- | 156 | C12H12 | 001127-76-0 | 90 |
| 5 | Naphthalene, 2-ethyl- | 156 | C12H12 | 000939-27-5 | 90 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

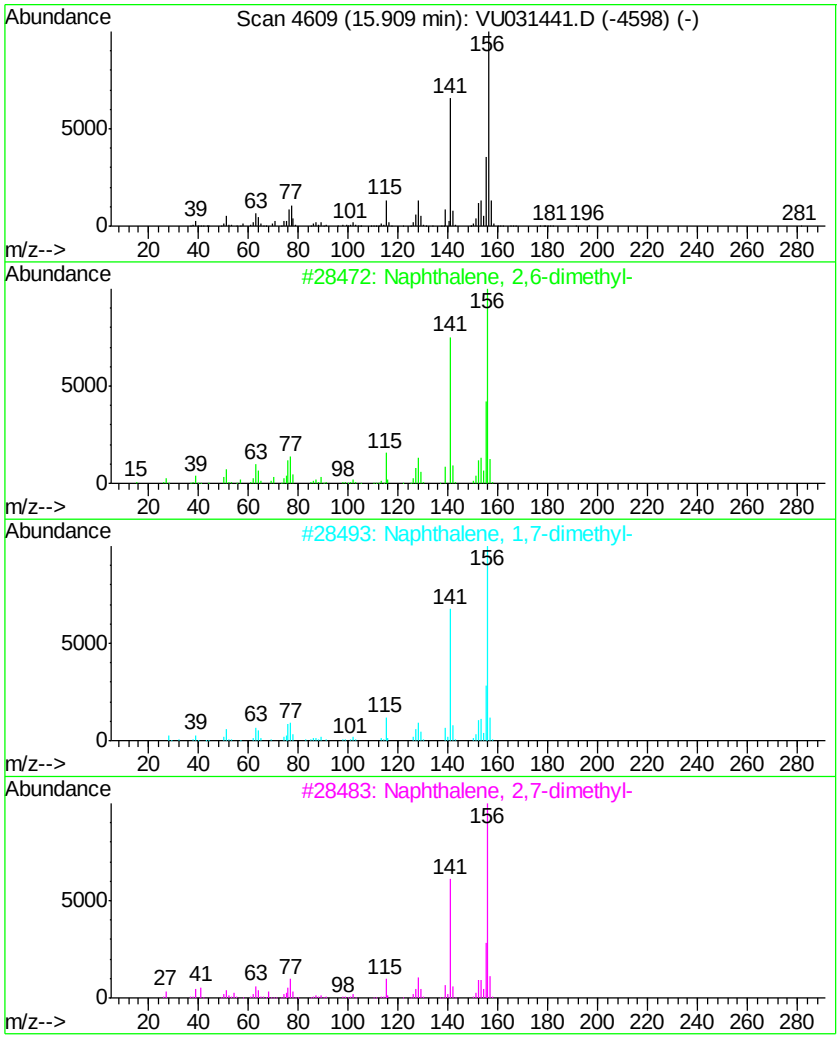
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

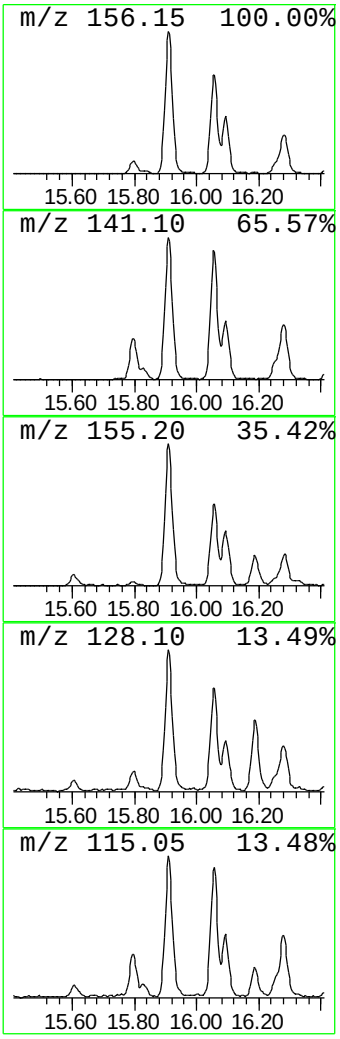
**********

Peak Number 7 Naphthalene, 2,6-dimethyl- Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.91 | 34.86 ug/L | 1254760 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,6-dimethyl- | 156 | C12H12 | 000581-42-0 | 98 |
| 2 | Naphthalene, 1,7-dimethyl- | 156 | C12H12 | 000575-37-1 | 97 |
| 3 | Naphthalene, 2,7-dimethyl- | 156 | C12H12 | 000582-16-1 | 97 |
| 4 | Naphthalene, 1,6-dimethyl- | 156 | C12H12 | 000575-43-9 | 97 |
| 5 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 97 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

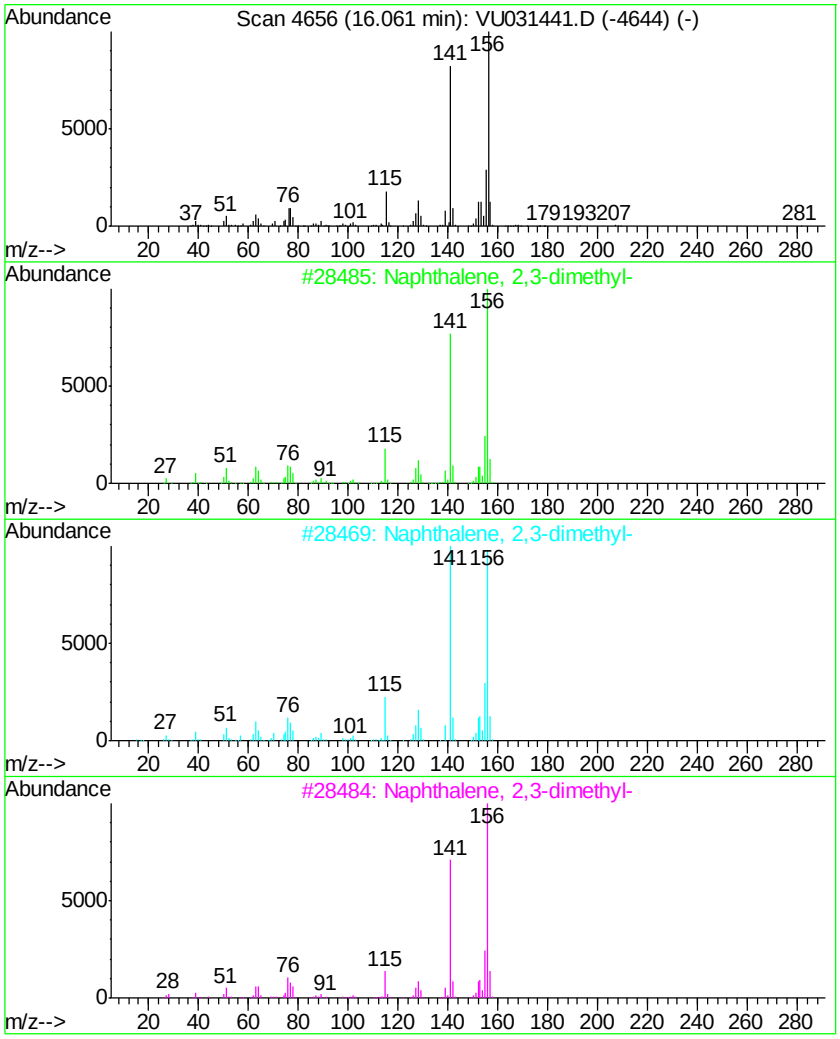
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

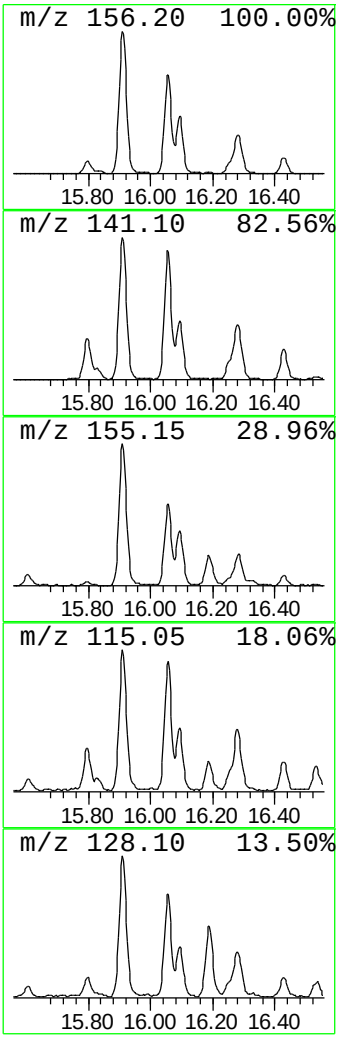
**********

Peak Number 8 Naphthalene, 2,3-dimethyl- Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.06 | 24.53 ug/L | 882852 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 97 |
| 2 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 97 |
| 3 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 97 |
| 4 | Naphthalene, 2,6-dimethyl- | 156 | C12H12 | 000581-42-0 | 97 |
| 5 | Naphthalene, 1,8-dimethyl- | 156 | C12H12 | 000569-41-5 | 97 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

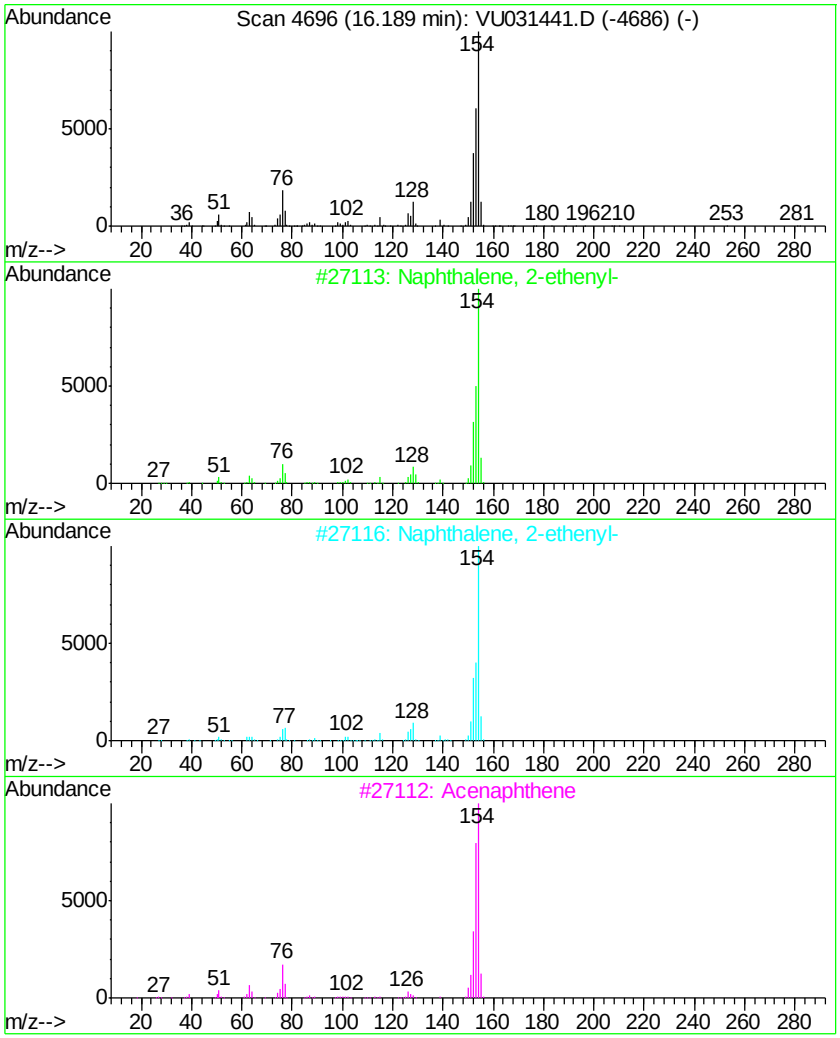
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

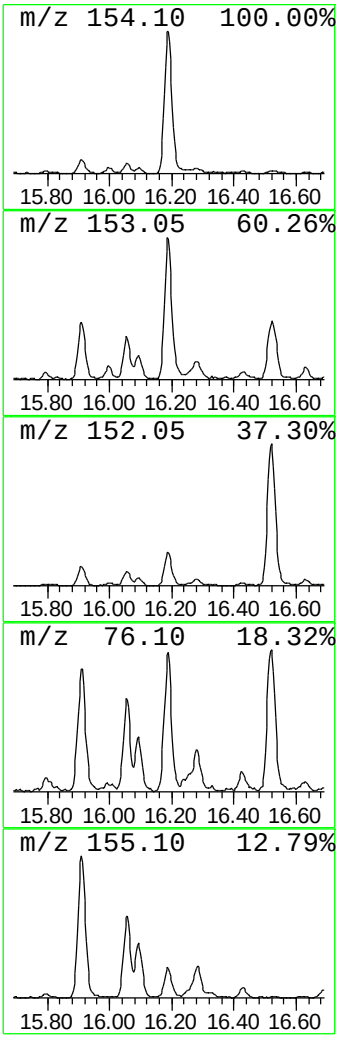
**********

Peak Number 10 Naphthalene, 2-ethenyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.19 | 16.78 ug/L | 603844 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-ethenyl- | 154 | C12H10 | 000827-54-3 | 94 |
| 2 | Naphthalene, 2-ethenyl- | 154 | C12H10 | 000827-54-3 | 93 |
| 3 | Acenaphthene | 154 | C12H10 | 000083-32-9 | 93 |
| 4 | Biphenyl | 154 | C12H10 | 000092-52-4 | 90 |
| 5 | Biphenyl | 154 | C12H10 | 000092-52-4 | 87 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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

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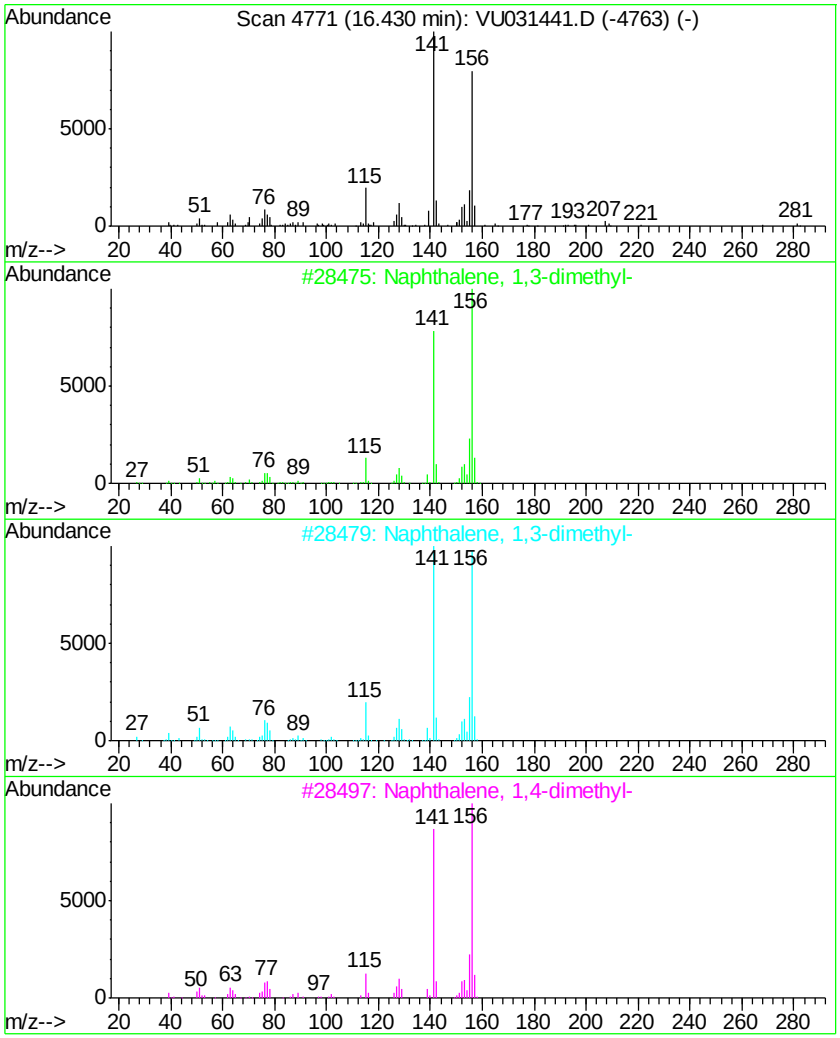
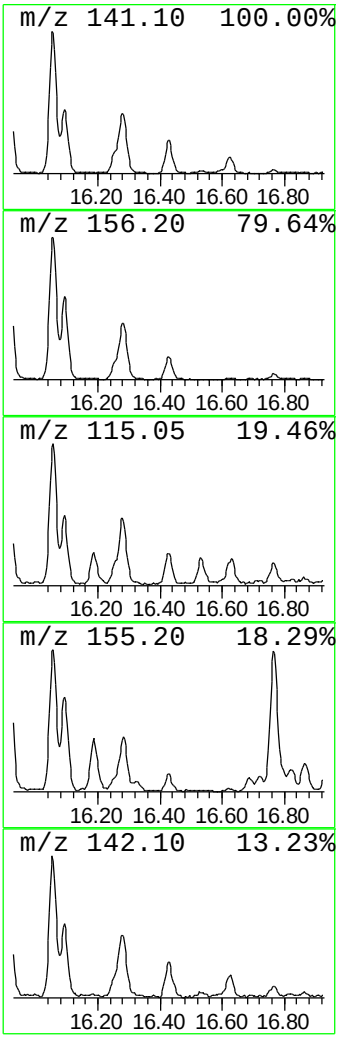
Peak Number 12 Naphthalene, 1,3-dimethyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.43 | 4.18 ug/L | 150512 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |
| 2 | Naphthalene, 1,3-dimethyl- | 156 | C12H12 | 000575-41-7 | 96 |
| 3 | Naphthalene, 1,4-dimethyl- | 156 | C12H12 | 000571-58-4 | 96 |
| 4 | Naphthalene, 2,3-dimethyl- | 156 | C12H12 | 000581-40-8 | 95 |
| 5 | Naphthalene, 2-ethyl- | 156 | C12H12 | 000939-27-5 | 93 |



# Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

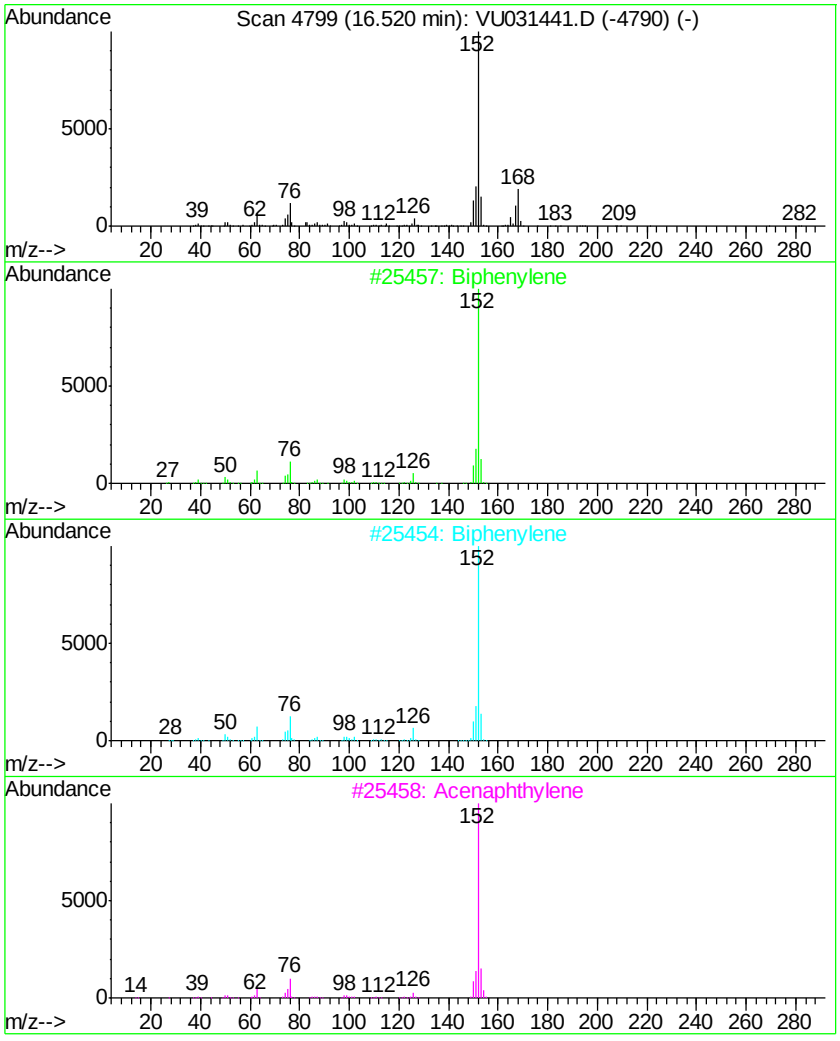
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

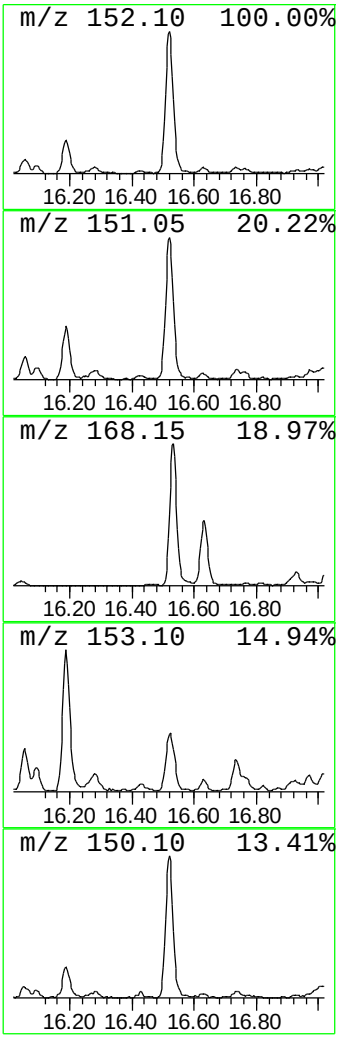
**********

Peak Number 13 Biphenylene Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.52 | 25.07 ug/L | 902377 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Biphenylene | 152 | C12H8 | 000259-79-0 | 89 |
| 2 | Biphenylene | 152 | C12H8 | 000259-79-0 | 89 |
| 3 | Acenaphthylene | 152 | C12H8 | 000208-96-8 | 89 |
| 4 | Acenaphthylene | 152 | C12H8 | 000208-96-8 | 70 |
| 5 | (6Balpha,7beta,11alpha,11aalpha)... | 334 | C25H18O | 1000241-69-8 | 64 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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

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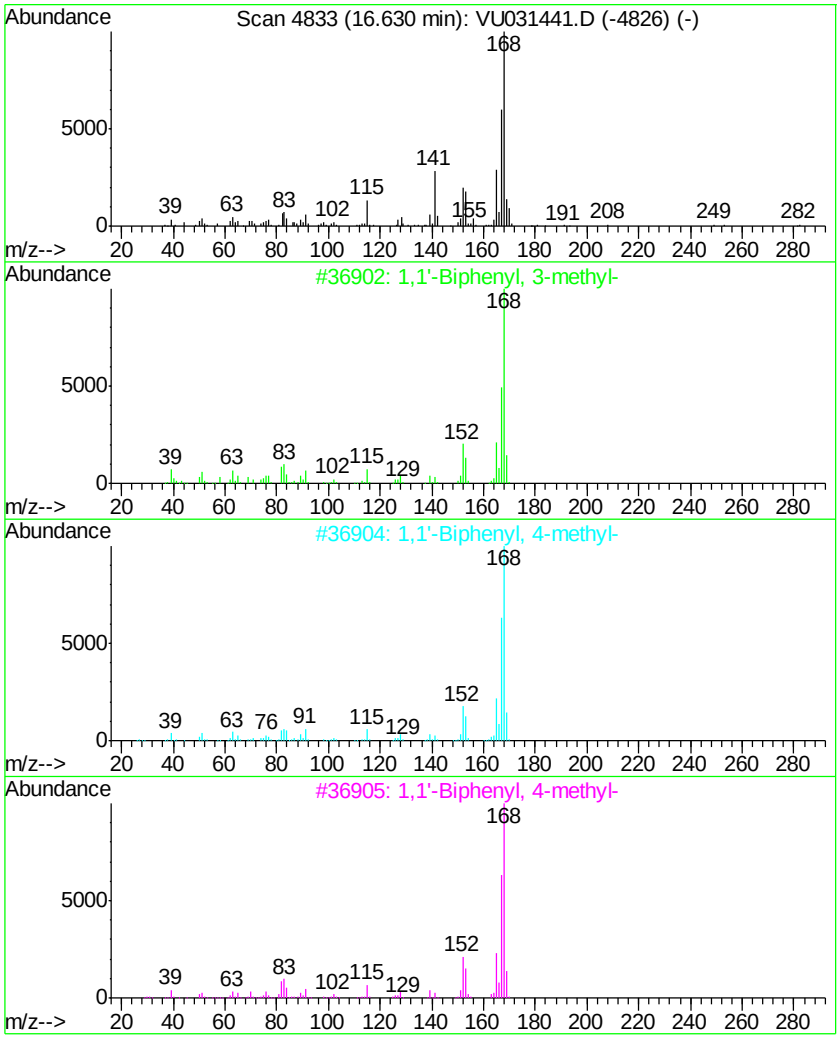
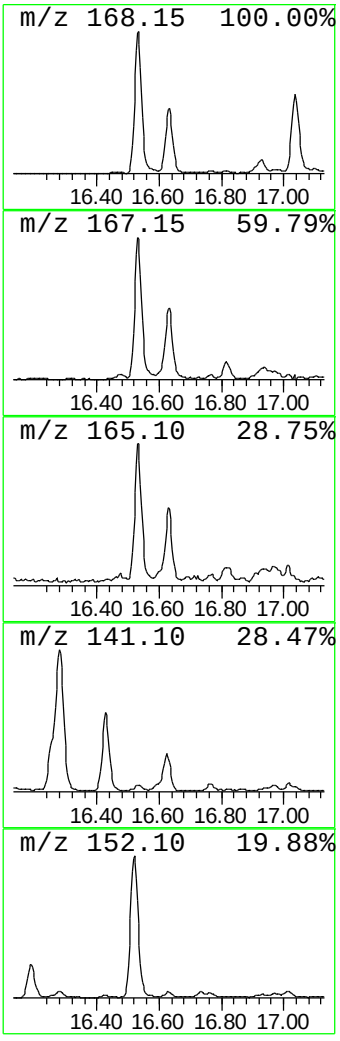
Peak Number 14 1,1'-Biphenyl, 3-methyl- Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.63 | 5.71 ug/L | 205575 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 3-methyl- | 168 | C13H12 | 000643-93-6 | 94 |
| 2 | 1,1'-Biphenyl, 4-methyl- | 168 | C13H12 | 000644-08-6 | 94 |
| 3 | 1,1'-Biphenyl, 4-methyl- | 168 | C13H12 | 000644-08-6 | 93 |
| 4 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 76 |
| 5 | 1,1'-Biphenyl, 4-methyl- | 168 | C13H12 | 000644-08-6 | 76 |



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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

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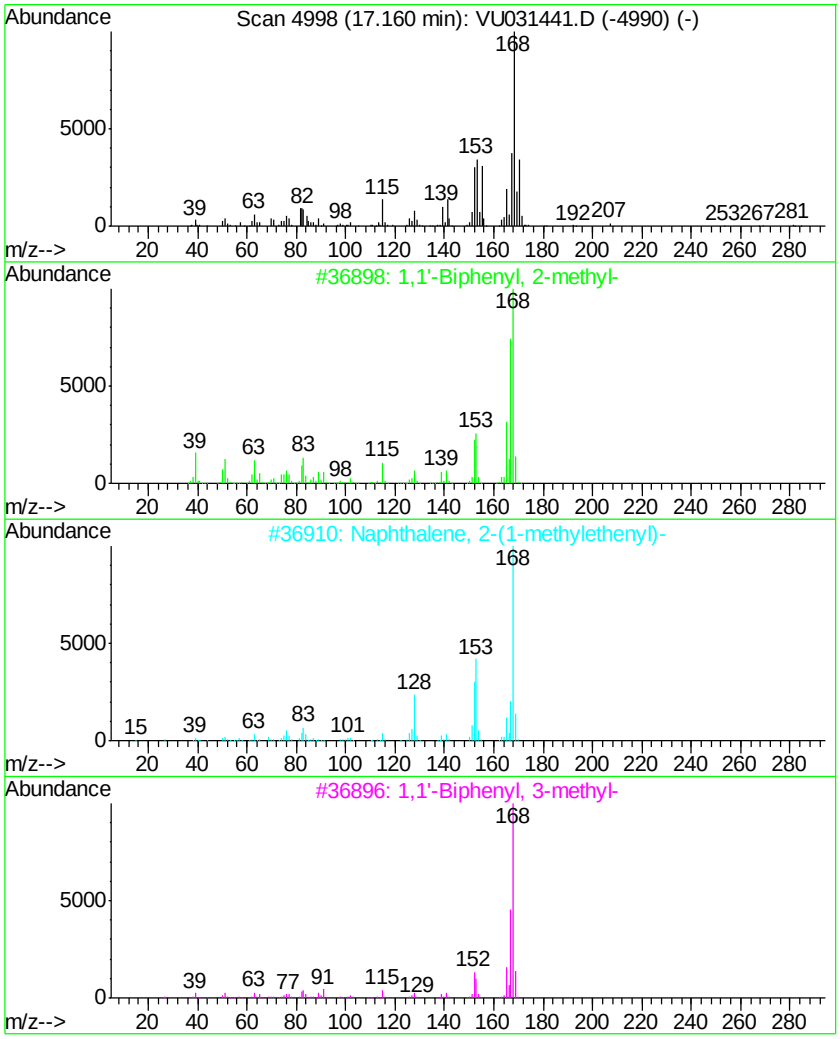
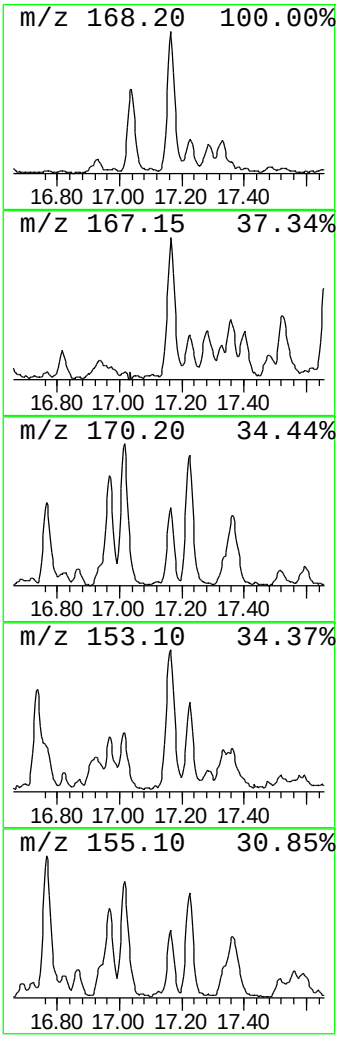
Peak Number 15 1,1'-Biphenyl, 2-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.16 | 13.18 ug/L | 474256 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 60 |
| 2 | Naphthalene, 2-(1-methylethenyl)- | 168 | C13H12 | 003710-23-4 | 60 |
| 3 | 1,1'-Biphenyl, 3-methyl- | 168 | C13H12 | 000643-93-6 | 59 |
| 4 | 1,1'-Biphenyl, 2-methyl- | 168 | C13H12 | 000643-58-3 | 55 |
| 5 | 1,1'-Biphenyl, 3-methyl- | 168 | C13H12 | 000643-93-6 | 52 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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

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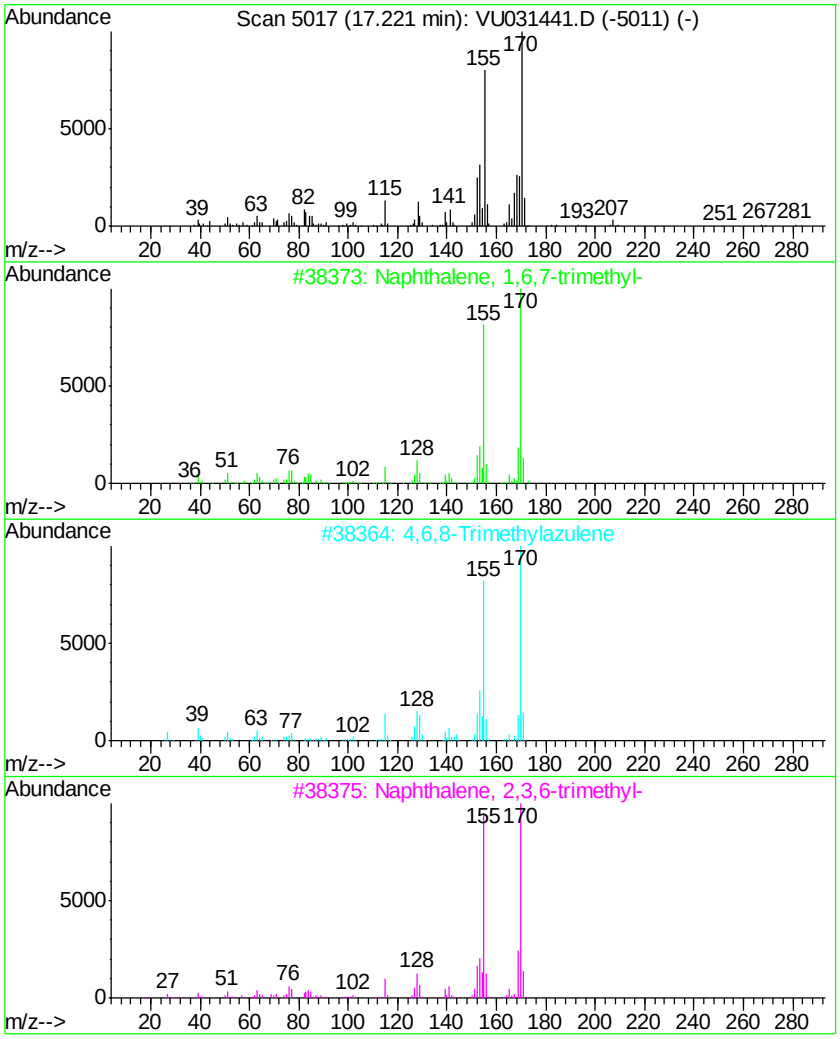
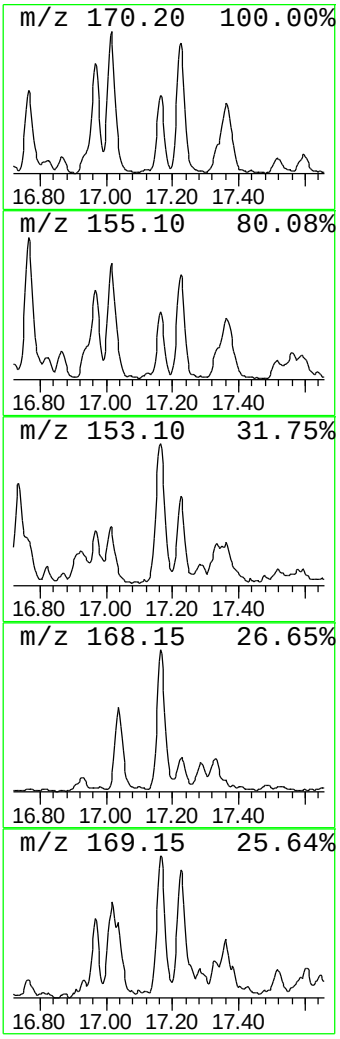
Peak Number 16 Naphthalene, 1,6,7-trimethyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.22 | 7.71 ug/L | 277515 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14 | 002245-38-7 | 94 |
| 2 | 4,6,8-Trimethylazulene | 170 | C13H14 | 000941-81-1 | 81 |
| 3 | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14 | 000829-26-5 | 76 |
| 4 | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14 | 002131-42-2 | 76 |
| 5 | 1-(2,2-Dimethylcyclopropyl)-2-ph... | 170 | C13H14 | 1000294-91-1 | 72 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.M
Quant Title : VOC Analysis

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

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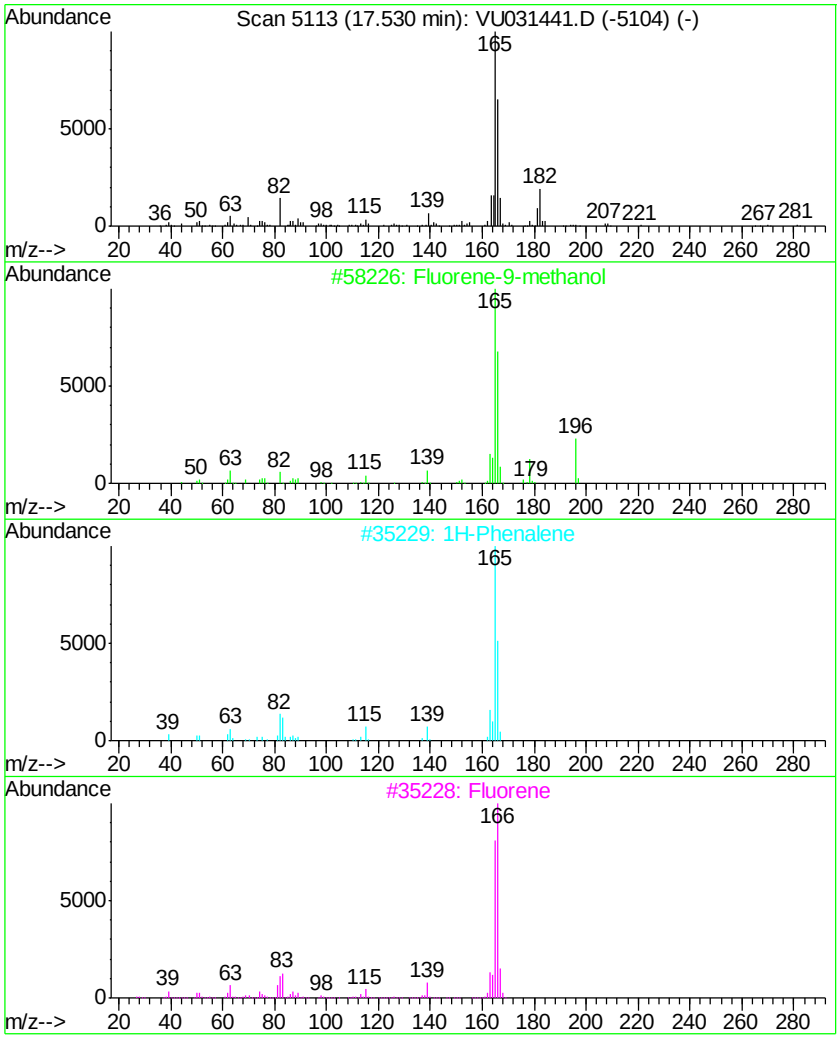
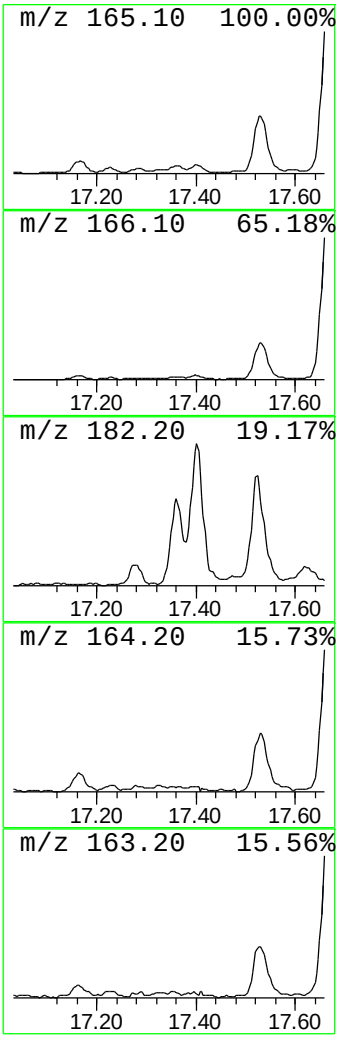
Peak Number 17 Fluorene-9-methanol Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.53 | 9.65 ug/L | 347156 | 1,4-Dichlorobenzene-d4 | 11.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Fluorene-9-methanol | 196 | C14H12O | 024324-17-2 | 59 |
| 2 | 1H-Phenalene | 166 | C13H10 | 000203-80-5 | 58 |
| 3 | Fluorene | 166 | C13H10 | 000086-73-7 | 55 |
| 4 | 9H-Fluorene, 9-(1-methylethyl)- | 208 | C16H16 | 003299-99-8 | 50 |
| 5 | 9H-Fluorene, 9-bromo- | 244 | C13H9Br | 001940-57-4 | 47 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_U\DATA\VU042319\
Data File : VU031441.D
Acq On : 23 Apr 2019 16:22
Operator : JC/SP
Sample : K2536-03 50X
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 20 Sample Multiplier: 1

**Instrument :** MSVOA_U
**ClientSampleId :** C0X23

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM042319WMA.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 |
| Naphthalene, 1-me... | 14.87 | 36.7 | ug/L | 1321180 | 3 | 11.48 | 1799610 | 50.0 |
| Biphenyl | 15.60 | 4.9 | ug/L | 177756 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 2-et... | 15.79 | 4.5 | ug/L | 162524 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 2,6-... | 15.91 | 34.9 | ug/L | 1254760 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 2,3-... | 16.06 | 24.5 | ug/L | 882852 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 2-et... | 16.19 | 16.8 | ug/L | 603844 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 1,3-... | 16.43 | 4.2 | ug/L | 150512 | 3 | 11.48 | 1799610 | 50.0 |
| Biphenylene | 16.52 | 25.1 | ug/L | 902377 | 3 | 11.48 | 1799610 | 50.0 |
| 1,1'-Biphenyl, 3-... | 16.63 | 5.7 | ug/L | 205575 | 3 | 11.48 | 1799610 | 50.0 |
| 1,1'-Biphenyl, 2-... | 17.16 | 13.2 | ug/L | 474256 | 3 | 11.48 | 1799610 | 50.0 |
| Naphthalene, 1,6,... | 17.22 | 7.7 | ug/L | 277515 | 3 | 11.48 | 1799610 | 50.0 |
| Fluorene-9-methanol | 17.53 | 9.7 | ug/L | 347156 | 3 | 11.48 | 1799610 | 50.0 |