N60087.AR.000605
NAS BRUNSWICK
5090.3a

**EA Engineering, Science, and Technology**

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6 March 1997

Northern Division,
Naval Facilities Engineering Command
ATTN: Fred Evans (Code 1823/FE)
10 Industrial Highway - Mail Stop 82
Lester, Pennsylvania 19113-2090

RE: Results of Method Detection Limit Studies for EPA Methods 8260 and 8310
in Support of Long-Term Monitoring Program at Naval Air Station, Brunswick, Maine
Contract No. N62472-92-D-1296; Contract Task Order No. 0047
EA Project No. 296.0047

Dear Mr. Evans:

Enclosed please find 3 copies of the Method Detection Limit (MDL) studies completed by EA Laboratories for SW-846 Method 8260 for the determination of volatile organic compounds, and SW-846 Method 8310 for the determination of pyrethrins and rotenone. All of the MDLs reported are below those specified in Table 7-2 of Section 7 of the Quality Assurance Project Plan contained in the Long-Term Monitoring Plan for Building 95, Sites 1 and 3, and Eastern Plume (ABB Environmental Services, Inc. [ABB-ES] 1994), and Appendix A, Table A-2 of the Long-Term Monitoring Plan for Site 9 (ABB-ES 1995). These MDLs are submitted in accordance with the requirements of Section 7.2 of the Quality Assurance Project Plan contained in the Long-Term Monitoring Plan for Building 95, Sites 1 and 3, and Eastern Plume (ABB-ES 1994), which specifies regulator approval of the MDLs prior to performing analytical services.

Following your review of the MDLs, please forward to the appropriate contacts at the State of Maine Department of Environmental Protection and Region I of the U.S. Environmental Protection Agency for review and approval.

Should you require any additional information regarding the results of the MDLs, please do not hesitate to call.

Respectfully,

Michael S. Battle, P.G.
CTO Manager

MSB/mtr
Attachments

cc: S. Morekas, EA (w/o attachments)
M. Uhlfelder, EA Laboratories (w/o attachments)

# ATTACHMENT 1

# MDL STUDIES FOR EPA METHOD 8260

METHOD DETECTION LIMITS 8260 25ml water

Instrument: VJ9

Analyst: James Fackett, Jr.

Student's T value = 2.998 for 7 degrees of freedom

Target value = 2.4

Date of Study: 11/15/96

| Compound | Replicate ID 1 (ug/L) | 2 (ug/L) | 3 (ug/L) | 4 (ug/L) | 5 (ug/L) | 6 (ug/L) | 7 (ug/L) | 8 (ug/L) | Mean (ug/L) | Recovery (%) | Std. Dev. (ug/L) | MDL (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 2.12 | 2.46 | 2.03 | 2.13 | 2.06 | 2.24 | 1.87 | 2.32 | 2.15 | 90 | 0.18 | 0.5 |
| Chloromethane | 2.35 | 2.50 | 2.28 | 2.11 | 2.09 | 2.28 | 2.08 | 2.18 | 2.23 | 93 | 0.15 | 0.4 |
| Vinyl Chloride | 2.28 | 2.43 | 2.18 | 2.27 | 2.13 | 2.37 | 1.94 | 2.35 | 2.24 | 93 | 0.16 | 0.5 |
| Bromomethane | 1.93 | 2.15 | 1.85 | 2.03 | 1.77 | 2.04 | 1.47 | 2.15 | 1.92 | 80 | 0.23 | 0.7 |
| Chloroethane | 2.33 | 2.51 | 2.25 | 2.20 | 2.21 | 2.33 | 2.02 | 2.36 | 2.28 | 95 | 0.14 | 0.4 |
| Trichlorofluoromethane | 2.16 | 2.40 | 2.01 | 2.19 | 2.06 | 2.22 | 1.88 | 2.22 | 2.14 | 89 | 0.16 | 0.5 |
| Ethyl Ether | 2.55 | 2.69 | 2.42 | 2.44 | 2.55 | 2.35 | 2.39 | 2.38 | 2.47 | 103 | 0.11 | 0.3 |
| Acrolein *5 | 12.85 | 13.63 | 13.28 | 11.89 | 12.66 | 11.36 | 12.26 | 11.76 | 12.46 | 104 | 0.78 | 2.4 |
| 1,1,2-Trichloro-1,1,2-trif | 2.12 | 2.39 | 2.08 | 2.18 | 2.00 | 2.25 | 1.90 | 2.22 | 2.14 | 89 | 0.15 | 0.5 |
| Acetone *5 | 13.89 | 14.27 | 14.56 | 14.56 | 14.60 | 13.13 | 12.88 | 14.02 | 13.99 | 117 | 0.66 | 2.0 |
| 1,1-Dichloroethene | 2.27 | 2.42 | 2.12 | 2.19 | 2.05 | 2.30 | 2.07 | 2.31 | 2.22 | 92 | 0.13 | 0.4 |
| Acetonitrile *5 | 9.70 | 9.84 | 10.65 | 11.99 | 9.54 | 10.74 | 10.32 | 10.37 | 10.39 | 87 | 0.78 | 2.3 |
| Iodomethane | 2.01 | 2.25 | 2.19 | 2.19 | 2.21 | 2.45 | 2.19 | 2.46 | 2.24 | 93 | 0.15 | 0.4 |
| Allyl Chloride | 2.22 | 2.47 | 2.27 | 2.30 | 2.23 | 2.34 | 2.04 | 2.34 | 2.28 | 95 | 0.12 | 0.4 |
| Methylene Chloride | 2.51 | 2.47 | 2.48 | 2.34 | 2.42 | 2.38 | 2.18 | 2.44 | 2.40 | 100 | 0.10 | 0.3 |
| Carbon Disulfide | 2.20 | 2.40 | 2.17 | 2.24 | 2.09 | 2.32 | 1.94 | 2.24 | 2.20 | 92 | 0.14 | 0.4 |
| Acrylonitrile *5 | 13.18 | 13.44 | 12.57 | 12.48 | 12.23 | 12.77 | 11.41 | 12.11 | 12.53 | 104 | 0.63 | 1.9 |
| Methyl t-butyl ether | 2.60 | 2.72 | 2.57 | 2.49 | 2.53 | 2.44 | 2.31 | 2.43 | 2.51 | 105 | 0.12 | 0.4 |
| Ethyl Acetate | 2.50 | 2.97 | 2.37 | 2.60 | 2.93 | 2.62 | 2.37 | 2.74 | 2.64 | 110 | 0.23 | 0.7 |
| trans-1,2-Dichloroethene | 2.25 | 2.43 | 2.19 | 2.25 | 2.16 | 2.37 | 2.00 | 2.28 | 2.24 | 93 | 0.13 | 0.4 |
| Diisopropyl ether | 2.45 | 2.61 | 2.39 | 2.39 | 2.41 | 2.37 | 2.22 | 2.47 | 2.41 | 101 | 0.11 | 0.3 |
| 1,1-Dichloroethane | 2.25 | 2.33 | 2.21 | 2.23 | 2.22 | 2.37 | 2.10 | 2.36 | 2.26 | 94 | 0.09 | 0.3 |
| Vinyl Acetate | 3.15 | 2.48 | 2.49 | 2.65 | 2.80 | 2.40 | 2.24 | 2.58 | 2.60 | 108 | 0.28 | 0.8 |
| 2-Butanone *5 | 12.82 | 13.72 | 12.76 | 12.41 | 12.82 | 12.66 | 11.20 | 12.46 | 12.61 | 105 | 0.70 | 2.1 |
| Propionitrile *5 | 12.41 | 13.80 | 10.53 | 12.64 | 12.14 | 12.00 | 11.96 | 12.09 | 12.20 | 102 | 0.90 | 2.7 |
| 2,2-Dichloropropane | 2.23 | 2.32 | 2.06 | 2.13 | 1.95 | 2.09 | 1.82 | 2.03 | 2.08 | 87 | 0.16 | 0.5 |
| cis-1,2-Dichloroethene | 2.31 | 2.50 | 2.27 | 2.29 | 2.24 | 2.32 | 2.12 | 2.38 | 2.30 | 96 | 0.11 | 0.3 |

Received 01/08/97
Reviewed 01/08/97
Entered 1/09/97

| Compound | Replicate ID 1 (ug/L) | 2 (ug/L) | 3 (ug/L) | 4 (ug/L) | 5 (ug/L) | 6 (ug/L) | 7 (ug/L) | 8 (ug/L) | | Mean (ug/L) | Recovery (%) | Std. Dev. (ug/L) | MDL (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methacyrlonitrile | 2.32 | 2.60 | 2.61 | 2.42 | 2.71 | 2.37 | 2.32 | 2.66 | | 2.50 | 104 | 0.16 | 0.5 |
| Chloroform | 2.39 | 2.54 | 2.32 | 2.37 | 2.33 | 2.39 | 2.16 | 2.44 | | 2.37 | 99 | 0.11 | 0.3 |
| Isobutyl Alcohol *10 | 28.08 | 30.77 | 32.48 | 29.84 | 28.31 | 31.36 | 24.28 | 28.77 | | 29.23 | 122 | 2.53 | 7.6 |
| Bromochloromethane | 2.57 | 2.53 | 2.44 | 2.48 | 2.54 | 2.48 | 2.21 | 2.42 | | 2.46 | 102 | 0.11 | 0.3 |
| Tetrahydrofuran | 2.73 | 3.31 | 2.70 | 2.83 | 3.10 | 2.41 | 2.06 | 2.54 | | 2.71 | 113 | 0.39 | 1.2 |
| Dibromofluoromethane | 2.25 | 2.38 | 2.18 | 2.22 | 2.19 | 2.25 | 2.06 | 2.29 | | 2.23 | 93 | 0.09 | 0.3 |
| 1,1,1-Trichloroethane | 2.26 | 2.44 | 2.17 | 2.33 | 2.13 | 2.31 | 2.02 | 2.33 | | 2.25 | 94 | 0.14 | 0.4 |
| 1,1-Dichloropropene | 2.20 | 2.47 | 2.17 | 2.22 | 2.03 | 2.29 | 1.97 | 2.30 | | 2.21 | 92 | 0.16 | 0.5 |
| Carbon Tetrachloride | 2.10 | 2.31 | 2.00 | 2.11 | 1.96 | 2.10 | 1.86 | 2.13 | | 2.07 | 86 | 0.13 | 0.4 |
| 1,2-Dichloroethane-d4 | 2.37 | 2.46 | 2.28 | 2.39 | 2.29 | 2.36 | 2.26 | 2.37 | | 2.35 | 98 | 0.07 | 0.2 |
| 1,2-Dichloroethane | 2.52 | 2.70 | 2.47 | 2.46 | 2.43 | 2.41 | 2.26 | 2.50 | | 2.47 | 103 | 0.12 | 0.4 |
| Benzene | 2.36 | 2.48 | 2.25 | 2.32 | 2.23 | 2.33 | 2.15 | 2.35 | | 2.31 | 96 | 0.10 | 0.3 |
| Trichloroethene | 2.30 | 2.50 | 2.22 | 2.24 | 2.16 | 2.34 | 2.18 | 2.30 | | 2.28 | 95 | 0.11 | 0.3 |
| 1,2-Dichloropropane | 2.49 | 2.63 | 2.31 | 2.36 | 2.34 | 2.44 | 2.22 | 2.38 | | 2.40 | 100 | 0.12 | 0.4 |
| Methyl Methacrylate | 2.52 | 2.61 | 2.44 | 2.61 | 2.52 | 2.48 | 2.28 | 2.39 | | 2.48 | 103 | 0.11 | 0.3 |
| Bromodichloromethane | 2.35 | 2.49 | 2.29 | 2.28 | 2.28 | 2.30 | 2.15 | 2.36 | | 2.31 | 96 | 0.10 | 0.3 |
| Dibromomethane | 2.52 | 2.59 | 2.38 | 2.41 | 2.45 | 2.44 | 2.27 | 2.34 | | 2.43 | 101 | 0.10 | 0.3 |
| 2-Nitropropane | 3.02 | 3.41 | 2.91 | 3.58 | 2.95 | 2.79 | 2.98 | 2.84 | | 3.06 | 128 | 0.28 | 0.8 |
| 2-Chloroethyl vinyl ether | 3.23 | 2.77 | 2.97 | 2.48 | 2.99 | 2.90 | 2.87 | 2.34 | | 2.82 | 117 | 0.29 | 0.9 |
| 4-Methyl-2-Pentanone*5 | 12.03 | 12.61 | 12.28 | 11.75 | 12.29 | 11.51 | 11.14 | 11.23 | | 11.85 | 99 | 0.53 | 1.6 |
| cis-1,3-Dichloropropene | 2.43 | 2.54 | 2.35 | 2.41 | 2.28 | 2.29 | 2.16 | 2.30 | | 2.35 | 98 | 0.11 | 0.3 |
| Toluene | 2.37 | 2.51 | 2.23 | 2.29 | 2.18 | 2.37 | 2.14 | 2.38 | | 2.31 | 96 | 0.12 | 0.4 |
| trans-1,3-Dichloropropen | 2.38 | 2.47 | 2.22 | 2.26 | 2.30 | 2.24 | 2.10 | 2.30 | | 2.28 | 95 | 0.11 | 0.3 |
| Ethyl Methacrylate | 2.55 | 2.61 | 2.44 | 2.54 | 2.43 | 2.42 | 2.28 | 2.39 | | 2.46 | 102 | 0.10 | 0.3 |
| 1,1,2-Trichloroethane | 2.51 | 2.57 | 2.37 | 2.37 | 2.44 | 2.44 | 2.21 | 2.39 | | 2.41 | 101 | 0.11 | 0.3 |
| 1,2-Dibromoethane (ED | 2.49 | 2.53 | 2.44 | 2.43 | 2.41 | 2.44 | 2.26 | 2.38 | | 2.42 | 101 | 0.08 | 0.2 |
| Toluene-d8 | 2.21 | 2.34 | 2.11 | 2.13 | 2.08 | 2.17 | 2.01 | 2.19 | | 2.15 | 90 | 0.10 | 0.3 |
| Bromofluorobenzene | 2.37 | 2.44 | 2.29 | 2.28 | 2.23 | 2.25 | 2.14 | 2.28 | | 2.29 | 95 | 0.09 | 0.3 |
| 2-Hexanone *5 | 12.15 | 13.48 | 12.31 | 12.84 | 12.30 | 12.65 | 11.67 | 12.29 | | 12.46 | 104 | 0.54 | 1.6 |
| 1,3-Dichloropropane | 2.45 | 2.66 | 2.36 | 2.41 | 2.36 | 2.37 | 2.34 | 2.48 | | 2.43 | 101 | 0.10 | 0.3 |
| Tetrachloroethene | 2.15 | 2.37 | 2.05 | 2.18 | 2.07 | 2.24 | 1.98 | 2.32 | | 2.17 | 90 | 0.14 | 0.4 |
| Chlorodibromomethane | 2.30 | 2.40 | 2.17 | 2.26 | 2.31 | 2.28 | 2.09 | 2.29 | | 2.26 | 94 | 0.09 | 0.3 |
| 1-Chlorohexane | 2.11 | 2.29 | 2.00 | 2.09 | 2.01 | 2.21 | 1.86 | 2.33 | | 2.11 | 88 | 0.16 | 0.5 |
| Chlorobenzene | 2.32 | 2.42 | 2.14 | 2.22 | 2.26 | 2.34 | 2.14 | 2.33 | | 2.27 | 95 | 0.10 | 0.3 |
| 1,1,1,2-Tetrachloroethan | 2.28 | 2.51 | 2.20 | 2.34 | 2.33 | 2.37 | 2.18 | 2.38 | | 2.32 | 97 | 0.11 | 0.3 |
| Ethylbenzene | 2.35 | 2.53 | 2.20 | 2.24 | 2.14 | 2.38 | 2.23 | 2.34 | | 2.30 | 96 | 0.12 | 0.4 |

| Compound | Replicate ID 1 (ug/L) | 2 (ug/L) | 3 (ug/L) | 4 (ug/L) | 5 (ug/L) | 6 (ug/L) | 7 (ug/L) | 8 (ug/L) | | Mean (ug/L) | Recovery (%) | Std. Dev. (ug/L) | MDL (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m&p-Xylenes *2 | 4.55 | 4.84 | 4.14 | 4.50 | 4.34 | 4.57 | 4.12 | 4.63 | | 4.46 | 93 | 0.25 | 0.7 |
| o-Xylene | 2.25 | 2.50 | 2.13 | 2.28 | 2.23 | 2.37 | 2.13 | 2.33 | | 2.28 | 95 | 0.12 | 0.4 |
| Xylenes (total) *3 | 6.78 | 6.82 | 6.31 | 6.75 | 6.46 | 6.92 | 6.89 | 6.95 | | 6.74 | 94 | 0.23 | 0.7 |
| Styrene | 2.31 | 2.47 | 2.18 | 2.29 | 2.22 | 2.35 | 2.12 | 2.38 | | 2.29 | 95 | 0.11 | 0.3 |
| Bromoform | 2.31 | 2.43 | 2.17 | 2.29 | 2.22 | 2.27 | 2.11 | 2.27 | | 2.26 | 94 | 0.10 | 0.3 |
| Isopropylbenzene | 2.27 | 2.42 | 2.12 | 2.14 | 2.11 | 2.15 | 2.04 | 2.24 | | 2.19 | 91 | 0.12 | 0.4 |
| 1,1,2,2-Tetrachloroethan | 2.61 | 2.68 | 2.53 | 2.53 | 2.50 | 2.40 | 2.43 | 2.37 | | 2.51 | 104 | 0.11 | 0.3 |
| 1,2,3-Trichloropropane | 2.62 | 2.54 | 2.42 | 2.46 | 2.53 | 2.15 | 2.61 | 2.66 | | 2.50 | 104 | 0.16 | 0.5 |
| trans-1,4-Dichloro *2 | 4.64 | 4.98 | 5.45 | 4.58 | 4.30 | 4.12 | 4.45 | 3.92 | | 4.56 | 95 | 0.49 | 1.5 |
| n-Propylbenzene | 2.32 | 2.50 | 2.22 | 2.26 | 2.15 | 2.23 | 2.10 | 2.32 | | 2.26 | 94 | 0.12 | 0.4 |
| Bromobenzene | 2.39 | 2.54 | 2.33 | 2.30 | 2.31 | 2.28 | 2.28 | 2.30 | | 2.34 | 98 | 0.09 | 0.3 |
| 1,3,5-Trimethylbenzene | 2.31 | 2.49 | 2.19 | 2.24 | 2.14 | 2.20 | 2.12 | 2.29 | | 2.25 | 94 | 0.12 | 0.4 |
| 2-Chlorotoluene | 2.36 | 2.44 | 2.18 | 2.18 | 2.15 | 2.30 | 2.36 | 2.35 | | 2.29 | 95 | 0.11 | 0.3 |
| 4-Chlorotoluene | 2.39 | 2.50 | 2.32 | 2.28 | 2.34 | 2.26 | 2.03 | 2.31 | | 2.30 | 96 | 0.13 | 0.4 |
| tert-Butylbenzene | 2.26 | 2.55 | 2.26 | 2.16 | 2.12 | 2.24 | 2.13 | 2.27 | | 2.25 | 94 | 0.14 | 0.4 |
| 1,2,4-Trimethylbenzene | 2.34 | 2.49 | 2.26 | 2.27 | 2.22 | 2.21 | 2.15 | 2.31 | | 2.28 | 95 | 0.10 | 0.3 |
| Pentachloroethane | 2.47 | 2.68 | 2.53 | 2.46 | 2.48 | 2.49 | 2.34 | 2.43 | | 2.49 | 104 | 0.09 | 0.3 |
| sec-Butylbenzene | 2.24 | 2.48 | 2.15 | 2.18 | 2.08 | 2.20 | 2.03 | 2.26 | | 2.20 | 92 | 0.13 | 0.4 |
| p-Isopropyltoluene | 2.25 | 2.47 | 2.11 | 2.13 | 2.06 | 2.22 | 2.04 | 2.25 | | 2.19 | 91 | 0.14 | 0.4 |
| 1,3-Dichlorobenzene | 2.36 | 2.49 | 2.27 | 2.20 | 2.25 | 2.29 | 2.20 | 2.33 | | 2.30 | 96 | 0.09 | 0.3 |
| 1,2,3-Trimethylbenzene | 2.34 | 2.49 | 2.26 | 2.27 | 2.22 | 2.21 | 2.15 | 2.31 | | 2.28 | 95 | 0.10 | 0.3 |
| 1,4-Dichlorobenzene | 2.47 | 2.43 | 2.29 | 2.22 | 2.27 | 2.30 | 2.25 | 2.29 | | 2.32 | 97 | 0.09 | 0.3 |
| n-Butylbenzene | 2.19 | 2.49 | 2.08 | 2.07 | 2.06 | 2.19 | 1.97 | 2.21 | | 2.16 | 90 | 0.16 | 0.5 |
| 1,2-Dichlorobenzene | 2.46 | 2.54 | 2.32 | 2.30 | 2.31 | 2.34 | 2.31 | 2.38 | | 2.37 | 99 | 0.09 | 0.3 |
| 1,2-dibromo-3-chloropro | 2.42 | 2.42 | 2.20 | 2.33 | 2.38 | 2.07 | 1.97 | 2.12 | | 2.24 | 93 | 0.17 | 0.5 |
| 1,2,4-Trichlorobenzene | 2.43 | 2.48 | 2.24 | 2.23 | 2.24 | 2.22 | 2.01 | 2.19 | | 2.25 | 94 | 0.14 | 0.4 |
| Hexachlorobutadiene | 2.12 | 2.38 | 2.03 | 2.00 | 2.02 | 2.15 | 1.89 | 2.14 | | 2.09 | 87 | 0.15 | 0.4 |
| Naphthalene | 2.76 | 2.45 | 2.52 | 2.60 | 2.45 | 2.31 | 2.48 | 2.09 | | 2.46 | 102 | 0.20 | 0.6 |
| 1,2,3-Trichlorobenzene | 2.51 | 2.54 | 2.37 | 2.30 | 2.37 | 2.32 | 2.08 | 2.21 | | 2.34 | 97 | 0.15 | 0.4 |

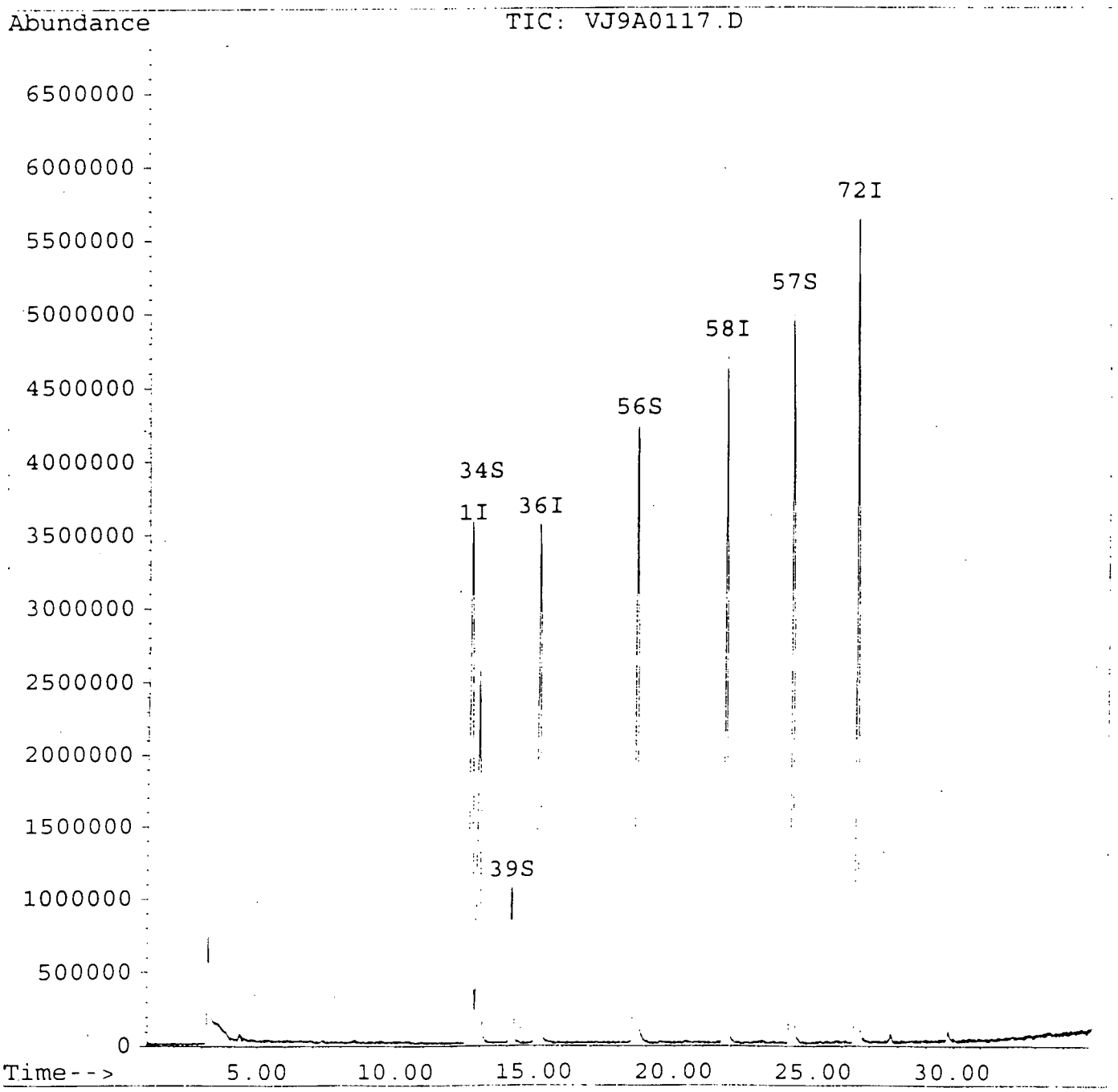
*2 - Target concentration is 4.8
*3 - Target concentration is 7.2
*5 - Target concentration is 12
*10 - Target concentration is 24

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0117.d
Acq On : 15 Nov 96 10:47 am
Sample : VBLK,VB611152,WATER,25ml
Misc : DAILY QC
Quant Time: Nov 18 5:21 1996

Vial: 8
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0117.d  Vial: 8
Acq On : 15 Nov 96 10:47 am  Operator: JJF
Sample : VBLK,VB611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00
Quant Time: Nov 18 5:21 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9955191 | 10.00 ug/l | 0.00 |
| 36) 1,4-Difluorobenzene | 15.11 | 114 | 11096061 | 10.00 ug/l | -0.02 |
| 58) Chlorobenzene-d5 | 21.76 | 117 | 8339248 | 10.00 ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 26.49 | 152 | 4709158 | 10.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | %Recovery |
| 34) Dibromofluoromethane | 12.94 | 113 | 6162867 | 9.74 ug/l | 97.42% |
| 39) 1,2-Dichloroethane-d4 | 14.15 | 65 | 2730395 | 9.62 ug/l | 96.18% |
| 56) Toluene-d8 | 18.61 | 98 | 10334381 | 9.99 ug/l | 99.88% |
| 57) Bromofluorobenzene | 24.18 | 95 | 5527189 | 9.69 ug/l | 96.94% |
| Target Compounds | | | | | Qvalue |

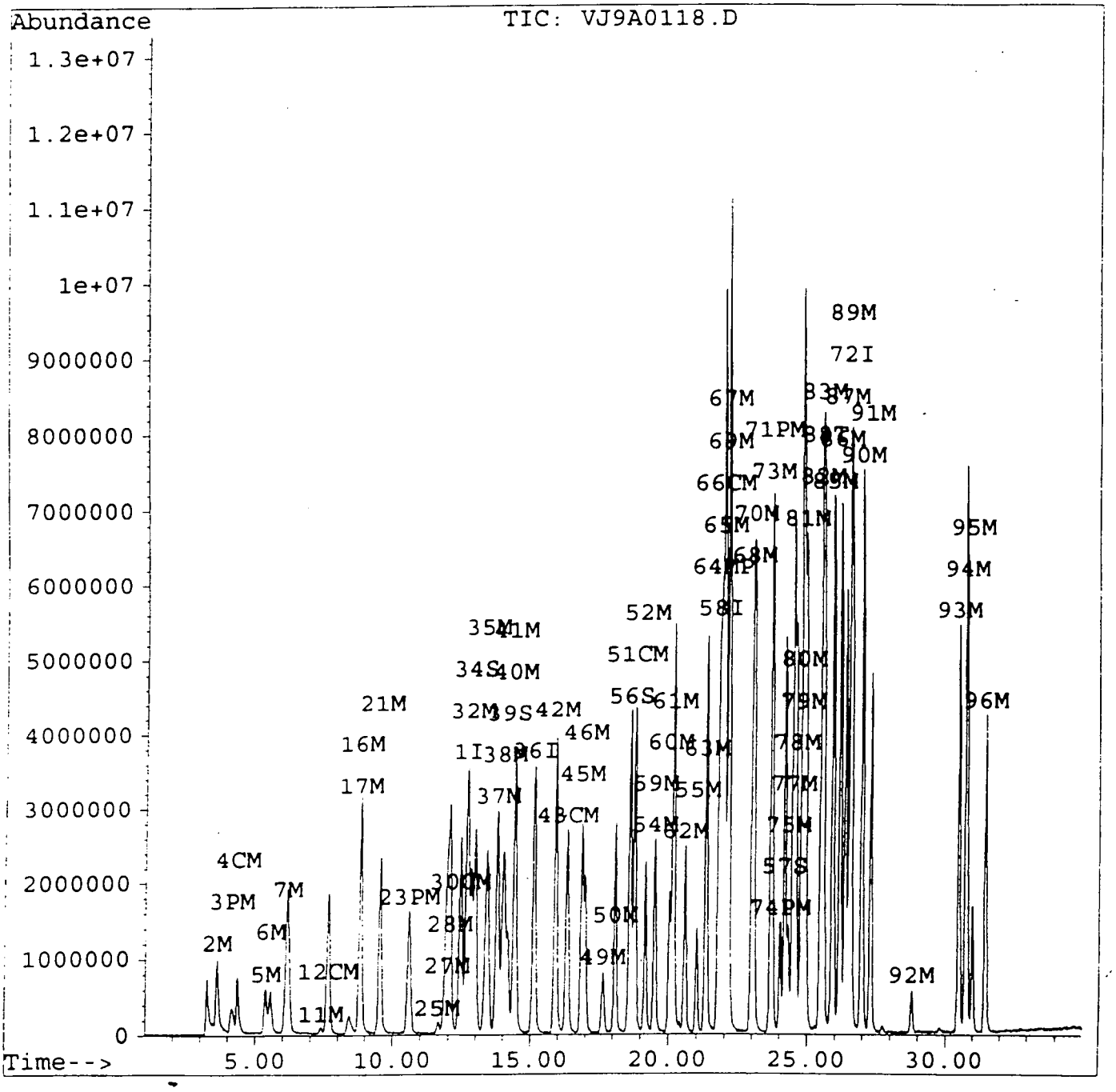
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d
Acq On : 15 Nov 96 11:31 am
Sample : LCS\ICV,VL611152,WATER,25ml
Misc : DAILY QC
Quant Time: Nov 18 5:25 1996

Vial: 9
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d  Vial: 9
Acq On : 15 Nov 96 11:31 am  Operator: JJF
Sample : LCS\ICV,VL611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00
Quant Time: Nov 18 5:25 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.69 | 168 | 9632202 | 10.00 ug/l | 0.02 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10790349 | 10.00 ug/l | 0.00 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8119853 | 10.00 ug/l | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.49 | 152 | 4837022 | 10.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.96 | 113 | 6330067 | 10.34 ug/l | 103.42% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 2783422 | 10.08 ug/l | 100.82% |
| 56) Toluene-d8 | 18.62 | 98 | 10441794 | 10.38 ug/l | 103.78% |
| 57) Bromofluorobenzene | 24.18 | 95 | 5596795 | 10.09 ug/l | 100.94% |
| **Target Compounds** | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 3005680 | 5.57 ug/l | 97 |
| 3) Chloromethane | 4.16 | 50 | 1792841 | 7.11 ug/l | 99 |
| 4) Vinyl Chloride | 4.36 | 62 | 2229876 | 8.85 ug/l | 96 |
| 5) Bromomethane | 5.37 | 94 | 1804309 | 7.45 ug/l | 90 |
| 6) Chloroethane | 5.55 | 64 | 1472491 | 9.36 ug/l | 93 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 7254080 | 8.96 ug/l | 93 |
| 11) Acetone | 7.39 | 43 | 456770 | 20.35 ug/l | 96 |
| 12) 1,1-Dichloroethene | 7.63 | 96 | 2939623 | 9.87 ug/l | 98 |
| 16) Methylene Chloride | 8.82 | 84 | 2454235 | 9.72 ug/l | 97 |
| 17) Carbon Disulfide | 8.80 | 76 | 8581978 | 11.36 ug/l | 94 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 3160047 | 10.02 ug/l | 98 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 6164612 | 9.97 ug/l | 98 |
| 25) 2-Butanone | 11.63 | 43 | 793475 | 20.15 ug/l | 91 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 6336547 | 9.87 ug/l | 98 |
| 28) cis-1,2-Dichloroethene | 12.05 | 96 | 3417854 | 9.91 ug/l | 96 |
| 30) Chloroform | 12.43 | 83 | 7362842 | 10.03 ug/l | 98 |
| 32) Bromochloromethane | 12.83 | 128 | 1744153 | 10.33 ug/l | 98 |
| 35) 1,1,1-Trichloroethane | 13.40 | 97 | 7400087 | 10.04 ug/l | 97 |
| 37) 1,1-Dichloropropene | 13.78 | 75 | 5546258 | 10.28 ug/l | 97 |
| 38) Carbon Tetrachloride | 14.01 | 117 | 6516065 | 10.22 ug/l | 98 |
| 40) 1,2-Dichloroethane | 14.40 | 62 | 3351585 | 10.19 ug/l | 99 |
| 41) Benzene | 14.41 | 78 | 9035891 | 10.09 ug/l | 100 |
| 42) Trichloroethene | 15.91 | 130 | 4640079 | 9.52 ug/l | 90 |
| 43) 1,2-Dichloropropane | 16.33 | 63 | 3755962 | 10.59 ug/l | 98 |
| 45) Bromodichloromethane | 16.86 | 83 | 6304360 | 9.94 ug/l | 100 |
| 46) Dibromomethane | 16.98 | 93 | 2660413 | 10.11 ug/l | 98 |
| 49) 4-Methyl-2-Pentanone | 17.65 | 43 | 2496686 | 18.38 ug/l | 97 |
| 50) cis-1,3-Dichloropropene | 18.08 | 75 | 4859937 | 10.83 ug/l | 98 |
| 51) Toluene | 18.78 | 92 | 6291046 | 10.25 ug/l | 95 |
| 52) trans*1,3-Dichloropropene | 19.17 | 75 | 3614603 | 10.97 ug/l | 99 |
| 54) 1,1,2-Trichloroethane | 19.51 | 97 | 2067960 | 10.11 ug/l | 100 |
| 55) 1,2-Dibromoethane (EDB) | 20.99 | 107 | 2930803 | 10.19 ug/l # | 90 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d
Acq On : 15 Nov 96 11:31 am
Sample : LCS\ICV,VL611152,WATER,25ml
Misc : DAILY QC
Quant Time: Nov 18 5:25 1996

Vial: 9
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 59) | 2-Hexanone | 19.52 | 43 | 1717280 | 20.47 | ug/l | # | 96 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 3276443 | 10.15 | ug/l | | 94 |
| 61) | Tetrachloroethene | 20.16 | 166 | 5217281 | 9.59 | ug/l | | 98 |
| 62) | Chlorodibromomethane | 20.58 | 129 | 4260439 | 10.30 | ug/l | | 96 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 5539748 | 11.28 | ug/l | | 93 |
| 64) | Chlorobenzene | 21.85 | 112 | 7978266 | 10.08 | ug/l | | 98 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 3902824 | 10.25 | ug/l | | 97 |
| 66) | Ethylbenzene | 21.96 | 106 | 3795674 | 10.25 | ug/l | | 93 |
| 67) | m&p Xylenes | 22.11 | 106 | 9779108 | 20.23 | ug/l | | 94 |
| 68) | o-Xylene | 22.98 | 106 | 4494698 | 10.15 | ug/l | | 93 |
| 69) | Xylenes (total) | 22.11 | 106 | 14365809 | 30.43 | ug/l | m | 94 |
| 70) | Styrene | 23.06 | 104 | 7398114 | 10.06 | ug/l | | 98 |
| 71) | Bromoform | 23.73 | 173 | 2110554 | 10.23 | ug/l | | 99 |
| 73) | Isopropylbenzene | 23.69 | 105 | 15374840 | 10.74 | ug/l | | 96 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 2503925 | 9.83 | ug/l | | 97 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 1626969 | 9.54 | ug/l | m | 84 |
| 77) | n-Propylbenzene | 24.48 | 91 | 18893703 | 10.06 | ug/l | | 100 |
| 78) | Bromobenzene | 24.58 | 156 | 4030722 | 9.75 | ug/l | | 98 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 12328242 | 9.60 | ug/l | | 98 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 11845888 | 9.91 | ug/l | | 98 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 11351331 | 9.39 | ug/l | | 99 |
| 82) | tert-Butylbenzene | 25.47 | 91 | 10059219 | 9.72 | ug/l | | 97 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 12104697 | 9.72 | ug/l | | 98 |
| 85) | sec-Butylbenzene | 25.89 | 105 | 18743573 | 10.18 | ug/l | | 100 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 14918393 | 9.74 | ug/l | | 100 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 7173924 | 9.69 | ug/l | | 98 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 12104697 | 9.72 | ug/l | | 98 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 7430359 | 9.86 | ug/l | | 92 |
| 90) | n-Butylbenzene | 26.95 | 91 | 15415719 | 9.69 | ug/l | | 98 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 6012113 | 9.88 | ug/l | | 95 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 483032 | 9.25 | ug/l | | 86 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 5155259 | 9.92 | ug/l | | 92 |
| 94) | Hexachlorobutadiene | 30.74 | 225 | 4572086 | 9.85 | ug/l | | 92 |
| 95) | Naphthalene | 30.96 | 128 | 4090398 | 9.24 | ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 3926356 | 9.72 | ug/l | | 99 |

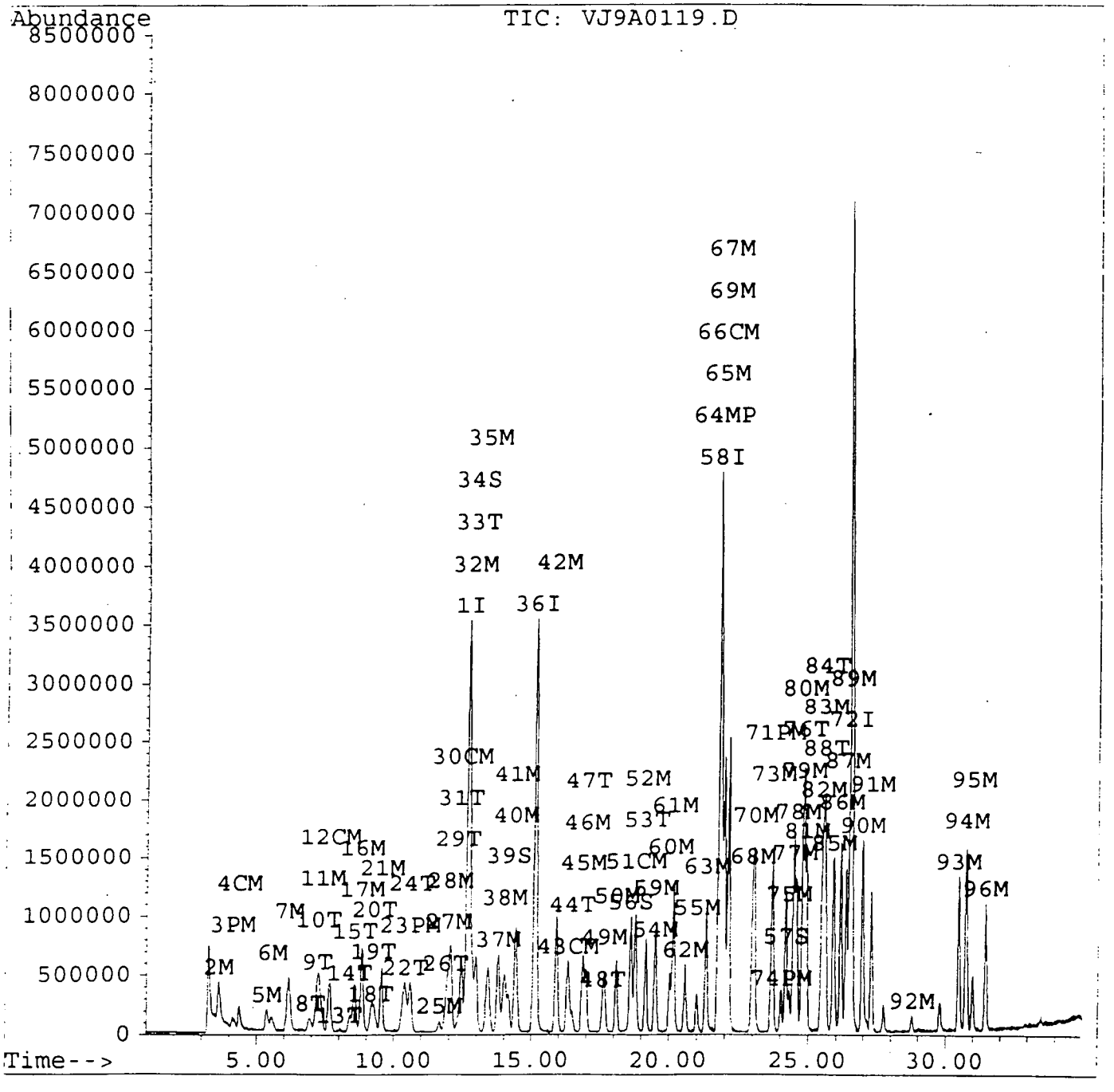
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0119.d
Acq On : 15 Nov 96 12:14 pm
Sample : MDL-A,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 5:31 1996

Vial: 10
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0119.d  Vial: 10
Acq On : 15 Nov 96 12:14 pm  Operator: JJF
Sample : MDL-A,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 5:31 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9642284 | 10.00 | ug/l | | 0.00 |
| 36) 1,4-Difluorobenzene | 15.12 | 114 | 10680863 | 10.00 | ug/l | | 0.00 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8200490 | 10.00 | ug/l | | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4576884 | 10.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.98 | 113 | 1379696 | 2.25 | ug/l | | 22.52% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 648604 | 2.37 | ug/l | | 23.73% |
| 56) Toluene-d8 | 18.62 | 98 | 2196936 | 2.21 | ug/l | | 22.06% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1301362 | 2.37 | ug/l | | 23.71% |
| **Target Compounds** | | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1144073 | 2.12 | ug/l | | 99 |
| 3) Chloromethane | 4.13 | 50 | 591812 | 2.35 | ug/l | m | 91 |
| 4) Vinyl Chloride | 4.35 | 62 | 574369 | 2.28 | ug/l | | 82 |
| 5) Bromomethane | 5.36 | 94 | 468104 | 1.93 | ug/l | | 96 |
| 6) Chloroethane | 5.57 | 64 | 367777 | 2.33 | ug/l | | 97 |
| 7) Trichlorofluoromethane | 6.17 | 101 | 1750544 | 2.16 | ug/l | | 90 |
| 8) Ethyl Ether | 6.95 | 59 | 244064 | 2.55 | ug/l | m | 93 |
| 9) Acrolein | 7.18 | 56 | 112434 | 12.85 | ug/l | m | 94 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.23 | 101 | 1305002 | 2.12 | ug/l | | 91 |
| 11) Acetone | 7.39 | 43 | 312047 | 13.89 | ug/l | | 96 |
| 12) 1,1-Dichloroethene | 7.65 | 96 | 677251 | 2.27 | ug/l | | 94 |
| 13) Acetonitrile | 8.00 | 41 | 81428 | 9.70 | ug/l | m | 31 |
| 14) Iodomethane | 8.36 | 142 | 804484 | 2.01 | ug/l | m | 99 |
| 15) Allyl Chloride | 8.55 | 41 | 1031449 | 2.22 | ug/l | | 91 |
| 16) Methylene Chloride | 8.83 | 84 | 634838 | 2.51 | ug/l | | 92 |
| 17) Carbon Disulfide | 8.81 | 76 | 1661453 | 2.20 | ug/l | | 99 |
| 18) Acrylonitrile | 9.15 | 53 | 259943 | 13.18 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.24 | 73 | 1117806 | 2.60 | ug/l | | 96 |
| 20) Ethyl acetate | 9.26 | 43 | 358048 | 2.50 | ug/l | m | 92 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 710298 | 2.25 | ug/l | | 95 |
| 22) Diisopropyl ether | 10.40 | 45 | 2141207 | 2.45 | ug/l | m | 94 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 1395653 | 2.25 | ug/l | | 95 |
| 24) Vinyl acetate | 10.63 | 43 | 309436 | 3.15 | ug/l | m | 100 |
| 25) 2-Butanone | 11.65 | 43 | 505258 | 12.82 | ug/l | | 85 |
| 26) Propionitrile | 11.84 | 54 | 96709 | 12.41 | ug/l | # | 63 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 1432726 | 2.23 | ug/l | | 100 |
| 28) cis-1,2-Dichloroethene | 12.03 | 96 | 798848 | 2.31 | ug/l | | 89 |
| 29) Methacrylonitrile | 12.29 | 41 | 243240 | 2.32 | ug/l | m | 95 |
| 30) Chloroform | 12.43 | 83 | 1754804 | 2.39 | ug/l | | 92 |
| 31) Isobutyl Alcohol | 12.37 | 43 | 102390 | 28.08 | ug/l | m | 85 |
| 32) Bromochloromethane | 12.84 | 128 | 434530 | 2.57 | ug/l | # | 78 |
| 33) Tetrahyrofuran | 12.95 | 42 | 62751 | 2.73 | ug/l | m | 59 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0119.d
Acq On : 15 Nov 96 12:14 pm
Sample : MDL-A,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 5:31 1996

Vial: 10
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.39 | 97 | 1669961 | 2.26 ug/l | | 89 |
| 37) | 1,1-Dichloropropene | 13.79 | 75 | 1176434 | 2.20 ug/l | | 99 |
| 38) | Carbon Tetrachloride | 14.01 | 117 | 1327143 | 2.10 ug/l | | 96 |
| 40) | 1,2-Dichloroethane | 14.40 | 62 | 820817 | 2.52 ug/l | | 95 |
| 41) | Benzene | 14.43 | 78 | 2091995 | 2.36 ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 1110325 | 2.30 ug/l | | 98 |
| 43) | 1,2-Dichloropropane | 16.33 | 63 | 872868 | 2.49 ug/l | | 98 |
| 44) | Methyl Methacrylate | 16.47 | 69 | 224590 | 2.52 ug/l | | 87 |
| 45) | Bromodichloromethane | 16.87 | 83 | 1476055 | 2.35 ug/l | | 96 |
| 46) | Dibromomethane | 16.97 | 93 | 656022 | 2.52 ug/l | | 96 |
| 47) | 2-Nitropropane | 17.03 | 43 | 95418 | 3.02 ug/l | m | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.58 | 63 | 170938 | 3.23 ug/l | # | 85 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 1616887 | 12.03 ug/l | | 96 |
| 50) | cis-1,3-Dichloropropene | 18.09 | 75 | 1077771 | 2.43 ug/l | | 85 |
| 51) | Toluene | 18.79 | 92 | 1439384 | 2.37 ug/l | | 98 |
| 52) | trans-1,3-Dichloropropene | 19.18 | 75 | 777641 | 2.38 ug/l | | 95 |
| 53) | Ethyl Methacrylate | 19.15 | 69 | 558516 | 2.55 ug/l | | 90 |
| 54) | 1,1,2-Trichloroethane | 19.49 | 97 | 508803 | 2.51 ug/l | | 98 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 709129 | 2.49 ug/l | # | 99 |
| 59) | 2-Hexanone | 19.54 | 43 | 1029395 | 12.15 ug/l | # | 96 |
| 60) | 1,3-Dichloropropane | 20.02 | 76 | 798655 | 2.45 ug/l | | 93 |
| 61) | Tetrachloroethene | 20.15 | 166 | 1182811 | 2.15 ug/l | | 98 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 960466 | 2.30 ug/l | | 98 |
| 63) | 1-Chlorohexane | 21.33 | 91 | 1046442 | 2.11 ug/l | | 92 |
| 64) | Chlorobenzene | 21.86 | 112 | 1851260 | 2.32 ug/l | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 874944 | 2.28 ug/l | | 91 |
| 66) | Ethylbenzene | 21.96 | 106 | 878099 | 2.35 ug/l | # | 86 |
| 67) | m&p Xylenes | 22.11 | 106 | 2221022 | 4.55 ug/l | | 90 |
| 68) | o-Xylene | 22.98 | 106 | 1007811 | 2.25 ug/l | | 93 |
| 69) | Xylenes (total) | 22.11 | 106 | 3233044 | 6.78 ug/l | m | 90 |
| 70) | Styrene | 23.06 | 104 | 1713610 | 2.31 ug/l | | 95 |
| 71) | Bromoform | 23.74 | 173 | 482147 | 2.31 ug/l | | 93 |
| 73) | Isopropylbenzene | 23.70 | 105 | 3073114 | 2.27 ug/l | | 99 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.04 | 83 | 630012 | 2.61 ug/l | | 86 |
| 75) | 1,2,3-Trichloropropane | 24.30 | 75 | 422296 | 2.62 ug/l | m | 96 |
| 76) | trans-1,4-Dichloro-2-buten | 24.81 | 53 | 110707 | 4.64 ug/l | m | 22 |
| 77) | n-Propylbenzene | 24.49 | 91 | 4130122 | 2.32 ug/l | | 98 |
| 78) | Bromobenzene | 24.58 | 156 | 934164 | 2.39 ug/l | | 88 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 2805242 | 2.31 ug/l | | 97 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 2672776 | 2.36 ug/l | | 98 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2728278 | 2.39 ug/l | | 97 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 2216601 | 2.26 ug/l | | 92 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 2759396 | 2.34 ug/l | | 93 |
| 84) | Pentachloroethane | 25.61 | 167 | 414491 | 2.47 ug/l | | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0119.d
Acq On : 15 Nov 96 12:14 pm
Sample : MDL-A,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 5:31 1996

Vial: 10
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

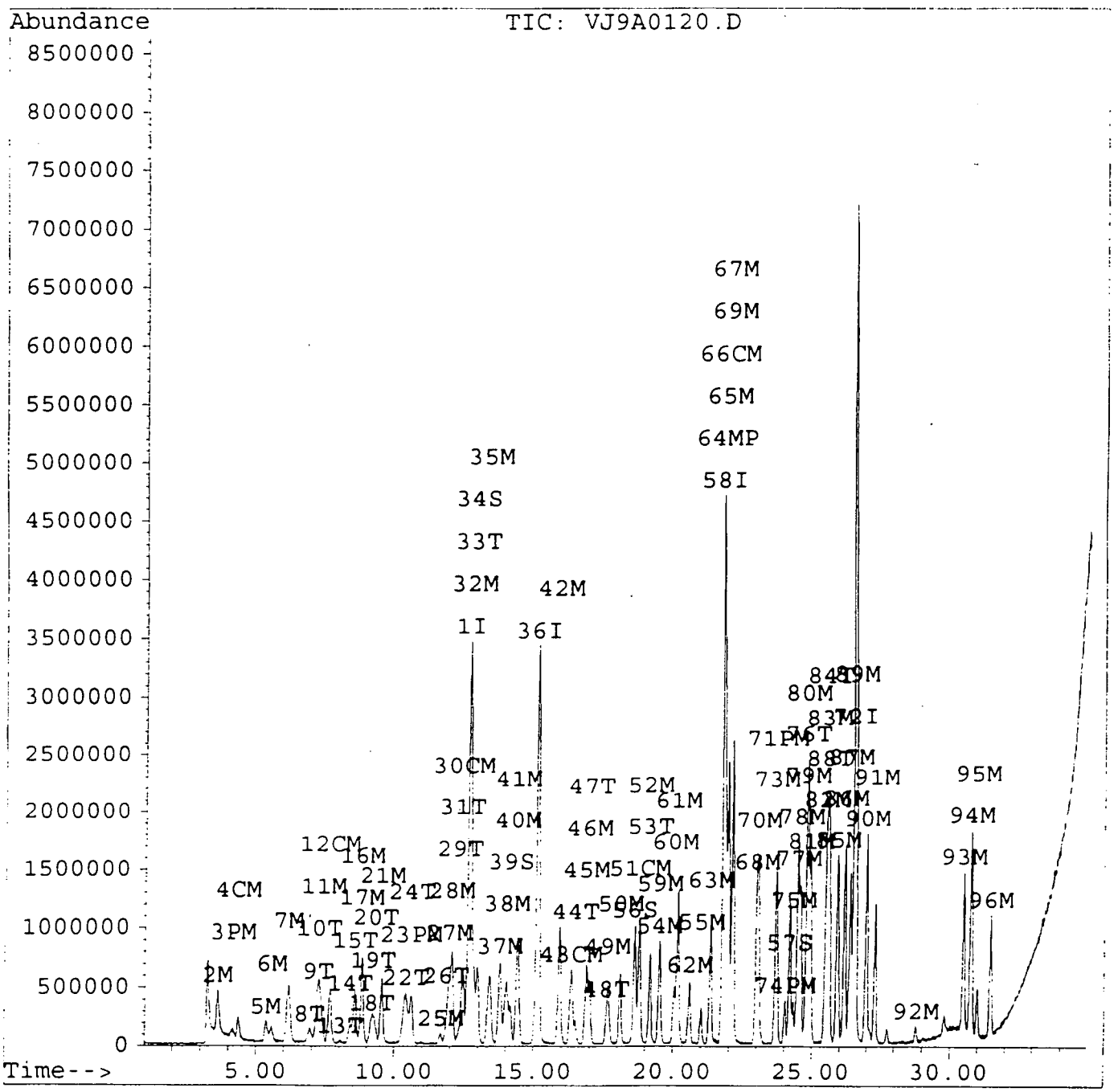
| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.89 | 105 | 3895201 | 2.24 ug/l | | 98 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 3258930 | 2.25 ug/l | | 99 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 1652191 | 2.36 ug/l | | 97 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 2759396 | 2.34 ug/l | | 93 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 1759060 | 2.47 ug/l | | 92 |
| 90) | n-Butylbenzene | 26.96 | 91 | 3301600 | 2.19 ug/l | | 96 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 1415107 | 2.46 ug/l | | 93 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.80 | 75 | 119429 | 2.42 ug/l | # | 69 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 1193012 | 2.43 ug/l | | 99 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 932621 | 2.12 ug/l | | 89 |
| 95) | Naphthalene | 30.98 | 128 | 1157395 | 2.76 ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.44 | 180 | 957494 | 2.51 ug/l | | 98 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0120.d  Vial: 11
Acq On : 15 Nov 96 12:58 pm  Operator: JJF
Sample : MDL-B,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:47 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0120.d  Vial: 11
Acq On : 15 Nov 96 12:58 pm  Operator: JJF
Sample : MDL-B,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:47 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.68 | 168 | 9447901 | 10.00 ug/l | 0.01 |
| 36) 1,4-Difluorobenzene | 15.12 | 114 | 10472497 | 10.00 ug/l | 0.00 |
| 58) Chlorobenzene-d5 | 21.78 | 117 | 7949954 | 10.00 ug/l | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4516332 | 10.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.96 | 113 | 1428891 | 2.38 ug/l | 23.80% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 660085 | 2.46 ug/l | 24.64% |
| 56) Toluene-d8 | 18.62 | 98 | 2289801 | 2.34 ug/l | 23.45% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1312861 | 2.44 ug/l | 24.40% |
| **Target Compounds** | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1301506 | 2.46 ug/l | 98 |
| 3) Chloromethane | 4.17 | 50 | 617507 | 2.50 ug/l | 88 |
| 4) Vinyl Chloride | 4.35 | 62 | 599203 | 2.43 ug/l | 93 |
| 5) Bromomethane | 5.34 | 94 | 510969 | 2.15 ug/l | 98 |
| 6) Chloroethane | 5.55 | 64 | 387391 | 2.51 ug/l | 98 |
| 7) Trichlorofluoromethane | 6.16 | 101 | 1904055 | 2.40 ug/l | 94 |
| 8) Ethyl Ether | 6.92 | 59 | 252012 | 2.69 ug/l # | 88 |
| 9) Acrolein | 7.20 | 56 | 116855 | 13.63 ug/l m | 76 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.25 | 101 | 1437619 | 2.39 ug/l | 95 |
| 11) Acetone | 7.40 | 43 | 314142 | 14.27 ug/l m | 86 |
| 12) 1,1-Dichloroethene | 7.62 | 96 | 708430 | 2.42 ug/l m | 92 |
| 13) Acetonitrile | 8.02 | 41 | 80450 | 9.84 ug/l m | 57 |
| 14) Iodomethane | 8.38 | 142 | 957153 | 2.25 ug/l | 94 |
| 15) Allyl Chloride | 8.55 | 41 | 1123967 | 2.47 ug/l | 88 |
| 16) Methylene Chloride | 8.82 | 84 | 610959 | 2.47 ug/l | 95 |
| 17) Carbon Disulfide | 8.80 | 76 | 1776359 | 2.40 ug/l | 97 |
| 18) Acrylonitrile | 9.17 | 53 | 259843 | 13.44 ug/l | 100 |
| 19) Methyl t-butyl ether | 9.23 | 73 | 1144219 | 2.72 ug/l m | 97 |
| 20) Ethyl acetate | 9.31 | 43 | 416658 | 2.97 ug/l m | 99 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 751508 | 2.43 ug/l | 99 |
| 22) Diisopropyl ether | 10.41 | 45 | 2234418 | 2.61 ug/l | 99 |
| 23) 1,1-Dichloroethane | 10.59 | 63 | 1415015 | 2.33 ug/l | 94 |
| 24) Vinyl acetate | 10.62 | 43 | 238820 | 2.48 ug/l | 100 |
| 25) 2-Butanone | 11.66 | 43 | 529815 | 13.72 ug/l | 87 |
| 26) Propionitrile | 11.82 | 54 | 105314 | 13.80 ug/l # | 63 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 1464509 | 2.32 ug/l | 95 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 844673 | 2.50 ug/l | 96 |
| 29) Methacrylonitrile | 12.33 | 41 | 266948 | 2.60 ug/l m | 87 |
| 30) Chloroform | 12.44 | 83 | 1830682 | 2.54 ug/l | 97 |
| 31) Isobutyl Alcohol | 12.39 | 43 | 109917 | 30.77 ug/l m | 86 |
| 32) Bromochloromethane | 12.82 | 128 | 419201 | 2.53 ug/l | 93 |
| 33) Tetrahyrofuran | 12.92 | 42 | 74565 | 3.31 ug/l m | 69 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0120.d  Vial: 11
Acq On : 15 Nov 96 12:58 pm  Operator: JJF
Sample : MDL-B,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:47 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.39 | 97 | 1767115 | 2.44 | ug/l | | 98 |
| 37) | 1,1-Dichloropropene | 13.79 | 75 | 1296024 | 2.47 | ug/l | | 96 |
| 38) | Carbon Tetrachloride | 14.02 | 117 | 1428228 | 2.31 | ug/l | | 93 |
| 40) | 1,2-Dichloroethane | 14.39 | 62 | 861842 | 2.70 | ug/l | | 96 |
| 41) | Benzene | 14.43 | 78 | 2157676 | 2.48 | ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 1180466 | 2.50 | ug/l | | 93 |
| 43) | 1,2-Dichloropropane | 16.32 | 63 | 905771 | 2.63 | ug/l | | 100 |
| 44) | Methyl Methacrylate | 16.48 | 69 | 227862 | 2.61 | ug/l | | 88 |
| 45) | Bromodichloromethane | 16.86 | 83 | 1535986 | 2.49 | ug/l | | 92 |
| 46) | Dibromomethane | 16.98 | 93 | 661074 | 2.59 | ug/l | | 94 |
| 47) | 2-Nitropropane | 17.05 | 43 | 105622 | 3.41 | ug/l | m | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.59 | 63 | 125291 | 2.77 | ug/l | # | 83 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 1662057 | 12.61 | ug/l | | 94 |
| 50) | cis-1,3-Dichloropropene | 18.09 | 75 | 1108331 | 2.54 | ug/l | | 92 |
| 51) | Toluene | 18.80 | 92 | 1497753 | 2.51 | ug/l | | 89 |
| 52) | trans-1,3-Dichloropropene | 19.18 | 75 | 790313 | 2.47 | ug/l | | 96 |
| 53) | Ethyl Methacrylate | 19.17 | 69 | 560478 | 2.61 | ug/l | | 96 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 509951 | 2.57 | ug/l | | 88 |
| 55) | 1,2-Dibromoethane (EDB) | 21.01 | 107 | 707241 | 2.53 | ug/l | # | 99 |
| 59) | 2-Hexanone | 19.53 | 43 | 1107002 | 13.48 | ug/l | # | 94 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 840223 | 2.66 | ug/l | | 92 |
| 61) | Tetrachloroethene | 20.16 | 166 | 1264679 | 2.37 | ug/l | | 96 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 970082 | 2.40 | ug/l | | 98 |
| 63) | 1-Chlorohexane | 21.34 | 91 | 1102127 | 2.29 | ug/l | | 98 |
| 64) | Chlorobenzene | 21.84 | 112 | 1877883 | 2.42 | ug/l | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 934196 | 2.51 | ug/l | | 94 |
| 66) | Ethylbenzene | 21.96 | 106 | 917022 | 2.53 | ug/l | # | 88 |
| 67) | m&p Xylenes | 22.11 | 106 | 2291783 | 4.84 | ug/l | # | 86 |
| 68) | o-Xylene | 22.98 | 106 | 1085653 | 2.50 | ug/l | | 100 |
| 69) | Xylenes (total) | 22.11 | 106 | 3151996 | 6.82 | ug/l | m | 86 |
| 70) | Styrene | 23.06 | 104 | 1780961 | 2.47 | ug/l | | 90 |
| 71) | Bromoform | 23.73 | 173 | 491911 | 2.43 | ug/l | # | 87 |
| 73) | Isopropylbenzene | 23.70 | 105 | 3232023 | 2.42 | ug/l | | 98 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 638757 | 2.68 | ug/l | | 96 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 404336 | 2.54 | ug/l | m | 93 |
| 76) | trans-1,4-Dichloro-2-buten | 24.82 | 53 | 117189 | 4.98 | ug/l | # | 1 |
| 77) | n-Propylbenzene | 24.48 | 91 | 4382375 | 2.50 | ug/l | | 98 |
| 78) | Bromobenzene | 24.58 | 156 | 979545 | 2.54 | ug/l | | 96 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 2982660 | 2.49 | ug/l | | 99 |
| 80) | 2-Chlorotoluene | 24.84 | 91 | 2724872 | 2.44 | ug/l | | 94 |
| 81) | 4-Chlorotoluene | 24.93 | 91 | 2824917 | 2.50 | ug/l | | 100 |
| 82) | tert-Butylbenzene | 25.49 | 91 | 2463708 | 2.55 | ug/l | | 92 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 2896950 | 2.49 | ug/l | | 94 |
| 84) | Pentachloroethane | 25.62 | 167 | 457194 | 2.68 | ug/l | | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0120.d
Acq On : 15 Nov 96 12:58 pm
Sample : MDL-B,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:47 1996

Vial: 11
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.89 | 105 | 4258229 | 2.48 ug/l | | 97 |
| 86) | p-Isopropyltoluene | 26.17 | 119 | 3535156 | 2.47 ug/l | | 99 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 1720350 | 2.49 ug/l | | 97 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 2896950 | 2.49 ug/l | | 94 |
| 89) | 1,4-Dichlorobenzene | 26.56 | 146 | 1711153 | 2.43 ug/l | | 94 |
| 90) | n-Butylbenzene | 26.96 | 91 | 3691504 | 2.49 ug/l | | 97 |
| 91) | 1,2-Dichlorobenzene | 27.30 | 146 | 1443271 | 2.54 ug/l | | 92 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.79 | 75 | 118120 | 2.42 ug/l | | 84 |
| 93) | 1,2,4-Trichlorobenzene | 30.48 | 180 | 1202764 | 2.48 ug/l | | 98 |
| 94) | Hexachlorobutadiene | 30.74 | 225 | 1032404 | 2.38 ug/l | # | 90 |
| 95) | Naphthalene | 30.97 | 128 | 1011251 | 2.45 ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 958901 | 2.54 ug/l | | 93 |

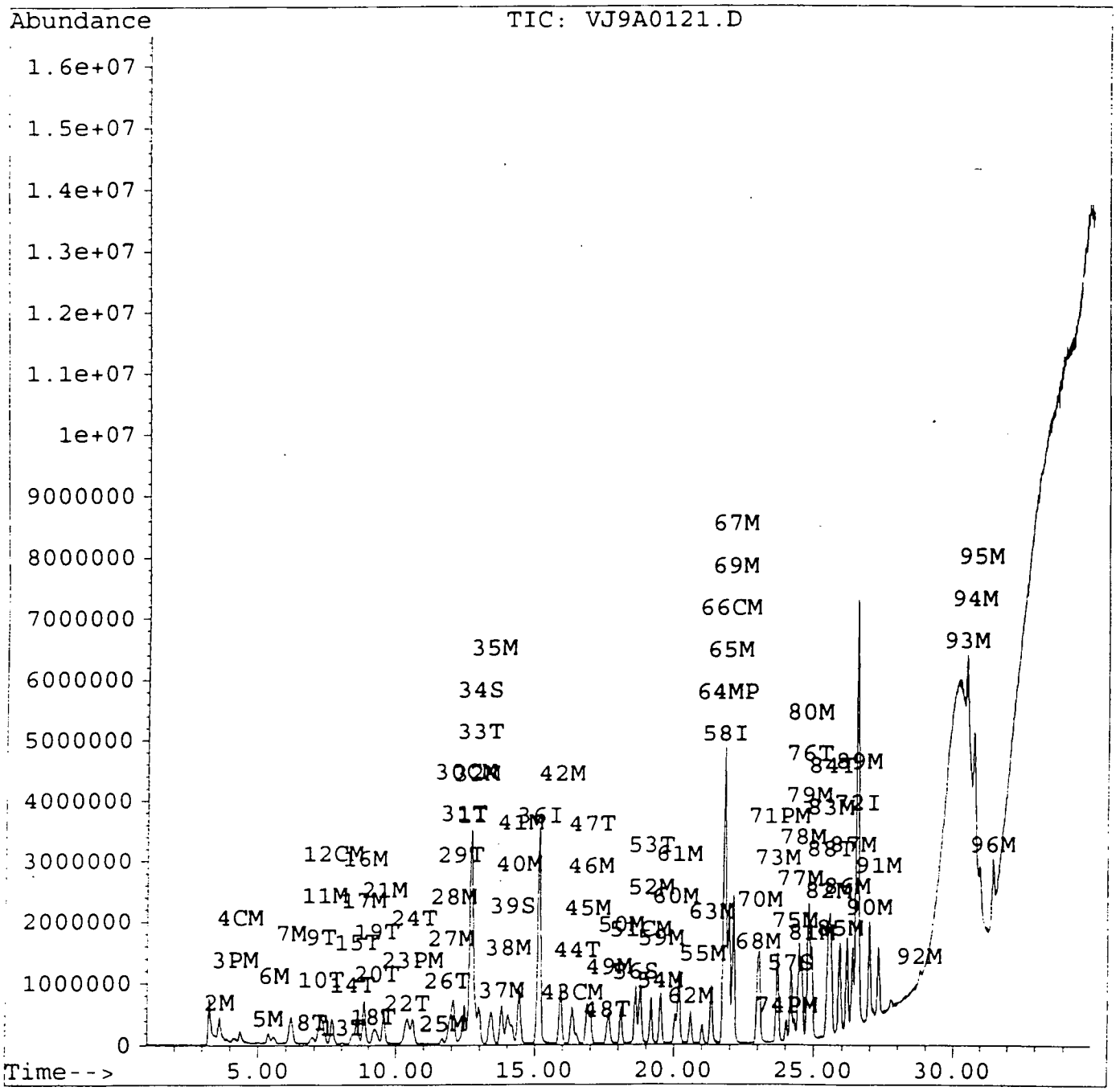
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0121.d
Acq On : 15 Nov 96 1:42 pm
Sample : MDL-C,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:12 1996

Vial: 12
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0121.d
Acq On : 15 Nov 96 1:42 pm
Sample : MDL-C,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:12 1996

Vial: 12
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.70 | 168 | 9655318 | 10.00 ug/l | 0.03 |
| 36) 1,4-Difluorobenzene | 15.12 | 114 | 10751776 | 10.00 ug/l | 0.00 |
| 58) Chlorobenzene-d5 | 21.78 | 117 | 8302344 | 10.00 ug/l | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4611858 | 10.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | %Recovery |
| 34) Dibromofluoromethane | 12.97 | 113 | 1339666 | 2.18 ug/l | 21.83% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 627246 | 2.28 ug/l | 22.80% |
| 56) Toluene-d8 | 18.62 | 98 | 2115709 | 2.11 ug/l | 21.10% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1266260 | 2.29 ug/l | 22.92% |
| **Target Compounds** | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.62 | 85 | 1097365 | 2.03 ug/l | 96 |
| 3) Chloromethane | 4.17 | 50 | 575682 | 2.28 ug/l | 96 |
| 4) Vinyl Chloride | 4.35 | 62 | 549579 | 2.18 ug/l | 89 |
| 5) Bromomethane | 5.35 | 94 | 449135 | 1.85 ug/l | 87 |
| 6) Chloroethane | 5.55 | 64 | 354339 | 2.25 ug/l | 98 |
| 7) Trichlorofluoromethane | 6.16 | 101 | 1633126 | 2.01 ug/l | 93 |
| 8) Ethyl Ether | 6.90 | 59 | 232217 | 2.42 ug/l # | 83 |
| 9) Acrolein | 7.22 | 56 | 116356 | 13.28 ug/l m | 93 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.22 | 101 | 1276513 | 2.08 ug/l m | 92 |
| 11) Acetone | 7.38 | 43 | 327528 | 14.56 ug/l | 97 |
| 12) 1,1-Dichloroethene | 7.66 | 96 | 631742 | 2.12 ug/l | 98 |
| 13) Acetonitrile | 8.04 | 41 | 86080 | 10.65 ug/l m | 74 |
| 14) Iodomethane | 8.39 | 142 | 933813 | 2.19 ug/l | 97 |
| 15) Allyl Chloride | 8.56 | 41 | 1054878 | 2.27 ug/l | 95 |
| 16) Methylene Chloride | 8.84 | 84 | 628732 | 2.48 ug/l | 94 |
| 17) Carbon Disulfide | 8.80 | 76 | 1640831 | 2.17 ug/l | 98 |
| 18) Acrylonitrile | 9.16 | 53 | 248392 | 12.57 ug/l | 100 |
| 19) Methyl t-butyl ether | 9.27 | 73 | 1107453 | 2.57 ug/l m | 77 |
| 20) Ethyl acetate | 9.27 | 43 | 339004 | 2.37 ug/l m | 74 |
| 21) trans-1,2-Dichloroethene | 9.57 | 96 | 692487 | 2.19 ug/l | 91 |
| 22) Diisopropyl ether | 10.40 | 45 | 2091201 | 2.39 ug/l | 96 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 1371963 | 2.21 ug/l | 94 |
| 24) Vinyl acetate | 10.64 | 43 | 244998 | 2.49 ug/l | 100 |
| 25) 2-Butanone | 11.66 | 43 | 503737 | 12.76 ug/l | 99 |
| 26) Propionitrile | 11.80 | 54 | 82148 | 10.53 ug/l m | 1 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 1327121 | 2.06 ug/l | 100 |
| 28) cis-1,2-Dichloroethene | 12.05 | 96 | 784735 | 2.27 ug/l | 95 |
| 29) Methacrylonitrile | 12.29 | 41 | 273394 | 2.61 ug/l m | 91 |
| 30) Chloroform | 12.44 | 83 | 1703308 | 2.32 ug/l | 100 |
| 31) Isobutyl Alcohol | 12.38 | 43 | 118584 | 32.48 ug/l m | 1 |
| 32) Bromochloromethane | 12.84 | 128 | 412682 | 2.44 ug/l | 95 |
| 33) Tetrahyrofuran | 12.95 | 42 | 62000 | 2.70 ug/l m | 73 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0121.d
Acq On : 15 Nov 96 1:42 pm
Sample : MDL-C,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:12 1996

Vial: 12
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.42 | 97 | 1603146 | 2.17 | ug/l | | 95 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 1166550 | 2.17 | ug/l | | 97 |
| 38) | Carbon Tetrachloride | 14.01 | 117 | 1268218 | 2.00 | ug/l | | 98 |
| 40) | 1,2-Dichloroethane | 14.40 | 62 | 810456 | 2.47 | ug/l | | 95 |
| 41) | Benzene | 14.44 | 78 | 2008981 | 2.25 | ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 1078842 | 2.22 | ug/l | | 99 |
| 43) | 1,2-Dichloropropane | 16.33 | 63 | 817993 | 2.31 | ug/l | | 98 |
| 44) | Methyl Methacrylate | 16.50 | 69 | 218981 | 2.44 | ug/l | | 86 |
| 45) | Bromodichloromethane | 16.88 | 83 | 1450751 | 2.29 | ug/l | | 88 |
| 46) | Dibromomethane | 16.97 | 93 | 624267 | 2.38 | ug/l | | 94 |
| 47) | 2-Nitropropane | 17.01 | 43 | 92589 | 2.91 | ug/l | m | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.58 | 63 | 147646 | 2.97 | ug/l | # | 83 |
| 49) | 4-Methyl-2-Pentanone | 17.64 | 43 | 1662024 | 12.28 | ug/l | | 99 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 1049451 | 2.35 | ug/l | | 90 |
| 51) | Toluene | 18.80 | 92 | 1362919 | 2.23 | ug/l | | 92 |
| 52) | trans-1,3-Dichloropropene | 19.17 | 75 | 728253 | 2.22 | ug/l | | 96 |
| 53) | Ethyl Methacrylate | 19.19 | 69 | 538504 | 2.44 | ug/l | | 92 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 483853 | 2.37 | ug/l | | 93 |
| 55) | 1,2-Dibromoethane (EDB) | 21.02 | 107 | 698936 | 2.44 | ug/l | # | 90 |
| 59) | 2-Hexanone | 19.53 | 43 | 1055901 | 12.31 | ug/l | | 95 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 777290 | 2.36 | ug/l | | 85 |
| 61) | Tetrachloroethene | 20.18 | 166 | 1138224 | 2.05 | ug/l | | 99 |
| 62) | Chlorodibromomethane | 20.60 | 129 | 916450 | 2.17 | ug/l | | 96 |
| 63) | 1-Chlorohexane | 21.33 | 91 | 1001848 | 2.00 | ug/l | | 95 |
| 64) | Chlorobenzene | 21.85 | 112 | 1729098 | 2.14 | ug/l | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.95 | 131 | 857991 | 2.20 | ug/l | | 93 |
| 66) | Ethylbenzene | 21.96 | 106 | 831312 | 2.20 | ug/l | | 98 |
| 67) | m&p Xylenes | 22.12 | 106 | 2048132 | 4.14 | ug/l | # | 87 |
| 68) | o-Xylene | 22.99 | 106 | 962401 | 2.13 | ug/l | | 90 |
| 69) | Xylenes (total) | 22.12 | 106 | 3045795 | 6.31 | ug/l | m | 87 |
| 70) | Styrene | 23.06 | 104 | 1641261 | 2.18 | ug/l | | 96 |
| 71) | Bromoform | 23.75 | 173 | 457223 | 2.17 | ug/l | | 100 |
| 73) | Isopropylbenzene | 23.70 | 105 | 2888620 | 2.12 | ug/l | | 100 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 614050 | 2.53 | ug/l | | 99 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 394091 | 2.42 | ug/l | m | 94 |
| 76) | trans-1,4-Dichloro-2-buten | 24.79 | 53 | 130937 | 5.45 | ug/l | m | 98 |
| 77) | n-Propylbenzene | 24.49 | 91 | 3981435 | 2.22 | ug/l | | 98 |
| 78) | Bromobenzene | 24.58 | 156 | 918040 | 2.33 | ug/l | | 95 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 2678059 | 2.19 | ug/l | | 98 |
| 80) | 2-Chlorotoluene | 24.84 | 91 | 2485888 | 2.18 | ug/l | | 99 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2668606 | 2.32 | ug/l | | 97 |
| 82) | tert-Butylbenzene | 25.50 | 91 | 2229266 | 2.26 | ug/l | # | 78 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 2677809 | 2.26 | ug/l | | 99 |
| 84) | Pentachloroethane | 25.62 | 167 | 430717 | 2.53 | ug/l | | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0121.d  Vial: 12
Acq On : 15 Nov 96 1:42 pm  Operator: JJF
Sample : MDL-C,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:12 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.91 | 105 | 3778089 | 2.15 ug/l | | 97 |
| 86) | p-Isopropyltoluene | 26.17 | 119 | 3085193 | 2.11 ug/l | | 99 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 1602558 | 2.27 ug/l | | 98 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 2677809 | 2.26 ug/l | | 99 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 1647264 | 2.29 ug/l | | 93 |
| 90) | n-Butylbenzene | 26.96 | 91 | 3162201 | 2.08 ug/l | | 99 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 1346799 | 2.32 ug/l | | 99 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 109308 | 2.20 ug/l | # | 76 |
| 93) | 1,2,4-Trichlorobenzene | 30.48 | 180 | 1108976 | 2.24 ug/l | | 99 |
| 94) | Hexachlorobutadiene | 30.75 | 225 | 898099 | 2.03 ug/l | | 94 |
| 95) | Naphthalene | 30.97 | 128 | 1063831 | 2.52 ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 913747 | 2.37 ug/l | | 99 |

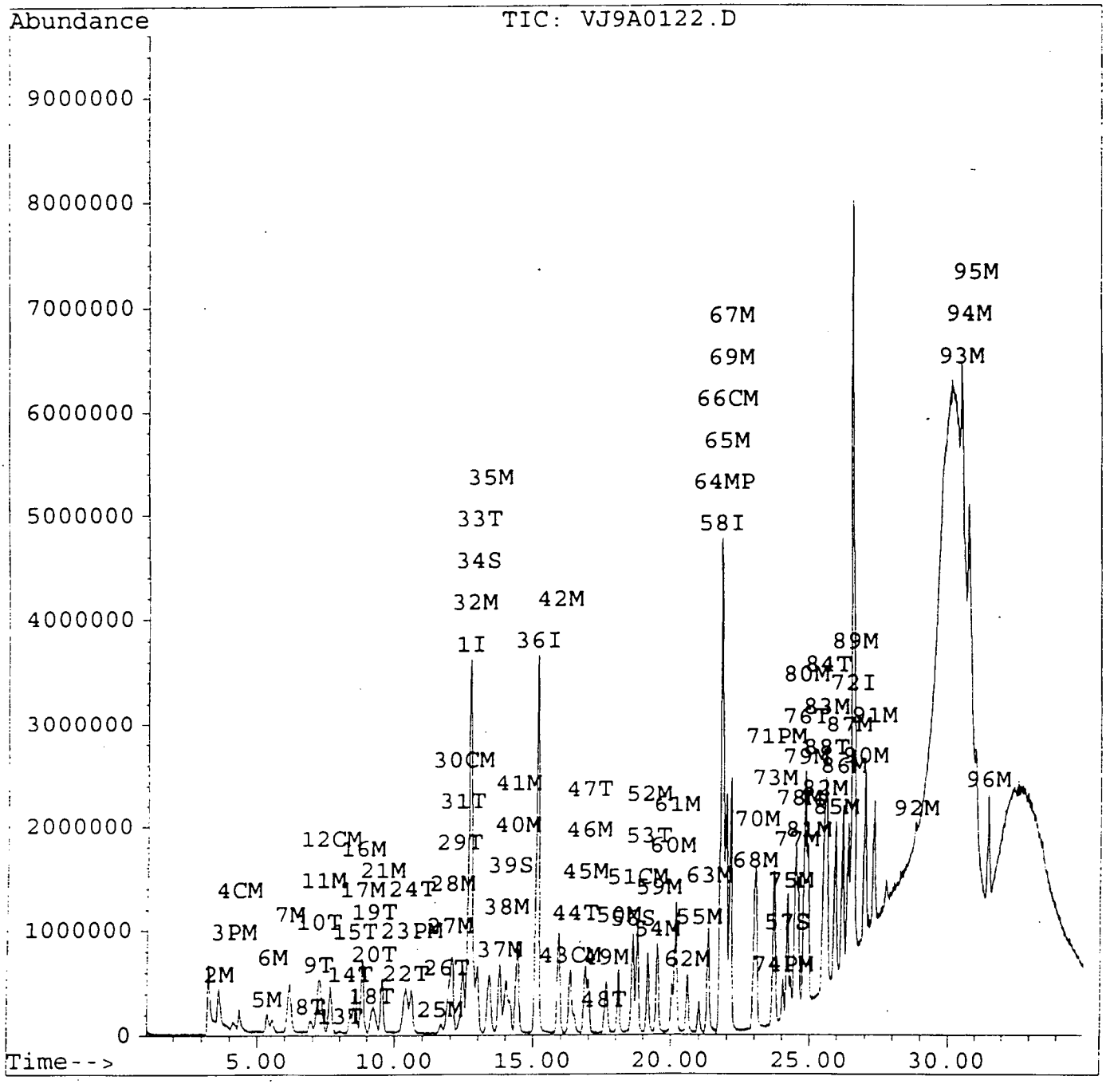
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0122.d
Acq On : 15 Nov 96 2:25 pm
Sample : MDL-D,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:49 1996

Vial: 13
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0122.d  Vial: 13
Acq On : 15 Nov 96 2:25 pm  Operator: JJF
Sample : MDL-D,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:49 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.68 | 168 | 9814677 | 10.00 | ug/l | | 0.02 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10958983 | 10.00 | ug/l | | 0.00 |
| 58) Chlorobenzene-d5 | 21.76 | 117 | 8256968 | 10.00 | ug/l | | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 26.51 | 152 | 4794312 | 10.00 | ug/l | | 0.01 |
| **System Monitoring Compounds** | | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.96 | 113 | 1384476 | 2.22 | ug/l | | 22.20% |
| 39) 1,2-Dichloroethane-d4 | 14.17 | 65 | 671144 | 2.39 | ug/l | | 23.94% |
| 56) Toluene-d8 | 18.61 | 98 | 2172897 | 2.13 | ug/l | | 21.26% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1284087 | 2.28 | ug/l | | 22.80% |
| **Target Compounds** | | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1167791 | 2.13 | ug/l | | 98 |
| 3) Chloromethane | 4.16 | 50 | 542610 | 2.11 | ug/l | | 96 |
| 4) Vinyl Chloride | 4.35 | 62 | 581774 | 2.27 | ug/l | | 92 |
| 5) Bromomethane | 5.37 | 94 | 501113 | 2.03 | ug/l | | 86 |
| 6) Chloroethane | 5.56 | 64 | 353472 | 2.20 | ug/l | | 88 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 1809405 | 2.19 | ug/l | | 90 |
| 8) Ethyl Ether | 6.91 | 59 | 237551 | 2.44 | ug/l | # | 87 |
| 9) Acrolein | 7.20 | 56 | 105910 | 11.89 | ug/l | m | 65 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.21 | 101 | 1362681 | 2.18 | ug/l | m | 96 |
| 11) Acetone | 7.38 | 43 | 332844 | 14.56 | ug/l | | 91 |
| 12) 1,1-Dichloroethene | 7.64 | 96 | 665901 | 2.19 | ug/l | | 97 |
| 13) Acetonitrile | 8.02 | 41 | 94045 | 11.99 | ug/l | m | 82 |
| 14) Iodomethane | 8.38 | 142 | 946615 | 2.19 | ug/l | | 93 |
| 15) Allyl Chloride | 8.55 | 41 | 1087848 | 2.30 | ug/l | | 100 |
| 16) Methylene Chloride | 8.83 | 84 | 601656 | 2.34 | ug/l | | 93 |
| 17) Carbon Disulfide | 8.79 | 76 | 1724716 | 2.24 | ug/l | | 99 |
| 18) Acrylonitrile | 9.16 | 53 | 250697 | 12.48 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.24 | 73 | 1089762 | 2.49 | ug/l | # | 88 |
| 20) Ethyl acetate | 9.23 | 43 | 378944 | 2.60 | ug/l | m | 13 |
| 21) trans-1,2-Dichloroethene | 9.54 | 96 | 723848 | 2.25 | ug/l | | 95 |
| 22) Diisopropyl ether | 10.39 | 45 | 2130519 | 2.39 | ug/l | | 97 |
| 23) 1,1-Dichloroethane | 10.61 | 63 | 1407997 | 2.23 | ug/l | | 98 |
| 24) Vinyl acetate | 10.62 | 43 | 264874 | 2.65 | ug/l | m | 100 |
| 25) 2-Butanone | 11.64 | 43 | 497751 | 12.41 | ug/l | | 98 |
| 26) Propionitrile | 11.84 | 54 | 100222 | 12.64 | ug/l | m | 63 |
| 27) 2,2-Dichloropropane | 11.96 | 77 | 1396168 | 2.13 | ug/l | m | 100 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 806335 | 2.29 | ug/l | | 98 |
| 29) Methacrylonitrile | 12.30 | 41 | 258169 | 2.42 | ug/l | m | 83 |
| 30) Chloroform | 12.43 | 83 | 1768917 | 2.37 | ug/l | | 94 |
| 31) Isobutyl Alcohol | 12.38 | 43 | 110734 | 29.84 | ug/l | m | 22 |
| 32) Bromochloromethane | 12.83 | 128 | 426221 | 2.48 | ug/l | # | 89 |
| 33) Tetrahyrofuran | 12.99 | 42 | 66155 | 2.83 | ug/l | m | 71 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0122.d
Acq On : 15 Nov 96 2:25 pm
Sample : MDL-D,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:49 1996

Vial: 13
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.39 | 97 | 1747800 | 2.33 | ug/l | | 90 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 1215943 | 2.22 | ug/l | | 97 |
| 38) | Carbon Tetrachloride | 14.01 | 117 | 1368898 | 2.11 | ug/l | | 99 |
| 40) | 1,2-Dichloroethane | 14.40 | 62 | 820714 | 2.46 | ug/l | | 99 |
| 41) | Benzene | 14.43 | 78 | 2105701 | 2.32 | ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 1110183 | 2.24 | ug/l | | 97 |
| 43) | 1,2-Dichloropropane | 16.34 | 63 | 851479 | 2.36 | ug/l | | 97 |
| 44) | Methyl Methacrylate | 16.50 | 69 | 238850 | 2.61 | ug/l | # | 78 |
| 45) | Bromodichloromethane | 16.87 | 83 | 1469141 | 2.28 | ug/l | | 90 |
| 46) | Dibromomethane | 16.99 | 93 | 643060 | 2.41 | ug/l | | 94 |
| 47) | 2-Nitropropane | 17.00 | 43 | 116134 | 3.58 | ug/l | m | 58 |
| 48) | 2-Chloroethylvinyl ether | 17.56 | 63 | 103777 | 2.48 | ug/l | | 95 |
| 49) | 4-Methyl-2-Pentanone | 17.64 | 43 | 1620446 | 11.75 | ug/l | | 94 |
| 50) | cis-1,3-Dichloropropene | 18.09 | 75 | 1098249 | 2.41 | ug/l | | 95 |
| 51) | Toluene | 18.78 | 92 | 1429790 | 2.29 | ug/l | | 89 |
| 52) | trans-1,3-Dichloropropene | 19.16 | 75 | 757269 | 2.26 | ug/l | | 96 |
| 53) | Ethyl Methacrylate | 19.15 | 69 | 571366 | 2.54 | ug/l | | 93 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 493180 | 2.37 | ug/l | | 87 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 710760 | 2.43 | ug/l | # | 85 |
| 59) | 2-Hexanone | 19.53 | 43 | 1095075 | 12.84 | ug/l | | 98 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 790283 | 2.41 | ug/l | | 99 |
| 61) | Tetrachloroethene | 20.17 | 166 | 1206817 | 2.18 | ug/l | | 92 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 951721 | 2.26 | ug/l | | 88 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 1044379 | 2.09 | ug/l | | 96 |
| 64) | Chlorobenzene | 21.85 | 112 | 1785335 | 2.22 | ug/l | | 99 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.92 | 131 | 906631 | 2.34 | ug/l | | 96 |
| 66) | Ethylbenzene | 21.96 | 106 | 843765 | 2.24 | ug/l | # | 86 |
| 67) | m&p Xylenes | 22.11 | 106 | 2210369 | 4.50 | ug/l | | 90 |
| 68) | o-Xylene | 23.00 | 106 | 1025206 | 2.28 | ug/l | | 88 |
| 69) | Xylenes (total) | 22.11 | 106 | 3239274 | 6.75 | ug/l | m | 90 |
| 70) | Styrene | 23.05 | 104 | 1709677 | 2.29 | ug/l | | 96 |
| 71) | Bromoform | 23.74 | 173 | 480807 | 2.29 | ug/l | # | 97 |
| 73) | Isopropylbenzene | 23.69 | 105 | 3039289 | 2.14 | ug/l | | 99 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 639469 | 2.53 | ug/l | | 87 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 416508 | 2.46 | ug/l | m | 75 |
| 76) | trans-1,4-Dichloro-2-buten | 24.80 | 53 | 114323 | 4.58 | ug/l | m | 77 |
| 77) | n-Propylbenzene | 24.48 | 91 | 4207947 | 2.26 | ug/l | | 96 |
| 78) | Bromobenzene | 24.57 | 156 | 943551 | 2.30 | ug/l | | 89 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 2844181 | 2.24 | ug/l | | 94 |
| 80) | 2-Chlorotoluene | 24.85 | 91 | 2588408 | 2.18 | ug/l | | 100 |
| 81) | 4-Chlorotoluene | 24.91 | 91 | 2729649 | 2.28 | ug/l | | 100 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 2219472 | 2.16 | ug/l | | 93 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 2797647 | 2.27 | ug/l | | 97 |
| 84) | Pentachloroethane | 25.61 | 167 | 432153 | 2.46 | ug/l | | 93 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0122.d  Vial: 13
Acq On : 15 Nov 96 2:25 pm  Operator: JJF
Sample : MDL-D,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:49 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.90 | 105 | 3983089 | 2.18 ug/l | 100 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 3234774 | 2.13 ug/l | 97 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 1617420 | 2.20 ug/l | 99 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 2797647 | 2.27 ug/l | 97 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 1657496 | 2.22 ug/l | 94 |
| 90) | n-Butylbenzene | 26.95 | 91 | 3256700 | 2.07 ug/l | 97 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 1388338 | 2.30 ug/l | 94 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.80 | 75 | 120569 | 2.33 ug/l | 86 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 1150073 | 2.23 ug/l | 87 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 922793 | 2.00 ug/l | 88 |
| 95) | Naphthalene | 30.98 | 128 | 1138882 | 2.60 ug/l | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 922351 | 2.30 ug/l | 87 |

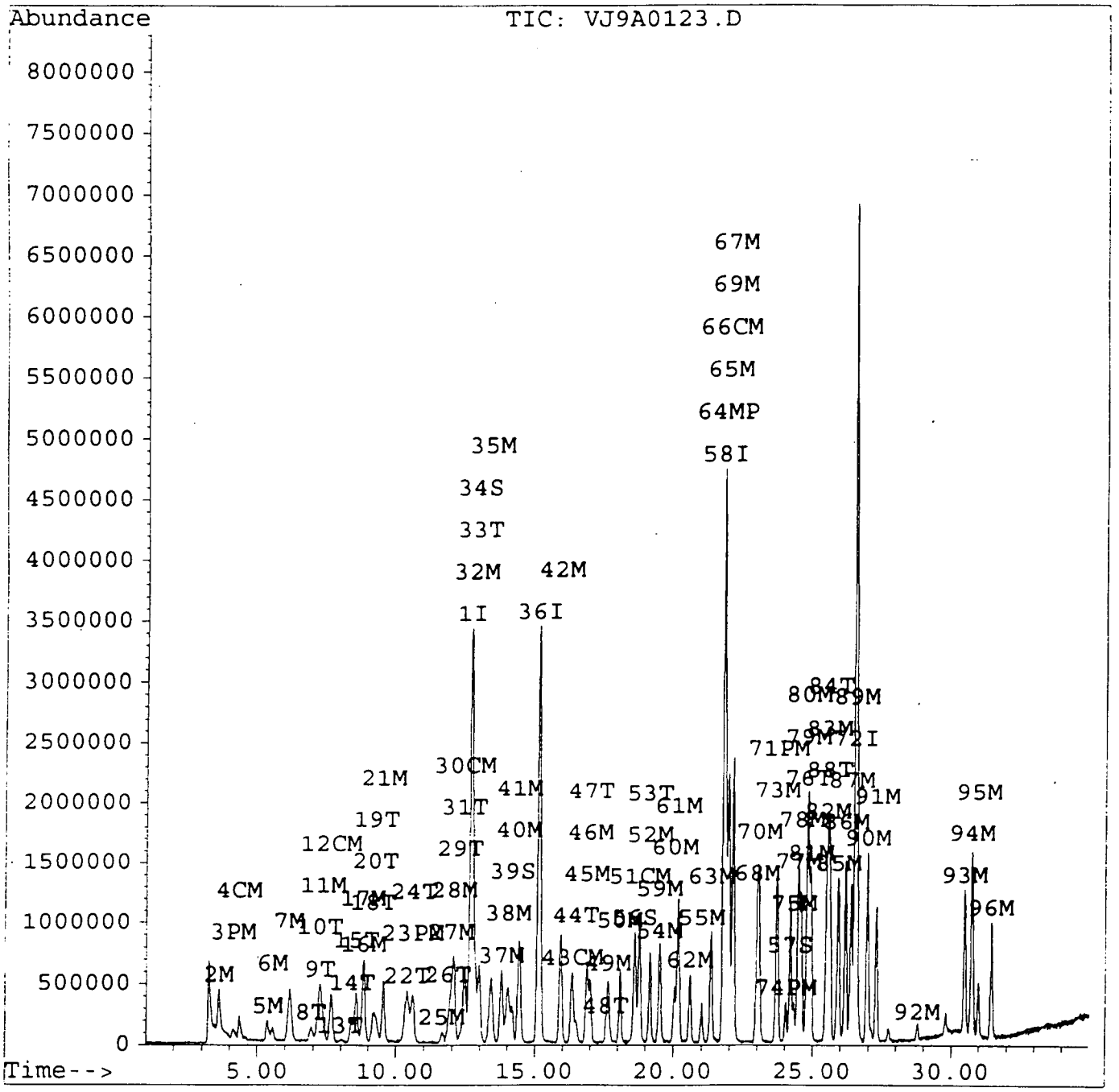
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0123.d
Acq On : 15 Nov 96 3:09 pm
Sample : MDL-E,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:12 1996

Vial: 14
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0123.d  Vial: 14
Acq On : 15 Nov 96 3:09 pm  Operator: JJF
Sample : MDL-E,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:12 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.66 | 168 | 9587426 | 10.00 | ug/l | | 0.00 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10700925 | 10.00 | ug/l | | 0.00 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8072756 | 10.00 | ug/l | | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4607017 | 10.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.97 | 113 | 1337069 | 2.19 | ug/l | | 21.95% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 626335 | 2.29 | ug/l | | 22.88% |
| 56) Toluene-d8 | 18.62 | 98 | 2076587 | 2.08 | ug/l | | 20.81% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1225575 | 2.23 | ug/l | | 22.29% |
| **Target Compounds** | | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.60 | 85 | 1107266 | 2.06 | ug/l | | 92 |
| 3) Chloromethane | 4.14 | 50 | 523910 | 2.09 | ug/l | | 100 |
| 4) Vinyl Chloride | 4.35 | 62 | 533957 | 2.13 | ug/l | | 90 |
| 5) Bromomethane | 5.38 | 94 | 426280 | 1.77 | ug/l | | 81 |
| 6) Chloroethane | 5.56 | 64 | 346665 | 2.21 | ug/l | | 96 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 1658259 | 2.06 | ug/l | | 92 |
| 8) Ethyl Ether | 6.91 | 59 | 242698 | 2.55 | ug/l | # | 76 |
| 9) Acrolein | 7.23 | 56 | 110132 | 12.66 | ug/l | m | 74 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.24 | 101 | 1224009 | 2.00 | ug/l | | 93 |
| 11) Acetone | 7.36 | 43 | 326151 | 14.60 | ug/l | | 95 |
| 12) 1,1-Dichloroethene | 7.62 | 96 | 607078 | 2.05 | ug/l | m | 90 |
| 13) Acetonitrile | 7.99 | 41 | 80164 | 9.54 | ug/l | m | 70 |
| 14) Iodomethane | 8.40 | 142 | 941995 | 2.21 | ug/l | | 93 |
| 15) Allyl Chloride | 8.56 | 41 | 1031158 | 2.23 | ug/l | | 98 |
| 16) Methylene Chloride | 8.84 | 84 | 609075 | 2.42 | ug/l | | 92 |
| 17) Carbon Disulfide | 8.81 | 76 | 1571538 | 2.09 | ug/l | | 98 |
| 18) Acrylonitrile | 9.16 | 53 | 239995 | 12.23 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.26 | 73 | 1082364 | 2.53 | ug/l | m | 97 |
| 20) Ethyl acetate | 9.23 | 43 | 417179 | 2.93 | ug/l | m | 99 |
| 21) trans-1,2-Dichloroethene | 9.54 | 96 | 678818 | 2.16 | ug/l | | 97 |
| 22) Diisopropyl ether | 10.39 | 45 | 2092441 | 2.41 | ug/l | | 97 |
| 23) 1,1-Dichloroethane | 10.60 | 63 | 1363723 | 2.22 | ug/l | | 93 |
| 24) Vinyl acetate | 10.64 | 43 | 273616 | 2.80 | ug/l | m | 100 |
| 25) 2-Butanone | 11.64 | 43 | 502452 | 12.82 | ug/l | | 96 |
| 26) Propionitrile | 11.83 | 54 | 94073 | 12.14 | ug/l | m | 63 |
| 27) 2,2-Dichloropropane | 11.94 | 77 | 1247469 | 1.95 | ug/l | | 98 |
| 28) cis-1,2-Dichloroethene | 12.07 | 96 | 767368 | 2.24 | ug/l | m | 97 |
| 29) Methacrylonitrile | 12.26 | 41 | 281711 | 2.71 | ug/l | m | 89 |
| 30) Chloroform | 12.45 | 83 | 1700194 | 2.33 | ug/l | | 98 |
| 31) Isobutyl Alcohol | 12.43 | 43 | 102628 | 28.31 | ug/l | m | 52 |
| 32) Bromochloromethane | 12.83 | 128 | 427253 | 2.54 | ug/l | # | 84 |
| 33) Tetrahyrofuran | 12.96 | 42 | 70878 | 3.10 | ug/l | m | 63 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0123.d
Acq On : 15 Nov 96 3:09 pm
Sample : MDL-E,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:12 1996

Vial: 14
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.38 | 97 | 1562171 | 2.13 | ug/l | m | 90 |
| 37) | 1,1-Dichloropropene | 13.77 | 75 | 1088790 | 2.03 | ug/l | | 98 |
| 38) | Carbon Tetrachloride | 14.03 | 117 | 1239780 | 1.96 | ug/l | | 99 |
| 40) | 1,2-Dichloroethane | 14.39 | 62 | 793822 | 2.43 | ug/l | | 98 |
| 41) | Benzene | 14.43 | 78 | 1975961 | 2.23 | ug/l | | 100 |
| 42) | Trichloroethene | 15.93 | 130 | 1045346 | 2.16 | ug/l | | 86 |
| 43) | 1,2-Dichloropropane | 16.34 | 63 | 822557 | 2.34 | ug/l | m | 86 |
| 44) | Methyl Methacrylate | 16.46 | 69 | 225298 | 2.52 | ug/l | | 91 |
| 45) | Bromodichloromethane | 16.88 | 83 | 1433909 | 2.28 | ug/l | | 94 |
| 46) | Dibromomethane | 16.99 | 93 | 639651 | 2.45 | ug/l | | 96 |
| 47) | 2-Nitropropane | 17.03 | 43 | 93499 | 2.95 | ug/l | # | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.55 | 63 | 149085 | 2.99 | ug/l | # | 86 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 1655996 | 12.29 | ug/l | | 92 |
| 50) | cis-1,3-Dichloropropene | 18.09 | 75 | 1016972 | 2.28 | ug/l | | 97 |
| 51) | Toluene | 18.77 | 92 | 1329764 | 2.18 | ug/l | | 89 |
| 52) | trans-1,3-Dichloropropene | 19.16 | 75 | 752826 | 2.30 | ug/l | | 97 |
| 53) | Ethyl Methacrylate | 19.16 | 69 | 533564 | 2.43 | ug/l | | 97 |
| 54) | 1,1,2-Trichloroethane | 19.49 | 97 | 495649 | 2.44 | ug/l | | 96 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 686897 | 2.41 | ug/l | # | 95 |
| 59) | 2-Hexanone | 19.52 | 43 | 1026131 | 12.30 | ug/l | # | 96 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 756961 | 2.36 | ug/l | | 98 |
| 61) | Tetrachloroethene | 20.17 | 166 | 1119379 | 2.07 | ug/l | | 90 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 948695 | 2.31 | ug/l | | 100 |
| 63) | 1-Chlorohexane | 21.33 | 91 | 979016 | 2.01 | ug/l | | 97 |
| 64) | Chlorobenzene | 21.85 | 112 | 1779372 | 2.26 | ug/l | | 98 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 881664 | 2.33 | ug/l | | 95 |
| 66) | Ethylbenzene | 21.97 | 106 | 788389 | 2.14 | ug/l | # | 73 |
| 67) | m&p Xylenes | 22.11 | 106 | 2085958 | 4.34 | ug/l | # | 84 |
| 68) | o-Xylene | 22.98 | 106 | 981968 | 2.23 | ug/l | | 85 |
| 69) | Xylenes (total) | 22.11 | 106 | 3031360 | 6.46 | ug/l | m | 84 |
| 70) | Styrene | 23.06 | 104 | 1619595 | 2.21 | ug/l | | 90 |
| 71) | Bromoform | 23.74 | 173 | 455574 | 2.22 | ug/l | | 96 |
| 73) | Isopropylbenzene | 23.70 | 105 | 2874734 | 2.11 | ug/l | | 97 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 606293 | 2.50 | ug/l | | 98 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 410891 | 2.53 | ug/l | m | 78 |
| 76) | trans-1,4-Dichloro-2-buten | 24.78 | 53 | 103168 | 4.30 | ug/l | m | 70 |
| 77) | n-Propylbenzene | 24.48 | 91 | 3844268 | 2.15 | ug/l | | 99 |
| 78) | Bromobenzene | 24.58 | 156 | 910345 | 2.31 | ug/l | | 86 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 2610575 | 2.14 | ug/l | | 95 |
| 80) | 2-Chlorotoluene | 24.85 | 91 | 2446611 | 2.15 | ug/l | | 94 |
| 81) | 4-Chlorotoluene | 24.91 | 91 | 2695323 | 2.34 | ug/l | | 96 |
| 82) | tert-Butylbenzene | 25.49 | 91 | 2089109 | 2.12 | ug/l | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 2629871 | 2.22 | ug/l | | 99 |
| 84) | Pentachloroethane | 25.60 | 167 | 419592 | 2.48 | ug/l | | 94 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0123.d  Vial: 14
Acq On : 15 Nov 96 3:09 pm  Operator: JJF
Sample : MDL-E,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:12 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.91 | 105 | 3647014 | 2.08 ug/l | | 99 |
| 86) | p-Isopropyltoluene | 26.15 | 119 | 3004055 | 2.06 ug/l | | 98 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 1584048 | 2.25 ug/l | | 94 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 2629871 | 2.22 ug/l | | 99 |
| 89) | 1,4-Dichlorobenzene | 26.56 | 146 | 1631711 | 2.27 ug/l | | 93 |
| 90) | n-Butylbenzene | 26.95 | 91 | 3113707 | 2.05 ug/l | | 98 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 1339047 | 2.31 ug/l | | 95 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.76 | 75 | 118231 | 2.38 ug/l | m | 68 |
| 93) | 1,2,4-Trichlorobenzene | 30.46 | 180 | 1106439 | 2.24 ug/l | | 92 |
| 94) | Hexachlorobutadiene | 30.75 | 225 | 893823 | 2.02 ug/l | | 95 |
| 95) | Naphthalene | 30.96 | 128 | 1033471 | 2.45 ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 912446 | 2.37 ug/l | | 95 |

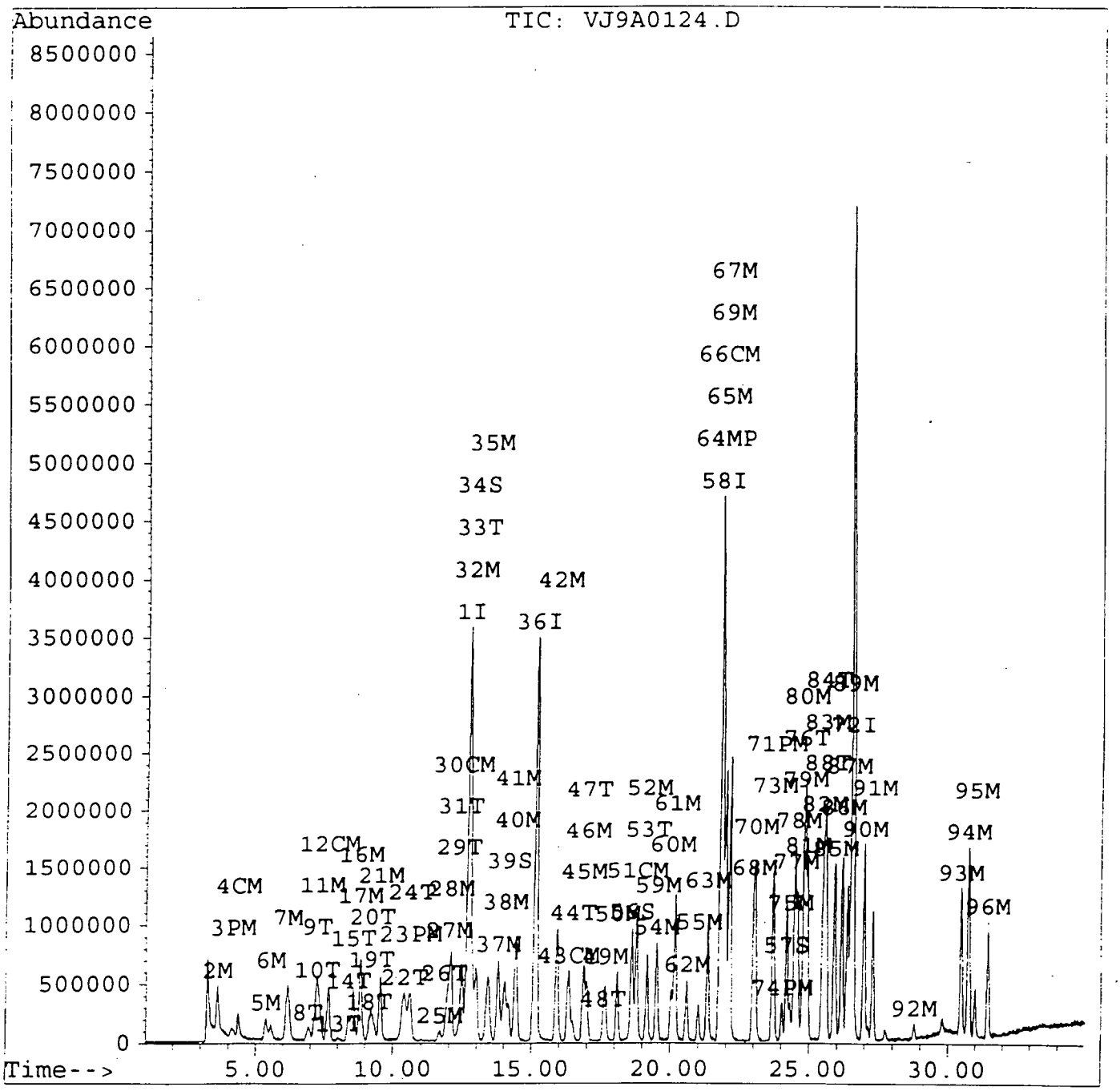
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0124.d
Acq On : 15 Nov 96 3:52 pm
Sample : MDL-F,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 5:57 1996

Vial: 15
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0124.d  Vial: 15
Acq On : 15 Nov 96 3:52 pm  Operator: JJF
Sample : MDL-F,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 5:57 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.68 | 168 | 9680171 | 10.00 ug/l | | 0.01 |
| 36) 1,4-Difluorobenzene | 15.14 | 114 | 10803825 | 10.00 ug/l | | 0.01 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 7970221 | 10.00 ug/l | | 0.01 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4724669 | 10.00 ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.97 | 113 | 1385515 | 2.25 ug/l | | 22.52% |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 653049 | 2.36 ug/l | | 23.63% |
| 56) Toluene-d8 | 18.62 | 98 | 2183173 | 2.17 ug/l | | 21.67% |
| 57) Bromofluorobenzene | 24.19 | 95 | 1247920 | 2.25 ug/l | | 22.48% |
| **Target Compounds** | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1214684 | 2.24 ug/l | | 99 |
| 3) Chloromethane | 4.18 | 50 | 576959 | 2.28 ug/l | | 99 |
| 4) Vinyl Chloride | 4.36 | 62 | 599427 | 2.37 ug/l | | 96 |
| 5) Bromomethane | 5.36 | 94 | 496823 | 2.04 ug/l | | 98 |
| 6) Chloroethane | 5.56 | 64 | 367845 | 2.33 ug/l | | 71 |
| 7) Trichlorofluoromethane | 6.17 | 101 | 1810115 | 2.22 ug/l | | 94 |
| 8) Ethyl Ether | 6.89 | 59 | 225534 | 2.35 ug/l | m | 80 |
| 9) Acrolein | 7.23 | 56 | 99771 | 11.36 ug/l | m | 86 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.23 | 101 | 1388369 | 2.25 ug/l | m | 89 |
| 11) Acetone | 7.39 | 43 | 296149 | 13.13 ug/l | m | 94 |
| 12) 1,1-Dichloroethene | 7.66 | 96 | 688696 | 2.30 ug/l | | 93 |
| 13) Acetonitrile | 8.03 | 41 | 86769 | 10.74 ug/l | m | 50 |
| 14) Iodomethane | 8.39 | 142 | 1124700 | 2.45 ug/l | | 99 |
| 15) Allyl Chloride | 8.55 | 41 | 1093156 | 2.34 ug/l | | 97 |
| 16) Methylene Chloride | 8.83 | 84 | 605013 | 2.38 ug/l | | 88 |
| 17) Carbon Disulfide | 8.80 | 76 | 1757645 | 2.32 ug/l | | 98 |
| 18) Acrylonitrile | 9.15 | 53 | 252826 | 12.77 ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.23 | 73 | 1050737 | 2.44 ug/l | m | 99 |
| 20) Ethyl acetate | 9.24 | 43 | 376457 | 2.62 ug/l | m | 81 |
| 21) trans-1,2-Dichloroethene | 9.54 | 96 | 751516 | 2.37 ug/l | | 93 |
| 22) Diisopropyl ether | 10.40 | 45 | 2077079 | 2.37 ug/l | | 94 |
| 23) 1,1-Dichloroethane | 10.60 | 63 | 1472738 | 2.37 ug/l | | 99 |
| 24) Vinyl acetate | 10.62 | 43 | 236299 | 2.40 ug/l | m | 100 |
| 25) 2-Butanone | 11.67 | 43 | 500835 | 12.66 ug/l | | 96 |
| 26) Propionitrile | 11.81 | 54 | 93835 | 12.00 ug/l | # | 49 |
| 27) 2,2-Dichloropropane | 11.96 | 77 | 1345772 | 2.09 ug/l | m | 100 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 803646 | 2.32 ug/l | | 98 |
| 29) Methacrylonitrile | 12.30 | 41 | 248925 | 2.37 ug/l | m | 98 |
| 30) Chloroform | 12.44 | 83 | 1762844 | 2.39 ug/l | | 96 |
| 31) Isobutyl Alcohol | 12.34 | 43 | 114810 | 31.36 ug/l | m | 31 |
| 32) Bromochloromethane | 12.84 | 128 | 420685 | 2.48 ug/l | | 97 |
| 33) Tetrahyrofuran | 12.96 | 42 | 55636 | 2.41 ug/l | m | 40 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0124.d
Acq On : 15 Nov 96 3:52 pm
Sample : MDL-F,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 5:57 1996

Vial: 15
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.41 | 97 | 1708697 | 2.31 | ug/l | | 97 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 1235394 | 2.29 | ug/l | | 97 |
| 38) | Carbon Tetrachloride | 14.03 | 117 | 1337154 | 2.10 | ug/l | | 91 |
| 40) | 1,2-Dichloroethane | 14.41 | 62 | 793874 | 2.41 | ug/l | | 97 |
| 41) | Benzene | 14.42 | 78 | 2090814 | 2.33 | ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 1141688 | 2.34 | ug/l | | 95 |
| 43) | 1,2-Dichloropropane | 16.34 | 63 | 865024 | 2.44 | ug/l | | 99 |
| 44) | Methyl Methacrylate | 16.48 | 69 | 223642 | 2.48 | ug/l | | 88 |
| 45) | Bromodichloromethane | 16.87 | 83 | 1459209 | 2.30 | ug/l | | 94 |
| 46) | Dibromomethane | 16.99 | 93 | 643053 | 2.44 | ug/l | | 88 |
| 47) | 2-Nitropropane | 17.02 | 43 | 89287 | 2.79 | ug/l | m | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.56 | 63 | 142394 | 2.90 | ug/l | | 90 |
| 49) | 4-Methyl-2-Pentanone | 17.66 | 43 | 1565532 | 11.51 | ug/l | | 99 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 1030781 | 2.29 | ug/l | | 97 |
| 51) | Toluene | 18.80 | 92 | 1454855 | 2.37 | ug/l | | 91 |
| 52) | trans-1,3-Dichloropropene | 19.18 | 75 | 739749 | 2.24 | ug/l | | 100 |
| 53) | Ethyl Methacrylate | 19.17 | 69 | 536947 | 2.42 | ug/l | | 97 |
| 54) | 1,1,2-Trichloroethane | 19.51 | 97 | 498983 | 2.44 | ug/l | | 88 |
| 55) | 1,2-Dibromoethane (EDB) | 21.01 | 107 | 701550 | 2.44 | ug/l | # | 87 |
| 59) | 2-Hexanone | 19.55 | 43 | 1042032 | 12.65 | ug/l | | 96 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 752151 | 2.37 | ug/l | | 100 |
| 61) | Tetrachloroethene | 20.16 | 166 | 1198083 | 2.24 | ug/l | | 99 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 926537 | 2.28 | ug/l | | 92 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 1065162 | 2.21 | ug/l | | 99 |
| 64) | Chlorobenzene | 21.85 | 112 | 1820069 | 2.34 | ug/l | | 95 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 885800 | 2.37 | ug/l | | 93 |
| 66) | Ethylbenzene | 21.95 | 106 | 865984 | 2.38 | ug/l | # | 90 |
| 67) | m&p Xylenes | 22.12 | 106 | 2167184 | 4.57 | ug/l | | 90 |
| 68) | o-Xylene | 22.98 | 106 | 1027971 | 2.37 | ug/l | | 98 |
| 69) | Xylenes (total) | 22.12 | 106 | 3205770 | 6.92 | ug/l | m | 90 |
| 70) | Styrene | 23.05 | 104 | 1693128 | 2.35 | ug/l | | 96 |
| 71) | Bromoform | 23.74 | 173 | 460400 | 2.27 | ug/l | # | 96 |
| 73) | Isopropylbenzene | 23.68 | 105 | 3011222 | 2.15 | ug/l | | 97 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 597870 | 2.40 | ug/l | | 90 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 358441 | 2.15 | ug/l | m | 86 |
| 76) | trans-1,4-Dichloro-2-buten | 24.79 | 53 | 101442 | 4.12 | ug/l | | 92 |
| 77) | n-Propylbenzene | 24.49 | 91 | 4093014 | 2.23 | ug/l | | 100 |
| 78) | Bromobenzene | 24.57 | 156 | 919212 | 2.28 | ug/l | | 90 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 2763657 | 2.20 | ug/l | | 99 |
| 80) | 2-Chlorotoluene | 24.84 | 91 | 2683633 | 2.30 | ug/l | | 99 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2662493 | 2.26 | ug/l | | 95 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 2263311 | 2.24 | ug/l | | 97 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 2688893 | 2.21 | ug/l | | 97 |
| 84) | Pentachloroethane | 25.62 | 167 | 432621 | 2.49 | ug/l | | 98 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0124.d  Vial: 15
Acq On : 15 Nov 96 3:52 pm  Operator: JJF
Sample : MDL-F,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 5:57 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.90 | 105 | 3959616 | 2.20 ug/l | | 96 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 3325985 | 2.22 ug/l | | 99 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 1656003 | 2.29 ug/l | | 96 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 2688893 | 2.21 ug/l | | 97 |
| 89) | 1,4-Dichlorobenzene | 26.56 | 146 | 1691792 | 2.30 ug/l | | 94 |
| 90) | n-Butylbenzene | 26.96 | 91 | 3399480 | 2.19 ug/l | | 99 |
| 91) | 1,2-Dichlorobenzene | 27.27 | 146 | 1392716 | 2.34 ug/l | | 92 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.79 | 75 | 105583 | 2.07 ug/l | # | 82 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 1124130 | 2.22 ug/l | | 95 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 973515 | 2.15 ug/l | | 96 |
| 95) | Naphthalene | 30.98 | 128 | 997080 | 2.31 ug/l | | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.44 | 180 | 915002 | 2.32 ug/l | | 93 |

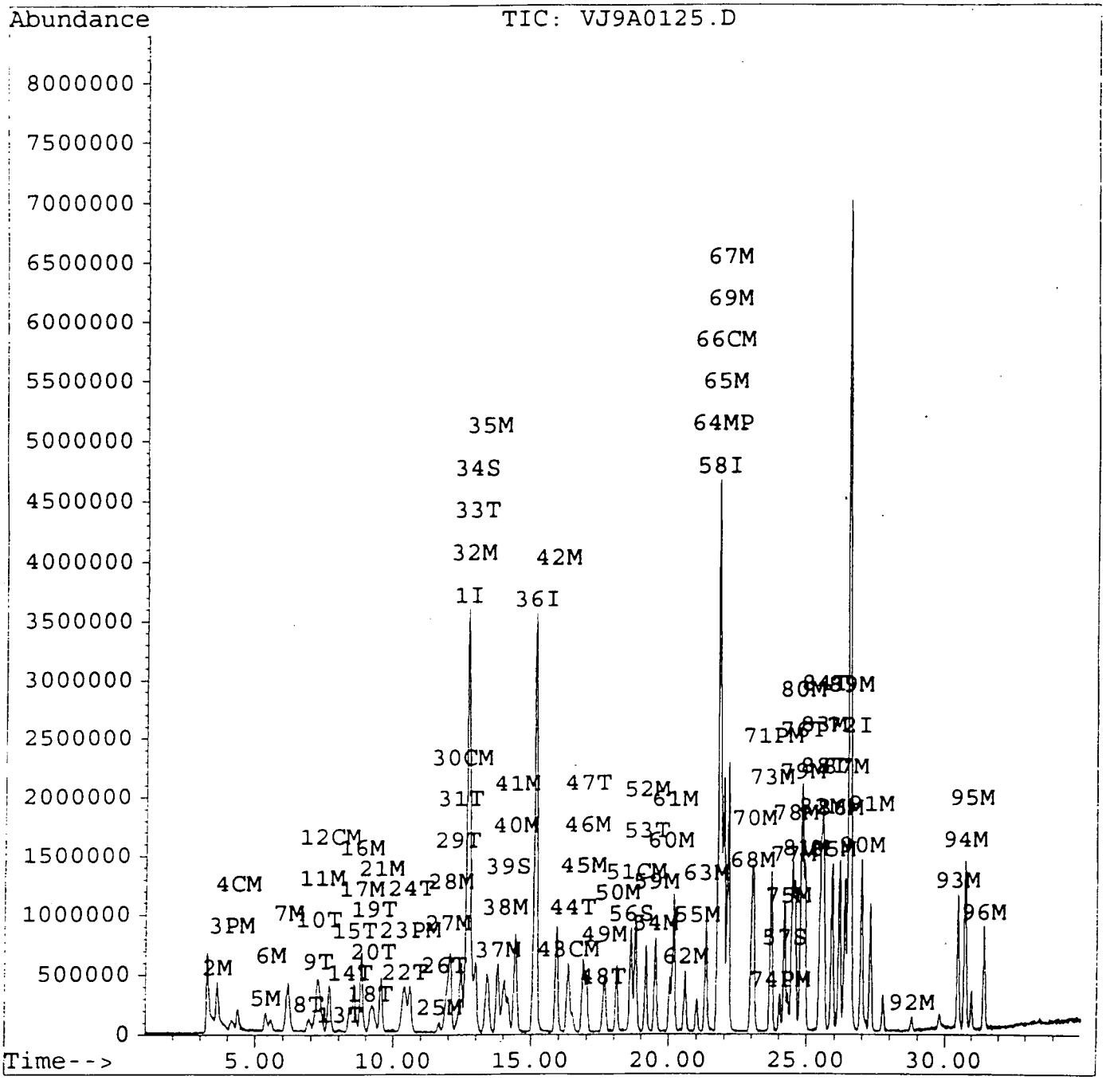
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0125.d
Acq On : 15 Nov 96 4:36 pm
Sample : MDL-G,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 7:07 1996

Vial: 16
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0125.d  Vial: 16
Acq On : 15 Nov 96 4:36 pm  Operator: JJF
Sample : MDL-G,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:07 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9833395 | 10.00 | ug/l | 0.00 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10828211 | 10.00 | ug/l | 0.00 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8131257 | 10.00 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4600972 | 10.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.98 | 113 | 1290237 | 2.06 | ug/l | 20.65% |
| 39) 1,2-Dichloroethane-d4 | 14.16 | 65 | 625812 | 2.26 | ug/l | 22.59% |
| 56) Toluene-d8 | 18.61 | 98 | 2026437 | 2.01 | ug/l | 20.07% |
| 57) Bromofluorobenzene | 24.20 | 95 | 1192675 | 2.14 | ug/l | 21.43% |
| **Target Compounds** | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1031770 | 1.87 | ug/l | 99 |
| 3) Chloromethane | 4.13 | 50 | 534526 | 2.08 | ug/l m | 100 |
| 4) Vinyl Chloride | 4.36 | 62 | 498283 | 1.94 | ug/l | 95 |
| 5) Bromomethane | 5.36 | 94 | 363943 | 1.47 | ug/l | 94 |
| 6) Chloroethane | 5.55 | 64 | 325175 | 2.02 | ug/l | 97 |
| 7) Trichlorofluoromethane | 6.16 | 101 | 1553382 | 1.88 | ug/l | 96 |
| 8) Ethyl Ether | 6.89 | 59 | 233673 | 2.39 | ug/l m | 99 |
| 9) Acrolein | 7.22 | 56 | 109434 | 12.26 | ug/l | 97 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.24 | 101 | 1187327 | 1.90 | ug/l m | 91 |
| 11) Acetone | 7.38 | 43 | 295150 | 12.88 | ug/l | 99 |
| 12) 1,1-Dichloroethene | 7.66 | 96 | 628521 | 2.07 | ug/l | 90 |
| 13) Acetonitrile | 8.04 | 41 | 86047 | 10.32 | ug/l m | 39 |
| 14) Iodomethane | 8.40 | 142 | 948628 | 2.19 | ug/l m | 95 |
| 15) Allyl Chloride | 8.55 | 41 | 968792 | 2.04 | ug/l | 96 |
| 16) Methylene Chloride | 8.83 | 84 | 563066 | 2.18 | ug/l | 96 |
| 17) Carbon Disulfide | 8.81 | 76 | 1496085 | 1.94 | ug/l | 99 |
| 18) Acrylonitrile | 9.16 | 53 | 229606 | 11.41 | ug/l | 100 |
| 19) Methyl t-butyl ether | 9.27 | 73 | 1011673 | 2.31 | ug/l m | 93 |
| 20) Ethyl acetate | 9.26 | 43 | 345951 | 2.37 | ug/l m | 96 |
| 21) trans-1,2-Dichloroethene | 9.53 | 96 | 643304 | 2.00 | ug/l | 94 |
| 22) Diisopropyl ether | 10.40 | 45 | 1981858 | 2.22 | ug/l m | 98 |
| 23) 1,1-Dichloroethane | 10.59 | 63 | 1329058 | 2.10 | ug/l | 97 |
| 24) Vinyl acetate | 10.62 | 43 | 224704 | 2.24 | ug/l m | 100 |
| 25) 2-Butanone | 11.66 | 43 | 450110 | 11.20 | ug/l | 90 |
| 26) Propionitrile | 11.81 | 54 | 95004 | 11.96 | ug/l m | 63 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 1196130 | 1.82 | ug/l | 96 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 745698 | 2.12 | ug/l | 86 |
| 29) Methacrylonitrile | 12.29 | 41 | 247294 | 2.32 | ug/l m | 80 |
| 30) Chloroform | 12.44 | 83 | 1616820 | 2.16 | ug/l | 97 |
| 31) Isobutyl Alcohol | 12.38 | 43 | 90279 | 24.28 | ug/l m | 15 |
| 32) Bromochloromethane | 12.84 | 128 | 381721 | 2.21 | ug/l # | 85 |
| 33) Tetrahyrofuran | 12.95 | 42 | 48159 | 2.06 | ug/l m | 40 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0125.d  Vial: 16
Acq On : 15 Nov 96 4:36 pm  Operator: JJF
Sample : MDL-G,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:07 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.42 | 97 | 1518512 | 2.02 ug/l | | 90 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 1067092 | 1.97 ug/l | | 97 |
| 38) | Carbon Tetrachloride | 14.03 | 117 | 1187773 | 1.86 ug/l | | 93 |
| 40) | 1,2-Dichloroethane | 14.41 | 62 | 745802 | 2.26 ug/l | | 100 |
| 41) | Benzene | 14.43 | 78 | 1934300 | 2.15 ug/l | | 100 |
| 42) | Trichloroethene | 15.92 | 130 | 1065548 | 2.18 ug/l | | 95 |
| 43) | 1,2-Dichloropropane | 16.34 | 63 | 791096 | 2.22 ug/l | | 86 |
| 44) | Methyl Methacrylate | 16.49 | 69 | 206143 | 2.28 ug/l | | 92 |
| 45) | Bromodichloromethane | 16.86 | 83 | 1367516 | 2.15 ug/l | | 97 |
| 46) | Dibromomethane | 16.98 | 93 | 600733 | 2.27 ug/l | | 93 |
| 47) | 2-Nitropropane | 17.02 | 43 | 95640 | 2.98 ug/l | m | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.59 | 63 | 139130 | 2.87 ug/l | | 96 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 1519040 | 11.14 ug/l | | 99 |
| 50) | cis-1,3-Dichloropropene | 18.09 | 75 | 973742 | 2.16 ug/l | | 93 |
| 51) | Toluene | 18.80 | 92 | 1317570 | 2.14 ug/l | | 98 |
| 52) | trans-1,3-Dichloropropene | 19.17 | 75 | 694520 | 2.10 ug/l | | 96 |
| 53) | Ethyl Methacrylate | 19.16 | 69 | 506335 | 2.28 ug/l | | 96 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 452882 | 2.21 ug/l | | 93 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 651527 | 2.26 ug/l | # | 88 |
| 59) | 2-Hexanone | 19.53 | 43 | 980254 | 11.67 ug/l | | 91 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 756413 | 2.34 ug/l | | 98 |
| 61) | Tetrachloroethene | 20.16 | 166 | 1080313 | 1.98 ug/l | | 86 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 866726 | 2.09 ug/l | | 95 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 915266 | 1.86 ug/l | | 91 |
| 64) | Chlorobenzene | 21.84 | 112 | 1694096 | 2.14 ug/l | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.94 | 131 | 829350 | 2.18 ug/l | | 97 |
| 66) | Ethylbenzene | 21.96 | 106 | 828169 | 2.23 ug/l | | 92 |
| 67) | m&p Xylenes | 22.12 | 106 | 1993737 | 4.12 ug/l | # | 82 |
| 68) | o-Xylene | 22.99 | 106 | 945269 | 2.13 ug/l | | 96 |
| 69) | Xylenes (total) | 22.12 | 106 | 3257630 | 6.89 ug/l | m | 82 |
| 70) | Styrene | 23.06 | 104 | 1563169 | 2.12 ug/l | | 96 |
| 71) | Bromoform | 23.75 | 173 | 435546 | 2.11 ug/l | | 93 |
| 73) | Isopropylbenzene | 23.69 | 105 | 2777725 | 2.04 ug/l | | 97 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 587987 | 2.43 ug/l | | 95 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 423024 | 2.61 ug/l | m | 92 |
| 76) | trans-1,4-Dichloro-2-buten | 24.81 | 53 | 106592 | 4.45 ug/l | # | 46 |
| 77) | n-Propylbenzene | 24.49 | 91 | 3750319 | 2.10 ug/l | | 98 |
| 78) | Bromobenzene | 24.57 | 156 | 896113 | 2.28 ug/l | | 89 |
| 79) | 1,3,5-Trimethylbenzene | 24.80 | 105 | 2592666 | 2.12 ug/l | | 94 |
| 80) | 2-Chlorotoluene | 24.84 | 91 | 2687764 | 2.36 ug/l | | 96 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2331432 | 2.03 ug/l | | 100 |
| 82) | tert-Butylbenzene | 25.49 | 91 | 2100394 | 2.13 ug/l | | 93 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 2545430 | 2.15 ug/l | | 100 |
| 84) | Pentachloroethane | 25.61 | 167 | 385787 | 2.34 ug/l | | 92 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0125.d  Vial: 16
Acq On : 15 Nov 96 4:36 pm  Operator: JJF
Sample : MDL-G,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 7:07 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.90 | 105 | 3560033 | 2.03 | ug/l | | 95 |
| 86) | p-Isopropyltoluene | 26.17 | 119 | 2970443 | 2.04 | ug/l | | 99 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 1551517 | 2.20 | ug/l | | 97 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 2545430 | 2.15 | ug/l | | 100 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 1614144 | 2.25 | ug/l | | 91 |
| 90) | n-Butylbenzene | 26.96 | 91 | 2973496 | 1.97 | ug/l | | 99 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 1337990 | 2.31 | ug/l | | 95 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 97797 | 1.97 | ug/l | # | 82 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 994701 | 2.01 | ug/l | | 99 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 833425 | 1.89 | ug/l | | 97 |
| 95) | Naphthalene | 30.98 | 128 | 1043035 | 2.48 | ug/l | m | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 799136 | 2.08 | ug/l | | 96 |

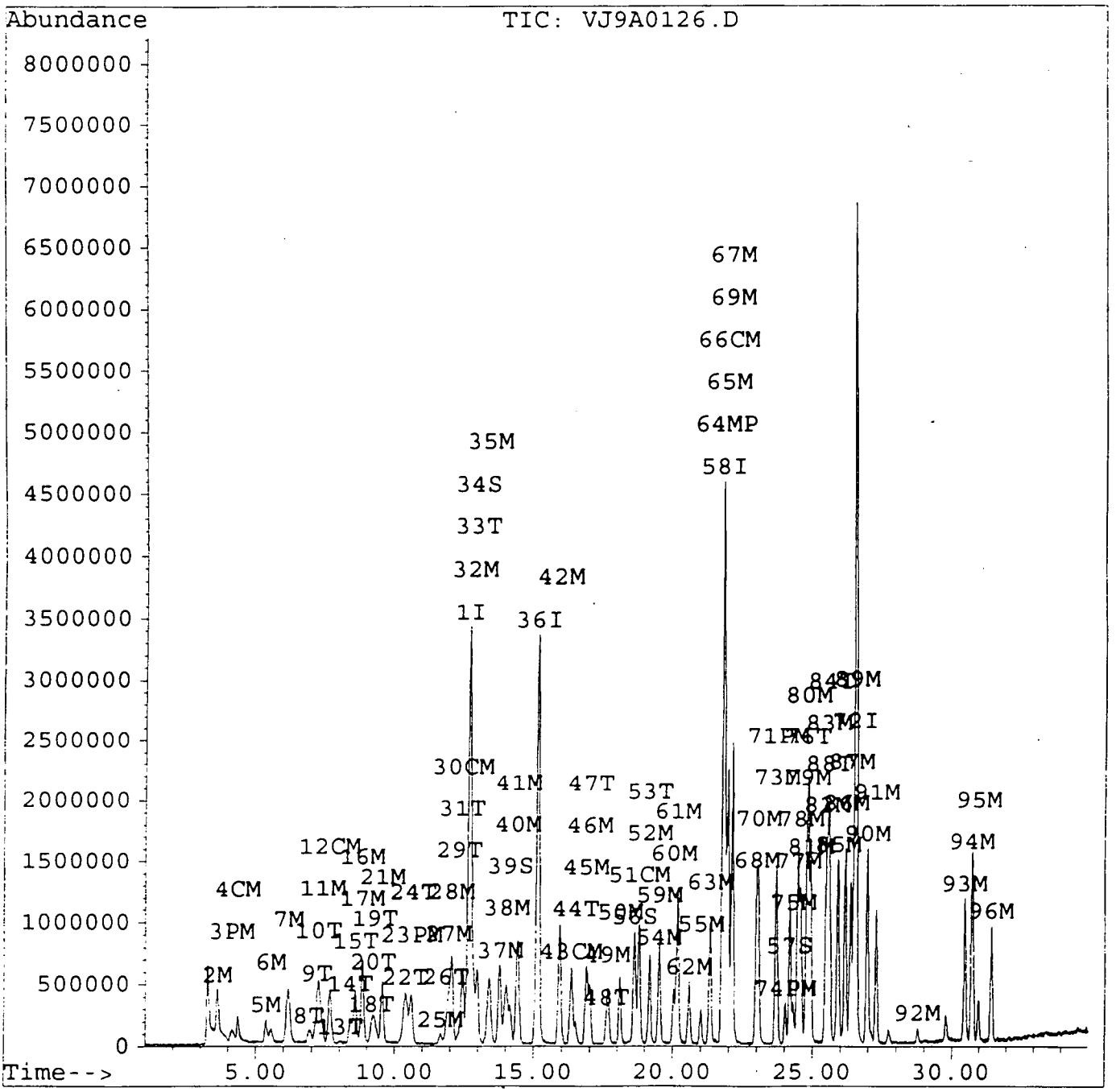
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0126.d
Acq On : 15 Nov 96 5:20 pm
Sample : MDL-H,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:09 1996

Vial: 17
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0126.d  Vial: 17
Acq On : 15 Nov 96 5:20 pm  Operator: JJF
Sample : MDL-H,2.4PPB STD#16012,WATER,25ml  Inst : VJ9
Misc : MDL STUDY  Multiplr: 1.00
Quant Time: Nov 18 6:09 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.68 | 168 | 9297644 | 10.00 | ug/l | | 0.01 |
| 36) 1,4-Difluorobenzene | 15.14 | 114 | 10429688 | 10.00 | ug/l | | 0.01 |
| 58) Chlorobenzene-d5 | 21.76 | 117 | 7641929 | 10.00 | ug/l | | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 26.49 | 152 | 4507481 | 10.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | **%Recovery** |
| 34) Dibromofluoromethane | 12.97 | 113 | 1354546 | 2.29 | ug/l | | 22.93% |
| 39) 1,2-Dichloroethane-d4 | 14.17 | 65 | 633506 | 2.37 | ug/l | | 23.74% |
| 56) Toluene-d8 | 18.62 | 98 | 2130946 | 2.19 | ug/l | | 21.91% |
| 57) Bromofluorobenzene | 24.18 | 95 | 1221607 | 2.28 | ug/l | | 22.79% |
| **Target Compounds** | | | | | | | **Qvalue** |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 1206925 | 2.32 | ug/l | | 96 |
| 3) Chloromethane | 4.14 | 50 | 530620 | 2.18 | ug/l | | 93 |
| 4) Vinyl Chloride | 4.34 | 62 | 570914 | 2.35 | ug/l | | 92 |
| 5) Bromomethane | 5.36 | 94 | 501837 | 2.15 | ug/l | | 96 |
| 6) Chloroethane | 5.54 | 64 | 358566 | 2.36 | ug/l | | 93 |
| 7) Trichlorofluoromethane | 6.16 | 101 | 1736302 | 2.22 | ug/l | | 96 |
| 8) Ethyl Ether | 6.89 | 59 | 220052 | 2.38 | ug/l | m | 89 |
| 9) Acrolein | 7.16 | 56 | 99188 | 11.76 | ug/l | m | 94 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.24 | 101 | 1317440 | 2.22 | ug/l | m | 95 |
| 11) Acetone | 7.39 | 43 | 303789 | 14.02 | ug/l | | 99 |
| 12) 1,1-Dichloroethene | 7.63 | 96 | 665558 | 2.31 | ug/l | | 97 |
| 13) Acetonitrile | 8.02 | 41 | 81601 | 10.37 | ug/l | m | 73 |
| 14) Iodomethane | 8.37 | 142 | 1085765 | 2.46 | ug/l | | 93 |
| 15) Allyl Chloride | 8.56 | 41 | 1048956 | 2.34 | ug/l | | 92 |
| 16) Methylene Chloride | 8.81 | 84 | 595428 | 2.44 | ug/l | m | 87 |
| 17) Carbon Disulfide | 8.80 | 76 | 1632105 | 2.24 | ug/l | | 97 |
| 18) Acrylonitrile | 9.17 | 53 | 230418 | 12.11 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.26 | 73 | 1009025 | 2.43 | ug/l | m | 89 |
| 20) Ethyl acetate | 9.21 | 43 | 377894 | 2.74 | ug/l | m | 83 |
| 21) trans-1,2-Dichloroethene | 9.56 | 96 | 695329 | 2.28 | ug/l | | 98 |
| 22) Diisopropyl ether | 10.38 | 45 | 2082149 | 2.47 | ug/l | | 92 |
| 23) 1,1-Dichloroethane | 10.60 | 63 | 1409017 | 2.36 | ug/l | | 89 |
| 24) Vinyl acetate | 10.65 | 43 | 244846 | 2.58 | ug/l | m | 100 |
| 25) 2-Butanone | 11.65 | 43 | 473580 | 12.46 | ug/l | | 89 |
| 26) Propionitrile | 11.83 | 54 | 90805 | 12.09 | ug/l | # | 63 |
| 27) 2,2-Dichloropropane | 11.93 | 77 | 1259911 | 2.03 | ug/l | | 90 |
| 28) cis-1,2-Dichloroethene | 12.04 | 96 | 793982 | 2.38 | ug/l | | 92 |
| 29) Methacrylonitrile | 12.31 | 41 | 268181 | 2.66 | ug/l | | 86 |
| 30) Chloroform | 12.45 | 83 | 1725249 | 2.44 | ug/l | | 96 |
| 31) Isobutyl Alcohol | 12.39 | 43 | 101146 | 28.77 | ug/l | m | 61 |
| 32) Bromochloromethane | 12.84 | 128 | 393912 | 2.42 | ug/l | | 96 |
| 33) Tetrahyrofuran | 12.93 | 42 | 56149 | 2.54 | ug/l | m | 1 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0126.d
Acq On : 15 Nov 96 5:20 pm
Sample : MDL-H,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:09 1996

Vial: 17
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.40 | 97 | 1655040 | 2.33 | ug/l | | 94 |
| 37) | 1,1-Dichloropropene | 13.80 | 75 | 1200729 | 2.30 | ug/l | | 94 |
| 38) | Carbon Tetrachloride | 14.02 | 117 | 1309130 | 2.13 | ug/l | | 96 |
| 40) | 1,2-Dichloroethane | 14.42 | 62 | 794845 | 2.50 | ug/l | | 98 |
| 41) | Benzene | 14.45 | 78 | 2031710 | 2.35 | ug/l | | 100 |
| 42) | Trichloroethene | 15.90 | 130 | 1081227 | 2.30 | ug/l | | 95 |
| 43) | 1,2-Dichloropropane | 16.34 | 63 | 817563 | 2.38 | ug/l | | 96 |
| 44) | Methyl Methacrylate | 16.48 | 69 | 207506 | 2.39 | ug/l | | 99 |
| 45) | Bromodichloromethane | 16.87 | 83 | 1446323 | 2.36 | ug/l | | 91 |
| 46) | Dibromomethane | 16.99 | 93 | 595678 | 2.34 | ug/l | | 94 |
| 47) | 2-Nitropropane | 17.01 | 43 | 87638 | 2.84 | ug/l | # | 64 |
| 48) | 2-Chloroethylvinyl ether | 17.58 | 63 | 85909 | 2.34 | ug/l | | 98 |
| 49) | 4-Methyl-2-Pentanone | 17.64 | 43 | 1474605 | 11.23 | ug/l | | 96 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 997544 | 2.30 | ug/l | | 93 |
| 51) | Toluene | 18.77 | 92 | 1412396 | 2.38 | ug/l | # | 84 |
| 52) | trans-1,3-Dichloropropene | 19.17 | 75 | 732360 | 2.30 | ug/l | | 99 |
| 53) | Ethyl Methacrylate | 19.17 | 69 | 511648 | 2.39 | ug/l | | 97 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 472147 | 2.39 | ug/l | | 96 |
| 55) | 1,2-Dibromoethane (EDB) | 21.01 | 107 | 662271 | 2.38 | ug/l | # | 92 |
| 59) | 2-Hexanone | 19.53 | 43 | 970277 | 12.29 | ug/l | | 95 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 751909 | 2.48 | ug/l | | 92 |
| 61) | Tetrachloroethene | 20.17 | 166 | 1188751 | 2.32 | ug/l | | 99 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 890044 | 2.29 | ug/l | | 90 |
| 63) | 1-Chlorohexane | 21.34 | 91 | 1040268 | 2.25 | ug/l | | 97 |
| 64) | Chlorobenzene | 21.84 | 112 | 1739393 | 2.33 | ug/l | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 851830 | 2.38 | ug/l | | 99 |
| 66) | Ethylbenzene | 21.95 | 106 | 814306 | 2.34 | ug/l | # | 89 |
| 67) | m&p Xylenes | 22.11 | 106 | 2104919 | 4.63 | ug/l | | 96 |
| 68) | o-Xylene | 22.98 | 106 | 969239 | 2.33 | ug/l | | 100 |
| 69) | Xylenes (total) | 22.11 | 106 | 3088040 | 6.95 | ug/l | m | 96 |
| 70) | Styrene | 23.06 | 104 | 1644344 | 2.38 | ug/l | | 96 |
| 71) | Bromoform | 23.74 | 173 | 441624 | 2.27 | ug/l | | 95 |
| 73) | Isopropylbenzene | 23.69 | 105 | 2984892 | 2.24 | ug/l | | 94 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 562967 | 2.37 | ug/l | | 99 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 422883 | 2.66 | ug/l | m | 91 |
| 76) | trans-1,4-Dichloro-2-buten | 24.78 | 53 | 92129 | 3.92 | ug/l | m | 53 |
| 77) | n-Propylbenzene | 24.48 | 91 | 4052323 | 2.32 | ug/l | | 100 |
| 78) | Bromobenzene | 24.57 | 156 | 886970 | 2.30 | ug/l | | 95 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 2737191 | 2.29 | ug/l | | 98 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 2616045 | 2.35 | ug/l | | 98 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2600347 | 2.31 | ug/l | | 100 |
| 82) | tert-Butylbenzene | 25.47 | 91 | 2189686 | 2.27 | ug/l | | 94 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 2685886 | 2.31 | ug/l | | 99 |
| 84) | Pentachloroethane | 25.63 | 167 | 398082 | 2.43 | ug/l | m | 86 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0126.d
Acq On : 15 Nov 96 5:20 pm
Sample : MDL-H,2.4PPB STD#16012,WATER,25ml
Misc : MDL STUDY
Quant Time: Nov 18 6:09 1996

Vial: 17
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.89 | 105 | 3873940 | 2.26 ug/l | 99 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 3216876 | 2.25 ug/l | 96 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 1605016 | 2.33 ug/l | 98 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 2685886 | 2.31 ug/l | 99 |
| 89) | 1,4-Dichlorobenzene | 26.56 | 146 | 1609370 | 2.29 ug/l | 93 |
| 90) | n-Butylbenzene | 26.95 | 91 | 3270068 | 2.21 ug/l | 99 |
| 91) | 1,2-Dichlorobenzene | 27.27 | 146 | 1350348 | 2.38 ug/l | 96 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 103111 | 2.12 ug/l | 82 |
| 93) | 1,2,4-Trichlorobenzene | 30.46 | 180 | 1057935 | 2.19 ug/l | 93 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 924183 | 2.14 ug/l | 91 |
| 95) | Naphthalene | 30.96 | 128 | 860557 | 2.09 ug/l | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.43 | 180 | 831330 | 2.21 ug/l | 92 |

(#) = qualifier out of range (m) = manual integration

# Response Factor Report VJ9

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:50:51 1996
Response via : Initial Calibration

Calibration Files
40 =VJ9A0111.D 20 =VJ9A0112.D 10 =VJ9A0113.D
4 =VJ9A0114.D 2 =VJ9A0115.D 0.8 =VJ9A0116.D

| | | Compound | 40 | 20 | 10 | 4 | 2 | 0.8 | Avg | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | |
| 2) | M | Dichlorodifluoromet | 0.544 | 0.583 | 0.611 | 0.546 | 0.521 | 0.554 | 0.6 | 5 |
| 3) | PM | Chloromethane | 0.238 | 0.260 | 0.273 | 0.264 | 0.255 | 0.281 | 0.3 | 5 |
| 4) | CM | Vinyl Chloride | 0.268 | 0.267 | 0.277 | 0.262 | 0.248 | 0.247 | 0.3 | 4 |
| 5) | M | Bromomethane | 0.285 | 0.251 | 0.252 | 0.224 | 0.254 | 0.242 | 0.3 | 7 |
| 6) | M | Chloroethane | 0.169 | 0.164 | 0.172 | 0.160 | 0.155 | 0.160 | 0.2 | 3 |
| 7) | M | Trichlorofluorometh | 0.833 | 0.896 | 0.932 | 0.810 | 0.773 | 0.799 | 0.8 | 7 |
| 8) | T | Ethyl Ether | 0.104 | 0.098 | 0.100 | 0.101 | 0.098 | 0.095 | 0.1 | 3 |
| 9) | T | Acrolein | 0.009 | 0.009 | 0.009 | 0.009 | 0.010 | 0.009 | 0.0 | 4 |
| 10) | T | 1,1,2-Trichloro-1,1 | 0.674 | 0.647 | 0.660 | 0.637 | 0.609 | 0.595 | 0.6 | 4 |
| 11) | M | Acetone | 0.022 | 0.022 | 0.022 | 0.022 | 0.029 | 0.024 | 0.0 | 12 |
| 12) | CM | 1,1-Dichloroethene | 0.307 | 0.320 | 0.337 | 0.311 | 0.288 | 0.294 | 0.3 | 5 |
| 13) | T | Acetonitrile | 0.005 | 0.006 | 0.005 | 0.007 | | | 0.0 | 16 |
| 14) | T | Iodomethane | 0.731 | 0.695 | 0.643 | 0.552 | 0.473 | 0.386 | 0.6 | 23 |
| 15) | T | Allyl Chloride | 0.478 | 0.468 | 0.477 | 0.474 | 0.471 | 0.525 | 0.5 | 4 |
| 16) | M | Methylene Chloride | 0.252 | 0.257 | 0.263 | 0.258 | 0.251 | 0.292 | 0.3 | 5 |
| 17) | M | Carbon Disulfide | 0.799 | 0.848 | 0.804 | 0.748 | 0.773 | 0.732 | 0.8 | 5 |
| 18) | T | Acrylonitrile | 0.021 | 0.020 | 0.021 | 0.021 | 0.022 | 0.019 | 0.0 | 4 |
| 19) | T | Methyl t-butyl ethe | 0.449 | 0.435 | 0.444 | 0.447 | 0.445 | 0.454 | 0.4 | 1 |
| 20) | T | Ethyl acetate | 0.127 | 0.133 | 0.139 | 0.151 | 0.171 | 0.168 | 0.1 | 12 |
| 21) | M | trans-1,2-Dichloroe | 0.329 | 0.337 | 0.352 | 0.325 | 0.316 | 0.308 | 0.3 | 4 |
| 22) | T | Diisopropyl ether | 0.931 | 0.877 | 0.890 | 0.905 | 0.904 | 0.935 | 0.9 | 2 |
| 23) | PM | 1,1-Dichloroethane | 0.651 | 0.651 | 0.673 | 0.638 | 0.623 | 0.616 | 0.6 | 3 |
| 24) | T | Vinyl acetate | 0.098 | 0.094 | 0.097 | 0.092 | 0.104 | 0.128 | 0.1 | 12 |
| 25) | M | 2-Butanone | 0.037 | 0.038 | 0.039 | 0.037 | 0.042 | 0.051 | 0.0 | 13 |
| 26) | T | Propionitrile | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | | 0.0 | 3 |
| 27) | M | 2,2-Dichloropropane | 0.674 | 0.689 | 0.716 | 0.654 | 0.642 | 0.626 | 0.7 | 4 |
| 28) | M | cis-1,2-Dichloroeth | 0.352 | 0.359 | 0.375 | 0.357 | 0.357 | 0.347 | 0.4 | 2 |
| 29) | T | Methacrylonitrile | 0.104 | 0.101 | 0.097 | 0.112 | 0.106 | 0.132 | 0.1 | 11 |
| 30) | CM | Chloroform | 0.770 | 0.766 | 0.794 | 0.758 | 0.734 | 0.750 | 0.8 | 2 |
| 31) | T | Isobutyl Alcohol | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | | 0.0 | 6 |
| 32) | M | Bromochloromethane | 0.178 | 0.181 | 0.185 | 0.174 | 0.179 | 0.155 | 0.2 | 6 |
| 33) | T | Tetrahyrofuran | 0.022 | 0.024 | 0.024 | 0.025 | 0.023 | | 0.0 | 5 |
| 34) | S | Dibromofluoromethan | 0.648 | 0.645 | 0.649 | 0.637 | 0.615 | 0.620 | 0.6 | 2 |
| 35) | M | 1,1,1-Trichloroetha | 0.751 | 0.791 | 0.837 | 0.747 | 0.740 | 0.726 | 0.8 | 5 |
| 36) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | |
| 37) | M | 1,1-Dichloropropene | 0.467 | 0.519 | 0.545 | 0.503 | 0.479 | 0.488 | 0.5 | 5 |
| 38) | M | Carbon Tetrachlorid | 0.602 | 0.661 | 0.674 | 0.583 | 0.532 | 0.492 | 0.6 | 12 |
| 39) | S | 1,2-Dichloroethane- | 0.252 | 0.251 | 0.259 | 0.270 | 0.261 | 0.242 | 0.3 | 3 |
| 40) | M | 1,2-Dichloroethane | 0.297 | 0.301 | 0.311 | 0.314 | 0.304 | 0.302 | 0.3 | 2 |
| 41) | M | Benzene | 0.800 | 0.820 | 0.870 | 0.850 | 0.818 | 0.820 | 0.8 | 3 |
| 42) | M | Trichloroethene | 0.422 | 0.448 | 0.481 | 0.457 | 0.444 | 0.458 | 0.5 | 4 |

(#) = Out of Range

# Response Factor Report VJ9

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:50:51 1996
Response via : Initial Calibration

Calibration Files
40 =VJ9A0111.D 20 =VJ9A0112.D 10 =VJ9A0113.D
4 =VJ9A0114.D 2 =VJ9A0115.D 0.8 =VJ9A0116.D

| | | Compound | 40 | 20 | 10 | 4 | 2 | 0.8 | Avg | |
|---|---|---|---|---|---|---|---|---|---|---|
| 43) | CM | 1,2-Dichloropropane | 0.317 | 0.323 | 0.340 | 0.340 | 0.326 | 0.327 | 0.3 | |
| 44) | T | Methyl Methacrylate | 0.083 | 0.083 | 0.083 | 0.085 | 0.086 | 0.079 | 0.1 | |
| 45) | M | Bromodichloromethan | 0.605 | 0.604 | 0.614 | 0.589 | 0.559 | 0.556 | 0.6 | |
| 46) | M | Dibromomethane | 0.242 | 0.246 | 0.249 | 0.254 | 0.245 | 0.228 | 0.2 | |
| 47) | T | 2-Nitropropane | 0.028 | 0.030 | 0.030 | 0.035 | 0.025 | | 0.0 | 1 |
| 48) | T | 2-Chloroethylvinyl | 0.085 | 0.081 | 0.068 | 0.068 | 0.037 | | 0.1 | 2 |
| 49) | M | 4-Methyl-2-Pentanon | 0.123 | 0.120 | 0.120 | 0.120 | 0.129 | 0.143 | 0.1 | |
| 50) | M | cis-1,3-Dichloropro | 0.423 | 0.424 | 0.432 | 0.419 | 0.406 | 0.392 | 0.4 | |
| 51) | CM | Toluene | 0.532 | 0.586 | 0.606 | 0.597 | 0.558 | 0.535 | 0.6 | |
| 52) | M | trans-1,3-Dichlorop | 0.308 | 0.310 | 0.314 | 0.312 | 0.287 | 0.301 | 0.3 | |
| 53) | T | Ethyl Methacrylate | 0.201 | 0.201 | 0.200 | 0.208 | 0.209 | 0.212 | 0.2 | |
| 54) | M | 1,1,2-Trichloroetha | 0.185 | 0.187 | 0.190 | 0.192 | 0.192 | 0.191 | 0.2 | |
| 55) | M | 1,2-Dibromoethane ( | 0.266 | 0.275 | 0.266 | 0.277 | 0.255 | 0.260 | 0.3 | |
| 56) | S | Toluene-d8 | 0.957 | 0.950 | 0.949 | 0.955 | 0.886 | 0.898 | 0.9 | |
| 57) | S | Bromofluorobenzene | 0.486 | 0.500 | 0.495 | 0.530 | 0.548 | 0.525 | 0.5 | |
| 58) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | |
| 59) | M | 2-Hexanone | 0.093 | 0.094 | 0.098 | 0.097 | 0.110 | 0.127 | 0.1 | 1 |
| 60) | M | 1,3-Dichloropropane | 0.394 | 0.401 | 0.414 | 0.395 | 0.381 | 0.400 | 0.4 | |
| 61) | M | Tetrachloroethene | 0.605 | 0.719 | 0.763 | 0.665 | 0.621 | 0.647 | 0.7 | |
| 62) | M | Chlorodibromomethan | 0.537 | 0.549 | 0.549 | 0.488 | 0.472 | 0.461 | 0.5 | |
| 63) | M | 1-Chlorohexane | 0.638 | 0.609 | 0.622 | 0.593 | 0.559 | 0.607 | 0.6 | |
| 64) | MP | Chlorobenzene | 0.904 | 1.010 | 1.065 | 0.979 | 0.926 | 0.966 | 1.0 | |
| 65) | M | 1,1,1,2-Tetrachloro | 0.459 | 0.503 | 0.511 | 0.471 | 0.448 | 0.420 | 0.5 | |
| 66) | CM | Ethylbenzene | 0.388 | 0.466 | 0.506 | 0.456 | 0.438 | 0.483 | 0.5 | |
| 67) | M | m&p Xylenes | 0.518 | 0.625 | 0.665 | 0.598 | 0.577 | 0.589 | 0.6 | |
| 68) | M | o-Xylene | 0.489 | 0.574 | 0.604 | 0.548 | 0.515 | 0.542 | 0.5 | |
| 69) | M | Xylenes (total) | 0.514 | 0.614 | 0.648 | 0.589 | 0.550 | 0.573 | 0.6 | |
| 70) | M | Styrene | 0.837 | 0.946 | 0.999 | 0.893 | 0.869 | 0.892 | 0.9 | |
| 71) | PM | Bromoform | 0.285 | 0.279 | 0.269 | 0.243 | 0.227 | 0.222 | 0.3 | 1 |
| 72) | I | 1,4-Dichlorobenzene-d | ----------ISTD---------- | | | | | | | |
| 73) | M | Isopropylbenzene | 2.557 | 3.297 | 3.288 | 3.009 | 2.699 | 2.907 | 3.0 | 1 |
| 74) | PM | 1,1,2,2-Tetrachloro | 0.529 | 0.533 | 0.522 | 0.521 | 0.503 | 0.552 | 0.5 | |
| 75) | M | 1,2,3-Trichloroprop | 0.331 | 0.316 | 0.329 | 0.364 | 0.347 | 0.428 | 0.4 | 1 |
| 76) | T | trans-1,4-Dichloro- | 0.045 | 0.058 | 0.057 | 0.058 | 0.046 | 0.048 | 0.1 | 1 |
| 77) | M | n-Propylbenzene | 2.864 | 4.336 | 4.449 | 4.066 | 3.678 | 3.902 | 3.9 | 1 |
| 78) | M | Bromobenzene | 0.803 | 0.916 | 0.921 | 0.878 | 0.808 | 0.802 | 0.9 | |
| 79) | M | 1,3,5-Trimethylbenz | 2.265 | 2.902 | 2.922 | 2.751 | 2.460 | 2.623 | 2.7 | |
| 80) | M | 2-Chlorotoluene | 2.043 | 2.510 | 2.735 | 2.680 | 2.585 | 2.275 | 2.5 | 1 |
| 81) | M | 4-Chlorotoluene | 2.097 | 2.789 | 2.668 | 2.415 | 2.190 | 2.834 | 2.5 | 1 |
| 82) | M | tert-Butylbenzene | 1.808 | 2.286 | 2.324 | 2.143 | 2.056 | 2.218 | 2.1 | |
| 83) | M | 1,2,4-Trimethylbenz | 2.176 | 2.739 | 2.818 | 2.652 | 2.397 | 2.665 | 2.6 | |
| 84) | T | Pentachloroethane | 0.520 | 0.490 | 0.467 | 0.413 | 0.384 | 0.339 | 0.4 | 1 |

(#) = Out of Range

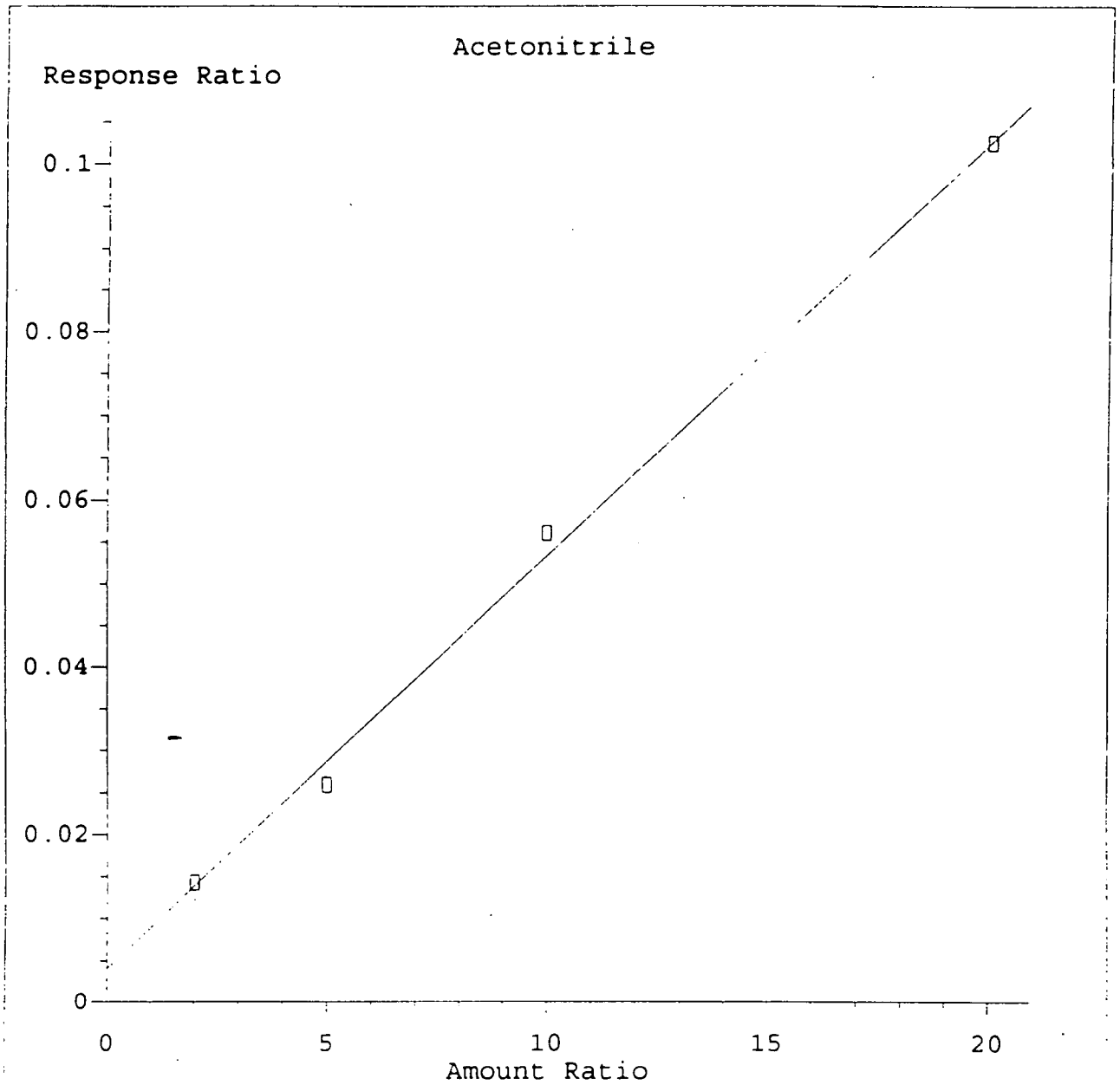
# Response Factor Report VJ9

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:50:51 1996
Response via : Initial Calibration

Calibration Files
40 =VJ9A0111.D 20 =VJ9A0112.D 10 =VJ9A0113.D
4 =VJ9A0114.D 2 =VJ9A0115.D 0.8 =VJ9A0116.D

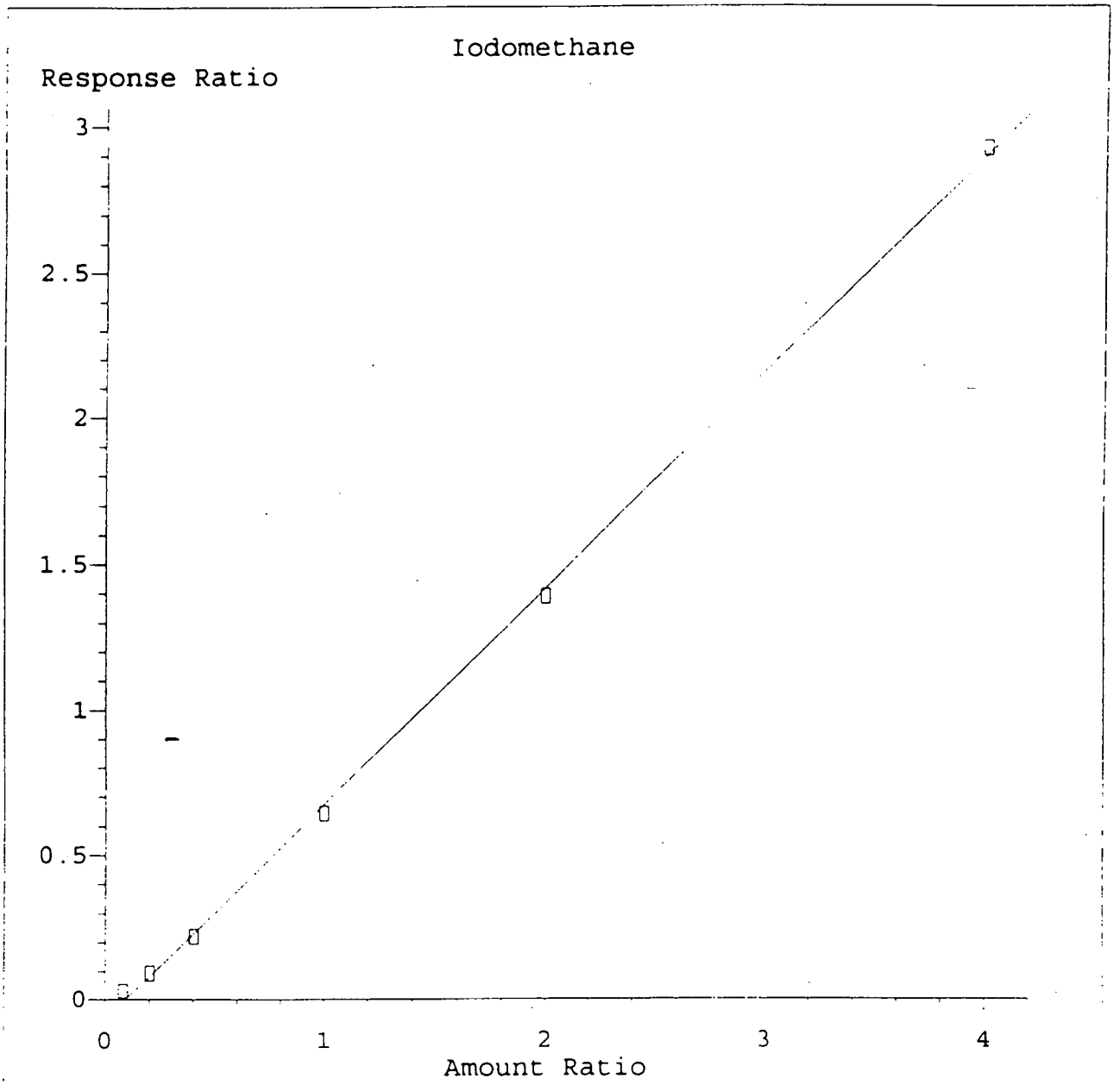
| | | Compound | 40 | 20 | 10 | 4 | 2 | 0.8 | Avg | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 85) | M | sec-Butylbenzene | 2.870 | 4.261 | 4.312 | 3.984 | 3.598 | 3.808 | 3.8 | 13 |
| 86) | M | p-Isopropyltoluene | 2.540 | 3.503 | 3.540 | 3.269 | 2.927 | 3.220 | 3.2 | 11 |
| 87) | M | 1,3-Dichlorobenzene | 1.348 | 1.620 | 1.648 | 1.555 | 1.436 | 1.577 | 1.5 | 7 |
| 88) | T | 1,2,3-Trimethylbenz | 2.176 | 2.739 | 2.818 | 2.652 | 2.397 | 2.665 | 2.6 | 9 |
| 89) | M | 1,4-Dichlorobenzene | 1.326 | 1.620 | 1.650 | 1.592 | 1.498 | 1.659 | 1.6 | 8 |
| 90) | M | n-Butylbenzene | 2.550 | 3.654 | 3.682 | 3.447 | 3.085 | 3.315 | 3.3 | 12 |
| 91) | M | 1,2-Dichlorobenzene | 1.122 | 1.321 | 1.354 | 1.254 | 1.189 | 1.308 | 1.3 | 7 |
| 92) | M | 1,2-Dibromo-3-chlor | 0.102 | 0.104 | 0.100 | 0.093 | 0.135 | 0.114 | 0.1 | 13 |
| 93) | M | 1,2,4-Trichlorobenz | 0.950 | 1.195 | 1.156 | 1.082 | 0.960 | 1.101 | 1.1 | 9 |
| 94) | M | Hexachlorobutadiene | 0.835 | 1.072 | 1.069 | 0.985 | 0.848 | 0.952 | 1.0 | 10 |
| 95) | M | Naphthalene | 0.810 | 0.974 | 0.929 | 0.926 | 0.852 | 1.000 | 0.9 | 7 |
| 96) | M | 1,2,3-Trichlorobenz | 0.732 | 0.895 | 0.894 | 0.832 | 0.771 | 0.886 | 0.8 | 8 |

(#) = Out of Range



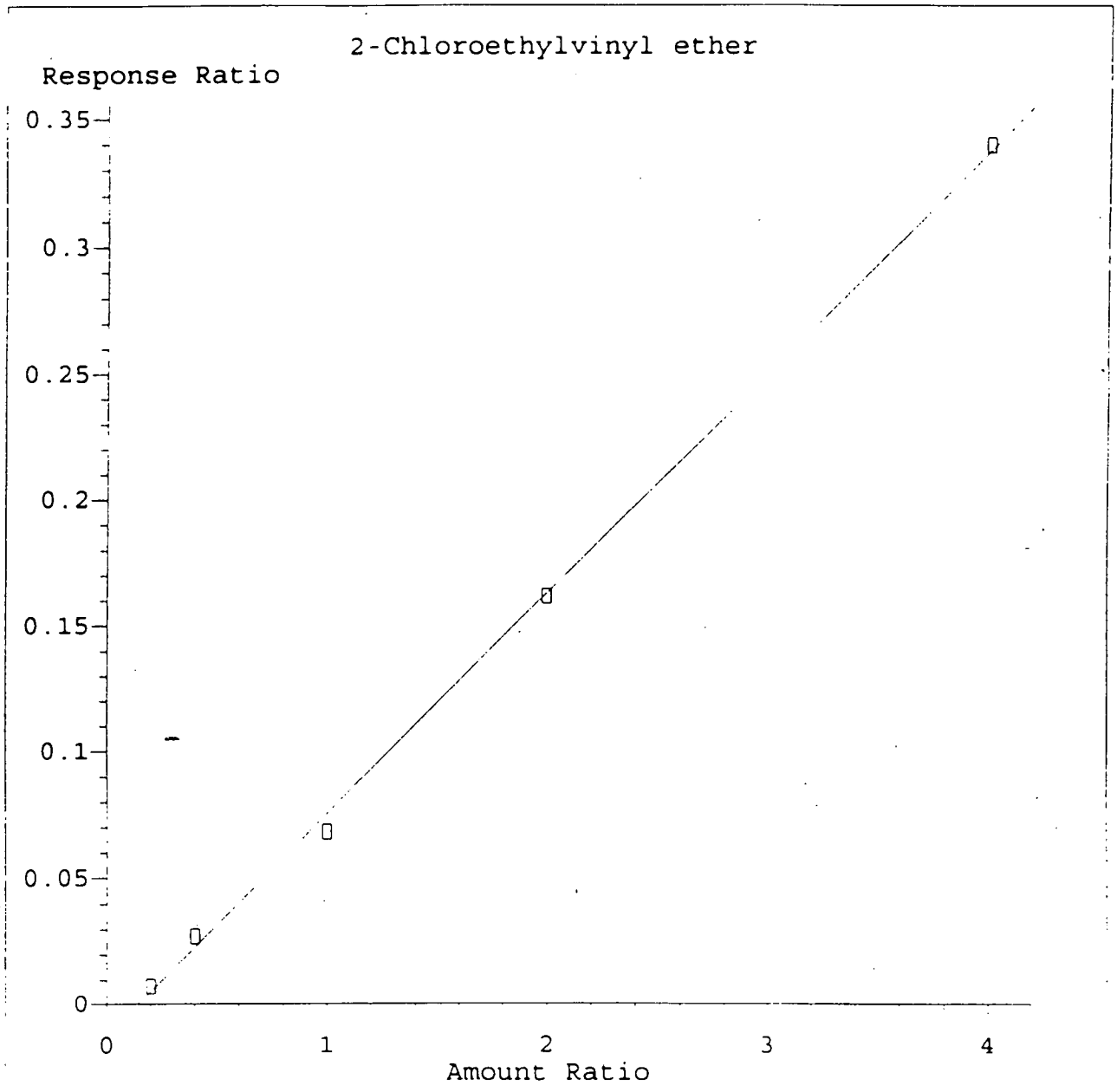

Resp Ratio = 4.98e-003 * Amt + 3.61e-003
Corr Coef = 0.997 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\826025.M
Calibration Table Last Updated: Fri Nov 15 10:50:51 1996



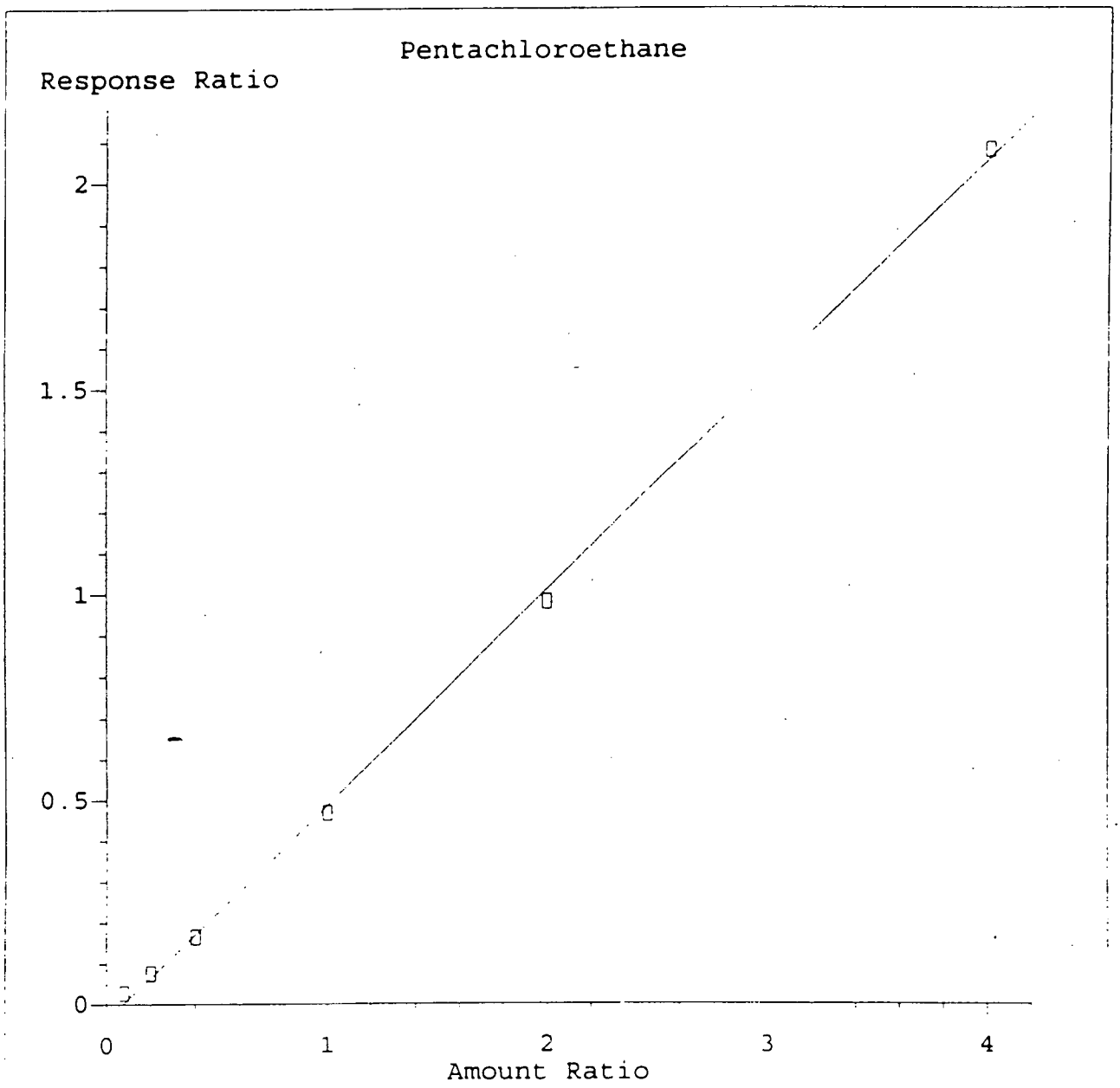

Resp Ratio = 7.42e-001 * Amt - 6.57e-002
Corr Coef = 0.999 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\826025.M
Calibration Table Last Updated: Fri Nov 15 10:51:52 1996




Resp Ratio = 8.75e-002 * Amt - 1.22e-002
Corr Coef = 0.999 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\826025.M
Calibration Table Last Updated: Fri Nov 15 10:52:00 1996



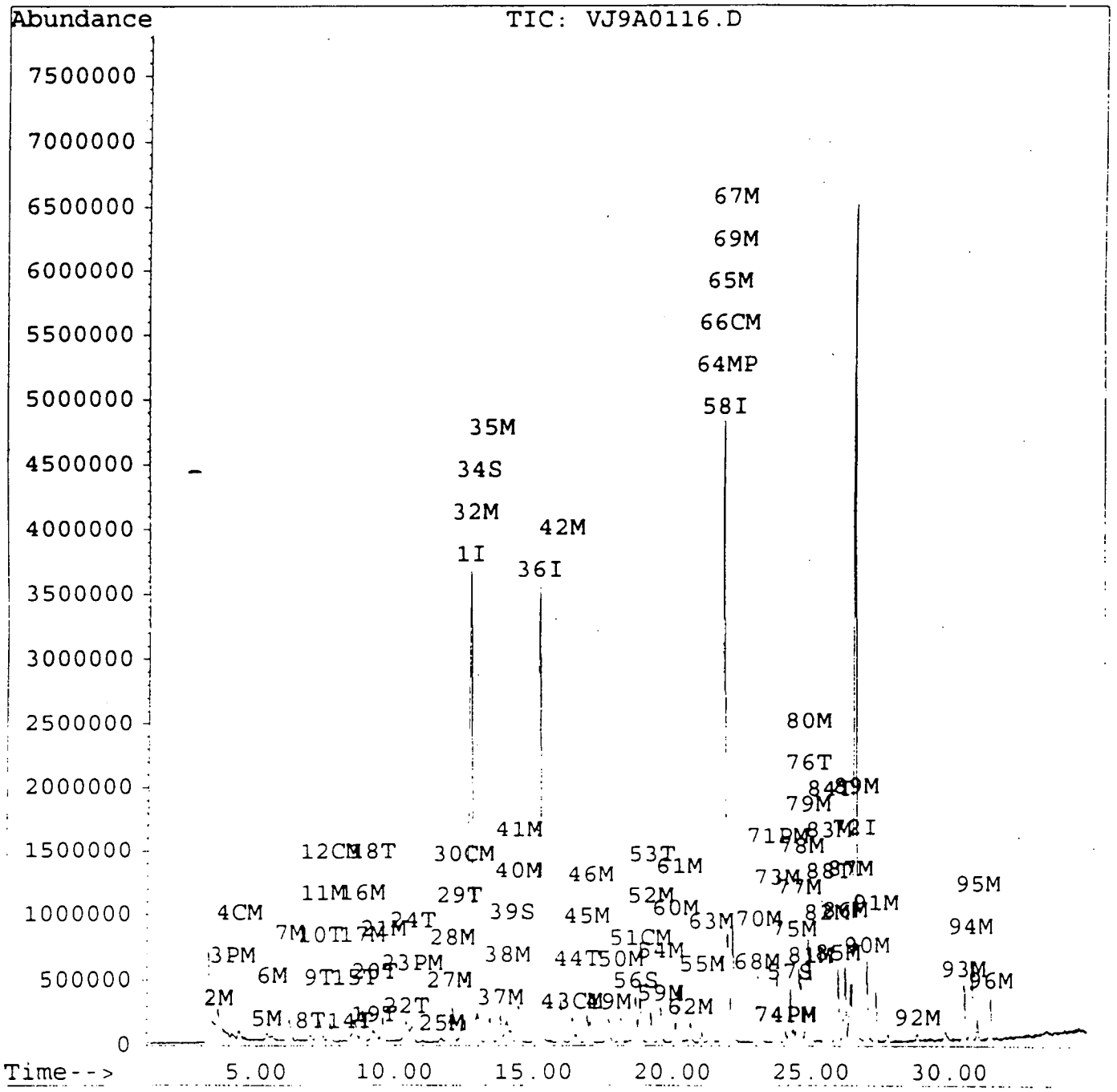

Resp Ratio = 5.25e-001 * Amt - 3.91e-002
Corr Coef = 0.999 Curve Fit: Linear

Method Name: C:\HPCHEM\1\METHODS\826025.M
Calibration Table Last Updated: Fri Nov 15 10:52:30 1996

# Quantitation Report

| | | | |
|---|---|---|---|
| Data File | : o:\org\voa\vj9\15nov96\vj9a0116.d | Vial: | 7 |
| Acq On | : 15 Nov 96 9:47 am | Operator: | JJF |
| Sample | : VSTD00.8,STD#16011,WATER,25ml | Inst | : VJ9 |
| Misc | : INITIAL CALIBRATION | Multiplr: | 1.00 |
| Quant Time: | Nov 15 10:50 1996 | | |

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0116.d
Acq On : 15 Nov 96 9:47 am
Sample : VSTD00.8,STD#16011,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:50 1996

Vial: 7
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Mi |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9996760 | 10.00 ug/l | 0.0 |
| 36) 1,4-Difluorobenzene | 15.14 | 114 | 10947625 | 10.00 ug/l | 0.0 |
| 58) Chlorobenzene-d5 | 21.78 | 117 | 8368640 | 10.00 ug/l | 0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.51 | 152 | 4814774 | 10.00 ug/l | 0.0 |
| **System Monitoring Compounds** | | | | | %Recover |
| 34) Dibromofluoromethane | 12.99 | 113 | 495720 | 0.77 ug/l | 7.6 |
| 39) 1,2-Dichloroethane-d4 | 14.19 | 65 | 211763 | 0.73 ug/l | 7.3 |
| 56) Toluene-d8 | 18.63 | 98 | 786744 | 0.74 ug/l | 7.4 |
| 57) Bromofluorobenzene | 24.19 | 95 | 459560 | 0.81 ug/l | 8.0 |
| **Target Compounds** | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 443277 | 0.81 ug/l | 9 |
| 3) Chloromethane | 4.12 | 50 | 224343 | 0.80 ug/l m | 9 |
| 4) Vinyl Chloride | 4.36 | 62 | 197262 | 0.73 ug/l | 9 |
| 5) Bromomethane | 5.37 | 94 | 193296 | 0.69 ug/l m | 8 |
| 6) Chloroethane | 5.54 | 64 | 128028 | 0.77 ug/l | 6 |
| 7) Trichlorofluoromethane | 6.17 | 101 | 638804 | 0.75 ug/l | 9 |
| 8) Ethyl Ether | 6.91 | 59 | 75687 | 0.74 ug/l m | 7 |
| 9) Acrolein | 7.21 | 56 | 33999 | 3.96 ug/l m | 6 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.27 | 101 | 475621 | 0.70 ug/l | 8 |
| 11) Acetone | 7.38 | 43 | 95102 | 3.79 ug/l m | 5 |
| 12) 1,1-Dichloroethene | 7.65 | 96 | 234755 | 0.74 ug/l m | 8 |
| 14) Iodomethane | 8.38 | 142 | 308480 | 0.58 ug/l m | 9 |
| 15) Allyl Chloride | 8.55 | 41 | 420144 | 0.86 ug/l | 8 |
| 16) Methylene Chloride | 8.82 | 84 | 233832 | 0.81 ug/l # | 7 |
| 17) Carbon Disulfide | 8.81 | 76 | 585241 | 0.71 ug/l | 9 |
| 18) Acrylonitrile | 9.16 | 53 | 75720 | 3.65 ug/l | 10 |
| 19) Methyl t-butyl ether | 9.23 | 73 | 363393 | 0.79 ug/l m | 9 |
| 20) Ethyl acetate | 9.24 | 43 | 134598 | 0.94 ug/l m | 1 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 246028 | 0.73 ug/l m | 9 |
| 22) Diisopropyl ether | 10.40 | 45 | 748001 | 0.77 ug/l m | 9 |
| 23) 1,1-Dichloroethane | 10.60 | 63 | 492529 | 0.73 ug/l | 9 |
| 24) Vinyl acetate | 10.62 | 43 | 101997 | 0.88 ug/l m | 10 |
| 25) 2-Butanone | 11.67 | 43 | 204291 | 5.21 ug/l | 9 |
| 27) 2,2-Dichloropropane | 11.93 | 77 | 500804 | 0.75 ug/l | 8 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 277847 | 0.76 ug/l | 9 |
| 29) Methacrylonitrile | 12.29 | 41 | 105409 | 1.04 ug/l m | 7 |
| 30) Chloroform | 12.44 | 83 | 599757 | 0.76 ug/l | 8 |
| 32) Bromochloromethane | 12.83 | 128 | 123975 | 0.70 ug/l # | 7 |
| 35) 1,1,1-Trichloroethane | 13.41 | 97 | 580870 | 0.71 ug/l | 9 |
| 37) 1,1-Dichloropropene | 13.78 | 75 | 427732 | 0.76 ug/l | 8 |
| 38) Carbon Tetrachloride | 14.01 | 117 | 431082 | 0.65 ug/l | 9 |
| 40) 1,2-Dichloroethane | 14.40 | 62 | 264895 | 0.78 ug/l m | 7 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0116.d  Vial: 7
Acq On : 15 Nov 96 9:47 am  Operator: JJF
Sample : VSTD00.8,STD#16011,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:50 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalu |
|---|---|---|---|---|---|---|---|
| 41) | Benzene | 14.44 | 78 | 717917 | 0.75 ug/l | | 10 |
| 42) | Trichloroethene | 15.93 | 130 | 401532 | 0.80 ug/l | | 9 |
| 43) | 1,2-Dichloropropane | 16.33 | 63 | 286119 | 0.76 ug/l | | 8 |
| 44) | Methyl Methacrylate | 16.52 | 69 | 69435 | 0.80 ug/l | # | 5 |
| 45) | Bromodichloromethane | 16.87 | 83 | 486941 | 0.74 ug/l | | 8 |
| 46) | Dibromomethane | 16.99 | 93 | 199253 | 0.74 ug/l | | 9 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 627217 | 4.67 ug/l | m | 9 |
| 50) | cis-1,3-Dichloropropene | 18.10 | 75 | 343064 | 0.74 ug/l | | 9 |
| 51) | Toluene | 18.79 | 92 | 468905 | 0.73 ug/l | # | 8 |
| 52) | trans-1,3-Dichloropropene | 19.18 | 75 | 263870 | 0.81 ug/l | | 9 |
| 53) | Ethyl Methacrylate | 19.19 | 69 | 185764 | 0.84 ug/l | m | 8 |
| 54) | 1,1,2-Trichloroethane | 19.53 | 97 | 167363 | 0.79 ug/l | | 8 |
| 55) | 1,2-Dibromoethane (EDB) | 21.01 | 107 | 227863 | 0.80 ug/l | # | 9 |
| 59) | 2-Hexanone | 19.53 | 43 | 425999 | 5.26 ug/l | # | 8 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 268053 | 0.79 ug/l | | 10 |
| 61) | Tetrachloroethene | 20.18 | 166 | 433040 | 0.74 ug/l | m | 8 |
| 62) | Chlorodibromomethane | 20.61 | 129 | 308920 | 0.71 ug/l | | 9 |
| 63) | 1-Chlorohexane | 21.35 | 91 | 406427 | 0.78 ug/l | | 9 |
| 64) | Chlorobenzene | 21.86 | 112 | 646712 | 0.78 ug/l | | 8 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.95 | 131 | 281336 | 0.69 ug/l | # | 8 |
| 66) | Ethylbenzene | 21.94 | 106 | 323130 | 0.85 ug/l | # | 6 |
| 67) | m&p Xylenes | 22.10 | 106 | 788270 | 1.55 ug/l | # | 7 |
| 68) | o-Xylene | 23.00 | 106 | 363027 | 0.79 ug/l | | 8 |
| 69) | Xylenes (total) | 22.10 | 106 | 1151265 | 2.33 ug/l | m | 7 |
| 70) | Styrene | 23.05 | 104 | 596981 | 0.80 ug/l | | 9 |
| 71) | Bromoform | 23.74 | 173 | 148693 | 0.69 ug/l | # | 9 |
| 73) | Isopropylbenzene | 23.71 | 105 | 1119534 | 0.78 ug/l | | 9 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.05 | 83 | 212770 | 0.81 ug/l | | 9 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 164966 | 0.94 ug/l | m | 8 |
| 76) | trans-1,4-Dichloro-2-buten | 24.83 | 53 | 37228 | 1.72 ug/l | m | 9 |
| 77) | n-Propylbenzene | 24.50 | 91 | 1502878 | 0.79 ug/l | | 9 |
| 78) | Bromobenzene | 24.59 | 156 | 308844 | 0.75 ug/l | | 8 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 1010270 | 0.78 ug/l | | 9 |
| 80) | 2-Chlorotoluene | 24.84 | 91 | 876113 | 0.71 ug/l | | 9 |
| 81) | 4-Chlorotoluene | 24.93 | 91 | 1091756 | 0.90 ug/l | | 10 |
| 82) | tert-Butylbenzene | 25.49 | 91 | 854287 | 0.80 ug/l | | 9 |
| 83) | 1,2,4-Trimethylbenzene | 25.57 | 105 | 1026529 | 0.82 ug/l | | 9 |
| 84) | Pentachloroethane | 25.61 | 167 | 130713 | 0.56 ug/l | | 8 |
| 85) | sec-Butylbenzene | 25.90 | 105 | 1466849 | 0.79 ug/l | | 9 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 1240249 | 0.81 ug/l | | 9 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 607301 | 0.83 ug/l | | 9 |
| 88) | 1,2,3-Trimethylbenzene | 25.57 | 105 | 1026529 | 0.81 ug/l | | 9 |
| 89) | 1,4-Dichlorobenzene | 26.56 | 146 | 639040 | 0.85 ug/l | | 9 |
| 90) | n-Butylbenzene | 26.96 | 91 | 1276820 | 0.82 ug/l | | 10 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0116.d
Acq On : 15 Nov 96 9:47 am
Sample : VSTD00.8,STD#16011,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:50 1996

Vial: 7
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

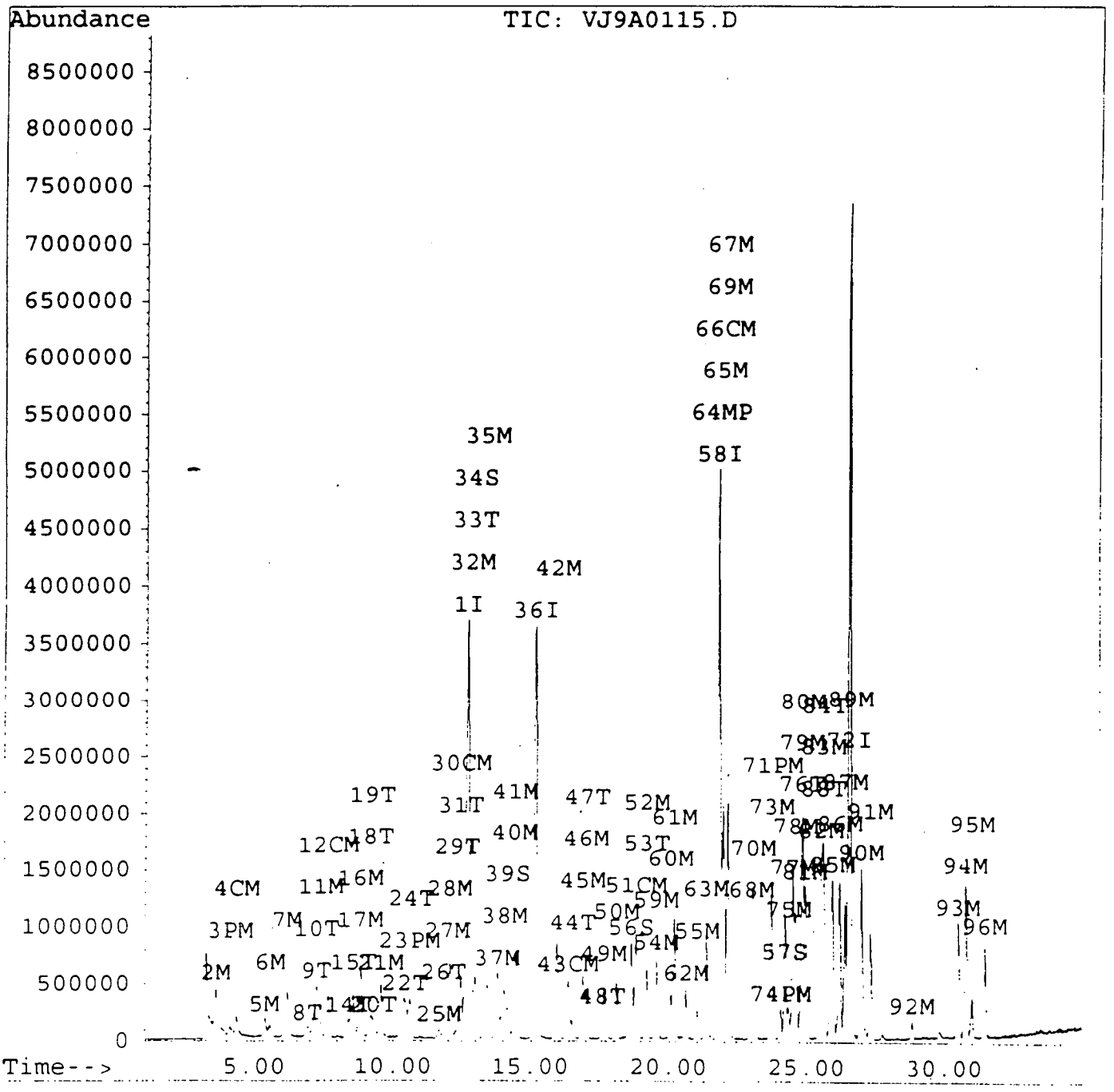
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 91) | 1,2-Dichlorobenzene | 27.29 | 146 | 503988 | 0.81 ug/l | 98 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.80 | 75 | 44052 | 0.94 ug/l m | 70 |
| 93) | 1,2,4-Trichlorobenzene | 30.46 | 180 | 424219 | 0.86 ug/l | 99 |
| 94) | Hexachlorobutadiene | 30.74 | 225 | 366649 | 0.78 ug/l | 97 |
| 95) | Naphthalene | 30.98 | 128 | 385059 | 0.96 ug/l | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 341448 | 0.88 ug/l | 97 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

| | | | |
|---|---|---|---|
| Data Fil | : o:\org\voa\vj9\15nov96\vj9a0115.d | Vial: | 6 |
| Acq On | : 15 Nov 96 9:04 am | Operator: | JJF |
| Sample | : VSTD02,STD#16010,WATER,25ml | Inst : | VJ9 |
| Misc | : INITIAL CALIBRATION | Multiplr: | 1.00 |
| Quant Time: | Nov 15 10:42 1996 | | |

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0115.d  Vial: 6
Acq On : 15 Nov 96 9:04 am  Operator: JJF
Sample : VSTD02,STD#16010,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:42 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 10005577 | 10.00 | ug/l | | 0.0 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 11159035 | 10.00 | ug/l | | 0.0 |
| 58) Chlorobenzene-d5 | 21.76 | 117 | 8504043 | 10.00 | ug/l | | 0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.49 | 152 | 4918025 | 10.00 | ug/l | | 0.0 |
| **System Monitoring Compounds** | | | | | | | %Recovery |
| 34) Dibromofluoromethane | 12.95 | 113 | 1231193 | 1.88 | ug/l | | 18.7 |
| 39) 1,2-Dichloroethane-d4 | 14.16 | 65 | 583444 | 1.95 | ug/l | | 19.4 |
| 56) Toluene-d8 | 18.60 | 98 | 1976401 | 1.79 | ug/l | | 17.8 |
| 57) Bromofluorobenzene | 24.18 | 95 | 1223736 | 2.10 | ug/l | | 21.0 |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.59 | 85 | 1042572 | 1.95 | ug/l | | 98 |
| 3) Chloromethane | 4.11 | 50 | 510703 | 1.78 | ug/l | | 99 |
| 4) Vinyl Chloride | 4.34 | 62 | 496228 | 1.81 | ug/l | | 91 |
| 5) Bromomethane | 5.37 | 94 | 508754 | 1.68 | ug/l | | 88 |
| 6) Chloroethane | 5.56 | 64 | 309875 | 1.77 | ug/l | | 92 |
| 7) Trichlorofluoromethane | 6.14 | 101 | 1547680 | 1.78 | ug/l | | 89 |
| 8) Ethyl Ether | 6.89 | 59 | 196587 | 1.78 | ug/l | | 95 |
| 9) Acrolein | 7.21 | 56 | 96162 | 10.58 | ug/l | m | 85 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.22 | 101 | 1218577 | 1.70 | ug/l | m | 89 |
| 11) Acetone | 7.37 | 43 | 288321 | 11.40 | ug/l | | 81 |
| 12) 1,1-Dichloroethene | 7.62 | 96 | 575798 | 1.76 | ug/l | | 93 |
| 14) Iodomethane | 8.38 | 142 | 945644 | 1.76 | ug/l | | 99 |
| 15) Allyl Chloride | 8.55 | 41 | 943005 | 1.88 | ug/l | | 94 |
| 16) Methylene Chloride | 8.82 | 84 | 502494 | 1.60 | ug/l | | 96 |
| 17) Carbon Disulfide | 8.80 | 76 | 1547302 | 1.82 | ug/l | | 98 |
| 18) Acrylonitrile | 9.18 | 53 | 215502 | 10.47 | ug/l | m | 100 |
| 19) Methyl t-butyl ether | 9.23 | 73 | 890931 | 1.87 | ug/l | m | 96 |
| 20) Ethyl acetate | 9.28 | 43 | 342323 | 2.42 | ug/l | m | 7 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 631525 | 1.81 | ug/l | # | 8 |
| 22) Diisopropyl ether | 10.40 | 45 | 1808724 | 1.75 | ug/l | m | 9 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 1247120 | 1.79 | ug/l | | 9 |
| 24) Vinyl acetate | 10.64 | 43 | 207671 | 1.59 | ug/l | m | 100 |
| 25) 2-Butanone | 11.65 | 43 | 423977 | 10.86 | ug/l | | 95 |
| 26) Propionitrile | 11.81 | 54 | 83044 | 10.34 | ug/l | # | 6 |
| 27) 2,2-Dichloropropane | 11.93 | 77 | 1284003 | 1.95 | ug/l | | 95 |
| 28) cis-1,2-Dichloroethene | 12.04 | 96 | 715230 | 1.93 | ug/l | | 98 |
| 29) Methacrylonitrile | 12.30 | 41 | 212666 | 2.15 | ug/l | m | 78 |
| 30) Chloroform | 12.42 | 83 | 1468132 | 1.79 | ug/l | | 9 |
| 31) Isobutyl Alcohol | 12.41 | 43 | 74635 | 22.36 | ug/l | m | 6 |
| 32) Bromochloromethane | 12.83 | 128 | 358406 | 1.99 | ug/l | | 9 |
| 33) Tetrahyrofuran | 12.93 | 42 | 45871 | 1.91 | ug/l | m | 40 |
| 35) 1,1,1-Trichloroethane | 13.39 | 97 | 1481214 | 1.79 | ug/l | | 98 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data Fil : o:\org\voa\vj9\15nov96\vj9a0115.d
Acq On : 15 Nov 96 9:04 am
Sample : VSTD02,STD#16010,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:42 1996

Vial: 6
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalu |
|---|---|---|---|---|---|---|---|---|
| 37) | 1,1-Dichloropropene | 13.76 | 75 | 1069663 | 1.84 | ug/l | | 9 |
| 38) | Carbon Tetrachloride | 14.03 | 117 | 1187496 | 1.72 | ug/l | m | 9 |
| 40) | 1,2-Dichloroethane | 14.39 | 62 | 678648 | 1.89 | ug/l | | 9 |
| 41) | Benzene | 14.43 | 78 | 1826529 | 1.84 | ug/l | | 10 |
| 42) | Trichloroethene | 15.92 | 130 | 990327 | 1.92 | ug/l | | 9 |
| 43) | 1,2-Dichloropropane | 16.31 | 63 | 727840 | 1.82 | ug/l | m | 8 |
| 44) | Methyl Methacrylate | 16.49 | 69 | 192961 | 2.20 | ug/l | # | 7 |
| 45) | Bromodichloromethane | 16.86 | 83 | 1247550 | 1.81 | ug/l | | 9 |
| 46) | Dibromomethane | 16.97 | 93 | 546765 | 1.98 | ug/l | | 9 |
| 47) | 2-Nitropropane | 17.02 | 43 | 55641 | 1.91 | ug/l | # | 6 |
| 48) | 2-Chloroethylvinyl ether | 17.58 | 63 | 82221 | 1.19 | ug/l | m | 9 |
| 49) | 4-Methyl-2-Pentanone | 17.63 | 43 | 1438657 | 10.36 | ug/l | | 10 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 905229 | 1.89 | ug/l | | 9 |
| 51) | Toluene | 18.78 | 92 | 1245164 | 1.87 | ug/l | | 9 |
| 52) | trans-1,3-Dichloropropene | 19.16 | 75 | 640566 | 1.97 | ug/l | | 9 |
| 53) | Ethyl Methacrylate | 19.15 | 69 | 466570 | 2.04 | ug/l | | 8 |
| 54) | 1,1,2-Trichloroethane | 19.49 | 97 | 429541 | 1.92 | ug/l | | 9 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 568026 | 1.95 | ug/l | # | 9 |
| 59) | 2-Hexanone | 19.52 | 43 | 939402 | 11.73 | ug/l | | 9 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 648775 | 1.80 | ug/l | | 9 |
| 61) | Tetrachloroethene | 20.17 | 166 | 1056766 | 1.74 | ug/l | | 9 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 802760 | 1.81 | ug/l | | 9 |
| 63) | 1-Chlorohexane | 21.31 | 91 | 950539 | 1.75 | ug/l | | 9 |
| 64) | Chlorobenzene | 21.84 | 112 | 1574829 | 1.82 | ug/l | | 9 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 762490 | 1.80 | ug/l | | 9 |
| 66) | Ethylbenzene | 21.94 | 106 | 744482 | 1.91 | ug/l | | 9 |
| 67) | m&p Xylenes | 22.10 | 106 | 1961700 | 3.72 | ug/l | m | 9 |
| 68) | o-Xylene | 22.96 | 106 | 875276 | 1.84 | ug/l | | 10 |
| 69) | Xylenes (total) | 22.10 | 106 | 2806439 | 5.45 | ug/l | m | 9 |
| 70) | Styrene | 23.05 | 104 | 1477702 | 1.95 | ug/l | | 9 |
| 71) | Bromoform | 23.72 | 173 | 385679 | 1.71 | ug/l | # | 7 |
| 73) | Isopropylbenzene | 23.69 | 105 | 2655199 | 1.78 | ug/l | | 9 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 494855 | 1.72 | ug/l | | 9 |
| 75) | 1,2,3-Trichloropropane | 24.32 | 75 | 340841 | 1.75 | ug/l | m | 8 |
| 76) | trans-1,4-Dichloro-2-buten | 24.78 | 53 | 91120 | 4.31 | ug/l | # | 4 |
| 77) | n-Propylbenzene | 24.47 | 91 | 3617993 | 1.82 | ug/l | | 9 |
| 78) | Bromobenzene | 24.58 | 156 | 794596 | 1.84 | ug/l | | 9 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 2419255 | 1.78 | ug/l | | 10 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 2542458 | 1.99 | ug/l | | 10 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 2153608 | 1.62 | ug/l | | 9 |
| 82) | tert-Butylbenzene | 25.47 | 91 | 2022768 | 1.82 | ug/l | # | 8 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 2358090 | 1.81 | ug/l | | 9 |
| 84) | Pentachloroethane | 25.61 | 167 | 377449 | 1.44 | ug/l | | 9 |
| 85) | sec-Butylbenzene | 25.90 | 105 | 3538973 | 1.82 | ug/l | | 9 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

**Data File** : o:\org\voa\vj9\15nov96\vj9a0115.d **Vial: 6**
**Acq On** : 15 Nov 96 9:04 am **Operator: JJF**
Sample : VSTD02,STD#16010,WATER,25ml Inst : VJ9
Misc : INITIAL CALIBRATION Multiplr: 1.00
Quant Time: Nov 15 10:42 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

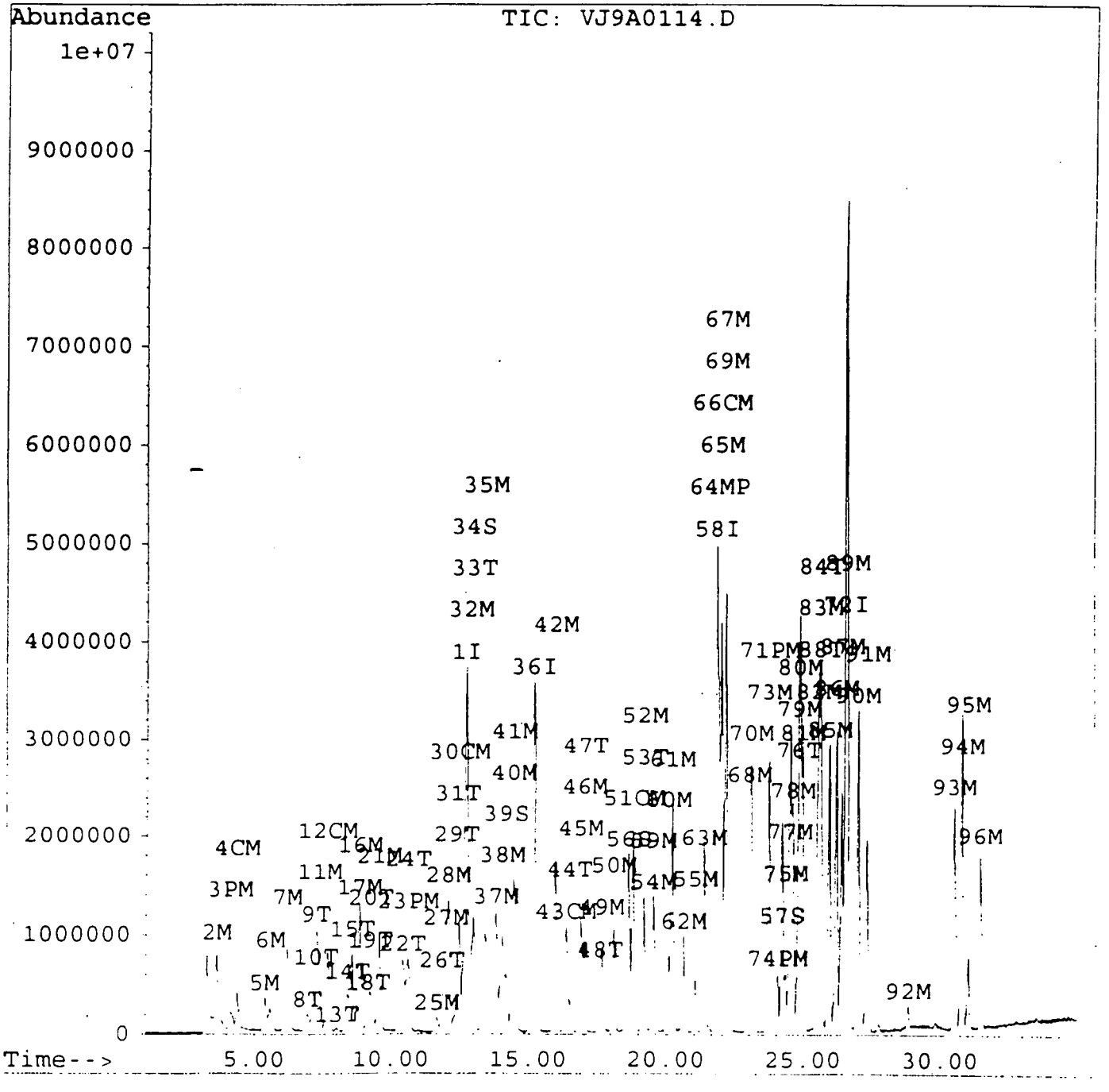
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalu |
|---|---|---|---|---|---|---|
| 86) | p-Isopropyltoluene | 26.15 | 119 | 2879301 | 1.82 ug/l | 9 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 1412515 | 1.84 ug/l | 9 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 2358090 | 1.78 ug/l | 9 |
| 89) | 1,4-Dichlorobenzene | 26.55 | 146 | 1473701 | 1.92 ug/l | 9 |
| 90) | n-Butylbenzene | 26.94 | 91 | 3034706 | 1.89 ug/l | 9 |
| 91) | 1,2-Dichlorobenzene | 27.27 | 146 | 1169246 | 1.76 ug/l | 9 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 133029 | 2.96 ug/l | 9 |
| 93) | 1,2,4-Trichlorobenzene | 30.46 | 180 | 944295 | 1.87 ug/l | 9 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 834317 | 1.68 ug/l | 9 |
| 95) | Naphthalene | 30.97 | 128 | 837834 | 2.09 ug/l | 10 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 758583 | 1.87 ug/l | 9 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

| | | | |
|---|---|---|---|
| Data File | : o:\org\voa\vj9\15nov96\vj9a0114.d | Vial: | 5 |
| Acq On | : 15 Nov 96 8:21 am | Operator: | JJF |
| Sample | : VSTD04,STD#16009,WATER,25ml | Inst | : VJ9 |
| Misc | : INITIAL CALIBRATION | Multiplr: | 1.00 |
| Quant Time: | Nov 15 9:08 1996 | | |

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0114.d  Vial: 5
Acq On : 15 Nov 96 8:21 am  Operator: JJF
Sample : VSTD04,STD#16009,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 9:08 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.68 | 168 | 10230217 | 10.00 | ug/l | | 0.0 |
| 36) 1,4-Difluorobenzene | 15.11 | 114 | 11107313 | 10.00 | ug/l | | -0.0 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8517015 | 10.00 | ug/l | | 0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4861700 | 10.00 | ug/l | | 0.0 |
| **System Monitoring Compounds** | | | | | | | %Recovery |
| 34) Dibromofluoromethane | 12.97 | 113 | 2605435 | 3.84 | ug/l | | 38.4 |
| 39) 1,2-Dichloroethane-d4 | 14.16 | 65 | 1201053 | 3.96 | ug/l | | 39.5 |
| 56) Toluene-d8 | 18.61 | 98 | 4241862 | 3.80 | ug/l | | 37.9 |
| 57) Bromofluorobenzene | 24.18 | 95 | 2356216 | 4.07 | ug/l | | 40.6 |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 2232336 | 4.23 | ug/l | | 98 |
| 3) Chloromethane | 4.10 | 50 | 1079475 | 3.61 | ug/l | | 97 |
| 4) Vinyl Chloride | 4.34 | 62 | 1072648 | 3.78 | ug/l | | 98 |
| 5) Bromomethane | 5.35 | 94 | 918358 | 2.73 | ug/l | | 98 |
| 6) Chloroethane | 5.55 | 64 | 654731 | 3.50 | ug/l | | 95 |
| 7) Trichlorofluoromethane | 6.16 | 101 | 3313597 | 3.67 | ug/l | | 99 |
| 8) Ethyl Ether | 6.90 | 59 | 412320 | 3.45 | ug/l | | 97 |
| 9) Acrolein | 7.21 | 56 | 187274 | 22.78 | ug/l | | 95 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.21 | 101 | 2607636 | 3.41 | ug/l | m | 96 |
| 11) Acetone | 7.36 | 43 | 453462 | 17.13 | ug/l | m | 95 |
| 12) 1,1-Dichloroethene | 7.62 | 96 | 1271860 | 3.73 | ug/l | | 99 |
| 13) Acetonitrile | 8.02 | 41 | 145968 | 4.92 | ug/l | m | 8 |
| 14) Iodomethane | 8.38 | 142 | 2259576 | 4.05 | ug/l | | 92 |
| 15) Allyl Chloride | 8.55 | 41 | 1938053 | 3.73 | ug/l | | 96 |
| 16) Methylene Chloride | 8.84 | 84 | 1054587 | 3.11 | ug/l | | 93 |
| 17) Carbon Disulfide | 8.81 | 76 | 3062241 | 3.38 | ug/l | | 98 |
| 18) Acrylonitrile | 9.14 | 53 | 422910 | 19.94 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.22 | 73 | 1828314 | 3.63 | ug/l | m | 95 |
| 20) Ethyl acetate | 9.25 | 43 | 618557 | 4.19 | ug/l | m | 9 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 1330893 | 3.64 | ug/l | | 97 |
| 22) Diisopropyl ether | 10.41 | 45 | 3702607 | 3.32 | ug/l | | 98 |
| 23) 1,1-Dichloroethane | 10.59 | 63 | 2611366 | 3.56 | ug/l | | 97 |
| 24) Vinyl acetate | 10.61 | 43 | 375300 | 2.46 | ug/l | m | 100 |
| 25) 2-Butanone | 11.64 | 43 | 763516 | 19.17 | ug/l | | 84 |
| 26) Propionitrile | 11.81 | 54 | 155234 | 19.00 | ug/l | # | 78 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 2676568 | 4.07 | ug/l | | 98 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 1460758 | 3.84 | ug/l | | 99 |
| 29) Methacrylonitrile | 12.32 | 41 | 457911 | 4.65 | ug/l | m | 67 |
| 30) Chloroform | 12.43 | 83 | 3101145 | 3.59 | ug/l | | 95 |
| 31) Isobutyl Alcohol | 12.36 | 43 | 171456 | 45.89 | ug/l | m | 86 |
| 32) Bromochloromethane | 12.84 | 128 | 710545 | 3.76 | ug/l | # | 84 |
| 33) Tetrahyrofuran | 12.94 | 42 | 103186 | 3.97 | ug/l | # | 84 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0114.d  Vial: 5
Acq On : 15 Nov 96 8:21 am  Operator: JJF
Sample : VSTD04,STD#16009,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 9:08 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalu |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.40 | 97 | 3055666 | 3.56 ug/l | | 9 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 2233613 | 3.81 ug/l | | 9 |
| 38) | Carbon Tetrachloride | 14.02 | 117 | 2588956 | 3.74 ug/l | | 9 |
| 40) | 1,2-Dichloroethane | 14.40 | 62 | 1393492 | 3.80 ug/l | | 9 |
| 41) | Benzene | 14.42 | 78 | 3774420 | 3.76 ug/l | | 10 |
| 42) | Trichloroethene | 15.90 | 130 | 2028963 | 3.91 ug/l | | 9 |
| 43) | 1,2-Dichloropropane | 16.32 | 63 | 1509872 | 3.67 ug/l | | 9 |
| 44) | Methyl Methacrylate | 16.47 | 69 | 378980 | 4.27 ug/l | | 9 |
| 45) | Bromodichloromethane | 16.86 | 83 | 2617541 | 3.76 ug/l | | 9 |
| 46) | Dibromomethane | 16.98 | 93 | 1130240 | 4.08 ug/l | | 9 |
| 47) | 2-Nitropropane | 17.01 | 43 | 154830 | 6.08 ug/l | # | 8 |
| 48) | 2-Chloroethylvinyl ether | 17.59 | 63 | 302369 | 4.60 ug/l | # | 8 |
| 49) | 4-Methyl-2-Pentanone | 17.65 | 43 | 2661280 | 18.86 ug/l | | 10 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 1863336 | 3.84 ug/l | | 9 |
| 51) | Toluene | 18.79 | 92 | 2652921 | 3.95 ug/l | | 9 |
| 52) | trans-1,3-Dichloropropene | 19.17 | 75 | 1386969 | 4.33 ug/l | | 9 |
| 53) | Ethyl Methacrylate | 19.16 | 69 | 925226 | 3.89 ug/l | | 9 |
| 54) | 1,1,2-Trichloroethane | 19.49 | 97 | 853112 | 3.72 ug/l | | 9 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 1231191 | 4.29 ug/l | # | 9 |
| 59) | 2-Hexanone | 19.52 | 43 | 1651266 | 20.45 ug/l | | 9 |
| 60) | 1,3-Dichloropropane | 20.04 | 76 | 1346304 | 3.58 ug/l | | 9 |
| 61) | Tetrachloroethene | 20.16 | 166 | 2266777 | 3.64 ug/l | | 9 |
| 62) | Chlorodibromomethane | 20.59 | 129 | 1661450 | 3.69 ug/l | | 9 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 2021345 | 6.82 ug/l | m | 10 |
| 64) | Chlorobenzene | 21.84 | 112 | 3335190 | 3.81 ug/l | | 9 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.94 | 131 | 1604977 | 3.70 ug/l | | 9 |
| 66) | Ethylbenzene | 21.95 | 106 | 1553016 | 3.97 ug/l | | 9 |
| 67) | m&p Xylenes | 22.10 | 106 | 4076317 | 9.16 ug/l | m | |
| 68) | o-Xylene | 22.97 | 106 | 1867237 | 7.47 ug/l | m | 5 |
| 69) | Xylenes (total) | 22.10 | 106 | 6021369 | 11.45 ug/l | m | 9 |
| 70) | Styrene | 23.05 | 104 | 3041520 | 3.99 ug/l | | 10 |
| 71) | Bromoform | 23.73 | 173 | 826768 | 3.54 ug/l | | 9 |
| 73) | Isopropylbenzene | 23.68 | 105 | 5852058 | 3.99 ug/l | | 9 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 1012964 | 3.42 ug/l | | 9 |
| 75) | 1,2,3-Trichloropropane | 24.30 | 75 | 707515 | 3.46 ug/l | m | 9 |
| 76) | trans-1,4-Dichloro-2-buten | 24.77 | 53 | 224446 | 10.82 ug/l | # | 5 |
| 77) | n-Propylbenzene | 24.47 | 91 | 7907568 | 4.01 ug/l | | 10 |
| 78) | Bromobenzene | 24.57 | 156 | 1706472 | 3.97 ug/l | | 9 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 5349051 | 3.95 ug/l | | 10 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 5211123 | 4.16 ug/l | | 10 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 4697333 | 3.51 ug/l | | 9 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 4166983 | 3.76 ug/l | | 8 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 5156966 | 4.01 ug/l | | 9 |
| 84) | Pentachloroethane | 25.61 | 167 | 802948 | 2.88 ug/l | | 9 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0114.d  Vial: 5
Acq On : 15 Nov 96 8:21 am  Operator: JJF
Sample : VSTD04,STD#16009,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 9:08 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

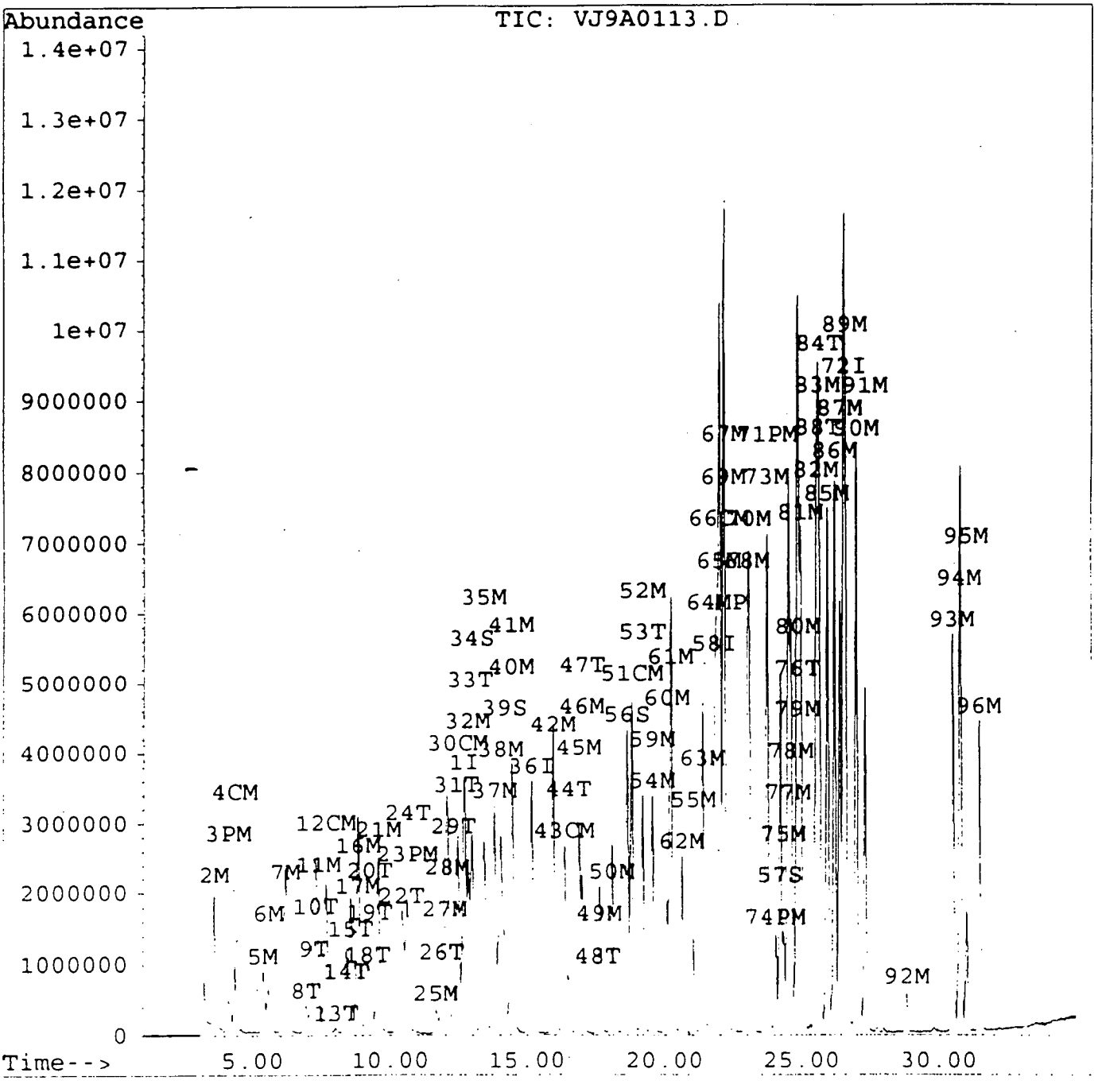
| Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|
| 85) sec-Butylbenzene | 25.89 | 105 | 7748435 | 4.04 ug/l | 97 |
| 86) p-Isopropyltoluene | 26.15 | 119 | 6357209 | 4.11 ug/l | 97 |
| 87) 1,3-Dichlorobenzene | 26.36 | 146 | 3024285 | 3.98 ug/l | 98 |
| 88) 1,2,3-Trimethylbenzene | 25.56 | 105 | 5156966 | 3.91 ug/l | 99 |
| 89) 1,4-Dichlorobenzene | 26.55 | 146 | 3095593 | 4.12 ug/l | 91 |
| 90) n-Butylbenzene | 26.95 | 91 | 6703462 | 4.30 ug/l | 98 |
| 91) 1,2-Dichlorobenzene | 27.28 | 146 | 2439549 | 3.66 ug/l | 97 |
| 92) 1,2-Dibromo-3-chloropropan | 28.80 | 75 | 180669 | 4.03 ug/l | 92 |
| 93) 1,2,4-Trichlorobenzene | 30.47 | 180 | 2104358 | 4.32 ug/l | 99 |
| 94) Hexachlorobutadiene | 30.73 | 225 | 1915983 | 3.87 ug/l | 93 |
| 95) Naphthalene | 30.97 | 128 | 1799960 | 4.78 ug/l | 100 |
| 96) 1,2,3-Trichlorobenzene | 31.44 | 180 | 1618746 | 4.03 ug/l | 95 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

| | | | |
|---|---|---|---|
| Data File | : o:\org\voa\vj9\15nov96\vj9a0113.d | Vial: | 4 |
| Acq On | : 15 Nov 96 7:37 am | Operator: | JJF |
| Sample | : VSTD10,STD#16008,WATER,25ml | Inst | : VJ9 |
| Misc | : INITIAL CALIBRATION | Multiplr: | 1.00 |
| Quant Time: | Nov 15 10:40 1996 | | |

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0113.d  Vial: 4
Acq On : 15 Nov 96 7:37 am  Operator: JJF
Sample : VSTD10,STD#16008,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:40 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.66 | 168 | 9886941 | 10.00 | ug/l | | 0.0 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10937227 | 10.00 | ug/l | | 0.0 |
| 58) Chlorobenzene-d5 | 21.76 | 117 | 7897046 | 10.00 | ug/l | | -0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4570712 | 10.00 | ug/l | | 0.0 |
| **System Monitoring Compounds** | | | | | | | %Recover |
| 34) Dibromofluoromethane | 12.97 | 113 | 6414178 | 9.81 | ug/l | | 98.0 |
| 39) 1,2-Dichloroethane-d4 | 14.17 | 65 | 2830039 | 9.26 | ug/l | | 92.5 |
| 56) Toluene-d8 | 18.61 | 98 | 10384524 | 9.36 | ug/l | | 93.6 |
| 57) Bromofluorobenzene | 24.19 | 95 | 5408711 | 9.45 | ug/l | | 94.5 |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.60 | 85 | 6038150 | 12.77 | ug/l | | 9 |
| 3) Chloromethane | 4.12 | 50 | 2698400 | 9.41 | ug/l | | 9 |
| 4) Vinyl Chloride | 4.34 | 62 | 2743077 | 10.21 | ug/l | | 9 |
| 5) Bromomethane | 5.35 | 94 | 2495967 | 7.39 | ug/l | | 9 |
| 6) Chloroethane | 5.56 | 64 | 1698333 | 9.28 | ug/l | | 9 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 9217430 | 10.86 | ug/l | | 8 |
| 8) Ethyl Ether | 6.90 | 59 | 983857 | 9.01 | ug/l | | 9 |
| 9) Acrolein | 7.21 | 56 | 457260 | 64.63 | ug/l | | 9 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.25 | 101 | 6520706 | 8.90 | ug/l | m | 9 |
| 11) Acetone | 7.37 | 43 | 1083363 | 45.83 | ug/l | m | 9 |
| 12) 1,1-Dichloroethene | 7.62 | 96 | 3327635 | 10.24 | ug/l | | 9 |
| 13) Acetonitrile | 8.01 | 41 | 256245 | 4.73 | ug/l | m | 8 |
| 14) Iodomethane | 8.38 | 142 | 6358657 | 11.69 | ug/l | | 9 |
| 15) Allyl Chloride | 8.55 | 41 | 4717242 | 9.26 | ug/l | | 9 |
| 16) Methylene Chloride | 8.84 | 84 | 2603321 | 7.72 | ug/l | | 9 |
| 17) Carbon Disulfide | 8.80 | 76 | 7950961 | 9.19 | ug/l | | 9 |
| 18) Acrylonitrile | 9.16 | 53 | 1040102 | 49.55 | ug/l | | 10 |
| 19) Methyl t-butyl ether | 9.24 | 73 | 4387029 | 8.84 | ug/l | | 9 |
| 20) Ethyl acetate | 9.26 | 43 | 1374893 | 10.40 | ug/l | | 7 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 3476850 | 9.92 | ug/l | | 9 |
| 22) Diisopropyl ether | 10.40 | 45 | 8797165 | 7.89 | ug/l | | 9 |
| 23) 1,1-Dichloroethane | 10.59 | 63 | 6658554 | 9.36 | ug/l | | 9 |
| 24) Vinyl acetate | 10.62 | 43 | 959056 | 4.13 | ug/l | m | 10 |
| 25) 2-Butanone | 11.64 | 43 | 1934556 | 50.07 | ug/l | | 9 |
| 26) Propionitrile | 11.83 | 54 | 407339 | 54.73 | ug/l | # | 7 |
| 27) 2,2-Dichloropropane | 11.94 | 77 | 7075788 | 11.62 | ug/l | | 9 |
| 28) cis-1,2-Dichloroethene | 12.06 | 96 | 3709987 | 10.18 | ug/l | | 9 |
| 29) Methacrylonitrile | 12.27 | 41 | 955778 | 10.15 | ug/l | | 8 |
| 30) Chloroform | 12.43 | 83 | 7853157 | 9.37 | ug/l | | 9 |
| 31) Isobutyl Alcohol | 12.38 | 43 | 378231 | 88.08 | ug/l | m | 5 |
| 32) Bromochloromethane | 12.81 | 128 | 1824543 | 10.05 | ug/l | | 9 |
| 33) Tetrahyrofuran | 12.90 | 42 | 240776 | 10.46 | ug/l | m | 7 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0113.d
Acq On : 15 Nov 96 7:37 am
Sample : VSTD10,STD#16008,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:40 1996

Vial: 4
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.40 | 97 | 8275686 | 10.18 ug/l | | 94 |
| 37) | 1,1-Dichloropropene | 13.76 | 75 | 5959711 | 10.61 ug/l | | 98 |
| 38) | Carbon Tetrachloride | 14.01 | 117 | 7369958 | 11.25 ug/l | | 97 |
| 40) | 1,2-Dichloroethane | 14.40 | 62 | 3397865 | 9.31 ug/l | | 99 |
| 41) | Benzene | 14.42 | 78 | 9519957 | 9.73 ug/l | | 100 |
| 42) | Trichloroethene | 15.92 | 130 | 5257249 | 10.58 ug/l | | 87 |
| 43) | 1,2-Dichloropropane | 16.32 | 63 | 3718472 | 9.03 ug/l | | 99 |
| 44) | Methyl Methacrylate | 16.50 | 69 | 907648 | 10.30 ug/l | | 97 |
| 45) | Bromodichloromethane | 16.86 | 83 | 6718257 | 9.70 ug/l | | 96 |
| 46) | Dibromomethane | 16.97 | 93 | 2723950 | 9.90 ug/l | | 93 |
| 47) | 2-Nitropropane | 17.01 | 43 | 326345 | 13.76 ug/l | # | 100 |
| 48) | 2-Chloroethylvinyl ether | 17.55 | 63 | 744947 | 11.80 ug/l | | 88 |
| 49) | 4-Methyl-2-Pentanone | 17.62 | 43 | 6587128 | 46.32 ug/l | | 93 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 4722850 | 9.81 ug/l | | 99 |
| 51) | Toluene | 18.78 | 92 | 6624766 | 10.22 ug/l | | 97 |
| 52) | trans-1,3-Dichloropropene | 19.16 | 75 | 3433735 | 10.73 ug/l | | 97 |
| 53) | Ethyl Methacrylate | 19.15 | 69 | 2187555 | 9.09 ug/l | | 99 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 2081707 | 8.71 ug/l | | 96 |
| 55) | 1,2-Dibromoethane (EDB) | 20.99 | 107 | 2913938 | 10.12 ug/l | | 98 |
| 59) | 2-Hexanone | 19.51 | 43 | 3881159 | 51.23 ug/l | # | 94 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 3267543 | 8.94 ug/l | | 100 |
| 61) | Tetrachloroethene | 20.16 | 166 | 6022682 | 10.90 ug/l | | 96 |
| 62) | Chlorodibromomethane | 20.58 | 129 | 4337987 | 10.13 ug/l | | 98 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 4913874 | 17.84 ug/l | m | 24 |
| 64) | Chlorobenzene | 21.84 | 112 | 8410369 | 10.43 ug/l | | 94 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.92 | 131 | 4038146 | 9.76 ug/l | | 97 |
| 66) | Ethylbenzene | 21.95 | 106 | 3997459 | 11.40 ug/l | # | 89 |
| 67) | m&p Xylenes | 22.10 | 106 | 10509126 | 21.59 ug/l | m | 92 |
| 68) | o-Xylene | 22.99 | 106 | 4767604 | 15.56 ug/l | m | [illegible] |
| 69) | Xylenes (total) | 22.10 | 106 | 15342066 | 32.07 ug/l | m | 89 |
| 70) | Styrene | 23.04 | 104 | 7887223 | 11.29 ug/l | | 99 |
| 71) | Bromoform | 23.73 | 173 | 2125223 | 8.87 ug/l | | 98 |
| 73) | Isopropylbenzene | 23.69 | 105 | 15026525 | 11.53 ug/l | | 100 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 2386951 | 7.64 ug/l | | 92 |
| 75) | 1,2,3-Trichloropropane | 24.30 | 75 | 1505277 | 6.89 ug/l | m | 89 |
| 76) | trans-1,4-Dichloro-2-buten | 24.79 | 53 | 525347 | 26.36 ug/l | # | [illegible] |
| 77) | n-Propylbenzene | 24.47 | 91 | 20336073 | 11.56 ug/l | | 97 |
| 78) | Bromobenzene | 24.57 | 156 | 4210960 | 10.43 ug/l | | 89 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 13353831 | 10.93 ug/l | | 99 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 12498858 | 11.10 ug/l | | 98 |
| 81) | 4-Chlorotoluene | 24.91 | 91 | 12195259 | 9.61 ug/l | | 99 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 10621026 | 10.60 ug/l | | 99 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 12880203 | 11.10 ug/l | | 94 |
| 84) | Pentachloroethane | 25.61 | 167 | 2132937 | 7.90 ug/l | | 93 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

**Data File** : o:\org\voa\vj9\15nov96\vj9a0113.d **Vial: 4**
**Acq On** : **15 Nov 96 7:37 am** **Operator: JJF**
**Sample** : **VSTD10,STD#16008,WATER,25ml** **Inst : VJ9**
Misc : INITIAL CALIBRATION Multiplr: 1.00
Quant Time: Nov 15 10:40 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

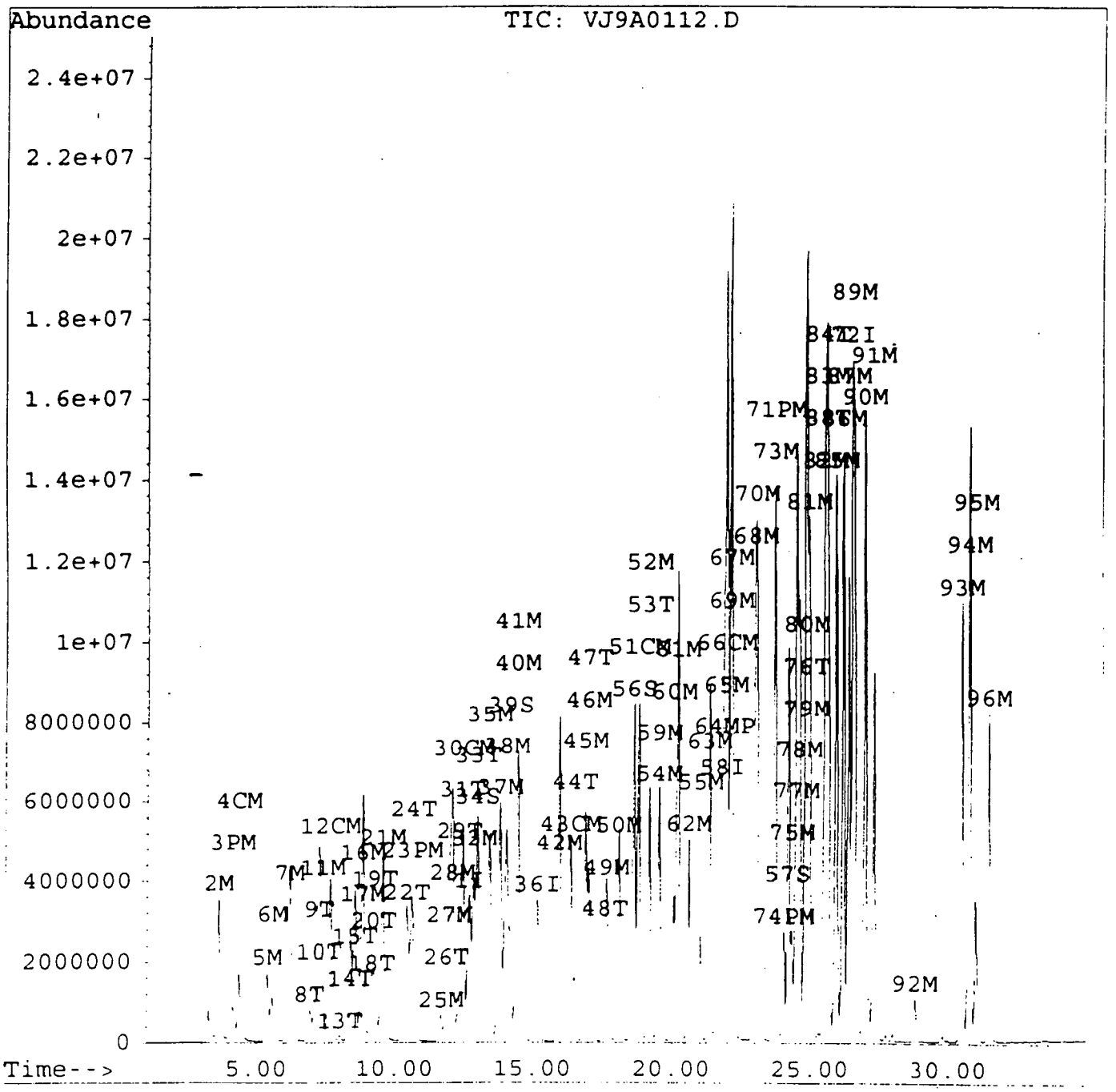
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.89 | 105 | 19709619 | 11.50 ug/l | 96 |
| 86) | p-Isopropyltoluene | 26.15 | 119 | 16179992 | 11.75 ug/l | 98 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 7531845 | 10.77 ug/l | 99 |
| 88) | 1,2,3-Trimethylbenzene | 25.56 | 105 | 12880203 | 11.08 ug/l | 97 |
| 89) | 1,4-Dichlorobenzene | 26.55 | 146 | 7541705 | 10.81 ug/l | 93 |
| 90) | n-Butylbenzene | 26.94 | 91 | 16827811 | 12.16 ug/l | 95 |
| 91) | 1,2-Dichlorobenzene | 27.27 | 146 | 6188844 | 9.82 ug/l | 97 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 455155 | 9.66 ug/l | 91 |
| 93) | 1,2,4-Trichlorobenzene | 30.46 | 180 | 5283067 | 11.93 ug/l | 95 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 4883839 | 10.75 ug/l | 91 |
| 95) | Naphthalene | 30.96 | 128 | 4247993 | 12.02 ug/l | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.44 | 180 | 4085437 | 11.01 ug/l | 99 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

| | | | |
|---|---|---|---|
| Data File | : o:\org\voa\vj9\15nov96\vj9a0112.d | Vial: | 3 |
| Acq On | : 15 Nov 96 6:54 am | Operator: | JJF |
| Sample | : VSTD20,STD#16007,WATER,25ml | Inst | : VJ9 |
| Misc | : INITIAL CALIBRATION | Multiplr: | 1.00 |
| Quant Time: | Nov 15 10:39 1996 | | |

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0112.d  Vial: 3
Acq On : 15 Nov 96 6:54 am  Operator: JJF
Sample : VSTD20,STD#16007,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:39 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Mir |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9703425 | 10.00 | ug/l | | 0.0C |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10743308 | 10.00 | ug/l | | 0.0C |
| 58) Chlorobenzene-d5 | 21.78 | 117 | 7856373 | 10.00 | ug/l | | 0.0C |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4391948 | 10.00 | ug/l | | 0.0C |
| **System Monitoring Compounds** | | | | | | | %Recovery |
| 34) Dibromofluoromethane | 12.95 | 113 | 12511888 | 19.58 | ug/l | | 195.78 |
| 39) 1,2-Dichloroethane-d4 | 14.17 | 65 | 5391294 | 17.59 | ug/l | | 175.94 |
| 56) Toluene-d8 | 18.62 | 98 | 20412763 | 18.94 | ug/l | | 189.42 |
| 57) Bromofluorobenzene | 24.18 | 95 | 10738416 | 19.40 | ug/l | | 194.04 |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.60 | 85 | 11304629 | 26.23 | ug/l | | 92 |
| 3) Chloromethane | 4.13 | 50 | 5045054 | 18.10 | ug/l | | 96 |
| 4) Vinyl Chloride | 4.35 | 62 | 5176524 | 20.17 | ug/l | | 98 |
| 5) Bromomethane | 5.36 | 94 | 4877284 | 14.26 | ug/l | | 98 |
| 6) Chloroethane | 5.54 | 64 | 3187075 | 17.38 | ug/l | | 97 |
| 7) Trichlorofluoromethane | 6.17 | 101 | 17390490 | 21.37 | ug/l | | 96 |
| 8) Ethyl Ether | 6.90 | 59 | 1904304 | 16.67 | ug/l | | 97 |
| 9) Acrolein | 7.22 | 56 | 889081 | 158.09 | ug/l | | 93 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.21 | 101 | 12559445 | 17.51 | ug/l | | 96 |
| 11) Acetone | 7.37 | 43 | 2096607 | 86.93 | ug/l | m | 88 |
| 12) 1,1-Dichloroethene | 7.63 | 96 | 6207534 | 19.65 | ug/l | | 97 |
| 13) Acetonitrile | 8.03 | 41 | 544305 | 7.01 | ug/l | m | 96 |
| 14) Iodomethane | 8.38 | 142 | 13492549 | 25.30 | ug/l | | 93 |
| 15) Allyl Chloride | 8.54 | 41 | 9083046 | 17.79 | ug/l | | 91 |
| 16) Methylene Chloride | 8.82 | 84 | 4986301 | 14.75 | ug/l | | 91 |
| 17) Carbon Disulfide | 8.81 | 76 | 16454331 | 19.94 | ug/l | | 97 |
| 18) Acrylonitrile | 9.15 | 53 | 1944692 | 90.37 | ug/l | | 100 |
| 19) Methyl t-butyl ether | 9.26 | 73 | 8445230 | 16.94 | ug/l | | 95 |
| 20) Ethyl acetate | 9.21 | 43 | 2583139 | 19.67 | ug/l | | 89 |
| 21) trans-1,2-Dichloroethene | 9.54 | 96 | 6534670 | 22.51 | ug/l | | 95 |
| 22) Diisopropyl ether | 10.41 | 45 | 17023039 | 14.98 | ug/l | | 94 |
| 23) 1,1-Dichloroethane | 10.59 | 63 | 12631850 | 18.05 | ug/l | | 97 |
| 24) Vinyl acetate | 10.64 | 43 | 1814757 | 5.72 | ug/l | | 100 |
| 25) 2-Butanone | 11.66 | 43 | 3683846 | 96.37 | ug/l | | 98 |
| 26) Propionitrile | 11.83 | 54 | 774276 | 105.34 | ug/l | # | 81 |
| 27) 2,2-Dichloropropane | 11.93 | 77 | 13363245 | 23.34 | ug/l | | 93 |
| 28) cis-1,2-Dichloroethene | 12.05 | 96 | 6973832 | 19.71 | ug/l | | 97 |
| 29) Methacrylonitrile | 12.29 | 41 | 1952733 | 21.35 | ug/l | m | 90 |
| 30) Chloroform | 12.45 | 83 | 14874278 | 17.99 | ug/l | | 100 |
| 31) Isobutyl Alcohol | 12.38 | 43 | 710737 | 143.88 | ug/l | m | 76 |
| 32) Bromochloromethane | 12.83 | 128 | 3511872 | 19.80 | ug/l | | 92 |
| 33) Tetrahyrofuran | 12.96 | 42 | 472150 | 28.23 | ug/l | # | 84 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

**Data File** : o:\org\voa\vj9\15nov96\vj9a0112.d **Vial: 3**
**Acq On** : 15 Nov 96 6:54 am **Operator: JJF**
**Sample** : VSTD20,STD#16007,WATER,25ml **Inst : VJ9**
**Misc** : INITIAL CALIBRATION **Multiplr: 1.00**
Quant Time: Nov 15 10:39 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.38 | 97 | 15355221 | 19.49 ug/l | | 93 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 11152531 | 20.68 ug/l | | 99 |
| 38) | Carbon Tetrachloride | 14.00 | 117 | 14203537 | 22.91 ug/l | | 95 |
| 40) | 1,2-Dichloroethane | 14.39 | 62 | 6462855 | 17.88 ug/l | | 99 |
| 41) | Benzene | 14.42 | 78 | 17629352 | 18.44 ug/l | | 100 |
| 42) | Trichloroethene | 15.91 | 130 | 9621263 | 20.16 ug/l | | 93 |
| 43) | 1,2-Dichloropropane | 16.33 | 63 | 6933221 | 16.96 ug/l | | 98 |
| 44) | Methyl Methacrylate | 16.48 | 69 | 1780910 | 20.12 ug/l | | 91 |
| 45) | Bromodichloromethane | 16.86 | 83 | 12988129 | 19.16 ug/l | | 99 |
| 46) | Dibromomethane | 16.98 | 93 | 5283838 | 19.65 ug/l | | 96 |
| 47) | 2-Nitropropane | 17.02 | 43 | 654811 | 28.70 ug/l | # | 100 |
| 48) | 2-Chloroethylvinyl ether | 17.57 | 63 | 1735963 | 29.16 ug/l | | 93 |
| 49) | 4-Methyl-2-Pentanone | 17.64 | 43 | 12878799 | 90.10 ug/l | | 93 |
| 50) | cis-1,3-Dichloropropene | 18.07 | 75 | 9118493 | 19.26 ug/l | | 96 |
| 51) | Toluene | 18.78 | 92 | 12592853 | 20.18 ug/l | | 98 |
| 52) | trans-1,3-Dichloropropene | 19.17 | 75 | 6661929 | 21.39 ug/l | | 100 |
| 53) | Ethyl Methacrylate | 19.16 | 69 | 4315084 | 17.59 ug/l | | 97 |
| 54) | 1,1,2-Trichloroethane | 19.49 | 97 | 4020596 | 16.96 ug/l | | 93 |
| 55) | 1,2-Dibromoethane (EDB) | 21.00 | 107 | 5904150 | 21.18 ug/l | | 91 |
| 59) | 2-Hexanone | 19.52 | 43 | 7382282 | 95.36 ug/l | # | 96 |
| 60) | 1,3-Dichloropropane | 20.02 | 76 | 6293739 | 16.94 ug/l | | 100 |
| 61) | Tetrachloroethene | 20.16 | 166 | 11302775 | 21.32 ug/l | | 92 |
| 62) | Chlorodibromomethane | 20.58 | 129 | 8620603 | 20.49 ug/l | | 99 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 9569204 | 28.22 ug/l | m | 44 |
| 64) | Chlorobenzene | 21.84 | 112 | 15865316 | 20.27 ug/l | | 93 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.92 | 131 | 7898119 | 19.32 ug/l | | 97 |
| 66) | Ethylbenzene | 21.96 | 106 | 7321651 | 21.71 ug/l | | 99 |
| 67) | m&p Xylenes | 22.10 | 106 | 19650691 | 42.02 ug/l | # | 83 |
| 68) | o-Xylene | 22.98 | 106 | 9018769 | 24.49 ug/l | m | [illegible] |
| 69) | Xylenes (total) | 22.10 | 106 | 28962265 | 62.50 ug/l | m | 83 |
| 70) | Styrene | 23.04 | 104 | 14864779 | 22.12 ug/l | | 95 |
| 71) | Bromoform | 23.72 | 173 | 4386201 | 18.22 ug/l | | 98 |
| 73) | Isopropylbenzene | 23.68 | 105 | 28957500 | 24.92 ug/l | | 96 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 4679625 | 15.35 ug/l | | 94 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 2775900 | 12.75 ug/l | m | 100 |
| 76) | trans-1,4-Dichloro-2-buten | 24.79 | 53 | 1022551 | 50.36 ug/l | # | [illegible] |
| 77) | n-Propylbenzene | 24.48 | 91 | 38085387 | 24.15 ug/l | | 99 |
| 78) | Bromobenzene | 24.57 | 156 | 8050338 | 21.59 ug/l | | 100 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 25490229 | 23.15 ug/l | | 98 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 22043715 | 21.22 ug/l | | 96 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 24499070 | 20.93 ug/l | | 100 |
| 82) | tert-Butylbenzene | 25.48 | 91 | 20077812 | 22.18 ug/l | | 93 |
| 83) | 1,2,4-Trimethylbenzene | 25.56 | 105 | 24058166 | 23.01 ug/l | | 93 |
| 84) | Pentachloroethane | 25.60 | 167 | 4303275 | 16.07 ug/l | | 97 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0112.d
Acq On : 15 Nov 96 6:54 am
Sample : VSTD20,STD#16007,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:39 1996

Vial: 3
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

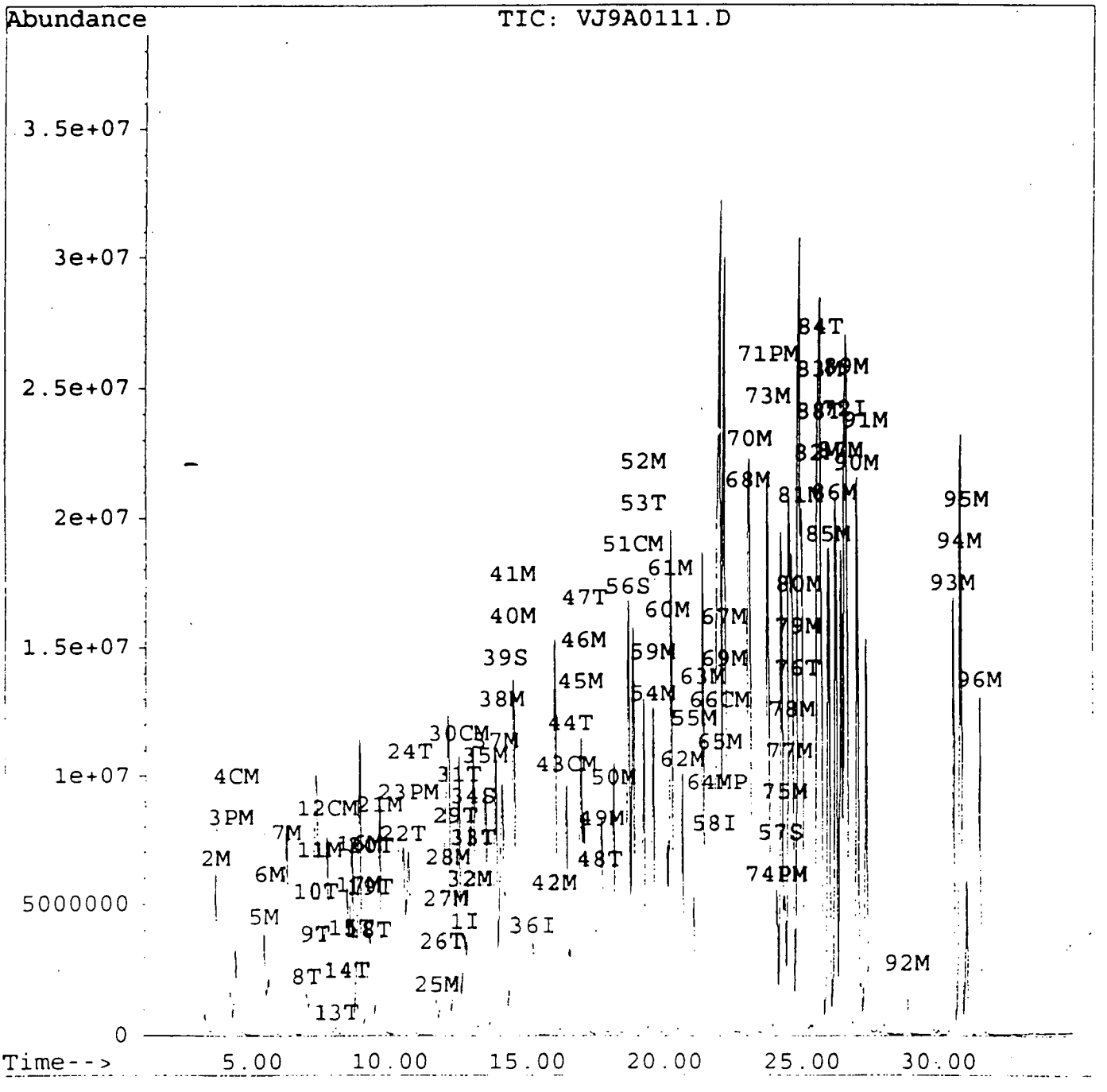
| Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|
| 85) sec-Butylbenzene | 25.89 | 105 | 37428242 | 24.46 ug/l | 97 |
| 86) p-Isopropyltoluene | 26.16 | 119 | 30767239 | 25.12 ug/l | 98 |
| 87) 1,3-Dichlorobenzene | 26.35 | 146 | 14227389 | 22.41 ug/l | 99 |
| 88) 1,2,3-Trimethylbenzene | 25.56 | 105 | 24058166 | 22.83 ug/l | 98 |
| 89) 1,4-Dichlorobenzene | 26.56 | 146 | 14233846 | 22.35 ug/l | 98 |
| 90) n-Butylbenzene | 26.95 | 91 | 32100405 | 26.28 ug/l | 96 |
| 91) 1,2-Dichlorobenzene | 27.28 | 146 | 11605967 | 19.91 ug/l | 95 |
| 92) 1,2-Dibromo-3-chloropropan | 28.77 | 75 | 909870 | 19.95 ug/l | 98 |
| 93) 1,2,4-Trichlorobenzene | 30.47 | 180 | 10495478 | 26.68 ug/l | 95 |
| 94) Hexachlorobutadiene | 30.73 | 225 | 9412743 | 22.96 ug/l | 96 |
| 95) Naphthalene | 30.96 | 128 | 8559480 | 27.06 ug/l | 100 |
| 96) 1,2,3-Trichlorobenzene | 31.44 | 180 | 7861623 | 23.43 ug/l | 99 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

**Data File** : o:\org\voa\vj9\15nov96\vj9a0111.d **Vial: 2**
**Acq On** : 15 Nov 96 6:10 am **Operator: JJF**
**Sample** : VSTD40,STD#16006,WATER,25ml **Inst : VJ9**
**Misc** : INITIAL CALIBRATION **Multiplr: 1.00**
Quant Time: Nov 15 10:38 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0111.d  Vial: 2
Acq On : 15 Nov 96 6:10 am  Operator: JJF
Sample : VSTD40,STD#16006,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:38 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.67 | 168 | 9729354 | 10.00 | ug/l | | 0.0 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10797915 | 10.00 | ug/l | | 0.0 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 7881475 | 10.00 | ug/l | | 0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.50 | 152 | 4317836 | 10.00 | ug/l | | 0.0 |
| **System Monitoring Compounds** | | | | | | | %Recover |
| 34) Dibromofluoromethane | 12.95 | 113 | 25199498 | 39.29 | ug/l | | 392.9 |
| 39) 1,2-Dichloroethane-d4 | 14.16 | 65 | 10880610 | 34.58 | ug/l | | 345.8 |
| 56) Toluene-d8 | 18.62 | 98 | 41315703 | 38.33 | ug/l | | 383.2 |
| 57) Bromofluorobenzene | 24.18 | 95 | 20969811 | 38.00 | ug/l | | 379.9 |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.60 | 85 | 21189766 | 51.02 | ug/l | | 9 |
| 3) Chloromethane | 4.16 | 50 | 9254818 | 32.29 | ug/l | | 9 |
| 4) Vinyl Chloride | 4.34 | 62 | 10424466 | 41.30 | ug/l | | 10 |
| 5) Bromomethane | 5.36 | 94 | 11101170 | 31.60 | ug/l | | 9 |
| 6) Chloroethane | 5.54 | 64 | 6589682 | 34.49 | ug/l | | 9 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 32398780 | 39.25 | ug/l | | 8 |
| 8) Ethyl Ether | 6.91 | 59 | 4058278 | 33.68 | ug/l | | 9 |
| 9) Acrolein | 7.21 | 56 | 1705852 | 340.19 | ug/l | | 8 |
| 10) 1,1,2-Trichloro-1,1,2-trif | 7.23 | 101 | 26243393 | 36.39 | ug/l | | 9 |
| 11) Acetone | 7.38 | 43 | 4185762 | 168.17 | ug/l | m | 9 |
| 12) 1,1-Dichloroethene | 7.64 | 96 | 11956477 | 36.93 | ug/l | | 9 |
| 13) Acetonitrile | 8.03 | 41 | 997360 | 9.56 | ug/l | m | 9 |
| 14) Iodomethane | 8.38 | 142 | 28443338 | 51.85 | ug/l | | 9 |
| 15) Allyl Chloride | 8.54 | 41 | 18588544 | 35.28 | ug/l | | 9 |
| 16) Methylene Chloride | 8.83 | 84 | 9793338 | 27.85 | ug/l | | 9 |
| 17) Carbon Disulfide | 8.80 | 76 | 31095798 | 37.40 | ug/l | | 10 |
| 18) Acrylonitrile | 9.16 | 53 | 3995629 | 173.79 | ug/l | | 10 |
| 19) Methyl t-butyl ether | 9.23 | 73 | 17472199 | 34.22 | ug/l | | 9 |
| 20) Ethyl acetate | 9.24 | 43 | 4956204 | 37.07 | ug/l | | 9 |
| 21) trans-1,2-Dichloroethene | 9.54 | 96 | 12786201 | 42.66 | ug/l | | 9 |
| 22) Diisopropyl ether | 10.38 | 45 | 36220927 | 30.83 | ug/l | | 9 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 25346070 | 35.53 | ug/l | | 9 |
| 24) Vinyl acetate | 10.63 | 43 | 3803642 | 9.35 | ug/l | m | 10 |
| 25) 2-Butanone | 11.65 | 43 | 7275734 | 187.53 | ug/l | | 9 |
| 26) Propionitrile | 11.80 | 54 | 1613098 | 220.02 | ug/l | # | 8 |
| 27) 2,2-Dichloropropane | 11.94 | 77 | 26241260 | 45.61 | ug/l | | 9 |
| 28) cis-1,2-Dichloroethene | 12.04 | 96 | 13703345 | 37.90 | ug/l | | 9 |
| 29) Methacrylonitrile | 12.29 | 41 | 4043688 | 45.76 | ug/l | m | 8 |
| 30) Chloroform | 12.43 | 83 | 29958434 | 35.50 | ug/l | | 9 |
| 31) Isobutyl Alcohol | 12.41 | 43 | 1362203 | 276.22 | ug/l | m | 3 |
| 32) Bromochloromethane | 12.82 | 128 | 6942155 | 38.60 | ug/l | | 9 |
| 33) Tetrahyrofuran | 12.94 | 42 | 866203 | 75.84 | ug/l | m | |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0111.d
Acq On : 15 Nov 96 6:10 am
Sample : VSTD40,STD#16006,WATER,25ml
Misc : INITIAL CALIBRATION
Quant Time: Nov 15 10:38 1996

Vial: 2
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 35) | 1,1,1-Trichloroethane | 13.39 | 97 | 29218982 | 36.46 ug/l | | 91 |
| 37) | 1,1-Dichloropropene | 13.78 | 75 | 20164983 | 36.69 ug/l | | 98 |
| 38) | Carbon Tetrachloride | 14.00 | 117 | 25997658 | 41.41 ug/l | | 95 |
| 40) | 1,2-Dichloroethane | 14.39 | 62 | 12840879 | 34.68 ug/l | | 100 |
| 41) | Benzene | 14.42 | 78 | 34540899 | 35.41 ug/l | | 100 |
| 42) | Trichloroethene | 15.90 | 130 | 18234236 | 37.99 ug/l | | 97 |
| 43) | 1,2-Dichloropropane | 16.32 | 63 | 13705578 | 32.48 ug/l | | 97 |
| 44) | Methyl Methacrylate | 16.47 | 69 | 3604015 | 39.34 ug/l | | 89 |
| 45) | Bromodichloromethane | 16.87 | 83 | 26130958 | 38.01 ug/l | | 98 |
| 46) | Dibromomethane | 16.98 | 93 | 10430927 | 38.43 ug/l | | 95 |
| 47) | 2-Nitropropane | 17.02 | 43 | 1205082 | 50.80 ug/l | m | 100 |
| 48) | 2-Chloroethylvinyl ether | 17.57 | 63 | 3668633 | 62.28 ug/l | | 92 |
| 49) | 4-Methyl-2-Pentanone | 17.64 | 43 | 26570730 | 181.78 ug/l | | 90 |
| 50) | cis-1,3-Dichloropropene | 18.08 | 75 | 18277241 | 37.61 ug/l | | 96 |
| 51) | Toluene | 18.78 | 92 | 22970284 | 36.23 ug/l | | 99 |
| 52) | trans-1,3-Dichloropropene | 19.16 | 75 | 13323392 | 42.20 ug/l | | 95 |
| 53) | Ethyl Methacrylate | 19.15 | 69 | 8664058 | 33.79 ug/l | | 98 |
| 54) | 1,1,2-Trichloroethane | 19.50 | 97 | 7973522 | 32.85 ug/l | | 95 |
| 55) | 1,2-Dibromoethane (EDB) | 20.99 | 107 | 11480639 | 41.04 ug/l | | 93 |
| 59) | 2-Hexanone | 19.51 | 43 | 14657301 | 184.36 ug/l | # | 94 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 12411136 | 32.30 ug/l | | 97 |
| 61) | Tetrachloroethene | 20.15 | 166 | 19071146 | 35.82 ug/l | | 97 |
| 62) | Chlorodibromomethane | 20.57 | 129 | 16943851 | 39.99 ug/l | | 95 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 20127902 | 48.76 ug/l | m | 88 |
| 64) | Chlorobenzene | 21.84 | 112 | 28511331 | 36.16 ug/l | | 95 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 14464799 | 34.66 ug/l | | 95 |
| 66) | Ethylbenzene | 21.95 | 106 | 12227268 | 36.04 ug/l | # | 75 |
| 67) | m&p Xylenes | 22.10 | 106 | 32654871 | 69.49 ug/l | # | 39 |
| 68) | o-Xylene | 22.98 | 106 | 15409463 | 35.33 ug/l | m | 98 |
| 69) | Xylenes (total) | 22.10 | 106 | 48571801 | 109.57 ug/l | m | 39 |
| 70) | Styrene | 23.05 | 104 | 26372215 | 39.18 ug/l | | 91 |
| 71) | Bromoform | 23.72 | 173 | 8986017 | 36.31 ug/l | | 95 |
| 73) | Isopropylbenzene | 23.68 | 105 | 44165056 | 39.83 ug/l | | 93 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.02 | 83 | 9141493 | 29.96 ug/l | | 99 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 5718509 | 27.45 ug/l | m | 92 |
| 76) | trans-1,4-Dichloro-2-buten | 24.77 | 53 | 1539341 | 66.34 ug/l | m | 91 |
| 77) | n-Propylbenzene | 24.48 | 91 | 49457725 | 32.37 ug/l | | 79 |
| 78) | Bromobenzene | 24.58 | 156 | 13876412 | 38.34 ug/l | | 88 |
| 79) | 1,3,5-Trimethylbenzene | 24.78 | 105 | 39115504 | 37.14 ug/l | | 98 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 35291254 | 35.29 ug/l | | 93 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 36226341 | 31.61 ug/l | | 90 |
| 82) | tert-Butylbenzene | 25.49 | 91 | 31232134 | 36.17 ug/l | | 99 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 37574659 | 37.73 ug/l | | 99 |
| 84) | Pentachloroethane | 25.61 | 167 | 8975625 | 33.12 ug/l | | 97 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0111.d  Vial: 2
Acq On : 15 Nov 96 6:10 am  Operator: JJF
Sample : VSTD40,STD#16006,WATER,25ml  Inst : VJ9
Misc : INITIAL CALIBRATION  Multiplr: 1.00
Quant Time: Nov 15 10:38 1996

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 85) | sec-Butylbenzene | 25.89 | 105 | 49565754 | 33.63 ug/l | 87 |
| 86) | p-Isopropyltoluene | 26.15 | 119 | 43862406 | 37.55 ug/l | 91 |
| 87) | 1,3-Dichlorobenzene | 26.35 | 146 | 23280056 | 38.14 ug/l | 97 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 37574659 | 36.90 ug/l | 90 |
| 89) | 1,4-Dichlorobenzene | 26.55 | 146 | 22908608 | 37.40 ug/l | 98 |
| 90) | n-Butylbenzene | 26.95 | 91 | 44043072 | 37.71 ug/l | 87 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 19385787 | 34.19 ug/l | 97 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 1758315 | 38.74 ug/l | 97 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 16400449 | 44.37 ug/l | 96 |
| 94) | Hexachlorobutadiene | 30.73 | 225 | 14420772 | 36.97 ug/l | 95 |
| 95) | Naphthalene | 30.97 | 128 | 13984235 | 46.21 ug/l | 100 |
| 96) | 1,2,3-Trichlorobenzene | 31.43 | 180 | 12636041 | 39.55 ug/l | 94 |

(#) = qualifier out of range (m) = manual integration

# Evaluate Continuing Calibration Report

Data File : O:\ORG\VOA\VJ9\15NOV96\VJ9A0118.D  Vial: 9
Acq On : 15 Nov 96 11:31 am  Operator: JJF
Sample : LCS\ICV,VL611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(Mir |
|---|---|---|---|---|---|---|---|
| 1 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 97 | 0.02 |
| 2 | M | Dichlorodifluoromethane | 0.560 | 0.312 | 44.3# | 50 | 0.00 |
| 3 | PM | Chloromethane | 0.262 | 0.186 | 28.9 | 66 | 0.03 |
| 4 | CM | Vinyl Chloride | 0.261 | 0.232 | 11.5 | 81 | 0.01 |
| 5 | M | Bromomethane | 0.252 | 0.187 | 25.5 | 72 | 0.02 |
| 6 | M | Chloroethane | 0.163 | 0.153 | 6.4 | 87 | 0.00 |
| 7 | M | Trichlorofluoromethane | 0.840 | 0.753 | 10.4 | 79 | 0.00 |
| 8 | T | Ethyl Ether | 0.099 | 0.000 | 100.0# | 0# | -6.90# |
| 9 | T | Acrolein | 0.009 | 0.000 | 100.0# | 0# | -7.21# |
| 10 | T | 1,1,2-Trichloro-1,1,2-trifl | 0.637 | 0.000 | 100.0# | 0# | -7.25# |
| 11 | M | Acetone | 0.023 | 0.009 | 59.3# | 42 | 0.02 |
| 12 | CM | 1,1-Dichloroethene | 0.309 | 0.305 | 1.3 | 88 | 0.00 |
| 13 | T | Acetonitrile | 0.006 | 0.000 | 100.0# | 0# | -8.01# |
| 14 | T | Iodomethane | 0.580 | 0.000 | 100.0# | 0# | -8.38# |
| 15 | T | Allyl Chloride | 0.482 | 0.000 | 100.0# | 0# | -8.55# |
| 16 | M | Methylene Chloride | 0.262 | 0.255 | 2.8 | 94 | -0.01 |
| 17 | M | Carbon Disulfide | 0.784 | 0.891 | -13.6 | 108 | 0.00 |
| 18 | T | Acrylonitrile | 0.020 | 0.000 | 100.0# | 0# | -9.16# |
| 19 | T | Methyl t-butyl ether | 0.446 | 0.000 | 100.0# | 0# | -9.24# |
| 20 | T | Ethyl acetate | 0.148 | 0.000 | 100.0# | 0# | -9.26# |
| 21 | M | trans-1,2-Dichloroethene | 0.328 | 0.328 | -0.2 | 91 | 0.00 |
| 22 | T | Diisopropyl ether | 0.907 | 0.000 | 100.0# | 0# | -10.40# |
| 23 | PM | 1,1-Dichloroethane | 0.642 | 0.640 | 0.3 | 93 | -0.01 |
| 24 | T | Vinyl acetate | 0.102 | 0.000 | 100.0# | 0# | -10.62# |
| 25 | M | 2-Butanone | 0.041 | 0.016 | 59.7# | 41 | 0.00 |
| 26 | T | Propionitrile | 0.008 | 0.000 | 100.0# | 0# | -11.83# |
| 27 | M | 2,2-Dichloropropane | 0.667 | 0.658 | 1.3 | 90 | 0.00 |
| 28 | M | cis-1,2-Dichloroethene | 0.358 | 0.355 | 0.9 | 92 | -0.01 |
| 29 | T | Methacrylonitrile | 0.109 | 0.000 | 100.0# | 0# | -12.27# |
| 30 | CM | Chloroform | 0.762 | 0.764 | -0.3 | 94 | 0.00 |
| 31 | T | Isobutyl Alcohol | 0.004 | 0.000 | 100.0# | 0# | -12.38# |
| 32 | M | Bromochloromethane | 0.175 | 0.181 | -3.3 | 96 | 0.01 |
| 33 | T | Tetrahyrofuran | 0.024 | 0.000 | 100.0# | 0# | -12.90# |
| 34 | S | Dibromofluoromethane | 0.635 | 0.657 | -3.4 | 99 | 0.00 |
| 35 | M | 1,1,1-Trichloroethane | 0.765 | 0.768 | -0.4 | 89 | 0.00 |
| 36 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 99 | 0.00 |
| 37 | M | 1,1-Dichloropropene | 0.500 | 0.514 | -2.8 | 93 | 0.01 |
| 38 | M | Carbon Tetrachloride | 0.591 | 0.604 | -2.2 | 88 | 0.00 |
| 39 | S | 1,2-Dichloroethane-d4 | 0.256 | 0.258 | -0.8 | 98 | 0.00 |
| 40 | M | 1,2-Dichloroethane | 0.305 | 0.311 | -1.9 | 99 | 0.00 |
| 41 | M | Benzene | 0.830 | 0.837 | -0.9 | 95 | 0.00 |

(#) = Out of Range

# Evaluate Continuing Calibration Report

Data File : O:\ORG\VOA\VJ9\15NOV96\VJ9A0118.D  Vial: 9
Acq On : 15 Nov 96 11:31 am  Operator: JJF
Sample : LCS\ICV,VL611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 42 | M | Trichloroethene | 0.452 | 0.430 | 4.8 | 88 | 0.00 |
| 43 | CM | 1,2-Dichloropropane | 0.329 | 0.348 | -5.9 | 101 | 0.00 |
| 44 | T | Methyl Methacrylate | 0.083 | 0.000 | 100.0# | 0# | -16.50 |
| 45 | M | Bromodichloromethane | 0.588 | 0.584 | 0.6 | 94 | 0.00 |
| 46 | M | Dibromomethane | 0.244 | 0.247 | -1.1 | 98 | 0.01 |
| 47 | T | 2-Nitropropane | 0.030 | 0.000 | 100.0# | 0# | -17.01 |
| 48 | T | 2-Chloroethylvinyl ether | 0.068 | 0.000 | 100.0# | 0# | -17.55 |
| 49 | M | 4-Methyl-2-Pentanone | 0.126 | 0.046 | 63.2# | 38 | 0.02 |
| 50 | M | cis-1,3-Dichloropropene | 0.416 | 0.450 | -8.3 | 103 | 0.00 |
| 51 | CM | Toluene | 0.569 | 0.583 | -2.5 | 95 | 0.00 |
| 52 | M | trans-1,3-Dichloropropene | 0.305 | 0.335 | -9.7 | 105 | 0.00 |
| 53 | T | Ethyl Methacrylate | 0.205 | 0.000 | 100.0# | 0# | -19.15 |
| 54 | M | 1,1,2-Trichloroethane | 0.190 | 0.192 | -1.1 | 99 | 0.00 |
| 55 | M | 1,2-Dibromoethane (EDB) | 0.266 | 0.272 | -1.9 | 101 | 0.00 |
| 56 | S | Toluene-d8 | 0.932 | 0.968 | -3.8 | 101 | 0.00 |
| 57 | S | Bromofluorobenzene | 0.514 | 0.519 | -0.9 | 103 | 0.00 |
| 58 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 103 | 0.01 |
| 59 | M | 2-Hexanone | 0.103 | 0.042 | 59.1# | 44 | 0.00 |
| 60 | M | 1,3-Dichloropropane | 0.398 | 0.404 | -1.5 | 100 | 0.00 |
| 61 | M | Tetrachloroethene | 0.670 | 0.643 | 4.1 | 87 | 0.00 |
| 62 | M | Chlorodibromomethane | 0.509 | 0.525 | -3.0 | 98 | 0.00 |
| 63 | M | 1-Chlorohexane | 0.605 | 0.682 | -12.8 | 113 | 0.00 |
| 64 | MP | Chlorobenzene | 0.975 | 0.983 | -0.8 | 95 | 0.01 |
| 65 | M | 1,1,1,2-Tetrachloroethane | 0.469 | 0.481 | -2.5 | 97 | 0.00 |
| 66 | CM | Ethylbenzene | 0.456 | 0.467 | -2.5 | 95 | 0.00 |
| 67 | M | m&p Xylenes | 0.595 | 0.602 | -1.1 | 93 | 0.00 |
| 68 | M | o-Xylene | 0.545 | 0.554 | -1.5 | 94 | 0.00 |
| 69 | M | Xylenes (total) | 0.581 | 0.590 | -1.4 | 94 | 0.00 |
| 70 | M | Styrene | 0.906 | 0.911 | -0.6 | 94 | 0.01 |
| 71 | PM | Bromoform | 0.254 | 0.260 | -2.3 | 99 | 0.00 |
| 72 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 73 | M | Isopropylbenzene | 2.959 | 3.179 | -7.4 | 102 | 0.00 |
| 74 | PM | 1,1,2,2-Tetrachloroethane | 0.527 | 0.518 | 1.7 | 105 | 0.00 |
| 75 | M | 1,2,3-Trichloropropane | 0.353 | 0.336 | 4.6 | 108 | 0.00 |
| 76 | T | trans-1,4-Dichloro-2-butene | 0.052 | 0.000 | 100.0# | 0# | -24.79 |
| 77 | M | n-Propylbenzene | 3.882 | 3.906 | -0.6 | 93 | 0.00 |
| 78 | M | Bromobenzene | 0.855 | 0.833 | 2.5 | 96 | 0.01 |
| 79 | M | 1,3,5-Trimethylbenzene | 2.654 | 2.549 | 4.0 | 92 | 0.00 |
| 80 | M | 2-Chlorotoluene | 2.471 | 2.449 | 0.9 | 95 | 0.00 |
| 81 | M | 4-Chlorotoluene | 2.499 | 2.347 | 6.1 | 93 | 0.00 |

(#) = Out of Range

# Evaluate Continuing Calibration Report

**Data File** : O:\ORG\VOA\VJ9\15NOV96\VJ9A0118.D **Vial: 9**
**Acq On** : **15 Nov 96 11:31 am** **Operator: JJF**
Sample : LCS\ICV,VL611152,WATER,25ml Inst : VJ9
Misc : DAILY QC Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Fri Nov 15 10:52:59 1996
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
Max. RRF Dev : 40% Max. Rel. Area : 200%

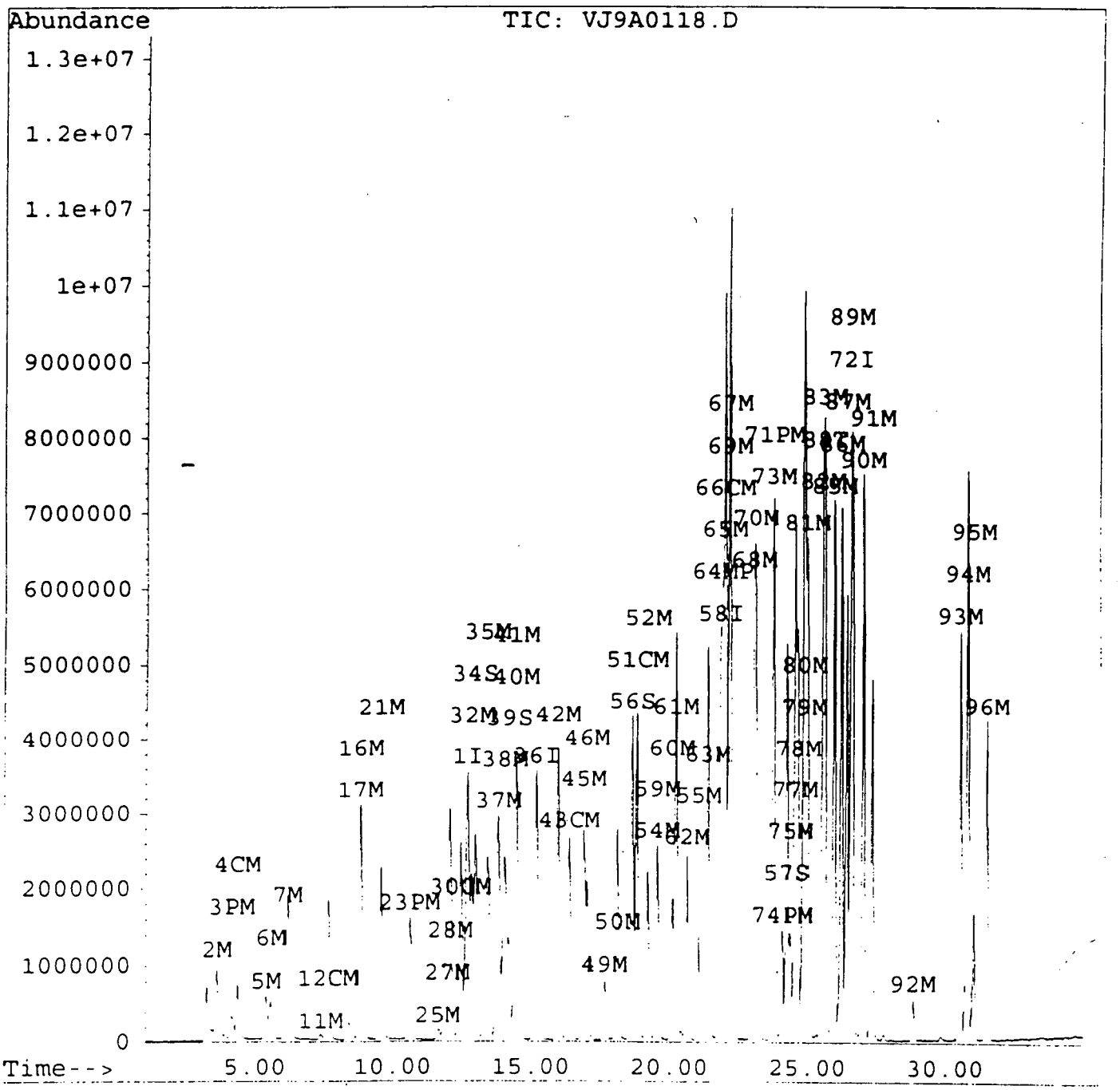
| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(Mi |
|---|---|---|---|---|---|---|---|
| 82 | M | tert-Butylbenzene | 2.139 | 2.080 | 2.8 | 95 | 0.00 |
| 83 | M | 1,2,4-Trimethylbenzene | 2.574 | 2.503 | 2.8 | 94 | 0.00 |
| 84 | T | Pentachloroethane | 0.435 | 0.000 | 100.0# | 0# | -25.61 |
| 85 | M | sec-Butylbenzene | 3.806 | 3.875 | -1.8 | 95 | 0.00 |
| 86 | M | p-Isopropyltoluene | 3.166 | 3.084 | 2.6 | 92 | 0.00 |
| 87 | M | 1,3-Dichlorobenzene | 1.531 | 1.483 | 3.1 | 95 | 0.00 |
| 88 | T | 1,2,3-Trimethylbenzene | 2.574 | 2.503 | 2.8 | 94 | 0.00 |
| 89 | M | 1,4-Dichlorobenzene | 1.558 | 1.536 | 1.4 | 99 | 0.01 |
| 90 | M | n-Butylbenzene | 3.289 | 3.187 | 3.1 | 92 | 0.00 |
| 91 | M | 1,2-Dichlorobenzene | 1.258 | 1.243 | 1.2 | 97 | 0.00 |
| 92 | M | 1,2-Dibromo-3-chloropropane | 0.108 | 0.100 | 7.5 | 106 | 0.00 |
| 93 | M | 1,2,4-Trichlorobenzene | 1.074 | 1.066 | 0.8 | 98 | 0.00 |
| 94 | M | Hexachlorobutadiene | 0.960 | 0.945 | 1.5 | 94 | 0.01 |
| 95 | M | Naphthalene | 0.915 | 0.846 | 7.6 | 96 | 0.00 |
| 96 | M | 1,2,3-Trichlorobenzene | 0.835 | 0.812 | 2.8 | 96 | 0.01 |

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d
Acq On : 15 Nov 96 11:31 am
Sample : LCS\ICV,VL611152,WATER,25ml
Misc : DAILY QC
Quant Time: Nov 18 5:25 1996

Vial: 9
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration



# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d  Vial: 9
Acq On : 15 Nov 96 11:31 am  Operator: JJF
Sample : LCS\ICV,VL611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00
Quant Time: Nov 18 5:25 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Mi |
|---|---|---|---|---|---|
| 1) Pentafluorobenzene | 12.69 | 168 | 9632202 | 10.00 ug/l | 0.0 |
| 36) 1,4-Difluorobenzene | 15.13 | 114 | 10790349 | 10.00 ug/l | 0.0 |
| 58) Chlorobenzene-d5 | 21.77 | 117 | 8119853 | 10.00 ug/l | 0.0 |
| 72) 1,4-Dichlorobenzene-d4 | 26.49 | 152 | 4837022 | 10.00 ug/l | 0.0 |
| **System Monitoring Compounds** | | | | | %Recover |
| 34) Dibromofluoromethane | 12.96 | 113 | 6330067 | 10.34 ug/l | 103.4 |
| 39) 1,2-Dichloroethane-d4 | 14.18 | 65 | 2783422 | 10.08 ug/l | 100.8 |
| 56) Toluene-d8 | 18.62 | 98 | 10441794 | 10.38 ug/l | 103.7 |
| 57) Bromofluorobenzene | 24.18 | 95 | 5596795 | 10.09 ug/l | 100.9 |
| **Target Compounds** | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 3.61 | 85 | 3005680 | 5.57 ug/l | 9 |
| 3) Chloromethane | 4.16 | 50 | 1792841 | 7.11 ug/l | 9 |
| 4) Vinyl Chloride | 4.36 | 62 | 2229876 | 8.85 ug/l | 9 |
| 5) Bromomethane | 5.37 | 94 | 1804309 | 7.45 ug/l | 9 |
| 6) Chloroethane | 5.55 | 64 | 1472491 | 9.36 ug/l | 9 |
| 7) Trichlorofluoromethane | 6.15 | 101 | 7254080 | 8.96 ug/l | 9 |
| 11) Acetone | 7.39 | 43 | 456770 | 20.35 ug/l | 9 |
| 12) 1,1-Dichloroethene | 7.63 | 96 | 2939623 | 9.87 ug/l | 9 |
| 16) Methylene Chloride | 8.82 | 84 | 2454235 | 9.72 ug/l | 9 |
| 17) Carbon Disulfide | 8.80 | 76 | 8581978 | 11.36 ug/l | 9 |
| 21) trans-1,2-Dichloroethene | 9.55 | 96 | 3160047 | 10.02 ug/l | 9 |
| 23) 1,1-Dichloroethane | 10.58 | 63 | 6164612 | 9.97 ug/l | 9 |
| 25) 2-Butanone | 11.63 | 43 | 793475 | 20.15 ug/l | 9 |
| 27) 2,2-Dichloropropane | 11.95 | 77 | 6336547 | 9.87 ug/l | 9 |
| 28) cis-1,2-Dichloroethene | 12.05 | 96 | 3417854 | 9.91 ug/l | 9 |
| 30) Chloroform | 12.43 | 83 | 7362842 | 10.03 ug/l | 9 |
| 32) Bromochloromethane | 12.83 | 128 | 1744153 | 10.33 ug/l | 9 |
| 35) 1,1,1-Trichloroethane | 13.40 | 97 | 7400087 | 10.04 ug/l | 9 |
| 37) 1,1-Dichloropropene | 13.78 | 75 | 5546258 | 10.28 ug/l | 9 |
| 38) Carbon Tetrachloride | 14.01 | 117 | 6516065 | 10.22 ug/l | 9 |
| 40) 1,2-Dichloroethane | 14.40 | 62 | 3351585 | 10.19 ug/l | 9 |
| 41) Benzene | 14.41 | 78 | 9035891 | 10.09 ug/l | 10 |
| 42) Trichloroethene | 15.91 | 130 | 4640079 | 9.52 ug/l | 9 |
| 43) 1,2-Dichloropropane | 16.33 | 63 | 3755962 | 10.59 ug/l | 9 |
| 45) Bromodichloromethane | 16.86 | 83 | 6304360 | 9.94 ug/l | 10 |
| 46) Dibromomethane | 16.98 | 93 | 2660413 | 10 11 ug/l | 9 |
| 49) 4-Methyl-2-Pentanone | 17.65 | 43 | 2496686 | 18.38 ug/l | 9 |
| 50) cis-1,3-Dichloropropene | 18.08 | 75 | 4859937 | 10.83 ug/l | 9 |
| 51) Toluene | 18.78 | 92 | 6291046 | 10.25 ug/l | 9 |
| 52) trans-1,3-Dichloropropene | 19.17 | 75 | 3614603 | 10.97 ug/l | 9 |
| 54) 1,1,2-Trichloroethane | 19.51 | 97 | 2067960 | 10.11 ug/l | 10 |
| 55) 1,2-Dibromoethane (EDB) | 20.99 | 107 | 2930803 | 10.19 ug/l # | 9 |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : o:\org\voa\vj9\15nov96\vj9a0118.d  Vial: 9
Acq On : 15 Nov 96 11:31 am  Operator: JJF
Sample : LCS\ICV,VL611152,WATER,25ml  Inst : VJ9
Misc : DAILY QC  Multiplr: 1.00
Quant Time: Nov 18 5:25 1996

Method : c:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for multipoint calibration
Last Update : Mon Nov 18 07:15:00 1996
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalu |
|---|---|---|---|---|---|---|---|
| 59) | 2-Hexanone | 19.52 | 43 | 1717280 | 20.47 ug/l | # | 9 |
| 60) | 1,3-Dichloropropane | 20.03 | 76 | 3276443 | 10.15 ug/l | | 9 |
| 61) | Tetrachloroethene | 20.16 | 166 | 5217281 | 9.59 ug/l | | 9 |
| 62) | Chlorodibromomethane | 20.58 | 129 | 4260439 | 10.30 ug/l | | 9 |
| 63) | 1-Chlorohexane | 21.32 | 91 | 5539748 | 11.28 ug/l | | 9 |
| 64) | Chlorobenzene | 21.85 | 112 | 7978266 | 10.08 ug/l | | 9 |
| 65) | 1,1,1,2-Tetrachloroethane | 21.93 | 131 | 3902824 | 10.25 ug/l | | 9 |
| 66) | Ethylbenzene | 21.96 | 106 | 3795674 | 10.25 ug/l | | 9 |
| 67) | m&p Xylenes | 22.11 | 106 | 9779108 | 20.23 ug/l | | 9 |
| 68) | o-Xylene | 22.98 | 106 | 4494698 | 10.15 ug/l | | 9 |
| 69) | Xylenes (total) | 22.11 | 106 | 14365809 | 30.43 ug/l | m | 9 |
| 70) | Styrene | 23.06 | 104 | 7398114 | 10.06 ug/l | | 9 |
| 71) | Bromoform | 23.73 | 173 | 2110554 | 10.23 ug/l | | 9 |
| 73) | Isopropylbenzene | 23.69 | 105 | 15374840 | 10.74 ug/l | | 9 |
| 74) | 1,1,2,2-Tetrachloroethane | 24.03 | 83 | 2503925 | 9.83 ug/l | | 9 |
| 75) | 1,2,3-Trichloropropane | 24.31 | 75 | 1626969 | 9.54 ug/l | m | 8 |
| 77) | n-Propylbenzene | 24.48 | 91 | 18893703 | 10.06 ug/l | | 10 |
| 78) | Bromobenzene | 24.58 | 156 | 4030722 | 9.75 ug/l | | 9 |
| 79) | 1,3,5-Trimethylbenzene | 24.79 | 105 | 12328242 | 9.60 ug/l | | 9 |
| 80) | 2-Chlorotoluene | 24.83 | 91 | 11845888 | 9.91 ug/l | | 9 |
| 81) | 4-Chlorotoluene | 24.92 | 91 | 11351331 | 9.39 ug/l | | 9 |
| 82) | tert-Butylbenzene | 25.47 | 91 | 10059219 | 9.72 ug/l | | 9 |
| 83) | 1,2,4-Trimethylbenzene | 25.55 | 105 | 12104697 | 9.72 ug/l | | 9 |
| 85) | sec-Butylbenzene | 25.89 | 105 | 18743573 | 10.18 ug/l | | 10 |
| 86) | p-Isopropyltoluene | 26.16 | 119 | 14918393 | 9.74 ug/l | | 10 |
| 87) | 1,3-Dichlorobenzene | 26.36 | 146 | 7173924 | 9.69 ug/l | | 9 |
| 88) | 1,2,3-Trimethylbenzene | 25.55 | 105 | 12104697 | 9.72 ug/l | | 9 |
| 89) | 1,4-Dichlorobenzene | 26.57 | 146 | 7430359 | 9.86 ug/l | | 9 |
| 90) | n-Butylbenzene | 26.95 | 91 | 15415719 | 9.69 ug/l | | 9 |
| 91) | 1,2-Dichlorobenzene | 27.28 | 146 | 6012113 | 9.88 ug/l | | 9 |
| 92) | 1,2-Dibromo-3-chloropropan | 28.78 | 75 | 483032 | 9.25 ug/l | | 8 |
| 93) | 1,2,4-Trichlorobenzene | 30.47 | 180 | 5155259 | 9.92 ug/l | | 9 |
| 94) | Hexachlorobutadiene | 30.74 | 225 | 4572086 | 9.85 ug/l | | 9 |
| 95) | Naphthalene | 30.96 | 128 | 4090398 | 9.24 ug/l | | 10 |
| 96) | 1,2,3-Trichlorobenzene | 31.45 | 180 | 3926356 | 9.72 ug/l | | 9 |

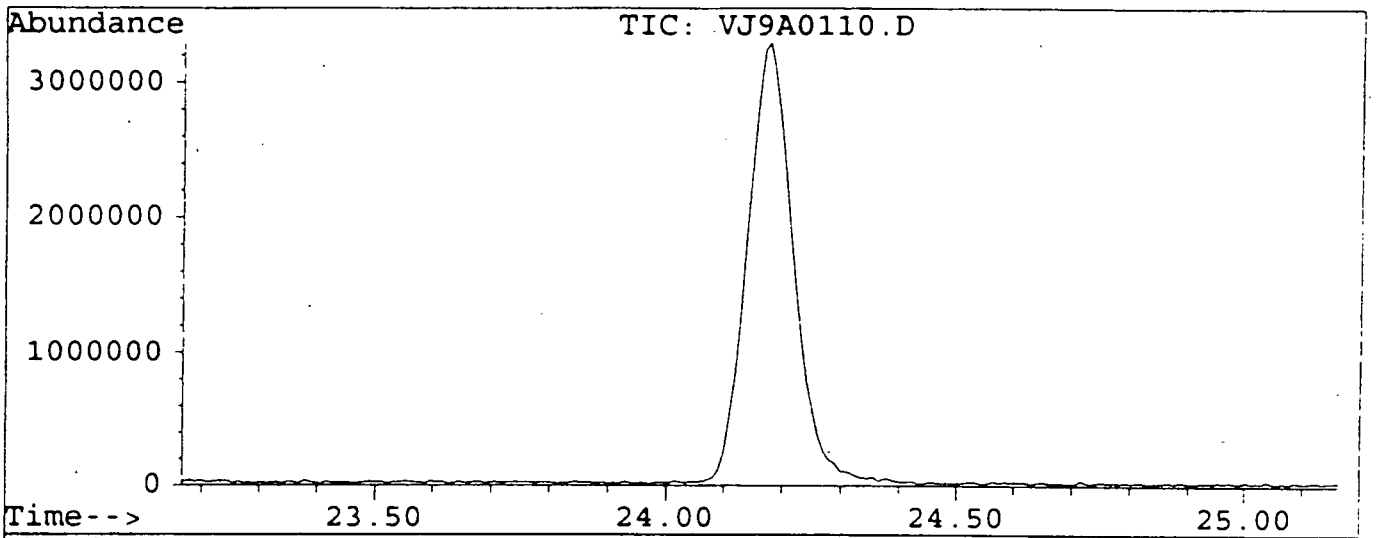
(#) = qualifier out of range (m) = manual integration

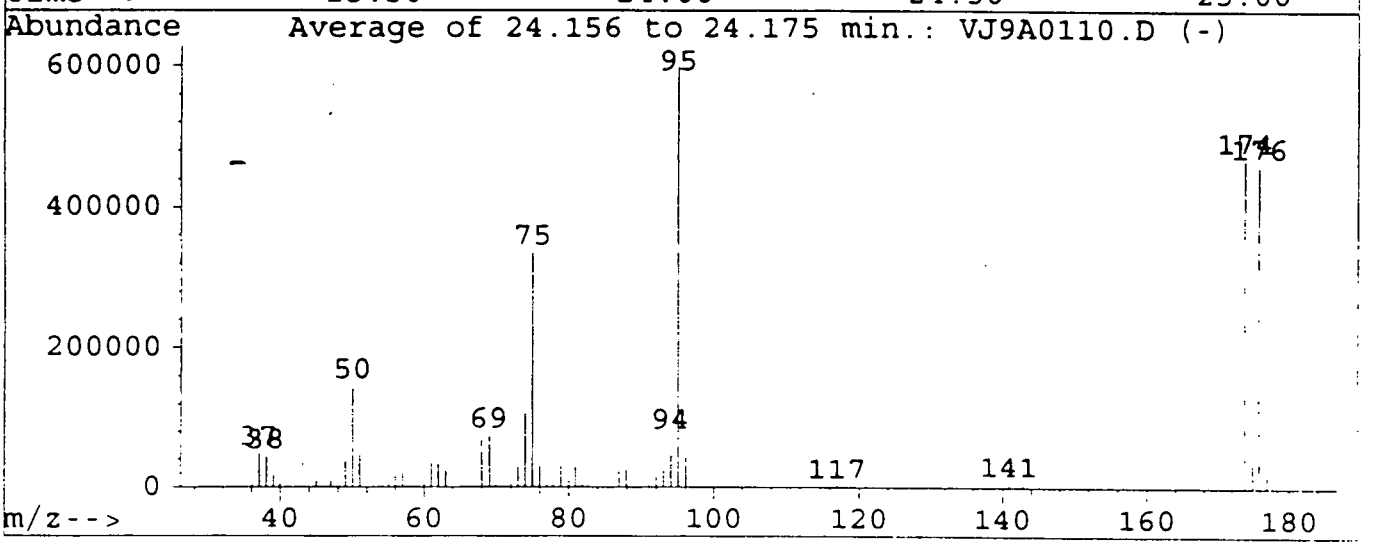
# BFB - SW846

Data File : O:\ORG\VOA\VJ9\15NOV96\VJ9A0110.D
Acq On : 15 Nov 96 5:27 am
Sample : STD#16005,50ng,TUNE,25ml
Misc : MS TUNING WITH BFB

Vial: 1
Operator: JJF
Inst : VJ9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826025.M
Title : VOA Standards for 5 point calibration




Scans Used: 2439 2440 2441 Bkg: 2427

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 24.2 | 144875 | PASS |
| 75 | 95 | 30 | 60 | 55.9 | 334741 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 599019 | PASS |
| 96 | 95 | 5 | 9 | 7.3 | 43523 | PASS |
| 173 | 174 | 0 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 78.0 | 467328 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 36365 | PASS |
| 176 | 174 | 95 | 101 | 98.2 | 458859 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 28621 | PASS |

Average of 24.156 to 24.175 min.: VJ9A0110.D

Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.05 | 11000 | 51.00 | 46947 | 72.00 | 5507 | 86.90 | 25595 |
| 37.05 | 48749 | 55.10 | 5705 | 73.00 | 30373 | 87.90 | 25901 |
| 38.05 | 43744 | 56.00 | 16518 | 74.00 | 110061 | 90.95 | 1784 |
| 39.05 | 18590 | 57.00 | 24384 | 75.00 | 334741 | 92.00 | 18311 |
| 40.00 | 5394 | 59.95 | 7651 | 76.00 | 31107 | 92.95 | 28403 |
| 45.00 | 10555 | 60.95 | 36205 | 76.95 | 4034 | 94.00 | 73496 |
| 46.95 | 10008 | 62.00 | 34749 | 77.90 | 3636 | 95.00 | 599019 |
| 47.80 | 1846 | 63.00 | 24789 | 78.90 | 34864 | 96.05 | 43523 |
| 48.10 | 2302 | 68.00 | 70656 | 79.95 | 10057 | 116.85 | 1737 |
| 49.00 | 38165 | 69.05 | 74755 | 80.90 | 31659 | 117.05 | 1919 |
| 50.00 | 144875 | 69.90 | 3743 | 81.90 | 6107 | 140.90 | 5203 |

Average of 24.156 to 24.175 min.: VJ9A0110.D

Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 142.80 | 4015 | | | | | | |
| 173.85 | 467328 | | | | | | |
| 174.90 | 36365 | | | | | | |
| 175.85 | 458859 | | | | | | |
| 176.90 | 28621 | | | | | | |

5A

# VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## BROMOFLUOROBENZENE (BFB)

Lab Name : EA LABORATORIES Contract: _____

Lab Code: EA ENG Case No.: _____ Method: 8260 SDG No.: _____

Lab File ID: VJ9A0110.D BFB Injection Date: 11/15/96

Instrument ID: VJ9 BFB Injection Time: 0527

GC Column: RTX 502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | %RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 24.2 |
| 75 | 30.0 - 60.0% of mass 95 | 55.9 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.3 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0 )1 |
| 174 | Greater than 50.0% of mass 95 | 78.0 |
| 175 | 5.0 - 9.0% of mass 174 | 6.1 ( 7.8 )1 |
| 176 | 95.0 - 101.0% of mass 174 | 76.6 ( 98.2 )1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.8 ( 6.2 )2 |

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD40 | V16006 | VJ9A0111.D | 11/15/96 | 0610 |
| 02 | VSTD20 | V16007 | VJ9A0112.D | 11/15/96 | 0654 |
| 03 | VSTD10 | V16008 | VJ9A0113.D | 11/15/96 | 0737 |
| 04 | VSTD04 | V16009 | VJ9A0114.D | 11/15/96 | 0821 |
| 05 | VSTD02 | V16010 | VJ9A0115.D | 11/15/96 | 0904 |
| 06 | VSTD00.8 | V16011 | VJ9A0116.D | 11/15/96 | 0947 |
| 07 | ICV | VL611152 | VJ9A0118.D | 11/15/96 | 1131 |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
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| 16 | | | | | |
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| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |

EA LABORATORIES GC/MS VOA INJECTION LOG

BOOK #: 1 MATRIX: Water DATE: 11/15/9

INST. ID: VJ9 ID FILE: — METH. FILE: 826025 IS/SS #: 15197

ANALYST: J. Faketti, Jr. TUNE FILE: BFB TAPE/STRM #: 15 Nov 96 IS/SS VOL.: 10ul

| FILE NUMBER | ALS # | EA NUMBER | FIELD NUMBER | PROJECT NAME | WT/VOL TO DIL | FINAL VOL | DIL. FAC. | INJ. VOL. | SAMPLE DESCRIPTION | SAMPLE COMMENTS | P E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VJ9A0110 | 1 | BFB | 16005 | Tune | — | — | — | 1ul | 50ng | OK | |
| VJ9A0111 | 2 | VSTD040 | 16006 | Curve | — | — | — | 25ml | 40ppb | ✓ | |
| VJ9A0112 | 3 | VSTD020 | 16007 | ↓ | — | — | — | 25ml | 20ppb | ✓ | |
| VJ9A0113 | 4 | VSTD010 | 16008 | | — | — | — | 25ml | 10ppb | ✓ | Curve |
| VJ9A0114 | 5 | VSTD004 | 16009 | | — | — | — | 25ml | 4ppb | ✓ | updated |
| VJ9A0115 | 6 | VSTD02 | 16010 | | — | — | — | 25ml | 2ppb | ✓ | |
| VJ9A0116 | 7 | VSTD00.8 | 16011 | | — | — | — | 25ml | 0.8ppb | ✓ | |
| VJ9A0117 | 8 | VB1K | VB611152 | Daily QC | — | — | — | 25ml | | OK | |
| VJ9A0118 | 9 | LCS/JCV | VL611152 | ↓ | — | — | — | 25ml | 10ppb | OK | |
| VJ9A0119 | 10 | MDL-A | 16012 | MDL/IDL | — | — | — | 25ml | 2.4ppb | OK | |
| VJ9A0120 | 11 | MDL-B | ↓ | Study | — | — | — | 25ml | ↓ | OK | |
| VJ9A0121 | 12 | MDL-C | | ↓ | — | — | — | 25ml | | OK | |
| VJ9A0122 | 13 | MDL-D | | | — | — | — | 25ml | | OK | |
| VJ9A0123 | 14 | MDL-E | | | — | — | — | 25ml | | OK | |
| VJ9A0124 | 15 | MDL-F | | | — | — | — | 25ml | | OK | |
| VJ9A0125 | 16 | MDL-G | | | — | — | — | 25ml | | OK | |
| VJ9A0126 | 1 | MDL-H | ↓ | ↓ | — | — | — | 25ml | ↓ | OK | |

COMMENTS:

ANALYST REVIEW: James J. Faketti Jr. DATE: 11/17/96

DATE:

EA LABORATORIES
GC/MS VOA STANDARD LOGS

| STD # | DESCRIPTION | STOCK ID | STOCK CONC | INITIAL WT/VOL | FINAL VOL | FINAL CONC | MATRIX | PREP DATE | EXP DATE | CHECK |
|---|---|---|---|---|---|---|---|---|---|---|
| 15475 | CLP MIX | 15459 | 200ppm | 1.25 ml | 5ml | 50ppb | $H_2O$ | 8/13/96 | 8/13/96 | CHS |
| | VOC MIX | 15379 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 2 CEVE | 15458 | | | | | | | | |
| 15476 | 502 MIX | 15473 | 800ppm | 1.25 ml | 25ml | 10ppb | $H_2O$ | 8/13/96 | 8/13/96 | ZP |
| | 8260 ADD | 15474 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 8260 VOC1 | 15442 | | | | | | | | |
| | 8260 VOC2 | 15441 | | | | | | | | |
| | Ketones | 15381 | | 5 ml | | | | | | |
| 15477 | SAME AS 15476 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 8/13/96 | 8/13/96 | ZP |
| 15478 | BFB STOCK | SIGMA LOT 45B3634 | NEAT | 0.1g | 10ml | 10mg/ml | MeOH | 8/13/96 | 8/13/97 | CHS |
| 15479 | BFB SOL'N | 15478 | 10mg/ml | 50ul | 10ml | 50ug/ml | MeOH | 8/13/96 | 8/13/97 | CHS |
| 15480 | SAME AS 15475 | → | | 1.25ml | 5ml | 50 PPB | $H_2O$ | 8/14/96 | 8/14/96 | CHS |
| 15481 | SAME AS 15476 | → | | 1.25/5ml | 25ml | 10/40ppb | $H_2O$ | 8/14/96 | 8/14/96 | ZP |
| 15482 | Same as 15476 | → | | 1.25ml | 5ml | 50ppb | $N_2O$ | 8/14/96 | 8/14/96 | JZ |
| 15483 | SAME AS 15475 | → | | 1.25ml | 5ml | 50PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| 15484 | CLP MIX | 15459 | 200 ppm | 5ml | 5ml | 200 PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| | VOC MIX | 15379 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | |
| | 2 CEVE | 15458 | | | | | | | | |
| | SURR MIX | 15375 | | | | | | | | |
| 15485 | SAME AS 15484 | → | | 2.5ml | 5ml | 100 PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| 15486 | SAME AS 15484 | → | | 0.5ml | 5ml | 20 PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| 15487 | SAME AS 15484 | → | | 0.25ml | 5ml | 10 PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| 15488 | CLP MIX | 15459 | 200ppm | 7.5ml | 100ml | 15PPB | $H_2O$ | 8/15/96 | 8/15/96 | CHS |
| | VOC MIX | 15379 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 2 CEVE | 15458 | | | | | | | | |
| | SURR MIX | 15375 | | | | | | | | |
| 15489 | Same as 15476 | → | | 1.25ml | 5ml | 50ppb | $N_2O$ | 8/15/96 | 8/15/96 | JZ |
| 15490 | SAME AS 15475 | → | | 1.25ml | 5ml | 50PPB | $H_2O$ | 8/16/96 | 8/16/96 | CHS |
| 15491 | SAME AS 15476 | → | | 1.25/5ml | 25ml | 10/40ppb | $H_2O$ | 8/16/96 | 8/16/96 | ZP |
| 15492 | Same as 15476 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 8/16/96 | 8/16/96 | JZ |
| 15493 | Same as 15476 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 8/18/96 | 8/18/96 | JZ |
| 15494 | SAME AS 15475 | → | | 1.25ml | 5ml | 50PPB | $H_2O$ | 8/19/96 | 8/19/96 | CHS |
| 15495 | SAME AS 15476 | → | | 1.25ml | 25ml | 10ppb | $H_2O$ | 8/19/96 | 8/19/96 | ZP |
| 15496 | Same as 15476 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 8/19/96 | 8/19/96 | JZ |

8/19/96 JZ

James J Zoelkowski
8/19/96

# EA Laboratories
## GC/MS VOA Standard Log

| Std # | Description | Stock ID | Stock Conc | Initial wt/Vol | Final Vol | Final Conc | Matrix | Prep Date | Expir. Date | Che |
|---|---|---|---|---|---|---|---|---|---|---|
| 15820 | SOZ Mix | 15782 | 200ppm | 125ul | 5ml | 50ppb | $H_2O$ | 10/14/96 | 10/14/96 | JZ |
| | 8260 ADD | 15780 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 8260 VOC1 | 15799 | | | | | | | | |
| | 8260 VOC2 | 15778 | | | | | | | | |
| | Ketones | 15640 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 15821 | CLP Mix | 15794 | 200ppm | 125ul | 5ml | 50ppb | $H_2O$ | 10/14/96 | 10/14/96 | JZ |
| | 2 CEVE | 15795 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | VOC Mix | 15638 | | | | | | | | |
| 15822 | SAME AS 15820 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 10/14/96 | 10/14/96 | JZ |
| 15823 | Same as 15821 | → | | 1.25ml | 5ml | 50ppb | $N_2O$ | 10/15/96 | 10/15/96 | JZ |
| 15824 | Same as 15821 | → | | 1.25ml | 5ml | 50ppb | $N_2O$ | 10/15/96 | 10/15/96 | JZ |
| 15825 | SAME AS 15820 | → | | 1.25ml | 25ml | 10/40ppb | $H_2O$ | 10/15/96 | 10/15/96 | JZ |
| 15826 | SAME AS 15820 | → | | 5ml 1.25/5ml | 25ml | 10/40ppb | $H_2O$ | 10/15/96 | 10/15/96 | JZ |
| 15827 | ~~Same~~ CLP Mix | 15794 | 200ppm | 1.25ml | 5ml | 50ppb | $H_2O$ | 10/16/96 | 10/16/96 | CKS |
| | VOC mix | 15638 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | |
| | 2 CEVE | 15795 | | | | | | | | |
| | Ketones | 15640 | | | | | | | | |
| 15828 | SAME AS 15820 | → | | 1.25/5ml | 25ml | 10/40ppb | $H_2O$ | 10/16/96 | 10/16/96 | JZ |
| 15829 | Same as 15820 | → | | 1.25ml | 5ml | 50ppb | $H_2O$ | 10/16/96 | 10/16/96 | JZ |
| 15830 | SAME AS 15820 | → | | 1.25/5ml | 25ml | 10/40ppb | $H_2O$ | 10/17/96 | 10/17/96 | JZ |
| 15831 | IS Mix | Accu # 056-088 ~~106-044~~ JZ 10/10/96 | 1000ppm | 250ul | 10ml | 25ppm | MeOH | 10/18/96 | 11/18/96 | JZ |
| 15832 | SS Mix | 046-046 | ↓ | 400ul | 2ml | 200ppm | ↓ | ↓ | ↓ | ↓ |
| 15833 | IS/SS Mix | 056-088 | ↓ | 250ul | 10ml | 25ppm | | | | |
| | | 046-046 | 1000ppm | ↓ | ↓ | ↓ | | | | |
| 15834 | CLP Mix | Supelco | | | | | | | 10/25/96 | |
| | TCL VOA Mix 1 | LA57606 | 2000ppm | 200ul | 2ml | 200ppm | | | ↓ | |
| | ↓ ↓ ↓ 2 | LA53825 | ↓ | ↓ | ↓ | ↓ | | | | |
| | 3 | LA53826 | | | | | | | | |
| | 4 | LA53835 | | | | | | | | |
| | TCL VOA Mix 5 | LA58531 | ↓ | ↓ | ↓ | ↓ | | | | |
| | Vinyl Acetate | LA85640 | 5000ppm | 80ul | | | | | | |
| | Carbon Disulfide | LA58474 | 5000ppm | 80ul | ↓ | | | | ↓ | |
| 15835 | 2 CEVE | 036-105 | 200ppm | 1ml | 1ml | | | | 10/25/96 | |
| 15836 | VOC Mix | 066-064 | ↓ | 1ml | 1ml | ↓ | | | 11/18/96 | |
| 15837 | Ketones | LA57606 | 2000ppm | 500ul | 5ml | 200ppm | ↓ | ↓ | ↓ | ↓ |
| 15838 | (MS Mix) 8240B | | 200ppm | ~~1ml~~ 250ul | 2ml | 25ppm | MeOH | 10/18/96 | 11/18/96 | JZ |
| | Ketones | JZ 10/18/96 | | JZ 10/18/96 | | | | | | |
| | | | | | | | | | JZ 10/18/96 | |

# EA LABORATORIES
## GCMS VOA STD Log

| STD # | Description | Stock ID | Stock Conc. | Initial Wt/Vol | Final Vol | Final Conc. | Matrix | Prep Date | Expir Date | Chem |
|---|---|---|---|---|---|---|---|---|---|---|
| 15996 | CLP mix | 15982 | 200ppm | 1.25ml | 25ml | 80 ppb | $N_2O$ | 11/15/96 | 11/15/96 | JZ |
| | VOC mix | 15836 | ↓ | ↓ | ↓ | 10 ppb | ↓ | ↓ | ↓ | ↓ |
| | 2C EVE | 15983 | | 6.25ml | | 50ppb | | | | |
| | Ketones | 15837 | ↓ | 5.0ml | ↓ | 40ppb | ↓ | ↓ | ↓ | ↓ |
| 15997 | 8260 IS | 076-320 | 2000ppm | 125ml | 10ml | 25ppm | MeOH | 11/15/96 | 12/15/96 | JZ |
| 15998 | 8260 SS | A6090183 076-320 | ↓ | 200ml 125ml | 2ml | 200ppm | ↓ | ↓ | ↓ | ↓ |
| 15999 | 8260 IS/SS | A6090183 | ↓ | 125ml | 10ml | 25ppm | | | | |
| 16000 | (SO2 mix) | | | | | | | | | |
| | EPA VOC mix 1 | LA59237 | 2000ppm | 200ml | 2ml | 200ppm | | | 11/22/96 | |
| | 2 | LA57342 | ↓ | ↓ | ↓ | ↓ | | | ↓ | |
| | 3 | LA8835 | | | | | | | | |
| | 4 | LA57531 | | | | | | | | |
| | 5 | LA57999 | | | | | | | | |
| | 6 | LA59584 | | | | | | | | |
| 16001 | 8260 ADD | 086-32 | 200ppm | 1ml | 1ml | | | | | |
| 16002 | 8260 VOC1 | A6100099 | | 1ml | 1ml | | | | 12/15/96 | |
| 16003 | 8260 VOC2 | A6100166 | | 1ml | 1ml | 200ppm | | | | |
| 16004 | (8260 ms) SO2 A | A6090301 | | 250ml | 2ml | 25ppm | | | | |
| | Ketones | A6090025 | ↓ | 500ml | | 50ppm | | | | |
| | Carbon Disulfide | LA58474 | 5000ppm | 10ml | | 25ppm | ↓ | ↓ | ↓ | |
| | 1-Chlorohexane | 15445 16008 | 20,000ppm | 2.5ml | ↓ | ↓ | MeOH | 11/15/96 | 12/15/96 | |
| 16006 | SO2 mix | ~~15968~~ | 200ppm | 5ml | 25ml | 40 ppb | $H_2O$ | 11/15/96 | 11/15/96 | JZ |
| JZ 11/15/96 | 8260 ADD | JZ 11/15/96 15969 16001 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 8260 VOC1 | 16002 | | | | | | | | |
| | 8260 VOC2 | 16003 | | | | | | | | |
| | 8260SS MIX | 15998 | | | | | | | | |
| JZ 11/15/96 | Ketones | 15837 | ↓ | 20ml | ↓ | 160ppb | | | | |
| 16005 | BFB | 15479 | 50ng/ul | 1ml/10 | 25ml | 50ng | $N_2O$ | 1 | | |
| 16007 | Same as 16006 | → | → | 2.5ml | 25ml | 20/80ppb | | | | |
| 16008 | Same as 16006 | → | → | 1.25/5 | 25ml | 10/40ppb | | | | |
| 16009 | Same as 16006 | → | → | 2/8ml | 100ml | 4/16ppb | | | | |
| 16010 | Same as 16006 | → | → | 1/4ml | 100ml | 2/8ppb | | | | |
| 16011 | Same as 16006 | → | → | 0.8/3.2ml | 200ml | 0.8/3.2ppb | ↓ | ↓ | ↓ | ↓ |
| 16012 | Same as 16006 | → | → | | | | $H_2O$ | 11/15/96 | 11/15/96 | JZ |
| 16013 | CLP MIX | 15982 | 200PPM | 5ml | 5ml | 200PPB | $H_2O$ | 11/15/96 | 11/15/96 | CHS |
| | VOC MIX | 15836 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | 2CEVE | 15983 | | | | | | | | |
| | SURR MIX | 15837 | | | | | | | | |
| 16014 | Same as 16013 | → | → | 2.5ml | 5ml | 100PPB | $H_2O$ | 11/15/96 | 11/15/96 | CHS |

SIGNED

SIGNED

# EA LABORATORIES
## VOA BLANK & LCS Logbook

| BLANK / LCS ID | Type | METHOD | STD ID | STD Conc. | Initial Volume | Final Volume | Final Conc. | Prep Date | C |
|---|---|---|---|---|---|---|---|---|---|
| VL611137 | LCS | 8260 | 15870/15869 | 25/200 ppm | 10/1.25ml | 25ml | 10ppb | 11/13/96 | |
| VL611138 | ↓ | 8010/8020 | 15127 | 25ppm | 10µL | 5ml | 50ppb | ↓ | |
| VB611138 | VBLK | ↓ | N/A | | | | | | |
| VB611141 | VBLK | 8015M | NA | | | | | 11/14/96 | S |
| VL611141 | LCS | ↓ | 14088 | 200ppm | 1.25µl | 5ml | 500ppb | ↓ | |
| VL611142 | ↓ | 8010/8020 | 15127 | 25ppm | 10µL | 5ml | 50ppb | 11/14/96 | |
| VB611142 | VBLK | ↓ | N/A | | | | | ↓ | |
| VB611143 | VBLK | 8010/8021 | NA | | | | | ↓ | |
| VL611143 | LCS | ↓ | 15968 | 200ppm | 1.25µl | 5ml | 50ppb | | |
| VB611151 | VBLK | ~~8240 VBLK~~ 8240 | N/A | | | | | 11/15/96 | C |
| VL611151 | LCS | ~~LCS~~ | 15838/15469 | 25ppm/200ppm | 10/1.25ml | 25ml | 10ppb | 11/15/96 | |
| VB611152 | VBLK | 8260 | N/A | | | | | 11/15/96 | |
| VL611152 | LCS | ↓ | 16004/15469 | 25/200 ppm | 10/1.25ml | 25ml | 10ppb | ↓ | |
| VD611151 | LCS | 8240 | 15838/15469 | 25ppm/200ppm | 10/1.25ml | 25ml | 10ppb | 11/15/96 | |
| VL611153 | LCS | 8010/8020 | 15127 | 25ppm | 10µL | 5ml | 50ppb | ↓ | |
| VB611153 | VBLK | ↓ | N/A | | | | | ↓ | |
| VB611154 | VBLK | CLP | N/A | | | | | 11/16/96 | CH |
| VL611154 | LCS | ↓ | 15838/15469 | 25/200 ppm | 10/1.25ml | 5ml | 50ppb | ↓ | |
| VB611171 | VBLK | 8260 | N/A | | | | | 11/17/96 | |
| VL611171 | LCS | ↓ | 16004/15469 | 25/200 ppm | 10/1.25ml | 25ml | 10ppb | ↓ | |
| VB611172 | VBLK | 8260 | N/A | | | | N/A | 11/17/96 | |
| VL611172 | LCS | ↓ | 16004/15469 | 25/200ppm | 10/1.25ml | 25ml | 10ppb | ↓ | |
| VB611181 | VBLK | 8240 | N/A | | | | | 11/18/96 | |
| VL611181 | LCS | 8240 | 15838/15469 | 25/200ppm | 10/1.25ml | 25ml | 10ppb | 11/18/96 | |
| VB611182 | VBLK | CLP | ~~1583~~ N/A | | | | | 11/18/96 | CH |
| VL611182 | LCS | ↓ | 15838/15469 | 25/200 ppm | 10/1.25ml | 5ml | 50ppb | ↓ | |
| VB611183 | VBLK | 8015M | NA | | | | | 11/18/96 | S |
| VL611183 | LCS | ↓ | 14088 | 200ppm | 1.25µl | 5ml | 500ppb | | |
| VB611184 | VBLK | 8020 | NA | | | | | | |
| VL611184 | LCS | ↓ | 15127 | 25ppm | 10µl | 5ml | 50ppb | | |
| VL611185 | ↓ | 8010/8020 | ↓ | ↓ | ↓ | ↓ | ↓ | 11/18/96 | |
| VB611185 | VBLK | ↓ | N/A | | | | | ↓ | |
| VB611186 | VBLK | 8260 | N/A | | | | | 11/18/96 | |
| VL611186 | LCS | ↓ | 16004/15469 | 25/200ppm | 10/1.25ml | 25ml | 10ppb | ↓ | |
| VB611191 | VBLK | 8240 | N/A | | | | | 11/19/96 | |
| VL611191 | LCS | | 16040/15469 | 25ppm/200ppm | 0ml/1.25ml | 5ml | 50ppb | | |
| VL611192 | LCS | ↓ | ↓ | ↓ | ↓ | 5ml | 50ppb | | |
| VB611192 | VBLK | 8240 | N/A | | | | | 11/19/96 | |

Jerry J. Zielinski
11/19/96

# ATTACHMENT 2

# MDL STUDIES FOR EPA METHOD 8310

ROTENONE AND PYRETHRINS
8310M WATER MDL STUDY 2/19/97

| COMPOUND | CONCENTRATION DETECTED IN SAMPLE (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TARGET AMOUNT | MEAN | MEAN %R |
| ROTENONE | 1.8 | 1.9 | 1.7 | 1.8 | 2.0 | 2.0 | 1.8 | 2.0 | 2.0 | 2.00 | 1.889 | 94% |
| PYRETHRIN I | 0.75 | 0.80 | 0.89 | 0.88 | 0.72 | 0.81 | 0.47 | 0.58 | 1.1 | 1.36 | 0.778 | 57% |
| PYRETHRIN II | 0.24 | 0.30 | 0.31 | 0.32 | 0.20 | 0.21 | 0.18 | 0.12 | 0.24 | 0.64 | 0.236 | 37% |
| TOTAL PYRETH | 0.99 | 1.1 | 1.2 | 1.2 | 0.92 | 1.0 | 0.65 | 0.70 | 1.4 | 2.00 | 1.018 | 51% |

| | SIGMA (N-1) | STUDENT 'T' | MDL (ug/L) | LOW STD EQUIV | REPORTING LIMIT (ug/L) |
|---|---|---|---|---|---|
| ROTENONE | 0.11667 | 2.896 | 0.34 | 0.50 | 1.0 |
| PYRETHRIN I | 0.18247 | 2.896 | 0.53 | 0.34 | 1.0 |
| PYRETHRIN II | 0.06635 | 2.896 | 0.19 | 0.16 | 0.50 |
| TOTAL PYRETH | 0.24139 | 2.896 | 0.70 | 0.50 | 1.0 |

pymdlw97.xls

Received 2/27/97 AMT
Reviewed 2/27/97 AMT
Entered 2/27/97 AMT

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.
NB702191

Lab Name: EA Laboratories  Contract: _____

Project No.: _____

Matrix: (soil/water) WATER  Lab Sample ID: NB702191

Sample wt/vol: 1000 (g/mL) mL  Lab File ID: LA1I582U.D

Level: (low/med) LOW  Date Received: NA

% Moisture: 0  Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)  Date Analyzed: 02/25/97

Injection Volume: 10 (uL)  Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 0.50 | U |
| | PYRETHRIN I | 0.34 | U |
| | PYRETHRIN II | 0.16 | U |
| | TOTAL PYRETHRINS | 0.50 | U |

Results based on single column analysis.

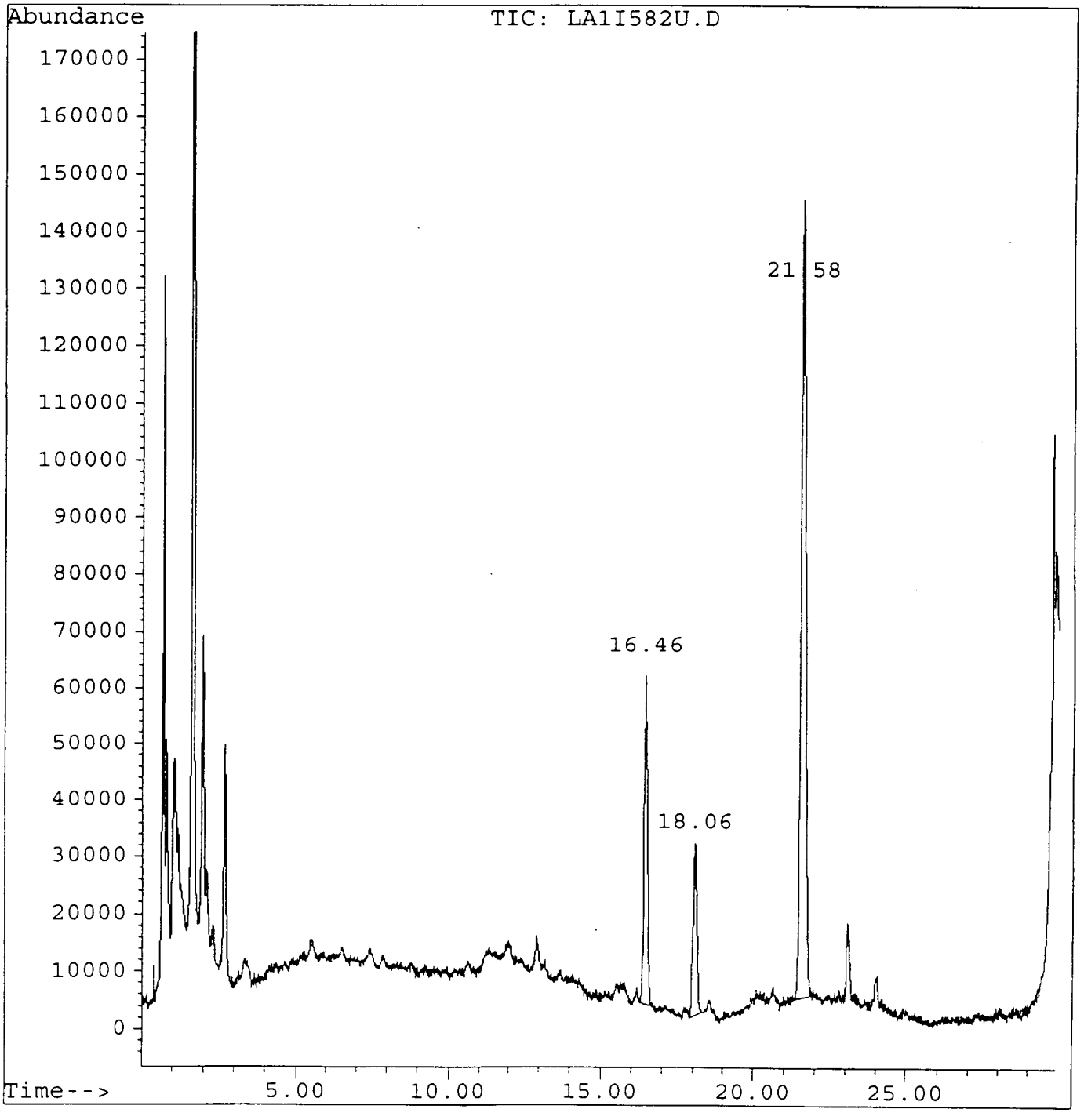
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I582U.D
Acq On : 25 Feb 97 10:38 AM
Sample : NB702191
Misc : NB702191,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:31 1997

Vial: 2
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I582U.D
Acq On : 25 Feb 97 10:38 AM
Sample : NB702191
Misc : NB702191,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:31 1997

Vial: 2
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.46 | 4425368 | 816.89 ug/L |
| | | Recovery = | 6.38% |
| 5) S SURROGATE-3 | 18.06 | 2617663 | 1189.75 ug/L |
| | | Recovery = | 15.86% |
| 6) S SURROGATE-2 | 21.58 | 14624054 | 1261.23 ug/L |
| | | Recovery = | 15.77% |
| Target Compounds | | | |
| 1) M ROTENONE | 0.00 | 0 | N.D. ug/L |
| 2) M PYRETHRIN I | 0.00 | 0 | N.D. ug/L |
| 3) M PYRETHRIN II | 0.00 | 0 | N.D. ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE1

Lab Name: EA Laboratories Contract:

Project No.:

Matrix: (soil/water) WATER

Lab Sample ID: 9701609

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: LA11583U.D

Level: (low/med) LOW

Date Received: NA

% Moisture: 0

Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 02/25/97

Injection Volume: 10 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 1.8 | |
| | PYRETHRIN I | 0.75 | |
| | PYRETHRIN II | 0.24 | |
| | TOTAL PYRETHRINS | 0.99 | |

Results based on single column analysis.

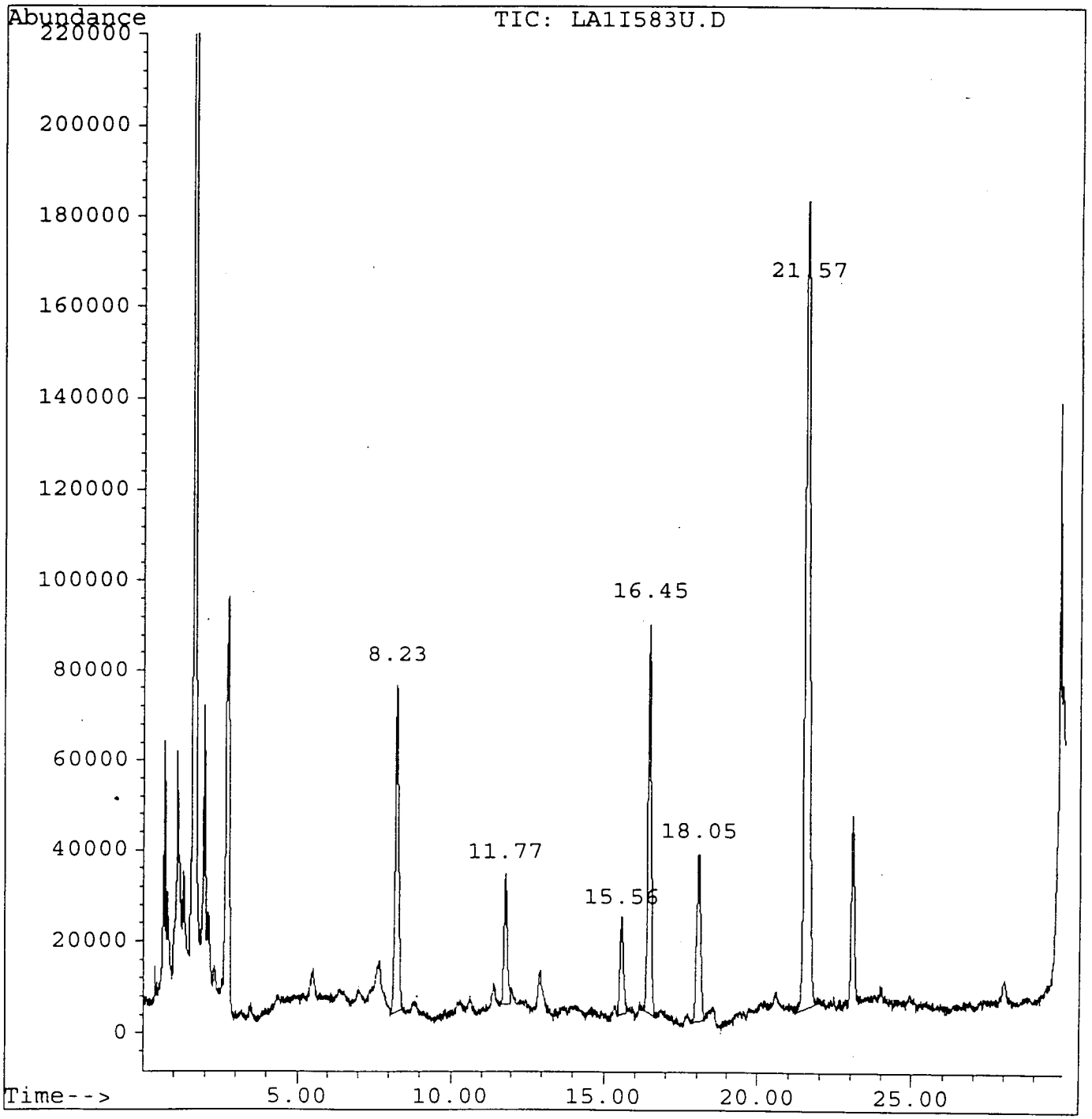
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I583U.D
Acq On : 25 Feb 97 11:15 AM
Sample : 9701609
Misc : REPLICATE1,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:33 1997

Vial: 3
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I583U.D  Vial: 3
Acq On : 25 Feb 97 11:15 AM  Operator: CTG
Sample : 9701609  Inst : LA1
Misc : REPLICATE1,W,0,1000,1000,NA,02/19/97  Multiplr: 1.00
Quant Time: Feb 26 9:33 1997

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 6380996 | 1177.89 ug/L |
| Recovery = | | | 9.20% |
| 5) S SURROGATE-3 | 18.05 | 3352954 | 1523.94 ug/L m |
| Recovery = | | | 20.32% |
| 6) S SURROGATE-2 | 21.57 | 18418327 | 1588.46 ug/L |
| Recovery = | | | 19.86% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.23 | 5823062 | 1791.89 ug/L |
| 2) M PYRETHRIN I | 11.77 | 2254700 | 745.93 ug/L m |
| 3) M PYRETHRIN II | 15.56 | 1688391 | 244.58 ug/L m |

(f)=RT Delta > 1/2 Window  (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE2

Lab Name: EA Laboratories Contract:

Project No.:

Matrix: (soil/water) WATER Lab Sample ID: 9701610

Sample wt/vol: 1000 (g/mL) mL Lab File ID: LA1I584U.D

Level: (low/med) LOW Date Received: NA

% Moisture: 0 Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 1.9 | |
| | PYRETHRIN I | 0.80 | |
| | PYRETHRIN II | 0.30 | |
| | TOTAL PYRETHRINS | 1.1 | |

Results based on single column analysis.

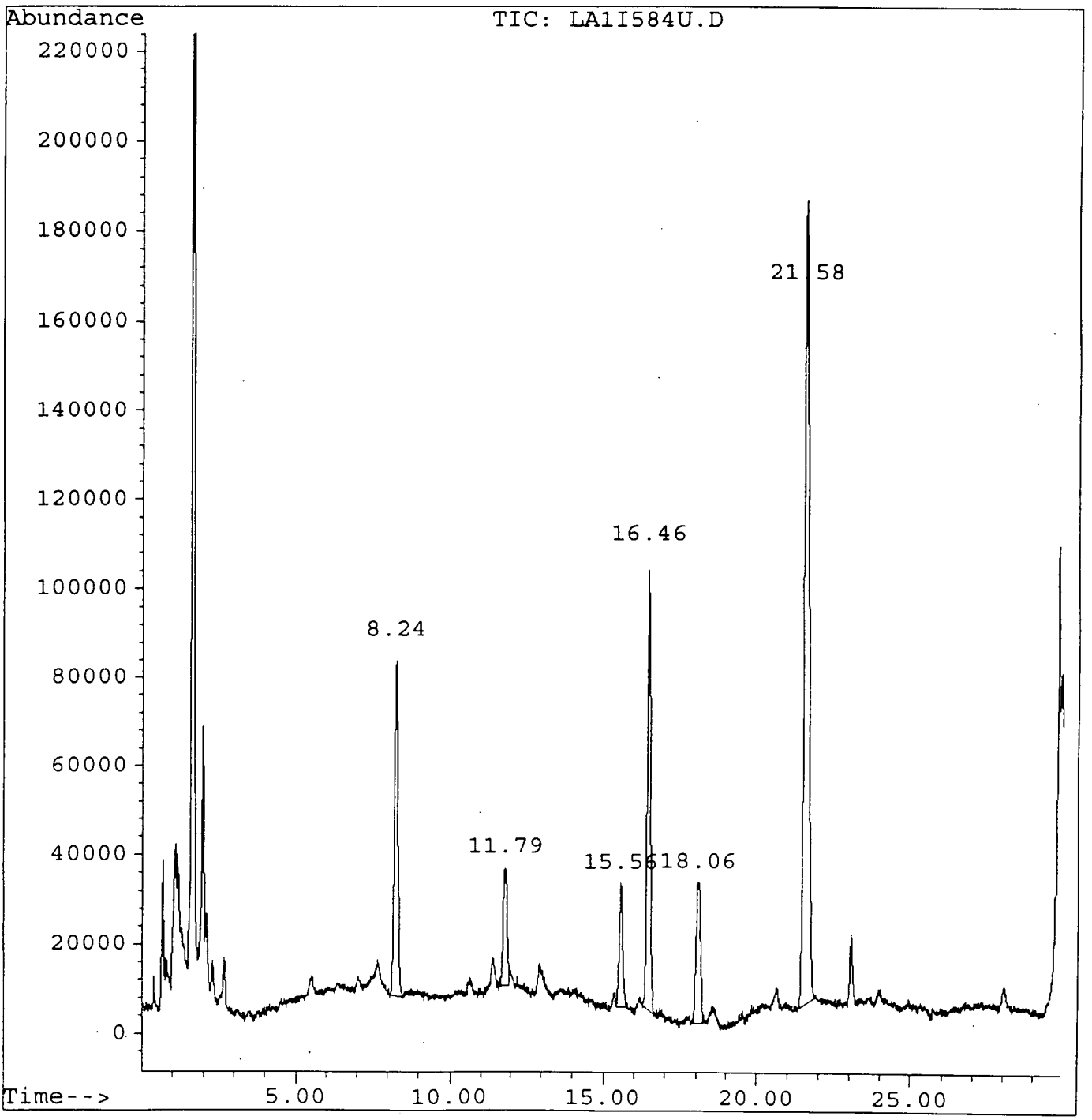
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I584U.D
Acq On : 25 Feb 97 11:49 AM
Sample : 9701610
Misc : REPLICATE2,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:34 1997

Vial: 4
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I584U.D
Acq On : 25 Feb 97 11:49 AM
Sample : 9701610
Misc : REPLICATE2,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:34 1997

Vial: 4
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.46 | 7396970 | 1365.43 ug/L |
| | | Recovery = | 10.67% |
| 5) S SURROGATE-3 | 18.06 | 3150228 | 1431.80 ug/L m |
| | | Recovery = | 19.09% |
| 6) S SURROGATE-2 | 21.58 | 18518551 | 1597.11 ug/L |
| | | Recovery = | 19.96% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 6060882 | 1865.08 ug/L |
| 2) M PYRETHRIN I | 11.79 | 2430597 | 804.12 ug/L m |
| 3) M PYRETHRIN II | 15.56 | 2072259 | 300.19 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.
REPLICATE3

Lab Name: EA Laboratories  Contract: _____

Project No.: _____

Matrix: (soil/water) WATER  Lab Sample ID: 9701611

Sample wt/vol: 1000 (g/mL) mL  Lab File ID: LA1I585U.D

Level: (low/med) LOW  Date Received: NA

% Moisture: 0  Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)  Date Analyzed: 02/25/97

Injection Volume: 10 (uL)  Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 1.7 | |
| | PYRETHRIN I | 0.89 | |
| | PYRETHRIN II | 0.31 | |
| | TOTAL PYRETHRINS | 1.2 | |

Results based on single column analysis.

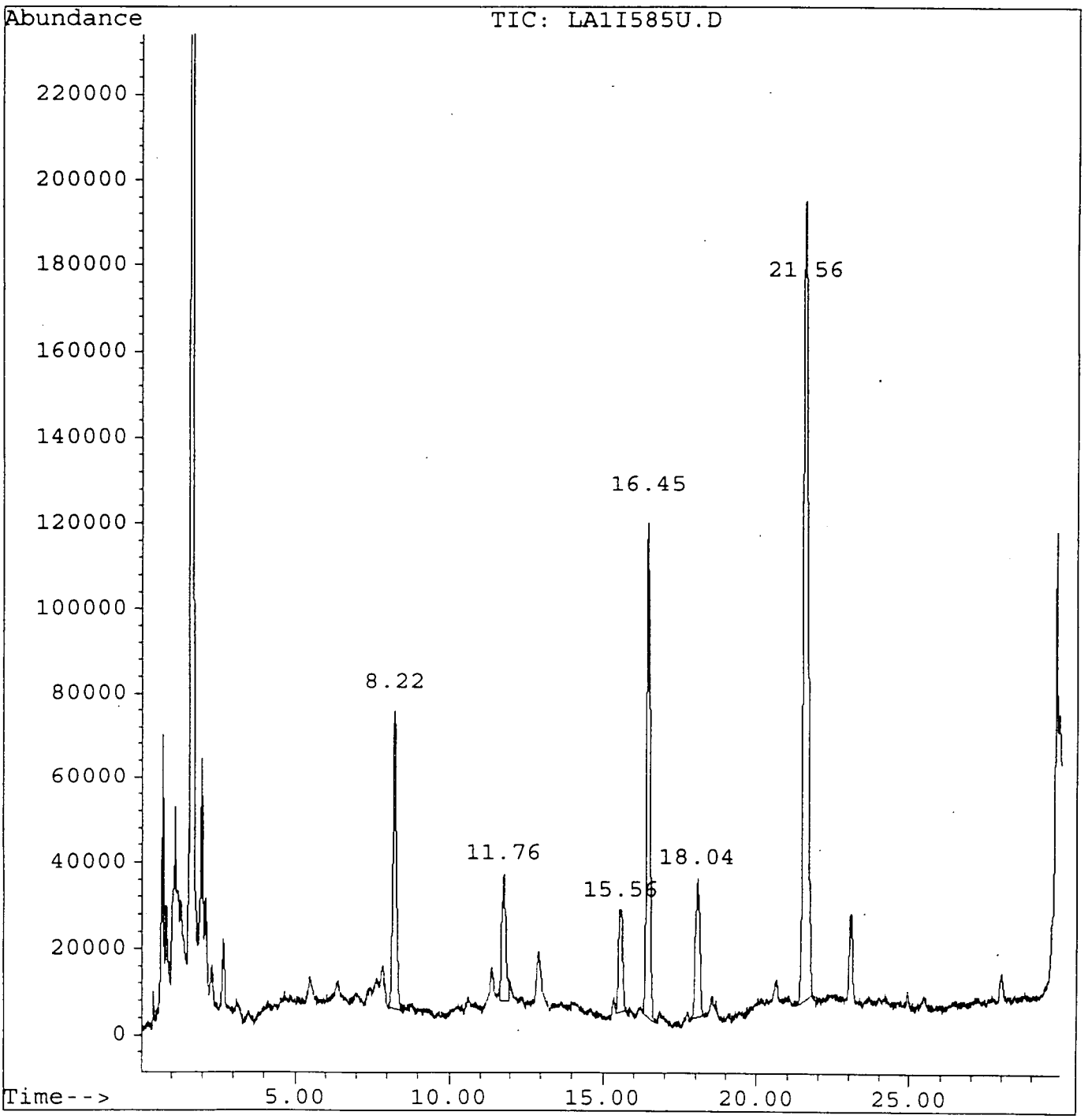
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I585U.D
Acq On : 25 Feb 97 12:24 PM
Sample : 9701611
Misc : REPLICATE3,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:35 1997

Vial: 5
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I585U.D  Vial: 5
Acq On : 25 Feb 97 12:24 PM  Operator: CTG
Sample : 9701611  Inst : LA1
Misc : REPLICATE3,W,0,1000,1000,NA,02/19/97  Multiplr: 1.00
Quant Time: Feb 26 9:35 1997

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 8951185 | 1652.33 ug/L |
| | | Recovery = | 12.91% |
| 5) S SURROGATE-3 | 18.04 | 3049072 | 1385.83 ug/L |
| | | Recovery = | 18.48% |
| 6) S SURROGATE-2 | 21.56 | 19167040 | 1653.03 ug/L |
| | | Recovery = | 20.66% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.22 | 5533274 | 1702.72 ug/L |
| 2) M PYRETHRIN I | 11.76 | 2703468 | 894.39 ug/L m |
| 3) M PYRETHRIN II | 15.56 | 2155329 | 312.22 ug/L |

(f)=RT Delta > 1/2 Window  (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE4

Lab Name: EA Laboratories Contract:

Project No.:

Matrix: (soil/water) WATER

Lab Sample ID: 9701612

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: LA11586U.D

Level: (low/med) LOW

Date Received: NA

% Moisture: 0

Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 02/25/97

Injection Volume: 10 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 1.8 | |
| | PYRETHRIN I | 0.88 | |
| | PYRETHRIN II | 0.32 | |
| | TOTAL PYRETHRINS | 1.2 | |

Results based on single column analysis.

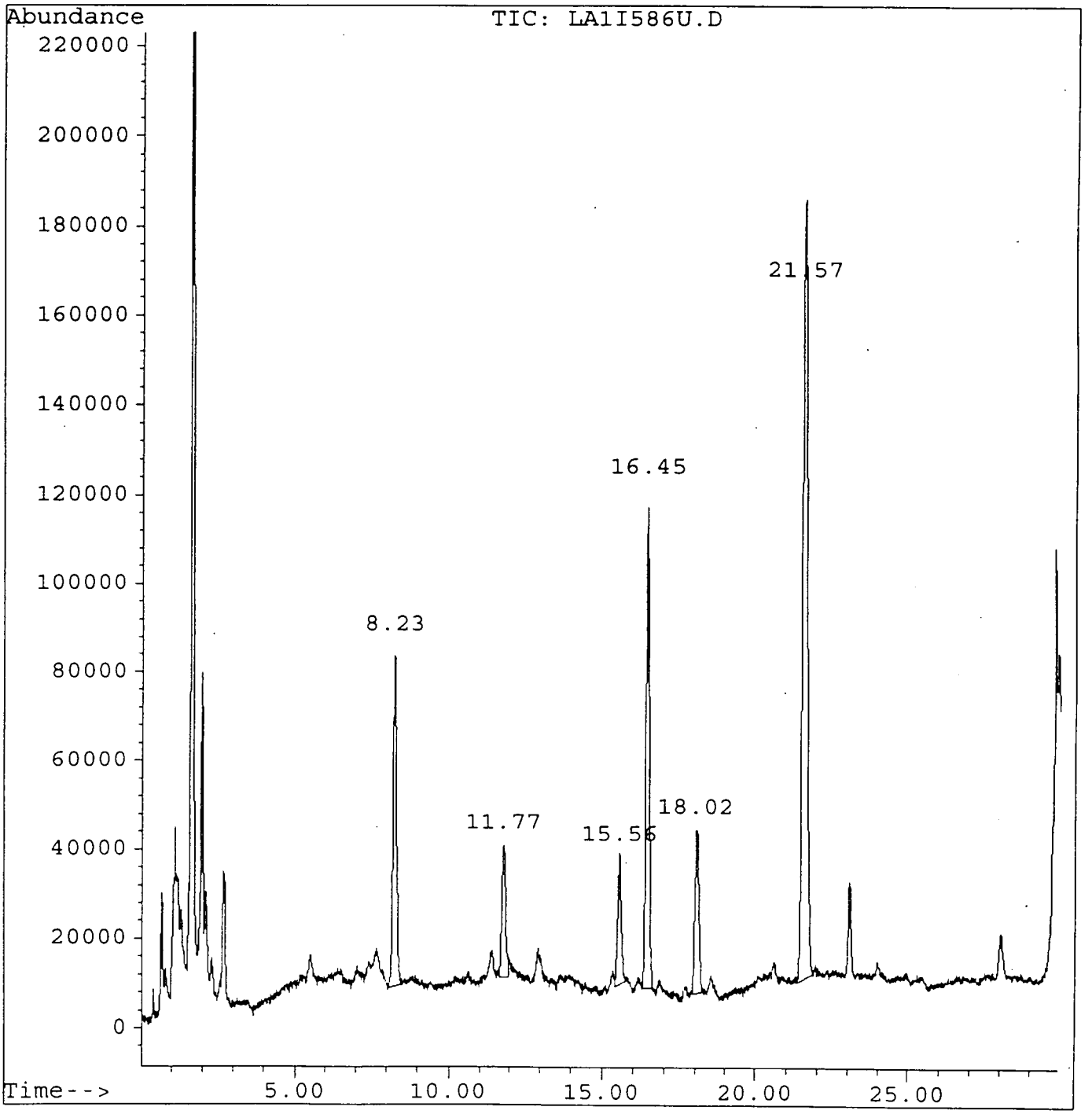
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I586U.D
Acq On : 25 Feb 97 12:59 PM
Sample : 9701612
Misc : REPLICATE4,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:37 1997

Vial: 6
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I586U.D  Vial: 6
Acq On : 25 Feb 97 12:59 PM  Operator: CTG
Sample : 9701612  Inst : LA1
Misc : REPLICATE4,W,0,1000,1000,NA,02/19/97  Multiplr: 1.00
Quant Time: Feb 26 9:37 1997

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 8160579 | 1506.38 ug/L m |
| | | Recovery = | 11.77% |
| 5) S SURROGATE-3 | 18.02 | 3364694 | 1529.28 ug/L m |
| | | Recovery = | 20.39% |
| 6) S SURROGATE-2 | 21.57 | 18174732 | 1567.45 ug/L |
| | | Recovery = | 19.59% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.23 | 5945513 | 1829.58 ug/L |
| 2) M PYRETHRIN I | 11.77 | 2649827 | 876.65 ug/L m |
| 3) M PYRETHRIN II | 15.56 | 2226499 | 322.53 ug/L |

(f)=RT Delta > 1/2 Window  (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE5

Lab Name: EA Laboratories Contract:

Project No.:

Matrix: (soil/water) WATER Lab Sample ID: 9701613

Sample wt/vol: 1000 (g/mL) mL Lab File ID: LA1I587U.D

Level: (low/med) LOW Date Received: NA

% Moisture: 0 Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 2.0 | |
| | PYRETHRIN I | 0.72 | |
| | PYRETHRIN II | 0.20 | |
| | TOTAL PYRETHRINS | 0.92 | |

Results based on single column analysis.

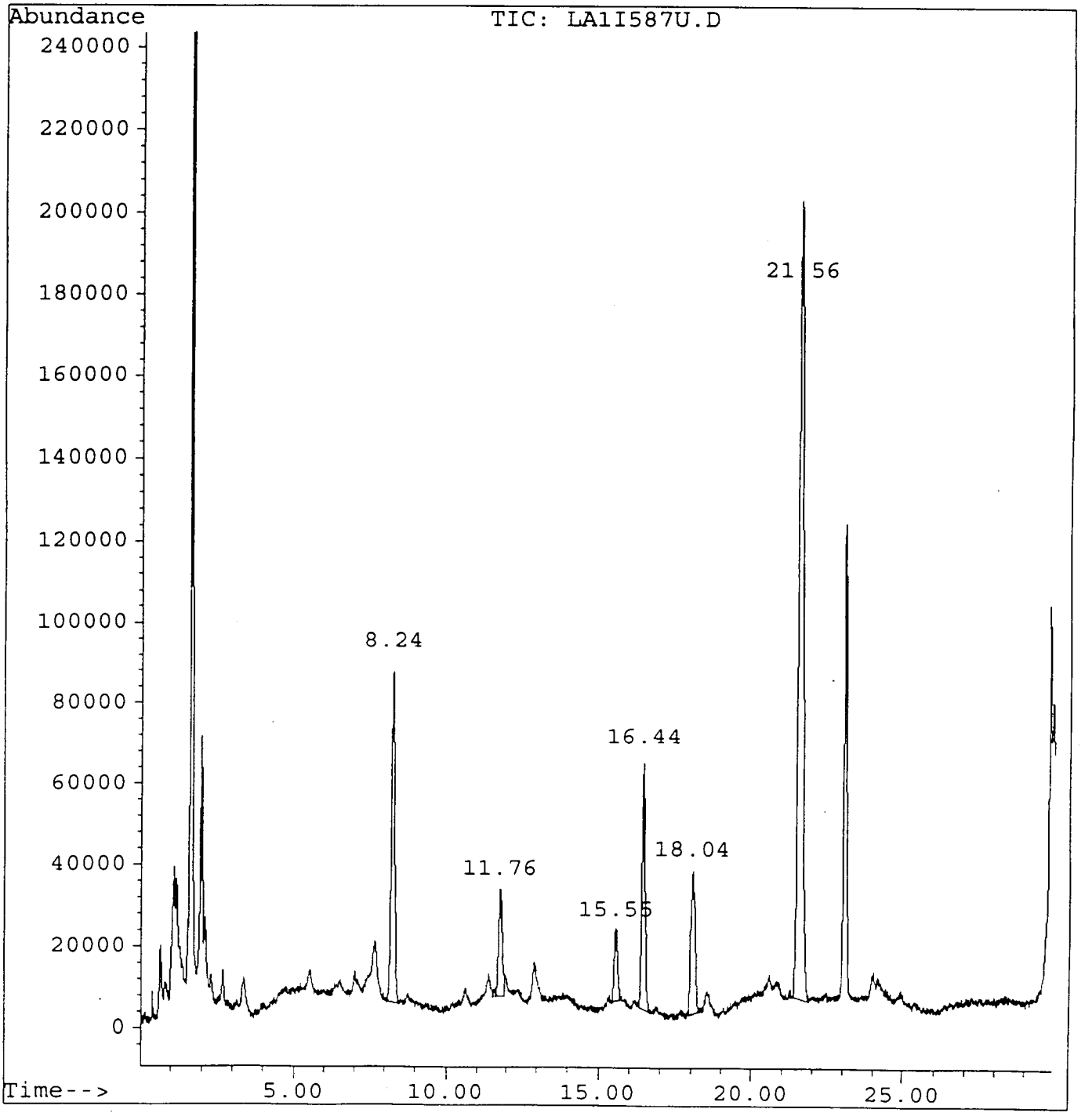
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I587U.D
Acq On : 25 Feb 97 01:34 PM
Sample : 9701613
Misc : REPLICATE5,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:38 1997

Vial: 7
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I587U.D
Acq On : 25 Feb 97 01:34 PM
Sample : 9701613
Misc : REPLICATE5,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:38 1997

Vial: 7
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.44 | 4469923 | 825.12 ug/L m |
| | | Recovery = | 6.45% |
| 5) S SURROGATE-3 | 18.04 | 3283338 | 1492.30 ug/L m |
| | | Recovery = | 19.90% |
| 6) S SURROGATE-2 | 21.56 | 20269222 | 1748.09 ug/L |
| | | Recovery = | 21.85% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 6460624 | 1988.09 ug/L |
| 2) M PYRETHRIN I | 11.76 | 2175004 | 719.56 ug/L m |
| 3) M PYRETHRIN II | 15.55 | 1362270 | 197.34 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE6

Lab Name: EA Laboratories Contract:

Project No.:

Matrix: (soil/water) WATER Lab Sample ID: 9701614

Sample wt/vol: 1000 (g/mL) mL Lab File ID: LA1I588U.D

Level: (low/med) LOW Date Received: NA

% Moisture: 0 Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 2.0 | |
| | PYRETHRIN I | 0.81 | |
| | PYRETHRIN II | 0.21 | |
| | TOTAL PYRETHRINS | 1.0 | |

Results based on single column analysis.

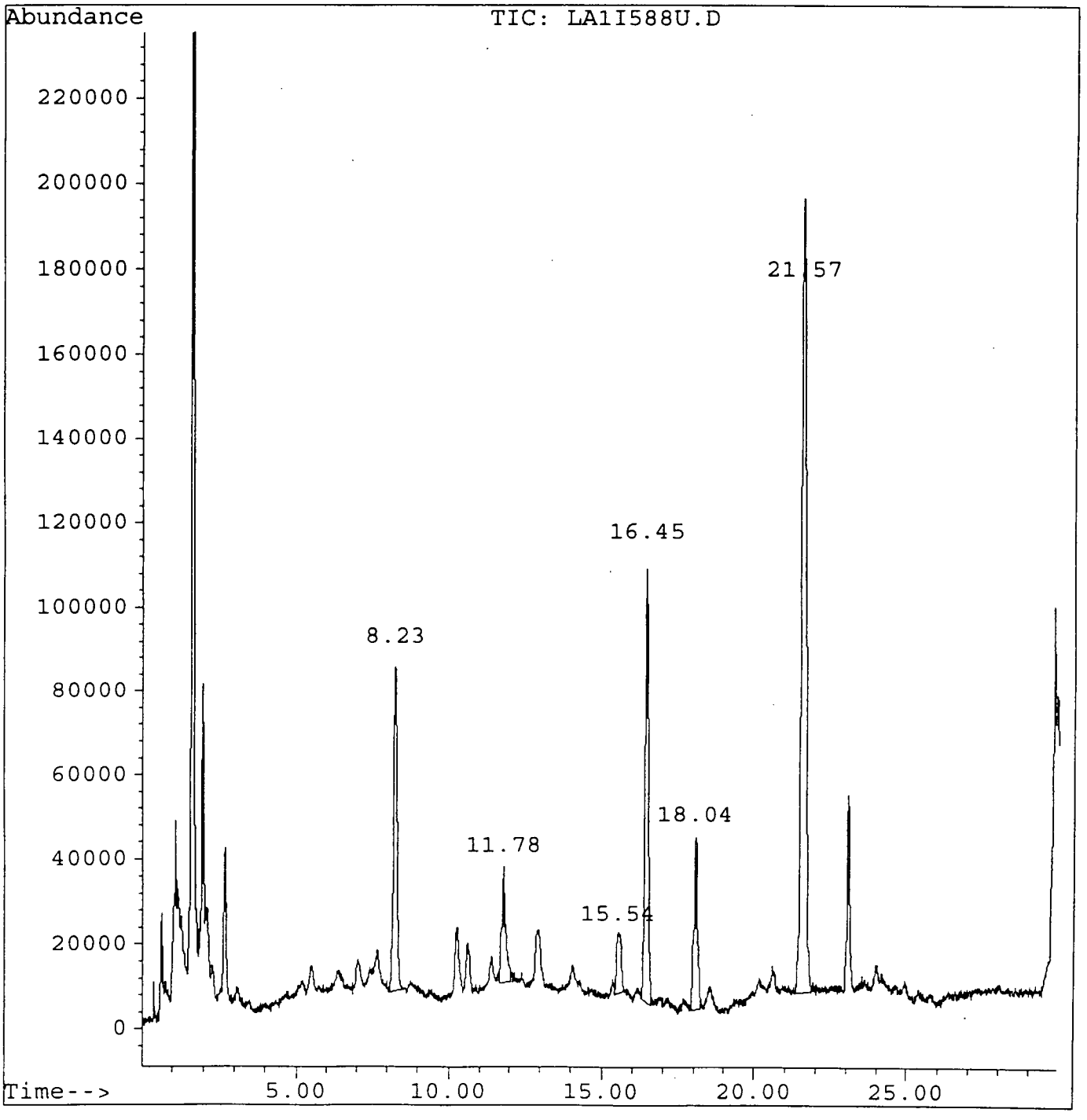
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I588U.D
Acq On : 25 Feb 97 02:08 PM
Sample : 9701614
Misc : REPLICATE6,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:50 1997

Vial: 8
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I588U.D
Acq On : 25 Feb 97 02:08 PM
Sample : 9701614
Misc : REPLICATE6,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:50 1997

Vial: 8
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 7782686 | 1436.63 ug/L m |
| | | Recovery = | 11.22% |
| 5) S SURROGATE-3 | 18.04 | 3435007 | 1561.24 ug/L m |
| | | Recovery = | 20.82% |
| 6) S SURROGATE-2 | 21.57 | 19709444 | 1699.81 ug/L |
| | | Recovery = | 21.25% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.23 | 6390369 | 1966.47 ug/L |
| 2) M PYRETHRIN I | 11.78 | 2448901 | 810.17 ug/L m |
| 3) M PYRETHRIN II | 15.54 | 1469778 | 212.91 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE7

Lab Name: EA Laboratories

Contract:

Project No.:

Matrix: (soil/water) WATER

Lab Sample ID: 9701615

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: LA1I589U.D

Level: (low/med) LOW

Date Received: NA

% Moisture: 0

Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 02/25/97

Injection Volume: 10 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 1.8 | |
| | PYRETHRIN I | 0.47 | |
| | PYRETHRIN II | 0.18 | |
| | TOTAL PYRETHRINS | 0.65 | |

Results based on single column analysis.

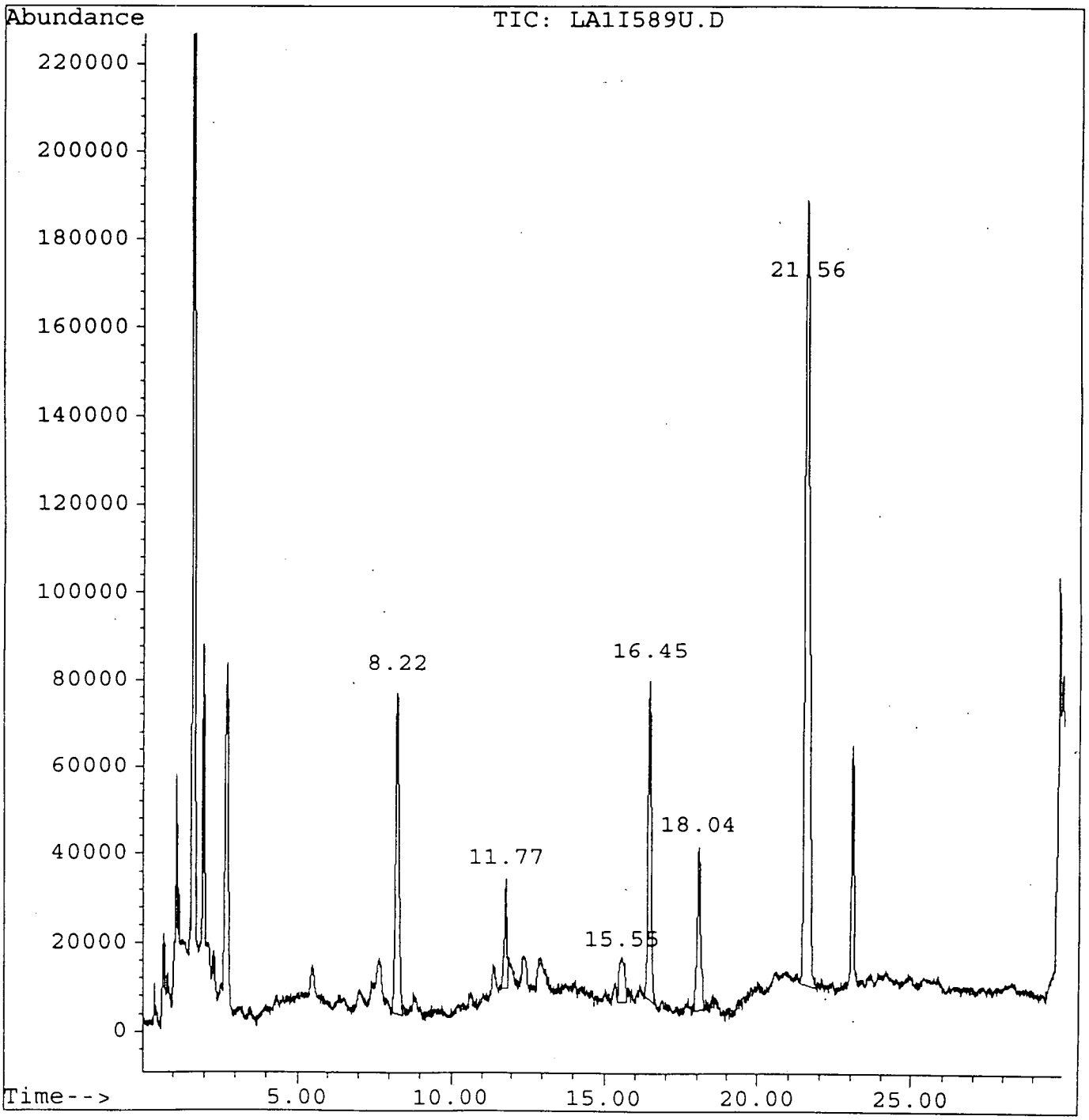
Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I589U.D
Acq On : 25 Feb 97 02:43 PM
Sample : 9701615
Misc : REPLICATE7,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:51 1997

Vial: 9
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I589U.D  Vial: 9
Acq On : 25 Feb 97 02:43 PM  Operator: CTG
Sample : 9701615  Inst : LA1
Misc : REPLICATE7,W,0,1000,1000,NA,02/19/97  Multiplr: 1.00
Quant Time: Feb 26 9:51 1997

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 5253940 | 969.84 ug/L |
| | | Recovery = | 7.58% |
| 5) S SURROGATE-3 | 18.04 | 2931433 | 1332.36 ug/L m |
| | | Recovery = | 17.76% |
| 6) S SURROGATE-2 | 21.56 | 18189477 | 1568.72 ug/L |
| | | Recovery = | 19.61% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.22 | 5899172 | 1815.32 ug/L m |
| 2) M PYRETHRIN I | 11.77 | 1418880 | 469.41 ug/L m |
| 3) M PYRETHRIN II | 15.55 | 1218749 | 176.55 ug/L m |

(f)=RT Delta > 1/2 Window  (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.
REPLICATE8

Lab Name: EA Laboratories  Contract: _____

Project No.: _____

Matrix: (soil/water) WATER  Lab Sample ID: 9701616

Sample wt/vol: 1000 (g/mL) mL  Lab File ID: LA1I590U.D

Level: (low/med) LOW  Date Received: NA

% Moisture: 0  Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL)  Date Analyzed: 02/25/97

Injection Volume: 10 (uL)  Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 2.0 | |
| | PYRETHRIN I | 0.58 | |
| | PYRETHRIN II | 0.12 | J |
| | TOTAL PYRETHRINS | 0.70 | |

Results based on single column analysis.

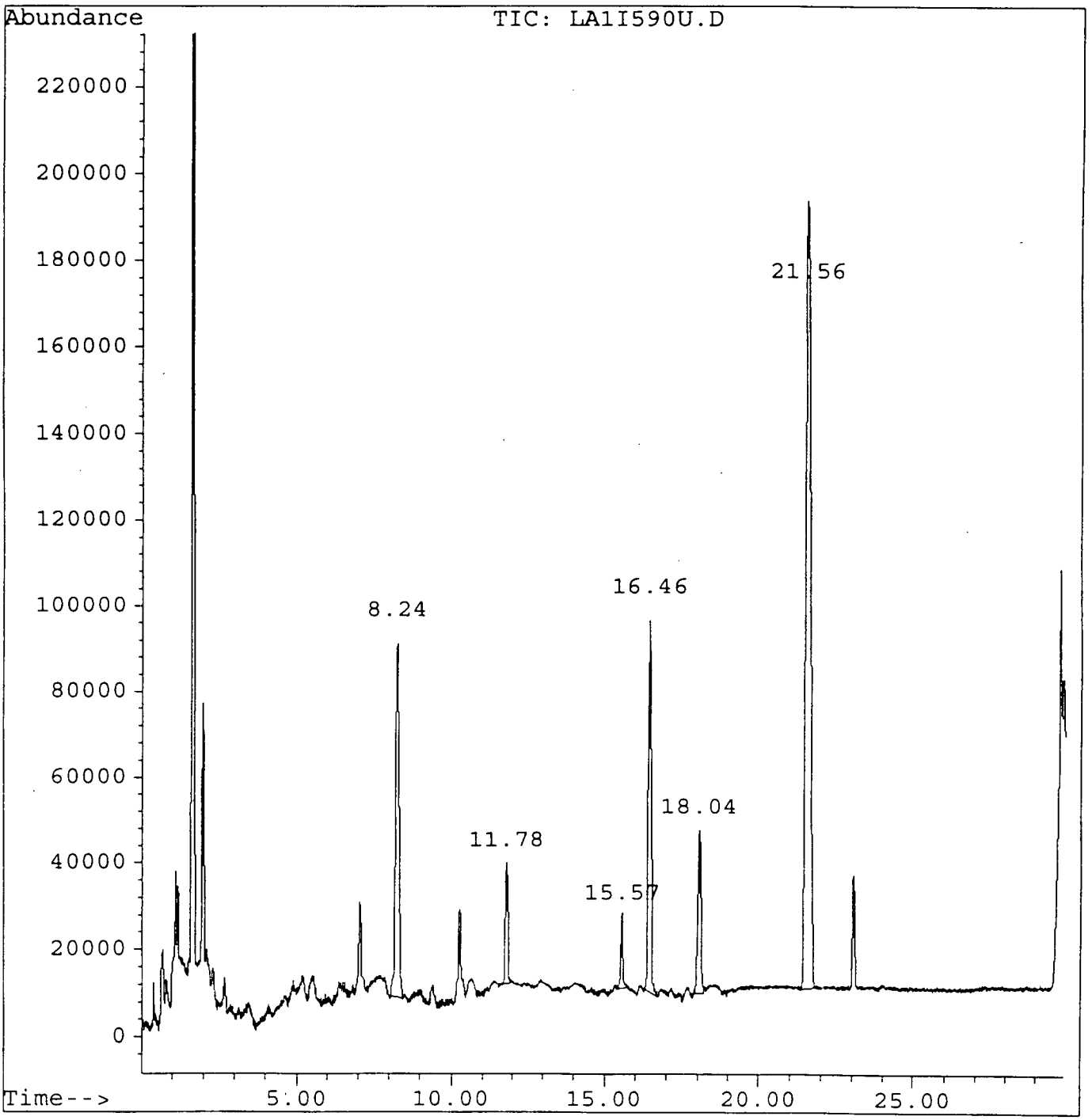
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I590U.D
Acq On : 25 Feb 97 03:18 PM
Sample : 9701616
Misc : REPLICATE8,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:52 1997

Vial: 10
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I590U.D
Acq On : 25 Feb 97 03:18 PM
Sample : 9701616
Misc : REPLICATE8,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:52 1997

Vial: 10
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.46 | 6108674 | 1127.62 ug/L |
| Recovery = | | | 8.81% |
| 5) S SURROGATE-3 | 18.04 | 2715871 | 1234.38 ug/L m |
| Recovery = | | | 16.46% |
| 6) S SURROGATE-2 | 21.56 | 19457571 | 1678.09 ug/L |
| Recovery = | | | 20.98% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 6643729 | 2044.43 ug/L |
| 2) M PYRETHRIN I | 11.78 | 1759278 | 582.03 ug/L |
| 3) M PYRETHRIN II | 15.57 | 841039 | 121.83 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# PYRETHRINS AND ROTENONE ANALYSIS DATA SHEET

SAMPLE NO.

REPLICATE9

Lab Name: EA Laboratories Contract: _____

Project No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9701617

Sample wt/vol: 1000 (g/mL) mL Lab File ID: LA1I591U.D

Level: (low/med) LOW Date Received: NA

% Moisture: 0 Date Extracted: 02/19/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N

| CAS No. | Compound | Concentration Units: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| | ROTENONE | 2.0 | |
| | PYRETHRIN I | 1.1 | |
| | PYRETHRIN II | 0.24 | |
| | TOTAL PYRETHRINS | 1.4 | |

Results based on single column analysis.

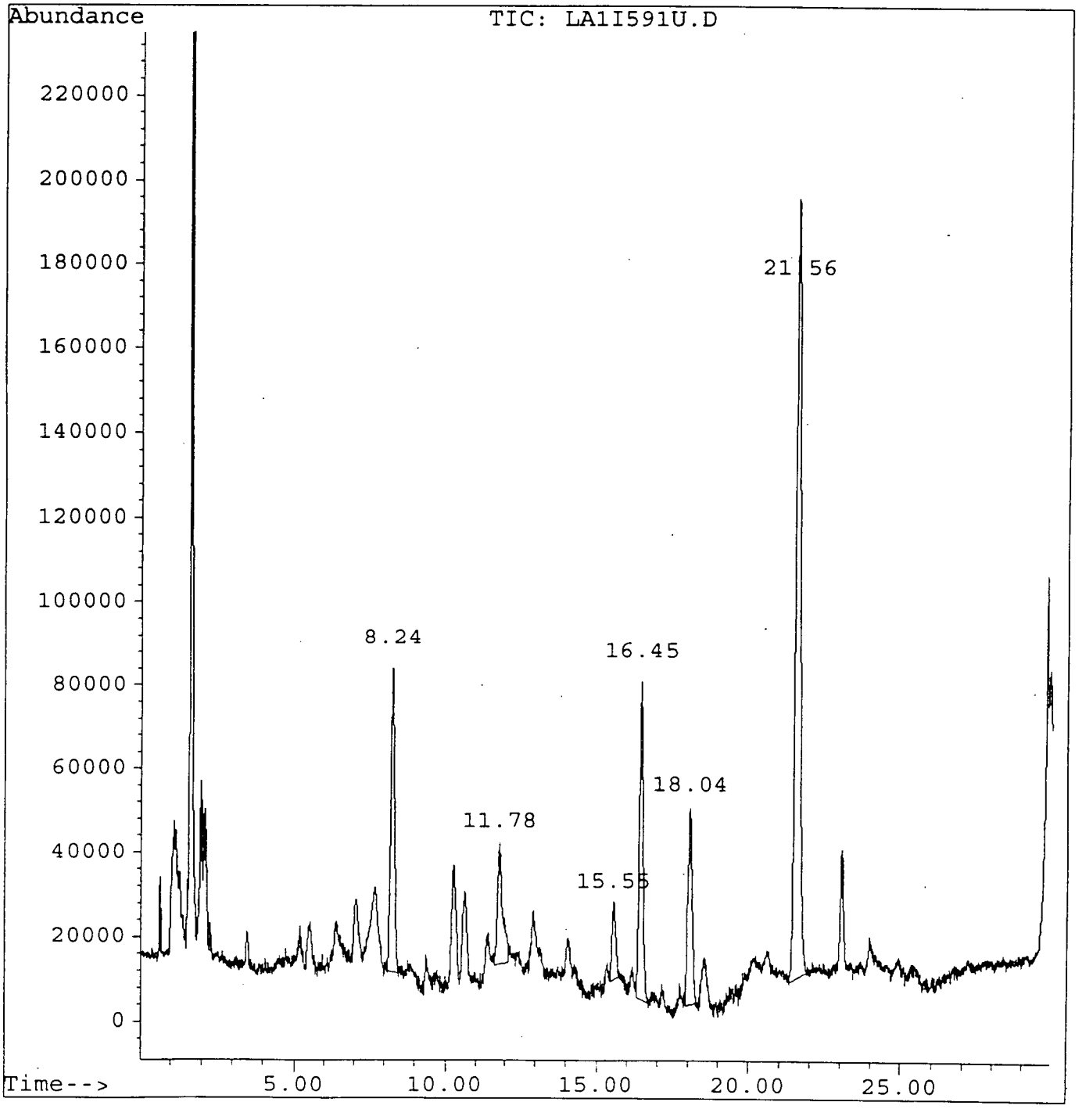
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I591U.D
Acq On : 25 Feb 97 03:52 PM
Sample : 9701617
Misc : REPLICATE9,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:53 1997

Vial: 11
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I591U.D
Acq On : 25 Feb 97 03:52 PM
Sample : 9701617
Misc : REPLICATE9,W,0,1000,1000,NA,02/19/97
Quant Time: Feb 26 9:53 1997

Vial: 11
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Feb 26 09:29:48 1997
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.45 | 6475309 | 1195.30 ug/L m |
| | | Recovery = | 9.34% |
| 5) S SURROGATE-3 | 18.04 | 4572097 | 2078.05 ug/L m |
| | | Recovery = | 27.71% |
| 6) S SURROGATE-2 | 21.56 | 20218506 | 1743.72 ug/L |
| | | Recovery = | 21.80% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 6539048 | 2012.22 ug/L |
| 2) M PYRETHRIN I | 11.78 | 3468892 | 1147.62 ug/L m |
| 3) M PYRETHRIN II | 15.55 | 1628137 | 235.85 ug/L m |

(f)=RT Delta > 1/2 Window (m)=manual int.

# Calibration Status Report LA1

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Initial Calibration

| # | ID | Conc | ISTD Conc | Path\File |
|---|---|---|---|---|
| 1 | 1 | 500 | 0 | O:\ORG\HPLC\LA1\06DEC96\LA1I225U.D |
| 2 | 2 | 1500 | 0 | O:\ORG\HPLC\LA1\06DEC96\LA1I226U.D |
| 3 | 3 | 5000 | 0 | O:\ORG\HPLC\LA1\06DEC96\LA1I227U.D |
| 4 | 4 | 10000 | 0 | O:\ORG\HPLC\LA1\06DEC96\LA1I228U.D |
| 5 | 5 | 15000 | 0 | O:\ORG\HPLC\LA1\06DEC96\LA1I229U.D |

| # | ID | Update Time | Quant Time | Acquisition Time |
|---|---|---|---|---|
| 1 | 1 | Dec 11 09:58 1996 | Dec 06 16:40 1996 | 06 Dec 96 03:01 PM |
| 2 | 2 | Dec 11 09:58 1996 | Dec 06 16:39 1996 | 06 Dec 96 03:36 PM |
| 3 | 3 | Dec 11 09:59 1996 | Dec 06 16:45 1996 | 06 Dec 96 04:10 PM |
| 4 | 4 | Dec 11 10:00 1996 | Dec 11 09:59 1996 | 06 Dec 96 04:45 PM |
| 5 | 5 | Dec 11 10:00 1996 | Dec 11 10:00 1996 | 06 Dec 96 05:20 PM |

```
Detailed Report Print options
Set the options for the desired output
Name TEMP
p_founds = 0       ! 0=print all spectra and/or EICP, 1 = print spectra for
                   !   compounds considered as founds
p_istd   = 0       ! 1=Print spectra for ISTD's
p_surr   = 0       ! 1=Print spectra for Surrogates (compound type = S)
p_mdl    = 0.0     ! Minimum Reporting Limit. Compounds with concentrations
                   ! less than this value will be considered not found
p_qual   = 1       ! report compounds whose qualifiers are out of range as
                   ! hits.  0 = do not report out of range as hit.
                   !        1 = report out of range as hit
p_scan   = 0       ! include scan# or quant ion in summary report
                   ! 0 = quant ion
                   ! 1 = scan number
p_sumsec = 0       ! Include secondary hits in the summary report
                   ! 0 = Do not include
                   ! 1 = Include
p_detail = 0       ! 0 = scan detailed report
                   ! 1 = sim  detailed report
tic_pages = 1      ! x = number of pages for printing of Total Ion
                   !     chromatogram.  0 = Do Not Print TIC
p_scaletime = 5.0  ! Use largest peak after scaletime for y scale
istd_dil = 0       ! Apply multiplier to Internal Standards
surr_dil = 1       ! Apply multiplier to Surrogates
targ_dil = 1       ! Apply multiplier to Target compounds
rem Temp
```

```
! This file contains a list of items
! to be included in the continuing calibration report
! This file can be edited using notepad to
! uncomment items to be included in the report

name cc_options
  cc_per_low= 50.0   !Specifies the lower and upper area limits
  cc_per_hi = 150  !Specifies the lower and upper area limits
  cc_per_max = 25  !Specifies the maximum deviation in RF's
  cc_relresp_min = 0.0000 ! Specifies the minimum relatative response factor
  cc_level$ = "3"  !Level identifier of initial level with same
                   !concentration as continuing level
  cc_time = 0.5    !Retention time deviation limit (min).
  cc_rettime = 0  !Update Quant Database Retention Times when updating
                   ! continuing calibration level 0=no, 1=yes
  cc_refspec = 0 !Update Quant Database Reference Spectra when updating
                   ! continuing calibration level 0=no, 1=yes
remove cc_options
```

DATA ANALYSIS PARAMETERS

Method Name: C:\HPCHEM\5\METHODS\PY1206.M

Percent Report Settings

Sort By: Signal

Output Destination
Screen: No
Printer: Yes
File: No

Integration Events: AutoIntegrate

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Detailed (text only)

Output Destination
Screen: No
Printer: No
File: No

Generate Report During Run Method: No

NO DUAL
Calibration Last Updated: Wed Dec 11 12:11:29 1996

Reference Window: 10.00 Percent
Non-Reference Window: 0.30 Minutes
Correlation Window: 0.15 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) ROTENONE ( )

Ret. Time 8.25 min., Extract & Integrate from 8.10 to 8.40 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| 1 | | 500.000 | 1328219 |
| 2 | | 1500.000 | 4817170 |
| 3 | | 5000.000 | 15891221 |
| 4 | | 10000.000 | 32551051 |
| 5 | | 15000.000 | 48843414 |

Curve Fit: Linear, forced through origin

---

2) PYRETHRIN I ( )

Ret. Time 11.81 min., Extract & Integrate from 11.66 to 11.96 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| 1 | | 340.000 | 1182047 |
| 2 | | 1020.000 | 2829488 |
| 3 | | 3400.000 | 10519768 |
| 4 | | 6800.000 | 21330085 |
| 5 | | 10200.000 | 30253475 |

Curve Fit: Linear, forced through origin

---

) PYRETHRIN II ( )

Ret. Time 15.60 min., Extract & Integrate from 15.45 to 15.75 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| 1 | | 160.000 | 1094999 |
| 2 | | 480.000 | 3670623 |
| 3 | | 1600.000 | 11073362 |
| 4 | | 3200.000 | 22345738 |
| 5 | | 4800.000 | 32919748 |

Curve Fit: Linear, forced through origin

---

) SURROGATE-1 ( )

Ret. Time 16.50 min., Extract & Integrate from 16.35 to 16.65 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| 1 | | 500.000 | 2659713 |
| 2 | | 1500.000 | 8560319 |
| 3 | | 5000.000 | 27023199 |
| 4 | | 10000.000 | 54299443 |
| 5 | | 15000.000 | 81155114 |

Curve Fit: Linear, forced through origin

---

SURROGATE-3 ( )

Ret. Time 18.08 min., Extract & Integrate from 17.93 to 18.23 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| | | 500.000 | 1124556 |

| | | |
|---|---|---|
| 2 | 1500.000 | 3227218 |
| 3 | 5000.000 | 10757288 |
| 4 | 10000.000 | 22308529 |
| 5 | 15000.000 | 32885951 |

Curve Fit: Linear, forced through origin

---

6) SURROGATE-2 ( )

Ret. Time 21.61 min., Extract & Integrate from 21.46 to 21.76 min.

| Lvl | ID | Conc (ug/L) | Response |
|---|---|---|---|
| 1 | | 500.000 | 5413911 |
| 2 | | 1500.000 | 17341391 |
| 3 | | 5000.000 | 58325422 |
| 4 | | 10000.000 | 116458732 |
| 5 | | 15000.000 | 173488598 |

Curve Fit: Linear, forced through origin

---

END OF DATA ANALYSIS PARAMETERS

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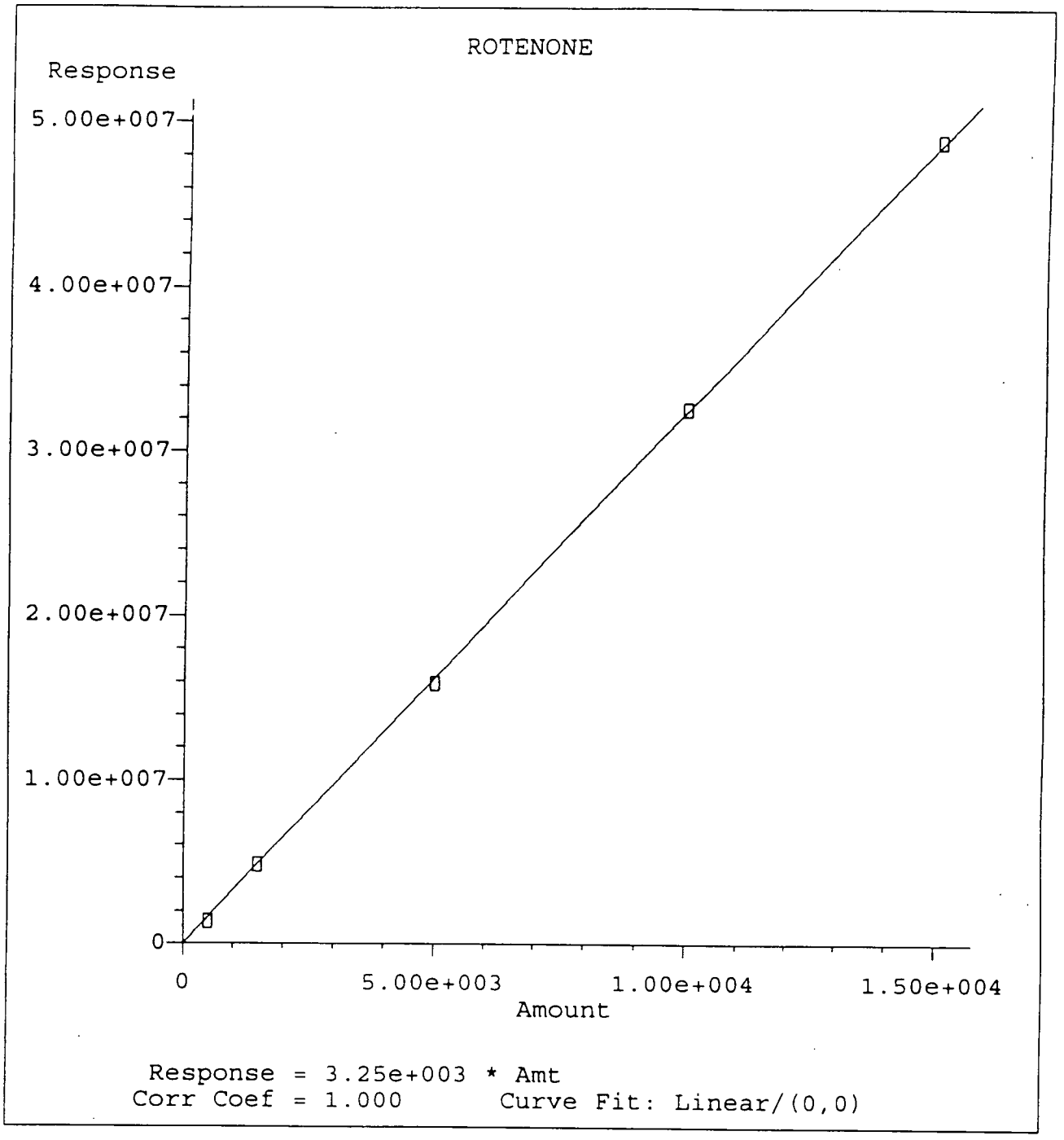
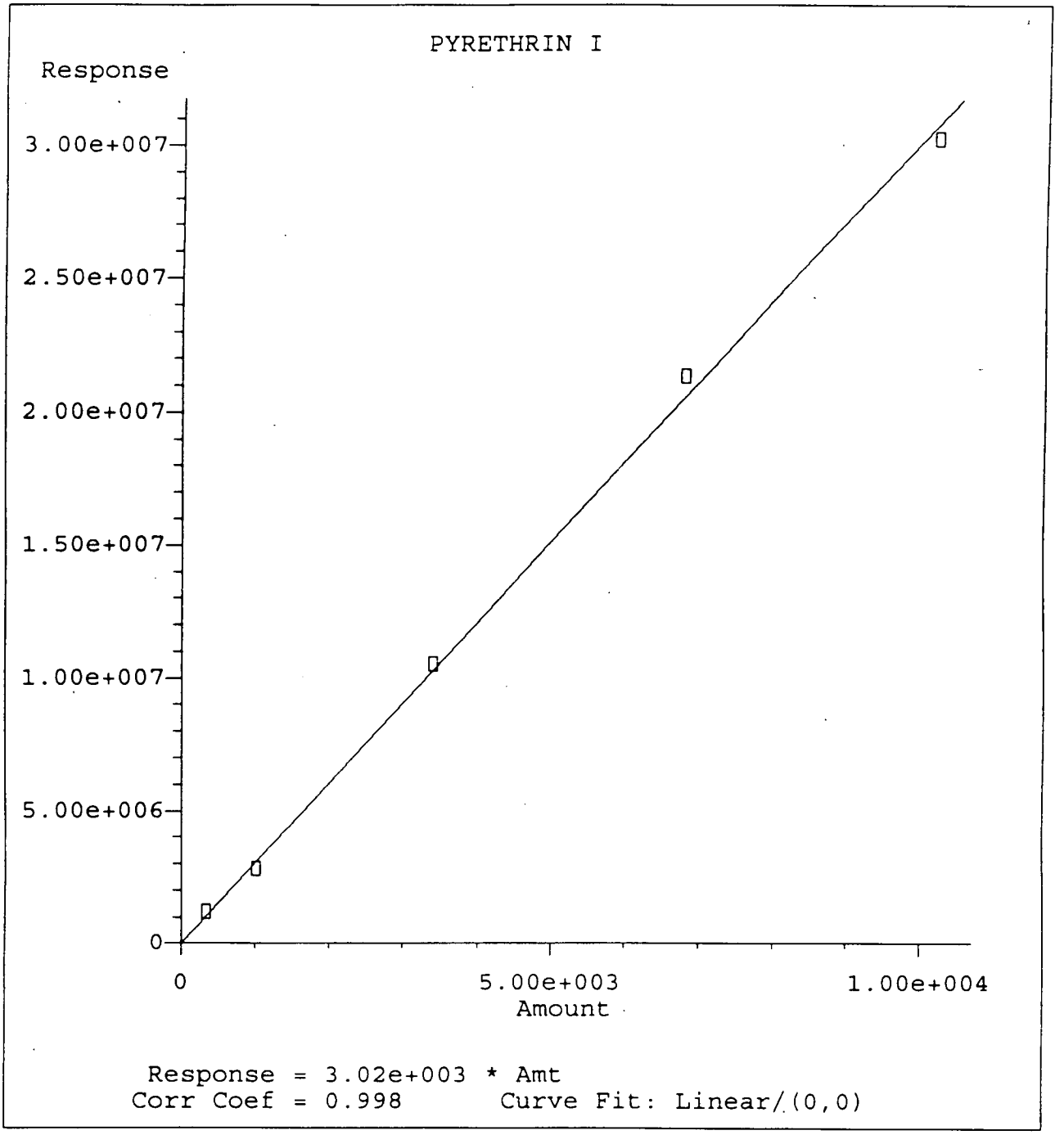
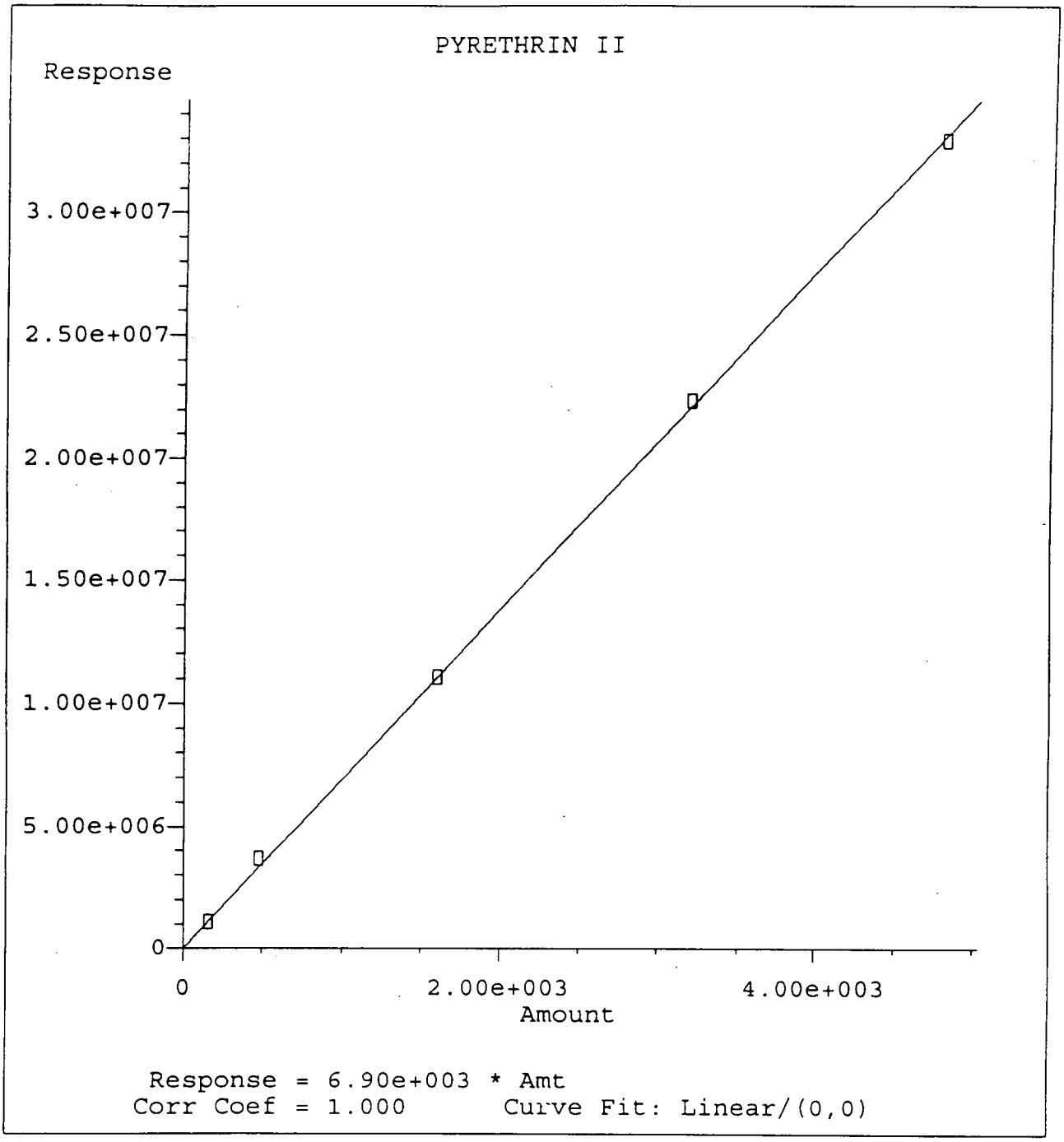
Wed Dec 11 13:46:37 1996



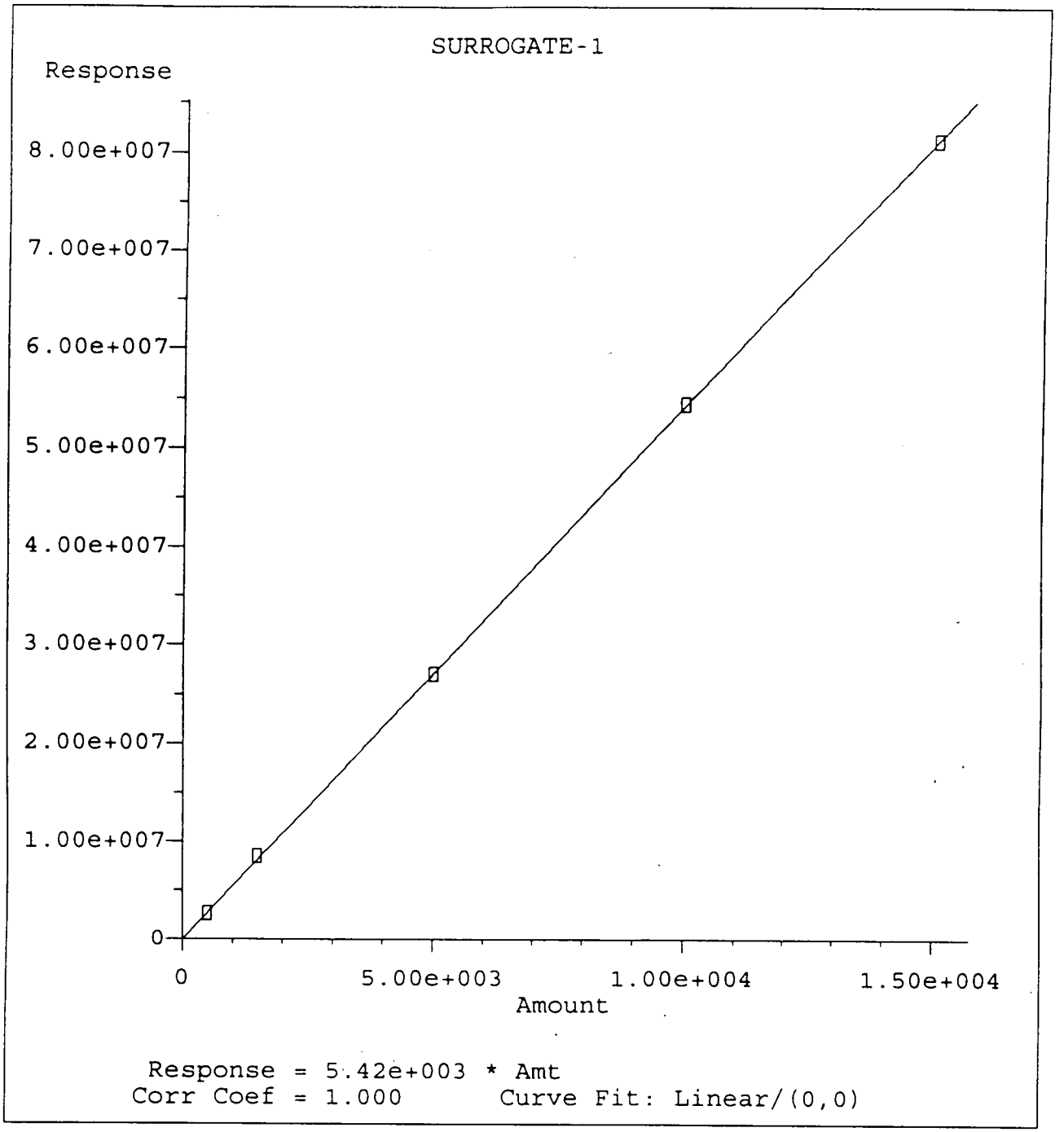

Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996



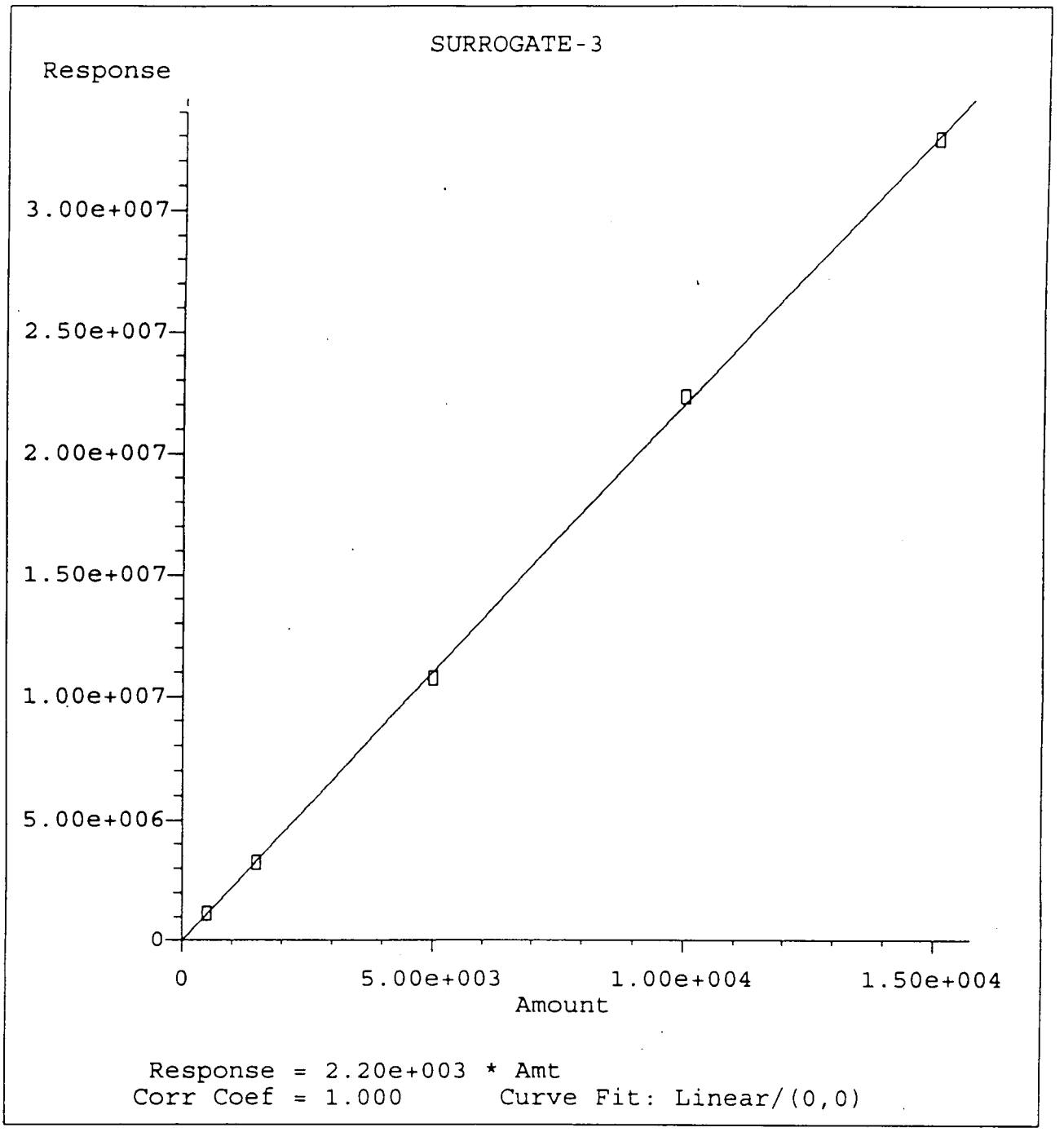

Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996



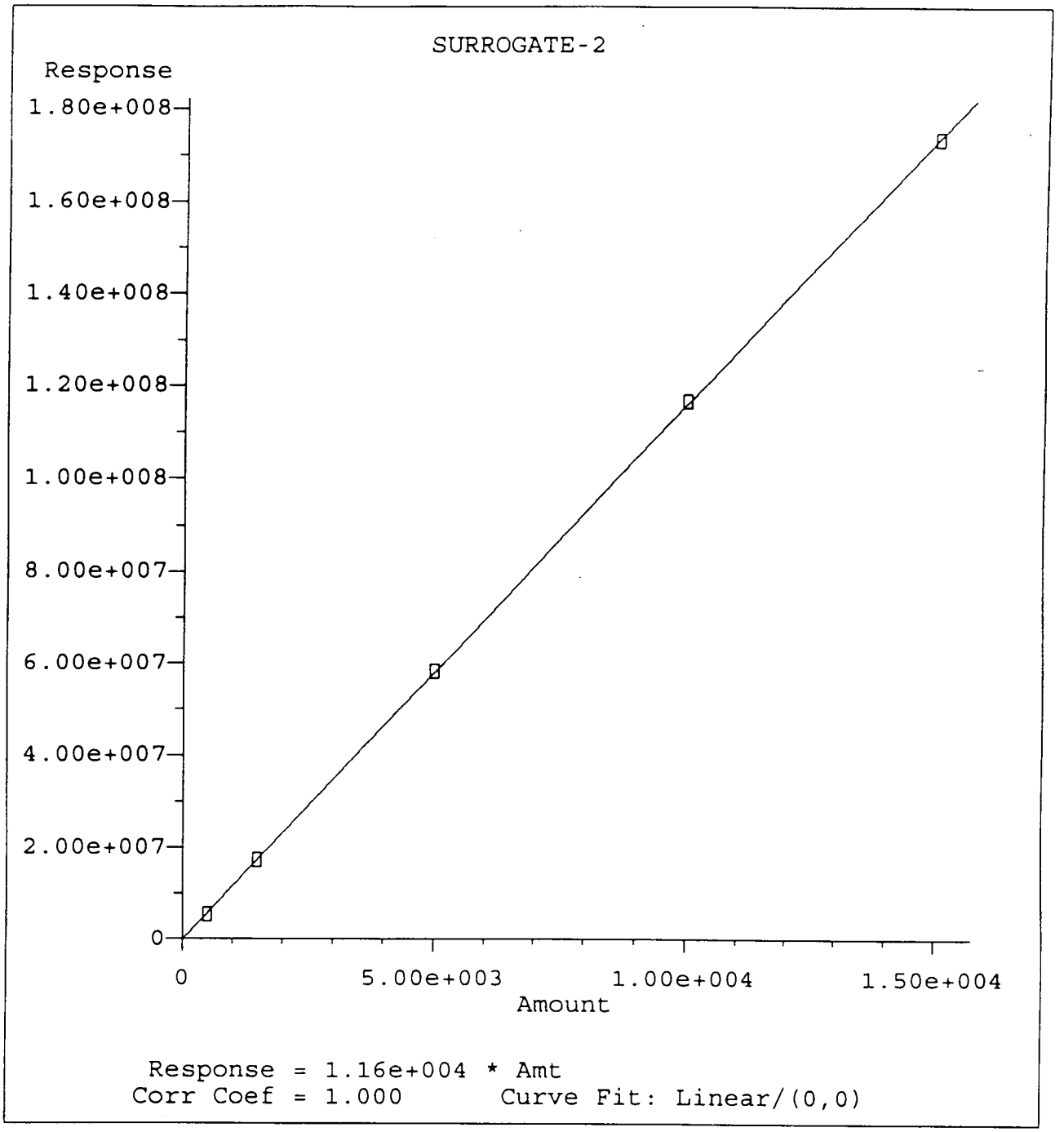

Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996




Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996




Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996




Method Name: C:\HPCHEM\5\METHODS\PY1206.M
Calibration Table Last Updated: Wed Dec 11 12:11:29 1996

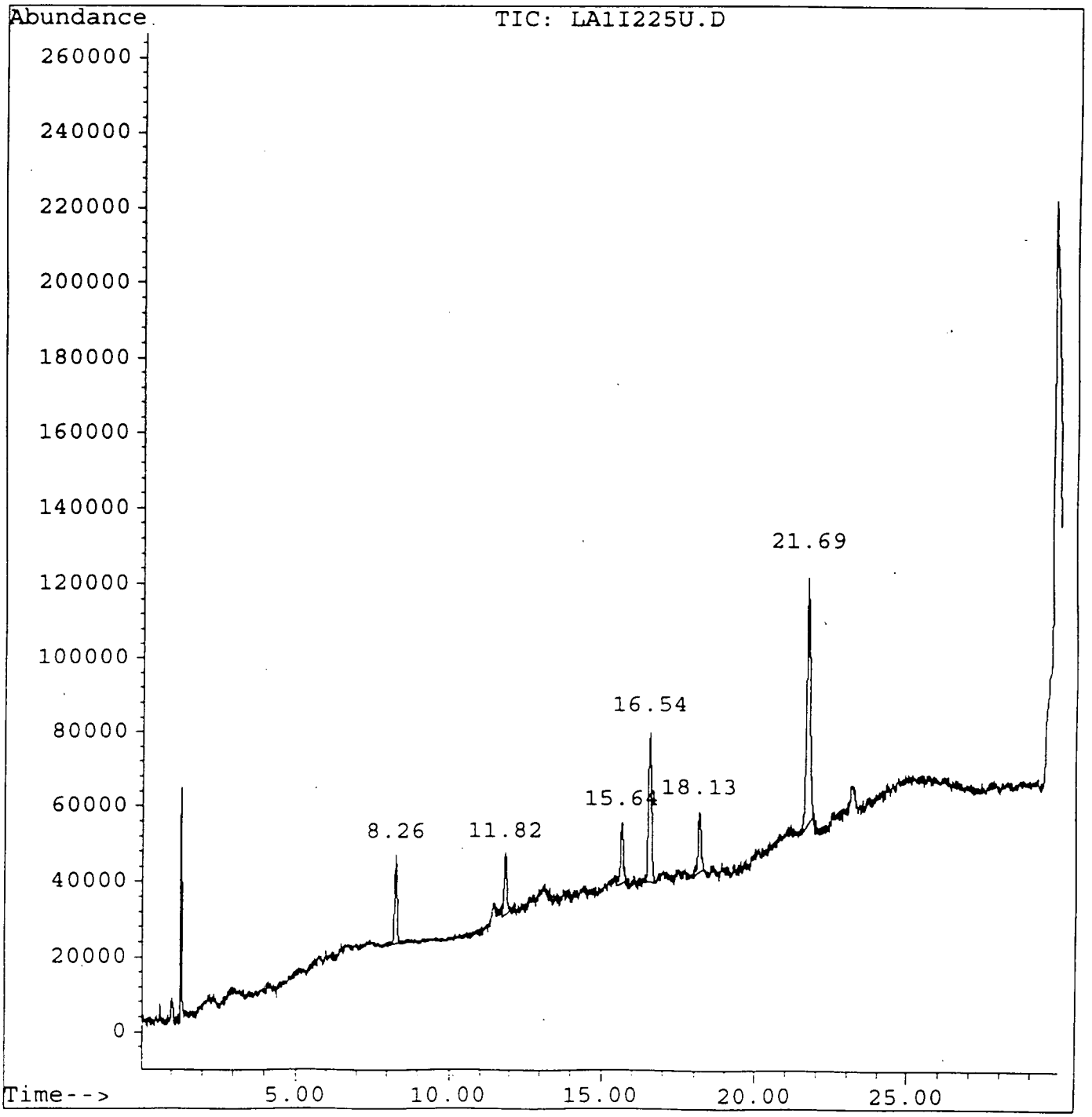
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I225U.D
Acq On : 06 Dec 96 03:01 PM
Sample : H-884
Misc : H-884
Quant Time: Dec 6 16:40 1996

Vial: 1
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I225U.D
Acq On : 06 Dec 96 03:01 PM
Sample : H-884
Misc : H-884
Quant Time: Dec 6 16:40 1996

Vial: 1
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.54 | 2659713 | 516.67 ug/L |
| | Recovery | = | 20.18% |
| 5) S SURROGATE-3 | 18.13 | 1124556 | 536.42 ug/L |
| | Recovery | = | 35.76% |
| 6) S SURROGATE-2 | 21.69f | 5413911 | 493.76 ug/L |
| | Recovery | = | 30.86% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.26 | 1328219 | 394.38 ug/L |
| 2) M PYRETHRIN I | 11.82 | 1182047 | 443.50 ug/L |
| 3) M PYRETHRIN II | 15.64 | 1094999 | 184.81 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

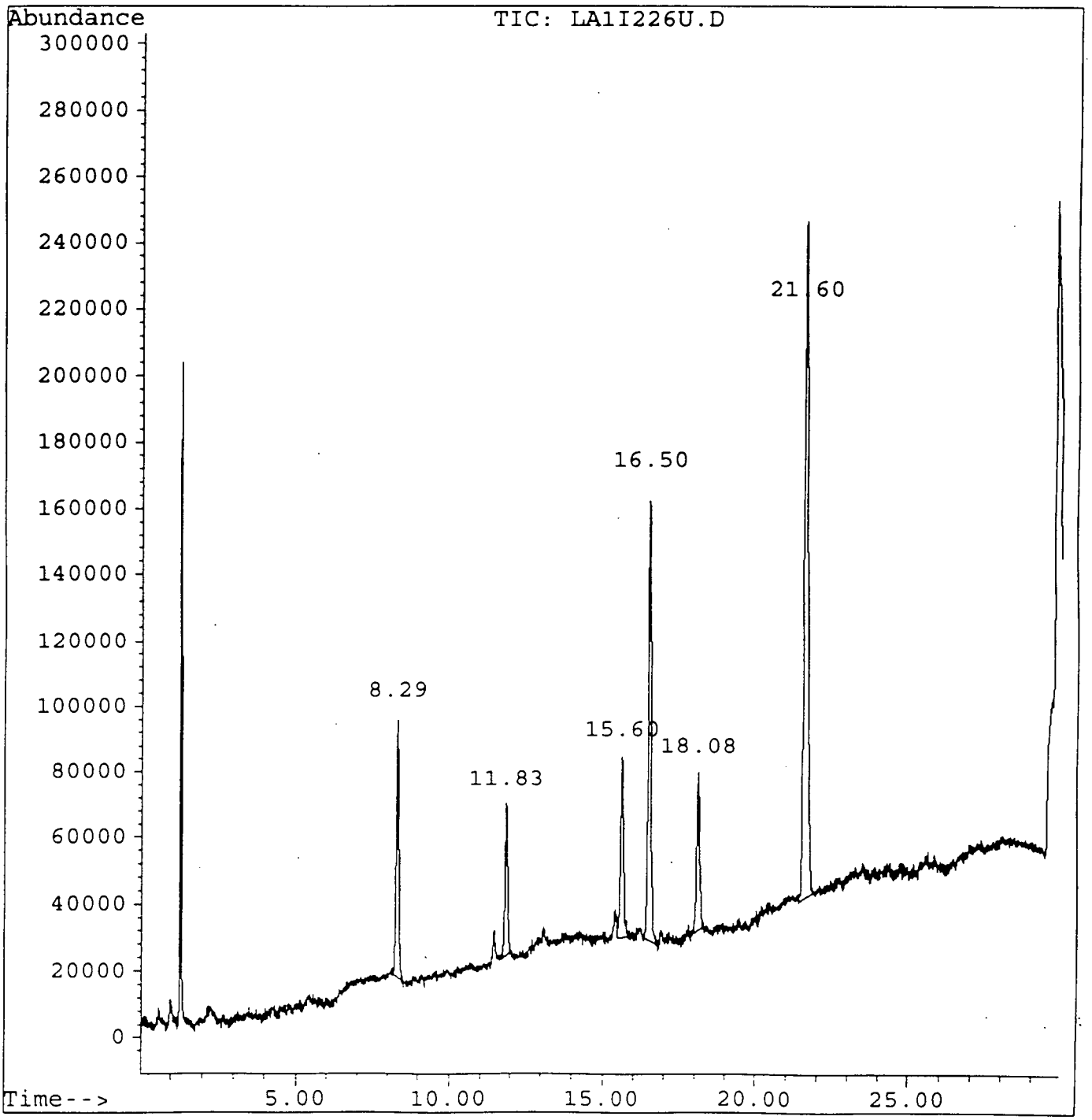
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I226U.D
Acq On : 06 Dec 96 03:36 PM
Sample : H-883
Misc : H-883
Quant Time: Dec 6 16:39 1996

Vial: 2
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I226U.D
Acq On : 06 Dec 96 03:36 PM
Sample : H-883
Misc : H-883
Quant Time: Dec 6 16:39 1996

Vial: 2
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.50 | 8560319 | 1662.91 ug/L |
| | | Recovery = | 64.96% |
| 5) S SURROGATE-3 | 18.08 | 3227218 | 1539.41 ug/L |
| | | Recovery = | 102.63% |
| 6) S SURROGATE-2 | 21.60 | 17341391 | 1581.57 ug/L |
| | | Recovery = | 98.85% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.29 | 4817170 | 1430.35 ug/L |
| 2) M PYRETHRIN I | 11.83 | 2829488 | 1061.62 ug/L |
| 3) M PYRETHRIN II | 15.60 | 3670623 | 619.51 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

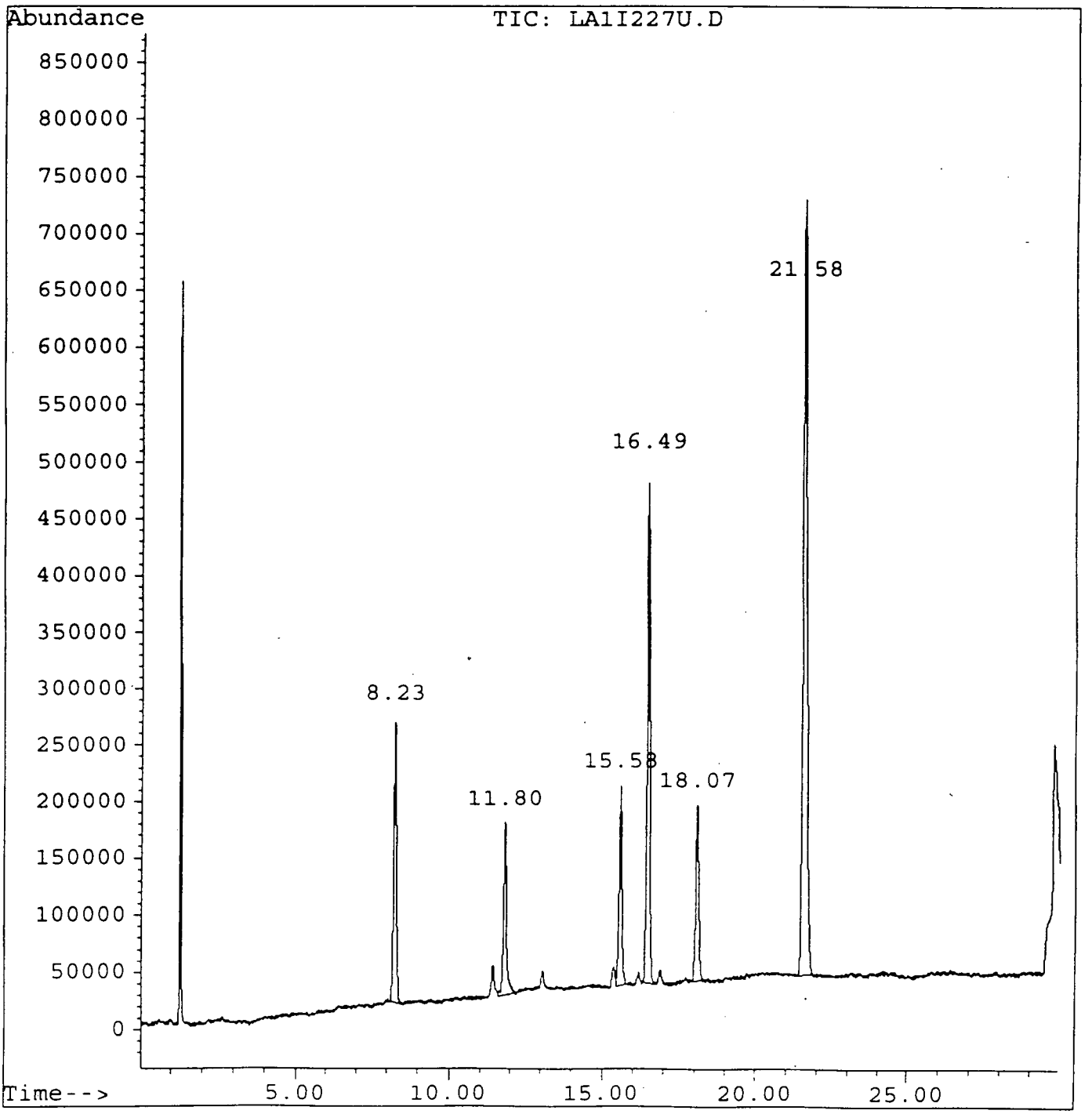
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I227U.D
Acq On : 06 Dec 96 04:10 PM
Sample : H-882
Misc : H-882
Quant Time: Dec 6 16:45 1996

Vial: 3
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I227U.D
Acq On : 06 Dec 96 04:10 PM
Sample : H-882
Misc : H-882
Quant Time: Dec 6 16:45 1996

Vial: 3
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.49 | 27023199 | 5249.48 ug/L |
| | | Recovery = | 205.06% |
| 5) S SURROGATE-3 | 18.07 | 10757288 | 5131.31 ug/L |
| | | Recovery = | 342.09% |
| 6) S SURROGATE-2 | 21.58 | 58325422 | 5319.40 ug/L |
| | | Recovery = | 332.46% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.23 | 15891221 | 4718.53 ug/L |
| 2) M PYRETHRIN I | 11.80 | 10519768 | 3947.01 ug/L |
| 3) M PYRETHRIN II | 15.58 | 11073362 | 1868.91 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

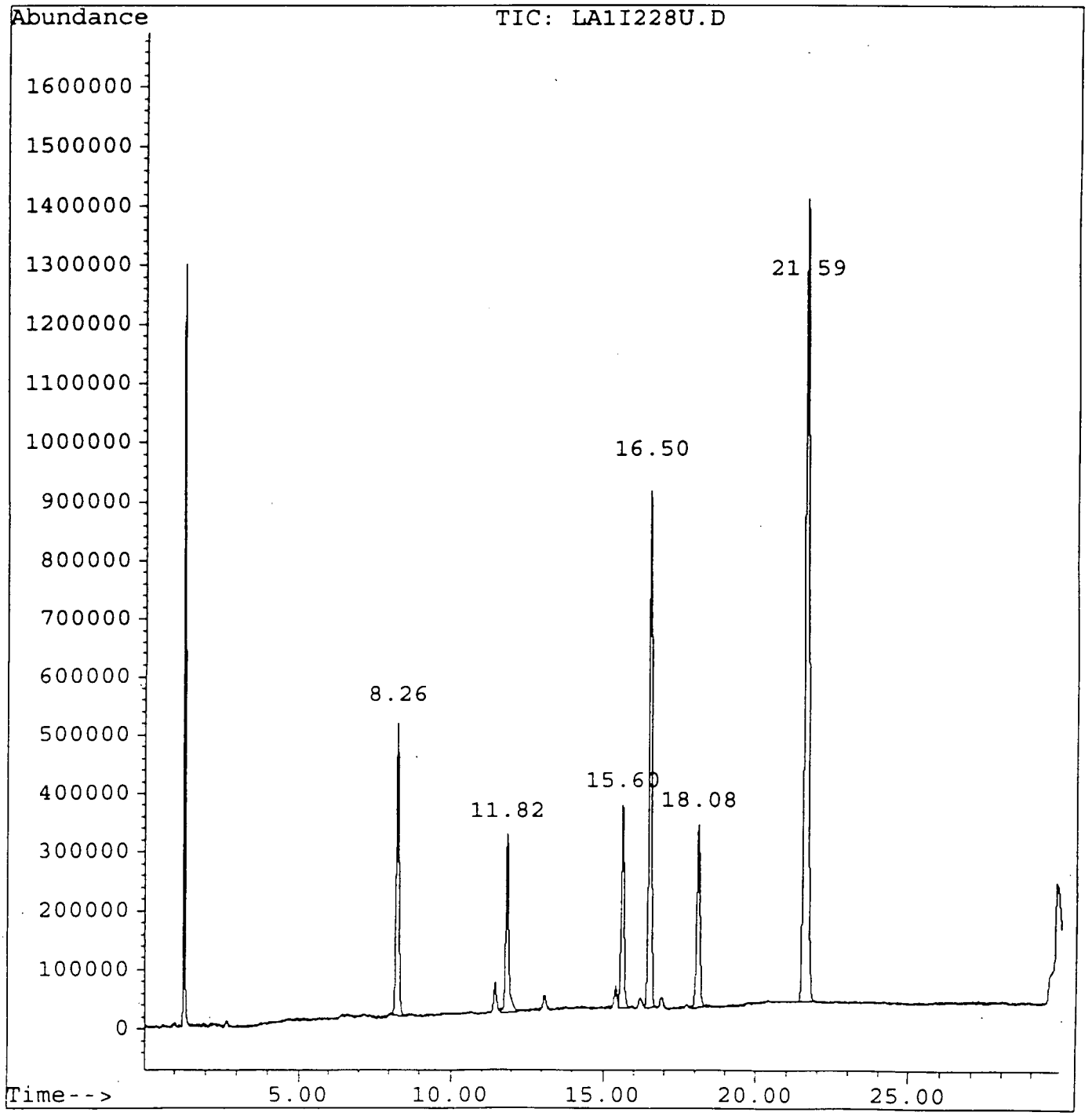
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I228U.D
Acq On : 06 Dec 96 04:45 PM
Sample : H-881
Misc : H-881
Quant Time: Dec 11 9:59 1996

Vial: 4
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I228U.D
Acq On : 06 Dec 96 04:45 PM
Sample : H-881
Misc : H-881
Quant Time: Dec 11 9:59 1996

Vial: 4
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.50 | 54299443 | 10548.12 ug/L m |
| | | Recovery = | 412.04% |
| 5) S SURROGATE-3 | 18.08 | 22308529 | 10641.34 ug/L |
| | | Recovery = | 709.42% |
| 6) S SURROGATE-2 | 21.59 | 116458732 | 10621.29 ug/L |
| | | Recovery = | 663.83% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.26 | 32551051 | 9665.27 ug/L |
| 2) M PYRETHRIN I | 11.82 | 21330085 | 8003.04 ug/L |
| 3) M PYRETHRIN II | 15.60 | 22345738 | 3771.41 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

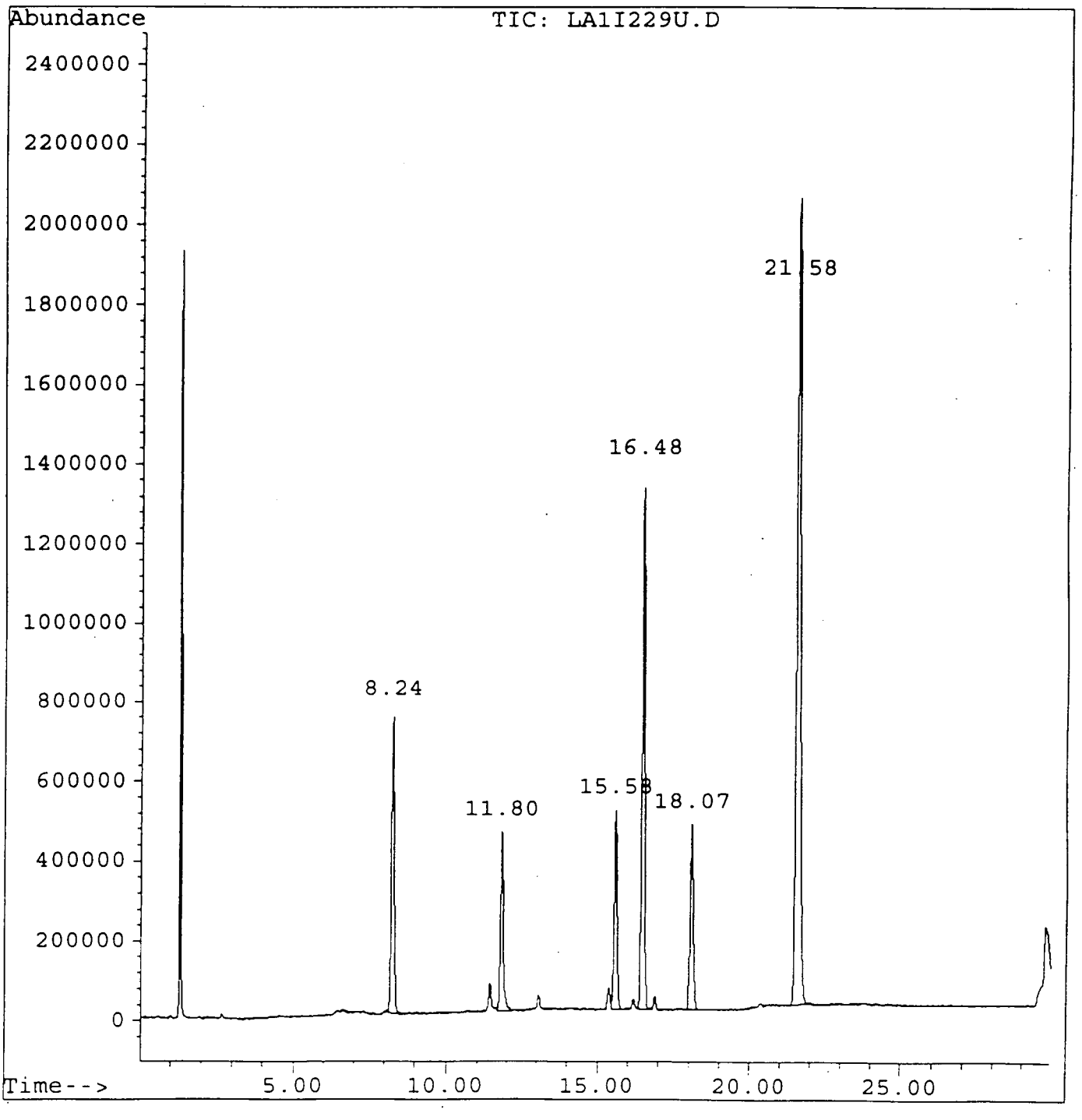
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I229U.D
Acq On : 06 Dec 96 05:20 PM
Sample : H-880
Misc : H-880
Quant Time: Dec 11 10:00 1996

Vial: 5
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I229U.D
Acq On : 06 Dec 96 05:20 PM
Sample : H-880
Misc : H-880
Quant Time: Dec 11 10:00 1996

Vial: 5
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.48 | 81155114 | 15765.06 ug/L m |
| | | Recovery = | 615.82% |
| 5) S SURROGATE-3 | 18.07 | 32885951 | 15686.85 ug/L |
| | | Recovery = | 1045.79% |
| 6) S SURROGATE-2 | 21.58 | 173488598 | 15822.53 ug/L |
| | | Recovery = | 988.91% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 48843414 | 14502.90 ug/L |
| 2) M PYRETHRIN I | 11.80 | 30253475 | 11351.10 ug/L |
| 3) M PYRETHRIN II | 15.58 | 32919748 | 5556.05 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

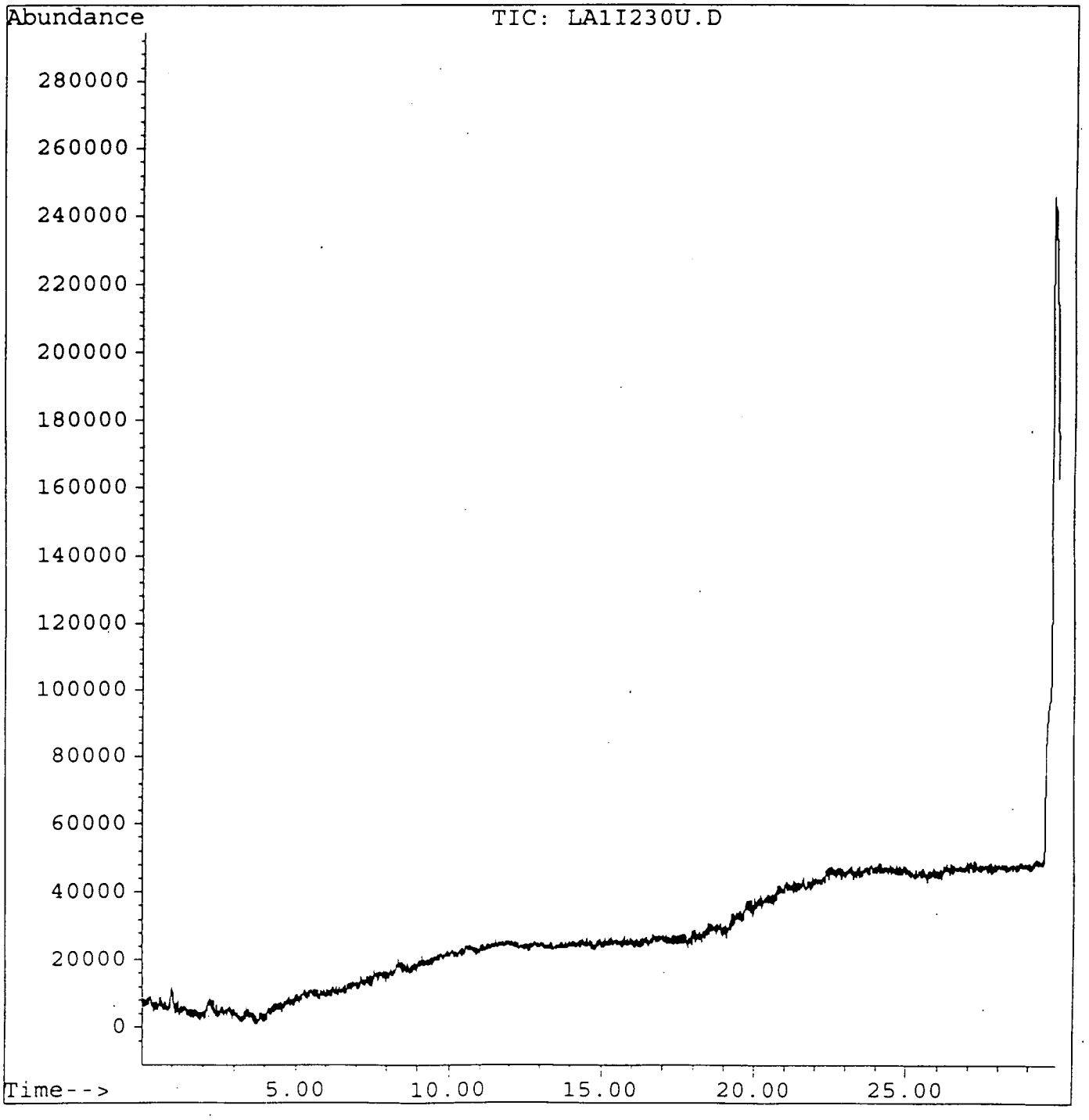
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I230U.D
Acq On : 06 Dec 96 05:55 PM
Sample : ACN
Misc : ACN
Quant Time: Dec 11 10:30 1996

Vial: 6
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\06DEC96\LA1I230U.D
Acq On : 06 Dec 96 05:55 PM
Sample : ACN
Misc : ACN
Quant Time: Dec 11 10:30 1996

Vial: 6
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : c:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 0.00 | 0 | N.D. ug/L |
| | Recovery | = | 0.00% |
| 5) S SURROGATE-3 | 0.00 | 0 | N.D. ug/L |
| | Recovery | = | 0.00% |
| 6) S SURROGATE-2 | 0.00 | 0 | N.D. ug/L |
| | Recovery | = | 0.00% |
| Target Compounds | | | |
| 1) M ROTENONE | 0.00 | 0 | N.D. ug/L |
| 2) M PYRETHRIN I | 0.00 | 0 | N.D. ug/L |
| 3) M PYRETHRIN II | 0.00 | 0 | N.D. ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# ROTENONE AND PYRETHRINS CONTINUING CALIBRATION FORM

SAMPLE NO.

H-882

Lab Name: EA Laboratories Contract: _____

Matrix: (soil/water) NA Lab Sample ID: H-882

Sample wt/vol: NA (g/mL) NA Lab File ID: LA11581U.D

Level: (low/med) LOW Date Received: NA

% Moisture: NA decanted: (Y/N): _____ Date Extracted: NA

Concentrated Extract Volume: _____ (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N Concentration Units: ug/L

| Compound | True Value | Found | % D |
|---|---|---|---|
| ROTENONE | 5000 | 5592 | 12 |
| PYRETHRIN I | 3400 | 3467 | 2.0 |
| PYRETHRIN II | 1600 | 1591 | -0.6 |
| SURROGATE 1 | 5000 | 4999 | 0.0 |
| SURROGATE 2 | 5000 | 5003 | 0.1 |
| SURROGATE 3 | 5000 | 4745 | -5.1 |

QC LIMIT: 15% D

Results based on single column analysis.

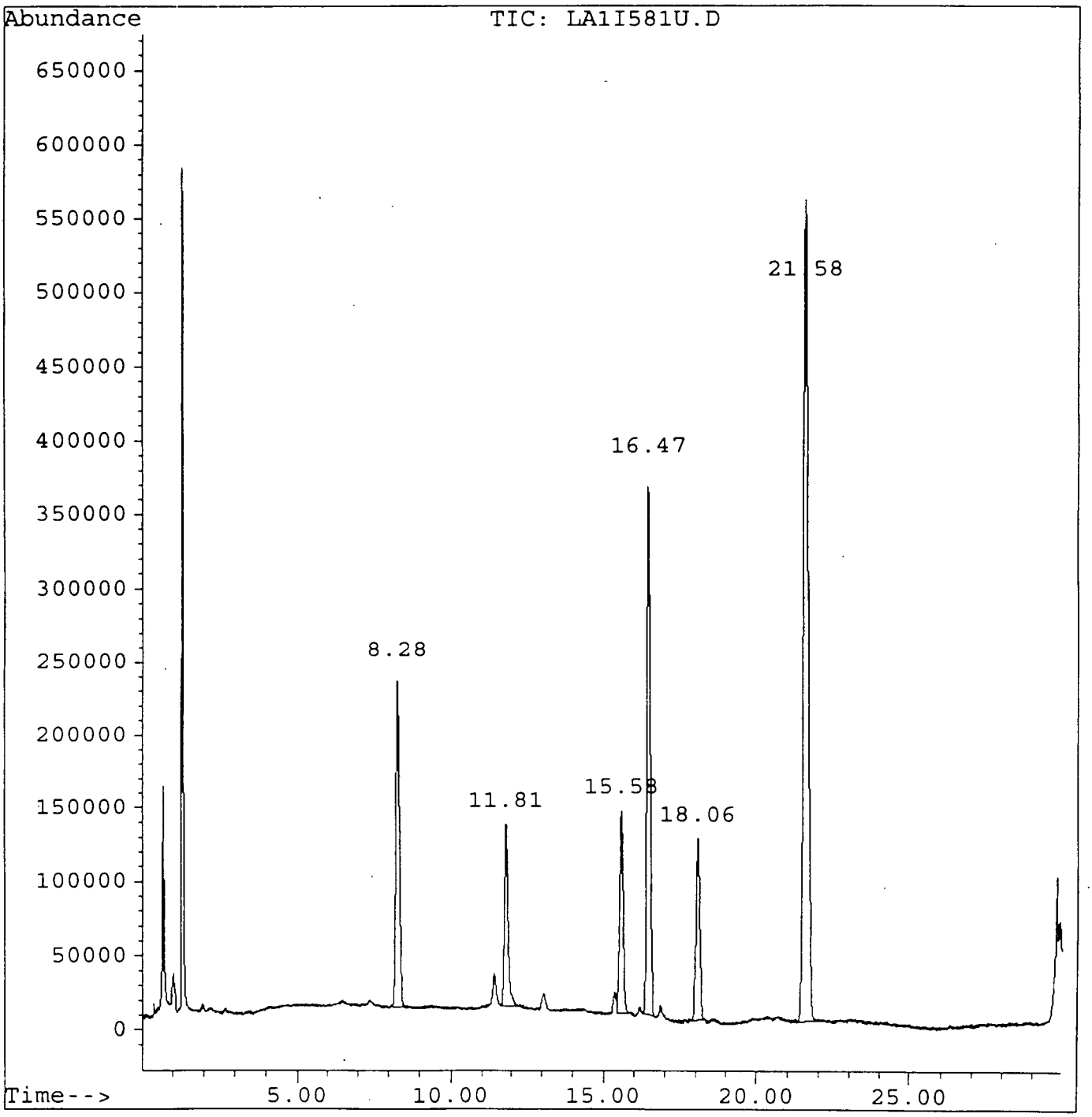
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I581U.D
Acq On : 25 Feb 97 09:59 AM
Sample : H-882
Misc : H-882
Quant Time: Feb 25 10:34 1997

Vial: 1
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I581U.D
Acq On : 25 Feb 97 09:59 AM
Sample : H-882
Misc : H-882
Quant Time: Feb 25 10:34 1997

Vial: 1
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.47 | 27079392 | 4998.66 ug/L |
| | | Recovery = | 39.05% |
| 5) S SURROGATE-3 | 18.06 | 10439126 | 4744.67 ug/L |
| | | Recovery = | 63.26% |
| 6) S SURROGATE-2 | 21.58 | 58015010 | 5003.42 ug/L |
| | | Recovery = | 62.54% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.28 | 18170935 | 5591.63 ug/L |
| 2) M PYRETHRIN I | 11.81 | 10478290 | 3466.55 ug/L |
| 3) M PYRETHRIN II | 15.58 | 10982319 | 1590.92 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

# ROTENONE AND PYRETHRINS CONTINUING CALIBRATION FORM

SAMPLE NO.

H-882

Lab Name: EA Laboratories Contract: _____

Matrix: (soil/water) NA Lab Sample ID: H-882

Sample wt/vol: NA (g/mL) NA Lab File ID: LA1I592U.D

Level: (low/med) LOW Date Received: NA

% Moisture: NA decanted: (Y/N): _____ Date Extracted: NA

Concentrated Extract Volume: _____ (uL) Date Analyzed: 02/25/97

Injection Volume: 10 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N Concentration Units: ug/L

| Compound | True Value | Found | % D |
|---|---|---|---|
| ROTENONE | 5000 | 5372 | 7.4 |
| PYRETHRIN I | 3400 | 3520 | 3.5 |
| PYRETHRIN II | 1600 | 1572 | -1.7 |
| SURROGATE 1 | 5000 | 5036 | 0.7 |
| SURROGATE 2 | 5000 | 5056 | 1.1 |
| SURROGATE 3 | 5000 | 5065 | 1.3 |

QC LIMIT: 15% D

Results based on single column analysis.

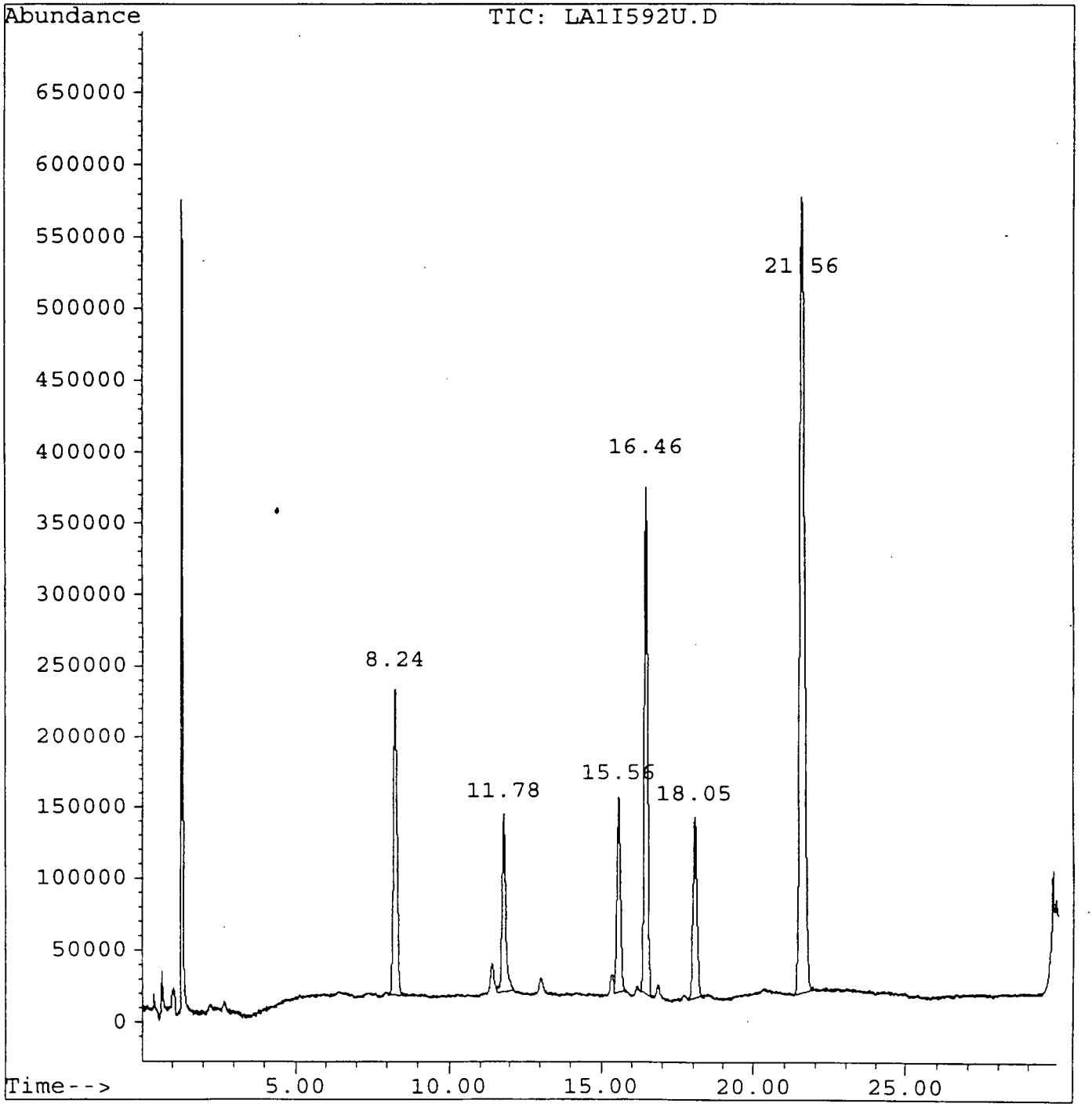
# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I592U.D
Acq On : 25 Feb 97 04:27 PM
Sample : H-882
Misc : H-882
Quant Time: Feb 26 9:24 1997

Vial: 12
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :



# Quantitation Report

Data File : o:\ORG\HPLC\LA1\25FEB97\LA1I592U.D
Acq On : 25 Feb 97 04:27 PM
Sample : H-882
Misc : H-882
Quant Time: Feb 26 9:24 1997

Vial: 12
Operator: CTG
Inst : LA1
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\PY1206.M
Title : NO DUAL
Last Update : Wed Dec 11 12:11:29 1996
Response via : Multiple Level Calibration

Volume Inj. : 10
Signal Phase : LC-PAH
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) S SURROGATE-1 | 16.46 | 27281986 | 5036.06 ug/L |
| | | Recovery = | 39.34% |
| 5) S SURROGATE-3 | 18.05 | 11142839 | 5064.51 ug/L |
| | | Recovery = | 67.53% |
| 6) S SURROGATE-2 | 21.56 | 58625309 | 5056.05 ug/L |
| | | Recovery = | 63.20% |
| Target Compounds | | | |
| 1) M ROTENONE | 8.24 | 17456829 | 5371.88 ug/L |
| 2) M PYRETHRIN I | 11.78 | 10640812 | 3520.32 ug/L |
| 3) M PYRETHRIN II | 15.56 | 10855095 | 1572.49 ug/L |

(f)=RT Delta > 1/2 Window (m)=manual int.

REPORT#: NA

EA LABORATORIES HPLC EXTRACTION SHEET

| | | | |
|---|---|---|---|
| CLIENT: 8310 MDL ROT/PY | EXTRACTION CHEMIST: CH,MCM | | EXTRACTION METHOD#: 8310/3520 |
| BATCH #: N702191 | CONCENTRATION CHEMIST: mcm | | CLEANUP METHOD#: NA |
| HOLD TIME: NA | SURR.SOLN.: H-919 | M.S. SOLN.: Rotenone/Pyrethrin surr/ms | EXTRACTION SOLVENT & LOT #: MeCl2 BM098 |
| SPIKED BY: CMH | DATE&TIME EXTRACTION STARTED: 021997 3PM | | |
| WITNESS: mcm | DATE&TIME EXTRACTION ENDED: 022097 8AM | | |

| EA NUMBER | CLIENT ID | FRACTION | MATRIX | INITIAL AMOUNT | SURR. VOLUME | M.S. VOLUME | DATE OF FINAL CONCENTRATIO | FINAL EXT. VOLUME | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| NB702191 | NB702191 | ROT/PYR | WATER | 1000mL | 200uL | NA | 022397 | 1.0mL | |
| 9701609 | REPLICATE #1 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701610 | REPLICATE #2 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701611 | REPLICATE #3 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701612 | REPLICATE #4 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701613 | REPLICATE #5 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701614 | REPLICATE #6 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701615 | REPLICATE #7 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701616 | REPLICATE #8 | ROT/PYR | WATER | | NA | 1.0mL | | | |
| 9701617 | REPLICATE #9 | ROT/PYR | WATER | | NA | 1.0mL | | | |

CHECKED FEB 24 1997 Cmt

RECEIVED FEB 24 1997

ANALYST FEEDBACK INFO: EXTRACTION QC OK: EXTRACTION QC NOT OK(ATTACH FORMS):

| | HERE | DONE |
|---|---|---|
| EA LIMS- | ✓ | |

# Chain of Custody Record

EA Laboratories
19 Loveton Circle
Sparks, MD 21152
Telephone: (410) 771-4920
Fax: (410) 771-4407

Company Name: EA Labs

Project Manag r or Contact: Phon : A. Thacker

Project No. ~~70001 01~~ 84630.74 ALL

Project Name: Special MDL Study

Dept.: 1750 Task: ~~0000~~

Sample Storage Location: LAB GENERATED

ATO Number:

Page of

Report #: 970198

Report Deliverables: 1 2 3 4 D E

EDD: Yes/No

DUE TO CLIENT: 3/3/97

Paramet rs/Method Numbers for Analysis

| Date | Time | Water | Soil | Sample Identification 19 Characters | No. of Containers | 8310 * | EA Labs Accession Number | Remarks |
|---|---|---|---|---|---|---|---|---|
| N/A | N/A | X | | REPLICATE #1 | 1 | X | 9701609 | LPM: AMT |
| | | X | | REPLICATE #2 | 1 | X | 9701610 | |
| | | X | | REPLICATE #3 | 1 | X | 9701611 | |
| | | X | | REPLICATE #4 | 1 | X | 9701612 | * ROTENONE + |
| | | X | | REPLICATE #5 | 1 | X | 9701613 | PYRETHRINS |
| | | X | | REPLICATE #6 | 1 | X | 9701614 | ONLY |
| | | X | | REPLICATE #7 | 1 | X | 9701615 | |
| | | | | REPLICATE #8 | 1 | X | 9701616 | See Chris Gilles for |
| | | | | REPLICATE #9 | 1 | X | 9701617 | Spiking |

COC ~~0000~~ 247

| Samples by: (Signatur ) | Date/Time | Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| | | | | | 2/17/97 0845 |

| Relinquished by: (Signature) | Date/Time | Received by Laboratory: (Signature) | Date/Time | Airbill Number: |
|---|---|---|---|---|
| | 2/17/97 1630 | | 2/18/97 0930 | NA |

Cooler Temp NA C pH: Yes NA No Comments: Custody Seals Intact Yes No NA

Sample Shipped by: (Circle) Fed Ex. Purp. UPS Hand Carried NA Other:

NOTE: Please indicat m thod number f r analyses requested. This will help clarify any questions with laboratory techniques.