US EPA RECORDS CENTER REGION 5
489094

VOC

# Sample Results

# Form I

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6269.D Vial: 11
Acq On : 29 Oct 97 22:17 Operator: tcm
Sample : L72972500-001 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:14 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

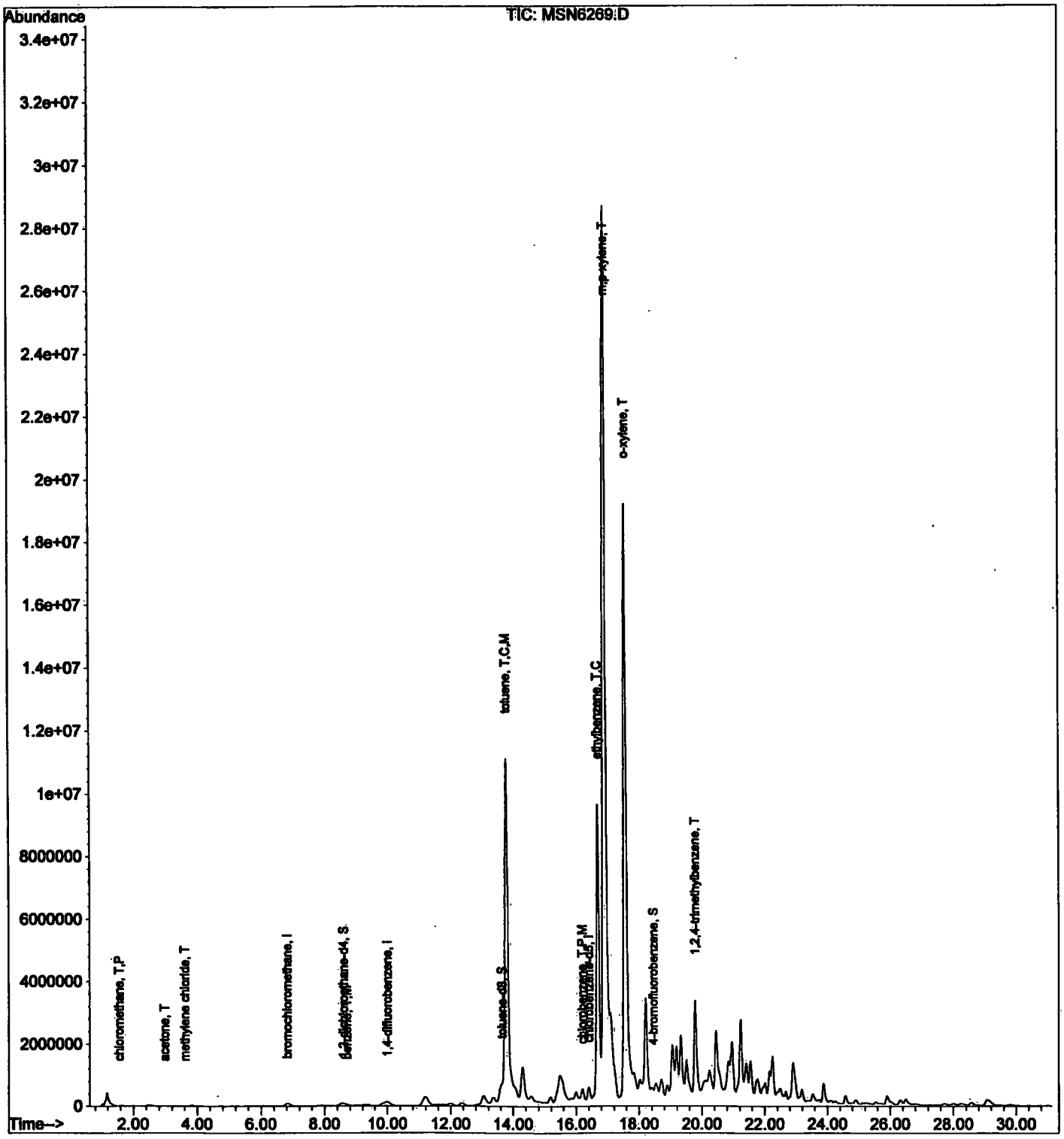
| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.83 | 128 | 156415 | 50.00 | ug/Kg | -0.02 |
| 24) 1,4-difluorobenzene | 10.02 | 114 | 557048 | 50.00 | ug/Kg | 0.05 |
| 42) chlorobenzene-d5 | 16.40 | 117 | 293519 | 50.00 | ug/Kg | 0.03 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.59 | 65 | 268431 | 58.27 | ug/Kg | 0.05 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 116.54% | | | |
| 40) toluene-d8 | 13.65 | 98 | 532694 | 50.61 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 101.22% | | | |
| 56) 4-bromofluorobenzene | 18.47 | 95 | 125877 | 38.17 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 76.34% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) chloromethane | 1.57 | 50 | 9973 | 2.78 | ug/Kg# | 48 |
| 12) acetone | 2.99 | 43 | 45548 | 20.94 | ug/Kg | 84 |
| 14) methylene chloride | 3.63 | 84 | 7943 | 1.85 | ug/Kg# | 61 |
| 30) benzene | 8.71 | 78 | 183818m | 16.58 | ug/Kg | 97 |
| 41) toluene | 13.79 | 92 | 19488075m | 3010.55 | ug/Kg | 0 |
| 48) chlorobenzene | 16.20 | 112 | 15031 | 2.58 | ug/Kg# | 42 |
| 49) ethylbenzene | 16.69 | 91 | 22280736 | 2565.48 | ug/Kg | 96 |
| 50) m,p-xylene | 16.92 | 106 | 34034694 | 10917.56 | ug/Kg# | 56 |
| 51) o-xylene | 17.56 | 106 | 17326469 | 5892.42 | ug/Kg# | 80 |
| 59) 1,2,4-trimethylbenzene | 19.78 | 105 | 4258155 | 585.01 | ug/L | 100 |

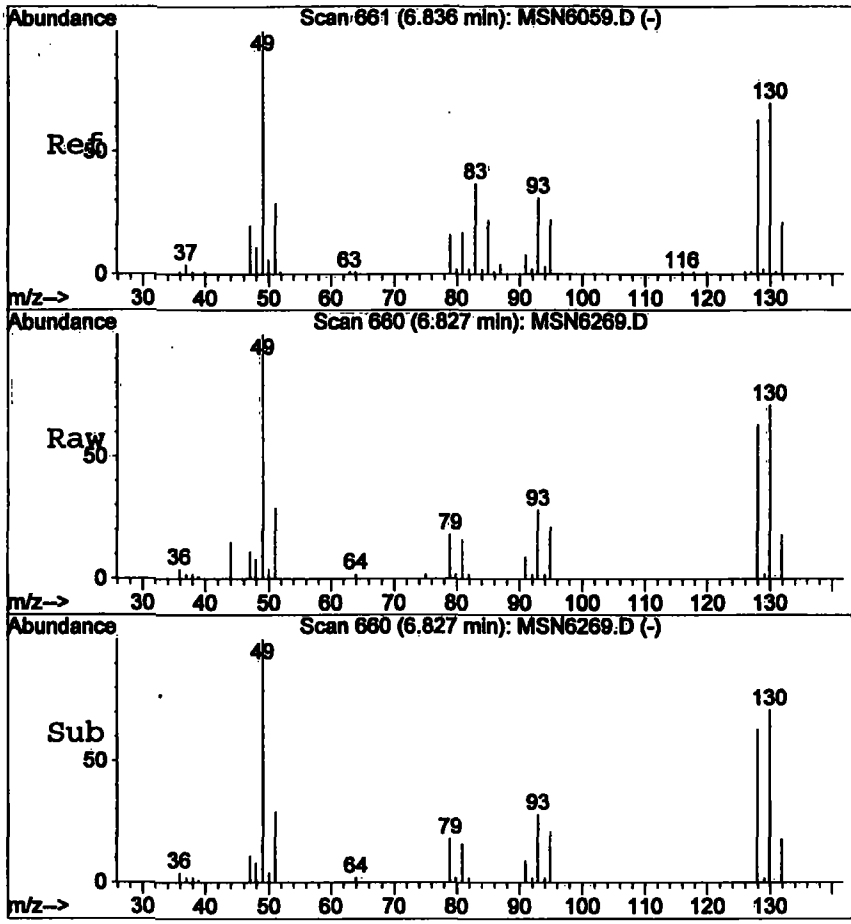
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6269.D  Vial: 11
Acq On : 29 Oct 97 22:17  Operator: tcm
Sample : L72972500-001  Inst : GC/MS Ins
Misc : VN102997  Multiplr: 1.00
Quant Time: Oct 30 7:14 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

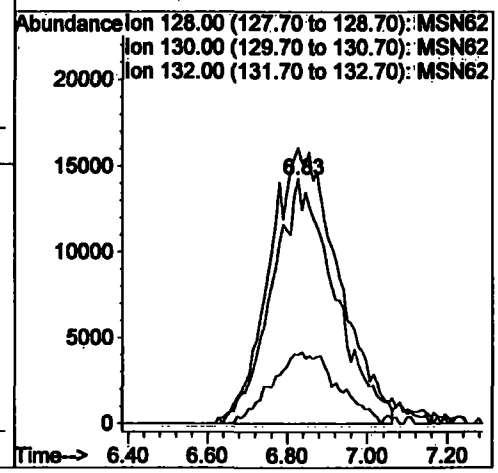


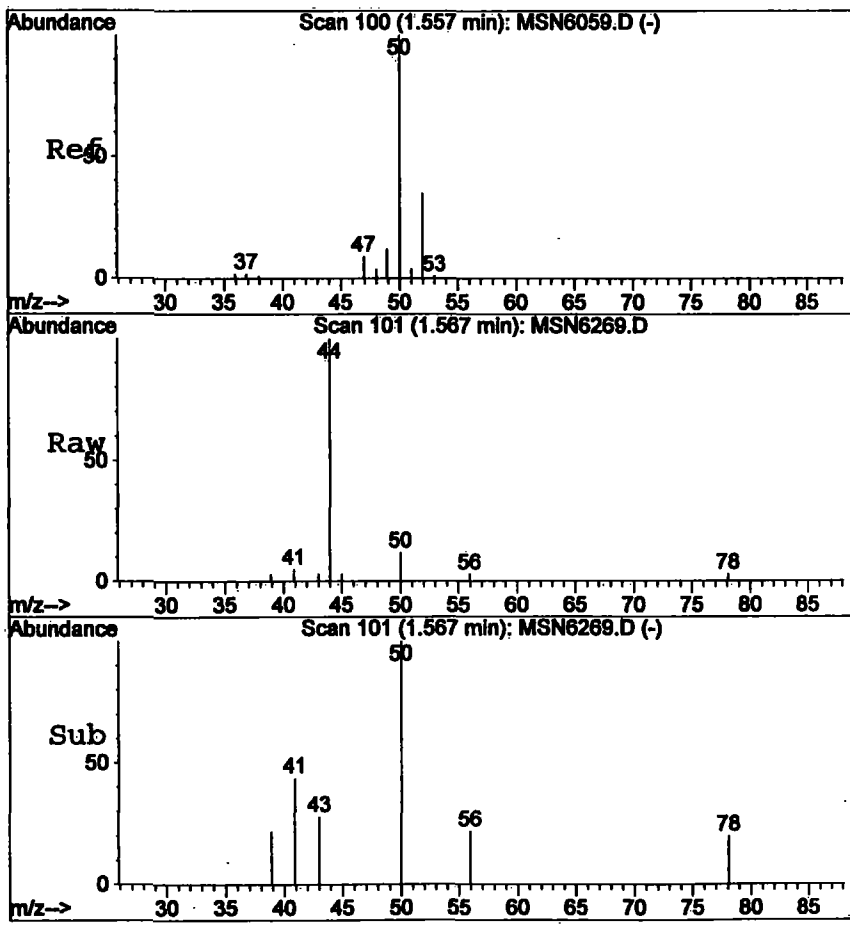



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.83 min Scan# 660
Delta R.T. -0.02 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:128 Resp: 156415

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 112.6 | 91.7 | 131.7 |
| 132 | 28.1 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

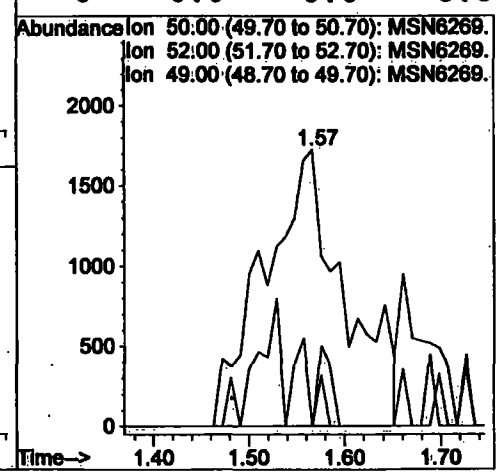


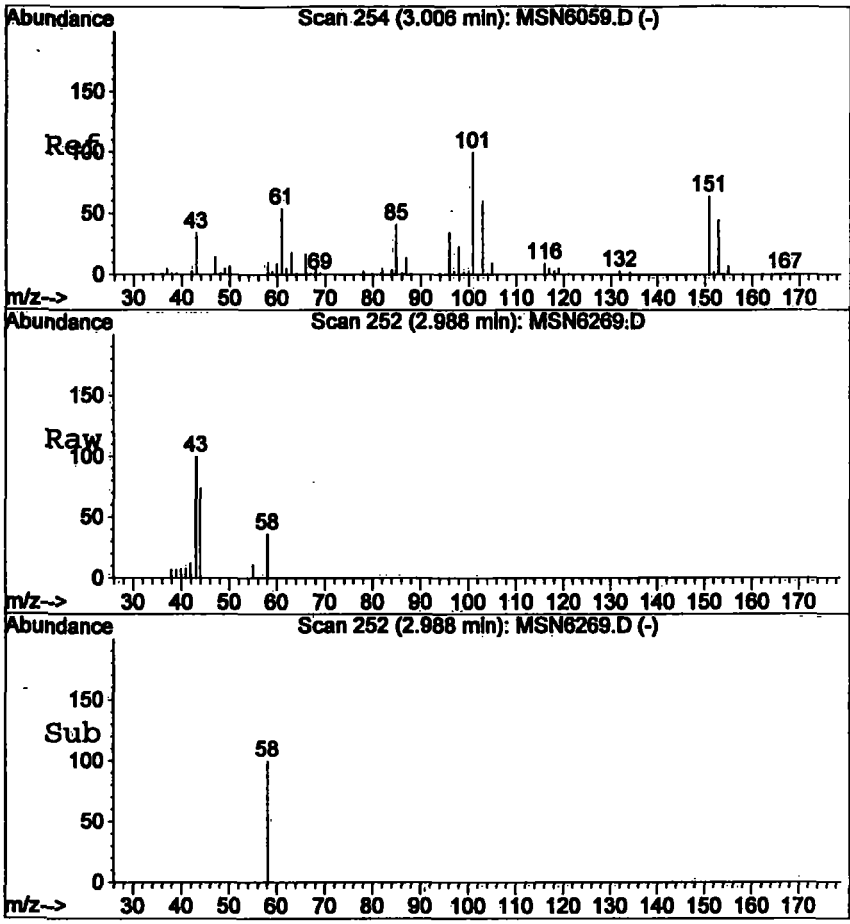




#3
chloromethane
Concen: 2.78 ug/Kg
RT: 1.57 min Scan# 101
Delta R.T. -0.00 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:50 Resp: 9973

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 0.0 | 13.8 | 53.8# |
| 49 | 0.0 | 0.0 | 32.0 |
| 0 | 0.0 | 0.0 | 0.0 |

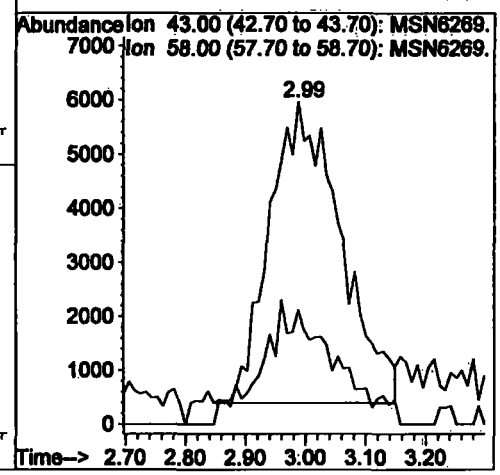


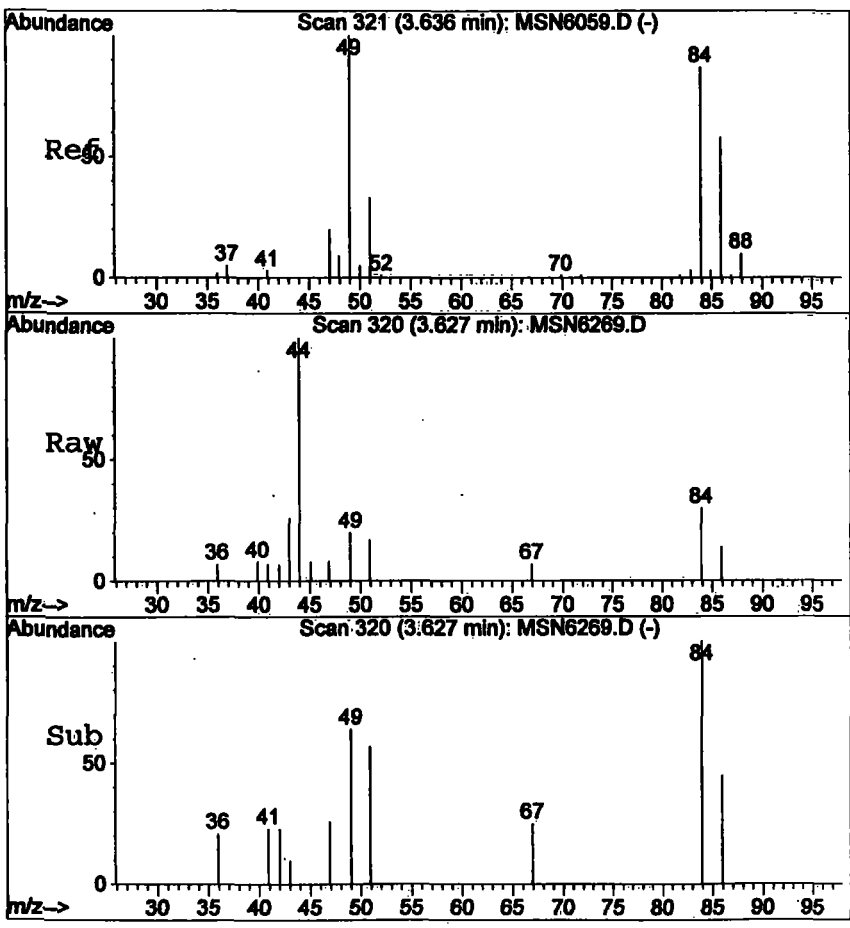



#12
acetone
Concen: 20.94 ug/Kg
RT: 2.99 min Scan# 252
Delta R.T. -0.05 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:43 Resp: 45548

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 38.1 | 9.7 | 49.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

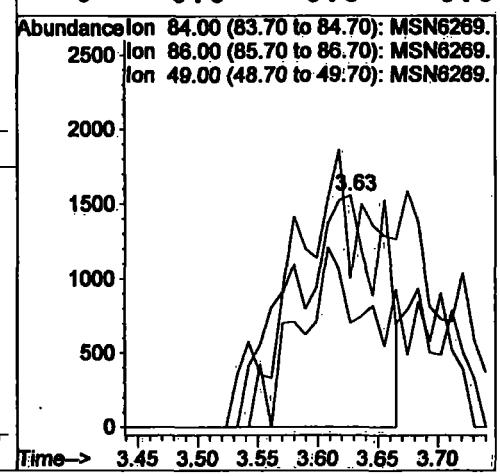


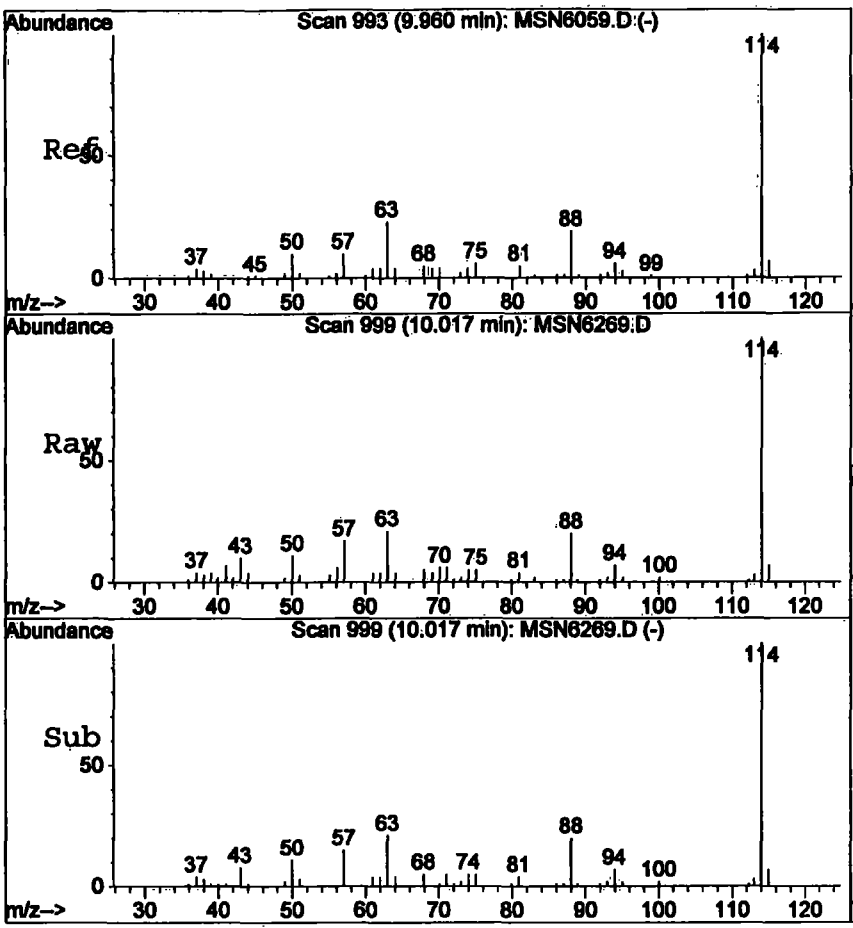




#14
methylene chloride
Concen: 1.85 ug/Kg
RT: 3.63 min Scan# 320
Delta R.T. -0.04 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:84 Resp: 7943

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 86 | 45.1 | 47.1 | 87.1# |
| 49 | 64.5 | 94.8 | 134.8# |
| 0 | 0.0 | 0.0 | 0.0 |

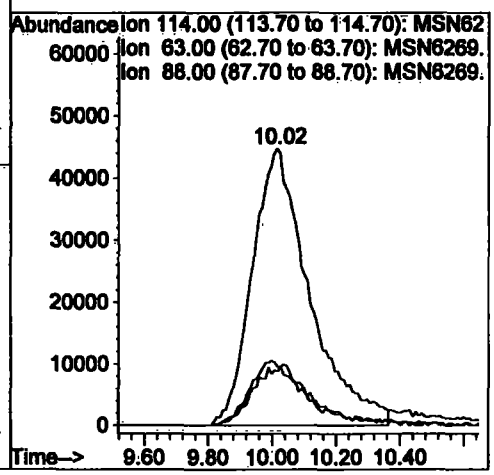


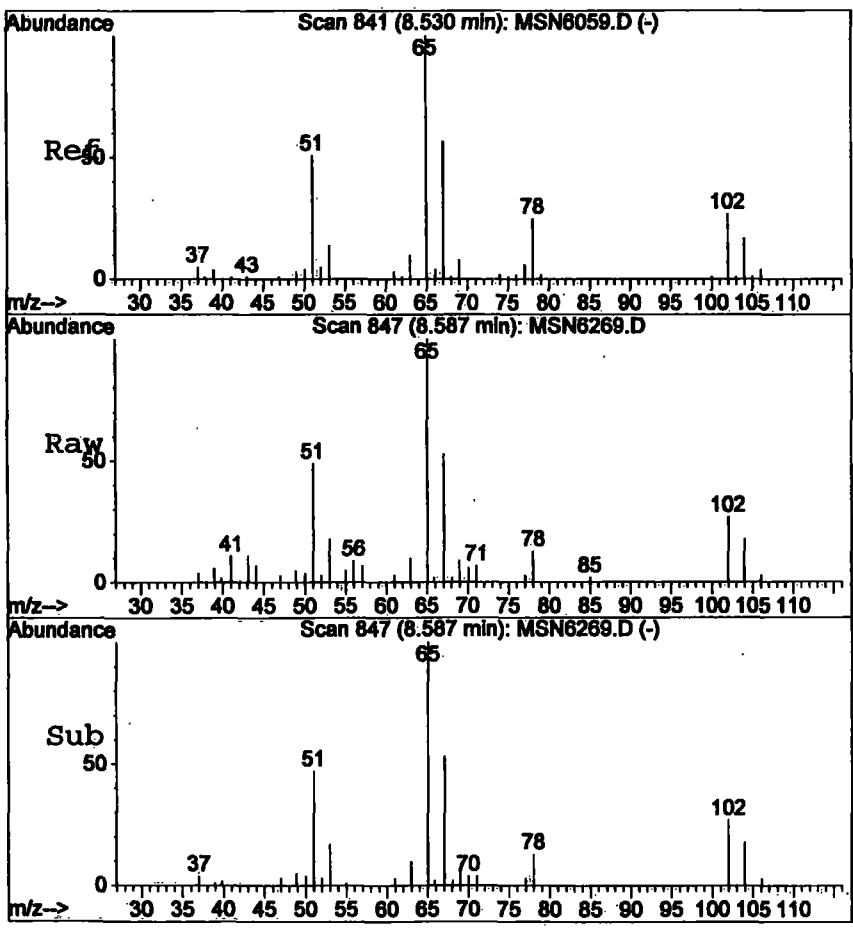



#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.02 min Scan# 999
Delta R.T. 0.05 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:114 Resp: 557048

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.5 | 2.6 | 42.6 |
| 88 | 19.8 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

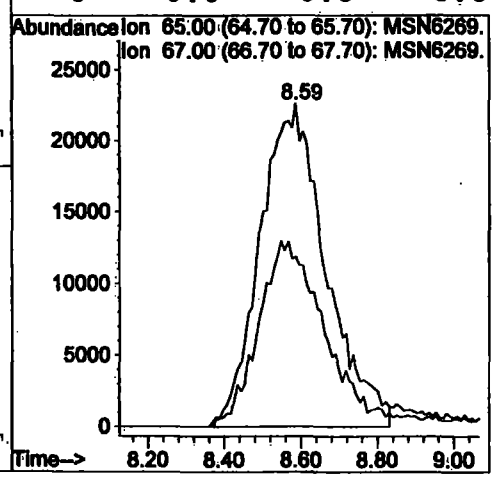


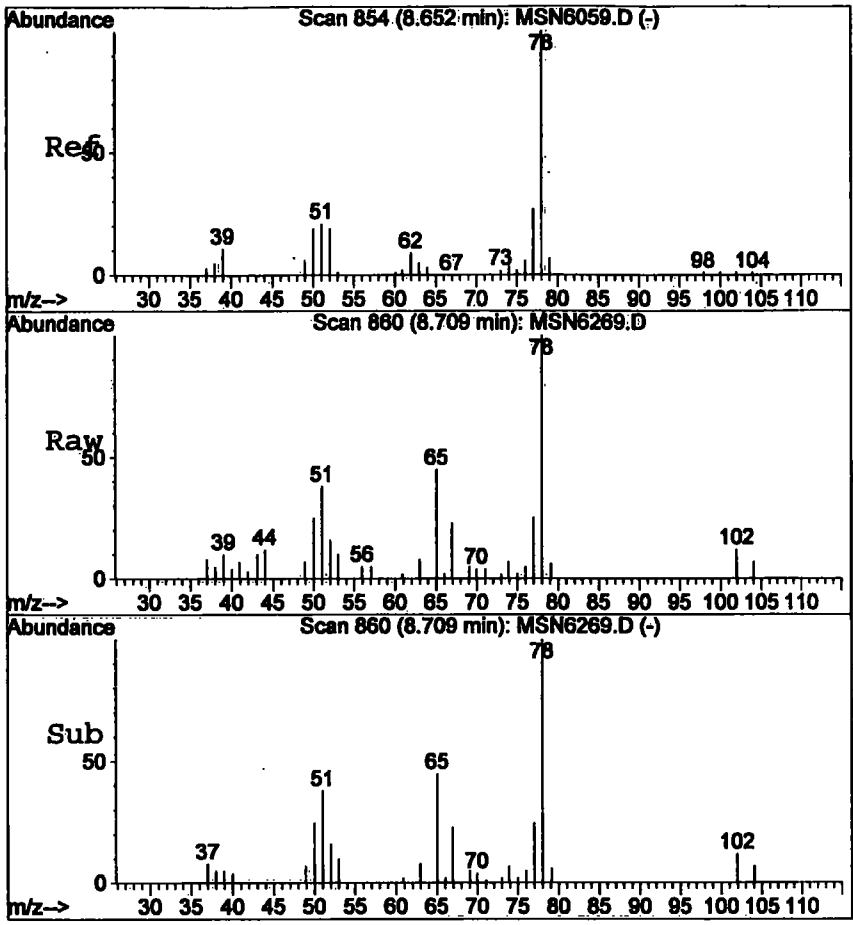




#29
1,2-dichloroethane-d4
Concen: 58.27 ug/Kg
RT: 8.59 min Scan# 847
Delta R.T. 0.05 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:65 Resp: 268431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 52.6 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

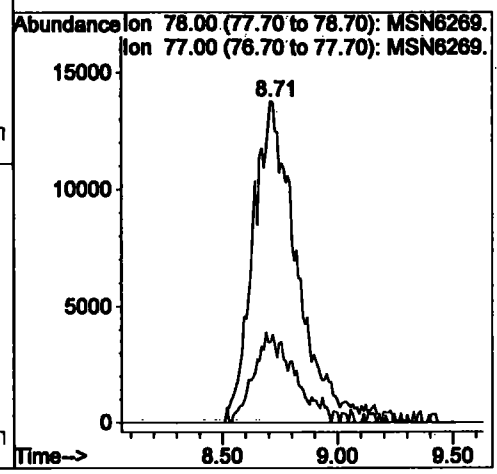


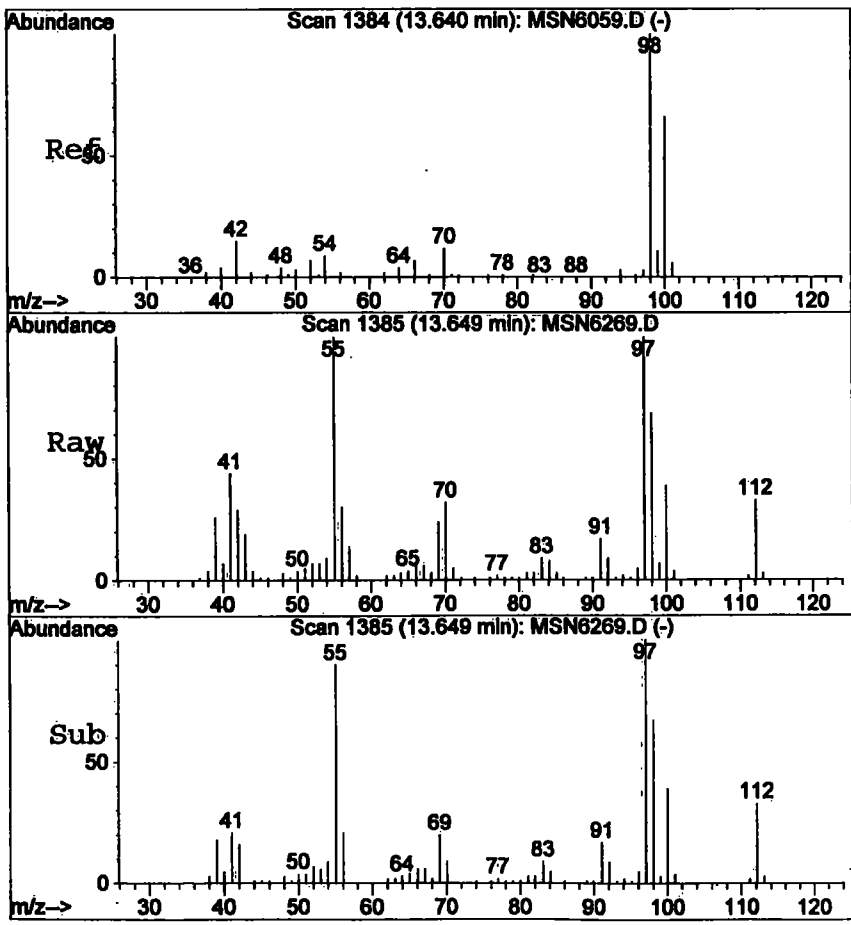



#30
benzene
Concen: 16.58 ug/Kg m
RT: 8.71 min Scan# 860
Delta R.T. 0.05 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:78 Resp: 183818

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 25.2 | 6.7 | 46.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

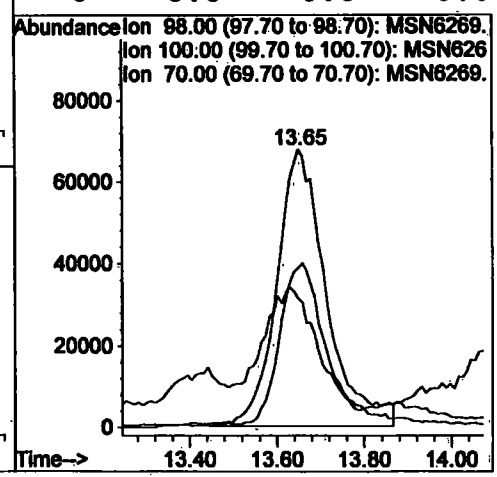


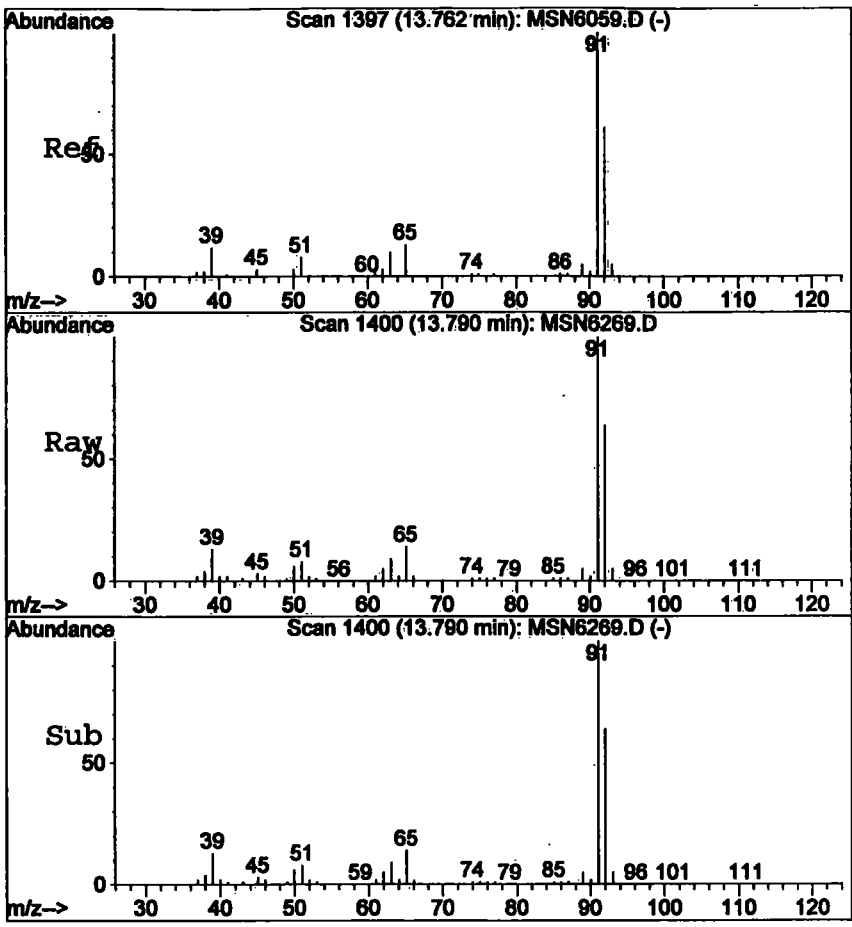




#40
toluene-d8
Concen: 50.61 ug/Kg
RT: 13.65 min Scan# 1385
Delta R.T. 0.02 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:98 Resp: 532694

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 56.0 | 54.0 | 81.0 |
| 70 | 38.5 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

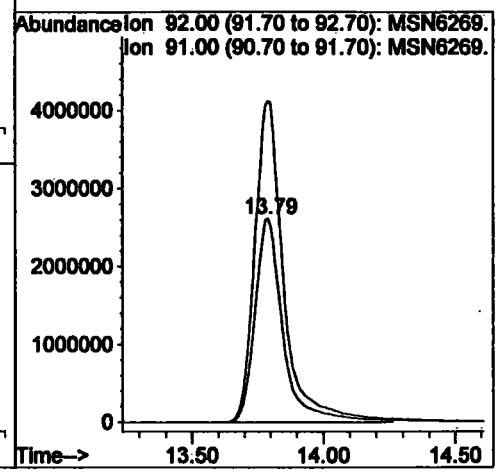


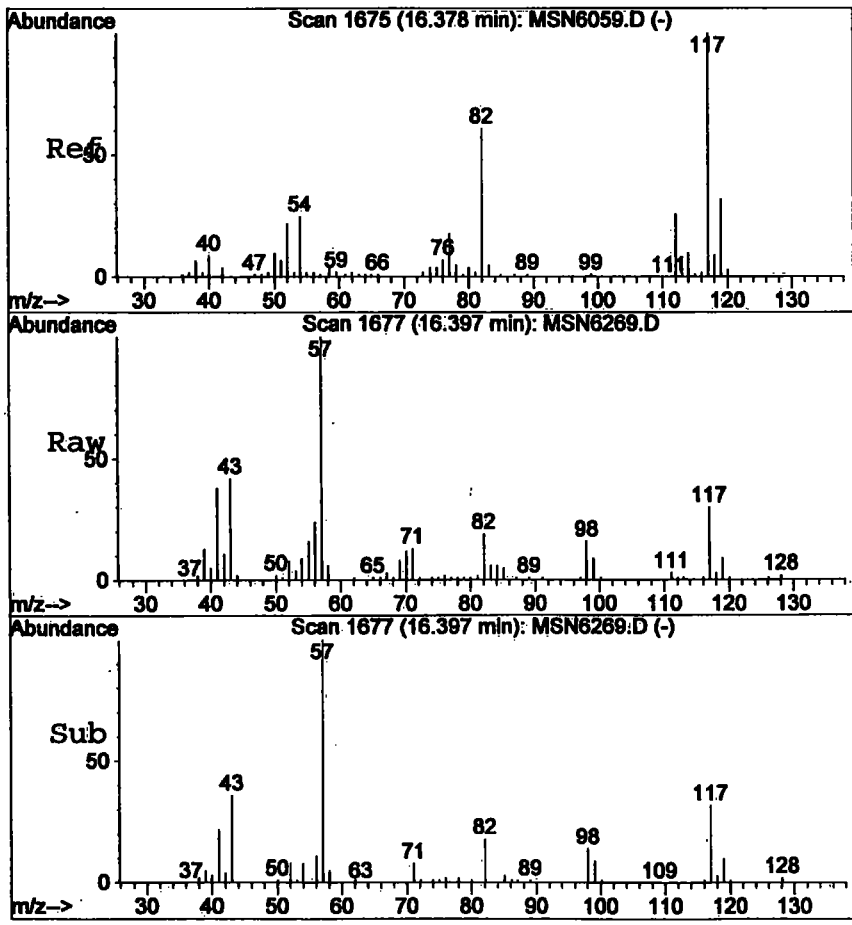



#41
toluene
Concen: 3010.55 ug/Kg m
RT: 13.79 min Scan# 1400
Delta R.T. 0.03 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:92 Resp:19488075

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 157.4 | 143.4 | 183.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

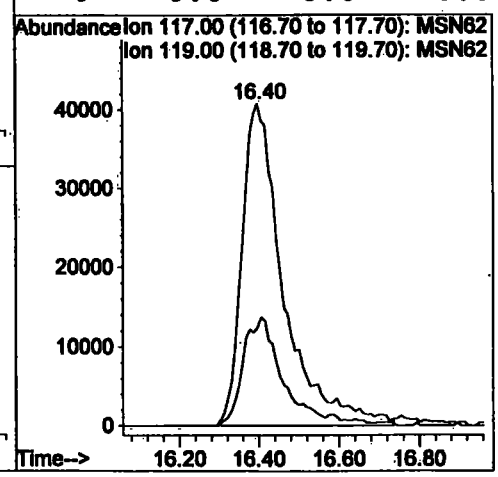


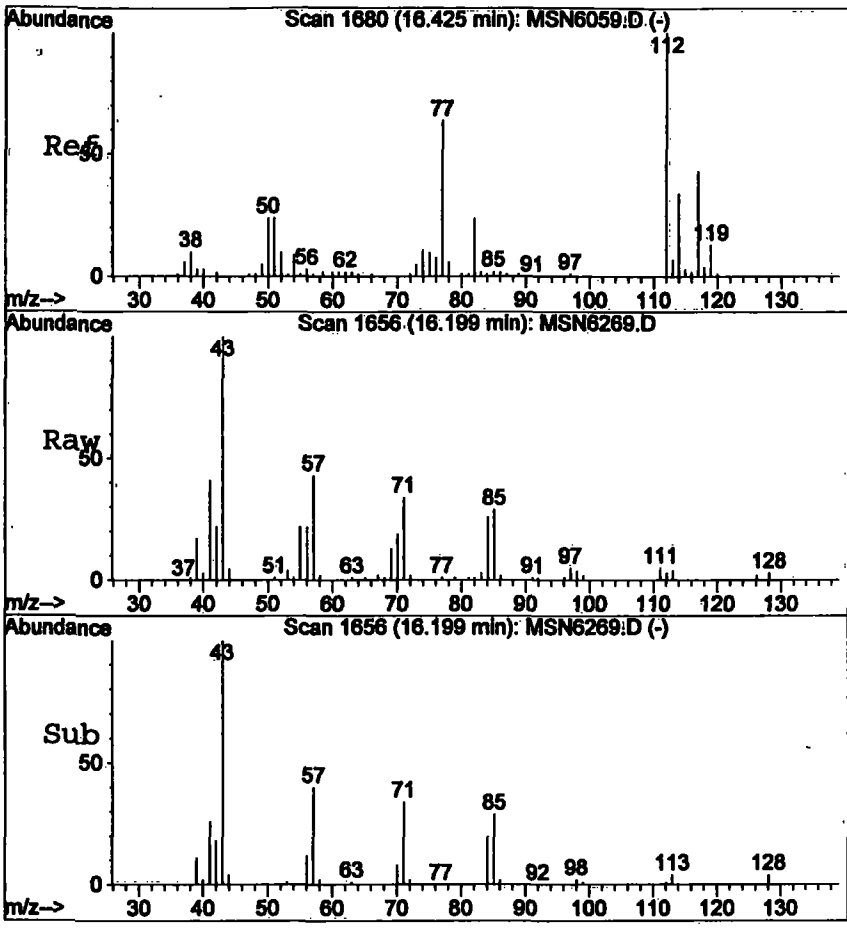




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.40 min Scan# 1677
Delta R.T. 0.03 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:117 Resp: 293519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 30.4 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

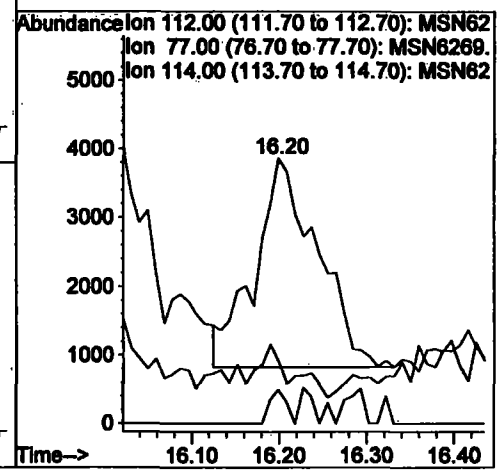


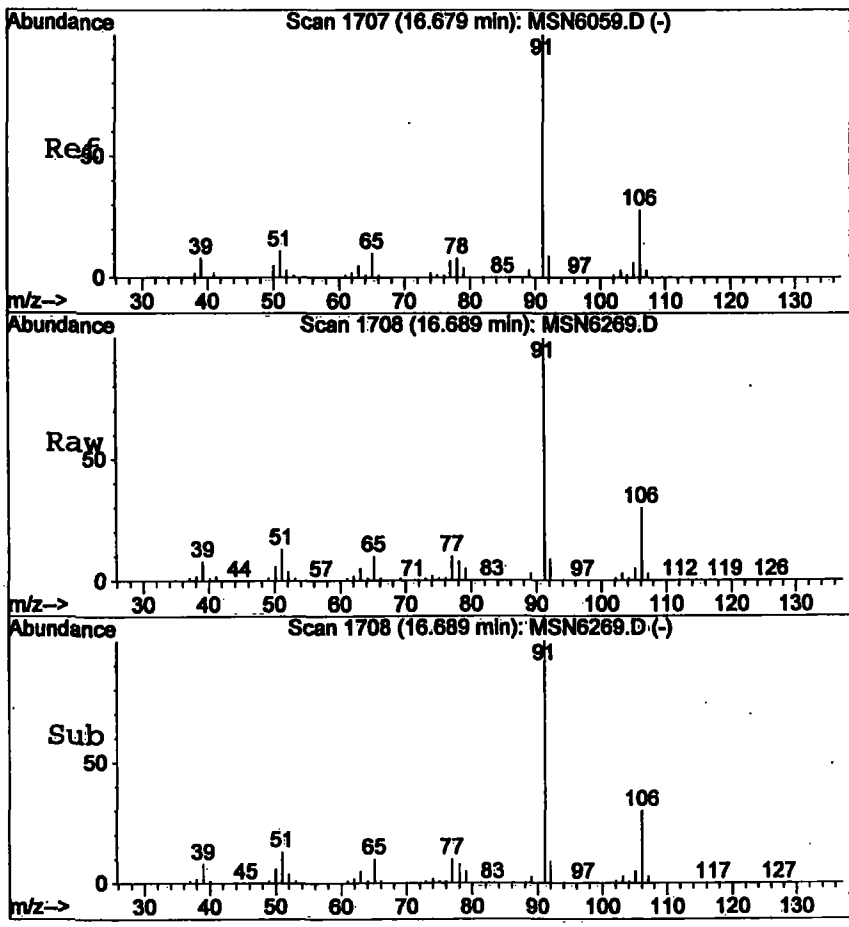



#48
chlorobenzene
Concen: 2.58 ug/Kg
RT: 16.20 min Scan# 1656
Delta R.T. -0.23 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:112 Resp: 15031

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 7.0 | 43.9 | 83.9# |
| 114 | 16.3 | 13.7 | 53.7 |
| 0 | 0.0 | 0.0 | 0.0 |

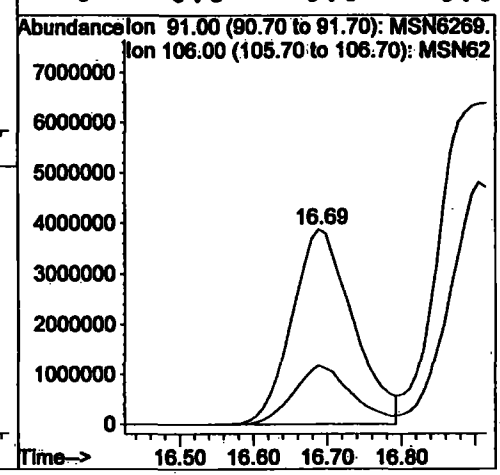


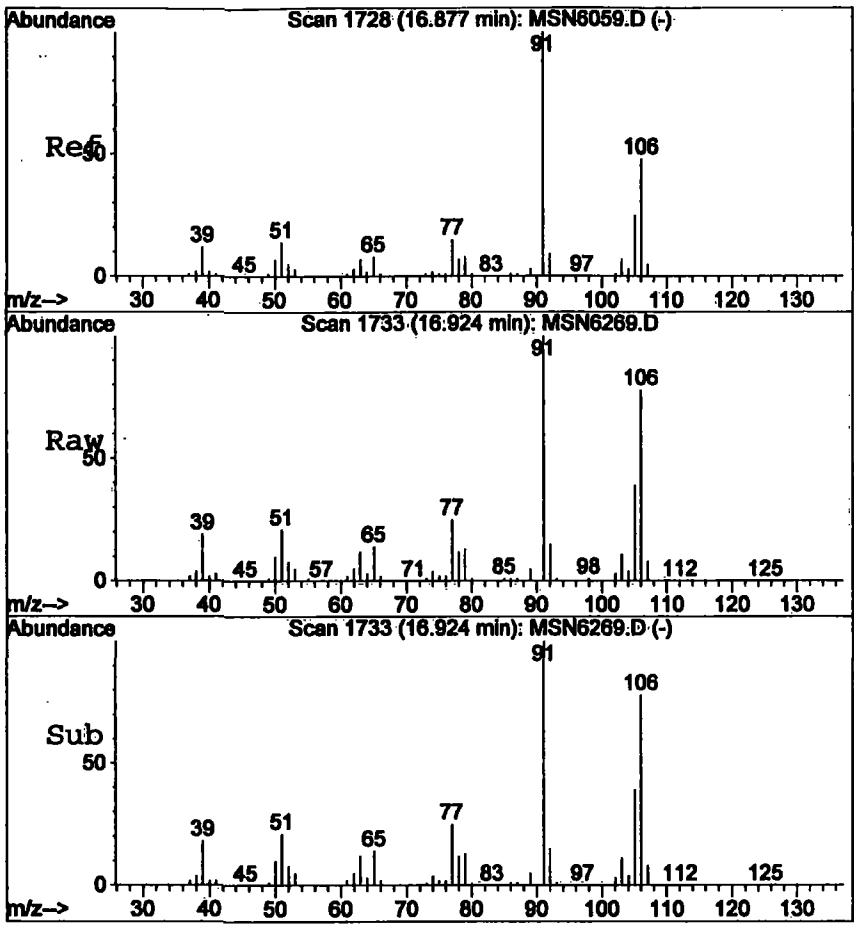




#49
ethylbenzene
Concen: 2565.48 ug/Kg
RT: 16.69 min Scan# 1708
Delta R.T. 0.01 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:91 Resp:22280736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.4 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

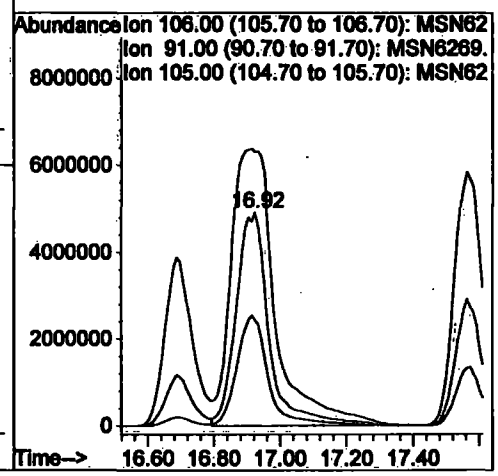


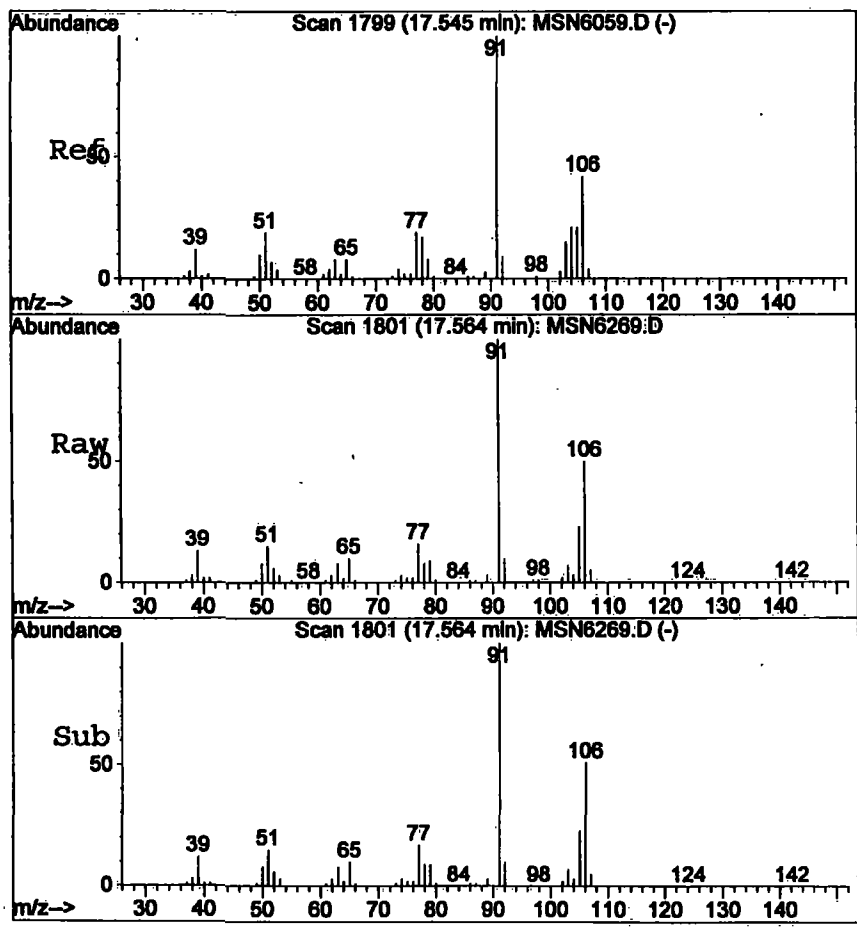



#50
m,p-xylene
Concen: 10917.56 ug/Kg
RT: 16.92 min Scan# 1733
Delta R.T. 0.04 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:106 Resp:34034694

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 127.5 | 192.8 | 232.8# |
| 105 | 49.3 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

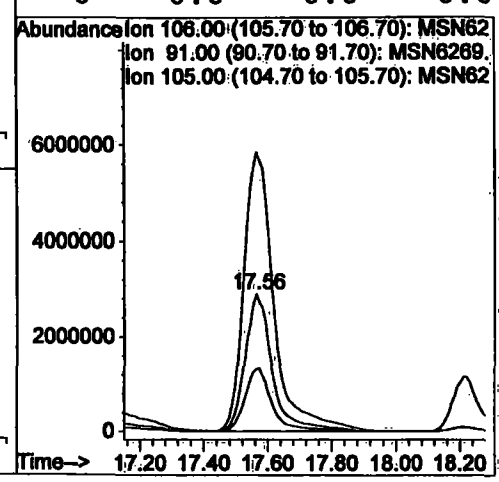


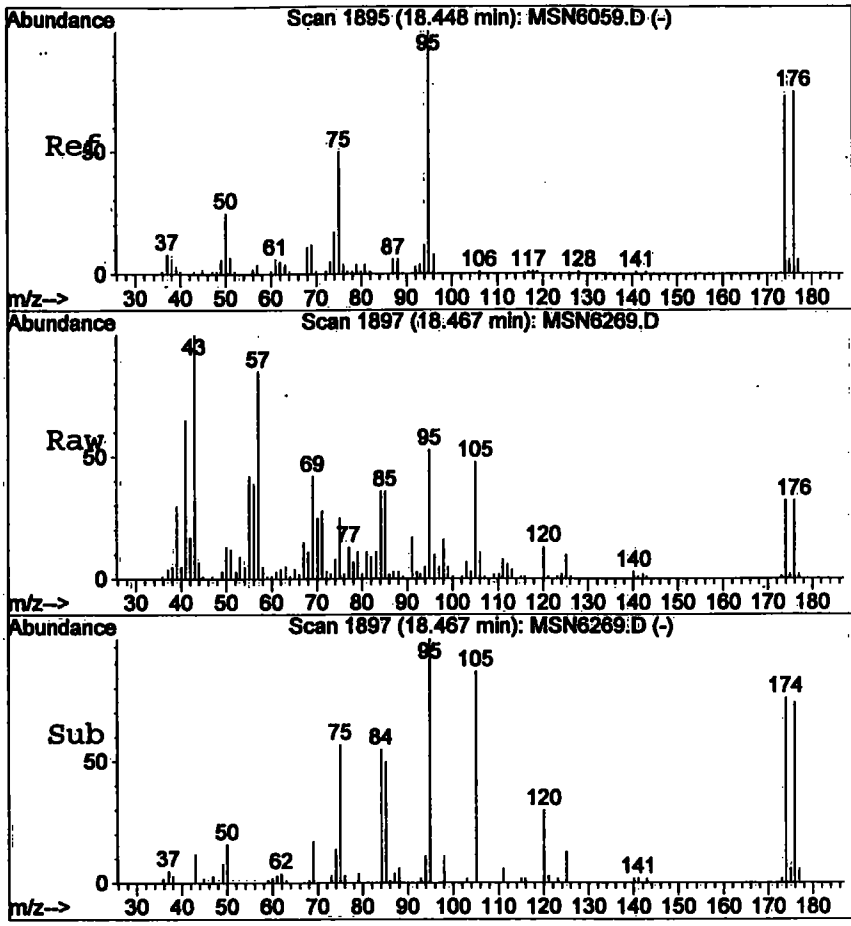




#51
o-xylene
Concen: 5892.42 ug/Kg
RT: 17.56 min Scan# 1801
Delta R.T. 0.02 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:106 Resp:17326469

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 200.5 | 220.1 | 260.1# |
| 105 | 45.6 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

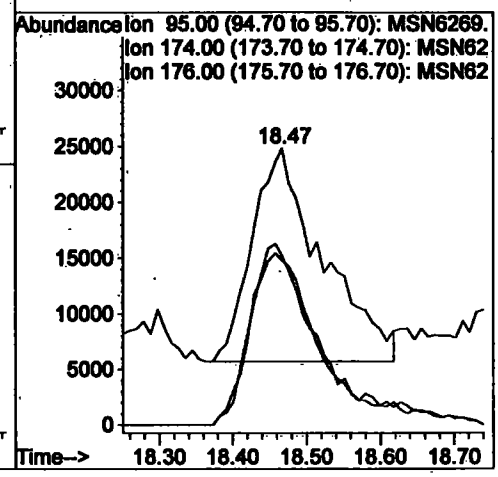


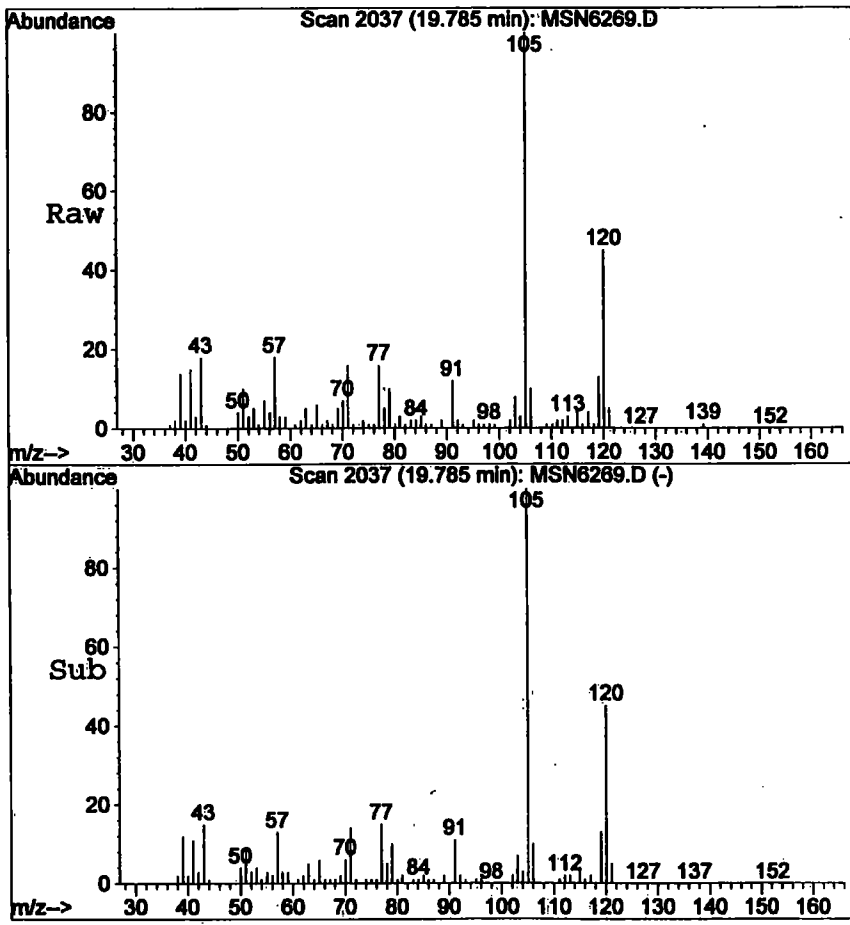



#56
4-bromofluorobenzene
Concen: 38.17 ug/Kg
RT: 18.47 min Scan# 1897
Delta R.T. 0.02 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:95 Resp: 125877

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 79.7 | 53.0 | 93.0 |
| 176 | 77.5 | 54.6 | 94.6 |
| 0 | 0.0 | 0.0 | 0.0 |

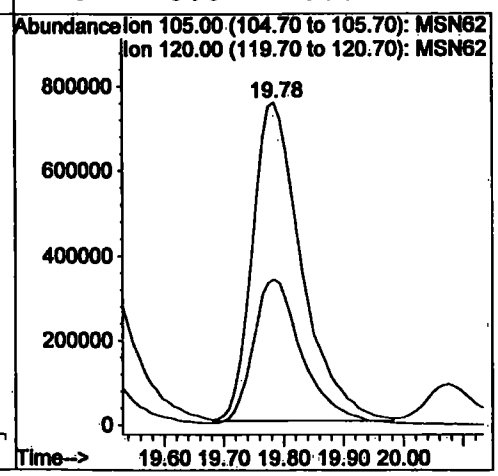



#59
1,2,4-trimethylbenzene
Concen: 585.01 ug/L
RT: 19.78 min Scan# 2037
Delta R.T. 0.01 min
Lab File: MSN6269.D
Acq: 29 Oct 97 22:17

Tgt Ion:105 Resp: 4258155

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.5 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6284.D Vial: 10
Acq On : 30 Oct 97 13:38 Operator: tcm
Sample : L72972500-001 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1250.00
Quant Time: Oct 30 14:06 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.89 | 128 | 332203 | 50.00 | ug/Kg | 0.05 |
| 24) 1,4-difluorobenzene | 10.09 | 114 | 1190677m | 50.00 | ug/Kg | 0.12 |
| 42) chlorobenzene-d5 | 16.44 | 117 | 739794 | 50.00 | ug/Kg | 0.07 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.68 | 65 | 54144 | 5.50 | ug/Kg | 0.14 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = | 11.00%# | |
| 40) toluene-d8 | 13.73 | 98 | 110201m | 4.90 | ug/Kg | 0.09 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = | 9.80%# | |
| 56) 4-bromofluorobenzene | 18.51 | 95 | 43469m | 5.23 | ug/Kg | 0.06 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = | 10.46%# | |
| **Target Compounds** | | | | | | Qvalue |
| 41) toluene | 13.85 | 92 | 42536m | 3842.75 | ug/Kg | 99 |
| 49) ethylbenzene | 16.75 | 91 | 65359 | 3732.34 | ug/Kg | 87 |
| 50) m,p-xylene | 16.92 | 106 | 211436m | 33637.07 | ug/Kg | 93 |
| 51) o-xylene | 17.58 | 106 | 89391m | 15076.93 | ug/Kg | 98 |
| 59) 1,2,4-trimethylbenzene | 19.81 | 105 | 37104 | 2528.14 | ug/L | 92 |

10:30 am

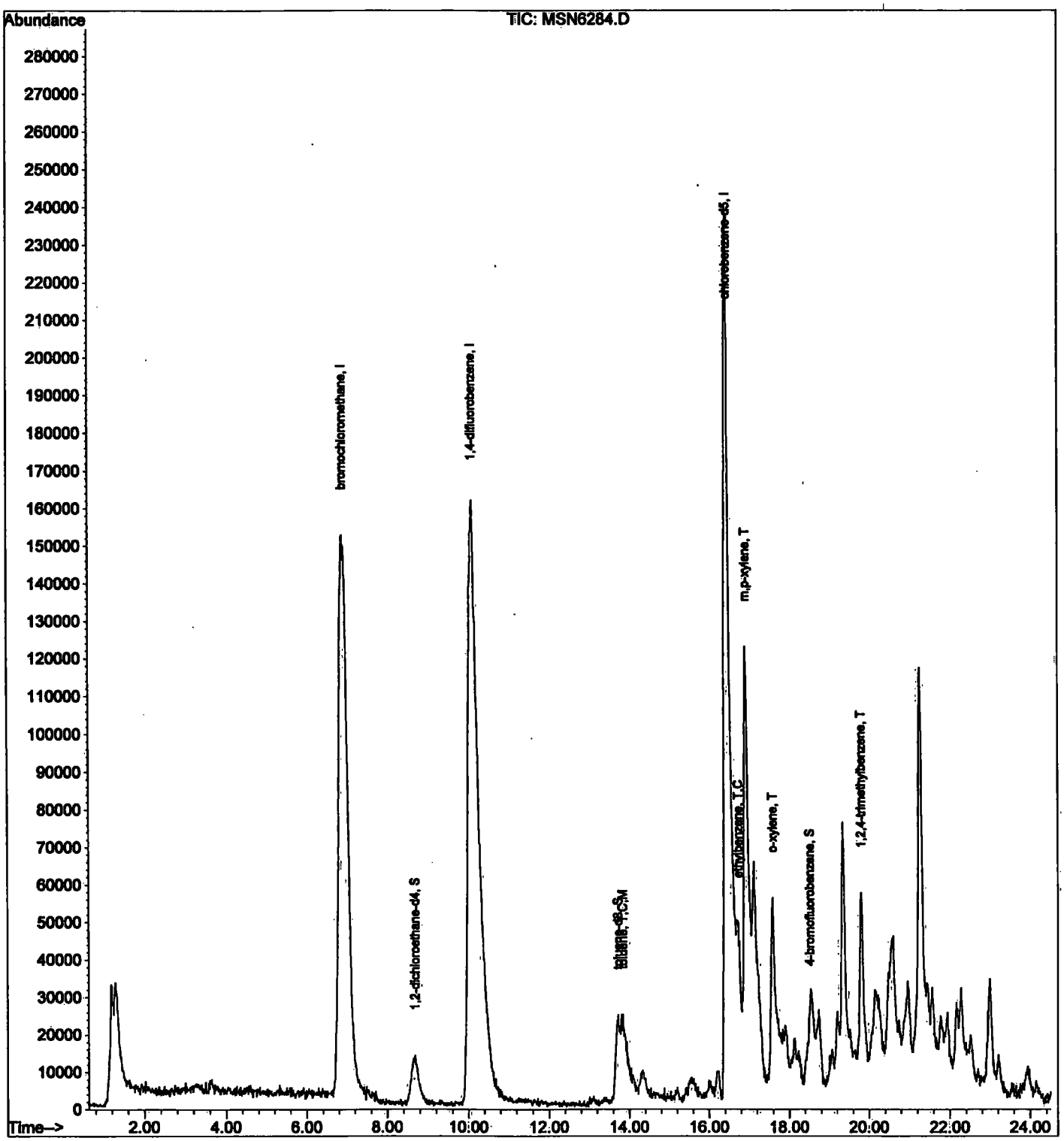
SURROGATES DILUTED OUT

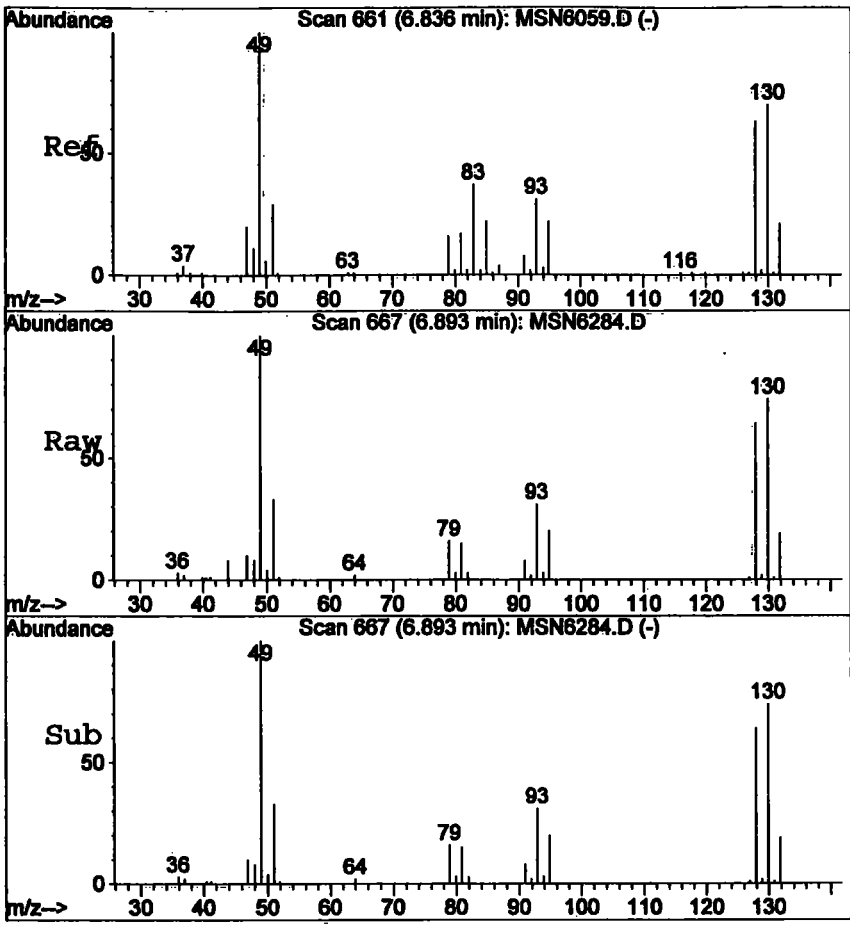
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6284.D  Vial: 10
Acq On : 30 Oct 97 13:38  Operator: tcm
Sample : L72972500-001  Inst : GC/MS Ins
Misc : VN103097  Multiplr: 1250.00
Quant Time: Oct 30 14:06 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

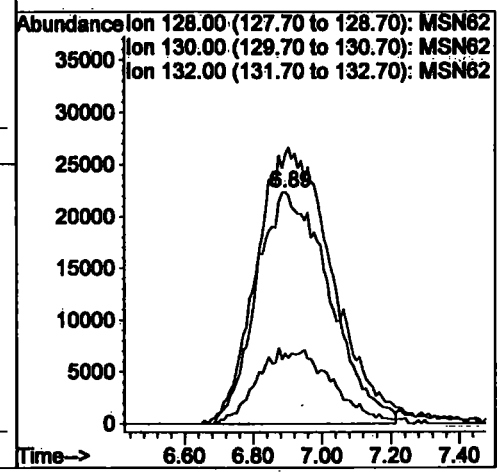


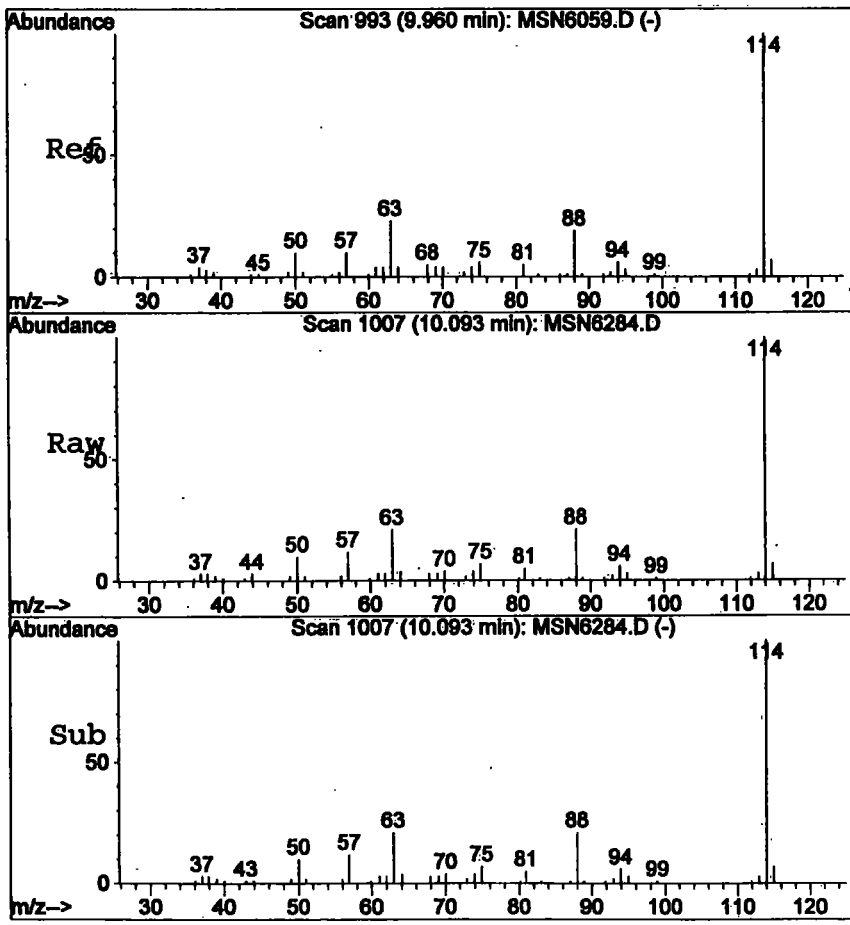



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.89 min Scan# 667
Delta R.T. 0.05 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:128 Resp: 332203

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 113.4 | 91.7 | 131.7 |
| 132 | 30.3 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

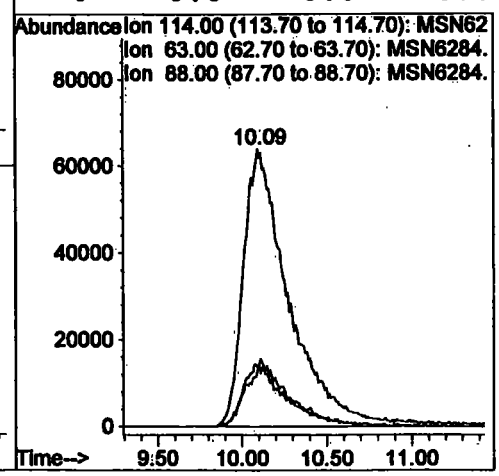


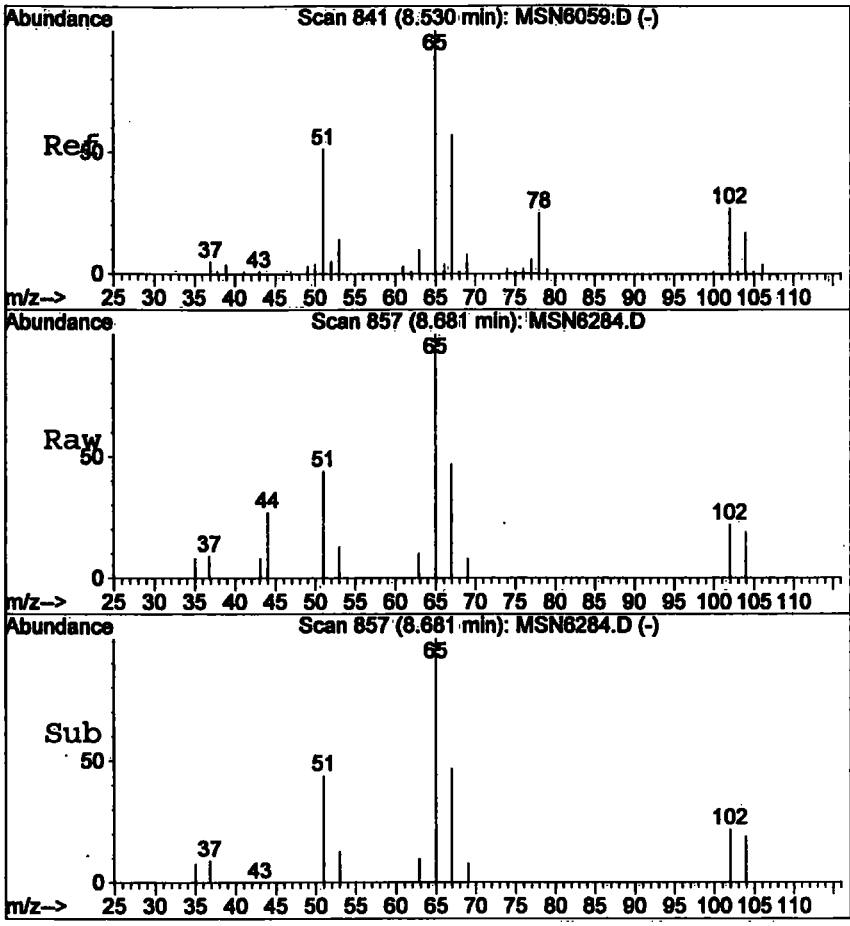




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg m
RT: 10.09 min Scan# 1007
Delta R.T. 0.12 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:114 Resp: 1190677

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.3 | 2.6 | 42.6 |
| 88 | 20.6 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

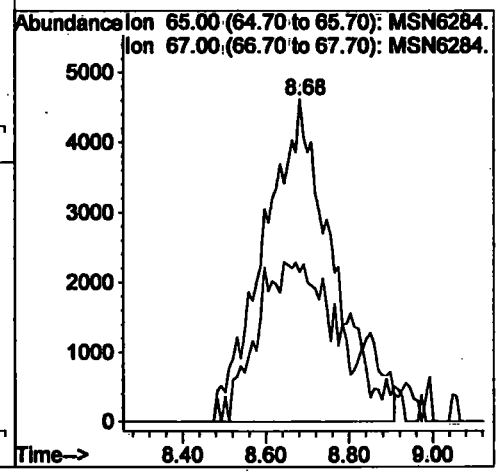


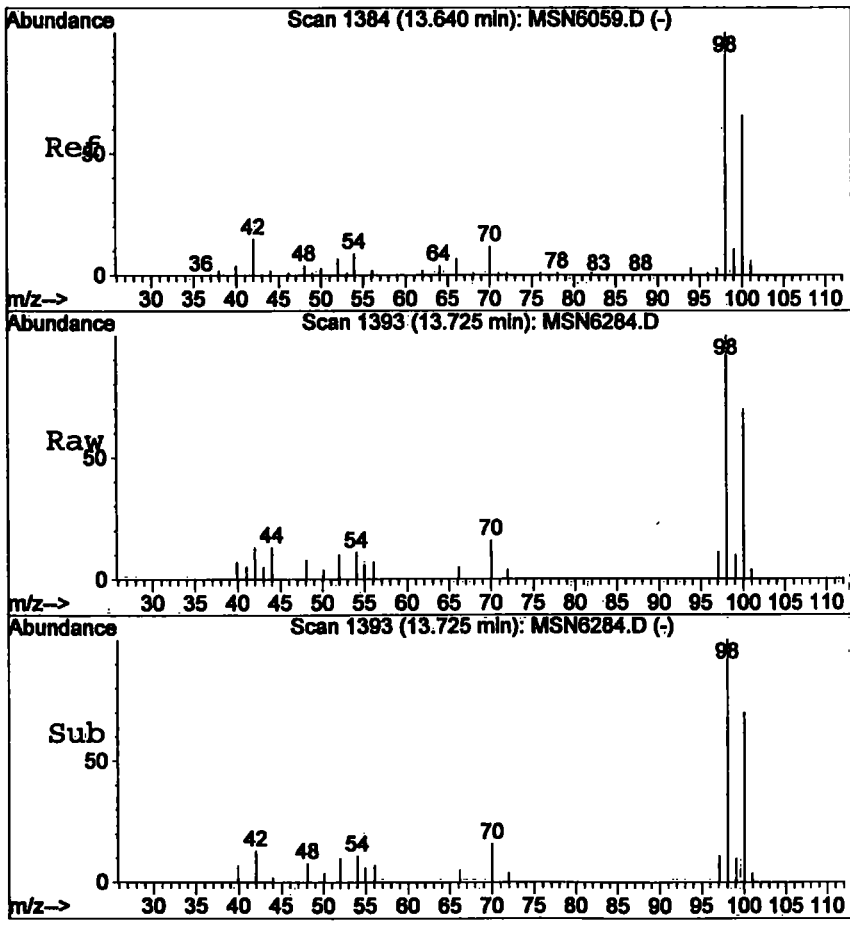



#29
1,2-dichloroethane-d4
Concen: 5.50 ug/Kg
RT: 8.68 min Scan# 857
Delta R.T. 0.14 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:65 Resp: 54144

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 46.6 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

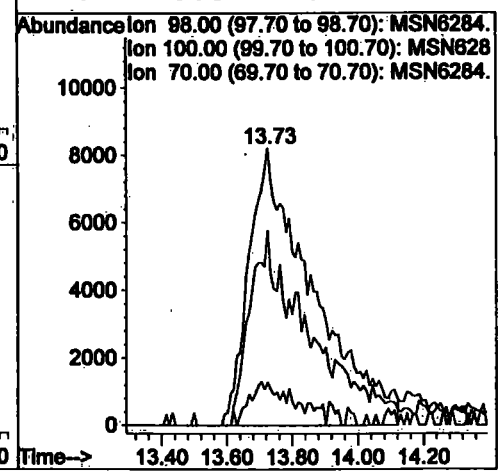


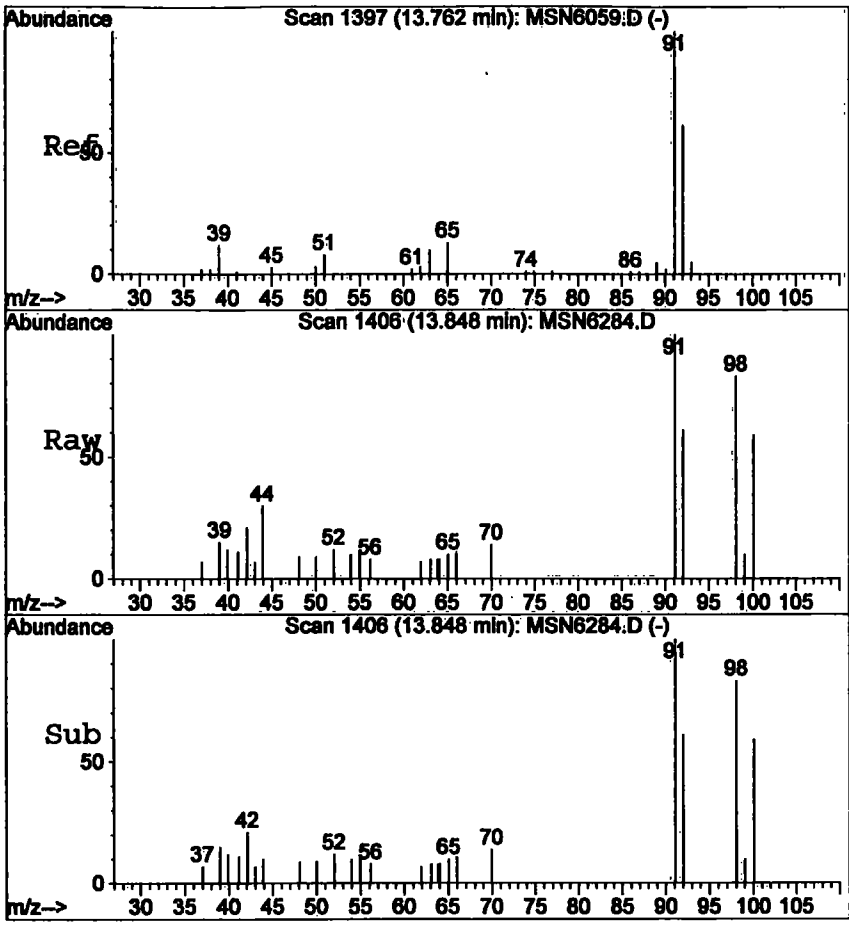




#40
toluene-d8
Concen: 4.90 ug/Kg m
RT: 13.73 min Scan# 1393
Delta R.T. 0.09 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:98 Resp: 110201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 70.3 | 54.0 | 81.0 |
| 70 | 15.9 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

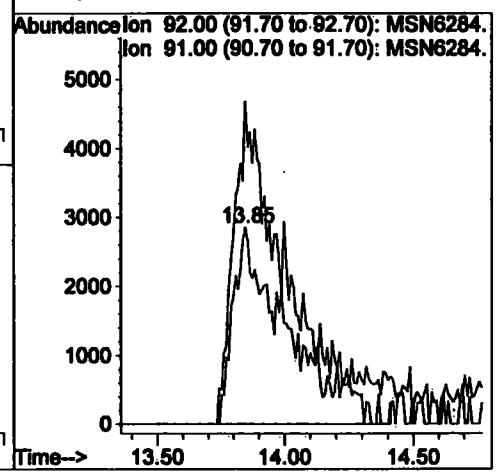


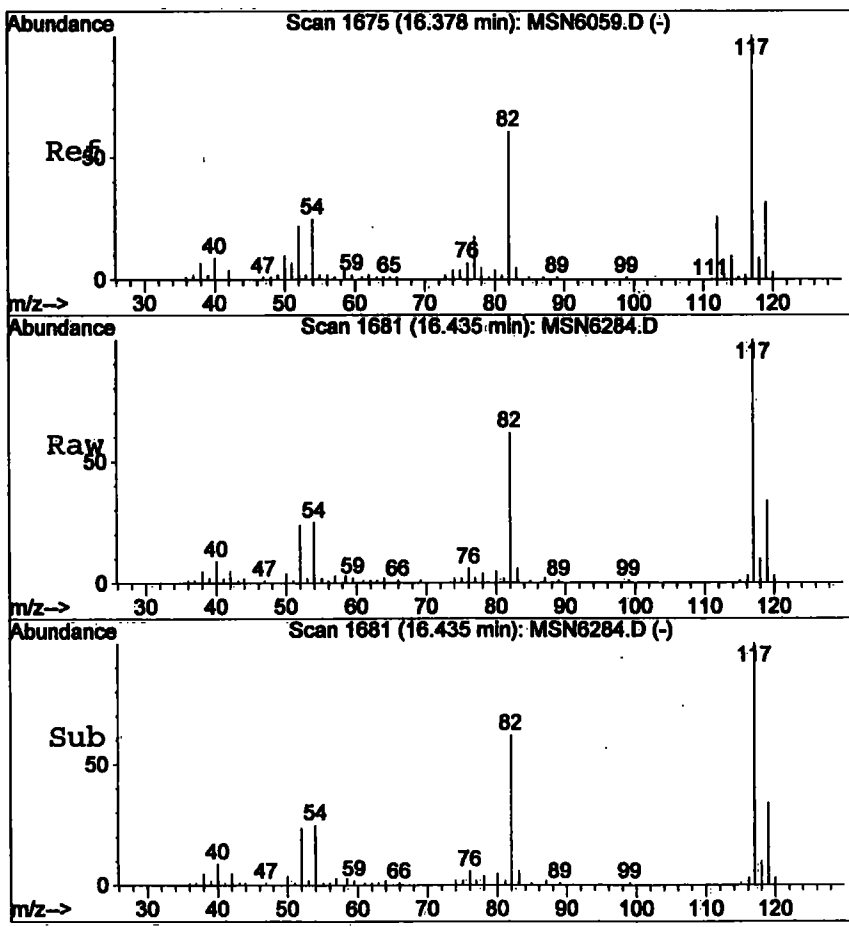



#41
toluene
Concen: 3842.75 ug/Kg m
RT: 13.85 min Scan# 1406
Delta R.T. 0.08 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:92 Resp: 42536

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 164.1 | 143.4 | 183.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

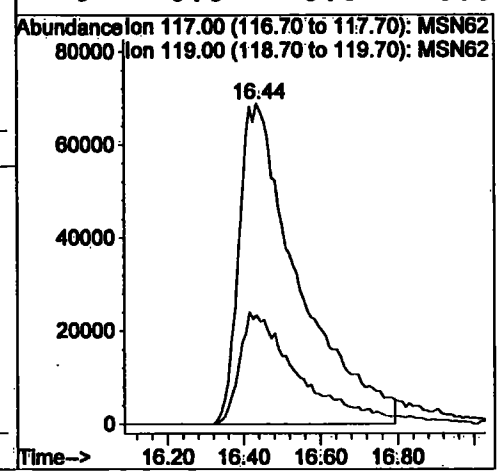


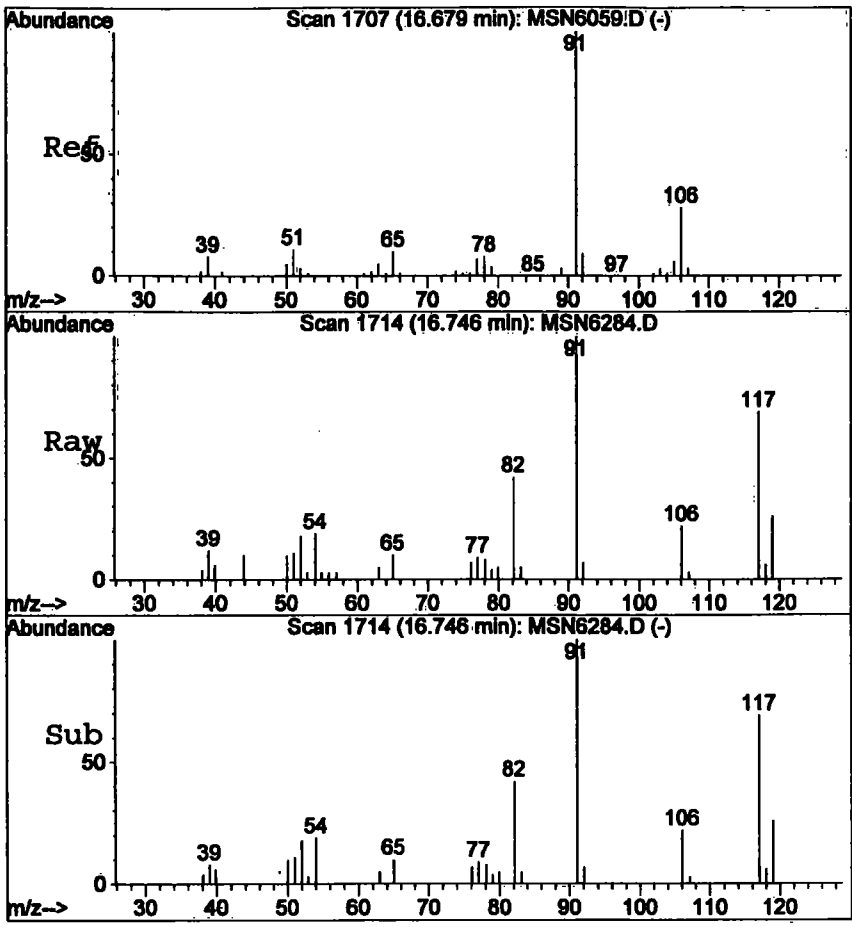




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.44 min Scan# 1681
Delta R.T. 0.07 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:117 Resp: 739794

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 33.9 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

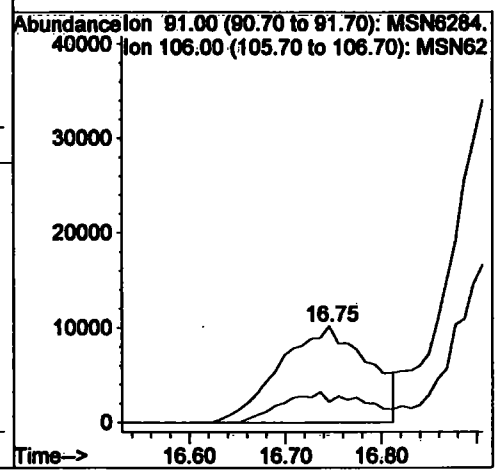


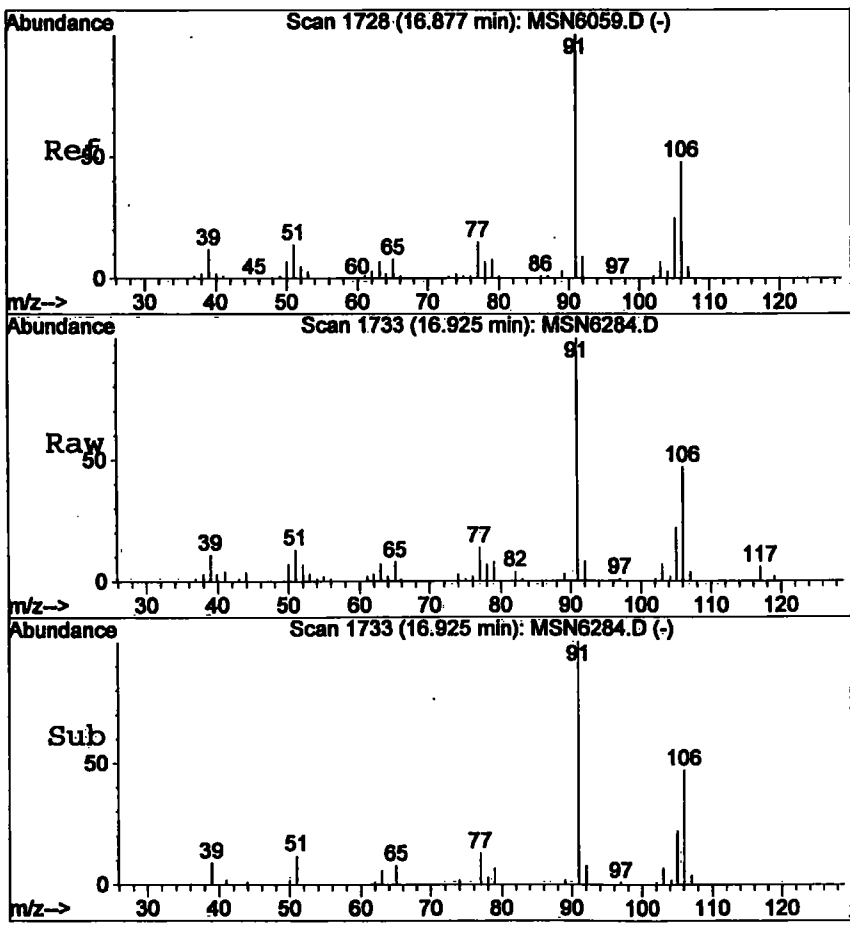



#49
ethylbenzene
Concen: 3732.34 ug/Kg
RT: 16.75 min Scan# 1714
Delta R.T. 0.07 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:91 Resp: 65359

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 21.5 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

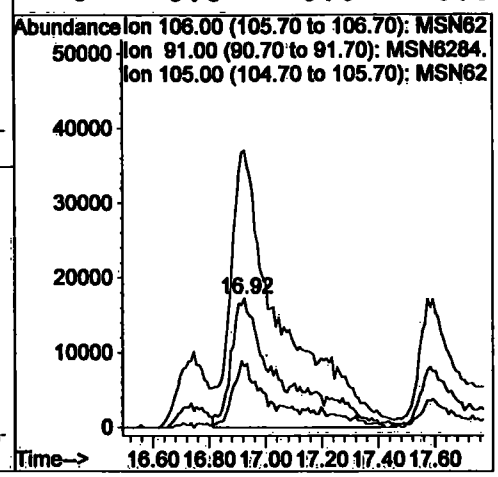


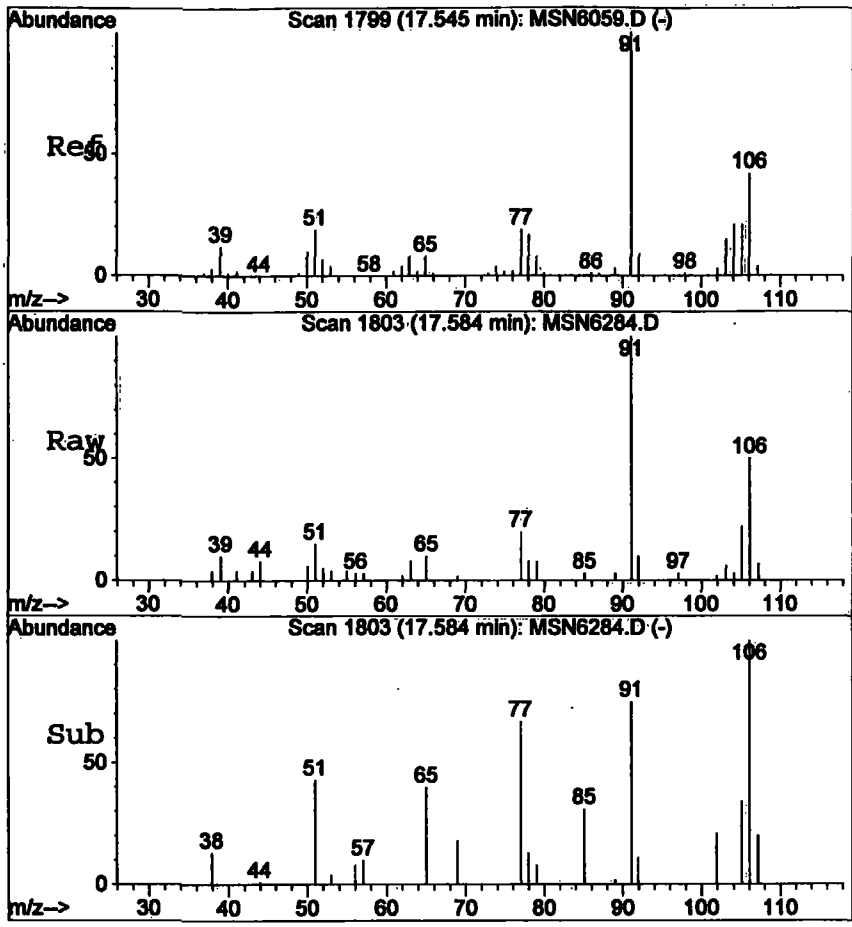




#50
m,p-xylene
Concen: 33637.07 ug/Kg m
RT: 16.92 min Scan# 1733
Delta R.T. 0.04 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:106 Resp: 211436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 214.7 | 192.8 | 232.8 |
| 105 | 47.2 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

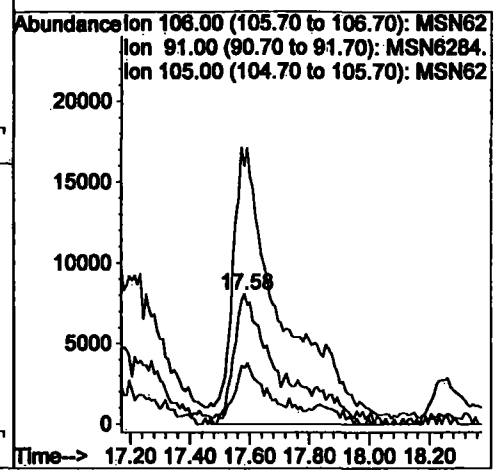


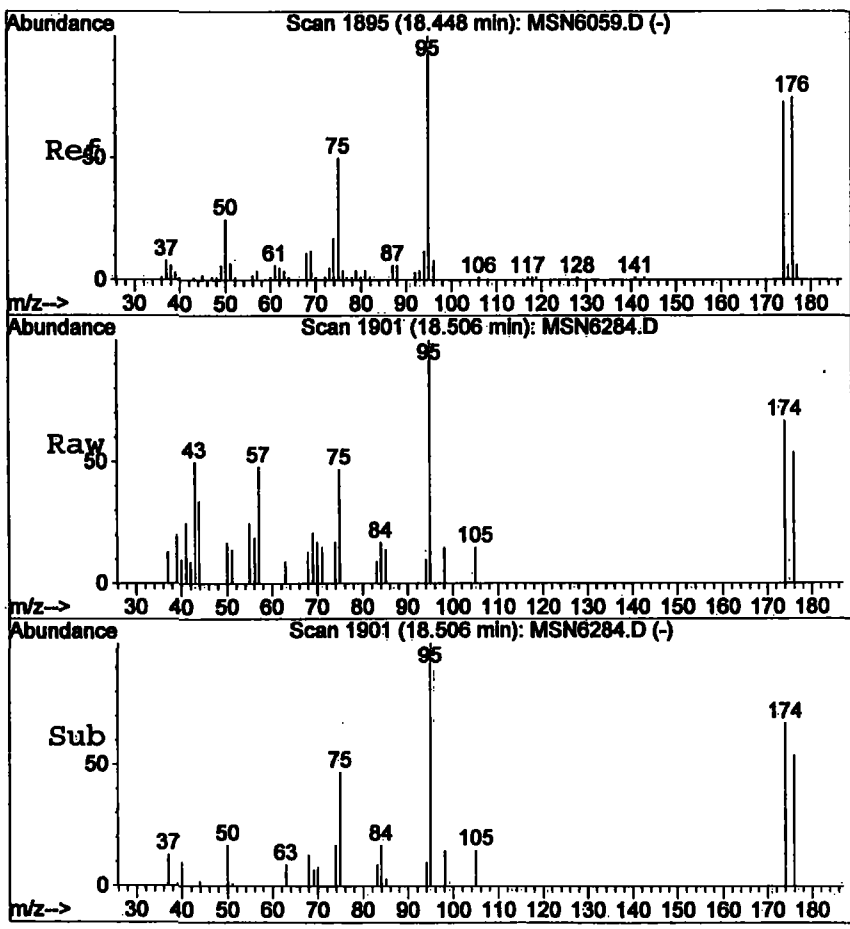



#51
o-xylene
Concen: 15076.93 ug/Kg m
RT: 17.58 min Scan# 1803
Delta R.T. 0.04 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:106 Resp: 89391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 198.1 | 220.1 | 260.1# |
| 105 | 43.2 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

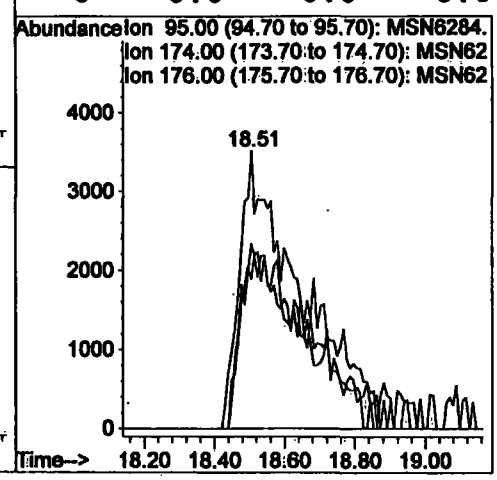


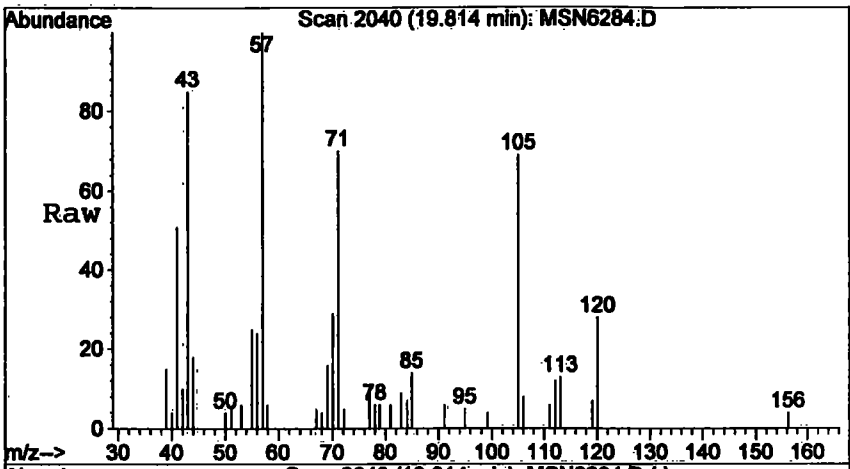




#56
4-bromofluorobenzene
Concen: 5.23 ug/Kg m
RT: 18.51 min Scan# 1901
Delta R.T. 0.06 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:95 Resp: 43469

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 66.6 | 53.0 | 93.0 |
| 176 | 53.9 | 54.6 | 94.6# |
| 0 | 0.0 | 0.0 | 0.0 |

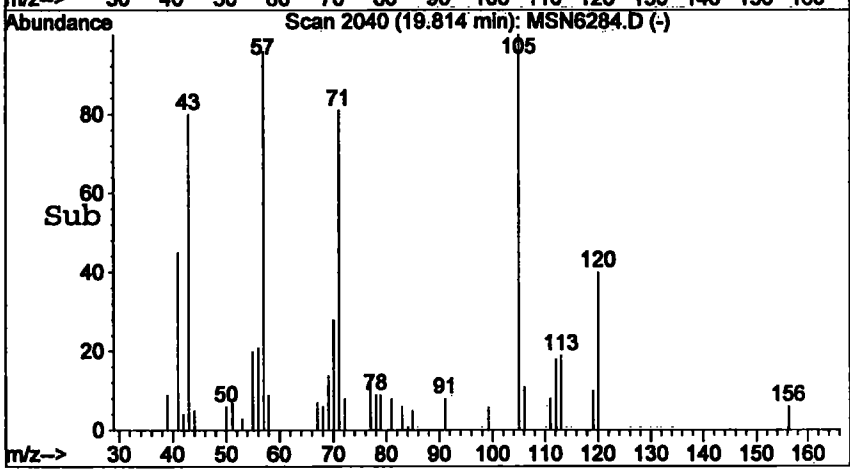


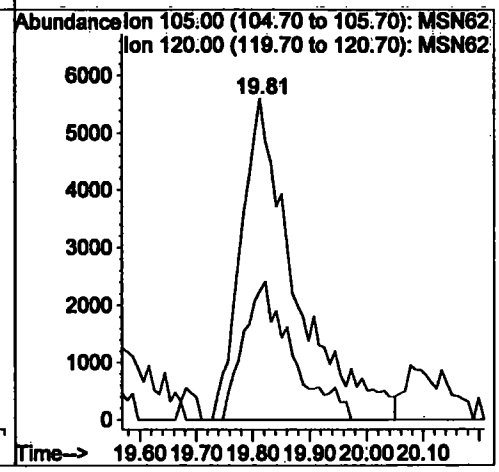



#59
1,2,4-trimethylbenzene
Concen: 2528.14 ug/L
RT: 19.81 min Scan# 2040
Delta R.T. 0.04 min
Lab File: MSN6284.D
Acq: 30 Oct 97 13:38

Tgt Ion:105 Resp: 37104

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.2 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6271.D Vial: 13
Acq On : 29 Oct 97 23:34 Operator: tcm
Sample : L72972500-002 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:31 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.86 | 128 | 126676 | 50.00 ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 10.00 | 114 | 299357 | 50.00 ug/Kg | 0.03 |
| 42) chlorobenzene-d5 | 16.40 | 117 | 109309 | 50.00 ug/Kg | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.57 | 65 | 186303 | 75.26 ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 150.52%# | | |
| 40) toluene-d8 | 13.62 | 98 | 689168 | 121.84 ug/Kg | -0.01 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 243.68%# | | |
| 56) 4-bromofluorobenzene | 18.55 | 95 | 393131 | 320.14 ug/Kg | 0.10 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 640.28%# | | |

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 3) chloromethane | 1.59 | 50 | 16713 | 5.76 ug/Kg | 74 |
| 14) methylene chloride | 3.64 | 84 | 10992 | 3.15 ug/Kg | 90 |
| 18) N-hexane | 4.74 | 57 | 128330 | 26.18 ug/Kg | 93 |
| 30) benzene | 8.78 | 78 | 33804m | 5.67 ug/Kg | 94 |
| 41) toluene | 13.79 | 92 | 1176119 | 338.09 ug/Kg | 93 |
| 48) chlorobenzene | 16.42 | 112 | 16056 | 7.40 ug/Kg# | 57 |
| 49) ethylbenzene | 16.70 | 91 | 1805882 | 558.35 ug/Kg | 98 |
| 50) m,p-xylene | 16.94 | 106 | 49263977 | 42433.95 ug/Kg# | 44 |
| 51) o-xylene | 17.59 | 106 | 31549363 | 28810.74 ug/Kg# | 43 |
| 59) 1,2,4-trimethylbenzene | 19.80 | 105 | 11063411 | 4081.45 ug/L | 99 |

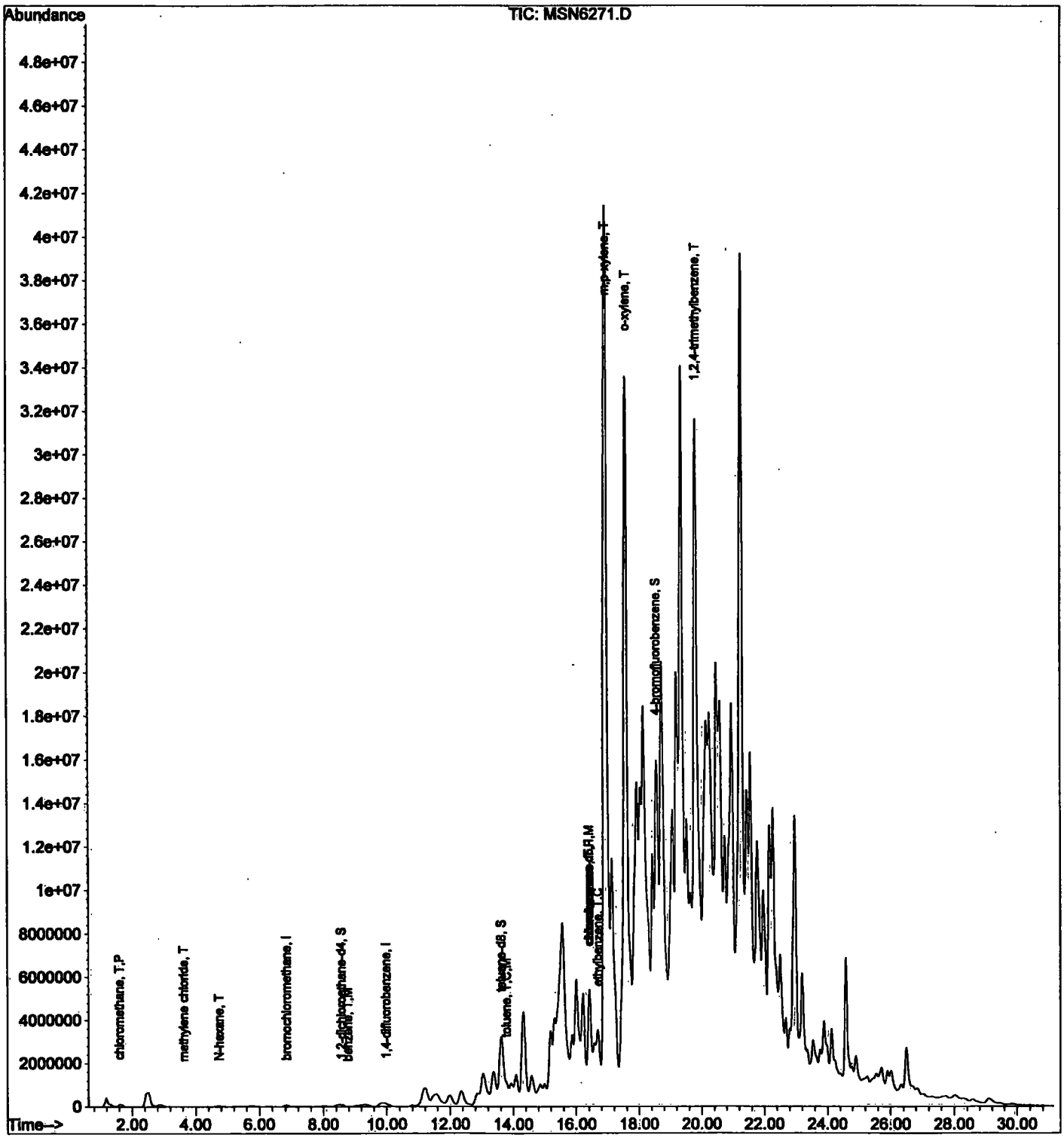
QC OK
1.2000

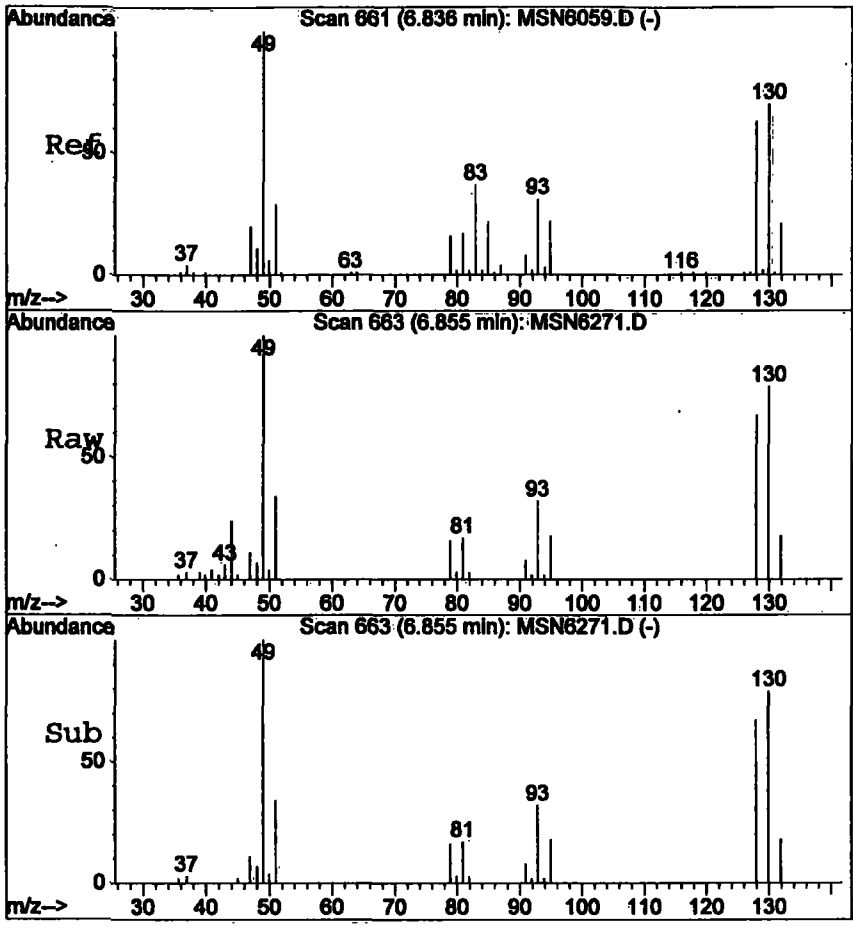
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6271.D Vial: 13
Acq On : 29 Oct 97 23:34 Operator: tcm
Sample : L72972500-002 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:31 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

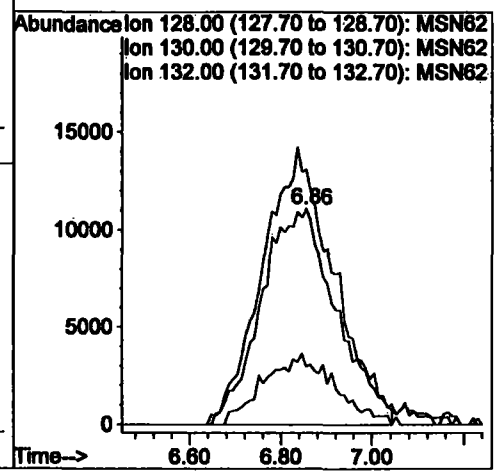


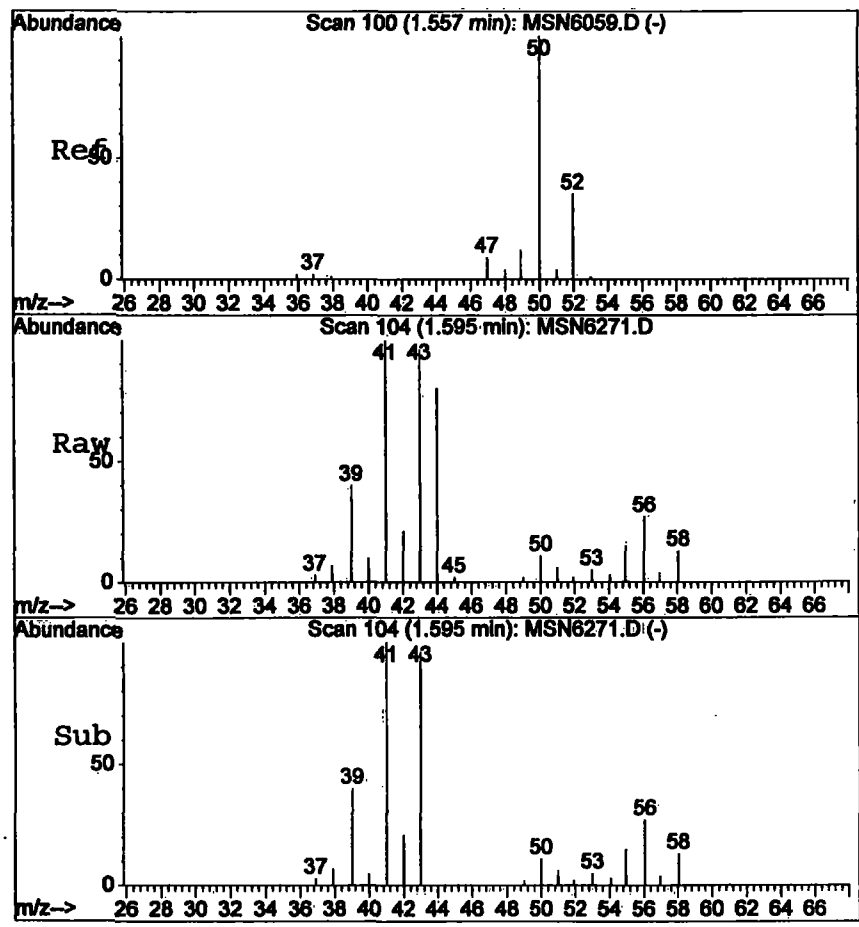



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.86 min Scan# 663
Delta R.T. 0.01 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:128 Resp: 126676

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 113.5 | 91.7 | 131.7 |
| 132 | 26.6 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

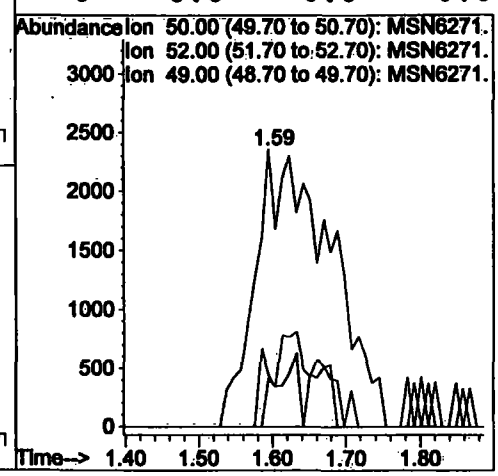


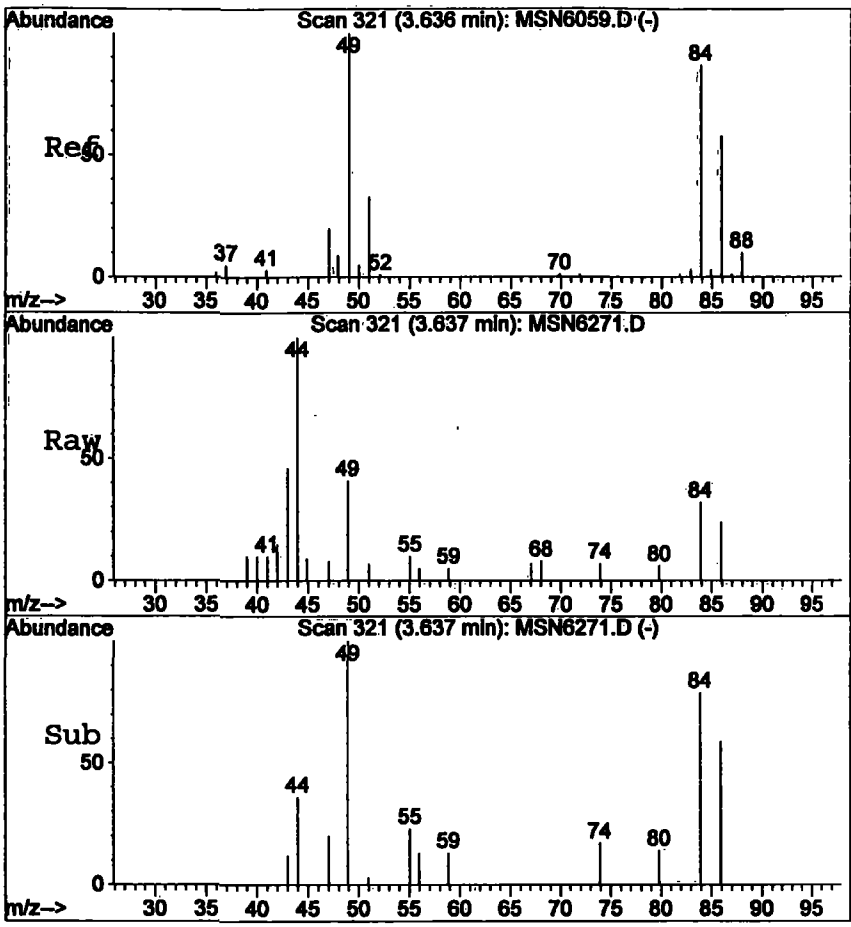




#3
chloromethane
Concen: 5.76 ug/Kg
RT: 1.59 min Scan# 104
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:50 Resp: 16713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 17.5 | 13.8 | 53.8 |
| 49 | 18.9 | 0.0 | 32.0 |
| 0 | 0.0 | 0.0 | 0.0 |

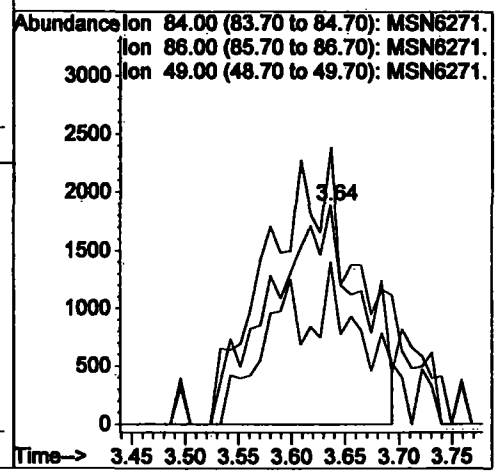


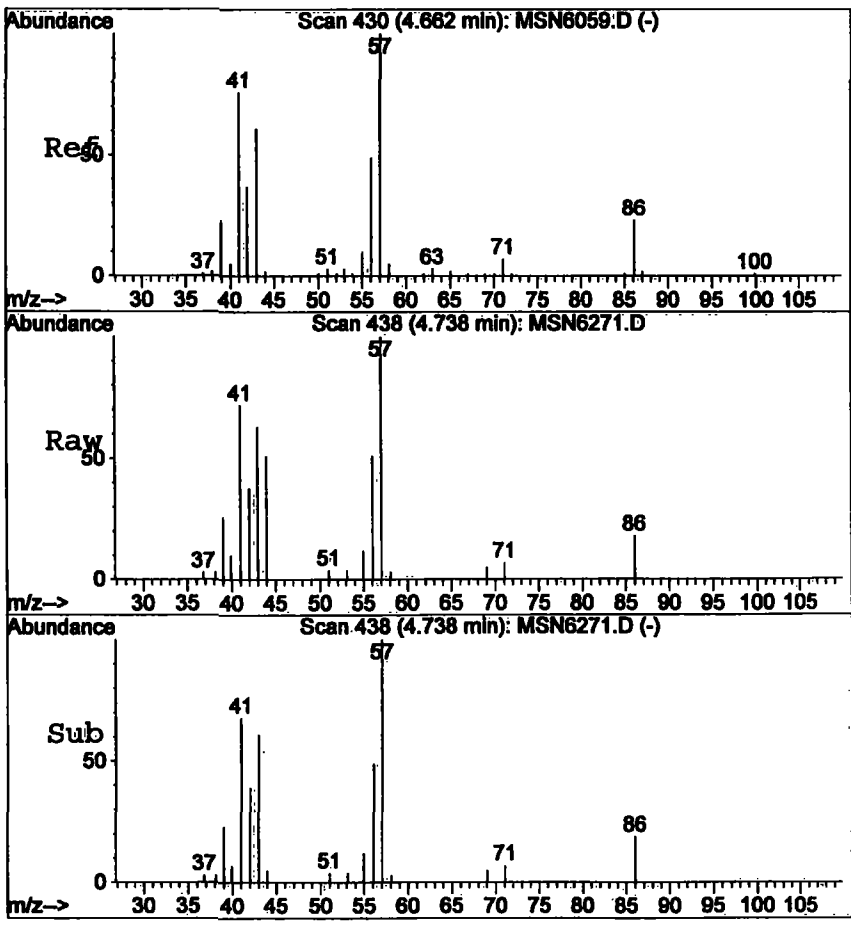



#14
methylene chloride
Concen: 3.15 ug/Kg
RT: 3.64 min Scan# 321
Delta R.T. -0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:84 Resp: 10992

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 86 | 74.0 | 47.1 | 87.1 |
| 49 | 126.0 | 94.8 | 134.8 |
| 0 | 0.0 | 0.0 | 0.0 |

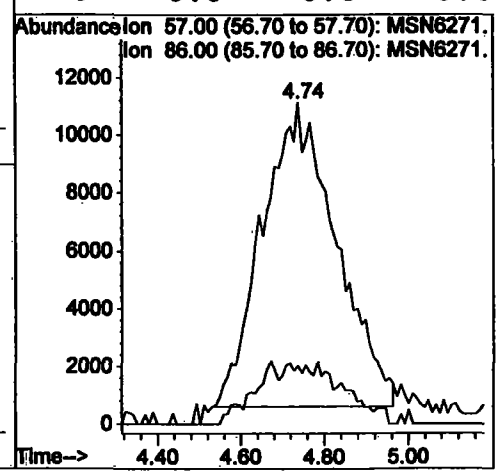


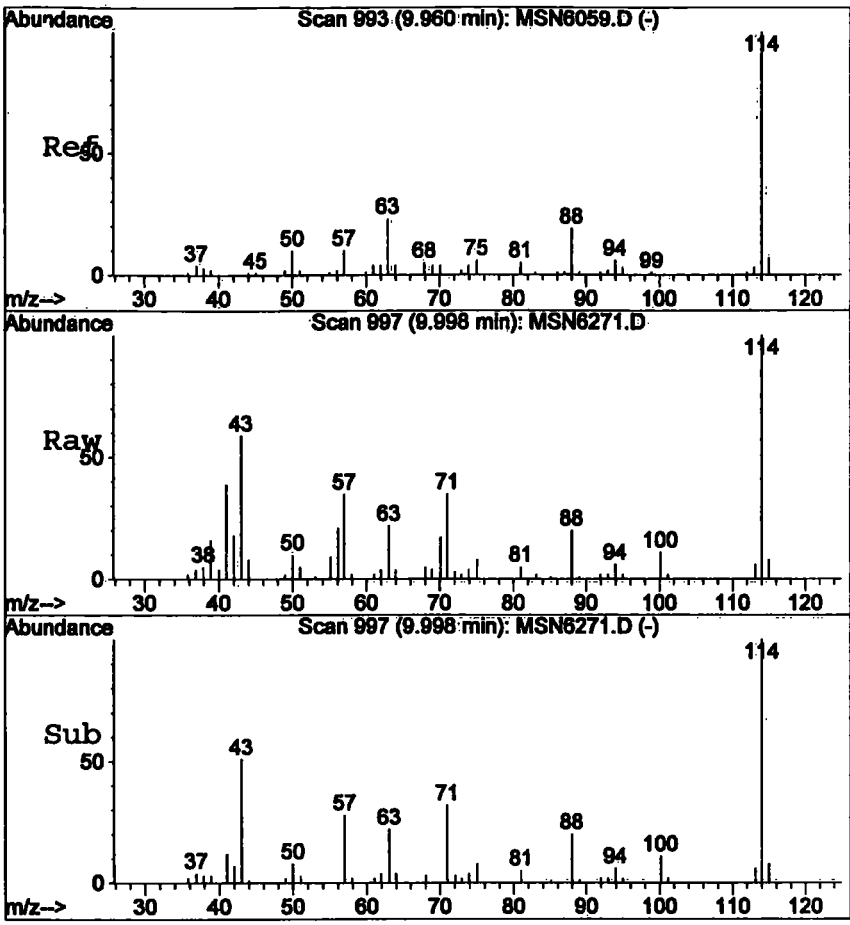




#18
N-hexane
Concen: 26.18 ug/Kg
RT: 4.74 min Scan# 438
Delta R.T. 0.07 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:57 Resp: 128330

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 86 | 19.2 | 2.6 | 42.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

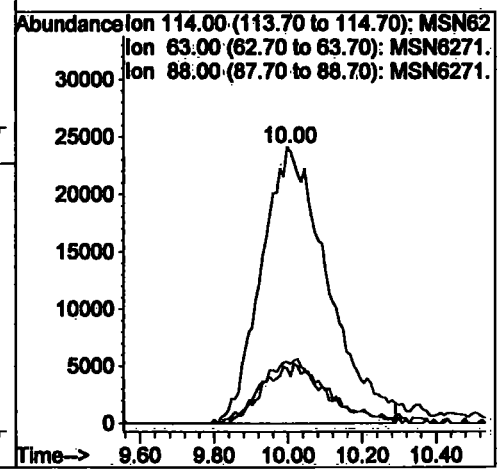


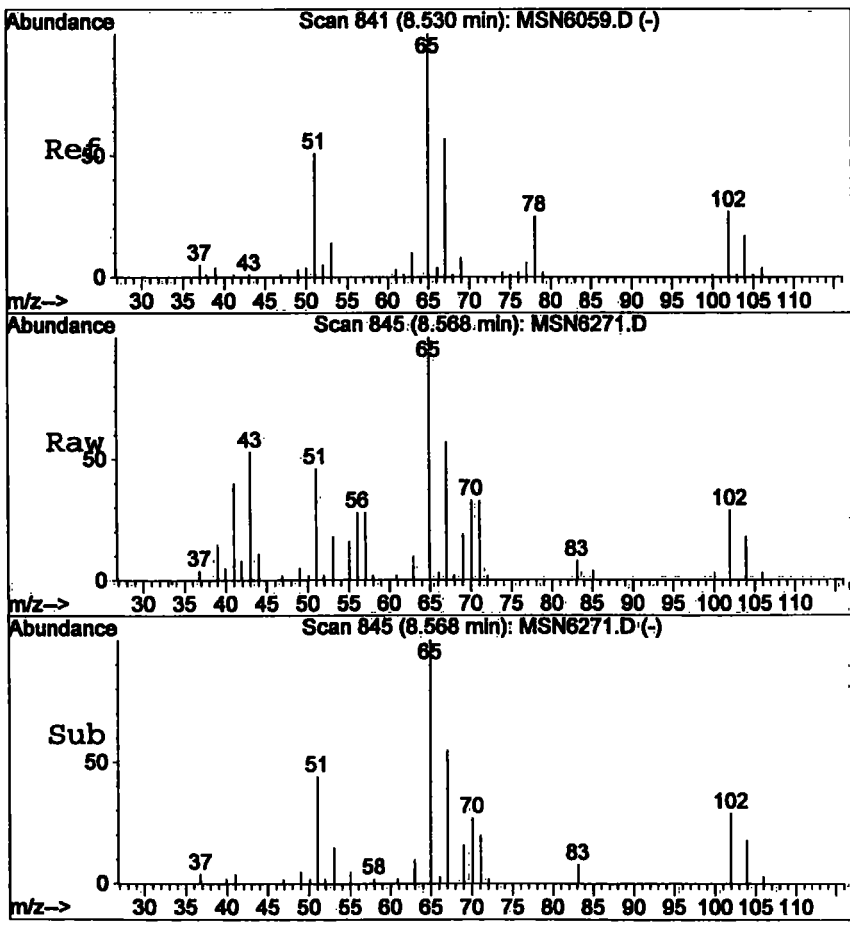



#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.00 min Scan# 997
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:114 Resp: 299357

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.0 | 2.6 | 42.6 |
| 88 | 19.9 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

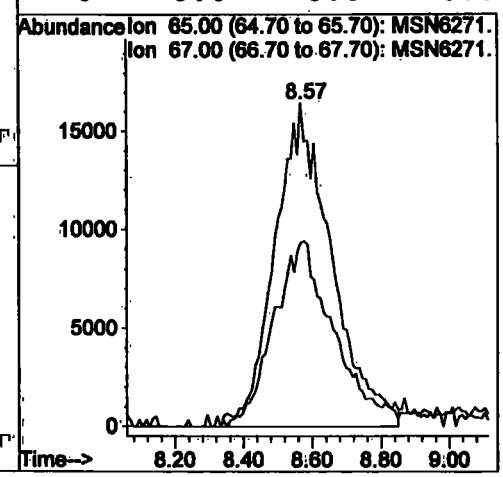


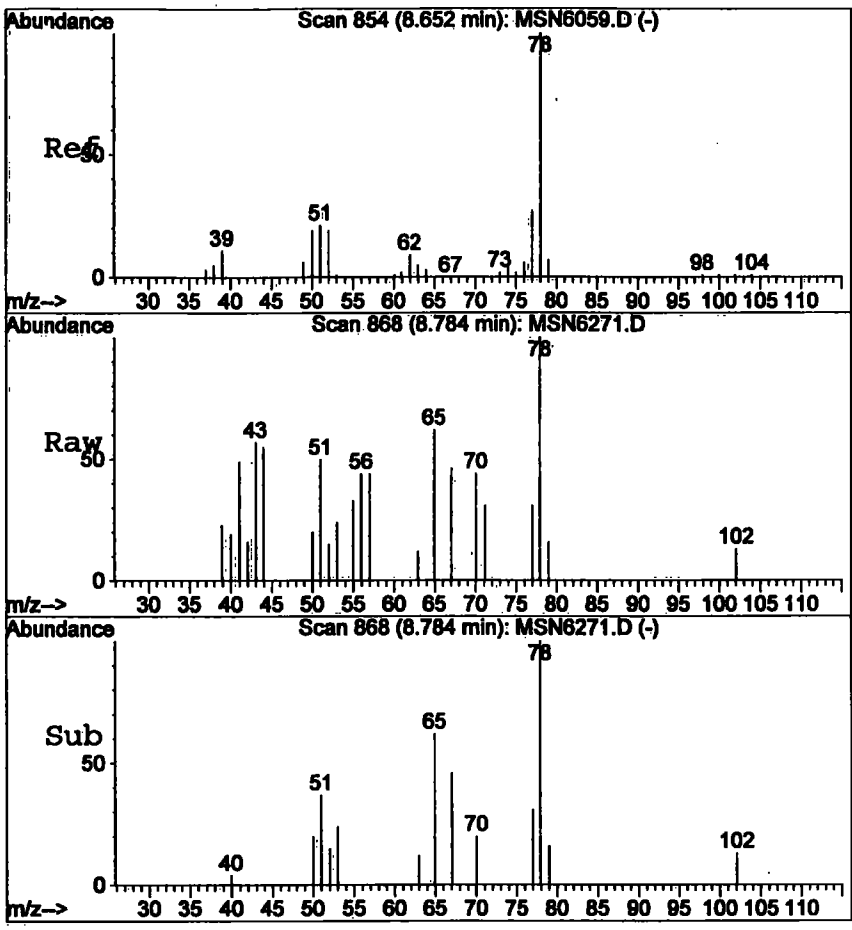




#29
1,2-dichloroethane-d4
Concen: 75.26 ug/Kg
RT: 8.57 min Scan# 845
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:65 Resp: 186303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 54.3 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

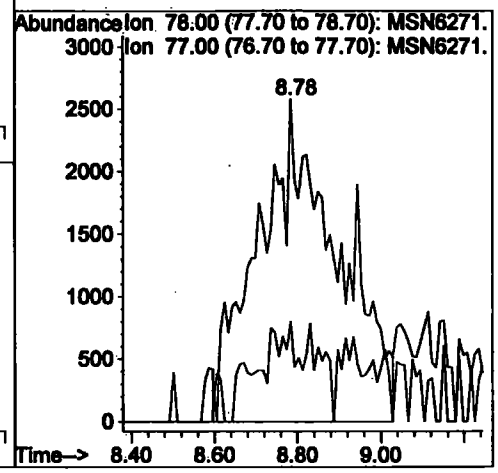


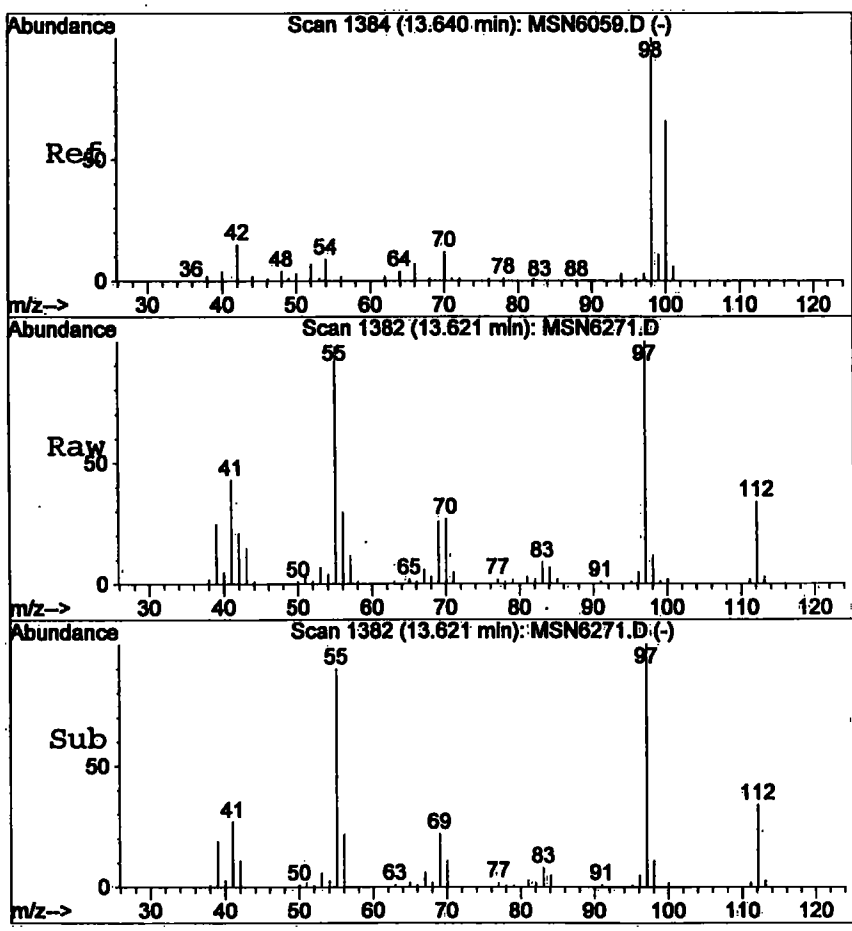



#30
benzene
Concen: 5.67 ug/Kg m
RT: 8.78 min Scan# 868
Delta R.T. 0.12 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:78 Resp: 33804

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 31.2 | 6.7 | 46.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

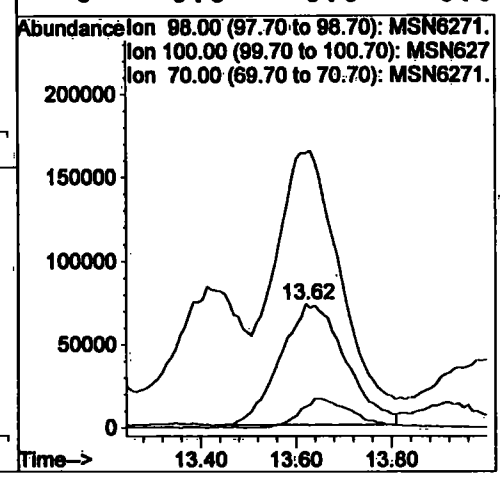


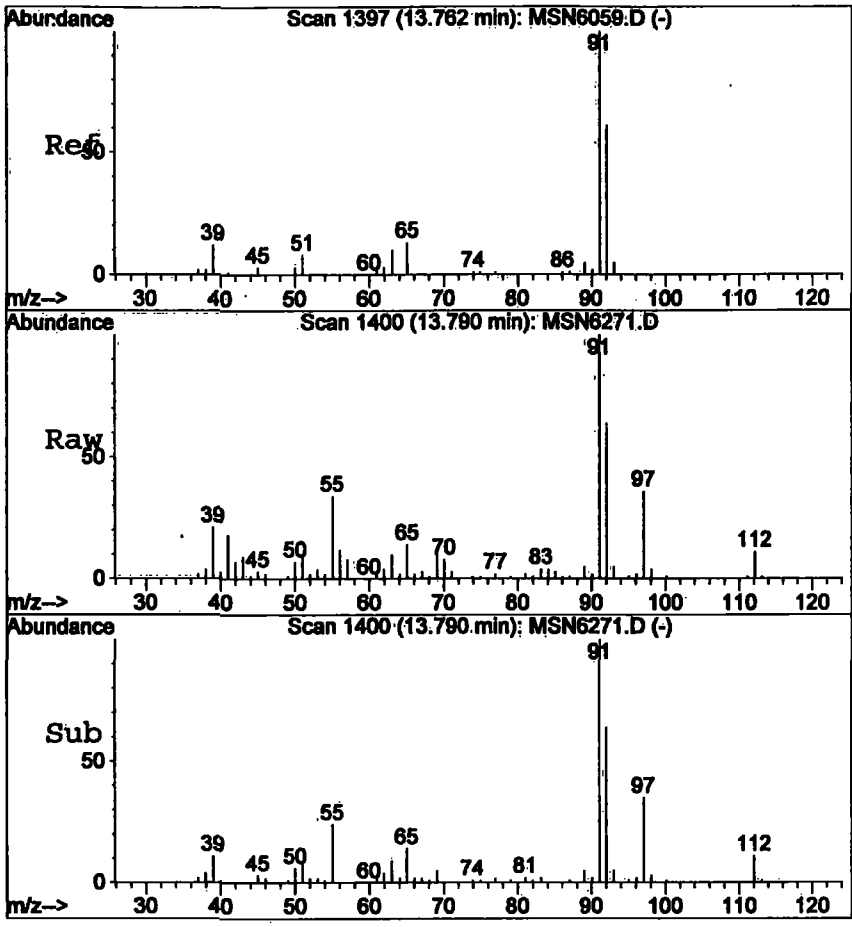




#40
toluene-d8
Concen: 121.84 ug/Kg
RT: 13.62 min Scan# 1382
Delta R.T. -0.01 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:98 Resp: 689168

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 17.0 | 54.0 | 81.0# |
| 70 | 202.7 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

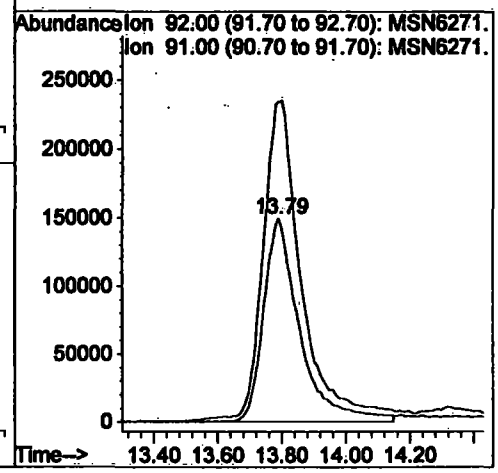


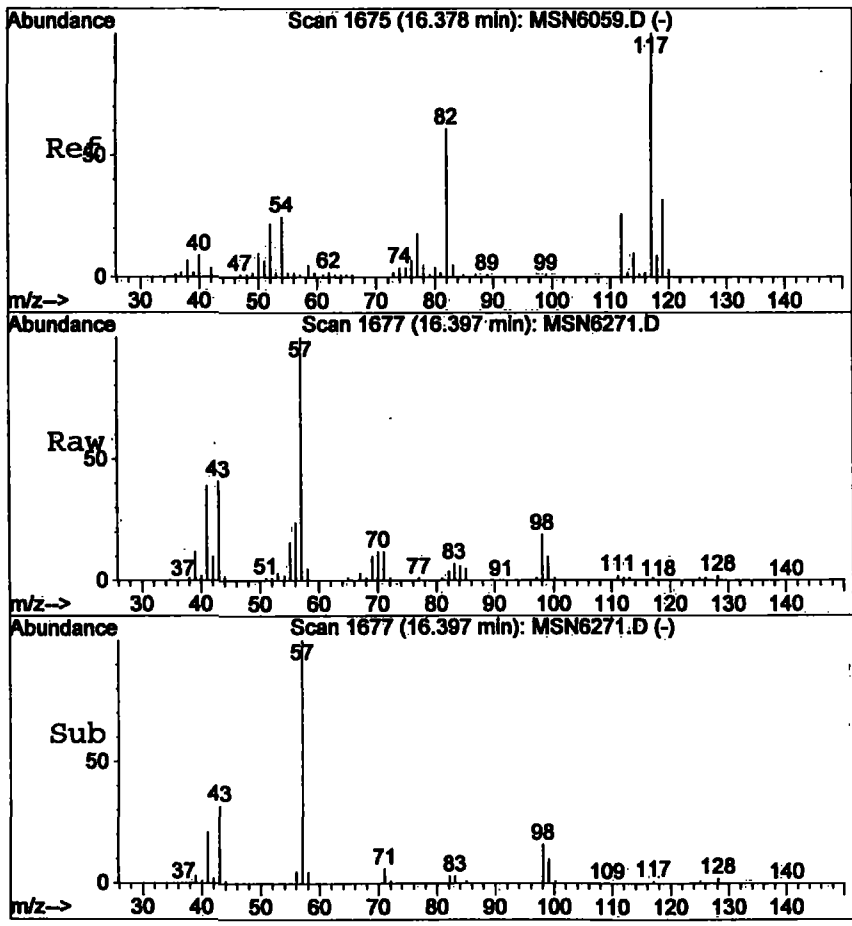



#41
toluene
Concen: 338.09 ug/Kg
RT: 13.79 min Scan# 1400
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:92 Resp: 1176119

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 154.6 | 143.4 | 183.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

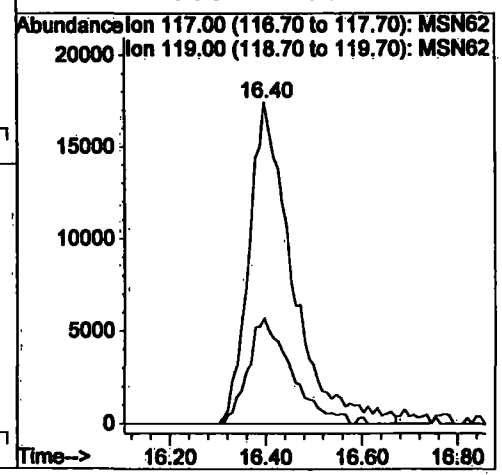


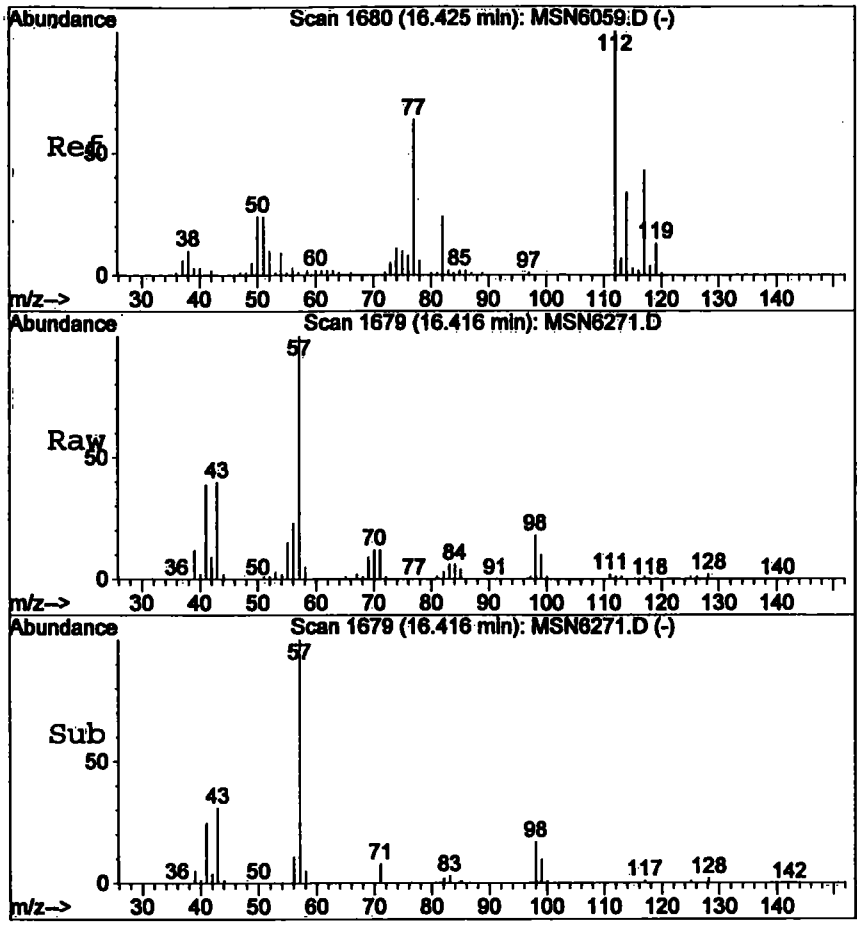




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.40 min Scan# 1677
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:117 Resp: 109309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 32.8 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

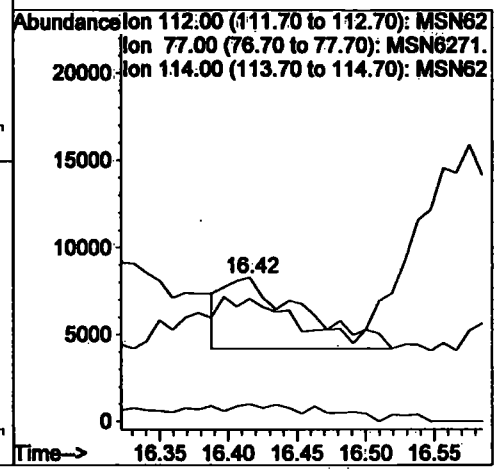


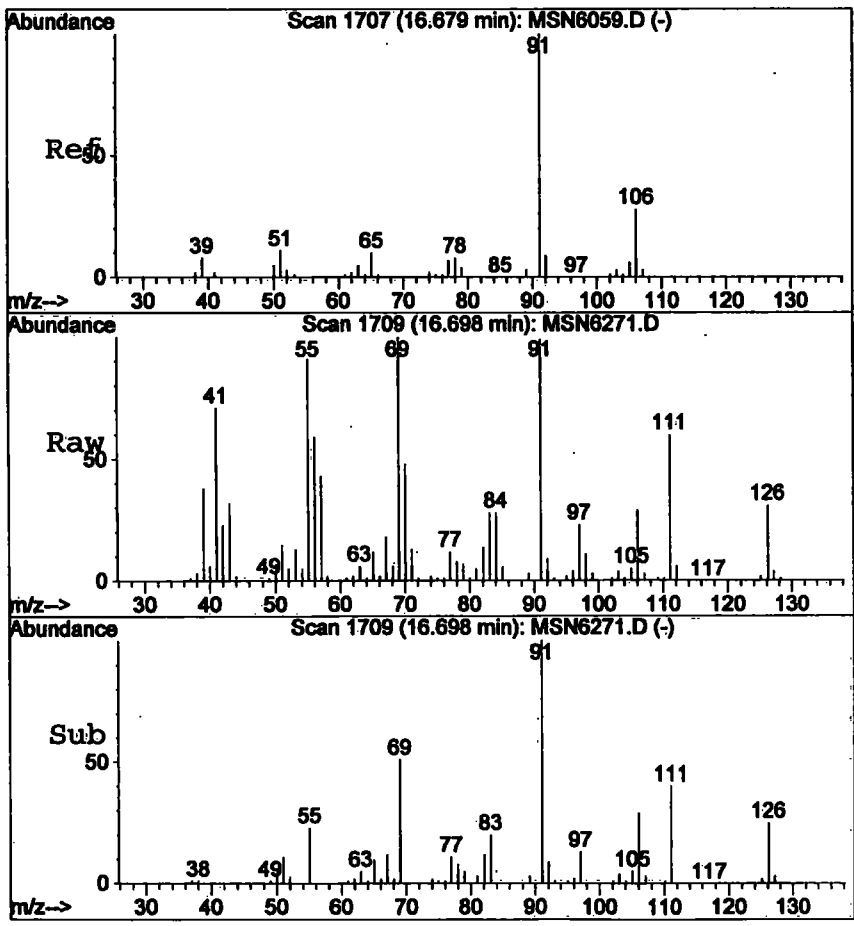



#48
chlorobenzene
Concen: 7.40 ug/Kg
RT: 16.42 min Scan# 1679
Delta R.T. -0.01 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:112 Resp: 16056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 26.1 | 43.9 | 83.9# |
| 114 | 15.2 | 13.7 | 53.7 |
| 0 | 0.0 | 0.0 | 0.0 |

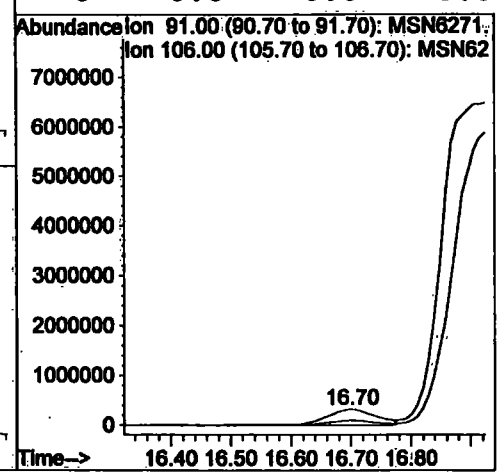


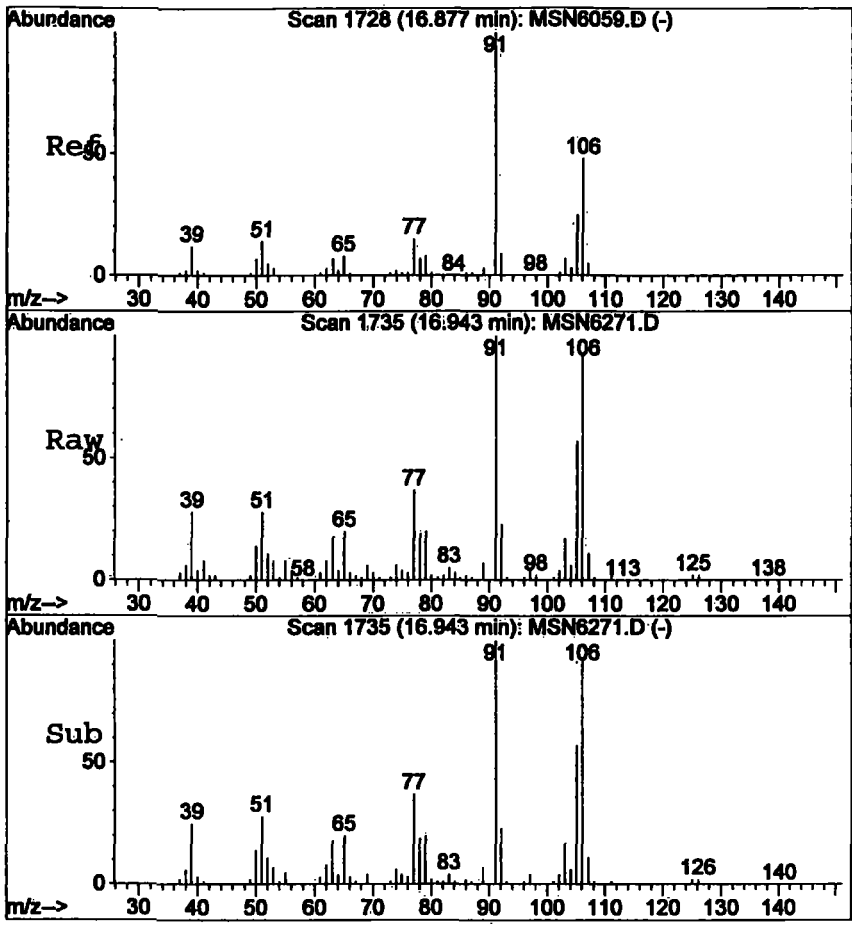




#49
ethylbenzene
Concen: 558.35 ug/Kg
RT: 16.70 min Scan# 1709
Delta R.T. 0.02 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:91 Resp: 1805882

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.3 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

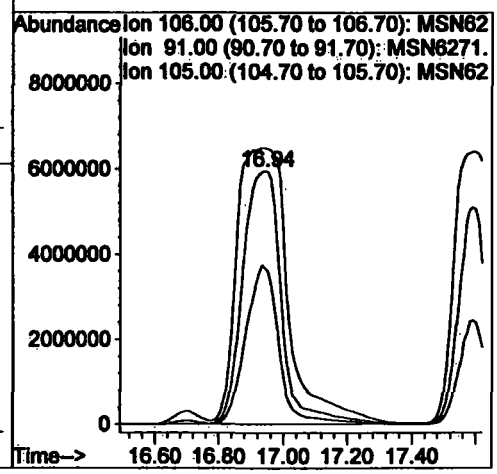


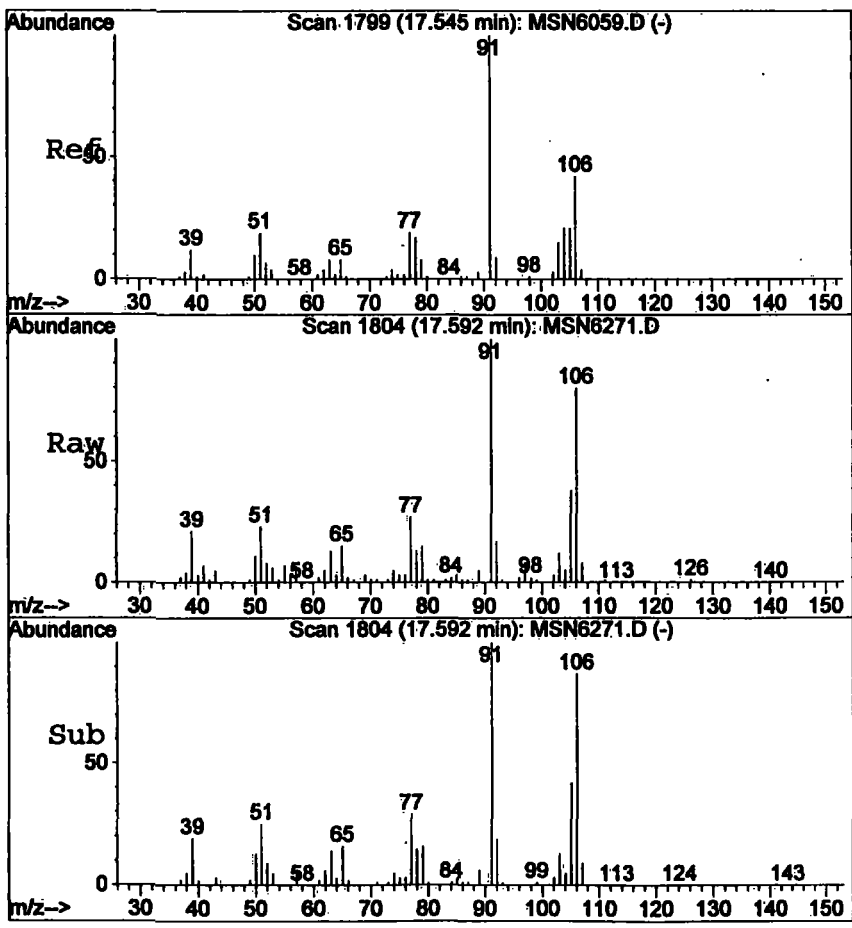



#50
m,p-xylene
Concen: 42433.95 ug/Kg
RT: 16.94 min Scan# 1735
Delta R.T. 0.06 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:106 Resp:49263977

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 108.5 | 192.8 | 232.8# |
| 105 | 62.1 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

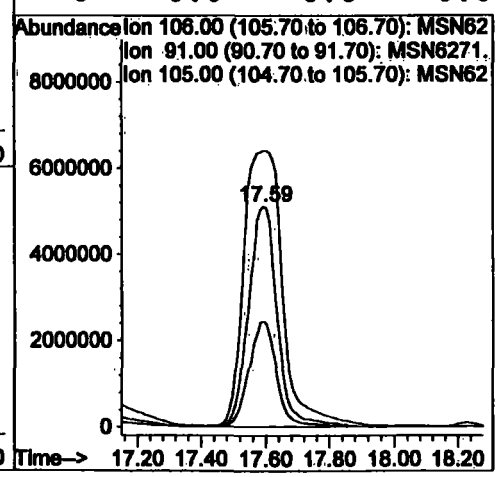


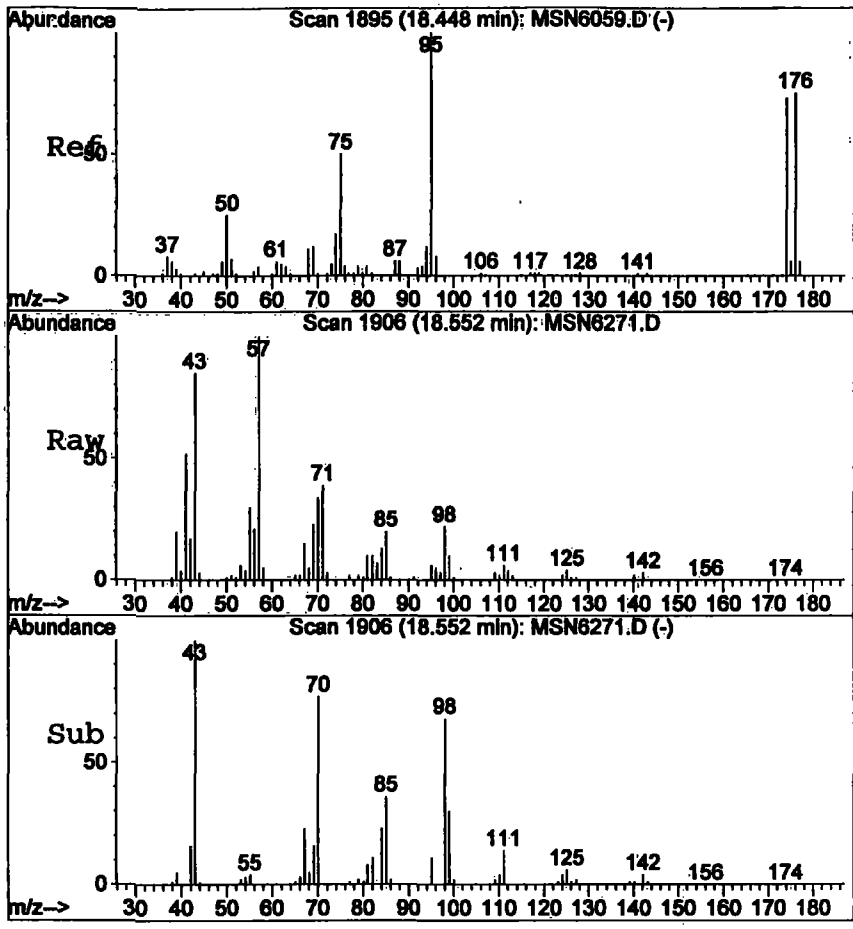




#51
o-xylene
Concen: 28810.74 ug/Kg
RT: 17.59 min Scan# 1804
Delta R.T. 0.05 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:106 Resp:31549363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 125.0 | 220.1 | 260.1# |
| 105 | 48.0 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

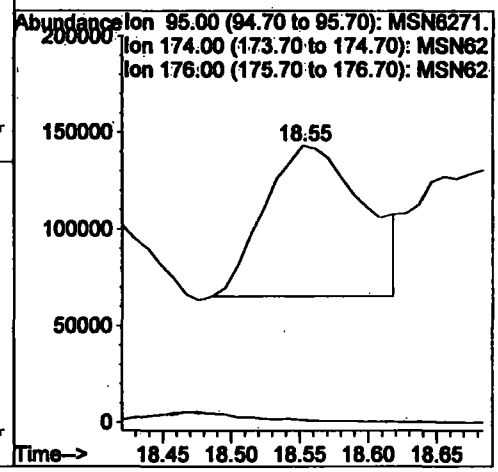


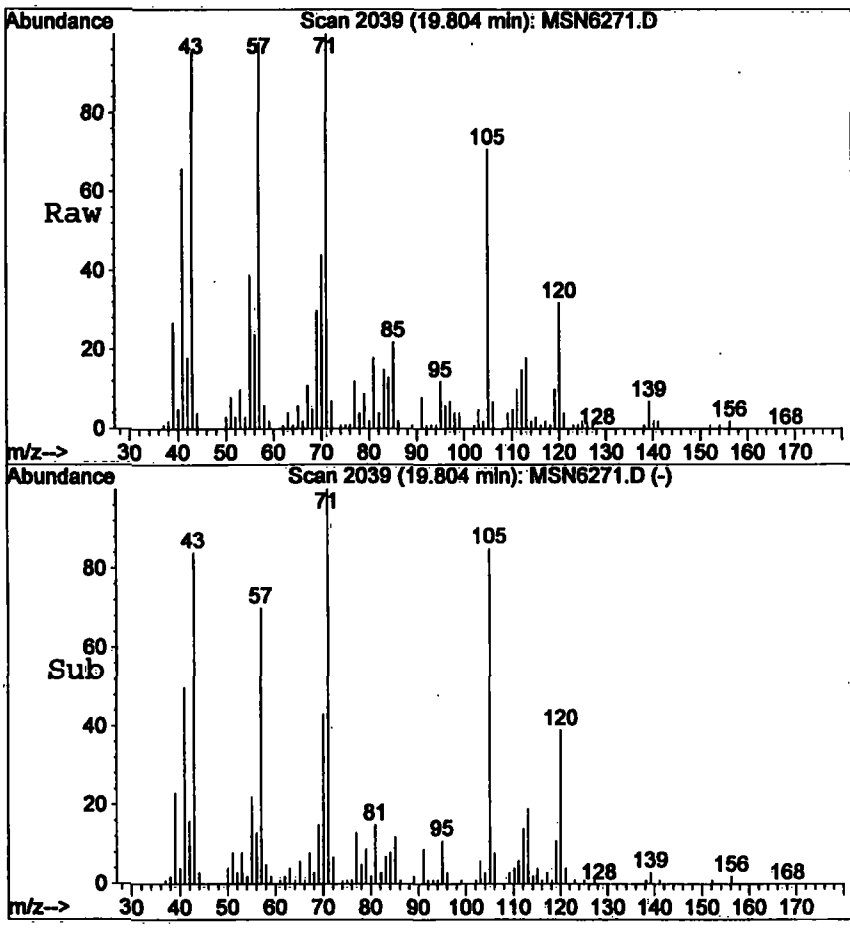



#56
4-bromofluorobenzene
Concen: 320.14 ug/Kg
RT: 18.55 min Scan# 1906
Delta R.T. 0.10 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:95 Resp: 393131

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 1.1 | 53.0 | 93.0# |
| 176 | 1.1 | 54.6 | 94.6# |
| 0 | 0.0 | 0.0 | 0.0 |

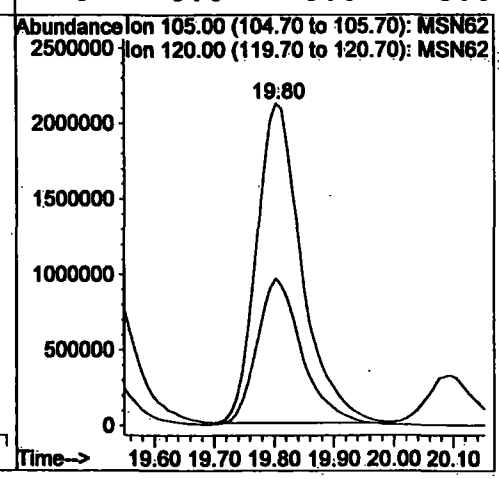



#59
1,2,4-trimethylbenzene
Concen: 4081.45 ug/L
RT: 19.80 min Scan# 2039
Delta R.T. 0.03 min
Lab File: MSN6271.D
Acq: 29 Oct 97 23:34

Tgt Ion:105 Resp:11063411

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.8 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6285.D Vial: 1
Acq On : 30 Oct 97 14:10 Operator: tcm
Sample : L72972500-002 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 2500.00
Quant Time: Oct 30 14:42 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.88 | 128 | 313777 | 50.00 ug/Kg | 0.03 |
| 24) 1,4-difluorobenzene | 10.05 | 114 | 1229225m | 50.00 ug/Kg | 0.08 |
| 42) chlorobenzene-d5 | 16.43 | 117 | 785766 | 50.00 ug/Kg | 0.06 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.67 | 65 | 23029 | 2.27 ug/Kg | 0.13 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = 4.54%# | |
| 40) toluene-d8 | 13.71 | 98 | 53817 | 2.32 ug/Kg | 0.08 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = 4.64%# | |
| 56) 4-bromofluorobenzene | 18.56 | 95 | 45461m | 5.15 ug/Kg | 0.12 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = 10.30%# | |
| **Target Compounds** | | | | | Qvalue |
| 12) acetone | 3.03 | 43 | 6590 | 3776.47 ug/Kg | 95 |
| 41) toluene | 13.85 | 92 | 4123m | 721.59 ug/Kg | 0 |
| 49) ethylbenzene | 16.72 | 91 | 12639m | 1359.05 ug/Kg | 87 |
| 50) m,p-xylene | 16.93 | 106 | 271614m | 81365.24 ug/Kg | 96 |
| 51) o-xylene | 17.59 | 106 | 151638m | 48158.68 ug/Kg | 78 |
| 59) 1,2,4-trimethylbenzene | 19.81 | 105 | 86822 | 11139.30 ug/L | 97 |

QC 10/30/97

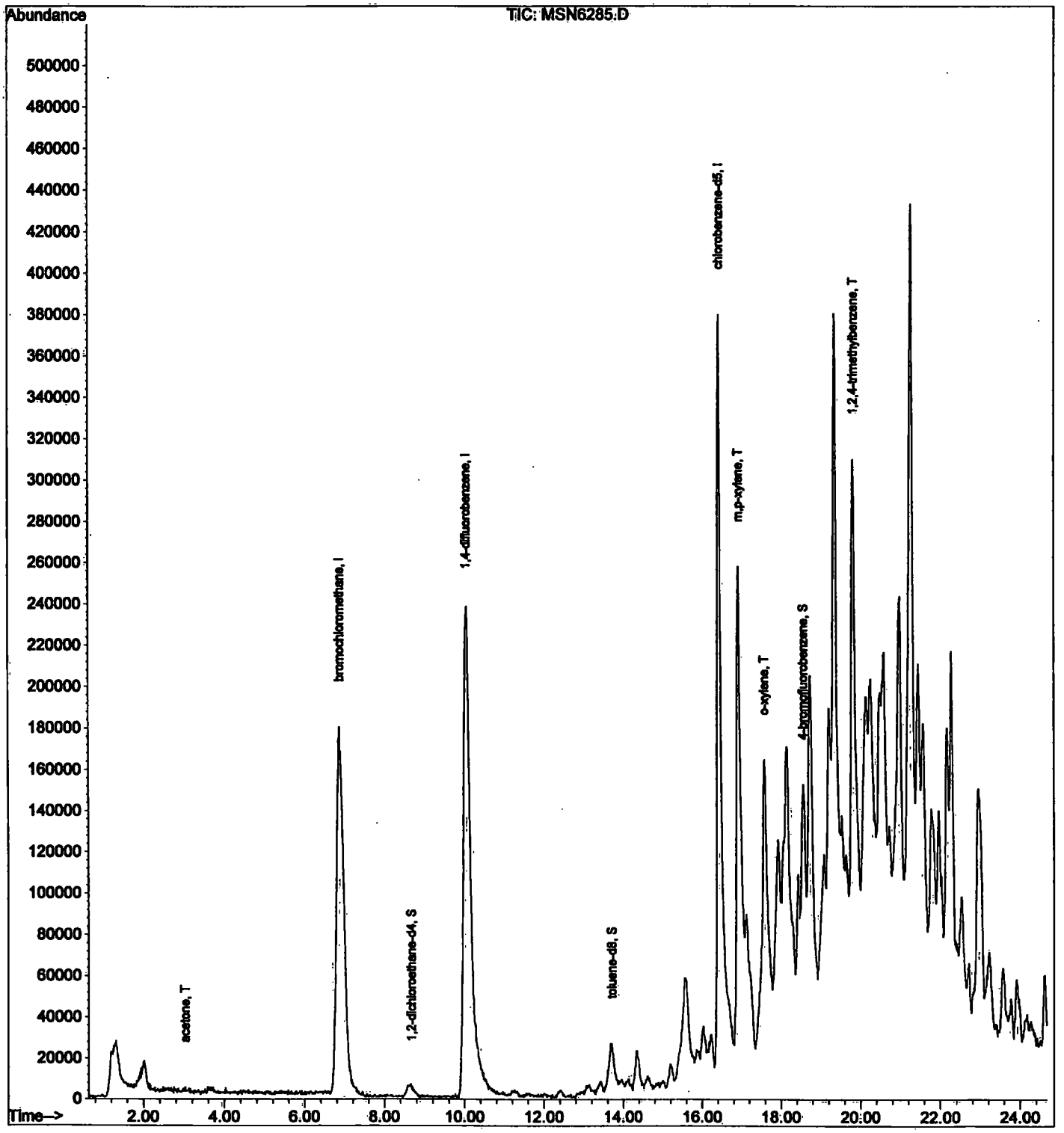
SURROGATES PRE-OUTED

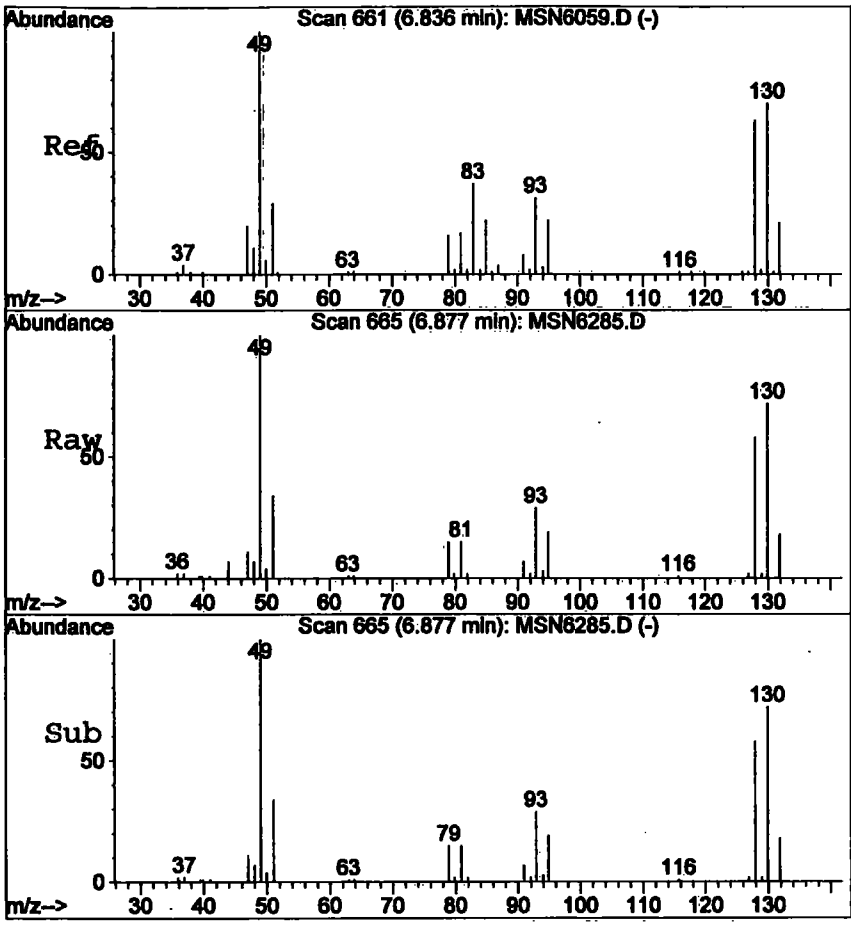
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6285.D Vial: 1
Acq On : 30 Oct 97 14:10 Operator: tcm
Sample : L72972500-002 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 2500.00
Quant Time: Oct 30 14:42 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

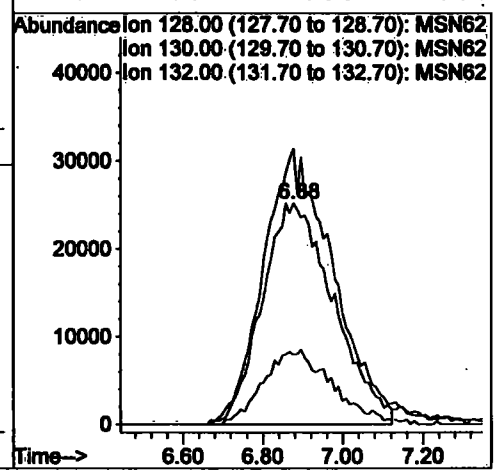


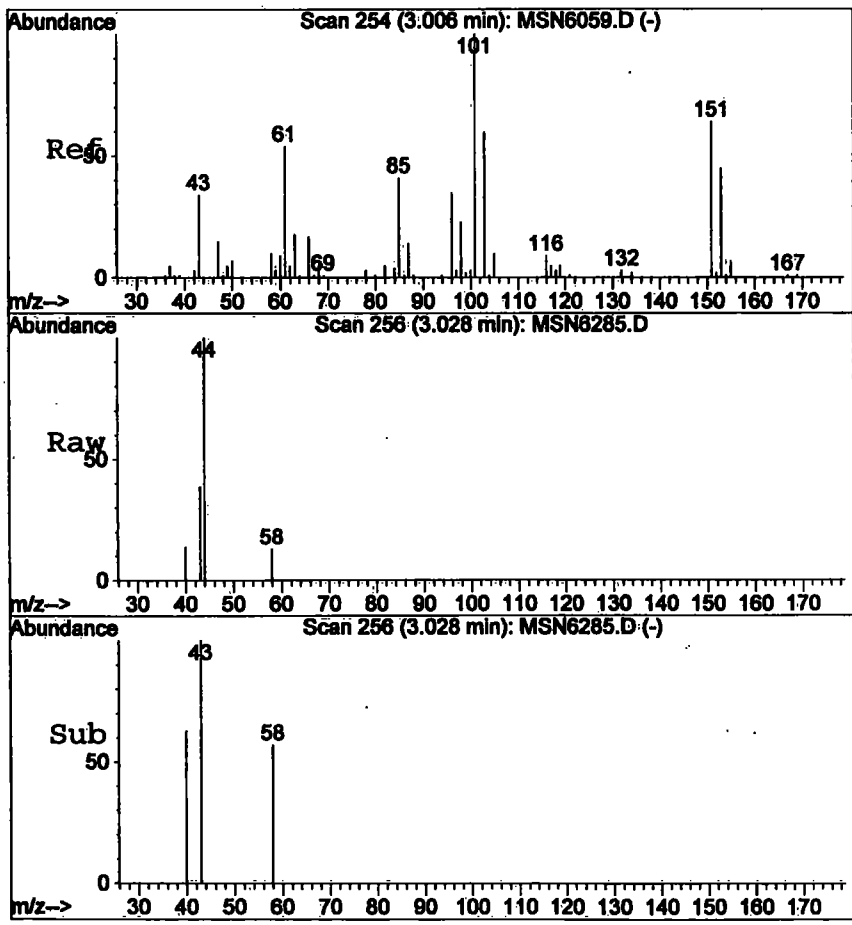



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.88 min Scan# 665
Delta R.T. 0.03 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:128 Resp: 313777

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 122.6 | 91.7 | 131.7 |
| 132 | 31.4 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

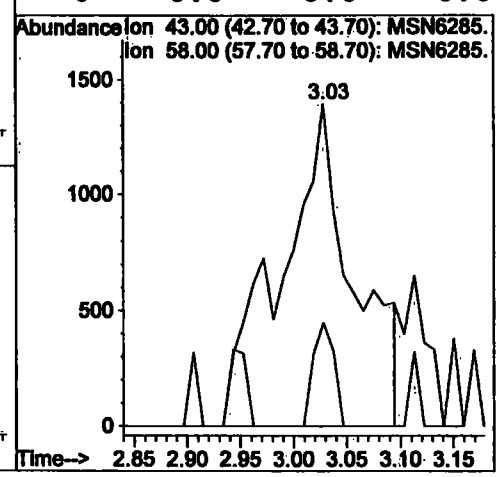


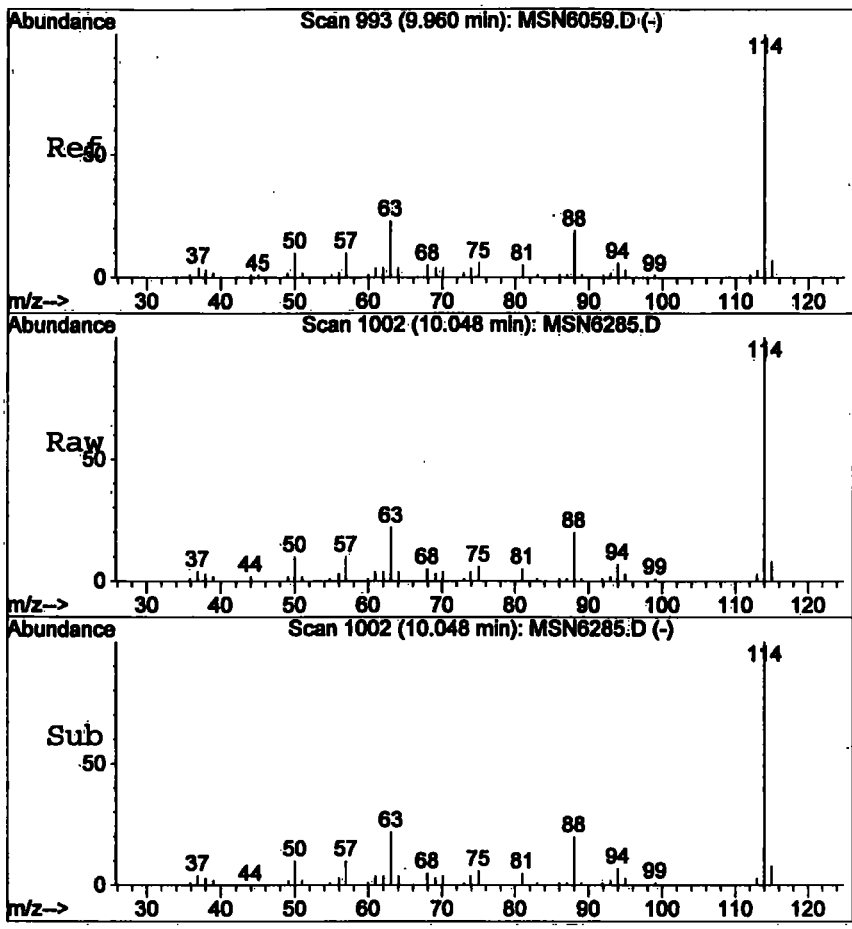




#12
acetone
Concen: 3776.47 ug/Kg
RT: 3.03 min Scan# 256
Delta R.T. -0.01 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:43 Resp: 6590

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 32.2 | 9.7 | 49.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

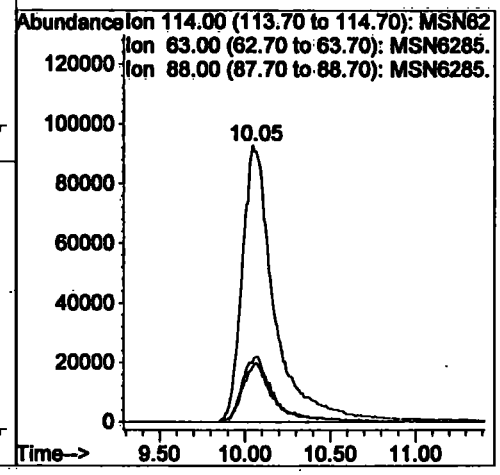


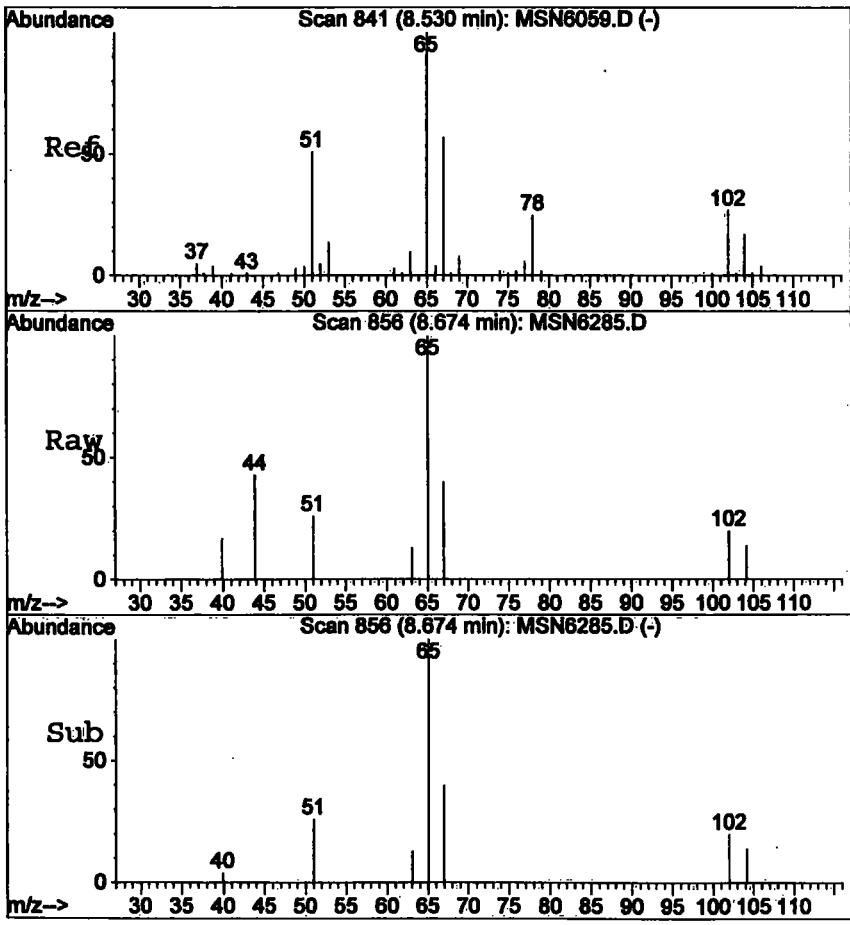



#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg m
RT: 10.05 min Scan# 1002
Delta R.T. 0.08 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:114 Resp: 1229225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.0 | 2.6 | 42.6 |
| 88 | 20.1 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

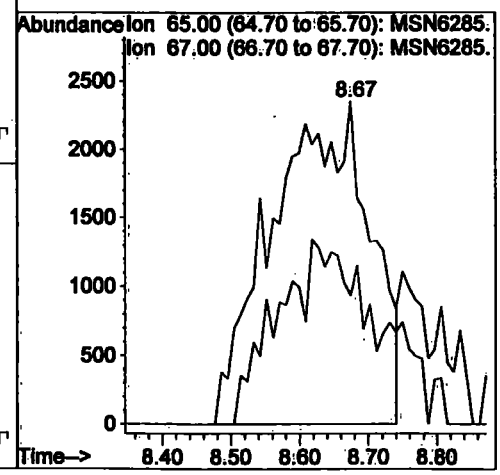


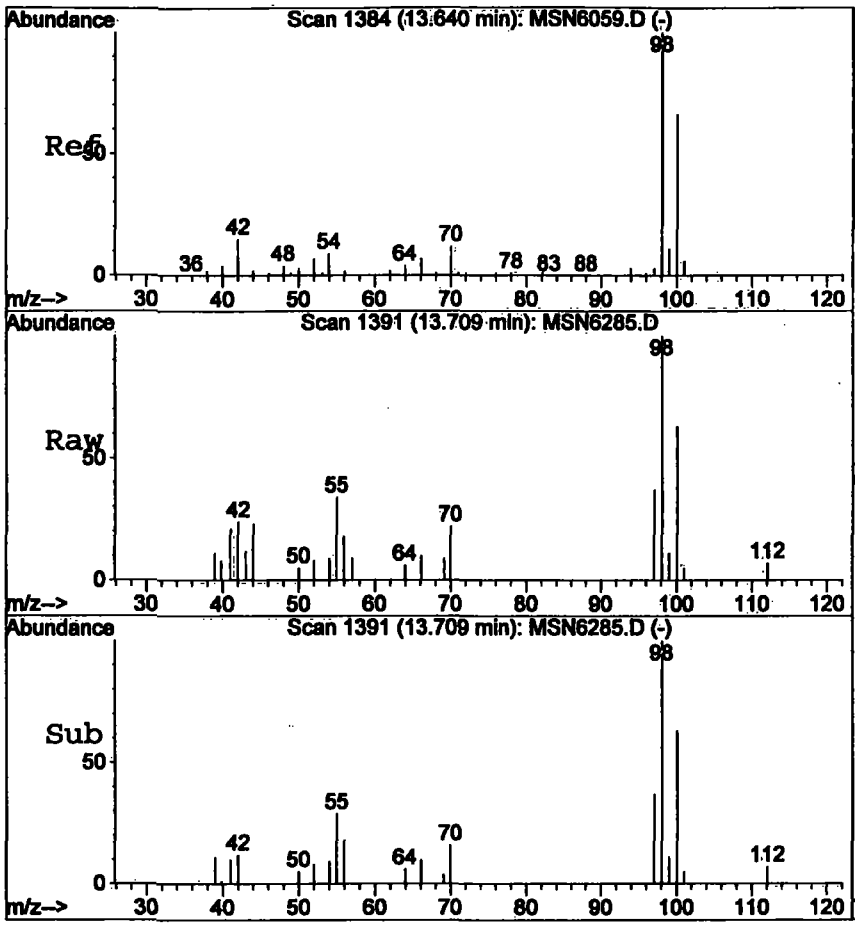




#29
1,2-dichloroethane-d4
Concen: 2.27 ug/Kg
RT: 8.67 min Scan# 856
Delta R.T. 0.13 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:65 Resp: 23029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 39.6 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

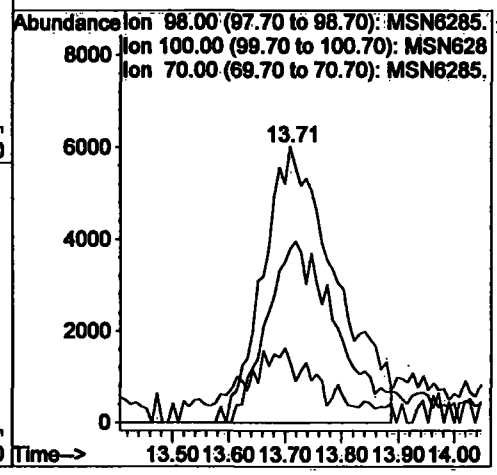


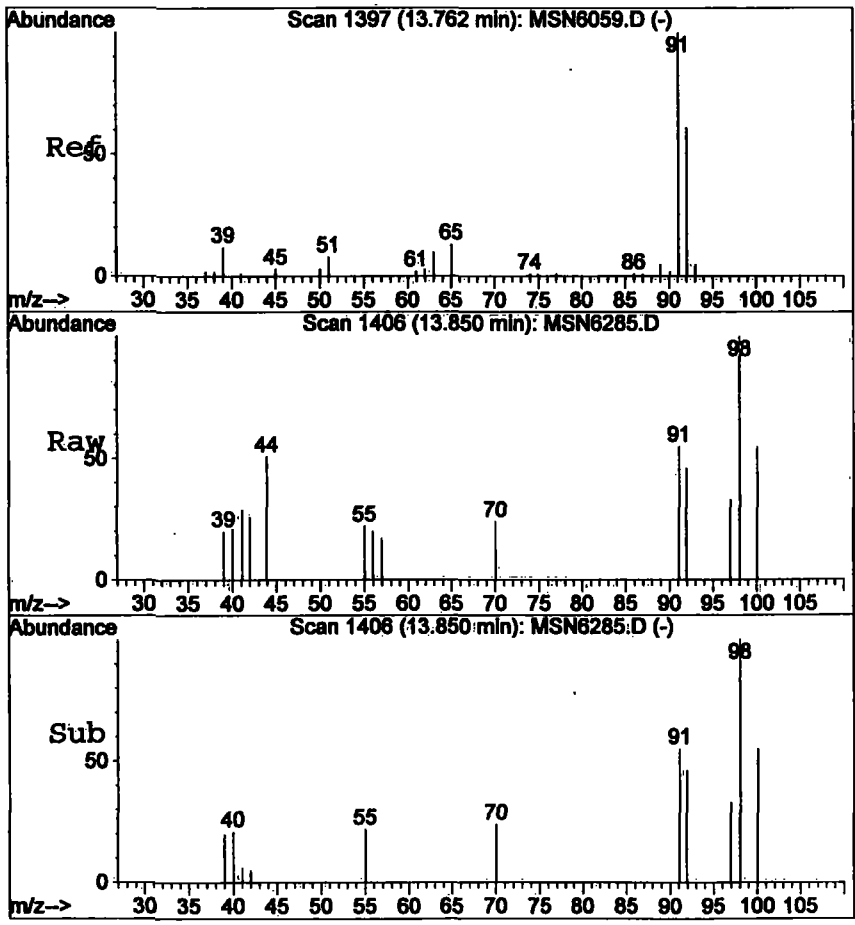



#40
toluene-d8
Concen: 2.32 ug/Kg
RT: 13.71 min Scan# 1391
Delta R.T. 0.08 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:98 Resp: 53817

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 62.8 | 54.0 | 81.0 |
| 70 | 16.2 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

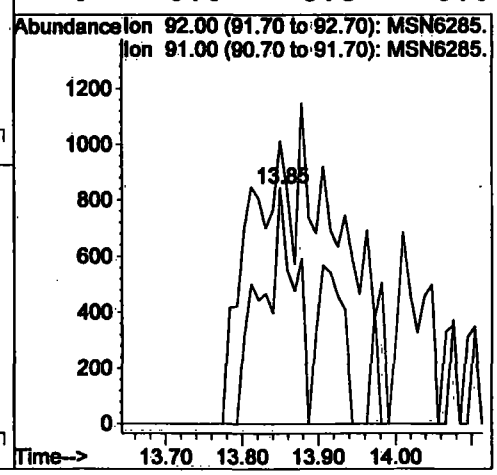


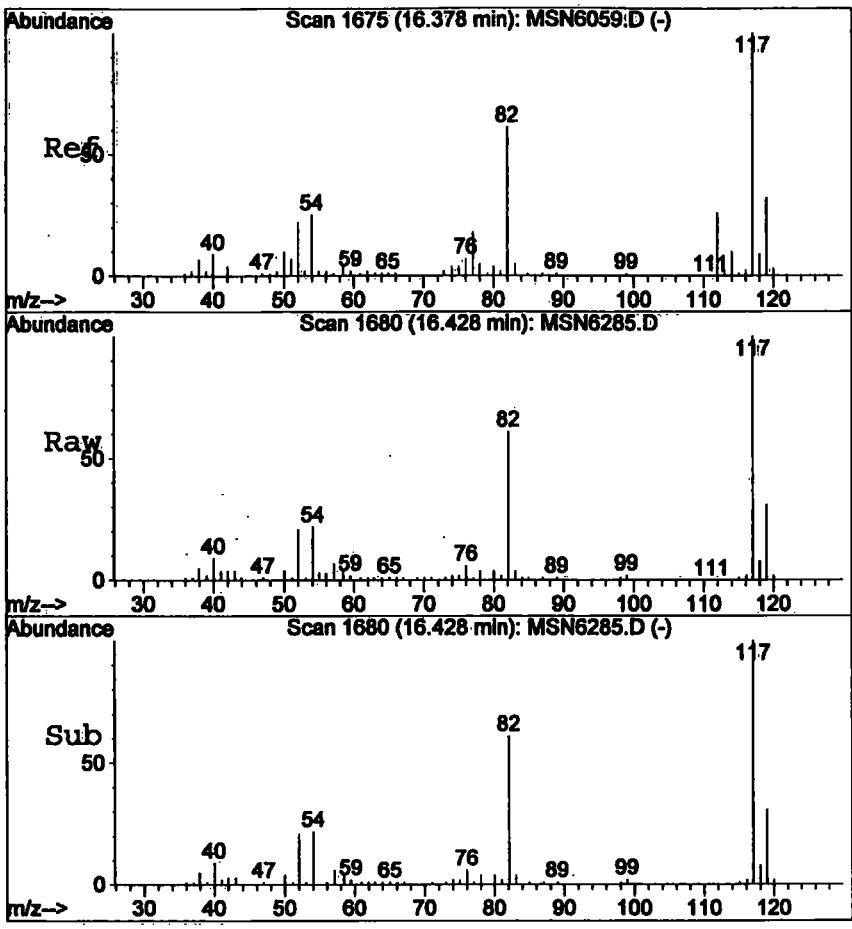




#41
toluene
Concen: 721.59 ug/Kg m
RT: 13.85 min Scan# 1406
Delta R.T. 0.09 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:92 Resp: 4123

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 119.9 | 143.4 | 183.4# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

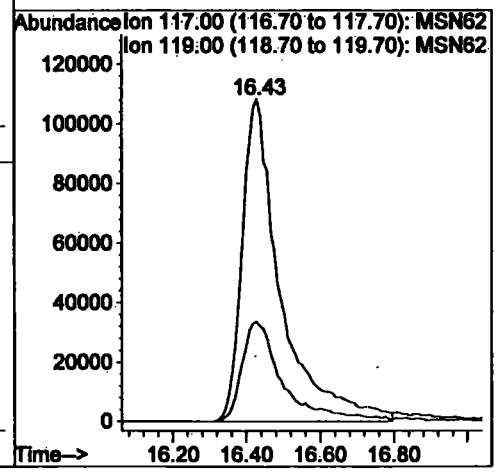


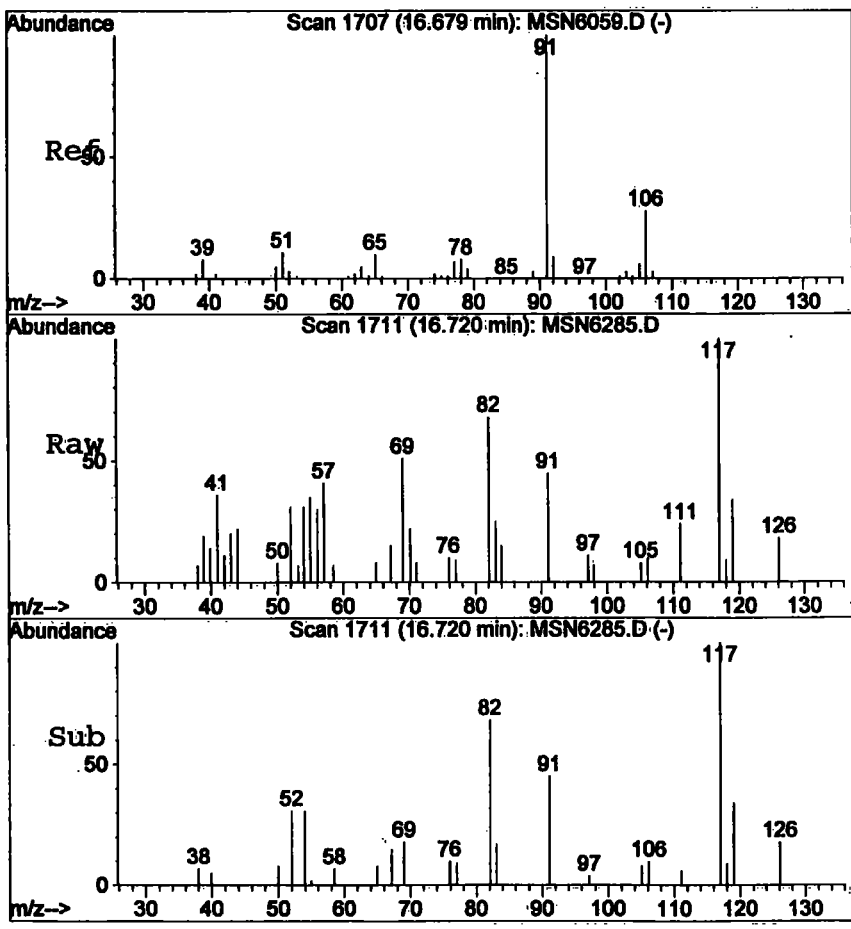



#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.43 min Scan# 1680
Delta R.T. 0.06 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:117 Resp: 785766

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 31.1 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

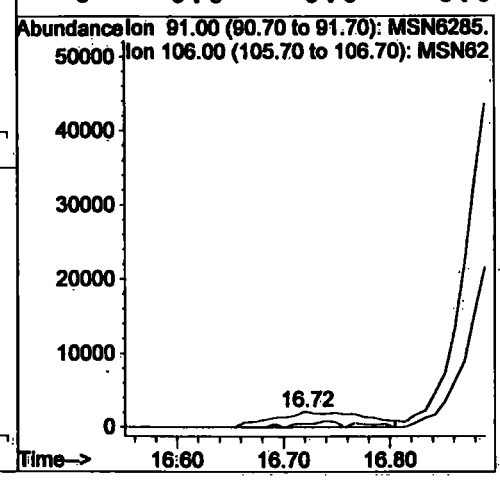


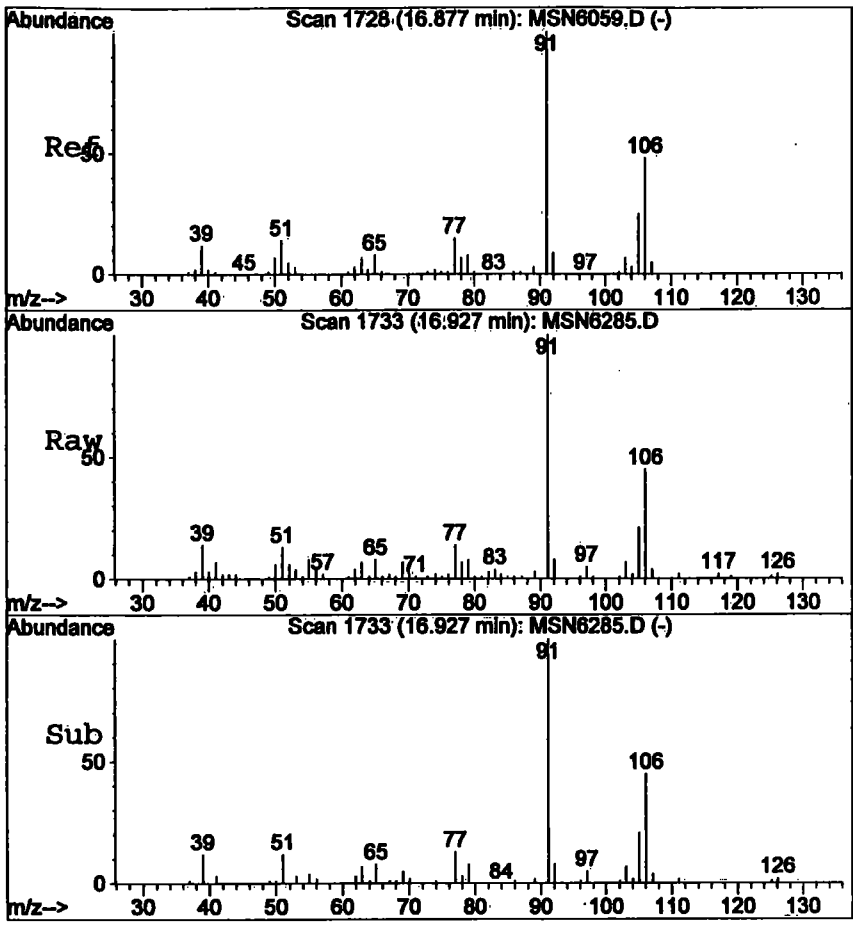




#49
ethylbenzene
Concen: 1359.05 ug/Kg m
RT: 16.72 min Scan# 1711
Delta R.T. 0.04 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:91 Resp: 12639

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 21.4 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

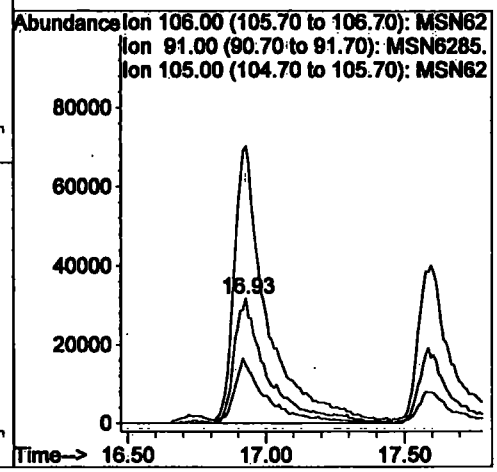


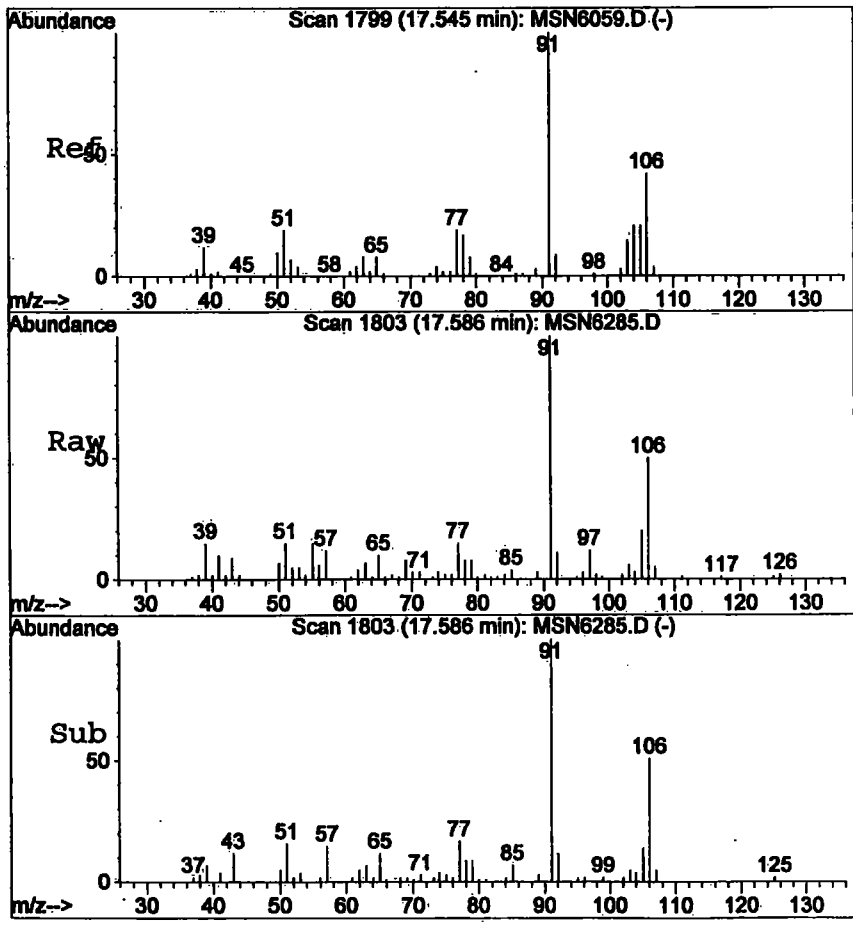



#50
m,p-xylene
Concen: 81365.24 ug/Kg m
RT: 16.93 min Scan# 1733
Delta R.T. 0.04 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:106 Resp: 271614

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 220.6 | 192.8 | 232.8 |
| 105 | 46.5 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

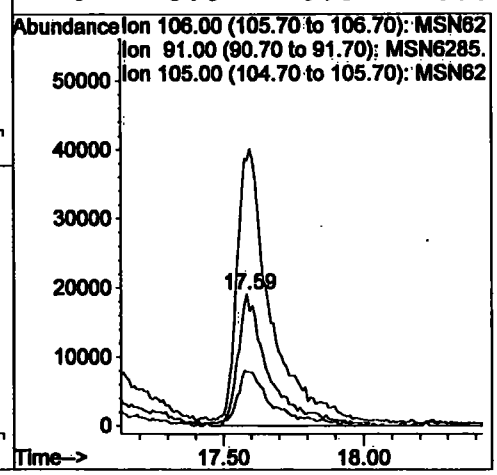


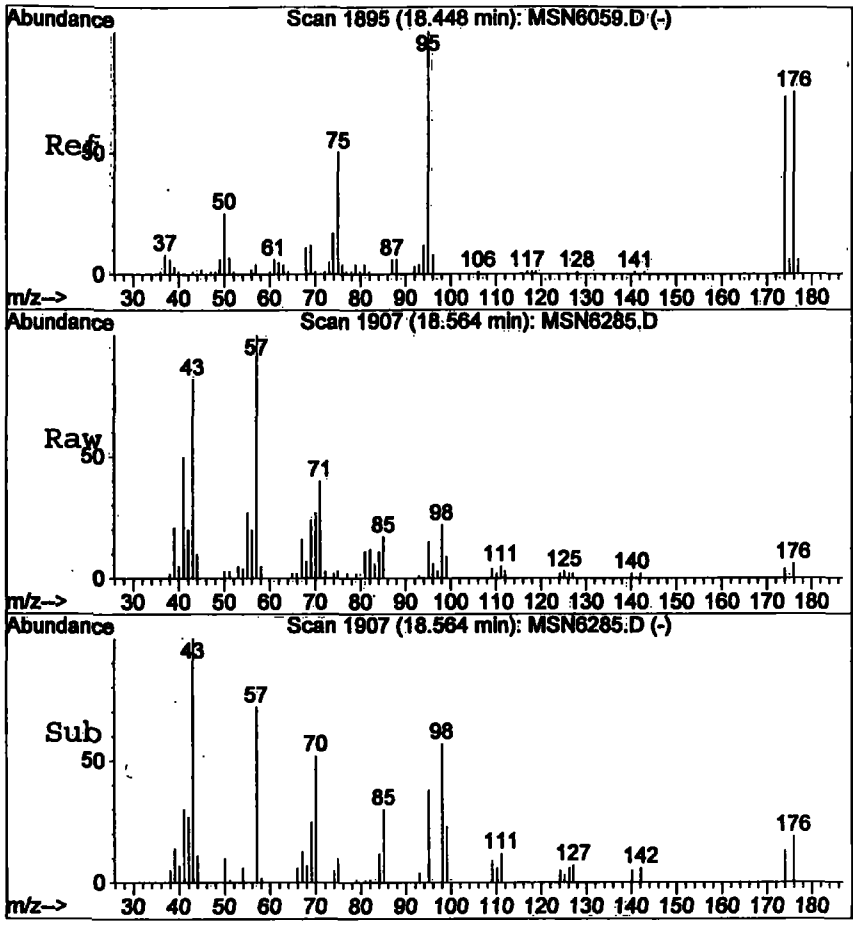




#51
o-xylene
Concen: 48158.68 ug/Kg m
RT: 17.59 min Scan# 1803
Delta R.T. 0.04 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:106 Resp: 151638

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 200.6 | 220.1 | 260.1# |
| 105 | 40.9 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

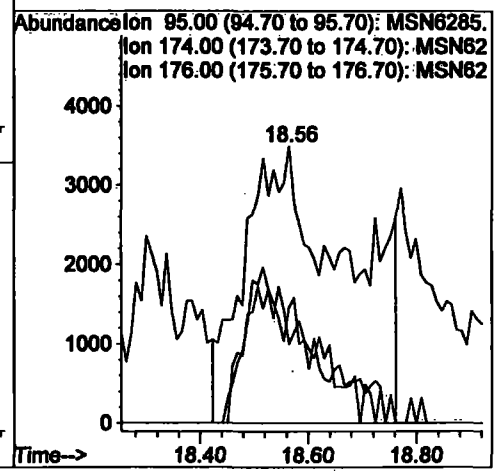


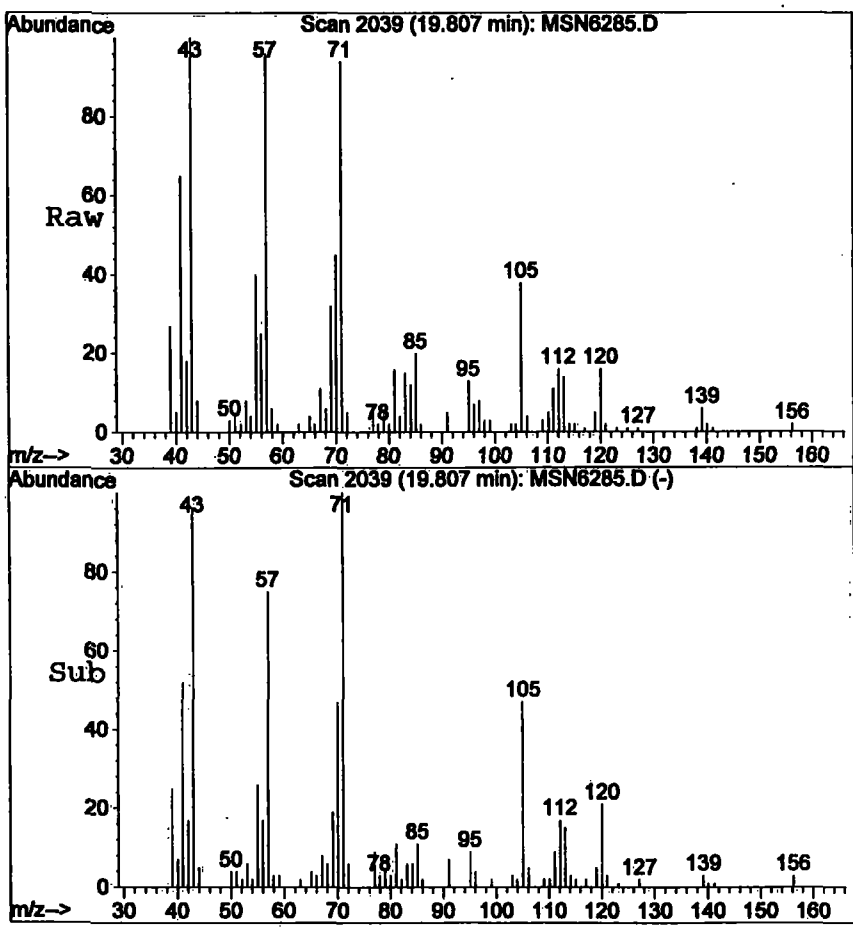



#56
4-bromofluorobenzene
Concen: 5.15 ug/Kg m
RT: 18.56 min Scan# 1907
Delta R.T. 0.12 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:95 Resp: 45461

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 28.6 | 53.0 | 93.0# |
| 176 | 41.9 | 54.6 | 94.6# |
| 0 | 0.0 | 0.0 | 0.0 |

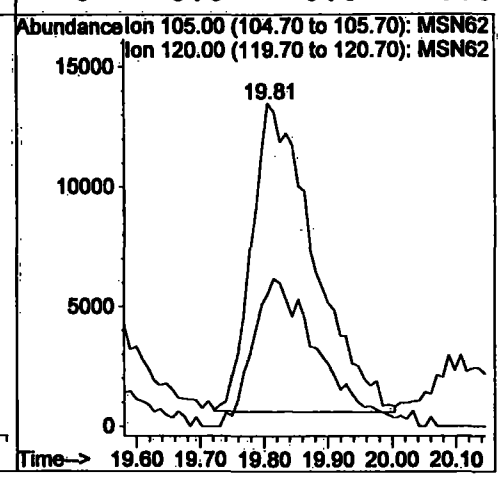



#59
1,2,4-trimethylbenzene
Concen: 11139.30 ug/L
RT: 19.81 min Scan# 2039
Delta R.T. 0.03 min
Lab File: MSN6285.D
Acq: 30 Oct 97 14:10

Tgt Ion:105 Resp: 86822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.4 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6270.D Vial: 12
Acq On : 29 Oct 97 22:56 Operator: tcm
Sample : L72972500-003 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:17 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.83 | 128 | 135767m | 50.00 | ug/Kg | -0.02 |
| 24) 1,4-difluorobenzene | 10.00 | 114 | 386204m | 50.00 | ug/Kg | 0.03 |
| 42) chlorobenzene-d5 | 16.39 | 117 | 149683 | 50.00 | ug/Kg | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.57 | 65 | 194746 | 60.98 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 121.96%# | | | |
| 40) toluene-d8 | 13.65 | 98 | 830365 | 113.79 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 227.58%# | | | |
| 56) 4-bromofluorobenzene | 18.53 | 95 | 58321 | 34.68 | ug/Kg | 0.08 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 69.36%# | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 12) acetone | 2.99 | 43 | 82277 | 43.59 | ug/Kg# | 34 |
| 14) methylene chloride | 3.63 | 84 | 11092 | 2.97 | ug/Kg# | 57 |
| 18) N-hexane | 4.77 | 57 | 473540m | 90.14 | ug/Kg | 0 |
| 30) benzene | 8.77 | 78 | 64606m | 8.40 | ug/Kg | 66 |
| 41) toluene | 13.81 | 92 | 41908974 | 9338.14 | ug/Kg# | 67 |
| 48) chlorobenzene | 16.42 | 112 | 8029 | 2.70 | ug/Kg# | 81 |
| 49) ethylbenzene | 16.72 | 91 | 49503475 | 11177.36 | ug/Kg | 73 |
| 50) m,p-xylene | 16.97 | 106 | 70876994m | 44583.36 | ug/Kg | 35 |
| 51) o-xylene | 17.61 | 106 | 41075586 | 27392.46 | ug/Kg# | 35 |
| 59) 1,2,4-trimethylbenzene | 19.80 | 105 | 27183360 | 7323.38 | ug/L | 93 |

QC OUT

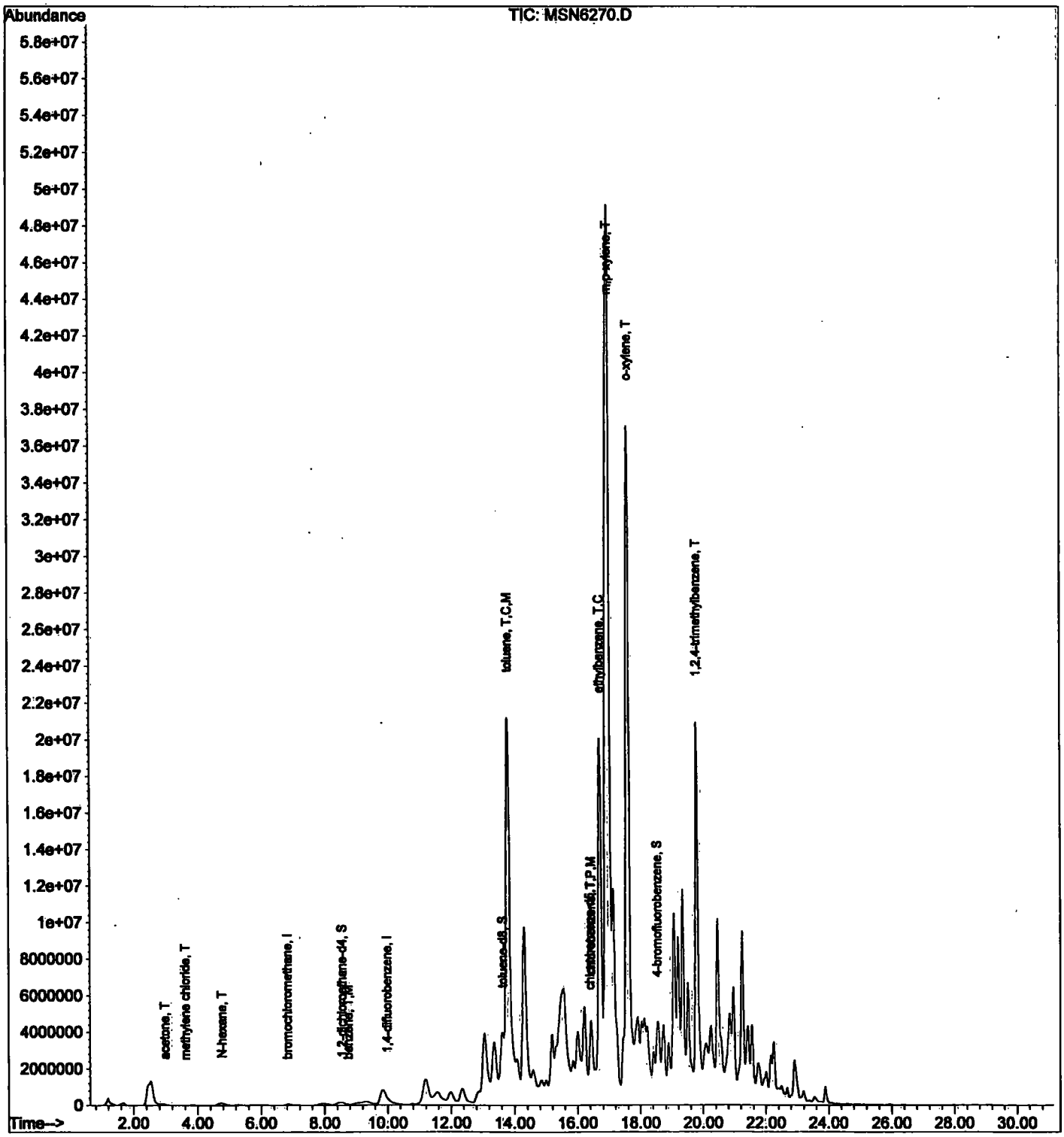
1:100

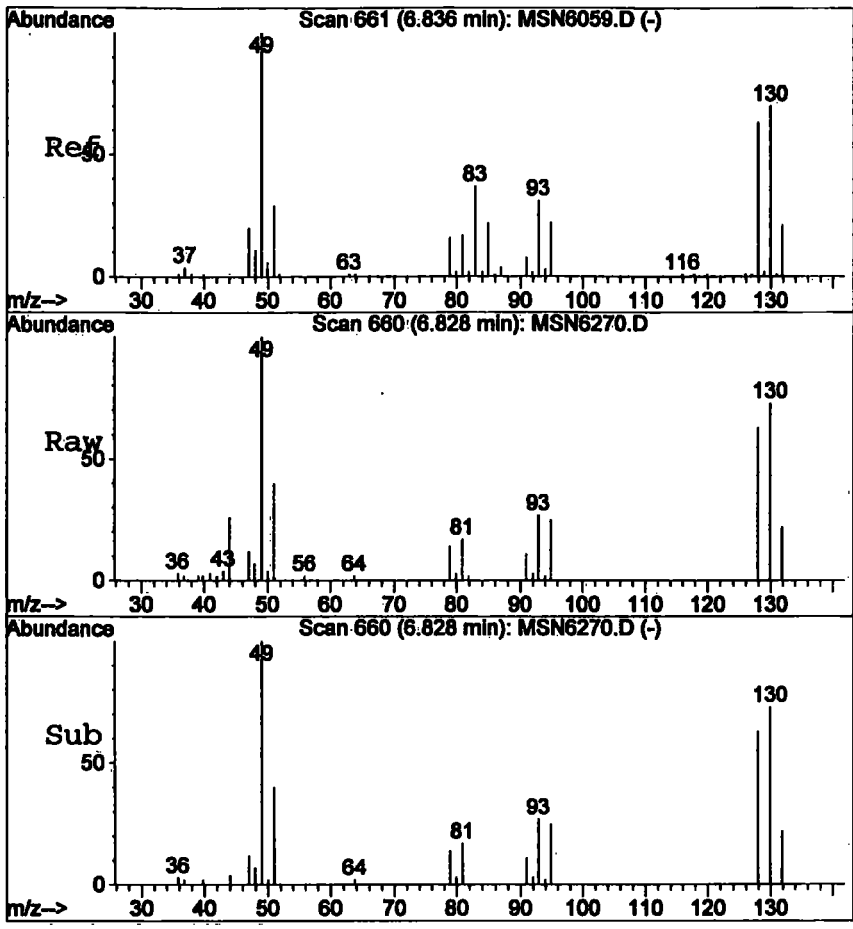
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6270.D Vial: 12
Acq On : 29 Oct 97 22:56 Operator: tcm
Sample : L72972500-003 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:17 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

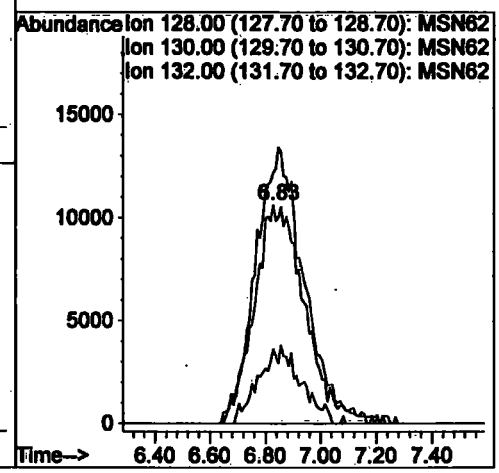


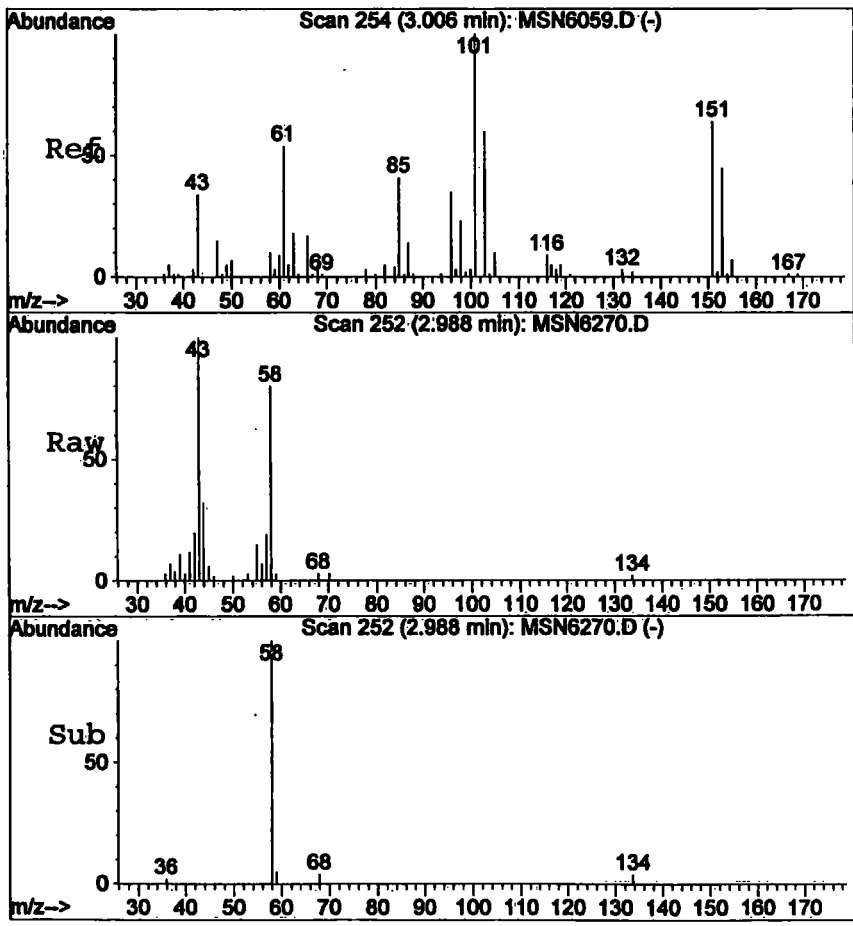



#1
bromochloromethane
Concen: 50.00 ug/Kg m
RT: 6.83 min Scan# 660
Delta R.T. -0.02 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:128 Resp: 135767

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 114.6 | 91.7 | 131.7 |
| 132 | 34.1 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

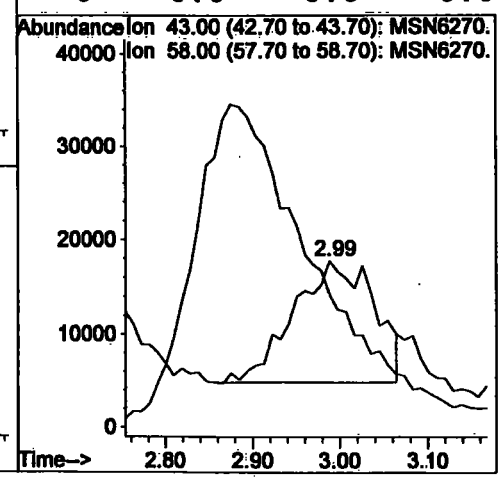


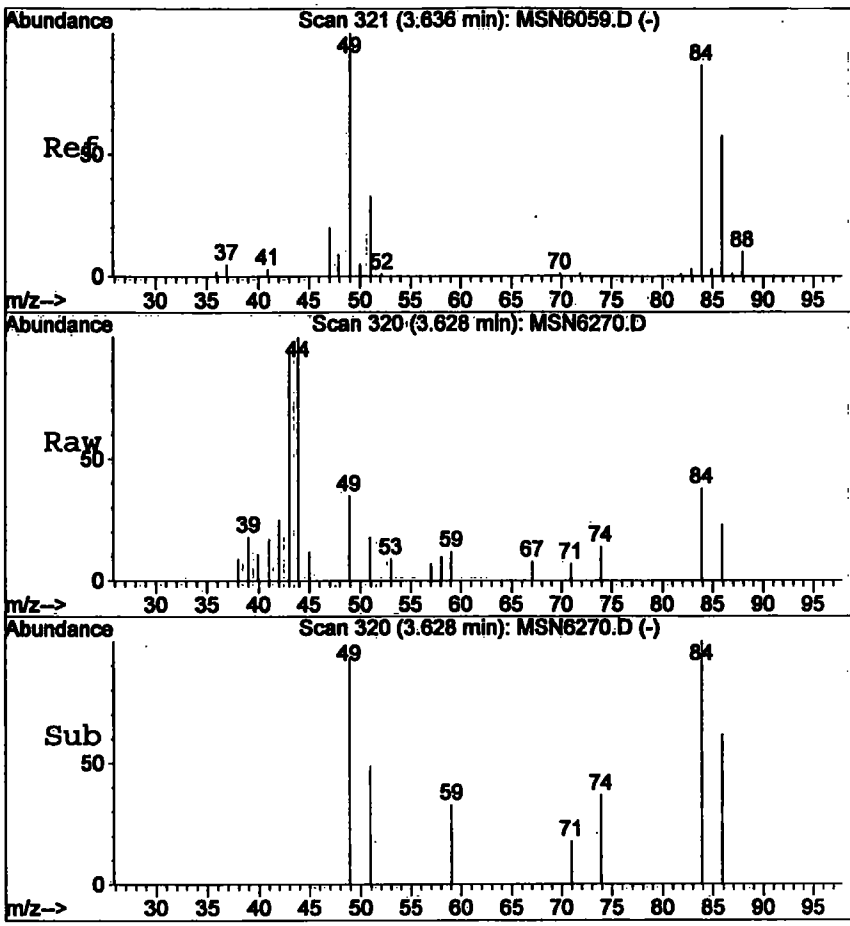




#12
acetone
Concen: 43.59 ug/Kg
RT: 2.99 min Scan# 252
Delta R.T. -0.05 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:43 Resp: 82277

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 65.2 | 9.7 | 49.7# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

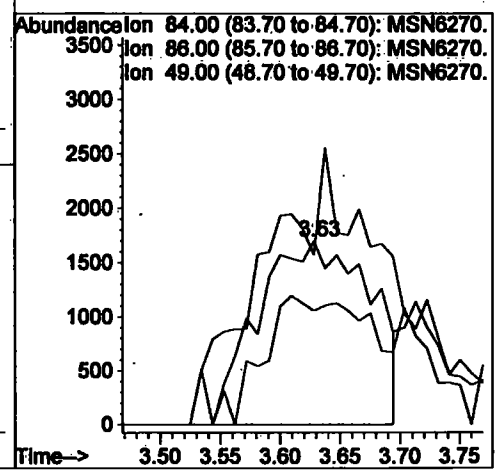


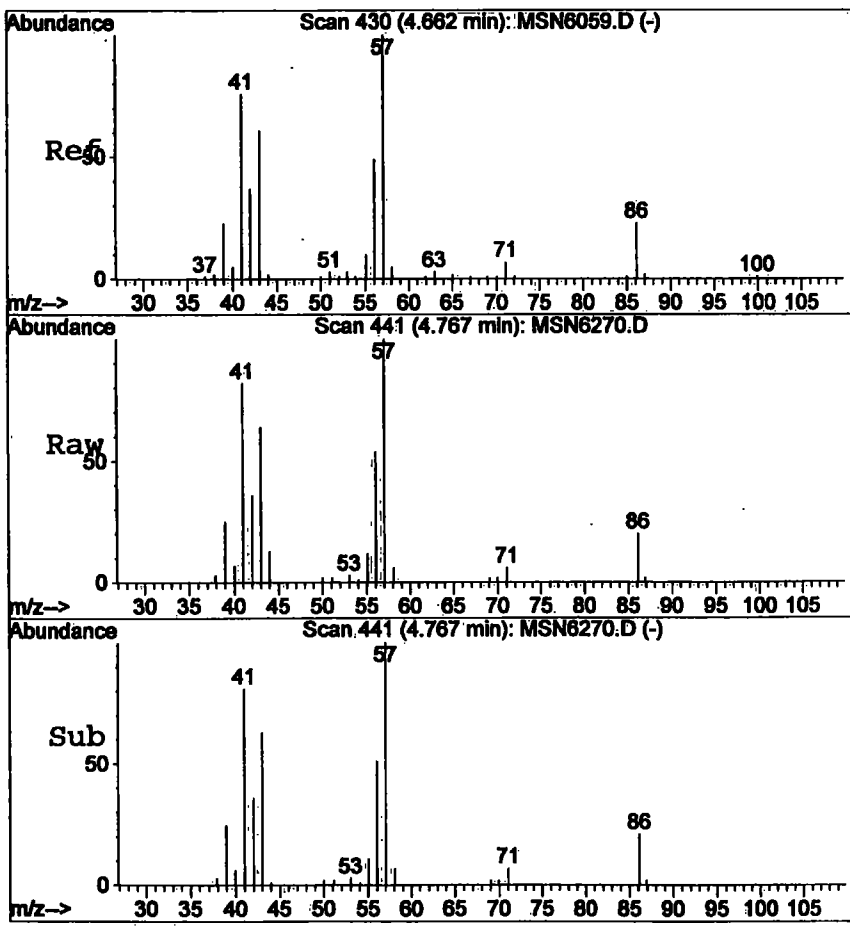



#14
methylene chloride
Concen: 2.97 ug/Kg
RT: 3.63 min Scan# 320
Delta R.T. -0.04 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:84 Resp: 11092

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 86 | 62.2 | 47.1 | 87.1 |
| 49 | 45.7 | 94.8 | 134.8# |
| 0 | 0.0 | 0.0 | 0.0 |

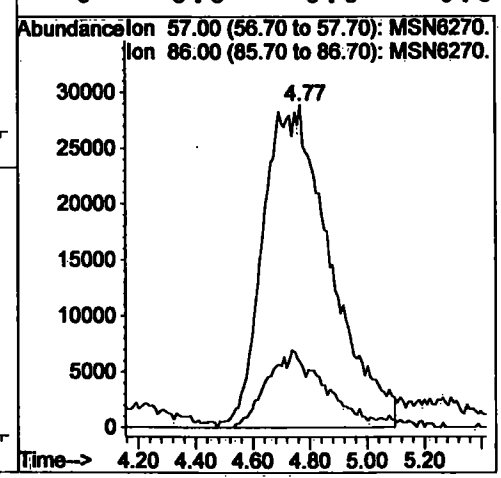


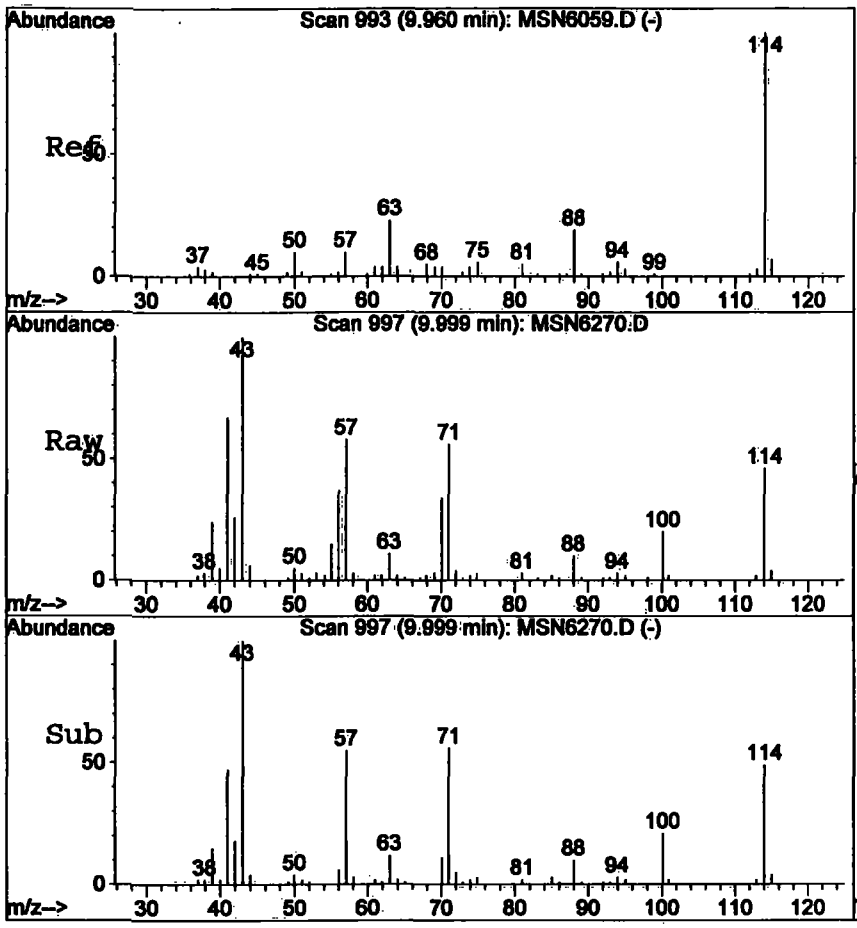




#18
N-hexane
Concen: 90.14 ug/Kg m
RT: 4.77 min Scan# 441
Delta R.T. 0.10 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:57 Resp: 473540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 86 | 20.3 | 2.6 | 42.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

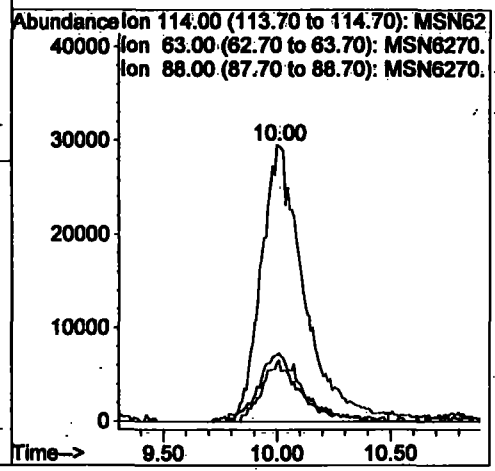


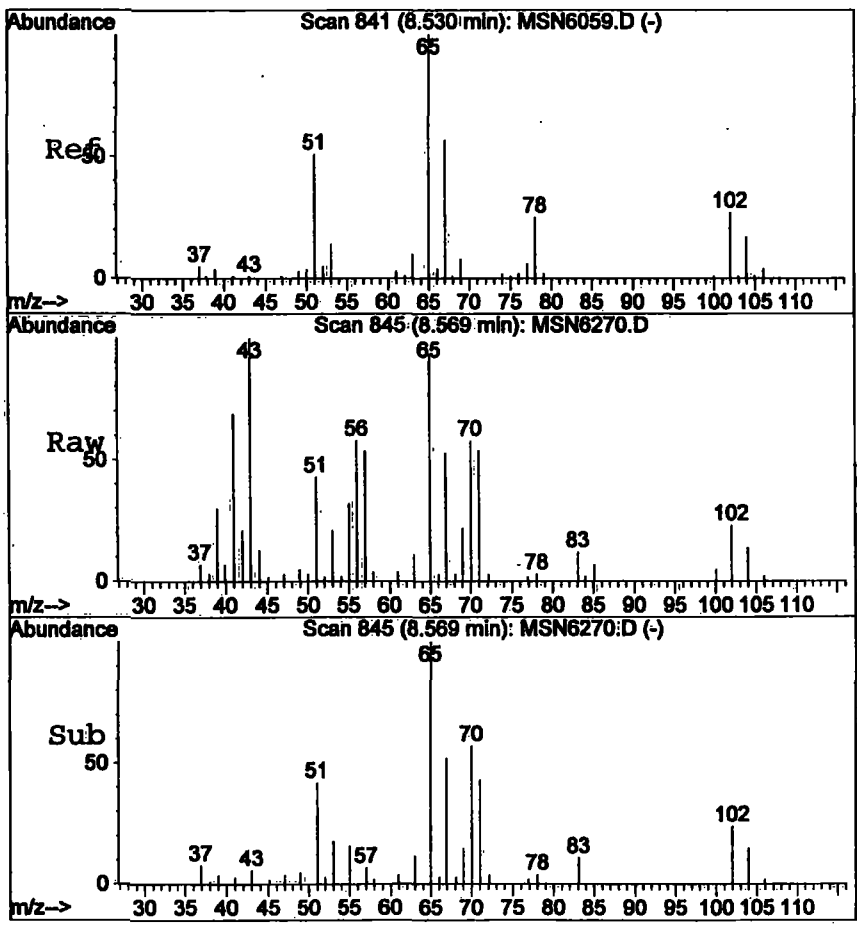



#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg m
RT: 10.00 min Scan# 997
Delta R.T. 0.03 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:114 Resp: 386204

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 4.3 | 2.6 | 42.6 |
| 88 | 0.0 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

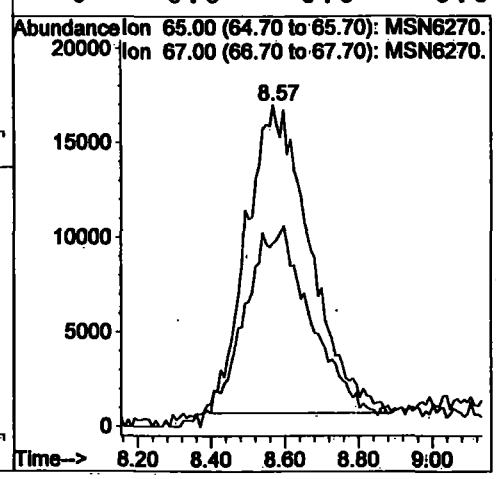


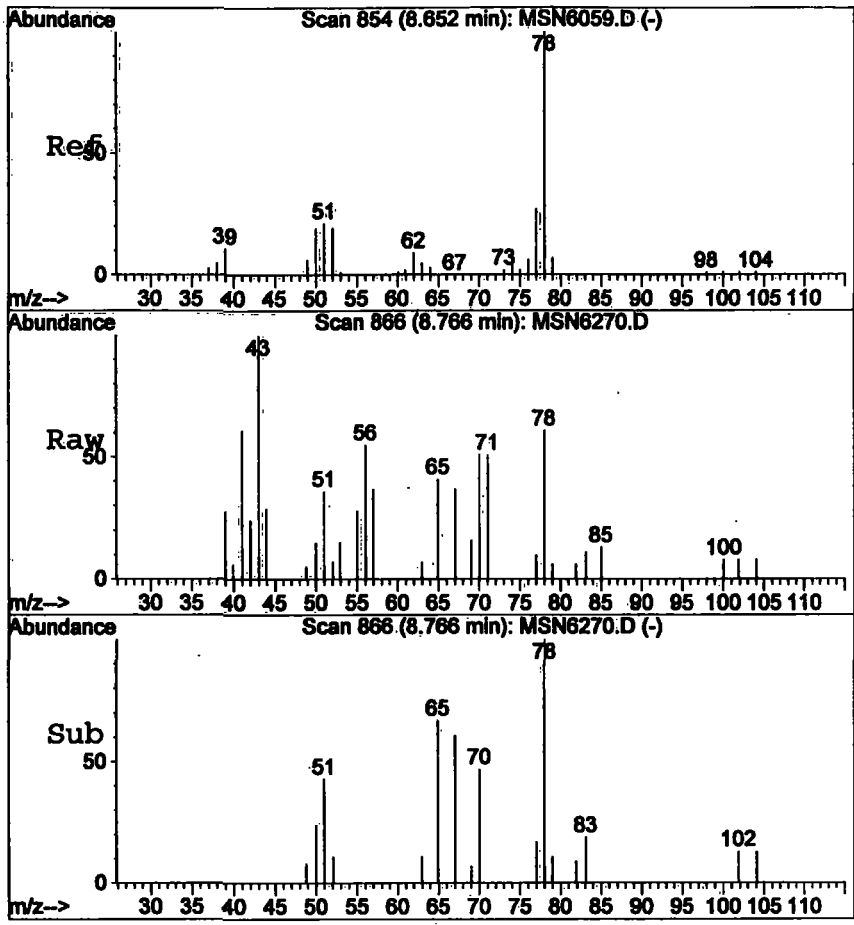




#29
1,2-dichloroethane-d4
Concen: 60.98 ug/Kg
RT: 8.57 min Scan# 845
Delta R.T. 0.03 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:65 Resp: 194746

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 55.2 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

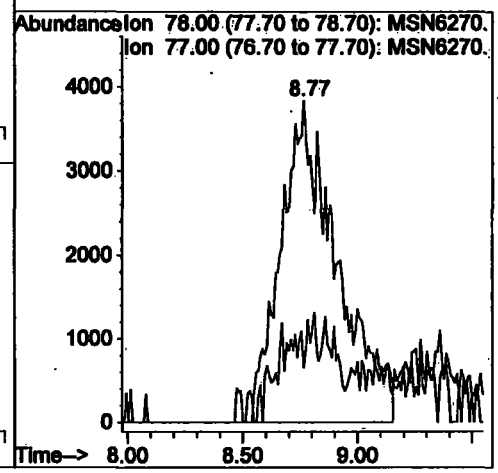


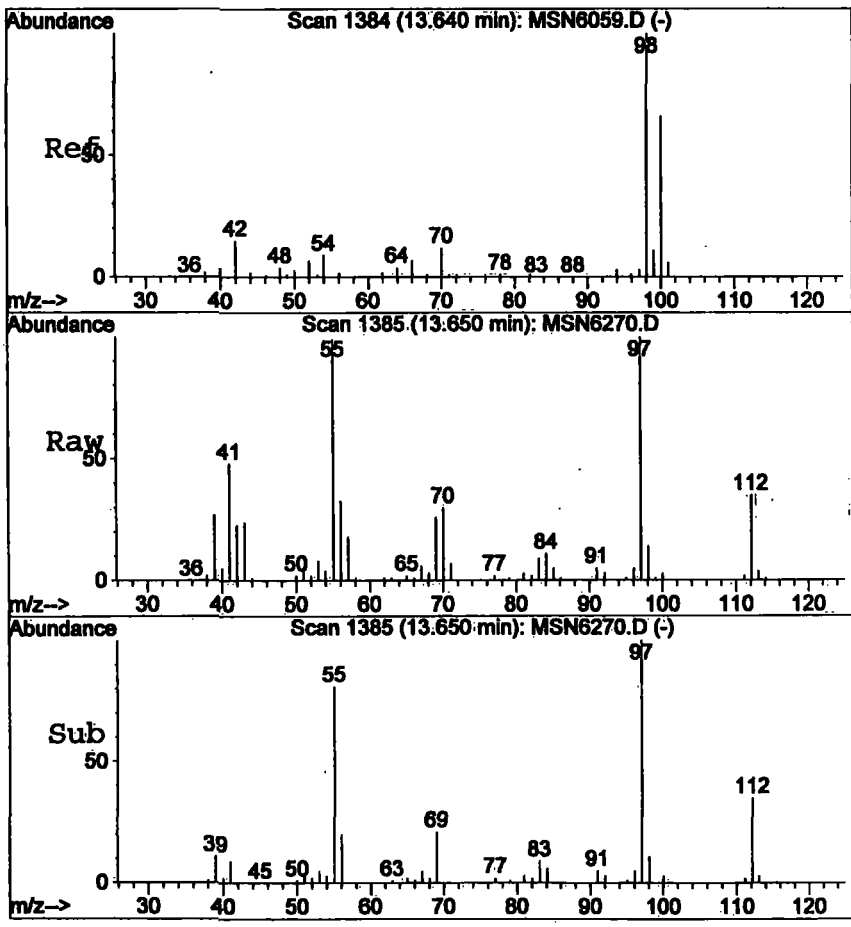



#30
benzene
Concen: 8.40 ug/Kg m
RT: 8.77 min Scan# 866
Delta R.T. 0.10 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:78 Resp: 64606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 17.1 | 6.7 | 46.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

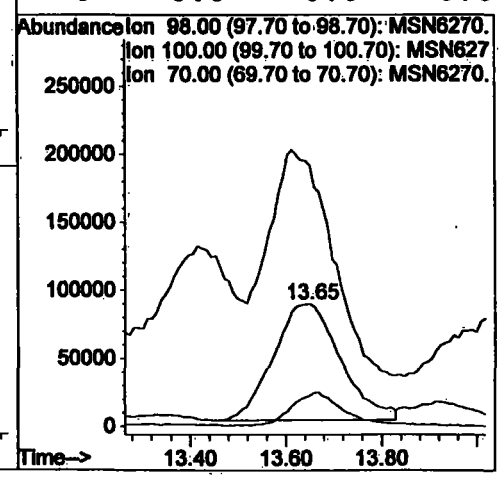


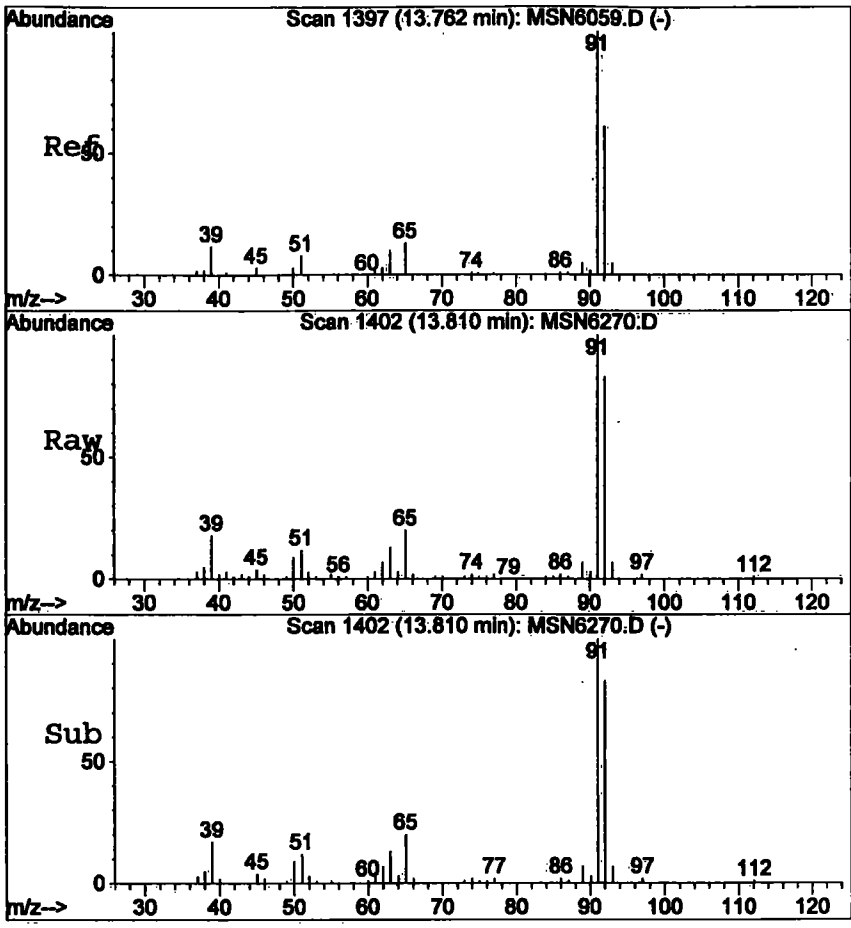




#40
toluene-d8
Concen: 113.79 ug/Kg
RT: 13.65 min Scan# 1385
Delta R.T. 0.02 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:98 Resp: 830365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 24.8 | 54.0 | 81.0# |
| 70 | 181.1 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

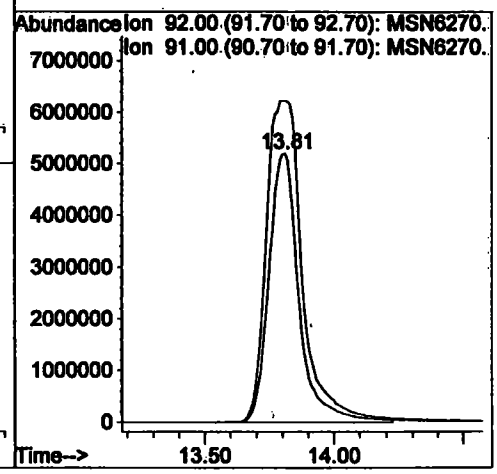


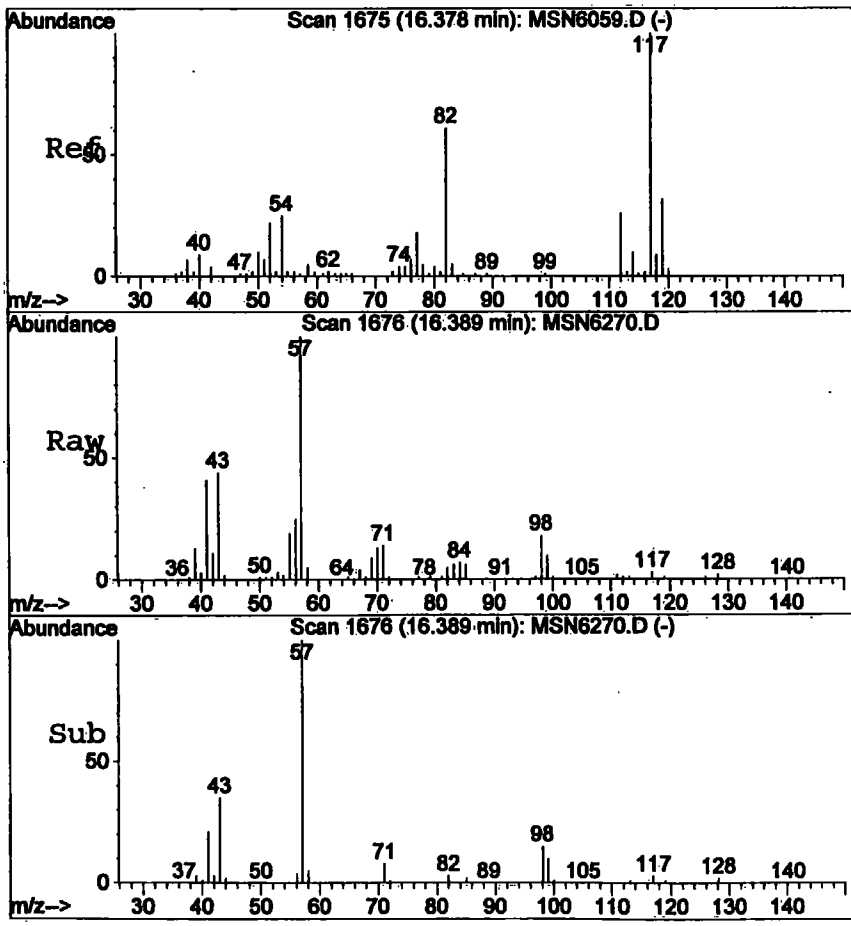



#41
toluene
Concen: 9338.14 ug/Kg
RT: 13.81 min Scan# 1402
Delta R.T. 0.05 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:92 Resp:41908974

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 119.8 | 143.4 | 183.4# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

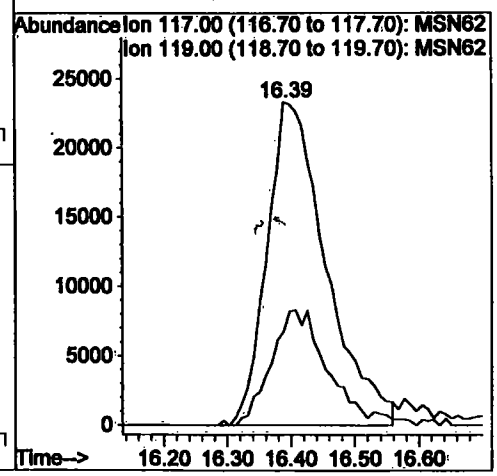


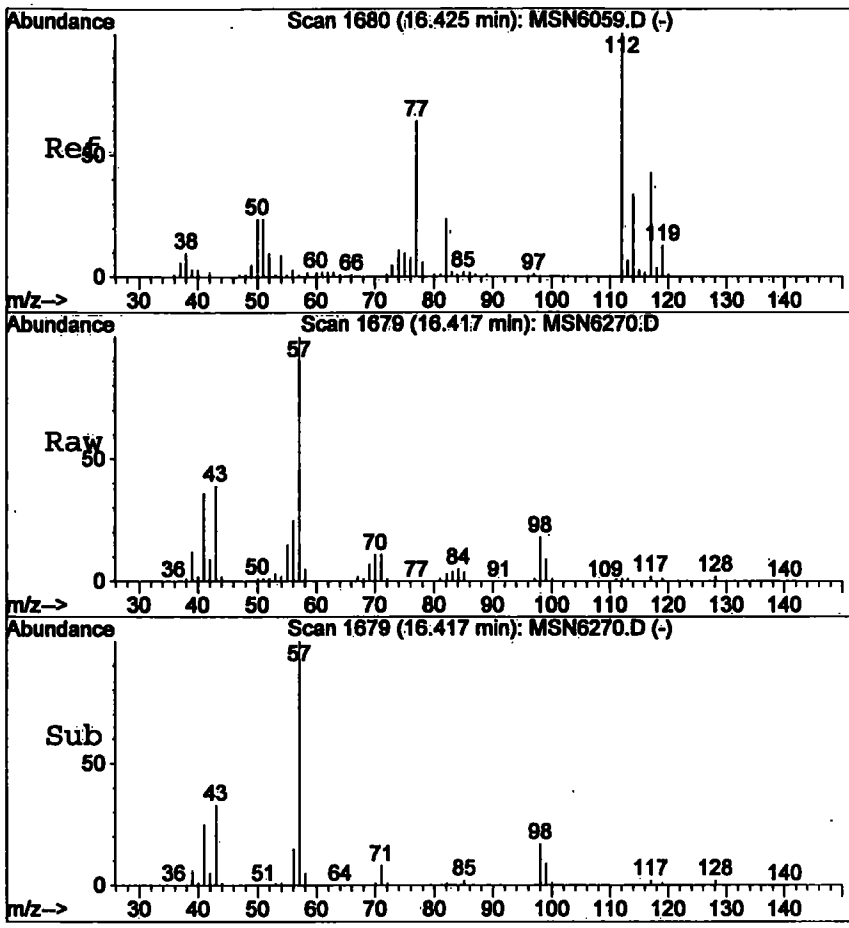




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.39 min Scan# 1676
Delta R.T. 0.02 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:117 Resp: 149683

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 29.0 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

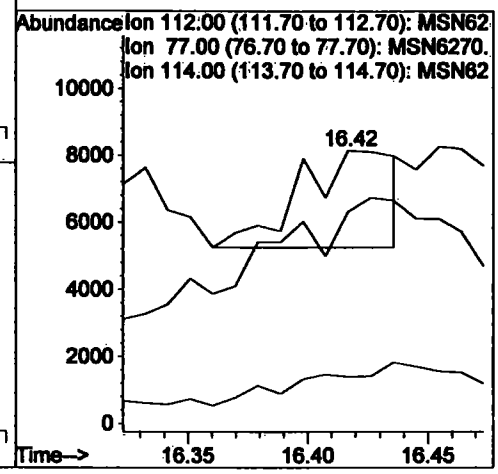


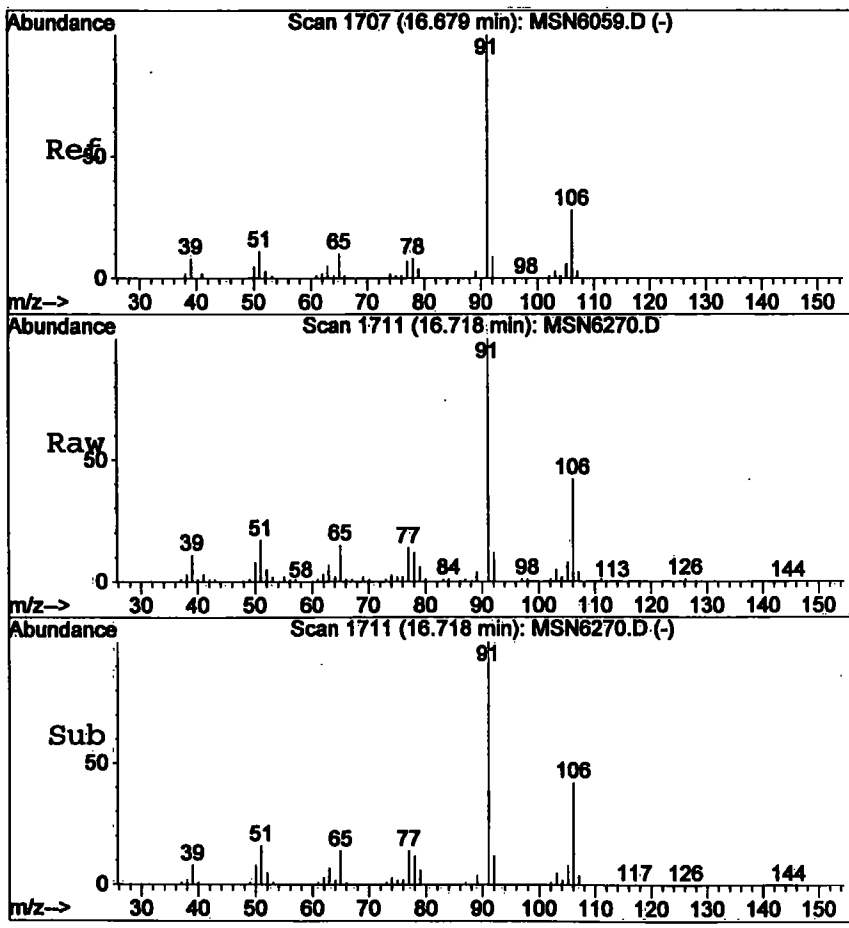



#48
chlorobenzene
Concen: 2.70 ug/Kg
RT: 16.42 min Scan# 1679
Delta R.T. -0.01 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:112 Resp: 8029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 84.2 | 43.9 | 83.9# |
| 114 | 29.8 | 13.7 | 53.7 |
| 0 | 0.0 | 0.0 | 0.0 |

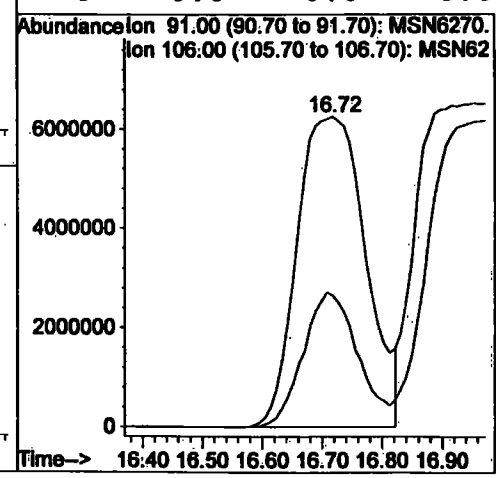


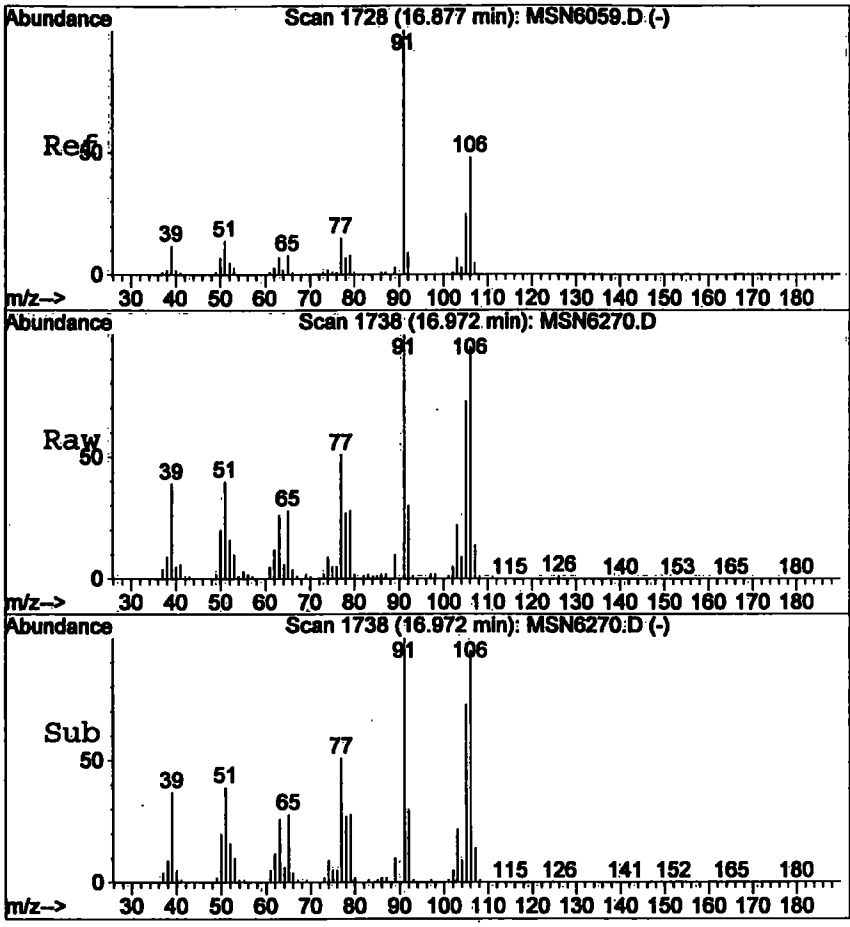




#49
ethylbenzene
Concen: 11177.36 ug/Kg
RT: 16.72 min Scan# 1711
Delta R.T. 0.04 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:91 Resp:49503475

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.4 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

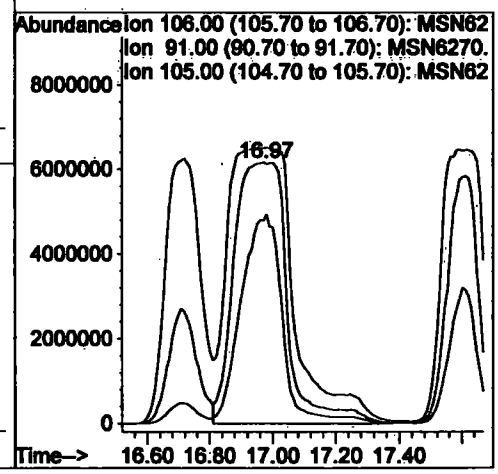


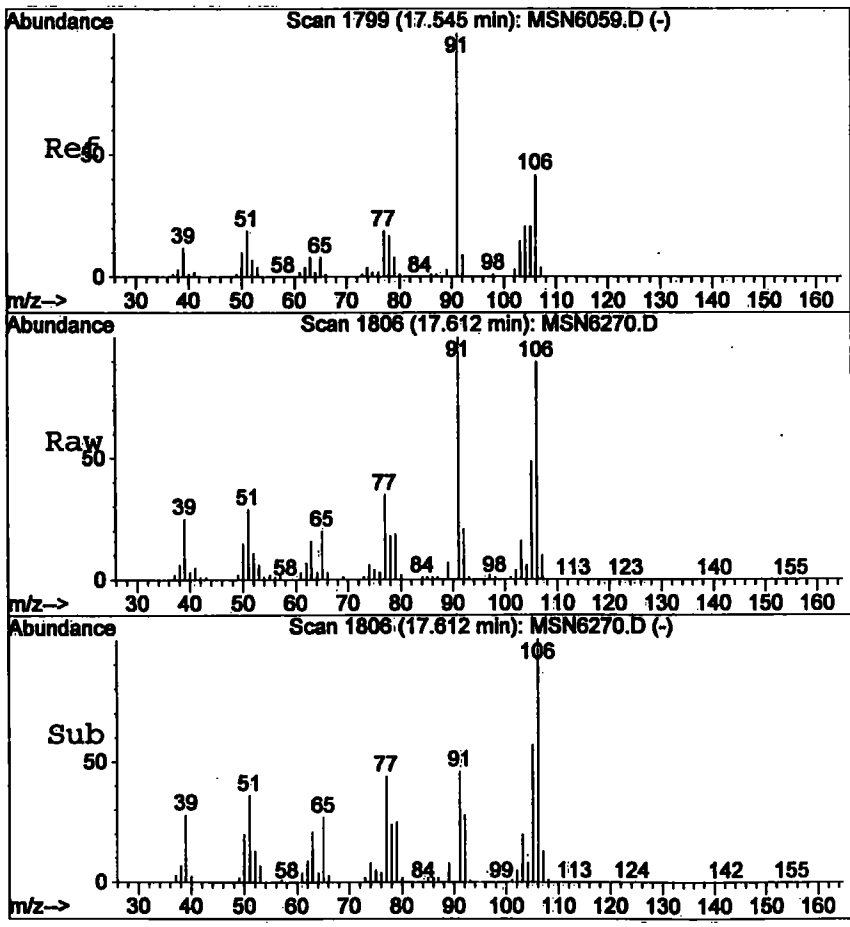



#50
m,p-xylene
Concen: 44583.36 ug/Kg m
RT: 16.97 min Scan# 1738
Delta R.T. 0.08 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:106 Resp:70876994

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 105.6 | 192.8 | 232.8# |
| 105 | 77.5 | 31.8 | 71.8# |
| 0 | 0.0 | 0.0 | 0.0 |

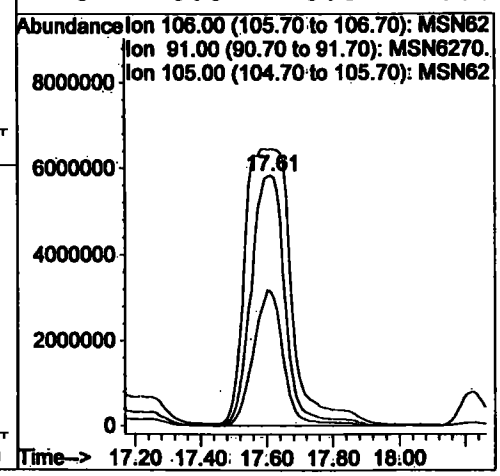


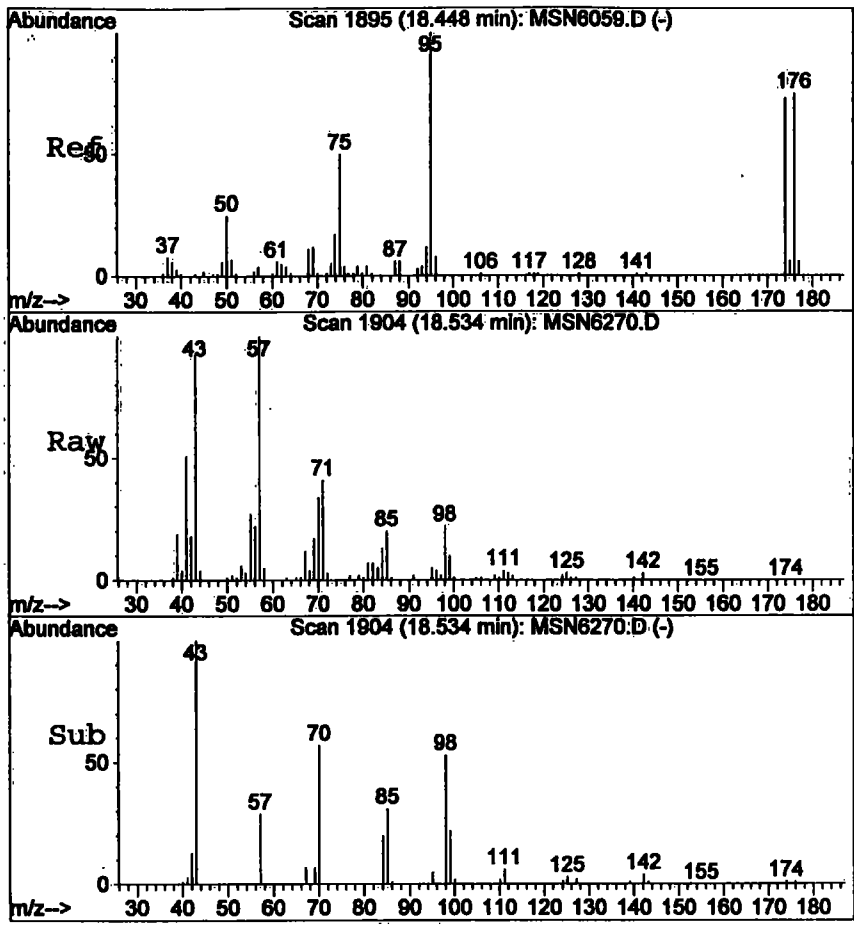




#51
o-xylene
Concen: 27392.46 ug/Kg
RT: 17.61 min Scan# 1806
Delta R.T. 0.07 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:106 Resp:41075586

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 110.2 | 220.1 | 260.1# |
| 105 | 54.1 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

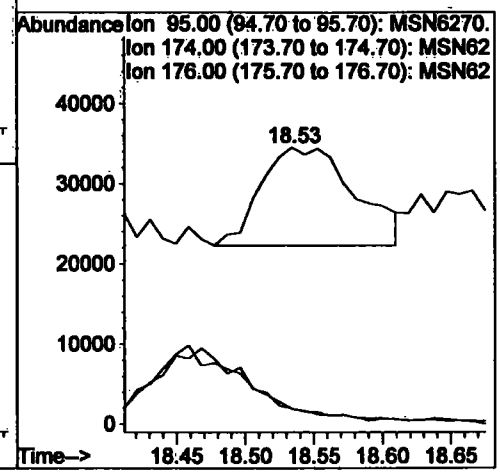


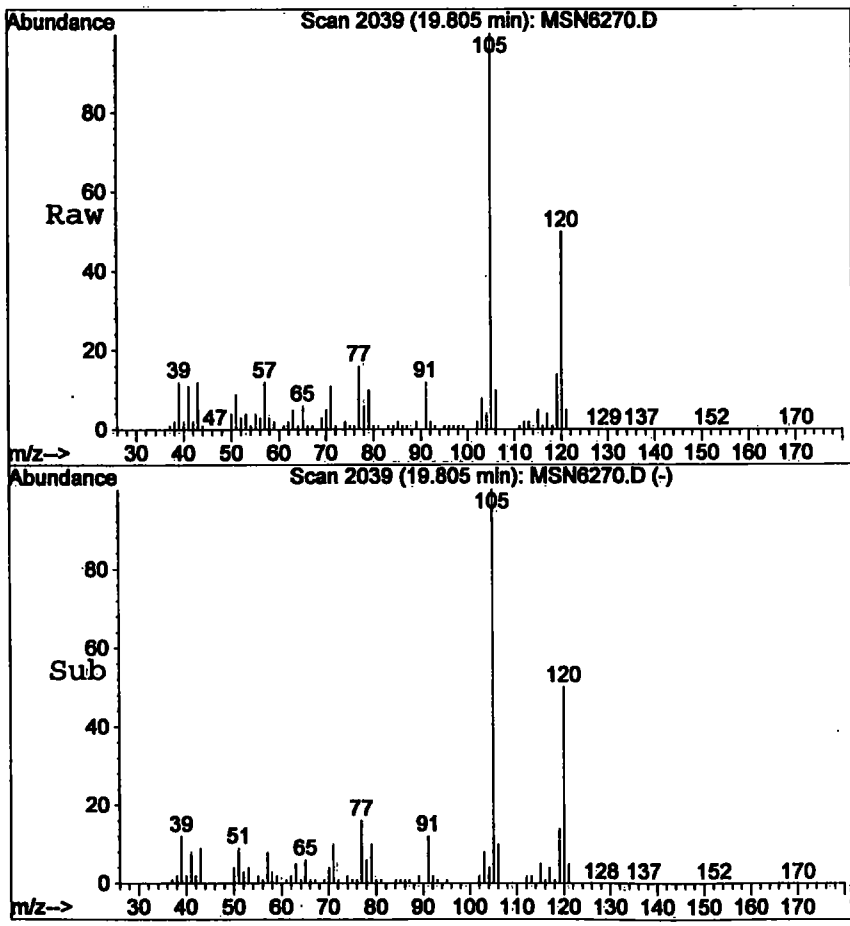



#56
4-bromofluorobenzene
Concen: 34.68 ug/Kg
RT: 18.53 min Scan# 1904
Delta R.T. 0.08 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:95 Resp: 58321

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 11.1 | 53.0 | 93.0# |
| 176 | 10.3 | 54.6 | 94.6# |
| 0 | 0.0 | 0.0 | 0.0 |

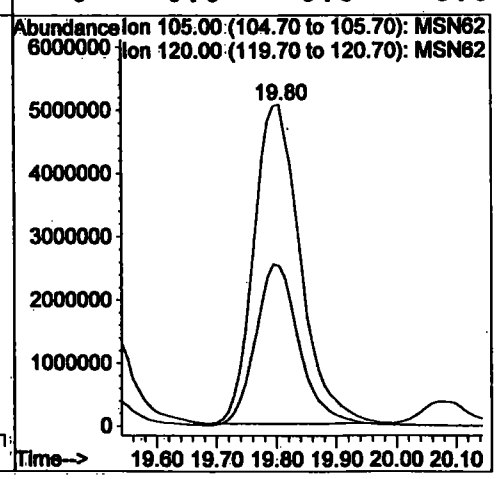



#59
1,2,4-trimethylbenzene
Concen: 7323.38 ug/L
RT: 19.80 min Scan# 2039
Delta R.T. 0.03 min
Lab File: MSN6270.D
Acq: 29 Oct 97 22:56

Tgt Ion:105 Resp:27183360

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 50.1 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6286.D Vial: 2
Acq On : 30 Oct 97 14:43 Operator: tcm
Sample : L72972500-003 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1250.00
Quant Time: Oct 30 15:12 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.86 | 128 | 345923 | 50.00 ug/Kg | 0.02 |
| 24) 1,4-difluorobenzene | 10.07 | 114 | 1203801 | 50.00 ug/Kg | 0.10 |
| 42) chlorobenzene-d5 | 16.43 | 117 | 786080 | 50.00 ug/Kg | 0.06 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.63 | 65 | 57016 | 5.73 ug/Kg | 0.09 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = 11.46%# | |
| 40) toluene-d8 | 13.72 | 98 | 123320 | 5.42 ug/Kg | 0.08 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = 10.84%# | |
| 56) 4-bromofluorobenzene | 18.51 | 95 | 36558 | 4.14 ug/Kg | 0.07 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = 8.28%# | |
| **Target Compounds** | | | | | Qvalue |
| 41) toluene | 13.85 | 92 | 69695m | 6227.69 ug/Kg | 86 |
| 49) ethylbenzene | 16.74 | 91 | 138695 | 7453.84 ug/Kg | 99 |
| 50) m,p-xylene | 16.92 | 106 | 370706m | 55502.54 ug/Kg | 99 |
| 51) o-xylene | 17.59 | 106 | 157595m | 25015.29 ug/Kg | 82 |
| 59) 1,2,4-trimethylbenzene | 19.81 | 105 | 156913 | 10061.98 ug/L | 90 |

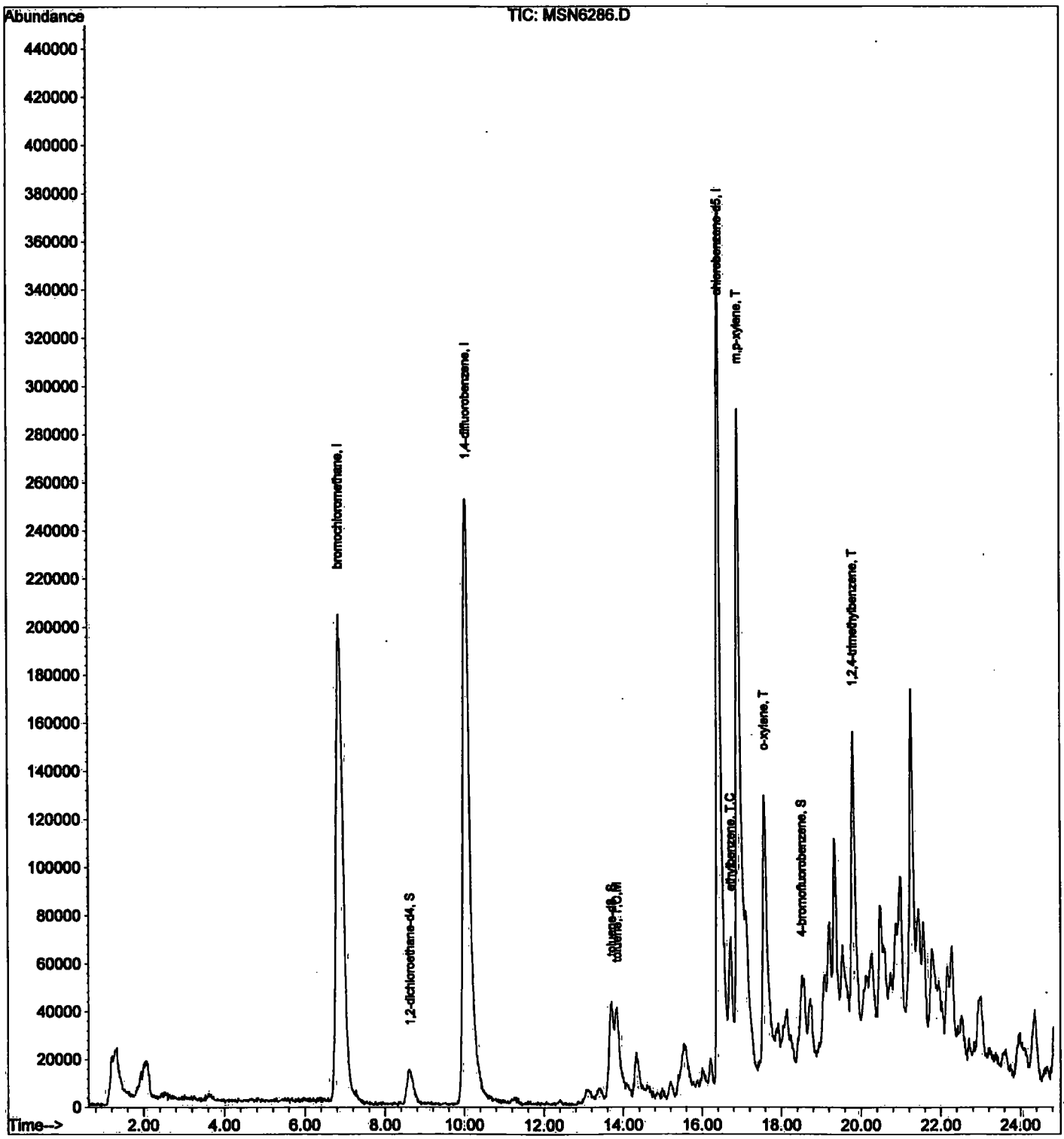
QC
Surrogates Recovery
OVT
10-30-97

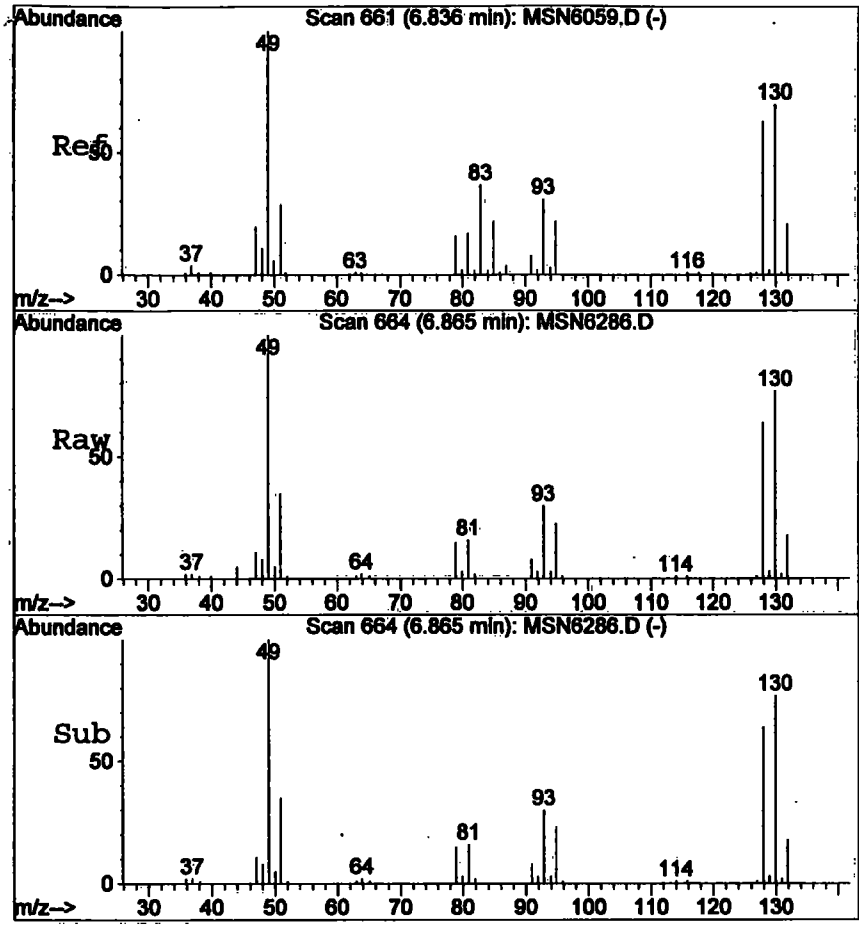
(#) = qualifier out of range (m) = manual integration
MSN6286.D TCLSOILN.M Thu Oct 30 15:13:15 1997 Page 1

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6286.D  Vial: 2
Acq On : 30 Oct 97 14:43  Operator: tcm
Sample : L72972500-003  Inst : GC/MS Ins
Misc : VN103097  Multiplr: 1250.00
Quant Time: Oct 30 15:12 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

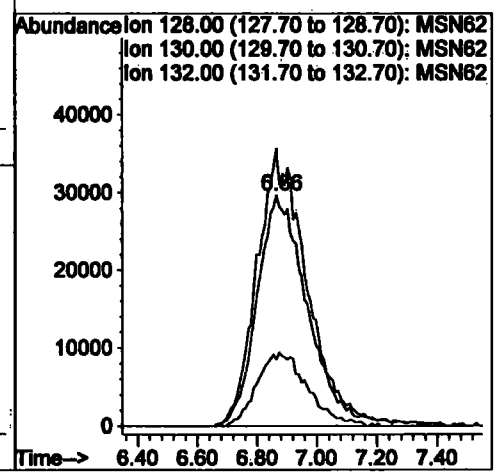


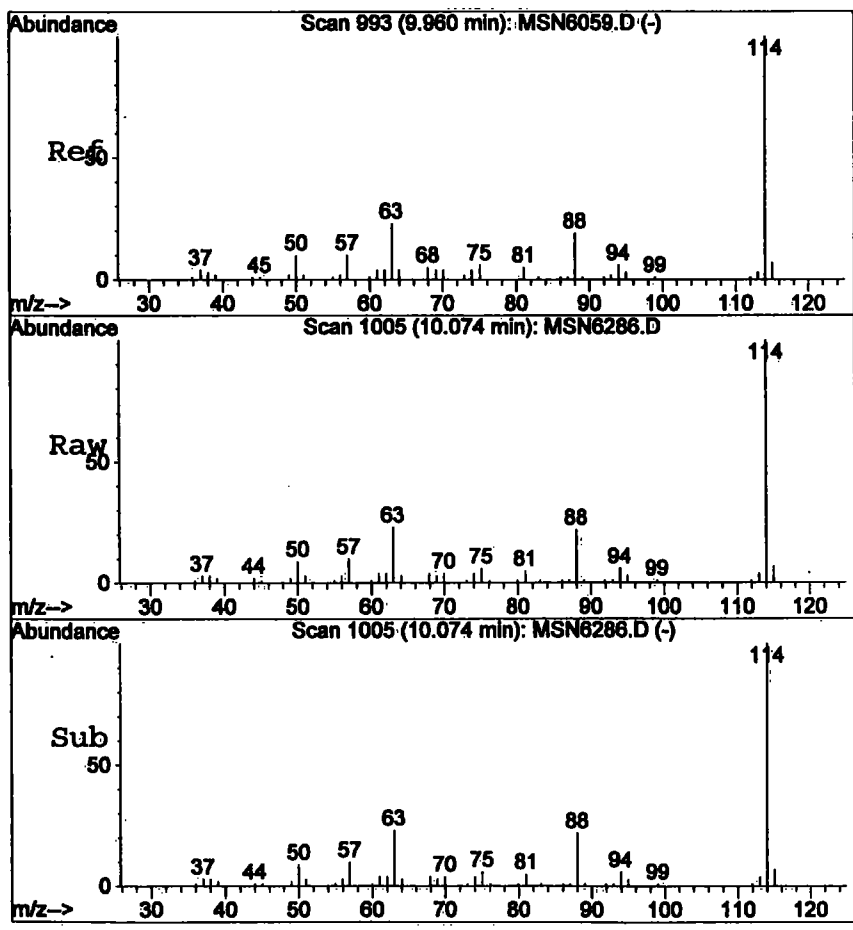



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.86 min Scan# 664
Delta R.T. 0.02 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:128 Resp: 345923

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 120.1 | 91.7 | 131.7 |
| 132 | 28.6 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

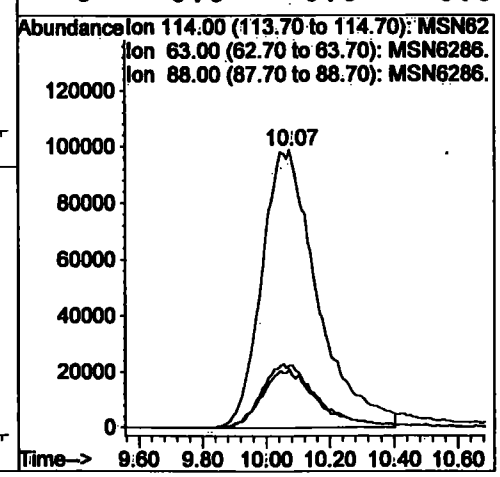


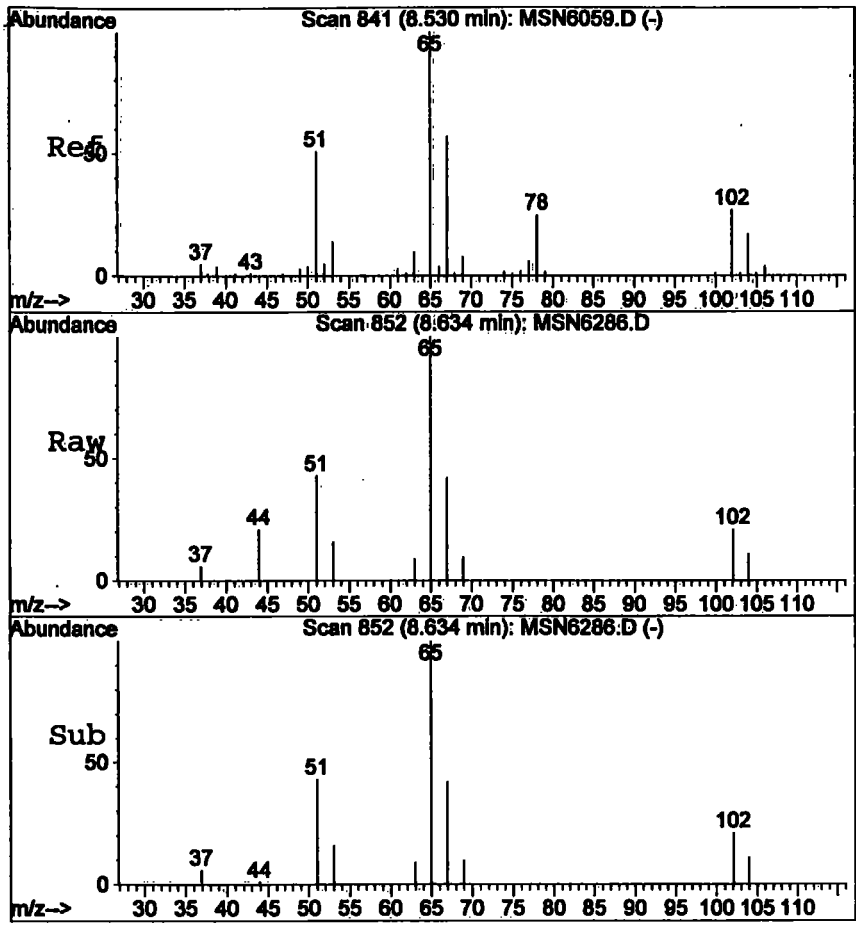




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.07 min Scan# 1005
Delta R.T. 0.10 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:114 Resp: 1203801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.9 | 2.6 | 42.6 |
| 88 | 21.5 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

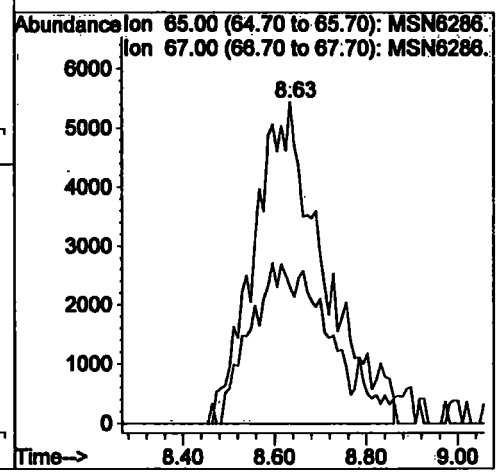


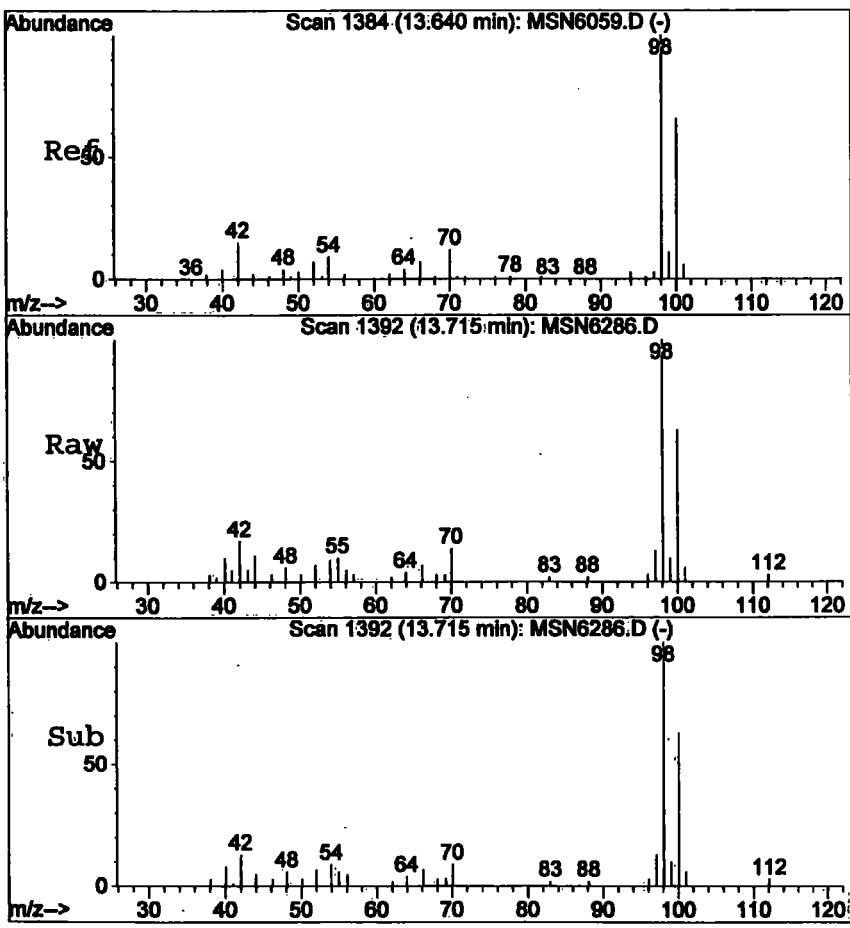



#29
1,2-dichloroethane-d4
Concen: 5.73 ug/Kg
RT: 8.63 min Scan# 852
Delta R.T. 0.09 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:65 Resp: 57016

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 36.3 | 37.4 | 77.4# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

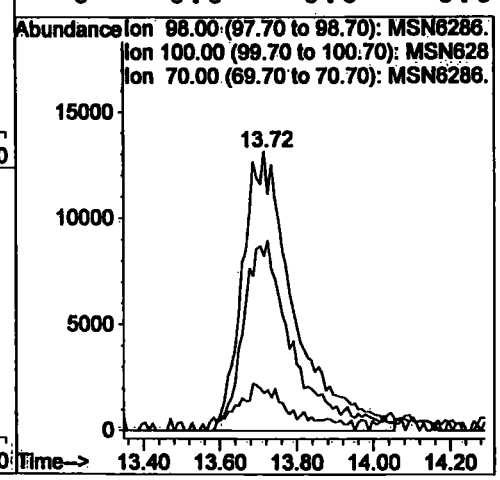


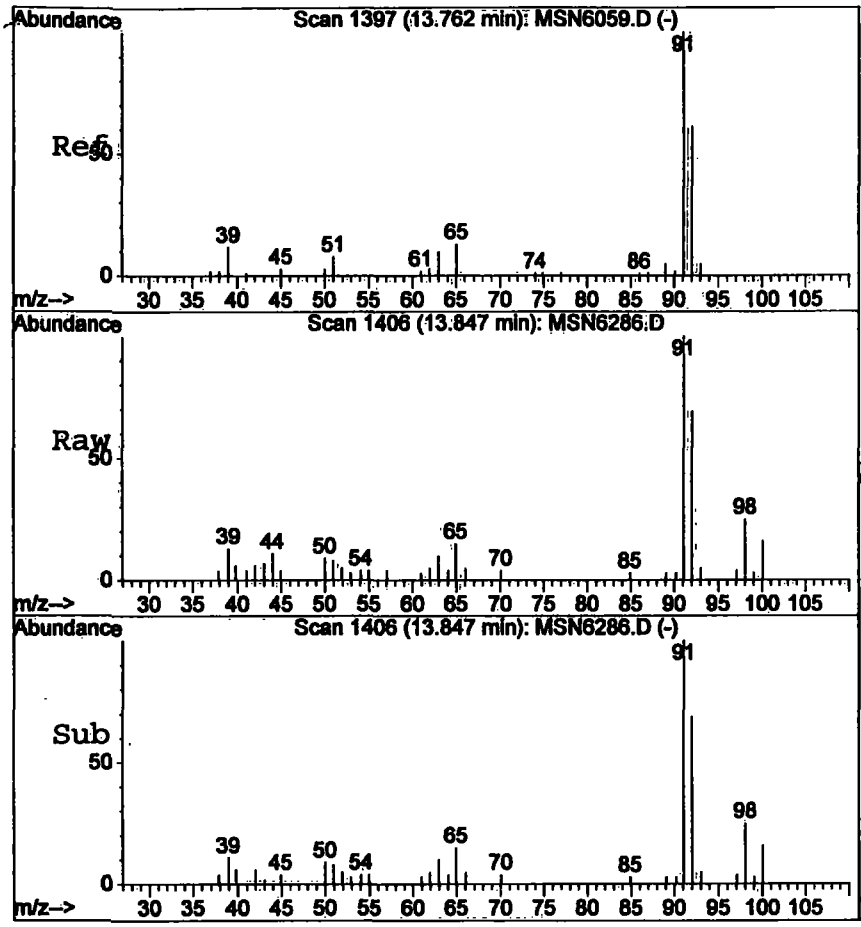




#40
toluene-d8
Concen: 5.42 ug/Kg
RT: 13.72 min Scan# 1392
Delta R.T. 0.08 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:98 Resp: 123320

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 62.8 | 54.0 | 81.0 |
| 70 | 11.2 | 9.8 | 14.8 |
| 0 | 0.0 | 0.0 | 0.0 |

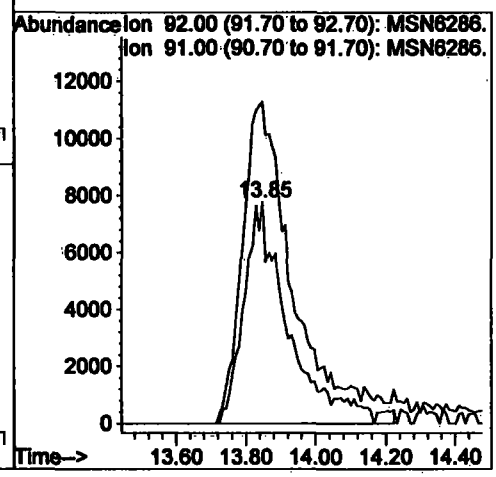


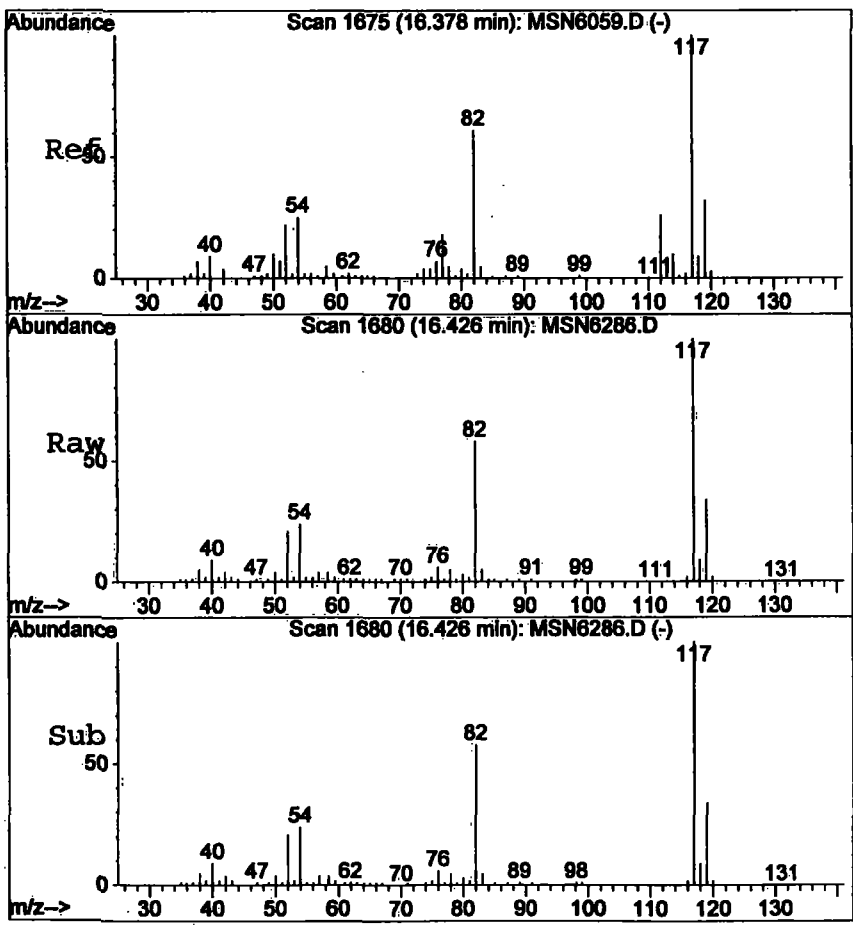



#41
toluene
Concen: 6227.69 ug/Kg m
RT: 13.85 min Scan# 1406
Delta R.T. 0.08 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:92 Resp: 69695

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 145.1 | 143.4 | 183.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

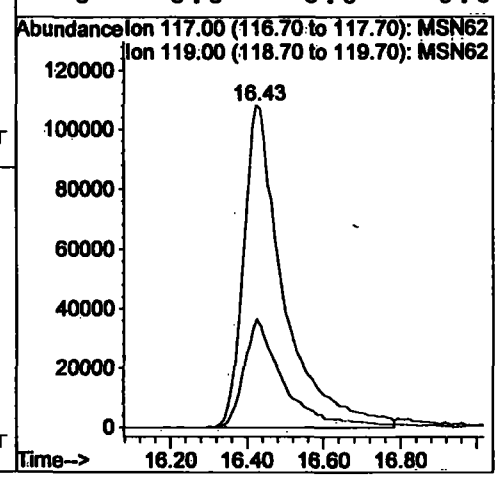


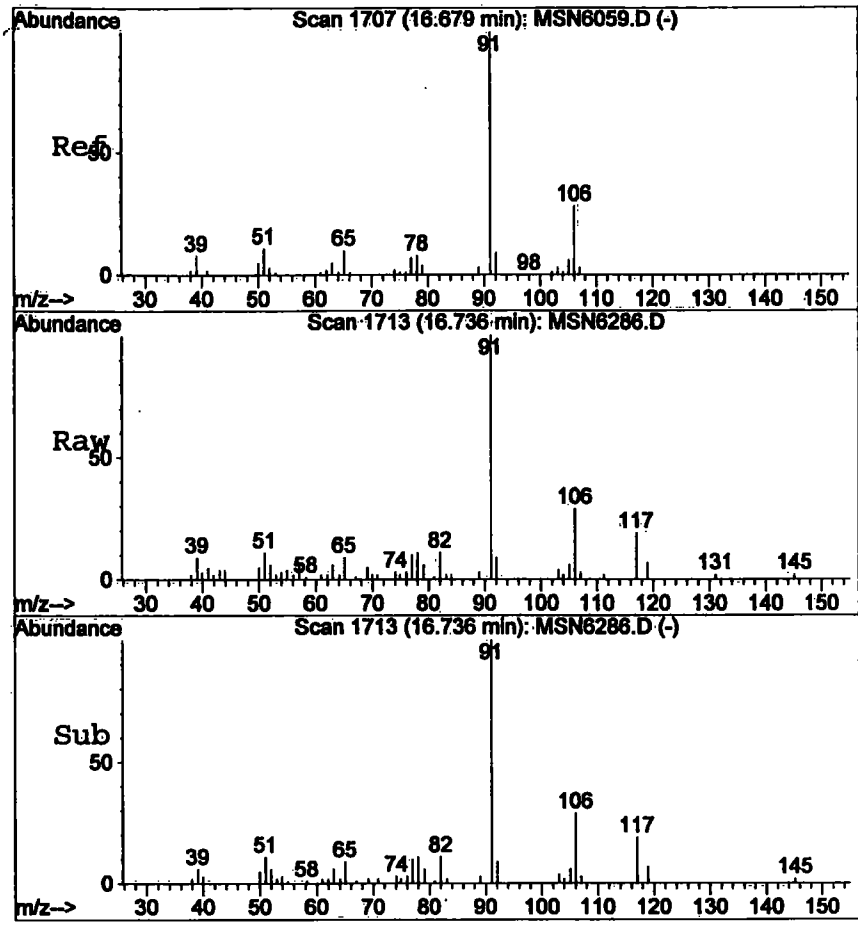




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.43 min Scan# 1680
Delta R.T. 0.06 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:117 Resp: 786080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 33.7 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

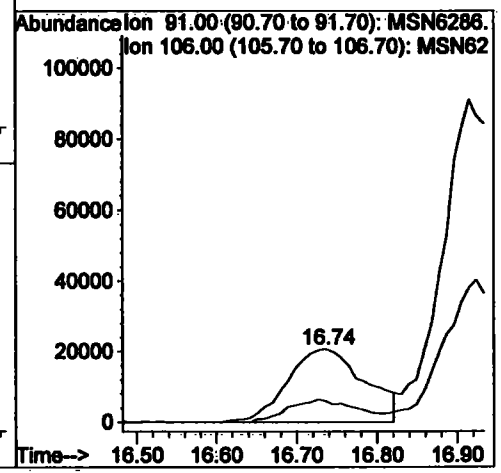


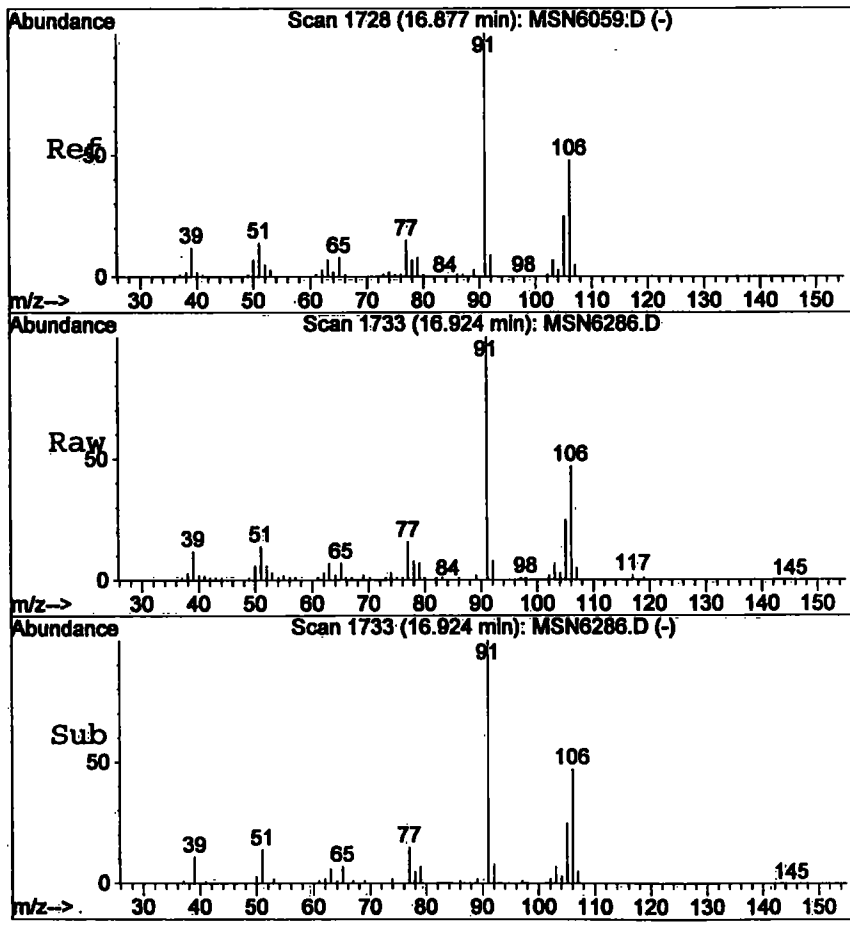



#49
ethylbenzene
Concen: 7453.84 ug/Kg
RT: 16.74 min Scan# 1713
Delta R.T. 0.06 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:91 Resp: 138695

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.0 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

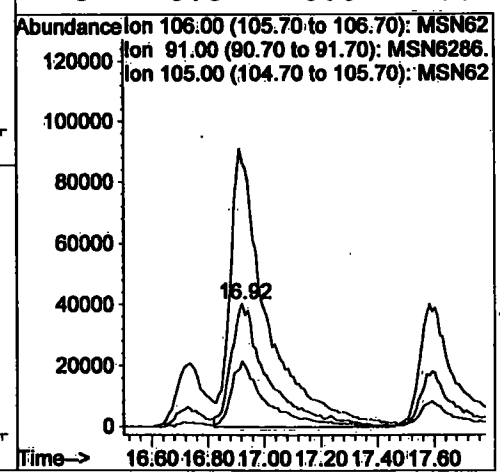


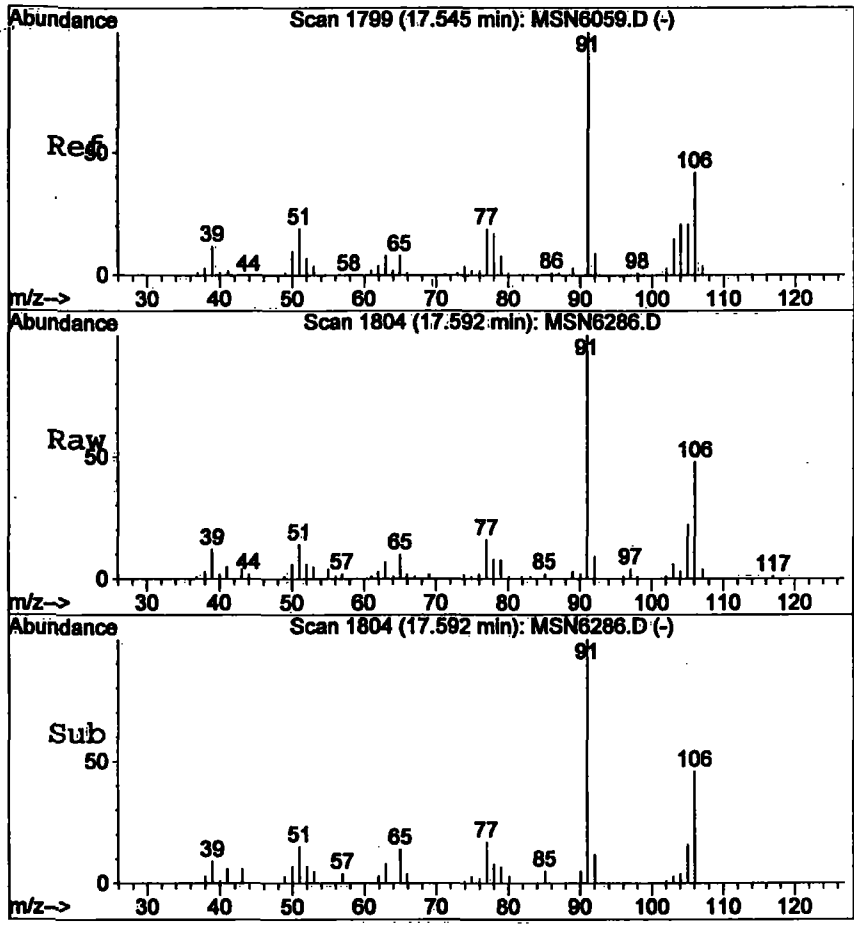




#50
m,p-xylene
Concen: 55502.54 ug/Kg m
RT: 16.92 min Scan# 1733
Delta R.T. 0.04 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:106 Resp: 370706

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 215.0 | 192.8 | 232.8 |
| 105 | 53.4 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

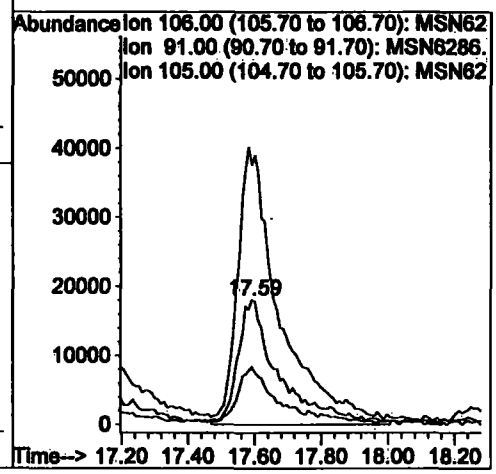


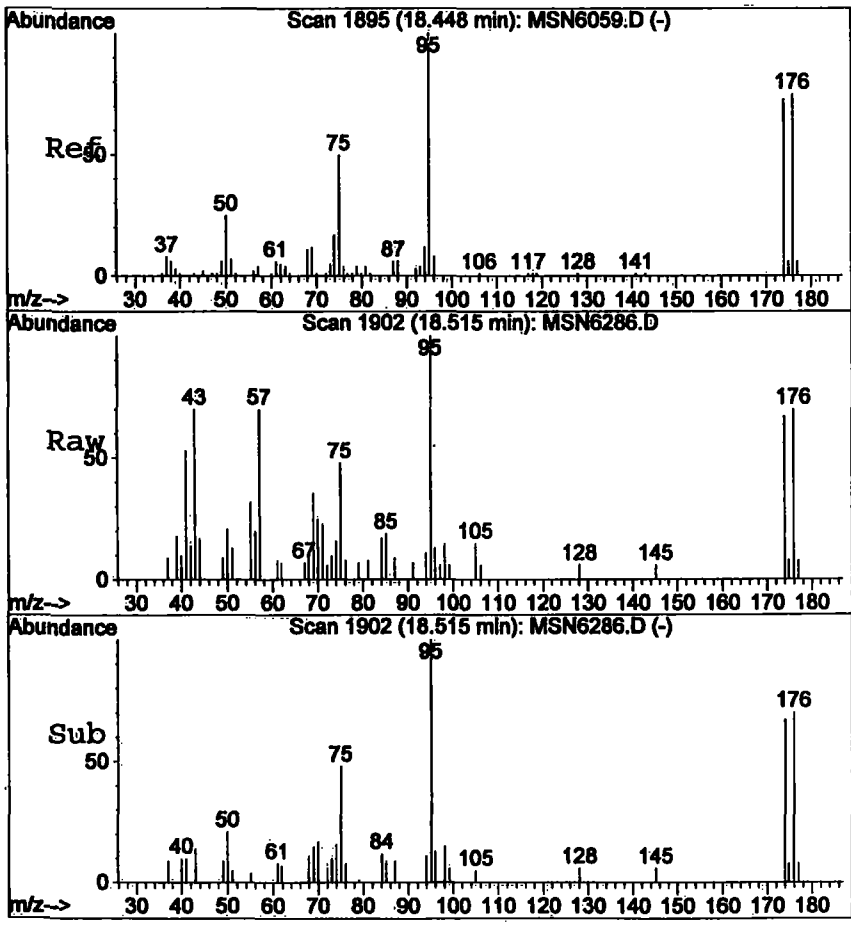



#51
o-xylene
Concen: 25015.29 ug/Kg m
RT: 17.59 min Scan# 1804
Delta R.T. 0.05 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:106 Resp: 157595

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 208.5 | 220.1 | 260.1# |
| 105 | 46.4 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

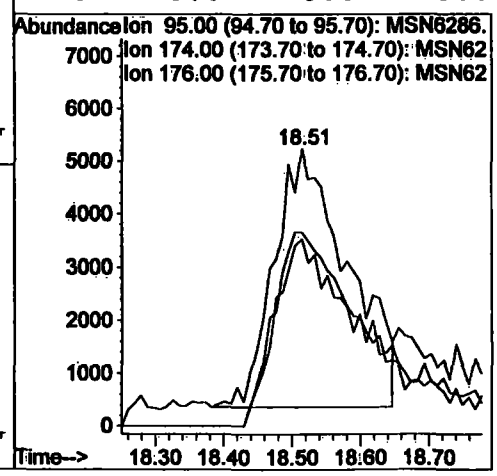


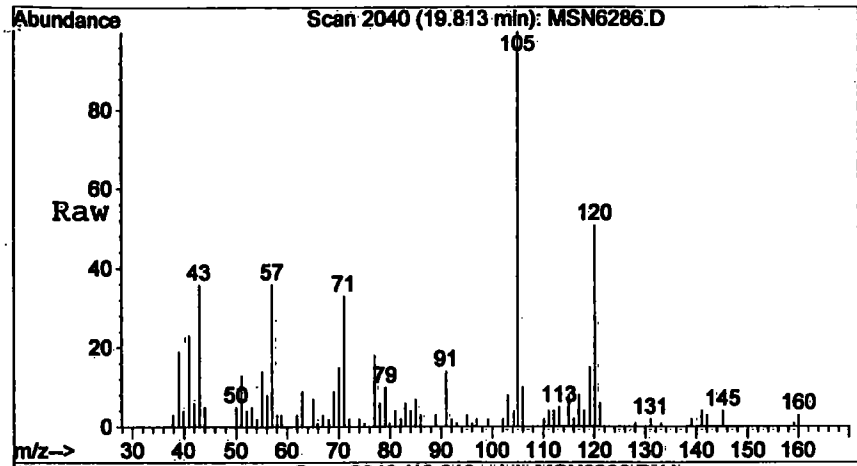




#56
4-bromofluorobenzene
Concen: 4.14 ug/Kg
RT: 18.51 min Scan# 1902
Delta R.T. 0.07 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:95 Resp: 36558

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 72.4 | 53.0 | 93.0 |
| 176 | 74.9 | 54.6 | 94.6 |
| 0 | 0.0 | 0.0 | 0.0 |

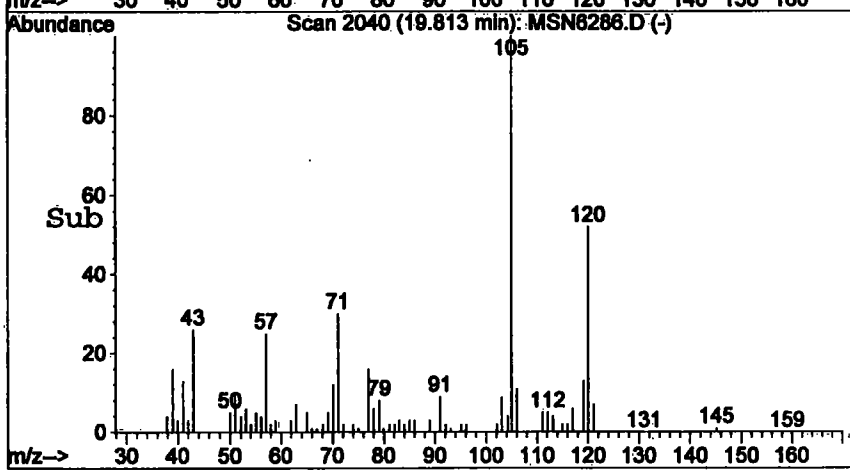


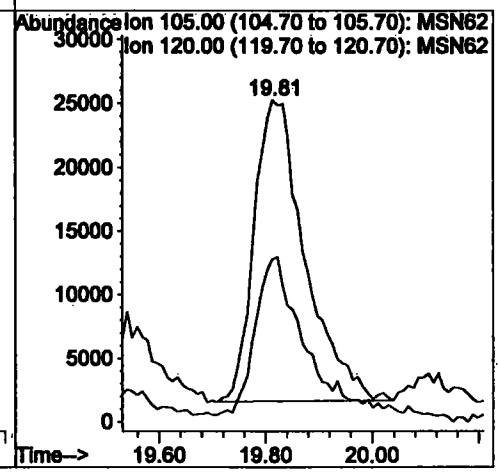



#59
1,2,4-trimethylbenzene
Concen: 10061.98 ug/L
RT: 19.81 min Scan# 2040
Delta R.T. 0.04 min
Lab File: MSN6286.D
Acq: 30 Oct 97 14:43

Tgt Ion:105 Resp: 156913

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 51.9 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6272.D Vial: 14
Acq On : 30 Oct 97 00:12 Operator: tcm
Sample : L72972500-004 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:39 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.85 | 128 | 210578 | 50.00 | ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 10.02 | 114 | 563117 | 50.00 | ug/Kg | 0.05 |
| 42) chlorobenzene-d5 | 16.41 | 117 | 217429 | 50.00 | ug/Kg | 0.04 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.58 | 65 | 313497 | 67.32 | ug/Kg | 0.04 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 134.64%# | | | |
| 40) toluene-d8 | 13.65 | 98 | 2893594 | 271.96 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 543.92%# | | | |
| 56) 4-bromofluorobenzene | 18.58 | 95 | 605441 | 247.86 | ug/Kg | 0.13 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 495.72%# | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 14) methylene chloride | 3.63 | 84 | 23789 | 4.10 | ug/Kg# | 83 |
| 18) N-hexane | 4.78 | 57 | 44545m | 5.47 | ug/Kg | 85 |
| 21) cis-1,2-dichloroethene | 6.18 | 96 | 12981m | 1.85 | ug/Kg | 0 |
| 23) 2-butanone | 6.27 | 43 | 221362m | 40.63 | ug/Kg | 98 |
| 30) benzene | 8.84 | 78 | 38821m | 3.46 | ug/Kg | 91 |
| 34) 1,2-dichloropropane | 11.23 | 63 | 55140m | 12.70 | ug/Kg | 69 |
| 41) toluene | 13.80 | 92 | 9068554 | 1385.83 | ug/Kg | 100 |
| 45) tetrachloroethene | 14.98 | 166 | 52771 | 19.88 | ug/Kg | 94 |
| 48) chlorobenzene | 16.43 | 112 | 6776 | 1.57 | ug/Kg# | 70 |
| 49) ethylbenzene | 16.73 | 91 | 15848210 | 2463.42 | ug/Kg | 98 |
| 50) m,p-xylene | 16.95 | 106 | 51364687m | 22242.68 | ug/Kg | 40 |
| 51) o-xylene | 17.62 | 106 | 29454294m | 13522.31 | ug/Kg | 0 |
| 59) 1,2,4-trimethylbenzene | 19.83 | 105 | 34959023 | 6483.70 | ug/L | 87 |

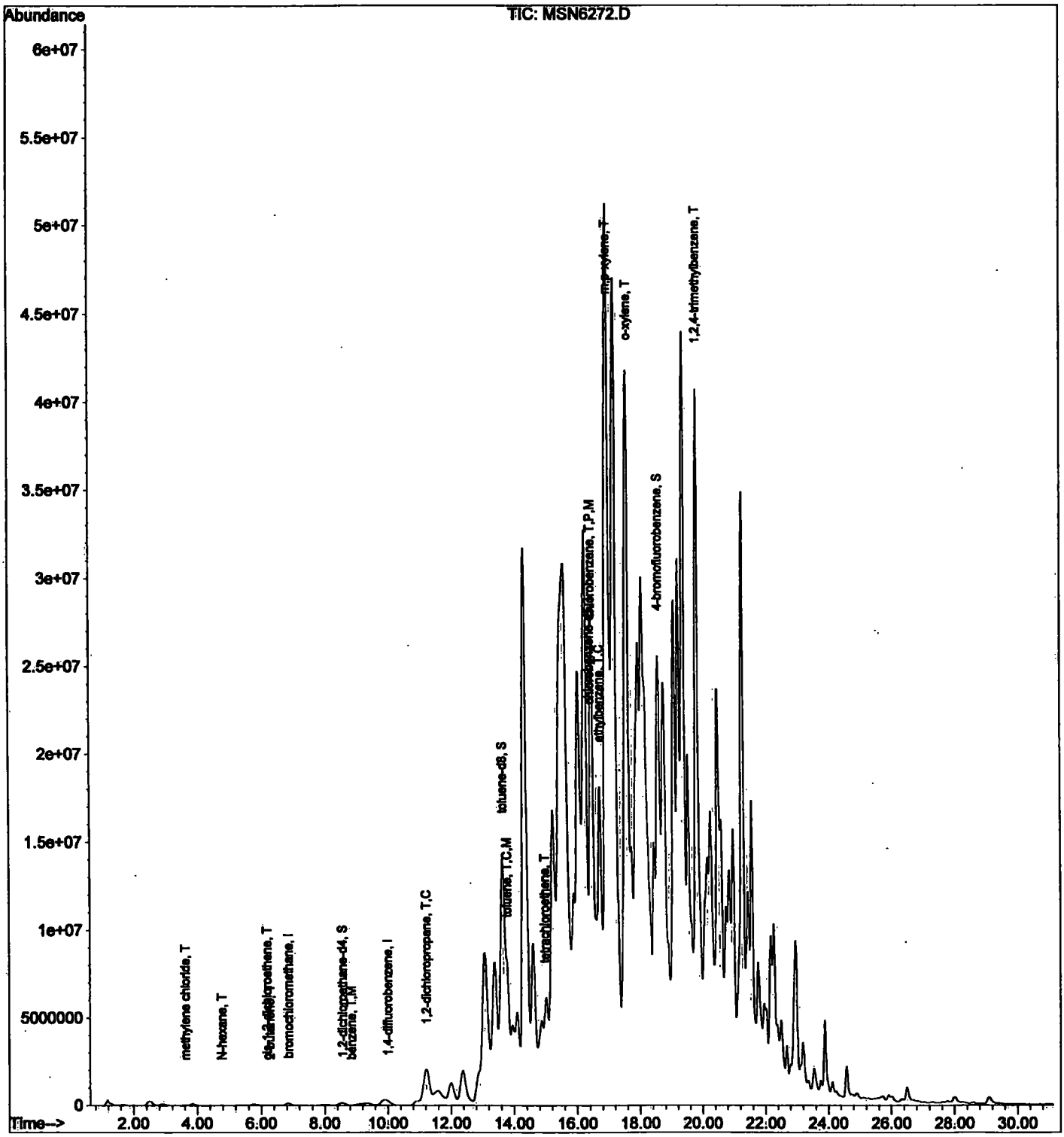
2000

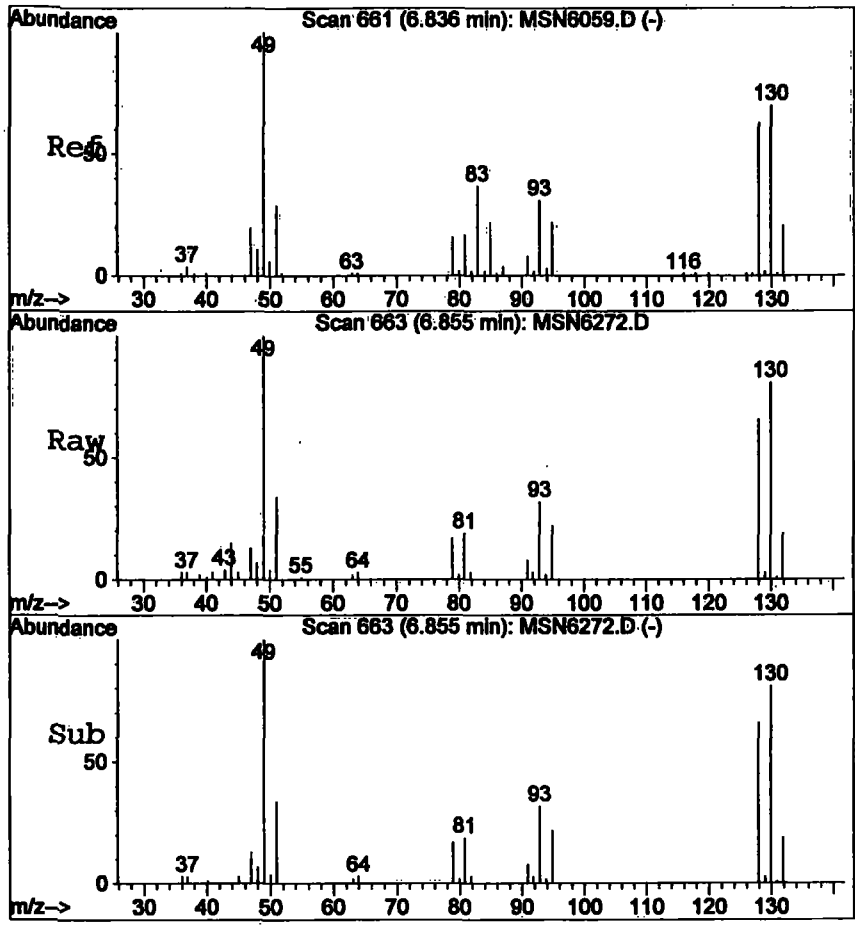
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6272.D Vial: 14
Acq On : 30 Oct 97 00:12 Operator: tcm
Sample : L72972500-004 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:39 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

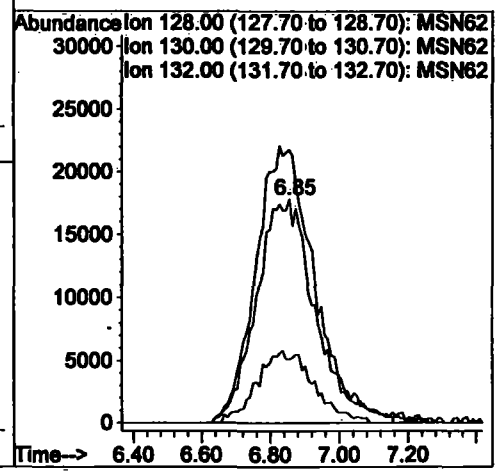


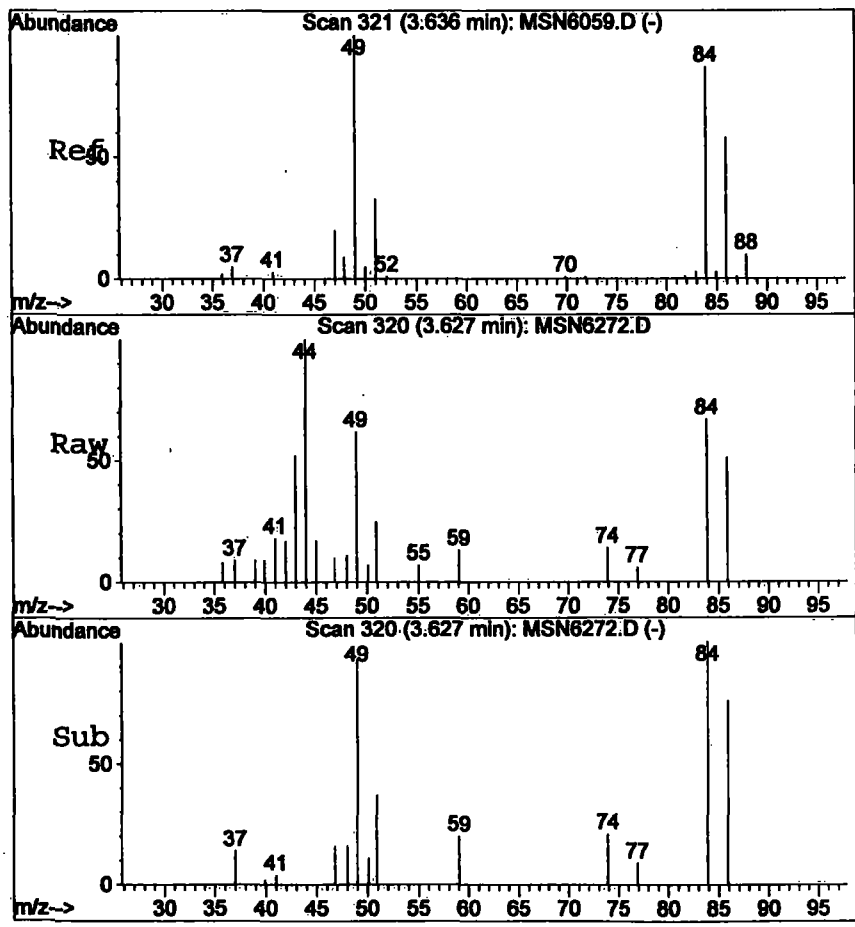



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.85 min Scan# 663
Delta R.T. 0.01 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:128 Resp: 210578

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 122.4 | 91.7 | 131.7 |
| 132 | 28.8 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

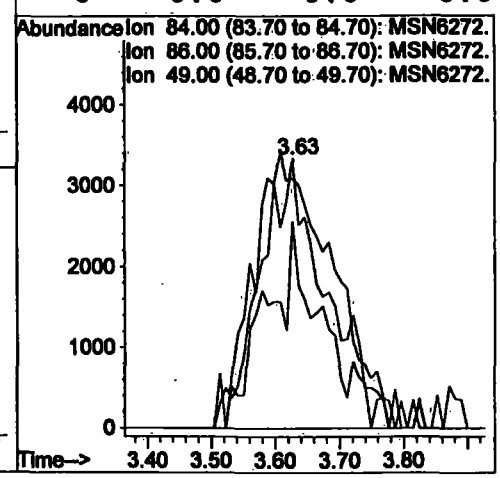


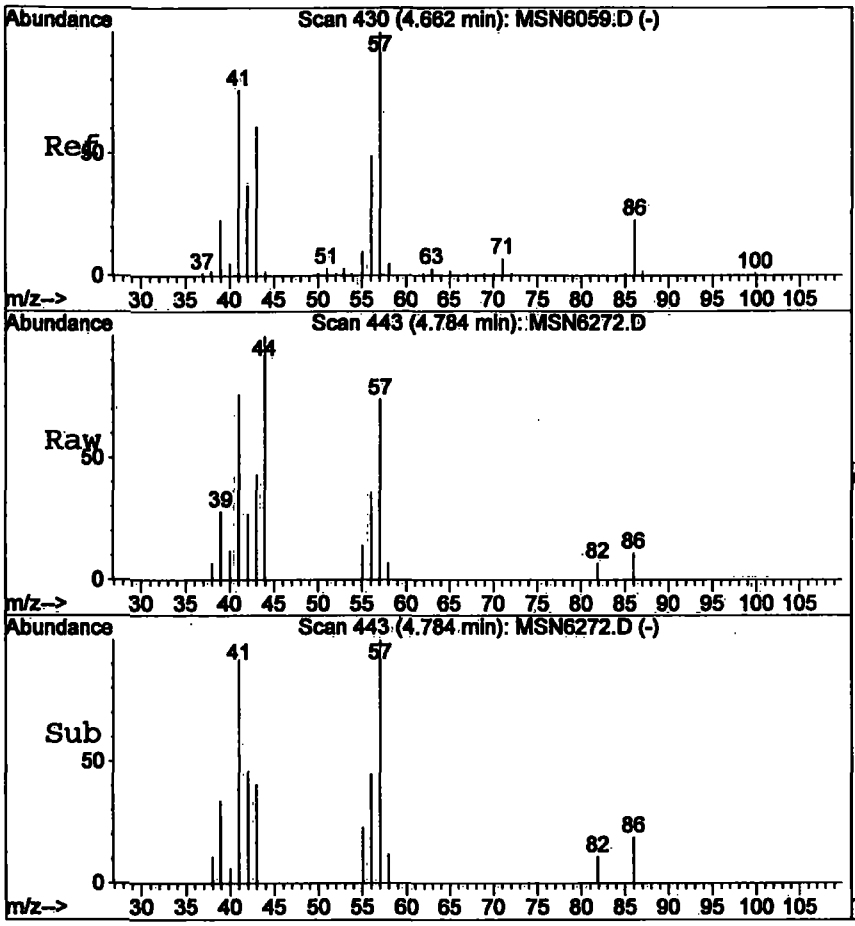




#14
methylene chloride
Concen: 4.10 ug/Kg
RT: 3.63 min Scan# 320
Delta R.T. -0.04 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:84 Resp: 23789

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 86 | 76.3 | 47.1 | 87.1 |
| 49 | 92.7 | 94.8 | 134.8# |
| 0 | 0.0 | 0.0 | 0.0 |

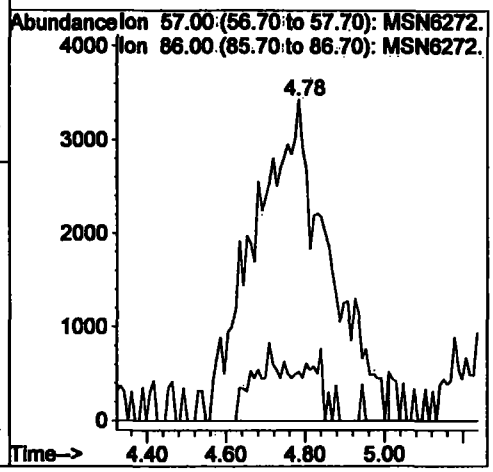


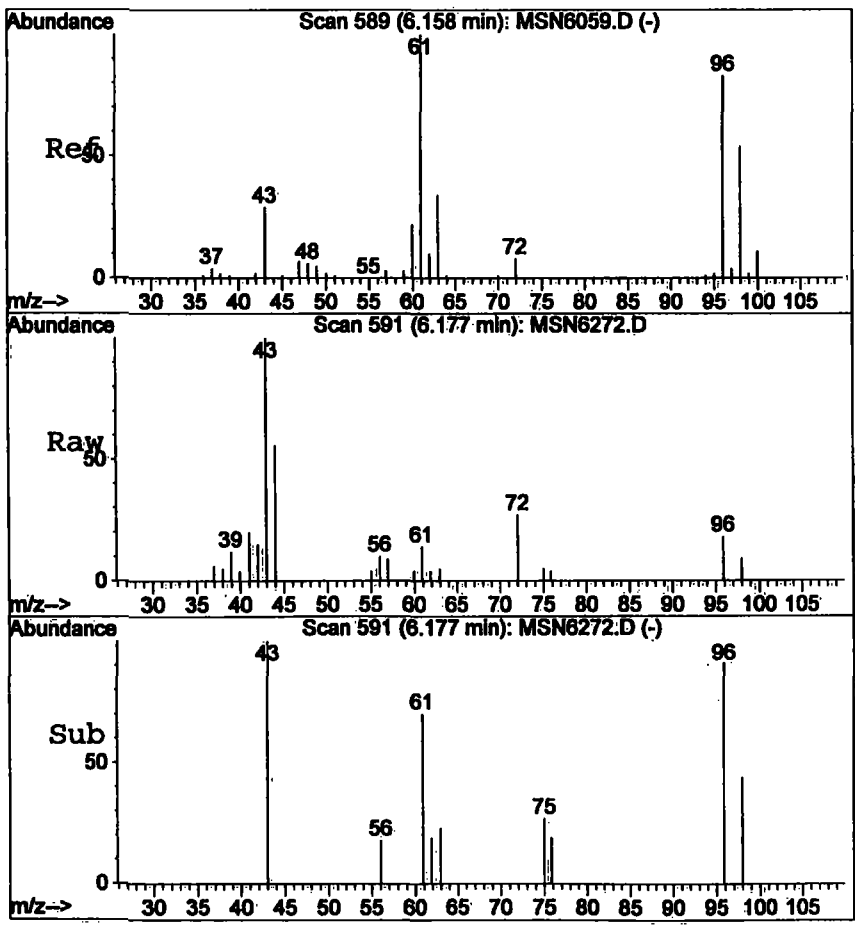



#18
N-hexane
Concen: 5.47 ug/Kg m
RT: 4.78 min Scan# 443
Delta R.T. 0.12 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:57 Resp: 44545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 86 | 15.3 | 2.6 | 42.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

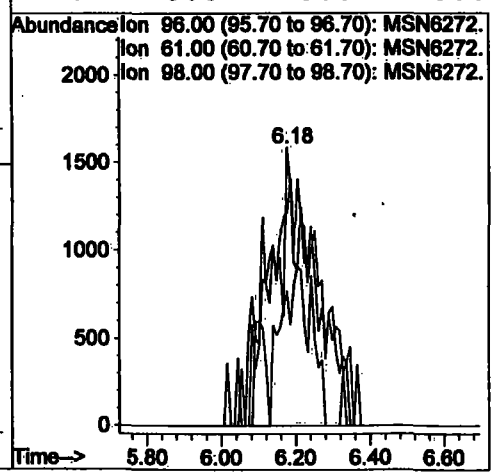


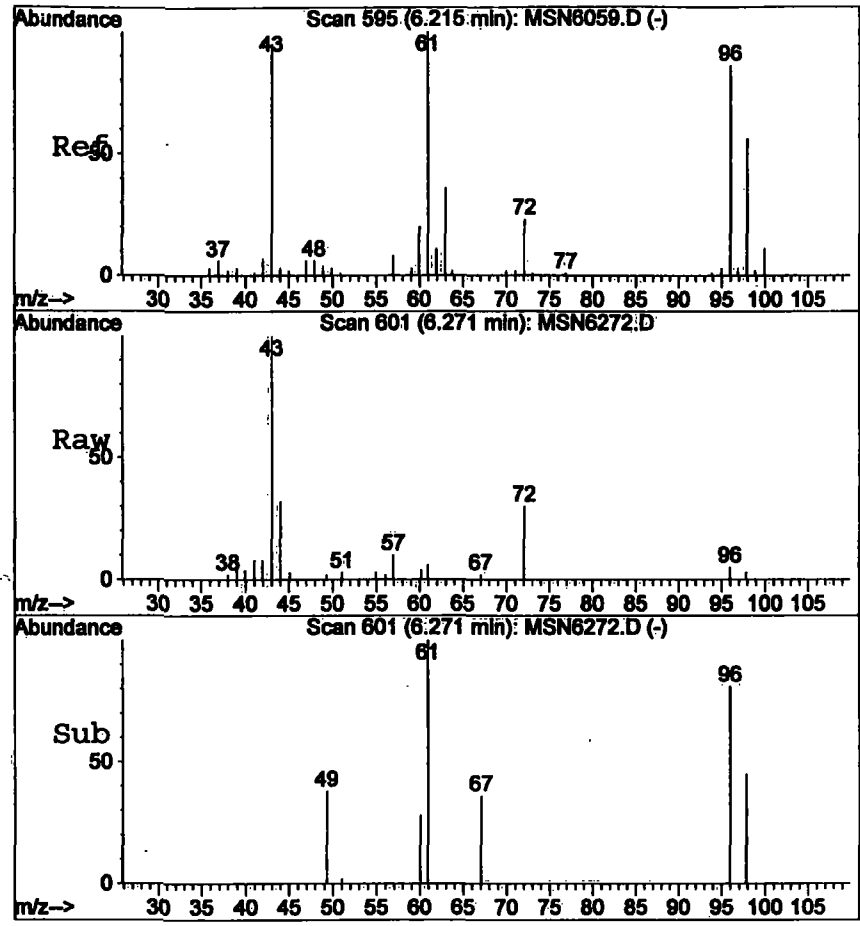




#21
cis-1,2-dichloroethene
Concen: 1.85 ug/Kg m
RT: 6.18 min Scan# 591
Delta R.T. 0.01 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:96 Resp: 12981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 76.9 | 101.2 | 141.2# |
| 98 | 48.5 | 45.6 | 85.6 |
| 0 | 0.0 | 0.0 | 0.0 |

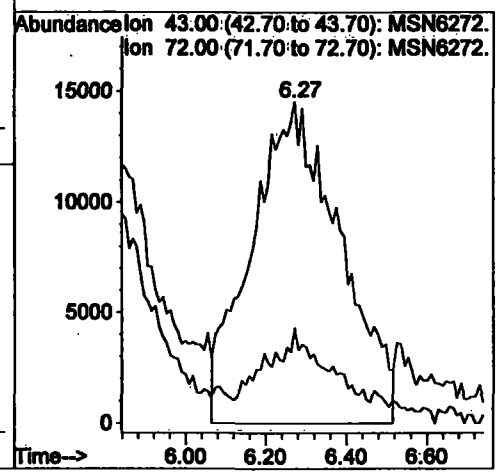


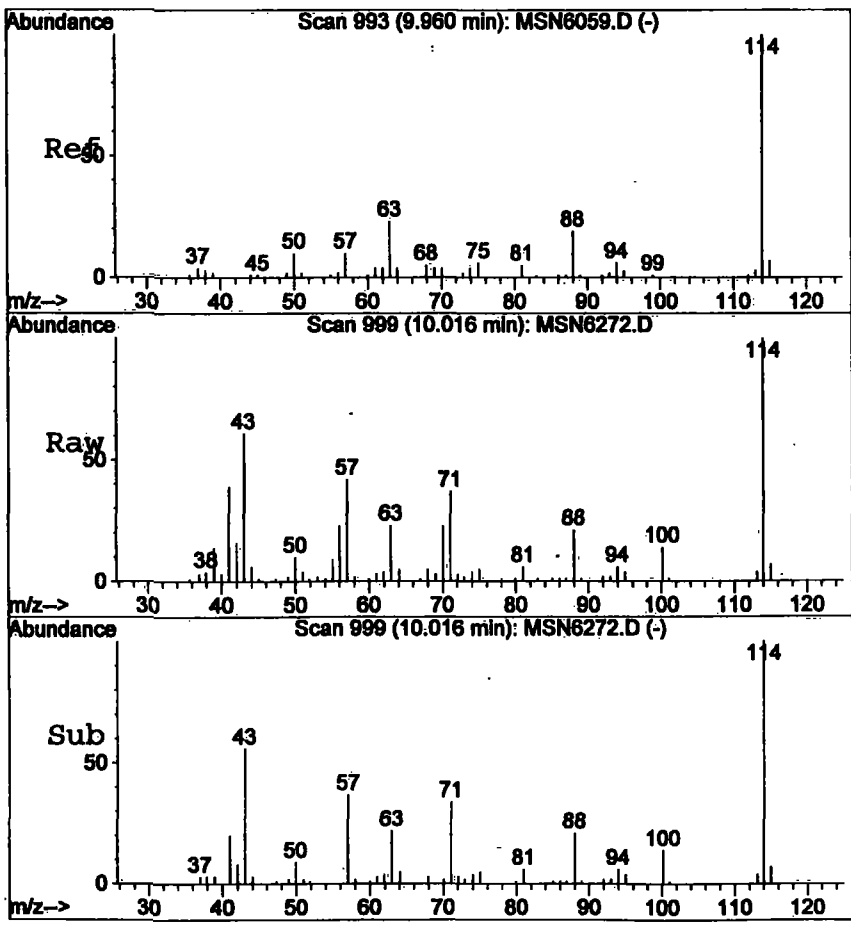



#23
2-butanone
Concen: 40.63 ug/Kg m
RT: 6.27 min Scan# 601
Delta R.T. 0.01 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:43 Resp: 221362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 29.5 | 19.8 | 29.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

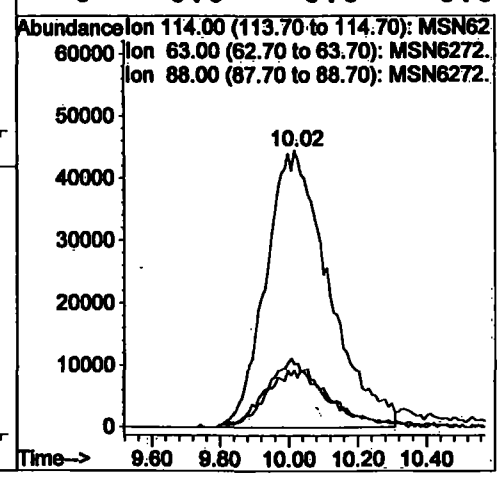


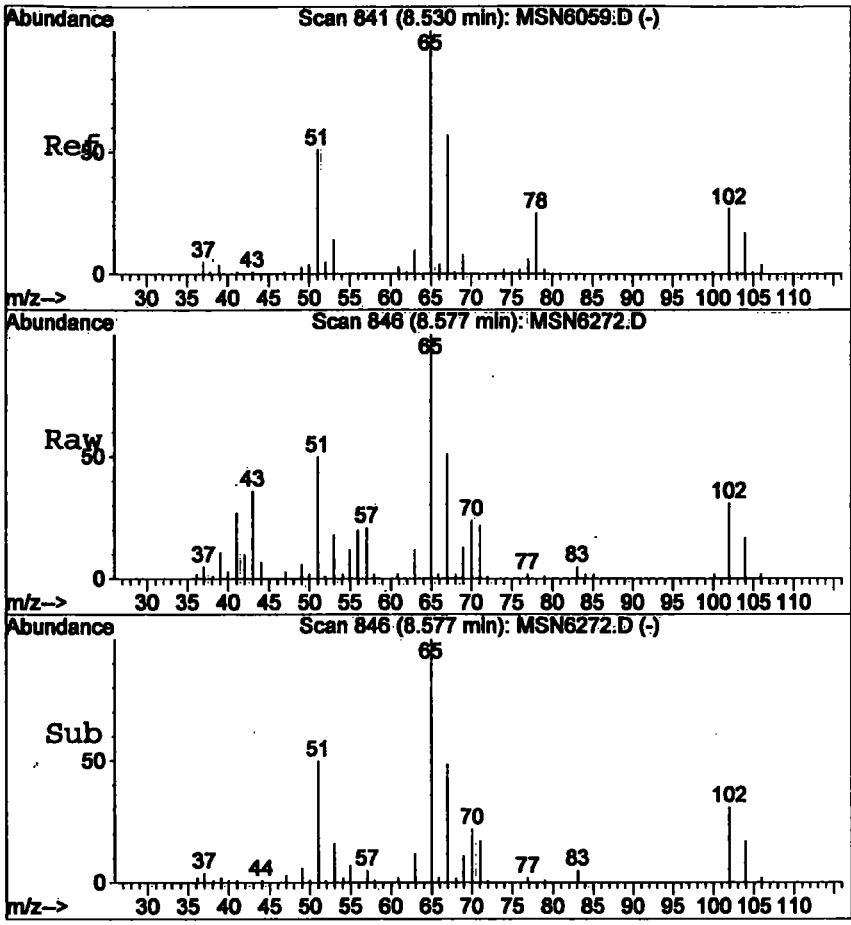




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.02 min Scan# 999
Delta R.T. 0.05 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:114 Resp: 563117

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 23.0 | 2.6 | 42.6 |
| 88 | 20.9 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

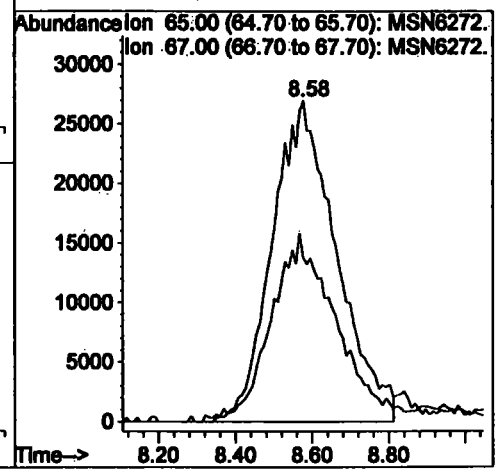


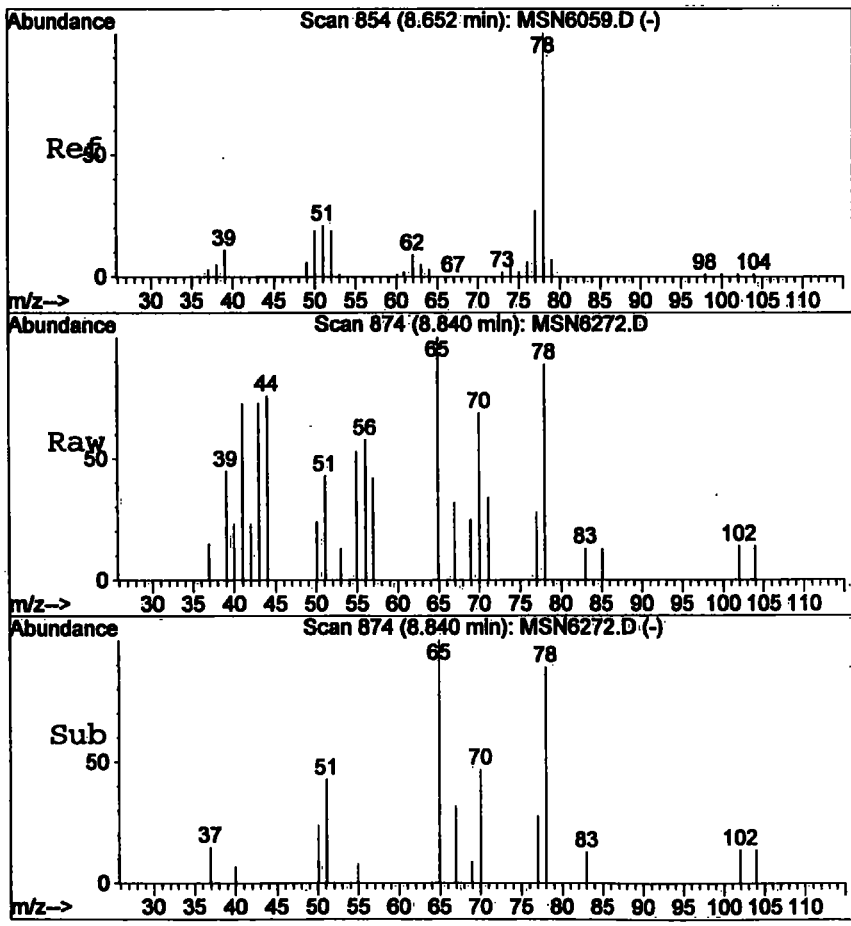



#29
1,2-dichloroethane-d4
Concen: 67.32 ug/Kg
RT: 8.58 min Scan# 846
Delta R.T. 0.04 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:65 Resp: 313497

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 49.8 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

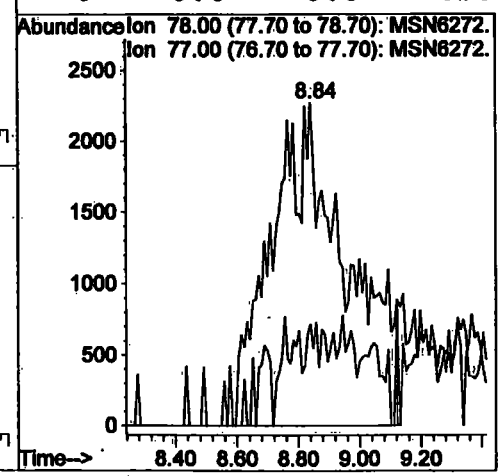


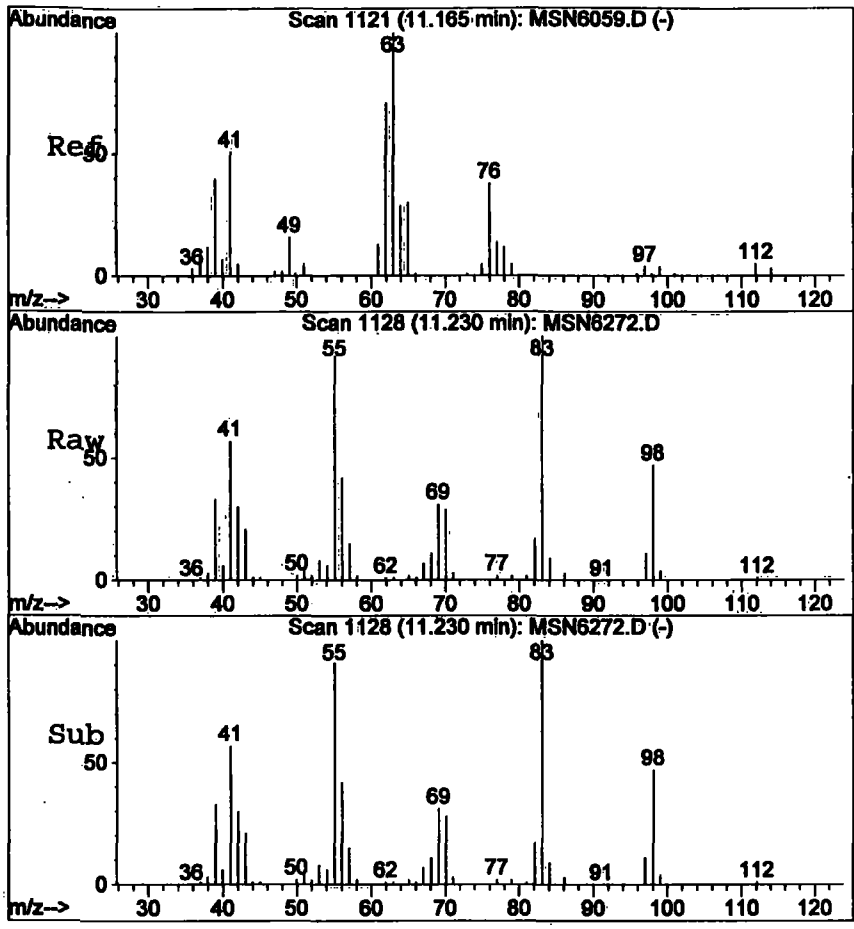




#30
benzene
Concen: 3.46 ug/Kg m
RT: 8.84 min Scan# 874
Delta R.T. 0.18 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:78 Resp: 38821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 31.7 | 6.7 | 46.7 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

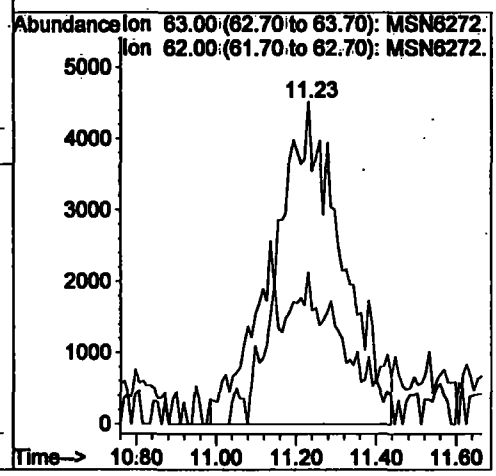


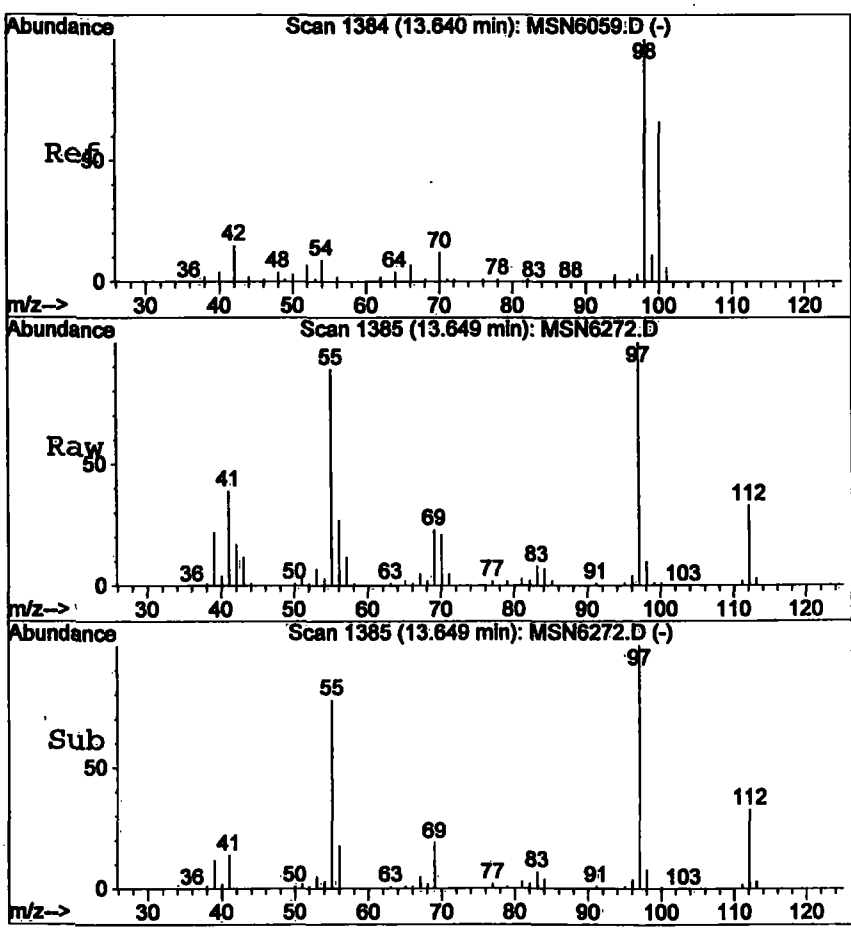



#34
1,2-dichloropropane
Concen: 12.70 ug/Kg m
RT: 11.23 min Scan# 1128
Delta R.T. 0.06 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:63 Resp: 55140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 62 | 47.1 | 51.4 | 91.4# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

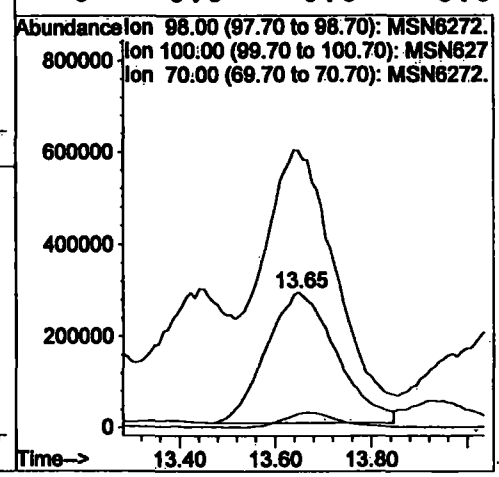


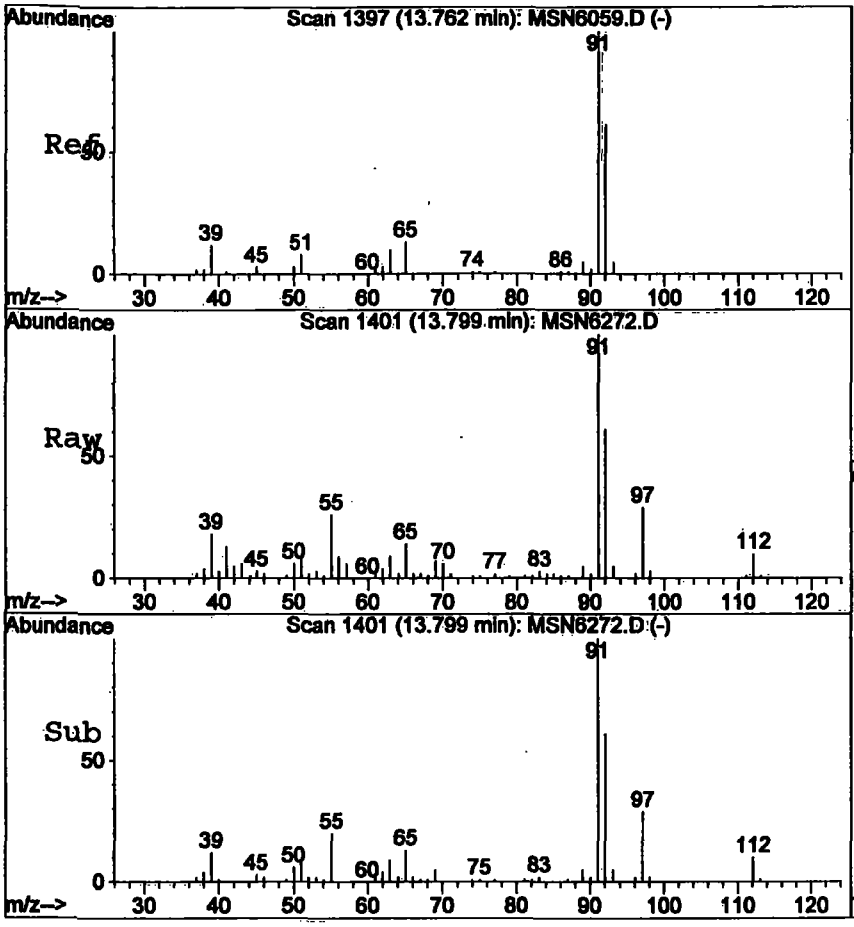




#40
toluene-d8
Concen: 271.96 ug/Kg
RT: 13.65 min Scan# 1385
Delta R.T. 0.02 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:98 Resp: 2893594

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 10.3 | 54.0 | 81.0# |
| 70 | 185.5 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

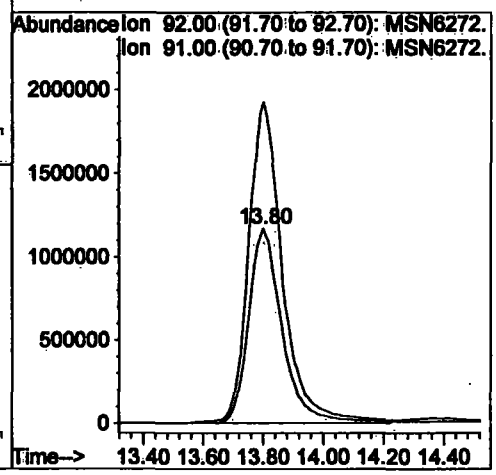


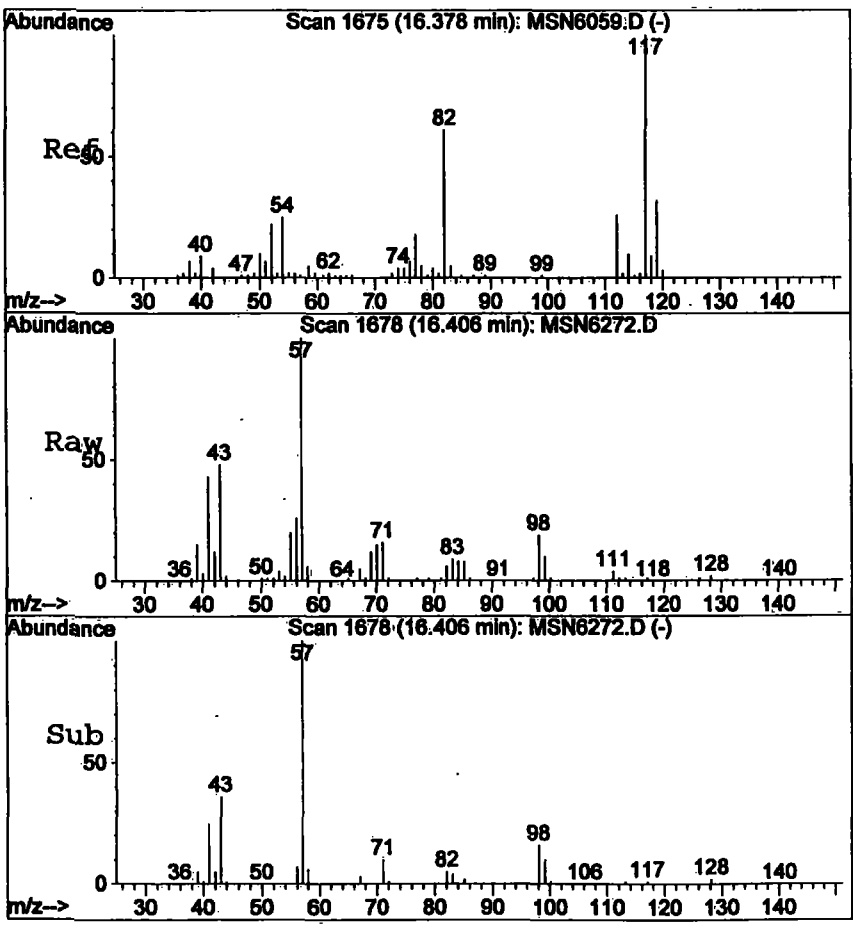



#41
toluene
Concen: 1385.83 ug/Kg
RT: 13.80 min Scan# 1401
Delta R.T. 0.04 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:92 Resp: 9068554

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 163.7 | 143.4 | 183.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

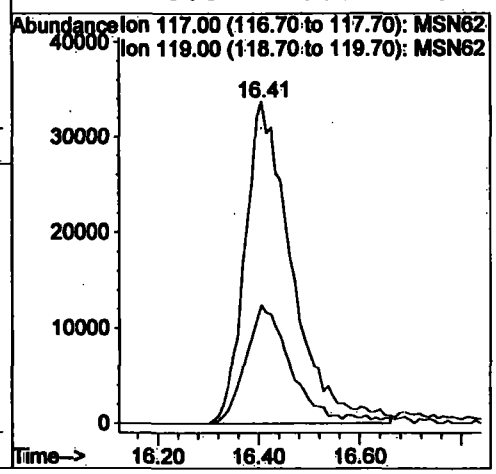


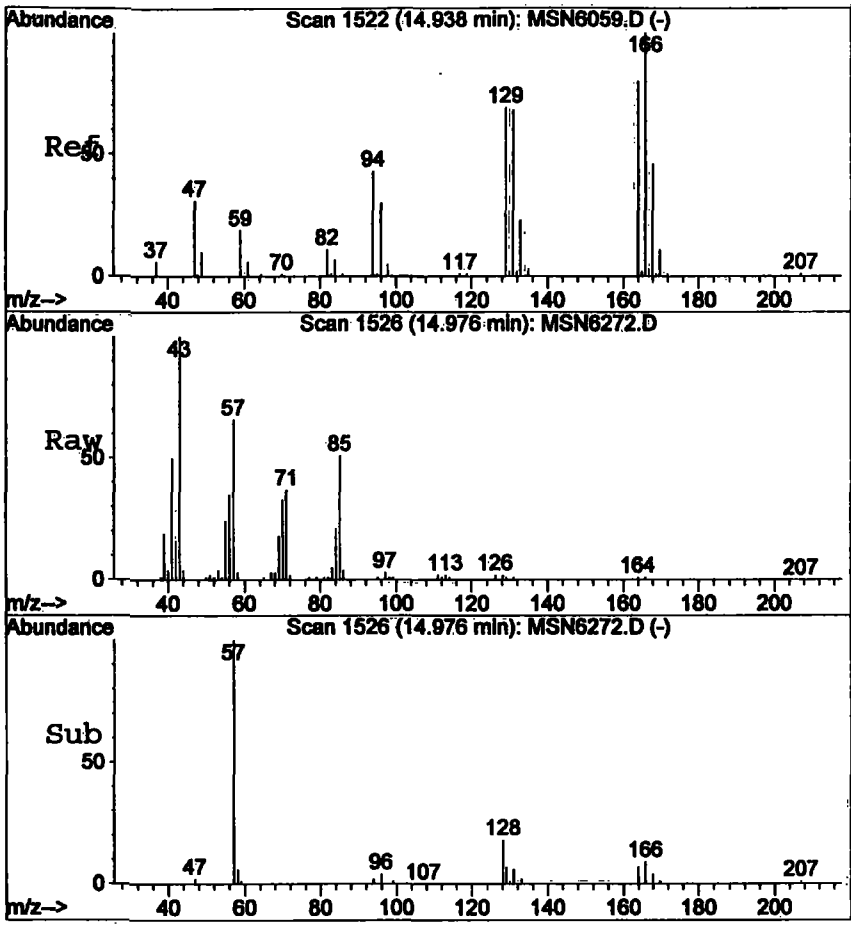




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.41 min Scan# 1678
Delta R.T. 0.04 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:117 Resp: 217429

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 36.9 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

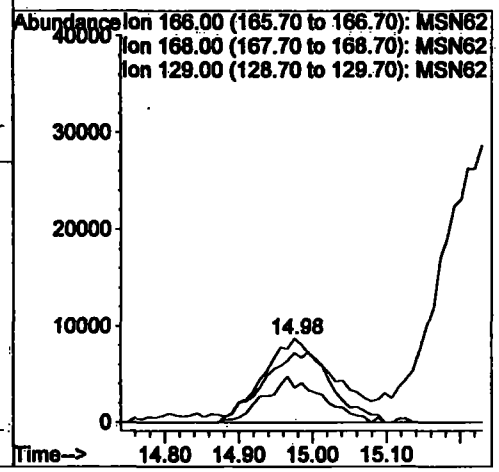


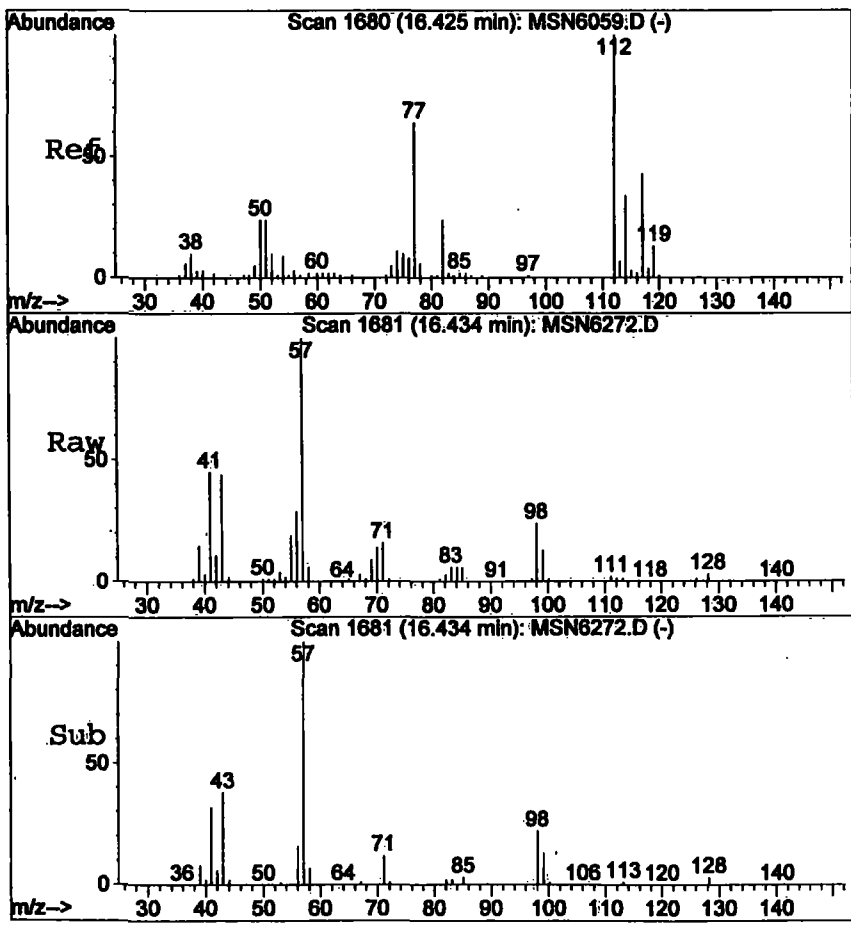



#45
tetrachloroethene
Concen: 19.88 ug/Kg
RT: 14.98 min Scan# 1526
Delta R.T. 0.04 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:166 Resp: 52771

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 168 | 41.7 | 26.3 | 66.3 |
| 129 | 73.1 | 48.8 | 88.8 |
| 0 | 0.0 | 0.0 | 0.0 |

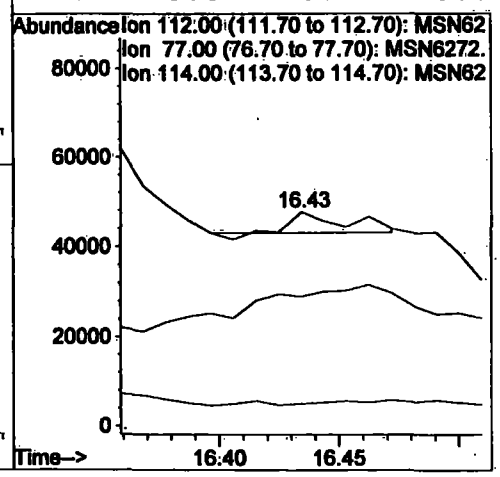


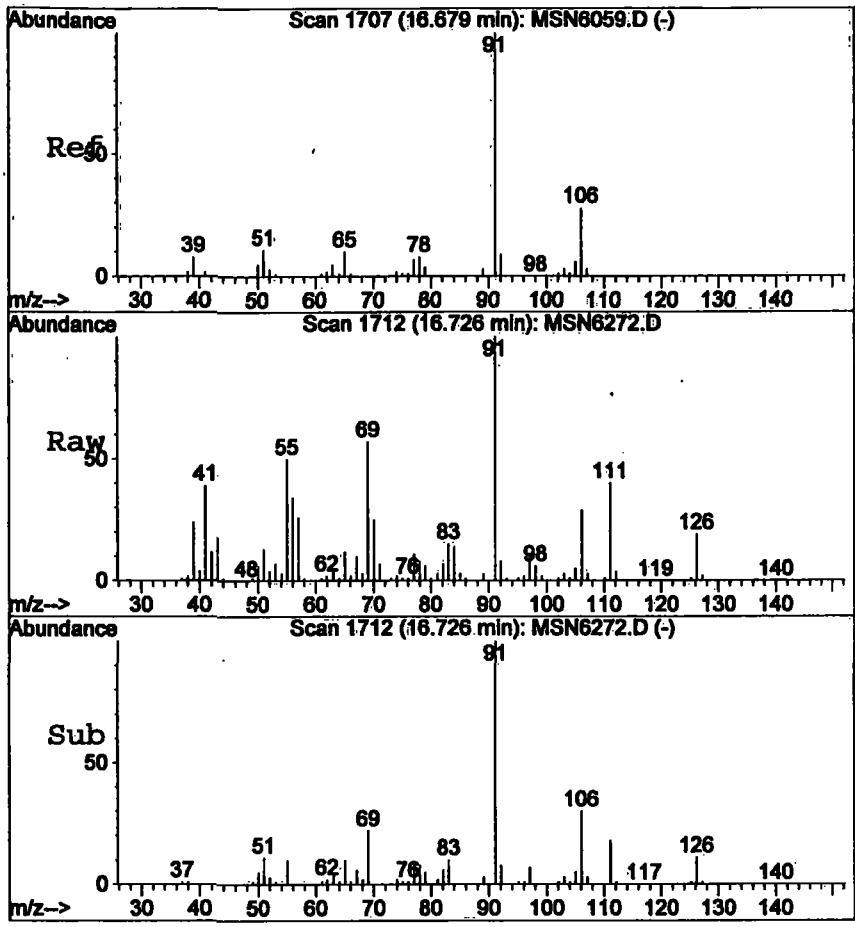




#48
chlorobenzene
Concen: 1.57 ug/Kg
RT: 16.43 min Scan# 1681
Delta R.T. 0.01 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:112 Resp: 6776

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 81.5 | 43.9 | 83.9 |
| 114 | 8.2 | 13.7 | 53.7# |
| 0 | 0.0 | 0.0 | 0.0 |

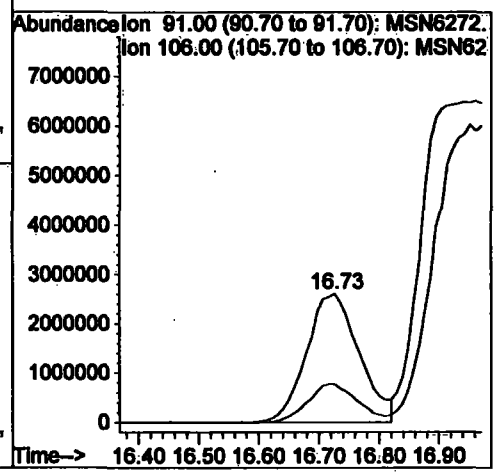


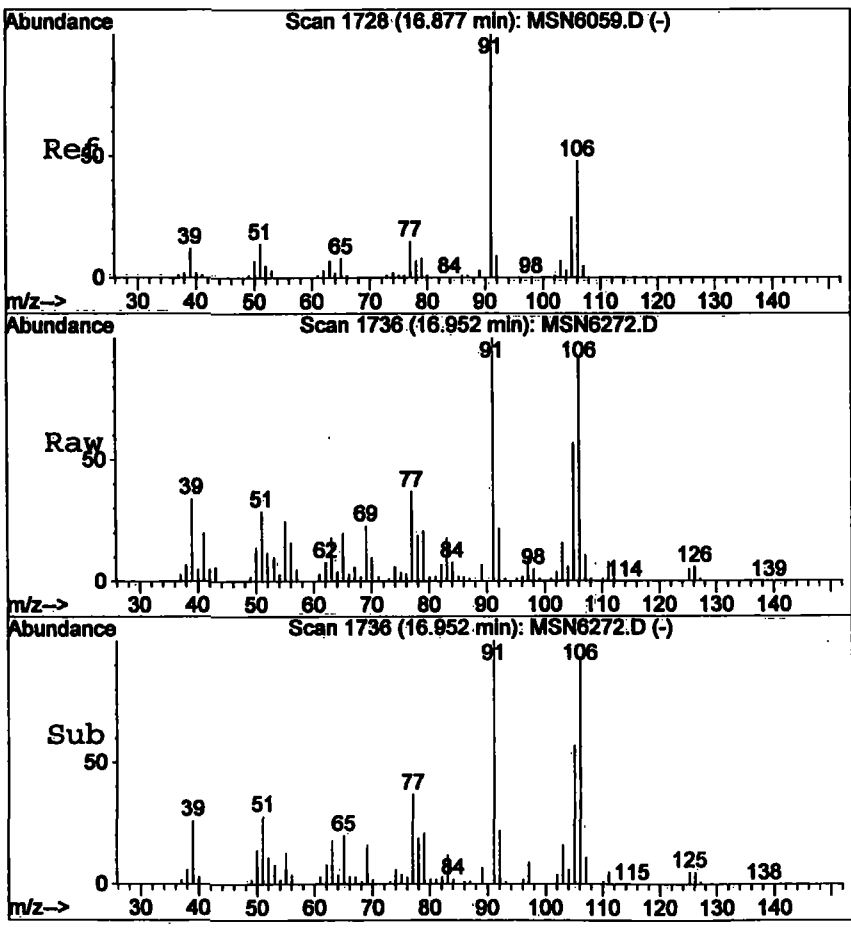



#49
ethylbenzene
Concen: 2463.42 ug/Kg
RT: 16.73 min Scan# 1712
Delta R.T. 0.05 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:91 Resp:15848210

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.6 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

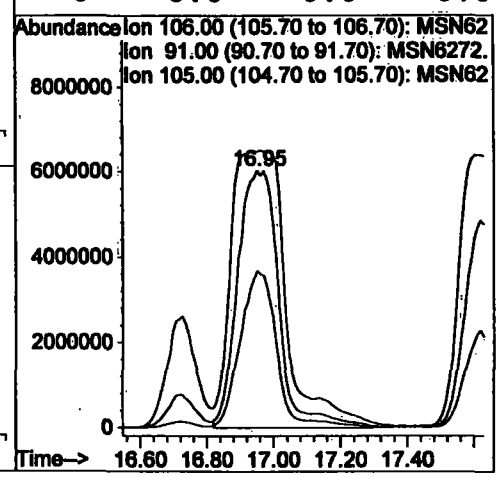


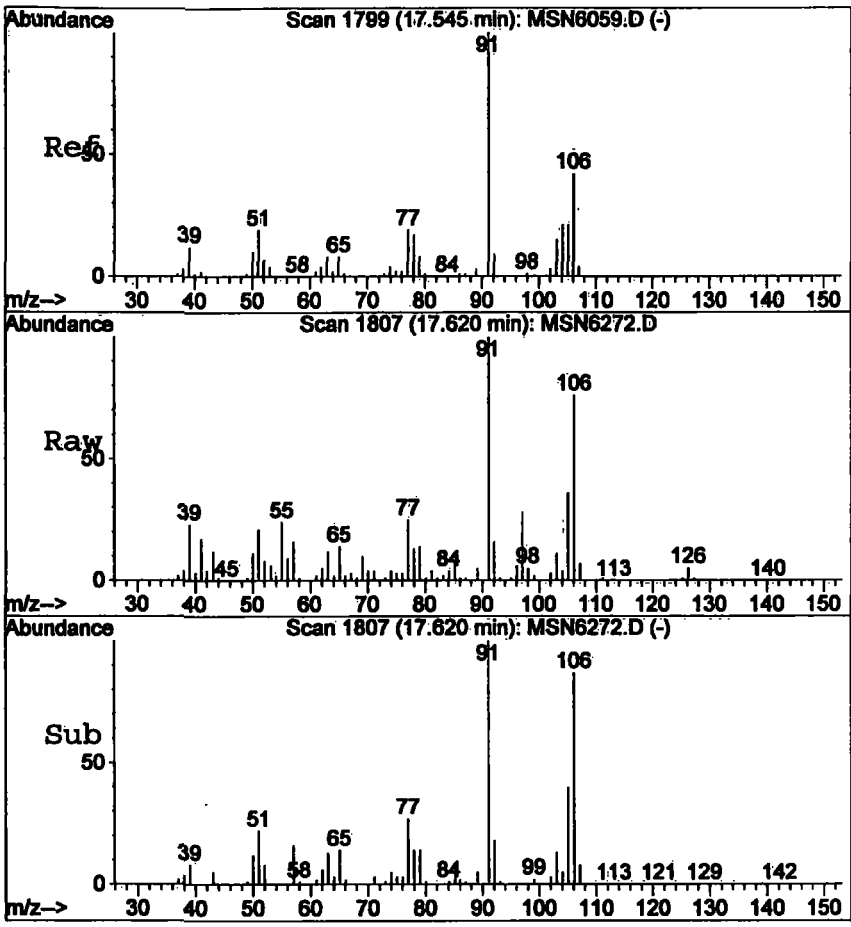




#50
m,p-xylene
Concen: 22242.68 ug/Kg m
RT: 16.95 min Scan# 1736
Delta R.T. 0.06 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:106 Resp:51364687

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 107.4 | 192.8 | 232.8# |
| 105 | 61.0 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

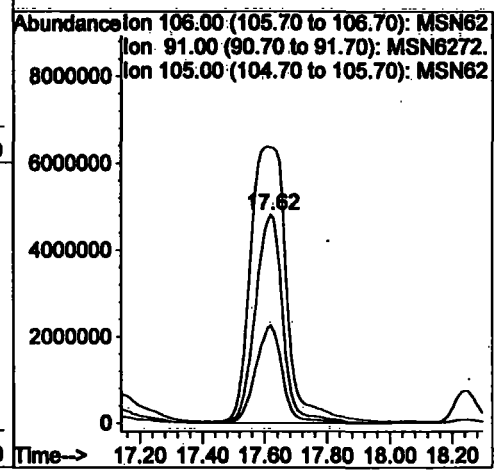


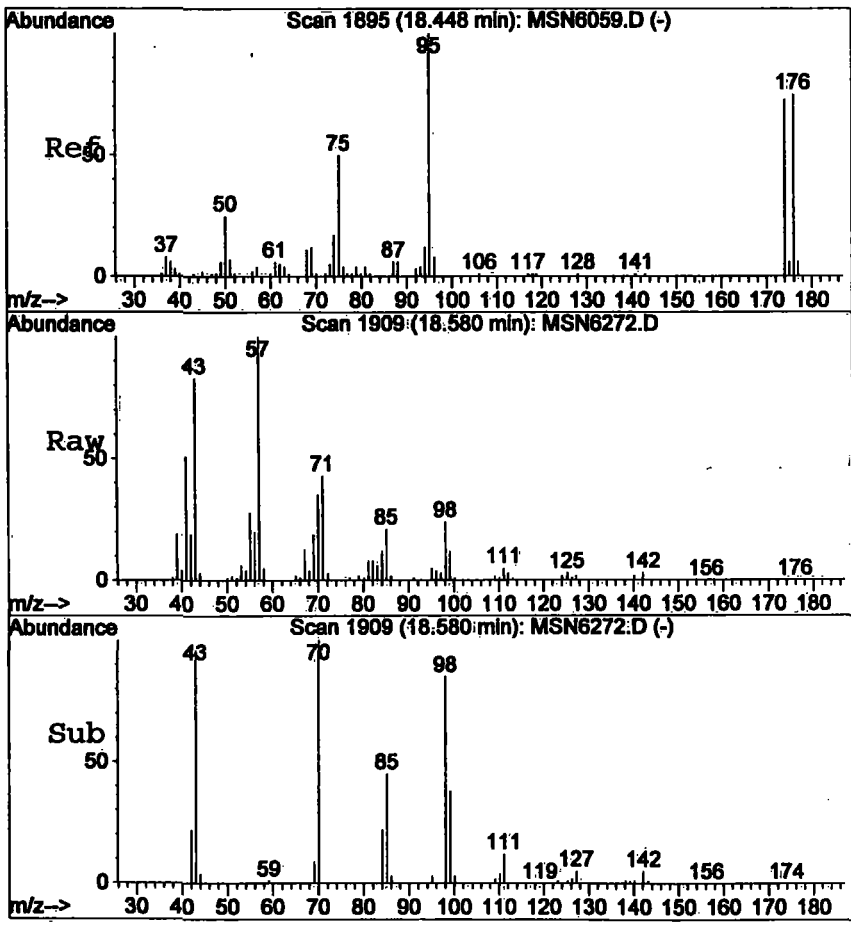



#51
o-xylene
Concen: 13522.31 ug/Kg m
RT: 17.62 min Scan# 1807
Delta R.T. 0.07 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:106 Resp:29454294

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 132.1 | 220.1 | 260.1# |
| 105 | 47.1 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

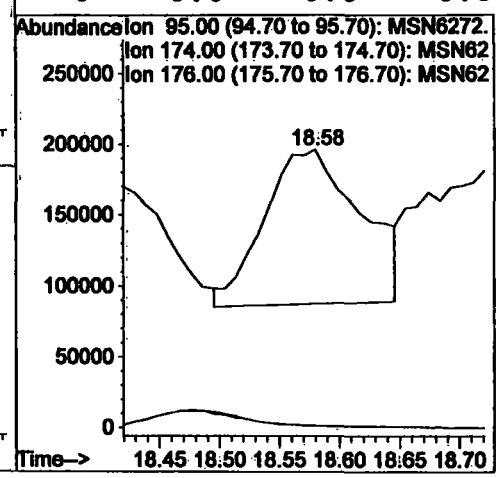


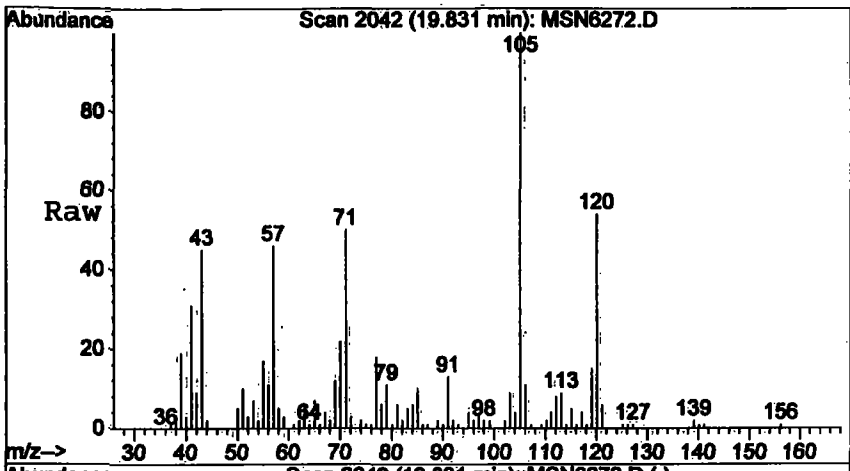




#56
4-bromofluorobenzene
Concen: 247.86 ug/Kg
RT: 18.58 min Scan# 1909
Delta R.T. 0.13 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:95 Resp: 605441

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 1.0 | 53.0 | 93.0# |
| 176 | 0.6 | 54.6 | 94.6# |
| 0 | 0.0 | 0.0 | 0.0 |

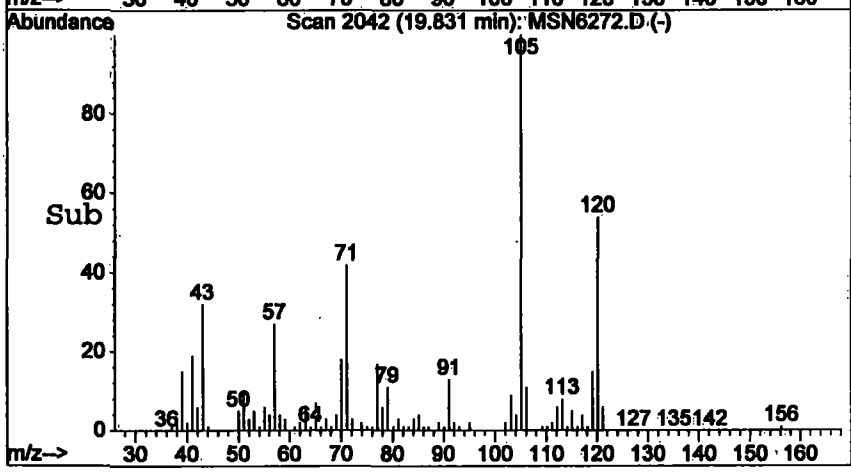


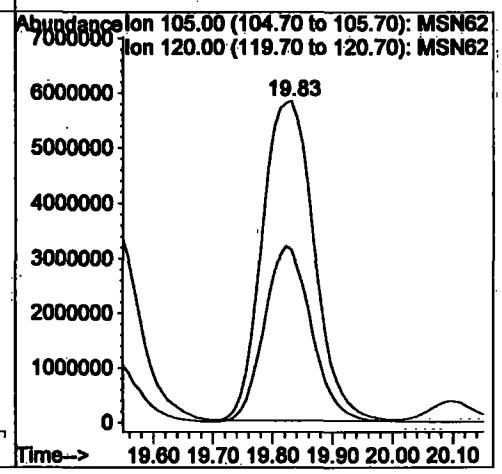



#59
1,2,4-trimethylbenzene
Concen: 6483.70 ug/L
RT: 19.83 min Scan# 2042
Delta R.T. 0.06 min
Lab File: MSN6272.D
Acq: 30 Oct 97 00:12

Tgt Ion:105 Resp:34959023

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 54.1 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6287.D Vial: 3
Acq On : 30 Oct 97 15:15 Operator: tcm
Sample : L72972500-004 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 2500.00
Quant Time: Oct 30 15:43 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.88 | 128 | 336837 | 50.00 | ug/Kg | 0.04 |
| 24) 1,4-difluorobenzene | 10.05 | 114 | 1149260 | 50.00 | ug/Kg | 0.07 |
| 42) chlorobenzene-d5 | 16.44 | 117 | 793407 | 50.00 | ug/Kg | 0.07 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.61 | 65 | 30196m | 3.18 | ug/Kg | 0.07 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = | 6.36%# | |
| 40) toluene-d8 | 13.69 | 98 | 83477 | 3.84 | ug/Kg | 0.06 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = | 7.68%# | |
| 56) 4-bromofluorobenzene | 18.54 | 95 | 28982 | 3.25 | ug/Kg | 0.09 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = | 6.50%# | |
| **Target Compounds** | | | | | | Qvalue |
| 12) acetone | 3.06 | 43 | 17776m | 9489.33 | ug/Kg | 45 |
| 14) methylene chloride | 3.65 | 84 | 23817 | 6422.71 | ug/Kg | 94 |
| 41) toluene | 13.85 | 92 | 22095 | 4136.05 | ug/Kg# | 62 |
| 48) chlorobenzene | 16.71 | 112 | 6888 | 1094.06 | ug/Kg# | 64 |
| 49) ethylbenzene | 16.73 | 91 | 80637 | 8587.26 | ug/Kg | 85 |
| 50) m,p-xylene | 16.92 | 106 | 327401m | 97132.36 | ug/Kg | 75 |
| 51) o-xylene | 17.58 | 106 | 139864 | 43991.60 | ug/Kg# | 79 |
| 52) styrene | 17.58 | 104 | 6257 | 1146.24 | ug/Kg# | 1 |
| 59) 1,2,4-trimethylbenzene | 19.81 | 105 | 380387 | 48333.79 | ug/L | 97 |

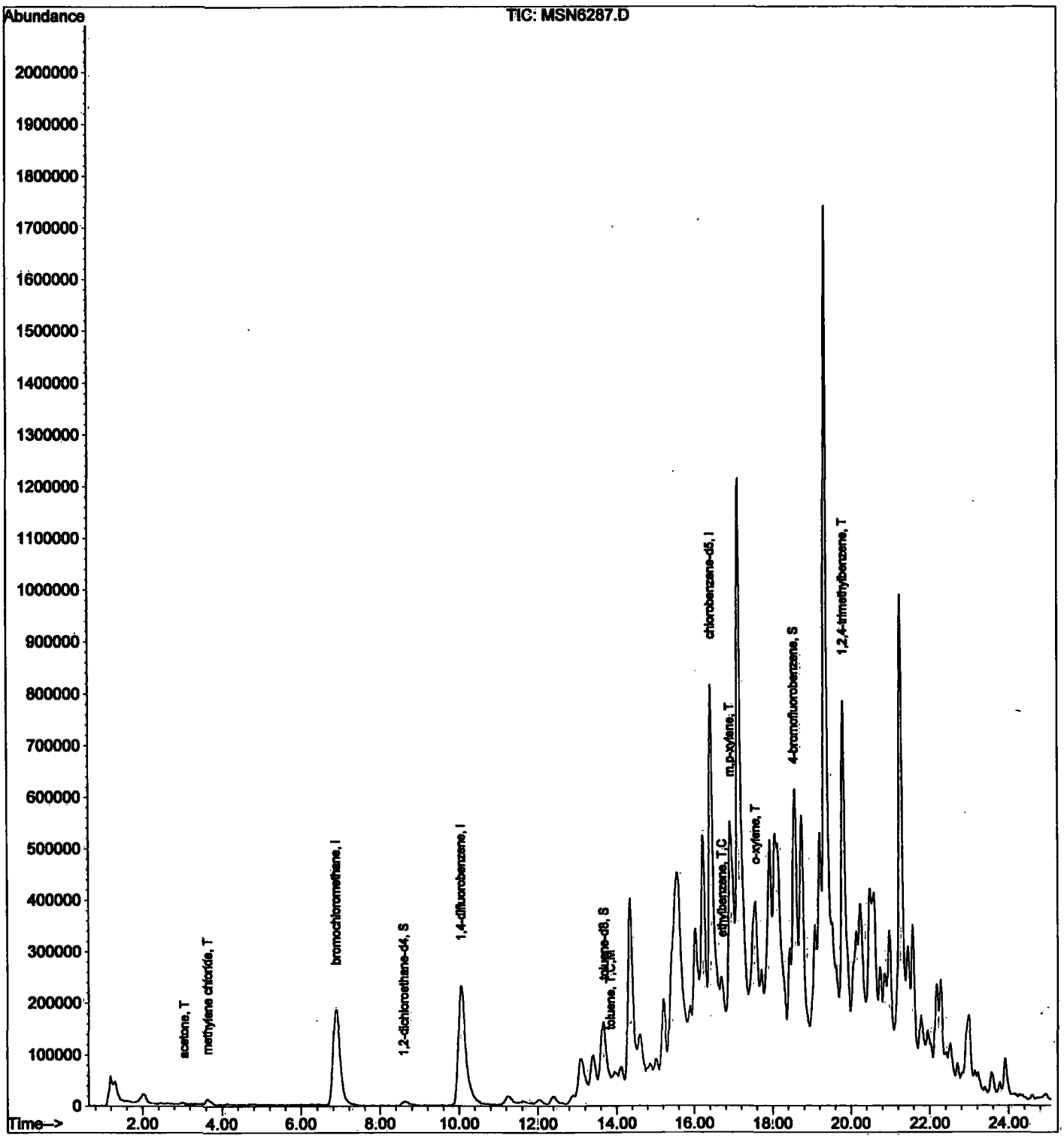
OK
OK 10/31/97

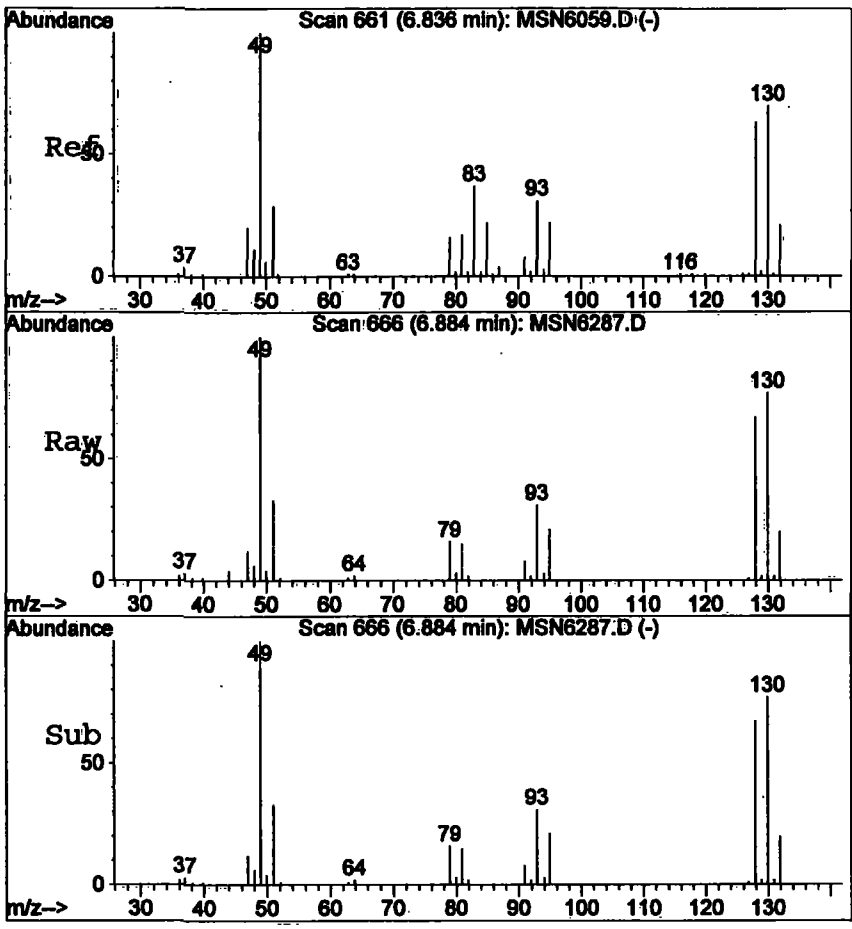
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6287.D Vial: 3
Acq On : 30 Oct 97 15:15 Operator: tcm
Sample : L72972500-004 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 2500.00
Quant Time: Oct 30 15:43 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

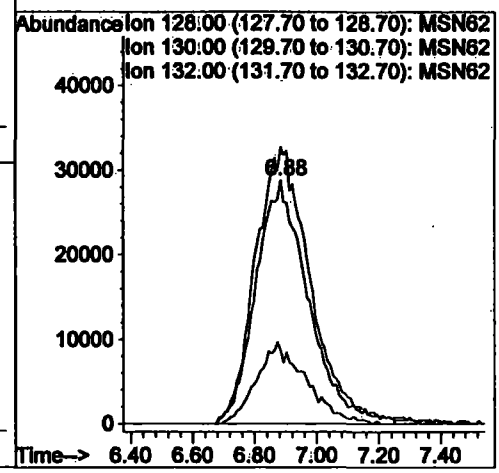


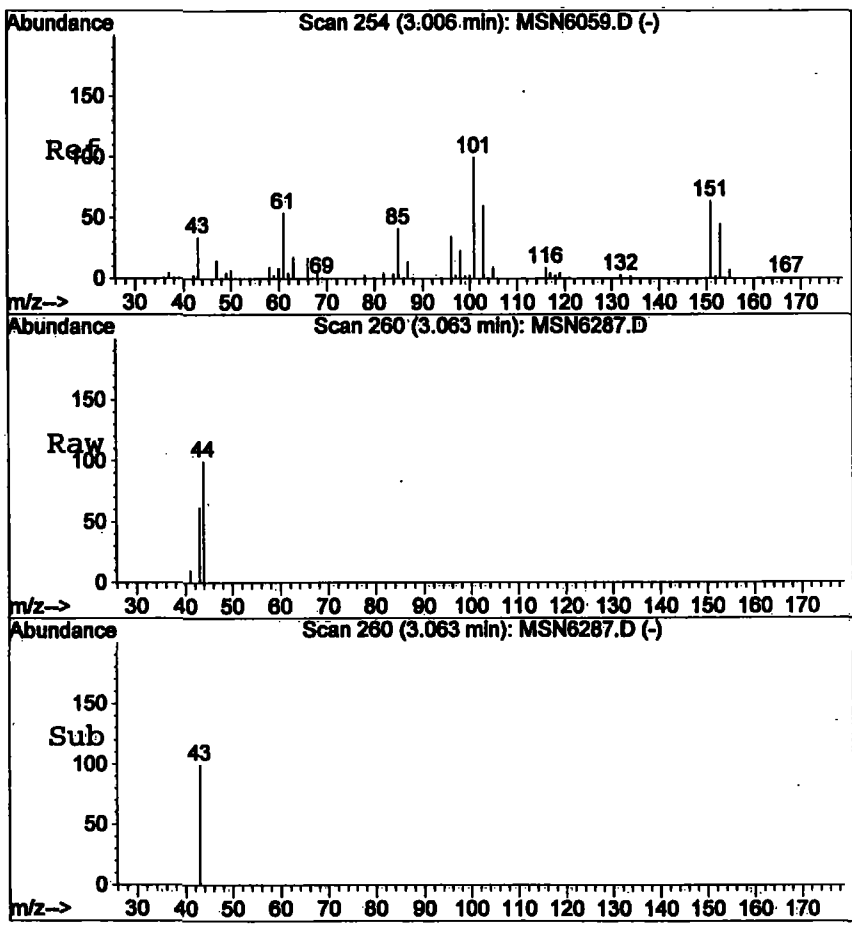



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.88 min Scan# 666
Delta R.T. 0.04 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:128 Resp: 336837

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 113.6 | 91.7 | 131.7 |
| 132 | 30.0 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

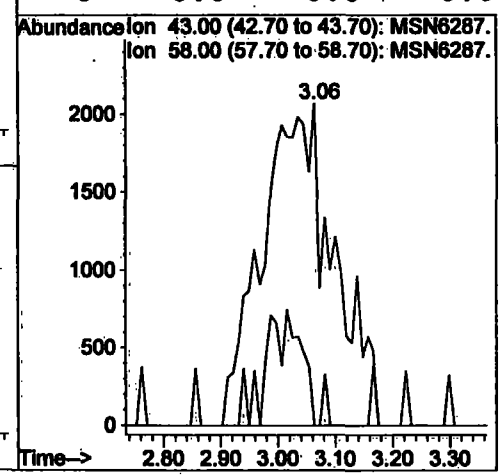


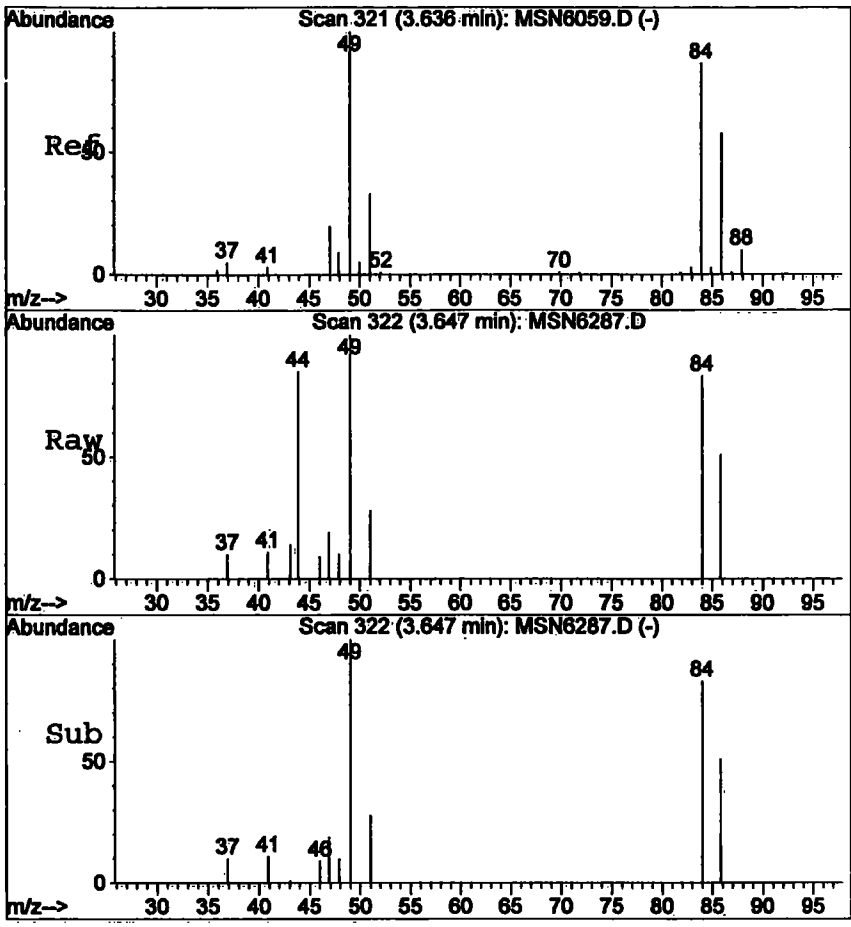




#12
acetone
Concen: 9489.33 ug/Kg m
RT: 3.06 min Scan# 260
Delta R.T. 0.03 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:43 Resp: 17776

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 0.0 | 9.7 | 49.7# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

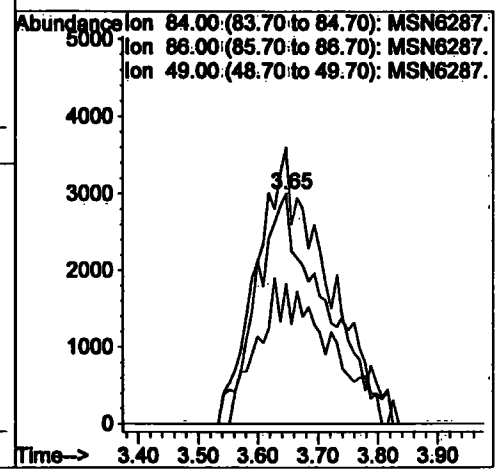


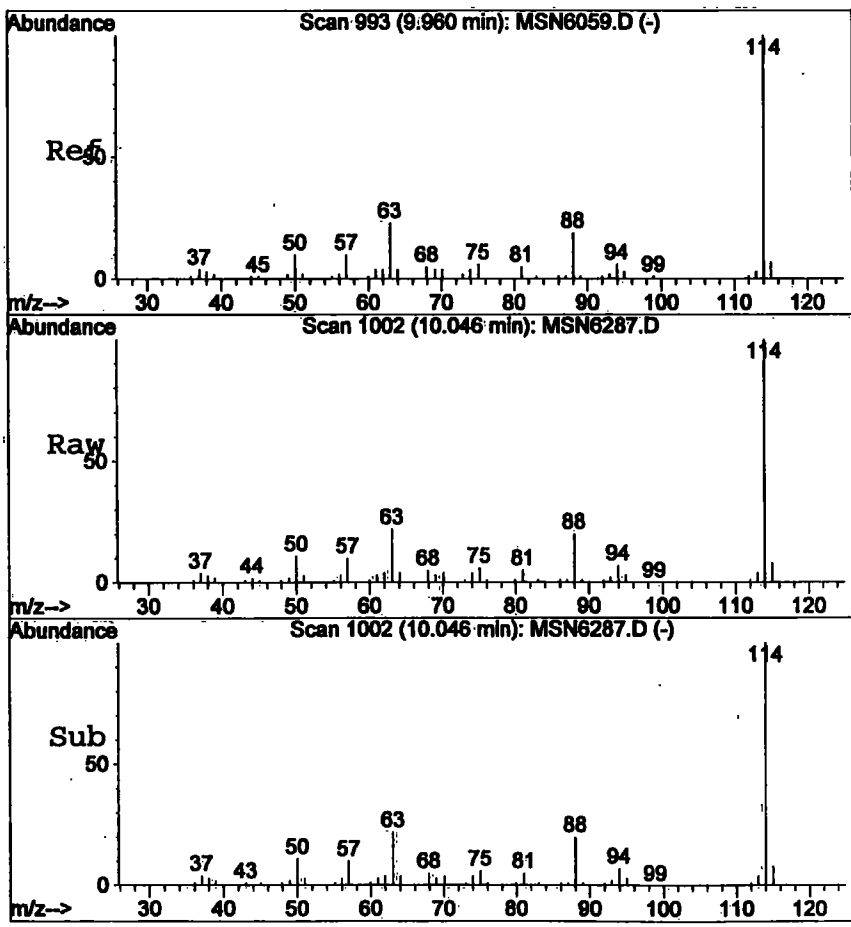



#14
methylene chloride
Concen: 6422.71 ug/Kg
RT: 3.65 min Scan# 322
Delta R.T. -0.02 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:84 Resp: 23817

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 86 | 60.6 | 47.1 | 87.1 |
| 49 | 119.9 | 94.8 | 134.8 |
| 0 | 0.0 | 0.0 | 0.0 |

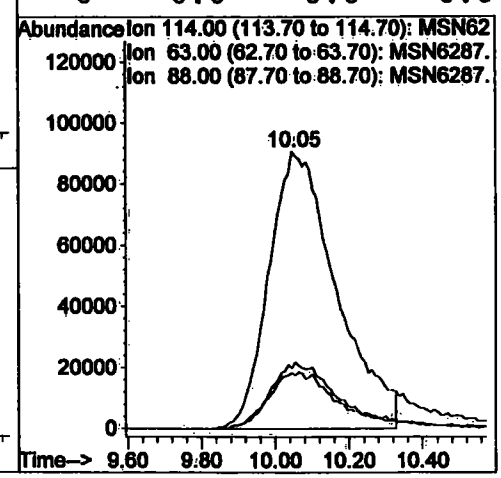


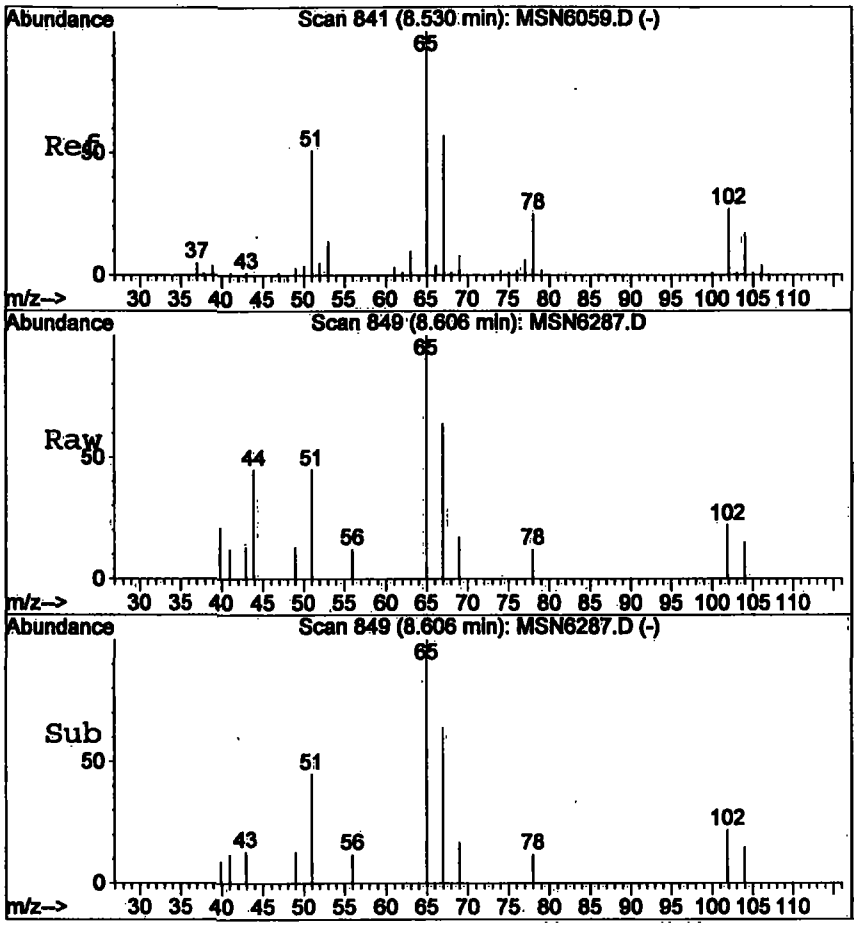




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.05 min Scan# 1002
Delta R.T. 0.07 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:114 Resp: 1149260

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.9 | 2.6 | 42.6 |
| 88 | 20.2 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

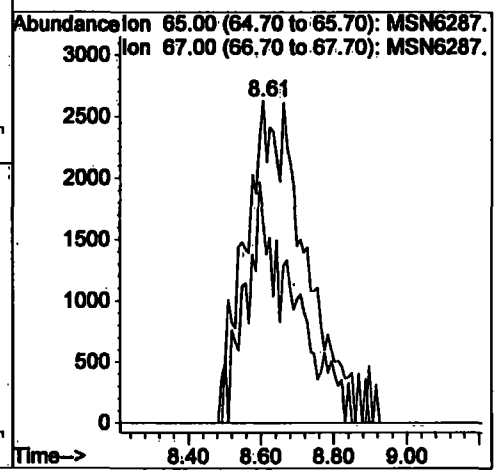


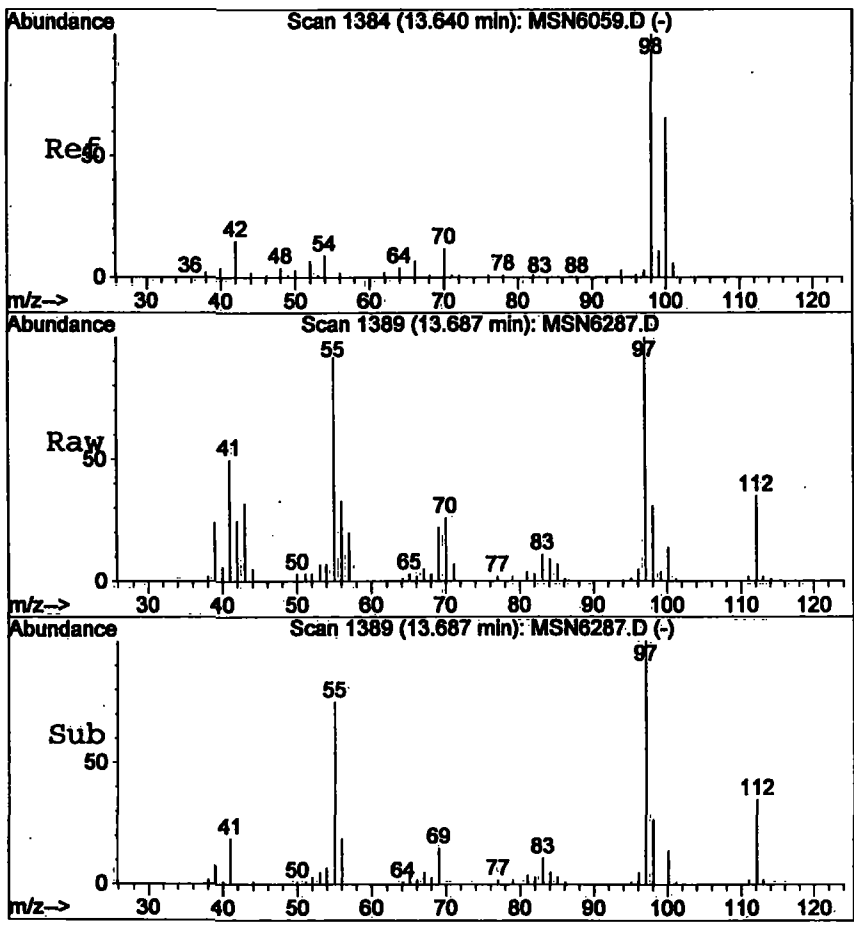



#29
1,2-dichloroethane-d4
Concen: 3.18 ug/Kg m
RT: 8.61 min Scan# 849
Delta R.T. 0.07 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:65 Resp: 30196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 63.6 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

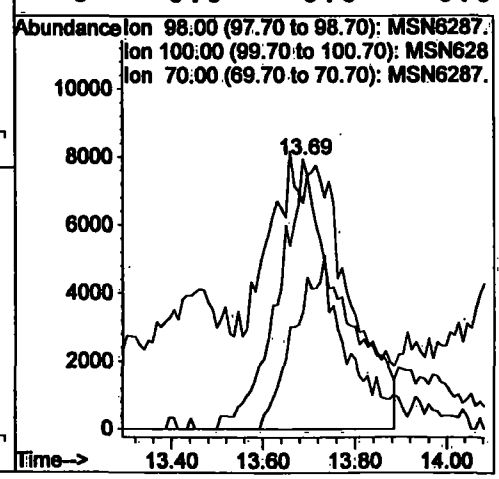


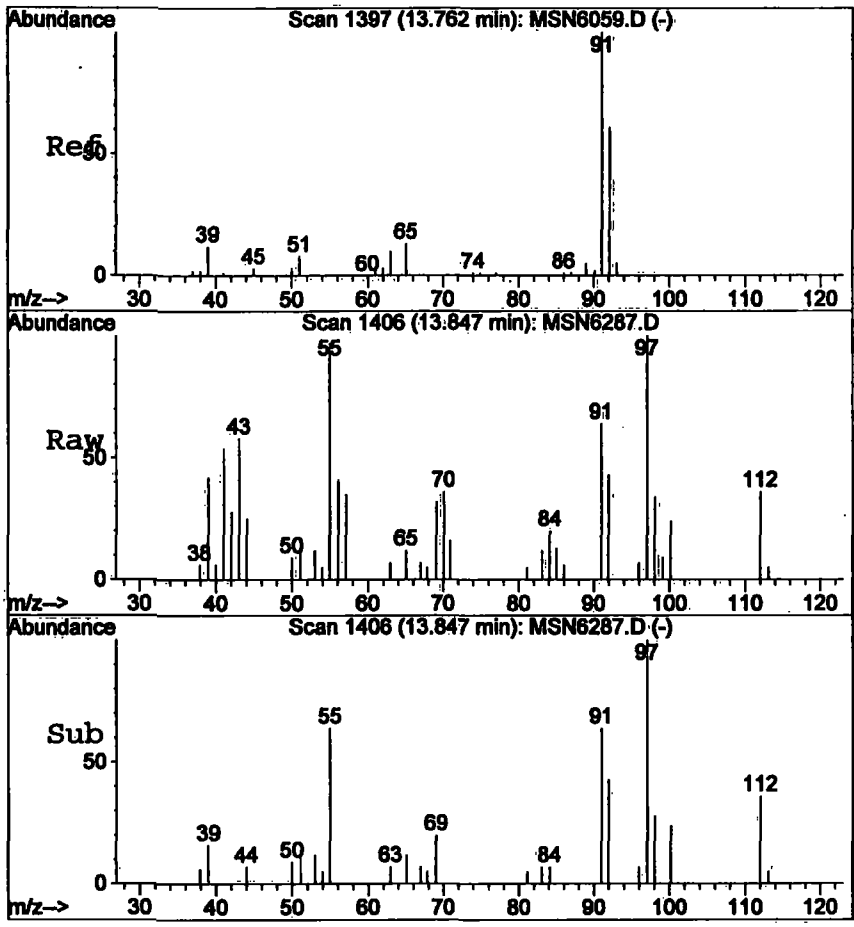




#40
toluene-d8
Concen: 3.84 ug/Kg
RT: 13.69 min Scan# 1389
Delta R.T. 0.06 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:98 Resp: 83477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 43.6 | 54.0 | 81.0# |
| 70 | 60.0 | 9.8 | 14.8# |
| 0 | 0.0 | 0.0 | 0.0 |

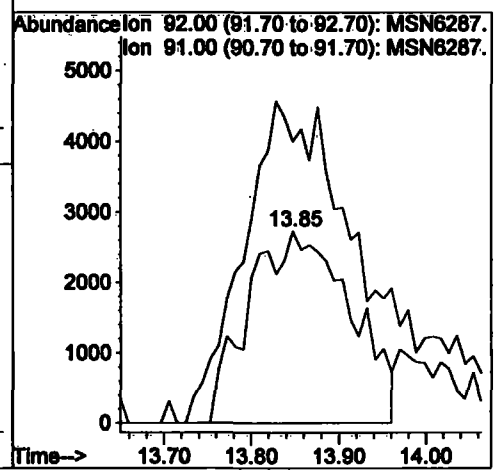


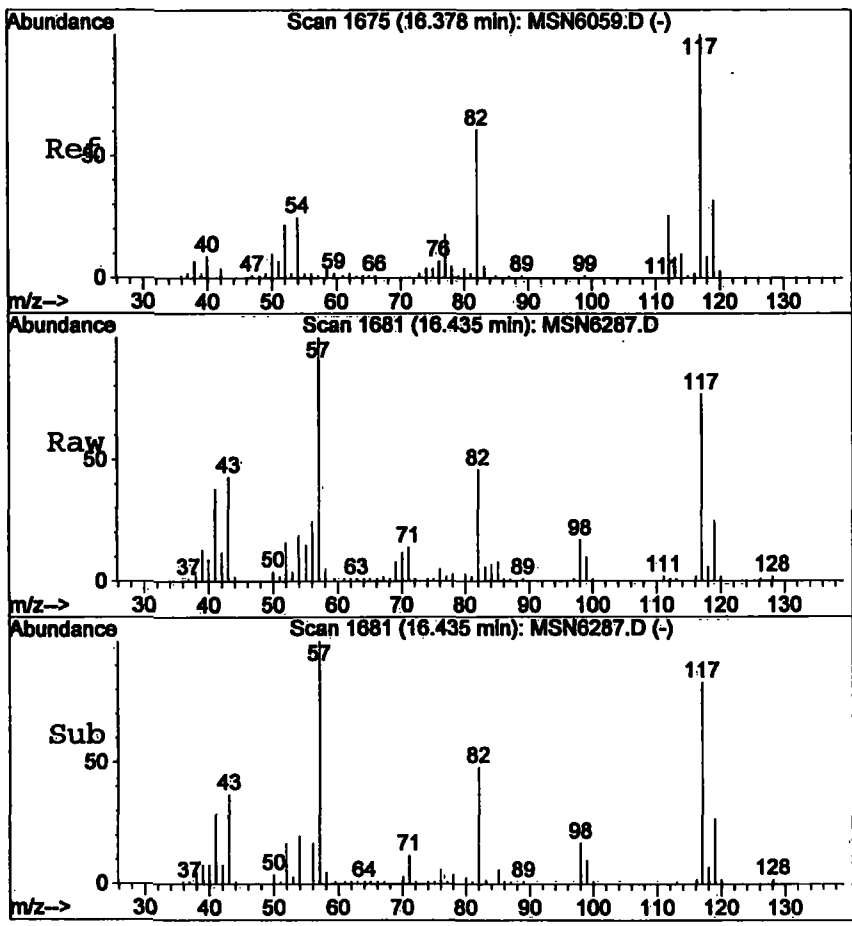



#41
toluene
Concen: 4136.05 ug/Kg
RT: 13.85 min Scan# 1406
Delta R.T. 0.08 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:92 Resp: 22095

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 112.6 | 143.4 | 183.4# |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

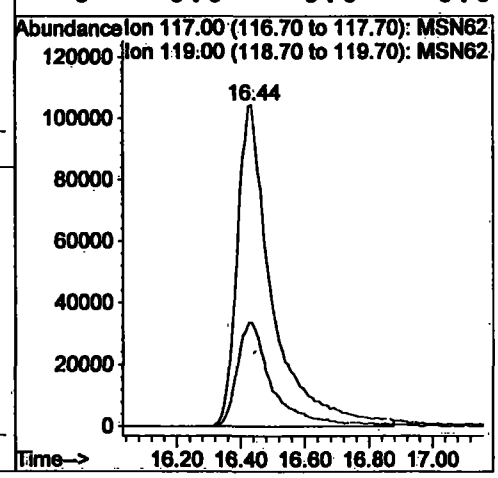


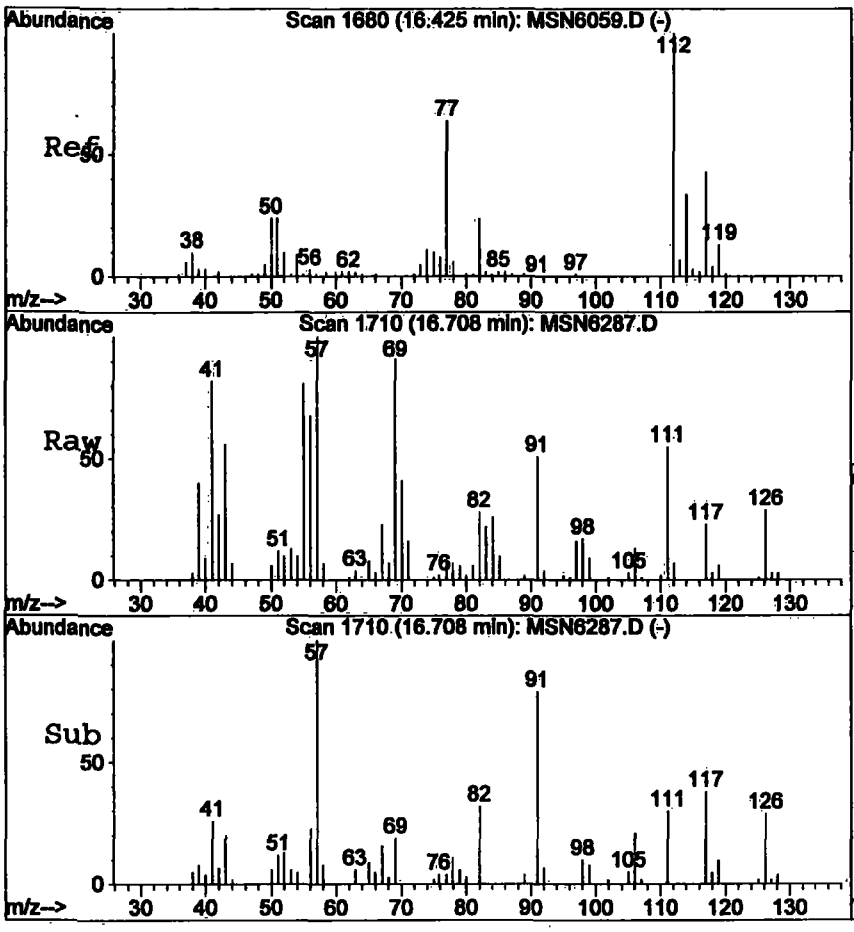




#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.44 min Scan# 1681
Delta R.T. 0.07 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:117 Resp: 793407

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 32.2 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

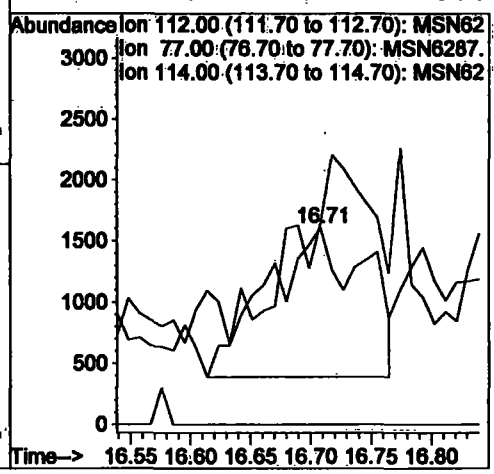


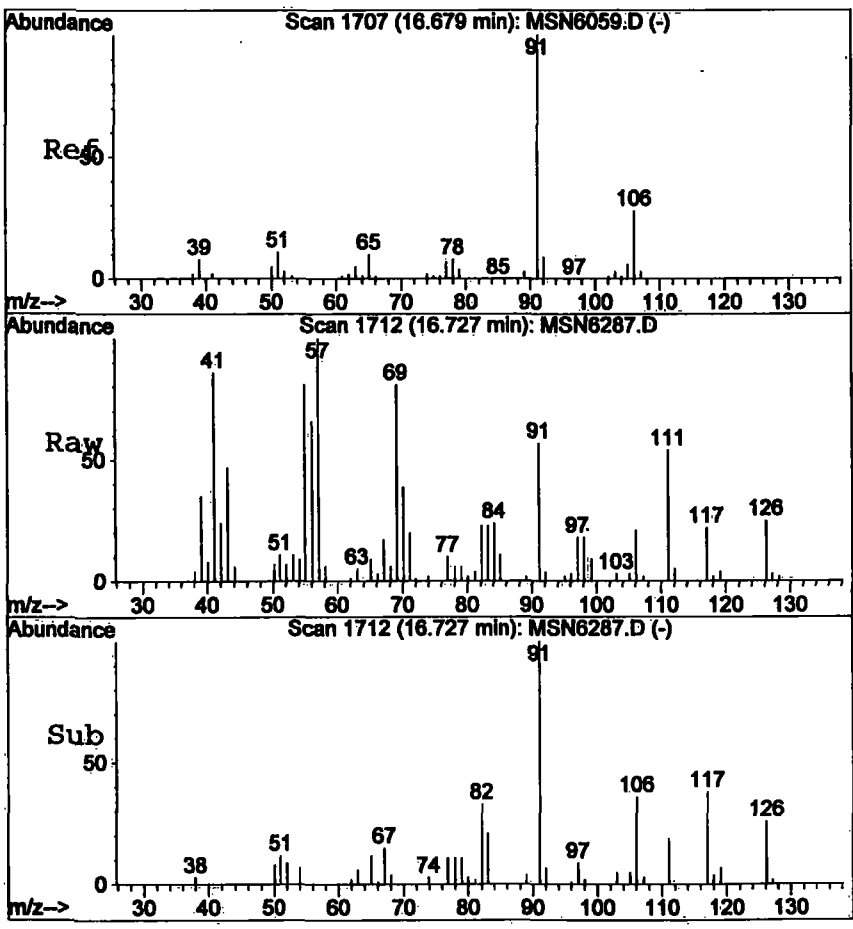



#48
chlorobenzene
Concen: 1094.06 ug/Kg
RT: 16.71 min Scan# 1710
Delta R.T. 0.28 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:112 Resp: 6888

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 44.8 | 43.9 | 83.9 |
| 114 | 0.0 | 13.7 | 53.7# |
| 0 | 0.0 | 0.0 | 0.0 |

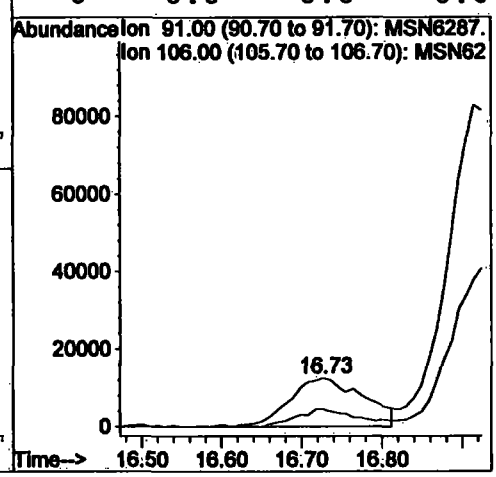


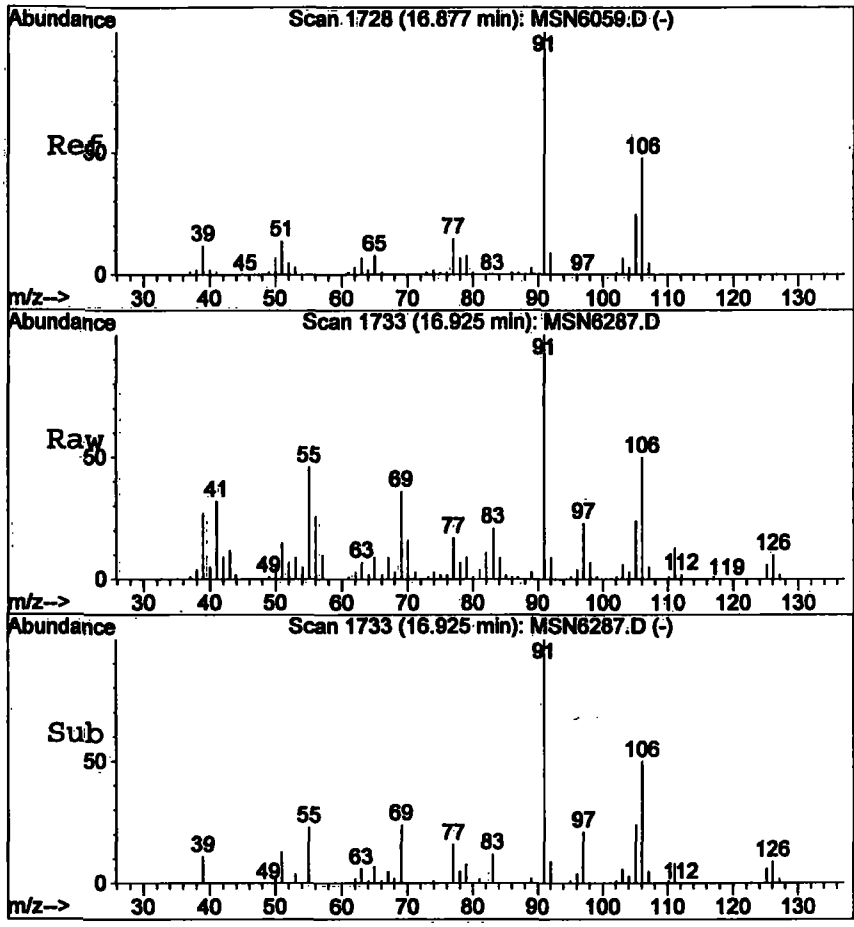




#49
ethylbenzene
Concen: 8587.26 ug/Kg
RT: 16.73 min Scan# 1712
Delta R.T. 0.05 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:91 Resp: 80637

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.1 | 8.3 | 48.3 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

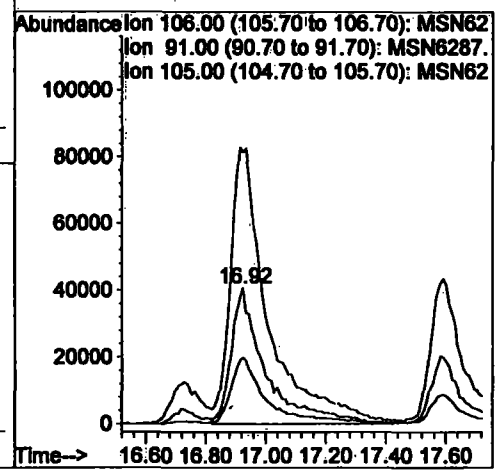


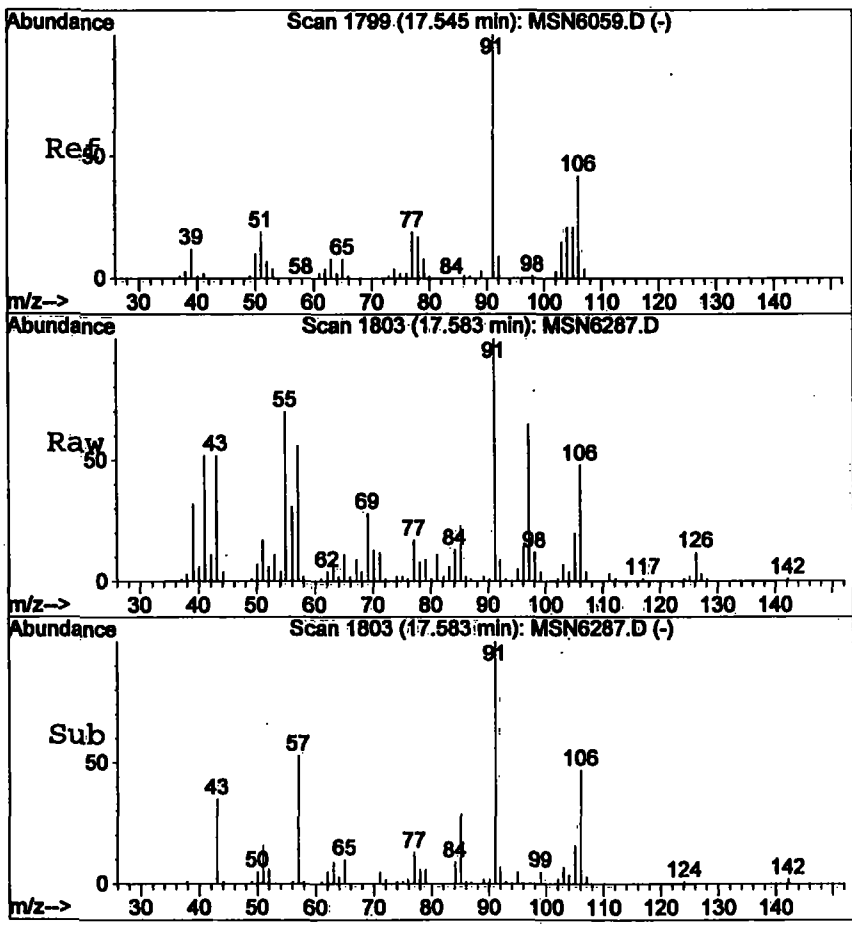



#50
m,p-xylene
Concen: 97132.36 ug/Kg m
RT: 16.92 min Scan# 1733
Delta R.T. 0.04 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:106 Resp: 327401

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 200.5 | 192.8 | 232.8 |
| 105 | 48.9 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

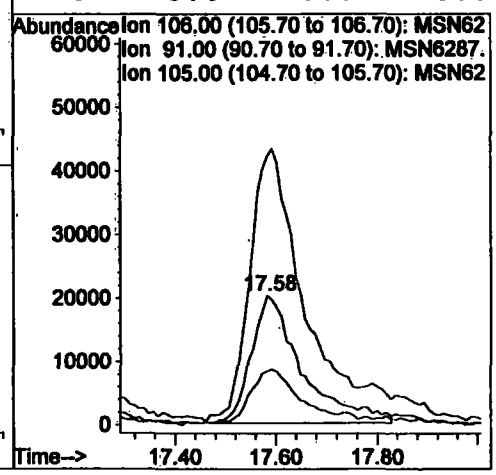


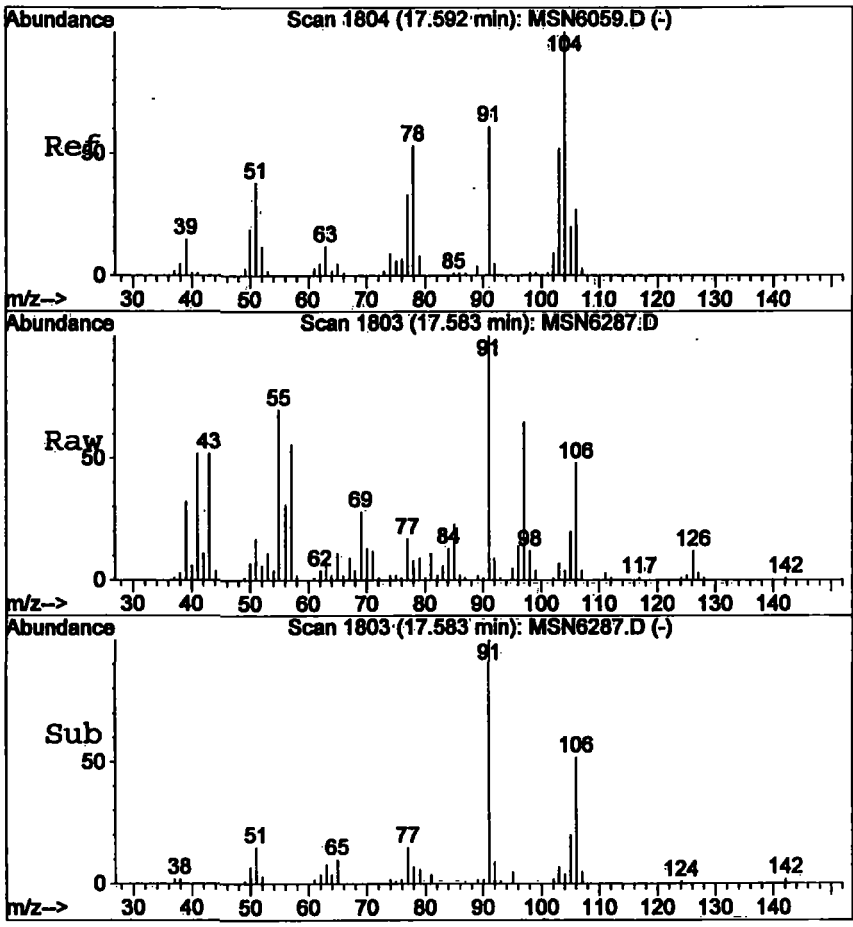




#51
o-xylene
Concen: 43991.60 ug/Kg
RT: 17.58 min Scan# 1803
Delta R.T. 0.04 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:106 Resp: 139864

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 202.0 | 220.1 | 260.1# |
| 105 | 40.0 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

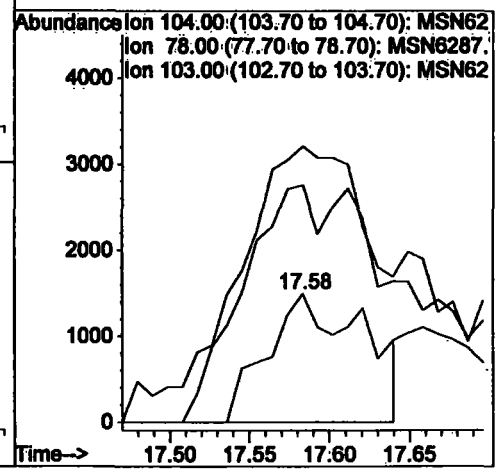


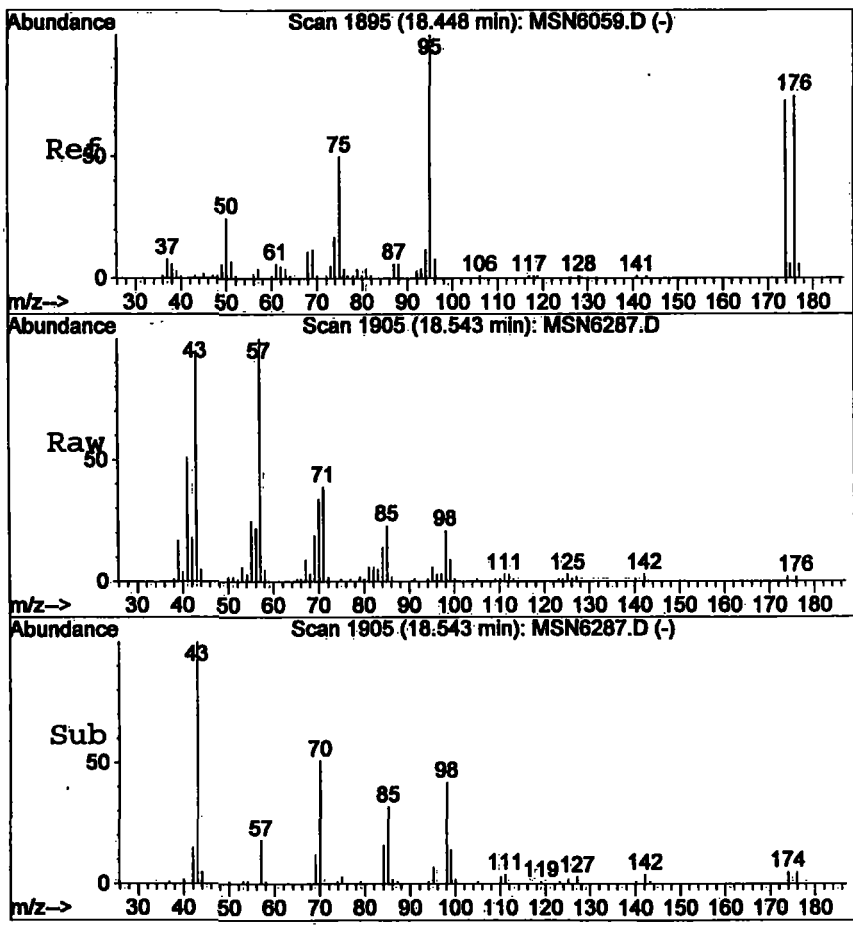



#52
styrene
Concen: 1146.24 ug/Kg
RT: 17.58 min Scan# 1803
Delta R.T. -0.00 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:104 Resp: 6257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 154.8 | 32.7 | 72.7# |
| 103 | 125.7 | 32.2 | 72.2# |
| 0 | 0.0 | 0.0 | 0.0 |

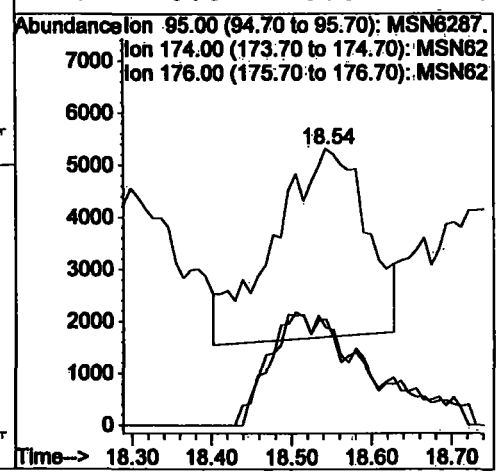


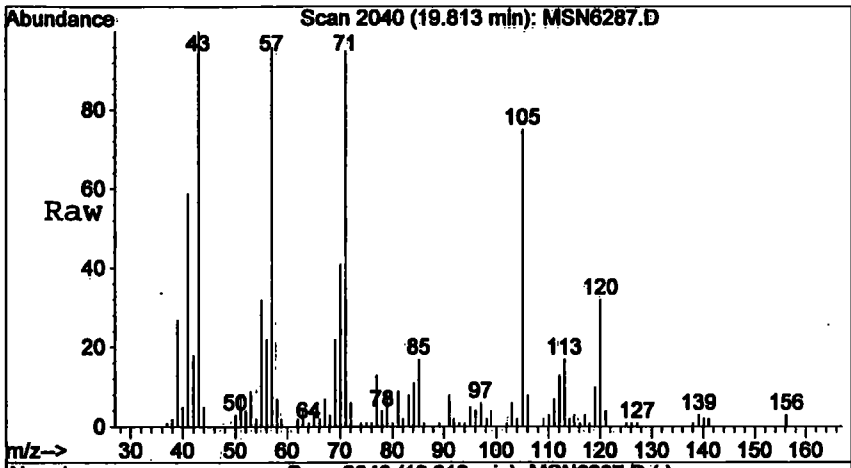




#56
4-bromofluorobenzene
Concen: 3.25 ug/Kg
RT: 18.54 min Scan# 1905
Delta R.T. 0.09 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:95 Resp: 28982

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 73.4 | 53.0 | 93.0 |
| 176 | 67.6 | 54.6 | 94.6 |
| 0 | 0.0 | 0.0 | 0.0 |

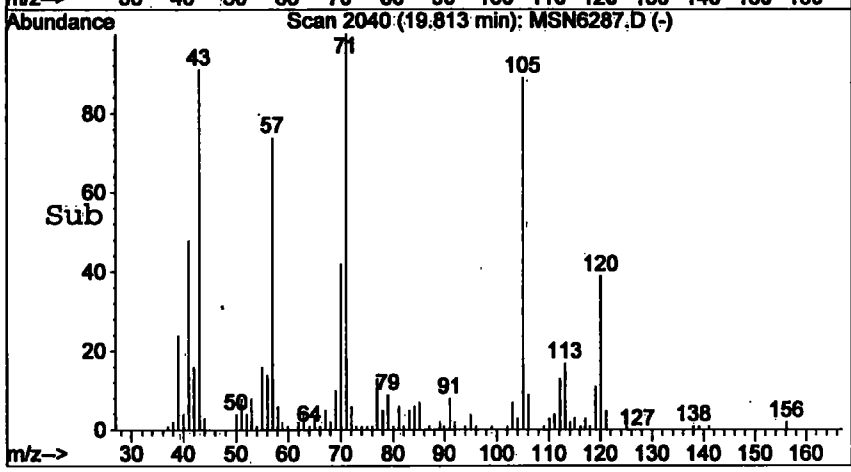


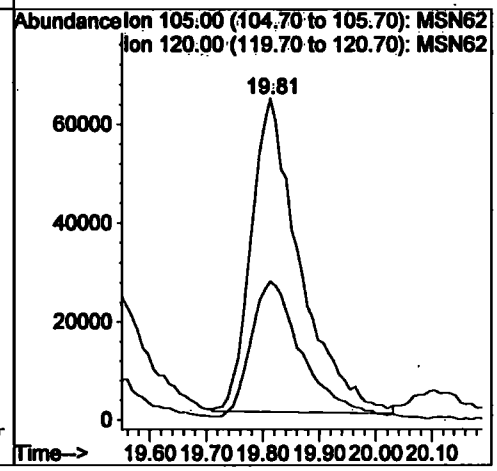



#59
1,2,4-trimethylbenzene
Concen: 48333.79 ug/L
RT: 19.81 min Scan# 2040
Delta R.T. 0.04 min
Lab File: MSN6287.D
Acq: 30 Oct 97 15:15

Tgt Ion:105 Resp: 380387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.6 | 36.4 | 54.6 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |



# Surrogates

# Form II

FORM II
VOLATILE ORGANICS SURROGATE RECOVERY

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Matrix: Soil | Batch No. : L72972500 |
| | Analytical Method No. : 8260 |

| | SAMPLE NO. | S1 (DCE ) # | S2 (TOL ) # | S3 (BFB ) # | TOT OUT |
|---|---|---|---|---|---|
| 01 | VN102997 | 101% | 99% | 99% | 0 |
| 02 | VN103097 | 89% | 90% | 106% | 0 |
| 03 | L72972500-001 | 117% | 101% | 76% | 0 |
| 04 | L72972500-001DL | D | D | D | 3 |
| 05 | L72972500-002 | 151% * | 247% * | 640% * | 3 |
| 06 | L72972500-002DL | D | D | D | 3 |
| 07 | L72972500-003 | 122% * | 228% * | 69% * | 3 |
| 08 | L72972500-003DL | D | D | D | 3 |
| 09 | L72972500-004 | 135% * | 540% * | 496% * | 3 |
| 10 | L72972500-004DL | D | D | D | 3 |
| 11 | L72972567-002MS | 100% | 97% | 86% | 0 |
| 12 | L72972567-002MD | 95% | 94% | 88% | 0 |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
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| 30 | | | | | |

| Surrogate | | QC Limits |
|---|---|---|
| S1(DCE) | = 1,2-Dichloroethane-d4 | 70-121% |
| S2(TOL) | = Toluene-d8 | 81-117% |
| S3(BFB) | = Bromofluorobenzene | 74-121% |

# MS/MSD

# Form III

FORM III
VOLATILE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Matrix: Soil | Lab Sample ID: L72972556-002 |
| | Method: 8260 |

| Compound | Spike Added (ug/Kg) | Sample Concentration (ug/Kg) | MS Concentration (ug/Kg) | MS % Recovery | # | QC Limits % Recovery |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 0 | 61 | 122% | | 59-172 |
| Trichloroethene | 50 | 0 | 89 | 178% | * | 62-137 |
| Benzene | 50 | 0 | 56 | 112% | | 66-142 |
| Toluene | 50 | 2.2 | 54 | 104% | | 59-139 |
| Chlorobenzene | 50 | 4.8 | 56 | 102% | | 60-133 |

| Compound | Spike Added (ug/Kg) | MSD Concentration (ug/Kg) | MSD % Recovery | # | % RPD | # | QC Limits RPD | QC Limits % Recvry |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 60 | 120% | | 2% | | 22 | 59-172 |
| Trichloroethene | 50 | 89 | 178% | * | 0% | | 24 | 62-137 |
| Benzene | 50 | 56 | 112% | | 0% | | 21 | 66-142 |
| Toluene | 50 | 53 | 102% | | 2% | | 21 | 59-139 |
| Chlorobenzene | 50 | 53 | 96% | | 6% | | 21 | 60-133 |

#--Column to be used to flag recovery and RPD values with an asterisk
*--Values outside of QC Limits

Comments: _____

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6275.D Vial: 1
Acq On : 30 Oct 97 2:08 Operator: tcm
Sample : L72972556-002ms Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.87 | 128 | 420893 | 50.00 | ug/Kg | 0.03 |
| 24) 1,4-difluorobenzene | 10.04 | 114 | 1508397 | 50.00 | ug/Kg | 0.07 |
| 42) chlorobenzene-d5 | 16.40 | 117 | 908014 | 50.00 | ug/Kg | 0.03 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.59 | 65 | 624201 | 50.04 | ug/Kg | 0.05 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 100.08% | | | |
| 40) toluene-d8 | 13.67 | 98 | 1380962 | 48.45 | ug/Kg | 0.04 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 96.90% | | | |
| 56) 4-bromofluorobenzene | 18.47 | 95 | 437719 | 42.91 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 85.82% | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 3) chloromethane | 1.55 | 50 | 452587 | 46.95 | ug/Kg | 98 |
| 5) bromomethane | 1.93 | 94 | 280246 | 38.03 | ug/Kg | 97 |
| 10) acrolein | 2.90 | 56 | 9019 | 5.87 | ug/Kg# | 61 |
| 11) 1,1-dichloroethene | 2.97 | 96 | 685946 | 61.37 | ug/Kg | 99 |
| 12) acetone | 3.00 | 43 | 638410 | 109.10 | ug/Kg | 97 |
| 13) carbon disulfide | 3.27 | 76 | 736380 | 25.65 | ug/Kg | 97 |
| 14) methylene chloride | 3.63 | 84 | 630916 | 54.46 | ug/Kg | 97 |
| 16) trans-1,2-dichloroethene | 4.12 | 96 | 656028 | 51.57 | ug/Kg | 97 |
| 19) 1,1-dichloroethane | 4.84 | 63 | 447817 | 22.55 | ug/Kg | 97 |
| 21) cis-1,2-dichloroethene | 6.18 | 96 | 682829 | 48.65 | ug/Kg | 94 |
| 23) 2-butanone | 6.29 | 43 | 645306 | 59.26 | ug/Kg | 98 |
| 25) chloroform | 7.02 | 83 | 1124531 | 58.52 | ug/Kg | 100 |
| 26) 1,1,1-trichloroethane | 7.63 | 97 | 578045 | 35.01 | ug/Kg | 100 |
| 28) carbon tetrachloride | 8.20 | 117 | 229579 | 16.99 | ug/Kg | 99 |
| 30) benzene | 8.73 | 78 | 1690892m | 56.32 | ug/Kg | 99 |
| 31) 1,2-dichloroethane | 8.81 | 62 | 724970 | 52.76 | ug/Kg | 98 |
| 33) trichloroethene | 10.69 | 95 | 1148787 | 89.04 | ug/Kg | 98 |
| 34) 1,2-dichloropropane | 11.21 | 63 | 630193 | 54.18 | ug/Kg | 99 |
| 35) bromodichloromethane | 11.96 | 83 | 461536 | 30.57 | ug/Kg | 97 |
| 37) 2-chloroethyl vinyl ether | 12.78 | 63 | 14333 | 1.71 | ug/Kg | 93 |
| 38) cis-1,3-dichloropropene | 13.16 | 75 | 296336 | 20.88 | ug/Kg | 96 |
| 39) 4-methyl-2-pentanone | 13.42 | 43 | 839791 | 52.06 | ug/Kg | 98 |
| 41) toluene | 13.80 | 92 | 951376 | 54.28 | ug/Kg | 96 |
| 43) trans-1,3-dichloropropene | 14.33 | 75 | 210419 | 18.86 | ug/Kg | 97 |
| 44) 1,1,2-trichloroethane | 14.64 | 83 | 410174 | 48.02 | ug/Kg | 97 |
| 45) tetrachloroethene | 14.98 | 166 | 534814 | 48.24 | ug/Kg | 97 |
| 46) 2-hexanone | 15.16 | 43 | 531007 | 55.09 | ug/Kg | 97 |
| 47) dibromochloromethane | 15.35 | 129 | 233176 | 24.13 | ug/Kg | 92 |
| 48) chlorobenzene | 16.45 | 112 | 1010917 | 56.12 | ug/Kg | 98 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6275.D Vial: 1
Acq On : 30 Oct 97 2:08 Operator: tcm
Sample : L72972556-002ms Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

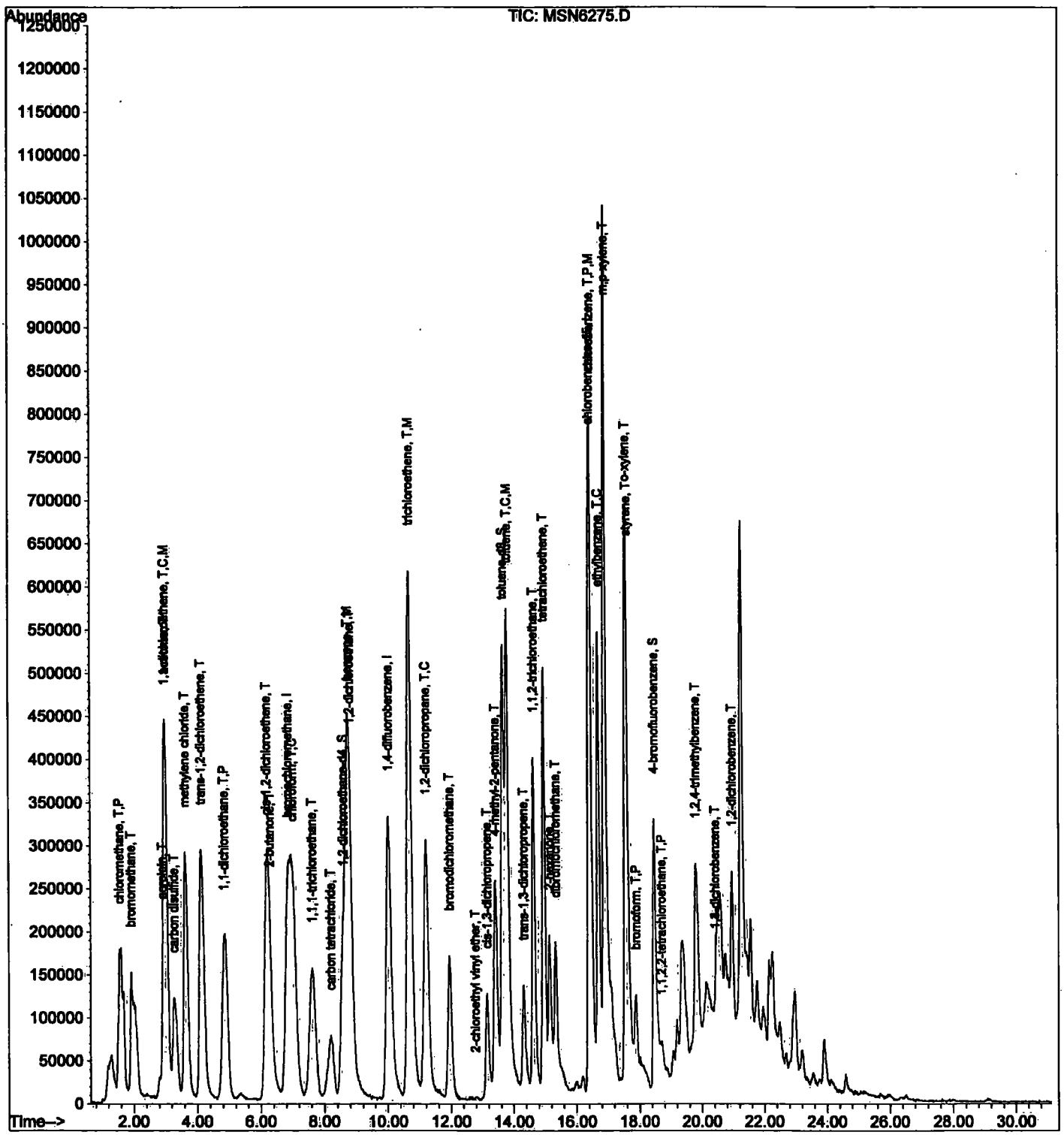
| | Compound | R.T. | QIon | Response | Conc | Unit | Qvalue |
|---|---|---|---|---|---|---|---|
| 49) | ethylbenzene | 16.70 | 91 | 1276247 | 47.50 | ug/Kg | 95 |
| 50) | m,p-xylene | 16.90 | 106 | 983438 | 101.98 | ug/Kg | 99 |
| 51) | o-xylene | 17.56 | 106 | 478471 | 52.60 | ug/Kg# | 87 |
| 52) | styrene | 17.61 | 104 | 699816 | 44.81 | ug/Kg | 98 |
| 53) | bromoform | 17.88 | 173 | 93409 | 15.45 | ug/Kg | 94 |
| 57) | 1,1,2,2-tetrachloroethane | 18.71 | 83 | 13587 | 1.02 | ug/Kg# | 58 |
| 59) | 1,2,4-trimethylbenzene | 19.80 | 105 | 103662 | 4.60 | ug/L | 98 |
| 60) | 1,3-dichlorobenzene | 20.42 | 146 | 14513 | 1.21 | ug/Kg | 86 |
| 61) | 1,4-dichlorobenzene | 20.42 | 146 | 14203 | 1.02 | ug/Kg# | 76 |
| 62) | 1,2-dichlorobenzene | 20.96 | 146 | 153050 | 12.98 | ug/Kg | 97 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6275.D Vial: 1
Acq On : 30 Oct 97 2:08 Operator: tcm
Sample : L72972556-002ms Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/31/97
Last Update : Sun Nov 02 11:16:24 1997
Response via : Multiple Level Calibration



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6276.D Vial: 2
Acq On : 30 Oct 97 2:46 Operator: tcm
Sample : L72972556-002md Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.82 | 128 | 420172 | 50.00 | ug/Kg | -0.03 |
| 24) 1,4-difluorobenzene | 10.01 | 114 | 1468693 | 50.00 | ug/Kg | 0.04 |
| 42) chlorobenzene-d5 | 16.39 | 117 | 900479 | 50.00 | ug/Kg | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.55 | 65 | 578698 | 47.65 | ug/Kg | 0.01 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 95.30% | | | |
| 40) toluene-d8 | 13.66 | 98 | 1310000 | 47.21 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 94.42% | | | |
| 56) 4-bromofluorobenzene | 18.48 | 95 | 447383 | 44.22 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 88.44% | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 3) chloromethane | 1.54 | 50 | 464518 | 48.27 | ug/Kg | 94 |
| 5) bromomethane | 1.92 | 94 | 310960 | 42.27 | ug/Kg | 98 |
| 11) 1,1-dichloroethene | 2.97 | 96 | 667223 | 59.79 | ug/Kg | 97 |
| 12) acetone | 3.00 | 43 | 662454 | 113.40 | ug/Kg | 94 |
| 13) carbon disulfide | 3.25 | 76 | 873190 | 30.46 | ug/Kg | 98 |
| 14) methylene chloride | 3.62 | 84 | 625288 | 54.07 | ug/Kg | 96 |
| 16) trans-1,2-dichloroethene | 4.13 | 96 | 656368 | 51.68 | ug/Kg | 98 |
| 19) 1,1-dichloroethane | 4.84 | 63 | 1015472 | 51.22 | ug/Kg | 99 |
| 21) cis-1,2-dichloroethene | 6.17 | 96 | 672934 | 48.03 | ug/Kg | 93 |
| 23) 2-butanone | 6.24 | 43 | 647518 | 59.57 | ug/Kg | 96 |
| 26) 1,1,1-trichloroethane | 7.62 | 97 | 597267 | 37.15 | ug/Kg | 99 |
| 28) carbon tetrachloride | 8.22 | 117 | 294043 | 22.35 | ug/Kg | 91 |
| 30) benzene | 8.73 | 78 | 1650878m | 56.48 | ug/Kg | 0 |
| 31) 1,2-dichloroethane | 8.79 | 62 | 707938 | 52.92 | ug/Kg | 98 |
| 33) trichloroethene | 10.67 | 95 | 1121362 | 89.26 | ug/Kg | 99 |
| 34) 1,2-dichloropropane | 11.22 | 63 | 622136 | 54.93 | ug/Kg | 100 |
| 35) bromodichloromethane | 11.95 | 83 | 513385 | 34.92 | ug/Kg | 99 |
| 37) 2-chloroethyl vinyl ether | 12.76 | 63 | 22445 | 2.75 | ug/Kg | 92 |
| 38) cis-1,3-dichloropropene | 13.15 | 75 | 279196 | 20.21 | ug/Kg | 97 |
| 39) 4-methyl-2-pentanone | 13.43 | 43 | 871898 | 55.52 | ug/Kg | 97 |
| 41) toluene | 13.79 | 92 | 907324m | 53.16 | ug/Kg | 98 |
| 43) trans-1,3-dichloropropene | 14.34 | 75 | 199870 | 18.07 | ug/Kg | 100 |
| 44) 1,1,2-trichloroethane | 14.64 | 83 | 408507 | 48.22 | ug/Kg | 98 |
| 45) tetrachloroethene | 14.97 | 166 | 525828 | 47.83 | ug/Kg | 98 |
| 46) 2-hexanone | 15.14 | 43 | 468678 | 49.03 | ug/Kg | 97 |
| 47) dibromochloromethane | 15.34 | 129 | 251066 | 26.20 | ug/Kg | 98 |
| 48) chlorobenzene | 16.45 | 112 | 939999 | 52.62 | ug/Kg | 99 |
| 49) ethylbenzene | 16.69 | 91 | 1207250 | 45.31 | ug/Kg | 100 |
| 50) m,p-xylene | 16.90 | 106 | 1031285 | 107.83 | ug/Kg | 99 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6276.D Vial: 2
Acq On : 30 Oct 97 2:46 Operator: tcm
Sample : L72972556-002md Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

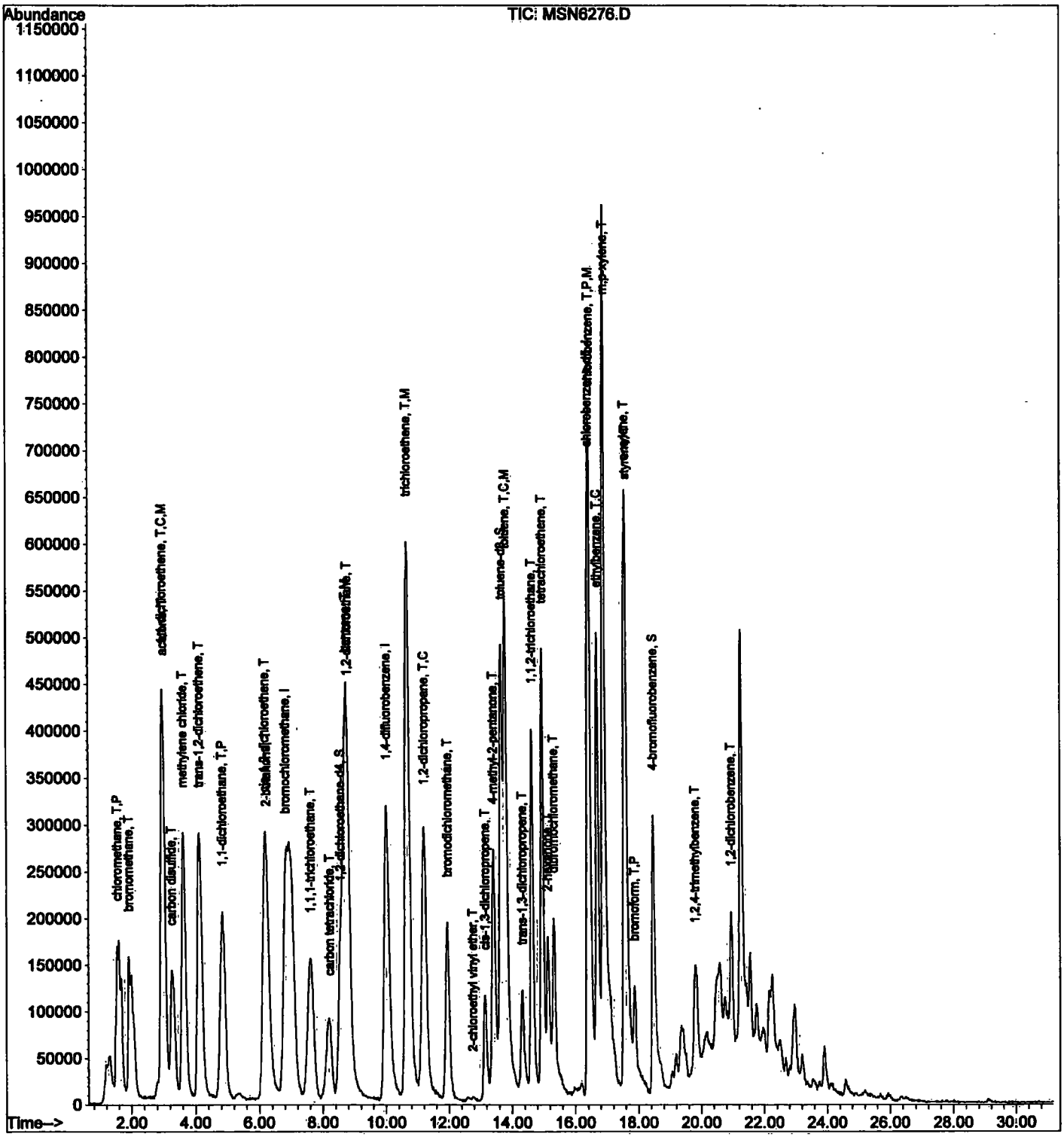
| Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|
| 51) o-xylene | 17.56 | 106 | 474048 | 52.55 ug/Kg# | 89 |
| 52) styrene | 17.60 | 104 | 712985 | 46.03 ug/Kg | 98 |
| 53) bromoform | 17.88 | 173 | 117871 | 19.66 ug/Kg | 99 |
| 59) 1,2,4-trimethylbenzene | 19.80 | 105 | 74312 | 3.33 ug/L | 98 |
| 62) 1,2-dichlorobenzene | 20.94 | 146 | 149885 | 12.82 ug/Kg | 98 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6276.D Vial: 2
Acq On : 30 Oct 97 2:46 Operator: tcm
Sample : L72972556-002md Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 30 7:48 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/31/97
Last Update : Sun Nov 02 11:16:24 1997
Response via : Multiple Level Calibration



# Method Blank Summary

# Form IV

FORM IV
VOLATILE ORGANICS METHOD BLANK SUMMARY SHEET

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Matrix: SOIL | Batch No.: L72972500 |
| Analysis Method: 8260 | Lab Sample ID : VN102997 |
| Extraction Method: 5030 | Date Extracted: 10/29/97 |
| | Date Analyzed: 10/29/97 |
| | Time Analyzed: 16:36 |

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | Lab Sample ID: | Lab File ID. | Time Analyzed |
|---|---|---|---|
| 01 | L72972500-001 | MSN6269 | 22:17 |
| 02 | L72972500-002 | MSN6271 | 23:34 |
| 03 | L72972500-003 | MSN6270 | 22:56 |
| 04 | L72972500-004 | MSN6272 | 0:12 |
| 05 | L72972556-002MS | MSN6275 | 2:08 |
| 06 | L72972556-002MD | MSN6276 | 2:46 |
| 07 | | | |
| 08 | | | |
| 09 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
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| 25 | | | |
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| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |

Quantitation Report (Not Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6260.D Vial: 2
Acq On : 29 Oct 97 16:36 Operator: tcm
Sample : method blank Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 29 17:10 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.85 | 128 | 308885 | 50.00 | ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 10.01 | 114 | 1193836 | 50.00 | ug/Kg | 0.04 |
| 42) chlorobenzene-d5 | 16.39 | 117 | 806086 | 50.00 | ug/Kg | 0.02 |

System Monitoring Compounds

| | | | | | | |
|---|---|---|---|---|---|---|
| 29) 1,2-dichloroethane-d4 | 8.57 | 65 | 500037 | 50.65 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 101.30% | | | |
| 40) toluene-d8 | 13.65 | 98 | 1113959 | 49.38 | ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 98.76% | | | |
| 56) 4-bromofluorobenzene | 18.46 | 95 | 446065 | 49.26 | ug/Kg | 0.01 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 98.52% | | | |

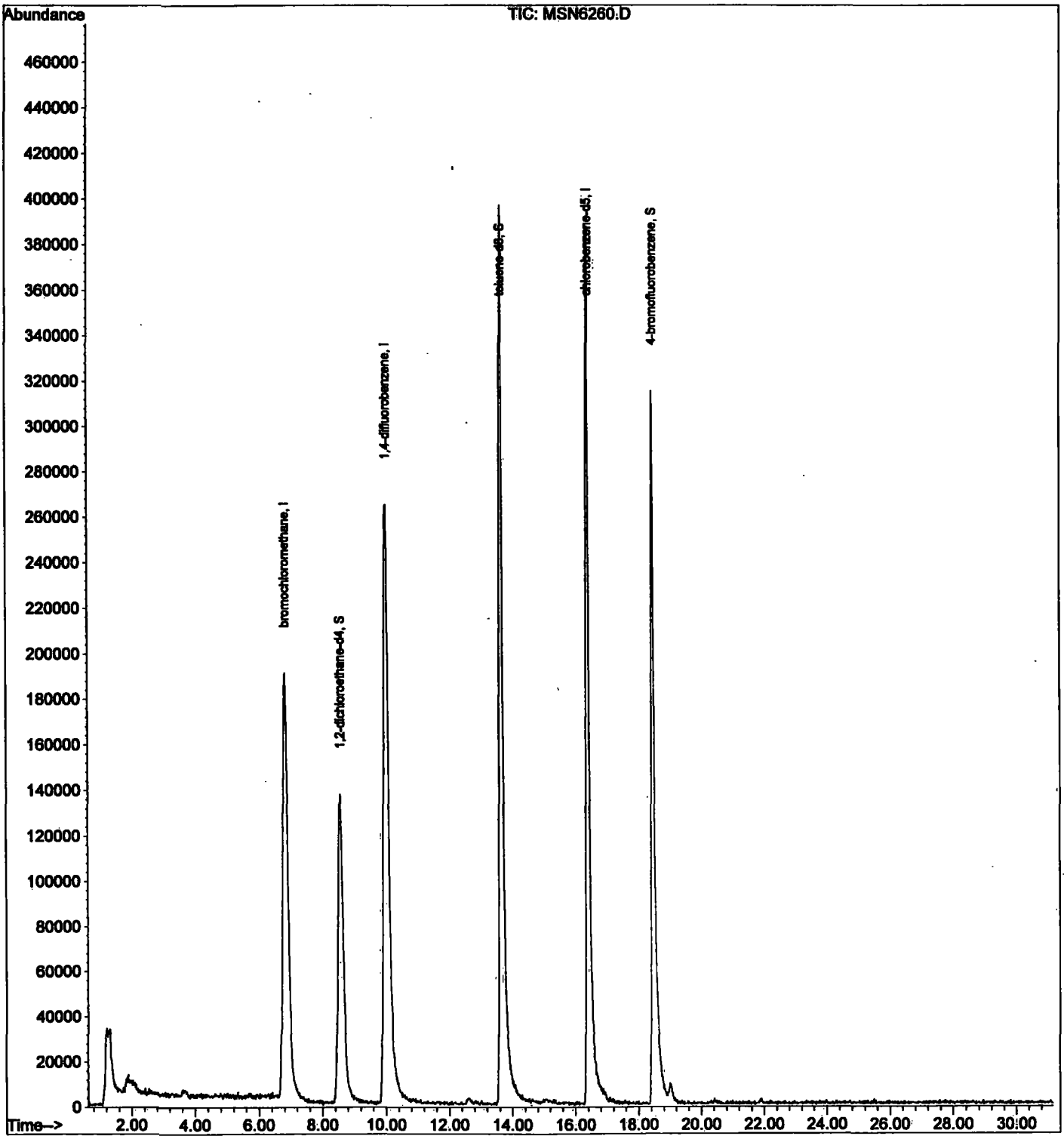
Target Compounds Qvalue

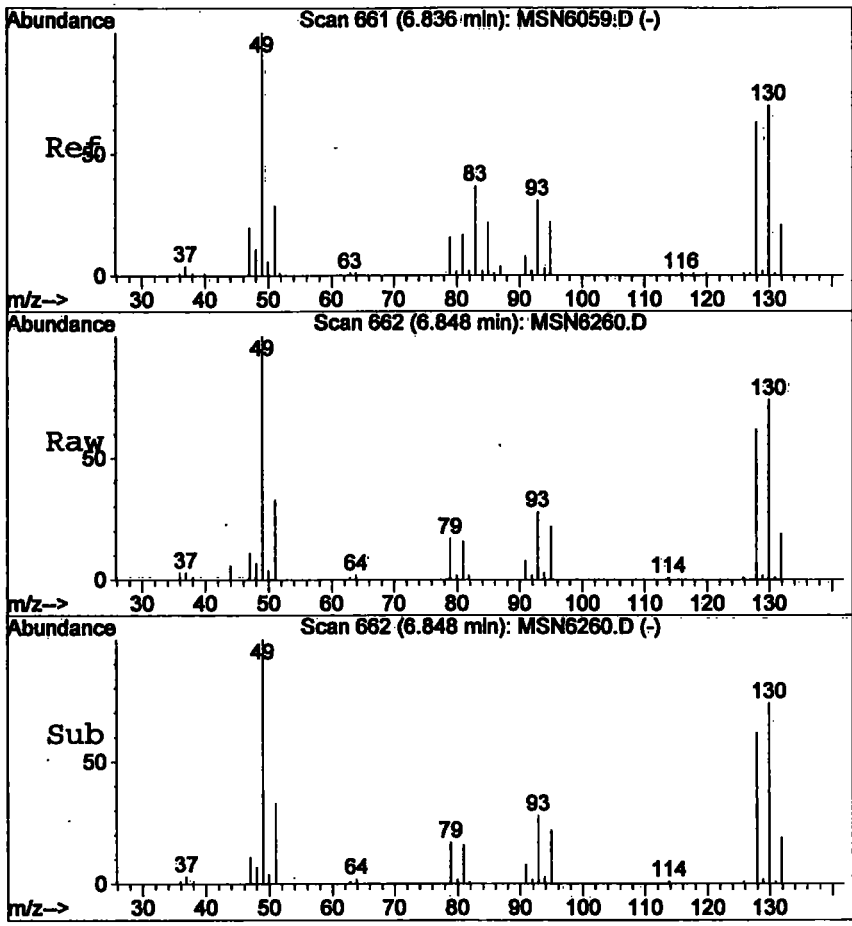
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6260.D  Vial: 2
Acq On : 29 Oct 97 16:36  Operator: tcm
Sample : method blank  Inst : GC/MS Ins
Misc : VN102997  Multiplr: 1.00
Quant Time: Oct 29 17:10 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

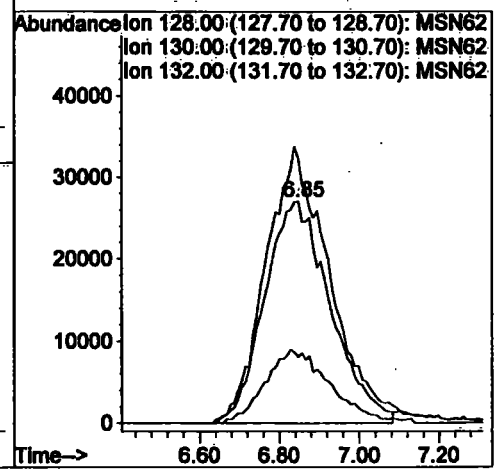


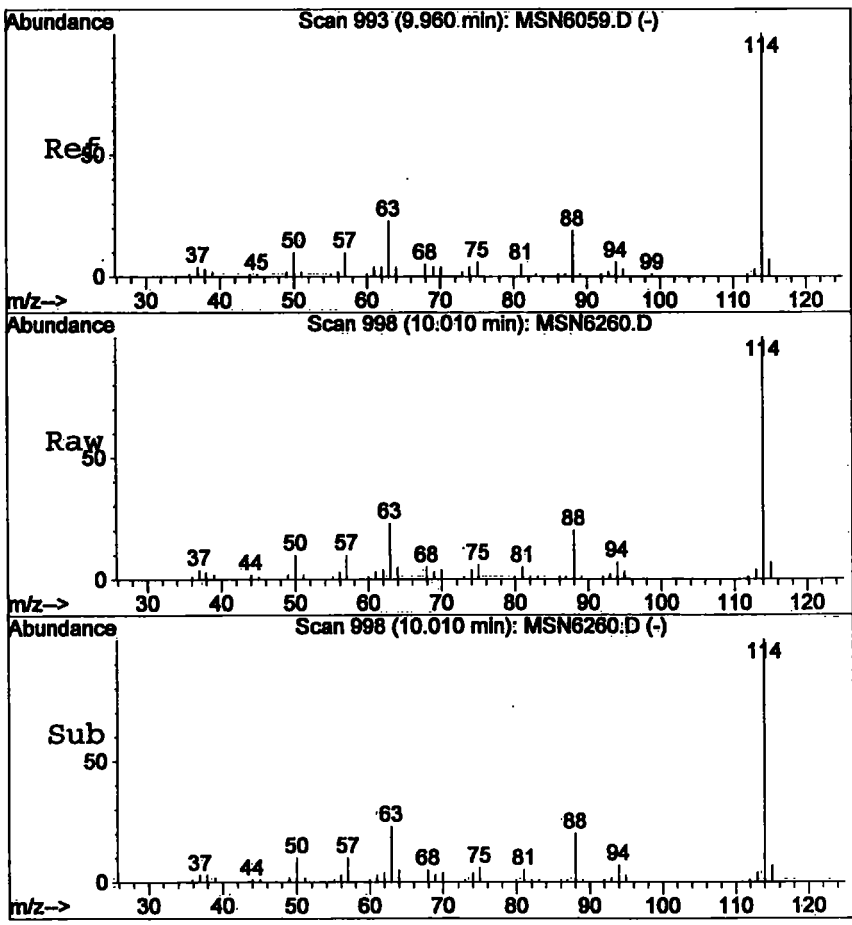



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.85 min Scan# 662
Delta R.T. 0.00 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:128 Resp: 308885

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 119.4 | 91.7 | 131.7 |
| 132 | 29.9 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

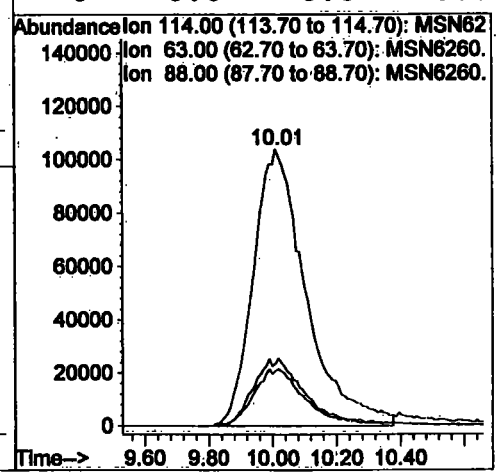


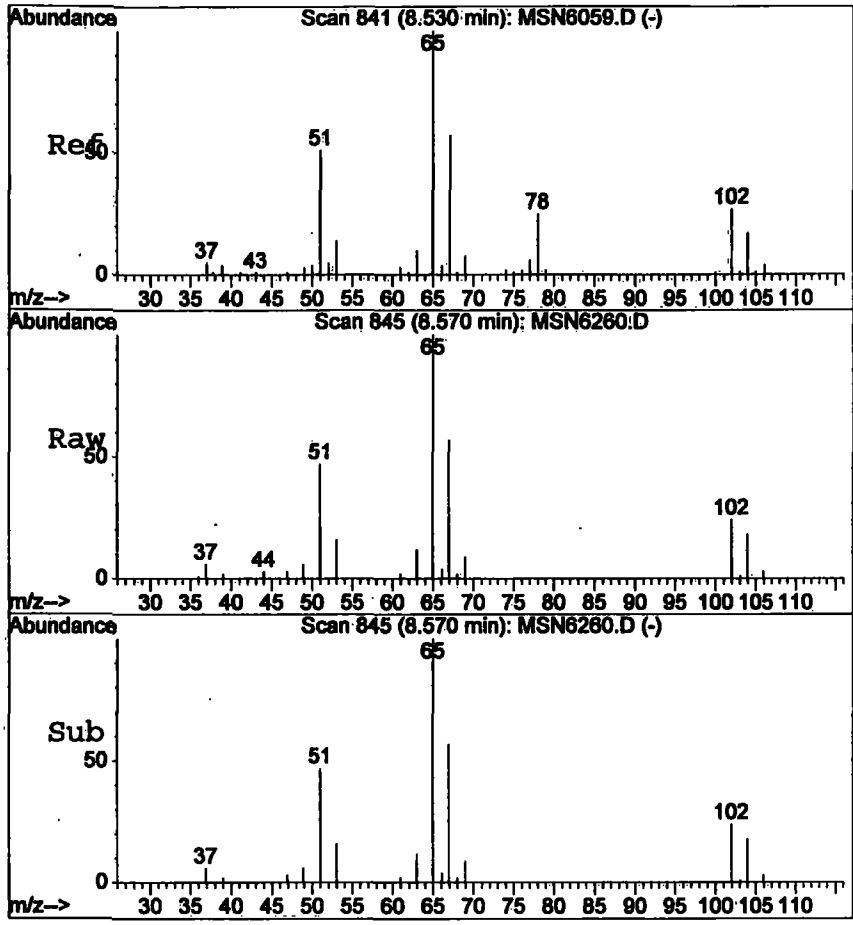




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg
RT: 10.01 min Scan# 998
Delta R.T. 0.04 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:114 Resp: 1193836

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.9 | 2.6 | 42.6 |
| 88 | 20.2 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

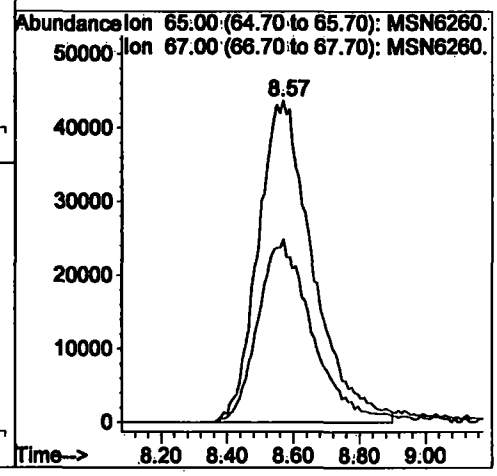


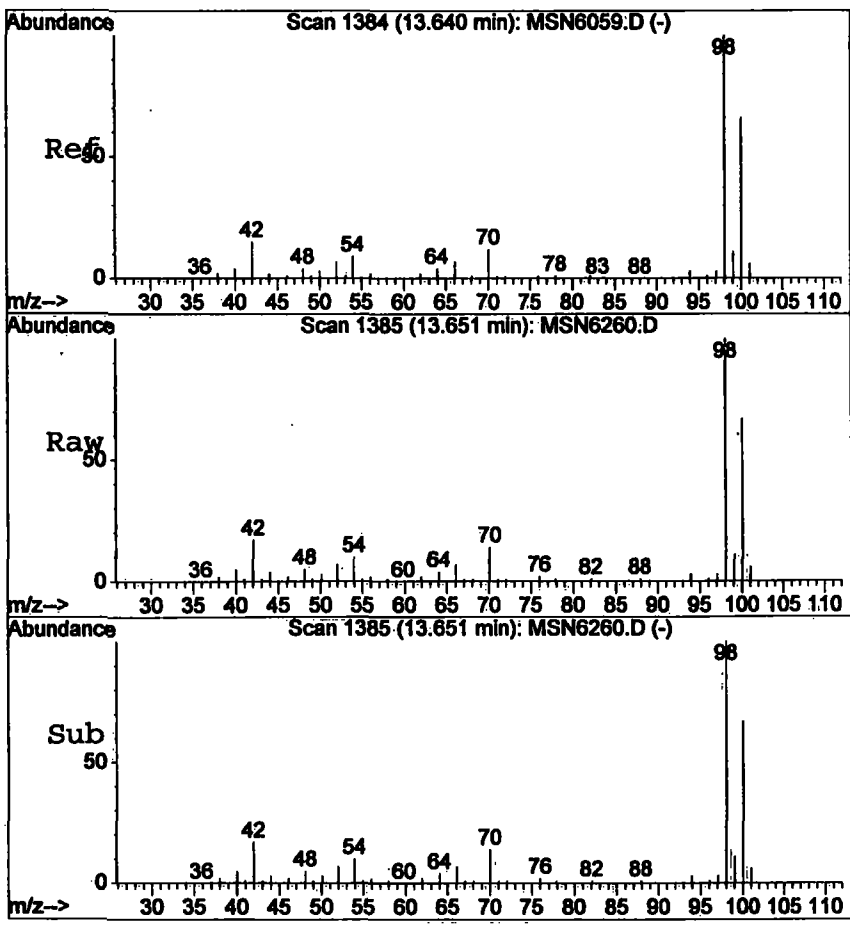



#29
1,2-dichloroethane-d4
Concen: 50.65 ug/Kg
RT: 8.57 min Scan# 845
Delta R.T. 0.03 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:65 Resp: 500037

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 56.9 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

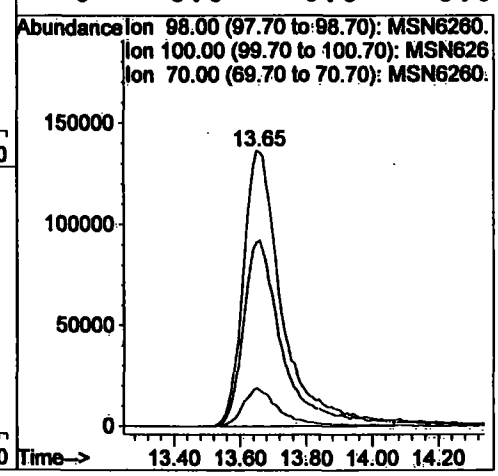


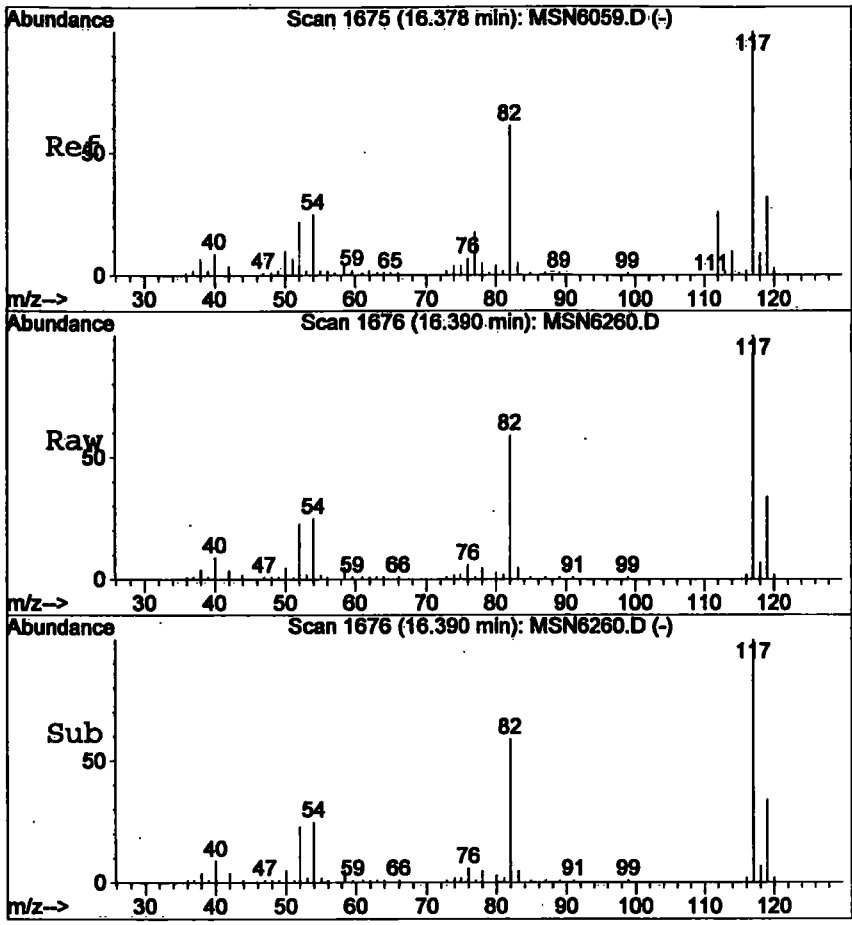




#40
toluene-d8
Concen: 49.38 ug/Kg
RT: 13.65 min Scan# 1385
Delta R.T. 0.02 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:98 Resp: 1113959

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 54.0 | 81.0 |
| 70 | 14.0 | 9.8 | 14.8 |
| 0 | 0.0 | 0.0 | 0.0 |

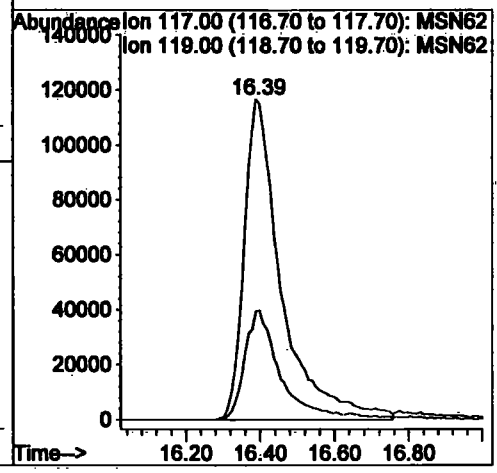


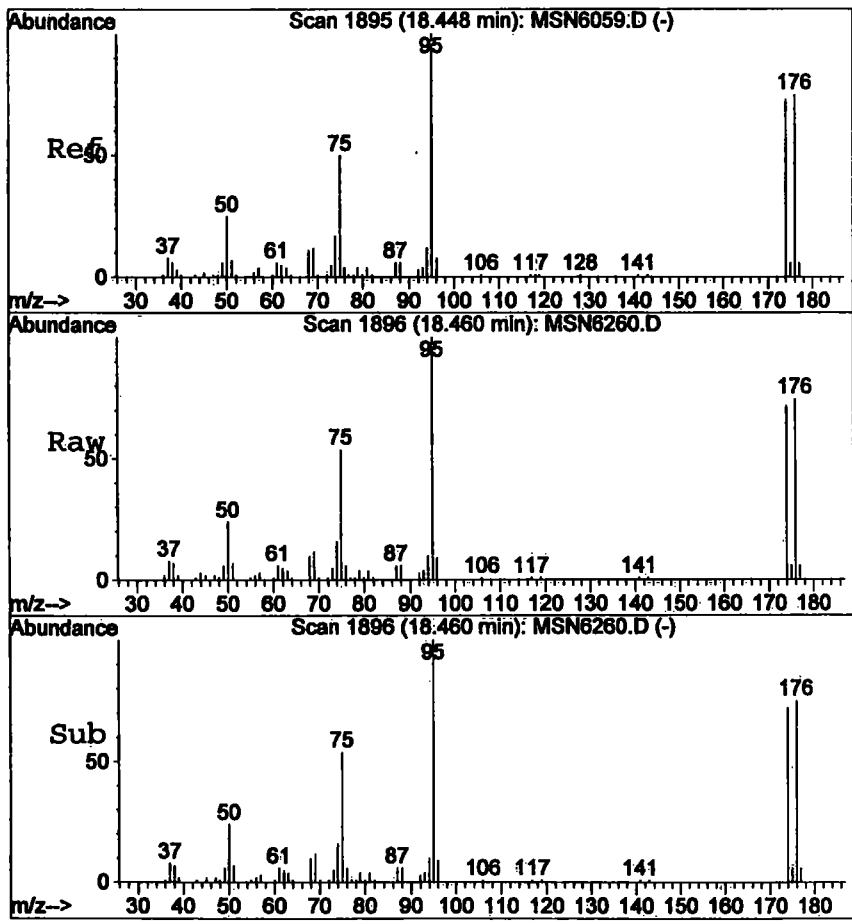



#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.39 min Scan# 1676
Delta R.T. 0.02 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:117 Resp: 806086

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 33.8 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

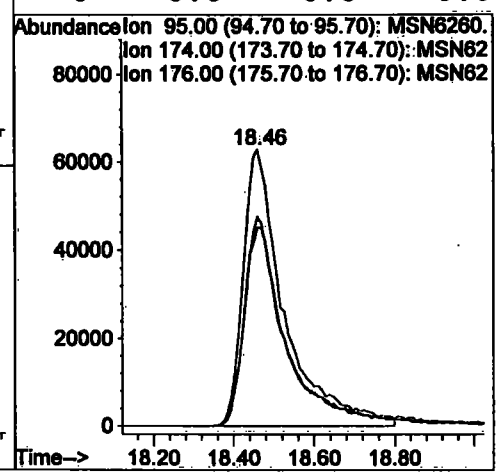



#56
4-bromofluorobenzene
Concen: 49.26 ug/Kg
RT: 18.46 min Scan# 1896
Delta R.T. 0.01 min
Lab File: MSN6260.D
Acq: 29 Oct 97 16:36

Tgt Ion:95 Resp: 446065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 71.7 | 53.0 | 93.0 |
| 176 | 75.4 | 54.6 | 94.6 |
| 0 | 0.0 | 0.0 | 0.0 |



FORM IV
VOLATILE ORGANICS METHOD BLANK SUMMARY SHEET

| | | | |
|---|---|---|---|
| Lab Name: | AEN | Client Name: | Ecology & Environment |
| Matrix: | SOIL | Batch No.: | L72972500 |
| Analysis Method: | 8260 | Lab Sample ID : | VN103097 |
| Extraction Method: | 5030 | Date Extracted: | 10/30/97 |
| | | Date Analyzed: | 10/30/97 |
| | | Time Analyzed: | 10:17 |

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | Lab Sample ID: | Lab File ID. | Time Analyzed |
|---|---|---|---|
| 01 | L72972500-001DL | MSN6284 | 13:38 |
| 02 | L72972500-002DL | MSN6285 | 14:10 |
| 03 | L72972500-003DL | MSN6286 | 14:43 |
| 04 | L72972500-004DL | MSN6287 | 15:15 |
| 05 | | | |
| 06 | | | |
| 07 | | | |
| 08 | | | |
| 09 | | | |
| 10 | | | |
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| 24 | | | |
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| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6278.D Vial: 4
Acq On : 30 Oct 97 10:17 Operator: tcm
Sample : method blank Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1.00
Quant Time: Oct 30 10:45 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.86 | 128 | 366187 | 50.00 | ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 10.05 | 114 | 1356407m | 50.00 | ug/Kg | 0.07 |
| 42) chlorobenzene-d5 | 16.42 | 117 | 767170 | 50.00 | ug/Kg | 0.05 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.59 | 65 | 496601 | 44.27 | ug/Kg | 0.05 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 88.54% | | | |
| 40) toluene-d8 | 13.67 | 98 | 1155018 | 45.07 | ug/Kg | 0.04 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 90.14% | | | |
| 56) 4-bromofluorobenzene | 18.48 | 95 | 456322 | 52.95 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 105.90% | | | |

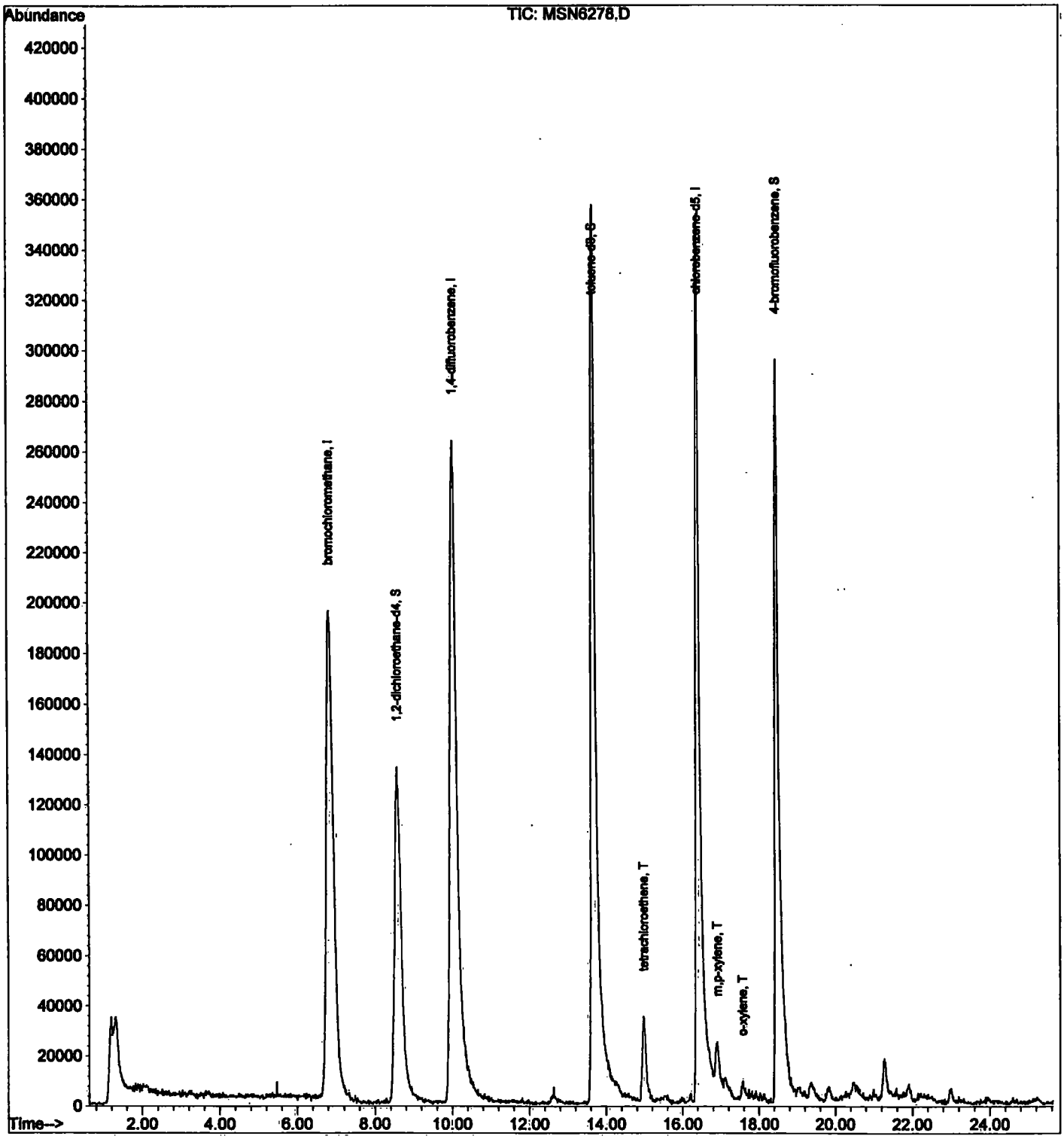
| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 45) tetrachloroethene | 14.99 | 166 | 38822 | 4.14 | ug/Kg | 91 |
| 50) m,p-xylene | 16.91 | 106 | 22433 | 2.75 | ug/Kg# | 84 |
| 51) o-xylene | 17.57 | 106 | 8182 | 1.06 | ug/Kg# | 68 |

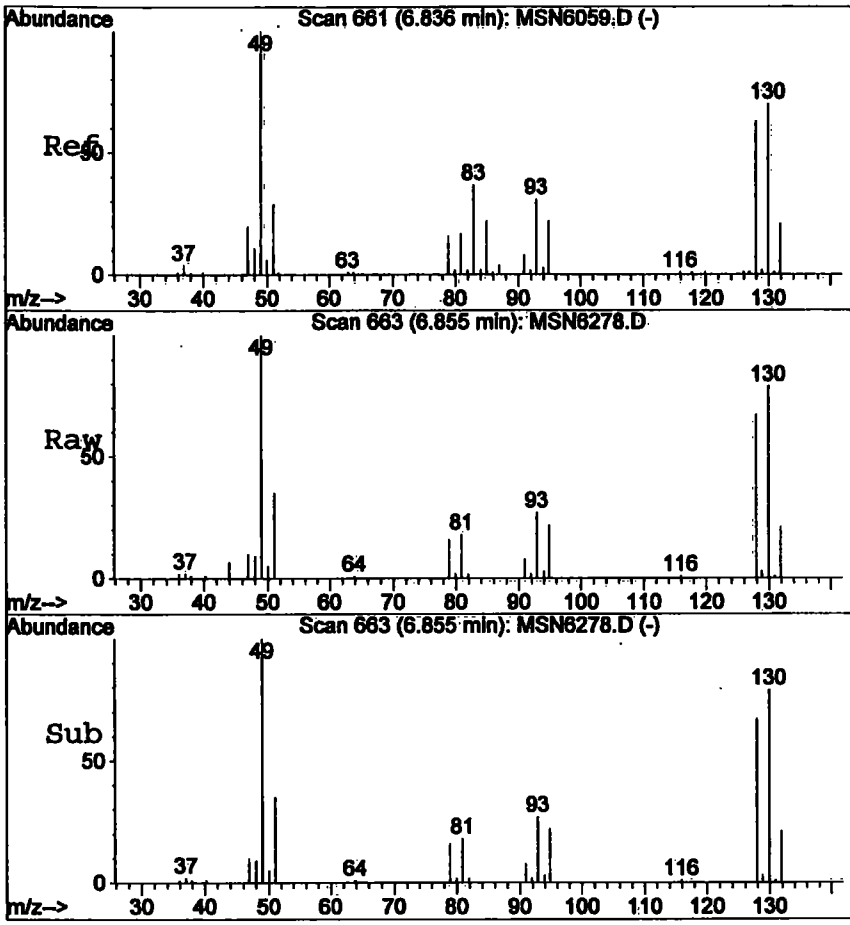
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6278.D  Vial: 4
Acq On : 30 Oct 97 10:17  Operator: tcm
Sample : method blank  Inst : GC/MS Ins
Misc : VN103097  Multiplr: 1.00
Quant Time: Oct 30 10:45 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

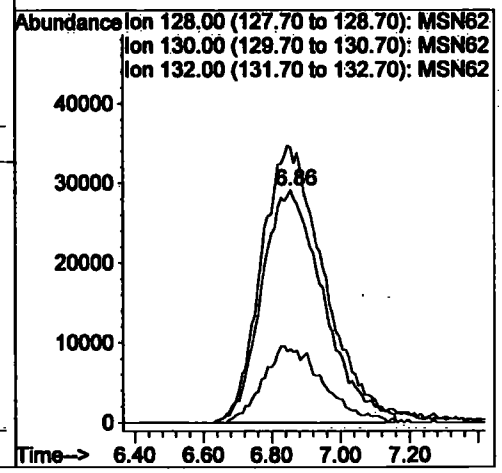


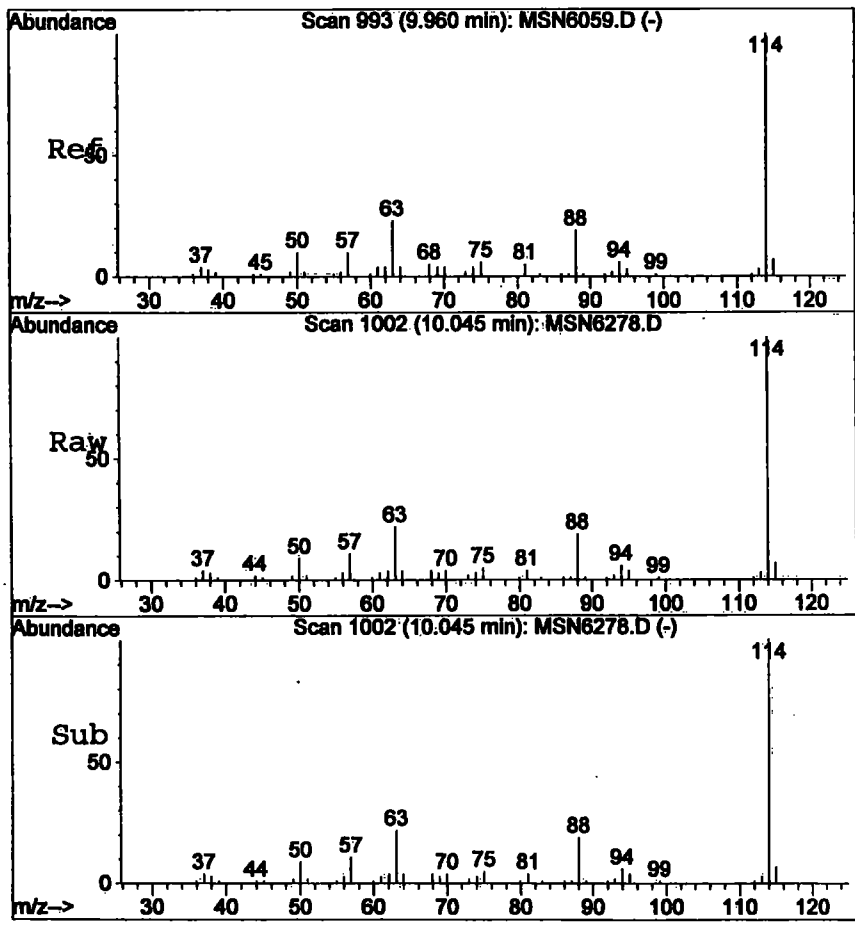



#1
bromochloromethane
Concen: 50.00 ug/Kg
RT: 6.86 min Scan# 663
Delta R.T. 0.01 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:128 Resp: 366187

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 118.3 | 91.7 | 131.7 |
| 132 | 31.6 | 13.1 | 53.1 |
| 0 | 0.0 | 0.0 | 0.0 |

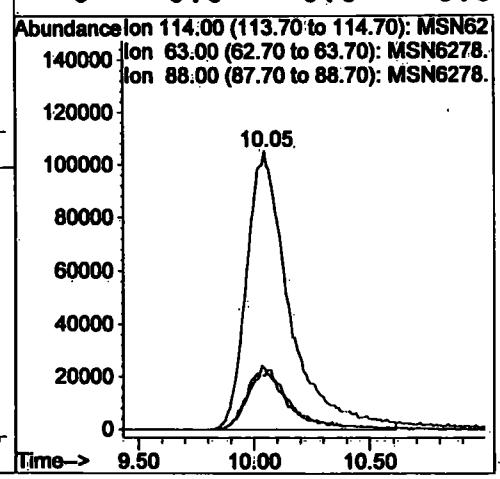


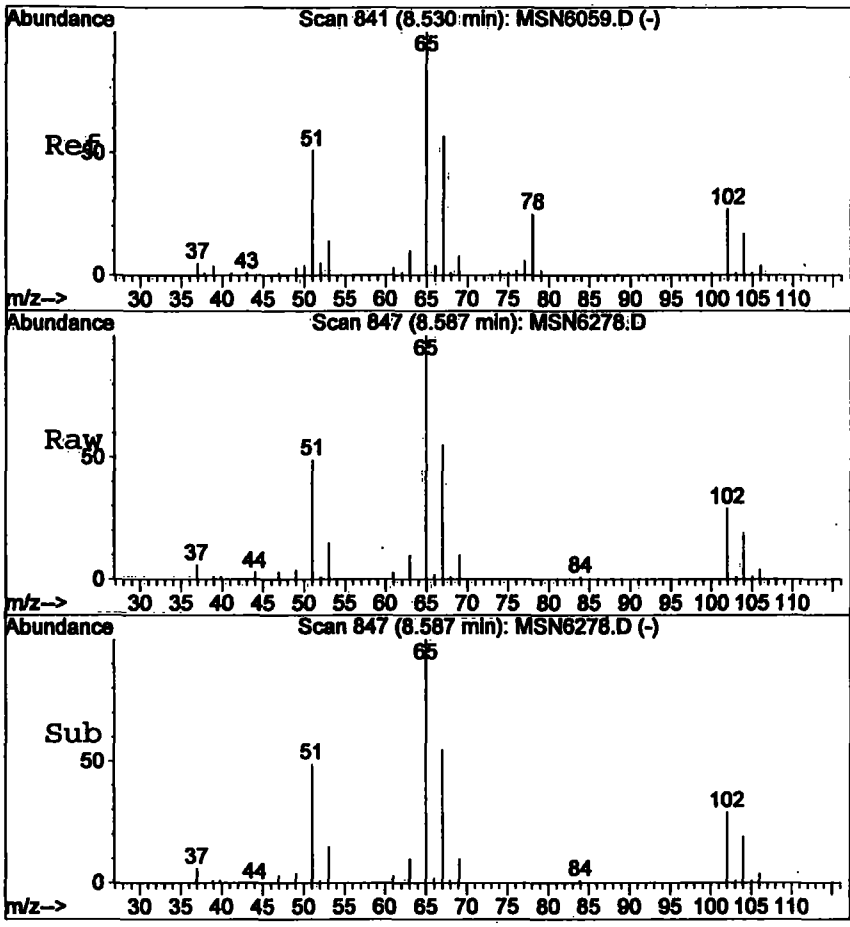




#24
1,4-difluorobenzene
Concen: 50.00 ug/Kg m
RT: 10.05 min Scan# 1002
Delta R.T. 0.07 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:114 Resp: 1356407

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.2 | 2.6 | 42.6 |
| 88 | 19.4 | 0.0 | 39.2 |
| 0 | 0.0 | 0.0 | 0.0 |

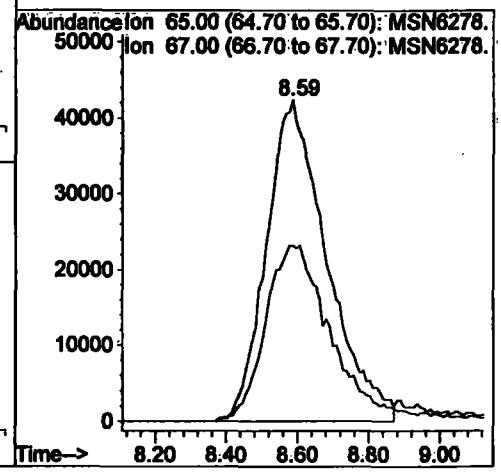


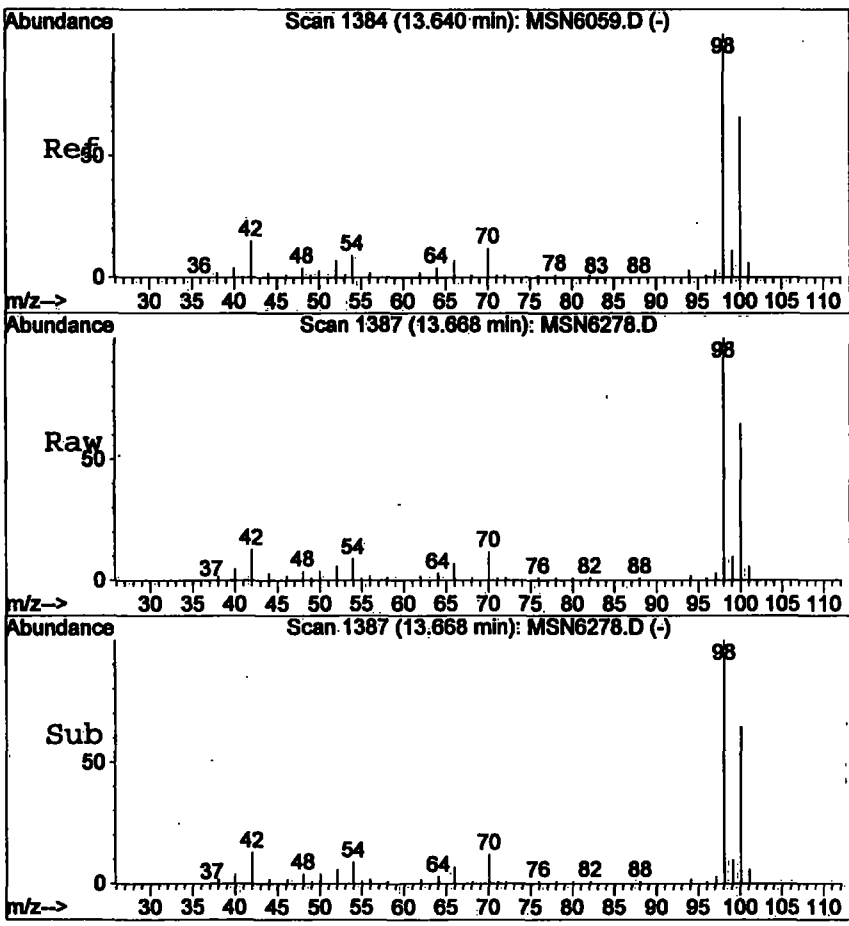



#29
1,2-dichloroethane-d4
Concen: 44.27 ug/Kg
RT: 8.59 min Scan# 847
Delta R.T. 0.05 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:65 Resp: 496601

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 54.8 | 37.4 | 77.4 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

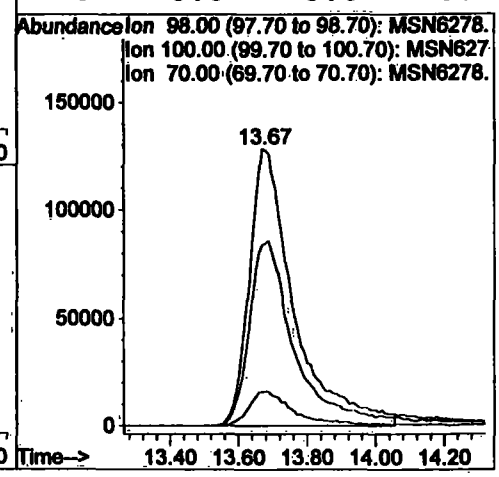


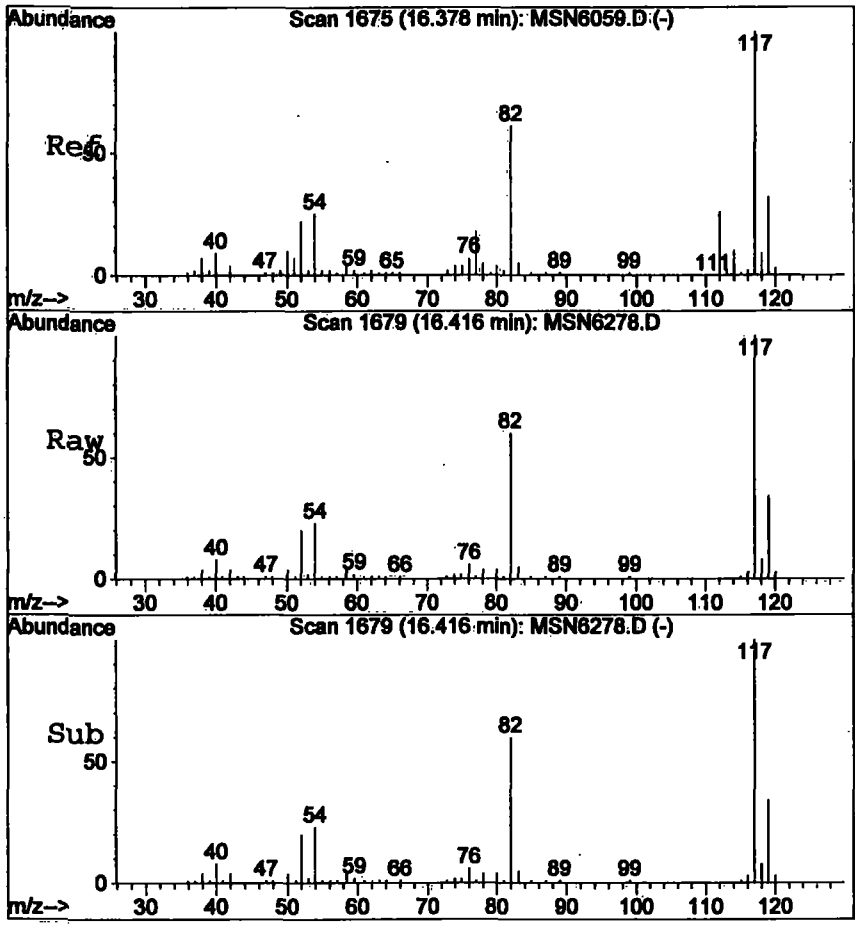




#40
toluene-d8
Concen: 45.07 ug/Kg
RT: 13.67 min Scan# 1387
Delta R.T. 0.04 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:98 Resp: 1155018

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.4 | 54.0 | 81.0 |
| 70 | 12.2 | 9.8 | 14.8 |
| 0 | 0.0 | 0.0 | 0.0 |

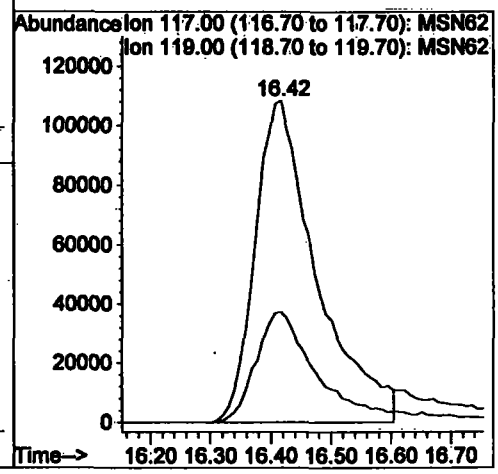


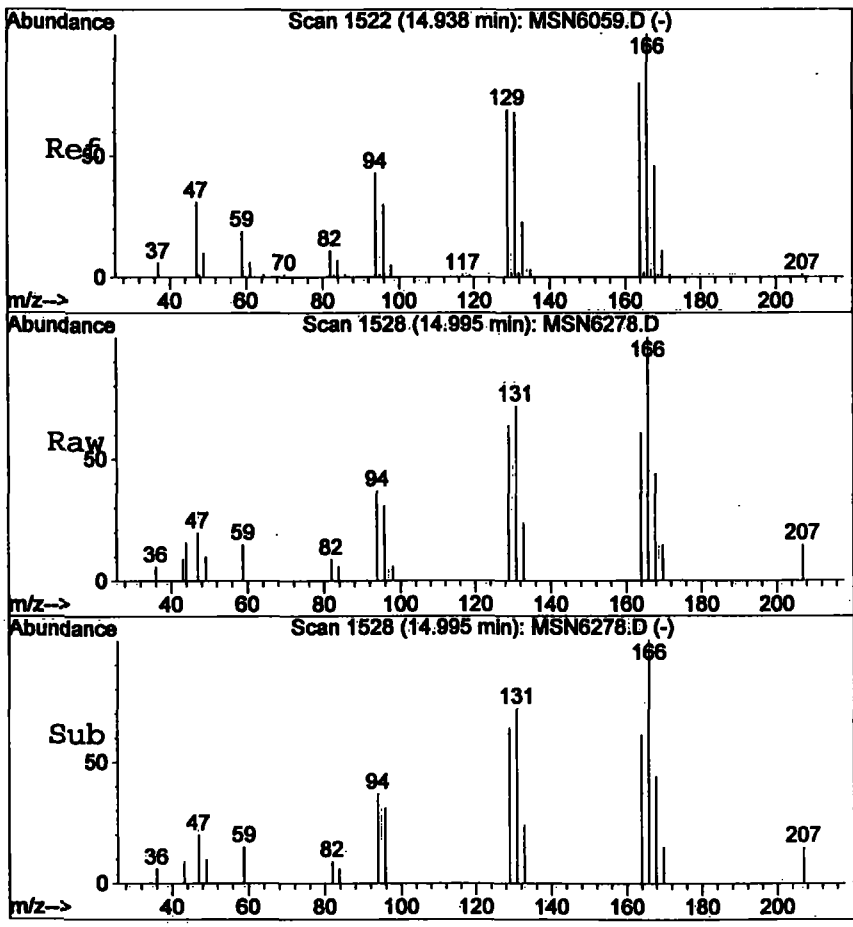



#42
chlorobenzene-d5
Concen: 50.00 ug/Kg
RT: 16.42 min Scan# 1679
Delta R.T. 0.05 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:117 Resp: 767170

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 34.4 | 12.0 | 52.0 |
| 0 | 0.0 | 0.0 | 0.0 |
| 0 | 0.0 | 0.0 | 0.0 |

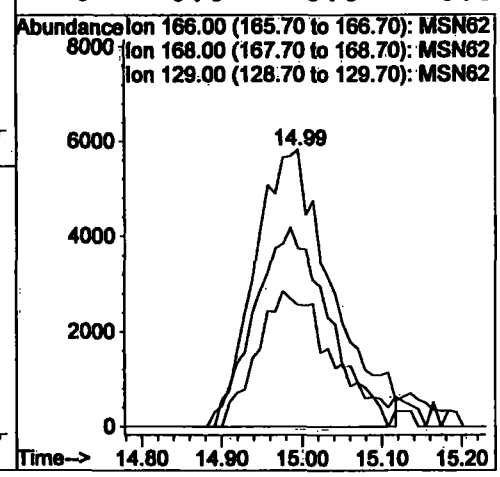


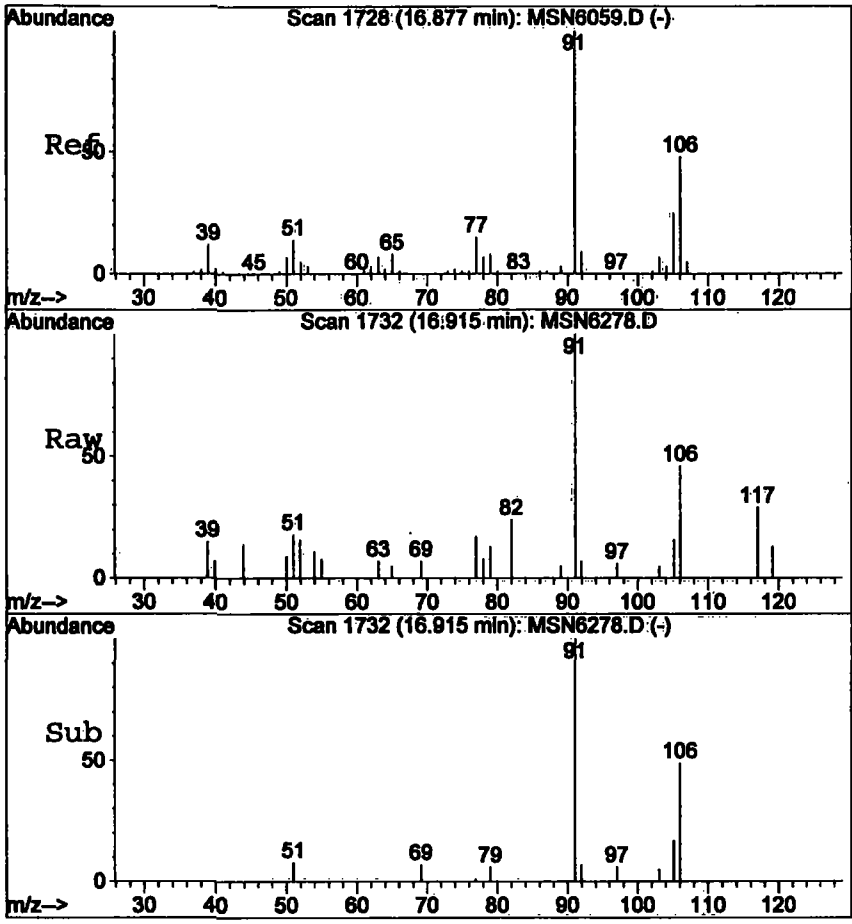




#45
tetrachloroethene
Concen: 4.14 ug/Kg
RT: 14.99 min Scan# 1528
Delta R.T. 0.06 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:166 Resp: 38822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 168 | 44.1 | 26.3 | 66.3 |
| 129 | 59.0 | 48.8 | 88.8 |
| 0 | 0.0 | 0.0 | 0.0 |

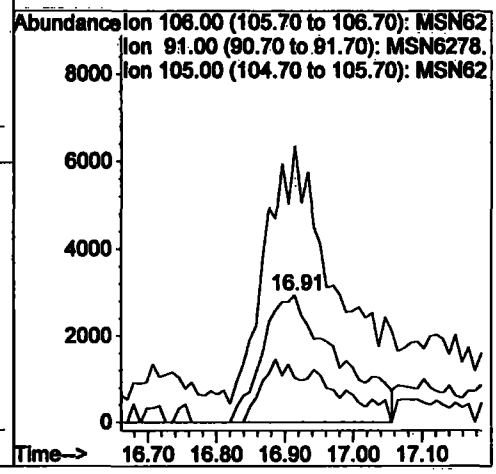


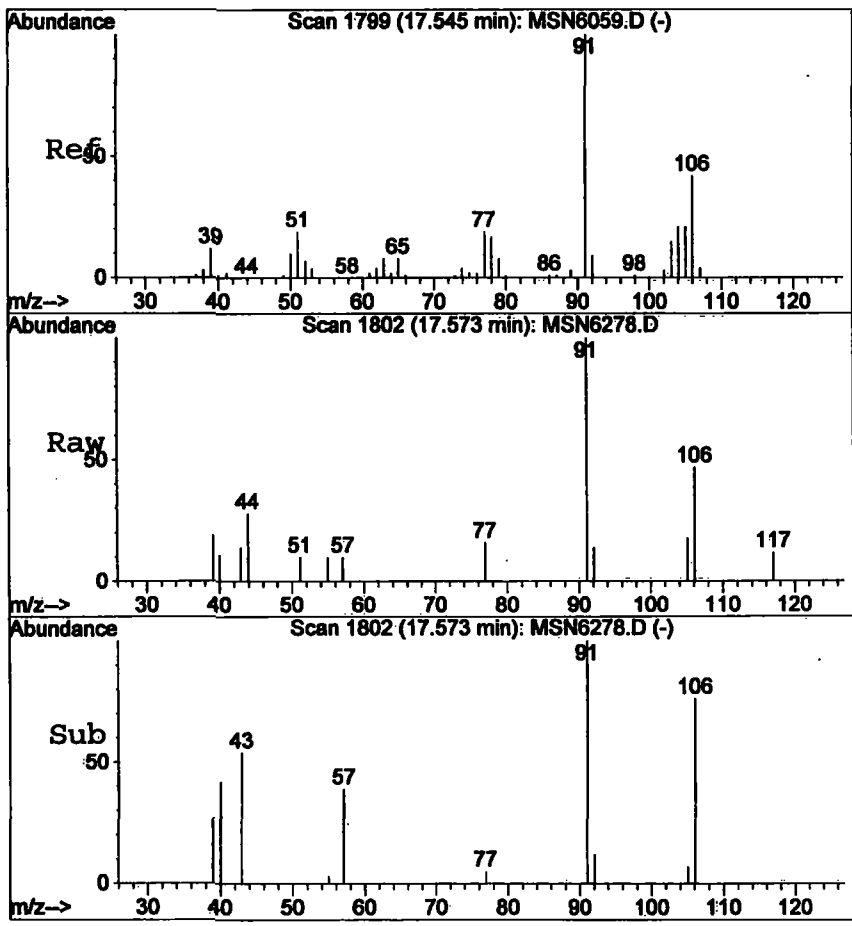



#50
m,p-xylene
Concen: 2.75 ug/Kg
RT: 16.91 min Scan# 1732
Delta R.T. 0.03 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:106 Resp: 22433

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 190.6 | 192.8 | 232.8# |
| 105 | 35.1 | 31.8 | 71.8 |
| 0 | 0.0 | 0.0 | 0.0 |

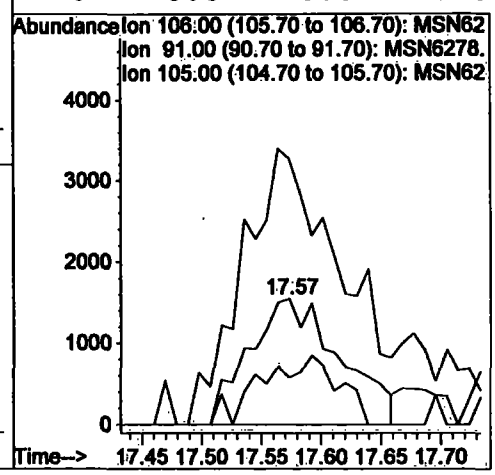


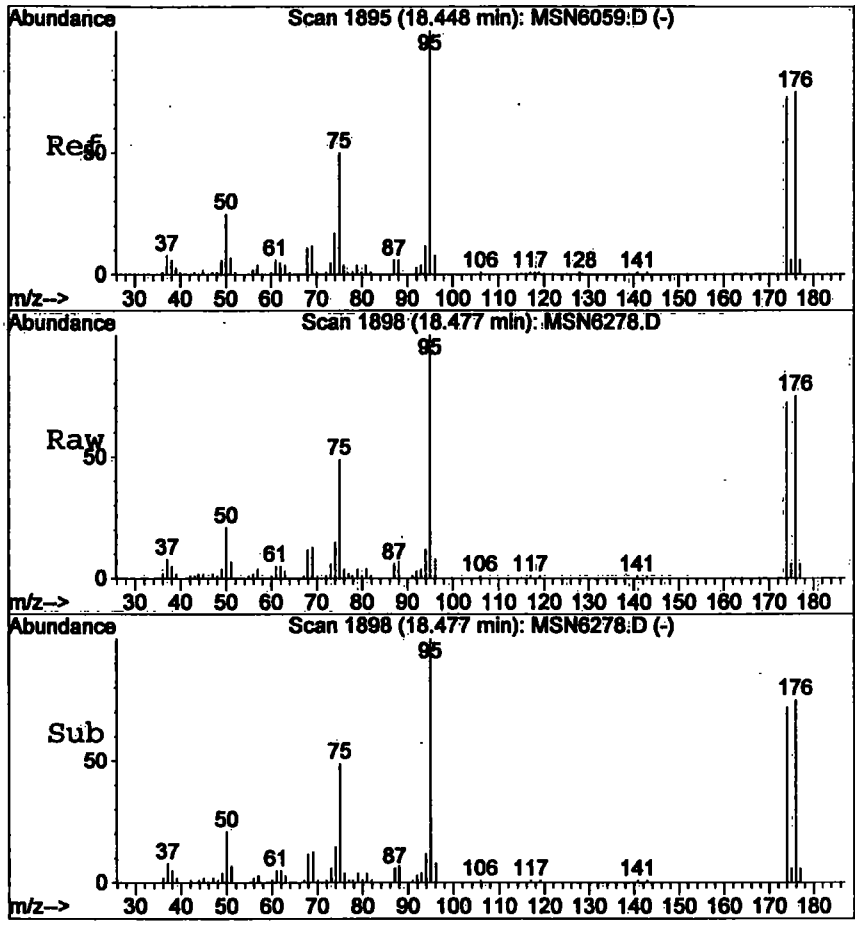




#51
o-xylene
Concen: 1.06 ug/Kg
RT: 17.57 min Scan# 1802
Delta R.T. 0.03 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:106 Resp: 8182

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 181.4 | 220.1 | 260.1# |
| 105 | 37.2 | 29.5 | 69.5 |
| 0 | 0.0 | 0.0 | 0.0 |

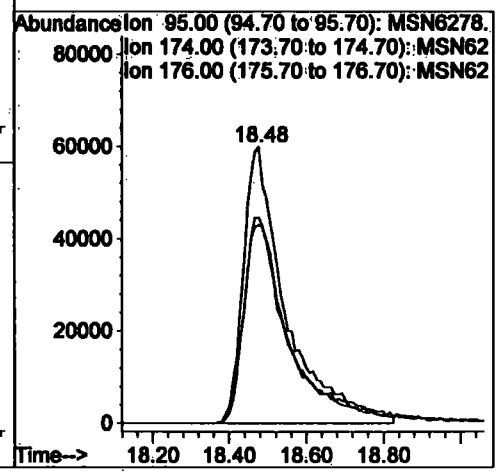





#56
4-bromofluorobenzene
Concen: 52.95 ug/Kg
RT: 18.48 min Scan# 1898
Delta R.T. 0.03 min
Lab File: MSN6278.D
Acq: 30 Oct 97 10:17

Tgt Ion:95 Resp: 456322

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 71.9 | 53.0 | 93.0 |
| 176 | 74.5 | 54.6 | 94.6 |
| 0 | 0.0 | 0.0 | 0.0 |



# Daily Tunes

# Form V

FORM VA
VOLATILE ORGANICS GC/MS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Lab File ID: NBFB671 | Batch No.: L72972540 |
| Instrument ID: MSN | BFB Injection Date: 10/21/97 |
| | BFB Injection Time: 13:57 |

| m/e | | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0 % of mass 95 | 23.3 |
| 75 | 30.0 - 66.0 % of mass 95 | 53.6 |
| 95 | Base peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0 % of mass 95 | 8.1 |
| 173 | Less than 2.0 % of mass 174 | 0.6 (0.7)1 |
| 174 | 50.0 - 120.0 of mass 95 | 82.8 |
| 175 | 4.0 - 9.0 % of mass 174 | 6.4 (7.7)1 |
| 176 | 93.0 - 101.0 % of mass 174 | 81.4 (98.4)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.2 (7.6)2 |

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| 01 | 5PT-TCLSoil-5PPB | MSN6057 | 10/21/97 | 14:16 |
| 02 | 5PT-TCLSoil-10PPB | MSN6058 | 10/21/97 | 14:52 |
| 03 | 5PT-TCLSoil-50PPB | MSN6059 | 10/21/97 | 15:29 |
| 04 | 5PT-TCLSoil-100PPB | MSN6060 | 10/21/97 | 16:08 |
| 05 | 5PT-TCLSoil-200PPB | MSN6061 | 10/21/97 | 16:47 |
| 06 | | | | |
| 07 | | | | |
| 08 | | | | |
| 09 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
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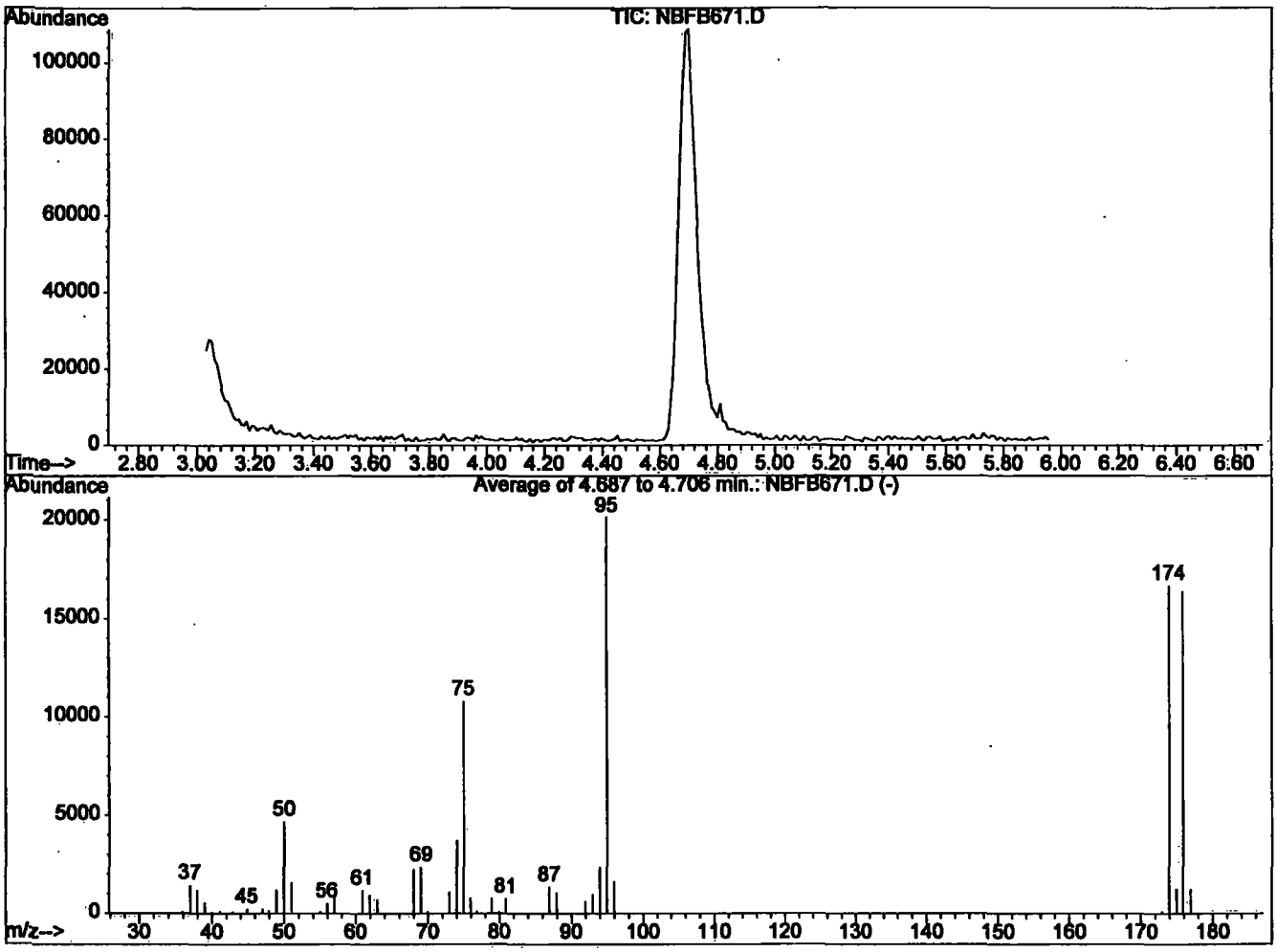
| 21 | | | | |
| 22 | | | | |

BFB

Data File : K:\CHEMSTN\MSN\DATA\QN2772\NBFB671.D  Vial: 1
Acq On : 21 Oct 97 13:57  Operator:
Sample :  Inst : GC/MS Ins
Misc :  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\NBFBCK.M
Title : SW-846 Method 8260




AutoFind: Scans 177, 178, 179; Background Corrected with Scan 167

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 23.3 | 4689 | PASS |
| 75 | 95 | 30 | 60 | 53.6 | 10807 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 20152 | PASS |
| 96 | 95 | 5 | 9 | 8.1 | 1636 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 112 | PASS |
| 174 | 95 | 50 | 100 | 82.8 | 16680 | PASS |
| 175 | 174 | 5 | 9 | 7.7 | 1281 | PASS |
| 176 | 174 | 95 | 101 | 98.4 | 16408 | PASS |
| 177 | 176 | 5 | 9 | 7.6 | 1249 | PASS |

NBFB671.D NBFBCK.M Tue Oct 21 14:03:59 1997

FORM VA
VOLATILE ORGANICS GC/MS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Lab File ID: NBFB689 | Batch No.: L72972500 |
| Instrument ID: MSN | BFB Injection Date: 10/29/97 |
| | BFB Injection Time: 15:54 |

| m/e | | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0 % of mass 95 | 23.9 |
| 75 | 30.0 - 66.0 % of mass 95 | 49.3 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 8.0 |
| 173 | Less than 2.0 % of mass 174 | 0.0 (0.0)1 |
| 174 | 50.0 - 120.0 of mass 95 | 77.3 |
| 175 | 4.0 - 9.0 % of mass 174 | 6.0 (7.8)1 |
| 176 | 93.0 - 101.0 % of mass 174 | 75.3 (97.3)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.6 (7.4)2 |

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| 01 | VN102997 | MSN6260 | 10/29/97 | 16:36 |
| 02 | L72972500-001 | MSN6269 | 10/29/97 | 22:17 |
| 03 | L72972500-002 | MSN6271 | 10/29/97 | 23:34 |
| 04 | L72972500-003 | MSN6270 | 10/29/97 | 22:56 |
| 05 | L72972500-004 | MSN6272 | 10/30/97 | 0:12 |
| 06 | L72972556-002MS | MSN6275 | 10/30/97 | 2:08 |
| 07 | L72972556-002MD | MSN6276 | 10/30/97 | 2:46 |
| 08 | | | | |
| 09 | | | | |
| 10 | | | | |
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| 13 | | | | |
| 14 | | | | |
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| 18 | | | | |
| 19 | | | | |
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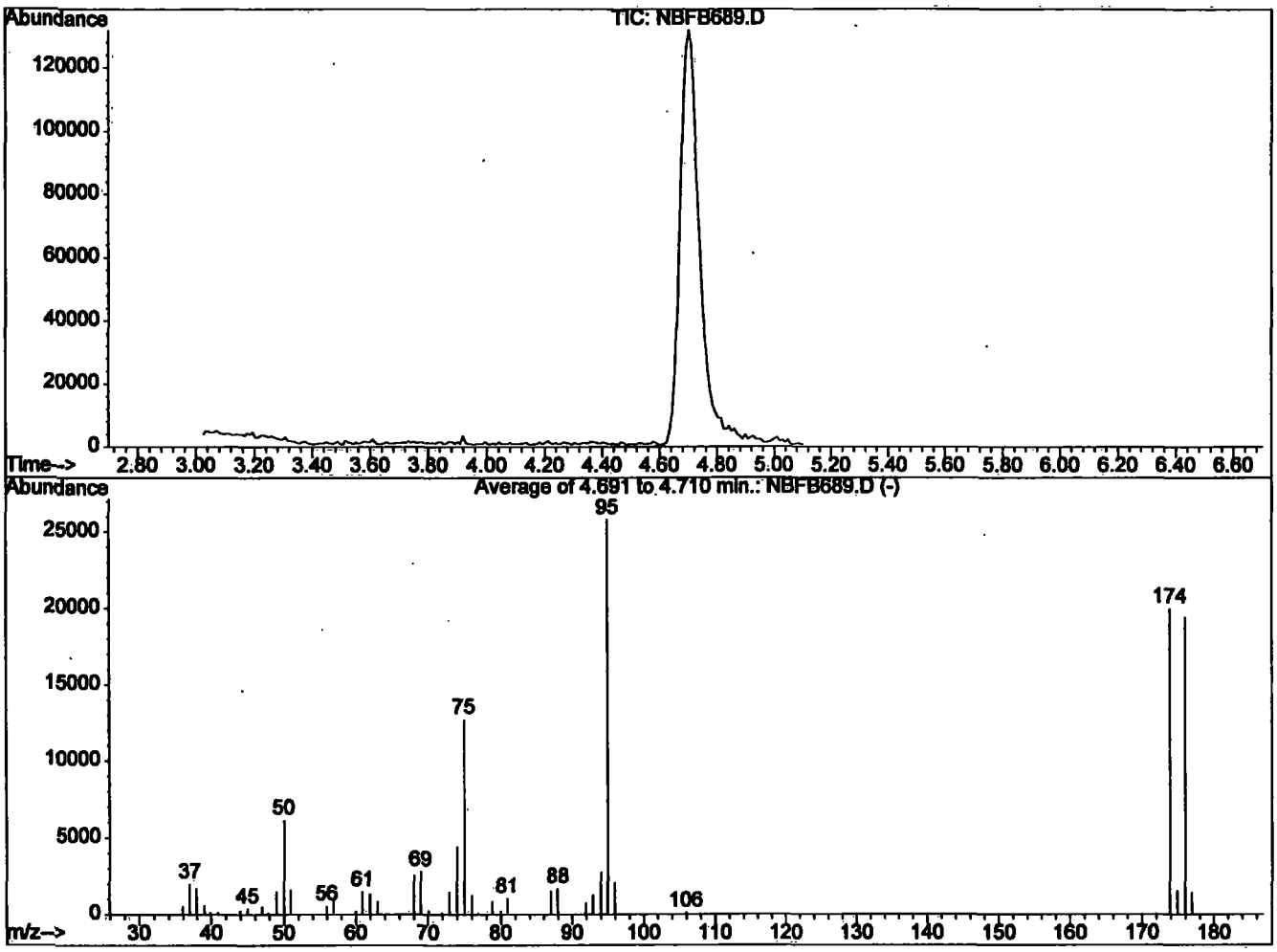
| 21 | | | | |
| 22 | | | | |

BFB

Data File : K:\CHEMSTN\MSN\DATA\QN2785\NBFB689.D  Vial: 1
Acq On : 29 Oct 97 15:54  Operator:
Sample :  Inst : GC/MS Ins
Misc :  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\NBFBCK.M
Title : SW-846 Method 8260




AutoFind: Scans 178, 179, 180; Background Corrected with Scan 169

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 23.9 | 6187 | PASS |
| 75 | 95 | 30 | 60 | 49.3 | 12743 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 25859 | PASS |
| 96 | 95 | 5 | 9 | 8.0 | 2076 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 77.3 | 19995 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 1565 | PASS |
| 176 | 174 | 95 | 101 | 97.3 | 19461 | PASS |
| 177 | 176 | 5 | 9 | 7.4 | 1437 | PASS |

NBFB689.D NBFBCK.M Wed Oct 29 16:00:13 1997

FORM VA
VOLATILE ORGANICS GC/MS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE

| | |
|---|---|
| Lab Name: AEN | Client Name: Ecology & Environment |
| Lab File ID: NBFB690 | Batch No.: L72972500 |
| Instrument ID: MSN | BFB Injection Date: 10/30/97 |
| | BFB Injection Time: 8:58 |

| m/e | | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0 % of mass 95 | 22.3 |
| 75 | 30.0 - 66.0 % of mass 95 | 49.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 7.7 |
| 173 | Less than 2.0 % of mass 174 | 0.0 (0.0)1 |
| 174 | 50.0 - 120.0 of mass 95 | 77.9 |
| 175 | 4.0 - 9.0 % of mass 174 | 5.5 (7.0)1 |
| 176 | 93.0 - 101.0 % of mass 174 | 78.6 (100.8)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.1 (6.5)2 |

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| 01 | VN103097 | MSN6278 | 10/30/97 | 10:17 |
| 02 | L72972500-001DL | MSN6284 | 10/30/97 | 13:38 |
| 03 | L72972500-002DL | MSN6285 | 10/30/97 | 14:10 |
| 04 | L72972500-003DL | MSN6286 | 10/30/97 | 14:43 |
| 05 | L72972500-004DL | MSN6287 | 10/30/97 | 15:15 |
| 06 | | | | |
| 07 | | | | |
| 08 | | | | |
| 09 | | | | |
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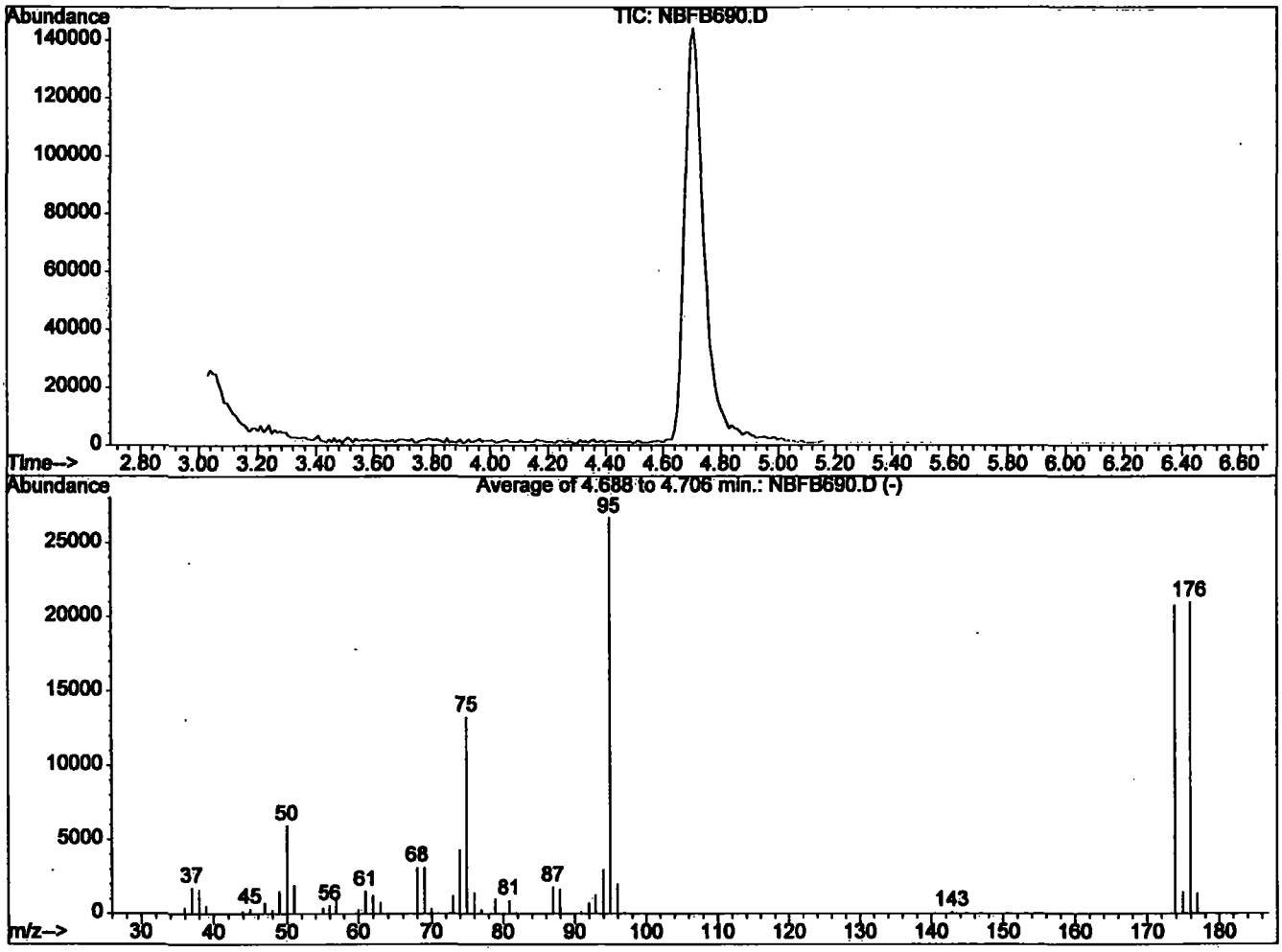
| 22 | | | | |

BFB

Data File : K:\CHEMSTN\MSN\DATA\QN2786\NBFB690.D  Vial: 1
Acq On : 30 Oct 97 8:58  Operator:
Sample :  Inst : GC/MS Ins
Misc :  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\NBFBCK.M
Title : SW-846 Method 8260




AutoFind: Scans 177, 178, 179; Background Corrected with Scan 168

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 22.3 | 5957 | PASS |
| 75 | 95 | 30 | 60 | 49.7 | 13285 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 26739 | PASS |
| 96 | 95 | 5 | 9 | 7.7 | 2052 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 77.9 | 20835 | PASS |
| 175 | 174 | 5 | 9 | 7.0 | 1460 | PASS |
| 176 | 174 | 95 | 101 | 100.8 | 21008 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 1375 | PASS |

NBFB690.D NBFBCK.M Thu Oct 30 09:03:57 1997

# Initial Calibration

# Form VI

Response Factor Report GC/MS Ins

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Initial Calibration

Calibration Files
5ppb =MSN6057.D 10 =MSN6058.D 50 =MSN6059.D
100 =MSN6060.D 200 =MSN6061.D

* - not calibrated
Tan 10/22/97

| | | Compound | 5ppb | 10 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | |
| 2) | T | dichlorodifluorometha | 2.179 | 2.234 | 2.057 | 1.856 | 1.726 | 2.010 | 10.72 |
| 3) | T,P | chloromethane | 1.220 | 1.216 | 1.160 | 1.107 | 1.023 | 1.145 | 7.21 |
| 4) | T,C | vinyl chloride | 1.329 | 1.387 | 1.286 | 1.224 | 1.128 | 1.271 | 7.84 |
| 5) | T | bromomethane | 1.070 | 0.890 | 0.894 | 0.793 | 0.730 | 0.875 | 14.74 |
| 6) | T | chloroethane | 0.648 | 0.546 | 0.531 | 0.440 | 0.424 | 0.518 | 17.48 |
| 7) | T | trichlorofluoromethan | 2.263 | 2.078 | 1.995 | 1.245 | 1.218 | 1.760 | 27.96 |
| 8) | T | 1,1,2-trichlorotriflu | 2.844 | 2.896 | 2.572 | 2.370 | 2.167 | 2.570 | 12.06 |
| 9) | T | ethyl ether | 2.844 | 2.896 | 2.572 | 2.370 | 2.167 | 0.000 | -1.00 * |
| 10) | T | acrolein | 0.214 | 0.228 | 0.148 | 0.171 | 0.152 | 0.183 | 19.91 |
| 11) | T,C,M | 1,1-dichloroethene | 1.453 | 1.496 | 1.339 | 1.225 | 1.127 | 1.328 | 11.60 |
| 12) | T | acetone | 0.785 | 0.802 | 0.653 | 0.680 | 0.556 | 0.695 | 14.52 |
| 13) | T | carbon disulfide | 3.576 | 3.559 | 3.374 | 3.355 | 3.190 | 3.411 | 4.69 |
| 14) | T | methylene chloride | 1.514 | 1.540 | 1.358 | 1.282 | 1.186 | 1.376 | 10.96 |
| 15) | T | acrylonitrile | 0.631 | 0.714 | 0.603 | 0.654 | 0.578 | 0.636 | 8.20 |
| 16) | T | trans-1,2-dichloroeth | 1.647 | 1.625 | 1.520 | 1.458 | 1.305 | 1.511 | 9.17 |
| 17) | T | mtbe | 4.397 | 4.677 | 4.160 | 4.055 | 3.881 | 4.234 | 7.33 |
| 18) | T | N-hexane | 2.066 | 2.182 | 1.885 | 1.821 | 1.720 | 1.935 | 9.68 |
| 19) | T,P | 1,1-dichloroethane | 2.627 | 2.777 | 2.502 | 2.049 | 1.840 | 2.359 | 16.85 |
| 20) | T | vinyl acetate | 1.114 | 1.411 | 1.194 | 1.223 | 1.141 | 1.217 | 9.61 |
| 21) | T | cis-1,2-dichloroethen | 1.789 | 1.840 | 1.697 | 1.569 | 1.441 | 1.667 | 9.78 |
| 22) | T | ethyl acetate | 1.789 | 1.840 | 1.697 | 1.569 | 1.441 | 0.000 | -1.00 * |
| 23) | T | 2-butanone | 1.329 | 1.363 | 1.159 | 1.427 | 1.190 | 1.294 | 8.86 |
| 24) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | |
| 25) | T,C | chloroform | 0.734 | 0.721 | 0.673 | 0.572 | 0.485 | 0.637 | 16.68 |
| 26) | T | 1,1,1-trichloroethane | 0.616 | 0.570 | 0.534 | 0.515 | 0.502 | 0.547 | 8.39 |
| 27) | T | 2-methyl-1-propanol | 0.616 | 0.570 | 0.534 | 0.515 | 0.502 | 0.000 | -1.00 * |
| 28) | T | carbon tetrachloride | 0.489 | 0.461 | 0.439 | 0.434 | 0.417 | 0.448 | 6.19 |
| 29) | S | 1,2-dichloroethane-d4 | 0.422 | 0.454 | 0.412 | 0.399 | 0.381 | 0.413 | 6.67 |
| 30) | T,M | benzene | 1.082 | 1.084 | 0.971 | 0.925 | 0.914 | 0.995 | 8.31 |
| 31) | T | 1,2-dichloroethane | 0.503 | 0.490 | 0.444 | 0.431 | 0.409 | 0.455 | 8.75 |
| 32) | T | n-butyl alcohol | 0.503 | 0.490 | 0.444 | 0.431 | 0.409 | 0.000 | -1.00 * |
| 33) | T,M | trichloroethene | 0.457 | 0.460 | 0.414 | 0.412 | 0.396 | 0.428 | 6.79 |
| 34) | T,C | 1,2-dichloropropane | 0.401 | 0.413 | 0.383 | 0.370 | 0.361 | 0.386 | 5.59 |
| 35) | T | bromodichloromethane | 0.482 | 0.494 | 0.507 | 0.513 | 0.507 | 0.500 | 2.45 |
| 36) | T | 2-nitro-propane | 0.482 | 0.494 | 0.507 | 0.513 | 0.507 | 0.000 | -1.00 * |
| 37) | T | 2-chloroethyl vinyl e | 0.274 | 0.278 | 0.279 | 0.283 | 0.277 | 0.278 | 1.28 |
| 38) | T | cis-1,3-dichloroprope | 0.452 | 0.467 | 0.478 | 0.484 | 0.471 | 0.470 | 2.54 |
| 39) | T | 4-methyl-2-pentanone | 0.527 | 0.522 | 0.512 | 0.597 | 0.515 | 0.535 | 6.65 |
| 40) | S | toluene-d8 | 0.958 | 1.006 | 0.944 | 0.921 | 0.894 | 0.945 | 4.46 |
| 41) | T,C,M | toluene | 0.601 | 0.622 | 0.567 | 0.567 | 0.548 | 0.581 | 5.11 |

(#) = Out of Range

Response Factor Report GC/MS Ins

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Initial Calibration

Calibration Files
5ppb =MSN6057.D 10 =MSN6058.D 50 =MSN6059.D
100 =MSN6060.D 200 =MSN6061.D

| | | Compound | 5ppb | 10 | 50 | 100 | 200 | Avg | %RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42) | I | chlorobenzene-d5 | ----------ISTD---------- | | | | | | | |
| 43) | T | trans-1,3-dichloropro | 0.615 | 0.597 | 0.612 | 0.632 | 0.616 | 0.614 | 2.01 | |
| 44) | T | 1,1,2-trichloroethane | 0.502 | 0.503 | 0.451 | 0.460 | 0.436 | 0.470 | 6.52 | |
| 45) | T | tetrachloroethene | 0.652 | 0.670 | 0.576 | 0.590 | 0.564 | 0.610 | 7.79 | |
| 46) | T | 2-hexanone | 0.533 | 0.466 | 0.520 | 0.630 | 0.505 | 0.531 | 11.45 | |
| 47) | T | dibromochloromethane | 0.489 | 0.534 | 0.526 | 0.560 | 0.552 | 0.532 | 5.23 | |
| 48) | T,P, | Mchlorobenzene | 1.047 | 1.065 | 0.967 | 0.964 | 0.916 | 0.992 | 6.28 | |
| 49) | T,C | ethylbenzene | 1.581 | 1.549 | 1.454 | 1.445 | 1.368 | 1.479 | 5.80 | |
| 50) | T | m,p-xylene | 0.600 | 0.522 | 0.523 | 0.525 | 0.485 | 0.531 | 7.90 | |
| 51) | T | o-xylene | 0.527 | 0.532 | 0.491 | 0.489 | 0.465 | 0.501 | 5.62 | |
| 52) | T | styrene | 0.873 | 0.915 | 0.855 | 0.863 | 0.794 | 0.860 | 5.07 | |
| 53) | T,P | bromoform | 0.264 | 0.296 | 0.358 | 0.378 | 0.368 | 0.333 | 14.99 | |
| 54) | T | cumene | 0.264 | 0.296 | 0.358 | 0.378 | 0.368 | 0.000 | -1.00 | * |
| 55) | T | cyclohexanone | 0.264 | 0.296 | 0.358 | 0.378 | 0.368 | 0.000 | -1.00 | * |
| 56) | S | 4-bromofluorobenzene | 0.573 | 0.568 | 0.578 | 0.560 | 0.531 | 0.562 | 3.31 | |
| 57) | T,P | 1,1,2,2-tetrachloroet | 0.759 | 0.779 | 0.738 | 0.751 | 0.656 | 0.737 | 6.44 | ? |
| 58) | T | vinyltoluene | 0.759 | 0.779 | 0.738 | 0.751 | 0.656 | 0.000 | -1.00 | * |
| 59) | T | 1,2,4-trimethylbenzen | 1.500 | 1.534 | 1.090 | 1.069 | 1.007 | 1.240 | 20.56 | |
| 60) | T | 1,3-dichlorobenzene | 0.702 | 0.723 | 0.651 | 0.623 | 0.594 | 0.659 | 8.13 | |
| 61) | T | 1,4-dichlorobenzene | 0.906 | 0.838 | 0.736 | 0.708 | 0.649 | 0.767 | 13.45 | |
| 62) | T | 1,2-dichlorobenzene | 0.778 | 0.699 | 0.622 | 0.608 | 0.539 | 0.649 | 14.12 | |
| 63) | T | naphthalene | 0.778 | 0.699 | 0.622 | 0.608 | 0.539 | 0.000 | -1.00 | * |

?

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6057.D Vial: 3
Acq On : 21 Oct 97 14:16 Operator: tcm
Sample : 5pt-tclsoil+-5ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:19 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.83 | 128 | 360811 | 50.00 ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 9.97 | 114 | 1468890 | 50.00 ug/Kg | -0.05 |
| 42) chlorobenzene-d5 | 16.38 | 117 | 938301 | 50.00 ug/Kg | -0.02 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.55 | 65 | 61970 | 5.09 ug/Kg | -0.06 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = 10.18%# | |
| 40) toluene-d8 | 13.66 | 98 | 140690 | 4.81 ug/Kg | -0.06 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = 9.62%# | |
| 56) 4-bromofluorobenzene | 18.47 | 95 | 53732 | 4.81 ug/Kg | 0.00 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = 9.62%# | |

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.36 | 85 | 78629m | 5.89 ug/Kg | 0 |
| 3) chloromethane | 1.56 | 50 | 44022 | 4.57 ug/Kg | 89 |
| 4) vinyl chloride | 1.62 | 62 | 47936m | 5.46 ug/Kg | 0 |
| 5) bromomethane | 1.94 | 94 | 38621 | 5.13 ug/Kg | 98 |
| 6) chloroethane | 2.06 | 64 | 23380m | 5.98 ug/Kg | 0 |
| 7) trichlorofluoromethane | 2.35 | 101 | 81654m | 5.53 ug/Kg | 85 |
| 8) 1,1,2-trichlorotrifluoroet | 2.97 | 101 | 102622m | 6.59 ug/Kg | 0 |
| 10) acrolein | 2.81 | 56 | 15462m | 8.10 ug/Kg | 87 |
| 11) 1,1-dichloroethene | 2.95 | 96 | 52430 | 4.69 ug/Kg | 98 |
| 12) acetone | 3.00 | 43 | 28337 | 5.18 ug/Kg | 84 |
| 13) carbon disulfide | 3.26 | 76 | 129014 | 4.80 ug/Kg | 100 |
| 14) methylene chloride | 3.63 | 84 | 54631 | 5.29 ug/Kg | 98 |
| 15) acrylonitrile | 4.00 | 53 | 22757 | 5.20 ug/Kg | 79 |
| 16) trans-1,2-dichloroethene | 4.11 | 96 | 59440 | 5.68 ug/Kg | 93 |
| 17) mtbe | 4.12 | 73 | 158657 | 8.07 ug/Kg | 97 |
| 18) N-hexane | 4.68 | 57 | 74534 | 6.61 ug/Kg | 90 |
| 19) 1,1-dichloroethane | 4.80 | 63 | 94801 | 6.74 ug/Kg | 97 |
| 20) vinyl acetate | 4.67 | 43 | 40210 | 5.33 ug/Kg | 75 |
| 21) cis-1,2-dichloroethene | 6.15 | 96 | 64565m | 5.48 ug/Kg | 89 |
| 23) 2-butanone | 6.25 | 43 | 47945m | 6.18 ug/Kg | 66 |
| 25) chloroform | 6.97 | 83 | 107808 | 5.47 ug/Kg | 95 |
| 26) 1,1,1-trichloroethane | 7.57 | 97 | 90429m | 6.82 ug/Kg | 90 |
| 28) carbon tetrachloride | 8.18 | 117 | 71842m | 6.45 ug/Kg | 96 |
| 30) benzene | 8.68 | 78 | 158878 | 5.59 ug/Kg | 99 |
| 31) 1,2-dichloroethane | 8.78 | 62 | 73869m | 5.82 ug/Kg | 94 |
| 33) trichloroethene | 10.66 | 95 | 67075 | 5.04 ug/Kg | 90 |
| 34) 1,2-dichloropropane | 11.20 | 63 | 58841 | 5.91 ug/Kg | 97 |
| 35) bromodichloromethane | 11.96 | 83 | 70833 | 5.05 ug/Kg | 95 |
| 37) 2-chloroethyl vinyl ether | 12.98 | 63 | 40185m | 9.38 ug/Kg | 98 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6057.D Vial: 3
Acq On : 21 Oct 97 14:16 Operator: tcm
Sample : 5pt-tclsoil+-5ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:19 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

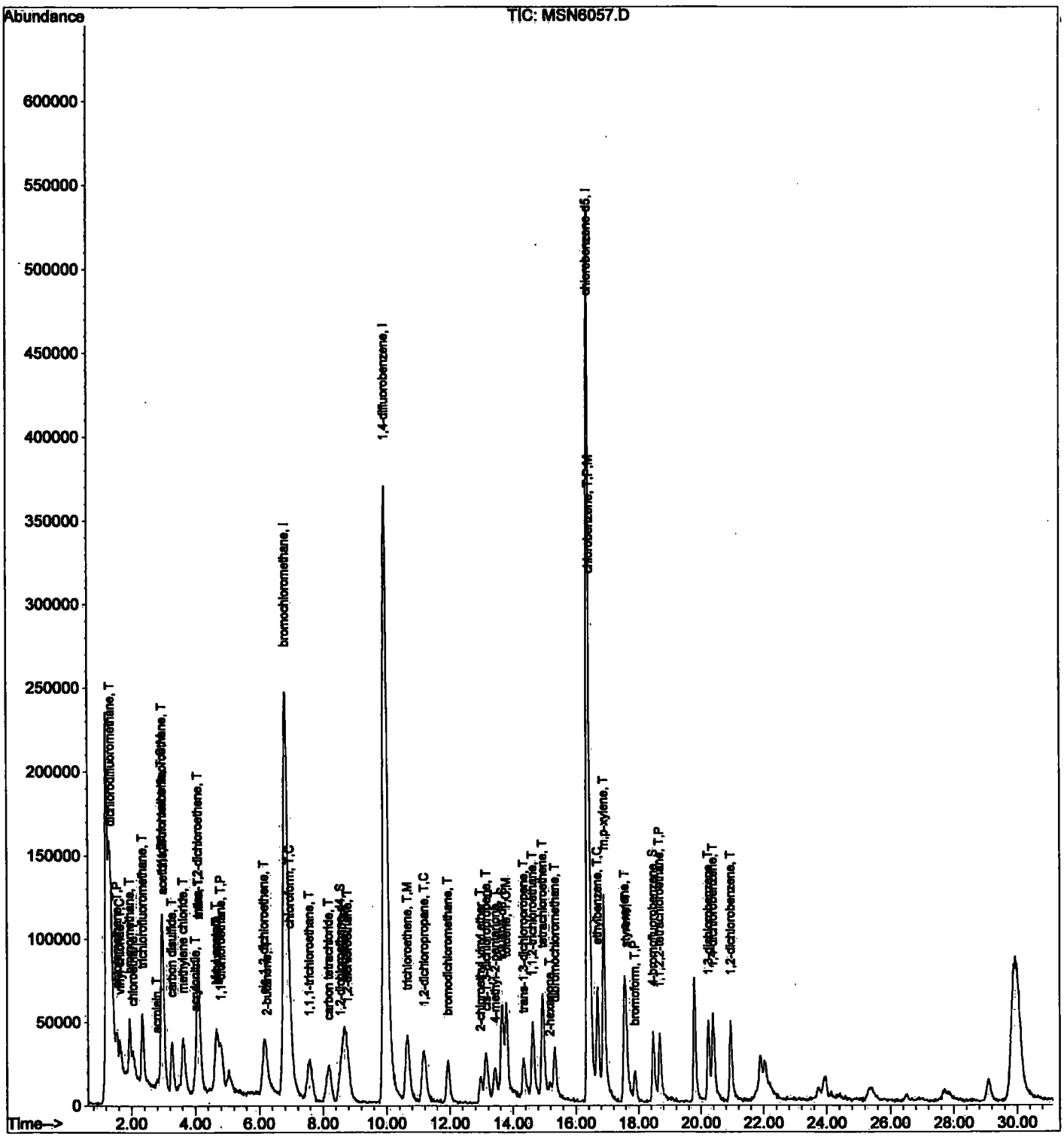
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.16 | 75 | 66446 | 5.69 ug/Kg | 96 |
| 39) | 4-methyl-2-pentanone | 13.43 | 43 | 77381m | 4.94 ug/Kg | 93 |
| 41) | toluene | 13.79 | 92 | 88289m | 5.03 ug/Kg | 94 |
| 43) | trans-1,3-dichloropropene | 14.34 | 75 | 57665 | 6.48 ug/Kg | 97 |
| 44) | 1,1,2-trichloroethane | 14.63 | 83 | 47147m | 5.97 ug/Kg | 89 |
| 45) | tetrachloroethene | 14.96 | 166 | 61141 | 5.21 ug/Kg | 93 |
| 46) | 2-hexanone | 15.18 | 43 | 50043m | 5.34 ug/Kg | 92 |
| 47) | dibromochloromethane | 15.34 | 129 | 45865 | 4.77 ug/Kg | 95 |
| 48) | chlorobenzene | 16.44 | 112 | 98240 | 5.10 ug/Kg | 99 |
| 49) | ethylbenzene | 16.68 | 91 | 148338 | 5.45 ug/Kg | 97 |
| 50) | m,p-xylene | 16.91 | 106 | 112542 | 11.38 ug/Kg | 97 |
| 51) | o-xylene | 17.55 | 106 | 49493 | 5.00 ug/Kg | 99 |
| 52) | styrene | 17.61 | 104 | 81914 | 4.86 ug/Kg | 100 |
| 53) | bromoform | 17.89 | 173 | 24793 | 3.38 ug/Kg | 85 |
| 57) | 1,1,2,2-tetrachloroethane | 18.67 | 83 | 71178 | 5.12 ug/Kg | 95 |
| 60) | 1,3-dichlorobenzene | 20.25 | 146 | 65848 | 5.14 ug/Kg | 96 |
| 61) | 1,4-dichlorobenzene | 20.40 | 146 | 84972 | 5.47 ug/Kg | 93 |
| 62) | 1,2-dichlorobenzene | 20.95 | 146 | 72973 | 5.70 ug/Kg | 95 |

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

# Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6057.D  Vial: 3
Acq On : 21 Oct 97 14:16  Operator: tcm
Sample : 5pt-tclsoil+-5ppb  Inst : GC/MS Ins
Misc : VN102197  Multiplr: 1.00
Quant Time: Oct 22 8:19 1997  Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Multiple Level Calibration



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6058.D Vial: 4
Acq On : 21 Oct 97 14:52 Operator: tcm
Sample : 5pt-tclsoil+-10ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:19 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.83 | 128 | 313879 | 50.00 | ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 9.96 | 114 | 1334137 | 50.00 | ug/Kg | -0.06 |
| 42) chlorobenzene-d5 | 16.38 | 117 | 870873 | 50.00 | ug/Kg | -0.02 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.54 | 65 | 121235 | 10.96 | ug/Kg | -0.07 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 21.92%# | | | |
| 40) toluene-d8 | 13.64 | 98 | 268509 | 10.10 | ug/Kg | -0.08 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 20.20%# | | | |
| 56) 4-bromofluorobenzene | 18.47 | 95 | 98921 | 9.55 | ug/Kg | 0.00 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 19.10%# | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.36 | 85 | 140266m | 12.07 | ug/Kg | 0 |
| 3) chloromethane | 1.56 | 50 | 76361 | 9.10 | ug/Kg | 95 |
| 4) vinyl chloride | 1.63 | 62 | 87047m | 11.39 | ug/Kg | 0 |
| 5) bromomethane | 1.94 | 94 | 55892 | 8.53 | ug/Kg | 93 |
| 6) chloroethane | 2.06 | 64 | 34303m | 10.08 | ug/Kg | 0 |
| 7) trichlorofluoromethane | 2.33 | 101 | 130438m | 10.15 | ug/Kg | 97 |
| 8) 1,1,2-trichlorotrifluoroet | 2.97 | 101 | 181793m | 13.42 | ug/Kg | 0 |
| 10) acrolein | 2.81 | 56 | 28580m | 17.21 | ug/Kg | 79 |
| 11) 1,1-dichloroethene | 2.95 | 96 | 93897 | 9.65 | ug/Kg | 91 |
| 12) acetone | 3.01 | 43 | 50322 | 10.58 | ug/Kg | 87 |
| 13) carbon disulfide | 3.26 | 76 | 223435 | 9.55 | ug/Kg | 99 |
| 14) methylene chloride | 3.63 | 84 | 96662 | 10.76 | ug/Kg | 91 |
| 15) acrylonitrile | 4.00 | 53 | 44808m | 11.78 | ug/Kg | 88 |
| 16) trans-1,2-dichloroethene | 4.09 | 96 | 102024 | 11.20 | ug/Kg | 90 |
| 17) mtbe | 4.11 | 73 | 293629 | 17.16 | ug/Kg | 98 |
| 18) N-hexane | 4.66 | 57 | 137005 | 13.98 | ug/Kg | 99 |
| 19) 1,1-dichloroethane | 4.80 | 63 | 174353 | 14.24 | ug/Kg | 99 |
| 20) vinyl acetate | 4.67 | 43 | 88594 | 13.49 | ug/Kg | 90 |
| 21) cis-1,2-dichloroethene | 6.16 | 96 | 115487 | 11.27 | ug/Kg | 92 |
| 23) 2-butanone | 6.24 | 43 | 85556 | 12.67 | ug/Kg | 94 |
| 25) chloroform | 6.98 | 83 | 192416 | 10.74 | ug/Kg | 98 |
| 26) 1,1,1-trichloroethane | 7.58 | 97 | 152142 | 12.63 | ug/Kg | 91 |
| 28) carbon tetrachloride | 8.18 | 117 | 122926 | 12.16 | ug/Kg | 97 |
| 30) benzene | 8.66 | 78 | 289181 | 11.20 | ug/Kg | 98 |
| 31) 1,2-dichloroethane | 8.77 | 62 | 130774 | 11.35 | ug/Kg | 92 |
| 33) trichloroethene | 10.63 | 95 | 122835 | 10.17 | ug/Kg | 89 |
| 34) 1,2-dichloropropane | 11.18 | 63 | 110323 | 12.19 | ug/Kg | 89 |
| 35) bromodichloromethane | 11.94 | 83 | 131813 | 10.35 | ug/Kg | 88 |
| 37) 2-chloroethyl vinyl ether | 12.94 | 63 | 74050m | 19.04 | ug/Kg | 96 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6058.D Vial: 4
Acq On : 21 Oct 97 14:52 Operator: tcm
Sample : 5pt-tclsoil+-10ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:19 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

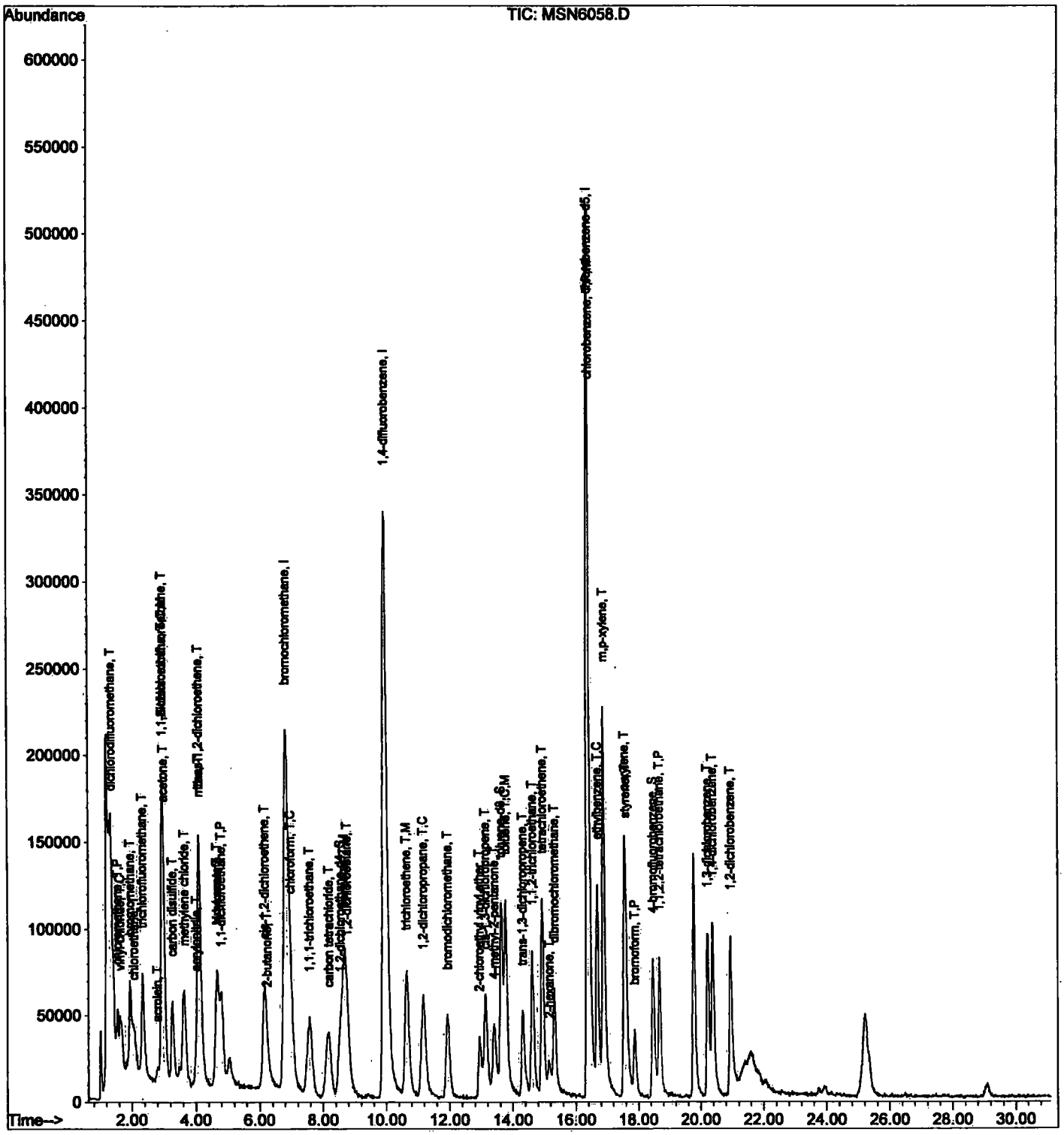
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.13 | 75 | 124527 | 11.75 ug/Kg | 94 |
| 39) | 4-methyl-2-pentanone | 13.41 | 43 | 139240 | 9.80 ug/Kg# | 90 |
| 41) | toluene | 13.77 | 92 | 165887 | 10.41 ug/Kg | 96 |
| 43) | trans-1,3-dichloropropene | 14.32 | 75 | 103970 | 12.60 ug/Kg | 94 |
| 44) | 1,1,2-trichloroethane | 14.63 | 83 | 87557 | 11.94 ug/Kg | 93 |
| 45) | tetrachloroethene | 14.95 | 166 | 116773 | 10.72 ug/Kg | 91 |
| 46) | 2-hexanone | 15.17 | 43 | 81158m | 9.33 ug/Kg | 98 |
| 47) | dibromochloromethane | 15.33 | 129 | 93045 | 10.43 ug/Kg | 93 |
| 48) | chlorobenzene | 16.43 | 112 | 185548 | 10.38 ug/Kg | 94 |
| 49) | ethylbenzene | 16.69 | 91 | 269825 | 10.69 ug/Kg | 93 |
| 50) | m,p-xylene | 16.89 | 106 | 181979 | 19.83 ug/Kg | 97 |
| 51) | o-xylene | 17.56 | 106 | 92650 | 10.09 ug/Kg | 94 |
| 52) | styrene | 17.60 | 104 | 159395 | 10.19 ug/Kg | 98 |
| 53) | bromoform | 17.88 | 173 | 51592 | 7.58 ug/Kg | 96 |
| 57) | 1,1,2,2-tetrachloroethane | 18.68 | 83 | 135686 | 10.52 ug/Kg | 98 |
| 60) | 1,3-dichlorobenzene | 20.22 | 146 | 125949 | 10.59 ug/Kg | 97 |
| 61) | 1,4-dichlorobenzene | 20.38 | 146 | 145953m | 10.13 ug/Kg | 94 |
| 62) | 1,2-dichlorobenzene | 20.94 | 146 | 121797 | 10.25 ug/Kg | 96 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6058.D Vial: 4
Acq On : 21 Oct 97 14:52 Operator: tcm
Sample : 5pt-tclsoil+-10ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:19 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Multiple Level Calibration



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6059.D Vial: 5
Acq On : 21 Oct 97 15:29 Operator: tcm
Sample : 5pt-tclsoil+-50ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:09 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.84 | 128 | 315048 | 50.00 ug/Kg | 0.00 |
| 24) 1,4-difluorobenzene | 9.96 | 114 | 1362880 | 50.00 ug/Kg | -0.06 |
| 42) chlorobenzene-d5 | 16.38 | 117 | 912066 | 50.00 ug/Kg | -0.02 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.53 | 65 | 560925 | 49.62 ug/Kg | -0.08 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 99.24% | | |
| 40) toluene-d8 | 13.64 | 98 | 1287000 | 47.40 ug/Kg | -0.08 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 94.80% | | |
| 56) 4-bromofluorobenzene | 18.45 | 95 | 526771 | 48.54 ug/Kg | -0.01 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 97.08% | | |

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.43 | 85 | 648016m | 55.58 ug/Kg | 91 |
| 3) chloromethane | 1.56 | 50 | 365382 | 43.40 ug/Kg | 92 |
| 4) vinyl chloride | 1.68 | 62 | 405285 | 52.85 ug/Kg | 98 |
| 5) bromomethane | 1.93 | 94 | 281695 | 42.84 ug/Kg | 93 |
| 6) chloroethane | 2.09 | 64 | 167136 | 48.93 ug/Kg | 96 |
| 7) trichlorofluoromethane | 2.33 | 101 | 628541 | 48.74 ug/Kg | 93 |
| 8) 1,1,2-trichlorotrifluoroet | 2.97 | 101 | 810211m | 59.59 ug/Kg | 0 |
| 10) acrolein | 2.83 | 56 | 93272m | 55.97 ug/Kg | 92 |
| 11) 1,1-dichloroethene | 2.95 | 96 | 421695 | 43.16 ug/Kg | 94 |
| 12) acetone | 3.01 | 43 | 205670 | 43.09 ug/Kg | 89 |
| 13) carbon disulfide | 3.26 | 76 | 1062871 | 45.28 ug/Kg | 96 |
| 14) methylene chloride | 3.64 | 84 | 427929 | 47.47 ug/Kg | 96 |
| 15) acrylonitrile | 4.02 | 53 | 190045 | 49.78 ug/Kg | 81 |
| 16) trans-1,2-dichloroethene | 4.10 | 96 | 478983 | 52.39 ug/Kg | 86 |
| 17) mtbe | 4.11 | 73 | 1310589 | 76.30 ug/Kg | 94 |
| 18) N-hexane | 4.66 | 57 | 593972 | 60.37 ug/Kg | 94 |
| 19) 1,1-dichloroethane | 4.79 | 63 | 788161 | 64.15 ug/Kg | 96 |
| 20) vinyl acetate | 4.65 | 43 | 376072 | 57.07 ug/Kg | 96 |
| 21) cis-1,2-dichloroethene | 6.16 | 96 | 534686 | 51.98 ug/Kg | 92 |
| 23) 2-butanone | 6.21 | 43 | 365228 | 53.89 ug/Kg# | 85 |
| 25) chloroform | 6.95 | 83 | 917306 | 50.12 ug/Kg | 96 |
| 26) 1,1,1-trichloroethane | 7.56 | 97 | 727133 | 59.10 ug/Kg | 97 |
| 28) carbon tetrachloride | 8.17 | 117 | 598177 | 57.92 ug/Kg | 98 |
| 30) benzene | 8.65 | 78 | 1323630 | 50.20 ug/Kg | 95 |
| 31) 1,2-dichloroethane | 8.77 | 62 | 605576 | 51.45 ug/Kg | 95 |
| 33) trichloroethene | 10.64 | 95 | 564116 | 45.70 ug/Kg | 92 |
| 34) 1,2-dichloropropane | 11.16 | 63 | 521367 | 56.41 ug/Kg | 93 |
| 35) bromodichloromethane | 11.94 | 83 | 690974 | 53.10 ug/Kg | 91 |
| 37) 2-chloroethyl vinyl ether | 12.92 | 63 | 380196 | 95.68 ug/Kg | 97 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6059.D Vial: 5
Acq On : 21 Oct 97 15:29 Operator: tcm
Sample : 5pt-tclsoil+-50ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:09 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

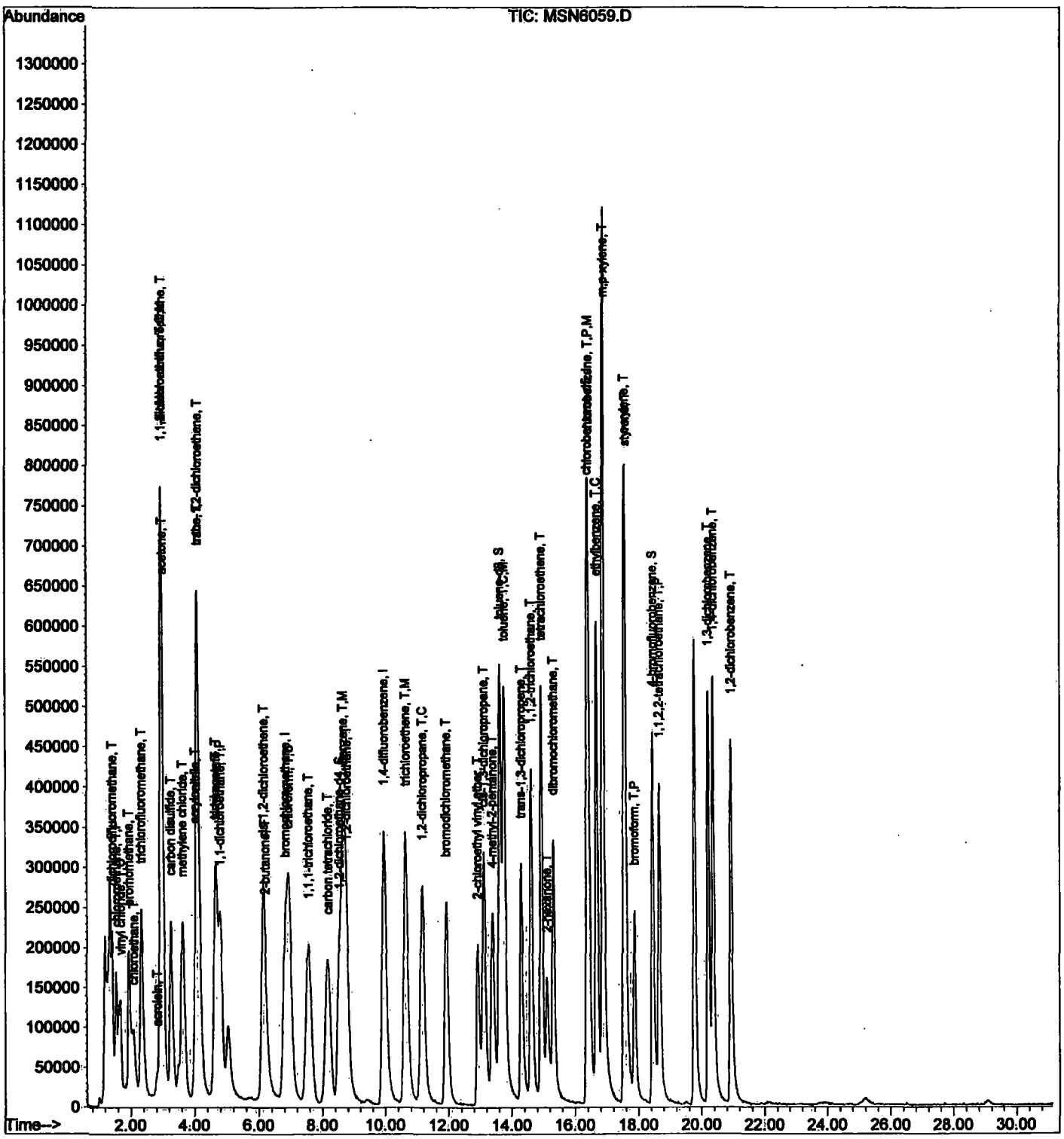
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.12 | 75 | 650868 | 60.10 ug/Kg | 96 |
| 39) | 4-methyl-2-pentanone | 13.39 | 43 | 697457 | 48.04 ug/Kg | 97 |
| 41) | toluene | 13.76 | 92 | 772798 | 47.45 ug/Kg | 97 |
| 43) | trans-1,3-dichloropropene | 14.31 | 75 | 557995 | 64.55 ug/Kg | 99 |
| 44) | 1,1,2-trichloroethane | 14.62 | 83 | 411355 | 53.57 ug/Kg | 96 |
| 45) | tetrachloroethene | 14.94 | 166 | 525554 | 46.07 ug/Kg | 97 |
| 46) | 2-hexanone | 15.12 | 43 | 473964 | 52.03 ug/Kg | 94 |
| 47) | dibromochloromethane | 15.32 | 129 | 479515 | 51.30 ug/Kg | 97 |
| 48) | chlorobenzene | 16.42 | 112 | 881552 | 47.09 ug/Kg | 98 |
| 49) | ethylbenzene | 16.68 | 91 | 1326046 | 50.16 ug/Kg | 95 |
| 50) | m,p-xylene | 16.88 | 106 | 954700 | 99.35 ug/Kg | 96 |
| 51) | o-xylene | 17.54 | 106 | 447840 | 46.56 ug/Kg# | 79 |
| 52) | styrene | 17.59 | 104 | 779819 | 47.59 ug/Kg | 99 |
| 53) | bromoform | 17.88 | 173 | 326642 | 45.84 ug/Kg | 99 |
| 57) | 1,1,2,2-tetrachloroethane | 18.67 | 83 | 673242 | 49.86 ug/Kg | 98 |
| 60) | 1,3-dichlorobenzene | 20.22 | 146 | 593575 | 47.64 ug/Kg | 97 |
| 61) | 1,4-dichlorobenzene | 20.38 | 146 | 671533 | 44.49 ug/Kg | 96 |
| 62) | 1,2-dichlorobenzene | 20.94 | 146 | 567646 | 45.60 ug/Kg | 96 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6059.D Vial: 5
Acq On : 21 Oct 97 15:29 Operator: tcm
Sample : 5pt-tclsoil+-50ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:09 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Multiple Level Calibration



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6060.D Vial: 6
Acq On : 21 Oct 97 16:08 Operator: tcm
Sample : 5pt-tclsoil+-100ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:07 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.85 | 128 | 312248 | 50.00 | ug/Kg | 0.02 |
| 24) 1,4-difluorobenzene | 9.97 | 114 | 1381235 | 50.00 | ug/Kg | -0.05 |
| 42) chlorobenzene-d5 | 16.37 | 117 | 891167 | 50.00 | ug/Kg | -0.03 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.54 | 65 | 1101739 | 96.17 | ug/Kg | -0.07 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery | = | 192.34%# | |
| 40) toluene-d8 | 13.63 | 98 | 2544900m | 92.48 | ug/Kg | -0.09 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery | = | 184.96%# | |
| 56) 4-bromofluorobenzene | 18.45 | 95 | 997712 | 94.10 | ug/Kg | -0.01 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery | = | 188.20%# | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.45 | 85 | 1159039m | 100.29 | ug/Kg | 91 |
| 3) chloromethane | 1.57 | 50 | 691278 | 82.85 | ug/Kg | 93 |
| 4) vinyl chloride | 1.70 | 62 | 764154m | 100.54 | ug/Kg | 98 |
| 5) bromomethane | 1.95 | 94 | 495036 | 75.96 | ug/Kg | 94 |
| 6) chloroethane | 2.13 | 64 | 274797m | 81.16 | ug/Kg | 98 |
| 7) trichlorofluoromethane | 2.35 | 101 | 777273m | 60.82 | ug/Kg | 99 |
| 8) 1,1,2-trichlorotrifluoroet | 2.96 | 101 | 1480027m | 109.83 | ug/Kg | 0 |
| 10) acrolein | 2.83 | 56 | 213430m | 129.22 | ug/Kg | 79 |
| 11) 1,1-dichloroethene | 2.95 | 96 | 765236 | 79.02 | ug/Kg | 98 |
| 12) acetone | 3.04 | 43 | 424381 | 89.72 | ug/Kg | 86 |
| 13) carbon disulfide | 3.25 | 76 | 2095469 | 90.06 | ug/Kg | 94 |
| 14) methylene chloride | 3.67 | 84 | 800611 | 89.60 | ug/Kg | 94 |
| 15) acrylonitrile | 4.06 | 53 | 408722 | 108.01 | ug/Kg | 86 |
| 16) trans-1,2-dichloroethene | 4.10 | 96 | 910646 | 100.49 | ug/Kg | 86 |
| 17) mtbe | 4.13 | 73 | 2532212 | 148.75 | ug/Kg | 97 |
| 18) N-hexane | 4.66 | 57 | 1137014 | 116.60 | ug/Kg | 95 |
| 19) 1,1-dichloroethane | 4.82 | 63 | 1279871 | 105.11 | ug/Kg | 99 |
| 20) vinyl acetate | 4.65 | 43 | 763561 | 116.91 | ug/Kg | 97 |
| 21) cis-1,2-dichloroethene | 6.17 | 96 | 979616 | 96.08 | ug/Kg | 95 |
| 23) 2-butanone | 6.26 | 43 | 891096m | 132.66 | ug/Kg | 0 |
| 25) chloroform | 6.98 | 83 | 1579980 | 85.19 | ug/Kg | 100 |
| 26) 1,1,1-trichloroethane | 7.56 | 97 | 1423566 | 114.16 | ug/Kg | 95 |
| 28) carbon tetrachloride | 8.16 | 117 | 1199057 | 114.56 | ug/Kg | 98 |
| 30) benzene | 8.66 | 78 | 2556090 | 95.65 | ug/Kg | 97 |
| 31) 1,2-dichloroethane | 8.77 | 62 | 1191637 | 99.89 | ug/Kg | 98 |
| 33) trichloroethene | 10.63 | 95 | 1137252 | 90.91 | ug/Kg | 95 |
| 34) 1,2-dichloropropane | 11.18 | 63 | 1023459 | 109.27 | ug/Kg | 96 |
| 35) bromodichloromethane | 11.94 | 83 | 1416051 | 107.37 | ug/Kg | 93 |
| 37) 2-chloroethyl vinyl ether | 12.92 | 63 | 782872 | 194.40 | ug/Kg | 99 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6060.D Vial: 6
Acq On : 21 Oct 97 16:08 Operator: tcm
Sample : 5pt-tclsoil+-100ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:07 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

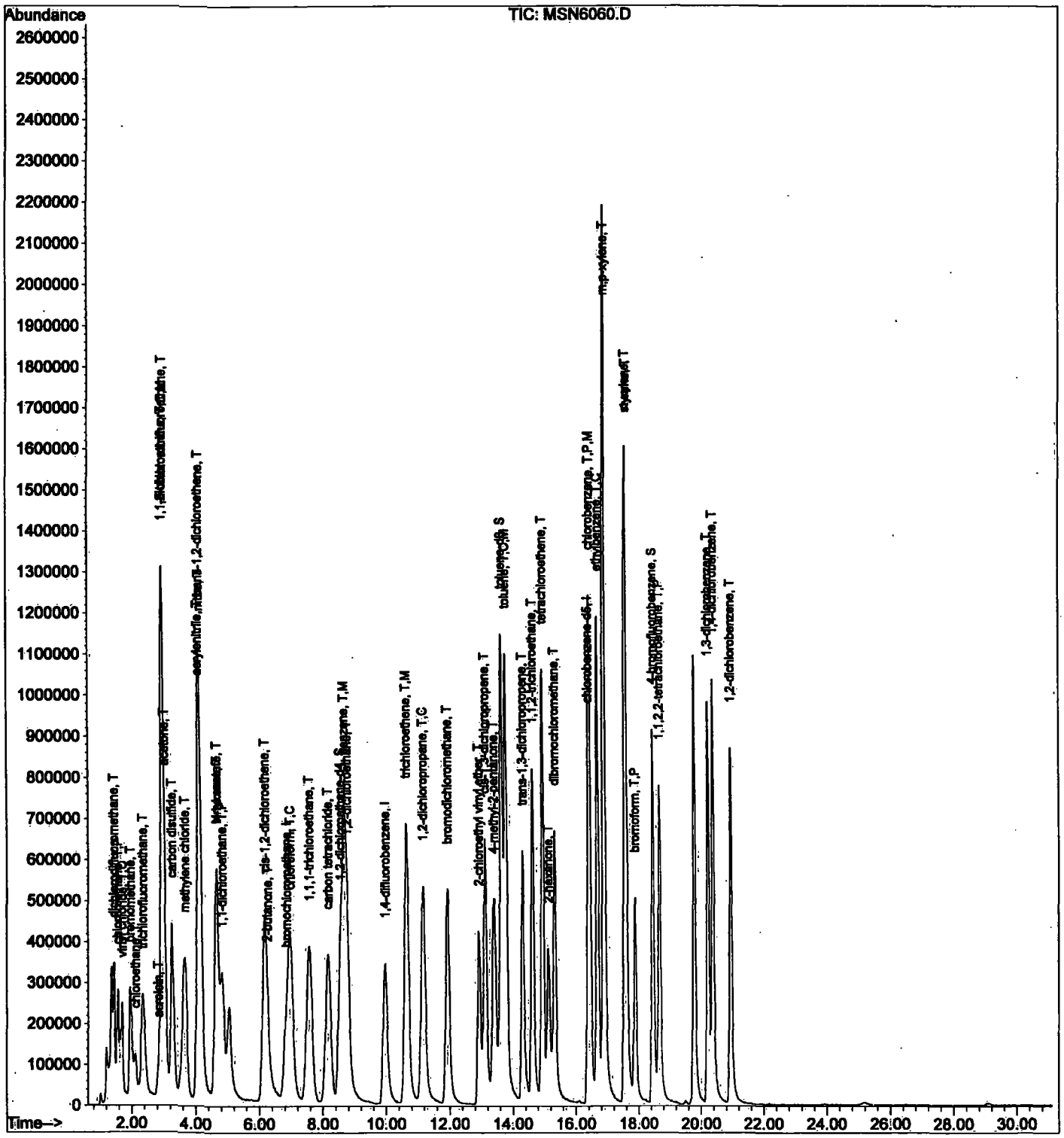
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.11 | 75 | 1336225 | 121.74 ug/Kg | 99 |
| 39) | 4-methyl-2-pentanone | 13.39 | 43 | 1650474 | 112.16 ug/Kg | 99 |
| 41) | toluene | 13.76 | 92 | 1567517 | 94.97 ug/Kg | 94 |
| 43) | trans-1,3-dichloropropene | 14.30 | 75 | 1125716 | 133.29 ug/Kg | 99 |
| 44) | 1,1,2-trichloroethane | 14.62 | 83 | 820328 | 109.33 ug/Kg | 90 |
| 45) | tetrachloroethene | 14.94 | 166 | 1051959 | 94.38 ug/Kg | 97 |
| 46) | 2-hexanone | 15.13 | 43 | 1122396 | 126.11 ug/Kg | 91 |
| 47) | dibromochloromethane | 15.33 | 129 | 998640 | 109.35 ug/Kg | 96 |
| 48) | chlorobenzene | 16.43 | 112 | 1718780 | 93.97 ug/Kg | 99 |
| 49) | ethylbenzene | 16.68 | 91 | 2575935 | 99.72 ug/Kg | 96 |
| 50) | m,p-xylene | 16.89 | 106 | 1871511 | 199.33 ug/Kg | 98 |
| 51) | o-xylene | 17.55 | 106 | 870857 | 92.66 ug/Kg# | 85 |
| 52) | styrene | 17.58 | 104 | 1538065 | 96.07 ug/Kg | 99 |
| 53) | bromoform | 17.88 | 173 | 674028 | 96.81 ug/Kg | 95 |
| 57) | 1,1,2,2-tetrachloroethane | 18.68 | 83 | 1338486 | 101.44 ug/Kg | 97 |
| 60) | 1,3-dichlorobenzene | 20.22 | 146 | 1110598 | 91.23 ug/Kg | 94 |
| 61) | 1,4-dichlorobenzene | 20.37 | 146 | 1262476 | 85.60 ug/Kg | 98 |
| 62) | 1,2-dichlorobenzene | 20.93 | 146 | 1083893 | 89.11 ug/Kg | 96 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6060.D Vial: 6
Acq On : 21 Oct 97 16:08 Operator: tcm
Sample : 5pt-tclsoil+-100ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:07 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Multiple Level Calibration



Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6061.D Vial: 7
Acq On : 21 Oct 97 16:47 Operator: tcm
Sample : 5pt-tclsoil+-200ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:23 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.86 | 128 | 323548 | 50.00 | ug/Kg | 0.04 |
| 24) 1,4-difluorobenzene | 9.96 | 114 | 1374887 | 50.00 | ug/Kg | -0.06 |
| 42) chlorobenzene-d5 | 16.38 | 117 | 883818 | 50.00 | ug/Kg | -0.02 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.54 | 65 | 2093355 | 183.58 | ug/Kg | -0.07 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 367.16%# | | | |
| 40) toluene-d8 | 13.63 | 98 | 4916626 | 179.49 | ug/Kg | -0.09 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 358.98%# | | | |
| 56) 4-bromofluorobenzene | 18.44 | 95 | 1875900 | 178.40 | ug/Kg | -0.02 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 356.80%# | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) dichlorodifluoromethane | 1.44 | 85 | 2233314m | 186.51 | ug/Kg | 94 |
| 3) chloromethane | 1.57 | 50 | 1323944 | 153.14 | ug/Kg | 93 |
| 4) vinyl chloride | 1.71 | 62 | 1459380 | 185.31 | ug/Kg | 98 |
| 5) bromomethane | 2.00 | 94 | 944562m | 139.87 | ug/Kg | 94 |
| 6) chloroethane | 2.13 | 64 | 548764 | 156.42 | ug/Kg | 96 |
| 7) trichlorofluoromethane | 2.35 | 101 | 1576861m | 119.07 | ug/Kg | 90 |
| 8) 1,1,2-trichlorotrifluoroet | 2.94 | 101 | 2804259m | 200.83 | ug/Kg | 0 |
| 10) acrolein | 2.83 | 56 | 393991m | 230.20 | ug/Kg | 87 |
| 11) 1,1-dichloroethene | 2.94 | 96 | 1458127 | 145.31 | ug/Kg | 98 |
| 12) acetone | 3.10 | 43 | 720176 | 146.93 | ug/Kg | 91 |
| 13) carbon disulfide | 3.24 | 76 | 4128634 | 171.25 | ug/Kg | 95 |
| 14) methylene chloride | 3.70 | 84 | 1535447 | 165.84 | ug/Kg | 96 |
| 15) acrylonitrile | 4.08 | 53 | 747714 | 190.69 | ug/Kg | 80 |
| 16) trans-1,2-dichloroethene | 4.09 | 96 | 1689535 | 179.93 | ug/Kg# | 82 |
| 17) mtbe | 4.15 | 73 | 5022647 | 284.74 | ug/Kg | 98 |
| 18) N-hexane | 4.64 | 57 | 2225686 | 220.27 | ug/Kg | 97 |
| 19) 1,1-dichloroethane | 4.84 | 63 | 2381719 | 188.77 | ug/Kg | 96 |
| 20) vinyl acetate | 4.63 | 43 | 1476155 | 218.11 | ug/Kg | 93 |
| 21) cis-1,2-dichloroethene | 6.19 | 96 | 1864981 | 176.53 | ug/Kg | 92 |
| 23) 2-butanone | 6.27 | 43 | 1540245m | 221.30 | ug/Kg | 0 |
| 25) chloroform | 7.01 | 83 | 2666333 | 144.42 | ug/Kg | 98 |
| 26) 1,1,1-trichloroethane | 7.57 | 97 | 2761694 | 222.49 | ug/Kg | 97 |
| 28) carbon tetrachloride | 8.17 | 117 | 2293983 | 220.18 | ug/Kg | 97 |
| 30) benzene | 8.66 | 78 | 5026196 | 188.96 | ug/Kg | 94 |
| 31) 1,2-dichloroethane | 8.78 | 62 | 2247167 | 189.24 | ug/Kg | 96 |
| 33) trichloroethene | 10.62 | 95 | 2176490 | 174.80 | ug/Kg | 95 |
| 34) 1,2-dichloropropane | 11.16 | 63 | 1983440 | 212.75 | ug/Kg | 95 |
| 35) bromodichloromethane | 11.93 | 83 | 2786402 | 212.25 | ug/Kg | 91 |
| 37) 2-chloroethyl vinyl ether | 12.92 | 63 | 1523254 | 380.00 | ug/Kg | 99 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6061.D Vial: 7
Acq On : 21 Oct 97 16:47 Operator: tcm
Sample : 5pt-tclsoil+-200ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:23 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/17/97
Last Update : Tue Oct 21 14:59:48 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

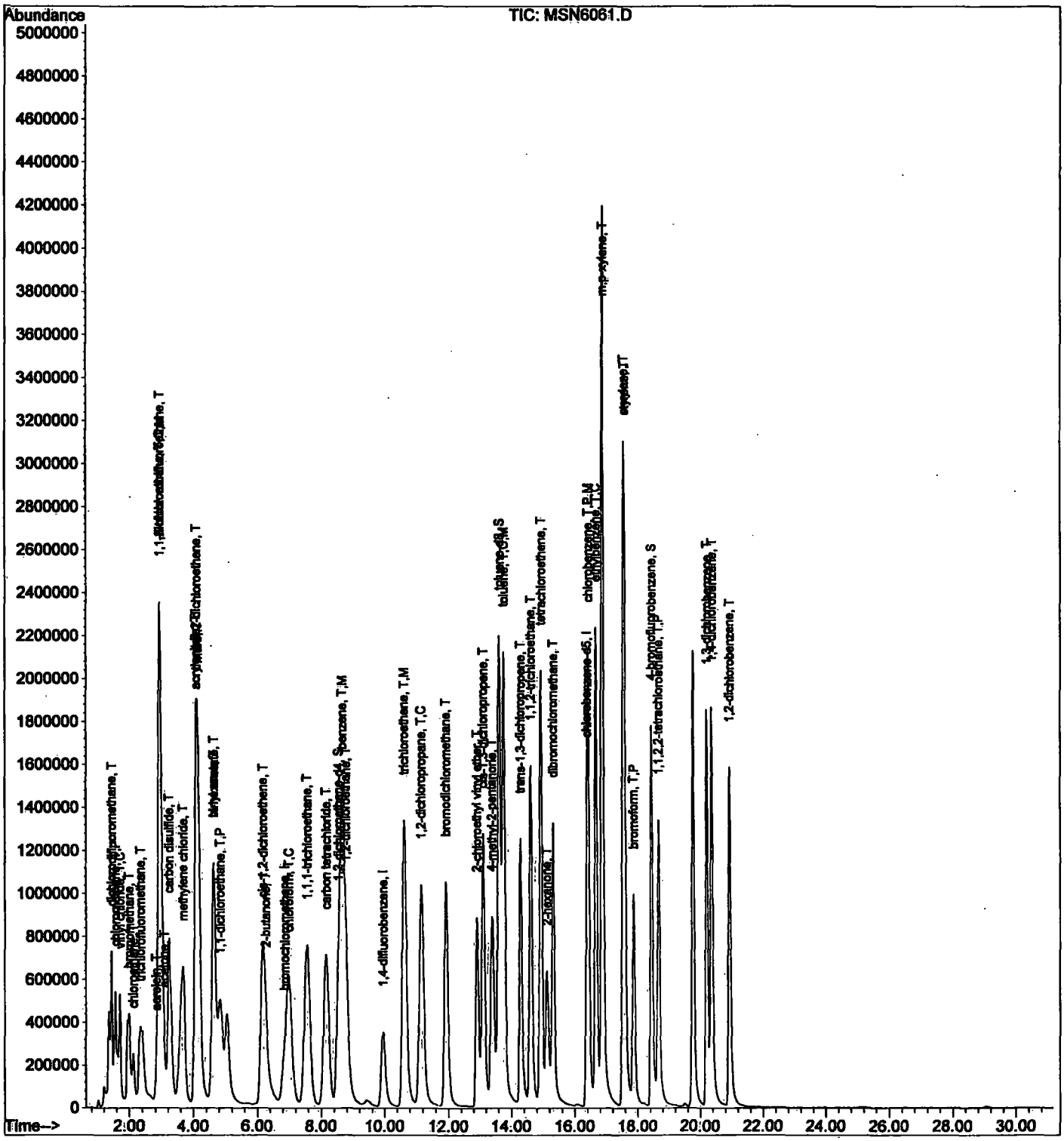
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.11 | 75 | 2592193 | 237.26 ug/Kg | 97 |
| 39) | 4-methyl-2-pentanone | 13.40 | 43 | 2834973 | 193.54 ug/Kg | 98 |
| 41) | toluene | 13.76 | 92 | 3013384 | 183.42 ug/Kg | 98 |
| 43) | trans-1,3-dichloropropene | 14.30 | 75 | 2179463 | 260.20 ug/Kg | 100 |
| 44) | 1,1,2-trichloroethane | 14.62 | 83 | 1539759 | 206.93 ug/Kg | 95 |
| 45) | tetrachloroethene | 14.94 | 166 | 1993377 | 180.33 ug/Kg | 90 |
| 46) | 2-hexanone | 15.14 | 43 | 1785840 | 202.32 ug/Kg | 93 |
| 47) | dibromochloromethane | 15.32 | 129 | 1949929 | 215.29 ug/Kg | 99 |
| 48) | chlorobenzene | 16.43 | 112 | 3239276 | 178.57 ug/Kg | 99 |
| 49) | ethylbenzene | 16.67 | 91 | 4835915 | 188.76 ug/Kg | 98 |
| 50) | m,p-xylene | 16.88 | 106 | 3427181 | 368.05 ug/Kg | 95 |
| 51) | o-xylene | 17.55 | 106 | 1645532 | 176.53 ug/Kg# | 86 |
| 52) | styrene | 17.58 | 104 | 2806863 | 176.78 ug/Kg | 98 |
| 53) | bromoform | 17.87 | 173 | 1300175 | 188.29 ug/Kg | 95 |
| 57) | 1,1,2,2-tetrachloroethane | 18.67 | 83 | 2318738 | 177.20 ug/Kg | 98 |
| 60) | 1,3-dichlorobenzene | 20.21 | 146 | 2101645 | 174.08 ug/Kg | 95 |
| 61) | 1,4-dichlorobenzene | 20.36 | 146 | 2293453 | 156.81 ug/Kg | 95 |
| 62) | 1,2-dichlorobenzene | 20.93 | 146 | 1905001 | 157.92 ug/Kg | 97 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2772\MSN6061.D Vial: 7
Acq On : 21 Oct 97 16:47 Operator: tcm
Sample : 5pt-tclsoil+-200ppb Inst : GC/MS Ins
Misc : VN102197 Multiplr: 1.00
Quant Time: Oct 22 8:23 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 08:24:10 1997
Response via : Multiple Level Calibration



# Continuing Calibration

# Form VII

# Evaluate Continuing Calibration Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6259.D  Vial: 1
Acq On : 29 Oct 97 16:04  Operator: tcm
Sample : vstd050  Inst : GC/MS Ins
Misc : VN102997  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

Min. RRF : 0.000  Min. Rel. Area : 50%  Max. R.T. Dev 0.50min
Max. RRF Dev : 20%  Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 107 | -0.01 |
| 2 | T | dichlorodifluoromethane | 2.010 | 2.028 | -0.9 | 106 | -0.10 |
| 3 | T,P | chloromethane | 1.145 | 1.218 | -6.4 | 113 | 0.00 |
| 4 | T,C | vinyl chloride | 1.271 | 1.380 | -8.6 | 115 | -0.09 |
| 5 | T | bromomethane | 0.875 | 0.919 | -5.0 | 110 | -0.02 |
| 6 | T | chloroethane | 0.518 | 0.672 | -29.7# | 136 | -0.10 |
| 7 | T | trichlorofluoromethane | 1.760 | 2.239 | -27.2# | 121 | 0.02 |
| 8 | T | 1,1,2-trichlorotrifluoroeth | 2.570 | 2.408 | 6.3 | 101 | 0.07 |
| 9 | T | ethyl ether | 0.000 | 0.000 | 0.0 | 0# | -2.64# |
| 10 | T | acrolein | 0.183 | 0.329 | -79.8# | 239# | -0.04 |
| 11 | T,C,M | 1,1-dichloroethene | 1.328 | 1.482 | -11.6 | 119 | 0.00 |
| 12 | T | acetone | 0.695 | 0.653 | 6.0 | 108 | -0.04 |
| 13 | T | carbon disulfide | 3.411 | 3.680 | -7.9 | 117 | 0.02 |
| 14 | T | methylene chloride | 1.376 | 1.467 | -6.6 | 116 | -0.05 |
| 15 | T | acrylonitrile | 0.636 | 0.606 | 4.7 | 108 | -0.05 |
| 16 | T | trans-1,2-dichloroethene | 1.511 | 1.512 | -0.1 | 107 | 0.00 |
| 17 | T | mtbe | 4.234 | 3.104 | 26.7# | 80 | 0.00 |
| 18 | T | N-hexane | 1.935 | 1.935 | 0.0 | 110 | 0.06 |
| 19 | T,P | 1,1-dichloroethane | 2.359 | 2.328 | 1.3 | 100 | 0.02 |
| 20 | T | vinyl acetate | 1.217 | 1.300 | -6.8 | 117 | 0.06 |
| 21 | T | cis-1,2-dichloroethene | 1.667 | 1.619 | 2.9 | 102 | 0.00 |
| 22 | T | ethyl acetate | 0.000 | 0.000 | 0.0 | 0# | -6.61# |
| 23 | T | 2-butanone | 1.294 | 1.131 | 12.6 | 105 | -0.04 |
| 24 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 94 | 0.04 |
| 25 | T,C | chloroform | 0.637 | 0.712 | -11.8 | 99 | 0.02 |
| 26 | T | 1,1,1-trichloroethane | 0.547 | 0.489 | 10.6 | 86 | 0.04 |
| 27 | T | 2-methyl-1-propanol | 0.000 | 0.000 | 0.0 | 0# | -9.39# |
| 28 | T | carbon tetrachloride | 0.448 | 0.353 | 21.2# | 76 | 0.03 |
| 29 | S | 1,2-dichloroethane-d4 | 0.413 | 0.424 | -2.7 | 97 | 0.00 |
| 30 | T,M | benzene | 0.995 | 1.023 | -2.8 | 99 | 0.02 |
| 31 | T | 1,2-dichloroethane | 0.455 | 0.485 | -6.6 | 102 | 0.00 |
| 32 | T | n-butyl alcohol | 0.000 | 0.000 | 0.0 | 0# | -9.97# |
| 33 | T,M | trichloroethene | 0.428 | 0.486 | -13.6 | 110 | 0.06 |
| 34 | T,C | 1,2-dichloropropane | 0.386 | 0.388 | -0.5 | 95 | 0.00 |
| 35 | T | bromodichloromethane | 0.500 | 0.501 | -0.2 | 93 | 0.02 |
| 36 | T | 2-nitro-propane | 0.000 | 0.095 | 0.0 | 0# | 0.27 |
| 37 | T | 2-chloroethyl vinyl ether | 0.278 | 0.166 | 40.3# | 56 | 0.03 |
| 38 | T | cis-1,3-dichloropropene | 0.470 | 0.396 | 15.7 | 78 | 0.02 |
| 39 | T | 4-methyl-2-pentanone | 0.535 | 0.502 | 6.2 | 92 | 0.02 |
| 40 | S | toluene-d8 | 0.945 | 0.894 | 5.4 | 89 | 0.02 |

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6259.D  Vial: 1
Acq On : 29 Oct 97 16:04  Operator: tcm
Sample : vstd050  Inst : GC/MS Ins
Misc : VN102997  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 41 | T,C,M | toluene | 0.581 | 0.580 | 0.2 | 96 | 0.03 |
| 42 | I | chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 93 | 0.02 |
| 43 | T | trans-1,3-dichloropropene | 0.614 | 0.449 | 26.9# | 69 | 0.00 |
| 44 | T | 1,1,2-trichloroethane | 0.470 | 0.460 | 2.1 | 95 | 0.00 |
| 45 | T | tetrachloroethene | 0.610 | 0.599 | 1.8 | 97 | 0.02 |
| 46 | T | 2-hexanone | 0.531 | 0.466 | 12.2 | 84 | 0.00 |
| 47 | T | dibromochloromethane | 0.532 | 0.456 | 14.3 | 81 | 0.00 |
| 48 | T,P,M | chlorobenzene | 0.992 | 0.971 | 2.1 | 94 | 0.00 |
| 49 | T,C | ethylbenzene | 1.479 | 1.404 | 5.1 | 90 | 0.00 |
| 50 | T | m,p-xylene | 0.531 | 0.518 | 2.4 | 93 | 0.00 |
| 51 | T | o-xylene | 0.501 | 0.510 | -1.8 | 97 | 0.00 |
| 52 | T | styrene | 0.860 | 0.861 | -0.1 | 94 | 0.02 |
| 53 | T,P | bromoform | 0.333 | 0.258 | 22.5# | 67 | 0.00 |
| 54 | T | cumene | 0.000 | 0.000 | 0.0 | 0# | -18.24# |
| 55 | T | cyclohexanone | 0.000 | 0.000 | 0.0 | 0# | -18.35# |
| 56 | S | 4-bromofluorobenzene | 0.562 | 0.528 | 6.0 | 85 | 0.00 |
| 57 | T,P | 1,1,2,2-tetrachloroethane | 0.737 | 0.627 | 14.9 | 79 | -0.01 |
| 58 | T | vinyltoluene | 0.000 | 0.000 | 0.0 | 0# | -19.63# |
| 59 | T | 1,2,4-trimethylbenzene | 1.240 | 0.000 | 100.0# | 0# | -19.78# |
| 60 | T | 1,3-dichlorobenzene | 0.659 | 0.631 | 4.2 | 91 | 0.00 |
| 61 | T | 1,4-dichlorobenzene | 0.767 | 0.763 | 0.5 | 97 | 0.00 |
| 62 | T | 1,2-dichlorobenzene | 0.649 | 0.679 | -4.6 | 102 | 0.00 |
| 63 | T | naphthalene | 0.000 | 0.000 | 0.0 | 0# | -23.95# |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6259.D Vial: 1
Acq On : 29 Oct 97 16:04 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 29 16:45 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) bromochloromethane | 6.84 | 128 | 338547 | 50.00 ug/Kg | -0.01 |
| 24) 1,4-difluorobenzene | 10.01 | 114 | 1280658m | 50.00 ug/Kg | 0.04 |
| 42) chlorobenzene-d5 | 16.39 | 117 | 852769 | 50.00 ug/Kg | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.54 | 65 | 543491 | 51.32 ug/Kg | 0.00 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 102.64% | | |
| 40) toluene-d8 | 13.65 | 98 | 1145471 | 47.34 ug/Kg | 0.02 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 94.68% | | |
| 56) 4-bromofluorobenzene | 18.46 | 95 | 450364 | 47.01 ug/Kg | 0.00 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 94.02% | | |

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.34 | 85 | 686666m | 50.44 ug/Kg | 95 |
| 3) chloromethane | 1.57 | 50 | 412195 | 53.16 ug/Kg | 100 |
| 4) vinyl chloride | 1.61 | 62 | 467031m | 54.29 ug/Kg | 99 |
| 5) bromomethane | 1.93 | 94 | 311115 | 52.48 ug/Kg | 97 |
| 6) chloroethane | 2.03 | 64 | 227512m | 64.89 ug/Kg | 0 |
| 7) trichlorofluoromethane | 2.37 | 101 | 757974 | 63.61 ug/Kg | 97 |
| 8) 1,1,2-trichlorotrifluoroet | 3.03 | 101 | 815348m | 46.86 ug/Kg | 0 |
| 10) acrolein | 2.79 | 56 | 222954 | 180.32 ug/Kg | 99 |
| 11) 1,1-dichloroethene | 2.95 | 96 | 501859 | 55.82 ug/Kg | 94 |
| 12) acetone | 3.00 | 43 | 221126 | 46.98 ug/Kg | 99 |
| 13) carbon disulfide | 3.27 | 76 | 1245867 | 53.95 ug/Kg | 99 |
| 14) methylene chloride | 3.62 | 84 | 496515 | 53.29 ug/Kg | 96 |
| 15) acrylonitrile | 4.01 | 53 | 205318 | 47.68 ug/Kg | 95 |
| 16) trans-1,2-dichloroethene | 4.11 | 96 | 511827 | 50.02 ug/Kg | 94 |
| 17) mtbe | 4.14 | 73 | 1051011m | 36.66 ug/Kg | 94 |
| 18) N-hexane | 4.73 | 57 | 655063 | 50.00 ug/Kg | 100 |
| 19) 1,1-dichloroethane | 4.84 | 63 | 788006 | 49.33 ug/Kg | 99 |
| 20) vinyl acetate | 4.71 | 43 | 440099 | 53.43 ug/Kg | 97 |
| 21) cis-1,2-dichloroethene | 6.17 | 96 | 547963 | 48.54 ug/Kg | 99 |
| 23) 2-butanone | 6.22 | 43 | 382734m | 43.70 ug/Kg | 97 |
| 25) chloroform | 7.00 | 83 | 911523 | 55.87 ug/Kg | 100 |
| 26) 1,1,1-trichloroethane | 7.60 | 97 | 626136 | 44.66 ug/Kg | 97 |
| 28) carbon tetrachloride | 8.19 | 117 | 452476m | 39.43 ug/Kg | 88 |
| 30) benzene | 8.68 | 78 | 1310714m | 51.42 ug/Kg | 100 |
| 31) 1,2-dichloroethane | 8.77 | 62 | 620592m | 53.20 ug/Kg | 98 |
| 33) trichloroethene | 10.68 | 95 | 623021 | 56.88 ug/Kg | 98 |
| 34) 1,2-dichloropropane | 11.18 | 63 | 496584 | 50.29 ug/Kg | 93 |
| 35) bromodichloromethane | 11.95 | 83 | 641361 | 50.03 ug/Kg | 97 |
| 37) 2-chloroethyl vinyl ether | 12.94 | 63 | 212781m | 29.87 ug/Kg | 100 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6259.D Vial: 1
Acq On : 29 Oct 97 16:04 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 29 16:45 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

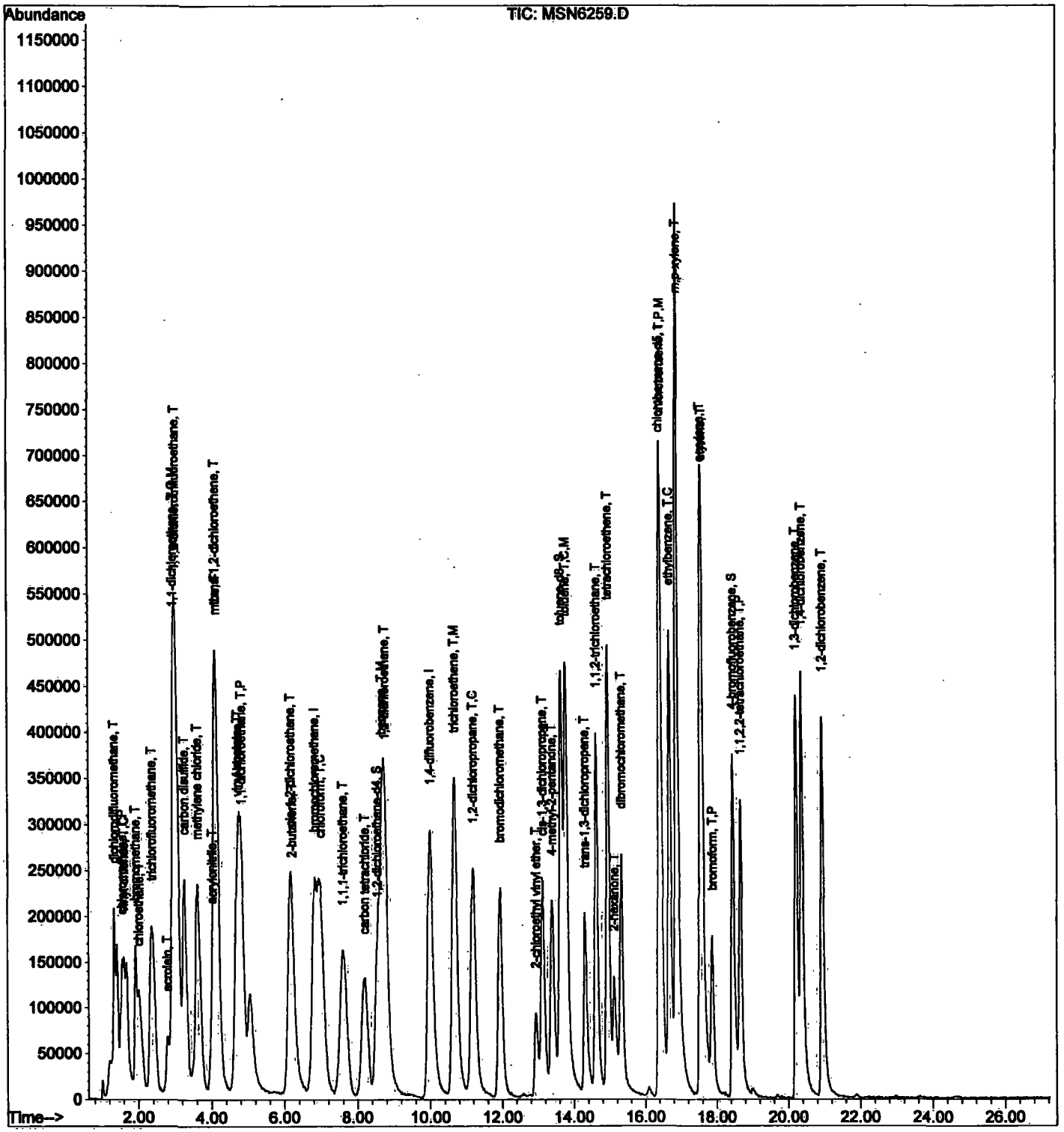
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.13 | 75 | 506957 | 42.08 ug/Kg | 96 |
| 39) | 4-methyl-2-pentanone | 13.40 | 43 | 642725 | 46.93 ug/Kg | 98 |
| 41) | toluene | 13.79 | 92 | 743163 | 49.94 ug/Kg | 99 |
| 43) | trans-1,3-dichloropropene | 14.31 | 75 | 382653m | 36.52 ug/Kg | 96 |
| 44) | 1,1,2-trichloroethane | 14.63 | 83 | 392234 | 48.89 ug/Kg | 97 |
| 45) | tetrachloroethene | 14.96 | 166 | 510472 | 49.03 ug/Kg | 99 |
| 46) | 2-hexanone | 15.13 | 43 | 396972m | 43.85 ug/Kg | 99 |
| 47) | dibromochloromethane | 15.33 | 129 | 389127m | 42.88 ug/Kg | 96 |
| 48) | chlorobenzene | 16.43 | 112 | 827894 | 48.94 ug/Kg | 98 |
| 49) | ethylbenzene | 16.68 | 91 | 1197383 | 47.45 ug/Kg | 97 |
| 50) | m,p-xylene | 16.89 | 106 | 883857 | 97.59 ug/Kg | 97 |
| 51) | o-xylene | 17.54 | 106 | 434805 | 50.90 ug/Kg# | 86 |
| 52) | styrene | 17.60 | 104 | 734275 | 50.06 ug/Kg | 95 |
| 53) | bromoform | 17.88 | 173 | 220412m | 38.82 ug/Kg | 96 |
| 57) | 1,1,2,2-tetrachloroethane | 18.66 | 83 | 535086 | 42.60 ug/Kg | 98 |
| 60) | 1,3-dichlorobenzene | 20.23 | 146 | 538208 | 47.91 ug/Kg | 96 |
| 61) | 1,4-dichlorobenzene | 20.38 | 146 | 650980 | 49.74 ug/Kg | 96 |
| 62) | 1,2-dichlorobenzene | 20.94 | 146 | 578894m | 52.28 ug/Kg | 98 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2785\MSN6259.D Vial: 1
Acq On : 29 Oct 97 16:04 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN102997 Multiplr: 1.00
Quant Time: Oct 29 16:45 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration



# Evaluate Continuing Calibration Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6277.D  Vial: 3
Acq On : 30 Oct 97 9:42  Operator: tcm
Sample : vstd050  Inst : GC/MS Ins
Misc : VN103097  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

Min. RRF : 0.000  Min. Rel. Area : 50%  Max. R.T. Dev 0.50min
Max. RRF Dev : 20%  Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 126 | 0.03 |
| 2 | T | dichlorodifluoromethane | 2.010 | 1.890 | 6.0 | 116 | -0.02 |
| 3 | T,P | chloromethane | 1.145 | 1.175 | -2.6 | 128 | 0.00 |
| 4 | T,C | vinyl chloride | 1.271 | 1.423 | -12.0 | 139 | -0.09 |
| 5 | T | bromomethane | 0.875 | 1.023 | -16.9 | 144 | -0.03 |
| 6 | T | chloroethane | 0.518 | 0.734 | -41.7# | 174# | -0.10 |
| 7 | T | trichlorofluoromethane | 1.760 | 2.031 | -15.4 | 128 | 0.08 |
| 8 | T | 1,1,2-trichlorotrifluoroeth | 2.570 | 2.306 | 10.3 | 113 | 0.12 |
| 9 | T | ethyl ether | 0.000 | 0.000 | 0.0 | 0# | -2.64# |
| 10 | T | acrolein | 0.183 | 0.353 | -92.9# | 300# | 0.00 |
| 11 | T,C,M | 1,1-dichloroethene | 1.328 | 1.475 | -11.1 | 139 | 0.00 |
| 12 | T | acetone | 0.695 | 0.733 | -5.5 | 141 | -0.02 |
| 13 | T | carbon disulfide | 3.411 | 3.773 | -10.6 | 141 | 0.02 |
| 14 | T | methylene chloride | 1.376 | 1.424 | -3.5 | 132 | -0.04 |
| 15 | T | acrylonitrile | 0.636 | 0.674 | -6.0 | 141 | -0.04 |
| 16 | T | trans-1,2-dichloroethene | 1.511 | 1.511 | 0.0 | 125 | 0.00 |
| 17 | T | mtbe | 4.234 | 2.913 | 31.2# | 88 | 0.04 |
| 18 | T | N-hexane | 1.935 | 1.661 | 14.2 | 111 | 0.12 |
| 19 | T,P | 1,1-dichloroethane | 2.359 | 2.179 | 7.6 | 110 | 0.07 |
| 20 | T | vinyl acetate | 1.217 | 1.005 | 17.4 | 106 | 0.13 |
| 21 | T | cis-1,2-dichloroethene | 1.667 | 1.686 | -1.1 | 125 | 0.03 |
| 22 | T | ethyl acetate | 0.000 | 0.000 | 0.0 | 0# | -6.61# |
| 23 | T | 2-butanone | 1.294 | 1.223 | 5.5 | 133 | 0.03 |
| 24 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 102 | 0.07 |
| 25 | T,C | chloroform | 0.637 | 0.717 | -12.6 | 109 | 0.06 |
| 26 | T | 1,1,1-trichloroethane | 0.547 | 0.403 | 26.3# | 77 | 0.07 |
| 27 | T | 2-methyl-1-propanol | 0.000 | 0.000 | 0.0 | 0# | -9.39# |
| 28 | T | carbon tetrachloride | 0.448 | 0.206 | 54.0# | 48# | 0.06 |
| 29 | S | 1,2-dichloroethane-d4 | 0.413 | 0.402 | 2.7 | 100 | 0.05 |
| 30 | T,M | benzene | 0.995 | 1.025 | -3.0 | 108 | 0.07 |
| 31 | T | 1,2-dichloroethane | 0.455 | 0.459 | -0.9 | 105 | 0.05 |
| 32 | T | n-butyl alcohol | 0.000 | 0.000 | 0.0 | 0# | -9.97# |
| 33 | T,M | trichloroethene | 0.428 | 0.499 | -16.6 | 123 | 0.08 |
| 34 | T,C | 1,2-dichloropropane | 0.386 | 0.389 | -0.8 | 104 | 0.05 |
| 35 | T | bromodichloromethane | 0.500 | 0.366 | 26.8# | 74 | 0.03 |
| 36 | T | 2-nitro-propane | 0.000 | 0.000 | 0.0 | 0# | -12.67# |
| 37 | T | 2-chloroethyl vinyl ether | 0.278 | 0.221 | 20.5# | 81 | 0.07 |
| 38 | T | cis-1,3-dichloropropene | 0.470 | 0.304 | 35.3# | 65 | 0.03 |
| 39 | T | 4-methyl-2-pentanone | 0.535 | 0.544 | -1.7 | 109 | 0.03 |
| 40 | S | toluene-d8 | 0.945 | 0.900 | 4.8 | 97 | 0.04 |

(#) = Out of Range

# Evaluate Continuing Calibration Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6277.D  Vial: 3
Acq On : 30 Oct 97 9:42  Operator: tcm
Sample : vstd050  Inst : GC/MS Ins
Misc : VN103097  Multiplr: 1.00

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration

Min. RRF : 0.000  Min. Rel. Area : 50%  Max. R.T. Dev 0.50min
Max. RRF Dev : 20%  Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 41 | T,C,M | toluene | 0.581 | 0.569 | 2.1 | 102 | 0.04 |
| 42 | I | chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 100 | 0.04 |
| 43 | T | trans-1,3-dichloropropene | 0.614 | 0.293 | 52.3# | 48# | 0.03 |
| 44 | T | 1,1,2-trichloroethane | 0.470 | 0.466 | 0.9 | 104 | 0.02 |
| 45 | T | tetrachloroethene | 0.610 | 0.625 | -2.5 | 109 | 0.03 |
| 46 | T | 2-hexanone | 0.531 | 0.507 | 4.5 | 98 | 0.02 |
| 47 | T | dibromochloromethane | 0.532 | 0.301 | 43.4# | 58 | 0.00 |
| 48 | T,P,M | chlorobenzene | 0.992 | 0.948 | 4.4 | 99 | 0.04 |
| 49 | T,C | ethylbenzene | 1.479 | 1.237 | 16.4 | 85 | 0.02 |
| 50 | T | m,p-xylene | 0.531 | 0.499 | 6.0 | 96 | 0.02 |
| 51 | T | o-xylene | 0.501 | 0.452 | 9.8 | 93 | 0.02 |
| 52 | T | styrene | 0.860 | 0.719 | 16.4 | 85 | 0.04 |
| 53 | T,P | bromoform | 0.333 | 0.122 | 63.4# | 34# | 0.02 |
| 54 | T | cumene | 0.000 | 0.000 | 0.0 | 0# | -18.24# |
| 55 | T | cyclohexanone | 0.000 | 0.000 | 0.0 | 0# | -18.35# |
| 56 | S | 4-bromofluorobenzene | 0.562 | 0.467 | 16.9 | 81 | 0.03 |
| 57 | T,P | 1,1,2,2-tetrachloroethane | 0.737 | 0.581 | 21.2# | 79 | 0.00 |
| 58 | T | vinyltoluene | 0.000 | 0.000 | 0.0 | 0# | -19.63# |
| 59 | T | 1,2,4-trimethylbenzene | 1.240 | 0.009 | 99.3# | 1# | 0.03 |
| 60 | T | 1,3-dichlorobenzene | 0.659 | 0.512 | 22.3# | 79 | 0.03 |
| 61 | T | 1,4-dichlorobenzene | 0.767 | 0.637 | 16.9 | 87 | 0.02 |
| 62 | T | 1,2-dichlorobenzene | 0.649 | 0.534 | 17.7 | 86 | 0.02 |
| 63 | T | naphthalene | 0.000 | 0.008 | 0.0 | 0# | 0.01 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6277.D Vial: 3
Acq On : 30 Oct 97 9:42 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1.00
Quant Time: Oct 30 10:36 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) bromochloromethane | 6.87 | 128 | 396649 | 50.00 | ug/Kg | 0.03 |
| 24) 1,4-difluorobenzene | 10.04 | 114 | 1390767 | 50.00 | ug/Kg | 0.07 |
| 42) chlorobenzene-d5 | 16.41 | 117 | 915991m | 50.00 | ug/Kg | 0.04 |
| **System Monitoring Compounds** | | | | | | |
| 29) 1,2-dichloroethane-d4 | 8.59 | 65 | 559530 | 48.65 | ug/Kg | 0.05 |
| Surrogate Spike 50.000 | Range 70 - 121 | | Recovery = 97.30% | | | |
| 40) toluene-d8 | 13.67 | 98 | 1252076m | 47.65 | ug/Kg | 0.04 |
| Surrogate Spike 50.000 | Range 81 - 117 | | Recovery = 95.30% | | | |
| 56) 4-bromofluorobenzene | 18.48 | 95 | 428011m | 41.59 | ug/Kg | 0.03 |
| Surrogate Spike 50.000 | Range 74 - 121 | | Recovery = 83.18% | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) dichlorodifluoromethane | 1.43 | 85 | 749506m | 46.99 | ug/Kg | 97 |
| 3) chloromethane | 1.57 | 50 | 466131 | 51.31 | ug/Kg | 98 |
| 4) vinyl chloride | 1.60 | 62 | 564523m | 56.01 | ug/Kg | 92 |
| 5) bromomethane | 1.92 | 94 | 405870 | 58.44 | ug/Kg | 99 |
| 6) chloroethane | 2.03 | 64 | 290970m | 70.84 | ug/Kg | 0 |
| 7) trichlorofluoromethane | 2.43 | 101 | 805483m | 57.70 | ug/Kg | 0 |
| 8) 1,1,2-trichlorotrifluoroet | 3.08 | 101 | 914685m | 44.87 | ug/Kg | 0 |
| 10) acrolein | 2.83 | 56 | 280004 | 193.29 | ug/Kg | 95 |
| 11) 1,1-dichloroethene | 2.96 | 96 | 585181m | 55.55 | ug/Kg | 98 |
| 12) acetone | 3.02 | 43 | 290658 | 52.71 | ug/Kg | 91 |
| 13) carbon disulfide | 3.27 | 76 | 1496737 | 55.32 | ug/Kg | 97 |
| 14) methylene chloride | 3.63 | 84 | 564683 | 51.73 | ug/Kg | 94 |
| 15) acrylonitrile | 4.02 | 53 | 267456 | 53.01 | ug/Kg | 96 |
| 16) trans-1,2-dichloroethene | 4.11 | 96 | 599302 | 49.99 | ug/Kg | 97 |
| 17) mtbe | 4.16 | 73 | 1155327m | 34.40 | ug/Kg | 96 |
| 18) N-hexane | 4.78 | 57 | 658770m | 42.92 | ug/Kg | 94 |
| 19) 1,1-dichloroethane | 4.89 | 63 | 864206m | 46.17 | ug/Kg | 99 |
| 20) vinyl acetate | 4.78 | 43 | 398700m | 41.31 | ug/Kg | 89 |
| 21) cis-1,2-dichloroethene | 6.20 | 96 | 668885 | 50.57 | ug/Kg | 97 |
| 23) 2-butanone | 6.29 | 43 | 485073 | 47.27 | ug/Kg | 99 |
| 25) chloroform | 7.03 | 83 | 997122m | 56.28 | ug/Kg | 0 |
| 26) 1,1,1-trichloroethane | 7.64 | 97 | 560581m | 36.82 | ug/Kg | 96 |
| 28) carbon tetrachloride | 8.22 | 117 | 286284 | 22.98 | ug/Kg | 96 |
| 30) benzene | 8.73 | 78 | 1425277 | 51.49 | ug/Kg | 99 |
| 31) 1,2-dichloroethane | 8.81 | 62 | 638131 | 50.37 | ug/Kg | 97 |
| 33) trichloroethene | 10.71 | 95 | 694039 | 58.34 | ug/Kg | 98 |
| 34) 1,2-dichloropropane | 11.22 | 63 | 541455 | 50.49 | ug/Kg | 93 |
| 35) bromodichloromethane | 11.96 | 83 | 509191m | 36.58 | ug/Kg | 97 |
| 37) 2-chloroethyl vinyl ether | 12.98 | 63 | 307711m | 39.78 | ug/Kg | 97 |

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

Quantitation Report (QT Reviewed)

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6277.D Vial: 3
Acq On : 30 Oct 97 9:42 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1.00
Quant Time: Oct 30 10:36 1997 Quant Results File: TCLSOILN.RES

Quant Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Initial Calibration
DataAcq Meth : TCLSOILN

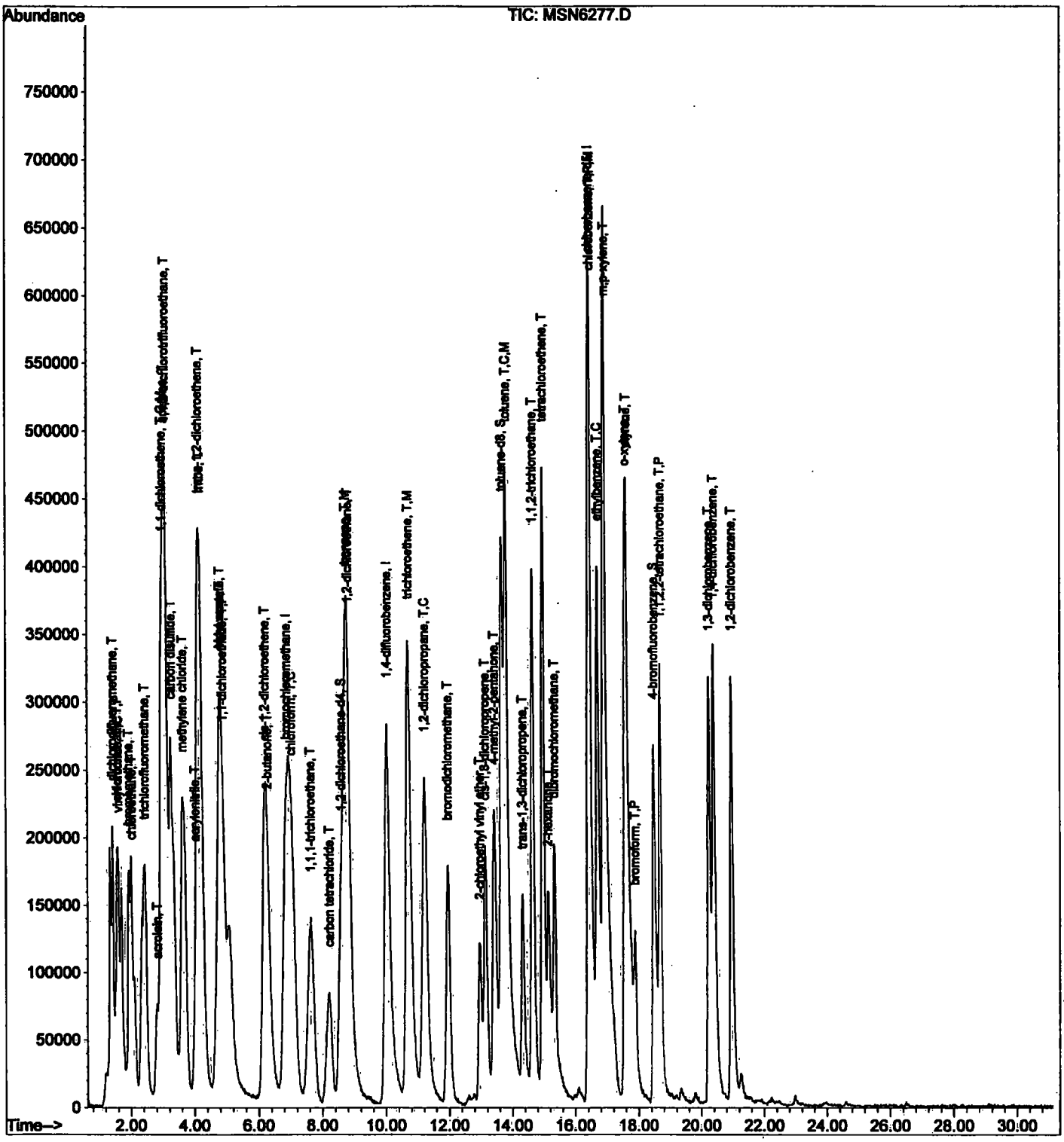
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) | cis-1,3-dichloropropene | 13.14 | 75 | 422542m | 32.30 ug/Kg | 98 |
| 39) | 4-methyl-2-pentanone | 13.41 | 43 | 756898 | 50.89 ug/Kg | 99 |
| 41) | toluene | 13.80 | 92 | 791804 | 48.99 ug/Kg | 98 |
| 43) | trans-1,3-dichloropropene | 14.33 | 75 | 268538 | 23.86 ug/Kg | 98 |
| 44) | 1,1,2-trichloroethane | 14.64 | 83 | 426423 | 49.48 ug/Kg | 99 |
| 45) | tetrachloroethene | 14.97 | 166 | 572296 | 51.17 ug/Kg | 98 |
| 46) | 2-hexanone | 15.15 | 43 | 464165 | 47.74 ug/Kg | 100 |
| 47) | dibromochloromethane | 15.33 | 129 | 275845m | 28.30 ug/Kg | 94 |
| 48) | chlorobenzene | 16.46 | 112 | 868582 | 47.80 ug/Kg | 98 |
| 49) | ethylbenzene | 16.70 | 91 | 1132827m | 41.80 ug/Kg | 98 |
| 50) | m,p-xylene | 16.91 | 106 | 913305 | 93.88 ug/Kg | 95 |
| 51) | o-xylene | 17.56 | 106 | 414316 | 45.15 ug/Kg | 93 |
| 52) | styrene | 17.62 | 104 | 658980 | 41.83 ug/Kg | 93 |
| 53) | bromoform | 17.89 | 173 | 111530m | 18.29 ug/Kg | 96 |
| 57) | 1,1,2,2-tetrachloroethane | 18.68 | 83 | 531915m | 39.42 ug/Kg | 96 |
| 60) | 1,3-dichlorobenzene | 20.25 | 146 | 468842m | 38.85 ug/Kg | 97 |
| 61) | 1,4-dichlorobenzene | 20.39 | 146 | 583285 | 41.49 ug/Kg | 97 |
| 62) | 1,2-dichlorobenzene | 20.95 | 146 | 489530 | 41.16 ug/Kg | 97 |

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

Quantitation Report

Data File : K:\CHEMSTN\MSN\DATA\QN2786\MSN6277.D Vial: 3
Acq On : 30 Oct 97 9:42 Operator: tcm
Sample : vstd050 Inst : GC/MS Ins
Misc : VN103097 Multiplr: 1.00
Quant Time: Oct 30 10:36 1997 Quant Results File: TCLSOILN.RES

Method : K:\CHEMSTN\MSN\METHODS\TCLSOILN.M
Title : Method 8260 soil ;OI ; Cal on 10/21/97
Last Update : Wed Oct 22 09:15:24 1997
Response via : Multiple Level Calibration



# Internal Standards

# Form VIII

FORM VIII
VOLATILE ORGANICS INTERNAL STANDARD AREA SUMMARY DATA

| Lab Name: AEN | Client Name: Ecology & Environment |
|---|---|
| Method: 8260 | Batch No.: L72972500 |
| | Date: 10/29/97 |

| | IS( BCM ) AREA # | RT # | IS( DFB ) AREA # | RT # | IS( CB ) AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 338547 | 6.84 | 1280658 | 10.01 | 852769 | 16.39 |
| UPPER LIMIT | 677094 | 7.34 | 2561316 | 10.51 | 1705538 | 16.89 |
| LOWER LIMIT | 169274 | 6.34 | 640329 | 9.51 | 426385 | 15.89 |
| Lab Sample No. | | | | | | |
| VN102997 | 308885 | 6.85 | 1193836 | 10.01 | 806086 | 16.39 |
| L72972500-001 | 156415 * | 6.83 | 557048 * | 10.02 | 293519 * | 16.40 |
| L72972500-002 | 126676 * | 6.86 | 299357 * | 10.00 | 109309 * | 16.40 |
| L72972500-003 | 135767 * | 6.83 | 386204 * | 10.00 | 149683 * | 16.39 |
| L72972500-004 | 210578 | 6.85 | 563117 * | 10.02 | 217429 * | 16.41 |
| L72972556-002MS | 420893 | 6.87 | 1508397 | 10.04 | 908014 | 16.40 |
| L72972556-002MD | 420172 | 6.82 | 1468693 | 10.01 | 900479 | 16.39 |

IS(BCM) = Bromochloromethane
IS(DFB ) = 1,4-Difluorobenzene
IS(CB ) = Chlorobenzene-d5

Area Upper Limit = +100 % of internal standard area
Area Lower Limit = -50 % of internal standard area
RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT
# Column used to flag values outside control limits with an asterisk
* Values outside control limits

FORM VIII
VOLATILE ORGANICS INTERNAL STANDARD AREA SUMMARY DATA

| Lab Name: AEN | Client Name: Ecology & Environment |
|---|---|
| Method: 8260 | Batch No.: L72972500 |
| | Date: 10/29/97 |

| | IS( BCM ) AREA # | RT # | IS( DFB ) AREA # | RT # | IS( CB ) AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 396649 | 6.87 | 1390767 | 10.04 | 915991 | 16.41 |
| UPPER LIMIT | 793298 | 7.37 | 2781534 | 10.54 | 1831982 | 16.91 |
| LOWER LIMIT | 198325 | 6.37 | 695384 | 9.54 | 457996 | 15.91 |
| Lab Sample No. | | | | | | |
| VN103097 | 366187 | 6.86 | 1356407 | 10.05 | 767170 | 16.42 |
| L72972500-001DL | 332203 | 6.89 | 1190677 | 10.09 | 739794 | 16.44 |
| L72972500-002DL | 313777 | 6.88 | 1229225 | 10.05 | 785766 | 16.43 |
| L72972500-003DL | 345923 | 6.86 | 1203801 | 10.07 | 786080 | 16.43 |
| L72972500-004DL | 336837 | 6.88 | 1149260 | 10.05 | 793407 | 16.44 |

IS(BCM) = Bromochloromethane
IS(DFB ) = 1,4-Difluorobenzene
IS(CB ) = Chlorobenzene-d5

Area Upper Limit = +100 % of internal standard area
Area Lower Limit = -50 % of internal standard area
RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT
# Column used to flag values outside control limits with an asterisk
* Values outside control limits

Sample Results

Form I

Operator ID: GC Quant Rev: 7 Quant Time: 971023 22:18
Output File: ^M3681::Q2 Injected at: 971023 21:34
Data File: >M3681::D5 Dilution Factor: 1.00000
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; ABI IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.15 | 152.0 | 47953 | 40.00 | ngs | 98 |
| 4) | 2-Fluorophenol (surr) | 6.71 | 112.0 | 12029 | 7.67 102 | ngs | 89 |
| 6) | Phenol-d5 (surr) | 10.37 | 99.0 | 16056 | 7.26 97 | ngs | 92 |
| 19) | *Naphthalene-d8 (istd) | 16.73 | 136.0 | 182788 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.70 | 82.0 | 8857 | 4.12 82 | ngs | 87 |
| 34) | *Acenaphthene-d10 (istd) | 23.73 | 164.0 | 75308 | 40.00 | ngs | 96 |
| 38) | 2-Fluorobiphenyl (surr) | 21.71 | 172.0 | 14795 | 7.00 140 * | ngs | 98 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.06 | 329.8 | 1649 | 4.64 62 | ngs | 90 |
| 56) | *Phenanthrene-d10 (istd) | 27.81 | 188.0 | 64995 | 40.00 | ngs | 86 |
| 62) | Phenanthrene | 27.87 | 178.0 | 1482 | .993 | ngs | 83 |
| 63) | Anthracene | 27.87 | 178.0 | 1482 | 1.02 | ngs | 84 |
| 65) | Di-n-butylphthalate | 29.80 | 149.0 | 4891 | 11.92 | ngs | 96 |
| 66) | Fluoranthene | 30.96 | 202.0 | 5425 | 7.03 | ngs | 98 |
| 67) | *Chrysene-d12 (istd) | 34.64 | 240.0 | 14266 | 40.00 | ngs | 95 |
| 69) | Pyrene | 31.51 | 202.0 | 6892 | 11.86 | ngs | 98 |
| 70) | Terphenyl-d14 (surr) | 32.10 | 244.0 | 3212 | 8.68 175 * | ngs | 90 |
| 73) | Benzo(a)anthracene | 34.61 | 228.0 | 1369 | 3.32 | ngs | 76 |
| 74) | Chrysene | 34.70 | 228.0 | 1996 | 5.49 | ngs | 79 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.20 | 149.0 | 42922 | 99.52 | ngs | 84 |
| 76) | *Perylene-d12 (istd) | 38.08 | 264.0 | 10536 | 40.00 | ngs | 98 |
| 77) | Di-n-octylphthalate | 36.45 | 149.0 | 1005 | 1.48 | ngs | 87 |
| 78) | Benzo(b)fluoranthene | 37.23 | 252.0 | 1854M | 5.30 | ngs | 75 |
| 79) | Benzo(k)fluoranthene | 37.28 | 252.0 | 915M | 3.00 | ngs | 75 |

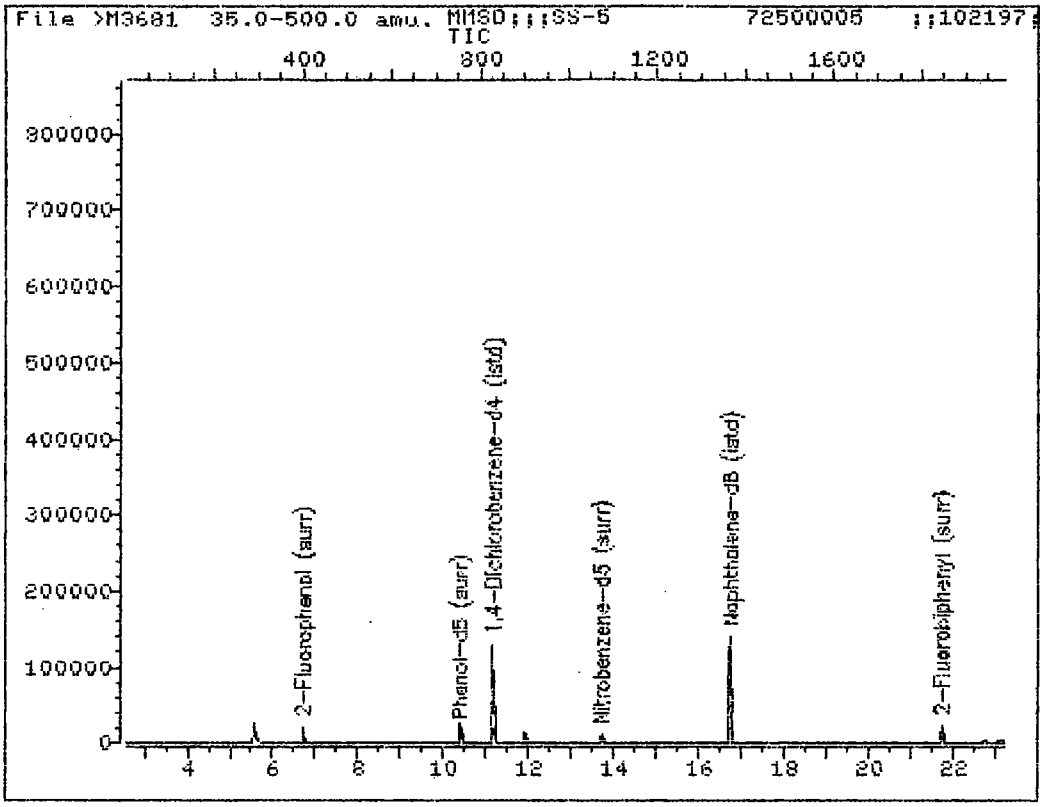
* Compound is ISTD

* surrogates high confirmed on MSD

Low Int's. Confirmed on ms/msD

TS-97%

TOTAL ION CHROMATOGRAM



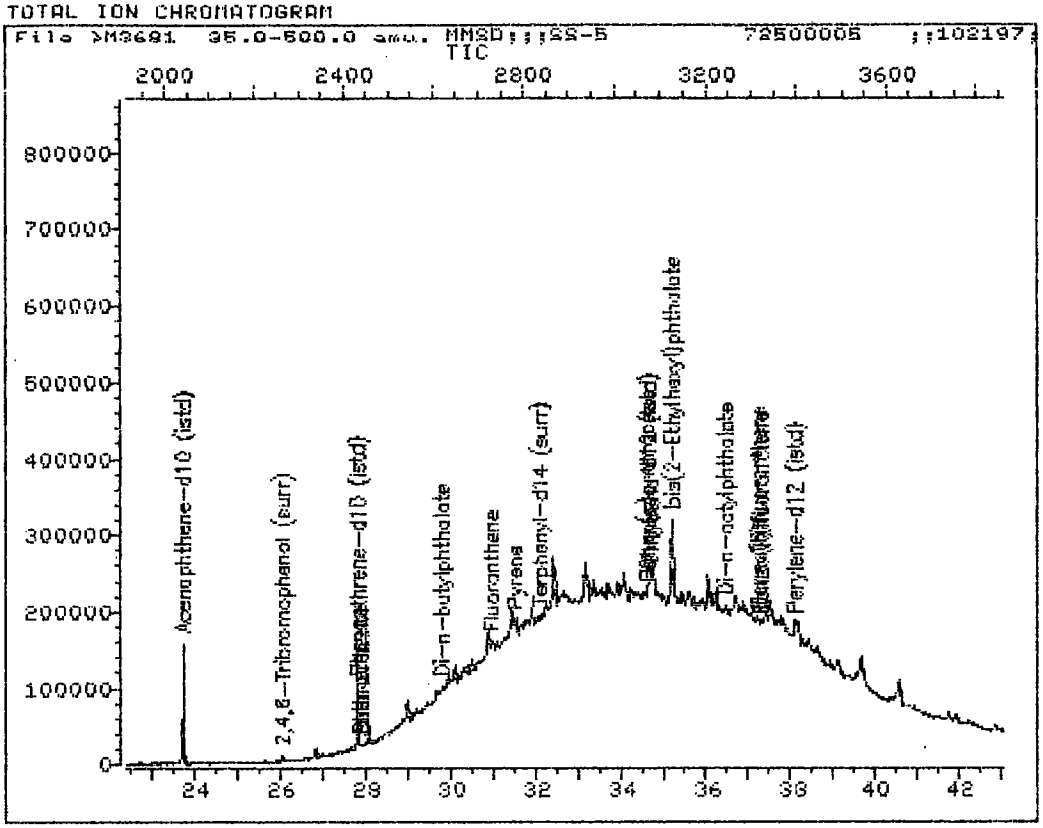

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971023 22:18
Injected at: 971023 21:34

Page 1 of 2

TOTAL ION CHROMATOGRAM



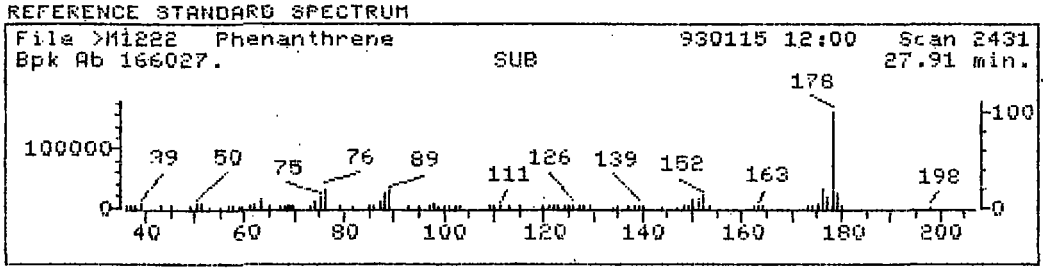

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

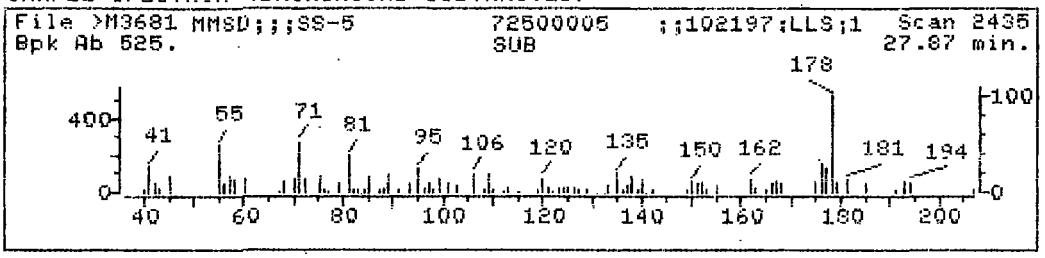
Operator ID: GC
Quant Time : 971023 22:18
Injected at: 971023 21:34

Page 2 of 2

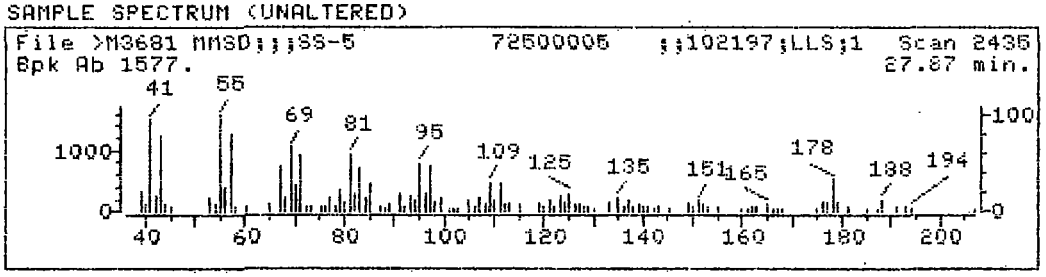
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



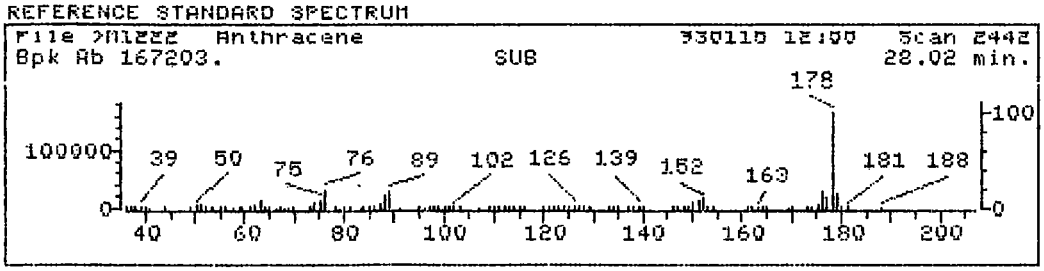

SAMPLE SPECTRUM (UNALTERED)



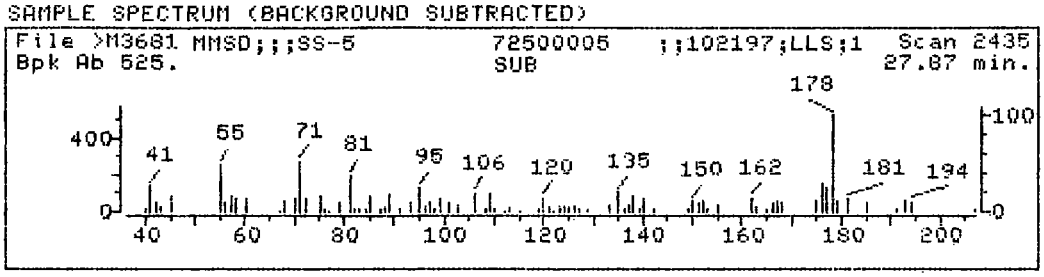

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 62
Compound Name : Phenanthrene
Scan Number : 2435
Retention Time: 27.87 min.
Quant Ion : 178.0
Area : 1482
Concentration : .993 ngs
q-value : 83

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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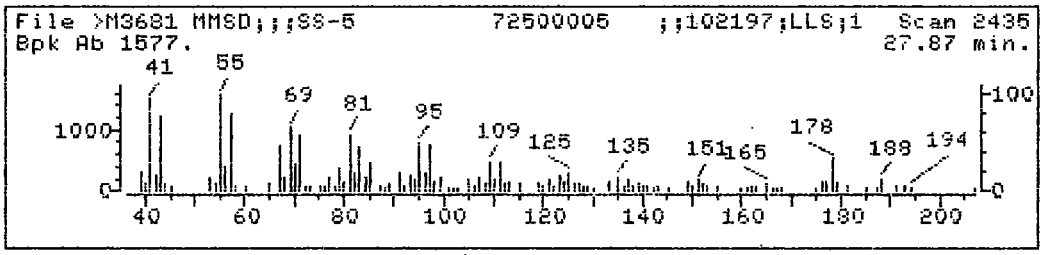
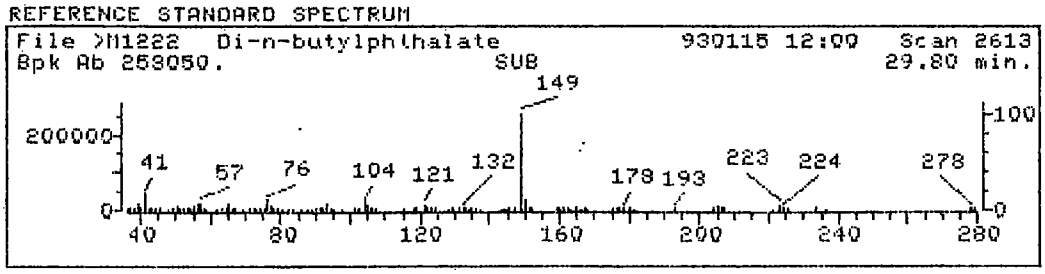


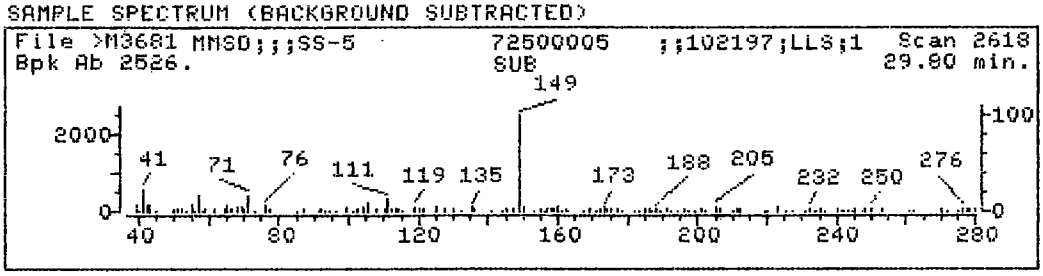

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 63
Compound Name : Anthracene
Scan Number : 2435
Retention Time: 27.87 min.
Quant Ion : 178.0
Area : 1482
Concentration : 1.02 ngs
q-value : 84

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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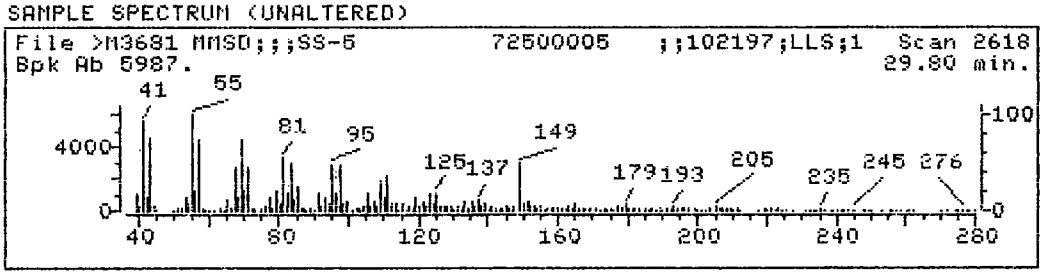
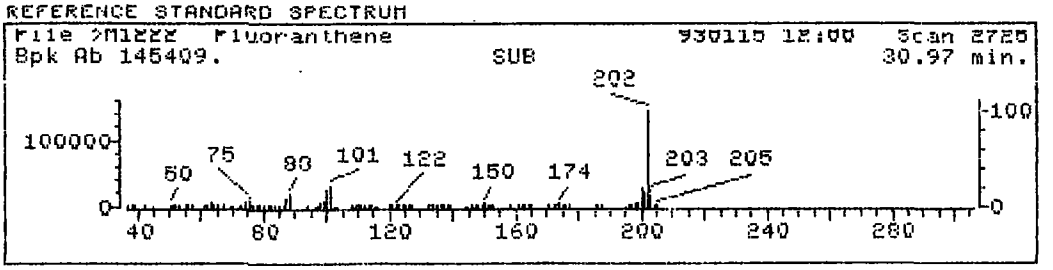


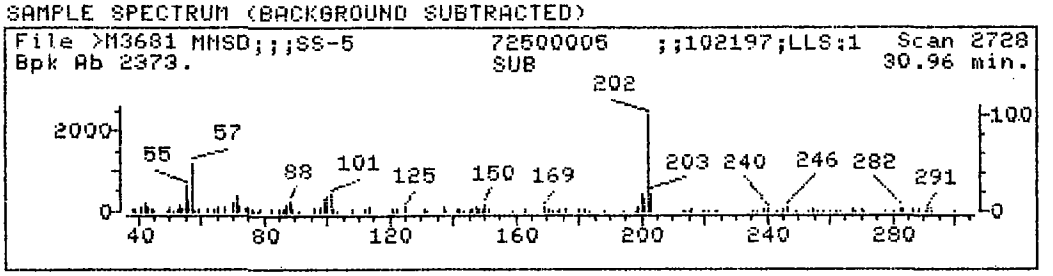

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 65
Compound Name : Di-n-butylphthalate
Scan Number : 2618
Retention Time: 29.80 min.
Quant Ion : 149.0
Area : 4891
Concentration : 11.92 ngs
q-value : 96

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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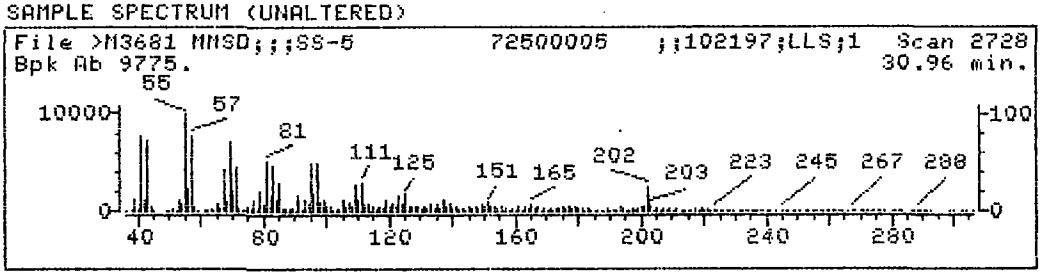
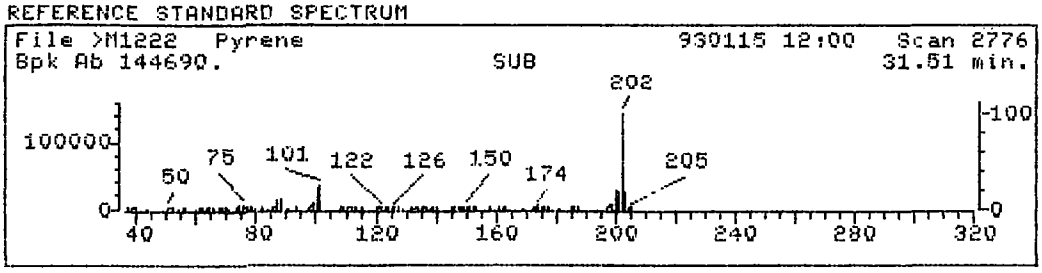


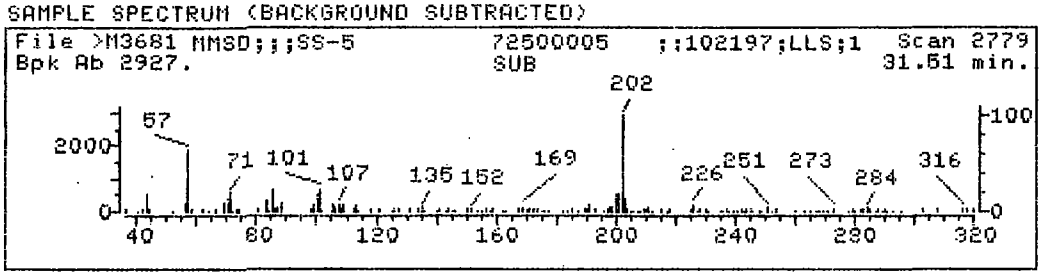

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 66
Compound Name : Fluoranthene
Scan Number : 2728
Retention Time: 30.96 min.
Quant Ion : 202.0
Area : 5425
Concentration : 7.03 ngs
q-value : 98

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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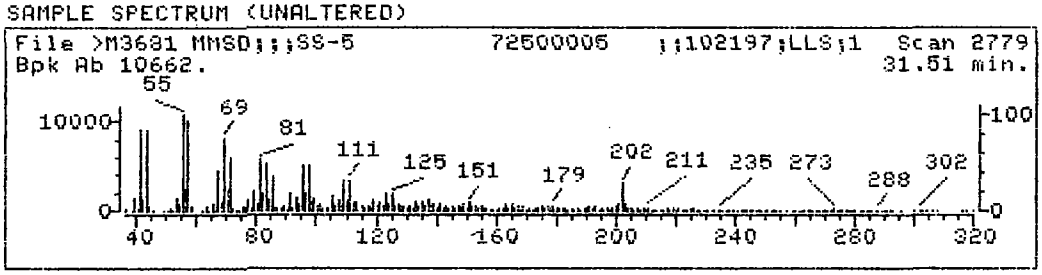
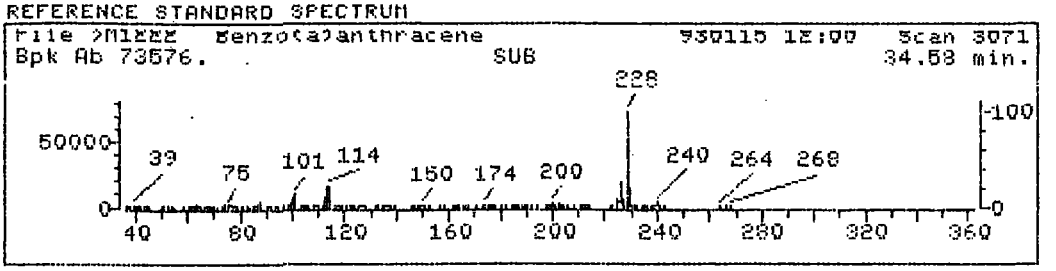


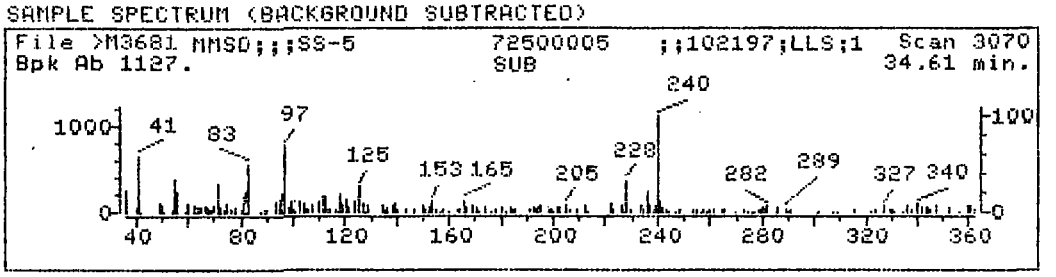

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 69
Compound Name : Pyrene
Scan Number : 2779
Retention Time: 31.51 min.
Quant Ion : 202.0
Area : 6892
Concentration : 11.86 ngs
q-value : 98

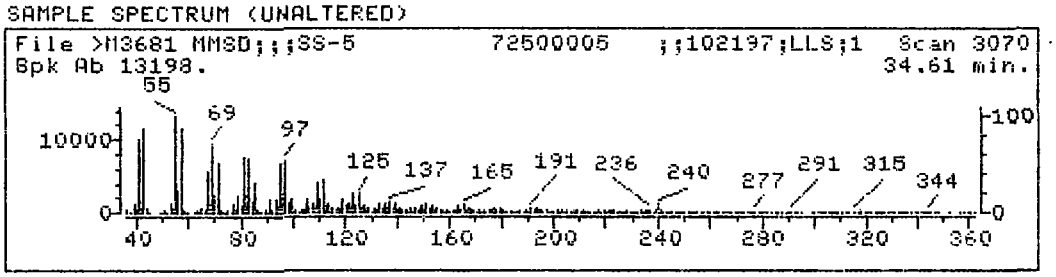
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



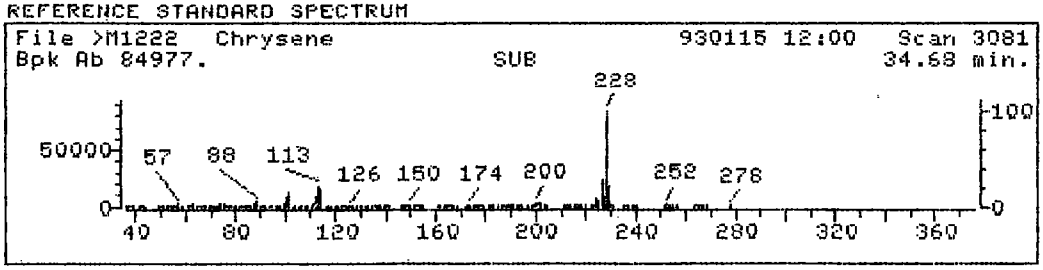

SAMPLE SPECTRUM (UNALTERED)



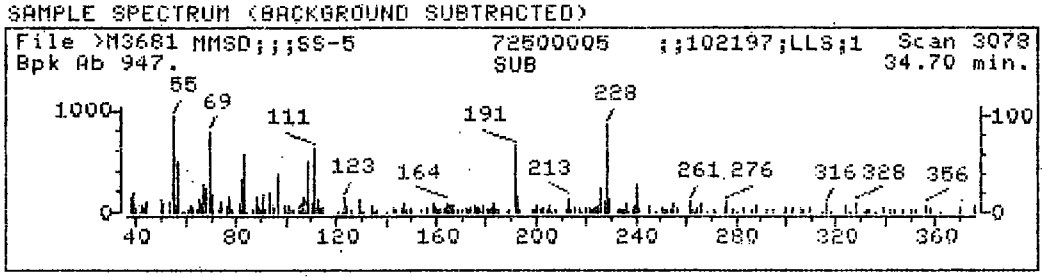

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 73
Compound Name : Benzo(a)anthracene
Scan Number : 3070
Retention Time: 34.61 min.
Quant Ion : 228.0
Area : 1369
Concentration : 3.32 ngs
q-value : 76

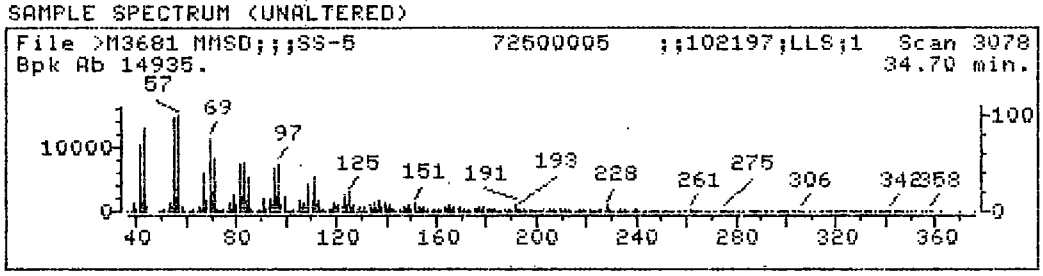
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



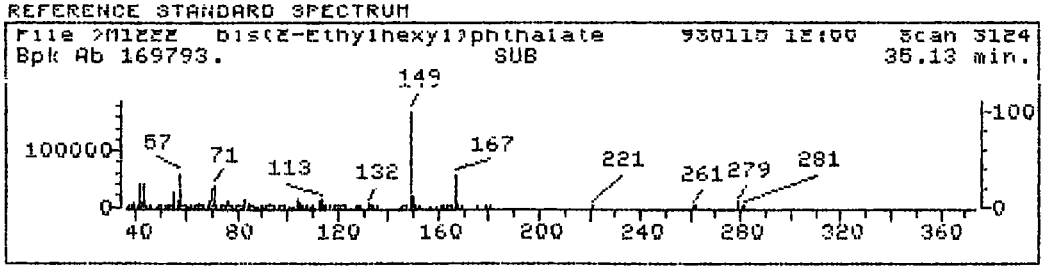

SAMPLE SPECTRUM (UNALTERED)



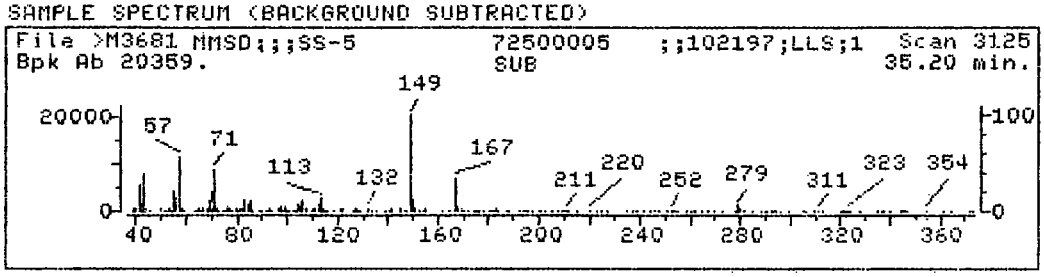

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 74
Compound Name : Chrysene
Scan Number : 3078
Retention Time: 34.70 min.
Quant Ion : 228.0
Area : 1996
Concentration : 5.49 ngs
q-value : 79

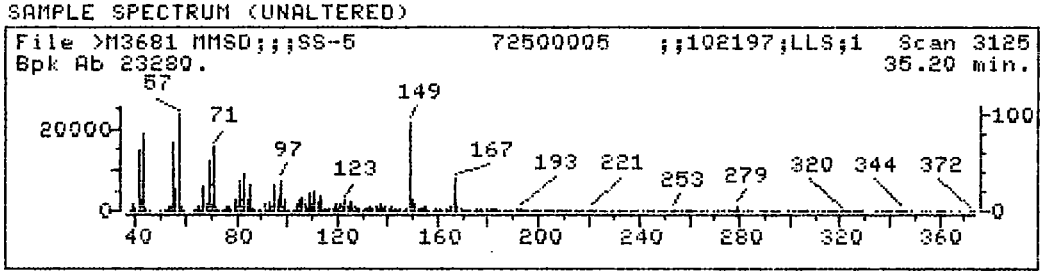
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >M3681::D5 Quant Output File: ^M3681::Q2
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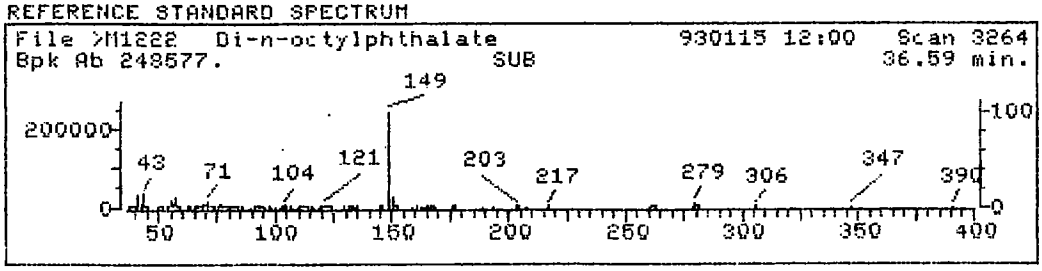
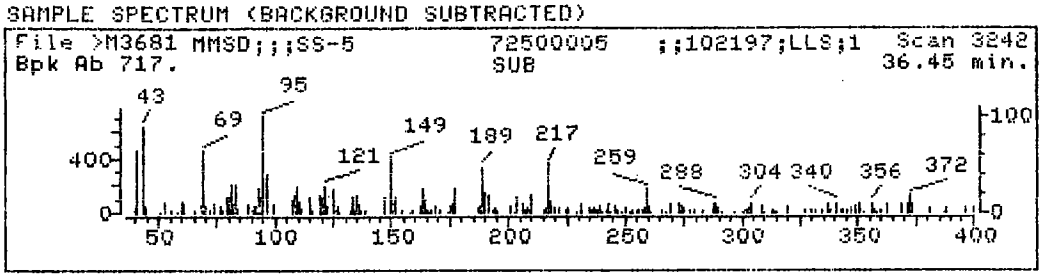
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 75
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 3125
Retention Time: 35.20 min.
Quant Ion : 149.0
Area : 42922
Concentration : 99.52 ngs
q-value : 84

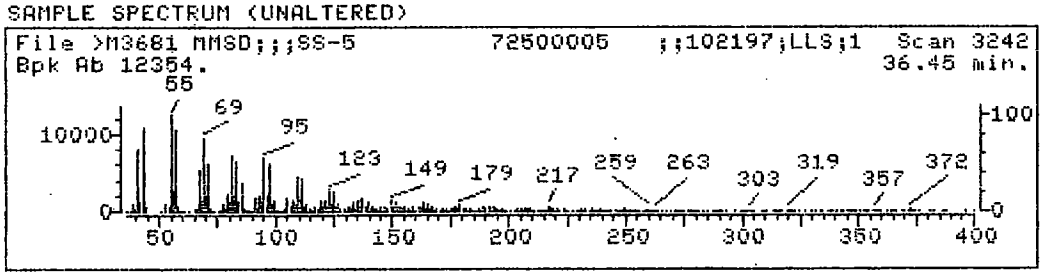
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



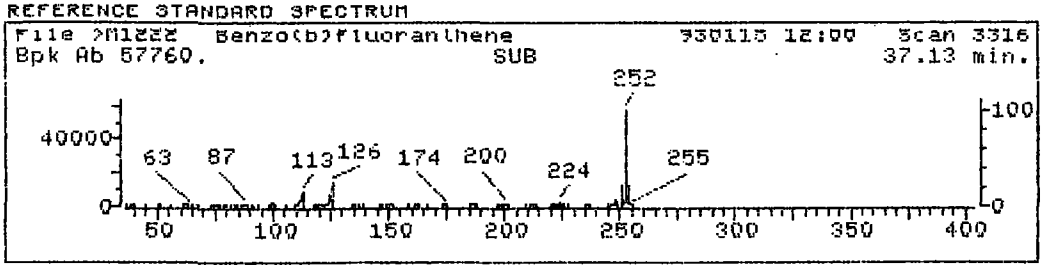

SAMPLE SPECTRUM (UNALTERED)



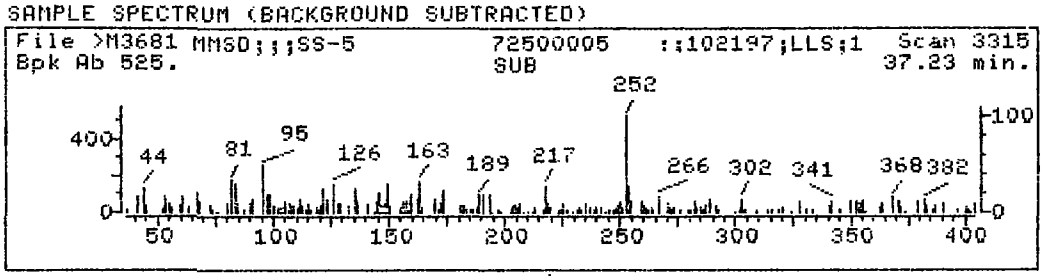

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 77
Compound Name : Di-n-octylphthalate
Scan Number : 3242
Retention Time: 36.45 min.
Quant Ion : 149.0
Area : 1005
Concentration : 1.48 ngs
q-value : 87

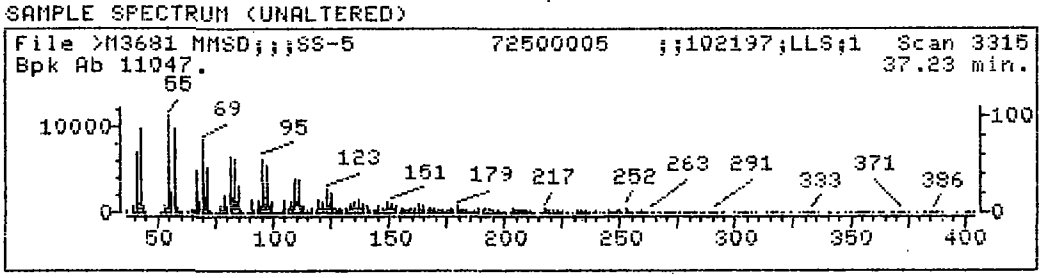
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



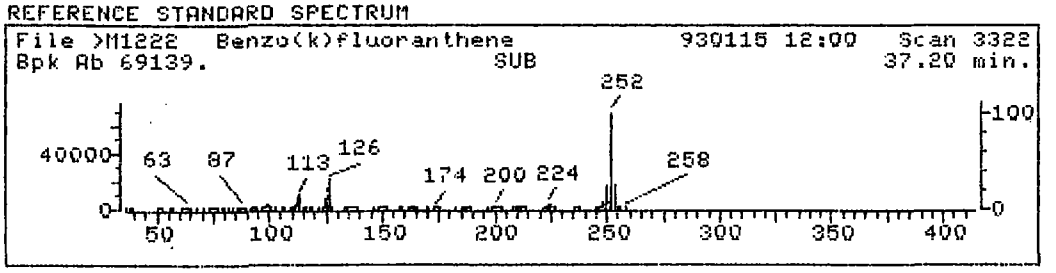

SAMPLE SPECTRUM (UNALTERED)



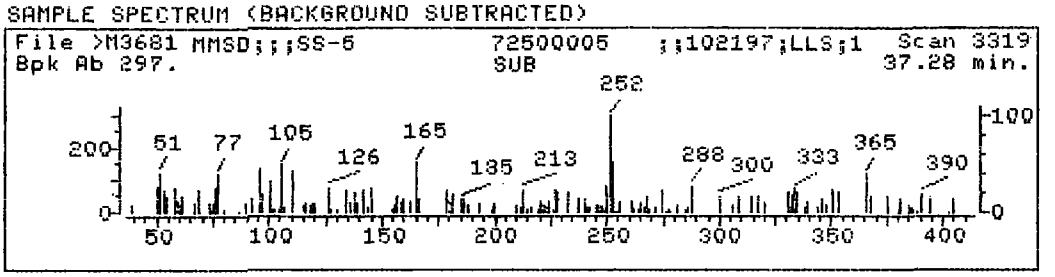

Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 78
Compound Name : Benzo(b)fluoranthene
Scan Number : 3315
Retention Time: 37.23 min.
Quant Ion : 252.0
Area : 1854M
Concentration : 5.30 ngs
q-value : 75

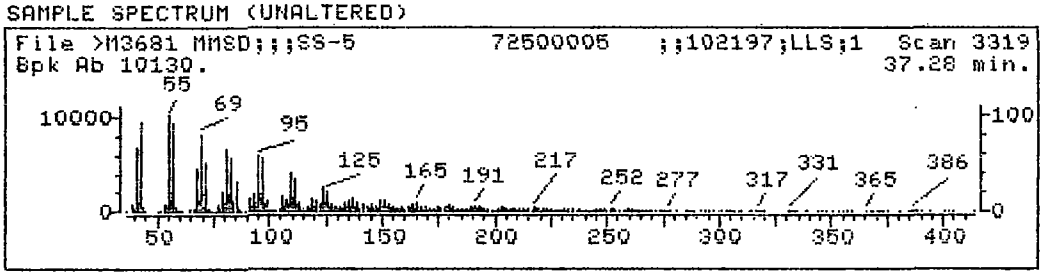
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >M3681::D5 Quant Output File: ^M3681::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005 ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL# 9
Quant Time: 971023 22:18 Quant ID File: IDMBNA::QT
Injected at: 971023 21:34 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 79
Compound Name : Benzo(k)fluoranthene
Scan Number : 3319
Retention Time: 37.28 min.
Quant Ion : 252.0
Area : 915M
Concentration : 3.00 ngs
q-value : 75

# Surrogates

# Form II

2D

# SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 ( )# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | METH BLK | 89 | 93 | 104 | 84 | 84 | 90 | | 0 |
| 02 | LCS | 87 | 95 | 110 | 82 | 80 | 86 | | 0 |
| 03 | SS-5 | 82 | 140 * | 175 * | 97 | 102 | 62 | | 2 |
| 04 | SS-5 MS | 61 | 98 | 132 | 76 | 73 | 132 | | 0 |
| 05 | SS-5 MSD | 84 | 133 * | 154 * | 98 | 96 | 58 | | 2 |
| 06 | | | | | | | | | |
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QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (surr)(23-120)
S2 (FBP) = 2-Fluorobiphenyl (surr(30-115)
S3 (TPH) = Terphenyl-d14 (surr) (18-137)
S4 (PHL) = Phenol-d5 (surr) (24-113)
S5 (2FP) = 2-Fluorophenol (surr) (25-121)
S6 (TBP) = 2,4,6-Tribromophenol ((19-122)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

page __ of __.

# MS/MSD

# Form III

# SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: SS-5 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 5000 | 0 | 3600 | 72 | 26- 90 |
| 2-Chlorophenol | 5000 | 0 | 3800 | 77 | 25-102 |
| 1,4-Dichlorobenzene | 3300 | 0 | 2500 | 76 | 28-104 |
| N-Nitroso-Di-n-propylam | 3300 | 0 | 2000 | 59 | 41-126 |
| 1,2,4-Trichlorobenzene | 3300 | 0 | 2600 | 79 | 38-107 |
| 4-Chloro-3-methylphenol | 5000 | 0 | 3100 | 79 | 26-103 |
| Acenaphthene | 3300 | 0 | 0 | 0 * | 31-137 |
| 4-Nitrophenol | 5000 | 0 | 0 | 0 * | 11-114 |
| 2,4-Dinitrotoluene | 3300 | 0 | 0 | 0 * | 28- 89 |
| Pentachlorophenol | 5000 | 0 | 0 | 0 * | 17-109 |
| Pyrene | 3300 | 400 | 7600 | 218 * | 35-142 |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 5000 | 5100 | 102 * | 34 | 35 | 26- 90 |
| 2-Chlorophenol | 5000 | 5200 | 104 * | 31 | 50 | 25-102 |
| 1,4-Dichlorobenzene | 3300 | 3300 | 100 | 27 * | 27 | 28-104 |
| N-Nitroso-Di-n-propylam | 3300 | 2600 | 79 | 29 | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 3300 | 3300 | 100 | 23 * | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 5000 | 4100 | 82 | 30 | 33 | 26-103 |
| Acenaphthene | 3300 | 0 | 0 * | *** * | 19 | 31-137 |
| 4-Nitrophenol | 5000 | 0 | 0 * | *** * | 50 | 11-114 |
| 2,4-Dinitrotoluene | 3300 | 1030 | 31 | *** * | 47 | 28- 89 |
| Pentachlorophenol | 5000 | 0 | 0 * | *** * | 47 | 17-109 |
| Pyrene | 3300 | 9700 | 281 * | 25 | 36 | 35-142 |

# column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 6 out of 11 outside limits

Spike Recovery: 22 out of 22 outside limits

COMMENTS:Due to matrix interferences the QC spikes could not all be recvered

# Method Blank Summary

# Form IV

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID: >M3650 Lab Sample ID: SS1021

Date Extracted: 10/21/97 Extraction:(Sepf/Cont/Sonc) SONC

Date Analyzed: 10/21/97 Time Analyzed: 19:10

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: MMSD

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 1 | LCS | SS1021BS | >M3651 | 10/21/97 |
| 2 | SS-5 | 72500005 | >M3681 | 10/23/97 |
| 3 | SS-5 MS | 72500005MS | >M3682 | 10/23/97 |
| 4 | SS-5 MSD | 72500005MSD | >M3683 | 10/23/97 |
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COMMENTS: _____.
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page __ of __.

FORM IV SV 1/87 Rev.

# Daily Tunes

## Form V

5B

# SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID: >MD440 DFTPP Injection Date: 10/21/97

Instrument ID: MMSD DFTPP Injection Time: 11:10

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 56.3 |
| 68 | Less than 2.0% of mass 69 | .6 ( .9)1 |
| 69 | Mass 69 relative abundance | 70.9 |
| 70 | Less then 2.0% of mass 69 | .2 ( .4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 44.1 |
| 197 | Less than 1.0% of mass 198 | .2 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 - 9.0% mass 198 | 6.6 |
| 275 | 10.0 - 30.0% of mass 198 | 19.0 |
| 365 | Greater than 1.00% of mass 198 | 1.7 |
| 441 | Present, but less than mass 443 | 9.8 |
| 442 | Greater than 40.0% of mass 198 | 64.3 |
| 443 | 17.0 - 23.0% of mass 442 | 12.3 ( 19.1)2 |

1-Value is % of mass 69 2-Value is % of mass 442

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 | SSTD050 | WS0852B | >M3643 | 10/21/97 | 12:32 |
| 02 | SSTD020 | WS0851B | >M3644 | 10/21/97 | 13:29 |
| 03 | SSTD080 | WS0853B | >M3645 | 10/21/97 | 14:25 |
| 04 | SSTD120 | WS0854B | >M3646 | 10/21/97 | 15:22 |
| 05 | SSTD160 | WS0855B | >M3647 | 10/21/97 | 16:19 |
| 06 | METH BLK | SS1021 | >M3650 | 10/21/97 | 19:10 |
| 07 | LCS | SS1021BS | >M3651 | 10/21/97 | 20:06 |
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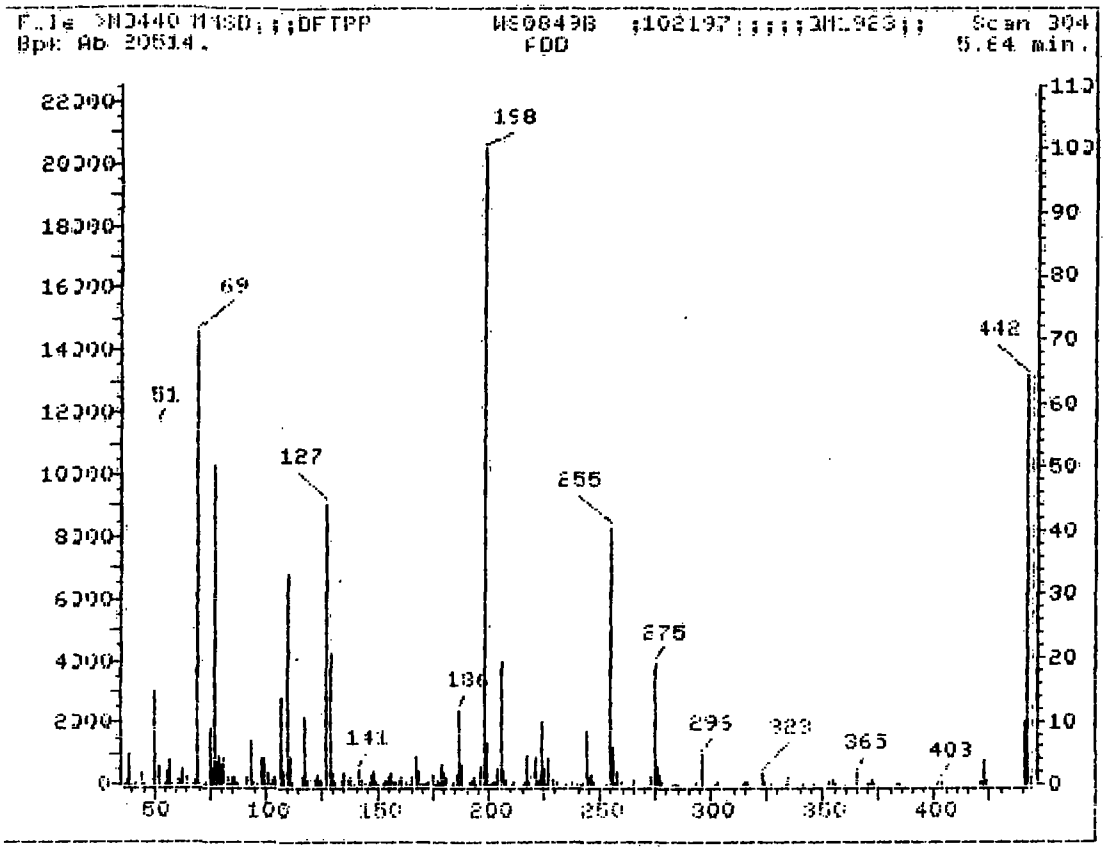


MS data file header from : >MD440::D5

Sample: MMSD;;;DFTPP Operator: GC SUPER CRP. 10/21/97 11:10
Misc : WS0849B ;102197;;;;;QM1923;; BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 1 Equip ID: MMSD
Method file: DFTPP Tuning file: MDFTPP No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 175. | 225. | 0. | 0. | 0. |
| Chromatographic times, min. : | 1.0 | 8.5 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>MD440 MMSD;;;DFTPP WS0849B ;102197;;;;;QM1923;;
304 ADD NRM

File: >MD440 Scan #: 304 Retn. time: 5.64

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 37.0 | .2 | 96.1 | .1 | 154.0 | .4 | 205.1 | 4.3 | 276.1 | 2.9 |
| 38.1 | .9 | 97.1 | .1 | 155.0 | 1.1 | 206.1 | 19.2 | 277.1 | 1.5 |
| 39.1 | 4.9 | 98.1 | 4.3 | 156.0 | 1.7 | 207.1 | 2.3 | 278.0 | .3 |
| 40.1 | .2 | 99.1 | 4.1 | 157.0 | .5 | 208.0 | .7 | 282.1 | .1 |
| 41.1 | .3 | 100.1 | .2 | 158.0 | .5 | 210.1 | .2 | 283.0 | .1 |
| 44.0 | 1.8 | 101.1 | 1.8 | 158.8 | .3 | 210.9 | .4 | 284.4 | .1 |
| 45.1 | .1 | 102.3 | .1 | 160.0 | .7 | 211.2 | .3 | 285.1 | .2 |
| 49.0 | .6 | 103.1 | .7 | 161.0 | 1.0 | 215.0 | .1 | 293.1 | .3 |
| 50.1 | 14.6 | 104.1 | 1.2 | 162.1 | .3 | 216.1 | .5 | 296.0 | 4.7 |
| 51.1 | 56.3 | 105.1 | 1.1 | 164.0 | .1 | 217.0 | 4.6 | 297.2 | .6 |
| 52.0 | 2.8 | 107.1 | 13.6 | 165.0 | 1.0 | 218.1 | .6 | 302.0 | .1 |
| 54.6 | .1 | 108.1 | 2.0 | 166.1 | .7 | 221.1 | 4.5 | 303.0 | .6 |
| 55.1 | .5 | 110.1 | 33.3 | 167.0 | 4.3 | 222.1 | .4 | 314.2 | .1 |
| 56.1 | 2.1 | 111.1 | 4.4 | 168.0 | 2.2 | 223.1 | .9 | 315.0 | .5 |
| 57.0 | 4.0 | 111.9 | .6 | 169.0 | .2 | 224.1 | 9.8 | 316.2 | .5 |
| 58.1 | .1 | 112.9 | .1 | 169.9 | .1 | 225.1 | 2.4 | 323.2 | 1.8 |
| 61.2 | .7 | 116.1 | .9 | 171.0 | .1 | 226.2 | .2 | 324.2 | .4 |
| 62.1 | .7 | 117.1 | 10.5 | 172.0 | .4 | 227.0 | 4.2 | 327.0 | .1 |
| 63.1 | 2.4 | 118.1 | .8 | 173.0 | .5 | 228.1 | .7 | 333.0 | .1 |
| 64.1 | .3 | 122.1 | .8 | 174.0 | .8 | 229.1 | .9 | 334.0 | 1.1 |
| 65.1 | 1.1 | 123.1 | 1.4 | 175.0 | 1.4 | 231.1 | .4 | 335.0 | .1 |
| 66.1 | .0 | 123.9 | .6 | 176.0 | .2 | 234.1 | .2 | 341.2 | .2 |
| 67.3 | .1 | 125.1 | .5 | 176.1 | .2 | 235.0 | .3 | 346.0 | .1 |
| 68.1 | .6 | 127.1 | 44.1 | 177.1 | .9 | 235.8 | .1 | 352.2 | .4 |
| 69.1 | 70.9 | 128.0 | 3.7 | 178.0 | .3 | 237.0 | .4 | 353.0 | .4 |
| 70.1 | .2 | 129.0 | 20.7 | 179.1 | 3.1 | 239.0 | .1 | 354.0 | .6 |
| 71.9 | .0 | 130.0 | 1.9 | 180.1 | 1.9 | 241.0 | .2 | 355.0 | .1 |
| 73.1 | .5 | 131.0 | .5 | 181.0 | 1.0 | 242.0 | .6 | 365.0 | 1.7 |
| 74.1 | 5.0 | 134.0 | .8 | 184.0 | .3 | 243.0 | .5 | 366.2 | .3 |
| 75.1 | 9.0 | 135.0 | 1.7 | 185.1 | 1.4 | 244.1 | 8.6 | 369.8 | .0 |
| 76.1 | 2.5 | 136.1 | .6 | 186.1 | 11.7 | 245.1 | 1.2 | 371.0 | .1 |
| 77.1 | 50.1 | 137.1 | 1.0 | 187.0 | 3.0 | 246.0 | 1.5 | 372.0 | .8 |
| 78.1 | 3.6 | 137.6 | .1 | 189.1 | .7 | 247.0 | .4 | 373.0 | .2 |
| 79.1 | 4.5 | 140.0 | .1 | 191.1 | .3 | 248.9 | .1 | 383.0 | .2 |
| 80.1 | 3.0 | 141.0 | 2.4 | 192.0 | .8 | 249.1 | .2 | 383.8 | .1 |
| 81.1 | 4.2 | 142.0 | .9 | 193.1 | 1.0 | 252.9 | .1 | 402.0 | .3 |
| 82.1 | 1.2 | 143.0 | .5 | 194.0 | .1 | 255.0 | 40.4 | 403.0 | .5 |
| 83.1 | 1.1 | 144.0 | .1 | 196.1 | 2.9 | 256.0 | 5.9 | 404.0 | .1 |
| 84.3 | .1 | 145.9 | .4 | 196.7 | .2 | 257.0 | .3 | 421.1 | .5 |
| 85.1 | .9 | 147.0 | 1.3 | 198.0 | 100.0 | 258.0 | 2.1 | 422.1 | .4 |
| 86.1 | 1.2 | 148.0 | 2.2 | 199.0 | 6.6 | 259.0 | .4 | 423.1 | 3.8 |
| 87.1 | .6 | 149.0 | .5 | 200.1 | .2 | 264.2 | .1 | 424.1 | .7 |
| 88.1 | .2 | 149.9 | .1 | 200.8 | .1 | 265.0 | .9 | 441.1 | 9.8 |
| 91.1 | 1.2 | 151.0 | .3 | 201.4 | .5 | 273.0 | 1.3 | 442.1 | 64.3 |
| 91.9 | .9 | 151.6 | .2 | 201.7 | .2 | 274.1 | 3.6 | 443.1 | 12.3 |
| 93.1 | 6.8 | 152.0 | .1 | 203.0 | .4 | 275.0 | 19.0 | 444.1 | 1.1 |
| 94.1 | .5 | 153.0 | .8 | 204.1 | 2.4 | | | | |

5B

# SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID: >MD442 DFTPP Injection Date: 10/23/97

Instrument ID: MMSD DFTPP Injection Time: 14:19

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 54.6 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 68.6 |
| 70 | Less then 2.0% of mass 69 | .4 ( .5)1 |
| 127 | 40.0 - 60.0% of mass 198 | 43.9 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 - 9.0% mass 198 | 6.8 |
| 275 | 10.0 - 30.0% of mass 198 | 20.8 |
| 365 | Greater than 1.00% of mass 198 | 2.0 |
| 441 | Present, but less than mass 443 | 8.4 |
| 442 | Greater than 40.0% of mass 198 | 62.1 |
| 443 | 17.0 - 23.0% of mass 442 | 12.4 ( 20.0)2 |

1-Value is % of mass 69 2-Value is % of mass 442

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 | SSTD050 | WS0852B | >M3673 | 10/23/97 | 14:34 |
| 02 | SS-5 | 72500005 | >M3681 | 10/23/97 | 21:34 |
| 03 | SS-5 MS | 72500005MS | >M3682 | 10/23/97 | 22:26 |
| 04 | SS-5 MSD | 72500005MSD | >M3683 | 10/23/97 | 23:19 |
| 05 | | | | | |
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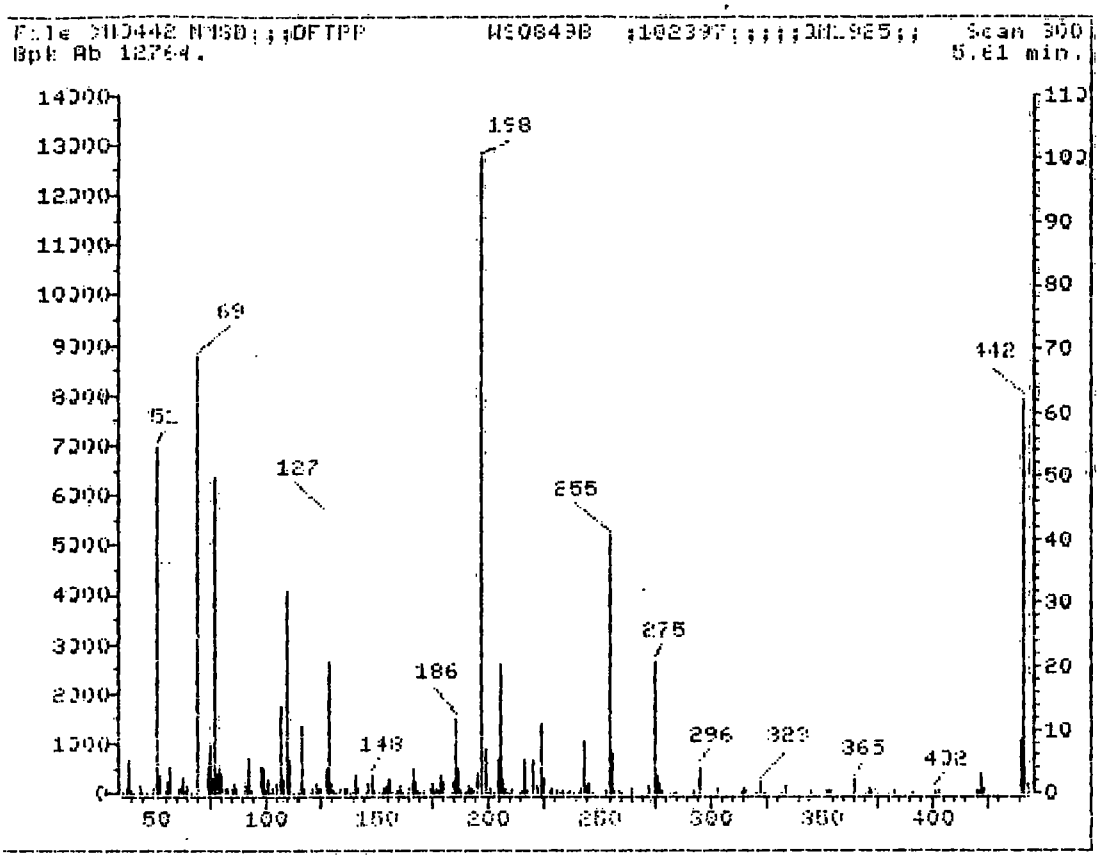
page __ of __.

FORM V SV 1/87 Rev.




MS data file header from : >MD442::D5

Sample: MMSD;;;DFTPP Operator: GC SUPER GRP. 10/23/97 14:19
Misc : WS0849B ;102397;;;;QM1925;; BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 1 Equip ID: MMSD
Method file: DFTPP Tuning file: MDFTPP No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 175. | 225. | 0. | 0. | 0. |
| Chromatographic times, min. : | 1.0 | 8.5 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>MD442 MMSD;;;DFTPP WS0849B ;102397;;;;;QM1925;;
300 NRM

File: >MD442 Scan #: 300 Retn. time: 5.61

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.1 | .1 | 98.1 | 4.3 | 151.5 | .2 | 201.5 | .7 | 272.9 | 1.0 |
| 38.0 | .7 | 99.1 | 3.7 | 151.6 | .2 | 202.9 | .5 | 273.9 | 3.4 |
| 39.1 | 5.0 | 100.1 | .5 | 153.0 | .7 | 204.0 | 2.6 | 274.9 | 20.8 |
| 40.0 | .3 | 100.9 | 2.2 | 153.9 | .6 | 205.0 | 5.0 | 275.9 | 2.8 |
| 40.9 | .3 | 102.1 | .1 | 155.0 | 1.0 | 206.0 | 20.3 | 276.9 | 1.3 |
| 44.0 | 1.2 | 102.9 | .8 | 156.0 | 2.0 | 207.0 | 2.2 | 277.8 | .3 |
| 44.8 | .1 | 104.1 | 1.2 | 157.0 | .5 | 208.0 | .6 | 283.9 | .2 |
| 46.8 | .1 | 105.1 | 1.4 | 158.0 | .6 | 208.9 | .2 | 284.9 | .2 |
| 49.1 | .6 | 107.1 | 13.6 | 158.9 | .5 | 210.0 | .4 | 292.7 | .3 |
| 50.0 | 14.0 | 107.9 | 2.1 | 159.9 | .5 | 211.0 | .8 | 296.0 | 4.2 |
| 51.1 | 54.6 | 110.1 | 31.8 | 161.0 | .9 | 211.7 | .2 | 296.8 | .6 |
| 52.1 | 2.7 | 111.1 | 5.0 | 162.0 | .2 | 215.0 | .2 | 303.0 | .6 |
| 55.0 | .5 | 111.9 | .5 | 165.0 | .9 | 216.0 | .5 | 304.0 | .2 |
| 56.0 | 1.6 | 112.9 | .2 | 166.0 | .6 | 216.9 | 5.1 | 314.0 | .2 |
| 57.0 | 4.0 | 115.1 | .1 | 167.0 | 4.0 | 217.9 | .5 | 315.0 | .6 |
| 61.1 | .9 | 116.1 | .7 | 168.0 | 1.8 | 221.0 | 5.0 | 316.0 | .3 |
| 62.1 | .7 | 116.9 | 10.4 | 168.9 | .3 | 222.9 | 1.0 | 320.8 | .2 |
| 63.1 | 2.5 | 117.9 | .8 | 169.9 | .2 | 224.0 | 10.9 | 323.0 | 1.7 |
| 64.1 | .5 | 120.1 | .2 | 172.0 | .4 | 225.0 | 2.5 | 324.0 | .2 |
| 65.1 | 1.0 | 121.1 | .1 | 173.0 | .5 | 227.0 | 4.5 | 327.0 | .3 |
| 66.9 | .1 | 121.9 | .8 | 174.0 | .8 | 228.0 | .6 | 332.0 | .1 |
| 69.1 | 68.6 | 122.9 | 1.3 | 175.0 | 1.3 | 229.0 | .8 | 334.0 | 1.1 |
| 69.9 | .4 | 123.9 | .6 | 176.0 | .5 | 231.0 | .4 | 335.0 | .2 |
| 73.1 | .5 | 124.9 | .6 | 177.0 | .9 | 232.9 | .1 | 345.8 | .4 |
| 74.1 | 4.8 | 126.9 | 43.9 | 177.8 | .4 | 233.8 | .3 | 352.0 | .5 |
| 75.1 | 7.6 | 127.9 | 3.9 | 179.0 | 2.9 | 234.9 | .4 | 353.0 | .4 |
| 76.1 | 2.4 | 129.0 | 20.8 | 180.0 | 1.7 | 236.0 | .1 | 354.0 | .3 |
| 77.1 | 49.6 | 130.0 | 1.5 | 181.0 | .9 | 236.9 | .3 | 364.8 | 2.0 |
| 78.1 | 3.0 | 131.0 | .3 | 183.9 | .3 | 238.9 | .2 | 365.8 | .3 |
| 79.1 | 4.5 | 132.0 | .2 | 185.0 | 1.6 | 240.8 | .2 | 371.8 | .9 |
| 79.9 | 3.1 | 134.0 | .6 | 186.0 | 11.6 | 242.0 | .6 | 373.0 | .3 |
| 81.1 | 4.2 | 135.0 | 1.7 | 187.0 | 3.6 | 242.9 | .5 | 382.8 | .3 |
| 82.1 | .9 | 136.0 | .7 | 188.0 | .4 | 244.0 | 8.1 | 391.0 | .1 |
| 82.9 | .8 | 137.0 | .9 | 188.9 | .8 | 245.0 | 1.2 | 391.8 | .1 |
| 85.1 | .7 | 138.8 | .2 | 190.0 | .2 | 245.9 | 1.4 | 401.8 | .5 |
| 85.9 | 1.4 | 140.0 | .2 | 190.8 | .3 | 247.0 | .3 | 402.8 | .4 |
| 87.1 | .7 | 141.0 | 2.7 | 192.0 | .9 | 253.0 | .3 | 420.9 | .4 |
| 91.1 | 1.2 | 142.0 | .9 | 193.0 | .8 | 254.9 | 40.6 | 421.9 | .3 |
| 91.9 | 1.0 | 142.9 | .5 | 193.9 | .3 | 255.9 | 6.2 | 422.9 | 3.3 |
| 92.9 | 5.6 | 146.0 | .3 | 195.1 | .1 | 256.9 | .4 | 423.9 | .8 |
| 94.1 | .5 | 147.0 | 1.3 | 196.0 | 3.0 | 257.9 | 2.1 | 440.9 | 8.4 |
| 95.1 | .1 | 148.0 | 2.9 | 197.9 | 100.0 | 259.0 | .3 | 441.9 | 62.1 |
| 95.4 | .1 | 149.0 | .4 | 198.9 | 6.8 | 259.8 | .1 | 442.9 | 12.4 |
| 95.8 | .2 | 150.0 | .1 | 199.8 | .4 | 265.0 | .7 | 444.0 | 1.3 |
| 95.9 | .2 | 151.0 | .2 | 200.8 | .1 | | | | |

# Initial Calibration

# Form VI

Initial Calibration Data
MSL Compounds

Case No: Instrument ID: MM50

Contractor: OEM Illinois Calibration Date: 10/22/97

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % RSD for CCC is 30%

| Laboratory ID: | >M3643 | >M3642 | >M3644 | >M3645 | >M3646 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | RF | RF | RF | RF | RF | | | | | | |
| Compound | 20.00 | 50.00 | 80.00 | 120.00 | 160.00 | $\overline{RF}$ | % RSD | CORR1 | CORR2 | CCC | SPCC |
| N-Nitrosodimethylamine | 1.22484 | 1.16885 | 1.14011 | 1.11375 | 1.12633 | 1.15478 | 3.828 | .999884 | .999899 | | |
| Pyridine | 1.37717 | 1.37133 | 1.24985 | 1.15584 | 1.22112 | 1.27506 | 7.589 | .997560 | .997686 | | |
| 2-Fluorophenol (surr) | 1.44086 | 1.33663 | 1.32678 | 1.23901 | 1.20196 | 1.30905 | 7.128 | .998942 | .999840 | | |
| Aniline | 2.52301 | 2.44266 | 2.40030 | 2.35420 | 2.26838 | 2.39771 | 3.976 | .999447 | .999949 | | |
| Phenol-d5 (surr) | 2.09714 | 2.04896 | 1.93042 | 1.46827 | 1.67955 | 1.84487 | 14.386 | .982951 | .983016 | | |
| Phenol | 2.21697 | 1.94299 | 1.88632 | 1.66477 | 1.71611 | 1.88543 | 11.578 | .997866 | .997887 | * | |
| bis(2-Chloroethyl)ether | 1.91487 | 1.79709 | 1.83670 | 1.79018 | 1.64428 | 1.79662 | 5.485 | .996860 | .998967 | | |
| 2-Chlorophenol | 1.55719 | 1.37258 | 1.27661 | 1.14153 | 1.08372 | 1.28632 | 14.695 | .996997 | .999736 | | |
| 1,3-Dichlorobenzene | 1.62932 | 1.48462 | 1.47031 | 1.33400 | 1.25439 | 1.43453 | 10.119 | .996634 | .999710 | | |
| 1,4-Dichlorobenzene | 1.75684 | 1.54435 | 1.49139 | 1.35244 | 1.26907 | 1.48281 | 12.690 | .996951 | .999829 | * | |
| 1,2-Dichlorobenzene | 1.69699 | 1.47314 | 1.40457 | 1.25343 | 1.16451 | 1.39853 | 14.763 | .995696 | .999794 | | |
| Benzyl Alcohol | 1.85495 | 1.79371 | 1.78817 | 1.74447 | 1.69094 | 1.77444 | 3.441 | .999531 | .999962 | | |
| 2-Methylphenol | 1.55983 | 1.44151 | 1.42733 | 1.33234 | 1.26329 | 1.40486 | 8.050 | .998060 | .999870 | | |
| bis(2-chloroisopropyl)ether | 3.53403 | 3.27412 | 3.34015 | 3.28862 | 3.20433 | 3.32825 | 3.751 | .999693 | .999851 | | |
| Hexachloroethane | .82032 | .77881 | .75933 | .69019 | .66417 | .74256 | 8.657 | .997647 | .999696 | | |
| 4-Methylphenol | 2.10380 | 1.97597 | 1.95709 | 1.72978 | 1.57225 | 1.86778 | 11.413 | .991858 | .999360 | | |
| N-Nitroso-Di-n-propylamine | 1.88708 | 1.75083 | 1.68775 | 2.13955 | 2.05488 | 1.90402 | 10.128 | .993215 | .994564 | | ** |
| Nitrobenzene-d5 (surr) | .47934 | .48214 | .47415 | .46691 | .44698 | .46990 | 2.993 | .999152 | .999906 | | |
| Nitrobenzene | .51152 | .50349 | .49246 | .46283 | .39991 | .47404 | 9.570 | .988881 | .996917 | | |
| Isophorone | 1.01174 | .96418 | .97938 | .98870 | .98451 | .98570 | 1.751 | .999930 | .999940 | | |
| 2-Nitrophenol | .19672 | .20328 | .20060 | .19941 | .20485 | .20097 | 1.594 | .999741 | .999856 | * | |
| 2,4-Dimethylphenol | .42892 | .42185 | .41943 | .30642 | .42252 | .39983 | 13.089 | .964516 | .975658 | | |
| bis(2-Chloroethoxy)methane | .61020 | .56771 | .49982 | .52575 | .53150 | .54700 | 7.832 | .998471 | .999064 | | |
| 2,4-Dichlorophenol | .27384 | .25911 | .26460 | .26324 | .25134 | .26243 | 3.127 | .999163 | .999627 | * | |
| Benzoic acid | .15972 | .21947 | .25518 | .27726 | .29323 | .24097 | 22.071 | .998988 | .999852 | | |
| 1,2,4-Trichlorobenzene | .30772 | .28657 | .27977 | .27469 | .26368 | .28249 | 5.804 | .999466 | .999906 | | |
| Naphthalene | 1.11706 | .99465 | .95860 | .91837 | .88241 | .97422 | 9.268 | .999418 | .999984 | | |
| 4-Chloroaniline | .42991 | .42934 | .42422 | .41597 | .40313 | .42051 | 2.666 | .999507 | .999981 | | |
| Hexachlorobutadiene | .19339 | .17381 | .16446 | .15085 | .14316 | .16513 | 11.962 | .997861 | .999936 | * | |
| 4-Chloro-3-methylphenol | .37468 | .35454 | .34529 | .31161 | .30081 | .33739 | 9.075 | .997501 | .999569 | * | |

RF - Response Factor (Subscript is amount in ngs)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: MMSD

Contractor: AEN Illinois Calibration Date: 10/22/97

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % RSD for CCC is 30%

| Laboratory ID: | >M3643 | >M3642 | >M3644 | >M3645 | >M3646 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | RF | RF | RF | RF | RF | | | | | | |
| Compound | 20.00 | 50.00 | 80.00 | 120.00 | 160.00 | $\overline{RF}$ | % RSD | CORR1 | CORR2 | CCC | SPCC |
| 2-Methylnaphthalene | .93730 | .82690 | .77835 | .70152 | .66591 | .78199 | 13.729 | .997355 | .999813 | | |
| Hexachlorocyclopentadiene | .26161 | .30726 | .27068 | .26202 | .23897 | .26811 | 9.265 | .993565 | .999145 | | ** |
| 2,4,6-Trichlorophenol | .34418 | .34789 | .34450 | .34154 | .33142 | .34191 | 1.837 | .999602 | .999956 | * | |
| 2,4,5-Trichlorophenol | .34293 | .35725 | .34015 | .30379 | .28413 | .32565 | 9.351 | .993900 | .999830 | | |
| 2-Fluorobiphenyl (surr) | 1.33991 | 1.16456 | 1.11073 | 1.04255 | .95259 | 1.12207 | 12.948 | .996529 | .999554 | | |
| 2-Chloronaphthalene | 1.21324 | 1.10235 | 1.05857 | .99366 | .93532 | 1.06063 | 10.025 | .998077 | .999953 | | |
| 2-Nitroaniline | .50661 | .54298 | .54314 | .56920 | .56173 | .54473 | 4.446 | .999754 | .999754 | | |
| Acenaphthylene | 2.05690 | 1.82750 | 1.72639 | 1.60635 | 1.49934 | 1.74329 | 12.303 | .997559 | .999954 | | |
| Dimethylphthalate | 1.52866 | 1.38817 | 1.30552 | 1.19372 | 1.09583 | 1.30238 | 12.908 | .995463 | .999899 | | |
| 2,6-Dinitrotoluene | .30242 | .32042 | .30441 | .28828 | .27889 | .29888 | 5.340 | .998406 | .999888 | | |
| Acenaphthene | 1.28903 | 1.10423 | 1.02088 | .94736 | .87224 | 1.04675 | 15.330 | .996971 | .999878 | * | |
| 3-Nitroaniline | .49515 | .47387 | .52171 | .52695 | .56027 | .51559 | 6.375 | .998466 | .999653 | | |
| 2,4-Dinitrophenol | .07186 | .10589 | .11275 | .13843 | .14584 | .11495 | 25.544 | .996487 | .998814 | | ** |
| Dibenzofuran | 1.68616 | 1.50997 | 1.45843 | 1.35510 | 1.26503 | 1.45494 | 11.004 | .997391 | .999882 | | |
| 2,4-Dinitrotoluene | .35711 | .37457 | .38088 | .40453 | .34467 | .37235 | 6.170 | .989882 | .992364 | | |
| 4-Nitrophenol | .19972 | .22074 | .22863 | .23123 | .24371 | .22481 | 7.239 | .999302 | .999864 | | ** |
| Fluorene | 1.29284 | 1.17537 | 1.11200 | 1.02878 | .93926 | 1.10965 | 12.212 | .995508 | .999750 | | |
| Diethylphthalate | 1.63571 | 1.48354 | 1.50891 | 1.28580 | 1.19070 | 1.42093 | 12.641 | .991076 | .998495 | | |
| 4-Chlorophenyl-phenylether | .60876 | .55042 | .50826 | .46321 | .42759 | .51165 | 13.943 | .995786 | .999989 | | |
| 4-Nitroaniline | .20586 | .18299 | .20695 | .26120 | .25815 | .22303 | 15.608 | .993316 | .995099 | | |
| Azobenzene (2) | 1.99990 | 1.97562 | 1.77564 | 1.74382 | 1.57829 | 1.81465 | 9.649 | .995600 | .998842 | | |
| 2,4,6-Tribromophenol (surr) | .19899 | .18762 | .19149 | .18810 | .17739 | .18872 | 4.130 | .998558 | .999526 | | |
| 4,6-Dinitro-2-methylphenol | .08425 | .10553 | .10618 | .11405 | .10798 | .10360 | 10.936 | .998457 | .998886 | | |
| N-Nitrosodiphenylamine (1) | .54578 | .48736 | .41051 | .33523 | .29028 | .41383 | 25.422 | .974448 | .999793 | * | |
| 4-Bromophenyl-phenylether | .21418 | .19523 | .17993 | .16670 | .15453 | .18211 | 12.887 | .996691 | .999971 | | |
| Hexachlorobenzene | .32658 | .27064 | .25110 | .23072 | .21312 | .25843 | 16.942 | .997213 | .999918 | | |
| Pentachlorophenol | .12068 | .12122 | .12466 | .12779 | .12427 | .12372 | 2.330 | .999622 | .999692 | * | |
| Phenanthrene | 1.12489 | .93318 | .90481 | .83667 | .79382 | .91867 | 13.902 | .998612 | .999848 | | |
| Anthracene | 1.06843 | .95452 | .87430 | .79650 | .75975 | .89070 | 13.972 | .997824 | .999820 | | |
| Carbazole | .85871 | .72784 | .67765 | .63828 | .63075 | .70665 | 13.209 | .999778 | .999837 | | |

RF - Response Factor (Subscript is amount in ngs)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: MMSD

Contractor: AEN Illinois Calibration Date: 10/22/97

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % RSD for CCC is 30%

| Laboratory ID: | >M3643 | >M3642 | >M3644 | >M3645 | >M3646 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | RF | RF | RF | RF | RF | | | | | | |
| Compound | 20.00 | 50.00 | 80.00 | 120.00 | 160.00 | $\overline{RF}$ | % RSD | CORR1 | CORR2 | CCC | SPCC |
| Di-n-butylphthalate | 1.61860 | 1.42432 | 1.35276 | 1.08648 | .98562 | 1.29356 | 19.859 | .982543 | .997510 | | |
| Fluoranthene | .99740 | .84664 | .82962 | .72569 | .66146 | .81216 | 15.816 | .992883 | .999264 | * | |
| Benzidine | .20570 | .16214 | .14587 | .13341 | .14519 | .15846 | 17.869 | .995300 | .998001 | | |
| Pyrene | 1.66937 | 1.56825 | 1.59481 | 1.74768 | 1.56854 | 1.62973 | 4.775 | .995192 | .995562 | | |
| Terphenyl-d14 (surr) | 1.08535 | 1.03881 | 1.02404 | 1.06032 | .98001 | 1.03770 | 3.824 | .997842 | .998498 | | |
| Butylbenzylphthalate | .87614 | .92214 | .91515 | .97029 | .88132 | .91301 | 4.146 | .996436 | .997452 | | |
| 3,3'-Dichlorobenzidine | .31516 | .23633 | .24186 | .29395 | .30876 | .27921 | 13.421 | .991333 | .996756 | | |
| Benzo(a)anthracene | 1.21644 | 1.20654 | 1.11490 | 1.16121 | 1.08512 | 1.15684 | 4.918 | .998243 | .998736 | | |
| Chrysene | 1.16655 | 1.06463 | 1.00493 | .92422 | .93564 | 1.01920 | 9.810 | .999060 | .999119 | | |
| bis(2-Ethylhexyl)phthalate | 1.19985 | 1.25817 | 1.21278 | 1.24822 | 1.12758 | 1.20932 | 4.273 | .996001 | .997915 | | |
| Di-n-octylphthalate | 2.19288 | 2.66339 | 3.04345 | 2.64174 | 2.38708 | 2.58571 | 12.419 | .985510 | .997211 | * | |
| Benzo(b)fluoranthene | 1.24606 | 1.28384 | 1.41251 | 1.33804 | 1.36128 | 1.32835 | 4.910 | .999191 | .999258 | | |
| Benzo(k)fluoranthene | 1.20034 | 1.23498 | 1.27367 | 1.08821 | .99647 | 1.15873 | 9.845 | .988261 | .998543 | | |
| Benzo(a)pyrene | 1.04527 | 1.11092 | 1.08643 | 1.06989 | 1.00159 | 1.06282 | 3.930 | .997860 | .999690 | * | |
| Indeno[1,2,3-cd]pyrene | .75843 | .69349 | .63797 | .79202 | .88310 | .75300 | 12.467 | .988591 | .997734 | | |
| Dibenz(a,h)anthracene | .78539 | .68954 | .64165 | .79629 | .85816 | .75420 | 11.559 | .990497 | .997373 | | |
| Benzo(g,h,i)perylene | .80528 | .68812 | .63049 | .75796 | .82925 | .74222 | 11.112 | .990246 | .998080 | | |

RF - Response Factor (Subscript is amount in ngs)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Operator ID: GC Quant Rev: 7 Quant Time: 971021 14:18
Output File: ^M3643::Q2 Injected at: 971021 12:32
Data File: >M3643::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD020 Instrument ID: MMSD
Misc: WS0851B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 2

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.23 | 152.0 | 46282M | 40.00 | ngs | 97 |
| 2) | N-Nitrosodimethylamine | 3.10 | 74.0 | 28344 | 23.25 | ngs | 90 |
| 3) | Pyridine | 3.09 | 52.0 | 31869 | 19.17 | ngs | 96 |
| 4) | 2-Fluorophenol (surr) | 6.75 | 112.0 | 33343 | 23.54 | ngs | 84 |
| 5) | Aniline | 10.20 | 93.0 | 58385 | 22.18 | ngs | 91 |
| 6) | Phenol-d5 (surr) | 10.46 | 99.0 | 48530 | 23.25 | ngs | 86 |
| 7) | Phenol | 10.50 | 94.0 | 51303 | 24.05 | ngs | 82 |
| 8) | bis(2-Chloroethyl)ether | 10.64 | 93.0 | 44312 | 23.06 | ngs | 88 |
| 9) | 2-Chlorophenol | 10.53 | 128.0 | 36035 | 24.85 | ngs | 89 |
| 10) | 1,3-Dichlorobenzene | 11.04 | 146.0 | 37704 | 22.57 | ngs | 90 |
| 11) | 1,4-Dichlorobenzene | 11.29 | 146.0 | 40655 | 23.78 | ngs | 90 |
| 12) | 1,2-Dichlorobenzene | 12.03 | 146.0 | 39270M | 24.40 | ngs | 91 |
| 13) | Benzyl Alcohol | 12.17 | 79.0 | 42925 | 21.25 | ngs | 90 |
| 14) | 2-Methylphenol | 12.93 | 108.0 | 36096 | 23.69 | ngs | 92 |
| 15) | bis(2-chloroisopropyl)ether | 12.92 | 45.0 | 81781M | 22.70 | ngs | 90 |
| 16) | Hexachloroethane | 13.30 | 116.7 | 18983 | 23.36 | ngs | 94 |
| 17) | 4-Methylphenol | 13.62 | 107.0 | 48684 | 22.73 | ngs | 98 |
| 18) | N-Nitroso-Di-n-propylamine | 13.55 | 70.0 | 43669 | 21.33 | ngs | 93 |
| 19) | *Naphthalene-d8 (istd) | 16.81 | 136.0 | 207006 | 40.00 | ngs | 93 |
| 20) | Nitrobenzene-d5 (surr) | 13.79 | 82.0 | 49613 | 21.03 | ngs | 83 |
| 21) | Nitrobenzene | 13.86 | 77.0 | 52944 | 21.53 | ngs | 80 |
| 22) | Isophorone | 15.01 | 82.0 | 104718 | 21.93 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.30 | 139.0 | 20361 | 18.74 | ngs | 95 |
| 24) | 2,4-Dimethylphenol | 15.95 | 107.0 | 44395 | 20.51 | ngs | 88 |
| 25) | bis(2-Chloroethoxy)methane | 16.36 | 93.0 | 63158 | 23.96 | ngs | 98 |
| 26) | 2,4-Dichlorophenol | 16.43 | 161.8 | 28343 | 19.50 | ngs | 96 |
| 27) | Benzoic acid | 16.68 | 105.0 | 16531 | 11.35 | ngs | 91 |
| 28) | 1,2,4-Trichlorobenzene | 16.72 | 180.0 | 31850 | 20.33 | ngs | 95 |
| 29) | Naphthalene | 16.90 | 128.0 | 115619 | 22.99 | ngs | 93 |
| 30) | 4-Chloroaniline | 17.54 | 127.0 | 44497 | 20.21 | ngs | 96 |
| 31) | Hexachlorobutadiene | 17.98 | 224.6 | 20016 | 21.12 | ngs | 98 |
| 32) | 4-Chloro-3-methylphenol | 20.08 | 107.0 | 38781 | 22.89 | ngs | 85 |
| 33) | 2-Methylnaphthalene | 20.12 | 142.0 | 97013 | 24.82 | ngs | 97 |
| 34) | *Acenaphthene-d10 (istd) | 23.79 | 164.0 | 115051 | 40.00 | ngs | 98 |
| 35) | Hexachlorocyclopentadiene | 21.11 | 236.7 | 15049 | 22.86 | ngs | 97 |
| 36) | 2,4,6-Trichlorophenol | 21.46 | 196.0 | 19799 | 18.86 | ngs | 92 |
| 37) | 2,4,5-Trichlorophenol | 21.55 | 196.0 | 19727 | 18.83 | ngs | 93 |
| 38) | 2-Fluorobiphenyl (surr) | 21.77 | 172.0 | 77079 | 23.63 | ngs | 99 |
| 39) | 2-Chloronaphthalene | 21.91 | 162.0 | 69792 | 22.93 | ngs | 96 |
| 40) | 2-Nitroaniline | 22.55 | 65.0 | 29143 | 18.04 | ngs | 84 |
| 41) | Acenaphthylene | 23.27 | 152.0 | 118324 | 23.88 | ngs | 98 |
| 42) | Dimethylphthalate | 23.42 | 163.0 | 87937 | 21.52 | ngs | 91 |
| 43) | 2,6-Dinitrotoluene | 23.56 | 165.0 | 17397 | 18.38 | ngs | 94 |

10/22/97

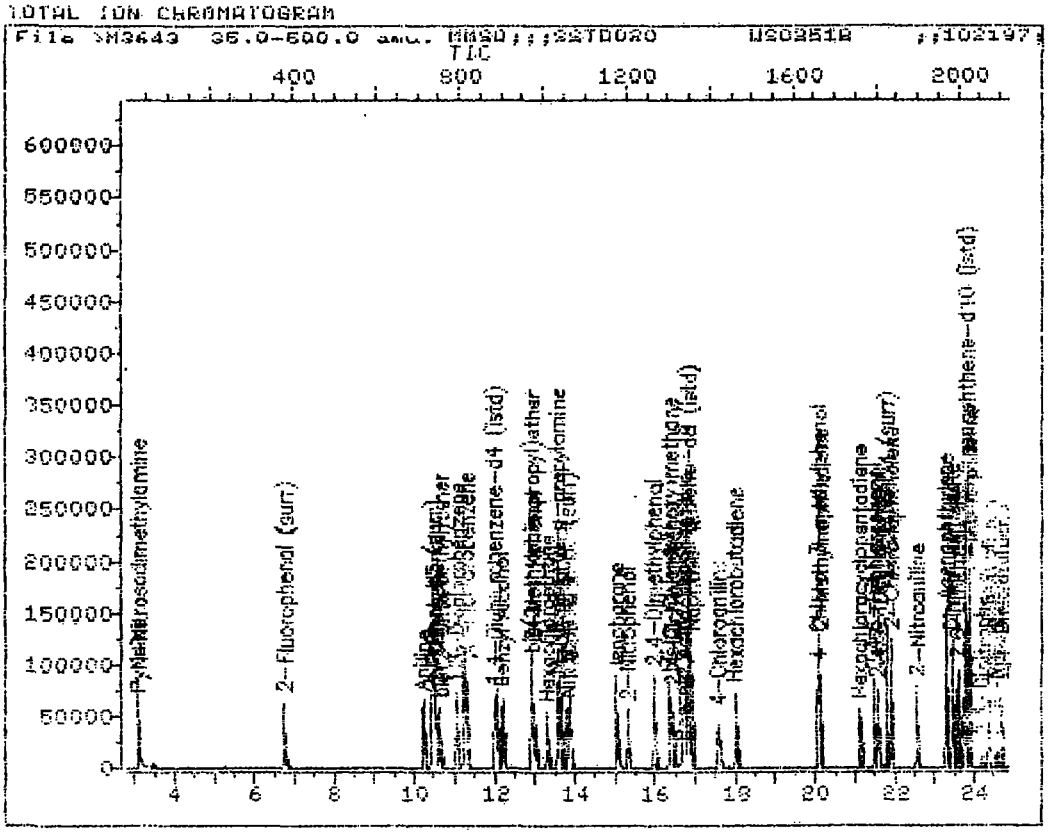
Operator ID: GC Quant Rev: 7 Quant Time: 971021 14:18
Output File: ^M3643::Q2 Injected at: 971021 12:32
Data File: >M3643::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD020 Instrument ID: MMSD
Misc: WS0851B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 2

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.87 | 153.0 | 74152 | 24.49 | ngs | 92 |
| 45) | 3-Nitroaniline | 23.88 | 65.0 | 28484 | 16.76 | ngs | 94 |
| 46) | 2,4-Dinitrophenol | 24.18 | 184.0 | 4134 | 19.97 | ngs | 83 |
| 47) | Dibenzofuran | 24.36 | 168.0 | 96997 | 22.26 | ngs | 83 |
| 48) | 2,4-Dinitrotoluene | 24.66 | 165.0 | 20543 | 15.92 | ngs | 85 |
| 49) | 4-Nitrophenol | 24.56 | 139.0 | 11489 | 15.28 | ngs | 96 |
| 50) | Fluorene | 25.35 | 166.0 | 74371 | 22.16 | ngs | 100 |
| 51) | Diethylphthalate | 25.53 | 149.0 | 94095 | 20.72 | ngs | 98 |
| 52) | 4-Chlorophenyl-phenylether | 25.51 | 204.0 | 35019 | 21.59 | ngs | 96 |
| 53) | 4-Nitroaniline | 25.64 | 138.0 | 11842 | 13.88 | ngs | 82 |
| 54) | Azobenzene (2) | 25.91 | 77.0 | 115045 | 22.29 | ngs | 96 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.09 | 329.8 | 11447 | 16.73 | ngs | 90 |
| 56) | *Phenanthrene-d10 (istd) | 27.87 | 188.0 | 167367 | 40.00 | ngs | 92 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.77 | 198.0 | 7050 | 13.07 | ngs | 97 |
| 58) | N-Nitrosodiphenylamine (1) | 25.88 | 169.0 | 45673M | 20.59 | ngs | 97 |
| 59) | 4-Bromophenyl-phenylether | 26.81 | 250.0 | 17923 | 23.43 | ngs | 95 |
| 60) | Hexachlorobenzene | 27.08 | 283.6 | 27329 | 25.59 | ngs | 97 |
| 61) | Pentachlorophenol | 27.61 | 265.7 | 10099 | 17.47 | ngs | 96 |
| 62) | Phenanthrene | 27.92 | 178.0 | 94135 | 24.81 | ngs | 97 |
| 63) | Anthracene | 28.04 | 178.0 | 89410 | 23.88 | ngs | 93 |
| 64) | Carbazole | 28.54 | 167.0 | 71860 | 22.23 | ngs | 99 |
| 65) | Di-n-butylphthalate | 29.83 | 149.0 | 135450 | 21.18 | ngs | 97 |
| 66) | Fluoranthene | 31.00 | 202.0 | 83466 | 22.70 | ngs | 99 |
| 67) | *Chrysene-d12 (istd) | 34.70 | 240.0 | 99301 | 40.00 | ngs | 95 |
| 68) | Benzidine | 31.48 | 184.0 | 10213M | 20.89 | ngs | 96 |
| 69) | Pyrene | 31.54 | 202.0 | 82885 | 17.65 | ngs | 96 |
| 70) | Terphenyl-d14 (surr) | 32.14 | 244.0 | 53888 | 17.67 | ngs | 98 |
| 71) | Butylbenzylphthalate | 33.62 | 149.0 | 43501 | 18.19 | ngs | 86 |
| 72) | 3,3'-Dichlorobenzidine | 34.75 | 252.0 | 15648 | 23.65 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.66 | 228.0 | 60397 | 20.88 | ngs | 89 |
| 74) | Chrysene | 34.76 | 228.0 | 57920 | 22.77 | ngs | 79 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.27 | 149.0 | 59573 | 19.78 | ngs | 88 |
| 76) | *Perylene-d12 (istd) | 38.21 | 264.0 | 91196 | 40.00 | ngs | 96 |
| 77) | Di-n-octylphthalate | 36.84 | 149.0 | 99991 | 14.72 | ngs | 97 |
| 78) | Benzo(b)fluoranthene | 37.32 | 252.0 | 56818 | 18.11 | ngs | 79 |
| 79) | Benzo(k)fluoranthene | 37.38 | 252.0 | 54733M | 17.72 | ngs | 76 |
| 80) | Benzo(a)pyrene | 38.06 | 252.0 | 47662 | 18.99 | ngs | 93 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.20 | 276.0 | 34583 | 22.41 | ngs | 96 |
| 82) | Dibenz(a,h)anthracene | 41.34 | 278.0 | 35812 | 22.53 | ngs | 84 |
| 83) | Benzo(g,h,i)perylene | 42.02 | 276.0 | 36719 | 23.26 | ngs | 100 |

* Compound is ISTD

TOTAL ION CHROMATOGRAM




Data File: >M3643::D4 Quant Output File: ^M3643::Q2
Name: MMSD;;;SSTD020 Instrument ID: MMSD
Misc: WS0851B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 2

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN JL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 14:18
Injected at: 971021 12:32

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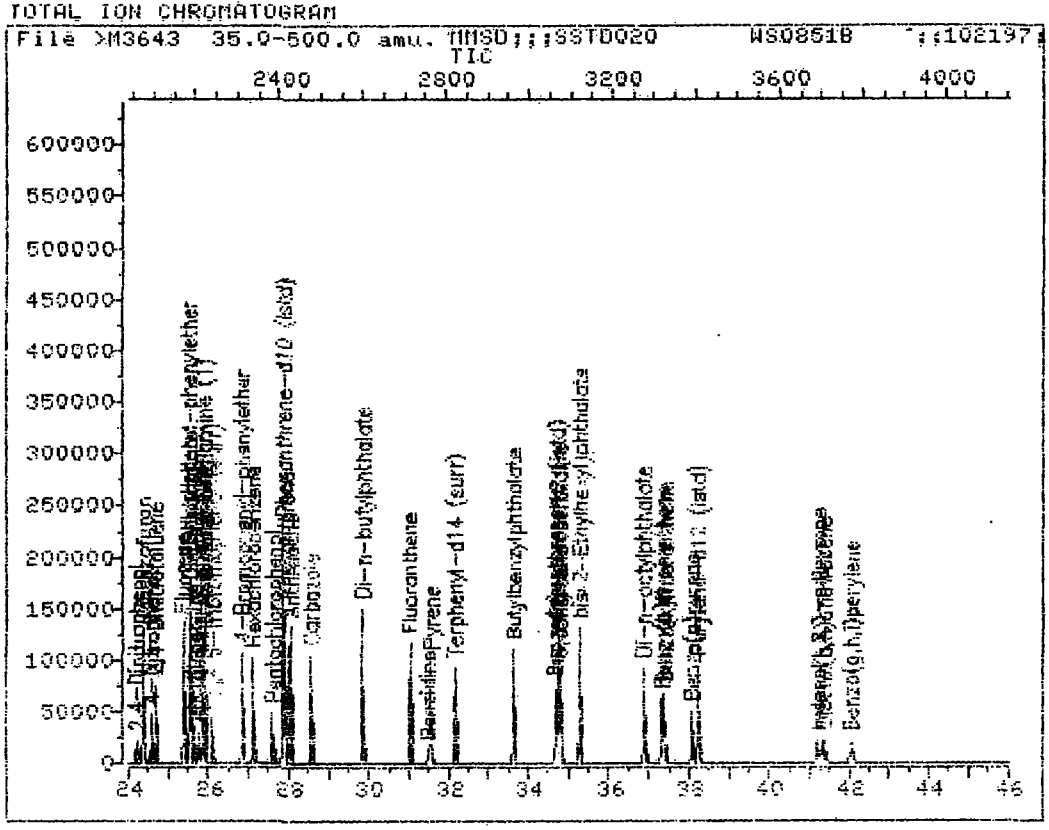
TOTAL ION CHROMATOGRAM




Data File: >M3643::D4 Quant Output File: ^M3643::Q2
Name: MMSD;;;SSTD020 Instrument ID: MMSD
Misc: WS0851B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 2

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 14:18
Injected at: 971021 12:32

Page 2 of 2

Operator ID: GC Quant Rev: 7 Quant Time: 971021 12:54
Output File: ^M3642::Q2 Injected at: 971021 11:36
Data File: >M3642::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 1

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971016 12:56

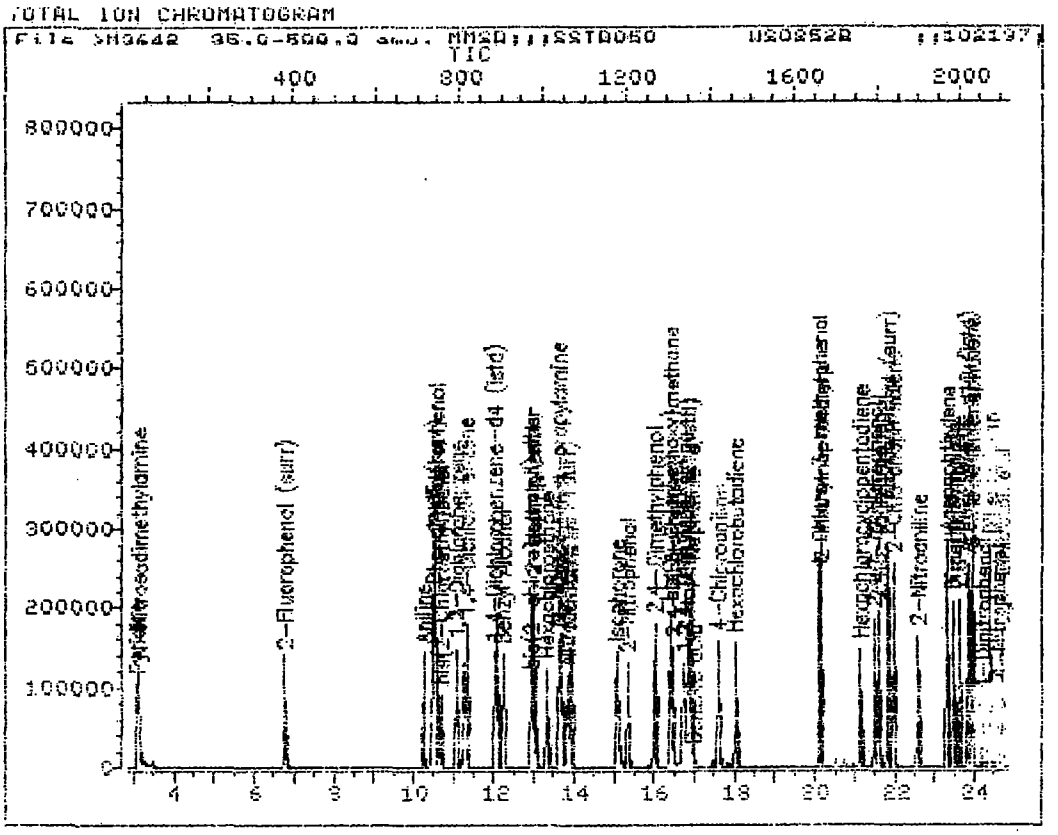
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.23 | 152.0 | 46887M | 40.00 | ngs | 99 |
| 2) | N-Nitrosodimethylamine | 3.12 | 74.0 | 68505 | 55.46 | ngs | 98 |
| 3) | Pyridine | 3.06 | 52.0 | 80372 | 47.71 | ngs | 96 |
| 4) | 2-Fluorophenol (surr) | 6.75 | 112.0 | 78338 | 54.60 | ngs | 86 |
| 5) | Aniline | 10.22 | 93.0 | 143161 | 53.68 | ngs | 89 |
| 6) | Phenol-d5 (surr) | 10.50 | 99.0 | 120087 | 56.80 | ngs | 85 |
| 7) | Phenol | 10.56 | 94.0 | 113876 | 52.69 | ngs | 92 |
| 8) | bis(2-Chloroethyl)ether | 10.67 | 93.0 | 105325 | 54.11 | ngs | 96 |
| 9) | 2-Chlorophenol | 10.54 | 128.0 | 80445 | 54.76 | ngs | 80 |
| 10) | 1,3-Dichlorobenzene | 11.05 | 146.0 | 87012 | 51.41 | ngs | 90 |
| 11) | 1,4-Dichlorobenzene | 11.29 | 146.0 | 90511 | 52.26 | ngs | 92 |
| 12) | 1,2-Dichlorobenzene | 12.04 | 146.0 | 86339M | 52.96 | ngs | 93 |
| 13) | Benzyl Alcohol | 12.21 | 79.0 | 105127 | 51.38 | ngs | 90 |
| 14) | 2-Methylphenol | 12.96 | 108.0 | 84485 | 54.73 | ngs | 94 |
| 15) | bis(2-chloroisopropyl)ether | 12.92 | 45.0 | 191892M | 52.57 | ngs | 90 |
| 16) | Hexachloroethane | 13.30 | 116.7 | 45645 | 55.45 | ngs | 94 |
| 17) | 4-Methylphenol | 13.65 | 107.0 | 115809 | 53.37 | ngs | 96 |
| 18) | N-Nitroso-Di-n-propylamine | 13.59 | 70.0 | 102614 | 49.48 | ngs | 91 |
| 19) | *Naphthalene-d8 (istd) | 16.83 | 136.0 | 206773 | 40.00 | ngs | 91 |
| 20) | Nitrobenzene-d5 (surr) | 13.81 | 82.0 | 124617 | 52.89 | ngs | 83 |
| 21) | Nitrobenzene | 13.89 | 77.0 | 130135 | 52.97 | ngs | 78 |
| 22) | Isophorone | 15.04 | 82.0 | 249209 | 52.25 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.32 | 139.0 | 52542 | 48.42 | ngs | 92 |
| 24) | 2,4-Dimethylphenol | 15.99 | 107.0 | 109033 | 50.42 | ngs | 87 |
| 25) | bis(2-Chloroethoxy)methane | 16.40 | 93.0 | 146734 | 55.74 | ngs | 98 |
| 26) | 2,4-Dichlorophenol | 16.45 | 161.8 | 66972 | 46.12 | ngs | 95 |
| 27) | Benzoic acid | 16.97 | 105.0 | 56726M | 38.97 | ngs | 94 |
| 28) | 1,2,4-Trichlorobenzene | 16.74 | 180.0 | 74068 | 47.33 | ngs | 92 |
| 29) | Naphthalene | 16.92 | 128.0 | 257083 | 51.17 | ngs | 94 |
| 30) | 4-Chloroaniline | 17.56 | 127.0 | 110971 | 50.46 | ngs | 94 |
| 31) | Hexachlorobutadiene | 17.98 | 224.6 | 44925 | 47.46 | ngs | 99 |
| 32) | 4-Chloro-3-methylphenol | 20.09 | 107.0 | 91637 | 54.14 | ngs | 80 |
| 33) | 2-Methylnaphthalene | 20.14 | 142.0 | 213726 | 54.74 | ngs | 92 |
| 34) | *Acenaphthene-d10 (istd) | 23.79 | 164.0 | 113141 | 40.00 | ngs | 96 |
| 35) | Hexachlorocyclopentadiene | 21.11 | 236.7 | 43455 | 67.14 | ngs | 99 |
| 36) | 2,4,6-Trichlorophenol | 21.48 | 196.0 | 49201 | 47.67 | ngs | 92 |
| 37) | 2,4,5-Trichlorophenol | 21.57 | 196.0 | 50525M | 49.04 | ngs | 96 |
| 38) | 2-Fluorobiphenyl (surr) | 21.79 | 172.0 | 164700 | 51.34 | ngs | 99 |
| 39) | 2-Chloronaphthalene | 21.93 | 162.0 | 155901 | 52.08 | ngs | 92 |
| 40) | 2-Nitroaniline | 22.57 | 65.0 | 76792 | 48.33 | ngs | 86 |
| 41) | Acenaphthylene | 23.29 | 152.0 | 258456 | 53.04 | ngs | 97 |
| 42) | Dimethylphthalate | 23.44 | 163.0 | 196323 | 48.85 | ngs | 93 |
| 43) | 2,6-Dinitrotoluene | 23.58 | 165.0 | 45316 | 48.69 | ngs | 92 |

Operator ID: GC Quant Rev: 7 Quant Time: 971021 12:54
Output File: ^M3642::Q2 Injected at: 971021 11:36
Data File: >M3642::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 1

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971016 12:56

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.89 | 153.0 | 156167 | 52.44 | ngs | 92 |
| 45) | 3-Nitroaniline | 23.90 | 65.0 | 67018 | 40.10 | ngs | 95 |
| 46) | 2,4-Dinitrophenol | 24.19 | 184.0 | 14975 | 40.17 | ngs | 87 |
| 47) | Dibenzofuran | 24.38 | 168.0 | 213549 | 49.84 | ngs | 81 |
| 48) | 2,4-Dinitrotoluene | 24.68 | 165.0 | 52974 | 41.76 | ngs | 80 |
| 49) | 4-Nitrophenol | 24.58 | 139.0 | 31219 | 42.22 | ngs | 98 |
| 50) | Fluorene | 25.37 | 166.0 | 166228 | 50.36 | ngs | 100 |
| 51) | Diethylphthalate | 25.56 | 149.0 | 209812 | 46.98 | ngs | 98 |
| 52) | 4-Chlorophenyl-phenylether | 25.51 | 204.0 | 77844 | 48.79 | ngs | 97 |
| 53) | 4-Nitroaniline | 25.69 | 138.0 | 25879 | 30.84 | ngs | 91 |
| 54) | Azobenzene (2) | 25.93 | 77.0 | 279405 | 55.04 | ngs | 94 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.10 | 329.8 | 26535 | 39.44 | ngs | 91 |
| 56) | *Phenanthrene-d10 (istd) | 27.87 | 188.0 | 169117 | 40.00 | ngs | 93 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.80 | 198.0 | 22308 | 40.93 | ngs | 89 |
| 58) | N-Nitrosodiphenylamine (1) | 25.89 | 169.0 | 103026 | 49.08 | ngs | 94 |
| 59) | 4-Bromophenyl-phenylether | 26.81 | 250.0 | 41270 | 53.38 | ngs | 97 |
| 60) | Hexachlorobenzene | 27.09 | 283.6 | 57213 | 53.03 | ngs | 94 |
| 61) | Pentachlorophenol | 27.62 | 265.7 | 25625 | 43.86 | ngs | 96 |
| 62) | Phenanthrene | 27.93 | 178.0 | 197271 | 51.44 | ngs | 98 |
| 63) | Anthracene | 28.05 | 178.0 | 201782 | 53.32 | ngs | 93 |
| 64) | Carbazole | 28.56 | 167.0 | 153863 | 47.10 | ngs | 99 |
| 65) | Di-n-butylphthalate | 29.85 | 149.0 | 301096 | 48.96 | ngs | 97 |
| 66) | Fluoranthene | 31.01 | 202.0 | 178977 | 48.18 | ngs | 98 |
| 67) | *Chrysene-d12 (istd) | 34.71 | 240.0 | 89367 | 40.00 | ngs | 96 |
| 68) | Benzidine | 31.48 | 184.0 | 18113 | 41.16 | ngs | 98 |
| 69) | Pyrene | 31.55 | 202.0 | 175187 | 41.46 | ngs | 95 |
| 70) | Terphenyl-d14 (surr) | 32.14 | 244.0 | 116044 | 42.29 | ngs | 98 |
| 71) | Butylbenzylphthalate | 33.62 | 149.0 | 103011 | 47.85 | ngs | 88 |
| 72) | 3,3'-Dichlorobenzidine | 34.75 | 252.0 | 26400 | 44.33 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.67 | 228.0 | 134781 | 51.77 | ngs | 89 |
| 74) | Chrysene | 34.78 | 228.0 | 118929 | 51.95 | ngs | 83 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.28 | 149.0 | 140549 | 51.85 | ngs | 84 |
| 76) | *Perylene-d12 (istd) | 38.20 | 264.0 | 69245 | 40.00 | ngs | 95 |
| 77) | Di-n-octylphthalate | 36.85 | 149.0 | 230533 | 44.69 | ngs | 97 |
| 78) | Benzo(b)fluoranthene | 37.32 | 252.0 | 111124M | 46.66 | ngs | 78 |
| 79) | Benzo(k)fluoranthene | 37.39 | 252.0 | 106895M | 45.59 | ngs | 77 |
| 80) | Benzo(a)pyrene | 38.06 | 252.0 | 96157 | 50.46 | ngs | 96 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.21 | 276.0 | 60026 | 51.24 | ngs | 95 |
| 82) | Dibenz(a,h)anthracene | 41.34 | 278.0 | 59684 | 49.45 | ngs | 86 |
| 83) | Benzo(g,h,i)perylene | 42.03 | 276.0 | 59561 | 49.69 | ngs | 100 |

* Compound is ISTD




Data File: >M3642::D4 Quant Output File: ^M3642::Q2
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 1

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971016 12:56

Operator ID: GC
Quant Time : 971021 12:54
Injected at: 971021 11:36

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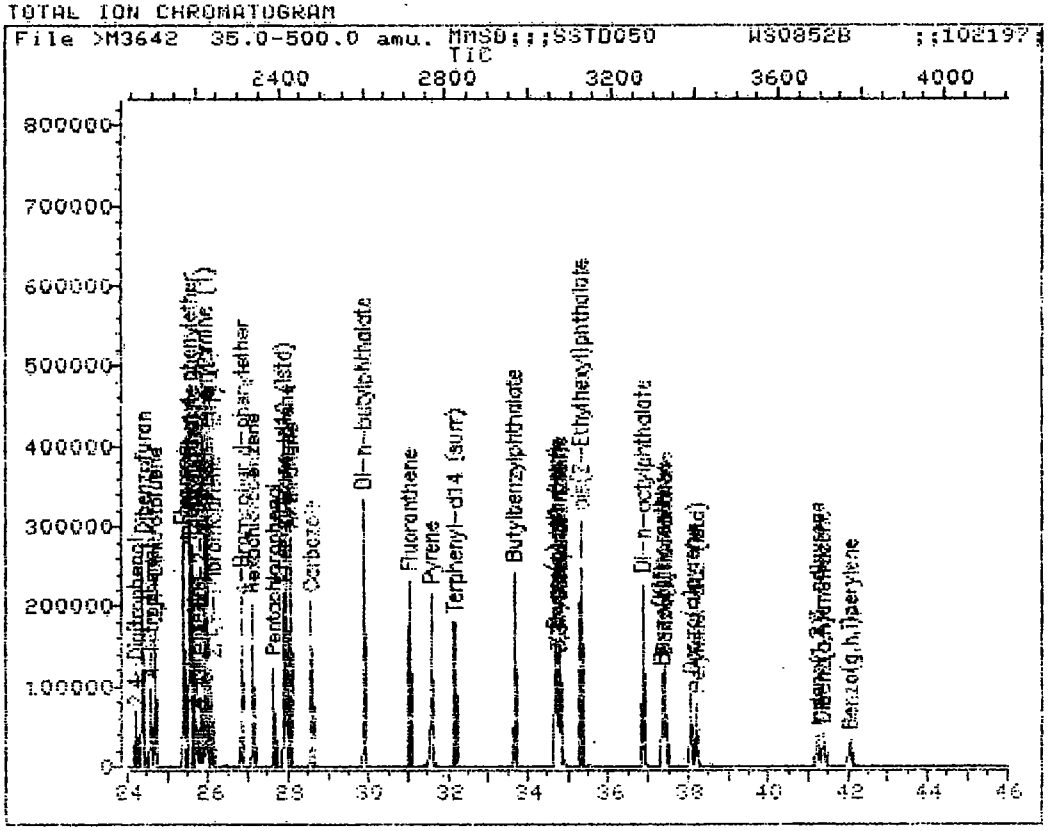
TOTAL ION CHROMATOGRAM




Data File: >M3642::D4 Quant Output File: ^M3642::Q2
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 1

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971016 12:56

Operator ID: GC
Quant Time : 971021 12:54
Injected at: 971021 11:36

Page 2 of 2

Operator ID: GC Quant Rev: 7 Quant Time: 971021 14:24
Output File: ^M3644::Q2 Injected at: 971021 13:29
Data File: >M3644::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD080 Instrument ID: MMSD
Misc: WS0853B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 3

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.25 | 152.0 | 45877M | 40.00 | ngs | 98 |
| 2) | N-Nitrosodimethylamine | 3.14 | 74.0 | 104610 | 86.55 | ngs | 96 |
| 3) | Pyridine | 3.06 | 52.0 | 114679 | 69.57 | ngs | 89 |
| 4) | 2-Fluorophenol (surr) | 6.78 | 112.0 | 121737 | 86.72 | ngs | 81 |
| 5) | Aniline | 10.25 | 93.0 | 220237 | 84.40 | ngs | 89 |
| 6) | Phenol-d5 (surr) | 10.54 | 99.0 | 177124 | 85.62 | ngs | 88 |
| 7) | Phenol | 10.61 | 94.0 | 173077 | 81.84 | ngs | 89 |
| 8) | bis(2-Chloroethyl)ether | 10.69 | 93.0 | 168525 | 88.49 | ngs | 88 |
| 9) | 2-Chlorophenol | 10.59 | 128.0 | 117134 | 81.48 | ngs | 77 |
| 10) | 1,3-Dichlorobenzene | 11.07 | 146.0 | 134907 | 81.47 | ngs | 89 |
| 11) | 1,4-Dichlorobenzene | 11.32 | 146.0 | 136841 | 80.75 | ngs | 91 |
| 12) | 1,2-Dichlorobenzene | 12.07 | 146.0 | 128875M | 80.80 | ngs | 90 |
| 13) | Benzyl Alcohol | 12.26 | 79.0 | 164072 | 81.95 | ngs | 89 |
| 14) | 2-Methylphenol | 12.99 | 108.0 | 130963 | 86.71 | ngs | 95 |
| 15) | bis(2-chloroisopropyl)ether | 13.04 | 45.0 | 306472M | 85.80 | ngs | 92 |
| 16) | Hexachloroethane | 13.31 | 116.7 | 69672 | 86.50 | ngs | 94 |
| 17) | 4-Methylphenol | 13.71 | 107.0 | 179571 | 84.57 | ngs | 95 |
| 18) | N-Nitroso-Di-n-propylamine | 13.64 | 70.0 | 154858M | 76.32 | ngs | 91 |
| 19) | *Naphthalene-d8 (istd) | 16.85 | 136.0 | 207483 | 40.00 | ngs | 93 |
| 20) | Nitrobenzene-d5 (surr) | 13.84 | 82.0 | 196756 | 83.23 | ngs | 83 |
| 21) | Nitrobenzene | 13.94 | 77.0 | 204355 | 82.89 | ngs | 77 |
| 22) | Isophorone | 15.09 | 82.0 | 406409 | 84.91 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.35 | 139.0 | 83241 | 76.45 | ngs | 93 |
| 24) | 2,4-Dimethylphenol | 16.04 | 107.0 | 174051 | 80.22 | ngs | 87 |
| 25) | bis(2-Chloroethoxy)methane | 16.44 | 93.0 | 207410 | 78.52 | ngs | 96 |
| 26) | 2,4-Dichlorophenol | 16.49 | 161.8 | 109798 | 75.35 | ngs | 97 |
| 27) | Benzoic acid | 17.18 | 105.0 | 105893M | 72.51 | ngs | |
| 28) | 1,2,4-Trichlorobenzene | 16.75 | 180.0 | 116093 | 73.93 | ngs | 95 |
| 29) | Naphthalene | 16.94 | 128.0 | 397785 | 78.91 | ngs | 95 |
| 30) | 4-Chloroaniline | 17.59 | 127.0 | 176036 | 79.77 | ngs | 97 |
| 31) | Hexachlorobutadiene | 18.00 | 224.6 | 68247 | 71.85 | ngs | 97 |
| 32) | 4-Chloro-3-methylphenol | 20.12 | 107.0 | 143283 | 84.37 | ngs | 77 |
| 33) | 2-Methylnaphthalene | 20.15 | 142.0 | 322989 | 82.45 | ngs | 94 |
| 34) | *Acenaphthene-d10 (istd) | 23.80 | 164.0 | 116382 | 40.00 | ngs | 98 |
| 35) | Hexachlorocyclopentadiene | 21.12 | 236.7 | 63005 | 94.63 | ngs | 98 |
| 36) | 2,4,6-Trichlorophenol | 21.50 | 196.0 | 80188 | 75.53 | ngs | 92 |
| 37) | 2,4,5-Trichlorophenol | 21.59 | 196.0 | 79175M | 74.71 | ngs | 94 |
| 38) | 2-Fluorobiphenyl (surr) | 21.81 | 172.0 | 258537 | 78.34 | ngs | 97 |
| 39) | 2-Chloronaphthalene | 21.95 | 162.0 | 246397 | 80.02 | ngs | 94 |
| 40) | 2-Nitroaniline | 22.60 | 65.0 | 126424 | 77.35 | ngs | 87 |
| 41) | Acenaphthylene | 23.30 | 152.0 | 401841 | 80.17 | ngs | 98 |
| 42) | Dimethylphthalate | 23.46 | 163.0 | 303879 | 73.51 | ngs | 94 |
| 43) | 2,6-Dinitrotoluene | 23.61 | 165.0 | 70855 | 74.01 | ngs | 96 |

Operator ID: GC Quant Rev: 7 Quant Time: 971021 14:24
Output File: ^M3644::Q2 Injected at: 971021 13:29
Data File: >M3644::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD080 Instrument ID: MMSD
Misc: WS0853B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 3

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.90 | 153.0 | 237625 | 77.57 | ngs | 92 |
| 45) | 3-Nitroaniline | 23.93 | 65.0 | 121436 | 70.63 | ngs | 95 |
| 46) | 2,4-Dinitrophenol | 24.22 | 184.0 | 26244 | 59.68 | ngs | 77 |
| 47) | Dibenzofuran | 24.40 | 168.0 | 339471 | 77.02 | ngs | 79 |
| 48) | 2,4-Dinitrotoluene | 24.70 | 165.0 | 88656 | 67.94 | ngs | 78 |
| 49) | 4-Nitrophenol | 24.61 | 139.0 | 53217 | 69.97 | ngs | 97 |
| 50) | Fluorene | 25.39 | 166.0 | 258833 | 76.23 | ngs | 100 |
| 51) | Diethylphthalate | 25.58 | 149.0 | 351221 | 76.46 | ngs | 98 |
| 52) | 4-Chlorophenyl-phenylether | 25.53 | 204.0 | 118305 | 72.09 | ngs | 98 |
| 53) | 4-Nitroaniline | 25.73 | 138.0 | 48171 | 55.80 | ngs | 93 |
| 54) | Azobenzene (2) | 25.94 | 77.0 | 413304 | 79.15 | ngs | 95 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.12 | 329.8 | 44572 | 64.40 | ngs | 87 |
| 56) | *Phenanthrene-d10 (istd) | 27.88 | 188.0 | 181319 | 40.00 | ngs | 92 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.83 | 198.0 | 38505 | 65.89 | ngs | 84 |
| 58) | N-Nitrosodiphenylamine (1) | 25.91 | 169.0 | 148867 | 83.47 | ngs | 96 |
| 59) | 4-Bromophenyl-phenylether | 26.82 | 250.0 | 65249 | 78.72 | ngs | 97 |
| 60) | Hexachlorobenzene | 27.11 | 283.6 | 91057 | 78.72 | ngs | 94 |
| 61) | Pentachlorophenol | 27.63 | 265.7 | 45205 | 72.17 | ngs | 97 |
| 62) | Phenanthrene | 27.94 | 178.0 | 328117 | 79.81 | ngs | 97 |
| 63) | Anthracene | 28.07 | 178.0 | 317055 | 78.15 | ngs | 93 |
| 64) | Carbazole | 28.57 | 167.0 | 245741 | 70.17 | ngs | 99 |
| 65) | Di-n-butylphthalate | 29.86 | 149.0 | 490561 | 88.45 | ngs | 98 |
| 66) | Fluoranthene | 31.02 | 202.0 | 300851 | 75.54 | ngs | 97 |
| 67) | *Chrysene-d12 (istd) | 34.71 | 240.0 | 92561 | 40.00 | ngs | 93 |
| 68) | Benzidine | 31.48 | 184.0 | 27004 | 59.24 | ngs | 97 |
| 69) | Pyrene | 31.57 | 202.0 | 295235 | 67.46 | ngs | 97 |
| 70) | Terphenyl-d14 (surr) | 32.15 | 244.0 | 189573 | 66.70 | ngs | 98 |
| 71) | Butylbenzylphthalate | 33.63 | 149.0 | 169415 | 75.98 | ngs | 88 |
| 72) | 3,3'-Dichlorobenzidine | 34.75 | 252.0 | 44774 | 72.59 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.67 | 228.0 | 206392 | 76.54 | ngs | 89 |
| 74) | Chrysene | 34.79 | 228.0 | 186035 | 78.46 | ngs | 83 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.29 | 149.0 | 224512 | 79.97 | ngs | 85 |
| 76) | *Perylene-d12 (istd) | 38.20 | 264.0 | 57488 | 40.00 | ngs | 97 |
| 77) | Di-n-octylphthalate | 36.86 | 149.0 | 349924 | 81.71 | ngs | 99 |
| 78) | Benzo(b)fluoranthene | 37.34 | 252.0 | 162405 | 82.13 | ngs | 78 |
| 79) | Benzo(k)fluoranthene | 37.40 | 252.0 | 146442M | 75.22 | ngs | 75 |
| 80) | Benzo(a)pyrene | 38.07 | 252.0 | 124913 | 78.96 | ngs | 97 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.21 | 276.0 | 73351 | 75.42 | ngs | 96 |
| 82) | Dibenz(a,h)anthracene | 41.35 | 278.0 | 73774 | 73.63 | ngs | 86 |
| 83) | Benzo(g,h,i)perylene | 42.04 | 276.0 | 72491 | 72.85 | ngs | 100 |

* Compound is ISTD

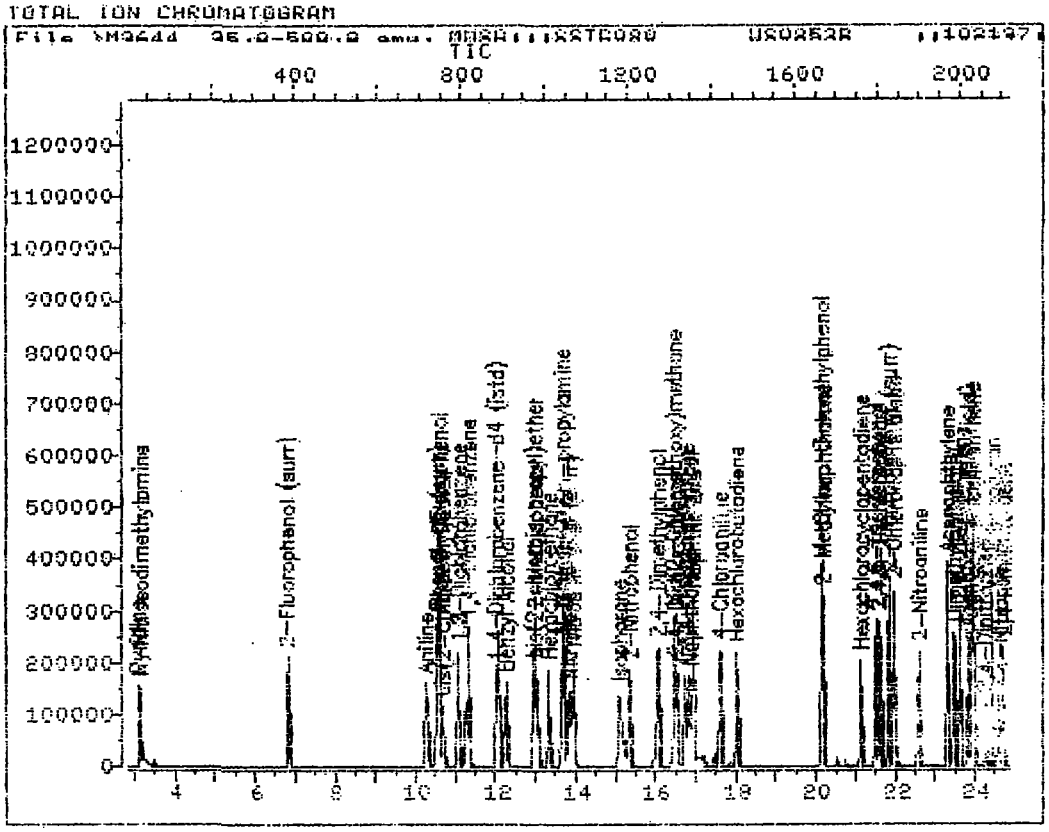
Operator ID: GC Quant Rev: 7 Quant Time: 971021 15:13
Output File: ^M3645::Q2 Injected at: 971021 14:25
Data File: >M3645::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD120 Instrument ID: MMSD
Misc: WS0854B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 4

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.27 | 152.0 | 55642M | 40.00 | ngs | 98 |
| 2) | N-Nitrosodimethylamine | 3.20 | 74.0 | 185914 | 126.83 | ngs | 99 |
| 3) | Pyridine | 3.11 | 52.0 | 192940 | 96.51 | ngs | 96 |
| 4) | 2-Fluorophenol (surr) | 6.84 | 112.0 | 206823 | 121.48 | ngs | 79 |
| 5) | Aniline | 10.32 | 93.0 | 392977 | 124.18 | ngs | 90 |
| 6) | Phenol-d5 (surr) | 10.64 | 99.0 | 245093 | 97.69 | ngs | 91 |
| 7) | Phenol | 10.69 | 94.0 | 277893 | 108.35 | ngs | 91 |
| 8) | bis(2-Chloroethyl)ether | 10.75 | 93.0 | 298828 | 129.37 | ngs | 90 |
| 9) | 2-Chlorophenol | 10.64 | 128.0 | 190551 | 109.29 | ngs | 75 |
| 10) | 1,3-Dichlorobenzene | 11.12 | 146.0 | 222679 | 110.87 | ngs | 89 |
| 11) | 1,4-Dichlorobenzene | 11.37 | 146.0 | 225758 | 109.84 | ngs | 91 |
| 12) | 1,2-Dichlorobenzene | 12.12 | 146.0 | 209230M | 108.15 | ngs | 89 |
| 13) | Benzyl Alcohol | 12.35 | 79.0 | 291197 | 119.92 | ngs | 89 |
| 14) | 2-Methylphenol | 13.04 | 108.0 | 222402 | 121.41 | ngs | 88 |
| 15) | bis(2-chloroisopropyl)ether | 12.97 | 45.0 | 548957M | 126.72 | ngs | 89 |
| 16) | Hexachloroethane | 13.35 | 116.7 | 115210 | 117.94 | ngs | 96 |
| 17) | 4-Methylphenol | 13.79 | 107.0 | 288745 | 112.12 | ngs | 98 |
| 18) | N-Nitroso-Di-n-propylamine | 13.72 | 70.0 | 357147M | 145.13 | ngs | 90 |
| 19) | *Naphthalene-d8 (istd) | 16.88 | 136.0 | 249995 | 40.00 | ngs | 93 |
| 20) | Nitrobenzene-d5 (surr) | 13.91 | 82.0 | 350175 | 122.94 | ngs | 83 |
| 21) | Nitrobenzene | 14.00 | 77.0 | 347113 | 116.86 | ngs | 78 |
| 22) | Isophorone | 15.19 | 82.0 | 741508M | 128.58 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.40 | 139.0 | 149555 | 113.99 | ngs | 88 |
| 24) | 2,4-Dimethylphenol | 16.11 | 107.0 | 229811 | 87.90 | ngs | 85 |
| 25) | bis(2-Chloroethoxy)methane | 16.51 | 93.0 | 394307M | 123.89 | ngs | 96 |
| 26) | 2,4-Dichlorophenol | 16.56 | 161.8 | 197428M | 112.45 | ngs | 97 |
| 27) | Benzoic acid | 17.48 | 105.0 | 207942M | 118.17 | ngs | 78 |
| 28) | 1,2,4-Trichlorobenzene | 16.77 | 180.0 | 206017 | 108.88 | ngs | 96 |
| 29) | Naphthalene | 16.99 | 128.0 | 688766 | 113.39 | ngs | 95 |
| 30) | 4-Chloroaniline | 17.65 | 127.0 | 311975 | 117.33 | ngs | 94 |
| 31) | Hexachlorobutadiene | 18.03 | 224.6 | 113137 | 98.85 | ngs | 96 |
| 32) | 4-Chloro-3-methylphenol | 20.15 | 107.0 | 233705 | 114.21 | ngs | 75 |
| 33) | 2-Methylnaphthalene | 20.19 | 142.0 | 526127 | 111.46 | ngs | 92 |
| 34) | *Acenaphthene-d10 (istd) | 23.81 | 164.0 | 142602 | 40.00 | ngs | 97 |
| 35) | Hexachlorocyclopentadiene | 21.14 | 236.7 | 112093 | 137.40 | ngs | 99 |
| 36) | 2,4,6-Trichlorophenol | 21.53 | 196.0 | 146113 | 112.32 | ngs | 92 |
| 37) | 2,4,5-Trichlorophenol | 21.63 | 196.0 | 129965M | 100.08 | ngs | 95 |
| 38) | 2-Fluorobiphenyl (surr) | 21.85 | 172.0 | 446008 | 110.30 | ngs | 97 |
| 39) | 2-Chloronaphthalene | 21.98 | 162.0 | 425092 | 112.67 | ngs | 92 |
| 40) | 2-Nitroaniline | 22.65 | 65.0 | 243507 | 121.59 | ngs | 84 |
| 41) | Acenaphthylene | 23.33 | 152.0 | 687208 | 111.90 | ngs | 99 |
| 42) | Dimethylphthalate | 23.49 | 163.0 | 510682 | 100.83 | ngs | 92 |
| 43) | 2,6-Dinitrotoluene | 23.66 | 165.0 | 123329 | 105.14 | ngs | 97 |

10/22/97

TOTAL ION CHROMATOGRAM




Data File: >M3644::D4 Quant Output File: ^M3644::Q2
Name: MMSD;;;SSTD080 Instrument ID: MMSD
Misc: WS0853B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 3

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 14:24
Injected at: 971021 13:29

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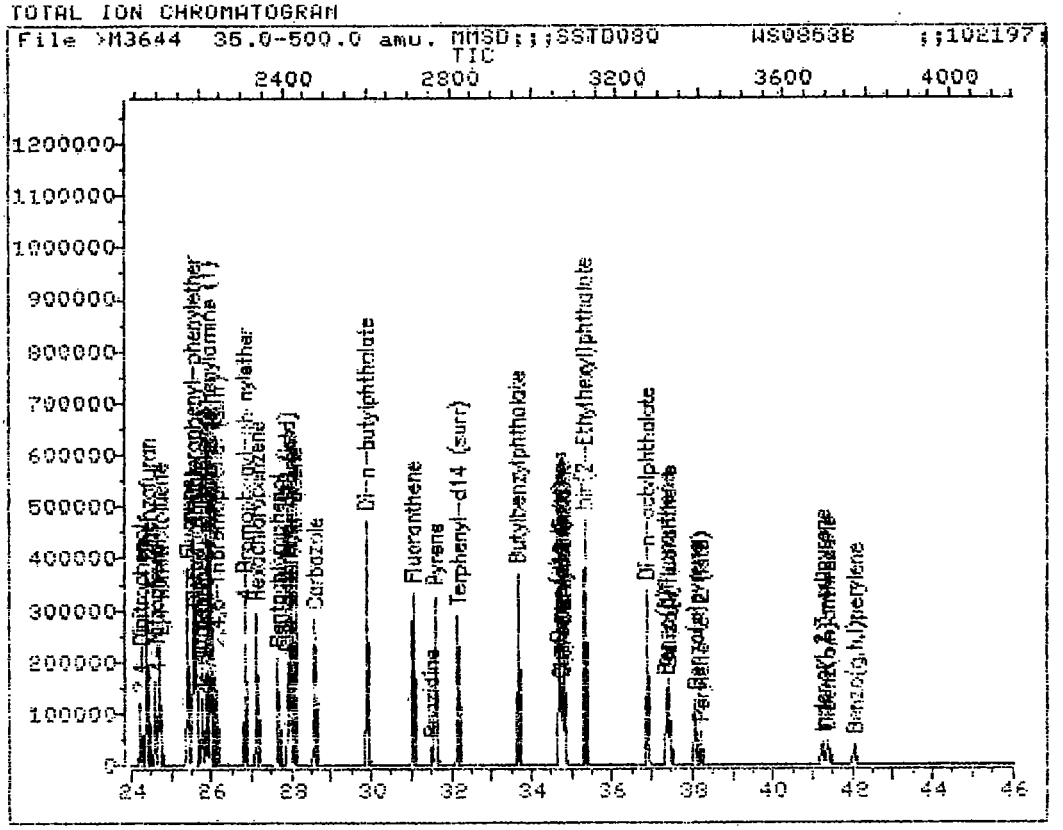
TOTAL ION CHROMATOGRAM




Data File: >M3644::D4 Quant Output File: ^M3644::Q2
Name: MMSD;;;SSTD080 Instrument ID: MMSD
Misc: WS0853B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 3

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 14:24
Injected at: 971021 13:29

Page 2 of 2

Operator ID: GC Quant Rev: 7 Quant Time: 971021 15:13
Output File: ^M3645::Q2 Injected at: 971021 14:25
Data File: >M3645::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD120 Instrument ID: MMSD
Misc: WS0854B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 4

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.94 | 153.0 | 405285 | 107.97 | ngs | 94 |
| 45) | 3-Nitroaniline | 23.99 | 65.0 | 225433 | 107.01 | ngs | 93 |
| 46) | 2,4-Dinitrophenol | 24.27 | 184.0 | 59222M | 99.44 | ngs | 85 |
| 47) | Dibenzofuran | 24.44 | 168.0 | 579718 | 107.34 | ngs | 79 |
| 48) | 2,4-Dinitrotoluene | 24.76 | 165.0 | 173059 | 108.23 | ngs | 77 |
| 49) | 4-Nitrophenol | 24.67 | 139.0 | 98922 | 106.14 | ngs | 93 |
| 50) | Fluorene | 25.42 | 166.0 | 440120 | 105.79 | ngs | 100 |
| 51) | Diethylphthalate | 25.60 | 149.0 | 550071 | 97.73 | ngs | 98 |
| 52) | 4-Chlorophenyl-phenylether | 25.55 | 204.0 | 198163 | 98.55 | ngs | 96 |
| 53) | 4-Nitroaniline | 25.83 | 138.0 | 111741 | 105.65 | ngs | 79 |
| 54) | Azobenzene (2) | 25.98 | 77.0 | 746016 | 116.60 | ngs | 90 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.15 | 329.8 | 80472 | 94.90 | ngs | 94 |
| 56) | *Phenanthrene-d10 (istd) | 27.90 | 188.0 | 223989 | 40.00 | ngs | 92 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.90 | 198.0 | 76641 | 106.17 | ngs | 79 |
| 58) | N-Nitrosodiphenylamine (1) | 25.96 | 169.0 | 225265M | 123.83 | ngs | 96 |
| 59) | 4-Bromophenyl-phenylether | 26.85 | 250.0 | 112018 | 109.40 | ngs | 98 |
| 60) | Hexachlorobenzene | 27.14 | 283.6 | 155034 | 108.49 | ngs | 93 |
| 61) | Pentachlorophenol | 27.66 | 265.7 | 85871 | 110.98 | ngs | 98 |
| 62) | Phenanthrene | 27.98 | 178.0 | 562214M | 110.70 | ngs | 96 |
| 63) | Anthracene | 28.10 | 178.0 | 535220M | 106.79 | ngs | 93 |
| 64) | Carbazole | 28.60 | 167.0 | 428905 | 99.14 | ngs | 97 |
| 65) | Di-n-butylphthalate | 29.88 | 149.0 | 730081 | 118.16 | ngs | 96 |
| 66) | Fluoranthene | 31.05 | 202.0 | 487641 | 99.12 | ngs | 98 |
| 67) | *Chrysene-d12 (istd) | 34.73 | 240.0 | 90965 | 40.00 | ngs | 97 |
| 68) | Benzidine | 31.49 | 184.0 | 36406 | 81.27 | ngs | 97 |
| 69) | Pyrene | 31.59 | 202.0 | 476934 | 110.90 | ngs | 97 |
| 70) | Terphenyl-d14 (surr) | 32.17 | 244.0 | 289355 | 103.60 | ngs | 97 |
| 71) | Butylbenzylphthalate | 33.65 | 149.0 | 264786 | 120.84 | ngs | 87 |
| 72) | 3,3'-Dichlorobenzidine | 34.77 | 252.0 | 80218 | 132.33 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.70 | 228.0 | 316889 | 119.57 | ngs | 90 |
| 74) | Chrysene | 34.80 | 228.0 | 252215 | 108.23 | ngs | 82 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.29 | 149.0 | 340633 | 123.47 | ngs | 85 |
| 76) | *Perylene-d12 (istd) | 38.21 | 264.0 | 65876 | 40.00 | ngs | 98 |
| 77) | Di-n-octylphthalate | 36.86 | 149.0 | 522082 | 106.38 | ngs | 98 |
| 78) | Benzo(b)fluoranthene | 37.35 | 252.0 | 264434 | 116.71 | ngs | 77 |
| 79) | Benzo(k)fluoranthene | 37.42 | 252.0 | 215061M | 96.41 | ngs | 76 |
| 80) | Benzo(a)pyrene | 38.08 | 252.0 | 211440 | 116.63 | ngs | 95 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.23 | 276.0 | 156525 | 140.44 | ngs | 98 |
| 82) | Dibenz(a,h)anthracene | 41.37 | 278.0 | 157369 | 137.06 | ngs | 85 |
| 83) | Benzo(g,h,i)perylene | 42.06 | 276.0 | 149795 | 131.36 | ngs | 100 |

* Compound is ISTD

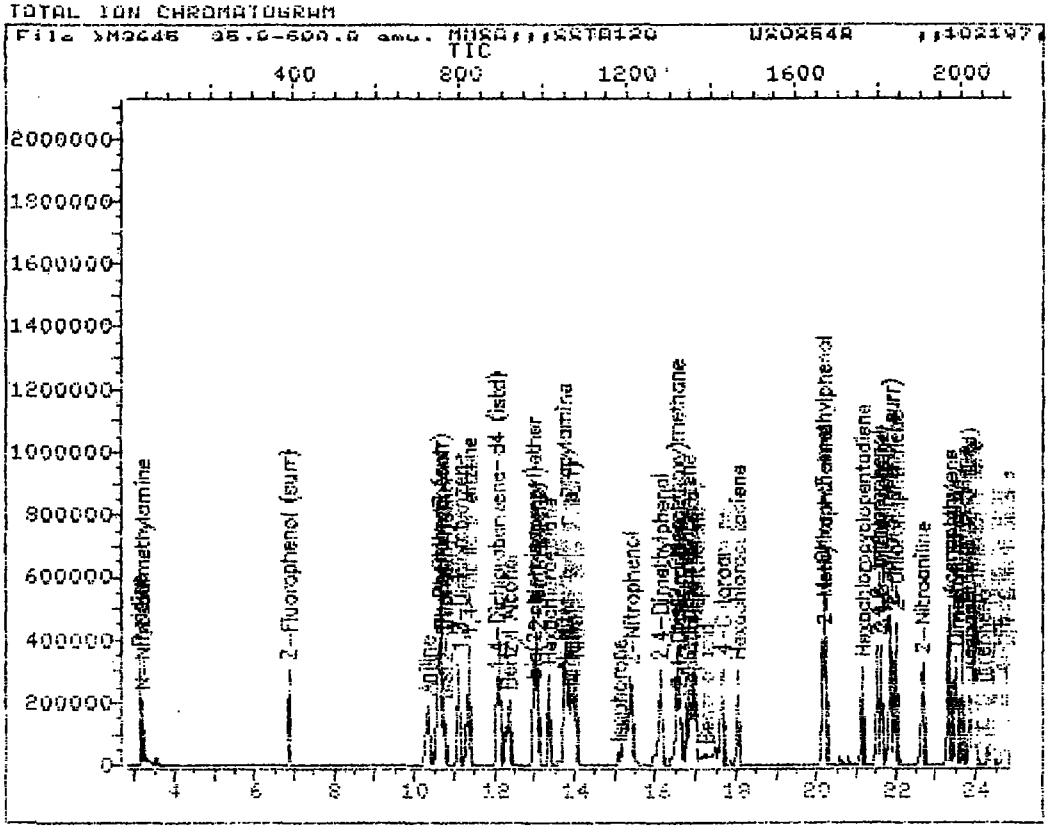
Operator ID: GC Quant Rev: 7 Quant Time: 971021 16:10
Output File: ^M3646::Q2 Injected at: 971021 15:22
Data File: >M3646::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD160 Instrument ID: MMSD
Misc: WS0855B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 5

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AFN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.28 | 152.0 | 53574M | 40.00 | ngs | 99 |
| 2) | N-Nitrosodimethylamine | 3.21 | 74.0 | 241367 | 171.01 | ngs | 95 |
| 3) | Pyridine | 3.11 | 52.0 | 261681 | 135.95 | ngs | 94 |
| 4) | 2-Fluorophenol (surr) | 6.86 | 112.0 | 257575 | 157.13 | ngs | 77 |
| 5) | Aniline | 10.36 | 93.0 | 486105 | 159.53 | ngs | 89 |
| 6) | Phenol-d5 (surr) | 10.66 | 99.0 | 359921M | 148.99 | ngs | 87 |
| 7) | Phenol | 10.72 | 94.0 | 367755M | 148.92 | ngs | 92 |
| 8) | bis(2-Chloroethyl)ether | 10.77 | 93.0 | 352362 | 158.43 | ngs | 89 |
| 9) | 2-Chlorophenol | 10.66 | 128.0 | 232236 | 138.34 | ngs | 73 |
| 10) | 1,3-Dichlorobenzene | 11.13 | 146.0 | 268811 | 139.01 | ngs | 88 |
| 11) | 1,4-Dichlorobenzene | 11.38 | 146.0 | 271956 | 137.42 | ngs | 91 |
| 12) | 1,2-Dichlorobenzene | 12.13 | 146.0 | 249550M | 133.97 | ngs | 90 |
| 13) | Benzyl Alcohol | 12.39 | 79.0 | 362361 | 154.98 | ngs | 88 |
| 14) | 2-Methylphenol | 13.07 | 108.0 | 270719 | 153.49 | ngs | 81 |
| 15) | bis(2-chloroisopropyl)ether | 12.99 | 45.0 | 686676M | 164.63 | ngs | 91 |
| 16) | Hexachloroethane | 13.35 | 116.7 | 142329 | 151.32 | ngs | 95 |
| 17) | 4-Methylphenol | 13.83 | 107.0 | 336926 | 135.88 | ngs | 96 |
| 18) | N-Nitroso-Di-n-propylamine | 13.88 | 70.0 | 440353M | 185.85 | ngs | 90 |
| 19) | *Naphthalene-d8 (istd) | 16.89 | 136.0 | 238117 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.94 | 82.0 | 425732 | 156.92 | ngs | 82 |
| 21) | Nitrobenzene | 14.02 | 77.0 | 380902 | 134.63 | ngs | 77 |
| 22) | Isophorone | 15.24 | 82.0 | 937712M | 170.71 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.41 | 139.0 | 195114 | 156.14 | ngs | 88 |
| 24) | 2,4-Dimethylphenol | 16.16 | 107.0 | 402439M | 161.61 | ngs | 88 |
| 25) | bis(2-Chloroethoxy)methane | 16.55 | 93.0 | 506239M | 166.99 | ngs | 99 |
| 26) | 2,4-Dichlorophenol | 16.62 | 161.8 | 239398M | 143.15 | ngs | 93 |
| 27) | Benzoic acid | 17.30 | 105.0 | 279293M | 166.63 | ngs | 87 |
| 28) | 1,2,4-Trichlorobenzene | 16.79 | 180.0 | 251147 | 139.35 | ngs | 95 |
| 29) | Naphthalene | 17.01 | 128.0 | 840470 | 145.27 | ngs | 95 |
| 30) | 4-Chloroaniline | 17.66 | 127.0 | 383966 | 151.61 | ngs | 95 |
| 31) | Hexachlorobutadiene | 18.04 | 224.6 | 136354 | 125.08 | ngs | 98 |
| 32) | 4-Chloro-3-methylphenol | 20.17 | 107.0 | 286515 | 147.01 | ngs | 74 |
| 33) | 2-Methylnaphthalene | 20.20 | 142.0 | 634256 | 141.07 | ngs | 95 |
| 34) | *Acenaphthene-d10 (istd) | 23.82 | 164.0 | 142136 | 40.00 | ngs | 99 |
| 35) | Hexachlorocyclopentadiene | 21.14 | 236.7 | 135863 | 167.09 | ngs | 98 |
| 36) | 2,4,6-Trichlorophenol | 21.54 | 196.0 | 188428 | 145.32 | ngs | 94 |
| 37) | 2,4,5-Trichlorophenol | 21.65 | 196.0 | 161538M | 124.80 | ngs | 96 |
| 38) | 2-Fluorobiphenyl (surr) | 21.86 | 172.0 | 541592 | 134.38 | ngs | 97 |
| 39) | 2-Chloronaphthalene | 22.00 | 162.0 | 531770 | 141.41 | ngs | 91 |
| 40) | 2-Nitroaniline | 22.66 | 65.0 | 319366 | 159.99 | ngs | 82 |
| 41) | Acenaphthylene | 23.34 | 152.0 | 852440 | 139.26 | ngs | 98 |
| 42) | Dimethylphthalate | 23.51 | 163.0 | 623025 | 123.41 | ngs | 92 |
| 43) | 2,6-Dinitrotoluene | 23.67 | 165.0 | 158560 | 135.62 | ngs | 94 |

10/22/97 000133

TOTAL ION CHROMATOGRAM




Data File: >M3645::D4 Quant Output File: ^M3645::Q2
Name: MMSD;;;SSTD120 Instrument ID: MMSD
Misc: WS0854B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 4

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 15:13
Injected at: 971021 14:25

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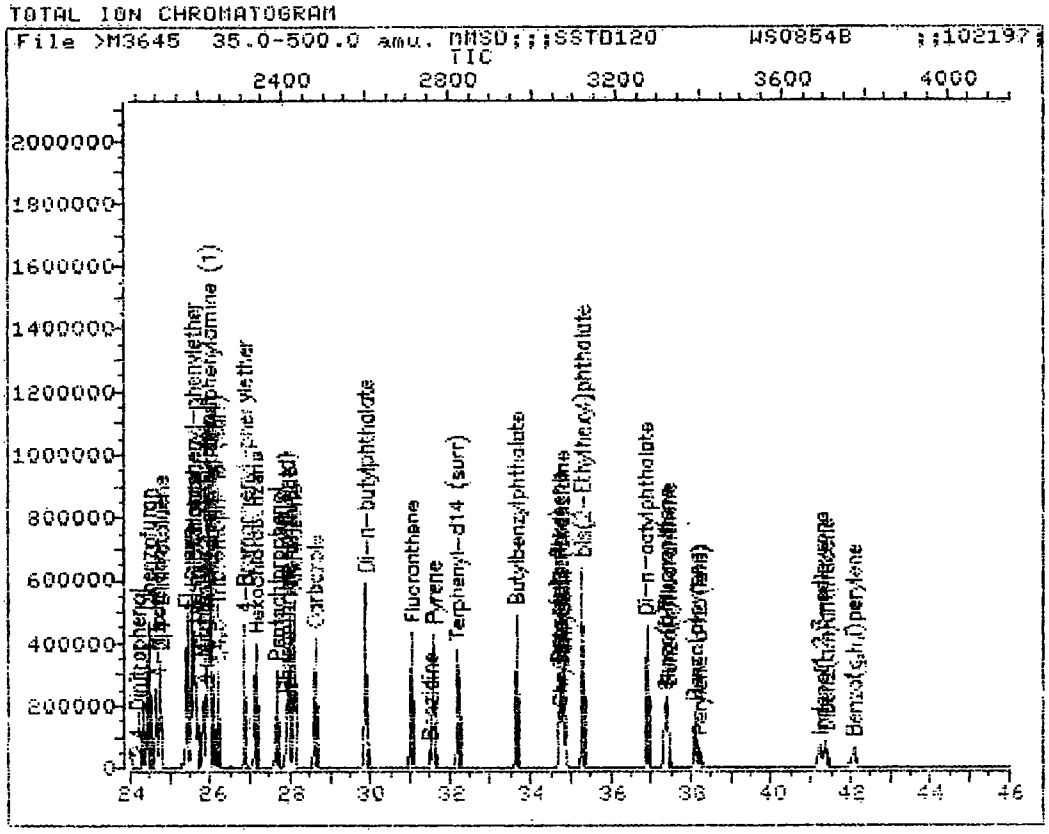
TOTAL ION CHROMATOGRAM




Data File: >M3645::D4 Quant Output File: ^M3645::Q2
Name: MMSD;;;SSTD120 Instrument ID: MMSD
Misc: WS0854B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 4

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 15:13
Injected at: 971021 14:25

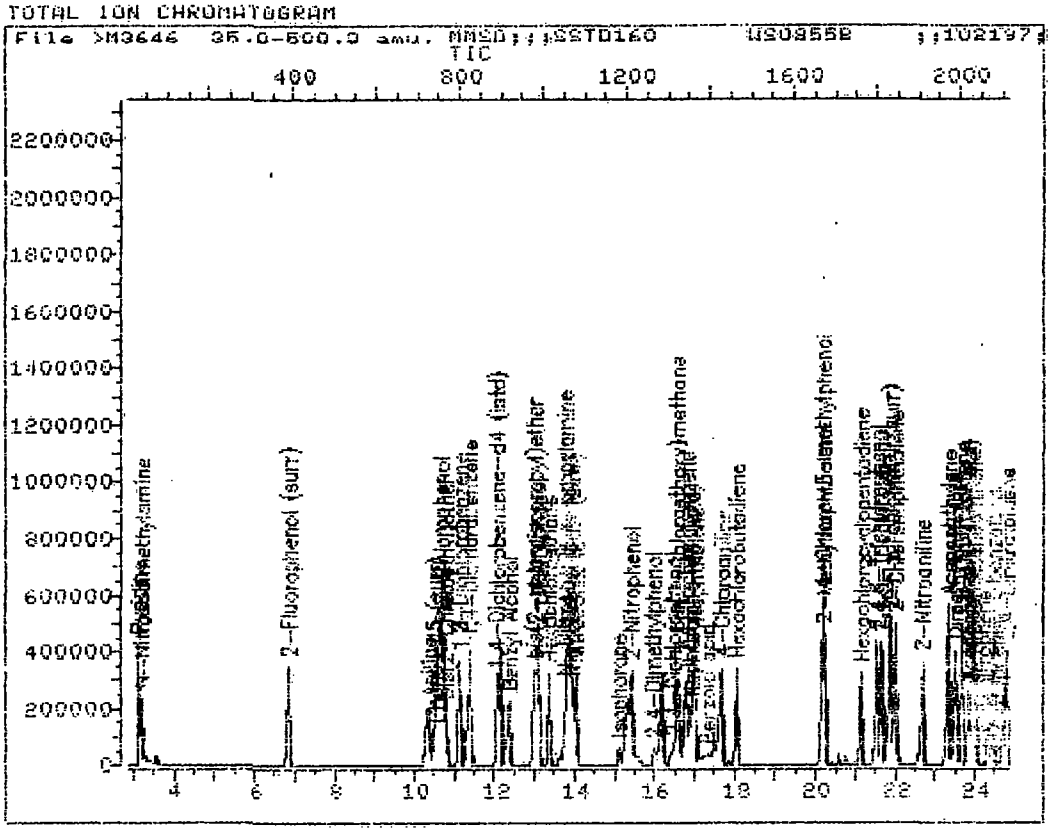
Operator ID: GC Quant Rev: 7 Quant Time: 971021 16:10
Output File: ^M3646::Q2 Injected at: 971021 15:22
Data File: >M3646::D4 Dilution Factor: 1.00000
Name: MMSD;;;SSTD160 Instrument ID: MMSD
Misc: WS0855B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 5

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.94 | 153.0 | 495909 | 132.55 | ngs | 92 |
| 45) | 3-Nitroaniline | 24.01 | 65.0 | 318538M | 151.70 | ngs | 91 |
| 46) | 2,4-Dinitrophenol | 24.29 | 184.0 | 82916M | 134.65 | ngs | 87 |
| 47) | Dibenzofuran | 24.45 | 168.0 | 719228 | 133.61 | ngs | 75 |
| 48) | 2,4-Dinitrotoluene | 24.78 | 165.0 | 195961 | 122.96 | ngs | 77 |
| 49) | 4-Nitrophenol | 24.69 | 139.0 | 138562M | 149.17 | ngs | 98 |
| 50) | Fluorene | 25.43 | 166.0 | 534008 | 128.78 | ngs | 100 |
| 51) | Diethylphthalate | 25.61 | 149.0 | 676965 | 120.67 | ngs | 98 |
| 52) | 4-Chlorophenyl-phenylether | 25.55 | 204.0 | 243103 | 121.30 | ngs | 99 |
| 53) | 4-Nitroaniline | 25.87 | 138.0 | 146771M | 139.22 | ngs | |
| 54) | Azobenzene (2) | 25.99 | 77.0 | 897329 | 140.71 | ngs | 83 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.17 | 329.8 | 100856 | 119.33 | ngs | 88 |
| 56) | *Phenanthrene-d10 (istd) | 27.90 | 188.0 | 217495 | 40.00 | ngs | 92 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.93 | 198.0 | 93943M | 134.02 | ngs | 67 |
| 58) | N-Nitrosodiphenylamine (1) | 25.98 | 169.0 | 252540M | 165.28 | ngs | 98 |
| 59) | 4-Bromophenyl-phenylether | 26.85 | 250.0 | 134439 | 135.21 | ngs | 94 |
| 60) | Hexachlorobenzene | 27.14 | 283.6 | 185412 | 133.62 | ngs | 95 |
| 61) | Pentachlorophenol | 27.67 | 265.7 | 108116 | 143.90 | ngs | 97 |
| 62) | Phenanthrene | 27.99 | 178.0 | 690608M | 140.04 | ngs | 97 |
| 63) | Anthracene | 28.11 | 178.0 | 660967M | 135.82 | ngs | 93 |
| 64) | Carbazole | 28.60 | 167.0 | 548739 | 130.63 | ngs | 99 |
| 65) | Di-n-butylphthalate | 29.88 | 149.0 | 857466M | 161.07 | ngs | 95 |
| 66) | Fluoranthene | 31.05 | 202.0 | 575456 | 120.46 | ngs | 98 |
| 67) | *Chrysene-d12 (istd) | 34.73 | 240.0 | 89209 | 40.00 | ngs | 95 |
| 68) | Benzidine | 31.49 | 184.0 | 51809M | 117.93 | ngs | 97 |
| 69) | Pyrene | 31.60 | 202.0 | 559712 | 132.71 | ngs | 96 |
| 70) | Terphenyl-d14 (surr) | 32.17 | 244.0 | 349703 | 127.67 | ngs | 99 |
| 71) | Butylbenzylphthalate | 33.64 | 149.0 | 314487 | 146.34 | ngs | 84 |
| 72) | 3,3'-Dichlorobenzidine | 34.77 | 252.0 | 110177 | 185.33 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.70 | 228.0 | 387209 | 148.99 | ngs | 91 |
| 74) | Chrysene | 34.82 | 228.0 | 333870M | 146.09 | ngs | 82 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.30 | 149.0 | 402362 | 148.71 | ngs | 84 |
| 76) | *Perylene-d12 (istd) | 38.20 | 264.0 | 69350 | 40.00 | ngs | 98 |
| 77) | Di-n-octylphthalate | 36.87 | 149.0 | 662176 | 128.17 | ngs | 97 |
| 78) | Benzo(b)fluoranthene | 37.37 | 252.0 | 377620 | 158.31 | ngs | 78 |
| 79) | Benzo(k)fluoranthene | 37.42 | 252.0 | 276420M | 117.70 | ngs | 78 |
| 80) | Benzo(a)pyrene | 38.10 | 252.0 | 277840 | 145.58 | ngs | 99 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.25 | 276.0 | 244973 | 208.79 | ngs | 94 |
| 82) | Dibenz(a,h)anthracene | 41.39 | 278.0 | 238053 | 196.95 | ngs | 87 |
| 83) | Benzo(g,h,i)perylene | 42.09 | 276.0 | 230034 | 191.63 | ngs | 100 |

* Compound is ISTD

TOTAL ION CHROMATOGRAM



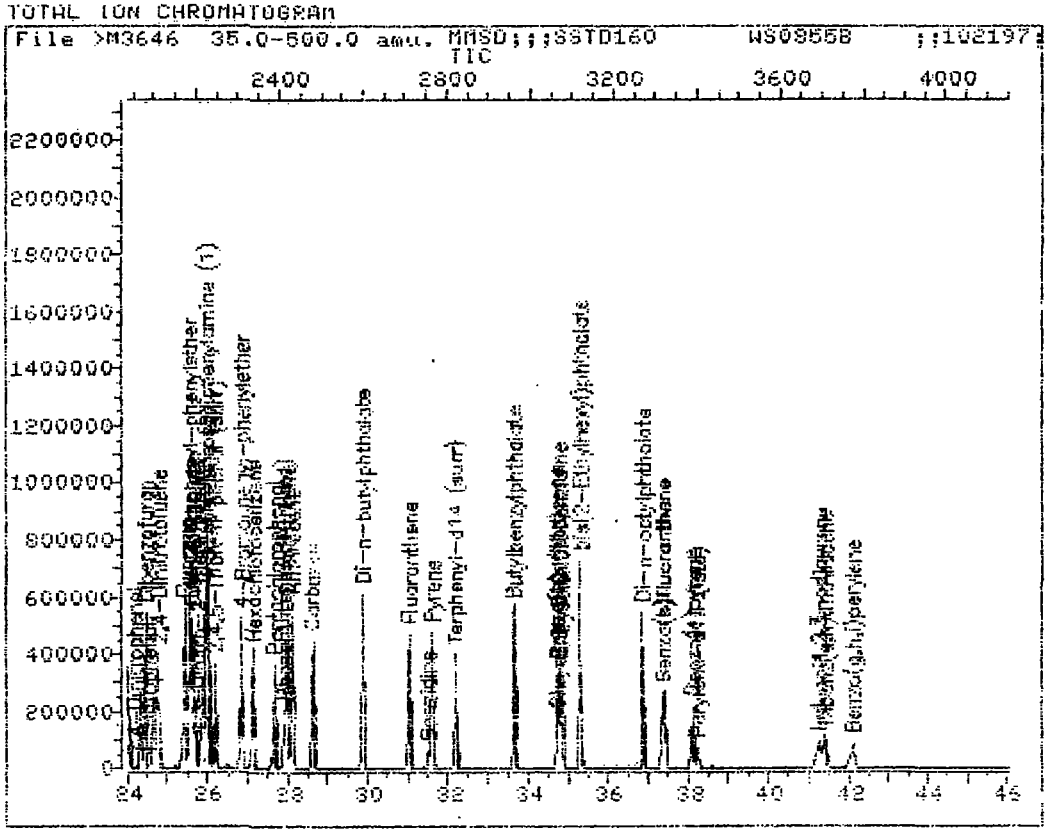

Data File: >M3646::D4 Quant Output File: ^M3646::Q2
Name: MMSD;;;SSTD160 Instrument ID: MMSD
Misc: WS0855B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 5

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 16:10
Injected at: 971021 15:22

Page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >M3646::D4 Quant Output File: ^M3646::Q2
Name: MMSD;;;SSTD160 Instrument ID: MMSD
Misc: WS0855B ;;102197; ;1 ;; ;QM1923;1 ;; BTL# 5

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 970923 11:14 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971021 16:10
Injected at: 971021 15:22

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# Continuing Calibration

# Form VII

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 10/21/97

Contractor: AEN Illinois | Time: 11:36

Contract No: | Laboratory ID: >M3642

Instrument ID: MMSD | Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 | Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 1.15478 | 1.16885 | 1.22 | | |
| Pyridine | 1.27506 | 1.37133 | 7.55 | | |
| 2-Fluorophenol (surr) | 1.30905 | 1.33663 | 2.11 | | |
| Aniline | 2.39771 | 2.44266 | 1.87 | | |
| Phenol-d5 (surr) | 1.84487 | 2.04896 | 11.06 | | |
| Phenol | 1.88543 | 1.94299 | 3.05 | * | |
| bis(2-Chloroethyl)ether | 1.79662 | 1.79709 | .03 | | |
| 2-Chlorophenol | 1.28632 | 1.37258 | 6.71 | | |
| 1,3-Dichlorobenzene | 1.43453 | 1.48462 | 3.49 | | |
| 1,4-Dichlorobenzene | 1.48281 | 1.54433 | 4.15 | * | |
| 1,2-Dichlorobenzene | 1.39853 | 1.47314 | 5.34 | | |
| Benzyl Alcohol | 1.77444 | 1.79371 | 1.09 | | |
| 2-Methylphenol | 1.40486 | 1.44151 | 2.61 | | |
| bis(2-chloroisopropyl)ether | 3.32825 | 3.27412 | 1.63 | | |
| Hexachloroethane | .74256 | .77881 | 4.88 | | |
| 4-Methylphenol | 1.86778 | 1.97597 | 5.79 | | |
| N-Nitroso-Di-n-propylamine | 1.90402 | 1.75083 | 8.05 | | ** |
| Nitrobenzene-d5 (surr) | .46990 | .48214 | 2.60 | | |
| Nitrobenzene | .47404 | .50349 | 6.21 | | |
| Isophorone | .98570 | .96418 | 2.18 | | |
| 2-Nitrophenol | .20097 | .20328 | 1.15 | * | |
| 2,4-Dimethylphenol | .39983 | .42185 | 5.51 | | |
| bis(2-Chloroethoxy)methane | .54700 | .56771 | 3.79 | | |
| 2,4-Dichlorophenol | .26243 | .25911 | 1.26 | * | |
| Benzoic acid | .24097 | .21947 | 8.92 | | |
| 1,2,4-Trichlorobenzene | .28249 | .28657 | 1.44 | | |
| Naphthalene | .97422 | .99465 | 2.10 | | |
| 4-Chloroaniline | .42051 | .42934 | 2.10 | | |
| Hexachlorobutadiene | .16513 | .17381 | 5.26 | * | |
| 4-Chloro-3-methylphenol | .33739 | .35454 | 5.08 | * | |
| 2-Methylnaphthalene | .78199 | .82690 | 5.74 | | |
| Hexachlorocyclopentadiene | .26811 | .30726 | 14.60 | | ** |

RF - Response Factor from daily standard file at 50.00 ngs

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 10/21/97

Contractor: AEN Illinois Time: 11:36

Contract No: Laboratory ID: >M3642

Instrument ID: MMSD Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| 2,4,6-Trichlorophenol | .34191 | .34789 | 1.75 | * | |
| 2,4,5-Trichlorophenol | .32565 | .35725 | 9.70 | | |
| 2-Fluorobiphenyl (surr) | 1.12207 | 1.16456 | 3.79 | | |
| 2-Chloronaphthalene | 1.06063 | 1.10235 | 3.93 | | |
| 2-Nitroaniline | .54473 | .54298 | .32 | | |
| Acenaphthylene | 1.74329 | 1.82750 | 4.83 | | |
| Dimethylphthalate | 1.30238 | 1.38817 | 6.59 | | |
| 2,6-Dinitrotoluene | .29888 | .32042 | 7.21 | | |
| Acenaphthene | 1.04675 | 1.10423 | 5.49 | * | |
| 3-Nitroaniline | .51559 | .47387 | 8.09 | | |
| 2,4-Dinitrophenol | .11495 | .10589 | 2.60 | | ** |
| Dibenzofuran | 1.45494 | 1.50997 | 3.78 | | |
| 2,4-Dinitrotoluene | .37235 | .37457 | .60 | | |
| 4-Nitrophenol | .22481 | .22074 | 1.81 | | ** |
| Fluorene | 1.10965 | 1.17537 | 5.92 | | |
| Diethylphthalate | 1.42093 | 1.48354 | 4.41 | | |
| 4-Chlorophenyl-phenylether | .51165 | .55042 | 7.58 | | |
| 4-Nitroaniline | .22303 | .18299 | 17.95 | | |
| Azobenzene (2) | 1.81465 | 1.97562 | 8.87 | | |
| 2,4,6-Tribromophenol (surr) | .18872 | .18762 | .58 | | |
| 4,6-Dinitro-2-methylphenol | .10360 | .10553 | 1.86 | | |
| N-Nitrosodiphenylamine (1) | .41383 | .48736 | 4.68 | * | |
| 4-Bromophenyl-phenylether | .18211 | .19523 | 7.20 | | |
| Hexachlorobenzene | .25843 | .27064 | 4.73 | | |
| Pentachlorophenol | .12372 | .12122 | 2.03 | * | |
| Phenanthrene | .91867 | .93318 | 1.58 | | |
| Anthracene | .89070 | .95452 | 7.17 | | |
| Carbazole | .70665 | .72784 | 3.00 | | |
| Di-n-butylphthalate | 1.29356 | 1.42432 | .66 | | |
| Fluoranthene | .81216 | .84664 | 4.25 | * | |
| Benzidine | .15846 | .16214 | 2.32 | | |
| Pyrene | 1.62973 | 1.56825 | 3.77 | | |

RF - Response Factor from daily standard file at 50.00 ngs

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 10/21/97

Contractor: AEN Illinois Time: 11:36

Contract No: Laboratory ID: >M3642

Instrument ID: MMSD Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| Terphenyl-d14 (surr) | 1.03770 | 1.03881 | .11 | | |
| Butylbenzylphthalate | .91301 | .92214 | 1.00 | | |
| 3,3'-Dichlorobenzidine | .27921 | .23633 | 15.36 | | |
| Benzo(a)anthracene | 1.15684 | 1.20654 | 4.30 | | |
| Chrysene | 1.01920 | 1.06463 | 4.46 | | |
| bis(2-Ethylhexyl)phthalate | 1.20932 | 1.25817 | 4.04 | | |
| Di-n-octylphthalate | 2.58571 | 2.66339 | 3.00 | * | |
| Benzo(b)fluoranthene | 1.32835 | 1.28384 | 3.35 | | |
| Benzo(k)fluoranthene | 1.15873 | 1.23498 | 6.58 | | |
| Benzo(a)pyrene | 1.06282 | 1.11092 | 4.53 | * | |
| Indeno[1,2,3-cd]pyrene | .75300 | .69349 | 7.90 | | |
| Dibenz(a,h)anthracene | .75420 | .68954 | 8.57 | | |
| Benzo(g,h,i)perylene | .74222 | .68812 | 7.29 | | |

RF - Response Factor from daily standard file at 50.00 ngs

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 10/23/97

Contractor: AEN Illinois | Time: 14:34

Contract No: | Laboratory ID: >M3673

Instrument ID: MMSD | Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 | Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 1.15478 | 1.09369 | 5.29 | | |
| Pyridine | 1.27506 | 1.18317 | 7.21 | | |
| 2-Fluorophenol (surr) | 1.30905 | 1.27273 | 2.77 | | |
| Aniline | 2.39771 | 2.19683 | 8.38 | | |
| Phenol-d5 (surr) | 1.84487 | 1.91458 | 3.78 | | |
| Phenol | 1.88543 | 1.83253 | 2.81 | * | |
| bis(2-Chloroethyl)ether | 1.79662 | 1.66385 | 7.39 | | |
| 2-Chlorophenol | 1.28632 | 1.30290 | 1.29 | | |
| 1,3-Dichlorobenzene | 1.43453 | 1.49144 | 3.97 | | |
| 1,4-Dichlorobenzene | 1.48281 | 1.52484 | 2.83 | * | |
| 1,2-Dichlorobenzene | 1.39853 | 1.45363 | 3.94 | | |
| Benzyl Alcohol | 1.77444 | 1.58673 | 10.58 | | |
| 2-Methylphenol | 1.40486 | 1.33083 | 5.27 | | |
| bis(2-chloroisopropyl)ether | 3.32825 | 2.75376 | 17.26 | | |
| Hexachloroethane | .74256 | .72280 | 2.66 | | |
| 4-Methylphenol | 1.86778 | 1.83864 | 1.56 | | |
| N-Nitroso-Di-n-propylamine | 1.90402 | 1.56785 | 17.66 | | ** |
| Nitrobenzene-d5 (surr) | .46990 | .42249 | 10.09 | | |
| Nitrobenzene | .47404 | .45929 | 3.11 | | |
| Isophorone | .98570 | .93038 | 5.61 | | |
| 2-Nitrophenol | .20097 | .17943 | 10.72 | * | |
| 2,4-Dimethylphenol | .39983 | .40442 | 1.15 | | |
| bis(2-Chloroethoxy)methane | .54700 | .53828 | 1.59 | | |
| 2,4-Dichlorophenol | .26243 | .26257 | .05 | * | |
| Benzoic acid | .24097 | .16379 | 29.60 | | |
| 1,2,4-Trichlorobenzene | .28249 | .30293 | 7.24 | | |
| Naphthalene | .97422 | 1.00901 | 3.57 | | |
| 4-Chloroaniline | .42051 | .39900 | 5.12 | | |
| Hexachlorobutadiene | .16513 | .18453 | 11.75 | * | |
| 4-Chloro-3-methylphenol | .33739 | .32434 | 3.87 | * | |
| 2-Methylnaphthalene | .78199 | .81035 | 3.63 | | |
| Hexachlorocyclopentadiene | .26811 | .20514 | 23.49 | | ** |

RF - Response Factor from daily standard file at 50.00 ng

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 10/23/97

Contractor: AEN Illinois | Time: 14:34

Contract No: | Laboratory ID: >M3673

Instrument ID: MMSD | Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 | Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| 2,4,6-Trichlorophenol | .34191 | .35258 | 3.12 | * | |
| 2,4,5-Trichlorophenol | .32565 | .34154 | 4.88 | | |
| 2-Fluorobiphenyl (surr) | 1.12207 | 1.21740 | 8.50 | | |
| 2-Chloronaphthalene | 1.06063 | 1.11124 | 4.77 | | |
| 2-Nitroaniline | .54473 | .40035 | 26.51 | | |
| Acenaphthylene | 1.74329 | 1.81450 | 4.08 | | |
| Dimethylphthalate | 1.30238 | 1.37511 | 5.58 | | |
| 2,6-Dinitrotoluene | .29888 | .26528 | 11.24 | | |
| Acenaphthene | 1.04675 | 1.11085 | 3.01 | * | |
| 3-Nitroaniline | .51559 | .37587 | 27.10 | | |
| 2,4-Dinitrophenol | .11495 | .06956 | 36.02 | | ** |
| Dibenzofuran | 1.45494 | 1.48917 | 2.35 | | |
| 2,4-Dinitrotoluene | .37235 | .31156 | 16.33 | | |
| 4-Nitrophenol | .22481 | .15968 | 28.97 | | ** |
| Fluorene | 1.10965 | 1.16578 | 5.06 | | |
| Diethylphthalate | 1.42093 | 1.47979 | 4.14 | | |
| 4-Chlorophenyl-phenylether | .51165 | .56162 | 9.77 | | |
| 4-Nitroaniline | .22303 | .13872 | 31.31 | | |
| Azobenzene (2) | 1.81465 | 1.77706 | 2.07 | | |
| 2,4,6-Tribromophenol (surr) | .18872 | .18285 | 3.11 | | |
| 4,6-Dinitro-2-methylphenol | .10360 | .07543 | 27.19 | | |
| N-Nitrosodiphenylamine (1) | .41383 | .50342 | 8.13 | * | |
| 4-Bromophenyl-phenylether | .18211 | .20432 | 12.19 | | |
| Hexachlorobenzene | .25843 | .28670 | 7.79 | | |
| Pentachlorophenol | .12372 | .10949 | 11.50 | * | |
| Phenanthrene | .91867 | .98801 | 7.55 | | |
| Anthracene | .89070 | .93671 | 5.17 | | |
| Carbazole | .70665 | .67049 | 5.12 | | |
| Di-n-butylphthalate | 1.29356 | 1.43775 | .28 | | |
| Fluoranthene | .81216 | .82316 | 5.81 | * | |
| Benzidine | .15846 | - | - | | |
| Pyrene | 1.62973 | 1.69883 | 4.24 | | |

RF - Response Factor from daily standard file at 50.00 ng

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 10/23/97

Contractor: AEN Illinois Time: 14:34

Contract No: Laboratory ID: >M3673

Instrument ID: MMSD Initial Calibration Date: 10/22/97

Minimum $\overline{RF}$ for SPCC is 0.0500 Maximum % Diff for CCC is 20%

| Compound | $\overline{RF}$ | RF | %Diff | CCC | SPCC |
|---|---|---|---|---|---|
| Terphenyl-d14 (surr) | 1.03770 | 1.08556 | 4.61 | | |
| Butylbenzylphthalate | .91301 | .88062 | 3.55 | | |
| 3,3'-Dichlorobenzidine | .27921 | .19717 | 29.38 | | |
| Benzo(a)anthracene | 1.15684 | 1.13464 | 1.92 | | |
| Chrysene | 1.01920 | 1.03053 | 1.11 | | |
| bis(2-Ethylhexyl)phthalate | 1.20932 | 1.24464 | 2.92 | | |
| Di-n-octylphthalate | 2.58571 | 2.18323 | 15.57 | * | |
| Benzo(b)fluoranthene | 1.32835 | 1.13024 | 14.91 | | |
| Benzo(k)fluoranthene | 1.15873 | 1.26531 | 9.20 | | |
| Benzo(a)pyrene | 1.06282 | 1.02391 | 3.66 | * | |
| Indeno(1,2,3-cd)pyrene | .75300 | .78557 | 4.32 | | |
| Dibenz(a,h)anthracene | .75420 | .68304 | 9.44 | | |
| Benzo(g,h,i)perylene | .74222 | .74006 | .29 | | |

RF - Response Factor from daily standard file at 50.00 ng

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Operator ID: GC Quant Rev: 7 Quant Time: 971023 15:18
Output File: ^M3673::Q2 Injected at: 971023 14:34
Data File: >M3673::D5 Dilution Factor: 1.00000
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102397; ;1 ;; ;QM1925;1 ;; BTL# 1

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.16 | 152.0 | 56560 | 40.00 | ngs | 99 |
| 2) | N-Nitrosodimethylamine | 3.07 | 74.0 | 77324 | 47.36 | ngs | 88 |
| 3) | Pyridine | 3.02 | 52.0 | 83650 | 46.40 | ngs | 95 |
| 4) | 2-Fluorophenol (surr) | 6.69 | 112.0 | 89982 | 48.61 | ngs | 86 |
| 5) | Aniline | 10.14 | 93.0 | 155316 | 45.81 | ngs | 96 |
| 6) | Phenol-d5 (surr) | 10.43 | 99.0 | 135361 | 51.89 | ngs | 88 |
| 7) | Phenol | 10.48 | 94.0 | 129560 | 48.60 | ngs | 97 |
| 8) | bis(2-Chloroethyl)ether | 10.59 | 93.0 | 117634 | 46.30 | ngs | 93 |
| 9) | 2-Chlorophenol | 10.48 | 128.0 | 92115 | 50.64 | ngs | 78 |
| 10) | 1,3-Dichlorobenzene | 10.98 | 146.0 | 105445 | 51.98 | ngs | 93 |
| 11) | 1,4-Dichlorobenzene | 11.22 | 146.0 | 107806 | 51.42 | ngs | 94 |
| 12) | 1,2-Dichlorobenzene | 11.97 | 146.0 | 102772 | 51.97 | ngs | 92 |
| 13) | Benzyl Alcohol | 12.14 | 79.0 | 112182 | 44.71 | ngs | 89 |
| 14) | 2-Methylphenol | 12.88 | 108.0 | 94090 | 47.37 | ngs | 94 |
| 15) | bis(2-chloroisopropyl)ether | 12.85 | 45.0 | 194691M | 41.37 | ngs | 94 |
| 16) | Hexachloroethane | 13.22 | 116.7 | 51102 | 48.67 | ngs | 96 |
| 17) | 4-Methylphenol | 13.59 | 107.0 | 129992 | 49.22 | ngs | 96 |
| 18) | N-Nitroso-Di-n-propylamine | 13.52 | 70.0 | 110847 | 41.17 | ngs | 94 |
| 19) | *Naphthalene-d8 (istd) | 16.75 | 136.0 | 236499 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.73 | 82.0 | 124899 | 44.96 | ngs | 86 |
| 21) | Nitrobenzene | 13.81 | 77.0 | 135777 | 48.44 | ngs | 83 |
| 22) | Isophorone | 14.96 | 82.0 | 275043 | 47.19 | ngs | 94 |
| 23) | 2-Nitrophenol | 15.24 | 139.0 | 53043 | 44.64 | ngs | 96 |
| 24) | 2,4-Dimethylphenol | 15.91 | 107.0 | 119556 | 50.57 | ngs | 89 |
| 25) | bis(2-Chloroethoxy)methane | 16.33 | 93.0 | 159127 | 49.20 | ngs | 99 |
| 26) | 2,4-Dichlorophenol | 16.38 | 161.8 | 77622 | 50.03 | ngs | 96 |
| 27) | Benzoic acid | 16.88 | 105.0 | 48419M | 39.15 | ngs | 93 |
| 28) | 1,2,4-Trichlorobenzene | 16.66 | 180.0 | 89554 | 53.62 | ngs | 94 |
| 29) | Naphthalene | 16.84 | 128.0 | 298286 | 51.79 | ngs | 93 |
| 30) | 4-Chloroaniline | 17.48 | 127.0 | 117954 | 47.44 | ngs | 94 |
| 31) | Hexachlorobutadiene | 17.92 | 224.6 | 54552 | 55.87 | ngs | 98 |
| 32) | 4-Chloro-3-methylphenol | 20.04 | 107.0 | 95884 | 48.07 | ngs | 82 |
| 33) | 2-Methylnaphthalene | 20.07 | 142.0 | 239560 | 51.81 | ngs | 97 |
| 34) | *Acenaphthene-d10 (istd) | 23.74 | 164.0 | 130164 | 40.00 | ngs | 96 |
| 35) | Hexachlorocyclopentadiene | 21.06 | 236.7 | 33377 | 38.26 | ngs | 96 |
| 36) | 2,4,6-Trichlorophenol | 21.42 | 196.0 | 57367 | 51.56 | ngs | 92 |
| 37) | 2,4,5-Trichlorophenol | 21.51 | 196.0 | 55571 | 52.44 | ngs | 96 |
| 38) | 2-Fluorobiphenyl (surr) | 21.73 | 172.0 | 198077 | 54.25 | ngs | 97 |
| 39) | 2-Chloronaphthalene | 21.87 | 162.0 | 180804 | 52.39 | ngs | 96 |
| 40) | 2-Nitroaniline | 22.51 | 65.0 | 65139M | 36.75 | ngs | 95 |
| 41) | Acenaphthylene | 23.23 | 152.0 | 295228 | 52.04 | ngs | 98 |
| 42) | Dimethylphthalate | 23.40 | 163.0 | 223738 | 52.79 | ngs | 92 |
| 43) | 2,6-Dinitrotoluene | 23.53 | 165.0 | 43162 | 44.38 | ngs | 92 |

JC 10/24/97 P6201

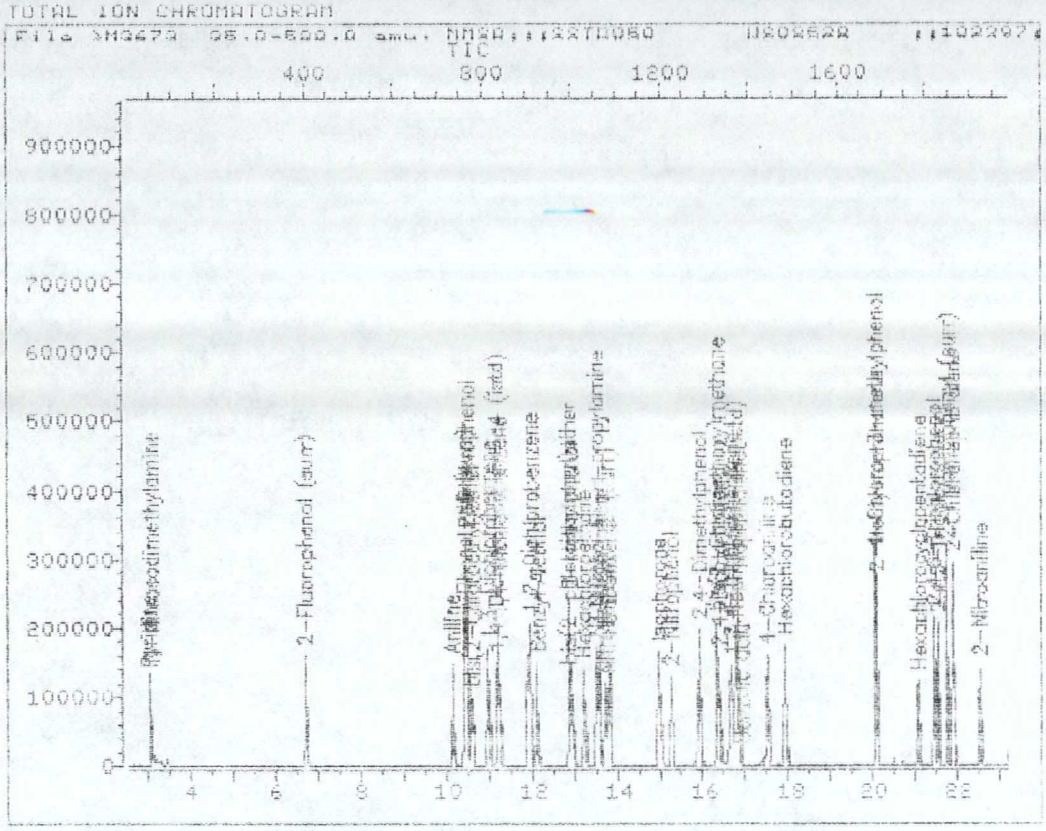
Operator ID: GC Quant Rev: 7 Quant Time: 971023 15:18
Output File: ^M3673::Q2 Injected at: 971023 14:34
Data File: >M3673::D5 Dilution Factor: 1.00000
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102397; ;1 ;; ;QM1925;1 ;; BTL# 1

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | Acenaphthene | 23.83 | 153.0 | 180741 | 52.20 | ngs | 94 |
| 45) | 3-Nitroaniline | 23.86 | 65.0 | 61156M | 36.45 | ngs | 94 |
| 46) | 2,4-Dinitrophenol | 24.15 | 184.0 | 11317M | 37.98 | ngs | 90 |
| 47) | Dibenzofuran | 24.32 | 168.0 | 242296 | 51.18 | ngs | 86 |
| 48) | 2,4-Dinitrotoluene | 24.64 | 165.0 | 50693 | 41.84 | ngs | 86 |
| 49) | 4-Nitrophenol | 24.53 | 139.0 | 25981M | 35.52 | ngs | 98 |
| 50) | Fluorene | 25.32 | 166.0 | 189679 | 52.53 | ngs | 100 |
| 51) | Diethylphthalate | 25.50 | 149.0 | 240769 | 52.07 | ngs | 97 |
| 52) | 4-Chlorophenyl-phenylether | 25.47 | 204.0 | 91378 | 54.88 | ngs | 96 |
| 53) | 4-Nitroaniline | 25.65 | 138.0 | 22570M | 36.64 | ngs | 89 |
| 54) | Azobenzene (2) | 25.89 | 77.0 | 289136 | 48.96 | ngs | 98 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.05 | 329.8 | 29750 | 48.44 | ngs | 88 |
| 56) | *Phenanthrene-d10 (istd) | 27.82 | 188.0 | 185874 | 40.00 | ngs | 90 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.75 | 198.0 | 17525 | 36.40 | ngs | 88 |
| 58) | N-Nitrosodiphenylamine (1) | 25.84 | 169.0 | 116967 | 51.05 | ngs | 98 |
| 59) | 4-Bromophenyl-phenylether | 26.76 | 250.0 | 47472 | 56.10 | ngs | 98 |
| 60) | Hexachlorobenzene | 27.04 | 283.6 | 66613 | 55.43 | ngs | 93 |
| 61) | Pentachlorophenol | 27.57 | 265.7 | 25440 | 44.25 | ngs | 92 |
| 62) | Phenanthrene | 27.88 | 178.0 | 229557 | 53.77 | ngs | 97 |
| 63) | Anthracene | 28.00 | 178.0 | 217637 | 52.58 | ngs | 93 |
| 64) | Carbazole | 28.51 | 167.0 | 155783 | 47.44 | ngs | 96 |
| 65) | Di-n-butylphthalate | 29.80 | 149.0 | 334051 | 47.20 | ngs | 97 |
| 66) | Fluoranthene | 30.96 | 202.0 | 191254 | 45.27 | ngs | 96 |
| 67) | *Chrysene-d12 (istd) | 34.64 | 240.0 | 88236 | 40.00 | ngs | 97 |
| 69) | Pyrene | 31.50 | 202.0 | 187373 | 52.12 | ngs | 94 |
| 70) | Terphenyl-d14 (surr) | 32.09 | 244.0 | 119732 | 52.31 | ngs | 99 |
| 71) | Butylbenzylphthalate | 33.57 | 149.0 | 97128 | 48.23 | ngs | 89 |
| 72) | 3,3'-Dichlorobenzidine | 34.69 | 252.0 | 21747M | 35.31 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.61 | 228.0 | 125145 | 49.04 | ngs | 91 |
| 74) | Chrysene | 34.71 | 228.0 | 113662 | 50.56 | ngs | 80 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.21 | 149.0 | 137278 | 51.46 | ngs | 83 |
| 76) | *Perylene-d12 (istd) | 38.09 | 264.0 | 70780 | 40.00 | ngs | 96 |
| 77) | Di-n-octylphthalate | 36.75 | 149.0 | 193161 | 42.22 | ngs | 97 |
| 78) | Benzo(b)fluoranthene | 37.24 | 252.0 | 99998 | 42.54 | ngs | 80 |
| 79) | Benzo(k)fluoranthene | 37.30 | 252.0 | 111948M | 54.60 | ngs | 77 |
| 80) | Benzo(a)pyrene | 37.96 | 252.0 | 90590 | 48.17 | ngs | 94 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.00 | 276.0 | 69503M | 52.16 | ngs | 96 |
| 82) | Dibenz(a,h)anthracene | 41.13 | 278.0 | 60432 | 45.28 | ngs | 85 |
| 83) | Benzo(g,h,i)perylene | 41.80 | 276.0 | 65477 | 49.85 | ngs | 100 |

* Compound is ISTD

TOTAL ION CHROMATOGRAM



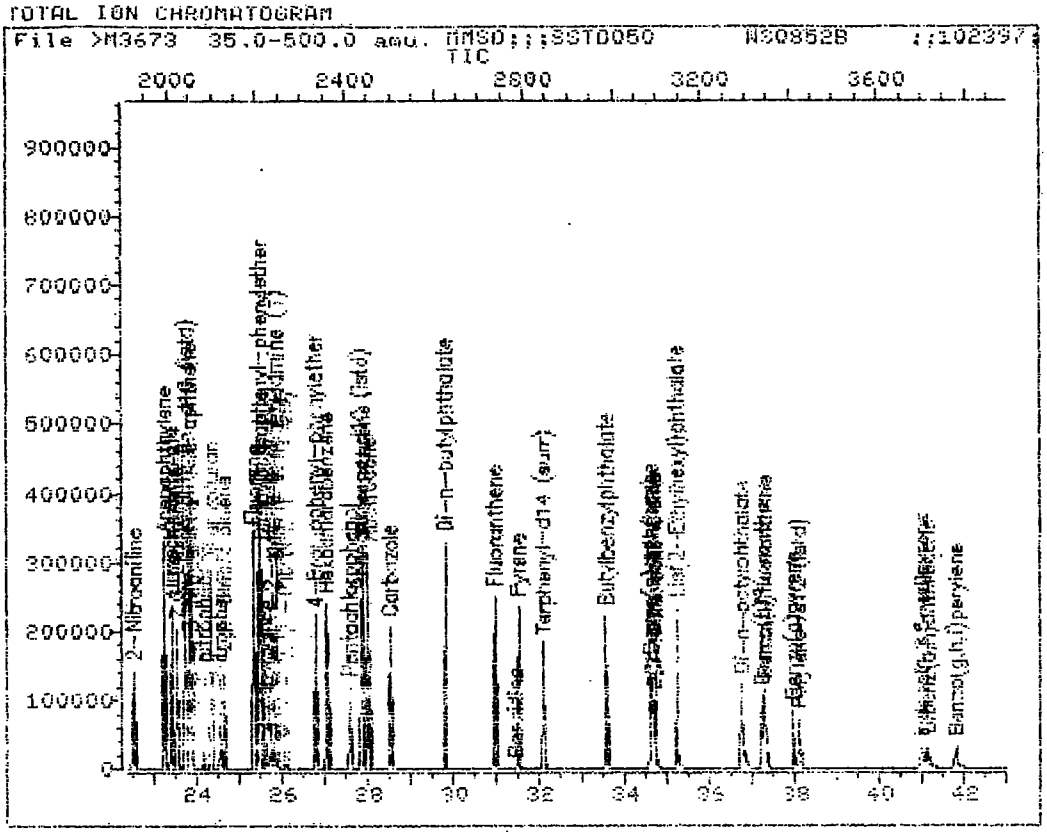

Data File: >M3673::D5 Quant Output File: ^M3673::Q2
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102397; ;1 ;; ;QM1925;1 ;; BTL# 1

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971023 15:18
Injected at: 971023 14:34

Page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >M3673::D5 Quant Output File: ^M3673::Q2
Name: MMSD;;;SSTD050 Instrument ID: MMSD
Misc: WS0852B ;;102397; ;1 ;; ;QM1925;1 ;; BTL# 1

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN TR 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971023 15:18
Injected at: 971023 14:34

Page 2 of 2

# Internal Standards

# Form VIII

8B

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID (Standard): >M3643 Date Analyzed: 10/21/97

Instrument ID: MMSD Time Analyzed: 12:32

| | | IS1(DCB) AREA # | RT | IS2(NAP) AREA # | RT | IS3(ACE) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 46282 | 11.23 | 207006 | 16.81 | 115051 | 23.79 |
| | UPPER LIMIT | 92564 | 11.73 | 414012 | 17.31 | 230102 | 24.29 |
| | LOWER LIMIT | 23141 | 10.73 | 103503 | 16.31 | 57525 | 23.29 |
| | EPA SAMPLE NO. | | | | | | |
| 1 | SSTD020 | 45877 | 11.25 | 207483 | 16.85 | 116382 | 23.80 |
| 2 | SSTD080 | 55642 | 11.27 | 249995 | 16.88 | 142602 | 23.81 |
| 3 | SSTD120 | 53574 | 11.28 | 238117 | 16.89 | 142136 | 23.82 |
| 4 | SSTD160 | 45191 | 11.23 | 201617 | 16.80 | 106603 | 23.78 |
| 5 | METH BLK | 48425 | 11.25 | 212273 | 16.80 | 118255 | 23.78 |
| 6 | LCS | 48874 | 11.26 | 221087 | 16.85 | 120151 | 23.80 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4 (istd) UPPER LIMIT = + 100%
IS2 (NAP) = Naphthalene-d8 (istd) of internal standard area.
IS3 (ACE) = Acenaphthene-d10 (istd) LOWER LIMIT = - 50%
of internal standard area.

# Column used to flag internal standard area values with an asterisk

page ___ of ___.

FORM VIII SV-1 1/87 Rev

8C

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID (Standard): >M3643 Date Analyzed: 10/21/97

Instrument ID: MMSD Time Analyzed: 12:32

| | | IS4(PHN) AREA # | RT | IS5(CHR) AREA # | RT | IS6(PER) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 167367 | 27.87 | 99301 | 34.70 | 91196 | 38.21 |
| | UPPER LIMIT | 334734 | 28.37 | 198602 | 35.20 | 182392 | 38.71 |
| | LOWER LIMIT | 83683 | 27.37 | 49650 | 34.20 | 45598 | 37.71 |
| | EPA SAMPLE NO. | | | | | | |
| 1 | SSTD020 | 181319 | 27.88 | 92561 | 34.71 | 57488 | 38.20 |
| 2 | SSTD080 | 223989 | 27.90 | 90965 | 34.73 | 65876 | 38.21 |
| 3 | SSTD120 | 217495 | 27.90 | 89209 | 34.73 | 69350 | 38.20 |
| 4 | SSTD160 | 154642 | 27.86 | 86563 | 34.69 | 65232 | 38.18 |
| 5 | METH BLK | 175406 | 27.87 | 97710 | 34.69 | 70574 | 38.17 |
| 6 | LCS | 170309 | 27.87 | 75452 | 34.71 | 43528 * | 38.16 |
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IS4 (PHN) = Phenanthrene-d10 (istd)
IS5 (CHR) = Chrysene-d12 (istd)
IS6 (PER) = Perylene-d12 (istd)

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

page __ of __.

FORM VIII SV-2 1/87 Rev

8B

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID (Standard): >M3673 Date Analyzed: 10/23/97

Instrument ID: MMSD Time Analyzed: 14:34

| | | IS1(DCB) AREA # | RT | IS2(NAP) AREA # | RT | IS3(ACE) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 56560 | 11.16 | 236499 | 16.75 | 130164 | 23.74 |
| | UPPER LIMIT | 113120 | 11.66 | 472998 | 17.25 | 260328 | 24.24 |
| | LOWER LIMIT | 28280 | 10.66 | 118249 | 16.25 | 65082 | 23.24 |
| | EPA SAMPLE NO. | | | | | | |
| 1 | SS-5 | 47953 | 11.15 | 182788 | 16.73 | 75308 | 23.73 |
| 2 | SS-5 MS | 35502 | 11.13 | 143200 | 16.72 | 67338 | 23.72 |
| 3 | SS-5 MSD | 50035 | 11.15 | 196752 | 16.73 | 79337 | 23.72 |
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IS1 (DCB) = 1,4-Dichlorobenzene-d4 (istd) UPPER LIMIT = + 100%
IS2 (NAP) = Naphthalene-d8 (istd) of internal standard area.
IS3 (ACE) = Acenaphthene-d10 (istd) LOWER LIMIT = - 50%
of internal standard area.

# Column used to flag internal standard area values with an asterisk

page __ of __.

FORM VIII SV-1 1/87 Rev

8C

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: AEN INC. Contract:

Lab code: Case No.: L72972500 SAS No.: SDG No.:

Lab File ID (Standard): >M3673 Date Analyzed: 10/23/97

Instrument ID: MMSD Time Analyzed: 14:34

| | | IS4(PHN) AREA # | RT | IS5(CHR) AREA # | RT | IS6(PER) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 185874 | 27.82 | 88236 | 34.64 | 70780 | 38.09 |
| | UPPER LIMIT | 371748 | 28.32 | 176472 | 35.14 | 141560 | 38.59 |
| | LOWER LIMIT | 92937 | 27.32 | 44118 | 34.14 | 35390 | 37.59 |
| | EPA SAMPLE NO. | | | | | | |
| 1 | SS-5 | 64995 * | 27.81 | 14266 * | 34.64 | 10536 * | 38.08 |
| 2 | SS-5 MS | 67361 * | 27.81 | 16467 * | 34.64 | 11782 * | 38.08 |
| 3 | SS-5 MSD | 63573 * | 27.81 | 15101 * | 34.65 | 9597 * | 38.08 |
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| 22 | | | | | | | |

IS4 (PHN) = Phenanthrene-d10 (istd)
IS5 (CHR) = Chrysene-d12 (istd)
IS6 (PER) = Perylene-d12 (istd)

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

page __ of __.

FORM VIII SV-2 1/87 Rev

# QC Summary

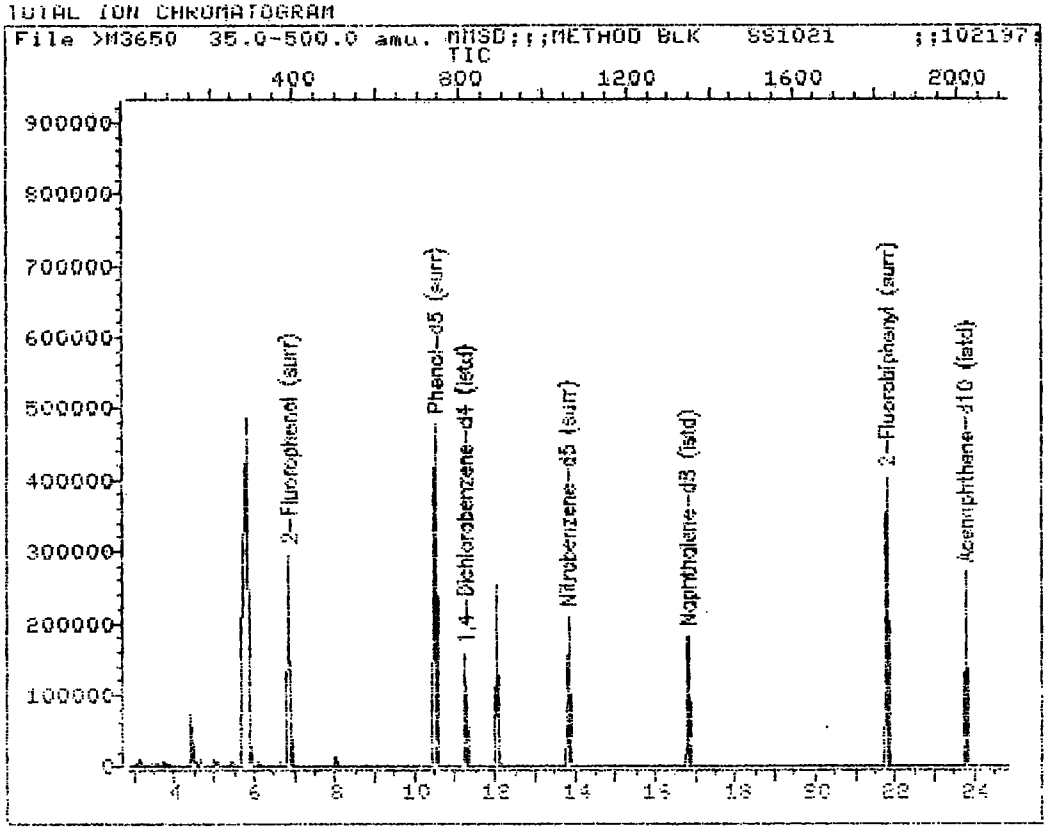
Operator ID: GC Quant Rev: 7 Quant Time: 971022 10:52
Output File: ^M3650::Q2 Injected at: 971021 19:10
Data File: >M3650::D4 Dilution Factor: 1.00000
Name: MMSD;;;METHOD BLK Instrument ID: MMSD
Misc: SS1021 ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL# 9

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.25 | 152.0 | 48425 | 40.00 | ngs | 98 |
| 4) | 2-Fluorophenol (surr) | 6.87 | 112.0 | 199342 | 125.79 | ngs | 78 |
| 6) | Phenol-d5 (surr) | 10.54 | 99.0 | 282399 | 126.44 | ngs | 76 |
| 19) | *Naphthalene-d8 (istd) | 16.80 | 136.0 | 212273 | 40.00 | ngs | 93 |
| 20) | Nitrobenzene-d5 (surr) | 13.81 | 82.0 | 221240 | 88.72 | ngs | 84 |
| 34) | *Acenaphthene-d10 (istd) | 23.78 | 164.0 | 118255 | 40.00 | ngs | 97 |
| 38) | 2-Fluorobiphenyl (surr) | 21.80 | 172.0 | 306945 | 92.53 | ngs | 96 |
| 51) | Diethylphthalate | 25.52 | 149.0 | 36376 | 8.66 | ngs | 98 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.10 | 329.8 | 75154 | 134.70 | ngs | 91 |
| 56) | *Phenanthrene-d10 (istd) | 27.87 | 188.0 | 175406 | 40.00 | ngs | 92 |
| 67) | *Chrysene-d12 (istd) | 34.69 | 240.0 | 97710 | 40.00 | ngs | 96 |
| 70) | Terphenyl-d14 (surr) | 32.15 | 244.0 | 263478 | 103.94 | ngs | 98 |
| 76) | *Perylene-d12 (istd) | 38.17 | 264.0 | 70574 | 40.00 | ngs | 96 |

* Compound is ISTD

TOTAL ION CHROMATOGRAM




Data File: >M3650::D4 Quant Output File: ^M3650::Q2
Name: MMSD;;;METHOD BLK Instrument ID: MMSD
Misc: SS1021 ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL# 9

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN JL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971022 10:52
Injected at: 971021 19:10

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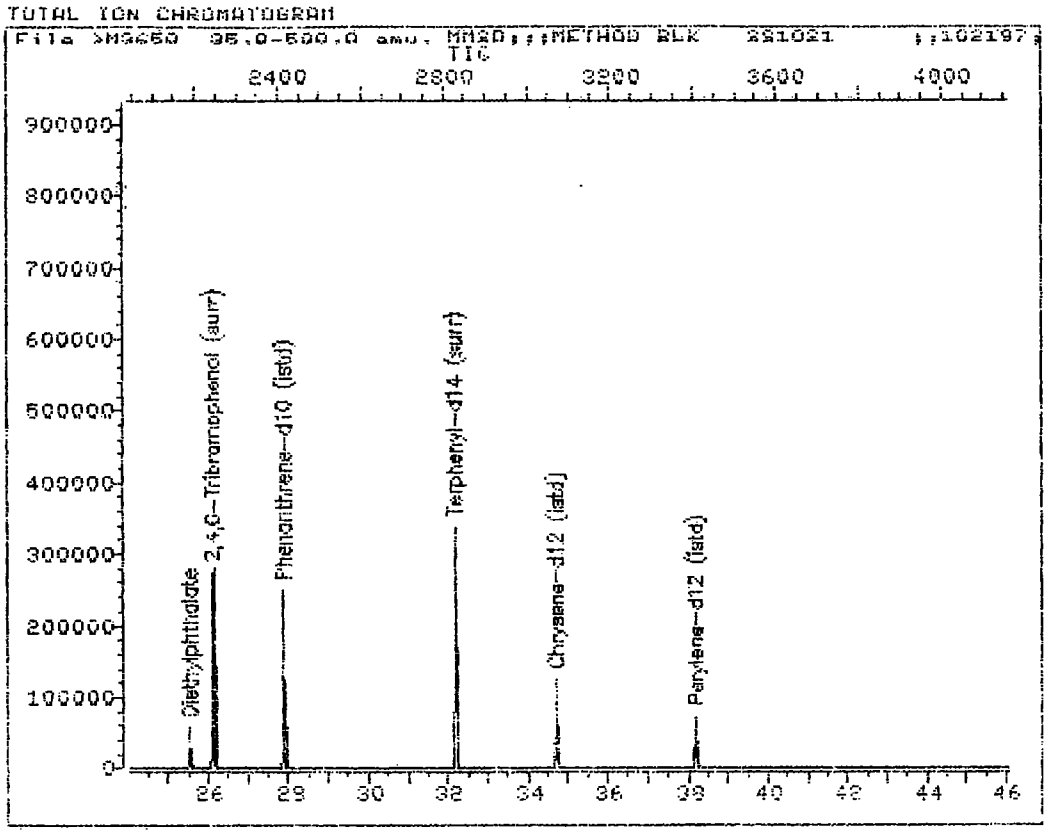
TOTAL ION CHROMATOGRAM




Data File: >M3650::D4 Quant Output File: ^M3650::Q2
Name: MMSD;;;METHOD BLK Instrument ID: MMSD
Misc: SS1021 ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G RTL# 9

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971022 10:52
Injected at: 971021 19:10

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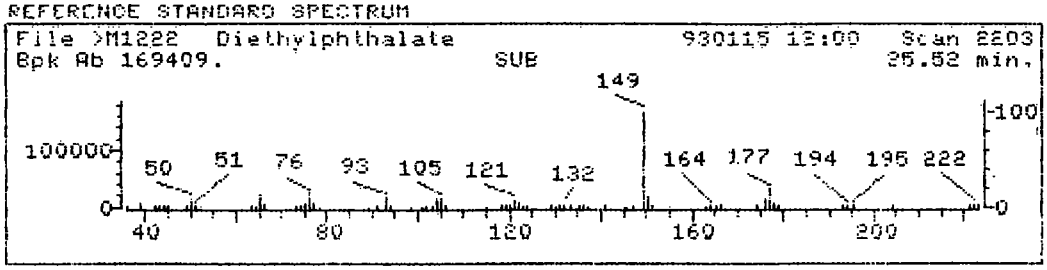
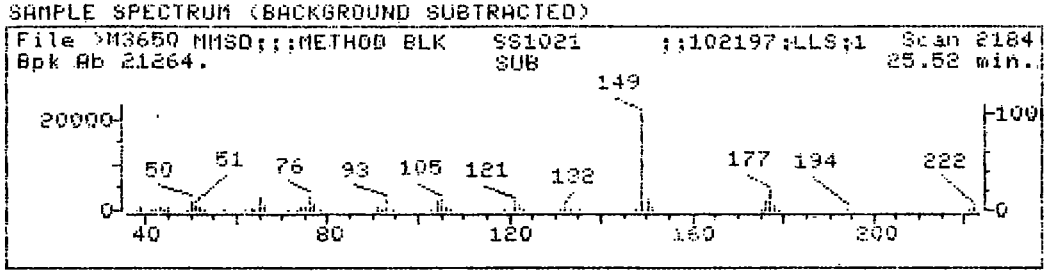
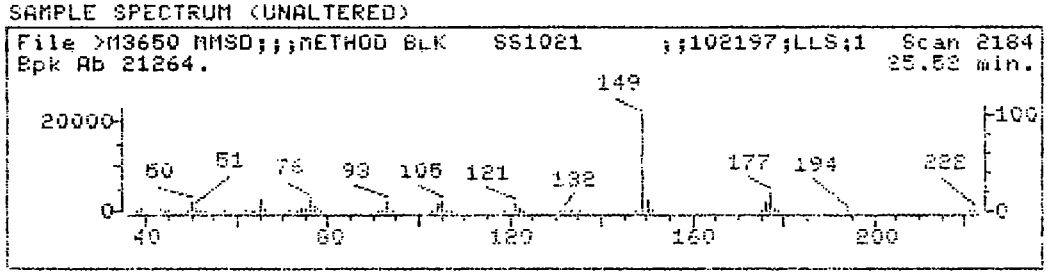
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >M3650::D4 Quant Output File: ^M3650::Q2
Name: MMSD;;;METHOD BLK Instrument ID: MMSD
Misc: SS1021 ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL# 9
Quant Time: 971022 10:52 Quant ID File: IDMBNA::QT
Injected at: 971021 19:10 Last Calibration: 971022 10:32
Last Qcal Time: 971021 11:36

Compound No : 51
Compound Name : Diethylphthalate
Scan Number : 2184
Retention Time: 25.52 min.
Quant Ion : 149.0
Area : 36376
Concentration : 8.66 ngs
q-value : 98

Operator ID: GC Quant Rev: 7 Quant Time: 971022 10:57
Output File: ^M3651::Q2 Injected at: 971021 20:06
Data File: >M3651::D4 Dilution Factor: 1.00000
Name: MMSD;;;LCS Instrument ID: MMSD
Misc: SS1021BS ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL#10

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.26 | 152.0 | 48874 | 40.00 | ngs | 98 |
| 2) | N-Nitrosodimethylamine | 3.21 | 74.0 | 96893 | 68.67 | ngs | 99 |
| 4) | 2-Fluorophenol (surr) | 6.88 | 112.0 | 192657 | 120.45 | ngs | 79 |
| 6) | Phenol-d5 (surr) | 10.59 | 99.0 | 277636 | 123.17 | ngs | 92 |
| 7) | Phenol | 10.64 | 94.0 | 196002 | 85.08 | ngs | 91 |
| 8) | bis(2-Chloroethyl)ether | 10.70 | 93.0 | 179199 | 81.63 | ngs | 90 |
| 9) | 2-Chlorophenol | 10.61 | 128.0 | 120646 | 76.76 | ngs | 80 |
| 10) | 1,3-Dichlorobenzene | 11.09 | 146.0 | 131968 | 75.29 | ngs | 90 |
| 11) | 1,4-Dichlorobenzene | 11.34 | 146.0 | 132826 | 73.31 | ngs | 90 |
| 12) | 1,2-Dichlorobenzene | 12.07 | 146.0 | 131138 | 76.74 | ngs | 90 |
| 13) | Benzyl Alcohol | 12.26 | 79.0 | 179949 | 83.00 | ngs | 89 |
| 14) | 2-Methylphenol | 13.01 | 108.0 | 145618 | 84.83 | ngs | 92 |
| 15) | bis(2-chloroisopropyl)ether | 12.95 | 45.0 | 308728M | 75.92 | ngs | 91 |
| 16) | Hexachloroethane | 13.31 | 116.7 | 67449 | 74.34 | ngs | 94 |
| 17) | 4-Methylphenol | 13.72 | 107.0 | 199628 | 87.47 | ngs | 97 |
| 18) | N-Nitroso-Di-n-propylamine | 13.64 | 70.0 | 161744 | 69.52 | ngs | 90 |
| 19) | *Naphthalene-d8 (istd) | 16.85 | 136.0 | 221087 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.85 | 82.0 | 225778 | 86.93 | ngs | 85 |
| 21) | Nitrobenzene | 13.94 | 77.0 | 215293 | 82.17 | ngs | 78 |
| 22) | Isophorone | 15.07 | 82.0 | 440726 | 80.89 | ngs | 93 |
| 23) | 2-Nitrophenol | 15.35 | 139.0 | 92935 | 83.66 | ngs | 89 |
| 24) | 2,4-Dimethylphenol | 16.03 | 107.0 | 148911 | 67.38 | ngs | 88 |
| 25) | bis(2-Chloroethoxy)methane | 16.44 | 93.0 | 244718 | 80.94 | ngs | 99 |
| 26) | 2,4-Dichlorophenol | 16.50 | 161.8 | 124471 | 85.81 | ngs | 95 |
| 27) | Benzoic acid | 17.12 | 105.0 | 91875M | 65.91 | ngs | 90 |
| 28) | 1,2,4-Trichlorobenzene | 16.75 | 180.0 | 131404 | 84.16 | ngs | 95 |
| 29) | Naphthalene | 16.94 | 128.0 | 445244 | 82.69 | ngs | 94 |
| 30) | 4-Chloroaniline | 17.57 | 127.0 | 95325 | 41.01 | ngs | 95 |
| 31) | Hexachlorobutadiene | 18.01 | 224.6 | 73716 | 80.76 | ngs | 97 |
| 32) | 4-Chloro-3-methylphenol | 20.11 | 107.0 | 160195 | 85.90 | ngs | 81 |
| 33) | 2-Methylnaphthalene | 20.16 | 142.0 | 368544 | 85.27 | ngs | 98 |
| 34) | *Acenaphthene-d10 (istd) | 23.80 | 164.0 | 120151 | 40.00 | ngs | 96 |
| 35) | Hexachlorocyclopentadiene | 21.12 | 236.7 | 72445 | 89.96 | ngs | 97 |
| 36) | 2,4,6-Trichlorophenol | 21.50 | 196.0 | 97806 | 95.23 | ngs | 93 |
| 37) | 2,4,5-Trichlorophenol | 21.60 | 196.0 | 67791 | 69.30 | ngs | 94 |
| 38) | 2-Fluorobiphenyl (surr) | 21.82 | 172.0 | 318737 | 94.57 | ngs | 96 |
| 39) | 2-Chloronaphthalene | 21.95 | 162.0 | 276122 | 86.67 | ngs | 93 |
| 40) | 2-Nitroaniline | 22.60 | 65.0 | 129181 | 78.95 | ngs | 84 |
| 41) | Acenaphthylene | 23.30 | 152.0 | 460797 | 88.00 | ngs | 98 |
| 42) | Dimethylphthalate | 23.47 | 163.0 | 364203 | 93.10 | ngs | 92 |
| 43) | 2,6-Dinitrotoluene | 23.61 | 165.0 | 81125 | 90.36 | ngs | 94 |
| 44) | Acenaphthene | 23.91 | 153.0 | 276526 | 96.86 | ngs | 94 |
| 45) | 3-Nitroaniline | 23.93 | 65.0 | 76071M | 49.12 | ngs | 94 |

Operator ID: GC Quant Rev: 7 Quant Time: 971022 10:57
Output File: ^M3651::Q2 Injected at: 971021 20:06
Data File: >M3651::D4 Dilution Factor: 1.00000
Name: MMSD;;;LCS Instrument ID: MMSD
Misc: SS1021BS ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL#10

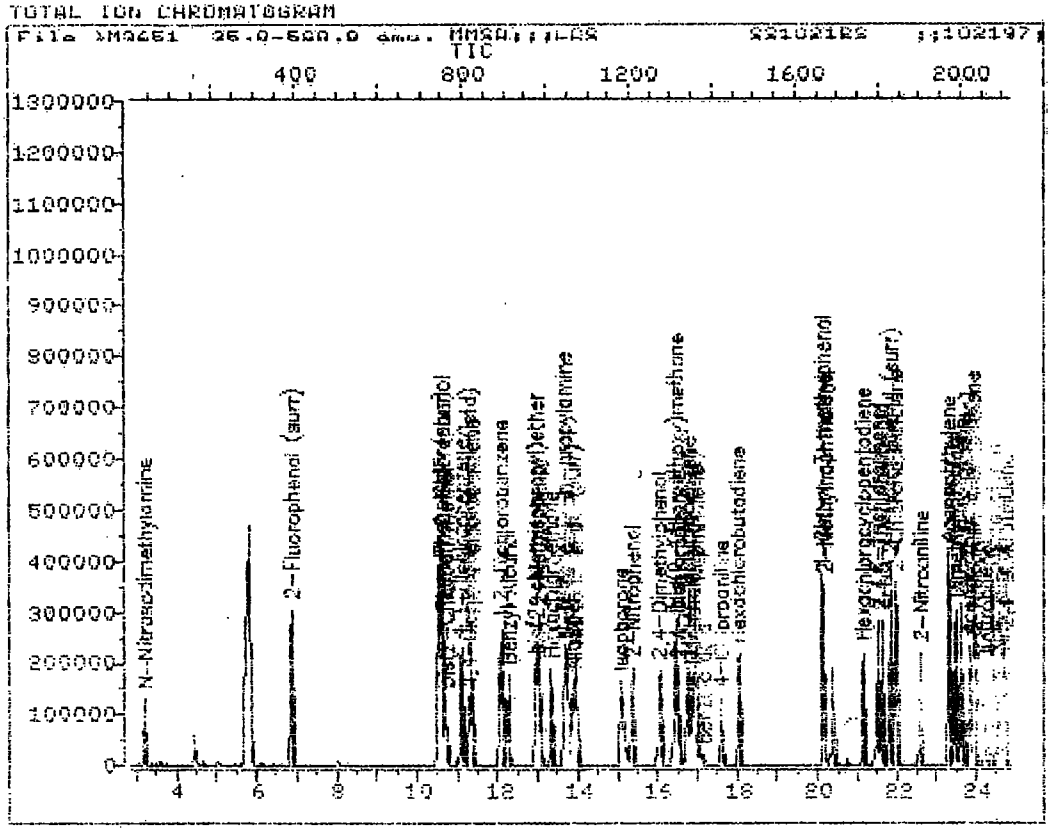
ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 46) | 2,4-Dinitrophenol | 24.22 | 184.0 | 22877 | 63.92 | ngs | 90 |
| 47) | Dibenzofuran | 24.39 | 168.0 | 383962 | 87.86 | ngs | 81 |
| 48) | 2,4-Dinitrotoluene | 24.71 | 165.0 | 100023 | 89.43 | ngs | 84 |
| 49) | 4-Nitrophenol | 24.61 | 139.0 | 49027 | 72.60 | ngs | 93 |
| 50) | Fluorene | 25.39 | 166.0 | 282901 | 84.88 | ngs | 100 |
| 51) | Diethylphthalate | 25.58 | 149.0 | 390095 | 91.40 | ngs | 97 |
| 52) | 4-Chlorophenyl-phenylether | 25.53 | 204.0 | 133657 | 86.97 | ngs | 98 |
| 53) | 4-Nitroaniline | 25.74 | 138.0 | 52002 | 78.51 | ngs | 83 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.12 | 329.8 | 73140 | 129.02 | ngs | 93 |
| 56) | *Phenanthrene-d10 (istd) | 27.87 | 188.0 | 170309 | 40.00 | ngs | 89 |
| 57) | 4,6-Dinitro-2-methylphenol | 25.82 | 198.0 | 37564 | 85.16 | ngs | 86 |
| 58) | N-Nitrosodiphenylamine (1) | 25.92 | 169.0 | 186590 | 142.15 | ngs | 94 |
| 59) | 4-Bromophenyl-phenylether | 26.82 | 250.0 | 77937 | 100.51 | ngs | 91 |
| 60) | Hexachlorobenzene | 27.10 | 283.6 | 103242 | 105.50 | ngs | 96 |
| 61) | Pentachlorophenol | 27.63 | 265.7 | 43899 | 83.33 | ngs | 97 |
| 62) | Phenanthrene | 27.95 | 178.0 | 344523 | 88.08 | ngs | 98 |
| 63) | Anthracene | 28.06 | 178.0 | 321001 | 84.64 | ngs | 93 |
| 64) | Carbazole | 28.57 | 167.0 | 268996 | 89.41 | ngs | 99 |
| 65) | Di-n-butylphthalate | 29.85 | 149.0 | 504887 | 99.34 | ngs | 97 |
| 66) | Fluoranthene | 31.02 | 202.0 | 289490 | 85.18 | ngs | 97 |
| 67) | *Chrysene-d12 (istd) | 34.71 | 240.0 | 75452 | 40.00 | ngs | 94 |
| 69) | Pyrene | 31.57 | 202.0 | 290454 | 94.48 | ngs | 96 |
| 70) | Terphenyl-d14 (surr) | 32.15 | 244.0 | 215400 | 110.04 | ngs | 99 |
| 71) | Butylbenzylphthalate | 33.62 | 149.0 | 153474 | 89.11 | ngs | 84 |
| 72) | 3,3'-Dichlorobenzidine | 34.74 | 252.0 | 19401 | 36.84 | ngs | 100 |
| 73) | Benzo(a)anthracene | 34.66 | 228.0 | 194777 | 89.26 | ngs | 90 |
| 74) | Chrysene | 34.77 | 228.0 | 172170 | 89.55 | ngs | 83 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.26 | 149.0 | 197452 | 86.56 | ngs | 85 |
| 76) | *Perylene-d12 (istd) | 38.16 | 264.0 | 43528 | 40.00 | ngs | 97 |
| 77) | Di-n-octylphthalate | 36.81 | 149.0 | 270769 | 96.23 | ngs | 98 |
| 78) | Benzo(b)fluoranthene | 37.31 | 252.0 | 131780 | 91.17 | ngs | 78 |
| 79) | Benzo(k)fluoranthene | 37.37 | 252.0 | 143086M | 113.48 | ngs | 77 |
| 80) | Benzo(a)pyrene | 38.04 | 252.0 | 109379 | 94.57 | ngs | 98 |
| 81) | Indeno[1,2,3-cd]pyrene | 41.12 | 276.0 | 64107 | 78.23 | ngs | 94 |
| 82) | Dibenz(a,h)anthracene | 41.25 | 278.0 | 57537 | 70.11 | ngs | 85 |
| 83) | Benzo(g,h,i)perylene | 41.93 | 276.0 | 63544 | 78.67 | ngs | 100 |

* Compound is ISTD

Low Istd.

TOTAL ION CHROMATOGRAM




Data File: >M3651::D4 Quant Output File: ^M3651::Q2
Name: MMSD;;;LCS Instrument ID: MMSD
Misc: SS1021BS ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL#10

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971022 10:57
Injected at: 971021 20:06

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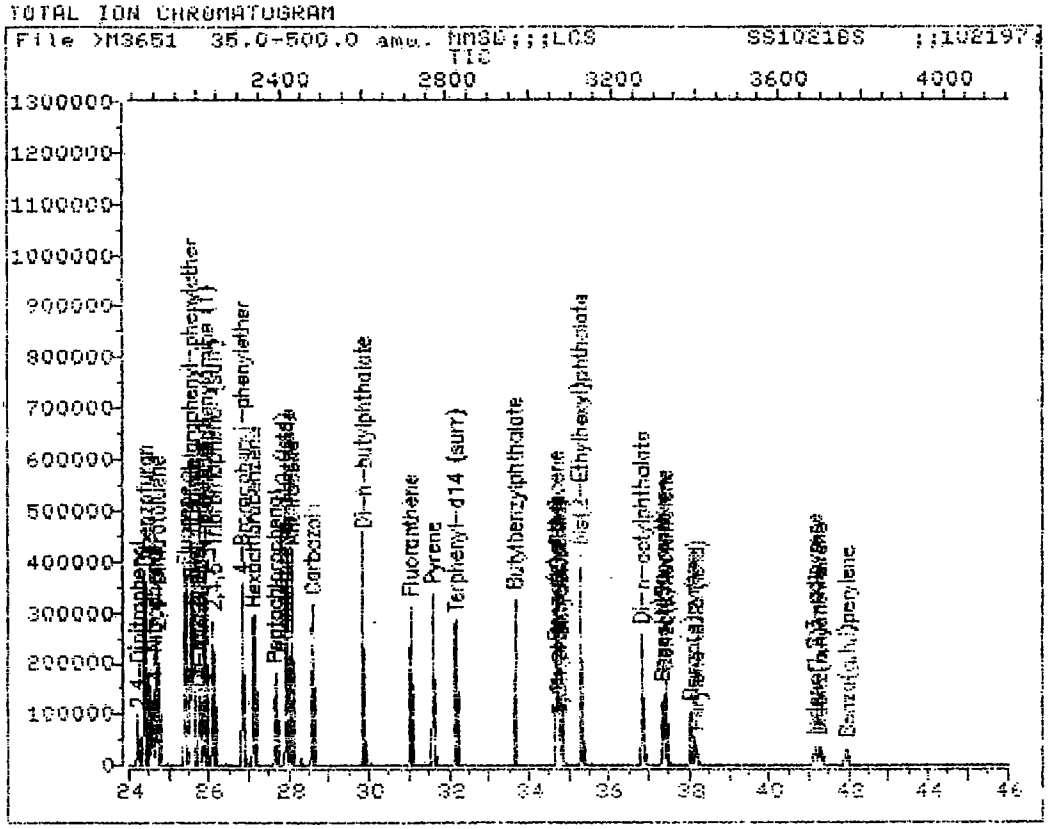
TOTAL ION CHROMATOGRAM




Data File: >M3651::D4 Quant Output File: ^M3651::Q2
Name: MMSD;;;LCS Instrument ID: MMSD
Misc: SS1021BS ;;102197;LLS;1 ;;SONC;QM1923;1 ;;30G BTL#10

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971022 10:57
Injected at: 971021 20:06

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Operator ID: GC Quant Rev: 7 Quant Time: 971023 23:11
Output File: ^M3682::Q2 Injected at: 971023 22:26
Data File: >M3682::D5 Dilution Factor: 1.00000
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MS ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL#10

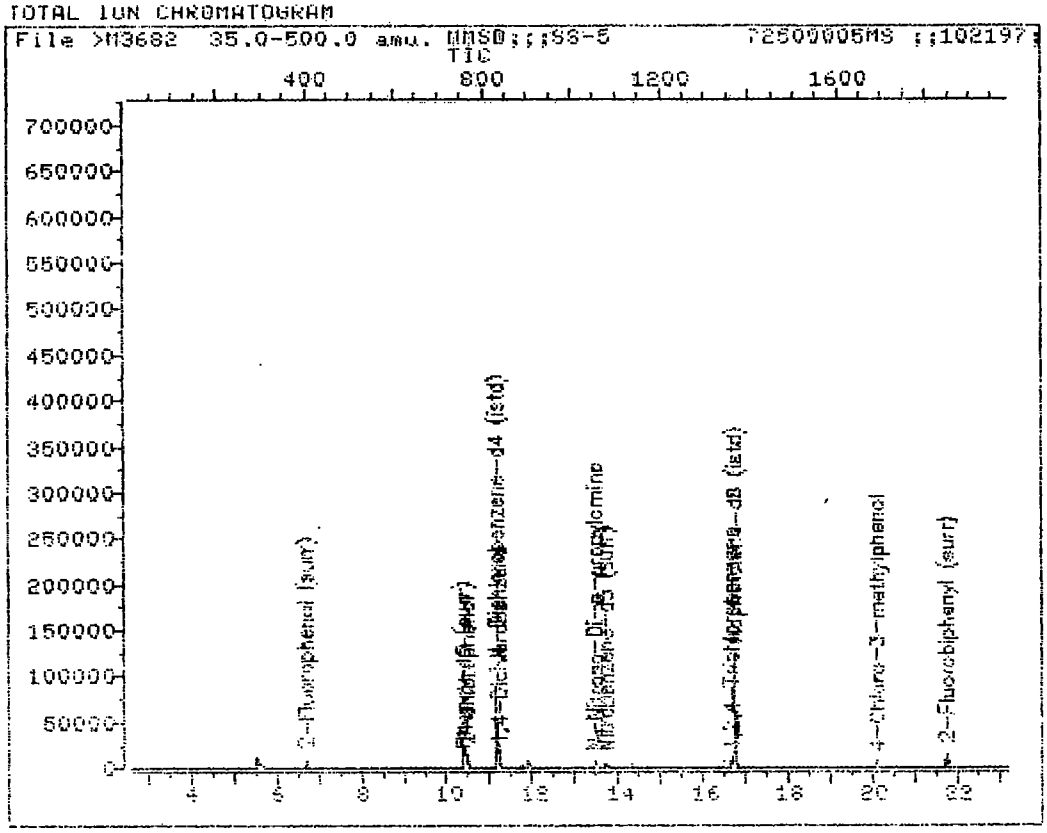
ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN II 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.13 | 152.0 | 35502 | 40.00 | ngs | 98 |
| 4) | 2-Fluorophenol (surr) | 6.68 | 112.0 | 6404 | 5.51 73 | ngs | 86 |
| 6) | Phenol-d5 (surr) | 10.37 | 99.0 | 9351 | 5.71 76 | ngs | 90 |
| 7) | Phenol | 10.42 | 94.0 | 9046 | 5.41 | ngs | 79 |
| 9) | 2-Chlorophenol | 10.46 | 128.0 | 6565 | 5.75 | ngs | 83 |
| 11) | 1,4-Dichlorobenzene | 11.20 | 146.0 | 5006 | 3.80 | ngs | 93 |
| 18) | N-Nitroso-Di-n-propylamine | 13.45 | 70.0 | 5020 | 2.97 | ngs | 93 |
| 19) | *Naphthalene-d8 (istd) | 16.72 | 136.0 | 143200 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.69 | 82.0 | 5101 | 3.03 61 | ngs | 86 |
| 28) | 1,2,4-Trichlorobenzene | 16.63 | 180.0 | 4001 | 3.96 | ngs | 91 |
| 32) | 4-Chloro-3-methylphenol | 20.07 | 107.0 | 5524 | 4.57 | ngs | 89 |
| 34) | *Acenaphthene-d10 (istd) | 23.72 | 164.0 | 67338 | 40.00 | ngs | 98 |
| 38) | 2-Fluorobiphenyl (surr) | 21.71 | 172.0 | 9302 | 4.92 98 | ngs | 98 |
| 44) | Acenaphthene | 23.81 | 153.0 | 7480 | 0.00 | ngs | 91 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.04 | 329.8 | 1182 | 3.72 50 | ngs | 89 |
| 56) | *Phenanthrene-d10 (istd) | 27.81 | 188.0 | 67361 | 40.00 | ngs | 86 |
| 62) | Phenanthrene | 27.86 | 178.0 | 1329 | .859 | ngs | 93 |
| 63) | Anthracene | 27.86 | 178.0 | 1329 | .886 | ngs | 97 |
| 65) | Di-n-butylphthalate | 29.80 | 149.0 | 3826 | 11.82 | ngs | 91 |
| 66) | Fluoranthene | 30.95 | 202.0 | 3941 | 6.30 | ngs | 97 |
| 67) | *Chrysene-d12 (istd) | 34.64 | 240.0 | 16467 | 40.00 | ngs | 97 |
| 69) | Pyrene | 31.51 | 202.0 | 7676 | 11.44 | ngs | 97 |
| 70) | Terphenyl-d14 (surr) | 32.09 | 244.0 | 2809 | 6.58 132 | ngs | 92 |
| 73) | Benzo(a)anthracene | 34.60 | 228.0 | 1268 | 2.66 | ngs | 77 |
| 74) | Chrysene | 34.70 | 228.0 | 1575 | 3.75 | ngs | 84 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.20 | 149.0 | 33424 | 67.14 | ngs | 84 |
| 76) | *Perylene-d12 (istd) | 38.08 | 264.0 | 11782 | 40.00 | ngs | 95 |
| 77) | Di-n-octylphthalate | 36.45 | 149.0 | 1108 | 1.45 | ngs | 77 |
| 78) | Benzo(b)fluoranthene | 37.22 | 252.0 | 1360M | 3.48 | ngs | 77 |
| 79) | Benzo(k)fluoranthene | 37.25 | 252.0 | 1231M | 3.61 | ngs | 77 |

* Compound is ISTD

Low Int SNs

TOTAL ION CHROMATOGRAM




Data File: >M3682::D5 Quant Output File: ^M3682::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MS ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL#10

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971023 23:11
Injected at: 971023 22:26

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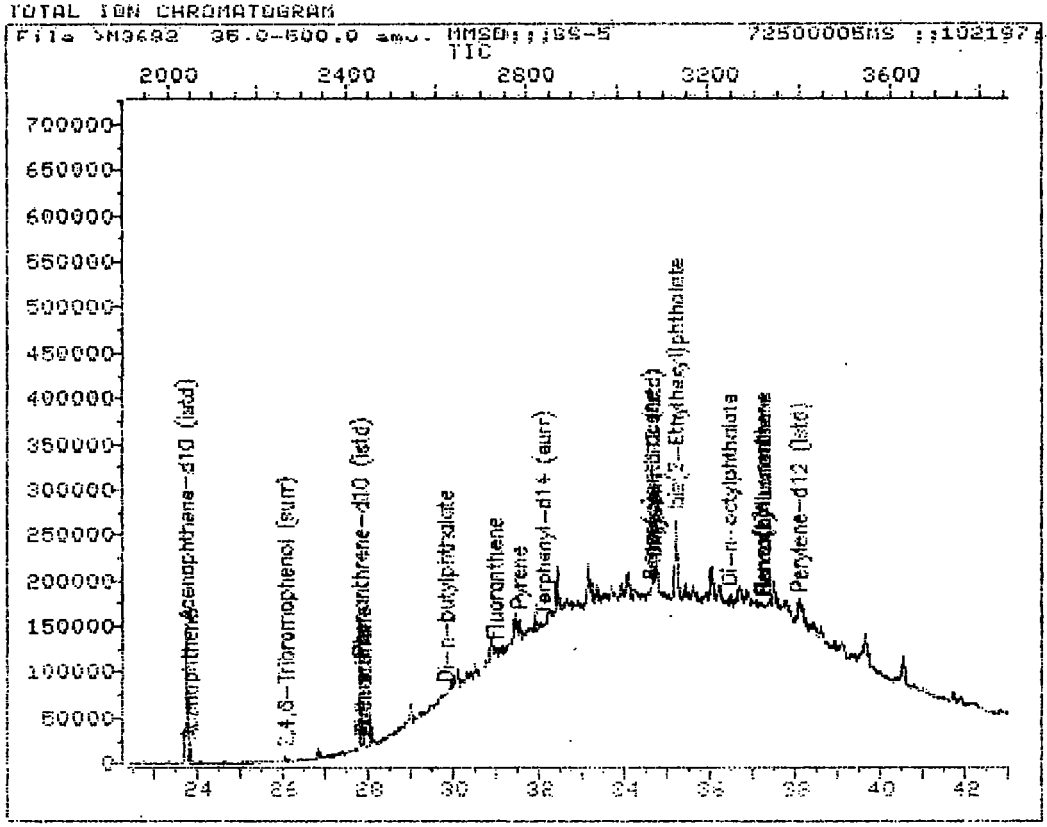
TOTAL ION CHROMATOGRAM




Data File: >M3682::D5 Quant Output File: ^M3682::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MS ;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL#10

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971023 23:11
Injected at: 971023 22:26

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Operator ID: GC Quant Rev: 7 Quant Time: 971024 00:03
Output File: ^M3683::Q2 Injected at: 971023 23:19
Data File: >M3683::D5 Dilution Factor: 1.00000
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MSD;;102197;LLS;1;;SONC;QM1925;10;;30G BTL#11

ID File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

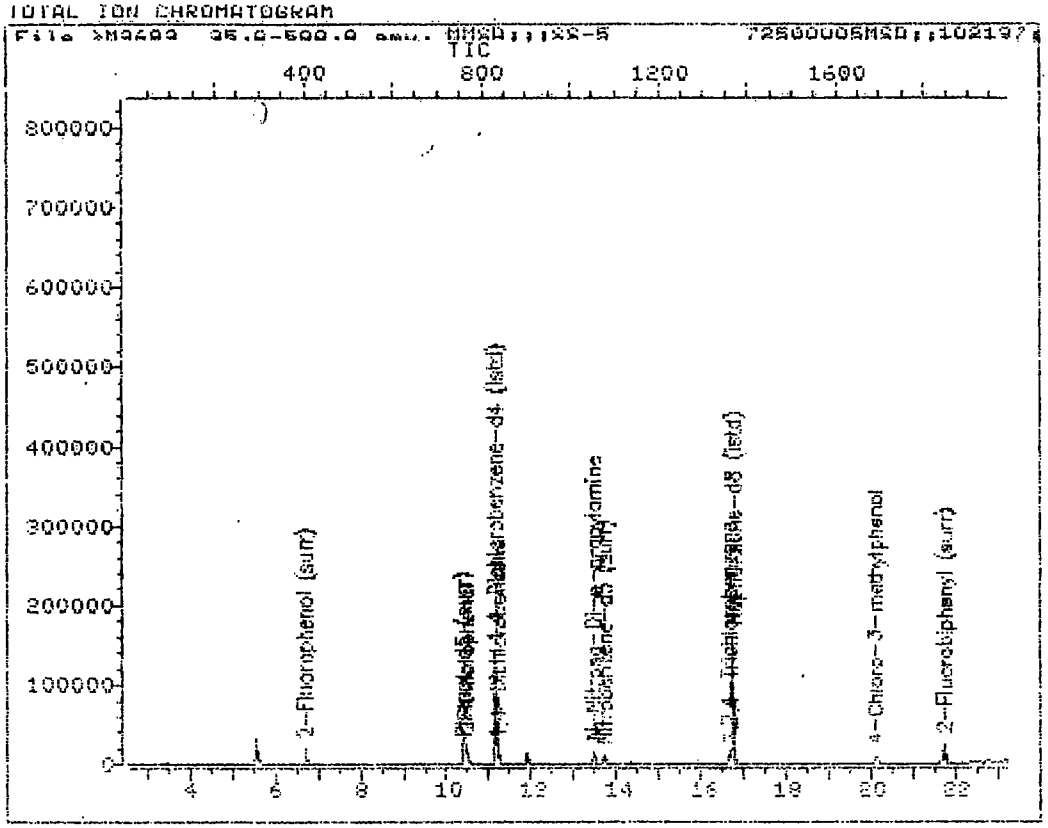
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *1,4-Dichlorobenzene-d4 (istd) | 11.15 | 152.0 | 50035 | 40.00 | ngs | 99 |
| 4) | 2-Fluorophenol (surr) | 6.69 | 112.0 | 11749 | 7.18 96 | ngs | 91 |
| 6) | Phenol-d5 (surr) | 10.38 | 99.0 | 17060 | 7.39 98 | ngs | 93 |
| 7) | Phenol | 10.42 | 94.0 | 17993 | 7.63 | ngs | 72 |
| 9) | 2-Chlorophenol | 10.46 | 128.0 | 12614 | 7.84 | ngs | 82 |
| 11) | 1,4-Dichlorobenzene | 11.21 | 146.0 | 9267 | 5.00 | ngs | 92 |
| 18) | N-Nitroso-Di-n-propylamine | 13.45 | 70.0 | 9433 | 3.96 | ngs | 94 |
| 19) | *Naphthalene-d8 (istd) | 16.73 | 136.0 | 196752 | 40.00 | ngs | 94 |
| 20) | Nitrobenzene-d5 (surr) | 13.70 | 82.0 | 9711 | 4.20 84 | ngs | 84 |
| 28) | 1,2,4-Trichlorobenzene | 16.63 | 180.0 | 6926 | 4.98 | ngs | 96 |
| 32) | 4-Chloro-3-methylphenol | 20.07 | 107.0 | 10234 | 6.17 | ngs | 83 |
| 34) | *Acenaphthene-d10 (istd) | 23.72 | 164.0 | 79337 | 40.00 | ngs | 95 |
| 38) | 2-Fluorobiphenyl (surr) | 21.71 | 172.0 | 14776 | 6.64 133 | ngs | 97 |
| 44) | Acenaphthene | 23.81 | 153.0 | 11049 | 0.00 | ngs | 93 |
| 48) | 2,4-Dinitrotoluene | 24.62 | 165.0 | 1138 | 1.54 | ngs | 74 |
| 55) | 2,4,6-Tribromophenol (surr) | 26.05 | 329.8 | 1639 | 4.38 58 | ngs | 90 |
| 56) | *Phenanthrene-d10 (istd) | 27.81 | 188.0 | 63573 | 40.00 | ngs | 90 |
| 62) | Phenanthrene | 27.86 | 178.0 | 1457 | .998 | ngs | 86 |
| 63) | Anthracene | 27.86 | 178.0 | 1457 | 1.03 | ngs | 87 |
| 65) | Di-n-butylphthalate | 29.79 | 149.0 | 3255 | 11.78 | ngs | 94 |
| 66) | Fluoranthene | 30.96 | 202.0 | 6023 | 7.36 | ngs | 91 |
| 67) | *Chrysene-d12 (istd) | 34.65 | 240.0 | 15101 | 40.00 | ngs | 98 |
| 69) | Pyrene | 31.50 | 202.0 | 8931 | 14.52 | ngs | 96 |
| 70) | Terphenyl-d14 (surr) | 32.11 | 244.0 | 3025 | 7.72 154 | ngs | 93 |
| 73) | Benzo(a)anthracene | 34.62 | 228.0 | 782M | 1.79 | ngs | 97 |
| 74) | Chrysene | 34.70 | 228.0 | 1836 | 4.77 | ngs | 91 |
| 75) | bis(2-Ethylhexyl)phthalate | 35.19 | 149.0 | 41758 | 91.46 | ngs | 88 |
| 76) | *Perylene-d12 (istd) | 38.08 | 264.0 | 9597 | 40.00 | ngs | 93 |
| 77) | Di-n-octylphthalate | 36.46 | 149.0 | 1227 | 1.98 | ngs | 74 |
| 78) | Benzo(b)fluoranthene | 37.24 | 252.0 | 1548M | 4.86 | ngs | 82 |
| 79) | Benzo(k)fluoranthene | 37.27 | 252.0 | 924M | 3.32 | ngs | 82 |

* Compound is ISTD

Low Intsd's.

* high surrogates

TOTAL ION CHROMATOGRAM




Data File: >M3683::D5 Quant Output File: ^M3683::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MSD;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL#11

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN II 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971024 00:03
Injected at: 971023 23:19

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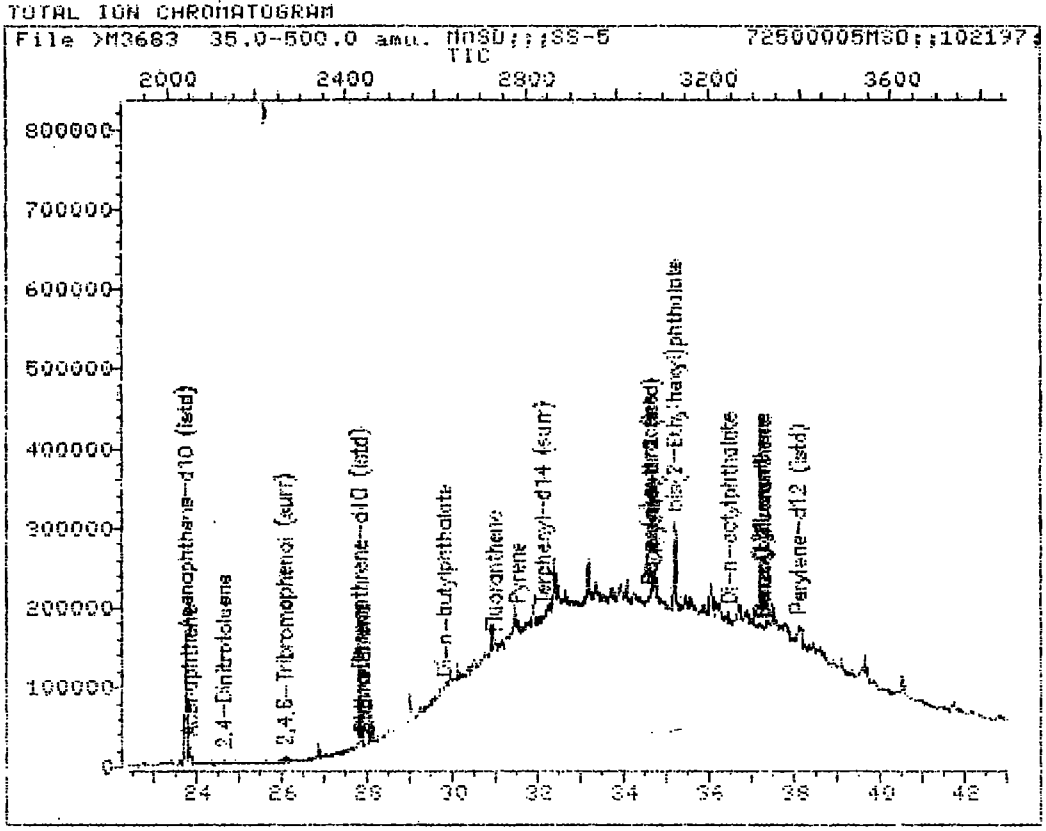
TOTAL ION CHROMATOGRAM




Data File: >M3683::D5 Quant Output File: ^M3683::Q2
Name: MMSD;;;SS-5 Instrument ID: MMSD
Misc: 72500005MSD;;102197;LLS;1 ;;SONC;QM1925;10;;30G BTL#11

Id File: IDMBNA::QT
Title: BNA ORGANIC STANDARDS; AEN IL 11/13/89
Last Calibration: 971022 10:32 Last Qcal Time: 971021 11:36

Operator ID: GC
Quant Time : 971024 00:03
Injected at: 971023 23:19

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# INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-1

Lab Name: AEN-IL, Inc.

Matrix (soil/water): Soil

Level (low/med): _____

% Solids: 70

Lab Sample ID: L72972500-001

Date Received: 10/20/97

Concentration Units: mg/Kg dry weight

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 11 | | | PM |
| Barium | 250 | | | PM |
| Cadmium | 0.67 | | | PM |
| Chromium | 200 | | | PM |
| Lead | 2400 | | | PM |
| Mercury | 0.14 | U | | CV |
| Selenium | 6.3 | U | | PM |
| Silver | 1.3 | U | N* | PM |
| | | | | |
| | | | | |
| | | | | |

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-3

Lab Name: AEN-IL, Inc.

Matrix (soil/water): Soil

Level (low/med): _____

% Solids: 81

Lab Sample ID: L72972500-003

Date Received: 10/20/97

Concentration Units: mg/Kg dry weight

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 5.3 | U | | PM |
| Barium | 4300 | | | PM |
| Cadmium | 0.96 | | | PM |
| Chromium | 5800 | | | PM |
| Lead | 28000 | | | PM |
| Mercury | 0.12 | U | | CV |
| Selenium | 5.3 | U | | PM |
| Silver | 1.1 | U | N* | PM |
| | | | | |
| | | | | |
| | | | | |

FORM I - INORGANIC

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-5

Lab Name: AEN-IL, Inc.

Matrix (soil/water): Soil

Level (low/med): _____

% Solids: _____

Lab Sample ID: L72972500-005

Date Received: 10/20/97

Concentration Units: mg/Kg dry weight

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 30 | | | PM |
| Barium | 420 | | | PM |
| Cadmium | 7.8 | | | PM |
| Chromium | 170 | | | PM |
| Lead | 390 | | | PM |
| Mercury | 0.1 | U | | CV |
| Selenium | 4.4 | U | | PM |
| Silver | 0.88 | U | N* | PM |
| | | | | |
| | | | | |
| | | | | |

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-1

Lab Name: AEN-IL, Inc.

Matrix (soil/water): TCLP

Level (low/med): _____

% Solids: _____

Lab Sample ID: L72972500-001

Date Received: 10/20/97

Concentration Units: mg/L

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 0.56 | U | | PM |
| Barium | 2 | U | | PM |
| Cadmium | 0.11 | U | | PM |
| Chromium | 0.56 | U | | PM |
| Lead | 0.56 | U | | PM |
| Mercury | 0.02 | U | | CV |
| Selenium | 0.11 | U | | PM |
| Silver | 0.56 | U | | PM |
| | | | | |
| | | | | |
| | | | | |

FORM I - INORGANIC

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-2

Lab Name: AEN-IL, Inc.

Matrix (soil/water): TCLP

Level (low/med): _____

% Solids: _____

Lab Sample ID: L72972500-002

Date Received: 10/20/97

Concentration Units: mg/L

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 0.56 | U | | PM |
| Barium | 2 | U | | PM |
| Cadmium | 0.11 | U | | PM |
| Chromium | 0.56 | U | | PM |
| Lead | 1.2 | U | | PM |
| Mercury | 0.02 | U | | CV |
| Selenium | 0.11 | U | | PM |
| Silver | 0.56 | U | | PM |
| | | | | |
| | | | | |
| | | | | |

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-3

Lab Name: AEN-IL, Inc.

Matrix (soil/water): TCLP

Level (low/med): _____

% Solids: _____

Lab Sample ID: L72972500-003

Date Received: 10/20/97

Concentration Units: mg/L

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 0.56 | U | | PM |
| Barium | 2 | U | | PM |
| Cadmium | 0.11 | U | | PM |
| Chromium | 0.56 | U | | PM |
| Lead | 0.56 | U | | PM |
| Mercury | 0.02 | U | | CV |
| Selenium | 0.11 | U | | PM |
| Silver | 0.56 | U | | PM |
| | | | | |
| | | | | |
| | | | | |

FORM I - INORGANIC

INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE ID

SS-4

Lab Name: AEN-IL, Inc.

Matrix (soil/water): TCLP

Level (low/med): _____

% Solids: _____

Lab Sample ID: L72972500-004

Date Received: 10/20/97

Concentration Units: mg/L

| Analyte | Concentration | C | Q | M |
|---|---|---|---|---|
| Arsenic | 0.56 | U | | PM |
| Barium | 2 | U | | PM |
| Cadmium | 0.11 | U | | PM |
| Chromium | 0.56 | U | | PM |
| Lead | 5.7 | | | PM |
| Mercury | 0.02 | U | | CV |
| Selenium | 0.11 | U | | PM |
| Silver | 0.56 | U | | PM |
| | | | | |
| | | | | |
| | | | | |

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | 5000 | 4773.0 | 95.5 | 5000 | 4837.0 | 96.7 | 4879.0 | 97.6 | PM |
| Barium | 5000 | 4757.0 | 95.1 | 5000 | 4795.0 | 95.9 | 4861.0 | 97.2 | PM |
| Cadmium | 5000 | 4877.0 | 97.5 | 5000 | 4879.0 | 97.6 | 4959.0 | 99.2 | PM |
| Chromium | 5000 | 4894.0 | 97.9 | 5000 | 4921.0 | 98.4 | 5007.0 | 100.1 | PM |
| Lead | 5000 | 5043.0 | 100.9 | 5000 | 5051.0 | 101.0 | 5173.0 | 103.5 | PM |
| Mercury | 2.5 | 2.2 | 88.0 | 2.5 | 2.2 | 88.0 | 2.4 | 96.0 | CV |
| Selenium | 5000 | 4941.0 | 98.8 | 5000 | 4921.0 | 98.4 | 4996.0 | 99.9 | PM |
| Silver | 500 | 507.6 | 101.5 | 500 | 508.8 | 101.8 | 517.1 | 103.4 | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | | | | 5000 | 4902.0 | 98.0 | 4873.0 | 97.5 | PM |
| Barium | | | | 5000 | 4803.0 | 96.1 | 4862.0 | 97.2 | PM |
| Cadmium | | | | 5000 | 4951.0 | 99.0 | 4954.0 | 99.1 | PM |
| Chromium | | | | 5000 | 5003.0 | 100.1 | 5011.0 | 100.2 | PM |
| Lead | | | | 5000 | 5152.0 | 103.0 | 5104.0 | 102.1 | PM |
| Mercury | | | | 2.5 | 2.7 | 108.0 | 2.1 | 84.0 | CV |
| Selenium | | | | 5000 | 5038.0 | 100.8 | 5064.0 | 101.3 | PM |
| Silver | | | | 500 | 515.6 | 103.1 | 519.0 | 103.8 | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | | | | 5000 | 4903.0 | 98.1 | 4925.0 | 98.5 | PM |
| Barium | | | | 5000 | 4784.0 | 95.7 | 4793.0 | 95.9 | PM |
| Cadmium | | | | 5000 | 4949.0 | 99.0 | 4967.0 | 99.3 | PM |
| Chromium | | | | 5000 | 4997.0 | 99.9 | 5032.0 | 100.6 | PM |
| Lead | | | | 5000 | 5156.0 | 103.1 | 5184.0 | 103.7 | PM |
| Mercury | | | | 2.5 | 2.5 | 100.0 | | | CV |
| Selenium | | | | 5000 | 5084.0 | 101.7 | 5083.0 | 101.7 | PM |
| Silver | | | | 500 | 511.7 | 102.3 | 515.0 | 103.0 | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | | | | 5000 | 4936.0 | 98.7 | 4827.0 | 96.5 | PM |
| Barium | | | | 5000 | 4768.0 | 95.4 | 4727.0 | 94.5 | PM |
| Cadmium | | | | 5000 | 4942.0 | 98.8 | 4897.0 | 97.9 | PM |
| Chromium | | | | 5000 | 5008.0 | 100.2 | 4950.0 | 99.0 | PM |
| Lead | | | | 5000 | 5185.0 | 103.7 | 5123.0 | 102.5 | PM |
| Mercury | | | | | | | | | CV |
| Selenium | | | | 5000 | 5105.0 | 102.1 | 4985.0 | 99.7 | PM |
| Silver | | | | 500 | 513.8 | 102.8 | 507.2 | 101.4 | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | 5000 | 4829.0 | 96.6 | 5000 | 4964.0 | 99.3 | 5012.0 | 100.2 | PM |
| Barium | 5000 | 5007.0 | 100.1 | 5000 | 5042.0 | 100.8 | 5049.0 | 101.0 | PM |
| Cadmium | 5000 | 4958.0 | 99.2 | 5000 | 5028.0 | 100.6 | 5053.0 | 101.1 | PM |
| Chromium | 5000 | 4980.0 | 99.6 | 5000 | 5051.0 | 101.0 | 5107.0 | 102.1 | PM |
| Lead | 5000 | 5047.0 | 100.9 | 5000 | 5145.0 | 102.9 | 5201.0 | 104.0 | PM |
| Mercury | | | | | | | | | CV |
| Selenium | 5000 | 4912.0 | 98.2 | 5000 | 5045.0 | 100.9 | 5086.0 | 101.7 | PM |
| Silver | 500 | 514.6 | 102.9 | 500 | 523.4 | 104.7 | 522.2 | 104.4 | PM |

(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | | | | 5000 | 5053.0 | 101.1 | 5020.0 | 100.4 | PM |
| Barium | | | | 5000 | 5108.0 | 102.2 | 5036.0 | 100.7 | PM |
| Cadmium | | | | 5000 | 5066.0 | 101.3 | 5013.0 | 100.3 | PM |
| Chromium | | | | 5000 | 5114.0 | 102.3 | 5060.0 | 101.2 | PM |
| Lead | | | | 5000 | 5192.0 | 103.8 | 5161.0 | 103.2 | PM |
| Mercury | | | | | | | | | CV |
| Selenium | | | | 5000 | 5153.0 | 103.1 | 5149.0 | 103.0 | PM |
| Silver | | | | 500 | 527.9 | 105.6 | 525.4 | 105.1 | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AEN-IL, Inc. Contract: _____

Concentration Units: ug/L

| | Initial Calibration | | | Continuing Calibration | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | R% (1) | True | Found | R% (1) | Found | R% (1) | M |
| Arsenic | | | | 5000 | 5040.0 | 100.8 | | | PM |
| Barium | | | | 5000 | 5060.0 | 101.2 | | | PM |
| Cadmium | | | | 5000 | 5040.0 | 100.8 | | | PM |
| Chromium | | | | 5000 | 5090.0 | 101.8 | | | PM |
| Lead | | | | 5000 | 5178.0 | 103.6 | | | PM |
| Mercury | | | | | | | | | CV |
| Selenium | | | | 5000 | 5090.0 | 101.8 | | | PM |
| Silver | | | | 500 | 523.3 | 104.7 | | | PM |
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(1) Control Limits: Mercury 80 - 120: Other Metals 90 - 110; Cyanide 85 - 115

Blanks

Lab Name: AEN-IL, Inc.

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Batch: HG1207(Soil) HG1209(TCLP) 2461(Soil) 2463 (TCLP)

| | Initial Calib. Blanks (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | I | C | 1 | C | 2 | C | 3 | C | | C | M |
| Arsenic | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Barium | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Cadmium | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | PM |
| Chromium | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | PM |
| Lead | 25.0 | U | 25.0 | U | 25.0 | U | 25.0 | U | 25.0 | U | PM |
| Mercury | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | CV |
| Selenium | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Silver | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | PM |

Blanks

Lab Name: AEN-IL, Inc.

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Batch: HG1207(Soil) HG1209(TCLP) 2461(Soil) 2463 (TCLP)

| | Initial Calib. Blanks (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | I | C | 1 | C | 2 | C | 3 | C | | C | M |
| Arsenic | | | 50.0 | U | 50.0 | U | 50.0 | U | | | PM |
| Barium | | | 50.0 | U | 50.0 | U | 50.0 | U | | | PM |
| Cadmium | | | 5.0 | U | 5.0 | U | 5.0 | U | | | PM |
| Chromium | | | 10.0 | U | 10.0 | U | 10.0 | U | | | PM |
| Lead | | | 25.0 | U | 25.0 | U | 25.0 | U | | | PM |
| Mercury | | | 0.2 | U | 0.2 | U | 0.2 | U | | | CV |
| Selenium | | | 50.0 | U | 50.0 | U | 50.0 | U | | | PM |
| Silver | | | 10.0 | U | 10.0 | U | 10.0 | U | | | PM |
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Blanks

Lab Name: AEN-IL, Inc.

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Batch: HG1207(Soil) HG1209(TCLP) 2461(Soil) 2463 (TCLP)

| | Initial Calib. Blanks (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | I | C | 1 | C | 2 | C | 3 | C | | C | M |
| Arsenic | | | 50.0 | U | 50.0 | U | | | | | PM |
| Barium | | | 50.0 | U | 50.0 | U | | | | | PM |
| Cadmium | | | 5.0 | U | 5.0 | U | | | | | PM |
| Chromium | | | 10.0 | U | 10.0 | U | | | | | PM |
| Lead | | | 26.4 | | 25.0 | U | | | | | PM |
| Mercury | | | 0.2 | U | 0.2 | U | | | | | CV |
| Selenium | | | 50.0 | U | 50.0 | U | | | | | PM |
| Silver | | | 10.0 | U | 10.0 | U | | | | | PM |
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Blanks

Lab Name: AEN-IL, Inc.

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Batch: HG1207(Soil) HG1209(TCLP) 2461(Soil) 2463 (TCLP)

| | Initial Calib. Blanks (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | I | C | 1 | C | 2 | C | 3 | C | | C | M |
| Arsenic | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Barium | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Cadmium | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | PM |
| Chromium | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | PM |
| Lead | 25.0 | U | 25.0 | U | 25.0 | U | 25.0 | U | 25.0 | U | PM |
| Mercury | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | CV |
| Selenium | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | PM |
| Silver | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | PM |

Blanks

Lab Name: AEN-IL, Inc.

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Batch: HG1207(Soil) HG1209(TCLP) 2461(Soil) 2463 (TCLP)

| | Initial Calib. Blanks (ug/L) | | Continuing Calibration Blank (ug/L) | | | | | | Preparation Blank | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | I | C | 1 | C | 2 | C | 3 | C | | C | M |
| Arsenic | | | 50.0 | U | 50.0 | U | | | | | PM |
| Barium | | | 50.0 | U | 50.0 | U | | | | | PM |
| Cadmium | | | 5.0 | U | 5.0 | U | | | | | PM |
| Chromium | | | 10.0 | U | 10.0 | U | | | | | PM |
| Lead | | | 25.0 | U | 25.0 | U | | | | | PM |
| Mercury | | | 0.2 | U | 0.2 | U | | | | | CV |
| Selenium | | | 50.0 | U | 50.0 | U | | | | | PM |
| Silver | | | 10.0 | U | 10.0 | U | | | | | PM |
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ICP INTERFERENCE CHECK SAMPLE

Lab Name: AEN-IL, Inc.

Concentration Units: ug/L

| | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | Sol. A | Sol. AB | Sol A. | Sol. AB | %R | Sol. A | Sol. AB | %R |
| Silver | | 1000.00 | | 994.7 | 99.5 | | 994.4 | 99.4 |
| Aluminum | 500000.00 | 500000.00 | 470500.0 | 481100.0 | 96.2 | 469100.0 | 479100.0 | 95.8 |
| Barium | | 500.00 | | 433.3 | 86.7 | | 425.2 | 85.0 |
| Beryllium | | 500.00 | | 448.2 | 89.6 | | 449.9 | 90.0 |
| Calcium | 500000.00 | 500000.00 | 457000.0 | 466900.0 | 93.4 | 458700.0 | 468500.0 | 93.7 |
| Cadmium | | 1000.00 | | 932.0 | 93.2 | | 933.3 | 93.3 |
| Cobalt | | 500.00 | | 432.9 | 86.6 | | 434.9 | 87.0 |
| Chromium | | 500.00 | | 444.0 | 88.8 | | 444.1 | 88.8 |
| Copper | | 500.00 | | 446.9 | 89.4 | | 435.1 | 87.0 |
| Iron | 200000.00 | 200000.00 | 182500.0 | 186900.0 | 93.5 | 183500.0 | 187600.0 | 93.8 |
| Magnesium | 500000.00 | 500000.00 | 499000.0 | 510500.0 | 102.1 | 500500.0 | 512300.0 | 102.5 |
| Manganese | | 500.00 | | 437.1 | 87.4 | | 438.0 | 87.6 |
| Nickel | | 1000.00 | | 843.2 | 84.3 | | 842.0 | 84.2 |
| Lead | | 1000.00 | | 832.4 | 83.2 | | 851.4 | 85.1 |
| Vanadium | | 500.00 | | 454.4 | 90.9 | | 456.5 | 91.3 |
| Zinc | | 1000.00 | | 929.9 | 93.0 | | 937.2 | 93.7 |
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ICP INTERFERENCE CHECK SAMPLE

Lab Name: AEN-IL, Inc.

Concentration Units: ug/L

| | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | Sol. A | Sol. AB | Sol A. | Sol. AB | %R | Sol. A | Sol. AB | %R |
| Silver | | 1000.00 | | 991.3 | 99.1 | | 1010.0 | 101.0 |
| Aluminum | 500000.00 | 500000.00 | 490900.0 | 494.9 | 0.1 | 490300.0 | 504300.0 | 100.9 |
| Barium | | 500.00 | | 454.9 | 91.0 | | 462.3 | 92.5 |
| Beryllium | | 500.00 | | 465.5 | 93.1 | | 481.0 | 96.2 |
| Calcium | 500000.00 | 500000.00 | 471600.0 | 472500.0 | 94.5 | 472900.0 | 486200.0 | 97.2 |
| Cadmium | | 1000.00 | | 953.8 | 95.4 | | 980.2 | 98.0 |
| Cobalt | | 500.00 | | 448.5 | 89.7 | | 458.2 | 91.6 |
| Chromium | | 500.00 | | 457.6 | 91.5 | | 473.3 | 94.7 |
| Copper | | 500.00 | | 475.9 | 95.2 | | 478.6 | 95.7 |
| Iron | 200000.00 | 200000.00 | 188300.0 | 189200.0 | 94.6 | 189200.0 | 194800.0 | 97.4 |
| Magnesium | 500000.00 | 500000.00 | 515900.0 | 517500.0 | 103.5 | 517500.0 | 532500.0 | 106.5 |
| Manganese | | 500.00 | | 450.0 | 90.0 | | 461.2 | 92.2 |
| Nickel | | 1000.00 | | 891.3 | 89.1 | | 905.5 | 90.6 |
| Lead | | 1000.00 | | 868.9 | 86.9 | | 934.4 | 93.4 |
| Vanadium | | 500.00 | | 468.3 | 93.7 | | 480.6 | 96.1 |
| Zinc | | 1000.00 | | 966.6 | 96.7 | | 987.7 | 98.8 |
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Page _____ of _____

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE ID

SE-INI003

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low.med): _____

% Solids for Sample: _____

Sample ID: L72972544-001

Batch: 2461

Concentration Units (ug/L or mg/kg dry weight): mg/Kg

| | Control Limit | Spiked Sample | | Sample | | Spike | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | %R | Result (SSR) | C | Result (SR) | C | Added (SA) | %R | Q | M |
| Arsenic | 80 - 120 % | 189.4 | | 10.4 | | 222.22 | 80.6 | | PM |
| Barium | 80 - 120 % | 293.2 | | 75.5 | | 222.22 | 98.0 | | PM |
| Cadmium | 80 - 120 % | 4.52 | | 0.56 | U | 5.56 | 81.4 | | PM |
| Chromium | 80 - 120 % | 54.3 | | 33.0 | | 22.22 | 95.6 | | PM |
| Lead | 80 - 120 % | 50.3 | | 3.1 | | 55.56 | 84.9 | | PM |
| Mercury | 80 - 120 % | 0.870 | | 0.08 | U | 0.87 | 100.0 | | CV |
| Selenium | 80 - 120 % | 209.3 | | 5.6 | U | 222.22 | 94.2 | | PM |
| Silver | 80 - 120 % | 0.44 | | 1.1 | U | 1.11 | 40.0 | N | PM |

Page _____ of _____

SPIKE SAMPLE RECOVERY

CLIENT SAMPLE ID

SS-1

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low.med): _____

%Solids for Sample: _____

Sample ID: L72972500-001

Batch: 2463

Concentration Units (ug/L or mg/kg dry weight): mg/L

| | Control Limit | Spiked Sample | | Sample | | Spike | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | %R | Result (SSR) | C | Result (SR) | C | Added (SA) | %R | Q | M |
| Arsenic | 80 - 120 % | 5.1540 | | 0.0539 | U | 5.00 | 103.1 | | PM |
| Barium | 80 - 120 % | 10.8500 | | 0.7312 | | 10.00 | 101.2 | | PM |
| Cadmium | 80 - 120 % | 0.974 | | 0.005 | U | 1.00 | 97.4 | | PM |
| Chromium | 80 - 120 % | 5.055 | | 0.010 | U | 5.00 | 101.1 | | PM |
| Lead | 80 - 120 % | 5.1620 | | 0.0727 | U | 5.00 | 103.2 | | PM |
| Mercury | 80 - 120 % | 0.0020 | | 0.0002 | U | 0.002 | 100.0 | | CV |
| Selenium | 80 - 120 % | 1.01 | | 0.05 | U | 1.00 | 101.0 | | PM |
| Silver | 80 - 120 % | 4.14 | | 0.01 | U | 5.00 | 82.7 | | PM |

Page _____ of _____

Duplicates

CLIENT SAMPLE ID

SE-INI003

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low.med): _____

% Solids for Sample: _____ % Solids for Duplicate: _____

Sample ID: L72972544-001

Batch: 2461

Concentration Units (ug/L or mg/kg dry weight): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 0 - 20 % | 189.4 | | 197.6 | | 4.2 | | PM |
| Barium | 0 - 20 % | 293.2 | | 300.4 | | 2.4 | | PM |
| Cadmium | 0 - 20 % | 4.52 | | 4.38 | | 3.2 | | FM |
| Chromium | 0 - 20 % | 54.3 | | 53.8 | | 0.8 | | PM |
| Lead | 0 - 20 % | 50.3 | | 52.2 | | 3.8 | | PM |
| Mercury | 0 - 20 % | 0.870 | | 0.870 | | 0.0 | | PM |
| Selenium | 0 - 20 % | 209.3 | | 208.0 | | 0.6 | | PM |
| Silver | 0 - 20 % | 0.44 | | 17.01 | | 189.8 | * | PM |
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Duplicates

CLIENT SAMPLE ID

SS-1

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low.med): _____

% Solids for Sample: _____ % Solids for Duplicate: _____

Sample ID: L72972500-001

Batch: 2463

Concentration Units (ug/L or mg/kg dry weight): mg/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 0 - 20 % | 5.1540 | | 4.9 | | 4.9 | | PM |
| Barium | 0 - 20 % | 10.8500 | | 10.7 | | 1.9 | | PM |
| Cadmium | 0 - 20 % | 0.974 | | 0.95 | | 2.8 | | PM |
| Chromium | 0 - 20 % | 5.055 | | 4.9 | | 2.6 | | PM |
| Lead | 0 - 20 % | 5.1620 | | 4.9 | | 4.9 | | PM |
| Mercury | 0 - 20 % | 0.0020 | | 0.0019 | | 5.1 | | PM |
| Selenium | 0 - 20 % | 1.01 | | 0.8 | | 18.9 | | PM |
| Silver | 0 - 20 % | 4.14 | | 3.90 | | 5.9 | | PM |
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LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: IEA-IL, Inc.

CLIENT SAMPLE ID

LCS-2461 Hg1207

| Analyte | Aqueous (ug/L) | | | Solid (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | R% | True | Found | C | Limits | %R |
| Arsenic | 2000 | 1880 | 94 | | | | | |
| Barium | 2000 | 1874 | 93.7 | | | | | |
| Cadmium | 50 | 42.6 | 85.2 | | | | | |
| Chromium | 200 | 195.7 | 97.9 | | | | | |
| Lead | 500 | 489.5 | 97.9 | | | | | |
| Mercury | 2.0 | 1.9 | 95.0 | | | | | |
| Selenium | 2000 | 1967 | 98.4 | | | | | |
| Silver | 50 | 50.7 | 101.4 | | | | | |

LABORATORY CONTROL SAMPLE RECOVERY

CLIENT SAMPLE ID

Lab Name: IEA-IL, Inc.

LCS-2463 Hg -HG1209

| Analyte | Aqueous (ug/L) True | Found | R% | Solid (mg/kg) True | Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 5000 | 4926 | 99 | | | | | |
| Barium | 10000 | 10180 | 101.8 | | | | | |
| Cadmium | 1000 | 952.2 | 95.2 | | | | | |
| Chromium | 5000 | 5092 | 101.8 | | | | | |
| Lead | 5000 | 4977 | 99.5 | | | | | |
| Mercury | 2.0 | 1.8 | 90.0 | | | | | |
| Selenium | 1000 | 963.8 | 96.4 | | | | | |
| Silver | 5000 | 5274 | 105.5 | | | | | |

FORM VII - INORGANIC

SERIAL DILUTION RECOVERY

CLIENT SAMPLE ID

SE-INI003

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low.med): _____

Sample ID: L72972544-001

Batch: 2461

Concentration Units: mg/L

| Analyte | Result (I) | C | Results (S) | C | % Difference | Q | M |
|---|---|---|---|---|---|---|---|
| Arsenic | 0.0935 | | 0.250 | U | NC | | PM |
| Barium | 0.6796 | | 0.7014 | | 3.2 | | PM |
| Cadmium | 0.005 | U | 0.025 | U | NC | | PM |
| Chromium | 0.2972 | | 0.3438 | U | 14.5 | | PM |
| Lead | 0.0278 | | 0.1355 | | NC | | PM |
| Selenium | 0.05 | U | 0.250 | U | NC | | PM |
| Silver | 0.01 | U | 0.05 | U | NC | | PM |
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SERIAL DILUTION RECOVERY

CLIENT SAMPLE ID

SS-1

Lab Name: IEA-IL, Inc.

Matrix (soil/water): _____ Level (low/med): _____

Sample ID: L72972500-001

Batch: 2463

Concentration Units: mg/L

| Analyte | Result (I) | C | Results (S) | C | % Difference | Q | M |
|---|---|---|---|---|---|---|---|
| Arsenic | 0.0539 | | 0.250 | U | NC | | PM |
| Barium | 0.7312 | | 0.7446 | | 1.8 | | PM |
| Cadmium | 0.005 | U | 0.025 | U | NC | | PM |
| Chromium | 0.01 | U | 0.0500 | U | NC | | PM |
| Lead | 0.0727 | | 0.2149 | | 98.9 | | PM |
| Selenium | 0.05 | U | 0.250 | U | NC | | PM |
| Silver | 0.01 | U | 0.05 | U | NC | | PM |
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BATCH #: 2461

ANALYST(S): V.K METHOD: 3051 (ICP/AA) MATRIX: Soil Water (TCLP)

| DATE DIGESTED | SAMPLE ID | VOLUME/ WEIGHT | FINAL VOLUME | DATE LEACHED | COMMENTS |
|---|---|---|---|---|---|
| 10.28.97 | PB- 2461 | 45 | 50 | | |
| | LCS- 2461 | ↓ | | | |
| | L72972544-001 | 0.45 | | | |
| | L72972544 -001MS | 0.45 | | | -002 |
| | -001MD | 0.45 | | | -003 |
| | -004 | 0.45 | | | |
| | -005 | 0.48 | | | |
| | -006 | 0.45 | | | |
| | -007 | 0.52 | | | |
| | -008 | 0.52 | | | |
| | -009 | 0.46 | | | |
| | -010 | 0.47 | | | |
| | -011 | 0.45 | | | |
| | -012 | 0.53 | | | |
| | -013 | 0.53 | | | |
| | -014 | 0.55 | | | |
| | L72972500 -001 | 0.51 | | | |
| | -003 | 0.52 | | | |
| | -005 | 0.53 | | | |
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SPIKING SOLUTION AMOUNT:

0.5 MLS - 1S0160M 0.5 MLS - 1S0161M _____ MLS - 1S0162M

BATCH #: 2463

ANALYST(S): V.K METHOD: 3051 (ICP/AA) MATRIX: Soil Water (TCLP)

| DATE DIGESTED | SAMPLE ID | VOLUME/ WEIGHT | FINAL VOLUME | DATE LEACHED | COMMENTS |
|---|---|---|---|---|---|
| 10.30.97 | PB- 2463 | 45 | 60 | | |
| | LCS-2463 | | | | |
| | L72972573 - 001 | | | 10.29.97 | |
| | L72972489 - 001 | 25 | | 10.28.97 | |
| | - 002 | | | | |
| | - 003 | | | | |
| | L72972500 - 001 | 45 | | | |
| | -001MS | | | | |
| | -001MD | | | | |
| | -002 | | | | |
| | -003 | | | | |
| | -004 | | | | |
| | L72972524 - 011 | | | | |
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| | V.K 10.30.97 | | | | |
| 10.30.97 | ~~L7297~~ EB1-2463 | 45 | 50 | 10.29.97 | |
| | EB1A-2463 | | | 10.29.97 | |

SPIKING SOLUTION AMOUNT:

_____ MLS - 1S0160M _____ MLS - 1S0161M 0.5 MLS - 1S0162M

BATCH #: HG1207

ANALYST(S): V.K METHOD: 7471 ICP/AA MATRIX: (Soil) Water TCLP

| DATE DIGESTED | SAMPLE ID | VOLUME/ WEIGHT | FINAL VOLUME | DATE LEACHED | COMMENTS |
|---|---|---|---|---|---|
| 10.30.97 | PB- HG1207 | 100 | 100 | | |
| | LCS- HG1207 | ↓ | | | |
| | L72972544 -001 | 0.25 | | | |
| | -001ms | 0.23 | | | -002 |
| | -001mD | 0.23 | | | -003 |
| | -004 | 0.24 | | | |
| | -005 | 0.25 | | | |
| | -006 | 0.24 | | | |
| | -007 | 0.25 | | | |
| | -008 | 0.25 | | | |
| | -009 | 0.27 | | | |
| | -010 | 0.27 | | | |
| | -011 | 0.29 | | | |
| | -012 | 0.21 | | | |
| | -013 | 0.27 | | | |
| | -014 | 0.26 | | | |
| | L72972500-001 | 0.21 | | | |
| | -003 | 0.20 | | | |
| | -005 | 0.20 | | | |
| | L72972506-002 | 0.25 | | | |
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SPIKING SOLUTION AMOUNT:

2.00 MLS - WS0282M

BATCH #: HG1209

ANALYST(S): _____ METHOD: 7471 ICP/AA MATRIX: Soil Water TCLP

| DATE DIGESTED | SAMPLE ID | VOLUME/ WEIGHT | FINAL VOLUME | DATE LEACHED | COMMENTS |
|---|---|---|---|---|---|
| 10.30.97 | PB- HG1209 | 100 | 100 | | |
| | LCS- HG1209 | | | | |
| | L72972500-001 | | | 10.28.97 | |
| | -001MS | | | | |
| | -001MD | | | | |
| | -002 | | | | |
| | -003 | | | | |
| | -004 | | | | |
| | L72972524-011 | | | | |
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| 10.30.97 | EB1-HG1209 | 100 | 100 | 10.28.97 | |
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SPIKING SOLUTION AMOUNT:

2.00 MLS - WS0282M

Preparation Batch #(s): HG1207, HG1208 HG1209

Analysis Date: 10.30.97

Analyst: V.K

CALIBRATION DATE: 6.9.97

| Concentration (mg/L) | Peak Height |
|---|---|
| 0.0000 | 1238 |
| 0.0002 | 13097 |
| 0.0005 | 34256 |
| 0.0010 | 66949 |
| 0.0020 | 103478 |
| 0.0030 | 164673 |
| 0.0050 | 263834 |

Correlation Coefficient: 0.998

Slope: $1.9 \times 10^{-8}$

Y- Intercept: $-1.04 \times 10^{-4}$

Calibration STD Traceability #: WS0282M

Calibration QC Traceability #: WS0281M

| Run # | Sample ID | Dil | Matrix | Peak Height | Final Conc. (mg/L) | % Rec./RPD |
|---|---|---|---|---|---|---|
| 1 | I/CCV | | | 118873 | 0.0022 | 87% |
| 2 | I/CCB | | | 2858 | < 0.0002 | |
| 3 | PB-HG1207 | | SOIL | 31529 | 0.0005 | |
| 4 | LCS-HG1207 | | | 104590 | 0.0019 | 95% |
| 5 | L72972544-001 | | | 8776 | <0.0002 | |
| 6 | -001MS | | | 108231 | 0.0020 | 99% |
| 7 | -001MD V.K ~~-004~~ | | | 107599 | 0.0020 | 98% 1% RPD |
| 8 | -004 10.31.97 ~~-005~~ | | | 148619 | 0.0028 | |
| 9 | -005 | | | 5543 | < 0.0002 | |
| 10 | -006 | | | 3580 | < 0.0002 | |
| 11 | -007 | | | 5579 | < 0.0002 | |
| 12 | -008 | | | 7682 | < 0.0002 | |
| 13 | I/CCV | | | 118628 | 0.0022 | 87% |
| 14 | I/CCB | | | 4762 | < 0.0002 | |
| 15 | L72972544-009 | | SOIL | 4256 | <0.0002 | |
| 16 | -010 | | | 3199 | <0.0002 | |
| 17 | -011 | | | 5231 | <0.0002 | |
| 18 | -012 | | | 3415 | <0.0002 | |
| 19 | -013 | | | 32723 | 0.0005 | |
| 20 | -014 | | | 2898 | <0.0002 | |

Date: 10/14/

| Run # | Sample ID | Dil | Matrix | Peak Height | Final Conc. (mg/L) | %Rec./RPD |
|---|---|---|---|---|---|---|
| 21 | L72972500-001 | | SOIL | 7794 | <0.0002 | |
| 22 | -003 | | | 6551 | <0.0002 | |
| 23 | -005 | | | 2331 | <0.0002 | |
| 24 | L72972506-002 | | | 4997 | <0.0002 | |
| 25 | I/CCV | | | 128655 | 0.0024 | |
| 26 | I/CCB | | | 1489 | <0.0002 | |
| 27 | PB-H61209 | | TCLP | 332 | <0.0002 | |
| 28 | LCS-H61209 | | | 100504 | 0.0018 | 91% |
| 29 | EB1-H61209 | | | 3554 | <0.0002 | |
| 30 | L72972500-001 | | | 2253 | <0.0002 | |
| 31 | -001MS | | | 107830 | 0.0020 | 98% |
| 32 | -001MD | | | 105255 | 0.0019 | 96% |
| 33 | -002 | | | 10043 | <0.0002 | |
| 34 | -003 | | | 4171 | <0.0002 | |
| 35 | -004 | | | 5354 | <0.0002 | |
| 36 | L72972524-011 | | | 1680 | <0.0002 | |
| 37 | I/CCV | | | 146389 | 0.0027 | 108% |
| 38 | I/CCB | | | 4074 | <0.0002 | |
| 39 | PB-H61208 | | SOIL | 2462 | <0.0002 | |
| 40 | LCS-H61208 | | | 98487 | 0.0018 | 89% |
| 41 | L72972515-001 | | | 297438 | above the curve | |
| 42 | -002 | | | 4468 | <0.0002 | |
| 43 | -003 | | | 3487 | <0.0002 | |
| 44 | -004 | | | 3636 | <0.0002 | |
| 45 | -005 | | | 10662 | <0.0002 | |
| 46 | -006 | | | 4861 | <0.0002 | |
| 47 | 008 UL ~~-008~~ | | | 3084 | <0.0002 | |
| 48 | -009 10.21.97 ~~-008~~ | | | 2056 | <0.0002 | |
| 49 | I/CCV | | | 112834 | 0.0021 | 83% |
| 50 | I/CCB | | | 5199 | <0.0002 | |

AEN-IL, Inc. Mercury Analysis Log

MEL00203 IL

Date: 10/14/97

Preparation Batch #(s): _____ Analysis Date: _____

_____ Analyst: _____

CALIBRATION DATE: _____

| Concentration (mg/L) | Peak Height |
|---|---|
| 0.0000 | _____ |
| 0.0002 | _____ |
| 0.0005 | _____ |
| 0.0010 | _____ |
| 0.0020 | _____ |
| 0.0030 | |
| 0.0050 | _____ |

Correlation Coefficient: _____

Slope: _____

Y- Intercept: _____

V.K 10.31.97

Calibration STD Traceability #: _____

Calibration QC Traceability #: _____

| Run # | Sample ID | Dil | Matrix | Peak Height | Final Conc. (mg/L) | % Rec./RPD |
|---|---|---|---|---|---|---|
| | I/CCV | | | | | |
| | I/CCB | | | | | |
| 51 | L729725 15-010 | | SOIL | 4472 | <0.0002 | |
| 52 | -011 | | | 3914 | <0.0002 | |
| 53 | -012 | | | 5388 | <0.0002 | |
| 54 | -013 | | | 4588 | <0.0002 | |
| 55 | -014 | | | 3938 | <0.0002 | |
| 56 | -001 | | | 5191 | <0.0002 | |
| 57 | -001MS | | | 90274 | 0.0016 | 81% |
| 58 | -001MD | | | 94935 | 0.0017 | 86% |
| 59 | CCV | | | 134863 | 0.0025 | 99% |
| 60 | CCB | | | 4028 | | |
| | I/CCV | | | | | |
| | I/CCB | | | | | |
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Method: ICP1 Standard: BLANK

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Avge | -.0004 | .0004 | -.0004 | .0038 | .0024 | -.0024 | -.0025 |
| SDev | .0005 | .0002 | .0002 | .0007 | .0008 | .0013 | .0004 |
| %RSD | 141.4 | 47.14 | 47.14 | 18.86 | 32.64 | 54.39 | 14.14 |
| #1 | .0000 | .0005 | -.0005 | .0043 | .0030 | -.0015 | -.0027 |
| #2 | -.0008 | .0003 | -.0003 | .0033 | .0019 | -.0034 | -.0022 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Avge | .0093 | .0597 | .0010 | .0003 | -.0007 | .0014 | -.0007 |
| SDev | .0007 | .0062 | .0003 | .0036 | .0004 | .0001 | .0001 |
| %RSD | 7.644 | 10.36 | 35.36 | 1160. | 64.28 | 6.149 | 12.86 |
| #1 | .0098 | .0641 | .0008 | .0029 | -.0004 | .0015 | -.0008 |
| #2 | .0088 | .0554 | .0012 | -.0022 | -.0010 | .0014 | -.0006 |

| Elem | Co | Fe | Fe | Mg | Mn | K | Na |
|---|---|---|---|---|---|---|---|
| Avge | .0016 | -.0022 | .0048 | .0028 | .0004 | -.0116 | .0156 |
| SDev | .0005 | .0019 | .0003 | .0010 | .0003 | .0072 | .0059 |
| %RSD | 32.64 | 86.42 | 5.510 | 34.57 | 94.28 | 62.35 | 38.05 |
| #1 | .0020 | -.0009 | .0050 | .0035 | .0001 | -.0065 | .0198 |
| #2 | .0012 | -.0036 | .0046 | .0021 | .0006 | -.0168 | .0114 |

| Elem | V | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|---|
| Avge | .0002 | .0003 | .0009 | .0103 | .0001 | .0006 | .0003 |
| SDev | .0006 | .0001 | .0001 | .0021 | .0000 | .0012 | .0003 |
| %RSD | 330.0 | 28.28 | 9.428 | 20.70 | 42.65 | 198.0 | 84.85 |
| #1 | -.0003 | .0004 | .0010 | .0117 | .0001 | .0015 | .0005 |
| #2 | .0006 | .0003 | .0009 | .0088 | .0001 | -.0003 | .0001 |

Method: ICP1 Standard: BLANK

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Avge | .0003 | .0012 | -.0001 | .0046 | .0021 | -.0029 | -.0001 |
| SDev | .0006 | .0010 | .0005 | .0012 | .0002 | .0080 | .0006 |
| %RSD | 198.0 | 81.88 | 424.3 | 26.76 | 8.319 | 276.7 | 989.9 |
| #1 | .0008 | .0005 | -.0005 | .0037 | .0020 | .0027 | -.0005 |
| #2 | -.0001 | .0019 | .0003 | .0055 | .0022 | -.0085 | .0004 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Avge | .0026 | .0054 | .0014 | .0040 | -.0018 | .0031 | -.0004 |
| SDev | .0002 | .0045 | .0003 | .0037 | .0001 | .0016 | .0004 |
| %RSD | 6.734 | 82.90 | 25.71 | 92.81 | 4.877 | 50.91 | 94.28 |
| #1 | .0025 | .0022 | .0011 | .0014 | -.0018 | .0020 | -.0006 |
| #2 | .0027 | .0086 | .0016 | .0066 | -.0019 | .0043 | -.0001 |

| Elem | Co | Fe | Fe | Mg | Mn | K | Na |
|---|---|---|---|---|---|---|---|
| Avge | .0019 | -.0002 | .0049 | .0033 | .0016 | -.0035 | .0142 |
| SDev | .0001 | .0033 | .0003 | .0005 | .0013 | .0065 | .0027 |
| %RSD | 4.562 | 1744. | 7.252 | 16.32 | 84.85 | 186.9 | 19.31 |
| #1 | .0020 | -.0025 | .0046 | .0029 | .0006 | .0011 | .0122 |
| #2 | .0019 | .0021 | .0051 | .0036 | .0025 | -.0081 | .0161 |

| Elem | V | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|---|
| Avge | .0009 | .0004 | .0014 | .0080 | .0009 | .0006 | .0005 |
| SDev | .0008 | .0003 | .0001 | .0003 | .0010 | .0025 | .0000 |
| %RSD | 84.85 | 94.28 | 6.149 | 4.419 | 105.7 | 396.0 | .0000 |
| #1 | .0004 | .0001 | .0014 | .0077 | .0002 | .0024 | .0005 |
| #2 | .0015 | .0006 | .0015 | .0082 | .0016 | -.0011 | .0005 |

Method: ICP1 Standard: CAL4

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Avge | .1658 | 6.563 | 1.230 | 4.084 | .8789 | 2.764 | .6841 |
| SDev | .0011 | .001 | .001 | .006 | .0016 | .007 | .0050 |
| %RSD | .6930 | .0148 | .0934 | .1363 | .1810 | .2366 | .7235 |
| #1 | .1650 | 6.562 | 1.231 | 4.081 | .8800 | 2.759 | .6876 |
| #2 | .1666 | 6.563 | 1.229 | 4.088 | .8777 | 2.769 | .6806 |

| Elem | Cu | Ni | Zn | Al | Be | Co | Fe |
|---|---|---|---|---|---|---|---|
| Avge | 1.177 | 7.400 | 3.805 | 1.220 | 14.66 | 4.039 | 2.484 |
| SDev | .001 | .010 | .010 | .001 | .00 | .005 | .005 |
| %RSD | .0526 | .1409 | .2602 | .0580 | .0078 | .1204 | .1815 |
| #1 | 1.178 | 7.393 | 3.798 | 1.220 | 14.66 | 4.036 | 2.480 |
| #2 | 1.177 | 7.408 | 3.812 | 1.219 | 14.66 | 4.043 | 2.487 |

| Elem | Mn | V | Sr |
|---|---|---|---|
| Avge | 10.10 | 3.548 | 8.307 |
| SDev | .01 | .002 | .003 |
| %RSD | .1190 | .0648 | .0325 |
| #1 | 10.09 | 3.547 | 8.309 |
| #2 | 10.11 | 3.550 | 8.305 |

Method: ICP1 Standard: CAL2A

| Elem | Sb | B | Mo | Si | Sn | Ti |
|---|---|---|---|---|---|---|
| Avge | .4687 | .5106 | 1.944 | 1.950 | 1.291 | 1.712 |
| SDev | .0033 | .0037 | .014 | .021 | .011 | .012 |
| %RSD | .6978 | .7270 | .7183 | 1.052 | .8218 | .6866 |
| | | | | | | |
| #1 | .4664 | .5080 | 1.934 | 1.935 | 1.283 | 1.704 |
| #2 | .4710 | .5132 | 1.954 | 1.964 | 1.298 | 1.720 |

Method: ICP1 Standard: CAL3

| Elem | Ca | Fe | Mg | K | Na |
|---|---|---|---|---|---|
| Avge | 8.930 | 5.853 | 9.437 | 2.112 | 18.41 |
| SDev | .061 | .035 | .065 | .026 | .18 |
| %RSD | .6800 | .5920 | .6837 | 1.210 | .9642 |
| | | | | | |
| #1 | 8.973 | 5.877 | 9.483 | 2.130 | 18.53 |
| #2 | 8.887 | 5.828 | 9.391 | 2.094 | 18.28 |

Analysis Report QC Standard Wed 10-29-97 10:19:49 PM page 1

Method: ICP1 Sample Name: ICV Operator: EQ
Run Time: 10/29/97 22:16:22
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5076 | 4.757 | 4.877 | 4.894 | 5.043 | 4.773 | 4.941 |
| SDev | .0005 | .014 | .002 | .013 | .018 | .031 | .013 |
| %RSD | .0908 | .2888 | .0364 | .2751 | .3638 | .6528 | .2654 |
| #1 | .5080 | 4.748 | 4.878 | 4.885 | 5.030 | 4.795 | 4.932 |
| #2 | .5073 | 4.767 | 4.876 | 4.904 | 5.056 | 4.751 | 4.950 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.791 | 4.852 | 4.919 | 4.790 | 4.876 | 4.795 | 10.31 |
| SDev | .012 | .005 | .028 | .001 | .010 | .001 | .02 |
| %RSD | .2525 | .0964 | .5605 | .0245 | .1969 | .0233 | .2017 |
| #1 | 4.782 | 4.848 | 4.900 | 4.789 | 4.883 | 4.795 | 10.29 |
| #2 | 4.799 | 4.855 | 4.939 | 4.791 | 4.869 | 4.796 | 10.32 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.957 | 4.871 | 9.832 | 4.890 | 9.440 | 10.03 | 4.965 |
| SDev | .016 | .019 | .006 | .015 | .163 | .06 | .011 |
| %RSD | .3262 | .3954 | .0636 | .3025 | 1.726 | .6276 | .2202 |
| #1 | 4.945 | 4.857 | 9.837 | 4.880 | 9.555 | 9.985 | 4.958 |
| #2 | 4.968 | 4.885 | 9.828 | 4.901 | 9.325 | 10.07 | 4.973 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.892 | 4.931 | 4.882 | 4.825 | 4.997 | 4.904 |
| SDev | .035 | .007 | .013 | .012 | .008 | .008 |
| %RSD | .7072 | .1473 | .2643 | .2580 | .1625 | .1580 |
| #1 | 4.868 | 4.926 | 4.891 | 4.816 | 5.003 | 4.899 |
| #2 | 4.917 | 4.936 | 4.872 | 4.834 | 4.991 | 4.910 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Analysis Report QC Standard Wed 10-29-97 10:23:19 PM page 1

Method: ICP1 Sample Name: ICB Operator: EQ
Run Time: 10/29/97 22:19:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0030 | -.0009 | .0021 | -.0028 | -.0142 | -.0056 | .0082 |
| SDev | .0027 | .0007 | .0000 | .0026 | .0322 | .0023 | .0103 |
| %RSD | 89.03 | 70.60 | 1.496 | 93.92 | 226.5 | 42.25 | 125.8 |
| #1 | -.0049 | -.0014 | .0021 | -.0046 | Q-.0370 | -.0039 | .0009 |
| #2 | -.0011 | -.0005 | .0021 | -.0009 | .0086 | -.0072 | .0155 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0152 | .0020 | .0106 | -.0102 | .0108 | -.0006 | -.0000 |
| SDev | .0067 | .0030 | .0004 | .0116 | .0169 | .0000 | .0059 |
| %RSD | 43.94 | 147.5 | 3.973 | 113.7 | 157.2 | 1.366 | 82190. |
| #1 | -.0200 | -.0001 | .0103 | -.0185 | .0228 | -.0006 | -.0042 |
| #2 | -.0105 | .0041 | .0109 | -.0020 | -.0012 | -.0006 | .0042 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0002 | .0015 | -.0153 | -.0008 | -.5052 | -.0150 | -.0020 |
| SDev | .0009 | .0014 | .0234 | .0003 | .2047 | .0264 | .0030 |
| %RSD | 557.5 | 95.10 | 153.6 | 43.51 | 40.52 | 176.8 | 150.7 |
| #1 | -.0005 | .0005 | -.0318 | -.0011 | -.6500 | -.0337 | -.0041 |
| #2 | .0008 | .0025 | .0013 | -.0006 | -.3605 | .0037 | .0001 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0024 | -.0013 | .0702 | -.0008 | -.0165 | -.0000 |
| SDev | .0069 | .0014 | .0137 | .0002 | .0110 | .0021 |
| %RSD | 282.9 | 106.7 | 19.51 | 25.82 | 66.70 | 340900. |
| #1 | -.0073 | -.0003 | .0799 | -.0010 | -.0243 | -.0015 |
| #2 | .0024 | -.0023 | .0605 | -.0007 | -.0087 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

nalysis Report

Operator: EQ

Method: ICP1 Sample Name: LINCHK000
Run Time: 10/29/97 22:23:23
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0057 | -.0014 | -.0004 | -.0032 | -.0057 | -.0116 | -.0101 |
| SDev | .0021 | .0005 | .0020 | .0024 | .0182 | .0096 | .0569 |
| %RSD | 37.59 | 38.19 | 564.0 | 73.41 | 321.2 | 82.78 | 562.7 |
| #1 | -.0042 | -.0018 | -.0018 | -.0049 | -.0185 | -.0184 | .0301 |
| #2 | -.0072 | -.0010 | .0011 | -.0016 | .0072 | -.0048 | L-.0503 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |
| Low | -.0100 | -.0500 | -.0050 | -.0100 | -.0250 | -.0500 | -.0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0158 | -.0044 | .0004 | -.0200 | .0307 | -.0006 | -.0028 |
| SDev | .0033 | .0068 | .0000 | .0080 | .0075 | .0003 | .0000 |
| %RSD | 21.02 | 154.6 | .0327 | 39.86 | 24.31 | 46.84 | .2497 |
| #1 | -.0182 | -.0092 | .0004 | -.0144 | .0359 | -.0008 | -.0028 |
| #2 | -.0135 | .0004 | .0004 | -.0256 | .0254 | -.0004 | -.0028 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |
| Low | -.0250 | -.0300 | -.0200 | -.1000 | -.0600 | -.0050 | -.2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0003 | .0020 | -.0192 | -.0012 | -.4077 | -.0190 | -.0017 |
| SDev | .0020 | .0021 | .0084 | .0005 | .8023 | .0178 | .0015 |
| %RSD | 640.1 | 106.7 | 43.89 | 44.61 | 196.8 | 93.33 | 89.11 |
| #1 | -.0017 | .0035 | -.0252 | -.0015 | .1596 | -.0065 | -.0027 |
| #2 | .0011 | .0005 | -.0133 | -.0008 | -.9750 | -.0316 | -.0006 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |
| Low | -.0500 | -.0500 | -.2000 | -.0150 | -2.000 | -.2000 | -.0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0012 | -.0029 | .0322 | -.0009 | -.0121 | .0007 |
| SDev | .0017 | .0018 | .0018 | .0004 | .0034 | .0010 |
| %RSD | 142.1 | 63.12 | 5.593 | 39.54 | 27.92 | 142.2 |
| #1 | .0000 | -.0016 | .0335 | -.0012 | -.0097 | -.0000 |
| #2 | -.0025 | -.0042 | .0310 | -.0007 | -.0145 | .0015 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |
| Low | -.1000 | -.0500 | -.1000 | -.0500 | -.0500 | -.0500 |

Method: ICP1 Sample Name: LINCHK020 Operator: EQ
Run Time: 10/29/97 22:26:52
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1983 | 1.917 | 1.925 | 1.966 | 1.992 | 1.915 | 1.968 |
| SDev | .0006 | .005 | .003 | .008 | .011 | .010 | .035 |
| %RSD | .2791 | .2669 | .1537 | .4189 | .5568 | .5000 | 1.773 |
| #1 | .1987 | 1.921 | 1.928 | 1.971 | 2.000 | 1.908 | 1.992 |
| #2 | .1979 | 1.914 | 1.923 | 1.960 | 1.985 | 1.922 | 1.943 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .2200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 |
| Low | .1800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.921 | 1.958 | 1.958 | 1.951 | 2.003 | 1.920 | 20.46 |
| SDev | .005 | .006 | .000 | .040 | .025 | .004 | .03 |
| %RSD | .2679 | .3296 | .0243 | 2.049 | 1.224 | .1911 | .1693 |
| #1 | 1.925 | 1.953 | 1.958 | 1.979 | 1.986 | 1.923 | 20.48 |
| #2 | 1.917 | 1.962 | 1.958 | 1.923 | 2.021 | 1.917 | 20.43 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 22.00 |
| Low | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 18.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.960 | 21.36 | 19.73 | 1.938 | 18.73 | 20.34 | 1.974 |
| SDev | .007 | .02 | .04 | .002 | .31 | .12 | .004 |
| %RSD | .3793 | .0768 | .2092 | .0950 | 1.673 | .6003 | .2044 |
| #1 | 1.965 | 21.37 | 19.76 | 1.939 | 18.95 | 20.42 | 1.977 |
| #2 | 1.955 | 21.35 | 19.70 | 1.937 | 18.51 | 20.25 | 1.971 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 24.20 | 22.00 | 2.200 | 22.00 | 22.00 | 2.200 |
| Low | 1.800 | 19.80 | 18.00 | 1.800 | 18.00 | 18.00 | 1.800 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.942 | 1.972 | 1.970 | 1.925 | 1.954 | 1.973 |
| SDev | .010 | .000 | .005 | .004 | .028 | .002 |
| %RSD | .5342 | .0237 | .2586 | .2231 | 1.434 | .1050 |
| #1 | 1.950 | 1.972 | 1.974 | 1.928 | 1.934 | 1.974 |
| #2 | 1.935 | 1.973 | 1.967 | 1.922 | 1.974 | 1.971 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 |
| Low | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 |

Analysis Report Wed 10-29-97 10:33:48 PM page 1

Method: ICP1 Sample Name: LINCHK050 Operator: EQ
Run Time: 10/29/97 22:30:22
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4882 | 4.656 | 4.710 | 4.743 | 4.851 | 4.736 | 4.858 |
| SDev | .0001 | .013 | .019 | .009 | .031 | .003 | .018 |
| %RSD | .0229 | .2834 | .3933 | .1877 | .6483 | .0683 | .3766 |
| #1 | .4881 | 4.647 | 4.697 | 4.737 | 4.829 | 4.733 | 4.845 |
| #2 | .4883 | 4.665 | 4.724 | 4.750 | 4.873 | 4.738 | 4.871 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .5500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 |
| Low | .4500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.688 | 4.703 | 4.787 | 4.747 | 4.802 | 4.680 | 49.69 |
| SDev | .011 | .018 | .011 | .009 | .056 | .016 | .14 |
| %RSD | .2260 | .3764 | .2337 | .1904 | 1.173 | .3383 | .2907 |
| #1 | 4.681 | 4.691 | 4.779 | 4.740 | 4.763 | 4.668 | 49.59 |
| #2 | 4.696 | 4.716 | 4.795 | 4.753 | 4.842 | 4.691 | 49.79 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 55.00 |
| Low | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 45.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.732 | 55.80 | 48.66 | 4.704 | 48.93 | 49.66 | 4.801 |
| SDev | .019 | .08 | .14 | .011 | .17 | .04 | .012 |
| %RSD | .3924 | .1516 | .2951 | .2312 | .3501 | .0783 | .2542 |
| #1 | 4.719 | 55.74 | 48.56 | 4.696 | 49.05 | 49.64 | 4.792 |
| #2 | 4.746 | 55.86 | 48.76 | 4.712 | 48.81 | 49.69 | 4.810 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 60.50 | 55.00 | 5.500 | 55.00 | 55.00 | 5.500 |
| Low | 4.500 | 49.50 | 45.00 | 4.500 | 45.00 | 45.00 | 4.500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.783 | 4.805 | 4.753 | 4.688 | 4.742 | 4.806 |
| SDev | .021 | .010 | .001 | .012 | .015 | .012 |
| %RSD | .4358 | .2079 | .0142 | .2561 | .3162 | .2473 |
| #1 | 4.798 | 4.798 | 4.753 | 4.679 | 4.752 | 4.797 |
| #2 | 4.768 | 4.812 | 4.752 | 4.696 | 4.731 | 4.814 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 |
| Low | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 |

Analysis Report Wed 10-29-97 10:37:16 PM page 1

Method: ICP1 Sample Name: LINCHK100 Operator: EQ
Run Time: 10/29/97 22:33:50
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9810 | 9.413 | 9.507 | 9.456 | 9.626 | 9.530 | 9.738 |
| SDev | .0025 | .017 | .004 | .024 | .055 | .053 | .010 |
| %RSD | .2573 | .1831 | .0392 | .2548 | .5678 | .5597 | .1029 |
| #1 | .9792 | 9.425 | 9.505 | 9.473 | 9.664 | 9.567 | 9.731 |
| #2 | .9828 | 9.401 | 9.510 | 9.439 | 9.587 | 9.492 | 9.745 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 1.100 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Low | .9000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.484 | 9.349 | 9.719 | 9.643 | 9.696 | 9.389 | 98.82 |
| SDev | .012 | .004 | .023 | .004 | .031 | .023 | .31 |
| %RSD | .1256 | .0425 | .2347 | .0394 | .3210 | .2494 | .3165 |
| #1 | 9.493 | 9.352 | 9.735 | 9.646 | 9.718 | 9.405 | 99.04 |
| #2 | 9.476 | 9.346 | 9.703 | 9.640 | 9.674 | 9.372 | 98.60 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 110.0 |
| Low | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 90.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.404 | 110.5 | 98.98 | 9.461 | 99.86 | 101.2 | 9.648 |
| SDev | .020 | .1 | .33 | .014 | .31 | .5 | .017 |
| %RSD | .2113 | .1148 | .3288 | .1530 | .3055 | .4721 | .1749 |
| #1 | 9.418 | 110.6 | 99.21 | 9.471 | 100.1 | 101.5 | 9.660 |
| #2 | 9.390 | 110.4 | 98.75 | 9.450 | 99.64 | 100.8 | 9.636 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 121.0 | 110.0 | 11.00 | 110.0 | 110.0 | 11.00 |
| Low | 9.000 | 99.00 | 90.00 | 9.000 | 90.00 | 90.00 | 9.000 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.647 | 9.555 | 9.448 | 9.451 | 9.453 | 9.617 |
| SDev | .021 | .015 | .065 | .024 | .066 | .016 |
| %RSD | .2162 | .1519 | .6923 | .2497 | .6981 | .1614 |
| #1 | 9.632 | 9.565 | 9.494 | 9.467 | 9.500 | 9.628 |
| #2 | 9.661 | 9.545 | 9.402 | 9.434 | 9.406 | 9.606 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Low | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 |

Analysis Report QC Standard Wed 10-29-97 10:40:46 PM page 1

Method: ICP1 Sample Name: CRI Operator: EQ
Run Time: 10/29/97 22:37:20
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0172 | .3806 | Q.0128 | Q.0135 | .1044 | Q.1560 | .1950 |
| SDev | .0011 | .0001 | .0006 | .0043 | .0211 | .0133 | .0491 |
| %RSD | 6.264 | .0348 | 4.359 | 32.00 | 20.25 | 8.535 | 25.17 |
| #1 | .0164 | .3805 | Q.0132 | Q.0105 | .0895 | .1654 | .1603 |
| #2 | .0180 | .3807 | Q.0124 | .0166 | .1194 | Q.1465 | .2297 |
| Errors | QC Pass | QC Pass | QC Fail | QC Fail | QC Pass | QC Fail | QC Pass |
| Value | .0200 | .4000 | .0100 | .0200 | .1000 | .2000 | .2000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.0313 | .0782 | .0416 | .3721 | .1396 | .0102 | 10.24 |
| SDev | .0031 | .0036 | .0011 | .0320 | .0132 | .0012 | .01 |
| %RSD | 9.800 | 4.585 | 2.736 | 8.605 | 9.438 | 11.78 | .1160 |
| #1 | Q.0292 | .0757 | .0408 | .3494 | Q.1489 | .0094 | 10.24 |
| #2 | Q.0335 | .0807 | .0424 | .3947 | .1302 | .0111 | 10.25 |
| Errors | QC Fail | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0500 | .0800 | .0400 | .4000 | .1200 | .0100 | 10.00 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1003 | .1948 | 9.801 | .0292 | 9.544 | 10.07 | .1005 |
| SDev | .0044 | .0132 | .044 | .0013 | .159 | .01 | .0008 |
| %RSD | 4.359 | 6.775 | .4496 | 4.499 | 1.664 | .1479 | .7563 |
| #1 | .0972 | .1855 | 9.770 | .0283 | 9.656 | 10.08 | .1000 |
| #2 | .1034 | .2042 | 9.832 | .0302 | 9.431 | 10.06 | .1011 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .2000 | 10.00 | .0300 | 10.00 | 10.00 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1087 | .0994 | Q.2905 | .0962 | .2112 | .1028 |
| SDev | .0087 | .0009 | .0337 | .0009 | .0013 | .0010 |
| %RSD | 7.980 | .9245 | 11.60 | .9361 | .6224 | 1.006 |
| #1 | .1148 | .1001 | Q.3143 | .0956 | .2121 | .1021 |
| #2 | .1025 | .0988 | Q.2667 | .0968 | .2102 | .1035 |
| Errors | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .1000 | .2000 | .1000 | .2000 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

Analysis Report QC Standard Wed 10-29-97 10:44:16 PM page 1

Method: ICP1 Sample Name: ISA Operator: EQ
Run Time: 10/29/97 22:40:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0377 | -.0139 | -.0008 | -.0016 | -.0873 | .0058 | -.0404 |
| SDev | .0005 | .0005 | .0033 | .0021 | .0349 | .0226 | .0274 |
| %RSD | 1.411 | 3.257 | 422.3 | 136.0 | 40.02 | 392.4 | 67.85 |
| #1 | -.0374 | -.0136 | -.0031 | -.0001 | -.0626 | -.0102 | -.0210 |
| #2 | -.0381 | -.0142 | .0016 | -.0031 | -.1120 | .0217 | -.0597 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | | |
| Range | | | | | | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0286 | -.0052 | -.0005 | 470.5 | .0153 | -.0009 | 457.0 |
| SDev | .0000 | .0034 | .0014 | 1.2 | .0226 | .0000 | 1.4 |
| %RSD | .0744 | 65.01 | 270.5 | .2625 | 147.4 | .4083 | .3108 |
| #1 | -.0286 | -.0075 | -.0015 | 469.6 | .0312 | -.0009 | 456.0 |
| #2 | -.0286 | -.0028 | .0005 | 471.4 | -.0006 | -.0009 | 458.0 |
| Errors | NOCHECK | NOCHECK | NOCHECK | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | | | | 500.0 | | | 500.0 |
| Range | | | | 100.0 | | | 100.0 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0095 | 182.5 | 499.0 | -.0008 | -.3664 | .0143 | .0037 |
| SDev | .0004 | .7 | 1.8 | .0000 | .1003 | .0255 | .0013 |
| %RSD | 4.200 | .3690 | .3534 | .5608 | 27.37 | 178.5 | 35.31 |
| #1 | -.0098 | 182.0 | 497.7 | -.0008 | -.2955 | .0323 | .0028 |
| #2 | -.0092 | 183.0 | 500.2 | -.0008 | -.4373 | -.0037 | .0046 |
| Errors | NOCHECK | QC Pass | QC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | 200.0 | 500.0 | | | | |
| Range | | 40.00 | 100.0 | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0429 | .0006 | .0337 | .0172 | .0238 | .0023 |
| SDev | .0087 | .0014 | .0077 | .0001 | .0047 | .0002 |
| %RSD | 20.21 | 213.8 | 22.95 | .2691 | 19.78 | 7.117 |
| #1 | -.0490 | -.0003 | .0391 | .0172 | .0272 | .0022 |
| #2 | -.0367 | .0016 | .0282 | .0172 | .0205 | .0024 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Analysis Report QC Standard Wed 10-29-97 10:47:45 PM page 1

Method: ICP1 Sample Name: ISB Operator: EQ
Run Time: 10/29/97 22:44:19
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9947 | .4333 | .9320 | .4440 | .8324 | .0723 | .0294 |
| SDev | .0080 | .0049 | .0026 | .0004 | .0022 | .0273 | .0019 |
| %RSD | .8042 | 1.120 | .2740 | .0990 | .2620 | 37.71 | 6.532 |
| #1 | .9891 | .4299 | .9302 | .4436 | .8339 | .0530 | .0308 |
| #2 | 1.000 | .4368 | .9338 | .4443 | .8309 | .0916 | .0281 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK |
| Value | 1.000 | .5000 | 1.000 | .5000 | 1.000 | | |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4469 | .8432 | .9299 | 481.1 | -.0016 | .4482 | 466.9 |
| SDev | .0016 | .0124 | .0053 | 5.4 | .0299 | .0043 | 3.3 |
| %RSD | .3557 | 1.473 | .5650 | 1.121 | 1902. | .9547 | .7160 |
| #1 | .4458 | .8345 | .9262 | 477.3 | -.0227 | .4452 | 464.5 |
| #2 | .4481 | .8520 | .9336 | 484.9 | .0196 | .4512 | 469.3 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | QC Pass | QC Pass |
| Value | .5000 | 1.000 | 1.000 | 500.0 | | .5000 | 500.0 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4329 | 186.9 | 510.5 | .4371 | -.2689 | .0197 | .4544 |
| SDev | .0001 | 1.4 | 3.7 | .0047 | .4053 | .0197 | .0013 |
| %RSD | .0208 | .7626 | .7308 | 1.066 | 150.7 | 100.1 | .2891 |
| #1 | .4329 | 185.9 | 507.9 | .4338 | .0177 | .0336 | .4535 |
| #2 | .4328 | 187.9 | 513.2 | .4404 | -.5555 | .0058 | .4554 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | .5000 | 200.0 | 500.0 | .5000 | | | .5000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0462 | .0031 | .0307 | .0175 | .0248 | .0021 |
| SDev | .0017 | .0014 | .0120 | .0002 | .0359 | .0012 |
| %RSD | 3.751 | 44.17 | 38.96 | .8983 | 144.7 | 59.53 |
| #1 | -.0475 | .0041 | .0391 | .0174 | -.0006 | .0030 |
| #2 | -.0450 | .0021 | .0222 | .0177 | .0502 | .0012 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Analysis Report QC Standard Wed 10-29-97 10:51:15 PM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/29/97 22:47:49
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5088 | 4.795 | 4.879 | 4.921 | 5.051 | 4.837 | 4.921 |
| SDev | .0038 | .014 | .004 | .003 | .003 | .018 | .036 |
| %RSD | .7444 | .2836 | .0794 | .0538 | .0601 | .3808 | .7308 |
| #1 | .5114 | 4.805 | 4.876 | 4.919 | 5.053 | 4.850 | 4.947 |
| #2 | .5061 | 4.786 | 4.882 | 4.923 | 5.049 | 4.824 | 4.896 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.848 | 4.881 | 4.976 | 4.834 | 4.881 | 4.818 | 10.31 |
| SDev | .005 | .030 | .001 | .027 | .013 | .004 | .03 |
| %RSD | .1118 | .6127 | .0204 | .5660 | .2676 | .0841 | .2495 |
| #1 | 4.852 | 4.859 | 4.976 | 4.815 | 4.890 | 4.820 | 10.29 |
| #2 | 4.844 | 4.902 | 4.977 | 4.854 | 4.872 | 4.815 | 10.33 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.984 | 4.898 | 9.844 | 4.915 | 9.286 | 10.18 | 5.011 |
| SDev | .004 | .003 | .033 | .003 | .389 | .03 | .004 |
| %RSD | .0880 | .0656 | .3338 | .0677 | 4.185 | .3302 | .0785 |
| #1 | 4.981 | 4.896 | 9.820 | 4.913 | 9.012 | 10.16 | 5.008 |
| #2 | 4.987 | 4.901 | 9.867 | 4.917 | 9.561 | 10.21 | 5.014 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.912 | 4.954 | 4.785 | 4.865 | 4.983 | 4.943 |
| SDev | .000 | .010 | .025 | .010 | .013 | .005 |
| %RSD | .0001 | .2020 | .5246 | .2077 | .2620 | .1044 |
| #1 | 4.912 | 4.947 | 4.803 | 4.872 | 4.974 | 4.947 |
| #2 | 4.912 | 4.961 | 4.767 | 4.858 | 4.992 | 4.939 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/29/97 22:51:18
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0068 | -.0011 | .0022 | -.0022 | -.0114 | -.0163 | .0044 |
| SDev | .0005 | .0001 | .0001 | .0009 | .0140 | .0124 | .0052 |
| %RSD | 7.730 | 11.97 | 6.878 | 40.13 | 122.8 | 76.41 | 117.4 |
| #1 | -.0072 | -.0010 | .0021 | -.0016 | -.0015 | -.0075 | .0081 |
| #2 | -.0064 | -.0012 | .0024 | -.0028 | -.0214 | -.0251 | .0008 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0157 | .0017 | -.0012 | .0037 | .0081 | -.0005 | .0091 |
| SDev | .0016 | .0011 | .0004 | .0501 | .0169 | .0004 | .0010 |
| %RSD | 10.35 | 63.93 | 35.97 | 1336. | 207.9 | 72.92 | 10.88 |
| #1 | -.0145 | .0009 | -.0016 | .0391 | .0200 | -.0008 | .0084 |
| #2 | -.0168 | .0024 | -.0009 | -.0317 | -.0038 | -.0002 | .0098 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0012 | .0045 | -.0159 | -.0009 | -.7918 | -.0007 | -.0019 |
| SDev | .0015 | .0007 | .0037 | .0001 | .3009 | .0236 | .0028 |
| %RSD | 123.5 | 15.54 | 23.53 | 10.17 | 37.99 | 3516. | 148.3 |
| #1 | -.0002 | .0050 | -.0133 | -.0009 | -1.005 | -.0173 | .0001 |
| #2 | -.0023 | .0040 | -.0186 | -.0008 | -.5791 | .0160 | -.0039 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0000 | -.0058 | .0174 | -.0006 | -.0034 | .0015 |
| SDev | .0035 | .0023 | .0191 | .0002 | .0007 | .0010 |
| %RSD | 82680. | 39.28 | 109.5 | 25.99 | 20.57 | 70.39 |
| #1 | -.0024 | -.0042 | .0309 | -.0007 | -.0029 | .0022 |
| #2 | .0025 | -.0074 | .0039 | -.0005 | -.0039 | .0007 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: PB-2462 Operator: EQ
Run Time: 10/29/97 23:39:08
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0053 | -.0014 | .0002 | -.0020 | -.0035 | -.0119 | .0027 |
| SDev | .0016 | .0003 | .0019 | .0028 | .0110 | .0343 | .0440 |
| %RSD | 30.45 | 19.15 | 1195. | 139.8 | 313.3 | 287.7 | 1631. |
| #1 | -.0042 | -.0016 | .0015 | -.0040 | .0043 | -.0362 | .0338 |
| #2 | -.0064 | -.0012 | -.0012 | -.0000 | -.0113 | .0123 | -.0284 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |
| Low | -.0100 | -.0500 | -.0050 | -.0100 | -.0250 | -.0500 | -.0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0178 | -.0014 | -.0014 | -.0134 | .0200 | -.0011 | .0007 |
| SDev | .0005 | .0001 | .0002 | .0173 | .0113 | .0000 | .0010 |
| %RSD | 2.688 | 9.267 | 11.82 | 129.8 | 56.35 | .3760 | 140.6 |
| #1 | -.0181 | -.0013 | -.0013 | -.0011 | .0280 | -.0011 | .0014 |
| #2 | -.0175 | -.0014 | -.0015 | -.0256 | .0120 | -.0011 | .0000 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |
| Low | -.0250 | -.0300 | -.0200 | -.1000 | -.0600 | -.0050 | -.2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0006 | .0038 | -.0113 | -.0011 | -.7328 | .0258 | .0019 |
| SDev | .0015 | .0018 | .0009 | .0000 | 1.2285 | .0360 | .0015 |
| %RSD | 246.2 | 47.39 | 8.303 | .0184 | 167.7 | 139.5 | 81.79 |
| #1 | -.0005 | .0025 | -.0106 | -.0011 | .1359 | .0513 | .0030 |
| #2 | .0017 | .0050 | -.0119 | -.0011 | -1.601 | .0003 | .0008 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |
| Low | -.0500 | -.0500 | -.2000 | -.0150 | -2.000 | -.2000 | -.0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0061 | -.0022 | -.0186 | -.0012 | -.0049 | -.0007 |
| SDev | .0121 | .0036 | .0045 | .0001 | .0014 | .0010 |
| %RSD | 198.1 | 162.1 | 24.14 | 5.480 | 27.95 | 140.8 |
| #1 | .0025 | .0003 | -.0154 | -.0011 | -.0039 | -.0000 |
| #2 | -.0147 | -.0048 | -.0218 | -.0012 | -.0058 | -.0015 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |
| Low | -.1000 | -.0500 | -.1000 | -.0500 | -.0500 | -.0500 |

Method: ICP1 Sample Name: LCS-2462 Operator: EQ
Run Time: 10/29/97 23:42:58
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0477 | 1.980 | .0445 | .2020 | .4994 | 1.925 | 2.083 |
| SDev | .0010 | .006 | .0022 | .0017 | .0091 | .005 | .018 |
| %RSD | 2.196 | .3197 | 4.978 | .8595 | 1.822 | .2579 | .8668 |
| #1 | .0485 | 1.975 | .0461 | .2007 | .4929 | 1.922 | 2.096 |
| #2 | .0470 | 1.984 | .0430 | .2032 | .5058 | 1.929 | 2.071 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0600 | 2.400 | .0600 | .2400 | .6000 | 2.400 | 2.400 |
| Low | .0400 | 1.600 | .0400 | .1600 | .4000 | 1.600 | 1.600 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2261 | .5018 | .5644 | 1.980 | .5123 | .0474 | 20.95 |
| SDev | .0008 | .0026 | .0002 | .012 | .0075 | .0001 | .08 |
| %RSD | .3755 | .5244 | .0394 | .5839 | 1.461 | .0973 | .3637 |
| #1 | .2255 | .4999 | .5642 | 1.972 | .5176 | .0473 | 20.90 |
| #2 | .2267 | .5036 | .5645 | 1.988 | .5070 | .0474 | 21.01 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .3000 | .6000 | .6000 | 2.400 | .6000 | .0600 | 24.00 |
| Low | .2000 | .4000 | .4000 | 1.600 | .4000 | .0400 | 16.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5009 | 1.004 | 20.16 | .4959 | 19.83 | 21.08 | .5090 |
| SDev | .0046 | .001 | .09 | .0023 | .25 | .13 | .0053 |
| %RSD | .9162 | .0714 | .4511 | .4587 | 1.264 | .6314 | 1.032 |
| #1 | .4976 | 1.004 | 20.09 | .4943 | 20.01 | 20.99 | .5053 |
| #2 | .5041 | 1.005 | 20.22 | .4975 | 19.65 | 21.18 | .5127 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .6000 | 1.200 | 24.00 | .6000 | 24.00 | 24.00 | .6000 |
| Low | .4000 | .8000 | 16.00 | .4000 | 16.00 | 16.00 | .4000 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9882 | 1.016 | .9748 | .9914 | 1.006 | 1.020 |
| SDev | .0121 | .000 | .0032 | .0024 | .007 | .002 |
| %RSD | 1.226 | .0446 | .3265 | .2406 | .6791 | .2036 |
| #1 | .9796 | 1.016 | .9725 | .9897 | 1.011 | 1.018 |
| #2 | .9967 | 1.017 | .9770 | .9931 | 1.002 | 1.021 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 |
| Low | .8000 | .8000 | .8000 | .8000 | .8000 | .8000 |

Method: ICP1 Sample Name: L72972515-001 Operator: EQ
Run Time: 10/29/97 23:49:15
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.1311 | 3.661 | .3924 | 1.540 | 13.39 | .2059 | L-.0249 |
| SDev | .0016 | .022 | .0035 | .004 | .00 | .0520 | .0023 |
| %RSD | 1.184 | .5947 | .8956 | .2436 | .0291 | 25.25 | 9.064 |
| #1 | L-.1300 | 3.646 | .3899 | 1.537 | 13.40 | .2426 | L-.0233 |
| #2 | L-.1322 | 3.677 | .3949 | 1.542 | 13.39 | .1691 | L-.0265 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 36.67 | 1.355 | 55.21 | 64.14 | .4982 | L.0010 | 723.3 |
| SDev | .20 | .017 | .14 | .35 | .0144 | .0000 | 1.5 |
| %RSD | .5441 | 1.225 | .2449 | .5441 | 2.888 | .3664 | .2038 |
| #1 | 36.53 | 1.367 | 55.12 | 63.89 | .4880 | L.0010 | 722.2 |
| #2 | 36.81 | 1.343 | 55.31 | 64.38 | .5083 | L.0010 | 724.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2026 | 775.7 | 64.57 | 10.46 | 7.780 | 5.986 | .1142 |
| SDev | .0054 | 2.6 | .15 | .03 | .313 | .014 | .0013 |
| %RSD | 2.678 | .3308 | .2362 | .3254 | 4.028 | .2404 | 1.142 |
| #1 | .2065 | 773.9 | 64.46 | 10.44 | 8.001 | 5.976 | .1132 |
| #2 | .1988 | 777.5 | 64.67 | 10.48 | 7.558 | 5.996 | .1151 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.098 | .2928 | 42.46 | .8632 | .7175 | 1.237 |
| SDev | .016 | .0068 | .20 | .0043 | .0183 | .005 |
| %RSD | 1.419 | 2.329 | .4613 | .4987 | 2.556 | .4320 |
| #1 | 1.087 | .2880 | 42.32 | .8602 | .7045 | 1.233 |
| #2 | 1.109 | .2977 | 42.60 | .8663 | .7305 | 1.241 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-001MS Operator: EQ
Run Time: 10/29/97 23:53:06
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0771 | 4.744 | .7223 | 1.315 | 11.00 | 1.747 | 1.714 |
| SDev | .0020 | .036 | .0020 | .006 | .04 | .015 | .028 |
| %RSD | 2.620 | .7506 | .2728 | .4685 | .3397 | .8576 | 1.647 |
| #1 | L-.0757 | 4.718 | .7209 | 1.311 | 10.97 | 1.736 | 1.695 |
| #2 | L-.0786 | 4.769 | .7237 | 1.319 | 11.03 | 1.757 | 1.734 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 6.334 | 1.672 | 39.06 | 65.74 | 1.135 | .0407 | 613.1 |
| SDev | .039 | .001 | .27 | .36 | .009 | .0002 | 2.7 |
| %RSD | .6225 | .0297 | .6964 | .5529 | .7730 | .4281 | .4436 |
| #1 | 6.306 | 1.672 | 38.87 | 65.48 | 1.128 | .0406 | 611.2 |
| #2 | 6.362 | 1.673 | 39.25 | 66.00 | 1.141 | .0408 | 615.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .6024 | 711.4 | 91.41 | 6.572 | 24.34 | 24.02 | .5090 |
| SDev | .0026 | 4.0 | .36 | .041 | .82 | .17 | .0024 |
| %RSD | .4258 | .5555 | .3925 | .6201 | 3.365 | .6962 | .4801 |
| #1 | .6005 | 708.6 | 91.16 | 6.543 | 24.92 | 23.90 | .5073 |
| #2 | .6042 | 714.2 | 91.67 | 6.601 | 23.76 | 24.14 | .5107 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 2.319 | 1.182 | 50.66 | 1.851 | .9195 | 1.955 |
| SDev | .019 | .009 | .38 | .011 | .0214 | .012 |
| %RSD | .8205 | .7690 | .7493 | .6152 | 2.328 | .6251 |
| #1 | 2.305 | 1.176 | 50.39 | 1.843 | .9043 | 1.946 |
| #2 | 2.332 | 1.189 | 50.93 | 1.859 | .9346 | 1.964 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972515-001MD Operator: EQ
Run Time: 10/29/97 23:56:56
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0156 | 8.458 | .3128 | 1.425 | 21.08 | 1.596 | 1.406 |
| SDev | .0009 | .047 | .0070 | .008 | .13 | .014 | .001 |
| %RSD | 6.100 | .5566 | 2.240 | .5665 | .5976 | .8736 | .0723 |
| #1 | L-.0149 | 8.425 | .3078 | 1.419 | 20.99 | 1.586 | 1.407 |
| #2 | L-.0162 | 8.492 | .3177 | 1.431 | 21.17 | 1.606 | 1.406 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 7.287 | 1.592 | H188.5 | 57.27 | .5438 | .0421 | 290.3 |
| SDev | .041 | .008 | 1.1 | .38 | .0301 | .0003 | 2.0 |
| %RSD | .5566 | .4887 | .6029 | .6596 | 5.537 | .7201 | .6784 |
| #1 | 7.258 | 1.597 | H187.6 | 57.01 | .5225 | .0419 | 288.9 |
| #2 | 7.315 | 1.586 | H189.3 | 57.54 | .5651 | .0423 | 291.7 |
| Errors | LC Pass | LC Pass | LC High | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .6349 | 836.3 | 71.80 | 6.990 | 23.47 | 24.69 | .5205 |
| SDev | .0018 | 5.3 | .43 | .042 | .16 | .16 | .0007 |
| %RSD | .2867 | .6363 | .5936 | .5979 | .6942 | .6344 | .1282 |
| #1 | .6336 | 832.5 | 71.50 | 6.960 | 23.36 | 24.58 | .5210 |
| #2 | .6362 | 840.1 | 72.11 | 7.019 | 23.59 | 24.80 | .5201 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.953 | 1.074 | 39.85 | 1.436 | .9839 | 1.838 |
| SDev | .035 | .003 | .28 | .008 | .0248 | .013 |
| %RSD | 1.773 | .2973 | .7025 | .5502 | 2.520 | .6875 |
| #1 | 1.928 | 1.077 | 39.65 | 1.431 | 1.001 | 1.829 |
| #2 | 1.977 | 1.072 | 40.05 | 1.442 | .9663 | 1.847 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-001SD Operator: EQ
Run Time: 10/30/97 00:00:46
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.1405 | 3.764 | .4267 | 1.701 | 15.24 | .1676 | L-.0465 |
| SDev | .0107 | .024 | .0101 | .002 | .15 | .2358 | .0137 |
| %RSD | 7.642 | .6480 | 2.373 | .1356 | .9912 | 140.7 | 29.43 |
| #1 | L-.1481 | 3.781 | .4338 | 1.700 | 15.14 | L.0008 | L-.0368 |
| #2 | L-.1329 | 3.746 | .4195 | 1.703 | 15.35 | .3343 | L-.0562 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 37.64 | 1.565 | 59.56 | 66.35 | .8391 | L-.0029 | 810.9 |
| SDev | .14 | .017 | .11 | .05 | .0660 | .0006 | 3.6 |
| %RSD | .3818 | 1.072 | .1775 | .0721 | 7.865 | 19.09 | .4418 |
| #1 | 37.75 | 1.554 | 59.49 | 66.39 | .8858 | L-.0033 | 808.3 |
| #2 | 37.54 | 1.577 | 59.64 | 66.32 | .7924 | L-.0025 | 813.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2205 | 852.1 | 69.83 | 11.31 | 7.845 | 6.375 | .1399 |
| SDev | .0013 | 2.8 | .18 | .03 | 1.901 | .053 | .0155 |
| %RSD | .5714 | .3279 | .2557 | .2282 | 24.24 | .8291 | 11.08 |
| #1 | .2214 | 850.1 | 69.70 | 11.29 | 6.500 | 6.338 | .1289 |
| #2 | .2196 | 854.1 | 69.96 | 11.32 | 9.189 | 6.413 | .1509 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.203 | .3222 | 44.83 | .8903 | .8208 | 1.327 |
| SDev | .026 | .0205 | .00 | .0038 | .0438 | .006 |
| %RSD | 2.158 | 6.355 | .0105 | .4303 | 5.336 | .4252 |
| #1 | 1.185 | .3077 | 44.83 | .8930 | .8518 | 1.323 |
| #2 | 1.222 | .3366 | 44.82 | .8876 | .7898 | 1.331 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-001PS Operator: EQ
Run Time: 10/30/97 00:04:37
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3247 | 7.954 | 4.652 | 5.631 | 17.36 | 4.439 | 4.621 |
| SDev | .0012 | .028 | .007 | .014 | .05 | .039 | .020 |
| %RSD | .3657 | .3581 | .1612 | .2541 | .3027 | .8821 | .4320 |
| #1 | .3256 | 7.974 | 4.647 | 5.621 | 17.33 | 4.412 | 4.607 |
| #2 | .3239 | 7.934 | 4.657 | 5.641 | 17.40 | 4.467 | 4.636 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 40.71 | 5.318 | 58.98 | 68.30 | 4.809 | 4.242 | 722.3 |
| SDev | .09 | .011 | .01 | .09 | .039 | .010 | 1.7 |
| %RSD | .2311 | .2021 | .0097 | .1372 | .8110 | .2303 | .2325 |
| #1 | 40.78 | 5.311 | 58.98 | 68.37 | 4.782 | 4.248 | 721.1 |
| #2 | 40.65 | 5.326 | 58.99 | 68.23 | 4.837 | 4.235 | 723.5 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.268 | 770.3 | 72.78 | 14.56 | 16.96 | 15.46 | 4.445 |
| SDev | .002 | 1.6 | .15 | .02 | .08 | .02 | .001 |
| %RSD | .0446 | .2051 | .2116 | .1121 | .4682 | .1024 | .0300 |
| #1 | 4.267 | 769.2 | 72.67 | 14.55 | 16.90 | 15.45 | 4.446 |
| #2 | 4.270 | 771.4 | 72.89 | 14.57 | 17.01 | 15.48 | 4.444 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.480 | 4.464 | 47.21 | 5.216 | 4.732 | 5.572 |
| SDev | .003 | .002 | .10 | .018 | .032 | .013 |
| %RSD | .0633 | .0413 | .2190 | .3374 | .6773 | .2279 |
| #1 | 5.478 | 4.465 | 47.14 | 5.228 | 4.710 | 5.581 |
| #2 | 5.483 | 4.463 | 47.29 | 5.203 | 4.755 | 5.563 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-002 Operator: EQ
Run Time: 10/30/97 00:08:28
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0349 | .3738 | L.0002 | .1658 | .0795 | .0587 | L-.0309 |
| SDev | .0027 | .0013 | .0053 | .0017 | .0056 | .0187 | .0363 |
| %RSD | 7.620 | .3343 | 2489. | 1.052 | 7.027 | 31.81 | 117.6 |
| #1 | L-.0367 | .3747 | L-.0035 | .1670 | .0755 | .0719 | L-.0052 |
| #2 | L-.0330 | .3729 | L.0039 | .1645 | .0834 | L.0455 | L-.0566 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1759 | .2339 | .3185 | 116.7 | L.0439 | .0051 | 504.8 |
| SDev | .0053 | .0004 | .0016 | .3 | .0037 | .0000 | 1.0 |
| %RSD | 3.007 | .1563 | .5130 | .2491 | 8.487 | .1480 | .1894 |
| #1 | .1721 | .2341 | .3196 | 116.9 | L.0466 | .0051 | 504.1 |
| #2 | .1796 | .2336 | .3173 | 116.5 | L.0413 | .0051 | 505.5 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0841 | 165.3 | 288.0 | 3.674 | 47.64 | 2.187 | .2425 |
| SDev | .0002 | .2 | .4 | .002 | .04 | .020 | .0028 |
| %RSD | .2715 | .1352 | .1402 | .0448 | .0789 | .9015 | 1.156 |
| #1 | .0842 | 165.1 | 287.7 | 3.673 | 47.67 | 2.173 | .2444 |
| #2 | .0839 | 165.5 | 288.3 | 3.676 | 47.62 | 2.201 | .2405 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2896 | .0515 | 83.71 | .3942 | L.0094 | 1.271 |
| SDev | .0000 | .0036 | .02 | .0019 | .0048 | .001 |
| %RSD | .0017 | 7.055 | .0293 | .4776 | 51.31 | .1115 |
| #1 | .2896 | .0541 | 83.73 | .3955 | L.0060 | 1.272 |
| #2 | .2896 | L.0490 | 83.69 | .3928 | L.0129 | 1.270 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 00:16:07 AM page 1

Method: ICP1 Sample Name: L72972515-003 Operator: EQ
Run Time: 10/30/97 00:12:19
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0237 | .1779 | L.0000 | .0633 | .0419 | .0553 | L-.0306 |
| SDev | .0016 | .0004 | .0015 | .0022 | .0002 | .0035 | .0024 |
| %RSD | 6.633 | .2067 | 6254. | 3.411 | .4547 | 6.275 | 7.750 |
| #1 | L-.0226 | .1781 | L-.0010 | .0648 | .0421 | .0578 | L-.0323 |
| #2 | L-.0248 | .1776 | L.0011 | .0618 | .0418 | .0529 | L-.0289 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0608 | .1195 | .1854 | 35.28 | L.0343 | L.0011 | 515.9 |
| SDev | .0067 | .0005 | .0006 | .02 | .0056 | .0000 | 2.9 |
| %RSD | 11.05 | .3999 | .3515 | .0696 | 16.41 | .1286 | .5624 |
| #1 | .0561 | .1198 | .1850 | 35.26 | L.0303 | L.0011 | 513.9 |
| #2 | .0656 | .1191 | .1859 | 35.30 | L.0383 | L.0011 | 518.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0573 | 97.93 | 315.0 | 6.179 | 10.08 | 1.756 | .1586 |
| SDev | .0018 | .50 | 1.8 | .027 | .13 | .002 | .0005 |
| %RSD | 3.112 | .5119 | .5576 | .4385 | 1.327 | .1098 | .3302 |
| #1 | .0586 | 97.58 | 313.8 | 6.160 | 9.981 | 1.757 | .1582 |
| #2 | .0561 | 98.29 | 316.2 | 6.198 | 10.17 | 1.754 | .1590 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0613 | L.0205 | 43.32 | .1745 | L.0341 | .7685 |
| SDev | .0087 | .0005 | .17 | .0005 | .0081 | .0030 |
| %RSD | 14.12 | 2.233 | .4035 | .2945 | 23.90 | .3850 |
| #1 | .0675 | L.0202 | 43.19 | .1748 | L.0399 | .7664 |
| #2 | .0552 | L.0208 | 43.44 | .1741 | L.0283 | .7706 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 00:19:58 AM page 1

Method: ICP1 Sample Name: L72972515-004 Operator: EQ
Run Time: 10/30/97 00:16:10
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb * | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0339 | .3087 | L-.0025 | .1343 | .0522 | L.0143 | L-.0262 |
| SDev | .0032 | .0015 | .0006 | .0004 | .0181 | .0120 | .0091 |
| %RSD | 9.450 | .5017 | 22.55 | .3050 | 34.71 | 83.97 | 34.90 |
| #1 | L-.0361 | .3098 | L-.0021 | .1346 | .0394 | L.0228 | L-.0197 |
| #2 | L-.0316 | .3076 | L-.0029 | .1340 | .0650 | L.0058 | L-.0327 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1542 | .1657 | .3020 | 90.61 | L.0075 | L.0035 | 488.1 |
| SDev | .0000 | .0028 | .0004 | .03 | .0038 | .0001 | 1.8 |
| %RSD | .0156 | 1.664 | .1436 | .0354 | 50.53 | 1.485 | .3648 |
| #1 | .1542 | .1638 | .3017 | 90.63 | L.0102 | L.0036 | 486.8 |
| #2 | .1542 | .1677 | .3023 | 90.59 | L.0048 | L.0035 | 489.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0628 | 137.6 | 275.3 | 3.281 | 34.46 | 2.006 | .1916 |
| SDev | .0002 | .4 | 1.0 | .008 | .06 | .017 | .0029 |
| %RSD | .3102 | .3051 | .3524 | .2411 | .1698 | .8381 | 1.514 |
| #1 | .0626 | 137.3 | 274.6 | 3.275 | 34.42 | 1.994 | .1937 |
| #2 | .0629 | 137.9 | 275.9 | 3.287 | 34.50 | 2.018 | .1896 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1744 | L.0259 | 76.93 | .3204 | L.0426 | 1.335 |
| SDev | .0035 | .0036 | .16 | .0008 | .0109 | .000 |
| %RSD | 1.985 | 14.08 | .2077 | .2661 | 25.52 | .0212 |
| #1 | .1720 | L.0233 | 76.81 | .3210 | .0502 | 1.336 |
| #2 | .1769 | L.0284 | 77.04 | .3198 | L.0349 | 1.335 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 00:23:48 AM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 00:20:00
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5171 | 4.861 | 4.959 | 5.007 | 5.143 | 4.879 | 4.996 |
| SDev | .0011 | .062 | .036 | .037 | .026 | .042 | .011 |
| %RSD | .2206 | 1.269 | .7217 | .7331 | .4982 | .8687 | .2193 |
| #1 | .5163 | 4.904 | 4.984 | 5.033 | 5.161 | 4.909 | 4.988 |
| #2 | .5179 | 4.817 | 4.933 | 4.981 | 5.125 | 4.849 | 5.003 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.918 | 4.966 | 4.998 | 4.911 | 4.984 | 4.939 | 10.44 |
| SDev | .061 | .029 | .026 | .005 | .044 | .044 | .05 |
| %RSD | 1.244 | .5837 | .5148 | .1062 | .8882 | .8926 | .4633 |
| #1 | 4.961 | 4.987 | 5.017 | 4.914 | 5.015 | 4.970 | 10.47 |
| #2 | 4.875 | 4.946 | 4.980 | 4.907 | 4.952 | 4.908 | 10.41 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.052 | 4.934 | 10.01 | 4.984 | 9.419 | 10.45 | 5.098 |
| SDev | .031 | .039 | .07 | .037 | .702 | .07 | .046 |
| %RSD | .6168 | .7944 | .7467 | .7430 | 7.453 | .6288 | .9101 |
| #1 | 5.074 | 4.962 | 10.07 | 5.010 | Q8.923 | 10.50 | 5.131 |
| #2 | 5.030 | 4.907 | 9.962 | 4.958 | 9.916 | 10.41 | 5.066 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.966 | 5.053 | 4.858 | 4.939 | 5.071 | 5.030 |
| SDev | .041 | .031 | .039 | .059 | .021 | .049 |
| %RSD | .8343 | .6201 | .7940 | 1.190 | .4216 | .9752 |
| #1 | 4.995 | 5.075 | 4.885 | 4.980 | 5.086 | 5.064 |
| #2 | 4.936 | 5.031 | 4.831 | 4.897 | 5.056 | 4.995 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 00:23:52
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0053 | -.0008 | .0017 | -.0032 | -.0143 | -.0147 | .0045 |
| SDev | .0037 | .0003 | .0005 | .0015 | .0020 | .0187 | .0000 |
| %RSD | 70.89 | 31.02 | 28.04 | 46.84 | 14.32 | 127.5 | .6301 |
| #1 | -.0026 | -.0007 | .0021 | -.0022 | -.0157 | -.0014 | .0045 |
| #2 | -.0079 | -.0010 | .0014 | -.0043 | -.0128 | -.0279 | .0045 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0175 | -.0006 | -.0004 | -.0005 | .0240 | -.0004 | .0098 |
| SDev | .0008 | .0057 | .0011 | .0196 | .0281 | .0000 | .0020 |
| %RSD | 4.798 | 957.6 | 263.9 | 4185. | 117.1 | .1818 | 20.20 |
| #1 | -.0180 | -.0047 | -.0012 | .0134 | .0438 | -.0004 | .0112 |
| #2 | -.0169 | .0035 | .0004 | -.0143 | .0041 | -.0004 | .0084 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0020 | .0040 | -.0040 | -.0005 | -.2600 | .0102 | -.0008 |
| SDev | .0004 | .0007 | .0038 | .0003 | .2173 | .0331 | .0003 |
| %RSD | 21.80 | 18.08 | 94.18 | 53.19 | 83.57 | 325.3 | 36.73 |
| #1 | -.0017 | .0035 | -.0066 | -.0007 | -.1064 | .0336 | -.0006 |
| #2 | -.0023 | .0045 | -.0013 | -.0003 | -.4137 | -.0132 | -.0010 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0037 | -.0026 | .0161 | -.0004 | .0038 | .0015 |
| SDev | .0017 | .0014 | .0100 | .0000 | .0014 | .0000 |
| %RSD | 47.03 | 53.06 | 62.19 | .0420 | 35.55 | .3599 |
| #1 | .0049 | -.0016 | .0231 | -.0004 | .0029 | .0015 |
| #2 | .0025 | -.0035 | .0090 | -.0004 | .0048 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-005 Operator: EQ
Run Time: 10/30/97 00:27:43
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb * | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0310 | .7426 | L.0044 | .1527 | .0685 | L.0026 | L-.0509 |
| SDev | .0042 | .0008 | .0017 | .0009 | .0267 | .0226 | .0106 |
| %RSD | 13.70 | .1087 | 39.02 | .5778 | 38.92 | 873.9 | 20.80 |
| #1 | L-.0280 | .7432 | .0056 | .1521 | .0873 | L-.0134 | L-.0434 |
| #2 | L-.0340 | .7420 | L.0032 | .1533 | .0496 | L.0185 | L-.0584 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0645 | .1357 | .3973 | 113.5 | L.0237 | L.0043 | 25.57 |
| SDev | .0021 | .0081 | .0026 | .2 | .0077 | .0001 | .15 |
| %RSD | 3.227 | 5.989 | .6615 | .1782 | 32.32 | 1.410 | .6000 |
| #1 | .0659 | .1414 | .3954 | 113.3 | L.0291 | L.0044 | 25.46 |
| #2 | .0630 | .1299 | .3992 | 113.6 | L.0183 | L.0043 | 25.68 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0697 | 141.2 | 30.38 | 2.018 | 8.911 | 1.192 | .2400 |
| SDev | .0017 | .7 | .12 | .008 | .468 | .002 | .0003 |
| %RSD | 2.451 | .4846 | .3892 | .4134 | 5.252 | .1611 | .1308 |
| #1 | .0685 | 140.7 | 30.29 | 2.012 | 9.242 | 1.193 | .2398 |
| #2 | .0709 | 141.7 | 30.46 | 2.024 | 8.580 | 1.190 | .2403 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0526 | L.0052 | 40.74 | .1107 | L.0084 | .8414 |
| SDev | .0035 | .0009 | .12 | .0001 | .0109 | .0031 |
| %RSD | 6.572 | 17.43 | .2961 | .1391 | 129.2 | .3702 |
| #1 | .0502 | L.0046 | 40.65 | .1108 | L.0161 | .8392 |
| #2 | .0550 | L.0059 | 40.82 | .1106 | L.0007 | .8436 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-006 Operator: EQ
Run Time: 10/30/97 00:31:35
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0362 | .5055 | L.0031 | .1915 | .1044 | L.0402 | L-.0243 |
| SDev | .0022 | .0019 | .0009 | .0015 | .0177 | .0469 | .0321 |
| %RSD | 5.973 | .3672 | 28.19 | .7796 | 16.94 | 116.5 | 131.7 |
| #1 | L-.0377 | .5068 | L.0025 | .1925 | .1169 | L.0071 | L-.0470 |
| #2 | L-.0346 | .5042 | L.0037 | .1904 | .0919 | .0734 | L-.0017 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5014 | .2013 | .5526 | 143.5 | L.0298 | .0056 | 532.3 |
| SDev | .0045 | .0069 | .0010 | .2 | .0337 | .0001 | 2.9 |
| %RSD | .8987 | 3.447 | .1771 | .1300 | 113.4 | 1.004 | .5502 |
| #1 | .5046 | .1964 | .5533 | 143.3 | L.0059 | .0055 | 530.2 |
| #2 | .4982 | .2062 | .5519 | 143.6 | L.0536 | .0056 | 534.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0734 | 159.9 | 300.8 | 3.820 | 56.01 | 2.782 | .2902 |
| SDev | .0011 | .8 | 1.7 | .009 | .04 | .034 | .0016 |
| %RSD | 1.559 | .4826 | .5567 | .2326 | .0671 | 1.228 | .5593 |
| #1 | .0742 | 159.4 | 299.6 | 3.814 | 56.04 | 2.806 | .2890 |
| #2 | .0726 | 160.5 | 302.0 | 3.826 | 55.98 | 2.757 | .2913 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3341 | L.0396 | 74.17 | .4195 | L.0358 | 1.897 |
| SDev | .0156 | .0050 | .17 | .0003 | .0015 | .002 |
| %RSD | 4.667 | 12.64 | .2313 | .0702 | 4.149 | .1285 |
| #1 | .3451 | L.0361 | 74.05 | .4197 | L.0348 | 1.895 |
| #2 | .3231 | L.0431 | 74.29 | .4193 | L.0369 | 1.899 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972515-008 Operator: EQ
Run Time: 10/30/97 00:35:26
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As * | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.2457 | 3.769 | .2884 | 4.758 | 8.118 | .1429 | L-.0336 |
| SDev | .0021 | .005 | .0049 | .021 | .059 | .0465 | .0029 |
| %RSD | .8522 | .1244 | 1.690 | .4395 | .7254 | 32.54 | 8.769 |
| #1 | L-.2442 | 3.772 | .2918 | 4.743 | 8.077 | .1100 | L-.0315 |
| #2 | L-.2472 | 3.766 | .2849 | 4.773 | 8.160 | .1758 | L-.0356 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.733 | 1.934 | 35.79 | 80.01 | .2210 | L-.0005 | 455.6 |
| SDev | .007 | .018 | .17 | .10 | .0403 | .0000 | 3.2 |
| %RSD | .1177 | .9149 | .4806 | .1214 | 18.23 | .1822 | .7001 |
| #1 | 5.737 | 1.922 | 35.67 | 79.94 | .1925 | L-.0005 | 453.4 |
| #2 | 5.728 | 1.947 | 35.91 | 80.08 | .2495 | L-.0005 | 457.9 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2069 | H1299. | 99.82 | 15.93 | 11.33 | 8.834 | .2764 |
| SDev | .0004 | 7. | .62 | .08 | .07 | .044 | .0003 |
| %RSD | .2070 | .5536 | .6201 | .4786 | .6272 | .5009 | .1216 |
| #1 | .2066 | H1294. | 99.38 | 15.88 | 11.38 | 8.866 | .2767 |
| #2 | .2072 | H1304. | 100.3 | 15.98 | 11.27 | 8.803 | .2762 |
| Errors | LC Pass | LC High | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 2.220 | .6967 | 78.82 | .6502 | .3396 | 2.426 |
| SDev | .007 | .0041 | .26 | .0005 | .0079 | .005 |
| %RSD | .3130 | .5825 | .3255 | .0812 | 2.335 | .1868 |
| #1 | 2.225 | .6938 | 78.64 | .6506 | .3452 | 2.423 |
| #2 | 2.215 | .6995 | 79.01 | .6498 | .3340 | 2.429 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-009 Operator: EQ
Run Time: 10/30/97 00:39:17
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0207 | .1073 | L.0016 | .0611 | .0427 | L.0186 | L.0135 |
| SDev | .0015 | .0002 | .0012 | .0041 | .0129 | .0182 | .0151 |
| %RSD | 7.387 | .1730 | 74.26 | 6.738 | 30.23 | 98.10 | 112.4 |
| #1 | L-.0196 | .1074 | L.0024 | .0640 | .0518 | L.0315 | L.0028 |
| #2 | L-.0218 | .1072 | L.0008 | .0582 | .0335 | L.0057 | L.0242 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1051 | .0871 | .3041 | 36.61 | L.0433 | L.0011 | 579.1 |
| SDev | .0031 | .0063 | .0007 | .28 | .0057 | .0001 | 5.4 |
| %RSD | 2.907 | 7.279 | .2272 | .7759 | 13.22 | 11.56 | .9355 |
| #1 | .1073 | .0916 | .3036 | 36.41 | L.0474 | L.0012 | 575.3 |
| #2 | .1030 | .0826 | .3046 | 36.81 | L.0393 | L.0010 | 583.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0397 | 83.99 | 323.7 | 4.132 | 14.97 | 1.551 | .1078 |
| SDev | .0007 | .74 | 2.8 | .035 | .10 | .000 | .0012 |
| %RSD | 1.786 | .8864 | .8778 | .8350 | .6978 | .0304 | 1.136 |
| #1 | L.0402 | 83.47 | 321.7 | 4.108 | 14.90 | 1.551 | .1069 |
| #2 | L.0392 | 84.52 | 325.7 | 4.156 | 15.05 | 1.550 | .1086 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0806 | L.0160 | 48.61 | .2346 | L.0391 | 1.013 |
| SDev | .0052 | .0023 | .39 | .0011 | .0083 | .008 |
| %RSD | 6.452 | 14.19 | .8051 | .4716 | 21.24 | .7829 |
| #1 | .0843 | L.0176 | 48.34 | .2338 | L.0332 | 1.007 |
| #2 | .0770 | L.0144 | 48.89 | .2354 | L.0449 | 1.019 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-010 Operator: EQ
Run Time: 10/30/97 00:43:08
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0218 | .4066 | L-.0033 | .1545 | .0408 | L.0068 | L-.0196 |
| SDev | .0052 | .0015 | .0014 | .0011 | .0034 | .0022 | .0274 |
| %RSD | 23.88 | .3605 | 43.28 | .7026 | 8.432 | 31.93 | 139.7 |
| #1 | L-.0181 | .4056 | L-.0043 | .1553 | .0432 | L.0053 | L-.0002 |
| #2 | L-.0255 | .4076 | L-.0023 | .1537 | .0384 | L.0083 | L-.0390 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0358 | .1164 | .3105 | 104.5 | L.0209 | L.0031 | 92.53 |
| SDev | .0022 | .0000 | .0007 | .7 | .0168 | .0000 | .70 |
| %RSD | 6.165 | .0038 | .2224 | .6338 | 80.36 | .0007 | .7520 |
| #1 | .0374 | .1164 | .3109 | 104.0 | L.0090 | L.0031 | 92.04 |
| #2 | .0342 | .1164 | .3100 | 105.0 | L.0328 | L.0031 | 93.02 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0361 | 94.56 | 71.26 | 1.258 | 19.25 | 2.209 | .2044 |
| SDev | .0011 | .65 | .51 | .011 | .16 | .011 | .0000 |
| %RSD | 3.203 | .6851 | .7143 | .8836 | .8466 | .5001 | .0044 |
| #1 | L.0369 | 94.11 | 70.90 | 1.250 | 19.36 | 2.201 | .2044 |
| #2 | L.0352 | 95.02 | 71.62 | 1.266 | 19.13 | 2.217 | .2044 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1151 | L-.0003 | 57.01 | .1209 | L.0167 | 1.814 |
| SDev | .0034 | .0014 | .42 | .0007 | .0028 | .013 |
| %RSD | 2.998 | 543.5 | .7431 | .5556 | 16.83 | .7444 |
| #1 | .1126 | L.0007 | 56.71 | .1204 | L.0147 | 1.804 |
| #2 | .1175 | L-.0012 | 57.31 | .1213 | L.0187 | 1.823 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972515-011 Operator: EQ
Run Time: 10/30/97 00:46:58
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0404 | .6661 | L-.0055 | .2417 | .0305 | .0685 | L-.0525 |
| SDev | .0015 | .0064 | .0018 | .0043 | .0065 | .0279 | .0038 |
| %RSD | 3.629 | .9543 | 32.97 | 1.793 | 21.22 | 40.67 | 7.331 |
| #1 | L-.0415 | .6705 | L-.0068 | .2448 | .0259 | L.0488 | L-.0552 |
| #2 | L-.0394 | .6616 | L-.0042 | .2387 | .0350 | .0882 | L-.0497 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1190 | .2155 | .3365 | 187.5 | L.0377 | .0074 | 472.3 |
| SDev | .0020 | .0055 | .0025 | 1.2 | .0242 | .0000 | .7 |
| %RSD | 1.680 | 2.552 | .7368 | .6453 | 64.27 | .0251 | .1379 |
| #1 | .1204 | .2194 | .3382 | 188.3 | L.0548 | .0074 | 471.9 |
| #2 | .1176 | .2116 | .3347 | 186.6 | L.0206 | .0074 | 472.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0703 | 178.8 | 249.7 | 3.444 | 73.10 | 3.462 | .3598 |
| SDev | .0013 | .0 | .3 | .005 | .61 | .043 | .0007 |
| %RSD | 1.911 | .0042 | .1395 | .1542 | .8345 | 1.235 | .1907 |
| #1 | .0694 | 178.8 | 249.5 | 3.447 | 73.54 | 3.492 | .3593 |
| #2 | .0713 | 178.8 | 250.0 | 3.440 | 72.67 | 3.432 | .3603 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4388 | L.0366 | 104.8 | .4830 | L.0281 | 2.365 |
| SDev | .0121 | .0018 | .3 | .0047 | .0267 | .014 |
| %RSD | 2.759 | 4.951 | .2390 | .9705 | 95.10 | .6065 |
| #1 | .4474 | L.0379 | 105.0 | .4863 | L.0469 | 2.375 |
| #2 | .4303 | L.0354 | 104.6 | .4796 | L.0092 | 2.355 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972515-012 Operator: EQ
Run Time: 10/30/97 00:50:49
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0219 | .3487 | L.0031 | .1010 | .0779 | L.0104 | L-.0078 |
| SDev | .0016 | .0018 | .0021 | .0003 | .0040 | .0571 | .0623 |
| %RSD | 7.469 | .5283 | 68.71 | .2512 | 5.085 | 550.8 | 797.9 |
| #1 | L-.0231 | .3500 | L.0046 | .1012 | .0751 | L-.0300 | L.0362 |
| #2 | L-.0208 | .3474 | L.0016 | .1008 | .0807 | .0508 | L-.0519 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5533 | .1033 | .6574 | 65.98 | L.0137 | L.0020 | 447.8 |
| SDev | .0014 | .0001 | .0019 | .02 | .0414 | .0001 | 2.6 |
| %RSD | .2498 | .0971 | .2835 | .0243 | 301.8 | 3.235 | .5711 |
| #1 | .5543 | .1032 | .6561 | 65.99 | L-.0156 | L.0020 | 446.0 |
| #2 | .5523 | .1034 | .6588 | 65.97 | L.0430 | L.0020 | 449.6 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0335 | 73.32 | 271.1 | 2.058 | 13.33 | 3.184 | .1587 |
| SDev | .0003 | .36 | 1.4 | .005 | .31 | .019 | .0016 |
| %RSD | .7317 | .4923 | .5178 | .2472 | 2.319 | .6039 | 1.030 |
| #1 | L.0337 | 73.06 | 270.1 | 2.054 | 13.55 | 3.198 | .1575 |
| #2 | L.0333 | 73.57 | 272.1 | 2.062 | 13.11 | 3.171 | .1598 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0768 | L.0072 | 48.78 | .2064 | L.0456 | 1.119 |
| SDev | .0035 | .0073 | .23 | .0006 | .0054 | .004 |
| %RSD | 4.509 | 100.6 | .4816 | .2980 | 11.89 | .3522 |
| #1 | .0744 | L.0124 | 48.61 | .2068 | L.0494 | 1.116 |
| #2 | .0793 | L.0021 | 48.94 | .2059 | L.0417 | 1.122 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972515-013 Operator: EQ
Run Time: 10/30/97 00:54:40
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0333 | .5492 | L.0026 | .1931 | .0430 | L.0295 | L-.0720 |
| SDev | .0000 | .0009 | .0018 | .0004 | .0029 | .0306 | .0216 |
| %RSD | .1398 | .1623 | 69.49 | .2349 | 6.684 | 103.9 | 29.95 |
| #1 | L-.0333 | .5498 | L.0013 | .1934 | .0450 | .0511 | L-.0872 |
| #2 | L-.0333 | .5485 | L.0039 | .1928 | .0410 | L.0078 | L-.0567 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1104 | .1764 | .3623 | 147.5 | L.0299 | .0054 | 455.5 |
| SDev | .0007 | .0034 | .0002 | .4 | .0245 | .0001 | 2.4 |
| %RSD | .6044 | 1.958 | .0575 | .2568 | 81.78 | 1.044 | .5240 |
| #1 | .1108 | .1739 | .3621 | 147.3 | L.0126 | .0054 | 453.8 |
| #2 | .1099 | .1788 | .3624 | 147.8 | L.0473 | .0054 | 457.2 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0628 | 142.3 | 251.3 | 2.845 | 58.46 | 2.798 | .2868 |
| SDev | .0008 | .7 | 1.2 | .012 | .23 | .024 | .0014 |
| %RSD | 1.315 | .4976 | .4677 | .4314 | .3931 | .8588 | .5016 |
| #1 | .0622 | 141.8 | 250.4 | 2.837 | 58.63 | 2.781 | .2858 |
| #2 | .0634 | 142.8 | 252.1 | 2.854 | 58.30 | 2.815 | .2878 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3436 | L.0296 | 106.1 | .4660 | L.0387 | 2.119 |
| SDev | .0017 | .0055 | .4 | .0004 | .0129 | .005 |
| %RSD | .5027 | 18.42 | .3871 | .0975 | 33.36 | .2334 |
| #1 | .3424 | L.0335 | 105.8 | .4657 | L.0478 | 2.116 |
| #2 | .3449 | L.0258 | 106.4 | .4663 | L.0295 | 2.123 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 01:02:19 AM page 1

Method: ICP1 Sample Name: L72972515-014 Operator: EQ
Run Time: 10/30/97 00:58:31
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0204 | .1170 | L.0006 | .0652 | .0588 | L-.0041 | L.0015 |
| SDev | .0052 | .0006 | .0032 | .0063 | .0165 | .0321 | .0005 |
| %RSD | 25.39 | .4857 | 574.6 | 9.638 | 28.02 | 788.7 | 36.08 |
| #1 | L-.0168 | .1166 | L.0028 | .0697 | .0704 | L-.0268 | L.0019 |
| #2 | L-.0241 | .1174 | L-.0017 | .0608 | .0471 | L.0187 | L.0011 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0885 | .0717 | .2429 | 35.92 | L.0542 | L.0009 | 540.4 |
| SDev | .0027 | .0035 | .0040 | .50 | .0095 | .0001 | 7.1 |
| %RSD | 3.037 | 4.847 | 1.635 | 1.402 | 17.43 | 5.630 | 1.323 |
| #1 | .0904 | .0742 | .2401 | 35.56 | L.0475 | L.0010 | 535.4 |
| #2 | .0866 | .0692 | .2457 | 36.27 | .0609 | L.0009 | 545.5 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0261 | 77.64 | 299.4 | 3.545 | 13.85 | 1.774 | .1062 |
| SDev | .0018 | 1.07 | 4.0 | .044 | .86 | .001 | .0025 |
| %RSD | 7.035 | 1.379 | 1.343 | 1.230 | 6.185 | .0544 | 2.391 |
| #1 | L.0274 | 76.88 | 296.6 | 3.514 | 14.45 | 1.773 | .1080 |
| #2 | L.0248 | 78.39 | 302.2 | 3.575 | 13.24 | 1.775 | .1044 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0694 | L.0160 | 48.64 | .2062 | L.0310 | 1.158 |
| SDev | .0000 | .0041 | .66 | .0026 | .0211 | .016 |
| %RSD | .0178 | 25.55 | 1.359 | 1.235 | 68.21 | 1.373 |
| #1 | .0694 | L.0189 | 48.17 | .2044 | L.0460 | 1.147 |
| #2 | .0694 | L.0131 | 49.10 | .2080 | L.0160 | 1.169 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 01:06:11 AM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 01:02:22
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5156 | 4.803 | 4.951 | 5.003 | 5.152 | 4.902 | 5.038 |
| SDev | .0007 | .038 | .033 | .029 | .045 | .070 | .015 |
| %RSD | .1412 | .7909 | .6666 | .5790 | .8680 | 1.438 | .2901 |
| #1 | .5161 | 4.776 | 4.927 | 4.982 | 5.120 | 4.952 | 5.049 |
| #2 | .5151 | 4.830 | 4.974 | 5.023 | 5.184 | 4.852 | 5.028 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.883 | 4.978 | 4.992 | 4.913 | 4.932 | 4.918 | 10.45 |
| SDev | .036 | .026 | .037 | .001 | .027 | .029 | .04 |
| %RSD | .7423 | .5300 | .7509 | .0154 | .5552 | .5880 | .3777 |
| #1 | 4.858 | 4.959 | 4.965 | 4.913 | 4.913 | 4.898 | 10.42 |
| #2 | 4.909 | 4.996 | 5.018 | 4.914 | 4.952 | 4.939 | 10.48 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.047 | 4.918 | 10.05 | 4.969 | 9.490 | 10.38 | 5.080 |
| SDev | .028 | .035 | .07 | .035 | .418 | .12 | .035 |
| %RSD | .5532 | .7174 | .6786 | .7012 | 4.403 | 1.170 | .6907 |
| #1 | 5.027 | 4.894 | 9.999 | 4.944 | 9.786 | 10.29 | 5.055 |
| #2 | 5.067 | 4.943 | 10.09 | 4.994 | 9.195 | 10.46 | 5.105 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.933 | 5.039 | 4.812 | 4.881 | 5.100 | 4.988 |
| SDev | .040 | .042 | .035 | .037 | .011 | .036 |
| %RSD | .8051 | .8389 | .7186 | .7518 | .2178 | .7246 |
| #1 | 4.904 | 5.009 | 4.788 | 4.855 | 5.093 | 4.962 |
| #2 | 4.961 | 5.068 | 4.837 | 4.907 | 5.108 | 5.013 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 01:06:14
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0060 | -.0001 | .0010 | -.0015 | .0036 | -.0015 | .0101 |
| SDev | .0027 | .0003 | .0013 | .0017 | .0272 | .0095 | .0077 |
| %RSD | 44.08 | 317.3 | 126.8 | 114.5 | 761.3 | 622.0 | 76.44 |
| #1 | -.0042 | -.0003 | .0020 | -.0027 | -.0156 | .0052 | .0156 |
| #2 | -.0079 | .0001 | .0001 | -.0003 | .0228 | -.0082 | .0046 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0146 | .0080 | .0000 | -.0047 | .0041 | .0003 | .0126 |
| SDev | .0016 | .0022 | .0019 | .0356 | .0038 | .0001 | .0020 |
| %RSD | 11.21 | 26.80 | 6670. | 758.9 | 92.26 | 18.76 | 15.68 |
| #1 | -.0158 | .0065 | .0013 | -.0299 | .0068 | .0003 | .0140 |
| #2 | -.0135 | .0096 | -.0013 | .0205 | .0014 | .0003 | .0112 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0000 | .0068 | -.0106 | .0002 | -.7150 | -.0068 | -.0017 |
| SDev | .0002 | .0025 | .0187 | .0003 | .3510 | .0005 | .0013 |
| %RSD | 6676. | 36.70 | 176.8 | 185.6 | 49.09 | 7.061 | 74.57 |
| #1 | -.0002 | .0050 | -.0238 | .0004 | -.4668 | -.0071 | -.0026 |
| #2 | .0001 | .0086 | .0026 | -.0001 | -.9632 | -.0065 | -.0008 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0110 | .0035 | -.0064 | -.0000 | -.0126 | .0007 |
| SDev | .0087 | .0009 | .0055 | .0001 | .0027 | .0010 |
| %RSD | 78.55 | 25.63 | 85.03 | 30350. | 21.42 | 141.0 |
| #1 | .0049 | .0029 | -.0026 | .0001 | -.0107 | .0000 |
| #2 | .0171 | .0042 | -.0103 | -.0001 | -.0145 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: CRI Operator: EQ
Run Time: 10/30/97 01:10:06
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0172 | .3812 | .0092 | Q.0102 | .0823 | .2021 | .2151 |
| SDev | .0021 | .0007 | .0034 | .0009 | .0061 | .0168 | .0311 |
| %RSD | 12.30 | .1770 | 36.69 | 8.632 | 7.395 | 8.305 | 14.45 |
| #1 | .0187 | .3807 | Q.0068 | Q.0096 | .0866 | .1902 | .1932 |
| #2 | Q.0157 | .3817 | .0116 | Q.0108 | Q.0780 | .2140 | .2371 |
| Errors | QC Pass | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass | QC Pass |
| Value | .0200 | .4000 | .0100 | .0200 | .1000 | .2000 | .2000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.0259 | .0692 | .0392 | .3658 | Q.1528 | .0090 | 10.45 |
| SDev | .0031 | .0009 | .0000 | .0231 | .0281 | .0001 | .06 |
| %RSD | 11.93 | 1.371 | .0032 | 6.324 | 18.39 | 1.334 | .5777 |
| #1 | Q.0281 | .0699 | .0392 | .3494 | .1330 | .0089 | 10.41 |
| #2 | Q.0237 | .0686 | .0392 | .3822 | Q.1727 | .0091 | 10.49 |
| Errors | QC Fail | QC Pass | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass |
| Value | .0500 | .0800 | .0400 | .4000 | .1200 | .0100 | 10.00 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0974 | .1845 | 10.01 | .0281 | 9.801 | 10.32 | .1000 |
| SDev | .0011 | .0000 | .07 | .0002 | .205 | .05 | .0001 |
| %RSD | 1.120 | .0076 | .7302 | .6231 | 2.089 | .4429 | .0871 |
| #1 | .0966 | .1845 | 9.957 | .0282 | 9.656 | 10.35 | .1000 |
| #2 | .0982 | .1845 | 10.06 | .0279 | 9.945 | 10.28 | .1001 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .2000 | 10.00 | .0300 | 10.00 | 10.00 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0903 | .1026 | .1901 | .0947 | .1927 | .1036 |
| SDev | .0035 | .0046 | .0045 | .0003 | .0027 | .0021 |
| %RSD | 3.845 | 4.432 | 2.359 | .3345 | 1.426 | 1.997 |
| #1 | .0928 | .0994 | .1869 | .0945 | .1946 | .1021 |
| #2 | .0878 | .1058 | .1933 | .0950 | .1907 | .1050 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .1000 | .2000 | .1000 | .2000 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

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Method: ICP1 Sample Name: ISA Operator: EQ
Run Time: 10/30/97 01:13:58
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0404 | -.0141 | -.0009 | -.0009 | -.0676 | .1070 | -.0077 |
| SDev | .0053 | .0008 | .0008 | .0039 | .0128 | .0010 | .0214 |
| %RSD | 13.22 | 5.594 | 81.56 | 418.0 | 18.90 | .9091 | 278.1 |
| #1 | -.0366 | -.0136 | -.0015 | .0018 | -.0586 | .1077 | .0074 |
| #2 | -.0442 | -.0147 | -.0004 | -.0037 | -.0767 | .1063 | -.0228 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | | |
| Range | | | | | | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0292 | -.0040 | -.0023 | 471.0 | .0230 | -.0007 | 464.0 |
| SDev | .0036 | .0096 | .0011 | 5.1 | .0036 | .0001 | 3.6 |
| %RSD | 12.23 | 240.7 | 45.34 | 1.085 | 15.53 | 7.114 | .7780 |
| #1 | -.0267 | .0028 | -.0016 | 467.4 | .0204 | -.0007 | 461.4 |
| #2 | -.0317 | -.0107 | -.0031 | 474.6 | .0255 | -.0008 | 466.5 |
| Errors | NOCHECK | NOCHECK | NOCHECK | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | | | | 500.0 | | | 500.0 |
| Range | | | | 100.0 | | | 100.0 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0072 | 185.2 | 506.8 | -.0003 | -.2600 | .0194 | .0037 |
| SDev | .0036 | 1.5 | 4.0 | .0001 | .6769 | .0154 | .0030 |
| %RSD | 50.19 | .8344 | .7933 | 19.93 | 260.3 | 79.47 | 80.87 |
| #1 | -.0046 | 184.1 | 503.9 | -.0004 | .2186 | .0085 | .0058 |
| #2 | -.0097 | 186.2 | 509.6 | -.0003 | -.7387 | .0302 | .0016 |
| Errors | NOCHECK | QC Pass | QC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | 200.0 | 500.0 | | | | |
| Range | | 40.00 | 100.0 | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0576 | -.0000 | -.0020 | .0171 | .0171 | .0032 |
| SDev | .0017 | .0023 | .0009 | .0000 | .0025 | .0004 |
| %RSD | 2.995 | 38940. | 45.78 | .0671 | 14.43 | 11.30 |
| #1 | -.0563 | .0016 | -.0027 | .0171 | .0189 | .0029 |
| #2 | -.0588 | -.0016 | -.0014 | .0171 | .0154 | .0034 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

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Method: ICP1 Sample Name: ISB Operator: EQ
Run Time: 10/30/97 01:17:50
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.004 | .4346 | .9460 | .4515 | .8587 | .0540 | -.0205 |
| SDev | .003 | .0018 | .0001 | .0050 | .0169 | .0651 | .0002 |
| %RSD | .3174 | .4165 | .0104 | 1.110 | 1.968 | 120.5 | 1.009 |
| #1 | 1.002 | .4334 | .9459 | .4479 | .8706 | .1000 | -.0204 |
| #2 | 1.006 | .4359 | .9460 | .4550 | .8467 | .0080 | -.0207 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK |
| Value | 1.000 | .5000 | 1.000 | .5000 | 1.000 | | |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4392 | .8685 | .9488 | 485.4 | .0220 | .4600 | 476.0 |
| SDev | .0022 | .0051 | .0016 | 2.8 | .0073 | .0027 | 2.0 |
| %RSD | .5079 | .5908 | .1739 | .5713 | 33.21 | .5905 | .4283 |
| #1 | .4407 | .8721 | .9477 | 483.4 | .0169 | .4581 | 474.5 |
| #2 | .4376 | .8649 | .9500 | 487.3 | .0272 | .4620 | 477.4 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | QC Pass | QC Pass |
| Value | .5000 | 1.000 | 1.000 | 500.0 | | .5000 | 500.0 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4406 | 190.5 | 520.7 | .4444 | -.9484 | -.0017 | .4598 |
| SDev | .0002 | .7 | 2.4 | .0030 | .1713 | .0202 | .0008 |
| %RSD | .0403 | .3711 | .4701 | .6808 | 18.06 | 1178. | .1823 |
| #1 | .4404 | 190.0 | 518.9 | .4422 | -.8273 | -.0160 | .4603 |
| #2 | .4407 | 191.0 | 522.4 | .4465 | -1.070 | .0125 | .4592 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | .5000 | 200.0 | 500.0 | .5000 | | | .5000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0512 | -.0005 | -.0164 | .0173 | .0343 | .0028 |
| SDev | .0052 | .0045 | .0017 | .0000 | .0272 | .0019 |
| %RSD | 10.16 | 985.1 | 10.65 | .1029 | 79.32 | 66.73 |
| #1 | -.0475 | -.0037 | -.0151 | .0173 | .0536 | .0041 |
| #2 | -.0548 | .0027 | -.0176 | .0173 | .0151 | .0015 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

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Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 01:21:41
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5190 | 4.863 | 4.954 | 5.011 | 5.104 | 4.873 | 5.064 |
| SDev | .0034 | .023 | .020 | .025 | .002 | .033 | .055 |
| %RSD | .6586 | .4818 | .4098 | .4915 | .0360 | .6705 | 1.087 |
| #1 | .5166 | 4.847 | 4.939 | 4.993 | 5.105 | 4.850 | 5.025 |
| #2 | .5214 | 4.880 | 4.968 | 5.028 | 5.102 | 4.896 | 5.103 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.939 | 4.989 | 5.016 | 4.894 | 4.956 | 4.942 | 10.44 |
| SDev | .021 | .012 | .017 | .007 | .012 | .014 | .03 |
| %RSD | .4157 | .2309 | .3416 | .1416 | .2418 | .2931 | .2837 |
| #1 | 4.925 | 4.997 | 5.004 | 4.899 | 4.948 | 4.932 | 10.42 |
| #2 | 4.954 | 4.981 | 5.028 | 4.889 | 4.965 | 4.953 | 10.46 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.043 | 4.935 | 9.966 | 4.986 | 9.703 | 10.56 | 5.108 |
| SDev | .012 | .017 | .029 | .021 | .618 | .01 | .019 |
| %RSD | .2419 | .3539 | .2864 | .4267 | 6.373 | .1355 | .3676 |
| #1 | 5.034 | 4.922 | 9.946 | 4.971 | 10.14 | 10.55 | 5.095 |
| #2 | 5.051 | 4.947 | 9.986 | 5.001 | 9.266 | 10.57 | 5.121 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.966 | 5.031 | 4.808 | 4.936 | 5.097 | 5.031 |
| SDev | .031 | .038 | .003 | .022 | .031 | .023 |
| %RSD | .6263 | .7499 | .0537 | .4515 | .6069 | .4515 |
| #1 | 4.944 | 5.004 | 4.810 | 4.920 | 5.075 | 5.015 |
| #2 | 4.988 | 5.057 | 4.806 | 4.952 | 5.119 | 5.048 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Analysis Report QC Standard Thu 10-30-97 01:29:20 AM page 1

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 01:25:32
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0053 | .0003 | .0016 | -.0025 | .0015 | -.0062 | .0201 |
| SDev | .0005 | .0003 | .0005 | .0030 | .0201 | .0171 | .0194 |
| %RSD | 10.33 | 91.50 | 31.67 | 123.5 | 1355. | 275.0 | 96.71 |
| #1 | -.0049 | .0005 | .0020 | -.0003 | .0157 | .0059 | .0338 |
| #2 | -.0057 | .0001 | .0012 | -.0046 | -.0127 | -.0183 | .0064 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0163 | .0030 | .0017 | -.0180 | .0479 | .0006 | .0182 |
| SDev | .0007 | .0031 | .0000 | .0210 | .0020 | .0001 | .0040 |
| %RSD | 4.307 | 105.4 | 1.642 | 116.6 | 4.124 | 10.33 | 21.75 |
| #1 | -.0158 | .0052 | .0017 | -.0032 | .0465 | .0006 | .0210 |
| #2 | -.0168 | .0008 | .0017 | -.0329 | .0493 | .0005 | .0154 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0017 | .0093 | -.0033 | .0004 | -.4225 | .0149 | -.0005 |
| SDev | .0004 | .0025 | .0028 | .0002 | .1212 | .0370 | .0011 |
| %RSD | 26.03 | 26.83 | 85.19 | 40.29 | 28.68 | 248.0 | 193.8 |
| #1 | .0014 | .0111 | -.0013 | .0006 | -.3368 | -.0112 | .0002 |
| #2 | .0020 | .0075 | -.0053 | .0003 | -.5082 | .0411 | -.0013 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0024 | -.0003 | -.0097 | .0006 | .0082 | .0022 |
| SDev | .0000 | .0027 | .0118 | .0002 | .0076 | .0010 |
| %RSD | .1546 | 859.1 | 121.0 | 27.32 | 92.26 | 47.20 |
| #1 | .0024 | .0016 | -.0014 | .0007 | .0136 | .0029 |
| #2 | .0024 | -.0022 | -.0181 | .0005 | .0029 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972573-001 Operator: EQ
Run Time: 10/30/97 01:29:23
Comment: SET2462(2515/2573 SOILS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0169 | .3653 | L.0038 | .1590 | 1.040 | L.0025 | L-.0241 |
| SDev | .0053 | .0018 | .0022 | .0004 | .007 | .0044 | .0092 |
| %RSD | 31.21 | .5045 | 57.43 | .2723 | .7079 | 175.4 | 38.31 |
| #1 | L-.0131 | .3640 | .0054 | .1587 | 1.045 | L-.0006 | L-.0176 |
| #2 | L-.0206 | .3666 | L.0023 | .1593 | 1.035 | L.0057 | L-.0307 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2531 | .0893 | 1.316 | 26.50 | L.0419 | L.0010 | 231.7 |
| SDev | .0005 | .0073 | .007 | .14 | .0074 | .0001 | 1.5 |
| %RSD | .2143 | 8.168 | .5675 | .5238 | 17.76 | 5.633 | .6369 |
| #1 | .2535 | .0944 | 1.310 | 26.40 | L.0366 | L.0009 | 230.6 |
| #2 | .2527 | .0841 | 1.321 | 26.60 | L.0471 | L.0010 | 232.7 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0232 | 80.09 | 109.7 | 5.841 | 5.785 | .9827 | .0924 |
| SDev | .0008 | .44 | .7 | .038 | .552 | .0139 | .0018 |
| %RSD | 3.605 | .5487 | .6336 | .6523 | 9.534 | 1.419 | 1.902 |
| #1 | L.0227 | 79.78 | 109.2 | 5.814 | 6.175 | .9925 | .0912 |
| #2 | L.0238 | 80.40 | 110.2 | 5.868 | 5.395 | .9728 | .0937 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0297 | L.0213 | 28.60 | .1988 | L.0374 | .5747 |
| SDev | .0017 | .0009 | .19 | .0012 | .0130 | .0079 |
| %RSD | 5.787 | 4.277 | .6539 | .6177 | 34.69 | 1.381 |
| #1 | L.0285 | L.0219 | 28.47 | .1979 | L.0465 | .5691 |
| #2 | L.0310 | L.0206 | 28.73 | .1996 | L.0282 | .5803 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: PB-2461 Operator: EQ
Run Time: 10/30/97 01:33:13
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0064 | -.0017 | -.0009 | -.0037 | -.0043 | -.0106 | .0137 |
| SDev | .0000 | .0001 | .0028 | .0004 | .0101 | .0040 | .0180 |
| %RSD | .0000 | 7.898 | 322.5 | 11.96 | 234.7 | 37.79 | 131.9 |
| #1 | -.0064 | -.0018 | -.0029 | -.0034 | .0028 | -.0134 | .0009 |
| #2 | -.0064 | -.0016 | .0011 | -.0040 | -.0115 | -.0078 | .0264 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |
| Low | -.0100 | -.0500 | -.0050 | -.0100 | -.0250 | -.0500 | -.0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0162 | -.0016 | -.0025 | .0016 | .0067 | -.0011 | -.0035 |
| SDev | .0008 | .0000 | .0005 | .0226 | .0074 | .0001 | .0030 |
| %RSD | 4.726 | .1876 | 18.41 | 1436. | 110.6 | 5.936 | 84.65 |
| #1 | -.0156 | -.0016 | -.0022 | -.0144 | .0120 | -.0010 | -.0056 |
| #2 | -.0167 | -.0016 | -.0029 | .0175 | .0015 | -.0011 | -.0014 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |
| Low | -.0250 | -.0300 | -.0200 | -.1000 | -.0600 | -.0050 | -.2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0029 | .0063 | -.0159 | -.0014 | -.8037 | .0061 | -.0023 |
| SDev | .0009 | .0003 | .0318 | .0004 | .0334 | .0158 | .0010 |
| %RSD | 29.80 | 5.602 | 199.9 | 32.10 | 4.159 | 259.3 | 41.43 |
| #1 | -.0023 | .0066 | .0066 | -.0017 | -.8273 | .0173 | -.0030 |
| #2 | -.0036 | .0061 | -.0384 | -.0011 | -.7800 | -.0051 | -.0016 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |
| Low | -.0500 | -.0500 | -.2000 | -.0150 | -2.000 | -.2000 | -.0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0000 | -.0003 | -.0180 | -.0012 | -.0068 | -.0000 |
| SDev | .0035 | .0018 | .0001 | .0000 | .0165 | .0000 |
| %RSD | 51350. | 576.6 | .4396 | .5536 | 241.5 | 350.7 |
| #1 | -.0024 | .0010 | -.0181 | -.0012 | .0048 | -.0000 |
| #2 | .0025 | -.0016 | -.0179 | -.0012 | -.0185 | .0000 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |
| Low | -.1000 | -.0500 | -.1000 | -.0500 | -.0500 | -.0500 |

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Method: ICP1 Sample Name: LCS-2461 Operator: EQ
Run Time: 10/30/97 01:37:04
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0507 | 1.874 | .0426 | .1957 | .4895 | 1.880 | 1.967 |
| SDev | .0005 | .008 | .0004 | .0017 | .0111 | .030 | .012 |
| %RSD | 1.024 | .4167 | .8952 | .8914 | 2.277 | 1.611 | .5865 |
| #1 | .0511 | 1.869 | .0423 | .1945 | .4816 | 1.902 | 1.975 |
| #2 | .0503 | 1.880 | .0428 | .1969 | .4973 | 1.859 | 1.958 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0600 | 2.400 | .0600 | .2400 | .6000 | 2.400 | 2.400 |
| Low | .0400 | 1.600 | .0400 | .1600 | .4000 | 1.600 | 1.600 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2098 | .4869 | .5434 | 1.899 | .5128 | .0457 | 20.26 |
| SDev | .0000 | .0044 | .0051 | .015 | .0300 | .0002 | .11 |
| %RSD | .0142 | .9096 | .9347 | .8128 | 5.848 | .3805 | .5228 |
| #1 | .2098 | .4838 | .5398 | 1.910 | .4916 | .0456 | 20.18 |
| #2 | .2099 | .4901 | .5470 | 1.888 | .5341 | .0458 | 20.33 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .3000 | .6000 | .6000 | 2.400 | .6000 | .0600 | 24.00 |
| Low | .2000 | .4000 | .4000 | 1.600 | .4000 | .0400 | 16.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4875 | .9617 | 19.57 | .4774 | 19.35 | 20.37 | .4913 |
| SDev | .0013 | .0046 | .08 | .0029 | .08 | .13 | .0026 |
| %RSD | .2674 | .4805 | .3882 | .6053 | .4318 | .6440 | .5261 |
| #1 | .4866 | .9584 | 19.51 | .4754 | 19.41 | 20.28 | .4895 |
| #2 | .4885 | .9649 | 19.62 | .4795 | 19.29 | 20.46 | .4931 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .6000 | 1.200 | 24.00 | .6000 | 24.00 | 24.00 | .6000 |
| Low | .4000 | .8000 | 16.00 | .4000 | 16.00 | 16.00 | .4000 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9589 | .9833 | .9130 | .9432 | .9789 | .9741 |
| SDev | .0121 | .0046 | .0065 | .0046 | .0062 | .0016 |
| %RSD | 1.264 | .4626 | .7088 | .4851 | .6321 | .1599 |
| #1 | .9503 | .9801 | .9176 | .9399 | .9746 | .9730 |
| #2 | .9675 | .9865 | .9084 | .9464 | .9833 | .9752 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 |
| Low | .8000 | .8000 | .8000 | .8000 | .8000 | .8000 |

Method: ICP1 Sample Name: L72972544-001 Operator: EQ
Run Time: 10/30/97 01:40:54
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0415 | .6796 | L-.0025 | .2972 | .0278 | .0935 | L-.0339 |
| SDev | .0015 | .0035 | .0012 | .0008 | .0419 | .0392 | .0084 |
| %RSD | 3.582 | .5175 | 50.26 | .2758 | 150.6 | 41.88 | 24.68 |
| #1 | L-.0404 | .6771 | L-.0033 | .2978 | .0575 | .1212 | L-.0398 |
| #2 | L-.0425 | .6820 | L-.0016 | .2967 | L-.0018 | .0658 | L-.0280 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0967 | .2360 | .4201 | 219.1 | L.0242 | .0089 | 439.9 |
| SDev | .0022 | .0046 | .0019 | 1.6 | .0360 | .0001 | 3.5 |
| %RSD | 2.289 | 1.971 | .4403 | .7440 | 148.7 | 1.410 | .8043 |
| #1 | .0952 | .2393 | .4188 | 217.9 | L.0497 | .0090 | 437.4 |
| #2 | .0983 | .2328 | .4214 | 220.2 | L-.0012 | .0088 | 442.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1048 | 199.9 | 275.1 | 3.051 | 88.42 | 3.954 | .4085 |
| SDev | .0036 | 1.7 | 2.3 | .025 | .04 | .028 | .0017 |
| %RSD | 3.462 | .8724 | .8524 | .8103 | .0425 | .7054 | .4053 |
| #1 | .1073 | 198.7 | 273.4 | 3.033 | 88.40 | 3.934 | .4074 |
| #2 | .1022 | 201.2 | 276.7 | 3.068 | 88.45 | 3.973 | .4097 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4979 | L.0356 | 52.29 | .4409 | L.0323 | 2.092 |
| SDev | .0087 | .0032 | .48 | .0024 | .0025 | .012 |
| %RSD | 1.742 | 8.951 | .9104 | .5541 | 7.697 | .5884 |
| #1 | .5040 | L.0333 | 51.95 | .4392 | L.0341 | 2.083 |
| #2 | .4918 | L.0378 | 52.62 | .4426 | L.0306 | 2.100 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-001MS Operator: EQ
Run Time: 10/30/97 01:44:45
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0046 | 2.639 | .0407 | .4884 | .4525 | 1.705 | 1.884 |
| SDev | .0033 | .015 | .0017 | .0018 | .0114 | .021 | .012 |
| %RSD | 71.35 | .5578 | 4.194 | .3574 | 2.523 | 1.215 | .6111 |
| #1 | L.0069 | 2.649 | .0395 | .4871 | .4444 | 1.719 | 1.876 |
| #2 | L.0023 | 2.629 | .0420 | .4896 | .4606 | 1.690 | 1.892 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3218 | .6405 | 1.067 | 256.1 | .2282 | .0513 | 451.3 |
| SDev | .0004 | .0029 | .005 | .7 | .0038 | .0001 | 1.2 |
| %RSD | .1207 | .4484 | .4533 | .2722 | 1.663 | .1153 | .2746 |
| #1 | .3221 | .6384 | 1.070 | 256.6 | .2309 | .0513 | 450.4 |
| #2 | .3215 | .6425 | 1.064 | 255.6 | .2255 | .0512 | 452.2 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5088 | 200.9 | 279.9 | 3.567 | 122.0 | 23.38 | .8977 |
| SDev | .0018 | .3 | .8 | .006 | .9 | .13 | .0004 |
| %RSD | .3437 | .1578 | .2826 | .1650 | .7466 | .5529 | .0493 |
| #1 | .5100 | 200.7 | 279.3 | 3.563 | 122.7 | 23.47 | .8980 |
| #2 | .5075 | 201.2 | 280.5 | 3.571 | 121.4 | 23.29 | .8974 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.390 | .8731 | 111.8 | 1.337 | .5502 | 3.499 |
| SDev | .010 | .0014 | .1 | .007 | .0060 | .009 |
| %RSD | .7467 | .1558 | .0530 | .5312 | 1.099 | .2459 |
| #1 | 1.398 | .8722 | 111.8 | 1.342 | .5545 | 3.505 |
| #2 | 1.383 | .8741 | 111.9 | 1.332 | .5460 | 3.493 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-001MD Operator: EQ
Run Time: 10/30/97 01:48:37
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1531 | 2.704 | .0394 | .4844 | .4698 | 1.778 | 1.872 |
| SDev | .0006 | .014 | .0002 | .0056 | .0015 | .016 | .029 |
| %RSD | .3957 | .5093 | .4982 | 1.164 | .3265 | .8962 | 1.573 |
| #1 | .1535 | 2.713 | .0395 | .4884 | .4709 | 1.767 | 1.852 |
| #2 | .1526 | 2.694 | .0393 | .4804 | .4687 | 1.789 | 1.893 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3179 | .6427 | .9682 | 254.1 | .2654 | .0519 | 519.0 |
| SDev | .0082 | .0062 | .0008 | .8 | .0186 | .0002 | .9 |
| %RSD | 2.577 | .9683 | .0798 | .3070 | 7.027 | .3246 | .1693 |
| #1 | .3237 | .6471 | .9676 | 254.6 | .2786 | .0520 | 518.4 |
| #2 | .3122 | .6383 | .9687 | 253.5 | .2522 | .0518 | 519.6 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5148 | 198.4 | 330.2 | 3.573 | 118.2 | 23.57 | .9076 |
| SDev | .0020 | .4 | .4 | .002 | .2 | .09 | .0046 |
| %RSD | .3823 | .1948 | .1348 | .0525 | .1520 | .4016 | .5045 |
| #1 | .5162 | 198.1 | 329.9 | 3.574 | 118.4 | 23.64 | .9109 |
| #2 | .5134 | 198.7 | 330.6 | 3.572 | 118.1 | 23.50 | .9044 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.388 | .8863 | 100.1 | 1.360 | .5669 | 3.585 |
| SDev | .007 | .0045 | .0 | .007 | .0198 | .008 |
| %RSD | .5007 | .5121 | .0111 | .4978 | 3.494 | .2123 |
| #1 | 1.383 | .8895 | 100.0 | 1.365 | .5809 | 3.590 |
| #2 | 1.393 | .8831 | 100.1 | 1.355 | .5528 | 3.580 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-001SD Operator: EQ
Run Time: 10/30/97 01:52:28
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0486 | .7014 | .0085 | .3438 | .1355 | L.0026 | .0835 |
| SDev | .0108 | .0048 | .0243 | .0011 | .0395 | .2167 | .0259 |
| %RSD | 22.28 | .6814 | 285.4 | .3208 | 29.17 | 8465. | 31.05 |
| #1 | L-.0563 | .7047 | .0256 | .3445 | .1076 | L-.1506 | .0652 |
| #2 | L-.0409 | .6980 | L-.0087 | .3430 | .1635 | .1558 | .1018 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0154 | .2684 | .4638 | 225.4 | .0927 | .0054 | 487.2 |
| SDev | .0368 | .0024 | .0091 | .3 | .2064 | .0003 | 1.4 |
| %RSD | 238.4 | .8926 | 1.964 | .1466 | 222.6 | 5.843 | .2814 |
| #1 | L-.0106 | .2701 | .4573 | 225.1 | L-.0532 | .0056 | 486.2 |
| #2 | .0415 | .2667 | .4702 | 225.6 | .2387 | .0052 | 488.2 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1058 | 206.1 | 284.9 | 3.318 | 87.75 | 4.096 | .4468 |
| SDev | .0099 | .1 | .8 | .002 | 2.01 | .029 | .0051 |
| %RSD | 9.338 | .0562 | .2778 | .0652 | 2.286 | .7002 | 1.142 |
| #1 | .1128 | 206.0 | 284.4 | 3.319 | 86.33 | 4.076 | .4432 |
| #2 | .0988 | 206.2 | 285.5 | 3.316 | 89.17 | 4.117 | .4505 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4866 | .0509 | 56.00 | .4550 | .0654 | 2.260 |
| SDev | .0520 | .0068 | .04 | .0011 | .0206 | .016 |
| %RSD | 10.68 | 13.39 | .0643 | .2432 | 31.43 | .6916 |
| #1 | .5234 | L.0461 | 55.97 | .4558 | .0509 | 2.249 |
| #2 | .4499 | .0558 | 56.02 | .4543 | .0799 | 2.271 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-001PS Operator: EQ
Run Time: 10/30/97 01:56:19
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4186 | 4.881 | 4.286 | 4.468 | 4.266 | 4.340 | 4.378 |
| SDev | .0001 | .033 | .023 | .030 | .033 | .001 | .015 |
| %RSD | .0210 | .6793 | .5317 | .6733 | .7801 | .0122 | .3334 |
| #1 | .4187 | 4.857 | 4.270 | 4.446 | 4.243 | 4.340 | 4.368 |
| #2 | .4185 | 4.904 | 4.302 | 4.489 | 4.290 | 4.339 | 4.389 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.451 | 4.271 | 4.744 | 217.2 | 4.345 | 4.261 | 440.2 |
| SDev | .028 | .029 | .043 | 1.6 | .031 | .032 | 3.5 |
| %RSD | .6264 | .6681 | .9167 | .7193 | .7095 | .7465 | .7846 |
| #1 | 4.431 | 4.251 | 4.714 | 216.1 | 4.323 | 4.239 | 437.8 |
| #2 | 4.471 | 4.292 | 4.775 | 218.3 | 4.367 | 4.284 | 442.7 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.231 | 200.9 | 279.3 | 7.185 | 94.37 | 13.11 | 4.736 |
| SDev | .030 | 1.4 | 2.2 | .052 | .25 | .04 | .035 |
| %RSD | .7041 | .7030 | .7938 | .7179 | .2701 | .2996 | .7439 |
| #1 | 4.210 | 199.9 | 277.7 | 7.148 | 94.55 | 13.08 | 4.711 |
| #2 | 4.252 | 201.9 | 280.8 | 7.221 | 94.19 | 13.14 | 4.761 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.814 | 4.262 | 55.67 | 4.702 | 4.239 | 6.358 |
| SDev | .035 | .045 | .42 | .033 | .035 | .047 |
| %RSD | .7166 | 1.066 | .7469 | .6921 | .8173 | .7454 |
| #1 | 4.789 | 4.230 | 55.38 | 4.679 | 4.214 | 6.325 |
| #2 | 4.838 | 4.295 | 55.97 | 4.725 | 4.263 | 6.392 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-004 Operator: EQ
Run Time: 10/30/97 02:00:10
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0422 | .5173 | L-.0004 | .2192 | .0719 | .0611 | L-.0453 |
| SDev | .0032 | .0037 | .0049 | .0017 | .0157 | .0447 | .0048 |
| %RSD | 7.498 | .7107 | 1217. | .7848 | 21.89 | 73.18 | 10.54 |
| #1 | L-.0399 | .5147 | L-.0039 | .2204 | .0830 | .0927 | L-.0487 |
| #2 | L-.0444 | .5199 | L.0031 | .2180 | .0607 | L.0295 | L-.0420 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1134 | .2119 | .3826 | 160.5 | L.0582 | .0062 | 529.0 |
| SDev | .0017 | .0042 | .0021 | 1.2 | .0302 | .0001 | 2.9 |
| %RSD | 1.468 | 1.974 | .5441 | .7566 | 51.89 | 1.011 | .5458 |
| #1 | .1146 | .2149 | .3812 | 159.6 | .0795 | .0063 | 526.9 |
| #2 | .1122 | .2089 | .3841 | 161.3 | L.0368 | .0062 | 531.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0843 | 182.0 | 284.3 | 3.095 | 62.69 | 3.152 | .3257 |
| SDev | .0016 | .8 | 1.6 | .017 | .37 | .036 | .0010 |
| %RSD | 1.885 | .4573 | .5458 | .5525 | .5865 | 1.129 | .3111 |
| #1 | .0855 | 181.4 | 283.2 | 3.083 | 62.43 | 3.126 | .3250 |
| #2 | .0832 | 182.6 | 285.4 | 3.108 | 62.95 | 3.177 | .3264 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3291 | L.0466 | 63.09 | .4244 | L.0276 | 1.979 |
| SDev | .0087 | .0014 | .33 | .0024 | .0070 | .004 |
| %RSD | 2.631 | 2.918 | .5274 | .5573 | 25.28 | .2266 |
| #1 | .3229 | L.0476 | 62.85 | .4227 | L.0227 | 1.976 |
| #2 | .3352 | L.0457 | 63.32 | .4260 | L.0325 | 1.982 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-005 Operator: EQ
Run Time: 10/30/97 02:04:02
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0693 | 1.384 | L-.0008 | .4654 | .0848 | .1487 | L-.0261 |
| SDev | .0008 | .003 | .0020 | .0048 | .0324 | .0683 | .0727 |
| %RSD | 1.095 | .2191 | 252.8 | 1.024 | 38.24 | 45.97 | 278.1 |
| #1 | L-.0699 | 1.382 | L-.0023 | .4621 | .1077 | .1003 | L-.0775 |
| #2 | L-.0688 | 1.386 | L.0006 | .4688 | .0618 | .1970 | L.0253 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1986 | .2808 | .7902 | 301.1 | L.0325 | .0119 | 255.1 |
| SDev | .0006 | .0171 | .0043 | 1.5 | .0393 | .0000 | 1.8 |
| %RSD | .2951 | 6.083 | .5401 | .4887 | 120.8 | .1217 | .7196 |
| #1 | .1982 | .2687 | .7872 | 300.1 | L.0048 | .0119 | 253.8 |
| #2 | .1990 | .2929 | .7932 | 302.1 | .0603 | .0119 | 256.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1404 | 311.5 | 173.0 | 2.942 | 56.48 | 6.418 | .6256 |
| SDev | .0015 | 2.1 | 1.2 | .017 | .36 | .037 | .0053 |
| %RSD | 1.057 | .6700 | .6795 | .5764 | .6437 | .5769 | .8519 |
| #1 | .1415 | 310.0 | 172.1 | 2.930 | 56.22 | 6.444 | .6218 |
| #2 | .1394 | 313.0 | 173.8 | 2.954 | 56.74 | 6.391 | .6294 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3065 | L.0266 | 69.77 | .4977 | L.0307 | 4.990 |
| SDev | .0000 | .0037 | .44 | .0014 | .0003 | .024 |
| %RSD | .0097 | 13.72 | .6292 | .2756 | 1.145 | .4800 |
| #1 | .3066 | L.0292 | 69.46 | .4967 | L.0310 | 4.973 |
| #2 | .3065 | L.0240 | 70.08 | .4986 | L.0305 | 5.007 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 02:11:41 AM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 02:07:53
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5117 | 4.784 | 4.949 | 4.997 | 5.156 | 4.903 | 5.084 |
| SDev | .0011 | .015 | .006 | .004 | .011 | .018 | .008 |
| %RSD | .2230 | .3238 | .1195 | .0824 | .2146 | .3725 | .1517 |
| #1 | .5125 | 4.795 | 4.953 | 5.000 | 5.148 | 4.890 | 5.078 |
| #2 | .5109 | 4.773 | 4.945 | 4.994 | 5.163 | 4.916 | 5.089 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.878 | 4.946 | 4.994 | 4.856 | 4.957 | 4.899 | 10.44 |
| SDev | .020 | .006 | .003 | .015 | .022 | .008 | .00 |
| %RSD | .4025 | .1304 | .0614 | .3040 | .4515 | .1558 | .0472 |
| #1 | 4.892 | 4.941 | 4.991 | 4.845 | 4.973 | 4.905 | 10.44 |
| #2 | 4.864 | 4.950 | 4.996 | 4.866 | 4.942 | 4.894 | 10.43 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.037 | 4.908 | 9.998 | 4.960 | 9.558 | 10.37 | 5.083 |
| SDev | .003 | .014 | .019 | .004 | .196 | .11 | .009 |
| %RSD | .0657 | .2831 | .1867 | .0724 | 2.055 | 1.029 | .1831 |
| #1 | 5.035 | 4.918 | 9.984 | 4.963 | 9.419 | 10.44 | 5.089 |
| #2 | 5.039 | 4.898 | 10.01 | 4.958 | 9.697 | 10.29 | 5.076 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.902 | 5.020 | 4.812 | 4.864 | 5.117 | 4.979 |
| SDev | .003 | .003 | .009 | .015 | .010 | .008 |
| %RSD | .0705 | .0633 | .1872 | .3103 | .2010 | .1555 |
| #1 | 4.904 | 5.022 | 4.819 | 4.875 | 5.110 | 4.985 |
| #2 | 4.899 | 5.018 | 4.806 | 4.854 | 5.125 | 4.974 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Analysis Report QC Standard Thu 10-30-97 02:15:33 AM page 1

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 02:11:45
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0011 | .0008 | .0037 | .0001 | .0050 | -.0121 | .0037 |
| SDev | .0011 | .0001 | .0008 | .0015 | .0070 | .0073 | .0039 |
| %RSD | 95.60 | 17.88 | 22.04 | 1035. | 140.3 | 60.44 | 107.7 |
| #1 | -.0004 | .0007 | .0043 | -.0009 | .0000 | -.0172 | .0064 |
| #2 | -.0018 | .0009 | .0031 | .0012 | .0100 | -.0069 | .0009 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0133 | .0023 | .0020 | .0030 | .0266 | .0008 | .0203 |
| SDev | .0008 | .0072 | .0004 | .0074 | .0396 | .0000 | .0030 |
| %RSD | 6.318 | 314.7 | 21.79 | 245.2 | 148.8 | .4627 | 14.63 |
| #1 | -.0127 | .0074 | .0023 | -.0022 | .0546 | .0008 | .0224 |
| #2 | -.0139 | -.0028 | .0017 | .0082 | -.0014 | .0008 | .0182 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0029 | .0136 | .0318 | .0009 | -.0886 | .0115 | .0041 |
| SDev | .0013 | .0000 | .0131 | .0003 | .2256 | .0015 | .0014 |
| %RSD | 44.73 | .1402 | 41.25 | 37.65 | 254.6 | 12.80 | 35.46 |
| #1 | .0020 | .0136 | .0411 | .0012 | -.2482 | .0105 | .0030 |
| #2 | .0039 | .0136 | .0225 | .0007 | .0709 | .0126 | .0051 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0135 | .0003 | -.0039 | .0008 | .0005 | .0033 |
| SDev | .0017 | .0036 | .0019 | .0000 | .0171 | .0015 |
| %RSD | 12.84 | 1127. | 47.33 | .8174 | 3549. | 47.33 |
| #1 | .0122 | .0029 | -.0026 | .0008 | -.0116 | .0022 |
| #2 | .0147 | -.0023 | -.0052 | .0008 | .0126 | .0044 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-006 Operator: EQ
Run Time: 10/30/97 02:15:36
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0390 | .3566 | L.0015 | .1793 | .0361 | L.0487 | L-.0670 |
| SDev | .0058 | .0014 | .0032 | .0011 | .0170 | .0236 | .0008 |
| %RSD | 14.80 | .3823 | 216.1 | .6075 | 47.12 | 48.51 | 1.154 |
| #1 | L-.0349 | .3556 | L-.0008 | .1785 | .0481 | .0654 | L-.0675 |
| #2 | L-.0431 | .3575 | L.0037 | .1801 | L.0241 | L.0320 | L-.0664 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0964 | .1956 | .4274 | 126.0 | L.0064 | .0053 | 470.0 |
| SDev | .0013 | .0026 | .0058 | .8 | .0339 | .0001 | 3.7 |
| %RSD | 1.373 | 1.347 | 1.366 | .6627 | 531.8 | 2.169 | .7838 |
| #1 | .0973 | .1974 | .4233 | 125.5 | L.0304 | .0052 | 467.4 |
| #2 | .0955 | .1937 | .4315 | 126.6 | L-.0176 | .0054 | 472.6 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0736 | 161.5 | 257.7 | 2.835 | 47.69 | 2.854 | .2548 |
| SDev | .0014 | 1.0 | 2.0 | .020 | .50 | .024 | .0022 |
| %RSD | 1.891 | .6425 | .7710 | .7044 | 1.051 | .8241 | .8828 |
| #1 | .0746 | 160.7 | 256.3 | 2.821 | 48.04 | 2.870 | .2532 |
| #2 | .0726 | 162.2 | 259.1 | 2.849 | 47.33 | 2.837 | .2564 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2600 | L.0412 | 63.93 | .3608 | L.0337 | 1.470 |
| SDev | .0069 | .0036 | .43 | .0020 | .0135 | .010 |
| %RSD | 2.669 | 8.835 | .6692 | .5600 | 40.24 | .6990 |
| #1 | .2649 | L.0438 | 63.63 | .3594 | L.0432 | 1.463 |
| #2 | .2551 | L.0387 | 64.24 | .3623 | L.0241 | 1.478 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-007 Operator: EQ
Run Time: 10/30/97 02:19:27
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0501 | 1.374 | L-.0003 | .4486 | .0628 | .0668 | L.0195 |
| SDev | .0054 | .026 | .0021 | .0104 | .0123 | .0006 | .0092 |
| %RSD | 10.75 | 1.881 | 762.8 | 2.329 | 19.61 | .8441 | 47.17 |
| #1 | L-.0463 | 1.356 | L.0012 | .4412 | .0715 | .0664 | L.0260 |
| #2 | L-.0539 | 1.393 | L-.0018 | .4560 | .0541 | .0672 | L.0130 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1270 | .3632 | .4615 | 373.5 | L.0124 | .0147 | 368.5 |
| SDev | .0016 | .0023 | .0043 | 5.9 | .0200 | .0002 | 4.6 |
| %RSD | 1.251 | .6257 | .9233 | 1.578 | 161.6 | 1.431 | 1.256 |
| #1 | .1259 | .3616 | .4585 | 369.4 | L-.0018 | .0146 | 365.2 |
| #2 | .1281 | .3649 | .4645 | 377.7 | L.0266 | .0149 | 371.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1393 | 242.5 | 257.8 | 2.979 | 157.7 | 6.422 | .7033 |
| SDev | .0014 | 3.5 | 3.3 | .043 | 1.5 | .126 | .0113 |
| %RSD | 1.033 | 1.441 | 1.273 | 1.443 | .9352 | 1.968 | 1.604 |
| #1 | .1383 | 240.1 | 255.4 | 2.949 | 156.7 | 6.332 | .6953 |
| #2 | .1404 | 245.0 | 260.1 | 3.010 | 158.8 | 6.511 | .7113 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .8035 | .0775 | 114.7 | .4340 | L.0414 | 3.344 |
| SDev | .0138 | .0018 | 1.8 | .0070 | .0241 | .052 |
| %RSD | 1.715 | 2.327 | 1.552 | 1.617 | 58.11 | 1.558 |
| #1 | .7938 | .0762 | 113.4 | .4290 | .0585 | 3.307 |
| #2 | .8133 | .0788 | 115.9 | .4390 | L.0244 | 3.381 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972544-008 Operator: EQ
Run Time: 10/30/97 02:23:18
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0484 | .8631 | L-.0010 | .2330 | .0854 | .0662 | L-.0117 |
| SDev | .0041 | .0041 | .0036 | .0037 | .0321 | .0041 | .0330 |
| %RSD | 8.484 | .4714 | 372.5 | 1.583 | 37.59 | 6.215 | 282.1 |
| #1 | L-.0455 | .8603 | L-.0035 | .2356 | .1081 | .0633 | L.0116 |
| #2 | L-.0513 | .8660 | L.0016 | .2304 | .0627 | .0691 | L-.0351 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1566 | .2272 | .5466 | 183.2 | L.0215 | .0065 | 414.7 |
| SDev | .0007 | .0140 | .0019 | 1.3 | .0093 | .0001 | 3.3 |
| %RSD | .4673 | 6.160 | .3464 | .7094 | 43.12 | .9862 | .7885 |
| #1 | .1560 | .2371 | .5452 | 182.3 | L.0150 | .0066 | 412.4 |
| #2 | .1571 | .2173 | .5479 | 184.2 | L.0281 | .0065 | 417.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0772 | 207.0 | 285.5 | 4.661 | 39.36 | 3.926 | .4110 |
| SDev | .0025 | 1.5 | 2.1 | .037 | .00 | .018 | .0015 |
| %RSD | 3.263 | .7041 | .7444 | .8045 | .0000 | .4653 | .3582 |
| #1 | .0790 | 205.9 | 284.0 | 4.635 | 39.36 | 3.913 | .4100 |
| #2 | .0755 | 208.0 | 287.0 | 4.688 | 39.36 | 3.939 | .4121 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2476 | L.0176 | 38.52 | .3740 | L.0335 | 2.445 |
| SDev | .0087 | .0050 | .25 | .0018 | .0266 | .018 |
| %RSD | 3.504 | 28.33 | .6532 | .4848 | 79.27 | .7345 |
| #1 | .2538 | L.0212 | 38.34 | .3727 | .0523 | 2.432 |
| #2 | .2415 | L.0141 | 38.70 | .3753 | L.0147 | 2.457 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972544-009 Operator: EQ
Run Time: 10/30/97 02:27:09
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0452 | .9550 | L.0008 | .3173 | L.0182 | .0919 | L-.0654 |
| SDev | .0015 | .0002 | .0002 | .0009 | .0087 | .0437 | .0082 |
| %RSD | 3.348 | .0199 | 20.30 | .2713 | 48.00 | 47.61 | 12.60 |
| #1 | L-.0441 | .9548 | L.0009 | .3167 | L.0243 | .1228 | L-.0596 |
| #2 | L-.0462 | .9551 | L.0007 | .3179 | L.0120 | .0609 | L-.0712 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Low | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0675 | .2240 | .3716 | 263.7 | L.0500 | .0096 | 455.1 |
| SDev | .0001 | .0061 | .0030 | .7 | .0132 | .0000 | 2.4 |
| %RSD | .0733 | 2.725 | .8052 | .2801 | 26.45 | .0274 | .5189 |
| #1 | .0675 | .2284 | .3737 | 263.2 | L.0594 | .0096 | 453.4 |
| #2 | .0675 | .2197 | .3694 | 264.3 | L.0407 | .0095 | 456.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0895 | 194.3 | 289.4 | 2.885 | 108.3 | 4.883 | .4731 |
| SDev | .0009 | .9 | 1.7 | .013 | .2 | .020 | .0010 |
| %RSD | 1.055 | .4741 | .5900 | .4577 | .1428 | .4138 | .2051 |
| #1 | .0901 | 193.7 | 288.2 | 2.876 | 108.4 | 4.868 | .4724 |
| #2 | .0888 | 195.0 | 290.6 | 2.895 | 108.2 | 4.897 | .4738 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5461 | L.0330 | 109.1 | .4198 | L.0471 | 2.666 |
| SDev | .0086 | .0050 | .5 | .0006 | .0170 | .010 |
| %RSD | 1.584 | 15.17 | .4852 | .1353 | 36.02 | .3597 |
| #1 | .5400 | L.0365 | 108.7 | .4194 | .0592 | 2.659 |
| #2 | .5523 | L.0294 | 109.5 | .4202 | L.0351 | 2.672 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

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Method: ICP1 Sample Name: L72972544-010 Operator: EQ
Run Time: 10/30/97 02:31:00
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0396 | .5246 | L-.0017 | .3143 | .0567 | .0552 | L-.0532 |
| SDev | .0026 | .0024 | .0039 | .0017 | .0234 | .0329 | .0260 |
| %RSD | 6.557 | .4598 | 231.8 | .5470 | 41.19 | 59.56 | 48.82 |
| #1 | L-.0414 | .5263 | L.0011 | .3131 | .0402 | .0785 | L-.0715 |
| #2 | L-.0378 | .5229 | L-.0044 | .3155 | .0733 | L.0320 | L-.0348 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1124 | .2359 | .4200 | 179.1 | L.0251 | .0074 | 451.6 |
| SDev | .0016 | .0025 | .0025 | .6 | .0093 | .0001 | .5 |
| %RSD | 1.387 | 1.066 | .6047 | .3109 | 36.99 | 1.553 | .1080 |
| #1 | .1135 | .2377 | .4218 | 179.5 | L.0317 | .0075 | 452.0 |
| #2 | .1113 | .2341 | .4182 | 178.7 | L.0186 | .0073 | 451.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1221 | 191.9 | 255.8 | 3.127 | 70.08 | 3.872 | .3515 |
| SDev | .0005 | .4 | .5 | .006 | .17 | .044 | .0021 |
| %RSD | .3900 | .2140 | .1770 | .1827 | .2445 | 1.129 | .5851 |
| #1 | .1217 | 192.2 | 256.1 | 3.131 | 69.96 | 3.903 | .3529 |
| #2 | .1224 | 191.6 | 255.5 | 3.123 | 70.20 | 3.841 | .3500 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4001 | L.0397 | 60.95 | .5264 | L.0258 | 1.891 |
| SDev | .0052 | .0027 | .17 | .0025 | .0137 | .008 |
| %RSD | 1.296 | 6.881 | .2768 | .4819 | 53.25 | .4123 |
| #1 | .4038 | L.0417 | 61.07 | .5282 | L.0355 | 1.897 |
| #2 | .3965 | L.0378 | 60.83 | .5246 | L.0161 | 1.886 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 02:38:39 AM page 1

Method: ICP1 Sample Name: L72972544-011 Operator: EQ
Run Time: 10/30/97 02:34:51
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0425 | .8550 | L-.0037 | .2767 | .0587 | L.0390 | L-.0345 |
| SDev | .0039 | .0107 | .0046 | .0052 | .0044 | .0348 | .0506 |
| %RSD | 9.215 | 1.250 | 122.9 | 1.880 | 7.486 | 89.19 | 146.7 |
| #1 | L-.0398 | .8474 | L-.0005 | .2730 | .0618 | .0635 | L-.0702 |
| #2 | L-.0453 | .8625 | L-.0069 | .2804 | .0556 | L.0144 | L.0013 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1080 | .2141 | .3990 | 229.6 | L.0273 | .0082 | 479.7 |
| SDev | .0018 | .0197 | .0044 | 3.5 | .0182 | .0002 | 6.6 |
| %RSD | 1.621 | 9.219 | 1.103 | 1.513 | 66.58 | 1.989 | 1.380 |
| #1 | .1068 | .2280 | .3959 | 227.1 | L.0145 | .0081 | 475.0 |
| #2 | .1093 | .2001 | .4021 | 232.0 | L.0402 | .0084 | 484.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0972 | 182.0 | 284.0 | 3.000 | 91.48 | 4.236 | .4389 |
| SDev | .0013 | 2.4 | 4.0 | .045 | 1.16 | .057 | .0063 |
| %RSD | 1.337 | 1.321 | 1.411 | 1.485 | 1.270 | 1.339 | 1.439 |
| #1 | .0981 | 180.3 | 281.2 | 2.968 | 90.66 | 4.196 | .4344 |
| #2 | .0963 | 183.7 | 286.8 | 3.031 | 92.30 | 4.276 | .4433 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4655 | L.0392 | 115.8 | .3926 | L.0246 | 2.502 |
| SDev | .0155 | .0055 | 1.8 | .0058 | .0038 | .037 |
| %RSD | 3.339 | 13.96 | 1.581 | 1.489 | 15.46 | 1.497 |
| #1 | .4545 | L.0430 | 114.5 | .3884 | L.0219 | 2.475 |
| #2 | .4765 | L.0353 | 117.1 | .3967 | L.0273 | 2.528 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 02:42:30 AM page 1

Method: ICP1 Sample Name: L72972544-012 Operator: EQ
Run Time: 10/30/97 02:38:42
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0252 | .3097 | L.0005 | .2702 | .0296 | L.0198 | L-.0438 |
| SDev | .0105 | .0035 | .0053 | .0004 | .0135 | .0305 | .0059 |
| %RSD | 41.83 | 1.124 | 1148. | .1500 | 45.69 | 154.0 | 13.55 |
| #1 | L-.0177 | .3073 | L.0042 | .2705 | .0392 | L-.0018 | L-.0480 |
| #2 | L-.0326 | .3122 | L-.0033 | .2699 | L.0201 | L.0414 | L-.0396 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0796 | .1251 | .3213 | 104.3 | L.0238 | L.0040 | H1111. |
| SDev | .0117 | .0057 | .0058 | 1.4 | .0097 | .0001 | 13. |
| %RSD | 14.76 | 4.584 | 1.807 | 1.365 | 40.65 | 3.168 | 1.147 |
| #1 | .0879 | .1291 | .3172 | 103.3 | L.0306 | L.0041 | H1102. |
| #2 | .0713 | .1210 | .3255 | 105.3 | L.0170 | L.0039 | H1120. |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC High |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1046 | 123.5 | H705.7 | 7.099 | 42.66 | 3.997 | .2121 |
| SDev | .0016 | 1.3 | 8.0 | .082 | .83 | .036 | .0026 |
| %RSD | 1.566 | 1.077 | 1.139 | 1.157 | 1.949 | .8897 | 1.228 |
| #1 | .1058 | 122.6 | H700.0 | 7.041 | 43.25 | 3.972 | .2103 |
| #2 | .1035 | 124.5 | H711.4 | 7.157 | 42.07 | 4.022 | .2140 |
| Errors | LC Pass | LC Pass | LC High | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2431 | L.0295 | 54.59 | .7036 | L.0382 | 1.219 |
| SDev | .0035 | .0018 | .68 | .0096 | .0043 | .017 |
| %RSD | 1.434 | 6.173 | 1.255 | 1.362 | 11.26 | 1.362 |
| #1 | .2455 | L.0282 | 54.10 | .6968 | L.0351 | 1.207 |
| #2 | .2406 | L.0308 | 55.07 | .7104 | L.0412 | 1.231 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-013 Operator: EQ
Run Time: 10/30/97 02:42:32
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0346 | .4837 | L-.0012 | .1829 | .0896 | .0514 | L-.0237 |
| SDev | .0021 | .0021 | .0006 | .0028 | .0103 | .0505 | .0183 |
| %RSD | 6.205 | .4259 | 51.26 | 1.537 | 11.46 | 98.24 | 77.17 |
| #1 | L-.0330 | .4852 | L-.0017 | .1849 | .0823 | .0872 | L-.0108 |
| #2 | L-.0361 | .4823 | L-.0008 | .1809 | .0968 | L.0157 | L-.0366 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1092 | .1612 | .4526 | 97.98 | L.0250 | L.0035 | 329.9 |
| SDev | .0014 | .0053 | .0028 | .11 | .0019 | .0001 | 1.2 |
| %RSD | 1.279 | 3.263 | .6264 | .1158 | 7.503 | 3.421 | .3765 |
| #1 | .1102 | .1649 | .4506 | 98.06 | L.0263 | L.0034 | 329.0 |
| #2 | .1082 | .1575 | .4546 | 97.90 | L.0237 | L.0036 | 330.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1175 | 168.4 | 204.8 | 3.895 | 15.43 | 3.127 | .2243 |
| SDev | .0024 | .5 | .6 | .005 | .27 | .025 | .0005 |
| %RSD | 2.031 | .2789 | .3157 | .1183 | 1.760 | .8145 | .2234 |
| #1 | .1158 | 168.1 | 204.4 | 3.892 | 15.62 | 3.145 | .2240 |
| #2 | .1191 | 168.7 | 205.3 | 3.898 | 15.24 | 3.109 | .2247 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0623 | L.0145 | 29.76 | .2086 | L.0356 | 1.745 |
| SDev | .0052 | .0004 | .05 | .0008 | .0102 | .001 |
| %RSD | 8.337 | 3.111 | .1776 | .4000 | 28.60 | .0497 |
| #1 | .0660 | L.0148 | 29.72 | .2092 | L.0428 | 1.746 |
| #2 | .0587 | L.0142 | 29.79 | .2080 | L.0284 | 1.745 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-014 Operator: EQ
Run Time: 10/30/97 02:46:24
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.493 | .6019 | L.0034 | .3543 | .0835 | .0889 | L-.0276 |
| SDev | .008 | .0027 | .0001 | .0013 | .0258 | .0089 | .0076 |
| %RSD | .5384 | .4487 | 3.117 | .3733 | 30.90 | 10.01 | 27.41 |
| #1 | 1.499 | .6038 | L.0034 | .3552 | .1018 | .0826 | L-.0330 |
| #2 | 1.487 | .6000 | L.0033 | .3534 | .0653 | .0952 | L-.0223 |
| Errors | LC Pass | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1632 | .2727 | .5715 | 217.7 | L.0352 | .0096 | 476.7 |
| SDev | .0021 | .0033 | .0014 | .7 | .0112 | .0001 | .5 |
| %RSD | 1.289 | 1.223 | .2390 | .3322 | 31.79 | .6058 | .1142 |
| #1 | .1647 | .2703 | .5725 | 218.2 | L.0432 | .0096 | 476.3 |
| #2 | .1617 | .2750 | .5705 | 217.2 | L.0273 | .0095 | 477.1 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2414 | 223.7 | 292.3 | 3.879 | 84.44 | 4.311 | .4196 |
| SDev | .0029 | .1 | .1 | .003 | .36 | .027 | .0009 |
| %RSD | 1.179 | .0405 | .0509 | .0733 | .4305 | .6237 | .2060 |
| #1 | .2434 | 223.7 | 292.2 | 3.881 | 84.70 | 4.330 | .4202 |
| #2 | .2394 | 223.8 | 292.4 | 3.877 | 84.18 | 4.292 | .4190 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4656 | L.0480 | 99.35 | .4474 | L.0265 | 2.233 |
| SDev | .0121 | .0064 | .26 | .0025 | .0151 | .003 |
| %RSD | 2.607 | 13.25 | .2617 | .5508 | 56.87 | .1348 |
| #1 | .4570 | .0525 | 99.17 | .4491 | L.0158 | 2.236 |
| #2 | .4742 | L.0435 | 99.54 | .4456 | L.0371 | 2.231 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 02:54:02 AM page 1

Method: ICP1 Sample Name: L72972500-001 Operator: EQ
Run Time: 10/30/97 02:50:14
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0367 | 1.798 | L.0048 | 1.448 | 17.47 | .0810 | L-.0126 |
| SDev | .0025 | .010 | .0005 | .015 | .13 | .0152 | .0213 |
| %RSD | 6.699 | .5535 | 10.95 | 1.003 | .7239 | 18.75 | 170.0 |
| #1 | L-.0349 | 1.791 | .0052 | 1.438 | 17.38 | .0918 | L-.0276 |
| #2 | L-.0384 | 1.805 | L.0044 | 1.458 | 17.56 | .0703 | L.0025 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2150 | .1364 | 3.233 | 113.1 | L.0228 | .0057 | 54.79 |
| SDev | .0016 | .0005 | .013 | .7 | .0033 | .0001 | .56 |
| %RSD | .7306 | .3489 | .3949 | .6560 | 14.60 | .8523 | 1.021 |
| #1 | .2139 | .1361 | 3.224 | 112.5 | L.0205 | .0056 | 54.39 |
| #2 | .2162 | .1367 | 3.242 | 113.6 | L.0252 | .0057 | 55.18 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3344 | 173.0 | 25.21 | 1.747 | 15.75 | 33.37 | .2504 |
| SDev | .0021 | 1.4 | .26 | .014 | .21 | .16 | .0044 |
| %RSD | .6143 | .8370 | 1.027 | .7857 | 1.353 | .4738 | 1.759 |
| #1 | .3329 | 172.0 | 25.02 | 1.737 | 15.90 | 33.26 | .2473 |
| #2 | .3358 | 174.1 | 25.39 | 1.757 | 15.60 | 33.48 | .2535 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1496 | L.0371 | 55.00 | .3640 | L.0172 | 2.605 |
| SDev | .0000 | .0009 | .45 | .0019 | .0112 | .023 |
| %RSD | .0270 | 2.520 | .8223 | .5336 | 64.86 | .8743 |
| #1 | .1496 | L.0378 | 54.68 | .3627 | L.0252 | 2.589 |
| #2 | .1496 | L.0364 | 55.32 | .3654 | L.0093 | 2.621 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 02:57:54 AM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 02:54:06
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5150 | 4.793 | 4.967 | 5.032 | 5.184 | 4.925 | 5.083 |
| SDev | .0079 | .042 | .028 | .033 | .002 | .040 | .040 |
| %RSD | 1.529 | .8766 | .5628 | .6498 | .0341 | .8072 | .7853 |
| #1 | .5094 | 4.763 | 4.947 | 5.009 | 5.185 | 4.897 | 5.054 |
| #2 | .5206 | 4.823 | 4.987 | 5.055 | 5.183 | 4.953 | 5.111 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.910 | 4.995 | 5.047 | 4.914 | 5.009 | 4.939 | 10.52 |
| SDev | .037 | .024 | .030 | .064 | .034 | .038 | .05 |
| %RSD | .7540 | .4879 | .5900 | 1.299 | .6882 | .7764 | .5069 |
| #1 | 4.884 | 4.978 | 5.026 | 4.869 | 4.984 | 4.912 | 10.49 |
| #2 | 4.937 | 5.012 | 5.068 | 4.959 | 5.033 | 4.967 | 10.56 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.071 | 4.954 | 10.06 | 4.994 | 9.783 | 10.40 | 5.116 |
| SDev | .033 | .027 | .05 | .032 | .506 | .07 | .028 |
| %RSD | .6453 | .5466 | .4910 | .6346 | 5.168 | .6359 | .5493 |
| #1 | 5.047 | 4.935 | 10.02 | 4.972 | 10.14 | 10.36 | 5.096 |
| #2 | 5.094 | 4.973 | 10.09 | 5.017 | 9.425 | 10.45 | 5.136 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.945 | 5.059 | 4.845 | 4.880 | 5.120 | 5.004 |
| SDev | .050 | .055 | .021 | .043 | .055 | .042 |
| %RSD | 1.013 | 1.078 | .4341 | .8893 | 1.072 | .8461 |
| #1 | 4.909 | 5.021 | 4.830 | 4.850 | 5.081 | 4.974 |
| #2 | 4.980 | 5.098 | 4.860 | 4.911 | 5.159 | 5.034 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Analysis Report QC Standard Thu 10-30-97 03:01:47 AM page 1

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 02:57:58
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0011 | .0010 | .0016 | -.0006 | -.0064 | -.0032 | -.0018 |
| SDev | .0054 | .0009 | .0051 | .0048 | .0172 | .0034 | .0038 |
| %RSD | 482.9 | 97.97 | 325.3 | 786.3 | 268.1 | 104.6 | 217.4 |
| #1 | -.0049 | .0003 | -.0020 | -.0040 | -.0185 | -.0008 | .0010 |
| #2 | .0027 | .0016 | Q.0051 | .0028 | .0057 | -.0056 | -.0045 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0132 | .0041 | .0020 | .0035 | .0199 | .0011 | .0189 |
| SDev | .0052 | .0005 | .0032 | .0210 | .0001 | .0002 | .0089 |
| %RSD | 39.58 | 11.58 | 163.3 | 601.2 | .4720 | 21.27 | 47.06 |
| #1 | -.0169 | .0038 | -.0003 | -.0114 | .0200 | .0009 | .0126 |
| #2 | -.0095 | .0045 | .0043 | .0184 | .0199 | .0013 | .0252 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0025 | .0146 | .0232 | .0010 | -.1980 | .0143 | .0015 |
| SDev | .0050 | .0029 | .0384 | .0001 | .0794 | .0293 | .0023 |
| %RSD | 203.6 | 19.52 | 165.5 | 8.666 | 40.10 | 205.7 | 157.0 |
| #1 | -.0011 | .0166 | -.0040 | .0009 | -.2541 | -.0065 | -.0002 |
| #2 | .0060 | .0126 | .0504 | .0011 | -.1418 | .0350 | .0031 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0086 | .0029 | -.0039 | .0010 | .0005 | .0026 |
| SDev | .0086 | .0009 | .0036 | .0003 | .0035 | .0015 |
| %RSD | 101.0 | 31.16 | 91.51 | 32.06 | 744.0 | 60.59 |
| #1 | .0025 | .0023 | -.0065 | .0008 | -.0020 | .0015 |
| #2 | .0147 | .0035 | -.0014 | .0012 | .0029 | .0037 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-003 Operator: EQ
Run Time: 10/30/97 03:01:51
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

REANALYSIS REQUIRED

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0133 | 35.90 | .0081 | 49.27 | 224.5 | L.0080 | L-.0276 |
| SDev | .0002 | .02 | .0047 | .10 | 1.9 | .0252 | .0028 |
| %RSD | 1.250 | .0571 | 58.19 | .2081 | .3867 | 315.4 | 10.00 |
| #1 | L-.0134 | 35.91 | .0114 | 49.20 | 223.9 | L.0258 | L-.0296 |
| #2 | L-.0132 | 35.88 | L.0048 | 49.34 | 225.1 | L-.0098 | L-.0257 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0863 | .1075 | 15.62 | 55.79 | 1.028 | L.0013 | 270.5 |
| SDev | .0002 | .0009 | .02 | .04 | .038 | .0001 | 1.0 |
| %RSD | .2783 | .8625 | .1470 | .0687 | 3.695 | 3.775 | .3841 |
| #1 | .0865 | .1081 | 15.61 | 55.76 | 1.055 | L.0013 | 269.8 |
| #2 | .0861 | .1068 | 15.64 | 55.82 | 1.001 | L.0012 | 271.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 3.127 | 68.27 | 68.02 | 9.090 | 6.834 | 4.189 | .1459 |
| SDev | .006 | .23 | .23 | .022 | .589 | .007 | .0048 |
| %RSD | .1866 | .3362 | .3381 | .2385 | 8.621 | .1719 | 3.302 |
| #1 | 3.123 | 68.10 | 67.86 | 9.075 | 6.417 | 4.184 | .1493 |
| #2 | 3.132 | 68.43 | 68.19 | 9.105 | 7.251 | 4.194 | .1425 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0194 | 6.617 | 37.20 | .6315 | .0703 | 2.319 |
| SDev | .0051 | .013 | .08 | .0004 | .0161 | .018 |
| %RSD | 26.27 | .1899 | .2070 | .0714 | 22.93 | .7619 |
| #1 | L.0158 | 6.608 | 37.14 | .6312 | .0589 | 2.306 |
| #2 | L.0230 | 6.626 | 37.25 | .6318 | .0817 | 2.331 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report Thu 10-30-97 03:09:30 AM page 1

Method: ICP1 Sample Name: L72972500-005 Operator: EQ
Run Time: 10/30/97 03:05:42
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

REANALYSIS REQUIRED

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.1748 | 4.339 | .0799 | 1.701 | 3.908 | .3133 | L-.0680 |
| SDev | .0005 | .003 | .0037 | .002 | .028 | .0085 | .0194 |
| %RSD | .2842 | .0611 | 4.646 | .1294 | .7308 | 2.724 | 28.47 |
| #1 | L-.1745 | 4.341 | .0772 | 1.700 | 3.887 | .3193 | L-.0817 |
| #2 | L-.1752 | 4.338 | .0825 | 1.703 | 3.928 | .3073 | L-.0543 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 7.215 | .6052 | 8.768 | 35.90 | .1009 | L.0019 | 687.2 |
| SDev | .005 | .0099 | .015 | .08 | .0015 | .0001 | 2.6 |
| %RSD | .0761 | 1.639 | .1684 | .2315 | 1.483 | 2.646 | .3814 |
| #1 | 7.219 | .5981 | 8.757 | 35.84 | .0998 | L.0019 | 685.3 |
| #2 | 7.211 | .6122 | 8.778 | 35.96 | .1019 | L.0019 | 689.1 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1730 | 965.6 | 50.21 | 11.87 | 9.505 | 2.516 | .1687 |
| SDev | .0022 | 3.0 | .16 | .03 | .572 | .012 | .0038 |
| %RSD | 1.246 | .3076 | .3204 | .2634 | 6.023 | .4585 | 2.264 |
| #1 | .1746 | 963.5 | 50.10 | 11.85 | 9.100 | 2.508 | .1714 |
| #2 | .1715 | 967.7 | 50.32 | 11.89 | 9.910 | 2.524 | .1660 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3347 | .2535 | 50.04 | 1.046 | .0764 | 1.566 |
| SDev | .0035 | .0018 | .11 | .000 | .0198 | .004 |
| %RSD | 1.034 | .7192 | .2263 | .0325 | 25.93 | .2524 |
| #1 | .3322 | .2548 | 49.96 | 1.046 | .0624 | 1.563 |
| #2 | .3371 | .2522 | 50.12 | 1.046 | .0905 | 1.569 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 03:13:21 AM page 1

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 03:09:33
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5138 | 4.768 | 4.942 | 5.008 | 5.185 | 4.936 | 5.105 |
| SDev | .0070 | .012 | .011 | .014 | .020 | .023 | .022 |
| %RSD | 1.368 | .2597 | .2248 | .2772 | .3876 | .4649 | .4333 |
| #1 | .5187 | 4.777 | 4.950 | 5.018 | 5.171 | 4.953 | 5.121 |
| #2 | .5088 | 4.759 | 4.935 | 4.998 | 5.199 | 4.920 | 5.090 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.896 | 4.964 | 5.024 | 4.891 | 4.985 | 4.927 | 10.50 |
| SDev | .012 | .030 | .002 | .030 | .021 | .015 | .03 |
| %RSD | .2431 | .6119 | .0433 | .6176 | .4112 | .3079 | .3106 |
| #1 | 4.904 | 4.986 | 5.022 | 4.912 | 5.000 | 4.938 | 10.53 |
| #2 | 4.887 | 4.943 | 5.025 | 4.869 | 4.971 | 4.916 | 10.48 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.053 | 4.932 | 10.01 | 4.977 | 10.17 | 10.39 | 5.101 |
| SDev | .009 | .033 | .03 | .014 | .34 | .05 | .011 |
| %RSD | .1769 | .6650 | .3490 | .2780 | 3.369 | .4481 | .2195 |
| #1 | 5.059 | 4.955 | 10.04 | 4.987 | 10.41 | 10.43 | 5.108 |
| #2 | 5.046 | 4.909 | 9.990 | 4.967 | 9.928 | 10.36 | 5.093 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.930 | 5.048 | 4.832 | 4.870 | 5.121 | 4.994 |
| SDev | .019 | .008 | .015 | .014 | .030 | .009 |
| %RSD | .3857 | .1528 | .3140 | .2794 | .5898 | .1860 |
| #1 | 4.943 | 5.053 | 4.843 | 4.880 | 5.142 | 5.001 |
| #2 | 4.917 | 5.042 | 4.822 | 4.860 | 5.099 | 4.988 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Analysis Report QC Standard Thu 10-30-97 03:17:13 AM page 1

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 03:13:24
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0030 | -.0005 | .0030 | -.0025 | Q.0264 | .0042 | .0082 |
| SDev | .0016 | .0000 | .0018 | .0013 | .0071 | .0272 | .0258 |
| %RSD | 53.27 | .5392 | 59.26 | 52.93 | 26.87 | 642.4 | 314.3 |
| #1 | -.0041 | -.0005 | .0043 | -.0015 | .0214 | -.0150 | .0265 |
| #2 | -.0019 | -.0005 | .0017 | -.0034 | Q.0314 | .0235 | -.0100 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0122 | -.0025 | .0117 | .0046 | .0333 | -.0003 | .0091 |
| SDev | .0024 | .0017 | .0002 | .0022 | .0301 | .0001 | .0010 |
| %RSD | 19.49 | 68.13 | 1.965 | 47.91 | 90.55 | 33.36 | 10.96 |
| #1 | -.0138 | -.0036 | .0116 | .0061 | .0120 | -.0003 | .0084 |
| #2 | -.0105 | -.0013 | .0119 | .0030 | .0546 | -.0004 | .0098 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0008 | .0096 | .0040 | -.0004 | -.1950 | .0479 | .0016 |
| SDev | .0026 | .0057 | .0094 | .0003 | .2925 | .0211 | .0020 |
| %RSD | 339.7 | 59.80 | 236.3 | 70.83 | 150.0 | 44.10 | 126.9 |
| #1 | -.0011 | .0136 | -.0027 | -.0006 | .0118 | .0330 | .0030 |
| #2 | .0026 | .0055 | .0106 | -.0002 | -.4018 | .0628 | .0002 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0049 | -.0003 | -.0090 | -.0003 | -.0034 | .0015 |
| SDev | .0035 | .0009 | .0018 | .0002 | .0062 | .0000 |
| %RSD | 70.81 | 287.7 | 20.11 | 63.61 | 182.4 | .2943 |
| #1 | .0074 | -.0010 | -.0078 | -.0004 | .0010 | .0015 |
| #2 | .0024 | .0003 | -.0103 | -.0001 | -.0077 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Analysis Report QC Standard Thu 10-30-97 03:21:05 AM page 1

Method: ICP1 Sample Name: CRI Operator: EQ
Run Time: 10/30/97 03:17:16
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.0240 | .3758 | Q.0150 | Q.0129 | .0965 | .1883 | .1877 |
| SDev | .0011 | .0024 | .0003 | .0008 | .0222 | .0245 | .0130 |
| %RSD | 4.490 | .6453 | 2.088 | 6.599 | 23.00 | 13.00 | 6.929 |
| #1 | Q.0248 | .3740 | Q.0148 | Q.0123 | .1122 | .2056 | .1969 |
| #2 | .0232 | .3775 | Q.0152 | Q.0135 | .0808 | .1710 | .1785 |
| Errors | QC Fail | QC Pass | QC Fail | QC Fail | QC Pass | QC Pass | QC Pass |
| Value | .0200 | .4000 | .0100 | .0200 | .1000 | .2000 | .2000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.0285 | .0695 | .0403 | .3998 | .1435 | .0092 | 10.29 |
| SDev | .0023 | .0063 | .0007 | .0130 | .0075 | .0001 | .04 |
| %RSD | 8.038 | 9.106 | 1.811 | 3.245 | 5.197 | .7346 | .4135 |
| #1 | Q.0301 | .0650 | .0408 | .4089 | Q.1488 | .0091 | 10.26 |
| #2 | Q.0269 | .0740 | .0398 | .3906 | .1382 | .0092 | 10.32 |
| Errors | QC Fail | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0500 | .0800 | .0400 | .4000 | .1200 | .0100 | 10.00 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0977 | .1855 | 9.875 | .0279 | 10.00 | 10.25 | .1000 |
| SDev | .0042 | .0014 | .046 | .0003 | .09 | .06 | .0026 |
| %RSD | 4.260 | .7670 | .4648 | 1.257 | .9189 | .6329 | 2.550 |
| #1 | .1006 | .1865 | 9.843 | .0282 | 9.939 | 10.21 | .1018 |
| #2 | .0948 | .1845 | 9.908 | .0277 | 10.07 | 10.30 | .0982 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .2000 | 10.00 | .0300 | 10.00 | 10.00 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0976 | .1013 | .1885 | .0940 | .1971 | .1028 |
| SDev | .0104 | .0036 | .0077 | .0001 | .0048 | .0010 |
| %RSD | 10.65 | 3.592 | 4.089 | .1563 | 2.425 | .9980 |
| #1 | .0903 | .1039 | .1939 | .0939 | .1937 | .1035 |
| #2 | .1050 | .0988 | .1830 | .0941 | .2005 | .1021 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .1000 | .2000 | .1000 | .2000 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

Analysis Report QC Standard Thu 10-30-97 03:24:56 AM page 1

Method: ICP1 Sample Name: ISA Operator: EQ
Run Time: 10/30/97 03:21:08
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0411 | -.0138 | -.0023 | .0006 | -.0653 | .0873 | -.0353 |
| SDev | .0000 | .0001 | .0001 | .0009 | .0163 | .0095 | .0581 |
| %RSD | .0102 | 1.086 | 5.372 | 149.4 | 24.90 | 10.93 | 164.8 |
| #1 | -.0411 | -.0137 | -.0024 | -.0000 | -.0768 | .0941 | .0058 |
| #2 | -.0411 | -.0139 | -.0022 | .0012 | -.0538 | .0806 | -.0764 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | | |
| Range | | | | | | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0285 | -.0045 | -.0020 | 469.1 | .0151 | -.0007 | 458.7 |
| SDev | .0001 | .0031 | .0007 | .6 | .0226 | .0001 | .4 |
| %RSD | .3904 | 69.28 | 35.15 | .1245 | 149.2 | 8.390 | .0928 |
| #1 | -.0284 | -.0023 | -.0015 | 469.5 | .0311 | -.0007 | 458.4 |
| #2 | -.0286 | -.0067 | -.0025 | 468.7 | -.0008 | -.0008 | 459.0 |
| Errors | NOCHECK | NOCHECK | NOCHECK | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | | | | 500.0 | | | 500.0 |
| Range | | | | 100.0 | | | 100.0 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0041 | 183.5 | 500.5 | -.0004 | -.6293 | .0319 | .0043 |
| SDev | .0007 | .1 | .6 | .0002 | .3050 | .0005 | .0006 |
| %RSD | 15.85 | .0527 | .1114 | 49.59 | 48.47 | 1.534 | 12.75 |
| #1 | -.0046 | 183.5 | 500.1 | -.0006 | -.8450 | .0316 | .0039 |
| #2 | -.0037 | 183.6 | 500.9 | -.0003 | -.4137 | .0323 | .0047 |
| Errors | NOCHECK | QC Pass | QC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | 200.0 | 500.0 | | | | |
| Range | | 40.00 | 100.0 | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0404 | .0026 | -.0033 | .0170 | .0178 | .0029 |
| SDev | .0017 | .0023 | .0045 | .0001 | .0095 | .0004 |
| %RSD | 4.281 | 88.55 | 135.1 | .3754 | 53.64 | 15.39 |
| #1 | -.0416 | .0010 | -.0001 | .0170 | .0245 | .0032 |
| #2 | -.0392 | .0042 | -.0065 | .0169 | .0110 | .0026 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Method: ICP1 Sample Name: ISB Operator: EQ
Run Time: 10/30/97 03:25:00
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9944 | .4252 | .9333 | .4441 | .8514 | .0476 | -.0166 |
| SDev | .0171 | .0062 | .0157 | .0015 | .0143 | .0126 | .0131 |
| %RSD | 1.718 | 1.462 | 1.681 | .3326 | 1.675 | 26.38 | 78.99 |
| #1 | .9823 | .4208 | .9222 | .4451 | .8615 | .0387 | -.0259 |
| #2 | 1.006 | .4296 | .9444 | .4430 | .8413 | .0565 | -.0073 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK |
| Value | 1.000 | .5000 | 1.000 | .5000 | 1.000 | | |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4351 | .8420 | .9372 | 479.1 | .0554 | .4499 | 468.5 |
| SDev | .0026 | .0066 | .0100 | 7.7 | .0392 | .0070 | 6.4 |
| %RSD | .6008 | .7811 | 1.062 | 1.616 | 70.66 | 1.568 | 1.371 |
| #1 | .4370 | .8373 | .9301 | 473.6 | .0277 | .4449 | 464.0 |
| #2 | .4333 | .8466 | .9442 | 484.5 | .0832 | .4549 | 473.1 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | QC Pass | QC Pass |
| Value | .5000 | 1.000 | 1.000 | 500.0 | | .5000 | 500.0 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4349 | 187.6 | 512.3 | .4380 | .0118 | .0343 | .4565 |
| SDev | .0053 | 2.7 | 7.3 | .0061 | 1.295 | .0270 | .0015 |
| %RSD | 1.220 | 1.446 | 1.419 | 1.398 | 10960. | 78.58 | .3205 |
| #1 | .4311 | 185.7 | 507.2 | .4337 | .9278 | .0533 | .4555 |
| #2 | .4386 | 189.5 | 517.5 | .4423 | -.9041 | .0152 | .4575 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | .5000 | 200.0 | 500.0 | .5000 | | | .5000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0548 | -.0027 | -.0087 | .0171 | .0492 | .0027 |
| SDev | .0069 | .0032 | .0073 | .0001 | .0019 | .0004 |
| %RSD | 12.63 | 118.1 | 84.70 | .3669 | 3.855 | 13.90 |
| #1 | -.0597 | -.0050 | -.0035 | .0171 | .0479 | .0030 |
| #2 | -.0499 | -.0004 | -.0138 | .0172 | .0505 | .0024 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 03:28:51
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5072 | 4.727 | 4.897 | 4.950 | 5.123 | 4.827 | 4.985 |
| SDev | .0038 | .003 | .027 | .022 | .026 | .017 | .033 |
| %RSD | .7543 | .0543 | .5522 | .4348 | .5157 | .3458 | .6566 |
| #1 | .5045 | 4.729 | 4.877 | 4.935 | 5.104 | 4.815 | 4.962 |
| #2 | .5099 | 4.725 | 4.916 | 4.965 | 5.142 | 4.838 | 5.008 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.855 | 4.890 | 4.977 | 4.843 | 4.917 | 4.854 | 10.36 |
| SDev | .002 | .019 | .010 | .016 | .009 | .009 | .04 |
| %RSD | .0330 | .3821 | .2066 | .3338 | .1784 | .1760 | .4002 |
| #1 | 4.856 | 4.877 | 4.970 | 4.832 | 4.911 | 4.848 | 10.33 |
| #2 | 4.853 | 4.903 | 4.985 | 4.855 | 4.923 | 4.860 | 10.39 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.988 | 4.872 | 9.881 | 4.911 | 9.632 | 10.35 | 5.037 |
| SDev | .021 | .014 | .035 | .016 | .217 | .01 | .009 |
| %RSD | .4208 | .2853 | .3542 | .3280 | 2.256 | .0516 | .1732 |
| #1 | 4.973 | 4.862 | 9.856 | 4.900 | 9.479 | 10.36 | 5.031 |
| #2 | 5.003 | 4.881 | 9.905 | 4.923 | 9.786 | 10.35 | 5.043 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.865 | 4.982 | 4.756 | 4.815 | 5.041 | 4.938 |
| SDev | .014 | .020 | .010 | .001 | .051 | .009 |
| %RSD | .2835 | .4011 | .2193 | .0112 | 1.009 | .1882 |
| #1 | 4.856 | 4.968 | 4.749 | 4.815 | 5.005 | 4.931 |
| #2 | 4.875 | 4.996 | 4.764 | 4.816 | 5.077 | 4.945 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 03:32:43
Comment: SET2461(2544/2500 TCLPS)
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0030 | -.0005 | .0009 | -.0031 | -.0107 | -.0327 | -.0010 |
| SDev | .0027 | .0008 | .0010 | .0039 | .0313 | .0194 | .0027 |
| %RSD | 88.27 | 170.3 | 104.1 | 126.8 | 293.6 | 59.25 | 277.4 |
| #1 | -.0011 | .0001 | .0002 | -.0003 | .0115 | -.0190 | .0009 |
| #2 | -.0049 | -.0010 | .0016 | -.0059 | Q-.0328 | -.0464 | -.0029 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0174 | .0002 | .0102 | -.0134 | .0506 | -.0001 | .0154 |
| SDev | .0022 | .0090 | .0018 | .0130 | .0056 | .0000 | .0079 |
| %RSD | 12.57 | 5618. | 17.46 | 97.11 | 11.01 | 7.359 | 51.46 |
| #1 | -.0158 | .0065 | .0115 | -.0042 | .0545 | -.0001 | .0210 |
| #2 | -.0189 | -.0062 | .0090 | -.0225 | .0466 | -.0001 | .0098 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0002 | .0113 | .0033 | -.0002 | -.4343 | -.0055 | .0003 |
| SDev | .0048 | .0032 | .0197 | .0002 | .1797 | .0149 | .0023 |
| %RSD | 3111. | 28.31 | 594.8 | 96.78 | 41.37 | 272.4 | 797.5 |
| #1 | .0036 | .0136 | .0172 | -.0001 | -.3073 | .0051 | .0019 |
| #2 | -.0032 | .0091 | -.0106 | -.0003 | -.5614 | -.0160 | -.0014 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0037 | -.0022 | -.0155 | -.0003 | .0053 | .0007 |
| SDev | .0017 | .0036 | .0109 | .0002 | .0145 | .0010 |
| %RSD | 47.40 | 161.7 | 70.07 | 59.56 | 273.1 | 142.6 |
| #1 | .0024 | .0003 | -.0078 | -.0002 | .0155 | -.0000 |
| #2 | .0049 | -.0048 | -.0232 | -.0004 | -.0049 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Standard: BLANK

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Avge | -.0005 | .0001 | -.0001 | .0034 | .0014 | -.0129 | .0012 |
| SDev | .0005 | .0003 | .0002 | .0009 | .0008 | .0044 | .0014 |
| %RSD | 106.1 | 282.8 | 141.4 | 26.19 | 55.34 | 34.33 | 113.1 |
| #1 | -.0001 | .0004 | .0000 | .0027 | .0020 | -.0160 | .0003 |
| #2 | -.0009 | -.0001 | -.0003 | .0040 | .0009 | -.0098 | .0022 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Avge | .0007 | .0010 | .0014 | .0003 | -.0018 | .0015 | -.0003 |
| SDev | .0003 | .0007 | .0003 | .0009 | .0010 | .0000 | .0001 |
| %RSD | 38.57 | 70.71 | 25.71 | 353.6 | 53.64 | .0000 | 28.28 |
| #1 | .0009 | .0005 | .0011 | .0009 | -.0025 | .0015 | -.0004 |
| #2 | .0005 | .0015 | .0016 | -.0004 | -.0011 | .0015 | -.0003 |

| Elem | Co | Fe | Fe | Mg | Mn | K | Na |
|---|---|---|---|---|---|---|---|
| Avge | .0019 | -.0012 | .0047 | .0033 | .0003 | -.0050 | .0119 |
| SDev | .0007 | .0015 | .0006 | .0003 | .0003 | .0187 | .0002 |
| %RSD | 37.71 | 126.5 | 13.20 | 8.005 | 84.85 | 374.8 | 1.489 |
| #1 | .0024 | -.0001 | .0051 | .0035 | .0005 | .0082 | .0117 |
| #2 | .0014 | -.0022 | .0043 | .0031 | .0001 | -.0182 | .0120 |

| Elem | V | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|---|
| Avge | -.0002 | .0005 | .0001 | .0030 | -.0001 | .0006 | .0004 |
| SDev | .0005 | .0000 | .0007 | .0021 | .0000 | .0011 | .0002 |
| %RSD | 212.1 | .0000 | 565.7 | 70.71 | 39.89 | 169.7 | 47.14 |
| #1 | .0001 | .0005 | .0006 | .0045 | -.0001 | -.0001 | .0003 |
| #2 | -.0006 | .0005 | -.0004 | .0015 | -.0001 | .0014 | .0005 |

(ethod: ICP1 Standard: CAL4

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Avge | .1639 | 6.190 | 1.163 | 3.797 | .8099 | 2.554 | .6457 |
| SDev | .0003 | .028 | .006 | .020 | .0038 | .023 | .0040 |
| %RSD | .1617 | .4527 | .5547 | .5354 | .4693 | .9069 | .6160 |
| #1 | .1641 | 6.170 | 1.159 | 3.782 | .8073 | 2.537 | .6429 |
| #2 | .1637 | 6.210 | 1.168 | 3.811 | .8126 | 2.570 | .6485 |

| Elem | Cu | Ni | Zn | Al | Be | Co | Fe |
|---|---|---|---|---|---|---|---|
| Avge | 1.114 | 6.914 | 3.553 | 1.158 | 13.99 | 3.719 | 2.280 |
| SDev | .005 | .041 | .021 | .010 | .05 | .012 | .013 |
| %RSD | .4918 | .5932 | .5921 | .8850 | .3589 | .3114 | .5853 |
| #1 | 1.110 | 6.885 | 3.538 | 1.151 | 13.95 | 3.711 | 2.271 |
| #2 | 1.118 | 6.943 | 3.568 | 1.166 | 14.02 | 3.727 | 2.290 |

| Elem | Mn | V | Sr |
|---|---|---|---|
| Avge | 9.364 | 3.322 | 7.853 |
| SDev | .041 | .017 | .036 |
| %RSD | .4351 | .5002 | .4644 |
| #1 | 9.335 | 3.310 | 7.827 |
| #2 | 9.393 | 3.334 | 7.879 |

Method: ICP1 Standard: CAL2A

| Elem | Sb | B | Mo | Si | Sn | Ti |
|---|---|---|---|---|---|---|
| Avge | .4540 | .4949 | 1.849 | 1.784 | 1.142 | 1.642 |
| SDev | .0021 | .0016 | .007 | .005 | .010 | .003 |
| %RSD | .4673 | .3215 | .3729 | .2973 | .8434 | .1776 |
| | | | | | | |
| #1 | .4525 | .4938 | 1.844 | 1.780 | 1.135 | 1.640 |
| #2 | .4555 | .4960 | 1.854 | 1.788 | 1.149 | 1.644 |

ethod: ICP1 Standard: CAL3

| Elem | Ca | Fe | Mg | K | Na |
|---|---|---|---|---|---|
| Avge | 8.506 | 5.544 | 8.917 | 1.985 | 18.19 |
| SDev | .040 | .036 | .041 | .000 | .06 |
| %RSD | .4739 | .6456 | .4619 | .0178 | .3357 |
| | | | | | |
| #1 | 8.477 | 5.519 | 8.887 | 1.985 | 18.15 |
| #2 | 8.534 | 5.570 | 8.946 | 1.985 | 18.23 |

ethod: ICP1 Sample Name: ICV Operator: EQ
un Time: 10/30/97 22:39:01
omment:
ode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5146 | 5.007 | 4.958 | 4.980 | 5.047 | 4.829 | 4.912 |
| SDev | .0001 | .009 | .010 | .023 | .012 | .017 | .017 |
| %RSD | .0167 | .1825 | .2103 | .4648 | .2350 | .3444 | .3438 |
| #1 | .5145 | 5.000 | 4.951 | 4.964 | 5.056 | 4.818 | 4.900 |
| #2 | .5146 | 5.013 | 4.966 | 4.996 | 5.039 | 4.841 | 4.923 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.013 | 4.989 | 4.976 | 4.955 | 4.907 | 4.945 | 10.19 |
| SDev | .010 | .028 | .025 | .005 | .009 | .002 | .02 |
| %RSD | .2045 | .5672 | .4955 | .0948 | .1909 | .0439 | .2137 |
| #1 | 5.005 | 4.969 | 4.958 | 4.951 | 4.901 | 4.944 | 10.18 |
| #2 | 5.020 | 5.009 | 4.993 | 4.958 | 4.914 | 4.947 | 10.21 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.029 | 4.982 | 9.783 | 4.999 | 10.56 | 10.36 | 5.084 |
| SDev | .012 | .008 | .022 | .017 | .14 | .18 | .014 |
| %RSD | .2451 | .1636 | .2265 | .3344 | 1.345 | 1.774 | .2822 |
| #1 | 5.020 | 4.976 | 9.767 | 4.987 | 10.46 | 10.23 | 5.074 |
| #2 | 5.038 | 4.988 | 9.799 | 5.010 | 10.66 | 10.49 | 5.094 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.936 | 4.989 | 4.905 | 5.051 | 4.999 | 5.001 |
| SDev | .036 | .020 | .023 | .008 | .014 | .009 |
| %RSD | .7233 | .4019 | .4700 | .1605 | .2762 | .1829 |
| #1 | 4.911 | 4.975 | 4.889 | 5.046 | 5.009 | 4.994 |
| #2 | 4.961 | 5.003 | 4.921 | 5.057 | 4.990 | 5.007 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

ethod: ICP1 Sample Name: ICB Operator: EQ
un Time: 10/30/97 22:44:47
omment:
ode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0000 | .0006 | .0003 | -.0001 | .0115 | .0183 | .0040 |
| SDev | .0032 | .0003 | .0008 | .0002 | .0153 | .0008 | .0329 |
| %RSD | 45500. | 46.28 | 243.2 | 164.6 | 132.4 | 4.433 | 821.0 |
| #1 | .0023 | .0008 | -.0002 | -.0003 | .0223 | .0177 | .0273 |
| #2 | -.0023 | .0004 | .0008 | .0000 | .0007 | .0188 | -.0192 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0003 | .0064 | -.0022 | .0311 | .0425 | .0003 | -.0051 |
| SDev | .0002 | .0091 | .0005 | .0153 | .0193 | .0001 | .0021 |
| %RSD | 59.73 | 141.3 | 23.45 | 49.10 | 45.52 | 22.09 | 40.43 |
| #1 | .0002 | .0000 | -.0018 | .0419 | .0562 | .0003 | -.0037 |
| #2 | .0005 | .0129 | -.0025 | .0203 | .0288 | .0004 | -.0066 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0000 | .0022 | .0098 | .0002 | .5558 | .0233 | .0027 |
| SDev | .0005 | .0012 | .0030 | .0002 | .5285 | .0010 | .0016 |
| %RSD | 13130. | 53.11 | 30.25 | 93.47 | 95.08 | 4.206 | 57.10 |
| #1 | -.0003 | .0030 | .0077 | .0003 | .9295 | .0226 | .0039 |
| #2 | .0003 | .0014 | .0119 | .0001 | .1821 | .0240 | .0016 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0051 | .0064 | .0119 | .0004 | -.0038 | .0008 |
| SDev | .0143 | .0014 | .0090 | .0003 | .0054 | .0000 |
| %RSD | 282.6 | 22.35 | 75.51 | 96.95 | 141.4 | .4160 |
| #1 | -.0152 | .0054 | .0182 | .0006 | -.0076 | .0008 |
| #2 | .0051 | .0074 | .0055 | .0001 | -.0000 | .0008 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

006344

Method: ICP1 Sample Name: LINCHK000 Operator: EQ
Run Time: 10/30/97 22:48:18
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0004 | .0010 | .0021 | .0007 | .0186 | .0045 | -.0155 |
| SDev | .0016 | .0003 | .0030 | .0023 | .0382 | .0017 | .0055 |
| %RSD | 416.4 | 28.54 | 144.5 | 348.8 | 206.1 | 37.02 | 35.58 |
| #1 | .0015 | .0008 | -.0000 | -.0010 | -.0085 | .0033 | -.0116 |
| #2 | -.0008 | .0012 | .0042 | .0023 | H.0456 | .0056 | -.0193 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |
| Low | -.0100 | -.0500 | -.0050 | -.0100 | -.0250 | -.0500 | -.0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0034 | .0072 | .0012 | .0161 | .0165 | .0007 | .0007 |
| SDev | .0026 | .0056 | .0003 | .0107 | .0057 | .0001 | .0042 |
| %RSD | 74.33 | 77.71 | 21.80 | 66.58 | 34.80 | 9.676 | 569.9 |
| #1 | .0016 | .0033 | .0014 | .0085 | .0124 | .0006 | -.0022 |
| #2 | .0052 | .0112 | .0010 | .0236 | .0206 | .0007 | .0037 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |
| Low | -.0250 | -.0300 | -.0200 | -.1000 | -.0600 | -.0050 | -.2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0025 | .0033 | .0014 | .0009 | -.1727 | .0282 | .0036 |
| SDev | .0002 | .0004 | .0149 | .0002 | .4397 | .0039 | .0003 |
| %RSD | 9.327 | 11.91 | 1048. | 21.66 | 254.6 | 13.80 | 7.139 |
| #1 | .0024 | .0036 | -.0091 | .0007 | .1382 | .0254 | .0038 |
| #2 | .0027 | .0030 | .0119 | .0010 | -.4836 | .0309 | .0034 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |
| Low | -.0500 | -.0500 | -.2000 | -.0150 | -2.000 | -.2000 | -.0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0051 | .0030 | .0056 | .0008 | -.0038 | .0008 |
| SDev | .0036 | .0005 | .0078 | .0001 | .0241 | .0000 |
| %RSD | 70.59 | 15.84 | 140.7 | 15.83 | 632.0 | .1857 |
| #1 | -.0076 | .0034 | .0000 | .0008 | -.0208 | .0008 |
| #2 | -.0025 | .0027 | .0111 | .0007 | .0132 | .0008 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |
| Low | -.1000 | -.0500 | -.1000 | -.0500 | -.0500 | -.0500 |

:ethod: ICP1 Sample Name: LINCHK020 Operator: EQ
:un Time: 10/30/97 22:51:46
:omment:
:ode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2010 | 2.008 | 1.978 | 2.015 | 2.050 | 1.998 | 1.997 |
| SDev | .0003 | .023 | .018 | .008 | .005 | .011 | .022 |
| %RSD | .1665 | 1.152 | .9089 | .4067 | .2221 | .5542 | 1.090 |
| #1 | .2012 | 1.992 | 1.966 | 2.009 | 2.046 | 1.990 | 2.012 |
| #2 | .2008 | 2.024 | 1.991 | 2.021 | 2.053 | 2.005 | 1.981 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .2200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 |
| Low | .1800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 2.012 | 2.039 | 1.999 | 2.025 | 1.992 | 1.984 | 20.52 |
| SDev | .017 | .030 | .014 | .006 | .006 | .017 | .15 |
| %RSD | .8273 | 1.462 | .7061 | .2886 | .2886 | .8605 | .7389 |
| #1 | 2.000 | 2.018 | 1.989 | 2.029 | 1.988 | 1.972 | 20.42 |
| #2 | 2.024 | 2.060 | 2.009 | 2.021 | 1.996 | 1.996 | 20.63 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 22.00 |
| Low | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 18.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 2.009 | 21.98 | 19.86 | 1.998 | 20.14 | 20.45 | 2.036 |
| SDev | .015 | .20 | .11 | .019 | .02 | .19 | .019 |
| %RSD | .7419 | .9188 | .5711 | .9530 | .1103 | .9270 | .9417 |
| #1 | 1.999 | 21.84 | 19.78 | 1.984 | 20.12 | 20.32 | 2.022 |
| #2 | 2.020 | 22.12 | 19.94 | 2.011 | 20.15 | 20.58 | 2.049 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 24.20 | 22.00 | 2.200 | 22.00 | 22.00 | 2.200 |
| Low | 1.800 | 19.80 | 18.00 | 1.800 | 18.00 | 18.00 | 1.800 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.981 | 2.020 | 1.987 | 2.011 | 1.994 | 2.013 |
| SDev | .023 | .012 | .025 | .021 | .019 | .022 |
| %RSD | 1.170 | .5913 | 1.250 | 1.058 | .9724 | 1.071 |
| #1 | 1.964 | 2.011 | 1.969 | 1.996 | 1.980 | 1.998 |
| #2 | 1.997 | 2.028 | 2.004 | 2.026 | 2.007 | 2.029 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 | 2.200 |
| Low | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 | 1.800 |

Method: ICP1 Sample Name: LINCHK050 Operator: EQ
Run Time: 10/30/97 22:55:15
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4936 | 4.821 | 4.808 | 4.843 | 4.925 | 4.846 | 4.805 |
| SDev | .0028 | .074 | .060 | .056 | .033 | .056 | .052 |
| %RSD | .5589 | 1.531 | 1.256 | 1.155 | .6739 | 1.151 | 1.081 |
| #1 | .4916 | 4.769 | 4.765 | 4.803 | 4.902 | 4.807 | 4.768 |
| #2 | .4955 | 4.873 | 4.850 | 4.883 | 4.949 | 4.886 | 4.842 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .5500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 |
| Low | .4500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.837 | 4.829 | 4.846 | 4.839 | 4.907 | 4.799 | 49.67 |
| SDev | .071 | .023 | .046 | .073 | .025 | .056 | .43 |
| %RSD | 1.477 | .4766 | .9422 | 1.516 | .5177 | 1.170 | .8719 |
| #1 | 4.786 | 4.813 | 4.814 | 4.787 | 4.889 | 4.760 | 49.37 |
| #2 | 4.887 | 4.845 | 4.878 | 4.891 | 4.925 | 4.839 | 49.98 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 55.00 |
| Low | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 45.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.822 | 55.68 | 48.76 | 4.811 | 49.89 | 49.48 | 4.902 |
| SDev | .046 | .39 | .38 | .051 | .12 | .96 | .057 |
| %RSD | .9524 | .7041 | .7893 | 1.070 | .2493 | 1.930 | 1.155 |
| #1 | 4.790 | 55.41 | 48.49 | 4.774 | 49.97 | 48.81 | 4.862 |
| #2 | 4.855 | 55.96 | 49.03 | 4.847 | 49.80 | 50.16 | 4.942 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 60.50 | 55.00 | 5.500 | 55.00 | 55.00 | 5.500 |
| Low | 4.500 | 49.50 | 45.00 | 4.500 | 45.00 | 45.00 | 4.500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.842 | 4.874 | 4.834 | 4.835 | 4.853 | 4.869 |
| SDev | .030 | .065 | .041 | .070 | .037 | .065 |
| %RSD | .6232 | 1.332 | .8497 | 1.453 | .7561 | 1.328 |
| #1 | 4.821 | 4.828 | 4.805 | 4.785 | 4.827 | 4.823 |
| #2 | 4.863 | 4.920 | 4.863 | 4.885 | 4.879 | 4.914 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 |
| Low | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 | 4.500 |

lethod: ICP1 Sample Name: LINCHK100 Operator: EQ
Run Time: 10/30/97 22:58:46
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9816 | 9.731 | 9.754 | 9.697 | 9.880 | 9.766 | 9.906 |
| SDev | .0063 | .068 | .024 | .012 | .001 | .031 | .007 |
| %RSD | .6426 | .6984 | .2430 | .1225 | .0116 | .3175 | .0688 |
| #1 | .9861 | 9.779 | 9.770 | 9.706 | 9.879 | 9.744 | 9.901 |
| #2 | .9772 | 9.683 | 9.737 | 9.689 | 9.881 | 9.787 | 9.910 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 1.100 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Low | .9000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.761 | 9.660 | 9.836 | 9.848 | 9.893 | 9.710 | 99.65 |
| SDev | .040 | .010 | .002 | .021 | .004 | .032 | .05 |
| %RSD | .4136 | .0993 | .0213 | .2141 | .0423 | .3321 | .0512 |
| #1 | 9.790 | 9.667 | 9.835 | 9.863 | 9.890 | 9.733 | 99.62 |
| #2 | 9.733 | 9.653 | 9.838 | 9.833 | 9.896 | 9.688 | 99.69 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 110.0 |
| Low | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 90.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.660 | 111.2 | 100.00 | 9.736 | 100.6 | 100.3 | 9.895 |
| SDev | .004 | .1 | .123 | .005 | .2 | .8 | .016 |
| %RSD | .0430 | .0602 | .1229 | .0473 | .2251 | .8041 | .1572 |
| #1 | 9.658 | 111.1 | 99.91 | 9.739 | 100.8 | 100.8 | 9.906 |
| #2 | 9.663 | 111.2 | 100.1 | 9.733 | 100.5 | 99.69 | 9.884 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 121.0 | 110.0 | 11.00 | 110.0 | 110.0 | 11.00 |
| Low | 9.000 | 99.00 | 90.00 | 9.000 | 90.00 | 90.00 | 9.000 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 9.798 | 9.749 | 9.716 | 9.748 | 9.702 | 9.759 |
| SDev | .054 | .003 | .010 | .058 | .021 | .042 |
| %RSD | .5469 | .0293 | .1057 | .5927 | .2146 | .4302 |
| #1 | 9.835 | 9.751 | 9.723 | 9.788 | 9.717 | 9.789 |
| #2 | 9.760 | 9.747 | 9.709 | 9.707 | 9.687 | 9.730 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Low | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 | 9.000 |

Method: ICP1 Sample Name: CRI Operator: EQ
Run Time: 10/30/97 23:02:15
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0223 | .4012 | Q.0124 | .0165 | Q.1318 | .2186 | .1751 |
| SDev | .0000 | .0004 | .0046 | .0009 | .0328 | .0001 | .0795 |
| %RSD | .0455 | .1066 | 36.96 | 5.707 | 24.88 | .0334 | 45.42 |
| #1 | .0223 | .4009 | .0091 | .0172 | .1086 | .2186 | Q.1188 |
| #2 | .0223 | .4015 | Q.0156 | Q.0159 | Q.1550 | .2185 | .2313 |
| Errors | QC Pass | QC Pass | QC Fail | QC Pass | QC Fail | QC Pass | QC Pass |
| Value | .0200 | .4000 | .0100 | .0200 | .1000 | .2000 | .2000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0442 | .0832 | .0412 | .4110 | Q.1481 | .0105 | 10.40 |
| SDev | .0086 | .0130 | .0001 | .0122 | .0234 | .0001 | .02 |
| %RSD | 19.50 | 15.67 | .2492 | 2.976 | 15.81 | .5880 | .2098 |
| #1 | Q.0381 | .0740 | .0412 | .4023 | .1315 | .0105 | 10.38 |
| #2 | .0503 | .0924 | .0411 | .4196 | Q.1646 | .0104 | 10.41 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass |
| Value | .0500 | .0800 | .0400 | .4000 | .1200 | .0100 | 10.00 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1023 | .1946 | 10.00 | .0298 | 10.33 | 10.25 | .1040 |
| SDev | .0002 | .0031 | .02 | .0003 | .30 | .04 | .0006 |
| %RSD | .2306 | 1.602 | .2280 | .9559 | 2.925 | .3889 | .5423 |
| #1 | .1021 | .1969 | 9.987 | .0300 | 10.11 | 10.22 | .1044 |
| #2 | .1024 | .1924 | 10.02 | .0296 | 10.54 | 10.28 | .1036 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .2000 | 10.00 | .0300 | 10.00 | 10.00 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1122 | .1085 | .2337 | .1006 | .2124 | .1049 |
| SDev | .0018 | .0014 | .0055 | .0001 | .0078 | .0011 |
| %RSD | 1.592 | 1.321 | 2.340 | .1199 | 3.663 | 1.028 |
| #1 | .1134 | .1095 | .2375 | .1007 | .2069 | .1056 |
| #2 | .1109 | .1075 | .2298 | .1005 | .2179 | .1041 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .1000 | .2000 | .1000 | .2000 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

Method: ICP1 Sample Name: ISA Operator: EQ
Run Time: 10/30/97 23:05:45
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0403 | -.0133 | -.0013 | -.0024 | -.0703 | .0751 | -.0276 |
| SDev | .0011 | .0007 | .0052 | .0004 | .0315 | .0574 | .0102 |
| %RSD | 2.662 | 5.148 | 401.1 | 18.15 | 44.75 | 76.41 | 36.86 |
| #1 | -.0395 | -.0128 | .0024 | -.0021 | -.0480 | .0345 | -.0204 |
| #2 | -.0410 | -.0138 | -.0050 | -.0027 | -.0925 | .1156 | -.0348 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | | |
| Range | | | | | | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0186 | .0003 | -.0042 | 490.9 | .0293 | .0003 | 471.6 |
| SDev | .0078 | .0047 | .0019 | 6.2 | .0424 | .0002 | 3.3 |
| %RSD | 42.17 | 1571. | 46.27 | 1.254 | 144.8 | 70.12 | .6954 |
| #1 | -.0130 | .0036 | -.0028 | 486.6 | -.0007 | .0005 | 469.3 |
| #2 | -.0241 | -.0030 | -.0055 | 495.3 | .0593 | .0002 | 473.9 |
| Errors | NOCHECK | NOCHECK | NOCHECK | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | | | | 500.0 | | | 500.0 |
| Range | | | | 100.0 | | | 100.0 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0105 | 188.3 | 515.9 | -.0029 | .2104 | .0292 | .0051 |
| SDev | .0025 | 1.5 | 4.1 | .0005 | .5107 | .0170 | .0044 |
| %RSD | 23.43 | .8186 | .7893 | 15.87 | 242.7 | 58.48 | 85.72 |
| #1 | -.0088 | 187.2 | 513.0 | -.0025 | .5715 | .0412 | .0082 |
| #2 | -.0123 | 189.4 | 518.7 | -.0032 | -.1507 | .0171 | .0020 |
| Errors | NOCHECK | QC Pass | QC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | 200.0 | 500.0 | | | | |
| Range | | 40.00 | 100.0 | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0367 | .0159 | .0126 | .0199 | .0523 | .0002 |
| SDev | .0018 | .0034 | .0055 | .0001 | .0090 | .0003 |
| %RSD | 4.872 | 21.07 | 43.30 | .3284 | 17.23 | 139.2 |
| #1 | -.0354 | .0135 | .0165 | .0198 | .0587 | .0000 |
| #2 | -.0379 | .0183 | .0088 | .0199 | .0460 | .0004 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

lethod: ICP1 Sample Name: ISB Operator: EQ
un Time: 10/30/97 23:17:11
omment:
lode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .9913 | .4549 | .9538 | .4576 | .8689 | .0475 | -.0133 |
| SDev | .0011 | .0001 | .0090 | .0009 | .0192 | .0723 | .0331 |
| %RSD | .1097 | .0176 | .9442 | .2006 | 2.212 | 152.2 | 249.7 |
| #1 | .9905 | .4549 | .9474 | .4582 | .8824 | -.0036 | .0102 |
| #2 | .9920 | .4550 | .9602 | .4569 | .8553 | .0987 | -.0367 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK |
| Value | 1.000 | .5000 | 1.000 | .5000 | 1.000 | | |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4759 | .8913 | .9666 | 494.9 | -.0146 | .4655 | 472.5 |
| SDev | .0023 | .0220 | .0036 | .8 | .0038 | .0008 | 1.8 |
| %RSD | .4914 | 2.468 | .3717 | .1544 | 26.00 | .1626 | .3734 |
| #1 | .4742 | .8757 | .9641 | 494.3 | -.0119 | .4650 | 471.2 |
| #2 | .4775 | .9068 | .9692 | 495.4 | -.0173 | .4661 | 473.7 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | QC Pass | QC Pass |
| Value | .5000 | 1.000 | 1.000 | 500.0 | | .5000 | 500.0 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4485 | 189.2 | 517.5 | .4500 | .2701 | .0089 | .4683 |
| SDev | .0003 | .6 | 1.9 | .0017 | .0799 | .0117 | .0006 |
| %RSD | .0627 | .3117 | .3736 | .3703 | 29.60 | 130.6 | .1257 |
| #1 | .4487 | 188.8 | 516.2 | .4488 | .2135 | .0007 | .4679 |
| #2 | .4483 | 189.6 | 518.9 | .4512 | .3266 | .0172 | .4688 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | .5000 | 200.0 | 500.0 | .5000 | | | .5000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0427 | .0056 | .0237 | .0199 | .0100 | .0001 |
| SDev | .0054 | .0014 | .0090 | .0000 | .0156 | .0013 |
| %RSD | 12.57 | 25.51 | 38.01 | .0462 | 155.2 | 1570. |
| #1 | -.0465 | .0046 | .0301 | .0199 | -.0010 | -.0008 |
| #2 | -.0389 | .0066 | .0174 | .0199 | .0210 | .0010 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Method: ICP1 Sample Name: CCV Operator: EQ
Run Time: 10/30/97 23:20:41
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5234 | 5.042 | 5.028 | 5.051 | 5.145 | 4.964 | 5.045 |
| SDev | .0014 | .040 | .047 | .017 | .003 | .084 | .011 |
| %RSD | .2654 | .7873 | .9421 | .3429 | .0603 | 1.693 | .2265 |
| #1 | .5225 | 5.014 | 4.995 | 5.038 | 5.148 | 4.904 | 5.037 |
| #2 | .5244 | 5.070 | 5.062 | 5.063 | 5.143 | 5.023 | 5.053 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.064 | 5.038 | 5.074 | 5.019 | 4.986 | 5.000 | 10.35 |
| SDev | .033 | .045 | .028 | .034 | .000 | .030 | .05 |
| %RSD | .6435 | .8867 | .5491 | .6811 | .0060 | .5911 | .4704 |
| #1 | 5.041 | 5.006 | 5.054 | 4.995 | 4.986 | 4.979 | 10.31 |
| #2 | 5.087 | 5.069 | 5.094 | 5.043 | 4.986 | 5.021 | 10.38 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.100 | 5.043 | 9.918 | 5.067 | 10.22 | 10.43 | 5.157 |
| SDev | .019 | .029 | .062 | .028 | .18 | .17 | .031 |
| %RSD | .3756 | .5776 | .6258 | .5554 | 1.738 | 1.607 | .6086 |
| #1 | 5.087 | 5.023 | 9.874 | 5.047 | 10.34 | 10.32 | 5.135 |
| #2 | 5.114 | 5.064 | 9.962 | 5.087 | 10.09 | 10.55 | 5.179 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.995 | 5.079 | 4.962 | 5.090 | 5.120 | 5.055 |
| SDev | .041 | .023 | .019 | .041 | .046 | .033 |
| %RSD | .8213 | .4514 | .3834 | .7971 | .8924 | .6604 |
| #1 | 4.966 | 5.062 | 4.948 | 5.061 | 5.087 | 5.031 |
| #2 | 5.024 | 5.095 | 4.975 | 5.118 | 5.152 | 5.078 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator: EQ
Run Time: 10/30/97 23:24:10
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0008 | .0002 | .0007 | -.0010 | -.0078 | .0310 | -.0038 |
| SDev | .0011 | .0003 | .0017 | .0019 | .0076 | .0144 | .0220 |
| %RSD | 141.4 | 141.4 | 246.1 | 192.0 | 98.13 | 46.52 | 578.7 |
| #1 | -.0015 | .0004 | .0019 | -.0023 | -.0132 | .0208 | -.0194 |
| #2 | -.0000 | .0000 | -.0005 | .0004 | -.0024 | .0412 | .0118 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0002 | .0073 | -.0015 | .0252 | .0302 | .0002 | -.0029 |
| SDev | .0009 | .0001 | .0005 | .0098 | .0057 | .0001 | .0010 |
| %RSD | 541.7 | 1.645 | 33.31 | 39.03 | 18.84 | 27.62 | 35.47 |
| #1 | -.0008 | .0074 | -.0011 | .0183 | .0262 | .0003 | -.0037 |
| #2 | .0005 | .0072 | -.0018 | .0322 | .0342 | .0002 | -.0022 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0019 | .0008 | -.0295 | -.0001 | .4051 | .0017 | .0016 |
| SDev | .0017 | .0008 | .0149 | .0000 | .1910 | .0063 | .0010 |
| %RSD | 89.88 | 95.61 | 50.51 | 1.270 | 47.14 | 373.5 | 62.59 |
| #1 | -.0030 | .0003 | -.0189 | -.0001 | .5401 | -.0028 | .0023 |
| #2 | -.0007 | .0014 | -.0400 | -.0001 | .2701 | .0061 | .0009 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0013 | .0041 | .0091 | .0002 | .0022 | .0004 |
| SDev | .0018 | .0038 | .0049 | .0001 | .0124 | .0005 |
| %RSD | 141.1 | 94.17 | 53.93 | 61.01 | 571.5 | 143.9 |
| #1 | -.0025 | .0014 | .0056 | .0001 | -.0066 | .0008 |
| #2 | -.0000 | .0068 | .0125 | .0003 | .0109 | -.0000 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

(ethod: ICP1 Sample Name: L72972544-001 Operator:
:un Time: 10/30/97 23:29:15
:omment:
(ode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0385 | .7163 | L.0007 | .3118 | .0552 | .0793 | L-.0166 |
| SDev | .0012 | .0044 | .0006 | .0017 | .0049 | .0177 | .0336 |
| %RSD | 3.186 | .6169 | 81.24 | .5384 | 8.865 | 22.32 | 202.6 |
| #1 | L-.0394 | .7132 | L.0003 | .3106 | .0518 | .0668 | L-.0404 |
| #2 | L-.0376 | .7195 | L.0011 | .3130 | .0587 | .0918 | L.0072 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1083 | .2496 | .4308 | 225.1 | L.0268 | .0104 | 442.7 |
| SDev | .0026 | .0033 | .0032 | 1.8 | .0120 | .0001 | 4.3 |
| %RSD | 2.430 | 1.336 | .7308 | .7799 | 44.64 | .7010 | .9662 |
| #1 | .1102 | .2473 | .4286 | 223.9 | L.0353 | .0105 | 439.6 |
| #2 | .1065 | .2520 | .4330 | 226.4 | L.0183 | .0104 | 445.7 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1039 | 201.4 | 277.3 | 3.144 | 90.29 | 3.904 | .4195 |
| SDev | .0004 | 1.8 | 2.9 | .028 | .57 | .008 | .0037 |
| %RSD | .3605 | .8903 | 1.037 | .8803 | .6296 | .2119 | .8743 |
| #1 | .1041 | 200.1 | 275.3 | 3.125 | 89.89 | 3.909 | .4169 |
| #2 | .1036 | 202.7 | 279.4 | 3.164 | 90.69 | 3.898 | .4221 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5101 | .0509 | 54.34 | .4627 | L.0344 | 2.128 |
| SDev | .0179 | .0048 | .55 | .0026 | .0050 | .016 |
| %RSD | 3.500 | 9.389 | 1.013 | .5660 | 14.43 | .7582 |
| #1 | .4975 | L.0475 | 53.95 | .4609 | L.0309 | 2.116 |
| #2 | .5227 | .0543 | 54.73 | .4646 | L.0379 | 2.139 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-004 Operator:
Run Time: 10/30/97 23:32:54
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0356 | .5436 | L.0037 | .2252 | .0596 | .1040 | L.0071 |
| SDev | .0013 | .0060 | .0034 | .0002 | .0402 | .0306 | .0361 |
| %RSD | 3.651 | 1.095 | 90.43 | .1049 | 67.45 | 29.42 | 511.4 |
| #1 | L-.0365 | .5394 | .0061 | .2251 | .0880 | .1257 | L-.0185 |
| #2 | L-.0347 | .5478 | L.0013 | .2254 | .0312 | .0824 | L.0326 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1246 | .2234 | .3939 | 164.7 | L.0252 | .0075 | 529.5 |
| SDev | .0054 | .0005 | .0071 | 1.9 | .0195 | .0001 | 5.4 |
| %RSD | 4.374 | .2240 | 1.813 | 1.138 | 77.33 | 1.531 | 1.011 |
| #1 | .1208 | .2231 | .3889 | 163.4 | L.0390 | .0074 | 525.7 |
| #2 | .1285 | .2238 | .3990 | 166.1 | L.0114 | .0076 | 533.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0878 | 182.2 | 285.9 | 3.174 | 64.94 | 3.203 | .3326 |
| SDev | .0035 | 1.9 | 3.1 | .034 | .19 | .028 | .0043 |
| %RSD | 3.969 | 1.050 | 1.070 | 1.084 | .2940 | .8814 | 1.283 |
| #1 | .0903 | 180.8 | 283.7 | 3.149 | 64.81 | 3.183 | .3295 |
| #2 | .0853 | 183.5 | 288.0 | 3.198 | 65.08 | 3.223 | .3356 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3524 | .0554 | 64.11 | .4433 | L.0256 | 1.955 |
| SDev | .0018 | .0062 | .81 | .0057 | .0191 | .024 |
| %RSD | .5138 | 11.21 | 1.265 | 1.295 | 74.61 | 1.218 |
| #1 | .3537 | .0598 | 63.53 | .4392 | L.0391 | 1.938 |
| #2 | .3511 | .0511 | 64.68 | .4473 | L.0121 | 1.971 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-005 Operator:
Run Time: 10/30/97 23:36:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0584 | 1.473 | L-.0027 | .4806 | .0798 | .1687 | L.0221 |
| SDev | .0000 | .001 | .0003 | .0038 | .0267 | .0391 | .0252 |
| %RSD | .0792 | .0692 | 10.14 | .7822 | 33.43 | 23.21 | 114.4 |
| #1 | L-.0584 | 1.473 | L-.0025 | .4832 | .0986 | .1963 | L.0399 |
| #2 | L-.0584 | 1.472 | L-.0029 | .4779 | .0609 | .1410 | L.0042 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2171 | .2950 | .8206 | 312.3 | L.0126 | .0131 | 256.6 |
| SDev | .0010 | .0103 | .0046 | .2 | .0136 | .0001 | .5 |
| %RSD | .4479 | 3.474 | .5551 | .0561 | 108.0 | .4792 | .2110 |
| #1 | .2164 | .3022 | .8174 | 312.1 | L.0222 | .0131 | 256.2 |
| #2 | .2178 | .2877 | .8238 | 312.4 | L.0030 | .0132 | 257.0 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1415 | 314.1 | 174.6 | 3.035 | 59.05 | 6.543 | .6437 |
| SDev | .0010 | .8 | .2 | .004 | .46 | .054 | .0001 |
| %RSD | .7064 | .2487 | .1392 | .1290 | .7747 | .8328 | .0159 |
| #1 | .1422 | 313.5 | 174.5 | 3.033 | 59.37 | 6.504 | .6436 |
| #2 | .1408 | 314.6 | 174.8 | 3.038 | 58.72 | 6.581 | .6438 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2987 | L.0357 | 72.80 | .5268 | L.0330 | 5.102 |
| SDev | .0000 | .0105 | .24 | .0001 | .0040 | .005 |
| %RSD | .0009 | 29.42 | .3361 | .0233 | 11.98 | .0963 |
| #1 | .2987 | L.0432 | 72.62 | .5269 | L.0302 | 5.099 |
| #2 | .2987 | L.0283 | 72.97 | .5268 | L.0358 | 5.106 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-007 Operator:
Run Time: 10/30/97 23:40:13
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0501 | 1.488 | L-.0018 | .4734 | .0667 | .0964 | L.0072 |
| SDev | .0032 | .001 | .0039 | .0019 | .0029 | .0054 | .0008 |
| %RSD | 6.315 | .0428 | 217.2 | .3947 | 4.418 | 5.652 | 10.92 |
| #1 | L-.0478 | 1.489 | L-.0045 | .4747 | .0646 | .1002 | L.0066 |
| #2 | L-.0523 | 1.488 | L.0010 | .4721 | .0687 | .0925 | L.0077 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1460 | .3837 | .4839 | 394.1 | L.0430 | .0165 | 376.3 |
| SDev | .0054 | .0041 | .0023 | .6 | .0213 | .0001 | 2.0 |
| %RSD | 3.667 | 1.069 | .4745 | .1580 | 49.57 | .3739 | .5431 |
| #1 | .1498 | .3866 | .4823 | 393.6 | L.0581 | .0165 | 374.9 |
| #2 | .1422 | .3808 | .4856 | 394.5 | L.0279 | .0164 | 377.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1449 | 248.3 | 265.0 | 3.127 | 165.6 | 6.571 | .7283 |
| SDev | .0024 | 1.1 | 1.1 | .009 | .5 | .026 | .0006 |
| %RSD | 1.691 | .4384 | .4118 | .2876 | .3245 | .3926 | .0795 |
| #1 | .1466 | 247.5 | 264.2 | 3.121 | 166.0 | 6.553 | .7287 |
| #2 | .1432 | 249.1 | 265.7 | 3.134 | 165.2 | 6.590 | .7279 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .8407 | .0879 | 122.2 | .4678 | L.0309 | 3.484 |
| SDev | .0089 | .0057 | .4 | .0002 | .0254 | .007 |
| %RSD | 1.063 | 6.524 | .3168 | .0352 | 82.02 | .1928 |
| #1 | .8343 | .0919 | 121.9 | .4680 | L.0489 | 3.479 |
| #2 | .8470 | .0838 | 122.5 | .4677 | L.0130 | 3.489 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-008 Operator:
Run Time: 10/30/97 23:43:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0446 | .9353 | L-.0005 | .2494 | .1270 | .0704 | L-.0378 |
| SDev | .0015 | .0089 | .0031 | .0014 | .0198 | .0039 | .0739 |
| %RSD | 3.394 | .9552 | 598.0 | .5736 | 15.62 | 5.602 | 195.3 |
| #1 | L-.0457 | .9416 | L-.0027 | .2484 | .1130 | .0732 | L-.0901 |
| #2 | L-.0435 | .9290 | L.0017 | .2504 | .1410 | .0676 | L.0144 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1810 | .2457 | .5797 | 194.9 | L.0136 | .0080 | 430.7 |
| SDev | .0007 | .0009 | .0000 | .7 | .0212 | .0000 | 2.2 |
| %RSD | .4018 | .3686 | .0036 | .3466 | 156.5 | .0123 | .5197 |
| #1 | .1805 | .2451 | .5797 | 195.4 | L-.0014 | .0080 | 429.1 |
| #2 | .1815 | .2463 | .5797 | 194.4 | L.0286 | .0080 | 432.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0832 | 215.9 | 298.7 | 4.964 | 42.53 | 4.050 | .4351 |
| SDev | .0019 | .7 | 1.6 | .005 | .20 | .001 | .0004 |
| %RSD | 2.264 | .3122 | .5512 | .0976 | .4594 | .0367 | .0849 |
| #1 | .0819 | 215.4 | 297.5 | 4.960 | 42.39 | 4.051 | .4354 |
| #2 | .0845 | 216.4 | 299.8 | 4.967 | 42.67 | 4.049 | .4349 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2441 | L.0256 | 41.25 | .4045 | L.0179 | 2.570 |
| SDev | .0071 | .0062 | .01 | .0032 | .0122 | .010 |
| %RSD | 2.926 | 24.23 | .0219 | .7963 | 68.12 | .4073 |
| #1 | .2492 | L.0212 | 41.24 | .4068 | L.0265 | 2.577 |
| #2 | .2391 | L.0300 | 41.26 | .4022 | L.0093 | 2.562 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-009 Operator:
Run Time: 10/30/97 23:47:33
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0393 | 1.007 | L-.0011 | .3306 | .0630 | .1100 | L-.0394 |
| SDev | .0057 | .012 | .0018 | .0009 | .0225 | .0243 | .0107 |
| %RSD | 14.57 | 1.192 | 165.4 | .2775 | 35.79 | 22.12 | 27.16 |
| #1 | L-.0434 | 1.015 | L-.0024 | .3299 | .0471 | .1272 | L-.0318 |
| #2 | L-.0353 | .9982 | L.0002 | .3312 | .0789 | .0928 | L-.0469 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0859 | .2374 | .3844 | 272.9 | L.0192 | .0110 | 461.4 |
| SDev | .0007 | .0114 | .0021 | 1.9 | .0369 | .0001 | .1 |
| %RSD | .8162 | 4.794 | .5389 | .6995 | 192.2 | .5661 | .0110 |
| #1 | .0864 | .2455 | .3829 | 274.2 | L-.0069 | .0110 | 461.5 |
| #2 | .0854 | .2294 | .3858 | 271.5 | L.0453 | .0111 | 461.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0922 | 197.3 | 295.0 | 2.995 | 111.2 | 4.928 | .4910 |
| SDev | .0032 | .6 | .1 | .009 | .2 | .067 | .0002 |
| %RSD | 3.437 | .3191 | .0219 | .3106 | .1397 | 1.362 | .0491 |
| #1 | .0900 | 197.7 | 295.0 | 3.001 | 111.3 | 4.976 | .4909 |
| #2 | .0945 | 196.8 | 294.9 | 2.988 | 111.1 | 4.881 | .4912 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5624 | L.0404 | 114.8 | .4411 | L.0250 | 2.728 |
| SDev | .0036 | .0005 | .3 | .0060 | .0186 | .019 |
| %RSD | .6322 | 1.178 | .2708 | 1.352 | 74.45 | .7095 |
| #1 | .5650 | L.0401 | 115.0 | .4453 | L.0381 | 2.742 |
| #2 | .5599 | L.0408 | 114.6 | .4369 | L.0118 | 2.714 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-010 Operator:
Run Time: 10/30/97 23:51:12
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0378 | .5585 | L-.0020 | .3300 | .0886 | .0684 | L-.0300 |
| SDev | .0069 | .0034 | .0024 | .0014 | .0186 | .0511 | .0047 |
| %RSD | 18.17 | .6123 | 115.4 | .4174 | 21.04 | 74.69 | 15.83 |
| #1 | L-.0329 | .5561 | L-.0004 | .3310 | .1018 | .1045 | L-.0333 |
| #2 | L-.0426 | .5609 | L-.0037 | .3290 | .0754 | L.0323 | L-.0266 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1316 | .2471 | .4371 | 186.0 | L.0346 | .0088 | 455.8 |
| SDev | .0024 | .0138 | .0026 | 1.5 | .0060 | .0001 | 4.6 |
| %RSD | 1.810 | 5.588 | .6035 | .8161 | 17.29 | 1.324 | 1.018 |
| #1 | .1333 | .2373 | .4352 | 184.9 | L.0388 | .0087 | 452.5 |
| #2 | .1300 | .2569 | .4390 | 187.1 | L.0304 | .0088 | 459.1 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1254 | 193.8 | 259.4 | 3.238 | 72.26 | 3.902 | .3605 |
| SDev | .0011 | 1.7 | 2.6 | .030 | .06 | .015 | .0038 |
| %RSD | .8613 | .8856 | 1.006 | .9328 | .0799 | .3740 | 1.056 |
| #1 | .1262 | 192.6 | 257.6 | 3.217 | 72.30 | 3.892 | .3578 |
| #2 | .1247 | 195.1 | 261.3 | 3.260 | 72.21 | 3.912 | .3632 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4016 | L.0434 | 63.78 | .5568 | L.0393 | 1.924 |
| SDev | .0036 | .0009 | .61 | .0032 | .0281 | .013 |
| %RSD | .8940 | 2.197 | .9528 | .5695 | 71.63 | .7012 |
| #1 | .4042 | L.0441 | 63.35 | .5545 | L.0194 | 1.915 |
| #2 | .3991 | L.0428 | 64.21 | .5590 | .0592 | 1.934 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-011 Operator:
Run Time: 10/30/97 23:54:52
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0392 | .9140 | L-.0019 | .2912 | .0701 | .0901 | L-.0405 |
| SDev | .0005 | .0010 | .0001 | .0024 | .0013 | .0135 | .0298 |
| %RSD | 1.273 | .1049 | 7.576 | .8056 | 1.815 | 15.04 | 73.50 |
| #1 | L-.0388 | .9147 | L-.0018 | .2896 | .0692 | .0806 | L-.0616 |
| #2 | L-.0395 | .9133 | L-.0021 | .2929 | .0710 | .0997 | L-.0195 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1290 | .2324 | .4148 | 239.7 | L.0393 | .0098 | 491.3 |
| SDev | .0015 | .0021 | .0022 | .4 | .0037 | .0000 | 3.0 |
| %RSD | 1.166 | .8808 | .5365 | .1601 | 9.528 | .0905 | .6045 |
| #1 | .1301 | .2310 | .4132 | 239.4 | L.0367 | .0098 | 489.2 |
| #2 | .1279 | .2339 | .4163 | 240.0 | L.0419 | .0098 | 493.4 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0970 | 186.7 | 292.1 | 3.146 | 95.47 | 4.241 | .4569 |
| SDev | .0028 | 1.0 | 1.8 | .014 | .23 | .035 | .0033 |
| %RSD | 2.874 | .5123 | .6200 | .4349 | .2419 | .8140 | .7189 |
| #1 | .0951 | 186.0 | 290.8 | 3.136 | 95.63 | 4.266 | .4546 |
| #2 | .0990 | 187.3 | 293.4 | 3.155 | 95.31 | 4.217 | .4592 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4678 | L.0469 | 122.8 | .4187 | L.0088 | 2.582 |
| SDev | .0018 | .0009 | .7 | .0003 | .0044 | .004 |
| %RSD | .3846 | 2.030 | .5320 | .0769 | 50.25 | .1605 |
| #1 | .4691 | L.0462 | 122.4 | .4190 | L.0120 | 2.579 |
| #2 | .4666 | L.0476 | 123.3 | .4185 | L.0057 | 2.585 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

lethod: ICP1 Sample Name: L72972544-013 Operator:
un Time: 10/30/97 23:58:32
omment:
lode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0344 | .5293 | L-.0032 | .1942 | .1011 | .1176 | L-.0086 |
| SDev | .0020 | .0053 | .0001 | .0019 | .0144 | .0054 | .0003 |
| %RSD | 5.784 | .9939 | 2.184 | .9575 | 14.29 | 4.571 | 3.627 |
| #1 | L-.0359 | .5330 | L-.0032 | .1955 | .0909 | .1138 | L-.0089 |
| #2 | L-.0330 | .5256 | L-.0033 | .1929 | .1113 | .1214 | L-.0084 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1367 | .1787 | .4752 | 103.7 | L.0327 | L.0049 | 341.3 |
| SDev | .0010 | .0041 | .0040 | .6 | .0195 | .0000 | .7 |
| %RSD | .7233 | 2.293 | .8430 | .6127 | 59.63 | .1339 | .2183 |
| #1 | .1374 | .1758 | .4781 | 104.1 | L.0189 | L.0049 | 341.8 |
| #2 | .1360 | .1816 | .4724 | 103.2 | L.0464 | L.0049 | 340.7 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1218 | 174.3 | 212.7 | 4.134 | 15.86 | 3.202 | .2374 |
| SDev | .0018 | .6 | .6 | .022 | .53 | .011 | .0024 |
| %RSD | 1.510 | .3310 | .2604 | .5404 | 3.361 | .3348 | 1.017 |
| #1 | .1231 | 174.7 | 213.1 | 4.150 | 15.48 | 3.210 | .2357 |
| #2 | .1205 | 173.9 | 212.3 | 4.118 | 16.24 | 3.194 | .2391 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0694 | L.0206 | 31.63 | .2271 | L.0018 | 1.832 |
| SDev | .0054 | .0038 | .11 | .0023 | .0123 | .017 |
| %RSD | 7.769 | 18.55 | .3353 | 1.006 | 671.4 | .9155 |
| #1 | .0655 | L.0179 | 31.70 | .2287 | L-.0069 | 1.844 |
| #2 | .0732 | L.0233 | 31.55 | .2255 | L.0106 | 1.821 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972544-014 Operator:
Run Time: 10/31/97 00:02:12
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.493 | .6402 | L.0010 | .3597 | .0708 | .0679 | L-.0221 |
| SDev | .003 | .0001 | .0013 | .0005 | .0049 | .0437 | .0311 |
| %RSD | .1825 | .0090 | 129.0 | .1295 | 6.965 | 64.35 | 140.8 |
| #1 | 1.491 | .6403 | L.0001 | .3594 | .0743 | .0988 | L-.0441 |
| #2 | 1.495 | .6402 | L.0019 | .3601 | .0674 | L.0370 | L-.0001 |
| Errors | LC Pass | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1874 | .2749 | .5897 | 224.9 | L.0181 | .0109 | 477.5 |
| SDev | .0017 | .0064 | .0057 | .2 | .0114 | .0000 | 1.5 |
| %RSD | .9005 | 2.327 | .9746 | .1028 | 63.09 | .0202 | .3214 |
| #1 | .1862 | .2795 | .5856 | 224.7 | L.0100 | .0109 | 476.4 |
| #2 | .1886 | .2704 | .5938 | 225.1 | L.0262 | .0109 | 478.6 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2523 | 224.8 | 294.2 | 3.993 | 87.43 | 4.300 | .4291 |
| SDev | .0021 | .9 | 1.1 | .015 | .27 | .000 | .0008 |
| %RSD | .8250 | .4084 | .3810 | .3638 | .3048 | .0113 | .1901 |
| #1 | .2508 | 224.1 | 293.4 | 3.982 | 87.61 | 4.300 | .4285 |
| #2 | .2537 | 225.4 | 295.0 | 4.003 | 87.24 | 4.301 | .4297 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4705 | L.0478 | 103.0 | .4732 | L.0303 | 2.272 |
| SDev | .0125 | .0024 | .8 | .0001 | .0187 | .004 |
| %RSD | 2.662 | 5.008 | .7508 | .0132 | 61.88 | .1743 |
| #1 | .4793 | L.0495 | 102.4 | .4732 | L.0170 | 2.270 |
| #2 | .4616 | L.0461 | 103.5 | .4732 | L.0436 | 2.275 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: CCV Operator:
Run Time: 10/31/97 00:05:52
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5222 | 5.049 | 5.053 | 5.107 | 5.201 | 5.012 | 5.086 |
| SDev | .0009 | .015 | .030 | .023 | .026 | .004 | .054 |
| %RSD | .1671 | .2941 | .5971 | .4575 | .5085 | .0826 | 1.060 |
| #1 | .5228 | 5.039 | 5.032 | 5.090 | 5.182 | 5.009 | 5.048 |
| #2 | .5215 | 5.060 | 5.074 | 5.123 | 5.220 | 5.015 | 5.124 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.093 | 5.078 | 5.108 | 5.035 | 5.040 | 5.039 | 10.43 |
| SDev | .009 | .007 | .003 | .004 | .027 | .021 | .04 |
| %RSD | .1718 | .1317 | .0600 | .0762 | .5260 | .4153 | .3775 |
| #1 | 5.086 | 5.074 | 5.106 | 5.032 | 5.021 | 5.024 | 10.40 |
| #2 | 5.099 | 5.083 | 5.111 | 5.038 | 5.058 | 5.054 | 10.46 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.155 | 5.088 | 9.985 | 5.111 | 9.870 | 10.37 | 5.214 |
| SDev | .016 | .008 | .010 | .018 | .093 | .01 | .020 |
| %RSD | .3034 | .1600 | .1030 | .3510 | .9449 | .0743 | .3876 |
| #1 | 5.144 | 5.082 | 9.977 | 5.099 | 9.936 | 10.37 | 5.200 |
| #2 | 5.166 | 5.093 | 9.992 | 5.124 | 9.804 | 10.38 | 5.228 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.013 | 5.114 | 5.137 | 5.104 | 5.172 | 5.081 |
| SDev | .041 | .021 | .025 | .016 | .007 | .022 |
| %RSD | .8188 | .4014 | .4832 | .3130 | .1372 | .4237 |
| #1 | 4.984 | 5.099 | 5.154 | 5.092 | 5.167 | 5.066 |
| #2 | 5.042 | 5.128 | 5.119 | 5.115 | 5.177 | 5.096 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator:
Run Time: 10/31/97 00:09:33
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0008 | .0010 | -.0020 | .0020 | -.0070 | .0297 | .0195 |
| SDev | .0011 | .0006 | .0006 | .0014 | .0372 | .0101 | .0329 |
| %RSD | 137.5 | 56.46 | 32.01 | 69.73 | 531.1 | 34.01 | 168.4 |
| #1 | .0015 | .0014 | -.0015 | .0030 | .0193 | .0369 | .0428 |
| #2 | .0000 | .0006 | -.0024 | .0010 | Q-.0333 | .0226 | -.0037 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0060 | .0111 | -.0015 | .0295 | .0219 | .0006 | .0007 |
| SDev | .0110 | .0014 | .0005 | .0191 | .0058 | .0000 | .0042 |
| %RSD | 183.8 | 12.63 | 35.67 | 64.70 | 26.44 | .4606 | 560.2 |
| #1 | .0138 | .0121 | -.0019 | .0160 | .0260 | .0006 | .0037 |
| #2 | -.0018 | .0101 | -.0011 | .0429 | .0178 | .0006 | -.0022 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0003 | .0052 | .0049 | .0004 | .4616 | .0199 | .0017 |
| SDev | .0019 | .0008 | .0159 | .0003 | .2709 | .0010 | .0011 |
| %RSD | 580.6 | 14.98 | 322.6 | 70.21 | 58.69 | 4.904 | 63.89 |
| #1 | .0017 | .0047 | .0161 | .0002 | .6532 | .0192 | .0009 |
| #2 | -.0010 | .0058 | -.0063 | .0006 | .2701 | .0206 | .0024 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0050 | .0074 | .0252 | .0006 | -.0099 | .0023 |
| SDev | .0072 | .0000 | .0139 | .0002 | .0016 | .0000 |
| %RSD | 141.7 | .0451 | 55.11 | 31.19 | 16.26 | .0197 |
| #1 | -.0000 | .0074 | .0350 | .0007 | -.0087 | .0023 |
| #2 | .0101 | .0074 | .0154 | .0004 | -.0110 | .0023 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-003 Operator:
Run Time: 10/31/97 00:13:14
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0113 | 37.90 | .0091 | 50.82 | 233.4 | L.0075 | L.0311 |
| SDev | .0011 | .04 | .0001 | .20 | 1.4 | .0038 | .0092 |
| %RSD | 10.07 | .1110 | .5412 | .3909 | .6140 | 51.04 | 29.44 |
| #1 | L-.0121 | 37.87 | .0091 | 50.68 | 232.4 | L.0048 | L.0376 |
| #2 | L-.0105 | 37.93 | .0091 | 50.96 | 234.5 | L.0102 | L.0246 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1084 | .1103 | 16.26 | 58.13 | 1.095 | L.0026 | 274.7 |
| SDev | .0019 | .0020 | .07 | .13 | .016 | .0001 | 1.3 |
| %RSD | 1.778 | 1.806 | .4295 | .2155 | 1.440 | 5.002 | .4717 |
| #1 | .1098 | .1117 | 16.21 | 58.04 | 1.106 | L.0026 | 273.8 |
| #2 | .1071 | .1089 | 16.31 | 58.22 | 1.084 | L.0025 | 275.6 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 3.242 | 69.36 | 70.00 | 9.455 | 7.791 | 4.169 | .1737 |
| SDev | .013 | .26 | .38 | .038 | .839 | .009 | .0004 |
| %RSD | .3989 | .3723 | .5409 | .4001 | 10.77 | .2112 | .2583 |
| #1 | 3.232 | 69.18 | 69.73 | 9.428 | 7.198 | 4.175 | .1734 |
| #2 | 3.251 | 69.54 | 70.27 | 9.482 | 8.385 | 4.162 | .1740 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0230 | 6.793 | 39.37 | .6639 | .1496 | 2.112 |
| SDev | .0055 | .025 | .12 | .0011 | .0325 | .007 |
| %RSD | 24.02 | .3751 | .3019 | .1682 | 21.72 | .3107 |
| #1 | L.0269 | 6.775 | 39.28 | .6632 | .1725 | 2.107 |
| #2 | L.0191 | 6.811 | 39.45 | .6647 | .1266 | 2.117 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-005 Operator:
Run Time: 10/31/97 00:16:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.1870 | 4.671 | .0851 | 1.770 | 4.050 | .3163 | .1698 |
| SDev | .0053 | .009 | .0056 | .009 | .006 | .0783 | .0277 |
| %RSD | 2.861 | .1983 | 6.514 | .5162 | .1512 | 24.76 | 16.33 |
| #1 | L-.1832 | 4.678 | .0812 | 1.764 | 4.046 | .3716 | .1893 |
| #2 | L-.1908 | 4.665 | .0891 | 1.776 | 4.055 | .2609 | .1502 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 7.643 | .6508 | 9.134 | 37.65 | .0796 | L.0033 | 699.1 |
| SDev | .013 | .0082 | .028 | .09 | .0073 | .0000 | 3.8 |
| %RSD | .1667 | 1.257 | .3046 | .2497 | 9.124 | .0860 | .5477 |
| #1 | 7.652 | .6450 | 9.114 | 37.58 | .0744 | L.0033 | 696.4 |
| #2 | 7.634 | .6566 | 9.154 | 37.72 | .0847 | L.0033 | 701.8 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1800 | 985.1 | 51.61 | 12.39 | 10.59 | 2.534 | .1653 |
| SDev | .0038 | 3.8 | .15 | .03 | .10 | .002 | .0010 |
| %RSD | 2.111 | .3885 | .2856 | .2457 | .9227 | .0960 | .6338 |
| #1 | .1827 | 982.4 | 51.50 | 12.37 | 10.52 | 2.536 | .1661 |
| #2 | .1773 | 987.8 | 51.71 | 12.41 | 10.66 | 2.532 | .1646 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3454 | .2743 | 53.06 | 1.118 | L.0371 | 1.617 |
| SDev | .0036 | .0010 | .09 | .001 | .0201 | .003 |
| %RSD | 1.035 | .3543 | .1665 | .0712 | 54.13 | .1636 |
| #1 | .3429 | .2749 | 53.00 | 1.119 | .0513 | 1.615 |
| #2 | .3479 | .2736 | 53.13 | 1.118 | L.0229 | 1.619 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: PB-2463^ Operator:
Run Time: 10/31/97 00:20:33
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0019 | .0013 | .0011 | .0031 | .0100 | .0431 | -.0407 |
| SDev | .0027 | .0001 | .0021 | .0002 | .0044 | .0108 | .0136 |
| %RSD | 142.0 | 11.19 | 198.2 | 6.979 | 44.22 | 25.14 | 33.51 |
| #1 | -.0038 | .0014 | -.0004 | .0030 | .0131 | .0354 | L-.0503 |
| #2 | .0000 | .0012 | .0026 | .0033 | .0069 | H.0508 | -.0311 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |
| Low | -.0100 | -.0500 | -.0050 | -.0100 | -.0250 | -.0500 | -.0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0011 | .0119 | -.0015 | .0279 | .0315 | -.0000 | .0713 |
| SDev | .0009 | .0010 | .0005 | .0168 | .0194 | .0000 | .0042 |
| %RSD | 81.05 | 8.516 | 34.23 | 60.24 | 61.46 | 265.9 | 5.841 |
| #1 | -.0017 | .0112 | -.0011 | .0160 | .0452 | .0000 | .0742 |
| #2 | -.0005 | .0127 | -.0018 | .0398 | .0178 | -.0000 | .0683 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |
| Low | -.0250 | -.0300 | -.0200 | -.1000 | -.0600 | -.0050 | -.2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0024 | H.1266 | .0042 | .0011 | -.1162 | .0258 | .0024 |
| SDev | .0010 | .0163 | .0169 | .0001 | .2087 | .0034 | .0063 |
| %RSD | 40.22 | 12.88 | 398.5 | 9.099 | 179.6 | 13.13 | 266.5 |
| #1 | -.0017 | H.1381 | -.0077 | .0012 | .0314 | .0281 | -.0021 |
| #2 | -.0030 | H.1151 | .0161 | .0010 | -.2638 | .0234 | .0068 |
| Errors | LC Pass | LC High | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |
| Low | -.0500 | -.0500 | -.2000 | -.0150 | -2.000 | -.2000 | -.0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0013 | .0047 | .0147 | .0002 | .0028 | .0000 |
| SDev | .0018 | .0038 | .0010 | .0001 | .0085 | .0011 |
| %RSD | 141.2 | 80.92 | 6.741 | 59.85 | 304.1 | 43620. |
| #1 | -.0000 | .0074 | .0140 | .0001 | -.0032 | -.0008 |
| #2 | -.0025 | .0020 | .0154 | .0003 | .0088 | .0008 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |
| Low | -.1000 | -.0500 | -.1000 | -.0500 | -.0500 | -.0500 |

Method: ICP1 Sample Name: LCS-2463^ Operator:
Run Time: 10/31/97 00:24:13
Comment:
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.274 | 10.18 | .9522 | 5.092 | 4.977 | 4.926 | .9638 |
| SDev | .024 | .08 | .0239 | .048 | .028 | .090 | .2125 |
| %RSD | .4596 | .7849 | 2.510 | .9371 | .5525 | 1.817 | 22.05 |
| #1 | 5.257 | 10.13 | .9353 | 5.058 | 4.958 | 4.989 | .8135 |
| #2 | 5.291 | 10.24 | .9691 | 5.126 | 4.997 | 4.862 | 1.114 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 6.000 | 12.00 | 1.200 | 6.000 | 6.000 | 6.000 | 1.200 |
| Low | 4.000 | 8.000 | .8000 | 4.000 | 4.000 | 4.000 | .8000 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.113 | 5.018 | 4.941 | .1560 | .1913 | .0002 | .0812 |
| SDev | .004 | .015 | .025 | .0229 | .0959 | .0010 | .0103 |
| %RSD | .0728 | .2934 | .5049 | 14.68 | 50.13 | 568.8 | 12.69 |
| #1 | 5.116 | 5.029 | 4.923 | .1721 | .1235 | .0008 | .0739 |
| #2 | 5.110 | 5.008 | 4.959 | .1398 | .2591 | -.0005 | .0885 |
| Errors | LC Pass | LC Pass | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High | 6.000 | 6.000 | 6.000 | | | | |
| Low | 4.000 | 4.000 | 4.000 | | | | |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0082 | .2367 | -.0245 | .0024 | -1.131 | .1855 | .0204 |
| SDev | .0011 | .0156 | .1289 | .0009 | .622 | .0486 | .0029 |
| %RSD | 13.52 | 6.587 | 526.4 | 39.45 | 55.00 | 26.18 | 14.13 |
| #1 | -.0090 | .2477 | .0667 | .0031 | -.6909 | .1512 | .0184 |
| #2 | -.0074 | .2257 | -.1157 | .0017 | -1.570 | .2199 | .0225 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High | | | | | | | |
| Low | | | | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0028 | .0048 | .0698 | -.0049 | -.0393 | .0059 |
| SDev | .0000 | .0049 | .0051 | .0006 | .0158 | .0053 |
| %RSD | 1.166 | 101.9 | 7.307 | 11.58 | 40.29 | 90.89 |
| #1 | -.0027 | .0082 | .0734 | -.0052 | -.0505 | .0021 |
| #2 | -.0028 | .0013 | .0662 | -.0045 | -.0281 | .0097 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High | | | | | | |
| Low | | | | | | |

Method: ICP1 Sample Name: L72972573-001^ Operator:
Run Time: 10/31/97 00:27:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0006 | .7834 | L-.0002 | L.0056 | L.0089 | L.0347 | L-.0253 |
| SDev | .0011 | .0024 | .0013 | .0037 | .0284 | .0153 | .0575 |
| %RSD | 184.6 | .3020 | 888.5 | 66.74 | 321.0 | 44.05 | 227.1 |
| #1 | L-.0013 | .7851 | L-.0011 | L.0083 | .0290 | L.0239 | L-.0660 |
| #2 | L.0002 | .7818 | L.0008 | L.0030 | L-.0112 | L.0454 | L.0153 |
| Errors | LC Low | LC Pass | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0005 | L.0077 | .3291 | .5887 | L.0357 | L.0001 | 256.4 |
| SDev | .0058 | .0057 | .0015 | .0181 | .0017 | .0001 | 1.8 |
| %RSD | 1143. | 74.68 | .4710 | 3.074 | 4.869 | 178.3 | .7140 |
| #1 | L.0046 | L.0036 | .3302 | .6015 | L.0369 | L.0002 | 257.7 |
| #2 | L-.0036 | L.0118 | .3280 | .5759 | L.0344 | L-.0000 | 255.1 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0018 | .4575 | 23.59 | .0778 | 4.444 | H764.2 | L.0067 |
| SDev | .0045 | .0058 | .19 | .0001 | .626 | 4.6 | .0002 |
| %RSD | 256.4 | 1.273 | .8113 | .1275 | 14.09 | .6041 | 2.311 |
| #1 | L.0014 | .4617 | 23.73 | .0777 | 4.001 | H767.5 | L.0066 |
| #2 | L-.0050 | .4534 | 23.45 | .0778 | 4.886 | H760.9 | L.0068 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2225 | L.0048 | 3.925 | .4030 | L.0143 | L.0196 |
| SDev | .0107 | .0048 | .033 | .0008 | .0063 | .0013 |
| %RSD | 4.814 | 100.4 | .8450 | .2065 | 43.70 | 6.695 |
| #1 | .2149 | L.0081 | 3.949 | .4035 | L.0187 | L.0205 |
| #2 | .2301 | L.0014 | 3.902 | .4024 | L.0099 | L.0187 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972489-001^ Operator:
Run Time: 10/31/97 00:31:33
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0134 | 1.551 | .2022 | .1271 | .4036 | L.0439 | L-.0111 |
| SDev | .0005 | .001 | .0009 | .0042 | .0022 | .0091 | .0028 |
| %RSD | 4.001 | .0832 | .4339 | 3.307 | .5349 | 20.79 | 25.09 |
| #1 | .0131 | 1.552 | .2016 | .1241 | .4020 | .0504 | L-.0131 |
| #2 | .0138 | 1.550 | .2028 | .1300 | .4051 | L.0375 | L-.0092 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 6.488 | .0396 | 5.546 | .3032 | L.0342 | L-.0001 | 34.10 |
| SDev | .001 | .0064 | .000 | .0228 | .0097 | .0002 | .12 |
| %RSD | .0129 | 16.12 | .0053 | 7.517 | 28.32 | 310.2 | .3626 |
| #1 | 6.488 | .0351 | 5.546 | .2871 | L.0273 | L-.0002 | 34.01 |
| #2 | 6.487 | .0441 | 5.545 | .3194 | L.0410 | L.0001 | 34.19 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0041 | 3.262 | 16.41 | .2492 | 33.87 | 58.02 | L.0053 |
| SDev | .0009 | .002 | .05 | .0011 | .11 | .24 | .0022 |
| %RSD | 23.35 | .0594 | .3325 | .4545 | .3278 | .4106 | 41.18 |
| #1 | L.0034 | 3.260 | 16.37 | .2484 | 33.79 | 58.19 | L.0038 |
| #2 | L.0047 | 3.263 | 16.45 | .2500 | 33.95 | 57.85 | L.0069 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 68.94 | L.0090 | 2.320 | 3.003 | L.0458 | L.0143 |
| SDev | .07 | .0024 | .005 | .001 | .0077 | .0000 |
| %RSD | .1037 | 26.58 | .2141 | .0204 | 16.83 | .0882 |
| #1 | 68.88 | L.0073 | 2.316 | 3.003 | .0512 | L.0143 |
| #2 | 68.99 | L.0107 | 2.323 | 3.003 | L.0403 | L.0143 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972489-002^ Operator:
Run Time: 10/31/97 00:35:13
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0031 | .0939 | L.0005 | L.0069 | .3984 | L.0359 | L-.0373 |
| SDev | .0000 | .0007 | .0026 | .0002 | .0230 | .0273 | .0439 |
| %RSD | .3197 | .7560 | 569.3 | 3.249 | 5.773 | 76.20 | 117.6 |
| #1 | L.0031 | .0944 | L-.0014 | L.0068 | .4146 | .0552 | L-.0063 |
| #2 | L.0031 | .0934 | L.0023 | L.0071 | .3821 | L.0165 | L-.0684 |
| Errors | LC Low | LC Pass | LC Low | LC Low | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1412 | .0414 | .3073 | .1099 | L.0361 | L.0001 | 38.92 |
| SDev | .0009 | .0020 | .0015 | .0306 | .0040 | .0000 | .13 |
| %RSD | .6331 | 4.928 | .4908 | 27.85 | 11.01 | 11.75 | .3284 |
| #1 | .1405 | .0400 | .3062 | L.0882 | L.0333 | L.0001 | 39.01 |
| #2 | .1418 | .0429 | .3083 | .1315 | L.0389 | L.0001 | 38.83 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0030 | 6.671 | 29.06 | .4836 | 9.320 | 168.2 | L.0032 |
| SDev | .0017 | .037 | .12 | .0021 | .258 | 1.6 | .0035 |
| %RSD | 54.72 | .5531 | .3994 | .4319 | 2.764 | .9365 | 107.4 |
| #1 | L.0019 | 6.697 | 29.14 | .4851 | 9.503 | 169.3 | L.0057 |
| #2 | L.0042 | 6.645 | 28.98 | .4821 | 9.138 | 167.0 | L.0008 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 96.45 | L.0188 | 8.940 | .5821 | .0840 | L.0081 |
| SDev | .77 | .0015 | .060 | .0061 | .0155 | .0011 |
| %RSD | .7971 | 8.142 | .6767 | 1.042 | 18.49 | 13.08 |
| #1 | 96.99 | L.0199 | 8.982 | .5864 | .0949 | L.0073 |
| #2 | 95.90 | L.0178 | 8.897 | .5778 | .0730 | L.0088 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Pass | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972489-003^ Operator:
Run Time: 10/31/97 00:38:54
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0074 | .3902 | .0251 | .0201 | .4708 | L-.0867 | L.0028 |
| SDev | .0016 | .0003 | .0012 | .0042 | .0153 | .0258 | .0288 |
| %RSD | 21.68 | .0738 | 4.800 | 20.81 | 3.257 | 29.77 | 1021. |
| #1 | L.0086 | .3904 | .0242 | .0231 | .4816 | L-.1050 | L.0232 |
| #2 | L.0063 | .3900 | .0259 | .0172 | .4600 | L-.0685 | L-.0175 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.698 | .0611 | 1.547 | 3.449 | L.0146 | L.0001 | 33.13 |
| SDev | .004 | .0042 | .010 | .001 | .0137 | .0001 | .15 |
| %RSD | .2253 | 6.914 | .6565 | .0198 | 93.92 | 193.2 | .4391 |
| #1 | 1.695 | .0581 | 1.540 | 3.448 | L.0049 | L.0002 | 33.03 |
| #2 | 1.701 | .0641 | 1.554 | 3.449 | L.0243 | L-.0000 | 33.23 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1189 | 6.217 | 28.13 | .3201 | 272.8 | 110.9 | L.0085 |
| SDev | .0017 | .026 | .11 | .0009 | .4 | .0 | .0003 |
| %RSD | 1.402 | .4123 | .3808 | .2974 | .1335 | .0197 | 3.338 |
| #1 | .1200 | 6.199 | 28.05 | .3194 | 272.5 | 110.9 | L.0083 |
| #2 | .1177 | 6.235 | 28.20 | .3207 | 273.0 | 110.9 | L.0087 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 155.4 | .2049 | 4.568 | .5462 | L.0304 | L.0206 |
| SDev | .5 | .0025 | .004 | .0007 | .0109 | .0006 |
| %RSD | .3452 | 1.204 | .0977 | .1241 | 35.83 | 2.702 |
| #1 | 155.0 | .2032 | 4.565 | .5458 | L.0381 | L.0202 |
| #2 | 155.8 | .2067 | 4.572 | .5467 | L.0227 | L.0210 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-001^ Operator:
Run Time: 10/31/97 00:42:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0002 | .7312 | L-.0005 | L.0045 | .0727 | .0539 | L.0259 |
| SDev | .0005 | .0041 | .0017 | .0040 | .0021 | .0177 | .0027 |
| %RSD | 268.8 | .5614 | 323.1 | 88.84 | 2.922 | 32.80 | 10.54 |
| #1 | L.0002 | .7283 | L.0007 | L.0017 | .0743 | L.0414 | L.0278 |
| #2 | L-.0006 | .7341 | L-.0018 | L.0073 | .0712 | .0664 | L.0239 |
| Errors | LC Low | LC Pass | LC Low | LC Low | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0019 | L.0082 | .8307 | .4235 | L.0252 | L.0001 | 203.2 |
| SDev | .0023 | .0032 | .0057 | .0169 | .0096 | .0001 | 1.1 |
| %RSD | 120.2 | 38.94 | .6877 | 3.981 | 38.07 | 59.55 | .5302 |
| #1 | L.0003 | L.0105 | .8266 | .4354 | L.0184 | L.0001 | 202.5 |
| #2 | L.0035 | L.0059 | .8347 | .4116 | L.0320 | L.0002 | 204.0 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3057 | .1909 | 19.49 | 1.537 | 6.664 | H798.3 | L.0081 |
| SDev | .0017 | .0008 | .05 | .008 | .266 | 4.0 | .0013 |
| %RSD | .5439 | .4042 | .2349 | .5034 | 3.999 | .5001 | 16.08 |
| #1 | .3045 | .1903 | 19.45 | 1.531 | 6.475 | H795.5 | L.0090 |
| #2 | .3068 | .1914 | 19.52 | 1.542 | 6.852 | H801.1 | L.0071 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .6619 | .0802 | 3.204 | .4141 | L.0057 | L.0188 |
| SDev | .0429 | .0005 | .017 | .0019 | .0000 | .0009 |
| %RSD | 6.483 | .5807 | .5267 | .4641 | .5380 | 4.998 |
| #1 | .6923 | .0799 | 3.192 | .4127 | L.0056 | L.0195 |
| #2 | .6316 | .0805 | 3.215 | .4154 | L.0057 | L.0181 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-001MS^ Operator:
Run Time: 10/31/97 00:46:14
Comment:
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.135 | 10.85 | .9737 | 5.055 | 5.162 | 5.154 | 1.010 |
| SDev | .016 | .11 | .0125 | .030 | .065 | .090 | .027 |
| %RSD | .3875 | 1.046 | 1.283 | .6009 | 1.268 | 1.751 | 2.678 |
| #1 | 4.124 | 10.77 | .9825 | 5.034 | 5.208 | 5.090 | 1.030 |
| #2 | 4.147 | 10.93 | .9648 | 5.077 | 5.116 | 5.218 | .9913 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.107 | 5.037 | 5.803 | .2303 | .0621 | L.0004 | 203.0 |
| SDev | .015 | .035 | .045 | .1111 | .0878 | .0000 | 1.8 |
| %RSD | .2909 | .6863 | .7704 | 48.25 | 141.5 | .5118 | .8960 |
| #1 | 5.117 | 5.013 | 5.771 | .3089 | .1242 | L.0004 | 201.7 |
| #2 | 5.096 | 5.061 | 5.834 | .1517 | L-.0000 | L.0004 | 204.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3142 | .3260 | 19.24 | 1.549 | 8.055 | H797.1 | L.0134 |
| SDev | .0084 | .0174 | .02 | .013 | 2.642 | 10.8 | .0008 |
| %RSD | 2.675 | 5.349 | .1045 | .8529 | 32.81 | 1.350 | 5.887 |
| #1 | .3201 | .3384 | 19.23 | 1.539 | 9.923 | H789.5 | L.0140 |
| #2 | .3082 | .3137 | 19.26 | 1.558 | 6.186 | H804.7 | L.0129 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.033 | .0996 | 2.675 | .4175 | L.0374 | L.0133 |
| SDev | .054 | .0191 | .015 | .0044 | .0157 | .0105 |
| %RSD | 5.190 | 19.14 | .5600 | 1.060 | 41.92 | 79.36 |
| #1 | 1.071 | .0862 | 2.686 | .4143 | L.0263 | L.0207 |
| #2 | .9954 | .1131 | 2.665 | .4206 | L.0484 | L.0058 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: CCV Operator:
Run Time: 10/31/97 00:49:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5279 | 5.108 | 5.066 | 5.114 | 5.192 | 5.053 | 5.153 |
| SDev | .0021 | .002 | .023 | .008 | .031 | .009 | .007 |
| %RSD | .3996 | .0476 | .4509 | .1639 | .5892 | .1748 | .1334 |
| #1 | .5294 | 5.106 | 5.050 | 5.108 | 5.213 | 5.059 | 5.157 |
| #2 | .5264 | 5.109 | 5.082 | 5.120 | 5.170 | 5.047 | 5.148 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.141 | 5.094 | 5.135 | 5.081 | 5.088 | 5.098 | 10.45 |
| SDev | .012 | .006 | .009 | .031 | .004 | .008 | .02 |
| %RSD | .2334 | .1129 | .1828 | .6159 | .0744 | .1561 | .2179 |
| #1 | 5.132 | 5.090 | 5.128 | 5.059 | 5.086 | 5.092 | 10.44 |
| #2 | 5.149 | 5.098 | 5.141 | 5.103 | 5.091 | 5.103 | 10.47 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.162 | 5.097 | 10.04 | 5.126 | 9.980 | 10.43 | 5.231 |
| SDev | .007 | .005 | .01 | .004 | .249 | .05 | .001 |
| %RSD | .1379 | .0914 | .0600 | .0718 | 2.492 | .5222 | .0212 |
| #1 | 5.157 | 5.094 | 10.04 | 5.124 | 10.16 | 10.47 | 5.230 |
| #2 | 5.167 | 5.101 | 10.05 | 5.129 | 9.804 | 10.39 | 5.231 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.134 | 5.143 | 5.066 | 5.160 | 5.214 | 5.128 |
| SDev | .016 | .000 | .002 | .004 | .003 | .004 |
| %RSD | .3130 | .0095 | .0476 | .0794 | .0596 | .0840 |
| #1 | 5.123 | 5.143 | 5.064 | 5.157 | 5.211 | 5.125 |
| #2 | 5.145 | 5.143 | 5.068 | 5.163 | 5.216 | 5.131 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

lethod: ICP1 Sample Name: CCB Operator:
tun Time: 10/31/97 00:53:33
:omment:
lode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0034 | .0014 | -.0006 | .0018 | .0131 | .0459 | -.0173 |
| SDev | .0016 | .0000 | .0000 | .0026 | .0066 | .0007 | .0632 |
| %RSD | 47.04 | .1677 | .1177 | 139.1 | 50.06 | 1.478 | 365.1 |
| #1 | .0046 | .0014 | -.0006 | .0000 | .0084 | .0454 | .0274 |
| #2 | .0023 | .0014 | -.0006 | .0036 | .0177 | .0464 | Q-.0620 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0026 | .0128 | -.0007 | .0472 | .0535 | .0010 | .0073 |
| SDev | .0000 | .0095 | .0007 | .0016 | .0040 | .0001 | .0052 |
| %RSD | .5252 | 73.58 | 106.5 | 3.393 | 7.459 | 12.94 | 70.71 |
| #1 | .0026 | .0062 | -.0011 | .0461 | .0507 | .0011 | .0037 |
| #2 | .0026 | .0195 | -.0002 | .0483 | .0564 | .0009 | .0110 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0013 | .0060 | .0140 | .0009 | .5496 | .0199 | .0049 |
| SDev | .0019 | .0012 | .0089 | .0006 | .0400 | .0058 | .0003 |
| %RSD | 142.7 | 19.41 | 63.64 | 64.96 | 7.273 | 29.37 | 6.372 |
| #1 | .0027 | .0068 | .0077 | .0005 | .5213 | .0158 | .0051 |
| #2 | -.0000 | .0052 | .0204 | .0013 | .5778 | .0240 | .0046 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0746 | .0078 | .0210 | .0011 | -.0186 | .0030 |
| SDev | .0161 | .0034 | .0021 | .0001 | .0093 | .0011 |
| %RSD | 21.57 | 43.09 | 9.816 | 4.747 | 49.81 | 35.49 |
| #1 | .0860 | .0102 | .0195 | .0012 | -.0120 | .0038 |
| #2 | .0632 | .0054 | .0225 | .0011 | -.0251 | .0023 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-001MD^ Operator:
Run Time: 10/31/97 00:57:14
Comment:
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 3.899 | 10.65 | .9471 | 4.925 | 4.914 | 4.906 | .8358 |
| SDev | .021 | .09 | .0126 | .014 | .044 | .207 | .0001 |
| %RSD | .5514 | .8649 | 1.329 | .2839 | .8911 | 4.220 | .0155 |
| #1 | 3.915 | 10.71 | .9560 | 4.935 | 4.884 | 5.052 | .8357 |
| #2 | 3.884 | 10.58 | .9382 | 4.915 | 4.945 | 4.759 | .8359 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 4.928 | 4.917 | 5.811 | .2464 | L.0430 | L.0006 | 204.0 |
| SDev | .016 | .030 | .005 | .0186 | .0782 | .0004 | .4 |
| %RSD | .3293 | .6111 | .0882 | 7.564 | 181.7 | 58.80 | .2063 |
| #1 | 4.939 | 4.896 | 5.815 | .2332 | L-.0123 | L.0009 | 203.7 |
| #2 | 4.916 | 4.938 | 5.808 | .2596 | .0983 | L.0004 | 204.3 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2976 | .3672 | 19.18 | 1.557 | 6.453 | H802.1 | L.0173 |
| SDev | .0060 | .0058 | .05 | .002 | .910 | 3.0 | .0186 |
| %RSD | 2.017 | 1.577 | .2845 | .1213 | 14.11 | .3683 | 107.7 |
| #1 | .2934 | .3632 | 19.14 | 1.556 | 5.810 | H804.2 | L.0041 |
| #2 | .3019 | .3713 | 19.22 | 1.559 | 7.097 | H800.0 | L.0304 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5594 | .0998 | 2.296 | .4190 | L.0033 | L.0058 |
| SDev | .0447 | .0048 | .005 | .0025 | .0155 | .0001 |
| %RSD | 7.991 | 4.809 | .2156 | .5934 | 468.5 | .7932 |
| #1 | .5910 | .0964 | 2.293 | .4207 | L.0143 | L.0058 |
| #2 | .5278 | .1032 | 2.300 | .4172 | L-.0077 | L.0059 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-001SD^ Operator:
Run Time: 10/31/97 01:00:53
Comment:
Mode: CONC Corr. Factor: 5

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0155 | .7446 | .0072 | .0301 | .2149 | .0786 | L-.0940 |
| SDev | .0107 | .0035 | .0134 | .0023 | .0109 | .1579 | .0000 |
| %RSD | 69.01 | .4701 | 184.7 | 7.752 | 5.057 | 200.9 | .0341 |
| #1 | L.0079 | .7421 | L-.0022 | .0317 | .2072 | .1903 | L-.0940 |
| #2 | .0230 | .7471 | .0167 | .0284 | .2226 | L-.0331 | L-.0940 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0453 | .0694 | .8536 | .5752 | .1647 | L.0004 | 204.9 |
| SDev | .0160 | .0109 | .0049 | .0496 | .0484 | .0000 | 1.5 |
| %RSD | 35.36 | 15.67 | .5725 | 8.631 | 29.39 | 9.874 | .7405 |
| #1 | .0566 | .0617 | .8501 | .6103 | .1305 | L.0003 | 203.8 |
| #2 | .0340 | .0770 | .8570 | .5401 | .1989 | L.0004 | 205.9 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .3164 | .4242 | 19.45 | 1.559 | 6.108 | H794.6 | L.0303 |
| SDev | .0178 | .0000 | .00 | .013 | .377 | .9 | .0133 |
| %RSD | 5.635 | .0054 | .0241 | .8475 | 6.180 | .1169 | 43.83 |
| #1 | .3290 | .4243 | 19.45 | 1.549 | 5.841 | H793.9 | L.0397 |
| #2 | .3038 | .4242 | 19.45 | 1.568 | 6.375 | H795.2 | L.0209 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5936 | .1031 | 3.209 | .4187 | .0608 | L.0285 |
| SDev | .0000 | .0024 | .040 | .0014 | .0387 | .0079 |
| %RSD | .0064 | 2.322 | 1.240 | .3366 | 63.74 | 27.68 |
| #1 | .5936 | .1015 | 3.237 | .4177 | L.0334 | L.0341 |
| #2 | .5936 | .1048 | 3.180 | .4197 | .0881 | L.0229 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

\ethod: ICP1 Sample Name: L72972500-002^ Operator:
\un Time: 10/31/97 01:04:33
\omment:
\ode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0009 | .9652 | L.0014 | L.0086 | 1.049 | L.0325 | L-.0052 |
| SDev | .0011 | .0043 | .0009 | .0051 | .021 | .0157 | .0575 |
| %RSD | 114.6 | .4422 | 69.92 | 59.85 | 1.980 | 48.13 | 1105. |
| #1 | L.0002 | .9621 | L.0020 | .0122 | 1.064 | L.0215 | L-.0459 |
| #2 | L.0017 | .9682 | L.0007 | L.0050 | 1.034 | L.0436 | L.0355 |
| Errors | LC Low | LC Pass | LC Low | LC Low | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0113 | .1345 | 1.553 | .3976 | .0986 | L.0004 | 91.44 |
| SDev | .0054 | .0000 | .007 | .0213 | .0018 | .0002 | .42 |
| %RSD | 48.30 | .0063 | .4654 | 5.352 | 1.853 | 48.03 | .4614 |
| #1 | L.0151 | .1345 | 1.548 | .4127 | .0999 | L.0005 | 91.14 |
| #2 | L.0074 | .1345 | 1.558 | .3826 | .0973 | L.0003 | 91.74 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1913 | .6476 | 9.947 | 1.979 | 2.789 | H761.6 | L.0057 |
| SDev | .0043 | .0004 | .007 | .009 | .275 | .4 | .0014 |
| %RSD | 2.237 | .0603 | .0716 | .4482 | 9.874 | .0526 | 25.10 |
| #1 | .1943 | .6473 | 9.942 | 1.973 | 2.983 | H761.9 | L.0068 |
| #2 | .1882 | .6479 | 9.952 | 1.985 | 2.594 | H761.3 | L.0047 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .6318 | L.0105 | 2.047 | .1710 | L.0118 | L.0176 |
| SDev | .0215 | .0043 | .003 | .0006 | .0100 | .0016 |
| %RSD | 3.398 | 40.69 | .1446 | .3240 | 84.79 | 8.867 |
| #1 | .6166 | L.0136 | 2.049 | .1707 | L.0047 | L.0187 |
| #2 | .6470 | L.0075 | 2.045 | .1714 | L.0189 | L.0165 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-003^ Operator:
Run Time: 10/31/97 01:08:12
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0017 | .2721 | L-.0014 | L.0068 | L.0077 | L.0164 | L-.0359 |
| SDev | .0016 | .0034 | .0008 | .0035 | .0492 | .0037 | .0207 |
| %RSD | 93.65 | 1.234 | 58.71 | 51.92 | 636.1 | 22.38 | 57.65 |
| #1 | L-.0006 | .2697 | L-.0020 | L.0093 | .0425 | L.0190 | L-.0213 |
| #2 | L-.0029 | .2745 | L-.0008 | L.0043 | L-.0271 | L.0138 | L-.0506 |
| Errors | LC Low | LC Pass | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0029 | L.0173 | .0396 | .4314 | L.0176 | L.0001 | 259.6 |
| SDev | .0025 | .0029 | .0003 | .0144 | .0075 | .0001 | 2.1 |
| %RSD | 88.81 | 16.94 | .7171 | 3.350 | 42.52 | 163.4 | .7993 |
| #1 | L.0046 | L.0152 | .0398 | .4416 | L.0230 | L.0002 | 258.1 |
| #2 | L.0011 | L.0194 | .0394 | .4212 | L.0123 | L-.0000 | 261.1 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Low | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0006 | .4576 | 35.50 | .2077 | 4.189 | H763.2 | L.0056 |
| SDev | .0038 | .0027 | .27 | .0013 | .400 | 13.0 | .0020 |
| %RSD | 652.9 | .5952 | .7626 | .6322 | 9.541 | 1.708 | 35.49 |
| #1 | L.0021 | .4556 | 35.31 | .2068 | 3.907 | H754.0 | L.0071 |
| #2 | L-.0033 | .4595 | 35.70 | .2086 | 4.472 | H772.4 | L.0042 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0923 | L.0068 | 4.205 | .3029 | L.0269 | L.0193 |
| SDev | .0054 | .0067 | .033 | .0034 | .0117 | .0003 |
| %RSD | 5.834 | 98.91 | .7932 | 1.131 | 43.47 | 1.414 |
| #1 | .0961 | L.0115 | 4.181 | .3005 | L.0352 | L.0191 |
| #2 | .0885 | L.0020 | 4.228 | .3053 | L.0186 | L.0195 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972500-004^ Operator:
Run Time: 10/31/97 01:11:53
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0014 | .2513 | .0052 | .0346 | 5.088 | L.0346 | L-.0213 |
| SDev | .0021 | .0013 | .0010 | .0009 | .033 | .0164 | .0357 |
| %RSD | 149.1 | .5103 | 18.63 | 2.716 | .6439 | 47.44 | 167.5 |
| #1 | L.0001 | .2523 | L.0045 | .0339 | 5.065 | L.0462 | L-.0466 |
| #2 | L-.0029 | .2504 | .0059 | .0353 | 5.111 | L.0230 | L.0039 |
| Errors | LC Low | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0018 | L.0228 | 10.34 | .3270 | .0819 | L.0001 | 10.87 |
| SDev | .0023 | .0013 | .04 | .0281 | .0057 | .0000 | .02 |
| %RSD | 133.3 | 5.591 | .4018 | 8.605 | 7.008 | 10.54 | .1913 |
| #1 | L.0001 | L.0237 | 10.37 | .3071 | .0778 | L.0001 | 10.85 |
| #2 | L.0034 | L.0219 | 10.31 | .3469 | .0859 | L.0001 | 10.88 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.080 | .2136 | 1.429 | 1.689 | L1.636 | H744.5 | L.0047 |
| SDev | .002 | .0004 | .022 | .003 | .120 | 5.5 | .0030 |
| %RSD | .1979 | .1833 | 1.523 | .1509 | 7.329 | .7360 | 63.22 |
| #1 | 1.079 | .2139 | 1.414 | 1.691 | L1.551 | H748.4 | L.0026 |
| #2 | 1.082 | .2134 | 1.445 | 1.687 | L1.721 | H740.6 | L.0068 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .2499 | L.0077 | 1.430 | L.0330 | L.0065 | L.0098 |
| SDev | .0089 | .0024 | .001 | .0001 | .0015 | .0022 |
| %RSD | 3.574 | 30.85 | .1031 | .1809 | 23.35 | 22.08 |
| #1 | .2436 | L.0061 | 1.429 | L.0330 | L.0075 | L.0082 |
| #2 | .2562 | L.0094 | 1.431 | L.0331 | L.0054 | L.0113 |
| Errors | LC Pass | LC Low | LC Pass | LC Low | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: L72972524-011^ Operator:
Run Time: 10/31/97 01:15:34
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0005 | .7848 | L.0019 | .0887 | .7179 | L.0416 | L-.0164 |
| SDev | .0049 | .0062 | .0010 | .0042 | .0197 | .0201 | .0028 |
| %RSD | 1013. | .7837 | 54.15 | 4.743 | 2.737 | 48.37 | 17.30 |
| #1 | L-.0030 | .7892 | L.0026 | .0857 | .7040 | L.0274 | L-.0184 |
| #2 | L.0039 | .7805 | L.0011 | .0916 | .7318 | .0559 | L-.0144 |
| Errors | LC Low | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L.0029 | L.0201 | .6428 | .1804 | .0746 | L.0003 | 122.6 |
| SDev | .0053 | .0067 | .0002 | .0197 | .0174 | .0001 | .1 |
| %RSD | 185.8 | 33.15 | .0265 | 10.90 | 23.29 | 17.51 | .0695 |
| #1 | L-.0009 | L.0154 | .6427 | .1665 | .0623 | L.0003 | 122.5 |
| #2 | L.0066 | L.0248 | .6429 | .1943 | .0869 | L.0003 | 122.6 |
| Errors | LC Low | LC Low | LC Pass | LC Pass | LC Pass | LC Low | LC Pass |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.375 | .1455 | 9.882 | 3.923 | L1.796 | H775.6 | L.0041 |
| SDev | .001 | .0019 | .004 | .009 | .648 | 4.4 | .0038 |
| %RSD | .0689 | 1.328 | .0382 | .2358 | 36.10 | .5727 | 93.05 |
| #1 | 1.375 | .1441 | 9.879 | 3.929 | L1.338 | H778.8 | L.0014 |
| #2 | 1.376 | .1469 | 9.884 | 3.916 | 2.255 | H772.5 | L.0068 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC High | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .1950 | L.0076 | 1.369 | .2264 | L.0013 | L.0106 |
| SDev | .0036 | .0043 | .007 | .0019 | .0008 | .0022 |
| %RSD | 1.829 | 56.17 | .4769 | .8186 | 61.26 | 20.45 |
| #1 | .1925 | L.0046 | 1.373 | .2277 | L.0008 | L.0090 |
| #2 | .1975 | L.0107 | 1.364 | .2251 | L.0019 | L.0121 |
| Errors | LC Pass | LC Low | LC Pass | LC Pass | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: EB1-2463^ Operator:
Run Time: 10/31/97 01:19:14
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0015 | L.0002 | L-.0003 | L-.0086 | L-.0000 | L.0226 | L-.0426 |
| SDev | .0022 | .0000 | .0013 | .0005 | .0317 | .0154 | .0438 |
| %RSD | 144.1 | 1.784 | 466.2 | 5.332 | 78440. | 68.29 | 102.8 |
| #1 | L.0000 | L.0002 | L.0007 | L-.0089 | L-.0225 | L.0335 | L-.0736 |
| #2 | L-.0030 | L.0002 | L-.0012 | L-.0082 | L.0224 | L.0117 | L-.0116 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0033 | L-.0027 | L-.0014 | L.0118 | L.0139 | L-.0000 | L.0265 |
| SDev | .0007 | .0008 | .0015 | .0106 | .0097 | .0001 | .0073 |
| %RSD | 22.05 | 28.13 | 107.5 | 89.86 | 69.59 | 123.3 | 27.48 |
| #1 | L-.0039 | L-.0032 | L-.0024 | L.0193 | L.0207 | L-.0000 | L.0316 |
| #2 | L-.0028 | L-.0022 | L-.0003 | L.0043 | L.0070 | L-.0001 | L.0213 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0010 | L-.0217 | L-.0245 | L.0001 | L-.0534 | L.1880 | L.0013 |
| SDev | .0029 | .0016 | .0059 | .0005 | .1466 | .0190 | .0014 |
| %RSD | 283.3 | 7.180 | 24.21 | 372.1 | 274.5 | 10.09 | 106.4 |
| #1 | L.0010 | L-.0228 | L-.0287 | L.0005 | L-.1570 | L.1746 | L.0023 |
| #2 | L-.0030 | L-.0206 | L-.0203 | L-.0002 | L.0502 | .2015 | L.0003 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0076 | L.0020 | L-.0070 | L.0000 | L-.0099 | L.0027 |
| SDev | .0036 | .0029 | .0001 | .0001 | .0062 | .0005 |
| %RSD | 47.07 | 140.5 | .8154 | 271.5 | 61.95 | 20.15 |
| #1 | L-.0051 | L.0041 | L-.0071 | L.0001 | L-.0056 | L.0030 |
| #2 | L-.0101 | L.0000 | L-.0070 | L-.0000 | L-.0143 | L.0023 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: EB1A-2463^ Operator:
Run Time: 10/31/97 01:22:55
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0003 | L.0005 | L-.0006 | L-.0079 | L.0030 | .0517 | L-.0232 |
| SDev | .0006 | .0001 | .0012 | .0014 | .0055 | .0286 | .0055 |
| %RSD | 158.9 | 28.47 | 179.9 | 17.50 | 180.0 | 55.37 | 23.79 |
| #1 | L.0000 | L.0004 | L.0002 | L-.0089 | L-.0008 | .0719 | L-.0193 |
| #2 | L-.0007 | L.0006 | L-.0015 | L-.0069 | L.0069 | L.0314 | L-.0272 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Pass | LC Low |
| High | 100.0 | 100.0 | 50.00 | 200.0 | 500.0 | 200.0 | 1000. |
| Low | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0021 | L-.0005 | L-.0030 | L.0263 | L.0509 | L-.0001 | L.0169 |
| SDev | .0008 | .0003 | .0007 | .0039 | .0077 | .0001 | .0021 |
| %RSD | 39.55 | 45.88 | 25.22 | 14.68 | 15.18 | 131.2 | 12.27 |
| #1 | L-.0026 | L-.0007 | L-.0035 | L.0236 | L.0454 | L-.0002 | L.0184 |
| #2 | L-.0015 | L-.0004 | L-.0024 | L.0291 | L.0564 | L-.0000 | L.0154 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 200.0 | 100.0 | 150.0 | 800.0 | 400.0 | 30.00 | 1000. |
| Low | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0003 | L-.0228 | L-.0084 | L.0002 | L-.4616 | L.1389 | L.0026 |
| SDev | .0005 | .0016 | .0089 | .0002 | .0577 | .0058 | .0000 |
| %RSD | 141.8 | 6.826 | 106.2 | 98.59 | 12.51 | 4.201 | 1.301 |
| #1 | L-.0007 | L-.0217 | L-.0021 | L.0003 | L-.4208 | L.1430 | L.0026 |
| #2 | L.0000 | L-.0239 | L-.0147 | L.0001 | L-.5024 | L.1347 | L.0026 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 200.0 | 1000. | 500.0 | 30.00 | 500.0 | 400.0 | 40.00 |
| Low | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | L-.0063 | L.0010 | L.0038 | L.0001 | L-.0105 | L.0034 |
| SDev | .0018 | .0024 | .0134 | .0000 | .0101 | .0016 |
| %RSD | 28.26 | 233.0 | 350.0 | .0016 | 96.31 | 47.26 |
| #1 | L-.0051 | L.0027 | L.0133 | L.0001 | L-.0176 | L.0046 |
| #2 | L-.0076 | L-.0007 | L-.0056 | L.0001 | L-.0033 | L.0023 |
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| High | 500.0 | 100.0 | 150.0 | 50.00 | 300.0 | 100.0 |
| Low | .0500 | .0500 | .1000 | .0400 | .0500 | .0500 |

Method: ICP1 Sample Name: CCV Operator:
Run Time: 10/31/97 01:26:35
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5254 | 5.036 | 5.013 | 5.060 | 5.161 | 5.020 | 5.149 |
| SDev | .0071 | .022 | .019 | .000 | .016 | .061 | .036 |
| %RSD | 1.345 | .4336 | .3800 | .0002 | .3193 | 1.222 | .6939 |
| #1 | .5304 | 5.052 | 5.000 | 5.060 | 5.149 | 4.977 | 5.123 |
| #2 | .5204 | 5.021 | 5.027 | 5.060 | 5.173 | 5.064 | 5.174 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.063 | 5.037 | 5.092 | 5.024 | 4.999 | 5.035 | 10.38 |
| SDev | .015 | .019 | .007 | .001 | .016 | .007 | .04 |
| %RSD | .3063 | .3859 | .1472 | .0152 | .3123 | .1391 | .3597 |
| #1 | 5.074 | 5.023 | 5.086 | 5.024 | 4.988 | 5.040 | 10.36 |
| #2 | 5.052 | 5.051 | 5.097 | 5.025 | 5.010 | 5.030 | 10.41 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.106 | 5.047 | 9.953 | 5.071 | 10.65 | 10.30 | 5.168 |
| SDev | .009 | .003 | .016 | .001 | .95 | .00 | .005 |
| %RSD | .1820 | .0540 | .1595 | .0112 | 8.883 | .0281 | .1020 |
| #1 | 5.100 | 5.049 | 9.942 | 5.071 | Q11.32 | 10.30 | 5.171 |
| #2 | 5.113 | 5.045 | 9.964 | 5.072 | 9.980 | 10.30 | 5.164 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.020 | 5.100 | 4.997 | 5.084 | 5.201 | 5.058 |
| SDev | .016 | .003 | .003 | .017 | .026 | .008 |
| %RSD | .3204 | .0563 | .0591 | .3406 | .4922 | .1596 |
| #1 | 5.009 | 5.098 | 4.995 | 5.097 | 5.183 | 5.064 |
| #2 | 5.032 | 5.102 | 4.999 | 5.072 | 5.219 | 5.052 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator:
Run Time: 10/31/97 01:30:15
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0015 | .0011 | .0028 | -.0021 | -.0062 | .0324 | -.0222 |
| SDev | .0000 | .0004 | .0003 | .0012 | .0230 | .0276 | .0261 |
| %RSD | .0002 | 38.66 | 12.36 | 54.55 | 367.8 | 85.17 | 117.5 |
| #1 | .0015 | .0008 | .0026 | -.0013 | -.0225 | Q.0519 | -.0407 |
| #2 | .0015 | .0014 | .0031 | -.0030 | .0100 | .0129 | -.0038 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0001 | .0026 | -.0009 | .0300 | .0439 | .0012 | .0059 |
| SDev | .0026 | .0022 | .0013 | .0032 | .0059 | .0001 | .0010 |
| %RSD | 2070. | 82.75 | 135.7 | 10.55 | 13.36 | 12.29 | 17.69 |
| #1 | -.0020 | .0011 | -.0018 | .0323 | .0398 | .0013 | .0051 |
| #2 | .0017 | .0042 | -.0000 | .0278 | .0480 | .0011 | .0066 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0012 | .0030 | -.0119 | .0012 | .3140 | .0385 | .0016 |
| SDev | .0012 | .0016 | .0278 | .0001 | .5773 | .0097 | .0059 |
| %RSD | 100.7 | 51.88 | 233.4 | 7.854 | 183.8 | 25.30 | 368.3 |
| #1 | -.0020 | .0041 | -.0315 | .0013 | .7223 | .0453 | -.0026 |
| #2 | -.0003 | .0019 | .0077 | .0011 | -.0942 | .0316 | .0057 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0228 | .0058 | .0070 | .0010 | -.0088 | .0015 |
| SDev | .0036 | .0014 | .0079 | .0003 | .0015 | .0000 |
| %RSD | 15.72 | 24.95 | 113.9 | 26.71 | 17.41 | .0238 |
| #1 | .0253 | .0047 | .0014 | .0008 | -.0077 | .0015 |
| #2 | .0202 | .0068 | .0126 | .0012 | -.0099 | .0015 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |

Method: ICP1 Sample Name: CRI Operator:
Run Time: 10/31/97 01:33:55
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0204 | .4068 | .0086 | Q.0123 | .0854 | .2159 | .1692 |
| SDev | .0016 | .0013 | .0008 | .0042 | .0154 | .0041 | .0001 |
| %RSD | 7.913 | .3160 | 9.367 | 34.04 | 18.00 | 1.884 | .0536 |
| #1 | .0215 | .4059 | .0092 | Q.0152 | .0962 | .2130 | .1691 |
| #2 | .0192 | .4077 | .0081 | Q.0093 | Q.0745 | .2187 | .1693 |
| Errors | QC Pass | QC Pass | QC Pass | QC Fail | QC Pass | QC Pass | QC Pass |
| Value | .0200 | .4000 | .0100 | .0200 | .1000 | .2000 | .2000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.0398 | .0859 | .0413 | .3825 | .1235 | .0105 | 10.43 |
| SDev | .0023 | .0008 | .0007 | .0159 | .0039 | .0000 | .06 |
| %RSD | 5.795 | .9039 | 1.771 | 4.165 | 3.154 | .0467 | .5479 |
| #1 | .0414 | .0854 | .0419 | .3712 | .1208 | .0104 | 10.39 |
| #2 | Q.0382 | .0865 | .0408 | .3937 | .1263 | .0105 | 10.47 |
| Errors | QC Fail | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0500 | .0800 | .0400 | .4000 | .1200 | .0100 | 10.00 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0965 | .1936 | 10.01 | .0301 | 10.04 | 10.32 | .1012 |
| SDev | .0012 | .0031 | .02 | .0006 | .20 | .05 | .0018 |
| %RSD | 1.231 | 1.605 | .2179 | 1.875 | 1.991 | .5090 | 1.783 |
| #1 | .0974 | .1914 | 9.991 | .0305 | 10.18 | 10.36 | .1024 |
| #2 | .0957 | .1958 | 10.02 | .0297 | 9.898 | 10.28 | .0999 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .2000 | 10.00 | .0300 | 10.00 | 10.00 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | Q.1223 | .1075 | .2165 | .1017 | .2063 | .1056 |
| SDev | .0018 | .0048 | .0020 | .0002 | .0007 | .0000 |
| %RSD | 1.463 | 4.454 | .9383 | .1672 | .3521 | .0074 |
| #1 | Q.1210 | .1041 | .2179 | .1015 | .2057 | .1056 |
| #2 | Q.1235 | .1109 | .2151 | .1018 | .2068 | .1056 |
| Errors | QC Fail | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .1000 | .1000 | .2000 | .1000 | .2000 | .1000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

Method: ICP1 Sample Name: ISA Operator:
Run Time: 10/31/97 01:37:36
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0387 | -.0130 | -.0032 | .0030 | -.0507 | .0578 | .0039 |
| SDev | .0011 | .0002 | .0053 | .0002 | .0001 | .0598 | .0575 |
| %RSD | 2.789 | 1.416 | 165.6 | 6.118 | .2427 | 103.5 | 1469. |
| #1 | -.0380 | -.0131 | .0005 | .0029 | -.0508 | .0155 | .0446 |
| #2 | -.0395 | -.0129 | -.0070 | .0032 | -.0506 | .1001 | -.0367 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | | |
| Range | | | | | | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0186 | .0029 | -.0045 | 490.3 | -.0009 | .0003 | 472.9 |
| SDev | .0078 | .0021 | .0030 | 3.8 | .0153 | .0000 | 1.1 |
| %RSD | 42.11 | 70.73 | 65.18 | .7699 | 1628. | .5971 | .2428 |
| #1 | -.0130 | .0044 | -.0024 | 493.0 | .0099 | .0003 | 473.7 |
| #2 | -.0241 | .0015 | -.0066 | 487.6 | -.0118 | .0003 | 472.1 |
| Errors | NOCHECK | NOCHECK | NOCHECK | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | | | | 500.0 | | | 500.0 |
| Range | | | | 100.0 | | | 100.0 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0076 | 189.2 | 517.5 | -.0029 | .3046 | .0557 | .0053 |
| SDev | .0009 | .7 | 1.4 | .0002 | .1466 | .0058 | .0008 |
| %RSD | 11.98 | .3833 | .2769 | 7.453 | 48.11 | 10.42 | 14.07 |
| #1 | -.0069 | 189.7 | 518.5 | -.0027 | .4082 | .0598 | .0058 |
| #2 | -.0082 | 188.7 | 516.5 | -.0030 | .2010 | .0516 | .0048 |
| Errors | NOCHECK | QC Pass | QC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | 200.0 | 500.0 | | | | |
| Range | | 40.00 | 100.0 | | | | |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0265 | .0122 | .0180 | .0199 | .0296 | .0023 |
| SDev | .0018 | .0096 | .0059 | .0002 | .0029 | .0006 |
| %RSD | 6.761 | 78.62 | 32.57 | 1.171 | 9.975 | 26.25 |
| #1 | -.0278 | .0189 | .0222 | .0201 | .0275 | .0027 |
| #2 | -.0253 | .0054 | .0139 | .0197 | .0317 | .0019 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Analysis Report QC Standard Fri 10-31-97 01:44:53 AM page 1

Method: ICP1 Sample Name: ISB Operator:
Run Time: 10/31/97 01:41:16
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 1.010 | .4623 | .9802 | .4733 | .9344 | .0498 | .0194 |
| SDev | .002 | .0021 | .0026 | .0011 | .0049 | .0347 | .0105 |
| %RSD | .2130 | .4478 | .2662 | .2427 | .5216 | 69.81 | 54.14 |
| #1 | 1.009 | .4608 | .9783 | .4725 | .9310 | .0252 | .0120 |
| #2 | 1.012 | .4637 | .9820 | .4741 | .9379 | .0743 | .0269 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK |
| Value | 1.000 | .5000 | 1.000 | .5000 | 1.000 | | |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | | |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4786 | .9055 | .9877 | 504.3 | .0119 | .4810 | 486.2 |
| SDev | .0002 | .0001 | .0025 | 2.4 | .0078 | .0021 | 2.0 |
| %RSD | .0336 | .0155 | .2531 | .4738 | 65.64 | .4327 | .4056 |
| #1 | .4785 | .9056 | .9860 | 502.6 | .0174 | .4795 | 484.8 |
| #2 | .4787 | .9054 | .9895 | 505.9 | .0064 | .4825 | 487.6 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | QC Pass | QC Pass |
| Value | .5000 | 1.000 | 1.000 | 500.0 | | .5000 | 500.0 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | 20.00 | 20.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .4582 | 194.8 | 532.5 | .4612 | .0942 | .0563 | .4806 |
| SDev | .0045 | .8 | 1.9 | .0018 | .4885 | .0515 | .0015 |
| %RSD | .9751 | .4132 | .3477 | .3862 | 518.5 | 91.43 | .3193 |
| #1 | .4551 | 194.2 | 531.2 | .4600 | .4396 | .0928 | .4795 |
| #2 | .4614 | 195.4 | 533.8 | .4625 | -.2512 | .0199 | .4817 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | NOCHECK | NOCHECK | QC Pass |
| Value | .5000 | 200.0 | 500.0 | .5000 | | | .5000 |
| Range | 20.00 | 20.00 | 20.00 | 20.00 | | | 20.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0364 | .0120 | .0204 | .0202 | .0294 | .0017 |
| SDev | .0071 | .0067 | .0034 | .0002 | .0009 | .0002 |
| %RSD | 19.65 | 55.66 | 16.76 | .9794 | 3.237 | 12.37 |
| #1 | -.0414 | .0168 | .0228 | .0201 | .0287 | .0015 |
| #2 | -.0313 | .0073 | .0180 | .0203 | .0301 | .0018 |
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value | | | | | | |
| Range | | | | | | |

Method: ICP1 Sample Name: CCV Operator:
Run Time: 10/31/97 01:44:56
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .5233 | 5.060 | 5.040 | 5.090 | 5.178 | 5.040 | 5.090 |
| SDev | .0006 | .017 | .006 | .006 | .001 | .057 | .026 |
| %RSD | .1182 | .3330 | .1199 | .1206 | .0207 | 1.141 | .5187 |
| #1 | .5238 | 5.072 | 5.045 | 5.094 | 5.177 | 4.999 | 5.109 |
| #2 | .5229 | 5.048 | 5.036 | 5.085 | 5.179 | 5.080 | 5.071 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .5000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.086 | 5.077 | 5.090 | 5.025 | 5.057 | 5.047 | 10.41 |
| SDev | .011 | .022 | .020 | .005 | .041 | .001 | .03 |
| %RSD | .2105 | .4364 | .4014 | .0985 | .8057 | .0262 | .2697 |
| #1 | 5.094 | 5.093 | 5.104 | 5.022 | 5.029 | 5.048 | 10.39 |
| #2 | 5.079 | 5.062 | 5.075 | 5.029 | 5.086 | 5.046 | 10.43 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 10.00 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.124 | 5.063 | 9.973 | 5.093 | 10.08 | 10.27 | 5.191 |
| SDev | .002 | .005 | .024 | .006 | 1.01 | .03 | .001 |
| %RSD | .0365 | .0924 | .2399 | .1187 | 9.998 | .2507 | .0221 |
| #1 | 5.125 | 5.066 | 9.990 | 5.098 | 10.80 | 10.29 | 5.192 |
| #2 | 5.123 | 5.060 | 9.956 | 5.089 | 9.371 | 10.25 | 5.190 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 10.00 | 5.000 | 10.00 | 10.00 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | 5.010 | 5.119 | 4.999 | 5.106 | 5.199 | 5.086 |
| SDev | .002 | .017 | .012 | .013 | .026 | .009 |
| %RSD | .0352 | .3361 | .2417 | .2622 | .4912 | .1694 |
| #1 | 5.012 | 5.131 | 4.991 | 5.115 | 5.181 | 5.092 |
| #2 | 5.009 | 5.107 | 5.008 | 5.096 | 5.217 | 5.080 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Range | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

Method: ICP1 Sample Name: CCB Operator:
Run Time: 10/31/97 01:48:36
Comment:
Mode: CONC Corr. Factor: 1

| Elem | Ag | Ba | Cd | Cr | Pb | As | Se |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0007 | .0010 | .0012 | -.0003 | -.0047 | .0319 | -.0193 |
| SDev | .0032 | .0000 | .0024 | .0019 | .0207 | .0091 | .0001 |
| %RSD | 428.3 | .4905 | 198.9 | 594.1 | 439.3 | 28.69 | .4123 |
| #1 | -.0030 | .0010 | .0029 | .0010 | .0099 | .0254 | -.0192 |
| #2 | .0015 | .0010 | -.0005 | -.0016 | -.0194 | .0383 | -.0193 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0100 | .0500 | .0050 | .0100 | .0250 | .0500 | .0500 |

| Elem | Cu | Ni | Zn | Al | Sb | Be | Ca |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0011 | -.0004 | -.0021 | .0332 | .0466 | .0014 | .0140 |
| SDev | .0009 | .0019 | .0000 | .0258 | .0020 | .0001 | .0021 |
| %RSD | 80.54 | 430.2 | 1.399 | 77.79 | 4.268 | 5.041 | 14.84 |
| #1 | -.0005 | -.0018 | -.0021 | .0515 | .0452 | .0013 | .0154 |
| #2 | -.0018 | .0009 | -.0021 | .0149 | .0480 | .0014 | .0125 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0250 | .0300 | .0200 | .1000 | .0600 | .0050 | .2000 |

| Elem | Co | Fe | Mg | Mn | K | Na | V |
|---|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | -.0032 | .0082 | .0042 | .0011 | -.0157 | .0333 | .0046 |
| SDev | .0021 | .0027 | .0030 | .0004 | .2887 | .0141 | .0022 |
| %RSD | 66.84 | 33.10 | 70.50 | 33.28 | 1838. | 42.31 | 47.80 |
| #1 | -.0017 | .0101 | .0063 | .0014 | -.2198 | .0433 | .0062 |
| #2 | -.0047 | .0063 | .0021 | .0009 | .1884 | .0233 | .0031 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .0500 | .0500 | .2000 | .0150 | 2.000 | .2000 | .0500 |

| Elem | B | Mo | Si | Sr | Sn | Ti |
|---|---|---|---|---|---|---|
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Avge | .0126 | .0061 | .0077 | .0014 | -.0104 | .0011 |
| SDev | .0036 | .0038 | .0129 | .0002 | .0131 | .0016 |
| %RSD | 28.35 | 62.77 | 168.1 | 11.50 | 126.1 | 142.2 |
| #1 | .0101 | .0088 | .0168 | .0016 | -.0197 | .0023 |
| #2 | .0152 | .0034 | -.0014 | .0013 | -.0011 | -.0000 |
| Errors | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass | QC Pass |
| Value | .0000 | .0000 | .0000 | .0000 | .0000 | .0000 |
| Range | .1000 | .0500 | .1000 | .0500 | .0500 | .0500 |