# ANALYTICAL REPORT

**PROJECT NO. GW P.O.#08421**

**PTI - Santa Fe Springs**

**Lot #: E2G240329**

**Sharon Wallin**

**Camp, Dresser, McKee**

**SEVERN TRENT LABORATORIES, INC.**

**Diane Suzuki**
Project Manager

**July 30, 2002**

# ANALYTICAL REPORT

**PROJECT NO. GW P.O.#08421**

**PTI - Santa Fe Springs**

**Lot #: E2G240329**

**Jim Morzolino**

**Phibro-Tech, Inc.**

**SEVERN TRENT LABORATORIES, INC.**

**Diane Suzuki**
Project Manager

**July 30, 2002**

# ANALYTICAL REPORT

**PROJECT NO. GW P.O.#08421**

**PTI - Santa Fe Springs**

**Lot #: E2G240329**

**John Bennett**

**SEVERN TRENT LABORATORIES, INC.**

**Diane Suzuki**
Project Manager

**July 30, 2002**

# EXECUTIVE SUMMARY - Detection Highlights

**E2G240329**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **PTI-MW-01S-054 07/24/02 11:40 001** | | | | |
| cis-1,2-Dichloroethene | 1.8 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 1.2 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 6.2 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0018 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.0 | 0.10 | No Units | SW846 9040B |
| **PTI-MW-01D-054 07/24/02 13:40 002** | | | | |
| Tetrachloroethene | 1.7 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 2.8 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0050 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.5 | 0.10 | No Units | SW846 9040B |
| **PTI-EB-01-054 07/24/02 14:05 003** | | | | |
| Methylene chloride | 2.2 | 1.0 | ug/L | SW846 8260B |
| pH | 6.4 | 0.10 | No Units | SW846 9040B |
| **PTI-MW-03-054 07/24/02 15:00 004** | | | | |
| Carbon tetrachloride | 28 | 5.0 | ug/L | SW846 8260B |
| Chloroform | 31 | 5.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | 34 | 5.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | 36 | 5.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 5.5 | 5.0 | ug/L | SW846 8260B |
| Trichloroethene | 260 | 5.0 | ug/L | SW846 8260B |
| pH | 7.1 | 0.10 | No Units | SW846 9040B |
| **PTI-MW-15S-054 07/24/02 16:20 005** | | | | |
| Carbon tetrachloride | 1.3 | 1.0 | ug/L | SW846 8260B |
| Chloroform | 2.8 | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | 3.0 | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | 1.2 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 4.4 | 1.0 | ug/L | SW846 8260B |
| Dissolved Hexavalent Chromium | 0.0060 | 0.0010 | mg/L | SW846 7199 |
| pH | 7.4 | 0.10 | No Units | SW846 9040B |

# METHODS SUMMARY

**E2G240329**

| PARAMETER | ANALYTICAL METHOD | PREPARATION METHOD |
|---|---|---|
| pH Aqueous | SW846 9040B | SW846 9040B |
| Hexavalent Chromium | SW846 7199 | SW846 7199 |
| Inductively Coupled Plasma (ICP) Metals | SW846 6010B | SW846 3005A |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030B/826 |

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

**E2G240329**

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| E49GF | 001 | PTI-MW-01S-054 | 07/24/02 | 11:40 |
| E49GG | 002 | PTI-MW-01D-054 | 07/24/02 | 13:40 |
| E49GH | 003 | PTI-EB-01-054 | 07/24/02 | 14:05 |
| E49GJ | 004 | PTI-MW-03-054 | 07/24/02 | 15:00 |
| E49GL | 005 | PTI-MW-15S-054 | 07/24/02 | 16:20 |
| E49GM | 006 | PTI-TB-01-054 | 07/24/02 | 12:00 |

**NOTE(S):**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01S-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-001 **Work Order #...:** E49GF1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/24/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 23:54
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| **cis-1,2-Dichloroethene** | **1.8** | **1.0** | **ug/L** | **0.30** |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **1.2** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **6.2** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 104 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 126 | (65 - 135) |
| Toluene-d8 | 109 | (80 - 130) |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01S-054**

**TOTAL Metals**

**Lot-Sample #...:** E2G240329-001 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GF1AC |
| | | Analysis Time..: 14:03 | | MS Run #.....: 2206079 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GF1AD |
| | | Analysis Time..: 14:03 | | MS Run #.....: 2206079 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GF1AE |
| | | Analysis Time..: 14:03 | | MS Run #.....: 2206079 | MDL.....: 0.0040 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01S-054**

**General Chemistry**

**Lot-Sample #...:** E2G240329-001 **Work Order #...:** E49GF **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.0** | **0.10** | **No Units** | **SW846 9040B** | **07/24/02** | **2205550** |
| | Analysis Time..: 18:56 | | MS Run #.....: 2205316 | | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0018** | **0.0010** | **mg/L** | **SW846 7199** | **07/24/02** | **2206395** |
| | Analysis Time..: 19:07 | | MS Run #.....: 2206171 | | MDL.....: 0.00030 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01D-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-002 **Work Order #...:** E49GG1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 13:40 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/25/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 00:18
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **1.7** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **2.8** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 123 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01D-054**

**TOTAL Metals**

**Lot-Sample #...:** E2G240329-002 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 13:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GG1AC |
| | | Analysis Time..: 14:11 | | MS Run #.....: 2206079 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GG1AD |
| | | Analysis Time..: 14:11 | | MS Run #.....: 2206079 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GG1AE |
| | | Analysis Time..: 14:11 | | MS Run #.....: 2206079 | MDL.....: 0.0040 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-01D-054**

**General Chemistry**

**Lot-Sample #...:** E2G240329-002 **Work Order #...:** E49GG **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 13:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.5** | **0.10** | **No Units** | **SW846 9040B** | **07/24/02** | **2205550** |
| | | Analysis Time..: 19:02 | | MS Run #.....: 2205316 | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0050** | **0.0010** | **mg/L** | **SW846 7199** | **07/24/02** | **2206395** |
| | | Analysis Time..: 19:26 | | MS Run #.....: 2206171 | MDL.....: 0.00030 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-EB-01-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-003 **Work Order #...:** E49GH1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 14:05 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/24/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 23:31
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| **Methylene chloride** | **2.2** | **1.0** | **ug/L** | **0.30** |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 124 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-EB-01-054**

**TOTAL Metals**

**Lot-Sample #...:** E2G240329-003 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 14:05 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GH1AC |
| | | Analysis Time..: 14:19 | | MS Run #.....: 2206079 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GH1AD |
| | | Analysis Time..: 14:19 | | MS Run #.....: 2206079 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GH1AE |
| | | Analysis Time..: 14:19 | | MS Run #.....: 2206079 | MDL.....: 0.0040 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-EB-01-054**

**General Chemistry**

**Lot-Sample #...:** E2G240329-003 **Work Order #...:** E49GH **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 14:05 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **6.4** | **0.10** | **No Units** | **SW846 9040B** | **07/24/02** | **2205550** |
| | | Analysis Time..: 19:05 | | MS Run #.....: 2205316 | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 07/24/02 | 2206395 |
| | | Analysis Time..: 19:45 | | MS Run #.....: 2206171 | MDL.....: 0.00030 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-03-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-004 **Work Order #...:** E49GJ1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 15:00 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/25/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 00:42
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 5.0 | ug/L | 1.5 |
| Bromodichloromethane | ND | 5.0 | ug/L | 1.5 |
| Bromoform | ND | 5.0 | ug/L | 1.5 |
| Bromomethane | ND | 10 | ug/L | 5.0 |
| **Carbon tetrachloride** | **28** | **5.0** | **ug/L** | **1.5** |
| Chlorobenzene | ND | 5.0 | ug/L | 1.5 |
| Dibromochloromethane | ND | 5.0 | ug/L | 2.0 |
| Chloroethane | ND | 10 | ug/L | 1.5 |
| **Chloroform** | **31** | **5.0** | **ug/L** | **1.5** |
| Chloromethane | ND | 10 | ug/L | 1.5 |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/L | 1.5 |
| **1,1-Dichloroethane** | **34** | **5.0** | **ug/L** | **1.0** |
| 1,2-Dichloroethane | ND | 5.0 | ug/L | 2.0 |
| **1,1-Dichloroethene** | **36** | **5.0** | **ug/L** | **1.5** |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/L | 1.5 |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/L | 1.5 |
| 1,2-Dichloropropane | ND | 5.0 | ug/L | 1.5 |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/L | 1.5 |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/L | 2.5 |
| Ethylbenzene | ND | 5.0 | ug/L | 1.0 |
| Methylene chloride | ND | 5.0 | ug/L | 1.5 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/L | 2.0 |
| **Tetrachloroethene** | **5.5** | **5.0** | **ug/L** | **1.5** |
| Toluene | ND | 5.0 | ug/L | 1.5 |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/L | 1.0 |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/L | 1.5 |
| **Trichloroethene** | **260** | **5.0** | **ug/L** | **1.5** |
| Trichlorofluoromethane | ND | 10 | ug/L | 1.5 |
| Vinyl chloride | ND | 10 | ug/L | 1.5 |
| m-Xylene & p-Xylene | ND | 5.0 | ug/L | 2.5 |
| o-Xylene | ND | 5.0 | ug/L | 1.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 116 | (65 - 135) |
| Toluene-d8 | 108 | (80 - 130) |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-03-054**

**TOTAL Metals**

**Lot-Sample #...:** E2G240329-004 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 15:00 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GJ1AC |
| | | Analysis Time..: 14:25 | | MS Run #.....: 2206079 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GJ1AD |
| | | Analysis Time..: 14:25 | | MS Run #.....: 2206079 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GJ1AE |
| | | Analysis Time..: 14:25 | | MS Run #.....: 2206079 | MDL.....: 0.0040 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-03-054**

**General Chemistry**

**Lot-Sample #...:** E2G240329-004 **Work Order #...:** E49GJ **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 15:00 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.1** | **0.10** | **No Units** | **SW846 9040B** | **07/24/02** | **2205550** |
| | | Analysis Time..: 19:08 | | MS Run #.....: 2205316 | MDL.....: 0.10 | |
| Dissolved Hexavalent Chromium | ND | 0.0010 | mg/L | SW846 7199 | 07/24/02 | 2206395 |
| | | Analysis Time..: 20:04 | | MS Run #.....: 2206171 | MDL.....: 0.00030 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-15S-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-005 **Work Order #...:** E49GL1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 16:20 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/25/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 01:05
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| **Carbon tetrachloride** | **1.3** | **1.0** | **ug/L** | **0.30** |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| **Chloroform** | **2.8** | **1.0** | **ug/L** | **0.30** |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| **1,2-Dichloroethane** | **3.0** | **1.0** | **ug/L** | **0.40** |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| **Tetrachloroethene** | **1.2** | **1.0** | **ug/L** | **0.30** |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **4.4** | **1.0** | **ug/L** | **0.30** |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 103 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 121 | (65 - 135) |
| Toluene-d8 | 109 | (80 - 130) |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-15S-054**

**TOTAL Metals**

**Lot-Sample #...:** E2G240329-005 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 16:20 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GL1AC |
| | | Analysis Time..: 14:33 | | MS Run #.....: 2206079 | MDL.....: 0.00060 | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GL1AD |
| | | Analysis Time..: 14:33 | | MS Run #.....: 2206079 | MDL.....: 0.0010 | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E49GL1AE |
| | | Analysis Time..: 14:33 | | MS Run #.....: 2206079 | MDL.....: 0.0040 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-MW-15S-054**

**General Chemistry**

**Lot-Sample #...:** E2G240329-005 **Work Order #...:** E49GL **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 16:20 **Date Received..:** 07/24/02 17:35

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| **pH** | **7.4** | **0.10** | **No Units** | **SW846 9040B** | **07/24/02** | **2205550** |
| | | Analysis Time..: 19:11 | | MS Run #.....: 2205316 | MDL.....: 0.10 | |
| **Dissolved Hexavalent Chromium** | **0.0060** | **0.0010** | **mg/L** | **SW846 7199** | **07/24/02** | **2206395** |
| | | Analysis Time..: 20:42 | | MS Run #.....: 2206171 | MDL.....: 0.00030 | |

**PHIBRO-TECH, INC.**

**Client Sample ID: PTI-TB-01-054**

**GC/MS Volatiles**

**Lot-Sample #...:** E2G240329-006 **Work Order #...:** E49GM1AA **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 12:00 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/24/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 23:07
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | 0.30 |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| Bromoform | ND | 1.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 0.30 |
| Chlorobenzene | ND | 1.0 | ug/L | 0.30 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Chloroform | ND | 1.0 | ug/L | 0.30 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | 0.50 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| Toluene | ND | 1.0 | ug/L | 0.30 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 0.20 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| Trichloroethene | ND | 1.0 | ug/L | 0.30 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 2.0 | ug/L | 0.30 |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | 0.50 |
| o-Xylene | ND | 1.0 | ug/L | 0.20 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 102 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 117 | (65 - 135) |
| Toluene-d8 | 108 | (80 - 130) |

# QC DATA ASSOCIATION SUMMARY

**E2G240329**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 9040B | | 2205550 | 2205316 |
| | WATER | SW846 8260B | | 2206520 | 2206234 |
| | WATER | SW846 6010B | | 2206207 | 2206079 |
| | WATER | SW846 7199 | | 2206395 | 2206171 |
| 002 | WATER | SW846 9040B | | 2205550 | 2205316 |
| | WATER | SW846 8260B | | 2206520 | 2206234 |
| | WATER | SW846 6010B | | 2206207 | 2206079 |
| | WATER | SW846 7199 | | 2206395 | 2206171 |
| 003 | WATER | SW846 9040B | | 2205550 | 2205316 |
| | WATER | SW846 8260B | | 2206520 | 2206234 |
| | WATER | SW846 6010B | | 2206207 | 2206079 |
| | WATER | SW846 7199 | | 2206395 | 2206171 |
| 004 | WATER | SW846 9040B | | 2205550 | 2205316 |
| | WATER | SW846 8260B | | 2206520 | 2206234 |
| | WATER | SW846 6010B | | 2206207 | 2206079 |
| | WATER | SW846 7199 | | 2206395 | 2206171 |
| 005 | WATER | SW846 9040B | | 2205550 | 2205316 |
| | WATER | SW846 8260B | | 2206520 | 2206234 |
| | WATER | SW846 6010B | | 2206207 | 2206079 |
| | WATER | SW846 7199 | | 2206395 | 2206171 |
| 006 | WATER | SW846 8260B | | 2206520 | 2206234 |

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2G240329 **Work Order #...:** E5C471AA **Matrix.....:** WATER
**MB Lot-Sample #:** E2G250000-520
**Prep Date.....:** 07/24/02 **Analysis Time..:** 22:43
**Analysis Date..:** 07/24/02 **Prep Batch #...:** 2206520

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 2.0 | ug/L | SW846 8260B |
| m-Xylene & p-Xylene | ND | 1.0 | ug/L | SW846 8260B |
| o-Xylene | ND | 1.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 104 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 119 | (65 - 135) |
| Toluene-d8 | 106 | (80 - 130) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## METHOD BLANK REPORT

## TOTAL Metals

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **MB Lot-Sample #:** E2G250000-207 **Prep Batch #...:** 2206207 | | | | | | |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 07/25-07/26/02 | E494F1AK |
| | | Analysis Time..: 13:50 | | | | |
| Chromium | ND | 0.010 | mg/L | SW846 6010B | 07/25-07/26/02 | E494F1AQ |
| | | Analysis Time..: 13:50 | | | | |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 07/25-07/26/02 | E494F1AL |
| | | Analysis Time..: 13:50 | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**METHOD BLANK REPORT**

**General Chemistry**

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #: E5A811AA | | MB Lot-Sample #: | E2G250000-395 | |
| | ND | 0.0010 | mg/L | SW846 7199 | 07/24/02 | 2206395 |
| | | Analysis Time..: 18:32 | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2G240329 **Work Order #...:** E5C471AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2G250000-520
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/24/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 21:56

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Benzene** | **92** | **(75 - 120)** | **SW846 8260B** |
| **Chlorobenzene** | **81** | **(75 - 120)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **107** | **(70 - 140)** | **SW846 8260B** |
| **Toluene** | **87** | **(75 - 125)** | **SW846 8260B** |
| **Trichloroethene** | **91** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 110 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 105 | (65 - 135) |
| Toluene-d8 | 114 | (80 - 130) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

**Client Lot #...:** E2G240329 **Work Order #...:** E5C471AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2G250000-520
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/24/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 21:56

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **10.0** | **9.18** | **ug/L** | **92** | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **8.09** | **ug/L** | **81** | **SW846 8260B** |
| **1,1-Dichloroethene** | **10.0** | **10.7** | **ug/L** | **107** | **SW846 8260B** |
| **Toluene** | **10.0** | **8.68** | **ug/L** | **87** | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **9.11** | **ug/L** | **91** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 110 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 105 | (65 - 135) |
| Toluene-d8 | 114 | (80 - 130) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2G250000-207 **Prep Batch #...:** 2206207 | | | | | |
| Cadmium | 99 | (80 - 120) | SW846 6010B | 07/25-07/26/02 | E494F1AR |
| | | Analysis Time..: 13:55 | | | |
| Chromium | 100 | (85 - 120) | SW846 6010B | 07/25-07/26/02 | E494F1AX |
| | | Analysis Time..: 13:55 | | | |
| Copper | 103 | (80 - 120) | SW846 6010B | 07/25-07/26/02 | E494F1AT |
| | | Analysis Time..: 13:55 | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2G250000-207 **Prep Batch #...:** 2206207 | | | | | | | |
| Cadmium | 0.0500 | 0.0496 | mg/L | 99 | SW846 6010B | 07/25-07/26/02 | E494F1AR |
| | | | Analysis Time..: 13:55 | | | | |
| Chromium | 0.200 | 0.200 | mg/L | 100 | SW846 6010B | 07/25-07/26/02 | E494F1AX |
| | | | Analysis Time..: 13:55 | | | | |
| Copper | 0.250 | 0.256 | mg/L | 103 | SW846 6010B | 07/25-07/26/02 | E494F1AT |
| | | | Analysis Time..: 13:55 | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| pH | | Work Order #: E49JR1AA | LCS Lot-Sample#: E2G240000-550 | | |
| | 100 | (90 - 110) | SW846 9040B | 07/24/02 | 2205550 |
| | | Analysis Time..: 18:53 | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| pH | | | Work Order #: E49JR1AA | | LCS Lot-Sample#: E2G240000-550 | | |
| | 9.18 | 9.19 | No Units | 100 | SW846 9040B | 07/24/02 | 2205550 |

Analysis Time..: 18:53

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #: E5A811AC | LCS Lot-Sample#: E2G250000-395 | | |
| | 106 | (90 - 110) | SW846 7199 | 07/24/02 | 2206395 |
| | | Analysis Time..: 18:23 | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #: E5A811AC | | | LCS Lot-Sample#: E2G250000-395 | | | |
| | 0.0200 | 0.0213 | mg/L | 106 | SW846 7199 | 07/24/02 | 2206395 |
| | Analysis Time..: 18:23 | | | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

**Client Lot #...:** E2G240329 **Work Order #...:** E49GF1AQ-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2G240329-001 E49GF1AR-MSD
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/25/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 01:29

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Benzene** | **96** | **(75 - 120)** | | | **SW846 8260B** |
| | **91** | **(75 - 120)** | **5.6** | **(0-25)** | **SW846 8260B** |
| **Chlorobenzene** | **82** | **(75 - 120)** | | | **SW846 8260B** |
| | **79** | **(75 - 120)** | **3.2** | **(0-25)** | **SW846 8260B** |
| **1,1-Dichloroethene** | **112** | **(70 - 140)** | | | **SW846 8260B** |
| | **106** | **(70 - 140)** | **5.1** | **(0-25)** | **SW846 8260B** |
| **Toluene** | **88** | **(75 - 125)** | | | **SW846 8260B** |
| | **85** | **(75 - 125)** | **3.5** | **(0-25)** | **SW846 8260B** |
| **Trichloroethene** | **96** | **(70 - 130)** | | | **SW846 8260B** |
| | **88** | **(70 - 130)** | **5.2** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 108 | (75 - 130) |
| | 108 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 114 | (65 - 135) |
| | 109 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 110 | (80 - 130) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

**Client Lot #...:** E2G240329 **Work Order #...:** E49GF1AQ-MS **Matrix.....:** WATER
**MS Lot-Sample #:** E2G240329-001 E49GF1AR-MSD
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35 **MS Run #.....:** 2206234
**Prep Date.....:** 07/24/02 **Analysis Date..:** 07/25/02
**Prep Batch #...:** 2206520 **Analysis Time..:** 01:29

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Benzene** | **ND** | **10.0** | **9.59** | **ug/L** | **96** | | **SW846 8260B** |
| | **ND** | **10.0** | **9.07** | **ug/L** | **91** | **5.6** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **8.16** | **ug/L** | **82** | | **SW846 8260B** |
| | **ND** | **10.0** | **7.90** | **ug/L** | **79** | **3.2** | **SW846 8260B** |
| **1,1-Dichloroethene** | **ND** | **10.0** | **11.9** | **ug/L** | **112** | | **SW846 8260B** |
| | **ND** | **10.0** | **11.3** | **ug/L** | **106** | **5.1** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **8.79** | **ug/L** | **88** | | **SW846 8260B** |
| | **ND** | **10.0** | **8.49** | **ug/L** | **85** | **3.5** | **SW846 8260B** |
| **Trichloroethene** | **6.2** | **10.0** | **15.8** | **ug/L** | **96** | | **SW846 8260B** |
| | **6.2** | **10.0** | **15.0** | **ug/L** | **88** | **5.2** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 108 | (75 - 130) |
| | 108 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 114 | (65 - 135) |
| | 109 | (65 - 135) |
| Toluene-d8 | 110 | (80 - 130) |
| | 110 | (80 - 130) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2G240329 **Matrix.....:** WATER
**Date Sampled...:** 07/19/02 11:00 **Date Received..:** 07/24/02 11:45

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2G240223-001 **Prep Batch #...:** 2206207 | | | | | | | |
| Cadmium | 95 | (80 - 120) | | | SW846 6010B | 07/25-07/26/02 | E48EW1AQ |
| | 95 | (80 - 120) | 0.45 | (0-20) | SW846 6010B | 07/25-07/26/02 | E48EW1AR |
| | | Analysis Time..: 15:09 | | | | | |
| | | MS Run #.....: 2206079 | | | | | |
| Chromium | 96 | (85 - 120) | | | SW846 6010B | 07/25-07/26/02 | E48EW1A8 |
| | 96 | (85 - 120) | 0.34 | (0-20) | SW846 6010B | 07/25-07/26/02 | E48EW1A9 |
| | | Analysis Time..: 15:09 | | | | | |
| | | MS Run #.....: 2206079 | | | | | |
| Copper | 105 | (80 - 120) | | | SW846 6010B | 07/25-07/26/02 | E48EW1AU |
| | 105 | (80 - 120) | 0.08 | (0-20) | SW846 6010B | 07/25-07/26/02 | E48EW1AV |
| | | Analysis Time..: 15:09 | | | | | |
| | | MS Run #.....: 2206079 | | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE DATA REPORT

## TOTAL Metals

**Client Lot #...:** E2G240329 **Matrix.....:** WATER
**Date Sampled...:** 07/19/02 11:00 **Date Received..:** 07/24/02 11:45

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2G240223-001 **Prep Batch #...:** 2206207 | | | | | | | | | |
| Cadmium | | | | | | | | | |
| | ND | 0.0500 | 0.0486 | mg/L | 95 | | SW846 6010B | 07/25-07/26/02 | E48EW1AQ |
| | ND | 0.0500 | 0.0484 | mg/L | 95 | 0.45 | SW846 6010B | 07/25-07/26/02 | E48EW1AR |
| | | | Analysis Time..: 15:09 | | | | | | |
| | | | MS Run #.....: 2206079 | | | | | | |
| Chromium | | | | | | | | | |
| | 0.015 | 0.200 | 0.208 | mg/L | 96 | | SW846 6010B | 07/25-07/26/02 | E48EW1A8 |
| | 0.015 | 0.200 | 0.207 | mg/L | 96 | 0.34 | SW846 6010B | 07/25-07/26/02 | E48EW1A9 |
| | | | Analysis Time..: 15:09 | | | | | | |
| | | | MS Run #.....: 2206079 | | | | | | |
| Copper | | | | | | | | | |
| | ND | 0.250 | 0.274 | mg/L | 105 | | SW846 6010B | 07/25-07/26/02 | E48EW1AU |
| | ND | 0.250 | 0.274 | mg/L | 105 | 0.08 | SW846 6010B | 07/25-07/26/02 | E48EW1AV |
| | | | Analysis Time..: 15:09 | | | | | | |
| | | | MS Run #.....: 2206079 | | | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | Work Order #...: E49GF1AN | | MS Lot-Sample #: | E2G240329-001 |
| | 100 | (80 - 120) | SW846 7199 | 07/24/02 | 2206395 |
| | | Analysis Time..: 19:07 | | | |
| | | MS Run #.....: 2206171 | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE DATA REPORT

### General Chemistry

**Client Lot #...:** E2G240329 **Matrix.....:** WATER
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | Work Order #...: E49GF1AN | | | | | MS Lot-Sample #: E2G240329-001 | | |
| | 0.0018 | 0.020 | 0.0219 | mg/L | 100 | SW846 7199 | 07/24/02 | 2206395 |
| | | | Analysis Time..: 19:07 | | | | | |
| | | | MS Run #.....: 2206171 | | | | | |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**SAMPLE DUPLICATE EVALUATION REPORT**

**General Chemistry**

**Client Lot #...:** E2G240329 **Work Order #...:** E49GF-SMP **Matrix.....:** WATER
E49GF-DUP
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| pH | | | | | | SD Lot-Sample #: E2G240329-001 | | |
| | 7.0 | 7.0 | No Units | 0.24 | (0-10) | SW846 9040B | 07/24/02 | 2205550 |

Analysis Time..: 18:56 MS Run Number..: 2205316

**SAMPLE DUPLICATE EVALUATION REPORT**

**General Chemistry**

**Client Lot #...:** E2G240329 **Work Order #...:** E49GF-SMP **Matrix.....:** WATER
E49GF-DUP
**Date Sampled...:** 07/24/02 11:40 **Date Received..:** 07/24/02 17:35

| PARAM | RESULT | DUPLICATE RESULT | UNITS | RPD | RPD LIMIT | METHOD | PREPARATION-ANALYSIS DATE | PREP BATCH # |
|---|---|---|---|---|---|---|---|---|
| Dissolved Hexavalent Chromium | | | | | | SD Lot-Sample #: E2G240329-001 | | |
| | 0.0018 | 0.0018 | mg/L | 2.1 | (0-20) | SW846 7199 | 07/24/02 | 2206395 |

Analysis Time..: 19:07 MS Run Number..: 2206171