| Adelanto, CA<br>Soil Recycling Facility | TPS TECHNOLOGIES<br>SOIL DATA AND CERTIFICATION SHEET | DATE: 12/4/02 |
|---|---|---|

**Generator and/or client:**
Boeing Realty Corp.
15480 Laguna Canyon Rd.
Suite 200
Irvine, CA 92618

**Consultant/Engineering Firm:**
Haley & Aldrich
9040 Friars Road
San Diego, CA 92108-5860

**Testing Laboratory:**
~~SET~~ STL/Del Mar

**Sampling procedures:**
Composite

**Site History:** (Please list Site name & address (INCLUDING ZIP CODE), describe contamination type, contamination source, how contamination was stored, and past activities at site.-Attach additional documents)

☒ NON HAZ ☐ HAZARDOUS

Site name & address:
Boeing Realty Corp.
19400 Harborgate Way
Torrance, CA 90501

Source of contamination (ust, ast, ect...): Unknown
(please list gas, diesel, combo, waste oil, ect...)

EST. QUANTITY
TONS 100-150
DRUMS

Please check appropate box below and attach all required analytical reports. Unless otherwise noted, composite samples should be collected with the following frequency: 1 sample for 100 cubic yards or less ; 3 samples for 500 cu yds or less ; 5 samples for 1000 cu yds & 1 additional sample for each additional 500cu yds greater than 1000 cu yds

☐ I/we certify that the soil referenced herein is contaminated soley by Virgin petroleum products from leaking underground storage tank(s).
Attached is analytical data from state certified lab for the following
1) Total Petroleum Hydrocarbons (TPH, EPA 8015 Modified)
2) Benzene/Toluene/Ethylbenzene/xylene (BTEX, EPA 8020) INCLUDING MTBE

☒ I/We certified that some or all of the contaminants in the soil referenced herein is waste oil, or some other non-virgin petroleum product, or virgin petroleum product from something other than a leaking underground storage tank.
Attached is analytical data from a state certified lab for the following:
1) Total metals concentration for a thru q below (TTLC test)

| | | |
|---|---|---|
| a) Antimony | g) Cobalt | m) Selenium |
| b) Arsenic | h) Copper | n) Silver |
| c) Barium | i) Lead | o) Thalium |
| d) Beryllium | j) Mercury | p) Vanadium |
| e) Cadmium | k) Molybdenum | q) Zinc |
| f) Chromium | l) Nickel | |

Note: If any item a thru q is greater than 10 times its Soluble Threshold Limit concentration (STLC) the soluble metal concentration must be determined by the Waste Extraction Test procedure.

2) TPH by: EPA 418.1 or EPA 8015 modified
3) BTEX/VOC by: EPA 8020 & EPA 8010 or EPA 8260(combines above)
4) PCB'S(waste oil only)
5) Additional analytical data as required.

No soils referenced herein may be delivered until the forgoing certificate is received and approved by TPST, and TPST issues manifests and assigns a delivery date. If any soils delivered to TPST are found to be "Hazardous Waste" pursuant to federal or state regulations, the client shall be solely responsible for their removal. If the client fails to remove such soils, TPST, acting as client's agent, may arrange for such removal at client's expense.

This is a complete and accurate description of the soil referenced herein; no deliberate or willful omissions have been made and all known or suspected hazards have been disclosed herein. I/We certify that the soil is not "hazardous" as defined by U.S. Department of Transportation (DOT), U.S. Environmental Protection Agency (EPA), State or local regulations. I/We further certify that the soils referenced herein contain no free liquids. All analysis reports attached.

Generator's Authorized Signatory: Marcia Taleff — Date: 12/4/02
Print Name: Marcia Taleff — Title: Env. Eng.
Environmental Firm Signatory: — Date:
Print Name: — Title:

UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS

Haley & Aldrich, Inc.
9040 Friars Road, Suite 220
San Diego, CA 92108-5860
Tel: 619.280.9210
Fax: 619.280.9415
www.HaleyAldrich.com

HALEY & ALDRICH

**Letter of Transmittal**

| | |
|---|---|
| Date | 19 July 2002 |
| File Number | 28997-003; 27936-002 |
| From | Beth Breitenbach |
| To | The Boeing Company<br>3855 Lakewood Blvd., M/C D036-009<br>Long Beach, CA 90846 |
| Attention | Marcia Taleff |
| Subject | C-6 Analytical Results for drum and stockpile disposal |

| Copies | Date | Description |
|---|---|---|
| 1 | 7/19/02 | E2F010157, E2F030157 |

Transmitted via ☐ First class mail ☒ Overnight express ☐ Hand delivery ☐ Other

Remarks
On July 15, 2002, the following drums and stockpiles were on-site at C-6:

Near or within BLDG 2 SVE Compound
Drums: HA-147 BLDG 2 SVE Knock-out Water 6/27/02
HA-148 DDS-2-29 Decon Water 5/28/02
HA-149 DDS-2-29 Decon Water 5/28/02
HA-150 DDS-2-28 Decon Water 5/29/02
HA-151 DDS-2-28 Decon Water 5/29/02
HA-152 DDS-2-27 Decon Water 5/30/02
HA-153 DDS-2-27 Decon Water 5/30/02
HA-154 DDS-2-27 Decon Water 5/30/02
HA-155 WCC-03D Destruction Decon Water 5/31/02
HA-156 WCC-03D Destruction Decon Water 5/31/02
HA-157 WCC-03D Destruction Decon Water 5/31/02
HA-158 WCC-03D Destruction Decon Water 5/31/02
Roll-off Bin: SP-35 (8 $yd^3$) Soil Cuttings from 2-VEW-16&17 Installation (Re-use on site)

Southeastern Parcel C
Roll-off Bins: SP-36 (8 $yd^3$) Soil Cuttings from DDS Borings
SP-37 (8 $yd^3$) Soil Cuttings from DDS Borings

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www.HaleyAldrich.com

HALEY & ALDRICH

**Letter of Transmittal**

South of BLDG 2 SVE Area
Arcadis Drums: (2) 55-gal. Purge water, (1) 55 gal. Slug Test Water
Arcadis Roll-off Bins: (3) 20 $yd^3$ Bins – Two Empty, One Closed up

Building 1 SVE Area
ONYX Bins: (2) 20 $yd^3$ Rain-for-Rent Bins
Roll-off Bins: SP-38 (8 $yd^3$) Soil Cuttings from WCC-03D Destruction

Analytical results were provided previously for drums HA-147 through HA-158. Analytical results for SP-36, SP-37, and SP-38 are included with this transmittal.

We will review the analytical results for the Arcadis soil and groundwater as they are received.

Please arrange for disposal of the drums and stockpiles on site and contact us if you need any additional information.

Sincerely,
HALEY & ALDRICH, INC.

Beth Breitenbach

Beth Breitenbach
Geologist

# ANALYTICAL DRAFT REPORT

BRC C-6, Torrance HaleyAldrich

Lot #: E2F010157

Scott Zachary

Haley & Aldrich Inc

SEVERN TRENT LABORATORIES, INC.

**Diane Suzuki**
Project Manager

June 11, 2002

# EXECUTIVE SUMMARY - Detection Highlights

E2F010157

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **DW_1 05/31/02 17:45 001** | | | | |
| 1,1-Dichloroethene | 0.84 J | 1.0 | ug/L | SW846 8260B |
| Methyl tert-butyl ether | 2.6 | 1.0 | ug/L | SW846 8260B |
| Acetone | 25 | 10 | ug/L | SW846 8260B |
| Chloroform | 1.5 | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | 1.3 | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | 0.55 J | 1.0 | ug/L | SW846 8260B |
| 4-Methyl-2-pentanone | 14 | 5.0 | ug/L | SW846 8260B |
| Toluene | 8.2 | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | 4.6 | 1.0 | ug/L | SW846 8260B |
| Xylenes (total) | 0.86 J | 1.0 | ug/L | SW846 8260B |
| Bromoform | 0.69 J | 1.0 | ug/L | SW846 8260B |
| **SP_37 05/31/02 18:15 002** | | | | |
| C20-C23 | 2.1 J | 10 | mg/kg | SW846 8015B |
| C24-C27 | 2.7 J | 10 | mg/kg | SW846 8015B |
| C28-C31 | 3.9 J | 10 | mg/kg | SW846 8015B |
| C32-C35 | 11 | 10 | mg/kg | SW846 8015B |
| C36-C39 | 7.6 J | 10 | mg/kg | SW846 8015B |
| Total Carbon Chain Range | 28 | 10 | mg/kg | SW846 8015B |
| Mercury | 0.055 B | 0.10 | mg/kg | SW846 7471A |
| Aluminum | 17200 | 20.0 | mg/kg | SW846 6010B |
| Arsenic | 4.6 | 1.0 | mg/kg | SW846 6010B |
| Barium | 144 | 2.0 | mg/kg | SW846 6010B |
| Cadmium | 0.32 B,J | 0.50 | mg/kg | SW846 6010B |
| Chromium | 26.0 | 1.0 | mg/kg | SW846 6010B |
| Beryllium | 0.55 | 0.50 | mg/kg | SW846 6010B |
| Lead | 5.5 | 0.50 | mg/kg | SW846 6010B |
| Selenium | 0.82 | 0.50 | mg/kg | SW846 6010B |
| Cobalt | 8.6 | 1.0 | mg/kg | SW846 6010B |
| Copper | 23.2 | 2.5 | mg/kg | SW846 6010B |
| Molybdenum | 0.77 B,J | 4.0 | mg/kg | SW846 6010B |
| Nickel | 17.1 | 4.0 | mg/kg | SW846 6010B |
| Vanadium | 46.8 | 5.0 | mg/kg | SW846 6010B |
| Zinc | 57.9 | 2.0 | mg/kg | SW846 6010B |
| **SP_36 05/31/02 18:30 003** | | | | |
| C32-C35 | 2.6 J | 10 | mg/kg | SW846 8015B |
| Total Carbon Chain Range | 2.6 J | 10 | mg/kg | SW846 8015B |
| Mercury | 0.037 B | 0.10 | mg/kg | SW846 7471A |
| Aluminum | 14100 | 20.0 | mg/kg | SW846 6010B |
| Arsenic | 4.1 | 1.0 | mg/kg | SW846 6010B |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

**E2F010157**

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| **SP_36 05/31/02 [illegible]:30 003** | | | | |
| Barium | 97.6 J | 2.0 | mg/kg | SW846 6010B |
| Cadmium | 0.1[illegible],J | 0.50 | mg/kg | SW846 6010B |
| Chromium | [illegible].8 | 1.0 | mg/kg | SW846 6010B |
| Beryllium | 0.46 B | 0.50 | mg/kg | SW846 6010B |
| Lead | 5.2 | 0.50 | mg/kg | SW846 6010B |
| Cobalt | [illegible] | 5.0 | mg/kg | SW846 6010B |
| Copper | 18.9 | 2.5 | mg/kg | SW846 6010B |
| Molybdenum | 0.85 B,J | 4.0 | mg/kg | SW846 6010B |
| Nickel | 14.3 | [illegible] | mg/kg | SW846 6010B |
| Va[illegible]um | 38.2 | 5.0 | mg/kg | SW846 6010B |
| Zinc | 48.5 | 2.0 | mg/kg | SW846 6010B |
| **SP_38 05/31/02 19:08 004** | | | | |
| C24-C27 | 2.1 J | 10 | mg/kg | SW846 8015B |
| C32-C35 | 3.1 J | 10 | mg/kg | SW846 8015B |
| C36-C39 | 2.4 J | 10 | mg/kg | SW846 8015B |
| Total Carbon Chain Range | 7.6 J | 10 | mg/kg | SW846 8015B |
| C6-C8 | 5.1 | 1.0 | mg/kg | SW846 8015B |
| Mercury | 0.028 B | 0.10 | mg/kg | SW846 7471A |
| Aluminum | 8510 | 20.0 | mg/kg | SW846 6010B |
| Arsenic | 3.0 | 1.0 | mg/kg | SW846 6010B |
| Barium | 63.0 J | 2.0 | mg/kg | SW846 6010B |
| Cadmium | 0.11 B,J | 0.50 | mg/kg | SW846 6010B |
| Chromium | 19.2 | 1.0 | mg/kg | SW846 6010B |
| Beryllium | 0.34 B | 0.50 | mg/kg | SW846 6010B |
| Lead | 4.3 | 0.50 | mg/kg | SW846 6010B |
| Selenium | 0.61 | 0.50 | mg/kg | SW846 6010B |
| Cobalt | 4.2 B | 5.0 | mg/kg | SW846 6010B |
| Copper | 10.1 | 2.5 | mg/kg | SW846 6010B |
| Molybdenum | 0.63 B,J | 4.0 | mg/kg | SW846 6010B |
| Nickel | 9.1 | 4.0 | mg/kg | SW846 6010B |
| Vanadium | 21.7 | 5.0 | mg/kg | SW846 6010B |
| Zinc | 31.0 | 2.0 | mg/kg | SW846 6010B |
| 1,1-Dichloroethene | 350 | 25 | ug/kg | SW846 8260B |
| Acetone | 210 | 120 | ug/kg | SW846 8260B |
| 1,1-Dichloroethane | 12 J | 25 | ug/kg | SW846 8260B |
| cis-1,2-Dichloroethene | 13 J | 25 | ug/kg | SW846 8260B |
| 2-Butanone | 580 | 120 | ug/kg | SW846 8260B |
| 1,1,1-Trichloroethane | 480 | 25 | ug/kg | SW846 8260B |
| Trichloroethene | 180 | 25 | ug/kg | SW846 8260B |
| 4-Methyl-2-pentanone | 4000 | 120 | ug/kg | SW846 8260B |
| Toluene | 790 | 25 | ug/kg | SW846 8260B |

# METHODS SUMMARY

**E2F010157**

| PARAMETER | ANALYTICAL METHOD | PREPARATION METHOD |
|---|---|---|
| Extractable Petroleum Hydrocarbons | SW846 8015B | SANA AUTO-SHAKE |
| Inductively Coupled Plasma (ICP) Metals | SW846 6010B | SW846 3050B |
| Mercury in Solid Waste (Manual Cold-Vapor) | SW846 7471A | SW846 7471A |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030 |
| Volatile Organics by GC/MS | SW846 8260B | SW846 5030B/826 |
| Volatile Petroleum Hydrocarbons | SW846 8015B | SW846 5030 |

**References:**

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

# SAMPLE SUMMARY

**E2F010157**

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| [redacted] | | | [redacted] | |
| E2CD5 | 004 | SP_38 | 05/31/02 | 19:08 |

**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.

HALEY & ALDRICH INC

**Client Sample ID: SP_38**

GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2F010157-004 | **Work Order #...:** | E2CD51AF | **Matrix.....:** | SOLID |
| **Date Sampled...:** | 05/31/02 19:08 | **Date Received..:** | 06/01/02 12:16 | **MS Run #.....:** | 2155104 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/03/02 | | |
| **Prep Batch #...:** | 2155254 | **Analysis Time..:** | 21:16 | | |
| **Dilution Factor:** | 5 | | | | |
| **Analyst ID.....:** | 064667 | **Instrument ID..:** | MSD | | |
| | | **Method.....:** | SW846 8260B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 50 | ug/kg | 5.0 |
| Chloromethane | ND | 50 | ug/kg | 15 |
| Vinyl chloride | ND | 50 | ug/kg | 10 |
| Bromomethane | ND | 50 | ug/kg | 40 |
| 1,2-Dibromoethane | ND | 25 | ug/kg | 15 |
| Chloroethane | ND | 50 | ug/kg | 10 |
| Trichlorofluoromethane | ND | 50 | ug/kg | 10 |
| Acrolein | ND | 500 | ug/kg | 150 |
| **1,1-Dichloroethene** | **350** | **25** | **ug/kg** | **10** |
| Iodomethane | ND | 50 | ug/kg | 50 |
| **Acetone** | **210** | **120** | **ug/kg** | **75** |
| Carbon disulfide | ND | 25 | ug/kg | 15 |
| Methylene chloride | ND | 25 | ug/kg | 15 |
| trans-1,2-Dichloroethene | ND | 25 | ug/kg | 10 |
| Acrylonitrile | ND | 500 | ug/kg | 150 |
| Methyl tert-butyl ether | ND | 25 | ug/kg | 5.0 |
| **1,1-Dichloroethane** | **12 J** | **25** | **ug/kg** | **5.0** |
| Vinyl acetate | ND | 50 | ug/kg | 25 |
| 2,2-Dichloropropane | ND | 25 | ug/kg | 10 |
| **cis-1,2-Dichloroethene** | **13 J** | **25** | **ug/kg** | **10** |
| **2-Butanone** | **580** | **120** | **ug/kg** | **75** |
| Bromochloromethane | ND | 25 | ug/kg | 5.0 |
| Chloroform | ND | 25 | ug/kg | 5.0 |
| Tetrahydrofuran | ND | 100 | ug/kg | 10 |
| **1,1,1-Trichloroethane** | **480** | **25** | **ug/kg** | **5.0** |
| 1,1-Dichloropropene | ND | 25 | ug/kg | 5.0 |
| Carbon tetrachloride | ND | 25 | ug/kg | 5.0 |
| Benzene | ND | 25 | ug/kg | 10 |
| 1,2-Dichloroethane | ND | 25 | ug/kg | 5.0 |
| **Trichloroethene** | **180** | **25** | **ug/kg** | **10** |
| 1,2-Dichloropropane | ND | 25 | ug/kg | 5.0 |
| Bromodichloromethane | ND | 25 | ug/kg | 5.0 |
| 2-Chloroethyl vinyl ether | ND | 50 | ug/kg | 25 |
| cis-1,3-Dichloropropene | ND | 25 | ug/kg | 5.0 |
| **4-Methyl-2-pentanone** | **4000** | **120** | **ug/kg** | **50** |
| **Toluene** | **790** | **25** | **ug/kg** | **10** |
| trans-1,3-Dichloropropene | ND | 25 | ug/kg | 15 |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SP_38

GC/MS Volatiles

Lot-Sample #...: E2F010157-004 Work Order #...: E2CD51AF Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | 25 | ug/kg | 15 |
| Tetrachloroethene | ND | 25 | ug/kg | 10 |
| 2-Hexanone | ND | 120 | ug/kg | 50 |
| Dibromochloromethane | ND | 25 | ug/kg | 5.0 |
| Chlorobenzene | ND | 25 | ug/kg | 10 |
| Ethylbenzene | ND | 25 | ug/kg | 10 |
| Xylenes (total) | ND | 25 | ug/kg | 15 |
| Styrene | ND | 50 | ug/kg | 10 |
| Bromoform | ND | 25 | ug/kg | 15 |
| Isopropylbenzene | ND | 25 | ug/kg | 10 |
| p-Isopropyltoluene | ND | 25 | ug/kg | 10 |
| Bromobenzene | ND | 25 | ug/kg | 10 |
| 1,1,1,2-Tetrachloroethane | ND | 25 | ug/kg | 15 |
| 1,1,2,2-Tetrachloroethane | ND | 25 | ug/kg | 15 |
| 1,2,3-Trichloropropane | ND | 25 | ug/kg | 15 |
| n-Propylbenzene | ND | 25 | ug/kg | 10 |
| 2-Chlorotoluene | ND | 25 | ug/kg | 10 |
| 4-Chlorotoluene | ND | 25 | ug/kg | 10 |
| 1,3,5-Trimethylbenzene | ND | 25 | ug/kg | 10 |
| tert-Butylbenzene | ND | 25 | ug/kg | 10 |
| 1,2,4-Trimethylbenzene | ND | 25 | ug/kg | 10 |
| sec-Butylbenzene | ND | 25 | ug/kg | 10 |
| 1,3-Dichlorobenzene | ND | 25 | ug/kg | 10 |
| 1,4-Dichlorobenzene | ND | 25 | ug/kg | 10 |
| 1,2-Dichlorobenzene | ND | 25 | ug/kg | 10 |
| n-Butylbenzene | ND | 25 | ug/kg | 10 |
| 1,2-Dibromo-3-chloro-propane | ND | 50 | ug/kg | 15 |
| 1,2,4-Trichloro-benzene | ND | 25 | ug/kg | 10 |
| Hexachlorobutadiene | ND | 25 | ug/kg | 10 |
| 1,2,3-Trichlorobenzene | ND | 25 | ug/kg | 10 |
| t-Butanol | ND | 500 | ug/kg | 250 |
| Isopropyl ether | ND | 50 | ug/kg | 5.0 |
| Tert-amyl methyl ether | ND | 50 | ug/kg | 10 |
| Tert-butyl ethyl ether | ND | 50 | ug/kg | 5.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 93 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 116 | (60 - 140) |
| Toluene-d8 | 95 | (70 - 130) |

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

SP_38

GC/MS Volatiles

**Lot-Sample #:** E2F010157-004 **Work Order #:** E2CD51AF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | | RETENTION TIME | UNITS |
|---|---|---|---|---|---|
| Unknown alkane | | 110 | M | 7.941 | ug/kg |
| Unknown cycloalkane | | 290 | M | 8.887 | ug/kg |
| Unknown cycloalkane | | 67 | M | 9.38 | ug/kg |
| Unknown alkane | | 32 | M | 10.346 | ug/kg |
| Unknown cycloalkane | | 88 | M | 9.636 | ug/kg |
| Unknown alkane | | 55 | M | 10.08 | ug/kg |
| Unknown hydrocarbon | | 33 | M | 11.607 | ug/kg |

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: SP_38

GC Volatiles

| | | | | | |
|---|---|---|---|---|---|
| Lot-Sample #...: | E2F010157-004 | Work Order #...: | E2CD51AE | Matrix.....: | SOLID |
| Date Sampled...: | 05/31/02 19:08 | Date Received..: | 06/01/02 12:16 | MS Run #.....: | 2155201 |
| Prep Date.....: | 06/03/02 | Analysis Date..: | 06/03/02 | | |
| Prep Batch #...: | 2155360 | Analysis Time..: | 14:20 | | |
| Dilution Factor: | 1 | | | | |
| Analyst ID.....: | 001464 | Instrument ID..: | G16 | | |
| | | Method.....: | SW846 8015B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C6-C8 | 5.1 | 1.0 | mg/kg | 0.10 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 86 | (60 - 130) |

HALEY & ALDRICH INC

**Client Sample ID: SP_38**

GC Semivolatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2F010157-004 | **Work Order #...:** | E2CD51AD | **Matrix.....:** | SOLID |
| **Date Sampled...:** | 05/31/02 19:08 | **Date Received..:** | 06/01/02 12:16 | **MS Run #.....:** | 2154216 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2154442 | **Analysis Time..:** | 17:27 | | |
| **Dilution Factor:** | 1 | | | | |
| **Analyst ID.....:** | 356074 | **Instrument ID..:** | G03 | | |
| | | **Method.....:** | SW846 8015B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C8-C9 | ND | 10 | mg/kg | 2.0 |
| C10-C11 | ND | 10 | mg/kg | 2.0 |
| C12-C13 | ND | 10 | mg/kg | 2.0 |
| C14-C15 | ND | 10 | mg/kg | 2.0 |
| C16-C17 | ND | 10 | mg/kg | 2.0 |
| C18-C19 | ND | 10 | mg/kg | 2.0 |
| C20-C23 | ND | 10 | mg/kg | 2.0 |
| **C24-C27** | **2.1 J** | **10** | **mg/kg** | **2.0** |
| C28-C31 | ND | 10 | mg/kg | 2.0 |
| **C32-C35** | **3.1 J** | **10** | **mg/kg** | **2.0** |
| **C36-C39** | **2.4 J** | **10** | **mg/kg** | **2.0** |
| C40+ | ND | 10 | mg/kg | 2.0 |
| **Total Carbon Chain Range** | **7.6 J** | **10** | **mg/kg** | **2.0** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 83 | (60 - 130) |

**NOTE(S):**

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

Client Sample ID: SP_38

TOTAL Metals

Lot-Sample #...: E2F010157-004 Matrix.....: SOLID
Date Sampled...: 05/31/02 19:08 Date Received..: 06/01/02 12:16

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Prep Batch #...: 2154211 | | | | | | |
| Aluminum | 8510 | 20.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AG |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 8.0 | |
| Arsenic | 3.0 | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AH |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Antimony | ND | 6.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AJ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.60 | |
| Barium | 63.0 J | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AK |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Cadmium | 0.11 B,J | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AL |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.060 | |
| Chromium | 19.2 | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AM |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Beryllium | 0.34 B | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AN |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.050 | |
| Lead | 4.3 | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AP |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Selenium | 0.61 | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AQ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SP_38

TOTAL Metals

Lot-Sample #...: E2F010157-004 Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Silver | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AR |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Cobalt | 4.2 B | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AT |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Copper | 10.1 | 2.5 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AU |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Molybdenum | 0.63 B,J | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AV |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Nickel | 9.1 | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AW |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Thallium | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51AX |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.80 | |
| Vanadium | 21.7 | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51A0 |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Zinc | 31.0 | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD51A1 |
| | | Dilution Factor: 1 | | Analysis Time..: 12:17 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 1.0 | |
| Prep Batch #...: 2154215 | | | | | | |
| Mercury | 0.028 B | 0.10 | mg/kg | SW846 7471A | 06/03-06/07/02 | E2CD51AA |
| | | Dilution Factor: 1 | | Analysis Time..: 09:28 | Analyst ID.....: 000023 | |
| | | Instrument ID..: M04 | | MS Run #.....: 2154083 | MDL.....: 0.020 | |

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

**E2F010157**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| [redacted] | | [redacted] | | [redacted]93 | 2155243 |
| [redacted] | SOLID | SW846 8015B | | 2154442 | 2154216 |
| [redacted] | [redacted] | SW846 8015B | | 2155360 | 2155201 |
| [redacted] | SOLID | SW846 7471A | | 2154215 | 2154083 |
| [redacted] | [redacted] | SW846 8260B | | 2156314 | 2156145 |
| [redacted] | SOLID | SW846 6010B | | 2154211 | 2154078 |
| [redacted] | SOLID | SW846 8015B | | 2154442 | 2154216 |
| [redacted] | [redacted] | SW846 8015B | | 2155360 | 2155201 |
| [redacted] | SOLID | SW846 7471A | | 2154215 | 2154083 |
| [redacted] | [redacted] | SW846 8260B | | 2156314 | 2156145 |
| [redacted] | SOLID | SW846 6010B | | 2154211 | 2154078 |
| 004 | SOLID | SW846 8015B | | 2154442 | 2154216 |
| | SOLID | SW846 8015B | | 2155360 | 2155201 |
| | SOLID | SW846 7471A | | 2154215 | 2154083 |
| | SOLID | SW846 8260B | | 2155254 | 2155104 |
| | SOLID | SW846 6010B | | 2154211 | 2154078 |

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| | | |
|---|---|---|
| STL Los Angeles<br>1721 S Grand Avenue<br>Santa Ana, CA 92706<br>Attention: Diane Suzuki | Client Project ID E2F030157<br>Report Number: PLF0033 | Sampled: 05/31/02<br>Received: 06/04/02<br>Issued: 6/20/02 |

[redacted]

| LABORATORY NUMBER | SAMPLE DESCRIPTION | SAMPLE MATRIX |
|---|---|---|
| [redacted]<br>PLF0033-03 | [redacted]<br>SP-38 | [redacted]<br>Soil |

| | |
|---|---|
| SAMPLE RECEIPT: | Samples were received intact, on ice, at 10°C, and with chain of custody documentation. |
| HOLDING TIMES: | Holding times were met. |
| PRESERVATION: | Samples requiring preservation were verified prior to sample analysis. |
| OBSERVATIONS: | No significant observations were made. |
| SUBCONTRACTED: | No analyses were subcontracted. |
| QA/QC CRITERIA: | All analyses met method criteria. |
| EXPLANATION OF DATA QUALIFIERS: | N1 - Calibration Verification recovery was above the method control limit for this analyte, however the average % difference for all analytes met method criteria. See Calibration Summary form. 124.17 |

**Del Mar Analytical, Phoenix (AZ0426)**

Nicole Beck For Debbie Fuller
Project Manager

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| | | |
|---|---|---|
| STL Los Angeles<br>1721 S Grand Avenue<br>Santa Ana, CA 92706<br>Attention: Diane Suzuki | Client Project ID: E2F030157<br>Report Number: PLF0033 | Sampled: 05/31/02<br>Received: 06/04/02 |

[redacted]

## HPLC CALIBRATION CHECK CRITERIA
## POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Per Method 8000B of SW-846, the percent recovery of the calibration checks for HPLC analyses must be within ± 15% from the true value for each individual compound or the average % recovery of all compounds in the calibration check solution must be within ± 15% recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside the ± 15% criteria, however the average % recovery of all compounds in the calibration check solution was within ± 15%, thus meeting the overall calibration check criteria.

| Compound | Footnote | Calibration Check % Recovery | Lab Number | Batch |
|---|---|---|---|---|
| Benzo(a)pyrene | 2 | 79.60% | P2F1317-BLK1 | P2F1317 |
| Benzo(b)fluoranthene | 1 | 117.73% | P2F1317-BLK1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | P2F1317-BLK1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | P2F1317-BLK1 | P2F1317 |
| Chrysene | 1 | 117.38% | P2F1317-BS1 | P2F1317 |
| Benzo(a)pyrene | 2 | 79.60% | P2F1317-BSD1 | P2F1317 |
| Benzo(b)fluoranthene | 1 | 117.73% | P2F1317-BSD1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | P2F1317-BSD1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | P2F1317-BSD1 | P2F1317 |
| Benzo(a)pyrene | 2 | 79.60% | P2F1317-MS1 | P2F1317 |
| Benzo(b)fluoranthene | 1 | 117.73% | P2F1317-MS1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | P2F1317-MS1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | P2F1317-MS1 | P2F1317 |
| Benzo(a)pyrene | 2 | 79.60% | P2F1317-MSD1 | P2F1317 |
| Benzo(b)fluoranthene | 1 | 117.73% | P2F1317-MSD1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | P2F1317-MSD1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | P2F1317-MSD1 | P2F1317 |
| Benzo(a)pyrene | 2 | 79.60% | PLF0033-01RE1 | P2F1317 |

Nicole Beck For Debbie Fuller
Project Manager

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STL Los Angeles
1721 S Grand Avenue
Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157

Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# HPLC CALIBRATION CHECK CRITERIA
# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

Per Method 8000B of SW-846, the percent recovery of the calibration checks for HPLC analyses must be within ± 15% from the true value for each individual compound or the average % recovery of all compounds in the calibration check solution must be within ± 15% recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside the ± 15% criteria, however the average % recovery of all compounds in the calibration check solution was within ± 15%, thus meeting the overall calibration check criteria.

| Compound | Footnote | Calibration Check % Recovery | Lab Number | Batch |
|---|---|---|---|---|
| Benzo(b)fluoranthene | 1 | 117.73% | PLF0033-01RE1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | PLF0033-01RE1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | PLF0033-01RE1 | P2F1317 |
| Benzo(b)fluoranthene | 1 | 117.73% | PLF0033-02RE1 | P2F1317 |
| Benzo(g,h,i)perylene | 1 | 124.17% | PLF0033-02RE1 | P2F1317 |
| Dibenz(a,h)anthracene | 1 | 122.28% | PLF0033-02RE1 | P2F1317 |

Footnotes:

1 The calibration demonstrated a high bias for this compound. Samples were flagged to indicate a possible high bias in the result for this compound.

2 The calibration demonstrated a low bias for this compound. Samples were flagged to indicate a possible low bias in the result for this compound.

Nicole Beck For Debbie Fuller
Project Manager

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STL Los Angeles
1721 S Grand Avenue
Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157

Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Method | Batch | Reporting Limit ug/kg | Sample Result ug/kg | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|
| **Sample ID: PLF0033-01RE1 (SP-37 - Soil)** | | | | | | | | |
| Acenaphthene | EPA 8310 | P2F1317 | 50 | ND | 1 | [illegible] | [illegible]/02 | |
| Acenaphthylene | EPA 8310 | P2F1317 | 200 | ND | 1 | 6/13/02 | 6/18/02 | |
| Anthracene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Benz(a)anthracene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Benzo(a)pyrene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Benzo(b)fluoranthene | EPA 8310 | P2F1317 | [illegible] | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Benzo(g,h,i)perylene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Benzo(k)fluoranthene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Chrysene | EPA 8310 | P2F1317 | [illegible] | ND | 1 | 6/13/02 | 6/18/02 | |
| Dibenz(a,h)anthracene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Fluoranthene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Fluorene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Indeno(1,2,3-cd)pyrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Naphthalene | EPA 8310 | P2F1317 | 40 | ND | 1 | 6/13/02 | 6/18/02 | |
| Phenanthrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Pyrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| *Surrogate: 2-Methylanthracene (50-115%)* | | | | *87 %* | | | | |
| **Sample ID: PLF0033-02RE1 (SP-36 - Soil)** | | | | | | | | |
| Acenaphthene | EPA 8310 | P2F1317 | 50 | ND | 1 | 6/13/02 | 6/18/02 | |
| Acenaphthylene | EPA 8310 | P2F1317 | 200 | ND | 1 | 6/13/02 | 6/18/02 | |
| Anthracene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Benz(a)anthracene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Benzo(a)pyrene | EPA 8310 | P2F1317 | 2.0 | 3.1 | 1 | 6/13/02 | 6/19/02 | |
| Benzo(b)fluoranthene | EPA 8310 | P2F1317 | [illegible] | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Benzo(g,h,i)perylene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Benzo(k)fluoranthene | EPA 8310 | P2F1317 | 2.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Chrysene | EPA 8310 | P2F1317 | [illegible] | ND | 1 | 6/13/02 | 6/18/02 | |
| Dibenz(a,h)anthracene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | N1 |
| Fluoranthene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Fluorene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Indeno(1,2,3-cd)pyrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Naphthalene | EPA 8310 | P2F1317 | 40 | ND | 1 | 6/13/02 | 6/18/02 | |
| Phenanthrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| Pyrene | EPA 8310 | P2F1317 | 5.0 | ND | 1 | 6/13/02 | 6/18/02 | |
| *Surrogate: 2-Methylanthracene (50-115%)* | | | | *88 %* | | | | |

Nicole Beck For Debbie Fuller
Project Manager

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STL Los Angeles
1721 S Grand Avenue
Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157
Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Method | Batch | Reporting Limit ug/kg | Sample Result ug/kg | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|
| **Sample ID: PLF0033-03 (SP-38 - Soil)** | | | | | | | | |
| **Acenaphthene** | EPA 8310 | P2F1106 | 100 | ND | 1 | 6/11/02 | 6/15/02 | |
| **Acenaphthylene** | EPA 8310 | P2F1106 | 400 | 620 | 1 | 6/11/02 | 6/15/02 | |
| Anthracene | EPA 8310 | P2F1106 | 4.0 | ND | 1 | 6/11/02 | 6/15/02 | |
| Benz(a)anthracene | EPA 8310 | P2F1106 | 4.0 | ND | 1 | 6/11/02 | 6/15/02 | |
| Benzo(a)pyrene | EPA 8310 | P2F1106 | 4.0 | ND | 1 | 6/11/02 | 6/15/02 | |
| Benzo(b)fluoranthene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Benzo(g,h,i)perylene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Benzo(k)fluoranthene | EPA 8310 | P2F1106 | 4.0 | ND | 1 | 6/11/02 | 6/15/02 | |
| Chrysene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Dibenz(a,h)anthracene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Fluoranthene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Fluorene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Indeno(1,2,3-cd)pyrene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Naphthalene | EPA 8310 | P2F1106 | 80 | ND | 1 | 6/11/02 | 6/15/02 | |
| Phenanthrene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| Pyrene | EPA 8310 | P2F1106 | 10 | ND | 1 | 6/11/02 | 6/15/02 | |
| *Surrogate: 2-Methylanthracene (50-115%)* | | | | *76 %* | | | | |

The reporting limit for this sample was adjusted by a factor of 2 to account for the applicable preparation factor.

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Nicole Beck For Debbie Fuller
Project Manager

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Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157

Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1106 Extracted: 06/11/02** | | | | | | | | | | |
| **Blank Analyzed: 06/14/02 (P2F1106-BLK1)** | | | | | | | | | | |
| Acenaphthene | ND | 50 | ug/kg | | | | | | | |
| Acenaphthylene | ND | 200 | ug/kg | | | | | | | |
| Anthracene | ND | 2.0 | ug/kg | | | | | | | |
| Benz(a)anthracene | ND | 2.0 | ug/kg | | | | | | | |
| Benzo(a)pyrene | ND | 2.0 | ug/kg | | | | | | | |
| Benzo(b)fluoranthene | ND | 5.0 | ug/kg | | | | | | | |
| Benzo(g,h,i)perylene | ND | 5.0 | ug/kg | | | | | | | |
| Benzo(k)fluoranthene | ND | 2.0 | ug/kg | | | | | | | |
| Chrysene | ND | 5.0 | ug/kg | | | | | | | |
| Dibenz(a,h)anthracene | ND | 5.0 | ug/kg | | | | | | | |
| Fluoranthene | ND | 5.0 | ug/kg | | | | | | | |
| Fluorene | ND | 5.0 | ug/kg | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 5.0 | ug/kg | | | | | | | |
| Naphthalene | ND | 40 | ug/kg | | | | | | | |
| Phenanthrene | ND | 5.0 | ug/kg | | | | | | | |
| Pyrene | ND | 5.0 | ug/kg | | | | | | | |
| *Surrogate: 2-Methylanthracene* | *99.1* | | ug/kg | *100* | | *99* | *50-115* | | | |
| **LCS Analyzed: 06/14/02 (P2F1106-BS1)** | | | | | | | | | | |
| Acenaphthene | 1730 | 50 | ug/kg | 2000 | | 86 | 70-115 | | | |
| Acenaphthylene | 877 | 200 | ug/kg | 1000 | | 88 | 75-130 | | | |
| Anthracene | 34.7 | 2.0 | ug/kg | 40.0 | | 87 | 65-115 | | | |
| Benz(a)anthracene | 101 | 2.0 | ug/kg | 100 | | 101 | 85-120 | | | |
| Benzo(a)pyrene | 99.3 | 2.0 | ug/kg | 100 | | 99 | 50-115 | | | |
| Benzo(b)fluoranthene | 41.1 | 5.0 | ug/kg | 40.0 | | 103 | 75-125 | | | |
| Benzo(g,h,i)perylene | 171 | 5.0 | ug/kg | 160 | | 107 | 75-120 | | | |
| Benzo(k)fluoranthene | 37.3 | 2.0 | ug/kg | 40.0 | | 93 | 85-115 | | | |
| Chrysene | 107 | 5.0 | ug/kg | 100 | | 107 | 75-115 | | | |
| Dibenz(a,h)anthracene | 400 | 5.0 | ug/kg | 400 | | 100 | 75-125 | | | |
| Fluoranthene | 90.7 | 5.0 | ug/kg | 100 | | 91 | 75-115 | | | |
| Fluorene | 178 | 5.0 | ug/kg | 200 | | 89 | 70-130 | | | |
| Indeno(1,2,3-cd)pyrene | 86.5 | 5.0 | ug/kg | 100 | | 86 | 80-115 | | | |
| Naphthalene | 853 | 40 | ug/kg | 1000 | | 85 | 70-115 | | | |
| Phenanthrene | 66.5 | 5.0 | ug/kg | 80.0 | | 83 | 70-115 | | | |
| Pyrene | 204 | 5.0 | ug/kg | 200 | | 102 | 85-120 | | | |

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Attention: Diane Suzuki

Client Project ID: E2F030157

Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1106 Extracted: 06/11/02** | | | | | | | | | | |
| **LCS Analyzed: 06/14/02 (P2F1106-BS1)** | | | | | | | | | | |
| *Surrogate: 2-Methylanthracene* | *103* | | *ug/kg* | *100* | | *103* | *50-115* | | | |
| **LCS Dup Analyzed: 06/15/02 (P2F1106-BSD1)** | | | | | | | | | | |
| Acenaphthene | 1930 | 50 | ug/kg | 2000 | | 96 | 70-115 | 11 | 30 | |
| Acenaphthylene | 957 | 200 | ug/kg | 1000 | | 96 | 75-130 | 9 | 30 | |
| Anthracene | 36.3 | 2.0 | ug/kg | 40.0 | | 91 | 65-115 | 5 | 30 | |
| Benz(a)anthracene | 103 | 2.0 | ug/kg | 100 | | 103 | 85-120 | 2 | 30 | |
| Benzo(a)pyrene | 99.7 | 2.0 | ug/kg | 100 | | 100 | 50-115 | 0.4 | 30 | |
| Benzo(b)fluoranthene | 40.9 | 5.0 | ug/kg | 40.0 | | 102 | 75-125 | 0.5 | 30 | |
| Benzo(g,h,i)perylene | 165 | 5.0 | ug/kg | 160 | | 103 | 75-120 | 4 | 30 | |
| Benzo(k)fluoranthene | 37.5 | 2.0 | ug/kg | 40.0 | | 94 | 85-115 | 0.5 | 30 | |
| Chrysene | 110 | 5.0 | ug/kg | 100 | | 110 | 75-115 | 3 | 30 | |
| Dibenz(a,h)anthracene | 389 | 5.0 | ug/kg | 400 | | 97 | 75-125 | 3 | 30 | |
| Fluoranthene | 94.1 | 5.0 | ug/kg | 100 | | 94 | 75-115 | 4 | 30 | |
| Fluorene | 193 | 5.0 | ug/kg | 200 | | 96 | 70-130 | 8 | 30 | |
| Indeno(1,2,3-cd)pyrene | 88.4 | 5.0 | ug/kg | 100 | | 88 | 80-115 | 2 | 30 | |
| Naphthalene | 921 | 40 | ug/kg | 1000 | | 92 | 70-115 | 8 | 30 | |
| Phenanthrene | 70.0 | 5.0 | ug/kg | 80.0 | | 88 | 70-115 | 5 | 30 | |
| Pyrene | 211 | 5.0 | ug/kg | 200 | | 106 | 85-120 | 3 | 30 | |
| *Surrogate: 2-Methylanthracene* | *106* | | *ug/kg* | *100* | | *106* | *50-115* | | | |
| **Matrix Spike Analyzed: 06/15/02 (P2F1106-MS1)** | | | | | **Source: PLF0033-03** | | | | | |
| Acenaphthene | 3020 | 100 | ug/kg | 4000 | ND | 76 | 65-115 | | | |
| Acenaphthylene | 2250 | 400 | ug/kg | 2000 | 620 | 82 | 65-125 | | | |
| Anthracene | 56.7 | 4.0 | ug/kg | 80.0 | ND | 70 | 55-115 | | | |
| Benz(a)anthracene | 165 | 4.0 | ug/kg | 200 | ND | 82 | 50-140 | | | |
| Benzo(a)pyrene | 157 | 4.0 | ug/kg | 200 | ND | 78 | 50-120 | | | |
| Benzo(b)fluoranthene | 65.1 | 10 | ug/kg | 80.0 | ND | 81 | 50-150 | | | |
| Benzo(g,h,i)perylene | 246 | 10 | ug/kg | 320 | ND | 77 | 50-155 | | | |
| Benzo(k)fluoranthene | 58.5 | 4.0 | ug/kg | 80.0 | ND | 73 | 50-140 | | | |
| Chrysene | 185 | 10 | ug/kg | 200 | ND | 92 | 50-145 | | | |
| Dibenz(a,h)anthracene | 598 | 10 | ug/kg | 800 | ND | 75 | 50-150 | | | |
| Fluoranthene | 143 | 10 | ug/kg | 200 | ND | 72 | 50-135 | | | |
| Fluorene | 284 | 10 | ug/kg | 400 | ND | 71 | 65-115 | | | |
| Indeno(1,2,3-cd)pyrene | 135 | 10 | ug/kg | 200 | ND | 68 | 50-140 | | | |
| Naphthalene | 1460 | 80 | ug/kg | 2000 | ND | 73 | 65-115 | | | |
| Phenanthrene | 111 | 10 | ug/kg | 160 | ND | 69 | 50-120 | | | |

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Santa Ana, CA 92706
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Client Project ID: E2F030157
Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1106 Extracted: 06/11/02** | | | | | | | | | | |
| **Matrix Spike Analyzed: 06/15/02 (P2F1106-MS1)** | | | | | **Source: PLF0033-03** | | | | | |
| Pyrene | 330 | 10 | ug/kg | 400 | ND | 82 | 55-155 | | | |
| *Surrogate: 2-Methylanthracene* | *179* | | *ug/kg* | *200* | | *90* | *50-115* | | | |
| **Matrix Spike Dup Analyzed: 06/15/02 (P2F1106-MSD1)** | | | | | **Source: PLF0033-03** | | | | | |
| Acenaphthene | 3300 | 100 | ug/kg | 4000 | ND | 82 | 65-115 | 9 | 30 | |
| Acenaphthylene | 2450 | 400 | ug/kg | 2000 | 620 | 92 | 65-125 | 9 | 30 | |
| Anthracene | 61.8 | 4.0 | ug/kg | 80.0 | ND | 77 | 55-115 | 9 | 30 | |
| Benz(a)anthracene | 174 | 4.0 | ug/kg | 200 | ND | 87 | 50-140 | 5 | 30 | |
| Benzo(a)pyrene | 171 | 4.0 | ug/kg | 200 | ND | 86 | 50-120 | 9 | 30 | |
| Benzo(b)fluoranthene | 68.4 | 10 | ug/kg | 80.0 | ND | 86 | 50-150 | 5 | 30 | |
| Benzo(g,h,i)perylene | 276 | 10 | ug/kg | 320 | ND | 86 | 50-155 | 11 | 30 | |
| Benzo(k)fluoranthene | 64.0 | 4.0 | ug/kg | 80.0 | ND | 80 | 50-140 | 9 | 30 | |
| Chrysene | 178 | 10 | ug/kg | 200 | ND | 89 | 50-145 | 4 | 30 | |
| Dibenz(a,h)anthracene | 654 | 10 | ug/kg | 800 | ND | 82 | 50-150 | 9 | 30 | |
| Fluoranthene | 160 | 10 | ug/kg | 200 | ND | 80 | 50-135 | 11 | 30 | |
| Fluorene | 305 | 10 | ug/kg | 400 | ND | 76 | 65-115 | 7 | 30 | |
| Indeno(1,2,3-cd)pyrene | 149 | 10 | ug/kg | 200 | ND | 74 | 50-140 | 10 | 30 | |
| Naphthalene | 1540 | 80 | ug/kg | 2000 | ND | 77 | 65-115 | 5 | 30 | |
| Phenanthrene | 121 | 10 | ug/kg | 160 | ND | 76 | 50-120 | 9 | 30 | |
| Pyrene | 357 | 10 | ug/kg | 400 | ND | 89 | 55-155 | 8 | 30 | |
| *Surrogate: 2-Methylanthracene* | *182* | | *ug/kg* | *200* | | *91* | *50-115* | | | |
| **Batch: P2F1317 Extracted: 06/13/02** | | | | | | | | | | |
| **Blank Analyzed: 06/18/02 (P2F1317-BLK1)** | | | | | | | | | | |
| Acenaphthene | ND | 50 | ug/kg | | | | | | | |
| Acenaphthylene | ND | 200 | ug/kg | | | | | | | |
| Anthracene | ND | 2.0 | ug/kg | | | | | | | |
| Benz(a)anthracene | ND | 2.0 | ug/kg | | | | | | | |
| Benzo(a)pyrene | ND | 2.0 | ug/kg | | | | | | | |
| Benzo(b)fluoranthene | ND | 5.0 | ug/kg | | | | | | | N1 |
| Benzo(g,h,i)perylene | ND | 5.0 | ug/kg | | | | | | | N1 |
| Benzo(k)fluoranthene | ND | 2.0 | ug/kg | | | | | | | N1 |
| Chrysene | ND | 5.0 | ug/kg | | | | | | | |
| Dibenz(a,h)anthracene | ND | 5.0 | ug/kg | | | | | | | |
| Fluoranthene | ND | 5.0 | ug/kg | | | | | | | N1 |
| Fluorene | ND | 5.0 | ug/kg | | | | | | | |

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Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1317 Extracted: 06/13/02** | | | | | | | | | | |
| **Blank Analyzed: 06/18/02 (P2F1317-BLK1)** | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 5.0 | ug/kg | | | | | | | |
| Naphthalene | ND | 40 | ug/kg | | | | | | | |
| Phenanthrene | ND | 5.0 | ug/kg | | | | | | | |
| Pyrene | ND | 5.0 | ug/kg | | | | | | | |
| *Surrogate: 2-Methylanthracene* | *93.9* | | *ug/kg* | *100* | | *94* | *50-115* | | | |
| **LCS Analyzed: 06/19/02 (P2F1317-BS1)** | | | | | | | | | | |
| Acenaphthene | 1630 | 50 | ug/kg | 2000 | | 82 | 70-115 | | | |
| Acenaphthylene | 782 | 200 | ug/kg | 1000 | | 78 | 75-130 | | | |
| Anthracene | 30.5 | 2.0 | ug/kg | 40.0 | | 76 | 65-115 | | | |
| Benz(a)anthracene | 88.3 | 2.0 | ug/kg | 100 | | 88 | 85-120 | | | |
| Benzo(a)pyrene | 72.8 | 2.0 | ug/kg | 100 | | 73 | 50-115 | | | |
| Benzo(b)fluoranthene | 33.7 | 5.0 | ug/kg | 40.0 | | 84 | 75-125 | | | |
| Benzo(g,h,i)perylene | 144 | 5.0 | ug/kg | 160 | | 90 | 75-120 | | | |
| Benzo(k)fluoranthene | 33.9 | 2.0 | ug/kg | 40.0 | | 85 | 85-115 | | | |
| Chrysene | 81.0 | 5.0 | ug/kg | 100 | | 81 | 75-115 | | | NI |
| Dibenz(a,h)anthracene | 348 | 5.0 | ug/kg | 400 | | 87 | 75-125 | | | |
| Fluoranthene | 78.1 | 5.0 | ug/kg | 100 | | 78 | 75-115 | | | |
| Fluorene | 160 | 5.0 | ug/kg | 200 | | 80 | 70-130 | | | |
| Indeno(1,2,3-cd)pyrene | 84.9 | 5.0 | ug/kg | 100 | | 85 | 80-115 | | | |
| Naphthalene | 760 | 40 | ug/kg | 1000 | | 76 | 70-115 | | | |
| Phenanthrene | 59.3 | 5.0 | ug/kg | 80.0 | | 74 | 70-115 | | | |
| Pyrene | 183 | 5.0 | ug/kg | 200 | | 92 | 85-120 | | | |
| *Surrogate: 2-Methylanthracene* | *88.0* | | *ug/kg* | *100* | | *88* | *50-115* | | | |
| **LCS Dup Analyzed: 06/18/02 (P2F1317-BSD1)** | | | | | | | | | | |
| Acenaphthene | 1710 | 50 | ug/kg | 2000 | | 86 | 70-115 | 5 | 30 | |
| Acenaphthylene | 843 | 200 | ug/kg | 1000 | | 84 | 75-130 | 8 | 30 | |
| Anthracene | 32.2 | 2.0 | ug/kg | 40.0 | | 80 | 65-115 | 5 | 30 | |
| Benz(a)anthracene | 90.5 | 2.0 | ug/kg | 100 | | 90 | 85-120 | 2 | 30 | |
| Benzo(a)pyrene | 67.3 | 2.0 | ug/kg | 100 | | 67 | 50-115 | 8 | 30 | NI |
| Benzo(b)fluoranthene | 35.3 | 5.0 | ug/kg | 40.0 | | 88 | 75-125 | 5 | 30 | NI |
| Benzo(g,h,i)perylene | 139 | 5.0 | ug/kg | 160 | | 87 | 75-120 | 4 | 30 | NI |
| Benzo(k)fluoranthene | 35.2 | 2.0 | ug/kg | 40.0 | | 88 | 85-115 | 4 | 30 | |
| Chrysene | 81.3 | 5.0 | ug/kg | 100 | | 81 | 75-115 | 0.4 | 30 | |
| Dibenz(a,h)anthracene | 352 | 5.0 | ug/kg | 400 | | 88 | 75-125 | 1 | 30 | NI |
| Fluoranthene | 80.0 | 5.0 | ug/kg | 100 | | 80 | 75-115 | 2 | 30 | |

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Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1317 Extracted: 06/13/02** | | | | | | | | | | |
| **LCS Dup Analyzed: 06/18/02 (P2F1317-BSD1)** | | | | | | | | | | |
| Fluorene | 172 | 5.0 | ug/kg | 200 | | 86 | 70-130 | 7 | 30 | |
| Indeno(1,2,3-cd)pyrene | 86.3 | 5.0 | ug/kg | 100 | | 86 | 80-115 | 2 | 30 | |
| Naphthalene | 801 | 40 | ug/kg | 1000 | | 80 | 70-115 | 5 | 30 | |
| Phenanthrene | 66.1 | 5.0 | ug/kg | 80.0 | | 83 | 70-115 | 11 | 30 | |
| Pyrene | 187 | 5.0 | ug/kg | 200 | | 94 | 85-120 | 2 | 30 | |
| *Surrogate: 2-Methylanthracene* | *87.2* | | *ug/kg* | *100* | | *87* | *50-115* | | | |
| **Matrix Spike Analyzed: 06/18/02 (P2F1317-MS1)** | | | | | **Source: PLF0288-04** | | | | | |
| Acenaphthene | 1790 | 50 | ug/kg | 2000 | ND | 90 | 65-115 | | | |
| Acenaphthylene | 956 | 200 | ug/kg | 1000 | ND | 85 | 65-125 | | | |
| Anthracene | 31.8 | 2.0 | ug/kg | 40.0 | ND | 79 | 55-115 | | | |
| Benz(a)anthracene | 86.1 | 2.0 | ug/kg | 100 | ND | 86 | 50-140 | | | |
| Benzo(a)pyrene | 68.6 | 2.0 | ug/kg | 100 | ND | 69 | 50-120 | | | N1 |
| Benzo(b)fluoranthene | 34.3 | 5.0 | ug/kg | 40.0 | ND | 83 | 50-150 | | | N1 |
| Benzo(g,h,i)perylene | 129 | 5.0 | ug/kg | 160 | ND | 81 | 50-155 | | | N1 |
| Benzo(k)fluoranthene | 32.7 | 2.0 | ug/kg | 40.0 | ND | 82 | 50-140 | | | |
| Chrysene | 77.3 | 5.0 | ug/kg | 100 | ND | 77 | 50-145 | | | |
| Dibenz(a,h)anthracene | 340 | 5.0 | ug/kg | 400 | ND | 85 | 50-150 | | | N1 |
| Fluoranthene | 78.2 | 5.0 | ug/kg | 100 | ND | 78 | 50-135 | | | |
| Fluorene | 169 | 5.0 | ug/kg | 200 | ND | 84 | 65-115 | | | |
| Indeno(1,2,3-cd)pyrene | 78.7 | 5.0 | ug/kg | 100 | ND | 79 | 50-140 | | | |
| Naphthalene | 808 | 40 | ug/kg | 1000 | ND | 81 | 65-115 | | | |
| Phenanthrene | 59.3 | 5.0 | ug/kg | 80.0 | ND | 74 | 50-120 | | | |
| Pyrene | 184 | 5.0 | ug/kg | 200 | ND | 92 | 55-155 | | | |
| *Surrogate: 2-Methylanthracene* | *87.8* | | *ug/kg* | *100* | | *88* | *50-115* | | | |
| **Matrix Spike Dup Analyzed: 06/18/02 (P2F1317-MSD1)** | | | | | **Source: PLF0288-04** | | | | | |
| Acenaphthene | 1710 | 50 | ug/kg | 2000 | ND | 86 | 65-115 | 5 | 30 | |
| Acenaphthylene | 928 | 200 | ug/kg | 1000 | ND | 82 | 65-125 | 3 | 30 | |
| Anthracene | 31.6 | 2.0 | ug/kg | 40.0 | ND | 78 | 55-115 | 0.6 | 30 | |
| Benz(a)anthracene | 89.9 | 2.0 | ug/kg | 100 | ND | 90 | 50-140 | 4 | 30 | |
| Benzo(a)pyrene | 73.2 | 2.0 | ug/kg | 100 | ND | 73 | 50-120 | 6 | 30 | N1 |
| Benzo(b)fluoranthene | 35.7 | 5.0 | ug/kg | 40.0 | ND | 87 | 50-150 | 4 | 30 | N1 |
| Benzo(g,h,i)perylene | 137 | 5.0 | ug/kg | 160 | ND | 86 | 50-155 | 6 | 30 | N1 |
| Benzo(k)fluoranthene | 34.3 | 2.0 | ug/kg | 40.0 | ND | 86 | 50-140 | 5 | 30 | |
| Chrysene | 81.5 | 5.0 | ug/kg | 100 | ND | 82 | 50-145 | 5 | 30 | |
| Dibenz(a,h)anthracene | 353 | 5.0 | ug/kg | 400 | ND | 88 | 50-150 | 4 | 30 | N1 |

Nicole Beck For Debbie Fuller
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.*

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

STL Los Angeles
1721 S Grand Avenue
Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157
Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

# POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8310)

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P2F1317 Extracted: 06/13/02** | | | | | | | | | | |
| Matrix Spike Dup Analyzed: 06/18/02 (P2F1317-MSD1) | | | | | Source: PLF0288-04 | | | | | |
| Fluoranthene | 78.1 | 5.0 | ug/kg | 100 | ND | 78 | 50-135 | 0.1 | 30 | |
| Fluorene | 167 | 5.0 | ug/kg | 200 | ND | 84 | 65-115 | 1 | 30 | |
| Indeno(1,2,3-cd)pyrene | 83.8 | 5.0 | ug/kg | 100 | ND | 84 | 50-140 | 6 | 30 | |
| Naphthalene | 817 | 40 | ug/kg | 1000 | ND | 82 | 65-115 | 1 | 30 | |
| Phenanthrene | 61.7 | 5.0 | ug/kg | 80.0 | ND | 77 | 50-120 | 4 | 30 | |
| Pyrene | 182 | 5.0 | ug/kg | 200 | ND | 91 | 55-155 | 1 | 30 | |
| *Surrogate: 2-Methylanthracene* | *89.2* | | *ug/kg* | *100* | | *89* | *50-115* | | | |

Nicole Beck For Debbie Fuller
Project Manager

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STL Los Angeles
1721 S Grand Avenue
Santa Ana, CA 92706
Attention: Diane Suzuki

Client Project ID: E2F030157

Report Number: PLF0033

Sampled: 05/31/02
Received: 06/04/02

[redacted]

## DATA QUALIFIERS AND DEFINITIONS

| | |
|---|---|
| NI | See case narrative. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not reported. |
| RPD | Relative Percent Difference |

Nicole Beck For Debbie Fuller
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.*

[redacted]

# Chain of Custody Record

SEVERN TRENT SERVICES

**Severn Trent Laboratories, Inc.**

STL-4124 (0801)

| | | | |
|---|---|---|---|
| Client: [redacted] | Project Manager: D. Suzuki | Date: 06/03/02 | Chain of Custody Number: 128408 |
| Address: [redacted] | Telephone Number (Area Code)/Fax Number: (714) 258-8610 Ext 309 | Lab Number: EZF080157 | Page 1 of 1 |
| City: [redacted] State: CA Zip Code: [redacted] | Site Contact: | Lab Contact: D. Suzuki | |
| Project Name and Location (State): | Carrier/Waybill Number: | | |
| Contract/Purchase Order/Quote No.: | | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Air | Aqueous | Sed. | Soil | Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | 8310 | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SP-37 | 05/31/02 | 1815 | | | | ✓ | | | | | | | 2 | PLF0033-01 |
| SP-36 | ↓ | 1830 | | | | ✓ | | | | | | | 2 | -02 |
| SP-38 | ↓ | 1708 | | | | ✓ | | | | | | | 2 | -03 |

Analysis (Attach list if more space is needed)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other June 10th

QC Requirements (Specify):

| | | | | | |
|---|---|---|---|---|---|
| 1. Relinquished By: [signature] | Date: 06/03/02 | Time: 1345 | 1. Received By: | Date: | Time: |
| 2. Relinquished By: | Date: | Time: | 2. Received By: 06/04/02 | Date: E-5 | Time: |
| 3. Relinquished By: 06/04/02 | Date: | Time: E-5 | 3. Received By: [signature] 06/04/02 | Date: 06/04/02 | Time: 10:38 AM |

Comments: Temp 10 °C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

HALEY & ALDRICH INC

Client Sample ID: DW_1

GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2F010157-001 | **Work Order #...:** | E2CDX1AA | **Matrix.....:** | WATER |
| **Date Sampled...:** | 05/31/02 17:45 | **Date Received..:** | 06/01/02 12:16 | **MS Run #.....:** | 2155243 |
| **Prep Date.....:** | 06/04/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2155393 | **Analysis Time..:** | 00:50 | | |
| **Dilution Factor:** | 1 | | | | |
| **Analyst ID.....:** | 004648 | **Instrument ID..:** | MSC | | |
| | | **Method.....:** | SW846 8260B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 1.0 | ug/L | 0.40 |
| Chloromethane | ND | 2.0 | ug/L | 0.30 |
| Vinyl chloride | ND | 0.50 | ug/L | 0.30 |
| Chloroethane | ND | 2.0 | ug/L | 0.30 |
| Bromomethane | ND | 2.0 | ug/L | 1.0 |
| Trichlorofluoromethane | ND | 2.0 | ug/L | 0.30 |
| **1,1-Dichloroethene** | **0.84 J** | **1.0** | **ug/L** | **0.30** |
| Methylene chloride | ND | 1.0 | ug/L | 0.30 |
| **Methyl tert-butyl ether** | **2.6** | **1.0** | **ug/L** | **0.50** |
| Carbon disulfide | ND | 1.0 | ug/L | 0.30 |
| **Acetone** | **25** | **10** | **ug/L** | **3.0** |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 0.20 |
| 2,2-Dichloropropane | ND | 1.0 | ug/L | 0.30 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 0.30 |
| **Chloroform** | **1.5** | **1.0** | **ug/L** | **0.30** |
| Bromochloromethane | ND | 1.0 | ug/L | 0.30 |
| **1,1,1-Trichloroethane** | **1.3** | **1.0** | **ug/L** | **0.20** |
| 2-Butanone | ND | 5.0 | ug/L | 3.0 |
| 1,1-Dichloropropene | ND | 1.0 | ug/L | 0.30 |
| Carbon tetrachloride | ND | 0.50 | ug/L | 0.30 |
| 1,2-Dibromoethane | ND | 1.0 | ug/L | 0.30 |
| Benzene | ND | 1.0 | ug/L | 0.30 |
| **Trichloroethene** | **0.55 J** | **1.0** | **ug/L** | **0.30** |
| Bromodichloromethane | ND | 1.0 | ug/L | 0.30 |
| **4-Methyl-2-pentanone** | **14** | **5.0** | **ug/L** | **3.0** |
| **Toluene** | **8.2** | **1.0** | **ug/L** | **0.30** |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | 0.40 |
| Tetrachloroethene | ND | 1.0 | ug/L | 0.30 |
| 2-Hexanone | ND | 5.0 | ug/L | 3.0 |
| Dibromochloromethane | ND | 1.0 | ug/L | 0.40 |
| **Chlorobenzene** | **4.6** | **1.0** | **ug/L** | **0.30** |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.30 |
| Ethylbenzene | ND | 1.0 | ug/L | 0.20 |
| **Xylenes (total)** | **0.86 J** | **1.0** | **ug/L** | **0.80** |
| Styrene | ND | 1.0 | ug/L | 0.30 |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: DW_1

GC/MS Volatiles

Lot-Sample #...: E2F010157-001 Work Order #...: E2CDX1AA Matrix.....: WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| **Bromoform** | **0.69 J** | **1.0** | **ug/L** | **0.30** |
| Isopropylbenzene | ND | 1.0 | ug/L | 0.30 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 0.40 |
| 1,2,3-Trichloropropane | ND | 1.0 | ug/L | 0.40 |
| n-Propylbenzene | ND | 1.0 | ug/L | 0.40 |
| Bromobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | ug/L | 0.20 |
| 2-Chlorotoluene | ND | 1.0 | ug/L | 0.30 |
| 4-Chlorotoluene | ND | 1.0 | ug/L | 0.30 |
| tert-Butylbenzene | ND | 1.0 | ug/L | 0.20 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | ug/L | 0.30 |
| sec-Butylbenzene | ND | 1.0 | ug/L | 0.30 |
| p-Isopropyltoluene | 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 |
| n-Butylbenzene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 0.30 |
| 1,2-Dibromo-3-chloro-propane | ND | 2.0 | ug/L | 0.70 |
| 1,2,4-Trichloro-benzene | ND | 1.0 | ug/L | 0.30 |
| Hexachlorobutadiene | ND | 1.0 | ug/L | 0.30 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | ug/L | 0.40 |
| Acrolein | ND | 20 | ug/L | 12 |
| Tert-amyl methyl ether | ND | 2.0 | ug/L | 0.50 |
| Acrylonitrile | ND | 20 | ug/L | 10 |
| Tert-butyl ethyl ether | ND | 2.0 | ug/L | 0.50 |
| t-Butanol | ND | 25 | ug/L | 6.0 |
| Iodomethane | ND | 2.0 | ug/L | 1.0 |
| Isopropyl ether | ND | 2.0 | ug/L | 0.50 |
| 2-Chloroethyl vinyl ether | ND | 5.0 | ug/L | 2.0 |
| Tetrahydrofuran | ND | 10 | ug/L | 2.0 |
| Vinyl acetate | ND | 5.0 | ug/L | 2.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 104 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 112 | (65 - 135) |
| Toluene-d8 | 103 | (80 - 130) |

**NOTE(S):**

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

DW_1

GC/MS Volatiles

Lot-Sample #: E2F010157-001 Work Order #: E2CDX1AA Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSD) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | RETENTION TIME | UNITS |
|---|---|---|---|---|
| None | | | | ug/L |

HALEY & ALDRICH INC

Client Sample ID: SP_37

GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Lot-Sample #...:** | E2F010157-002 | **Work Order #...:** | E2CD21AD | **Matrix.....:** | SOLID |
| **Date Sampled...:** | 05/31/02 18:15 | **Date Received..:** | 06/01/02 12:16 | **MS Run #.....:** | 2156145 |
| **Prep Date.....:** | 06/04/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2156314 | **Analysis Time..:** | 12:58 | | |
| **Dilution Factor:** | 1 | | | | |
| **Analyst ID.....:** | 064667 | **Instrument ID..:** | MSD | | |
| | | **Method.....:** | SW846 8260B | | |

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 10 | ug/kg | 1.0 |
| Chloromethane | ND | 10 | ug/kg | 3.0 |
| Vinyl chloride | ND | 10 | ug/kg | 2.0 |
| Bromomethane | ND | 10 | ug/kg | 8.0 |
| 1,2-Dibromoethane | ND | 5.0 | ug/kg | 3.0 |
| Chloroethane | ND | 10 | ug/kg | 2.0 |
| Trichlorofluoromethane | ND | 10 | ug/kg | 2.0 |
| Acrolein | ND | 100 | ug/kg | 30 |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| Iodomethane | ND | 10 | ug/kg | 10 |
| Acetone | ND | 25 | ug/kg | 15 |
| Carbon disulfide | ND | 5.0 | ug/kg | 3.0 |
| Methylene chloride | ND | 5.0 | ug/kg | 3.0 |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| Acrylonitrile | ND | 100 | ug/kg | 30 |
| Methyl tert-butyl ether | ND | 5.0 | ug/kg | 1.0 |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | 1.0 |
| Vinyl acetate | ND | 10 | ug/kg | 5.0 |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | 2.0 |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| 2-Butanone | ND | 25 | ug/kg | 15 |
| Bromochloromethane | ND | 5.0 | ug/kg | 1.0 |
| Chloroform | ND | 5.0 | ug/kg | 1.0 |
| Tetrahydrofuran | ND | 20 | ug/kg | 2.0 |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | 1.0 |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | 1.0 |
| Carbon tetrachloride | ND | 5.0 | ug/kg | 1.0 |
| Benzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | 1.0 |
| Trichloroethene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | 1.0 |
| Bromodichloromethane | ND | 5.0 | ug/kg | 1.0 |
| 2-Chloroethyl vinyl ether | ND | 10 | ug/kg | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | 1.0 |
| 4-Methyl-2-pentanone | ND | 25 | ug/kg | 10 |
| Toluene | ND | 5.0 | ug/kg | 2.0 |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | 3.0 |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SP_37

GC/MS Volatiles

Lot-Sample #...: E2F010157-002 Work Order #...: E2CD21AD Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | 3.0 |
| Tetrachloroethene | ND | 5.0 | ug/kg | 2.0 |
| 2-Hexanone | ND | 25 | ug/kg | 10 |
| Dibromochloromethane | ND | 5.0 | ug/kg | 1.0 |
| Chlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| Ethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| Xylenes (total) | ND | 5.0 | ug/kg | 3.0 |
| Styrene | ND | 10 | ug/kg | 2.0 |
| Bromoform | ND | 5.0 | ug/kg | 3.0 |
| Isopropylbenzene | ND | 5.0 | ug/kg | 2.0 |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | 2.0 |
| Bromobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | 3.0 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | 3.0 |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | 3.0 |
| n-Propylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | 2.0 |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | 2.0 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| tert-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| sec-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| n-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dibromo-3-chloro-propane | ND | 10 | ug/kg | 3.0 |
| 1,2,4-Trichloro-benzene | ND | 5.0 | ug/kg | 2.0 |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | 2.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| t-Butanol | ND | 100 | ug/kg | 50 |
| Isopropyl ether | ND | 10 | ug/kg | 1.0 |
| Tert-amyl methyl ether | ND | 10 | ug/kg | 2.0 |
| Tert-butyl ethyl ether | ND | 10 | ug/kg | 1.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 90 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 97 | (60 - 140) |
| Toluene-d8 | 96 | (70 - 130) |

HALEY & ALDRICH INC

SP_37

GC/MS Volatiles

Lot-Sample #: E2F010157-002 Work Order #: E2C021AD Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | RETENTION TIME | UNITS |
|---|---|---|---|---|
| None | | | | ug/kg |

HALEY & ALDRICH INC

Client Sample ID: SP_37

GC Volatiles

Lot-Sample #...: E2F010157-0[illegible]
Date Sampled...: 05/31/02 18:[illegible]
Prep Date.....: 06/03/02
Prep Batch #...: 2155360
Dilution Factor: 1
Analyst ID.....: 001464

Work Order #...: E2[illegible]D21AC
Date Received..: 0[illegible]/01/02 12:16
Analysis Date..: [illegible]6/03/02
Analysis Time..: 13:21

Instrument ID..: G16
Method.....: SW846 8015B

Matrix.....: SOLID
MS Run #.....: 2155201

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C6-C8 | ND | 1.0 | mg/kg | 0.10 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 6[illegible] | [illegible]60 - 130) |

HALEY & ALDRICH INC

Client Sample ID: SP_37

GC Semivolatiles

Lot-Sample #...: E2F010157-002 Work Order #...: E2CD21[illegible]A Matrix.....: SOLID
Date Sampled...: 05/31/02 [illegible]8:15 Date Received..: 06/[illegible]/02 12:16 MS Run #.....: 2154216
Prep Date.....: 06/03/02 Analysis Date..: 0[illegible]/04/02
Prep Batch #...: 2154442 Analysis Time..: [illegible]6:07
Dilution Factor: 1
Analyst ID.....: 356074 Instrument ID[illegible]: G03
Method.....[illegible]..: SW846 8015B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C8-C9 | ND | 10 | mg/kg | 2.0 |
| C10-C11 | ND | 10 | mg/kg | 2.0 |
| C12-C13 | ND | 10 | mg/kg | 2.0 |
| C14-C15 | ND | 10 | mg/kg | 2.0 |
| C16-C17 | ND | 10 | mg/kg | 2.0 |
| C18-C19 | ND | 10 | mg/kg | 2.0 |
| **C20-C23** | **2.1 J** | **10** | **mg/kg** | **2.0** |
| **C24-C27** | **2.7 J** | **10** | **mg/kg** | **2.0** |
| **C28-C31** | **3.9 J** | **10** | **mg/kg** | **2.0** |
| **C32-C35** | **11** | **10** | **mg/kg** | **2.0** |
| **C36-C39** | **7.6 J** | **10** | **mg/kg** | **2.0** |
| C40+ | ND | 10 | mg/kg | 2.0 |
| **Total Carbon Chain Range** | **28** | **10** | **mg/kg** | **2.0** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 88 | (60 - 130) |

**NOTE(S):**

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

Client Sample ID: SP_37

TOTAL Metals

Lot-Sample #...: E2F010157-002 Matrix.....: SOLID
Date Sampled...: 05/31/02 18:15 Date Received..: 06/01/02 12:16

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Prep Batch #...: 2154211 | | | | | | |
| Aluminum | 17300 | 20.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AE |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 8.0 | |
| Arsenic | 4.6 | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AF |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Antimony | ND | 6.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AG |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.60 | |
| Barium | 144 J | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AH |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Cadmium | 0.32 B,J | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AJ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.060 | |
| Chromium | 26.0 | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AK |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Beryllium | 0.55 | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AL |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.050 | |
| Lead | 5.5 | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AM |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Selenium | 0.82 | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AN |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SP_37

TOTAL Metals

Lot-Sample #...: E2F010157-002 Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Silver | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AP |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Cobalt | 8.6 | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AQ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Copper | 23.2 | 2.5 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AR |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Molybdenum | 0.77 B,J | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AT |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Nickel | 17.1 | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AU |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Thallium | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AV |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.80 | |
| Vanadium | 46.8 | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AW |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Zinc | 57.9 | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD21AX |
| | | Dilution Factor: 1 | | Analysis Time..: 12:01 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 1.0 | |
| Prep Batch #...: 2154215 | | | | | | |
| Mercury | 0.055 B | 0.10 | mg/kg | SW846 7471A | 06/03-06/07/02 | E2CD21A0 |
| | | Dilution Factor: 1 | | Analysis Time..: 09:24 | Analyst ID.....: 000023 | |
| | | Instrument ID..: M04 | | MS Run #.....: 2154083 | MDL.....: 0.020 | |

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

HALEY & ALDRICH INC

Client Sample ID: SP_36

GC/MS Volatiles

**Lot-Sample #...:** E2F010157-003 **Work Order #...:** E2CD41AF **Matrix.....:** SOLID
**Date Sampled...:** 05/31/02 18:30 **Date Received..:** 06/01/02 12:16 **MS Run #.....:** 2156145
**Prep Date.....:** 06/04/02 **Analysis Date..:** 06/04/02
**Prep Batch #...:** 2156314 **Analysis Time..:** 13:28
**Dilution Factor:** 1
**Analyst ID.....:** 064667 **Instrument ID..:** MSD
**Method.....:** SW846 8260B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 10 | ug/kg | 1.0 |
| Chloromethane | ND | 10 | ug/kg | 3.0 |
| Vinyl chloride | ND | 10 | ug/kg | 2.0 |
| Bromomethane | ND | 10 | ug/kg | 8.0 |
| 1,2-Dibromoethane | ND | 5.0 | ug/kg | 3.0 |
| Chloroethane | ND | 10 | ug/kg | 2.0 |
| Trichlorofluoromethane | ND | 10 | ug/kg | 2.0 |
| Acrolein | ND | 100 | ug/kg | 30 |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| Iodomethane | ND | 10 | ug/kg | 10 |
| Acetone | ND | 25 | ug/kg | 15 |
| Carbon disulfide | ND | 5.0 | ug/kg | 3.0 |
| Methylene chloride | ND | 5.0 | ug/kg | 3.0 |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| Acrylonitrile | ND | 100 | ug/kg | 30 |
| Methyl tert-butyl ether | ND | 5.0 | ug/kg | 1.0 |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | 1.0 |
| Vinyl acetate | ND | 10 | ug/kg | 5.0 |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | 2.0 |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | 2.0 |
| 2-Butanone | ND | 25 | ug/kg | 15 |
| Bromochloromethane | ND | 5.0 | ug/kg | 1.0 |
| Chloroform | ND | 5.0 | ug/kg | 1.0 |
| Tetrahydrofuran | ND | 20 | ug/kg | 2.0 |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | 1.0 |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | 1.0 |
| Carbon tetrachloride | ND | 5.0 | ug/kg | 1.0 |
| Benzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | 1.0 |
| Trichloroethene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | 1.0 |
| Bromodichloromethane | ND | 5.0 | ug/kg | 1.0 |
| 2-Chloroethyl vinyl ether | ND | 10 | ug/kg | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | 1.0 |
| 4-Methyl-2-pentanone | ND | 25 | ug/kg | 10 |
| Toluene | ND | 5.0 | ug/kg | 2.0 |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | 3.0 |

(Continued on next page)

HALEY & ALDRICH INC

Client Sample ID: SP_36

GC/MS Volatiles

Lot-Sample #...: E2F010157-003 Work Order #...: E2CD41AF Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | 3.0 |
| Tetrachloroethene | ND | 5.0 | ug/kg | 2.0 |
| 2-Hexanone | ND | 25 | ug/kg | 10 |
| Dibromochloromethane | ND | 5.0 | ug/kg | 1.0 |
| Chlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| Ethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| Xylenes (total) | ND | 5.0 | ug/kg | 3.0 |
| Styrene | ND | 10 | ug/kg | 2.0 |
| Bromoform | ND | 5.0 | ug/kg | 3.0 |
| Isopropylbenzene | ND | 5.0 | ug/kg | 2.0 |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | 2.0 |
| Bromobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | 3.0 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | 3.0 |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | 3.0 |
| n-Propylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | 2.0 |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | 2.0 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| tert-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | 2.0 |
| sec-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| n-Butylbenzene | ND | 5.0 | ug/kg | 2.0 |
| 1,2-Dibromo-3-chloro-propane | ND | 10 | ug/kg | 3.0 |
| 1,2,4-Trichloro-benzene | ND | 5.0 | ug/kg | 2.0 |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | 2.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | 2.0 |
| t-Butanol | ND | 100 | ug/kg | 50 |
| Isopropyl ether | ND | 10 | ug/kg | 1.0 |
| Tert-amyl methyl ether | ND | 10 | ug/kg | 2.0 |
| Tert-butyl ethyl ether | ND | 10 | ug/kg | 1.0 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 103 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 117 | (60 - 140) |
| Toluene-d8 | 113 | (70 - 130) |

HALEY & ALDRICH INC

SP_36

GC/MS Volatiles

**Lot-Sample #:** E2F010157-003 **Work Order #:** E2CD41AF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | | RETENTION TIME | UNITS |
|---|---|---|---|---|---|
| unknown hydrocarbon | | 7.3 | M | 21.225 | ug/kg |

**NOTE(S):**

M: Result was measured against nearest internal standard assuming a response factor of 1.

HALEY & ALDRICH INC

Client Sample ID: SP_36

GC Volatiles

Lot-Sample #...: E2F010157-003 Work Order #...: E2CD41AE Matrix.....: SOLID
Date Sampled...: 05/31/02 18:30 Date Received..: 06/01/02 12:16 MS Run #.....: 2155201
Prep Date.....: 06/03/02 Analysis Date...: 06/03/02
Prep Batch #...: 2155360 Analysis Time...: 13:50
Dilution Factor: 1
Analyst ID.....: 001464 Instrument ID..: G16
Method.....: SW846 8015B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C6-C8 | ND | 1.0 | mg/kg | 0.10 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 91 | (70 - 130) |

HALEY & ALDRICH INC

Client Sample ID: SP_36

GC Semivolatiles

Lot-Sample #...: E2F010157-003 Work Order #...: E2CD41AD Matrix.....: SOLID
Date Sampled...: 05/31/02 18:30 Date Received..: 06/01/02 12:16 MS Run #.....: 2154216
Prep Date.....: 06/03/02 Analysis Date..: 06/[illegible]4/02
Prep Batch #...: 2154442 Analysis Time..: [illegible]:47
Dilution Factor: 1
Analyst ID.....: 356074 Instrument ID...: G03
Method.....: SW846 8015B

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | MDL |
|---|---|---|---|---|
| C8-C9 | ND | 10 | mg/kg | 2.0 |
| C10-C11 | ND | 10 | mg/kg | 2.0 |
| C12-C13 | ND | 10 | mg/kg | 2.0 |
| C14-C15 | ND | 10 | mg/kg | 2.0 |
| C16-C17 | ND | 10 | mg/kg | 2.0 |
| C18-C19 | ND | 10 | mg/kg | 2.0 |
| C20-C23 | ND | 10 | mg/kg | 2.0 |
| C24-C27 | ND | 10 | mg/kg | 2.0 |
| C28-C31 | ND | 10 | mg/kg | 2.0 |
| **C32-C35** | **2.6 J** | **10** | **mg/kg** | **2.0** |
| C36-C39 | ND | 10 | mg/kg | 2.0 |
| C40+ | ND | 10 | mg/kg | 2.0 |
| **Total Carbon Chain Range** | **2.6 J** | **10** | **mg/kg** | **2.0** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 92 | (60 - 130) |

NOTE(S):

J Estimated result. Result is less than RL.

HALEY & ALDRICH INC

Client Sample ID: SP_36

TOTAL Metals

Lot-Sample #...: E2F010157-003 Matrix.....: SOLID
Date Sampled...: 05/31/02 18:30 Date Received..: 06/01/02 12:16

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Prep Batch #...: 2154211 | | | | | | |
| **Aluminum** | **14100** | **20.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AG** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 8.0 | |
| **Arsenic** | **4.1** | **1.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AH** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Antimony | ND | 6.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AJ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.60 | |
| **Barium** | **97.6 J** | **2.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AK** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| **Cadmium** | **0.18 B,J** | **0.50** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AL** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.060 | |
| **Chromium** | **21.8** | **1.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AM** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| **Beryllium** | **0.46 B** | **0.50** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AN** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.050 | |
| **Lead** | **5.2** | **0.50** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CD41AP** |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Selenium | ND | 0.40 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AQ |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |

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HALEY & ALDRICH INC

Client Sample ID: SP_36

TOTAL Metals

Lot-Sample #...: E2F010157-003 Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Silver | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AR |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Cobalt | 7.4 | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AT |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Copper | 18.9 | 2.5 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AU |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.40 | |
| Molybdenum | 0.85 B,J | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AV |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Nickel | 14.3 | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AW |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.30 | |
| Thallium | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41AX |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.80 | |
| Vanadium | 38.2 | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41A0 |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 0.10 | |
| Zinc | 48.5 | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CD41A1 |
| | | Dilution Factor: 1 | | Analysis Time..: 12:09 | Analyst ID.....: 021088 | |
| | | Instrument ID..: M01 | | MS Run #.....: 2154078 | MDL.....: 1.0 | |

Prep Batch #...: 2154215

| | | | | | | |
|---|---|---|---|---|---|---|
| Mercury | 0.037 B | 0.10 | mg/kg | SW846 7471A | 06/03-06/07/02 | E2CD41AA |
| | | Dilution Factor: 1 | | Analysis Time..: 09:26 | Analyst ID.....: 000023 | |
| | | Instrument ID..: M04 | | MS Run #.....: 2154083 | MDL.....: 0.020 | |

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

**Client Lot #...:** E2F010157
**MB Lot-Sample #:** E2F040000-254

**Analysis Date..:** 06/03/02
**Dilution Factor:** 1

**Work Order #...:** E2EKT1AA

**Prep Date.....:** 06/03/02
**Prep Batch #...:** 2155254

**Analyst ID.....:** 064667

**Matrix.....:** SOLID

**Analysis Time..:** 17:44
**Instrument ID..:** MSD

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 10 | ug/kg | SW846 8260B |
| Chloromethane | ND | 10 | ug/kg | SW846 8260B |
| Vinyl chloride | ND | 10 | ug/kg | SW846 8260B |
| Bromomethane | ND | 10 | ug/kg | SW846 8260B |
| 1,2-Dibromoethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroethane | ND | 10 | ug/kg | SW846 8260B |
| Trichlorofluoromethane | ND | 10 | ug/kg | SW846 8260B |
| Acrolein | ND | 100 | ug/kg | SW846 8260B |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Iodomethane | ND | 10 | ug/kg | SW846 8260B |
| Acetone | ND | 25 | ug/kg | SW846 8260B |
| Carbon disulfide | ND | 5.0 | ug/kg | SW846 8260B |
| Methylene chloride | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Acrylonitrile | ND | 100 | ug/kg | SW846 8260B |
| Methyl tert-butyl ether | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Vinyl acetate | ND | 10 | ug/kg | SW846 8260B |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Butanone | ND | 25 | ug/kg | SW846 8260B |
| Bromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroform | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrahydrofuran | ND | 20 | ug/kg | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Carbon tetrachloride | ND | 5.0 | ug/kg | SW846 8260B |
| Benzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Trichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromodichloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chloroethyl vinyl ether | ND | 10 | ug/kg | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Methyl-2-pentanone | ND | 25 | ug/kg | SW846 8260B |
| Toluene | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrachloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Hexanone | ND | 25 | ug/kg | SW846 8260B |

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## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2F010157 **Work Order #...:** E2EKT1AA **Matrix.....:** SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Dibromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Ethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Xylenes (total) | ND | 5.0 | ug/kg | SW846 8260B |
| Styrene | ND | 10 | ug/kg | SW846 8260B |
| Bromoform | ND | 5.0 | ug/kg | SW846 8260B |
| Isopropylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| n-Propylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| tert-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| sec-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| n-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromo-3-chloro-propane | ND | 10 | ug/kg | SW846 8260B |
| 1,2,4-Trichloro-benzene | ND | 5.0 | ug/kg | SW846 8260B |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| t-Butanol | ND | 100 | ug/kg | SW846 8260B |
| Isopropyl ether | ND | 10 | ug/kg | SW846 8260B |
| Tert-amyl methyl ether | ND | 10 | ug/kg | SW846 8260B |
| Tert-butyl ethyl ether | ND | 10 | ug/kg | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 110 | (60 - 140) |
| Toluene-d8 | 114 | (70 - 130) |

**NOTE(S):**

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

**HALEY & ALDRICH INC**

Method Blank Report

GC/MS Volatiles

**Lot-Sample #:** E2F040000-254 B **Work Order #:** E2EKT1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | RETENTION TIME | UNITS |
|---|---|---|---|---|
| None | | | | ug/kg |

## METHOD BLANK REPORT

### GC/MS Volatiles

**Client Lot #...:** E2F010157
**MB Lot-Sample #:** E2F040000-393

**Analysis Date..:** 06/03/02
**Dilution Factor:** 1

**Work Order #...:** E2FFC1AA

**Prep Date.....:** 06/03/02
**Prep Batch #...:** 2155393

**Analyst ID.....:** 004648

**Matrix.....:** WATER

**Analysis Time..:** 20:54
**Instrument ID..:** MSC

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chloromethane | ND | 2.0 | ug/L | SW846 8260B |
| Vinyl chloride | ND | 0.50 | ug/L | SW846 8260B |
| Chloroethane | ND | 2.0 | ug/L | SW846 8260B |
| Bromomethane | ND | 2.0 | ug/L | SW846 8260B |
| Trichlorofluoromethane | ND | 2.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Methylene chloride | ND | 1.0 | ug/L | SW846 8260B |
| Methyl tert-butyl ether | ND | 1.0 | ug/L | SW846 8260B |
| Carbon disulfide | ND | 1.0 | ug/L | SW846 8260B |
| Acetone | ND | 10 | ug/L | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 2,2-Dichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Chloroform | ND | 1.0 | ug/L | SW846 8260B |
| Bromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 2-Butanone | ND | 5.0 | ug/L | SW846 8260B |
| 1,1-Dichloropropene | ND | 1.0 | ug/L | SW846 8260B |
| Carbon tetrachloride | ND | 0.50 | ug/L | SW846 8260B |
| 1,2-Dibromoethane | ND | 1.0 | ug/L | SW846 8260B |
| Benzene | ND | 1.0 | ug/L | SW846 8260B |
| Trichloroethene | ND | 1.0 | ug/L | SW846 8260B |
| Bromodichloromethane | ND | 1.0 | ug/L | SW846 8260B |
| 4-Methyl-2-pentanone | ND | 5.0 | ug/L | SW846 8260B |
| Toluene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichloroethane | ND | 0.50 | ug/L | SW846 8260B |
| Tetrachloroethene | ND | 1.0 | ug/L | SW846 8260B |
| 2-Hexanone | ND | 5.0 | ug/L | SW846 8260B |
| Dibromochloromethane | ND | 1.0 | ug/L | SW846 8260B |
| Chlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |
| Ethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Xylenes (total) | ND | 1.0 | ug/L | SW846 8260B |
| Styrene | ND | 1.0 | ug/L | SW846 8260B |
| Bromoform | ND | 1.0 | ug/L | SW846 8260B |
| Isopropylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | SW846 8260B |

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2F010157 Work Order #...: E2FFC1AA Matrix.....: WATER

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| 1,2,3-Trichloropropane | ND | 1.0 | ug/L | SW846 8260B |
| n-Propylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| Bromobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,3,5-Trimethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| 2-Chlorotoluene | ND | 1.0 | ug/L | SW846 8260B |
| 4-Chlorotoluene | ND | 1.0 | ug/L | SW846 8260B |
| tert-Butylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2,4-Trimethylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| sec-Butylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| p-Isopropyltoluene | 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 |
| n-Butylbenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2-Dibromo-3-chloro-propane | ND | 2.0 | ug/L | SW846 8260B |
| 1,2,4-Trichloro-benzene | ND | 1.0 | ug/L | SW846 8260B |
| Hexachlorobutadiene | ND | 1.0 | ug/L | SW846 8260B |
| 1,2,3-Trichlorobenzene | ND | 1.0 | ug/L | SW846 8260B |
| Acrolein | ND | 20 | ug/L | SW846 8260B |
| Tert-amyl methyl ether | ND | 2.0 | ug/L | SW846 8260B |
| Acrylonitrile | ND | 20 | ug/L | SW846 8260B |
| Tert-butyl ethyl ether | ND | 2.0 | ug/L | SW846 8260B |
| t-Butanol | ND | 25 | ug/L | SW846 8260B |
| Iodomethane | ND | 2.0 | ug/L | SW846 8260B |
| Isopropyl ether | ND | 2.0 | ug/L | SW846 8260B |
| 2-Chloroethyl vinyl ether | ND | 5.0 | ug/L | SW846 8260B |
| Tetrahydrofuran | ND | 10 | ug/L | SW846 8260B |
| Vinyl acetate | ND | 5.0 | ug/L | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 101 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 101 | (65 - 135) |
| Toluene-d8 | 100 | (80 - 130) |

NOTE(S):

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

HALEY & ALDRICH INC

Method Blank Report

GC/MS Volatiles

**Lot-Sample #:** E2F040000-393 B **Work Order #:** E2FFC1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | RETENTION TIME | UNITS |
|---|---|---|---|---|
| None | | | | ug/L |

METHOD BLANK REPORT

GC/MS Volatiles

**Client Lot #...:** E2F010157
**MB Lot-Sample #:** E2F050000-314

**Analysis Date..:** 06/04/02
**Dilution Factor:** 1

**Work Order #...:** E2GXH1AA

**Prep Date.....:** 06/04/02
**Prep Batch #...:** 2156314

**Analyst ID.....:** 064667

**Matrix.....:** SOLID

**Analysis Time..:** 12:05
**Instrument ID..:** MSD

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 10 | ug/kg | SW846 8260B |
| Chloromethane | ND | 10 | ug/kg | SW846 8260B |
| Vinyl chloride | ND | 10 | ug/kg | SW846 8260B |
| Bromomethane | ND | 10 | ug/kg | SW846 8260B |
| 1,2-Dibromoethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroethane | ND | 10 | ug/kg | SW846 8260B |
| Trichlorofluoromethane | ND | 10 | ug/kg | SW846 8260B |
| Acrolein | ND | 100 | ug/kg | SW846 8260B |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Iodomethane | ND | 10 | ug/kg | SW846 8260B |
| Acetone | ND | 25 | ug/kg | SW846 8260B |
| Carbon disulfide | ND | 5.0 | ug/kg | SW846 8260B |
| Methylene chloride | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Acrylonitrile | ND | 100 | ug/kg | SW846 8260B |
| Methyl tert-butyl ether | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Vinyl acetate | ND | 10 | ug/kg | SW846 8260B |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Butanone | ND | 25 | ug/kg | SW846 8260B |
| Bromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroform | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrahydrofuran | ND | 20 | ug/kg | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Carbon tetrachloride | ND | 5.0 | ug/kg | SW846 8260B |
| Benzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Trichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromodichloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chloroethyl vinyl ether | ND | 10 | ug/kg | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Methyl-2-pentanone | ND | 25 | ug/kg | SW846 8260B |
| Toluene | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrachloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Hexanone | ND | 25 | ug/kg | SW846 8260B |

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METHOD BLANK REPORT

GC/MS Volatiles

**Client Lot #...:** E2F010157 **Work Order #...:** E2GXH1AA **Matrix.....:** SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Dibromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Ethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Xylenes (total) | ND | 5.0 | ug/kg | SW846 8260B |
| Styrene | ND | 10 | ug/kg | SW846 8260B |
| Bromoform | ND | 5.0 | ug/kg | SW846 8260B |
| Isopropylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| n-Propylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| tert-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| sec-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| n-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromo-3-chloro-propane | ND | 10 | ug/kg | SW846 8260B |
| 1,2,4-Trichloro-benzene | ND | 5.0 | ug/kg | SW846 8260B |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| t-Butanol | ND | 100 | ug/kg | SW846 8260B |
| Isopropyl ether | ND | 10 | ug/kg | SW846 8260B |
| Tert-amyl methyl ether | ND | 10 | ug/kg | SW846 8260B |
| Tert-butyl ethyl ether | ND | 10 | ug/kg | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 109 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 123 | (60 - 140) |
| Toluene-d8 | 118 | (70 - 130) |

**NOTE(S):**

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

HALEY & ALDRICH INC

Method Blank Report

GC/MS Volatiles

**Lot-Sample #:** E2F050000-314 B **Work Order #:** E2GXH1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

| PARAMETER | CAS # | ESTIMATED RESULT | RETENTION TIME | UNITS |
|---|---|---|---|---|
| None | | | | ug/kg |

METHOD BLANK REPORT

GC Volatiles

**Client Lot #...:** E2F010157
**MB Lot-Sample #:** E2F040000-360

**Analysis Date..:** 06/03/02
**Dilution Factor:** 1

**Work Order #...:** E2E861AA

**Prep Date.....:** 06/03/02
**Prep Batch #...:** 2155360

**Analyst ID.....:** 001464

**Matrix.....:** SOLID

**Analysis Time..:** 11:53
**Instrument ID..:** G16

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| C6-C8 | ND | 1.0 | mg/kg | SW846 8015B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 72 | (60 - 130) |

**NOTE(S):**

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

## METHOD BLANK REPORT

### GC Semivolatiles

Client Lot #...: E2F010157
MB Lot-Sample #: E2F030000-442

Work Order #...: E2DRK1AA

Matrix.....: SOLID

Prep Date.....: 06/03/02

Analysis Time..: 16:32

Analysis Date..: 06/04/02

Prep Batch #...: 2154442

Instrument ID..: G02

Dilution Factor: 1

Analyst ID.....: 356074

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| C8-C9 | ND | 10 | mg/kg | SW846 8015B |
| C10-C11 | ND | 10 | mg/kg | SW846 8015B |
| C12-C13 | ND | 10 | mg/kg | SW846 8015B |
| C14-C15 | ND | 10 | mg/kg | SW846 8015B |
| C16-C17 | ND | 10 | mg/kg | SW846 8015B |
| C18-C19 | ND | 10 | mg/kg | SW846 8015B |
| C20-C23 | ND | 10 | mg/kg | SW846 8015B |
| C24-C27 | ND | 10 | mg/kg | SW846 8015B |
| C28-C31 | ND | 10 | mg/kg | SW846 8015B |
| C32-C35 | ND | 10 | mg/kg | SW846 8015B |
| C36-C39 | ND | 10 | mg/kg | SW846 8015B |
| C40+ | ND | 10 | mg/kg | SW846 8015B |
| Total Carbon Chain Range | ND | 10 | mg/kg | SW846 8015B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 90 | (60 - 130) |

NOTE(S):

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

METHOD BLANK REPORT

GC Semivolatiles

**Client Lot #...:** E2F010157
**MB Lot-Sample #:** E2F030000-442

**Work Order #...:** E2DRK1AF

**Matrix.....:** SOLID

**Prep Date.....:** 06/03/02
**Prep Batch #...:** 2154442

**Analysis Time..:** 14:47
**Instrument ID..:** G03

**Analysis Date..:** 06/04/02
**Dilution Factor:** 1

**Analyst ID.....:** 356074

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| C8-C9 | ND | 10 | mg/kg | SW846 8015B |
| C10-C11 | ND | 10 | mg/kg | SW846 8015B |
| C12-C13 | ND | 10 | mg/kg | SW846 8015B |
| C14-C15 | ND | 10 | mg/kg | SW846 8015B |
| C16-C17 | ND | 10 | mg/kg | SW846 8015B |
| C18-C19 | ND | 10 | mg/kg | SW846 8015B |
| C20-C23 | ND | 10 | mg/kg | SW846 8015B |
| C24-C27 | ND | 10 | mg/kg | SW846 8015B |
| C28-C31 | ND | 10 | mg/kg | SW846 8015B |
| C32-C35 | ND | 10 | mg/kg | SW846 8015B |
| C36-C39 | ND | 10 | mg/kg | SW846 8015B |
| C40+ | ND | 10 | mg/kg | SW846 8015B |
| Total Carbon Chain Range | ND | 10 | mg/kg | SW846 8015B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 88 | (60 - 130) |

**NOTE(S):**

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

## METHOD BLANK REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **MB Lot-Sample #:** E2F030000-211 **Prep Batch #...:** 2154211 | | | | | | |
| Aluminum | ND | 20.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1CD |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Arsenic | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AA |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Antimony | ND | 6.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AC |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| **Barium** | **0.18 B** | **2.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CPW1AD** |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| **Cadmium** | **0.11 B** | **0.50** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CPW1AE** |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Chromium | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AF |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Beryllium | ND | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AG |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Lead | ND | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AH |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Selenium | ND | 0.50 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AJ |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Silver | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AK |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Cobalt | ND | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AL |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| Copper | ND | 2.5 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AM |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| **Molybdenum** | 0.38 B | **4.0** | **mg/kg** | **SW846 6010B** | **06/03-06/04/02** | **E2CPW1AN** |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Nickel | ND | 4.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AP |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Thallium | ND | 1.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AQ |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Vanadium | ND | 5.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AR |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Zinc | ND | 2.0 | mg/kg | SW846 6010B | 06/03-06/04/02 | E2CPW1AT |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 11:47 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |

**MB Lot-Sample #:** E2F030000-215 **Prep Batch #...:** 2154215

| | | | | | | |
|---|---|---|---|---|---|---|
| Mercury | ND | 0.10 | mg/kg | SW846 7471A | 06/03-06/07/02 | E2CP81AA |
| | | Dilution Factor: 1 | | | | |
| | | Analysis Time..: 09:21 | | Analyst ID.....: 000023 | Instrument ID..: M04 | |

**NOTE(S):**

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

B Estimated result. Result is less than RL.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E2F010157 **Work Order #...:** E2EKT1AC **Matrix.....:** SOLID
LCS Lot-Sample#: E2F040000-254
Prep Date.....: 06/03/02 **Analysis Date..:** 06/03/02
Prep Batch #...: 2155254 **Analysis Time..:** 17:14
Dilution Factor: 1 **Instrument ID..:** MSD
Analyst ID.....: 064667

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| 1,1-Dichloroethene | **98** | **(65 - 150)** | **SW846 8260B** |
| Benzene | **94** | **(70 - 130)** | **SW846 8260B** |
| Trichloroethene | **96** | **(70 - 135)** | **SW846 8260B** |
| Toluene | **90** | **(70 - 130)** | **SW846 8260B** |
| Chlorobenzene | **86** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 81 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 83 | (60 - 140) |
| Toluene-d8 | 86 | (70 - 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 #...:** E2F010157 **Work Order #...:** E2EKT1AC **Matrix.....:** SOLID
**LCS Lot-Sample#:** E2F040000-254
**Prep Date.....:** 06/03/02 **Analysis Date..:** 06/03/02
**Prep Batch #...:** 2155254 **Analysis Time..:** 17:14
**Dilution Factor:** 1 **Instrument ID..:** MSD
**Analyst ID.....:** 064667

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **1,1-Dichloroethene** | **50.0** | **49.1** | **ug/kg** | **98** | **SW846 8260B** |
| **Benzene** | **50.0** | **46.8** | **ug/kg** | **94** | **SW846 8260B** |
| **Trichloroethene** | **50.0** | **47.8** | **ug/kg** | **96** | **SW846 8260B** |
| **Toluene** | **50.0** | **45.0** | **ug/kg** | **90** | **SW846 8260B** |
| **Chlorobenzene** | **50.0** | **42.8** | **ug/kg** | **86** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 81 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 83 | (60 - 140) |
| Toluene-d8 | 86 | (70 - 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

### GC/MS Volatiles

Client Lot #...: E2F010157 **Work Order #...:** E2FFC1AC **Matrix.....:** WATER
LCS Lot-Sample#: E2F040000-393
Prep Date.....: 06/03/02 **Analysis Date..:** 06/03/02
Prep Batch #...: 2155393 **Analysis Time..:** 20:25
Dilution Factor: 1 **Instrument ID..:** MSC
Analyst ID.....: 004648

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| 1,1-Dichloroethene | **96** | **(70 - 140)** | **SW846 8260B** |
| Benzene | **95** | **(75 - 120)** | **SW846 8260B** |
| Trichloroethene | **107** | **(70 - 130)** | **SW846 8260B** |
| Toluene | **99** | **(75 - 125)** | **SW846 8260B** |
| Chlorobenzene | **97** | **(75 - 120)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 104 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 100 | (65 - 135) |
| Toluene-d8 | 106 | (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 #...:** E2F010157 **Work Order #...:** E2FFC1AC **Matrix.....:** WATER
**LCS Lot-Sample#:** E2F040000-393
**Prep Date.....:** 06/03/02 **Analysis Date..:** 06/03/02
**Prep Batch #...:** 2155393 **Analysis Time..:** 20:25
**Dilution Factor:** 1 **Instrument ID..:** MSC
**Analyst ID.....:** 004648

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **1,1-Dichloroethene** | **10.0** | **9.65** | **ug/L** | 96 | **SW846 8260B** |
| **Benzene** | **10.0** | **9.51** | **ug/L** | 95 | **SW846 8260B** |
| **Trichloroethene** | **10.0** | **10.7** | **ug/L** | 107 | **SW846 8260B** |
| **Toluene** | **10.0** | **9.89** | **ug/L** | 99 | **SW846 8260B** |
| **Chlorobenzene** | **10.0** | **9.66** | **ug/L** | 97 | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 104 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 100 | (65 - 135) |
| Toluene-d8 | 106 | (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

GC/MS Volatiles

Client Lot #...: E2F010157 **Work Order #...:** E2GXH1AC **Matrix.....:** SOLID
LCS Lot-Sample#: E2F050000-314
Prep Date.....: 06/04/02 **Analysis Date..:** 06/04/02
Prep Batch #...: 2156314 **Analysis Time..:** 11:35
Dilution Factor: 1 **Instrument ID..:** MSD
Analyst ID.....: 064667

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| 1,1-Dichloroethene | **118** | **(65 - 150)** | **SW846 8260B** |
| Benzene | **116** | **(70 - 130)** | **SW846 8260B** |
| Trichloroethene | **125** | **(70 - 135)** | **SW846 8260B** |
| Toluene | **110** | **(70 - 130)** | **SW846 8260B** |
| Chlorobenzene | **110** | **(70 - 130)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 118 | (60 - 140) |
| Toluene-d8 | 109 | (70 - 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 #...:** E2F010157 **Work Order #...:** E2GXH1AC **Matrix.....:** SOLID
**LCS Lot-Sample#:** E2F050000-314
**Prep Date.....:** 06/04/02 **Analysis Date..:** 06/04/02
**Prep Batch #...:** 2156314 **Analysis Time..:** 11:35
**Dilution Factor:** 1 **Instrument ID..:** MSD
**Analyst ID.....:** 064667

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **1,1-Dichloroethene** | **50.0** | **59.1** | **ug/kg** | **118** | **SW846 8260B** |
| **Benzene** | **50.0** | **58.2** | **ug/kg** | **116** | **SW846 8260B** |
| **Trichloroethene** | **50.0** | **62.3** | **ug/kg** | **125** | **SW846 8260B** |
| **Toluene** | **50.0** | **55.2** | **ug/kg** | **110** | **SW846 8260B** |
| **Chlorobenzene** | **50.0** | **55.1** | **ug/kg** | **110** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 118 | (60 - 140) |
| Toluene-d8 | 109 | (70 - 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

GC Volatiles

| | | |
|---|---|---|
| **Client Lot #...:** E2F010157 | **Work Order #...:** E2E861AC | **Matrix.....:** SOLID |
| **LCS Lot-Sample#:** E2F040000-360 | | |
| **Prep Date.....:** 06/03/02 | **Analysis Date..:** 06/03/02 | |
| **Prep Batch #...:** 2155360 | **Analysis Time..:** 12:22 | |
| **Dilution Factor:** 1 | **Instrument ID..:** G16 | |
| **Analyst ID.....:** 001464 | | |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **TPH (as Gasoline)** | **88** | **(70 - 140)** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 98 | (60 - 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 Volatiles

**Client Lot #...:** E2F010157 **Work Order #...:** E2E861AC **Matrix.....:** SOLID
**LCS Lot-Sample#:** E2F040000-360
**Prep Date.....:** 06/03/02 **Analysis Date..:** 06/03/02
**Prep Batch #...:** 2155360 **Analysis Time..:** 12:22
**Dilution Factor:** 1 **Instrument ID..:** G16
**Analyst ID.....:** 001464

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **TPH (as Gasoline)** | **5.00** | **4.40** | **mg/kg** | 88 | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 98 | (60 - 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

### GC Semivolatiles

Client Lot #...: E2F010157 Work Order #...: E2DRK1AC Matrix.....: SOLID
LCS Lot-Sample#: E2F030000-442
Prep Date.....: 06/03/02 Analysis Date..: 06/04/02
Prep Batch #...: 2154442 Analysis Time..: 17:11
Dilution Factor: 1 Instrument ID..: G02
Analyst ID.....: 356074

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **TPH (as Diesel)** | **85** | **(55 - 130)** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 96 | (60 - 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 Semivolatiles

**Client Lot #...:** E2F010157 **Work Order #...:** E2DRK1AC **Matrix.....:** SOLID
**LCS Lot-Sample#:** E2F030000-442
**Prep Date.....:** 06/03/02 **Analysis Date..:** 06/04/02
**Prep Batch #...:** 2154442 **Analysis Time..:** 17:11
**Dilution Factor:** 1 **Instrument ID..:** G02
**Analyst ID.....:** 356074

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **TPH (as Diesel)** | **250** | **214** | **mg/kg** | **85** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 96 | (60 - 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

GC Semivolatiles

**Client Lot #...:** E2F010157 **Work Order #...:** E2DRK1AG **Matrix.....:** SOLID
**LCS Lot-Sample#:** E2F030000-442
**Prep Date.....:** 06/03/02 **Analysis Date..:** 06/04/02
**Prep Batch #...:** 2154442 **Analysis Time..:** 15:27
**Dilution Factor:** 1 **Instrument ID..:** G03
**Analyst ID.....:** 356074

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **TPH (as Diesel)** | **89** | **(55 - 130)** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 95 | (60 - 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 Semivolatiles

Client Lot #...: E2F010157 Work Order #...: E2DRK1AG Matrix.....: SOLID
LCS Lot-Sample#: E2F030000-442
Prep Date.....: 06/03/02 Analysis Date..: 06/04/02
Prep Batch #...: 2154442 Analysis Time..: 15:27
Dilution Factor: 1 Instrument ID..: G03
Analyst ID.....: 356074

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **TPH (as Diesel)** | **250** | **221** | **mg/kg** | **89** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 95 | (60 - 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 #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2F030000-211 **Prep Batch #...:** 2154211 | | | | | |
| Arsenic | 99 | (75 - 115) | SW846 6010B | 06/03-06/04/02 | E2CPW1AU |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Aluminum | 95 | (70 - 115) | SW846 6010B | 06/03-06/04/02 | E2CPW1CE |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Antimony | 99 | (75 - 115) | SW846 6010B | 06/03-06/04/02 | E2CPW1AV |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Barium | 99 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1AW |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Cadmium | 99 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1AX |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Chromium | 102 | (85 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A0 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Beryllium | 104 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A1 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Lead | 99 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A2 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Selenium | 90 | (70 - 115) | SW846 6010B | 06/03-06/04/02 | E2CPW1A3 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Silver | 100 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A4 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |

(Continued on next page)

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|
| Cobalt | 100 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A5 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Copper | 101 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A6 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Molybdenum | 101 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A7 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Nickel | 99 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1A8 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Thallium | 98 | (75 - 125) | SW846 6010B | 06/03-06/04/02 | E2CPW1A9 |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Vanadium | 101 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1CA |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Zinc | 102 | (80 - 120) | SW846 6010B | 06/03-06/04/02 | E2CPW1CC |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 11:53 | Analyst ID.....: 021088 | Instrument ID..: M01 | |

**LCS Lot-Sample#:** E2F030000-215 **Prep Batch #...:** 2154215

| | | | | | |
|---|---|---|---|---|---|
| Mercury | 106 | (85 - 115) | SW846 7471A | 06/03-06/07/02 | E2CP81AC |
| | | Dilution Factor: 1 | | | |
| | | Analysis Time..: 09:22 | Analyst ID.....: 000023 | Instrument ID..: M04 | |

**NOTE(S):**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **LCS Lot-Sample#:** E2F030000-211 **Prep Batch #...:** 2154211 | | | | | | | |
| Arsenic | 200 | 197 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1AU |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Aluminum | 200 | 190 | mg/kg | 95 | SW846 6010B | 06/03-06/04/02 | E2CPW1CE |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Antimony | 50.0 | 49.6 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1AV |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Barium | 200 | 199 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1AW |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Cadmium | 5.00 | 4.93 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1AX |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Chromium | 20.0 | 20.3 | mg/kg | 102 | SW846 6010B | 06/03-06/04/02 | E2CPW1A0 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Beryllium | 5.00 | 5.18 | mg/kg | 104 | SW846 6010B | 06/03-06/04/02 | E2CPW1A1 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Lead | 50.0 | 49.4 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1A2 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Selenium | 200 | 180 | mg/kg | 90 | SW846 6010B | 06/03-06/04/02 | E2CPW1A3 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Silver | 5.00 | 4.99 | mg/kg | 100 | SW846 6010B | 06/03-06/04/02 | E2CPW1A4 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |

(Continued on next page)

## LABORATORY CONTROL SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCNT RECVRY | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| Cobalt | 50.0 | 49.8 | mg/kg | 100 | SW846 6010B | 06/03-06/04/02 | E2CPW1A5 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Copper | 25.0 | 25.1 | mg/kg | 101 | SW846 6010B | 06/03-06/04/02 | E2CPW1A6 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Molybdenum | 100 | 101 | mg/kg | 101 | SW846 6010B | 06/03-06/04/02 | E2CPW1A7 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Nickel | 50.0 | 49.5 | mg/kg | 99 | SW846 6010B | 06/03-06/04/02 | E2CPW1A8 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Thallium | 200 | 196 | mg/kg | 98 | SW846 6010B | 06/03-06/04/02 | E2CPW1A9 |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Vanadium | 50.0 | 50.7 | mg/kg | 101 | SW846 6010B | 06/03-06/04/02 | E2CPW1CA |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |
| Zinc | 50.0 | 50.9 | mg/kg | 102 | SW846 6010B | 06/03-06/04/02 | E2CPW1CC |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 11:53 | | Analyst ID.....: 021088 | Instrument ID..: M01 | |

**LCS Lot-Sample#:** E2F030000-215 **Prep Batch #...:** 2154215

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mercury | 0.833 | 0.884 | mg/kg | 106 | SW846 7471A | 06/03-06/07/02 | E2CP81AC |
| | | | Dilution Factor: 1 | | | | |
| | | | Analysis Time..: 09:22 | | Analyst ID.....: 000023 | Instrument ID..: M04 | |

**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 #...: | E2F010157 | Work Order #...: | E12T61AK-MS | Matrix.....: | SOLID |
| MS Lot-Sample #: | G2E240279-004 | | E12T61AL-MSD | | |
| Date Sampled...: | 05/22/02 15:05 | Date Received..: | 05/24/02 09:18 | MS Run #.....: | 2155104 |
| Prep Date.....: | 06/03/02 | Analysis Date..: | 06/03/02 | | |
| Prep Batch #...: | 2155254 | Analysis Time..: | 19:15 | | |
| Dilution Factor: | 1 | Analyst ID.....: | 064667 | Instrument ID..: | MSD |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 110 | (65 - 150) | | | SW846 8260B |
| | 113 | (65 - 150) | 2.3 | (0-30) | SW846 8260B |
| Benzene | 108 | (70 - 130) | | | SW846 8260B |
| | 112 | (70 - 130) | 3.7 | (0-30) | SW846 8260B |
| Trichloroethene | 148 a,MSC | (70 - 135) | | | SW846 8260B |
| | 153 a,MSC | (70 - 135) | 2.7 | (0-30) | SW846 8260B |
| Toluene | 107 | (70 - 130) | | | SW846 8260B |
| | 107 | (70 - 130) | 0.56 | (0-30) | SW846 8260B |
| Chlorobenzene | 107 | (70 - 130) | | | SW846 8260B |
| | 106 | (70 - 130) | 0.22 | (0-30) | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (65 - 135) |
| | 101 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 114 | (60 - 140) |
| | 112 | (60 - 140) |
| Toluene-d8 | 111 | (70 - 130) |
| | 108 | (70 - 130) |

NOTE(S):

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E12T61AK-MS | **Matrix.....:** | SOLID |
| **MS Lot-Sample #:** | G2E240279-004 | | E12T61AL-MSD | | |
| **Date Sampled...:** | 05/22/02 15:05 | **Date Received..:** | 05/24/02 09:18 | **MS Run #.....:** | 2155104 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/03/02 | | |
| **Prep Batch #...:** | 2155254 | **Analysis Time..:** | 19:15 | | |
| **Dilution Factor:** | 1 | **Analyst ID.....:** | 064667 | **Instrument ID..:** | MSD |

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 50.5 | 55.6 | ug/kg | 110 | | SW846 8260B |
| | ND | 50.5 | 57.0 | ug/kg | 113 | 2.3 | SW846 8260B |
| Benzene | ND | 50.5 | 54.5 | ug/kg | 108 | | SW846 8260B |
| | ND | 50.5 | 56.6 | ug/kg | 112 | 3.7 | SW846 8260B |
| Trichloroethene | ND | 50.5 | 74.9 | ug/kg | 148 | | SW846 8260B |
| | | Qualifiers: | a,MSC | | | | |
| | ND | 50.5 | 77.0 | ug/kg | 153 | 2.7 | SW846 8260B |
| | | Qualifiers: | a,MSC | | | | |
| Toluene | ND | 50.5 | 53.8 | ug/kg | 107 | | SW846 8260B |
| | ND | 50.5 | 54.1 | ug/kg | 107 | 0.56 | SW846 8260B |
| Chlorobenzene | ND | 50.5 | 53.9 | ug/kg | 107 | | SW846 8260B |
| | ND | 50.5 | 53.7 | ug/kg | 106 | 0.22 | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 106 | (65 - 135) |
| | 101 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 114 | (60 - 140) |
| | 112 | (60 - 140) |
| Toluene-d8 | 111 | (70 - 130) |
| | 108 | (70 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E18N31AJ-MS | **Matrix.....:** | WATER |
| **MS Lot-Sample #:** | G2E300347-003 | | E18N31AK-MSD | | |
| **Date Sampled...:** | 05/30/02 09:22 | **Date Received..:** | 05/30/02 15:20 | **MS Run #.....:** | 2155243 |
| **Prep Date.....:** | 06/04/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2155393 | **Analysis Time..:** | 04:17 | | |
| **Dilution Factor:** | 1 | **Analyst ID.....:** | 004648 | **Instrument ID..:** | MSC |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | **94** | **(70 - 140)** | | | **SW846 8260B** |
| | **96** | **(70 - 140)** | **2.4** | **(0-25)** | **SW846 8260B** |
| Benzene | **98** | **(75 - 120)** | | | **SW846 8260B** |
| | **98** | **(75 - 120)** | **0.0** | **(0-25)** | **SW846 8260B** |
| Trichloroethene | **105** | **(70 - 130)** | | | **SW846 8260B** |
| | **106** | **(70 - 130)** | **1.2** | **(0-25)** | **SW846 8260B** |
| Toluene | **100** | **(75 - 125)** | | | **SW846 8260B** |
| | **102** | **(75 - 125)** | **1.2** | **(0-25)** | **SW846 8260B** |
| Chlorobenzene | **100** | **(75 - 120)** | | | **SW846 8260B** |
| | **99** | **(75 - 120)** | **0.80** | **(0-25)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 107 | (75 - 130) |
| | 108 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 107 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |
| | 106 | (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 #...:** | E2F010157 | **Work Order #...:** | E18N31AJ-MS | **Matrix.....:** | WATER |
| **MS Lot-Sample #:** | G2E300347-003 | | E18N31AK-MSD | | |
| **Date Sampled...:** | 05/30/02 09:22 | **Date Received..:** | 05/30/02 15:20 | **MS Run #.....:** | 2155243 |
| **Prep Date.....:** | 06/04/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2155393 | **Analysis Time..:** | 04:17 | | |
| **Dilution Factor:** | 1 | **Analyst ID.....:** | 004648 | **Instrument ID..:** | MSC |

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **1,1-Dichloroethene** | **ND** | **10.0** | **9.41** | **ug/L** | **94** | | **SW846 8260B** |
| | **ND** | **10.0** | **9.64** | **ug/L** | **96** | **2.4** | **SW846 8260B** |
| **Benzene** | **ND** | **10.0** | **9.82** | **ug/L** | **98** | | **SW846 8260B** |
| | **ND** | **10.0** | **9.82** | **ug/L** | **98** | **0.0** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **10.0** | **10.5** | **ug/L** | **105** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.6** | **ug/L** | **106** | **1.2** | **SW846 8260B** |
| **Toluene** | **ND** | **10.0** | **10.0** | **ug/L** | **100** | | **SW846 8260B** |
| | **ND** | **10.0** | **10.2** | **ug/L** | **102** | **1.2** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **10.0** | **9.95** | **ug/L** | **100** | | **SW846 8260B** |
| | **ND** | **10.0** | **9.87** | **ug/L** | **99** | **0.80** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 107 | (75 - 130) |
| | 108 | (75 - 130) |
| 1,2-Dichloroethane-d4 | 107 | (65 - 135) |
| | 107 | (65 - 135) |
| Toluene-d8 | 104 | (80 - 130) |
| | 106 | (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

### GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| Client Lot #...: | E2F010157 | Work Order #...: | E2AD81CT-MS | Matrix.....: | SOLID |
| MS Lot-Sample #: | G2E310257-001 | | E2AD81CU-MSD | | |
| Date Sampled...: | 05/29/02 07:45 | Date Received..: | 05/31/02 09:10 | MS Run #.....: | 2156145 |
| Prep Date.....: | 06/04/02 | Analysis Date..: | 06/04/02 | | |
| Prep Batch #...: | 2156314 | Analysis Time..: | 14:59 | | |
| Dilution Factor: | 1 | Analyst ID.....: | 064667 | Instrument ID..: | MSD |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | **128** | **(65 - 150)** | | | **SW846 8260B** |
| | **124** | **(65 - 150)** | **3.8** | **(0-30)** | **SW846 8260B** |
| Benzene | **128** | **(70 - 130)** | | | **SW846 8260B** |
| | **123** | **(70 - 130)** | **3.7** | **(0-30)** | **SW846 8260B** |
| Trichloroethene | **148 a,MSC** | **(70 - 135)** | | | **SW846 8260B** |
| | **139 a,MSC** | **(70 - 135)** | **6.1** | **(0-30)** | **SW846 8260B** |
| Toluene | **118** | **(70 - 130)** | | | **SW846 8260B** |
| | **112** | **(70 - 130)** | **5.4** | **(0-30)** | **SW846 8260B** |
| Chlorobenzene | **116** | **(70 - 130)** | | | **SW846 8260B** |
| | **112** | **(70 - 130)** | **4.0** | **(0-30)** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 103 | (65 - 135) |
| | 99 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 130 | (60 - 140) |
| | 123 | (60 - 140) |
| Toluene-d8 | 112 | (70 - 130) |
| | 102 | (70 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

## MATRIX SPIKE SAMPLE DATA REPORT

### GC/MS Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E2AD81CT-MS | **Matrix.....:** | SOLID |
| **MS Lot-Sample #:** | G2E310257-001 | | E2AD81CU-MSD | | |
| **Date Sampled...:** | 05/29/02 07:45 | **Date Received..:** | 05/31/02 09:10 | **MS Run #.....:** | 2156145 |
| **Prep Date.....:** | 06/04/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2156314 | **Analysis Time..:** | 14:59 | | |
| **Dilution Factor:** | 1 | **Analyst ID.....:** | 064667 | **Instrument ID..:** | MSD |

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **1,1-Dichloroethene** | **ND** | **52.0** | **66.7** | **ug/kg** | **128** | | **SW846 8260B** |
| | **ND** | **52.0** | **64.2** | **ug/kg** | **124** | **3.8** | **SW846 8260B** |
| **Benzene** | **ND** | **52.0** | **66.4** | **ug/kg** | **128** | | **SW846 8260B** |
| | **ND** | **52.0** | **64.0** | **ug/kg** | **123** | **3.7** | **SW846 8260B** |
| **Trichloroethene** | **ND** | **52.0** | **76.9** | **ug/kg** | **148** | | **SW846 8260B** |
| | Qualifiers: | a,MSC | | | | | |
| | **ND** | **52.0** | **72.4** | **ug/kg** | **139** | **6.1** | **SW846 8260B** |
| | Qualifiers: | a,MSC | | | | | |
| **Toluene** | **ND** | **52.0** | **61.3** | **ug/kg** | **118** | | **SW846 8260B** |
| | **ND** | **52.0** | **58.0** | **ug/kg** | **112** | **5.4** | **SW846 8260B** |
| **Chlorobenzene** | **ND** | **52.0** | **60.5** | **ug/kg** | **116** | | **SW846 8260B** |
| | **ND** | **52.0** | **58.2** | **ug/kg** | **112** | **4.0** | **SW846 8260B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Bromofluorobenzene | 103 | (65 - 135) |
| | 99 | (65 - 135) |
| 1,2-Dichloroethane-d4 | 130 | (60 - 140) |
| | 123 | (60 - 140) |
| Toluene-d8 | 112 | (70 - 130) |
| | 102 | (70 - 130) |

**NOTE(S):**

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a · Spiked analyte recovery is outside stated control limits.

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E16J41C6-MS | **Matrix.....:** | SOLID |
| **MS Lot-Sample #:** | E2E290277-010 | | E16J41C7-MSD | | |
| **Date Sampled...:** | 05/29/02 09:30 | **Date Received..:** | 05/29/02 17:35 | **MS Run #.....:** | 2155201 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/03/02 | | |
| **Prep Batch #...:** | 2155361 | **Analysis Time..:** | 14:49 | | |
| **Dilution Factor:** | 1 | **Analyst ID.....:** | 001464 | **Instrument ID..:** | G16 |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **TPH (as Gasoline)** | **107** | **(70 - 140)** | | | **SW846 8015B** |
| | **104** | **(70 - 140)** | **2.8** | **(0-40)** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 105 | (60 - 130) |
| | 102 | (60 - 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 Volatiles

| | | | | | |
|---|---|---|---|---|---|
| Client Lot #...: | E2F010157 | Work Order #...: | E16J41C6-MS | Matrix.....: | SOLID |
| MS Lot-Sample #: | E2E290277-010 | | E16J41C7-MSD | | |
| Date Sampled...: | 05/29/02 09:30 | Date Received..: | 05/29/02 17:35 | MS Run #.....: | 2155201 |
| Prep Date.....: | 06/03/02 | Analysis Date..: | 06/03/02 | | |
| Prep Batch #...: | 2155361 | Analysis Time..: | 14:49 | | |
| Dilution Factor: | 1 | Analyst ID.....: | 001464 | Instrument ID..: | G16 |

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **TPH (as Gasoline)** | **ND** | **5.00** | **5.33** | **mg/kg** | **107** | | **SW846 8015B** |
| | **ND** | **5.00** | **5.19** | **mg/kg** | **104** | **2.8** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| a,a,a-Trifluorotoluene (TFT) | 105 | (60 - 130) |
| | 102 | (60 - 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

### GC Semivolatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E2AD91AG-MS | **Matrix.....:** | SOLID |
| **MS Lot-Sample #:** | E2E310258-001 | | E2AD91AH-MSD | | |
| **Date Sampled...:** | 05/31/02 | **Date Received..:** | 05/31/02 14:00 | **MS Run #.....:** | 2154216 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2154442 | **Analysis Time..:** | 18:29 | | |
| **Dilution Factor:** | 100 | **Analyst ID.....:** | 356074 | **Instrument ID..:** | G02 |

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| TPH (as Diesel) | **0.0 NC,MS** | **(55 - 130)** | | | **SW846 8015B** |
| | **0.0 NC,MS** | **(55 - 130)** | **0.0** | **(0-35)** | **SW846 8015B** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 0.0 | (60 - 130) |
| | Qualifiers: DIL,* | |
| | 0.0 | (60 - 130) |
| | Qualifiers: DIL,* | |

NOTE(S):

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

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

## MATRIX SPIKE SAMPLE DATA REPORT

### GC Semivolatiles

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot #...:** | E2F010157 | **Work Order #...:** | E2AD91AG-MS | **Matrix.....:** | SOLID |
| **MS Lot-Sample #:** | E2E310258-001 | | E2AD91AH-MSD | | |
| **Date Sampled...:** | 05/31/02 | **Date Received..:** | 05/31/02 14:00 | **MS Run #.....:** | 2154216 |
| **Prep Date.....:** | 06/03/02 | **Analysis Date..:** | 06/04/02 | | |
| **Prep Batch #...:** | 2154442 | **Analysis Time..:** | 18:29 | | |
| **Dilution Factor:** | 100 | **Analyst ID.....:** | 356074 | **Instrument ID..:** | G02 |

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **TPH (as Diesel)** | **23000** | **250** | | **mg/kg** | **0.0** | | **SW846 8015B** |
| | Qualifiers: | | NC,MSB | | | | |
| | **23000** | **250** | | **mg/kg** | **0.0** | **0.0** | **SW846 8015B** |
| | Qualifiers: | | NC,MSB | | | | |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Benzo(a)pyrene | 0.0 | (60 - 130) |
| | Qualifiers: DIL,* | |
| | 0.0 | (60 - 130) |
| | Qualifiers: DIL,* | |

**NOTE(S):**

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

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| **MS Lot-Sample #:** E2E290277-010 **Prep Batch #...:** 2154211 | | | | | | | |
| Aluminum | NC | (70 - 115) | | | SW846 6010B | 06/03-06/04/02 | E16J41C9 |
| | NC | (70 - 115) | | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41DA |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Arsenic | 97 | (75 - 115) | | | SW846 6010B | 06/03-06/04/02 | E16J41A2 |
| | 99 | (75 - 115) | 2.2 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41A3 |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Antimony | 30 N | (75 - 115) | | | SW846 6010B | 06/03-06/04/02 | E16J41A4 |
| | 29 N | (75 - 115) | 4.0 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41A5 |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Barium | 96 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41A6 |
| | 109 | (80 - 120) | 10 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41A7 |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Cadmium | 94 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41A8 |
| | 97 | (80 - 120) | 2.8 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41A9 |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Chromium | 105 | (85 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CA |
| | 127 N | (85 - 120) | 12 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CC |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Beryllium | 99 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CD |
| | 103 | (80 - 120) | 3.3 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CE |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |

(Continued on next page)

## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| Lead | 95 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CF |
| | 98 | (80 - 120) | 3.0 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CG |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Selenium | 89 | (70 - 115) | | | SW846 6010B | 06/03-06/04/02 | E16J41CH |
| | 90 | (70 - 115) | 1.2 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CJ |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Silver | 94 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CK |
| | 96 | (80 - 120) | 2.6 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CL |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Cobalt | 94 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CM |
| | 99 | (80 - 120) | 4.2 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CN |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Copper | 98 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CP |
| | 112 | (80 - 120) | 9.8 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CQ |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Molybdenum | 93 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CR |
| | 94 | (80 - 120) | 1.8 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CT |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |
| Nickel | 94 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41CU |
| | 100 | (80 - 120) | 4.9 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CV |
| | | Dilution Factor: 1 | | | | | |
| | | Analysis Time..: 12:52 | | | Instrument ID..: M01 | Analyst ID.....: 021088 | |
| | | MS Run #.....: 2154078 | | | | | |

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## MATRIX SPIKE SAMPLE EVALUATION REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|
| Thallium | 95 | (75 - 125) | | | SW846 6010B | 06/03-06/04/02 | E16J41CW |
| | 97 | (75 - 125) | 1.7 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41CX |

Dilution Factor: 1
Analysis Time..: 12:52 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 2154078

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Vanadium | 96 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41C0 |
| | 111 | (80 - 120) | 9.9 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41C1 |

Dilution Factor: 1
Analysis Time..: 12:52 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 2154078

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Zinc | 91 | (80 - 120) | | | SW846 6010B | 06/03-06/04/02 | E16J41C2 |
| | 107 | (80 - 120) | 10 | (0-25) | SW846 6010B | 06/03-06/04/02 | E16J41C3 |

Dilution Factor: 1
Analysis Time..: 12:52 Instrument ID..: M01 Analyst ID.....: 021088
MS Run #.....: 2154078

**MS Lot-Sample #:** E2E290277-010 **Prep Batch #...:** 2154215

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mercury | 112 | (80 - 120) | | | SW846 7471A | 06/03-06/07/02 | E16J41C4 |
| | 123 N | (80 - 120) | 9.4 | (0-20) | SW846 7471A | 06/03-06/07/02 | E16J41C5 |

Dilution Factor: 1
Analysis Time..: 09:31 Instrument ID..: M04 Analyst ID.....: 000023
MS Run #.....: 2154083

**NOTE(S):**

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

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

**MS Lot-Sample #:** E2E290277-010 **Prep Batch #...:** 2154211

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | |
| | 5560 | 200 | 6650 NC | mg/kg | | | SW846 6010B | 06/03-06/04/02 | E16J41C9 |
| | 5560 | 200 | 8530 NC | mg/kg | | | SW846 6010B | 06/03-06/04/02 | E16J41DA |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Arsenic | | | | | | | | | |
| | 2.9 | 200 | 196 | mg/kg | 97 | | SW846 6010B | 06/03-06/04/02 | E16J41A2 |
| | 2.9 | 200 | 201 | mg/kg | 99 | 2.2 | SW846 6010B | 06/03-06/04/02 | E16J41A3 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Antimony | | | | | | | | | |
| | ND | 50.0 | 14.9 N | mg/kg | 30 | | SW846 6010B | 06/03-06/04/02 | E16J41A4 |
| | ND | 50.0 | 14.3 N | mg/kg | 29 | 4.0 | SW846 6010B | 06/03-06/04/02 | E16J41A5 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Barium | | | | | | | | | |
| | 47.3 | 200 | 240 | mg/kg | 96 | | SW846 6010B | 06/03-06/04/02 | E16J41A6 |
| | 47.3 | 200 | 266 | mg/kg | 109 | 10 | SW846 6010B | 06/03-06/04/02 | E16J41A7 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Cadmium | | | | | | | | | |
| | 0.11 | 5.00 | 4.81 | mg/kg | 94 | | SW846 6010B | 06/03-06/04/02 | E16J41A8 |
| | 0.11 | 5.00 | 4.95 | mg/kg | 97 | 2.8 | SW846 6010B | 06/03-06/04/02 | E16J41A9 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Chromium | | | | | | | | | |
| | 12.4 | 20.0 | 33.5 | mg/kg | 105 | | SW846 6010B | 06/03-06/04/02 | E16J41CA |
| | 12.4 | 20.0 | 37.9 N | mg/kg | 127 | 12 | SW846 6010B | 06/03-06/04/02 | E16J41CC |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |

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## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | | | | | | | |
| | 0.31 | 5.00 | 5.26 | mg/kg | 99 | | SW846 6010B | 06/03-06/04/02 | E16J41CD |
| | 0.31 | 5.00 | 5.44 | mg/kg | 103 | 3.3 | SW846 6010B | 06/03-06/04/02 | E16J41CE |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Lead | | | | | | | | | |
| | 2.5 | 50.0 | 50.0 | mg/kg | 95 | | SW846 6010B | 06/03-06/04/02 | E16J41CF |
| | 2.5 | 50.0 | 51.6 | mg/kg | 98 | 3.0 | SW846 6010B | 06/03-06/04/02 | E16J41CG |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Selenium | | | | | | | | | |
| | 0.87 | 200 | 179 | mg/kg | 89 | | SW846 6010B | 06/03-06/04/02 | E16J41CH |
| | 0.87 | 200 | 182 | mg/kg | 90 | 1.2 | SW846 6010B | 06/03-06/04/02 | E16J41CJ |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Silver | | | | | | | | | |
| | ND | 5.00 | 4.68 | mg/kg | 94 | | SW846 6010B | 06/03-06/04/02 | E16J41CK |
| | ND | 5.00 | 4.81 | mg/kg | 96 | 2.6 | SW846 6010B | 06/03-06/04/02 | E16J41CL |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Cobalt | | | | | | | | | |
| | 4.0 | 50.0 | 51.1 | mg/kg | 94 | | SW846 6010B | 06/03-06/04/02 | E16J41CM |
| | 4.0 | 50.0 | 53.3 | mg/kg | 99 | 4.2 | SW846 6010B | 06/03-06/04/02 | E16J41CN |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Copper | | | | | | | | | |
| | 8.9 | 25.0 | 33.4 | mg/kg | 98 | | SW846 6010B | 06/03-06/04/02 | E16J41CP |
| | 8.9 | 25.0 | 36.9 | mg/kg | 112 | 9.8 | SW846 6010B | 06/03-06/04/02 | E16J41CQ |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |

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## MATRIX SPIKE SAMPLE DATA REPORT

### TOTAL Metals

**Client Lot #...:** E2F010157 **Matrix.....:** SOLID
**Date Sampled...:** 05/29/02 09:30 **Date Received..:** 05/29/02 17:35

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCNT RECVRY | RPD | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | | | | | | | | | |
| | 1.3 | 100 | 93.8 | mg/kg | 93 | | SW846 6010B | 06/03-06/04/02 | E16J41CR |
| | 1.3 | 100 | 95.6 | mg/kg | 94 | 1.8 | SW846 6010B | 06/03-06/04/02 | E16J41CT |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Nickel | | | | | | | | | |
| | 9.9 | 50.0 | 57.1 | mg/kg | 94 | | SW846 6010B | 06/03-06/04/02 | E16J41CU |
| | 9.9 | 50.0 | 60.0 | mg/kg | 100 | 4.9 | SW846 6010B | 06/03-06/04/02 | E16J41CV |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Thallium | | | | | | | | | |
| | ND | 200 | 191 | mg/kg | 95 | | SW846 6010B | 06/03-06/04/02 | E16J41CW |
| | ND | 200 | 194 | mg/kg | 97 | 1.7 | SW846 6010B | 06/03-06/04/02 | E16J41CX |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Vanadium | | | | | | | | | |
| | 21.5 | 50.0 | 69.7 | mg/kg | 96 | | SW846 6010B | 06/03-06/04/02 | E16J41C0 |
| | 21.5 | 50.0 | 77.0 | mg/kg | 111 | 9.9 | SW846 6010B | 06/03-06/04/02 | E16J41C1 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |
| Zinc | | | | | | | | | |
| | 30.0 | 50.0 | 75.4 | mg/kg | 91 | | SW846 6010B | 06/03-06/04/02 | E16J41C2 |
| | 30.0 | 50.0 | 83.7 | mg/kg | 107 | 10 | SW846 6010B | 06/03-06/04/02 | E16J41C3 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 12:52 | | Instrument ID..: M01 | | | Analyst ID.....: 021088 | |
| | | | MS Run #.....: 2154078 | | | | | | |

**MS Lot-Sample #:** E2E290277-010 **Prep Batch #...:** 2154215

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | | | | | | | |
| | ND | 0.167 | 0.187 | mg/kg | 112 | | SW846 7471A | 06/03-06/07/02 | E16J41C4 |
| | ND | 0.167 | 0.205 N | mg/kg | 123 | 9.4 | SW846 7471A | 06/03-06/07/02 | E16J41C5 |
| | | | Dilution Factor: 1 | | | | | | |
| | | | Analysis Time..: 09:31 | | Instrument ID..: M04 | | | Analyst ID.....: 000023 | |
| | | | MS Run #.....: 2154083 | | | | | | |

**NOTE(S):**

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

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.