N62269.AR.000396
NAWC WARMINSTER
5090.3a

661 Andersen Drive
Pittsburgh, PA 15220-2745

**Brown & Root Environmental**

A Division of Halliburton NUS Corporation

(412) 921-7090
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C-49-10-6-121

October 15, 1996

Project Number 1412

Mr. Lonnie Monaco, Code 1823
U.S. Department of the Navy
Naval Facilities Engineering Command
Northern Division, Mail Stop 82
10 Industrial Highway
Lester, Pennsylvania 19113-2090

SUBJECT: Technical Memorandum
Site 4 Removal Action
Trench 0 and Trench 2 Verification Sampling Results

Dear Mr. Monaco:

The following summarizes the results of the Trench 2 verification sampling and the second round of verification sampling performed for Trench 0 during the Site 4 Removal Action. Both sets of samples were obtained during the same sampling event and analyzed together.

**TRENCH 1 RESULTS**

The entire trench has not been excavated/sampled, due to the present usage of the western portion of the trench area for equipment operations associated with the Site 4 removal action. A total of 7 additional samples were taken from the trench, as shown in the attached sketch map (samples TR00-08 through TR00-013, plus sample TR00-00, a duplicate of TR00-08). The samples were analyzed for the indicator parameters, including purgeable halocarbons, PAHs, PCBs, and thallium. Raw analytical data from the lab is attached to this memo.

For the volatile organics analyses (purgeable halocarbons and TCL volatiles), there were no positive detections of any VOCs, thus no actions are required based on the VOC results.

Low levels of PAHs were detected in 3 of the samples. The only detection above the target cleanup level was 0.78 mg/kg of benzo(a)pyrene (target concentration 0.6 mg/kg) in sample TR00-13. Samples TR00-12 and TR00-13 had positive detections of a number of PAH's and were obtained from the same trench area (12 was a bottom sample, while 13 was a sidewall sample).

There were no positive detections of any PCBs, thus no actions are needed due to PCB levels.

Thallium detections ranged up to 1.6 mg/kg, well below the target concentration of 2.9 mg/kg for this compound, thus no actions are required due to thallium levels.

Based on the analytical results, it is recommended that additional excavation be performed at sample location TR00-12/TR00-13, with followup sampling for PAH's. The remaining areas of the trench that have been sampled should be suitable for backfilling without any additional soils removal.

## TRENCH 2 RESULTS

A total of 22 samples were taken from the trench, as shown in the attached sketch map (samples TR02-00 through TR02-21). No potential hot spot areas were identified, however 4 of the samples taken were analyzed for the full suite of analytical parameters (TCL volatiles and semivolatiles, TAL metals, and pesticides/PCBs) as part of the overall sampling strategy of analyzing 20% of the samples for full TCL/TAL parameters. The remaining samples were analyzed for the indicator parameters, including purgeable halocarbons, PAHs, PCBs, and thallium. Raw analytical data from the lab is attached to this memo.

For the volatile organics analyses (purgeable halocarbons and TCL volatiles), the only positive detections of any VOCs were 2 detections of methylene chloride (a common lab artifact) at 4 ug/kg. The target concentration for this compound is 300 ug/kg, thus no actions are required based on the VOC results.

PAHs were detected at low levels in 2 of the samples (TR02-01 and TR02-09). The concentrations were more than an order of magnitude below the applicable target concentrations, thus no actions are required due to PAHs.

There were no positive detections of any pesticides or PCBs, thus no actions are needed due to pesticide or PCB levels.

Thallium detections ranged up to 2.4 mg/kg, well below the target concentration of 2.9 mg/kg for this compound. For the remaining metals results, the positive detections were screened against NAWC background concentrations, given in Table 2. The metals concentrations that exceeded background (copper, selenium, and sodium) were compared against the calculated target concentrations (Table 1). There were no exceedances of target concentrations for these metals, thus no actions are required due to metals levels.

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Based on the analytical results, there were no exceedances of target concentrations in any of the Trench 2 samples. As a result of this absence of any indicators of residual contamination, Trench 2 should be suitable for backfilling without any further soil removal.

If you have any questions regarding the above information or would like to discuss it further, please call me at (412) 921-8778.

Sincerely yours,

Jeffrey P. Orient, P.G.
Project Manager

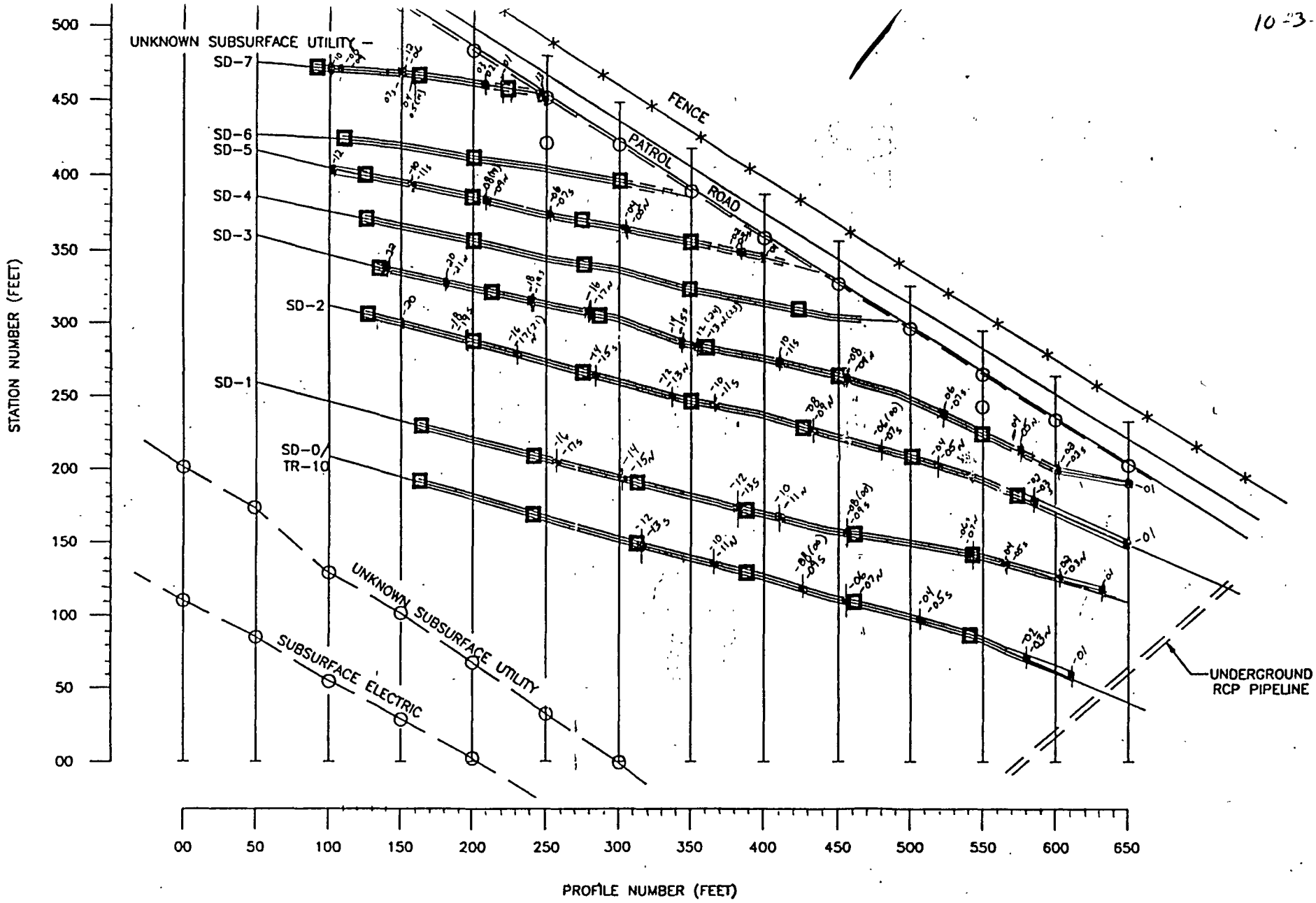
JPO/sic

Attachments

c: T. Ames
J. Dale
S. Lehman
D. Kennedy
D. Ostrauskas
G. Glenn
N. Teamerson
File: 1412

# SAMPLE LOCATION MAP

10-3-96




Note: Map developed from Halliburton NUS Corporation, Engineering Evaluation/Cost Analysis for Site 4 (North Runway Landfill), NAWC, Warminster, PA, Site 4 Contents of Trenches, July, 1995.

0 80 160
SCALE IN FEET

**CALCULATION WORKSHEET** Order No. 19116 (01-91) PAGE ____ OF ____

| CLIENT | JOB NUMBER |
|---|---|
| | |

SUBJECT: TR00 – TR02 Sample Locations

| BASED ON | DRAWING NUMBER |
|---|---|
| | |

| BY | CHECKED BY | APPROVED BY | DATE |
|---|---|---|---|
| | | | |

| | Profile | Station |
|---|---|---|
| TR00-08 | 427 | 120 |
| -09 | 427 | 120 |
| -10 | 368 | 140 |
| -11 | 368 | 140 |
| -12 | 317 | 150 |
| -13 | 317 | 150 |
| -00 | 427 | 120 |
| | | |
| TR02-00 | | 230 |
| -01 | 650 | 150 |
| -02 | 584 | 180 |
| -03 | 584 | 180 |
| -04 | 519 | 210 |
| -05 | 519 | 210 |
| -06 | 480 | 220 |
| -07 | 480 | 220 |
| -08 | 432 | 230 |
| -09 | 432 | 230 |
| -10 | 367 | 245 |
| -11 | 367 | 245 |
| -12 | 337 | 250 |
| -13 | 337 | 250 |
| -14 | 284 | 265 |
| -15 | 284 | 265 |
| -16 | 231 | 280 |
| -17 | 231 | 280 |
| -18 | 196 | 290 |
| -19 | 196 | 290 |
| -20 | 150 | 300 |
| -21 | 231 | 280 |

# TABLES

TABLE 1

TARGET CLEAN-UP CONCENTRATIONS

| | | PADEP (1) | RISK-BASED (2)(4) | GROUNDWATER PROTECTION (3)(4) | MINIMUM (4) |
|---|---|---|---|---|---|
| | | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Benzo(a)anthracene | | 6 | 17 | 1.5 | 1 5 |
| Benzo(b)fluoranthene | | 6 | 17 | 4.5 | 4 5 |
| Benzo(k)fluoranthene | | NA | 170 | 45 | 45 |
| Benzo(ghi)perylene | | 500 | NA | 96000 | 500 |
| Benzo(a)pyrene | | 0.6 | 1.7 | 82 | 0.6 |
| Acenaphthene | | 30 | 76000 | 630 | 30 |
| Acenaphthylene | | NA | NA | 160 | 160 |
| Anthracene | | 70 | 380000 | 13000 | 70 |
| Chrysene | | 500 | 1700 | 150 | 150 |
| Dibenzo(a,h)anthracene | | 0.6 | 1.7 | 1.4 | 0 6 |
| Fluoranthene | | 400 | 50400 | 6400 | 400 |
| Fluorene | | 40 | 50400 | 830 | 40 |
| Indeno(1,2,3,-cd)pyrene | | 6 | 17 | 13 | 6 |
| 2-Methylnaphthalene | | NA | NA | 140 | 140 |
| Naphthalene | | 8 | 50400 | 140 | 8 |
| Phenanthrene | | 80 | NA | 850 | 80 |
| Pyrene | | 300 | 38000 | 4600 | 300 |
| Acetone | | 0.03 | 130000 | 340 | 0.03 |
| Chlorobenzene | | 10 | 25000 | 3.6 | 3.6 |
| Methylene chloride | | 0.3 | 1700 | 0.46 | 0 3 |
| Aluminum | | NA | 1300000 | 3400 | 3400 |
| Antimony | | 30 | 504 | 5.4 | 5 4 |
| Arsenic | | 3 | 8.4 | 29 | 3 |
| Barium | | 5000 | 88000 | 1700 | 1700 |
| Beryllium | | 1 | 2.9 | 63 | 1 |
| Cadmium | | 20 | 630 | 7.5 | 7.5 |
| Calcium | | NA | NA | NA | NA |
| Chromium | | 10 | 6300 | 38 | 10 |
| Cobalt | | NA | 76000 | 202 | 202 |
| Copper | | 100 | 50400 | 120 | 100 |
| Iron | | NA | 380000 | 1010 | 1010 |
| Lead | | 200 | NA | 1.4 | 1.4 |
| Magnesium | | NA | NA | NA | NA |
| Manganese | | 400 | 29000 | 77 | 77 |
| Mercury | | 20 | 380 | 2.1 | 2 1 |
| Nickel | | 200 | 25000 | 130 | 130 |
| Potassium | | NA | NA | NA | NA |
| Selenium | | 50 | 6300 | 5.2 | 5.2 |
| Silver | | 400 | 6300 | 31 | 31 |
| Sodium | | NA | NA | NA | NA |
| Thallium | | 6 | 101 | 2.9 | 2.9 |
| Vanadium | | NA | 8800 | 5200 | 5200 |
| Zinc | | 1000 | 380000 | 14000 | 1000 |

FOOTNOTES:

(1) Values presented are from the "Technical Manual , Pennsylvania's Land Recycling, Revison 1 to Appendix B2 (Statewide Human Health Standards for Soils)," 4/26/96.

(2) USEPA Region III Risk-Based Concentration Table, January-June 1996.

(3) Three references: "Soil Screening Guidance: User's Guide", April 1996, "Aquatic Fate Process Data for Organic Priority Pollutants" , USEPA, 1982 and the " Drinking Water Regulations and Health Advisories", February 1996 were used to obtain groundwater protection values.

(4) Values were presented with two significant figures.

TABLE 2
BACKGROUND SOIL SAMPLING RESULTS

| ANALYTE | AREA B/SITE 4 RANGE | ENERAL BACKGROUN RANGE | COMBINED RANGES |
|---|---|---|---|
| ALUMINUM | 4780 - 17500 | 11200 - 18100 | 4780 - 18100 |
| ANTIMONY | 13.6 - 13.6 | NA | 13.6 |
| ARSENIC | 0.28 - 6.1 | 3.7 - 12.1 | 0.28 - 12.1 |
| BARIUM | 34.6 - 225 | 34.1 - 115 | 34.1 - 225 |
| BERYLLIUM | 0.31 - 1.7 | 0.64 - 1.1 | 0.31 - 1.7 |
| CADMIUM | NOT DETECTED | NOT DETECTED | NA |
| CALCIUM | 240 - 1910 | 520 - 1100 | 240 - 1910 |
| CHROMIUM | 7.9 - 25 | 12 - 35.3 | 7.9 - 35.3 |
| COBALT | 1.6 - 21.1 | 6.2 - 14.4 | 1.6 - 21.1 |
| COPPER | 3.6 - 30.6 | 6.5 - 22.7 | 3.6 - 30.6 |
| IRON | 6980 - 28900 | 14400 - 39900 | 6980 - 39900 |
| LEAD | 1.6 - 23.5 | 6.7 - 96.5 | 1.6 - 96.5 |
| MAGNESIUM | 518 - 4960 | 1810 - 3080 | 518 - 4960 |
| MANGANESE | 30.9 - 2010 | 124 - 718 | 30.9 - 2010 |
| MERCURY | 0.25 - 0.25 | NOT DETECTED | 0.25 - 0.25 |
| NICKEL | 4.1 - 19.1 | 8.1 - 17.5 | 4.1 - 19.1 |
| POTASSIUM | 89.1 - 3050 | 465 - 1240 | 89.1 - 3050 |
| SELENIUM | NOT DETECTED | NOT DETECTED | NA |
| SILVER | NOT DETECTED | NA | NA |
| SODIUM | 55.2 - 86.7 | NOT DETECTED | 55.2 - 86.7 |
| THALLIUM | 0.42 - 0.42 | NA | 0.42 - 0.42 |
| VANADIUM | 15.7 - 37.9 | 18.1 - 45 | 15.7 - 45 |
| ZINC | 9.0 - 48.6 | 19.6 - 60 | 9.0 - 60 |
| CYANIDE | NOT DETECTED | NA | NA |

# ANALYTICAL RESULTS
# TRENCH SAMPLES

Date: 10/08/96
Time: 11:57:22

ANALYTICAL RESULTS

Rept: AN0353
Page: 1

| Client Sample ID: | | W-TR00-00 | | W-TR00-08 | | W-TR00-09 | | W-TR00-10 | | W-TR00-11 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486019 | | A96-4860 A6486018 | | A96-4B60 A6486023 | | A96-4B60 A6486021 | | A96-4860 A6486020 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | | | | | | |
| Bromodichloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromoform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromomethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloroethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-Chloroethylvinyl ether | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Chloroform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloromethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Dibromochloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,3-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,4-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Methylene chloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Tetrachloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichlorofluoromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Vinyl chloride | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| Bromochloromethane | 50-200 | 105 | | 101 | | 104 | | 114 | | 97 | |
| 1,4-Difluorobenzene | 50-200 | 118 | | 110 | | 111 | | 114 | | 100 | |
| Chlorobenzene-D5 | 50-200 | 114 | | 105 | | 119 | | 116 | | 100 | |
| SURROGATES | | | | | | | | | | | |
| Toluene-D8 | 81-117 | 94 | | 94 | | 89 | | 85 | | 91 | |
| p-Bromofluorobenzene | 74-121 | 93 | | 92 | | 90 | | 90 | | 93 | |
| 1,2-Dichloroethane-D4 | 80-120 | 92 | | 93 | | 93 | | 93 | | 92 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable

| Client Sample ID: | | W-TR00-12 | | W-TR00-13 | | W-TR02-00 | | W-TR02-01 | | W-TR02-02 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486022 | | A96-4860 A6486024 | | A96-4860 A6486030 | | A96-4860 A6486025 | | A96-4860 A6486026 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | | | | | | |
| Bromodichloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromoform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromomethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloroethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-Chloroethylvinyl ether | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Chloroform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloromethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Dibromochloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,3-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,4-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Methylene chloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Tetrachloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichlorofluoromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Vinyl chloride | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| Bromochloromethane | 50-200 | 130 | | 97 | | 125 | | 101 | | 118 | |
| 1,4-Difluorobenzene | 50-200 | 124 | | 100 | | 123 | | 105 | | 130 | |
| Chlorobenzene-D5 | 50-200 | 113 | | 90 | | 116 | | 96 | | 122 | |
| SURROGATES | | | | | | | | | | | |
| Toluene-D8 | 81-117 | 95 | | 98 | | 92 | | 96 | | 94 | |
| p-Bromofluorobenzene | 74-121 | 91 | | 87 | | 94 | | 86 | | 89 | |
| 1,2-Dichloroethane-D4 | 80-120 | 90 | | 94 | | 92 | | 94 | | 90 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:08 ☎ 003/023

| Client Sample ID: | | W-TR02-03 | | W-TR02-04 | | W-TR02-05 | | W-TR02-06 | | W-TR02-07 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4B60 A6486027 | | A96-4B60 A6486028 | | A96-4B60 A6486014 | | A96-4B60 A6486029 | | A96-4B60 A6486031 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | | | | | | |
| Bromodichloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromoform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromomethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloroethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-Chloroethylvinyl ether | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Chloroform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloromethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Dibromochloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,3-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,4-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Methylene chloride | 5 | 5 | U | 4 | J | 5 | U | 4 | J | 5 | U |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Tetrachloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichlorofluoromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Vinyl chloride | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| Bromochloromethane | 50-200 | 97 | | 94 | | 90 | | 103 | | 105 | |
| 1,4-Difluorobenzene | 50-200 | 103 | | 105 | | 95 | | 103 | | 104 | |
| Chlorobenzene-D5 | 50-200 | 102 | | 102 | | 94 | | 105 | | 94 | |
| SURROGATES | | | | | | | | | | | |
| Toluene-D8 | 81-117 | 91 | | 94 | | 91 | | 90 | | 95 | |
| p-Bromofluorobenzene | 74-121 | 90 | | 92 | | 92 | | 92 | | 92 | |
| 1,2-Dichloroethane-D4 | 80-120 | 92 | | 92 | | 94 | | 90 | | 89 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:08 ⑧ 004/023

| Client Sample ID: | | W-TR02-08 | | W-TR02-09 | | W-TR02-10 | | W-TR02-11 | | W-TR02-12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | | A96-4860 A6486013 | | A96-4860 A6486002 | | A96-4860 A6486003 | | A96-4860 A6486004 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8260 - TCL VOLATILE ORGANICS | | | | | | | | | | | |
| Acetone | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Benzene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Bromodichloromethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Bromoform | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Bromomethane | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| 2-Butanone | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Carbon Disulfide | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Chlorobenzene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Chloroethane | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Chloroform | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Chloromethane | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Dibromochloromethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Ethylbenzene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 2-Hexanone | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Methylene chloride | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 4-Methyl-2-pentanone | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Styrene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Tetrachloroethene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Toluene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Trichloroethene | 5 | 5 | U | 5 | U | NA | | NA | | NA | |
| Vinyl acetate | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Vinyl chloride | 10 | 10 | U | 10 | U | NA | | NA | | NA | |
| Total Xylenes | 15 | 15 | U | 15 | U | NA | | NA | | NA | |
| INTERNAL STANDARDS | | | | | | | | | | | |
| Bromochloromethane | 50-200 | 116 | | 89 | | NA | | NA | | NA | |
| 1,4-Difluorobenzene | 50-200 | 114 | | 89 | | NA | | NA | | NA | |
| Chlorobenzene-D5 | 50-200 | 116 | | 90 | | NA | | NA | | NA | |
| SURROGATES | | | | | | | | | | | |
| Toluene-D8 | 81-117 | 91 | | 92 | | NA | | NA | | NA | |
| p-Bromofluorobenzene | 74-121 | 91 | | 93 | | NA | | NA | | NA | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:10

| Client Sample ID: | | W-TR02-08 | W-TR02-09 | W-TR02-10 | W-TR02-11 | W-TR02-12 |
|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | A96-4860 A6486013 | A96-4860 A6486002 | A96-4860 A6486003 | A96-4860 A6486004 |
| Sample Date: | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte (UG/KG) | RL | Result | Result | Result | Result | Result |
| METHOD 8260 - TCL VOLATILE ORGANICS | | | | | | |
| 1,2-Dichloroethane-D4 | 80-120 | 90 | 92 | NA | NA | NA |

| Analyte (UG/KG) | RL | Result | Result | Result | Result | Result |
|---|---|---|---|---|---|---|
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | |
| Bromodichloromethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| Bromoform | 5 | NA | NA | 5 U | 5 U | 5 U |
| Bromomethane | 10 | NA | NA | 10 U | 10 U | 10 U |
| Carbon Tetrachloride | 5 | NA | NA | 5 U | 5 U | 5 U |
| Chlorobenzene | 5 | NA | NA | 5 U | 5 U | 5 U |
| Chloroethane | 10 | NA | NA | 10 U | 10 U | 10 U |
| 2-Chloroethylvinyl ether | 10 | NA | NA | 10 U | 10 U | 10 U |
| Chloroform | 5 | NA | NA | 5 U | 5 U | 5 U |
| Chloromethane | 10 | NA | NA | 10 U | 10 U | 10 U |
| Dibromochloromethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,2-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,3-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,4-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,1-Dichloroethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,2-Dichloroethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,1-Dichloroethene | 5 | NA | NA | 5 U | 5 U | 5 U |
| cis-1,2-Dichloroethene | 5 | NA | NA | 5 U | 5 U | 5 U |
| trans-1,2-Dichloroethene | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,2-Dichloropropane | 5 | NA | NA | 5 U | 5 U | 5 U |
| cis-1,3-Dichloropropene | 5 | NA | NA | 5 U | 5 U | 5 U |
| trans-1,3-Dichloropropene | 5 | NA | NA | 5 U | 5 U | 5 U |
| Methylene chloride | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,1,2,2-Tetrachloroethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| Tetrachloroethene | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,1,1-Trichloroethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| 1,1,2-Trichloroethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| Trichloroethene | 5 | NA | NA | 5 U | 5 U | 5 U |
| Trichlorofluoromethane | 5 | NA | NA | 5 U | 5 U | 5 U |
| Vinyl chloride | 10 | NA | NA | 10 U | 10 U | 10 U |
| INTERNAL STANDARDS | | | | | | |
| Bromochloromethane | 50-200 | NA | NA | 90 | 109 | 116 |
| 1,4-Difluorobenzene | 50-200 | NA | NA | 88 | 109 | 115 |
| Chlorobenzene-D5 | 50-200 | NA | NA | 84 | 108 | 114 |
| SURROGATES | | | | | | |
| Toluene-D8 | 81-117 | NA | NA | 96 | 93 | 93 |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:10 ☎ 006/020

| Client Sample ID: | | W-TR02-13 | | W-TR02-14 | | W-TR02-15 | | W-TR02-16 | | W-TR02-17 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486012 | | A96-4860 A6486005 | | A96-4860 A6486006 | | A96-4860 A6486007 | | A96-4860 A6486011 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | | | | | | |
| Bromodichloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromoform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Bromomethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloroethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-Chloroethylvinyl ether | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Chloroform | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Chloromethane | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| Dibromochloromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,3-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,4-Dichlorobenzene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Methylene chloride | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Tetrachloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichloroethene | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Trichlorofluoromethane | 5 | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| Vinyl chloride | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| Bromochloromethane | 50-200 | 90 | | 94 | | 124 | | 127 | | 100 | |
| 1,4-Difluorobenzene | 50-200 | 92 | | 104 | | 126 | | 119 | | 104 | |
| Chlorobenzene-D5 | 50-200 | 90 | | 99 | | 126 | | 110 | | 101 | |
| SURROGATES | | | | | | | | | | | |
| Toluene-D8 | 81-117 | 93 | | 96 | | 92 | | 93 | | 92 | |
| p-Bromofluorobenzene | 74-121 | 92 | | 90 | | 92 | | 92 | | 92 | |
| 1,2-Dichloroethane-D4 | 80-120 | 93 | | 93 | | 90 | | 88 | | 90 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:12 ☎ 008/020

| Client Sample ID: / Job Number & Lab Sample ID: / Sample Date: | | W-TR02-18 A96-4860 A6486008 10/03/96 | | W-TR02-19 A96-4860 A6486009 10/03/96 | | W-TR02-20 A96-4860 A6486010 10/03/96 | W-TR02-21 A96-4860 A6486017 10/03/96 |
|---|---|---|---|---|---|---|---|
| Analyte (UG/KG) | RL | Result | | Result | | Result | Result |
| METHOD 8260 - TCL VOLATILE ORGANICS | | | | | | | |
| Acetone | 10 | 10 | U | 10 | U | NA | NA |
| Benzene | 5 | 5 | U | 5 | U | NA | NA |
| Bromodichloromethane | 5 | 5 | U | 5 | U | NA | NA |
| Bromoform | 5 | 5 | U | 5 | U | NA | NA |
| Bromomethane | 10 | 10 | U | 10 | U | NA | NA |
| 2-Butanone | 10 | 10 | U | 10 | U | NA | NA |
| Carbon Disulfide | 5 | 5 | U | 5 | U | NA | NA |
| Carbon Tetrachloride | 5 | 5 | U | 5 | U | NA | NA |
| Chlorobenzene | 5 | 5 | U | 5 | U | NA | NA |
| Chloroethane | 10 | 10 | U | 10 | U | NA | NA |
| Chloroform | 5 | 5 | U | 5 | U | NA | NA |
| Chloromethane | 10 | 10 | U | 10 | U | NA | NA |
| Dibromochloromethane | 5 | 5 | U | 5 | U | NA | NA |
| 1,1-Dichloroethane | 5 | 5 | U | 5 | U | NA | NA |
| 1,2-Dichloroethane | 5 | 5 | U | 5 | U | NA | NA |
| 1,1-Dichloroethene | 5 | 5 | U | 5 | U | NA | NA |
| cis-1,2-Dichloroethene | 5 | 5 | U | 5 | U | NA | NA |
| trans-1,2-Dichloroethene | 5 | 5 | U | 5 | U | NA | NA |
| 1,2-Dichloropropane | 5 | 5 | U | 5 | U | NA | NA |
| cis-1,3-Dichloropropene | 5 | 5 | U | 5 | U | NA | NA |
| trans-1,3-Dichloropropene | 5 | 5 | U | 5 | U | NA | NA |
| Ethylbenzene | 5 | 5 | U | 5 | U | NA | NA |
| 2-Hexanone | 10 | 10 | U | 10 | U | NA | NA |
| Methylene chloride | 5 | 5 | U | 5 | U | NA | NA |
| 4-Methyl-2-pentanone | 10 | 10 | U | 10 | U | NA | NA |
| Styrene | 5 | 5 | U | 5 | U | NA | NA |
| 1,1,2,2-Tetrachloroethane | 5 | 5 | U | 5 | U | NA | NA |
| Tetrachloroethene | 5 | 5 | U | 5 | U | NA | NA |
| Toluene | 5 | 5 | U | 5 | U | NA | NA |
| 1,1,1-Trichloroethane | 5 | 5 | U | 5 | U | NA | NA |
| 1,1,2-Trichloroethane | 5 | 5 | U | 5 | U | NA | NA |
| Trichloroethene | 5 | 5 | U | 5 | U | NA | NA |
| Vinyl acetate | 10 | 10 | U | 10 | U | NA | NA |
| Vinyl chloride | 10 | 10 | U | 10 | U | NA | NA |
| Total Xylenes | 15 | 15 | U | 15 | U | NA | NA |
| INTERNAL STANDARDS | | | | | | | |
| Bromochloromethane | 50-200 | 114 | | 105 | | NA | NA |
| 1,4-Difluorobenzene | 50-200 | 126 | | 105 | | NA | NA |
| Chlorobenzene-D5 | 50-200 | 139 | | 106 | | NA | NA |
| SURROGATES | | | | | | | |
| Toluene-D8 | 81-117 | 89 | | 90 | | NA | NA |
| p-Bromofluorobenzene | 74-121 | 88 | | 93 | | NA | NA |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:12 008/020

| Client Sample ID: | | W-TR02-18 | W-TR02-19 | W-TR02-20 | W-TR02-21 | |
|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486008 | A96-4860 A6486009 | A96-4860 A6486010 | A96-4860 A6486017 | |
| Sample Date: | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | Result | Result | Result | |
| METHOD 8260 - TCL VOLATILE ORGANICS | | | | | | |
| 1,2-Dichloroethane-D4 | 80-120 | 92 | 93 | NA | NA | |

| Analyte (UG/KG) | RL | Result | Result | Result | Result | |
|---|---|---|---|---|---|---|
| METHOD 8260 - PURGEABLE HALOCARBONS | | | | | | |
| Bromodichloromethane | 5 | NA | NA | 5 U | 5 U | |
| Bromoform | 5 | NA | NA | 5 U | 5 U | |
| Bromomethane | 10 | NA | NA | 10 U | 10 U | |
| Carbon Tetrachloride | 5 | NA | NA | 5 U | 5 U | |
| Chlorobenzene | 5 | NA | NA | 5 U | 5 U | |
| Chloroethane | 10 | NA | NA | 10 U | 10 U | |
| 2-Chloroethylvinyl ether | 10 | NA | NA | 10 U | 10 U | |
| Chloroform | 5 | NA | NA | 5 U | 5 U | |
| Chloromethane | 10 | NA | NA | 10 U | 10 U | |
| Dibromochloromethane | 5 | NA | NA | 5 U | 5 U | |
| 1,2-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | |
| 1,3-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | |
| 1,4-Dichlorobenzene | 5 | NA | NA | 5 U | 5 U | |
| 1,1-Dichloroethane | 5 | NA | NA | 5 U | 5 U | |
| 1,2-Dichloroethane | 5 | NA | NA | 5 U | 5 U | |
| 1,1-Dichloroethene | 5 | NA | NA | 5 U | 5 U | |
| cis-1,2-Dichloroethene | 5 | NA | NA | 5 U | 5 U | |
| trans-1,2-Dichloroethene | 5 | NA | NA | 5 U | 5 U | |
| 1,2-Dichloropropane | 5 | NA | NA | 5 U | 5 U | |
| cis-1,3-Dichloropropene | 5 | NA | NA | 5 U | 5 U | |
| trans-1,3-Dichloropropene | 5 | NA | NA | 5 U | 5 U | |
| Methylene chloride | 5 | NA | NA | 5 U | 5 U | |
| 1,1,2,2-Tetrachloroethane | 5 | NA | NA | 5 U | 5 U | |
| Tetrachloroethene | 5 | NA | NA | 5 U | 5 U | |
| 1,1,1-Trichloroethane | 5 | NA | NA | 5 U | 5 U | |
| 1,1,2-Trichloroethane | 5 | NA | NA | 5 U | 5 U | |
| Trichloroethene | 5 | NA | NA | 5 U | 5 U | |
| Trichlorofluoromethane | 5 | NA | NA | 5 U | 5 U | |
| Vinyl chloride | 10 | NA | NA | 10 U | 10 U | |
| INTERNAL STANDARDS | | | | | | |
| Bromochloromethane | 50-200 | NA | NA | 88 | 94 | |
| 1,4-Difluorobenzene | 50-200 | NA | NA | 84 | 106 | |
| Chlorobenzene-D5 | 50-200 | NA | NA | 63 | 102 | |
| SURROGATES | | | | | | |
| Toluene-D8 | 81-117 | NA | NA | 102 | 92 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:13

ANALYTICAL RESULTS



| Client Sample ID: | W-TR00-00 | | W-TR00-08 | | W-TR00-09 | | W-TR00-10 | | W-TR00-11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | A96-4860 A6486019 | | A96-4860 A6486018 | | A96-4860 A6486023 | | A96-4860 A6486021 | | A96-4860 A6486020 | |
| Sample Date: | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8080 - POLYCHLORINATED BIPHENYLS | | | | | | | | | | | |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 81 | | 82 | | 68 | | 78 | | 66 | |
| Decachlorobiphenyl | 58-150 | 86 | | 86 | | 73 | | 91 | | 72 | |

* Indicates Result Is Outside QC Limits
NA = Not Applicable



10/08/96 12:17 ☎ 016/023

| Client Sample ID: | | W-TR00-12 | | W-TR00-13 | | W-TR02-00 | | W-TR02-01 | | W-TR02-02 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486022 | | A96-4860 A6486024 | | A96-4860 A6486030 | | A96-4860 A6486025 | | A96-4860 A6486026 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8080 - POLYCHLORINATED BIPHENYLS | | | | | | | | | | | |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 75 | | 82 | | 86 | | 72 | | 62 | |
| Decachlorobiphenyl | 58-150 | 82 | | 86 | | 96 | | 74 | | 68 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:17 017/023

| Client Sample ID: | | W-TR02-03 | | W-TR02-04 | | W-TR02-05 | | W-TR02-06 | | W-TR02-07 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486027 | | A96-4860 A6486028 | | A96-4860 A6486014 | | A96-4860 A6486029 | | A96-4860 A6486031 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8080 - POLYCHLORINATED BIPHENYLS | | | | | | | | | | | |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 70 | | 82 | | 71 | | 64 | | 88 | |
| Decachlorobiphenyl | 58-150 | 75 | | 86 | | 76 | | 72 | | 89 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:18 ☎ 015/020

| Client Sample ID: | | W-TR02-10 | | W-TR02-11 | | W-TR02-12 | | W-TR02-13 | | W-TR02-14 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486002 | | A96-4860 A6486003 | | A96-4860 A6486004 | | A96-4860 A6486012 | | A96-4860 A6486005 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8080 - POLYCHLORINATED BIPHENYLS | | | | | | | | | | | |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 79 | | 84 | | 92 | | 77 | | 72 | |
| Decachlorobiphenyl | 58-150 | 82 | | 85 | | 78 | | 82 | | 70 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:18 ☎ 019/023

| Client Sample ID: | | W-TR02-15 | | W-TR02-16 | | W-TR02-17 | | W-TR02-20 | | W-TR02-21 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486006 | | A96-4860 A6486007 | | A96-4860 A6486011 | | A96-4860 A6486010 | | A96-4860 A6486017 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8080 - POLYCHLORINATED BIPHENYLS | | | | | | | | | | | |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 78 | | 78 | | 82 | | 86 | | 78 | |
| Decachlorobiphenyl | 58-150 | 83 | | 80 | | 85 | | 88 | | 86 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 12:19 ☎ 010/020

ANALYTICAL RESULTS



| Client Sample ID: | | W-TR02-08 | | W-TR02-09 | | W-TR02-18 | | W-TR02-19 | |
|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | | A96-4860 A6486013 | | A96-4860 A6486008 | | A96-4860 A6486009 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | |
| METHOD 8080 - TCL PESTICIDES/PCBS | | | | | | | | | |
| Aldrin | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| alpha-BHC | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| beta-BHC | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| gamma-BHC (Lindane) | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| delta-BHC | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| Chlordane | 80 | 80 | U | 80 | U | 80 | U | 80 | U |
| 4,4'-DDD | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| 4,4'-DDE | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| 4,4'-DDT | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Dieldrin | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Endosulfan I | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Endosulfan II | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Endosulfan Sulfate | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Endrin | 16 | 16 | U | 16 | U | 16 | U | 16 | U |
| Endrin aldehyde | 32 | 32 | U | 32 | U | 32 | U | 32 | U |
| Heptachlor | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| Heptachlor epoxide | 8.0 | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U |
| Methoxychlor | 80 | 80 | U | 80 | U | 80 | U | 80 | U |
| Toxaphene | 160 | 160 | U | 160 | U | 160 | U | 160 | U |
| Aroclor 1016 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1221 | 80 | 80 | U | 80 | U | 80 | U | 80 | U |
| Aroclor 1232 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1242 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1248 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1254 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| Aroclor 1260 | 40 | 40 | U | 40 | U | 40 | U | 40 | U |
| SURROGATES | | | | | | | | | |
| Tetrachloro-m-xylene | 27-132 | 55 | | 42 | | 56 | | 62 | |
| Decachlorobiphenyl | 58-150 | 65 | | 48 | * | 68 | | 76 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/11/96 07:07 ☐ 002/003

ANALYTICAL RESULTS



| Client Sample ID: | | W-TR00-00 | | W-TR00-08 | | W-TR00-09 | | W-TR00-10 | | W-TR00-11 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486019 | | A96-4860 A6486018 | | A96-4860 A6486023 | | A96-4860 A6486021 | | A96-4860 A6486020 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Acenaphthylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(b)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 22 | J | 330 | U |
| Benzo(k)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(ghi)perylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Chrysene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Dibenzo(a,h)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluorene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Indeno(1,2,3-cd)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Naphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Phenanthrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Pyrene | 330 | 330 | U | 330 | U | 330 | U | 20 | J | 330 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 103 | | 110 | | 104 | | 108 | | 103 | |
| Naphthalene-D8 | 50-200 | 110 | | 110 | | 113 | | 117 | | 112 | |
| Acenaphthene-D10 | 50-200 | 101 | | 105 | | 104 | | 108 | | 105 | |
| Phenanthrene-D10 | 50-200 | 100 | | 101 | | 104 | | 106 | | 101 | |
| Chrysene-D12 | 50-200 | 92 | | 93 | | 96 | | 100 | | 94 | |
| Perylene-D12 | 50-200 | 97 | | 96 | | 100 | | 103 | | 99 | |
| SURROGATES | | | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 69 | | 66 | | 76 | | 67 | | 64 | |
| 2-Fluorobiphenyl | 30-115 | 69 | | 61 | | 80 | | 72 | | 69 | |
| Terphenyl-D14 | 18-137 | 106 | | 84 | | 106 | | 95 | | 105 | |
| Phenol-D5 | 24-113 | 58 | | 56 | | 70 | | 63 | | 57 | |
| 2-Fluorophenol | 25-121 | 61 | | 54 | | 68 | | 62 | | 59 | |
| 2,4,6-Tribromophenol | 19-122 | 86 | | 70 | | 89 | | 79 | | 81 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:01 002/017

| Client Sample ID: | | W-TR00-12 | | W-TR00-13 | | W-TR02-00 | | W-TR02-01 | | W-TR02-02 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486022 | | A96-4860 A6486024 | | A96-4860 A6486030 | | A96-4860 A6486025 | | A96-4860 A6486026 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 84 | J | 330 | U | 330 | U | 330 | U |
| Acenaphthylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Anthracene | 330 | 330 | U | 160 | J | 330 | U | 330 | U | 330 | U |
| Benzo(a)anthracene | 330 | 180 | J | 650 | | 330 | U | 46 | J | 330 | U |
| Benzo(b)fluoranthene | 330 | 200 | J | 1200 | | 330 | U | 56 | J | 330 | U |
| Benzo(k)fluoranthene | 330 | 100 | J | 600 | | 330 | U | 29 | J | 330 | U |
| Benzo(ghi)perylene | 330 | 77 | J | 350 | | 330 | U | 16 | J | 330 | U |
| Benzo(a)pyrene | 330 | 150 | J | 780 | | 330 | U | 46 | J | 330 | U |
| Chrysene | 330 | 200 | J | 1100 | | 330 | U | 49 | J | 330 | U |
| Dibenzo(a,h)anthracene | 330 | 18 | J | 75 | J | 330 | U | 330 | U | 330 | U |
| Fluoranthene | 330 | 420 | | 2700 | | 330 | U | 71 | J | 330 | U |
| Fluorene | 330 | 330 | U | 130 | J | 330 | U | 330 | U | 330 | U |
| Indeno(1,2,3-cd)pyrene | 330 | 87 | J | 430 | | 330 | U | 17 | J | 330 | U |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Naphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Phenanthrene | 330 | 250 | J | 2600 | | 330 | U | 31 | J | 330 | U |
| Pyrene | 330 | 330 | | 2200 | | 330 | U | 73 | J | 330 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 110 | | 109 | | 104 | | 119 | | 112 | |
| Naphthalene-D8 | 50-200 | 118 | | 113 | | 92 | | 127 | | 105 | |
| Acenaphthene-D10 | 50-200 | 110 | | 106 | | 93 | | 114 | | 102 | |
| Phenanthrene-D10 | 50-200 | 107 | | 109 | | 89 | | 110 | | 99 | |
| Chrysene-D12 | 50-200 | 103 | | 100 | | 87 | | 105 | | 103 | |
| Perylene-D12 | 50-200 | 103 | | 94 | | 84 | | 94 | | 99 | |
| SURROGATES | | | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 69 | | 78 | | 66 | | 73 | | 73 | |
| 2-Fluorobiphenyl | 30-115 | 74 | | 78 | | 56 | | 82 | | 70 | |
| Terphenyl-D14 | 18-137 | 96 | | 98 | | 87 | | 97 | | 105 | |
| Phenol-D5 | 24-113 | 65 | | 68 | | 54 | | 75 | | 59 | |
| 2-Fluorophenol | 25-121 | 63 | | 66 | | 50 | | 67 | | 59 | |
| 2,4,6-Tribromophenol | 19-122 | 81 | | 99 | | 71 | | 99 | | 79 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:09 ID: 003/01

| Client Sample ID: | | W-TR02-03 | | W-TR02-04 | | W-TR02-05 | | W-TR02-06 | | W-TR02-07 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486027 | | A96-4860 A6486028 | | A96-4860 A6486014 | | A96-4860 A6486029 | | A96-4860 A6486031 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Acenaphthylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(b)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(k)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(ghi)perylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Chrysene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Dibenzo(a,h)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluorene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Indeno(1,2,3-cd)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Naphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Phenanthrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 100 | | 101 | | 94 | | 103 | | 104 | |
| Naphthalene-D8 | 50-200 | 94 | | 98 | | 101 | | 96 | | 100 | |
| Acenaphthene-D10 | 50-200 | 92 | | 95 | | 99 | | 98 | | 101 | |
| Phenanthrene-D10 | 50-200 | 92 | | 92 | | 98 | | 95 | | 99 | |
| Chrysene-D12 | 50-200 | 91 | | 92 | | 88 | | 96 | | 93 | |
| Perylene-D12 | 50-200 | 89 | | 93 | | 93 | | 94 | | 90 | |
| SURROGATES | | | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 57 | | 71 | | 79 | | 52 | | 61 | |
| 2-Fluorobiphenyl | 30-115 | 62 | | 68 | | 78 | | 54 | | 54 | |
| Terphenyl-D14 | 18-137 | 106 | | 106 | | 100 | | 94 | | 88 | |
| Phenol-D5 | 24-113 | 51 | | 58 | | 71 | | 47 | | 50 | |
| 2-Fluorophenol | 25-121 | 50 | | 58 | | 72 | | 45 | | 50 | |
| 2,4,6-Tribromophenol | 19-122 | 80 | | 82 | | 88 | | 66 | | 66 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:10 004/017

| Client Sample ID: | | W-TR02-08 | | W-TR02-09 | | W-TR02-10 | W-TR02-11 | W-TR02-12 |
|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | | A96-4860 A6486013 | | A96-4860 A6486002 | A96-4860 A6486003 | A96-4860 A6486004 |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte (UG/KG) | RL | Result | | Result | | Result | Result | Result |
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Acenaphthylene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Anthracene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzo(a)anthracene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzo(b)fluoranthene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzo(k)fluoranthene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzo(ghi)perylene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzo(a)pyrene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Benzoic acid | 1600 | 1600 | U | 1600 | U | NA | NA | NA |
| Benzyl alcohol | 330 | 330 | U | 330 | U | NA | NA | NA |
| Bis(2-chloroethoxy) methane | 330 | 330 | U | 330 | U | NA | NA | NA |
| Bis(2-chloroethyl) ether | 330 | 330 | U | 330 | U | NA | NA | NA |
| Bis(2-chloroisopropyl) ether | 330 | 330 | U | 330 | U | NA | NA | NA |
| Bis(2-ethylhexyl) phthalate | 330 | 330 | U | 36 | J | NA | NA | NA |
| 4-Bromophenyl phenyl ether | 330 | 330 | U | 330 | U | NA | NA | NA |
| Butyl benzyl phthalate | 330 | 330 | U | 330 | U | NA | NA | NA |
| 4-Chloroaniline | 330 | 330 | U | 330 | U | NA | NA | NA |
| 4-Chloro-3-methylphenol | 330 | 330 | U | 330 | U | NA | NA | NA |
| 2-Chloronaphthalene | 330 | 330 | U | 330 | U | NA | NA | NA |
| 2-Chlorophenol | 330 | 330 | U | 330 | U | NA | NA | NA |
| 4-Chlorodiphenylether | 330 | 330 | U | 330 | U | NA | NA | NA |
| Chrysene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Dibenzo(a,h)anthracene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Dibenzofuran | 330 | 330 | U | 330 | U | NA | NA | NA |
| Di-n-butyl phthalate | 330 | 330 | U | 330 | U | NA | NA | NA |
| 1,2-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | NA |
| 1,3-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | NA |
| 1,4-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | NA |
| 3,3'-Dichlorobenzidine | 660 | 660 | U | 660 | U | NA | NA | NA |
| 2,4-Dichlorophenol | 330 | 330 | U | 330 | U | NA | NA | NA |
| Diethyl phthalate | 330 | 330 | U | 330 | U | NA | NA | NA |
| 2,4-Dimethylphenol | 330 | 330 | U | 330 | U | NA | NA | NA |
| Dimethyl phthalate | 330 | 330 | U | 330 | U | NA | NA | NA |
| 4,6-Dinitro-2-methylphenol | 1600 | 1600 | U | 1600 | U | NA | NA | NA |
| 2,4-Dinitrophenol | 1600 | 1600 | U | 1600 | U | NA | NA | NA |
| 2,4-Dinitrotoluene | 330 | 330 | U | 330 | U | NA | NA | NA |
| 2,6-Dinitrotoluene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Di-n-octyl phthalate | 330 | 330 | U | 330 | U | NA | NA | NA |
| Fluoranthene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Fluorene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Hexachlorobenzene | 330 | 330 | U | 330 | U | NA | NA | NA |
| Hexachlorobutadiene | 330 | 330 | U | 330 | U | NA | NA | NA |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:14 005/017

| Client Sample ID: | | W-TR02-08 | | W-TR02-09 | | W-TR02-10 | | W-TR02-11 | | W-TR02-12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | | A96-4860 A6486013 | | A96-4860 A6486002 | | A96-4860 A6486003 | | A96-4860 A6486004 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Hexachloroethane | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Indeno(1,2,3-cd)pyrene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Isophorone | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 2-Methylphenol | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 4-Methylphenol | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Naphthalene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 2-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | | NA | |
| 3-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | | NA | |
| 4-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | | NA | |
| Nitrobenzene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 2-Nitrophenol | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 4-Nitrophenol | 1600 | 1600 | U | 1600 | U | NA | | NA | | NA | |
| N-nitrosodiphenylamine | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| N-Nitroso-Di-n-propylamine | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Pentachlorophenol | 1600 | 1600 | U | 1600 | U | NA | | NA | | NA | |
| Phenanthrene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Phenol | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| Pyrene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 1,2,4-Trichlorobenzene | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | 800 | 800 | U | 800 | U | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | 330 | 330 | U | 330 | U | NA | | NA | | NA | |
| INTERNAL STANDARDS | | | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 108 | | 107 | | NA | | NA | | NA | |
| Naphthalene-D8 | 50-200 | 122 | | 123 | | NA | | NA | | NA | |
| Acenaphthene-D10 | 50-200 | 132 | | 130 | | NA | | NA | | NA | |
| Phenanthrene-D10 | 50-200 | 126 | | 124 | | NA | | NA | | NA | |
| Chrysene-D12 | 50-200 | 114 | | 111 | | NA | | NA | | NA | |
| Perylene-D12 | 50-200 | 115 | | 115 | | NA | | NA | | NA | |
| SURROGATES | | | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 77 | | 60 | | NA | | NA | | NA | |
| 2-Fluorobiphenyl | 30-115 | 80 | | 68 | | NA | | NA | | NA | |
| Terphenyl-D14 | 18-137 | 106 | | 99 | | NA | | NA | | NA | |
| Phenol-D5 | 24-113 | 67 | | 62 | | NA | | NA | | NA | |
| 2-Fluorophenol | 25-121 | 72 | | 64 | | NA | | NA | | NA | |
| 2,4,6-Tribromophenol | 19-122 | 81 | | 72 | | NA | | NA | | NA | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:16 ☎ 006/017

| Client Sample ID: | | W-TR02-08 | W-TR02-09 | W-TR02-10 | W-TR02-11 | W-TR02-12 |
|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486001 | A96-4860 A6486013 | A96-4860 A6486002 | A96-4860 A6486003 | A96-4860 A6486004 |
| Sample Date: | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte (UG/KG) | RL | Result | Result | Result | Result | Result |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | |
| Acenaphthene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Acenaphthylene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Anthracene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Benzo(a)anthracene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Benzo(b)fluoranthene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Benzo(k)fluoranthene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Benzo(ghi)perylene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Benzo(a)pyrene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Chrysene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Dibenzo(a,h)anthracene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Fluoranthene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Fluorene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Indeno(1,2,3-cd)pyrene | 330 | NA | NA | 330 U | 330 U | 330 U |
| 2-Methylnaphthalene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Naphthalene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Phenanthrene | 330 | NA | NA | 330 U | 330 U | 330 U |
| Pyrene | 330 | NA | NA | 330 U | 330 U | 330 U |
| INTERNAL STANDARDS | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | NA | NA | 97 | 96 | 84 |
| Naphthalene-D8 | 50-200 | NA | NA | 104 | 99 | 87 |
| Acenaphthene-D10 | 50-200 | NA | NA | 106 | 104 | 92 |
| Phenanthrene-D10 | 50-200 | NA | NA | 104 | 104 | 89 |
| Chrysene-D12 | 50-200 | NA | NA | 93 | 95 | 76 |
| Perylene-D12 | 50-200 | NA | NA | 92 | 90 | 77 |
| SURROGATES | | | | | | |
| Nitrobenzene-D5 | 23-120 | NA | NA | 60 | 68 | 0 * |
| 2-Fluorobiphenyl | 30-115 | NA | NA | 63 | 78 | 0 * |
| Terphenyl-D14 | 18-137 | NA | NA | 103 | 98 | 0 * |
| Phenol-D5 | 24-113 | NA | NA | 57 | 62 | 0 * |
| 2-Fluorophenol | 25-121 | NA | NA | 58 | 64 | 0 * |
| 2,4,6-Tribromophenol | 19-122 | NA | NA | 73 | 86 | 0 * |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:17 007/017

| Client Sample ID: | | W-TR02-13 | | W-TR02-14 | | W-TR02-15 | | W-TR02-16 | | W-TR02-17 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486012 | | A96-4860 A6486005 | | A96-4860 A6486006 | | A96-4860 A6486007 | | A96-4860 A6486011 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | | Result | |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Acenaphthylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(b)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(k)fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(ghi)perylene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Benzo(a)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Chrysene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Dibenzo(a,h)anthracene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluoranthene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Fluorene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Indeno(1,2,3-cd)pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Naphthalene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Phenanthrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| Pyrene | 330 | 330 | U | 330 | U | 330 | U | 330 | U | 330 | U |
| INTERNAL STANDARDS | | | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 103 | | 98 | | 103 | | 90 | | 104 | |
| Naphthalene-D8 | 50-200 | 108 | | 105 | | 116 | | 104 | | 107 | |
| Acenaphthene-D10 | 50-200 | 108 | | 108 | | 110 | | 103 | | 113 | |
| Phenanthrene-D10 | 50-200 | 106 | | 107 | | 110 | | 103 | | 114 | |
| Chrysene-D12 | 50-200 | 97 | | 96 | | 98 | | 92 | | 102 | |
| Perylene-D12 | 50-200 | 103 | | 94 | | 96 | | 89 | | 99 | |
| SURROGATES | | | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 75 | | 56 | | 69 | | 80 | | 90 | |
| 2-Fluorobiphenyl | 30-115 | 68 | | 68 | | 73 | | 83 | | 90 | |
| Terphenyl-D14 | 18-137 | 98 | | 101 | | 99 | | 102 | | 111 | |
| Phenol-D5 | 24-113 | 64 | | 55 | | 61 | | 73 | | 88 | |
| 2-Fluorophenol | 25-121 | 67 | | 54 | | 65 | | 78 | | 86 | |
| 2,4,6-Tribromophenol | 19-122 | 85 | | 79 | | 79 | | 87 | | 102 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:20 008/017

| Client Sample ID: | | W-TR02-18 | | W-TR02-19 | | W-TR02-20 | W-TR02-21 | |
|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486008 | | A96-4860 A6486009 | | A96-4860 A6486010 | A96-4860 A6486017 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | Result | |
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | | | | |
| Acenaphthene | 330 | 330 | U | 330 | U | NA | NA | |
| Acenaphthylene | 330 | 330 | U | 330 | U | NA | NA | |
| Anthracene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzo(a)anthracene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzo(b)fluoranthene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzo(k)fluoranthene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzo(ghi)perylene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzo(a)pyrene | 330 | 330 | U | 330 | U | NA | NA | |
| Benzoic acid | 1600 | 1600 | U | 1600 | U | NA | NA | |
| Benzyl alcohol | 330 | 330 | U | 330 | U | NA | NA | |
| Bis(2-chloroethoxy) methane | 330 | 330 | U | 330 | U | NA | NA | |
| Bis(2-chloroethyl) ether | 330 | 330 | U | 330 | U | NA | NA | |
| Bis(2-chloroisopropyl) ether | 330 | 330 | U | 330 | U | NA | NA | |
| Bis(2-ethylhexyl) phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| 4-Bromophenyl phenyl ether | 330 | 330 | U | 330 | U | NA | NA | |
| Butyl benzyl phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| 4-Chloroaniline | 330 | 330 | U | 330 | U | NA | NA | |
| 4-Chloro-3-methylphenol | 330 | 330 | U | 330 | U | NA | NA | |
| 2-Chloronaphthalene | 330 | 330 | U | 330 | U | NA | NA | |
| 2-Chlorophenol | 330 | 330 | U | 330 | U | NA | NA | |
| 4-Chlorodiphenylether | 330 | 330 | U | 330 | U | NA | NA | |
| Chrysene | 330 | 330 | U | 330 | U | NA | NA | |
| Dibenzo(a,h)anthracene | 330 | 330 | U | 330 | U | NA | NA | |
| Dibenzofuran | 330 | 330 | U | 330 | U | NA | NA | |
| Di-n-butyl phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| 1,2-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | |
| 1,3-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | |
| 1,4-Dichlorobenzene | 330 | 330 | U | 330 | U | NA | NA | |
| 3,3'-Dichlorobenzidine | 660 | 660 | U | 660 | U | NA | NA | |
| 2,4-Dichlorophenol | 330 | 330 | U | 330 | U | NA | NA | |
| Diethyl phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| 2,4-Dimethylphenol | 330 | 330 | U | 330 | U | NA | NA | |
| Dimethyl phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| 4,6-Dinitro-2-methylphenol | 1600 | 1600 | U | 1600 | U | NA | NA | |
| 2,4-Dinitrophenol | 1600 | 1600 | U | 1600 | U | NA | NA | |
| 2,4-Dinitrotoluene | 330 | 330 | U | 330 | U | NA | NA | |
| 2,6-Dinitrotoluene | 330 | 330 | U | 330 | U | NA | NA | |
| Di-n-octyl phthalate | 330 | 330 | U | 330 | U | NA | NA | |
| Fluoranthene | 330 | 330 | U | 330 | U | NA | NA | |
| Fluorene | 330 | 330 | U | 330 | U | NA | NA | |
| Hexachlorobenzene | 330 | 330 | U | 330 | U | NA | NA | |
| Hexachlorobutadiene | 330 | 330 | U | 330 | U | NA | NA | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:22 008/017

| Client Sample ID: | | W-TR02-18 | | W-TR02-19 | | W-TR02-20 | | W-TR02-21 | |
|---|---|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | A96-4860 A6486008 | | A96-4860 A6486009 | | A96-4860 A6486010 | | A96-4860 A6486017 | |
| Sample Date: | | 10/03/96 | | 10/03/96 | | 10/03/96 | | 10/03/96 | |
| Analyte (UG/KG) | RL | Result | | Result | | Result | | Result | |
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | | | | | |
| Hexachlorocyclopentadiene | 330 | 330 | U | 330 | U | NA | | NA | |
| Hexachloroethane | 330 | 330 | U | 330 | U | NA | | NA | |
| Indeno(1,2,3-cd)pyrene | 330 | 330 | U | 330 | U | NA | | NA | |
| Isophorone | 330 | 330 | U | 330 | U | NA | | NA | |
| 2-Methylnaphthalene | 330 | 330 | U | 330 | U | NA | | NA | |
| 2-Methylphenol | 330 | 330 | U | 330 | U | NA | | NA | |
| 4-Methylphenol | 330 | 330 | U | 330 | U | NA | | NA | |
| Naphthalene | 330 | 330 | U | 330 | U | NA | | NA | |
| 2-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | |
| 3-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | |
| 4-Nitroaniline | 1600 | 1600 | U | 1600 | U | NA | | NA | |
| Nitrobenzene | 330 | 330 | U | 330 | U | NA | | NA | |
| 2-Nitrophenol | 330 | 330 | U | 330 | U | NA | | NA | |
| 4-Nitrophenol | 1600 | 1600 | U | 1600 | U | NA | | NA | |
| N-nitrosodiphenylamine | 330 | 330 | U | 330 | U | NA | | NA | |
| N-Nitroso-Di-n-propylamine | 330 | 330 | U | 330 | U | NA | | NA | |
| Pentachlorophenol | 1600 | 1600 | U | 1600 | U | NA | | NA | |
| Phenanthrene | 330 | 330 | U | 330 | U | NA | | NA | |
| Phenol | 330 | 330 | U | 330 | U | NA | | NA | |
| Pyrene | 330 | 330 | U | 330 | U | NA | | NA | |
| 1,2,4-Trichlorobenzene | 330 | 330 | U | 330 | U | NA | | NA | |
| 2,4,5-Trichlorophenol | 800 | 800 | U | 800 | U | NA | | NA | |
| 2,4,6-Trichlorophenol | 330 | 330 | U | 330 | U | NA | | NA | |
| INTERNAL STANDARDS | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | 107 | | 122 | | NA | | NA | |
| Naphthalene-D8 | 50-200 | 119 | | 137 | | NA | | NA | |
| Acenaphthene-D10 | 50-200 | 128 | | 144 | | NA | | NA | |
| Phenanthrene-D10 | 50-200 | 122 | | 140 | | NA | | NA | |
| Chrysene-D12 | 50-200 | 112 | | 121 | | NA | | NA | |
| Perylene-D12 | 50-200 | 113 | | 130 | | NA | | NA | |
| SURROGATES | | | | | | | | | |
| Nitrobenzene-D5 | 23-120 | 69 | | 54 | | NA | | NA | |
| 2-Fluorobiphenyl | 30-115 | 72 | | 53 | | NA | | NA | |
| Terphenyl-D14 | 18-137 | 105 | | 99 | | NA | | NA | |
| Phenol-D5 | 24-113 | 61 | | 48 | | NA | | NA | |
| 2-Fluorophenol | 25-121 | 64 | | 48 | | NA | | NA | |
| 2,4,6-Tribromophenol | 19-122 | 70 | | 60 | | NA | | NA | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:24 ☑ 010/017

| Client Sample ID: / Job Number & Lab Sample ID: / Sample Date: | | W-TR02-18 A96-4860 A6486008 10/03/96 | W-TR02-19 A96-4860 A6486009 10/03/96 | W-TR02-20 A96-4860 A6486010 10/03/96 | W-TR02-21 A96-4860 A6486017 10/03/96 | |
|---|---|---|---|---|---|---|
| Analyte (UG/KG) | RL | Result | Result | Result | Result | |
| METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS | | | | | | |
| Acenaphthene | 330 | NA | NA | 330 U | 330 U | |
| Acenaphthylene | 330 | NA | NA | 330 U | 330 U | |
| Anthracene | 330 | NA | NA | 330 U | 330 U | |
| Benzo(a)anthracene | 330 | NA | NA | 330 U | 330 U | |
| Benzo(b)fluoranthene | 330 | NA | NA | 330 U | 330 U | |
| Benzo(k)fluoranthene | 330 | NA | NA | 330 U | 330 U | |
| Benzo(ghi)perylene | 330 | NA | NA | 330 U | 330 U | |
| Benzo(a)pyrene | 330 | NA | NA | 330 U | 330 U | |
| Chrysene | 330 | NA | NA | 330 U | 330 U | |
| Dibenzo(a,h)anthracene | 330 | NA | NA | 330 U | 330 U | |
| Fluoranthene | 330 | NA | NA | 330 U | 330 U | |
| Fluorene | 330 | NA | NA | 330 U | 330 U | |
| Indeno(1,2,3-cd)pyrene | 330 | NA | NA | 330 U | 330 U | |
| 2-Methylnaphthalene | 330 | NA | NA | 330 U | 330 U | |
| Naphthalene | 330 | NA | NA | 330 U | 330 U | |
| Phenanthrene | 330 | NA | NA | 330 U | 330 U | |
| Pyrene | 330 | NA | NA | 330 U | 330 U | |
| INTERNAL STANDARDS | | | | | | |
| 1,4-Dichlorobenzene-D4 | 50-200 | NA | NA | 99 | 101 | |
| Naphthalene-D8 | 50-200 | NA | NA | 104 | 105 | |
| Acenaphthene-D10 | 50-200 | NA | NA | 110 | 94 | |
| Phenanthrene-D10 | 50-200 | NA | NA | 111 | 94 | |
| Chrysene-D12 | 50-200 | NA | NA | 99 | 82 | |
| Perylene-D12 | 50-200 | NA | NA | 101 | 88 | |
| SURROGATES | | | | | | |
| Nitrobenzene-D5 | 23-120 | NA | NA | 67 | 68 | |
| 2-Fluorobiphenyl | 30-115 | NA | NA | 72 | 71 | |
| Terphenyl-D14 | 18-137 | NA | NA | 98 | 94 | |
| Phenol-D5 | 24-113 | NA | NA | 62 | 59 | |
| 2-Fluorophenol | 25-121 | NA | NA | 64 | 63 | |
| 2,4,6-Tribromophenol | 19-122 | NA | NA | 90 | 82 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:25 ☎ 011/017

Date: 10/08/96
Time: 14:53:11

ANALYTICAL RESULTS

Rept: AN0353
Page: 1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Client Sample ID: | W-TR00-00 | W-TR00-08 | W-TR00-09 | W-TR00-10 | W-TR00-11 |
| | | Job Number & Lab Sample ID: | A96-4860 A6486019 | A96-4860 A6486018 | A96-4860 A6486023 | A96-4860 A6486021 | A96-4860 A6486020 |
| | | Sample Date: | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | Result |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | 0.79 | 0.74 | 1.0 | 1.3 | 1.4 |

* Indicates Result is Outside QC Limits
NA = Not Applicable

Date: 10/08/96
Time: 14:53:12

ANALYTICAL RESULTS

Rept: AN0353
Page: 2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Client Sample ID: | | | W-TR00-12 | W-TR00-13 | W-TR02-00 | W-TR02-01 | W-TR02-02 |
| Job Number & Lab Sample ID: | | | A96-4860 A6486022 | A96-4860 A6486024 | A96-4860 A6486030 | A96-4860 A6486025 | A96-4860 A6486026 |
| Sample Date: | | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | Result |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | 0.70 | 1.6 | 0.82 | 1.1 | 2.1 |

* Indicates Result is Outside QC Limits
NA = Not Applicable

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Client Sample ID: | | | W-TR02-03 | W-TR02-04 | W-TR02-05 | W-TR02-06 | W-TR02-07 |
| Job Number & Lab Sample ID: | | | A96-4860 A6486027 | A96-4860 A6486028 | A96-4860 A6486014 | A96-4860 A6486029 | A96-4860 A6486031 |
| Sample Date: | | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | Result |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | 0.61 | 0.44 U | 1.8 | 1.5 | 1.5 |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:29 014/017

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Client Sample ID: | W-TR02-08 | W-TR02-09 | W-TR02-10 | W-TR02-11 | W-TR02-12 |
| | | Job Number & Lab Sample ID: | A96-4860 A6486001 | A96-4860 A6486013 | A96-4860 A6486002 | A96-4860 A6486003 | A96-4860 A6486004 |
| | | Sample Date: | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | Result |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | NA | NA | 2.6 | 2.1 | 1.4 |
| TOTAL HSL METALS | | | | | | | |
| Mercury - Total | MG/KG | 0.033 | 0.024 U | 0.024 U | NA | NA | NA |
| Thallium - Total | MG/KG | 0.36 | 2.2 | 2.1 | NA | NA | NA |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:30

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Client Sample ID: | W-TR02-13 | W-TR02-14 | W-TR02-15 | W-TR02-16 | W-TR02-17 |
| | | Job Number & Lab Sample ID: | A96-4860 A6486012 | A96-4860 A6486005 | A96-4860 A6486006 | A96-4860 A6486007 | A96-4860 A6486011 |
| | | Sample Date: | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | Result |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | 2.2 | 0.74 | 1.8 | 0.62 | 2.2 |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:31 016/017

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Client Sample ID: | W-TR02-18 | W-TR02-19 | W-TR02-20 | W-TR02-21 | |
| | | Job Number & Lab Sample ID: | A96-4860 A6486008 | A96-4860 A6486009 | A96-4860 A6486010 | A96-4860 A6486017 | |
| | | Sample Date: | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | |
| TOTAL METALS | | | | | | | |
| Thallium - Total | MG/KG | 0.36 | NA | NA | 2.4 | 0.76 | |
| TOTAL MSL METALS | | | | | | | |
| Mercury - Total | MG/KG | 0.033 | 0.024 U | 0.023 U | NA | NA | |
| Thallium - Total | MG/KG | 0.36 | 1.5 | 1.7 | NA | NA | |

* Indicates Result is Outside QC Limits
NA = Not Applicable



10/08/96 17:32 ⑥ 017/017

ANALYTICAL RESULTS



| Client Sample ID: | | | W-TR02-08 | W-TR02-09 | W-TR02-18 | W-TR02-19 | |
|---|---|---|---|---|---|---|---|
| Job Number & Lab Sample ID: | | | A96-4860 A6486001 | A96-4860 A6486013 | A96-4860 A6486008 | A96-4860 A6486009 | |
| Sample Date: | | | 10/03/96 | 10/03/96 | 10/03/96 | 10/03/96 | |
| Analyte | UNITS OF MEASURE | RL | Result | Result | Result | Result | |
| TOTAL HSL METALS | | | | | | | |
| Aluminum - Total | MG/KG | 0.77 | 7320 | 10200 | 7730 | 12700 | |
| Antimony - Total | MG/KG | 0.57 | 0.69 U | 0.69 U | 0.69 U | 0.64 U | |
| Arsenic - Total | MG/KG | 0.28 | 5.0 | 7.9 | 3.2 | 4.3 | |
| Barium - Total | MG/KG | 0.024 | 64.1 | 75.5 | 57.5 | 27.7 | |
| Beryllium - Total | MG/KG | 0.010 | 0.73 | 1.0 | 0.91 | 0.62 | |
| Cadmium - Total | MG/KG | 0.021 | 0.025 U | 0.025 U | 0.025 U | 0.024 U | |
| Calcium - Total | MG/KG | 0.54 | 1510 | 1510 | 1180 | 425 | |
| Chromium - Total | MG/KG | 0.26 | 11.6 | 24.5 | 19.2 | 14.5 | |
| Cobalt - Total | MG/KG | 0.12 | 7.4 | 7.3 | 5.8 | 10.3 | |
| Copper - Total | MG/KG | 0.087 | 18.0 | 19.2 | 59.6 | 48.5 | |
| Iron - Total | MG/KG | 2.4 | 12300 | 24500 | 11700 | 14800 | |
| Lead - Total | MG/KG | 0.13 | 5.5 | 7.7 | 3.0 | 4.0 | |
| Magnesium - Total | MG/KG | 0.87 | 1510 | 2880 | 1420 | 3420 | |
| Manganese - Total | MG/KG | 0.036 | 627 | 219 | 371 | 550 | |
| Mercury - Total | MG/KG | 0.033 | 0.040 U | 0.040 U | 0.040 U | 0.038 U | |
| Nickel - Total | MG/KG | 0.25 | 7.5 | 11.3 | 8.0 | 15.4 | |
| Potassium - Total | MG/KG | 9.3 | 495 | 880 | 345 | 673 | |
| Selenium - Total | MG/KG | 0.28 | 2.3 | 1.8 | 1.3 | 1.8 | |
| Silver - Total | MG/KG | 0.25 | 0.30 U | 0.30 U | 0.29 U | 0.29 U | |
| Sodium - Total | MG/KG | 56.8 | 209 | 408 | 237 | 232 | |
| Thallium - Total | MG/KG | 0.36 | 2.2 | 2.1 | 1.5 | 1.7 | |
| Vanadium - Total | MG/KG | 0.087 | 18.3 | 44.7 | 23.8 | 28.3 | |
| Zinc - Total | MG/KG | 0.024 | 20.7 | 38.4 | 15.1 | 25.0 | |

* Indicates Result is Outside QC Limits
NA = Not Applicable