50-02
10/21-22/99
App II

THE FLETCHER GROUP
Engineering and Environmental Solutions

Fac/Perm/Co ID #	Date	Doc ID#
hc	10/27/00	DIN

FALL 1999 SEMIANNUAL WATER QUALITY MONITORING REPORT

FOR

THE JACKSON COUNTY MUNICIPAL SOLID WASTE LANDFILL

Prepared for
JACKSON COUNTY MSWLF
Sylva, North Carolina

Prepared by
THE FLETCHER GROUP, INC.
Asheville, North Carolina

December 27, 1999

NORTH CAROLINA LICENSED 12/23/99 SEAL 1654 GEOLOGIST STUART A. RYMAN

Stuart A. Ryman, P.G.
Project Geologist

JAN 4 2000 Section

P.O. Box 447, Asheville, North Carolina 28802 • 48 Patton Avenue, Suite 303, Asheville, North Carolina 28801 • (828) 281-3350 Fax (828) 281-3351

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

2.0 SEMIANNUAL MONITORING 2
- **2.1 GROUNDWATER AND SURFACE WATER SAMPLING** 2
- **2.2 ANALYTICAL RESULTS** 3
- **2.3 HYDROGEOLOGY** 3
- **2.4 STATISTICAL ANALYSES** 4

3.0 CONCLUSIONS 6

LIST OF FIGURES

Figure 1: Site Location Map
Figure 2: Monitoring Well and Surface Water Sample Location Map
Figure 3: Groundwater Flow Direction – October 21, 1999

LIST OF TABLES

Table 1: Field Indicator Parameters
Table 2: Appendix I Metals, Cyanide, and Sulfide Analytical Results
Table 3: Volatile Organic Compounds Analytical Results – US EPA Method 8260
Table 4: Volatile Organic Compounds Analytical Results – US EPA Method 524.2
Table 5: Monitoring Well and Water Table Elevations

LIST OF APPENDICES

Appendix A: Field Data Sampling Logs
Appendix B: Laboratory Analytical Reports
Appendix C: Groundwater Velocity Calculation
Appendix D: ANOVA Statistical Analyses

1.0 INTRODUCTION

The Jackson County Solid Waste Department maintains a closed landfill located approximately three quarters of a mile west of Dillsboro, North Carolina, north of Old Dillsboro Road (Old US 74). Entrance to the landfill is by State Road (SR) 1539. The site location is shown on Figure 1. The permit for the landfill requires semiannual monitoring of groundwater and surface water quality. This report serves as the second semiannual groundwater and surface water monitoring report for 1999. The data are being submitted in accordance with requirements stipulated in the North Carolina Department of Environment and Natural Resources (DENR) Solid Waste Management Rules 15A North Carolina Administrative Code (NCAC) 13B. The data and report also comply with the subsequent memorandum regarding Appendix II monitoring from DENR, dated April 21, 1995. This report provides an evaluation of the groundwater and surface water quality. Statistical analyses of groundwater data and groundwater flow information are also provided for the landfill.

This report contains the following items:

- Water level measurements and elevations for the landfill monitoring wells;
- Surface water sampling locations;
- Groundwater and surface water quality analytical results with chain-of-custody forms;
- Field blank and laboratory blank analytical results;
- Summary of the statistical analyses of constituents detected during this sampling event;
- Map showing groundwater flow direction; and,
- Field data sampling logs.

2.0 SEMIANNUAL MONITORING

2.1 Groundwater and Surface Water Sampling

The Jackson County Landfill monitoring wells ([redacted]) and the surface water sample locations (SW-1 and SW-2) were sampled by The Fletcher Group, Inc. on [redacted]. The monitoring well locations are shown on Figure 2. Surface water samples were collected where the property lines intersect the Tuckasegee River. The Fletcher Group, Inc. [redacted]ls [redacted] adjacent to the landfill, on Mr. Frank Wilkie's and Mr. Jack Bulla's properties, on November 22, 1999. These two domestic wells were originally sampled on October 22, 1999, however the samples were not analyzed by the laboratory in the required time. The Fletcher Group obtained additional samples from the domestic wells on November 22, 1999. The Fletcher Group asked Mr. William Wilkie if he would like his domestic well sampled and he declined. A trip blank and laboratory blanks were also analyzed by the laboratory.

Prior to sampling the groundwater, static water level measurements were taken in each well from the referenced measuring point. Each well was then purged and sampled using a di[redacted]er. Samples were obtained after a minimum of three well volumes had been purged and consistent pH, specific conductivity, and temperature readings had been collected. Purge water was collected and stored onsite in secure drums. A summary of water level measurements and field indicator parameters is included in Table 1. Copies of the Field Data Sampling Logs are included in Appendix A.

Groundwater and surface water samples were analyzed for the following parameters:

- Volatile Organic Compounds (VOCs) using EPA Method 8260
- Semivolatile Organic Compounds (SVOCs) using EPA Method 8270
- Total metals using various EPA Methods from the 6010/7000 series
- Pesticides and Polychlorinated Biphenyls using EPA Methods 8081 and 8082
- Herbicides using EPA Method 8150
- Sulfide using EPA Method 376.1
- VOCs (potable wells only) using US EPA Method 524.2

The samples were analyzed by Pace Analytical Services, Inc. (Pace), a North Carolina certified laboratory, in Huntersville, North Carolina. Proper chain-of-custody documentation was followed during collection and transport of each sample.

On January 6, 1999, The Fletcher Group obtained two memoranda from the DWM. These memoranda, dated January 18, 1995 and April 21, 1995 address water quality sampling at MSWLF facilities. These documents specified that method detection limits for various Appendix I and Appendix II analytes must be at or below Practical Quantitation Limits (PQLs) as specified in the memoranda. The detection limits utilized during the fall 1999 sampling event met the PQLs specified by DWM.

2.2 Analytical Results

The laboratory analytical results are summarized in Tables 2, 3, and 4. The Pace laboratory analytical reports and chain-of-custody forms are included in Appendix B.

Analytical results for the Appendix I metals, cyanide and sulfide analyses are shown in Table 2. As shown, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc were detected in one or more of the monitoring wells. The table also shows that the concentration of lead in MW-5 (0.016 milligrams per liter (mg/L)) exceeded the NCAC Title 15A, Subchapter 2L groundwater quality standards (2L standards) which is 0.015 mg/L. All other metals detected in the monitoring wells and surface water samples were found at concentrations less than the 2L standards. Cyanide and sulfide were not detected in any of the monitoring well or surface water samples.

The analytical results for VOCs are shown in Tables 3 and 4. Two VOCs were found in excess of the 2L standards in MW-1. These compounds are benzene at a concentration of 8.9 micrograms per liter (µg/L) and methylene chloride at a concentration of 26 µg/L. No other VOCs were detected in the monitoring wells or surface water samples at concentrations greater than the 2L standards. Analytical results for the two domestic wells show that no VOCs were detected.

The analytical results for SVOCs, pesticides, herbicides and PCBs are included in Appendix B. As shown on the analytical laboratory report in Appendix B, none of these analytes were detected in monitoring wells or surface water samples.

2.3 Hydrogeology

Groundwater at the landfill occurs under water table conditions in fractured bedrock near the top of the landfill along northern property boundary (MW-1) and in saprolite near the toe of the landfill in wells MW-3, MW-4, and MW-5. Water level data collected from MW-1, MW-3 and MW-4 (see Table 5) indicate that the predominant horizontal shallow (saprolite) groundwater flow direction is to the west toward the Tuckasegee River. Figure 3 depicts the estimated generalized groundwater flow direction based on the groundwater measurements made by The Fletcher Group on October 21, 1999.

The groundwater flow rate in saprolite was calculated using information from three sources: the hydraulic conductivity data reported by Law Engineering in 1994, average hydraulic gradients calculated using the October 1999 water level data, and an average effective porosity value for sand and silt mixtures of 30 to 35 percent. Using these data, the calculated groundwater flow rate in saprolite ranged from approximately 345 to 400 feet/year (ft/yr) in the upper portion of the site and 215 to 250 ft/yr in the lower portion of the site. The groundwater flow rate calculations are summarized in Appendix C.

2.4 Statistical Analyses

The statistical testing procedure Analysis of Variance (ANOVA) was performed on all five of the monitoring wells at the landfill for each total metal and VOC. For this procedure, the Single Factor ANOVA option in the EXCEL 5.0 analysis tool-pack was used. The ANOVA method was used to determine if the differences in the total metal or VOC concentrations observed at each well are significant enough to suggest that there is a possibility of true contamination in the set of wells. The ANOVA procedure tests the null hypothesis that the mean concentration of each analyte is equal in each well. If the means for a particular constituent are not equal, then the alternative hypothesis that at least one of the wells differs from the rest is evaluated. This is determined by comparing the computed F-

statistic to the critical (or tabulated) F-statistic. If the computed F-statistic exceeds the critical F-statistic, the null hypothesis is rejected and one or more of the wells may be contaminated. If the critical F-statistic exceeds the computed F-statistic, then the null hypothesis is accepted and the possibility of contamination is rejected. All laboratory analyses performed to date were taken into account. Non-detect observations were evaluated using one-half of the reported detection limit. The ANOVA statistical calculations for each constituent are summarized in Appendix D.

According to the statistical analysis, the total metals barium, chromium, cobalt, copper, nickel and vanadium showed significant deviation from the mean. The concentrations of barium, chromium, copper, and nickel were each below the respective 2L standard. A 2L standard has not been established for cobalt or vanadium. The statistical analysis showed that the remaining metal constituents do not show evidence of contamination.

Statistical analyses of VOC results showed eleven compounds with significant deviation from the mean. A summary of the ANOVA evaluation is included in Appendix D. Of the eleven VOCs showing significant deviation from the mean only two (benzene and methylene chloride) were detected above the 2L standard in the most recent sampling event.

3.0 CONCLUSIONS

The semiannual groundwater monitoring was conducted on October 21 and 22, 1999 at the Jackson County Landfill. The data summarized in Appendix D shows significant deviation for two metals and twelve VOCs.

Metals

Barium, chromium, cobalt, copper, nickel, and vanadium showed significant deviation. However, review of the data from individual sampling locations (monitoring wells MW-1 through MW-5 and two surface water points) reveals that none of the detections exceeded 2L standards. A 2L standard has not been established for cobalt or vanadium.

The sample collected from monitoring well MW-5 contained one metal, lead, at a concentration greater than the 2L standard. However, the statistical analysis did not indicate lead as exceeding the expected variance. None of the other samples contained metals with exceedances of the 2L standards.

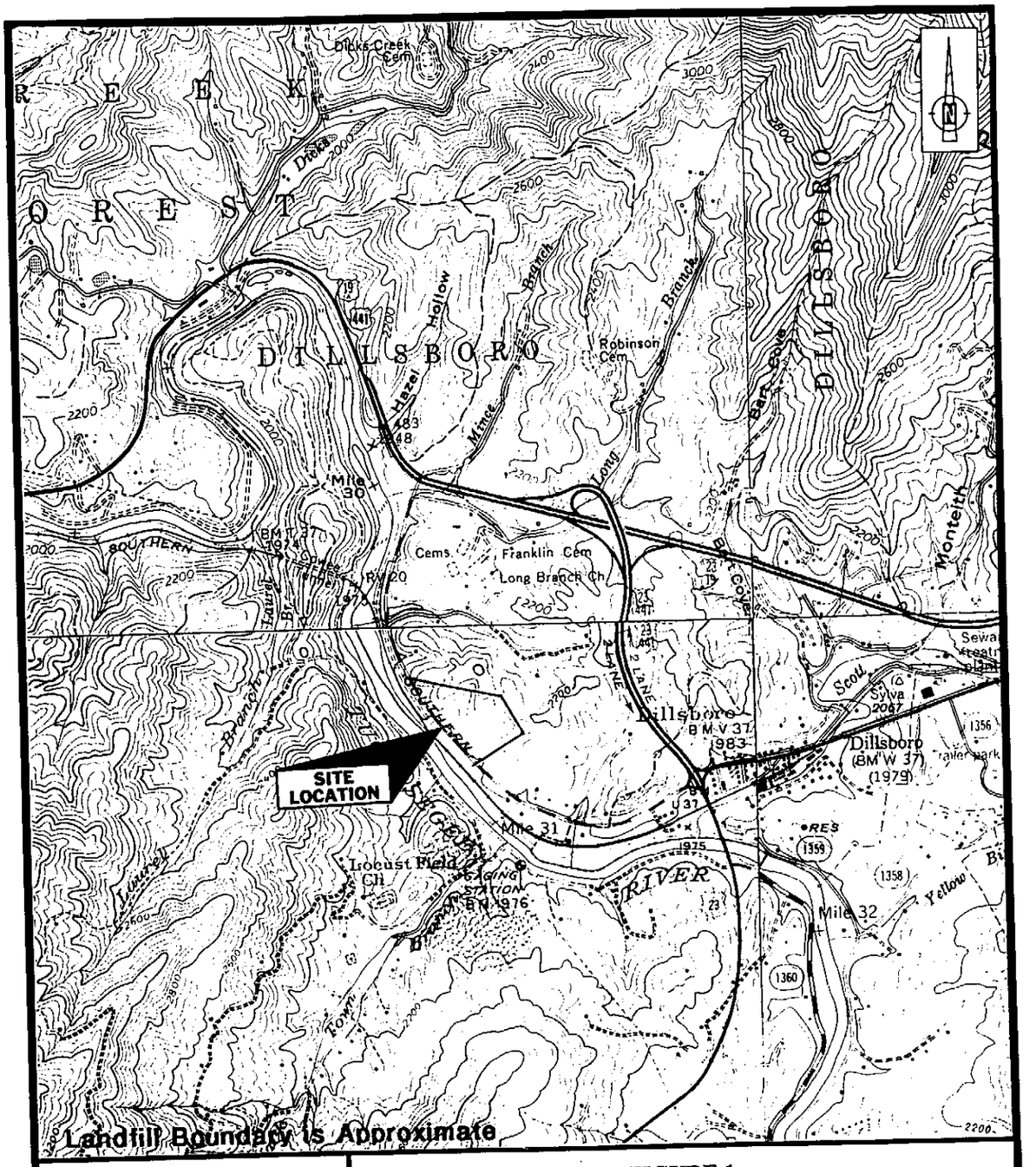
Organic Compounds

Each of the eleven VOCs showing significant deviation during this sampling event were also detected during the April 1999 round of sampling. A comparison of results from the April 1999 and October 1999 sampling events indicates that the same compounds appear with significant deviations in both events.

Two VOCs, [redacted] and [redacted]de, were detected at concentrations exceeding the 2L standards in MW-1. The[redacted]n in these two compounds. [redacted]

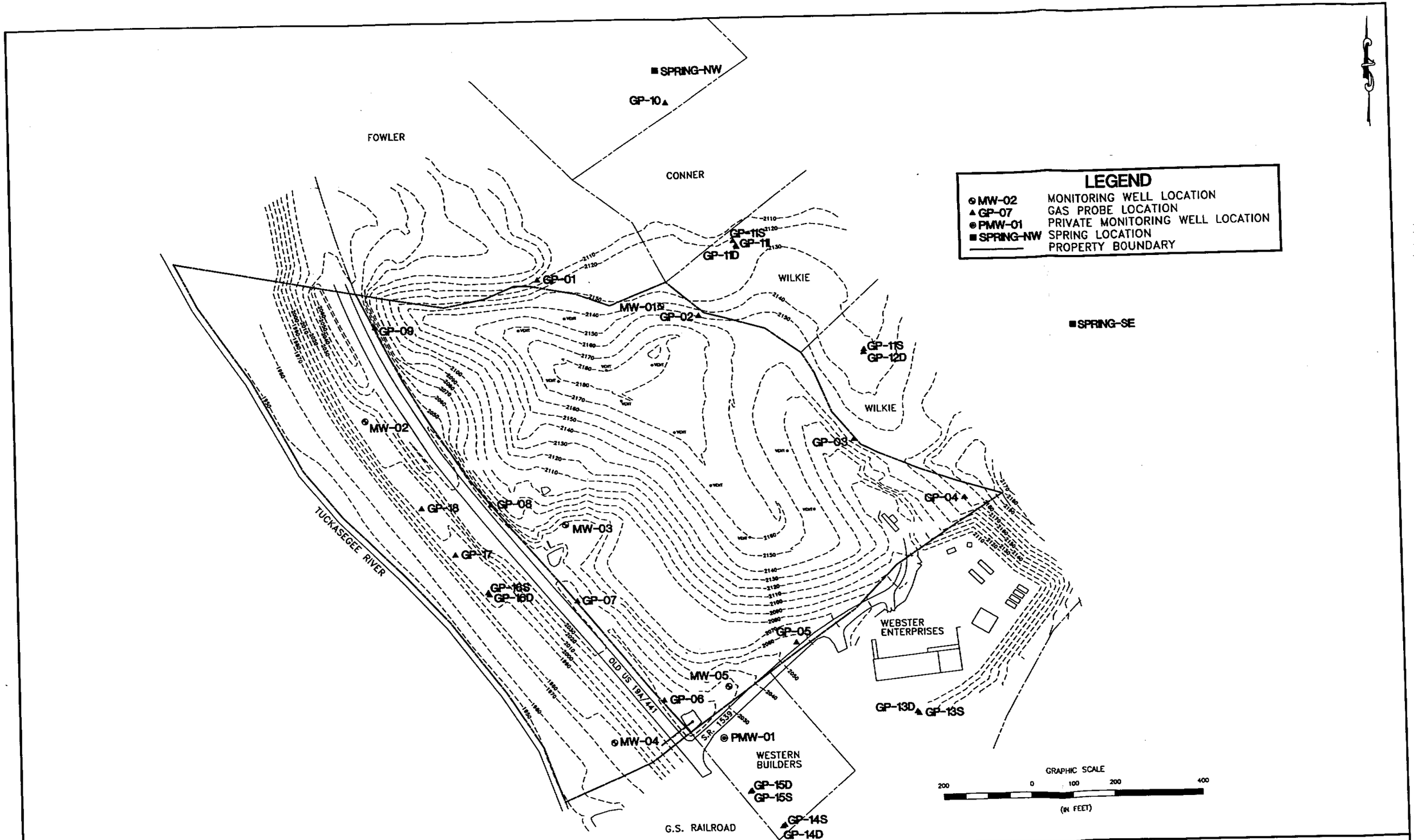
VOCs were not detected in the two domestic wells sampled.

FIGURES



Jackson County Landfill
Project No. 2040.07
October 21, 1999
Scale: 1 inch = 2000'
THE FLETCHER GROUP, INC.

FIGURE 1
Site Location Map
Jackson County Landfill
Dillsboro, North Carolina
U.S.G.S. Topographic Map - 7.5 Minute Quadrangles
Greens Creek, Whittier, Sylva North & Sylva South



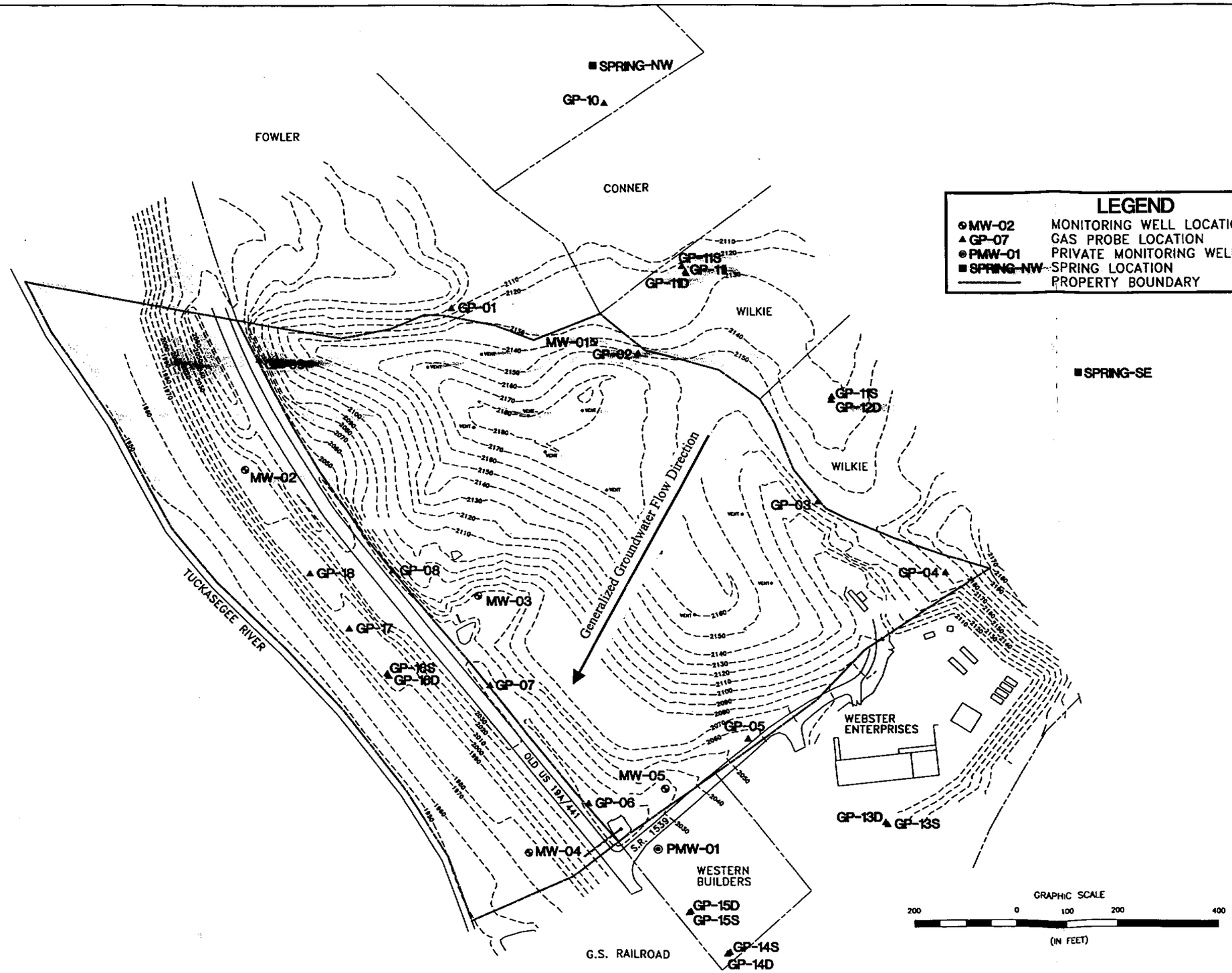
NOTES:

1. TOPOGRAPHY IS FOR REPRESENTATIVE PURPOSES ONLY AND NOT FOR CONSTRUCTION. THIS TOPOGRAPHY WAS OBTAINED FROM McGILL ASSOCIATES AND IS BASED ON A COMPILATION OF AN AERIAL SURVEY AND SEVERAL LAND SURVEYS.

THE FLETCHER GROUP
Engineering and Environmental Solutions
ASHEVILLE, NORTH CAROLINA

FIGURE 2
MONITORING WELL AND GAS PROBE LOCATION MAP
JACKSON COUNTY LANDFILL
JACKSON COUNTY, NORTH CAROLINA

DRAWN BY: JOHNC. PROJ MAN: CDE DATE: 02-11-99 CADD FILENAME: P:\OASHVIL\JACKSON_CO.040\LANDFILL.01\204001F2.DWG



NOTES:

1. TOPOGRAPHY IS FOR REPRESENTATIVE PURPOSES ONLY AND NOT FOR CONSTRUCTION. THIS TOPOGRAPHY WAS OBTAINED FROM McGILL ASSOCIATES AND IS BASED ON A COMPILATION OF AN AERIAL SURVEY AND SEVERAL LAND SURVEYS.

THE FLETCHER GROUP
Engineering and Environmental Solutions
ASHEVILLE, NORTH CAROLINA

FIGURE 3
GROUNDWATER FLOW DIRECTION - OCTOBER 21, 1999
JACKSON COUNTY LANDFILL
JACKSON COUNTY, NORTH CAROLINA

DRAWN BY: JOHNC. PROJ MAN: CDE DATE: 02-11-99 CADD FILENAME: P:\OASHVIL\JACKSON_CO.040\LANDFILL.01\204001F2.DWG

TABLES

TABLE 1

FIELD INDICATOR PARAMETERS
JACKSON COUNTY LANDFILL

October 21, 22 and November 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Well ID	Date	Time Sample Collected	Water Level Depth (feet)	pH	Temperature (°C)	Specific Conductivity (umhos/cm)
MW-1	10/21/99	16:15	93.20	4.99	13.4	115
MW-2	10/21/99	17:30	26.45	5.68	14.2	86
MW-3	10/21/99	17:00	53.31	5.40	15.7	193
MW-4	10/22/99	12:00	29.58	4.85	15.9	492
MW-5	10/21/99	15:30	49.25	5.84	16.0	458
DW-1	11/22/99	14:20	Unknown	7.40	14.4	53
DW-2	11/22/99	14:45	Unknown	6.54	13.8	23

TABLE 2

APPENDIX I METALS, CYANIDE, AND SULFIDE ANALYTICAL RESULTS
JACKSON COUNTY LANDFILL

October 21 and 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Units	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2	NC 2L Standard
Antimony	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NL
Arsenic	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.05
Barium	mg/L	0.09	0.03	0.083	0.40	0.44	0.021	0.013	2.0
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	0.0018	<0.001	<0.001	NL
Cadmium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	0.018	<0.002	<0.002	0.05
Cobalt	mg/L	0.12	0.058	<0.005	<0.005	0.018	<0.005	<0.005	NL
Copper	mg/L	0.002	<0.002	<0.002	<0.002	0.04	<0.002	<0.002	1.0
Lead	mg/L	<0.005	<0.005	<0.005	<0.005	**0.016**	<0.005	<0.005	0.015
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0011
Nickel	mg/L	0.0095	0.0074	0.0081	<0.005	0.021	<0.005	<0.005	0.1
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.05
Silver	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.018
Thallium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	NL
Tin	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NL
Vanadium	mg/L	<0.005	<0.005	<0.005	<0.005	0.038	<0.005	<0.005	NL
Zinc	mg/L	<0.038	0.014	<0.01	<0.01	0.083	<0.01	<0.01	2.1
Cyanide	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.154
Sulfide	mg/L	<1	<1	<1	<1	<1	<1	<1	NL

Note: < indicates compound not detected at or above the concentration shown (PACE detection limit)
Bold indicates exceedance of 2L Standard
NL = means no NC 2L standard established

TABLE 3

VOLATILE ORGANIC COMPOUNDS ANALYTICAL RESULTS
US EPA METHOD 8260
JACKSON COUNTY LANDFILL

October 21 and 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Units	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2	NC 2L Standard
1,1,1,2-Tetrachloroethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,1,1-Trichloroethane	µg/L	<5	<5	<5	<5	<5	<5	<5	200
1,1,2,2-Tetrachloroethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,1,2-Trichloroethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,1-Dichloroethane	µg/L	32	<5	<5	<5	<5	<5	<5	700
1,1-Dichloroethene	µg/L	<5	<5	<5	<5	<5	<5	<5	7
1,1-Dichloropropene	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,2,3-Trichloropropane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,2-Dibromo-3-Chloropropane	µg/L	<5	<5	<5	<5	<5	<5	<5	0.025
1,2-Dibromoethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,2-Dichlorobenzene	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,2-Dichloroethane	µg/L	<5	<5	<5	<5	<5	<5	<5	0.38
1,2-Dichloropropane	µg/L	<5	<5	<5	<5	<5	<5	<5	0.56
1,3-Dichlorobenzene	µg/L	<5	<5	<5	6.7	14	<5	<5	NL
1,3-Dichloropropane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
1,4-Dichlorobenzene	µg/L	<5	<5	<5	6.7	14	<5	<5	NL
2,2-Dichloropropane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
2-Butanone	µg/L	<10	<10	<10	<10	<10	<10	<10	170
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10	NL
4-Methyl-2-Pentanone	µg/L	<10	<10	<10	<10	<10	<10	<10	NL
Acetone	µg/L	<10	<10	<10	<10	<10	<10	<10	700
Acetonitrile	µg/L	<100	<100	<100	<100	<100	<100	<100	NL
Acrolein	µg/L	<100	<100	<100	<100	<100	<100	<100	NL
Acrylonitrile	µg/L	<100	<100	<100	<100	<100	<100	<100	NL
Allyl chloride	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
[redacted]	µg/L	[redacted]	<5	<5	<5	<5	<5	<5	1
Bromochloromethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Bromodichloromethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Bromoform	µg/L	<5	<5	<5	<5	<5	<5	<5	0.19
Bromomethane	µg/L	<10	<10	<10	<10	<10	<10	<10	NL
Carbon Disulfide	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Carbon Tetrachloride	µg/L	<5	<5	<5	<5	<5	<5	<5	0.3
Chlorobenzene	µg/L	<5	<5	<5	<5	5.0	<5	<5	50

Notes: < indicates compound not detected at or above the concentration shown (PACE detection limit)

Bold indicates exceedance of 2L Standard

µg/L = micrograms per liter

NL = indicates the compound was not listed on the NC 2L Standards list

TABLE 3

VOLATILE ORGANIC COMPOUNDS ANALYTICAL RESULTS
US EPA METHOD 8260
JACKSON COUNTY LANDFILL

October 21 and 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Units	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2	NC 2L Standard
Chloroethane	µg/L	16	<10	<10	<10	<10	<10	<10	NL
Chloroform	µg/L	<5	<5	<5	<5	<5	<5	<5	0.19
Chloromethane	µg/L	<10	<10	<10	<10	<10	<10	<10	NL
Chloroprene	µg/L	<50	<50	<50	<50	<50	<50	<50	NL
cis-1,2-Dichloroethene	µg/L	13	<5	5.8	20	44	<5	<5	70
cis-1,3-Dichloropropene	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Dibromochloromethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Dibromomethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Dichlorodifluoromethane	µg/L	<50	<50	<50	<50	<50	<50	<50	1400
Ethylbenzene	µg/L	14	<5	<5	<5	<5	<5	<5	29
Iodomethane	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Isobutanol	µg/L	<500	<500	<500	<500	<500	<500	<500	NL
[redacted]	µg/L	[redacted]	<5	<5	<5	<5	<5	<5	5
Propionitrile	µg/L	<100	<100	<100	<100	<100	<100	<100	NL
Styrene	µg/L	<5	<5	<5	<5	<5	<5	<5	100
Tetrachloroethene	µg/L	<5	<5	<5	<5	<5	<5	<5	0.7
Toluene	µg/L	<5	<5	<5	<5	<5	<5	<5	1000
trans-1,2-Dichloroethene	µg/L	<5	<5	<5	<5	<5	<5	<5	70
trans-1,3-Dichloropropene	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
trans-1,4-Dichloro-2-Butene	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Trichloroethene	µg/L	<5	<5	<5	<5	<5	<5	<5	2.8
Trichlorofluoromethane	µg/L	<5	<5	<5	<5	<5	<5	<5	2100
Vinyl Acetate	µg/L	<5	<5	<5	<5	<5	<5	<5	NL
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10	<10	<10	0.015
Xylene (Total)	µg/L	49	<5	<5	<5	<5	<5	<5	530

Notes: < indicates compound not detected at or above the concentration shown (PACE detection limit)

Bold indicates exceedance of 2L Standard

µg/L = micrograms per liter

NL = indicates the compound was not listed on the NC 2L Standards list

TABLE 4

VOLATILE ORGANIC COMPOUNDS ANALYTICAL RESULTS
US EPA METHOD 524.2
JACKSON COUNTY LANDFILL

November 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Units	DW-1	DW-2	NC 2L Standard
1,1,1,2-Tetrachloroethane	µg/L	<5	<5	NL
1,1,1-Trichloroethane	µg/L	<5	<5	200
1,1,2,2-Tetrachloroethane	µg/L	<5	<5	NL
1,1,2-Trichloroethane	µg/L	<5	<5	NL
1,1-Dichloroethane	µg/L	<5	<5	700
1,1-Dichloroethene	µg/L	<5	<5	7
1,1-Dichloropropene	µg/L	<5	<5	NL
1,2,3 Trichlorobenzene	µg/L	<5	<5	NL
1,2,3-Trichloropropane	µg/L	<5	<5	NL
1,2,4 Trichlorobenzene	µg/L	<5	<5	NL
1,2,4 Trimethylbenzene	µg/L	<5	<5	350
1,2-Dibromo-3-Chloropropane	µg/L	<5	<5	0.025
1,2-Dibromoethane	µg/L	<5	<5	NL
1,2-Dichloroethane	µg/L	<5	<5	0.38
1,2-Dichloropropane	µg/L	<5	<5	0.56
1,3,5 Trimethylbenzene	µg/L	<5	<5	350
1,3-Dichloropropane	µg/L	<5	<5	NL
2,2-Dichloropropane	µg/L	<5	<5	NL
2-Chlorotoluene	µg/L	<5	<5	140
4-Chlorotoluene	µg/L	<5	<5	NL
4-Isopropylbenzene	µg/L	<5	<5	NL
Benzene	µg/L	<5	<5	1
Bromobenzene	µg/L	<5	<5	NL
Bromochloromethane	µg/L	<5	<5	NL
Bromodichloromethane	µg/L	<5	<5	NL
Bromoform	µg/L	<5	<5	0.19
Bromomethane	µg/L	<5	<5	NL
Carbon Tetrachloride	µg/L	<5	<5	0.3
Chlorobenzene	µg/L	<5	<5	50
Chloroethane	µg/L	<5	<5	NL
Chloroform	µg/L	<5	<5	0.19

Notes: < indicates compound not detected at or above the concentration shown (PACE detection limit)

µg/L = micrograms per liter

NL = indicates the compound was not listed on the NC 2L Standards list

TABLE 4

VOLATILE ORGANIC COMPOUNDS ANALYTICAL RESULTS
US EPA METHOD 524.2
JACKSON COUNTY LANDFILL

November 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Units	DW-1	DW-2	NC 2L Standard
Chloromethane	µg/L	<5	<5	NL
cis-1,2-Dichloroethene	µg/L	<5	<5	70
cis-1,3-Dichloropropene	µg/L	<5	<5	NL
Dibromochloromethane	µg/L	<5	<5	NL
Dibromomethane	µg/L	<5	<5	NL
Dichlorodifluoromethane	µg/L	<5	<5	1400
Ethylbenzene	µg/L	<5	<5	29
Hexachlorobutadiene	µg/L	<5	<5	NL
Isopropylbenzene	µg/L	<5	<5	70
Methylene Chloride	µg/L	<5	<5	5
Naphthalene	µg/L	<5	<5	21
n-Butylbenzene	µg/L	<5	<5	70
n-Propylbenzene	µg/L	<5	<5	70
sec-Butylbenzene	µg/L	<5	<5	70
Styrene	µg/L	<5	<5	100
tert-Butylbenzene	µg/L	<5	<5	70
Tetrachloroethene	µg/L	<5	<5	0.7
Toluene	µg/L	<5	<5	1000
trans-1,2-Dichloroethene	µg/L	<5	<5	70
trans-1,3-Dichloropropene	µg/L	<5	<5	NL
Trichloroethene	µg/L	<5	<5	2.8
Trichlorofluoromethane	µg/L	<5	<5	2100
Vinyl Chloride	µg/L	<5	<5	0.015
Xylene (Total)	µg/L	<5	<5	530

Notes: < indicates compound not detected at or above the concentration shown (PACE detection limit)

µg/L = micrograms per liter

NL = indicates the compound was not listed on the NC 2L Standards list

TABLE 5

MONITORING WELL AND WATER TABLE ELEVATIONS
JACKSON COUNTY LANDFILL

October 21 and 22, 1999

JACKSON COUNTY, NORTH CAROLINA

Well ID	Units	Ground Surface Elevation	TOC Elevation	Depth to Water	Water Elevation	Depth to Bedrock	Bedrock Elevation	Screened Interval	Screened Elevation
MW-1	Feet	2169.40	2171.42	93.20	2078.22	83.00	2086.40	95 to 110	2074.40 to 2059.40
MW-2	Feet	2013.15	2015.38	26.45	1988.93	13.00	2000.15	45 to 60	1968.15 to 1953.15
MW-3	Feet	2044.16	2045.53	53.31	1992.22	57.00	1987.16	48.5 to 63.5	1995.66 to 1980.66
MW-4	Feet	1976.68	1980.77	29.58	1951.19	Unknown	Unknown	25 to 40	1951.68 to 1936.68
MW-5	Feet	2027.38	2028.97	49.25	1979.72	Unknown	Unknown	50 to 60	1977.38 to 1967.38

Notes: Elevations based on a survey completed on April 9, 1999 by Davenport & Assoc., Inc

TOC = Top of Casing

Depth to Bedrock and Screened Interval taken from boring logs completed on April 21, 22, & 23, 1992 by S&ME

Water Elevation based on TOC Elevation minus Depth to Water (measured from TOC)

Bedrock Elevation based on Ground Surface Elevation minus Depth to Bedrock (measured from ground surface)

Screened Elevation based on Ground Surface Elevation minus Screened Interval (measured from ground surface)

APPENDICES

APPENDIX A

FIELD DATA SAMPLING LOGS

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County Landfill 2040 DATE: 10-21-99
LOCATION: Dillsboro, NC SAMPLING TIME: 16:15
SAMPLING PERSONNEL: JMC WEATHER: Cloudy, 50°F

WELL NUMBER: MW-1 WELL DEPTH (WD): 115.10' DATE: 10-21-99@ 11:00
WELL DIAMETER: 2" WATER LEVEL (WL): 93.20' DATE: 10-21-99@ 11:00
TYPE OF CASING: PVC LENGTH OF WATER COLUMN: 21.90 FEET
MEASURING POINT: TOC (WD) - (WL) = (LWC)
COMMENTS: Calibrated pH/Temp meter and conductivity meter. ONE CASING VOLUME: 3.7 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 11.1 GALLONS
ACTUAL VOLUME PURGED: 11.5 GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	5.0	5.25	128.0	13.7	Clear	none	
2	8.0	5.31	118.0	13.2	clear	none	
3	11.0	4.70	116.0	13.5	clear	none	
4	11.5	4.86	115.0	13.5	clear	none	
5	12.0	4.99	115.0	13.4	clear	none	
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide, Total
250 ml PLASTIC		
500 ml PLASTIC	2	metals, sulfide
40 ml GLASS	4	8260, low level
250 ml GL	~~4~~	~~8260, low level~~
500 ml GLASS		
1 L GLASS	4	SVOC, Herb, Pest, PCB, 8141

PROTECTIVE CASING: Yes PAD: Yes LOCK: Yes VEGETATION: Yes COMMENTS:

Sampling Personnel Signature: Tom M. Clause Date: 10-21-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County Landfill - 2040.06 DATE: 10-21-99
LOCATION: Dillsboro, NC SAMPLING TIME: 17:30
SAMPLING PERSONNEL: JMC WEATHER:

WELL NUMBER: MW-02 WELL DEPTH (WD): 61.90 DATE: 10-21-99 @ 12:45
WELL DIAMETER: 2" WATER LEVEL (WL): 26.45 DATE: 10-21-99 @ 12:45
TYPE OF CASING: PVC LENGTH OF WATER COLUMN: 35.45 FEET
MEASURING POINT: TOC (WD) - (WL) = (LWC)
COMMENTS: ONE CASING VOLUME: 6.03 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 18.0 GALLONS
ACTUAL VOLUME PURGED: 18.0 GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	5.0	5.69	96	15.1	Clear	none	
2	10.0	5.66	88	14.3	"	"	
3	15.0	5.70	86	14.3	"	"	
4	18.0	5.68	86	14.2	"	"	
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide
250 ml PLASTIC		
500 ml PLASTIC	2	metals, Sulfide
40 ml GLASS	4	8260, low level
250 ml GL		
500 ml GLASS		
1 L GLASS	4	SVOCs, Herb, Pest, PCB, 8141

PROTECTIVE CASING: ✓ PAD: ✓ LOCK: ✓ VEGETATION: ✓ COMMENTS:

Sampling Personnel Signature: John Grace Date: 10-21-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County Landfill - 2040.00 DATE: 10-21-99
LOCATION: Dillsboro, NC SAMPLING TIME: 17:00
SAMPLING PERSONNEL: JMC WEATHER: Cloudy, 60°F

WELL NUMBER: MW-3 WELL DEPTH (WD): 62.50' DATE: 10-21-99@ 13:30
WELL DIAMETER: 2" WATER LEVEL (WL): 53.31' DATE: 10-21-99@ 13:30
TYPE OF CASING: PVC LENGTH OF WATER COLUMN: 9.19' FEET
MEASURING POINT: TOC (WD) - (WL) = (LWC)
COMMENTS: ONE CASING VOLUME: 1.5 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 4.6 GALLONS
ACTUAL VOLUME PURGED: 5.0 GALLONS

WELL CASING VOLUMES (WCV)
2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	3.0	5.37	~~16.5~~ 193	16.3	Clear	Slight	
2	4.0	5.38	192	16.0	"	"	
3	5.0	5.40	193	15.7	"	"	
4							
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide
250 ml PLASTIC		
500 ml PLASTIC	2	metals, Sulfide
40 ml GLASS	4	8260, low level
250 ml GL		
500 ml GLASS		
1 L GLASS	4	SVOCs, Herb, Pest, PCBs, 8141

PROTECTIVE CASING: ✓ PAD: ✓ LOCK: ✓ VEGETATION: ✓ COMMENTS:

Sampling Personnel Signature: [signature] Date: 10-21-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson Co. Landfill 20240.06 DATE: 10-22-99
LOCATION: Dillsboro, NC SAMPLING TIME: 12:00
SAMPLING PERSONNEL: JMC WEATHER: Pt. Cloudy, 60°F

WELL NUMBER: MW-4 WELL DEPTH (WD): 42.60' DATE: 10-22-99 @ 11:20
WELL DIAMETER: 2" WATER LEVEL (WL): 29.58' DATE: 10-22-99 @ 11:20
TYPE OF CASING: PVC LENGTH OF WATER COLUMN: 13.02 FEET
MEASURING POINT: TOC (WD) - (WL) = (LWC)
COMMENTS: ONE CASING VOLUME: 2.2 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 6.6 GALLONS
ACTUAL VOLUME PURGED: 7.0 GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	5.0	4.53	509	15.0	Tan	medium	
2	6.0	4.77	491	15.7	"	"	
3	7.0	4.85	492	15.9	"	"	
4							
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide
250 ml PLASTIC		
500 ml PLASTIC	2	Metals, Sulfide
40 ml GLASS	4	8260, low level
250 ml GL		
500 ml GLASS		
1 L GLASS	4	SVOCs, Pest, Herb, PCB, 8141

PROTECTIVE CASING: ✓ PAD: ✓ LOCK: ✓ VEGETATION: ✓ COMMENTS:

Sampling Personnel Signature: John Chrome Date: 10-22-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County Landfill 2040.00 DATE: 10-21-99
LOCATION: Dillsboro, NC SAMPLING TIME: 15:30
SAMPLING PERSONNEL: JMC WEATHER: Pt. Cloudy, 60°F

WELL NUMBER: MW-05 WELL DEPTH (WD): 79.90' DATE: 10-21-99@14:15
WELL DIAMETER: 2" WATER LEVEL (WL): 49.25' DATE: 10-21-99@14:15
TYPE OF CASING: PVC LENGTH OF WATER COLUMN: 30.65 FEET
MEASURING POINT: TOC (WD) - (WL) = (LWC)
COMMENTS: ONE CASING VOLUME: 5.21 GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: 15.6 GALLONS
ACTUAL VOLUME PURGED: 16.0 GALLONS

WELL CASING VOLUMES (WCV)
2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	10.0	5.92	404	18.5	Tan	Medium	
2	13.0	5.99	555	16.3	Tan	"	
3	15.0	5.87	483	16.0	"	"	
4	16.0	5.84	458	16.0	"	"	
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide Total
250 ml PLASTIC	1	App 2 Metals
500 ml PLASTIC	2	Sulfide
40 ml GLASS	4	VOCs
250 ml GL		
500 ml GLASS		
1 L GLASS	4	App 2 SVOCs, Herb, Pest, PCB, 8141 Pest

PROTECTIVE CASING: ✓ PAD: ✓ LOCK: ✓ VEGETATION: ✓ COMMENTS:

Sampling Personnel Signature: Jon Clare Date: 10-21-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County Landfill 2040.06 DATE: 10-22-99
LOCATION: Dillsborro, NC SAMPLING TIME: 10:15
SAMPLING PERSONNEL: JMC WEATHER: Pt. Cloudy 50°F

~~WELL~~ NUMBER: SW-1
~~WELL DIAMETER~~: Tuckasegee River
~~TYPE OF~~ CASING: Upstream
MEASURING POINT:
COMMENTS:

WELL DEPTH (WD): DATE:
WATER LEVEL (WL): DATE:
LENGTH OF WATER COLUMN: FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: GALLONS
ACTUAL VOLUME PURGED: GALLONS

WELL CASING VOLUMES (WCV)
2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1							
2							
3							
4							
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide
250 ml PLASTIC		
500 ml PLASTIC	2	metals, Sulfide
40 ml GLASS	4	8260 VOCs
250 ml GL		
500 ml GLASS		
1 L GLASS	4	SVOCs, Pest, Herb, PCB, 8141

PROTECTIVE CASING: PAD: LOCK: VEGETATION: COMMENTS:

Sampling Personnel Signature: Jim Clare Date: 10-22-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson County LF 20210.06 DATE: 10-22-99
LOCATION: Dillsboro, NC SAMPLING TIME: 10:45
SAMPLING PERSONNEL: JML WEATHER: Pt. Cloudy 60°F

~~WELL~~ NUMBER: SW-2
~~WELL DIAMETER~~: Tuckasegee River
~~TYPE OF CASING~~: Downstream
MEASURING POINT:
COMMENTS:

WELL DEPTH (WD): DATE:
WATER LEVEL (WL): DATE:
LENGTH OF WATER COLUMN: FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: GALLONS
ACTUAL VOLUME PURGED: GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER:

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1							
2							
3							
4							
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC	1	Cyanide
250 ml PLASTIC		
500 ml PLASTIC	2	metals, sulfide
40 ml GLASS	4	VOCs, 8260
250 ml GL		
500 ml GLASS		
1 L GLASS	4	SVOCs, Herb, Pest-PCB, 8141

PROTECTIVE CASING: PAD: LOCK: VEGETATION: COMMENTS:

Sampling Personnel Signature: [signature] Date: 10-22-99

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson Co. LF DATE: 11-22-99
LOCATION: Dillsboro, NC SAMPLING TIME: 14:20
SAMPLING PERSONNEL: JMC WEATHER: Pt. Cloudy, 65°F

WELL NUMBER: DW-1 - WILKIE
WELL DIAMETER: ?
TYPE OF CASING: ?
MEASURING POINT: ?
COMMENTS:

WELL DEPTH (WD): DATE:
WATER LEVEL (WL): DATE:
LENGTH OF WATER COLUMN: FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: GALLONS
ACTUAL VOLUME PURGED: 30 GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER: Spiral
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER: "

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	10	7.82	63	15.4	Clear	None	
2	20	~~8.87~~ 7.49	48	14.5	"	"	
3	30	~~8.52~~ 7.82	51	14.3	"	"	
4	35	7.40	53	14.4	"	"	
5							
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC		
250 ml PLASTIC		
500 ml PLASTIC		
40 ml GLASS	4	8260 VOCs
250 ml GL		524.2 Drinking Water
500 ml GLASS		
1 L GLASS		

PROTECTIVE CASING: PAD: LOCK: VEGETATION: COMMENTS:

Sampling Personnel Signature: Date:

THE FLETCHER GROUP

48 Patton Avenue, Suite 303
Asheville, North Carolina 28801
(828) 281-3350 Fax: (828) 281-3351

WELL SAMPLING LOG

FACILITY NAME: Jackson Co. LF DATE: 11-22-99
LOCATION: Dillsboro, NC SAMPLING TIME: 14:45
SAMPLING PERSONNEL: YMC WEATHER: Pt. Cloudy, 65°F

WELL NUMBER: DW-2-BULLA
WELL DIAMETER: ?
TYPE OF CASING: ?
MEASURING POINT: ?
COMMENTS:

WELL DEPTH (WD): DATE:
WATER LEVEL (WL): DATE:
LENGTH OF WATER COLUMN: FEET
(WD) - (WL) = (LWC)
ONE CASING VOLUME: GALLONS
(LWC) x (WCV)
THREE CASING VOLUMES: GALLONS
ACTUAL VOLUME PURGED: 50 GALLONS

WELL CASING VOLUMES (WCV)

2" = 0.17 Gal/Ft 3" = 0.38 Gal/Ft 4" = 0.66 Gal/Ft 6" = 1.5 Gal/Ft 8" = 2.6 Gal/Ft 12" = 5.8 Gal/Ft

PURGE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER: Spaket
SAMPLE METHOD: BAILER-TEFLON BAILER-DISP. DEDICATED PUMP HOMELITE GRUNDFOS OTHER: Spaket

READING	GALLONS PURGED	pH UNITS	SPECIFIC CONDUCTANCE umhos/cm	TEMPERATURE C°	COLOR	TURBIDITY	COMMENTS
1	10	7.55	26	14.5	Clear	None	
2	20	7.23	23	14.0	"	"	
3	30	6.80	23	13.4	"	"	
4	40	6.66	23	13.7	"	"	
5	50	6.54	23	13.8	"	"	
6							
7							
8							
9							

SAMPLING CONTAINER	NUMBER OF CONTAINERS	CONSTITUENTS SAMPLED
125 ml PLASTIC		
250 ml PLASTIC		
500 ml PLASTIC		
40 ml GLASS	4	VOCs 524.2 Drinking water
250 ml GL		
500 ml GLASS		
1 L GLASS		

PROTECTIVE CASING: PAD: LOCK: VEGETATION: COMMENTS:

Sampling Personnel Signature: Date:

APPENDIX B

LABORATORY ANALYTICAL REPORTS

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

November 22, 1999

Mr. Jim McElduff
The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

RE: Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Dear Mr. McElduff:

Enclosed are the results of analyses for sample(s) received by the laboratory October 22, 1999 through October 23, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Kerr
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

DATE: 11/22/99
PAGE: 1

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

Solid results are reported on a dry weight basis

Pace Sample No: 92682590 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-5 Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/01/99	TYM	7440-36-0	
Arsenic	ND	mg/l	0.005	11/01/99	TYM	7440-38-2	
Barium	0.44	mg/l	0.005	11/01/99	TYM	7440-39-3	
Beryllium	0.0018	mg/l	0.001	11/01/99	TYM	7440-41-7	
Cadmium	ND	mg/l	0.001	11/01/99	TYM	7440-43-9	
Chromium	0.018	mg/l	0.002	11/01/99	TYM	7440-47-3	
Cobalt	0.018	mg/l	0.005	11/01/99	TYM	7440-48-4	
Copper	0.04	mg/l	0.002	11/01/99	TYM	7440-50-8	
Lead	0.016	mg/l	0.005	11/01/99	TYM	7439-92-1	
Nickel	0.021	mg/l	0.005	11/01/99	TYM	7440-02-0	
Selenium	ND	mg/l	0.005	11/01/99	TYM	7782-49-2	
Silver	ND	mg/l	0.002	11/01/99	TYM	7440-22-4	
Tin	ND	mg/l	0.005	11/01/99	TYM	7440-31-5	
Vanadium	0.038	mg/l	0.005	11/01/99	TYM	7440-62-2	
Zinc	0.083	mg/l	0.01	11/01/99	TYM	7440-66-6	
Date Digested				10/26/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/26/99			
Wet Chemistry							

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

DATE: 11/05/99
PAGE: 1

Pace Analytical - Charlotte
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078

Pace Project Number: 8511614
Client Project ID: 929486

Attn: Ms. Felecia Grogan
Phone: (704)875-9092

Solid results are reported on a wet weight basis

Pace Sample No: 851175323 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-5 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/29/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/29/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/29/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/29/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/29/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/29/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/29/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/29/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/29/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/29/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/29/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/29/99		50-29-3	
Diallate	ND	ug/l	1	10/29/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/29/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/29/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/29/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/29/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/29/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/29/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/29/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/29/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/29/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/29/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/29/99		8001-35-2	
Decachlorobiphenyl (S)	76	%		10/29/99		2051-24-3	
Tetrachloro-meta-xylene (S)	86	%		10/29/99		877-09-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175323 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-5 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
SW8082 PCBs Water		Method: EPA 8082			Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/28/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/28/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/28/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/28/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/28/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/28/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/28/99		11096-82-5	
Decachlorobiphenyl (S)	84	%		10/28/99		2051-24-3	
Tetrachloro-meta-xylene (S)	101	%		10/28/99		877-09-8	
GC/MS Volatiles							
GC/MS VOCs, RCRA		Method: EPA 8260			Prep Method: EPA 8260		
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8	
Chloromethane	ND	ug/l	10	10/29/99		74-87-3	
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4	
Bromomethane	ND	ug/l	10	10/29/99		74-83-9	
Chloroethane	ND	ug/l	10	10/29/99		75-00-3	
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4	
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2	
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4	
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5	
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3	
Chloroform	ND	ug/l	5	10/29/99		67-66-3	
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6	
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5	
Benzene	ND	ug/l	5	10/29/99		71-43-2	
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2	
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6	
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5	
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4	
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3	
Toluene	ND	ug/l	5	10/29/99		108-88-3	
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5	
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4	
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1	
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4	
Chlorobenzene	5.0	ug/l	5	10/29/99		108-90-7	
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175323
Client Sample ID: MW-5

Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4	
Styrene	ND	ug/l	5	10/29/99		100-42-5	
Bromoform	ND	ug/l	5	10/29/99		75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5	
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4	
1,3-Dichlorobenzene	14	ug/l	5	10/29/99		541-73-1	
1,4-Dichlorobenzene	14	ug/l	5	10/29/99		106-46-7	
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1	
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8	
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	44	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	104	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	103	%		10/29/99		17060-07-0	
Toluene-d8 (S)	110	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water — Method: EPA 8270 — Prep Method: EPA 3520

1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99	95-94-3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175323
Client Sample ID: MW-5

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99		120-82-1	
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99		99-35-4	
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99		99-65-0	
1,4-Naphthoquinone	ND	ug/l	50	10/31/99		130-15-4	
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99		58-90-2	
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99		95-95-4	
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99		88-06-2	
2,4-Dichlorophenol	ND	ug/l	10	10/31/99		120-83-2	
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175323
Client Sample ID: MW-5

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175323
Client Sample ID: MW-5

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	153	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	61	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	57	%		10/31/99		1718-51-0	
Phenol-d6 (S)	24	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	24	%		10/31/99		367-12-4	
2,4,6-Tribromophenol (S)	23	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682608 | Date Collected: 10/21/99 | Matrix: Water
Client Sample ID: MW-1 | Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/01/99	TYM	7440-36-0	
Arsenic	ND	mg/l	0.005	11/01/99	TYM	7440-38-2	
Barium	0.09	mg/l	0.005	11/01/99	TYM	7440-39-3	
Beryllium	ND	mg/l	0.001	11/01/99	TYM	7440-41-7	
Cadmium	ND	mg/l	0.001	11/01/99	TYM	7440-43-9	
Chromium	ND	mg/l	0.002	11/01/99	TYM	7440-47-3	
Cobalt	0.12	mg/l	0.005	11/01/99	TYM	7440-48-4	
Copper	0.002	mg/l	0.002	11/01/99	TYM	7440-50-8	
Lead	ND	mg/l	0.005	11/01/99	TYM	7439-92-1	
Nickel	0.0095	mg/l	0.005	11/01/99	TYM	7440-02-0	
Selenium	ND	mg/l	0.005	11/01/99	TYM	7782-49-2	
Silver	ND	mg/l	0.002	11/01/99	TYM	7440-22-4	
Tin	ND	mg/l	0.005	11/01/99	TYM	7440-31-5	
Vanadium	ND	mg/l	0.005	11/01/99	TYM	7440-62-2	
Zinc	0.038	mg/l	0.01	11/01/99	TYM	7440-66-6	
Date Digested				10/26/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/26/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/02/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682608 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-1 Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	81	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331 | Date Collected: 10/21/99 | Matrix: Water
Client Sample ID: MW-1 | Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/29/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/29/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/29/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/29/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/29/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/29/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/29/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/29/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/29/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/29/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/29/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/29/99		50-29-3	
Diallate	ND	ug/l	1	10/29/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/29/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/29/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/29/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/29/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/29/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/29/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/29/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/29/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/29/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/29/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/29/99		8001-35-2	
Decachlorobiphenyl (S)	75	%		10/29/99		2051-24-3	
Tetrachloro-meta-xylene (S)	79	%		10/29/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/28/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/28/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/28/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/28/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/28/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/28/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/28/99		11096-82-5	
Decachlorobiphenyl (S)	83	%		10/28/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331
Client Sample ID: MW-1

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	80	%		10/28/99		877-09-8	

GC/MS Volatiles

GC/MS VOCs, RCRA — Method: EPA 8260 — Prep Method: EPA 8260

Dichlorodifluoromethane	ND	ug/l	50	10/29/99	75-71-8
Chloromethane	ND	ug/l	10	10/29/99	74-87-3
Vinyl Chloride	ND	ug/l	10	10/29/99	75-01-4
Bromomethane	ND	ug/l	10	10/29/99	74-83-9
Chloroethane	16	ug/l	10	10/29/99	75-00-3
Trichlorofluoromethane	ND	ug/l	5	10/29/99	75-69-4
Methylene Chloride	26	ug/l	5	10/29/99	75-09-2
1,1-Dichloroethene	ND	ug/l	5	10/29/99	75-35-4
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99	156-60-5
1,1-Dichloroethane	32	ug/l	5	10/29/99	75-34-3
Chloroform	ND	ug/l	5	10/29/99	67-66-3
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99	71-55-6
Carbon Tetrachloride	ND	ug/l	5	10/29/99	56-23-5
Benzene	8.9	ug/l	5	10/29/99	71-43-2
1,2-Dichloroethane	ND	ug/l	5	10/29/99	107-06-2
Trichloroethene	ND	ug/l	5	10/29/99	79-01-6
1,2-Dichloropropane	ND	ug/l	5	10/29/99	78-87-5
Bromodichloromethane	ND	ug/l	5	10/29/99	75-27-4
Dibromomethane	ND	ug/l	5	10/29/99	74-95-3
Toluene	ND	ug/l	5	10/29/99	108-88-3
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99	79-00-5
Tetrachloroethene	ND	ug/l	5	10/29/99	127-18-4
Dibromochloromethane	ND	ug/l	5	10/29/99	124-48-1
1,2-Dibromoethane	ND	ug/l	5	10/29/99	106-93-4
Chlorobenzene	ND	ug/l	5	10/29/99	108-90-7
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99	630-20-6
Ethylbenzene	14	ug/l	5	10/29/99	100-41-4
Styrene	ND	ug/l	5	10/29/99	100-42-5
Bromoform	ND	ug/l	5	10/29/99	75-25-2
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99	79-34-5
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99	96-18-4
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99	541-73-1
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99	106-46-7
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99	95-50-1
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99	96-12-8

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331
Client Sample ID: MW-1

Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	49	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	13	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	107	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	105	%		10/29/99		17060-07-0	
Toluene-d8 (S)	111	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water — Method: EPA 8270 — Prep Method: EPA 3520

1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99		95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99		120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99		99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99		99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99		130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99		
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99		58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99		95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99		88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99		120-83-2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331
Client Sample ID: MW-1

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331
Client Sample ID: MW-1

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175331 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-1 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	180	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	58	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	51	%		10/31/99		1718-51-0	
Phenol-d6 (S)	21	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	31	%		10/31/99		367-12-4	
2,4,6-Tribromophenol (S)	12	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682616 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-2 Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/01/99	TYM	7440-36-0	
Arsenic	ND	mg/l	0.005	11/01/99	TYM	7440-38-2	
Barium	0.03	mg/l	0.005	11/01/99	TYM	7440-39-3	
Beryllium	ND	mg/l	0.001	11/01/99	TYM	7440-41-7	
Cadmium	ND	mg/l	0.001	11/01/99	TYM	7440-43-9	
Chromium	ND	mg/l	0.002	11/01/99	TYM	7440-47-3	
Cobalt	0.058	mg/l	0.005	11/01/99	TYM	7440-48-4	
Copper	ND	mg/l	0.002	11/01/99	TYM	7440-50-8	
Lead	ND	mg/l	0.005	11/01/99	TYM	7439-92-1	
Nickel	0.0074	mg/l	0.005	11/01/99	TYM	7440-02-0	
Selenium	ND	mg/l	0.005	11/01/99	TYM	7782-49-2	
Silver	ND	mg/l	0.002	11/01/99	TYM	7440-22-4	
Tin	ND	mg/l	0.005	11/01/99	TYM	7440-31-5	
Vanadium	ND	mg/l	0.005	11/01/99	TYM	7440-62-2	
Zinc	0.014	mg/l	0.01	11/01/99	TYM	7440-66-6	
Date Digested				10/26/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/26/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/02/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682616 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-2 Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	82	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356
Client Sample ID: MW-2

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/30/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/30/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/30/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/30/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/30/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/30/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/30/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/30/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/30/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/30/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/30/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/30/99		50-29-3	
Diallate	ND	ug/l	1	10/30/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/30/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/30/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/30/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/30/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/30/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/30/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/30/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/30/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/30/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/30/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/30/99		8001-35-2	
Decachlorobiphenyl (S)	76	%		10/30/99		2051-24-3	
Tetrachloro-meta-xylene (S)	78	%		10/30/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/28/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/28/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/28/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/28/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/28/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/28/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/28/99		11096-82-5	
Decachlorobiphenyl (S)	85	%		10/28/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-2 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	74	%		10/28/99		877-09-8	
GC/MS Volatiles							
GC/MS VOCs, RCRA		Method: EPA 8260			Prep Method: EPA 8260		
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8	
Chloromethane	ND	ug/l	10	10/29/99		74-87-3	
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4	
Bromomethane	ND	ug/l	10	10/29/99		74-83-9	
Chloroethane	ND	ug/l	10	10/29/99		75-00-3	
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4	
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2	
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4	
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5	
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3	
Chloroform	ND	ug/l	5	10/29/99		67-66-3	
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6	
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5	
Benzene	ND	ug/l	5	10/29/99		71-43-2	
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2	
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6	
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5	
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4	
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3	
Toluene	ND	ug/l	5	10/29/99		108-88-3	
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5	
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4	
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1	
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4	
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7	
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6	
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4	
Styrene	ND	ug/l	5	10/29/99		100-42-5	
Bromoform	ND	ug/l	5	10/29/99		75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5	
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4	
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99		541-73-1	
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99		106-46-7	
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1	
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356
Client Sample ID: MW-2

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	102	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	100	%		10/29/99		17060-07-0	
Toluene-d8 (S)	111	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water	Method: EPA 8270				Prep Method: EPA 3520
1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99	95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99	120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99	99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99	99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99	130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99	
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99	58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99	95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99	88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99	120-83-2

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356
Client Sample ID: MW-2
Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356
Client Sample ID: MW-2
Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175356 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-2 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	149	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	48	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	74	%		10/31/99		1718-51-0	
Phenol-d6 (S)	16	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	14	%		10/31/99		367-12-4	1
2,4,6-Tribromophenol (S)	15	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682624 | Date Collected: 10/21/99 | Matrix: Water
Client Sample ID: MW-3 | Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/01/99	TYM	7440-36-0	
Arsenic	ND	mg/l	0.005	11/01/99	TYM	7440-38-2	
Barium	0.083	mg/l	0.005	11/01/99	TYM	7440-39-3	
Beryllium	ND	mg/l	0.001	11/01/99	TYM	7440-41-7	
Cadmium	ND	mg/l	0.001	11/01/99	TYM	7440-43-9	
Chromium	ND	mg/l	0.002	11/01/99	TYM	7440-47-3	
Cobalt	ND	mg/l	0.005	11/01/99	TYM	7440-48-4	
Copper	ND	mg/l	0.002	11/01/99	TYM	7440-50-8	
Lead	ND	mg/l	0.005	11/01/99	TYM	7439-92-1	
Nickel	0.0081	mg/l	0.005	11/01/99	TYM	7440-02-0	
Selenium	ND	mg/l	0.005	11/01/99	TYM	7782-49-2	
Silver	ND	mg/l	0.002	11/01/99	TYM	7440-22-4	
Tin	ND	mg/l	0.005	11/01/99	TYM	7440-31-5	
Vanadium	ND	mg/l	0.005	11/01/99	TYM	7440-62-2	
Zinc	ND	mg/l	0.01	11/01/99	TYM	7440-66-6	
Date Digested				10/26/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/26/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/02/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92682624 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-3 Date Received: 10/22/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	98	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175349
Client Sample ID: MW-3
Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/29/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/29/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/29/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/29/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/29/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/29/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/29/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/29/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/29/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/29/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/29/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/29/99		50-29-3	
Diallate	ND	ug/l	1	10/29/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/29/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/29/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/29/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/29/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/29/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/29/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/29/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/29/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/29/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/29/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/29/99		8001-35-2	
Decachlorobiphenyl (S)	73	%		10/29/99		2051-24-3	
Tetrachloro-meta-xylene (S)	76	%		10/29/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/28/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/28/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/28/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/28/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/28/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/28/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/28/99		11096-82-5	
Decachlorobiphenyl (S)	79	%		10/28/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175349
Client Sample ID: MW-3

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	71	%		10/28/99		877-09-8	

GC/MS Volatiles

GC/MS VOCs, RCRA	Method: EPA 8260				Prep Method: EPA 8260	
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8
Chloromethane	ND	ug/l	10	10/29/99		74-87-3
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4
Bromomethane	ND	ug/l	10	10/29/99		74-83-9
Chloroethane	ND	ug/l	10	10/29/99		75-00-3
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3
Chloroform	ND	ug/l	5	10/29/99		67-66-3
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5
Benzene	ND	ug/l	5	10/29/99		71-43-2
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3
Toluene	ND	ug/l	5	10/29/99		108-88-3
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4
Styrene	ND	ug/l	5	10/29/99		100-42-5
Bromoform	ND	ug/l	5	10/29/99		75-25-2
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99		541-73-1
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99		106-46-7
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175349
Client Sample ID: MW-3

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	5.8	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	104	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	104	%		10/29/99		17060-07-0	
Toluene-d8 (S)	111	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water — Method: EPA 8270 — Prep Method: EPA 3520

1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99	95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99	120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99	99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99	99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99	130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99	
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99	58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99	95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99	88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99	120-83-2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175349
Client Sample ID: MW-3
Date Collected: 10/21/99
Date Received: 10/23/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851175349 Date Collected: 10/21/99 Matrix: Water
Client Sample ID: MW-3 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 979486

Pace Sample No: 851175349
Client Sample ID: MW-3

Date Collected: 10/21/99
Date Received: 10/23/99

Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	173	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	50	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	46	%		10/31/99		1718-51-0	
Phenol-d6 (S)	12	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	5	%		10/31/99		367-12-4	1
2,4,6-Tribromophenol (S)	4	%		10/31/99		118-79-6	1
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-1/684513 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/30/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/30/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/30/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/30/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/30/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/30/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/30/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/30/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/30/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/30/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/30/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/30/99		50-29-3	
Diallate	ND	ug/l	1	10/30/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/30/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/30/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/30/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/30/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/30/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/30/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/30/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/30/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/30/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/30/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/30/99		8001-35-2	
Decachlorobiphenyl (S)	81	%		10/30/99		2051-24-3	
Tetrachloro-meta-xylene (S)	76	%		10/30/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/28/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/28/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/28/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/28/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/28/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/28/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/28/99		11096-82-5	
Decachlorobiphenyl (S)	82	%		10/28/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830
Client Sample ID: SW-1/684513
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	72	%		10/28/99		877-09-8	
GC/MS Volatiles							
GC/MS VOCs, RCRA	Method: EPA 8260				Prep Method: EPA 8260		
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8	
Chloromethane	ND	ug/l	10	10/29/99		74-87-3	
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4	
Bromomethane	ND	ug/l	10	10/29/99		74-83-9	
Chloroethane	ND	ug/l	10	10/29/99		75-00-3	
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4	
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2	
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4	
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5	
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3	
Chloroform	ND	ug/l	5	10/29/99		67-66-3	
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6	
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5	
Benzene	ND	ug/l	5	10/29/99		71-43-2	
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2	
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6	
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5	
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4	
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3	
Toluene	ND	ug/l	5	10/29/99		108-88-3	
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5	
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4	
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1	
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4	
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7	
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6	
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4	
Styrene	ND	ug/l	5	10/29/99		100-42-5	
Bromoform	ND	ug/l	5	10/29/99		75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5	
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4	
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99		541-73-1	
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99		106-46-7	
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1	
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830 | Date Collected: 10/22/99 | Matrix: Water
Client Sample ID: SW-1/684513 | Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	10300	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	96	%		10/29/99		17060-07-0	
Toluene-d8 (S)	111	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water — Method: EPA 8270 — Prep Method: EPA 3520

1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99		95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99		120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99		99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99		99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99		130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99		
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99		58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99		95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99		88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99		120-83-2

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830
Client Sample ID: SW-1/684513
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830
Client Sample ID: SW-1/684513
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178830 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-1/684513 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	177	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	55	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	84	%		10/31/99		1718-51-0	
Phenol-d6 (S)	18	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	19	%		10/31/99		367-12-4	
2,4,6-Tribromophenol (S)	13	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684513 | Date Collected: 10/22/99 | Matrix: Water
Client Sample ID: SW-1 | Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/02/99	JML	7440-36-0	
Arsenic	ND	mg/l	0.005	11/02/99	JML	7440-38-2	
Barium	0.021	mg/l	0.005	11/02/99	JML	7440-39-3	
Beryllium	ND	mg/l	0.001	11/02/99	JML	7440-41-7	
Cadmium	ND	mg/l	0.001	11/02/99	JML	7440-43-9	
Chromium	ND	mg/l	0.002	11/02/99	JML	7440-47-3	
Cobalt	ND	mg/l	0.005	11/02/99	JML	7440-48-4	
Copper	ND	mg/l	0.002	11/02/99	JML	7440-50-8	
Lead	ND	mg/l	0.005	11/02/99	JML	7439-92-1	
Nickel	ND	mg/l	0.005	11/02/99	JML	7440-02-0	
Selenium	ND	mg/l	0.005	11/02/99	JML	7782-49-2	
Silver	ND	mg/l	0.002	11/02/99	JML	7440-22-4	
Tin	ND	mg/l	0.005	11/02/99	JML	7440-31-5	
Vanadium	ND	mg/l	0.005	11/02/99	JML	7440-62-2	
Zinc	ND	mg/l	0.01	11/02/99	JML	7440-66-6	
Date Digested				10/29/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/28/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/03/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684513 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-1 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	89	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

DATE: 11/22/99

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684521 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-2 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/02/99	JML	7440-36-0	
Arsenic	ND	mg/l	0.005	11/02/99	JML	7440-38-2	
Barium	0.013	mg/l	0.005	11/02/99	JML	7440-39-3	
Beryllium	ND	mg/l	0.001	11/02/99	JML	7440-41-7	
Cadmium	ND	mg/l	0.001	11/02/99	JML	7440-43-9	
Chromium	ND	mg/l	0.002	11/02/99	JML	7440-47-3	
Cobalt	ND	mg/l	0.005	11/02/99	JML	7440-48-4	
Copper	ND	mg/l	0.002	11/02/99	JML	7440-50-8	
Lead	ND	mg/l	0.005	11/02/99	JML	7439-92-1	
Nickel	ND	mg/l	0.005	11/02/99	JML	7440-02-0	
Selenium	ND	mg/l	0.005	11/02/99	JML	7782-49-2	
Silver	ND	mg/l	0.002	11/02/99	JML	7440-22-4	
Tin	ND	mg/l	0.005	11/02/99	JML	7440-31-5	
Vanadium	ND	mg/l	0.005	11/02/99	JML	7440-62-2	
Zinc	ND	mg/l	0.01	11/02/99	JML	7440-66-6	
Date Digested				10/29/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/28/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/03/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684521 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-2 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	93	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 9?9486

Pace Sample No: 851178848 | Date Collected: 10/22/99 | Matrix: Water
Client Sample ID: SW-2/684521 | Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/30/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/30/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/30/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/30/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/30/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/30/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/30/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/30/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/30/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/30/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/30/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/30/99		50-29-3	
Diallate	ND	ug/l	1	10/30/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/30/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/30/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/30/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/30/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/30/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/30/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/30/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/30/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/30/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/30/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/30/99		8001-35-2	
Decachlorobiphenyl (S)	81	%		10/30/99		2051-24-3	
Tetrachloro-meta-xylene (S)	77	%		10/30/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/29/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/29/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/29/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/29/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/29/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/29/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/29/99		11096-82-5	
Decachlorobiphenyl (S)	77	%		10/29/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178848 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: SW-2/684521 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	70	%		10/29/99		877-09-8	

GC/MS Volatiles

GC/MS VOCs, RCRA — Method: EPA 8260 — Prep Method: EPA 8260

Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8
Chloromethane	ND	ug/l	10	10/29/99		74-87-3
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4
Bromomethane	ND	ug/l	10	10/29/99		74-83-9
Chloroethane	ND	ug/l	10	10/29/99		75-00-3
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3
Chloroform	ND	ug/l	5	10/29/99		67-66-3
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5
Benzene	ND	ug/l	5	10/29/99		71-43-2
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3
Toluene	ND	ug/l	5	10/29/99		108-88-3
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4
Styrene	ND	ug/l	5	10/29/99		100-42-5
Bromoform	ND	ug/l	5	10/29/99		75-25-2
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99		541-73-1
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99		106-46-7
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8[illegible]11614
Client Project ID: 929486

Pace Sample No: 851178848
Client Sample ID: SW-2/684521
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	102	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	99	%		10/29/99		17060-07-0	
Toluene-d8 (S)	110	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water — Method: EPA 8270 — Prep Method: EPA 3520

1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99		95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99		120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99		99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99		99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99		130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99		
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99		58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99		95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99		88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99		120-83-2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178848
Client Sample ID: SW-2/684521
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178848 | Date Collected: 10/22/99 | Matrix: Water
Client Sample ID: SW-2/684521 | Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178848
Client Sample ID: SW-2/684521
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	217	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	61	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	85	%		10/31/99		1718-51-0	
Phenol-d6 (S)	21	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	20	%		10/31/99		367-12-4	
2,4,6-Tribromophenol (S)	20	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684547 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Metals							
Metals by Trace ICP	Method: EPA 6010				Prep Method: EPA 3010		
Antimony	ND	mg/l	0.005	11/02/99	JML	7440-36-0	
Arsenic	ND	mg/l	0.005	11/02/99	JML	7440-38-2	
Barium	0.40	mg/l	0.005	11/02/99	JML	7440-39-3	
Beryllium	ND	mg/l	0.001	11/02/99	JML	7440-41-7	
Cadmium	ND	mg/l	0.001	11/02/99	JML	7440-43-9	
Chromium	ND	mg/l	0.002	11/02/99	JML	7440-47-3	
Cobalt	ND	mg/l	0.005	11/02/99	JML	7440-48-4	
Copper	ND	mg/l	0.002	11/02/99	JML	7440-50-8	
Lead	ND	mg/l	0.005	11/02/99	JML	7439-92-1	
Nickel	ND	mg/l	0.005	11/02/99	JML	7440-02-0	
Selenium	ND	mg/l	0.005	11/02/99	JML	7782-49-2	
Silver	ND	mg/l	0.002	11/02/99	JML	7440-22-4	
Tin	ND	mg/l	0.005	11/02/99	JML	7440-31-5	
Vanadium	ND	mg/l	0.005	11/02/99	JML	7440-62-2	
Zinc	ND	mg/l	0.01	11/02/99	JML	7440-66-6	
Date Digested				10/29/99			
Mercury in Water	Method: EPA 7470				Prep Method: EPA 7470		
Mercury	ND	mg/l	0.0002	10/27/99	TYM	7439-97-6	
Thallium, AAS Furnace	Method: EPA 7841				Prep Method: EPA 3020		
Thallium	ND	mg/l	0.002	11/04/99	TYM	7440-28-0	
Date Digested				10/28/99			
Wet Chemistry							
Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	11/03/99	DJD	57-12-5	
Sulfide, Total	Method: EPA 376.1				Prep Method: EPA 376.2		
Sulfide	ND	mg/l	1	10/27/99	KAG		
GC Semivolatiles							
Chlorinated Acid Herbicides	Method: EPA 8151				Prep Method: EPA 3510		
2,4-D	ND	ug/l	2	11/02/99	TSG	94-75-7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Pace Sample No: 92684547 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4 Date Received: 10/23/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4,5-TP(Silvex)	ND	ug/l	2	11/02/99	TSG	93-72-1	
2,4,5-T	ND	ug/l	2	11/02/99	TSG	93-76-5	
Dinoseb	ND	ug/l	1	11/02/99	TSG	88-85-7	
Dichlorophenyl Acetic Acid (S)	103	%		11/02/99	TSG	19719-28-9	
Date Extracted				10/30/99			

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4/684547 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GC Semivolatiles							
SW8081 Pesticides, Water	Method: EPA 8081				Prep Method: Organics prep.		
Aldrin	ND	ug/l	0.05	10/30/99		309-00-2	
alpha-BHC	ND	ug/l	0.05	10/30/99		319-84-6	
beta-BHC	ND	ug/l	0.05	10/30/99		319-85-7	
gamma-BHC (Lindane)	ND	ug/l	0.05	10/30/99		58-89-9	
delta-BHC	ND	ug/l	0.05	10/30/99		319-86-8	
Chlordane	ND	ug/l	0.5	10/30/99		57-74-9	
alpha-Chlordane	ND	ug/l	0.05	10/30/99		5103-71-9	
gamma-Chlordane	ND	ug/l	0.05	10/30/99		5103-74-2	
Chlorobenzilate	ND	ug/l	1	10/30/99		510-15-6	
4,4'-DDD	ND	ug/l	0.1	10/30/99		72-54-8	
4,4'-DDE	ND	ug/l	0.1	10/30/99		72-55-9	
4,4'-DDT	ND	ug/l	0.1	10/30/99		50-29-3	
Diallate	ND	ug/l	1	10/30/99		2303-16-4	
Dieldrin	ND	ug/l	0.1	10/30/99		60-57-1	
Endosulfan I	ND	ug/l	0.05	10/30/99		959-98-8	
Endosulfan II	ND	ug/l	0.1	10/30/99		33213-65-9	
Endosulfan sulfate	ND	ug/l	0.1	10/30/99		1031-07-8	
Endrin	ND	ug/l	0.1	10/30/99		72-20-8	
Endrin aldehyde	ND	ug/l	0.1	10/30/99		7421-93-4	
Heptachlor	ND	ug/l	0.05	10/30/99		76-44-8	
Heptachlor Epoxide	ND	ug/l	0.05	10/30/99		1024-57-3	
Isodrin	ND	ug/l	0.1	10/30/99		465-73-6	
Methoxychlor	ND	ug/l	0.5	10/30/99		72-43-5	
Toxaphene	ND	ug/l	2.4	10/30/99		8001-35-2	
Decachlorobiphenyl (S)	79	%		10/30/99		2051-24-3	
Tetrachloro-meta-xylene (S)	94	%		10/30/99		877-09-8	
SW8082 PCBs Water	Method: EPA 8082				Prep Method: Organics prep.		
PCB-1016 (Arochlor 1016)	ND	ug/l	1	10/29/99		12674-11-2	
PCB-1221 (Arochlor 1221)	ND	ug/l	1	10/29/99		11104-28-2	
PCB-1232 (Arochlor 1232)	ND	ug/l	1	10/29/99		11141-16-5	
PCB-1242 (Arochlor 1242)	ND	ug/l	1	10/29/99		53469-21-9	
PCB-1248 (Arochlor 1248)	ND	ug/l	1	10/29/99		12672-29-6	
PCB-1254 (Arochlor 1254)	ND	ug/l	1	10/29/99		11097-69-1	
PCB-1260 (Arochlor 1260)	ND	ug/l	1	10/29/99		11096-82-5	
Decachlorobiphenyl (S)	82	%		10/29/99		2051-24-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4/684547 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Tetrachloro-meta-xylene (S)	77	%		10/29/99		877-09-8	
GC/MS Volatiles							
GC/MS VOCs, RCRA	Method: EPA 8260				Prep Method: EPA 8260		
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8	
Chloromethane	ND	ug/l	10	10/29/99		74-87-3	
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4	
Bromomethane	ND	ug/l	10	10/29/99		74-83-9	
Chloroethane	ND	ug/l	10	10/29/99		75-00-3	
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4	
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2	
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4	
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5	
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3	
Chloroform	ND	ug/l	5	10/29/99		67-66-3	
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6	
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5	
Benzene	ND	ug/l	5	10/29/99		71-43-2	
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2	
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6	
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5	
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4	
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3	
Toluene	ND	ug/l	5	10/29/99		108-88-3	
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5	
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4	
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1	
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4	
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7	
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6	
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4	
Styrene	ND	ug/l	5	10/29/99		100-42-5	
Bromoform	ND	ug/l	5	10/29/99		75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5	
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4	
1,3-Dichlorobenzene	6.7	ug/l	5	10/29/99		541-73-1	
1,4-Dichlorobenzene	6.7	ug/l	5	10/29/99		106-46-7	
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1	
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4/684547 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	20	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	104	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	103	%		10/29/99		17060-07-0	
Toluene-d8 (S)	110	%		10/29/99		2037-26-5	

GC/MS Semivolatiles

Semivolatile Organics, Water	Method: EPA 8270				Prep Method: EPA 3520
1,2,4,5-Tetrachlorobenzene	ND	ug/l	10	10/31/99	95-94-3
1,2,4-Trichlorobenzene	ND	ug/l	10	10/31/99	120-82-1
1,3,5-Trinitrobenzene	ND	ug/l	10	10/31/99	99-35-4
1,3-Dinitrobenzene	ND	ug/l	10	10/31/99	99-65-0
1,4-Naphthoquinone	ND	ug/l	50	10/31/99	130-15-4
1-Naphthaleneamine	ND	ug/l	10	10/31/99	
2,3,4,6-Tetrachlorophenol	ND	ug/l	10	10/31/99	58-90-2
2,4,5-Trichlorophenol	ND	ug/l	25	10/31/99	95-95-4
2,4,6-Trichlorophenol	ND	ug/l	10	10/31/99	88-06-2
2,4-Dichlorophenol	ND	ug/l	10	10/31/99	120-83-2

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855
Client Sample ID: MW-4/684547
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
2,4-Dimethylphenol	ND	ug/l	10	10/31/99		105-67-9	
2,4-Dinitrophenol	ND	ug/l	25	10/31/99		51-28-5	
2,4-Dinitrotoluene	ND	ug/l	10	10/31/99		121-14-2	
2,6-Dichlorophenol	ND	ug/l	10	10/31/99		87-65-0	
2,6-Dinitrotoluene	ND	ug/l	10	10/31/99		606-20-2	
2-Acetylaminofluorene	ND	ug/l	10	10/31/99		53-96-3	
2-Chloronaphthalene	ND	ug/l	10	10/31/99		91-58-7	
2-Chlorophenol	ND	ug/l	10	10/31/99		95-57-8	
2-Methylnaphthalene	ND	ug/l	10	10/31/99		91-57-6	
2-Methylphenol	ND	ug/l	10	10/31/99		95-48-7	
2-Naphthaleneamine	ND	ug/l	10	10/31/99			
2-Nitroaniline	ND	ug/l	25	10/31/99		88-74-4	
2-Nitrophenol	ND	ug/l	10	10/31/99		88-75-5	
2-sec-Butyl-4,6-dinitrophenol	ND	ug/l	10	10/31/99			
3,3'-Dichlorobenzidine	ND	ug/l	20	10/31/99		91-94-1	
3,3'-Dimethylbenzidine	ND	ug/l	10	10/31/99		119-93-7	
3-Methylcholanthrene	ND	ug/l	10	10/31/99		56-49-5	
3-Methylphenol	ND	ug/l	10	10/31/99		108-39-4	
3-Nitroaniline	ND	ug/l	25	10/31/99		99-09-2	
4,6-Dinitro-2-methylphenol	ND	ug/l	25	10/31/99		534-52-1	
4-Aminobiphenyl	ND	ug/l	10	10/31/99		92-67-1	
4-Bromophenyl-phenylether	ND	ug/l	10	10/31/99		101-55-3	
4-Chloro-3-methylphenol	ND	ug/l	10	10/31/99		59-50-7	
4-Chloroaniline	ND	ug/l	10	10/31/99		106-47-8	
4-Chlorophenyl-phenylether	ND	ug/l	10	10/31/99		7005-72-3	
4-Methylphenol	ND	ug/l	10	10/31/99		106-44-5	
4-Nitroaniline	ND	ug/l	25	10/31/99		100-01-6	
4-Nitrophenol	ND	ug/l	25	10/31/99		100-02-7	
5-Nitro-o-toluidine	ND	ug/l	10	10/31/99		99-55-8	
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10	10/31/99		57-97-6	
Acenaphthene	ND	ug/l	10	10/31/99		83-32-9	
Acenaphthylene	ND	ug/l	10	10/31/99		208-96-8	
Acetophenone	ND	ug/l	10	10/31/99		98-86-2	
Anthracene	ND	ug/l	10	10/31/99		120-12-7	
Benzo(a)anthracene	ND	ug/l	10	10/31/99		56-55-3	
Benzo(a)pyrene	ND	ug/l	10	10/31/99		50-32-8	
Benzo(b)fluoranthene	ND	ug/l	10	10/31/99		205-99-2	
Benzo(g,h,i)perylene	ND	ug/l	10	10/31/99		191-24-2	
Benzo(k)fluoranthene	ND	ug/l	10	10/31/99		207-08-9	
Benzyl Alcohol	ND	ug/l	10	10/31/99		100-51-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855 | Date Collected: 10/22/99 | Matrix: Water
Client Sample ID: MW-4/684547 | Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
bis(2-Chloroethoxy)methane	ND	ug/l	10	10/31/99		111-91-1	
bis(2-Chloroethyl)ether	ND	ug/l	10	10/31/99		111-44-4	
bis(2-Chloroisopropyl)ether	ND	ug/l	10	10/31/99		39638-32-9	
bis(2-Ethylhexyl)phthalate	ND	ug/l	10	10/31/99		117-81-7	
Butylbenzylphthalate	ND	ug/l	10	10/31/99		85-68-7	
Chrysene	ND	ug/l	10	10/31/99		218-01-9	
Dibenz(a,h)anthracene	ND	ug/l	10	10/31/99		53-70-3	
Dibenzofuran	ND	ug/l	10	10/31/99		132-64-9	
Diethylphthalate	ND	ug/l	10	10/31/99		84-66-2	
Dimethylphthalate	ND	ug/l	10	10/31/99		131-11-3	
Di-n-butylphthalate	ND	ug/l	10	10/31/99		84-74-2	
Di-n-octylphthalate	ND	ug/l	10	10/31/99		117-84-0	
Ethyl Methacrylate	ND	ug/l	10	10/31/99		97-63-2	
Ethyl Methanesulfonate	ND	ug/l	10	10/31/99		62-50-0	
Fluoranthene	ND	ug/l	10	10/31/99		206-44-0	
Fluorene	ND	ug/l	10	10/31/99		86-73-7	
Hexachlorobenzene	ND	ug/l	10	10/31/99		118-74-1	
Hexachlorobutadiene	ND	ug/l	10	10/31/99		87-68-3	
Hexachlorocyclopentadiene	ND	ug/l	10	10/31/99		77-47-4	
Hexachloroethane	ND	ug/l	10	10/31/99		67-72-1	
Hexachloropropene	ND	ug/l	10	10/31/99		1888-71-7	
Indeno(1,2,3-cd)pyrene	ND	ug/l	10	10/31/99		193-39-5	
Isophorone	ND	ug/l	10	10/31/99		78-59-1	
Isosafrole	ND	ug/l	10	10/31/99		120-58-1	
Methapyrilene	ND	ug/l	10	10/31/99		91-80-5	
Methyl Methacrylate	ND	ug/l	10	10/31/99		80-62-6	
Methyl Methanesulfonate	ND	ug/l	10	10/31/99		66-27-3	
Naphthalene	ND	ug/l	10	10/31/99		91-20-3	
Nitrobenzene	ND	ug/l	10	10/31/99		98-95-3	
N-Nitrosodiethylamine	ND	ug/l	10	10/31/99		55-18-5	
N-Nitrosodimethylamine	ND	ug/l	10	10/31/99		62-75-9	
N-Nitroso-di-n-butylamine	ND	ug/l	10	10/31/99		924-16-3	
N-Nitroso-di-n-propylamine	ND	ug/l	10	10/31/99		621-64-7	
N-Nitrosodiphenylamine	ND	ug/l	10	10/31/99		86-30-6	
N-Nitrosomethylethylamine	ND	ug/l	10	10/31/99		10595-95-6	
N-Nitrosopiperidine	ND	ug/l	10	10/31/99		100-75-4	
N-Nitrosopyrrolidine	ND	ug/l	10	10/31/99		930-55-2	
O-Toluidine	ND	ug/l	10	10/31/99		95-53-4	
P-Dimethylaminoazobenzene	ND	ug/l	10	10/31/99		60-11-7	
Pentachlorobenzene	ND	ug/l	10	10/31/99		608-93-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178855 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: MW-4/684547 Date Received: 10/25/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Pentachloronitrobenzene	ND	ug/l	10	10/31/99		82-68-8	
Pentachlorophenol	ND	ug/l	25	10/31/99		87-86-5	
Phenacetin	ND	ug/l	10	10/31/99		62-44-2	
Phenanthrene	ND	ug/l	10	10/31/99		85-01-8	
Phenol	ND	ug/l	10	10/31/99		108-95-2	
P-Phenylenediamine	ND	ug/l	20	10/31/99		106-50-3	
Pronamide	ND	ug/l	10	10/31/99		23950-58-5	
Pyrene	ND	ug/l	10	10/31/99		129-00-0	
Safrole	ND	ug/l	10	10/31/99		94-59-7	
Nitrobenzene-d5 (S)	221	%		10/31/99		4165-60-0	
2-Fluorobiphenyl (S)	65	%		10/31/99		321-60-8	
Terphenyl-d14 (S)	82	%		10/31/99		1718-51-0	
Phenol-d6 (S)	13	%		10/31/99		13127-88-3	
2-Fluorophenol (S)	8	%		10/31/99		367-12-4	1
2,4,6-Tribromophenol (S)	11	%		10/31/99		118-79-6	
Date Extracted				10/26/99			

Comments : Nitrobenzene-d5 surrogate recovery is outside QC criteria. Insufficient sample remains to perform re-extraction. High surrogate recovery indicates matrix interference and/or high bias in the results reported. No target analytes were observed.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Analytical

Pace Project Number: 8511614
Client Project ID: 929486

Pace Sample No: 851178871 Date Collected: 10/22/99 Matrix: Water
Client Sample ID: TRIP BLANK/92685056 Date Received: 10/25/99

GC/MS Volatiles

GC/MS VOCs, RCRA — Method: EPA 8260 — Prep Method: EPA 8260

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
Dichlorodifluoromethane	ND	ug/l	50	10/29/99		75-71-8	
Chloromethane	ND	ug/l	10	10/29/99		74-87-3	
Vinyl Chloride	ND	ug/l	10	10/29/99		75-01-4	
Bromomethane	ND	ug/l	10	10/29/99		74-83-9	
Chloroethane	ND	ug/l	10	10/29/99		75-00-3	
Trichlorofluoromethane	ND	ug/l	5	10/29/99		75-69-4	
Methylene Chloride	ND	ug/l	5	10/29/99		75-09-2	
1,1-Dichloroethene	ND	ug/l	5	10/29/99		75-35-4	
trans-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-60-5	
1,1-Dichloroethane	ND	ug/l	5	10/29/99		75-34-3	
Chloroform	ND	ug/l	5	10/29/99		67-66-3	
1,1,1-Trichloroethane	ND	ug/l	5	10/29/99		71-55-6	
Carbon Tetrachloride	ND	ug/l	5	10/29/99		56-23-5	
Benzene	ND	ug/l	5	10/29/99		71-43-2	
1,2-Dichloroethane	ND	ug/l	5	10/29/99		107-06-2	
Trichloroethene	ND	ug/l	5	10/29/99		79-01-6	
1,2-Dichloropropane	ND	ug/l	5	10/29/99		78-87-5	
Bromodichloromethane	ND	ug/l	5	10/29/99		75-27-4	
Dibromomethane	ND	ug/l	5	10/29/99		74-95-3	
Toluene	ND	ug/l	5	10/29/99		108-88-3	
1,1,2-Trichloroethane	ND	ug/l	5	10/29/99		79-00-5	
Tetrachloroethene	ND	ug/l	5	10/29/99		127-18-4	
Dibromochloromethane	ND	ug/l	5	10/29/99		124-48-1	
1,2-Dibromoethane	ND	ug/l	5	10/29/99		106-93-4	
Chlorobenzene	ND	ug/l	5	10/29/99		108-90-7	
1,1,1,2-Tetrachloroethane	ND	ug/l	5	10/29/99		630-20-6	
Ethylbenzene	ND	ug/l	5	10/29/99		100-41-4	
Styrene	ND	ug/l	5	10/29/99		100-42-5	
Bromoform	ND	ug/l	5	10/29/99		75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/l	5	10/29/99		79-34-5	
1,2,3-Trichloropropane	ND	ug/l	5	10/29/99		96-18-4	
1,3-Dichlorobenzene	ND	ug/l	5	10/29/99		541-73-1	
1,4-Dichlorobenzene	ND	ug/l	5	10/29/99		106-46-7	
1,2-Dichlorobenzene	ND	ug/l	5	10/29/99		95-50-1	
1,2-Dibromo-3-Chloropropane	ND	ug/l	5	10/29/99		96-12-8	
Xylene (Total)	ND	ug/l	5	10/29/99		1330-20-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8 11614
Client Project ID: 929486

Pace Sample No: 851178871
Client Sample ID: TRIP BLANK/92685056
Date Collected: 10/22/99
Date Received: 10/25/99
Matrix: Water

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
trans-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-02-6	
cis-1,3-Dichloropropene	ND	ug/l	5	10/29/99		10061-01-5	
Acetone	ND	ug/l	10	10/29/99		67-64-1	
2-Butanone	ND	ug/l	10	10/29/99		78-93-3	
4-Methyl-2-Pentanone	ND	ug/l	10	10/29/99		108-10-1	
Acrolein	ND	ug/l	100	10/29/99		107-02-8	
Acrylonitrile	ND	ug/l	100	10/29/99		107-13-1	
2-Hexanone	ND	ug/l	10	10/29/99		591-78-6	
Vinyl Acetate	ND	ug/l	5	10/29/99		108-05-4	
Iodomethane	ND	ug/l	5	10/29/99		74-88-4	
Acetonitrile	ND	ug/l	100	10/29/99		75-05-8	
Isobutanol	ND	ug/l	500	10/29/99		78-83-1	
Chloroprene	ND	ug/l	50	10/29/99		126-99-8	
Propionitrile	ND	ug/l	100	10/29/99		107-12-0	
Carbon Disulfide	ND	ug/l	5	10/29/99		75-15-0	
trans-1,4-Dichloro-2-Butene	ND	ug/l	5	10/29/99		110-57-6	
Allyl chloride	ND	ug/l	5	10/29/99		107-05-1	
Bromochloromethane	ND	ug/l	5	10/29/99		74-97-5	
cis-1,2-Dichloroethene	ND	ug/l	5	10/29/99		156-59-2	
1,3-Dichloropropane	ND	ug/l	5	10/29/99		142-28-9	
2,2-Dichloropropane	ND	ug/l	5	10/29/99		594-20-7	
1,1-Dichloropropene	ND	ug/l	5	10/29/99		563-58-6	
4-Bromofluorobenzene (S)	104	%		10/29/99		460-00-4	
1,2-Dichloroethane-d4 (S)	100	%		10/29/99		17060-07-0	
Toluene-d8 (S)	111	%		10/29/99		2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Tel: 281-488-1810
Fax: 281-488-4661

Pace Project Number: 8511614
Client Project ID: 929486

PARAMETER FOOTNOTES

ND	Not Detected
NC	Not Calculable
PRL	Pace Reporting Limit
(S)	Surrogate
[1]	Surrogate recovery failed QC criteria. Insufficient sample to perform re-extraction.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Committed To *Your* Success

November 15, 1999

Severn Trent Laboratories
200 Monroe Turnpike
Monroe, Connecticut 06468

Tel: (203) 261-4458
Fax: (203) 261-5346
www.stl-inc.com

Ms. Felicia Grogan
PACE ANALYTICAL SERVICES
9800 Kincey Avenue
Suite 100
Hunterville, NC 28078

Dear Ms. Grogan :

Please find enclosed the analytical results of 7 sample(s) received at our laboratory on October 23-26, 1999. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7099-2798A	Purchase Order #929486
Project ID: 929486/JACKSON COUNTY	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 261-4458 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Marsha K. Curl for

Jeffrey C. Curran
Laboratory Manager

JCC

7099-2798A
PACE ANALYTICAL SERVICES

Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organophosphorus Pesticides - Organophosphorus pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8141. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Nitrogen Phosphorus Detector.

There were no problems with the extraction or concentration of the client's samples.

Aqueous

TABLE GC-1.0
7099-2798A
PACE ANALYTICAL SERVICES
ORGANOPHOSPHOROUS PESTICIDES

All values are ug/L.

Client Sample I.D.	Method Blank	PBLK82 MS	PBLK82 MSD	Quant. Limits with no Dilution
Lab Sample I.D.	102699-B04	102699-B04MS	102699-B04 MSD	
Method Blank I.D.	PBLK82	PBLK82	PBLK82	
Quant. Factor	1.00	1.00	1.00	
2-Picoline	U	5.9X	6.5X	2.0
o,o,o-Triethylphosphorothioate	U	5.6X	6.4X	0.80
Thionazin	U	5.6X	6.3X	0.80
Phorate	U	5.2X	5.8X	0.80
Sulfotepp	U	5.6X	6.2X	0.80
Disulfoton	U	5.6X	6.1X	0.80
Dimethoate	U	5.7X	6.0X	0.80
Methylparathion	U	5.8X	6.1X	0.80
Parathion	U	6.1X	6.4X	0.80
Famphur	U	6.4X	6.6X	0.80
Date Received				
Date Extracted	10/26/99	10/26/99	10/26/99	
Date Analyzed	11/05/99	11/04/99	11/04/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-1.1
7099-2798A
PACE ANALYTICAL SERVICES
ORGANOPHOSPHOROUS PESTICIDES

All values are ug/L.

Client Sample I.D.	PBLK82 QC	MW-5	MW-1	Quant. Limits with no Dilution
Lab Sample I.D.	102699-B04QC	992798A-01	992798A-02	
Method Blank I.D.	PBLK82	PBLK82	PBLK82	
Quant. Factor	1.00	1.00	1.00	
2-Picoline	5.2X	U	U	2.0
o,o,o-Triethylphosphorothioate	6.4X	U	U	0.80
Thionazin	6.2X	U	U	0.80
Phorate	6.4X	U	U	0.80
Sulfotepp	6.5X	U	U	0.80
Disulfoton	6.4X	U	U	0.80
Dimethoate	7.0X	U	U	0.80
Methylparathion	6.8X	U	U	0.80
Parathion	7.5X	U	U	0.80
Famphur	6.5X	U	U	0.80
Date Received		10/23/99	10/23/99	
Date Extracted	10/26/99	10/26/99	10/26/99	
Date Analyzed	11/06/99	11/06/99	11/06/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-1.2
7099-2798A
PACE ANALYTICAL SERVICES
ORGANOPHOSPHOROUS PESTICIDES

All values are ug/L.

Client Sample I.D.	MW-2	MW-3	SW-1	Quant. Limits with no Dilution
Lab Sample I.D.	992798A-03	992798A-04	992798A-05	
Method Blank I.D.	PBLK82	PBLK82	PBLK82	
Quant. Factor	1.00	1.00	1.00	
2-Picoline	U	U	U	2.0
o,o,o-Triethylphosphorothioate	U	U	U	0.80
Thionazin	U	U	U	0.80
Phorate	U	U	U	0.80
Sulfotepp	U	U	U	0.80
Disulfoton	U	U	U	0.80
Dimethoate	U	1.2	U	0.80
Methylparathion	U	U	U	0.80
Parathion	U	U	U	0.80
Famphur	U	U	U	0.80
Date Received	10/23/99	10/23/99	10/26/99	
Date Extracted	10/26/99	10/26/99	10/26/99	
Date Analyzed	11/05/99	11/06/99	11/06/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-1.3
7099-2798A
PACE ANALYTICAL SERVICES
ORGANOPHOSPHOROUS PESTICIDES

All values are ug/L.

Client Sample I.D.	SW-2	SW-4		Quant. Limits with no Dilution
Lab Sample I.D.	992798A-06	992798A-07		
Method Blank I.D.	PBLK82	PBLK82		
Quant. Factor	1.00	1.00		
2-Picoline	U	U		2.0
o,o,o-Triethylphosphorothioate	U	U		0.80
Thionazin	U	U		0.80
Phorate	U	U		0.80
Sulfotepp	U	U		0.80
Disulfoton	U	U		0.80
Dimethoate	U	U		0.80
Methylparathion	U	U		0.80
Parathion	U	U		0.80
Famphur	U	U		0.80
Date Received	10/26/99	10/26/99		
Date Extracted	10/26/99	10/26/99		
Date Analyzed	11/05/99	11/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Committed To Your Success

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

Committed To *Your* Success

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for Severn Trent Laboratories-Connecticut are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

Severn Trent-Connecticut
Certification Summary (as of March 1999)

State	Responsible Agency	Certification	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Kansas	Department of Health and Environment	Drinking Water, Wastewater/Solid, Hazardous Waste	E-10210
Maine	Department of Human Services	Wastewater	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater Hazardous Waste	388
Oklahoma	Department of Environmental Quality	General Water Quality/ Sludge Testing	9614
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/ Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater/ Hazardous Waste	998355710

7099-2798A
PACE ANALYTICAL SERVICES
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
MW-5	992798A-01	WATER	10/21/99	10/23/99
MW-1	992798A-02	WATER	10/21/99	10/23/99
MW-2	992798A-03	WATER	10/21/99	10/23/99
MW-3	992798A-04	WATER	10/21/99	10/23/99
SW-1	992798A-05	WATER	10/22/99	10/26/99
SW-2	992798A-06	WATER	10/22/99	10/26/99
SW-4	992798A-07	WATER	10/22/99	10/26/99

IEA-CT ANALYTICAL SUMMARY

Client ID: MW-1, MW-2, MW-3, MW-5, SW-1, SW-2, SW-4
Job Number: 7099-2798A

Date: 11/15/99

Qty	Matrix	Analysis	Description
7	WATER	OP-8141-AP9	Appendix 9 OP Pestic

Pace Analytical

The Right Chemistry, The Right Solution®

7099-2798

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

494200

Page: of

Required Client Information: **Section A**

Company: Pace Analytical
Address: 9800 Kincey Ave
Suite 100
Huntersville
Phone: 704-875-9092 Fax: 704-875-9091

Required Client Information: **Section B**

Report To: Ron Kerr
Invoice To:
P.O.
Project Name: Jackson. Co.
Project Number: 928-929486

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager:
Project #:
Profile #:

Section D **Required** Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

Requested Analysis: 8141 - O.P Pesticides

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm : hh a/p	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8141 - O.P Pesticides	Remarks / Lab ID
1	SW-1	92624513	10-22-99	10:15	1	1						X	05
2	SW-2	92624521	10-22-99	10:45	1	1						X	06
3	MW-4	92624547	10-22-99	12:00	1	1						X	07
4													
5													
6													
7													
8													
9													
10													
11													
12													

2798A

PASSED BAD SCREEN

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:				RDK	10/25	5:00	FED EX	10/25	5:00
Received on ICE:	Y / N			FED EX				10/26/99	630
Sealed Cooler:	Y / N								
Samples Intact:	Y / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

Severn Trent Connecticut
Internal Chain-of-Custody

Client: PACE

STL Job #: 7099-2798A

Custody Seal: present / absent
Tamper Evident / Non Tamper Evident
intact / not intact

Date Received: 10/23/99

Sample #s: 01→04

Airbill# FE

Field C-O-C: present / absent

Locations: 96

Laboratory Sample #	Relinquished by	Accepted by	Date	Time	Reason	Relinquished by	Accepted by	Date	Time
01-04	[illegible]	KW	10/26	16:35	EXT	Used →			

STL Form# SMF00504.CT

Severn Trent Connecticut
Internal Chain-of-Custody

Client: Pace

STL Job #: 7099-2798A

Custody Seal: present / absent
Tamper Evident / Non Tamper Evident
intact / not intact

Date Received: 10/26/99

Sample #s: ~~10/26/99~~ 05-07

Airbill# FE

Field C-O-C: present / absent

Locations: 96

Laboratory Sample #	Relinquished by	Accepted by	Date	Time	Reason	Relinquished by	Accepted by	Date	Time
05-07		KW	10/26	16:35	EXT				

STL Form# SMF00504.CT

STL

GC-GC/MS Extract Chain of Custody

Fraction: BNA / Pesticide-PCB / Herbicide / O/P Pesticide / DRO / Other
(Circle one)

CLIENT: Pace

JOB NO: 2798A

SAMPLE IN (Extractions)					SAMPLE IN (Extractions)				
Sample(s)	Date	Time	Sign.	Location	Sample(s)	Date	Time	Sign.	Location
01-07	10/26	23:50	KW	50					

SAMPLE OUT					SAMPLE IN			
Sample(s)	Date	Time	Code	Sign.	Date	Time	Location	Sign.
1-7	10/27	9:00	AN	BL	10/27	10:00	50	BL
7	11/02	9:00	AN	BL	11/2	11:00	50	BL
1-7	11/04	11:00	AN	BL	11/4	11:20	50	BL
1-7	11/5	9:00	AN	BL	11/5	9:15	50	BL
1-7	11/13	10:00	AN	BL	11/13	10:10	50	BL

Codes: SC = Screening AN = Analysis

Verified By: [signature]

Date: 11/15/99

Lab Form: SMF01201.CT

IEA / CT
LABORATORY CHRONICLE

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANOPHOROUS PESTICIDE ANALYSIS

JOB #: 7099-2798A

SAMPLE ID	MATRIX	DATE COLLECTED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED
MW-5	WATER	10/21/99	10/23/99	10/26/99	11/6/99
MW-1	WATER	10/21/99	10/23/99		
MW-2	WATER	10/21/99	10/23/99		11/5/99
MW-3	WATER	10/21/99	10/23/99		11/6/99
SW-1	WATER	10/22/99	10/26/99		
SW-2	WATER	10/22/99	10/26/99		11/5/99
SW-4	WATER	10/22/99	10/26/99		

Section Supervisor (signature) Kimberly Maturo

Review & Approval (printed name) Kimberly Maturo

(Date) 11/15/99

QC Supervisor (signature) _____

Review & Approval (printed name) _____

(Date) __/__/__

2E

WATER ORGANOPHOSPHOROUS PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 2798A SDG No.: A2798

GC Column: DB-5 ID: 0.53 (mm)

	SAMPLE NO.	RNL %REC	#	OTHER %REC	#	OTHER %REC	#	OTHER %REC	#	TOT OUT
01	PBLK82MS	84								0
02	PBLK82MSD	88								0
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

ADVISORY
QC LIMITS
(60-140)

RNL = Ronnel

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II OP PEST-1
GC-8141:rev 1.0

2E
WATER ORGANOPHOSPHOROUS PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 2798A SDG No.: A2798

GC Column: DB-210 ID: 0.53 (mm)

	SAMPLE NO.	RNL %REC #	OTHER %REC #	OTHER %REC #	OTHER %REC #	TOT OUT
01	PBLK82	80				0
02	MW-2	82				0
03	SW-2	82				0
04	SW-4	86				0
05	MW-1	94				0
06	SW-1	97				0
07	MW-3	95				0
08	MW-5	102				0
09	PBLK82QC	101				0
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

ADVISORY
QC LIMITS
(60-140)

RNL = Ronnel

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II OP PEST-1
GC-8141:rev 1.0

3E

WATER ORGANOPHOSPHOROUS PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 2798A SDG No.: A2798

Matrix Spike - Sample No.: PBLK82 Conc. Units : UG/L

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
Methylparathion	6.4	0.0	5.8	90	6.1	95	5	15	29-179
Parathion	6.4	0.0	6.1	95	6.4	100	5	15	33-177
Dimethoate	6.4	0.0	5.7	89	6.0	94	5	15	45-158
Famphur	6.4	0.0	6.4	100	6.6	103	3	15	32-178
Sulfotepp	6.4	0.0	5.6	87	6.2	96	10	15	45-159
Thionazin	6.4	0.0	5.6	88	6.3	98	11	15	37-176
Disulfoton	6.4	0.0	5.6	87	6.1	95	9	15	41-159
o,o,o-TEPP	6.4	0.0	5.6	88	6.4	100	13	15	39-156
Phorate	6.4	0.0	5.2	76	5.8	85	11	15	43-157
2-Picoline	8.0	0.0	5.9	70	6.5	78	11	15	14-87

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 10 outside limits
Spike Recovery: 0 out of 20 outside limits

COMMENTS: _____

3G

WATER ORGANOPHOSPHOROUS PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 2798A SDG No.: A2798

Sample No.: PBLK82

COMPOUND	SPIKE ADDED (UG/L)	SPIKE CONCENTRATION (UG/L)	% REC #	QC. LIMITS REC.
Methylparathion	6.4	6.8	106	29-179
Parathion	6.4	7.5	117	33-177
Dimethoate	6.4	7.0	109	45-158
Famphur	6.4	6.5	102	32-178
Sulfotepp	6.4	6.5	102	45-159
Thionazin	6.4	6.2	97	37-176
Disulfoton	6.4	6.4	100	41-159
o,o,o-TEPP	6.4	6.4	100	39-156
Phorate	6.4	6.4	100	43-157
2-Picoline	8.0	5.2	65	14-87

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

FORM III OP PEST-3
GC-8141:rev 1.0

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

'he Fletcher Group
8 Patton Ave.
uite 303
sheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

ttn: Mr. Jim McElduff
'hone: (828)281-3350

C Batch ID: 18144
nalysis Method: EPA 8151
ssociated Pace Samples: 92682590 92682608 92682616 92682624 92684513 92684521 92684547

QC Batch Method: EPA 3510
Analysis Description: Chlorinated Acid Herbicides

ETHOD BLANK: 92692128
ssociated Pace Samples: 92682590 92682608 92682616 92682624 92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
2,4-D	ug/l	ND	2	
2,4,5-TP(Silvex)	ug/l	ND	2	
2,4,5-T	ug/l	ND	2	
Dinoseb	ug/l	ND	1	
Dichlorophenyl Acetic Acid (S)	%	88		

ATRIX SPIKE: 92665959

Parameter	Units	92660661	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
2,4-D	ug/l	0.6930	5.000	4.994	86.0	
2,4,5-TP(Silvex)	ug/l	0	5.000	3.728	74.6	
2,4,5-T	ug/l	0	5.000	3.730	74.6	
Dinoseb	ug/l	0	5.000	5.124	102	
Dichlorophenyl Acetic Acid (S)					88	

LABORATORY CONTROL SAMPLE: 92665967

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
2,4-D	ug/l	5.000	3.005	60.1	
2,4,5-TP(Silvex)	ug/l	5.000	3.536	70.7	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

LABORATORY CONTROL SAMPLE: 92665967

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
2,4,5-T	ug/l	5.000	2.866	57.3	
Dinoseb	ug/l	5.000	4.167	83.3	
Dichlorophenyl Acetic Acid (S)				77	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18614
Analysis Method: EPA 6010
Associated Pace Samples: 92682590 92682608 92682616 92682624

QC Batch Method: EPA 3010
Analysis Description: Metals by Trace ICP

METHOD BLANK: 92685312
Associated Pace Samples:
92682590 92682608 92682616 92682624

Parameter	Units	Method Blank Result	PRL	Footnotes
Antimony	mg/l	ND	0.005	
Arsenic	mg/l	ND	0.005	
Barium	mg/l	ND	0.005	
Beryllium	mg/l	ND	0.001	
Cadmium	mg/l	ND	0.001	
Chromium	mg/l	ND	0.002	
Cobalt	mg/l	ND	0.005	
Copper	mg/l	ND	0.002	
Lead	mg/l	ND	0.005	
Nickel	mg/l	ND	0.005	
Selenium	mg/l	ND	0.005	
Silver	mg/l	ND	0.002	
Tin	mg/l	ND	0.005	
Vanadium	mg/l	ND	0.005	
Zinc	mg/l	ND	0.01	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92685320 92685338

Parameter	Units	92682590	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Antimony	mg/l	0	0.2500	0.2210	88.4	0.2230	89.2	1	
Arsenic	mg/l	0.003560	0.2500	0.2250	88.6	0.2290	90.2	2	
Barium	mg/l	0.4350	0.2500	0.6590	89.6	0.6850	100	11	
Beryllium	mg/l	0.001840	0.2500	0.2300	91.3	0.2320	92.1	1	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92685320 92685338

Parameter	Units	92682590	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Cadmium	mg/l	0	0.2500	0.2130	85.2	0.2140	85.6	0	
Chromium	mg/l	0.01830	0.2500	0.2460	91.1	0.2510	93.1	2	
Cobalt	mg/l	0.01810	0.2500	0.2340	86.4	0.2390	88.4	2	
Copper	mg/l	0.03980	0.2500	0.2750	94.1	0.2800	96.1	2	
Lead	mg/l	0.01580	0.2500	0.2240	83.3	0.2270	84.5	1	
Nickel	mg/l	0.02120	0.2500	0.2320	84.3	0.2360	85.9	2	
Selenium	mg/l	0	0.2500	0.2140	85.6	0.2130	85.2	0	
Silver	mg/l	0	0.2500	0.2290	91.6	0.2280	91.2	0	
Tin	mg/l	0.002950	0.2500	0.2230	88.0	0.2250	88.8	1	
Vanadium	mg/l	0.03780	0.2500	0.2530	86.1	0.2590	88.5	3	
Zinc	mg/l	0.08270	0.2500	0.3030	88.1	0.3110	91.3	4	

LABORATORY CONTROL SAMPLE: 92685353

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Antimony	mg/l	0.2500	0.2270	90.8	
Arsenic	mg/l	0.2500	0.2260	90.4	
Barium	mg/l	0.2500	0.2240	89.6	
Beryllium	mg/l	0.2500	0.2300	92.0	
Cadmium	mg/l	0.2500	0.2180	87.2	
Chromium	mg/l	0.2500	0.2320	92.8	
Cobalt	mg/l	0.2500	0.2250	90.0	
Copper	mg/l	0.2500	0.2340	93.6	
Lead	mg/l	0.2500	0.2170	86.8	
Nickel	mg/l	0.2500	0.2180	87.2	
Selenium	mg/l	0.2500	0.2220	88.8	
Silver	mg/l	0.2500	0.2250	90.0	
Tin	mg/l	0.2500	0.2260	90.4	
Vanadium	mg/l	0.2500	0.2200	88.0	
Zinc	mg/l	0.2500	0.2290	91.6	

SAMPLE DUPLICATE: 92685346

Parameter	Units	92682608	Dup. Result	RPD	Footnotes
Antimony	mg/l	ND	ND	NC	
Arsenic	mg/l	ND	ND	NC	
Barium	mg/l	0.09000	0.09400	5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

SAMPLE DUPLICATE: 92685346

Parameter	Units	92682608	Dup. Result	RPD	Footnotes
Beryllium	mg/l	ND	ND	NC	
Cadmium	mg/l	ND	ND	NC	
Chromium	mg/l	ND	ND	NC	
Cobalt	mg/l	0.1200	0.1300	4	
Copper	mg/l	0.002000	ND	NC	
Lead	mg/l	ND	ND	NC	
Nickel	mg/l	0.009500	0.008300	14	
Selenium	mg/l	ND	ND	NC	
Silver	mg/l	ND	ND	NC	
Tin	mg/l	ND	ND	NC	
Vanadium	mg/l	ND	ND	NC	
Zinc	mg/l	0.03800	0.04100	8	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18688
Analysis Method: EPA 7470
Associated Pace Samples: 92682590 92682608 92682616 92682624

QC Batch Method: EPA 7470
Analysis Description: Mercury in Water

METHOD BLANK: 92687243
Associated Pace Samples: 92682590 92682608 92682616 92682624

Parameter	Units	Method Blank Result	PRL	Footnotes
Mercury	mg/l	ND	0.0002	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92687250 92687268

Parameter	Units	92679240	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Mercury	mg/l	0	0.0050	0.003960	79.2	0.003080	61.6	25	1,1,2

LABORATORY CONTROL SAMPLE: 92687284

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Mercury	mg/l	0.0050	0.004190	83.8	

SAMPLE DUPLICATE: 92687276

Parameter	Units	92679265	Dup. Result	RPD	Footnotes
Mercury	mg/l	ND	ND	NC	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18689
Analysis Method: EPA 7470
Associated Pace Samples: 92684513 92684521 92684547

QC Batch Method: EPA 7470
Analysis Description: Mercury in Water

METHOD BLANK: 92687292
Associated Pace Samples:
92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
Mercury	mg/l	ND	0.0002	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92687300 92687318

Parameter	Units	92684406	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Mercury	mg/l	0	0.0050	0.003720	74.4	0.003330	66.6	11	1,1

LABORATORY CONTROL SAMPLE: 92687334

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Mercury	mg/l	0.0050	0.004960	99.2	

SAMPLE DUPLICATE: 92687326

Parameter	Units	92684455	Dup. Result	RPD	Footnotes
Mercury	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18704
QC Batch Method: EPA 3020
Analysis Method: EPA 7841
Analysis Description: Thallium, AAS Furnace
Associated Pace Samples: 92682590 92682608 92682616 92682624

METHOD BLANK: 92687805
Associated Pace Samples:
92682590 92682608 92682616 92682624

Parameter	Units	Method Blank Result	PRL	Footnotes
Thallium	mg/l	ND	0.002	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92687813 92687821

Parameter	Units	92682590	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Thallium	mg/l	0	0.0250	0.01810	72.4	0.02010	80.4	10	1

LABORATORY CONTROL SAMPLE: 92687847

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Thallium	mg/l	0.0250	0.02640	106	

SAMPLE DUPLICATE: 92687839

Parameter	Units	92682608	Dup. Result	RPD	Footnotes
Thallium	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18758
QC Batch Method: EPA 376.2
Analysis Method: EPA 376.1
Analysis Description: Sulfide, Total
Associated Pace Samples: 92682590 92682608 92682616 92682624 92684513 92684521 92684547

METHOD BLANK: 92690270
Associated Pace Samples: 92682590 92682608 92682616 92682624 92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
Sulfide	mg/l	ND	1	

MATRIX SPIKE: 92690635

Parameter	Units	92684521	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Sulfide	mg/l	0	0.5000	0.5330	107	

LABORATORY CONTROL SAMPLE: 92690304

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Sulfide	mg/l	0.5000	0.5020	100	

SAMPLE DUPLICATE: 92690627

Parameter	Units	92684513	Dup. Result	RPD	Footnotes
Sulfide	mg/l	ND	ND	NC	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18777
Analysis Method: EPA 7841
Associated Pace Samples: 92684513 92684521 92684547

QC Batch Method: EPA 3020
Analysis Description: Thallium, AAS Furnace

METHOD BLANK: 92690841
Associated Pace Samples:
92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
Thallium	mg/l	ND	0.002	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92690858 92690866

Parameter	Units	92684240	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Thallium	mg/l	0	0.0250	0.008500	34.0	0.007500	30.0	12	1,1

LABORATORY CONTROL SAMPLE: 92690882

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Thallium	mg/l	0.0250	0.02530	101	

SAMPLE DUPLICATE: 92690874

Parameter	Units	92684315	Dup. Result	RPD	Footnotes
Thallium	mg/l	ND	ND	NC	

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18831
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: Metals by Trace ICP
Associated Pace Samples: 92684513 92684521 92684547

METHOD BLANK: 92694074
Associated Pace Samples:
92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
Antimony	mg/l	ND	0.005	
Arsenic	mg/l	ND	0.005	
Barium	mg/l	ND	0.005	
Beryllium	mg/l	ND	0.001	
Cadmium	mg/l	ND	0.001	
Chromium	mg/l	ND	0.002	
Cobalt	mg/l	ND	0.005	
Copper	mg/l	0.0056	0.002	
Lead	mg/l	ND	0.005	
Nickel	mg/l	ND	0.005	
Selenium	mg/l	ND	0.005	
Silver	mg/l	ND	0.002	
Tin	mg/l	ND	0.005	
Vanadium	mg/l	ND	0.005	
Zinc	mg/l	ND	0.01	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92694082 92694090

Parameter	Units	92684455	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Antimony	mg/l	0.002990	0.2500	0.2270	89.6	0.2410	95.2	6	
Arsenic	mg/l	0.0003750	0.2500	0.2320	92.7	0.2430	97.1	5	
Barium	mg/l	0.1660	0.2500	0.3860	88.0	0.4130	98.8	12	
Beryllium	mg/l	0.00004500	0.2500	0.2350	94.0	0.2490	99.6	6	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92694082 92694090

Parameter	Units	92684455	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Cadmium	mg/l	0	0.2500	0.2230	89.2	0.2340	93.6	5	
Chromium	mg/l	0	0.2500	0.2360	94.4	0.2500	100	6	
Cobalt	mg/l	0.01450	0.2500	0.2380	89.4	0.2530	95.4	6	
Copper	mg/l	0.01610	0.2500	0.2370	88.4	0.2500	93.6	6	
Lead	mg/l	0	0.2500	0.2180	87.2	0.2280	91.2	4	
Nickel	mg/l	0.008020	0.2500	0.2420	93.6	0.2580	100	7	
Selenium	mg/l	0.002820	0.2500	0.2260	89.3	0.2350	92.9	4	
Silver	mg/l	0.0005460	0.2500	0.2380	95.0	0.2470	98.6	4	
Tin	mg/l	0	0.2500	0.2270	90.8	0.2400	96.0	6	
Vanadium	mg/l	0.0002340	0.2500	0.2280	91.1	0.2400	95.9	5	
Zinc	mg/l	0.00001700	0.2500	0.2340	93.6	0.2460	98.4	5	

LABORATORY CONTROL SAMPLE: 92694116

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Antimony	mg/l	0.2500	0.2400	96.0	
Arsenic	mg/l	0.2500	0.2420	96.8	
Barium	mg/l	0.2500	0.2430	97.2	
Beryllium	mg/l	0.2500	0.2490	99.6	
Cadmium	mg/l	0.2500	0.2400	96.0	
Chromium	mg/l	0.2500	0.2510	100	
Cobalt	mg/l	0.2500	0.2420	96.8	
Copper	mg/l	0.2500	0.2490	99.6	
Lead	mg/l	0.2500	0.2330	93.2	
Nickel	mg/l	0.2500	0.2560	102	
Selenium	mg/l	0.2500	0.2340	93.6	
Silver	mg/l	0.2500	0.2480	99.2	
Tin	mg/l	0.2500	0.2420	96.8	
Vanadium	mg/l	0.2500	0.2400	96.0	
Zinc	mg/l	0.2500	0.2470	98.8	

SAMPLE DUPLICATE: 92694108

Parameter	Units	92684117	Dup. Result	RPD	Footnotes
Antimony	mg/l	ND	ND	NC	
Arsenic	mg/l	ND	ND	NC	
Barium	mg/l	0.05800	0.05800	1	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

SAMPLE DUPLICATE: 92694108

Parameter	Units	92684117	Dup. Result	RPD	Footnotes
Beryllium	mg/l	ND	ND	NC	
Cadmium	mg/l	ND	ND	NC	
Chromium	mg/l	ND	ND	NC	
Cobalt	mg/l	ND	ND	NC	
Copper	mg/l	0.002600	0.002400	5	
Lead	mg/l	ND	ND	NC	
Nickel	mg/l	0.006300	0.006000	6	
Selenium	mg/l	ND	ND	NC	
Silver	mg/l	ND	ND	NC	
Tin	mg/l	ND	ND	NC	
Vanadium	mg/l	ND	ND	NC	
Zinc	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18883
QC Batch Method: EPA 335.3
Analysis Method: EPA 335.3
Analysis Description: Cyanide, Total, Water
Associated Pace Samples: 92682590 92682608 92682616 92682624

METHOD BLANK: 92696368
Associated Pace Samples:
92682590 92682608 92682616 92682624

Parameter	Units	Method Blank Result	PRL	Footnotes
Cyanide	mg/l	ND	0.002	

MATRIX SPIKE: 92696376

Parameter	Units	92683267	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.00006500	0.0200	0.01836	91.5	

LABORATORY CONTROL SAMPLE: 92696392

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0200	0.01887	94.3	

SAMPLE DUPLICATE: 92696384

Parameter	Units	92683267	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

SAMPLE DUPLICATE: 92696400

Parameter	Units	92682624	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Analytical

QUALITY CONTROL DATA

DATE: 11/22/99

The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

Attn: Mr. Jim McElduff
Phone: (828)281-3350

QC Batch ID: 18956
QC Batch Method: EPA 335.3
Analysis Method: EPA 335.3
Analysis Description: Cyanide, Total, Water
Associated Pace Samples: 92684513 92684521 92684547

METHOD BLANK: 92699081
Associated Pace Samples:
92684513 92684521 92684547

Parameter	Units	Method Blank Result	PRL	Footnotes
Cyanide	mg/l	ND	0.002	

MATRIX SPIKE: 92699099

Parameter	Units	92684125	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Cyanide	mg/l	0	0.0200	0.01985	99.2	

LABORATORY CONTROL SAMPLE: 92699107

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0200	0.02186	109	

SAMPLE DUPLICATE: 92699115

Parameter	Units	92684521	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

QUALITY CONTROL DATA

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

SAMPLE DUPLICATE: 92699123

Parameter	Units	92694876	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

Pace Project Number: 929486
Client Project ID: Jackson Co. / 2040.06

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

ND	Not Detected
NC	Not Calculable
PRL	Pace Reporting Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
[2]	The calculated RPD was outside QC acceptance limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469364

Page: 1 of 1

Required Client Information: Section A

Company: The Flatley Group
Address: 115 Cotton Avenue
Suite 303
Hickoville NC 2541
Phone: 251-3351 Fax: 251-3351

Required Client Information: Section B

Report To: [illegible]
Invoice To: Same
P.O.:
Project Name: Tarkenton LF
Project Number: [illegible]

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client: Section C

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis: 8260C low level; 5270C; GRO 5035/8015; Total Metals; Pest/PCB 8081/8082; Herb 8151; Sulfide 376.1; Cyanide 9010; 8141

Section D Required Client Information:

Valid Matrix Codes:

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID (One character per box. (A–Z, 0–9 / .–) Sample IDs MUST BE UNIQUE)	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm:hh a/p	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260C low level	5270C	GRO 5035/8015	Pest/PCB 8081/8082	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	SW-1	WT	10-22-99	10:15	11	4		1	4	2		4	1	1	1	1	1		1	681513
2																				
3	SW-2	WT	10-22-99	10:45	11	4		1	4	2		4	1	1	1	1	1		1	681521
4																				
5	TRIP BLANK				2				2			2								685056
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:	0.1	Samples on ice		John Chase, The Flatley Group	10-22	17:00	Jeffrey		
Received on ICE:	(Y) / N						Rebecca Dixon	10/23/99	10:00
Sealed Cooler:	(Y) / N								
Samples Intact:	(Y) / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase

SIGNATURE of SAMPLER: John M. Chase

DATE Signed: (MM / DD / YY) 10-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: The Fletcher Group	Report To: Jim McElduff	Turn around Time	Pace Client No.
Address: 48 Patton Ave. Suite 303	Bill To: Same	☐ 24 Hours	Pace Project Manager
Asheville NC 28801	P.O. # / Billing Reference: 2040.06	☐ 48 Hours	Pace Project No.
Phone: 828/581-3397	Project Name / No.: Jackson Co. LF	☐ 3-5 Days ☐ 1 Week ☐ 2 Weeks ☒ Normal 14 Days	Requested Due Date:

Sampled By (PRINT): Jim Chase

Sampler Signature: Jim Chase Date Sampled: 10-21-99

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$		8260 Low level	8270	Total Metals	8010/8021	PCB 8082	Herb. 8151	Sulfide 376.1	Cyanide 9012 8141	REMARKS
1	MW-3	17:00	WT		11	4		3	4				4	1	1		1	1	1	1	1	182124
2																					
3	MW-2	17:30	WT		11	4		3	4				4	1	1		1	1	1	1	1	182116
4																					
5																					
6																					
7																					
8																					

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	SHIPMENT METHOD RETURNED/DATE
1			

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Jim Chase / TFG	10-21	11:00	[illegible]	10/22	11:00

Additional Comments: Samples placed in a.

SAMPLE CONDITION

Temp: ____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH ____

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469364

Page: 1 of 1

Required Client Information: Section A

Company: The Flatley Group
Address: 115 Cotton Avenue
Suite 303
Hickoville NC 2541
Phone: 251-3351 Fax: 251-3351

Required Client Information: Section B

Report To: [illegible]
Invoice To: Same
P.O.:
Project Name: Tarkenton LF
Project Number: [illegible]

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client: Section C

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis: 8260C low level; 5270C; GRO 5035/8015; Total Metals; Pest/PCB 8081/8082; Herb 8151; Sulfide 376.1; Cyanide 9010; 8141

Section D Required Client Information:

Valid Matrix Codes:

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID (One character per box. (A–Z, 0–9 / .–) Sample IDs MUST BE UNIQUE)	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm:hh a/p	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260C low level	5270C	GRO 5035/8015	Pest/PCB 8081/8082	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	SW-1	WT	10-22-99	10:15	11	4		1	4	2		4	1	1	1	1	1		1	681513
2																				
3	SW-2	WT	10-22-99	10:45	11	4		1	4	2		4	1	1	1	1	1		1	681521
4																				
5	TRIP BLANK				2				2			2								685056
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:	0.1	Samples on ice		John Chase, The Flatley Group	10-22	17:00	Jeffrey		
Received on ICE:	(Y) / N						Rebecca Dixon	10/23/99	10:00
Sealed Cooler:	(Y) / N								
Samples Intact:	(Y) / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase

SIGNATURE of SAMPLER: John M. Chase

DATE Signed: (MM / DD / YY) 10-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: The Fletcher Group	Report To: Jim McElduff	Turn around Time	Pace Client No.
Address: 48 Patton Ave. Suite 303	Bill To: Same	☐ 24 Hours	Pace Project Manager
Asheville NC 28801	P.O. # / Billing Reference: 2040.06	☐ 48 Hours	Pace Project No.
Phone: 828/581-3397	Project Name / No.: Jackson Co. LF	☐ 3-5 Days ☐ 1 Week ☐ 2 Weeks ☒ Normal 14 Days	Requested Due Date:

Sampled By (PRINT): Jim Chase

Sampler Signature: Jim Chase Date Sampled: 10-21-99

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$		8260 Low level	8270	Total Metals	8010/8021	PCB 8082	Herb. 8151	Sulfide 376.1	Cyanide 9012 8141	REMARKS
1	MW-3	17:00	WT		11	4		3	4				4	1	1		1	1	1	1	1	182124
2																					
3	MW-2	17:30	WT		11	4		3	4				4	1	1		1	1	1	1	1	182116
4																					
5																					
6																					
7																					
8																					

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	SHIPMENT METHOD RETURNED/DATE
1			

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Jim Chase / TFG	10-21	11:00	[illegible]	10/22	11:00

Additional Comments: Samples placed in a.

SAMPLE CONDITION

Temp: ____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH ____

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN OF CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

449511

Page: 1 of 2

To Be Completed by Pace Analytical and Client

Required Client Information: **Section A**

Company: The Fletcher Group
Address: 48 Patton Avenue, Suite 303, Asheville, NC 28801
Phone: 828 281-3350 Fax: 281-3351

Required Client Information: **Section B**

Report To: Jim McElduff
Invoice To: Same
P.O.
Project Name: Jackson Co. LF
Project Number: 2040.06

Client Information (Check quote/contract):
Requested Due Date: STD *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

Section C

Quote Reference:
Project Manager:
Project #: 9486
Profile #:
Requested Analysis: 8260 Low Level, 8270, Total Metals 6010/7000, Pest/PCB 8081/8082, Herb 8151, Sulfide 376.1, Cyanide 9010, 8141, 7470 + 7841

Section D **Required** Client Information:

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID (One character per box. (A–Z, 0–9 / .–) Sample IDs MUST BE UNIQUE)	MATRIX CODE	DATE COLLECTED (dd / mm / yy)	TIME COLLECTED (dd / mm / yy)	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260 Low Level	8270	Total Metals 6010/7000	Pest/PCB 8081/8082	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	MW-5	WT	10-21-99	15:30	11	4		3	4			4	1	1	1	1	1	1	1	682590
2																				
3	MW-1	WT	10-21-99	16:15	11	4		3	4			4	1	1	1	1	1	1	1	682608
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:	1.2	Samples on ice		John Chase/TFG	10-21-99	19:00	[illegible]	10/22	11:00
Received on ICE:	(Y) / N								
Sealed Cooler:	(Y) / N								
Samples Intact:	(Y) / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase

SIGNATURE of SAMPLER: John M Chase

DATE Signed: (MM / DD / YY) 10-21-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469365

Page: 1 of 1

Required Client Information: **Section A**

Company: The Fletcher Group
Address: 45 Patton Avenue, Suite 303, Asheville NC 28801
Phone: 828 281-3350 Fax: 281-3351

Required Client Information: **Section B**

Report To: Jim McElduff
Invoice To: Same
P.O.:
Project Name: Jackson Co. LF
Project Number: 2040.06

Client Information (Check quote/contract):
Requested Due Date: STD *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis:

Section D **Required** Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (mm : hh a/p)	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260 low level	8270	6010	8081/PCBs	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	MW-4	WT	10-22-99	12:00	11	4		1	4	2		4	1	4	1	4	1	4	1	684567
2																				
3	DW-1 F. W[illegible]	WT	[illegible]-99	12:45	4				4			4		4		4		4		684562
4																				
5	DW-2 B[illegible]	WT	[illegible]	13:15-4					4			4		4		4				684570
6			10-22-99																	
7																				
8																				
9																				
10																				
11																				
12																				

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:	0.1	Samples on ice		John Chase, TFG	10-22	17:00	[illegible]		
Received on ICE:	(Y) / N						Delwin Deegan	9/25	1000
Sealed Cooler:	(Y) / N								
Samples Intact:	(Y) / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Chase

SIGNATURE of SAMPLER: John M Chase

DATE Signed: (MM / DD / YY) 10-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

449511

Page: 1 of 1

To Be Completed by Pace Analytical and Client

Section A — Required Client Information:

Company: The Fletcher Group
Address: 48 Patton Avenue, Suite 303, Asheville, NC 28801
Phone: 828 281-3350 Fax: 281-3351

Section B — Required Client Information:

Report To: Jim McElduff
Invoice To: Same
P.O.:
Project Name: Jackson Co. LF
Project Number: 2040.06

Client Information (Check quote/contract):
Requested Due Date: STD *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

Section C

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis: 8260 low level; 8270; Total Metals 6010/7000; Pest/PCB 8081/8082; Herb 8151; Sulfide 376.1; Cyanide 9010; 8141; 7470 + 7841

Section D — Required Client Information:

Valid Matrix Codes:

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID (One character per box. (A–Z, 0–9 / .–) Sample IDs MUST BE UNIQUE)	MATRIX CODE	DATE COLLECTED (dd / mm / yy)	TIME COLLECTED (dd / mm / yy)	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260 low level	8270	Total Metals 6010/7000	Pest/PCB 8081/8082	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	MW-5	WT	10-21-99	15:30	11	4		3	4			4	1	1	1	1	1	1	1	
2																				
3	MW-1	WT	10-21-99	16:15	11	4		3	4			4	1	1	1	1	1	1	1	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:		Samples on ice		John Chase / TFG	10-21-99	19:00			
Received on ICE:	Y / N								
Sealed Cooler:	Y / N								
Samples Intact:	Y / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase

SIGNATURE of SAMPLER: John M Chase

DATE Signed: (MM / DD / YY) 10-21-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: The Fletcher Group	Report To: Jim McElduff	Turn around Time	Pace Client No.
Address: 48 Patton Ave. Suite 303	Bill To: Same	☐ 24 Hours	Pace Project Manager
Asheville, NC 28801	P.O. # / Billing Reference: 2040.06	☐ 48 Hours	Pace Project No.
Phone: 828/281-3350	Project Name / No.: Jackson Co. LF	☐ 3-5 Days ☐ 1 Week ☐ 2 Weeks ☑ Normal 14 Days	Requested Due Date:

Sampled By (PRINT): John Chase

Sampler Signature: John Chase Date Sampled: 10-21-99

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$		8260 Low level	8270	Total Metals 6010/7470/7841	Pest/PCB 8081	Herb 8151	Sulfide 376.1	Cyanide 9010 8141	REMARKS
1	MW-3	17:00	WT		11	4		3	4				4	1	1		1	1	1	1	1	
2																						
3	MW-2	17:30	WT		11	4		3	4				4	1	1		1	1	1	1	1	
4																						
5																						
6																						
7																						
8																						

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	SHIPMENT METHOD RETURNED/DATE
1			

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	John Chase / TFG	10-21	19:00			

Additional Comments
Samples placed on ice.

SAMPLE CONDITION

Temp: ____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH ___

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469365

Page: 1 of 1

Required Client Information: **Section A**

Company: The Fletcher Group
Address: 48 Patton Avenue
Suite 303
Asheville NC 28801
Phone: 828 281-3350 Fax: 281-3351

Required Client Information: **Section B**

Report To: Jim McElduff
Invoice To: Same
P.O.
Project Name: Jackson Co. LF
Project Number: 2040.06

Client Information (Check quote/contract):
Requested Due Date: STD *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis:

Section D **Required** Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm : hh a/p	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Analysis: 8260 (low level)	8270	6010	7470, 7471 (Total metals)	Pest/PCBs 8081/8082	Herb 8151	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	MW-4	WT	10-22-99	12:00	11	4		1	4	2		4	1	1	1	1	1	1	1		
2																					
3	DW-1 F. White	WT	10-22-99	12:45	4				4			4									
4																					
5	DW-2 Bulla	WT	~~10-22-99~~	13:15	4				4			4									
6		^	10-22-99 ↗																		
7	TRIP BLANK																				
8																					
9																					
10																					
11																					
12																					

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:		Samples on ice		John Chase, TFG	10-22	17:00			
Received on ICE:	Y / N								
Sealed Cooler:	Y / N								
Samples Intact:	Y / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Chase
SIGNATURE of SAMPLER: John M. Chase
DATE Signed: (MM / DD / YY) 10-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469364

Page: 1 of 1

Required Client Information: Section A

Company: The Fletcher Group
Address: 48 Patton Avenue
Suite 303
Asheville, NC 28801
Phone: 828 281-3350 Fax: 281-3351

Required Client Information: Section B

Report To: Jim McElduff
Invoice To: Same
P.O.:
Project Name: Jackson Co. LF
Project Number: 2040.06

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client: Section C

Quote Reference:
Project Manager:
Project #:
Profile #:
Requested Analysis:

Section D Required Client Information:

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID (One character per box. (A–Z, 0–9 / .–) Sample IDs MUST BE UNIQUE)	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED mm:hh a/p	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	8260 low level	8270	GRO, 7470, 7841	Pest/PCBs 8081/8082	Herb 8151	Total Metals	Sulfide 376.1	Cyanide 9010	8141	Remarks / Lab ID
1	SW-1	WT	10-22-99	10:15	11	4		3	4	2		4	1	1	1	1	1	1	1		
2																					
3	SW-2	WT	10-22-99	10:45	11	4		3	4	2		4	1	1	1	1	1	1	1		
4																					
5																					
6																					
7	TRIP BLANK																				
8																					
9																					
10																					
11																					
12																					

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:		Samples on ice		John Chase, The Fletcher Group	10-22	17:00			
Received on ICE:	Y / N								
Sealed Cooler:	Y / N								
Samples Intact:	Y / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase
SIGNATURE of SAMPLER: John M. Chase
DATE Signed: (MM / DD / YY) 10-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Tel: 704-875-9092
Fax: 704-875-9091

December 15, 1999

Mr. Jim McElduff
The Fletcher Group
48 Patton Ave.
Suite 303
Asheville, NC 28801

RE: Pace Project Number: 9210325
Client Project ID: Jackson Co. Landfill

Dear Mr. McElduff:

Enclosed are the results of analyses for sample(s)received by the laboratory on November 23, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Kerr
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

3909 Beryl Road
Raleigh, NC 27607
Telephone: (919) 834-4984
Fax: (919) 834-6497
NC/WW Cert.#: 067

Laboratory Report

--- Prepared for ---

Felicia Grogan
Pace Analytical/Huntersville
9800 Kincey Ave.
Suite 100
Huntersville, NC 28078

Report Date: 12/10/99
Date Received: 11/24/99

Work Order #: 9911-01015

Cust. Code: PA9092
Cust. P.O.#:

Project ID: ANALYTICAL
Project Info: DW / JACKSON CO. PROJ.# 9210325

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Condition
001	DW-1-WILKIE/92732148	11/22/1999	14:20	DW	4±2°C

Test Performed	Method	Results	Tech	Date Analyzed	Qual
VOCs in Drink. Water; GC/MS	EPA 524.2		MB	12/07/99	
Benzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromochloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromodichloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromoform	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromomethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
n-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
sec-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
tert-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Carbon tetrachloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloroform	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
2-Chlorotoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
4-Chlorotoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dibromochloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dibromo-3-chloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dibromoethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dibromomethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dichlorodifluoromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
cis-1,2-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
trans-1,2-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	

---- Continued on Next Page ----

Laboratory Report

Pace Analytical/Huntersville | Report Date 12/10/99

Project No. ANALYTICAL | Work Order No. 9911-01015

No. Sample ID
001 DW-1-WILKIE/92732148

Test Performed	Method	Results	Tech	Date Analyzed	Qual
1,2-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,3-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
2,2-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
cis-1,3-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
trans-1,3-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Ethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Hexachlorobutadiene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Isopropylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
4-Isopropyltoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Methylene chloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Naphthalene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
n-Propylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Styrene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,1,2-Tetrachloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,2,2-Tetrachloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Tetrachloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Toluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,3-Trichlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,4-Trichlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,1-Trichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,2-Trichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Trichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Trichlorofluoromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,3-Trichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,4-Trimethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,3,5-Trimethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Vinyl chloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
o-Xylene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
m,p-Xylene	EPA 524.2	<0.5 ug/L	MB	12/07/99	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Condition
002	DW-2-BULLA/92732155	11/22/1999	14:45	DW	4±2°C

Test Performed	Method	Results	Tech	Date Analyzed	Qual
VOCs in Drink. Water; GC/MS	EPA 524.2		MB	12/07/99	
Benzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	

---- Continued on Next Page ----

Laboratory Report

Pace Analytical/Huntersville | Report Date 12/10/99

Project No. ANALYTICAL | Work Order No. 9911-01015

No. Sample ID
002 DW-2-BULLA/92732155

Test Performed	Method	Results	Tech	Date Analyzed	Qual
Bromobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromochloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromodichloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromoform	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Bromomethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
n-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
sec-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
tert-Butylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Carbon tetrachloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloroform	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Chloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
2-Chlorotoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
4-Chlorotoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dibromochloromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dibromo-3-chloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dibromoethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dibromomethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Dichlorodifluoromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
cis-1,2-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
trans-1,2-Dichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,3-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
2,2-Dichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
cis-1,3-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
trans-1,3-Dichloropropene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Ethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Hexachlorobutadiene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Isopropylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
4-Isopropyltoluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Methylene chloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Naphthalene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
n-Propylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Styrene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,1,2-Tetrachloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	

---- Continued on Next Page ----

Laboratory Report

Pace Analytical/Huntersville | Report Date 12/10/99

Project No. ANALYTICAL | Work Order No. 9911-01015

No. Sample ID
002 DW-2-BULLA/92732155

Test Performed	Method	Results	Tech	Date Analyzed	Qual
1,1,2,2-Tetrachloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Tetrachloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Toluene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,3-Trichlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,4-Trichlorobenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,1-Trichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,1,2-Trichloroethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Trichloroethene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Trichlorofluoromethane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,3-Trichloropropane	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,2,4-Trimethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
1,3,5-Trimethylbenzene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
Vinyl chloride	EPA 524.2	<0.5 ug/L	MB	12/07/99	
o-Xylene	EPA 524.2	<0.5 ug/L	MB	12/07/99	
m,p-Xylene	EPA 524.2	<0.5 ug/L	MB	12/07/99	

Report certified by:

for Tritest, Inc.

Pace Analytical

The Right Chemistry, The Right Solution®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

469369

Page: 1 of 1

Required Client Information: Section A

Company: The Fletcher Group
Address: 48 Patton Avenue
Suite 303
Asheville, NC 28801
Phone: 828/281-3350 Fax: 281-3351

Required Client Information: Section B

Report To: Tim Fletcher
Invoice To: Same
P.O.
Project Name: Jackson Co. Landfill
Project Number: 2040.07

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Under 14 day turnaround subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calender days.

To Be Completed by Pace Analytical and Client: Section C

Quote Reference:
Project Manager:
Project #: 10325
Profile #:
Requested Analysis: 524.2, 8260B, 1664

Section D Required Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (mm:hh a/p)	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Remarks / Lab ID
1	DW-1-Wilkie	WT	11-22-99	14:20	4				4			732148
2												
3	DW-2-Buffalo	WT	11-22-99	14:45	4				4			732155
4												
5												
6												
7												
8												
9												
10												
11												
12												

Sample Condition		Sample Notes	Item No.	Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time
Temp in °C:	4	Samples on ice		John M. Chase	11-22	16:00	S. Martin	11/23	9:45
Received on ICE:	(Y) / N								
Sealed Cooler:	(Y) / N								
Samples Intact:	(Y) / N								

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John M. Chase

SIGNATURE of SAMPLER: John M. Chase

DATE Signed: (MM / DD / YY) 11-22-99

SEE REVERSE SIDE FOR INSTRUCTIONS

APPENDIX C

GROUNDWATER VELOCITY CALCULATION

APPENDIX C

GROUNDWATER VELOCITY CALCULATIONS
JACKSON COUNTY LANDFILL

October 21, 1999

JACKSON COUNTY, NORTH CAROLINA

Location	K[a] (cm/sec)	I (ft/ft)	n	Flow Rate V (cm/sec)	Flow Rate V (ft/sec)	Flow Rate V (ft/day)	Flow Rate V (ft/yr)
MW-5 to MW-4	7.30E-04	0.1	0.35	2.09E-04	6.84E-06	0.59	215.8
MW-5 to MW-4	7.30E-04	0.1	0.3	2.43E-04	7.98E-06	0.69	251.8
MW-1 to MW-3	7.30E-04	0.16	0.35	3.34E-04	1.09E-05	0.95	345.3
MW-1 to MW-3	7.30E-04	0.16	0.3	3.89E-04	1.28E-05	1.10	402.8

Notes: Ft = feet

K[a] = Hydraulic Conductivity (Hvorslev method) from page 13 of the March 23, 1994 document "Portion of Transition Plan, Existing Jackson County MSWLF

I = Hydraulic gradient, as calculated by the three point method, using water level data from October 21, 1999 and survey data provided by Davenport & Assoc., Inc. from April 9, 1999

n = Perosity (percent) of 30% to 35% based on literature values for sand and silt mixtures

Flow rate (V) = (K*I)/n

APPENDIX D

ANOVA STATISTICAL ANALYSES

APPENDIX D

SUMMARY OF ANOVA STATISTICAL EVALUATION
JACKSON COUNTY LANDFILL

October 21, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Conclusion
1 1 1-trichloroethane	**Significant Deviation**
1 1-dichloroethane	**Significant Deviation**
1 4 dichlorobenzene	**Significant Deviation**
Antimony	No Significant Deviation
Arsenic	No Significant Deviation
Barium	**Significant Deviation**
Benzene	**Significant Deviation**
Cadmium	No Significant Deviation
Chlororbenzene	**Significant Deviation**
Chlorothane	**Significant Deviation**
Chromium	**Significant Deviation**
cis-1 2-dichloroethene	**Significant Deviation**
Cobalt	**Significant Deviation**
Copper	**Significant Deviation**
Ethylbenzene	No Significant Deviation
Lead	No Significant Deviation
Mercury	No Significant Deviation
Methylene Chloride	**Significant Deviation**
Nickel	**Significant Deviation**
Tetrachloroethene	**Significant Deviation**
Tin	No Significant Deviation
Toluene	No Significant Deviation
Trichloroethene	**Significant Deviation**
Vanadium	**Significant Deviation**
Vinyl chloride	No Significant Deviation
Xylenes	**Significant Deviation**
Zinc	No Significant Deviation
1,1,1,2-Tetrachloroethane	No Significant Deviation
1,1,2,2-Tetrachloroethane	No Significant Deviation
1,1,2-Trichloroethane	No Significant Deviation
1,1-Dichloroethene	No Significant Deviation
1,2,3-Trichloropropane	No Significant Deviation
1,2-Dibromo-3-Chloropropane	No Significant Deviation
1,2-Dibromoethane	No Significant Deviation
1,2-Dichlorobenzene	No Significant Deviation
1,2-Dichloroethane	No Significant Deviation
1,2-Dichloropropane	No Significant Deviation
2-Butanone	No Significant Deviation
2-Hexanone	No Significant Deviation
4-Methyl-2-Pentanone	No Significant Deviation
Acetone	No Significant Deviation
Acrylonitrile	No Significant Deviation
Beryllium	No Significant Deviation
Bromochloromethane	No Significant Deviation

APPENDIX D

SUMMARY OF ANOVA STATISTICAL EVALUATION
JACKSON COUNTY LANDFILL

October 21, 1999

JACKSON COUNTY, NORTH CAROLINA

Compound	Conclusion
Bromodichloromethane	No Significant Deviation
Bromoform	No Significant Deviation
Bromomethane	No Significant Deviation
Carbon Disulfide	No Significant Deviation
Carbon Tetrachloride	No Significant Deviation
Chloroform	No Significant Deviation
Chloromethane	No Significant Deviation
cis-1,3-Dichloropropene	No Significant Deviation
Dibromochloromethane	No Significant Deviation
Dibromomethane	No Significant Deviation
Iodomethane	No Significant Deviation
Selenium	No Significant Deviation
Silver	No Significant Deviation
Styrene	No Significant Deviation
Thallium	No Significant Deviation
trans-1,2-Dichloroethene	No Significant Deviation
trans-1,4-Dichloro-2-Butene	No Significant Deviation
Trichlorofluoromethane	No Significant Deviation
Vinyl Acetate	No Significant Deviation

1,1,1-Trichloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5.1	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	4.34	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.36	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	3	0.5	0.5	1	0.5	1	1
04/22/99	3.4	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	43.2	3.085714	0.974796
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31.5	2.25	0.413462
MW-5	14	31	2.214286	0.527473
SW-1	14	31.5	2.25	0.413462
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	8.769796	6	1.461633	2.694184	0.018759	2.199904
Within Groups	49.36877	91	0.542514			
Total	58.13857	97				

Fcrit<F, Contamination possible

1,1-Dichloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	11	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	10	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	11	2.5	2.5
3/18/94	7	2.5	2.5	2.5	12	2.5	2.5
10/27/94	2.5	2.5	12.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	6.5	2.5	2.5
3/5/96	7.9	2.4	2.5	4.3	7	2.5	2.5
10/7/96	21.7	2.5	5.88	4.04	6.22	2.5	2.5
5/7/97	25.4	2.5	2.5	2.5	5.06	2.5	2.5
11/10/97	41.7	2.5	5.32	5.83	5	2.5	2.5
4/27/98	32.1	3.07	2.52	2.79	3.19	2.5	2.5
1/19/99	30	2.9	6.9	2.5	2.7	1	1
04/22/99	31	3.7	7	4	3	0.5	0.5
10/21/99	32	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	241.3	17.23571	211.8486
MW-2	14	37.07	2.647857	0.125295
MW-3	14	60.12	4.294286	8.762673
MW-4	14	43.46	3.104286	1.070949
MW-5	14	87.67	6.262143	12.03893
SW-1	14	31.5	2.25	0.413462
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2446.235	6	407.7059	12.16133	5.35E-10	2.199904
Within Groups	3050.754	91	33.52477			
Total	5496.989	97				

Fcrit<F, Contamination possible

1,4-Dichlorobenzene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	5.1	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	5.3	2.5	2.5
10/27/94	2.5	2.5	6.41	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	11	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	10.4	2.5	2.5
10/7/96	2.5	2.5	2.5	5.23	11.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	5.92	11.3	2.5	2.5
4/27/98	3.97	2.5	2.19	3.92	11.1	2.5	2.5
1/19/99	2.6	0.5	4.6	13.2	6	1	1
04/22/99	3.5	0.5	4.8	7.9	14	0.5	0.5
10/21/99	2.5	2.5	2.5	6.7	14	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	37.57	2.683571	0.207625
MW-2	14	31	2.214286	0.527473
MW-3	14	43	3.071429	1.577905
MW-4	14	62.87	4.490714	9.767269
MW-5	14	109.7	7.835714	19.98709
SW-1	14	31.5	2.25	0.413462
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	355.5402	6	59.25671	12.61	2.65E-10	2.199904
Within Groups	427.6257	91	4.699183			
Total	783.1659	97				

Fcrit<F, Contamination possible

Antimony, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.002	0.01	0.002	0.002	0.002	0.002	0.002
1/31/94	0.002	0.002	0.002	0.002	0.002	0.002	0.002
2/24/94	0.002	0.002	0.004	0.002	0.002	0.002	0.002
3/18/94	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10/27/94	0.003	0.003	0.003	0.003	0.003	0.003	0.003
4/28/95	0.002	0.002	0.002	0.002	0.002	0.002	0.002
3/5/96	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10/7/96	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
5/7/97	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
11/10/97	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
4/27/98	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
1/19/99	0.0015	0.0015	0.0015	0.0015	0.0015	0.007	0.0015
04/22/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0275	0.001964	2.1E-07
MW-2	14	0.0355	0.002536	4.83E-06
MW-3	14	0.0295	0.002107	5.07E-07
MW-4	14	0.0275	0.001964	2.1E-07
MW-5	14	0.0275	0.001964	2.1E-07
SW-1	14	0.033	0.002357	1.98E-06
SW-2	14	0.0275	0.001964	2.1E-07

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	4.57E-06	6	7.61E-07	0.653578	0.687122	2.199904
Within Groups	0.000106	91	1.16E-06			
Total	0.000111	97				

Fcrit>F, Contamination unlikely

Arsenic, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
1/31/94	0.0005	0.001	0.002	0.0005	0.001	0.0005	0.0005
2/24/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
3/18/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
10/27/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
4/28/95	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
3/5/96	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
10/7/96	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
5/7/97	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
11/10/97	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
4/27/98	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
1/19/99	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
04/22/99	0.0025	0.0025	0.0025	0.0025	0.0065	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.0065	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.012	0.000857	5.55E-07
MW-2	14	0.0125	0.000893	5.45E-07
MW-3	14	0.0135	0.000964	6.33E-07
MW-4	14	0.012	0.000857	5.55E-07
MW-5	14	0.0205	0.001464	4.63E-06
SW-1	14	0.012	0.000857	5.55E-07
SW-2	14	0.012	0.000857	5.55E-07

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	4.21E-06	6	7.02E-07	0.612166	0.720007	2.199904
Within Groups	0.000104	91	1.15E-06			
Total	0.000109	97				

Fcrit>F, Contamination unlikely

Cadmium, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
1/31/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2/24/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
3/18/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
10/27/94	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
4/28/95	0.002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
3/5/96	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
10/7/96	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
5/7/97	0.002	0.002	0.0005	0.001	0.002	0.0005	0.0005
11/10/97	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
4/27/98	0.0005	0.0005	0.0005	0.0005	0.001	0.0005	0.0005
1/19/99	0.003	0.0005	0.0005	0.0005	0.02	0.0005	0.0005
04/22/99	0.0012	0.0005	0.0005	0.003	0.0048	0.0005	0.0005
10/21/99	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0132	0.000943	6.53E-07
MW-2	14	0.0085	0.000607	1.61E-07
MW-3	14	0.007	0.0005	0
MW-4	14	0.01	0.000714	4.51E-07
MW-5	14	0.0328	0.002343	2.72E-05
SW-1	14	0.007	0.0005	0
SW-2	14	0.007	0.0005	0

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	3.75E-05	6	6.25E-06	1.536627	0.175153	2.199904
Within Groups	0.00037	91	4.07E-06			
Total	0.000408	97				

Fcrit>F, Contamination unlikely

Barium, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.34	0.5	0.05	0.34	0.18	0.05	0.05
1/31/94	0.05	0.05	0.05	0.43	0.16	0.05	0.05
2/24/94	0.05	0.05	0.05	0.29	0.11	0.25	0.25
3/18/94	0.05	0.05	0.05	0.18	0.13	0.25	0.25
10/27/94	0.05	0.05	0.05	0.25	0.25	0.25	0.25
4/28/95	0.05	0.05	0.05	0.468	0.15	0.25	0.25
3/5/96	0.042	0.016	0.057	0.442	0.201	0.069	0.078
10/7/96	0.054	0.023	0.063	0.374	0.149	0.016	0.024
5/7/97	0.051	0.024	0.059	0.326	0.121	0.014	0.013
11/10/97	0.071	0.029	0.083	0.93	0.15	0.052	0.02
4/27/98	0.066	0.029	0.065	0.32	0.12	0.015	0.014
1/19/99	0.083	0.034	0.084	1.02	0.61	0.037	0.018
04/22/99	0.078	0.03	0.1	8.3	0.75	0.016	0.013
10/21/99	0.09	0.03	0.083	0.4	0.44	0.021	0.013

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	1.125	0.080357	0.005804
MW-2	14	0.965	0.068929	0.015537
MW-3	14	0.894	0.063857	0.000282
MW-4	14	14.07	1.005	4.465953
MW-5	14	3.521	0.2515	0.040678
SW-1	14	1.34	0.095714	0.010535
SW-2	14	1.293	0.092357	0.011051

ANOVA

urce of Variati	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Gro	9.991529	6	1.665255	2.562021	0.024435	2.199904
Within Group	59.14792	91	0.649977			
Total	69.13945	97				

Fcrit<F, Contamination possible

Benzene		MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
	12/16/93	2.5	2.5	2.5	2.5	9.9	2.5	2.5
	1/31/94	2.5	2.5	2.5	2.5	10	2.5	2.5
	2/24/94	2.5	2.5	2.5	2.5	10	2.5	2.5
	3/18/94	2.5	2.5	2.5	2.5	11	2.5	2.5
	10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	4/28/95	2.5	2.5	2.5	2.5	9.3	2.5	2.5
	3/5/96	2.5	2.5	2.5	2.5	6	2.5	2.5
	10/7/96	3.65	2.5	3.87	3.42	7.15	2.5	2.5
	5/7/97	5	2.5	2.5	2.5	7.36	2.5	2.5
	11/10/97	5	2.5	2.5	2.5	7.76	2.5	2.5
	4/27/98	2.5	2.5	1.87	2.5	4.83	2.5	2.5
	1/19/99	6.8	0.5	4.7	2.6	2.4	0.5	0.5
	04/22/99	7.9	0.5	4.8	2.8	3.4	0.5	0.5
	10/21/99	8.9	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	57.25	4.089286	5.159299
MW-2	14	31	2.214286	0.527473
MW-3	14	40.24	2.874286	0.803273
MW-4	14	36.32	2.594286	0.063226
MW-5	14	94.1	6.721429	9.820936
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	231.5631	6	38.59384	15.50029	3.6E-12	2.199904
Within Groups	226.579	91	2.489879			
Total	458.142	97				

Fcrit<F, Contamination possible

cis-1,2-Dichloroethene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	14	24	2.5	2.5
1/31/94	2.5	2.5	2.5	11	24	2.5	2.5
2/24/94	2.5	2.5	2.5	8.9	26	2.5	2.5
3/18/94	2.5	2.5	2.5	9.5	33	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	14	52	2.5	2.5
3/5/96	2.5	2.5	2.5	12.3	2.5	2.5	2.5
10/7/96	2.87	2.5	2.5	21	58.8	2.5	2.5
5/7/97	5.27	2.5	2.5	17.4	75.3	2.5	2.5
11/10/97	2.5	2.5	2.5	33.5	72.6	2.5	2.5
4/27/98	4.49	2.5	2.25	18.2	55.7	2.5	2.5
1/19/99	6.8	0.5	6.3	24.4	54.7	1	1
04/22/99	7.5	0.5	5.5	24	36	0.5	0.5
10/21/99	13	2.5	5.8	20	44	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	59.93	4.280714	9.316669
MW-2	14	31	2.214286	0.527473
MW-3	14	44.85	3.203571	2.112486
MW-4	14	230.7	16.47857	62.0772
MW-5	14	561.1	40.07857	528.4834
SW-1	14	31.5	2.25	0.413462
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	16887.57	6	2814.594	32.65493	1.07E-20	2.199904
Within Groups	7843.473	91	86.19201			
Total	24731.04	97				

Fcrit<F, Contamination possible

Chlorobenzene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	1.3	2.5	2.5
10/7/96	2.5	2.5	4.75	1.28	2.24	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	5.36	2.5	2.5	2.5	2.5
4/27/98	0.55	2.5	2.84	1.89	1.69	2.5	2.5
1/19/99	0.5	0.5	5.1	4.7	4.4	0.5	0.5
04/22/99	0.5	0.5	5.4	5.1	5.2	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	29.05	2.075	0.713365
MW-2	14	31	2.214286	0.527473
MW-3	14	45.95	3.282143	1.535634
MW-4	14	37.97	2.712143	0.986957
MW-5	14	39.83	2.845	1.357488
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	16.81167	6	2.801945	3.175851	0.007105	2.199904
Within Groups	80.2862	91	0.882266			
Total	97.09787	97				

Fcrit<F, Contamination possible

Chloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	7.55	5	5	5	5	5	5
5/7/97	10.4	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	1.14	2.47	1.79	5	5
1/19/99	14.4	0.5	0.5	1	0.5	1	1
04/22/99	14	1.5	2.4	2.5	1.8	0.5	0.5
10/21/99	16	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	107.35	7.667857	17.4137
MW-2	14	62	4.428571	2.148352
MW-3	14	59.04	4.217143	2.563807
MW-4	14	60.97	4.355	1.755888
MW-5	14	59.09	4.220714	2.484007
SW-1	14	61.5	4.392857	2.391484
SW-2	14	61.5	4.392857	2.391484

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	133.9325	6	22.32209	5.016407	0.000175	2.199904
Within Groups	404.9333	91	4.449817			
Total	538.8659	97				

Fcrit<F, Contamination possible

Chromium, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/31/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
2/24/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/18/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
10/27/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/28/95	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/5/96	0.005	0.005	0.005	0.005	0.005	0.011	0.005
10/7/96	0.005	0.005	0.005	0.005	0.005	0.005	0.005
5/7/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
11/10/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/27/98	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/19/99	0.0025	0.0025	0.0025	0.0025	0.048	0.0025	0.0025
04/22/99	0.001	0.001	0.001	0.023	0.07	0.001	0.001
10/21/99	0.001	0.001	0.001	0.001	0.018	0.001	0.001

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0595	0.00425	2.34E-06
MW-2	14	0.0595	0.00425	2.34E-06
MW-3	14	0.0595	0.00425	2.34E-06
MW-4	14	0.0815	0.005821	2.59E-05
MW-5	14	0.191	0.013643	0.0004
SW-1	14	0.0655	0.004679	5.6E-06
SW-2	14	0.0595	0.00425	2.34E-06

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.001013	6	0.000169	2.681313	0.019249	2.199904
Within Groups	0.005728	91	6.29E-05			
Total	0.006741	97				

Fcrit<F, Contamination possible

Cobalt, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	12	14	5	5
3/5/96	7	5	5	5	14	5	5
10/7/96	14	5	5	5	5	5	5
5/7/97	25	5	6	5	7	5	5
11/10/97	38	5	5	5	6	5	5
4/27/98	60	5	12	5	6	5	5
1/19/99	0.064	0.026	0.0025	0.0025	0.042	0.0025	0.0025
04/22/99	0.064	0.0025	0.011	0.013	0.046	0.0025	0.0025
10/21/99	0.12	0.058	0.0025	0.0025	0.018	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	174.248	12.44629	299.6371
MW-2	14	55.0865	3.93475	4.480957
MW-3	14	63.016	4.501143	9.335086
MW-4	14	62.018	4.429857	9.174562
MW-5	14	77.106	5.507571	18.33365
SW-1	14	55.0075	3.929107	4.528435
SW-2	14	55.0075	3.929107	4.528435

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	808.8467	6	134.8078	2.696015	0.01869	2.199904
Within Groups	4550.237	91	50.0026			
Total	5359.083	97				

Fcrit<F, Contamination possible

Copper, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/31/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
2/24/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/18/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
10/27/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/28/95	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/5/96	0.005	0.005	0.005	0.005	0.005	0.005	0.005
10/7/96	0.005	0.005	0.005	0.005	0.005	0.005	0.005
5/7/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
11/10/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/27/98	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/19/99	0.009	0.0025	0.0025	0.0025	0.067	0.0025	0.0025
04/22/99	0.0052	0.0025	0.0034	0.027	0.14	0.0031	0.0037
10/21/99	0.001	0.001	0.001	0.001	0.04	0.001	0.001

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0702	0.005014	2.46E-06
MW-2	14	0.061	0.004357	1.75E-06
MW-3	14	0.0619	0.004421	1.55E-06
MW-4	14	0.0855	0.006107	3.76E-05
MW-5	14	0.302	0.021571	0.001496
SW-1	14	0.0616	0.0044	1.6E-06
SW-2	14	0.0622	0.004443	1.51E-06

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.003413	6	0.000569	2.580898	0.023531	2.199904
Within Groups	0.020054	91	0.00022			
Total	0.023466	97				

Fcrit<F, Contamination possible

Ethylbenzene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	3.8	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	4.2	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	1.5	0.5	0.5	1	0.5	1	1
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	14	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	46.5	3.321429	10.18335
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31.5	2.25	0.413462
MW-5	14	31	2.214286	0.527473
SW-1	14	31.5	2.25	0.413462
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	14.26531	6	2.377551	1.279614	0.274541	2.199904
Within Groups	169.08	91	1.858022			
Total	183.3453	97				

Fcrit>F, Contamination unlikely

Lead, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1/31/94	5	5	1	1	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	3	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	15	23	5	19	5	33	24
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	3	4
11/10/97	4	6	5	7	5	5	7
4/27/98	3	3	5	6	11	8	4
1/19/99	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
04/22/99	0.0025	0.0025	0.0025	0.0083	0.0320	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.016	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	62.0065	4.429036	13.49008
MW-2	14	72.0065	5.143321	31.0498
MW-3	14	49.0065	3.500464	4.881116
MW-4	14	68.0123	4.858021	22.43037
MW-5	14	58.0495	4.146393	8.408096
SW-1	14	84.0065	6.000464	65.994
SW-2	14	74.0065	5.286179	33.9068

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	56.62111	6	9.436852	0.366662	0.898278	2.199904
Within Groups	2342.084	91	25.73718			
Total	2398.705	97				

Fcrit>F, Contamination unlikely

Mercury	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
3/5/96	0.0001	0.0001	0.0001	0.0004	0.0001	0.0001	0.0001
11/10/97	0.0001	0.0001	0.0001	0.0003	0.0001		
1/19/99	0.0003	0.0004	0.0003	0.0004	0.0005	0.0012	0.0001
04/22/99	0.001	0.001	0.001	0.00025	0.0053	0.001	0.001
10/21/99	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	5	0.0016	0.00032	1.52E-07
MW-2	5	0.0017	0.00034	1.53E-07
MW-3	5	0.0016	0.00032	1.52E-07
MW-4	5	0.00145	0.00029	1.55E-08
MW-5	5	0.0061	0.00122	5.23E-06
SW-1	4	0.0024	0.0006	3.4E-07
SW-2	4	0.0013	0.000325	2.03E-07

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	3.4233E-06	6	5.71E-07	0.606829	0.722494	2.47411
Within Groups	2.4446E-05	26	9.4E-07			
Total	2.7869E-05	32				

Fcrit>F, Contamination unlikely

Nickel, total	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
1/31/94	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
2/24/94	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
3/18/94	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
10/27/94	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
4/28/95	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
3/5/96	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
10/7/96	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
5/7/97	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
11/10/97	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
4/27/98	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
1/19/99	0.007	0.009	0.0025	0.006	0.048	0.0025	0.0025
04/22/99	0.0052	0.0025	0.0025	0.0025	0.068	0.0025	0.0025
10/21/99	0.0095	0.0074	0.0081	0.0025	0.021	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0492	0.003514	4.78E-06
MW-2	14	0.0464	0.003314	4.38E-06
MW-3	14	0.0406	0.0029	2.24E-06
MW-4	14	0.0385	0.00275	8.75E-07
MW-5	14	0.1645	0.01175	0.000423
SW-1	14	0.035	0.0025	3.13E-21
SW-2	14	0.035	0.0025	3.13E-21

ANOVA

rce of Varia	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Gr	0.00095	6	0.000158	2.54244	0.025408	2.199904
Within Grou	0.005664	91	6.22E-05			
Total	0.006614	97				

Fcrit<F, Contamination possible

Methylene Chloride	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	6.3	5	5	9.2	21	5	5
1/31/94	11	5	5	6.8	15	5	5
2/24/94	18	5	5	5	15	5	5
3/18/94	24	5	5	5	13	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	14	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	84	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	83.5	5	5	5	5	5	5
1/19/99	88.7	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	62	0.5	0.5	1.3	0.5	0.5	0.5
10/21/99	26	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	437.5	31.25	1084.673
MW-2	14	60.5	4.321429	2.023352
MW-3	14	60.5	4.321429	2.023352
MW-4	14	67.3	4.807143	3.580714
MW-5	14	104.5	7.464286	35.9794
SW-1	14	60.5	4.321429	2.023352
SW-2	14	60.5	4.321429	2.023352

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	8426.182	6	1404.364	8.68172	1.8E-07	2.199904
Within Groups	14720.25	91	161.761			
Total	23146.43	97				

Fcrit<F, Contamination possible

Tetrachloroethene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	9.9	9.7	2.5	2.5
1/31/94	2.5	2.5	2.5	8.1	10	2.5	2.5
2/24/94	2.5	2.5	2.5	8.1	10	2.5	2.5
3/18/94	2.5	2.5	2.5	8.7	10	2.5	2.5
10/27/94	2.5	2.5	5.83	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	9.3	9.3	2.5	2.5
3/5/96	2.5	2.5	2.5	6	2.5	2.5	2.5
10/7/96	2.85	2.5	2.5	4.38	5.07	2.5	2.5
5/7/97	2.5	2.5	2.5	5.03	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	7.15	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	4.38	1.51	2.5	2.5
1/19/99	3	0.5	0.5	3.6	0.5	0.5	0.5
04/22/99	3.7	0.5	1	3.9	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	37.05	2.646429	0.116332
MW-2	14	31	2.214286	0.527473
MW-3	14	34.83	2.487857	1.333603
MW-4	14	83.54	5.967143	6.490545
MW-5	14	69.08	4.934286	15.34266
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	201.3512	6	33.55853	9.447194	4.71E-08	2.199904
Within Groups	323.2522	91	3.552222			
Total	524.6034	97				

Fcrit<F, Contamination possible

Tin, total		MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
	3/5/96	0.05	0.05	0.05	0.05	0.05		
	11/10/97	0.125	0.39	0.125	0.99	1.55		
	1/19/99	0.025	0.025	0.98	0.83	17.04	0.025	0.025
	10/21/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	4	0.2025	0.050625	0.002835
MW-2	4	0.4675	0.116875	0.033531
MW-3	4	1.1575	0.289375	0.214527
MW-4	4	1.8725	0.468125	0.264981
MW-5	4	18.6425	4.660625	68.62697
SW-1	2	0.0275	0.01375	0.000253
SW-2	2	0.0275	0.01375	0.000253

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	67.26086	6	11.21014	0.918736	0.50554	2.698656
Within Groups	207.429	17	12.20171			
Total	274.6899	23				

Fcrit>F, Contamination unlikely

Trichloroethene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	5.8	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	11	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	11	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	11	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	5.7	9.5	2.5	2.5
3/5/96	2.5	2.5	2.5	5.4	7.4	2.5	2.5
10/7/96	2.16	2.5	2.5	4.53	7.38	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.39	0.99	2.5	2.5
1/19/99	3.2	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	4.3	1.1	1.3	3.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	37.16	2.654286	0.27018
MW-2	14	31.6	2.257143	0.394945
MW-3	14	31.8	2.271429	0.362198
MW-4	14	45.32	3.237143	2.389668
MW-5	14	71.77	5.126429	17.48313
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	96.10596	6	16.01766	5.106958	0.000147	2.199904
Within Groups	285.4159	91	3.136438			
Total	381.5219	97				

Fcrit<F, Contamination possible

Toluene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.79	3.99	1.69	2.41	3.46	3.05	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	4.01	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	3.1	0.5	0.5	1	0.5	1	1
04/22/99	2.4	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	37.3	2.664286	0.181257
MW-2	14	32.49	2.320714	0.751546
MW-3	14	30.19	2.156429	0.538732
MW-4	14	31.41	2.243571	0.410579
MW-5	14	31.96	2.282857	0.635499
SW-1	14	32.05	2.289286	0.456223
SW-2	14	31.5	2.25	0.413462

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2.214784	6	0.369131	0.762825	0.601003	2.199904
Within Groups	44.03486	91	0.4839			
Total	46.24964	97				

Fcrit>F, Contamination unlikely

Vanadium	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/31/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
2/24/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/18/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
10/27/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/28/95	0.005	0.005	0.005	0.005	0.005	0.005	0.005
3/5/96	0.005	0.005	0.005	0.005	0.005	0.005	0.005
10/7/96	0.005	0.005	0.005	0.005	0.005	0.005	0.005
5/7/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
11/10/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
4/27/98	0.005	0.005	0.005	0.005	0.005	0.005	0.005
1/19/99	0.0025	0.0025	0.0025	0.0025	0.058	0.0025	0.0025
04/22/99	0.0025	0.0025	0.0025	0.028	0.11	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.038	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.0625	0.004464	1.13E-06
MW-2	14	0.0625	0.004464	1.13E-06
MW-3	14	0.0625	0.004464	1.13E-06
MW-4	14	0.088	0.006286	3.99E-05
MW-5	14	0.261	0.018643	0.000947
SW-1	14	0.0625	0.004464	1.13E-06
SW-2	14	0.0625	0.004464	1.13E-06

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.002349	6	0.000391	2.759643	0.01645	2.199904
Within Groups	0.012909	91	0.000142			
Total	0.015258	97				

Fcrit<F, Contamination possible

Vinyl chloride	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	1.83	5	5
5/7/97	2	5	5	2	3.02	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	1.94	5	0.8	2.01	2.56	5	5
1/19/99	2.3	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	2.1	0.5	1.2	2	2.2	0.5	0.5
10/21/99	49	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	102.34	7.31	145.7968
MW-2	14	58.5	4.178571	2.869505
MW-3	14	55	3.928571	3.26989
MW-4	14	54.01	3.857857	2.705941
MW-5	14	52.61	3.757857	2.512464
SW-1	14	58.5	4.178571	2.869505
SW-2	14	58.5	4.178571	2.869505

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	132.9156	6	22.15261	0.95196	0.462341	2.199904
Within Groups	2117.617	91	23.27051			
Total	2250.532	97				

Fcrit>F, Contamination unlikely

Xylene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	17	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	18.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	24.7	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	29.6	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	29.09	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	28.4	0.5	0.5	0.5	2.6	0.5	0.5
4/22/99	14.1	1.5	1.5	1.5	1.5	1.5	1.5
10/21/99	49	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	225.39	16.09929	213.7677
MW-2	14	32	2.285714	0.335165
MW-3	14	32	2.285714	0.335165
MW-4	14	32	2.285714	0.335165
MW-5	14	34.1	2.435714	0.073242
SW-1	14	32	2.285714	0.335165
SW-2	14	32	2.285714	0.335165

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2281.759	6	380.2932	12.35195	3.96E-10	2.199904
Within Groups	2801.718	91	30.78811			
Total	5083.477	97				

Fcrit<F, Contamination possible

Zinc, total		MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
	12/16/93	0.019	0.005	0.015	0.019	0.011	0.015	0.005
	1/31/94	0.01	0.005	0.005	0.015	0.005	0.005	0.005
	2/24/94	0.005	0.023	0.028	0.005	0.017	0.005	0.005
	3/18/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	10/27/94	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	4/28/95	0.024	0.024	0.011	0.018	0.012	0.022	0.037
	3/5/96	0.005	0.005	0.005	0.005	0.117	0.064	0.005
	10/7/96	0.127	0.088	0.049	0.284	0.076	0.109	0.026
	5/7/97	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	11/10/97	0.005	0.027	0.027	0.042	0.005	0.005	0.005
	4/27/98	0.086	0.041	0.25	0.048	0.45	0.34	0.088
	1/19/99	0.005	0.073	0.022	0.074	0.27	0.005	0.005
	04/22/99	0.005	0.005	0.005	0.11	0.26	0.005	0.005
	10/21/99	0.005	0.014	0.005	0.005	0.083	0.005	0.005

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	0.311	0.022214	0.001375
MW-2	14	0.325	0.023214	0.000724
MW-3	14	0.437	0.031214	0.004137
MW-4	14	0.64	0.045714	0.0057
MW-5	14	1.321	0.094357	0.018876
SW-1	14	0.595	0.0425	0.008248
SW-2	14	0.206	0.014714	0.000541

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.060242	6	0.01004	1.774739	0.113043	2.199904
Within Groups	0.514818	91	0.005657			
Total	0.575059	97				

Fcrit>F, Contamination unlikely

1,1,1,2-Tetrachloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,1,1,2-Tetrachloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,1,1,2-Tetrachloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,1-Dichloroethene (-ethyl	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,2,3-Trichloropropane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	7.5	7.5	7.5	7.5	7.5	7.5	7.5
1/31/94	7.5	7.5	7.5	7.5	7.5	7.5	7.5
2/24/94	7.5	7.5	7.5	7.5	7.5	7.5	7.5
3/18/94	7.5	7.5	7.5	7.5	7.5	7.5	7.5
10/27/94	7.5	7.5	7.5	7.5	7.5	7.5	7.5
4/28/95	7.5	7.5	7.5	7.5	7.5	7.5	7.5
3/5/96	7.5	7.5	7.5	7.5	7.5	7.5	7.5
10/7/96	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5/7/97	7.5	7.5	7.5	7.5	7.5	7.5	7.5
11/10/97	7.5	7.5	7.5	7.5	7.5	7.5	7.5
4/27/98	7.5	7.5	7.5	7.5	7.5	7.5	7.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	86	6.143	7.478
MW-2	14	86	6.143	7.478
MW-3	14	86	6.143	7.478
MW-4	14	86	6.143	7.478
MW-5	14	86	6.143	7.478
SW-1	14	86	6.143	7.478
SW-2	14	86	6.143	7.478

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	0	6	0	0	1	2.2
Within Groups	680.5	91	7.478			
Total	680.5	97				

No Significant Deviation

1,2,3-Trichloropropane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1/31/94	12.5	12.5	12.5	12.5	12.5	12.5	12.5
2/24/94	12.5	12.5	12.5	12.5	12.5	12.5	12.5
3/18/94	12.5	12.5	12.5	12.5	12.5	12.5	12.5
10/27/94	12.5	12.5	12.5	12.5	12.5	12.5	12.5
4/28/95	12.5	12.5	12.5	12.5	12.5	12.5	12.5
3/5/96	12.5	12.5	12.5	12.5	12.5	12.5	12.5
10/7/96	12.5	12.5	12.5	12.5	12.5	12.5	12.5
5/7/97	12.5	12.5	12.5	12.5	12.5	12.5	12.5
11/10/97	12.5	12.5	12.5	12.5	12.5	12.5	12.5
4/27/98	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1/19/99	0.05	0.05	0.05	0.05	0.05	0.05	0.05
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	140.6	10.04	24.17
MW-2	14	140.6	10.04	24.17
MW-3	14	140.6	10.04	24.17
MW-4	14	140.6	10.04	24.17
MW-5	14	140.6	10.04	24.17
SW-1	14	140.6	10.04	24.17
SW-2	14	140.6	10.04	24.17

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	4E-12	6	6E-13	3E-14	1	2.2
Within Groups	2200	91	24.17			
Total	2200	97				

No Significant Deviation

1,2-Dibromoethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,2-Dibromoethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	31	2.214	0.527
MW-2	14	31	2.214	0.527
MW-3	14	31	2.214	0.527
MW-4	14	31	2.214	0.527
MW-5	14	31	2.214	0.527
SW-1	14	31	2.214	0.527
SW-2	14	31	2.214	0.527

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	-0	6	-0	-0	######	2.2
Within Groups	48	91	0.527			
Total	48	97				

No Significant Deviation

1,2-Dichloroethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

1,2-Dichloropropane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

2-Butanone	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	3	7.499999	2.5	3.34E-13
MW-2	3	7.499999	2.5	3.34E-13
MW-3	3	7.499999	2.5	3.34E-13
MW-4	3	7.499999	2.5	3.34E-13
MW-5	3	7.499999	2.5	3.34E-13
SW-1	3	7.499999	2.5	3.34E-13
SW-2	3	7.499999	2.5	3.34E-13

ANOVA

rce of Varia	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between G	-5.7E-14	6	-9.5E-15	-0.02811	#NUM!	2.847727
Within Gro	4.72E-12	14	3.37E-13			
Total	4.66E-12	20				

No Significant Deviation

2-Hexanone	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	25	25	25	25	25	25	25
1/31/94	25	25	25	25	25	25	25
2/24/94	25	25	25	25	25	25	25
3/18/94	25	25	25	25	25	25	25
10/27/94	25	25	25	25	25	25	25
4/28/95	25	25	25	25	25	25	25
3/5/96	25	25	25	25	25	25	25
10/7/96	25	25	25	25	25	25	25
5/7/97	25	25	25	25	25	25	25
11/10/97	25	25	25	25	25	25	25
4/27/98	25	25	25	25	25	25	25
1/19/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	285	20.35714	85.43956
MW-2	14	285	20.35714	85.43956
MW-3	14	285	20.35714	85.43956
MW-4	14	285	20.35714	85.43956
MW-5	14	285	20.35714	85.43956
SW-1	14	285	20.35714	85.43956
SW-2	14	285	20.35714	85.43956

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	7.28E-12	6	1.21E-12	1.42E-14	1	2.199904
Within Groups	7775	91	85.43956			
Total	7775	97				

No Significant Deviation

4-Methyl-2-Pentanone	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	50	50	50	50	50	50	50
1/31/94	50	50	50	50	50	50	50
2/24/94	50	50	50	50	50	50	50
3/18/94	50	50	50	50	50	50	50
10/27/94	50	50	50	50	50	50	50
4/28/95	50	50	50	50	50	50	50
3/5/96	50	50	50	50	50	50	50
10/7/96	50	50	50	50	50	50	50
5/7/97	50	50	50	50	50	50	50
11/10/97	50	50	50	50	50	50	50
4/27/98	50	50	50	50	50	50	50
1/19/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	560	40	395.1923
MW-2	14	560	40	395.1923
MW-3	14	560	40	395.1923
MW-4	14	560	40	395.1923
MW-5	14	560	40	395.1923
SW-1	14	560	40	395.1923
SW-2	14	560	40	395.1923

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0	6	0	0	1	2.199904
Within Groups	35962.5	91	395.1923			
Total	35962.5	97				

No Significant Deviation

Acetone	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	50	50	50	50	50	50	50
1/31/94	50	50	50	50	50	50	50
2/24/94	50	50	50	50	50	50	50
3/18/94	50	50	50	50	50	50	50
10/27/94	50	50	50	50	50	50	50
4/28/95	50	50	50	50	50	50	50
3/5/96	50	50	50	50	50	50	50
10/7/96	50	50	50	50	50	50	50
5/7/97	50	50	50	50	50	50	50
11/10/97	50	50	50	50	50	50	50
4/27/98	50	50	50	50	50	50	50
1/19/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	5	5	5	5	5	5	5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	562.5	40.17857	381.2157
MW-2	14	562.5	40.17857	381.2157
MW-3	14	562.5	40.17857	381.2157
MW-4	14	562.5	40.17857	381.2157
MW-5	14	562.5	40.17857	381.2157
SW-1	14	562.5	40.17857	381.2157
SW-2	14	562.5	40.17857	381.2157

ANOVA

ce of Vari	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between	-2.9E-11	6	-4.9E-12	-1.3E-14	#NUM!	2.199904
Within Gr	34690.63	91	381.2157			
Total	34690.63	97				

No Significant Deviation

Acrylonitrile	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	100	100	100	100	100	100	100
1/31/94	100	100	100	100	100	100	100
2/24/94	100	100	100	100	100	100	100
3/18/94	100	100	100	100	100	100	100
10/27/94	100	100	100	100	100	100	100
4/28/95	100	100	100	100	100	100	100
3/5/96	100	100	100	100	100	100	100
10/7/96	100	100	100	100	100	100	100
5/7/97	100	100	100	100	100	100	100
11/10/97	100	100	100	100	100	100	100
4/27/98	100	100	100	100	100	100	100
1/19/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5
04/22/99	5	5	5	5	5	5	5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	1112.5	79.46429	1665.556
MW-2	14	1112.5	79.46429	1665.556
MW-3	14	1112.5	79.46429	1665.556
MW-4	14	1112.5	79.46429	1665.556
MW-5	14	1112.5	79.46429	1665.556
SW-1	14	1112.5	79.46429	1665.556
SW-2	14	1112.5	79.46429	1665.556

ANOVA

rce of Varia	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Gr	0	6	0	0	1	2.199904
Within Grou	151565.6	91	1665.556			
Total	151565.6	97				

No Significant Deviation

Beryllium	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	1	1	1	1	1	1	1
1/31/94	1	1	1	1	1	1	1
2/24/94	1	1	1	1	1	1	1
3/18/94	1	1	1	1	1	1	1
10/27/94	1	1	1	1	1	1	1
4/28/95	1	1	1	1	1	1	1
3/5/96	1	1	1	1	1	1	1
10/7/96	1	1	1	1	1	1	1
5/7/97	1	1	1	1	1	1	1
11/10/97	1	1	1	1	1	1	1
4/27/98	1	1	1	1	1	1	1
1/19/99	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
04/22/99	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
10/21/99	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	11.0015	0.785821	0.181137
MW-2	14	11.0015	0.785821	0.181137
MW-3	14	11.0015	0.785821	0.181137
MW-4	14	11.0015	0.785821	0.181137
MW-5	14	11.0015	0.785821	0.181137
SW-1	14	11.0015	0.785821	0.181137
SW-2	14	11.0015	0.785821	0.181137

ANOVA

ce of Vari	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between	-7.1E-15	6	-1.2E-15	-6.5E-15	#NUM!	2.199904
Within Gr	16.4835	91	0.181137			
Total	16.4835	97				

No Significant Deviation

Bromochloromethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

Bromodichloromethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

Bromoform	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	31	2.214	0.527
MW-2	14	31	2.214	0.527
MW-3	14	31	2.214	0.527
MW-4	14	31	2.214	0.527
MW-5	14	31	2.214	0.527
SW-1	14	31	2.214	0.527
SW-2	14	31	2.214	0.527

ANOVA

rce of Varia	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Gr	-0	6	-0	-0	#####	2.2
Within Grou	48	91	0.527			
Total	48	97				

No Significant Deviation

Bromomethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	3	6	2	6.75
MW-2	3	6	2	6.75
MW-3	3	6	2	6.75
MW-4	3	6	2	6.75
MW-5	3	6	2	6.75
SW-1	3	6	2	6.75
SW-2	3	6	2	6.75

ANOVA

ource of Variati	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Group	0	6	0	0	1	2.847727
Within Groups	94.5	14	6.75			
Total	94.5	20				

No Significant Deviation

Carbon Disulfide	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	50	50	50	50	50	50	50
1/31/94	50	50	50	50	50	50	50
2/24/94	50	50	50	50	50	50	50
3/18/94	50	50	50	50	50	50	50
10/27/94	50	50	50	50	50	50	50
4/28/95	50	50	50	50	50	50	50
3/5/96	50	50	50	50	50	50	50
10/7/96	50	50	50	50	50	50	50
5/7/97	50	50	50	50	50	50	50
11/10/97	50	50	50	50	50	50	50
4/27/98	50	50	50	50	50	50	50
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	553.5	39.54	432.6
MW-2	14	553.5	39.54	432.6
MW-3	14	553.5	39.54	432.6
MW-4	14	553.5	39.54	432.6
MW-5	14	553.5	39.54	432.6
SW-1	14	553.5	39.54	432.6
SW-2	14	553.5	39.54	432.6

ANOVA

ource of Variatio	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	3E-11	6	5E-12	1E-14	1	2.2
Within Groups	39366	91	432.6			
Total	39366	97				

No Significant Deviation

Carbon tetrachloride	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	5	5	5	5	5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	58.5	4.178571	2.869505
MW-2	14	58.5	4.178571	2.869505
MW-3	14	58.5	4.178571	2.869505
MW-4	14	58.5	4.178571	2.869505
MW-5	14	58.5	4.178571	2.869505
SW-1	14	58.5	4.178571	2.869505
SW-2	14	58.5	4.178571	2.869505

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2.27E-13	6	3.79E-14	1.32E-14	1	2.199904
Within Groups	261.125	91	2.869505			
Total	261.125	97				

No Significant Deviation

Chloroform	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	31	2.214	0.527
MW-2	14	31	2.214	0.527
MW-3	14	31	2.214	0.527
MW-4	14	31	2.214	0.527
MW-5	14	31	2.214	0.527
SW-1	14	31	2.214	0.527
SW-2	14	31	2.214	0.527

ANOVA

rce of Varia	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Gr	-0	6	-0	-0	#####	2.2
Within Grou	48	91	0.527			
Total	48	97				

No Significant Deviation

Chloromethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	1.1	0.5	0.5	2.5	0.5	0.5	0.5
10/21/99	5	5	5	5	5	5	5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	3	6.6	2.2	5.97
MW-2	3	6	2	6.75
MW-3	3	6	2	6.75
MW-4	3	8	2.667	5.083
MW-5	3	6	2	6.75
SW-1	3	6	2	6.75
SW-2	3	6	2	6.75

ANOVA

ource of Variati	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Group	1.131	6	0.189	0.029	1	2.848
Within Groups	89.61	14	6.4			
Total	90.74	20				

No Significant Deviation

cis-1,3-Dichloropropene (-propylene)	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	5	5	5	5	5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	58.5	4.179	2.87
MW-2	14	58.5	4.179	2.87
MW-3	14	58.5	4.179	2.87
MW-4	14	58.5	4.179	2.87
MW-5	14	58.5	4.179	2.87
SW-1	14	58.5	4.179	2.87
SW-2	14	58.5	4.179	2.87

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	2E-13	6	4E-14	1E-14	1	2.2
Within Groups	261.1	91	2.87			
Total	261.1	97				

No Significant Deviation

Dibromochloromethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	3	3.5	1.166667	1.333333
MW-2	3	3.5	1.166667	1.333333
MW-3	3	3.5	1.166667	1.333333
MW-4	3	3.5	1.166667	1.333333
MW-5	3	3.5	1.166667	1.333333
SW-1	3	3.5	1.166667	1.333333
SW-2	3	3.5	1.166667	1.333333

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-3.6E-15	6	-5.9E-16	-4.4E-16	#NUM!	2.847727
Within Groups	18.66667	14	1.333333			
Total	18.66667	20				

No Significant Deviation

Dibromomethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	3	3.5	1.166667	1.333333
MW-2	3	3.5	1.166667	1.333333
MW-3	3	3.5	1.166667	1.333333
MW-4	3	3.5	1.166667	1.333333
MW-5	3	3.5	1.166667	1.333333
SW-1	3	3.5	1.166667	1.333333
SW-2	3	3.5	1.166667	1.333333

ANOVA

ource of Variatio	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-3.6E-15	6	-5.9E-16	-4.4E-16	#NUM!	2.847727
Within Groups	18.66667	14	1.333333			
Total	18.66667	20				

No Significant Deviation

Iodomethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	3	3.5	1.166667	1.333333
MW-2	3	3.5	1.166667	1.333333
MW-3	3	3.5	1.166667	1.333333
MW-4	3	3.5	1.166667	1.333333
MW-5	3	3.5	1.166667	1.333333
SW-1	3	3.5	1.166667	1.333333
SW-2	3	3.5	1.166667	1.333333

ANOVA

urce of Variati	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Gro	-3.6E-15	6	-5.9E-16	-4.4E-16	#NUM!	2.847727
Within Group	18.66667	14	1.333333			
Total	18.66667	20				

No Significant Deviation

Selenium	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	10	10	10	10	10	10	10
1/31/94	10	10	10	10	10	10	10
2/24/94	10	10	10	10	10	10	10
3/18/94	10	10	10	10	10	10	10
10/27/94	10	10	10	10	10	10	10
4/28/95	10	10	10	10	10	10	10
3/5/96	10	10	10	10	10	10	10
10/7/96	10	10	10	10	10	10	10
5/7/97	10	10	10	10	10	10	10
11/10/97	10	10	10	10	10	10	10
4/27/98	10	10	10	10	10	10	10
1/19/99	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
04/22/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	110.0065	7.857607	18.12401
MW-2	14	110.0065	7.857607	18.12401
MW-3	14	110.0065	7.857607	18.12401
MW-4	14	110.0065	7.857607	18.12401
MW-5	14	110.0065	7.857607	18.12401
SW-1	14	110.0065	7.857607	18.12401
SW-2	14	110.0065	7.857607	18.12401

ANOVA

ce of Vari	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between	9.09E-13	6	1.52E-13	8.36E-15	1	2.199904
Within Gr	1649.285	91	18.12401			
Total	1649.285	97				

No Significant Deviation

Selenium	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	10	10	10	10	10	10	10
1/31/94	10	10	10	10	10	10	10
2/24/94	10	10	10	10	10	10	10
3/18/94	10	10	10	10	10	10	10
10/27/94	10	10	10	10	10	10	10
4/28/95	10	10	10	10	10	10	10
3/5/96	10	10	10	10	10	10	10
10/7/96	10	10	10	10	10	10	10
5/7/97	10	10	10	10	10	10	10
11/10/97	10	10	10	10	10	10	10
4/27/98	10	10	10	10	10	10	10
1/19/99	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
04/22/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
10/21/99	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	110.0065	7.857607	18.12401
MW-2	14	110.0065	7.857607	18.12401
MW-3	14	110.0065	7.857607	18.12401
MW-4	14	110.0065	7.857607	18.12401
MW-5	14	110.0065	7.857607	18.12401
SW-1	14	110.0065	7.857607	18.12401
SW-2	14	110.0065	7.857607	18.12401

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	9.09E-13	6	1.52E-13	8.36E-15	1	2.199904
Within Groups	1649.285	91	18.12401			
Total	1649.285	97				

No Significant Deviation

Silver	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	5	5	5	5	5
1/19/99	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
04/22/99	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10/21/99	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	55.0025	3.92875	4.531456
MW-2	14	55.0025	3.92875	4.531456
MW-3	14	55.0025	3.92875	4.531456
MW-4	14	55.0025	3.92875	4.531456
MW-5	14	55.0025	3.92875	4.531456
SW-1	14	55.0025	3.92875	4.531456
SW-2	14	55.0025	3.92875	4.531456

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0	6	0	0	1	2.199904
Within Groups	412.3625	91	4.531456			
Total	412.3625	97				

No Significant Deviation

Styrene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	5	5	5	5	5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	58.5	4.178571	2.869505
MW-2	14	58.5	4.178571	2.869505
MW-3	14	58.5	4.178571	2.869505
MW-4	14	58.5	4.178571	2.869505
MW-5	14	58.5	4.178571	2.869505
SW-1	14	58.5	4.178571	2.869505
SW-2	14	58.5	4.178571	2.869505

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2.27E-13	6	3.79E-14	1.32E-14	1	2.199904
Within Groups	261.125	91	2.869505			
Total	261.125	97				

No Significant Deviation

Thallium	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	5	5	5	5	5	5	5
1/31/94	5	5	5	5	5	5	5
2/24/94	5	5	5	5	5	5	5
3/18/94	5	5	5	5	5	5	5
10/27/94	5	5	5	5	5	5	5
4/28/95	5	5	5	5	5	5	5
3/5/96	5	5	5	5	5	5	5
10/7/96	5	5	5	5	5	5	5
5/7/97	5	5	5	5	5	5	5
11/10/97	5	5	5	5	5	5	5
4/27/98	5	5	5	5	5	5	5
1/19/99	0.001	0.001	0.001	0.001	0.001	0.001	0.001
04/22/99	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10/21/99	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	55.003	3.928786	4.531154
MW-2	14	55.003	3.928786	4.531154
MW-3	14	55.003	3.928786	4.531154
MW-4	14	55.003	3.928786	4.531154
MW-5	14	55.003	3.928786	4.531154
SW-1	14	55.003	3.928786	4.531154
SW-2	14	55.003	3.928786	4.531154

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-2.3E-13	6	-3.8E-14	-8.4E-15	#NUM!	2.199904
Within Groups	412.335	91	4.531154			
Total	412.335	97				

No Significant Deviation

trans-1,2-Dichloroethene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
MW-1	14	31	2.214286	0.527473
MW-2	14	31	2.214286	0.527473
MW-3	14	31	2.214286	0.527473
MW-4	14	31	2.214286	0.527473
MW-5	14	31	2.214286	0.527473
SW-1	14	31	2.214286	0.527473
SW-2	14	31	2.214286	0.527473

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	-1.1E-13	6	-1.9E-14	-3.6E-14	#NUM!	2.199904
Within Groups	48	91	0.527473			
Total	48	97				

No Significant Deviation

trans-1,4-Dichloro-2-Butene	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	50	50	50	50	50	50	50
1/31/94	50	50	50	50	50	50	50
2/24/94	50	50	50	50	50	50	50
3/18/94	50	50	50	50	50	50	50
10/27/94	50	50	50	50	50	50	50
4/28/95	50	50	50	50	50	50	50
3/5/96	50	50	50	50	50	50	50
10/7/96	50	50	50	50	50	50	50
5/7/97	50	50	50	50	50	50	50
11/10/97	50	50	50	50	50	50	50
4/27/98	50	50	50	50	50	50	50
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	553.5	39.54	432.6
MW-2	14	553.5	39.54	432.6
MW-3	14	553.5	39.54	432.6
MW-4	14	553.5	39.54	432.6
MW-5	14	553.5	39.54	432.6
SW-1	14	553.5	39.54	432.6
SW-2	14	553.5	39.54	432.6

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	3E-11	6	5E-12	1E-14	1	2.2
Within Groups	39366	91	432.6			
Total	39366	97				

No Significant Deviation

Trichlorofluoromethane	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	2.5	2.5	2.5	2.5	2.5	2.5	2.5
1/31/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2/24/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/18/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/27/94	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/28/95	2.5	2.5	2.5	2.5	2.5	2.5	2.5
3/5/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10/7/96	2.5	2.5	2.5	2.5	2.5	2.5	2.5
5/7/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11/10/97	2.5	2.5	2.5	2.5	2.5	2.5	2.5
4/27/98	15.9	2.5	2.5	2.5	2.5	2.5	2.5
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	44.4	3.171	13.94
MW-2	14	31	2.214	0.527
MW-3	14	31	2.214	0.527
MW-4	14	31	2.214	0.527
MW-5	14	31	2.214	0.527
SW-1	14	31	2.214	0.527
SW-2	14	31	2.214	0.527

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	10.99	6	1.832	0.75	0.611	2.2
Within Groups	222.4	91	2.444			
Total	233.4	97				

No Significant Deviation

Vinyl acetate	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2
12/16/93	25	25	25	25	25	25	25
1/31/94	25	25	25	25	25	25	25
2/24/94	25	25	25	25	25	25	25
3/18/94	25	25	25	25	25	25	25
10/27/94	25	25	25	25	25	25	25
4/28/95	25	25	25	25	25	25	25
3/5/96	25	25	25	25	25	25	25
10/7/96	25	25	25	25	25	25	25
5/7/97	25	25	25	25	25	25	25
11/10/97	25	25	25	25	25	25	25
4/27/98	25	25	25	25	25	25	25
1/19/99	0.5	0.5	0.5	0.5	0.5	0.5	0.5
04/22/99	1	1	1	1	1	1	1
10/21/99	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*verag*	*ariance*
MW-1	14	279	19.93	101.7
MW-2	14	279	19.93	101.7
MW-3	14	279	19.93	101.7
MW-4	14	279	19.93	101.7
MW-5	14	279	19.93	101.7
SW-1	14	279	19.93	101.7
SW-2	14	279	19.93	101.7

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*-valu*	*F crit*
Between Groups	0	6	0	0	1	2.2
Within Groups	9257	91	101.7			
Total	9257	97				

No Significant Deviation