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September 29, 2004  
Ref. No. 31128-022

Mr. Gregory P. Sutton, P.E.  
Project Manager  
New York State Department of Environmental Conservation, Region 9  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Subject: Annual Environmental Monitoring Report, 2003 (Rev. 1)  
Leica, Inc. Site; Erie County, Cheektowaga, NY  
Inactive Hazardous Waste Disposal Site No. 915156

Dear Mr. Sutton:

Enclosed you will find a revised version of the 2003 Annual Environmental Monitoring Report (Rev. 1) for groundwater monitoring activities at the referenced site which began in January of 2003 and were completed in October of 2003. This revised report includes additional information regarding vapor discharge monitoring results as you requested.

If you have any questions about the annual report, please feel free to call me at 860-210-3063.

Sincerely,  
**Scientechnical, LLC**



Robert E. McPeak, Jr., P.E., LEP  
Department Manager

Enclosure

cc:	M. Wood (Leica)	D. Simkowski (Leica)
	A. Szklany (Leica)	G. Hollerbach (Quantum)
	R. Downey (Pfizer)	E. Doubleday (Scientechnical)
	C. O'Conner (NYSDOH)	

**2003 Annual Environmental Monitoring Report (Rev. 1)**  
**Leica Inc.**  
**Cheektowaga, New York**

**Prepared for:**

**LEICA Inc.**  
**P.O. Box 123**  
**Buffalo, NY 14240-0123**

**Prepared by:**

**Scientech, LLC**  
**143 West Street**  
**New Milford, CT 06776**

**September 29, 2004**



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September 29, 2004

  
Robert E. McPeak, Jr., P.E., LEP  
Department Manager

9/29/04  
Date

  
Jeffrey Kronick  
Environmental Scientist

9-29-2004  
Date

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## 1.0 INTRODUCTION

### 1.1 Introduction

This "2003 Annual Environmental Monitoring Report" has been prepared to document activities performed in accordance with the Water Quality Monitoring Program for the Leica Inc. Site. The current monitoring program includes quarterly groundwater monitoring from nineteen monitoring wells and the collection of a post-treatment discharge sample from the bedrock groundwater pump and treat system. Monitoring activities were conducted in January, March, July and October 2003.

Scientech, LLC (Scientech) completed all four quarterly monitoring events. Columbia Analytical, Inc. (Columbia) of Rochester, New York, a New York state-certified laboratory, performed the laboratory analysis of the samples collected.

This annual report of environmental monitoring summarizes the 2003 analytical findings, and presents trends and exceedances of water quality standards. The report also discusses groundwater flow direction and the assessment of the water quality-monitoring program. Recommendations for modifications to the groundwater-monitoring program are also included.

### 1.2 Site Location

The Leica Inc. Site is located on approximately 24 acres at the intersection of Eggert Road and Sugar Road in the Town of Cheektowaga, Erie County, New York (see Appendix A, Figure 1). The west boundary of the Site abuts the eastern boundary of the City of Buffalo. The Site is located in a generally commercial/residential area and is bounded by open public land and public housing to the west, Cemetery property to the north and east and residential property to the south. The forested wetland located immediately to the east of the southern paved parking area is the only wetland area in the general vicinity of the Site.

### 1.3 Overview of Site Activities

The manufacturing facility on the Site was built in 1938 by the Spencer Lens Company to manufacture scientific instruments and high quality optical devices. The property has been owned and operated by various other firms manufacturing similar optical related products since 1938. The majority of the Eggert Road site was sold by Leica Inc. to Sam-Son Corporation/Calypso Development in 1993 and has since been operated as a distribution center for various consumer products.

There are three permanent buildings on the property, including the brick multi-story Main Building of approximately 360,000 square feet, a single story metal storage building of approximately 3,100 square feet, and a one story brick fire protection system pump house of 325 square feet. The Main Building was constructed in segments from 1938 to 1967. The buildings are all constructed with concrete slab on grade foundations. The remainder of the Site is either paved for parking use or landscaped.

In addition to site monitoring activities during the 2003 calendar year, Scientech also operated the bedrock groundwater pump and treat system as well as completed the excavation of contaminated soils at the Site. Groundwater was collected from monitoring wells MW-11A and MW-16A through the use of pneumatic pumps in order to control the migration of bedrock groundwater at the Site. The pumps in each of the wells collected groundwater throughout the year with brief periods of stoppage in late January into February 2003 and again in early December 2003 due to excavation and backfilling activities in the vicinity of MW-11A.

Soil excavation operations in the south parking area began in October of 2002 and were completed in May of 2003. Approximately 9,000 tons of soil were excavated and transported to the appropriate off-site solid waste landfills for disposal. Backfilling of the excavation began in January 2003 and was completed in various stages throughout the year. Backfilling of the excavation to within one foot of the original grade is scheduled for completion in the spring of 2004.

#### **1.4 Description of Sampling Activities**

Environmental monitoring included the collection and analysis of groundwater samples from twelve monitoring wells, one post-treatment discharge sample along with recording depth to groundwater measurements from seventeen monitoring wells and periodic photoionization detector (PID) readings from the air stripper vapor discharge. Depth to groundwater was measured from a known elevation (top of PVC riser pipe) in each of the monitoring wells to determine purge volumes and the direction of groundwater flow.

#### **1.5 Local Water Quality Classifications**

##### *1.5.1 Groundwater*

The groundwater beneath the Leica Inc. Site and the surrounding area is classified as Class GA fresh groundwaters. The best usage of Class GA waters is as a source of potable water supply. Groundwater is not used for a source of drinking water in the Town of Cheektowaga. The Erie County Water Authority supplies drinking water for the area from the Niagara River.

##### *1.5.2 Surface Water*

There are no significant bodies of surface water in the vicinity of the Site. There is a seasonally flooded forested wetland located immediately to the east of the southern paved parking area. Storm water run-off from the Site is collected by the municipal storm water system and conveyed to Scajaquada Creek approximately one mile south of the Site.

## 2.0 SAMPLING REQUIREMENTS

### 2.1 Monitoring Program Description

The Groundwater Monitoring Program was designed to monitor the two hydrogeologic units beneath the Site and to evaluate the groundwater quality over time, thereby assessing the effectiveness of the bedrock groundwater pump and treat system.

The existing water quality-monitoring program at the Leica Inc. Site consists of the following:

- Groundwater samples from twelve monitoring wells (including the two bedrock well pumps).
- Depth to groundwater measurements from seventeen monitoring wells.
- One post-treatment discharge sample from the bedrock groundwater pump and treat system.
- Quality assurance/quality control samples.

The monitoring wells include MW-1A, MW-2A, MW-4, MW-5, MW-5A, MW-6, MW-6A, MW-7, MW-10, MW-11, MW-11A, MW-13, MW-14, MW-14A, MW-16A, MW-16R, MW-17A and MW-22 (see Figure 2). Monitoring well MW-11 was damaged in May 2003 during soil excavation activities and is no longer part of the monitoring program.

### 2.2 Overview of the Sampling Procedures

Samples are collected using methods designed to limit the potential for artificial introduction of contamination to the samples or to the sampling equipment, and to provide samples representative of the aquifer. All samples collected were analyzed for Volatile Organic Compounds (VOCs) using EPA method 8260.

Prior to sampling, the depth to the groundwater from the top of each well was measured and recorded (see Table 1). Three well volumes were purged from each well prior to sample collection to provide groundwater samples that are representative of the aquifer. In each well, a new disposable polyethylene bailer and new polyethylene cord was used for purging and sampling. If the monitoring well went dry before the required three well volumes were removed, the well was sampled following sufficient recovery of groundwater. In some instances, there was not sufficient recovery and no sample was collected. Personnel used disposable latex gloves for each sample that was collected, to avoid cross contamination of the samples.

The presence of pumps in monitoring wells MW-11A and MW-16A prohibits the use of normal sampling techniques. These samples are collected from two separate three eights inch ports each with a valve in the treatment system piping inside the treatment trailer.

The water effluent sample for the wastewater treatment system was collected from a port on the four inch discharge line on the down stream side of the MSD air stripping treatment unit. The air influent sample, collected before vapor discharges from the air stripper enter the carbon canisters

was collected from a three eights inch opening in the discharge line using a PID with the draw tube at the edge of the opening. The air effluent sample was collected using a PID at the end of the discharge line coming out of the carbon canister.

A Quality Assurance/Quality Control (QA/QC) Trip Blank sample was provided during each sampling event to assess the quality of the data collected. Columbia Analytical of Rochester, New York picked up the samples collected for analysis.

### **3.0 SAMPLING RESULTS**

#### **3.1 Condition of Monitoring Wells**

All of the monitoring wells in 2003 were in satisfactory condition with the exception of MW-7 and MW-11. Both wells were damaged during remediation and excavation activities conducted at the Site from October 2002 until May 2003. The protective manhole and cap was removed from MW-7 while MW-11 was completely removed during the excavation of contaminated soils in the vicinity of the monitoring well. Repairs to several manholes and caps, including MW-7, are scheduled for the spring of 2004.

#### **3.2 Groundwater Elevation Monitoring**

During each quarter, depth-to-water measurements were taken in seventeen monitoring wells using an electronic water level indicator prior to well purging and sample collection. The instrument was rinsed with deionized water prior to each measurement. The groundwater elevations for all four quarters were calculated and are presented in Appendix B, Tables 1-4.

Based on information collected during the four 2003 sampling events, groundwater flow appears to be relatively consistent, following historical trends in the overburden and bedrock aquifers with the groundwater in the overburden flowing in a south, southeast direction and groundwater in the bedrock flowing in a northeast direction in the north parking area. The bedrock aquifer in the south parking area flows from the southwest and the northeast into a valley that appears to flow toward the southeast corner of the Site. The groundwater elevation contours for January, May, July and October 2003 in the overburden and bedrock aquifers are illustrated as Figures 3-10, all-inclusive.

#### **3.3 Groundwater Quality Exceedances and Trends**

The assessment of the groundwater quality discussed in this report is based on a comparison of the data collected with relevant Remedial Action Objectives (RAOs) for water quality at the Site. The RAOs for water quality pertaining to VOCs were established in the Record of Decision (ROD) and are included in the data summary table (see Appendix B, Table 5).

**MW-4** – is an overburden well located in the eastern end of the south parking area approximately 20 feet from the property line. This well has been directly affected by the remediation activities in the south parking area. Contaminated soil was excavated around the well to approximately five feet deep with soils just south of the well excavated down to bedrock. Concentrations of cis-1,2-dichloroethene and vinyl chloride were detected above the RAOs for each quarter sampled but have shown a significant decline in 2003. Total VOCs in the fourth quarter were detected at the lowest concentration (390 ug/l) in more than three years.

**MW-6** – is an overburden well located approximately 50 feet from the southeast corner of the main building. This well has been directly affected by the remediation activities in the south parking area. Soils adjacent to the well were excavated from five to twelve feet deep and have been replaced with clean backfill material. Consequently, it has become difficult to collect samples from this well due to insufficient recovery during purging. Samples were only collected during the January and March sampling events and both contained concentrations of cis-1,2-dichloroethene and trichloroethene above the RAOs at concentrations consistent with previous sample data.

**MW-6A** – is a bedrock well located approximately 75 feet from the southeast corner of the main building. This well has been directly affected by the remediation activities in the south parking area. Soils adjacent to the well were excavated from five to twelve feet deep and have been replaced with clean backfill. Concentrations of cis-1,2-dichloroethene, trans-1,2-dichloroethene and vinyl chloride were detected above the RAOs for each quarter sampled in 2003. The concentrations have fluctuated throughout the year, possibly as a result of the excavation and backfilling in the vicinity of the well; however, they have consistently been lower than concentrations in the past.

**MW-7** – is an overburden well located approximately 125 feet due east from the southeast corner of the main building. This well has been directly affected by the remediation activities in the south parking area. Soils to the south of the well were excavated from five to nine feet deep and have been replaced with clean backfill. Similar to MW-6, it has become difficult to collect samples from this well due to insufficient recovery during purging. Samples were only collected during the January and March sampling events and both contained concentrations of cis-1,2-dichloroethene and trichloroethene at or above the RAOs at concentrations consistent with previous sample data.

**MW-10** – is an overburden well located at the eastern end of the south parking area adjacent to the property line. This well has been directly affected by the remediation activities in the south parking area. Soils to the west of the well were excavated from five feet deep down to bedrock and have been replaced with clean backfill. Concentrations of cis-1,2-dichloroethene, vinyl chloride and total VOCs in the fourth quarter were detected at the highest levels in more than two years. The increase in contaminant concentrations may be attributed to the excavation and backfilling of material in the vicinity of the well.

**MW-11** – was located at the eastern end of the south parking area, adjacent to MW-11A. MW-11 was removed during excavation activities in May 2003 and is no longer part of the monitoring

program. Prior to the removal of the MW-11, concentrations of cis-1,2-dichloroethene, vinyl chloride and total VOCs in the second quarter were detected at the highest levels in three years. The increase in contaminant concentrations may be attributed to the excavation and backfilling of material adjacent to the well.

**MW-11A** – is a bedrock well and contains one of the two bedrock well pumps. The pneumatic pump removes approximately seven to ten gallons per minute of groundwater and pumps it to the site trailers for treatment prior to discharge. Samples from MW-11A are collected in the treatment trailers from a sampling port prior to treatment. Soils around the well were excavated to approximately five feet deep. Concentrations of cis-1,2-dichloroethene and vinyl chloride were detected above the RAOs during the second, third and fourth quarters, but have shown positive reductions in 2003. During the fourth quarter, vinyl chloride and total VOCs were detected at the lowest concentrations in three years.

**MW-14** – is an overburden well located in the wetland area east of the south parking area approximately 75 feet from the southeast corner of the property. Concentrations of cis-1,2-dichloroethene and vinyl chloride were detected above the RAOs for each quarter sampled in 2003. The concentrations have fluctuated throughout the year, possibly as a result of the excavation and backfilling to the west of the well; but have been consistent with previous data.

**MW-14A** – is a bedrock well located in the wetland area east of the south parking area approximately 75 feet from the southeast corner of the property. Concentrations of cis-1,2-dichloroethene and vinyl chloride were detected above the RAOs for each quarter sampled in 2003 but have shown significant reductions throughout the year with fourth quarter concentrations slightly above the RAOs.

**MW-16A** – is a bedrock well in the north parking area adjacent to the main loading dock and contains one of the two bedrock well pumps. The pneumatic pump removes approximately seven to ten gallons per minute of groundwater and pumps it to the site trailers for treatment prior to discharge. Samples from MW-16A are collected in the treatment trailers from a sampling port prior to treatment. Cis-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene and vinyl chloride were detected above the RAOs for each quarter sampled in 2003 at concentrations consistent with previous data.

**MW-16R** – is an overburden well located adjacent MW-16A in the north parking area near the main loading dock. Concentrations of cis-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene and xylenes were detected above the RAOs in first and second quarters of 2003. The subsequent two quarters showed a decrease in 1,1,1-trichloroethane and xylenes while cis-1,2-dichloroethene showed an increase in concentration from the third quarter to the fourth quarter.

**MW-22** – is a downgradient overburden well located in the southern end of the wetland area near Rowan Road. No VOCs were detected in MW-22 until the fourth quarter of 2003 when vinyl chloride was detected slightly above the RAO of 5 ug/l at 5.7 ug/l. This initial presence of

vinyl chloride could be a result of the excavation and backfilling activities to the northwest of MW-22.

**Groundwater treatment effluent** – the groundwater removed from MW-11A and MW-16A by the pneumatic pump in each is sampled in the site trailers before treatment. One effluent sample is also collected. Concentrations of cis-1,2-dichloroethene and vinyl chloride were detected above the Buffalo Sewer Authority (BSA) discharge limits in the effluent sample in the second quarter but sample results from the third and fourth quarters showed significant contaminant reductions with no concentrations above the discharge limits. The increase in contaminant concentrations in the second quarter may be attributed to the time period in late January into February 2003 in which the bedrock groundwater pumps were not operating. The bedrock groundwater pump system was repaired and started again in late February.

Treatment system air discharges were sampled twice during 2003, once in July and once in October. Inlet and outlet concentrations measured by the PID in July were 2.3 ppm and 1.9 ppm respectively. Inlet and outlet concentrations measured by the PID in October were 62 ppm and 37 ppm respectively. Based on the elevated inlet concentrations detected to date, these October readings are most probably inaccurately high due to moisture interference. Succeeding readings in February of 2004 were once again less than 2 ppm.

### 3.4 Summary of 2003 Groundwater Data

The overall groundwater quality at the Leica Inc. Site has shown significant improvement over the four sampling quarters in 2003. The excavation of the contaminated soils that impacted the groundwater quality in the southern portion of the Site was completed in May 2003. The removal of the source material followed by backfilling with clean material along with the bedrock groundwater pump and treat system had a positive effect on groundwater quality throughout the Site. With the exception of MW-10, all of the monitoring wells sampled at the Site showed reductions in contaminant concentrations from one sampling quarter to the next at some point in 2003.

Any fluctuation of VOC concentrations in monitoring wells located in the southern portion of the Site are likely due to the excavation and backfilling activities that occurred in the area. The continued presence of VOC concentrations in the vicinity of MW-16R and MW-16A may be a result of a temporary rebound effect following discontinuation of the SVE system in the north parking area near the main loading dock along with the continued degradation of 1,1,1-trichloroethane and trichloroethene. Contaminant concentration isopleths for vinyl chloride and cis-1,2-dichloroethene in the overburden and bedrock aquifers in each quarter are illustrated as Figures 11-18, all-inclusive.

Scientech will continue to monitor the groundwater quality at the Site in 2004. Now that the source material has been removed and following completion of backfilling activities in the spring of 2004, we anticipate contaminant concentrations will continue to decline.

#### **4.0 QUALITY CONTROL/QUALITY ASSURANCE SAMPLE RESULTS**

Quality assurance/quality control (QA/QC) samples were collected during each of the quarterly events included a Trip Blank.

A trip blank was used to evaluate whether the laboratory reagent water was contaminant free, and if any contamination from volatile organic compounds was introduced into the samples during the field sampling or sample transportation activities. Laboratory reagent water and hydrochloric acid preservative were used for the trip blank, and prepared by the laboratory prior to the sampling event. The trip blank was delivered to Scientech from the laboratory with the sample containers, and was taken to the field. The trip blank was returned to the laboratory for analysis with the samples. There were no detectable concentrations of VOCs identified in the trip blanks analyzed during each of the quarterly events.

## 5.0 RECOMMENDATIONS

Scientech recommends that the groundwater monitoring continue at the site along with continued operation and maintenance of the groundwater collection and treatment system. It is proposed that the monitoring and groundwater system remain in operation through the 2004 calendar year with the final sampling round for the year being performed in November 2004. Following completion of this additional year of monitoring and system operation, Scientech will assess available data and once again provide recommendations regarding the need, if any, for continued monitoring and system operation beyond 2004.

Based on the current site status (post soil removal), groundwater sampling data and anticipated concentration reductions during this 2004 year, it is our current expectation that by November of 2004 the data will justify discontinuation of the groundwater remediation system operation. Our position for expected discontinuance of the groundwater remediation system at the end of 2004 is based on, among other factors;

- a) the completion of the soil removal activities completed in 2003 and up through, and including, January, 2004
- b) the related completion of the backfill operations in Q1 2004,
- c) the continued operation of the collection and treatment system in 2004
- d) the anticipated concentration reductions as supported by our 2004 sampling results

**Appendix B**

**Tables**

**Table 1**  
**Summary of Groundwater Monitoring Well Measurements**  
**January 20, 2003**  
**LEICA Inc.**

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation (ft.)	Water Column (ft.)	Well ID (inches)	One Well Volume (gal.)	Water Elevation (ft.)
MW-1A	15.93	39.40	663.48	23.47	4	15.33	647.55
MW-2A			Not measured, inside well cover filled with ice				
MW-4	8.93	11.93	655.57	3.00	2	0.49	646.64
MW-5	6.90	11.11	654.8	4.21	2	0.69	647.90
MW-5A	6.66	39.02	654.84	32.36	4	21.13	648.18
MW-6	11.92	14.80	660.84	2.88	2	0.47	648.92
MW-6A	13.12	19.88	659.38	6.76	4	4.41	646.26
MW-7	9.90	12.30	658.21	2.4	2	0.39	648.31
MW-8 <sup>1</sup>			Removed during excavation				
MW-9	8.16	59.41	654.99	51.25	4	33.47	646.83
MW-10	6.40	9.93	655.48	3.53	2	0.58	649.08
MW-11 <sup>1</sup>	9.42	11.85	656.08	2.43	2	0.40	646.66
MW-13A	7.48	45.07	654.66	37.59	4	24.55	647.18
MW-14	5.03	10.52	653.38	5.49	2	0.89	648.35
MW-14A	8.05	34.26	653.7	26.21	4	17.12	645.65
MW-15A <sup>2</sup>			Filled with gravel				
MW-16R <sup>3</sup>	9.06	11.97	660.04	2.91	2	0.47	650.98
MW-17A			Not measured, well buried under snow				
MW-22	4.85	10.04	652.51	5.19	2	0.85	647.66

**Notes**

- 1 Monitoring well MW-8 was removed during excavation in Area C
- 2 Monitoring well 15A accidentally filled with gravel during the construction of soil treatment pile.
- 3 Monitoring well MW-16R installed to replace MW-16

**Table 2**  
**Summary of Groundwater Monitoring Well Measurements**  
**March 26, 2003**  
**LEICA Inc.**

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation (ft.)	Water Column (ft.)	Well ID (inches)	One Well volume (gal.)	Water Elevation (ft.)
MW-1A	12.78	39.40	663.48	26.62	4	17.38	650.7
MW-2A	7.19	29.40	657.02	22.21	4	14.50	649.83
MW-4	6.36	11.93	655.57	5.57	2	0.91	649.21
MW-5	4.85	11.11	654.8	6.26	2	1.02	649.95
MW-5A	5.26	39.02	654.84	33.76	4	22.05	649.58
MW-6	9.00	14.80	660.84	5.8	2	0.95	651.84
MW-6A	10.54	19.88	659.38	9.34	4	6.10	648.84
MW-7	7.54	12.30	658.21	4.76	2	0.78	650.67
MW-8 <sup>1</sup>			Removed during excavation				
MW-9	5.8	59.41	654.99	53.61	4	35.01	649.19
MW-10	4.25	9.93	655.48	5.68	2	0.93	651.23
MW-11 <sup>1</sup>	7.03	11.85	656.08	4.82	2	0.79	649.05
MW-13A	5.15	45.07	654.66	39.92	4	26.07	649.51
MW-14	1.68	10.52	653.38	8.84	2	1.44	651.70
MW-14A	5.41	34.26	653.7	28.85	4	18.84	648.29
MW-15A <sup>2</sup>			Filled with gravel				
MW-16R <sup>3</sup>	8.75	11.97	660.04	3.22	2	0.52	651.29
MW-17A	2.71	40.00	659.18	37.29	4	24.35	656.47
MW-22	3.95	10.04	652.51	6.09	2	0.99	648.56

**Notes**

- 1 Monitoring well MW-8 was removed during excavation in Area C
- 2 Monitoring well 15A accidentally filled with gravel during the construction of soil treatment pile.
- 3 Monitoring well MW-16R installed to replace MW-16

**Table 3**  
**Summary of Groundwater Monitoring Well Measurements**  
**July 10, 2003**  
**LEICA Inc.**

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation (ft.)	Water Column (ft.)	Well ID (inches)	One Well Volume (gal.)	Water Elevation (ft.)
MW-1A	17.60	39.40	663.48	21.8	4	14.24	645.88
MW-2A	11.02	29.40	657.02	18.38	4	12.00	646.00
MW-4	10.82	11.93	655.57	1.11	2	0.18	644.75
MW-5	8.65	11.11	654.8	2.46	2	0.40	646.15
MW-5A	8.70	39.02	654.84	30.32	4	19.80	646.14
MW-6	14.55	14.80	660.84	0.25	2	0.04	646.29
MW-6A	14.62	19.88	659.38	5.26	4	3.43	644.76
MW-7	11.80	12.30	658.21	0.5	2	0.08	646.41
MW-8 <sup>1</sup>			Removed during excavation				
MW-9	9.15	59.41	654.99	50.26	4	32.82	645.84
MW-10	9.85	9.93	655.48	0.08	2	0.01	645.63
MW-11 <sup>1</sup>			Removed during excavation				
MW-13A	9.14	45.07	654.66	35.93	4	23.46	645.52
MW-14	7.81	10.52	653.38	2.71	2	0.44	645.57
MW-14A	9.20	34.26	653.7	25.06	4	16.36	644.50
MW-15A <sup>2</sup>			Filled with gravel				
MW-16R <sup>3</sup>	9.06	11.97	660.04	2.91	2	0.47	650.98
MW-17A	5.62	40.00	659.18	34.38	4	22.45	653.56
MW-22	7.45	10.04	652.51	2.59	2	0.42	645.06

**Notes**

- 1 Monitoring wells MW-8 and MW-11 were removed during excavation in Area C
- 2 Monitoring well 15A accidentally filled with gravel during the construction of soil treatment pile.
- 3 Monitoring well MW-16R installed to replace MW-16

**October 21, 2003**  
**LEICA Inc.**

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation (ft.)	Water Column (ft.)	Well ID (inches)	One Well Volume (gal.)	Water Elevation (ft.)
MW-1A	17.54	39.40	663.48	21.86	4	14.27	645.94
MW-2A	11.94	29.40	657.02	17.46	4	11.40	645.08
MW-4	7.50	11.93	655.57	4.43	2	0.72	648.07
MW-5	8.33	11.11	654.8	2.78	2	0.45	646.47
MW-5A	8.16	39.02	654.84	30.86	4	20.15	646.68
MW-6	14.35	14.80	660.84	0.45	2	0.07	646.49
MW-6A	14.69	19.88	659.38	5.19	4	3.39	644.69
MW-7	11.94	12.30	658.21	0.36	2	0.06	646.27
MW-8 <sup>1</sup>			Removed during excavation				
MW-9	9.89	59.41	654.99	49.52	4	32.34	645.10
MW-10	6.93	9.93	655.48	3	2	0.49	648.55
MW-11 <sup>1</sup>			Removed during excavation				
MW-13A	9.57	45.07	654.66	35.5	4	23.18	645.09
MW-14	9.60	10.52	653.38	0.92	2	0.15	643.78
MW-14A	9.89	34.26	653.7	24.37	4	15.91	643.81
MW-15A <sup>2</sup>			Filled with gravel				
MW-16R <sup>3</sup>	8.93	11.97	660.04	3.04	2	0.50	651.11
MW-17A	5.84	40.00	659.18	34.16	4	22.31	653.34
MW-22	8.01	10.04	652.51	2.03	2	0.33	644.50

**Notes**

- 1 Monitoring wells MW-8 and MW-11 were removed during excavation in Area C
- 2 Monitoring well 15A accidentally filled with gravel during the construction of soil treatment pile.
- 3 Monitoring well MW-16R installed to replace MW-16

**Table 5**  
**Summary of Groundwater Monitoring Data**  
 LEICA Inc.

Analyte	Sample Collection Date	Dilution:	MW-4												Oct-21-03 NA 2.00	
			Base			Jun-22-00			Aug-21-00			Nov-30-00				
			1,000.00	4.00	2.00	2.00	1.00	5.00	5.00	1.00	5.00	1 or 20	10.00	NA		
benzene	67641	20	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
benzene	71432	5.0	-	-	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	75274	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloromethane	75252	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloromethane	74439	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloromethane (MEK)	78933	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chlorobutane disulfide	75150	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloroform (trichloroethane)	56235	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	108907	5.0	-	-	-	310	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloroform	75003	5.0	-	-	-	420	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloroform	67663	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloroform	74873	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloromethane	124481	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
chloronaphthalene	75343	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethane	107062	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloroethane	75354	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,2-dichloroethene	156592	5.0	-	-	-	886	ND	ND	ND	ND	ND	ND	ND	ND	280	
1,3-dichloroethene	156593	5.0	-	-	-	110,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloropropane	78875	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-dichloropropane	542756	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloropropane	542756	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	591786	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	108705	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	1004425	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	79345	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	127164	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	108883	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	71556	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	75092	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	108170	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	410000	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	79005	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	79016	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	75014	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	954383	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	10883	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
1,1-dichloroethene	23	5.0	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NCD	
Total	151,013	-	-	-	-	617	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Total VOCs	151,013	-	-	-	-	480	1,035	545	642	216.2	516	2,636	2,270	ND	ND	

570

**Notes:** Baseline sample collected 12/14/99  
ASAO = Remedial Action Objectives for Groundwater  
CAS = Chemical Abstract Service registry number

**Legend:**  
Solid = Exceeds RAOs for groundwater  
Hatched/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits  
D = No Discharge

ND = Not Detected  
EX = Exceeds Calibration Range

**Legend** Collected Range  
CD = (sample) Not Collected, Dry well  
SPSD = Not sampled, pump down  
= SCIENTECH believes that MW10 and MW-11 were accidentally  
switched (corrected in table)

well MW-11 was removed during excavation and is no longer sampled.  
well MW-15A was filled with gravel and is no longer sampled.

ANALYTE	CAS	Method Detection Limit	RAOs GW	EPA Discharge Limits	MW-6											
					Base	Mar-23-00	Mar-29-00	Jun-22-00	Mar-27-01	Jun-13-01	Dec-19-01	Mar-26-02	Jun-25-02	Sep-19-02	Jan-20-03	Mar-27-03
Sample Collection Date	Dilution:	10.00	1.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	NA
<b>Volatile Organic Compounds (ug/l)</b>																
acetone	61641	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	-	142	ND										
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromform	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	-	310	ND										
chloroform	75003	5.0	-	-	470	ND										
chlorotoluene	617663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromo-chloromethane	12448	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	-	500	ND										
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	75354	5.0	-	-	5	262	1,200	450E	420	190	48	60	41	44	53	ND
trans-1,2-dichloroethene	156805	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	109414	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
hexane	591786	10	-	-	1,584	ND										
methylene chloride	75092	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	75345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127194	5.0	-	-	267	ND										
toluene	10883	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	-	-	1,550	ND										
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	-	-	61	7%	ND									
vinyl chloride	75014	5.0	-	-	3	120	ND									
o-xylene	956476	5.0	-	-	2,080	ND										
p,p'-xylene	103831064	23	5.0	5	Total	ND										
<b>TOTAL VOCs</b>					1,320	511	483	224	59	78	55	62.2	57	71	69	NCD

NOTES:

Base = Baseline sample collected 12/14/99

RAOs = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service Registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sauer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

NSPD = (Sample) No Collected, pump down

switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled

Well MW-15A was filled with gravel and is no longer sampled

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	BSA Discharge Limits	MW-6A (Deep Well)												
					Base			Jun-22-00			Mar-27-01			Jun-13-01			
					20.00	2.50	5.00	5.00	10.00	5.00	10.00	5.00	10.00	5.00	10.00	5.00	10.00
<b>Volatile Organic Compounds (ug/l)</b>																	
acetone	67641	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromotoluene	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butane (MEK)	78633	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cation tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	-	316	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124461	5.0	-	-	540	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75243	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloropropane	156802	5.0	-	-	208	3,900	380	780	1,400 E	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethene	156803	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethyl-1,3-dichloropropene	100814	5	-	-	1,584	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	-	2,662	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	-	267	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108863	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	-	-	1,560	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79016	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
c-xylene	95476	5.0	-	-	2,080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	1098831064	5.0	-	-	total	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		23				4,260	380	1,044	>2130	2,150	NCD	690	918.8	1,070	1,815	326	718
																	519
<b>TOTAL VOCs</b>																	

NOTES:

Base = Baseline sample collected 12/14/99

RACs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Exceeds RACs for groundwater

Gold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

NCD = Not Collected, Dry well

NSD = Not sampled, pump down

1 = SCIENTECH believes that MW 10 and MW 11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**

LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-7																														
				BAsA Discharge Limits			Base			Mar-25-00			Mar-29-00			Jun-13-01			Mar-20-02			Sep-19-02			Jan-20-03			Mar-27-03			Jul-1-03			Oct-21-03
Sample Collection Date/Dilution	Compounds (ug/l)			10.00	1.00			1.00		2.50		1.00		1.00		1.00		1.00		NA	1.00		1.00		NA	1.00		NA	1.00		NA	1.00		NA
acetone	67-64-1	20	-	-	-	1.42	-	1.40	-	ND	-	8.7	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
benzene	71-43-2	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
bromodichromethane	75224	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
bromoform	75252	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
bromomethane	74839	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
2-butanone (MEK)	78933	10	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
carbon disulfide	79150	10	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
carbon tetrachloride	56225	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
chlorobenzene	108907	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
chloroethane	75003	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
chloroform	67663	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
chloromethane	74873	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
dibromochloromethane	124481	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,1-dichloroethane	75343	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,2-dichloroethane	107062	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,1-dichloroethene	75354	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
cis-1,2-dichloroethene	156592	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
trans-1,2-dichloroethene	156605	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,2-dichloropropene	78875	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
cis-1,3-dichloropropene	542756	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
trans-1,3-dichloropropene	100414	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
ethylbenzene	591786	10	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
2-hexanone	75352	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
methylene chloride	108101	10	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
4-methyl-2-pentanone (MEK)	1040425	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
styrene	79345	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,1,2,2-tetrachloroethane	127184	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
tetrachloroethene	108883	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
toluene	71556	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,1,1-trichloroethane	79016	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
1,1,2-trichloroethane	79014	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
vinyl chloride	95476	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
o-xylene	1093391064	50	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
m+p xylene	1093391064	23	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND
<b>TOTAL VOCs</b>										2.704		413.1		357		172		149		23		NCD		49		32		NCD		NCD		NCD		NCD

**NOTES:**

Base = Baseline sample collected 12/14/99

RAOs = Remedial Action Objectives for Groundwater

CAs = Chemical Abstract Service registry number

Bold/Shaded = Exceeds RAOs for groundwater

ND = Not Detected

E = Exceeds Calibration Range

NCD = (sample) Not Collected, Dr. well

NSPD = Not sampled, pump down

1 = SCIENTECH believes that MW10 and MW-11 were accidentally

switched (Corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.

Well MW-15A was filled with gravel and is no longer sampled.

SCIENTECH, Inc.  
LEICA, Inc.  
**Table 5**  
**Summary of Groundwater Monitoring Data**

ANALYTE	CAS	Method Detection Limit	RAOs GW	BSA Discharge Limits	MW-10												
					Base			Mar-27-01			Jun-13-01			Dec-19-01			
					100.0	50.00	2.00	10.00	1.00	1.00	2.00	1.00	1.00	2.00	NA	2.00	10.00
<b>Volatile Organic Compounds (µg/l)</b>																	
Acetone	67634	20	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butalone (MEK)	78833	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	75003	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	67863	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromo-chloromethane	75343	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	156592	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156605	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	100414	5	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-heptanone	75092	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	79345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	127184	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	108883	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	71556	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	54260	5	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	75016	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	95476	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108183/1064	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	23	5.0	-	-	21,800	7,800	937	930	126	269.8	270.7	217	NCD	288	511	NCD	123
																	1,710

**NOTES:**

Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sevier Authority Discharge Limits

E = Exceeds Calibration Range

ND = Not Detected

NCD = Not Collected, Dry well

NSPD = Not sampled, pump down

1 = SCIENTECH believes that MW10 and MW-11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	B.A.S. Discharge Limits (ug/l)	MW-11 (Well removed during excavation on May 18, 2003)												
					Sample Collection Date/ Dilution	Jun-22-00 5x20	Aug-21-00 10.00	Nov-30-00 2.50	Mar-27-01 <sup>1</sup> 10.00	Jun-13-01 5.00	Dec-19-01 10.00	Mar-20-02 5.00	Mar-25-02 10.00	Jun-20-03 2.00	Sept-19-02 NA	Jan-20-03 20.00	Mar-27-03 25.00
<b>Volatile Organic Compounds (ug/l)</b>																	
acetone	67641	20	-	14.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	5	285	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	156605	5.0	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	75875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542156	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542156	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	1,584	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	2,682	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	739345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	287	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108863	5.0	5	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	1,550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	5	712	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	5	2,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5.0	5	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	95476	5.0	5	2,080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	108351064	5.0	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total VOCs</b>					23	27	27	27	27	27	27	27	27	27	27	27	27
					3,465	1,700	721	1,440	2,500	1,460	1,387.8	1,120	361	NCD	ND	ND	ND
															2,900	4,350	

**NOTES:**

Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Excavated RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

NCD = (sample) Not Collected, Dry well

NSPD = Non sampled pump down

1 = SCIENTECH believes that MW 10 and MW 11 were accidentally

switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.

Well MW-15A was filled with gravel and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	BSA Discharge Limits	MW-1A (Deep Well)												
					Mar-29-00 100.00	Jun-22-00 25.00	Nov-30-00 10.00	Mar-27-01 10.00	Sep-28-01 5.00	Jun-13-01 5.00	Dec-19-01 5.00	Mar-20-02 5.00	Sept-19-02 2.50	Jan-20-03 NA	Mar-27-03 5.00	Oct-21-03 2.50	
<b>Volatile Organic Compounds (µg/l)</b>																	
acetone	617641	20	-	144	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	5.0	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	75003	5.0	-	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroformate	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	5.0	-	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5.0	5	285	13,000	3,000	1,400	1,100	1,000	600	830	610	420	250	550	320	
trans-1,2-dichloroethene	156605	5.0	5	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylene	10414	5.0	5	1,544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-heptanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75092	5.0	-	2,062	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	5.0	-	267	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
toluene	108883	5.0	5	666	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	71556	5.0	5	1,550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	79005	5.0	5	712	ND	ND	ND	ND	72	ND	ND	ND	ND	ND	ND	ND	
trichloroethylene	75014	5.0	3	9,000	1,800	960	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
viny chloride	95476	5.0	5	2,080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
o-xylene	1083831064	5.0	5	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m,p-xylene	23	22,000	4,800	2,432	1,760	2,000	1,180	1,650	1,449	1,000	590	NSPD	1,274	490	376		
TOTAL VOCs																	

NOTES:

Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

ND = Exceeds Calibration Range

ND = Not Collected, Dry well

NSPD = Not sampled, pump down

Switched (corrected in table)

Well MW-1 was removed during excavation and is no longer sampled.

Well MW-15A was filled with gravel and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	EAs Discharge Limits	MW-14													
					Base	Mar-29-00	Mar-29-00	Jun-22-00	Aug-21-00	Nov-30-00	Mar-27-01	Jun-13-01	Dec-19-01	Mar-20-02	Jul-25-02	Sept-19-02		
		Dilution:	2.00	2.50	1.00	2.00	2.50	2.00	2.00	2.00	2.00	2.00	NA	2.00	1.00	2.50	NA	
<b>Volatile Organic Compounds (µg/l)</b>																		
acetone	67541	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
benzene	71432	5.0	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromoform	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanol (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cation trichlorofluoride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	5.0	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroethane	75003	5.0	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
dibromoethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75243	5.0	-	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5.0	5	288	360	360	390E	290	440	390	430 E	410	350	390	310	320 E	280	
trans-1,2-dichloroethene	156605	5.0	5	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylene	100414	5.0	5	1,584	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
hexane	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	-	2,0862	ND	ND	ND										
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,4-tetrachloroethane	79345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	267	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5.0	5	6.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	1,580	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	5	712	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
viny chloride	75014	5.0	5	3	170	170	170	170	170	170	170	170	170	170	170	170	170	170
o-xylene	95476	5.0	5	2,080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/064	5.0	5	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs</b>		23		510	530	510	530	367	600	390	>452	454	386	375.2	372	197	140	390

**NOTES:**

Base = Baseline sample collected 12/14/99

RAOs = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold/Shaded = Exceeds RAOs for groundwater

ND = Not Detected

E = Exceeds Calibration Range

NCD = (sample) Not Collected, Dry well

NSPD = No sampled, pump down

1 = SCIENTECH believes that MW10 and MW-11 were accidentally switched (corrected in table)

Well MW-1 was removed during excavation and is no longer sampled.

Well MW-1SA was filled with gravel and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**

LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	Base Discharge Limits	MW-14A (Deep Well)											
					Base	1.00	2.00	Jun-22-00	Mar-27-01	Jun-13-01	Jun-13-01	Sept-28-01	Dec-19-01	Mar-25-02	Jun-19-02	Jan-20-03
<b>Volatile Organic Compounds (ug/l)</b>																
acetone	67641	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromofluoromethane	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	-	283	26	130	140	210 E	200	10	100	120	14	170	170	49
trans-1,2-dichloroethene	156605	5.0	-	6081	ND	ND	ND	ND	12	13	15	14	15	18	18	5.4
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	-	7,884	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591796	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	-	2,682	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	-	267	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5.0	-	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	-	1,889	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	-	-	712	ND	11	18	32	29	ND	26	14	ND	5	ND
viny chloride	75014	5.0	-	3	13	280	29	34	31	ND	ND	30	19	48	7.9	39
o-xylene	95476	5.0	-	2,880	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108381(064	5.0	23	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs</b>				53	433	200	>291	274	10	145.6	265.7	247	21.9	159	224	12

**NOTES:**

Base = Baseline sample collected 12/14/99  
RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

E = Exceeds Calibration Range

NCD = (sample) Not Collected, Dry well

ND = No Detected

ND = Not sampled; pump down

1 = SCIENTECH believes that MW10 and MW11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	µL/L Discharge Limits	MW-15A (Note: Well filled with gravel June 25, 2002)										
					Base	1.00	Base	5.00	Base	2.00	Base	2.00	Jun-13-01	Jun-13-01	Sep-28-01
<b>Volatile Organic Compounds (µg/l)</b>															
acetone	67361	2.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromofluorom	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (Methyl Acetone)	78833	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	106907	5.0	-	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chromomethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromoethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	-	900	14	ND	ND	ND	ND	ND	ND	ND	ND	2.9
1,2-dichloroethane	107052	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8
cis-1,2-dichloroethene	156592	5.0	-	-	285	950 E	830	340	210	1,200	1,000 E	200	220	380	
trans-1,2-dichloroethene	156605	5.0	-	-	total	93	72	23	23	79	90	11	12	28	
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylbenzene	10044	5	-	-	1,584	13	ND	ND	ND	ND	ND	ND	ND	ND	
2-hexanone	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75952	5.0	-	-	2,082	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
styrene	100325	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	5.0	-	-	287	ND	ND	ND	ND	ND	ND	ND	ND	ND	
toluene	108883	5.0	-	-	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	71556	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trichloroethene	79016	5.0	-	-	65	48	712	50	21	37	47	21	65	32	15
viny chloride	75014	5.0	-	-	3	390 E	270	49	30	340	420	ND	ND	ND	
c-xylene	95476	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m+p xylene	108481/1054	5.0	-	-	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		23				1,498	1,220	462	284	> 1377	1,710	258	285	493.7	
<b>TOTAL VOCs</b>															

**NOTES:**

Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

NCD = (Sample) Not Collected, Dry well

NSPD = Not sampled, pump down

1 = SCIENTECH believes that MW10 and MW-11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled

Well MW-15A was filled with gravel and is no longer sampled

**Table 5**  
**Summary of Groundwater Monitoring Data**

LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW 16A (Deep Well)														
				Base			Mar-29-00			Jun-22-00			Aug-21-00			Mar-27-01		
				500.00	20.00	25.00	20.00	20.00	10.00	10.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	
<b>Volatile Organic Compounds (ug/l)</b>																		
acetone	67641	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
benzene	71432	5.0	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromochloromethane	75274	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromform	75252	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon disulfide	75150	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108807	5.0	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroethane	75003	5.0	-	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	67663	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroprocane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	5.0	-	600	ND	270	260	200	180	170	140	120	88	81	ND	150	120	
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	5.0	-	215	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5.0	5	9,400	ND	3,100	3,200	2,000	2,000	1,800	1,600	1,300	1,300	1,200	1,200	1,100	1,300	
trans-1,2-dichloroethene	156605	5.0	5	total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylene benzene	5910414	5.0	5	1,884	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-hexanone	711786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75082	5.0	-	2,882	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-methyl-2-pentanone (MBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Styrene	1004025	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	75345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	5.0	-	267	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	108883	5.0	5	880	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	71556	5.0	5	56,000	410	290	200	180	120	89	120	92	55	ND	240	200	250	
trichloroethene	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
vinyl chloride	79016	5.0	5	712	17,000	2,200	1,300	910	1,100	1,000	730	680	840	480	260	560	430	
o-xylene	79014	5.0	5	2,000	110	ND	ND	460	710	610	500	440	380	340	330	380	380	
m,p-Xylene	1038331064	5.0	5	total	8,400	ND	170	ND	80	50	ND	12	ND	ND	ND	ND	ND	
TOTAL VOCs	23	5.0	-	94,600	7,410	5,740	5,610	4,050	4,080	3,419	3,060	2,875	2,303	1,881	NSPD	3,220	2,310	

NOTES:

Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service registry number

Bold/Shaded = Exceeds RAOs for groundwater

ND = Not Detected

E = Exceeds Calibration Range

NSPD = (sample) Not Collected, pump down

1 = SCIENTECH believes that MW10 and MW11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled

Well MW-15A was filled with gravel and is no longer sampled

**Table 5**  
**Summary of Groundwater Monitoring Data**  
 LEICA, Inc.

1

**NOTES:** Base = Baseline sample collected 12/14/99

RAOs GW = Remedial Action Objectives for Groundwater  
CAS = Chemical Abstract Service registry number  
Bolid = Excessive RAOs for groundwater  
Bolid/Standard = Excessive Bolid Source Abundance, Dimensionless | limit

Bullock's Oriole = EUPHORHIAE BULLOCKI Swainson's Warbler = SWAINSONIA LIMNA

E = Exceeds Calibration Range  
NCD = (sample) Not Collected, Dry well

NSPD = Not sampled, pump down  
1 = SCIENTECH believes that MW10 and MW11 were accidentally switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.  
Well MW-15A was filled with gravel and is no longer sampled.

**Table 5**  
**Summary of Groundwater Monitoring Data**  
LEICA, Inc.

ANALYTE	CAS	Method Detection Limit	RAOs GW	DRAOs Limits	MW-22												
					Base 1.00	Jun-22-00 1.00	Mar-27-01 1.00	Jun-13-01 1.00	Dec-19-01 1.00	Mar-20-02 1.00	Jun-25-02 1.00	Sep-19-02 1.00	Jan-20-03 1.00	Mar-27-03 1.00	Jul-11-03 1.00	Oct-21-03 1.00	
<b>Volatile Organic Compounds (<math>\mu\text{g/l}</math>)</b>																	
acetone	675-13-1	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71-43-2	5.0	-	-	142	ND	ND										
bromodichloromethane	752-74	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	752-52	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanol (MEK)	78933	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	-	76	ND	ND										
carbon tetrachloride	56235	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108807	5.0	-	-	310	ND	ND										
chloroethane	7503	5.0	-	-	450	ND	ND										
chloroform	67683	5.0	-	-	Total	ND	ND										
chloromethane	74873	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	-	500	ND	ND										
1,2-dichloroethane	107062	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethene	75354	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	5	-	250	ND	ND										
trans-1,2-dichloroethene	156605	5.0	5	-	Total	ND	ND										
1,2-dichloropropane	78875	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	5427256	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	5427256	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylene chloride	100414	5.0	5	-	1534	ND	ND										
2-hexanone	591786	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	-	2082	ND	ND										
4-methyl-2-pentanone (MIBK)	108101	10	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	75345	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	-	267	ND	ND										
toluene	108983	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	-	1550	ND	ND										
1,1,2-trichloroethane	79005	5.0	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	-	-	712	ND	ND										
viny chloride	75014	5.0	5	-	3	ND	ND										
o-xylene	95476	5.0	5	-	2080	ND	ND										
m-p-xylene	103831064	5.0	5	-	Total	ND	ND										
<b>TOTAL VOCs</b>	23	-	-	-	76	ND	ND										

**NOTES:**

Baseline = Baseline sample collected 1/14/99

RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service Registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

NCD = (sample) Not Collected, pump down

1 = SCIENTECH believes that MW10 and MW11 were accidentally

switched (corrected in table)

Well MW-11 was removed during excavation and is no longer sampled

Well MW-15A was filled with gravel and is no longer sampled

**Table 5**  
**Summary of Groundwater Monitoring Data**

ANALYTE	CAS	Method Detection Limit	RAOs GW	Groundwater Treatment Effluent																	
				BSA Discharge Limits			Jan-01			Feb-01			Mar-01			Jun-01			Sep-01		
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Volatile Organic Compounds (µg/l)</b>																					
acetone	67-64-1	20	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
benzene	71-43-2	50	-	-	142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromoform	75252	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bronromethane	74839	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon disulfide	75150	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	50	-	-	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroethane	75003	50	-	-	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	67663	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	74873	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
dibromochloromethane	124481	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	102062	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	50	-	-	5	235	140	75	47	90	200	24	ND	ND	ND	ND	ND	ND	ND	38	
trans-1,2-dichloroethene	156605	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloropropane	78875	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylbenzene	100414	5	-	-	1,584	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-hexanone	591786	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75092	50	-	-	-	2,062	ND	ND	ND	ND	ND										
4-methyl-2-pentanone (MIBK)	108101	10	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
styrene	100425	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	50	-	-	-	267	ND	ND	ND	ND	ND										
toluene	108883	50	-	-	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	75556	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	79005	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trichloroethene	79016	50	-	-	-	712	ND	ND	ND	ND	ND										
vinyl chloride	75014	50	-	-	5	3	22	7	ND	ND	ND										
o-xylene	95476	50	-	-	-	2,080	ND	ND	ND	ND	ND										
m,p-xylene	108383/1054	50	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
<b>TOTAL VOCs</b>		23	-	-	-	163	82	53	108	263	24	NSPD	151	748	ND	ND	ND	ND	43.5		

NOTES:

Base = Baseline Sample collected 12/14/99  
RAOs GW = Remedial Action Objectives for Groundwater

CAS = Chemical Abstract Service Registry number

Bold = Exceeds RAOs for groundwater

Bold/Shaded = Exceeds Buffalo Sewer Authority Discharge Limits

ND = Not Detected

E = Exceeds Calibration Range

ND = (sample) Not Collected. Dry well

1 = SCIENTECH believes that MW10 and MW-11 were accidentally

switched (Corrected in table)

Well MW-11 was removed during excavation and is no longer sampled.

Well MW-15A was filled with gravel and is no longer sampled.

**Appendix C**  
**Data**



#### CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2315455

<u>Lab ID</u>	<u>Client ID</u>
615763	MW-4
615764	MW-6
615765	MW-6A
615766	MW-7
615767	MW-10
615768	MW-11
615769	MW-14
615770	MW-14A
615771	MW-22
615772	MW-16R
615773	TRIP BLANK

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



Effective 11/4/2002

## ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.

### **CAS/Rochester Lab ID # for State Certifications**

Army Corp of Engineers Validated  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved  
Nebraska Accredited

NELAP Accredited  
New York ID # 10145  
New Jersey ID # NY004  
New Hampshire ID # 294100 A/B  
Rhode Island ID # 158  
South Carolina ID # 91012  
West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-4

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Date Sampled : 01/20/03 Order #: 615763      Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2000	E
TRANS-1,2-DICHLOROETHENE	5.0	26	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	70	UG/L
VINYL CHLORIDE	5.0	350	E
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

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SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-4

Date Sampled : 01/20/03 Order #: 615763 Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	20.00		
ACETONE	20	400 U	UG/L
BENZENE	5.0	100 U	UG/L
BROMODICHLOROMETHANE	5.0	100 U	UG/L
BROMOFORM	5.0	100 U	UG/L
BROMOMETHANE	5.0	100 U	UG/L
2-BUTANONE (MEK)	10	200 U	UG/L
CARBON DISULFIDE	10	200 U	UG/L
CARBON TETRACHLORIDE	5.0	100 U	UG/L
CHLOROBENZENE	5.0	100 U	UG/L
CHLOROETHANE	5.0	100 U	UG/L
CHLOROFORM	5.0	100 U	UG/L
CHLOROMETHANE	5.0	100 U	UG/L
DIBROMOCHLOROMETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHANE	5.0	100 U	UG/L
1,2-DICHLOROETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHENE	5.0	100 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2200	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100 U	UG/L
1,2-DICLOROPROPANE	5.0	100 U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	100 U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	100 U	UG/L
ETHYLBENZENE	5.0	100 U	UG/L
2-HEXANONE	10	200 U	UG/L
METHYLENE CHLORIDE	5.0	100 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	200 U	UG/L
STYRENE	5.0	100 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	100 U	UG/L
TETRACHLOROETHENE	5.0	100 U	UG/L
TOLUENE	5.0	100 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	100 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	100 U	UG/L
TRICHLOROETHENE	5.0	100 U	UG/L
VINYL CHLORIDE	5.0	340	UG/L
O-XYLENE	5.0	100 U	UG/L
M+P-XYLENE	5.0	100 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	107	%
TOLUENE-D8	(91 - 113 %)	102	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-6

Date Sampled : 01/20/03 Order #: 615764 Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	53	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	18	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	106	%
TOLUENE-D8	(91 - 113 %)	103	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-6A

Date Sampled : 01/20/03 Order #: 615765 Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/30/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	U G/L
BENZENE	5.0	10	U G/L
BROMODICHLOROMETHANE	5.0	10	U G/L
BROMOFORM	5.0	10	U G/L
BROMOMETHANE	5.0	10	U G/L
2-BUTANONE (MEK)	10	20	U G/L
CARBON DISULFIDE	10	20	U G/L
CARBON TETRACHLORIDE	5.0	10	U G/L
CHLOROBENZENE	5.0	10	U G/L
CHLOROETHANE	5.0	10	U G/L
CHLOROFORM	5.0	10	U G/L
CHLOROMETHANE	5.0	10	U G/L
DIBROMOCHLOROMETHANE	5.0	10	U G/L
1,1-DICHLOROETHANE	5.0	10	U G/L
1,2-DICHLOROETHANE	5.0	10	U G/L
1,1-DICHLOROETHENE	5.0	10	U G/L
CIS-1,2-DICHLOROETHENE	5.0	250	U G/L
TRANS-1,2-DICHLOROETHENE	5.0	11	U G/L
1,2-DICLOROPROPANE	5.0	10	U G/L
CIS-1,3-DICLOROPROPENE	5.0	10	U G/L
TRANS-1,3-DICLOROPROPENE	5.0	10	U G/L
ETHYLBENZENE	5.0	10	U G/L
2-HEXANONE	10	20	U G/L
METHYLENE CHLORIDE	5.0	10	U G/L
4-METHYL-2-PENTANONE (MIBK)	10	20	U G/L
STYRENE	5.0	10	U G/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	U G/L
TETRACHLOROETHENE	5.0	10	U G/L
TOLUENE	5.0	10	U G/L
1,1,1-TRICHLOROETHANE	5.0	10	U G/L
1,1,2-TRICHLOROETHANE	5.0	10	U G/L
TRICHLOROETHENE	5.0	10	U G/L
VINYL CHLORIDE	5.0	65	U G/L
O-XYLENE	5.0	10	U G/L
M+P-XYLENE	5.0	10	U G/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	101	%
TOLUENE-D8	(91 - 113 %)	107	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-7

Date Sampled : 01/20/03 Order #: 615766 Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	43	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	6.1	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES		QC LIMITS	
4-BROMOFLUOROBENZENE	(83 - 118 %)	106	%
TOLUENE-D8	(91 - 113 %)	103	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	107	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-10

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Date Sampled : 01/20/03 Order #: 615767      Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	U
BENZENE	5.0	10	U
BROMODICHLOROMETHANE	5.0	10	U
BROMOFORM	5.0	10	U
BROMOMETHANE	5.0	10	U
2-BUTANONE (MEK)	10	20	U
CARBON DISULFIDE	10	20	U
CARBON TETRACHLORIDE	5.0	10	U
CHLOROBENZENE	5.0	10	U
CHLOROETHANE	5.0	10	U
CHLOROFORM	5.0	10	U
CHLOROMETHANE	5.0	10	U
DIBROMOCHLOROMETHANE	5.0	10	U
1,1-DICHLOROETHANE	5.0	10	U
1,2-DICHLOROETHANE	5.0	10	U
1,1-DICHLOROETHENE	5.0	10	U
CIS-1,2-DICHLOROETHENE	5.0	210	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10	U
1,2-DICLOROPROPANE	5.0	10	U
CIS-1,3-DICLOROPROPENE	5.0	10	U
TRANS-1,3-DICLOROPROPENE	5.0	10	U
ETHYLBENZENE	5.0	10	U
2-HEXANONE	10	20	U
METHYLENE CHLORIDE	5.0	10	U
4-METHYL-2-PENTANONE (MIBK)	10	20	U
STYRENE	5.0	10	U
1,1,2,2-TETRACHLOROETHANE	5.0	10	U
TETRACHLOROETHENE	5.0	10	U
TOLUENE	5.0	10	U
1,1,1-TRICHLOROETHANE	5.0	10	U
1,1,2-TRICHLOROETHANE	5.0	10	U
TRICHLOROETHENE	5.0	78	UG/L
VINYL CHLORIDE	5.0	10	U
O-XYLENE	5.0	10	U
M+P-XYLENE	5.0	10	U

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SURROGATE RECOVERIES                    QC LIMITS

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4-BROMOFLUOROBENZENE	(83 - 118 %)	107	%
TOLUENE-D8	(91 - 113 %)	103	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-11

Date Sampled : 01/20/03 Order #: 615768      Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/30/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	50	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	3100	E
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICHLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	50	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	50	UG/L
VINYL CHLORIDE	5.0	50	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	50	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-11

Date Sampled : 01/20/03 Order #: 615768 Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/30/03		
ANALYTICAL DILUTION:	20.00		
ACETONE	20	400 U	UG/L
BENZENE	5.0	100 U	UG/L
BROMODICHLOROMETHANE	5.0	100 U	UG/L
BROMOFORM	5.0	100 U	UG/L
BROMOMETHANE	5.0	100 U	UG/L
2-BUTANONE (MEK)	10	200 U	UG/L
CARBON DISULFIDE	10	200 U	UG/L
CARBON TETRACHLORIDE	5.0	100 U	UG/L
CHLOROBENZENE	5.0	100 U	UG/L
CHLOROETHANE	5.0	100 U	UG/L
CHLOROFORM	5.0	100 U	UG/L
CHLOROMETHANE	5.0	100 U	UG/L
DIBROMOCHLOROMETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHANE	5.0	100 U	UG/L
1,2-DICHLOROETHANE	5.0	100 U	UG/L
1,1-DICHLOROETHENE	5.0	100 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2900	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100 U	UG/L
1,2-DICLOROPROPANE	5.0	100 U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	100 U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	100 U	UG/L
ETHYLBENZENE	5.0	100 U	UG/L
2-HEXANONE	10	200 U	UG/L
METHYLENE CHLORIDE	5.0	100 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	200 U	UG/L
STYRENE	5.0	100 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	100 U	UG/L
TETRACHLOROETHENE	5.0	100 U	UG/L
TOLUENE	5.0	100 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	100 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	100 U	UG/L
TRICHLOROETHENE	5.0	100 U	UG/L
VINYL CHLORIDE	5.0	100 U	UG/L
O-XYLENE	5.0	100 U	UG/L
M+P-XYLENE	5.0	100 U	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	103	%
TOLUENE-D8	(91 - 113 %)	108	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	104	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-14

Date Sampled : 01/20/03 Order #: 615769 Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	U
BENZENE	5.0	10	UG/L
BROMODICHLOROMETHANE	5.0	10	UG/L
BROMOFORM	5.0	10	UG/L
BROMOMETHANE	5.0	10	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	10	UG/L
CHLOROBENZENE	5.0	10	UG/L
CHLOROETHANE	5.0	10	UG/L
CHLOROFORM	5.0	10	UG/L
CHLOROMETHANE	5.0	10	UG/L
DIBROMOCHLOROMETHANE	5.0	10	UG/L
1,1-DICHLOROETHANE	5.0	10	UG/L
1,2-DICHLOROETHANE	5.0	10	UG/L
1,1-DICHLOROETHENE	5.0	10	UG/L
CIS-1,2-DICHLOROETHENE	5.0	310	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10	UG/L
1,2-DICHLOROPROPANE	5.0	10	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10	UG/L
ETHYLBENZENE	5.0	10	UG/L
2-HEXANONE	10	20	UG/L
METHYLENE CHLORIDE	5.0	10	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	UG/L
STYRENE	5.0	10	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	UG/L
TETRACHLOROETHENE	5.0	10	UG/L
TOLUENE	5.0	10	UG/L
1,1,1-TRICHLOROETHANE	5.0	10	UG/L
1,1,2-TRICHLOROETHANE	5.0	10	UG/L
TRICHLOROETHENE	5.0	10	UG/L
VINYL CHLORIDE	5.0	62	UG/L
O-XYLENE	5.0	10	U
M+P-XYLENE	5.0	10	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	102	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-14A

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**Date Sampled : 01/20/03      Order #: 615770      Sample Matrix: WATER**  
**Date Received: 01/21/03      Submission #: R2315455      Analytical Run 87370**

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/30/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	120	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	7.1	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	32	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
<hr/> <b>SURROGATE RECOVERIES</b>		<b>QC LIMITS</b>	
4-BROMOFLUOROBENZENE	(83 - 118 %)	100	%
TOLUENE-D8	(91 - 113 %)	108	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-22

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Date Sampled : 01/20/03 Order #: 615771 Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
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SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	106	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-16R

Date Sampled : 01/20/03 Order #: 615772 Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/30/03		
ANALYTICAL DILUTION:	5.00		
ACETONE	20	100	UG/L
BENZENE	5.0	25	UG/L
BROMODICHLOROMETHANE	5.0	25	UG/L
BROMOFORM	5.0	25	UG/L
BROMOMETHANE	5.0	25	UG/L
2-BUTANONE (MEK)	10	50	UG/L
CARBON DISULFIDE	10	50	UG/L
CARBON TETRACHLORIDE	5.0	25	UG/L
CHLOROBENZENE	5.0	25	UG/L
CHLOROETHANE	5.0	25	UG/L
CHLOROFORM	5.0	25	UG/L
CHLOROMETHANE	5.0	25	UG/L
DIBROMOCHLOROMETHANE	5.0	25	UG/L
1,1-DICHLOROETHANE	5.0	66	UG/L
1,2-DICHLOROETHANE	5.0	25	UG/L
1,1-DICHLOROETHENE	5.0	25	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1200	E
TRANS-1,2-DICHLOROETHENE	5.0	25	UG/L
1,2-DICHLOROPROPANE	5.0	25	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25	UG/L
ETHYLBENZENE	5.0	32	UG/L
2-HEXANONE	10	50	UG/L
METHYLENE CHLORIDE	5.0	25	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50	UG/L
STYRENE	5.0	25	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25	UG/L
TETRACHLOROETHENE	5.0	25	UG/L
TOLUENE	5.0	25	UG/L
1,1,1-TRICHLOROETHANE	5.0	560	UG/L
1,1,2-TRICHLOROETHANE	5.0	25	UG/L
TRICHLOROETHENE	5.0	26	UG/L
VINYL CHLORIDE	5.0	25	UG/L
O-XYLENE	5.0	46	UG/L
M+P-XYLENE	5.0	49	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	107	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : MW-16R

Date Sampled : 01/20/03 Order #: 615772      Sample Matrix: WATER  
 Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/31/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	72	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1300	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	570	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	50	UG/L
VINYL CHLORIDE	5.0	50	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	52	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

%

%

%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

Scientech Inc.

Project Reference: LEICA 31129-200

Client Sample ID : TRIP BLANK

Date Sampled : 01/20/03 Order #: 615773 Sample Matrix: WATER  
Date Received: 01/21/03 Submission #: R2315455 Analytical Run 87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	108	%
TOLUENE-D8	(91 - 113 %)	103	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	106	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
WATER

Spiked Order No. : 615763 Scientech Inc.

Client ID: MW-4

Test: 8260B TCL

Analytical Units: UG/L

Run Number : 87370

ANALYTE	SPIKE			MATRIX SPIKE			MATRIX SPIKE DUP.			QC LIMITS		
	ADDED		CONCENT.	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	REC.	
	MS	MSD	SAMPLE									
BENZENE	1000	1000	0	980	98	980	98	0	30	62 - 122		
CHLOROBENZENE	1000	1000	0	1000	100	1000	100	0	30	70 - 130		
1,1-DICHLOROETHENE	1000	1000	0	1000	100	1000	100	0	30	68 - 114		
TOLUENE	1000	1000	0	1000	100	1000	100	0	30	70 - 130		
TRICHLOROETHENE	1000	1000	70.0	1000	93	1100	103	10	30	68 - 114		

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 617762 ANALYTICAL RUN #: 87370

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	101	50 - 150
BENZENE	20.0	86	70 - 130
BROMODICHLOROMETHANE	20.0	90	70 - 130
BROMOFORM	20.0	99	70 - 130
BROMOMETHANE	20.0	98	50 - 150
2-BUTANONE (MEK)	20.0	91	50 - 150
CARBON DISULFIDE	20.0	89	70 - 130
CARBON TETRACHLORIDE	20.0	81	70 - 130
CHLOROBENZENE	20.0	88	70 - 130
CHLOROETHANE	20.0	87	70 - 130
CHLOROFORM	20.0	92	70 - 130
CHLOROMETHANE	20.0	83	70 - 130
DIBROMOCHLOROMETHANE	20.0	94	70 - 130
1,1-DICHLOROETHANE	20.0	90	70 - 130
1,2-DICHLOROETHANE	20.0	92	70 - 130
1,1-DICHLOROETHENE	20.0	74	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	90	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	82	70 - 130
1,2-DICHLOROPROPANE	20.0	88	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	97	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	97	70 - 130
ETHYLBENZENE	20.0	83	70 - 130
2-HEXANONE	20.0	96	70 - 130
METHYLENE CHLORIDE	20.0	92	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	95	70 - 130
STYRENE	20.0	92	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	96	70 - 130
TETRACHLOROETHENE	20.0	80	70 - 130
TOLUENE	20.0	85	70 - 130
1,1,1-TRICHLOROETHANE	20.0	79	70 - 130
1,1,2-TRICHLOROETHANE	20.0	98	70 - 130
TRICHLOROETHENE	20.0	81	70 - 130
VINYL CHLORIDE	20.0	84	70 - 130
O-XYLENE	20.0	89	70 - 130
M+P-XYLENE	40.0	88	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 617764 ANALYTICAL RUN #: 87370

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 01/29/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	94	50 - 150
BENZENE	20.0	99	70 - 130
BROMODICHLOROMETHANE	20.0	95	70 - 130
BROMOFORM	20.0	91	70 - 130
BROMOMETHANE	20.0	104	50 - 150
2-BUTANONE (MEK)	20.0	82	50 - 150
CARBON DISULFIDE	20.0	95	70 - 130
CARBON TETRACHLORIDE	20.0	104	70 - 130
CHLOROBENZENE	20.0	102	70 - 130
CHLOROETHANE	20.0	106	70 - 130
CHLOROFORM	20.0	103	70 - 130
CHLOROMETHANE	20.0	98	70 - 130
DIBROMOCHLOROMETHANE	20.0	93	70 - 130
1,1-DICHLOROETHANE	20.0	102	70 - 130
1,2-DICHLOROETHANE	20.0	93	70 - 130
1,1-DICHLOROETHENE	20.0	107	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	99	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	99	70 - 130
1,2-DICHLOROPROPANE	20.0	96	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	95	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	94	70 - 130
ETHYLBENZENE	20.0	108	70 - 130
2-HEXANONE	20.0	85	70 - 130
METHYLENE CHLORIDE	20.0	99	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	88	70 - 130
STYRENE	20.0	105	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	81	70 - 130
TETRACHLOROETHENE	20.0	106	70 - 130
TOLUENE	20.0	103	70 - 130
1,1,1-TRICHLOROETHANE	20.0	100	70 - 130
1,1,2-TRICHLOROETHANE	20.0	98	70 - 130
TRICHLOROETHENE	20.0	116	70 - 130
VINYL CHLORIDE	20.0	108	70 - 130
O-XYLENE	20.0	105	70 - 130
M+P-XYLENE	40.0	109	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 617768 ANALYTICAL RUN #: 87370

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 01/31/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	105	50 - 150
BENZENE	20.0	103	70 - 130
BROMODICHLOROMETHANE	20.0	102	70 - 130
BROMOFORM	20.0	99	70 - 130
BROMOMETHANE	20.0	109	50 - 150
2-BUTANONE (MEK)	20.0	99	50 - 150
CARBON DISULFIDE	20.0	88	70 - 130
CARBON TETRACHLORIDE	20.0	106	70 - 130
CHLOROBENZENE	20.0	100	70 - 130
CHLOROETHANE	20.0	99	70 - 130
CHLOROFORM	20.0	99	70 - 130
CHLOROMETHANE	20.0	101	70 - 130
DIBROMOCHLOROMETHANE	20.0	97	70 - 130
1,1-DICHLOROETHANE	20.0	104	70 - 130
1,2-DICHLOROETHANE	20.0	100	70 - 130
1,1-DICHLOROETHENE	20.0	100	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	98	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	94	70 - 130
1,2-DICHLOROPROPANE	20.0	100	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	104	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	100	70 - 130
ETHYLBENZENE	20.0	103	70 - 130
2-HEXANONE	20.0	100	70 - 130
METHYLENE CHLORIDE	20.0	99	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	101	70 - 130
STYRENE	20.0	104	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	98	70 - 130
TETRACHLOROETHENE	20.0	103	70 - 130
TOLUENE	20.0	102	70 - 130
1,1,1-TRICHLOROETHANE	20.0	97	70 - 130
1,1,2-TRICHLOROETHANE	20.0	95	70 - 130
TRICHLOROETHENE	20.0	104	70 - 130
VINYL CHLORIDE	20.0	107	70 - 130
O-XYLENE	20.0	102	70 - 130
M+P-XYLENE	40.0	104	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	617761	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	87370

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 01/27/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 02/13/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	617763	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	87370
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 01/30/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	105	%
TOLUENE-D8	(91 - 113 %)	109	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 02/13/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	617767	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	87370
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 01/31/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	99	%	
TOLUENE-D8	(91 - 113 %)	106	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%	





# Cooler Receipt And Preservation Check Form

Project/Client Scientech

Submission Number 82-15455

Cooler received on 1/21/03 by IR GUN COURIER:  CAS  UPS  FEDEX  CD&L  CLIENT

1. Were custody seals on outside of cooler?  YES  NO
2. Were custody papers properly filled out (ink, signed, etc.)?  YES  NO
3. Did all bottles arrive in good condition (unbroken)?  YES  NO
4. Did any VOA vials have significant air bubbles?  YES  NO N/A
5. Were Ice or Ice packs present?  YES  NO
6. Where did the bottles originate?  CAS/ROC,  CLIENT
7. Temperature of cooler(s) upon receipt: 5

Is the temperature within 0° - 6° C?:  Yes  Yes  Yes  Yes  Yes

If No, Explain Below:  No  No  No  No  No

Date/Time Temperatures Taken: 1/21/03 1340

Thermometer ID: 161 or  IR GUN Reading From: Temp Blank  Sample Bottle

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_

- Cooler Breakdown: Date: 1/21/03 by: UMC
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES  NO
  2. Did all bottle labels and tags agree with custody papers?  YES  NO
  3. Were correct containers used for the tests indicated?  YES  NO
  4. Air Samples: Cassettes / Tubes Intact      Canisters Pressurized      Tedlar® Bags Inflated  N/A
- Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO <sub>3</sub>					
2	H <sub>2</sub> SO <sub>4</sub>					
Residual Chlorine (+/-)	for TCN & Phenol					
5.9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

\*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2			

Other Comments:



#### CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2316268

<u>Lab ID</u>	<u>Client ID</u>
629140	DGWD032703
629141	MW14
629142	MW14A
629143	MW22
629144	MW6A
629145	MW11
629146	MW4
629147	MW16R
629148	MW7
629149	MW6
629150	MW10
629151	MW11A
629152	MW16A
629153	TRIP BLANK

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



Effective 11/4/2002

## ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.

### **CAS/Rochester Lab ID # for State Certifications**

Army Corp of Engineers Validated  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved  
Nebraska Accredited

NELAP Accredited  
New York ID # 10145  
New Jersey ID # NY004  
New Hampshire ID # 294100 A/B  
Rhode Island ID # 158  
South Carolina ID # 91012  
West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : DGWD032703

Date Sampled : 03/27/03 07:45 Order #: 629140      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	U
BENZENE	5.0	5.0	U
BROMODICHLOROMETHANE	5.0	5.0	U
BROMOFORM	5.0	5.0	U
BROMOMETHANE	5.0	5.0	U
2-BUTANONE (MEK)	10	10	U
CARBON DISULFIDE	10	10	U
CARBON TETRACHLORIDE	5.0	5.0	U
CHLOROBENZENE	5.0	5.0	U
CHLOROETHANE	5.0	5.0	U
CHLOROFORM	5.0	5.0	U
CHLOROMETHANE	5.0	5.0	U
DIBROMOCHLOROMETHANE	5.0	5.0	U
1,1-DICHLOROETHANE	5.0	40	U
1,2-DICHLOROETHANE	5.0	5.0	U
1,1-DICHLOROETHENE	5.0	5.0	U
CIS-1,2-DICHLOROETHENE	5.0	390	E
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U
1,2-DICHLOROPROPANE	5.0	5.0	U
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U
ETHYLBENZENE	5.0	5.0	U
2-HEXANONE	10	10	U
METHYLENE CHLORIDE	5.0	5.0	U
4-METHYL-2-PENTANONE (MIBK)	10	10	U
STYRENE	5.0	5.0	U
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U
TETRACHLOROETHENE	5.0	5.0	U
TOLUENE	5.0	5.0	U
1,1,1-TRICHLOROETHANE	5.0	43	U
1,1,2-TRICHLOROETHANE	5.0	5.0	U
TRICHLOROETHENE	5.0	270	E
VINYL CHLORIDE	5.0	68	U
O-XYLENE	5.0	5.0	U
M+P-XYLENE	5.0	8.0	U

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	106	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : DGWD032703

Date Sampled : 03/27/03 07:45 Order #: 629140      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	38	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	360	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	40	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	250	UG/L
VINYL CHLORIDE	5.0	60	UG/L
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW14

Date Sampled : 03/27/03 10:20 Order #: 629141      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	160	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	37	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	109	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW14A

Date Sampled : 03/27/03 10:30 Order #: 629142      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	170	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.3	UG/L
VINYL CHLORIDE	5.0	39	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW22

Date Sampled : 03/27/03 10:45 Order #: 629143      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	107	%
TOLUENE-D8	(91 - 113 %)	107	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	101	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW6A

Date Sampled : 03/27/03 11:10 Order #: 629144      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	12	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	420 E	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	17	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	18	UG/L
VINYL CHLORIDE	5.0	250	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

COLUMBIA ANALYTICAL SERVICES

## VOLATILE ORGANICS

METHOD 8260B TCL

Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW6A

Date Sampled : 03/27/03 11:10 Order #: 629144      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	13	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	410	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	16	UG/L
1,2-DICHLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	13	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	19	UG/L
VINYL CHLORIDE	5.0	260	UG/L
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW11

Date Sampled : 03/27/03 11:30 Order #: 629145      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	20.00		
ACETONE	20	400	U      UG/L
BENZENE	5.0	100	U      UG/L
BROMODICHLOROMETHANE	5.0	100	U      UG/L
BROMOFORM	5.0	100	U      UG/L
BROMOMETHANE	5.0	100	U      UG/L
2-BUTANONE (MEK)	10	200	U      UG/L
CARBON DISULFIDE	10	200	U      UG/L
CARBON TETRACHLORIDE	5.0	100	U      UG/L
CHLOROBENZENE	5.0	100	U      UG/L
CHLOROETHANE	5.0	100	U      UG/L
CHLOROFORM	5.0	100	U      UG/L
CHLOROMETHANE	5.0	100	U      UG/L
DIBROMOCHLOROMETHANE	5.0	100	U      UG/L
1,1-DICHLOROETHANE	5.0	100	U      UG/L
1,2-DICHLOROETHANE	5.0	100	U      UG/L
1,1-DICHLOROETHENE	5.0	100	U      UG/L
CIS-1,2-DICHLOROETHENE	5.0	4200	E      UG/L
TRANS-1,2-DICHLOROETHENE	5.0	100	U      UG/L
1,2-DICHLOROPROPANE	5.0	100	U      UG/L
CIS-1,3-DICHLOROPROPENE	5.0	100	U      UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	100	U      UG/L
ETHYLBENZENE	5.0	100	U      UG/L
2-HEXANONE	10	200	U      UG/L
METHYLENE CHLORIDE	5.0	100	U      UG/L
4-METHYL-2-PENTANONE (MIBK)	10	200	U      UG/L
STYRENE	5.0	100	U      UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	100	U      UG/L
TETRACHLOROETHENE	5.0	100	U      UG/L
TOLUENE	5.0	100	U      UG/L
1,1,1-TRICHLOROETHANE	5.0	100	U      UG/L
1,1,2-TRICHLOROETHANE	5.0	100	U      UG/L
TRICHLOROETHENE	5.0	100	U      UG/L
VINYL CHLORIDE	5.0	150	U      UG/L
O-XYLENE	5.0	100	U      UG/L
M+P-XYLENE	5.0	100	U      UG/L

## SURROGATE RECOVERIES

## QC LIMITS

4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	106	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	101	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW11

Date Sampled : 03/27/03 11:30 Order #: 629145      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/07/03		
ANALYTICAL DILUTION:	25.00		
ACETONE	20	500 U	UG/L
BENZENE	5.0	130 U	UG/L
BROMODICHLOROMETHANE	5.0	130 U	UG/L
BROMOFORM	5.0	130 U	UG/L
BROMOMETHANE	5.0	130 U	UG/L
2-BUTANONE (MEK)	10	250 U	UG/L
CARBON DISULFIDE	10	250 U	UG/L
CARBON TETRACHLORIDE	5.0	130 U	UG/L
CHLOROBENZENE	5.0	130 U	UG/L
CHLOROETHANE	5.0	130 U	UG/L
CHLOROFORM	5.0	130 U	UG/L
CHLOROMETHANE	5.0	130 U	UG/L
DIBROMOCHLOROMETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHANE	5.0	130 U	UG/L
1,2-DICHLOROETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHENE	5.0	130 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	4200	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	130 U	UG/L
1,2-DICHLOROPROPANE	5.0	130 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
ETHYLBENZENE	5.0	130 U	UG/L
2-HEXANONE	10	250 U	UG/L
METHYLENE CHLORIDE	5.0	130 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	250 U	UG/L
STYRENE	5.0	130 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	130 U	UG/L
TETRACHLOROETHENE	5.0	130 U	UG/L
TOLUENE	5.0	130 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	130 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	130 U	UG/L
TRICHLOROETHENE	5.0	130 U	UG/L
VINYL CHLORIDE	5.0	140	UG/L
O-XYLENE	5.0	130 U	UG/L
M+P-XYLENE	5.0	130 U	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	109	%
TOLUENE-D8	(91 - 113 %)	107	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW4

Date Sampled : 03/27/03 11:45 Order #: 629146      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/07/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	50	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1700	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICHLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	50	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	50	UG/L
VINYL CHLORIDE	5.0	570	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	50	UG/L

## SURROGATE RECOVERIES

## QC LIMITS

4-BROMOFLUOROBENZENE	(83 - 118 %)	109	%
TOLUENE-D8	(91 - 113 %)	109	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	104	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW16R

Date Sampled : 03/27/03 12:00 Order #: 629147      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/07/03		
ANALYTICAL DILUTION:	5.00		
ACETONE	20	100	UG/L
BENZENE	5.0	25	UG/L
BROMODICHLOROMETHANE	5.0	25	UG/L
BROMOFORM	5.0	25	UG/L
BROMOMETHANE	5.0	25	UG/L
2-BUTANONE (MEK)	10	50	UG/L
CARBON DISULFIDE	10	50	UG/L
CARBON TETRACHLORIDE	5.0	25	UG/L
CHLOROBENZENE	5.0	25	UG/L
CHLOROETHANE	5.0	25	UG/L
CHLOROFORM	5.0	25	UG/L
CHLOROMETHANE	5.0	25	UG/L
DIBROMOCHLOROMETHANE	5.0	25	UG/L
1,1-DICHLOROETHANE	5.0	53	UG/L
1,2-DICHLOROETHANE	5.0	25	UG/L
1,1-DICHLOROETHENE	5.0	25	UG/L
CIS-1,2-DICHLOROETHENE	5.0	780	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25	UG/L
1,2-DICLOROPROPANE	5.0	25	UG/L
CIS-1,3-DICLOROPROPENE	5.0	25	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	25	UG/L
ETHYLBENZENE	5.0	25	UG/L
2-HEXANONE	10	50	UG/L
METHYLENE CHLORIDE	5.0	25	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50	UG/L
STYRENE	5.0	25	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25	UG/L
TETRACHLOROETHENE	5.0	25	UG/L
TOLUENE	5.0	25	UG/L
1,1,1-TRICHLOROETHANE	5.0	460	UG/L
1,1,2-TRICHLOROETHANE	5.0	25	UG/L
TRICHLOROETHENE	5.0	140	UG/L
VINYL CHLORIDE	5.0	25	UG/L
O-XYLENE	5.0	25	UG/L
M+P-XYLENE	5.0	26	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW7

Date Sampled : 03/27/03 13:10 Order #: 629148      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	27	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.4	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES		QC LIMITS	
4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	106	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	102	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW6

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Date Sampled : 03/27/03 13:30 Order #: 629149      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	53	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	16	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

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**SURROGATE RECOVERIES**      **QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	101	%
TOLUENE-D8	(91 - 113 %)	110	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	105	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW10

Date Sampled : 03/27/03 13:45 Order #: 629150      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	U      UG/L
BENZENE	5.0	10	U      UG/L
BROMODICHLOROMETHANE	5.0	10	U      UG/L
BROMOFORM	5.0	10	U      UG/L
BROMOMETHANE	5.0	10	U      UG/L
2-BUTANONE (MEK)	10	20	U      UG/L
CARBON DISULFIDE	10	20	U      UG/L
CARBON TETRACHLORIDE	5.0	10	U      UG/L
CHLOROBENZENE	5.0	10	U      UG/L
CHLOROETHANE	5.0	10	U      UG/L
CHLOROFORM	5.0	10	U      UG/L
CHLOROMETHANE	5.0	10	U      UG/L
DIBROMOCHLOROMETHANE	5.0	10	U      UG/L
1,1-DICHLOROETHANE	5.0	10	U      UG/L
1,2-DICHLOROETHANE	5.0	10	U      UG/L
1,1-DICHLOROETHENE	5.0	10	U      UG/L
CIS-1,2-DICHLOROETHENE	5.0	360	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10	U      UG/L
1,2-DICLOROPROPANE	5.0	10	U      UG/L
CIS-1,3-DICLOROPROPENE	5.0	10	U      UG/L
TRANS-1,3-DICLOROPROPENE	5.0	10	U      UG/L
ETHYLBENZENE	5.0	10	U      UG/L
2-HEXANONE	10	20	U      UG/L
METHYLENE CHLORIDE	5.0	10	U      UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	U      UG/L
STYRENE	5.0	10	U      UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	U      UG/L
TETRACHLOROETHENE	5.0	10	U      UG/L
TOLUENE	5.0	10	U      UG/L
1,1,1-TRICHLOROETHANE	5.0	10	U      UG/L
1,1,2-TRICHLOROETHANE	5.0	10	U      UG/L
TRICHLOROETHENE	5.0	130	UG/L
VINYL CHLORIDE	5.0	21	UG/L
O-XYLENE	5.0	10	U      UG/L
M+P-XYLENE	5.0	10	U      UG/L

SURROGATE RECOVERIES      QC LIMITS

4-BROMOFLUOROBENZENE	(83 - 118 %)	104	%
TOLUENE-D8	(91 - 113 %)	109	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
**METHOD 8260B TCL**  
**Reported: 04/16/03**

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW11A

Date Sampled : 03/27/03 14:00 Order #: 629151      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	13	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	520	E
TRANS-1,2-DICHLOROETHENE	5.0	14	UG/L
1,2-DICLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	13	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	13	UG/L
VINYL CHLORIDE	5.0	660	E
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	103	%
TOLUENE-D8	(91 - 113 %)	110	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	102	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200  
Client Sample ID : MW11A

Date Sampled : 03/27/03 14:00 Order #: 629151      Sample Matrix: WATER  
Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/07/03		
ANALYTICAL DILUTION:	5.00		
ACETONE	20	100	U UG/L
BENZENE	5.0	25	U UG/L
BROMODICHLOROMETHANE	5.0	25	U UG/L
BROMOFORM	5.0	25	U UG/L
BROMOMETHANE	5.0	25	U UG/L
2-BUTANONE (MEK)	10	50	U UG/L
CARBON DISULFIDE	10	50	U UG/L
CARBON TETRACHLORIDE	5.0	25	U UG/L
CHLOROBENZENE	5.0	25	U UG/L
CHLOROETHANE	5.0	25	U UG/L
CHLOROFORM	5.0	25	U UG/L
CHLOROMETHANE	5.0	25	U UG/L
DIBROMOCHLOROMETHANE	5.0	25	U UG/L
1,1-DICHLOROETHANE	5.0	25	U UG/L
1,2-DICHLOROETHANE	5.0	25	U UG/L
1,1-DICHLOROETHENE	5.0	25	U UG/L
CIS-1,2-DICHLOROETHENE	5.0	550	U UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25	U UG/L
1,2-DICHLOROPROPANE	5.0	25	U UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25	U UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25	U UG/L
ETHYLBENZENE	5.0	25	U UG/L
2-HEXANONE	10	50	U UG/L
METHYLENE CHLORIDE	5.0	25	U UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50	U UG/L
STYRENE	5.0	25	U UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25	U UG/L
TETRACHLOROETHENE	5.0	25	U UG/L
TOLUENE	5.0	25	U UG/L
1,1,1-TRICHLOROETHANE	5.0	25	U UG/L
1,1,2-TRICHLOROETHANE	5.0	25	U UG/L
TRICHLOROETHENE	5.0	25	U UG/L
VINYL CHLORIDE	5.0	710	U UG/L
O-XYLENE	5.0	25	U UG/L
M+P-XYLENE	5.0	25	U UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	108	%
TOLUENE-D8	(91 - 113 %)	105	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	102	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : MW16A

Date Sampled : 03/27/03 14:10 Order #: 629152      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200 U	UG/L
BENZENE	5.0	50 U	UG/L
BROMODICHLOROMETHANE	5.0	50 U	UG/L
BROMOFORM	5.0	50 U	UG/L
BROMOMETHANE	5.0	50 U	UG/L
2-BUTANONE (MEK)	10	100 U	UG/L
CARBON DISULFIDE	10	100 U	UG/L
CARBON TETRACHLORIDE	5.0	50 U	UG/L
CHLOROBENZENE	5.0	50 U	UG/L
CHLOROETHANE	5.0	50 U	UG/L
CHLOROFORM	5.0	50 U	UG/L
CHLOROMETHANE	5.0	50 U	UG/L
DIBROMOCHLOROMETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHANE	5.0	150	UG/L
1,2-DICHLOROETHANE	5.0	50 U	UG/L
1,1-DICHLOROETHENE	5.0	50 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1200	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	50 U	UG/L
ETHYLBENZENE	5.0	50 U	UG/L
2-HEXANONE	10	100 U	UG/L
METHYLENE CHLORIDE	5.0	50 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100 U	UG/L
STYRENE	5.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50 U	UG/L
TETRACHLOROETHENE	5.0	50 U	UG/L
TOLUENE	5.0	50 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	240	UG/L
1,1,2-TRICHLOROETHANE	5.0	50 U	UG/L
TRICHLOROETHENE	5.0	1200	UG/L
VINYL CHLORIDE	5.0	430	UG/L
O-XYLENE	5.0	50 U	UG/L
M+P-XYLENE	5.0	50 U	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	102	%
TOLUENE-D8	(91 - 113 %)	109	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 04/16/03

Scientech Inc.

Project Reference: LEICA, INC. 03/27/03 PN# 31129-200

Client Sample ID : TRIP BLANK

Date Sampled : 03/27/03 13:00 Order #: 629153      Sample Matrix: WATER  
 Date Received: 03/28/03 Submission #: R2316268      Analytical Run 89268

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
WATER

Spiked Order No. : 629140 Scientech Inc.

Client ID: DGWD032703

Test: 8260B TCL

Analytical Units: UG/L

Run Number : 89268

ANALYTE	SPIKE			MATRIX SPIKE			MATRIX SPIKE DUP.			QC LIMITS		
	ADDED	CONCENT.		FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	REC.	
		MS	MSD	SAMPLE								
BENZENE	125	125	0	130	104	130	104	0	30	62 - 122		
CHLOROBENZENE	125	125	0	120	96	120	96	0	30	70 - 130		
1,1-DICHLOROETHENE	125	125	0	140	112	140	112	0	30	68 - 114		
TOLUENE	125	125	0	140	112	140	112	0	30	70 - 130		
TRICHLOROETHENE	125	125	270	380	88	370	80	3	30	68 - 114		

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 631186 ANALYTICAL RUN #: 89268

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 04/02/03			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	108	50 - 150
BENZENE	20.0	106	70 - 130
BROMODICHLOROMETHANE	20.0	103	70 - 130
BROMOFORM	20.0	96	70 - 130
BROMOMETHANE	20.0	106	50 - 150
2-BUTANONE (MEK)	20.0	104	50 - 150
CARBON DISULFIDE	20.0	93	70 - 130
CARBON TETRACHLORIDE	20.0	100	70 - 130
CHLOROBENZENE	20.0	101	70 - 130
CHLOROETHANE	20.0	100	70 - 130
CHLOROFORM	20.0	101	70 - 130
CHLOROMETHANE	20.0	111	70 - 130
DIBROMOCHLOROMETHANE	20.0	93	70 - 130
1,1-DICHLOROETHANE	20.0	105	70 - 130
1,2-DICHLOROETHANE	20.0	89	70 - 130
1,1-DICHLOROETHENE	20.0	112	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	102	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	101	70 - 130
1,2-DICHLOROPROPANE	20.0	101	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	100	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	98	70 - 130
ETHYLBENZENE	20.0	110	70 - 130
2-HEXANONE	20.0	103	70 - 130
METHYLENE CHLORIDE	20.0	106	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	104	70 - 130
STYRENE	20.0	105	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	87	70 - 130
TETRACHLOROETHENE	20.0	108	70 - 130
TOLUENE	20.0	109	70 - 130
1,1,1-TRICHLOROETHANE	20.0	95	70 - 130
1,1,2-TRICHLOROETHANE	20.0	97	70 - 130
TRICHLOROETHENE	20.0	121	70 - 130
VINYL CHLORIDE	20.0	102	70 - 130
O-XYLENE	20.0	103	70 - 130
M+P-XYLENE	40.0	105	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 631188 ANALYTICAL RUN #: 89268

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 04/03/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	112	50 - 150
BENZENE	20.0	109	70 - 130
BROMODICHLOROMETHANE	20.0	105	70 - 130
BROMOFORM	20.0	98	70 - 130
BROMOMETHANE	20.0	108	50 - 150
2-BUTANONE (MEK)	20.0	111	50 - 150
CARBON DISULFIDE	20.0	109	70 - 130
CARBON TETRACHLORIDE	20.0	106	70 - 130
CHLOROBENZENE	20.0	101	70 - 130
CHLOROETHANE	20.0	101	70 - 130
CHLOROFORM	20.0	110	70 - 130
CHLOROMETHANE	20.0	112	70 - 130
DIBROMOCHLOROMETHANE	20.0	98	70 - 130
1,1-DICHLOROETHANE	20.0	110	70 - 130
1,2-DICHLOROETHANE	20.0	89	70 - 130
1,1-DICHLOROETHENE	20.0	119	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	111	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	112	70 - 130
1,2-DICHLOROPROPANE	20.0	103	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	106	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	99	70 - 130
ETHYLBENZENE	20.0	110	70 - 130
2-HEXANONE	20.0	109	70 - 130
METHYLENE CHLORIDE	20.0	114	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	106	70 - 130
STYRENE	20.0	106	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	103	70 - 130
TETRACHLOROETHENE	20.0	107	70 - 130
TOLUENE	20.0	109	70 - 130
1,1,1-TRICHLOROETHANE	20.0	104	70 - 130
1,1,2-TRICHLOROETHANE	20.0	100	70 - 130
TRICHLOROETHENE	20.0	113	70 - 130
VINYL CHLORIDE	20.0	111	70 - 130
O-XYLENE	20.0	100	70 - 130
M+P-XYLENE	40.0	105	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 631192

ANALYTICAL RUN #: 89268

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 04/07/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	101	50 - 150
BENZENE	20.0	104	70 - 130
BROMODICHLOROMETHANE	20.0	99	70 - 130
BROMOFORM	20.0	96	70 - 130
BROMOMETHANE	20.0	118	50 - 150
2-BUTANONE (MEK)	20.0	90	50 - 150
CARBON DISULFIDE	20.0	108	70 - 130
CARBON TETRACHLORIDE	20.0	102	70 - 130
CHLOROBENZENE	20.0	105	70 - 130
CHLOROETHANE	20.0	107	70 - 130
CHLOROFORM	20.0	107	70 - 130
CHLOROMETHANE	20.0	107	70 - 130
DIBROMOCHLOROMETHANE	20.0	100	70 - 130
1,1-DICHLOROETHANE	20.0	106	70 - 130
1,2-DICHLOROETHANE	20.0	100	70 - 130
1,1-DICHLOROETHENE	20.0	112	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	108	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	104	70 - 130
1,2-DICHLOROPROPANE	20.0	98	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	105	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	103	70 - 130
ETHYLBENZENE	20.0	108	70 - 130
2-HEXANONE	20.0	100	70 - 130
METHYLENE CHLORIDE	20.0	103	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	97	70 - 130
STYRENE	20.0	112	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	95	70 - 130
TETRACHLOROETHENE	20.0	111	70 - 130
TOLUENE	20.0	109	70 - 130
1,1,1-TRICHLOROETHANE	20.0	102	70 - 130
1,1,2-TRICHLOROETHANE	20.0	101	70 - 130
TRICHLOROETHENE	20.0	104	70 - 130
VINYL CHLORIDE	20.0	115	70 - 130
O-XYLENE	20.0	110	70 - 130
M+P-XYLENE	40.0	110	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 04/16/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	631185	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	89268
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 04/02/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	106	%	
TOLUENE-D8	(91 - 113 %)	107	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	104	%	

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
**METHOD 8260B TCL**  
**Reported: 04/16/03**

**Project Reference:**

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	631187	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	89268
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 04/03/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
<b>SURROGATE RECOVERIES</b>		<b>QC LIMITS</b>		
4-BROMOFLUOROBENZENE	(83 - 118 %)	107	%	
TOLUENE-D8	(91 - 113 %)	106	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%	

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
**METHOD 8260B TCL**  
**Reported: 04/16/03**

**Project Reference:**

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	631191	Sample Matrix:	WATER	
Date Received:	Submission #:		Analytical Run 89268		
ANALYTE	PQL	RESULT	UNITS		
DATE ANALYZED	: 04/07/03				
ANALYTICAL DILUTION:	1.00				
ACETONE	20	20	U	UG/L	
BENZENE	5.0	5.0	U	UG/L	
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L	
BROMOFORM	5.0	5.0	U	UG/L	
BROMOMETHANE	5.0	5.0	U	UG/L	
2-BUTANONE (MEK)	10	10	U	UG/L	
CARBON DISULFIDE	10	10	U	UG/L	
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L	
CHLOROBENZENE	5.0	5.0	U	UG/L	
CHLOROETHANE	5.0	5.0	U	UG/L	
CHLOROFORM	5.0	5.0	U	UG/L	
CHLOROMETHANE	5.0	5.0	U	UG/L	
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L	
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L	
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L	
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L	
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L	
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L	
1,2-DICLOROPROPANE	5.0	5.0	U	UG/L	
CIS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L	
TRANS-1,3-DICLOROPROPENE	5.0	5.0	U	UG/L	
ETHYLBENZENE	5.0	5.0	U	UG/L	
2-HEXANONE	10	10	U	UG/L	
METHYLENE CHLORIDE	5.0	5.0	U	UG/L	
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L	
STYRENE	5.0	5.0	U	UG/L	
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L	
TETRACHLOROETHENE	5.0	5.0	U	UG/L	
TOLUENE	5.0	5.0	U	UG/L	
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L	
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L	
TRICHLOROETHENE	5.0	5.0	U	UG/L	
VINYL CHLORIDE	5.0	5.0	U	UG/L	
O-XYLENE	5.0	5.0	U	UG/L	
M+P-XYLENE	5.0	5.0	U	UG/L	
SURROGATE RECOVERIES	QC LIMITS				
4-BROMOFLUOROBENZENE	(83	- 118	%)	110	%
TOLUENE-D8	(91	- 113	%)	105	%
DIBROMOFLUOROMETHANE	(87	- 115	%)	105	%



**Columbia Analytical Services**  
Employee - Owned Company  
[www.caslab.com](http://www.caslab.com)

## **CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM**

**Employee - Owned Company**  
[www.casciab.com](http://www.casciab.com)

3 Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE

CAS Contact

SCOC-1102-08



### Cooler Receipt And Preservation Check Form

Project/Client Scientech | Leica Submission Number R2316268

Cooler received on 3/28/03 by: VMC COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler?  YES  NO
2. Were custody papers properly filled out (ink, signed, etc.)?  YES  NO
3. Did all bottles arrive in good condition (unbroken)?  YES  NO
4. Did any VOA vials have significant air bubbles?  YES  NO N/A
5. Were Ice or Ice packs present?  YES  NO
6. Where did the bottles originate?  CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 50C

Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 3/28/03 1330

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_

- Cooler Breakdown: Date: 3-31-03 by: AE
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES  NO
  2. Did all bottle labels and tags agree with custody papers?  YES  NO
  3. Were correct containers used for the tests indicated?  YES  NO
  4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated  N/A
- Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO <sub>3</sub>					
2	H <sub>2</sub> SO <sub>4</sub>					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH \_\_\_\_\_

\*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:



This report contains analytical results for the following samples:

Submission #: R2317608

<u>Lab ID</u>	<u>Client ID</u>
655853	DGWD 071103
655854	MW11A
655855	MW16A
655856	MW14
655857	MW14A
655858	MW22
655859	MW6A
655860	MW16R
655874	TRIP BLANK

## CASE NARRATIVE

COMPANY: Scientech Inc.  
Leica  
SUBMISSION #: R2317608

Water samples were collected on 07/11/03 and received at CAS-Rochester on 07/11/03 in good condition.

### VOLATILE ORGANICS

Water samples were analyzed for TCL Volatile Organic Compounds by Method 8260B from SW-846.

All initial and continuing calibrations were compliant.

All matrix spike and blank spike recoveries were within QC.

Due to analyst error, samples MW-16R and TB were analyzed outside the required 14 day hold time.

No other analytical or QC problems were encountered with these analyses.



An Employee - Owned Company



Effective 6/12/2003

## ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- \* - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### **CAS/Rochester Lab ID # for State Certifications**

Army Corp of Engineers Validated  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved  
Nebraska Accredited.

NELAP Accredited  
New York ID # 10145  
New Jersey ID # NY004  
New Hampshire ID # 294100 A/B  
Pennsylvania Registration 68-786  
Rhode Island ID # 158  
South Carolina ID # 91012  
West Virginia ID # 292

## COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.  
 Client Sample ID : DGWD 071103

Date Sampled : 07/11/03 Order #: 655853 Sample Matrix: WATER  
 Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	87	%
TOLUENE-D8	(91 - 113 %)	97	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	110	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW11A

Date Sampled : 07/11/03 Order #: 655854 Sample Matrix: WATER  
Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	13	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	320	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICHLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	13	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	13	UG/L
VINYL CHLORIDE	5.0	170	UG/L
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	88	%
TOLUENE-D8	(91 - 113 %)	98	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	113	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW16A

Date Sampled : 07/11/03 Order #: 655855 Sample Matrix: WATER  
Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	120	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1100	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICHLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	200	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	560	UG/L
VINYL CHLORIDE	5.0	330	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	50	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	87	%
TOLUENE-D8	(91 - 113 %)	97	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	113	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW14

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**Date Sampled : 07/11/03      Order #: 655856      Sample Matrix: WATER**  
**Date Received: 07/11/03      Submission #: R2317608      Analytical Run 93749**

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ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	320	E
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	140	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
<hr/> <b>SURROGATE RECOVERIES</b>		<b>QC LIMITS</b>	
4-BROMOFLUOROBENZENE	(83 - 118 %)	85	%
TOLUENE-D8	(91 - 113 %)	97	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	112	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW14

Date Sampled : 07/11/03 Order #: 655856 Sample Matrix: WATER  
Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/22/03			
ANALYTICAL DILUTION: 2.50			
ACETONE	20	50 U	UG/L
BENZENE	5.0	13 U	UG/L
BROMODICHLOROMETHANE	5.0	13 U	UG/L
BROMOFORM	5.0	13 U	UG/L
BROMOMETHANE	5.0	13 U	UG/L
2-BUTANONE (MEK)	10	25 U	UG/L
CARBON DISULFIDE	10	25 U	UG/L
CARBON TETRACHLORIDE	5.0	13 U	UG/L
CHLOROBENZENE	5.0	13 U	UG/L
CHLOROETHANE	5.0	13 U	UG/L
CHLOROFORM	5.0	13 U	UG/L
CHLOROMETHANE	5.0	13 U	UG/L
DIBROMOCHLOROMETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHANE	5.0	13 U	UG/L
1,2-DICHLOROETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHENE	5.0	13 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	280	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13 U	UG/L
1,2-DICHLOROPROPANE	5.0	13 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
ETHYLBENZENE	5.0	13 U	UG/L
2-HEXANONE	10	25 U	UG/L
METHYLENE CHLORIDE	5.0	13 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25 U	UG/L
STYRENE	5.0	13 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13 U	UG/L
TETRACHLOROETHENE	5.0	13 U	UG/L
TOLUENE	5.0	13 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	13 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	13 U	UG/L
TRICHLOROETHENE	5.0	13 U	UG/L
VINYL CHLORIDE	5.0	110	UG/L
O-XYLENE	5.0	13 U	UG/L
M+P-XYLENE	5.0	13 U	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	85	%
TOLUENE-D8	(91 - 113 %)	96	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	112	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW14A

Date Sampled : 07/11/03 Order #: 655857  
Date Received: 07/11/03 Submission #: R2317608 Sample Matrix: WATER  
Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	49	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	20	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	86	%
TOLUENE-D8	(91 - 113 %)	97	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	113	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW22

Date Sampled : 07/11/03 Order #: 655858 Sample Matrix: WATER  
 Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/22/03			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
<b>SURROGATE RECOVERIES</b>		<b>QC LIMITS</b>	
4-BROMOFLUOROBENZENE	(83 - 118 %)	87	%
TOLUENE-D8	(91 - 113 %)	97	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	112	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW6A

**Date Sampled : 07/11/03      Order #: 655859      Sample Matrix: WATER**  
**Date Received: 07/11/03      Submission #: R2317608      Analytical Run 93749**

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/22/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	UG/L
BENZENE	5.0	10	UG/L
BROMODICHLOROMETHANE	5.0	10	UG/L
BROMOFORM	5.0	10	UG/L
BROMOMETHANE	5.0	10	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	10	UG/L
CHLOROBENZENE	5.0	10	UG/L
CHLOROETHANE	5.0	10	UG/L
CHLOROFORM	5.0	10	UG/L
CHLOROMETHANE	5.0	10	UG/L
DIBROMOCHLOROMETHANE	5.0	10	UG/L
1,1-DICHLOROETHANE	5.0	10	UG/L
1,2-DICHLOROETHANE	5.0	10	UG/L
1,1-DICHLOROETHENE	5.0	10	UG/L
CIS-1,2-DICHLOROETHENE	5.0	310	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	11	UG/L
1,2-DICHLOROPROPANE	5.0	10	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10	UG/L
ETHYLBENZENE	5.0	10	UG/L
2-HEXANONE	10	20	UG/L
METHYLENE CHLORIDE	5.0	10	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	UG/L
STYRENE	5.0	10	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	UG/L
TETRACHLOROETHENE	5.0	10	UG/L
TOLUENE	5.0	10	UG/L
1,1,1-TRICHLOROETHANE	5.0	10	UG/L
1,1,2-TRICHLOROETHANE	5.0	10	UG/L
TRICHLOROETHENE	5.0	10	UG/L
VINYL CHLORIDE	5.0	92	UG/L
O-XYLENE	5.0	10	UG/L
M+P-XYLENE	5.0	10	UG/L

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(83 - 118 %)
TOLUENE-D8	(91 - 113 %)
DIBROMOFLUOROMETHANE	(87 - 115 %)

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : MW16R

Date Sampled : 07/11/03 Order #: 655860 Sample Matrix: WATER  
Date Received: 07/11/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/29/03			
ANALYTICAL DILUTION: 2.00			
ACETONE	.20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	42	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	140	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	230	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	46	UG/L
VINYL CHLORIDE	5.0	10 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(91 - 113 %)	96	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	109	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Scientech Inc.

Project Reference: LEICA, INC.

Client Sample ID : TRIP BLANK

Date Sampled : / / Order #: 655874 Sample Matrix: WATER  
Date Received: 07/14/03 Submission #: R2317608 Analytical Run 93749

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/28/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(83 - 118 %)	100	%
TOLUENE-D8	(91 - 113 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%

OLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 660900 ANALYTICAL RUN #: 93749

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 07/22/03			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	79	50 - 150
BENZENE	20.0	87	70 - 130
BROMODICHLOROMETHANE	20.0	95	70 - 130
BROMOFORM	20.0	100	70 - 130
BROMOMETHANE	20.0	91	50 - 150
2-BUTANONE (MEK)	20.0	69	50 - 150
CARBON DISULFIDE	20.0	74	70 - 130
CARBON TETRACHLORIDE	20.0	100	70 - 130
CHLOROBENZENE	20.0	98	70 - 130
CHLOROETHANE	20.0	88	70 - 130
CHLOROFORM	20.0	91	70 - 130
CHLOROMETHANE	20.0	97	70 - 130
DIBROMOCHLOROMETHANE	20.0	103	70 - 130
1,1-DICHLOROETHANE	20.0	88	70 - 130
1,2-DICHLOROETHANE	20.0	106	70 - 130
1,1-DICHLOROETHENE	20.0	87	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	86	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	83	70 - 130
1,2-DICHLOROPROPANE	20.0	83	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	90	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	92	70 - 130
ETHYLBENZENE	20.0	97	70 - 130
2-HEXANONE	20.0	81	70 - 130
METHYLENE CHLORIDE	20.0	88	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	72	70 - 130
STYRENE	20.0	100	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	85	70 - 130
TETRACHLOROETHENE	20.0	109	70 - 130
TOLUENE	20.0	87	70 - 130
1,1,1-TRICHLOROETHANE	20.0	88	70 - 130
1,1,2-TRICHLOROETHANE	20.0	84	70 - 130
TRICHLOROETHENE	20.0	93	70 - 130
VINYL CHLORIDE	20.0	95	70 - 130
O-XYLENE	20.0	100	70 - 130
M+P-XYLENE	40.0	100	70 - 130

OLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 660902

ANALYTICAL RUN #: 93749

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 07/28/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	99	50 - 150
BENZENE	20.0	100	70 - 130
BROMODICHLOROMETHANE	20.0	101	70 - 130
BROMOFORM	20.0	99	70 - 130
BROMOMETHANE	20.0	103	50 - 150
2-BUTANONE (MEK)	20.0	107	50 - 150
CARBON DISULFIDE	20.0	105	70 - 130
CARBON TETRACHLORIDE	20.0	104	70 - 130
CHLOROBENZENE	20.0	97	70 - 130
CHLOROETHANE	20.0	100	70 - 130
CHLOROFORM	20.0	98	70 - 130
CHLOROMETHANE	20.0	103	70 - 130
DIBROMOCHLOROMETHANE	20.0	99	70 - 130
1,1-DICHLOROETHANE	20.0	100	70 - 130
1,2-DICHLOROETHANE	20.0	98	70 - 130
1,1-DICHLOROETHENE	20.0	103	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	97	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	96	70 - 130
1,2-DICHLOROPROPANE	20.0	96	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	101	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	101	70 - 130
ETHYLBENZENE	20.0	99	70 - 130
2-HEXANONE	20.0	102	70 - 130
METHYLENE CHLORIDE	20.0	101	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	104	70 - 130
STYRENE	20.0	97	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	100	70 - 130
TETRACHLOROETHENE	20.0	100	70 - 130
TOLUENE	20.0	100	70 - 130
1,1,1-TRICHLOROETHANE	20.0	98	70 - 130
1,1,2-TRICHLOROETHANE	20.0	100	70 - 130
TRICHLOROETHENE	20.0	98	70 - 130
VINYL CHLORIDE	20.0	103	70 - 130
O-XYLENE	20.0	100	70 - 130
M+P-XYLENE	40.0	100	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 660904

ANALYTICAL RUN #: 93749

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 07/29/03			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	90	50 - 150
BENZENE	20.0	89	70 - 130
BROMODICHLOROMETHANE	20.0	95	70 - 130
BROMOFORM	20.0	92	70 - 130
BROMOMETHANE	20.0	95	50 - 150
2-BUTANONE (MEK)	20.0	77	50 - 150
CARBON DISULFIDE	20.0	94	70 - 130
CARBON TETRACHLORIDE	20.0	101	70 - 130
CHLOROBENZENE	20.0	90	70 - 130
CHLOROETHANE	20.0	93	70 - 130
CHLOROFORM	20.0	93	70 - 130
CHLOROMETHANE	20.0	98	70 - 130
DIBROMOCHLOROMETHANE	20.0	95	70 - 130
1,1-DICHLOROETHANE	20.0	91	70 - 130
1,2-DICHLOROETHANE	20.0	107	70 - 130
1,1-DICHLOROETHENE	20.0	89	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	84	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	87	70 - 130
1,2-DICHLOROPROPANE	20.0	83	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	95	70 - 130
ETHYLBENZENE	20.0	87	70 - 130
2-HEXANONE	20.0	79	70 - 130
METHYLENE CHLORIDE	20.0	95	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	78	70 - 130
STYRENE	20.0	88	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	82	70 - 130
TETRACHLOROETHENE	20.0	96	70 - 130
TOLUENE	20.0	84	70 - 130
1,1,1-TRICHLOROETHANE	20.0	91	70 - 130
1,1,2-TRICHLOROETHANE	20.0	87	70 - 130
TRICHLOROETHENE	20.0	87	70 - 130
VINYL CHLORIDE	20.0	100	70 - 130
O-XYLENE	20.0	89	70 - 130
M+P-XYLENE	40.0	90	70 - 130

**COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS  
METHOD: 8260B TCL**LABORATORY CONTROL SAMPLE SUMMARY**

REFERENCE ORDER #: 660940

ANALYTICAL RUN #: 93749

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 07/22/03			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	85	50 - 150
BENZENE	20.0	86	70 - 130
BROMODICHLOROMETHANE	20.0	101	70 - 130
BROMOFORM	20.0	109	70 - 130
BROMOMETHANE	20.0	94	50 - 150
2-BUTANONE (MEK)	20.0	72	50 - 150
CARBON DISULFIDE	20.0	85	70 - 130
CARBON TETRACHLORIDE	20.0	106	70 - 130
CHLOROBENZENE	20.0	100	70 - 130
CHLOROETHANE	20.0	90	70 - 130
CHLOROFORM	20.0	99	70 - 130
CHLOROMETHANE	20.0	98	70 - 130
DIBROMOCHLOROMETHANE	20.0	109	70 - 130
1,1-DICHLOROETHANE	20.0	91	70 - 130
1,2-DICHLOROETHANE	20.0	110	70 - 130
1,1-DICHLOROETHENE	20.0	86	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	91	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	85	70 - 130
1,2-DICHLOROPROPANE	20.0	82	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	93	70 - 130
ETHYLBENZENE	20.0	100	70 - 130
2-HEXANONE	20.0	88	70 - 130
METHYLENE CHLORIDE	20.0	88	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	76	70 - 130
STYRENE	20.0	105	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	91	70 - 130
TETRACHLOROETHENE	20.0	110	70 - 130
TOLUENE	20.0	89	70 - 130
1,1,1-TRICHLOROETHANE	20.0	95	70 - 130
1,1,2-TRICHLOROETHANE	20.0	86	70 - 130
TRICHLOROETHENE	20.0	93	70 - 130
VINYL CHLORIDE	20.0	99	70 - 130
O-XYLENE	20.0	105	70 - 130
M+P-XYLENE	40.0	103	70 - 130

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 08/04/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	660899	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	93749
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 07/22/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
<hr/>				
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	87	%	%
TOLUENE-D8	(91 - 113 %)	97	%	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	111	%	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 08/04/03**Project Reference:**

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	660901	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	93749
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 07/28/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	100	%	%
TOLUENE-D8	(91 - 113 %)	101	%	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	103	%	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 08/04/03

Project Reference:  
Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	660903	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	93749
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 07/29/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%	
TOLUENE-D8	(91 - 113 %)	97	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%	

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 08/04/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	660939	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	93749
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 07/22/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	88	%	
TOLUENE-D8	(91 - 113 %)	99	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%	



## Cooler Receipt And Preservation Check Form

Project/Client Scientech

Submission Number 7/14/03 R2-17408

Cooler received on 7/14/03 by: BK COURIER: CAS UPS FEDEX CD&L CLIENT

- |   |   |  |
|---|---|--|
| 1. Were custody seals on outside of cooler?                     | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 2. Were custody papers properly filled out (ink, signed, etc.)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 3. Did all bottles arrive in good condition (unbroken)?         | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 4. Did any VOA vials have significant air bubbles?              | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 5. Were Ice or Ice packs present?                               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| 6. Where did the bottles originate?                             | <u>CAS/ROC, CLIENT</u>                  |  |
| 7. Temperature of cooler(s) upon receipt:                       | <u>6</u>                                |  |

Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes

If No, Explain Below \_\_\_\_\_

Date/Time Temperatures Taken: 7/14/03 15:50

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_

- Cooler Breakdown: Date: 7/14/03 by: CND
- |   |   |                             |
|---|---|-----------------------------|
| 1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| 2. Did all bottle labels and tags agree with custody papers?            | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3. Were correct containers used for the tests indicated?                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| 4. Air Samples: Cassettes / Tubes Intact      Canisters Pressurized     | <u>Tedlar® Bags Inflated</u> <u>N/A</u> |                             |
- Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO <sub>3</sub>					
2	H <sub>2</sub> SO <sub>4</sub>					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH \_\_\_\_\_

\*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>.

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2			

Other Comments:



#### CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2318853

<u>Lab ID</u>	<u>Client ID</u>
681786	MW-6A
681787	MW-14A
681788	MW-16R
681789	MW-4
681790	MW-10
681791	MW-22
681792	MW-11A
681793	MW-16A
681794	DGWD 102103
681795	TRIP BLANK

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



Effective 6/12/2003

## ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- \* - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### **CAS/Rochester Lab ID # for State Certifications**

Army Corp of Engineers Validated  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved  
Nebraska Accredited

NELAP Accredited  
New York ID # 10145  
New Jersey ID # NY004  
New Hampshire ID # 294100 A/B  
Pennsylvania Registration 68-786  
Rhode Island ID # 158  
South Carolina ID #91012  
West Virginia ID # 292

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200  
 Client Sample ID : MW-6A

Date Sampled : 10/21/03 Order #: 681786 Sample Matrix: WATER  
 Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	UG/L
BENZENE	5.0	10	UG/L
BROMODICHLOROMETHANE	5.0	10	UG/L
BROMOFORM	5.0	10	UG/L
BROMOMETHANE	5.0	10	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	10	UG/L
CHLOROBENZENE	5.0	10	UG/L
CHLOROETHANE	5.0	10	UG/L
CHLOROFORM	5.0	10	UG/L
CHLOROMETHANE	5.0	10	UG/L
DIBROMOCHLOROMETHANE	5.0	10	UG/L
1,1-DICHLOROETHANE	5.0	10	UG/L
1,2-DICHLOROETHANE	5.0	10	UG/L
1,1-DICHLOROETHENE	5.0	10	UG/L
CIS-1,2-DICHLOROETHENE	5.0	380	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	19	UG/L
1,2-DICHLOROPROPANE	5.0	10	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10	UG/L
ETHYLBENZENE	5.0	10	UG/L
2-HEXANONE	10	20	UG/L
METHYLENE CHLORIDE	5.0	10	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	UG/L
STYRENE	5.0	10	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	UG/L
TETRACHLOROETHENE	5.0	10	UG/L
TOLUENE	5.0	10	UG/L
1,1,1-TRICHLOROETHANE	5.0	10	UG/L
1,1,2-TRICHLOROETHANE	5.0	10	UG/L
TRICHLOROETHENE	5.0	10	UG/L
VINYL CHLORIDE	5.0	120	UG/L
O-XYLENE	5.0	10	UG/L
M+P-XYLENE	5.0	10	UG/L

**SURROGATE RECOVERIES****QC LIMITS**

4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	107	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : MW-14A

Date Sampled : 10/21/03 Order #: 681787 Sample Matrix: WATER  
Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.4	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	6.5	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	106	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : MW-16R

Date Sampled : 10/21/03 Order #: 681788 Sample Matrix: WATER  
 Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	UG/L
BENZENE	5.0	10	UG/L
BROMODICHLOROMETHANE	5.0	10	UG/L
BROMOFORM	5.0	10	UG/L
BROMOMETHANE	5.0	10	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	10	UG/L
CHLOROBENZENE	5.0	10	UG/L
CHLOROETHANE	5.0	10	UG/L
CHLOROFORM	5.0	10	UG/L
CHLOROMETHANE	5.0	10	UG/L
DIBROMOCHLOROMETHANE	5.0	10	UG/L
1,1-DICHLOROETHANE	5.0	100	UG/L
1,2-DICHLOROETHANE	5.0	10	UG/L
1,1-DICHLOROETHENE	5.0	10	UG/L
CIS-1,2-DICHLOROETHENE	5.0	430	E
TRANS-1,2-DICHLOROETHENE	5.0	10	UG/L
1,2-DICHLOROPROPANE	5.0	10	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10	UG/L
ETHYLBENZENE	5.0	10	UG/L
2-HEXANONE	10	20	UG/L
METHYLENE CHLORIDE	5.0	10	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	UG/L
STYRENE	5.0	10	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	UG/L
TETRACHLOROETHENE	5.0	10	UG/L
TOLUENE	5.0	10	UG/L
1,1,1-TRICHLOROETHANE	5.0	160	UG/L
1,1,2-TRICHLOROETHANE	5.0	10	UG/L
TRICHLOROETHENE	5.0	47	UG/L
VINYL CHLORIDE	5.0	10	UG/L
O-XYLENE	5.0	10	UG/L
M+P-XYLENE	5.0	10	UG/L
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SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	99	%
TOLUENE-D8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	107	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : MW-16R

Date Sampled : 10/21/03 Order #: 681788 Sample Matrix: WATER  
Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	99	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	450	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICHLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	160	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	50	UG/L
VINYL CHLORIDE	5.0	13	UG/L
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	99	%
TOLUENE-D8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	106	%

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**  
**METHOD 8260B TCL**  
**Reported: 11/17/03**

Scientech Inc.

**Project Reference:** LEICA, INC. PROJECT #31129-200  
**Client Sample ID :** MW-4

**Date Sampled :** 10/21/03      **Order #:** 681789      **Sample Matrix:** WATER  
**Date Received:** 10/22/03      **Submission #:** R2318853      **Analytical Run** 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	260	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	10 U	UG/L
VINYL CHLORIDE	5.0	130	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L
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SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	99	%
TOLUENE-D8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	106	%

**COLUMBIA ANALYTICAL SERVICES****VOLATILE ORGANICS**  
METHOD 8260B TCL  
Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200  
Client Sample ID : MW-10**Date Sampled : 10/21/03      Order #: 681790      Sample Matrix: WATER**  
**Date Received: 10/22/03      Submission #: R2318853      Analytical Run 97695**

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.00		
ACETONE	20	40	UG/L
BENZENE	5.0	10	UG/L
BROMODICHLOROMETHANE	5.0	10	UG/L
BROMOFORM	5.0	10	UG/L
BROMOMETHANE	5.0	10	UG/L
2-BUTANONE (MEK)	10	20	UG/L
CARBON DISULFIDE	10	20	UG/L
CARBON TETRACHLORIDE	5.0	10	UG/L
CHLOROBENZENE	5.0	10	UG/L
CHLOROETHANE	5.0	10	UG/L
CHLOROFORM	5.0	10	UG/L
CHLOROMETHANE	5.0	10	UG/L
DIBROMOCHLOROMETHANE	5.0	10	UG/L
1,1-DICHLOROETHANE	5.0	10	UG/L
1,2-DICHLOROETHANE	5.0	10	UG/L
1,1-DICHLOROETHENE	5.0	10	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1500	E
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICLOROPROPANE	5.0	10	UG/L
CIS-1,3-DICLOROPROPENE	5.0	10	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	10	UG/L
ETHYLBENZENE	5.0	10	UG/L
2-HEXANONE	10	20	UG/L
METHYLENE CHLORIDE	5.0	10	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20	UG/L
STYRENE	5.0	10	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10	UG/L
TETRACHLOROETHENE	5.0	10	UG/L
TOLUENE	5.0	10	UG/L
1,1,1-TRICHLOROETHANE	5.0	10	UG/L
1,1,2-TRICHLOROETHANE	5.0	10	UG/L
TRICHLOROETHENE	5.0	10	UG/L
VINYL CHLORIDE	5.0	110	UG/L
O-XYLENE	5.0	10	UG/L
M+P-XYLENE	5.0	10	UG/L

**SURROGATE RECOVERIES**

	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200  
Client Sample ID : MW-10

Date Sampled : 10/21/03 Order #: 681790 Sample Matrix: WATER  
Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	50	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1600	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICHLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	50	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	50	UG/L
VINYL CHLORIDE	5.0	110	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	50	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	98	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	109	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

Scientechn Inc.

Project Reference: LEICA, INC. PROJECT #31129-200  
Client Sample ID : MW-22Date Sampled : 10/21/03 Order #: 681791 Sample Matrix: WATER  
Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	10/31/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.7	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	98	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	109	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : MW-11A

Date Sampled : 10/21/03 Order #: 681792 Sample Matrix: WATER  
Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	2.50		
ACETONE	20	50	UG/L
BENZENE	5.0	13	UG/L
BROMODICHLOROMETHANE	5.0	13	UG/L
BROMOFORM	5.0	13	UG/L
BROMOMETHANE	5.0	13	UG/L
2-BUTANONE (MEK)	10	25	UG/L
CARBON DISULFIDE	10	25	UG/L
CARBON TETRACHLORIDE	5.0	13	UG/L
CHLOROBENZENE	5.0	13	UG/L
CHLOROETHANE	5.0	13	UG/L
CHLOROFORM	5.0	13	UG/L
CHLOROMETHANE	5.0	13	UG/L
DIBROMOCHLOROMETHANE	5.0	13	UG/L
1,1-DICHLOROETHANE	5.0	13	UG/L
1,2-DICHLOROETHANE	5.0	13	UG/L
1,1-DICHLOROETHENE	5.0	13	UG/L
CIS-1,2-DICHLOROETHENE	5.0	340	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICHLOROPROPANE	5.0	13	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13	UG/L
ETHYLBENZENE	5.0	13	UG/L
2-HEXANONE	10	25	UG/L
METHYLENE CHLORIDE	5.0	13	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25	UG/L
STYRENE	5.0	13	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13	UG/L
TETRACHLOROETHENE	5.0	13	UG/L
TOLUENE	5.0	13	UG/L
1,1,1-TRICHLOROETHANE	5.0	13	UG/L
1,1,2-TRICHLOROETHANE	5.0	13	UG/L
TRICHLOROETHENE	5.0	13	UG/L
VINYL CHLORIDE	5.0	38	UG/L
O-XYLENE	5.0	13	UG/L
M+P-XYLENE	5.0	13	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : MW-16A

Date Sampled : 10/21/03 Order #: 681793 Sample Matrix: WATER  
 Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	10.00		
ACETONE	20	200	UG/L
BENZENE	5.0	50	UG/L
BROMODICHLOROMETHANE	5.0	50	UG/L
BROMOFORM	5.0	50	UG/L
BROMOMETHANE	5.0	50	UG/L
2-BUTANONE (MEK)	10	100	UG/L
CARBON DISULFIDE	10	100	UG/L
CARBON TETRACHLORIDE	5.0	50	UG/L
CHLOROBENZENE	5.0	50	UG/L
CHLOROETHANE	5.0	50	UG/L
CHLOROFORM	5.0	50	UG/L
CHLOROMETHANE	5.0	50	UG/L
DIBROMOCHLOROMETHANE	5.0	50	UG/L
1,1-DICHLOROETHANE	5.0	120	UG/L
1,2-DICHLOROETHANE	5.0	50	UG/L
1,1-DICHLOROETHENE	5.0	50	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1300	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50	UG/L
1,2-DICLOROPROPANE	5.0	50	UG/L
CIS-1,3-DICLOROPROPENE	5.0	50	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	50	UG/L
ETHYLBENZENE	5.0	50	UG/L
2-HEXANONE	10	100	UG/L
METHYLENE CHLORIDE	5.0	50	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	100	UG/L
STYRENE	5.0	50	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	50	UG/L
TETRACHLOROETHENE	5.0	50	UG/L
TOLUENE	5.0	50	UG/L
1,1,1-TRICHLOROETHANE	5.0	250	UG/L
1,1,2-TRICHLOROETHANE	5.0	50	UG/L
TRICHLOROETHENE	5.0	430	UG/L
VINYL CHLORIDE	5.0	380	UG/L
O-XYLENE	5.0	50	UG/L
M+P-XYLENE	5.0	50	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	96	%
TOLUENE-D8	(88 - 124 %)	98	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	108	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200  
 Client Sample ID : DGWD 102103

Date Sampled : 10/21/03 Order #: 681794 Sample Matrix: WATER  
 Date Received: 10/22/03 Submission #: R2318853 Analytical Run 97695

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	38	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.5	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	99	%
TOLUENE-D8	(88 - 124 %)	99	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	109	%

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

Scientech Inc.

Project Reference: LEICA, INC. PROJECT #31129-200

Client Sample ID : TRIP BLANK

Date Sampled : 10/21/03	Order #: 681795	Sample Matrix: WATER	
Date Received: 10/22/03	Submission #: R2318853	Analytical Run	97695
ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/31/03			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20	UG/L
BENZENE	5.0	5.0	UG/L
BROMODICHLOROMETHANE	5.0	5.0	UG/L
BROMOFORM	5.0	5.0	UG/L
BROMOMETHANE	5.0	5.0	UG/L
2-BUTANONE (MEK)	10	10	UG/L
CARBON DISULFIDE	10	10	UG/L
CARBON TETRACHLORIDE	5.0	5.0	UG/L
CHLOROBENZENE	5.0	5.0	UG/L
CHLOROETHANE	5.0	5.0	UG/L
CHLOROFORM	5.0	5.0	UG/L
CHLOROMETHANE	5.0	5.0	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHANE	5.0	5.0	UG/L
1,2-DICHLOROETHANE	5.0	5.0	UG/L
1,1-DICHLOROETHENE	5.0	5.0	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	UG/L
ETHYLBENZENE	5.0	5.0	UG/L
2-HEXANONE	10	10	UG/L
METHYLENE CHLORIDE	5.0	5.0	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	UG/L
STYRENE	5.0	5.0	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	UG/L
TETRACHLOROETHENE	5.0	5.0	UG/L
TOLUENE	5.0	5.0	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	UG/L
TRICHLOROETHENE	5.0	5.0	UG/L
VINYL CHLORIDE	5.0	5.0	UG/L
O-XYLENE	5.0	5.0	UG/L
M+P-XYLENE	5.0	5.0	UG/L
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(83 - 118 %)	101	%
TOLUENE-D8	(88 - 124 %)	100	%
DIBROMOFLUOROMETHANE	(87 - 115 %)	111	%

**OLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS  
METHOD: 8260B TCL**LABORATORY CONTROL SAMPLE SUMMARY**

REFERENCE ORDER #: 688376

ANALYTICAL RUN # :

97695

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	105	50 - 150
BENZENE	20.0	95	70 - 130
BROMODICHLOROMETHANE	20.0	101	70 - 130
BROMOFORM	20.0	92	70 - 130
BROMOMETHANE	20.0	93	50 - 150
2-BUTANONE (MEK)	20.0	97	50 - 150
CARBON DISULFIDE	20.0	106	70 - 130
CARBON TETRACHLORIDE	20.0	98	70 - 130
CHLOROBENZENE	20.0	90	70 - 130
CHLOROETHANE	20.0	93	70 - 130
CHLOROFORM	20.0	103	70 - 130
CHLOROMETHANE	20.0	95	70 - 130
DIBROMOCHLOROMETHANE	20.0	94	70 - 130
1,1-DICHLOROETHANE	20.0	98	70 - 130
1,2-DICHLOROETHANE	20.0	104	70 - 130
1,1-DICHLOROETHENE	20.0	94	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	100	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	94	70 - 130
1,2-DICHLOROPROPANE	20.0	92	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	92	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	93	70 - 130
ETHYLBENZENE	20.0	89	70 - 130
2-HEXANONE	20.0	86	70 - 130
METHYLENE CHLORIDE	20.0	104	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	90	70 - 130
STYRENE	20.0	87	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	74	70 - 130
TETRACHLOROETHENE	20.0	91	70 - 130
TOLUENE	20.0	93	70 - 130
1,1,1-TRICHLOROETHANE	20.0	95	70 - 130
1,1,2-TRICHLOROETHANE	20.0	95	70 - 130
TRICHLOROETHENE	20.0	106	70 - 130
VINYL CHLORIDE	20.0	97	70 - 130
O-XYLENE	20.0	90	70 - 130
M+P-XYLENE	40.0	88	70 - 130

**OULMIA ANALYTICAL SERVICES**VOLATILE ORGANICS  
METHOD: 8260B TCL**LABORATORY CONTROL SAMPLE SUMMARY**

REFERENCE ORDER #: 688378 ANALYTICAL RUN #: 97695

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 10/31/03		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	104	50 - 150
BENZENE	20.0	93	70 - 130
BROMODICHLOROMETHANE	20.0	104	70 - 130
BROMOFORM	20.0	99	70 - 130
BROMOMETHANE	20.0	84	50 - 150
2-BUTANONE (MEK)	20.0	107	50 - 150
CARBON DISULFIDE	20.0	93	70 - 130
CARBON TETRACHLORIDE	20.0	106	70 - 130
CHLOROBENZENE	20.0	90	70 - 130
CHLOROETHANE	20.0	96	70 - 130
CHLOROFORM	20.0	100	70 - 130
CHLOROMETHANE	20.0	84	70 - 130
DIBROMOCHLOROMETHANE	20.0	98	70 - 130
1,1-DICHLOROETHANE	20.0	90	70 - 130
1,2-DICHLOROETHANE	20.0	104	70 - 130
1,1-DICHLOROETHENE	20.0	93	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	94	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	94	70 - 130
1,2-DICHLOROPROPANE	20.0	89	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	96	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	101	70 - 130
ETHYLBENZENE	20.0	92	70 - 130
2-HEXANONE	20.0	106	70 - 130
METHYLENE CHLORIDE	20.0	96	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	108	70 - 130
STYRENE	20.0	88	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	94	70 - 130
TETRACHLOROETHENE	20.0	100	70 - 130
TOLUENE	20.0	93	70 - 130
1,1,1-TRICHLOROETHANE	20.0	95	70 - 130
1,1,2-TRICHLOROETHANE	20.0	94	70 - 130
TRICHLOROETHENE	20.0	95	70 - 130
VINYL CHLORIDE	20.0	88	70 - 130
O-XYLENE	20.0	91	70 - 130
M+P-XYLENE	40.0	93	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B TCL  
 Reported: 11/17/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	688375	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run	97695
ANALYTE	PQL	RESULT	UNITS	
DATE ANALYZED	: 10/31/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20	20	U	UG/L
BENZENE	5.0	5.0	U	UG/L
BROMODICHLOROMETHANE	5.0	5.0	U	UG/L
BROMOFORM	5.0	5.0	U	UG/L
BROMOMETHANE	5.0	5.0	U	UG/L
2-BUTANONE (MEK)	10	10	U	UG/L
CARBON DISULFIDE	10	10	U	UG/L
CARBON TETRACHLORIDE	5.0	5.0	U	UG/L
CHLOROBENZENE	5.0	5.0	U	UG/L
CHLOROETHANE	5.0	5.0	U	UG/L
CHLOROFORM	5.0	5.0	U	UG/L
CHLOROMETHANE	5.0	5.0	U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHANE	5.0	5.0	U	UG/L
1,2-DICHLOROETHANE	5.0	5.0	U	UG/L
1,1-DICHLOROETHENE	5.0	5.0	U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0	U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0	U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0	U	UG/L
ETHYLBENZENE	5.0	5.0	U	UG/L
2-HEXANONE	10	10	U	UG/L
METHYLENE CHLORIDE	5.0	5.0	U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10	U	UG/L
STYRENE	5.0	5.0	U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0	U	UG/L
TETRACHLOROETHENE	5.0	5.0	U	UG/L
TOLUENE	5.0	5.0	U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0	U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0	U	UG/L
TRICHLOROETHENE	5.0	5.0	U	UG/L
VINYL CHLORIDE	5.0	5.0	U	UG/L
O-XYLENE	5.0	5.0	U	UG/L
M+P-XYLENE	5.0	5.0	U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)	98	%	
TOLUENE-D8	(88 - 124 %)	102	%	
DIBROMOFLUOROMETHANE	(87 - 115 %)	107	%	

**COLUMBIA ANALYTICAL SERVICES**

VOLATILE ORGANICS  
METHOD 8260B TCL  
Reported: 11/17/03

## Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #:	688377	Sample Matrix:	WATER
Date Received:	Submission #:		Analytical Run 97695	
ANALYTE	PQL		RESULT	UNITS
DATE ANALYZED	: 10/31/03			
ANALYTICAL DILUTION:	1.00			
ACETONE	20		20 U	UG/L
BENZENE	5.0		5.0 U	UG/L
BROMODICHLOROMETHANE	5.0		5.0 U	UG/L
BROMOFORM	5.0		5.0 U	UG/L
BROMOMETHANE	5.0		5.0 U	UG/L
2-BUTANONE (MEK)	10		10 U	UG/L
CARBON DISULFIDE	10		10 U	UG/L
CARBON TETRACHLORIDE	5.0		5.0 U	UG/L
CHLOROBENZENE	5.0		5.0 U	UG/L
CHLOROETHANE	5.0		5.0 U	UG/L
CHLOROFORM	5.0		5.0 U	UG/L
CHLOROMETHANE	5.0		5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0		5.0 U	UG/L
1,1-DICHLOROETHANE	5.0		5.0 U	UG/L
1,2-DICHLOROETHANE	5.0		5.0 U	UG/L
1,1-DICHLOROETHENE	5.0		5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0		5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0		5.0 U	UG/L
1,2-DICLOROPROPANE	5.0		5.0 U	UG/L
CIS-1,3-DICLOROPROPENE	5.0		5.0 U	UG/L
TRANS-1,3-DICLOROPROPENE	5.0		5.0 U	UG/L
ETHYLBENZENE	5.0		5.0 U	UG/L
2-HEXANONE	10		10 U	UG/L
METHYLENE CHLORIDE	5.0		5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10		10 U	UG/L
STYRENE	5.0		5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0		5.0 U	UG/L
TETRACHLOROETHENE	5.0		5.0 U	UG/L
TOLUENE	5.0		5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0		5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0		5.0 U	UG/L
TRICHLOROETHENE	5.0		5.0 U	UG/L
VINYL CHLORIDE	5.0		5.0 U	UG/L
O-XYLENE	5.0		5.0 U	UG/L
M+P-XYLENE	5.0		5.0 U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
4-BROMOFLUOROBENZENE	(83 - 118 %)		100	%
TOLUENE-D8	(88 - 124 %)		101	%
DIBROMOFLUOROMETHANE	(87 - 115 %)		109	%



**Cooler Receipt And Preservation Check Form**

Project/Client Scientech Submission Number Rd 18853

Cooler received on 10-22-03 by: RE COURIER: CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler?  YES  NO
2. Were custody papers properly filled out (ink, signed, etc.)?  YES  NO
3. Did all bottles arrive in good condition (unbroken)?  YES  NO
4. Did any VOA vials have significant air bubbles?  YES  NO
5. Were ~~ice~~ or Ice packs present?  YES  NO
6. Where did the bottles originate?  CAS/ROC  CLIENT
7. Temperature of cooler(s) upon receipt: 10

Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 10-22-03 RE 12:25

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

**If out of Temperature, Client Approval to Run Samples**

Cooler Breakdown: Date: 10-23-03 by: RE

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES  NO
2. Did all bottle labels and tags agree with custody papers?  YES  NO
3. Were correct containers used for the tests indicated?  YES  NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized  Tedlar® Bags Inflated  N/A

Explain any discrepancies:

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO <sub>3</sub>					
2	H <sub>2</sub> SO <sub>4</sub>					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

\*\*) If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples. Exhibited pH > 2				

Other Comments: