

# **SEMI-ANNUAL PROGRESS REPORT FIRST SEMI-ANNUAL 2004 AND REMEDIAL PROGRESS EVALUATION**

**FORMER TAYLOR INSTRUMENTS SITE  
ROCHESTER, NEW YORK**

*PREPARED FOR:*

COMBUSTION ENGINEERING  
501 MERRITT 7  
NORWALK, CT 06851

*PREPARED BY:*

MACTEC ENGINEERING AND CONSULTING, INC.  
1431 CENTERPOINT BOULEVARD, SUITE 150  
KNOXVILLE, TN 37932

**August 2004**

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First Semi-Annual 2004 and Remedial Progress Evaluation  
Former Taylor Instruments Site  
Rochester, New York

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## LIST OF ACRONYMS

$\mu\text{g}/\text{L}$	micrograms per liter
%R	percentage of recovery
CO <sub>2</sub>	carbon dioxide
1,1-DCE	1,1-dichloroethylene
cis-1,2-DCE	cis-1,2-dichloroethylene
trans-1,2-DCE	trans-1,2-dichloroethylene
DO	dissolved oxygen
DPVE	dual-phase vacuum extraction
EPA	Environmental Protection Agency (United States)
gpm	gallons per minute
MACTEC	MACTEC Engineering and Consulting, Inc.
mg/L	milligrams per liter
MS	matrix spike
MS/MSD	matrix spike/matrix spike duplicate
MSD	matrix spike duplicate
ND	not detected (nondetect)
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
ORP	oxidation-reduction potential
PARCC	precision, accuracy, representativeness, completeness, and comparability
QC	quality control
RPD	relative percent difference
SQL	sample quantitation limit
System	dual-phase vacuum extraction and groundwater remedial treatment system
TCE	trichloroethylene
VOC	volatile organic compound

## **1.0 INTRODUCTION**

This report summarizes activities and results for the first semi-annual sampling event for the year 2004. It also discusses the continued remedial progress of the dual-phase vacuum extraction (DPVE) and bedrock groundwater extraction system (System) since start up in January 2001. This continued remedial evaluation is consistent with the statement of remedial action objectives in Section 2.2 of the approved Remedial Work Plan, April 2000. "The short term criteria (approximately 2 years) to track the effectiveness of the remediation of VOCs [volatile organic compounds] in groundwater is to demonstrate a downward trend in VOC concentrations achieved using a combination of active, passive, and enhanced biodegradation remedial technology approaches."

The first semi-annual sampling event for 2004 was conducted in June. A summary of the quarterly sampling event results for 2001, 2002 and 2003 are also included. These activities occurred at the former Taylor Instruments Site – New York State Department of Environmental Conservation (NYSDEC) Site #828028a located at 95 Ames Street in Rochester, New York (Figure 1 in Appendix A), pursuant to a Voluntary Cleanup Agreement.

The site's remedial progress since January 2001 has been measured by the change in trichloroethylene (TCE) concentrations in on-site monitor wells and System performance data including influent groundwater results and contaminant mass removal quantities to determine when extraction of this mass has reached asymptotic levels. TCE has been used to track remedial progress because it is the primary contaminant of concern remaining at the site.

The operation of the System was modified on May 10, 2004 from continuous operation to intermittent operation (also known as "pulsed pumping"). This modification was made based on the System's contaminant recovery rate which had reached near-asymptotic conditions under continuous operation. The modified operation was approved by NYSDEC via letter dated January 8, 2004.

Since initial startup of the remediation system in January 2001, over 43.8 million gallons of groundwater have been extracted and treated, resulting in the removal of 3,178 pounds of contaminants from the subsurface soil and groundwater. Overall declines of TCE contamination have occurred in the

majority of on-site monitor wells since startup of the system. Additionally, off-site monitor wells have shown no detectable levels of contamination (Haley & Aldrich of New York, 2001a and 2001b).

## **2.0 SCOPE OF WORK**

### **2.1 JUNE 2004 SEMI-ANNUAL SAMPLING EVENT**

MACTEC Engineering and Consulting, Inc. (MACTEC) personnel performed the June sampling event to provide an inclusive set of groundwater analytical data for the first semi-annual period of 2004. Forty-one samples were collected and submitted to Test America, Incorporated (Table 2-1). Forty samples were collected and submitted for volatile organic analyses by U.S. Environmental Protection Agency (EPA) Method 8260B. Of the 41 samples collected, 8 were also submitted for natural biodegradation parameters, which include nitrate by Method 353.2; sulfate by Method 9038; chloride by Method 325.3; total organic carbon by Method 415.1; ferrous iron by Method 3500D; methane, ethane and ethane by Method RKS175M; carbon dioxide by Method SM4500CO2C; and alkalinity by Method 310.1M. One sample was submitted for selected natural biodegradation parameters, which were alkalinity, chloride and carbon dioxide. Twenty-nine of the samples were environmental samples collected from monitor wells located on the site. Twelve of the forty samples were associated with quality control efforts. All environmental samples, including field duplicates and matrix spike/matrix spike duplicate (MS/MSD) samples, were collected using low-flow peristaltic pumps at flow rates <400 milliliters per minute (mL/min).

A summary of analytical results for the extraction, overburden, and bedrock monitor wells is presented in Tables 3-1, 3-2, and 3-3 and Figures 2 and 3 (Appendix A), respectively. Laboratory reports and chain-of-custody forms for all samples are located in Appendices B and C, respectively. Field measurements of pH, conductivity, temperature, turbidity, oxidation-reduction potential, and dissolved oxygen (DO) were collected during purging. Purge and sample data are presented on the field data records located in Appendix D.

### **2.2 TREATMENT SYSTEM OPERATION AND MAINTENANCE (O&M)**

MACTEC provides full-scale O&M services for the System at the subject site. The System is monitored remotely on a daily basis via telemetry. Key operational data and alarms are accessed through the programmable logic controller via phone line which allows MACTEC personnel in Tennessee to determine the status of the System remotely and to quickly contact O&M personnel based

in Rochester to perform maintenance, thus maximizing System runtime. Routine O&M activities are conducted monthly and major activities are conducted quarterly. These activities include the following:

**Table 2-1**  
**Samples and Analysis,**  
**June 2004 Sampling Event**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Sample Date	VOCs <sup>1</sup> Analysis	Natural Biodegradation Parameter Analysis <sup>2</sup>	Description
QATB01	6/15/04	X		Trip Blank
QAFB01	6/15/04	X		Field Blank
QARB01	6/15/04	X		Rinsate Blank
W-2	6/15/04		X <sup>3</sup>	Environmental Sample
TW-04	6/15/04	X	X <sup>2</sup>	Environmental Sample
TW-17	6/15/04	X	X <sup>2</sup>	Environmental Sample
TW-20	6/15/04	X	X <sup>2</sup>	Environmental Sample
TW-07	6/16/04	X	X <sup>2</sup>	Environmental Sample
TW-09	6/16/04	X	X <sup>2</sup>	Environmental Sample
OB-09	6/16/04	X	X <sup>2</sup>	Environmental Sample
OB-07	6/16/04	X	X <sup>2</sup>	Environmental Sample
OB-07 (MS)	6/16/04	X		Matrix Spike
OB-07 (MSD)	6/16/04	X		Matrix Spike Duplicate
W-5	6/16/04	X	X <sup>2</sup>	Environmental Sample
W-5 (DUP)	6/16/04	X		Duplicate
OB-06	6/17/04	X		Environmental Sample
BR-08	6/17/04	X		Environmental Sample
BR-17	6/17/04	X		Environmental Sample
BR-03	6/17/04	X		Environmental Sample
BR-14	6/18/04	X		Environmental Sample
BR-01	6/18/04	X		Environmental Sample
BR-02	6/18/04	X		Environmental Sample
BR-07	6/18/04	X		Environmental Sample
BR-07 (DUP)	6/18/04	X		Duplicate
BR-12	6/18/04	X		Environmental Sample
BR-12 (MS)	6/18/04	X		Matrix Spike
BR-12 (MSD)	6/18/04	X		Matrix Spike Duplicate
QATB02	6/17/04	X		Trip Blank
QAFB02	6/17/04	X		Field Blank
QARB02	6/17/04	X		Rinsate Blank

See notes at end of table.

**Table 2-1 (Continued)**  
**Samples and Analysis,**  
**June 2004 Sampling Event**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Sample Date	VOCs <sup>1</sup> Analysis	Natural Biodegradation Parameter Analysis <sup>2</sup>	Description
BR-13	6/19/04	X		Environmental Sample
W-6	6/19/04	X		Environmental Sample
BR-15	6/19/04	X		Environmental Sample
BR-10	6/19/04	X		Environmental Sample
OB-04	6/19/04	X		Environmental Sample
BR-04	6/19/04	X		Environmental Sample
BR-05	6/20/04	X		Environmental Sample
BR-09	6/20/04	X		Environmental Sample
OB-08	6/20/04	X		Environmental Sample
BR-11	6/20/04	X		Environmental Sample
OB-05	6/20/04	X		Environmental Sample

<sup>1</sup> VOCs analyzed by Method 8260B.

<sup>2</sup> Natural biodegradation parameters include nitrate by Method 353.2, sulfate by Method 9038, chloride by Method 325.3, total organic carbon by Method 415.1, sulfide by Method 376.1, ferrous iron by Method 3500D, methane by Method RSK175M, ethane by Method RSK175M, ethene by Method RSK175M, carbon dioxide by Method SM4500CO2C, and alkalinity by Method 310.1M.

<sup>3</sup> Analyzed for alkalinity by Method 310.1M, chloride by Method 325.3, and carbon dioxide by Method SM4500CO2C.

Notes:   ID = identification  
 VOC = volatile organic compound  
 DUP = duplicate  
 MS = matrix spike  
 MSD = matrix spike duplicate

Prepared by J. Peevler on 7/6/04

Checked by J. Deatherage on 7/14/04

- Monthly
  - Collecting System operational data including line pressures, equipment runtime, flow rates, vacuum levels, and other pertinent data.
  - Checking operation of all equipment for vibration or unusual noise, leaks, and unusual operation.
  - Collecting water levels from site monitor wells.
  - Checking filters, operating fluid levels, and cleanliness of vacuum and transfer pumps and groundwater treatment components.
  - Collecting System performance samples. Performance samples are collected from each vacuum pump and air stripper exhaust stack, and the influent and effluent of the air stripper.
- Quarterly
  - Completing all monthly activities.
  - Checking pump motors for wear.
  - Checking all electrical components for proper operation.
  - Cleaning groundwater treatment equipment.
  - Collecting System compliance samples.
  - Collecting compliance samples from the effluent of the System prior to discharge to the Monroe County Pure Waters Sewer System.

The O&M manual for the System contains the above information and full details of all equipment and components (Harding ESE, 2001).

To initiate intermittent operation, the System was shut down on May 10, 2004. Following the June 2004 semi-annual sampling event, the System will be restarted on July 29, 2004.

### **3.0 SUMMARY OF RESULTS**

Presented below are the results of the groundwater sampling events conducted from November 2000 to June 2004. Also included is a discussion of contaminant trends from the baseline event (November/December 2000) through thirteen subsequent events.

The wells sampled during the first semi-annual (June 2004) event are divided into four categories. These categories are (1) the North and South TCE Source Areas; (2) Upgradient, which includes wells upgradient of the source areas; (3) Downgradient Perimeter, which includes wells downgradient of the source areas; and (4) Deep Bedrock, which includes BR-08 and BR-14. Well construction information is provided in Appendix E.

A summary of wells sampled and the analyses performed are found in Table 2-1. The baseline sampling event is summarized in Table 3-1. The sample results for the June 2004 sampling event are summarized in Tables 3-2 and 3-3. These tables present only detected volatile organic compound (VOC) results. Sample VOC results are also presented in "flag boxes" in Appendix A, Figures 2 and 3, representing overburden monitor wells and bedrock monitor wells. The following discussions will focus on TCE concentrations in the site's monitor wells. TCE concentration trend graphs for both overburden and bedrock monitor wells are provided in Appendix F. These graphs present data from the baseline, 2001, 2002, 2003, and June 2004 sampling events. Table 3-4 presents a summary of the decline of TCE concentrations over time in monitor wells. Comprehensive results can be found in the laboratory reports located in Appendix B.

#### **3.1 NORTH AND SOUTH TCE SOURCE AREAS**

##### Overburden Monitor Wells (South TCE Source Area)

Monitor wells OB-04 and OB-06 are both located within the South TCE Source Area while OB-07 is within the plume. Comprehensive results for these wells are presented in Table 3-2.

TCE concentrations in monitor wells OB-04 increased from levels detected in December 2003, but have continued to be below the highest results reported during baseline or post baseline sampling events, resulting in overall declines of 99 percent (Table 3-4). OB-06 concentrations of TCE continued to decrease resulting in a 99 percent decrease from baseline levels (Table 3-4).

**Table 3-1**  
**Summary of Extraction Well VOC Results for the**  
**Baseline Sampling Event**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
EW-N-1*	11/10/00	2,400	93	28 J	--	--
EW-N-2*	11/10/00	7,200	1,100	--	--	--
EW-N-3*	11/10/00	13,000	490 J	--	--	--
EW-N-4*	11/11/00	840	31	--	--	--
EW-N-5*	11/11/00	640	--	--	--	--
EW-N-6*	11/11/00	6,800	130 J	--	--	--
EW-S-1S*	11/10/00	160	16 J	--	--	--
EW-S-1S (DUP)*	11/10/00	170	18 J	--	--	--
EW-S-1D*	11/10/00	200,000	11,000	--	--	--
EW-S-2*	11/08/00	360	180	18	180	4.5 J
EW-S-3*	10/27/00	1,100	60	--	--	--
EW-S-4*	10/26/00	60,000	36,000	--	--	--
EW-S-5*	10/27/00	590,000	--	--	--	--
EW-S-6*	10/27/00	13,000	1,200	--	--	--
EW-S-7*	11/08/00	130,000	1,900 J	--	--	--
EW-S-8*	10/27/00	570,000	--	--	--	--
EW-S-9*	11/08/00	16,000	460 J	--	--	--
EW-S-10*	11/09/00	--	--	--	--	--
EW-S-11*	11/08/00	--	--	--	--	--
EW-S-12*	11/08/00	--	--	--	--	--
EW-S-13*	11/09/00	--	--	--	--	--
EW-S-14*	11/09/00	--	--	--	--	--
EW-S-15*	11/09/00	--	--	--	--	--
EW-S-16*	11/09/00	--	--	--	--	--
BREW-N-1*	11/19/00	1,000	53	1.5 J	--	--
BREW-S-1*	11/19/00	250	140	3.1 J	--	--

Notes: -- = no detections

\* = unique sampling event

$\mu\text{g}/\text{L}$  = micrograms per liter

1,1-DCE = 1,1-dichloroethylene

cis-1,2-DCE = cis-1,2-dichloroethylene

DUP = duplicate

ID = identification

J = estimated value

TCE = trichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

VOC = volatile organic compound

**Table 3-2**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
OB-04	11/19/00	70,000	2,900	--	--	--
OB-04	03/24/01	150	3.2 J	--	--	--
OB-04	06/18/01	39,000	21,000	--	--	--
OB-04	09/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-04	12/17/01	71,500	56,000	170	108	10.2
OB-04	03/12/02	65,600	1,640	16.6	3.8	--
OB-04	06/09/02	3,650	554	--	--	--
OB-04	09/23/02	3,760	1,950	7.5	4.9	2
OB-04	12/09/02	46.3	5.5	--	--	--
OB-04	03/22/03	11.3	1.3	--	--	--
OB-04	06/13/03	41.5	6.7	--	--	--
OB-04	09/21/03	2,780	125	1.9	--	--
OB-04	12/14/03	23.3	3	--	--	--
OB-04	06/19/04	394	87.2	1.3	--	--
OB-05	11/19/00	25,000	4,600	--	--	350
OB-05	03/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	06/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	09/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	12/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	03/02	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	06/10/02	52.8	--	--	--	--
OB-05	09/23/02	489	15	--	--	--
OB-05	12/09/02	604	13	--	--	--
OB-05	03/03	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	06/13/03	97.2	2.5	--	--	--
OB-05	09/03	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-05	12/14/03	135	2.6	--	--	--
OB-05	06/20/04	65.4	1.2	--	--	--
OB-06	11/17/00	2,600	60	--	--	--
OB-06 (DUP)	11/17/00	3,300	80 J	--	--	--
OB-06	03/21/01	540	--	--	--	--
OB-06	06/15/01	720	12 J	--	--	--
OB-06	09/13/01	5,600	240	9.0 J	--	--
OB-06	12/13/01	637	13.7	--	--	--
OB-06	03/08/02	526	7.8	--	--	--
OB-06	06/07/02	184	2.8	--	--	--
OB-06	09/20/02	386	10.1	--	--	--
OB-06	12/06/02	100	1.5	--	--	--
OB-06	03/20/03	84.9	1.5	--	--	--
OB-06	06/11/03	52.7	1.1	--	--	--
OB-06	09/18/03	242	2.6	--	--	--
OB-06	12/11/03	60	1	--	--	--
OB-06	06/17/04	38.6	--	--	--	--

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
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Sample ID	Date Sampled	TCE ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	trans-1,2-DCE ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	Vinyl Chloride ( $\mu\text{g/L}$ )
OB-07	11/16/00	--	--	--	--	--
OB-07	03/28/01	7.5	--	--	--	--
OB-07	06/17/01	10 J	--	--	--	--
OB-07	09/17/01	17	1.8 J	--	--	--
OB-07	12/17/01	21.8	7	--	--	--
OB-07	03/07/02	4.2	--	--	--	--
OB-07	06/06/02	7.1	--	--	--	--
OB-07	9/19/02	12.4	--	--	--	--
OB-07	12/05/02	10.2	--	--	--	--
OB-07	03/19/03	--	--	--	--	--
OB-07	06/11/03	6.2	--	--	--	--
OB-07	09/17/03	11.2	--	--	--	--
OB-07	12/10/03	10.7	--	--	--	--
OB-07	06/16/04	10.2	--	--	--	--
OB-08	11/16/00	40,000	390 J	--	--	--
OB-08	03/20/01	29,000	390 J	--	--	--
OB-08	06/19/01	15,000	240 J	--	--	--
OB-08	09/18/01	27,000	560 J	--	--	--
OB-08	12/18/01	500	9.3	--	--	--
OB-08	03/12/02	15,750	208	8.6	2.7	--
OB-08	06/10/02	5,370	--	--	--	--
OB-08	09/24/02	5,440	110	3.6	--	--
OB-08	12/09/02	8,050	94.2	5	1.3	--
OB-08	03/24/03	3,480	37.3	2.2	--	--
OB-08	06/13/03	2,250	15.3	1.2	--	--
OB-08	09/22/03	2,780	32.1	3.1	--	--
OB-08	12/15/03	1,360	10.8	1.5	--	--
OB-08	06/20/04	725	13.1	2.5	--	--
OB-09	11/16/00	180	14	--	--	--
OB-09	03/26/01	150	16	--	--	--
OB-09	06/17/01	150	17	--	--	--
OB-09	09/15/01	180	23	3.5 J	--	--
OB-09	12/15/01	141	20.5	2.3	--	--
OB-09	03/06/02	117	12	--	--	--
OB-09	06/05/02	86	7.4	--	--	--
OB-09	09/18/02	153	16.6	1.6	--	--
OB-09	12/05/02	88.5	9.2	--	--	--
OB-09	03/19/03	44.2	4.6	--	--	--
OB-09	06/11/03	70.7	8.2	--	--	--
OB-09	09/17/03	95.9	10.3	--	--	--
OB-09	12/10/03	61.1	3.7	--	--	--
OB-09	06/16/04	57.5	3.1	--	--	--

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
TW-01	10/24/00	--	--	--	--	--
TW-01 <sup>1</sup>	03/01	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	06/01	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	09/01	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	12/01	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	03/02	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	06/02	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	09/02	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	03/03	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	03/03	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	09/03	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	12/03	NS	NS	NS	NS	NS
TW-01 <sup>1</sup>	06/04	NS	NS	NS	NS	NS
TW-04	10/24/00	42	79	--	--	--
TW-04	03/22/01	14	16	--	--	--
TW-04	06/15/01	--	--	--	--	--
TW-04	09/14/01	27	38	--	--	--
TW-04	12/13/01	51.1	19.4	--	--	--
TW-04	03/05/02	51	3.7	--	--	--
TW-04	06/04/02	20.7	--	--	--	--
TW-04	09/17/02	21.2	7.1	--	--	--
TW-04	12/04/02	42.5	5.5	--	--	--
TW-04	03/18/03	--	--	--	--	--
TW-04	06/10/03	19.3	--	--	--	--
TW-04	09/16/03	29.2	3.1	--	--	--
TW-04	12/09/03	49.8	1.1	--	--	--
TW-04	06/15/04	12.7	--	--	--	--
TW-07	10/25/00	28	7.2	28	--	--
TW-07	03/29/01	--	--	1.2 J	--	--
TW-07	06/16/01	27	3.9 J	13	--	--
TW-07	09/15/01	74	11	18	--	--
TW-07	12/15/01	42.6	7.7	21.4	--	--
TW-07	03/06/02	18.7	2.6	6.4	--	--
TW-07	06/05/02	5	--	--	--	--
TW-07	09/18/02	32.9	5.1	12.4	--	--
TW-07	12/04/02	46	6.3	15.4	--	--
TW-07	03/19/03	14.2	2.1	5.8	--	--
TW-07	06/10/03	8.1	--	1.1	--	--
TW-07	09/17/03	20.6	3.8	9.8	--	--
TW-07	12/10/03	21	2.9	6	--	--
TW-07	06/16/04	16.2	1.8	3.7	--	--

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
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Sample ID	Date Sampled	TCE ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	trans-1,2-DCE ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	Vinyl Chloride ( $\mu\text{g/L}$ )
TW-09	10/24/00	230	36	--	--	--
TW-09	03/27/01	120	1.9 J	--	--	--
TW-09	06/16/01	200	7.4	--	--	--
TW-09	09/16/01	150	9.6	--	--	--
TW-09	12/15/01	110	4	--	--	--
TW-09	03/06/02	55.4	2	--	--	--
TW-09	06/05/02	36.5	--	--	--	--
TW-09	09/19/02	91.5	4	--	--	--
TW-09	12/05/02	38	--	--	--	--
TW-09	03/19/03	--	--	--	--	--
TW-09	06/11/03	29.4	--	--	--	--
TW-09	09/17/03	77	6.4	--	--	--
TW-09	12/10/03	36.8	1.2	--	--	--
TW-09	06/16/04	43.1	1.0	--	--	--
TW-13	11/16/00	--	--	--	--	--
TW-13	03/20/01	--	--	--	--	--
TW-13	06/14/01	--	--	--	--	--
TW-13	09/12/01	--	--	--	--	--
TW-13	12/12/01	--	--	--	--	--
TW-13	03/08/02	--	--	--	--	--
TW-13	06/07/02	--	--	--	--	--
TW-13	09/19/02	--	--	--	--	--
TW-13	12/06/02	--	--	--	--	--
TW-13 <sup>4</sup>	03/03	NS	NS	NS	NS	NS
TW-13 <sup>4</sup>	06/03	NS	NS	NS	NS	NS
TW-13 <sup>4</sup>	09/03	NS	NS	NS	NS	NS
TW-13 <sup>4</sup>	12/03	NS	NS	NS	NS	NS
TW-13 <sup>4</sup>	06/04	NS	NS	NS	NS	NS
TW-17	11/17/00	1,000	7.9 J	--	--	--
TW-17	03/23/01	530	--	--	--	--
TW-17	06/16/01	490	--	--	--	--
TW-17	09/14/01	740	--	--	--	--
TW-17	12/14/01	515	--	--	--	--
TW-17	03/05/02	339	--	--	--	--
TW-17	06/04/02	393	--	--	--	--
TW-17	09/18/02	666	--	--	--	--
TW-17	12/04/02	390	--	--	--	--
TW-17	03/18/03	379	--	--	--	--
TW-17	06/10/03	282	--	--	--	--
TW-17	09/16/03	435	--	--	--	--
TW-17	12/09/03	441	--	--	--	--
TW-17	06/15/04	280	--	--	--	--

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
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Sample ID	Date Sampled	TCE ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	trans-1,2-DCE ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	Vinyl Chloride ( $\mu\text{g/L}$ )
TW-20	10/25/00	5.2	--	--	--	--
TW-20	03/27/01	12	--	--	--	--
TW-20	06/16/01	2.9 J	--	--	--	--
TW-20	09/14/01	--	--	--	--	--
TW-20	12/14/01	3.1	--	--	--	--
TW-20	03/06/02	2.4	--	--	--	--
TW-20	06/05/02	2.7	--	--	--	--
TW-20	09/18/02	--	--	--	--	--
TW-20	12/04/02	11.6	--	--	--	--
TW-20	03/19/03	2.4	--	--	--	--
TW-20	06/10/03	--	--	--	--	--
TW-20	09/17/03	5.0	--	--	--	--
TW-20	12/10/03	14.8	--	--	--	--
TW-20	06/15/04	--	--	--	--	--
W-2	10/21/00	--	--	--	--	--
W-2 <sup>1</sup>	03/01	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	06/01	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	09/01	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	12/01	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	03/02	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	06/02	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	09/02	NS	NS	NS	NS	NS
W-2 <sup>1</sup>	12/02	NS	NS	NS	NS	NS
W-2 <sup>3</sup>	03/03	NS	NS	NS	NS	NS
W-2 <sup>3</sup>	06/03	NS	NS	NS	NS	NS
W-2 <sup>3</sup>	09/03	NS	NS	NS	NS	NS
W-2 <sup>3</sup>	12/09/03	--	--	--	--	--
W-2 <sup>3</sup>	06/04	NS	NS	NS	NS	NS
W-4	11/17/00	--	--	--	--	--
W-4	03/22/01	1.6 J	--	--	--	--
W-4	06/15/01	1.1 J	--	--	--	--
W-4	09/13/01	--	--	--	--	--
W-4	12/12/01	--	--	--	--	--
W-4	03/08/02	--	--	--	--	--
W-4	06/07/02	--	--	--	--	--
W-4	09/19/02	--	--	--	--	--
W-4	12/06/02	1	--	--	--	--
W-4 <sup>4</sup>	03/03	NS	NS	NS	NS	NS
W-4 <sup>4</sup>	06/03	NS	NS	NS	NS	NS
W-4 <sup>4</sup>	09/03	NS	NS	NS	NS	NS
W-4 <sup>4</sup>	12/03	NS	NS	NS	NS	NS
W-4 <sup>4</sup>	06/04	NS	NS	NS	NS	NS

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
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Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
W-5	11/16/00	--	27	11	--	--
W-5	03/23/01	120	25	8.1	--	--
W-5	06/18/01	62	23	9.6	--	--
W-5	09/17/01	64	9.1	6.5	--	--
W-5 (DUP)	09/17/01	62	11	7.3	--	--
W-5	12/17/01	1,435	39.5	9	--	--
W-5 (DUP)	12/17/01	1,780	36.2	8.5	--	--
W-5	03/07/02	737	21.6	3.5	--	--
W-5 (DUP)	03/07/02	607	23.2	3.9	--	--
W-5	06/06/02	155	15.7	--	--	--
W-5 (DUP)	06/06/02	150	13.8	--	--	--
W-5	09/19/02	960	49.6	--	--	--
W-5 (DUP)	09/19/02	676	48.5	4.7	--	--
W-5	12/05/02	777	52	3.6	--	--
W-5 (DUP)	12/05/02	843	51.7	4	--	--
W-5	03/20/03	262	132	3.4	--	--
W-5 (DUP)	03/20/03	232	119	3.3	--	--
W-5	06/11/03	234	128	5	--	--
W-5 (DUP)	06/11/03	234	152	5.1	--	--
W-5	09/18/03	510	129	4	--	--
W-5 (DUP)	09/18/03	444	112	3.9	--	--
W-5	12/11/03	550	127	3.5	--	--
W-5 (DUP)	12/11/03	520	118	3.4	--	--
W-5	06/16/04	348	98.9	5.4	--	--
W-5 (DUP)	06/16/04	360	71.6	4.6	--	--
W-6	10/24/00	--	--	--	--	--
W-6 <sup>2</sup>	03/01	NS	NS	NS	NS	NS
W-6 <sup>2</sup>	06/01	NS	NS	NS	NS	NS
W-6	9/13/01	--	--	--	--	--
W-6	12/12/01	--	--	--	--	--
W-6	03/09/02	--	3	--	--	--
W-6	06/08/02	--	10.3	--	--	--
W-6	09/21/02	--	9.6	--	--	--
W-6	12/07/02	--	8.1	--	--	--
W-6	03/22/03	--	5.7	--	--	--
W-6	06/13/03	--	9.7	1.4	--	--
W-6	09/20/03	--	14.2	--	--	--
W-6	12/11/03	1.7	4.6	--	--	--
W-6	06/19/04	--	3.2	--	--	--

See notes at end of table.

**Table 3-2 (Continued)**  
**Summary of Overburden VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

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- <sup>1</sup> Will not be sampled during quarterly events.
- <sup>2</sup> W-6 was not sampled due to obstruction.
- <sup>3</sup> Will be sampled annually beginning in December 2003 based on recommendations made in the *Quarterly Progress Report, Fourth Quarter 2002 and 2-Year Progress Evaluation*, March (MACTEC, 2003).
- <sup>4</sup> Will not be sampled during quarterly sampling events based on recommendations made in the *Quarterly Progress Report, Fourth Quarter 2002 and 2-Year Progress Evaluation*, March (MACTEC, 2003).

Notes: -- = no detections

µg/L = micrograms per liter

1,1-DCE = 1,1-dichloroethylene

cis-1,2-DCE = cis-1,2-dichloroethylene

DUP = duplicate

ID = identification

J = estimated value

NS = not sampled

TCE = trichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

VOC = volatile organic compound

Prepared by J. Peevler on 7/7/04

Checked by J. Deatherage on 7/14/04

**Table 3-3**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-01	11/17/00	180	550	4.3 J	--	3.5 J
BR-01	03/21/01	320	34	2.2 J	--	--
BR-01 (DUP)	03/21/01	320	35	2.4 J	--	--
BR-01	06/16/01	270	59	4.4 J	--	--
BR-01	09/14/01	31	170	16	--	--
BR-01	12/14/01	63.8	77.5	2	--	--
BR-01	03/09/02	47.3	5.5	1.6	--	--
BR-01	06/08/02	85.7	10.1	3.2	--	--
BR-01	09/20/02	107	16	4	--	--
BR-01	12/07/02	14.3	83	3.8	--	--
BR-01	03/21/03	25.8	2.1	1	--	--
BR-01	06/12/03	60.9	4.6	2.8	--	--
BR-01	09/19/03	102	11.4	1.7	--	--
BR-01	12/12/03	127	61.7	20.6	--	--
BR-01	06/18/04	551	42	6.1	--	--
BR-02	11/18/00	1,800	540	31 J	--	--
BR-02	03/21/01	1,200	95	--	--	--
BR-02	06/17/01	1,000	94	27 J	--	--
BR-02	09/15/01	7,000	1,500	63	31 J	--
BR-02	12/15/01	6,500	1,830	59.8	30.3	19.6
BR-02	03/09/02	588	79.6	20.8	1.2	--
BR-02	06/08/02	568	122	2.2	--	--
BR-02	09/21/02	768	518	24.4	4.6	18.7
BR-02	12/07/02	694	172	29.8	--	5.6
BR-02	03/21/03	4,000	19,100	154	156	64.9
BR-02	06/13/03	710	17,900	120	122	68.1
BR-02	09/18/03	372	245	23.3	--	--
BR-02	12/12/03	324	58.2	18.2	--	--
BR-02	06/18/04	450	257	33.8	2.8	2.3
BR-03	11/18/00	440	99	1.2 J	2.2 J	--
BR-03	03/22/01	810	12 J	--	3.2 J	--
BR-03	06/15/01	500	20 J	--	--	--
BR-03	09/14/01	330	7.8 J	--	--	--
BR-03	12/13/01	780	7.6	--	2.2	--
BR-03	03/08/02	599	9.8	--	2.1	--
BR-03	06/07/02	854	19.7	--	2.8	--
BR-03	09/20/02	370	6.5	--	--	--
BR-03	12/07/02	821	13.5	--	--	--
BR-03	03/21/03	590	7.7	--	2	--
BR-03	06/12/03	632	25.3	1.9	3	--
BR-03	09/18/03	1,150	10.4	1.5	3.1	--
BR-03	12/12/03	--	--	--	--	--
BR-03	06/17/04	446	17.0	1.1	1.5	--

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-04	11/19/00	10,000	600	140	17 J	25 J
BR-04	03/24/01	9,000	400	95 J	--	--
BR-04	06/19/01	4,300	320	61 J	--	--
BR-04	09/17/01	5,000	420	100 J	--	--
BR-04	12/17/01	5,700	430	79.9	9	27.4
BR-04	03/12/02	5,750	384	77	8.1	23.4
BR-04	06/10/02	4,570	338	49	--	--
BR-04	09/23/02	3,310	551	63.1	8.3	32.2
BR-04	12/09/02	5,300	535	77.6	8.3	27.1
BR-04	03/23/03	4,630	473	52	6.8	14.8
BR-04	06/13/03	302	1,280	19.5	3.6	1.2
BR-04	09/21/03	2,540	560	61	5.4	32.2
BR-04	12/14/03	3,650	507	51.9	6.2	14.3
BR-04	06/19/04	102	1,420	45.8	6.4	3.0
BR-05	11/19/00	4,800	1,200	130	--	160
BR-05	03/25/01	5,800	850	120 J	--	160
BR-05	06/19/01	4,300	1,600	130	37 J	290
BR-05 (DUP)	06/19/01	3,700	1,500	--	--	270
BR-05	09/18/01	2,500	1,800	150	38 J	420
BR-05	12/18/01	3,420	2,480	153.5	41.5	290.5
BR-05	03/12/02	3,050	1,734	164	40.2	326
BR-05	06/10/02	4,470	118	23	25	176
BR-05	09/23/02	2,950	1,720	138	29.7	434
BR-05	12/09/02	3,140	2,240	170	49.1	390
BR-05	03/23/03	2,440	1,040	113	20	184
BR-05	06/13/03	56.8	216	15.3	1.9	38.7
BR-05	09/21/03	2,380	1,600	151	17.9	380
BR-05	12/14/03	1.2	3.7	--	--	--
BR-05	06/20/04	42.3	116	10.4	1.4	17.5
BR-06	11/17/00	--	--	--	--	--
BR-06	03/22/01	--	--	--	--	--
BR-06	06/15/01	1.6 J	--	--	--	--
BR-06	09/12/01	--	--	--	--	--
BR-06	12/12/01	--	--	--	--	--
BR-06	03/09/02	--	--	--	--	--
BR-06	06/08/02	--	--	--	--	--
BR-06	9/21/02	--	--	--	--	--
BR-06	12/08/02	--	--	--	--	--
BR-06 <sup>1</sup>	03/03	NS	NS	NS	NS	NS
BR-06 <sup>1</sup>	06/03	NS	NS	NS	NS	NS
BR-06 <sup>1</sup>	09/03	NS	NS	NS	NS	NS
BR-06 <sup>1</sup>	12/09/03	--	--	--	--	--
BR-06 <sup>1</sup>	06/04	NS	NS	NS	NS	NS

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
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Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
BR-07	11/18/00	7.4	29	10	--	220
BR-07	03/23/01	3.4 J	34	13	--	210
BR-07	06/14/01	2.7 J	33	13	--	200
BR-07 (DUP)	06/14/01	2.2 J	34	12	--	200
BR-07	09/12/01	6.2	32	16	--	180
BR-07 (DUP)	09/12/01	5.0	31	14	--	180
BR-07	12/12/01	4.7	28.5	10.2	--	101
BR-07 (DUP)	12/12/01	4.6	29.3	10.3	--	104
BR-07	03/11/02	--	9	4.3	--	33.6
BR-07 (DUP)	03/11/02	--	8.8	4.4	--	33.7
BR-07	06/08/02	4.9	32.9	14.4	--	119
BR-07 (DUP)	06/08/02	4.4	31	--	--	110
BR-07	09/21/02	4	27.3	14.8	--	90.4
BR-07 (DUP)	09/21/02	2.8	28.5	15.2	--	89.5
BR-07	12/08/02	--	17.6	10.1	--	64.6
BR-07 (DUP)	12/08/02	--	17.8	10.4	--	65.9
BR-07	03/21/03	3.9	35.9	18	--	97.5
BR-07 (DUP)	03/21/03	3.9	36	18.8	--	102
BR-07	06/13/03	2.3	30.7	15.8	--	101
BR-07 (DUP)	06/13/03	2.2	31.9	16	--	99.1
BR-07	09/19/03	1.1	12.8	8.1	--	55.9
BR-07 (DUP)	09/19/03	--	15.4	9.5	--	66.3
BR-07	12/12/03	--	13.7	8.5	--	46
BR-07 (DUP)	12/12/03	NA <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>
BR-07	06/18/04	--	3.4	1.0	--	6.2
BR-07 (DUP)	06/18/04	--	3.4	1.0	--	6.8
BR-08 (Deep)	11/19/00	540	44	5.2 J	--	7.0 J
BR-08 (Deep)	03/24/01	1,100	320	6.7 J	--	--
BR-08 (Deep)	06/15/01	720	210	--	--	--
BR-08 (Deep)	09/13/01	830	250	--	--	--
BR-08 (Deep)	12/13/01	649	246	3	--	3.1
BR-08 (Deep)	03/08/02	621	242	3	--	4
BR-08 (Deep)	06/07/02	528	212	2.8	--	--
BR-08 (Deep)	09/20/02	463	220	2.8	--	--
BR-08 (Deep)	12/06/02	398	222	3.3	1.2	4.5
BR-08 (Deep)	03/20/03	256	150	--	--	--
BR-08 (Deep)	06/12/03	289	184	2.7	--	--
BR-08 (Deep)	09/18/03	322	242	8.7	--	--
BR-08 (Deep)	12/11/03	384	345	42	2.2	7.3
BR-08 (Deep)	06/17/04	106	188	18.7	--	2.9

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-09	11/18/00	13,000	190 J	--	--	--
BR-09	03/28/01	9,500	100 J	--	--	--
BR-09	06/19/01	1,500	36 J	--	--	--
BR-09	09/18/01	5,500	68 J	--	--	--
BR-09	12/18/01	6,000	60	2.9	--	--
BR-09	03/12/02	2,420	302	5.4	--	--
BR-09	06/10/02	6,530	--	--	--	--
BR-09	09/23/02	4,590	64.3	5.1	--	--
BR-09	12/09/02	9,030	95.3	7.3	1.3	--
BR-09	03/23/03	343	303	2.1	1	--
BR-09	06/13/03	57.5	14.9	--	--	--
BR-09	09/22/03	4,330	43.1	3.2	--	--
BR-09	12/15/03	1.7	199	1.5	--	--
BR-09	06/20/04	390	110	--	--	--
BR-10	11/18/00	4,000	450	27 J	--	--
BR-10	03/28/01	4,700	980	110 J	--	--
BR-10	06/18/01	8,500	1,000	--	--	--
BR-10	09/17/01	8,700	1,700	160 J	--	--
BR-10	12/16/01	5,350	1,200	82.8	3.4	5.6
BR-10	03/11/02	3,745	1,090	78.2	3.9	5.5
BR-10	06/09/02	5,100	1,290	64.6	4.7	5.3
BR-10	09/22/02	--	120	9.8	--	--
BR-10	12/09/02	3,060	750	60.1	2.3	--
BR-10	03/22/03	2,580	886	42.2	2.5	3.1
BR-10	06/13/03	2,950	1,080	61.7	3.2	5.1
BR-10	09/21/03	2,250	400	49.4	2	16.1
BR-10	12/13/03	1,420	442	36.4	1.4	8.8
BR-10	06/19/04	1,520	507	62.9	2.9	6.8
BR-11	11/18/00	1,400	320	52	--	13 J
BR-11	03/28/01	44,000	260	120	21	--
BR-11 (DUP)	03/28/01	52,000	270	120	19 J	21
BR-11	06/20/01	39,000	660 J	--	--	--
BR-11	09/18/01	60,000	--	--	--	--
BR-11	12/18/01	140	339	108	2	35.4
BR-11	03/13/02	33,300	370	106	10.9	28.1
BR-11	06/10/02	874	52	--	--	32
BR-11	09/24/02	37,200	440	82.4	12.2	18
BR-11	12/09/02	34,100	1,650	80.1	25.8	31.1
BR-11	03/24/03	26,600	338	--	8.1	25.7
BR-11	06/13/03	5,890	313	52.6	3	23.8
BR-11	09/22/03	22,700	400	65.7	7.7	28.3
BR-11	12/15/03	17.6	320	60.2	1.9	39
BR-11	06/20/04	181	238	49.7	2.2	20.8

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
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 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE ( $\mu\text{g}/\text{L}$ )	cis-1,2-DCE ( $\mu\text{g}/\text{L}$ )	trans-1,2-DCE ( $\mu\text{g}/\text{L}$ )	1,1-DCE ( $\mu\text{g}/\text{L}$ )	Vinyl Chloride ( $\mu\text{g}/\text{L}$ )
BR-12	11/19/00	200	8.1	--	--	--
BR-12	03/25/01	130	21	--	--	--
BR-12	06/17/01	99	26	--	--	--
BR-12	09/15/01	27	37	2.1 J	--	--
BR-12	12/16/01	--	3	--	--	--
BR-12	03/11/02	7.4	15.3	--	--	--
BR-12	06/09/02	17.4	9.6	--	--	--
BR-12	09/22/02	3.5	23.8	--	--	--
BR-12	12/08/02	--	28.6	--	--	--
BR-12	03/22/03	--	27.5	--	--	--
BR-12	06/13/03	--	18.3	--	--	--
BR-12	09/20/03	--	20.6	--	--	--
BR-12	12/12/03	--	2.2	--	--	--
BR-12	06/18/04	1.3	6.1	---	--	--
BR-13	11/19/00	2.5 J	--	--	--	--
BR-13	03/25/01	3,200 J	150	14	1.7 J	1 J
BR-13	06/18/01	3,100	160	--	--	--
BR-13	09/16/01	2,600	160	--	--	--
BR-13	12/16/01	156	14.6	--	--	--
BR-13	03/11/02	132	23.7	--	--	--
BR-13	06/09/02	1,980	558	11.2	4.2	3.4
BR-13	09/22/02	3,240	800	22	6	5.1
BR-13	12/08/02	2.8	--	--	--	--
BR-13	03/22/03	--	--	--	--	--
BR-13	06/13/03	61.2	81	2.3	1	2.2
BR-13	09/20/03	3	8.5	--	--	--
BR-13	12/13/03	--	--	--	--	--
BR-13	06/19/04	--	--	--	--	--
BR-14 (Deep)	11/19/00	--	1.2 J	--	--	--
BR-14 (Deep)	03/23/01	1.2 J	--	--	--	--
BR-14 (Deep)	06/16/01	--	--	--	--	--
BR-14 (Deep)	09/13/01	--	--	--	--	--
BR-14 (Deep)	12/14/01	2.2	--	--	--	--
BR-14 (Deep)	03/09/02	--	--	--	--	--
BR-14 (Deep)	06/08/02	--	--	--	--	--
BR-14 (Deep)	09/20/02	--	--	--	--	--
BR-14 (Deep)	12/07/02	--	--	--	--	--
BR-14 (Deep)	03/21/03	--	--	--	--	--
BR-14 (Deep)	06/12/03	--	--	--	--	--
BR-14 (Deep)	09/19/03	--	--	--	--	--
BR-14 (Deep)	12/12/03	148	17.6	--	--	--
BR-14 (Deep)	06/18/04	--	--	--	--	--

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline, 2001, 2002, 2003, and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
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 Former Taylor Instruments Site  
 Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-15	11/19/00	2,700	54 J	--	--	--
BR-15 (DUP)	11/19/00	2,700	49 J	--	--	--
BR-15	03/26/01	2,500	33 J	--	--	--
BR-15	06/18/01	2,300	49 J	--	--	--
BR-15	09/16/01	4,800	110 J	--	--	--
BR-15	12/16/01	6,590	189	28.2	2	1.1
BR-15	03/11/02	5,500	172	36.6	2.2	--
BR-15	06/09/02	5,800	373	36.9	4.6	3.8
BR-15	09/22/02	4,390	555	40.3	7.5	5.4
BR-15	12/08/02	4,740	177	43.6	2.8	--
BR-15	03/22/03	2,500	404	21.9	4.3	1.2
BR-15	06/13/03	1,180	1,390	24.8	8.4	3.9
BR-15	09/21/03	1,230	580	35.3	6.9	8.3
BR-15	12/13/03	2,000	194	24.9	2.8	--
BR-15	06/19/04	512	556	18.0	12.8	199
BR-16	11/19/00	6.0	3.8 J	--	--	--
BR-16	03/25/01	1.2 J	--	--	--	--
BR-16	06/17/01	--	--	--	--	--
BR-16	09/15/01	--	--	--	--	--
BR-16	12/16/01	--	--	--	--	--
BR-16	03/10/02	--	--	--	--	--
BR-16	06/09/02	--	--	--	--	--
BR-16	09/21/02	--	--	--	--	--
BR-16	12/08/02	--	--	--	--	--
BR-16 <sup>2</sup>	03/03	NS	NS	NS	NS	NS
BR-16 <sup>2</sup>	06/03	NS	NS	NS	NS	NS
BR-16 <sup>2</sup>	09/03	NS	NS	NS	NS	NS
BR-16 <sup>2</sup>	12/03	NS	NS	NS	NS	NS
BR-16 <sup>2</sup>	06/04	NS	NS	NS	NS	NS
BR-17	11/18/00	840	160	84	3.6 J	--
BR-17	03/24/01	6,900	360	93	9.4 J	52
BR-17	06/15/01	5,200	260	68 J	--	46
BR-17	09/13/01	4,100	220	60 J	--	57 J
BR-17	12/13/01	3,840	248	44	4.7	33.4
BR-17	03/08/02	2,600	208	56.5	5.1	57
BR-17	06/07/02	4,540	198	49.8	5	45.9
BR-17	09/20/02	2,740	210	36.8	5.2	24.5
BR-17	12/06/02	186	204	65.2	5.2	63.2
BR-17	03/20/03	2,020	159	41	3.3	36.3
BR-17	06/12/03	3,320	199	44	2.5	43.7
BR-17	09/18/03	3,200	173	39.2	3.1	77.8
BR-17	12/11/03	5,360	216	49.9	3.9	66.7
BR-17	06/17/04	3,140	279	44.0	--	52.0

See notes at end of table.

**Table 3-3 (Continued)**  
**Summary of Bedrock VOC Results for the**  
**Baseline; 2001; 2002; 2003 and**  
**June 2004 Sampling Events**

Semi-Annual Progress Report  
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- <sup>1</sup> Will be sampled annually beginning in December 2003 based on recommendations made in the *Quarterly Progress Report, Fourth Quarter 2002 and 2-Year Progress Evaluation*, March (MACTEC, 2003).
- <sup>2</sup> Will not be sampled during quarterly sampling events based on recommendations made in the *Quarterly Progress Report, Fourth Quarter 2002 and 2-Year Progress Evaluation*, March (MACTEC, 2003).
- <sup>3</sup> Laboratory problem resulted in sample exceeding hold time.

Notes: -- = no detections

µg/L = micrograms per liter

1,1-DCE = 1,1-dichloroethylene

cis-1,2-DCE = cis-1,2-dichloroethylene

DUP = duplicate

ID = identification

J = estimated value

TCE = trichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

VOC = volatile organic compound

Prepared by J. Peevler on 7/7/04

Checked by J. Deatherage on 7/14/04

**Table 3-4**  
**Decline of TCE Concentrations Over Time**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Well ID <sup>1</sup>	Area	High (ppb) BL/ Post BL	June 2004 result	% Decline <sup>3</sup>
<b><u>Source Area Monitor Wells</u></b>				
OB-04	South	71,500	394	99
OB-06	South	5,600	38.6	99
OB-05	North	25,000	65.4	99
OB-08	North	40,000	725	98
BR-04	South	10,000	102	99
BR-09	South	13,000	390	97
BR-10	South	8,700	1,520	83
BR-11	South	60,000	181	99
BR-17	South	6,900	3,140	55
BR-05	North	5,800	42.3	99
BR-12	North	200	1.3	99
BR-15	North	6,590	512	92
BR-08 (deep)	South	1,100	106	90
BR-14 (deep)	North	2.2	1 U	55
<b><u>Plume Monitor Wells</u></b>				
OB-07	South	21.8	10.2	53
OB-09	North	180	57.5	68
<b><u>Perimeter Monitor Wells</u></b>				
TW-04	South	51.1	12.7	75
TW-07	South	74	16.2	78
TW-17	North	1,000	280	72
TW-20	Between	12	1 U	92
TW-09	Between	230	43.1	81
BR-02	South	7,000	450	94
BR-03	South	854	446	48
BR-01	North	320	551	-72
BR-13	North	3,240	1 U	99
BR-07	North	7.4	1 U	86
W-5	North	1,435	348	76

<sup>1</sup> Upgradient wells not shown include W-4, BR-07, TW-13, MW-00, TW-69, W-2, BR-06, W-1, TW-01, TW-74, W-6, W-3, and BR-16.

<sup>2</sup> High pre-baseline values reported in *Final Investigative Report*, June 1999.

<sup>3</sup> Percent decline determined by comparing current value (September 2003) to the highest BL/Post BL value.

Notes: -- = no detections  
 BL = baseline  
 ID = identification  
 J = estimated  
 NA = not applicable

NI = not installed  
 NS = not sampled  
 ppb = parts per billion  
 TCE = trichloroethylene  
 U = nondetect

Prepared by J. Peevler on 07/01/04

Checked by J. Deatherage on 7/14/04

Monitor Well OB-07 reported TCE concentrations of 10.2  $\mu\text{g}/\text{L}$  and no detections of daughter products in the June 2004 event resulting in an overall decline of 53 percent (Table 3-4).

#### Overburden Monitor Wells (North TCE Source Area)

Monitor wells OB-05 and OB-08 are both located within the North TCE Source Area while OB-09 is within the plume. Comprehensive results for these wells are presented in Table 3-2.

Monitor Well OB-05 continued to show a steady decline in TCE concentrations resulting in an overall decrease of 99 percent from baseline levels. TCE concentrations in monitor well OB-08 decreased from 1,360  $\mu\text{g}/\text{L}$  (December 2003) to 725  $\mu\text{g}/\text{L}$  during the June 2004 event resulting in an overall decline of 98 percent in TCE concentrations (Table 3-4). Monitor well OB-09 decreased slightly during the June 2004 event with an overall decrease of 68 percent (Table 3-4).

#### Bedrock Monitor Wells (South TCE Source Area)

Bedrock monitor wells BR-04, BR-09, BR-10, BR-11, and BR-17 are located within the South TCE Source Area. Comprehensive results for these wells are presented in Table 3-3.

TCE concentrations in monitor wells BR-09, BR-10, and BR-11 all increased during the June 2004 event, but remain below the highest reported values. The overall decline in these concentrations are 97, 83, and 99 percent, respectively (Table 3-4).

TCE concentrations in monitor wells BR-04 and BR-17 continued to decrease in June 2004 resulting in an overall decline of 99 and 55 percent, respectively (Table 3-4).

#### Bedrock Monitor Wells (North TCE Source Area)

BR-05, BR-12, BR-15, and BR-16 are located in the North TCE Source Area. Comprehensive results are presented in Table 3-3. Monitor well BR-16 was not sampled during the June 2004 event based on the recommendations provided in the Quarterly Progress Report Fourth Quarter 2002 and 2-Year Progress Evaluation (MACTEC, 2003) and thus will not be discussed.

TCE concentrations in monitor wells BR-05 and BR-12 increased in June 2004 but remained below the highest reported values. The overall decline was 99 percent for both wells (Table 3-4).

Monitor well BR-15 reported a decrease of TCE concentrations of resulting in an overall decline of 92 percent (Table 3-4).

### **3.2 UPGRADIENT MONITOR WELLS**

#### Overburden Monitor Wells

W-2 and W-6 are southwest of the source areas and are considered to be upgradient. Based on recommendations provided in the Quarterly Progress Report Fourth Quarter 2002 and 2-Year Progress Evaluation (MACTEC, 2003), W-2 is now sampled annually for VOCs.

TCE concentrations for W-6 were nondetectable, as has been the case for all but one sampling event since the baseline sampling event. During the June 2004 event cis-1,2-dichloroethylene (cis-1,2-DCE) was detected at 3.2 µg/L.

Monitor well W-4 is located west of the North source area and is also considered upgradient. This well has been removed from the quarterly sampling events based on recommendations provided in the Quarterly Progress Report Fourth Quarter 2002 and 2-Year Progress Evaluation (MACTEC, 2003).

TW-13 is considered to be upgradient of the North TCE Source Area. Concentrations of TCE have been nondetectable for the first eight quarterly sampling events, as well as the baseline event. Therefore, TW-13 was not sampled during the June 2004 event and will not be sampled during future semi-annual sampling events.

#### Bedrock Monitor Wells

BR-06 and BR-07 are also upgradient wells, located southwest and west of the South and North source areas, respectively. BR-06 is considered a background well and is now only sampled annually. No TCE was detected in BR-06 during any quarterly sampling event, and BR-06 was not sampled as part of the June 2004 sampling event. In BR-07, TCE concentrations were at nondetectable levels during the June 2004 event and showed an overall decline of 86 percent (Table 3-4).

### **3.3 PERIMETER DOWNGRADIENT MONITOR WELLS**

#### Overburden Monitor Wells

Monitor wells TW-04, TW-09, TW-17, TW-20, and W-5 are downgradient of the source areas and are located along the perimeter of the site. Comprehensive results for these wells are presented in Table 3-2.

Monitor well TW-09 increased during the June 2004 event but remains below levels observed during the baseline sampling event, resulting in an overall decrease of 81 percent (Table 3-4). TCE concentrations in monitor well W-5 decreased during the June 2004 event with an overall decline of 76 percent. (Table 3-4). Monitor wells TW-04, TW-17 and TW-20 showed decreased TCE concentrations during the June 2004 event resulting in declines of 75, 72 and 92 percent, respectively (Table 3-4).

#### Bedrock Monitor Wells

The perimeter downgradient bedrock monitor wells are BR-01, BR-02, BR-03, and BR-13.

Comprehensive results are presented in Table 3-3 and on Figure 3 (Appendix A).

TCE concentrations in monitor well BR-02 and BR-03 increased from the December 2003 event but remained below the baseline sampling event. The overall decline in these concentrations are 94 and 48 percent, respectively (Table 3-4).

Monitoring well BR-13 was at non-detectable levels of TCE during the June 2004 event resulting in an overall decrease in TCE concentrations of 99 percent (Table 3-4).

Monitor well BR-01 had an increase of TCE from 127  $\mu\text{g}/\text{L}$  in December 2003 to 551  $\mu\text{g}/\text{L}$  in June 2004, an increase of 72 percent from the baseline event (Table 3-4).

#### Deep Bedrock Monitor Wells

TCE concentrations for the deep bedrock monitor well BR-08 (South TCE Source Area) decreased in June 2003 resulting in an overall decrease of 90 percent. TCE concentrations in monitor well BR-14 (North TCE Source Area) decreased from a high of 148  $\mu\text{g}/\text{L}$  in December 2003 to nondetectable levels in June 2004 with an overall decline of 55 percent (Table 3-4).

### **3.4 POTENTIOMETRIC SURFACE**

Associated with each monitoring event, a potentiometric surface map is generated to depict groundwater elevations for the overburden groundwater. Surfer™ (Version 8.0), a Windows-based program, was used to plot the potentiometric surface map in Appendix A, Figures 4 and 6. This program mathematically calculates contours based upon groundwater elevation measurements collected in the field.

The May 2004 map (Figure 4 in Appendix A) was based upon water level information collected prior to shutdown of the system on May 10, 2004. The June 2004 map (Figure 6 in Appendix A) was based upon water level information collected during the course of sampling activities on the subject site. Overburden potentiometric surface mapping for the May 2004 event agrees with past mapping in both the North TCE Source Area and South TCE Source Area. Overburden potentiometric mapping for June 2004 illustrates typical groundwater flow in the absence of impact from the extraction system.

Attempts have been made to contour the bedrock potentiometric surface, but the bedrock water level data cannot readily be plotted due to the large variation in elevation heads. These variations are due to the fractured bedrock system. The head data appears to be bi-modally distributed possibly reflecting differing elevations of water bearing fractures. The absence of contaminants at the southwest corner of the site (BR-06) and their presence in wells along the north and east site perimeter also support the interpretation that bedrock flow beneath the two source areas is generally towards the north. Bedrock water level elevations are presented on Figures 5 and 7 in Appendix A.

### **3.5 NATURAL BIODEGRADATION**

During the June 2004 sampling event, natural biodegradation parameters were collected from nine monitor wells including background well W-2 and perimeter wells TW-04, TW-07, TW-09, TW-17, TW-20, and W-5. Samples were also collected from OB-07 and OB-09, which are located within the TCE source areas. Table 3-5 shows a comparison between the natural biodegradation parameters in nine monitor wells and the values given in the EPA screening protocol as favorable for natural biodegradation of chlorinated solvents (EPA, 1998). Shaded values in the table show values favorable for natural biodegradation. W-2 data is provided for background values.

Table 3-5 shows that TCE daughter products were detected in four out of the eight perimeter and source area monitor wells. Several other parameters measured in each of these monitor wells containing TCE

daughter products were indicative that natural biodegradation is occurring. While daughter products were not detected in TW-04, TW-20, TW-17, and OB-07, these wells have several other parameter readings favorable for natural biodegradation. Concentrations of daughter products may be present in the vicinity of these wells at concentrations less than the sample quantitation limits (SQLs), or daughter products may have completely degraded to non-toxic end products, such as carbon dioxide, water, and chloride.

In summary, values for various natural biodegradation parameters and the presence of TCE daughter products indicate that natural biodegradation is occurring.

**Table 3-5**  
**Summary of Natural Biodegradation Results,**  
**June 2004 Sampling Event<sup>1</sup>**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Parameter	Value Favorable for Natural Biodegradation	TW-04	TW-07	TW-09	TW-17	TW-20	W-5	OB-07	OB-09	W-2 (background)
DO (mg/L)	<0.5	2.34	3.18	2.73	5.38	1.75	0.50	4.80	4.27	4.80
Nitrate (mg/L)	<1	0.26	23	1.02	0.20	3.08	<0.100	7.93	2.35	NA
Iron II (mg/L)	>1	0.102	<0.100	<0.100	<0.100	<0.100	2.01	<0.100	<0.100	NA
Sulfate (mg/L)	<20	185	384	192	93	71.6	95.5	484	254	NA
Sulfide (mg/L)	>1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA
Methane (mg/L)	>0.5	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	NA
ORP (mV)	<50	20	56	32	38	18	-134	-44	-23	44
pH	5<pH<9	7.24	6.80	7.32	7.15	7.22	7.24	7.61	7.35	7.77
TOC (mg/L)	>20	2.03	3.72	2.57	2.08	1.58	80.1	3.94	1.89	NA
Temperature (°C)	>20	14.46	12.55	14.75	13.61	12.82	13.34	14.90	13.91	14.07
CO <sub>2</sub> (mg/L)	Note 1	82.8	142	41.4	104	88.7	72.5	60.6	81.3	29.5
Alkalinity (mg/L)	Note 1	261	403	171	329	338	353	156	221	210
Chloride (mg/L)	Note 1	7.80	28.0	5.4	16.8	16.8	14.2	58.0	7.42	7.28
BTEX (mg/L)	>0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
Ethene (mg/L)	>0.01	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	NA
Ethane (mg/L)	>0.01	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	NA
Daughter Products Detected	Any detection of daughter products	No	Yes	Yes	No	No	Yes	No	Yes	NA

**Table 3-5 (Continued)**  
**Summary of Natural Biodegradation Results,**  
**June 2004 Sampling Event<sup>1</sup>**

Semi-Annual Progress Report  
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Former Taylor Instruments Site  
Rochester, New York

Reference: EPA. 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* EPA/600/R-98/128 (September).

<sup>1</sup> W-2 is the background well; other wells are perimeter wells.

Note 1: A value greater than two times the background value is considered favorable for natural biodegradation. The W-2 value is the background value.

Note: Shading indicates parameters supportive of natural biodegradation.

°C = degrees Celsius

µg/L = micrograms per liter

BTEX = benzene, toluene, ethylbenzene, and xylene

CO<sub>2</sub> = carbon dioxide

DCE = dichloroethylene

DO = dissolved oxygen

EPA = Environmental Protection Agency (United States)

J = estimated

mg/L = milligrams per liter

mV = millivolt

NA = not applicable

ORP = oxygen reduction potential

TCE = trichloroethylene

TOC = total organic compound

VOC = volatile organic compound

Prepared by J. Peevler on 7/16/04

Checked by J. Deatherage on 7/26/04

### **3.6 TREATMENT SYSTEM PERFORMANCE**

The System was fully operational on January 6, 2001. Since then, it has operated 90.2 percent of available hours through June 2004. The System operated 100 percent of available hours during the first semi-annual period in 2004 up until May 10, 2004, when the System was shut down for the remainder of the period to allow for groundwater stabilization prior to the June 2004 sampling event. This was a scheduled shutdown associated with the intermittent operation of the System. Therefore, the system operated 72 % of available hours during this period. Table 3-6 provides a summary of quarterly System operational data. The System extracts soil vapor and groundwater from 23 DPVE wells: EW-S-1 through EW-S-16 and EW-N-1 through EW-N-6, and groundwater from two bedrock extraction wells BREW-S-1 and BREW-N-1 (see Figure 1 in Appendix A). The vapor extracted from the dual-phase operation is discharged through the effluent piping manifold of the three vacuum pumps. The groundwater collected from both the DPVE wells and from the bedrock extraction wells is combined in an equalization tank prior to treatment via the tray air stripper. The System has extracted approximately 43.8 million gallons of groundwater through June 2004.

During the first six months of operation in 2004, approximately 4.9 million gallons of groundwater was extracted with an average flow rate of 18.8 gallons per minute (gpm). The average flow rate through May 10, when the System was shut down, was 26 gpm. A total of 107 pounds of VOCs were removed from the subsurface (see Figures 6 and 7 in Appendix A) yielding an approximate ratio of 1 pound of VOCs removed for every 46,207 gallons of water removed. A total of 3,178 pounds of contaminants have been removed since startup of the System. The majority of VOCs are removed from the overburden through the vapor phase and stripped from groundwater during the vacuum extraction process. Table 3-7 summarizes groundwater sample results from the equalization tank and vapor sampling results from the effluent of three vacuum pumps and air stripper. As indicated by the results, the total semi-annual mass of VOCs extracted (107 pounds) by the treatment system during the first six months of operation in 2004 was less than the total mass extracted during the last six months of 2003 (153 pounds). Overall, the mass of VOCs extracted is trending downward and is expected to continue decreasing as contaminants within the subsurface are removed. It is evident by review of Figure 7 in Appendix A that the system mass removal rate is nearing an asymptotic level.

### 3.7 SYSTEM EVALUATION SINCE STARTUP

It is apparent by an evaluation of TCE concentrations detected in the on-site monitoring wells that the System has been successful in removing contaminants from the subsurface. As shown by the

**Table 3-6**  
**System Operational Summary,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
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Parameter	2001			
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
System Up-time (%)	89	99.9	99	99.9
Average System Vacuum <sup>1</sup>				
South Source Area (in. Hg)	19	16	16	17
North Source Area (in. Hg)	15	18	16	16
Average System Groundwater Flowrates <sup>2</sup>				
Total System (gpm)	26	26	24	25
Dual Phase Extraction (gpm)	8	7	6	7
Bedrock Extraction (gpm)	18	18	18	18
Average System Vapor Flowrates <sup>1</sup>				
Dual Phase Extraction South Source Area (CFM)	161	176	180	167
Dual Phase Extraction North Source Area (CFM)	117	113	175	127
System Mass Removal Rate (lbs./hr) <sup>3</sup>	0.17	0.05	0.04	0.031
System Mass Removed (lbs.) <sup>3</sup>	406	443	289	197
Cumulative Mass Removed (lbs.) <sup>3</sup>	906	1,349	1,637	1,834
Air Stripper Removal Efficiency (%) <sup>3</sup>	99.6	99.6	99.3	99.4
Quarterly Groundwater Recovered (gallons) <sup>2</sup>	3,833,248	3,345,131	3,275,792	3,256,961
Cumulative Groundwater Recovered (gallons) <sup>2</sup>	3,833,248	7,178,379	10,454,171	13,711,132
Gallons to Remove 1 Pound of VOC <sup>3</sup>	9,441	7,551	11,335	16,533

See notes at end of table.

**Table 3-6 (Continued)**  
**System Operational Summary,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
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<b>Parameter</b>	<b>2002</b>			
	<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
System Up-time (%)	99.3	99.3	89	94
Average System Vacuum <sup>1</sup>				
South Source Area (in. Hg)	18	21	17	21
North Source Area (in. Hg)	17	22.5	14 <sup>4</sup>	17
Average System Groundwater Flowrates <sup>2</sup>				
Total System (gpm)	24	28	23	22
Dual Phase Extraction (gpm)	7	11	7	8
Bedrock Extraction (gpm)	17	17	16	14
Average System Vapor Flowrates <sup>1</sup>				
Dual Phase Extraction South Source Area (CFM)	167	128	165	110
Dual Phase Extraction North Source Area (CFM)	113	100	75 <sup>4</sup>	112
System Mass Removal Rate (lbs./hr) <sup>3</sup>	0.03	0.06	0.02	0.03
System Mass Removed (lbs.) <sup>3</sup>	145	453	150	112
Cumulative Mass Removed (lbs.) <sup>3</sup>	1,979	2,432	2,582	2,694
Air Stripper Removal Efficiency (%) <sup>3</sup>	99.7	99.4	99.9	99.5
Quarterly Groundwater Recovered (gallons) <sup>2</sup>	3,036,973	5,080,273	2,795,716	2,765,779
Cumulative Groundwater Recovered (gallons) <sup>2</sup>	16,748,105	21,828,378	24,624,094	27,389,873
Gallons to Remove 1 Pound of VOC <sup>3</sup>	20,945	11,215	18,638	24,695
System Up-time (%)	95.8	99.9	70	84.5

See notes at end of table.

**Table 3-6 (Continued)**  
**System Operational Summary,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
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 Former Taylor Instruments Site  
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Parameter	2003			
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
Average System Vacuum <sup>1</sup> South Source Area (in. Hg) North Source Area (in. Hg)	22 20	21.5 21	21.5 19	20 19
Average System Groundwater Flowrates <sup>2</sup> Total System (gpm) Dual Phase Extraction (gpm) Bedrock Extraction (gpm)	23 8 15	25 9 16	24 8 16	26 9 17
Average System Vapor Flowrates <sup>1</sup> Dual Phase Extraction South Source Area (CFM) Dual Phase Extraction North Source Area (CFM)	114 102	103 97	103 113	104 103
System Mass Removal Rate (lbs./hr.) <sup>3</sup>	0.02	0.02	0.01	0.01
System Mass Removed (lbs.) <sup>3</sup>	95	129	82	71
Cumulative Mass Removed (lbs.) <sup>3</sup>	2,789	2,918	3,000	3,071
Air Stripper Removal Efficiency (%) <sup>3</sup>	99.8	99.9	99.8	99.8
Quarterly Groundwater Recovered (gallons) <sup>2</sup>	2,960,081	3,331,381	2,246,547	2,963,219
Cumulative Groundwater Recovered (gallons) <sup>2</sup>	30,349,954	33,681,335	35,927,882	38,891,101
Gallons to Remove 1 Pound of VOC <sup>3</sup>	31,159	25,824	27,397	41,735

See notes at end of table.

**Table 3-6 (Continued)**  
**System Operational Summary,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

<b>Parameter</b>	<b>2004</b>		
	<b>1<sup>st</sup> Semi-Annual</b>		
Average System Vacuum <sup>1</sup>			
South Source Area (in. Hg)	19.8		
North Source Area (in. Hg)	20.9		
Average System Groundwater Flowrates <sup>2</sup>			
Total System (gpm)	26 <sup>5</sup>		
Dual Phase Extraction (gpm)	10		
Bedrock Extraction (gpm)	16		
Average System Vapor Flowrates <sup>1</sup>			
Dual Phase Extraction South Source Area (CFM)	110		
Dual Phase Extraction North Source Area (CFM)	100		
System Mass Removal Rate (lbs./hr) <sup>3</sup>	0.01		
System Mass Removed (lbs.) <sup>3</sup>	107		
Cumulative Mass Removed (lbs.) <sup>3</sup>	3,178		
Air Stripper Removal Efficiency (%) <sup>3</sup>	99.8		
Semi-Annual Groundwater Recovered (gallons) <sup>2</sup>	4,935,795		
Cumulative Groundwater Recovered (gallons) <sup>2</sup>	43,826,896		
Gallons to Remove 1 Pound of VOC <sup>3</sup>	46,128		

<sup>1</sup> Instantaneous.

<sup>2</sup> Continuous.

<sup>3</sup> Calculated.

<sup>4</sup> Vacuum pump down for repairs, causing a decrease in values.

<sup>5</sup> Through May 10, 2004.

Notes: in. Hg = inches of mercury  
 CFM = cubic feet per minute  
 lbs./hr = pounds per hour

gpm = gallons per minute  
 lbs. = pounds

Prepared by M. Vandergriff on 8/2/04

Checked by J. Deatherage on 8/2/04

**Table 3-7**  
**System Analytical Data,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample Location	Date	cis-1,2-DCE	trans-1,2-DCE	TCE	Vinyl Chloride
<b>Vapor Analytical Results<sup>1</sup> (mg/m<sup>3</sup>)</b>					
Vacuum Pump #1 (South TCE Source Area)	1/6/01	<25	<25	914.00	<25
	2/7/01	2.70	<1.0	371.00	<1.0
	3/6/01	<5.0	<5.0	129.00	<5.0
	4/17/01	1.60	<1.0	215.00	<1.0
	5/16/01	1.20	<1.0	120.00	<1.0
	6/7/01	1.20	<1.0	110.00	<1.0
	7/13/01	<1.0	<1.0	80.00	<1.0
	8/7/01	<1.0	<1.0	90.00	<1.0
	9/12/01	1.10	<1.0	97.00	<1.0
	10/11/01	<1.0	<1.0	76.00	<1.0
	11/9/01	1.4	<1.0	160.00	<1.0
	12/14/01	<0.5	<0.5	10.90	<0.5
	1/8/02	<0.5	<0.5	9.25	<0.5
	2/18/02	2.10	<1.0	170.00	<1.0
	3/8/02	1.40	<1.0	90.00	<1.0
	4/5/02	4.20	<1.0	360.00	<1.0
	5/13/02	2.40	<1.0	260.00	<1.0
	6/10/02	1.60	<1.0	120.00	<1.0
	7/11/02	1.10	<1.0	79.00	<1.0
	8/14/02	<1.0	<1.0	37.00	<1.0
	9/12/02	<1.0	<1.0	24.00	<1.0
	10/9/02	<1.0	<1.0	56.00	<1.0
	11/15/02	2.10	<1.0	120.00	<1.0
	12/23/02	2.50	<1.0	190.00	<1.0
	1/16/03	<1.0	<1.0	72.00	<1.0
	2/18/03	<1.0	<1.0	28.00	<1.0
	3/14/03	<1.0	<1.0	74.00	<1.0
	6/20/03	<1.0	<1.0	41.00	<1.0
	7/2003	NS	NS	19.00	NS
	8/29/2003	<1.0	<1.0	19.00	<1.0
	9/29/2003	<1.0	<1.0	38.00	<1.0
	10/16/2003	<1.0	<1.0	35.00	<1.0
	11/13/2003	<1.0	<1.0	31.00	<1.0
	12/23/2003	Vacuum pump down			
	1/27/2004	<1.0	<1.0	16.00	<1.0
	2/20/2004	<1.0	<1.0	21.00	<1.0
	3/11/2004	<1.0	<1.0	46.00	<1.0
	4/26/2004	<1.0	<1.0	48.00	<1.0
	5/10/2004	<1.0	<1.0	7.80	<1.0

See notes at end of table.

**Table 3-7 (Continued)**  
**System Analytical Data,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
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 Former Taylor Instruments Site  
 Rochester, New York

Sample Location	Date	cis-1,2-DCE	trans-1,2-DCE	TCE	Vinyl Chloride
<b>Vapor Analytical Results<sup>1</sup> (mg/m<sup>3</sup>)</b>					
Vacuum Pump #2 (South TCE Source Area)	1/6/01	<25	<25	963.00	<25
	2/7/01	<12.5	<12.5	425.00	<12.5
	3/6/01	<5.0	<5.0	140.00	<5.0
	4/17/01	2.30	<1.0	247.00	<1.0
	5/16/01	1.20	<1.0	110.00	<1.0
	6/7/01	NS	NS	NS	NS
	7/13/01	<1.0	<1.0	78.00	<1.0
	8/7/01	<1.0	<1.0	89.00	<1.0
	9/12/01	1.2	<1.0	110.00	<1.0
	10/11/01	<1.0	<1.0	76.00	<1.0
	11/9/01	1.30	<1.0	170.00	<1.0
	12/14/01	<0.5	<0.5	7.75	<0.5
	1/8/02	<0.5	<0.5	8.61	<0.5
	2/18/02	2.10	<1.0	190.00	<1.0
	3/8/02	1.40	<1.0	86.00	<1.0
	4/5/02	3.90	<1.0	380.00	<1.0
	5/13/02	2.50	<1.0	250.00	<1.0
	6/10/02	1.40	<1.0	120.00	<1.0
	7/11/02	1.00	<1.0	86.00	<1.0
	8/14/02	<1.0	<1.0	35.00	<1.0
	9/12/02	<1.0	<1.0	24.00	<1.0
	10/9/02	<1.0	<1.0	33.00	<1.0
	11/15/02	<1.0	<1.0	28.00	<1.0
	12/23/02	2.50	<1.0	200.00	<1.0
	1/16/03	<1.0	<1.0	70.00	<1.0
	2/18/03	<1.0	<1.0	22.00	<1.0
	3/14/03	<1.0	<1.0	73.00	<1.0
	6/20/03	<1.0	<1.0	46.00	<1.0
	7/2003	NS	NS	20.00	NS
	8/29/2003	<1.0	<1.0	20.00	<1.0
	9/29/2003	1.40	<1.0	79.00	<1.0
	10/16/2003	<1.0	<1.0	37.00	<1.0
	11/13/2003	<1.0	<1.0	45.00	<1.0
	12/23/2003	<1.0	<1.0	47.00	<1.0
	1/27/2004	<1.0	<1.0	15.00	<1.0
	2/20/2004	<1.0	<1.0	17.00	<1.0
	3/11/2004	<1.0	<1.0	30.00	<1.0
	4/26/2004	<1.0	<1.0	33.00	<1.0
	5/10/2004	<1.0	<1.0	5.80	<1.0

See notes at end of table.

**Table 3-7 (Continued)**  
**System Analytical Data,**  
**January 2001 – June 2004**

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 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
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Sample Location	Date	cis-1,2-DCE	trans-1,2-DCE	TCE	Vinyl Chloride
<b>Vapor Analytical Results<sup>1</sup> (mg/m<sup>3</sup>)</b>					
Vacuum Pump #3 (North TCE Source Area)	1/6/01	<1.0	<1.0	41.00	<1.0
	2/7/01	1.40	<1.0	38.00	<1.0
	3/6/01	<1.0	<1.0	35.00	<1.0
	4/17/01	1.10	<1.0	42.00	<1.0
	5/16/01	2.20	<1.0	95.00	<1.0
	6/7/01	<1.0	<1.0	26.00	<1.0
	7/13/01	<1.0	<1.0	31.00	<1.0
	8/7/01	<1.0	<1.0	28.00	<1.0
	9/12/01	<1.0	<1.0	21.00	<1.0
	10/11/01	<1.0	<1.0	28.00	<1.0
	11/9/01	<1.0	<1.0	22.00	<1.0
	12/14/01	<0.5	<0.5	1.73	<0.5
	1/8/02	<0.5	<0.5	2.81	<0.5
	2/18/02	1.50	<1.0	35.00	<1.0
	3/8/02	<1.0	<1.0	52.00	<1.0
	4/5/02	1.80	<1.0	42.00	<1.0
	5/13/02	1.80	<1.0	48.00	<1.0
	6/10/02	1.50	<1.0	38.00	<1.0
	7/11/02	NS	NS	NS	NS
	8/14/02	NS	NS	NS	NS
	9/12/02	<1.0	<1.0	9.60	<1.0
	10/9/02	<1.0	<1.0	14.00	<1.0
	11/15/02	<1.0	<1.0	11.00	<1.0
	12/23/02	1.60	<1.0	29.00	<1.0
	1/16/03	<1.0	<1.0	23.00	<1.0
	2/18/03	<1.0	<1.0	5.20	<1.0
	3/14/03	<1.0	<1.0	22.00	<1.0
	6/20/03	<1.0	<1.0	13.00	<1.0
	7/2003	NS	NS	11.00	NS
	8/29/2003	<1.0	<1.0	11.00	<1.0
	9/29/2003	<1.0	<1.0	3.40	<1.0
	10/16/2003	<1.0	<1.0	15.00	<1.0
	11/13/2003	<1.0	<1.0	9.20	<1.0
	12/23/2003	<1.0	<1.0	10.00	<1.0
	1/27/2004	<1.0	<1.0	5.70	<1.0
	2/20/2004	<1.0	<1.0	7.40	<1.0
	3/11/2004	<1.0	<1.0	13.00	<1.0
	4/26/2004	<1.0	<1.0	11.00	<1.0
	5/10/2004	<1.0	<1.0	2.00	<1.0

See notes at end of table.

**Table 3-7 (Continued)**  
**System Analytical Data,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
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Sample Location	Date	cis-1,2-DCE	trans-1,2-DCE	TCE	Vinyl Chloride
<b>Vapor Analytical Results<sup>1</sup> (mg/m<sup>3</sup>)</b>					
Air Stripper Effluent	1/6/01	1.20	<1.0	32.00	<1.0
	2/7/01	1.20	<1.0	17.00	<1.0
	3/6/01	2.10	<1.0	25.00	<1.0
	4/17/01	4.00	<1.0	40.00	<1.0
	5/16/01	4.90	<1.0	26.00	<1.0
	6/7/01	4.50	<1.0	17.00	<1.0
	7/13/01	4.90	<1.0	17.00	<1.0
	8/7/01	3.90	<1.0	14.00	<1.0
	9/12/01	3.20	<1.0	11.00	<1.0
	10/11/01	5.00	<1.0	18.00	<1.0
	11/9/01	3.90	<1.0	15.00	<1.0
	12/14/01	<0.5	<0.5	0.74	<0.5
	1/8/02	0.76	<0.5	2.60	<0.5
	2/18/02	5.3	<1.0	30.00	<1.0
	3/8/02	3.7	<1.0	14.00	<1.0
	4/5/02	4.6	<1.0	24	<1.0
	5/13/02	3.5	<1.0	20	<1.0
	6/10/02	2.5	<1.0	14	<1.0
	7/11/02	2.1	<1.0	12	<1.0
	8/14/02	3.3	<1.0	11	<1.0
	9/12/02	1.9	<1.0	9.6	<1.0
	10/9/02	1.9	<1.0	12	<1.0
	11/15/02	2.1	<1.0	12	<1.0
	12/23/02	3.0	<1.0	18	<1.0
	1/16/03	1.3	<1.0	9.7	<1.0
	2/18/03	1.5	<1.0	8.1	<1.0
	3/14/03	1.5	<1.0	14	<1.0
	6/20/03	1.5	<1.0	6.4	<1.0
	7/2003	NS	NS	6.4	NS
	8/29/2003	<1.0	<1.0	11	<1.0
	9/29/2003	3.70	<1.0	17	<1.0
	10/16/2003	3.10	<1.0	14	<1.0
	11/13/2003	2.90	<1.0	16	<1.0
	12/23/2003	4.40	<1.0	27	<1.0
	1/27/2004	2.40	<1.0	11	<1.0
	2/20/2004	3.80	<1.0	15	<1.0
	3/11/2004	2.60	<1.0	13	<1.0
	4/26/2004	2.30	<1.0	11	<1.0
	5/10/2004	<1.0	<1.0	2.1	<1.0

See notes at end of table.

**Table 3-7 (Continued)**  
**System Analytical Data,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
 First Semi-Annual 2004 and Remedial Progress Evaluation  
 Former Taylor Instruments Site  
 Rochester, New York

Sample Location	Date	cis-1,2-DCE	trans-1,2-DCE	TCE	Vinyl Chloride
<b>Groundwater Analytical Results<sup>2</sup> (µg/L)</b>					
Air Stripper Influent	1/6/01	210	<130.00	5,000.00	<25.00
	2/7/01	300.00	12.00	4,100.00	1.10
	3/6/01	340.00	<130.00	4,000.00	<25.00
	4/17/01	390.00	12.00	3,500.00	<1.00
	5/16/01	660.00	16.00	3,200.00	<1.0
	6/7/01	750.00	15.00	3,000.00	1.50
	7/13/01	790.00	16.00	2,400.00	1.40
	8/7/01	1,100.00	16.00	3,200.00	<1.0
	9/12/01	660.00	10.00	2,000.00	3.00
	10/11/01	570.00	14.00	2,000.00	1.90
	11/9/01	640.00	12.00	2,300.00	2.20
	12/14/01	696.00	18.40	1,580.00	<2.0
	1/8/02	577.00	8.90	2,040.00	2.30
	2/18/02	427.00	<20	1,910.00	<20
	3/8/02	521.00	11.00	2,150.00	3.20
	4/5/02	432.00	6.70	2,060.00	2.20
	5/13/02	430.00	9.44	1,600.00	3.73
	6/10/02	318.00	6.73	1,650.00	1.60
	7/11/02	316.00	7.61	1,810.00	2.89
	8/14/02	589.00	14.20	1,820.00	<0.5
	9/12/02	472.00	8.19	1,490.00	4.19
	10/9/02	298.00	6.74	1,820.00	2.44
	11/15/02	73.00	6.20	437.00	<1.0
	12/23/02	374.00	7.80	2,180.00	<1.0
	1/16/03	300.00	8.60	2,080.00	2.70
	2/18/03	445.00	10.70	2,340.00	4.70
	3/14/03	236.00	6.70	1,980.00	4.00
	6/20/03	390.00	11.10	1,810.00	4.90
	9/29/03	310.00	7.40	1,750.00	6.20
	10/16/03	415.00	13.70	2,250.00	6.40
	11/13/03	470.00	13.70	2,220.00	6.20
	12/23/2003	400.00	10.80	3,100.00	5.30
	1/27/2004	315.00	15.70	1,470.00	5.80
	2/20/2004	590.00	12.30	1,800.00	7.00
	3/11/2004	320.00	11.40	1,440.00	5.90
	4/26/2004	375.00	14.60	1,880.00	4.30
	5/10/2004	329.00	11.20	1,990.00	6.30

See notes at end of table.

**Table 3-7 (Continued)**  
**System Analytical Data,**  
**January 2001 – June 2004**

Semi-Annual Progress Report  
First Semi-Annual 2004 and Remedial Progress Evaluation  
Former Taylor Instruments Site  
Rochester, New York

<sup>1</sup>Vapor Analysis is by EPA Method TO-14 Modified.

<sup>2</sup>Groundwater Analysis is by EPA Method 8260.

Notes:    μg/L = micrograms per liter

DCE = dichloroethylene

EPA = Environmental Protection Agency (United States)

mg/m<sup>3</sup> = milligrams per cubic meter

NS = Vacuum Pump #2 was not sampled because it was shut down due to mechanical problems.

TCE = trichloroethylene

Prepared by M. Vandergriff on 7/15/04

Checked by J. Deatherage on 8/2/04

Concentration Trend Graphs in Appendix F, the TCE concentrations show an overall decline in all wells except BR-01.

As discussed above, the System has operated successfully since January 2001 maintaining a 90.2 percent operational rate during the three and a half-year period. Since that time, 43.8 million gallons of groundwater have been extracted and treated. A total of 3,178 pounds of TCE have been removed from both the groundwater and subsurface soils via groundwater and soil vapor extraction. The performance of the System has been measured by tracking the change in TCE concentrations within on-site monitor wells, which was discussed in detail in Sections 3.1 through 3.4, within the System groundwater influent and the System vapor effluent.

Contaminant mass removal is calculated from vapor results collected from four effluent locations. The first two locations include the vapor effluent ports for Vacuum Pumps #1 and #2, which measure the amount of soil vapor as well as contaminants stripped from groundwater during the turbulent extraction process associated with the South TCE Source Area. The third location includes the vapor effluent port for Vacuum Pump #3, which measures the amount of soil vapor as well as contaminants stripped from groundwater during the turbulent extraction process associated with the North TCE Source Area. The fourth and final location includes the vapor effluent port from the low profile air stripper. The air stripper removes contaminants from groundwater extracted by the three vacuum pumps and by the two bedrock extraction wells.

The cumulative mass of contaminants removed slightly increased as shown on Figure 9 (Appendix A), but appears to be leveling off over time. Vapor concentrations have either stabilized or have slightly decreased over the past six months as shown on Figure 8 (Appendix A), which depicts the vapor concentrations from the three vacuum pumps over the three and one half-year operational period. Overall, the concentrations have declined by 99 percent for the South TCE Source Area and 95 percent in the North TCE Source Area. The spikes observed are likely associated with the creation of preferential pathways allowing contaminant vapors to mobilize to the extraction wells.

The groundwater TCE influent concentrations have been tracked over the three and one half-year System operation period and presented on Figure 9 (Appendix A). Concentrations decreased during the last six months and have decreased overall by 62 percent.

Coupling the System performance data with the groundwater monitoring results discussed in previous sections, it is evident that the System has been successful in removing a significant mass of contaminants from the site subsurface. Furthermore, despite shutdown of the System on May 10, 2004, overall contaminant levels have not demonstrated significant rebound effects. The overall TCE concentrations have declined significantly in both the on-site monitor wells and system influent.

The following overall conclusion has been reached with respect to remedial system performance:

As is typical of VOC extraction systems, the rate of VOC mass removal (see Figures 7, 8, and 9 in Appendix A) was greatest when the Systems were first started up, with only 9,441 gallons of water having to be pumped to remove 1 pound of VOC during the first quarter of operation, as shown on Table 3-6. In contrast, during the first six months of 2004, 46,128 gallons of water had to be pumped to extract 1 pound of VOC.

Similarly, looking at the TCE removal through both vapor and groundwater, the system mass removal rate was 0.17 pounds VOC per hour during the first quarter of 2001, but continues steady at 0.01 pounds per hour for the first six months of 2004. Clearly the System has reached asymptotic removal rates for continuous operations.

## **4.0 ANALYTICAL PROGRAM**

Overall data quality is assessed by grouping particular data evaluation findings and reviewing them in terms of precision, accuracy, representativeness, completeness, and comparability (PARCC) criteria. Data generated during this monitoring period were evaluated for PARCC criteria after receipt of all analytical data.

### **4.1 PRECISION**

Precision is a quantitative evaluation of the repeatability of a measurement. Precision of analytical measurements is determined by calculating the relative percent difference (RPD) between the two numerical values. For precision, the matrix spike (MS) is performed in duplicate, and the values from both analyses are evaluated. Comparison of results from duplicate field samples may also be indicative of overall precision of a data set. However, field duplicates may be influenced by sampling precision and are not as controlled as laboratory duplicates.

For quality control purposes, a MS and matrix spike duplicate (MSD) was taken for each set of 20 samples with a net result of 2 MS/MSD analyses for the June 2004 sampling event. The evaluation of MS/MSD criteria was used to qualify the data. The evaluations of MS/MSD analyses are presented in the following tables.

**OB-07**

Analyte	MS Value (mg/L)	Recovery (%)	MSD Value (mg/L)	RPD	Control Limits (%)	RPD Limit
Benzene	0.0557	111	0.0517	7.45	73 - 135	21
Chlorobenzene	0.0606	121	0.0512	16.82	77 - 130	19
1,1-Dichloroethene	0.0655	131	0.0617	5.97	71 - 143	21
Toluene	0.0604	121	0.0500	18.84	69 - 139	24
Trichloroethene	0.0758	131	0.0694	8.82	72 - 141	21
Tetrachloroethene	0.0660	132	0.0546	18.91	68 - 140	21

Note: mg/L = milligrams per liter

**BR-12**

Analyte	MS Value (mg/L)	Recovery (%)	MSD Value (mg/L)	RPD	Control Limits (%)	RPD Limit
Benzene	0.0618	124	0.0618	0.00	73 - 135	21
Chlorobenzene	0.0493	99	0.0504	2.21	77 - 130	19
1,1-Dichloroethene	0.0702	140	0.0642	8.93	71 - 143	21
Toluene	0.0480	96	0.0490	2.06	69 - 139	24
Trichloroethene	0.0670	131	0.0666	0.60	72 - 141	21
Tetrachloroethene	0.0509	102	0.0514	0.98	68 - 140	21

These evaluations demonstrate that MS/MSD analyses are within acceptable limits.

Field duplicate sampling followed the same sampling outline as MS/MSD analysis. One duplicate sample was collected for each set of 20 field samples, resulting in 2 duplicate samples for the June 2004 sampling event. Field duplicate precision is presented in the following table.

Sample ID	Analyte	Practical Quantitation Limit	Sample Result ( $\mu\text{g/L}$ )	Flag	Duplicate Result ( $\mu\text{g/L}$ )	Flag	RPD
BR-07	cis-1,2-Dichloroethene	1	3.4		3.4		--
	trans-1,2-Dichloroethene	1	1.0		1.0		--
	Vinyl chloride	1	6.2		6.8		9.23
W-5	cis-1,2-Dichloroethene	1	98.9		71.6		32.0
	trans-1,2-Dichloroethene	1	5.4		4.6		16.0
	Trichloroethene	1	348		360		3.39

The RPD for all analytes indicates that field duplicate precision as shown in this table is considered acceptable.

#### **4.2 ACCURACY**

Accuracy is a quantitative measurement of agreement between an analytical result and the true value. Accuracy is determined by comparing known amounts of analytes, which are added to the sample prior to analysis, to the field analytical results. Accuracy is expressed as a percentage of recovery (%R) of the total amount of spiked analyte. For VOC analyses, each sample was spiked with surrogate compounds prior to analysis (and extraction), and chosen samples were spiked (in duplicate) with additional spikes (MS and MSD). Surrogate and MS/MSD recoveries evaluate accuracy and identify interferences from the sample matrix.

Surrogate recoveries were acceptable for VOC analyses for this sampling event.

#### **4.3 REPRESENTATIVENESS**

Representativeness is a qualitative measurement of the degree to which analytical results reflect the true concentrations of analytes that may (or not) be present in a sample. Representativeness of organic analytical results of true site conditions is evaluated using trip blanks, field blanks, method blanks, and

rinsate from decontaminated sampling equipment. Target organic compounds in quality control (QC) samples may represent contamination during sampling or transportation of samples to the laboratory. Compliance with holding time and extraction criteria also assures representativeness of results.

Two field blanks for the June 2004 event were analyzed to characterize the water source used during these sampling events. Potable water was used by the field crews for field blanks. No target VOCs were detected above the reporting limit in either field blank.

No target VOCs were detected above the reporting limit in any method blank.

Two trip blanks were analyzed as part of the VOC laboratory QC program. No target VOCs were detected above the reporting limit in either trip blank.

Equipment rinse samples were collected per every 20 production samples, using potable water to rinse field equipment, and analyzed for all target constituents. Two rinsate blanks were collected during the June 2004 event. No target VOCs were detected above the reporting limit in either rinsate blank.

Representativeness is considered complete due to the lack of target VOC detections in QC efforts.

#### **4.4 COMPLETENESS**

Completeness is a quantitative measurement of the usability of a data set. Completeness is defined as the percentage of data that satisfy validation criteria. Rejected data are not usable. Data qualified as estimated, however, is usable. Completeness goals were 100 percent for this report and are considered to be met.

#### **4.5 COMPARABILITY**

Comparability is a qualitative assessment of the confidence with which different data sets may be used to characterize a site. Comparability is a necessary criteria because sampling is often performed at different times and precision, accuracy, and representativeness are unique to each sampling event.

Comparability between data generated at different times at a single site is evaluated by reviewing sample collection and handling procedures, sample matrix, and analytical methods used.

Standardization of sampling protocols and analytical methods assures comparability as long as precision

and accuracy criteria are satisfied for each data set. The overall analytical performance for this report was evaluated, and should be comparable to previous and future data sets.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

A comparison of analytical data from the thirteen quarterly sampling events that occurred in 2001, 2002, 2003, and 2004 provides an evaluation of the System performance. The following overall conclusions have been reached in this remedial progress evaluation:

- Overall decreases in TCE concentrations have been observed in all perimeter and site interior monitor wells except for BR-03. A decrease in the System influent TCE concentrations has also been observed, which would be expected since contaminant levels have declined in the North and South TCE Source Areas where extraction is occurring.
- The System has successfully removed 3,178 pounds of TCE from subsurface media.
- It is apparent that the System has reached an asymptotic level of operation as can be seen in the mass removal rate reported in Table 3-7.
- Despite shutdown of the System on May 10, 2004, overall contaminant levels have not demonstrated significant rebound effects, and overall declines remain evident as shown in Table 3-4.

## **6.0 REFERENCES**

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MACTEC Engineering and Consulting, Inc. 2003. *Quarterly Progress Report, Second Quarter 2003, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York.* Prepared for Combustion Engineering, Norwalk, Connecticut (September).

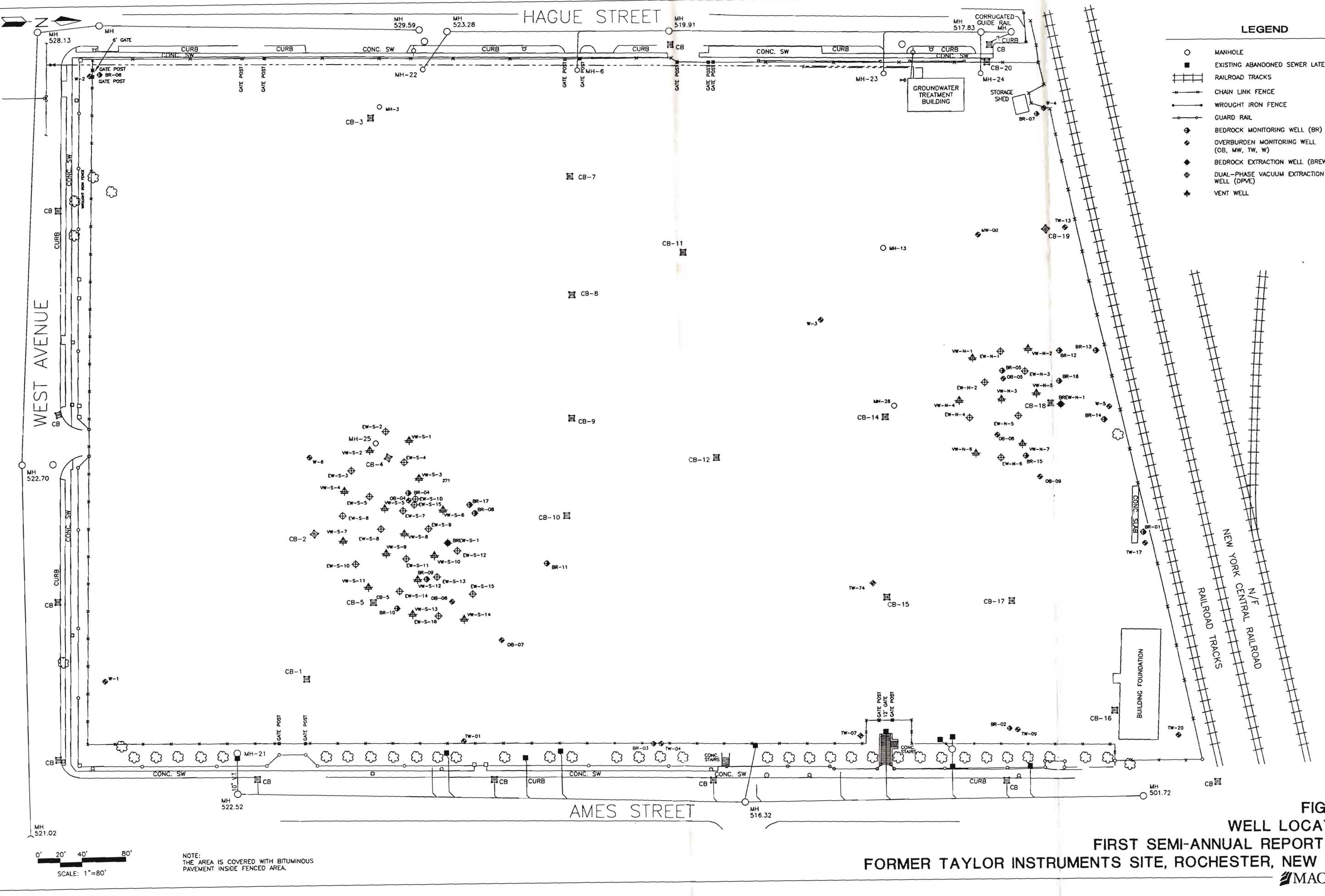
MACTEC Engineering and Consulting, Inc. 2003. *Quarterly Progress Report, Third Quarter 2003, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York.* Prepared for Combustion Engineering, Norwalk, Connecticut (December).

MACTEC Engineering and Consulting, Inc. 2004. *Quarterly Progress Report, Fourth Quarter 2003, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York.* Prepared for Combustion Engineering, Norwalk, Connecticut (February).

NYSDEC. 1997. Voluntary Cleanup Agreement regarding the Taylor Instruments Site, Number B8-0508-97-02 (November).

## **APPENDIX A**

### **FIGURES**



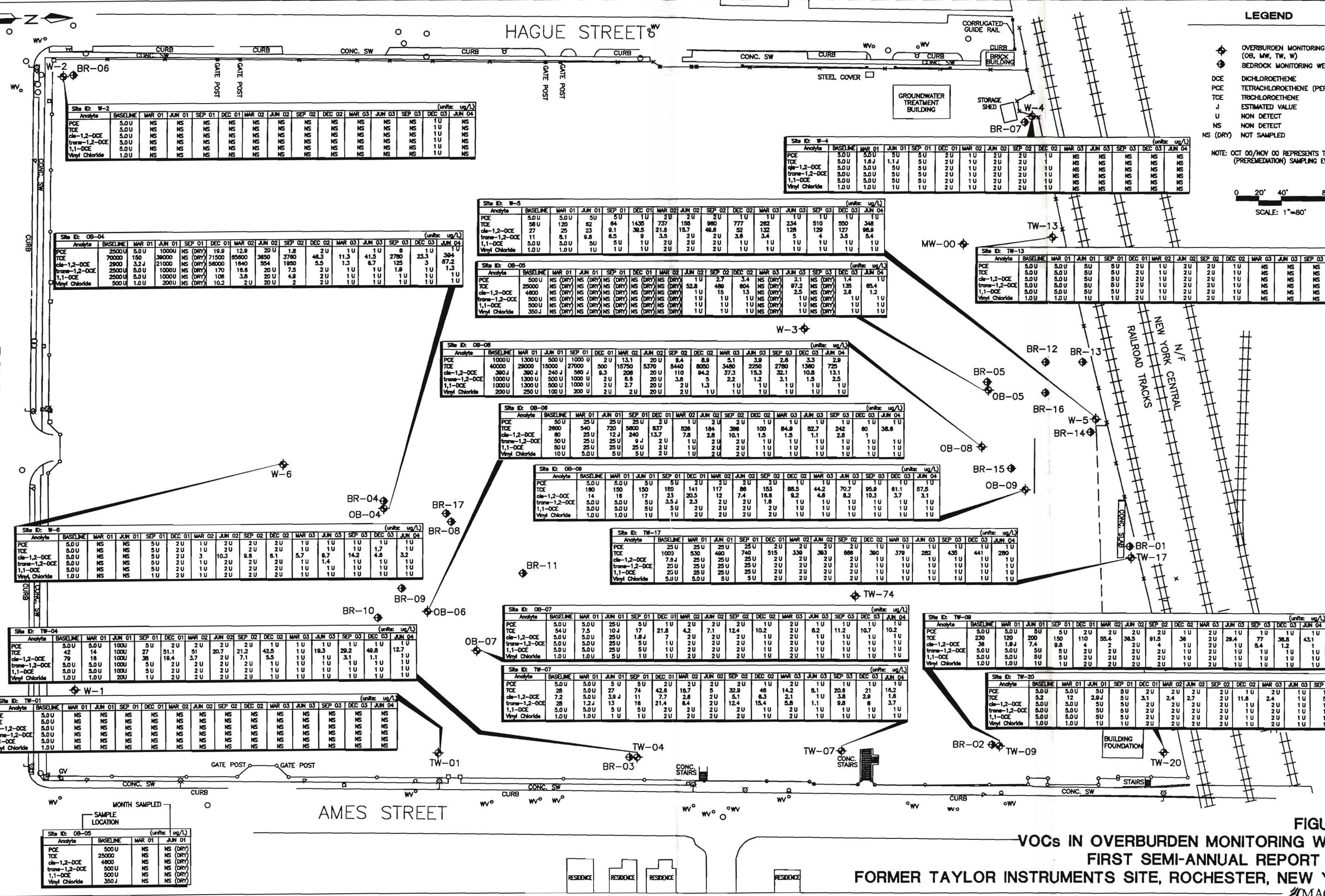
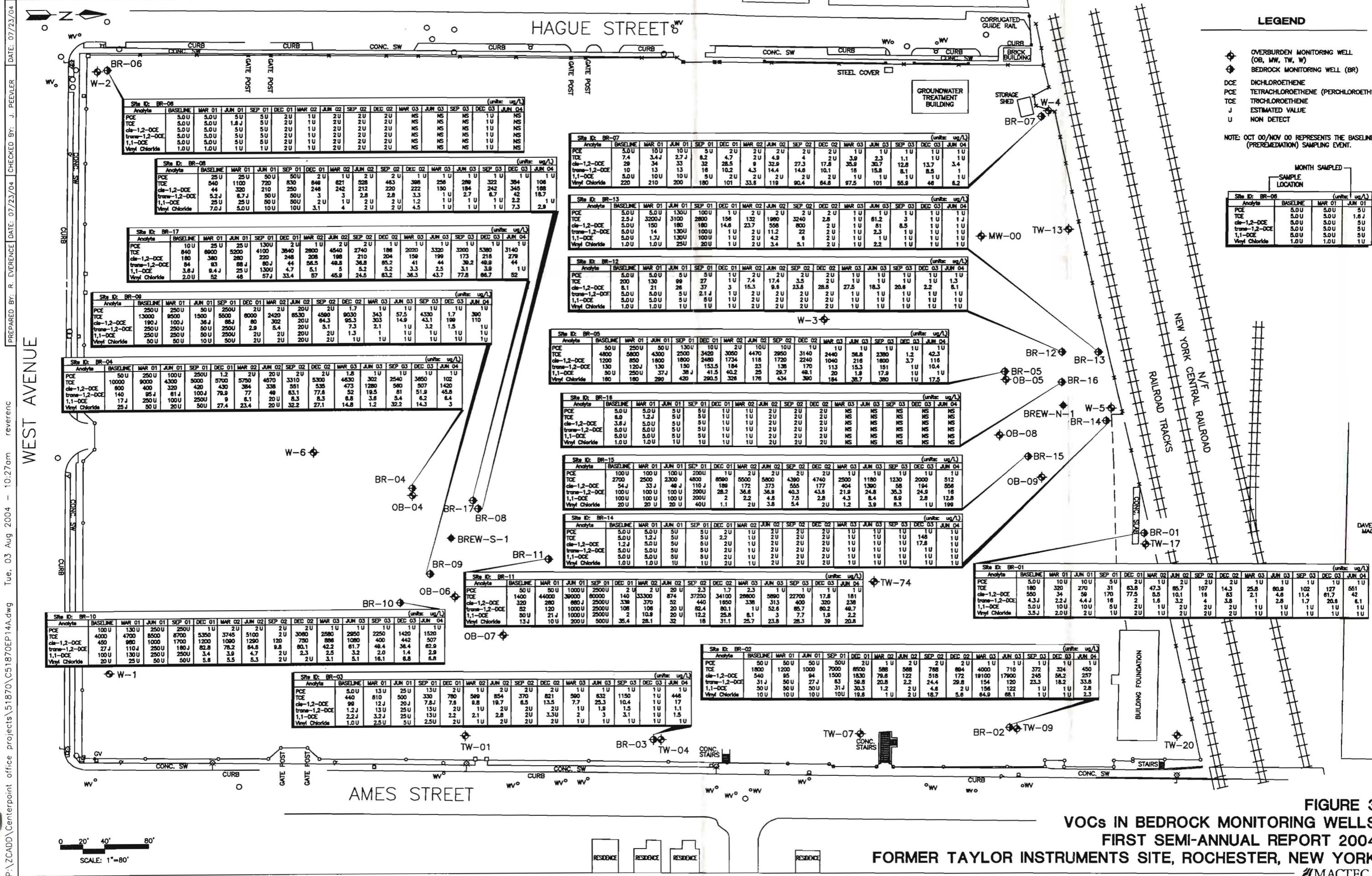


FIGURE 2  
VOCs IN OVERBURDEN MONITORING WELLS  
FIRST SEMI-ANNUAL REPORT 2004

FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

MACTEC



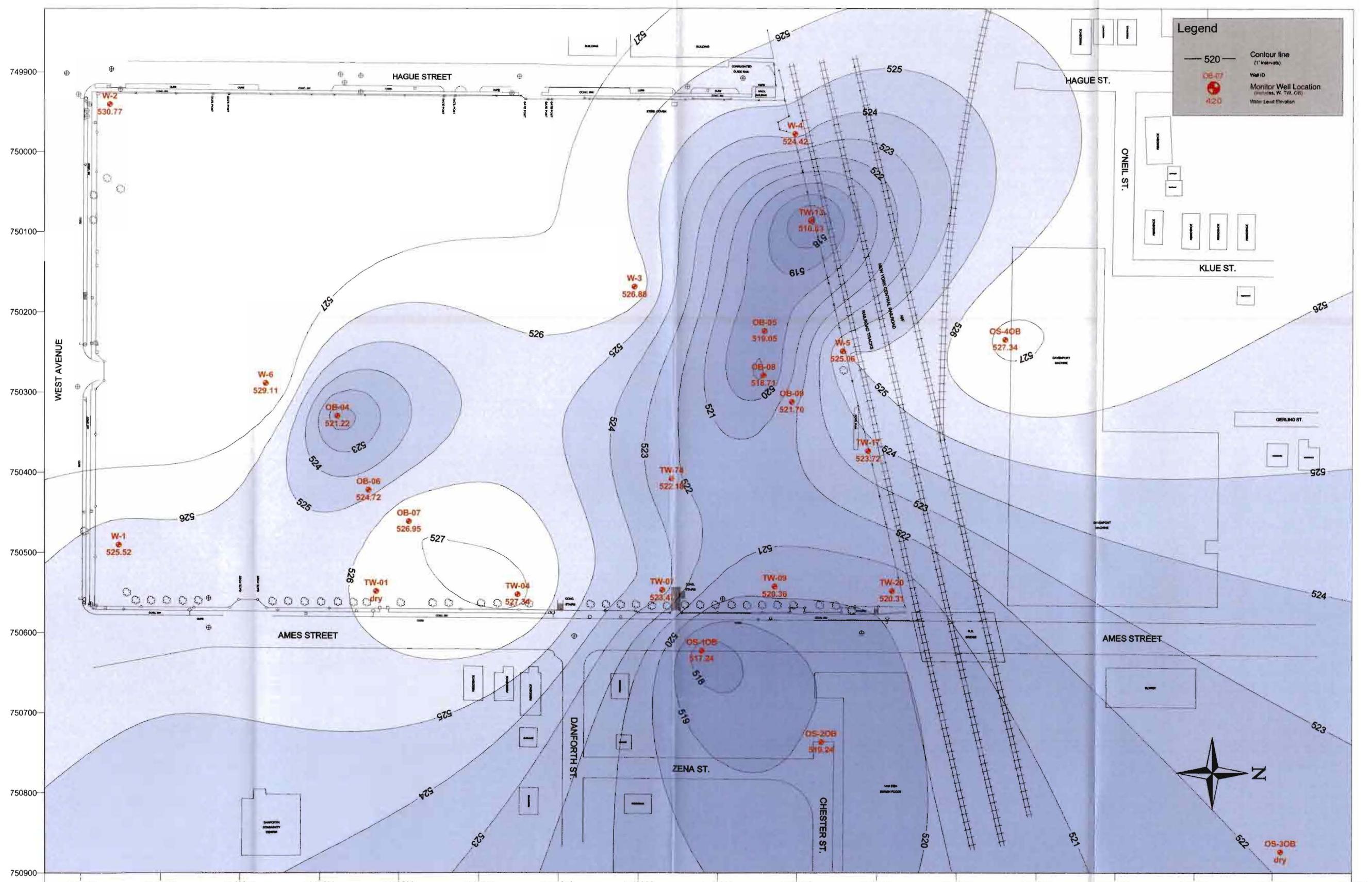


FIGURE 4  
OVERBURDEN POTENTIOMETRIC SURFACE MAP  
MAY 2004 PRE-SHUTDOWN  
FIRST SEMI-ANNUAL REPORT

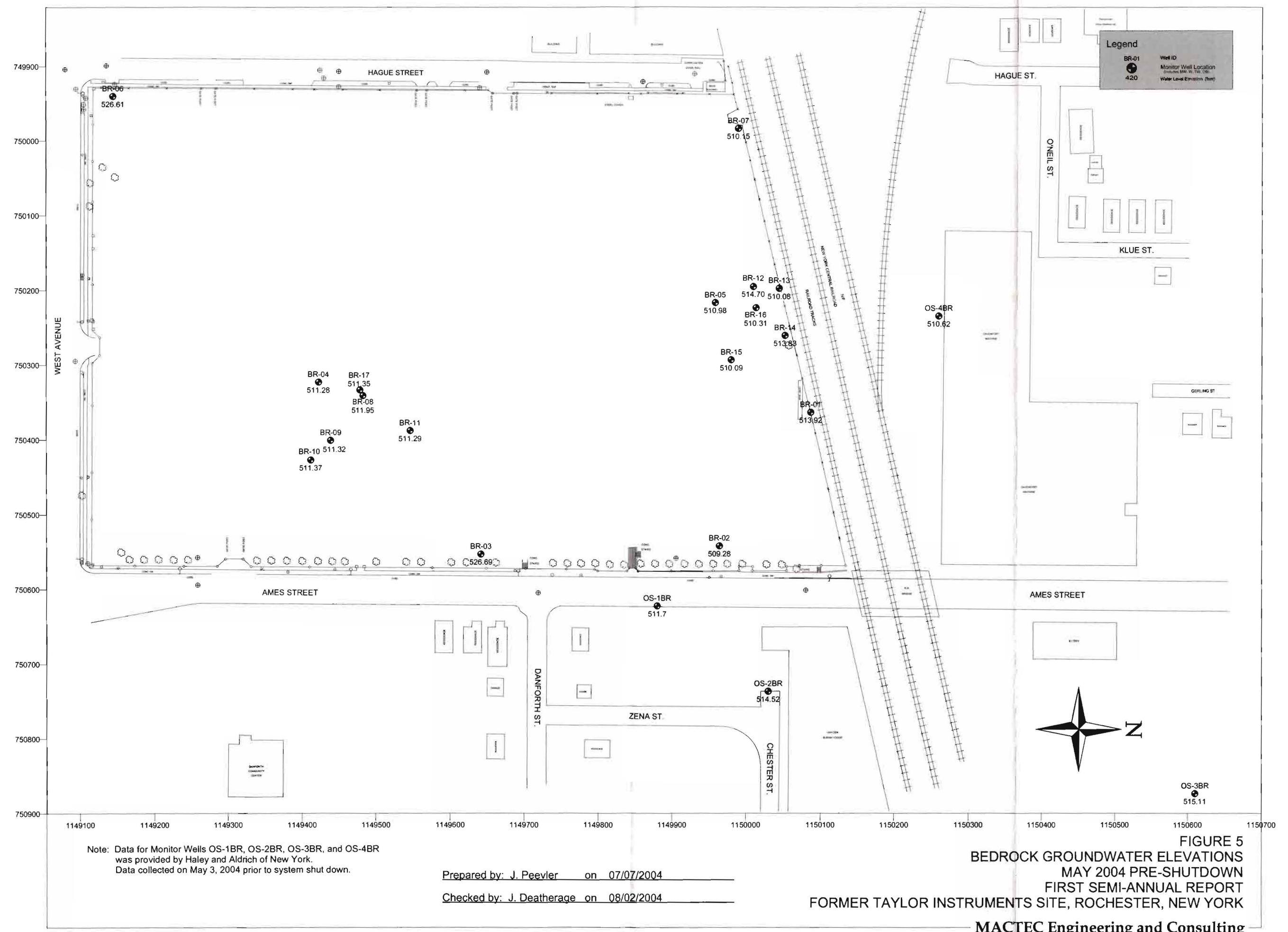
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

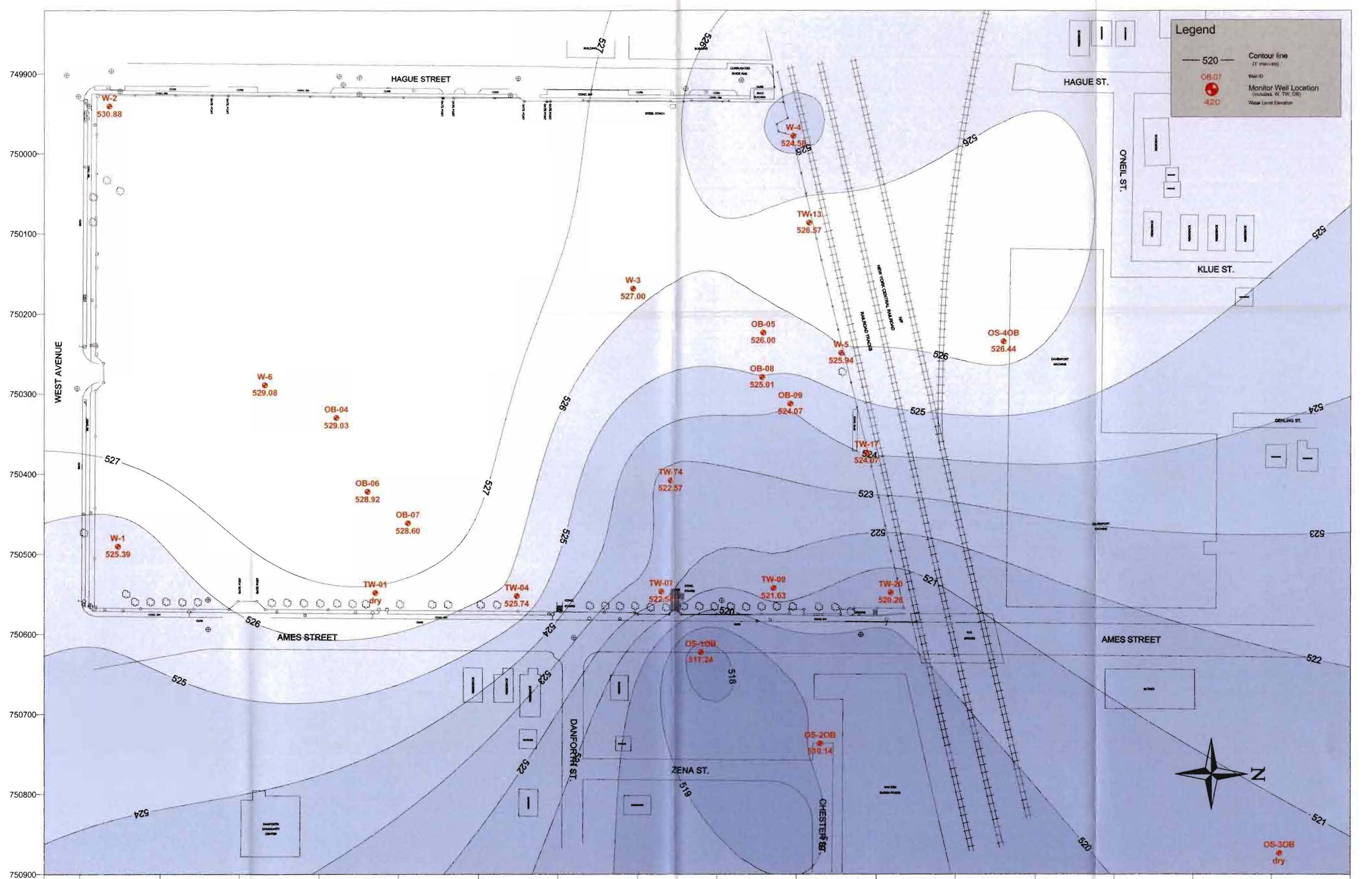
MACTEC Engineering and Consulting

Note: Data for Monitor Wells OS-10B, OS-20B, OS-30B, and OS-40B were provided by Haley and Aldrich of New York.  
Data collected on May 3, 2004 prior to system shut down.

Prepared by: J. Peevler on 07/12/2004

Checked by: J. Deatherage on 08/02/2004



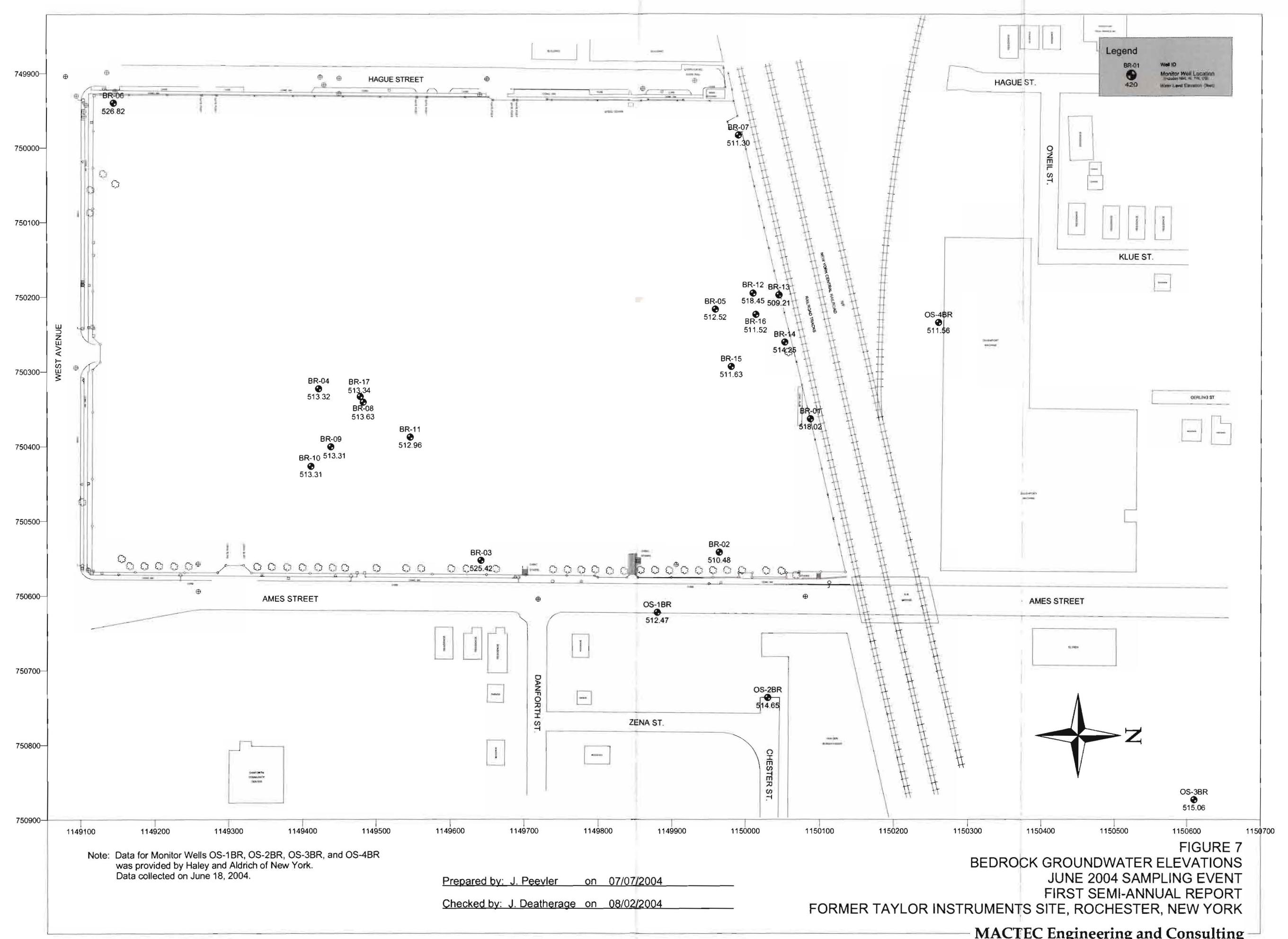


Note: Data for Monitor Wells OS-10B, OS-20B, OS-30B, and OS-40B were provided by Haley and Aldrich of New York on June 18, 2004. On-site monitoring well data collected on June 15, 2004.

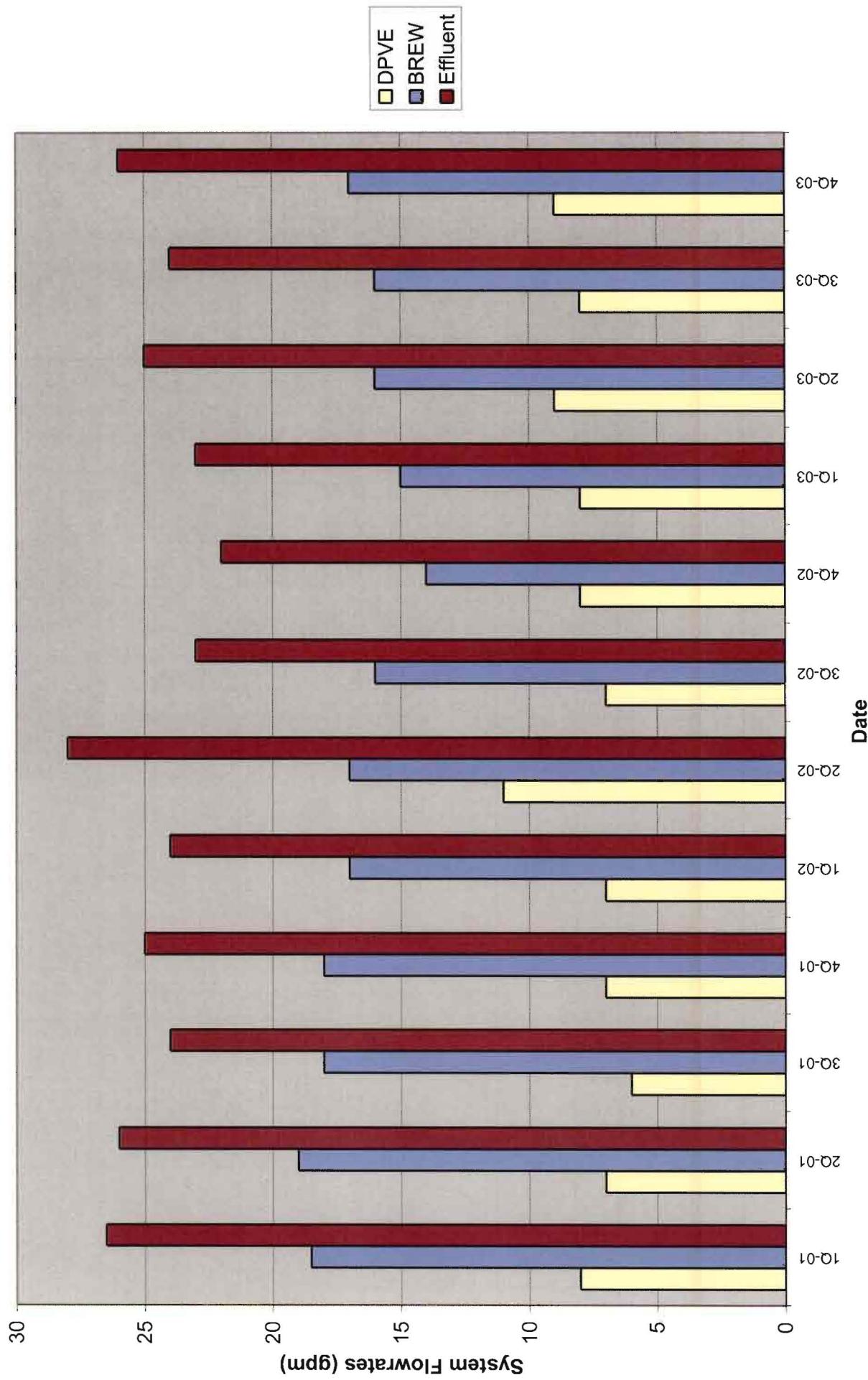
Prepared by: J. Peebler on 07/12/2004

Checked by: J. Deatherage on 08/02/2004

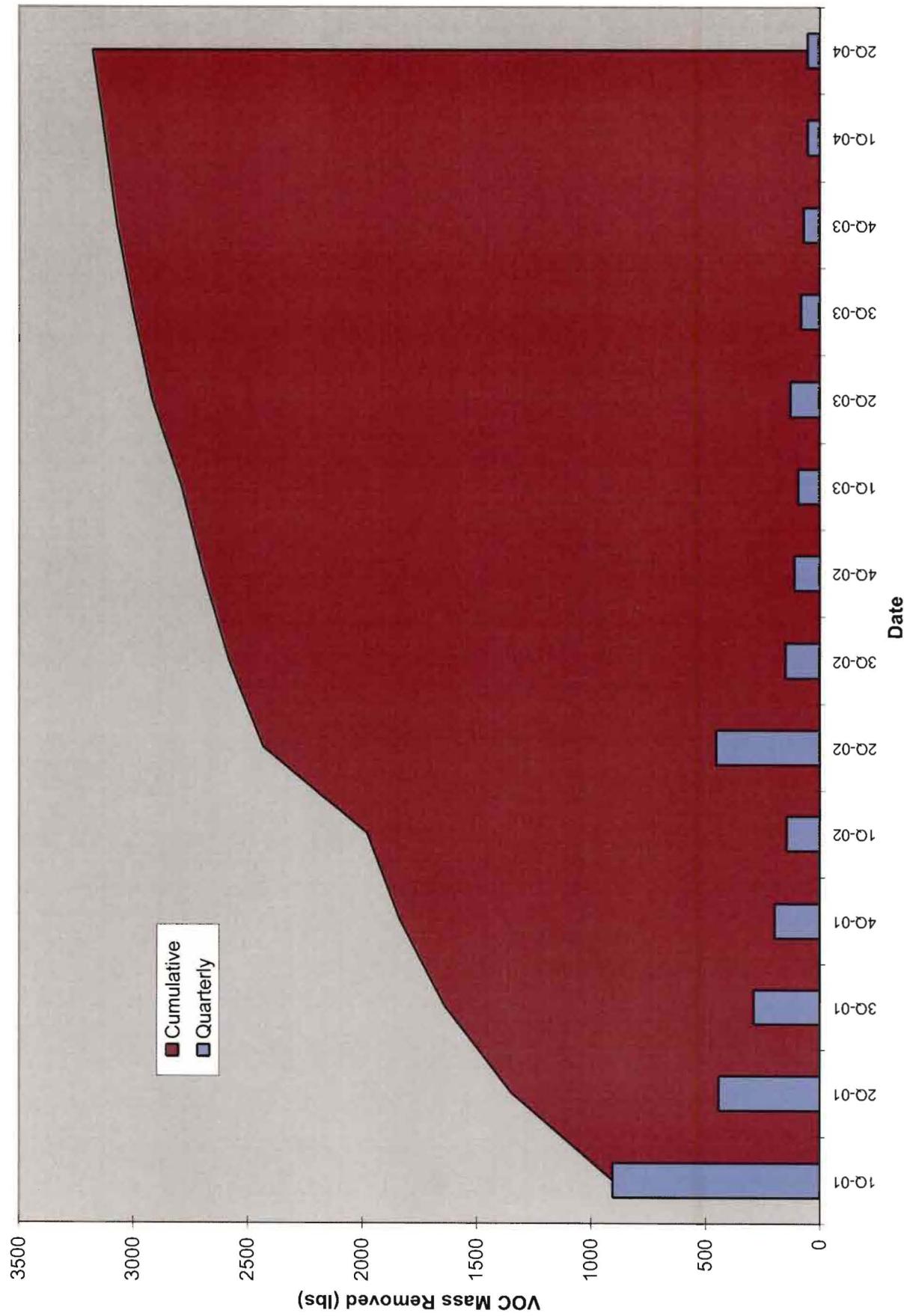
**FIGURE 6**  
**OVERBURDEN POTENTIOMETRIC SURFACE MAP**  
**JUNE 2004 SAMPLING EVENT**  
**FIRST SEMI-ANNUAL REPORT**  
**FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK**  
**MACTEC Engineering and Consulting**



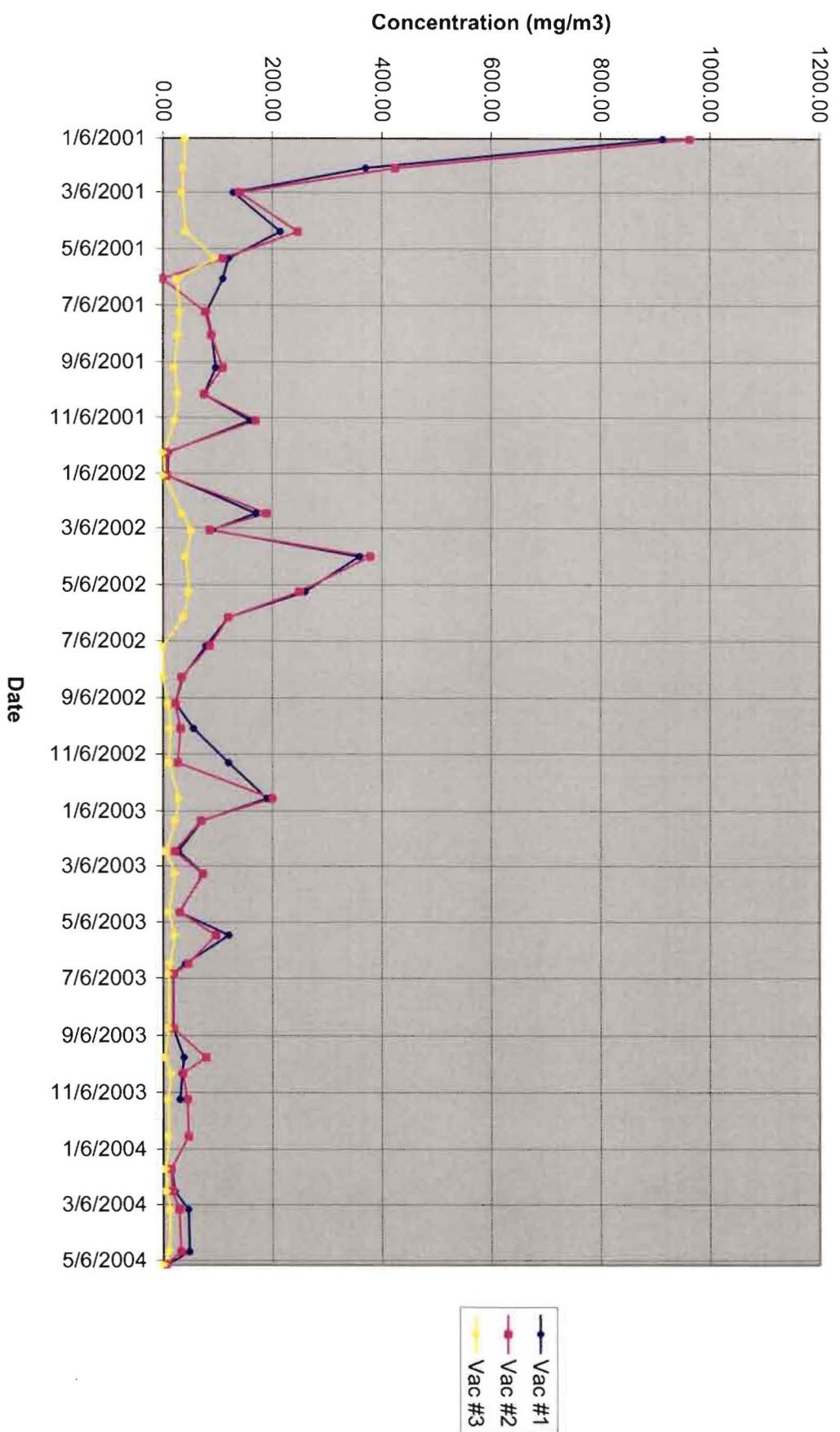
**Figure 8**  
**Average Groundwater Flowrates**



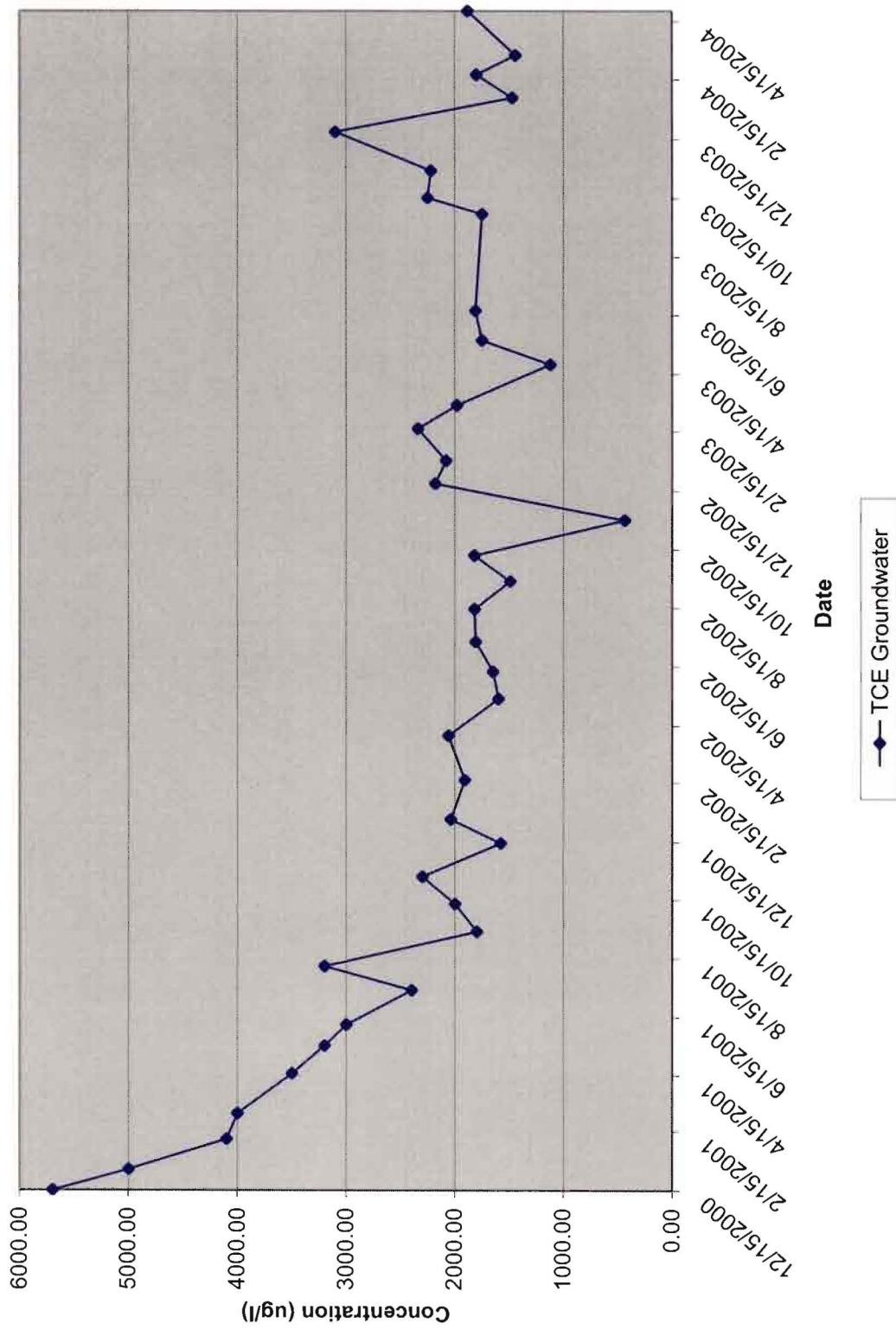
**Figure 9**  
**TCE Mass Removed**



**Figure 10**  
**System TCE Effluent Vapor Results**



**Figure 11**  
**System TCE Influent Groundwater Results**



## **APPENDIX B**

### **LABORATORY REPORTS**

**June 15, 2004**  
**Analytical Data**

6/22/04

## CASE NARRATIVE

**MACTEC ENGINEERING AND CONSULT 4997**  
**JANNA PEEVLER**  
**1431 CENTERPOINT BLVD, STE.150**  
**KNOXVILLE, TN 37932-1968**

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: ABB FORMER TAYLOR INSTRU  
Project Number: 51870.11.  
Laboratory Project Number: 378902.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Page 1 Collection Date
QATB01	04-A91791	6/15/04
QAFB01	04-A91792	6/15/04
QARB01	04-A91793	6/15/04
W-2	04-A91794	6/15/04
TW-04	04-A91795	6/15/04
TW-17	04-A91796	6/15/04
TW-20	04-A91797	6/15/04

# TestAmerica

ANALYTICAL TESTING CORPORATION

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204  
800-765-0980 • 615-726-3404 FAX

Sample Identification  
-----

Lab Number  
-----

Page 2  
Collection Date  
-----

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permission of the laboratory.

Report Approved By:                         

Report Date: 6/22/04

Johnny A. Mitchell, Operations Manager  
Michael H. Dunn, M.S., Technical Director  
Pamela A. Langford, Technical Services  
Eric S. Smith, QA/QC Director

Gail A. Lage, Technical Services  
Glenn L. Norton, Technical Services  
Kelly S. Comstock, Technical Services  
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 11342

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91791  
 Sample ID: QATB01  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 0:00  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/20/04	8:15	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	8:15	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Bromochloromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	8:15	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	8:15	M.Himelick	8260B	3319
Dibromochloromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319

Sample report continued . . .

## **ANALYTICAL REPORT**

Laboratory Number: 04-A91791  
 Sample ID: QATB01  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	8:15	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	8:15	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	8:15	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	8:15	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	8:15	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Toluene	ND	mg/l	0.0010	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Trichloroethene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	8:15	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	8:15	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A91791  
Sample ID: QATB01  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	8:15	M.Himelick	8260B	3319

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	71. - 128.
VOA Surr Toluene-d8	97.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	106.	78 - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91792  
 Sample ID: QAFB01  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 10:18  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis		Analyst	Method	Batch
					Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/20/04	8:43	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	8:43	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	8:43	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	8:43	M.Himelick	8260B	3319
Dibromochloromethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91792  
 Sample ID: QAFB01  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	8:43	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	8:43	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	8:43	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	8:43	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	8:43	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Toluene	0.0016	mg/l	0.0010	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Trichloroethene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	8:43	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	8:43	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A91792  
Sample ID: QAFB01  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	8:43	M.Himelick	8260B	3319

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	71. - 128.
VOA Surr Toluene-d8	97.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	105.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91793  
 Sample ID: QARB01  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 10:29  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/20/04	9:11	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	9:11	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Bromochloromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	9:11	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	9:11	M.Himelick	8260B	3319
Dibromochloromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91793  
 Sample ID: QARB01  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	9:11	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	9:11	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	9:11	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	9:11	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	9:11	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Toluene	0.0012	mg/l	0.0010	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Trichloroethene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	9:11	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	9:11	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A91793  
Sample ID: QARB01  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	9:11	M.Himelick	8260B	3319

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	93.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	106.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91794  
 Sample ID: W-2  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 10:29  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*MISCELLANEOUS GC PARAMETERS*									
Carbon Dioxide	29.5	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
*MISCELLANEOUS CHEMISTRY*									
Alkalinity as CaCO <sub>3</sub>	210.	mg/l	5.00	1	6/16/04	15:41	J. Staten	310.1	8057
Chloride	7.28	mg/l	1.00	1	6/16/04	20:50	W. Choate	325.2	8059

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91795  
 Sample ID: TW-04  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 13:19  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil	Analysis		Analyst	Method	Batch
				Factor	Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/20/04	9:39	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	9:39	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	9:39	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	9:39	M.Himelick	8260B	3319
Dibromo(chloromethane)	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91795  
Sample ID: TW-04  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	9:39	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	9:39	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	9:39	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	9:39	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	9:39	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Toluene	ND	mg/l	0.0010	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Trichloroethene	0.0127	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	9:39	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	9:39	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A91795  
Sample ID: TW-04  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	9:39	M.Himelick	8260B	3319

\*MISCELLANEOUS GC PARAMETERS\*

Methane	ND	mg/L	0.026	1	6/18/04	12:01	K. Roberso	RSK175M	105
Carbon Dioxide	82.8	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/18/04	12:01	K. Roberso	RSK175M	105
Ethane	ND	mg/L	0.026	1	6/18/04	12:01	K. Roberso	RSK175M	105

\*METALS\*

Ferrous Iron	0.102	mg/l	0.100	1	6/16/04	16:38	W. Choate	3500D	8044
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\*MISCELLANEOUS CHEMISTRY\*

Nitrate-N as N	0.260	mg/l	0.100	1	6/16/04	16:20	W. Choate	353.2	8041
Sulfate	185.	mg/l	10.0	10	6/21/04	2:07	M.Shockley	375.4	2811
Alkalinity as CaCO <sub>3</sub>	261.	mg/l	5.00	1	6/16/04	15:41	J. Staten	310.1	8057
Total Organic Carbon	2.03	mg/l	1.00	1	6/16/04	15:40	S. Prayer	415.1	8289
Sulfide	ND	mg/l	1.000	1	6/17/04	12:45	B. Yanna	376.1	9047
Chloride	7.80	mg/l	1.00	1	6/16/04	20:52	W. Choate	325.2	8059

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	96.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	105.	78. - 124.
Surr - Acetylene	100.	70. - 130.

Sample report continued . . .

## *ANALYTICAL REPORT*

Laboratory Number: 04-A91795  
Sample ID: TW-04  
Project: 51870.11  
Page 4

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91796  
 Sample ID: TW-17  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 14:40  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/20/04	10:07	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	10:07	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	10:07	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	10:07	M.Himelick	8260B	3319
Dibromochloromethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91796  
 Sample ID: TW-17  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	10:07	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	10:07	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	10:07	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	10:07	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	10:07	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Toluene	ND	mg/l	0.0010	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Trichloroethene	0.280	mg/l	0.0100	10	6/21/04	14:42	B.Herford	8260B	3935
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	10:07	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	10:07	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91796  
 Sample ID: TW-17  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	10:07	M.Himelick	8260B	3319

\*MISCELLANEOUS GC PARAMETERS\*

Methane	ND	mg/L	0.026	1	6/18/04	12:04	K. Roberso	RSK175M	105
Carbon Dioxide	104.	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/18/04	12:04	K. Roberso	RSK175M	105
Ethane	ND	mg/L	0.026	1	6/18/04	12:04	K. Roberso	RSK175M	105

\*METALS\*

Ferrous Iron	ND	mg/l	0.100	1	6/16/04	16:38	W. Choate	3500D	8044
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\*MISCELLANEOUS CHEMISTRY\*

Nitrate-N as N	0.200	mg/l	0.100	1	6/16/04	16:21	W. Choate	353.2	8041
Sulfate	93.0	mg/l	5.00	5	6/21/04	2:07	M.Shockley	375.4	2811
Alkalinity as CaCO <sub>3</sub>	329.	mg/l	5.00	1	6/16/04	15:41	J. Staten	310.1	8057
Total Organic Carbon	2.08	mg/l	1.00	1	6/16/04	15:40	S. Prayer	415.1	8289
Sulfide	ND	mg/l	1.000	1	6/17/04	12:45	B. Yanna	376.1	9047
Chloride	16.8	mg/l	1.00	1	6/16/04	20:52	W. Choate	325.2	8059

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	98.	77. - 119.
VOA Surr, 4-BFB	102.	79. - 123.
VOA Surr, DBFM	103.	78. - 124.
Surr - Acetylene	106.	70. - 130.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A91796  
Sample ID: TW-17  
Project: 51870.11  
Page 4

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

M = Method RSK175M/8015BM modified for use with Headspace analyzer.

Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A91797  
 Sample ID: TW-20  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: ABB FORMER TAYLOR INSTRU  
 Sampler: JANNA PEEVLER

Date Collected: 6/15/04  
 Time Collected: 15:31  
 Date Received: 6/16/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/20/04	10:35	M.Himelick	8260B	3319
Benzene	ND	mg/l	0.0010	1	6/20/04	10:35	M.Himelick	8260B	3319
Bromobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Bromoform	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Bromomethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
2-Butanone	ND	mg/l	0.0250	1	6/20/04	10:35	M.Himelick	8260B	3319
n-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
sec-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
tert-Butylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Carbon disulfide	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Carbon tetrachloride	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Chlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Chloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Chloroform	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Chloromethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
2-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
4-Chlorotoluene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/20/04	10:35	M.Himelick	8260B	3319
Dibromo(chloromethane)	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Dibromomethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91797  
 Sample ID: TW-20  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Ethylbenzene	ND	mg/l	0.0010	1	6/20/04	10:35	M.Himelick	8260B	3319
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
2-Hexanone	ND	mg/l	0.00500	1	6/20/04	10:35	M.Himelick	8260B	3319
Isopropylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/20/04	10:35	M.Himelick	8260B	3319
Methylene chloride	ND	mg/l	0.00250	1	6/20/04	10:35	M.Himelick	8260B	3319
Naphthalene	ND	mg/l	0.00500	1	6/20/04	10:35	M.Himelick	8260B	3319
n-Propylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Styrene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Tetrachloroethene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Toluene	ND	mg/l	0.0010	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Trichloroethene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/20/04	10:35	M.Himelick	8260B	3319
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Vinyl chloride	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319
Xylenes (Total)	ND	mg/l	0.0010	1	6/20/04	10:35	M.Himelick	8260B	3319
Bromodichloromethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A91797  
 Sample ID: TW-20  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/20/04	10:35	M.Himelick	8260B	3319

### \*MISCELLANEOUS GC PARAMETERS\*

Methane	ND	mg/L	0.026	1	6/18/04	12:07	K. Roberso	RSK175M	105
Carbon Dioxide	88.7	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/18/04	12:07	K. Roberso	RSK175M	105
Ethane	ND	mg/L	0.026	1	6/18/04	12:07	K. Roberso	RSK175M	105

### \*METALS\*

Ferrous Iron	ND	mg/l	0.100	1	6/16/04	16:38	W. Choate	3500D	8044
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### \*MISCELLANEOUS CHEMISTRY\*

Nitrate-N as N	3.08	mg/l	0.100	1	6/16/04	16:22	W. Choate	353.2	8041
Sulfate	71.6	mg/l	2.00	2	6/21/04	2:07	M.Shockley	375.4	2811
Alkalinity as CaCO <sub>3</sub>	338.	mg/l	5.00	1	6/16/04	15:41	J. Staten	310.1	8057
Total Organic Carbon	1.58	mg/l	1.00	1	6/16/04	15:40	S. Prayter	415.1	8289
Sulfide	ND	mg/l	1.000	1	6/17/04	12:45	B. Yanna	376.1	9047
Chloride	16.8	mg/l	1.00	1	6/16/04	20:54	W. Choate	325.2	8059

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	71. - 128.
VOA Surr Toluene-d8	96.	77. - 119.
VOA Surr, 4-BFB	102.	79. - 123.
VOA Surr, DBFM	106.	78. - 124.
Surr - Acetylene	103.	70. - 130.

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A91797  
Sample ID: TW-20  
Project: 51870.11  
Page 4

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

M = Method RSK175M/8015BM modified for use with Headspace analyzer.

Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 1

**Laboratory Receipt Date:** 6/16/04

**Matrix Spike Recovery**

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Samp
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**\*\*VOA PARAMETERS\*\***

Benzene	mg/l	< 0.0010	0.0403	0.0500	81	73 - 135	3319	04-A92349
Toluene	mg/l	0.0007	0.0393	0.0500	77	69 - 139	3319	04-A92349
VOA Surr 1,2-DCA-d4	% Rec				95	71 - 128	3319	
VOA Surr Toluene-d8	% Rec				100	77 - 119	3319	
VOA Surr, 4-BFB	% Rec				95	79 - 123	3319	
VOA Surr, DBFM	% Rec				101	78 - 124	3319	

**\*\*METALS\*\***

Ferrous Iron	mg/l	0.102	1.31	1.00	121#	80 - 120	8044	04-A91795
Ferrous Iron	mg/l	0.102	1.33	1.00	123#	80 - 120	8044	04-A91795

**\*\*MISC PARAMETERS\*\***

Nitrate-N as N	mg/l	0.260	6.40	6.00	102	80 - 120	8041	04-A91795
Nitrate-N as N	mg/l	0.260	6.35	6.00	102	80 - 120	8041	04-A91795
Sulfate	mg/l	12.1	34.0	20.0	110	80 - 120	2811	04-A94553
Alkalinity as CaCO <sub>3</sub>	mg/l	126.	219.	100.	93	80 - 120	8057	04-A91937
Total Organic Carbon	mg/l	46.7	68.9	20.0	111	80 - 120	8289	04-A89360
Sulfide	mg/l	< 1.000	19.40	20.00	97	80 - 120	9047	04-A91795
Chloride	mg/l	7.28	16.0	10.0	87	80 - 120	8059	04-A91794
Methane	mg/L	0.096	1.45	1.33	102	40 - 140	105	04-A91958
Ethene	mg/L	< 0.026	2.14	2.32	92	40 - 140	105	04-A91958
Ethane	mg/L	< 0.026	2.31	2.50	92	40 - 140	105	04-A91958

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 2

**Laboratory Receipt Date:** 6/16/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<hr/>						
**VOA PARAMETERS**						
Benzene	mg/l	0.0403	0.0449	10.80	21.	3319
Chlorobenzene	mg/l	0.0387	0.0432	10.99	19.	3319
1,1-Dichloroethene	mg/l	0.0412	0.0468	12.73	21.	3319
Toluene	mg/l	0.0393	0.0445	12.41	24.	3319
Trichloroethene	mg/l	0.0350	0.0394	11.83	21.	3319
Tetrachloroethene	mg/l	0.0422	0.0472	11.19	21.	3319
VOA Surr 1,2-DCA-d4	% Rec		95.			3319
VOA Surr Toluene-d8	% Rec		101.			3319
VOA Surr, 4-BFB	% Rec		94.			3319
VOA Surr, DBFM	% Rec		101.			3319
<hr/>						
**METALS**						
Ferrous Iron	mg/l	1.31	1.33	1.52	20	8044
<hr/>						
**MISC PARAMETERS**						
Methane	mg/L	1.45	1.50	3.39	50	105
Ethene	mg/L	2.14	2.18	1.85	50	105
Ethane	mg/L	2.31	2.35	1.72	50	105
Nitrate-N as N	mg/l	6.40	6.35	0.78	20	8041
Sulfate	mg/l	34.0	34.2	0.59	20	2811
Total Organic Carbon	mg/l	68.9	68.7	0.29	20	8289
Sulfide	mg/l	19.40	19.40	0.00	20	9047
Chloride	mg/l	16.0	16.1	0.62	20	8059

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 3

**Laboratory Receipt Date:** 6/16/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
---------	-------	------------	--------------	------------	--------------	------------

**\*\*VOA PARAMETERS\*\***

Acetone	mg/l	0.250	0.196	78	55 - 144	3319
Benzene	mg/l	0.0500	0.0539	108	81 - 121	3319
Bromobenzene	mg/l	0.0500	0.0490	98	72 - 129	3319
Bromochloromethane	mg/l	0.0500	0.0560	112	75 - 137	3319
Bromoform	mg/l	0.0500	0.0506	101	54 - 127	3319
Bromomethane	mg/l	0.0500	0.0539	108	54 - 160	3319
2-Butanone	mg/l	0.250	0.212	85	62 - 146	3319
n-Butylbenzene	mg/l	0.0500	0.0478	96	68 - 139	3319
sec-Butylbenzene	mg/l	0.0500	0.0521	104	75 - 135	3319
tert-Butylbenzene	mg/l	0.0500	0.0520	104	73 - 135	3319
Carbon disulfide	mg/l	0.0500	0.0515	103	71 - 139	3319
Carbon tetrachloride	mg/l	0.0500	0.0544	109	70 - 131	3319
Chlorobenzene	mg/l	0.0500	0.0520	104	87 - 120	3319
Chloroethane	mg/l	0.0500	0.0464	93	65 - 145	3319
Chloroform	mg/l	0.0500	0.0526	105	77 - 128	3319
Chloromethane	mg/l	0.0500	0.0396	79	46 - 147	3319
2-Chlorotoluene	mg/l	0.0500	0.0546	109	78 - 128	3319
4-Chlorotoluene	mg/l	0.0500	0.0551	110	80 - 130	3319
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0379	76	55 - 135	3319
Dibromochloromethane	mg/l	0.0500	0.0523	105	63 - 132	3319
1,2-Dibromoethane	mg/l	0.0500	0.0532	106	77 - 136	3319
Dibromomethane	mg/l	0.0500	0.0536	107	75 - 133	3319
1,2-Dichlorobenzene	mg/l	0.0500	0.0544	109	83 - 126	3319
1,3-Dichlorobenzene	mg/l	0.0500	0.0536	107	85 - 124	3319
1,4-Dichlorobenzene	mg/l	0.0500	0.0511	102	83 - 122	3319
Dichlorodifluoromethane	mg/l	0.0500	0.0465	93	52 - 159	3319
1,1-Dichloroethane	mg/l	0.0500	0.0505	101	76 - 129	3319

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** ABB FORMER TAYLOR INSTRU  
**Page:** 4  
**Laboratory Receipt Date:** 6/16/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,2-Dichloroethane	mg/l	0.0500	0.0511	102	70 - 136	3319
1,1-Dichloroethene	mg/l	0.0500	0.0535	107	77 - 133	3319
cis-1,2-Dichloroethene	mg/l	0.0500	0.0472	94	76 - 129	3319
trans-1,2-Dichloroethene	mg/l	0.0500	0.0507	101	73 - 135	3319
1,2-Dichloropropane	mg/l	0.0500	0.0520	104	74 - 130	3319
1,3-Dichloropropane	mg/l	0.0500	0.0509	102	79 - 129	3319
2,2-Dichloropropane	mg/l	0.0500	0.0399	80	39 - 151	3319
1,1-Dichloropropene	mg/l	0.0500	0.0559	112	80 - 129	3319
cis-1,3-Dichloropropene	mg/l	0.0500	0.0442	88	59 - 136	3319
trans-1,3-Dichloropropene	mg/l	0.0500	0.0406	81	59 - 135	3319
Ethylbenzene	mg/l	0.0500	0.0550	110	78 - 126	3319
Hexachlorobutadiene	mg/l	0.0500	0.0514	103	60 - 142	3319
2-Hexanone	mg/l	0.250	0.199	80	61 - 148	3319
Isopropylbenzene	mg/l	0.0500	0.0548	110	74 - 134	3319
4-Isopropyltoluene	mg/l	0.0500	0.0520	104	79 - 130	3319
4-Methyl-2-pentanone	mg/l	0.250	0.213	85	59 - 147	3319
Methylene chloride	mg/l	0.0500	0.0543	109	68 - 132	3319
Naphthalene	mg/l	0.0500	0.0417	83	53 - 152	3319
n-Propylbenzene	mg/l	0.0500	0.0574	115	73 - 134	3319
Styrene	mg/l	0.0500	0.0522	104	78 - 134	3319
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0535	107	75 - 131	3319
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0421	84	62 - 142	3319
Tetrachloroethene	mg/l	0.0500	0.0538	108	77 - 129	3319
Toluene	mg/l	0.0500	0.0522	104	77 - 125	3319
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0455	91	54 - 155	3319
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0426	85	61 - 145	3319
1,1,1-Trichloroethane	mg/l	0.0500	0.0549	110	66 - 139	3319
1,1,2-Trichloroethane	mg/l	0.0500	0.0518	104	77 - 132	3319
Trichloroethene	mg/l	0.0500	0.0496	99	80 - 132	3319
Trichloroethene	mg/l	0.0500	0.0478	96	80 - 132	3935
1,2,3-Trichloropropane	mg/l	0.0500	0.0415	83	54 - 144	3319

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 5

**Laboratory Receipt Date:** 6/16/04

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0516	103	74 - 130	3319
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0526	105	77 - 131	3319
Vinyl chloride	mg/l	0.0500	0.0460	92	69 - 139	3319
Xylenes (Total)	mg/l	0.150	0.172	115	78 - 127	3319
Bromodichloromethane	mg/l	0.0500	0.0528	106	67 - 135	3319
Trichlorofluoromethane	mg/l	0.0500	0.0518	104	64 - 143	3319
Methane	mg/L	1.33	1.04	78 #	79 - 121	105
Carbon Dioxide	mg/l	100.	98.8	99	90 - 110	9632
Ethene	mg/L	2.32	1.68	72 #	77 - 119	105
Ethane	mg/L	2.50	1.81	72 #	78 - 118	105
VOA Surr 1,2-DCA-d4	% Rec			93	71 - 128	3319
VOA Surr 1,2-DCA-d4	% Rec			95	71 - 128	3935
VOA Surr Toluene-d8	% Rec			100	77 - 119	3319
VOA Surr Toluene-d8	% Rec			100	77 - 119	3935
VOA Surr, 4-BFB	% Rec			95	79 - 123	3319
VOA Surr, 4-BFB	% Rec			95	79 - 123	3935
VOA Surr, DBFM	% Rec			100	78 - 124	3319
VOA Surr, DBFM	% Rec			99	78 - 124	3935
**METALS**						
Ferrous Iron	mg/l	1.00	1.08	108	80 - 120	8044
**MISC PARAMETERS**						
Nitrate-N as N	mg/l	6.00	6.22	104	88 - 113	8041
Sulfate	mg/l	25.0	24.9	100	94 - 106	2811
Alkalinity as CaCO <sub>3</sub>	mg/l	100.	98.6	99	90 - 110	8057
Total Organic Carbon	mg/l	200.	190.	95	90 - 110	8289
Sulfide	mg/l	20.00	20.20	101	90 - 110	9047
Chloride	mg/l	10.0	9.91	99	86 - 112	8059

Project QC continued . . .

# TestAmerica

ANALYTICAL TESTING CORPORATION

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204  
 800-765-0980 • 615-726-3404 Fax

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 6

**Laboratory Receipt Date:** 6/16/04

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Ferrous Iron	mg/l	< 0.100	< 0.100	N/A	15.	8044	04-A91797
Nitrate-N as N	mg/l	< 0.100	< 0.100	N/A	15.	8041	04-A91963
Sulfate	mg/l	5.20	5.30	1.90	15.	2811	04-A94554
Alkalinity as CaCO <sub>3</sub>	mg/l	210.	208.	0.96	15.	8057	04-A91794
Sulfide	mg/l	< 1.000	< 1.000	N/A	15.	9047	04-A92306
Chloride	mg/l	36.8	36.2	1.64	15.	8059	04-A91988
Carbon Dioxide	mg/l	72.5	71.0	2.09	15.	9632	04-A92588

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

**\*\*VOA PARAMETERS\*\***

Acetone	< 0.00470	mg/l	3319	6/20/04	2:12
Benzene	< 0.0005	mg/l	3319	6/20/04	2:12
Bromobenzene	< 0.00030	mg/l	3319	6/20/04	2:12
Bromoform	< 0.00030	mg/l	3319	6/20/04	2:12
Bromoform	< 0.00060	mg/l	3319	6/20/04	2:12
Bromomethane	< 0.00060	mg/l	3319	6/20/04	2:12
2-Butanone	< 0.00310	mg/l	3319	6/20/04	2:12
n-Butylbenzene	< 0.00010	mg/l	3319	6/20/04	2:12
sec-Butylbenzene	< 0.00030	mg/l	3319	6/20/04	2:12
tert-Butylbenzene	< 0.00030	mg/l	3319	6/20/04	2:12
Carbon disulfide	< 0.00020	mg/l	3319	6/20/04	2:12
Carbon tetrachloride	< 0.00040	mg/l	3319	6/20/04	2:12

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 7

**Laboratory Receipt Date:** 6/16/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Chlorobenzene	< 0.00020	mg/l	3319	6/20/04	2:12
Chloroethane	< 0.00100	mg/l	3319	6/20/04	2:12
Chloroform	< 0.00080	mg/l	3319	6/20/04	2:12
Chloromethane	< 0.00070	mg/l	3319	6/20/04	2:12
2-Chlorotoluene	< 0.00040	mg/l	3319	6/20/04	2:12
4-Chlorotoluene	< 0.00050	mg/l	3319	6/20/04	2:12
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	3319	6/20/04	2:12
Dibromochloromethane	< 0.00050	mg/l	3319	6/20/04	2:12
1,2-Dibromoethane	< 0.00040	mg/l	3319	6/20/04	2:12
Dibromomethane	< 0.00090	mg/l	3319	6/20/04	2:12
1,2-Dichlorobenzene	< 0.00020	mg/l	3319	6/20/04	2:12
1,3-Dichlorobenzene	< 0.00030	mg/l	3319	6/20/04	2:12
1,4-Dichlorobenzene	< 0.00040	mg/l	3319	6/20/04	2:12
Dichlorodifluoromethane	< 0.00050	mg/l	3319	6/20/04	2:12
1,1-Dichloroethane	< 0.00020	mg/l	3319	6/20/04	2:12
1,2-Dichloroethane	< 0.00060	mg/l	3319	6/20/04	2:12
1,1-Dichloroethene	< 0.00060	mg/l	3319	6/20/04	2:12
cis-1,2-Dichloroethene	< 0.00060	mg/l	3319	6/20/04	2:12
trans-1,2-Dichloroethene	< 0.00050	mg/l	3319	6/20/04	2:12
1,2-Dichloropropane	< 0.00040	mg/l	3319	6/20/04	2:12
1,3-Dichloropropane	< 0.00040	mg/l	3319	6/20/04	2:12
2,2-Dichloropropane	< 0.00040	mg/l	3319	6/20/04	2:12
1,1-Dichloropropene	< 0.00050	mg/l	3319	6/20/04	2:12
cis-1,3-Dichloropropene	< 0.00030	mg/l	3319	6/20/04	2:12
trans-1,3-Dichloropropene	< 0.00050	mg/l	3319	6/20/04	2:12
Ethylbenzene	< 0.0003	mg/l	3319	6/20/04	2:12
Hexachlorobutadiene	< 0.00080	mg/l	3319	6/20/04	2:12
2-Hexanone	< 0.00420	mg/l	3319	6/20/04	2:12
Isopropylbenzene	< 0.00040	mg/l	3319	6/20/04	2:12
4-Isopropyltoluene	< 0.00060	mg/l	3319	6/20/04	2:12
4-Methyl-2-pentanone	< 0.00490	mg/l	3319	6/20/04	2:12

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 8

**Laboratory Receipt Date:** 6/16/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Methylene chloride	< 0.00240	mg/l	3319	6/20/04	2:12
Naphthalene	< 0.00120	mg/l	3319	6/20/04	2:12
n-Propylbenzene	< 0.00030	mg/l	3319	6/20/04	2:12
Styrene	< 0.00040	mg/l	3319	6/20/04	2:12
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	3319	6/20/04	2:12
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l	3319	6/20/04	2:12
Tetrachloroethene	< 0.00040	mg/l	3319	6/20/04	2:12
Toluene	< 0.0006	mg/l	3319	6/20/04	2:12
1,2,3-Trichlorobenzene	< 0.00100	mg/l	3319	6/20/04	2:12
1,2,4-Trichlorobenzene	< 0.00060	mg/l	3319	6/20/04	2:12
1,1,1-Trichloroethane	< 0.00070	mg/l	3319	6/20/04	2:12
1,1,2-Trichloroethane	< 0.00040	mg/l	3319	6/20/04	2:12
Trichloroethene	< 0.00040	mg/l	3319	6/20/04	2:12
Trichloroethene	< 0.00040	mg/l	3935	6/21/04	10:52
1,2,3-Trichloropropane	< 0.00060	mg/l	3319	6/20/04	2:12
1,2,4-Trimethylbenzene	< 0.0003	mg/l	3319	6/20/04	2:12
1,3,5-Trimethylbenzene	< 0.00100	mg/l	3319	6/20/04	2:12
Vinyl chloride	< 0.00050	mg/l	3319	6/20/04	2:12
Xylenes (Total)	< 0.0009	mg/l	3319	6/20/04	2:12
Bromodichloromethane	< 0.00030	mg/l	3319	6/20/04	2:12
Trichlorofluoromethane	< 0.00040	mg/l	3319	6/20/04	2:12
VOA Surr 1,2-DCA-d4	99.	% Rec	3319	6/20/04	2:12
VOA Surr 1,2-DCA-d4	98.	% Rec	3935	6/21/04	10:52
VOA Surr Toluene-d8	98.	% Rec	3319	6/20/04	2:12
VOA Surr Toluene-d8	97.	% Rec	3935	6/21/04	10:52
VOA Surr, 4-BFB	100.	% Rec	3319	6/20/04	2:12
VOA Surr, 4-BFB	100.	% Rec	3935	6/21/04	10:52
VOA Surr, DBFM	105.	% Rec	3319	6/20/04	2:12
VOA Surr, DBFM	105.	% Rec	3935	6/21/04	10:52

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** ABB FORMER TAYLOR INSTRU

**Page:** 9

**Laboratory Receipt Date:** 6/16/04

**\*\*METALS\*\***

Ferrous Iron	< 0.100	mg/l	8044	6/16/04	16:38
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**\*\*MISC PARAMETERS\*\***

Nitrate-N as N	< 0.100	mg/l	8041	6/16/04	16:18
Sulfate	< 1.00	mg/l	2811	6/21/04	2:07
Alkalinity as CaCO <sub>3</sub>	< 5.00	mg/l	8057	6/16/04	15:41
Total Organic Carbon	< 1.00	mg/l	8289	6/16/04	15:40
Sulfide	< 1.000	mg/l	9047	6/17/04	12:45
Chloride	< 1.00	mg/l	8059	6/16/04	20:46
Methane	< 0.026	mg/L	105	6/18/04	11:29
Carbon Dioxide	< 5.0	mg/l	9632	6/18/04	9:10
Ethene	< 0.026	mg/L	105	6/18/04	11:29
Ethane	< 0.026	mg/L	105	6/18/04	11:29

# = Value outside Laboratory historical or method prescribed QC limits.

# TestAmerica

ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring \_\_\_\_\_

Client Name: NACTED ENGINEERING AND CONSULT Client #: 4997

Address: 1431 CENTERPOINT BLVD, STE 150

State/Zip Code: KNOXVILLE TN 37932-1968

Project Manager: RICK RYAN

Telephone Number: 8655311922 Fax: 8655318226

Sampler Name: (Print Name) Janna Peeler

Sampler Signature: Janna Peeler

Project Name: APPS Farmer Taylor Instrumentation

51870.11

Site/Location ID: Rochester State: NY

Report To: Janna Peeler

Invoice To: Rick Ryan

Quote #: 121102-217-199 PO#: MEC0303C015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)	Date Needed:	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers		Analyze For:										QC Deliverables <input checked="" type="checkbox"/> None <input type="checkbox"/> Level 2 (Batch QC) <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Other: _____																			
							SL - Sludge	DW - Drinking Water	S - Soil/Solid	Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)	Vtc (82°C)	Nitrate	353.2	Sulfate	375.4	Sulfide	376.1	ethane	Methane	8105R	TcC	415.1	Chloride	325.1	Alkalinity	310.1	Fe (II)	Color	(CO <sub>2</sub> )	4570B	
GRATB01 91701	6/15/04	000	G	GW														1																				
GRAPP01 92	6/15/04	1018	G	GW														3																				
GRARB01 93	6/15/04	1027	G	GW														3																				
IV-2	94	6/15/04	1126	G	GW													4																				
IV-14	95	6/15/04	1319	G	GW													9	1	6	3	1	1	1	3	2	2	1	1	1	2							
IV-17	96	6/15/04	1440	G	GW													9	1	6	3	1	1	1	3	2	1	1	1	1	2							
IV-20	97	6/15/04	1531	G	GW													9	1	6	3	1	1	1	3	2	1	1	1	1	2							
Special Instructions:																																						
Relinquished By: <u>Janna Peeler</u>	Date: 6/15/04	Time:	Received By:															Date:	Time:																			
Relinquished By:	Date:	Time:	Received By:															Date:	Time:																			
Relinquished By:	Date:	Time:	Received By:															Date:	Time:	6/16/04	8:40																	

#### LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp:

Custody Seals: Y N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

**June 16, 2004**  
**Analytical Data**

6/25/04

## CASE NARRATIVE

**MACTEC ENGINEERING AND CONSULT 4997**  
**JANNA PEEVLER**  
**1431 CENTERPOINT BLVD, STE.150**  
**KNOXVILLE, TN 37932-1968**

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: FORMER TAYLOR INSTRUMENT

Project Number: 51870.11.

Laboratory Project Number: 379092.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Page 1 Collection Date
OB-07	04-A92583	6/16/04
W-5 (DUP)	04-A92584	6/16/04
TW-07	04-A92585	6/16/04
TW-09	04-A92586	6/16/04
OB-09	04-A92587	6/16/04
W-5	04-A92588	6/16/04

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Sample Identification  
-----

Lab Number  
-----

Page 2  
Collection Date  
-----

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By: Gail A. Lage

Report Date: 6/25/04

Johnny A. Mitchell, Operations Manager  
Michael H. Dunn, M.S., Technical Director  
Pamela A. Langford, Technical Services  
Eric S. Smith, QA/QC Director

Gail A. Lage, Technical Services  
Glenn L. Norton, Technical Services  
Kelly S. Comstock, Technical Services  
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 11342

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92585  
 Sample ID: TW-07  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/16/04  
 Time Collected: 9:06  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	9:32	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	9:32	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	9:32	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	9:32	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92585  
Sample ID: TW-07  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	0.00180	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	0.00370	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	9:32	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	9:32	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	9:32	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	9:32	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	9:32	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Trichloroethene	0.0162	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	9:32	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	9:32	S. Roberts	8260B	5671
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A92585  
 Sample ID: TW-07  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	9:32	S. Roberts	8260B	5671
<b>*MISCELLANEOUS GC PARAMETERS*</b>									
Methane	ND	mg/L	0.026	1	6/22/04	14:05	K. Roberso	RSK175M	3403
Carbon Dioxide	142.	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/22/04	14:05	K. Roberso	RSK175M	3403
Ethane	ND	mg/L	0.026	1	6/22/04	14:05	K. Roberso	RSK175M	3403
<b>*METALS*</b>									
Iron	ND	mg/l	0.0500	1	6/19/04	16:45	C. Johnson	6010B	157
Ferrous Iron	ND	mg/l	0.100	1	6/17/04	21:34	W. Choate	3500D	9877
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Nitrate-N as N	23.0	mg/l	0.200	2	6/17/04	19:37	W. Choate	353.2	9019
Sulfate	384.	mg/l	20.0	20	6/22/04	2:17	S. Gracey	375.4	9025
Alkalinity as CaCO <sub>3</sub>	403.	mg/l	5.00	1	6/17/04	16:42	J. Hill	310.1	9638
Total Organic Carbon	3.72	mg/l	1.00	1	4/18/04	14:06	M.Checolle	415.1	463
Sulfide	ND	mg/l	1.000	1	6/18/04	22:45	I. Barwari	376.1	771
Chloride	28.0	mg/l	2.00	2	6/18/04	0:07	W. Choate	325.2	2014

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	71. - 128.
VOA Surr Toluene-d8	83.	77. - 119.
VOA Surr, 4-BFB	102.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.
Surr - Acetylene	106.	70. - 130.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A92585  
Sample ID: TW-07  
Project: 51870.11  
Page 4

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92586  
 Sample ID: TW-09  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/16/04  
 Time Collected: 10:19  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/23/04	10:01	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	10:01	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	10:01	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	10:01	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92586  
Sample ID: TW-09  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	0.00100	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	10:01	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	10:01	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	10:01	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	10:01	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	10:01	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Trichloroethene	0.0431	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	10:01	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	10:01	S. Roberts	8260B	5671
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92586  
Sample ID: TW-09  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	10:01	S. Roberts	8260B	5671
<b>*MISCELLANEOUS GC PARAMETERS*</b>									
Methane	ND	mg/L	0.026	1	6/22/04	14:07	K. Roberso	RSK175M	3403
Carbon Dioxide	41.4	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/22/04	14:07	K. Roberso	RSK175M	3403
Ethane	ND	mg/L	0.026	1	6/22/04	14:07	K. Roberso	RSK175M	3403
<b>*METALS*</b>									
Iron	ND	mg/l	0.0500	1	6/19/04	16:45	C.Johnson	6010B	157
Ferrous Iron	ND	mg/l	0.100	1	6/17/04	21:34	W. Choate	3500D	9877
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Nitrate-N as N	1.02	mg/l	0.100	1	6/17/04	19:13	W. Choate	353.2	9019
Sulfate	192.	mg/l	10.0	10	6/22/04	2:17	S. Gracey	375.4	9025
Alkalinity as CaCO <sub>3</sub>	171.	mg/l	5.00	1	6/17/04	16:42	J. Hill	310.1	9638
Total Organic Carbon	2.57	mg/l	1.00	1	4/18/04	14:06	M.Checolle	415.1	463
Sulfide	ND	mg/l	1.000	1	6/18/04	22:45	I. Barwari	376.1	771
Chloride	5.40	mg/l	1.00	1	6/17/04	23:41	W. Choate	325.2	2014

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	71. - 128.
VOA Surr Toluene-d8	94.	77. - 119.
VOA Surr, 4-BFB	93.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.
Surr - Acetylene	89.0	70. - 130.

Sample report continued . . .

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## ***ANALYTICAL REPORT***

Laboratory Number: 04-A92586  
Sample ID: TW-09  
Project: 51870.11  
Page 4

### **LABORATORY COMMENTS:**

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

**ANALYTICAL REPORT**

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92587  
 Sample ID: OB-09  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/16/04  
 Time Collected: 11:29  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	10:31	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	10:31	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	10:31	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	10:31	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92587  
 Sample ID: OB-09  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	0.00310	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	10:31	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	10:31	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	10:31	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	10:31	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	10:31	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Trichloroethene	0.0575	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	10:31	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	10:31	S. Roberts	8260B	5671
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671

Sample report continued . . .

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## **ANALYTICAL REPORT**

Laboratory Number: 04-A92587  
 Sample ID: OB-09  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	10:31	S. Roberts	8260B	5671
<b>*MISCELLANEOUS GC PARAMETERS*</b>									
Methane	ND	mg/L	0.026	1	6/22/04	14:10	K. Roberso	RSK175M	3403
Carbon Dioxide	81.3	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/22/04	14:10	K. Roberso	RSK175M	3403
Ethane	ND	mg/L	0.026	1	6/22/04	14:10	K. Roberso	RSK175M	3403
<b>*METALS*</b>									
Iron	0.128	mg/l	0.0500	1	6/19/04	16:45	C. Johnson	6010B	157
Ferrous Iron	ND	mg/l	0.100	1	6/17/04	21:34	W. Choate	3500D	9877
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Nitrate-N as N	2.35	mg/l	0.100	1	6/17/04	19:14	W. Choate	353.2	9019
Sulfate	254.	mg/l	10.0	10	6/22/04	2:17	S. Gracey	375.4	9025
Alkalinity as CaCO <sub>3</sub>	221.	mg/l	5.00	1	6/17/04	16:42	J. Hill	310.1	9638
Total Organic Carbon	1.89	mg/l	1.00	1	4/18/04	14:06	M. Checolle	415.1	463
Sulfide	ND	mg/l	1.000	1	6/18/04	22:45	I. Barwari	376.1	771
Chloride	7.42	mg/l	1.00	1	6/17/04	23:41	W. Choate	325.2	2014

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	97.	77. - 119.
VOA Surr, 4-BFB	94.	79. - 123.
VOA Surr, DBFM	102.	78. - 124.
Surr - Acetylene	95.0	70. - 130.

Sample report continued . . .

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## ***ANALYTICAL REPORT***

Laboratory Number: 04-A92587  
Sample ID: OB-09  
Project: 51870.11  
Page 4

### **LABORATORY COMMENTS:**

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92583  
 Sample ID: OB-07  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler:

Date Collected: 6/16/04  
 Time Collected: 14:08  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	4:33	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	4:33	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	4:33	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	4:33	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92583  
 Sample ID: OB-07  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	4:33	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	4:33	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	4:33	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	4:33	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	4:33	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Trichloroethene	0.0102	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	4:33	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	4:33	S. Roberts	8260B	5671
Bromodichlormethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92583  
 Sample ID: OB-07  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	4:33	S. Roberts	8260B	5671
<b>*MISCELLANEOUS GC PARAMETERS*</b>									
Methane	ND	mg/L	0.026	1	6/22/04	14:01	K. Roberso	RSK175M	3403
Carbon Dioxide	60.6	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/22/04	14:01	K. Roberso	RSK175M	3403
Ethane	ND	mg/L	0.026	1	6/22/04	14:01	K. Roberso	RSK175M	3403
<b>*METALS*</b>									
Iron	ND	mg/l	0.0500	1	6/19/04	16:45	C.Johnson	6010B	157
Ferrous Iron	ND	mg/l	0.100	1	6/17/04	21:34	W. Choate	3500D	9877
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Nitrate-N as N	7.93	mg/l	0.100	1	6/17/04	19:11	W. Choate	353.2	9019
Sulfate	484.	mg/l	20.0	20	6/22/04	2:17	S. Gracey	375.4	9025
Alkalinity as CaCO <sub>3</sub>	156.	mg/l	5.00	1	6/17/04	16:42	J. Hill	310.1	9638
Total Organic Carbon	3.94	mg/l	1.00	1	4/18/04	14:06	M.Checolle	415.1	463
Sulfide	ND	mg/l	1.000	1	6/18/04	22:45	I. Barwari	376.1	771
Chloride	58.0	mg/l	5.00	5	6/18/04	0:05	W. Choate	325.2	2014

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	71. - 128.
VOA Surr Toluene-d8	84.	77. - 119.
VOA Surr, 4-BFB	97.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.
Surr - Acetylene	93.0	70. - 130.

Sample report continued . . .

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## ***ANALYTICAL REPORT***

Laboratory Number: 04-A92583  
Sample ID: OB-07  
Project: 51870.11  
Page 4

### **LABORATORY COMMENTS:**

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92588  
 Sample ID: W-5  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/16/04  
 Time Collected: 15:40  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil	Analysis		Analyst	Method	Batch
				Factor	Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/23/04	11:01	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	11:01	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	11:01	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	11:01	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92588  
 Sample ID: W-5  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	0.0989	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	0.00540	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	11:01	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	11:01	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	11:01	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	11:01	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	11:01	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Trichloroethene	0.348	mg/l	0.00500	5	6/24/04	13:56	S. Roberts	8260B	7145
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	11:01	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	11:01	S. Roberts	8260B	5671
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A92588  
 Sample ID: W-5  
 Project: 51870.11  
 Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	11:01	S. Roberts	8260B	5671

### \*MISCELLANEOUS GC PARAMETERS\*

Methane	ND	mg/L	0.026	1	6/22/04	14:14	K. Roberso	RSK175M	3403
Carbon Dioxide	72.5	mg/l	3.0	1	6/18/04	9:10	T. Beverly	SM4500CO2C	9632
Ethene	ND	mg/L	0.026	1	6/22/04	14:14	K. Roberso	RSK175M	3403
Ethane	ND	mg/L	0.026	1	6/22/04	14:14	K. Roberso	RSK175M	3403

### \*METALS\*

Iron	3.96	mg/l	0.0500	1	6/19/04	16:45	C.Johnson	6010B	157
Ferrous Iron	2.01	mg/l	0.100	1	6/17/04	21:34	W. Choate	3500D	9877

### \*MISCELLANEOUS CHEMISTRY\*

Nitrate-N as N	ND	mg/l	0.100	1	6/17/04	19:14	W. Choate	353.2	9019
Sulfate	95.5	mg/l	5.00	5	6/22/04	2:17	S. Gracey	375.4	9025
Alkalinity as CaCO <sub>3</sub>	353.	mg/l	5.00	1	6/17/04	16:42	J. Hill	310.1	9638
Total Organic Carbon	80.1	mg/l	1.00	1	4/18/04	14:06	M.Checolle	415.1	463
Sulfide	ND	mg/l	1.000	1	6/18/04	22:45	I. Barwari	376.1	771
Chloride	14.2	mg/l	1.00	1	6/17/04	23:42	W. Choate	325.2	2014

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	85.	77. - 119.
VOA Surr, 4-BFB	95.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.
Surr - Acetylene	80.0	70. - 130.

Sample report continued . . .

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## ***ANALYTICAL REPORT***

Laboratory Number: 04-A92588  
Sample ID: W-5  
Project: 51870.11  
Page 4

### **LABORATORY COMMENTS:**

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
M = Method RSK175M/8015BM modified for use with Headspace analyzer.  
Sample for Ferrous Iron analysis received outside method  
prescribed holding time.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A92584  
 Sample ID: W-5 (DUP)  
 Sample Type: Ground water  
 Site ID: ROCHESTER

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler:

Date Collected: 6/16/04  
 Time Collected: 15:52  
 Date Received: 6/17/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	5:03	S. Roberts	8260B	5671
Benzene	ND	mg/l	0.0010	1	6/23/04	5:03	S. Roberts	8260B	5671
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Bromoform	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Bromomethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
2-Butanone	ND	mg/l	0.0250	1	6/23/04	5:03	S. Roberts	8260B	5671
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Chloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Chloroform	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Chloromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	5:03	S. Roberts	8260B	5671
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92584  
 Sample ID: W-5 (DUP)  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
cis-1,2-Dichloroethene	0.0716	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
trans-1,2-Dichloroethene	0.00460	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	5:03	S. Roberts	8260B	5671
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	5:03	S. Roberts	8260B	5671
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	5:03	S. Roberts	8260B	5671
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	5:03	S. Roberts	8260B	5671
Naphthalene	ND	mg/l	0.00500	1	6/23/04	5:03	S. Roberts	8260B	5671
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Styrene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Toluene	ND	mg/l	0.0010	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Trichloroethene	0.360	mg/l	0.00500	5	6/24/04	13:26	S. Roberts	8260B	7145
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	5:03	S. Roberts	8260B	5671
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	5:03	S. Roberts	8260B	5671
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A92584  
Sample ID: W-5 (DUP)  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	5:03	S. Roberts	8260B	5671

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	83.	77. - 119.
VOA Surr, 4-BFB	92.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 1

**Laboratory Receipt Date:** 6/17/04

**Matrix Spike Recovery**

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Samp
-----	-----	-----	-----	-----	-----	-----	-----	-----

**\*\*VOA PARAMETERS\*\***

Benzene	mg/l	< 0.0010	0.0557	0.0500	111	73 -	135	5671	'92583
Chlorobenzene	mg/l	< 0.00100	0.0606	0.0500	121	77 -	130	5671	'92583
1,1-Dichloroethene	mg/l	< 0.00100	0.0655	0.0500	131	71 -	143	5671	'92583
Toluene	mg/l	< 0.0010	0.0604	0.0500	121	69 -	139	5671	'92583
Trichloroethene	mg/l	0.0102	0.0758	0.0500	131	72 -	141	5671	'92583
Trichloroethene	mg/l	< 0.00100	0.0566	0.0500	113	72 -	141	7145	'94789
Tetrachloroethene	mg/l	< 0.00100	0.0660	0.0500	132	68 -	140	5671	'92583
VOA Surr 1,2-DCA-d4	% Rec				99	71 -	128	5671	
VOA Surr 1,2-DCA-d4	% Rec				100	71 -	128	7145	
VOA Surr Toluene-d8	% Rec				96	77 -	119	5671	
VOA Surr Toluene-d8	% Rec				101	77 -	119	7145	
VOA Surr, 4-BFB	% Rec				86	79 -	123	5671	
VOA Surr, 4-BFB	% Rec				86	79 -	123	7145	
VOA Surr, DBFM	% Rec				101	78 -	124	5671	
VOA Surr, DBFM	% Rec				102	78 -	124	7145	

**\*\*METALS\*\***

Iron	mg/l	< 0.0500	0.993	1.00	99	80 - 120		157	'92583
Ferrous Iron	mg/l	< 0.100	1.20	1.00	120#	80 - 120		9877	04-A92583
Ferrous Iron	mg/l	< 0.100	1.20	1.00	120#	80 - 120		9877	04-A92583

**\*\*MISC PARAMETERS\*\***

Nitrate-N as N	mg/l	7.93	14.2	6.00	104	80 - 120		9019	04-A92583
Nitrate-N as N	mg/l	7.93	14.2	6.00	104	80 - 120		9019	04-A92583
Alkalinity as CaCO <sub>3</sub>	mg/l	156.	254.	100.	98	80 - 120		9638	04-A92583
Total Organic Carbon	mg/l	3.94	24.7	20.0	104	80 - 120		463	04-A92583
Sulfide	mg/l	< 1.000	18.40	20.00	92	80 - 120		771	04-A92583
Chloride	mg/l	58.0	99.5	50.0	83	80 - 120		2014	04-A92583

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

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**Laboratory Receipt Date:** 6/17/04

Methane	mg/L	< 0.026	1.24	1.33	93	40 - 140	3403	04-A92583
Ethene	mg/L	< 0.026	2.05	2.32	88	40 - 140	3403	04-A92583
Ethane	mg/L	< 0.026	2.20	2.50	88	40 - 140	3403	04-A92583

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
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\*\*VOA PARAMETERS\*\*

Benzene	mg/l	0.0557	0.0517	7.45	21.	5671
Chlorobenzene	mg/l	0.0606	0.0512	16.82	19.	5671
1,1-Dichloroethene	mg/l	0.0655	0.0617	5.97	21.	5671
Toluene	mg/l	0.0604	0.0500	18.84	24.	5671
Trichloroethene	mg/l	0.0758	0.0694	8.82	21.	5671
Trichloroethene	mg/l	0.0566	0.0642	12.58	21.	7145
Tetrachloroethene	mg/l	0.0660	0.0546	18.91	21.	5671
VOA Surr 1,2-DCA-d4	% Rec		94.			5671
VOA Surr 1,2-DCA-d4	% Rec		96.			7145
VOA Surr Toluene-d8	% Rec		85.			5671
VOA Surr Toluene-d8	% Rec		93.			7145
VOA Surr, 4-BFB	% Rec		91.			5671
VOA Surr, 4-BFB	% Rec		94.			7145
VOA Surr, DBFM	% Rec		97.			5671
VOA Surr, DBFM	% Rec		97.			7145

\*\*METALS\*\*

Iron	mg/l	0.993	0.937	5.80	20	157
Ferrous Iron	mg/l	1.20	1.20	0.00	20	9877

\*\*MISC PARAMETERS\*\*

Methane	mg/L	1.24	1.29	3.95	50	3403
Ethene	mg/L	2.05	2.14	4.30	50	3403
Ethane	mg/L	2.20	2.29	4.01	50	3403

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**

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Nitrate-N as N	mg/l	14.2	14.2	0.00	20	9019
Sulfide	mg/l	18.40	18.90	2.68	20	771
Chloride	mg/l	99.5	100.	0.50	20	2014

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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**\*\*VOA PARAMETERS\*\***

Acetone	mg/l	0.250	0.225	90	55 - 144	5671
Benzene	mg/l	0.0500	0.0472	94	81 - 121	5671
Bromobenzene	mg/l	0.0500	0.0469	94	72 - 129	5671
Bromoform	mg/l	0.0500	0.0509	102	75 - 137	5671
Bromomethane	mg/l	0.0500	0.0648	130	54 - 160	5671
2-Butanone	mg/l	0.250	0.224	90	62 - 146	5671
n-Butylbenzene	mg/l	0.0500	0.0432	86	68 - 139	5671
sec-Butylbenzene	mg/l	0.0500	0.0440	88	75 - 135	5671
tert-Butylbenzene	mg/l	0.0500	0.0448	90	73 - 135	5671
Carbon disulfide	mg/l	0.0500	0.0512	102	71 - 139	5671
Carbon tetrachloride	mg/l	0.0500	0.0500	100	70 - 131	5671
Chlorobenzene	mg/l	0.0500	0.0489	98	87 - 120	5671
Chloroethane	mg/l	0.0500	0.0592	118	65 - 145	5671
Chloroform	mg/l	0.0500	0.0487	97	77 - 128	5671
Chloromethane	mg/l	0.0500	0.0557	111	46 - 147	5671
2-Chlorotoluene	mg/l	0.0500	0.0443	89	78 - 128	5671
4-Chlorotoluene	mg/l	0.0500	0.0452	90	80 - 130	5671
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0360	72	55 - 135	5671
Dibromochloromethane	mg/l	0.0500	0.0422	84	63 - 132	5671
1,2-Dibromoethane	mg/l	0.0500	0.0437	87	77 - 136	5671
Dibromomethane	mg/l	0.0500	0.0458	92	75 - 133	5671
1,2-Dichlorobenzene	mg/l	0.0500	0.0463	93	83 - 126	5671
1,3-Dichlorobenzene	mg/l	0.0500	0.0496	99	85 - 124	5671

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

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**Laboratory Receipt Date:** 6/17/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,4-Dichlorobenzene	mg/l	0.0500	0.0434	87	83 - 122	5671
Dichlorodifluoromethane	mg/l	0.0500	0.0627	125	52 - 159	5671
1,1-Dichloroethane	mg/l	0.0500	0.0490	98	76 - 129	5671
1,2-Dichloroethane	mg/l	0.0500	0.0507	101	70 - 136	5671
1,1-Dichloroethene	mg/l	0.0500	0.0536	107	77 - 133	5671
cis-1,2-Dichloroethene	mg/l	0.0500	0.0501	100	76 - 129	5671
trans-1,2-Dichloroethene	mg/l	0.0500	0.0527	105	73 - 135	5671
1,2-Dichloropropane	mg/l	0.0500	0.0468	94	74 - 130	5671
1,3-Dichloropropane	mg/l	0.0500	0.0464	93	79 - 129	5671
2,2-Dichloropropane	mg/l	0.0500	0.0342	68	39 - 151	5671
1,1-Dichloropropene	mg/l	0.0500	0.0514	103	80 - 129	5671
cis-1,3-Dichloropropene	mg/l	0.0500	0.0381	76	59 - 136	5671
trans-1,3-Dichloropropene	mg/l	0.0500	0.0359	72	59 - 135	5671
Ethylbenzene	mg/l	0.0500	0.0480	96	78 - 126	5671
Hexachlorobutadiene	mg/l	0.0500	0.0447	89	60 - 142	5671
2-Hexanone	mg/l	0.250	0.204	82	61 - 148	5671
Isopropylbenzene	mg/l	0.0500	0.0478	96	74 - 134	5671
4-Isopropyltoluene	mg/l	0.0500	0.0435	87	79 - 130	5671
4-Methyl-2-pentanone	mg/l	0.250	0.226	90	59 - 147	5671
Methylene chloride	mg/l	0.0500	0.0503	101	68 - 132	5671
Naphthalene	mg/l	0.0500	0.0451	90	53 - 152	5671
n-Propylbenzene	mg/l	0.0500	0.0444	89	73 - 134	5671
Styrene	mg/l	0.0500	0.0479	96	78 - 134	5671
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0512	102	75 - 131	5671
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0385	77	62 - 142	5671
Tetrachloroethene	mg/l	0.0500	0.0501	100	77 - 129	5671
Toluene	mg/l	0.0500	0.0474	95	77 - 125	5671
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0459	92	54 - 155	5671
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0408	82	61 - 145	5671
1,1,1-Trichloroethane	mg/l	0.0500	0.0486	97	66 - 139	5671
1,1,2-Trichloroethane	mg/l	0.0500	0.0442	88	77 - 132	5671

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**

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**Laboratory Receipt Date:** 6/17/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Trichloroethene	mg/l	0.0500	0.0502	100	80 - 132	5671
Trichloroethene	mg/l	0.0500	0.0522	104	80 - 132	7145
Trichloroethene	mg/l	0.0500	0.0490	98	80 - 132	7145
1,2,3-Trichloropropane	mg/l	0.0500	0.0374	75	54 - 144	5671
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0447	89	74 - 130	5671
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0449	90	77 - 131	5671
Vinyl chloride	mg/l	0.0500	0.0584	117	69 - 139	5671
Xylenes (Total)	mg/l	0.150	0.143	95	78 - 127	5671
Bromodichloromethane	mg/l	0.0500	0.0496	99	67 - 135	5671
Trichlorofluoromethane	mg/l	0.0500	0.0546	109	64 - 143	5671
Methane	mg/L	1.33	1.25	94	79 - 121	3403
Carbon Dioxide	mg/l	100.	98.8	99	90 - 110	9632
Ethene	mg/L	2.32	2.07	89	77 - 119	3403
Ethane	mg/L	2.50	2.24	90	78 - 118	3403
VOA Surr 1,2-DCA-d4	% Rec			92	71 - 128	5671
VOA Surr 1,2-DCA-d4	% Rec			94	71 - 128	7145
VOA Surr 1,2-DCA-d4	% Rec			92	71 - 128	7145
VOA Surr Toluene-d8	% Rec			91	77 - 119	5671
VOA Surr Toluene-d8	% Rec			91	77 - 119	7145
VOA Surr Toluene-d8	% Rec			95	77 - 119	7145
VOA Surr, 4-BFB	% Rec			91	79 - 123	5671
VOA Surr, 4-BFB	% Rec			94	79 - 123	7145
VOA Surr, 4-BFB	% Rec			91	79 - 123	7145
VOA Surr, DBFM	% Rec			94	78 - 124	5671
VOA Surr, DBFM	% Rec			95	78 - 124	7145
VOA Surr, DBFM	% Rec			94	78 - 124	7145

Project QC continued . . .

# TestAmerica

ANALYTICAL TESTING CORPORATION

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**PROJECT QUALITY CONTROL DATA**

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**Laboratory Receipt Date:** 6/17/04

**\*\*METALS\*\***

Iron	mg/l	1.00	1.01	101	80 - 120	157
Ferrous Iron	mg/l	1.00	1.05	105	80 - 120	9877
<b>**MISC PARAMETERS**</b>						
Nitrate-N as N	mg/l	6.00	5.93	99	88 - 113	9019
Sulfate	mg/l	25.0	24.3	97	94 - 106	9025
Alkalinity as CaCO <sub>3</sub>	mg/l	100.	98.6	99	90 - 110	9638
Total Organic Carbon	mg/l	200.	186.	93	90 - 110	463
Sulfide	mg/l	20.00	20.10	100	90 - 110	771
Chloride	mg/l	10.0	9.79	98	86 - 112	2014

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Ferrous Iron	mg/l	12.3	12.4	0.81	15.	9877	04-A92675
Nitrate-N as N	mg/l	< 0.100	< 0.100	N/A	15.	9019	04-A92588
Sulfate	mg/l	95.5	90.5	5.38	15.	9025	04-A92588
Alkalinity as CaCO <sub>3</sub>	mg/l	171.	168.	1.77	15.	9638	04-A92586
Total Organic Carbon	mg/l	9.59	9.19	4.26	15.	463	04-A93609
Sulfide	mg/l	1.500	1.500	0.00	15.	771	04-A92734
Chloride	mg/l	14.2	14.4	1.40	15.	2014	04-A92588
Carbon Dioxide	mg/l	72.5	71.0	2.09	15.	9632	04-A92588

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

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**Laboratory Receipt Date:** 6/17/04

**\*\*VOA PARAMETERS\*\***

Acetone	< 0.00470	mg/l	5671	6/22/04	20:33
Acetone	< 0.00470	mg/l	5671	6/23/04	8:32
Benzene	< 0.0005	mg/l	5671	6/22/04	20:33
Benzene	< 0.0005	mg/l	5671	6/23/04	8:32
Bromobenzene	< 0.00030	mg/l	5671	6/22/04	20:33
Bromobenzene	< 0.00030	mg/l	5671	6/23/04	8:32
Bromoform	< 0.00030	mg/l	5671	6/22/04	20:33
Bromoform	< 0.00030	mg/l	5671	6/23/04	8:32
Bromomethane	< 0.00060	mg/l	5671	6/22/04	20:33
Bromomethane	< 0.00060	mg/l	5671	6/23/04	8:32
Bromomethane	< 0.00060	mg/l	5671	6/22/04	20:33
2-Butanone	< 0.00310	mg/l	5671	6/22/04	20:33
2-Butanone	< 0.00310	mg/l	5671	6/23/04	8:32
n-Butylbenzene	< 0.00010	mg/l	5671	6/22/04	20:33
n-Butylbenzene	< 0.00010	mg/l	5671	6/23/04	8:32
sec-Butylbenzene	< 0.00030	mg/l	5671	6/22/04	20:33
sec-Butylbenzene	< 0.00030	mg/l	5671	6/23/04	8:32
tert-Butylbenzene	< 0.00030	mg/l	5671	6/22/04	20:33
tert-Butylbenzene	< 0.00030	mg/l	5671	6/23/04	8:32
Carbon disulfide	< 0.00020	mg/l	5671	6/22/04	20:33
Carbon disulfide	< 0.00020	mg/l	5671	6/23/04	8:32
Carbon tetrachloride	< 0.00040	mg/l	5671	6/22/04	20:33
Carbon tetrachloride	< 0.00040	mg/l	5671	6/23/04	8:32
Chlorobenzene	< 0.00020	mg/l	5671	6/22/04	20:33
Chlorobenzene	< 0.00020	mg/l	5671	6/23/04	8:32
Chloroethane	< 0.00100	mg/l	5671	6/22/04	20:33
Chloroethane	< 0.00100	mg/l	5671	6/23/04	8:32
Chloroform	< 0.00080	mg/l	5671	6/22/04	20:33
Chloroform	< 0.00080	mg/l	5671	6/23/04	8:32
Chloromethane	< 0.00070	mg/l	5671	6/22/04	20:33
Chloromethane	< 0.00070	mg/l	5671	6/23/04	8:32
2-Chlorotoluene	< 0.00040	mg/l	5671	6/22/04	20:33
2-Chlorotoluene	< 0.00040	mg/l	5671	6/23/04	8:32
4-Chlorotoluene	< 0.00050	mg/l	5671	6/22/04	20:33

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

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**Laboratory Receipt Date:** 6/17/04

**Blank Data**

Analyte	Blank Value	Units	Q.C.	Batch	Analysis Date	Analysis Time
4-Chlorotoluene	< 0.00050	mg/l	5671		6/23/04	8:32
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	5671		6/22/04	20:33
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	5671		6/23/04	8:32
Dibromochloromethane	< 0.00050	mg/l	5671		6/22/04	20:33
Dibromochloromethane	< 0.00050	mg/l	5671		6/23/04	8:32
1,2-Dibromoethane	< 0.00040	mg/l	5671		6/22/04	20:33
1,2-Dibromoethane	< 0.00040	mg/l	5671		6/23/04	8:32
Dibromomethane	< 0.00090	mg/l	5671		6/22/04	20:33
Dibromomethane	< 0.00090	mg/l	5671		6/23/04	8:32
1,2-Dichlorobenzene	< 0.00020	mg/l	5671		6/22/04	20:33
1,2-Dichlorobenzene	< 0.00020	mg/l	5671		6/23/04	8:32
1,3-Dichlorobenzene	< 0.00030	mg/l	5671		6/22/04	20:33
1,3-Dichlorobenzene	< 0.00030	mg/l	5671		6/23/04	8:32
1,4-Dichlorobenzene	< 0.00040	mg/l	5671		6/22/04	20:33
1,4-Dichlorobenzene	< 0.00040	mg/l	5671		6/23/04	8:32
Dichlorodifluoromethane	< 0.00050	mg/l	5671		6/22/04	20:33
Dichlorodifluoromethane	< 0.00050	mg/l	5671		6/23/04	8:32
1,1-Dichloroethane	< 0.00020	mg/l	5671		6/22/04	20:33
1,1-Dichloroethane	< 0.00020	mg/l	5671		6/23/04	8:32
1,2-Dichloroethane	< 0.00060	mg/l	5671		6/22/04	20:33
1,2-Dichloroethane	< 0.00060	mg/l	5671		6/23/04	8:32
1,1-Dichloroethene	< 0.00060	mg/l	5671		6/22/04	20:33
1,1-Dichloroethene	< 0.00060	mg/l	5671		6/23/04	8:32
cis-1,2-Dichloroethene	< 0.00060	mg/l	5671		6/22/04	20:33
cis-1,2-Dichloroethene	< 0.00060	mg/l	5671		6/23/04	8:32
trans-1,2-Dichloroethene	< 0.00050	mg/l	5671		6/22/04	20:33
trans-1,2-Dichloroethene	< 0.00050	mg/l	5671		6/23/04	8:32
1,2-Dichloropropane	< 0.00040	mg/l	5671		6/22/04	20:33
1,2-Dichloropropane	< 0.00040	mg/l	5671		6/23/04	8:32
1,3-Dichloropropane	< 0.00040	mg/l	5671		6/22/04	20:33
1,3-Dichloropropane	< 0.00040	mg/l	5671		6/23/04	8:32

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

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**Laboratory Receipt Date:** 6/17/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
2,2-Dichloropropane	< 0.00040	mg/l	5671	6/22/04	20:33
2,2-Dichloropropane	< 0.00040	mg/l	5671	6/23/04	8:32
1,1-Dichloropropene	< 0.00050	mg/l	5671	6/22/04	20:33
1,1-Dichloropropene	< 0.00050	mg/l	5671	6/23/04	8:32
cis-1,3-Dichloropropene	< 0.00030	mg/l	5671	6/22/04	20:33
cis-1,3-Dichloropropene	< 0.00030	mg/l	5671	6/23/04	8:32
trans-1,3-Dichloropropene	< 0.00050	mg/l	5671	6/22/04	20:33
trans-1,3-Dichloropropene	< 0.00050	mg/l	5671	6/23/04	8:32
Ethylbenzene	< 0.0003	mg/l	5671	6/22/04	20:33
Ethylbenzene	< 0.0003	mg/l	5671	6/23/04	8:32
Hexachlorobutadiene	< 0.00080	mg/l	5671	6/22/04	20:33
Hexachlorobutadiene	< 0.00080	mg/l	5671	6/23/04	8:32
2-Hexanone	< 0.00420	mg/l	5671	6/22/04	20:33
2-Hexanone	< 0.00420	mg/l	5671	6/23/04	8:32
Isopropylbenzene	< 0.00040	mg/l	5671	6/22/04	20:33
Isopropylbenzene	< 0.00040	mg/l	5671	6/23/04	8:32
4-Isopropyltoluene	< 0.00060	mg/l	5671	6/22/04	20:33
4-Isopropyltoluene	< 0.00060	mg/l	5671	6/23/04	8:32
4-Methyl-2-pentanone	< 0.00490	mg/l	5671	6/22/04	20:33
4-Methyl-2-pentanone	< 0.00490	mg/l	5671	6/23/04	8:32
Methylene chloride	< 0.00240	mg/l	5671	6/22/04	20:33
Methylene chloride	< 0.00240	mg/l	5671	6/23/04	8:32
Naphthalene	< 0.00120	mg/l	5671	6/22/04	20:33
Naphthalene	< 0.00120	mg/l	5671	6/23/04	8:32
n-Propylbenzene	< 0.00030	mg/l	5671	6/22/04	20:33
n-Propylbenzene	< 0.00030	mg/l	5671	6/23/04	8:32
Styrene	< 0.00040	mg/l	5671	6/22/04	20:33
Styrene	< 0.00040	mg/l	5671	6/23/04	8:32
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	5671	6/22/04	20:33
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	5671	6/23/04	8:32
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l	5671	6/22/04	20:33

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**

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**Laboratory Receipt Date:** 6/17/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l	5671	6/23/04	8:32
Tetrachloroethene	< 0.00040	mg/l	5671	6/22/04	20:33
Tetrachloroethene	< 0.00040	mg/l	5671	6/23/04	8:32
Toluene	< 0.0006	mg/l	5671	6/22/04	20:33
Toluene	< 0.0006	mg/l	5671	6/23/04	8:32
1,2,3-Trichlorobenzene	< 0.00100	mg/l	5671	6/22/04	20:33
1,2,3-Trichlorobenzene	< 0.00100	mg/l	5671	6/23/04	8:32
1,2,4-Trichlorobenzene	< 0.00060	mg/l	5671	6/22/04	20:33
1,2,4-Trichlorobenzene	< 0.00060	mg/l	5671	6/23/04	8:32
1,1,1-Trichloroethane	< 0.00070	mg/l	5671	6/22/04	20:33
1,1,1-Trichloroethane	< 0.00070	mg/l	5671	6/23/04	8:32
1,1,2-Trichloroethane	< 0.00040	mg/l	5671	6/22/04	20:33
1,1,2-Trichloroethane	< 0.00040	mg/l	5671	6/23/04	8:32
Trichloroethene	< 0.00040	mg/l	5671	6/22/04	20:33
Trichloroethene	< 0.00040	mg/l	5671	6/23/04	8:32
Trichloroethene	0.00120	mg/l	7145	6/23/04	19:19
Trichloroethene	< 0.00040	mg/l	7145	6/24/04	7:18
1,2,3-Trichloropropane	< 0.00060	mg/l	5671	6/22/04	20:33
1,2,3-Trichloropropane	< 0.00060	mg/l	5671	6/23/04	8:32
1,2,4-Trimethylbenzene	< 0.0003	mg/l	5671	6/22/04	20:33
1,2,4-Trimethylbenzene	< 0.0003	mg/l	5671	6/23/04	8:32
1,3,5-Trimethylbenzene	< 0.00100	mg/l	5671	6/22/04	20:33
1,3,5-Trimethylbenzene	< 0.00100	mg/l	5671	6/23/04	8:32
Vinyl chloride	< 0.00050	mg/l	5671	6/22/04	20:33
Vinyl chloride	< 0.00050	mg/l	5671	6/23/04	8:32
Xylenes (Total)	< 0.0009	mg/l	5671	6/22/04	20:33
Xylenes (Total)	< 0.0009	mg/l	5671	6/23/04	8:32
Bromodichloromethane	< 0.00030	mg/l	5671	6/22/04	20:33
Bromodichloromethane	< 0.00030	mg/l	5671	6/23/04	8:32
Trichlorofluoromethane	< 0.00040	mg/l	5671	6/22/04	20:33
Trichlorofluoromethane	< 0.00040	mg/l	5671	6/23/04	8:32

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 11

**Laboratory Receipt Date:** 6/17/04

VOA Surr 1,2-DCA-d4	97.	% Rec	5671	6/22/04	20:33
VOA Surr 1,2-DCA-d4	95.	% Rec	5671	6/23/04	8:32
VOA Surr 1,2-DCA-d4	103.	% Rec	7145	6/23/04	19:19
VOA Surr 1,2-DCA-d4	97.	% Rec	7145	6/24/04	7:18
VOA Surr Toluene-d8	105.	% Rec	5671	6/22/04	20:33
VOA Surr Toluene-d8	84.	% Rec	5671	6/23/04	8:32
VOA Surr Toluene-d8	103.	% Rec	7145	6/23/04	19:19
VOA Surr Toluene-d8	84.	% Rec	7145	6/24/04	7:18
VOA Surr, 4-BFB	96.	% Rec	5671	6/22/04	20:33
VOA Surr, 4-BFB	100.	% Rec	5671	6/23/04	8:32
VOA Surr, 4-BFB	92.	% Rec	7145	6/23/04	19:19
VOA Surr, 4-BFB	89.	% Rec	7145	6/24/04	7:18
VOA Surr, DBFM	101.	% Rec	5671	6/22/04	20:33
VOA Surr, DBFM	100.	% Rec	5671	6/23/04	8:32
VOA Surr, DBFM	102.	% Rec	7145	6/23/04	19:19
VOA Surr, DBFM	100.	% Rec	7145	6/24/04	7:18
**METALS**					
Iron	< 0.0150	mg/l	157	6/19/04	16:45
Ferrous Iron	< 0.100	mg/l	9877	6/17/04	21:34
**MISC PARAMETERS**					
Nitrate-N as N	< 0.100	mg/l	9019	6/17/04	19:09
Sulfate	< 1.00	mg/l	9025	6/22/04	2:17
Alkalinity as CaCO <sub>3</sub>	< 5.00	mg/l	9638	6/17/04	16:42
Total Organic Carbon	< 1.00	mg/l	463	4/18/04	14:06
Sulfide	< 1.000	mg/l	771	6/18/04	22:45
Chloride	< 1.00	mg/l	2014	6/17/04	23:36
Methane	< 0.026	mg/L	3403	6/22/04	13:14
Carbon Dioxide	< 5.0	mg/l	9632	6/18/04	9:10
Ethene	< 0.026	mg/L	3403	6/22/04	13:14
Ethane	< 0.026	mg/L	3403	6/22/04	13:14

# = Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 379092

# TestAmerica

ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

3,9092

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: MARCTED ENGINEERING AND CONSULT Client #: 4997  
 Address: 1431 CENTERPOINT BLVD, STE. 150  
 City/State/Zip Code: KNOXVILLE TN 37938-1968  
 Project Manager: Rick Ryan  
 Telephone Number: 6655311922 Fax: 8.18655318226  
 Sampler Name: (Print Name) Janna Peewler  
 Sampler Signature: Janna Peewler

Project Name: Former Taylor Instruments  
 Project #: 51870.11  
 Site/Location ID: Rochester State: NY  
 Report To: Janna Peewler  
 Invoice To: Rick Ryan  
 Quote #: 121102-217-199 PO#: MEC03030015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)	Date Needed:	Fax Results: Y <input type="checkbox"/>	SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers					Analyze For:										QC Deliverables <input type="checkbox"/> None <input checked="" type="checkbox"/> Level 2 (Batch QC) <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Other: _____										
									SL - Sludge	DW - Drinking Water	GW - Groundwater	WW - Wastewater	S - Soil/Solid	Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)	VOC	8200	Nitrate	353.2	Sulfate	375.4	Sulfide	376.1	Etheric ethanol	8015M	Methane	TCC	415.1
TW-07	925876	6/16/04	906 G	GW	9	1			6				3	1	1	1	1	3	2	1	1	1	1	2										
TW-09	6616104	6/16/04	1015 G	GW	9	1			6				3	1	1	1	1	3	2	1	1	1	1	2										
CB-07	7616104	1129 G	GW	9	1				6				3	1	1	1	1	3	2	1	1	1	1	2										
CB-07	925836	6/16/04	1408 G	GW	9	1			6				3	1	1	1	1	3	2	1	1	1	1	2										
CB-07 (MS)	1616104	1416 G	GW	3									3																					matrix spike
CB-07 (MSD)	616104	1418 G	GW	3									3																				m. spike dupl.	
IV-5	925886	6/16/04	1540 G	GW	9	1			6				3	1	1	1	1	3	2	1	1	1	1	2										
IV-5 (dup)	925846	6/16/04	1552 G	GW	3								3																					
<b>REMARKS</b>																																		

Special Instructions:

Relinquished By: <u>Janna Peewler</u>	Date: <u>6/16/04</u>	Time: <u>1700</u>	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: <u>6/17/04</u>	Time: <u>1700</u>

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp: 2.0

Custody Seals:  N N/A

Bottles Supplied by Test America:  N

Method of Shipment:

**June 17, 2004**  
**Analytical Data**

6/25/04

## CASE NARRATIVE

**MACTEC ENGINEERING AND CONSULT 4997**

**LANNA PEEVLER**

**1431 CENTERPOINT BLVD, STE. 150**

**KNOXVILLE, TN 37932-1968**

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: FORMER TAYLOR INSTRUMENT

Project Number: 51870-11.

Laboratory Project Number: 379339.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Page 1 Collection Date
OB-06	04-A93825	6/17/04
BR-08	04-A93826	6/17/04
BR-17	04-A93827	6/17/04
BR-03	04-A93828	6/17/04
QATB02	04-A93829	6/17/04
QAFB02	04-A93830	6/17/04
QARB02	04-A93831	6/17/04

# TestAmerica

ANALYTICAL TESTING CORPORATION

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Page 2

Sample Identification

Lab Number

Collection Date

These results relate only to the items tested.

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permission of the laboratory.

Report Approved By:

Report Date: 6/25/04

Johnny A. Mitchell, Operations Manager  
Michael H. Dunn, M.S., Technical Director  
Pamela A. Langford, Technical Services  
Eric S. Smith, QA/QC Director

Gail A. Lage, Technical Services  
Glenn L. Norton, Technical Services  
Kelly S. Comstock, Technical Services  
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 11342

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93825  
 Sample ID: OB-06  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 9:40  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis		Analyst	Method	Batch
					Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/23/04	6:15	T McCollum	8260B	7660
Benzene	ND	mg/l	0.0010	1	6/23/04	6:15	T McCollum	8260B	7660
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Bromoform	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Bromomethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
2-Butanone	ND	mg/l	0.0250	1	6/23/04	6:15	T McCollum	8260B	7660
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Chloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Chloroform	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Chloromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	6:15	T McCollum	8260B	7660
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93825  
 Sample ID: OB-06  
 Project: 51870-11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	6:15	T McCollum	8260B	7660
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	6:15	T McCollum	8260B	7660
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	6:15	T McCollum	8260B	7660
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	6:15	T McCollum	8260B	7660
Naphthalene	ND	mg/l	0.00500	1	6/23/04	6:15	T McCollum	8260B	7660
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Styrene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Toluene	ND	mg/l	0.0010	1	6/23/04	6:15	T McCollum	8260B	7660
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Trichloroethene	0.0386	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	6:15	T McCollum	8260B	7660
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	6:15	T McCollum	8260B	7660
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A93825  
Sample ID: OB-06  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	6:15	T McCollum	8260B	7660

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	113.	71. - 128.
VOA Surr Toluene-d8	106.	77. - 119.
VOA Surr, 4-BFB	111.	79. - 123.
VOA Surr, DBFM	107.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 JANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93826  
 Sample ID: BR-08  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 11:13  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis		Analyst	Method	Batch
					Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	0.216	mg/l	0.0250	1	6/23/04	6:42	T McCollum	8260B	7660
Benzene	0.0018	mg/l	0.0010	1	6/23/04	6:42	T McCollum	8260B	7660
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Bromoform	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Bromomethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
2-Butanone	ND	mg/l	0.0250	1	6/23/04	6:42	T McCollum	8260B	7660
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Chloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Chloroform	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Chloromethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	6:42	T McCollum	8260B	7660
Dibromo(chloromethane)	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660

Sample report continued . . .

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## ***ANALYTICAL REPORT***

Laboratory Number: 04-A93826  
 Sample ID: BR-08  
 Project: 51870-11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
cis-1,2-Dichloroethene	0.188	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
trans-1,2-Dichloroethene	0.0187	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	6:42	T McCollum	8260B	7660
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	6:42	T McCollum	8260B	7660
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	6:42	T McCollum	8260B	7660
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	6:42	T McCollum	8260B	7660
Naphthalene	ND	mg/l	0.00500	1	6/23/04	6:42	T McCollum	8260B	7660
n-Propylbenzene	0.00120	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Styrene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Toluene	0.0039	mg/l	0.0010	1	6/23/04	6:42	T McCollum	8260B	7660
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Trichloroethene	0.106	mg/l	0.00500	5	6/23/04	19:15	T McCollum	8260B	7680
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	6:42	T McCollum	8260B	7660
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Vinyl chloride	0.00290	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660
Xylenes (Total)	0.0044	mg/l	0.0010	1	6/23/04	6:42	T McCollum	8260B	7660
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93826  
Sample ID: BR-08  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	6:42	T McCollum	8260B	7660

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	124.	71. - 128.
VOA Surr Toluene-d8	107.	77. - 119.
VOA Surr, 4-BFB	111.	79. - 123.
VOA Surr, DBFM	107.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93827  
 Sample ID: BR-17  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 11:54  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.250	10	6/23/04	19:42	T McCollum	8260B	7680
Benzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Bromobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Bromo-chloromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Bromoform	0.0360	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Bromomethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
2-Butanone	ND	mg/l	0.250	10	6/23/04	19:42	T McCollum	8260B	7680
n-Butylbenzene	0.0280	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
sec-Butylbenzene	0.0120	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
tert-Butylbenzene	0.0150	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Carbon disulfide	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Carbon tetrachloride	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Chlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Chloroethane	0.0220	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Chloroform	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Chloromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
2-Chlorotoluene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
4-Chlorotoluene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2-Dibromo-3-chloropropane	ND	mg/l	0.0500	10	6/23/04	19:42	T McCollum	8260B	7680
Dibromo-chloromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2-Dibromoethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Dibromomethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2-Dichlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,3-Dichlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,4-Dichlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Dichlorodifluoromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680

Sample report continued . . .

## ***ANALYTICAL REPORT***

Laboratory Number: 04-A93827  
 Sample ID: BR-17  
 Project: 51870-11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	0.0100	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2-Dichloroethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1-Dichloroethene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
cis-1,2-Dichloroethene	0.279	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
trans-1,2-Dichloroethene	0.0440	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2-Dichloropropane	0.0110	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,3-Dichloropropane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
2,2-Dichloropropane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1-Dichloropropene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
cis-1,3-Dichloropropene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
trans-1,3-Dichloropropene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Ethylbenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Hexachlorobutadiene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
2-Hexanone	ND	mg/l	0.0500	10	6/23/04	19:42	T McCollum	8260B	7680
Isopropylbenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
4-Isopropyltoluene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
4-Methyl-2-pentanone	0.194	mg/l	0.0500	10	6/23/04	19:42	T McCollum	8260B	7680
Methylene chloride	ND	mg/l	0.0250	10	6/23/04	19:42	T McCollum	8260B	7680
Naphthalene	ND	mg/l	0.0500	10	6/23/04	19:42	T McCollum	8260B	7680
n-Propylbenzene	0.0120	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Styrene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1,1,2-Tetrachloroethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1,2,2-Tetrachloroethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Tetrachloroethene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Toluene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2,3-Trichlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2,4-Trichlorobenzene	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1,1-Trichloroethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,1,2-Trichloroethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Trichloroethene	3.14	mg/l	0.100	100	6/23/04	20:09	T McCollum	8260B	7683
1,2,3-Trichloropropane	0.292	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,2,4-Trimethylbenzene	0.0180	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
1,3,5-Trimethylbenzene	0.0180	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Vinyl chloride	0.0520	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Xylenes (Total)	0.0300	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680
Bromodichloromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A93827  
Sample ID: BR-17  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.0100	10	6/23/04	19:42	T McCollum	8260B	7680

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	114.	71. - 128.
VOA Surr Toluene-d8	107.	77. - 119.
VOA Surr, 4-BFB	113.	79. - 123.
VOA Surr, DBFM	109.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93828  
 Sample ID: BR-03  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 15:40  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil	Analysis		Analyst	Method	Batch
				Factor	Date	Time			
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/23/04	7:36	T McCollum	8260B	7660
Benzene	ND	mg/l	0.0010	1	6/23/04	7:36	T McCollum	8260B	7660
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Bromoform	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Bromomethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
2-Butanone	ND	mg/l	0.0250	1	6/23/04	7:36	T McCollum	8260B	7660
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Chloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Chloroform	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Chloromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	7:36	T McCollum	8260B	7660
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93828  
 Sample ID: BR-03  
 Project: 51870-11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1-Dichloroethene	0.00150	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
cis-1,2-Dichloroethene	0.0170	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
trans-1,2-Dichloroethene	0.00110	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	7:36	T McCollum	8260B	7660
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	7:36	T McCollum	8260B	7660
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	7:36	T McCollum	8260B	7660
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	7:36	T McCollum	8260B	7660
Naphthalene	ND	mg/l	0.00500	1	6/23/04	7:36	T McCollum	8260B	7660
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Styrene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Toluene	ND	mg/l	0.0010	1	6/23/04	7:36	T McCollum	8260B	7660
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Trichloroethene	0.446	mg/l	0.0100	10	6/23/04	20:36	T McCollum	8260B	7680
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	7:36	T McCollum	8260B	7660
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	7:36	T McCollum	8260B	7660
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93828  
Sample ID: BR-03  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	7:36	T McCollum	8260B	7660

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	115.	71. - 128.
VOA Surr Toluene-d8	108.	77. - 119.
VOA Surr, 4-BFB	112.	79. - 123.
VOA Surr, DBFM	103.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93829  
 Sample ID: QATB02  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected:  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	4:01	T McCollum	8260B	7660
Benzene	ND	mg/l	0.0010	1	6/23/04	4:01	T McCollum	8260B	7660
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Bromoform	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Bromomethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
2-Butanone	ND	mg/l	0.0250	1	6/23/04	4:01	T McCollum	8260B	7660
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Chloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Chloroform	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Chloromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	4:01	T McCollum	8260B	7660
Dibromochloromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A93829  
Sample ID: QATB02  
Project: 51870-11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	4:01	T McCollum	8260B	7660
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	4:01	T McCollum	8260B	7660
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	4:01	T McCollum	8260B	7660
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	4:01	T McCollum	8260B	7660
Naphthalene	ND	mg/l	0.00500	1	6/23/04	4:01	T McCollum	8260B	7660
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Styrene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Toluene	ND	mg/l	0.0010	1	6/23/04	4:01	T McCollum	8260B	7660
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Trichloroethene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	4:01	T McCollum	8260B	7660
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	4:01	T McCollum	8260B	7660
Bromodichloromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93829  
Sample ID: QATB02  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	4:01	T McCollum	8260B	7660

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	113.	71. - 128.
VOA Surr Toluene-d8	100.	77. - 119.
VOA Surr, 4-BFB	112.	79. - 123.
VOA Surr, DBFM	109.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93830  
 Sample ID: QAFB02  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 16:32  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	18:48	T McCollum	8260B	7680
Benzene	ND	mg/l	0.0010	1	6/23/04	18:48	T McCollum	8260B	7680
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Bromoform	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Bromomethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
2-Butanone	ND	mg/l	0.0250	1	6/23/04	18:48	T McCollum	8260B	7680
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Chloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Chloroform	0.00820	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Chloromethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	18:48	T McCollum	8260B	7680
Dibromochloromethane	0.00110	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A93830  
Sample ID: QAFB02  
Project: 51870-11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	18:48	T McCollum	8260B	7680
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	18:48	T McCollum	8260B	7680
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/23/04	18:48	T McCollum	8260B	7680
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	18:48	T McCollum	8260B	7680
Naphthalene	ND	mg/l	0.00500	1	6/23/04	18:48	T McCollum	8260B	7680
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Styrene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Toluene	ND	mg/l	0.0010	1	6/23/04	18:48	T McCollum	8260B	7680
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Trichloroethene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	18:48	T McCollum	8260B	7680
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	18:48	T McCollum	8260B	7680
Bromodichloromethane	0.00410	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A93830  
Sample ID: QAFB02  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	18:48	T McCollum	8260B	7680

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	112.	71. - 128.
VOA Surr Toluene-d8	105.	77. - 119.
VOA Surr, 4-BFB	113.	79. - 123.
VOA Surr, DBFM	106.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 LANNA PEEVLER  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A93831  
 Sample ID: QARB02  
 Sample Type: Ground water  
 Site ID:

Project: 51870-11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/17/04  
 Time Collected: 16:42  
 Date Received: 6/18/04  
 Time Received: 8:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/23/04	8:29	T McCollum	8260B	7660
Benzene	ND	mg/l	0.0010	1	6/23/04	8:29	T McCollum	8260B	7660
Bromobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Bromochloromethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Bromoform	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Bromomethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
2-Butanone	ND	mg/l	0.0250	1	6/23/04	8:29	T McCollum	8260B	7660
n-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
sec-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
tert-Butylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Carbon disulfide	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Carbon tetrachloride	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Chlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Chloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Chloroform	0.00810	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Chloromethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
2-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
4-Chlorotoluene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/23/04	8:29	T McCollum	8260B	7660
Dibromochloromethane	0.00320	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Dibromomethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A93831  
 Sample ID: QARB02  
 Project: 51870-11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Ethylbenzene	ND	mg/l	0.0010	1	6/23/04	8:29	T McCollum	8260B	7660
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
2-Hexanone	ND	mg/l	0.00500	1	6/23/04	8:29	T McCollum	8260B	7660
Isopropylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
4-Isopropyltoluene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
4-Methyl-2-pantanone	ND	mg/l	0.00500	1	6/23/04	8:29	T McCollum	8260B	7660
Methylene chloride	ND	mg/l	0.00250	1	6/23/04	8:29	T McCollum	8260B	7660
Naphthalene	ND	mg/l	0.00500	1	6/23/04	8:29	T McCollum	8260B	7660
n-Propylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Styrene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Tetrachloroethene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Toluene	ND	mg/l	0.0010	1	6/23/04	8:29	T McCollum	8260B	7660
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Trichloroethene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/23/04	8:29	T McCollum	8260B	7660
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Vinyl chloride	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660
Xylenes (Total)	ND	mg/l	0.0010	1	6/23/04	8:29	T McCollum	8260B	7660
Bromodichloromethane	0.00400	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A93831  
Sample ID: QARB02  
Project: 51870-11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/23/04	8:29	T McCollum	8260B	7660

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	71. - 128.
VOA Surr Toluene-d8	105.	77. - 119.
VOA Surr, 4-BFB	111.	79. - 123.
VOA Surr, DBFM	110.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 1

**Laboratory Receipt Date:** 6/18/04

**Matrix Spike Recovery**

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Samp
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**\*\*VOA PARAMETERS\*\***

Benzene	mg/l	< 0.0010	0.0489	0.0500	98	73 -	135	7660	04-A93825
Benzene	mg/l	< 0.0010	0.0588	0.0500	118	73 -	135	7680	95779
Chlorobenzene	mg/l	< 0.00100	0.0457	0.0500	91	77 -	130	7660	04-A93825
Chlorobenzene	mg/l	< 0.00100	0.0573	0.0500	115	77 -	130	7680	95779
1,1-Dichloroethene	mg/l	< 0.00100	0.0465	0.0500	93	71 -	143	7660	04-A93825
1,1-Dichloroethene	mg/l	< 0.00100	0.0516	0.0500	103	71 -	143	7680	95779
Toluene	mg/l	< 0.0010	0.0455	0.0500	91	69 -	139	7660	04-A93825
Toluene	mg/l	0.0009	0.0564	0.0500	111	69 -	139	7680	95779
Trichloroethene	mg/l	0.0386	0.0873	0.0500	97	72 -	141	7660	04-A93825
Trichloroethene	mg/l	< 0.00100	0.0606	0.0500	121	72 -	141	7680	95779
Tetrachloroethene	mg/l	< 0.00100	0.0448	0.0500	90	68 -	140	7660	04-A93825
Tetrachloroethene	mg/l	< 0.00100	0.0579	0.0500	116	68 -	140	7680	95779
VOA Surr 1,2-DCA-d4	% Rec				107	71 -	128	7660	
VOA Surr 1,2-DCA-d4	% Rec				110	71 -	128	7680	
VOA Surr Toluene-d8	% Rec				107	77 -	119	7660	
VOA Surr Toluene-d8	% Rec				107	77 -	119	7680	
VOA Surr, 4-BFB	% Rec				107	79 -	123	7660	
VOA Surr, 4-BFB	% Rec				106	79 -	123	7680	
VOA Surr, DBFM	% Rec				101	78 -	124	7660	
VOA Surr, DBFM	% Rec				109	78 -	124	7680	

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 2

**Laboratory Receipt Date:** 6/18/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
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**\*\* VOA PARAMETERS \*\***

Benzene	mg/l	0.0489	0.0468	4.39	21.	7660
Benzene	mg/l	0.0588	0.0519	12.47	21.	7680
Chlorobenzene	mg/l	0.0457	0.0442	3.34	19.	7660
Chlorobenzene	mg/l	0.0573	0.0516	10.47	19.	7680
1,1-Dichloroethene	mg/l	0.0465	0.0468	0.64	21.	7660
1,1-Dichloroethene	mg/l	0.0516	0.0446	14.55	21.	7680
Toluene	mg/l	0.0455	0.0439	3.58	24.	7660
Toluene	mg/l	0.0564	0.0510	10.06	24.	7680
Trichloroethene	mg/l	0.0873	0.0873	0.00	21.	7660
Trichloroethene	mg/l	0.0606	0.0538	11.89	21.	7680
Tetrachloroethene	mg/l	0.0448	0.0447	0.22	21.	7660
Tetrachloroethene	mg/l	0.0579	0.0521	10.55	21.	7680
VOA Surr 1,2-DCA-d4	% Rec		106.			7660
VOA Surr 1,2-DCA-d4	% Rec		106.			7680
VOA Surr Toluene-d8	% Rec		109.			7660
VOA Surr Toluene-d8	% Rec		107.			7680
VOA Surr, 4-BFB	% Rec		108.			7660
VOA Surr, 4-BFB	% Rec		108.			7680
VOA Surr, DBFM	% Rec		100.			7660
VOA Surr, DBFM	% Rec		104.			7680

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 3

**Laboratory Receipt Date:** 6/18/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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**\*\*VOA PARAMETERS\*\***

Acetone	mg/l	0.250	0.172	69	55 - 144	7660
Acetone	mg/l	0.250	0.193	77	55 - 144	7680
Benzene	mg/l	0.0500	0.0589	118	81 - 121	7660
Benzene	mg/l	0.0500	0.0562	112	81 - 121	7680
Bromobenzene	mg/l	0.0500	0.0510	102	72 - 129	7660
Bromobenzene	mg/l	0.0500	0.0537	107	72 - 129	7680
Bromoform	mg/l	0.0500	0.0465	93	75 - 137	7660
Bromoform	mg/l	0.0500	0.0517	103	75 - 137	7680
Bromoform	mg/l	0.0500	0.0428	86	54 - 127	7660
Bromomethane	mg/l	0.0500	0.0562	112	54 - 127	7680
Bromomethane	mg/l	0.0500	0.0546	109	54 - 160	7660
Bromomethane	mg/l	0.0500	0.0502	100	54 - 160	7680
2-Butanone	mg/l	0.250	0.208	83	62 - 146	7660
2-Butanone	mg/l	0.250	0.229	92	62 - 146	7680
n-Butylbenzene	mg/l	0.0500	0.0460	92	68 - 139	7660
n-Butylbenzene	mg/l	0.0500	0.0614	123	68 - 139	7680
sec-Butylbenzene	mg/l	0.0500	0.0488	98	75 - 135	7660
sec-Butylbenzene	mg/l	0.0500	0.0603	121	75 - 135	7680
tert-Butylbenzene	mg/l	0.0500	0.0488	98	73 - 135	7660
tert-Butylbenzene	mg/l	0.0500	0.0608	122	73 - 135	7680
Carbon disulfide	mg/l	0.0500	0.0492	98	71 - 139	7660
Carbon disulfide	mg/l	0.0500	0.0570	114	71 - 139	7680
Carbon tetrachloride	mg/l	0.0500	0.0492	98	70 - 131	7660
Carbon tetrachloride	mg/l	0.0500	0.0586	117	70 - 131	7680
Chlorobenzene	mg/l	0.0500	0.0504	101	87 - 120	7660
Chlorobenzene	mg/l	0.0500	0.0537	107	87 - 120	7680
Chloroethane	mg/l	0.0500	0.0479	96	65 - 145	7660

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 4

**Laboratory Receipt Date:** 6/18/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Chloroethane	mg/l	0.0500	0.0533	107	65 - 145	7680
Chloroform	mg/l	0.0500	0.0451	90	77 - 128	7660
Chloroform	mg/l	0.0500	0.0488	98	77 - 128	7680
Chloromethane	mg/l	0.0500	0.0427	85	46 - 147	7660
Chloromethane	mg/l	0.0500	0.0484	97	46 - 147	7680
2-Chlorotoluene	mg/l	0.0500	0.0516	103	78 - 128	7660
2-Chlorotoluene	mg/l	0.0500	0.0550	110	78 - 128	7680
4-Chlorotoluene	mg/l	0.0500	0.0464	93	80 - 130	7660
4-Chlorotoluene	mg/l	0.0500	0.0567	113	80 - 130	7680
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0435	87	55 - 135	7660
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0542	108	55 - 135	7680
Dibromochloromethane	mg/l	0.0500	0.0465	93	63 - 132	7660
Dibromochloromethane	mg/l	0.0500	0.0577	115	63 - 132	7680
1,2-Dibromoethane	mg/l	0.0500	0.0524	105	77 - 136	7660
1,2-Dibromoethane	mg/l	0.0500	0.0554	111	77 - 136	7680
Dibromomethane	mg/l	0.0500	0.0510	102	75 - 133	7660
Dibromomethane	mg/l	0.0500	0.0553	111	75 - 133	7680
1,2-Dichlorobenzene	mg/l	0.0500	0.0520	104	83 - 126	7660
1,2-Dichlorobenzene	mg/l	0.0500	0.0553	111	83 - 126	7680
1,3-Dichlorobenzene	mg/l	0.0500	0.0517	103	85 - 124	7660
1,3-Dichlorobenzene	mg/l	0.0500	0.0551	110	85 - 124	7680
1,4-Dichlorobenzene	mg/l	0.0500	0.0489	98	83 - 122	7660
1,4-Dichlorobenzene	mg/l	0.0500	0.0524	105	83 - 122	7680
Dichlorodifluoromethane	mg/l	0.0500	0.0542	108	52 - 159	7660
Dichlorodifluoromethane	mg/l	0.0500	0.0554	111	52 - 159	7680
1,1-Dichloroethane	mg/l	0.0500	0.0440	88	76 - 129	7660
1,1-Dichloroethane	mg/l	0.0500	0.0494	99	76 - 129	7680
1,2-Dichloroethane	mg/l	0.0500	0.0524	105	70 - 136	7660
1,2-Dichloroethane	mg/l	0.0500	0.0533	107	70 - 136	7680
1,1-Dichloroethene	mg/l	0.0500	0.0467	93	77 - 133	7660
1,1-Dichloroethene	mg/l	0.0500	0.0508	102	77 - 133	7680

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 5

**Laboratory Receipt Date:** 6/18/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
cis-1,2-Dichloroethene	mg/l	0.0500	0.0452	90	76 - 129	7660
cis-1,2-Dichloroethene	mg/l	0.0500	0.0500	100	76 - 129	7680
trans-1,2-Dichloroethene	mg/l	0.0500	0.0457	91	73 - 135	7660
trans-1,2-Dichloroethene	mg/l	0.0500	0.0506	101	73 - 135	7680
1,2-Dichloropropane	mg/l	0.0500	0.0523	105	74 - 130	7660
1,2-Dichloropropane	mg/l	0.0500	0.0566	113	74 - 130	7680
1,3-Dichloropropane	mg/l	0.0500	0.0509	102	79 - 129	7660
1,3-Dichloropropane	mg/l	0.0500	0.0534	107	79 - 129	7680
2,2-Dichloropropane	mg/l	0.0500	0.0416	83	39 - 151	7660
2,2-Dichloropropane	mg/l	0.0500	0.0551	110	39 - 151	7680
1,1-Dichloropropene	mg/l	0.0500	0.0529	106	80 - 129	7660
1,1-Dichloropropene	mg/l	0.0500	0.0585	117	80 - 129	7680
cis-1,3-Dichloropropene	mg/l	0.0500	0.0533	107	59 - 136	7660
cis-1,3-Dichloropropene	mg/l	0.0500	0.0600	120	59 - 136	7680
trans-1,3-Dichloropropene	mg/l	0.0500	0.0436	87	59 - 135	7660
trans-1,3-Dichloropropene	mg/l	0.0500	0.0613	123	59 - 135	7680
Ethylbenzene	mg/l	0.0500	0.0528	106	78 - 126	7660
Ethylbenzene	mg/l	0.0500	0.0566	113	78 - 126	7680
Hexachlorobutadiene	mg/l	0.0500	0.0498	100	60 - 142	7660
Hexachlorobutadiene	mg/l	0.0500	0.0538	108	60 - 142	7680
2-Hexanone	mg/l	0.250	0.204	82	61 - 148	7660
2-Hexanone	mg/l	0.250	0.274	110	61 - 148	7680
Isopropylbenzene	mg/l	0.0500	0.0480	96	74 - 134	7660
Isopropylbenzene	mg/l	0.0500	0.0618	124	74 - 134	7680
4-Isopropyltoluene	mg/l	0.0500	0.0542	108	79 - 130	7660
4-Isopropyltoluene	mg/l	0.0500	0.0580	116	79 - 130	7680
4-Methyl-2-pentanone	mg/l	0.250	0.208	83	59 - 147	7660
4-Methyl-2-pentanone	mg/l	0.250	0.269	108	59 - 147	7680
Methylene chloride	mg/l	0.0500	0.0465	93	68 - 132	7660
Methylene chloride	mg/l	0.0500	0.0467	93	68 - 132	7680
Naphthalene	mg/l	0.0500	0.0446	89	53 - 152	7660

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 6

**Laboratory Receipt Date:** 6/18/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Naphthalene	mg/l	0.0500	0.0609	122	53 - 152	7680
n-Propylbenzene	mg/l	0.0500	0.0478	96	73 - 134	7660
n-Propylbenzene	mg/l	0.0500	0.0584	117	73 - 134	7680
Styrene	mg/l	0.0500	0.0475	95	78 - 134	7660
Styrene	mg/l	0.0500	0.0612	122	78 - 134	7680
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0524	105	75 - 131	7660
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0554	111	75 - 131	7680
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0480	96	62 - 142	7660
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0518	104	62 - 142	7680
Tetrachloroethene	mg/l	0.0500	0.0504	101	77 - 129	7660
Tetrachloroethene	mg/l	0.0500	0.0539	108	77 - 129	7680
Toluene	mg/l	0.0500	0.0506	101	77 - 125	7660
Toluene	mg/l	0.0500	0.0542	108	77 - 125	7680
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0453	91	54 - 155	7660
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0563	113	54 - 155	7680
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0459	92	61 - 145	7660
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0579	116	61 - 145	7680
1,1,1-Trichloroethane	mg/l	0.0500	0.0487	97	66 - 139	7660
1,1,1-Trichloroethane	mg/l	0.0500	0.0532	106	66 - 139	7680
1,1,2-Trichloroethane	mg/l	0.0500	0.0511	102	77 - 132	7660
1,1,2-Trichloroethane	mg/l	0.0500	0.0537	107	77 - 132	7680
Trichloroethene	mg/l	0.0500	0.0541	108	80 - 132	7660
Trichloroethene	mg/l	0.0500	0.0564	113	80 - 132	7680
Trichloroethene	mg/l	0.0500	0.0564	113	80 - 132	7683
1,2,3-Trichloropropane	mg/l	0.0500	0.0452	90	54 - 144	7660
1,2,3-Trichloropropane	mg/l	0.0500	0.0488	98	54 - 144	7680
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0480	96	74 - 130	7660
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0593	119	74 - 130	7680
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0474	95	77 - 131	7660
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0582	116	77 - 131	7680
Vinyl chloride	mg/l	0.0500	0.0494	99	69 - 139	7660

Project QC continued . . .

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204  
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**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 7

**Laboratory Receipt Date:** 6/18/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Vinyl chloride	mg/l	0.0500	0.0543	109	69 - 139	7680
Xylenes (Total)	mg/l	0.150	0.146	97	78 - 127	7660
Xylenes (Total)	mg/l	0.150	0.178	119	78 - 127	7680
Bromodichloromethane	mg/l	0.0500	0.0540	108	67 - 135	7660
Bromodichloromethane	mg/l	0.0500	0.0574	115	67 - 135	7680
Trichlorofluoromethane	mg/l	0.0500	0.0464	93	64 - 143	7660
Trichlorofluoromethane	mg/l	0.0500	0.0516	103	64 - 143	7680
VOA Surr 1,2-DCA-d4	% Rec			122	71 - 128	7660
VOA Surr 1,2-DCA-d4	% Rec			105	71 - 128	7680
VOA Surr 1,2-DCA-d4	% Rec			105	71 - 128	7683
VOA Surr Toluene-d8	% Rec			109	77 - 119	7660
VOA Surr Toluene-d8	% Rec			108	77 - 119	7680
VOA Surr Toluene-d8	% Rec			108	77 - 119	7683
VOA Surr, 4-BFB	% Rec			109	79 - 123	7660
VOA Surr, 4-BFB	% Rec			107	79 - 123	7680
VOA Surr, 4-BFB	% Rec			107	79 - 123	7683
VOA Surr, DBFM	% Rec			98	78 - 124	7660
VOA Surr, DBFM	% Rec			102	78 - 124	7680
VOA Surr, DBFM	% Rec			102	78 - 124	7683

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870-11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 8  
**Laboratory Receipt Date:** 6/18/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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\*\*VOA PARAMETERS\*\*

Acetone	< 0.00470	mg/l	7660	6/23/04	3:34
Acetone	< 0.00470	mg/l	7680	6/23/04	17:50
Benzene	< 0.0005	mg/l	7660	6/23/04	3:34
Benzene	< 0.0005	mg/l	7680	6/23/04	17:50
Bromobenzene	< 0.00030	mg/l	7660	6/23/04	3:34
Bromobenzene	< 0.00030	mg/l	7680	6/23/04	17:50
Bromochloromethane	< 0.00030	mg/l	7660	6/23/04	3:34
Bromochloromethane	< 0.00030	mg/l	7680	6/23/04	17:50
Bromoform	< 0.00060	mg/l	7660	6/23/04	3:34
Bromoform	< 0.00060	mg/l	7680	6/23/04	17:50
Bromomethane	< 0.00060	mg/l	7660	6/23/04	3:34
Bromomethane	< 0.00060	mg/l	7680	6/23/04	17:50
2-Butanone	< 0.00310	mg/l	7660	6/23/04	3:34
2-Butanone	0.00410	mg/l	7680	6/23/04	17:50
n-Butylbenzene	< 0.00010	mg/l	7660	6/23/04	3:34
n-Butylbenzene	< 0.00010	mg/l	7680	6/23/04	17:50
sec-Butylbenzene	< 0.00030	mg/l	7660	6/23/04	3:34
sec-Butylbenzene	< 0.00030	mg/l	7680	6/23/04	17:50
tert-Butylbenzene	< 0.00030	mg/l	7660	6/23/04	3:34
tert-Butylbenzene	< 0.00030	mg/l	7680	6/23/04	17:50
Carbon disulfide	< 0.00020	mg/l	7660	6/23/04	3:34
Carbon disulfide	< 0.00020	mg/l	7680	6/23/04	17:50
Carbon tetrachloride	< 0.00040	mg/l	7660	6/23/04	3:34
Carbon tetrachloride	< 0.00040	mg/l	7680	6/23/04	17:50
Chlorobenzene	< 0.00020	mg/l	7660	6/23/04	3:34
Chlorobenzene	< 0.00020	mg/l	7680	6/23/04	17:50
Chloroethane	< 0.00100	mg/l	7660	6/23/04	3:34

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 9

**Laboratory Receipt Date:** 6/18/04

Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Analysis Date	Analysis Time
Chloroethane	< 0.00100	mg/l		7680	6/23/04	17:50
Chloroform	< 0.00080	mg/l		7660	6/23/04	3:34
Chloroform	< 0.00080	mg/l		7680	6/23/04	17:50
Chloromethane	< 0.00070	mg/l		7660	6/23/04	3:34
Chloromethane	< 0.00070	mg/l		7680	6/23/04	17:50
2-Chlorotoluene	< 0.00040	mg/l		7660	6/23/04	3:34
2-Chlorotoluene	< 0.00040	mg/l		7680	6/23/04	17:50
4-Chlorotoluene	< 0.00050	mg/l		7660	6/23/04	3:34
4-Chlorotoluene	< 0.00050	mg/l		7680	6/23/04	17:50
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l		7660	6/23/04	3:34
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l		7680	6/23/04	17:50
Dibromochloromethane	< 0.00050	mg/l		7660	6/23/04	3:34
Dibromochloromethane	< 0.00050	mg/l		7680	6/23/04	17:50
1,2-Dibromoethane	< 0.00040	mg/l		7660	6/23/04	3:34
1,2-Dibromoethane	< 0.00040	mg/l		7680	6/23/04	17:50
Dibromomethane	< 0.00090	mg/l		7660	6/23/04	3:34
Dibromomethane	< 0.00090	mg/l		7680	6/23/04	17:50
1,2-Dichlorobenzene	< 0.00020	mg/l		7660	6/23/04	3:34
1,2-Dichlorobenzene	< 0.00020	mg/l		7680	6/23/04	17:50
1,3-Dichlorobenzene	< 0.00030	mg/l		7660	6/23/04	3:34
1,3-Dichlorobenzene	< 0.00030	mg/l		7680	6/23/04	17:50
1,4-Dichlorobenzene	< 0.00040	mg/l		7660	6/23/04	3:34
1,4-Dichlorobenzene	< 0.00040	mg/l		7680	6/23/04	17:50
Dichlorodifluoromethane	< 0.00050	mg/l		7660	6/23/04	3:34
Dichlorodifluoromethane	< 0.00050	mg/l		7680	6/23/04	17:50
1,1-Dichloroethane	< 0.00020	mg/l		7660	6/23/04	3:34
1,1-Dichloroethane	< 0.00020	mg/l		7680	6/23/04	17:50
1,2-Dichloroethane	< 0.00060	mg/l		7660	6/23/04	3:34
1,2-Dichloroethane	< 0.00060	mg/l		7680	6/23/04	17:50
1,1-Dichloroethene	< 0.00060	mg/l		7660	6/23/04	3:34
1,1-Dichloroethene	< 0.00060	mg/l		7680	6/23/04	17:50

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 10

**Laboratory Receipt Date:** 6/18/04

Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Analysis Date	Analysis Time
cis-1,2-Dichloroethene	< 0.00060	mg/l		7660	6/23/04	3:34
cis-1,2-Dichloroethene	< 0.00060	mg/l		7680	6/23/04	17:50
trans-1,2-Dichloroethene	< 0.00050	mg/l		7660	6/23/04	3:34
trans-1,2-Dichloroethene	< 0.00050	mg/l		7680	6/23/04	17:50
1,2-Dichloropropane	< 0.00040	mg/l		7660	6/23/04	3:34
1,2-Dichloropropane	< 0.00040	mg/l		7680	6/23/04	17:50
1,3-Dichloropropane	< 0.00040	mg/l		7660	6/23/04	3:34
1,3-Dichloropropane	< 0.00040	mg/l		7680	6/23/04	17:50
2,2-Dichloropropane	< 0.00040	mg/l		7660	6/23/04	3:34
2,2-Dichloropropane	< 0.00040	mg/l		7680	6/23/04	17:50
1,1-Dichloropropene	< 0.00050	mg/l		7660	6/23/04	3:34
1,1-Dichloropropene	< 0.00050	mg/l		7680	6/23/04	17:50
cis-1,3-Dichloropropene	< 0.00030	mg/l		7660	6/23/04	3:34
cis-1,3-Dichloropropene	< 0.00030	mg/l		7680	6/23/04	17:50
trans-1,3-Dichloropropene	< 0.00050	mg/l		7660	6/23/04	3:34
trans-1,3-Dichloropropene	< 0.00050	mg/l		7680	6/23/04	17:50
Ethylbenzene	< 0.0003	mg/l		7660	6/23/04	3:34
Ethylbenzene	< 0.0003	mg/l		7680	6/23/04	17:50
Hexachlorobutadiene	< 0.00080	mg/l		7660	6/23/04	3:34
Hexachlorobutadiene	< 0.00080	mg/l		7680	6/23/04	17:50
2-Hexanone	< 0.00420	mg/l		7660	6/23/04	3:34
2-Hexanone	< 0.00420	mg/l		7680	6/23/04	17:50
Isopropylbenzene	< 0.00040	mg/l		7660	6/23/04	3:34
Isopropylbenzene	< 0.00040	mg/l		7680	6/23/04	17:50
4-Isopropyltoluene	< 0.00060	mg/l		7660	6/23/04	3:34
4-Isopropyltoluene	< 0.00060	mg/l		7680	6/23/04	17:50
4-Methyl-2-pentanone	< 0.00490	mg/l		7660	6/23/04	3:34
4-Methyl-2-pentanone	< 0.00490	mg/l		7680	6/23/04	17:50
Methylene chloride	< 0.00240	mg/l		7660	6/23/04	3:34
Methylene chloride	< 0.00240	mg/l		7680	6/23/04	17:50
Naphthalene	< 0.00120	mg/l		7660	6/23/04	3:34

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 11

**Laboratory Receipt Date:** 6/18/04

Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Analysis Date	Analysis Time
Naphthalene	< 0.00120	mg/l		7680	6/23/04	17:50
n-Propylbenzene	< 0.00030	mg/l		7660	6/23/04	3:34
n-Propylbenzene	< 0.00030	mg/l		7680	6/23/04	17:50
Styrene	< 0.00040	mg/l		7660	6/23/04	3:34
Styrene	< 0.00040	mg/l		7680	6/23/04	17:50
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l		7660	6/23/04	3:34
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l		7680	6/23/04	17:50
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l		7660	6/23/04	3:34
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l		7680	6/23/04	17:50
Tetrachloroethene	< 0.00040	mg/l		7660	6/23/04	3:34
Tetrachloroethene	< 0.00040	mg/l		7680	6/23/04	17:50
Toluene	< 0.0006	mg/l		7660	6/23/04	3:34
Toluene	< 0.0006	mg/l		7680	6/23/04	17:50
1,2,3-Trichlorobenzene	< 0.00100	mg/l		7660	6/23/04	3:34
1,2,3-Trichlorobenzene	< 0.00100	mg/l		7680	6/23/04	17:50
1,2,4-Trichlorobenzene	< 0.00060	mg/l		7660	6/23/04	3:34
1,2,4-Trichlorobenzene	< 0.00060	mg/l		7680	6/23/04	17:50
1,1,1-Trichloroethane	< 0.00070	mg/l		7660	6/23/04	3:34
1,1,1-Trichloroethane	< 0.00070	mg/l		7680	6/23/04	17:50
1,1,2-Trichloroethane	< 0.00040	mg/l		7660	6/23/04	3:34
1,1,2-Trichloroethane	< 0.00040	mg/l		7680	6/23/04	17:50
Trichloroethene	< 0.00040	mg/l		7660	6/23/04	3:34
Trichloroethene	< 0.00040	mg/l		7680	6/23/04	17:50
Trichloroethene	< 0.00040	mg/l		7683	6/23/04	17:50
1,2,3-Trichloropropane	< 0.00060	mg/l		7660	6/23/04	3:34
1,2,3-Trichloropropane	0.0299	mg/l		7680	6/23/04	17:50
1,2,4-Trimethylbenzene	< 0.0003	mg/l		7660	6/23/04	3:34
1,2,4-Trimethylbenzene	< 0.0003	mg/l		7680	6/23/04	17:50
1,3,5-Trimethylbenzene	< 0.00100	mg/l		7660	6/23/04	3:34
1,3,5-Trimethylbenzene	< 0.00100	mg/l		7680	6/23/04	17:50
Vinyl chloride	< 0.00050	mg/l		7660	6/23/04	3:34

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870-11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 12

**Laboratory Receipt Date:** 6/18/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Vinyl chloride	< 0.00050	mg/l	7680	6/23/04	17:50
Xylenes (Total)	< 0.0009	mg/l	7660	6/23/04	3:34
Xylenes (Total)	< 0.0009	mg/l	7680	6/23/04	17:50
Bromodichloromethane	< 0.00030	mg/l	7660	6/23/04	3:34
Bromodichloromethane	< 0.00030	mg/l	7680	6/23/04	17:50
Trichlorofluoromethane	< 0.00040	mg/l	7660	6/23/04	3:34
Trichlorofluoromethane	< 0.00040	mg/l	7680	6/23/04	17:50
VOA Surr 1,2-DCA-d4	112.	% Rec	7660	6/23/04	3:34
VOA Surr 1,2-DCA-d4	114.	% Rec	7680	6/23/04	17:50
VOA Surr 1,2-DCA-d4	114.	% Rec	7683	6/23/04	17:50
VOA Surr Toluene-d8	109.	% Rec	7660	6/23/04	3:34
VOA Surr Toluene-d8	107.	% Rec	7680	6/23/04	17:50
VOA Surr Toluene-d8	107.	% Rec	7683	6/23/04	17:50
VOA Surr, 4-BFB	112.	% Rec	7660	6/23/04	3:34
VOA Surr, 4-BFB	113.	% Rec	7680	6/23/04	17:50
VOA Surr, 4-BFB	113.	% Rec	7683	6/23/04	17:50
VOA Surr, DBFM	108.	% Rec	7660	6/23/04	3:34
VOA Surr, DBFM	106.	% Rec	7680	6/23/04	17:50
VOA Surr, DBFM	106.	% Rec	7683	6/23/04	17:50

# = Value outside Laboratory historical or method prescribed QC limits.

nd of Report for Project 379339

379239

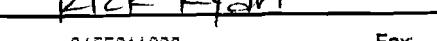
# TestAmerica

ANALYTICAL TESTING CORPORATION

**Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204**

**Phone:** 615-726-0177  
**Fax:** 615-726-3404

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?

Client Name: MACTEC ENGINEERING AND CONSULTING Client #: 495  
Address: 1431 CENTERPOINT BLVD, STE 150  
City/State/Zip Code: KNOXVILLE TN 37932-1968  
Project Manager: Rick Ryan  
Telephone Number: 8655311922 Fax: 61385531822  
Player Name: (Print Name) Janna Peeler  
Sampler Signature: 

**Special Instructions:**

<u>John Peacock</u>	6/17/01	Time: 1700	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: <u>MuMu Bl</u>	Date: 6/18/01	Time: 0800

**LABORATORY COMMENTS:**

**Init Lab Temp:**

Rec Lab Temp:

**Custody Seals:** Y N N/A

Bottles Supplied by Test America: Y N

**Method of Shipment:**

**June 18 - 20, 2004**  
**Analytical Data**

6/29/04

## CASE NARRATIVE

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE.150  
KNOXVILLE, TN 37932-1968

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: FORMER TAYLOR INSTRUMENT

Project Number: 51870.11.

Laboratory Project Number: 379678.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Page 1 Collection Date
BR-14	04-A95686	6/18/04
BR-02	04-A95687	6/18/04
BR-01	04-A95688	6/18/04
BR-07	04-A95689	6/18/04
BR-07 DUP	04-A95690	6/18/04
BR-12	04-A95691	6/18/04
W-6	04-A95692	6/19/04
BR-13	04-A95693	6/19/04
BR-15	04-A95694	6/19/04
BR-10	04-A95695	6/19/04
OB-04	04-A95696	6/19/04
BR-04	04-A95697	6/19/04
BR-05	04-A95698	6/20/04
OB-05	04-A95699	6/20/04
BR-09	04-A95700	6/20/04
OB-08	04-A95701	6/20/04

# TestAmerica

ANALYTICAL TESTING CORPORATION

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204  
800-765-0980 • 615-726-3404 FAX

Sample Identification

Lab Number

Page 2

Collection Date

BR-11

04-A95702

6/20/04

These results relate only to the items tested.

This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:

*Elizanne L. Connor*

Report Date: 6/29/04

Johnny A. Mitchell, Operations Manager  
Michael H. Dunn, M.S., Technical Director  
Pamela A. Langford, Technical Services  
Eric S. Smith, QA/QC Director

Gail A. Lage, Technical Services  
Glenn L. Norton, Technical Services  
Kelly S. Comstock, Technical Services  
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 11342

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95686  
 Sample ID: BR-14  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/18/04  
 Time Collected: 8:45  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	0.401	mg/l	0.0250	1	6/26/04	11:18	B.Herford	8260B	600
Benzene	ND	mg/l	0.0010	1	6/26/04	11:18	B.Herford	8260B	600
Bromobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Bromochloromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Bromoform	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Bromomethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
2-Butanone	ND	mg/l	0.0250	1	6/26/04	11:18	B.Herford	8260B	600
n-Butylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
sec-Butylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
tert-Butylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Carbon disulfide	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Carbon tetrachloride	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Chlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Chloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Chloroform	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Chloromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
2-Chlorotoluene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
4-Chlorotoluene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/26/04	11:18	B.Herford	8260B	600
Dibromochloromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Dibromomethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95686  
Sample ID: BR-14  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Ethylbenzene	ND	mg/l	0.0010	1	6/26/04	11:18	B.Herford	8260B	600
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
2-Hexanone	ND	mg/l	0.00500	1	6/26/04	11:18	B.Herford	8260B	600
Isopropylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/26/04	11:18	B.Herford	8260B	600
Methylene chloride	ND	mg/l	0.00250	1	6/26/04	11:18	B.Herford	8260B	600
Naphthalene	ND	mg/l	0.00500	1	6/26/04	11:18	B.Herford	8260B	600
n-Propylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Styrene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Tetrachloroethene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Toluene	0.0030	mg/l	0.0010	1	6/26/04	11:18	B.Herford	8260B	600
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Trichloroethene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/26/04	11:18	B.Herford	8260B	600
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Vinyl chloride	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600
Xylenes (Total)	ND	mg/l	0.0010	1	6/26/04	11:18	B.Herford	8260B	600
Bromodichloromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95686  
Sample ID: BR-14  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/26/04	11:18	B.Herford	8260B	600

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	96.	77. - 119.
VOA Surr, 4-BFB	108.	79. - 123.
VOA Surr, DBFM	96.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE. 150  
KNOXVILLE, TN 37932-1968

Lab Number: 04-A95687  
Sample ID: BR-02  
Sample Type: Ground water  
Site ID:

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Date Collected: 6/18/04  
Time Collected: 10:38  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/24/04	23:39	S. Udeze	8260B	7298
Benzene	ND	mg/l	0.0010	1	6/24/04	23:39	S. Udeze	8260B	7298
Bromobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Bromochloromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Bromoform	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Bromomethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
2-Butanone	ND	mg/l	0.0250	1	6/24/04	23:39	S. Udeze	8260B	7298
n-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
sec-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
tert-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Carbon disulfide	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Carbon tetrachloride	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Chlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Chloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Chloroform	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Chloromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
2-Chlorotoluene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
4-Chlorotoluene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/24/04	23:39	S. Udeze	8260B	7298
Dibromochloromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Dibromomethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95687  
 Sample ID: BR-02  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1-Dichloroethene	0.00280	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
cis-1,2-Dichloroethene	0.257	mg/l	0.0100	10	6/25/04	20:30	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0338	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Ethylbenzene	ND	mg/l	0.0010	1	6/24/04	23:39	S. Udeze	8260B	7298
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
2-Hexanone	ND	mg/l	0.00500	1	6/24/04	23:39	S. Udeze	8260B	7298
Isopropylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/24/04	23:39	S. Udeze	8260B	7298
Methylene chloride	ND	mg/l	0.00250	1	6/24/04	23:39	S. Udeze	8260B	7298
Naphthalene	ND	mg/l	0.00500	1	6/24/04	23:39	S. Udeze	8260B	7298
n-Propylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Styrene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Tetrachloroethene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Toluene	ND	mg/l	0.0010	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Trichloroethene	0.450	mg/l	0.0100	10	6/25/04	20:30	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/24/04	23:39	S. Udeze	8260B	7298
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Vinyl chloride	0.00230	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298
Xylenes (Total)	ND	mg/l	0.0010	1	6/24/04	23:39	S. Udeze	8260B	7298
Bromodichloromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95687  
Sample ID: BR-02  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/24/04	23:39	S. Udeze	8260B	7298

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	71. - 128.
VOA Surr Toluene-d8	100.	77. - 119.
VOA Surr, 4-BFB	102.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE. 150  
KNOXVILLE, TN 37932-1968

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Lab Number: 04-A95688  
Sample ID: BR-01  
Sample Type: Ground water  
Site ID:

Date Collected: 6/18/04  
Time Collected: 11:24  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	0:08	S. Udeze	8260B	7298
Benzene	ND	mg/l	0.0010	1	6/25/04	0:08	S. Udeze	8260B	7298
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Bromoform	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Bromomethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
2-Butanone	ND	mg/l	0.0250	1	6/25/04	0:08	S. Udeze	8260B	7298
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Chloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Chloroform	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Chloromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	0:08	S. Udeze	8260B	7298
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95688  
Sample ID: BR-01  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
cis-1,2-Dichloroethene	0.0420	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
trans-1,2-Dichloroethene	0.00610	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	0:08	S. Udeze	8260B	7298
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	0:08	S. Udeze	8260B	7298
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	0:08	S. Udeze	8260B	7298
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	0:08	S. Udeze	8260B	7298
Naphthalene	ND	mg/l	0.00500	1	6/25/04	0:08	S. Udeze	8260B	7298
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Styrene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Toluene	ND	mg/l	0.0010	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Trichloroethene	0.551	mg/l	0.0100	10	6/25/04	21:00	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	0:08	S. Udeze	8260B	7298
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	0:08	S. Udeze	8260B	7298
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95688  
Sample ID: BR-01  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	0:08	S. Udeze	8260B	7298

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	98.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95689  
 Sample ID: BR-07  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/18/04  
 Time Collected: 14:14  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	18:02	S. Udeze	8260B	9207
Benzene	ND	mg/l	0.0010	1	6/25/04	18:02	S. Udeze	8260B	9207
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Bromoform	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Bromomethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
2-Butanone	ND	mg/l	0.0250	1	6/25/04	18:02	S. Udeze	8260B	9207
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Chloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Chloroform	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Chloromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	18:02	S. Udeze	8260B	9207
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95689  
 Sample ID: BR-07  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
cis-1,2-Dichloroethene	0.00340	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.00100	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	18:02	S. Udeze	8260B	9207
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	18:02	S. Udeze	8260B	9207
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	18:02	S. Udeze	8260B	9207
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	18:02	S. Udeze	8260B	9207
Naphthalene	ND	mg/l	0.00500	1	6/25/04	18:02	S. Udeze	8260B	9207
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Styrene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Toluene	ND	mg/l	0.0010	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Trichloroethene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	18:02	S. Udeze	8260B	9207
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Vinyl chloride	0.00620	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	18:02	S. Udeze	8260B	9207
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95689  
Sample ID: BR-07  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	18:02	S. Udeze	8260B	9207

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	98.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

**ANALYTICAL REPORT**

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE. 150  
KNOXVILLE, TN 37932-1968

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Lab Number: 04-A95690  
Sample ID: BR-07 DUP  
Sample Type: Ground water  
Site ID:

Date Collected: 6/18/04  
Time Collected: 14:16  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	19:01	S. Udeze	8260B	9207
Benzene	ND	mg/l	0.0010	1	6/25/04	19:01	S. Udeze	8260B	9207
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Bromoform	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Bromomethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
2-Butanone	ND	mg/l	0.0250	1	6/25/04	19:01	S. Udeze	8260B	9207
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Chloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Chloroform	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Chloromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	19:01	S. Udeze	8260B	9207
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A95690  
Sample ID: BR-07 DUP  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
cis-1,2-Dichloroethene	0.00340	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.00100	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	19:01	S. Udeze	8260B	9207
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	19:01	S. Udeze	8260B	9207
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	19:01	S. Udeze	8260B	9207
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	19:01	S. Udeze	8260B	9207
Naphthalene	ND	mg/l	0.00500	1	6/25/04	19:01	S. Udeze	8260B	9207
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Styrene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Toluene	ND	mg/l	0.0010	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Trichloroethene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	19:01	S. Udeze	8260B	9207
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Vinyl chloride	0.00680	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	19:01	S. Udeze	8260B	9207
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95690  
Sample ID: BR-07 DUP  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	19:01	S. Udeze	8260B	9207

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	98.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE. 150  
KNOXVILLE, TN 37932-1968

Lab Number: 04-A95691  
Sample ID: BR-12  
Sample Type: Ground water  
Site ID:

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Date Collected: 6/18/04  
Time Collected: 15:10  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/24/04	23:10	S. Udeze	8260B	7298
Benzene	ND	mg/l	0.0010	1	6/24/04	23:10	S. Udeze	8260B	7298
Bromobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Bromochloromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Bromoform	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Bromomethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
2-Butanone	ND	mg/l	0.0250	1	6/24/04	23:10	S. Udeze	8260B	7298
n-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
sec-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
tert-Butylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Carbon disulfide	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Carbon tetrachloride	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Chlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Chloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Chloroform	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Chloromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
2-Chlorotoluene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
4-Chlorotoluene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/24/04	23:10	S. Udeze	8260B	7298
Dibromochloromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Dibromomethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95691  
 Sample ID: BR-12  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
cis-1,2-Dichloroethene	0.00610	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Ethylbenzene	ND	mg/l	0.0010	1	6/24/04	23:10	S. Udeze	8260B	7298
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
2-Hexanone	ND	mg/l	0.00500	1	6/24/04	23:10	S. Udeze	8260B	7298
Isopropylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/24/04	23:10	S. Udeze	8260B	7298
Methylene chloride	ND	mg/l	0.00250	1	6/24/04	23:10	S. Udeze	8260B	7298
Naphthalene	ND	mg/l	0.00500	1	6/24/04	23:10	S. Udeze	8260B	7298
n-Propylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Styrene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Tetrachloroethene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Toluene	ND	mg/l	0.0010	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Trichloroethene	0.00130	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/24/04	23:10	S. Udeze	8260B	7298
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Vinyl chloride	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298
Xylenes (Total)	ND	mg/l	0.0010	1	6/24/04	23:10	S. Udeze	8260B	7298
Bromodichloromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95691  
Sample ID: BR-12  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/24/04	23:10	S. Udeze	8260B	7298

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	71. - 128.
VOA Surr Toluene-d8	90.	77. - 119.
VOA Surr, 4-BFB	99.	79. - 123.
VOA Surr, DBFM	104.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95692  
 Sample ID: W-6  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
 Time Collected: 8:09  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	17:33	S. Udeze	8260B	9207
Benzene	ND	mg/l	0.0010	1	6/25/04	17:33	S. Udeze	8260B	9207
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Bromoform	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Bromomethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
2-Butanone	ND	mg/l	0.0250	1	6/25/04	17:33	S. Udeze	8260B	9207
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Chloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Chloroform	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Chloromethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	17:33	S. Udeze	8260B	9207
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95692  
Sample ID: W-6  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
cis-1,2-Dichloroethene	0.00320	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	17:33	S. Udeze	8260B	9207
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	17:33	S. Udeze	8260B	9207
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	17:33	S. Udeze	8260B	9207
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	17:33	S. Udeze	8260B	9207
Naphthalene	ND	mg/l	0.00500	1	6/25/04	17:33	S. Udeze	8260B	9207
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Styrene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Toluene	ND	mg/l	0.0010	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Trichloroethene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	17:33	S. Udeze	8260B	9207
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	17:33	S. Udeze	8260B	9207
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95692  
Sample ID: W-6  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	17:33	S. Udeze	8260B	9207

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	103.	77. - 119.
VOA Surr, 4-BFB	102.	79. - 123.
VOA Surr, DBFM	95.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE. 150  
KNOXVILLE, TN 37932-1968

Lab Number: 04-A95693  
Sample ID: BR-13  
Sample Type: Ground water  
Site ID:

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
Time Collected: 9:22  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	2:06	S. Udeze	8260B	7298
Benzene	ND	mg/l	0.0010	1	6/25/04	2:06	S. Udeze	8260B	7298
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Bromoform	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Bromomethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
2-Butanone	ND	mg/l	0.0250	1	6/25/04	2:06	S. Udeze	8260B	7298
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Chloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Chloroform	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Chloromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	2:06	S. Udeze	8260B	7298
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298

Sample report continued . . .

**ANALYTICAL REPORT**

 Laboratory Number: 04-A95693  
 Sample ID: BR-13  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
cis-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	2:06	S. Udeze	8260B	7298
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	2:06	S. Udeze	8260B	7298
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	2:06	S. Udeze	8260B	7298
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	2:06	S. Udeze	8260B	7298
Naphthalene	ND	mg/l	0.00500	1	6/25/04	2:06	S. Udeze	8260B	7298
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Styrene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Toluene	ND	mg/l	0.0010	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Trichloroethene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	2:06	S. Udeze	8260B	7298
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	2:06	S. Udeze	8260B	7298
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95693  
Sample ID: BR-13  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	2:06	S. Udeze	8260B	7298

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	87.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	108.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95694  
 Sample ID: BR-15  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
 Time Collected: 10:31  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	6:01	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	6:01	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	6:01	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	6:01	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95694  
 Sample ID: BR-15  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1-Dichloroethene	0.0128	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.556	mg/l	0.0200	20	6/25/04	21:29	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0180	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:01	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	6:01	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	6:01	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	6:01	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	6:01	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Trichloroethene	0.512	mg/l	0.0200	20	6/25/04	21:29	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:01	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Vinyl chloride	0.199	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	6:01	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95694  
Sample ID: BR-15  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	6:01	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	71. - 128.
VOA Surr Toluene-d8	101.	77. - 119.
VOA Surr, 4-BFB	99.	79. - 123.
VOA Surr, DBFM	97.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
RICK RYAN  
1431 CENTERPOINT BLVD, STE.150  
KNOXVILLE, TN 37932-1968

Lab Number: 04-A95695  
Sample ID: BR-10  
Sample Type: Ground water  
Site ID:

Project: 51870.11  
Project Name: FORMER TAYLOR INSTRUMENT  
Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
Time Collected: 11:25  
Date Received: 6/22/04  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	6:30	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	6:30	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	6:30	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	6:30	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95695  
Sample ID: BR-10  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1-Dichloroethene	0.00290	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.507	mg/l	0.0100	10	6/25/04	21:58	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0629	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:30	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	6:30	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	6:30	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	6:30	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	6:30	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Trichloroethene	1.52	mg/l	0.0100	10	6/25/04	21:58	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:30	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Vinyl chloride	0.00680	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	6:30	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95695  
Sample ID: BR-10  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	6:30	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	71. - 128.
VOA Surr Toluene-d8	102.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	97.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95696  
 Sample ID: OB-04  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
 Time Collected: 12:55  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	6:59	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	6:59	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	6:59	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	6:59	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95696  
 Sample ID: OB-04  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil	Analysis		Analyst	Method	Batch
				Factor	Date	Time			
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.0872	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
trans-1,2-Dichloroethene	0.00130	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:59	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	6:59	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	6:59	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	6:59	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	6:59	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Trichloroethene	0.394	mg/l	0.0200	20	6/25/04	22:57	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	6:59	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	6:59	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95696  
Sample ID: OB-04  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	6:59	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	97.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95697  
 Sample ID: BR-04  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/19/04  
 Time Collected: 14:29  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	7:28	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	7:28	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	7:28	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	7:28	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95697  
 Sample ID: BR-04  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1-Dichloroethene	0.00640	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	1.42	mg/l	0.0100	10	6/25/04	23:27	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0458	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	7:28	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	7:28	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	7:28	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	7:28	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	7:28	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Trichloroethene	0.102	mg/l	0.0100	10	6/25/04	23:27	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	7:28	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Vinyl chloride	0.00300	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	7:28	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95697  
Sample ID: BR-04  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	7:28	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	71. - 128.
VOA Surr Toluene-d8	100.	77. - 119.
VOA Surr, 4-BFB	99.	79. - 123.
VOA Surr, DBFM	99.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95698  
 Sample ID: BR-05  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/20/04  
 Time Collected: 8:40  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	19:31	S. Udeze	8260B	9207
Benzene	ND	mg/l	0.0010	1	6/25/04	19:31	S. Udeze	8260B	9207
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Bromo(chloromethane)	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Bromoform	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Bromomethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
2-Butanone	ND	mg/l	0.0250	1	6/25/04	19:31	S. Udeze	8260B	9207
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Chloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Chloroform	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Chloromethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	19:31	S. Udeze	8260B	9207
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95698  
 Sample ID: BR-05  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1-Dichloroethene	0.00140	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
cis-1,2-Dichloroethene	0.116	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0104	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	19:31	S. Udeze	8260B	9207
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	19:31	S. Udeze	8260B	9207
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	19:31	S. Udeze	8260B	9207
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	19:31	S. Udeze	8260B	9207
Naphthalene	ND	mg/l	0.00500	1	6/25/04	19:31	S. Udeze	8260B	9207
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Styrene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Toluene	ND	mg/l	0.0010	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Trichloroethene	0.0423	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	19:31	S. Udeze	8260B	9207
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Vinyl chloride	0.0175	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	19:31	S. Udeze	8260B	9207
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95698  
Sample ID: BR-05  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	19:31	S. Udeze	8260B	9207

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE.150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95699  
 Sample ID: OB-05  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/20/04  
 Time Collected: 9:16  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	20:01	S. Udeze	8260B	9207
Benzene	ND	mg/l	0.0010	1	6/25/04	20:01	S. Udeze	8260B	9207
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Bromoform	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Bromomethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
2-Butanone	ND	mg/l	0.0250	1	6/25/04	20:01	S. Udeze	8260B	9207
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Chloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Chloroform	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Chloromethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	20:01	S. Udeze	8260B	9207
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95699  
 Sample ID: OB-05  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
cis-1,2-Dichloroethene	0.00120	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	20:01	S. Udeze	8260B	9207
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	20:01	S. Udeze	8260B	9207
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	20:01	S. Udeze	8260B	9207
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	20:01	S. Udeze	8260B	9207
Naphthalene	ND	mg/l	0.00500	1	6/25/04	20:01	S. Udeze	8260B	9207
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Styrene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Toluene	ND	mg/l	0.0010	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Trichloroethene	0.0654	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	20:01	S. Udeze	8260B	9207
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	20:01	S. Udeze	8260B	9207
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95699  
Sample ID: OB-05  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	20:01	S. Udeze	8260B	9207

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	102.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	97.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95700  
 Sample ID: BR-09  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/20/04  
 Time Collected: 10:26  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*VOLATILE ORGANICS*									
Acetone	ND	mg/l	0.0250	1	6/25/04	8:57	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	8:57	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Bromochloromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	8:57	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	8:57	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95700  
 Sample ID: BR-09  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.110	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
trans-1,2-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	8:57	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	8:57	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	8:57	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	8:57	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	8:57	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Trichloroethene	0.390	mg/l	0.0100	10	6/26/04	0:26	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	8:57	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	8:57	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95700  
Sample ID: BR-09  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	8:57	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	101.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95701  
 Sample ID: OB-08  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/20/04  
 Time Collected: 12:58  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	9:26	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	9:26	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	9:26	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	9:26	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95701  
 Sample ID: OB-08  
 Project: 51870.11  
 Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1-Dichloroethene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.0131	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
trans-1,2-Dichloroethene	0.00250	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	9:26	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	9:26	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	9:26	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	9:26	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	9:26	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Tetrachloroethene	0.00290	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Trichloroethene	0.725	mg/l	0.0500	50	6/26/04	0:55	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	9:26	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Vinyl chloride	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	9:26	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A95701  
Sample ID: OB-08  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	9:26	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	100.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

MACTEC ENGINEERING AND CONSULT 4997  
 RICK RYAN  
 1431 CENTERPOINT BLVD, STE. 150  
 KNOXVILLE, TN 37932-1968

Lab Number: 04-A95702  
 Sample ID: BR-11  
 Sample Type: Ground water  
 Site ID:

Project: 51870.11  
 Project Name: FORMER TAYLOR INSTRUMENT  
 Sampler: JANNA PEEVLER

Date Collected: 6/20/04  
 Time Collected: 13:48  
 Date Received: 6/22/04  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>									
Acetone	ND	mg/l	0.0250	1	6/25/04	9:55	S. Udeze	8260B	9205
Benzene	ND	mg/l	0.0010	1	6/25/04	9:55	S. Udeze	8260B	9205
Bromobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Bromoform	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Bromomethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
2-Butanone	ND	mg/l	0.0250	1	6/25/04	9:55	S. Udeze	8260B	9205
n-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
sec-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
tert-Butylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Carbon disulfide	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Carbon tetrachloride	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Chlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Chloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Chloroform	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Chloromethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
2-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
4-Chlorotoluene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2-Dibromo-3-chloropropane	ND	mg/l	0.00500	1	6/25/04	9:55	S. Udeze	8260B	9205
Dibromochloromethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2-Dibromoethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Dibromomethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,3-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,4-Dichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Dichlorodifluoromethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A95702  
Sample ID: BR-11  
Project: 51870.11  
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2-Dichloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,1-Dichloroethene	0.00220	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
cis-1,2-Dichloroethene	0.238	mg/l	0.0100	10	6/26/04	1:25	S. Udeze	8260B	9207
trans-1,2-Dichloroethene	0.0497	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,3-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
2,2-Dichloropropane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udczcz	8260B	9205
1,1-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
cis-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
trans-1,3-Dichloropropene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Ethylbenzene	ND	mg/l	0.0010	1	6/25/04	9:55	S. Udeze	8260B	9205
Hexachlorobutadiene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
2-Hexanone	ND	mg/l	0.00500	1	6/25/04	9:55	S. Udeze	8260B	9205
Isopropylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
p-Isopropyltoluene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
4-Methyl-2-pentanone	ND	mg/l	0.00500	1	6/25/04	9:55	S. Udeze	8260B	9205
Methylene chloride	ND	mg/l	0.00250	1	6/25/04	9:55	S. Udeze	8260B	9205
Naphthalene	ND	mg/l	0.00500	1	6/25/04	9:55	S. Udeze	8260B	9205
n-Propylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Styrene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,1,1,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,1,2,2-Tetrachloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Tetrachloroethene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Toluene	ND	mg/l	0.0010	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2,3-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2,4-Trichlorobenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,1,1-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,1,2-Trichloroethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Trichloroethene	0.181	mg/l	0.0100	10	6/26/04	1:25	S. Udeze	8260B	9207
1,2,3-Trichloropropane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
1,2,4-Trimethylbenzene	ND	mg/l	0.0010	1	6/25/04	9:55	S. Udeze	8260B	9205
1,3,5-Trimethylbenzene	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Vinyl chloride	0.0208	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205
Xylenes (Total)	ND	mg/l	0.0010	1	6/25/04	9:55	S. Udeze	8260B	9205
Bromodichloromethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 04-A95702  
Sample ID: BR-11  
Project: 51870.11  
Page 3

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/l	0.00100	1	6/25/04	9:55	S. Udeze	8260B	9205

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	98.	78. - 124.

### LABORATORY COMMENTS:

- ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## PROJECT QUALITY CONTROL DATA

Project Number: 51870.11

Project Name: FORMER TAYLOR INSTRUMENT

Page: 1

Laboratory Receipt Date: 6/22/04

### Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
-----	-----	-----	-----	-----	-----	-----	-----	-----

### \*\*VOA PARAMETERS\*\*

Benzene	mg/l	< 0.0010	0.0618	0.0500	124	73 -	135	7298	04-A95691
Benzene	mg/l	< 0.0005	0.0504	0.0500	101	73 -	135	9205	blank
Benzene	mg/l	< 0.0010	0.0526	0.0500	105	73 -	135	600	04-A97612
Benzene	mg/l	< 0.0005	0.0502	0.0500	100	73 -	135	9207	blank
Chlorobenzene	mg/l	< 0.00100	0.0493	0.0500	99	77 -	130	7298	04-A95691
Chlorobenzene	mg/l	< 0.00020	0.0368	0.0500	74#	77 -	130	9205	blank
Chlorobenzene	mg/l	< 0.00100	0.0496	0.0500	99	77 -	130	600	04-A97612
Chlorobenzene	mg/l	< 0.00020	0.0510	0.0500	102	77 -	130	9207	blank
1,1-Dichloroethene	mg/l	< 0.00100	0.0702	0.0500	140	71 -	143	7298	04-A95691
1,1-Dichloroethene	mg/l	< 0.00060	0.0507	0.0500	101	71 -	143	9205	blank
1,1-Dichloroethene	mg/l	< 0.00100	0.0520	0.0500	104	71 -	143	600	04-A97612
1,1-Dichloroethene	mg/l	< 0.00060	0.0476	0.0500	95	71 -	143	9207	blank
Toluene	mg/l	< 0.0010	0.0480	0.0500	96	69 -	139	7298	04-A95691
Toluene	mg/l	< 0.0006	0.0361	0.0500	72	69 -	139	9205	blank
Toluene	mg/l	< 0.0010	0.0517	0.0500	103	69 -	139	600	04-A97612
Toluene	mg/l	< 0.0006	0.0497	0.0500	99	69 -	139	9207	blank
Trichloroethene	mg/l	0.00130	0.0670	0.0500	131	72 -	141	7298	04-A95691
Trichloroethene	mg/l	< 0.00100	0.0517	0.0500	103	72 -	141	600	04-A97612
Trichloroethene	mg/l	< 0.00040	0.0532	0.0500	106	72 -	141	9207	blank
Tetrachloroethene	mg/l	< 0.00100	0.0509	0.0500	102	68 -	140	7298	04-A95691
Tetrachloroethene	mg/l	< 0.00040	0.0359	0.0500	72	68 -	140	9205	blank
Tetrachloroethene	mg/l	0.00060	0.0543	0.0500	107	68 -	140	600	04-A97612
Tetrachloroethene	mg/l	< 0.00040	0.0479	0.0500	96	68 -	140	9207	blank
VOA Surr 1,2-DCA-d4	% Rec				97	71 -	128	7298	
VOA Surr 1,2-DCA-d4	% Rec				103	71 -	128	600	
VOA Surr 1,2-DCA-d4	% Rec				98	71 -	128	9207	

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 2

**Laboratory Receipt Date:** 6/22/04

**Matrix Spike Recovery**

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA Surr Toluene-d8	% Rec				89	77 - 119	7298	
VOA Surr Toluene-d8	% Rec				101	77 - 119	600	
VOA Surr Toluene-d8	% Rec				102	77 - 119	9207	
VOA Surr, 4-BFB	% Rec				99	79 - 123	7298	
VOA Surr, 4-BFB	% Rec				105	79 - 123	600	
VOA Surr, 4-BFB	% Rec				100	79 - 123	9207	
VOA Surr, DBFM	% Rec				106	78 - 124	7298	
VOA Surr, DBFM	% Rec				100	78 - 124	600	
VOA Surr, DBFM	% Rec				99	78 - 124	9207	

**Matrix Spike Duplicate**

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

**\*\*VOA PARAMETERS\*\***

Benzene	mg/l	0.0618	0.0618	0.00	21.	7298
Benzene	mg/l	0.0504	0.0508	0.79	21.	9205
Benzene	mg/l	0.0526	0.0527	0.19	21.	600
Benzene	mg/l	0.0502	0.0493	1.81	21.	9207
Chlorobenzene	mg/l	0.0493	0.0504	2.21	19.	7298
Chlorobenzene	mg/l	0.0368	0.0376	2.15	19.	9205
Chlorobenzene	mg/l	0.0496	0.0499	0.60	19.	600
Chlorobenzene	mg/l	0.0510	0.0512	0.39	19.	9207
1,1-Dichloroethene	mg/l	0.0702	0.0642	8.93	21.	7298
1,1-Dichloroethene	mg/l	0.0507	0.0472	7.15	21.	9205
1,1-Dichloroethene	mg/l	0.0520	0.0518	0.39	21.	600
1,1-Dichloroethene	mg/l	0.0476	0.0484	1.67	21.	9207

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 3

**Laboratory Receipt Date:** 6/22/04

**Matrix Spike Duplicate**

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Toluene	mg/l	0.0480	0.0490	2.06	24.	7298
Toluene	mg/l	0.0361	0.0359	0.56	24.	9205
Toluene	mg/l	0.0517	0.0520	0.58	24.	600
Toluene	mg/l	0.0497	0.0500	0.60	24.	9207
Trichloroethene	mg/l	0.0670	0.0666	0.60	21.	7298
Trichloroethene	mg/l	0.0517	0.0512	0.97	21.	600
Trichloroethene	mg/l	0.0532	0.0519	2.47	21.	9207
Tetrachloroethene	mg/l	0.0509	0.0514	0.98	21.	7298
Tetrachloroethene	mg/l	0.0359	0.0343	4.56	21.	9205
Tetrachloroethene	mg/l	0.0543	0.0534	1.67	21.	600
Tetrachloroethene	mg/l	0.0479	0.0508	5.88	21.	9207
VOA Surr 1,2-DCA-d4	% Rec		98.			7298
VOA Surr 1,2-DCA-d4	% Rec		102.			600
VOA Surr 1,2-DCA-d4	% Rec		95.			9207
VOA Surr Toluene-d8	% Rec		90.			7298
VOA Surr Toluene-d8	% Rec		101.			600
VOA Surr Toluene-d8	% Rec		101.			9207
VOA Surr, 4-BFB	% Rec		100.			7298
VOA Surr, 4-BFB	% Rec		103.			600
VOA Surr, 4-BFB	% Rec		101.			9207
VOA Surr, DBFM	% Rec		106.			7298
VOA Surr, DBFM	% Rec		99.			600
VOA Surr, DBFM	% Rec		99.			9207

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 4

**Laboratory Receipt Date:** 6/22/04

**\*\*VOA PARAMETERS\*\***

Acetone	mg/l	0.250	0.264	106	55 - 144	7298
Acetone	mg/l	0.250	0.224	90	55 - 144	9205
Acetone	mg/l	0.250	0.220	88	55 - 144	9207
Acetone	mg/l	0.250	0.213	85	55 - 144	600
Benzene	mg/l	0.0500	0.0530	106	81 - 121	7298
Benzene	mg/l	0.0500	0.0485	97	81 - 121	9205
Benzene	mg/l	0.0500	0.0479	96	81 - 121	9207
Benzene	mg/l	0.0500	0.0507	101	81 - 121	600
Bromobenzene	mg/l	0.0500	0.0458	92	72 - 129	7298
Bromobenzene	mg/l	0.0500	0.0496	99	72 - 129	9205
Bromobenzene	mg/l	0.0500	0.0497	99	72 - 129	9207
Bromobenzene	mg/l	0.0500	0.0471	94	72 - 129	600
Bromoform	mg/l	0.0500	0.0581	116	75 - 137	7298
Bromoform	mg/l	0.0500	0.0533	107	75 - 137	9205
Bromoform	mg/l	0.0500	0.0507	101	75 - 137	9207
Bromoform	mg/l	0.0500	0.0515	103	75 - 137	600
Bromoform	mg/l	0.0500	0.0467	93	54 - 127	7298
Bromoform	mg/l	0.0500	0.0464	93	54 - 127	9205
Bromoform	mg/l	0.0500	0.0471	94	54 - 127	9207
Bromoform	mg/l	0.0500	0.0343	69	54 - 127	600
Bromomethane	mg/l	0.0500	0.0554	111	54 - 160	7298
Bromomethane	mg/l	0.0500	0.0477	95	54 - 160	9205
Bromomethane	mg/l	0.0500	0.0526	105	54 - 160	9207
Bromomethane	mg/l	0.0500	0.0608	122	54 - 160	600
2-Butanone	mg/l	0.250	0.288	115	62 - 146	7298
2-Butanone	mg/l	0.250	0.250	100	62 - 146	9205
2-Butanone	mg/l	0.250	0.238	95	62 - 146	9207
2-Butanone	mg/l	0.250	0.244	98	62 - 146	600
n-Butylbenzene	mg/l	0.0500	0.0473	95	68 - 139	7298
n-Butylbenzene	mg/l	0.0500	0.0504	101	68 - 139	9205
n-Butylbenzene	mg/l	0.0500	0.0541	108	68 - 139	9207
n-Butylbenzene	mg/l	0.0500	0.0455	91	68 - 139	600
sec-Butylbenzene	mg/l	0.0500	0.0476	95	75 - 135	7298
sec-Butylbenzene	mg/l	0.0500	0.0524	105	75 - 135	9205
sec-Butylbenzene	mg/l	0.0500	0.0540	108	75 - 135	9207

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 5  
**Laboratory Receipt Date:** 6/22/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
sec-Butylbenzene	mg/l	0.0500	0.0466	93	75 - 135	600
tert-Butylbenzene	mg/l	0.0500	0.0462	92	73 - 135	7298
tert-Butylbenzene	mg/l	0.0500	0.0518	104	73 - 135	9205
tert-Butylbenzene	mg/l	0.0500	0.0514	103	73 - 135	9207
tert-Butylbenzene	mg/l	0.0500	0.0460	92	73 - 135	600
Carbon disulfide	mg/l	0.0500	0.0576	115	71 - 139	7298
Carbon disulfide	mg/l	0.0500	0.0501	100	71 - 139	9205
Carbon disulfide	mg/l	0.0500	0.0504	101	71 - 139	9207
Carbon disulfide	mg/l	0.0500	0.0498	100	71 - 139	600
Carbon tetrachloride	mg/l	0.0500	0.0496	99	70 - 131	7298
Carbon tetrachloride	mg/l	0.0500	0.0474	95	70 - 131	9205
Carbon tetrachloride	mg/l	0.0500	0.0468	94	70 - 131	9207
Carbon tetrachloride	mg/l	0.0500	0.0543	109	70 - 131	600
Chlorobenzene	mg/l	0.0500	0.0482	96	87 - 120	7298
Chlorobenzene	mg/l	0.0500	0.0516	103	87 - 120	9205
Chlorobenzene	mg/l	0.0500	0.0508	102	87 - 120	9207
Chlorobenzene	mg/l	0.0500	0.0495	99	87 - 120	600
Chloroethane	mg/l	0.0500	0.0539	108	65 - 145	7298
Chloroethane	mg/l	0.0500	0.0530	106	65 - 145	9205
Chloroethane	mg/l	0.0500	0.0512	102	65 - 145	9207
Chloroethane	mg/l	0.0500	0.0531	106	65 - 145	600
Chloroform	mg/l	0.0500	0.0506	101	77 - 128	7298
Chloroform	mg/l	0.0500	0.0478	96	77 - 128	9205
Chloroform	mg/l	0.0500	0.0459	92	77 - 128	9207
Chloroform	mg/l	0.0500	0.0558	112	77 - 128	600
Chloromethane	mg/l	0.0500	0.0463	93	46 - 147	7298
Chloromethane	mg/l	0.0500	0.0433	87	46 - 147	9205
Chloromethane	mg/l	0.0500	0.0464	93	46 - 147	9207
Chloromethane	mg/l	0.0500	0.0470	94	46 - 147	600
2-Chlorotoluene	mg/l	0.0500	0.0463	93	78 - 128	7298
2-Chlorotoluene	mg/l	0.0500	0.0510	102	78 - 128	9205

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 6

**Laboratory Receipt Date:** 6/22/04

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
2-Chlorotoluene	mg/l	0.0500	0.0510	102	78 - 128	9207
2-Chlorotoluene	mg/l	0.0500	0.0523	105	78 - 128	600
4-Chlorotoluene	mg/l	0.0500	0.0461	92	80 - 130	7298
4-Chlorotoluene	mg/l	0.0500	0.0513	103	80 - 130	9205
4-Chlorotoluene	mg/l	0.0500	0.0512	102	80 - 130	9207
4-Chlorotoluene	mg/l	0.0500	0.0518	104	80 - 130	600
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0469	94	55 - 135	7298
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0440	88	55 - 135	9205
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0445	89	55 - 135	9207
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0381	76	55 - 135	600
Dibromochloromethane	mg/l	0.0500	0.0496	99	63 - 132	7298
Dibromochloromethane	mg/l	0.0500	0.0516	103	63 - 132	9205
Dibromochloromethane	mg/l	0.0500	0.0502	100	63 - 132	9207
Dibromochloromethane	mg/l	0.0500	0.0468	94	63 - 132	600
1,2-Dibromoethane	mg/l	0.0500	0.0502	100	77 - 136	7298
1,2-Dibromoethane	mg/l	0.0500	0.0511	102	77 - 136	9205
1,2-Dibromoethane	mg/l	0.0500	0.0503	101	77 - 136	9207
1,2-Dibromoethane	mg/l	0.0500	0.0486	97	77 - 136	600
Dibromomethane	mg/l	0.0500	0.0545	109	75 - 133	7298
Dibromomethane	mg/l	0.0500	0.0475	95	75 - 133	9205
Dibromomethane	mg/l	0.0500	0.0478	96	75 - 133	9207
Dibromomethane	mg/l	0.0500	0.0534	107	75 - 133	600
1,2-Dichlorobenzene	mg/l	0.0500	0.0475	95	83 - 126	7298
1,2-Dichlorobenzene	mg/l	0.0500	0.0506	101	83 - 126	9205
1,2-Dichlorobenzene	mg/l	0.0500	0.0508	102	83 - 126	9207
1,2-Dichlorobenzene	mg/l	0.0500	0.0507	101	83 - 126	600
1,3-Dichlorobenzene	mg/l	0.0500	0.0476	95	85 - 124	7298
1,3-Dichlorobenzene	mg/l	0.0500	0.0511	102	85 - 124	9205
1,3-Dichlorobenzene	mg/l	0.0500	0.0523	105	85 - 124	9207
1,3-Dichlorobenzene	mg/l	0.0500	0.0501	100	85 - 124	600
1,4-Dichlorobenzene	mg/l	0.0500	0.0468	94	83 - 122	7298

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 7

**Laboratory Receipt Date:** 6/22/04

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,4-Dichlorobenzene	mg/l	0.0500	0.0501	100	83 - 122	9205
1,4-Dichlorobenzene	mg/l	0.0500	0.0514	103	83 - 122	9207
1,4-Dichlorobenzene	mg/l	0.0500	0.0460	92	83 - 122	600
Dichlorodifluoromethane	mg/l	0.0500	0.0530	106	52 - 159	7298
Dichlorodifluoromethane	mg/l	0.0500	0.0491	98	52 - 159	9205
Dichlorodifluoromethane	mg/l	0.0500	0.0489	98	52 - 159	9207
Dichlorodifluoromethane	mg/l	0.0500	0.0532	106	52 - 159	600
1,1-Dichloroethane	mg/l	0.0500	0.0516	103	76 - 129	7298
1,1-Dichloroethane	mg/l	0.0500	0.0483	97	76 - 129	9205
1,1-Dichloroethane	mg/l	0.0500	0.0472	94	76 - 129	9207
1,1-Dichloroethane	mg/l	0.0500	0.0542	108	76 - 129	600
1,2-Dichloroethane	mg/l	0.0500	0.0542	108	70 - 136	7298
1,2-Dichloroethane	mg/l	0.0500	0.0477	95	70 - 136	9205
1,2-Dichloroethane	mg/l	0.0500	0.0459	92	70 - 136	9207
1,2-Dichloroethane	mg/l	0.0500	0.0536	107	70 - 136	600
1,1-Dichloroethene	mg/l	0.0500	0.0547	109	77 - 133	7298
1,1-Dichloroethene	mg/l	0.0500	0.0475	95	77 - 133	9205
1,1-Dichloroethene	mg/l	0.0500	0.0462	92	77 - 133	9207
1,1-Dichloroethene	mg/l	0.0500	0.0524	105	77 - 133	600
cis-1,2-Dichloroethene	mg/l	0.0500	0.0540	108	76 - 129	7298
cis-1,2-Dichloroethene	mg/l	0.0500	0.0485	97	76 - 129	9205
cis-1,2-Dichloroethene	mg/l	0.0500	0.0481	96	76 - 129	9207
cis-1,2-Dichloroethene	mg/l	0.0500	0.0516	103	76 - 129	600
trans-1,2-Dichloroethene	mg/l	0.0500	0.0542	108	73 - 135	7298
trans-1,2-Dichloroethene	mg/l	0.0500	0.0493	99	73 - 135	9205
trans-1,2-Dichloroethene	mg/l	0.0500	0.0485	97	73 - 135	9207
trans-1,2-Dichloroethene	mg/l	0.0500	0.0522	104	73 - 135	600
1,2-Dichloropropane	mg/l	0.0500	0.0552	110	74 - 130	7298
1,2-Dichloropropane	mg/l	0.0500	0.0487	97	74 - 130	9205
1,2-Dichloropropane	mg/l	0.0500	0.0484	97	74 - 130	9207
1,2-Dichloropropane	mg/l	0.0500	0.0496	99	74 - 130	600

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

Project Number: 51870.11

Project Name: FORMER TAYLOR INSTRUMENT

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Laboratory Receipt Date: 6/22/04

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,3-Dichloropropane	mg/l	0.0500	0.0485	97	79 - 129	7298
1,3-Dichloropropane	mg/l	0.0500	0.0507	101	79 - 129	9205
1,3-Dichloropropane	mg/l	0.0500	0.0500	100	79 - 129	9207
1,3-Dichloropropane	mg/l	0.0500	0.0488	98	79 - 129	600
2,2-Dichloropropane	mg/l	0.0500	0.0525	105	39 - 151	7298
2,2-Dichloropropane	mg/l	0.0500	0.0358	72	39 - 151	9205
2,2-Dichloropropane	mg/l	0.0500	0.0465	93	39 - 151	9207
2,2-Dichloropropane	mg/l	0.0500	0.0412	82	39 - 151	600
1,1-Dichloropropene	mg/l	0.0500	0.0542	108	80 - 129	7298
1,1-Dichloropropene	mg/l	0.0500	0.0502	100	80 - 129	9205
1,1-Dichloropropene	mg/l	0.0500	0.0504	101	80 - 129	9207
1,1-Dichloropropene	mg/l	0.0500	0.0475	95	80 - 129	600
cis-1,3-Dichloropropene	mg/l	0.0500	0.0507	101	59 - 136	7298
cis-1,3-Dichloropropene	mg/l	0.0500	0.0514	103	59 - 136	9205
cis-1,3-Dichloropropene	mg/l	0.0500	0.0533	107	59 - 136	9207
cis-1,3-Dichloropropene	mg/l	0.0500	0.0396	79	59 - 136	600
trans-1,3-Dichloropropene	mg/l	0.0500	0.0483	97	59 - 135	7298
trans-1,3-Dichloropropene	mg/l	0.0500	0.0471	94	59 - 135	9205
trans-1,3-Dichloropropene	mg/l	0.0500	0.0496	99	59 - 135	9207
trans-1,3-Dichloropropene	mg/l	0.0500	0.0372	74	59 - 135	600
Ethylbenzene	mg/l	0.0500	0.0481	96	78 - 126	7298
Ethylbenzene	mg/l	0.0500	0.0514	103	78 - 126	9205
Ethylbenzene	mg/l	0.0500	0.0510	102	78 - 126	9207
Ethylbenzene	mg/l	0.0500	0.0498	100	78 - 126	600
Hexachlorobutadiene	mg/l	0.0500	0.0489	98	60 - 142	7298
Hexachlorobutadiene	mg/l	0.0500	0.0523	105	60 - 142	9205
Hexachlorobutadiene	mg/l	0.0500	0.0578	116	60 - 142	9207
Hexachlorobutadiene	mg/l	0.0500	0.0444	89	60 - 142	600
2-Hexanone	mg/l	0.250	0.263	105	61 - 148	7298
2-Hexanone	mg/l	0.250	0.257	103	61 - 148	9205
2-Hexanone	mg/l	0.250	0.257	103	61 - 148	9207

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

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**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
2-Hexanone	mg/l	0.250	0.199	80	61 - 148	600
Isopropylbenzene	mg/l	0.0500	0.0484	97	74 - 134	7298
Isopropylbenzene	mg/l	0.0500	0.0513	103	74 - 134	9205
Isopropylbenzene	mg/l	0.0500	0.0513	103	74 - 134	9207
Isopropylbenzene	mg/l	0.0500	0.0482	96	74 - 134	600
p-Isopropyltoluene	mg/l	0.0500	0.0463	93	79 - 130	7298
p-Isopropyltoluene	mg/l	0.0500	0.0513	103	79 - 130	9205
p-Isopropyltoluene	mg/l	0.0500	0.0520	104	79 - 130	9207
p-Isopropyltoluene	mg/l	0.0500	0.0467	93	79 - 130	600
4-Methyl-2-pentanone	mg/l	0.250	0.259	104	59 - 147	7298
4-Methyl-2-pentanone	mg/l	0.250	0.252	101	59 - 147	9205
4-Methyl-2-pentanone	mg/l	0.250	0.253	101	59 - 147	9207
4-Methyl-2-pentanone	mg/l	0.250	0.203	81	59 - 147	600
Methylene chloride	mg/l	0.0500	0.0542	108	68 - 132	7298
Methylene chloride	mg/l	0.0500	0.0489	98	68 - 132	9205
Methylene chloride	mg/l	0.0500	0.0483	97	68 - 132	9207
Methylene chloride	mg/l	0.0500	0.0556	111	68 - 132	600
Naphthalene	mg/l	0.0500	0.0464	93	53 - 152	7298
Naphthalene	mg/l	0.0500	0.0469	94	53 - 152	9205
Naphthalene	mg/l	0.0500	0.0494	99	53 - 152	9207
Naphthalene	mg/l	0.0500	0.0434	87	53 - 152	600
n-Propylbenzene	mg/l	0.0500	0.0464	93	73 - 134	7298
n-Propylbenzene	mg/l	0.0500	0.0511	102	73 - 134	9205
n-Propylbenzene	mg/l	0.0500	0.0524	105	73 - 134	9207
n-Propylbenzene	mg/l	0.0500	0.0461	92	73 - 134	600
Styrene	mg/l	0.0500	0.0507	101	78 - 134	7298
Styrene	mg/l	0.0500	0.0525	105	78 - 134	9205
Styrene	mg/l	0.0500	0.0524	105	78 - 134	9207
Styrene	mg/l	0.0500	0.0508	102	78 - 134	600
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0499	100	75 - 131	7298
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0541	108	75 - 131	9205

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

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Project Name: FORMER TAYLOR INSTRUMENT

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### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0525	105	75 - 131	9207
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0520	104	75 - 131	600
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0485	97	62 - 142	7298
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0480	96	62 - 142	9205
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0524	105	62 - 142	9207
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0424	85	62 - 142	600
Tetrachloroethene	mg/l	0.0500	0.0489	98	77 - 129	7298
Tetrachloroethene	mg/l	0.0500	0.0514	103	77 - 129	9205
Tetrachloroethene	mg/l	0.0500	0.0516	103	77 - 129	9207
Tetrachloroethene	mg/l	0.0500	0.0468	94	77 - 129	600
Toluene	mg/l	0.0500	0.0469	94	77 - 125	7298
Toluene	mg/l	0.0500	0.0506	101	77 - 125	9205
Toluene	mg/l	0.0500	0.0504	101	77 - 125	9207
Toluene	mg/l	0.0500	0.0491	98	77 - 125	600
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0471	94	54 - 155	7298
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0480	96	54 - 155	9205
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0520	104	54 - 155	9207
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0498	100	54 - 155	600
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0480	96	61 - 145	7298
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0486	97	61 - 145	9205
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0518	104	61 - 145	9207
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0502	100	61 - 145	600
1,1,1-Trichloroethane	mg/l	0.0500	0.0505	101	66 - 139	7298
1,1,1-Trichloroethane	mg/l	0.0500	0.0485	97	66 - 139	9205
1,1,1-Trichloroethane	mg/l	0.0500	0.0476	95	66 - 139	9207
1,1,1-Trichloroethane	mg/l	0.0500	0.0535	107	66 - 139	600
1,1,2-Trichloroethane	mg/l	0.0500	0.0496	99	77 - 132	7298
1,1,2-Trichloroethane	mg/l	0.0500	0.0498	100	77 - 132	9205
1,1,2-Trichloroethane	mg/l	0.0500	0.0500	100	77 - 132	9207
1,1,2-Trichloroethane	mg/l	0.0500	0.0466	93	77 - 132	600
Trichloroethene	mg/l	0.0500	0.0578	116	80 - 132	7298

Project QC continued . . .

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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Trichloroethene	mg/l	0.0500	0.0510	102	80 - 132	9207
Trichloroethene	mg/l	0.0500	0.0515	103	80 - 132	600
1,2,3-Trichloropropane	mg/l	0.0500	0.0452	90	54 - 144	7298
1,2,3-Trichloropropane	mg/l	0.0500	0.0488	98	54 - 144	9205
1,2,3-Trichloropropane	mg/l	0.0500	0.0483	97	54 - 144	9207
1,2,3-Trichloropropane	mg/l	0.0500	0.0434	87	54 - 144	600
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0468	94	74 - 130	7298
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0510	102	74 - 130	9205
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0513	103	74 - 130	9207
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0497	99	74 - 130	600
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0470	94	77 - 131	7298
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0519	104	77 - 131	9205
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0529	106	77 - 131	9207
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0497	99	77 - 131	600
Vinyl chloride	mg/l	0.0500	0.0535	107	69 - 139	7298
Vinyl chloride	mg/l	0.0500	0.0497	99	69 - 139	9205
Vinyl chloride	mg/l	0.0500	0.0522	104	69 - 139	9207
Vinyl chloride	mg/l	0.0500	0.0508	102	69 - 139	600
Xylenes (Total)	mg/l	0.150	0.144	96	78 - 127	7298
Xylenes (Total)	mg/l	0.150	0.154	103	78 - 127	9205
Xylenes (Total)	mg/l	0.150	0.152	101	78 - 127	9207
Xylenes (Total)	mg/l	0.150	0.155	103	78 - 127	600
Bromodichloromethane	mg/l	0.0500	0.0530	106	67 - 135	7298
Bromodichloromethane	mg/l	0.0500	0.0476	95	67 - 135	9205
Bromodichloromethane	mg/l	0.0500	0.0472	94	67 - 135	9207
Bromodichloromethane	mg/l	0.0500	0.0522	104	67 - 135	600
Trichlorofluoromethane	mg/l	0.0500	0.0527	105	64 - 143	7298
Trichlorofluoromethane	mg/l	0.0500	0.0503	101	64 - 143	9205
Trichlorofluoromethane	mg/l	0.0500	0.0515	103	64 - 143	9207
Trichlorofluoromethane	mg/l	0.0500	0.0521	104	64 - 143	600

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

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VOA Surr 1,2-DCA-d4	% Rec	95	71 - 128	7298
VOA Surr 1,2-DCA-d4	% Rec	94	71 - 128	9207
VOA Surr 1,2-DCA-d4	% Rec	95	71 - 128	600
VOA Surr Toluene-d8	% Rec	95	77 - 119	7298
VOA Surr Toluene-d8	% Rec	103	77 - 119	9207
VOA Surr Toluene-d8	% Rec	97	77 - 119	600
VOA Surr, 4-BFB	% Rec	97	79 - 123	7298
VOA Surr, 4-BFB	% Rec	98	79 - 123	9207
VOA Surr, 4-BFB	% Rec	95	79 - 123	600
VOA Surr, DBFM	% Rec	104	78 - 124	7298
VOA Surr, DBFM	% Rec	99	78 - 124	9207
VOA Surr, DBFM	% Rec	103	78 - 124	600

### Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
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### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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### \*\*VOA PARAMETERS\*\*

Acetone	< 0.00470	mg/l	7298	6/24/04	16:46
Acetone	< 0.00470	mg/l	9205	6/25/04	5:31
Acetone	< 0.00470	mg/l	9207	6/25/04	16:21
Acetone	< 0.00470	mg/l	600	6/26/04	4:15
Benzene	< 0.0005	mg/l	7298	6/24/04	16:46
Benzene	< 0.0005	mg/l	9205	6/25/04	5:31
Benzene	< 0.0005	mg/l	9207	6/25/04	16:21

Project QC continued . . .

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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Benzene	< 0.0005	mg/l	600	6/26/04	4:15
Bromobenzene	< 0.00030	mg/l	7298	6/24/04	16:46
Bromobenzene	< 0.00030	mg/l	9205	6/25/04	5:31
Bromobenzene	< 0.00030	mg/l	9207	6/25/04	16:21
Bromobenzene	< 0.00030	mg/l	600	6/26/04	4:15
Bromoform	< 0.00030	mg/l	7298	6/24/04	16:46
Bromoform	< 0.00030	mg/l	9205	6/25/04	5:31
Bromoform	< 0.00030	mg/l	9207	6/25/04	16:21
Bromoform	< 0.00030	mg/l	600	6/26/04	4:15
Bromoform	< 0.00060	mg/l	7298	6/24/04	16:46
Bromoform	< 0.00060	mg/l	9205	6/25/04	5:31
Bromoform	< 0.00060	mg/l	9207	6/25/04	16:21
Bromoform	< 0.00060	mg/l	600	6/26/04	4:15
Bromomethane	< 0.00060	mg/l	7298	6/24/04	16:46
Bromomethane	< 0.00060	mg/l	9205	6/25/04	5:31
Bromomethane	< 0.00060	mg/l	9207	6/25/04	16:21
Bromomethane	< 0.00060	mg/l	600	6/26/04	4:15
2-Butanone	< 0.00310	mg/l	7298	6/24/04	16:46
2-Butanone	< 0.00310	mg/l	9205	6/25/04	5:31
2-Butanone	< 0.00310	mg/l	9207	6/25/04	16:21
2-Butanone	< 0.00310	mg/l	600	6/26/04	4:15
n-Butylbenzene	< 0.00010	mg/l	7298	6/24/04	16:46
n-Butylbenzene	< 0.00010	mg/l	9205	6/25/04	5:31
n-Butylbenzene	< 0.00010	mg/l	9207	6/25/04	16:21
n-Butylbenzene	< 0.00010	mg/l	600	6/26/04	4:15
sec-Butylbenzene	< 0.00030	mg/l	7298	6/24/04	16:46
sec-Butylbenzene	< 0.00030	mg/l	9205	6/25/04	5:31
sec-Butylbenzene	< 0.00030	mg/l	9207	6/25/04	16:21
sec-Butylbenzene	< 0.00030	mg/l	600	6/26/04	4:15
tert-Butylbenzene	< 0.00030	mg/l	7298	6/24/04	16:46
tert-Butylbenzene	< 0.00030	mg/l	9205	6/25/04	5:31

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
tert-Butylbenzene	< 0.00030	mg/l	9207	6/25/04	16:21
tert-Butylbenzene	< 0.00030	mg/l	600	6/26/04	4:15
Carbon disulfide	< 0.00020	mg/l	7298	6/24/04	16:46
Carbon disulfide	< 0.00020	mg/l	9205	6/25/04	5:31
Carbon disulfide	< 0.00020	mg/l	9207	6/25/04	16:21
Carbon disulfide	< 0.00020	mg/l	600	6/26/04	4:15
Carbon tetrachloride	< 0.00040	mg/l	7298	6/24/04	16:46
Carbon tetrachloride	< 0.00040	mg/l	9205	6/25/04	5:31
Carbon tetrachloride	< 0.00040	mg/l	9207	6/25/04	16:21
Carbon tetrachloride	< 0.00040	mg/l	600	6/26/04	4:15
Chlorobenzene	< 0.00020	mg/l	7298	6/24/04	16:46
Chlorobenzene	< 0.00020	mg/l	9205	6/25/04	5:31
Chlorobenzene	< 0.00020	mg/l	9207	6/25/04	16:21
Chlorobenzene	< 0.00020	mg/l	600	6/26/04	4:15
Chloroethane	< 0.00100	mg/l	7298	6/24/04	16:46
Chloroethane	< 0.00100	mg/l	9205	6/25/04	5:31
Chloroethane	< 0.00100	mg/l	9207	6/25/04	16:21
Chloroethane	< 0.00100	mg/l	600	6/26/04	4:15
Chloroform	< 0.00080	mg/l	7298	6/24/04	16:46
Chloroform	< 0.00080	mg/l	9205	6/25/04	5:31
Chloroform	< 0.00080	mg/l	9207	6/25/04	16:21
Chloroform	< 0.00080	mg/l	600	6/26/04	4:15
Chloromethane	< 0.00070	mg/l	7298	6/24/04	16:46
Chloromethane	< 0.00070	mg/l	9205	6/25/04	5:31
Chloromethane	< 0.00070	mg/l	9207	6/25/04	16:21
Chloromethane	< 0.00070	mg/l	600	6/26/04	4:15
2-Chlorotoluene	< 0.00040	mg/l	7298	6/24/04	16:46
2-Chlorotoluene	< 0.00040	mg/l	9205	6/25/04	5:31
2-Chlorotoluene	< 0.00040	mg/l	9207	6/25/04	16:21
2-Chlorotoluene	< 0.00040	mg/l	600	6/26/04	4:15
4-Chlorotoluene	< 0.00050	mg/l	7298	6/24/04	16:46

Project QC continued . . .

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### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
4-Chlorotoluene	< 0.00050	mg/l	9205	6/25/04	5:31
4-Chlorotoluene	< 0.00050	mg/l	9207	6/25/04	16:21
4-Chlorotoluene	< 0.00050	mg/l	600	6/26/04	4:15
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	7298	6/24/04	16:46
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	9205	6/25/04	5:31
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	9207	6/25/04	16:21
1,2-Dibromo-3-chloropropane	< 0.00070	mg/l	600	6/26/04	4:15
Dibromochloromethane	< 0.00050	mg/l	7298	6/24/04	16:46
Dibromochloromethane	< 0.00050	mg/l	9205	6/25/04	5:31
Dibromochloromethane	< 0.00050	mg/l	9207	6/25/04	16:21
Dibromochloromethane	< 0.00050	mg/l	600	6/26/04	4:15
1,2-Dibromoethane	< 0.00040	mg/l	7298	6/24/04	16:46
1,2-Dibromoethane	< 0.00040	mg/l	9205	6/25/04	5:31
1,2-Dibromoethane	< 0.00040	mg/l	9207	6/25/04	16:21
1,2-Dibromoethane	< 0.00040	mg/l	600	6/26/04	4:15
Dibromomethane	< 0.00090	mg/l	7298	6/24/04	16:46
Dibromomethane	< 0.00090	mg/l	9205	6/25/04	5:31
Dibromomethane	< 0.00090	mg/l	9207	6/25/04	16:21
Dibromomethane	< 0.00090	mg/l	600	6/26/04	4:15
1,2-Dichlorobenzene	< 0.00020	mg/l	7298	6/24/04	16:46
1,2-Dichlorobenzene	< 0.00020	mg/l	9205	6/25/04	5:31
1,2-Dichlorobenzene	< 0.00020	mg/l	9207	6/25/04	16:21
1,2-Dichlorobenzene	< 0.00020	mg/l	600	6/26/04	4:15
1,3-Dichlorobenzene	< 0.00030	mg/l	7298	6/24/04	16:46
1,3-Dichlorobenzene	< 0.00030	mg/l	9205	6/25/04	5:31
1,3-Dichlorobenzene	< 0.00030	mg/l	9207	6/25/04	16:21
1,3-Dichlorobenzene	< 0.00030	mg/l	600	6/26/04	4:15
1,4-Dichlorobenzene	< 0.00040	mg/l	7298	6/24/04	16:46
1,4-Dichlorobenzene	< 0.00040	mg/l	9205	6/25/04	5:31
1,4-Dichlorobenzene	< 0.00040	mg/l	9207	6/25/04	16:21
1,4-Dichlorobenzene	< 0.00040	mg/l	600	6/26/04	4:15

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 16  
**Laboratory Receipt Date:** 6/22/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Dichlorodifluoromethane	< 0.00050	mg/l	7298	6/24/04	16:46
Dichlorodifluoromethane	< 0.00050	mg/l	9205	6/25/04	5:31
Dichlorodifluoromethane	< 0.00050	mg/l	9207	6/25/04	16:21
Dichlorodifluoromethane	< 0.00050	mg/l	600	6/26/04	4:15
1,1-Dichloroethane	< 0.00020	mg/l	7298	6/24/04	16:46
1,1-Dichloroethane	< 0.00020	mg/l	9205	6/25/04	5:31
1,1-Dichloroethane	< 0.00020	mg/l	9207	6/25/04	16:21
1,1-Dichloroethane	< 0.00020	mg/l	600	6/26/04	4:15
1,2-Dichloroethane	< 0.00060	mg/l	7298	6/24/04	16:46
1,2-Dichloroethane	< 0.00060	mg/l	9205	6/25/04	5:31
1,2-Dichloroethane	< 0.00060	mg/l	9207	6/25/04	16:21
1,2-Dichloroethane	< 0.00060	mg/l	600	6/26/04	4:15
1,1-Dichloroethene	< 0.00060	mg/l	7298	6/24/04	16:46
1,1-Dichloroethene	< 0.00060	mg/l	9205	6/25/04	5:31
1,1-Dichloroethene	< 0.00060	mg/l	9207	6/25/04	16:21
1,1-Dichloroethene	< 0.00060	mg/l	600	6/26/04	4:15
cis-1,2-Dichloroethene	< 0.00060	mg/l	7298	6/24/04	16:46
cis-1,2-Dichloroethene	< 0.00060	mg/l	9205	6/25/04	5:31
cis-1,2-Dichloroethene	< 0.00060	mg/l	9207	6/25/04	16:21
cis-1,2-Dichloroethene	< 0.00060	mg/l	600	6/26/04	4:15
trans-1,2-Dichloroethene	< 0.00050	mg/l	7298	6/24/04	16:46
trans-1,2-Dichloroethene	< 0.00050	mg/l	9205	6/25/04	5:31
trans-1,2-Dichloroethene	< 0.00050	mg/l	9207	6/25/04	16:21
trans-1,2-Dichloroethene	< 0.00050	mg/l	600	6/26/04	4:15
1,2-Dichloropropane	< 0.00040	mg/l	7298	6/24/04	16:46
1,2-Dichloropropane	< 0.00040	mg/l	9205	6/25/04	5:31
1,2-Dichloropropane	< 0.00040	mg/l	9207	6/25/04	16:21
1,2-Dichloropropane	< 0.00040	mg/l	600	6/26/04	4:15
1,3-Dichloropropane	< 0.00040	mg/l	7298	6/24/04	16:46
1,3-Dichloropropane	< 0.00040	mg/l	9205	6/25/04	5:31
1,3-Dichloropropane	< 0.00040	mg/l	9207	6/25/04	16:21

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

**Project Number:** 51870.11

**Project Name:** FORMER TAYLOR INSTRUMENT

**Page:** 17

**Laboratory Receipt Date:** 6/22/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,3-Dichloropropane	< 0.00040	mg/l	600	6/26/04	4:15
2,2-Dichloropropane	< 0.00040	mg/l	7298	6/24/04	16:46
2,2-Dichloropropane	< 0.00040	mg/l	9205	6/25/04	5:31
2,2-Dichloropropane	< 0.00040	mg/l	9207	6/25/04	16:21
2,2-Dichloropropane	< 0.00040	mg/l	600	6/26/04	4:15
1,1-Dichloropropene	< 0.00050	mg/l	7298	6/24/04	16:46
1,1-Dichloropropene	< 0.00050	mg/l	9205	6/25/04	5:31
1,1-Dichloropropene	< 0.00050	mg/l	9207	6/25/04	16:21
1,1-Dichloropropene	< 0.00050	mg/l	600	6/26/04	4:15
cis-1,3-Dichloropropene	< 0.00030	mg/l	7298	6/24/04	16:46
cis-1,3-Dichloropropene	< 0.00030	mg/l	9205	6/25/04	5:31
cis-1,3-Dichloropropene	< 0.00030	mg/l	9207	6/25/04	16:21
trans-1,3-Dichloropropene	< 0.00050	mg/l	7298	6/24/04	16:46
trans-1,3-Dichloropropene	< 0.00050	mg/l	9205	6/25/04	5:31
trans-1,3-Dichloropropene	< 0.00050	mg/l	9207	6/25/04	16:21
trans-1,3-Dichloropropene	< 0.00050	mg/l	600	6/26/04	4:15
Ethylbenzene	< 0.0003	mg/l	7298	6/24/04	16:46
Ethylbenzene	< 0.0003	mg/l	9205	6/25/04	5:31
Ethylbenzene	< 0.0003	mg/l	9207	6/25/04	16:21
Ethylbenzene	< 0.0003	mg/l	600	6/26/04	4:15
Hexachlorobutadiene	< 0.00080	mg/l	7298	6/24/04	16:46
Hexachlorobutadiene	< 0.00080	mg/l	9205	6/25/04	5:31
Hexachlorobutadiene	< 0.00080	mg/l	9207	6/25/04	16:21
Hexachlorobutadiene	< 0.00080	mg/l	600	6/26/04	4:15
2-Hexanone	< 0.00420	mg/l	7298	6/24/04	16:46
2-Hexanone	< 0.00420	mg/l	9205	6/25/04	5:31
2-Hexanone	< 0.00420	mg/l	9207	6/25/04	16:21
2-Hexanone	< 0.00420	mg/l	600	6/26/04	4:15
Isopropylbenzene	< 0.00040	mg/l	7298	6/24/04	16:46
Isopropylbenzene	< 0.00040	mg/l	9205	6/25/04	5:31

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 18  
**Laboratory Receipt Date:** 6/22/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Isopropylbenzene	< 0.00040	mg/l	9207	6/25/04	16:21
Isopropylbenzene	< 0.00040	mg/l	600	6/26/04	4:15
p-Isopropyltoluene	< 0.00060	mg/l	7298	6/24/04	16:46
p-Isopropyltoluene	< 0.00060	mg/l	9205	6/25/04	5:31
p-Isopropyltoluene	< 0.00060	mg/l	9207	6/25/04	16:21
p-Isopropyltoluene	< 0.00060	mg/l	600	6/26/04	4:15
4-Methyl-2-pentanone	< 0.00490	mg/l	7298	6/24/04	16:46
4-Methyl-2-pentanone	< 0.00490	mg/l	9205	6/25/04	5:31
4-Methyl-2-pentanone	< 0.00490	mg/l	9207	6/25/04	16:21
4-Methyl-2-pentanone	< 0.00490	mg/l	600	6/26/04	4:15
Methylene chloride	< 0.00240	mg/l	7298	6/24/04	16:46
Methylene chloride	< 0.00240	mg/l	9205	6/25/04	5:31
Methylene chloride	< 0.00240	mg/l	9207	6/25/04	16:21
Methylene chloride	< 0.00240	mg/l	600	6/26/04	4:15
Naphthalene	< 0.00120	mg/l	7298	6/24/04	16:46
Naphthalene	< 0.00120	mg/l	9205	6/25/04	5:31
Naphthalene	< 0.00120	mg/l	9207	6/25/04	16:21
Naphthalene	< 0.00120	mg/l	600	6/26/04	4:15
n-Propylbenzene	< 0.00030	mg/l	7298	6/24/04	16:46
n-Propylbenzene	< 0.00030	mg/l	9205	6/25/04	5:31
n-Propylbenzene	< 0.00030	mg/l	9207	6/25/04	16:21
n-Propylbenzene	< 0.00030	mg/l	600	6/26/04	4:15
Styrene	< 0.00040	mg/l	7298	6/24/04	16:46
Styrene	< 0.00040	mg/l	9205	6/25/04	5:31
Styrene	< 0.00040	mg/l	9207	6/25/04	16:21
Styrene	< 0.00040	mg/l	600	6/26/04	4:15
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	7298	6/24/04	16:46
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	9205	6/25/04	5:31
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	9207	6/25/04	16:21
1,1,1,2-Tetrachloroethane	< 0.00060	mg/l	600	6/26/04	4:15
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l	7298	6/24/04	16:46

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 19  
**Laboratory Receipt Date:** 6/22/04

Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Analysis Date	Analysis Time
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l		9205	6/25/04	5:31
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l		9207	6/25/04	16:21
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l		600	6/26/04	4:15
Tetrachloroethene	< 0.00040	mg/l		7298	6/24/04	16:46
Tetrachloroethene	< 0.00040	mg/l		9205	6/25/04	5:31
Tetrachloroethene	< 0.00040	mg/l		9207	6/25/04	16:21
Tetrachloroethene	< 0.00040	mg/l		600	6/26/04	4:15
Toluene	< 0.0006	mg/l		7298	6/24/04	16:46
Toluene	< 0.0006	mg/l		9205	6/25/04	5:31
Toluene	< 0.0006	mg/l		9207	6/25/04	16:21
Toluene	< 0.0006	mg/l		600	6/26/04	4:15
1,2,3-Trichlorobenzene	< 0.00100	mg/l		7298	6/24/04	16:46
1,2,3-Trichlorobenzene	< 0.00100	mg/l		9205	6/25/04	5:31
1,2,3-Trichlorobenzene	< 0.00100	mg/l		9207	6/25/04	16:21
1,2,3-Trichlorobenzene	< 0.00100	mg/l		600	6/26/04	4:15
1,2,4-Trichlorobenzene	< 0.00060	mg/l		7298	6/24/04	16:46
1,2,4-Trichlorobenzene	< 0.00060	mg/l		9205	6/25/04	5:31
1,2,4-Trichlorobenzene	< 0.00060	mg/l		9207	6/25/04	16:21
1,2,4-Trichlorobenzene	< 0.00060	mg/l		600	6/26/04	4:15
1,1,1-Trichloroethane	< 0.00070	mg/l		7298	6/24/04	16:46
1,1,1-Trichloroethane	< 0.00070	mg/l		9205	6/25/04	5:31
1,1,1-Trichloroethane	< 0.00070	mg/l		9207	6/25/04	16:21
1,1,1-Trichloroethane	< 0.00070	mg/l		600	6/26/04	4:15
1,1,2-Trichloroethane	< 0.00040	mg/l		7298	6/24/04	16:46
1,1,2-Trichloroethane	< 0.00040	mg/l		9205	6/25/04	5:31
1,1,2-Trichloroethane	< 0.00040	mg/l		9207	6/25/04	16:21
Trichloroethene	< 0.00040	mg/l		7298	6/24/04	16:46
Trichloroethene	< 0.00040	mg/l		9207	6/25/04	16:21
Trichloroethene	< 0.00040	mg/l		600	6/26/04	4:15
1,2,3-Trichloropropane	< 0.00060	mg/l		7298	6/24/04	16:46

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number:** 51870.11  
**Project Name:** FORMER TAYLOR INSTRUMENT  
**Page:** 20  
**Laboratory Receipt Date:** 6/22/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,2,3-Trichloropropane	< 0.00060	mg/l	9205	6/25/04	5:31
1,2,3-Trichloropropane	< 0.00060	mg/l	9207	6/25/04	16:21
1,2,3-Trichloropropane	< 0.00060	mg/l	600	6/26/04	4:15
1,2,4-Trimethylbenzene	< 0.0003	mg/l	7298	6/24/04	16:46
1,2,4-Trimethylbenzene	< 0.0003	mg/l	9205	6/25/04	5:31
1,2,4-Trimethylbenzene	< 0.0003	mg/l	9207	6/25/04	16:21
1,2,4-Trimethylbenzene	< 0.0003	mg/l	600	6/26/04	4:15
1,3,5-Trimethylbenzene	< 0.00100	mg/l	7298	6/24/04	16:46
1,3,5-Trimethylbenzene	< 0.00100	mg/l	9205	6/25/04	5:31
1,3,5-Trimethylbenzene	< 0.00100	mg/l	9207	6/25/04	16:21
Vinyl chloride	< 0.00050	mg/l	600	6/26/04	4:15
Vinyl chloride	< 0.00050	mg/l	7298	6/24/04	16:46
Vinyl chloride	< 0.00050	mg/l	9205	6/25/04	5:31
Vinyl chloride	< 0.00050	mg/l	9207	6/25/04	16:21
Xylenes (Total)	< 0.0009	mg/l	600	6/26/04	4:15
Xylenes (Total)	< 0.0009	mg/l	7298	6/24/04	16:46
Xylenes (Total)	< 0.0009	mg/l	9205	6/25/04	5:31
Xylenes (Total)	< 0.0009	mg/l	9207	6/25/04	16:21
Xylenes (Total)	< 0.0009	mg/l	600	6/26/04	4:15
Bromodichloromethane	< 0.00030	mg/l	7298	6/24/04	16:46
Bromodichloromethane	< 0.00030	mg/l	9205	6/25/04	5:31
Bromodichloromethane	< 0.00030	mg/l	9207	6/25/04	16:21
Bromodichloromethane	< 0.00030	mg/l	600	6/26/04	4:15
Trichlorofluoromethane	< 0.00040	mg/l	7298	6/24/04	16:46
Trichlorofluoromethane	< 0.00040	mg/l	9205	6/25/04	5:31
Trichlorofluoromethane	< 0.00040	mg/l	9207	6/25/04	16:21
Trichlorofluoromethane	< 0.00040	mg/l	600	6/26/04	4:15

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

Project Number: 51870.11

Project Name: FORMER TAYLOR INSTRUMENT

Page: 21

Laboratory Receipt Date: 6/22/04

VOA Surr 1,2-DCA-d4	95.	% Rec	7298	6/24/04	16:46
VOA Surr 1,2-DCA-d4	93.	% Rec	9207	6/25/04	16:21
VOA Surr 1,2-DCA-d4	110.	% Rec	600	6/26/04	4:15
VOA Surr Toluene-d8	92.	% Rec	7298	6/24/04	16:46
VOA Surr Toluene-d8	101.	% Rec	9207	6/25/04	16:21
VOA Surr Toluene-d8	89.	% Rec	600	6/26/04	4:15
VOA Surr, 4-BFB	96.	% Rec	7298	6/24/04	16:46
VOA Surr, 4-BFB	100.	% Rec	9207	6/25/04	16:21
VOA Surr, 4-BFB	97.	% Rec	600	6/26/04	4:15
VOA Surr, DBFM	102.	% Rec	7298	6/24/04	16:46
VOA Surr, DBFM	98.	% Rec	9207	6/25/04	16:21
VOA Surr, DBFM	110.	% Rec	600	6/26/04	4:15

# - Value outside Laboratory historical or method prescribed QC limits.

id of Report for Project 379678

**TestAmerica**  
ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

79678

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: NACTEC ENGINEERING AND CONSULT Client #: 4957

Address: 1431 CENTERPOINT BLVD, STE. 150

City/State/Zip Code: KNOXVILLE TN 37932-1966

Project Manager: Rick Ryan

Telephone Number: 8655311922 Fax: 8655318226

Sampler Name: (Print Name) Janna Peevler

Sampler Signature: Janna Peevler

Project Name: Former Taylor Instruments

Project #: 51870.11

Site/Location ID: Rochester State: NY

Report To: Janna Peevler

Invoice To: Rick Ryan

Quote #: 121102-217-199 PO#: MEC0303n015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)	Date Needed:	Fax Results: Y <input checked="" type="checkbox"/>	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers						Analyze For:	QC Deliverables None <input checked="" type="checkbox"/> Level 2 (Batch QC) <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Other: _____	REMARKS		
								SL - Sludge	DW - Drinking Water	S - Soil/Solid	GW - Groundwater	WW - Wastewater	Specify Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	
3R-15	95-94	6/19/04	1031	G	GR			3										3
3R-10	95	6/19/04	1125	G	GR			3										3
CB-C4	96	6/19/04	1255	G	GR			3										3
3R-C4	97	6/19/04	1429	G	GR			3										3
3R-C5	98	6/10/04	840	G	GR			3										3
CB-C5	99	6/10/04	916	G	GR			3										3
3R-C9	00	6/20/04	1026	G	GR			3										3
CB-C8	01	6/20/04	1258	G	GR			3										3
3R-11	95-92	6/20/04	1348	G	GR			3										3

Special Instructions:

Relinquished By: <i>Janna Peevler</i>	Date: 6/21/04	Time: 1000	Received By: <i>MB</i>	Date: 6/21/04	Time: 8:05
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp:

Custody Seals: Y N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

**TestAmerica**  
ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

579678

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring \_\_\_\_\_

Client Name: MACTEC ENGINEERING AND CONSULT Client #: 4997  
 Address: 1431 CENTERPOINT BLVD, STE 150  
 City/State/Zip Code: KNOXVILLE TN 37932-1968  
 Project Manager: Rick Ryan  
 Telephone Number: 8655311922 Fax: 319655318226  
 Sampler Name: (Print Name) Janna Peever  
 Sampler Signature: *Janna Peever*

Project Name: Farmer Taylor Instruments  
 Project #: 57870.1  
 Site/Location ID: Rochester State: NY  
 Report To: Janna Peever  
 Invoice To: Rick Ryan  
 Quote #: 121102-217-199 Po#: MEC0303015

TAT	Standard	Rush (surcharges may apply)	Date Needed:	Fax Results: Y N	SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers				QC Deliverables	
											SL - Sludge	DW - Drinking Water	S - Soil/Solid	Specify Other		
					BR-14	95686	6/18/04	845	G	GW	3	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None
					BR-02	87	6/18/04	1038	G	GW	3					
					BR-01	88	6/18/04	1124	G	GW	3					
					BR-07	89	6/18/04	1414	G	GW	3					
					BR-07 (dup)	90	6/18/04	1416	G	GW	3					duplicate
					BR-12	91	6/18/04	1510	G	GW	3					
					BR-12 (MS)	91	6/18/04	1513	G	GW	3					matrix spike
					BR-12 (MSD)	91	6/18/04	1513	G	GW	3					m. sp. duplicate
					W-6	92	6/19/04	809	G	GW	3					
					BR-13	95693	6/19/04	922	G	GW	3					

Special Instructions:

LABORATORY COMMENTS:

Relinquished By: <i>Janna Peever</i>	Date: 6/21/04	Time: 1000	Received By: <i>Janna Peever</i>	Date: 6/21/04	Time: 8:45
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Init Lab Temp:

Rec Lab Temp: 34

Custody Seals: Y N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

**APPENDIX C**

**CHAIN-OF-CUSTODY FORMS**



**Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204**

**Phone:** 615-726-0177  
**Fax:** 615-726-3404

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
**Compliance Monitoring**

**Client Name** STRUCTURED ENGINEERING AND CONSULTING

Client #: 6997

**Address:** 1431 CENTERPOINT BLVD STE 150

**State/Zip Code:** KNOXVILLE TN 37532-1566

Project Manager: Rick Ryan

**Telephone Number:** 0065555511112222 **Fax:** 011855518222

Sampler Name: (Print Name) Janna Taylor

Sampler Signature: John Fleck

Standard  
 Rush (surcharges may apply)

Date Needed:

Fax Results: Y  N

SAMPLE ID

**Special Instructions:**

**LABORATORY COMMENTS:**

Init Lab Temp:

Rec Lab Temp:

Relinquished By:	<u>J. W. L.</u>	Date: <u>6/15/04</u>	Time:	Received By:	Date:	Time:	Rec Lab Temp:
Relinquished By:		Date:	Time:	Received By:	Date:	Time:	Custody Seals: Y N N/A Bottles Supplied by Test America: Y N
Relinquished By:		Date:	Time:	Received By:	<u>CJ</u>	Date: <u>6/15/04</u> Time: <u>8:40</u>	Method of Shipment:

# TestAmerica

ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

3,9092

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: MALTER ENGINEERING AND CONSULT Client #: 4997  
Address: 1431 CENTERPOINT BLVD, STE 150  
City/State/Zip Code: KNOXVILLE TN 37932-1968  
Project Manager: Rick Ryan  
Telephone Number: 8655311922 Fax: 6.18655318226  
Sampler Name: (Print Name) Janna Peeler  
Sampler Signature: *Janna Peeler*

Project Name: Former Taylor Instruments  
Project #: 51870.11  
Site/Location ID: Rochester State: NY  
Report To: Janna Peeler  
Invoice To: Rick Ryan  
Quote #: 121102-217-199 Po#: MEC03C30015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)	Date Needed:	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers						Analyze For:						QC Deliverables <input type="checkbox"/> None <input checked="" type="checkbox"/> Level 2 (Batch QC) <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Other: _____																							
							SL - Sludge	DW - Drinking Water	S - Soil/Solid	Specify Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)	VOC	8200	Nitrate	353.2	Sulfate	375.4	Sulfide	376.1	Ethane	Methane	TOL	415.1	Chloride	325.1	Alkalinity	310.1	Fe(II)	6010F/C	CO <sub>2</sub>	4520B					
TW-07	92581	6/16/04	906	G		GW	9	1	6		3																															
TW-09	92582	6/16/04	1015	G		GW	9	1	6		3																															
CB-07	92583	6/16/04	1129	G		GW	9	1	6		3																															
CB-07	92583	6/16/04	1408	G		GW	9	1	6		3																															
CB-07 (MS)	92584	6/16/04	1416	G		GW	3																																			
CB-07 (MSD)	92584	6/16/04	1418	G		Grd	3																																			
IV-5	92585	6/16/04	1540	G		GW	9	1	6		3																															
IV-5 (dup)	92586	6/16/04	1552	G		GW	3																																			

Special Instructions:

Relinquished By: *Janna Peeler* Date: 6/16/04 Time: 1700 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: 6/16/04 Time: 1700

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp: 2.0

Custody Seals:  N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

379339

# TestAmerica

ANALYTICAL TESTING CORPORATION

**Nashville Division**  
**2960 Foster Creighton**  
**Nashville, TN 37204**

**Phone: 615-726-0177**  
**Fax: 615-726-3404**

Client Name: TRACTEC ENGINEERING AND CONSULTING Client #: 447  
Address: 1431 CENTERPOINT BLVD, STE. 150  
City/State/Zip Code: KNOXVILLE TN 37932-1968  
Project Manager: Rick Ryan  
Telephone Number: 8655311922 Fax: 8655318224  
er Name: (Print Name) Janna Preller  
Sampler Signature: Dilksie Clark

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?

Project Name: Former Taylor Instruments  
Project #: 51870.11  
Site/Location ID: Rochester State: NY  
Report To: Janna Peevler  
Invoice To: Rick Ryan  
Quote #: 121102-217-199 PO#: MECO3030015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)		Date Sampled		Time Sampled		G = Grab, C = Composite		Matrix		Preservation & # of Containers		Analyze For:										QC Deliverables								
								SL - Sludge		DW - Drinking Water		Water														<input type="checkbox"/> None				
								GW - Groundwater		S - Soil/Solid		S														<input checked="" type="checkbox"/> Level 2 (Batch QC)				
								WW - Wastewater		Specify Other																<input type="checkbox"/> Level 3				
																										<input type="checkbox"/> Level 4				
																										Other: _____				
SAMPLE ID		Field Filtered		HNO <sub>3</sub>		HCl		NaOH		H <sub>2</sub> SO <sub>4</sub>		Methanol		None		Other (Specify)		VOC (8260)										REMARKS		
CB-16	6/17/04	940	G	GW		3										3												04A93825		
BR-08	6/17/04	1113	G	GW		3										3													26	
BR-17	6/17/04	1154	G	GW		3										3													27	
BR-03	6/17/04	1540	G	GW		3										3													28	
QATB02	6/17/04	000	G	GW		1										1													29	
QAFB02	6/17/04	1632	G	GW		3										3													30	
QARB02	6/17/04	1642	G	GW		3										3												93831	trip blank	
																													field blank	
																													rinse blank	

**Special Instructions:**

**LABORATORY COMMENTS:**

**Init Lab Temp:**

Rec Lab Temp:

Relinquished By John P. Clark

Date: 4/17/01 Time: 1700

Published By

Date: \_\_\_\_\_ Time: \_\_\_\_\_

ANSWER

Date. Time.

**Relinquished By**

Date: \_\_\_\_\_ Time: \_\_\_\_\_

— 1 —

— 1 —

10 of 10 pages

— 1 —

Custody Seals: Y N N/A  
Bottles Supplied by Test America: ✓

10. The following table shows the number of hours worked by each employee.

**Method of Shipment:**

**TestAmerica**  
ANALYTICAL TESTING CORPORATION

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

579678

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: REACTED ENGINEERING AND CONSULT Client #: 4997

Address: 1431 CENTERPOINT BLVD, STE 15A

City/State/Zip Code: KNOXVILLE TN 37932-1568

Project Manager: Rick Ryan

Telephone Number: 8655311922 Fax: 316655318226

Sampler Name: (Print Name) Janna Preyler

Sampler Signature: Janna Preyler

Project Name: Former Taylor Instruments

Project #: 57870.11

Site/Location ID: Rochester State: NY

Report To: Janna Preyler

Invoice To: Rick Ryan

Quote #: 121102-217-199 PO#: MEC03030015

TAT	Standard	Rush (surcharges may apply)	Date Needed:	Fax Results: Y N	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers					Analyze For:										QC Deliverables		
										SL - Sludge	DW - Drinking Water	DW - Groundwater	S - Soil/Solid	MW - Wastewater	Specify Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)	VOCs (82cc)				
BR-14	951886	6/18/04 8:45	G	GW						3																	
BR-02	87	6/18/04 10:39	G	GW						3																	
BR-01	88	6/18/04 11:24	G	GW						3																	
BR-07	89	6/18/04 14:14	G	GW						3																	
BR-07 (dup)	90	6/18/04 14:16	G	GW						3																	duplicate
BR-12	91	6/18/04 15:10	G	GW						3																	
BR-12 (MS)	91	6/18/04 15:13	G	GW						3																	matrix spike
BR-12 (MSD)	91	6/18/04 15:13	G	GW						3																	m. sp. duplicate
BR-13	92	6/19/04 8:09	G	GW						3																	
BR-13	95193	6/19/04 9:22	G	GW						3																	

Special Instructions:

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp: 3.7

Relinquished By: *A. L. R.* Date: 6/21/04 Time: 10:00 Received By: *J. M. P.* Date: 6/21/04 Time: 8:35

Custody Seals: Y N N/A  
Bottles Supplied by Test America: Y N

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Method of Shipment:

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

L/9678

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: NACTEC ENGINEERING AND CONSULT Client #: 4957

Address: 1421 CENTERPOINT BLVD, STE. 150

City/State/Zip Code: KNOXVILLE TN 37932-1966

Project Manager: Rick Ryan

Telephone Number: 8655311922 Fax: 8655311922

Sampler Name: (Print Name) Janna Preyler

Sampler Signature: Janna Preyler

Project Name: Former Taylor Instruments

Project #: 51870.11

Site/Location ID: Rochester State: NY

Report To: Janna Preyler

Invoice To: Rick Ryan

Quote #: 121102-217-199 PO#: MEC03030015

TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (surcharges may apply)	Date Needed:	Fax Results: Y <input type="checkbox"/>	SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	Preservation & # of Containers						Analyze For:	QC Deliverables None <input checked="" type="checkbox"/> Level 2 (Batch QC) <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Other: _____			
									SL - Sludge	DW - Drinking Water	GW - Groundwater	S - Soil/Solid	WW - Wastewater	Specify Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol
312-15 95694	6/19/04	1631 G	GW	3												3			
312-16 95	6/19/04	1125 G	GW	3												3			
CB-14 96	6/19/04	1255 G	GW	3												3			
CB-14 97	6/19/04	1429 G	GW	3												3			
312-15 98	6/10/04	8:40 G	GW	3												3			
CB-15 99	6/10/04	9:16 G	GW	3												3			
312-15 100	6/12/04	1:22 G	GW	3												3			
CB-15 101	6/12/04	1256 G	GW	3												3			
312-11 99702	6/26/04	1348 G	GW	3												3			

Special Instructions:

Relinquished By: <i>Janna Preyler</i>	Date: 6/21/04	Time: 10:00	Received By: <i>MB</i>	Date: <i>6/21/04</i>	Time: 8:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp:

Custody Seals: Y N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

**APPENDIX D**

**FIELD DATA RECORDS**

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

GW Sample Form 1a

Mactec Engineering and Consulting

## **FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING**

Hinse blank collected  
off tubing @  
1642

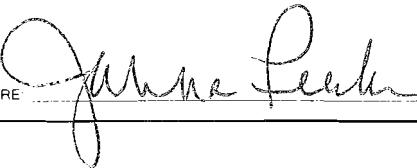
SIGNATURE

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	6/15/04							
SITE ID	W-2		SITE TYPE	Monitor Well							
SITE ACTIVITY	START 1055	END 1130	JOB NUMBER	51870.9							
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER	PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT					
INITIAL DEPTH TO WATER	8.22	FT	WELL DEPTH	18.0	FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2	IN	
FINAL DEPTH TO WATER	9.43	FT	SCREEN LENGTH	FT		PID WELL MOUTH	PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR	YES <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	NO <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
DRAWDOWN	1.41	FT	DRAWDOWN VOLUME	0.23	GAL	PRODUCT THICKNESS	FT				
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))											
PURGE RATE	0.184	L/MIN	BEGIN PURGING	1107	END PURGING	1129	TOTAL VOL. PURGED	1.7	GAL		
(purge rate (L/min) x duration (min) x 0.26 gal/L)											
Purge Data Honiba downwell											
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments			
1110	0.60	7.75	0.445	48.1	10.08	4.79	13.53	78	$\approx 200 \text{ mL/min}$		
1114	1.40	7.77	0.439	41.6	9.25	4.92	13.95	56	$\approx 200 \text{ mL/min}$		
1118	2.07	7.77	0.443	42.3	8.75	4.77	14.02	48	$\approx 167 \text{ mL/min}$		
1123	2.91	7.77	0.446	43.1	8.73	4.80	14.07	44	$\approx 167 \text{ mL/min}$		
1126	collect sample for bioparameters										
EQUIPMENT DOCUMENTATION											
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)					
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> SUBMERSIBLE	<input type="checkbox"/> OTHER	<input type="checkbox"/> TEFILON OR TEFILON LINED	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> OTHER	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER	<input type="checkbox"/> TEFILON	<input type="checkbox"/> OTHER	
PURGE OBSERVATIONS		NOTES									
		$1110 \text{ DTW} = 9.47$ $1114 \text{ DTW} = 9.89$ $1118 \text{ DTW} = 10.01$ $1123 \text{ DTW} = 10.11$									
SIGNATURE											

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event			DATE	6/17/04			
SITE ID	W-6	SITE TYPE	Monitor Well					
SITE ACTIVITY	START 810 END	JOB NUMBER	51870.9					
WATER LEVEL / PUMP SETTINGS								
	MEASUREMENT POINT							
	<input type="checkbox"/> TOP OF WELL RISER	<input type="checkbox"/> TOP OF PROTECTIVE CASING	<input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND)	FT			
INITIAL DEPTH TO WATER	3.43	FT	WELL DEPTH	11.30	FT			
FINAL DEPTH TO WATER		FT	SCREEN LENGTH		FT			
DRAWDOWN		FT	DRAWDOWN VOLUME		GAL			
			PID AMBIENT AIR	PPM	WELL DIAMETER IN			
			PID WELL MOUTH	PPM	WELL INTEGRITY: CAP YES NO N/A			
			PRODUCT THICKNESS	FT	CASING LOCKED COLLAR			
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))								
PURGE RATE	L/MIN	BEGIN PURGING	822	END PURGING	TOTAL VOL. PURGED GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)			
PURGE DATA								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
830	1.23	5.80			3.15 7.48	16.93	105	≈ 154 mL/min
835	1.94	10.07	1.31	27.4	2.53 7.55	17.10	77	≈ 143 mL/min
840	Cannot minimize drawdown - pumped well dry							
748	checked ✓ - 9.10							
809	✓ - 8.75	collect sample for 8260						
EQUIPMENT DOCUMENTATION								
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)		
<input checked="" type="checkbox"/> PERISTALTIC		<input type="checkbox"/> TEFLON OR TEFLON LINED	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> TEFLO	<input type="checkbox"/> OTHER _____	
<input type="checkbox"/> SUBMERSIBLE		<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____				
<input type="checkbox"/> OTHER _____								
PURGE OBSERVATIONS				NOTES				
				830 DTW - 4.79 835 DTW - 5.89				
SIGNATURE								

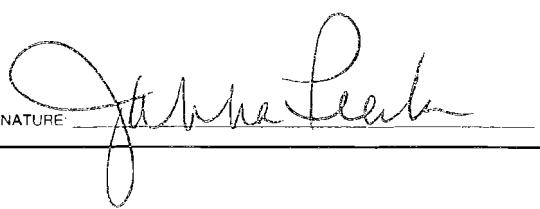
Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

GW\_Sample\_Form.xls

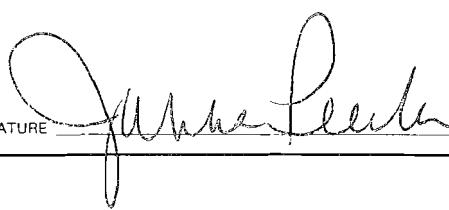
## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE <b>6/16/04</b>						
SITE ID <b>TW-07</b>	SITE TYPE Monitor Well							
SITE ACTIVITY START <b>833</b> END <b>928</b>	JOB NUMBER 51870.9							
<b>WATER LEVEL / PUMP SETTINGS</b>								
MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____		PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT					
INITIAL DEPTH TO WATER <b>9.93</b> FT	WELL DEPTH <b>20.72</b> FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER <b>2</b> IN					
FINAL DEPTH TO WATER <b>11.01</b> FT	SCREEN LENGTH _____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/> N/A					
DRAWDOWN <b>1.08</b> FT	DRAWDOWN VOLUME <b>0.17</b> GAL	PRODUCT THICKNESS _____ FT						
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))								
PURGE RATE <b>0.14</b> L/MIN	BEGIN PURGING <b>840</b>	END PURGING <b>920</b>	TOTAL VOL. PURGED <b>1.46</b> GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)					
<b>Hinriba downwell</b> HINRIBA DOWNWELL PURGE DATA								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
848	1.14	6.83	1.56	5.9	0.00	2.26	12.66	54
854	2.00	6.81	1.63	7.7	0.37	3.29	12.60	49
859	2.67	6.81	1.68	11.1	0.51	3.12	12.57	53
903	3.24	6.80	1.72	11.8	0.44	3.18	12.55	56
906	collect samples for 8260 & bioparameters							
EQUIPMENT DOCUMENTATION								
TYPE OF PUMP <input checked="" type="checkbox"/> PERISTALTIC <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> OTHER _____		TYPE OF TUBING <input type="checkbox"/> TEFLON OR TEFLON LINED <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> OTHER _____		TYPE OF PUMP MATERIAL <input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER _____		TYPE OF BLADDER MATERIAL (if applicable) <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER _____		
PURGE OBSERVATIONS				NOTES				
				848 DTW = 10.31 854 DTW = 10.48 859 DTW = 10.60 903 DTW = 10.71				
SIGNATURE: 								

## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event				DATE	6/16/04				
SITE ID	TW-09		SITE TYPE	Monitor Well						
SITE ACTIVITY	START 940	END 1040	JOB NUMBER	51870.9						
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____		PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT			
INITIAL DEPTH TO WATER	12.03 FT	WELL DEPTH	17.7 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2 IN			
FINAL DEPTH TO WATER	12.17 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY:	CAP YES <input checked="" type="checkbox"/> CASING <input checked="" type="checkbox"/> LOCKED <input checked="" type="checkbox"/> COLLAR <input checked="" type="checkbox"/>			
DRAWDOWN	0.14 FT	DRAWDOWN VOLUME	0.02 GAL	PRODUCT THICKNESS	FT	NO <input type="checkbox"/> N/A <input type="checkbox"/>				
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))										
PURGE RATE	0.14 L/MIN	BEGIN PURGING	948	END PURGING	103	TOTAL VOL. PURGED	1.51 GAL			
(purge rate (L/min) x duration (min) x 0.26 gal/L)										
Horiba downwell										
PURGE DATA	Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments	
	956	1.07	7.35	0.547	33.7	4.99	2.63	14.89	25	=133 mL/min
	1001	1.78	7.34	0.547	20.7	5.03	2.79	14.83	39	=143 mL/min
	1007	2.58	7.33	0.555	16.4	5.02	2.69	14.75	35	=133 mL/min
	1011	3.11	7.32	0.558	18.2	4.98	2.73	14.75	32	=133 mL/min
	1015	Collect samples for 8260 & bioparameters								
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)				
<input checked="" type="checkbox"/> PERISTALTIC		<input type="checkbox"/> TEFLON OR TEFLON LINED		<input type="checkbox"/> POLYVINYL CHLORIDE		<input type="checkbox"/> TEFLO				
<input type="checkbox"/> SUBMERSIBLE		<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE		<input type="checkbox"/> STAINLESS STEEL		<input type="checkbox"/> OTHER _____				
<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____						
PURGE OBSERVATIONS					NOTES					
					956 DTW - 12.14 1001 DTW - 12.16 1007 DTW - 12.18 1011 DTW - 12.19					
SIGNATURE 										

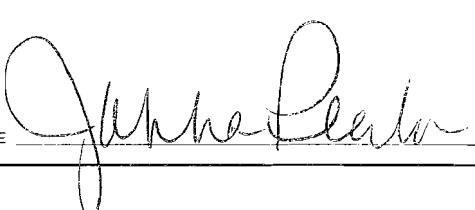
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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event			DATE	4/15/04			
SITE ID	TW-17		SITE TYPE	Monitor Well				
SITE ACTIVITY	START 1358	END 1456	JOB NUMBER	51870.9				
WATER LEVEL / PUMP SETTINGS								
			MEASUREMENT POINT					
			<input checked="" type="checkbox"/> TOP OF WELL RISER	PROTECTIVE	PROTECTIVE			
			<input type="checkbox"/> TOP OF PROTECTIVE CASING	CASING STICKUP (FROM GROUND)	WELL DIAMETER			
			<input type="checkbox"/> OTHER _____	FT	FT			
INITIAL DEPTH TO WATER	7.77 FT	WELL DEPTH	17.45 FT	PID AMBIENT AIR	PPM			
FINAL DEPTH TO WATER	8.07 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM			
DRAWDOWN	0.30 FT	DRAWDOWN VOLUME	0.05 GAL	PRODUCT THICKNESS	FT			
(Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch)								
PURGE RATE	0.17 L/MIN	BEGIN PURGING	1413	END PURGING	1451			
			TOTAL VOL. PURGED 1.45 GAL					
(purge rate (L/min) x duration (min)) x 0.26 gal/L)								
Horiba downwell								
PURGE DATA								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1422	1.50	7.17	0.616	3.1	3.57 6.09	14.00	38	≈167 mL/min
1426	2.17	7.17	0.619	0.0	3.03 5.71	14.20	40	≈167 mL/min
1430	2.84	7.14	0.901	1.3	1.88 5.88	13.95	45	≈167 mL/min
1437	4.00	7.15	0.003	1.0	2.96 5.38	13.61	38	≈167 mL/min
1440	collect samples for 8260 & bioparameters							
EQUIPMENT DOCUMENTATION								
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)		
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLO N OR TEFLO N LINED	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> TEFLO N					
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER _____					
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____						
PURGE OBSERVATIONS				NOTES				
				1422 DTW = 8.17 1426 DTW = 8.21 1430 DTW = 8.24 1437 DTW = 8.20				
								

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	6/15/04				
SITE ID	TW-20		SITE TYPE	Monitor Well				
SITE ACTIVITY	START 1500	END 1555	JOB NUMBER	51870.9				
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____		PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT			
INITIAL DEPTH TO WATER	12.16 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER _____ IN			
FINAL DEPTH TO WATER	12.50 FT	SCREEN LENGTH	_____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR YES _____ NO _____ NA _____			
DRAWDOWN	0.34 FT	DRAWDOWN VOLUME	0.05 GAL	PRODUCT THICKNESS _____ FT				
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))								
PURGE RATE	0.14 L/MIN	BEGIN PURGING	1503	END PURGING	1544			
				TOTAL VOL. PURGED	1.54 GAL			
(purge rate (L/min) x duration (min) x 0.26 gal/L)								
Purge Data								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1513	1.43	7.25	0.637	155	1.11	2.00	13.22	26
1517	2.10	7.24	0.629	168	0.85	1.96	13.15	25
1523	2.85	7.23	0.622	183	1.04	1.78	12.99	22
1528	3.56	7.22	0.617	201	1.21	1.75	12.82	18
1531	Collect sample for 8260 & bioparameters							
Equipment Documentation								
TYPE OF PUMP	TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)			
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLON OR TEFLON LINED <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE		<input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER _____		<input type="checkbox"/> TEFLO <input type="checkbox"/> OTHER _____			
PURGE OBSERVATIONS		NOTES						
		1513 DTW - 12.38 1517 DTW - 12.45 1523 DTW - 12.51 1528 DTW - 12.55						
SIGNATURE								

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	6/19/04							
SITE ID	OB-04		SITE TYPE	Monitor Well							
SITE ACTIVITY	START 1255	END 1338	JOB NUMBER	51870.9							
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER	PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT					
INITIAL DEPTH TO WATER	3.82	FT	WELL DEPTH	16.45	FT	PID AMBIENT AIR	PPM	WELL DIAMETER	2	IN	
FINAL DEPTH TO WATER	4.00	FT	SCREEN LENGTH		FT	PID WELL MOUTH	PPM	WELL INTEGRITY:	YES	NO	N/A
DRAWDOWN	0.18	FT	DRAWDOWN VOLUME	0.03	GAL	PRODUCT THICKNESS	FT	CAP CASING LOCKED COLLAR	X	X	X
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))											
PURGE RATE	0.10	L/MIN	BEGIN PURGING	1303	END PURGING	1332	TOTAL VOL. PURGED	0.78	GAL		
(purge rate (L/min) x duration (min) x 0.26 gal/L)											
PURGE DATA											
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments			
1312	0.90	7.89	0.428	32.0	4.69 3.43	17.59	16	≈100 mL/min			
1318	1.50	7.87	0.422	25.9	6.28 3.55	17.62	-48	≈100 mL/min			
1324	2.13	7.83	0.406	27.6	7.00 3.82	17.64	-53	≈105 mL/min			
1329	2.69	7.82	0.399	21.5	7.14 3.67	17.63	-48	≈111 mL/min			
Collect Sample for 8260											
EQUIPMENT DOCUMENTATION											
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)					
<input checked="" type="checkbox"/> PERISTALTIC		<input type="checkbox"/> TEFLON OR TEFLON LINED		<input type="checkbox"/> POLYVINYL CHLORIDE		<input type="checkbox"/> TEFILON					
<input type="checkbox"/> SUBMERSIBLE		<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE		<input type="checkbox"/> STAINLESS STEEL		<input type="checkbox"/> OTHER					
<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____							
PURGE OBSERVATIONS						NOTES					
<p>1312 DTW - 3.99</p> <p>1318 DTW - 4.03</p> <p>1324 DTW - 4.06</p> <p>1329 DTW - 4.09</p>											
SIGNATURE											

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	6/17/04	
SITE ID	OB-06		SITE TYPE	Monitor Well	
SITE ACTIVITY	START 910	END 945	JOB NUMBER	51870.9	
<b>WATER LEVEL / PUMP SETTINGS</b>					
		MEASUREMENT POINT			
		<input type="checkbox"/> TOP OF WELL RISER			
		<input type="checkbox"/> TOP OF PROTECTIVE CASING			
		<input type="checkbox"/> OTHER _____			
		PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT
INITIAL DEPTH TO WATER	3.60 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	PPM
FINAL DEPTH TO WATER	4.69 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM
DRAWDOWN	1.09 FT	DRAWDOWN VOLUME	0.17 GAL	PRODUCT THICKNESS	FT
(initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch)					
PURGE RATE	0.13 L/MIN	BEGIN PURGING	915	END PURGING	942
				TOTAL VOL. PURGED	0.92 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)					

## EQUIPMENT DOCUMENTATION

**TYPE OF PUMP**

PERISTALTIC  
 SUBMERSIBLE  
 OTHER \_\_\_\_\_

TYPE OF TUBING

TEFILON OR TEFILON LINED  
 HIGH DENSITY POLYETHYLENE  
 OTHER \_\_\_\_\_

TYPE OF PUMP MATERIAL

POLYVINYL CHLORIDE  
 STAINLESS STEEL  
 OTHER \_\_\_\_\_

TYPE OF BLADDER MATERIAL (if applicable)

## PURGE OBSERVATIONS

## NOTES

922 DTW - 4.32  
 928 DTW - 4.61  
 932 DTW = 4.77  
 937 DTW = 4.89

SIGNATURE

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event	DATE	6/16/04
SITE ID	OB-07	SITE TYPE	Monitor Well
SITE ACTIVITY	START 1335 END 1435	JOB NUMBER	51870.9

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT
INITIAL DEPTH TO WATER	4.41 FT	WELL DEPTH 20.01 FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER _____ IN
FINAL DEPTH TO WATER	5.03 FT	SCREEN LENGTH _____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR YES _____ NO _____ N/A _____
DRAWDOWN	0.162 FT	DRAWDOWN VOLUME 0.09 GAL	PRODUCT THICKNESS _____ FT	
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))				
PURGE RATE	0.18 L/MIN	BEGIN PURGING 1340	END PURGING 1420	TOTAL VOL. PURGED 1.84 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

## EQUIPMENT DOCUMENTATION

**TYPE OF PUMP**                    **TYPE OF TUBING**                    **TYPE OF PUMP MATERIAL**                    **TYPE OF BLADDER MATERIAL** (if applicable)

PERISTALTIC                     TEFLOL OR TEFLOL LINED                     POLYVINYL CHLORIDE                     TEFLOL  
 SUBMERSIBLE                     HIGH DENSITY POLYETHYLENE                     STAINLESS STEEL                     OTHER \_\_\_\_\_  
 OTHER \_\_\_\_\_                     OTHER \_\_\_\_\_                     OTHER \_\_\_\_\_

## PURGE OBSERVATIONS

## NOTES

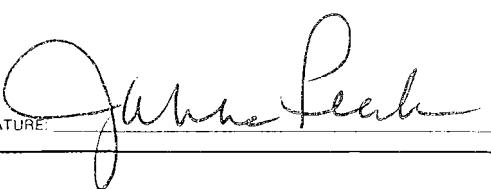
1345 DTW - 5.04  
1350 DTW - 5.18  
1355 DTW = 5.23  
1358 DTW - 5.27  
1403 DTW - 5.29

**SIGNATURE**

GW\_Sample\_Form.xls

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event					DATE <b>6/20/07</b>						
SITE ID <b>OB-Ø8</b>			SITE TYPE Monitor Well								
SITE ACTIVITY	START <b>1232</b>	END <b>1304</b>	JOB NUMBER	51870.9							
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER		PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT				
INITIAL DEPTH TO WATER	<b>6.78</b>	FT	WELL DEPTH	<b>24.85</b>	FT	PID AMBIENT AIR	PPM	WELL DIAMETER	<b>2</b>	IN	
FINAL DEPTH TO WATER	<b>7.89</b>	FT	SCREEN LENGTH	FT		PID WELL MOUTH	PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DRAWDOWN	<b>1.11</b>	FT	DRAWDOWN VOLUME	<b>0.18</b>	GAL	PRODUCT THICKNESS	FT	YES	NO	N/A	
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))											
PURGE RATE	<b>0.16</b>	L/MIN	BEGIN PURGING	<b>1237</b>		END PURGING	<b>1301</b>	TOTAL VOL. PURGED	<b>1.00</b>	GAL	
(purge rate (L/min) x duration (min) x 0.26 gal/L)											
PURGE DATA <i>Horiba downwell</i>											
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments			
1244	<b>1.17</b>	<b>7.69</b>	<b>0.526</b>	<b>33.1</b>	<b>0.00</b>	<b>14.26</b>	<b>15.5</b>	<b>92</b>	$\approx 167 \text{ mL/min}$		
1247	<b>1.63</b>	<b>7.66</b>	<b>0.528</b>	<b>49.6</b>	<b>0.00</b>	<b>14.19</b>	<b>15.39</b>	<b>81</b>	$\approx 154 \text{ mL/min}$		
1251	<b>2.25</b>	<b>7.68</b>	<b>0.527</b>	<b>16.8</b>	<b>0.00</b>	<b>14.12</b>	<b>14.97</b>	<b>79</b>	$\approx 154 \text{ mL/min}$		
1255	<b>2.92</b>	<b>7.68</b>	<b>0.523</b>	<b>13.5</b>	<b>0.00</b>	<b>14.09</b>	<b>15.00</b>	<b>66</b>	$\approx 167 \text{ mL/min}$		
1258	collect sample for 8260										
EQUIPMENT DOCUMENTATION											
TYPE OF PUMP		TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)					
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> SUBMERSIBLE	<input type="checkbox"/> OTHER	<input type="checkbox"/> TEFILON OR TEFILON LINED	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> OTHER	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER	<input type="checkbox"/> TEFILON	<input type="checkbox"/> OTHER	
PURGE OBSERVATIONS						NOTES					
						1244 DTW - 7.56 1247 DTW - 7.82 1251 DTW - 7.99 1255 DTW - 8.13					
SIGNATURE 											

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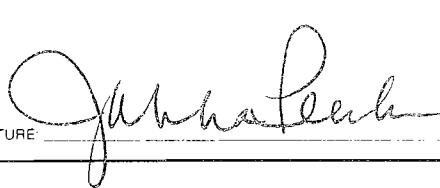
## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event	DATE	6/16/04
SITE ID	OB-09	SITE TYPE	Monitor Well
SITE ACTIVITY	START 1053 END	JOB NUMBER	51870.9

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT
INITIAL DEPTH TO WATER	7.96 FT	WELL DEPTH 23.3 FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER 2 IN
FINAL DEPTH TO WATER	8.61 FT	SCREEN LENGTH _____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP YES <input checked="" type="checkbox"/> CASING <input checked="" type="checkbox"/> LOCKED COLLAR <input checked="" type="checkbox"/>
DRAWDOWN	0.65 FT	DRAWDOWN VOLUME 1.04 GAL	PRODUCT THICKNESS _____ FT	NO <input type="checkbox"/> N/A <input type="checkbox"/>
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))				
PURGE RATE	0.15 L/MIN	BEGIN PURGING 1100	END PURGING 1144	TOTAL VOL. PURGED 1.69 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

Horiba downwell								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1107	1.00	7.37	0.99	15.5	0.00	4.34	14.24	36 $\approx 143 \text{ mL/min}$
1112	1.71	7.37	0.98	18.5	0.00	4.40	14.29	15 $\approx 143 \text{ mL/min}$
1115	2.14	7.36	0.98	20.8	1.34	4.78	14.27	-12 $\approx 143 \text{ mL/min}$
1121	3.00	7.36	0.98	19.7	1.22	4.59	14.06	-14 $\approx 143 \text{ mL/min}$
1125	3.66	7.35	0.98	22.1	1.14	4.27	13.91	-23 $\approx 167 \text{ mL/min}$
1129	collect samples	fir 8260 & bioparameters						

EQUIPMENT DOCUMENTATION		
<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLON OR TEFLON LINED	<input type="checkbox"/> POLYVINYL CHLORIDE
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> STAINLESS STEEL
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____
<u>TYPE OF BLADDER MATERIAL (if applicable)</u>		
<input type="checkbox"/> TEFILON		
<input type="checkbox"/> OTHER _____		

PURGE OBSERVATIONS	NOTES
	1107 DTW 8.60
	1112 DTW 8.73
	1115 DTW 8.79
	1121 DTW 8.82
	1125 DTW 8.85
 SIGNATURE _____	

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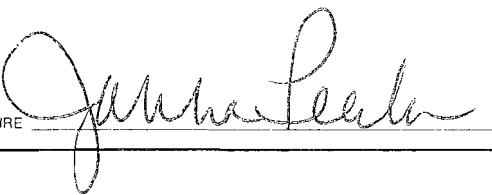
## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event			DATE	6/18/04
SITE ID	BR-01	SITE TYPE	Monitor Well		
SITE ACTIVITY	START 1050 END	JOB NUMBER	51870 9		

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT
INITIAL DEPTH TO WATER	13.94 FT	WELL DEPTH SCREEN LENGTH _____ FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER _____ IN
FINAL DEPTH TO WATER	14.08 FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP Casing LOCKED COLLAR	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>
DRAWDOWN	0.09 FT	DRAWDOWN VOLUME 0.06 GAL	PRODUCT THICKNESS _____ FT	
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch)) 1.8				
PURGE RATE	0.14 L/MIN	BEGIN PURGING 1055 1100	END PURGING 1126	TOTAL VOL. PURGED 0.93 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

Horiba downwell								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1104	0.73	7.52	0.739	124	0.00 0.09	13.84	-244	≈18 mL/min
1110	1.44	7.51	0.749	105	0.00 0.00	14.60	-234	≈118 mL/min
1115	2.07	7.51	0.760	100	0.00 0.00	14.34	-229	≈125 mL/min
1120	2.70	7.5	0.771	92.9	0.00 0.00	14.32	-227	≈125 mL/min
1124	collect sample for 8260							

EQUIPMENT DOCUMENTATION			
<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>	<u>TYPE OF BLADDER MATERIAL</u> (if applicable)
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLON OR TEFLON LINED	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> TEFILON
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER _____
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	

PURGE OBSERVATIONS	NOTES
	1104 DTW - 14.11 1110 DTW - 14.13 1115 DTW - 14.14 1120 DTW - 14.15
SIGNATURE 	

## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE <u>6/18/04</u>	
SITE ID <u>BR-02</u>	SITE TYPE Monitor Well		
SITE ACTIVITY START <u>935</u> END	JOB NUMBER 51870.9		
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____ FT INITIAL DEPTH TO WATER <u>21.94</u> FT WELL DEPTH <u>42.75</u> FT PID AMBIENT AIR _____ PPM FINAL DEPTH TO WATER <u>22.10</u> FT SCREEN LENGTH _____ FT PID WELL MOUTH _____ PPM DRAWDOWN <u>0.16</u> FT DRAWDOWN VOLUME <u>0.10</u> GAL PRODUCT THICKNESS _____ FT WELL DIAMETER <u>4</u> IN WELL INTEGRITY: CAP YES <input checked="" type="checkbox"/> CASING YES <input checked="" type="checkbox"/> LOCKED YES <input checked="" type="checkbox"/> COLLAR YES <input checked="" type="checkbox"/>	
<small>((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))</small> PURGE RATE <u>0.06 L/MIN</u> BEGIN PURGING <u>945</u> END PURGING <u>1040</u> TOTAL VOL. PURGED <u>0.85 GAL</u> <small>(purge rate (L/min) x duration (min) x 0.26 gal/L)</small>			
<b>PURGE DATA</b> Time      VOLUME PURGED (L)      pH (units)      SpC (cond) (mS/cm)      TURBIDITY (NTU) 1004 <u>1.06</u> <u>7.23</u> <u>0.803</u> <u>138</u> 1013 <u>1.64</u> <u>7.23</u> <u>0.795</u> <u>124</u> 1025 <u>2.33</u> <u>7.23</u> <u>0.794</u> <u>109</u> 1035 <u>2.92</u> <u>7.23</u> <u>0.792</u> <u>95</u> 1038      collect sample for S260		DISSOLVED O <sub>2</sub> (mg/L)      TEMPERATURE (°C)      REDOX POTENTIAL (mV) <u>0.00</u> <u>17.26</u> <u>-105</u> <u>0.00</u> <u>16.80</u> <u>-112</u> <u>0.00</u> <u>16.95</u> <u>-115</u> <u>0.00</u> <u>17.02</u> <u>-116</u> <small>=56 mL/min</small> <small>=65 mL/min</small> <small>=57 mL/min</small> <small>=59 mL/min</small>	
<b>EQUIPMENT DOCUMENTATION</b> TYPE OF PUMP      TYPE OF TUBING      TYPE OF PUMP MATERIAL      TYPE OF BLADDER MATERIAL (if applicable) <input checked="" type="checkbox"/> PERISTALTIC <input type="checkbox"/> TEFON OR TEFON LINED <input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> TEFON <input type="checkbox"/> SUBMERSIBLE <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER _____ <input type="checkbox"/> OTHER _____ <input type="checkbox"/> OTHER _____			
<b>PURGE OBSERVATIONS</b>		<b>NOTES</b> <u>1004 DTW - 22.06</u> <u>1013 DTW - 22.09</u> <u>1025 DTW - 22.11</u> <u>1035 DTW - 22.12</u>	
SIGNATURE <u>J. Michael Parker</u>			

# Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event			DATE	6/17/04
SITE ID	BR-03	SITE TYPE	Monitor Well		
SITE ACTIVITY	START 1515 END	JOB NUMBER	51870.9		

WATER LEVEL / PUMP SETTINGS			MEASUREMENT POINT		
<input checked="" type="checkbox"/> TOP OF WELL RISER	<input type="checkbox"/> TOP OF PROTECTIVE CASING	<input type="checkbox"/> OTHER	PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE
INITIAL DEPTH TO WATER	10.88 FT	WELL DEPTH	42.20 FT	PID AMBIENT AIR PPM	WELL DIAMETER 4 IN
FINAL DEPTH TO WATER	11.67 FT	SCREEN LENGTH	FT	PID WELL MOUTH PPM	WELL INTEGRITY: CAP YES NO N/A Casing LOCKED COLLAR
DRAWDOWN	0.79 FT	DRAWDOWN VOLUME	0.51 GAL	PRODUCT THICKNESS FT	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))					
PURGE RATE	0.15 L/MIN	BEGIN PURGING	1518	END PURGING	542 TOTAL VOL. PURGED 0.96 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

<i>Horiba doriinwell</i>							
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)
1523	0.77	7.76	1.35	60.1	0.00	0.06	13.94
1528	1.54	7.82	1.34	71.3	0.64	0.02	13.86
1532	2.16	7.81	1.34	80.5	0.69	0.02	13.74
1536	2.78	7.81	1.34	85.5	0.60		13.68
1540	Collect sample for B260						

### EQUIPMENT DOCUMENTATION

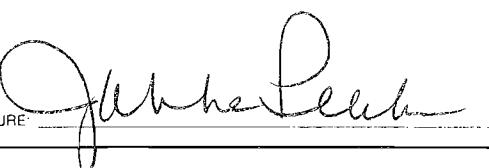
TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFILON OR TEFILON LINED	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> TEFILON
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER _____
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____	

### PURGE OBSERVATIONS

	NOTES
	1523 DTW - 11.72 1528 DTW - 11.37 1532 DTW - 11.51 1536 DTW - 11.62
<i>[Signature]</i>	

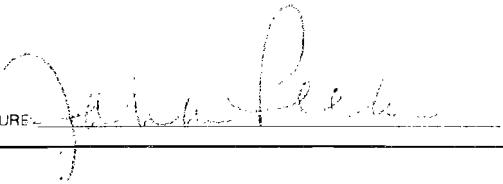
## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	6/19/04		
SITE ID	BR-04		SITE TYPE	Monitor Well		
SITE ACTIVITY	START	1340	END	1440	JOB NUMBER	51870.9
WATER LEVEL / PUMP SETTINGS			MEASUREMENT POINT			
	<input checked="" type="checkbox"/> TOP OF WELL RISER		PROTECTIVE CASING STICKUP (FROM GROUND)	FT		
	<input type="checkbox"/> TOP OF PROTECTIVE CASING			FT		
	<input type="checkbox"/> OTHER _____			FT		
INITIAL DEPTH TO WATER	19.45 FT		WELL DEPTH	50.15 FT		
FINAL DEPTH TO WATER	19.48 FT		SCREEN LENGTH	FT		
DRAWDOWN	0.03 FT		DRAWDOWN VOLUME	0.02 GAL		
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))						
PURGE RATE	0.06 L/MIN		BEGIN PURGING	1345		
			END PURGING	1433		
			TOTAL VOL. PURGED	0.76 GAL		
(purge rate (L/min) x duration (min) x 0.26 gal/L)						
PURGE DATA						
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	HORIBA downwell DISSOLVED O <sub>2</sub> (mg/L) TEMPERATURE (°C) REDOX POTENTIAL (mV) Comments	
1359	0.88	7.86	1.04	76.4	0.00 0.02 16.71 -234	$\approx 63 \text{ mL/min}$
1408	1.43	7.83	1.05	54.7	0.00 0.01 16.92 -234	$\approx 61 \text{ mL/min}$
1417	1.96	7.82	1.05	49.8	0.00 0.01 17.13 -236	$\approx 58 \text{ mL/min}$
1426	2.51	7.82	1.05	48.9	0.00 0.01 17.44 -238	$\approx 61 \text{ mL/min}$
1429	collect sample for 8260					
EQUIPMENT DOCUMENTATION						
TYPE OF PUMP	TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)	
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLON OR TEFLON LINED		<input type="checkbox"/> POLYVINYL CHLORIDE		<input type="checkbox"/> TEFLO	
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE		<input type="checkbox"/> STAINLESS STEEL		<input type="checkbox"/> OTHER _____	
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____			
PURGE OBSERVATIONS			NOTES			
			1359 DTW 19.48 1408 DTW 19.48 1417 DTW 19.48 1429 DTW 19.48			
 SIGNATURE: _____						

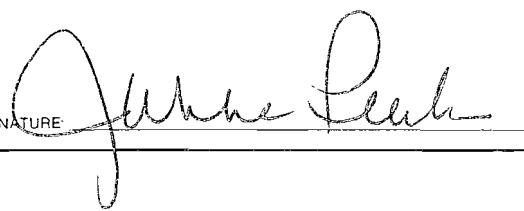
## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE <b>6/20/04</b>							
SITE ID <b>BR-05</b>	SITE TYPE Monitor Well								
SITE ACTIVITY START <b>801</b> END <b>845</b>	JOB NUMBER 51870.9								
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____		PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT				
INITIAL DEPTH TO WATER <b>19.47</b> FT	WELL DEPTH <b>50.15</b> FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER _____ IN						
FINAL DEPTH TO WATER <b>19.47</b> FT	SCREEN LENGTH _____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR YES _____ NO _____ N/A _____						
DRAWDOWN — FT	DRAWDOWN VOLUME — GAL	PRODUCT THICKNESS _____ FT							
((initial - final) x 0.16 [2-inch] or x 0.65 [4-inch] or x 1.5 [6-inch])									
PURGE RATE <b>0.10</b> L/MIN	BEGIN PURGING <b>808</b>	END PURGING <b>844</b>	TOTAL VOL PURGED <b>0.91</b> GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)						
<b>Hori'ba downhole</b>									
PURGE DATA		pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments	
Time	VOLUME PURGED (L)								
820	<b>0.96</b>	<b>8.59</b>	<b>0.149</b>	<b>247</b>	<b>0.00</b>	<b>0.04</b>	<b>15.53</b>	<b>-148</b>	<b>≈80 mL/min</b>
825	<b>1.49</b>	<b>8.71</b>	<b>0.148</b>	<b>189</b>	<b>0.00</b>	<b>0.04</b>	<b>15.66</b>	<b>-152</b>	<b>≈105 mL/min</b>
831	<b>2.12</b>	<b>8.76</b>	<b>0.148</b>	<b>142</b>	<b>0.00</b>	<b>0.01</b>	<b>15.71</b>	<b>-158</b>	<b>≈105 mL/min</b>
837	<b>2.72</b>	<b>8.76</b>	<b>0.148</b>	<b>127</b>	<b>0.00</b>	<b>0.00</b>	<b>15.80</b>	<b>-161</b>	<b>≈100 mL/min</b>
840 collect sample for 8260									
EQUIPMENT DOCUMENTATION									
TYPE OF PUMP <input checked="" type="checkbox"/> PERISTALTIC <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> OTHER _____		TYPE OF TUBING <input type="checkbox"/> TEFLON OR TEFLON LINED <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> OTHER _____		TYPE OF PUMP MATERIAL <input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER _____		TYPE OF BLADDER MATERIAL (if applicable) <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER _____			
PURGE OBSERVATIONS					NOTES  <b>820 DTW - 19.52</b> <b>825 DTW - 19.53</b> <b>831 DTW 19.53</b> <b>837 DTW - 19.53</b>				
SIGNATURE: 									

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## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event				DATE	6/18/04			
SITE ID	BR-Q7		SITE TYPE	Monitor Well					
SITE ACTIVITY	START	1315	END	JOB NUMBER		51870.9			
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT		PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT		
		<input type="checkbox"/> TOP OF WELL RISER	<input type="checkbox"/> TOP OF PROTECTIVE CASING						
		<input type="checkbox"/> OTHER							
INITIAL DEPTH TO WATER	23.20 FT		WELL DEPTH	53.3 FT		PID AMBIENT AIR	PPM		
FINAL DEPTH TO WATER	23.14 FT		SCREEN LENGTH	FT		PID WELL MOUTH	PPM		
DRAWDOWN	0.06 FT		DRAWDOWN VOLUME	0.04 GAL		PRODUCT THICKNESS	FT		
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))									
PURGE RATE	0.06 L/MIN	BEGIN PURGING	1326	END PURGING	1419	TOTAL VOL. PURGED	0.82 GAL		
(purge rate (L/min) x duration (min) x 0.26 gal/L)									
Horiba downhole									
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)		
1340	0.97	8.21	3.76	61.3	0.50	0.03	18.33	-263	≈69 mL/min
1350	1.60	8.20	3.76	68.2	0.27	0.04	19.13	-261	≈63 mL/min
1400	2.16	8.18	3.76	70.0	0.19	0.02	20.14	-253	≈56 mL/min
1410	2.66	8.17	3.76	71.2	0.13	0.01	20.19	-244	≈50 mL/min
1414	Collect sample for 8260								
1416	collect sample for BR-Q7 (dup) for 8260								
EQUIPMENT DOCUMENTATION									
TYPE OF PUMP	TYPE OF TUBING		TYPE OF PUMP MATERIAL		TYPE OF BLADDER MATERIAL (if applicable)				
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFILON OR TEFILON LINED	<input type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> TEFILON	<input type="checkbox"/> OTHER			
<input type="checkbox"/> SUBMERSIBLE	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER			
PURGE OBSERVATIONS				NOTES					
				1340 DTW - 23.20 1350 DTW - 23.20 1400 DTW - 23.20 1410 DTW - 23.20					
									

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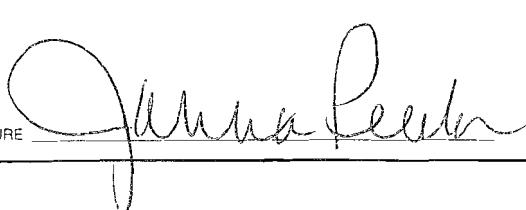
## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Mactec Engineering and Consulting

## **FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING**

## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE 6/19/01						
SITE ID <b>B12-10</b>	SITE TYPE Monitor Well							
SITE ACTIVITY START 1048 END 1135	JOB NUMBER 51870.9							
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER		PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT	
INITIAL DEPTH TO WATER	<b>19.09</b> FT	WELL DEPTH	<b>50.25</b> FT	PID AMBIENT AIR	PPM	WELL DIAMETER	<b>6</b> IN	
FINAL DEPTH TO WATER	<b>19.09</b> FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>	
DRAWDOWN	— FT	DRAWDOWN VOLUME	— GAL	PRODUCT THICKNESS	FT			
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))								
PURGE RATE	<b>0.09</b> L/MIN	BEGIN PURGING	<b>1054</b>	END PURGING	<b>1128</b>	TOTAL VOL PURGED	<b>0.83</b> GAL	
Horiba downwell (purge rate (L/min) x duration (min) x 0.26 gal/L)								
PURGE DATA								
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
1104	1.00	7.52	0.638	144	0.00 0.01	15.11	-78	≈100 mL/min
1109	1.45	7.51	0.656	120	0.00 0.01	15.13	-89	≈90 mL/min
1115	2.00	7.49	0.665	100	0.00 0.01	15.17	-96	≈90 mL/min
1122	2.67	7.50	0.669	53.1	0.00 0.01	15.08	-104	≈95 mL/min
1125	collect sample for 8260							
EQUIPMENT DOCUMENTATION								
TYPE OF PUMP <input checked="" type="checkbox"/> PERISTALTIC <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> OTHER		TYPE OF TUBING <input type="checkbox"/> TEFILON OR TEFILON LINED <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> OTHER		TYPE OF PUMP MATERIAL <input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER		TYPE OF BLADDER MATERIAL (if applicable) <input type="checkbox"/> TEFILON <input type="checkbox"/> OTHER		
PURGE OBSERVATIONS				NOTES				
				1104 DTW - 19.09 1109 DTW - 19.09 1115 DTW - 19.09 1122 DTW 19.09				
SIGNATURE 								

# Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE <u>6/20/04</u>																																																																																																																																																																																										
SITE ID <u>BR-11</u>	SITE TYPE Monitor Well																																																																																																																																																																																											
SITE ACTIVITY START <u>1306</u> END <u>1400</u>	JOB NUMBER 51870.9																																																																																																																																																																																											
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____																																																																																																																																																																																										
INITIAL DEPTH TO WATER	<u>19.42</u> FT	WELL DEPTH	<u>          </u> FT																																																																																																																																																																																									
FINAL DEPTH TO WATER	<u>19.42</u> FT	SCREEN LENGTH	<u>          </u> FT																																																																																																																																																																																									
DRAWDOWN	<u>      </u> FT	DRAWDOWN VOLUME	<u>      </u> GAL																																																																																																																																																																																									
PROTECTIVE CASING STICKUP (FROM GROUND) <u>          </u> FT     PROTECTIVE CASING / WELL DIFFERENCE <u>          </u> FT																																																																																																																																																																																												
PID AMBIENT AIR	<u>          </u> PPM	WELL DIAMETER	<u>          </u> IN																																																																																																																																																																																									
PID WELL MOUTH	<u>          </u> PPM	WELL INTEGRITY: CAP CASING LOCKED COLLAR	YES <u>      </u> NO <u>      </u> N/A <u>      </u>																																																																																																																																																																																									
PRODUCT THICKNESS	<u>          </u> FT																																																																																																																																																																																											
<u>((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))</u>																																																																																																																																																																																												
PURGE RATE <u>0.08 L/MIN</u>	BEGIN PURGING <u>1311</u>	END PURGING <u>1351</u>	TOTAL VOL. PURGED <u>0.83 GAL</u> (purge rate (L/min) x duration (min) x 0.26 gal/L)																																																																																																																																																																																									
<p><b>PURGE DATA</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Time</th> <th rowspan="2">VOLUME PURGED (L)</th> <th rowspan="2">pH (units)</th> <th rowspan="2">SpC (cond) (mS/cm)</th> <th rowspan="2">TURBIDITY (NTU)</th> <th colspan="2">Horiba downwell</th> <th rowspan="2">REDOX POTENTIAL (mV)</th> <th rowspan="2">Comments</th> </tr> <tr> <th>DISSOLVED O<sub>2</sub> (mg/L)</th> <th>TEMPERATURE (°C)</th> </tr> </thead> <tbody> <tr> <td><u>1323</u></td> <td><u>0.96</u></td> <td><u>7.46</u></td> <td><u>1.39</u></td> <td><u>52.2</u></td> <td><u>0.00</u></td> <td><u>0.01</u></td> <td><u>17.31</u></td> <td><u>-189</u></td> <td><u>≈80 mL/min</u></td> </tr> <tr> <td><u>1330</u></td> <td><u>1.52</u></td> <td><u>7.46</u></td> <td><u>1.42</u></td> <td><u>45.6</u></td> <td><u>0.00</u></td> <td><u>0.01</u></td> <td><u>16.93</u></td> <td><u>-188</u></td> <td><u>≈80 mL/min</u></td> </tr> <tr> <td><u>1337</u></td> <td><u>2.08</u></td> <td><u>7.46</u></td> <td><u>1.40</u></td> <td><u>60.5</u></td> <td><u>0.00</u></td> <td><u>0.03</u></td> <td><u>17.23</u></td> <td><u>-188</u></td> <td><u>≈79 mL/min</u></td> </tr> <tr> <td><u>1344</u></td> <td><u>2.64</u></td> <td><u>7.47</u></td> <td><u>1.40</u></td> <td><u>66.9</u></td> <td><u>0.00</u></td> <td><u>0.03</u></td> <td><u>17.54</u></td> <td><u>-188</u></td> <td><u>≈80 mL/min</u></td> </tr> <tr> <td><u>1348</u></td> <td>collect sample for 8260</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </tbody> </table>								Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	Horiba downwell		REDOX POTENTIAL (mV)	Comments	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	<u>1323</u>	<u>0.96</u>	<u>7.46</u>	<u>1.39</u>	<u>52.2</u>	<u>0.00</u>	<u>0.01</u>	<u>17.31</u>	<u>-189</u>	<u>≈80 mL/min</u>	<u>1330</u>	<u>1.52</u>	<u>7.46</u>	<u>1.42</u>	<u>45.6</u>	<u>0.00</u>	<u>0.01</u>	<u>16.93</u>	<u>-188</u>	<u>≈80 mL/min</u>	<u>1337</u>	<u>2.08</u>	<u>7.46</u>	<u>1.40</u>	<u>60.5</u>	<u>0.00</u>	<u>0.03</u>	<u>17.23</u>	<u>-188</u>	<u>≈79 mL/min</u>	<u>1344</u>	<u>2.64</u>	<u>7.47</u>	<u>1.40</u>	<u>66.9</u>	<u>0.00</u>	<u>0.03</u>	<u>17.54</u>	<u>-188</u>	<u>≈80 mL/min</u>	<u>1348</u>	collect sample for 8260																																																																																																																																
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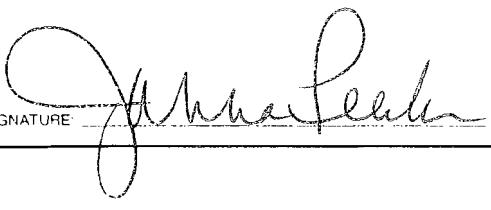
## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event	DATE	6/18/04
SITE ID	BR-12	SITE TYPE	Monitor Well
SITE ACTIVITY	START 1440 END	JOB NUMBER	51870.9

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT		PROTECTIVE Casing Stickup (from ground)		PROTECTIVE Casing / Well Difference	
<input checked="" type="checkbox"/> TOP OF WELL RISER		<input type="checkbox"/> TOP OF PROTECTIVE CASING		FT	FT		
<input type="checkbox"/> OTHER							
INITIAL DEPTH TO WATER	13.51 FT	WELL DEPTH	44.45 FT	PID AMBIENT AIR	PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	14.17 FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM	WELL INTEGRITY:	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A <input type="checkbox"/>
DRAWDOWN	0.66 FT	DRAWDOWN VOLUME	0.99 GAL	PRODUCT THICKNESS	FT	CASING LOCKED COLLAR	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))							
PURGE RATE	0.15 L/MIN	BEGIN PURGING	1445	END PURGING	1516	TOTAL VOL. PURGED	1.22 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)							

PURGE DATA							
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)
1450	0.83	8.47	0.548	50.6	0.00 0.01	16.27	-316
1454	1.40	8.48	0.551	46.1	0.00 0.01	15.98	-318
1500	2.32	8.47	0.550	50.4	0.00 0.00	15.89	-318
1506	3.18	8.46	0.548	49.9	0.00 0.00	15.91	-311
1510	collect sample for 8260						
1513	collect sample BR-12(NS) matrix spike & BR-12(MSD) matrix spike duplicate						

EQUIPMENT DOCUMENTATION			
<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>	<u>TYPE OF BLADDER MATERIAL</u> (if applicable)
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFILON OR TEFILON LINED	<input type="checkbox"/> POLYVINYL CHLORIDE	<input type="checkbox"/> TEFILON
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER
<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	

PURGE OBSERVATIONS	NOTES
	1450 DTW 13.65 1454 DTW 13.77 1500 DTW 13.91 1506 DTW 14.05

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## **FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING**

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event	DATE	16/19/04
SITE ID	BR-13	SITE TYPE	Monitor Well
SITE ACTIVITY	START 825 END 930	JOB NUMBER	51870.9

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT
INITIAL DEPTH TO WATER	20.83 FT	WELL DEPTH 18.20 FT	PID AMBIENT AIR _____ PPM	WELL DIAMETER 6 IN
FINAL DEPTH TO WATER	20.83 FT	SCREEN LENGTH _____ FT	PID WELL MOUTH _____ PPM	WELL INTEGRITY: CAP YES <input checked="" type="checkbox"/> Casing NO <input type="checkbox"/> LOCKED N/A <input type="checkbox"/>
DRAWDOWN	— FT	DRAWDOWN VOLUME — GAL	PRODUCT THICKNESS _____ FT	COLLAR <input checked="" type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>
(initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch)				
PURGE RATE	0.07 L/MIN	BEGIN PURGING 835	END PURGING 924	TOTAL VOL. PURGED 0.84 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

## EQUIPMENT DOCUMENTATION

<u>TYPE OF PUMP</u>	<u>TYPE OF TUBING</u>	<u>TYPE OF PUMP MATERIAL</u>	<u>TYPE OF BLADDER MATERIAL</u> (if applicable)
<input checked="" type="checkbox"/> PERISTALTIC <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> OTHER _____	<input type="checkbox"/> TEFLON OR TEFLON LINED <input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> OTHER _____	<input type="checkbox"/> POLYVINYL CHLORIDE <input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/> OTHER _____	<input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER _____

**PURGE OBSERVATIONS**

## NOTES

851	DTW -	20.83
901	DTW -	20.84
909	DTW -	20.84
918	DTW -	20.84

SIGNATURE

## GW\_Sample\_Form.xls

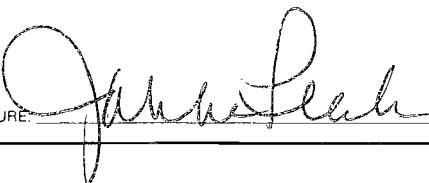
Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

## GW\_Sample\_Form.xls

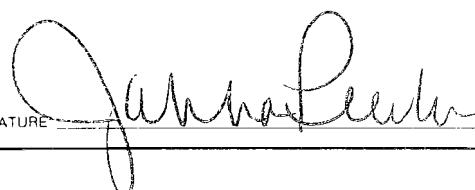
## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event		DATE	16/19/04																																																																																																																
SITE ID	BR-15	SITE TYPE	Monitor Well																																																																																																																	
SITE ACTIVITY	START 944	END 1045	JOB NUMBER	51870.9																																																																																																																
WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER _____	PROTECTIVE CASING STICKUP (FROM GROUND) _____ FT	PROTECTIVE CASING / WELL DIFFERENCE _____ FT																																																																																																																
INITIAL DEPTH TO WATER	20.10 FT	WELL DEPTH	77.45 FT	PID AMBIENT AIR PPM																																																																																																																
FINAL DEPTH TO WATER	20.50 FT	SCREEN LENGTH	FT	PID WELL MOUTH PPM																																																																																																																
DRAWDOWN	0.40 FT	DRAWDOWN VOLUME	0.40 GAL	PRODUCT THICKNESS _____ FT																																																																																																																
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SIGNATURE:																																																																																																																				

## Mactec Engineering and Consulting

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Former Taylor Instruments 2004 1st Semi-Annual Sampling Event						DATE	16/17/04					
SITE ID	BR-17			SITE TYPE	Monitor Well								
SITE ACTIVITY	START	1120	END	1202	JOB NUMBER	51870.9							
WATER LEVEL / PUMP SETTINGS			MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF PROTECTIVE CASING <input type="checkbox"/> OTHER		PROTECTIVE CASING STICKUP (FROM GROUND)		FT		PROTECTIVE CASING / WELL DIFFERENCE		FT		
INITIAL DEPTH TO WATER	19.86 FT		WELL DEPTH	62.2 FT		PID AMBIENT AIR	PPM		WELL DIAMETER	IN			
FINAL DEPTH TO WATER	19.86 FT		SCREEN LENGTH	FT		PID WELL MOUTH	PPM		WELL INTEGRITY:	CAP	YES	NO	N/A
DRAWDOWN	— FT		DRAWDOWN VOLUME	— GAL		PRODUCT THICKNESS	FT		CASING	—	—	—	—
DRAWDOWN	— FT		DRAWDOWN VOLUME	— GAL		PRODUCT THICKNESS	FT		LOCKED COLLAR	—	—	—	—
((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))													
PURGE RATE	0.10 L/MIN		BEGIN PURGING	1123		END PURGING	1155		TOTAL VOL. PURGED	0.85 GAL			
(purge rate (L/min) x duration (min) x 0.26 gal/L)													
PURGE DATA													
Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O <sub>2</sub> (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments					
1132	0.95	7.16	1.94	194	0.00 0.11	16.25	-121	≈105 mL/min					
1138	1.58	7.16	1.97	175	0.00 0.10	16.00	-120	≈105 mL/min					
1144	2.18	7.17	1.97	191	0.00 0.10	16.20	-120	≈100 mL/min					
1149	2.68	7.17	1.96	115	0.00 0.10	16.30	-119	≈100 mL/min					
1154	collect sample for 8760												
EQUIPMENT DOCUMENTATION													
TYPE OF PUMP	TYPE OF TUBING			TYPE OF PUMP MATERIAL			TYPE OF BLADDER MATERIAL (if applicable)						
<input checked="" type="checkbox"/> PERISTALTIC	<input type="checkbox"/> TEFLON OR TEFLON LINED			<input type="checkbox"/> POLYVINYL CHLORIDE			<input type="checkbox"/> TEFLON						
<input type="checkbox"/> SUBMERSIBLE	<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE			<input type="checkbox"/> STAINLESS STEEL			<input type="checkbox"/> OTHER _____						
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____			<input type="checkbox"/> OTHER _____									
PURGE OBSERVATIONS				NOTES									
				1132 DTW - 19.87 1138 DTW - 19.88 1144 DTW - 19.88 1149 DTW									
 SIGNATURE: _____													

**APPENDIX E**

**WELL CONSTRUCTION INFORMATION**

**Appendix E**  
**Well Construction Information**

Semi-Annual Progress Report  
First Semi-Annual 2004 and Remedial Progress Evaluation  
Former Taylor Instruments Site  
Rochester, New York

Well ID	Date Installed	Well Purpose/Type	Well Location	Boring Depth	Well Depth	Screen Interval		Survey Coordinates			Well Material	Completion		
						Top	Bottom	Easting	Northing	Elevation		Flush-mount	Vault	Stick-up
BR-01	09/02/97	Monitor	Perimeter	42.2	42.2	NA	NA	750364.06	1150086.89	531.92	Stainless / Open	X		
BR-02	09/02/97	Monitor	Perimeter	44.0	44.0	NA	NA	750541.81	1149964.51	532.39	Stainless / Open	X		
BR-03	09/02/97	Monitor	Perimeter	40.1	40.1	NA	NA	750552.93	1149641.68	536.32	Stainless / Open			X
BR-04	09/03/97	Monitor	South Source	44.2	44.2	NA	NA	750322.96	1149422.13	532.68	Stainless / Open	X		
BR-05	09/03/97	Monitor	North Source	49.9	49.9	NA	NA	750216.62	1149958.67	531.76	Stainless / Open	X		
BR-06	09/03/97	Monitor	Background	42.6	42.6	NA	NA	749939.91	1149145.54	539.10	Stainless / Open	X		
BR-07	09/03/97	Monitor	Upgradient	53.3	53.3	NA	NA	749983.50	1149989.76	534.46	Stainless / Open			X
BR-08	07/28/00	Monitor	South Plume (Deep)	73.0	73.0	NA	NA	750340.94	1149482.41	533.13	Iron / Open	X		
BR-09	07/28/00	Monitor	South Source	47.0	47.0	NA	NA	750400.72	1149438.67	532.72	Iron / Open	X		
BR-10	07/28/00	Monitor	South Source	47.0	47.0	NA	NA	750426.90	1149411.76	532.29	Iron / Open	X		
BR-11	07/28/00	Monitor	South Source	52.0	52.0	NA	NA	750387.82	1149546.25	532.53	Iron / Open	X		
BR-12	07/28/00	Monitor	North Source	42.0	42.0	NA	NA	750195.19	1150010.12	531.90	Iron / Open	X		
BR-13	07/28/00	Monitor	Perimeter	67.5	67.5	NA	NA	750197.49	1150044.27	532.01	Iron / Open	X		
BR-14	07/28/00	Monitor	North Plume (Deep)	75.3	75.3	NA	NA	750260.61	1150052.20	531.67	Iron / Open	X		
BR-15	07/26/00	Monitor	North Source	72.0	72.0	NA	NA	750293.39	1149980.43	531.69	Iron / Open	X		
BR-16	07/26/00	Monitor	North Source	55.0	55.0	NA	NA	750223.79	1150013.71	531.32	Iron / Open	X		
BR-17	07/28/00	Monitor	South Source	52.0	52.0	NA	NA	750333.76	1149478.26	533.16	Iron / Open	X		
EW-N-1	08/15/00	Extraction	North Area	27.0	27.0	5.2	26.0	750198.77	1149956.96	529.28	Stainless / PVC			X
EW-N-2	08/23/00	Extraction	North Area	27.0	27.0	5.5	26.0	750225.81	1149942.16	528.76	Stainless / PVC			X
EW-N-3	08/22/00	Extraction	North Area	26.8	26.8	5.2	25.8	750217.16	1149980.06	528.69	Stainless / PVC			X
EW-N-4	08/23/00	Extraction	North Area	26.0	26.0	7.2	25.0	750259.43	1149928.84	529.32	Stainless / PVC			X
EW-N-5	08/16/00	Extraction	North Area	27.0	27.0	5.5	26.0	750257.98	1149972.33	528.26	Stainless / PVC			X
EW-N-6	08/18/00	Extraction	North Area	25.5	25.0	6.1	24.0	750293.49	1149957.98	529.18	Stainless / PVC			X
EW-S-1S	10/01/98	Extraction	South Area	14.0	13.7	4.3	13.7	750332.80	1149428.08	529.41	Stainless			X
EW-S-1D	10/01/98	Extraction	South Area	18.3	18.3	4.3	17.9	750327.22	1149428.49	529.41	Stainless			X
EW-S-2	07/26/00	Extraction	South Area	23.1	22.0	5.5	21.0	750256.26	1149404.38	528.68	Stainless / PVC			X
EW-S-3	07/28/00	Extraction	South Area	23.5	22.0	5.5	21.0	750301.18	1149370.46	529.55	Stainless / PVC			X
EW-S-4	07/26/00	Extraction	South Area	23.5	22.0	5.5	21.0	750293.94	1149418.71	532.41	Stainless / PVC			X
EW-S-5	08/01/00	Extraction	South Area	23.5	22.5	5.8	21.5	750325.14	1149386.52	529.53	Stainless / PVC			X
EW-S-6	07/31/00	Extraction	South Area	22.9	22.4	5.9	20.9	750341.87	1149362.58	529.27	Stainless / PVC			X
EW-S-7	08/07/00	Extraction	South Area	23.1	22.5	5.9	21.6	750339.03	1149413.8	529.59	Stainless / PVC			X
EW-S-8	08/02/00	Extraction	South Area	23.0	22.5	5.8	21.5	750359.86	1149402.69	529.65	Stainless / PVC			X
EW-S-9	08/03/00	Extraction	South Area	23.0	22.5	6.0	21.5	750355.07	1149440.13	532.99	Stainless / PVC			X

**Appendix E**  
**Well Construction Information**

Semi-Annual Progress Report  
First Semi-Annual 2004 and Remedial Progress Evaluation  
Former Taylor Instruments Site  
Rochester, New York

Well ID	Date Installed	Well Purpose/Type	Well Location	Boring Depth	Well Depth	Screen Interval		Survey Coordinates			Well Material	Completion		
						Top	Bottom	Easting	Northing	Elevation		Flush-mount	Vault	Stick-up
EW-S-10	08/09/00	Extraction	South Area	22.6	22.5	6.0	21.5	750381.30	1149367.65	529.43	Stainless / PVC		X	
EW-S-11	08/08/00	Extraction	South Area	22.6	22.5	5.9	22.0	750377.04	1149418.02	529.50	Stainless / PVC		X	
EW-S-12	08/04/00	Extraction	South Area	22.3	22.3	5.8	21.3	750375.38	1149466.45	529.96	Stainless / PVC		X	
EW-S-13	08/10/00	Extraction	South Area	22.0	22.0	6.0	21.0	750399.16	1149448.68	529.53	Stainless / PVC		X	
EW-S-14	08/11/00	Extraction	South Area	22.0	22.0	5.6	21.0	750406.59	1149410.24	529.37	Stainless / PVC		X	
EW-S-15	08/14/00	Extraction	South Area	22.0	21.8	5.2	20.8	750414.78	1149480.34	529.96	Stainless / PVC		X	
EW-S-16	08/10/00	Extraction	South Area	21.3	21.3	5.2	20.3	750433.72	1149448.95	529.57	Stainless / PVC		X	
BREW-S-1	08/03/00	Extraction	South Area	61.8	61.8	26.6	56.4	750368.27	1149458.11	533.67	Stainless / PVC		X	
BREW-N-1	08/17/00	Extraction	North Area	75.8	75.8	25.8	70.3	750253.53	1150013.88	531.68	Stainless / PVC		X	
OB-04	09/05/97	Monitor	South Source	17.5	17.5	2.5	17.5	750329.65	1149422.19	532.80	PVC	X		
OB-05	09/05/97	Monitor	North Source	18.0	18.0	4.0	18.0	750223.51	1149958.83	531.50	PVC	X		
OB-06	07/19/00	Monitor	South Source	17.0	17.0	6.8	16.8	750421.89	1149461.50	532.60	PVC	X		
OB-07	07/19/00	Monitor	South Plume	20.5	20.5	10.2	20.2	750461.13	1149512.60	533.03	PVC	X		
OB-08	07/28/00	Monitor	North Source	25.5	25.3	15.3	25.1	750279.00	1149957.45	531.64	PVC	X		
OB-09	07/28/00	Monitor	North Plume	23.5	23.3	13.3	23.1	750312.26	1149992.94	531.85	PVC	X		
TW-01	03/12/96	Monitor	Perimeter	22.0	22.0	17.0	22.0	750548.13	1149471.23	533.30	PVC	X		
TW-04	03/15/96	Monitor	Perimeter	17.5	17.3	12.3	17.3	750552.18	1149648.54	536.34	PVC		X	
TW-07	03/15/96	Monitor	Perimeter	17.5	17.5	12.5	17.5	750546.69	1149830.01	532.55	PVC	X		
TW-09	03/30/96	Monitor	Perimeter	16.0	16.0	11.0	16.0	750542.22	1149971.84	532.30	PVC	X		
TW-13	03/12/96	Monitor	Upgradient	15.0	15.0	10.0	15.0	750086.24	1150016.03	531.69	PVC	X		
TW-17	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750373.39	1150088.34	531.86	PVC		X	
TW-20	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750547.88	1150118.75	532.42	PVC		X	
TW-74	04/09/96	Monitor	Mid-Plume	15.0	15.0	7.5	15.0	750407.92	1149841.78	531.96	PVC	X		
W-1	09/16/82	Monitor	Perimeter	14.0	14.0	7.0	13.9	750490.21	1149147.95	534.10	PVC		X	
W-2	09/15/82	Monitor	Background	21.0	18.0	13.0	18.0	749940.43	1149136.77	539.10	PVC		X	
W-3	09/16/82	Monitor	Upgradient	24.0	17.0	16.0	21.0	750168.37	1149794.82	533.00	PVC	X		
W-4	09/22/82	Monitor	Upgradient	29.0	26.0	21.0	26.0	749977.63	1149996.42	533.12	PVC		X	
W-5	09/15/82	Monitor	Perimeter	24.0	20.5	15.5	20.5	750248.88	1150056.27	531.52	PVC	X		
W-6	09/15/82	Monitor	Upgradient	16.5	15.0	13.0	15.0	750288.78	1149332.79	532.66	PVC	X		

## **APPENDIX F**

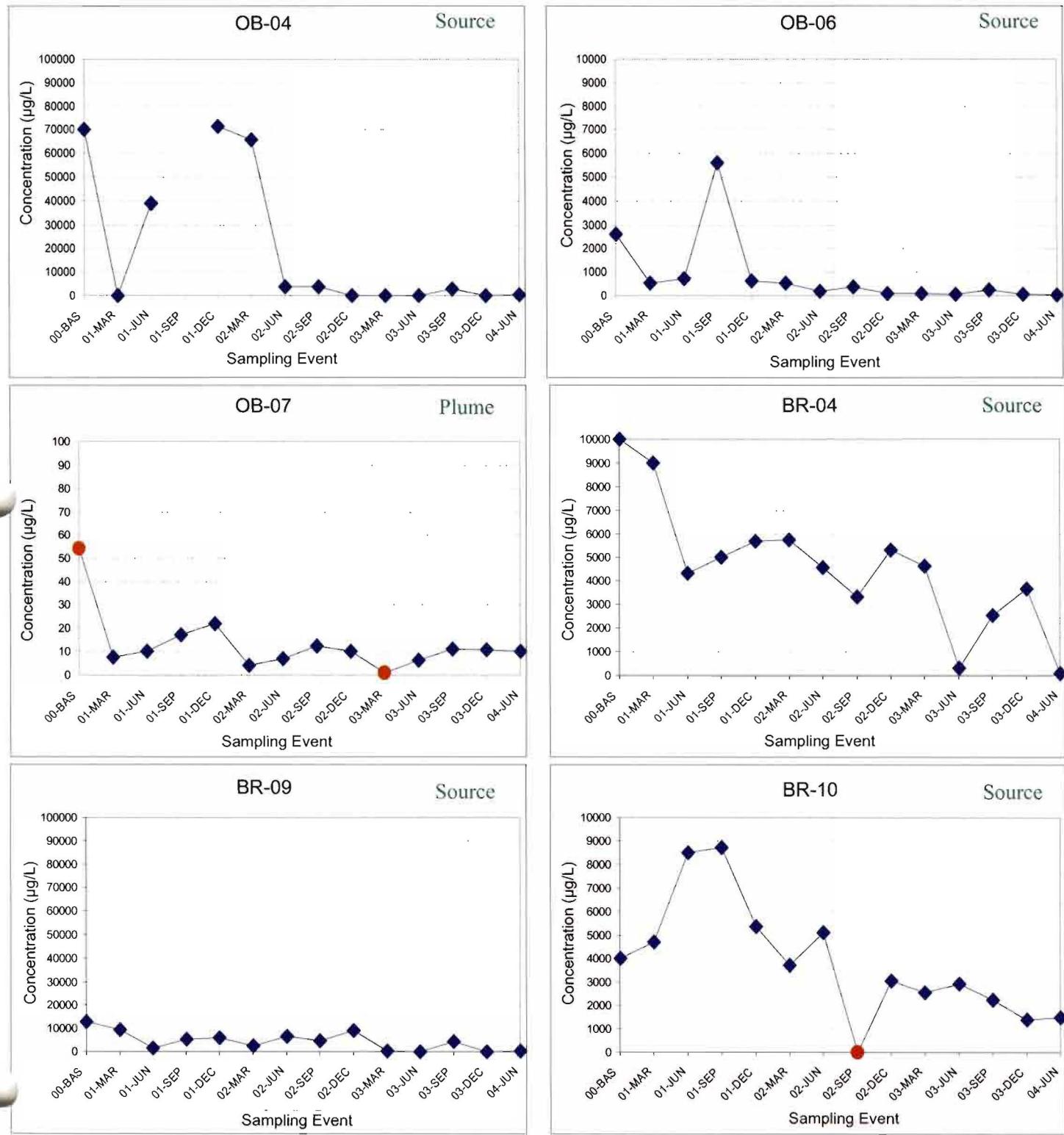
### **MONITOR WELL CONCENTRATION TREND GRAPHS**

## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### South TCE Area



◆ = actual value

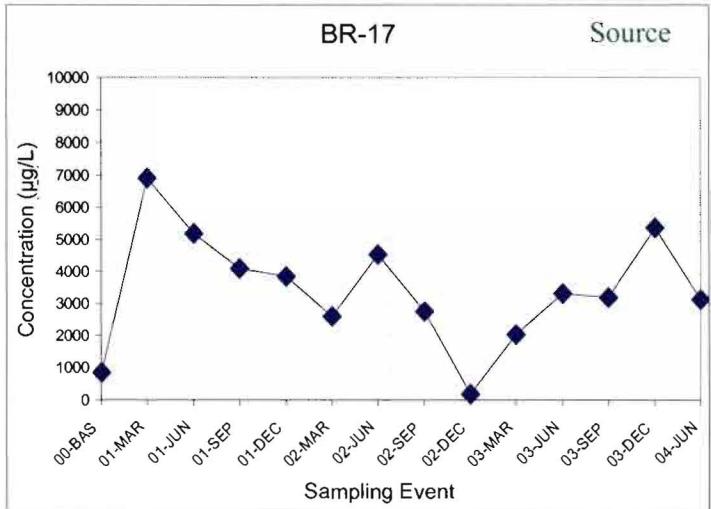
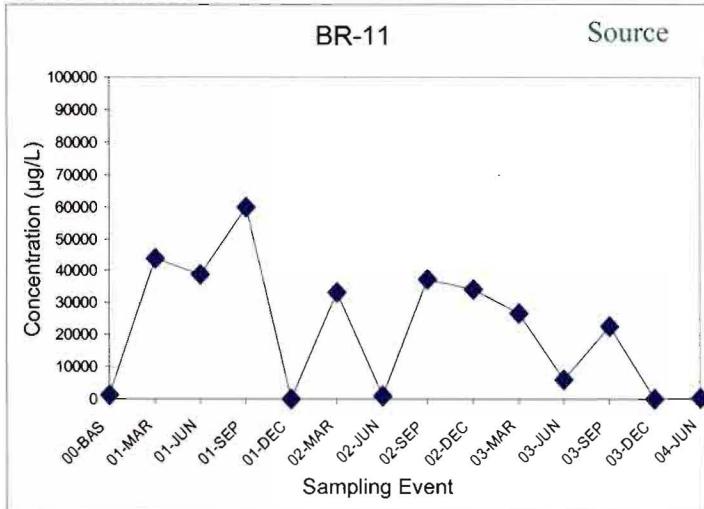
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## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### South TCE Area



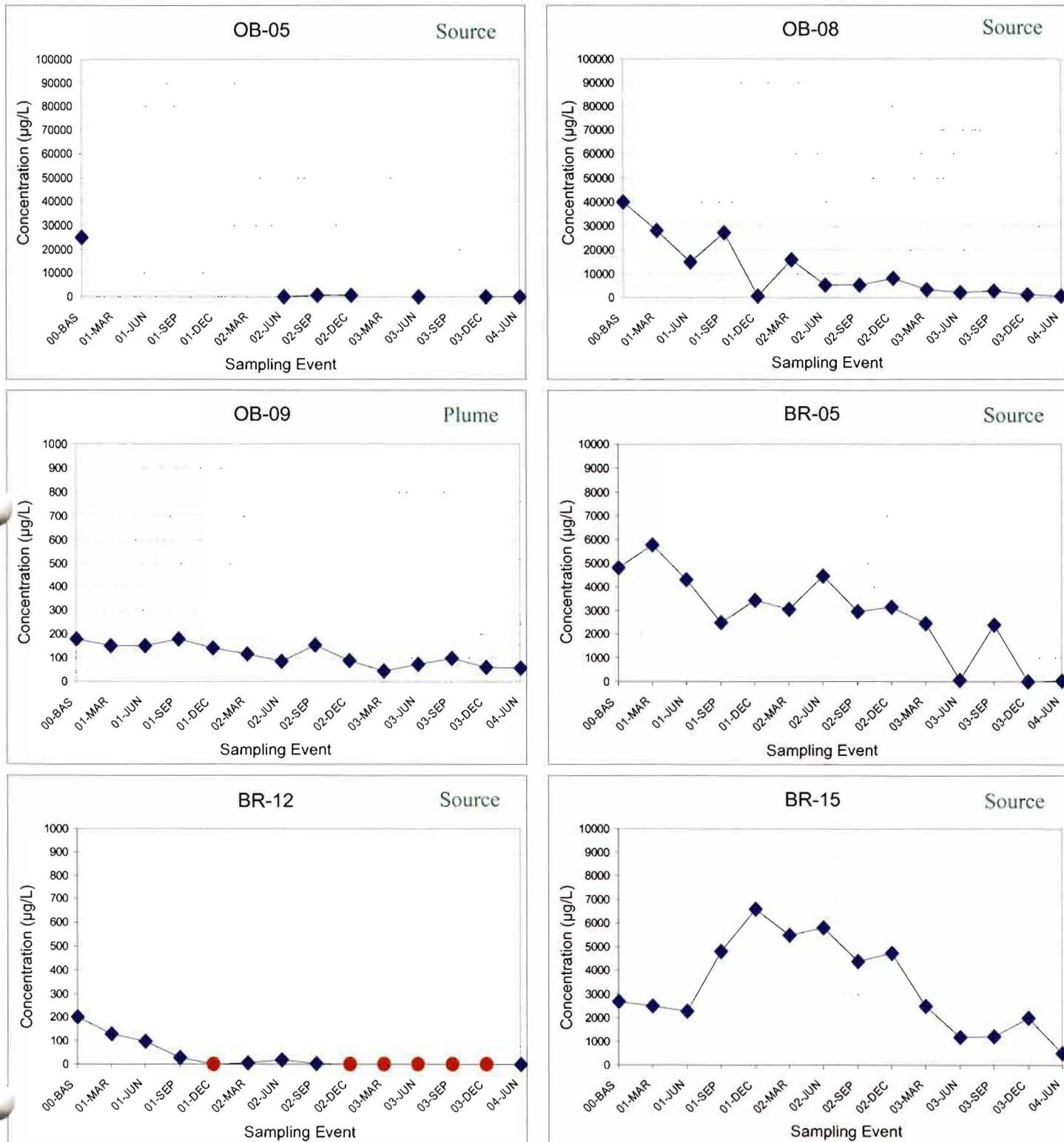
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## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### North TCE Area



◆ = actual value

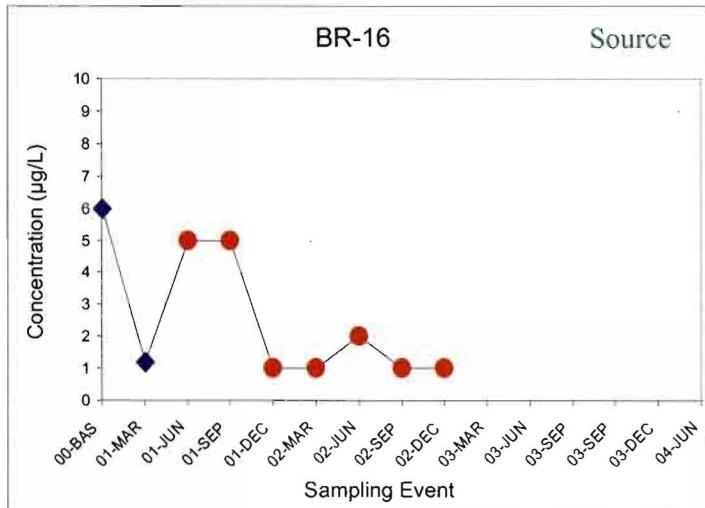
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## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### North TCE Area



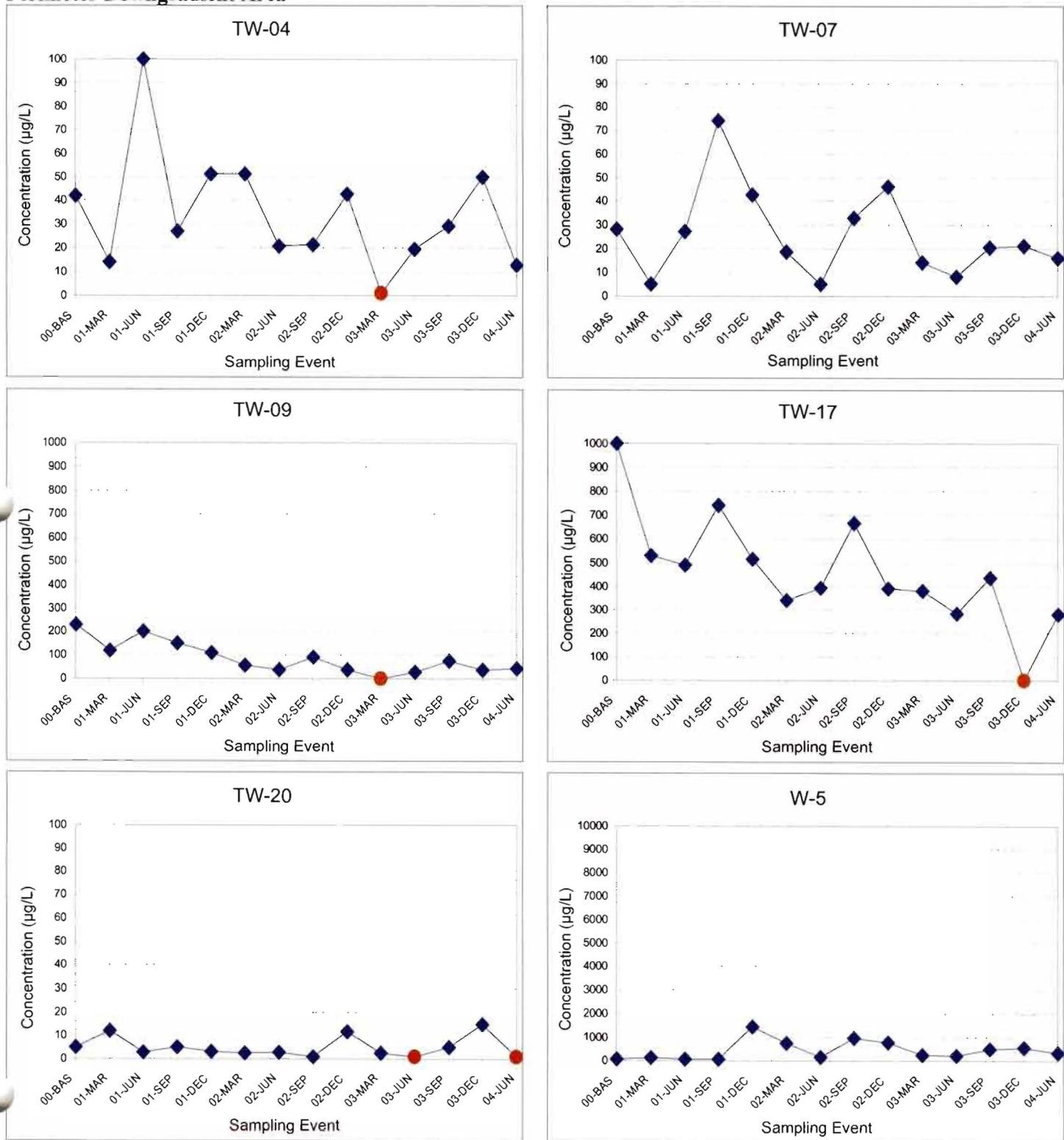
◆ = actual value  
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## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### Perimeter Downgradient Area



◆ = actual value

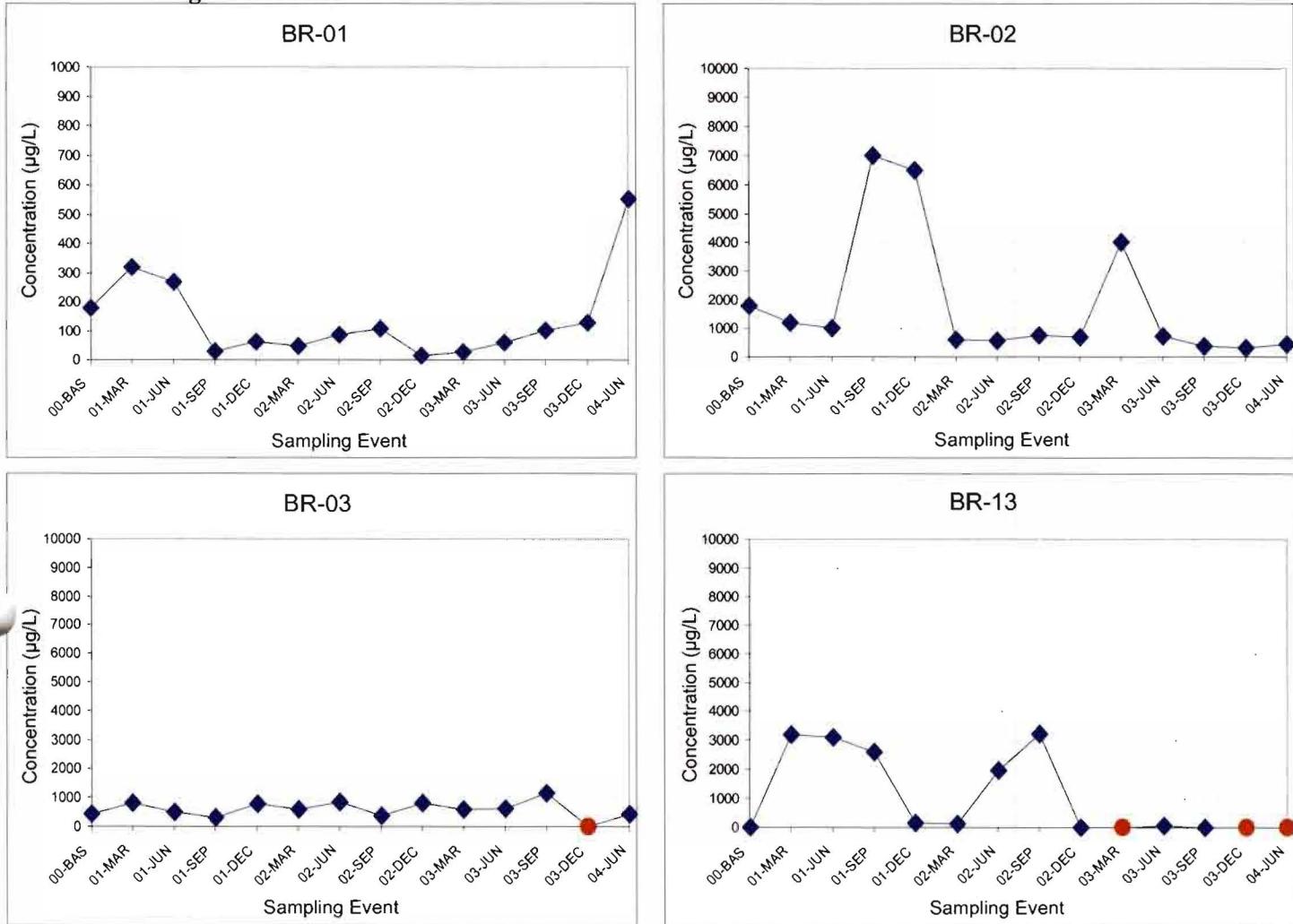
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## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### **Perimeter Downgradient Area**



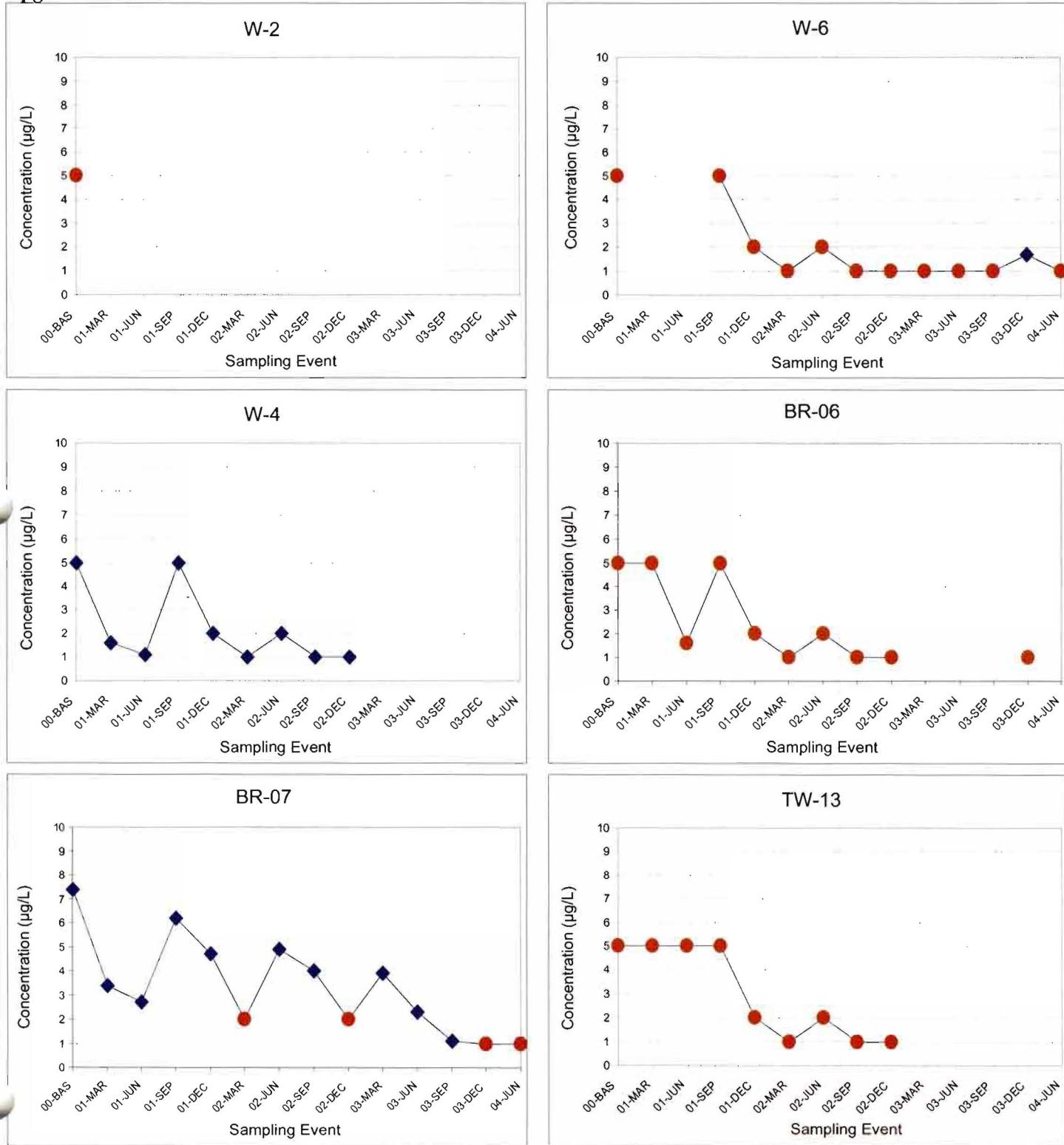
◆ = actual value  
● = value below graphed detection limit

## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### Upgradient Area



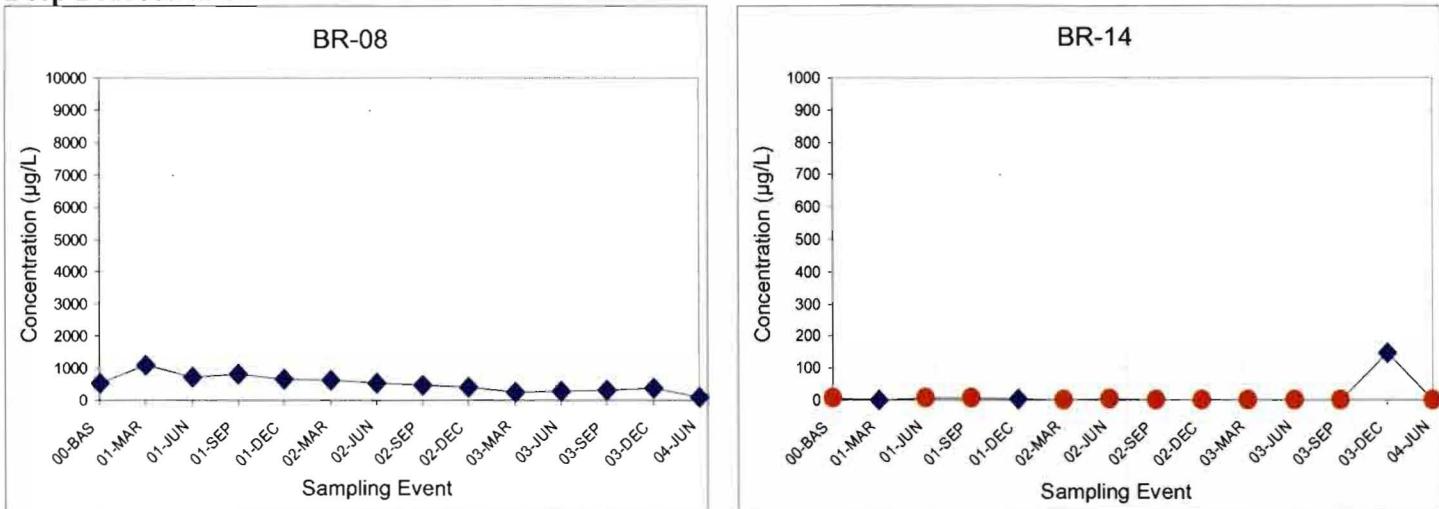
◆ = actual value  
● = value below graphed detection limit

## Appendix F

### Monitor Well Concentration Trend Graphs

#### (TCE Concentration Trends)

##### Deep Bedrock Area



◆ = actual value  
● = value below graphed detection limit