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8 June 2006

ECOR
Solutions, Inc.

Mr. George Jacob
Remedial Project Manager
Central New York Remediation Section
Emergency & Remedial Response Division
USEPA Region 2
290 Broadway Avenue, 20th Floor
New York, New York 10007-1866

Re: First Quarter Report 2006
Byron Barrel & Drum Site - Byron, New York

Dear Mr. Jacob,

Enclosed is the Report for remedial activities at the Byron Banel & Drum Area 2 Site for the First Quarter of 2006. The annual summary and analyses are included in the report. This report is submitted on behalf of the Potentially Responsible Parties, who are jointly fulfilling the requirements of the Administrative Order.

If you have any questions regarding this report, or any other questions regarding activities at the Site, please contact meat (610) 431-8731, extension 117.

Sincerely,

Richard *K.* Evans
Project Manager

cc: Mr. John Grathwol - NYSDEC
Mr. Chris Rockwell - Garlock Sealing Technologies
Mr. Terry Etter, P.E. - Unisys Corporation
Mr. R. William Stephens - Stephens & Stephens, LLP (General Railway Signal)
Project File - ECOR Solutions

BYRON BARREL & DRUM SITE

QUARTERLY REPORT

FIRST QUARTER 2006

January through March 2006

Byron Barrel & Drum Site
Area 2
Byron, New York

8 June 2006

Prepared for:

BYRON BARREL & DRUM PRP GROUP

Prepared by:

ECOR Solutions, Inc.
1075 Andrew Drive, Suite I
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ECOR
Solutions, Inc.

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7.0 INTRODUCTION

This quarterly report of remedial activities at the Byron Barrel & Drum, Area 2 Site (Site) presents data obtained through the first quarter 2006. A Site map is provided as **Figure 1.** The purpose of this report is to summarize and document ongoing remedial and monitoring activities at the Site during the previous quarter. This report discusses the remedial activities and site monitoring activities conducted during the first calendar quarter of 2006. A brief description of the background of the site is included as well as information regarding remedial activities and monitoring activities planned for the next quarter.

1.1 SITE BACKGROUND

The Byron Barrel and Drum Area 2 Site is located at 6065 Transit Road, in Byron Township, Genesee County, NY. The Site is set back approximately 1,000 feet from the east side of Transit Road. In 1982, two drum disposal locations were discovered at the Byron Barrel and Drum site. New York State Department of Environmental Conservation's (NYSDEC) subsequent investigation led to the site's inclusion on the Superfund National Priorities List (April 1984). A remedial investigation and feasibility study (RI/FS) was conducted, which identified three areas of concern at the site. Based on the findings of the RI, it was concluded that further action in two of the areas, Area 1 and Area 3, was not warranted. However, the RI detected volatile organic compounds (VOCs); including trichloroethene (TCE) and 1,1,1-trichloroethane (TCA) in groundwater samples collected from locations in Area 2.

The remedial activities discussed in this report include only activities for Area 2. The selected remedy for Area 2 was in-situ soil flushing and groundwater pumping, treatment, and recharge. The Remedial Action construction was performed during the summer of 2001. The implementation of the Remedial Design included excavation and characterization of potentially impacted soil, and installation of additional two groundwater pumping wells (PWs) to supplement the one previously installed (PW-1), a ground water treatment system, and an infiltration gallery.

2.0 CONSTRUCTION OF REMEDIAL DESIGN

Remediation system installation and activation was completed in July 2001. The system operated intermittently until September 2001 due to initial system debugging during the start up phase. Since September 2001, the system has operated almost continuously. Use of the infiltration gallery was discontinued in August 2002 upon regulatory approval. During this reporting period (1 st Quarter 2006), no significant activities occurred relative to the Remedial Design.

3.0 OPERATION OF GROUNDWATER TREATMENT SYSTEM

Groundwater recovered from the three pumping wells (PW-1, PW-2, and PW-3) is treated through one bag filter and an air stripper prior to discharge. The bag filter removes suspended solids greater than 50 microns in diameter. The low-profile air stripper removes the VOCs from the groundwater. Following air stripping, the groundwater is discharged to surface water. **Figure 1** illustrates the PW locations and the Groundwater Treatment System. A Flow Diagram of the Groundwater Treatment System equipment and process piping is presented in **Figure 2.**

3.1 ROUTINE OPERATION

Scheduled O&M activities include weekly site visits by the local Chief Operator, Steve Rodland. The Chief Operator is the first responder to autodialer alarms from the site. Site status may be checked remotely by telephoning the autodialer.

Weekly site visits include performing an overall site inspection, GWTP system inspection, including checking the bag filter for solids loading, gauging air flow through the stripper, and noting flow rates and totalized flow. Preventive maintenance items performed by the operator include monthly inspections of the air stripper blower, and air stripper trays are inspected for sediment and mineral deposits. The trays require cleaning on a quarterly basis as a preventative maintenance and system operation performance item.

3.2 SYSTEM OPERATIONS AND MONITORING HISTORY THROUGH FIRST QUARTER 2006

A total of 18,330,530 gallons of groundwater and approximately 33.3 pounds of dissolved-phase total VOCs have been recovered via the pumping well network since system activation. All of this groundwater was treated in the GWTS. Of that total, 17,506,530 gallons, or 95.5% of the total flow, was discharged to the surface water, into the creek that flows adjacent to the site. The remaining 824,000 gallons, or 4.5 % of the total, was directed to the Infiltration Gallery (no discharge to the Infiltration Gallery since 2002). Soil flushing through the Infiltration Gallery ceased in August of 2002. In September of 2002, EPA concurred with the conclusion of the Final RA Report for soils that Site soil has been effectively remediated. Therefore, there are no plans to re-initiate operation the Infiltration Gallery.

At the beginning of 2002, Treatment System Influent and Effluent were sampled and analyzed on a twice-monthly basis, as per the initial DEC discharge approval document. The Treatment

System sampling schedule was reduced to quarterly during the third quarter 2002 following approval of the NYSDEC. Effluent samples have been collected and analyzed during subsequent quarterly sampling events. The analytical results of the effluent have consistently met the DEC's Effluent Limitations, and have generally had non-detectable concentrations of VOCs. **Tables 1** and **2** summarize influent and effluent analytical data for the system since startup. **Figure 3** presents a graph of the influent VOC concentrations over time. Cumulative dissolved-phase mass recovered is depicted on **Figure 4.** This data indicates that the influent VOC concentration has reached asymptotic levels. Quarterly effluent compliance sampling events coincide with the quarterly groundwater monitoring events.

*3.3 **OPERATIONAL PROBLEMS** ENCOUNTERED*

The following summarizes the operational problems encountered during the first quarter 2006:

- On 20 March 2006, there was a shutdown due to power loss at 8:24 am. The system was without power for approximately six hours before it was restarted.
- On 24 March 2006, the system was shut down for quarterly air stripper cleaning. The trays from the air stripper were disassembled and the scale was removed and drummed. The system was offline for approximately eight hours.

4.0 QUARTERLY SITE MONITORING EVENT

4.1 MONITORING WELL SAMPLING EVENT

The quarterly sampling event occurred on 24-26 March 2006 and was conducted in accordance with the agreed upon modifications to the QAPP in telephone conversations between ECOR, EPA, and DEC's Project Managers on 23 May 2003. Groundwater samples were collected from monitoring wells MW-1, MW-4, MW-10B, MW-21, and MW-Residential using EPA's low-flow sampling procedures, in accordance with the QAPP. This event entailed the sampling of the two monitoring wells downgradient of the impacted area, one within the impacted area, and two upgradient of the impacted area. A summary of the field parameter measurements is presented in **Table 3.** The purging and sampling procedures utilized during collection of the quarterly samples were consistent with the procedures outlined in the QAPP. A copy of field notes collected during the sampling event is included in **Appendix A.** The preserved groundwater samples were placed on ice in a cooler and were shipped to Severn Trent Laboratories (STL), Buffalo, New York. In addition, groundwater elevations were measured from site monitoring wells. A summary of Site groundwater elevations is provided in **Table 4.**

4.2 LABORATORY ANALYSIS / GROUNDWATER SAMPLING RESULTS

Recent and historical groundwater quality data for monitoring and pumping wells (2001 to present) for select compounds is summarized in **Table 5.** The sample specific analysis performed included VOC analysis in accordance with USEPA SW-846 Method 8260B. The groundwater samples (MW-1 and MW-4) were analyzed for the following twenty (20) project specific compounds: 1,1 -dichloroethane (1,1 -DCA), 1,1 -dichloroethene (1,1 -DCE), methylene chloride (MeCl), toluene, 1,1,1-trichloroethane (TCA), trichloroethene (TCE), vinyl chloride (VC), benzene, total xylenes, chlorobenzene, 1,1,2-trichloroethane (1,1,2-TCA), 1,2-dichloroethane (1,2-DCA), tetrachloroethene, chloroform, bromodichloromethane, dibromochloromethane, 2-butanone, carbon tetrachloride, 1,2-dichlorobenzene and 1,4-dichlorobenzene. The pumping well samples (PW-1, PW-2, and PW-3) were analyzed for the following eight (8) compounds: 1,1-DCA, 1,1-DCE, MeCl, TCA, TCE, toluene, VC and cis-l,2-dichloroethene. A review of the previous data indicates that the primary compounds of concern detected at the site are: TCA and degradation products 1,1 -DCA and 1,1 -DCE. The concentrations of these VOCs range from non-detect to 540 micrograms per liter (fXg/L) (TCA at monitoring well MW-1). Currently, 1,1-DCA, 1,1-DCE, and TCA are present above the applicable clean up standards. Groundwater

quality data is depicted on **Figure 5** with those constituents detected above the applicable clean-up standard are highlighted in yellow.

4J DATA VALIDATION

As per section 4.0 of the QAPP, the data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the ASP, the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 1, September 1999: Validating Volatile Organic Compounds by SW-846 Method 8260B, and the reviewer's professional judgment. The Data Validation Report is included in **Appendix B.**

*5.0 PLANS **FOR** NEXT QUARTER*

The next quarterly groundwater sampling event will be performed in June 2006. Operation and maintenance plans for the next quarter include continued routine operation as well as preventative maintenance of the pumping wells and GWTP.

ECOR has submitted our review of the In-situ bioremediation applicability study to the PRP group for review. The PRP Group has requested an independent assessment of the data and recommendation prior to implementation.

TABLES

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
EC OR Solutions, Inc.

Sampling Event Date	01/GW 7/28/2001	02/GW 8/8/2001	03/GW 8/18/2001	04/GW 9/18/2001	05/GW 9/27/2001	06/GW 10/5/2001
Field Influent pH, std pH units			7.87	7.57	7.55	7,5
Total Suspended Solids, mg/L	6.5	4.0 U	4.0 U	4.0 U	4.0 U	4
1,1-Dichloroethane, pg/L	23	47	60	19J	58 D	43 J
1,1-Dichloroethene, ug/L	5.1	12	16	12J	16 DJ	50 U
Cis -1,2 - Dichloroethene, pg/L	1.0J	1.4 J	1.0 J	50 U	50 U	50 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	50 U	SOU	50 U
1,1,1 - Trichloroethane, pg/L	460 E	840 E	1200 E	1100	1100 D	780
Trichloroethene, ug/L	1.9J	3.0 J	4.7 J	50 U	50 U	50 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	50 U	SOU	50 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
Total Confident VOCs, ug/L	499	899	1276	1124	1174	823

Sampling Event Date	07/GW 10/17/2001	08/GW 11/8/2001	09/GW 11/28/2001	10/GW 12/13/2001	11/GW 12/27/2001	12/GW 1/18/2002
Field Influent pH, std pH units	7.39	7.57	7.42	7.43	7.54	7.64
Total Suspended Solids, mg/L	4.0 U	7	15	4.0 U		4.0 U
1,1-Dichloroethane, ug/L	46 J	32 J	20 J	13	9.3	11
1,1-Dichloroethene, ug/L	13J	13J	9.4 J	4.2 J	4.6 J	4.3 J
Cis -1,2 - Dichloroethene, ug/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Methylene Chloride, ug/L	50 U	SOU	25 U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	1200	580	530	260	220 E	250 E
Trichloroethene, ug/L	50 U	50 U	25 U	3.3 J	4.2 J	4.9 J
Toluene, ug/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	50 U	50 U	25 U	10U	5.0 U	5.0 U
Total Confident VOCs, ug/L	1259	635	559	277	237	270

Sampling Event Date	13/GW 1/30/2002	14/GW 2/13/2002	15/GW 2/23/2002	16/GW 3/8/2002	17/GW 3/20/2002	18/GW 4/8/2002
Field Influent pH, std pH units	7.71	7.84	7.48	7.79	7.72	7.09
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	10	16	10	11	11	10
1,1-Dichloroethene, pg/L	4.0 J	5.2 J	3.5 J	3.7 J	4.1 J	2.5 J
Cis -1,2 - Dichloroethene, pg/L	10 U	10U	5.0 U	5.0 U	5.0 U	10U
Methylene Chloride, pg/L	10U	10 U	5.0 U	5.0 U	1.8 BJ	10U
1,1,1 -Trichloroethane, pg/L	220	320	240 E	320 E	330 E	240
Trichloroethene, pg/L	4.3 J	3.2 J	3.3 J	3.4 J	3.4 J	3.3 J
Toluene, pg/L	10U	10 U	3.3 J	5.0 U	5.0 U	10U
Vinyl Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10U
Total Confident VOCs, pg/L	238	339	256	337	348	253

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/2002	5/8/2002	5/21/2002	6/4/2002	6/13/2002	7/11/2002
Field Influent pH, std pH units	6.99	7.07	7.41	7.11	7.34	7.19
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	10	12	20	19J	18D,J	20
1,1-Dichloroethene, ug/L	2.5 J	2.4 J	3.5 J	25 U	20 U	3.4 J
Cis-1,2- Dichloroethene, ug/L	10U	10U	10 U	25 U	20 U	10U
Methylene Chloride, ug/L	15B	10U	3.1 BJ	16 J	12 B.D.J	8.5 B,J
1,1,1 - Trichloroethane, ug/L	230	260	350	390	360 D	380
Trichloroethene, ug/L	2.8 J	2.7 J	3.3 J	25 U	20 U	3.7 J
Toluene, ug/L	2.6 J	10 U	10U	25 U	20 U	10U
Vinyl Chloride, ug/L	10U	10 U	10U	25 U	20 U	10 U
Total Confident VOCs, ug/L	246	276	376	425	390	407

Sampling Event	25/GW	26/GW	27/GW	28/GW	29/GW	30/GW
Date	7/23/2002	8/29/2002	9/18/2002	10/29/2002	11/25/2002	12/18/2002
Field Influent pH, std pH units	6.45	6.97	7.74	7.91	6.8	7.25
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U
1,1-Dichloroethane, ug/L	9.0 J	8.8	7.7	8.6	9.1 DJ	6.6
1,1-Dichloroethene, ug/L	2.6 J	1.3 J	1.8 J	3.0 J	2.4 DJ	2.8 J
Cis - 1,2 - Dichloroethene, ug/L	10 U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Methylene Chloride, ug/L	10 U	5.0 U	5.0 U	5.0 U	10U	5.0 U
1,1,1 -Trichloroethane, ug/L	210	150	190	170	160 D	150
Trichloroethene, ug/L	10U	1.9 J	1.9 J	2.5 J	10U	1.9 J
Toluene, ug/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, ug/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, ug/L	222	162	202	184	172	161

Sampling Event	31 /GW	32/GW	33/GW	34/GW	35/GW	36/GW
Date	1/17/2003	2/19/2003	4/30/2003	6/23/2003	7/30/2003	8/27/2003
Field Influent pH, std pH units	7.6	6.93	7.06	7.03	7.12	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	8.4	6.2	8.4 DJ	6.6 DJ	7.6	2.4 J
1,1-Dichloroethene, ug/L	5.0 U	2.4 J	10U	10 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	10 U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, ug/L	160	140	190 D	MOD	150	66
Trichloroethene, ug/L	2.4 J	1.6 J	10 U	10 U	1.2 J	5.0 U
Toluene, ug/L	5.0 U	5.0 U	10U	10 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
Total Confident VOCs, ug/L	171	150	198	147	159	68

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
£COR Solutions, Inc.

Sampling Event	37/GW	38/GW	39/GW	40/GW	41/GW	42/GW
Date	9/24/2003	10/23/2003	11/20/2003	12/3/2003	1/29/2004	3/30/2004
Field Influent pH, std pH units	NA	NA	NA	7.18	NA	6.84
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.8 DJ	7.4 DJ	4.7 J	6.1	5.0 U	6.7
1,1-Dichloroethene, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	10 U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	10U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	180 D	170 D	92	110	1.9J	96
Trichloroethene, pg/L	2.0 DJ	10U	1.1 J	1.6 J	5.0 U	1.0 J
Toluene, ug/L	10U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Confident VOCs, pg/L	191	174	98	118	2	104

Sampling Event	43/GW	44/GW	45/GW	46/GW	47/GW	48/GW
Date	5/20/2004	6/16/2004	7/15/2004	8/26/2004	9/14/2004	10/28/2004
Field Influent pH, std pH units	NA	7.32	NA	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	5.5	10 D	7.5	3.3 J	9.1 DJ	4.1 J
1,1-Dichloroethene, ug/L	5.0 U	10 U	2.3 J	5.0 U	10U	2.3 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
Methylene Chloride, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
1,1,1 -Trichloroethane, pg/L	150	180 D	190	74	170 D	90
Trichloroethene, pg/L	5.0 U	10U	1.6 J	5.0 U	10U	1.1 J
Toluene, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U
Total Confident VOCs, pg/L	156	190	201	77	179	97

Sampling Event	49/GW	50/GW	51/GW	52/GW	53/GW	54/GW
Date	12/14/2004	1/27/2005	3/22/2005	4/26/2005	5/30/2005	6/7/2005
Field Influent pH, std pH units	6.23	NA	7.04	NA	NA	7.50
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	7.4	9.8	2.9 J	2.5 J	6.3	2.5
1,1-Dichloroethene, pg/L	2.5 J	3.0 J	5.0 U	5.0 U	1.9	0.84 J
Cis-1,2- Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,1 -Trichloroethane, pg/L	130	180	65	67	230	65
Trichloroethene, pg/L	1.6J	2.2 J	5.0 U	5.0 U	1.2 J	0.68 J
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Total Confident VOCs, pg/L	141.5	195	67.9	69.5	239.4	69.0

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	55/GW	56/GW	57/GW	58/GW	59/GW	60/GW
Date	7/28/2005	8/29/2005	9/13/2005	10/18/2005	11/22/2005	12/19/2005
Field Influent pH, std pH units	NA	NA	7.25	NA	NA	6.85
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	10	9.5 J	2.3 J	7.1 J	5.2 J	2.7 J
1,1-Dichloroethene, |jg/L	4.8	3.1 J	0.64 J	1.5J	2.7 J	0.84 J
Cis-1,2- Dichloroethene, ug/L	1.0 U	25 U	5.0 U	10 U	20 U	5.0 U
Methylene Chloride, ug/L	1.0 U	2.4 J	5.0 U	10U	2.0 J	5.0 U
1,1,1 - Trichloroethane, ug/L	260	220	53	180	130	61
Trichloroethene, ug/L	1.7	25 U	0.49 J	2.9 BJ	20 U	0.64 J
Toluene, ug/L	1.0 U	25 U	5.0 U	10 U	20 U	5.0 U
Vinyl Chloride, pg/L	1.0 U	25 U	5.0 U	10U	20 U	5.0 U
Total Confident VOCs, pg/L	276.5	235.0	56.4	191.5	139.9	65.2

Sampling Event	61/GW	62/GW	63/GW
Date	1/19/2006	2/24/2006	3/27/2006
Field Influent pH, std pH units	NA	NA	6.99
Total Suspended Solids, mg/L	NA	NA	NA
1,1-Dichloroethane, pg/L	6	4.7 J	4.5 J
1,1-Dichloroethene, ug/L	1.7 J	1.3J	1.1 J
Cis -1,2 - Dichloroethene, ug/L	5.0 U	10 U	5.0 U
Methylene Chloride, ug/L	5.0 U	2.1 BJ	5.0 U
1,1,1 -Trichloroethane, ug/L	170	100	110
Trichloroethene, pg/L	1.3 J	0.87 J	0.95 J
Toluene, ug/L	5.0 U	10 U	5.0 U
Vinyl Chloride, pq/L	5.0 U	10 U	5.0 U
Total Confident VOCs, pg/L	179.0	109-0	116.6

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/2001	8/8/2001	8/18/2001	9/18/2001	9/27/2001	10/5/2001
Field Effluent pH, std pH units	8.44	8.44	8.5	8.38	8.38	8.32
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichforoethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	1.5 J	5.0 U	1.5 J	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, yg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/2001	11/8/2001	11/28/2001	12/13/2001	12/27/2001	1/18/2002
Field Effluent pH, std pH units	8.35	8.35	8.29	8.43	8.30	8.38
Total Suspended Solids, mg/L	4.0 U	4.0 U	8.0	4.0 U	4.0 U	4.0U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Cis-1,2- Dichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1,1 -Trichloroethane, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Toluene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/2002	2/13/2002	2/23/2002	3/8/2002	3/20/2002	4/8/2002
Field Effluent pH, std pH units	8.39	8.31	8.22	8.39	8.47	8.05
Total Suspended Solids, mg/L	4.0U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5,0 U	5.0 U
Methylene Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	1.3 J	2.8 B,J
1,1,1 - Trichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, |jg/L	5.0U	5.0 U	2.5J	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barret and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21 /GW	22/GW	23/GW	24/GW
Date	4/24/2002	5/3/2002	5/21/2002	6/4/2002	6/13/2002	7/11/2002
Field Effluent pH, std pH units	8.0	8.08	8.23	8.23	8.16	8.06
Total Suspended Solids, mg/L	4.0 U	4.0	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5,0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	7.6 B	5.0 U	1.2 BJ	1.1 J	1.7 B,J	2.6 B,J
1,1,1 -Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.2 J	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	25/GW	27/GW	30/GW	33/GW	34/GW	37/GW
Date	7/23/02	9/18/02	12/18/02	4/30/03	6/23/03	9/24/03
Field Effluent pH, std pH units	6.66	7.11	7.22	7.72	7.68	7.81
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	NA
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene. ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	40/GW	42/GW	44/GW	47/GW	49/GW	51/GW
Date	12/2/03	3/30/04	6/16/04	9/14/04	12/14/04	3/22/05
Field Effluent pH, std pH units	7.63	7.47	7.86	7.61	6.93	6.97
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	54/GW	55/GW	56/GW	57/GW
Date	6/7/2005	9/13/2005	12/19/2005	3/27/2006
Field Effluent pH, std pH units	8.01	7.95	7.64	7.74
Total Suspended Solids, mg/L	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	1.0 U	5.0 U	0.58 J	5.0 U
Trichloroethene, |jg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.0 u	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	1.0 u	5.0 U	5.0 U	5.0 U

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 3
Byron Barrel and Drum Site
Field Chemistry Readings
20 December 2005 Quarterly Sampling Event

Parameter / Units	Time	Temp. °C	ORP mV	pH Std. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
MW-1-9/GW17	1013	6.91	+138	7.01	0.5	3.76	0.727
	1018	6.65	+99	6.90	0.5	1.88	0.729
	1023	6.54	+73	6.93	0.5	1.15	0.727
	1028	6.58	+52	7.00	0.5	0.81	0.725
	1033	6.65	+34	7.08	0.5	0.66	0.723
	1038	6.62	+19	7.05	0.5	0.54	0.719
	1043	6.62	+8	7.04	0.5	0.49	0.718
	1048	6.62	+1	6.97	0.5	0.44	0.714
	1053	6.77	-4	7.02	0.5	0.40	0.713
	1058	6.77	-8	6.98	0.5	0.41	0.711
MW-4-9/GW17	1251	6.62	+43	6.46	0.6	4.23	0.904
	1256	6.79	+44	6.98	0.5	2.23	0.777
	1301	6.77	+43	6.97	0.5	1.78	0.737
	1306	6.77	+43	6.97	0.5	1.66	0.713
	1311	6.82	+44	6.97	0.5	1.61	0.707
	1316	6.84	+44	6.97	0.5	1.59	0.697
	1321	6.92	+45	6.97	0.4	1.59	0.693
MW-10B-9/GW17	1111	8.42	+44	6.99	0.4	4.58	0.653
	1116	8.35	+48	6.95	0.4	3.46	0.673
	1121	8.51	+53	6.94	0.4	3.08	0.675
	1126	8.27	+57	6.94	0.4	2.94	0.677
	1131	8.24	+60	6.90	0.4	2.88	0.675
	1136	8.26	+63	6.96	0.4	2.83	0.675

Table 3
Byron Barrel and Drum Site
Field Chemistry Readings
20 December 2005 Quarterly Sampling Event

Parameter Units	Time	Temp. °C	ORP mV	PH Std. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
MW-Residential-32-GW17	1148	5.17	+48	6.42	0.3	2.02	0.390
	1153	5.44	+43	6.65	0.2	1.23	0.359
	1158	5.45	+37	6.84	0.2	0.87	0.347
	1203	5.46	+24	7.25	0.2	0.61	0.335
	1208	5.42	+ 14	7.51	0.2	0.53	0.330
	1213	5.58	+5	7.83	0.2	0.46	0.324
	1218	5.56	-7	8.00	0.2	0.42	0.324
	1223	5.63	-23	8.09	0.2	0.34	0.324
	1228	5.75	-28	8.12	0.2	0.32	0.323
	1233	5.74	-33	8.15	0.2	0.31	0.323
MW21-25-GW17	1029	6.02	+149	6.44	1.1	3.92	1.78
	1034	6.11	+140	6.39	1.2	2.56	1.85
	1039	6.40	+113	6.42	1.2	1.64	1.74
	1044	6.60	+94	6.47	1.2	1.36	1.88
	1049	6.63	+81	6.49	1.2	1.17	1.86
	1054	6.49	+72	6.49	1.2	1.05	1.87
	1059	6.38	+66	6.48	1.2	0.90	1.87
	1104	6.38	+59	6.49	1.2	0.82	1.86
	1109	6.47	+54	6.48	1.2	0.84	1.86
PW-1/GW17	1228	9.20	+96	6.95	0.5	4.96	0.707
PW-2/GW17	1222	9.18	+93	6.99	0.4	5.60	0.690
PW-3/GW17	1215	9.88	+86	7.14	0.4	5.87	0.648
Influent/GW63	1235	9.24	+99	6.99	0.4	6.55	0.689
Effluent/GW57	1240	9.10	+99	7.74	0.4	8.05	0.678

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

Table 4
Byron Barrel and Drum Site
Groundwater Elevations for
December 2005 Sampling Event
ECOR Solutions, Inc.

Operator: Matthew Bard

Date: 3/24/2006

Pumping Wells	DTW	TOC Elevation	GW Elevation	Tp	w c > ft
PW-1	**21.44**	**642.82**	**621.38**	*m*	*m*
PW-2	**17.22**	**641.34**	**624.12**	*m*	–
PW-3	**22.31**	**641.11**	**618.80**	–	–
Monitoring Wells					
MW-1	**5.07**	**639.63**	**634.56**	**11.80**	**6.73**
MW-2	**11.19**	**646.36**	**635.17**	**16.90**	**5.71**
MW-4	**4.32**	**638.56**	**634.24**	**11.60**	**7.28**
MW-10B	**9.28**	**644.44**	**635.16**	**20.50**	**11.22**
MW-21	**7.78**	**642.52**	**634.74**	**27.96**	**20.18**
Residential	**15.75**	**650.78**	**635.03**	**35.15**	**19.40**
Piezometers					
PZ-1	**8.19**	**643.11**	**634.92**	**27.70**	**19.51**
PZ-2	**7.60**	**642.39**	**634.79**	**27.35**	**19.75**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	**5**	**5**	**5**	**5**	**2**
MW-1	3/20/2002	639.63	5.24	634.39	**86**	**49**	**NA**	**5 U**	**1700**	2 J	5 U	**2 J**
	6/12/2002	639.63	5.07	634.56	**81**	**38**	**NA**	**5 U**	**1600**	3 J	5 U	**5 U**
	9/18/2002	639.63	7.15	632.48	**13**	**13 J**	**NA**	**5 UJ**	**350**	5 U	5 U	**5 U**
	12/18/2002	639.63	5.62	634.01	**42**	**37 J**	**NA**	25 **U**	**1200**	**5 J**	25 U	25 **U**
	4/29/2003	639.63	4.53	635.10	**57**	**34**	**NA**	25 **U**	**1300 J**	25 U	25 U	25 **U**
	6/24/2003	639.63	5.36	634.27	**32**	**24**	**NA**	**5 U**	**720**	4 J	5 U	**5 U**
	9/24/2003	639.63	6.72	632.91	**24 J**	**17 J**	**NA**	25 **U**	**580**	25 U	25 U	25 **U**
	12/3/2003	639.63	5.53	634.10	**33 J**	**28 J**	**NA**	40 **U**	**860 J**	40 U	40 U	40 **U**
	3/30/2004	639.63	3.40	636.23	**30 J**	**31**	**NA**	25 **U**	**830 J**	25 UJ	25 U	25 **U**
	6/16/2004	639.63	4.20	635.43	**26**	**22 J**	**NA**	25 **UJ**	**870**	25 U	25 U	25 **U**
	9/14/2004	639.63	4.56	635.07	**28**	**26**	**NA**	25 **U**	**730**	25 U	25 U	25 **U**
	12/14/2004	639.63	4.61	635.02	**31**	**26**	**NA**	25 **U**	**760**	25 UJ	25 U	25 **U**
	3/22/2005	639.63	4.32	635.31	**41**	**110**	**NA**	**5 U**	**830**	**5**	5 U	**5 U**
	6/7/2005	639.63	5.45	634.18	**10 J**	**14 J**	**NA**	**13 J**	**340**	50 U	50 UJ	50 **U**
	9/13/2005	639.63	6.89	632.74	**14**	**16**	**NA**	**5 U**	**410**	2 J	5 UJ	**5 U**
	12/20/2005	639.63	**4.78**	634.85	**24 J**	**24 J**	**NA**	40 **U**	**580**	40 U	40 U	40 **U**
	3/26/2006	639.63	5.07	634.56	**29**	**24**	**NA**	**5 U**	**540**	4 J	5 U	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	**5**	**5**	**5**	**2**
MW-4	3/20/2002	638.56	4.79	633.77	17 J	14 J	NA	25 U	**450**	**10 J**	25 **U**	25 **U**
	6/12/2002	638.56	4.48	634.08	3 J	2 J	NA	5 U	**83**	**8**	**5 U**	**5 U**
	9/18/2002	638.56	6.04	632.52	5 U	5 UJ	NA	5 UJ	**27**	**5**	**5 U**	**5 U**
	12/18/2002	638.56	5.22	633.34	40	**24**	NA	5 U	**200**	**8**	**5 U**	**5 U**
	4/29/2003	638.56	4.50	634.06	**31**	**13** J	NA	25 U	**530**	25 **U**	25 **U**	25 **U**
	6/24/2003	638.56	4.58	633.98	5 UJ	5 UJ	NA	5 U	**17 J**	**4 J**	**5 U**	**5 UJ**
	9/24/2003	638.56	5.91	632.65	**35**	9 J	NA	10 U	**240**	**8 J**	10 **U**	10 **U**
	12/3/2003	638.56	4.98	633.58	65	17 J	NA	20 U	**550**	**11 J**	20 **U**	20 **U**
	3/30/2004	638.56	4.15	634.41	**12**	5	NA	5 U	**130**	**3 J**	**5 U**	**5 U**
	6/16/2004	638.56	3.64	634.92	**15** J	25 UJ	NA	25 UJ	**150**	25 **U**	25 **U**	25 **U**
	9/14/2004	638.56	3.71	634.85	**11** J	25 U	NA	25 U	**87**	25 **U**	25 **U**	**25 U**
	12/14/2004	638.56	3.97	634.59	**11** J	25 U	NA	25 U	**67**	25 **U**	25 **U**	25 **U**
	3/22/2005	638.56	3.55	635.01	50 U	50 U	NA	50 UJ	**87**	50 **U**	50 **U**	50 **U**
	6/7/2005	638.56	4.25	634.31	5 U	5 U	NA	5 U	**8**	**1 J**	**5 U**	**5 U**
	9/13/2005	638.56	5.84	632.72	5 U	5 U	NA	5 U	**11**	**2 J**	**5 U**	**5 U**
	12/20/2005	638.56	4.75	633.81	4 J	25 U	NA	25 U	**48**	25 **U**	25 **U**	25 **U**
	3/25/2006	638.56	4.32	634.24	5 U	5 U	NA	5 U	**8**	**1 J**	**5 U**	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Anaiytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-10B	3/21/2002	644.44	9.43	635.01	5 U	5 U	NA	5 U	42	5 U	5 U	5 U
	6/12/2002	644.44	9.12	635.32	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/18/2002	644.44	11.05	633.39	5 U	5 UJ	NA	5 UJ	7	5 U	5 U	5 U
	12/18/2002	644.44	10.20	634.24	5 U	5 U	NA	5 U	52	5 U	5 U	5 U
	4/30/2003	644.44	9.28	635.16	5 U	5 U	NA	5 U	8	5 U	5 U	5 U
	6/23/2003	644.44	9.39	635.05	5 U	5 U	NA	5 U	3 J	5 U	5 U	5 U
	9/24/2003	644.44	10.93	633.51	5 U	5 U	NA	5 U	7	5 U	5 U	5 U
	3/30/2004	644.44	8.99	635,45	5 U	5 U	NA	5 U	17	5 U	5 U	5 U
	9/14/2004	644.44	8.76	635.68	5 U	5 U	NA	5 U	14	5 U	. 5 U	5 U
	3/22/2005	644.44	8.69	635.75	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/13/2005	644.44	10.84	633.60	5 U	5 U	NA	5 U	5	5 U	5 U	5 U
	3/25/2006	644.44	9.28	635.16	5 U	5 U	NA	5 U	6	5 U	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	**5**	**5**	**5**	**2**
MW-21	3/26/1999	NA	NA	NA	1 U	1 U	1 U	2 U	**1 U**	**1 U**	1 U	**1 U**
	3/21/2002	642.52	7.70	634.82	25 U	25 U	NA	25 U	25 **U**	25 **U**	25 U	25 **U**
	6/12/2002	642.52	7.69	634.83	25 U	25 U	NA	25 U	25 **U**	25 **U**	**5 BJ**	25 **U**
	9/17/2002	642.52	9.50	633.02	5 U	5 UJ	NA	5 UJ	**5 U**	**5 U**	5 U	**5 U**
	12/17/2002	642.52	8.23	634.29	5 U	5 UJ	NA	5 U	**5 UJ**	**5 U**	5 U	**5 U**
	4/30/2003	642.52	7.91	634.61	25 U	25 U	NA	25 U	25 **U**	25 **U**	25 U	**25 U**
	3/30/2004	642.52	7.56	634.96	5 UJ	5 UJ	NA	5 UJ	**5 UJ**	**5 UJ**	5 UJ	**5 UJ**
	3/22/2005	642.52	7-42	635.10	25 U	25 U	25 U	25 U	25 **U**	25 **U**	25 U	25 **U**
	3/25/2006	642.52	7.78	634.74	25 U	25 U	25 U	25 U	25 **U**	25 **U**	25 U	25 **U**
MW-Residential	3/21/2002	650.78	15.79	634.99	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	6/12/2002	650.78	15.62	635.16	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	9/17/2002	650.78	17.50	633.28	5 U	5 UJ	NA	5 UJ	**5 U**	**5 U**	5 U	**5 U**
	12/17/2002	650.78	16.52	634.26	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	4/30/2003	650.78	17.74	633.04	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	3/30/2004	650.78	15.47	635.31	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	3/22/2005	650.78	15.24	635.54	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**
	3/25/2006	650.78	15.75	635.03	5 U	5 U	NA	5 U	**5 U**	**5 U**	5 U	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	**5**	**NA**	**5**	5	5	5	2
PW-1	12/21/1998	NA	NA	NA	20 U	**5 J**	20 **U**	9 BJ	**270**	**11** J	20 U	20 U
	12/27/2001	**NA**	NA	NA	**15**	**6.2**	**5 U**	**5 U**	**280**	**5.2**	5 U	5 U
	3/20/2002	642.82	NM	NM	**11**	**5**	**5 U**	**5 U**	**320**	3 J	5 U	5 U
	6/12/2002	642.82	NM	**NM**	**18**	**3 J**	**5 U**	**5 U**	**380**	2 J	5 U	5 U
	9/18/2002	642.82	NM	NM	**12**	**2 J**	**5 U**	**5 UJ**	**270**	2 J	5 U	5 U
	12/18/2002	642.82	18.43	624.39	8	**5**	**5 U**	**5 U**	**160**	2 J	5 U	5 U
	4/30/2003	642.82	20.96	621.86	**11**	**2 J**	**5 U**	**5 U**	**180**	2 J	5 U	5 U
	6/23/2003	642.82	22.41	620.41	**12**	**2 J**	**5 U**	**5 U**	**190**	2 J	5 U	5 U
	9/24/2003	642.82	22.59	620.23	8	**5 U**	**5 U**	**5 U**	**120**	5 U	5 U	5 U
	12/3/2003	642.82	21.74	621.08	8	**2 J**	**5 U**	**5 U**	**150**	2 J	5 U	5 U
	3/30/2004	642.82	21.80	621.02	6	**2 J**	**5 U**	**5 U**	**150**	5 U	5 U	5 U
	6/16/2004	642.82	19.08	623.74	**13**	**3 J**	**5 U**	**5 UJ**	**380**	2 J	5 U	5 U
	9/14/2004	642.82	20.62	622.20	**10**	**2 J**	**5 U**	**5 U**	**210**	5 U	5 U	5 U
	12/14/2004	642.82	21.23	621.59	6	**2 J**	**5 U**	**5 U**	**140**	5 U	5 U	5 U
	3/22/2005	642.82	22.65	620.17	**15**	**23**	**5 U**	**5 U**	**200** J	2 J	5 U	5 U
	6/7/2005	642.82	21.50	621.32	**10**	**2 J**	10 **U**	**2 U**	**59**	1 J	10 U	10 U
	9/13/2005	642.82	21.73	621.09	3 J	0.9 **J**	**5 U**	**5 U**	**73**	0.5 J	5 U	5 U
	12/19/2005	642.82	20.98	621.84	9	**2 J**	**5 U**	**5 U**	**140**	2 J	5 U	5 U
	3/26/2006	642.82	21.44	621.38	4 J	0.9 **J**	**5 U**	**5 U**	76	0.6 J	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
PW-2	12/27/2001	NA	NA	NA	**68**	**23**	1.4 **J**	5 U	**960**	4 J	5 U	1.1 J
	3/20/2002	641.34	NM	NM	**24**	**13**	**5 U**	5 U	**720**	2 J	5 U	5 U
	6/12/2002	641.34	NM	NM	**18**	**10**	**5 U**	5 U	**370**	2 J	5 U	5 U
	9/18/2002	641.34	NM	NM	**5**	**4 J**	**5 U**	5 UJ	**160**	5 U	5 U	5 U
	12/18/2002	641.34	17.68	623.66	**12**	**14**	10 **U**	10 u	**280**	10 U	10 U	10 U
	4/30/2003	641.34	16.82	624.52	**11**	**6**	**5 U**	5 U	**200**	2 J	5 U	5 U
	6/23/2003	641.34	19.41	621.93	**8**	**5**	**5 U**	5 U	**180**	5 U	5 U	5 U
	9/24/2003	641.34	17.45	623.89	**6**	**2 J**	**5 U**	5 U	**120**	5 U	5 U	5 U
	12/3/2003	641.34	18.78	622.56	**6**	**3 J**	**5 U**	5 U	**160**	5 U	5 U	5 U
	3/30/2004	641.34	19.24	622.10	**4 J**	**3 J**	**5 U**	5 U	**140**	5 U	5 U	5 U
	6/16/2004	641.34	18.58	622.76	**5**	**5 U**	**5 U**	5 UJ	**120**	5 U	5 U	5 U
	9/14/2004	641.34	18.25	623.09	**5**	**4 J**	**5 U**	5 U	**160**	5 U	5 U	5 U
	12/14/2004	641.34	17.63	623.71	**8**	**5**	**5 U**	5 U	**160**	2 J	5 U	5 U
	3/22/2005	641.34	19.33	622.01	**5**	**11**	**5 U**	5 U	**140**	5 U	5 U	5 U
	6/7/2005	641.34	19.40	621.94	**3 J**	**2 J**	**5 U**	5 U	**70**	1 J	5 U	5 U
	9/13/2005	641.34	19.52	621.82	**3 J**	**3 J**	**5 U**	5 U	**94 J**	2 J	5 U	5 U
	12/19/2005	641.34	17.35	623.99	**1 J**	**5 U**	**5 U**	5 U	**30**	0.5 J	5 U	5 U
	3/26/2006	641.34	17.22	624.12	**5**	**1 J**	**5 U**	5 U	**54**	0.8 J	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

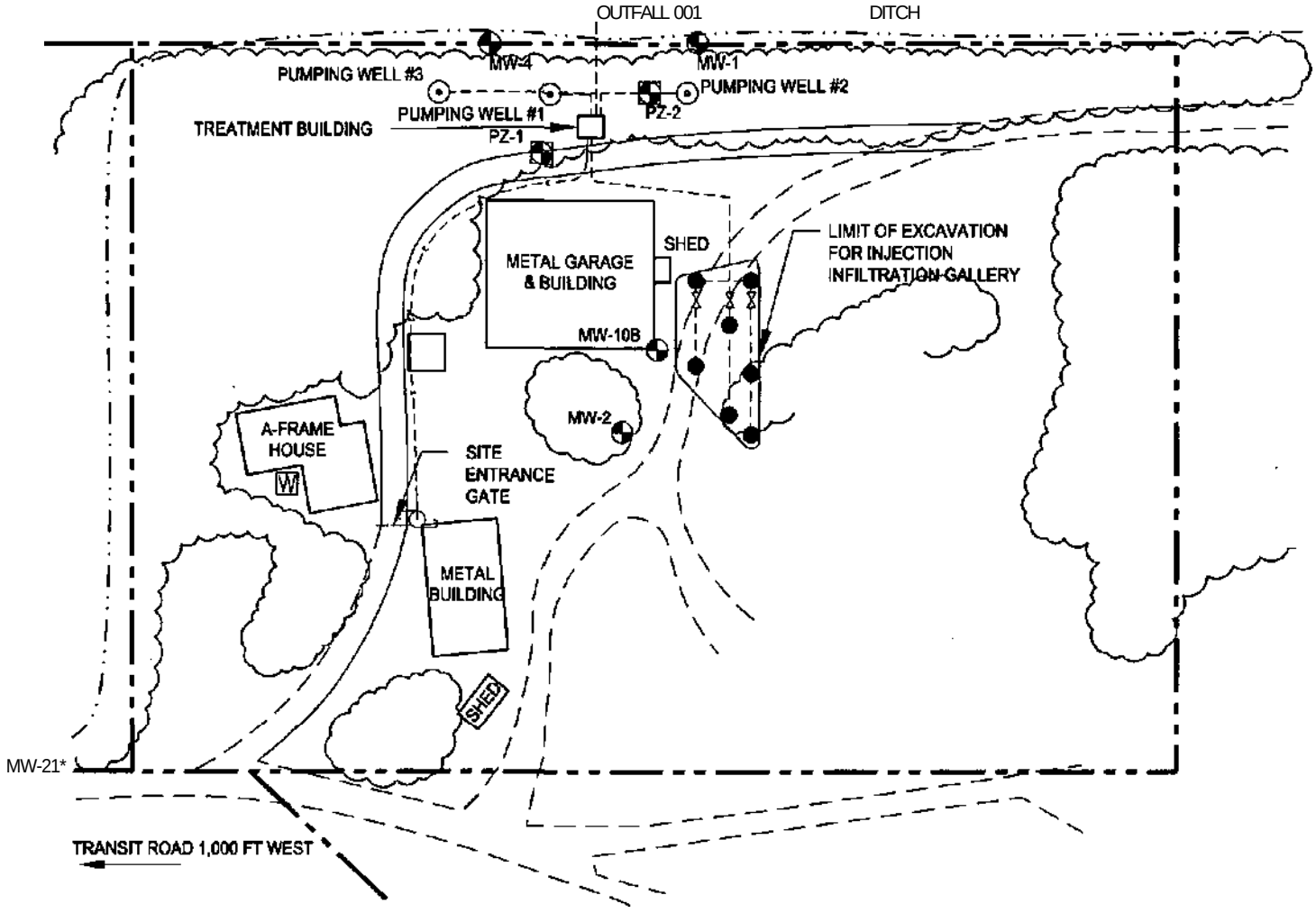
Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
PW-3	12/27/2001	NA	NA	NA	5 U	5 U	5 U	5 U	16	1.7 J	5 U	5 U
	3/20/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	8	1 J	5 U	5 U
	6/12/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	6	5 U	5 U	5 U
	9/18/2002	641.11	NM	NM	5 U	5 UJ	5 U	5 UJ	4 J	5 U	5 U	5 U
	12/18/2002	641.11	19.90	621.21	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U
	4/30/2003	641.11	19.46	621.65	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	6/23/2003	641.11	18.55	622.56	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	9/24/2003	641.11	20.97	620.14	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/3/2003	641.11	20.28	620.83	5 U	5 U	5 U	5 U	3 J	5 U	5 UJ	5 U
	3/30/2004	641.11	20.52	620.59	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/16/2004	641.11	19.65	621.46	5 U	5 U	5 U	5 UJ	2 J	5 U	5 U	5 U
	9/14/2004	641.11	20.91	620.20	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/14/2004	641.11	18.33	622.78	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	3/22/2005	641.11	22.17	618.94	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/7/2005	641.11	20.30	620.81	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	9/13/2005	641.11	21.52	619.59	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	12/19/2005	641.11	20.36	620.75	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	3/26/2006	641.11	22.31	618.80	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U

Notes:
All concentrations in micrograms per liter (pg/L)
Exceedences of the groundwater cleanup standard are indicated in bold.
NM = Not Measured
NA = Not Available

Table 6
Schedule of Sampling and Analysis for 2006
Byron Barrel & Drum Site
Byron, New York

Month	**Event**	**Monitoring Well to be Sampled**	**Constituents to be Analyzed**
March 2006	First Quarter 2006 Monitoring Event	MW-1 MW-4 MW-10B MW-21 MW-Residential	Five VOCs: 1,1-Dichloroethane, 1,1 -Dichloroethylene, 1,1,1 -Trichloroethane, Trichloroethene, Vinyl Chloride
June 2006	Second Quarter 2006 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
September 2006	Third Quarter 2006 Monitoring Event	MW-1 and MW-4 MW-10B	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
December 2006	Fourth Quarter 2006 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1 -Trichloroethane, Trichloroethene, Vinyl Chloride

FIGURES



LEGEND

®	MONITORING WELL
	FORMER RESIDENTIAL WELL
	PIEZOMETER WELL
	INJECTION GALLERY PIEZOMETER WELL
	INJECTION GALLERY VALVE
©	PUMPING WELL
	UTILITY POLE
	PROPERTY LINE
	FENCE
	TREELINE
	NEW GRAVEL ROAD
	PRE-EXISTING GRAVEL ROAD
	DITCH
	ELECTRIC & PHONE LINE
	REINJECTION PIPIING

•NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

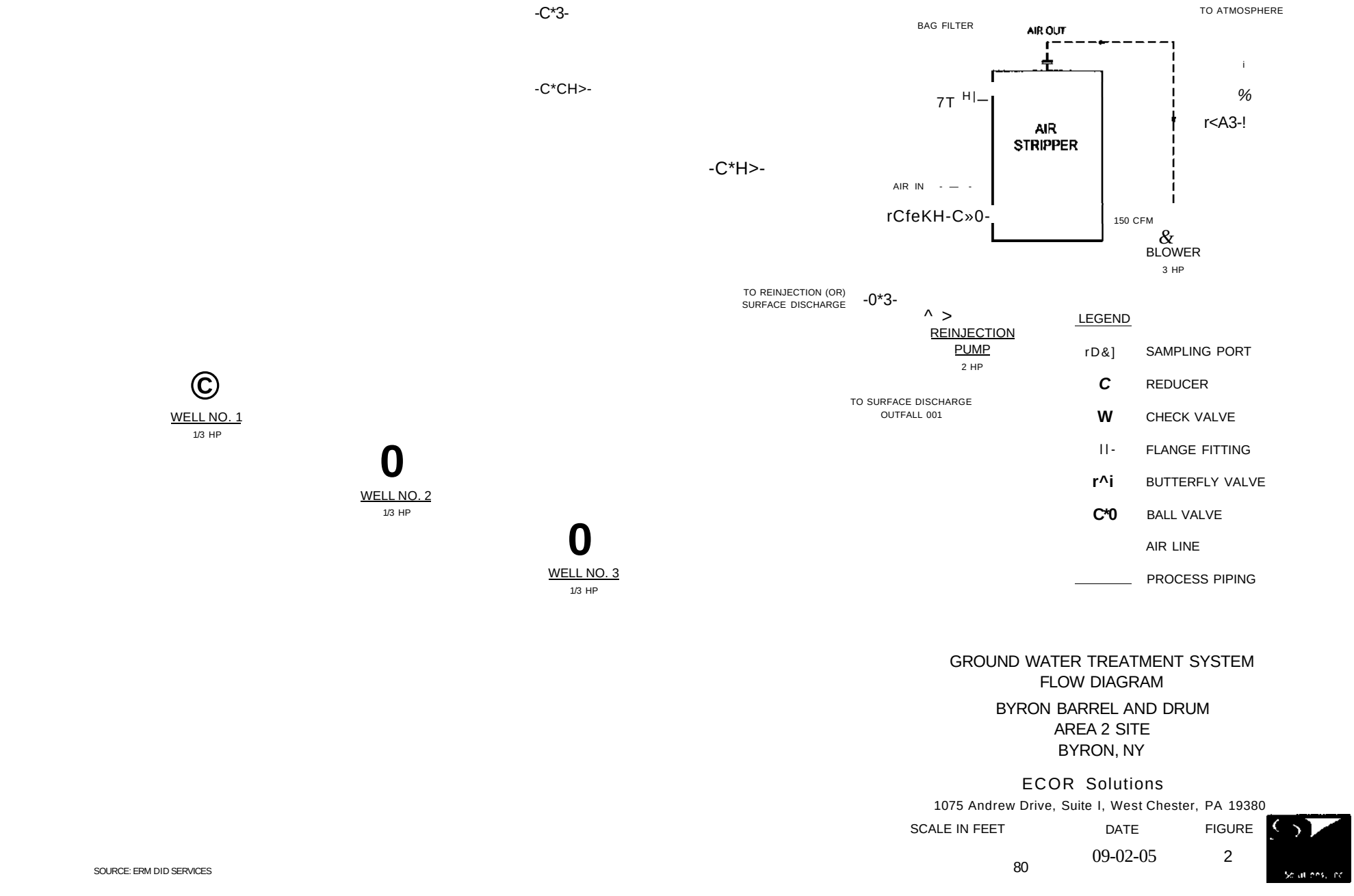
SOURCE: ERM CM) SERVICES

SITE PLAN

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
	09-02-05	1



GROUND WATER TREATMENT SYSTEM
FLOW DIAGRAM

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET

DATE
09-02-05

FIGURE
2

SOURCE: ERM DID SERVICES

Figure 3
Byron Barrel and Drum Site
Influent Concentration (Total VOCs) Vs. Time

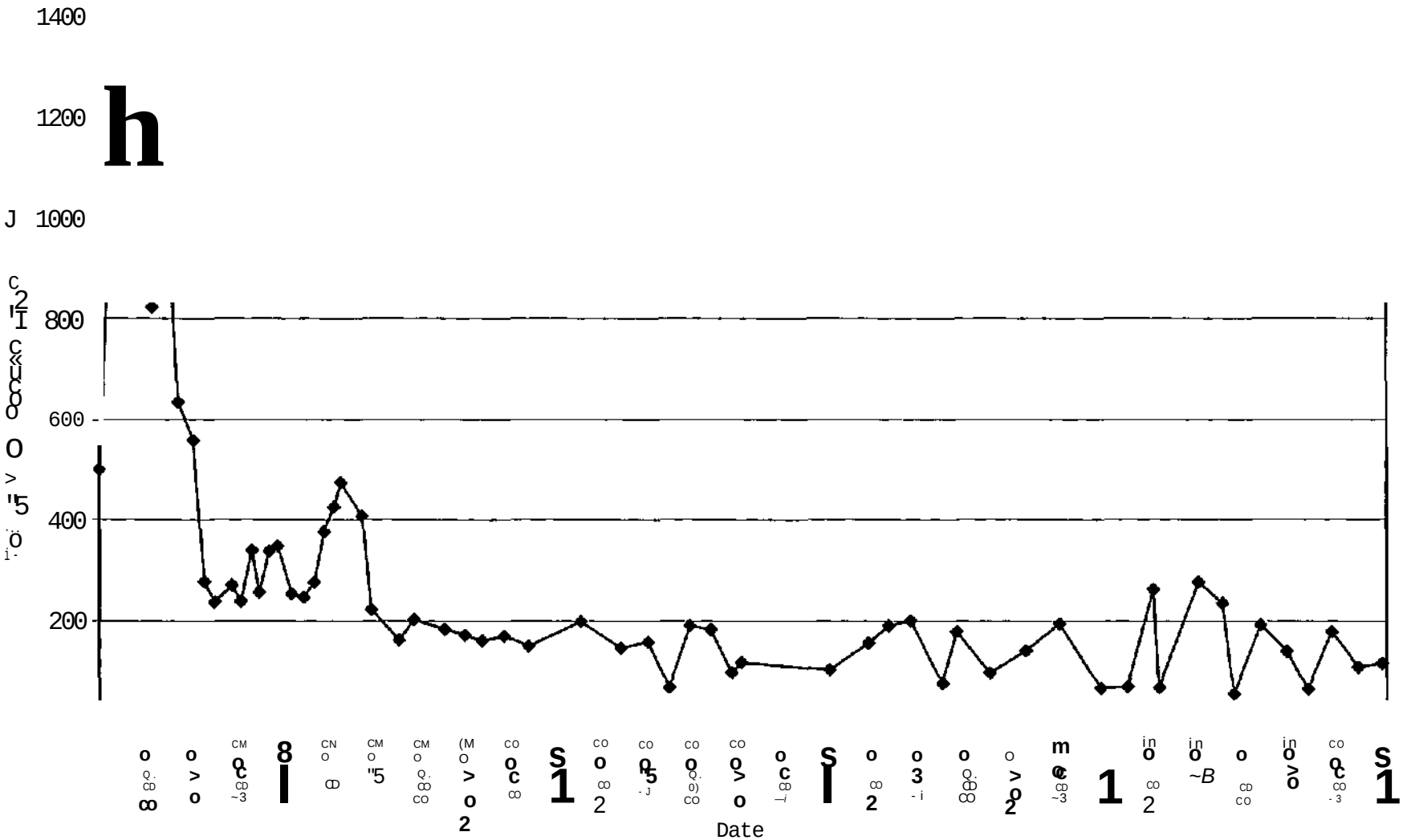
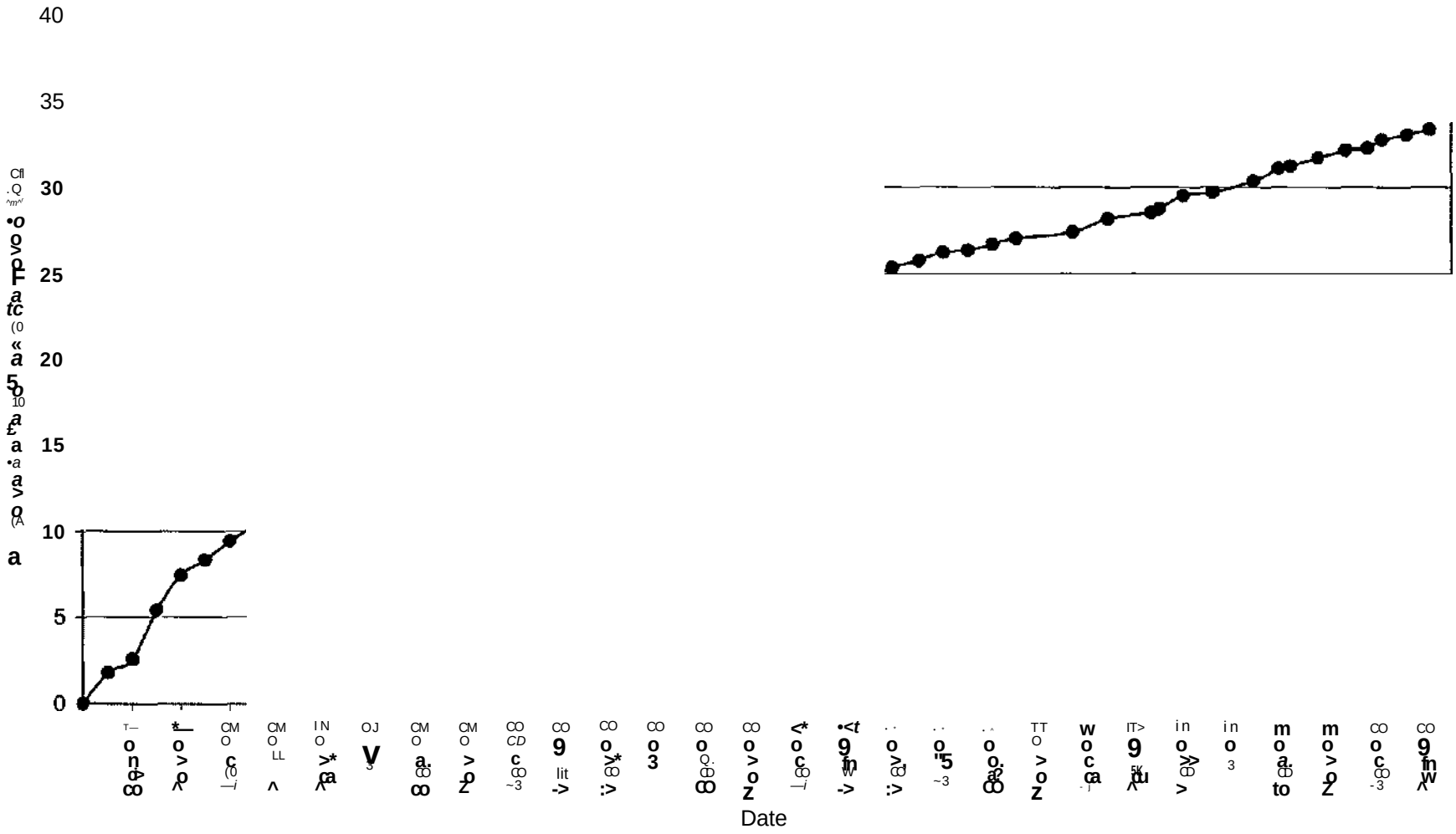
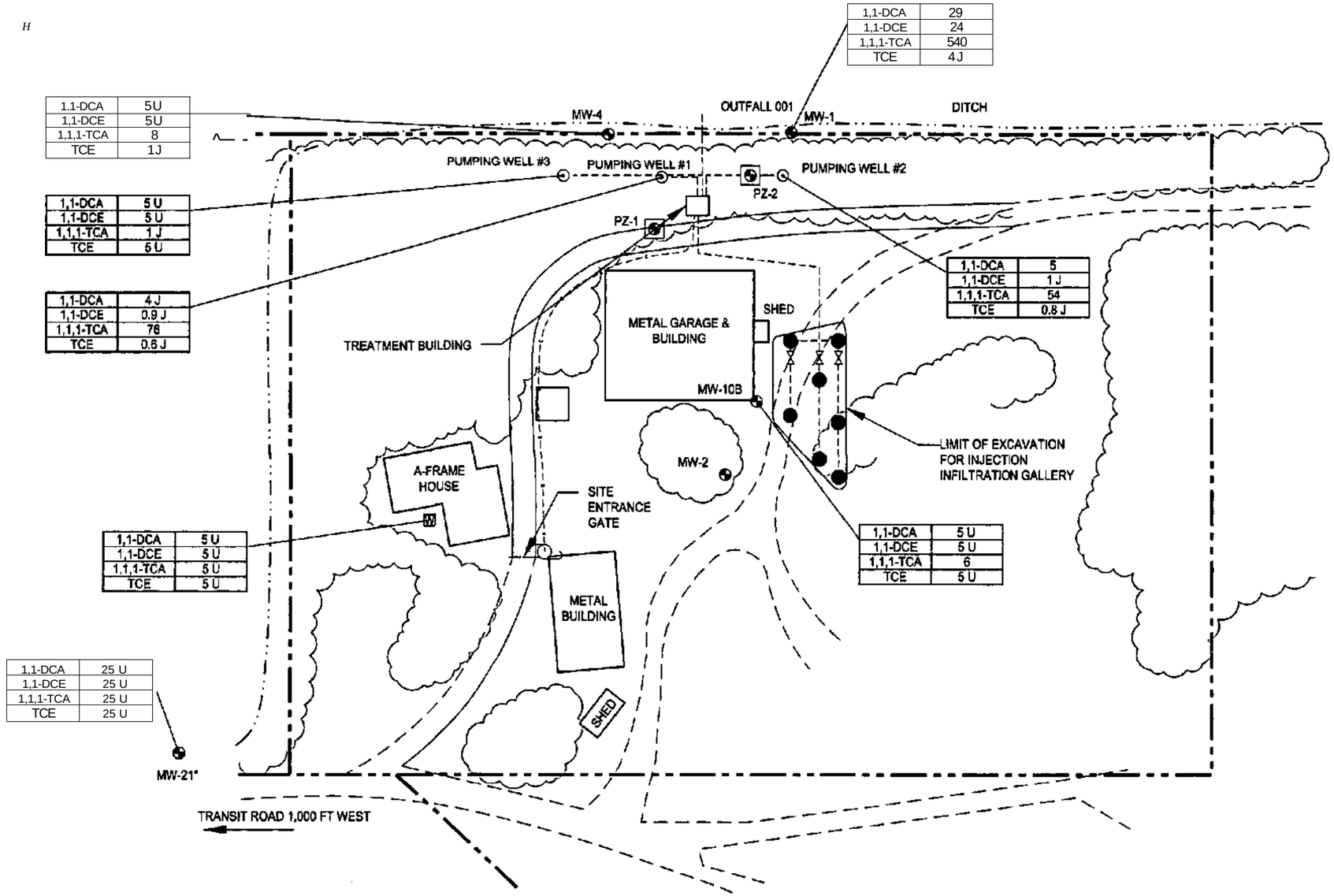


Figure 4
Byron Barrel and Drum Site
Cumulative Dissolved-phase Mass Removed (Total VOCs)



H



LEGEND

«	MONITORING WELL
B	FORMER RESIDENTIAL WELL
S	PIEZOMETER WELL
•	INJECTION GALLERY PIEZOMETER WELL
z	INJECTION GALLERY VALVE
©	PUMPING WELL
cUJ	UTILITY POLE
	PROPERTY LINE
^ - v ~ s ~ ~ ^	TREELINE
	NEW GRAVEL ROAD
	PRE-EXISTING GRAVEL ROAD
—,—, _	FENCE
	DITCH
— t—	ELECTRIC & PHONE LINE
	REINJECTION PIPIING

1,1-DCA	1,1-DICHLOROETHANE
1,1-DCE	1.1DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE

INDICATES THE PARAMETER WAS NOT DETECTED AT OR ABOVE REPORTED LIMIT

ESTIMATED VALUE.

EXCEEDENCES

'NOTE; MW-21 IS 200 FEET WEST OF PROPERTY LINE

SOURCE : ERW C&O SERVICES

GROUNDWATER QUALITY MAP
26 MARCH 2006
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
60	05-29-06	5

APPENDIX A
Field Notes

Ground Water Sampling Record

ECOR Solutions, Inc.

Site: Byron Barrel and Drum Date: *j/z^/^6*

Job#: *tHkLecrz-*

Sample ID: «*»/-?- *oton*

Well ID: *M'UJ* - f Time onsite: Time Offsite:

Samplers: A^3

Depth of Well (from top of casing) Time:

Static water level (from top of casing) Time:

Purging Method: Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests: ***tDO&***

Time	Flowrate (mUmin) / purge volume (ml)	Temp. °C	ORP mV	pH Std. Units.	TDS g/L	DO mg/L	Spec. Cond. mS/cm
\D\3	S^{/U.	*6.1/*	*ni*	7.0/	**o.r**	3,7^	• 7 2 7
\i\i		*(,-OS*	91	*O.lo*	*OS*	*Lfr*	o,7i-?
1023		*(*9f*	7 3		*o.S-*	*i.ir*	<2>>7Z7
I OTA		*^S%*	*& -*	*-j,00*	*0.5?*	o.Sr/	^ ^ . S "
Ml>3		*U4S*	34	*1.08*	*OS*	*Q.kb*	^,7i3
lOil		*U.(t2.*	IT	*n.os'*	*os-*	*o.sM*	0,7/9
1043		*^(JX*	S	*1M*	*o.zr*	*o.Hl*	0 . 7 / *
HM%		*C$2*	1	G.17	*o.<?*	*o.HH*	*onrt*
105-3		6.77	"f"	*l.oz.*	*o,s~*	*QHO*	a 7/3
hr*		6.77	*-%*	*6.W*	*o-S*	*QMl*	*Qnn*

Sampling:

Time of Sample Collection:

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503.1 Other

Observations:

Weather/Temperature: rtr^+l) *VVHrJuf* *lbv* *HO'b*

Sample Description:

Free Product?	Yes	No	*S*	Descript.:
Sheen?	Yes	No	*\S*	Descript.:
Odor?	Yes	No	*S*	Descript.:

Comments:

Ground Water Sampling Record

ECOR Solutions, Inc.

Site: Byron Barrel and Drum **Date:** S / Z I ' / ^

Job#:

Sample ID: M.U>M-i- O M 1

Well ID: '"M Time onsite: Time Offsite:

Samplers: »aB

Depth of Well (from top of casing) Time:

Static water level (from top of casing) Time:

Purging Method: Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests: *UM,

Time	Flowrate (mL/min) / purge volume (mL)	Temp. °C	ORP mV	PH Sid. Units.	TDS g/L	DO mg/L	Spec. Cond- mS/cm
u s l	(sOml/ai/i	Ul	43	L .%	J.(P	«M3	0.',c*i
lli'G		L^	HH	(i^c\%	<?,T	2-13	6171
130/		Q-V	43	4.11	06'	1.7*	• 137
lSc>6		L-Ti	t/J	**Ul**	£.5'	' . ^	<y 7/j-
'3M		£S2	**m**	6/11	**o.r**	/.£/	0 !o~7
!*>/&		**6*f**	HH	LS\1	6.f	t<S"}	oaj-?
-}u		**6.U**	HT	CAl	**o-1**	h$-°\	0 G^ X

Sampling:

Time of Sample Collection:

Collection Method: X Dedicated pump

Analyses: X VOCs

Analytical Method: 8260 X 503.1 Other:

Observations:

Weather/Temperature: ^ y L^ ^iOis

Sample Description:

Free Product? Yes No ^ Descript.

Sheen? Yes .No A Descript.

Odor? Yes No ^ C Descript.

Comments: \)up Vb*

Ground Water Sampling Record

ECOR Solutions, Inc.

Site: Byron Barrel and Drum

oate: **3/z4^<£**

Job#: *tka/.oo^*

Sample ID: ***MU)ICi&- *>S~- 6Cu\^>***

Well ID: ***/HUUI6&*** Time onsite: Time Offsite:

Samplers: *S%e>*

Depth of Well (from top of casing) Time:

Static water level (from top of casing) Time:

Purging Method: Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests: ***110^?***

Time	Flowrate (mL/mln) / purge volume (mL)	Temp. °C	ORP mV	PH Std. Units.	TDS g/L	DO mg/L	Spec. Cond. mS/cm
Ull	*fo'^L:*	*i>Hi.*	*1H*	*0,11*	*a.y*	*V. S3*	*0.U53*
lilt,		*23S*	*M*	6.?r	*OM*	*3.46*	*0.613*
IIII		*f.S1*	53	*UAH*	***oM***	3.08	*Obis'*
mio		*%ll*	5-7	6.7W	*o.H*	*?.1f*	*OM11*
Hit		***ui***	***uo***	***(<-p***	***oM***	*2-M*	*0 -6>7<T*
n-36		*tu*	*(*3*	*G-U*	*o.H*	*Z.%3*	*0>6 7S-*

Sampling:

Time of Sample Collection:

Collection Method:	*Analyses:*	*Analytical Method:*		
X Dedicated pump	X VOCs	8260 X	503.1	Other:

Observations:

Weather/Temperature: ***Cto+t/s/ iot*^ [c]tO "j»***

Sample Description:

Free Product?	Yes	No	X	Descript:
Sheen?	Yes	No	^	Descript.:
Odor?	Yes	No	^C	Descript.:

Comments:

Ground Water Sampling Record
ECOR Solutions, Inc.

Site: Byron Barrel and Drum

Date: $fiiSo£n^

Job S: \ L \ I L \ - Q & ? ~

Sample ID: fl>?jj~V*±lcl£*\£ttJ. r5i'^>i,J i7

Well ID: M.Ui- &?S

Time onsite: Time Offsite:

Samplers: M &

Depth of Well (from top of casing) Time:

Static water level (from top of casing) Time:

Purging Method: Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests: <'-3>

Time	Flowrate (mL/min) / purge volume (mL)	Temp. °C	ORP mV	PH Std. Units.	TDS	DO mg/L	Spec. Cond. mS/cm
WW	H<	s.n	*/*	*.U	03	2.<fZ	a3?<?
i/s3		b.HH	13.	6>6S"	on	I.Z3	o, 3 ^
liS's		S,V>	37	«.W	0.2.	ajr7	^ 3H7
iWi		tM	2H	7.Z3'	6.1.	0fc|	0:535'
\W%		s,HI	h	7.S/	01-	0 ^ 3	o-.&o
12-13		*S3	s"	7.B3	0.2-	0.^4-	O.Jit|
U If		S.)'6	-7	"SsOO	c1 z.	O '12.	c. 3 ^
'IVb		i'.QS	-2d	%>0<1	tf.Z	0:3*/	O 3^V
!US		S.7S"	-h%	%ll	GX	CV.3Z	0323
av>		5.7V	*33	tiiif	0,2.	0.3|	^•3z?

Sampling:

Time of Sample Collection:

Collection Method: *Analyses:* *Analytical Method:*

X Dedicated pump X VOCs 8260 X 503.1 Other:

Observations:

Weather/Temperature: '(o^Y/n^^OJ

Sample Description:

Free Product?	Yes	No	S	Descript.:
Sheen?	Yes	.No	S"	Descript.:
Odor?	Yes	No		Descript.:

Comments:

Ground Water Sampling Record

ECOR Solutions, Inc.

Site: Byron Barrel and Drum Date: *$"ir~QC*

Job#:

Sample ID: **A l i p ^ l - *Zi~-*** *Cuj;^*

Well ID: ***M. if J 7 (*** Time onsite: Time Offsite:

Samplers: ***AA*** **IS**

Depth of Well (from top of casing) Time:

Static water level {from top of casing) Time:

Purging Method: Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests: t*ft,,, H- / ^ U i T

Time	Flowrate(mL/mln)/ purge volume (mL)	Temp. °C	ORP **mV**	pH Std. Units.	TDS **g/L**	**DO** mg/L	Spec. Cond. mS/cm
ioZ:I	i » *1*	t-02	***W***	v,q//	/ . /	J.</2	1.*1%*
\tM		*CM*	*NO*	G.y)	/.I	2.56	I.frS
\0%		*L.i*	*) 111*	M I	I.L	/ . & < /	/ • ^
IO'A		*CM*	*?*/*	6. Ml	!,7_	*l,%*	'•5?
i		*C.If-b*	$1	CWT	/.T.	*1,11*	I.&
I-OS'H		*UH1*	1 2	**6>n**	*1.2.*	*1.05*	<.*7
'f^i		C.3^5	***H***	6.4S	1.2—	*O/10*	f.V7
I\£>4		uy	*51*	G.H^	/.Z.	*O.tL*	**W**
no		*CM-J*	SV	G ^	1.2.	*o.^H*	/. ?6

Sampling:

Time of Sample Collection:

Collection Method:	*Analyses:*	*Analytical Method:*	
X Dedicated pump	X VOCs	8260 X 503.1	Other:

Observations:

Weather/Temperature: *'IU^J ^iO's* i-Hu-iHy C.&^V

Sample Description:

Free Product?	Yes	No	i/	Descript.:
Sheen?	Yes	No	'•/	Descript.:
Odor?	Yes	No		Descript.:

Comments:

Byron Barrel and Drum Site
Field Chemistry Readings

Parameter Units	Time	Temp. °C	ORP mV	PH Std. Units	**TDS** g/L	DO mg/L	Spec. Cond. mS/cm
PW-1/GW Q	*IZ-V&*	*MO*	%	**6.^r**	*6£*	*HX*	*o^ay*
PW-2/GW) 7	*dVL*	*H*	<?3	£.??	*o.i*	*$.G>0*	*O.bfo*
PW-3/GW 17	*\VS*	<?.$?	%6	*1.JJ/*	oy	*S-i~l*	*0>0>H$*
Influent/GW&f	*H}{*	^	ft	*Q-11*	*0^*	6-ST	*0.&TI*
Effluent/GW^5'	***mo***	U	^	lit	**oA**	*$.0?*	*6-WY*

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

Byron Barrel and Drum Site
Groundwater Elevations for *Aireh 2Mb*
Sampling Event
ECOR Solutions, Inc.

Operator: *Mt/f Bad*

Date: *l-M-o^*

Pumping Wells	PTW	TOC Elevation	GW Elevation	TD	w c > ft
PW-1	*i\M*	642.82		"	–
PW-2	*n,i^*	641.34		–	–
PW-3	*Z73(*	641.11		–	–

Monitoring Wells					
MW-1	*S,oi*	639.63			
MW-2	*ih n*	646.36			
MW-4	* * ? *	638.56			
MW-1 OB	<?.2_8	644:44			
MW-21	*m<*	642.52			
Residential	I3.7^	650.78			

Piezometers					
PZ-1	*,tf	643.11			
PZ-2	*7W*	642.39			

APPENDIX B
Data Validation Report

Project Byron Barrel and Drum Site
Laboratory: Severn Trent Laboratories
Sample Delivery Group: A06-3175
Fraction: Organic
Matrix: Aqueous
Report Date: 5/25/2006

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1. All analyses were performed by Severn Trent Laboratories.

The samples were analyzed for volatile organic compounds and total suspended solids. The sample analyses were performed in accordance with the procedures outlined in the method referenced at the end of this report. The data deliverables provided by the laboratory were New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category B format.

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to Region II "Validating Volatile Organic Compounds by SW-846 Method 8260B", SOP HW-24, Revision 1, June 1999. The parameters presented on the following page were evaluated.

X	»	Data Completeness
X	»	Chain of Custody Documentation
X	»	Holding Times
X	»	Instrument Performance
X	»	Initial and Continuing Calibrations
X	->	Laboratory and Field Blank Analysis Results
X	•	Surrogate Compound Recoveries
X	«•	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	<»	Field Duplicate Analysis Results
X		Laboratory Control Sample Results
X	•	Internal Standard Performance
X		Qualitative Identification
X	<	Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

Shawnie M. Rodgers
President

5/25/2006
Date

0 DATA COMPLETENESS

The data package was complete.

0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

0 HOLDING TIMES

The holding times were met for all analyses.

0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY

All criteria were met. No qualifiers were applied.

9.0 FIELD DUPLICATE RESULTS

Duplicate samples MW4-9-GW17 and DUP1-GW17 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for these duplicate samples are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses and internal acceptance criteria of twenty percent for volatile detected compounds to evaluate field duplicate samples.

10.0 LABORATORY CONTROL SAMPLE RESULTS

All criteria were met. No qualifiers were applied.

11.0 INTERNAL STANDARD PERFORMANCE

All criteria were met. No qualifiers were applied.

12.0 QUALITATIVE IDENTIFICATION

All criteria were met. No qualifiers were applied.

13.0 QUANTTTATION/REPORTING LIMITS

The following samples were re-analyzed at dilutions for volatile organic compounds. The reanalyses were performed because the responses for

volatile compounds exceeded the linear range of the GC/MS instrument for the initial undiluted analyses. The affected results were reported from the dilution analyses. All other results have been reported from the initial analyses.

Sample	Dilution Factor	Compound reported from Dilution
MW1 -9-G Wl 7	10.0	1,14 -Trichloroethane
PW2-9-GW17W17	2.0	1,1,1-Trichloroethane

The samples presented below were analyzed at dilutions. The dilution analyses were performed because of the suspected presence of high levels of target compounds and/or interferences. Quantitation limits are elevated by the dilution factor for these samples for target compounds that were not detected. The elevated quantitation limits should be noted when assessing the data for these samples.

Sample	Dilution Factor
MW21-25-GW17	5.0

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective quantitation limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 8260B, "Test Methods for Evaluating Solid Wastes", SW-846, third edition, Promulgated Updates II, IIA, and III, June 1997
Total Suspended Solids	Method 160.2, "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, and revisions

Table 1 Samples For Data Validation Review
Byron Barrel and Drum Site
Groundwater Samples Collected March 2006
Severn Trent Laboratories Sample Delivery Group A06-3175

SAMPLE I.D.	LABORATORY I.D	DATE COLLECTED	MATRIX	ANALYSES PERFORMED	
				VOC	TSS
DUP1-GW17	A6317509	3/25/2006	GROUNDWATER	X	
MW1-9-GW17	A6317503	3/26/2006	GROUNDWATER	X	
MW10B-15-GW17	A6317505	3/26/2006	GROUNDWATER	X	
MW21-25-GW17	A6317501	3/25/2006	GROUNDWATER	X	
MW4-9-GW17	A6317502	3/25/2006	GROUNDWATER	X	
M WResidential -32-G Wl 7	A6317504	3/25/2006	GROUNDWATER	X	
PW1-9-CW17W17	A6317508	3/26/2006	GROUNDWATER	X	X
PW2-9-GW17W17	A6317507	3/26/2006	GROUNDWATER	X	X
PW3-9-GW17W17	A6317506	3/26/2006	GROUNDWATER	X	X
Trip Blank	A6317511	3/25/2006	TRIP BLANK	X	

VOC: Volatile Organic Compounds

TSS: Total Suspended Solids

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples MW4-9-GW17 and DUP1-GW17

	MW4-9-GW17 (Hg/L)		DUP1-GW17 (ug/L)		RPD	Comments
1,1,1-Trichloroethane	8		8		0.0	
Trichloroethene	1	J	1	J	0.0	

EOCR SOLUTICMS
BOCR SOLUTIONS - BYRCN BARREL & DKLM *SITE*
AQUEOJS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DA1A SHEET

Client No,

DUP1-GW17

lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: SAS No.: SDG No.: 3175

[Matrix: (soil/water) WATER Lab Sarrple ID: A6317509

Sample wt/vol: 5.00 (g/mL) ML Lab File ID; G0315.RR

Level: (low/mad) LCW Date Samp/Recv: 03/25/2006 03/27/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed:. 03/30/2006

GC Column: DB-624 3D: 0.18 (rrm) Dilution Factor: 1.00

Soil Extract Volums: (uL) Soil Aliquot Volums: (uL)

CAS NO.	OCMPOUND	COJCENTRA3TCN UNITS: (ug/L or ug/I^) UG/L	Q
75-34-3--	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	-1,1,1-Trichloroethane	8	
79-01-6	Trichloroethene	1	J
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-Ttichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
67-66-3	Chloroform	5	U
75-27-4	BrcaDdichloromethane	5	U
124-48-1	Dibrcmochlorornsthane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
95-50-1----—-	l^-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U

ECOR somnosis

ECCR SOLUTIONS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW1-9-GW17

Lab Name: STL Buffalo Contract:

lab Code: RECNT Case No.: SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER Lab Sample ID: A6317503

Sample wt/vol: 5.00 Cg/mL) ML Lab File ID: G0309.RR

Level: (low/med) l£W Date Samp/Recv: 03/26/2006 03/27/2006

% Maisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 (rm) Dilution Factor; 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume: ' (uL)

CAS NO.	COMPOUND	COTTOIRATTCN: UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	29	
75-35-4	1,1-Dichloroethene	24	
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	u m
71-55-6	1,1,1-Trichlorcethane	-se0	
79-01-6	Trichloroethene	4	J
75-01-4	Vinyl chloride	5	V
71-43-2	Benzene	5	V
1330-20-7	Total Xylenes	15	u •
108-90-7	Chlorobenzene	5	u
79-00-5	1,1,2-Trichloroethane	5	u
107-06-2	1,2-Dichloroethane	5	u
127-18-4	Tetrachloroethene	5	u
67-66-3	Chloroform	5	u
75-27-4	Braro±Lchloromethane	5	u
124-48-1	Dihrcnx)C±ilorcmethane	5	u
78-93-3	2-Butanone	10	u
56-23-5	Carbon Tetrachloride	5	u
95-50-1	1,2-Dichlorcibenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

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EODR SOLUTIONS
BOOR SGLLtfTCNS - BYRCN BARREL & *JMM* SITE
AQUEOUS ASP 2000/8260 - *SELECT* LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW1-9-0*17 DL

Lab N&me: STL Buffalo Contract:

Lab Code: RBCNY Case No.: SAS No.: SD3 No.: 3175

Matrix: (soil/water) WATER lab Sarrple ID:. A6317503DL

Sarrple wt/vol: 5.00 (g/rriL) ML lab File ID: . , G0337.RR

Level: (Icw/med) I£W Date Sarrp/Recv:, 03/26/2006 03/27/2006

% r-foisture: not dec._____ Heated Purge: N Date Analyzed: - 03/31/2006

GC Column: DB-624 ID: 0.18 (rrm) Dilution Factor.: .10.00

Soil Extract Volume; (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	OCNGENTRAnCN UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	1,1-Dxchloroethane	26	DJ
75-35-4	1,1-Dichloroethene	22	DJ
75-09-2	Methylene chloride	50	U
108-88-3	Toluene	50	
71-55-6	1,1,1-Trichloroethane	.540	% $
79-01-6	Trichloroethene	4	DJ
75-01-4----	Vinyl chloride	50	U
71-43-2	---Benzene	50	U
1330-20-7--	Total Xylenes	150	U
108-90-7	Chlorobenzene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
107-06-2--	1,2-Dichloroethane	50	U
127-18-4	Tetrachloroethene	50	U
67-66-3	Chloroform	50	U
75-27-4	Brorrodichlororrethane	50	U
124-48-1	Dibrcnc<^ororrethane	50	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	50	U
95-50-1	1,2-Dichlorobenzene	50	U
106-46-7	1,4-Dichlordbenzene	. 50	U

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EOCR SOLUTIONS
BOOR SOLUTIONS - BYRCN BARREL & DRUM SITE
PQMXB ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DKm SHEET

Client No.

MW10B-15-GW17

Lab Name:. STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER Lab Sanple 3D: A6317505

Sample wt/vol: 5.00 (g/mL.) ML Lab File ID: G0311.RR

Level: . (low/med) l£W Date Samp/Recv: 03/26/2006 03/27/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 (tnm) Dilution Factor:_____1.00.

Soil Extract Volume: (uL) Soil Aliquot Volume: (UL)

CAS NO.	COMPOUND	03CENTRATIGN UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	---1,1,1-Trichloroethane	6	
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-T^ichloroethane	5	•u
107-06-2	1,2-Dichloroethane	5 : •	U
127-18-4	Tetrachloroethene	5	U
67-66-3	Chloroform	5	U .
75-27-4	BrcmDdichloroTrethane	5	U
124-48-1	Dibrcmochloromethane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	.5	U
95-50-1	1,2-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U

5/25/2006

BOOR SOLUTIONS
BXR SOLUITCNS - BXRCN BARREL & DRLM SITE
AQUEOUS ASP 2000/8260 - *SELECT LIST-WOE* 5
ANALYSIS DATA SHEET

Client No.

MW21-25-GW17

Lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: SAS No.; SDG No.: 3175

Matrix: (soil/water) MATER Lab Sanple ID: A6317501

Sanple wt/vol: 5.00 (g/mL) ML lab File ID: G0305.RR

Level: (low/med) LOtf Date Sarrp/Recv: 03/25/2006 03/27/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006 .

GC Cblurm: DB-624 •• ID: 0.18 (nm) Dilution Factor: 5.00

Soil Extract Volume; (uL) Soil Aliquot Volume: (UL).

CAS 1SD.	COMPOUND	CXMCENTRATICN UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	--1,1-Dichloroethane	25	U
75-35-4	1,1-Dichloroethene	25	U
75-09-2	Methylene chloride	25	U
108-88-3	Toluene	25	U
71-55-6	1,1,1-Trichloroethane	25	U
79-01-6	Trichloroethene	25	U
75-01-4	Vinyl chloride	25	U
71-43-2	Benzene	25	U
1330-20-7	Total Xylenes	75	U
108-90-7	Chlordbenzene	25	U
79-00-5	1,1,2-lrichloroethane	25	U
107-06-2	1,2-Dichloroethane	25	U
127-18-4	Tetrachloroethene	25	U
67-66-3---	Chloroform	25	U
75-27-4	Bromodichloromethane	25	U
124-48-1	Dibrcmochloroimthane	25	U
78-93-3	2-Butanone	50	U
56-23-5	Carbon Tetrachloride	25	U
95-50-1	1,2-Dichlorobenzene	25	U
10.6-46-7	1,4-Dichlordbenzene	25	U

gmL 5/15/2006

BCDR SOLUTIONS
EOCR SCOTITCNS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - *SELECT* LIST-TABLE 5
ANALYSIS DATA SHEET

Client No,

MW4-9-GW17

Lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: SAS No.: SDG No. : 3175

flfatrix: (soil/water) WATER lab Sanple ID: A6317502

Satrple wt/vol: 5.00 (g/mL) ML lab File ID: G0308.RR

Level: (low/med) LOW Date Sanp/Recv: 03/25/2006 03/27/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL).

CfcS NO.	OCMPOUND	OCNCENTRATICN IKETS: (ug/L or ug/Kg) UG/L	Q
75-34-3	-1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1/1-Trichloroethane	8	
79-01-6	Trichlorosthene	1	J
75-01-4	Vinyl chloride	5	U
71-43-2	-Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	-1,1,2-Trichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
127-18-4	Tetrachlorosthene	5	U
67-66-3	Chloroform	5	U .
75-27-4	Brom3ob.chlc>rcmethane	5	U
124-48-1	Dihrcmochlorcmethane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
95-50-1	1,2-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorcbenzene	5	U

BXR SOLUTIONS
BOOR SOLUTIONS. - BYRON BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS nam SHEET

Client No.

MWRESIDENT-32-GW17

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER lab Sample ID: A6317504

Sarrple wt/vol: 5.00 (g/mL) ML Lab File ID: G0310.RR

Level: (low/med) im Date Samp/Recv: 03/25/2006 03/27/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 firm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	CXMOUND	CCH^NTRATICN UNITS: (ug/L or ug/I^j UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichlorcethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-01--6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	5	u
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
107-06-2	1,2-DicMoroethane	5	U
127-18-4	Tetrachloroethene	5	U
67-66-3	Chloroform	5	V
75-27-4	BroTTodichloromethane	5	U
124-48-1	DibrcmochlorcnHthane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
95-50-1	1,2-DicW.orobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U

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BCER SOLUTIONS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW1-9-GW17W17

Lab Name: STL Buffalo Contract:

Lab Gode:'RECUY Case No.:___ SAS No.: SD3 No.: 3175

Matrix: (soil/water) WRIER Lab Sarrple ID: : A6317508

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: G0314.RR

Level: (low/tred) I£W Date Sanp/Recv: 03/26/2006 03/27/2006

% Moisture: not dec._____Heated Purge: N Date Analyzed: 03/30/2006

GC Oolurrri: DB-624 ID:, 0.18 (nm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS ND.	OCMPOUND	CaraNIRATICN UNITS: (ug/L or ug/I^) UG/L	Q
75-34-3	1,1-Dichloroethane	4	J
75-35-4	1,1-Dichloroethene	0.9	J .
156-59-2	cis-l,2-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	76	
79-01-6	Trichloroethene	0.6	J
75-01-4	Vinyl chloride	5	U

EOOR SOLUTIONS
FXDR SOlUnCNS - BYRCN BARREL & DRCM SITE
AQUEOUS ASP 2000/8260 - *SELECT* UST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

FW2-9-GW17W17

lab Name; STL Buffalo Contract:

Lab Code: RBCNY Case No.:___ SAS No.: SDG No.: 3175

Natrix: (soil/water) WATER Lab Sanple ID:. A6317507

Sarrple wt/vol: 5.00 (g/rriL) ML lab File ID: G0313.RR

Level: (low/med) LOW Date Samp/Recv: 03/26/2006 03/27/2006

% Moisture: not *dec.*_____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 (rim) Dilution Factor: 1,00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	OCMFOUSD	CTNCEWIRATICN UNITS : (ug/L or ug/Kg) UG/L	Q
75-34-3	-1,1-Dichloroethane	•5	
75-35-4	1,1-Dichloroethene	1	J
156-59-2	cis-l,2-Dichlorcethene	5	U
75-09-2-r-	Methylene chloride	5	U
108-88-3—"	Itoluene	5	
71-55-6	1,1,1-Trichloroethane		
79-01-6	Trichloroethene	0.8	1* 9* J
75-01-4	Vinyl chloride	5	U

* Report from dilution

V.

SMM 5/8/2006

BOOR SOLUTICNS
EOCR SOLUTIONS - BXRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 OMEDS
ANALYSIS DATA SHEET

Clieat No.

EW2-9-GW17W17 EL

Lab Name: *STL* Buffalo Contract:

Lab *Code:* RBCNY Case No.: _____ SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER lab Sanple ID: A6317507DL

Sartple wt/vol: 5.00 (g/niL) ML lab File ID: . G0338.RR

Level: (low/med) LCW Date Sairp/Recv: 03/26/2006 03/27/2006

% Nbisture: not dec._____ Heated Purge: N Date Analyzed: 03/31/2006

GC Colurrn: DB^624 ID: 0.18 (nm) Dilution Factor: 2.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume: • (uL)

CAS NO.	COMPOUND	OCNCFJSTIRATICN UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dirihloroethane	2	DJ
75-35-4	1,1-Dichloroethene	10	U
156-59-2	cis-l,2-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	54	,rf>
79-01-6	Trichloroethene	10	u
75-01-4	Vinyl chloride	10	u

#^-e^d

FORM I - GC/MS VQA

EOOR SOLUTIONS
E O T SOLUTIONS - BYRCN BARREL & DRLM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW3-9-OT.7W17

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: ___ SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER Lab Sample ID: A6317506

Sample wt/vol: 5.0Q (g/mL) ML Lab File ID: G0312.RR

Level: (low/rted) LOW Date Samp/Recv: 03/26/2006 03/27/2006

% Maisture: not dec._____ Heated Purge: N Date Analyzed: 03/30/2006

GC Column: DB-624 ID: 0.18 (rmi) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	CrWCEWrRATICN UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-^59-2	cis-l,2-Dichloroethene	5	U
75-09-2	ethylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	l,ia-TricMoroethane	1	J
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U

smh 5/25/2006

EOOR SOLUTICNS
ECQR SOLUTIONS - BYRCK BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE .5
ANALYSIS DATA SHEET.

Client No.

TRIP BLANK

Lab Name: STL Buffalo Contract:

Lab Code: REGNY Case No. : SAS No.: SDG No.: 3175

Matrix: (soil/water) WATER Lab Sample ID: A6317511

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: G0317.RR

Level: (low/rred) I£W Date Sarnp/Recv: 03/25/2006 03/27/2006

% Moisture: not dec. ' Heated Purge: N Date Analyzed:. . 03/30/2006

GC Column: DB-624 ID: .0.18 (imn) Dilution Factor: 1.00

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CrNCENTRATICN UNITS: (ug/L or i^/Kg) U3/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-Trichloroethane	5	a
107-06-2	1,2-Dichloroethane	5	u
127-18-4	Tetrachloroethene	5	u
67-66-3	Chloroform	5	u
75-27-4	BrcmodichloironTethane	5	u
124-48-1	Dibrcnochloromethane	5	u
78-93-3	2-Butanone	10	u
56-23-5	Carbon Tetrachloride	5	u
95-50-1	1,2-Dichlorobenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

FW1-9-GW17W17

lab Name: STL Buffalo

Contract:

Lab Code: RECNY Case No.

SAS No.:

SDG No.: 3175

Matrix (soil/water) : WATER

Lab Sample ID: A6317508

% Solids: 0.0

Date Samp/Recv: 03/26/2006 03/27/2006.

Parameter Name	tiiits of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	03/29/2006

Comments:

5/2/2006

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW2-9-OT.7W17

Lab Name: *SIL* Buffalo Cbntract:

Lab Code: RECNY Case No.: SAS No.: SDG No.: 3175

Matrix (soil/water) : WATER Lab Sample ID: A6317507

% Solids: 0.0 Date Samp/Recv: 03/26/2006 03/27/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	03/29/2006

Cfcrmments:

Ecor Solutions
Bcor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW3-9-GW17W17

Lab Name: STL Buffalo Contract:

lab Code: REQJV Case No.: SAS No.: SDG *No.* : 3175

Matrix (soil/water) : WATER lab Sample ID: A6317506

% Solids: 0.0 Eate Samp/Recv: 03/26/2006 03/27/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
lotal Suspended Solids	***m/h***	4.0				160.2	03/29/2006

Comments:

ECOR SOLUTIONS
ECOR SOLUTIONS - BYRON BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
WATER SURROGATE RECOVERY

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDG No.: 3175

	Client Sample ID	Lab Sample ID	BFB %REC	n	DCE %REC	#	TOL %REC	#						TOT OUT
1	DUP1-GW17	A6317509	92		98		95							0
2	MSB4S	A6B1624401	98		100		97							0
3	MSB48A	A6B1624601	97		100		97							0
4	MW1-9-GW17	A6317503	94		102		94							0
5	HU1-9-GW17 DL	A6317503DL	94		106		97							0
6	MW10B-15-GU17	A6317505	94		100		96							0
7	HW21-25-GW17	A6317501	93		102		96							0
8	HW21-25-GW17	A6317501MS	101		96		99							0
9	MU21-25-GU17	A6317501SD	99		96		98							0
10	MW4-9-GW17	A6317502	95		100		97							0
11	MWRESIDENT-32-GW17	A6317504	92		101		94							0
12	TRIP BLANK	A6317511	92		97		95							0
13	VBLK48	A6B1624402	95		102		95							0
14	VBLK48A	A6B1624602	94		104		95							0
15	VHB	A6317510	93		98		96							0

QC LIMITS

BFB = p-Bromoftuorobenzene (86-115)
DCE - 1,2-Dichloroethane-D4 (76-114)
TOL = Toluene-D8 (88-110)

Column to be used to flag recovery values
* Values outside of contract required QC limits
0 Surrogates diluted out

Environmental
Construction
Operations &
Remediation

ECOR Solutions, Inc.
1075 Andrew Drive, Suite
West Chester, PA 19380
Main (610)431-8731
Phone (610)840-9200
Fax (610)431-2852

14 September 2006

Mr. George Jacob
Remedial Project Manager
Central New York Remediation Section
Emergency & Remedial Response Division
USEPA Region 2
290 Broadway Avenue, 20th Floor
New York, New York 10007-1866

ECOR
Solutions, Inc.,

Re: Second Quarter Report 2006
Byron Barrel & Drum Site - Byron, New York

Dear Mr. Jacob,

Sincerely,
ECOR Solutions, Inc.

Matthew Lapp
Project Engineer

cc: Mr. John Grathwol - NYSDEC
Mr. Chris Rockwell - Garlock Sealing Technologies
Mr. Terry Etter, P.E. - Unisys Corporation

BYRON BARREL & DRUM SITE

QUARTERLY REPORT
SECOND QUARTER 2006
April through June 2006

Byron Barrel & Drum Site
Area 2
Byron, New York

14 September 2006

Prepared for:

BYRON BARREL & DRUM PRP GROUP

Prepared by:

ECOR Solutions, Inc.
1075 Andrew Drive, Suite I
WestChester, PA 19380

ECOR
Solutions, Inc.

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*1.0 **INTRODUCTION***

This quarterly report of remedial activities at the Byron Barrel & Drum, Area 2 Site (Site) presents data obtained through the second quarter 2006. A Site map is provided as **Figure 1.** The purpose of this report is to summarize and document ongoing remedial and monitoring activities at the Site during the previous quarter. This report discusses the remedial activities and site monitoring activities conducted during the second calendar quarter of 2006. A brief description of the background of the site is included as well as information regarding remedial activities and monitoring activities planned for the next quarter.

1.1 SITE BACKGROUND

The Byron Barrel and Drum Area 2 Site is located at 6065 Transit Road, in Byron Township, Genesee County, NY. The Site is set back approximately 1,000 feet from the east side of Transit Road. In 1982, two drum disposal locations were discovered at the Byron Barrel and Drum site. New York State Department of Environmental Conservation's (NYSDEC) subsequent investigation led to the site's inclusion on the Superfund National Priorities List (April 1984). A remedial investigation and feasibility study (RJ/FS) was conducted, which identified three areas of concern at the site. Based on the findings of the RI, it was concluded that further action in two of the areas, Area 1 and Area 3, was not warranted. However, the RI detected volatile organic compounds (VOCs); including trichioroethene (TCE) and 1,1,1 -trichloroethane (TCA) in groundwater samples collected from locations in Area 2.

The remedial activities discussed in this report include only activities for Area 2. The selected remedy for Area 2 was in-situ soil flushing and groundwater pumping, treatment, and recharge. The Remedial Action construction was performed during the summer of 2001. The implementation of the Remedial Design included excavation and characterization of potentially impacted soil, and installation of additional two groundwater pumping wells (PWs) to supplement the one previously installed (PW-1), a ground water treatment system, and an infiltration gallery.

2.0 CONSTRUCTION OF REMEDIAL DESIGN

Remediation system installation and activation was completed in July 2001. The system operated intermittently until September 2001 due to initial system debugging during the start up phase. Since September 2001, the system has operated almost continuously. Use of the infiltration gallery was discontinued in August 2002 upon regulatory approval. During this reporting period (2nd Quarter 2006), no significant activities occurred relative to the Remedial Design.

3.0 OPERATION OF GROUNDWATER TREATMENT SYSTEM

Groundwater recovered from the three pumping wells (PW-1, PW-2, and PW-3) is treated through one bag filter and an air stripper prior to discharge. The bag filter removes suspended solids greater than 50 microns in diameter. The low-profile air stripper removes the VOCs from the groundwater. Following air stripping, the groundwater is discharged to surface water. **Figure 1** illustrates the PW locations and the Groundwater Treatment System. A Flow Diagram of the Groundwater Treatment System equipment and process piping is presented in **Figure 2.**

3.1 ROUTINE OPERATION

Scheduled O&M activities include weekly site visits by the local Chief Operator, Steve Rodland. The Chief Operator is the first responder to autodialer alarms from the site. Site status may be checked remotely by telephoning the autodialer.

Weekly site visits include performing an overall site inspection, GWTP system inspection, including checking the bag filter for solids loading, gauging air flow through the stripper, and noting flow rates and totalized flow. Preventive maintenance items performed by the operator include monthly inspections of the air stripper blower, and air stripper trays are inspected for sediment and mineral deposits. The trays require cleaning on a quarterly basis as a preventative maintenance and system operation performance item.

3.2 SYSTEM OPERA TIONS AND MONITORING HISTOR Y THROUGH SECOND QUARTER 2006

A total of 19,165,310 gallons of groundwater and approximately 34.3 pounds of dissolved-phase total VOCs have been recovered via the pumping well network since system activation. All of this groundwater was treated in the GWTS. Of that total, 18,341,310 gallons, or 95.7% of the total flow, was discharged to the surface water, into the creek that flows adjacent to the site. The remaining 824,000 gallons, or 4.3 % of the total, was directed to the Infiltration Gallery (no discharge to the Infiltration Gallery since 2002). Soil flushing through the Infiltration Gallery ceased in August of 2002. In September of 2002, EPA concurred with the conclusion of the Final RA Report for soils that Site soil has been effectively remediated. Therefore, there are no plans to re-initiate operation the Infiltration Gallery.

At the beginning of 2002, Treatment System Influent and Effluent were sampled and analyzed on a twice-monthly basis, as per the initial DEC discharge approval document. The Treatment

System sampling schedule was reduced to quarterly during the third quarter 2002 following approval of the NYSDEC. Effluent samples have been collected and analyzed during subsequent quarterly sampling events. The analytical results of the effluent have consistently met the DEC's Effluent Limitations, and have generally had non-detectable concentrations of VOCs. **Tables 1** and **2** summarize influent and effluent analytical data for the system since startup. **Figure 3** presents a graph of the influent VOC concentrations over time. Cumulative dissolved-phase mass recovered is depicted on **Figure 4.** This data indicates that the influent VOC concentration has reached asymptotic levels. Quarterly effluent compliance sampling events coincide with the quarterly groundwater monitoring events.

3.3 OPERATIONAL PROBLEMS ENCOUNTERED

The following summarizes the operational problems encountered during the second quarter 2006:

- None. The GWTP operated normally with minimal interruption from power outages during the reporting period.

4.0 QUARTERLY SITE MONITORING EVENT

4.1 MONITORING WELL SAMPLING EVENT

The quarterly sampling event occurred on 22 June 2006 and was conducted in accordance with the agreed upon modifications to the QAPP in telephone conversations between ECOR, EPA, and DEC's Project Managers on 23 May 2003. Groundwater samples were collected from monitoring wells MW-1 and MW-4 using EPA's low-flow sampling procedures, in accordance with the QAPP. This event entailed the sampling of the two monitoring wells downgradient of the impacted area. A summary of the field parameter measurements is presented in **Table 3.** The purging and sampling procedures utilized during collection of the quarterly samples were consistent with the procedures outlined in the QAPP. A copy of field notes collected during the sampling event is included in **Appendix A.** The preserved groundwater samples were placed on ice in a cooler and were shipped to Severn Trent Laboratories (STL), Buffalo, New York. In addition, groundwater elevations were measured from site monitoring wells. A summary of Site groundwater elevations is provided in **Table 4.**

4.2 LABORATORY ANALYSIS / GROUNDWATER SAMPLING RESULTS

Recent and historical groundwater quality data for monitoring and pumping wells (2001 to present) Jbr.selectxcmpoimdsis.surnmarizedJn^

included VOC analysis in accordance with USEPA SW-846 Method 8260B. The groundwater samples (MW-1 and MW-4) were analyzed for the following twenty (20) project specific compounds: 1,1-dichloroethane (1,1-DCA), l,l-dichloroethene(l,l-DCE), methylene chloride (MeCl), toluene, 1,1,1 -trichloroethane (TCA), trichloroethene (TCE), vinyl chloride (VC), benzene, total xylenes, chlorobenzene, 1,1,2-trichloroethane (1,1,2-TCA), 1,2-dichloroethane (1,2-DCA), tetrachloroethene, chloroform, bromodichloromethane, dibromochloromethane, 2-butanone, carbon tetrachloride, 1,2-dichlorobenzene and 1,4-dichlorobenzene. The pumping well samples (PW-1, PW-2, and PW-3) were analyzed for the following eight (8) compounds: 1,1-DCA, 1,1-DCE, MeCl, TCA, TCE, toluene, VC and cis-l,2-dichloroethene. A review of the previous data indicates that the primary compounds of concern detected at the site are: TCA and degradation products 1,1 -DCA and 1,1 -DCE. The concentrations of these VOCs range from non-detect to 220 micrograms per liter (ug/L) (TCA at monitoring well MW-1). Currently, 1,1-DCA, 1,1 -DCE, and TCA are present above the applicable clean up standards. Groundwater quality data is depicted on **Figure 5** with those constituents detected above the applicable clean-up standard are highlighted in yellow.

43 DATA VALIDATION

As per section 4.0 of the QAPP, the data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the ASP, the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 1, September 1999: Validating Volatile Organic Compounds by SW-846 Method 8260B, and the reviewer's professional judgment. The Data Validation Report is included in **Appendix B.**

5.0 *PLANS FOR NEXT QUARTER*

The next quarterly groundwater sampling event will be performed in September 2006. Operation and maintenance plans for the next quarter include continued routine operation as well as preventative maintenance of the pumping wells and GWTP.

ECOR submitted a review of the in-situ bioremediation applicability study to the PRP group for review. The PRP Group requested an independent assessment of the data and recommendation prior to implementation. The independent assessment was completed during June 2006. The findings indicate that an in-situ bioaugmentation process may be an effective remediation technology. ECOR and the PRP group are evaluating the use of biological processes enhancements such as emulsified soybean oil and whey products. A work plan will be prepared on completion of the internal analysis.

TABLES

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/01	8/8/01	8/18/01	9/18/01	9/27/01	10/5/01
Field Influent pH, std pH units			7.87	7.57	7.55	7.5
Total Suspended Solids, mg/L	6.5	4.0 U		4.0 U	4.0 U	4
1,1-Dichloroethane, ug/L	23	47		19J	58 D	43 J
1,1-Dichloroethene, ug/L	5.1	12		12 J	16 DJ	50 U
Cis -1,2 - Dichloroethene, ug/L	1.0J	1.4 J		50 U	50 U	50 U
Methylene Chloride, pg/L	5.0 U	5.0 U		50 U	50 U	50 U
1,1,1 - Trichloroethane, pg/L	460 E	840 E		1100	1100 D	780
Trichforoethene, pg/L	1.9J	3.0 J		50 U	50 U	50 U
Toluene, pg/L	5.0 U	5.0 U		50 U	50 U	50 U
Vinyl Chloride, pg/L	5.0 U	5.0 U		50 U	50 U	50 U
Total Confident VOCs, pg/L	499	899		1124	1174	823

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/01	11/8/01	11/28/01	12/13/01	12/27/01	1/18/02
Field Influent pH, std pH units	7.39	7.57	7.42	7.43	7.54	7.64
Total Suspended Solids, mg/L	4.0 U	7	15	4.0 U		4.0 U
1,1-Dichloroethane, pg/L	46 J	32 J	20 J	13	9.3	11
1,1-Dichloroethene, pg/L	13J	13J	9.4 J	4.2 J	4.6 J	4.3 J
Cis -1,2 - Dichloroethene, pg/L	50 U	50 U	25 U	10U	5.0 U	5.0 U
Methylene Chloride, pg/L	SOU	50 U	25 U	10U	5.0 U	5.0 U
1,1,1 - Trichloroethane, pg/L	1200	580	530	260	220 E	250 E
Trichloroethene, pg/L	50 U	50 U	25 U	3.3 J	4.2 J	4.9 J
Toluene, pg/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Total Confident VOCs, pg/L	1259	635	559	277	237	270

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/02	2/13/02	2/23/02	3/8/02	3/20/02	4/8/02
Field Influent pH. std pH units	7.71	7.84	7.48	7.79	7.72	7.09
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	10	16	10	11	11	10
1,1-Dichloroethene, pg/L	4.0 J	5.2 J	3.5 J	3.7 J	4.1J	2.5 J
Cis-1,2- Dichloroethene, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U
Methylene Chloride, pg/L	10U	10 **u**	5.0 U	5.0 U	1.8 BJ	10 U
1,1,1 -Trichloroethane, pg/L	220	320	240 E	320 E	330 E	240
Trichloroethene, pg/L	4.3 J	3.2 J	3.3 J	3.4 J	3.4 J	3.3 J
Toluene, pg/L	10 U	10U	3.3 J	5.0 U	5.0 U	10 U
Vinyl Chloride, pg/L	10 U	10U	5.0 U	5.0 U	5.0 U	10 U
Total Confident VOCs, pg/L	238	339	256	337	348	253

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/02	5/8/02	5/21/02	6/4/02	6/13/02	7/11/02
Field Influent pH, std pH units	6.99	7.07	7.41	7.11	7.34	7.19
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	10	12	20	19 J	18D.J	20
1,1-Dichloroethene, pg/L	2.5 J	2.4 J	3.5 J	25 U	20 U	3.4 J
Cis -1,2 - Dichloroethene, pg/L	10U	10U	10 U	25 U	20 U	10 U
Methylene Chloride, pg/L	15B	10U	3.1 BJ	16 J	12B,D,J	8.5 B,J
1,1,1 - Trichloroethane, pg/L	230	260	350	390	360 D	380
Trichloroethene, pg/L	2.8 J	2.7 J	3.3 J	25 U	20 U	3.7 J
Toluene, pg/L	2.6 J	10 U	10U	25 U	20 U	10 U
Vinyl Chloride, pg/L	10 U	10U	10U	25 U	20U	10 U
Total Confident VOCs, pg/L	246	276	376	425	390	407

Sampling Event	25/GW	26/GW	27/GW	28/GW	29/GW	30/GW
Date	7/23/02	8/29/02	9/18/02	10/29/02	11/25/02	12/18/02
Field Influent pH, std pH units	6.45	6.97	7.74	7.91	6.8	7.25
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U
1,1-Dichloroethane, pg/L	9.0 J	8.8	7.7	8.6	9.1 DJ	6.6
1,1-Dichloroethene, pg/L	2.6 J	13 J	1.8J	3.0 J	2.4 DJ	2.8 J
Cis -1,2 - Dichloroethene, pg/L	10U	5.0 U	5.0 U	5.0 U	10 U	5.0 U
Methylene Chloride, pg/L	10U	5.0 U	5.0 U	5.0 U	10 U	5.0 U
1,1,1 -Trichloroethane, pg/L	210	150	190	170	160 D	150
Trichloroethene, pg/L	10U	1.9J	1.9J	2.5 J	10 U	1.9J
Toluene, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	222	162	202	184	172	161

Sampling Event	31/GW	32/GW	33/GW	34/GW	35/GW	36/GW
Date	1/17/03	2/19/03	4/30/03	6/23/03	7/30/03	8/27/03
Field Influent pH, std pH units	7.6	6.93	7.06	7.03	7.12	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.4	6.2	8.4 DJ	6.6 DJ	7.6	2.4 J
1,1-Dichloroethene, pg/L	5.0 U	2.4 J	10U	10 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	10U	10 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	160	140	190 D	140 D	150	66
Trichloroethene, pg/L	2.4 J	1.6 J	10 U	10 U	1.2J	5.0 U
Toluene, pg/L	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	10 U	10U	5.0 U	5.0 U
Total Confident VOCs, pg/L	171	150	198	147	159	68

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	37/GW	38/GW	39/GW	40/GW	41/GW	42/GW
Date	9/24/03	10/23/03	11/20/03	12/3/03	1/29/04	3/30/04
Field Influent pH, std pH units	NA	NA	NA	7.18	NA	6.84
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	8.8 DJ	7.4 DJ	4.7 J	6.1	5.0 U	6.7
1,1-Dichloroethene, ug/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	10 U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	10 U	10U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	180 D	170 D	92	110	1.9J	96
Trichloroethene, pg/L	2.0 DJ	10U	1.1 J	1.6J	5.0 U	1.0 J
Toluene, ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Confident VOCs, ug/L	191	174	98	118	2	104

Sampling Event	43/GW	44/GW	45/GW	46/GW	47/GW	48/GW
Date	5/20/04	6/16/04	7/15/04	8/26/04	9/14/04	10/28/04
Field Influent pH, std pH units	NA	7.32	NA	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	5.5	10D	7.5	3.3 J	9.1 DJ	4.1 J
1,1-Dichloroethene, ug/L	5.0 U	10U	2.3 J	5.0 U	10U	2.3 J
Cis-1,2- Dichloroethene, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
Methylene Chloride, ug/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
1,1,1 -Trichloroethane, pg/L	150	180 D	190	74	170 D	90
Trichloroethene, pg/L	5.0 U	10U	1.6 J	5.0 U	10U	1.1 J
Toluene, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	156	190	201	77	179	97

Sampling Event	49/GW	50/GW	51/GW	52/GW	53/GW	54/GW
Date	12/14/04	1/27/05	3/22/05	4/26/05	5/30/05	6/7/05
Field Influent pH, std pH units	6.23	NA	7.04	NA	NA	7.50
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	7.4	9.8	2.9 J	2.5 J	6.3	2.5
1,1-Dichloroethene, pg/L	2.5 J	3.0 J	5.0 U	5.0 U	1.9	0.84 J
Cis-1,2- Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,1 -Trichloroethane, pg/L	130	180	65	67	230	65
Trichloroethene, pg/L	1.6J	2.2 J	5.0 U	5.0 U	1.2J	0.68 J
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Total Confident VOCs, pg/L	141.5	195	67.9	69.5	239.4	69.0

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	55/GW	56/GW	57/GW	58/GW	59/GW	60/GW
Date	7/28/05	8/29/05	9/13/05	10/18/05	11/22/05	12/19/05
Field Influent pH, std pH units	NA	NA	7.25	NA	NA	6.85
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	10	9.5 J	2.3 J	7.1 J	5.2 J	2.7 J
1,1-Dichloroethene, pg/L	4.8	3.1 J	0.64 J	1.5J	2.7 J	0.84 J
Cis -1,2 - Dichloroethene, pg/L	1.0 U	25 U	5.0 U	10 U	20 U	5.0 U
Methylene Chloride, pg/L	1.0 U	2.4 J	5.0 U	10U	2.0 J	5.0 U
1,1,1 - Trichloroethane, pg/L	260	220	53	180	130	61
Trichloroethene, pg/L	1.7	25 U	0.49 J	2.9 BJ	20 U	0.64 J
Toluene, pg/L	1.0U	25 U	5.0 U	10U	20 U	5.0 U
Vinyl Chloride, pg/L	1.0U	25 U	5.0 U	10 U	20 U	5.0 U
Total Confident VOCs, pg/L	276.5	235.0	56.4	191.5	139.9	65.2

Sampling Event	61/GW	62/GW	63/GW	64/GW	65/GW	66/GW
Date	1/19/06	2/24/06	3/27/06	4/20/06	5/25/06	6/20/06
Field Influent pH, std pH units	NA	NA	6.99	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	6	4.7 J	4.5 J	5.5 J	6.2 J	3.6 J
1,1-Dichloroethene, pg/L	1.7J	1.3J	1.1 J	1.3J	1.5J	0.94 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	10 U	5.0 U	10U	10U	5.0 U
Methylene Chloride, pg/L	5.0 U	2.1 BJ	5.0 U	10U .	1.3J	5.0 U
1,1,1 -Trichloroethane, pg/L	170	100	110	140	160	80
Trichloroethene, pg/L	1.3J	0.87 J	0.95 J	1.0J	1.2 J	0.72 J
Toluene, pg/L	5.0 U	10 U	5.0 U	10U	10 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10 U	5 0 U	10U	10 U	5.0 U
Total Confident VOCs, pg/L	179.0	109.0	116.6	147.8	170.2	85.3

Data Qualifiers: U - Undetectable at listed detection limit J - Estimated value, less than the detection limit
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/2001	8/8/2001	8/18/2001	9/18/2001	9/27/2001	10/5/2001
Field Effluent pH, std pH units	8.44	8.44	8.5	8.38	8.38	8.32
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1.2- Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	1.5 J	5.0 U	1.5J	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/2001	11/8/2001	11/28/2001	12/13/2001	12/27/2001	1/18/2002
Field Effluent pH, std pH units	8.35	8.35	8.29	8.43	8.30	8.38
Total Suspended Solids, mg/L	4.0 U	4.0 U	8.0	4.0 U	4.0 U	4.0U
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1,1 - Trichloroethane, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Toluene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/2002	2/13/2002	2/23/2002	3/8/2002	3/20/2002	4/8/2002
Field Effluent pH, std pH units	8.39	8.31	8.22	8.39	8.47	8.05
Total Suspended Solids, mg/L	4.0U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	1.3J	2.8 B,J
1,1,1 -Trichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0U	5.0 U	2.5J	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/2002	5/8/2002	5/21/2002	6/4/2002	6/13/2002	7/11/2002
Field Effluent pH, std pH units	8.0	8.08	8.23	8.23	8.16	8.06
Total Suspended Solids, mg/L	4.0 U	4.0	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	7.6 B	5.0 U	1.2 BJ	1.1 J	1.7 B,J	2.6 B.J
1,1,1 -Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	1.2 J	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	'5.0 U

Sampling Event	25/GW	27/GW	30/GW	33/GW	34/GW	37/GW
Date	7/23/02	9/18/02	12/18/02	4/30/03	6/23/03	9/24/03
Field Effluent pH, std pH units	6.66	7.11	7.22	7.72	7.68	7.81
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	NA
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	40/GW	42/GW	44/GW	47/GW	49/GW	51/GW
Date	12/2/03	3/30/04	6/16/04	9/14/04	12/14/04	3/22/05
Field Effluent pH, std pH units	7.63	7.47	7.86	7.61	6.93	6.97
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1.2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	' 5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	54/GW	55/GW	56/GW	57/GW	58/GW
Date	6/7/2005	9/13/2005	12/19/2005	3/27/2006	6/20/2006
Field Effluent pH, std pH units	8.01	7.95	7.64	7.74	7.71
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	1.0 U	5.0 U	5.0 U	5.0 U	5.0 **U**
1,1-Dichloroethene, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, ug/L	1.0 **u**	5.0 U	0.58 J	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.0U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 3
Byron Barrel and Drum Site
Field Chemistry Readings
22 June 2006 Quarterly Sampling Event

Parameter Units	Time	Temp. °C	ORP mV	PH Std. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
MW-1-9/GW18	1250	17.8	-50	7.32	0.4	1.52	692
	1255	17.7	-53	7.31	0.4	1.43	693
	1300	17.6	-54	7.31	0.4	1.33	690
	1305	17.6	-56	7.31	0.4	1.19	692
	1310	17.6	-58	7.30	0.4	1.20	692
	1315	17.7	-59	7.30	0.4	1.18	692
	1320	17.7	-60	7.30	0.4	1.17	691
MW-4-9/GW18	1305	19.9	-60	7.28	0.4	1.56	665
	1310	19.7	-43	7.27	0.4	1.58	660
	1315	19.6	-40	7.25	0.4	1.60	652
	1320	19.4	-40	7.25	0.4	1.62	640
	1325	19.2	-39	7.25	0.4	1.60	637
	1330	19.1	-38	7.26	0.4	1.59	633
	1335	19.0	-37	7.26	0.4	1.59	634
	1340	19.0	-36	7.26	0.4	1.60	633
PW-1/GW18	1230	10.8	-64	7.02	0.4	4.03	685
PW-2/GW18	1235	11.2	-54	7.10	0.4	3.57	627
PW-3/GW18	1240	11.7	-44	7.13	0.4	3.35	623
Influent/GW66	1207	NA	NA	NA	NA	NA	NA
Effluent/GW58	1216	NA	NA	NA	NA	NA	NA

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

Table 4
Byron Barrel and Drum Site
Groundwater Elevations for
June 2006 Sampling Event
ECOR Solutions, Inc.

Operator: R. Senf

Date: 6/22/2006

Pumping Wells	DTW	TOC Elevation	GW Elevation	TD	W.C.T. ft.
PW-1	**21.28**	**642.82**	**621.54**	–	–
PW-2	**18.59**	**641.34**	**622.75**	–	”
PW-3	**20.72**	**641.11**	**620.39**	–	–
Monitoring Wells					
MW-1	**5.68**	**639.63**	**633.95**	**11.65**	**5.97**
MW-2	**11.49**	**646.36**	**634.87**	**15.10**	**3.61**
MW-4	**4.50**	**638.56**	**634.06**	**11.50**	**7.00**
MW-10B	**9.66**	**644.44**	**634.78**	**20.35**	**10.69**
MW-21	**8.08**	**642.52**	**634.44**	**27.90**	**19.82**
Residential	**16.09**	**650.78**	**634.69**	**35.17**	**19.08**
Piezometers					
PZ-1	**8.55**	**643.11**	**634.56**	**27.58**	**19.03**
PZ-2	**9.76**	**642.39**	**632.63**	**27.29**	**17.53**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-1	3/20/2002	639.63	5.24	634.39	**86**	49	NA	**5 U**	**1700**	**2 J**	**5 U**	**2 J**
	6/12/2002	639.63	5.07	634.56	**81**	**38**	NA	**5 U**	**1600**	**3 J**	**5 U**	**5 U**
	9/18/2002	639.63	7.15	632.48	**13**	**13** J	NA	**5 UJ**	**350**	**5 U**	**5 U**	**5 U**
	12/18/2002	639.63	5.62	634.01	**42**	**37** J	NA	25 **U**	**1200**	**5 J**	25 **U**	25 **U**
	4/29/2003	639.63	4.53	635.10	**57**	**34**	NA	25 **U**	**1300 J**	25 **U**	25 **U**	25 **U**
	6/24/2003	639.63	5.36	634.27	**32**	**24**	NA	**5 U**	**720**	**4 J**	**5 U**	**5 U**
	9/24/2003	639.63	6.72	632.91	**24** J	**17** J	NA	25 **U**	**580**	25 **U**	25 **U**	25 **U**
	12/3/2003	639.63	5.53	634.10	**33** J	**28** J	NA	40 **U**	**860 J**	40 **U**	40 **U**	40 **U**
	3/30/2004	639.63	3.40	636.23	**30** J	**31**	NA	25 **U**	**830 J**	25 **UJ**	25 **U**	25 **U**
	6/16/2004	639.63	4.20	635.43	**26**	**22** J	NA	25 **UJ**	**870**	25 **U**	25 **U**	25 **U**
	9/14/2004	639.63	4.56	635.07	**28**	**26**	NA	25 **U**	**730**	25 **U**	25 **U**	25 **U**
	12/14/2004	639.63	4.61	635.02	**31**	**26**	NA	25 **U**	**760**	25 **UJ**	25 **U**	25 **U**
	3/22/2005	639.63	4.32	635.31	**41**	**110**	NA	**5 U**	**830**	**5**	**5 U**	**5 U**
	6/7/2005	639.63	5.45	634.18	**10** J	**14** J	NA	**13 J**	**340**	50 **U**	50 **UJ**	50 **U**
	9/13/2005	639.63	6.89	632.74	**14**	**16**	NA	**5 U**	**410**	**2 J**	**5 UJ**	**5 U**
	12/20/2005	639.63	4.78	634.85	**24** J	**24** J	NA	40 **U**	**580**	40 **U**	40 **U**	40 **U**
	3/26/2006	639.63	5.07	634.56	29	**24**	NA	**5 U**	**540**	**4 J**	**5 U**	**5 U**
	6/22/2006	639.63	5.68	633.95 •	7	9	NA	**5 U**	**220**	**2 J**	**5 U**	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-4	3/20/2002	638.56	4.79	633.77	**17 J**	**14 J**	**NA**	25 **U**	**450**	**10** J	25 U	25 **U**
	6/12/2002	638.56	4.48	634.08	**3 J**	**2 J**	**NA**	**5 U**	83	8	5 U	**5 U**
	9/18/2002	638.56	6.04	632.52	**5 U**	**5 UJ**	**NA**	**5 UJ**	27	5	5 U	**5 U**
	12/18/2002	638.56	5.22	633.34	**40**	**24**	**NA**	**5 U**	**200**	8	5 U	**5 U**
	4/29/2003	638.56	4.50	634.06	**31**	**13 J**	**NA**	25 **U**	**530**	25 U	25 U	25 **U**
	6/24/2003	638.56	4.58	633.98	**5 UJ**	**5 UJ**	**NA**	**5 U**	17 J	4 J	5 U	**5 UJ**
	9/24/2003	638.56	5.91	632.65	**35**	**9 J**	**NA**	10 **U**	**240**	8 J	10 U	10 **U**
	12/3/2003	638.56	4.98	633.58	**65**	**17 J**	**NA**	20 **U**	**550**	**11** J	20 U	20 **U**
	3/30/2004	638.56	4.15	634.41	**12**	**5**	**NA**	**5 U**	**130**	3 J	5 U	**5 U**
	6/16/2004	638.56	3.64	634.92	**15 J**	25 **UJ**	**NA**	25 **UJ**	**150**	25 U	25 U	25 **U**
	9/14/2004	638.56	**3.71**	634.85	**11 J**	25 **U**	**NA**	25 **U**	87	25 U	25 U	25 **U**
	12/14/2004	638.56	3.97	634.59	**11 J**	25 **U**	**NA**	25 **U**	67	25 U	25 U	25 **U**
	3/22/2005	638.56	3.55	635.01	50 **U**	50 **U**	**NA**	50 **UJ**	87	50 U	50 U	50 **U**
	6/7/2005	638.56	4.25	634.31	**5 U**	**5 U**	**NA**	**5 U**	8	1 J	5 U	**5 U**
	9/13/2005	638.56	5.84	632.72	**5 U**	**5 U**	**NA**	**5 U**	11	2 J	5 U	**5 U**
	12/20/2005	638.56	4.75	633.81	**4 J**	25 **U**	**NA**	25 **U**	48	25 U	25 U	**25 U**
	3/25/2006	638.56	4.32	634.24	**5 U**	**5 U**	**NA**	**5 U**	8	1 J	5 U	**5 U**
	6/22/2006	638.56	4.50	634.06	**5 U**	**5 U**	**NA**	**5 U**	9	1 J	5 U	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-10B	3/21/2002	644.44	9.43	635.01	5 U	5 U	NA	5 U	42	5 U	5 U	5 U
	6/12/2002	644.44	9.12	635.32	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/18/2002	644.44	11.05	633.39	5 U	5 UJ	NA	5 UJ	7	5 U	5 U	5 U
	12/18/2002	644.44	10.20	634.24	5 U	5 U	NA	5 U	52	5 U	5 U	5 U
	4/30/2003	644.44	9.28	635.16	5 U	5 U	NA	5 U	8	5 U	5 U	5 U
	6/23/2003	644.44	9.39	635.05	5 U	5 U	NA	5 U	3 J	5 U	5 U	5 U
	9/24/2003	644.44	10.93	633.51	5 U	5 U	NA	5 U	7	5 U	5 U	5 U
	3/30/2004	644.44	8.99	635.45	5 U	5 U	NA	5 U	17	5 U	5 U	5 U
	9/14/2004	644.44	8.76	635.68	5 U	5 U	NA	5 U	14	5 U	5 U	5 U
	3/22/2005	644.44	8.69	635.75	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/13/2005	644.44	10.84	633.60	5 U	5 U	NA	5 U	5	5 U	5 U	5 U
	3/25/2006	644.44	9.28	635.16	5 U	5 U	NA	5 U	6	5 U	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	**5**	**5**	**5**	**5**	**2**
MW-21	3/26/1999	NA	NA	NA	**1 U**	**1 U**	**1 u**	**2 U**	**1 U**	**1 U**	**1 U**	**1 U**
	3/21/2002	642.52	7.70	634.82	**25 U**	25 **U**	**NA**	25 **U**	25 **U**	**25 U**	25 **U**	25 **U**
	6/12/2002	642.52	7.69	634.83	**25 U**	25 **U**	**NA**	25 **U**	25 **U**	**25 U**	**5 BJ**	25 **U**
	9/17/2002	642.52	9.50	633.02	**5 U**	**5 UJ**	**NA**	**5 UJ**	**5 U**	**5 U**	**5 U**	**5 U**
	12/17/2002	642.52	8.23	634.29	**5 U**	**5 UJ**	**NA**	**5 U**	**5 UJ**	**5 U**	**5 U**	**5 U**
	4/30/2003	642.52	7.91	634.61	25 **U**	25 **U**	**NA**	25 **U**	25 **U**	25 **U**	25 **U**	**25 U**
	3/30/2004	642.52	7.56	634.96	**5 UJ**	**5 UJ**	**NA**	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**
	3/22/2005	642.52	7.42	635.10	**25 U**	25 **U**	**25 U**	25 **U**	25 **U**	**25 U**	**25 U**	25 **U**
	3/25/2006	642.52	7.78	634.74	**25 U**	25 **U**	25 **U**	25 **U**	25 **U**	**25 U**	25 **U**	25 **U**
MW-Residential	3/21/2002	650.78	15.79	634.99	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	6/12/2002	650.78	15.62	635.16	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	9/17/2002	650.78	17.50	633.28	**5 U**	**5 UJ**	**NA**	**5 UJ**	**5 U**	**5 U**	**5 U**	**5 U**
	12/17/2002	650.78	16.52	634.26	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	4/30/2003	650.78	17.74	633.04	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	3/30/2004	650.78	15.47	635.31	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	3/22/2005	650.78	15.24	635.54	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**
	3/25/2006	650.78	15.75	635.03	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (M9/L)			**5**	**5**	**NA**	5	5	**5**	5	2
PW-1	12/21/1998	**NA**	NA	NA	20 U	**5 J**	20 **U**	9 BJ	**270**	**11 J**	20 U	20 U
	12/27/2001	NA	NA	NA	**15**	**6.2**	**5 U**	5 U	**280**	**5.2**	5 U	5 U
	3/20/2002	642.82	NM	NM	**11**	**5**	**5 U**	5 U	**320**	**3 J**	5 U	5 U
	6/12/2002	642.82	NM	**NM**	**18**	3 J	**5 U**	5 U	**380**	**2 J**	5 U	5 U
	9/18/2002	642.82	**NM**	NM	**12**	2 J	**5 U**	5 UJ	**270**	**2 J**	5 U	5 U
	12/18/2002	642.82	18.43	624.39	**8**	**5**	**5 U**	5 U	**160**	**2 J**	5 U	5 U
	4/30/2003	642.82	20.96	621.86	**11**	2 J	**5 U**	5 U	**180**	**2 J**	5 U	5 U
	6/23/2003	642.82	22.41	620.41	**12**	2 J	**5 U**	5 U	**190**	**2 J**	5 U	5 U
	9/24/2003	642.82	22.59	620.23	**8**	5 U	**5 U**	5 U	**120**	**5 U**	5 U	5 U
	12/3/2003	642.82	21.74	621.08	**8**	2 J	**5 U**	5 U	**150**	**2 J**	5 U	5 U
	3/30/2004	642.82	21.80	621.02	**6**	2 J	**5 U**	5 U	**150**	**5 U**	5 U	5 U
	6/16/2004	642.82	19.08	623.74	**13**	3 J	**5 U**	5 UJ	**380**	**2 J**	5 U	5 U
	9/14/2004	642.82	20.62	622.20	**10**	2 J	**5 U**	5 U	**210**	**5 U**	5 U	5 U
	12/14/2004	642.82	21.23	621.59	**6**	2 J	**5 U**	5 U	**140**	**5 U**	5 U	5 U
	3/22/2005	642.82	22.65	620.17	**15**	**23**	**5 U**	5 U	**200** J	**2 J**	5 U	5 U
	6/7/2005	642.82	21.50	621.32	**10**	2 J	10 **U**	2 U	**59**	**1 J**	10 U	10 U
	9/13/2005	642.82	21.73	621.09	3 J	0.9 J	**5 U**	5 U	**73**	0.5 **J**	5 U	5 U
	12/19/2005	642.82	20.98	621.84	**9**	2 J	**5 U**	5 U	**140**	**2 J**	5 U	5 U
	3/26/2006	642.82	21.44	621.38	4 J	0.9 J	**5 U**	5 U	**76**	0.6 **J**	5 U	5 U
	6/22/2006	642.82	21.28	621.54	4 J	1 J	**5 U**	5 U	**77**	0.8 **J**	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	5	**5**	5	5	2
PW-2	12/27/2001	NA	NA	NA	**68**	**23**	1.4 **J**	5 U	**960**	4 J	5 U	1.1 J
	3/20/2002	641.34	NM	NM	**24**	**13**	**5 U**	5 U	**720**	2 J	5 U	5 U
	6/12/2002	641.34	NM	NM	**18**	**10**	**5 U**	5 U	**370**	2 J	5 U	5 U
	9/18/2002	641.34	NM	NM	**5**	**4 J**	**5 U**	5 UJ	**160**	5 U	5 U	5 U
	12/18/2002	641.34	17.68	623.66	**12**	**14**	10 **U**	10 **u**	**280**	10 U	10 U	10 U
	4/30/2003	641.34	16.82	624.52	**11**	**6**	**5 U**	5 U	**200**	2 J	5 U	5 U
	6/23/2003	641.34	19.41	621.93	**8**	**5**	**5 U**	5 U	**180**	5 U	5 U	5 U
	9/24/2003	641.34	17.45	623.89	**6**	**2 J**	**5 U**	5 U	**120**	5 U	5 U	5 U
	12/3/2003	641.34	18.78	622.56	**6**	**3 J**	**5 U**	5 U	**160**	5 U	5 U	5 U
	3/30/2004	641.34	19.24	622.10	**4 J**	**3 J**	**5 U**	5 U	**140**	5 U	5 U	5 U
	6/16/2004	641.34	18.58	622.76	**5**	**5 U**	**5 U**	5 UJ	**120**	5 U	5 U	5 U
	9/14/2004	641.34	18.25	623.09	**5**	**4 J**	**5 U**	5 U	**160**	5 U	5 U	5 U
	12/14/2004	641.34	17.63	623.71	**8**	**5**	**5 U**	5 U	**160**	2 J	5 U	5 U
	3/22/2005	641.34	19.33	622.01	**5**	**11**	**5 U**	5 U	**140**	5 U	5 U	5 U
	6/7/2005	641.34	19.40	621.94	**3 J**	**2 J**	**5 U**	5 U	**70**	1 J	5 U	5 U
	9/13/2005	641.34	19.52	621.82	**3 J**	**3 J**	**5 U**	5 U	**94 J**	2 J	5 U	5 U
	12/19/2005	641.34	17.35	623.99	**1 J**	**5 U**	**5 U**	5 U	**30**	0.5 J	5 U	5 U
	3/26/2006	641.34	17.22	624.12	**5**	**1 J**	**5 U**	5 U	**54**	0.8 J	5 U	5 U
	6/22/2006	641.34	18.59	622.75	**4 J**	**2 J**	10 **U**	10 BL	**170**	1 J	10 U	10 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

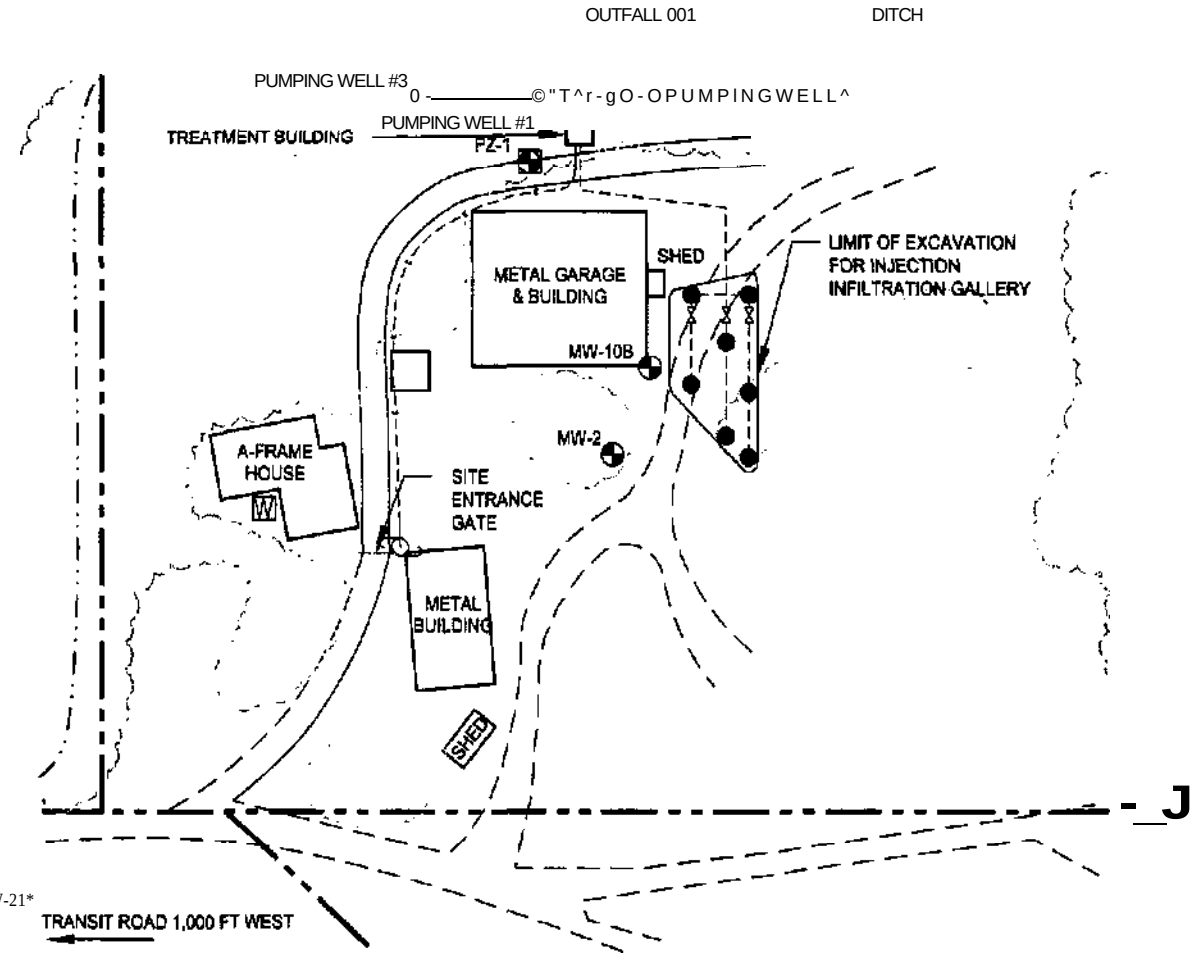
Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
PW-3	12/27/2001	NA	NA	NA	5 U	5 U	5 U	5 U	16	1.7 J	5 U	5 U
	3/20/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	8	1 J	5 U	5 U
	6/12/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	6	5 U	5 U	5 U
	9/18/2002	641.11	NM	NM	5 U	5 UJ	5 U	5 UJ	4 J	5 U	5 U	5 U
	12/18/2002	641.11	19.90	621.21	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U
	4/30/2003	641.11	19.46	621.65	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	6/23/2003	641.11	18.55	622.56	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	9/24/2003	641.11	20.97	620.14	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/3/2003	641.11	20.28	620.83	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	3/30/2004	641.11	20.52	620.59	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/16/2004	641.11	19.65	621.46	5 U	5 U	5 U	5 UJ	2 J	5 U	5 U	5 U
	9/14/2004	641.11	20.91	620.20	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/14/2004	641.11	18.33	622.78	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	3/22/2005	641.11	22.17	618.94	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/7/2005	641.11	20.30	620.81	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	9/13/2005	641.11	21.52	619.59	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	12/19/2005	641.11	20.36	620.75	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	3/26/2006	641.11	22.31	618.80	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	6/22/2006	641.11	20.72	620.39	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U

Notes:
All concentrations in micrograms per liter (pg/L)
Exceedences of the groundwater cleanup standard are indicated in bold.
NM = Not Measured
NA = Not Available

Table 6
Schedule of Sampling and Analysis for 2006
Byron Barrel & Drum Site
Byron, New York

Month	**Event**	**Monitoring Well to be Sampled**	**Constituents to be Analyzed**
March 2006	First Quarter 2006 Monitoring Event	MW-1 MW-4 MW-10B MW-21 MW-Residential	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
June 2006	Second Quarter 2006 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
September 2006	Third Quarter 2006 Monitoring Event	MW-1 and MW-4 MW-10B	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
December 2006	Fourth Quarter 2006 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride

FIGURES



LEGEND

- MONITORING WELL
- FORMER RESIDENTIAL WELL
- PIEZOMETER WELL
- INJECTION GALLERY PIEZOMETER WELL
- INJECTION GALLERY VALVE
- PUMPING WELL
- UTILITY POLE
- PROPERTY LINE
- FENCE
- TREELINE
- NEW GRAVEL ROAD
- PRE-EXISTING GRAVEL ROAD
- DITCH
- ELECTRICS PHONE LINE
- REINJECTION PIPIING

•NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

SOURCE ERM CSO SERVICES

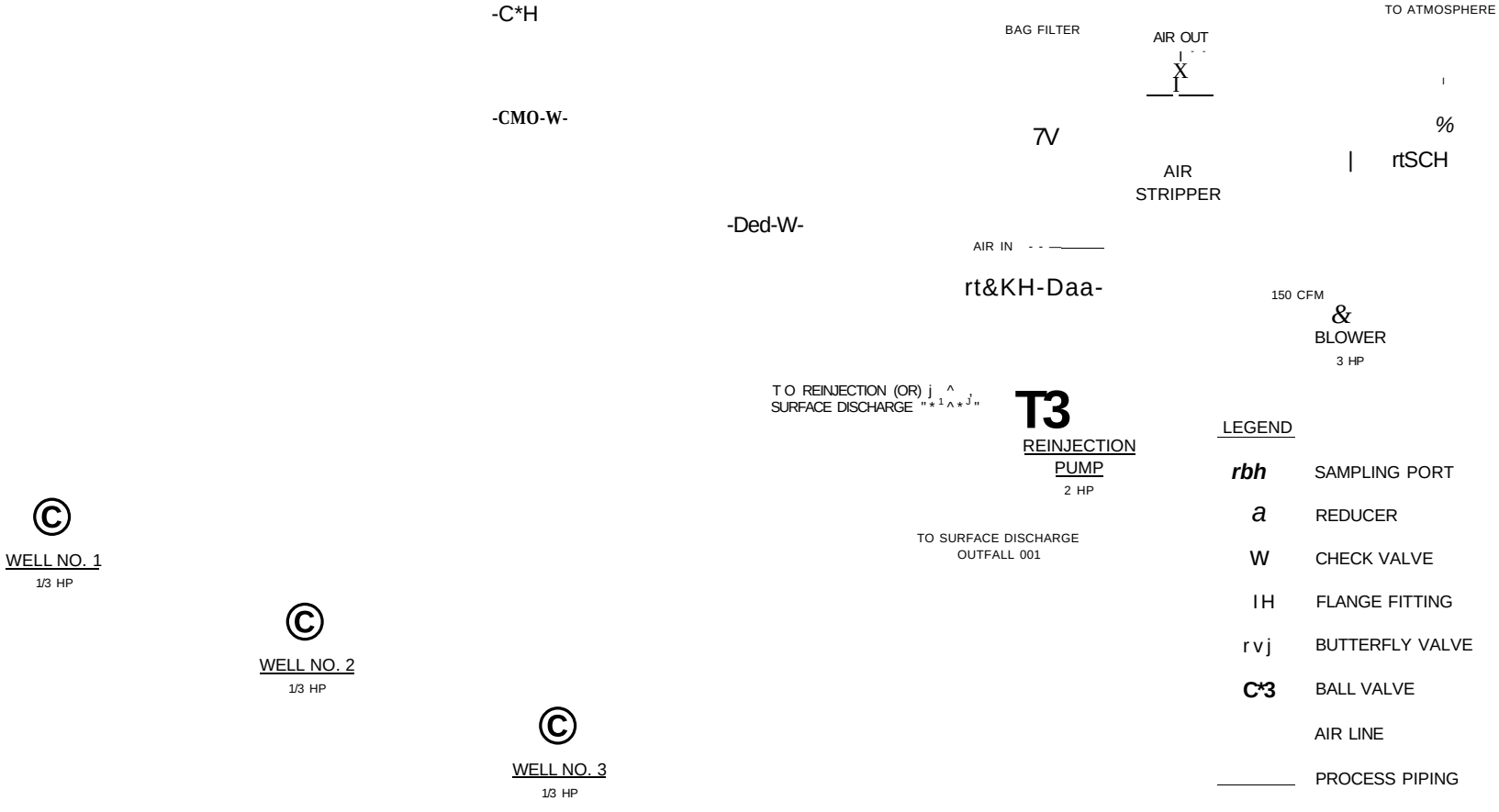
SITE PLAN

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions

1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
	07-25-06	1



SOURCE: ERM CAD SERVICES

GROUND WATER TREATMENT SYSTEM
FLOW DIAGRAM

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET | DATE | FIGURE
09-02-05 | 2

80

Figure 3
Byron Barrel and Drum Site
Influent Concentration (Total VOCs) Vs. Time

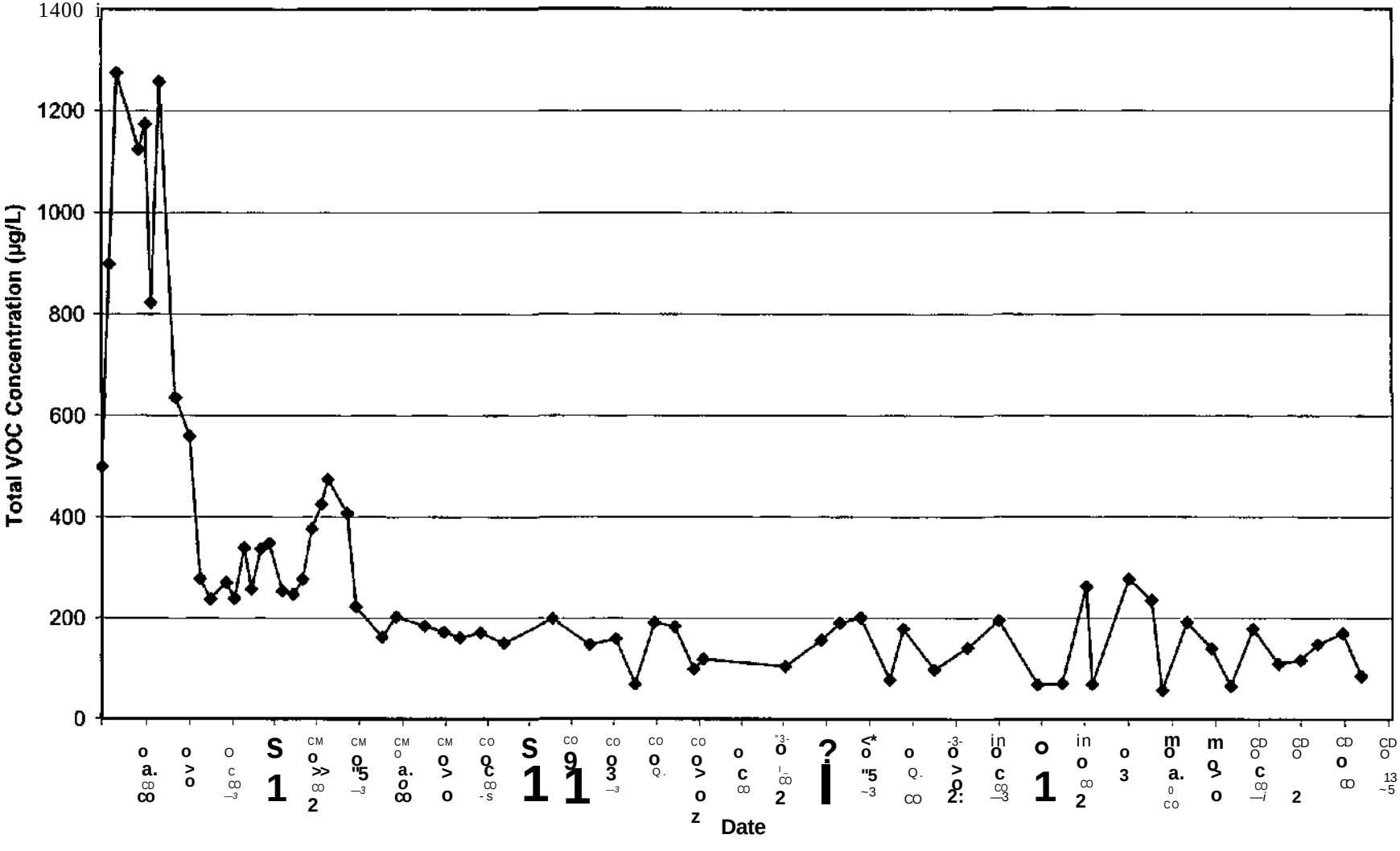
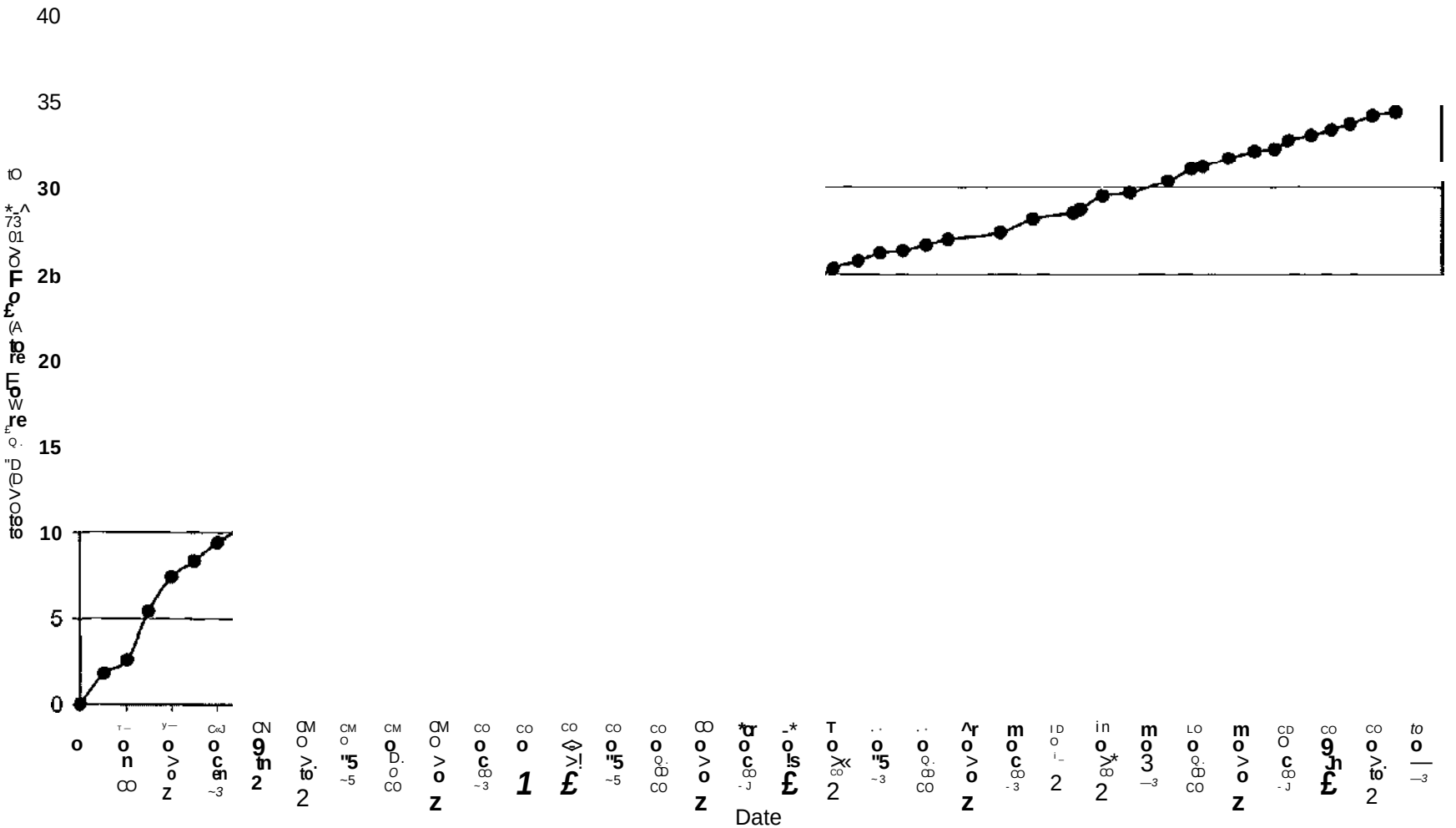


Figure 4
Byron Barrel and Drum Site
Cumulative Dissolved-phase Mass Removed (Total VOCs)



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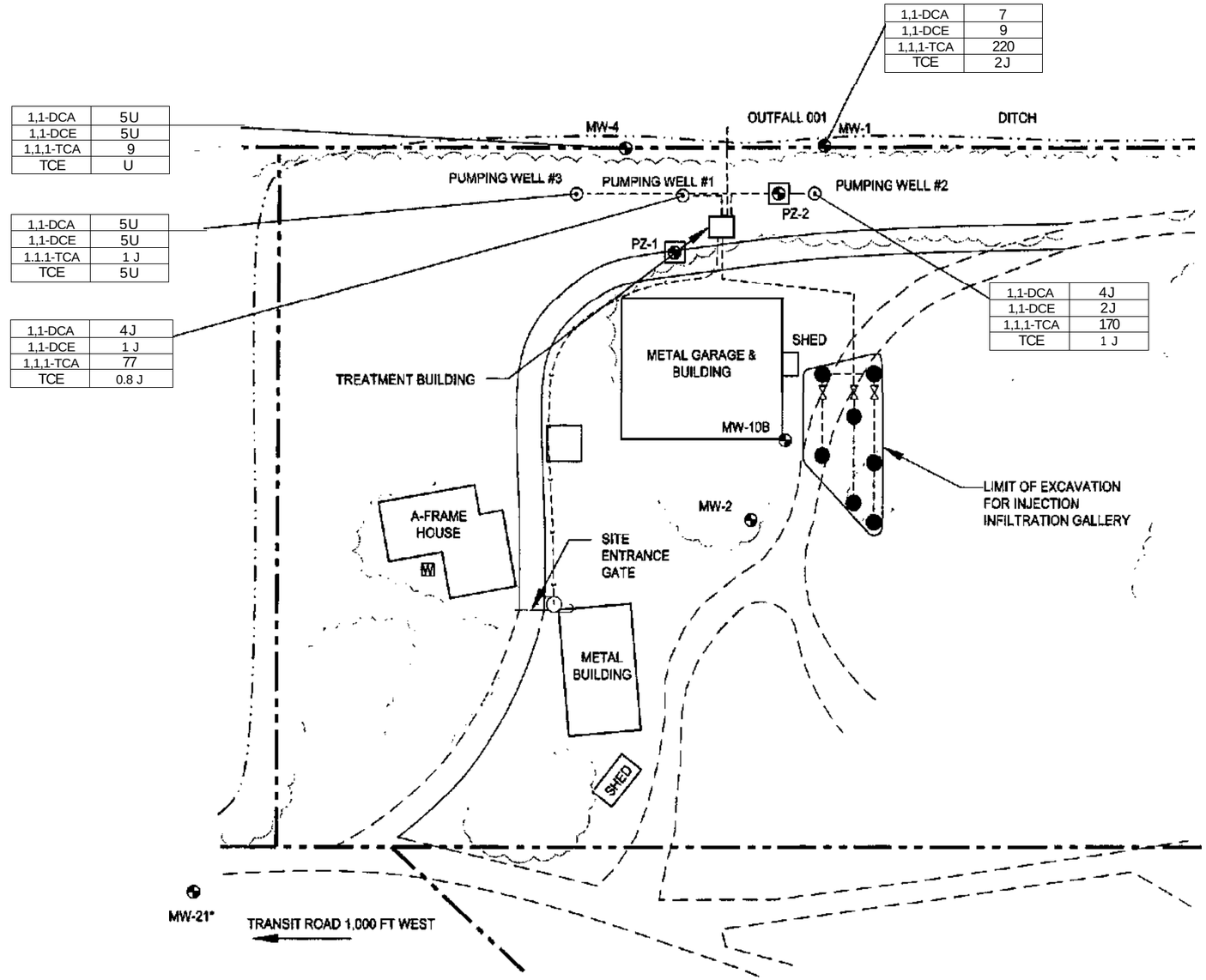

SOURCE: ERM CiO SERVICES

LEGEND

Q	MONITORING WELL
EI	FORMER RESIDENTIAL WELL
H	PIEZOMETER WELL
•	INJECTION GALLERY PIEZOMETER WELL
i	INJECTION GALLERY VALVE
©	PUMPING WELL
nx	UTILITY POLE
	PROPERTY LINE
	TREELINE
	NEW GRAVEL ROAD
	PRE-EXISTING GRAVEL ROAD
	FENCE
	DITCH
	ELECTRIC & PHONE LINE
	REINJECTION PIPIING

1,1-DCA	1,1-DICHLOROETHANE
1,1-DCE	1,1 DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE
	INDICATES THE PARAMETER WAS NOT DETECTED AT OR ABOVE REPORTED LIMIT
	ESTIMATED VALUE
	EXCEEDENCES

•NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

GROUNDWATER QUALITY MAP
22 JUNE 2006
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET
60

DATE
07-25-06

FIGURE
5

APPENDIX A
Field Notes

Chain of Custody Record

jrSTEY'E'RN-;
TRENT
Severn Trent Laboratories, Inc.

STL-4124 10901)

Client	Protect Manager	Date	Chain ol Custodv Number
JfCOsZ	«6o rs^<. •••'•'? £		23356?
Address	**Telephone Number (Area Codel/Fax Number**	**Lab Number**	Page- / of f
/J>,<?<;u gf-9>e<?x>- SO/?^-7 J »-'•<			
City / **State** / **Zip Code**	**Sile Contact** / **j Lab Contact**	**Analysts (Attach list if more space is needed)**	
Project Name and Location (State)	**Carrier/Waybill Number**		
Contract/Purcbase Order/Quote No.	**Matrix** / **Containers & Preservatives**		**Special Instructions/ Conditions of Receipt**

Sample I.D. No. and Description (Containers for eacb sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives	Analysts
T??,/> /?<: •$"'*<	6>-JX-ec	O3&o	\<	X	,2
MiJ- / - /V'fej^ - /£		J3QO		•K	2
A-h<u ~f- - ?/<£u> -/<&		/34o		x	2
		/3+u		X	4~
£),;/o - ?/<£u /$		i33$_0$		X	X
/~'J'v' -/ /<£t«j /--"		/£ So		X / X	2 y
/-'"/!, - Jl /<^^j/c6		/JZ3 f		A / k	X /
y^/^-3 /^ »-' £<$	A/	JAJ-v	\'	X / K.	? /
i					
j '					

Possible Hazard Identification

D Non-Hazard Q Flammable • Skin Irritant 3 Pois jnB D Unknown

Sample Di5pOS 3l

Return ToC'lien • £JispcsalE yLa 0 D Archive For _ Montbs (A lee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

D 24 Hours • 48 Hours D 7 Days O 14 Days Q 21 Days Q Other.

OC Requirements (Specifyl

	Date	Time		Date/	Timer
I. Relinquished By	Date	Tm Mh	I. Received By		
2. Relinquished By') < ' (y	Date	Time	2. Received By		Time LkClio to
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

<H(A-

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

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Groundwater Elevations

Operator:

Date: *G-22-0C>*

Pumping Wells	DTW	TOC Elevation	GW Elevation	TD	wC(ft.
PW-1	*V.Z&*	642.82	*G>ZL S4-*		m
PW-2	*/S,S?*	641.34	*6>3U > ?S*	_	_
PW-3	*20, 7 J*	641.11	£2o,39	.	.
Monitoring Wells					
WIW-1	***s&e>***	639.63	<£33.*^>	***;/,&r***	*S.i?*
MW-2	*/A+9*	646.36	*GZ±.&7*	*/S,/£>*	3.G t
MW-4	*4<So*	638.56	*&34-.CC*	*/A <S*>*	*7.* o-o
MW-10B	*9,C~G>*	644.44	£34,70	*2o,3£*	*/&,<*?*
MW-21	*S-08*	642.52	£3+.4*-	*JZ90*	*J^,sz*
Residential	*/&.09*	650.78	63+. 6*	*3Ss/7*	*J9,o&*
Piezometers					
PZ-1	*S,S<f*	643.11	&3-4..S6,	*azsg*	/9. *03*
PZ-2	9,76	642.39	*632.*C5	*27rZ^*	*/7,S~3*

ECOR Solutions, Inc.
Byron Barret & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum Date: *Q> -£Q-0<&*

Job #: 01501.002

Sample ID: */9k/-/- 9/6k>-/0*

Well ID: */?& -/* Time onsite: Time Offsite:

Samplers: **'&*"/&.£ /S7~£**

Depth of Well (from top of casing) Time:

Static water level (from top of casing) *£•<£•£* *Time:/J?¥o*

Purging Method:
Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Ffowrate (mL/min) / purge volume (mL)	Temp. °C	ORP mV	pH 3td. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
/as&	*SO n^/n/J*	***n.B***	*-So*	7 32	*£>.+*	*A-52.*	*da*
/j^$	*3o <*4/»,<>*	*J7.7*	*-S3*	*7,3/*	*6.4*	*A 43*	*&93*
/3##	*2os^e/sf,*i*	*/?.&>*	*-S4*	*7.3/*	*d>,4-*	*/,33*	*G^O*
/3#$	3 < V ^ i / v	*/ 7 >*	*-SO*	7 3/	*0.4*	*/J?*	*£?2*
/3/0	*30~S/„„*	*/?&*	***-sg***	*7,3o*	*0,4*	*A2o*	*£92*
/3'f	*3&/"-^,sv*	*n 7*	-5"?	*7, SO*	*0,4*	*/JB*	4?,2
1220	*30 <**/», J*	***n. 7***	*-GO*	*7,30*	*0,4*	A/7	***C?/***

Sampling:

Time of Sample Collectio

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503 Other:

Observations:

Weather/Temperature: *S*£S/i/as* y, 7 s i T V

Sample Description: *£Ctz4,z*

Free Product?	Yes	No	X"	Descript.:
Sheen?	Yes	No	*K*	Descript.:
Odor?	Yes	**No**	***y***	Descript.:

Comments:

/~/?2S0 *sD&ptsc* * -*? ***¡T^^t^S'?'*** *#-r* *A?u>-/*

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum **Date:** <£>- *22- 0<Z>*

Job #: 01501.002

Sample ID: */Ak/-^ — <?/auf/S*

Well ID: /W - -^ *~T* Time onsite: Time Offsite:

Samplers: ^ *Steffi y* *f j?* tssr«

Depth of Well (from top of casing) *//rS&* Time: *J3&O*

Static water level (from top of casing) Time: */2 S~S*

Purging Method:

Dedicated bladder pump, QED SamplePro MP-SP-4C_____

Field Tests:

Time	Flowrate (mUmin) / purge volume (ml_)		Temp. °C	ORP mV	PH Std. Units	TDS	DO mg/L	Spec. Cond. mS/cm
/Jos			*/<?. 9*	*~&>*	220	*o,?*	*ASC**	& & ^
J3/&			*A 9.7*	*-43*	*727*	*&4>*	*AS 3*	*CGO*
/3/S			*/*,6>*	*~4~D*	*7J?3*	*0.4-*	*/,&o*	*asjz*
/32o			*A9,4-*	*-+o*	*y.as*	*#A*	*A.&2*	*&i~#*
/32$			*A9- 2*	*-39*	*7, as*	*0.+*	*A.(*o*	*&37*
/330			*/ £ /*	*-33*	*~7'2&*	*#.9-*	*/.S9*	*£3 3*
/33-$			*A%C?*	*- 3 7*	*72C*	*04*	*AS9*	*&34*
I2&0	\		*19,0*	*-3G*	*7,2c*	*04*	*/t oo*	*&33>*

Sampling:

Time of Sample Collectio

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503 Other:

Observations:

Weather/Temperature: <^fd^«^cvc^x *P-£^*

Sample Description: ^r^-f^-r

Free Product?	Yes	No	*K*	Descript.:
Sheen?	Yes	No	*	Descript.:
Odor?	Yes	No	*X*	Descript.:

Comments:

**=kro^ MuJ~¥~*

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Pumping Well Field Chemistry Parameters

Parameter Units	Time	Temp. °C	ORP mV	PH Std. Units	TDS g/t-	DO mg/L	Spec. Cond. mS/cm
PW-1/Gw/^	/23o	j0^g	-&+	7,OZ	&?	4.°3	Cg<r
PW-2/GW j&	/23r	/ / 2	-S*	y,/&	£>,^	3*S7	CZ 7
PW-3/GW 1$	JZ^o	J/.y	-4+	?.'3	0. 4	3*3$~	&Q-3

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

APPENDIX B
Data Validation Report

Project Byron Barrel and Drum Site
Laboratory: Severn Trent Laboratories
Sample Delivery Group: A06-7038/A06-7170
Fraction: Organic
Matrix: Aqueous
Report Date: 9/12/2006

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1. All analyses were performed by Severn Trent Laboratories.

The samples were analyzed for volatile organic compounds and total suspended solids. The sample analyses were performed in accordance with the procedures outlined in the method referenced at the end of this report. The data deliverables provided by the laboratory were New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category B format.

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to Region II "Validating Volatile Organic Compounds by SW-846 Method 8260B", SOP HW-24, Revision 1, June 1999. The parameters presented on the following page were evaluated.

X	Data Completeness
X	Chain of Custody Documentation
X	Holding Times
X	Instrument Performance
X	Initial and Continuing Calibrations
X	Laboratory and Field Blank Analysis Results
X	Surrogate Compound Recoveries
X	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	Field Duplicate Analysis Results
X	Laboratory Control Sample Results
X	Internal Standard Performance
X	Qualitative Identification
X	Quantitation/Reporting Limits

X -Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report ApprovedBy:

Shawne^COtodgers
President

9/12/2006

Date

0 DATA COMPLETENESS

The data package was complete.

0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

0 HOLDING TIMES

The holding times were met for all analyses.

0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

The positive methylene chloride result reported for samples FW-2/GW18 is qualitatively invalid due to the presence of this compound in associated laboratory method blank. USEPA protocol requires positive results for common contaminants, such as methylene chloride, that are less than or equal to ten times the associated blank contamination level, to be considered qualitatively invalid. The result has been replaced by the quantitation limit.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY

All criteria were met. No qualifiers were applied.

9.0 FIELD DUPLICATE RESULTS

Duplicate samples MW-1-9/GW-18 and DUP-9/GW18 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for these duplicate samples are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses and internal acceptance criteria of twenty percent for volatile detected compounds to evaluate field duplicate samples.

10.0 LABORATORY CONTROL SAMPLE RESULTS

All criteria were met. No qualifiers were applied.

11.0 INTERNAL STANDARD PERFORMANCE

All criteria were met. No qualifiers were applied.

12.0 QUALITATIVE IDENTIFICATION

All criteria were met. No qualifiers were applied.

13.0 QUANTTTATION/REPORTING LIMITS

The following samples were re-analyzed at dilutions for volatile organic compounds. The reanalyses were performed because the responses for volatile compounds exceeded the linear range of the GC/MS instrument for the initial undiluted analyses. The affected results were reported from the dilution analyses. All other results have been reported from the initial analyses.

Sample	Dilution Factor	Compound reported from Dilution
DUP-9/GW18	10.0	1,1,1-Trichloroethane
MW-1-9/GW-18	10.0	1,1,1-Trichloroethane

The samples presented below were analyzed at dilutions. The dilution analyses were performed because of the suspected presence of high levels of target compounds and/or interferences. Quantitation limits are elevated by the dilution factor for these samples for target compounds that were not detected. The elevated quantitation limits should be noted when assessing the data for these samples.

Sample	Dilution Factor
PW-2/GW18	2.0

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective quantitation limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 8260B, "Test Methods for Evaluating Solid Wastes", SW-846, third edition, Promulgated Updates II, IIA, and HI, June 1997
Total Suspended Solids	Method 160.2, "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, and revisions

Table 1 Samples For Data Validation Review
Byron Barrel and Drum Site
Groundwater Samples Collected June 2006
Severn Trent Laboratories Sample Delivery Group A06-7038

SAMPLE I.D.	LABORATORY I.D		DATE COLLECTED	MATRIX	ANALYSES PERFORMED VOC
INF-64/GW	7038	01	6/20/2006	GROUNDWATER	X
EFF-58/GW	7038	02	6/20/2006	GROUNDWATER	X
TEMP BLANK	7038	03	6/20/2006	TRIP BLANK	X

VOC: Volatile Organic Compounds

Table 1 Samples For Data Validation Review
Byron Barrel and Drum Site
Groundwater Samples Collected June 2006
Severn Trent Laboratories Sample Delivery Group A06-7170

SAMPLE I.D.	LABORATORY I.D		DATE COLLECTED	MATRIX	ANALYSES PERFORMED VOC	TSS
TRIP BLANK	7170	01	6/22/2006	TRIP BLANK	X	
MW-1-9/GW-18	7170	02	6/22/2006	GROUNDWATER	X	
MW-4-9/GW-18	7170	03	6/22/2006	GROUNDWATER	X	
DUP-9/GW18	7170	04	6/22/2006	GROUNDWATER	X	
PW-1/GW18	7170	05	6/22/2006	GROUNDWATER	X	X
PW-2/GW18	7170	06	6/22/2006	GROUNDWATER	X	X
PW-3/GW18	7170	07	6/22/2006	GROUNDWATER	X	X

VOC: Volatile Organic Compounds

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples MW-1-9/GW-18 and DUP-9/GW18

	MW-1-9/GW-18		DUP-9/GW18		RPD	Comments
1,1-Dichloroethane	7		7		0.0	
1,1-Dichloroethene	9		9		0.0	
1,1,1-Trichloroethane	220		220		0.0	
Trichloroethene	2	J	2	J	0.0	

ECCR SCEUJnCNS
HXiR SOLUTIONS - BYRCN BARREL & EKUM SITE
AQUEOJS ASP 2000/8260 -• SELECT LIST-TABt£ 5
ANALYSIS DATA SHEET

Client No

DUP-9/GW18

T^h "Nfarr^* -CTT. Pi rf fa In rWif->-=,-tt-.

. lab Code: RECNY Case No.: SAS No.: SD3 No.:

Matrix: (soil/water) WATER

lab Sairple ID: A6717004

Saitple *t/vol: 5.00 fcf/mL) ML

lab File ID: G2941.RR

Level: (low/ned) LOW

Date Samp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec. Heated Purge: N

Date Analyzed: 06/28/2006

GC Column: DB-624 ID: 0.18 {nm)

Dilution Factor: 1.00

Soil Extract Volume: (uL)

Soil Aliauot Volume: (uL)

CAS NO.	CCMP0UND	CCMCEWTRATICN UNITS: (uq/L or uq/Ka) UG/L	0
75-34-3	1,1-Dichloroethane	7	
75r35-4	1,1-Dichloroethene	9	u'
75-09-2	Methylene chloride	5	
108-88-3	Toluene	5	
71-55-6	1,1,1-Trichloroethane		E /*
79-01-6	Trichloroethene	2	J
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	5	U
1330-20-7	Total Xylenes	15	V
108-90-7	Chlorobenzene	5	u
79-00-5	1,1,2-Trichloroethane	5	u
107-06-2	1,2-Dichloroethane	5	u
127-18-4-	Tetrachloroethene	5	u
67-66-3	Chloroform	5	u
75-27-4	Brcnodichlorcrrethane	5	u
124-48-1	DibrcmDcMorccnethane	5	u
78-93-3	-.-2-Butanone	10	u\
56-23-5	Carbon Tetrachloride	5	u
95-50-1	1,2-Dichlorobenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

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9/12/2006

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EODR. SOLUTIONS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABI^ 5
ANALYSIS DATA SHEET

Client No.

DUP-9/GW18

Lab Name: STL Buffalo Contract:

lab Ctode: REOSfir Case No.:_____ SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sanple ID: A6717004DL

Sanple wt/vol: 5.00 (g/mL) ML Lab File ID: G2934.RR

Level: . (low/med) LOW Date Sanp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (mni) Dilution Factor: 10.00

Soil Extract Volume; CuL) Soil Aliquot Volume: (uL)

CAS NO.	OCMPOUND	COS1CENIRATICW UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	1,1-Dichloroethane	7	DJ
75-35-4--	1,1-Dichloroethene	. . . 9 -	DJ-
75-09-2	Methylene chloride	7	BDJ
108-88-3	Toluene	50	U
71-55-6	1,1,1-Trichloroethane	220	*
79-01-6	Trichloroethene	50	
75-01-4	Vinyl chloride	50	U
71-43-2	Benzene	50	u
1330-20-7	Total Xylenes	150	u
108-90-7	Chlorobenzene	50	u
79-00-5	1,1,2-Trichloroethane	50	u
107-06-2	1,2-Dichloroetnane	50	u
127-18-4	Tetrachloroethene	50	u
67-66-3	Chloroform	50	u
75-27-4	Briomcdichloromsthane	50	u
124-48-1	DibrotTDchloromethane	50	u
78-93-3	2-Butanone	100	u
56-23-5	Carbon Tetrachloride	50	u
95-50-1	-1,2-Dichlorobenzene	50	u .
•106-46-7	1,4-Dichlorobenzene	50	u

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smk 9/12/2006

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BOOR SOLUTIONS - BXRCN BARREL & DKLM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW-1-9/GW-18

lab Name: STL Buffalo Contract:

lab Code: RECNy Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sanple ID: A6717002

Sanple wt/vol: 5.00 (g/mL) ML lab File ID: G2939.RR

Level: (low/med) K*J Date Samp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec. Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (rrm) Dilution Factor: 1.00

Soil Extract Volume; (UL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CDNICENrRATICN UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	1,1-Dichloroethane	7	
75-35-4	1,1-Dichloroethene	5	U
75^09^2	^--Msthylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	2	J
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U
71-43-2	Benzene	15	U
1330-20-7	Total Xylenes	5	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
67-66-3	Chloroform	5	U
75-27-4	Brcmodichlorarethane	5	U
124-48-1	Dibrairx±LLoramethane	10	U
78-93-3	2TButanone	5	U
56-23-5	Carbon Tetrachloride	5	U
95-50-1	1,2-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene		

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9/12/2006

BCCR SOLDTICNS
BXR SOLUTIONS - BYRCN BARREL & DRUM SITE
AQUEDUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS nam SHEET

Client No.

MW-1-9/GW-18

Lab'Name: STL Buffalo Cbntract:

Lab Code: REOJY Case *No.*: SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sanple ID: A6717002DL

Sanple wt/vol: 5.00 (g/rriL) ML Lab File ID: G2932.RR

Level: (low/med) LOW Date Sarrp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (rrm) Dilution Factor: 10.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume^_____(uL)

CAS NO.	COVIPaUND	COCENTRATICW UNITS: (uq/L or UCT/KQ) U3/L	Q
75-34-3	1,1-Dichloroethane	8	DJ
75-35-4	1,1-DicMoroethene	.--. .10.....	DJ.-. -
75-09-2---^	Methylene chloride	11	BDJ
108-88-3	Toluene	50	U
71-55-6	1,1,1-Trichloroethane	220	?*
79-01-6	Trichloroethene	50	
75-01-4—-^---Vinyl	chloride	50	u
71-43-2	Benzene	50	u
1330-20-7	Total Xylenes	150	u
108-90-7	Chlorobenzene	50	u
79-00-5	1,1,2-Trichloroethane	50	u
107-06-2	1,2-Dichloxoethane	50	u
127-18-4	Tetrachloroethene	50	u
67-66-3	Chloroform	50	u
75-27-4	BrorrDdichlorcmethane	50	u
124-48-1	Dibrcnrx±ilorarethane	50	u
78-93-3	2-Butanone	100	u
56-23-5	Carbon Tetrachloride	50	u
95-50-1	1,2-Dichlorobenzene	50	u
106-46-7	1,4-Dichlorobenzene	50	u
1			

smk 9/

HOT SOLUTIONS
BCCR SOUJITCNS - BMRCN BARREL & *IMM* SITE
AQUEOUS ASP 2000/8260 - SETACT LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW-4-9/GW-18

lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDGNo.:

ffetrix: (soil/water) WATER Lab Sanple ID: A6717003

Sanple wt/vol: 5.00 <g/mL) ML lab File ID: G2_933^R

Level: (low/med) im Date Sanp/Recv: 06/22/2006 06/23/2006

% MDisture: not dec._____Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (trm) Dilution Factor:_____1^00

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	aXCENTRATTCN UNITS: (ug/L or ug/Kg) . UG/L	
75-34-3	1,1-Dichloroethane	5	U
75-35-4	—1,1-Dichloroethene	.- - .,-5---.....	\j. . ,-.
75-09-2	Methylene chloride	' 5	U
108-88-3	--Toluene	5	u
71-55-6	1,1,1-Trichloroethane	9	
79-01-6	Trichloroethene	1	J
75-01-4	-Vinyl chloride	5	U •
71-43-2	Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
67-66-3	Chloroform	5	U'
75-27-4	BromodichloroiTethane	5	U
124-48-1—:—	Dibronrchlorcmethane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
95-50-1	1,2-Dichlorobenzene	5	U
106-46-7	1,4-Dichlombenzene	5	U

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. BCDR SOLUTICNS
BXR SOLUTIONS - BXRCN BARREL & DRLM SITE
AQUECUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DA3A SHEET

Client No.

PW-1/GW18

lab Name: STL Buffalo Contract:

Lab Code: REQJY Case No.:_____ SAS No.: SDGNb.:

Matrix: (soil/water) WATER Lab Sanple ID: A6717005

Sanple wt/vol: 5.00 (g/rriL) ML lab File ID: G2935.RR

Level: (low/ned) LCW Date Sartp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

GC Cblumn: DB-624 ID: 0.18 (irm) Dilution Factor: __ 1..00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:. _____(uL)

CAS NO.	(XMPDuND	CTNCENTRATICW UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	4	J
75-35-4	l>l-Dichloroethene •	1	J
156-59-2	cis-l,2-DichloroeUTene •	5	U
75-09-2	Methylene chloride	5	u
108-88-3	Tc-luene	5	u
71-55-6	1,1,1-Trichloroethane	77	
79-01-6	-Trichloroethene	0.8	J
75-01-4	Vinyl chloride	5	u

FORM I - GC/MS VQA

ECCR SCSLtZnOB
EOQR sauunasis. - BYRCN BARREL & DRCM SITE
POMXB ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DAm SHEET

Client No.

PW-2/GW18

Lab Narre: STL Buffalo Contract:

Lab Code: RECNT Case No.: ___ SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sarrple ID: A6717006

Sarrple wt/vol: 5.00 (g/rriL) ML lab File ID: G2936.RR

Level: (low/ined) LOW Date Saitp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (nm) Dilution Factor: 2.00

Soil Extract Volurre: (uL) Soil Aliquot Volume:_____(UL)

CAS NO.	CCMPOUND	COCENTRATICN UNITS: (ug/L or ug/Kg) LC/L	Q
75-34-3	1,1-Dichloroethane	4	J
75-35-4	1,1-Dichloroethene	2	J
156-59-2-	cis-l,2-Dichloroethene	10	U
75-09-2	Methylene chloride 10 U		
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	170	
79-01-6	Trichlorbethene	1	J
75-01-4	Vinyl chloride	10	U

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ECDR SOLUTIONS
. BOCR SOLUTICNS - BHRCN BARREL & EKLM SITE
AQUEOUS ASP 2000/8260 - SEIBCT LIST - 8 CMPDS
ANALYSIS DATA. SHEET

Client No.

FW-3/GW18

Lab Name: STL Buffalo Contract:

Lab Code: RBCNY Case No.: SAS No.: SDGNb.:

r<fetrix: (soil/water) WATER Lab Sanple ID: A6717007

Sanple wt/vol: 5,00 (g/mL) ML Lab File ID: G2937.RR

Level: (low/tied) LCW Date Sartp/Recv: 06/22/2006 06/23/2006

% Nbisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

CSC Ctolumn: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volums:_____(uL) Soil /Aliquot Volums:_____(uL)

CAS NO.	COMPOUND	OCNCEWERATICK UNITS: (ug/L of ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-59-2	cis-l,2-Dichloroethene	5	U
75-09-2	ethylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	1	J
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	U

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ECTR SOLUTIONS
EOCR SOLUTIONS - BYRCN BARREL & DRLM SHE
AQUEOUS ASP 2000/8260 - SEILEd LIST-TAELE 5
ANALYSIS DAm SHEET

Client No.

Trip Blank

Lab Narre: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDS No.:

Matrix: (soil/water) WATER Lab Sanple ID: A6717001 -

Sanple wt/vol: 5.00 (g/rriL) ML lab File ID: G2931.RR

Level: (low/ned) LCIJ Date Sarrp/Recv: 06/22/2006 06/23/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/27/2006

GC Column: DB-624 ID: 0.18 (rrm) Dilution Factor: 1.00

Soil- Extract Volume:_____(uL) Soil Aliquot Volume: _____(UL)

CAS NO.	COMPOUND	CCNCENIRATICfcr UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
.75-35-4	1,1-Dichloroethene . - - -^- •	.5 ...	U.
75-09-2-:	ethylene chloride	• 5	rj - -,
108-88-3	Toluene	5	U
71-55-6	1, l, 1-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-01-4	Vinyl chloride	5	u
71-43-2	Benzene	5	u
1330-20-7	Total Xylenes	15	u
108-90-7	Chlorobenzene	5	u
79-00-5	1,1,2-Trichloroethane	5	u
107-06-2	1,2-Dichloroethane	•5	u
127-18-4	Tetrachloroethene	5	u
67-66-3	Chloroform	5	u
75-27-4	BrcmDdj.chloromethane	5	u
124-48-1	DibrcmochlorotrEthane	5	u
78-93-3	2-Butanone	,10	u
56-23-5	Carbon Tetrachloride	5	u
95-50-1	1,2-Dichlorobenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

9/12/2006

Eaor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

W-1/GW18

Lab Name: *STL* Buffalo Contract:

lab Cbde: REQ3Y Case No.: SAS No.: SDG No.:

Matrix (soil/water): WATER lab Sample ID: A6717005

% Solids: 0.0 Date Samp/Recv: 06/22/2006 06/23/2006

Parameter Name	Units of Measure	Result	C	Q	M	Nfethod Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	06/26/2006

Ocnments:

4

Ecor Solutions
Eoor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

EW-2/GW18

Lab Name: STL Buffalo Contract:

Lab Oode: REOSY Case No.: SASNo.: SDG No.:

Matrix (soil/water) : WRIER Lab Sample ID: AS71.7006

% Solids: 0.0 Date Samp/Recv: 06/22/2006 06/23/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	06/26/2006

Cfcnments:

smm 9/12/2006

Ecor Solutions
Eoor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW-3/GW18

lab Name: SIL Buffalo Contract:

lab Code: RECNY Case No.: SAS No.: SDG No.:

Matrix (soil/water): WRIER lab Sample ID: A6717007

% Solids: 0.0 Date Samp/Recv: 06/22/2006 06/23/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	06/26/2006

Comments:

BCOR- sauriasis
sera SOIOTICNS - BXRCN BARREL & DRUM SHE
•. tMISYS - MEHKD 8260 - 8 COMPOUNDS
ANALYSIS DATA SHEET

Client No.

EFF-58/CS?

LabNams: STL Buffalo Contract:

Lab Code: RBCNY Case No.: ___ SAS No.: SD3 No.:

Matrix: (soil/water) WATER lab Sanple ID: A6703802

Sample wt/vol: 5.00 (g/mL) ML lab File ID: N8161.RR

Lsvel: (low/ired) LOW Date Sanp/Recv: 06/20/2006 06/21/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/23/2006

QC Oolurm: DB-624 ID: 0.18 (mn) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volurre:_____(uLj

CAS NO.	CXMPOJND	CCNCEWIRATICN UNITS: (ug/L or ug/K£) TJG/L	Q
75-34-3	1,1-Dichlorcethane	5.0	U
75-35-4	----~-*l*,1-Dichloroethene	5.0	U
156-59-2	cis-l^-Dichloroethene	-5.0	U '
75-09-2	ethylene chloride	5.0	**u**
71-55-6	1,1,1-Trichloroethane	5.0	**u**
79-01-6	Trichloroethene	5.0	**u**
108-88-3	Toluene	5.0	**u**
75-01-4	Vinyl chloride	5.0	**u**

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BOCR SCSUmOB - BYRCN BARREL & DRUM STIE
UNISYS - MEUKD 8260 - 8 CXMOUNDS
ANALYSIS DA3A SHEET

Client No.

INF-64/GW

Lab Name: STL Buffalo Contract:

Lab Code: RECNY *Case.* No.: ___ SAS No.: SDG-Kb.:

I^trix: (soil/water) WAIER Lab Sanple ID: A6703801

Sanple wt/vol: 5.00 (g/itiL) ML lab File ID: N8160.RR

'"'Level: (low/med) IfW Date Sarrp/Recv: 06/20/2006 06/21/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/23/2006

GC Column: DB-624 ID: 0.18 (rem) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	OCNCENIRATICN *WITS:* (ucr/L or ucr/Kq) UG/L	Q
75-34-3	1,1-Dichloroethane	3.6	J
75-35-4-	1,1-Didhloroethene	0.94	J
156-59-2-	-----cis-1,2-Dichloroethene	-5:0	u •
75-09-2	Methylene chloride	5.0	U
71-55-6	1,1,1-ltidhlaroethane	80	
79-01-6	Trichloroethene	0.72	J
108-88-3	Toluene	5.0	U
75-01-4	Vinyl chloride	5.0	U

EXXR SOLUTIONS
E30CR SOLUTICNS - BYKCN BARREL & nRLM SITE
UNISYS - METHOD 8260 - 8 COMPOUNDS
ANALYSIS DATA. SHEET

Client No.

Trip Blank

Lab Name: STL Buffalo Contract:

' lab Code: RBCNY Case No.: ___ SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sarrple ID: A6703803

Sarrple wt/vol: 5.00 (g/rriL) ML lab File ID: N8142.RR

Level: (low/tried) L£W Date Sanp/Recv: 06/20/2006 06/21/2006

. %-Moisture: not dec._____ Heated Purge: N Date Analyzed: 06/23/2006

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volurre:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	OCNCENTRATICN tHTTS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
156-59-2	cis-l^-Dichloroethene	5.0	U
75-09-2	Methylene chloride	5.0	U
71-55-6	—-1,1,1-Trichloroethane	5.0	U
79-01-6	Trichloroethene	• 5.0	U
108-88-3	Toluene	5.0	U
75-01-4	Vinyl chloride	5.0	U

9/12/2006

ECOR SOLUTIONS
ECOR SOLUTIONS - BYRON BARREL & DRUM SITE
UHISYS - METHOD 8260 - 8 COHPOUNDS
HATER SURROGATE RECOVERY

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case **No.**: SAS **No.**: SDG No.

Client Sample ID	Lab Sanple ID	BFB XREC	#	DCE %REC	#	TOL %REC	#						TOT OUT
EFF-58/GU	A6703802	84		90		103							0
INF-64/GW	A6703801	81		86		100	.						0
NSB50	A6B2168601	89		92		100							0
Trip Blank	A6703803	88		94		*99*							0
VBLK50	A6B2168602	85		90		97							0

DC LIMITS

BFB = p-Bromofluorobenzene < 73-120)
DCE = 1,2-Dichloroethane-D4 t 72-143)
TOL = Toluene-D8 (76-122)

Column to be used to flag recovery values
Values outside of contract required QC limits
Surrogates diluted out

QEJLIII

DEC 1 8 2006 lit/

REMEDIAL BUREAU B

Environmental
Construction
Operations &
Remediation

ECOR Solutions, Inc.
1075 Andrew Drive, Suite I
WestChester, PA 19380
Main {610)431-8731
Phone (610)840-9200
Fax (610)431-2852

15 December 2006

Mr. George Jacob
Remedial Project Manager
Central New York Remediation Section
f S ^ 7 & ***dial Response Division
USEPA Region 2
290 Broadway Avenue, 20th Floor
New York, New York 100074866

ECOR
Solutions, Inc.

Re: Third Quarter Report 2006
Byron Barrel & Drum Site - Byron, New York

Dear Mr. Jacob,

Sincerely,
ECOR Solutions, Inc.

Matthew Lapp
Project Engineer

cc: Mr. John Grathwol - NYSDEC
Mr. Chris Rockwell - Garlock Sealing Technologies
™-1"%™*' F-E- - U ^ Corporation
^SSr^ZS"""" & SeHGnS ^ (General ***»* S^)

BYRON BARREL & DRUM SITE

QUARTERLY REPORT

THIRD QUARTER 2006

July through September 2006

Byron Barrel & Drum Site
Area 2
Byron, New York

15 December 2006

Prepared for:

BYRON BARREL & DRUM PRP GROUP

Prepared by:

ECOR Solutions, Inc.
1075 Andrew Drive, Suite I
West Chester, PA 19380

ECOR
Solutions, Inc.

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LIST OF APPENDICES

/. 0 *INTRODUCTION*

This quarterly report of remedial activities at the Byron Barrel & Drum, Area 2 Site (Site) presents data obtained through the third quarter 2006. A Site map is provided as **Figure 1.** The purpose of this report is to summarize and document ongoing remedial and monitoring activities at the Site during the previous quarter. This report discusses the remedial activities and site monitoring activities conducted during the third calendar quarter of 2006. A brief description of the background of the site is included as well as information regarding remedial activities and monitoring activities planned for the next quarter.

7. / *SITE BA CKGROUND*

The Byron Barrel and Drum Area 2 Site is located at 6065 Transit Road, in Byron Township, Genesee County, NY. The Site is set back approximately 1,000 feet from the east side of Transit Road. In 1982, two drum disposal locations were discovered at the Byron Barrel and Drum site. New York State Department of Environmental Conservation's (NYSDEC) subsequent investigation led to the site's inclusion on the Superfund National Priorities List (April 1984). A remedial investigation and feasibility study (RI/FS) was conducted, which identified three areas of concern at the site. Based on the findings of the RI, it was concluded that further action in two of the areas, Area 1 and Area 3, was not warranted. However, the RI detected volatile organic compounds (VOCs); including trichloroethene (TCE) and 1,1,1-trichioroethane (TCA) in groundwater samples collected from locations in Area 2.

The remedial activities discussed in this report include only activities for Area 2. The selected remedy for Area 2 was in-situ soil flushing and groundwater pumping, treatment, and recharge. The Remedial Action construction was performed during the summer of 2001. The implementation of the Remedial Design included excavation and characterization of potentially impacted soil, and installation of additional two groundwater pumping wells (PWs) to supplement the one previously installed (PW-1), a ground water treatment system, and an infiltration gallery.

2.0 CONSTRUCTION OF REMEDIAL DESIGN

Remediation system installation and activation was completed in July 2001. The system operated intermittently until September 2001 due to initial system debugging during the start up phase. Since September 2001, the system has operated almost continuously. Use of the infiltration gallery was discontinued in August 2002 upon regulatory approval. During this reporting period (3rd Quarter 2006), no significant activities occurred relative to the Remedial Design.

3.0 OPERATION OF GROUNDWATER TREATMENT SYSTEM

Groundwater recovered from the three pumping wells (PW-1, PW-2, and PW-3) is treated through one bag filter and an air stripper prior to discharge. The bag filter removes suspended solids greater than 50 microns in diameter. The low-profile air stripper removes the VOCs from the groundwater. Following air stripping, the groundwater is discharged to surface water. **Figure 1** illustrates the PW locations and the Groundwater Treatment System. A Flow Diagram of the Groundwater Treatment System equipment and process piping is presented in **Figure 2.**

3J ROUTINE OPERATION

Scheduled O&M activities include weekly site visits by the local Chief Operator, Steve Rodland. The Chief Operator is the first responder to autodialer alarms from the site. Site status may be checked remotely by telephoning the autodialer.

Weekly site visits include performing an overall site inspection, GWTP system inspection, including checking the bag filter for solids loading, gauging air flow through the stripper, and noting flow rates and totalized flow. Preventive maintenance items performed by the operator include monthly inspections of the air stripper blower, and air stripper trays are inspected for sediment and mineral deposits. The trays require cleaning on a quarterly basis as a preventative maintenance and system operation performance item.

3.2 SYSTEM OPERATIONS AND MONITORING HISTORY THROUGH THIRD QUARTER 2006

A total of **1**9,969,190 gallons of groundwater and approximately 34.3 pounds of dissolved-phase total VOCs have been recovered via the pumping well network since system activation. All of this groundwater was treated in the GWTS. Of that total, 19,145,190 gallons, or 95.8% of the total flow, was discharged to the surface water, into the creek that flows adjacent to the site. The remaining 824,000 gallons, or 4.2 % of the total, was directed to the Infiltration Gallery (no discharge to the Infiltration Gallery since 2002). Soil flushing through the Infiltration Gallery ceased in August of 2002. In September of 2002, EPA concurred with the conclusion of the Final RA Report for soils that Site soil has been effectively remediated. Therefore, there are no plans to re-initiate operation the Infiltration Gallery.

At the beginning of 2002, Treatment System Influent and Effluent were sampled and analyzed on a twice-monthly basis, as per the initial DEC discharge approval document. The Treatment

System sampling schedule was reduced to quarterly during the third quarter 2002 following approval of the NYSDEC. Effluent samples have been collected and analyzed during subsequent quarterly sampling events. The analytical results of the effluent have consistently met the DEC's Effluent Limitations, and have generally had non-detectable concentrations of VOCs. **Tables 1** and **2** summarize influent and effluent analytical data for the system since startup. **Figure 3** presents a graph of the influent VOC concentrations over time. Cumulative dissolved-phase mass recovered is depicted on **Figure 4.** This data indicates that the influent VOC concentration has reached asymptotic levels. Quarterly effluent compliance sampling events coincide with the quarterly groundwater monitoring events.

3.3 OPERATIONAL PROBLEMS ENCOUNTERED

The following summarizes the operational problems encountered during the third quarter 2006:

- On July 11, 2006 operation was stopped by a power outage due to lighting storms with high winds.
- On August 7, 2006 operation stopped temporarily due to a slight power disruption.
- On September 14, 2006 operation stopped due to a clogging of the effluent pipe which would not allow all three pumping wells to operate simultaneously. Pumping well PW-2 was shut down to allow the system to run using only the remaining pumping wells, PW-1 and PW-3.
- On September 18, 2006 operation stopped again due to clogging of the effluent pipe. The system would only remain running by turning off PW-2 and running the system using only PW-1.

Since it is undetermined how long the treatment system will remain in operation due to an alternative in-situ remediation technique which is being proposed, the system will continue to be run utilizing only PW-1. PW-2 and PW-3 will be cycled and run for short periods of time to keep them moving and keeping the wells fresh.

4.0 QUARTERLY SITE MONITORING EVENT

4.1 MONITORING WELL SAMPLING EVENT

The quarterly sampling event occurred on 14 September 2006 and was conducted in accordance with the agreed upon modifications to the QAPP in telephone conversations between ECOR, EPA, and DEC's Project Managers on 23 May 2003. Groundwater samples were collected from monitoring wells MW-1, MW-4, and MW10B using EPA's low-flow sampling procedures, in accordance with the QAPP. A summary of the field parameter measurements is presented in **Table 3.** The purging and sampling procedures utilized during collection of the quarterly samples were consistent with the procedures outlined in the QAPP. A copy of field notes collected during the sampling event is included in **Appendix** A. The preserved groundwater samples were collected and analyzed by Severn Trent Laboratories (STL), Buffalo, New York. In addition, groundwater elevations were measured from site monitoring wells. A summary of Site groundwater elevations is provided in **Table 4.**

4.2 LABORATORY ANALYSIS/GROUNDWATER SAMPLING RESULTS

Recent and historical groundwater quality data for monitoring and pumping wells (2001 to present) for select compounds is summarized in **Table 5.** The sample specific analysis performed included VOC analysis in accordance with USEPA SW-846 Method 8260B. The groundwater samples (MW-1, MW-4 and MW-10B) were analyzed for the following twenty (20) project specific compounds: 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), methylene chloride (MeCl), toluene, 1,1,1-trichloroethane (TCA), trichloroethene (TCE), vinyl chloride (VC), benzene, total xylenes, chlorobenzene, 1,1,2-trichloroethane (1,1,2-TCA), 1,2-dichloroethane (1,2-DCA), tetrachloroethene, chloroform, bromodichloromethane, dibromochloromethane, 2-butanone, carbon tetrachloride, 1,2-dichlorobenzene and 1,4-dichIorobenzene. The pumping well samples (PW-1, PW-2, and PW-3) were analyzed for the following eight (8) compounds: 1,1-DCA, 1,1-DCE, MeCl, TCA, TCE, toluene, VC and cis-1,2-dichloroethene. A review of the previous data indicates that the primary compounds of concern detected at the site are: TCA and degradation products 1,1-DCA and 1,1-DCE. The concentrations of these VOCs range from non-detect to 230 micrograms per liter (u-g/L) (TCA at monitoring well PW-1). Currently, 1,1-DCA, 1,1-DCE, and TCA are present above the applicable clean up standards. Groundwater quality data is depicted on **Figure 5** with those constituents detected above the applicable clean-up standard are highlighted in yellow.

4.3 DATA VALIDATION

As per section 4.0 of the QAPP, the data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the ASP, the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 1, September 1999: Validating Volatile Organic Compounds by SW-846 Method 8260B, and the reviewer's professional judgment. The Data Validation Report is included in **Appendix B.**

5.0 PLANS FOR NEXT QUARTER

The next quarterly groundwater sampling event will be performed in December 2006. Operation and maintenance plans for the next quarter include continued routine operation as well as preventative maintenance of the pumping wells and GWTP.

ECOR submitted a review of the in-situ bioremediation applicability study to the PRP group for review. The **PRP** Group requested an independent assessment of the data and recommendation prior to implementation. The independent assessment was completed during June 2006. The findings indicate that an in-situ bioaugmentation process may be an effective remediation technology. ECOR and the PRP group are evaluating the use of biological processes enhancements such as emulsified soybean oil and whey products. A work plan will be prepared on completion of the internal analysis.

APPENDIX A
Field Notes

ECOR Solutions, Inc.
Byron Barrel & Drum She
Field Sampling Record Form

Site: Byron Barrel and Drum **Date:** 7-/y-6l~

Job #: 01501.002

Sample ID: **/ m ^ - 9 / £<v*tH**

Well ID: **/ v u W** Time onsite: Time Offsite:

Samplers: /? £,+&< /P yr //VQ

Depth of Well (from top of casing) /'• 6X Time: IWQ

Static water level (from top of casing) S. if Time: /***"

Purging Method:

Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Rowrate (mL/mtn) / purge volume (mL)	Temp. °C	ORP mV	pH 3td. Units	TDS gA	DO mg/L	Spec. Cond. mS/cm
II df	3 P / * / A W	!$•$	w/v	l.ii		1,10	7<tf
\M°	3^^c/r,^	I*±	- / / / "	n-w	* i "	h?7	7<3f
mf	3<* r</U**s	/ * '	. / / £	n.yf	/5"	h?r	l/o
//•?«	J * /**</»,*.	/i-i	w/<	ntf		/ . 7 /	lol
II zf	2* /*<-/*,*	1*6	- / ' /	-i.if	. *	/ . 7 *	701
1 i 3°	IO'IH *•I*'*'	IH.6	W/y	7.yy	r	/ . 7o	lot
It If	lun/w	IH>$	W/J	?,vy	,r	L&?	70<i

Sampling:

Time of Sample Collectio // 3 -f

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503 Other:

Observations:

Weather/Temperature:

Sample Description:

Free Product?	Yes	No	A	Descript.:
Sheen?	Yes	No	X	Descript.:
Odor?	Yes	No	9^	Descript.:

Comments:

t - J 0*/'.<H* ss?iS*r*f At /*° - /

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum Date: ^ly-ot

Job #: 01501.002

Sample ID: /*>» V - ? / ^ - / ?

Well ID: A t y - / Time onsite: Time Offsite:

Samplers: /? / ,y//<

Depth of Well (from top of casing) *fi.S'o* Time: *i*rt*

Static water level (from top of casing) *3. tz* Time: /'*3

Purging Method:
Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Flowrate(mL/mln)/ purge volume (mL)	Temp. °C	ORP mV	pH 3td. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
liso	*j0 flit*//***	*1S.1*	^£?	-7.V	.£	*hV*	*0 a*
inr	£fo /n<-/ /*/~>	*1 ST. 6*	**^r**	**n^c**	*f	*t'J**	*8 i f*
1200		*IS"/*	*^63*	*i-if*	**. f**	*1.2-/*	**en**
R05-		*IS,<t*	*6~^	**n.w**	,jr	A3?	*$16*
12t°		*I$.X*	*~&o*	**~)W**	*'5~*	*I«U*	**en**
W*		*I£,0*	*S f*	*-j.fo*	**.?**	*I-JU>*	*0/7*
Mo	vj	***IS.I***	*~S1*	*1XO*		*hul*	***(U7***

f^iAj'i

Sampling:

Time of **Sample** Collectio *13.3.0*

Collection Method:	*Analyses*	*Analytical Method:*
X Dedicated pump	**X VC Cs**	8260 X 503 Other

Observations:

Weather/Temperature: *17 A*'*t Jo **

Sample Description: *<zl*.^*

Free Product?	Yes	**No**	**X**	Descript.:
Sheen?	Yes	**No**	^	Descript:
Odor?	Yes	**No**	^	Descript.:

Comments:

J/<'< ***{/»*,-</)***

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum **Date:** *f-tv-e**

Job #: 01501.002

Sample ID: ^ ^ - / c ^ / ^ / y

Well ID: */vx<*;-/cg* Time onsite: Time Offsite:

Samplers: / ^ ///&•

Depth of Well (from top of casing) *2c. JJ* Time; /JZP

Static water level (from top of casing) *9-S'K* Time; *aw*

Purging Method:

Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Flowrate (mUmin) / purge volume (mL).		Temp. °C	ORP mV	pH 3td. Units	TDS g/L	DO mg/L	Spec Cond. mS/cm
UVT	*3Q/S\./JH,+,*		***a 9***	~xr	*y.jr~*	O "	*i.n*	*gn*
(2yv			***/3<s***	*-TC*	*'W*	t y	/ , / '	*c*e*
12 D"			*/</• 0*	***-XT***	*y-?j*	. y	/ . / /	*£?**
/•3&0			*W-3*	*-jrV*	7--P"	.<T	/ . / /	***S**"***
Ocy			*ff*t*	- y y	*7.W*	***r**	*UP*	*f*r*
/?/£>			/ * *	*-S'-J*	*•y^y*	*<jr*	*/*o9*	***£<V***
/ J / j "	**/**		*/y.o*	- X ?	*->jy*	***r~**	*f.oS*	*ftr*

Sampling:

Time of Sample Collectio /3/5

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260_X_ 503___Other:

Observations:

Weather/Temperature: *c UVJJ !#*

Sample Description: *C, ^'"*

Free Product? Yes_____No *X* Descript.:_____

Sheen? Yes_____No ^ Descript: _____

Odor? Yes_____No A Descript.:_____

Comments:

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Groundwater Elevations

Operator: *nl^4^~t*

Date: *?~/9-Q£*

Pumping Wells	DTW	TOC Elevation	GW Elevation	TD	wc.ft.
PW-1	#•23	642.82	£39.S-<r	„	„
PW-2	(<lf	641.34	£J¥.S<?	m	m
PW-3	£•$3	641.11	tev.sa	·	_
Monitoring Wells					
MW-1	s.ir	639.63	£3y.?<?	li,L-f	6.SD
MW-2	//.?y	646.36	£3i-'*	jS~J°	3.3C
MW-4	3-7«2_	638.56	/3V.*V	//.SV	7.SS
MW-1 OB	7 «	644.44	62i*t*	Zc.3f	/o.S3
MW-21	#.ts	642.52	£•$1.11	•3L1*W	J1.72*
Residential	H.3f	650.78	£3</<*3	3S.n	t$<$2
Piezometers					
PZ-1	f'*3	643.11	{3H.se	*%S3	It.oS
PZ-2	7. Bo	642.39	£3</.Sf	27.19	/I.Vf

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Pumping Well Field Chemistry Parameters

Parameter Units	Time	Temp. °C	ORP mV	pH Std. Units	TDS 9/L	DO mg/L	Spec. Cond. mS/cm
PW-1/GW / 9	{23°	tl.t	~n	~?s°	'?	Is?	g9t>
PW-2/GW_/_I	*33f	tl.~*	,36	7S&	,f	1-52	-}0&
PW-3/GW /?	f3?0	/si	-Jf	1*Z6	.<f	hS6	6o^

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

&A> f/T<.

****** P^SeJ *° **«"* F"~ **SACK** **7*"**

APPENDIX B
Data Validation Report

Project: Byron Barrel and Drum Site
Laboratory: Severn Trent Laboratories
Sample Delivery Group: A06-A551
Fraction: Organic
Matrix: Aqueous
Report Date: 10/24/2006

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1. All analyses were performed by Severn Trent Laboratories.

The samples were analyzed for volatile organic compounds and total suspended solids. The sample analyses were performed in accordance with the procedures outlined in the method referenced at the end of this report. The data deliverables provided by the laboratory were New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category B format.

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to Region II "Validating Volatile Organic Compounds by SW-846 Method 8260B", SOP HW-24, Revision 1, June 1999. The parameters presented on the following page were evaluated.

X	•	Data Completeness
X	»	Chain of Custody Documentation
X	»	Holding Times
X	»	Instrument Performance
X	»	Initial and Continuing Calibrations
X	»	Laboratory and Field Blank Analysis Results
X	»	Surrogate Compound Recoveries
X	>	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	»	Field Duplicate Analysis Results
X	•	Laboratory Control Sample Results
X	•	Internal Standard Performance
X	•	Qualitative Identification
X		Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

Shawne M. Rodgers
President

10/24/2005
Date

1.0 DATA COMPLETENESS

The data package was complete.

2.0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

3.0 HOLDING TIMES

The holding times were met for all analyses.

4.0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

5.0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

6.0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY

All criteria were met. No qualifiers were applied.

9.0 FIELD DUPLICATE RESULTS

Duplicate samples MW-1-9/GW-19 and DUP-9/GW19 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for these duplicate samples are presented in Table *2*. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses and internal acceptance criteria of twenty percent for volatile detected compounds to evaluate field duplicate samples.

10.0 LABORATORY CONTROL SAMPLE RESULTS

All criteria were met. No qualifiers were applied.

11.0 INTERNAL STANDARD PERFORMANCE

All criteria were met. No qualifiers were applied.

12.0 QUALITATIVE IDENTIFICATION

All criteria were met. No qualifiers were applied.

13.0 QUANTTTATION/REPORTING LIMITS

The following samples were re-analyzed at dilutions for volatile organic compounds. The reanalyses were performed because the responses for

volatile compounds exceeded the linear range of the GC/MS instrument for the initial undiluted analyses. The affected results were reported from the dilution analyses. All other results have been reported from the initial analyses.

Sample	Dilution Factor	Compound reported from Dilution
DUP-9/GW19	4.0	1,1,1-Trichloroethane
PW-1/GW19	5.0	1,1,1-Trichloroethane
PW-2/GW19	2.0	1,14-Trichloroethane

The samples presented below were analyzed at dilutions. The dilution analyses were performed because of the suspected presence of high levels of target compounds and/or interferences. Quantitation limits are elevated by the dilution factor for these samples for target compounds that were not detected. The elevated quantitation limits should be noted when assessing the data for these samples.

^ Sample	Dilution Factor
MW-1-9/GW-19	2.0

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective quantitation limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 8260B, "Test Methods for Evaluating Solid Wastes", SW-846, third edition, Promulgated Updates n, HA, and III, June 1997
Total Suspended Solids	Method 160.2, "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, and revisions

Table 1 Samples For Data Validation Review
Byron Barrel and Drum Site
Groundwater Samples Collected September 2006
Severn Trent Laboratories Sample Delivery Group A06-A551

SAMPLE I.D.	LABORATORY I.D		DATE COLLECTED	MATRIX	ANALYSES PERFORMED *VOC*	TSS
MW-1-9/GW-19	A6A551	01	9/14/2006	GROUNDWATER	X	
MW-4-9/GW-19	A6A551	02	9/14/2006	GROUNDWATER	X	
DUP-9/GW19	A6A551	03	9/14/2006	GROUNDWATER	X	
PW-1/GW19	A6A551	04	9/14/2006	GROUNDWATER	X	
PW-2/GW19	A6A551	05	9/14/2006	GROUNDWATER	X	
PW-3/GW19	A6A551	06	9/14/2006	GROUNDWATER	X	
MW-10B/GW19	A6A551	07	9/14/2006	GROUNDWATER	X	
TRIP BLANK	A6A551	08	9/14/2006	TRIP BLANK	X	

VOC: Volatile Organic Compounds

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples MW-1-9/GW-19 and DUP-9/GW19

	MW-1-9/GW-19 (^8/L)		DUP-9/GW19 (pg/L)	RPD	Comments
1,1-Dichloroethane	5	J	5	0.0	
1,1-DichJoroethene	6	J	7	15.4	
1,1,1-Trichloroethane	190		180	5.4	
Trichloroethene	' 2	J	N D	N C	

EGQR SOLUTIONS
ECOR SCSLUTICNS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
' ANALYSIS DATA SHEET

Client No.

DUP-9/GW-19

Lab Name: STL Buffalo Contract:

Lab Code: REOiy Case No.: SAS No.: STONb.: 091406

Matrix: (soil/water) WATER Lab Sanple ID: A6A55103

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: Q5455.RR

Level: (low/rced) im Date Saitp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N • Date Analyzed: 09/22/2006

GC Column: DB-624 ID: 0.53 (nm) Dilution Factor: 1.00

Soil Extract Volume; (uL) Soil Aliquot Volume: (uL)

CCNCENTRATICN UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
75-34-3	1, l-Dichlorpethane_	5	
75-35-4	1,1-Dichloroethene	7	
75-09-2	•-Methylene chloride_	5	U
108-88-3	•-Toluene	5	U
71-55-6	-1,1, l-Trichloroethane_	~~190~~	~~E~~ A
79-01-6	• -Trichloroethene	2	J
75-01-4	-Vinyl chloride_____	5	U
71-43-2	-Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7	Chlorobenzene	5	U
79-00-5	-1,1,2 -Trichlorcethane_	5	U
107-06-2	-1,2-Dichloroethane	5	U
127-18-4	-Tetrachloroethene	5	U
67-66-3	-Chloroform	5	U
75-27-4	BrcmDdichloromethane_	5	U
124-48-1	Dibrcmochlo:rcfrethane~	5	U
78-93-3	2-Butanone	10	U
56-23-5	-Carbon Tetrachloride^	5	U
95-50-1	-1,2-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U

- ^ ^ ^CTVlcilU^

smt 10/24/2006

E03R SOLOITCNS
EOCR SCELUTICKS - BYRCH BARREL & DRCM SITE
AQUBCUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA. SHEET

Client No.

DUP-9/GW-19

Lab Name: STL Buffalo" Contract:

Lab Code: RECNY Case No. SAS No.: *SCG* No.: 091406 '

Matrix: (soil/water) WATER Lab Sample ID: A6A55103DL

Sarrple wt/vol: 5.00 (g/mL) MJ Lab File ID: *Q5418*.RR

Level: (low/rred) tOW Date Samp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/23/2006

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 4.00

Soil Extract Volume: (uL) Soil Aliquot Volume; __ (uL)

CAS NO.	COMPOUND	CXWCENIRATiaST UNITS: • (ug/L or ug/Kg) U5/L	Q
75-34-3	—1,1-Dichloroethane.	5	DJ
75-35-4	l>l-Dichloroetbene-	'. '.' *1* ...	DJ. ;'
75-09-2-	-Methylene chloride	20	u
108-88-3	Toluene	20	u
71-55-6	1,1/1-Trichloroethane	180	*&'
79-01-6	Trichloroethene	2	DJ
75-01-4	Vinyl chloride	20	u
71-43-2	Benzene	20	u
1330-20-7	Ibtal Xylenes	60	u
108-90-7	Chlorobenzene	20	u
79-00-5	1,1,2-Trichloroethane	20	u
107-06-2	1,2-DicMoroethane	20	u
127-18-4	Tetrachloroethene	20	u
67-66-3	Chloroform	20	u
75-27-4	Brornodichloromethane	20	u
124-48-1	Dibrorrochloromethane	20	u
78-93-3	2-Butanone	40	u
56-23-5	Carbon Tetrachloride	20	u
95-50-1	1,2-Dichlorobenzene	20	u
106-46-7	1,4-Dichlorobenzene	20	u

Report

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ECDR SOLCHTOSIS
ECDR SOLUTIONS - BYRCH BARREL & DRCM SITE
AQUEOUS ASP 2000/8260 - SEIECT LIST - 8 CMFDS
ANALYSIS DATA SHEET

Clien: No.

PW-3/GW-19

Lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: _____ SAS No.: SDGNo.: 091406

Matrix: (soil/water) WATER l^b Sairple ID: A6A55106

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 05458.RR

Level: (low/med) I£W Date Sairp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec. _____ ' Heated Purge: N Date Analyzed: 09/22/2006

GC Column: DB-624 ID: 0.53 (rm) Dilution Factor: 1.00

Soil Extract Volume: CuL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	03CENIRATICN UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	.'..SZ...	U
156-59-2	cis-l^-Dichloroethene	5	u
75-09-2	Methylene chloride	5	u
108-88-3	Toluene	5	u
71-55-6	1,1,1-TricMorcethane	2	J
79-01-6	Trichloroethene	5	u
75-01-4	Vinyl chloride	5	u

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EOOR SOtffiTCNS
BOOR SOLUTIONS - BYRON BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

IW-2/GW-19

lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: ___ SAS No.: SDG Kb.: 091406

Matrix: (soil/water) WATER lab Sample ID: A6A55105DL

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: Q5457.RR

Level: (low/med) DOW Date Sartp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/22/2006

GC Column: DB-624_____ ID: 0.53 (mm) Dilution Factor: 2.00

Soil Extract Volume: CuL) Soil Aliquot Volume: _____(uL)

tnsfCENTRATICN UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-34-3	1,1-Dichloroethane	...	.3	DJ
75-35-4	1,1-Dichloroethene • • •		1	DJ
156-59-2	cis-l,2-Dichloroethene		10	U
75-09-2	Methylene chloride		10	u
108-88-3	Toluene		10	u
71-55-6	1,1,1-Trichloroethane		92	*0 #*
79-01-6	Trichloroethene		1	DJ
75-01-4	Vinyl chloride		10	U

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smt 10/24/2006

ECDR SOLUTIONS
ECDR SOIUITCNS - EYJRCN BARREL & DRLM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW-2/GW-19

Lab Name: SIL Buffalo Contract: .

lab Code: RECNY Case No.:_____ SAS No. SDGNo.: 091406

Matrix: (soil/water) WATER Lab Sample 3D: A6A55105

Sample wt/vol: 5.00 (g/raL) ML Lab File ID: 0548Q.RR

Level: (low/ned) LOW Date Sanp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/23/2006

GC Column: DB-624 -ID: 0.53 (irm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	OTCENTRATIQN UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3--	-1,1-Dichloroethane	... ..3.	J.
75-35-4-	1,1-Dichloroethene	2	J
156-59-2	cis-l^-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	u
71-55-6	1,1,1-Trichloroethane		
79-01-6	Trichloroethene	1	J
75-01-4	Vinyl chloride	5	u

^ llW^clttui^K

10/24/2006

ECDR SOLUTIONS
EODR SGLUTICNS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS ram SHEET

Client No.

PW-l/GW-19

Lab Name: STL Buffalo Contract:

Lab Code: REQJY Case No.:______ SAS No.: SDG No.: 091406

Matrix: (soil/water) WATER Lab Sarrple ID: A6A55104DL

Sanple wt/vol: 5.00 (g/rriL) ML lab File ID: 05479.RR

Level: (low/ned) "IflW Date Sanp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec. " Heated Purge: N Date Analyzed: 09/23/2006

GC Column: DB-624 ID: 0.53 (nm) Dilution Factor: 5.00

Soil Extract Volume: (uL) Soil Aliquot Volume:_________(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	C£MPOUM>	UG/L	Q
75-34-3	1,1-Dichlorcethane.	9	DJ
75-35-4	1,1-Dichloroethene	25	U
156-59-2	cis-l^-Dichloroethene	25	U
75-09-2	ethylene chloride	. 25	U
108-88-3	Toluene .		
71-55-6	l,lva--Trichloroethane	230	jf&
79-01-6	Trichlorbethene	25	U
75-01-4	Vinyl chloride	25	U

Report

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ECDR SOLUTIONS - BYRON BARREL & DRUM SITE
AQUB3US ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW-l/GW-19

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.:_____ SAS No.: SDGNo.: 091406

Matrix: (soil/water) WATER Lab Sarrple ID: A6A55104

Sarrple wt/vol: 5.00 (g/rtiL) ML lab File ID: 05456.RR

Level: (low/rted) LOW Date Sarrp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/22/2006

GC Column: DB-624 ID: 0.53 (nni) Dilution Factor: 1.00

Soil Extract Volume: (uL) Soil Aliquot Volume:____ _ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3.	1,1-Dichloroethane	10	
75-35-4	1,1-Dichloroethene	.2	J
156-59-2	cis-l^-Dxchloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane -	—540	•e- <& .
79-01-6	Trichloroethene	2	J
75-01-4	Vinyl chloride	5	U

$ iW^rnctiU^

FORM I - GC/MS VQA

ECOR SOLUTIONS
EOOR SCLOTICNS - BYRCN BARREL & DRUM. SITE
AQUEOUS ASP 2000/8260 - SEESCT LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW-4-9/GW-19

lab Name: STL Buffalo Contract:

lab Code: RECNY Case No.: SAS No.: SDGNo. : 091406

Jfetrix: (soil/water) WATER lab Satrple ID: A6A55102

Sample wt/vol: 5.00 (g/rriL) ML Lab File ID: 05451.RR

Level: (low/med) ICW Date Sarrp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____.Heated Purge: N Date Analysed: 09/22/2006 •

GC Column: DB-624 _ ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volurre: (uL) Soil Aliquot Volume: (uL)

CAS NO.	OCMPOtM)	CCfTCENTRATICN UNITS: (ug/L or ug/Kg) UG/L	
75-34-3	—^—l,l-Dichloroethane_	5	U.
75-35-4	l,l-Dichloroethene_	5	U
75-09-2	Methylene chloride]	5	u
108-88-3-	Toluene	5	
71-55-6	--1,1,1-Trichloroethane	13	u
79-01-6	• -Trichloroethene	2	J
75-01-4	•-Vinyl chloride__	5	u
71-43-2	•-Benzene	5	u
1330-20-7	Total Xylenes^	15	u
108-90-7-	Chlorobenzene	5	u
79-00-5	-1,1,2-Trichloroethane	5	u
107-06-2-	-1,2-Dichloroethane	5	u
127-18-4-	-Tetrachloroethene_	5	u
67-66-3	-Chloroform	5	u
75-27-4	-BrcmDdichloromethane	5	u
124-48-1-	-Dibrcnxx±ilororriethane	5	u
78-93-3	-2-Butanone	10	u
56-23-5	-Carbon Tetrachloride	5	u
95-50-1	-1,2-Dichlorobenzene	5	u
106-46-7-	1,4-Dichlorobenzene	5	u

smk 10/24/2006

AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA. SHEET

Client No,

MW-10B/GW-19

Lab Name: STL Buffalo Contract:

Lab Oode: RECNY *Case* No.: SAS No.: SDG No.: 091406

N&trix: (soil/water) MATER Lab Sample ID: A6AS5107

Sanple wt/vol: 5.00 (g/rtiL) ML lab File ID: 05459.RR

Level: (low/ned) LOW Date Sanp/Recv: 09/14/2006 09/14/2006

% MDisture: not dec._____ Heated Purge: N Date Analyzed: 09/22/2006

GC Column: DB-624 ID: 0.53 (rnm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	COSICENrRATTON UNITS: (ug/L or ug/Kg) tG/L	Q
75-34-3	.—1,1-Dichlaroethane . . .	. … 5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	6	
79-01-6	Trichloroethene	5	U .
75-01-4	Vinyl chloride	5	u
71-43-2	Benzene	5	u
1330-20-7	Total Xylenes	15	u
108-90-7	Chlorobenzene	5	u
79-00-5	1,1,2-Trichloroethane	5	u
107-06-2	1,2-Dichloroethane	5	u
127-18-4	Tetrachloroethene	5	u
67-66-3	Chloroform	5	u
75-27-4	BrcniDdichloromsthane	5	u
124-48-1	Dibrcmochlorcrnethane	5	u
78-93-3	2-Butanone	10	u
56-23-5	Carbon Tetrachloride	5	u
95-50-1	1,2-Dichlordbenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

smw 10/27/2006

ECQR SOLUTICNS .
BOOR SOLUTIONS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DA3A SHEET

Client No.

MW-1-9/GW-19

Lab Naire: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDG NO.: 091406

Matrix: (soil/water) WATER Lab Sample ID: A6A55101

Sanple wt/vol: 5.00 (g/rriL) ML Lab File ID: 05477.RR

Level: (low/med) LOT Date Sanp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/23/2006

GC Column: DB-624_ ID: 0.53 (irm) Dilution Factor: 2.00

Soil Extract Volums: (uL) Soil Aliquot Volume: (uL)

CAS MO.	CCMPXND	CONCENTRATION UNITS: (ug/L or ug/Kg) U5/L	Q
75-34-3	1,1-Dichloroethane	.5	J
75-35-4	j-1/l-Dichloroethene	6	J
75-09-2	Methylene chloride	10	u
108-88-3	Toluene	10	u
71-55-6	1,1,1-Trichloroethane	190	
79-01-6	Trichloroethene	2	J .
75-01-4	Vinyl chloride	10	u
71-43-2	Benzene	10	u
1330-20-7	Total Xylenes	30	u
108-90-7	Chlorobenzene	10	u
79-00-5	1,1,2-Trichloroethane	10	u
107-06-2	1,2-Dichloroethane	10	u
127-18-4	Tetrachloroethene	10	u
67-66-3	Chloroform	10	u
75-27-4	Brcmodichlorcmethane	• 10	u
124-48-1	DibrcmDchloromethane	10	u
78-93-3	2-Butanone	20	u
56-23-5	Carbon Tetrachloride	10	u
95-50-1	-1,2-Dichlordbenzene	10	u
106-46-7	1,4-Dichlorobenzene	10 '	u

ECDR SOLUTIONS
EODR SOLUTIONS - BYRCN BARREL & DRUM S H E
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DA3A SHEET

Client No.

Trip Blank

Lab Narre: SIL Buffalo Oontract:

Lab OxIe: RBQJY Case No.: SAS No.: SDG No.: 091406

Matrix: (soil/water) WATER Lab Sanple ID: A6A55108

Sanple wt/vol: 5.00 (g/rriL) ML Lab File ID: 05446.KR

Level: (low/ned) LOW Date Samp/Recv: 09/14/2006 09/14/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 09/22/2006

GC Column: DB-624 ID: 0.53 (mt) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	O3MF0UND	COCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	:-l,l-Dichloroethane	5	U
75-35-4	1,1 -Dichloroethene	5'	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
.71-55-6	•-1,1,1-Trichlorcethane	5	u
79-01-6	• -Trichloroethene	5	U
75-01-4	-Vinyl chloride	5	u
71-43-2	-Benzene	5	u
1330-20-7	Total Xylenes	15	u
108-90-7	Chlorobenzene	5	u
79-00-5	-1,1,2-Trichlorcethane	5	u
107-06-2	-1,2 -Dichloroethane	5	u
127-18-4	-Tetrachloroethene	5	u
67-66-3	-Chloroform	5	u
75-27-4	BromodAchlororTiethane	5	u
124-48-1	DibrcmDchlorccnethane	5	u
78-93-3	2-Butanone	10	u
56-23-5	-Carbon Tetrachloride	5	u
95-50-1	-1,2 -Dichlorobenzene	5	u
106-46-7	1,4-Dichlorobenzene	5	u

10/27/2006

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW-1/(3?-19

lab Name: STL Buffalo Contract:

lab *Oode:* RECHY Case No.: SAS No.: SDG No.: 091406

Matrix (soil/water) : WATER Lab Sample ID: A6A55104

% Solids: 0.0 Date Sanp/Recv; 09/14/2006 09/14/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	4.0	U			160.2	09/18/2006

Ccnments:

W D M T - ton

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW-2/GW-19

lab Name: STL Buffalo Contract:

lab Code: KECNY Case No.: SAS No.: SDG No.: 091406

Matrix (soil/water) : HAIBR. Lab Sample ID: A6A55105

% Solids: 0.0 Date Samp/Recv: 09/14/2006 09/14/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed rate
Total Suspended Solids	M3/L	4.0	U			160.2	09/18/2006

Comments;

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

EW-3/GW-19

lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: SASNo.: SDG No.: 091406

Matrix (soil/water) : WATER lab Sample ID: A6A55106

% Solids: 0.0 Eate Samp/Recv: 09/14/2006 09/14/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	M3/L	10				160.2	09/18/2006

Garments:

smt 10/2/06

TABLES

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/2001	8/8/2001	8/18/2001	9/18/2001	9/27/2001	10/5/2001
Field Influent pH, std pH units			7.87	7.57	7.55	7.5
Total Suspended Solids, mg/L	6.5	4.0 U	4.0 U	4.0 U	4.0 U	4
1,1-Dichloroethane, ug/L	23	47	60	19J	58 D	43 J
1,1-Dichloroethene, ug/L	5.1	12	16	12J	16 DJ	50 U
Cis-1,2- Dichloroethene, ug/L	1.0 J	1.4J	1.0 J	50 U	50 U	50 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
1,1,1 - Trichloroethane, ug/L	460 E	840 E	1200E	1100	1100 D	780
Trichloroethene, ug/L	1.9 J	3.0 J	4.7 J	50 U	50 U	50 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
Vinyl Chloride, uq/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
Total Confident VOCs, pg/L	499	899	1276	1124	1174	823

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/2001	11/8/2001	11/28/2001	12/13/2001	12/27/2001	1/18/2002
Field Influent pH, std pH units	7.39	7.57	7.42	7.43	7.54	7.64
Total Suspended Solids, mg/L	4.0 U	7	15	4.0 U		4.0 U
1,1-Dichloroethane, pg/L	46 J	32 J	20 J	13	9.3	11
1,1-Dichloroethene, pg/L	13J	13J	9.4 J	4.2 J	4.6 J	4.3 J
Cis -1,2 - Dichloroethene, ug/L	50 U	50 U	25 U	10 **u**	5.0 U	5,0 U
Methylene Chloride, ug/L	50 U	50 U	25 U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	1200	580	530	260	220 E	250 E
Trichloroethene, ug/L	50 U	50 U	25 U	3.3 J	4.2 J	4.9 J
Toluene, ug/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	50 U	50 U	25 U	10U	5.0 U	5.0 U
Total Confident VOCs, pg/L	1259	635	559	277	237	270

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/2002	2/13/2002	2/23/2002	3/8/2002	3/20/2002	4/8/2002
Field Influent pH, std pH units	7.71	7.84	7.48	7.79	7.72	7.09
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	10	16	10	11	11	10
1,1-Dichloroethene, ug/L	4.0 J	5.2 J	3.5 J	3.7 J	4.1 J	2.5 J
Cis -1,2 - Dichloroethene, ug/L	10U	10 U	5.0 U	5.0 U	5.0 U	10U
Methylene Chloride, pg/L	10U	10U	5.0 U	5.0 U	1.8 BJ	10U
1,1,1 -Trichloroethane, pg/L	220	320	240 E	320 E	330 E	240
Trichloroethene, ug/L	4.3 J	3.2 J	3.3 J	3,4 J	3.4 J	3.3 J
Toluene, ug/L	10 U	10U	3.3 J	5.0 U	5.0 U	10U
Vinyl Chloride, pq/L	10 U	10 **u**	5.0 U	5.0 U	5.0 U	10U
Total Confident VOCs, pg/L	238	339	256	337	348	253

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/2002	5/8/2002	5/21/2002	6/4/2002	6/13/2002	7/11/2002
Field Influent pH, std pH units	6.99	7.07	7.41	7.11	7.34	7.19
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	10	12	20	19 J	18D,J	20
1,1-Dichloroethene, pg/L	2.5 J	2.4 J	3.5 J	25 U	20 U	3.4 J
Cis -1,2 - Dichloroethene, pg/L	10U	10 U	10U	25 U	20 U	10U
Methylene Chloride, pg/L	15B	10U	3.1 BJ	16J	12B,D,J	8.5 B,J
1,1,1 - Trichloroethane, pg/L	230	260	350	390	360 D	380
Trichloroethene, pg/L	2.8 J	2.7 J	3.3 J	25 U	20 U	3,7 J
Toluene, pg/L	2.6 J	10 U	10U	25 U	20 U	10U
Vinyl Chloride, pg/L	10U	10U	10U	25 U	20 U	10U
Total Confident VOCs, pg/L	246	276	376	425	390	407

Sampling Event	25/GW	26/GW	27/GW	28/GW	29/GW	30/GW
Date	7/23/2002	8/29/2002	9/18/2002	10/29/2002	11/25/2002	12/18/2002
Field Influent pH, std pH units	6.45	6.97	7.74	7.91	6.8	7.25
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U
1,1-Dichloroethane, pg/L	9.0 J	8.8	7.7	8.6	9.1 DJ	6.6
1,1-Dichloroethene, pg/L	2.6 J	1.3J	1.8 J	3.0 J	2.4 DJ	2.8 J
Cis -1,2 - Dichloroethene, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Methylene Chloride, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
1,1,1 -Trichloroethane, pg/L	210	150	190	170	160 D	150
Trichloroethene, pg/L	10 U	1.9J	1.9 J	2.5 J	10U	1.9J
Toluene, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, pg/L	10U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	222	162	202	184	172	161

Sampling Event	31/GW	32/GW	33/GW	34/GW	35/GW	36/GW
Date	1/17/2003	2/19/2003	4/30/2003	6/23/2003	7/30/2003	8/27/2003
Field Influent pH, std pH units	7.6	6.93	7.06	7.03	7.12	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.4	6.2	8.4 DJ	6.6 DJ	7.6	2.4 J
1,1-Dichloroethene, pg/L	5.0 U	2.4 J	10U	10 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	10 U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	160	140	190D	MOD	150	66
Trichloroethene, pg/L	2.4 J	1.6J	10U	10 U	1.2 J	5.0 U
Toluene, pg/L	5.0 U	5.0 U	10 U	10U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
Total Confident VOCs, pg/L	171	150	198	147	159	68

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	37/GW	38/GW	39/GW	40/GW	41/GW	42/GW
Date	9/24/2003	10/23/2003	11/20/2003	12/3/2003	1/29/2004	3/30/2004
Field Influent pH, std pH units	NA	NA	NA	7.18	NA	6.84
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.8 DJ	7.4 DJ	4.7 J	6.1	5.0 U	6.7
1,1-Dichloroethene, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, pg/L	180 D	170 D	92	110	1.9 J	96
Trichloroethene, pg/L	2.0 DJ	10U	1.1 J	1.6J	5.0 U	1.0 J
Toluene, pg/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pq/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Total Confident VOCs, pg/L	191	174	98	118	2	104

Sampling Event	43/GW	44/GW	45/GW	46/GW	47/GW	48/GW
Date	5/20/2004	6/16/2004	7/15/2004	8/26/2004	9/14/2004	10/28/2004
Field Influent pH, std pH units	NA	7.32	NA	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	5.5	10 D	7.5	3.3 J	9.1 DJ	4.1 J
1,1-Dichloroethene, pg/L	5.0 U	10 U	2.3 J	5.0 U	10U	2.3 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	10U	5.0 U	5.0 U	10 u	5.0 U
Methylene Chloride, pg/L	5.0 U	10U	5.0 U	5.0 U	10 u	5.0 U
1,1,1 -Trichloroethane, pg/L	150	180 D	190	74	170 D	90
Trichloroethene, pg/L	5.0 U	10 U	1.6J	5.0 U	10U	1.1 J
Toluene, pg/L	5.0 U	10 U	5.0 U	5.0 U	10U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10U	5.0 U	5.0 U	10 u	5.0 U
Total Confident VOCs, pg/L	156	190	201	77	179	97

Sampling Event	49/GW	50/GW	51/GW	52/GW	53/GW	54/GW
Date	12/14/2004	1/27/2005	3/22/2005	4/26/2005	5/30/2005	6/7/2005
Field Influent pH, std pH units	6.23	NA	7.04	NA	NA	7.50
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	7.4	9.8	2.9 J	2.5 J	6.3	2.5
1,1-Dichloroethene, pg/L	2.5 J	3.0 J	5.0 U	5.0 U	1.9	0.84 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 u	1.0 U
1,1,1 -Trichloroethane, pg/L	130	180	65	67	230	65
Trichloroethene, pg/L	1.6 J	2.2 J	5.0 U	5.0 U	1.2 J	0.68 J
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 u	1.0 U
Total Confident VOCs, pg/L	141.5	195	67.9	69.5	239.4	69.0

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	55/GW	56/GW	57/GW	58/GW	59/GW	60/GW
Date	7/28/2005	8/29/2005	9/13/2005	10/18/2005	11/22/2005	12/19/2005
Field Influent pH, std pH units	NA	NA	7.25	NA	NA	6.85
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	10	9.5 J	2.3 J	7.1J	5.2 J	2.7 J
1,1-Dichloroethene, pg/L	4.8	3.1 J	0.64 J	1.5J	2.7 J	0.84 J
Cis -1,2 - Dichloroethene, pg/L	1.0 U	25 U	5.0 U	10U	20 U	5.0 U
Methylene Chloride, pg/L	1.0 U	2.4 J	5.0 U	10U	2.0 J	5.0 U
1,1,1 - Trichloroethane, pg/L	260	220	53	180	130	61
Trichloroethene, pg/L	1.7	25 U	0.49 J	2.9 BJ	20 U	0.64 J
Toluene, pg/L	1.0 U	25 U	5.0 U	10U	20 U	5.0 U
Vinyl Chloride, pg/L	1.0 **u**	25 U	5.0 U	10 U	20 U	5.0 U
Total Confident VOCs, pg/L	276.5	235.0	56.4	191.5	139.9	65.2

Sampling Event	61/GW	62/GW	63/GW	64/GW	65/GW	66/GW
Date	1/19/2006	2/24/2006	3/27/2006	4/20/2006	5/25/2006	6/20/2006
Field Influent pH, std pH units	NA	NA	6.99	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	6	4.7 J	4.5 J	5.5 J	6.2 J	3.6 J
1,1-Dichloroethene, pg/L	1.7J	1.3 J	1.1 J	1.3J	1.5 J	0.94 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	10 U	5.0 U	10 U	10U	5.0 U
Methylene Chloride, pg/L	5.0 U	2.1 BJ	5.0 U	10 U	1.3J	5.0 U
1,1,1 -Trichloroethane, pg/L	170	100	110	140	160	80
Trichloroethene, pg/L	1.3 J	0.87 J	0.95 J	1.0 J	1.2J	0.72 J
Toluene, pg/L	5.0 U	10U	5.0 U	10 U	10U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10U	5.0 U	10U	10U	5.0 U
Total Confident VOCs, pg/L	179.0	109.0	116.6	147.8	170.2	85.3

Sampling Event	67	68	69
Date	7/18/2006	8/7/2006	9/14/2006
Field Influent pH, std pH units	NA	7.46	7.5
Total Suspended Solids, mg/L	NA	NA	NA
1,1-Dichloroethane, pg/L	6.3	5.7 J	4.0 J
1,1-Dichloroethene, pg/L	1.6 J	1.2 J	4.7 J
Cis -1,2 - Dichloroethene, pg/L	5.0 U	10U	5.0 U
Methylene Chloride, pg/L	5.0 U	2.8 BJ	5.0 U
1,1,1 -Trichloroethane, pg/L	155 E	140	94
Trichloroethene, pg/L	1.1 J	2.2 J	0.83 J
Toluene, pg/L	5.0 U	10 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	162.4	151.9	103.53

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/2001	8/8/2001	8/18/2001	9/18/2001	9/27/2001	10/5/2001
Field Effluent pH, std pH units	8.44	8.44	8.5	8.38	8.38	8.32
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, ug/L	1.5 J	5.0 U	1.5 J	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5,0 U

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/2001	11/8/2001	11/28/2001	12/13/2001	12/27/2001	1/18/2002
Field Effluent pH, std pH units	8.35	8.35	8.29	8.43	8.30	8.38
Total Suspended Solids, mg/L	4.0 U	4.0 U	8.0	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5,0U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5,0U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1,1- Trichloroethane, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Toluene, ug/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/2002	2/13/2002	2/23/2002	3/8/2002	3/20/2002	4/8/2002
Field Effluent pH, std pH units	8.39	8.31	8.22	8.39	8.47	8.05
Total Suspended Solids, mg/L	4.0U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	1.3J	2.8 B,J
1,1,1 - Trichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, \sg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0U	5.0 U	2.5J	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/2002	5/8/2002	5/21/2002	6/4/2002	6/13/2002	7/11/2002
Field Effluent pH, std pH units	8.0	8.08	8.23	8.23	8.16	8.06
Total Suspended Solids, mg/L	4.0 U	4.0	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	7.6 B	5.0 U	1.2 BJ	1.1 J	1.7 B,J	2.6 B,J
1,1,1 -Trichloroethane, \sg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.2 J	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	25/GW	27/GW	30/GW	33/GW	34/GW	37/GW
Date	7/23/02	9/18/02	12/18/02	4/30/03	6/23/03	9/24/03
Field Effluent pH, std pH units	6.66	7.11	7.22	7.72	7.68	7.81
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	NA
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, M9'L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 L)	5.0 U
1,1,1 - Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	40/GW	42/GW	44/GW	47/GW	49/GW	51/GW
Date	12/2/03	3/30/04	6/16/04	9/14/04	12/14/04	3/22/05
Field Effluent pH, std pH units	7.63	7.47	7.86	7.61	6.93	6.97
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	54/GW	55/GW	56/GW	57/GW	58/GW	59/GW
Date	6/7/2005	9/13/2005	12/19/2005	3/27/2006	6/20/2006	9/14/2006
Field Effluent pH, std pH units	8.01	7.95	7.64	7.74	7.71	8.4
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Oichloroethene. ug/L	1.0 u	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, ug/L	1.0 u	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	1.0 u	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Thchloroethane, pg/L	1.0 u	5.0 U	0.58 J	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.0 u	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	1.0 u	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.

E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 3
Byron Barrel and Drum Site
Field Chemistry Readings
September 14, 2006 Quarterly Sampling Event

Parameter Units	Time	Temp. °C	ORP mV	pH Std. Units	TDS g/L	DO mg/L	Spec. Cond. mS/cm
MW-1-9/GW19	1105	15.5	-114	7.44	0.5	1.78	708
	1110	15.3	-114	7.44	0.5	1.77	709
	1115	15.1	-116	7.45	0.5	1.75	710
	1120	14.9	-116	7.45	0.5	1.74	709
	1125	14.8	-115	7.45	0.5	1.72	709
	1130	14.8	-114	7.44	0.5	1.70	709
	1135	14.8	-113	7.44	0.5	1.68	709
MW-4-9/GW19	1150	15.9	-67	7.41	0.5	1.47	812
	1155	15.6	-65	7.40	0.5	1.39	815
	1200	15.4	-63	7.41	0.5	1.34	817
	1205	15.4	-62	7.40	0.5	1.29	818
	1210	15.2	-60	7.40	0.5	1.26	817
	1215	15.0	-59	7.40	0.5	1.25	817
	1220	15.1	-57	7.40	0.5	1.23	817
MW-10B/GW-19	1245	13.9	-55	7.35	0.5	1.17	698
	1250	13.8	-56	7.35	0.5	1.16	698
	1255	14.0	-55	7.33	0.5	1.14	696
	1300	14.3	-54	7.35	0.5	1.11	695
	1305	14.1	-54	7.34	0.5	1.10	695
	1310	14.2	-53	7.34	0.5	1.09	694
	1315	14.0	-53	7.34	0.5	1.08	695
PW-1/GW19	1330	14.1	-42	7.50	0.4	1.55	690
PW-2/GW19	1335	12.7	-38	7.58	0.5	1.52	700
PW-3/GW19	1340	15.1	-35	7.56	0.4	1.58	602

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging,

Table 4
Byron Barrel and Drum Site
Groundwater Elevations for
September 2006 Sampling Event
ECOR Solutions, Inc.

Operator: P. Little

Date: 9/14/2006

Pumping Wells	DTW	TOC Elevation	GW Elevation	Tp	wc ft
PW-1	**8.23**	**642.82**	**634.59**	·	—
PW-2	**6.75**	**641.34**	**634.59**	—	»
PW-3	**6.53**	**641.11**	**634.58**	–	–
Monitoring Wells					
MW-1	**5.15**	**639.63**	**634.48**	**11.65**	**6.50**
MW-2	**11.74**	**646.36**	**634.62**	**15.10**	**3.36**
MW-4	**3.92**	**638.56**	**634.64**	**11.50**	**7.58**
MW-1 OB	**9.82**	**644.44**	**634.62**	**20.35**	**10.53**
MW-21	**8.18**	**642.52**	**634.34**	**27.90**	**19.72**
Residential	**16.35**	**650.78**	**634.43**	**35.17**	**18.82**
Piezometers					
PZ-1	**8.53**	**643.11**	**634.58**	**27.58**	**19.05**
PZ-2	**7.80**	**642.39**	**634.59**	**27.29**	**19.49**

Table 6
Schedule of Sampling and Analysis for 2007
Byron Barrel & Drum Site
Byron, New York

Month	**Event**	**Monitoring Well to be Sampled**	**Constituents to be Analyzed**
March 2007	First Quarter 2007 Monitoring Event	MW-1 MW-4 MW-10B MW-21 MW-Residential	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
June 2007	Second Quarter 2007 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
September 2007	Third Quarter 2007 Monitoring Event	MW-1 and MW-4 MW-10B	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
December 2007	Fourth Quarter 2007 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	**5**	**5**	**5**	**5**	**2**
MW-1	3/20/2002	639.63	5.24	634.39	**86**	**49**	**NA**	**5 U**	**1700**	**2 J**	**5 U**	**2 J**
	6/12/2002	639.63	5.07	634.56	**81**	**38**	**NA**	**5 U**	**1600**	**3 J**	**5 U**	5 U
	9/18/2002	639.63	7.15	632.48	**13**	13 J	**NA**	**5 UJ**	**350**	**5 U**	**5 U**	5 U
	12/18/2002	639.63	5.62	634.01	**42**	37 J	**NA**	25 **U**	**1200**	**5 J**	25 **U**	25 U
	4/29/2003	639.63	4.53	635.10	**57**	**34**	**NA**	25 **U**	**1300 J**	25 **U**	25 **U**	25 U
	6/24/2003	639.63	5.36	634.27	**32**	**24**	**NA**	**5 U**	**720**	**4 J**	**5 U**	5 U
	9/24/2003	639.63	6.72	632.91	24 **J**	17 J	**NA**	25 **U**	**580**	25 **U**	25 **U**	25 U
	12/3/2003	639.63	5.53	634.10	33 **J**	28 J	**NA**	40 **U**	**860 J**	40 **U**	40 **U**	40 U
	3/30/2004	639.63	3.40	636.23	30 **J**	**31**	**NA**	25 **U**	**830 J**	25 **UJ**	25 **U**	25 U
	6/16/2004	639.63	4.20	635.43	**26**	22 J	**NA**	25 **UJ**	**870**	25 **U**	25 **U**	25 U
	9/14/2004	639.63	4.56	635.07	**28**	**26**	**NA**	25 **U**	**730**	25 **U**	25 **U**	25 U
	12/14/2004	639.63	4.61	635.02	**31**	**26**	**NA**	25 **U**	**760**	25 **UJ**	25 **U**	25 U
	3/22/2005	639.63	4.32	635.31	**41**	**110**	**NA**	**5 U**	**830**	**5**	**5 U**	5 U
	6/7/2005	639.63	5.45	634.18	10 **J**	14 J	**NA**	13 **J**	**340**	50 **U**	50 **UJ**	50 U
	9/13/2005	639.63	6.89	632.74	**14**	**16**	**NA**	**5 U**	**410**	**2 J**	**5 UJ**	5 U
	12/20/2005	639.63	4.78	634.85	24 **J**	24 J	**NA**	40 **U**	**580**	40 **U**	40 **U**	40 U
	3/26/2006	639.63	5.07	634.56	**29**	**24**	**NA**	**5 U**	**540**	**4 J**	**5 U**	5 U
	6/22/2006	639.63	5.68	633.95	**7**	9	**NA**	**5 U**	**220**	**2 J**	**5 U**	5 U
	9/14/2006	639.63	5.15	634.48	**5 J**	6 J	**NA**	10 **U**	**190**	**2 J**	10 **U**	10 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-4	3/20/2002	638.56	**4.79**	633.77	**17 J**	14 **J**	**NA**	25 **U**	**450**	10 J	25 U	25 U
	6/12/2002	638.56	4.48	634.08	**3 J**	**2 J**	**NA**	**5 U**	83	8	5 U	5 U
	9/18/2002	638.56	6.04	632.52	**5 U**	**5 UJ**	**NA**	**5 UJ**	27	5	5 U	5 U
	12/18/2002	638.56	5.22	633.34	**40**	**24**	**NA**	**5 U**	**200**	8	5 U	5 U
	4/29/2003	638.56	4.50	634.06	**31**	13 **J**	**NA**	25 **U**	**530**	25 U	25 U	25 U
	6/24/2003	638.56	4.58	633.98	**5 UJ**	**5 UJ**	**NA**	**5 U**	17 J	4 J	5 U	5 UJ
	9/24/2003	638.56	5.91	632.65	**35**	**9 J**	**NA**	10 **U**	**240**	8 J	10 U	10 U
	12/3/2003	638.56	4.98	633.58	**65**	**17 J**	**NA**	20 **U**	**550**	11 J	20 U	20 U
	3/30/2004	638.56	4.15	634.41	**12**	**5**	**NA**	**5 U**	**130**	3 J	5 U	5 U
	6/16/2004	638.56	3.64	634.92	15 **J**	25 **UJ**	**NA**	25 **UJ**	**150**	25 U	25 U	25 U
	9/14/2004	638.56	3.71	634.85	11 **J**	25 **U**	**NA**	25 **U**	87	25 U	25 U	25 U
	12/14/2004	638.56	3.97	634.59	11 **J**	25 **U**	**NA**	25 **U**	67	25 U	25 U	25 U
	3/22/2005	638.56	3.55	635.01	50 **U**	50 **U**	**NA**	50 **UJ**	87	50 U	50 U	50 U
	6/7/2005	638.56	4.25	634.31	**5 U**	**5 U**	**NA**	**5 U**	8	1 J	5 U	5 U
	9/13/2005	638.56	5.84	632.72	**5 U**	**5 U**	**NA**	**5 U**	**11**	2 J	5 U	5 U
	12/20/2005	638.56	4.75	633.81	**4 J**	25 **U**	**NA**	25 **U**	48	25 U	25 U	25 U
	3/25/2006	638.56	4.32	634.24	**5 U**	**5 U**	**NA**	**5 U**	8	1 J	5 U	5 U
	6/22/2006	638.56	4.50	634.06	**5 U**	**5 U**	**NA**	**5 U**	9	1 J	5 U	5 U
	9/14/2006	638.56	3.92	634.64	**5 U**	**5 U**	**NA**	**5 U**	**13**	2 J	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation **(ft)**								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-10B	3/21/2002	644.44	9.43	635.01	5 U	5 U	NA	5 U	42	5 U	5 U	5 U
	6/12/2002	644.44	9.12	635.32	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/18/2002	644.44	11.05	633.39	5 U	5 UJ	NA	5 UJ	7	5 U	5 U	5 U
	12/18/2002	644.44	10.20	634.24	5 U	5 U	NA	5 U	52	5 U	5 U	5 U
	4/30/2003	644.44.	9.28	635.16	5 U	5 U	NA	5 U	8	5 U	5 U	5 U
	6/23/2003	644.44	9.39	635.05	5 U	5 U	NA	5 U	3 J	5 U	5 U	5 U
	9/24/2003	644.44	10.93	633.51	5 U	5 U	NA	5 U	7	5 U	5 U	5 U
	3/30/2004	644.44	8.99	635.45	5 U	5 U	NA	5 U	17	5 U	5 U	5 U
	9/14/2004	644.44	8.76	635.68	5 U	5 U	NA	5 U	14	5 U	5 U	5 U
	3/22/2005	644.44	8.69	635.75	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/13/2005	644.44	10.84	633.60	5 U	5 U	NA	5 U	5	5 U	5 U	5 U
	3/25/2006	644.44	9.28	635.16	5 U	5 U	NA	5 U	6	5 U	5 U	5 U
	9/14/2006	644.44	9.82	634.62	5 U	5 U	NA	5 U	6	5 U	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	NA	5	5	5	5	**2**
MW-21	3/26/1999	NA	**NA**	NA	**1 U**	**1 U**	1 U	2 U	1 U	1 U	1 U	**1 U**
	3/21/2002	642.52	7.70	634.82	25 **U**	25 **U**	NA	25 U	25 U	25 U	25 U	**25 U**
	6/12/2002	642.52	7.69	634.83	25 **U**	25 **U**	NA	25 U	25 U	25 U	5 BJ	25 **U**
	9/17/2002	642.52	9.50	633.02	**5 U**	**5 UJ**	NA	5 UJ	5 U	5 U	5 U	**5 U**
	12/17/2002	642.52	8.23	634.29	**5 U**	**5 UJ**	NA	5 U	5 UJ	5 U	5 U	**5 U**
	4/30/2003	642.52	7.91	634.61	25 **U**	25 **U**	NA	25 U	25 U	25 U	25 U	**25 U**
	3/30/2004	642.52	7.56	634.96	**5 UJ**	**5 UJ**	NA	5 UJ	5 UJ	5 UJ	5 UJ	**5 UJ**
	3/22/2005	642.52	7.42	635.10	25 **U**	25 **U**	25 U	25 U	25 U	25 U	25 U	25 **U**
	3/25/2006	642.52	7.78	634.74	25 **U**	25 **U**	25 U	25 U	25 U	25 U	25 U	25 **U**
MW-Residential	3/21/2002	650.78	15.79	634.99	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**
	6/12/2002	650.78	15.62	635.16	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**.5 U**
	9/17/2002	650.78	17.50	633.28	**5 U**	**5 UJ**	NA	5 UJ	5 U	5 U	5 U	**5 U**
	12/17/2002	650.78	16.52	634.26	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**
	4/30/2003	650.78	17.74	633.04	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**
	3/30/2004	650.78	15.47	635.31	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**
	3/22/2005	650.78	15.24	635.54	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**
	3/25/2006	650.78	15.75	635.03	**5 U**	**5 U**	NA	5 U	5 U	5 U	5 U	**5 U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
PW-1	12/21/1998	NA	NA	NA	20 U	5 J	20 U	9 BJ	270	11 J	20 U	20 U
	12/27/2001	NA	NA	NA	15	6.2	5 U	5 U	280	5.2	5 U	5 U
	3/20/2002	642.82	NM	NM	11	5	5 U	5 U	320	3 J	5 U	5 U
	6/12/2002	642.82	NM	NM	18	3 J	5 U	5 U	380	2 J	5 U	5 U
	9/18/2002	642.82	NM	NM	12	2 J	5 U	5 UJ	270	2 J	5 U	5 U
	12/18/2002	642.82	18.43	624.39	8	5	5 U	5 U	160	2 J	5 U	5 U
	4/30/2003	642.82	20.96	621.86	11	2 J	5 U	5 U	180	2 J	5 U	5 U
	6/23/2003	642.82	22.41	620.41	12	2 J	5 U	5 U	190	2 J	5 U	5 U
	9/24/2003	642.82	22.59	620.23	8	. 5 U	5 U	5 U	120	5 U	5 U	5 U
	12/3/2003	642.82	21.74	621.08	8	2 J	5 U	5 U	150	2 J	5 U	5 U
	3/30/2004	642.82	21.80	621.02	6	2 J	5 U	5 U	150	5 U	5 U	5 U
	6/16/2004	642.82	19.08	623.74	13	3 J	5 U	5 UJ	380	2 J	5 U	5 U
	9/14/2004	642.82	20.62	622.20	10	2 J	5 U	5 U	210	5 U	5 U	5 U
	12/14/2004	642.82	21.23	621.59	6	2 J	5 U	5 U	140	5 U	5 U	5 U
	3/22/2005	642.82	22.65	620.17	15	23	5 U	5 U	200 J	2 J	5 U	5 U
	6/7/2005	642.82	21.50	621.32	10	2 J	10 U	2 U	59	1 J	10 U	10 U
	9/13/2005	642.82	21.73	621.09	3 J	0.9 J	5 U	5 U	73	0.5 J	5 U	5 U
	12/19/2005	642.82	20.98	621.84	9	2 J	5 U	5 U	140	2 J	5 U	5 U
	3/26/2006	642.82	21.44	621.38	4 J	0.9 J	5 U	5 U	76	0.6 J	5 U	5 U
	6/22/2006	642.82	21.28	621.54	4 J	1 J	5 U	5 U	77	0.8 J	5 U	5 U
	9/14/2006	642.82	8.23	634.59	9 DJ	25 U	25 U	25 U	230	25 U	25 U	25 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	**5**	**NA**	5	**5**	5	**5**	**2**
PW-2	12/27/2001	NA	NA	**NA**	**68**	**23**	1.4 **J**	5 U	**960**	4 J	**5 U**	1.1 **J**
	3/20/2002	641.34	NM	NM	**24**	**13**	**5 U**	5 U	**720**	2 J	**5 U**	**5 U**
	6/12/2002	641.34	NM	NM	**18**	**10**	**5 U**	5 U	**370**	2 J	**5 U**	**5 U**
	9/18/2002	641.34	**NM**	**NM**	5	**4 J**	**5 U**	5 UJ	**160**	5 U	**5 U**	**5 U**
	12/18/2002	641.34	17.68	623.66	**12**	**14**	10 **U**	10 U	**280**	10 U	10 **U**	10 **U**
	4/30/2003	641.34	16.82	624.52	**11**	**6**	**5 U**	5 U	**200**	2 J	**5 U**	**5 U**
	6/23/2003	641.34	19.41	621.93	8	**5**	**5 U**	5 U	**180**	5 U	**5 U**	**5 U**
	9/24/2003	641.34	17.45	623.89	6	**2 J**	**5 U**	5 U	**120**	5 U	**5 U**	**5 U**
	12/3/2003	641.34	18.78	622.56	6	**3 J**	**5 U**	5 U	**160**	5 U	**5 U**	**5 U**
	3/30/2004	641.34	19.24	622.10	4 J	**3 J**	**5 U**	5 U	**140**	5 U	**5 U**	**5 U**
	6/16/2004	641.34	18.58	622.76	5	**5 U**	**5 U**	5 UJ	**120**	5 U	**5 U**	**5 U**
	9/14/2004	641.34	18.25	623.09	5	**4 J**	**5 U**	5 U	**160**	5 U	**5 U**	**5 U**
	12/14/2004	641.34	17.63	623.71	8	**5**	**5 U**	5 U	**160**	2 J	**5 U**	**5 U**
	3/22/2005	641.34	19.33	622.01	5	**11**	**5 U**	5 U	**140**	5 U	**5 U**	**5 U**
	6/7/2005	641.34	19.40	621.94	3 J	**2 J**	**5 U**	5 U	**70**	1 J	**5 U**	**5 U**
	9/13/2005	641.34	19.52	621.82	3 J	**3 J**	**5 U**	5 U	**94 J**	2 J	**5 U**	**5 U**
	12/19/2005	641.34	17.35	623.99	1 J	**5 U**	**5 U**	5 U	**30**	0.5 J	**5 U**	**5 U**
	3/26/2006	641.34	17.22	624.12	5	**1 J**	**5 U**	5 U	**54**	0.8 J	**5 U**	**5 U**
	6/22/2006	641.34	18.59	622.75	4 J	**2 J**	10 **U**	10 BL	**170**	1 J	10 **U**	10 **U**
	9/14/2006	641.34	6.75	634.59	3 DJ	**1 DJ**	10 **U**	10 **u**	**92**	1 DJ	10 **U**	10 **U**

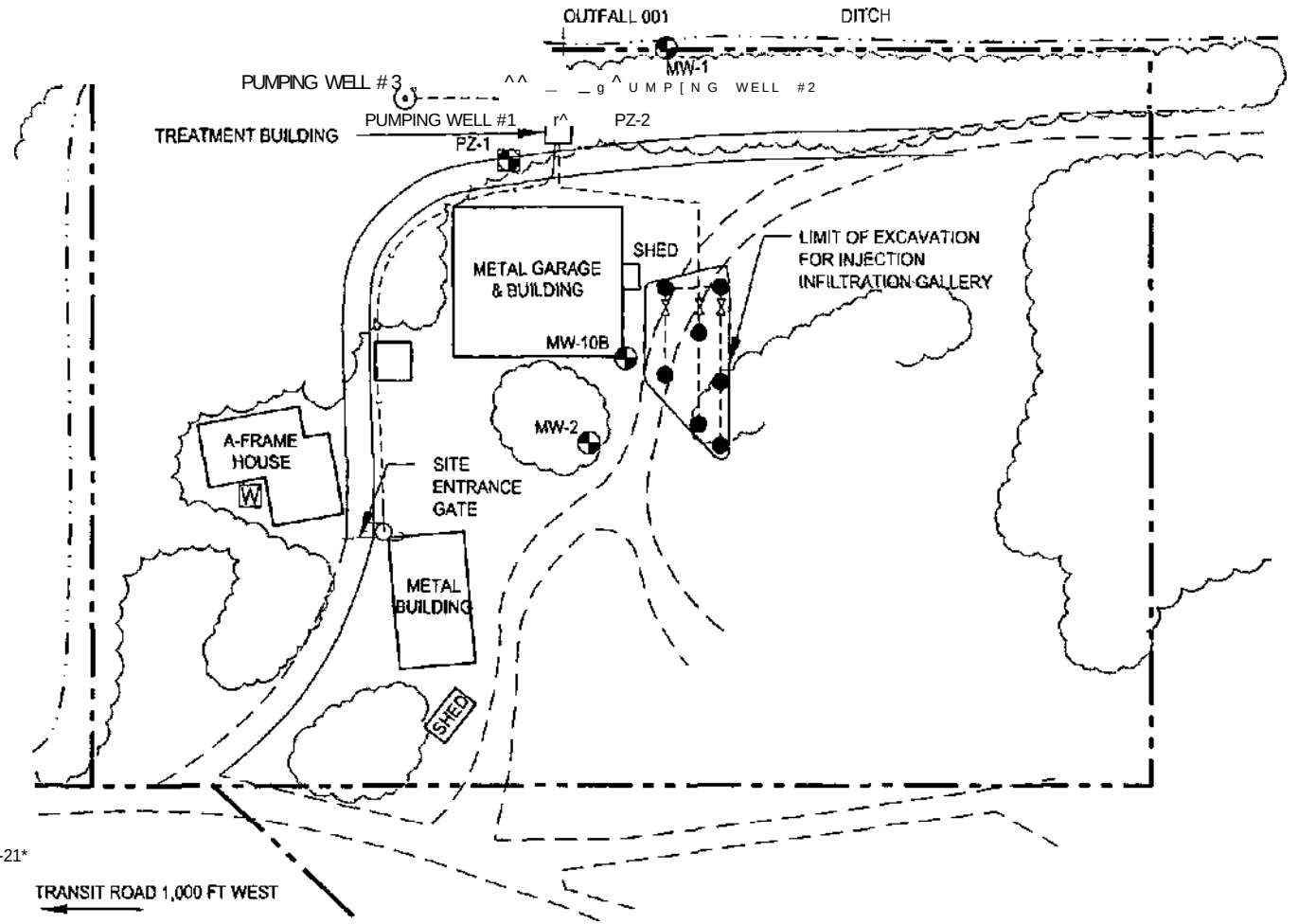
Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
PW-3	12/27/2001	NA	NA	NA	5 U	5 U	5 U	5 U	16	1.7 J	5 U	5 U
	3/20/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	8	1 J	5 U	5 U
	6/12/2002	641.11	NM	NM	5 U	5 U	5 U	5 U	6	5 U	5 U	5 U
	9/18/2002	641.11	NM	NM	5 U	5 UJ	5 U	5 UJ	4 J	5 U	5 U	5 U
	12/18/2002	641.11	19.90	621.21	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U
	4/30/2003	641.11	19.46	621.65	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	6/23/2003	641.11	18.55	622.56	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	9/24/2003	641.11	20.97	620.14	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/3/2003	641.11	20.28	620.83	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U
	3/30/2004	641.11	20.52	620.59	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/16/2004	641.11	19.65	621.46	5 U	5 U	5 U	5 UJ	2 J	5 U	5 U	5 U
	9/14/2004	641.11	20.91	620.20	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	12/14/2004	641.11	18.33	622.78	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	3/22/2005	641.11	22.17	618.94	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U
	6/7/2005	641.11	20.30	620.81	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
	9/13/2005	641.11	21.52	619.59	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	12/19/2005	641.11	20.36	620.75	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	3/26/2006	641.11	22.31	618.80	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	6/22/2006	641.11	20.72	620.39	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U
	9/14/2006	641.11	6.53	634.58	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U

Notes:
All concentrations in micrograms per liter (ug/L)
Exceedences of the groundwater cleanup standard are indicated in bold.
NM = Not Measured
NA = Not Available

FIGURES

4



LEGEND

9	MONITORING WELL
	FORMER RESIDENTIAL WELL
	PIEZOMETER WELL
	INJECTION GALLERY PIEZOMETER WELL
	INJECTION GALLERY VALVE
©	PUMPING WELL
	UTILITY POLE
	PROPERTY LINE
	FENCE
	TREELINE
	NEW GRAVEL ROAD
	PRE-EXISTING GRAVEL ROAD
	DITCH
	ELECTRIC & PHONE LINE
	REINJECTION PIPMNG

"NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

SOURCE: ERM CSO SERVICES

SITE PLAN

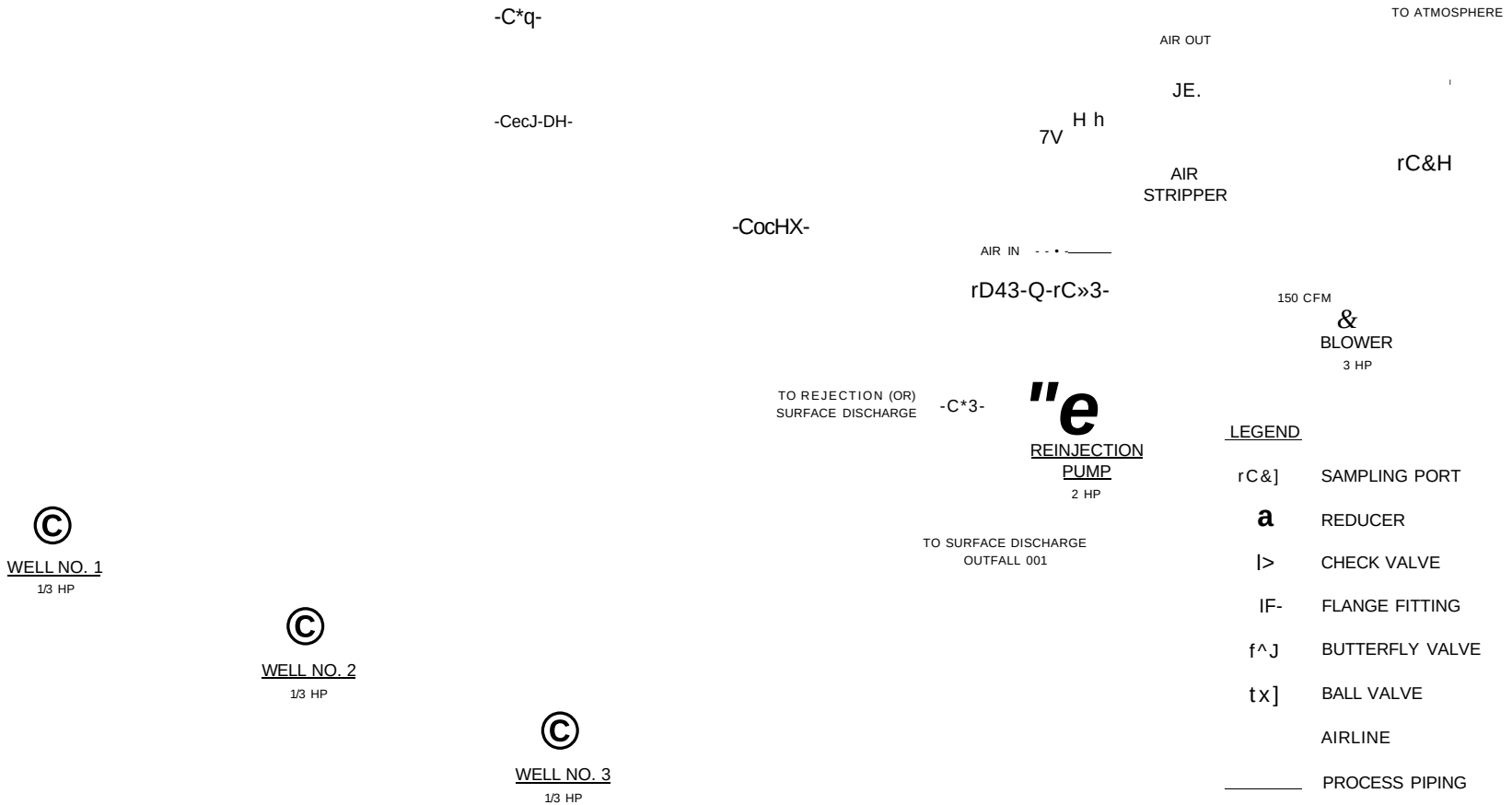
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester. PA 19380

SCALE IN FEET

DATE
07-25-06

FIGURE
1



SOURCE: ERM CSD SERVICES

GROUND WATER TREATMENT SYSTEM
FLOW DIAGRAM

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive. Suite I, West Chester. PA 19380

SCALE IN FEET	DATE	FIGURE
80	09-02-05	2

ECOR
Solutions. Inc.

Figure 3
Byron Barrel and Drum Site
Influent Concentration (Total VOCs) Vs. Time

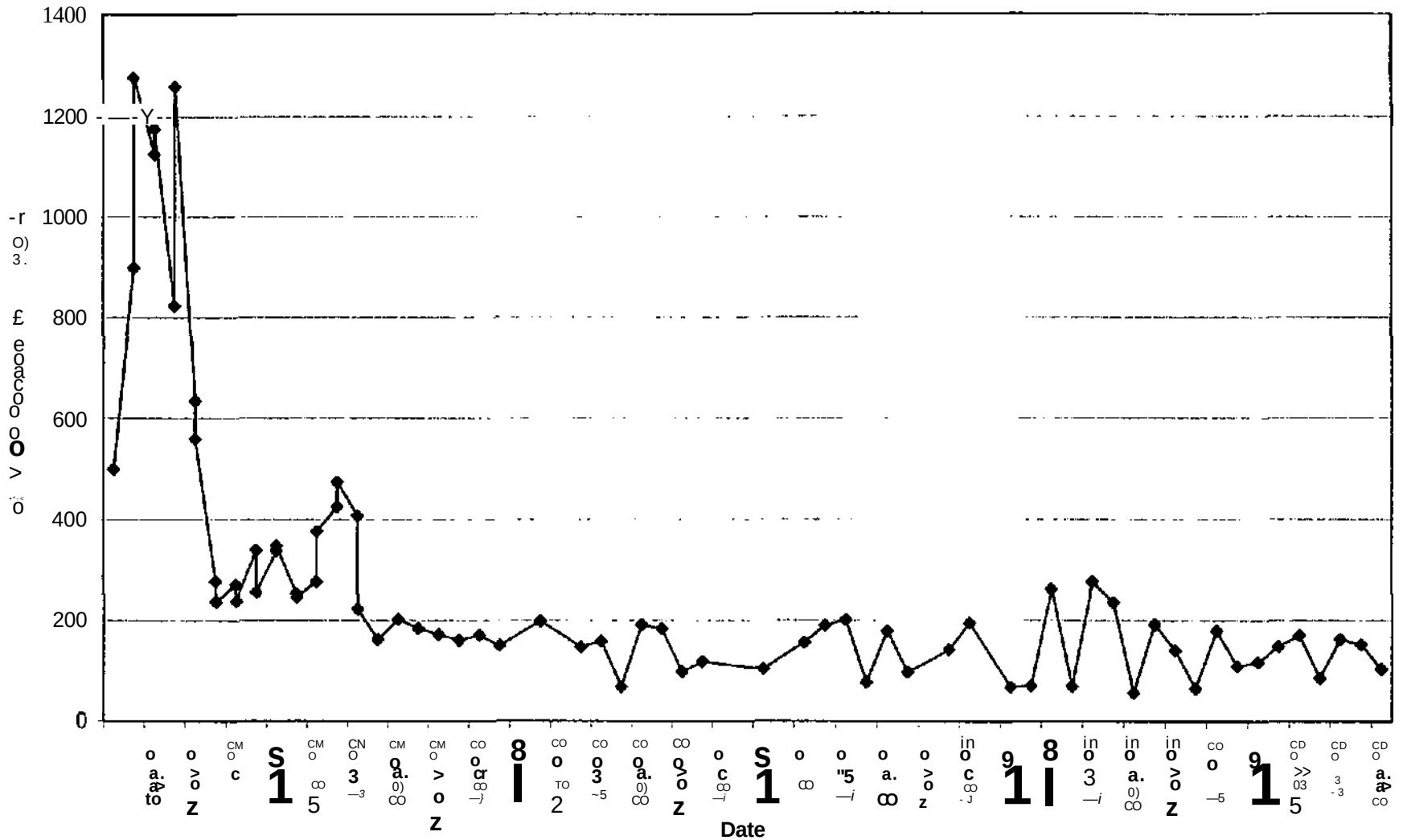
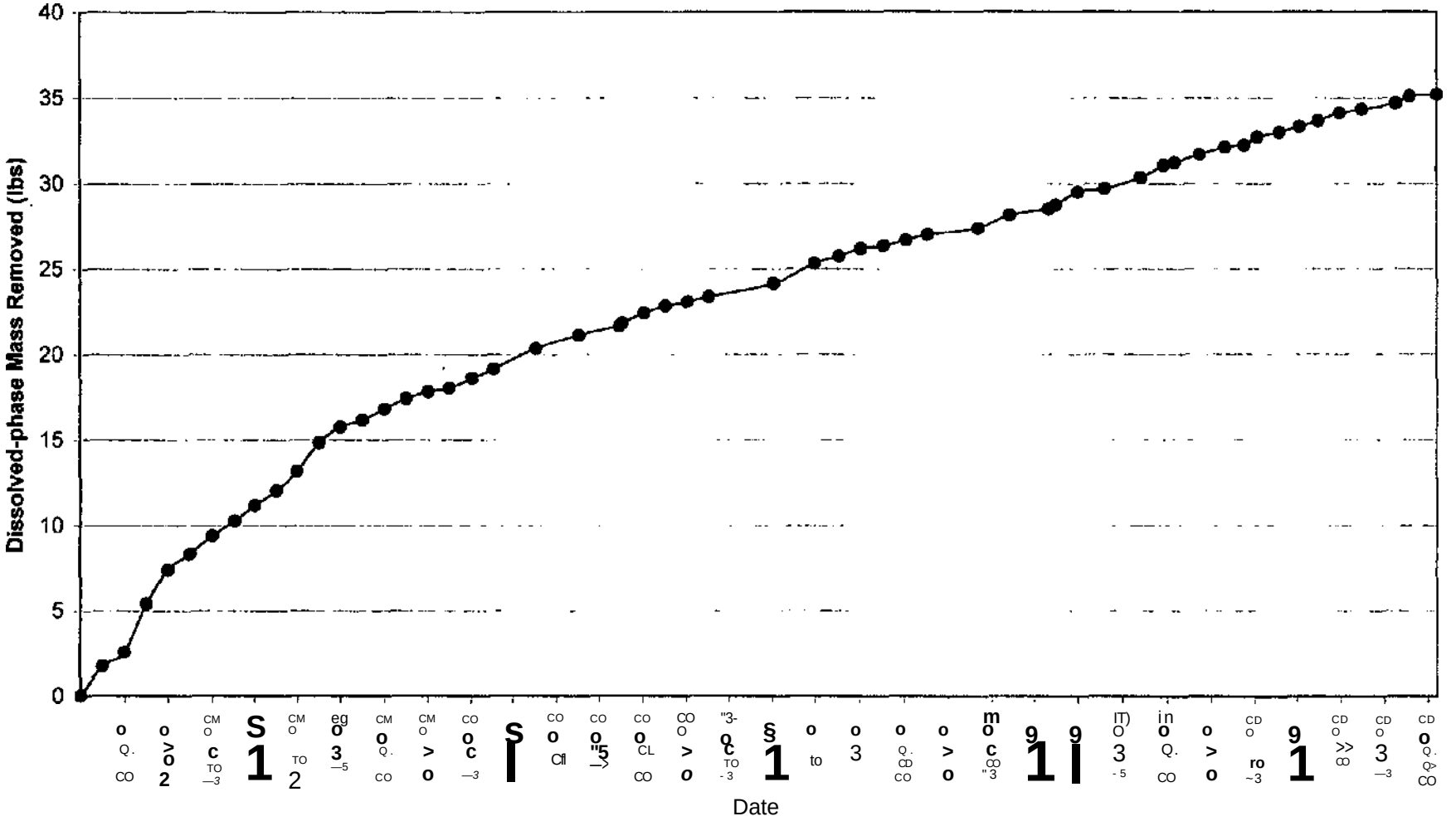


Figure 4
Byron Barret and Drum Site
Cumulative Dissolved-phase Mass Removed (Total VOCs)



N

1,1-DCA	5J
1,1-DCE	6J
1,1,1-TCA	;y*i90Mtf
TCE	2J

1,1-DCA	5U
1,1 -DCE	5U
1,1,1-TCA	SS^:13Bvn-
TCE	2J

1,1-DCA	5 U
1,1-DCE	5 U
1,1,1-TCA	2 J
TCE	5 U

1,1-DCA	9 DJ
1,1-DCE	25 U
1,1,1-TCA	230
TCE	25 U

1,1-DCA	3 DJ
1,1-DCE	1 DJ
1,1,1-TCA	92
TCE	1 DJ

1,1-DCA	5 U
1,1-DCE	5 U
1,1,1-TCA	6
TCE	5 U

MW-4
OUTFALL 001
MW-1
DITCH
PUMPING WELL #3
PUMPING WELL #1
PUMPING WELL #2
PZ-2
PZ-1
TREATMENT BUILDING
METAL GARAGE & BUILDING
SHED
MW-10B
MW-2
A-FRAME HOUSE
SITE ENTRANCE GATE
LIMIT OF EXCAVATION FOR INJECTION INFILTRATION GALLERY
METAL BUILDING
SHED
MW-21*
TRANSIT ROAD 1,000 FT WEST

LEGEND

®	MONITORING WELL
e	FORMER RESIDENTIAL WELL
EG	PIEZOMETER WELL
•	INJECTION GALLERY PIEZOMETER WELL
i	INJECTION GALLERY VALVE
0	PUMPING WELL
$^{C}TD_{J}$	UTILITY POLE
	PROPERTY LINE
- v - ^ ^ - .	TREELINE
	NEW GRAVEL ROAD
	PRE-EXISTING GRAVEL ROAD
——,——,_	FENCE
	DITCH
——(——	ELECTRIC & PHONE LINE
	REINJECTION PIPIING

1,1-DCA	1,1-DICHLOROETHANE
1,1-DCE	1,1 DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE

INDICATES THE PARAMETER WAS NOT DETECTED AT OR ABOVE REPORTED LIMIT

ESTIMATED VALUE

EXCEEDENCES

DILUTED SAMPLE

*NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

SOURCE: ERM CAO SERVICES

GROUNDWATER QUALITY MAP
14 SEPTEMBER 2006
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET | DATE | FIGURE
11-29-06 | 5

Environmental Construction Operations & Remediation

ECOR Solutions, **Inc.**
1075 Andrew Drive. Suite I
West Chester. PA 19380
Main (610)431-8731
Phone (610)840-9200
Fax (610)431-2852

ECOR
Solutions, Inc.

24 April 2007

Mr. George Jacob
Remedial Project Manager
Central New York Remediation Section
Emergency & Remedial Response Division
USEPA Region 2
290 Broadway Avenue, 20th Floor
New York, New York 10007-1866

Re: Fourth Quarter/Annual/5 Year Project Summary Report 2006
Byron Barrel & Drum Site - Byron, New York

Dear Mr. Jacob,

Enclosed is the report for remedial activities at the Byron Barrel & Drum Area 2 Site for the Fourth Quarter of 2006. The annual summary and analyses are included in the report. Also included is a 5 year project summary. This report is submitted on behalf of the Potentially Responsible Parties, who are jointly fulfilling the requirements of the Administrative Order.

If you have any questions regarding this report, or any other questions regarding activities at the Site, please contact me at (484) 887-7510, extension 207.

Sincerely,
ECOR Solutions, Inc.

'^a^rCt^ rjif-

Matthew Lapp
Project Engineer

cc: Mr. John Grathwol - NYSDEC
Mr. Chris Rockwell - Garlock Sealing Technologies
Mr. Terry Etter, P.E. - Unisys Corporation
Mr. R. William Stephens - Stephens & Stephens, LLP (General Railway Signal)
Mr. Keith Rapp - ECOR Solutions
Project File - ECOR Solutions

AI\; *L*

BYRON BARREL & DRUM SITE

QUARTERLY/ANNUAL REPORT with 5-YEAR PROJECT SUMMARY

FOURTH QUARTER 2006

October through December 2006

Byron Barrel & Drum Site
Area 2
Byron, New York

24 April 2007

Prepared for:

BYRON BARREL & DRUM PRP GROUP

Prepared by:

ECOR Solutions, Inc.
1075 Andrew Drive, Suite I
West Chester, PA 19380

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ECOR
Solutions, inc.

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1.0 INTRODUCTION

This quarterly report of remedial activities at the Byron Barrel & Drum, Area 2 Site (Site) presents data obtained through the fourth quarter 2006. The purpose of this report is to summarize and document ongoing remedial and monitoring activities at the Site during the previous quarter. This report discusses the remedial activities and Site monitoring activities conducted during the fourth calendar quarter of 2006 and also presents a summary and analysis of the last 5 years of monitoring data. A brief description of the background of the Site is included as well as information regarding remedial activities and monitoring activities planned for the next quarter.

1.1 SITE BACKGROUND

The Site is located at 6065 Transit Road, in Byron Township, Genesee County, NY. A Site location map is provided a **Figure 1.** The Site is set back approximately 1,000 feet from the east side of Transit Road. In 1982, two drum disposal locations were discovered at the Site. New York State Department of Environmental Conservation's (DEC) subsequent investigation led to the Site's inclusion on the Superfund National Priorities List (April 1984). A remedial investigation and feasibility study (RI/FS) was conducted, which identified three areas of concern at the Site. Based on the findings of the RI, it was concluded that further action in two of the areas, Area I and Area 3, was not warranted. However, the RI detected volatile organic compounds (VOCs); including trichloroethene (TCE) and l,l,l-trichloroethane(TCA) in groundwater samples collected from locations in Area 2.

The remedial activities discussed in this report include only activities for Area 2. The selected remedy for Area 2 was in-situ soil flushing and groundwater pumping, treatment, and recharge. The Remedial Action (RA) construction was performed during the summer of 2001. The implementation of the Remedial Design included excavation and characterization of potentially impacted soil, and installation of two additional groundwater pumping wells (PWs) to supplement the one previously installed (PW-1), a ground water treatment system, and an infiltration gallery.

1.2 CHRONOLOGY OF EVENTS

The chronology of events regarding the investigation and remediation of the Site are summarized below:

Event or Document ":	**Date..- \',V.">.**	***&otes** '
Record of Decision (ROD)	Sept. 29, 1989	EPA/ROD/R02-89-089
Consent Decree	January 5, 1995	89-CV-748A Unisys Corp. and Garlock, Inc., settling defendants
Draft Explanation of Significant Differences	February, 1999	
Pre-Remedial Design Investigation and [Remedial Design Report	December, 1999	
100 Percent Remedial Design Submittal	December, 1999	
Remedial Action Work Plan	September, 2001	
Construction Health and Safety Plan	December, 2001	
Quality Assurance Project Plan	June, 2001	
RA Construction Mobilization	June 11,2001	
RA Construction	June 11 -July 15,2001	
Initial *VZ* Soil Sampling Event	June 27,2001	
EPA RA Pre-Final Inspection	July 19,2001	
GWTS Performance Testing	July 29, 2001	
GWTS Startup Testing	August, 2001	Extended Startup & Testing
GWTS Continuous 0 & M	October 1,2001	Continuous Operation
EPA Interim Inspection	July 17,2002	
Second UZ Soil Sampling Event	August 14,2002	
RA Report	September, 2002	Final RA for Site Soils Interim RA for Site Groundwater
EPA RA Approval	September, 2002	
Effluent Sampling reduced to Quarterly	September, 2002	
Discontinuation of SVOC Sampling	May 23, 2003	

2.0 CONSTRUCTION OF REMEDIAL DESIGN

Remediation system installation and activation was completed in July 2001. A Pre-Final inspection was performed on July 19, 2001. A few action items were itemized during the Pre-Final inspection as summarized in the First Quarter 2002 Quarterly Report (ECOR, May 2001) and the Remedial Action Report (ECOR, September 2002). The action items were completed during late 2001 and early 2002. An Interim Inspection was completed by the Environmental Protection Agency (EPA) on July 17, 2002. No major problems were discovered during the inspection.

The system operated intermittently until September 2001 due to initial system debugging during the start up phase. Since September 2001, the system has operated almost continuously. Use of the infiltration gallery was discontinued in August 2002 upon regulatory approval. During this reporting period (4th Quarter 2006), no significant activities occurred relative to the Remedial Design.

3.0 OPERATION OF GROUNDWATER TREATMENT SYSTEM

Groundwater is designed to be recovered from the three pumping wells (PW-1, PW-2, and PW-3) and treated through one bag filter and an air stripper prior to discharge. The bag filter removes suspended solids greater than 50 microns in diameter. The low-profile air stripper removes the VOCs from the groundwater. Following air stripping, the groundwater is discharged to surface water. **Figure 2** illustrates the PW locations and the Groundwater Treatment System (GWTS). A Flow Diagram of the Groundwater Treatment System equipment and process piping is presented in **Figure 3.** The average influent flowartate to the GWTS has been approximately 13.8gpm. Pumping wells PW-1, PW-2, PW-3 have average flowrates of approximately 248,2, and 2 gph, respectively, as seen in **Figure 4.** Pumping well PW-1 has routinely maintained a steady flowrate while PW-2 and PW-3 have typically cycled during operation.

At present, due to a partial closing of the effluent discharge pipe caused from scale buildup, it is not possible to handle the flow from all three wells at one time. Total flow is currently limited to approximately 4.0 gpm. Therefore one well is typically being utilized while the other wells remain off. The operational well is varied from week to week, i.e. pumping well operation is currently cycling. While pumping flowrates have decreased, VOC concentrations continue to remain low, approaching asymptotic levels.

3.1 ROUTINE OPERA TION

Scheduled Operations and Maintenance (O&M) activities include weekly Site visits by the local Chief Operator, Steve Rodland. The Chief Operator is the first responderto autodialer alarms from the Site. Site status may be checked remotely by telephoning the autodialer.

Weekly Site visits include performing an overall Site inspection, GWTS inspection, including checking the bag filter for solids loading, gauging air flow through the stripper, and noting flow rates and totalized flow. Preventive maintenance items performed by the operator include monthly inspections of the air stripper blower, and air stripper trays are inspected for sediment and mineral deposits. The trays require cleaning on a quarterly basis as a preventative maintenance and system operation performance item.

3.2 SYSTEM OPERA TIONSAND MONITORING HISTORY THROUGH FOURTH QUARTER 2006

A total of 20,224,820 gallons of groundwater and approximately 35.5 pounds of dissolved-phase total VOCs have been recovered via the pumping well network since system activation. All of this groundwater was treated in the GWTS. Of that total, 19,400,820 gallons, or 95.9% of the total flow, was discharged to the surface water, into the creek that flows adjacent to the Site. The remaining 824,000 gallons, or 4.1 % of the total, was directed to the Infiltration Gallery (no discharge to the Infiltration Gallery since 2002). Soil flushing through the Infiltration Gallery ceased in August of 2002. In September of 2002, the EPA concurred with the conclusion of the Final RA Report (ECOR, September 2002) stating that Site soil has been effectively remediated. Therefore, there are no plans to re-initiate operation the Infiltration Gallery.

At the beginning of 2002, Treatment System Influent and Effluent were sampled and analyzed on a twice-monthly basis, as per the initial DEC discharge approval document. The Treatment System sampling schedule was reduced to quarterly during the third quarter 2002 following approval of the DEC. Effluent samples have been collected and analyzed during subsequent quarterly sampling events. The analytical results of the effluent have consistently met the DEC's Effluent Limitations. **Tables 1** and **2** summarize influent and effluent analytical data for the system since startup. **Figure 5** presents a graph of the influent VOC concentrations over time. (VOC concentrations over time for individual wells can be seen in **Figures 10** through 15 as discussed later in this report.) Cumulative dissolved-phase mass recovered is depicted on **Figure 6.** This data indicates that the influent VOC concentration has reached asymptotic levels. Quarterly effluent compliance sampling events coincide with the quarterly groundwater monitoring events.

3.3 OPERA TIONAL PROBLEMS ENCOUNTERED

As mentioned in Section 3.0, normal operation of the GWTS was stopped due to clogging of the effluent pipe. The system would only remain running by turning off PW-2 and running the system using only PW-1. Pumping well PW-3 was off during this timeframe as VOC concentrations had routinely been below the respective cleanup standards.

The system will continue operation utilizing only PW-1. PW-2 and PW-3 will be cycled and run for short periods of time. Cycling of the GWTS is an appropriate approach given the asymptotic

conditions evident at the Site and the proposed implementation of an in-situ remediation alternative. However, it will be appropriate prior to implementation of the in-situ alternative to terminate operations of the GWTS to allow for baseline conditions to be established.

Even with the shutdowns, GWTS uptime for fourth quarter 2006 was 76%. For the year of 2006 uptime was 90%. For the operation of the system since January 2003, uptime has been 94%.

4.0 QUARTERLY SITE MONITORING EVENT

4.1 MONITORING WELL SAMPLING EVENT

The quarterly sampling event occurred on 7 December 2006 and was conducted in accordance with the agreed upon modifications to the Quality Assurance Program Plan (QAPP) in telephone conversations between ECOR, EPA, and DEC's Project Managers on 23 May 2003. Groundwater samples were collected from monitoring wells MW-1 and MW-4 using EPA's low-flow sampling procedures, in accordance with the QAPP. A summary of the field parameter measurements is presented in **Table 3.** The purging and sampling procedures utilized during collection of the quarterly samples were consistent with the procedures outlined in the QAPP. A copy of field notes collected during the sampling event is included in **Appendix A.** The preserved groundwater samples were collected and analyzed by Severn Trent Laboratories (STL), Buffalo, New York. In addition, groundwater elevations were measured from Site monitoring wells. A summary of Site groundwater elevations for this sampling event is provided in **Table 4.** Historic groundwater elevations and select analytical data can be found in **Table 5.**

4.2 LABORATORY ANALYSIS/GROUNDWATER SAMPLING RESULTS

Table 5 also summarizes recent and historical groundwater quality data for monitoring and pumping wells (2001 to present). The sample specific analysis performed included VOC analysis in accordance with EPA SW-846 Method 8260B. The groundwater samples (MW-t and MW-4) were analyzed for the following twenty (20) project specific compounds: 1,1-dichloroethane (1,1-DCA), l,I-dichloroethene(l,l-DCE), methylene chloride (MeCl), toluene, 1,1,1-trichloroethane (TCA), trichloroethene (TCE), vinyl chloride (VC), benzene, total xylenes, chlorobenzene, 1,1,2-trichloroethane (1,1,2-TCA), 1,2-dichloroethane (1,2-DCA), tetrachloroethene, chloroform, bromodichloromethane, dibromochloromethane, 2-butanone, carbon tetrachloride, 1,2-dichlorobenzene and 1,4-dichlorobenzene. The pumping well samples (PW-1, PW-2, and PW-3) were analyzed for the following eight (8) compounds: 1,1 -DCA, 1,1 -DCE, MeCI, TCA, TCE, toluene, VC and cis-l,2-dichloroethene. A review of the previous data indicates that the primary compounds of concern detected at the Site are: TCA and degradation products 1,1-DCA and 1,1-DCE. The concentrations of these VOCs range from non-detect to 230 micrograms per liter (ug/L) (TCA at pumping well PW-2). Currently, 1,1-DCA, 1,1-DCE, and TCA are present above the applicable clean up standards.

The groundwater cleanup standards are summarized below:

'.-.- '•. ,.'., ,',**Chemical** V '': "-'T.ᵛ£••	**Soil Cleanup Level (ug/Lj .**
1,1-Dichloroethane	5
1,1-Diclhloroethene	5
Toluene	5
Methylene chloride	5
1,1,1 -Trich loroethane	5
Trichloroethene	5
Vinyl Chloride	2

Groundwater quality data is depicted on Figure 7 with those constituents detected above the applicable clean-up standard are highlighted in yellow.

4.3 DATA VALIDATION

As per Section 4.0 of the QAPP, the data have been validated according to the protocols and Quality Control (QC) requirements of the analytical methods, the SAP, the EPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-24, Revision 1, September 1999: Validating Volatile Organic Compounds (VOCs) by SW-846 Method 8260B, and the reviewer's professional judgment. The Data Validation Report is included in **Appendix** B.

5.0 PLANS FOR NEXT QUARTER

The next quarterly groundwater sampling event will be performed in March 2007 as described in **Table 6.** O&M plans for the next quarter include continued routine operation as well as preventative maintenance of the pumping wells and GWTS.

ECOR submitted a review of the in-situ bioremediation applicability study to the PRP group for review. The PRP Group requested an independent assessment of the data and recommendation prior to implementation. The independent assessment was completed during June 2006. The findings indicate that an in-situ bioremediation process may be an effective remediation technology. A work plan has been prepared and is awaiting the approval of the EPA.

Upon approval, the treatment system will be shut down in order to establish baseline conditions prior to implementation of the in-situ bioremediation workplan.

6.0 ANNUAL PROJECT SUMMARY

6.1 GROUNDWATER QUALITY

Sampling of the monitoring wells was conducted under the provisions of the July 2002 revision of the QAPP. All five monitoring wells, MW-1 „ MW-4, MW-1 OB, M W-21, and MW-Residental were sampled for the twenty VOCs of concern during the annual sampling event (first quarter 2006), two monitoring wells were sampled in the second and fourth quarter 2006 (MW-1 and MW-4), and three monitoring wells were sampled in the third quarter (MW-1, MW-10B, and MW-4).

No target VOCs were detected at monitoring wells MW-21 and MW-Residential, located upgradient from the suspected impact zone. Monitoring well MW-10B, which is sampled on a semi-annual basis, indicated TCA concentrations of *6\ig/L* during both sampling events (25 March 2006 and 14 September 2006). This TCA concentration is above the groundwater cleanup standard of 5 ug/L. Monitoring well MW-10B is located adjacent to the suspected source area. Concentrations of I, I -DCA, 1,1 -DCE, and TCA above the respective cleanup levels remain at monitoring well MW-1 (located downgradient of the suspected source area). Target VOC concentrations in this well have continued to exhibit an overall decreasing trend through the end of 2006 with current concentrations of TCA between 150 and 200 ug/L. Monitoring well MW-4, located further downgradient from the suspected source area, continues to show concentrations of TCA above the respective cleanup levels (8 ug/L to 13 ug/L).

The three pumping wells were sampled quarterly during 2006 for a shortened list of eight VOCs. Concentrations of TCA were present at pumping wells PW-1 and PW-2 above the clean up standard during all four sampling events. PW-3 experienced an increase in TCA concentration from 1 to 170 ug/L during the course of 2006. This increase was most likely due to the inactivity of this pumping well. PW-3 was not pumped during the third and fourth quarter 2006. 1,1-DCA was detected at 5 ug/L, which is at the clean-up standard of 5 (ig/L, during the first quarter at pumping well PW-2. 1,1-DCE was not detected above the clean up standard of 5 ug/L at any well during the any quarter of 2006.

Table 5 summarizes laboratory analytical data for VOC constituents from groundwater sampling events conducted during the fourth quarter 2001 through the present. The historical data indicates

that groundwater quality improved during 2002. Since 2003, a stable to slightly decreasing trend is present for monitoring well MW-I and pumping wells PW-1 and PW-2. Pumping well PW-3 had the first exceedence of the TCA standard (5 ug/L) since June 2002. This increase was most likely due to the fact that this well was turned off during the third and fourth quarter 2006 and concentrations experienced a slight rebound. Low TCA concentrations, at or above the clean up level, are also present at monitoring well MW-10B.

The Site Pumping Wells (PWs), are not part of the Site monitoring plan as detailed in the QAPP, and are not required to be sampled by the QAPP. However, these wells have been sampled for the VOC constituents that are limited by the DEC Site discharge permission document on a quarterly basis since the first year of operation. After the first year of operation, the sampling and analysis of these locations has continued at the discretion of the PRP Group as process samples for the GWTS.

6.2 GROUND WA TER CLEAN UP PROGRESS

The primary purposes of the GWTS are to mitigate off-site migration of VOC concentrations and remediate groundwater in the identified area of impact (south of the garage building). **Figure 8** depicts estimated pumping well area of influence. As shown in the figure, the estimated influence of the pumping wells does not extend a significant distance from the extraction well (approximately 10 feet from PW-2 with a slightly larger combined area with PW-1 and PW-3). Water level data collected during the December 2006 groundwater sampling event indicate that monitoring wells MW-1 and MW-4 are not affected significantly by groundwater recovery at the pumping wells. The groundwater gradient is very flat outside of the influence of the pumping wells.

A trend analysis of total influent groundwater concentrations is presented as **Figure 9** (natural log [In] of the influent concentration over time). The natural log plot reduces concentration variations and provides easier trend determination. It should be noted that the slope of a linear trend line was used to provide a uniform assessment of trends in total VOC concentrations. Visual inspection of these graphs reveals that, although the slope may indicate an increasing or decreasing trend, the actual fluctuation of analyte concentrations over time may show that an overall increasing or decreasing trend cannot be correctly applied to the VOC in question. The use of a linear trend line represents one of many approaches that can be used to determine trends in concentrations. To analyze the validity of the trend line, taking the fluctuations in data into

account, the R^2 value was calculated for each linear model. R^2 is a unit less fraction between 0 and 1 that quantifies the accuracy of fit of the data set to the linear trend line. A high R^2 value (close to i) indicates a more accurate trend line, while a low value (close to zero) is a sign that the model may not be an accurate representation of the quarterly data. The calculated R^2 is 0.5065. This indicates that there is reasonable reliability of the decreasing trend line compared to the data. If influent groundwater concentrations continue to decrease over time, the trend analysis will indicate a higher level of reliability of the decreasing data (e.g. a R^2 value greater than 0.9).

Similar trend analyses for total VOC concentrations are presented in Figures 10 through 15 for select monitoring wells (MW-i, MW-4, MW-10B and MW-residential) and the pumping wells (PW-1 through PW-3). After initial total VOC concentration fluctuations, the total VOC levels at monitoring well MW-1 (a downgradient well) are stabilizing with a slight decreasing trend. Concentrations of total VOCs at monitoring well MW-4 (also a downgradient well) are demonstrating an overall decreasing trend (2004-2006), but total VOC concentration variations are still observed. Prior to 2004, significant fluctuations in total VOC concentrations were observed. Monitoring well MW-10B (an upgradient well) is sampled semi-annually, and a total VOC concentration trend is not apparent at this time but appears to be decreasing. MW-21 (an upgradient well) is only sampled once per year and concetrations of VOCs have consistently been non detect.

Pumping well PW-1 has a low calculated R^2 value (0.29). Total VOC concentrations have fluctuated over time at pumping well PW-1, and a trend is not apparent from the data set. Pumping well PW-2 demonstrates a more predictable total VOC trends (calculated R^2 values of 0.58). Total VOC concentrations at pumping well PW-2 show an overall decrease followed by a slight increase in 2006 most likely due to the inactivity of this pumping well. Total VOC concentrations did not change at pumping well PW-3 during 2004. In the fourth quarter 2006 an increase in TCA concentration was observed in PW-3 due to the cessation of active pumping. This well will continue to be monitored closely. The calculated R^2 values are depicted on the graphs.

6.3 DISCUSSION OF 2006 ACTION ITEMS

The remediation goals for 2006 were:

- Perform weekly O&M of the GWTS
- Complete quarterly groundwater monitoring events
- Determine the applicability of an in-situ bioremediation technique
- Submit a work plan based on findings in the applicability study

All O&M and sampling events quarterly sampling events were completed during 2006.

6.4 SUMMARY AND RECOMMENDATIONS

Diminishing efficiency of the GWTS based on data evaluation and trend line analysis lended itself to a further review of the efficacy of operating this remedial action. Based on current pumping and influent levels, the GWTS is reaching asymptotic conditions. Several potential in-situ treatment options were evaluated via an applicability study. A work plan based on results of this study was submitted to the EPA for review.

The remediation goals for 2007 are to perform weekly O&M of the GWTS and complete quarterly groundwater monitoring events until the approval of the in-situ bioremediation work plan. Upon approval of the work plan, operation of the GWTS will be terminated. Groundwater monitoring and sampling will be continued within the conditions of the in-situ bioremediation work plan.

7.0 FIVE YEAR PROJECT SUMMARY AND EVALUATION

The purpose of this section is to provide a summary and comprehensive evaluation of the Remedial Activities performed at the Site over the last five years, as well as, to present historical analytical results and further analysis of soil and groundwater sampling. In addition, the effectiveness of the current RA to meet Site remediation goals is discussed. Finally, conclusions and recommendation regarding the path forward for the Site are made.

7.1 CURRENT SITE STATUS AND CONDITIONS

The implementation of the Remedial Design included excavation and characterization of potentially impacted soil, installation of two additional groundwater pumping wells, installation of the GWTS, and installation of an infiltration gallery in the summer of 2001. The construction of the Remedial Design was summarized in the First Quarter 2002 Quarterly Report (ECOR, May 2002).

Media samples for the Site over the past 5 years include soil from investigative sampling events, groundwater from monitoring and pumping wells, as well as, the influent and effluent of the GWTS.

7.2 SOIL

Concentrations of VOCs in the soil at the Site have been documented through several investigative sampling events. During the construction of the Remedial Action, background soil sampling was performed in the area of the infiltration gallery. Soil samples were taken in June 2001 at 10 locations within the unsaturated zone (UZ-1 through UZ-10) and 8 locations at endpoints representing the limit of the excavation of the infiltration gallery (EP-I through EP-8). **Figure 16** presents a Site plan showing the Unsaturated Zone (UZ) sample locations and detected VOCs for the June 2001 sampling event. **Figure 17** presents a Site plan showing the end point sample locations. The analytical results of the UZ and endpoint soil samples are included in **Tables 7** and **8,** respectively. These data provided the first complete set of data for the UZ soil. The UZ soil sample analytical results indicated that only one of the six chemicals listed as criteria for soil cleanup was detected. This compound, TCA, was detected in 4 of 10 samples, and at concentrations two orders of magnitude less than the cleanup criteria.

In August 2002, a second set of UZ soil samples were collected at 10 locations within the infiltration gallery. **Figure 18** presents a Site plan showing the unsaturated zone sample locations and detected VOCs for the August 2002 sampling event. The analytical results of these samples are also included in **Table** 7, along with results from the June 2001 analytical sampling event. The soil cleanup criteria are also included in **Table** 7 for comparison. The analytical results for this set of samples produced results very similar to the initial sampling event. Of the six chemicals listed as criteria for soil cleanup, only one chemical, TCA, was detected. This compound was detected in 4 of 10 samples, at concentrations generally two orders of magnitude less than the cleanup criteria.

The analytical results of the *UZ* soil sampling events indicated that the Site soils met the cleanup criteria established by the ROD and the project QAPP. Based on the UZ soil sampling analytical results, as well as the analytical results of post-excavation and soil pile samples collected during the completion of the RA, it has been determined that the Site soil RA has been completed. These soil sampling results also confirmed no continuing VOC source areas in soils at the Site and that residual VOC concentrations in soil were not an ongoing source of potential groundwater impact.

7.3 GROUNDWATER

Historically, groundwater monitoring was performed quarterly as described in **Table 6** (the year of 2007 is depicted in this report). Influent and effluent samples were taken twice monthly from July 2001 through July 2002 as per the initial DEC discharge approval document. The GWTS sampling schedule was reduced to quarterly during the third quarter 2002 following approval of the DEC. Effluent samples have been collected and analyzed during subsequent quarterly sampling events. The analytical results of the effluent have consistently met the DEC's Effluent Limitations, and have generally had non-detectable concentrations of VOCs. **Tables 1** and **2** summarize influent and effluent analytical data for the system since startup. **Figure 5** presents a graph of the influent VOC concentrations over time. Cumulative dissolved-phase mass recovered is depicted on **Figure 6.** This data indicates that the influent VOC concentration has reached asymptotic levels.

Monitoring of the 5 wells installed at the Site have historically provided significant data on groundwater quality and worked for definition of the nature and extent of the constituents of

concern. Low concentrations of dissolved phase VOCs, primarily TCA, are the remaining issue at the Site. Sampling for Semivolatile Organic Compounds (SVOCs), specifically N-Nitrosodiphenylamine, was discontinued in the Second Quarter 2003 based on modifications to theQAPP agreed upon in telephone conversations between ECOR, EPA, and DEC'S project managers on May 23, 2003. A summary of the historic SVOC groundwater analyses, (N-Nitrosodiphenylamine), are summarized in **Table 9.**

Groundwater monitoring has occurred on a regular interval the last five years for which trends can be readily identified. Overall, the trend in groundwater concentrations at the Site indicates decreasing concentrations of VOCs in groundwater monitoring and pumping wells. The decrease in total VOC concentrations is illustrated in **Figures** 10 through 15. In addition, the decrease in individual VOCs, i.e. TCE, TCA, 1,1-DCA, 1,1-DCE, and VC, is illustrated in **Figures 19** through 24. The figures illustrate that the predominant compound remaining above groundwater standards is TCA. **Figure 25** depicts the general area of all historic groundwater exceedances including DCA, DCE, TCA, TCE, and VC.

Further VOC concentrations trend analysis overtime for the last 10 sampling events were evaluated using the Mann-Kendall statistical test. The Mann-Kendall test is a non-parametric test that can be used to assess whether concentrations exhibit increasing or decreasing trends over time to a specified level of confidence. Unlike the R-squared value in linear regression analysis, this test evaluates "trend" only, not linearity, and is independent of the order-of-magnitude changes in concentration. The Mann-Kendall test was performed using a modification of a spreadsheet developed by the State of Wisconsin. The test requires a minimum of four and a maximum often sampling events. Values below the detection limits are entered as the detection limit; however, in order to prevent "trending of detection limits", all detection limits for a given trend series are entered as a single value. This test was not performed for wells or compounds for which the majority of results were reported below the detection limit. The results are provided as "Increasing", "Decreasing", or "No Trend" at 80% and 90% confidence level. The results of this analysis are provided in **Appendix** C.

At PW-2 and MW-4, decreasing trends at the 90% confidence level were observed for 1,1,1-TCA and 1,1-DCA, and at PW-2 for TCE. Decreasing trends for 1,1,1-TCA were also observed at the 80% confidence level at MW-l and PW-3 and for 1,1-DCE at PW-1. No trends were observed at MW-l0B and an increasing trend for 1,1-DCE was observed at PW-2.

Due to the continued groundwater recovery at PW-1, PW-2 and PW-3, these trends cannot be assigned to natural attenuation alone, however, natural attenuation is definitely contributing the overall decrease in VC concentrations. The limited decreasing trend in pumping well PW-1 may indicate that mass removal is controlled by slow desorption from soil.

7.4 NATURAL ATTENUATION EVALUATION

Additional groundwater quality analysis has included an in-situ biological assessment study that was implemented as a screening tool for potential biological approaches at the Site given the current asymptotic conditions. The study included collection of inorganic, organic, and microbial samples in December 2005. The results of the assessment are detailed below.

7.4.1 Geochemical Parameters

Tables 10 and 11 summarize the field parameter and laboratory data from the December 2005 sampling event. The Oxidation Reduction Potential (ORP) in the two monitoring wells MW-1 and MW-4 were 176 and 190 millivolts (mV), respectively. These ORP results are consistent with the lack of detection of soluble iron, sulfide, Biochemical Oxygen Demand and Chemical Oxygen Demand, the low concentrations of soluble manganese, and the moderate concentration of dissolved oxygen (DO) at MW-4 (3.13 milligrams per liter [mg/L]). The DO at MW-1 was low (0.34 mg/L) and inconsistent with the ORP at this location. Total organic carbon (TOC) was not detected in groundwater from MW-1 and MW-10B.

The ORP and DO observed in groundwater at the pumping wells (230 to 244 mV and 7.13 to 7.30, respectively) were higher than that at the monitoring wells.

Overall, the geochemical data indicate that conditions within the aquifer are oxidizing with little available organic carbon. These conditions are consistent with the high hydraulic conductivity (10^{-2} cm/s) and the shallow groundwater table. Based on the high ORP and DO results from the pumping wells, the continued operation of the pumping wells may be contributing to these oxidizing conditions. These conditions are not supportive of natural attenuation through reductive dechlorination, which requires reducing conditions and the presence of organic carbon

to serve as carbon substrate and source of electron donor. Therefore, discontinuation of GWTS operation is integral to the success of in situ bioremediation at the Site.

7.4.2 VOC Daughter Products

Table 12 presents the VOC concentrations at monitoring wells and pumping wells at the Site. The major VOC is 1,1,1-TCA, which degrades biotically to daughter product 1,1 -DCA through reductive dechlorination under anaerobic conditions and abiotically to daughter product 1,1-DCE through dehydrohalogenation independently of ORP. Both daughter products have been consistently detected in wells MW-1, MW-4, PW-1, and PW-2 at concentrations. These daughter products have not been detected in the two other wells at which 1,1,1-TCA has been detected (PW-3 and MW-1 OB); however, any 1,1-DCA or 1,1-DCE at these locations would be masked by the detection limits in these samples.

Table 11 also presents the molar ratios of 1,1,1-TCA and its biotic and abiotic daughter products. The ratio of 1,1-DCA to 1,1,1-TCA generally ranged from 0.04 to 0.07 with some higher ratios (0.1 to 0.27) intermittently observed. The molar ratio of the sum of the daughter products (1,1-DCA + 1,1-DCE) generally ranged from 0.09 to 0.11 with some higher ratios intermittently observed.

The detection of these daughter products and the ratio data indicate that natural attenuation of 1,1,1-TCA is occurring through a combination of abiotic and biotic degradation processes. The consistent detection of 1,1-DCA under groundwater conditions that are generally oxidizing indicates that sufficiently reducing conditions still exist in some zones of the aquifer to support reductive dechlorination.

The concentration of 1,1 -DCE is generally similar to but slightly lower than that of 1,1 -DCA. On the assumption that 1,1-DCE biologically degrades at the same or slower rate than 1,1-DCA, the rate of reductive dechlorination of 1,1,1-TCA can be estimated from the published rates for 1,1-DCE formation from 1,1,1-TCA at an estimated half-life of 12 years. This rate and the low ratios of 1,1-DCA to 1,1,1-TCA indicate a relatively slow rate of reductive dechlorination is occurring naturally within the aquifer. The rate is most likely controlled by the limited zones with reducing conditions and the low availability of organic carbon.

7.4.3 Bio-Trap Data

Data from Bio-Trap samplers were also evaluated to collect and assess the indigenous microorganisms present in groundwater at the Site. The Bio-Traps are manufactured by Microbial Insights, Inc. of Rockford, Tennessee. Two types of Bio-Traps were deployed, unbaited and baited. Both traps contained BioSep beads where the native biomass accumulates to the media during the deployment period in the monitoring wells. The baited Bio-Traps contained a molasses-like product which indicates if the addition of a carbon substrate would enhance reductive declhorination. The baited and unbaited Bio-Traps were installed by ECOR at varying depths in two monitoring wells MW-1 and MW-10B for 60 days and analyzed by Phospholipid Fatty Acid (PLFA) analysis for *Dehalococcoides* spp., methanotrophs (Type I and Type II) and eubacteria.

The PLFA analyses indicated a moderate to low population of microorganisms were present on the unbaited traps ($8 \times 10^{+4}$ and $3 \times 10^{+6}$ cells/bead) and that the numbers were higher in the baited traps ($6 \times 10^{+6}$ and $7 \times 10^{+6}$ cells/bead), as expected. The presence of a carbon source in the baited traps resulted in a drop in the portion of microorganisms exhibiting decreased permeability, but a slight increase in the portion exhibiting slowed growth. These results indicate that the carbon source did not have much impact on the physiological status of the general microorganism population.

The community structure in both the baited and unbaited traps exhibits low diversity with the primary groups being represented by the proteobacteria and a general class of common microorganisms. However, PLFA that are representative of anaerobic bacteria such as sulfate-reducing, metal-reducing, and fermenting bacteria were also detected. Of special importance are the fermentors, which are required to produce hydrogen, the sole electron donor used by reductive dechlorinating bacteria.

These anaerobic classes, however, were present at lower percentages in the baited traps, while increases in the proteobacteria and general classes were observed in the baited traps. This observation is likely due to the fact that oxygen appears to be the predominant electron acceptor in the aquifer. Under these conditions, the carbon substrate would initially stimulate aerobic microorganisms (which make up a portion of the proteobacteria and other common organisms)

and only if enough carbon substrate were available to deplete the oxygen would the anaerobic classes be stimulated.

Methanotrophs were also detected at relatively high numbers ($7 \times 10^{+6}$ and $1 \times 10^{+7}$ cellsftead). Methanotrophs are ubiquitous aerobic microorganisms that require methane as their sole source of carbon. The enzyme that initially oxidizes methane is also able to fortuitously oxidize 1,1,1-TCA, 1,1 -DCA, 1,1-DCE, TCE and many other chlorinated VOCs. These microorganisms will degrade these compounds cometabolically under aerobic conditions in the presence of methane without the production of the lesser chlorinated daughter products (e.g. 1,1-DCA). These data indicate that methanotrophic degradation is likely a major natural attenuation process at the Site.

Dehalococcoides spp. were also detected at relatively low numbers ($3 \times 10^{+1}$ and $3 \times 10^{+2}$ cells/bead). *Dehalococcoides* are one of the major classes of anaerobic microorganisms that are capable of reductive dechlorination. Their detection in groundwater, even at low numbers, indicates that the naturally occurring microbial community includes reductive dechlorinators.

7.4.4 Natural Attenuation Summary

A summary of the general conclusions regarding current natural attenuation and the feasibility of implementing *in situ* bioremediation include:

- Conditions within the aquifer are generally oxidizing and continued operation of the pumping wells may be contributing to this condition;
- Natural attenuation through cometabolic methanotrophic degradation is also likely occurring within the aquifer based on the detection of relatively high numbers of methanotrophic bacteria and the oxidizing conditions;
- Natural attenuation of 1,1,1-TCA is occurring abiotically through dehydrohalogenation based on the detection of the abiotic product 1,1-DCE;
- Natural attenuation of 1,1,1 -TCA through reductive dechlorination is also occurring within the aquifer, possibly within small zones of reducing conditions, based on the detection of the biotic daughter product 1,1-DCA; however, the rate is likely limited by the generally oxidizing conditions and the low carbon;
- While reductive dechlorination is occurring, although slowly, within the aquifer and the reductive dechlorinator *Dehalococcoides* and other classes of anaerobic microorganisms have been detected within the aquifer, the application of a carbon substrate to overcome

carbon limitation, deplete oxygen, and provide a source of electron donor is likely to stimulate enhanced reductive dechlorination;

- Monitored Natural Attenuation and Enhanced Reductive Dechlorination appear to be viable *in situ* remediation approaches for the Site, based on technical considerations.

7.5 DEED RESTRICTION

Following the Pre-Final Inspection, ECOR contacted the Town of Byron tax assesor's office regarding ownership. At that time, the property's last known owner was a Mrs. Virginia Wolcott, who resided in Florida. County taxes were determined to have not been paid on the property for years so possession could be assumed by the county, however, due to the perceived condition of the property, it is was determined that the property ownership would remain undetermined indefinitely. Rather than foreclose, the township has put it on the tax exempt list.

7.6 CONCLUSIONS AND RECOMMENDATIONS

As stated previously, the overall trend in groundwater quality at the Site indicates decreasing concentrations of VOCs. Graphical analysis reveals decreasing or stable trends in VOC concentrations. Furthermore, statistical analysis confirmed the decreasing/stable trends in Site monitoring and pumping wells. The detection of VOC degradation products and their ratios indicate that natural attenuation is occurring. Data from geochemical analyses indicated environmental conditions at the Site would promote VOC transformation. The results of laboratory microcosm studies directly verify the presence of microorgansims that support the potential for intrinsic bioremediation of VOC-impacted groundwater. The rate of dechlorination, the mechanism by which VOCs are biodegraded into less harmful constituents such as water, carbon dioxide, ethane, and ethane, appears to be limited by zones with reducing conditions and low availability of organic carbon. Additionally, oxygen appears to be the predominant electron acceptor in the aquifer. Under these conditions, the addition of sufficient carbon substrate would stimulate the microorganisms, drive the aquifer anaerobic, and accelerate the enhanced reductive dechlorination of VOCs in groundwater.

The GWTS implemented at the Site in 2001 has been effective in removing some VOC mass at the Site. However, asymptotic conditions have been reached and GWTS is no longer an efficient

method of remediation. Natural attenuation has been determined to reach remedial goals in a reasonable timeframe compared to the GWTS. Given in-situ bioremediation has the potential at the Site to meet cleanup groundwater remediation goals, it is recommended for future remedial strategy.

Recommendations regarding natural attenuation and implementation of in-situ bioremediation includes shutting off the pumping wells to allow the aquifer conditions to become more reducing and increase the rate of reductive declorination.

TABLES

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/01	8/8/01	8/18/01	9/18/01	9/27/01	10/5/01
Field Influent pH, std pH units			7.87	7.57	7.55	7.5
Total Suspended Soiids, mg/L	6.5	4.0 U	4.0 U	4.0 U	4.0 U	4
1,1-Dichloroethane, pg/L	23	47	60	19J	58 D	43 J
1,1-Dichloroethene, pg/L	5.1	12	16	12 J	16 DJ	50 U
Cis -1,2 - Dichloroethene, pg/L	1.0J	1.4J	1.0 J	50 U	50 U	50 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
1,1,1 - Trichloroethane, pg/L	460 E	840 E	1200 E	1100	1100 D	780
Trichloroethene, pg/L	1.9 J	3.0 J	4.7 J	50 U	50 U	50 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	50 U	50 U	50 U
Total Confident VOCs, pg/L	499	899	1276	1124	1174	823

Sampling Event	07/GW	08/GW	09/GW	10/GW	11/GW	12/GW
Date	10/17/01	11/8/01	11/28/01	12/13/01	12/27/01	1/18/02
Field Influent pH, std pH units	7.39	7.57	7.42	7.43	7.54	7.64
Total Suspended Solids, mg/L	4.0 U	7	15	4.0 U		4.0 U
1,1-Dichloroethane, pg/L	46 J	32 J	20 J	13	9.3	11
1,1-Dichloroethene, pg/L	13J	13J	9.4 J	4.2 J	4.6 J	4.3 J
Cis -1,2 - Dichloroethene, pg/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Methylene Chloride, pg/L	50 U	50 U	25 U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	1200	580	530	260	220 E	250 E
Trichloroethene, pg/L	50 U	50 U	25 U	3.3 J	4.2 J	4.9 J
Toluene, pg/L	50 U	50 U	25 U	10U	5.0 U	5,0 U
Vinyl Chloride, pg/L	50 U	50 U	25 U	10 U	5.0 U	5.0 U
Total Confident VOCs, pg/L	1259	635	559	277	237	270

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/02	2/13/02	2/23/02	3/8/02	3/20/02	4/8/02
Field Influent pH, std pH units	7.71	7.84	7.48	7.79	7.72	7.09
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	10	16	10	11	11	10
1,1-Dichloroethene, pg/L	4.0 J	5.2 J	3.5 J	3.7 J	4.1 J	2.5 J
Cis-1,2- Dichloroethene, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U
Methylene Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	1.8 BJ	10 U
1,1,1-Trichloroethane, pg/L	220	320	240 E	320 E	330 E	240
Trichloroethene, pg/L	4.3 J	3.2 J	3.3 J	3.4 J	3.4 J	3.3 J
Toluene. pg/L	10 U	10 U	3.3 J	5.0 U	5.0 U	10 U
Vinyl Chloride, pg/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U
Total Confident VOCs, pg/L	238	339	256	337	348	253

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/02	5/8/02	5/21/02	6/4/02	6/13/02	7/11/02
Field Influent pH, std pH units	6.99	7.07	7.41	7.11	7.34	7.19
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	10	12	20	19J	18D.J	20
1,1-Dichloroethene, pg/L	2.5 J	2.4 J	3.5 J	25 U	20 U	3.4 J
Cis -1,2 - Dichloraethene, pg/L	10 U	10 U	10U	25 U	20 U	10 U
Methylene Chloride, pg/L	15B	10U	3.1 BJ	16 J	12 B,D,J	8.5 B,J
1,1,1 - Trichloroethane, pg/L	230	260	350	390	360 D	380
Trichloraethene, pg/L	2.8 J	2.7 J	3.3 J	25 U	20 U	3.7 J
Toluene, pg/L	2.6 J	10 U	10U	25 U	20 U	10 U
Vinyl Chloride, pg/L	10U	10U	10U	25 U	20 U	10U
Total Confident VOCs, pg/L	246	276	376	425	390	407

Sampling Event	25/GW	26/GW	27/GW	28/GW	29/GW	30/GW
Date	7/23/02	8/29/02	9/18/02	10/29/02	11/25/02	12/18/02
Field Influent pH, std pH units	6.45	6.97	7.74	7.91	6.8	7.25
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U
1,1-Dichloroethane, pg/L	9.0 J	8.8	7.7	8.6	9.1 DJ	6.6
1,1-Dichloraethene, pg/L	2.6 J	1.3 J	1.8 J	3.0 J	2.4 DJ	2.8 J
Cis -1,2 - Dichloraethene, pg/L	10 U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Methylene Chloride, pg/L	10U	5.0 U	5.0 U	5.0 U	10 U	5.0 U
1,1,1 - Trichloroethane, pg/L	210	150	190	170	160 D	150
Trichloroethene, pg/L	10 U	1.9 J	1.9J	2.5 J	10U	1.9 J
Toluene, pg/L	10U	5.0 U	5.0 U	5.0 U	10 U	5.0 U
Vinyl Chloride, pg/L	10 U	5.0 U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	222	162	202	184	172	161

Sampling Event	31 /GW	32/GW	33/GW	34/GW	35/GW	36/GW
Date	1/17/03	2/19/03	4/30/03	6/23/03	7/30/03	8/27/03
Field Influent pH, std pH units	7.6	6.93	7.06	7.03	7.12	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.4	6.2	8.4 DJ	6.6 DJ	7.6	2.4 J
1,1-Dichloraethene, pg/L	5.0 U	2.4 J	10U	10U	5.0 U	5.0 U
Cis -1,2 - Dichloraethene, pg/L	5.0 U	5.0 U	10U	10 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	160	140	190 D	140 D	150	66
Trichloroethene, pg/L	2.4 J	1.6 J	10 U	10 U	1.2 J	5.0 U
Toluene, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	10U	10U	5.0 U	5.0 U
Total Confident VOCs, pg/L	171	150	198	147	159	68

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	37/GW	38/GW	39/GW	40/GW	41/GW	42/GW
Date	9/24/03	10/23/03	11/20/03	12/3/03	1/29/04	3/30/04
Field Influent pH, std pH units	NA	NA	NA	7.18	NA	6.84
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	8.8 DJ	7.4 DJ	4.7 J	6.1	5.0 U	6.7
1,1-Dichioroethene, pg/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichioroethene, pg/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	10 U	10U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, pg/L	180 D	170 D	92	110	1.9 J	96
Trichloroethene, pg/L	2.0 DJ	10U	1.1 J	1.6 J	5.0 U	1.0 J
Toluene, pg/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	10U	10U	5.0 U	5.0 U	5.0 U	5.0 U
Total Confident VOCs, pg/L	191	174	98	118	2	104

Sampling Event	43/GW	44/GW	45/GW	46/GW	47/GW	48/GW
Date	5/20/04	6/16/04	7/15/04	8/26/04	9/14/04	10/28/04
Field Influent pH, std pH units	NA	7.32	NA	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	5.5	10D	7.5	3.3 J	9.1 DJ	4.1 J
1,1-Dichloroethene, pg/L	5.0 U	10 U	2.3 J	5.0 U	10U	2.3 J
Cis -1,2 - Dichioroethene, pg/L	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U
Methylene Chloride, pg/L	5.0 U	10 U	5.0 U	5.0 U	10U	5.0 U
1,1,1 -Trichloroethane, pg/L	150	180 D	190	74	170 D	90
Trichloroethene, pg/L	5.0 U	10 U	1.6 J	5.0 U	10U	1.1 J
Toluene, pg/L	5.0 U	10U	5.0 U	5.0 U	10 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10 U	5.0 U	5.0 U	10U	5.0 U
Total Confident VOCs, pg/L	156	190	201	77	179	97

Sampling Event	49/GW	50/GW	51/GW	52/GW	53/GW	54/GW
Date	12/14/04	1/27/05	3/22/05	4/26/05	5/30/05	6/7/05
Field Influent pH, std pH units	6.23	NA	7.04	NA	NA	7.50
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	7.4	9.8	2.9 J	2.5 J	6.3	2.5
1,1-Dichloroethene, pg/L	2.5 J	3.0 J	5.0 U	5.0 U	1.9	0.84 J
Cis - 1,2 - Dichioroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,1 - Trichloroethane, pg/L	130	180	65	67	230	65
Trichloroethene, pg/L	1.6 J	2.2 J	5.0 U	5.0 U	1.2 J	0.68 J
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Total Confident VOCs, pg/L	141.5	195	67.9	69.5	2394	69.0

Table 1
Byron Barrel and Drum Site
Groundwater Treatment System
Influent Analytical Results
ECOR Solutions, Inc.

Sampling Event	55/GW	56/GW	57/GW	58/GW	59/GW	60/GW
Date	7/28/05	8/29/05	9/13/05	10/18/05	11/22/05	12/19/05
Field Influent pH, std pH units	NA	NA	7.25	NA	NA	6.85
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	10	9.5 J	2.3 J	7.1J	5.2 J	2.7 J
1,1-Dichloraethene, pg/L	4.8	3.1J	0.64 J	1.5 J	2.7 J	0.84 J
Cis -1,2 - Dichloroethene, ug/L	1.0 U	25 U	5.0 U	10 U	20 U	5.0 U
Methylene Chloride, ug/L	1.0 U	2.4 J	5.0 U	10U	2.0 J	5.0 U
1,1,1 - Trichloroethane, ug/L	260	220	53	180	130	61
Trichloroethene, ug/L	1.7	25 U	0.49 J	2.9 BJ	20 U	0.64 J
Toluene, ug/L	1.0 U	25 U	5.0 U	10U	20 U	5.0 U
Vinyl Chloride, pg/L	1.0 **u**	25 U	5.0 U	10U	20 U	5.0 U
Total Confident VOCs, ug/L	276.5	235.0	56.4	191.5	139.9	65.2

Sampling Event	61/GW	62/GW	63/GW	64/GW	65/GW	66/GW
Date	1/19/06	2/24/06	3/27/06	4/20/06	5/25/06	6/20/06
Field Influent pH, std pH units	NA	NA	6.99	NA	NA	NA
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	6	4.7 J	4.5 J	5.5 J	6.2 J	3.6 J
1,1-Dichloroethene, ug/L	1.7J	1.3J	1.1 J	1.3 J	1.5J	0.94 J
Cis -1,2 - Dichloroethene, ug/L	5.0 U	10U	5.0 U	10 U	10 U	5.0 U
Methylene Chloride, pg/L	5.0 U	2.1 BJ	5.0 U	10U	1.3J	5.0 U
1,1,1 - Trichloroethane, ug/L	170	100	110	140	160	80
Trichloroethene, ug/L	1.3 J	0.87 J	0.95 J	1.0 J	1.2 J	0.72 J
Toluene, pg/L	5.0 U	10 U	5.0 U	10 U	10U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10U	5.0 U	10U	10 U	5.0 U
Total Confident VOCs, pg/L	179.0	109.0	116.6	147.8	170.2	85.3

Sampling Event	67	68	69	70	71	72
Date	7/18/06	8/7/06	9/14/06	10/12/06	11/22/06	12/14/06
Field Influent pH, std pH units	NA	7.46	7.5	7.7	7.38	7.56
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, ug/L	6.3	5.7 J	4.0 J	5.5	9.5 J	2.8 J
1,1-Dichloroethene, pg/L	1.6J	1.2J	4.7 J	1.4 J	2.3 J	1.3J
Cis -1,2 - Dichloroethene, ug/L	5.0 U	10 U	5.0 U	5.0 U	10.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	2.8 BJ	5.0 U	5.0 U	10.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	155 E	140	94	82 D	140 D	56
Trichloroethene, pg/L	1.1 J	2.2 J	0.83 J	1.0 J	1.8 J	0.64 J
Toluene, pg/L	5.0 U	10U	5.0 U	5.0 U	10.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	10 U	5.0 U	5.0 U	10.0 U	5.0 U
Total Confident VOCs, pg/L	162.4	151.9	103.53	89.9	153.6	60.74

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Evenl	01/GW	02/GW	03/GW	04/GW	05/GW	06/GW
Date	7/28/01	8/8/01	8/18/01	9/18/01	9/27/01	10/5/01
Field Effluent pH, std pH units	8.44	8.44	8.5	8.38	8.38	8.32
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	1.5 J	5.0 U	1.5 J	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	07/GW	08/GW	09/GW	10/GW	11 /GW	12/GW
Date	10/17/01	11/8/01	11/28/01	12/13/01	12/27/01	1/18/02
Field Effluent pH, std pH units	8.35	8.35	8.29	8.43	8.30	8.38
Total Suspended Solids, mg/L	4.0 U	4.0 U	8.0	4.0 U	4.0 U	4.0U
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1 -Dichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Cis - 1.2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
1,1,1- Trichloroethane, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Toluene, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0U	5.0 U	5.0 U	5.0U

Sampling Event	13/GW	14/GW	15/GW	16/GW	17/GW	18/GW
Date	1/30/02	2/13/02	2/23/02	3/8/02	3/20/02	4/8/02
Field Effluent pH, std pH units	8.39	8.31	8.22	8.39	8.47	8.05
Total Suspended Solids, mg/L	4.0U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
1.1-Dichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	1.3 J	2.8 B,J
1,1,1 -Trichloroethane, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0U	5.0 U	2.5J	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	19/GW	20/GW	21/GW	22/GW	23/GW	24/GW
Date	4/24/02	5/8/02	5/21/02	6/4/02	6/13/02	7/11/02
Field Effluent pH, std pH units	8.0	8.08	8.23	8.23	8.16	8.06
Total Suspended Solids, mg/L	4.0 U	4.0	4.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroelhene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	7.6 B	5.0 U	1.2 BJ	1.1 J	1.7 B,J	2.6 B,J
1,1,1 -Trichloroethane, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, ug/L	1.2 J	5.0 U	5.0 U	5.0 U	1.5J	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	25/GW	26/GW	27/GW	28/GW	29/GW	30/GW
Date	7/23/02	9/18/02	12/18/02	4/30/03	6/23/03	9/24/03
Field Effluent pH, std pH units	6.66	7.11	7.22	7.72	7.68	7.81
Total Suspended Solids, mg/L	4.0 U	4.0 U	4.0 U	NA	NA	NA
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	31/GW	32/GW	33/GW	34/GW	35/GW	36/GW
Date	12/2/03	3/30/04	6/16/04	9/14/04	12/14/04	3/22/05
Field Effluent pH, std pH units	7.63	7.47	7.86	7.61	6.93	6.97
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis -1,2 - Dichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 - Trichloroethane, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene, *pglt*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Byron Barrel and Drum Site
Groundwater Treatment System
Effluent Analytical Results
ECOR Solutions, Inc.

Sampling Event	37/GW	38/GW	39/GW	40/GW	41/GW	42/GW
Date	6/7/05	9/13/05	12/19/05	3/27/06	6/20/06	9/14/06
Field Effluent pH, std pH units	8.01	7.95	7.64	7.74	7.71	8.4
Total Suspended Solids, mg/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane, pg/L	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cis-1,2- Dichloroethene, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride, ug/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1 -Trichloroethane, ug/L	1.0 **u**	5.0 U	0.58 J	5.0 U	5.0 U	5.0 U
Trichloroethene, pg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene, pg/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride, pg/L	1.0 **u**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sampling Event	43/GW
Date	12/14/06
Field Effluent pH, std pH units	8.36
Total Suspended Solids, mg/L	NA
1,1-Dichloroethane, pg/L	5.0 U
1,1-Dichloroethene, pg/L	5.0 U
Cis-1,2- Dichloroethene, pg/L	5.0 U
Methylene Chloride, pg/L	5.0 U
1,1,1 -Trichloroethane, pg/L	5.0 U
Trichloroethene, pg/L	5.0 U
Toluene, pg/L	5.0 U
Vinyl Chloride, pg/L	5.0 U

Data Qualifiers: U - Undetectable at listed detection limit. J - Estimated value, less than the detection limit.
E - CC excedes calibration range. D - Identified in the secondary dilution factor. B - Analyte found in blank as well as sample.

Table 3
Byron Barrel and Drum Site
Field Chemistry Readings
December 7, 2006 Quarterly Sampling Event

Parameter Units	Time	Temp. °C	ORP mV	PH Std. Units	TDS	DO mg/L	Spec. Cond. mS/cm
MW-1-9/GW20	1130	6.2	-138	7.68	0.5	1.63	726
	1135	6.1	-138	7.68	0.5	1.61	727
	1140	5.9	-138	7.69	0.5	1.59	726
	1145	6.0	-139	7.69	0.5	1.57	726
	1150	6.0	-140	7.70	0.5	1.56	726
	1155	.6.1	-141	7.70	0.5	1.54	726
	1200	6.0	-141	7.71	0.5	1.51	726
MW-4-9/GW20	1225	7.7	-61	7.41	0.8	1.20	979
	1230	7.7	-61	7.42	0.8	1.18	979
	1235	7.6	-61	7.43	0.8	1.16	978
	1240	7.6	-60	7.44	0.8	1.15	979
	1245	7.6	-59	7.46	0.8	1.13	980
	1250	7.5	-58	7.46	0.8	1.11	989
	1255	7.4	-58	7.47	0.8	1.09	990
PW-1/GW20	1315	10.3	-48	7.76	0.5	1.26	697
PW-2/GW20	1320	10.8	-53	7.81	0.4	1.20	674
|pW-3/GW20	1325	10.9	-49	7.69	0.5	1.24	702

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

Table 4
Byron Barrel and Drum Site
Groundwater Elevations for
December 2006 Sampling Event
ECOR Solutions, Inc.

Operator: P. Little

Date: 12/7/06

Pumping Wells	DTW	TOC Elevation	GW Elevation	TD	w c > ft
PW-1	**20.82**	**642.82**	**622.00**	*m*	*m*
PW-2	**6.11**	**641.34**	**635.23**	*m*	*m*
PW-3	**7.81**	**641.11**	**633.30**	*m*	*m*
Monitoring Wells					
MW-1	**4.54**	**639.63**	**635.09**	**11.65**	**7.11**
MW-2	**10.76**	**646.36**	**635.60**	**15.10**	**4.34**
MW-4	**3.64**	**638.56**	**634.92**	**11.50**	**7.86**
MW-10B	**8.94**	**644.44**	**635.50**	**20.35**	**11.41**
MW-21	**7.45**	**642.52**	**635.07**	**27.90**	**20.45**
Residential	**15.37**	**650.78**	**635.41**	**35.17**	**19.80**
Piezometers					
PZ-1	**7.82**	**643.11**	**635.29**	**27.58**	**19.76**
PZ-2	**7.10**	**642.39**	**635.29**	**27.29**	**20.19**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	**5**	**5**	**5**	**5**	**2**
MW-1	3/20/2002	639.63	5.24	634.39	**86**	**49**	**NA**	**5 U**	**1700**	2 J	5 U	**2 J**
	6/12/2002	639.63	5.07	634.56	**81**	**38**	**NA**	**5 U**	**1600**	3 J	5 U	**5 U**
	9/18/2002	639.63	7.15	632.48	**13**	13 **J**	**NA**	**5 UJ**	**350**	5 U	5 U	**5 U**
	12/18/2002	639.63	5.62	634.01	**42**	37 **J**	**NA**	25 **U**	**1200**	5 J	25 U	25 **U**
	4/29/2003	639.63	4.53	635.10	**57**	**34**	**NA**	25 **U**	**1300 J**	25 U	25 U	25 **U**
	6/24/2003	639.63	5.36	634.27	**32**	**24**	**NA**	**5 U**	**720**	**4** J	5 U	**5 U**
	9/24/2003	639.63	6.72	632.91	24 **J**	17 **J**	**NA**	25 **U**	**580**	25 U	25 U	25 **U**
	12/3/2003	639.63	5.53	634.10	33 **J**	28 **J**	**NA**	40 **U**	**860 J**	40 U	40 U	40 **U**
	3/30/2004	639.63	3.40	636.23	30 **J**	**31**	**NA**	25 **U**	**830 J**	25 UJ	25 U	25 **U**
	6/16/2004	639.63	4.20	635.43	**26**	22 **J**	**NA**	25 **UJ**	**870**	25 U	25 U	25 **U**
	9/14/2004	639.63	4.56	635.07	**28**	**26**	**NA**	25 **U**	**730**	25 U	25 U	25 **U**
	12/14/2004	639.63	4.61	635.02	**31**	**26**	**NA**	25 **U**	**760**	25 UJ	25 U	25 **U**
	3/22/2005	639.63	4.32	635.31	**41**	**110**	**NA**	**5 U**	**830**	**5**	5 U	**5 U**
	6/7/2005	639.63	5.45	634.18	10 **J**	14 **J**	**NA**	13 **J**	**340**	50 U	50 UJ	50 **U**
	9/13/2005	639.63	6.89	632.74	**14**	**16**	**NA**	**5 U**	**410**	2 J	5 UJ	**5 U**
	12/20/2005	639.63	4.78	634.85	24 **J**	24 **J**	**NA**	40 **U**	**580**	40 U	40 U	40 **U**
	3/26/2006	639.63	5.07	634.56	**29**	**24**	**NA**	**5 U**	**540**	**4** J	5 U	**5 U**
	6/22/2006	639.63	5.68	633.95	**7**	**9**	**NA**	**5 U**	**220**	2 J	5 U	**5 U**
	9/14/2006	639.63	5.15	634.48	**5 J**	**6 J**	**NA**	10 **U**	**190**	2 J	10 U	10 **U**
	12/7/2006	639.63	4.54	635.09	**6 J**	**9 J**	**NA**	10 **U**	**170**	2 J	10 U	10 **U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**[1]	**NA**	**5**	**5**	**5**	**5**	**2**
MW-4	3/20/2002	638.56	4.79	633.77	17 J	14 J	NA	25 U	**450**	10 **J**	25 U	25 U
	6/12/2002	638.56	4.48	634.08	3 J	2 J	NA	5 U	**83**	**8**	5 U	5 U
	9/18/2002	638.56	6.04	632.52	5 U	5 UJ	NA	5 UJ	**27**	**5**	5 U	5 U
	12/18/2002	638.56	5.22	633.34	**40**	**24**	NA	5 U	**200**	**8**	5 U	5 U
	4/29/2003	638.56	4.50	634.06	**31**	13 J	NA	25 U	**530**	25 **U**	25 U	25 U
	6/24/2003	638.56	4.58	633.98	5 UJ	5 UJ	NA	5 U	17 **J**	**4 J**	5 U	5 UJ
	9/24/2003	638.56	5.91	632.65	**35**	9 J	NA	10 U	**240**	**8 J**	10 U	10 U
	12/3/2003	638.56	4.98	633.58	**65**	17 J	NA	20 U	**550**	11 **J**	20 U	20 U
	3/30/2004	638.56	4.15	634.41	**12**	**5**	NA	5 U	**130**	**3 J**	5 U	5 U
	6/16/2004	638.56	3.64	634.92	15 J	25 UJ	NA	25 UJ	**150**	25 **U**	25 U	25 U
	9/14/2004	638.56	3.71	634.85	11 J	25 U	NA	25 U	**87**	25 **U**	25 U	25 U
	12/14/2004	638.56	3.97	634.59	11 J	25 U	NA	25 U	**67**	25 **U**	25 U	25 U
	3/22/2005	638.56	3.55	635.01	50 U	50 U	NA	50 UJ	**87**	50 **U**	50 U	50 U
	6/7/2005	638.56	4.25	634.31	5 U	5 U	NA	5 U	**8**	**1 J**	5 U	5 U
	9/13/2005	638.56	5.84	632.72	5 U	5 U	NA	5 U	**11**	**2 J**	5 U	5 U
	12/20/2005	638.56	4.75	633.81	4 J	25 U	NA	25 U	**48**	25 **U**	25 U	25 U
	3/25/2006	638.56	4.32	634.24	5 U	5 U	NA	5 U	**8**	**1 J**	5 U	5 U
	6/22/2006	638.56	4.50	634.06	5 U	5 U	NA	5 U	**9**	**1 J**	5 U	5 U
	9/14/2006	638.56	3.92	634.64	5 U	5 U	NA	5 U	**13**	**2 J**	5 U	5 U
	12/7/2006	638.56	3.64	634.92	25 U	25 U	NA	25 U	**6 J**	25 **U**	25 U	25 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			5	5	NA	5	5	5	5	2
MW-10B	3/21/2002	644.44	9.43	635.01	5 U	5 U	NA	5 U	42	5 U	5 U	5 U
	6/12/2002	644.44	9.12	635.32	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/18/2002	644.44	11.05	633.39	5 U	5 UJ	NA	5 UJ	7	5 U	5 U	5 U
	12/18/2002	644.44	10.20	634.24	5 U	5 U	NA	5 U	52	5 U	5 U	5 U
	4/30/2003	644.44	9.28	635.16	5 U	5 U	NA	5 U	8	5 U	5 U	5 U
	6/23/2003	644.44	9.39	635.05	5 U	5 U	NA	5 U	3 J	5 U	5 U	5 U
	9/24/2003	644.44	10.93	633.51	5 U	5 U	NA	5 U	7	5 U	5 U	5 U
	3/30/2004	644.44	8.99	635.45	5 U	5 U	NA	5 U	17	5 U	5 U	5 U
	9/14/2004	644.44	8.76	635.68	5 U	5 U	NA	5 U	14	5 U	5 U	5 U
	3/22/2005	644.44	8.69	635.75	5 U	5 U	NA	5 U	11	5 U	5 U	5 U
	9/13/2005	644.44	10.84	633.60	5 U	5 U	NA	5 U	5	5 U	5 U	5 U
	3/25/2006	644.44	9.28	635.16	5 U	5 U	NA	5 U	6	5 U	5 U	5 U
	9/14/2006	644.44	9.82	634.62	5 U	5 U	NA	5 U	6	5 U	5 U	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	**5**	**NA**	**5**	***5***	**5**	**5**	2
MW-21	3/26/1999	NA	NA	NA	**1 U**	**1 U**	**1 U**	**2 U**	**1 U**	**1 U**	**1 U**	1 U
	3/21/2002	642.52	7.70	634.82	25 **U**	25 **U**	**NA**	25 **U**	25 **U**	25 **U**	25 **U**	25 U
	6/12/2002	642.52	7.69	634.83	25 **U**	25 **U**	**NA**	25 **U**	25 **U**	25 **U**	**5 BJ**	25 U
	9/17/2002	642.52	9.50	633.02	**5 U**	**5 UJ**	**NA**	**5 UJ**	**5 U**	**5 U**	**5 U**	5 U
	12/17/2002	642.52	8.23	634.29	**5 U**	**5 UJ**	**NA**	**5 U**	**5 UJ**	**5 U**	**5 U**	5 U
	4/30/2003	642.52	7.91	634.61	25 **U**	25 **U**	**NA**	25 **U**	25 **U**	25 **U**	**25 U**	25 U
	3/30/2004	642.52	7.56	634.96	**5 UJ**	**5 UJ**	**NA**	**5 UJ**	**5 UJ**	**5 UJ**	**5 UJ**	5 UJ
	3/22/2005	642.52	7.42	635.10	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 U
	3/25/2006	642.52	7.78	634.74	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 **U**	25 U
MW-Residential	3/21/2002	650.78	15.79	634.99	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	6/12/2002	650.78	15.62	635.16	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	9/17/2002	650.78	17.50	633.28	**5 U**	**5 UJ**	**NA**	**5 UJ**	**5 U**	**5 U**	**5 U**	5 U
	12/17/2002	650.78	16.52	634.26	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	4/30/2003	650.78	17.74	633.04	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	3/30/2004	650.78	15.47	635.31	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	3/22/2005	650.78	15.24	635.54	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U
	3/25/2006	650.78	15.75	635.03	**5 U**	**5 U**	**NA**	**5 U**	**5 U**	**5 U**	**5 U**	5 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels (ug/L):			**5**	5	**NA**	**5**	5	**5**	5	2
PW-1	12/21/1998	NA	NA	NA	20 U	5 J	20 **U**	**9 BJ**	**270**	**11 J**	20 U	20 U
	12/27/2001	NA	NA	NA	**15**	6.2	**5 U**	**5 U**	**280**	**5.2**	5 U	5 U
	3/20/2002	642.82	NM	**NM**	**11**	5	**5 U**	**5 U**	**320**	**3 J**	5 U	5 U
	6/12/2002	642.82	NM	**NM**	**18**	3 J	**5 U**	**5 U**	**380**	**2 J**	5 U	5 U
	9/18/2002	642.82	**NM**	NM	**12**	2 J	**5 U**	**5 UJ**	**270**	**2 J**	5 U	5 U
	12/18/2002	642.82	18.43	624.39	**8**	5	**5 U**	**5 U**	**160**	**2 J**	5 U	5 U
	4/30/2003	642.82	20.96	621.86	**11**	2 J	**5 U**	**5 U**	**180**	**2 J**	5 U	5 U
	6/23/2003	642.82	22.41	620.41	**12**	2 J	**5 U**	**5 U**	**190**	**2 J**	5 U	5 U
	9/24/2003	642.82	22.59	620.23	**8**	5 U	**5 U**	**5 U**	**120**	**5 U**	5 U	5 U
	12/3/2003	642.82	21.74	621.08	**8**	2 J	**5 U**	**5 U**	**150**	**2 J**	5 U	5 U
	3/30/2004	642.82	21.80	621.02	**6**	2 J	**5 U**	**5 U**	**150**	**5 U**	5 U	5 U
	6/16/2004	642.82	19.08	623.74	**13**	3 J	**5 U**	**5 UJ**	**380**	**2 J**	5 U	5 U
	9/14/2004	642.82	20.62	622.20	**10**	2 J	**5 U**	**5 U**	**210**	**5 U**	5 U	5 U
	12/14/2004	642.82	21.23	621.59	**6**	2 J	**5 U**	**5 U**	**140**	**5 U**	5 U	5 U
	3/22/2005	642.82	22.65	620.17	**15**	23	**5 U**	**5 U**	**200** J	**2 J**	5 U	5 U
	6/7/2005	642.82	21.50	621.32	**10**	2 J	10 **U**	**2 U**	**59**	**1 J**	10 U	10 U
	9/13/2005	642.82	21.73	621.09	3 J	0.9 J	**5 U**	**5 U**	**73**	0.5 **J**	5 U	5 U
	12/19/2005	642.82	20.98	621.84	**9**	2 J	**5 U**	**5 U**	**140**	**2 J**	5 U	5 U
	3/26/2006	642.82	21.44	621.38	4 J	0.9 J	**5 U**	**5 U**	**76**	0.6 **J**	5 U	5 U
	6/22/2006	642.82	21.28	621.54	4 J	1 J	**5 U**	**5 U**	**77**	0.8 **J**	5 U	5 U
	9/14/2006	642.82	8.23	634.59	9 DJ	25 U	25 **U**	25 **U**	**230**	25 **U**	25 U	25 U
	12/7/2006	642.82	20.82	622.00	6 J	2 J	10 **U**	10 **U**	**160**	**1 J**	10 U	10 U

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Groundwater Cleanup Levels (ug/L);			**5**	**5**	**NA**	**5**	**5**	**5**	**5**	
PW-2	12/27/2001	NA	NA	NA	**68**	**23**	1.4 **J**	**5 U**	**960**	**4 J**	**5 U**	1.1 **j**
	3/20/2002	641.34	**NM**	NM	**24**	**13**	**5 U**	**5 U**	**720**	**2 J**	**5 U**	**5 U**
	6/12/2002	641.34	**NM**	**NM**	**18**	**10**	**5 U**	**5 U**	**370**	**2 J**	**5 U**	**5 U**
	9/18/2002	641.34	NM	**NM**	**5**	**4 J**	**5 U**	**5 UJ**	**160**	**5 U**	**5 U**	**5 U**
	12/18/2002	641.34	17.63	623.66	**12**	**14**	10 **U**	10 **U**	**280**	10 **U**	10 **U**	10 **U**
	4/30/2003	641.34	16.82	624.52	**11**	**6**	**5 U**	**5 U**	**200**	**2 J**	**5 U**	**5 U**
	6/23/2003	641.34	19.41	621.93	**8**	**5**	**5 U**	**5 U**	**180**	**5 U**	**5 U**	**5 U**
	9/24/2003	641.34	17.45	623.89	**6**	**2 J**	**5 U**	**5 U**	**120**	**5 U**	**5 U**	**5 U**
	12/3/2003	641.34	18.78	622.56	**6**	**3 J**	**5 U**	**5 U**	**160**	**5 U**	**5 U**	**5 U**
	3/30/2004	641.34	19.24	622.10	**4 J**	**3 J**	**5 U**	**5 U**	**140**	**5 U**	**5 U**	**5 U**
	6/16/2004	641.34	18.58	622.76	**5**	**5 U**	**5 U**	**5 UJ**	**120**	**5 U**	**5 U**	**5 U**
	9/14/2004	641.34	18.25	623.09	**5**	**4 J**	**5 U**	**5 U**	**160**	**5 U**	**5 U**	**5 U**
	12/14/2004	641.34	17.63	623.71	**8**	**5**	**5 U**	**5 U**	**160**	**2 J**	**5 U**	**5 U**
	3/22/2005	641.34	19.33	622.01	**5**	**11**	**5 U**	**5 U**	**140**	**5 U**	**5 U**	**5 U**
	6/7/2005	64134	19.40	621.94	**3 J**	**2 J**	**5 U**	**5 U**	**70**	**1 J**	**5 U**	**5 U**
	9/13/2005	641.34	19.52	621.82	**3 J**	**3 J**	**5 U**	**5 U**	**94 J**	**2 J**	**5 U**	**5 U**
	12/19/2005	641.34	17.35	623.99	**1 J**	**5 U**	**5 U**	**5 U**	**30**	0.5 **J**	**5 U**	**5 U**
	3/26/2006	641.34	17.22	624.12	**5**	**1 J**	**5 U**	**5 U**	**54**	0.8 **J**	**5 U**	**5 U**
	6/22/2006	641.34	18.59	622.75	**4 J**	**2 J**	10 **U**	10 **BL**	**170**	**1 J**	10 **U**	10 **U**
	9/14/2006	641.34	6.75	634.59	**3 DJ**	**1 DJ**	10 **U**	10 **U**	**92**	**1 DJ**	10 **U**	10 **U**
	12/7/2006	641.34	6.11	635.23	**9 DJ**	3 DJ	10 **U**	10 **U**	**230**	**2 J**	10 **U**	10 **U**

Table 5
Byron Barrel and Drum Site
Historic Groundwater Quality Table - Select Analytes
ECOR Solutions, Inc.

Sample Location ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)								
		Groundwater Cleanup Levels **(ug/L):**			**5**	**5**	**NA**	5	5	5	5	2
PW-3	12/27/2001	NA	NA	NA	5 U	**5 U**	**5 U**	5 U	16	1.7 J	5 U	5 U
	3/20/2002	641.11	NM	NM	5 U	**5 U**	**5 U**	5 U	8	1 J	5 U	5 U
	6/12/2002	641.11	NM	**NM**	5 U	**5 U**	**5 U**	5 U	6	5 U	5 U	5 U
	9/18/2002	641.11	NM	NM	5 U	5 U J	**5 U**	5 UJ	4 J	5 U	5 U	5 U
	12/18/2002	641.11	19.90	621.21	5 U	**5 U**	**5 U**	5 U	4 J	5 U	5 U	5 U
	4/30/2003	641.11	19.46	621.65	5 U	**5 U**	**5 U**	5 U	3 J	5 U	5 U	5 U
	6/23/2003	641.11	18.55	622.56	5 U	**5 U**	**5 U**	5 U	3 J	5 U	5 U	5 U
	9/24/2003	641.11	20.97	620.14	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	12/3/2003	641.11	20.28	620.83	5 U	**5 U**	**5 U**	5 U	3 J	5 U	5 U	5 U
	3/30/2004	641.11	20.52	620.59	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	6/16/2004	641.11	19.65	621.46	5 U	**5 U**	**5 U**	5 UJ	2 J	5 U	5 U	5 U
	9/14/2004	641.11	20.91	620.20	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	12/14/2004	641.11	18.33	622.78	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	3/22/2005	641.11	22.17	618.94	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	6/7/2005	641.11	20.30	620.81	5 U	**5 U**	**5 U**	5 U	5 U	5 U	5 U	5 U
	9/13/2005	641.11	21.52	619.59	5 U	**5 U**	**5 U**	5 U	1 J	5 U	5 U	5 U
	12719/2005	641.11	20.36	620.75	5 U	**5 U**	**5 U**	5 U	1 J	5 U	5 U	5 U
	3/26/2006	641.11	22.31	618.80	5 U	**5 U**	**5 U**	5 U	1 J	5 U	5 U	5 U
	6/22/2006	641.11	20.72	620.39	5 U	**5 U**	**5 U**	5 U	1 J	5 U	5 U	5 U
	9/14/2006	641.11	6.53	634.58	5 U	**5 U**	**5 U**	5 U	2 J	5 U	5 U	5 U
	12/7/2006	641.11	7.81	633.30	6 DJ	**2 DJ**	**5 U**	5 U	170	1 J	5 U	5 U

Notes:
All concentrations in micrograms per liter (ug/L)
Exceedences of the groundwater cleanup standard are indicated in bold.
NM = Not Measured
NA= Not Available

Table 6
Schedule of Sampling and Analysis for 2007
Byron Barrel & Drum Site
Byron, New York

Month	**Event**	**Monitoring Well to be Sampled**	**Constituents to be Analyzed**
March 2007	First Quarter 2007 Monitoring Event	MW-1 MW-4 MW-10B MW-21 MW-Residential	Five VOCs: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
June 2007	Second Quarter 2007 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1 -Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
September 2007	Third Quarter 2007 Monitoring Event	MW-1 and MW-4 MW-10B	Five VOCs: 1,1-Dichloroethane, 1,1 -Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride
December 2007	Fourth Quarter 2007 Monitoring Event	MW-1 and MW-4	Five VOCs: 1,1-Dichloroethane, 1,1 -Dichloroethylene, 1,1,1-Trichloroethane, Trichloroethene, Vinyl Chloride

Table 7
Unsaturated Zone Sampling Results (both rounds)
Byron Barrel Drum Site
Byron, New York

Unsaturated Zone Samples

(First Round)

Sample Location		UZ-01	UZ-02	UZ-03	UZ-04	UZ-05	UZ-06	UZ-07	UZ-07 Dup	UZ-08	UZ-09	UZ-10	
Date Sampled		6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	6/27/2001	Soil Cleanup Criteria (ug/kg)
CONSTITUENT	UNITS												
Starting Depth	(feet)	0	0	0	0	0	0	0	0	0	0	0	_
Ending Depth	(feet)	2	2	2	2	2	2	2	2	2	2	2	_.
Percent moisture	(%)	16	9.4	8.2	10	10.7	15.5	11.7	15.1	8.9	8.5	2.1	—
1,1,1-Trichloroethane	(ug/kg)	5J	15	11 J	12	71	10	5J	8	6J	6	10	2300
Ethylbenzene	(ug/kg)	6U	5U	6U J	5U	6U	6U	6U	6U	6UJ	5U	6U	52000
Tetrachloroethene	(ug/kg)	6U	5U	6U	5U	6U	6U	6U	6U	6UJ	5U	6U	8.4
Toluene	(ug/kg)	6U	5U	6U	5U	6U	6U	6U	6U	6U J	5U	6U	36000
Trichloroethene	(ug/kg)	6U	5U	6U	5U	6U	6U	6U	6U	6UJ	5U	6U	4.9
Xylene (total)	(ug/kg)	12 U	11 U	11 U	11 U	11 U	12U	11 U	11 U	11 U J	11 U	11 U	8200

Unsaturated Zone Samples

(Second Round)

Sample Location		UZ-01	UZ-02	UZ-03	UZ-04	UZ-05	UZ-06 Dup	UZ-07	UZ-07	UZ-08	UZ-09	UZ-10	
Date Sampled		8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	8/14/2002	Soil Cleanup Criteria (ug/kg)
CONSTITUENT	UNITS												
Starting Depth	(feet)	5	6	6	5	6	6	6	5	6	6	6	
Ending Depth	(feet)	7 8		8	7	8	8	8	7	8	8	8	
Percent moisture	(%)	11.3	5.9	14.6	9.7	9.1	10.3	14.5	10.2	7.5	8.7	5.5	
1,1,1-Trichloroethane	(ug/kg)	5U	14	330	5U	5	3J	54	5U	1J	2J	7	2300
Ethylbenzene	(ug/kg)	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	52000
Tetrachloroethene	(ug/kg)	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	8.4
Toluene	(ug/kg)	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	36000
Trichloroethene	(ug/kg)	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	4.9
Xylene (total)	(ug/kg)	10U	10U	11 U	10U	10U	9U	11 U	10 U	9U	9U	10U	8200

Table 8
Infiltration Gallery Endpoint Sampling Results
TCA/TCE Concentrations Only
Byron Barrel Drum Site
Byron, New York

Sample Location		EP-01	EP-02	EP-03	EP-04	EP-05	EP-06	EP-07
Date Sampled		6/21/2001	6/21/2001	6/21/2001	6/21/2001	6/21/2001	6/21/2001	6/21/2001
CONSTITUENT	UNITS							
1,1,1-Trichloroethane	(ug/kg)	31	5	6	14	86	75	15
Trichloroethene	(ug/kg)	ND	ND	ND	ND	ND	2J	ND

Table 9
Historic Groundwater Quality Data
Semivolatile Organic Compounds (SVOC)
Byron Barrel Drum Site
Byron, New York

1st Quarter 2002						
	Sample Location	MW-1	MW-10B	MW-21	MW-4	MW- Res
	Date Sampled	3/20/2002	3/21/2002	3/21/2002	3/20/2002	3/21/2002
N-Nitrosodiphenylamine	(ug/kg)	10U	10 U	10 U	10 U	10 U
2nd Quarter 2002						
	Sample Location	MW-1	MW-10B	MW-21	MW-4	MW- Res
	Date Sampled	6/13/2002	6/13/2002	6/12/2002	6/13/2002	6/12/2002
N-Nitrosodiphenylamine	(ug/kg)	10U	10U	10U	10U	10 U
3rd Quarter 2002						
	Sample Location	MW-1	MW-10B	MW-21	MW-4	MW- Res
	Date Sampled	9/18/2002	9/18/2002	9/17/2002	9/18/2002	9/17/2002
N-Nitrosodiphenylamine	(ug/kg)	10 U	9U	10 UJ	9U	9U
4th Quarter 2002						
	Sample Location	MW-1	MW-10B	MW-21	MW-4	MW- Res
	Date Sampled	N/A	N/A	N/A	1218/2002	12/17/2002
N-Nitrosodiphenylamine	(ug/kg)	N/A	N/A	N/A	10 U	10 U
1st Quarter 2003						
	Sample Location	MW-1	MW-10B	MW-21	MW-4	MW- Res
	Date Sampled	4/29/2003	4/30/2003	4/30/2003	4/29/2003	4/30/2003
N-Nitrosodiphenylamine	(ug/kg)	10U	10U	10U	10U	10U

N/A - Data not available

Table 10
Field Parameters
Byron Barrel Drum Site
Byron, New York

December 20,2005 Sampling Event				
Well	**Temp [°C]**	**ORP [mV]**	**pH**	**DO [mgftj**
MW-1	5.91	+176	7.52	0.34
MW-4	7.15	+190	7.26	3.13
PW-1	11.34	+244	7.13	7.29
PW-2	11.37	+240	7.23	7.30
PW-3	11.23	+230	7.29	7.13
Influent	11.27	+243	7.25	6.91
Effluent	10.66	+241	7.29	**8.22**

Table 11
Geochemical Parameters
Byron Barrel Drum Site
Byron, New York

December 20,2005 Sampling Event		
Geochemical Parameter	**MW-1**	**MVV-10B**
Iron, Total [mg/L]	10.7	1.4
Iron, Dissolved [mg/L]	<0.05	<0.05
Manganese, Total [mg/L]	0.91	0.13
Manganese, Dissolved [mg/L]	0.054	<0.003
Biochemical Oxygen Demand [mg/L]	<2	<2
Chemical Oxygen Demand [mg/L]	<10	<10
Chloride [mg/L]	8.8	4.1
Nitrate-Nitrite [mg/L N]	0.51	1.4
Ortho Phosphate [mg/L P]	0.3	0.15
Sulfate [mg/L]	59	37.7
Sulfide [mg/L]	**<1**	<1
Total Kjeldahl Nitrogen [mg/L N]	1.2	0.56
Total Organic Carbon [mg/L]	**<1**	<1
Total Phosphorous [mg/L P]	8.4	0.14

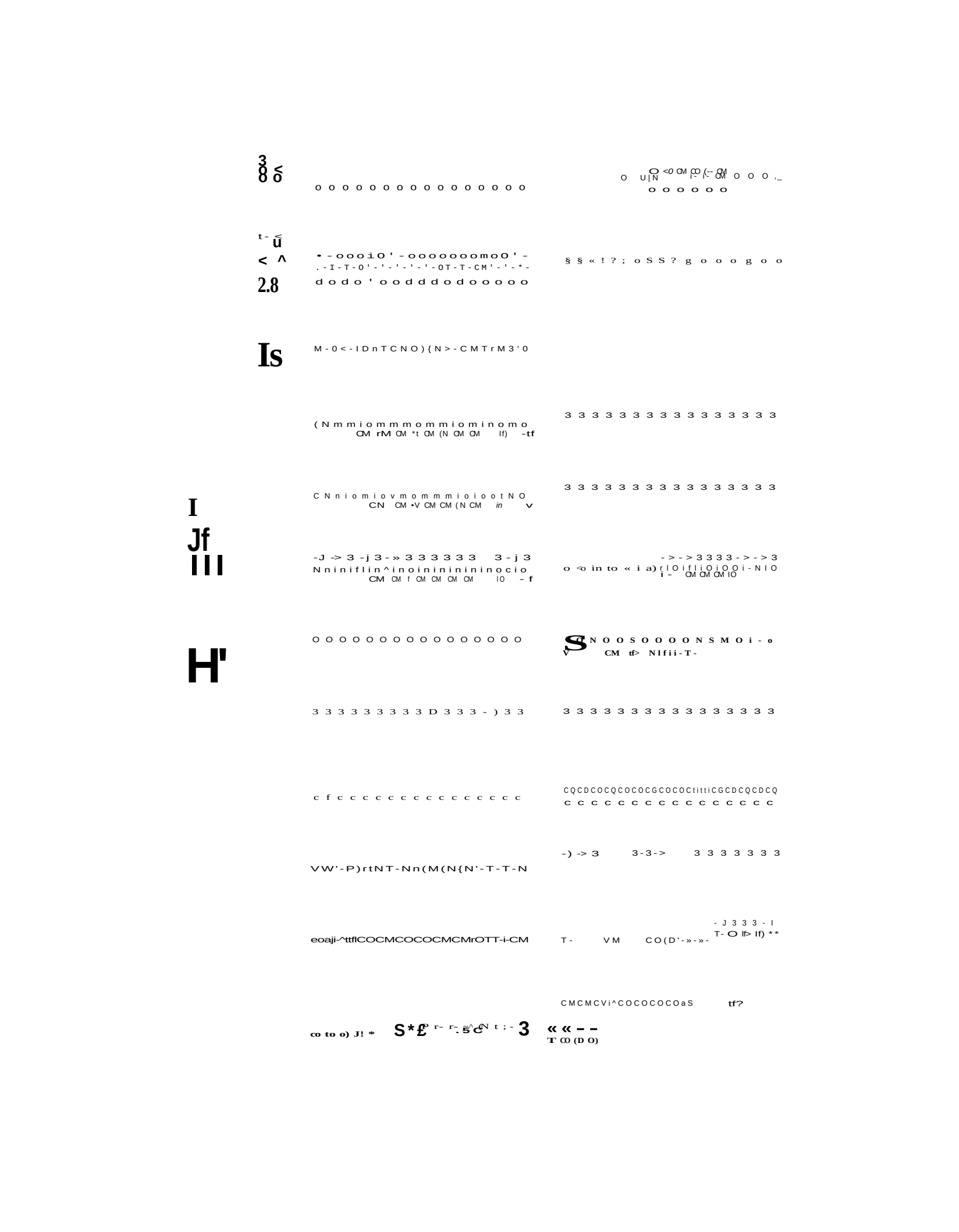

Table 12
Volatile Organic Compounds in Groundwater
Byron Barrel and Drum Site
Byron, New York

Date	Concentration (micrograms per liter)								Molar Ratios		
	1.1 -DC A	1,1-DCE	cis-1,2-DCE	DCM	1.1,1 -TCA	TCE	Toluene	VC	1,1-DCA/ 1,1-DCE	[1.1-DCA+ 1,1-DCE] / TCA	1,1-DCA/ TCA
MW-10B											
3/21/2002	5 U	5 U	na	5 U	42	5 U	5 U	5 U	nc	nc	nc
6/12/2002	5 U	5 U	na	5 U	11	5 U	5 U	5 U	nc	nc	nc
9/18/2002	5 U	5 UJ	na	5 UJ	7	5 U	5 U	5 U	nc	nc	nc
12/18/2002	5 U	5 U	na	5 U	52	5 U	5 U	5 U	nc	nc	nc
4/30/2003	5 U	5 U	na	5 U	8	5 U	5 U	5 U	nc	nc	nc
6/23/2003	5 U	5 U	na	5 U	3 J	5 U	5 U	5 U	nc	nc	nc
9/24/2003	5 U	5 U	na	5 U	7	5 U	5 U	5 U	nc	nc	nc
3/30/2004	5 U	5 U	na	5 U	17	5 U	5 U	5 U	nc	nc	nc
9/14/2004	5 U	5 U	na	5 U	14	5 U	5 U	5 U	nc	nc	nc
3/22/2005	5 U	5 U	na	5 U	11	5 U	5 U	5 U	nc	nc	nc
9/13/2005	5 U	5 U	na	5 U	5	5 U	5 U	5 U	nc	nc	nc
MW-21											
3/26/1999	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	nc	nc	nc
3/21/2002	25 U	25 U	na	25 U	25 U	25 U	25 U	25 U	nc	nc	nc
6/12/2002	25 U	25 U	na	25 U	25 U	25 U	5BJ	25 U	nc	nc	nc
9/17/2002	5 U	5 UJ	na	5 UJ	5 U	5 U	5 U	5 U	nc	nc	nc
12/17/2002	5 U	5 UJ	na	5 U	5 UJ	5 U	5 U	5 U	nc	nc	nc
4/30/2003	25 U	25 U	na	25 U	25 U	25 U	25 U	25 U	nc	nc	nc
3/30/2004	5 UJ	5 UJ	na	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	nc	nc	nc
3/22/2005	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	nc	nc	nc
MW-Residential											
3/21/2002	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
6/12/2002	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
9/17/2002	5 U	5 UJ	na	5 UJ	5 U	5 U	5 U	5 U	nc	nc	nc
12/17/2002	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
4/30/2003	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
3/30/2004	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
3/22/2005	5 U	5 U	na	5 U	5 U	5 U	5 U	5 U	nc	nc	nc

ID												
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6/23/03	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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3/30/04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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6/7/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9/13/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12/19/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PW-2												
12/27/2001	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3/20/2002	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6/12/2002	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9/18/02	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12/18/02	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4/30/03	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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9/24/03	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12/3/03	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3/30/04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6/16/04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9/14/04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12/14/04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3/22/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6/7/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9/13/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12/19/05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

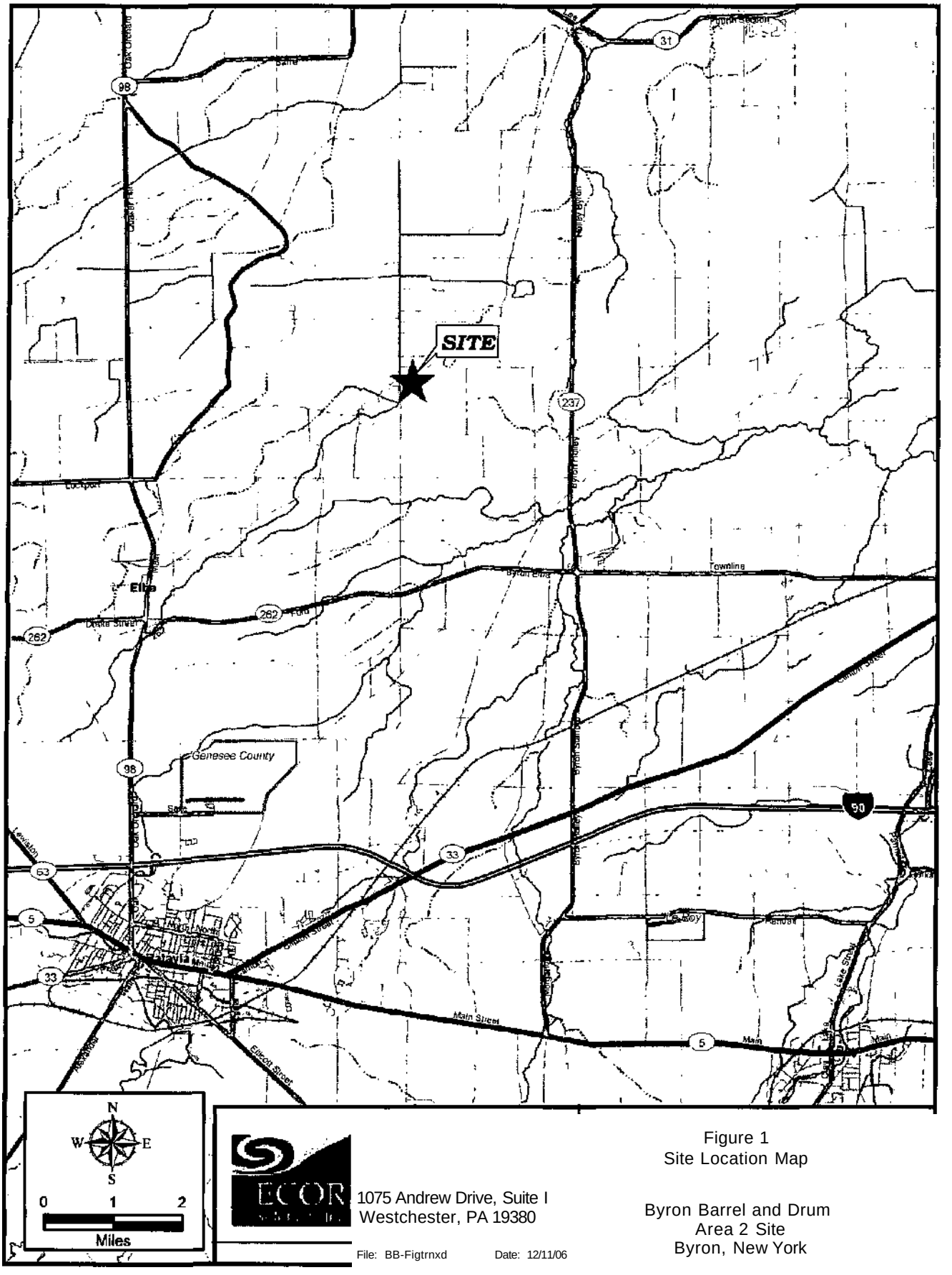
Table 12
Volatile Organic Compounds in Groundwater
Byron Barrel and Drum Site
Byron, New York

Date	Concentration (micrograms per liter)								Molar Ratios		
	1.1-OCA	1,1-OCE	cis-1,2-DCE	DCM	1,1,1-TCA	TCE	Toluene	VC	1.1-DCA/1.1-DCE	[1.1-DCA+ 1,1-DCE] / TCA	1,1-DCA/ TCA
PW-3											
12/27/2001	5 U	5 U	5 U	5 U	16	1.7 J	5 U	5 U	nc	nc	nc
3/20/2002	5 U	5 U	5 U	5 U	8	1 J	5 U	5 U	nc	nc	nc
6/12/2002	5 U	5 U	5 U	5 U	6	5 U	5 U	5 U	nc	nc	nc
9/18/02	5 U	5 UJ	5 U	5 UJ	4'J	5 U	5 U	5 U	nc	nc	nc
12/18/02	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U	nc	nc	nc
4/30/03	5 U	5 U	5 U	5 U	3'J	5 U	5 U	5 U	nc	nc	nc
6/23/03	5 U	5 U	5 U	5 U	3'J	5 U	5 U	5 U	nc	nc	nc
9/24/03	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	nc	nc	nc
12/3/03	5 U	5 U	5 U	5 U	3'J	5 U	5 U	5 U	nc	nc	nc
3/30/04	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	nc	nc	nc
6/16/04	5 U	5 U	5 U	5 UJ	2iJ	5 U	5 U	5 U	nc	nc	nc
9/14/04	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	nc	nc	nc
12/14/04	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	nc	nc	nc
3/22/05	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	nc	nc	nc
6/7/05	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	nc	nc	nc
9/13/05	5 U	5 U	5 U	5 U	UJ	5 U	5 U	5 U	nc	nc	nc
12/19/05	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U	nc	nc	nc

Notes:

	Concentration detected at or above Groundwater Cleanup Standard
	Concentration detected below Groundwater Cleanup Standard
U	Compound not detected above reporting limit
J	Concentration estimated
B	Compound detected in blank
na	Not analyzed
nc	Ratio not calculated since one or more concentrations were below the detection limit

FIGURES

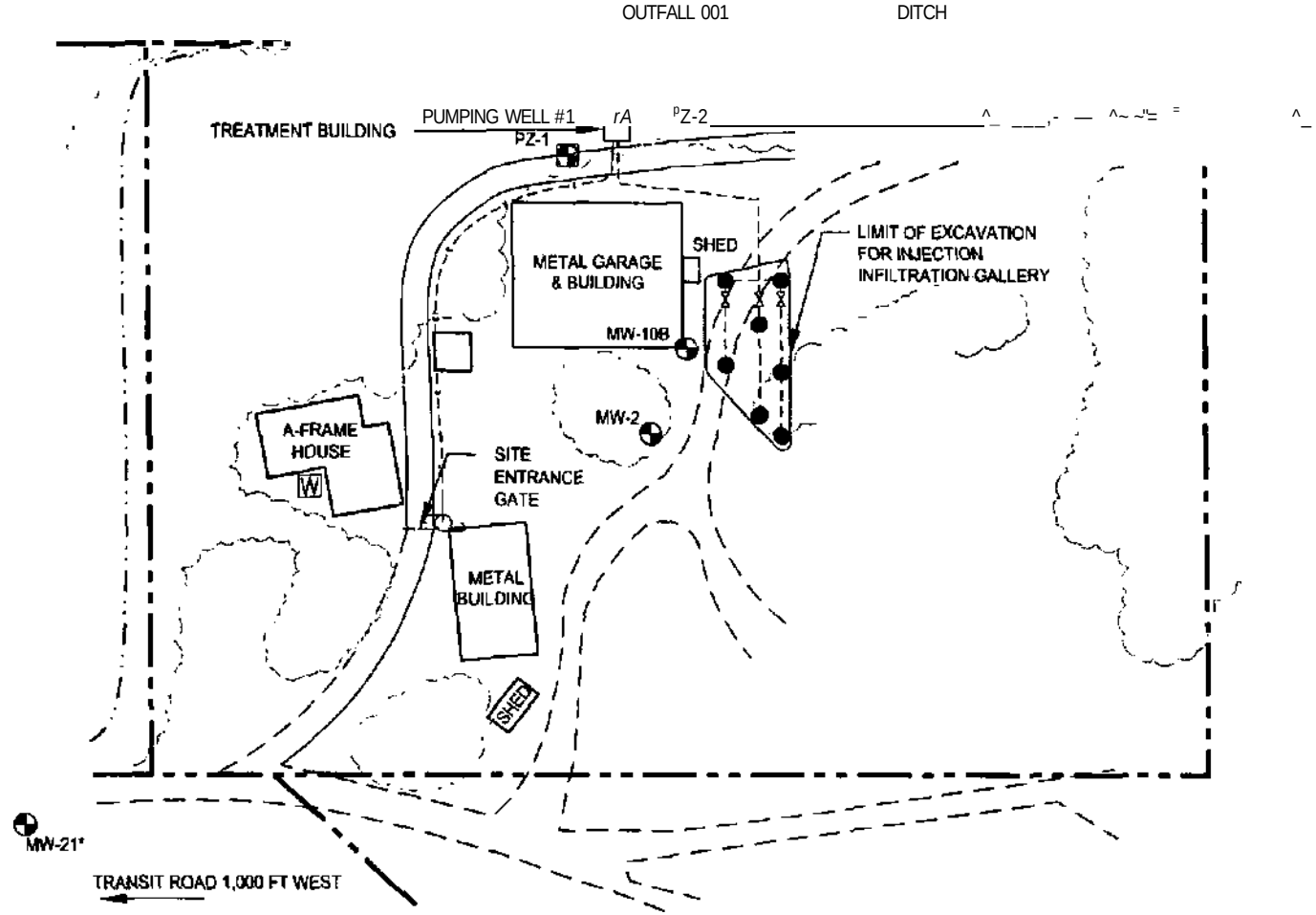


1075 Andrew Drive, Suite I
Westchester, PA 19380

File: BB-Figtrnxd Date: 12/11/06

Figure 1
Site Location Map

Byron Barrel and Drum
Area 2 Site
Byron, New York



LEGEND

9	MONITORING WELL		PROPERTY LINE
	FORMER RESIDENTIAL WELL		FENCE
	PIEZOMETER WELL		TREELINE
	INJECTION GALLERY PIEZOMETER WELL		NEW GRAVEL ROAD
	INJECTION GALLERY VALVE		PRE-EXISTtNG GRAVEL ROAD
©	PUMPING WELL		DITCH
	UTILITY POLE		ELECTRIC & PHONE LINE
			REINJECTION PIP1ING

•MOTE- UW-21 (S 200 FEET WEST OF PROPERTY UNE

SOURCE; ERU CIO SERVICES

SITE PLAN

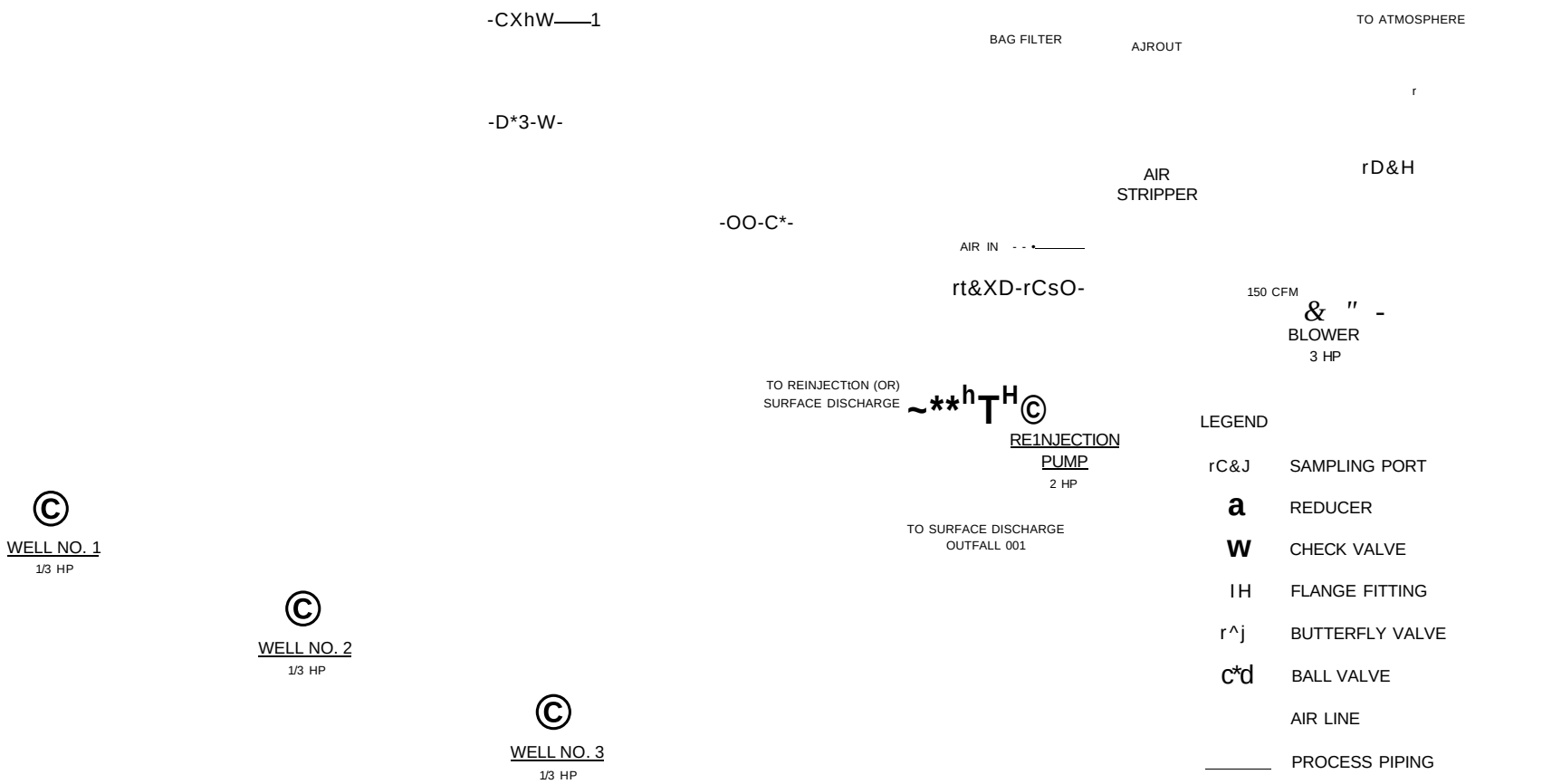
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
	07-25-06	2

60

M



GROUND WATER TREATMENT SYSTEM
FLOW DIAGRAM
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Surte I, West Chester, PA 19380

SCALE IN FEET

DATE
09-02-05

FIGURE

SOURCE: ERU C*D SERVICES

Figure 4
Byron Barrel and Drum Site
Pumping Well Average Groundwater Recovery Rates

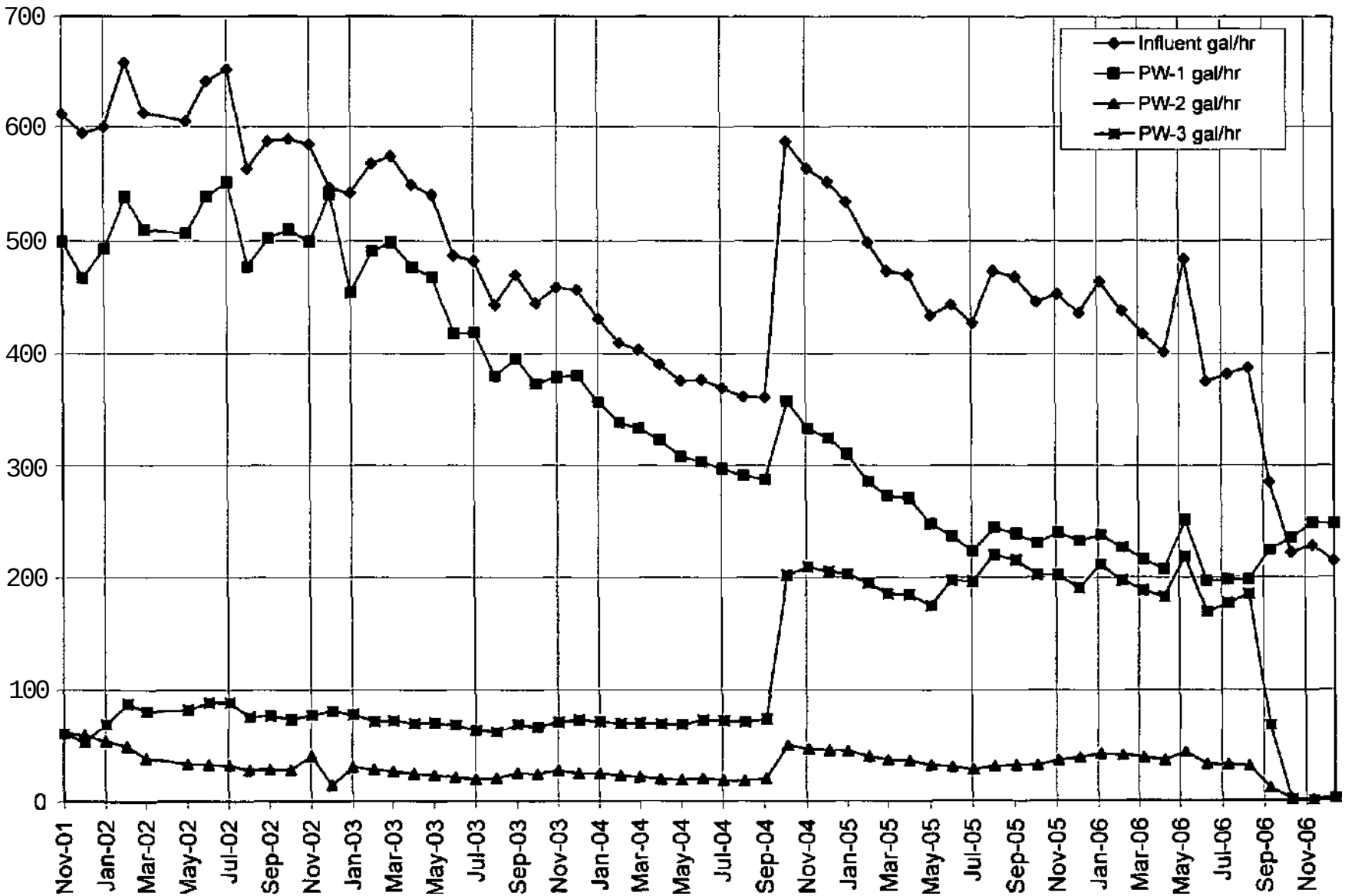


Figure 5
Byron Barrel and Drum Site
Influent Concentration (Total VOCs) Vs. Time

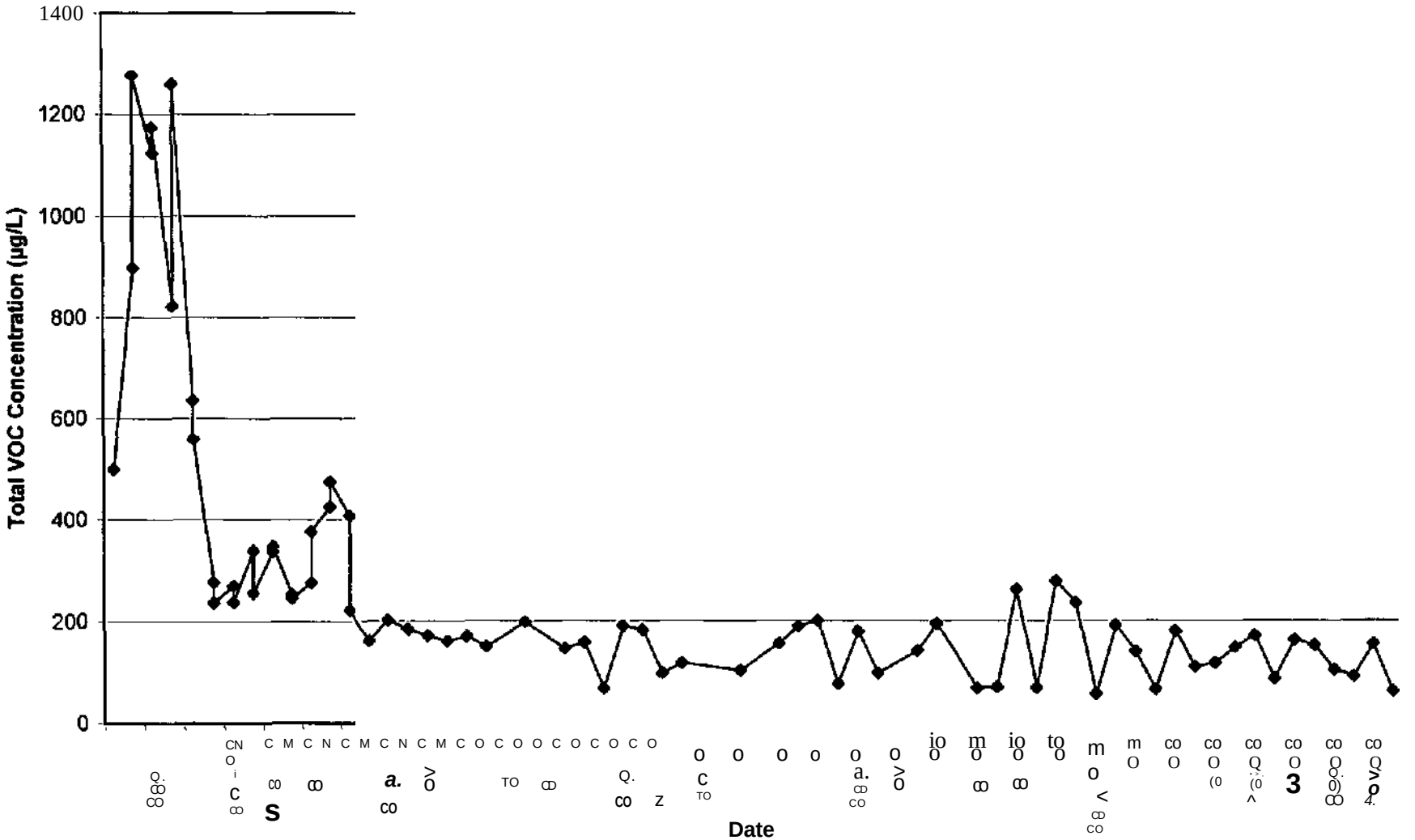
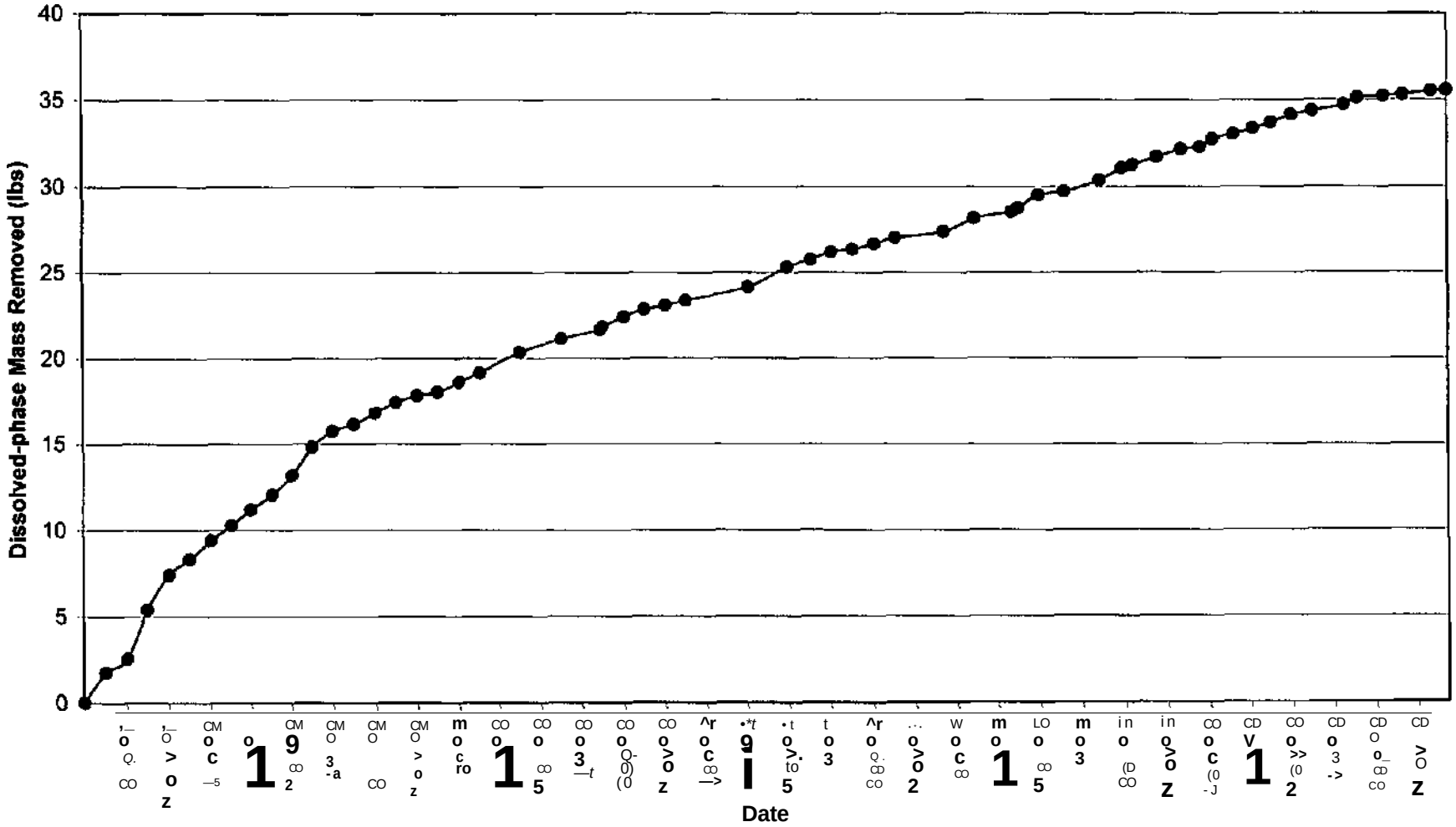
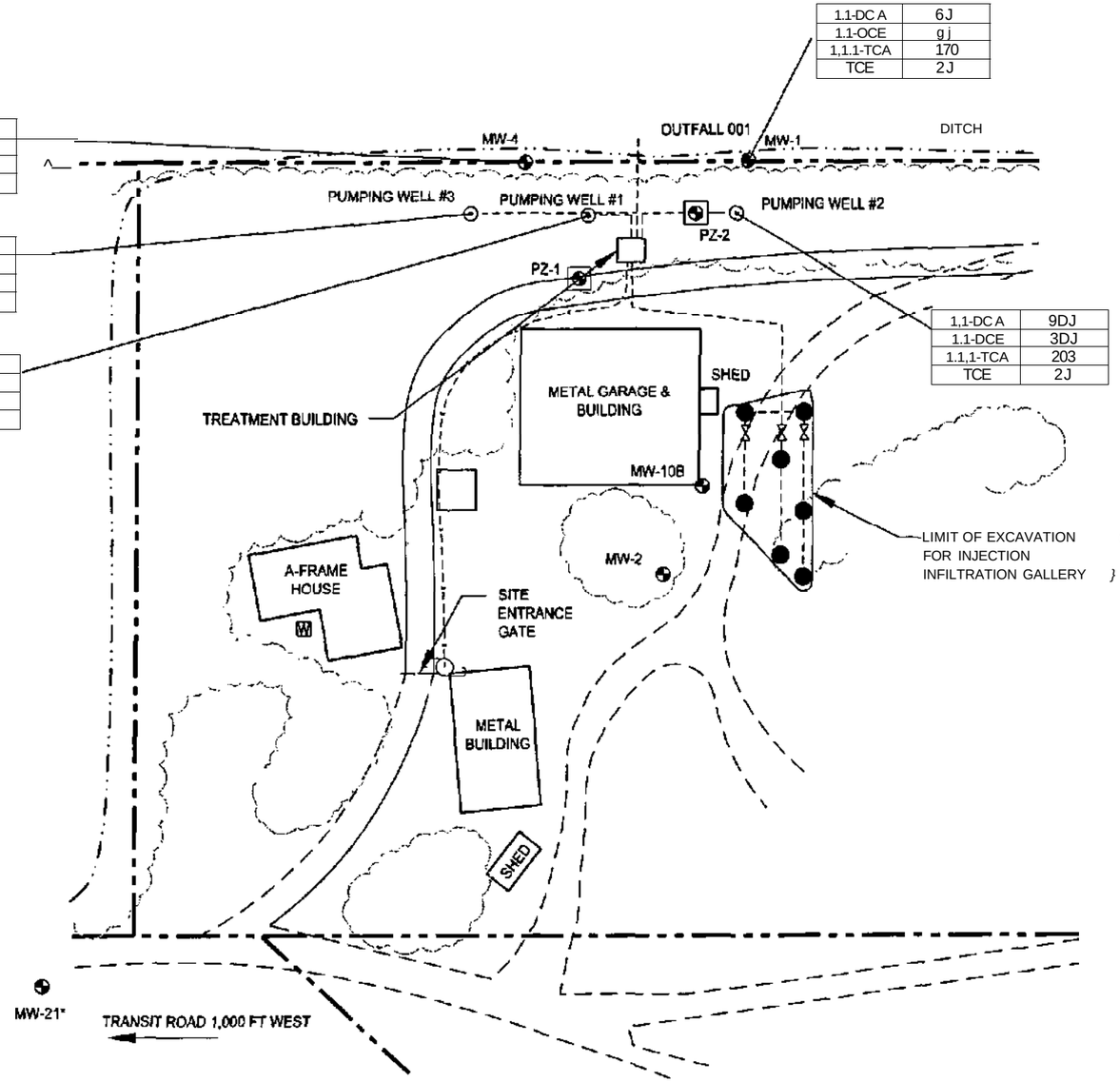


Figure 6
Byron Barrel and Drum Site
Cumulative Dissolved-phase Mass Removed (Total VOCs)





LEGEND

- MONITORING WELL
- FORMER RESIDENTIAL WELL
- PIEZOMETER WELL
- INJECTION GALLERY PIEZOMETER WELL
- INJECTION GALLERY VALVE
- © PUMPING WELL
- UTILITY POLE
- PROPERTY LINE
- TREELINE
- NEW GRAVEL ROAD
- PRE-EXISTING GRAVEL ROAD
- FENCE
- DITCH
- ELECTRIC & PHONE LINE
- REINJECTION PIPIING

1,1-DC A	1,1-DICHLOROETHANE
1,1-DCE	1,1 DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE
U	INDICATES THE PARAMETER WAS NOT DETECTED AT OR ABOVE REPORTED LIMIT
	ESTIMATED VALUE
	EXCEEDENCES
	DILUTED SAMPLE

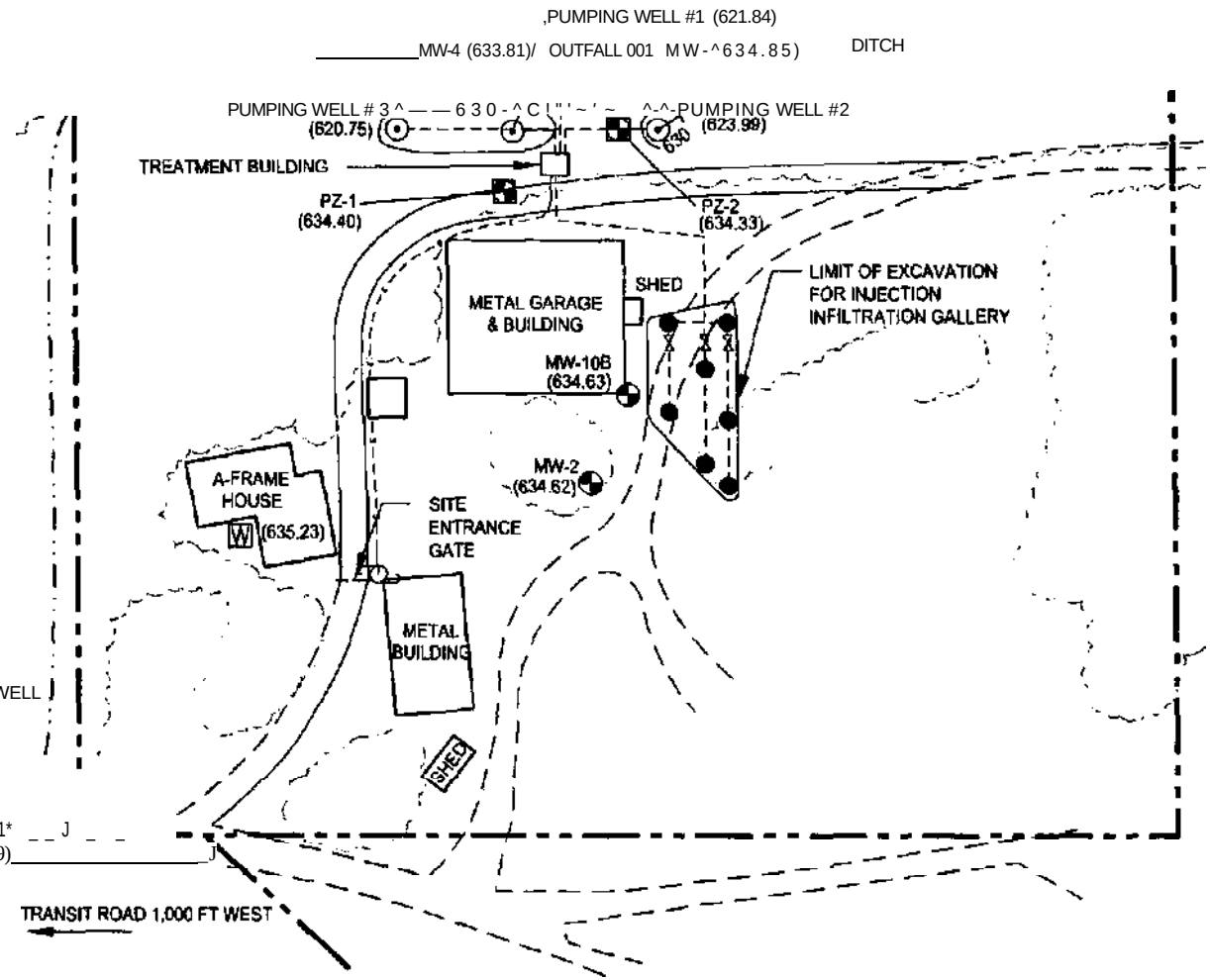
•NOTE: MW-21 IS 200 FEET WEST OF PROPERTY LINE

SOURCE: ERM CIO SERVICES

GROUNDWATER QUALITY MAP
7 DECEMBER 2006
BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET 60 | DATE 03-02-07 | FIGURE 7



LEGEND

- MONITORING WELL
- FORMER RESIDENTIAL WELL
- PIEZOMETER WELL
- INJECTION GALLERY PIEZOMETER WELL
- INJECTION GALLERY VALVE
- © PUMPING WELL
- UTILITY POLE
- — PROPERTY LINE
- — FENCE
- -- TREELINE
- ——NEW GRAVEL ROAD
- ——————PRE-EXISTING GRAVEL ROAD
- ——————DITCH
- ———«———ELECTRIC & PHONE LINE
- ——————REINJECTION PIPIING
- ——————ISOCONTOUR LINE
- (635.10) GROUNDWATER ELEVATION

'NOTE: MW-21 IS MO FEET WEST OF PROPERTY LINE

SOURCE' ERM CSO SERVICES

ESTIMATED PUMPING WELL AREA OF INFLUENCE
19 DECEMBER 2005

BYRON BARREL AND DRUM
AREA 2 SITE
BYRON, NY

ECOR Solutions
1075 Andrew Drive, Sutte I, West Chester. PA 19380

SCALE IN FEET | DATE 01-27-06 | FIGURE 8

Figure 9
Byron Barrel and Drum Site
Natural Log Influent Concentration (Total VOCs) Vs. Time

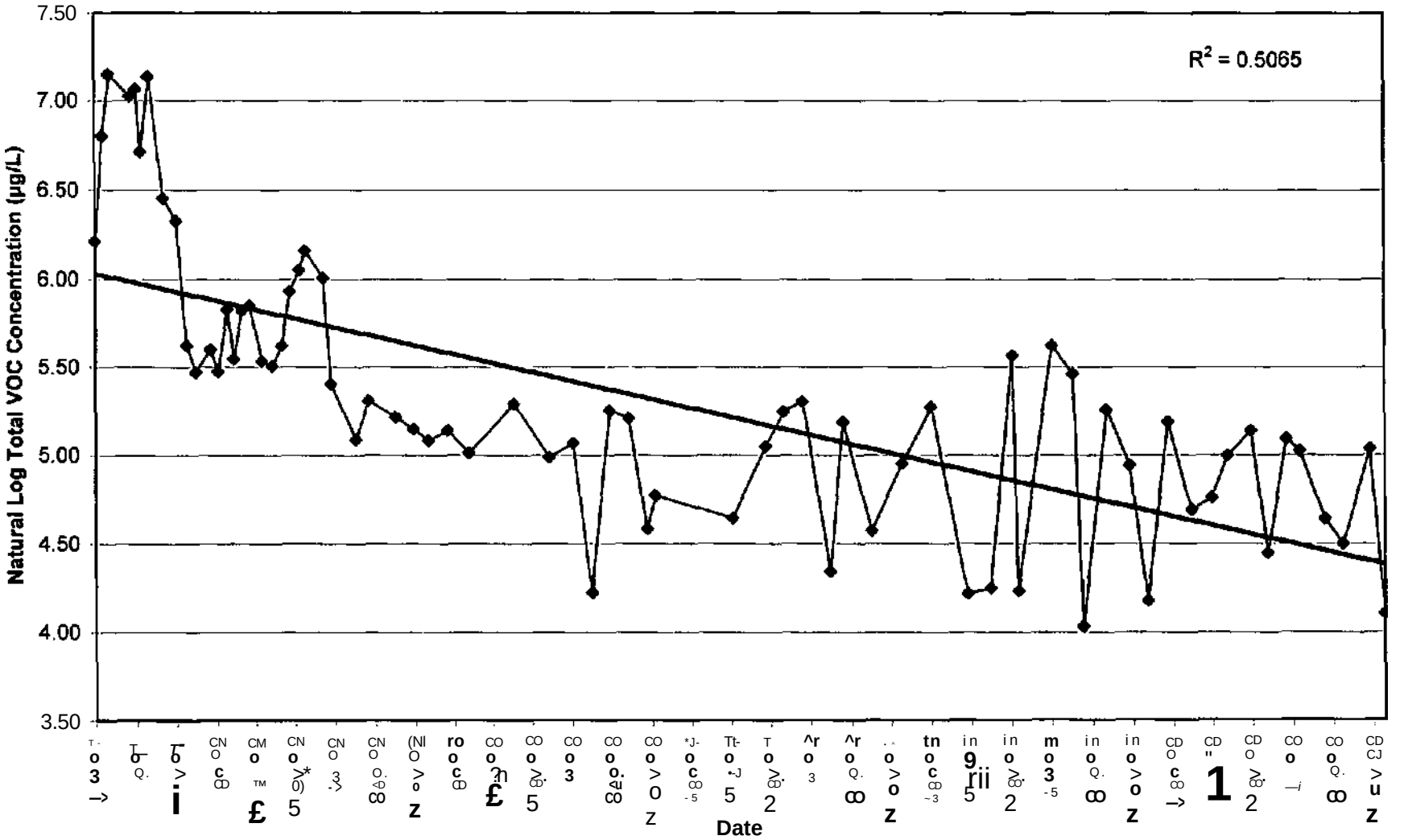
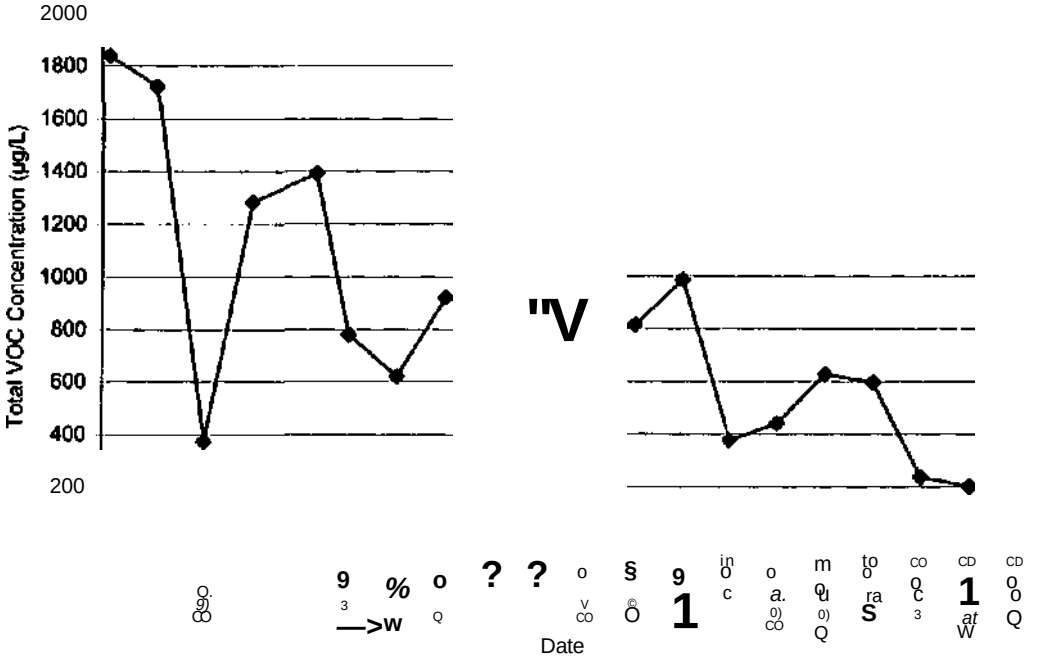


Figure 10
Byron Barrel and Drum Site
Monitoring Well MW-1 Total VOC Trend Analysis

Total VOC Concentration at MW-1 Vs. Time



Natural Log Total VOC Concentration at MW-1 Vs. Time

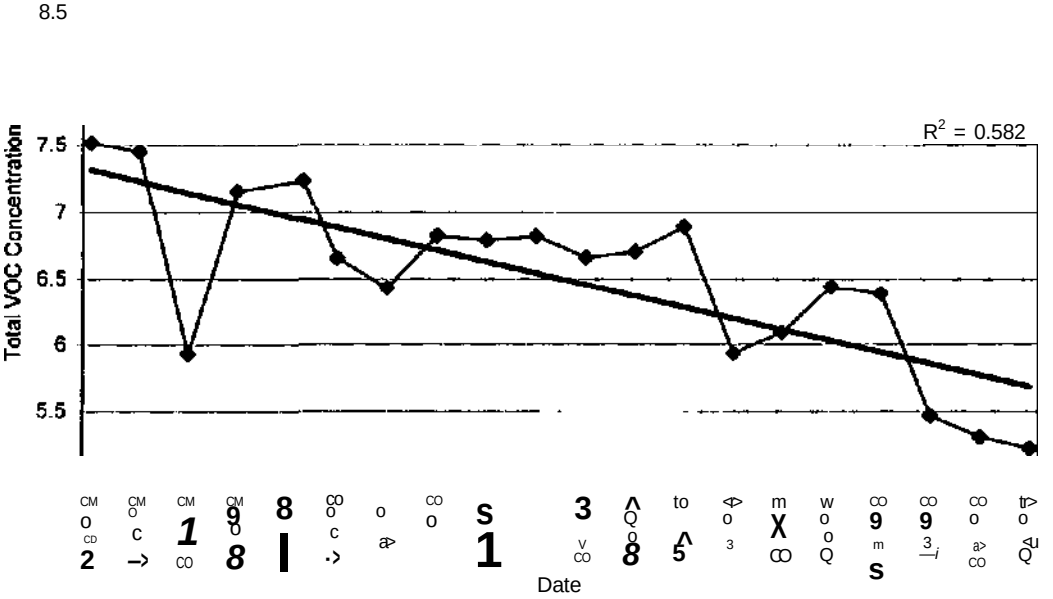
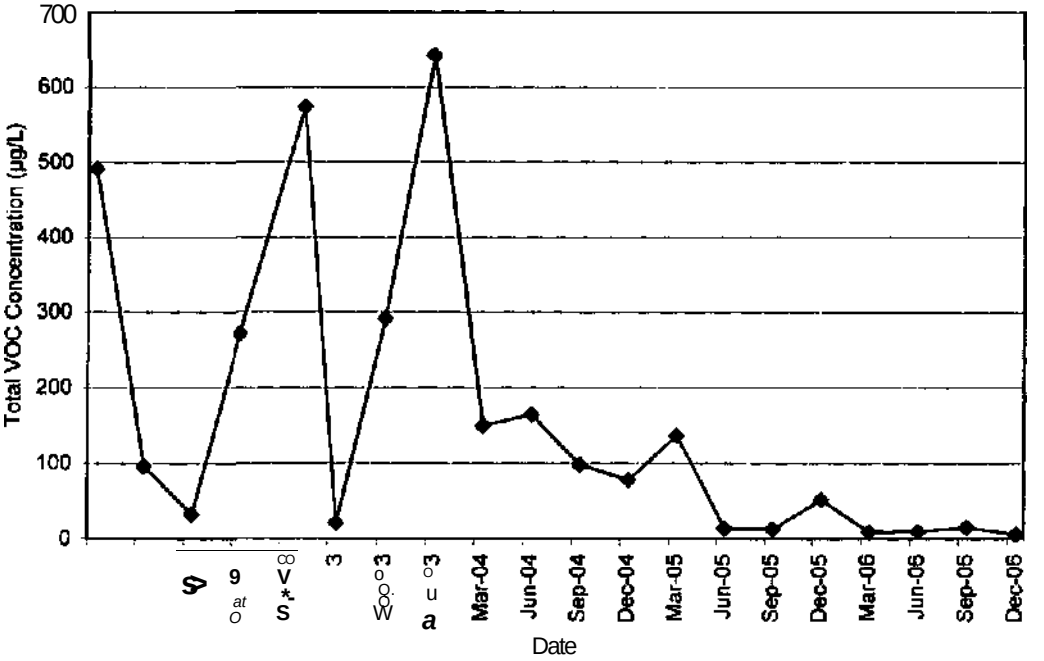


Figure 11
Byron Barrel and Drum Site
Monitoring Weil MW-4 Total VOC Trend Analysis

Total VOC Concentration at MW-4 Vs. Time



Natural Log Total VOC Concentration at MW-4 Vs. Time

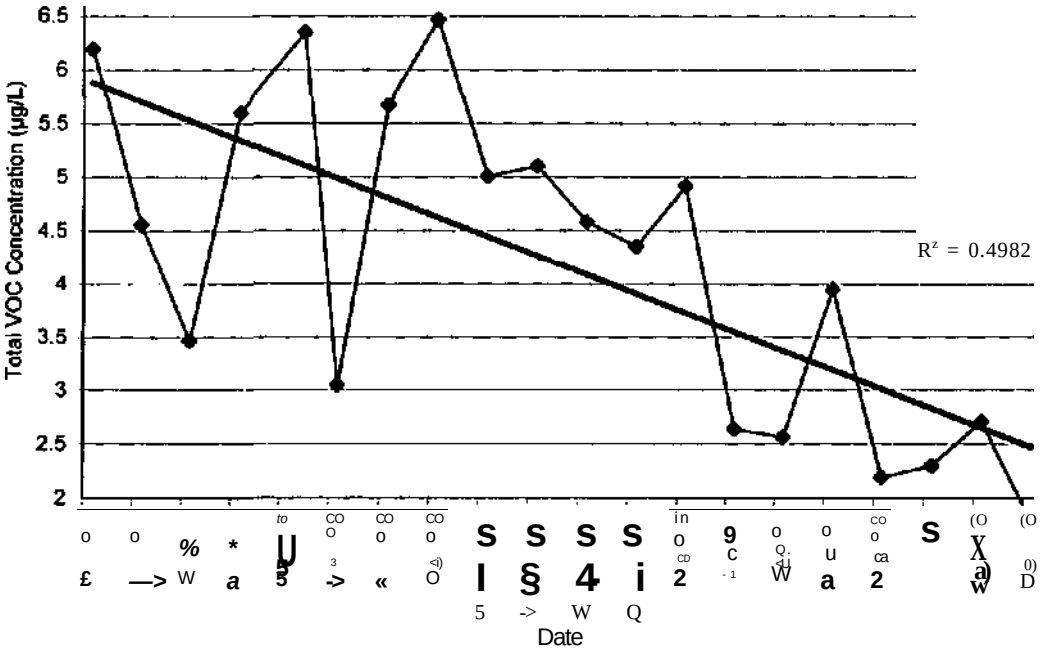
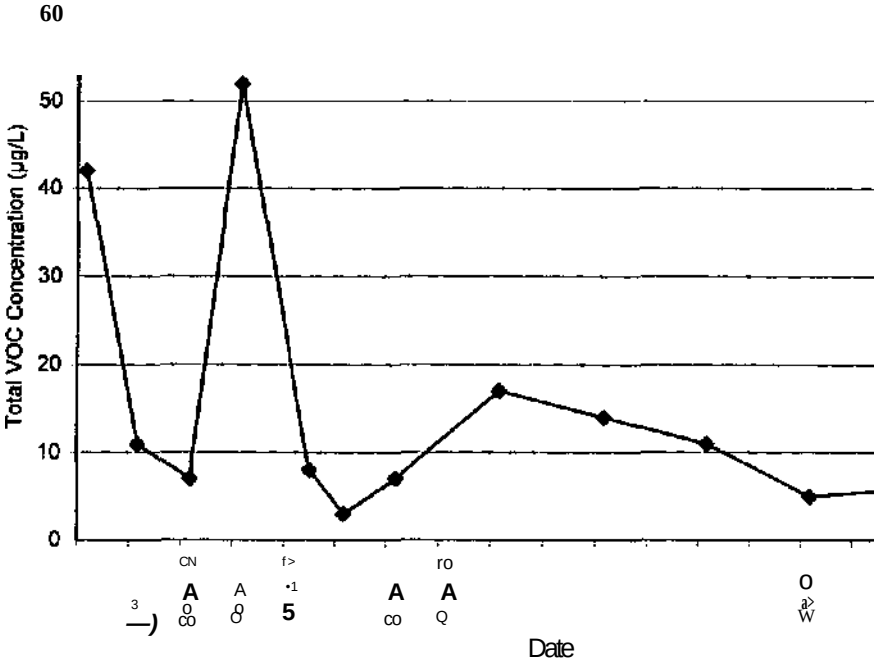


Figure 12
Byron Barrel and Drum Site
Monitoring Well MW-10B Total VOC Trend Analysis

Total VOC Concentration at MW-10B Vs. Time



Natural Log Total VOC Concentration at MW-10B Vs. Time

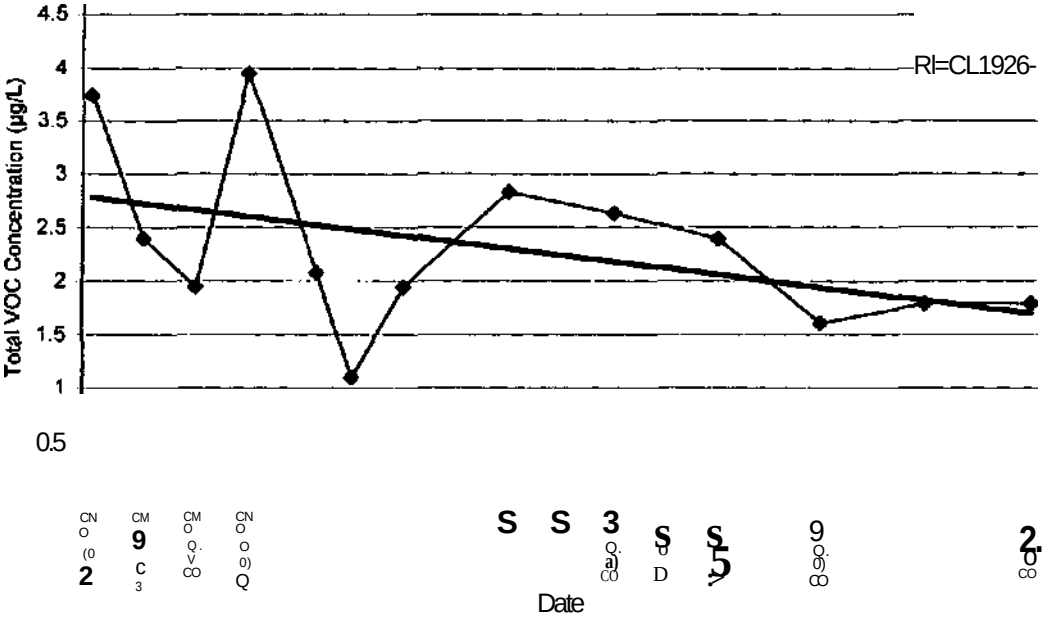
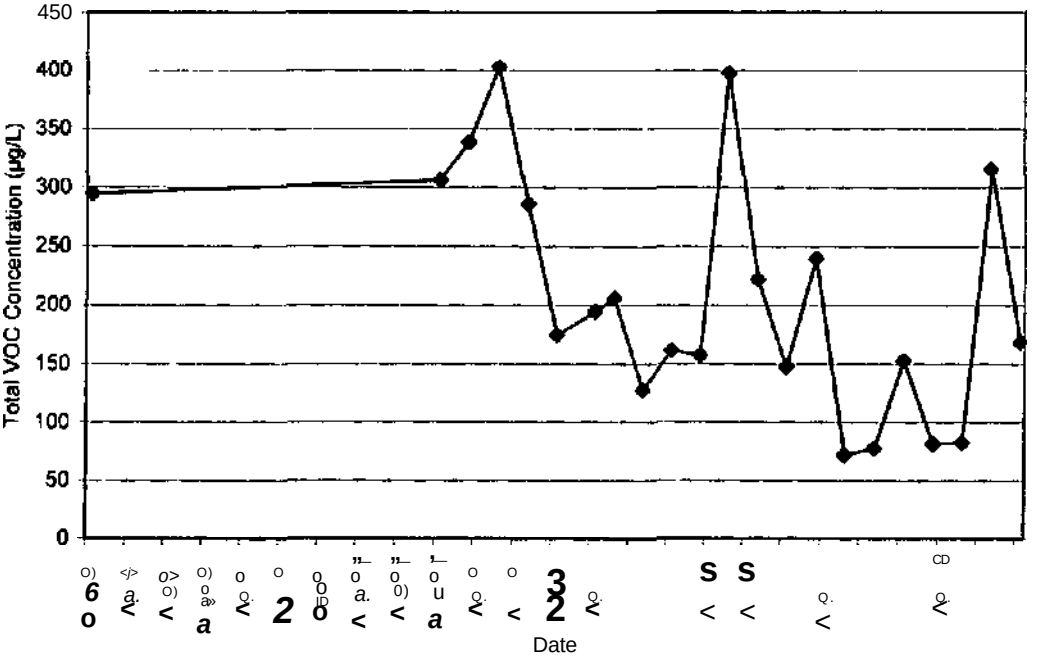


Figure 13
Byron Barrel and Drum Site
Pumping Well PW-1 Total VOC Trend Analysis

Total VOC Concentration at PW-1 Vs. Time



Natural Log Total VOC Concentration at PW-1 Vs. Time

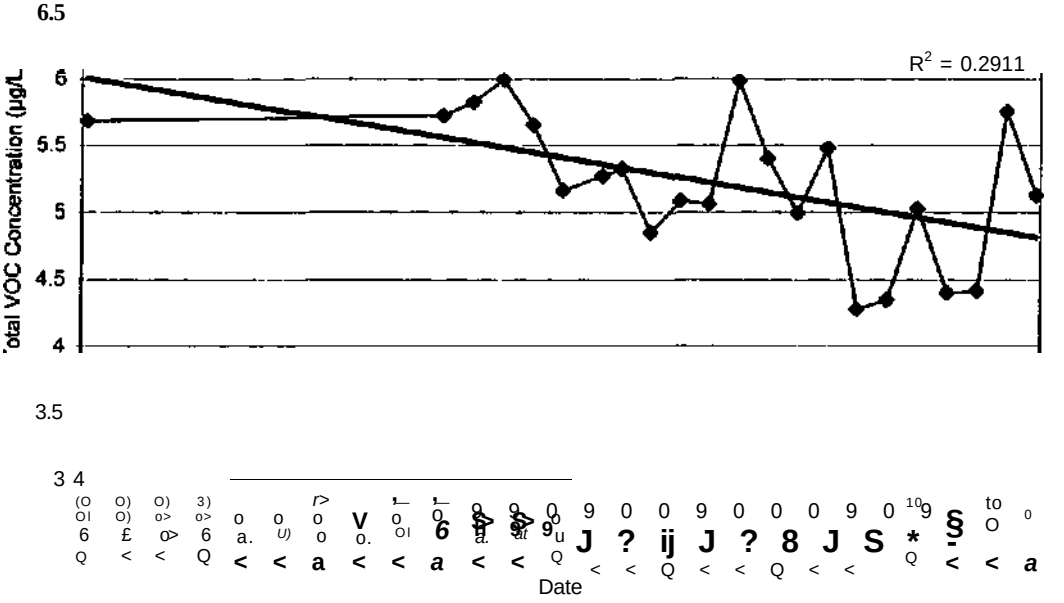
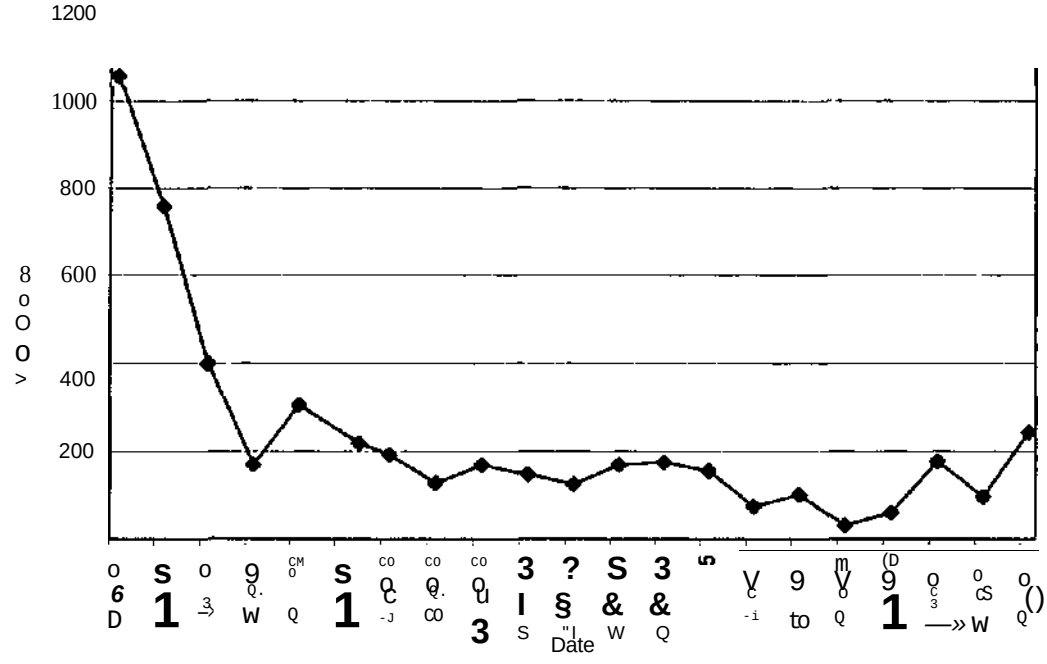


Figure 14
Byron Barrel and Drum Site
Pumping Well PW-2 Total VOC Trend Analysis

Total VOC Concentration at PW-2 Vs. Time



Natural Log Total VOC Concentration at PW-2 Vs. Time

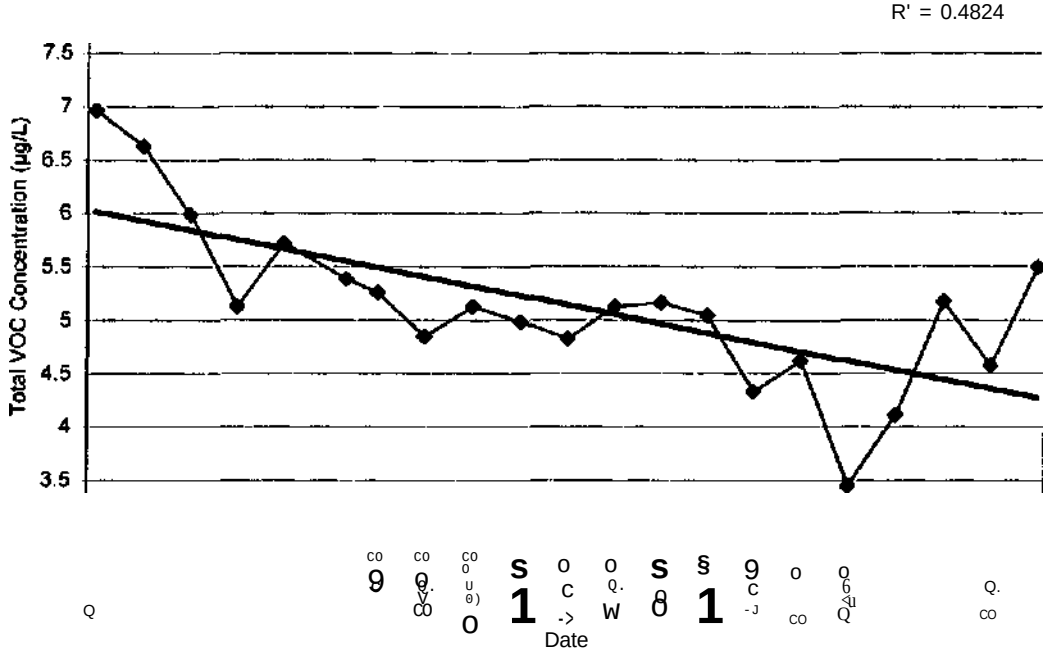
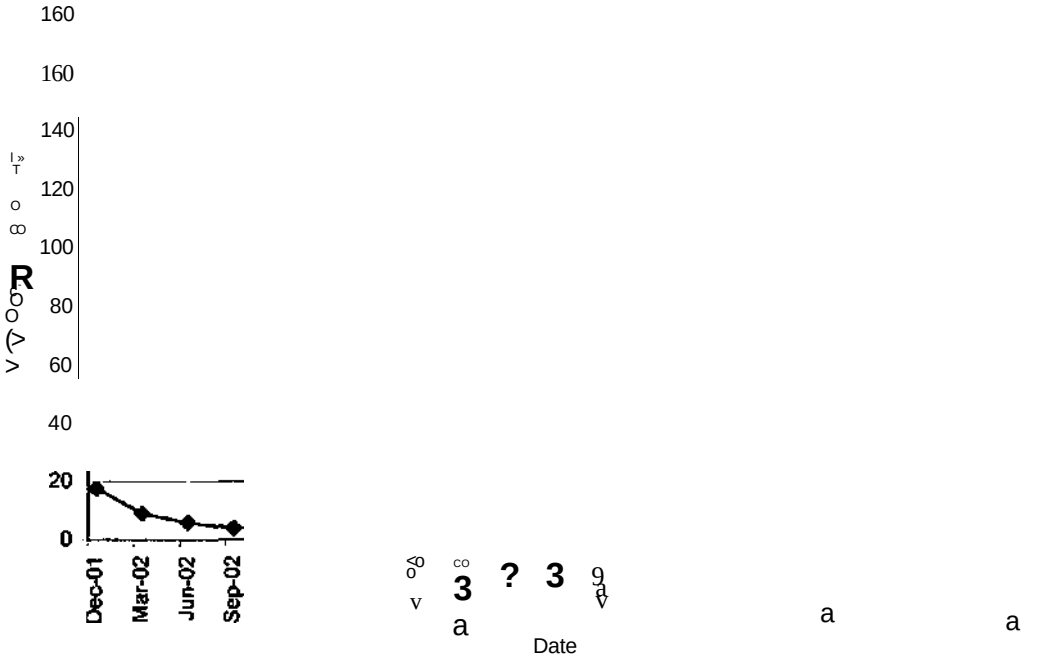
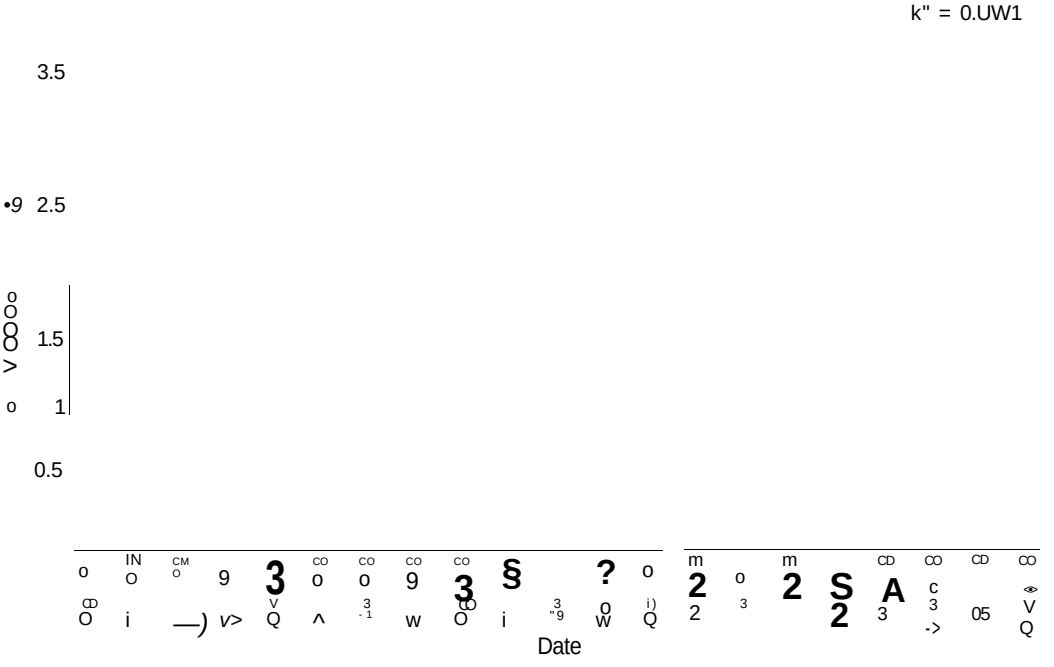


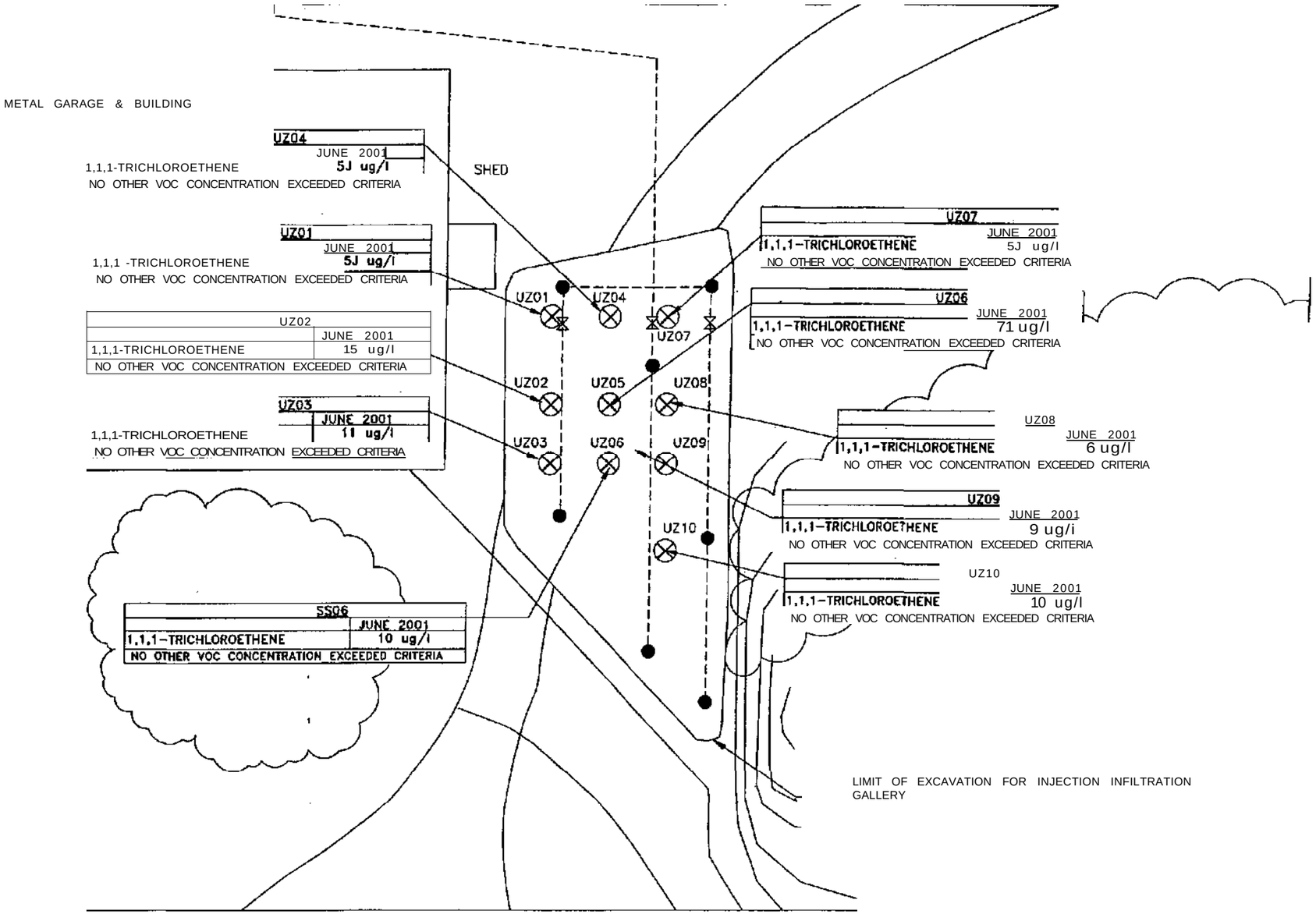
Figure 15
Byron Barrel and Drum Site
Pumping Well PW-3 Total VOC Trend Analysis

Total VOC Concentration at PW-3 Vs. Time



Natural Log Total VOC Concentration at PW-3 Vs. Time





LEGEND

INJECTION GALLERY PIEZOMETER WELL

UNSATURATED ZONE SAMPLE LOCATION

X INJECTION GALLERY VALVE

———REINJECTION PIPING

NOTE: ALL SAMPLES WERE COLLECTED BEFORE CONSTRUCTION OF INFILTRATION GALLERY AND BACKFILL AT AN ELEVATION OF 536 WEAN SEA LEVEL (MSL)

TITLE

UNSATURATED ZONE SAMPLE LOCATIONS AND ANALYTICAL RESULTS
BYRON, NEW YORK

PREPARED FDR

BYRON BARREL &c DRUM PRP GROUP

•artnowatil •—we— lluafcwnt

SCALE GRAPHIC

DATE 9/18/02

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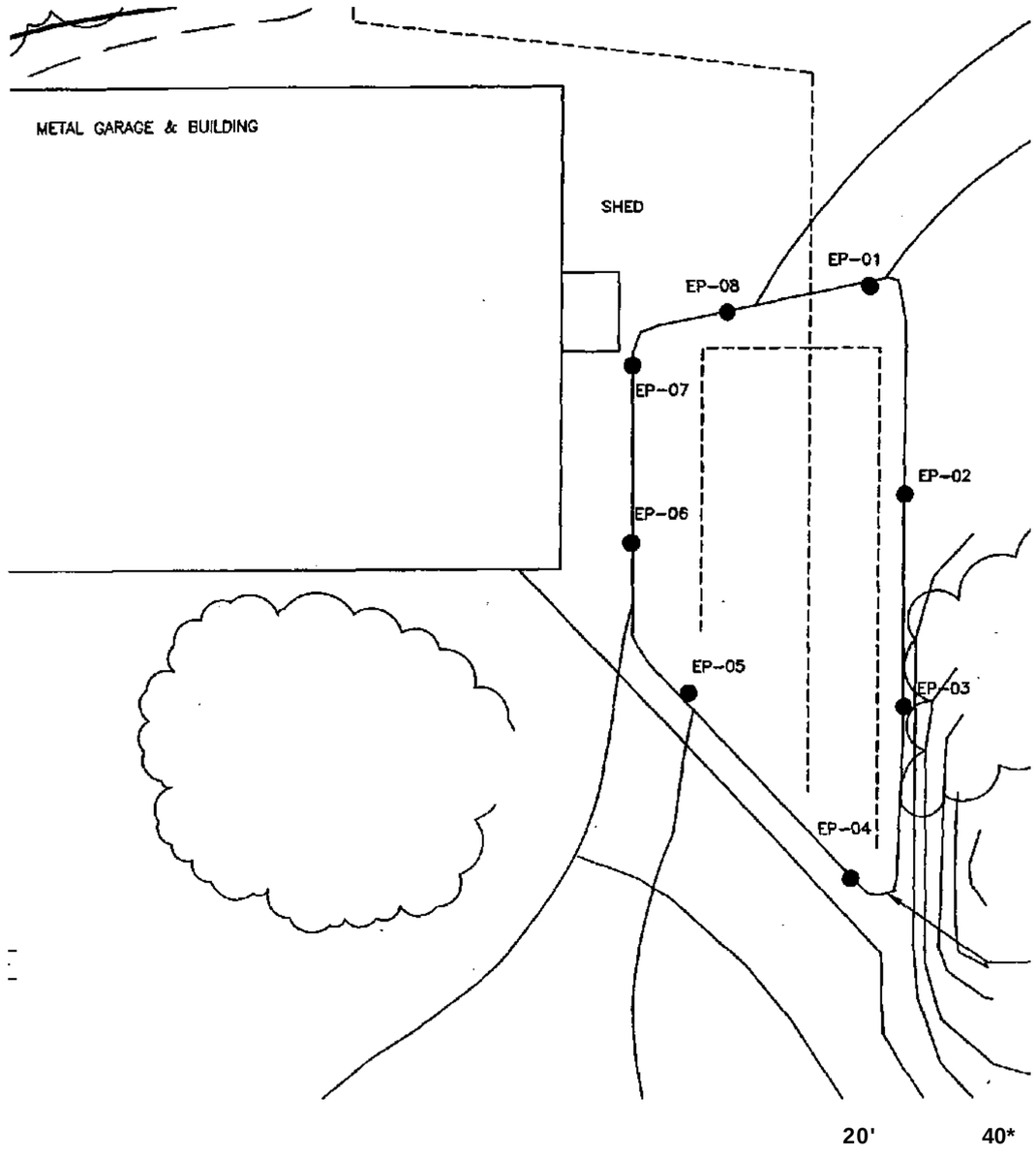


GRAPHIC SCALE

LEGEND

EP-02 ENDPOINT SAMPLE LOCATION

REINJECTION PIPING

UMfT OF EXCAVATION FOR INJECTION INFILTRATION GALLERY

TITLE

ENDPOINT LOCATIONS
BYRON, NEW YORK

PfEPMED FUR

BYRON BARREL *it* DRUM PRP GROUP

te*x

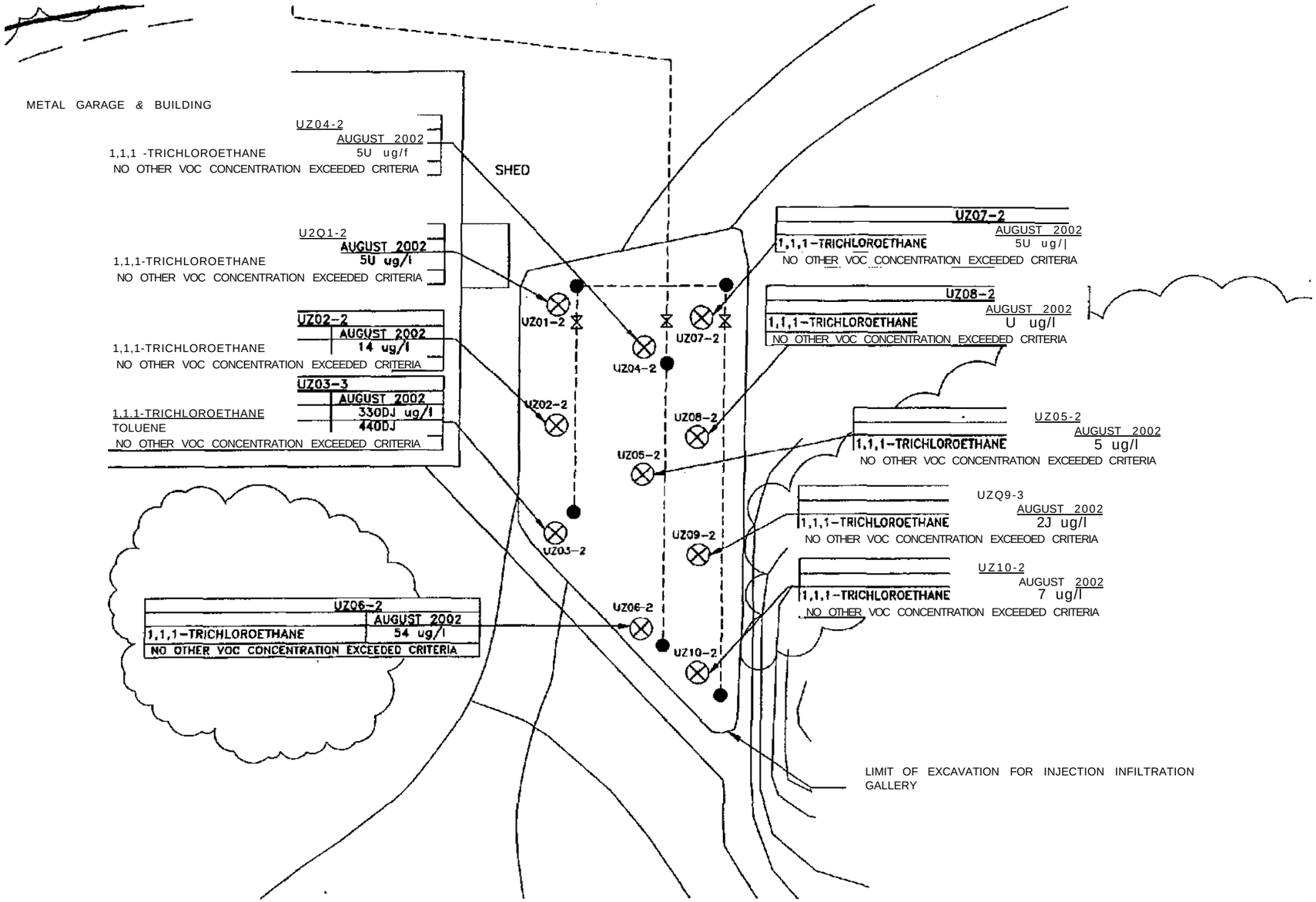
GRAPHIC HTC

ERM

»*WH . – pDHOi rax *Htm*

M.R./E.M.F. EC293.01.02T EC29301002

9/30/02



LEGEND

INJECTION GALLERY PIEZOMETER WELL

UNSATURATED ZONE SAMPLE LOCATION

X INJECTION GALLERY VALVE

REINJECTION PIPING

NOTE: ALL SAMPLES WERE COLLECTED BEFORE CONSTRUCTION OF INFILTRATION GALLERY AND BACKFILL AT AN ELEVATION OF 636' MEAN SEA LEVEL (MSL)

0 20' 40'

GRAPHIC SCALE

TITLE

UNSATURATED ZONE SAMPLE LOCATIONS AND ANALYTICAL RESULTS
BYRON, NEW YORK

PREPARED FOR

BYRON BARREL & DRUM PRP GROUP

SCALE GRAPHIC

DATE 9/18/02

BRM

M.R./E.M.F.

IJOI Mb (FILE me EC293.01.02f EC293010O1

Figure 19
Individual VOC Trend Analysis at MW-1

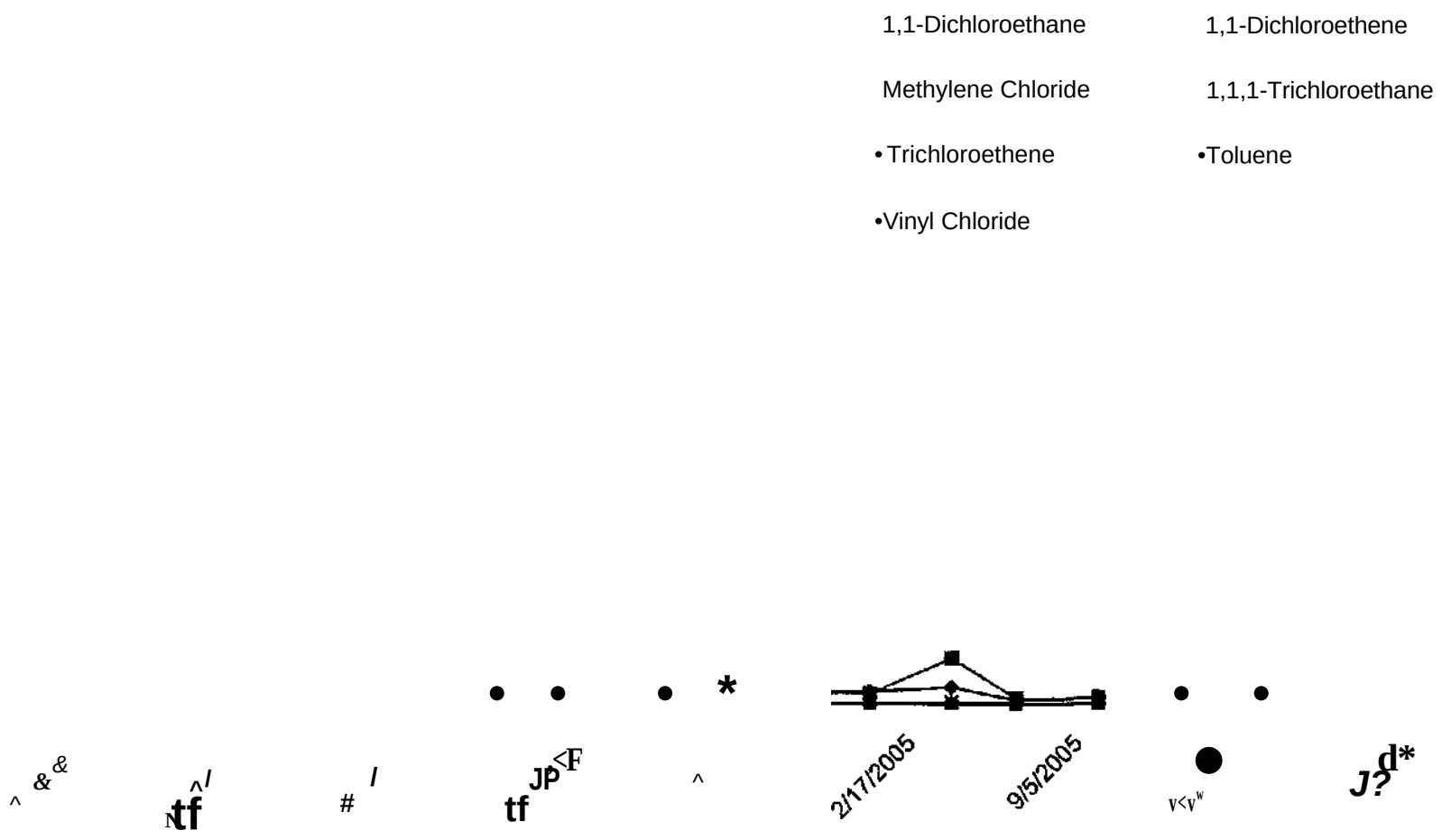


Figure 20
Individual VOC Trend Analysis at MW-4

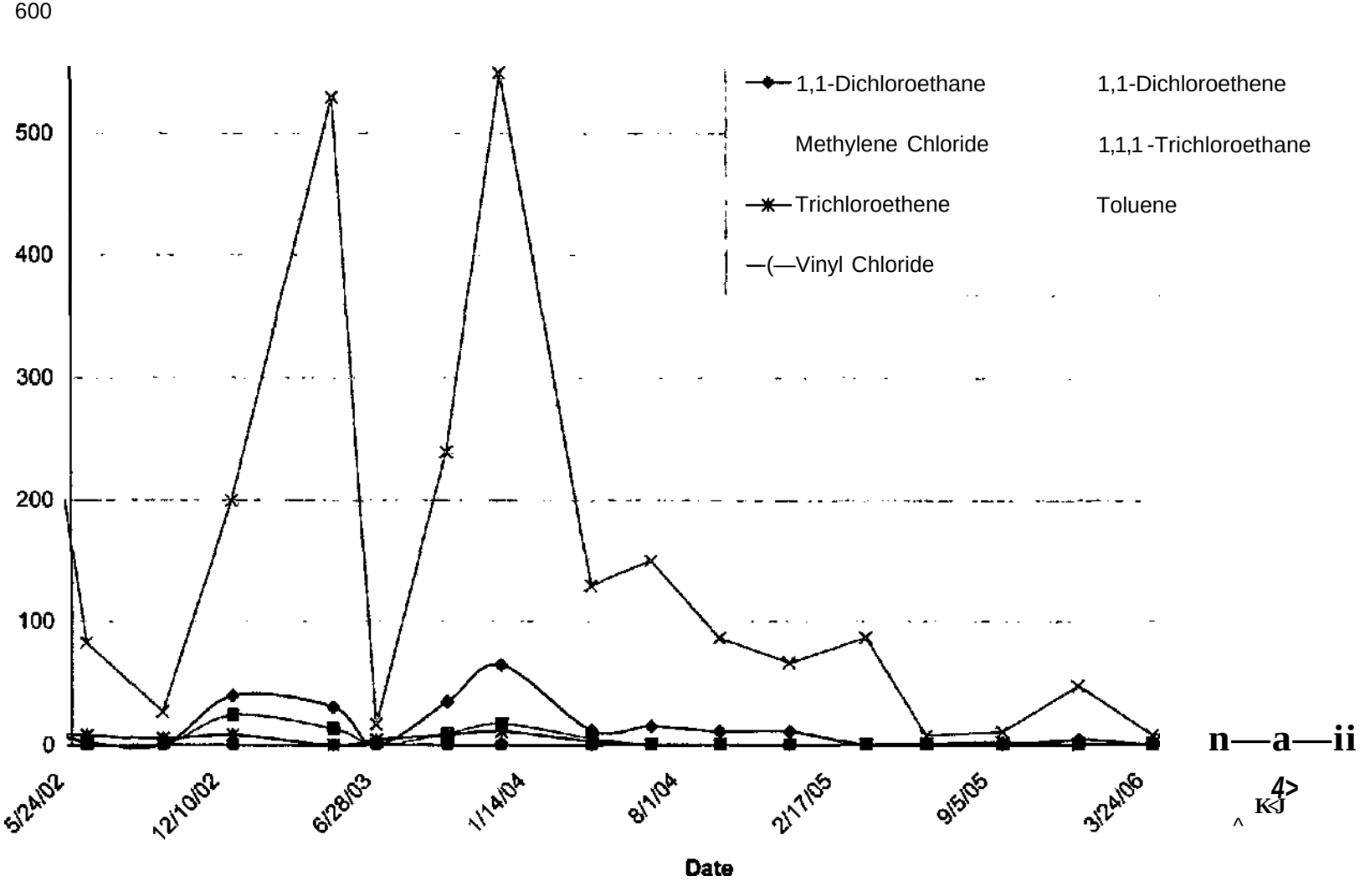


Figure 21
Individual VOC Trend Analysis at MW-10B

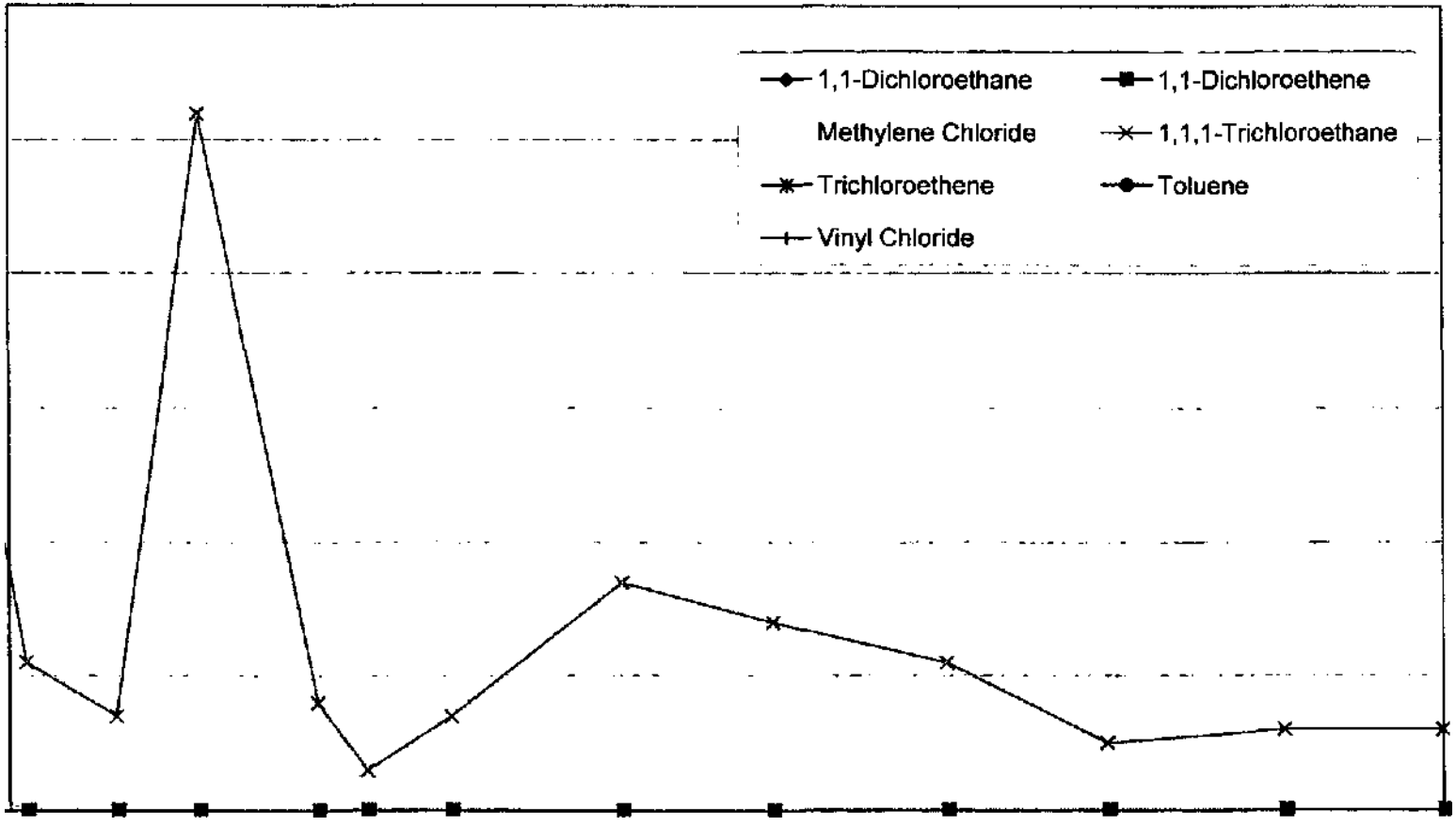


Figure 22
Individual*VOC Trend Analysis at PW-1

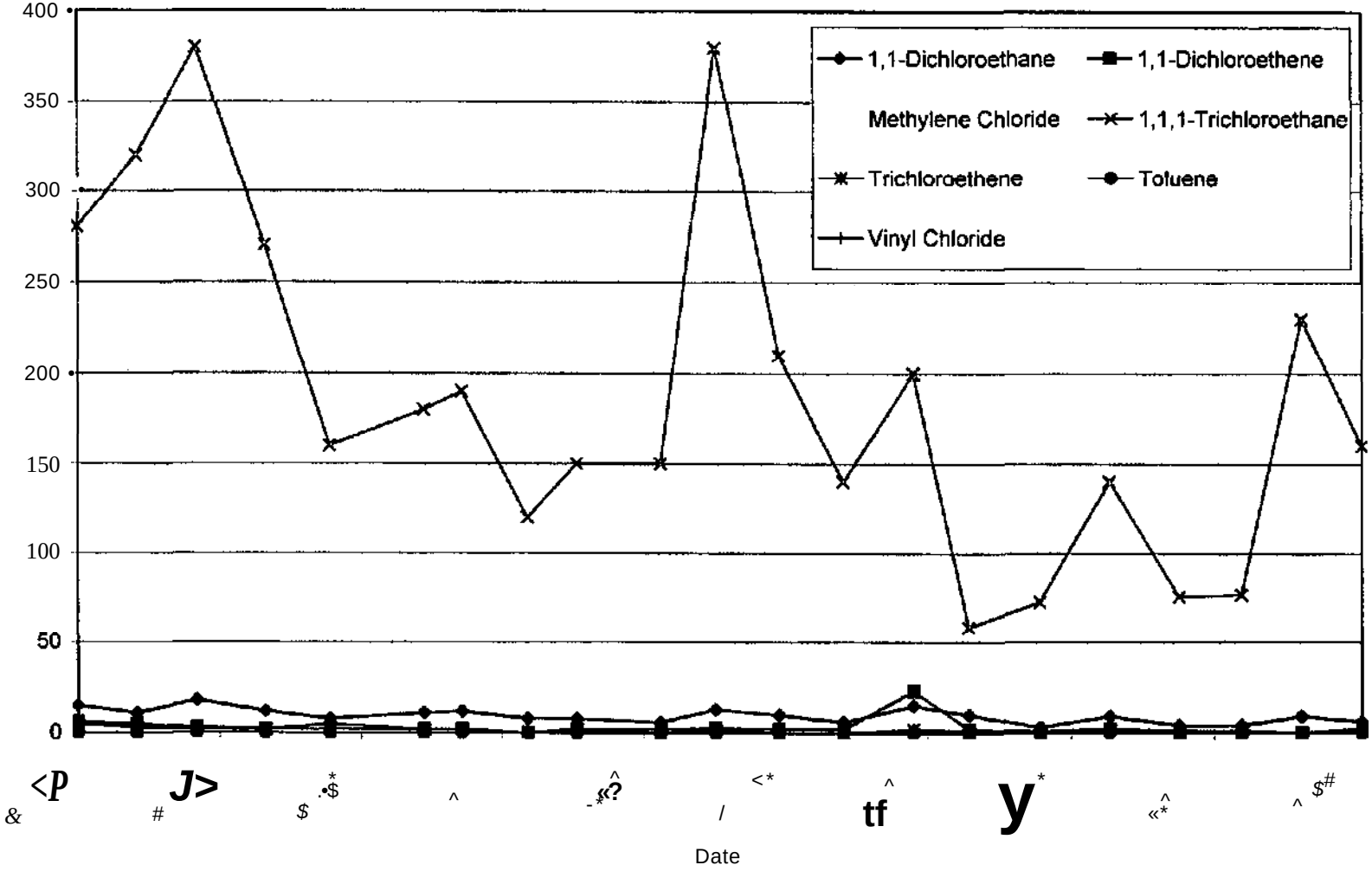


Figure 23
Individual VOC Trend Analysis at PW-2

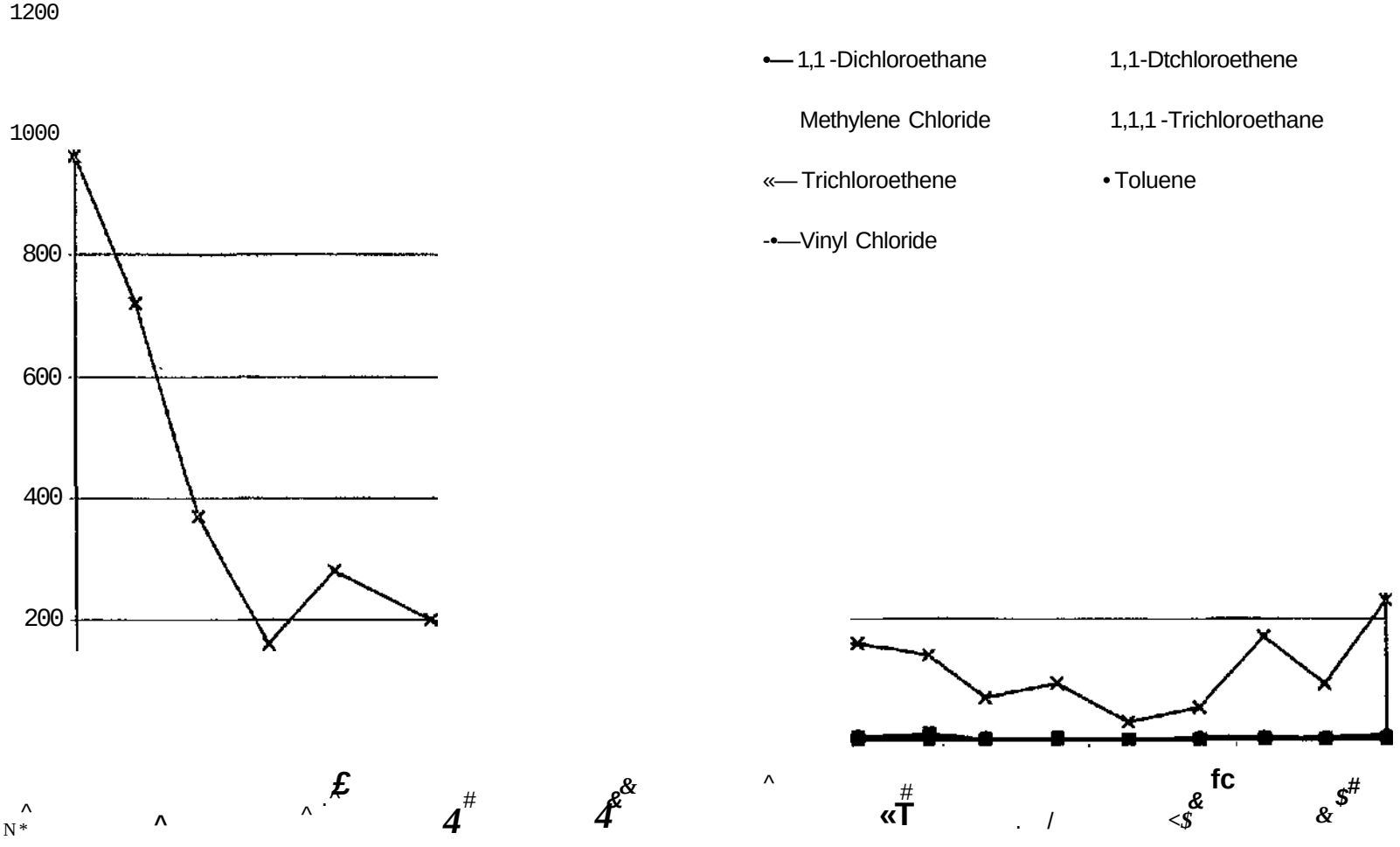
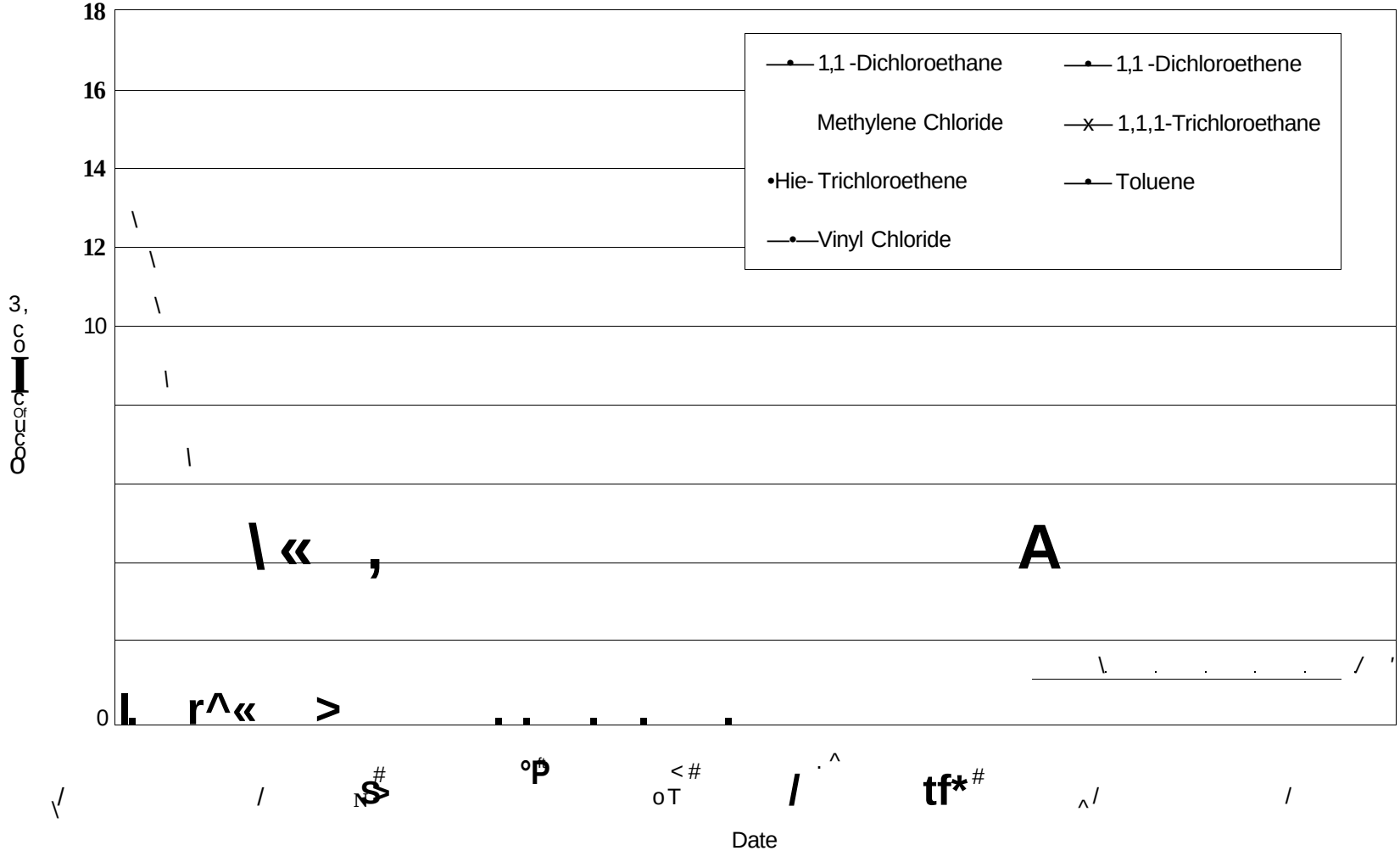


Figure 24
Individual VOC Trend Analysis at PW-3

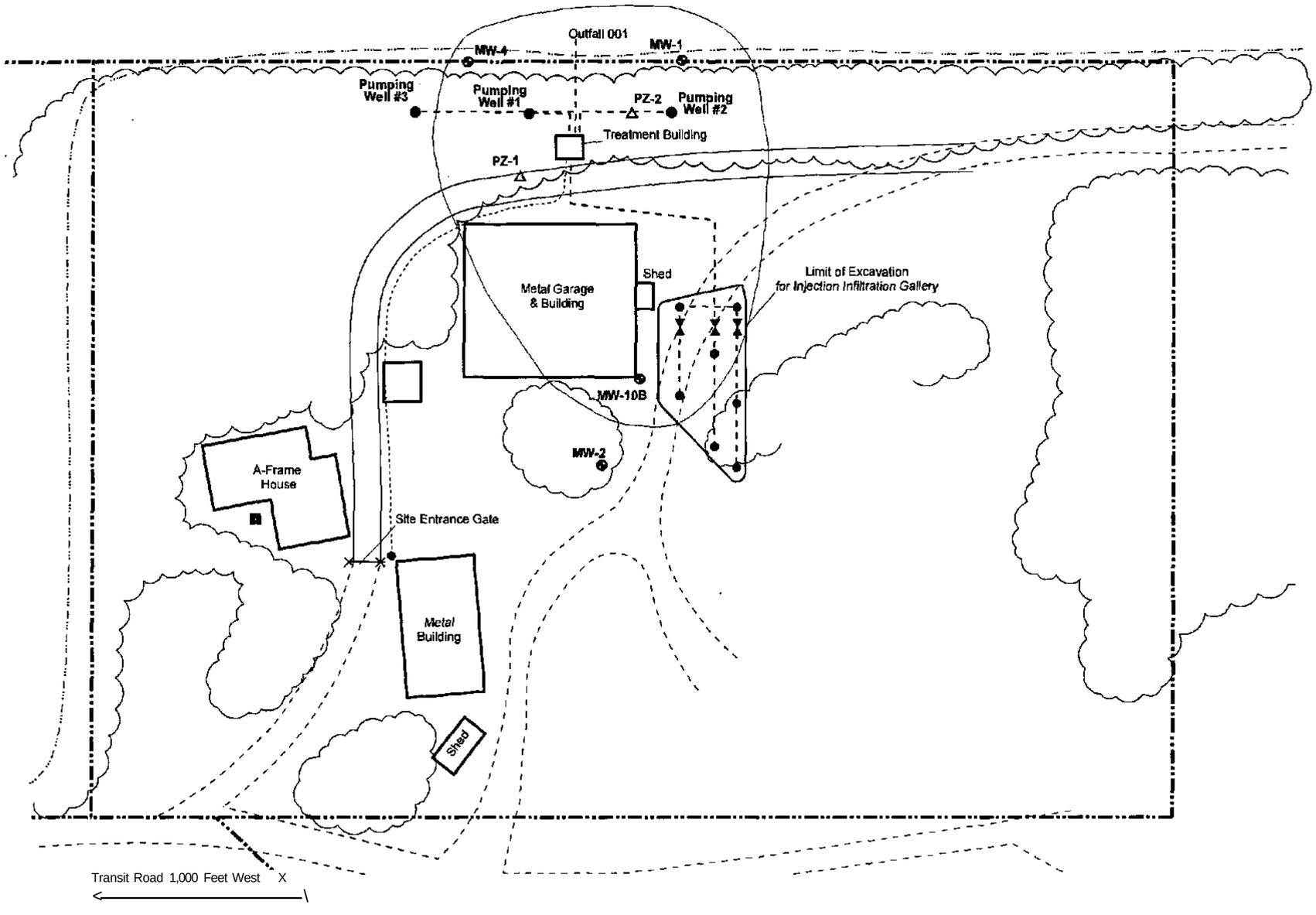


Legend

- 9 Monitoring Well
- m Former Residential Well
- A Piezometer Well
- • Pumping Well
- • Injection Gallery Piezometer Well
- | Injection Gallery Valve
- • Utility Pole
- ° - - - Reinjection Piping
- —— Treeline
- Ditch
- —— New Gravel Road
- _—— Pre-Existing Gravel Road
- —— Fence
- Electric and Phone Line
- _ · · _ Property Line
- Area Exceeding NYSDEC Groundwater Criteria

D 50 N W ^ ^ F

Feet s



9 MW-21'

Figure 25
Area Exceeding NYSDEC
Groundwater Quality Standards
March 26, 2006

Byron Barrel and Drum
Area 2 Site
Byron, New York

ECOR
Solutions
1075 Andrew Drive, Suite I
WestChester, PA 19380

File. 89-Fig9 mxd Date: 12/07/06

APPENDIX A
Field Notes

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum **Date:** *j2-7-***

Job #: 01501.002

Sample ID: */nuj-y - ?/f^~&o*

Well ID: /»ift/-y Time onsite: Time Offstte:

Samplers: *fl /, *-&<* ***jaxo*** *i^/o*

Depth of Well (from top of casing) *//.>*>* Time: /Jog

Static water level (from top of casing) *3. W* Time: *-H+T/A* /^/^JZ /^- 7 ^

Purging Method:

Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Flowrate (mL/mrn) / purge volume (mL)	Temp. °C	ORP mV	pH 3td. Units	j TDS g/L	DO mg/L	Spec. Cond. mS/cm
f£^*	*yp*t/A**s*	77	– * /	7 - * '	. $	*I?°*	7 7f
*)22**		*7^*	- £ /	7 9^L	~B	*ije*	*97?*
j W		***7.e***	*»tl*	*7-9?*	*,e*	A / '	*?7S*
&le		*7.**	*-£o*	*-y-tv*	*-6*	*hi**	*f7<r*
tfyjr		*7.6*	*~S1*	*7 ^*	*-6*	*I./3*	*98°*
/ttc?		*l.s-*	*^ *&*	***W****	**&>*	A/ /	**te 9*
/?rC	*s 1*	***7-v***	*-s&*	*7 97*	*-6*	*h*i*	*9f**

Sampling:

Time of Sample Collectio

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503 Other

Observations:

Weather/Temperature: *SA»*J JZS C*

Sample Description: *ctc<f yd**** T*^T*

Free Product? Yes_____ No >< Descript.:

Sheen? Yes_____ No ^ Descript.:

Odor? Yes_____ No f/ Descript:

Comments:

r

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Field Sampling Record Form

Site: Byron Barrel and Drum Pate: /5?-7- €>(>

Job #: 01501.002

Sample ID: ^>y —/ -

Well ID: / V ? ^ / Time onsite: Time Offsite:

Samplers: *d/.lt4-i-'<* *mo* */?/*>*

Depth of Well (from top of casing) //.IJT Time: /?/»

Static water level (from top of casing) ^'JTV Time: *ttzt*>

Purging Method:

Dedicated bladder pump, QED SamplePro MP-SP-4C

Field Tests:

Time	Flowrate (mL/min) / purge volume (mL)	Temp. °C	ORP mV	PH 3td. Units	TDS 9/L	DO mg/L	Spec. Cond. mS/cm
/lie	3 ' / " - / A W	*<f.X*	*~/36*	*7,66*	.5-	*/.63*	-7^6
tOT	**1**	/ . '	*-/JS*	*7.te>*	+S~	*/Ut*	-7-?7
fiyo	\	*S4*	*~!Z8*	*1-W*	**S**	*!r*1*	*716*
//yr		*£•0*	*-'*?*	*"?./?*	***.sr***	*f>S7*	*~7££*
iiy°		***£<o***	*^/W*	*-7.7°*	****s^***	*t.f*	*726*
iisr	**Zj**	***S<t***	*-/?/*	**7*7**	,-T	*hs</*	*I^LC*
IX00	**j**	*C'O*	*'HI*	7 7/	,r	*AS-/*	*7ZC*

Sampling:

Time of Sample Collectio_ *fZoQ*

Collection Method:	*Analyses:*	*Analytical Method:*
X Dedicated pump	X VOCs	8260 X 503 Other

Observations:

Weather/Temperature: > Q K / ^ r

Sample Description: ___ ***CI****(tS*

Free Product?	Yes	No	A	Descript.:
Sheen?	Yes	No	*X*	Descript.:
Odor?	Yes	No	*%*	Descript:

Comments:

/ .·. *(J* */P^s** *^Tb****^* */?/* *A^^~/*

ECOR Solutions, Inc.
Byron Barrel & Drum Site
Pumping Well Field Chemistry Parameters

Parameter Units	Time	Temp. ℃	ORP mV	PH Std. Units	TDS	**DO** mg/L	Spec. Cond. mS/cm
PW-1/GW g«	***W****	*/ffJ*	- y *	7.7C	**f*	/ . * '	*617*
PW-2/GW*[0]	/3«2o	*/*-8*	*-fj*	*~?-St*	* y	M*	***ay***
PW-3/GW^B	/3«W	*10.1*	*~Y**	*1.6*?*	**^r**	/ , * /	*7<a*

Note: Flow through cell was calibrated for all chemistry parameters prior to gauging.

ECOR Solutions, Inc.
Byron BarTel & Drum Sfte
Groundwater Elevations

Operator: *{P*<J ^/Stlr*

Date: **> g ? - 7 - ^**

Pumping Wells	DTW	TOC Elevation	GW Elevation	-yp	W C f L
PW-1	*3te*fa*	**642.82**	*£2Loo*	*9*	*m*
PW-2	*C./i*	**641.34**	*6SS.23*	*m*	*m*
PW-3	*7.&*	**641.11**	*633.3**	*m*	.
Monitoring Wells					
MW-1	*f.s-f*	**639.63**	*feS-*t*	*ii,tr*	*n.tt*
MW-2	***ft.lt***	**646.36**	*(3>S,Cv*	*/•syo*	*V.w*
MW-4	*3*6*/*	**638.56**	*£3y.<iX*	*/hSO*	*7,t<r*
MW-1 OB	*fiM*	**644.44**	*6is.se*	***20.1-S***	*n-it*
MW-21	*1<VS*	**642.52**	*£2S,ol*	**Zn.?t>**	***20. *f***
Residential	*IS37*	**650.78**	*63S.Y'*	*3S*^{n}*	*/f.£o*
Piezometers					
PZ-1	*l.BX*	**643.11**	**r*o?**	*2i.se*	*/%?6>*
PZ-2	*7J°*	**642.39**	*£$£*Z**	*ai.tt*	*2o,l<*

APPENDIX B
Data Validation Report

Project: Byron Barrel and Drum Site
Laboratory: Severn Trent Laboratories
Sample Delivery Group: A06-E720
Fraction: Organic
Matrix: Aqueous
Report Date: 2/11/2007

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1. All analyses were performed by Severn Trent Laboratories.

The samples were analyzed for volatile organic compounds and total suspended solids. The sample analyses were performed in accordance with the procedures outlined in the method referenced at the end of this report. The data deliverables provided by the laboratory were New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category B format.

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to Region II "Validating Volatile Organic Compounds by SW-846 Method 8260B", SOP HW-24, Revision 1, June 1999. The parameters presented on the following page were evaluated.

X	•	Data Completeness
X	»	Chain of Custody Documentation
X	»	Holding Times
X	»	Instrument Performance
X	>	Initial and Continuing Calibrations
X	»	Laboratory and Field Blank Analysis Results
X	»	Surrogate Compound Recoveries
X	»	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	•	Field Duplicate Analysis Results
X	•	Laboratory Control Sample Results
X	«	Internal Standard Performance
X		Qualitative Identification
X	«	Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

^k^

Shawne M. Rodgers
President

aiiifan

Date

1.0 DATA COMPLETENESS

The data package was complete.

2.0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

3.0 HOLDING TIMES

The holding times were met for all analyses.

4.0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

5.0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

6.0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY

All criteria were met. No qualifiers were applied.

9.0 FIELD DUPLICATE RESULTS

Duplicate samples MW-1-9/GW-20 and DUP-9/GW-20 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for these duplicate samples are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses and internal acceptance criteria of twenty percent for volatile detected compounds to evaluate field duplicate samples.

10.0 LABORATORY CONTROL SAMPLE RESULTS

All criteria were met. No qualifiers were applied.

11.0 INTERNAL STANDARD PERFORMANCE

All criteria were met. No qualifiers were applied.

12.0 QUALITATIVE IDENTIFICATION

All criteria were met. No qualifiers were applied.

13.0 QUANTITATION/REPORTING LIMITS

The following samples were re-analyzed at dilutions for volatile organic compounds. The reanalyses were performed because the responses for

volatile compounds exceeded the linear range of the GC/MS instrument for the initial undiluted analyses. The affected results were reported from the dilution analyses. All other results have been reported from the initial analyses.

Sample	Dilution Factor	Compound reported from Dilution
PW-2/GW-20	4.0	1,1,1-Trichloroethane
PW-3/GW-20	2.0	l,U-Trichloroethane

The samples presented below were analyzed at dilutions. The dilution analyses were performed because of the suspected presence of high levels of target compounds and/or interferences. Quantitation limits are elevated by the dilution factor for these samples for target compounds that were not detected. The elevated quantitation limits should be noted when assessing the data for these samples.

Sample	Dilution Factor
DUP-9/GW-20	2.0
MW-1-9/GW-20	2.0
MW-4-9/GW-20	4.0
PW-l/GW-20	2.0
PW-2/GW-20	2.0

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective quantitation limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 8260B, "Test Methods for Evaluating Solid Wastes", SW-846, third edition, Promulgated Updates II, IIA, and III, June 1997
Total Suspended Solids	Method 160.2, "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, and revisions

Table 1 Samples For Data Validation Review
Byron Barrel and Drum Site
Groundwater Samples Collected December 2006
Severn Trent Laboratories Sample Delivery Group A06-E720

SAMPLE I.D.	LABORATORY I.D		DATE COLLECTED	MATRIX	ANALYSES PERFORMED VOC	TSS
MW-1-9/GW-20	A6E7200	1	12/7/2006	Groundwater	X	
MW-4-9/GW-20	A6E7200	2	12/7/2006	Groundwater	X	
DUF-9/GW-20	A6E7200	3	12/7/2006	Groundwater	X	
PW-l/GW-20	A6E7200	4	12/7/2006	Groundwater	X	
PW-2/GW-20	A6E7200	5	12/7/2006	Groundwater	X	
PW-3/GW-20	A6E7200	6	12/7/2006	Groundwater	X	
Trip Blank	A6E7200	7	12/7/2006	Trip Blank	X	

VOC: Volatile Organic Compounds
TSS: Total Suspended Solids

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples MW-1-9/GW-20 and DUP-9/GW-20

	MW-1-9/GW-20 (Mg/L)		DUP-9/GW-20 (Hg/L)	RPD	Comments
1,1-Dichloroethane	6	J	6	**0.0**	
1,1-Dichloroethene	9	J	9	**0.0**	
1,1,1-Trichloroethane	170		170	**0.0**	
Trichloroethene	2	J	2	**0.0**	

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ECQR SOLUTICNS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DftTA SHEET

Client *Ho.*

DUP-9/GW-20

lab Name: STL Buffalo Contract:

Lab Cbde: RBCNY Case No.: SAS No.: SDGNb.:

Matrix: (soil/water) WATER Lab Sanple ID: A6E72003

Sanple wt/vol: 5.00 (g/rriL) ML Lab File ID: G8342.RR

Level: (low/rred) LCW Date Sairp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Column: EB-624 ID: 0.1S (mm) Dilution Factor: 2.00

Soil Extract Volume:_____(uL) Soil Aliquot Volurre:_____(uL)

CAS NO.	CCMPOUND	Q2CENIRATICN UNITS: (ua/L or ua/Ka) UG/L	Q
75-34-3	1,1-Dichloroethane	'J	J
75-35-4	1,1-Dichloroethene		J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	170	
79-01-6	Trichloroethene	2	J
75-01-4	vinyl chloride	10	U
71-43-2-	Benzene	10	U
1330-20-7	Total Xylenes	30	U
108-90- 7	Chlorobenzene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
67-66-3	Chloroform	10	U
75-27-4	Brcnodichloronethane	10	U
124-48-1	DibrcnochlorcnTethane	10	U
78-93-3	2-Butancne	20	U
56-23^5	Carbon Tetrachloride	10	U
95-50-1	1,2-Dichlorbbenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U

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ECCR SOLUTTCNS - BYRCN BARREL & DRUM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA SHEET

Client No.

MW-1-9/GW-20

Lab Name: STL Buffalo Contract:

Lab Cbde: REENY Case No. : SAS No.: SDGND. :

Matrix: (soil/water) WATER Lab Sample ID: A6E72001

Sample wt/vol: 5.00 (g/rriL) ML Lab File ID: G8340.RR

Level: (low/rred) LCW Date Sarrp/Recv: 12/07/2006 12/07/2006

% MDisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 2.00

Soil Extract Volurce:_____(uL) Soil Aliquot Volume:_____(uL)

CAS ND.	COMPOUND	a^CENTRATICN UNITS: {ug/L or ug/Kg) U3/L	Q
75-34-3	1,1-Dichloroethane	6	J
75-35-4	1,1-Dichlorcethene	9	J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
71-55-6	1^,1-Trichloroethane	170	
79-01-6	Trichloroethene	2	J
75-01-4	Vinyl chloride	10	U
71-43-2	Benzene	10	u
1330-20-7. . . .	Total Xylenes	30	u
108-90-7	Chlorobenzene	10	u
79-00-5	1,1,2-Trichloroethane	10	u
107-06-2	1,2-Dichloroethane	10	u
127-18-4	Tetrachloroethene	10	u
67-66-3	Chloroform	10	u
75-27-4	Brorrodic^oromethane	10	u
124-48-1	Dibrcnoclrlorcirethane	10	u
78-93-3	2-Butanone	20	u
56-23-5	Carbon Tetrachloride	10	u
95-50-1	1,2-Dichlorobenzene	10	u
106-46-7	1,4-DicMorobenzene	10	u

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AQUEDJS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DAIA SHEET

Client No.

MW-4-9/GW-20

Lab Name: STL Buffalo Contract:

Lab Code: RBQJY Case No.: SAS No.: SDG No.:

Matrix: (soil/water) MATER lab Sanple ID: A6E72002

Sanple wt/vol: 5.00 Cg/mL) ML lab File ID: G8341.RR

Level: (low/ired) *UM* Date Sanp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Column: EB-624 ID: 0.18 (mm) Dilution Factor: 5.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	OTJCENIRATTCN UNITS: (ug/L or ug/Kg) UG/L	Q
75-34-3–	1,1-Dichloroethane	25	U
75-35-4–	1,1-Dichloroethene	25	U
75-09-2–	–Methylene chloride_	25	U
108-88-3-	–Toluene	25	U
71-55-6–	–1,1,1-Trichloroethane_	6	J
79-01-6–	- -Trichloroethene__"_	25	U
75-01-4–	--Vinyl chloride_____	25	U
71-43-2–	-Benzene	25	U
1330-20-7	Total Xylenes_	75	U
108-90-7-	CMorobenzene	25	U
79-00-5–	•-1,1,2-Trichloroethane_	25	U
107-06-2-	•-1,2-Dichloroethane	25	U
127-18-4-	-Tetrachloroethene	25	U
67-66-3 –	-Chloroform	25	U
75-27-4–	Bixirrjdicnioromethane	25	U
124-48-1–	-Dibromochloromethane"	25	U
78-93-3 –	-2-Butancne	50	U
56-23-5–	Carbon Tetrachloride	25	U
95-50-1–	1,2-Dichlorobenzene_2	25	U
106-46-7–	1,4-Dichlorobenzene	25	U

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ECQR SOLUTIONS - BOOST BARREL & DRUM SITE
AQUEOUS ASP 2000/8250 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client Kb.

PW-l/GW-20

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sanple ID: A6E72004

Sample wt/vol: 5.00 (g/mL) ML lab File ID: G8354.RR

Level: (low/med) LOW Date Sanp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec. Heated Purge: N Date Analyzed: 12/14/2006

GC Column: DB-624 ID: 0.18 (nm) Dilution Factor: 2.00

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

OX3CENTRATION UNITS:

CAS ND.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	6	J
75-35-4	1,1-Dichloroethene	2	J
156-59-2	cis-l^-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	u
71-55-6	1,1,1-Trichloroethane	160	
79-01-6	Trichloroethene	1	J
75-01-4	Vinyl chloride	10	u

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AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW-2/GW-20

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No. : ___ SAS No.: SDG No.:

Matrix: (soil/water) WATER lab Sample *ID:* A6E72005

Sample wt/vol: 5.00 (g/rriL) ML lab File ID: G8344.RR

Level: (low/ned) IQW Date Samp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Column: DB-624 ID: 0.18 (mri) Dilution Factor: 2.00

Soil Extract Volume:_____<uL) Soil Aliquot Volurre:_____(uL)

CAS ND.	CCMPOUND	COsICSNIRATICW UNITS: (ug/L or ug/l^) LG/L	Q
75-34-3	1,1-Dichloroethane	10	
75-35-4	1,1-Dichloroethene	4	J
156-59-2	cis-l,2-Dichloroethene	10	u
75-09-2	Methylene chloride	10	u
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane		
79-01-6	Trichloroethene	2	J
75-01-4	Vinyl chloride	10	u

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Client No,

PW-2/Gtf-20 DL

Lab Name: STL Buffalo Contract:

Lab Code: REQfif Case No.: ___ SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sanple ID: A6E72005DL

Sanple wt/vol: 5.00 (g/mL) ML Lab File ID: G8355.RR

Level: (low/ned) LCW Date Samp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____Heated Purge: N Date Analyzed: 12/14/2006

GC Column DB-624 ID: 0.18 (ntn) Dilution Factor: 4.00

Soil Extract Volume:_____(uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	OCNCEWIRATICW UNITS: *(va/L* or ua/K&) UG/L	Q
75-34-3	1,1-Dichloroethane	9	*TXT*
75-35-4	1,1-Dichloroethene	3	EU
156-59-2	cis-l,2-Dichloroethene	20 /	U
75-09-2	Methylene chloride	20 /	U
108-88-3	Toluene	20/	U A
71-55-6	1,1,1-Trichloroethane	230[y]	.HT*[8]
79-01-6	Trichlorcethene	20	U
75-01-4	Vinyl chloride	20	U

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ANALYSIS DATft SHEET

Client No.

PW-3/GW-20

Lab Name: STL. Buffalo Contract:

Lab Code: RECNY Case No.:___ SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: A6E72006

Sanple wt/vol: 5.00 (g/mL) ML lab File ID: G8345.RR

Level: (low/ned) IOW Date Sanp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Column: DB-624 ID: 0.18 (nm) Dilution Factor: 1.00

Soil Extract Volume: (uL) Soil Aliquot Volume:_____(uL)

CAS NO.	COMPOUND	COflCENTRATiaJ UNITS: (w/L or uer/Kcr) U3/L	Q
175-34-3	1,1-Dichloroethane	7	
75-35-4	1,1-Dichloroethene	2	J
156-59-2	cis-l,2-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	lou	.HI > A'
79-01-6	Trichloroethene	1	J
75-01-4	Vinyl chloride	5	**u**

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AQUEOUS ASP 2000/8260 - SELECT LIST - 8 CMPDS
ANALYSIS DATA SHEET

Client No.

PW-3/GW-20 DL

Lab Name: STTL Buffalo Contract:

Lab Code: RBCNY CaseNo.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sanple ID: A6E72006DL

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: G8356.RR

Level: (lcw/med) LCW Date Samp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec. Heated Purge: N Date Analyzed: 12/14/2006

GC Column: DB-624 ID: 0.18 (tint) Dilution Factor: 2.00

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	OCMPOUND	(XNCENIRATTCN UNITS: (ucr/L or uq/Kcj) UO/L	Q
75-34-3	1,1-Dichloroethane	6	DJ
75-35-4	1,1-Dichloroethene	2	DJ
156-59-2	cis-l,2-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	170	JET *f*
79-01-6	Trichloroethene	1	DJ
75-01-4	Vinyl chloride	10	U

1 ^

smk 2/1/2007

BOOR SOLUTIONS
ED3R SOLUTIONS - BYRCN BARREL & DHLM SITE
AQUEOUS ASP 2000/8260 - SELECT LIST-TABLE 5
ANALYSIS DATA. SHEET

Client No.

TRIP BLANK

Lab Name: STL Buffalo Contract:

Lab *Code:* RECNY Case No.: SAS No.: SDG No.:

I^trix: (soil/water) WfiXER Lab Sanple ID: A6E72007

Sanple wt/vol: 5.00 (g/ttiL) ML Lab File ID: G8346.RR

Level: (low/med) LOW Date Sanp/Recv: 12/07/2006 12/07/2006

% Moisture: not dec._____ Heated Purge: N Date Analyzed: 12/14/2006

GC Oolum: EB-624 ID: 0.18 (nm) Dilution Factor: 1.00

Soil Extract Volume:_____(uL) Soil Aliquot Volune:_____(uL)

CAS NO.	COMPOUND	OCNCENIRATIOJ TWITS: (ug/L or ug/Kg) UG/L	Q
75-34-3	1,1-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	--Methylene chloride	5	U
108-88-3-	—Toluene	5	U
71-55-6	—1,1/ 1-Trichloroethane	5	U
79-01-6	- -Trichloroethene ~	5	U
75-01-4	—Vinyl chloride	5	U
71-43-2	—Benzene	5	U
1330-20-7	Total Xylenes	15	U
108-90-7-	Chlorcbenzene	5	U
79-00-5	- -1,1,2-Trichloroethane	5	U
107-06-2-	--1,2 -Dichloroethane	5	U
127-18-4-	- -Tetrachloroethene	5	u
67-66-3	-Chloroform	5	u
75-27-4	Bromod^chlororTHthane	5	u
124-48-1-	Dibraxtx^orcniethane"	5	u
78-93-3	2-Butanone	10	u
56-23-5	Carbcn Tetrachloride	5	u
95-50-1	l,2-Dichlorobenzene_2	5	u
106-46-7	1,4-Dichlorobenzene	5	u

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW-l/GW-20

Lab Name: STL Buffalo Contract: _____

Lab CDde: REQJY Case No. : _____ SAS No. : _____ SDG No. : _____

Matrix (soil/water) : WATER Lab Sample ID: A6E72004

% Solids: 0.0 Date Sanp/Recv: 12/07/2006 12/07/2006

Parameter Name	tfaits of Measure	Result	C	Q	M	Method Number	Analysed Date
Total Suspended Solids	MG/L	4.0	u			160.2	12/12/2006

Comments.-

smt 5/11/2007

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

PW-2/GW-20

lab Name: STL Buffalo Contract:

Lab *Code:* REQJY Case No. SAS No.: SDG No.:

Matrix (soil/water) .- WATER Lab Sample ID: A6E72005

% Solids: 0.0 Date Samp/Recv: 12/07/2006 12/07/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	MG/L	8.0				160.2	12/12/2006

Comments:

Ecor Solutions
Ecor Solutions - Byron Barrel & Drum Site
Wet Chemistry Analysis

Client Sample No.

EW-3/GW-20

Lab Name: STL Buffalo Contract:

Lab Code: RECNY Case No. SAS NO.: SDG NO.:

Matrix (soil/water): WATER Lab Sample ID: A6E72006

% Solids: 0.0 Date Sanp/Recv: 12/07/2006 12/07/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Suspended Solids	MG/L	36.0				160.2	12/12/2006

Comments:

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
£ceA	.		1-37914
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	PA0A nf
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Project Name and Location (State)	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
T/t,S Ctif^uK.	fr-l-oC	&80O	X	X	2-	
/>!*> ~i -f / gtv-ZO		}2oo			^	
/"IMS -y-f/t?ns-Zo		iz&r			X	
rtiv -Y-f /**,-*<> 6*s/~jpJ		iisrs'			1	
/7,sS~? /<fus-*o		IZoo			x	
/ W - Y / tTbj-Z*		Mf		*	1	
/?t*>-2 / *<L~-2O		)Z*>			-X /	
/?us-3 /St*j -*«=>	.A'	IDS'	~f	fcl H	£ '	

Possible Hazard identification

D Non-Hazard Q Flammable Q Skin Irritant D Poison B Q Unknown

Sample Disposal

D Return To Client D Disposal By Lab • Archive For _ Months longer than 1 month)

(A (gg ^^^^ jfsamples ^^ . ^

Turn Around Time Required

D 24 Hours • 48 Hours • 7 Days DM Days D 21 Days D Other

QC Requirements (Specify}

	Date	Time		Date	Time
1. Relinquished By	12-7-06	15:10	1. Received By	12-7-06	15:10
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

4.0°C

Comments

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

APPENDIX C
Statistical Analysis

Mann-Kendall Statistical Test

Site Name = Byron Barrel & Drum | Well Number = MW-1

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration	1,1-DCE Concentration			
	Compound ->						
1	24-Sep-03	580	24	17			
2	2-Dec-03	860	33	28			
3	30-Mar-04	830	30	31			
4	16-Jun-04	870	26	22			
5	14-Sep-04	730	28	26			
6	14-Dec-04	760	31	26			
7	22-Mar-05	830	41	110			
8	7-Jun-05	340	10	14			
9	13-Sep-05	410	14	16			
10	20-Dec-05	580	24	24			
	Mann Kendall Statistic (S) =	-15.0	-8.0	-6.0			
	Number of Rounds (n) =	10	10	10			
	Average =	679.00	26.10	31.40			
	Standard Deviation =	191.743	8.987	28.163			
	Coefficient of Variation(CV)=	0.282	0.344	0.897			
Error Check, Blank if No Errors Detected					n<4	n<4	n<4
Trend a 80% Confidence Level		**DECREASING**	No Trend	No Trend	n<4	n<4	n<4
Trend a 90% Confidence Level		No Trend	No Trend	No Trend	n<4	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		NA	**CV<«1 STABLE**	**CV<»1 STABLE**	n<4 n<4	n<4 n<4	n<4 n<4
I	Data Entry By =	MCL	Date =	23-Jun-06	Checked By =		

Mann-Kendall Statistical Test

Site Name = Byron Barrel & Drum | Well Number = MW-4

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration				
	Compound ->	TCA	1,1-DCA				
1	24-Sep-03	240	35				
2	3-Dec-03	550	65				
3	30-Mar-04	130	12				
4	16-Jun-04	150	15				
5	14-Sep-04	87	11				
6	14-Dec-04	67	11				
7	22-Mar-05	87	5				
8	7-Jun-05	8	5				
9	13-Sep-05	11	5			j	
10	20-Dec-05	48	4				
	Mann Kendall Statistic (S) =	-32.0	-37.0				
	Number of Rounds (n) =	10	10				
	Average =	137.80	16.80				
	Standard Deviation =	160.460	19.234				
	Coefficient of Variation(CV)=	1.164	1.145				
Error Check, Blank if No Errors Detected				n<4	n<4	n<4	n<4
Trend a 80% Confidence Level		**DECREASING**	**DECREASING**	n<4	n<4	n<4	n<4
Trend a 90% Confidence Level		**DECREASING**	**DECREASING**	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		NA	NA	n<4 n<4	n<4 n<4	n<4 n<4	n<4 n<4
I	Data Entry By =	MCL	Date =	23-Jun-06	Checked By =		

Mann-Kendall Statistical Test

Site Name = Byron Barrel & Drum | Well Number = MW-10B

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration	1,1-DCE Concentration			
	Compound ->						
1	24-Sep-03	11					
2	3-Dec-03	7					
3	30-Mar-04	52					
4	16-Jun-04	8					
5	14-Sep-04	3					
6	14-Dec-04	7					
7	22-Mar-05	17					
8	7-Jun-05	14					
9	13-Sep-05	11					
10	19-Dec-05	5					
	Mann Kendall Statistic (S) =	-5.0					
	Number of Rounds (n) =	10					
	Average =	13.50					
	Standard Deviation =	14.160					
	Coefficient of Variation(CV)=	1.049					
Error Check, Blank if No Errors Detected			n<4	n<4	n<4	n<4	n<4
Trend a 80% Confidence Level		No Trend	**n<4**	n<4	n<4	n<4	n<4
Trend a 90% Confidence Level		No Trend	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		**CV>1 NON-STABLE**	n<4 n<4	n<4 n<4	n<4 n<4	n<4 n<4	n<4 n<4
	I Data Entry By =	MCL	Date= 23-Jun-06		Checked By =		1

Mann-Kendall Statistical Test

Site Name = Byron Barrel & Drum | Well Number = PW-1

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration	1,1-DCE Concentration
1	24-Sep-03	120	8	5
2	3-Dec-03	150	6	2
3	30-Mar-04	150	6	2
4	16-Jun-04	380	13	3
5	14-Sep-04	210	10	2
6	14-Dec-04	140	6	2
7	22-Mar-05	200	15	23
8	7-Jun-05	59	10	2
9	13-Sep-Q5	73	3	0.9
10	19-Dec-05	140	9	2
	Mann Kendall Statistic (S) =	-9.0	0.0	-12.0
	Number of Rounds (n) =	10	10	10
	Average =	162.20	8.80	4.39
	Standard Deviation =	89.952	3.490	6.626
	Coefficient of Variation(CV)=	0.555	0.397	1.509
Error Check, Blank if No Errors Detected				n<4 n<4 n<4
Trend * 80% Confidence Level		No Trend	No Trend	**DECREASING** n<4 n<4 n<4
Trend * 90% Confidence Level		No Trend	No Trend	No Trend n<4 n<4 n<4
Stability Test, If No Trend Exists at 80% Confidence Level		**C V « 1 STABLE**	**C V « 1 STABLE**	NA n<4 n<4 n<4 n<4
	Data Entry By =	MCL	Date =	23-Jun-06 Checked By =

Mann-Kendall Statistical Test

Site Name = Byron Barrel & Drum | Well Number = PW-2

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration	1,1-DCE Concentration	TCE Concentration		
	Compound ->						
1	24-Sep-03	120	6	2	5		
2	3-Dec-03	160	6	3	5		
3	30-Mar-04	140	4	3	5		
4	16-Jun-04	120	5	5	5		
5	14-Sep-04	160	5	4	5		
6	14-Dec-04	160	8	5	2		
7	22-Mar-05	140	5	11	5		
8	7-Jun-05	70	3	2	1		
9	13-Sep-05	94	3	3	2		
10	19-Dec-05	30	1	5	0.5		
	Mann Kendall Statistic (S) =	-18.0	-24.0	14.0	-25.0		
	Number of Rounds (n) =	10	10	10	10		
	Average =	119.40	4.60	4.30	3.55		
	Standard Deviation =	43.298	1.955	2.627	1.921		
	Coefficient of Variation(CV)=	0.363	0.425	0.611	0.541		
Error Check, Blank if No Errors Detected						n<4	n<4
Trend 2 80% Confidence Level		**DECREASING**	**DECREASING**	**INCREASING**	**DECREASING**	n<4	n<4
Trend a 90% Confidence Level		**DECREASING**	**DECREASING**	No Trend	**DECREASING**	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		NA	NA	NA	NA	n<4 n<4	n<4 n<4
	I Data Entry By =	MCL	Date =	23-Jun-06	Checked By =		

Mann-Kendall Statistical Test

Site **Name** = **Byron Barrel** & **Drum** | **Well Number =** PW-3 |

Event Number	Sampling Date (most recent last)	TCA Concentration	1,1-DCA Concentration	1,1-DCE Concentration			
	Compound ->						
1	24-Sep-03	2					
2	3-Dec-03	3					
3	30-Mar-04	2					
4	16-Jun-04	2					
5	14-Sep-04	2					
6	14-Dec-04	2					
7	22-Mar-05	2					
B	7-Jun-05	5					
9	13-Sep-05	1					
10	19-Dec-05	1					
	Mann Kendall Statistic (S) =	-13.0					
	Number of Rounds (n) =	10					
	Averaqe =	2.20					
	Standard Deviation =	1.135					
	Coefficient of Variation(CV)=	0.516					
| Error Check, Blank if No Errors Detected			n*4	n<4	n<4	n<4	**n<4**
Trend a 80% Confidence Level		**DECREASING**	n<4	n<4	n<4	**n<4**	**n<4**
Trend * 90% Confidence Level		No Trend	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		NA	n<4 n<4	n<4 n<4	n<4 n<4	n<4 **n<4**	n<4 n<4
	I Data Entry By =	MCL	Date= 23-Jun-06		Checked Bv =		