

**Post Remediation Groundwater Monitoring Report  
Operable Unit – 1 (OU-1)  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York**

**July 2004**

**Prepared for:**

**Utility Manufacturing Company  
700 Main Street  
Westbury, New York**

**Prepared by:**

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, New York 11803**



e-mail: [eweinstock@carichinc.com](mailto:eweinstock@carichinc.com)

July 12, 2004

**NYSDEC**

Division of Hazardous Waste Remediation  
625 Broadway  
Albany, New York 12233-7015

Attention: Jeffrey Dyber, P.E.

Re: **Post-Remediation Groundwater Monitoring Report  
Operable Unit – 1 (OU-1)  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York  
Site Number: 130043H**

Dear Mr. Dyber:

CA RICH Consultants, Inc. (CA RICH) is pleased to provide you with the following Post-Remediation Groundwater Monitoring Report for OU-1 of the Utility Manufacturing site. This Report was prepared by CA RICH on behalf of the Utility Manufacturing Company (Utility) in accordance with an Order on Consent, Index Number W1-0795-97-06. For the purposes of this document, the contaminants of concern were perchloroethene (a.k.a. PCE or tetrachloroethene); trichloroethene (TCE); 1,1,1-trichloroethane (TCA) and their degradation products.

This Report includes the following items:

- Background;
- Post-Remediation Groundwater Monitoring Procedures;
- Post-Remediation Groundwater Monitoring Reporting;
- Schedule; and
- Summary and Conclusions.

If there are any questions regarding this Report, please do not hesitate to call our office.

Sincerely,

**CA RICH CONSULTANTS, INC.**

Eric A. Weinstock  
Associate

cc: Audie Kranz  
Miriam Villani, Esq.  
Alali Tamuno, Esq.  
Jacqueline Nealson

**Post-Remediation Groundwater Monitoring Report  
Operable Unit – 1 (OU-1)  
Utility Manufacturing Company  
700 Main Street  
Westbury, New York  
Site Number: 130043H**

**1.0 Background**

An Interim Remedial Measure (IRM) was performed at the Utility site from September 2001 through December 2002. This consisted of the installation of two air sparge points, two clustered soil vapor extraction wells and a multi-depth clustered monitoring well. An air compressor, regenerative blower and carbon units were installed in an equipment container located on the property. The air sparging/soil vapor extraction system operated from November 15, 2001 to December 19, 2002. In accordance with the IRM Work Plan, operation of the air sparging/soil vapor extraction system ceased after collection of the Fourth Quarter 2002 round of groundwater monitoring.

A series of previous reports were generated for this site by both the NYSDEC and Utility. The following is a partial list of these previous documents.

<u>Investigation</u>	<u>Date</u>
NYS Superfund Contract, Site Investigation Report New Cassel Industrial Area (Ref. 1)	February 1995
NYS Superfund Contract, Multisite PSA Report New Cassel Industrial Area (Ref. 2)	March 1996
NYS Superfund Contract, Multisite PSA Report New Cassel Industrial Area (Ref. 3)	March 1997
Focused Remedial Investigation, Utility Manufacturing/ Wonder King, Anson Environmental, Ltd. (Ref. 4)	January 1999
On-Site Groundwater Investigation, Utility Manufacturing/ Wonder King, Anson Environmental, Ltd. (Ref. 5)	December 2000
Interim Remedial Measures Work Plan Utility Manufacturing Company 700 Main Street, Westbury, New York (Ref. 6)	August 2001
Interim Remedial Measures Report and Operation and Maintenance (O&M) Manual Utility Manufacturing Company 700 Main Street, Westbury, New York (Ref. 7)	December 2001
Quarterly Monitoring Report, Fourth Quarter 2002 Utility Manufacturing Company 700 Main Street, Westbury, New York (Ref. 8)	January 2003

## **2.0 Post-Remediation Groundwater Monitoring Procedures**

A program of post-remediation groundwater monitoring was performed on the monitoring wells installed at this site. These wells include MW-1, MW-2, MW-3, MW-4, MW-5R, MW-6, MDCW-7S, MDCW-7I and MDCW-7D. The locations of the wells are presented on the attached Figure. The testing included halogenated volatile organic compounds using EPA Method 8021 or its equivalent.

A volume of at least three casing volumes of groundwater was purged from each monitoring well and collected in a container using a submersible pump. The samples were then collected directly from the pump discharge.

As the goal of this Plan was to obtain post-remedial confirmation of the air sparging/soil vapor extraction effort, the Quality Assurance/Quality Control (QA/QC) procedures were similar to those used during the operation of the remediation system. One sample from each well was collected and placed into laboratory issued bottles. These were in turn placed in an ice-filled cooler and delivered to an ELAP-Certified laboratory under Chain-Of-Custody documentation. Trip blanks, field blanks, duplicates and matrix spikes were not performed.

## **3.0 Post-Remediation Groundwater Monitoring Reporting**

When the sampling is completed and the results are received from the laboratory, a report is prepared. The report includes the following.

- A description of the work performed;
- The results of the laboratory analysis; and
- Graphs of the concentration of perchloroethene versus time.

The graphs are updated after each sampling round and a report is submitted to the NYSDEC.

## **4.0 Schedule**

The groundwater monitoring program began five months from the time the air sparging and soil vapor extraction system was turned off, which corresponds to June 2003. Monitoring will be performed annually thereafter for a period of two years (i.e.: June 2003 to June 2005).

Graphs of the concentration of perchloroethene versus time are compiled after each round of monitoring. The post-remediation groundwater monitoring program will be deemed completed after the June 2003, June 2004 and June 2005 samples are analyzed and the VOC concentrations in site wells MW-4, MW-5R, MW-6 and MW-7S, 7I & 7D do not exceed all four of the following criteria:

- the concentration in the upgradient well or wells as determined by the NYSDEC;
- the highest concentration measured in any of the project wells during the third quarter 2002;
- the highest concentration measured in any of the project wells during the fourth quarter 2002;
- the NYSDEC groundwater standards.

If any analyte exceeds all four criteria in wells MW-4, MW-5R, MW-6 and MDCW-7S, 7I & 7D, the NYSDEC will determine if additional monitoring and/or remediation is necessary.

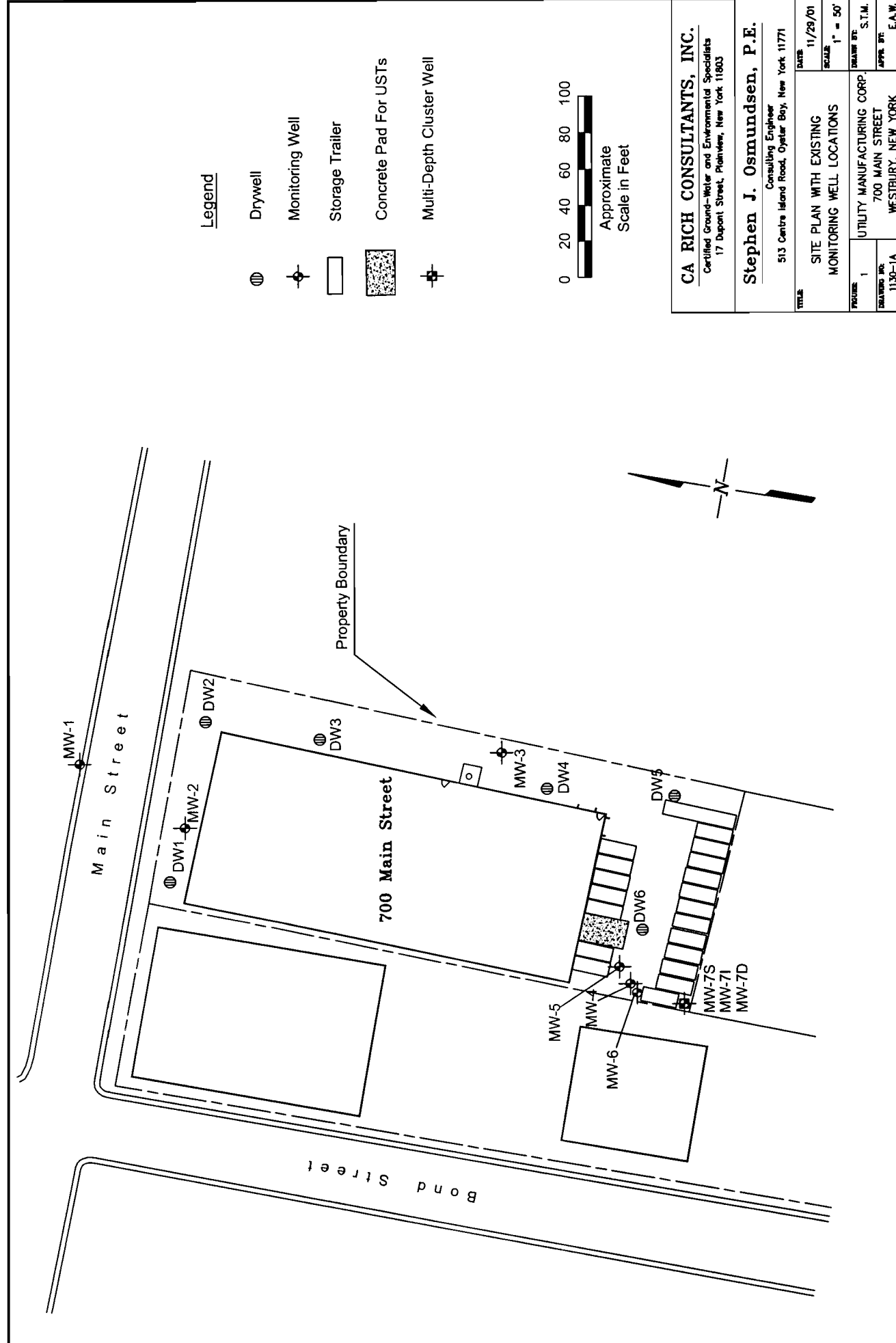
## **5.0 Summary and Conclusions**

All of the detections in the site wells were below the NYS drinking water standards with the exception of two parameters: PCE was detected at 6.3 ug/L (slightly above the standard of 5.0 ug/L) in well MW-7I. Also, cis 1,2 DCE, a degradation product of PCE, was detected at 28 ug/L in well MW-7S. These are both considered to be minor anomalies and it is envisioned that the concentrations will decrease over time.

Another round of Post-Remediation sampling will be performed in June 2005.

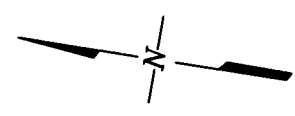
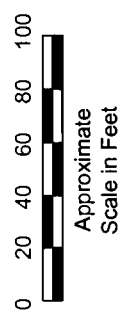
**References**

1. NYSDEC (February 1995), NYS Superfund Contract, Site Investigation Report, New Cassel Industrial Area.
2. NYSDEC, (March 1996), NYS Superfund Contract, Multisite PSA Report, New Cassel Industrial Area.
3. NYSDEC, (March 1997), NYS Superfund Contract, Multisite PSA Report, New Cassel Industrial Area.
4. Anson Environmental, Ltd., (January 1999), Focused Remedial Investigation, Utility Manufacturing/Wonder King,
5. Anson Environmental, Ltd , (December 2000), On-Site Groundwater Investigation, Utility Manufacturing/Wonder King.
6. CA RICH, August 2001, Interim Remedial Measures Work Plan, Utility Manufacturing Company, 700 Main Street, Westbury, New York
7. CA RICH, December 2001, Interim Remedial Measures Report, Utility Manufacturing Company, 700 Main Street, Westbury, New York
8. CA RICH, January 2003, Quarterly Monitoring Report, Fourth Quarter 2002, Utility Manufacturing Company, 700 Main Street, Westbury, New York
9. CA RICH, April 2003, Post Remediation Monitoring Plan, Utility Manufacturing Company, 700 Main Street, Westbury, New York



Legend

- ⊕ Drywell
- ⊕ Monitoring Well
- ▭ Storage Trailer
- ▨ Concrete Pad For USTs
- ⊕ Multi-Depth Cluster Well



<b>CA RICH CONSULTANTS, INC.</b> Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainville, New York 11803	
<b>Stephen J. Osmundsen, P.E.</b> Consulting Engineer 513 Centre Island Road, Oyster Bay, New York 11771	
TITLE	SITE PLAN WITH EXISTING MONITORING WELL LOCATIONS
DATE	11/29/01
SCALE	1" = 50'
DRAWN BY	S.T.M.
CHECKED BY	J.P.F.
FIGURE	1
DRAWING NO.	1130-1A
UTILITY MANUFACTURING CORP. 700 MAIN STREET WESTBURY, NEW YORK	



**Table 1**  
**Summary of Analytical Detections in Well MW-1**  
**Utility Manufacturing, Westbury, NY**

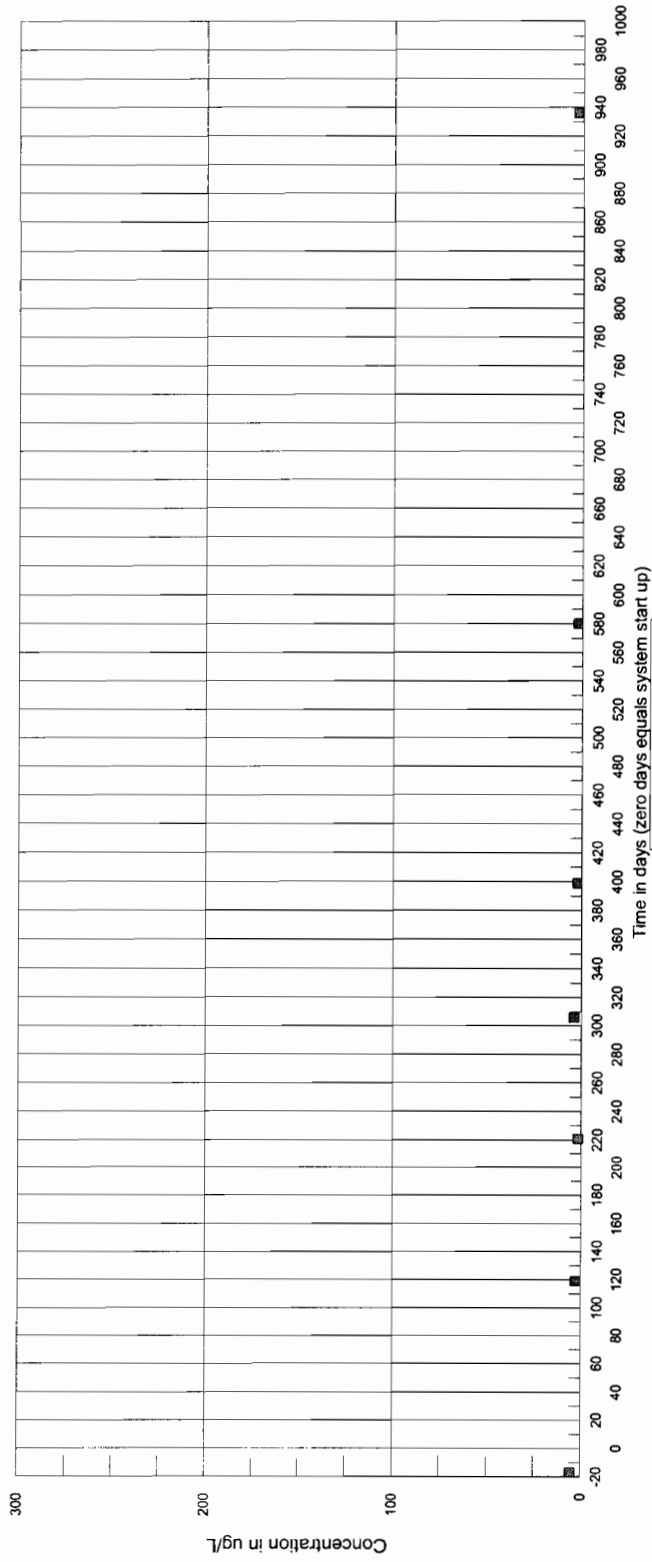
Well ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	2 Qtr 2003	2 Qtr 2003	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	
Sample depth in feet	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	55 to 60	
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	06/18/2003	06/18/2003	06/08/2004	06/08/2004	06/08/2004	06/08/2004	
Days since system start up	-17	119	221	306	399	580	580	936	936	936	936	
Days since initial sample	0	136	238	323	416	597	597	953	953	953	953	
Volatile Organics (EPA METHOD 8021) Units												
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	5.4	2.8	1.7	3.9	2.0	2.1	2.6	2.6	2.6	2.6	2.6	5.00
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-1  
Tetrachloroethene versus time



**Table 2**  
**Summary of Analytical Detections in Well MW-2**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

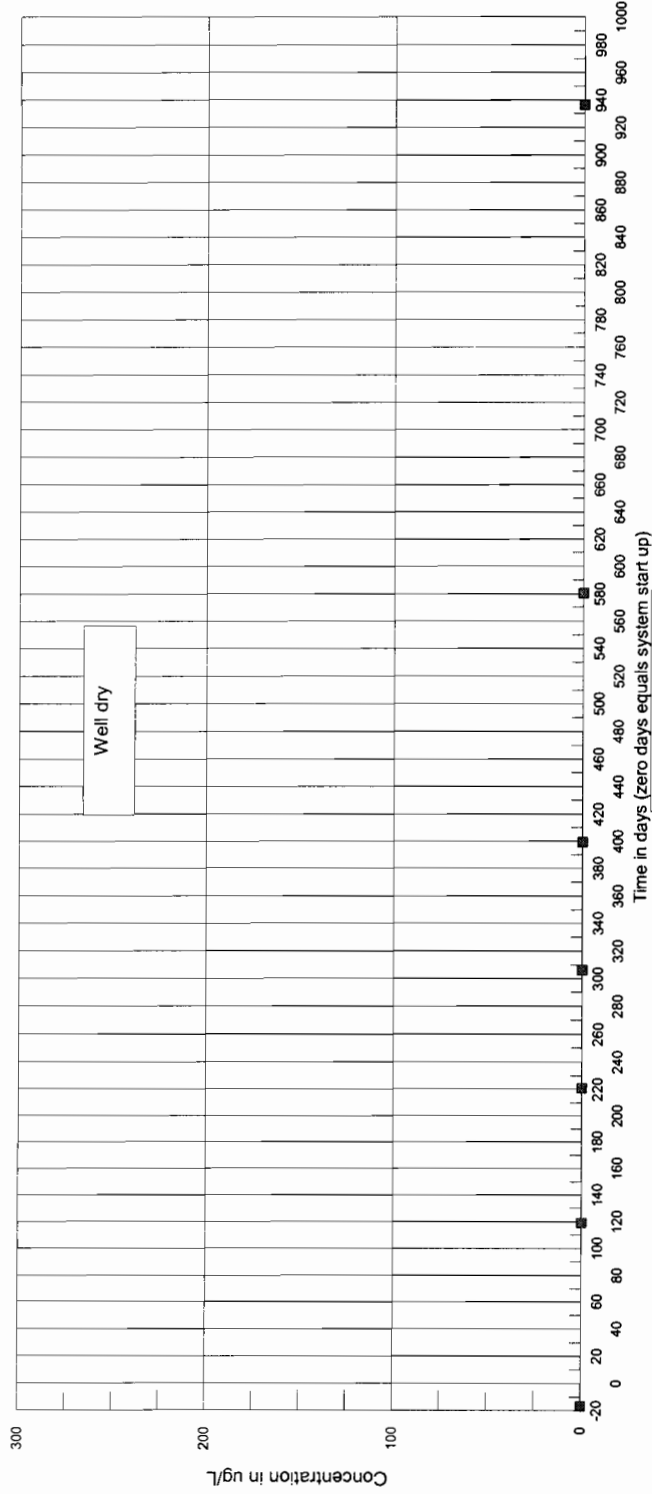
Well ID	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	2 Qtr 2003	2 Qtr 2003	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	
Sample depth in feet	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	06/18/2003	06/18/2003	06/08/2004	06/08/2004	06/08/2004	06/08/2004	
Days since system start up	-17	119	221	306	399	580	580	936	936	936	936	
Days since initial sample	0	136	238	323	416	597	597	953	953	953	953	
Volatile Organics (EPA METHOD 8021)												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
Trichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
cis-1,2-Dichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
trans-1,2-Dichloroethene	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
Vinyl Chloride	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	2.00
1,1,1 Trichloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
1,1 Dichloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00
Chloroethane	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

MW-2  
Tetrachloroethene versus time



There is no data for dates when the well is dry

**Table 3**  
**Summary of Analytical Detections in Well MW-3**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	NYSDEC TOGS* values
Comments/Calendar Quarter	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	1 Qtr 2003	2 Qtr 2003	3 Qtr 2003	4 Qtr 2003	1 Qtr 2004	2 Qtr 2004	3 Qtr 2004	4 Qtr 2004	1 Qtr 2005	2 Qtr 2005	3 Qtr 2005	4 Qtr 2005	1 Qtr 2006	
Sample depth in feet	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	
Date Sampled	03/14/2002	06/24/2002	09/17/2002	12/19/2002	03/14/2003	06/18/2003	09/17/2003	12/19/2003	03/14/2004	06/08/2004	09/08/2004	12/19/2004	03/14/2005	06/08/2005	09/08/2005	12/19/2005	03/14/2006	
Days since system start up	119	221	306	399	483	567	650	734	818	902	986	1070	1154	1238	1322	1406	1490	
Days since initial sample	0	238	323	416	500	584	668	752	836	920	1004	1088	1172	1256	1340	1424	1508	
Volatile Organics (EPA METHOD 8021)																		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	49	14	15	20	13	8.8	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Trichloroethene	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00

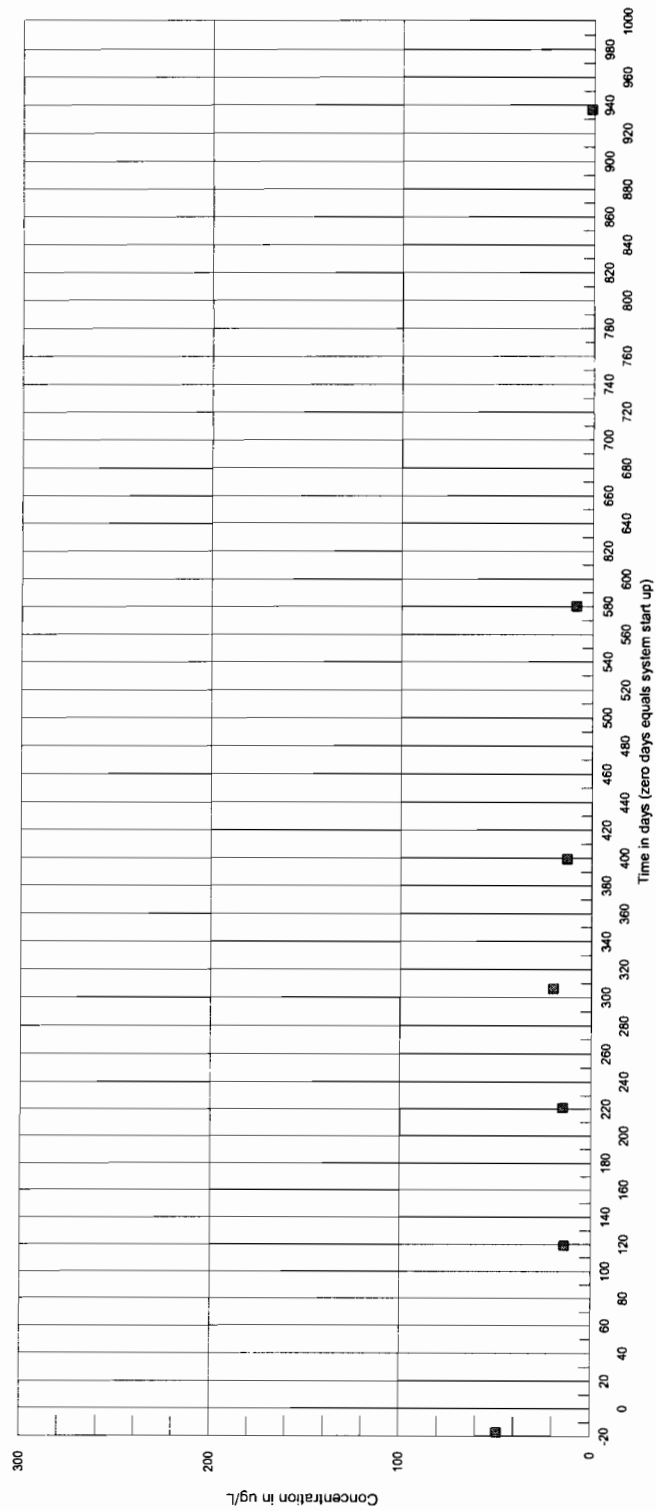
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by **CA Rich Consultants Inc.**

MW-3  
Tetrachloroethene versus time



Concentration in ug/L

**Table 4**  
**Summary of Analytical Detections in Well MW-4**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	NYSDEC TOGS* values
	Baseline Data dry 10/29/2001 -17 0	1 Qtr 2002 dry 03/14/2002 119 136	2 Qtr 2002 dry 06/24/2002 221 238	3 Qtr 2002 29 to 39 09/17/2002 306 323	4 Qtr 2002 29 to 39 12/19/2002 399 416	2 Qtr 2003 29 to 39 06/18/2003 580 597	2 Qtr 2004 dry 06/08/2004 936 953	MW-4	MW-4	MW-4	MW-4	
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<b>Volatile Organics</b> (EPA METHOD 8021) Units												
Tetrachloroethene	dry	dry	1.4	5.8	8.6	2.9	dry					5.00
Trichloroethene	dry	dry	1.4	4.6	2.8	ND	dry					5.00
cis-1,2-Dichloroethene	dry	dry	ND	ND	ND	4.5	dry					5.00
trans-1,2-Dichloroethene	dry	dry	ND	ND	ND	ND	dry					5.00
Vinyl Chloride	dry	dry	ND	ND	ND	ND	dry					2.00
1,1,1 Trichloroethane	dry	dry	ND	ND	ND	ND	dry					5.00
1,1 Dichloroethane	dry	dry	ND	ND	ND	ND	dry					5.00
Chloroethane	dry	dry	ND	ND	ND	ND	dry					5.00

**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.

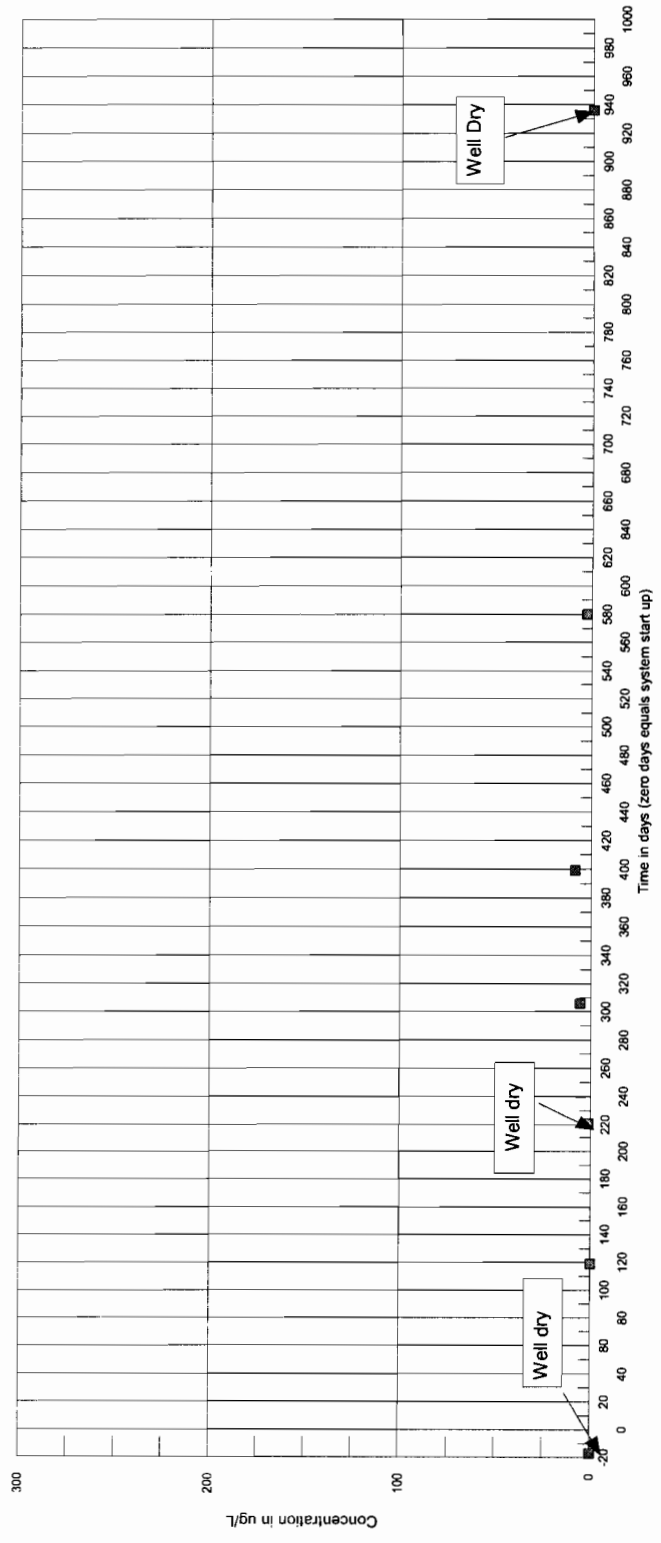
ug/L: micrograms per liter or parts per billion.

Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

**Prepared by CA Rich Consultants Inc.**

MW-4  
Tetrachloroethene versus time



There is no data for dates when the well is dry

Concentration in ug/L



**Table 5**  
**Summary of Analytical Detections in Well MW-5 (MW-5R)**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

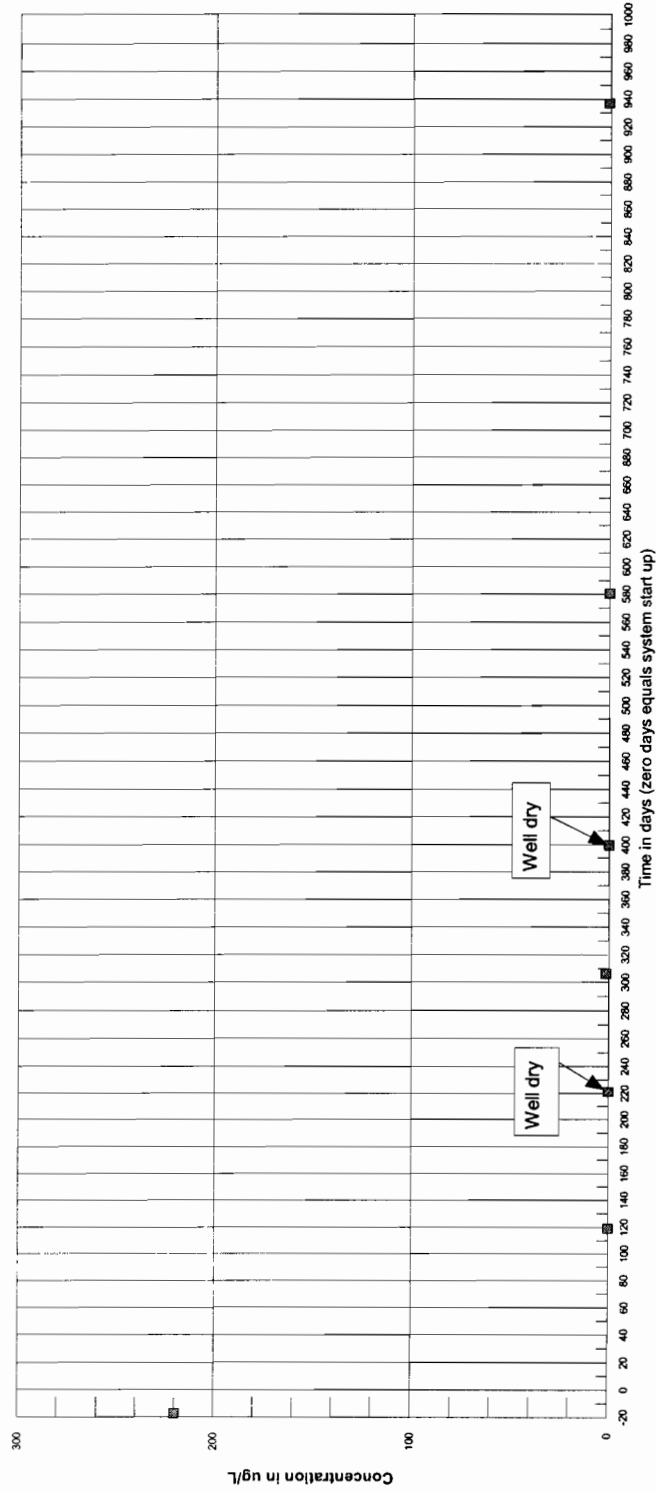
Well ID	MW-5	MW-5	MW-5	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	MW-5R	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	2 Qtr 2003	2 Qtr 2004	2 Qtr 2003	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	
Sample depth in feet	55 to 61.5	dry	dry	59 to 70	59 to 70	59 to 70	59 to 70	59 to 70	59 to 70	59 to 70	59 to 70	
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	06/18/2003	06/08/2004	06/18/2003	06/08/2004	06/08/2004	06/08/2004	
Days since system start up	-17	119	221	306	399	580	936	580	936	936	936	
Days since initial sample	0	136	238	323	416	597	953	597	953	953	953	
Volatile Organics (EPA METHOD 8021) Units												
Tetrachloroethene	ug/L	dry	dry	1.6	ND	ND	1.0	ND	1.0	ND	1.0	ug/L
Trichloroethene	ug/L	dry	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
cis-1,2-Dichloroethene	ug/L	dry	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
trans-1,2-Dichloroethene	ug/L	dry	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
Vinyl Chloride	ug/L	dry	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
1,1,1 Trichloroethane	ug/L	10	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
1,1 Dichloroethane	ug/L	ND	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L
Chloroethane	ug/L	ND	dry	ND	ND	ND	ND	ND	ND	ND	ND	ug/L

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

Prepared by CA Rich Consultants Inc.

**MW-5 (MW-5R)**  
Tetrachloroethene versus time



■ Concentration in ug/L

There is no data for dates when the well is dry

Well dry

Well dry

**Table 6**  
**Summary of Analytical Detections in Well MW-6**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

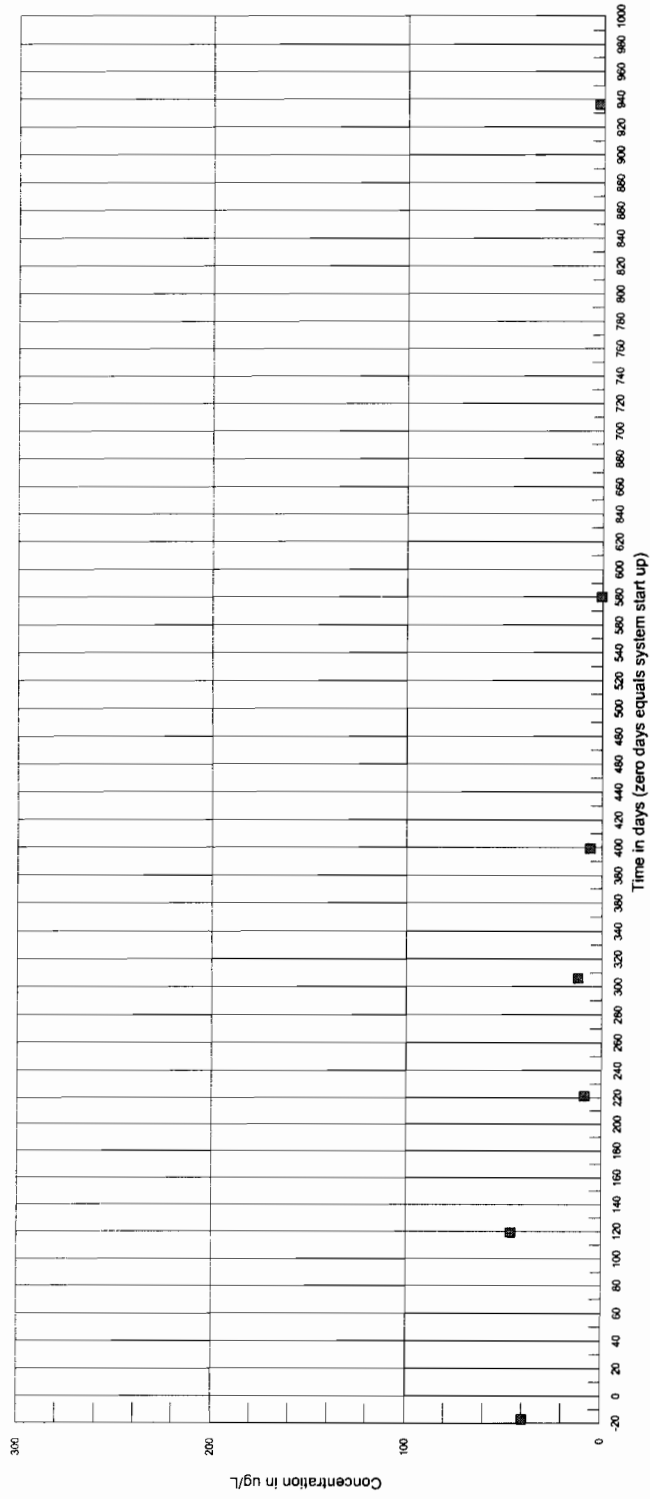
Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	NYSDEC TOGS* values
	Baseline Data 55 to 95 10/29/2001 -17	1 Qtr 2002 55 to 95 03/14/2002	2 Qtr 2002 55 to 95 06/24/2002	3 Qtr 2002 55 to 95 09/17/2002	4 Qtr 2002 55 to 95 12/19/2002	2 Qtr 2003 55 to 95 06/18/2003	2 Qtr 2004 55 to 90 06/08/2004	580 936	597 953		
Volatile Organics (EPA METHOD 8021) Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	40	46	8.6	12	5.9	0.4	2.0				5.00
Trichloroethene	4	3.7	ND	1.1	ND	ND	ND				5.00
cis-1,2-Dichloroethene	8.9	13	4.1	5.8	ND	ND	1.9				5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND				5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND				2.00
1,1,1 Trichloroethane	1.5	2.4	ND	ND	ND	ND	ND				5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND				5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND				5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values, June 1998

Prepared by CA Rich Consultants Inc.

MW-6  
Tetrachloroethene versus time



**Table 7**  
**Summary of Analytical Detections in Well MW-7S**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

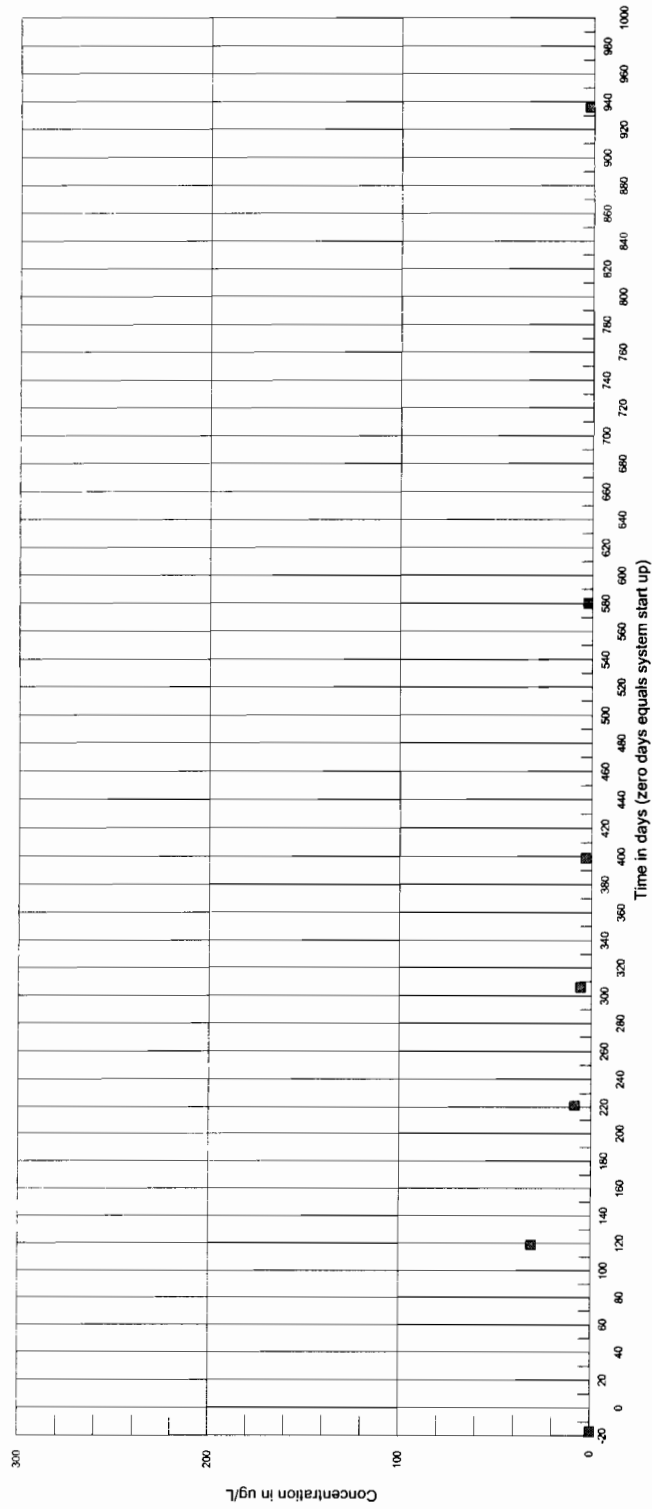
Well ID	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	NYSDEC TOGS* values
Comments/Calendar Quarter	Baseline Data	1 Qtr 2002	2 Qtr 2002	3 Qtr 2002	4 Qtr 2002	2 Qtr 2003	2 Qtr 2003	2 Qtr 2004	2 Qtr 2004	2 Qtr 2004	
Sample depth in feet	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	55 to 70	
Date Sampled	10/29/2001	03/14/2002	06/24/2002	09/17/2002	12/19/2002	06/18/2003	06/18/2003	06/08/2004	06/08/2004	06/08/2004	
Days since system start up	-17	119	221	306	399	580	580	936	936	936	
Days since initial sample	0	136	238	323	416	597	597	953	953	953	
<b>Volatile Organics (EPA METHOD 8021)</b>											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethene	ND	31	8.6	5.6	3.3	2.2	2.0	2.0	2.0	2.0	5.00
Trichloroethene	ND	2.7	ND	ND	ND	ND	1.6	1.6	1.6	1.6	5.00
cis-1,2-Dichloroethene	ND	7.1	2.9	ND	ND	ND	28	28	28	28	5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00

Notes:  
 ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values, June 1998

Prepared by CA Rich Consultants Inc.

MW-7S  
Tetrachloroethene versus time



Concentration in ug/L

**Table 8**  
**Summary of Analytical Detections in Well MW-71**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Sample depth in feet Date Sampled Days since system start up Days since initial sample	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	MW--71	NYSDEC TOGS* values
	Baseline Data 78 to 88 10/29/2001 -17 0	1 Qtr 2002 78 to 88 03/14/2002 119 136	2 Qtr 2002 78 to 88 06/24/2002 221 238	3 Qtr 2002 78 to 88 09/17/2002 306 323	4 Qtr 2002 78 to 88 12/19/2002 399 416	2 Qtr 2003 78 to 88 06/18/2003 580 597	2 Qtr 2004 78 to 88 06/08/2004 936 953	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organics (EPA METHOD 8021) Units												
Tetrachloroethene	260	ND	ND	ND	ND	6.3						5.00
Trichloroethene	30	ND	ND	ND	ND	ND						5.00
cis-1,2-Dichloroethene	32	ND	ND	ND	ND	ND						5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND						5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND						2.00
1,1,1 Trichloroethane	19	ND	ND	ND	ND	ND						5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND						5.00
Chloroethane	ND	ND	ND	ND	ND	ND						5.00

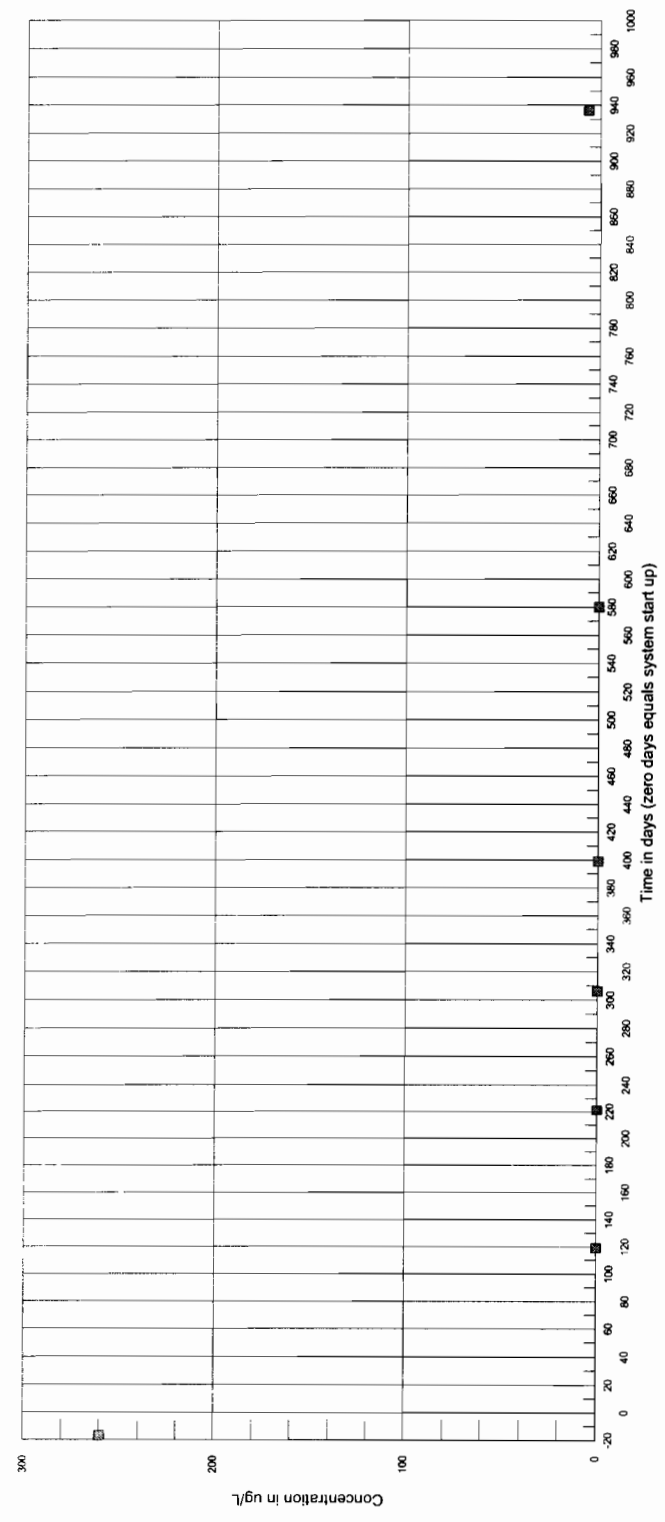
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
ug/L: micrograms per liter or parts per billion.  
Date of system start up: 11/15/2001

Prepared by CA Rich Consultants Inc.

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
Ambient Water Quality Standards and Guidance Values; June 1998

**MW-71**  
Tetrachloroethene versus time



■ Concentration in ug/L



**Table 9**  
**Summary of Analytical Detections in Well MW-7D**  
**for Volatile Organics Compounds in Groundwater**  
**Utility Manufacturing, Westbury, NY**

Well ID Comments/Calendar Quarter Depth in feet Date Sampled Days since system start up Days since initial sample	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	MW-7D	NYSDEC TOGS* values		
	Baseline Data 95 to 105 10/29/2001 -17 0	1 Qtr 2002 95 to 105 03/14/2002 119 136	2 Qtr 2002 95 to 105 06/24/2002 221 238	3 Qtr 2002 95 to 105 09/17/2002 306 323	4 Qtr 2002 95 to 105 12/19/2002 399 416	2 Qtr 2003 95 to 105 06/18/2003 580 597	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	2 Qtr 2004 95 to 105 06/08/2004 936 953	
Volatile Organics (EPA METHOD 8021) Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6	5.00
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
1,1,1 Trichloroethane	2.6	1.2	1.6	2.5	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	5.00
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00

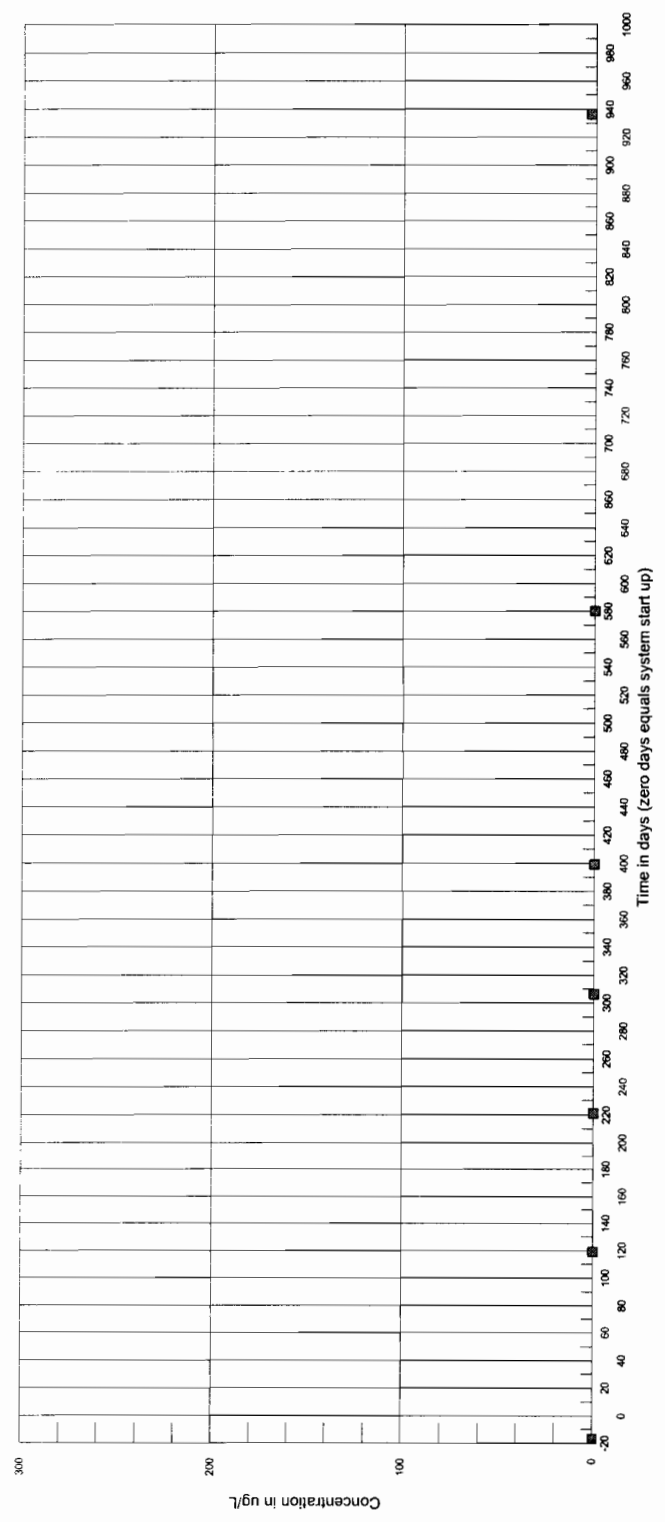
**Notes:**

ND: Indicates compound analyzed but not detected at laboratory detection level.  
 ug/L: micrograms per liter or parts per billion.  
 Date of system start up: 11/15/2001

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values; June 1998

**Prepared by CA Rich Consultants Inc.**

MW-7D  
Tetrachloroethene versus time



■ Concentration in ug/L

**DATA PACKAGE FOR  
VOLATILE ORGANICS****PROJECT NAME: utility****CA RICH CONSULTANTS, INC.  
17 DUPONT STREET  
PLAINVIEW, NY 11803  
5165768844****CHEMTECH PROJECT NO.  
ATTENTION:****S2962  
Mike Yager**

**CHEMTECH**

284 Sheffield Street, Mountainside 07092  
Tel: 908-789-8900 Fax: 908-789-8922

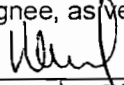
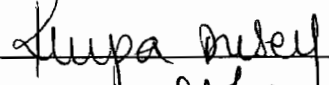
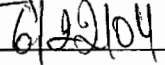
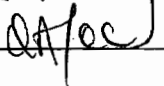
**COVER PAGE**

# COVER PAGE

OrderID: S2962      ProjectID: utility  
CustomerName: CA Rich Consultants, INC.

LAB SAMPLE NO.	CLIENT SAMPLE NO
S2962-01	MW-1
S2962-02	MW-3
S2962-03	MW-5R
S2962-04	MW-6
S2962-05	MW-7S
S2962-06	MW-7I
S2962-07	MW-7D

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
Date:  Title: 

# CHEMTECH

## QA/QC DELIVERABLES CHECKLIST

Project Number: S2962

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	<input checked="" type="checkbox"/>	
II Table of Contents	<input checked="" type="checkbox"/>	
III Chain of Custody Documents	<input checked="" type="checkbox"/>	
IV Methodology Summaries	<input checked="" type="checkbox"/>	
V Laboratory Chronicle and Hold Time Checks	<input checked="" type="checkbox"/>	
VI Non-Conformance Summary	<input checked="" type="checkbox"/>	
VII Tabulated Analytical Results	<input checked="" type="checkbox"/>	
VIII Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IX Tune and Internal Standard Area Summaries (GC/MS)		<input checked="" type="checkbox"/>
X Quality Control Summary Reports	<input checked="" type="checkbox"/>	
XI Surrogate Recovery Summary	<input checked="" type="checkbox"/>	
XII Raw Data Chromatogram, Blank, Samples and QC when applicable	<input checked="" type="checkbox"/>	
XIII Subcontract Data		<input checked="" type="checkbox"/>

  
QA/QC Data Reviewer

6/27/09  
Date

110 Route 4  
Englewood, NJ 07631  
Phone: 201.568.7400 Fax 201.567.3231

284 Sheffield Street  
Mountainside, NJ 07092  
Tel 908.789.8900 Fax 908.789.8922

NYSDOH Certification No. 10624

NYSDOH Certification No. 11376  
NJDEP Certification No. 20012

**TABLE OF CONTENTS  
PROJECT NUMBER: S2962RQ**

	<b>PAGE</b>
<b>COVER PAGE</b>	<b>02</b>
<b>CHAIN OF CUSTODY</b>	<b>06</b>
<b>METHODOLOGY REVIEW &amp; LABORATORY CHRONICLE</b>	<b>10</b>
<b>CONFORMANCE / NON - CONFORMANCE SUMMARY</b>	<b>12</b>
<b>GC/ MS VOLATILE ORGANIC DATA</b>	
TABULATED ANALYTICAL RESULTS SUMMARY	15
QUALITY CONTROL SUMMARY REPORTS	30
<b>TOTAL NUMBER OF PAGES</b>	<b>40</b>

**CHEMTECH**

284 Sheffield Street, Mountainside 07092  
Tel: 908-789-8900 Fax: 908-789-8922

**CHAIN OF  
CUSTODY  
RECORD**



## CHAIN OF CUSTODY RECORD

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION	
COMPANY: CA Rich Consultants, Inc. ADDRESS: 17 Dupont Street CITY: Plainview STATE: NY ZIP: 11803		PROJECT NAME: Utility Manufacturing PROJECT NO.: Utility LOCATION: Post Rembw PROJECT MANAGER: Eric Weinstock e-mail: Eweinstock@CARichire.com PHONE: 516 576 8844 FAX: 516 576 0093		BILL TO: CA Rich Consultants, Inc. ADDRESS: 17 Dupont Street CITY: Plainview STATE: NY ZIP: 11803 ATTENTION: Eweinstock PHONE: 516 576 8844	
FAX: _____ HARD COPY: Standard EDD: _____ * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		DATA DELIVERABLE INFORMATION <input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> USEPA CLP <input checked="" type="checkbox"/> RESULTS + QC <input type="checkbox"/> New York State ASP "B" <input type="checkbox"/> New Jersey REDUCED <input type="checkbox"/> New York State ASP "A" <input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD FORMAT		ANALYSIS	
CHEMTECH SAMPLE ID		PROJECT IDENTIFICATION		PRESERVATIVES	
1. MW-1		W	X	1	A
2. MW-3		W	X	2	2
3. MW-5R		W	X	2	2
4. MW-6		W	X	2	2
5. MW-7S		W	X	2	2
6. MW-7E		W	X	2	2
7. MW-7D		W	X	2	2
8.					
9.					
10.					

EPH Soil transported

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY	DATE/TIME	RECEIVED BY:	DATE/TIME
1. Michael Yager	6/8/04 3pm	1. _____	
2. _____		2. _____	
3. UPS	6/9/04 10:00	3. Sunnyfaby	

Comments: Conditions of bottles or coolers at receipt:  Compliant  Non Compliant  
MeOH extraction requires an additional 4 oz jar for percent solid.

COOLER Temp. 4

SHIPPED VIA: CLIENT:  HAND DELIVERED  OVERNIGHT  
CHEMTECH:  PICKED UP  OVERNIGHT

SHIPMENT COMPLETE: YES  NO

Page 1 of 1

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li></ol>
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

QA REVIEW GENERAL DOCUMENTATION

Project #: S2962

Completed

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page) ✓  
Check chain-of-custody for proper relinquish/return of samples ✓  
Is the chain of custody signed and complete ✓  
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts ✓  
Collect information for each project id from server. Were all requirements followed ✓

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody and on login page ✓  
Do lab numbers and client Ids on cover page agree with the Chain of Custody ✓

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results ✓  
Do requested analyses on Chain of Custody agree with the log-in page ✓  
Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody ✓  
Were the samples received within hold time ✓  
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle ✓

Non - Conformance /Comments:

1<sup>st</sup> Level QA Review Signature: \_\_\_\_\_

Date: 6/22/04

2<sup>nd</sup> Level QA Review Signature: \_\_\_\_\_

Date: 6/22/04

**CHEMTECH**

284 Sheffield Street, Mountainside 07092  
Tel: 908-789-8900 Fax: 908-789-8922

**METHODOLOGY  
REVIEW  
&  
LABORATORY  
CHRONICLE**

# CHEMTECH

## CHEMTECH

### Lab Chronicle

Order ID: S2962  
Client: CA Rich Consultants, INC.  
Contact: Mike Yager  
Order Date: 6/9/04 13:33  
Project: utility

Lab ID	Client ID	Matrix	Test	Method	Sample Date	PrepDate	AnalDate	Received
S2962-01	MW-1	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-02	MW-3	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-03	MW-5R	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-04	MW-6	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-05	MW-7S	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-06	MW-7I	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04
S2962-07	MW-7D	WATER	<u>VOCGC Group 1</u>	8021	6/8/04		6/22/04	6/9/04

**CHEMTECH**

284 Sheffield Street, Mountainside 07092  
Tel: 908-789-8900 Fax: 908-789-8922

**CONFORMANCE/  
NON-  
CONFORMANCE  
SUMMARY**

**CHEMTECH** 284 Sheffield Street. Mountainside New Jersey 07092  
 NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC VOA ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: S2962 MATRIX: Water  
 METHOD: 8021 VOCAL Concept

	<u>YES</u>	<u>NA</u>	<u>NO</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	✓		
2. Standards Summary Submitted	✓		
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD	✓		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓

VOA Fraction \_\_\_\_\_

Other \_\_\_\_\_

5. Surrogate Recoveries Meet Criteria ✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges

VOA Fraction \_\_\_\_\_

Other \_\_\_\_\_

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

VOA

Fraction \_\_\_\_\_

Other \_\_\_\_\_

**CHEMTECH** 234 Sheffield Street. Mountainside New Jersey 07092  
NEW JERSEY LAB ID#: 12013 : NEW YORK LAB ID#: 11376

GC VOA ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

YES   NA   NO

7. Extraction Holding Time Met

\_\_\_\_\_ ✓ \_\_\_\_\_

If not met, list number of days exceeded for each sample:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Analysis Holding Time Met

\_\_\_\_\_ ✓ \_\_\_\_\_

If not met, list number of days exceeded for each sample:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Smiti Mangrulkar  
Analyst

6-22-04  
Date

[Signature]  
QA REVIEW

6/22/04  
Date



**TABULATED ANALYTICAL RESULTS**

**GC VOLATILE ORGANICS**

**Volatiles**

SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID:	<u>S2962-01</u>	Client ID:	<u>MW-1</u>
Date Collected:	<u>6/8/04</u>	Date Received:	<u>6/9/04</u>
Date Analyzed:	<u>6/22/04</u>	Matrix:	<u>WATER</u>
File ID:	<u>U062113.RAW</u>	Analytical Run ID:	<u>VA062104</u>
Dilution:	<u>1</u>	Instrument ID:	<u>GCVOA1</u>
Analytical Method:	<u>8021</u>	Associated Blank:	<u>VBA0621W2</u>
Sample Wt/Wol:	<u>5.0</u> Units: <u>mL</u>	Soil Extract Vol:	<u>                    </u>
Soil Aliquot Vol:	<u>                    </u>	% Moisture:	<u>100</u>

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	2.6	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID:	<u>S2962-01</u>	Client ID:	<u>MW-1</u>
Date Collected:	<u>6/8/04</u>	Date Received:	<u>6/9/04</u>
Date Analyzed:	<u>6/22/04</u>	Matrix:	<u>WATER</u>
File ID:	<u>U062113.RAW</u>	Analytical Run ID:	<u>VA062104</u>
Dilution:	<u>1</u>	Instrument ID:	<u>GCVOA1</u>
Analytical Method:	<u>8021</u>	Associated Blank:	<u>VBA0621W2</u>
Sample Wt/Wol:	<u>5.0</u> Units: <u>mL</u>	Soil Extract Vol:	<u>                    </u>
Soil Aliquot Vol:	<u>                    </u>	% Moisture:	<u>100</u>

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	32.186	107 %	40 - 160		SPK: 30
Bromochlorobenzene		21.767	73 %	40 - 160		SPK: 30

## Volatiles SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-02

Client ID: MW-3

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062114.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	1.4	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-02

Client ID: MW-3

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062114.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	33.353	111 %	40 - 160		SPK: 30
Bromochlorobenzene		22.871	76 %	40 - 160		SPK: 30

## Volatiles SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-03

Client ID: MW-5R

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062115.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	1.0	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-03

Client ID: MW-5R

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062115.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	33.122	110 %	40 - 160		SPK: 30
Bromochlorobenzene		20.516	68 %	40 - 160		SPK: 30

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-04

Client ID: MW-6

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062116.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		1.9	J	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	2.0	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L



**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID:	<u>S2962-04</u>	Client ID:	<u>MW-6</u>
Date Collected:	<u>6/8/04</u>	Date Received:	<u>6/9/04</u>
Date Analyzed:	<u>6/22/04</u>	Matrix:	<u>WATER</u>
File ID:	<u>U062116.RAW</u>	Analytical Run ID:	<u>VA062104</u>
Dilution:	<u>1</u>	Instrument ID:	<u>GCVOA1</u>
Analytical Method:	<u>8021</u>	Associated Blank:	<u>VBA0621W2</u>
Sample Wt/Wol:	<u>5.0</u> Units: <u>mL</u>	Soil Extract Vol:	<u>                    </u>
Soil Aliquot Vol:	<u>                    </u>	% Moisture:	<u>100</u>

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	34.34	114 %	40 - 160		SPK: 30
Bromochlorobenzene		20.744	69 %	40 - 160		SPK: 30

**Volatiles**

SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID:	<u>S2962-05</u>	Client ID:	<u>MW-7S</u>
Date Collected:	<u>6/8/04</u>	Date Received:	<u>6/9/04</u>
Date Analyzed:	<u>6/22/04</u>	Matrix:	<u>WATER</u>
File ID:	<u>U062117.RAW</u>	Analytical Run ID:	<u>VA062104</u>
Dilution:	<u>1</u>	Instrument ID:	<u>GCVOA1</u>
Analytical Method:	<u>8021</u>	Associated Blank:	<u>VBA0621W2</u>
Sample Wt/Wol:	<u>5.0</u> Units: <u>mL</u>	Soil Extract Vol:	<u>                    </u>
Soil Aliquot Vol:	<u>                    </u>	% Moisture:	<u>100</u>

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		28		10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	1.6	J	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
Cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	2.0	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: <u>S2962-05</u>	Client ID: <u>MW-7S</u>
Date Collected: <u>6/8/04</u>	Date Received: <u>6/9/04</u>
Date Analyzed: <u>6/22/04</u>	Matrix: <u>WATER</u>
File ID: <u>U062117.RAW</u>	Analytical Run ID: <u>VA062104</u>
Dilution: <u>1</u>	Instrument ID: <u>GCVOA1</u>
Analytical Method: <u>8021</u>	Associated Blank: <u>VBA0621W2</u>
Sample Wt/Wol: <u>5.0</u> Units: <u>mL</u>	Soil Extract Vol: _____
Soil Aliquot Vol: _____	% Moisture: <u>100</u>

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	29.37	98 %	40 - 160		SPK: 30
Bromochlorobenzene		18.653	62 %	40 - 160		SPK: 30

## Volatiles SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-06

Client ID: MW-7I

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062118.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	6.3		5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-06

Client ID: MW-7I

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062118.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	30.264	101 %	40 - 160		SPK: 30
Bromochlorobenzene		19.797	66 %	40 - 160		SPK: 30

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-07

Client ID: MW-7D

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062119.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	1.3	J	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	2.6	J	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962-01

Client: CA Rich Consultants, INC.

Sample ID: S2962-07

Client ID: MW-7D

Date Collected: 6/8/04

Date Received: 6/9/04

Date Analyzed: 6/22/04

Matrix: WATER

File ID: U062119.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: VBA0621W2

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	31.759	106 %	40 - 160		SPK: 30
Bromochlorobenzene		18.871	63 %	40 - 160		SPK: 30

**CHEMTECH**

**QUALITY CONTROL SUMMARY REPORTS**

**GC VOLATILE ORGANICS**



## Volatiles SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Sample ID: VBA0524W2

Client ID: VBLK01

Date Collected: \_\_\_\_\_

Date Received: \_\_\_\_\_

Date Analyzed: 5/24/04

Matrix: WATER

File ID: U052410.RAW

Analytical Run ID: VA052404

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: \_\_\_\_\_

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	< 0.4	U	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Sample ID: VBA0524W2

Client ID: VBLK01

Date Collected: \_\_\_\_\_

Date Received: \_\_\_\_\_

Date Analyzed: 5/24/04

Matrix: WATER

File ID: U052410.RAW

Analytical Run ID: VA052404

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: \_\_\_\_\_

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	29.982	100 %	40 - 160		SPK: 30
Bromochlorobenzene		17.176	57 %	40 - 160		SPK: 30

## Volatiles SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Sample ID: VBA0621W2

Client ID: VBLK02

Date Collected: \_\_\_\_\_

Date Received: \_\_\_\_\_

Date Analyzed: 6/21/04

Matrix: WATER

File ID: U062112.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: \_\_\_\_\_

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Dichlorodifluoromethane	75-71-8	< 0.5	U	5.0	0.5	ug/L
Chloromethane	74-87-3	< 0.6	U	5.0	0.6	ug/L
Vinyl Chloride	75-01-4	< 0.2	U	5.0	0.2	ug/L
Bromomethane	74-83-9	< 0.7	U	5.0	0.7	ug/L
Chloroethane	75-00-3	< 0.4	U	5.0	0.4	ug/L
Trichlorofluoromethane	75-69-4	< 0.4	U	5.0	0.4	ug/L
2,2DCPRPA+Cis1,2Dichloroethen		< 0.3	U	10	0.3	ug/L
1,1-Dichloroethene	75-35-4	< 0.2	U	5.0	0.2	ug/L
Methylene Chloride	75-09-2	< 0.3	U	5.0	0.3	ug/L
Trans-1,2-Dichloroethene	156-60-5	< 0.3	U	5.0	0.3	ug/L
1,1-Dichloroethane	75-34-3	< 0.2	U	5.0	0.2	ug/L
Carbon Tetrachloride	56-23-5	< 0.3	U	5.0	0.3	ug/L
Bromochloromethane	74-97-5	< 0.2	U	5.0	0.2	ug/L
Chloroform	67-66-3	< 0.2	U	5.0	0.2	ug/L
1,1,1-Trichloroethane	71-55-6	< 0.2	U	5.0	0.2	ug/L
1,1-Dichloropropene	563-43-2	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloroethane	107-06-2	< 0.3	U	5.0	0.3	ug/L
Trichloroethene	79-01-6	< 0.2	U	5.0	0.2	ug/L
1,2-Dichloropropane	78-87-5	< 0.2	U	5.0	0.2	ug/L
Dibromomethane	74-95-3	< 0.2	U	5.0	0.2	ug/L
Bromodichloromethane	75-27-4	< 0.1	U	5.0	0.1	ug/L
Trans-1,3-dichloropropene	10061-02-6	< 0.1	U	5.0	0.1	ug/L
cis-1,3-Dichloropropene	10061-01-5	< 0.2	U	5.0	0.2	ug/L
1,1,2-Trichloroethane	79-00-5	< 0.2	U	5.0	0.2	ug/L
1,3-Dichloropropane	142-28-9	< 0.1	U	5.0	0.1	ug/L
Dibromochloromethane	124-48-1	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromoethane	106-93-4	< 0.3	U	5.0	0.3	ug/L
Tetrachloroethene	127-18-4	< 0.4	U	5.0	0.4	ug/L
Chlorobenzene	108-90-7	< 0.2	U	5.0	0.2	ug/L
1,1,1,2 Tetrachloroethane	630-20-6	< 0.2	U	5.0	0.2	ug/L
Bromoform	75-25-2	< 0.04	U	5.0	0.04	ug/L
1,1,2,2 Tetrachloroethane	79-34-5	< 0.1	U	5.0	0.1	ug/L
1,2,3-Trichloropropane	96-18-4	< 0.2	U	5.0	0.2	ug/L
Bromobenzene	108-86-1	< 0.3	U	5.0	0.3	ug/L

**Volatiles**  
SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Sample ID: VBA0621W2

Client ID: VBLK02

Date Collected: \_\_\_\_\_

Date Received: \_\_\_\_\_

Date Analyzed: 6/21/04

Matrix: WATER

File ID: U062112.RAW

Analytical Run ID: VA062104

Dilution: 1

Instrument ID: GCVOA1

Analytical Method: 8021

Associated Blank: \_\_\_\_\_

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol: \_\_\_\_\_

Soil Aliquot Vol: \_\_\_\_\_

% Moisture: 100

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
2-Chlorotoluene	95-49-8	< 0.2	U	5.0	0.2	ug/L
4-Chlorotoluene	106-43-4	< 0.3	U	5.0	0.3	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.1	U	5.0	0.1	ug/L
Hexachlorobutadiene	87-68-3	< 0.7	U	5.0	0.7	ug/L
1,2,3-Trichlorobenzene	87-61-6	< 0.3	U	5.0	0.3	ug/L
<b>SURROGATES</b>						
1,4 Dichlorobutane	75-25-2	32.585	109 %	40 - 160		SPK: 30
Bromochlorobenzene		20.739	69 %	40 - 160		SPK: 30

**Surrogate Summary**  
SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Analytical Method: EPA SW846 8021

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
BSA0524W1	LCS01	1,4 Dichlorobutane	30	29.449	98		40.00	160.00
		Bromochlorobenzene	30	31.453	105		40.00	160.00
S2607-02MS	S2607-02MS	1,4 Dichlorobutane	30	27.938	93		40.00	160.00
		Bromochlorobenzene	30	29.071	97		40.00	160.00
S2607-02MSD	S2607-02MSD	1,4 Dichlorobutane	30	31.26	104		40.00	160.00
		Bromochlorobenzene	30	30.827	103		40.00	160.00
S2962-01	MW-1	1,4 Dichlorobutane	30	32.186	107		40.00	160.00
		Bromochlorobenzene	30	21.767	73		40.00	160.00
S2962-02	MW-3	1,4 Dichlorobutane	30	33.353	111		40.00	160.00
		Bromochlorobenzene	30	22.871	76		40.00	160.00
S2962-03	MW-5R	1,4 Dichlorobutane	30	33.122	110		40.00	160.00
		Bromochlorobenzene	30	20.516	68		40.00	160.00
S2962-04	MW-6	1,4 Dichlorobutane	30	34.34	114		40.00	160.00
		Bromochlorobenzene	30	20.744	69		40.00	160.00
S2962-05	MW-7S	1,4 Dichlorobutane	30	29.37	98		40.00	160.00
		Bromochlorobenzene	30	18.653	62		40.00	160.00
S2962-06	MW-7I	1,4 Dichlorobutane	30	30.264	101		40.00	160.00
		Bromochlorobenzene	30	19.797	66		40.00	160.00
S2962-07	MW-7D	1,4 Dichlorobutane	30	31.759	106		40.00	160.00
		Bromochlorobenzene	30	18.871	63		40.00	160.00
VBA0524W2	VBLK01	1,4 Dichlorobutane	30	29.982	100		40.00	160.00
		Bromochlorobenzene	30	17.176	57		40.00	160.00
VBA0621W2	VBLK02	1,4 Dichlorobutane	30	32.585	109		40.00	160.00
		Bromochlorobenzene	30	20.739	69		40.00	160.00

**Matrix Spike/Matrix Spike Duplicate Summary**

SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Analytical Method: EPA SW846 8021

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec RPD	Qual	Low	Limits High	RPD
Client Sample ID: S2607-02MS									
S2607-02MS	Trans-1,2-Dichloroethene	50	0.0	49	99		50	150	
	1,1-Dichloroethane	50	0.0	51	101		50	150	
	2,2DCPRPA+Cis1,2Dichloroethe	100	0.0	104	104		50	150	
	Chloroform	50	0.0	49	98		50	150	
	Bromochloromethane	50	0.0	50	99		50	150	
	1,1,1-Trichloroethane	50	0.0	50	100		50	150	
	1,1-Dichloropropene	50	0.0	50	100		50	150	
	Carbon Tetrachloride	50	0.0	51	103		50	150	
	1,2-Dichloroethane	50	0.0	48	96		50	150	
	Trichloroethene	50	0.0	50	100		50	150	
	1,2-Dichloropropane	50	0.0	48	96		50	150	
	Bromodichloromethane	50	0.0	55	111		50	150	
	Dibromomethane	50	0.0	48	96		50	150	
	cis-1,3-Dichloropropene	50	0.0	50	101		50	150	
	Trans-1,3-dichloropropene	50	0.0	50	101		50	150	
	1,1,2-Trichloroethane	50	0.0	47	94		50	150	
	1,3-Dichloropropane	50	0.0	50	100		50	150	
	Tetrachloroethene	50	0.0	48	95		50	150	
	Dibromochloromethane	50	0.0	48	95		50	150	
	1,2-Dibromoethane	50	0.0	49	99		50	150	
	Chlorobenzene	50	0.0	50	100		50	150	
	1,1,1,2 Tetrachloroethane	50	0.0	48	96		50	150	
	Bromoform	50	0.0	43	85		50	150	
	1,1,2,2 Tetrachloroethane	50	0.0	42	84		50	150	
	1,2,3-Trichloropropane	50	0.0	46	92		50	150	
	Bromobenzene	50	0.0	50	99		50	150	
	2-Chlorotoluene	50	0.0	51	103		50	150	
	4-Chlorotoluene	50	0.0	50	100		50	150	
	1,2-Dibromo-3-Chloropropane	50	0.0	42	85		50	150	
	Hexachlorobutadiene	50	0.0	45	90		50	150	
	1,2,3-Trichlorobenzene	50	0.0	40	80		50	150	
	Dichlorodifluoromethane	50	0.0	44	88		50	150	
	Chloromethane	50	0.0	41	82		50	150	
	Vinyl Chloride	50	0.0	40	80		50	150	
	Bromomethane	50	0.0	49	98		50	150	
	Chloroethane	50	0.0	51	101		50	150	
	Trichlorofluoromethane	50	0.0	48	95		50	150	
	1,1-Dichloroethene	50	0.0	48	96		50	150	
	Methylene Chloride	50	0.0	46	92		50	150	

**Matrix Spike/Matrix Spike Duplicate Summary**  
SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Analytical Method: EPA SW846 8021

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Low	Limits	
									High	RPD
Client Sample ID: S2607-02MSD										
S2607-02MSD	Dichlorodifluoromethane	50	0.0	43	86	2		50	150	20
	Chloromethane	50	0.0	45	90	9		50	150	20
	Vinyl Chloride	50	0.0	46	91	13		50	150	20
	Bromomethane	50	0.0	52	105	6		50	150	20
	Chloroethane	50	0.0	59	119	16		50	150	20
	Trichlorofluoromethane	50	0.0	50	101	6		50	150	20
	1,1-Dichloroethene	50	0.0	55	111	14		50	150	20
	Methylene Chloride	50	0.0	52	103	12		50	150	20
	Trans-1,2-Dichloroethene	50	0.0	56	112	12		50	150	20
	1,1-Dichloroethane	50	0.0	56	111	9		50	150	20
	2,2DCPRPA+Cis1,2Dichloroethe	100	0.0	117	117	12		50	150	20
	Chloroform	50	0.0	54	109	10		50	150	20
	Bromochloromethane	50	0.0	55	110	10		50	150	20
	1,1,1-Trichloroethane	50	0.0	52	104	4		50	150	20
	1,1-Dichloropropene	50	0.0	54	107	6		50	150	20
	Carbon Tetrachloride	50	0.0	55	110	6		50	150	20
	1,2-Dichloroethane	50	0.0	53	106	9		50	150	20
	Trichloroethene	50	0.0	55	111	11		50	150	20
	1,2-Dichloropropane	50	0.0	56	112	15		50	150	20
	Bromodichloromethane	50	0.0	60	121	9		50	150	20
	Dibromomethane	50	0.0	55	110	13		50	150	20
	cis-1,3-Dichloropropene	50	0.0	58	116	14		50	150	20
	Trans-1,3-dichloropropene	50	0.0	58	115	13		50	150	20
	1,1,2-Trichloroethane	50	0.0	54	109	15		50	150	20
	1,3-Dichloropropane	50	0.0	57	114	13		50	150	20
	Tetrachloroethene	50	0.0	53	106	11		50	150	20
	Dibromochloromethane	50	0.0	55	109	14		50	150	20
	1,2-Dibromoethane	50	0.0	56	113	13		50	150	20
	Chlorobenzene	50	0.0	50	101	1		50	150	20
	1,1,1,2 Tetrachloroethane	50	0.0	57	113	16		50	150	20
	Bromoform	50	0.0	50	101	16		50	150	20
	1,1,2,2 Tetrachloroethane	50	0.0	46	91	8		50	150	20
	1,2,3-Trichloropropane	50	0.0	49	98	7		50	150	20
	Bromobenzene	50	0.0	53	105	6		50	150	20
	2-Chlorotoluene	50	0.0	57	113	10		50	150	20
	4-Chlorotoluene	50	0.0	51	103	2		50	150	20
	1,2-Dibromo-3-Chloropropane	50	0.0	47	94	11		50	150	20
	Hexachlorobutadiene	50	0.0	52	104	15		50	150	20
	1,2,3-Trichlorobenzene	50	0.0	34	68	16		50	150	20

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Analytical Method: EPA SW846 8021

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
BSA0524W1	Dichlorodifluoromethane	50	60	120			50	150	
	Chloromethane	50	45	90			50	150	
	Vinyl Chloride	50	47	94			50	150	
	Bromomethane	50	49	98			50	150	
	Chloroethane	50	57	114			50	150	
	Trichlorofluoromethane	50	50	100			50	150	
	1,1-Dichloroethene	50	55	110			50	150	
	Methylene Chloride	50	52	104			50	150	
	Trans-1,2-Dichloroethene	50	56	112			50	150	
	1,1-Dichloroethane	50	56	112			50	150	
	2,2DCPRPA+Cis1,2Dichloroethene	100	110	110			50	150	
	Chloroform	50	52	104			50	150	
	Bromochloromethane	50	53	106			50	150	
	1,1,1-Trichloroethane	50	53	106			50	150	
	1,1-Dichloropropene	50	53	106			50	150	
	Carbon Tetrachloride	50	54	108			50	150	
	1,2-Dichloroethane	50	50	100			50	150	
	Trichloroethene	50	54	108			50	150	
	1,2-Dichloropropane	50	54	108			50	150	
	Bromodichloromethane	50	63	126			50	150	
	Dibromomethane	50	53	106			50	150	
	cis-1,3-Dichloropropene	50	59	118			50	150	
	Trans-1,3-dichloropropene	50	58	116			50	150	
	1,1,2-Trichloroethane	50	54	108			50	150	
	1,3-Dichloropropane	50	56	112			50	150	
	Tetrachloroethene	50	53	106			50	150	
	Dibromochloromethane	50	55	110			50	150	
	1,2-Dibromoethane	50	53	106			50	150	
	Chlorobenzene	50	59	118			50	150	
	1,1,1,2 Tetrachloroethane	50	51	102			50	150	
	Bromoform	50	53	106			50	150	
	1,1,2,2 Tetrachloroethane	50	45	90			50	150	
	1,2,3-Trichloropropane	50	50	100			50	150	
	Bromobenzene	50	55	110			50	150	
	2-Chlorotoluene	50	56	112			50	150	
	4-Chlorotoluene	50	56	112			50	150	
	1,3-Dichlorobenzene	50	59	118			50	150	
	1,4-Dichlorobenzene	50	56	112			50	150	
	1,2-Dichlorobenzene	50	58	116			50	150	
	1,2-Dibromo-3-Chloropropane	50	48	96			50	150	
	Hexachlorobutadiene	50	53	106			50	150	



**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: S2962

Client: CA Rich Consultants, INC.

Analytical Method: EPA SW846 8021

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
BSA0524W1	1,2,3-Trichlorobenzene	50	63	126			50	150	

**CHEMTECH**

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**END OF ANALYTICAL RESULTS**