ANNUAL MONITORING REPORT – 2003/2004

PAYNESVILLE MUNICIPAL WATER SUPPLY – MPCA
PAYNESVILLE, MINNESOTA
MPCA SITE ID # LEAK00000131

Terracon Project No. 41987018
May 24, 2004

Prepared for:

MINNESOTA POLLUTION CONTROL AGENCY
Majors and Remediation Division
Petroleum and Landfill Remediation Section
520 Lafayette Road North
St. Paul, Minnesota 55155

Prepared by:

TERRACON
3535 Hoffman Road East
White Bear Lake, Minnesota 55110

Terracon

Approximate location of former Midtown Auto Site (LEAK2181).

What method was used to determine the coordinate? (i.e. GPS receiver, map interpolation, address matching, etc. Please describe)
UTM coordinates for site were located in NAD 27 using topozone.com and translated into NAD 83 using jeeep.com/details/coord.

If a paper map, digital map, aerial photo or digital orthophotoquad was used to find the site location, please provide the scale of the map or photo (i.e. 1:24,000, etc.)
USGS 7 ½ minute topographic map on topozone.com at a scale of 1:25,000.

Section 1. GROUND WATER MONITORING

Discuss the groundwater monitoring results, including water level measurements and analytical results, performed since the remedial investigation (RI) report or the last progress report submitted. Indicate whether samples were purged or unpurged (see fact sheet 3.23). If purged, indicate purging method.

Fluid levels were collected from wells (map unit number in parentheses) DW-1(1), DW-2(2), DW-3(3), DW-4(4), DW-5(45), DW-6(46); Midtown wells MW-10(24), MW-10D(5), MW-14(25), MW-14D(6), MW-16(27), and MW-17(28); Johnson wells MW-4(44) and MW-5(7); and City of Paynesville monitoring wells identified as map units 42 and 43 (Figures 1 and 2) on a quarterly basis from June 2003 through May 2004. Well construction information is summarized in Table 1. The fluid level data is presented in Table 2. The fluid level data from wells screened between 75 and 95 feet below ground surface were used to prepare the groundwater contour maps depicted in Figures 3A through 3D.

The contour maps for July 2003, October 2003, February 2004, and April 2004 show variability between groundwater flow directions to the northeast and to the southwest. The groundwater elevation at monitoring well MW-10D was considerably higher than at the surrounding deep monitoring and recovery wells during the November 2002 and the July 2003 and February 2004 monitoring events. The higher groundwater elevation at MW-10D has significantly affected the calculated horizontal groundwater flow direction. A review of the historical data indicates the groundwater elevation at MW-10D has periodically been higher than the surrounding wells; therefore, the recent data does not appear to be anomalous. The horizontal flow direction for the deeper wells has historically been to the southeast.

Fluid level data from select monitoring wells screened within the drinking water aquifer and/or located near recovery well DW-5 are depicted on hydrographs in Figures 4A and 4B. The hydrographs illustrate season fluctuations in groundwater elevations, and in the

case of wells CMW-42 (42) and DW-5 (45) (Figure 4A) the results of groundwater pumping activities.

Groundwater samples were collected from City Well CW-4(10) on a monthly basis for laboratory analysis. Groundwater samples were collected from City Well CW-3(9), Water Treatment Plant Influent, Water Treatment Plant Effluent, monitoring wells DW-3 (3), DW-6 (46), and midtown well MW-17 and recovery well DW-5(45) on a quarterly basis; from monitoring wells DW-7S(48), DW-7D(49) on a semi-annual basis; and from City Wells CW-5 through CW-8 on an annual basis for laboratory analysis during this reporting period. Two samples continued to be taken from the water treatment plant effluent as this is chlorinated water which occasionally reacts with the HCl. One water treatment plant effluent sample included HCl as a preservative; the other effluent sample did not contain the HCl preservative to allow the laboratory to analyze an unpreserved sampling if the holding time (7 days) permits. Groundwater samples were collected from the city wells via sampling taps after minimal purging. Groundwater samples were collected from the monitoring wells after purging three to five well volumes using disposable bailers, dedicated plastic purge pumps with polyethylene tubing or a Grundfos Redi-Flow 2 sampling pump with dedicated polyethylene tubing as described in the attached sampling forms. The laboratory results are summarized in Table 3. Natural attenuation monitoring parameters are summarized in Table 4. Laboratory reports and the sampling information forms are included in Appendix D.

The bi-monthly groundwater samples from the city water treatment plant influent, the quarterly groundwater samples from city well CW-3 and monitoring well DW-3, semi-annual groundwater samples from monitoring wells MW-17, DW-7S, and DW-7D, and annual groundwater samples from city wells CW-7 and CW-8 exhibited non-detectable concentrations of target VOCs (volatile organic compounds). Laboratory analysis of groundwater samples from city wells CW-5 and CW-6 detected 0.091 µg/L and 0.081 µg/L of benzene, respectively, during their annual sampling on October 28, 2003. Laboratory analysis of groundwater samples from the city water treatment plant effluent detected 0.55µg/L of ethyl benzene and 3.9µg/L of total xylenes during the May 19, 2003 bi-monthly sampling event. Volatile organic compounds detected in the water treatment plant effluent samples did not reveal a pattern and the origin for the detected compounds could not be identified through analytical results from the city wells (Figure 5A). It is possible that the sand filter in the water treatment plant contains residual concentrations of contaminant compounds that are periodically detected in the effluent samples.

Groundwater samples from monitoring well DW-6 have shown consistent significant concentrations of benzene, xylenes, and GRO along with less significant detection of ethyl benzene. After contaminant concentration peaked in October 2003, concentrations of petroleum related VOCs have decreased for the remainder of this monitoring period (Figure 5B).

Groundwater samples from city well CW-4 have shown consistent detection of benzene and 1,2 DCA in the last twelve months (May 2003 through April 2004). Benzene concentrations have been decreasing throughout the monitoring period and the 1,2 DCA concentrations have decreased overall as well (Figure 5A). The pumping rate of City Well CW-4 was increased on December 20, 2001 from approximately 75 gpm for 12 hours per day, to 125 gpm continuously for 24 hours per day. During July 2002 the pumping rated was reduced to approximately 95 gpm. The higher pumping rate of City Well CW-4 initially resulted in increased contaminant concentrations in the discharge water. Decreasing the depth of the pump in City Well CW-4 may have also resulted in increased contaminant concentrations in the discharge water. However, benzene concentrations in samples collected from City Well CW-4 have been decreasing since Spring 2004. It is our understanding that City Well CW-3 (~100 gpm) and CW-8 (~500 gpm) are on-line on a full time basis and City Well CW-5, CW-6 and CW-7 are pumped at approximately 400 gpm on an alternating basis to meet the water treatment plant processing rate of approximatey1,000 gpm.

The City of Paynesville is currently completing road construction and storm sewer modifications that required that the City Well CW-4 be shut down for the period of April 27, 2004 to May 17, 2004. The modifications were required such that a portion of the storm water within Paynesville could be re-routed to an infiltration pond. The discharge point for the effluent from City Well CW-4 has not changed. Copies of the plans are included in Appendix D.

Pumping was discontinued at recovery well DW-5 on May 23, 2002 as recommended in annual report 2001/2002 annual monitoring report. Water has not been pumped from DW-5 during this reporting period, other than to collect water samples for laboratory analysis. Contaminant concentrations in groundwater samples collected from well DW-5 have generally increased since pumping was discontinued. The benzene concentrations have increased from 350 ug/L in April 2003 to 400 ug/L in April 2004. The ethyl benzene, total xylenes and GRO (gasoline range organics) have also increased since pumping activities were suspended (Figure 5B and Table 3).

Section 2. VAPOR IMPACT MONITORING

If vapor impacts were detected during previous assessments, discuss the results of follow-up vapor monitoring. Include in your discussion the sampling instrument and sampling method.

No new vapor surveys were conducted during the 2003/ 2004monitoring period. See Table 5.

NOTE: If vapor concentrations exceed 10 percent of the lower explosive limit, exit the building and contact the local fire department immediately. Then contact the Minnesota

Duty Officer (24 hours) at 651/649-5451 (metro and outside Minnesota) or 1-800/422-0798 (Greater Minnesota). TTY users call 651/297-5353 (V/TTY) or 1-800/627-3529 (V/TTY).
Vapor mitigation is required.

Section 3. RECOMMENDATIONS

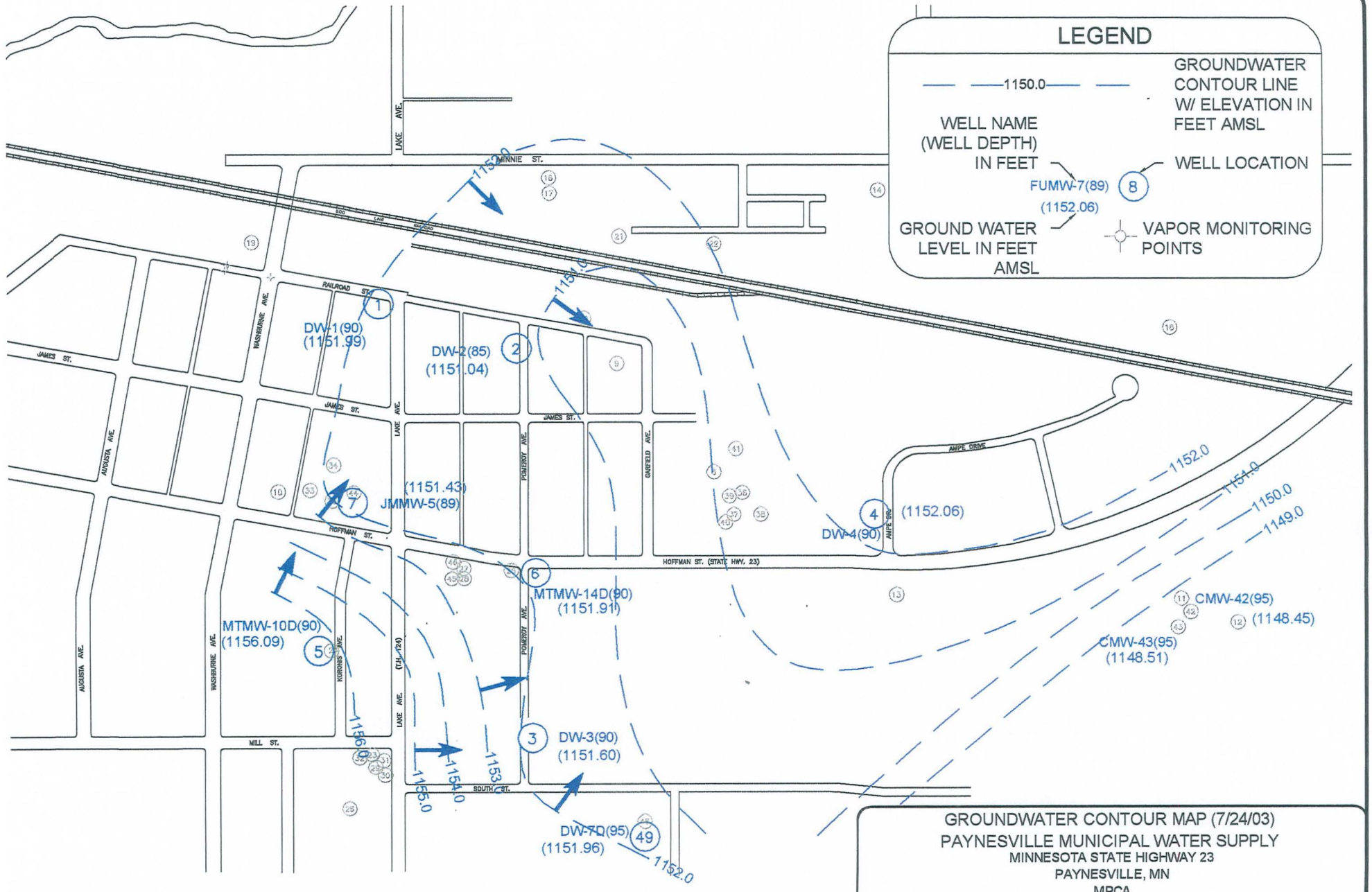
Discuss your recommendations. Your recommendation should be based on fact sheet #3.1, *Leaking Underground Storage Tank Program.*

If additional corrective action is recommended, please provide your justification.
Not Applicable.

If significant reduction of risk has been achieved at the site, recommendations and rationale for the reduction or termination of corrective actions may be presented.
Not Applicable.

If additional monitoring is recommended, indicate the proposed monitoring schedule and frequency.
Groundwater quality data collected from City Well CW-4 and monitoring well DW-3 suggests that the contamination plume is responsive to city well pumping activities and that plume migration may be influence by city well pumping rates. The increased pumping activity of City Well CW-4 appears to have contributed to decreased concentrations of petroleum contaminants in groundwater samples from monitoring well DW-3. However, benzene and 1,2-DCA concentrations in water samples collected from City Well CW-4 have been decreasing since Spring 2004. This decrease may be indicative of a reduction in the dissolved phase petroleum, an insufficient pumping rate or other unidentified well or pump issue. The current pumping rate at City Well CW-4 of approximately 95 gpm appears to be controlling contamination plume migration in the direction of City Wells CW-5 through CW-7. The pumping rate of City Well CW-4 should be limited so that it does not promote excessive migration of the contaminant plume further to the north or downward into the drinking water aquifer. The current pump installed in the well can not be operated at a lower pumping rate. Continued analysis of samples from the water treatment plant, city wells, and select monitoring wells should be performed in order to monitor the quality of the water supply and contaminant plume stability or migration.

Groundwater quality data collected from wells DW-5, DW-6 and MW-17 suggest that although previous pumping activities at recovery well DW-5 have decreased petroleum concentrations at the location of the well, the impact from these activities was likely limited in extent. Terracon recommends that pumping activities remain suspended and that groundwater quality data be collected to assess whether there is substantial additional rebound of petroleum concentrations. Prior attempts to find an alternative

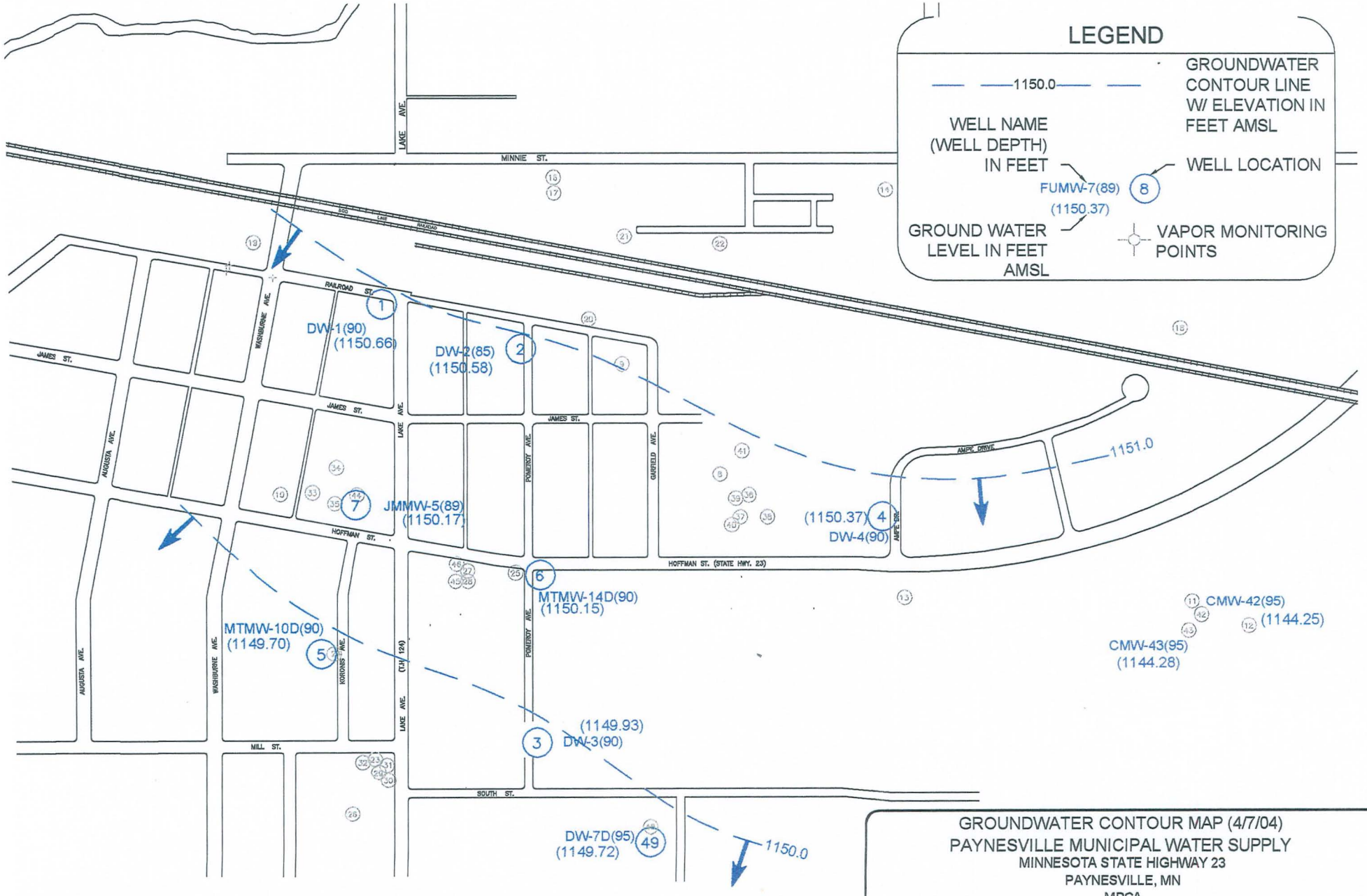


NOTE: THE GROUNDWATER CONTOURS ILLUSTRATED ARE BASED UPON INTERPOLATIONS OF WATER LEVEL DATA OBTAINED FROM WELLS ON 7/24/03. ACTUAL CONDITIONS MAY VARY.

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

GROUNDWATER CONTOUR MAP (7/24/03)
PAYNESVILLE MUNICIPAL WATER SUPPLY
MINNESOTA STATE HIGHWAY 23
PAYNESVILLE, MN
MPCA

Project Mngr:	PJW	Terracon	Project No.	41987018
Designed By:	STH	3535 Hoffman Road East White Bear Lake, MN 55110	Scale:	AS SHOWN
Checked By:	PJW		Date:	5/12/04
Approved By:	PJW		Drawn By:	CDR (41)
File Name:	41987018gw.dwg	Layout1	Figure No.	3A



NOTE: THE GROUNDWATER CONTOURS ILLUSTRATED ARE BASED UPON INTERPOLATIONS OF WATER LEVEL DATA OBTAINED FROM WELLS ON 4/7/04. GROUNDWATER ELEVATION DATA COLLECTED FROM WELLS CMW-42 & CMW-43 WERE NOT USED IN THE PREPARATION OF THIS MAP. ACTUAL CONDITIONS MAY VARY.

IAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

GROUNDWATER CONTOUR MAP (4/7/04)
PAYNESVILLE MUNICIPAL WATER SUPPLY
MINNESOTA STATE HIGHWAY 23
PAYNESVILLE, MN
MPCA

Project Mngr:	PJW	Terracon	Project No.	41987018
Designed By:	STH	3535 Hoffman Road East White Bear Lake, MN 55110	Scale:	AS SHOWN
Checked By:	PJW		Date:	5/12/04
Approved By:	PJW		Drawn By:	CDR (41)
File Name:				

FIGURE 5A - BENZENE CONCENTRATIONS vs. TIME
CITY WELLS AND TREATMENT PLANT
PAYNESVILLE MUNICIPAL WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

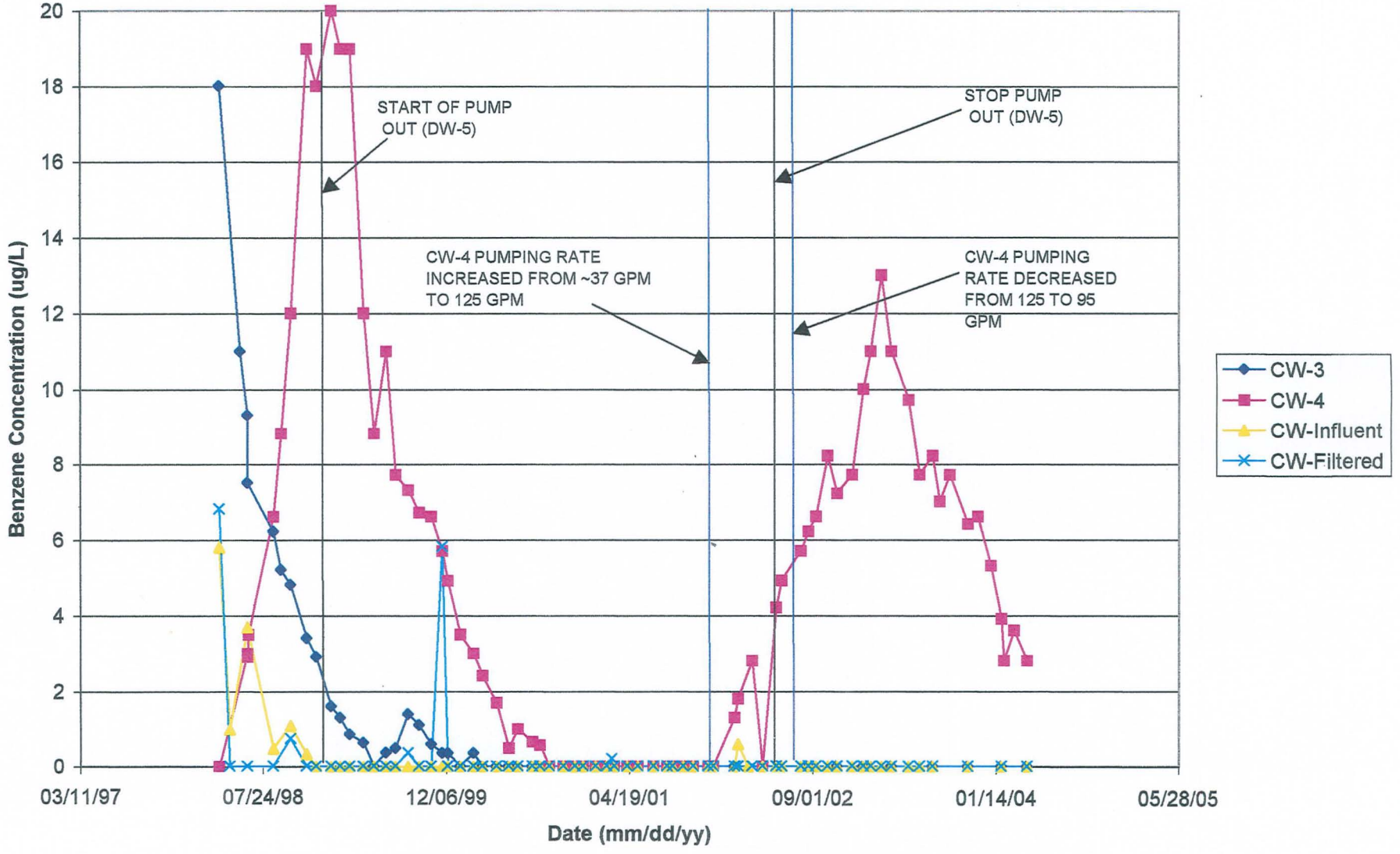


FIGURE 5B - BENZENE CONCENTRATIONS vs. TIME
MONITORING AND RECOVERY WELLS
PAYNESVILLE MUNICIPAL WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

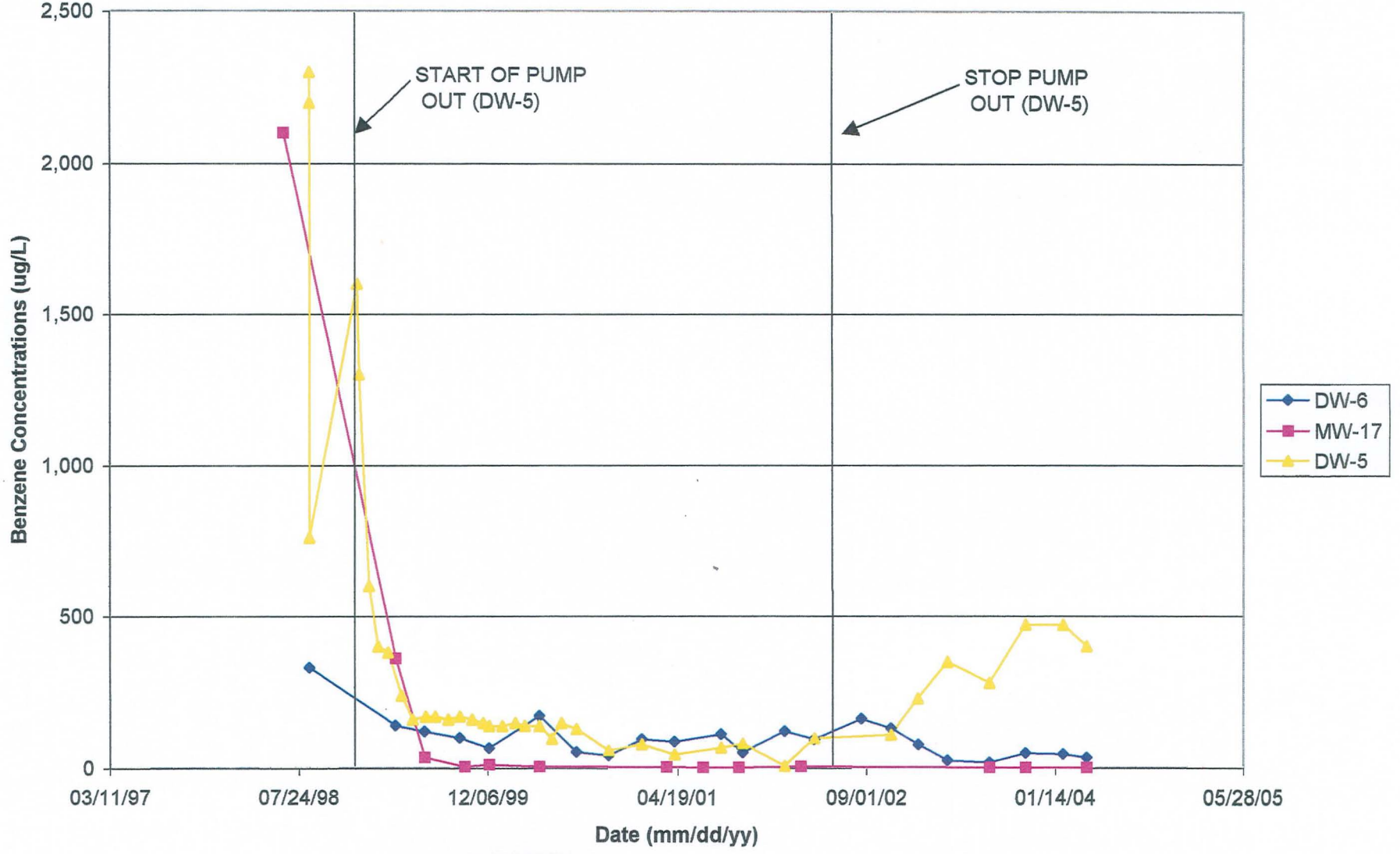


TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	MONITORING WELLS											
1	DW-1	*G	03/05/98	<1	<1	<1	<3	<5	<5	<1	-	-
1	DW-1		03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
1	DW-1	*G	06/13/98	<1	<1	<1	<3	-	<5	<1	-	-
1	DW-1		06/13/98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
2	DW-2	G	03/06/98	<1	<1	<1	<3	<5	<5	**20**	-	-
2	DW-2		03/25/98	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-
2	DW-2	G	06/13/98	<1	<1	<1	<3	-	<5	<1	-	-
2	DW-2		06/13/98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
3	DW-3	G	03/16/98	<1	<1	<1	<3	<5	<5	<1	-	-
3	DW-3		03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
3	DW-3	G	06/13/98	<1	<1	<1	<3	-	<5	<1	-	-
3	DW-3		06/13/98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
3	DW-3		09/22/99	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
3	DW-3		12/09/99	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
3	DW-3		04/20/00	<1.0	**2.2**	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		07/27/00	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
3	DW-3		10/20/00	**4.9**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		01/16/01	<1.0	**4.4**	<1.0	**3.0**	<5.0	-	-	<100	-
3	DW-3	2	04/12/01	<1.0	**6.1**	<1.0	<3.0	<5.0	-	-	**400**	-
3	DW-3		08/13/01	**17**	<1.0	<1.0	<3.0	<5.0	<5.0	<5.0	<100	-
3	DW-3		10/09/01	**25**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		11/19/01	**24**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		01/29/02	**8.8**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		04/16/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		08/19/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		11/05/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		01/17/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		04/04/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		07/24/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		10/28/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		02/04/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
4	DW-4	G	03/16/98	<1	<1	<1	<3	<5	<5	<1	-	-
4	DW-4		03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
4	DW-4	G	06/13/98	<1	<1	<1	<3	-	<5	<1	-	-
4	DW-4		06/13/98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
46	DW-6	G	08/20/98	**330**	<100	<100	<300	-	<500	<100	-	-
46	DW-6		04/05/99	**140**	**3.9**	**29**	**17.4**	-	-	-	**720**	**150**
46	DW-6		06/21/99	**120**	**2.1**	**25**	**14**	-	-	-	**660**	**100**
46	DW-6		09/22/99	**99**	**1.4**	**16**	**9.3**	**10**	-	-	**400**	-
46	DW-6		12/09/99	**64**	**5.3**	**20**	**29**	**20**	-	-	**570**	-
46	DW-6		04/20/00	**170**	**1.6**	**9.8**	**24**	**13**	-	-	**760**	-
46	DW-6		07/27/00	**51**	**1.6**	**9.8**	**13**	<5.0	-	-	**260**	-
46	DW-6		10/20/00	**40**	<1.0	**10**	**7.3**	**6.2**	-	-	**370**	-
46	DW-6		01/16/01	**93**	**1.5**	**5.0**	**17**	**5.1**	-	-	**420**	-
46	DW-6		04/12/01	**86**	<1.0	**2.8**	**15**	**7.7**	-	-	**290**	-
46	DW-6		08/13/01	**110**	<1.0	**3.2**	**16**	**6.6**	-	-	**300**	-
46	DW-6		10/09/01	**50**	<1.0	**3.5**	**4.2**	<5.0	-	-	**180**	-
46	DW-6		01/29/02	**120**	**1.1**	**7.0**	**21**	**5.6**	-	-	**340**	-
46	DW-6		04/16/02	**93**	<1.0	**4.7**	**19**	**5.8**	-	-	**290**	-
46	DW-6		08/19/02	**160**	**1.1**	**2.7**	**16**	**5.1**	-	-	**360**	-
46	DW-6		11/05/02	**130**	<1.0	**2.1**	**17**	<5.0	-	-	**290**	-
46	DW-6		01/17/03	**76**	<1.0	**2.4**	**7.8**	<5.0	-	-	**180**	-

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PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
46	DW-6		04/04/03	**23**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
46	DW-6		07/24/03	**17**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
46	DW-6		10/28/03	**48**	<1.0	**1.7**	**5.3**	<5.0	-	-	**150**	-
46	DW-6		02/04/04	**45**	<1.0	**1.8**	<3.0	<5.0	-	-	**120**	-
46	DW-6		04/07/04	**32**	<1.0	<1.0	<3.0	<5.0	-	-	**130**	-
48	DW-7S		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
48	DW-7S	3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
48	DW-7S		10/09/01	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		01/29/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		04/16/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		11/05/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		04/03/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		10/28/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
49	DW-7D	3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
49	DW-7D		10/09/01	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		01/29/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		04/16/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		11/05/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		04/03/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		10/28/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
21	BEI-MW-2		03/25/98	<0.30	**0.61**	<0.50	<1.2	<1.0	<0.40	<0.50	-	**170**
27	MW-16		04/05/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		06/21/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		10/06/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		12/09/99	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
27	MW-16		04/20/00	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
27	MW-16		03/22/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		06/26/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		09/28/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		03/12/02	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17	G	06/13/98	**2,100**	<100	<100	<300	-	<500	**140**	-	-
28	MW-17		04/05/99	**360**	<2.0	<2.0	<6.0	-	-	-	**540**	<100
28	MW-17		06/21/99	**35**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		10/06/99	**2.8**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		12/09/99	**9.2**	**1.7**	**1.2**	**5.8**	<5.0	-	-	<100	-
28	MW-17		04/20/00	**2.9**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		03/22/01	**2.1**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		06/26/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		09/28/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		03/12/02	**2.5**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		07/24/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		10/28/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	POTABLE WELLS											
9	CW-3		03/25/98	**18**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		05/20/98	**11**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3	G	06/10/98	**9.3**	<1	<1	<3	-	<5	<1	-	-
9	CW-3		06/10/98	**7.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
9	CW-3		08/20/98	**6.2**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		09/09/98	**5.2**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		10/05/98	**4.8**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		11/18/98	**3.4**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		12/15/98	**2.9**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		01/25/99	**1.6**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		02/18/99	**1.3**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		03/17/99	**0.86**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		04/22/99	**0.63**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		05/21/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
9	CW-3		06/24/99	**0.37**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		07/19/99	**0.48**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		08/23/99	**1.4**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		09/22/99	**1.1**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		10/25/99	**0.59**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		11/24/99	**0.35**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		12/09/99	**0.36**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		01/13/00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	-	-
9	CW-3		02/17/00	**0.35**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		03/13/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		04/20/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		05/23/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		06/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		07/27/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
9	CW-3		08/16/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		09/12/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
9	CW-3		04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	11/05/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		04/03/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	3	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3		01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.50	<0.50	-	-
9	CW-3		04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
10	CW-4		12/19/90	**2.2**	<0.2	<0.2	**0.4**	<0.2	<0.5	**0.3**	-	-
10	CW-4		10/23/97	**16**	<0.30	<0.50	<1.2	<1.0	<0.40	**1.5**	-	-
10	CW-4		03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	G	06/10/98	**3.0**	<1	<1	<3	-	<5	**2.2**	-	-
10	CW-4		06/10/98	**2.9**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	-	-
10	CW-4	G	06/13/98	**3.5**	<1	<1	<3	-	<5	**2.7**	-	-
10	CW-4		08/20/98	**6.6**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4		09/09/98	**8.8**	<0.3	<0.5	<1.2	<1.0	<0.4	**0.78**	-	-
10	CW-4		10/05/98	**12**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4		11/18/98	**19**	<0.3	<0.5	<1.2	<1.0	<0.4	**0.6**	-	-
10	CW-4		12/15/98	**18**	**0.4**	<0.5	<1.2	<1.0	<0.4	**0.8**	-	-
10	CW-4		01/25/99	**20**	**0.38**	**0.51**	<1.2	<1.0	<0.4	**1.1**	-	-
10	CW-4		02/18/99	**19**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4		03/17/99	**19**	<0.3	**0.55**	<1.2	<1.0	<0.4	**0.88**	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
10	CW-4		04/22/99	**12**	<0.3	<0.50	<1.2	<1.0	<0.4	**0.51**	-	-
10	CW-4		05/21/99	**8.8**	<0.3	<0.50	<1.2	<1.0	<0.4	**0.62**	-	-
10	CW-4		06/24/99	**11**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		07/19/99	**7.7**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		08/23/99	**7.3**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		09/22/99	**6.7**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.59**	-	-
10	CW-4		10/25/99	**6.6**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		11/24/99	**5.7**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.5**	-	-
10	CW-4		12/09/99	**4.9**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		01/13/00	**3.5**	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	-	-
10	CW-4		02/17/00	**3.0**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.72**	-	-
10	CW-4		03/13/00	**2.4**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	*	04/20/00	**1.7**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		05/23/00	**0.49**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		06/17/00	**1.0**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4		07/27/00	**0.66**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.67**	-	-
10	CW-4		08/16/00	**0.56**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		09/12/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
10	CW-4		02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	**0.55**	-	-
10	CW-4		03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	07/30/01	**0.38 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	09/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	**0.75**	-	-
10	CW-4		10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	**0.78**	**0.77**	-	-
10	CW-4	3	11/19/01	**0.17 J**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.37 J**	-	-
10	CW-4	3	12/03/01	**0.11 J**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.37 J**	-	-
10	CW-4	3	01/29/02	**1.3**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.31 J**	-	-
10	CW-4	3	02/08/02	**1.8**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.37 J**	-	-
10	CW-4	3	03/19/02	**2.8**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	05/23/02	**4.2**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.62**	-	-
10	CW-4	3	06/07/02	**4.9**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.66**	-	-
10	CW-4	3	07/30/02	**5.7**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	08/19/02	**6.2**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	09/09/02	**6.6**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4		10/11/02	**8.2**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	11/05/02	**7.2**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.70**	-	-
10	CW-4	3	12/16/02	**7.7**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	01/16/03	**10**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
10	CW-4	3	02/06/03	**11**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.86**	-	-
10	CW-4	3	03/06/03	**13**	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
10	CW-4	5	04/03/03	**11**	<1.0	<1.0	<3.0	<1.0	<5.0	**0.089 J**	-	-
10	CW-4	3	05/19/03	**9.7**	<1.0	<1.0	<3.0	<1.0	<5.0	**0.63**	-	-
10	CW-4	3, 4	06/19/03	**7.7**	<0.50	<0.50	<1.5	<1.0	<2.0	**0.63**	-	-
10	CW-4	1	07/24/03	**8.2**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.64**	-	-
10	CW-4	3	08/12/03	**7.0**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.67**	-	-
10	CW-4	1,3	09/09/03	**7.7**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.79**	-	-
10	CW-4	3	10/28/03	**6.4**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.60**	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
10	CW-4		11/25/03	**6.6**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.59**	-	-
10	CW-4	3	12/31/03	**5.3**	<0.50	<0.50	<1.5	<1.0	<0.50	**0.42 J**	-	-
10	CW-4	5	01/28/04	**3.9**	<0.50	<0.50	<1.5	<5.0	<0.50	**0.35 J**	-	-
10	CW-4	3	02/04/04	**2.8**	<0.50	<0.50	<1.5	<5.0	<0.50	**0.81**	-	-
10	CW-4	5	03/02/04	**3.6**	<0.50	<0.50	<1.5	<5.0	<0.50	**0.44 J**	-	-
10	CW-4	3	04/07/04	**2.8**	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
11	CW-5		01/13/00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	-	-
11	CW-5	3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
11	CW-5	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
11	CW-5	3	10/28/03	**0.091 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
12	CW-6		01/13/00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	-	-
12	CW-6	3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
12	CW-6	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
12	CW-6	3	10/28/03	**0.081 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-7	3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-7	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-7	3	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-8	3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-8	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-8	3	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	PACKER TEST											
	CW-4 (70-80')	1	09/23/02	**5.3**	**6.6**	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-4 (80-90')		09/23/02	**5.5**	**7.9**	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-4 (90-100')		09/23/02	**6.4**	**8.9**	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-4 (100-110')		09/23/02	**8.2**	**6.8**	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-Influent		03/25/98	**5.8**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent	G	04/23/98	**1.0**	<1	<1	<3	<5	<5	<1	-	-
	CW-Influent		06/10/98	**3.7**	**1.0**	**4.7**	**1.3**	<1.0	<1.0	<1.0	-	-
	CW-Influent		08/20/98	**0.5**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		10/05/98	**1.1**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		11/18/98	**0.34**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		12/15/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		01/25/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		02/18/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		03/17/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		04/22/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		05/21/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		06/24/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Influent		07/19/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		08/23/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		09/22/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		10/25/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		11/24/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		12/09/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		01/13/00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
	CW-Influent		02/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		03/13/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		04/20/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		05/23/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	CW-Influent		06/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent	1	07/27/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Influent		08/16/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		09/12/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-Influent	1	02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	07/30/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	1, 3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	09/11/01	**0.31 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	11/19/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	*, 3	12/03/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	*, 3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	02/08/02	**0.6**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	*, 3	03/08/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent		04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	05/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Influent	3	06/07/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	07/30/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	09/09/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	10/11/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	11/05/02	**0.33 J**	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	12/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	1,3	02/06/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	1,3	03/06/03	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	CW-Influent	3	04/03/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	05/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3, 4	06/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<2.0	<0.5	-	-
	CW-Influent	3	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.5	-	-
	CW-Influent	3	01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.50	<0.5	-	-
	CW-Influent	1,3	04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	CW-Filtered		03/25/98	**6.8**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	G	04/23/98	<1	<1	<1	<3	<5	<5	<1	-	-
	CW-Filtered		06/10/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		08/20/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		10/05/98	**0.73**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		11/18/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		12/15/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		01/25/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		02/18/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		03/17/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		04/22/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		05/21/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	CW-Filtered		06/24/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered		07/19/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		08/23/99	**0.35**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		09/22/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		10/25/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		11/24/99	**5.80**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		12/09/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		01/13/00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
	CW-Filtered		02/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	2.1**	<0.50	-	-
	CW-Filtered		03/13/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		04/20/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1	05/23/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1	06/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1	07/27/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered		08/16/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1	09/12/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1	10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1	11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-Filtered		02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		02/28/01	**0.2**	<0.2	<0.2	<0.4	<2.0	<0.5	<0.2	-	-
	CW-Filtered		03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	3	07/30/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, 3	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, 3	09/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	*	10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	*, 3	11/19/01	<0.50	<0.50	<0.50	<1.5	<1.0	**0.92**	<0.50	-	-
	CW-Filtered	3	12/03/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	*, 3	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	*, 3	02/08/02	**0.36 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	3	03/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	3	04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1,3	05/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered		06/07/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	07/30/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	09/09/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	10/11/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	11/05/02	**0.24 J**	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	12/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	02/06/03	**0.43 J**	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	03/06/03	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	CW-Filtered	3	04/03/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	05/19/03	<0.50	<0.50	**0.55**	**3.9**	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3, 4	06/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<2.0	<0.50	-	-
	CW-Filtered	1, 3	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	6	01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.50	<0.50	-	-
	CW-Filtered		04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	Storm Dis.	03/17/99	<0.3	**0.86**	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	Storm Dis.	04/22/99	**3.0**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	<100	<100
	Storm Dis.	09/22/99	**1.8**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	Storm Dis.	12/09/99	**1.1**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	Storm Dis.	03/13/00	**0.6**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
13	Nusery Well G	02/26/98	<1	<1	<1	<3	<5	<5	<1	-	-
13	Nusery Well	02/26/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
19	AMPI Well	03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
17	Bus Gar. (south)	03/25/98	<0.30	**0.35**	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	GW PUMPING TEST AND EXTRACTION										
10	CW-4-1	05/20/98	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	<100	-
10	CW-4-2	05/20/98	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	<100	-
10	CW-4-3	05/20/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4-4	05/20/98	<1.0	<1.0	<1.0	<1.0	**49**	NA	NA	<100	-
10	CW-4-5	05/21/98	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	<100	-
10	CW-4-6	05/21/98	**0.41**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.46**	-	-
45	DW-5 G	08/20/98	**2,200**	**140**	<100	<300	-	<500	**100**	-	-
45	DW-5 - 2 hrs G	08/20/98	**2,300**	**120**	<100	<300	-	<500	**110**	-	-
45	DW-5 - 2 hrs G*	08/20/98	**760**	**120**	**73**	**65**	**1.7**	<0.40	**41**	**2700**	-
45	DW-5	12/24/98	**1,600**	**81**	**64**	**41**	<5.0	-	-	**2,800**	-
45	DW-5	12/30/98	**1,300**	**47**	**51**	**41**	**44**	-	-	**1,700**	-
45	DW-5	01/25/99	**600**	**28**	**41**	**41**	**5.4**	-	-	**1,100**	-
45	DW-5	02/18/99	**400**	**13**	**25**	<5.0	<25	-	-	**550**	-
45	DW-5	03/17/99	**380**	**13**	**22**	**17**	<5.0	-	-	**610**	-
45	DW-5	04/22/99	**240**	<1.0	**13**	**18**	<5.0	-	-	**590**	-
45	DW-5 *	05/21/99	**160**	**8.7**	**14**	**13**	<1.0	-	**5.8**	-	-
45	DW-5	06/24/99	**170**	**6.2**	**9.9**	**8.9**	<5.0	-	-	**280**	-
45	DW-5	07/19/99	**170**	**5.7**	**11**	**11**	<5.0	-	-	**300**	-
45	DW-5	08/23/99	**160**	**6.2**	**12**	**8.9**	**5.3**	-	-	**280**	-
45	DW-5	09/22/99	**170**	**5.7**	**11**	**8.6**	<5.0	-	-	**280**	-
45	DW-5	10/25/99	**160**	**5.6**	**12**	**10**	<5.0	-	-	**260**	-
45	DW-5	11/24/99	**150**	**5.8**	**11**	**10**	**5.2**	-	-	**250**	-
45	DW-5	12/09/99	**140**	**5.7**	**12**	**9.7**	<5.0	-	-	**230**	-
45	DW-5	01/13/00	**140**	**10**	**12**	**15**	<130	-	-	**290**	-
45	DW-5	02/17/00	**150**	**5.5**	**12**	**11**	<5.0	-	-	**270**	-
45	DW-5	03/13/00	**140**	**4.3**	**11**	**9**	<5.0	-	-	**220**	-
45	DW-5	04/20/00	**140**	**8**	**11**	**13**	**6.7**	-	-	**320**	-
45	DW-5	05/23/00	**96**	**3.6**	**8.2**	**7.8**	<5.0	-	-	**180**	-
45	DW-5	06/17/00	**150**	**4.9**	**11**	**10**	<5.0	-	-	**270**	-
45	DW-5	07/27/00	**130**	**4**	**9.2**	**9.8**	<5.0	-	-	**210**	-
45	DW-5	10/20/00	**57**	**2.1**	**5.5**	**6**	<5.0	-	-	**120**	-
45	DW-5	01/16/01	**79**	**3.3**	**7.7**	**9.9**	<5.0	-	-	**170**	-
45	DW-5	04/12/01	**44**	<1.0	**6**	**9.2**	<5.0	-	-	**130**	-
45	DW-5	08/13/01	**68**	**1.3**	**8**	**9**	<5.0	-	-	**190**	-
45	DW-5	10/09/01	**81**	**1.9**	**9.7**	**7.9**	<5.0	-	-	**180**	-
45	DW-5	01/29/02	**7**	<1.0	**1.3**	<3.0	<5.0	-	-	<100	-
45	DW-5	04/16/02	**98**	**1.6**	**16**	**12**	<5.0	-	-	**260**	-
45	DW-5	11/05/02	**110**	<1.0	**5.3**	**7.1**	<5.0	-	-	**170**	-
45	DW-5	01/16/03	**230**	<1.0	**9**	**10**	<5.0	-	-	**310**	-
45	DW-5	04/04/03	**350**	**1.2**	**20**	**20**	<5.0	-	-	**530**	-
45	DW-5	07/24/03	**280**	**1.1**	**29**	**16**	**6.0**	-	-	**670**	-
45	DW-5 7	10/28/03	**470**	**1.3**	**20**	**11**	<5.0	-	-	**610**	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
45	DW-5	7	02/04/04	**470**	<1.0	**25**	**18**	<5.0	-	-	**650**	-
45	DW-5		04/07/04	**400**	**1.3**	**30**	**25**	<5.0	-	-	**630**	-
	QA/QC DUPLICATES AND BLANKS											
46	DW-6	D	10/20/00	**43**	<1.0	**9.7**	**7.3**	<5.0	-	-	**340**	-
46	DW-6	D	08/13/01	**110**	<1.0	**2.8**	**15**	**5.5**	-	-	**310**	-
3	DW-3	D	01/16/01	<1.0	**3.4**	**1.1**	**3.6**	<5.0	-	-	<100	-
3	DW-3	D	04/12/01	<1.0	**4.7**	<1.0	<3.0	<5.0	-	-	**490**	-
3	DW-3	D	10/09/01	**26**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	01/29/02	**6.6**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	04/16/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	08/19/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	11/05/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	01/17/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	04/04/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	07/24/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
46	DW-6	D	10/28/03	**48**	<1.0	**1.4**	**4.4**	<5.0	-	-	**150**	-
3	DW-3	D	02/04/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Trip Blank	1	10/20/00	<0.50	**0.58**	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank	1	01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank	*	04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		07/30/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		09/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank	*	10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		11/19/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank	**	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	**1.9**	<0.50	<100	-
	Trip Blank	*	02/08/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		03/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		06/07/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank		07/30/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank		08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank		09/09/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		09/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		10/17/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		11/05/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		12/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank		01/17/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		02/06/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Trip Blank		04/03/03	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<100	-
	Trip Blank		05/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Trip Blank	3, 4	06/19/03	<0.50	<0.50	**0.57**	**2.0**	<1.0	<2.0	<0.50	-	-
	Trip Blank	3	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	<100	-
	Trip Blank		08/12/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank	*, 1	09/09/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank		10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	<100	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	Trip Blank [1]	11/25/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank	12/31/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Trip Blank	01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	-	-
	Trip Blank	02/04/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	<100	-
	Trip Blank	03/02/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	-	-
	Trip Blank	04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	Method Blank	10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	07/30/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	09/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	11/19/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	02/08/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	03/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	05/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	06/07/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	07/30/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	09/09/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	09/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	10/17/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	11/05/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	12/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	01/17/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	02/06/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank	03/06/03	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	Method Blank	04/03/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	Method Blank	05/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	Method Blank [3, 4]	06/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<2.0	<0.50	-	-
	Method Blank	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	<100	-
	Method Blank	08/12/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Method Blank	09/09/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Method Blank	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	<100	-
	Method Blank	11/25/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Method Blank	12/31/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	Method Blank	01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	-	-
	Method Blank	02/04/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	<100	-
	Method Blank	03/02/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.5	<0.50	-	-
	Method Blank	04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	Pump Blank	11/19/01	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank	11/05/02	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank	01/17/03	<1.0	**1.2**	<1.0	<3.0	<5.0	-	-	<100	-

TABLE 3 - GROUNDWATER ANALYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

ID#	Sample	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-DCA (µg/L)	GRO (µg/L)	DRO (µg/L)
	Pump Blank	07/24/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank	10/28/03	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank	04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	HRL / *HBV*	-	10	1,000	700	10,000	*70*	300	4	*200*	*200*
	MCL	-	5	1,000	700	10,000	NE	NE	5	NE	NE
	NPDES	-	114	253	-	166	-	-	190	500	-

Note: Concentrations are in micrograms per liter (µg/L) which is equivalent to parts per billion.
< = Less than the laboratory reporting limits.
HRL = Health Risk Limit / *Health Based Values* (MDH)
MCL = Maximum contaminant levels (EPA, 1996)
G = Samples analyzed using GC in Geoprobe Sampling Vehicle.
* = Other petroleum related volatile organic compounds detected.
** = Concentration due to sample carry over.
[1] = non-petroleum VOC detected
[2] = large unidentifed peak present in DW-3 and Dup GRO (tentative ID 2-ethyl-1-hexanol)
[3] = Benzene and 1,2-DCA were not detected between the MDL and PQL unless J Flagged
[4] = Reporting limit for naphthalene was raised due to carryover from a previous sample.
[5] = Benzene and 1,2 DCA were J-flaged
[6]= pH of the sample was greater than 2.0
[7]= Quantitation was performed on a dilution of the sample.

1,2-DCA = 1,2-Dichloroethane
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
D = Duplicate
NA = not analyzed

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TABLE 4 - NATURAL ATTENUATION DATA
PAYNESVILLE MUNICIPAL WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA
TERRACON PROJECT NO. 41987018

Sample Location	Date	Temp (0^C)	pH	Conductivity (uS/cm^3)	ORP (mV)
Influent	07/24/03	15.8	6.74	662	-
Influent	10/28/03	8.4	6.61	711	-
Influent	04/07/04	12.5	7.49	851	135
Effluent	07/24/03	14.5	6.75	648	-2
Effluent	10/28/03	9.3	6.63	715	-
Effluent	04/07/04	11.2	7.78	704	260
CW-3	07/24/03	14.6	6.7	690	-21
CW-3	10/28/03	8.4	6.63	700	-
CW-3	04/07/04	13.6	7.4	802	25
CW-4	07/24/03	18	6.68	928	-26
CW-4	08/12/03	17.1	5.52	1151	61
CW-4	09/09/03	20.5	10.98	1430	-
CW-4	10/28/03	9.4	6.7	877	-
CW-4	11/25/03	8.5	7.03	3390	40
CW-4	12/31/03	11.5	7.14	2200	-
CW-4	02/04/04	6.9	7.13	620	63
CW-4	03/02/04	13.1	7.12	1090	90
CW-4	04/07/04	13.3	7.42	875	72
CW-5	10/28/03	10.1	6.73	756	-
CW-6	10/28/03	10.3	6.69	749	-
CW-7	10/28/03	10.3	6.87	621	-
CW-8	10/28/03	10.5	6.98	680	-
DW-3	07/24/03	20.8	6.76	855	-65
DW-3	10/28/03	6.1	7.8	648	20
DW-3	02/04/04	9.1	7.21	488	16
DW-3	04/07/04	12.9	7.39	607	-35
DW-5	07/24/03	21	6.57	1067	-
DW-5	10/29/03	8.7	6.17	737	-70
DW-5	02/04/04	8.2	7.17	504	-32
DW-5	04/07/04	8.5	7.46	739	-30
DW-6	07/24/03	17.3	6.99	599	-82
DW-6	10/29/03	7.5	6.47	756	-37
DW-6	02/04/04	9.2	7.86	435	-17
DW-6	04/07/04	10	7.62	720	25
DW-7S	10/28/03	7.1	7.64	647	-
DW-7S	04/07/04	12.8	7.52	674	250
DW-7D	10/28/03	7.7	7.89	215	-
DW-7D	04/07/04	10	7.85	492	15
MW-17	07/24/03	16.6	6.59	1271	-48
MW-17	10/29/03	7.8	6.22	948	-23
MW-17	04/07/04	7.4	7.37	919	10

Notes:
uS/cm^3 = Conductivity in micro second per cubic centimeter
Redox = Oxidation / reduction potential in millivolts (mV).

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