Terracon

ANNUAL MONITORING REPORT – 2006/2007

PAYNESVILLE MUNICIPAL WATER SUPPLY / FORMER MIDTOWN SERVICE STATION
500 LAKE AVENUE SOUTH
PAYNESVILLE, MINNESOTA
MPCA SITE ID # LEAK00000131 AND LEAK00002181

Terracon Project No. 41987018
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Prepared for:

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Section 1. GROUND WATER MONITORING

Discuss the groundwater monitoring results, including water level measurements and analytical results, performed since the Investigation Report or the last progress report submitted. Include all cumulative data in the tables. Indicate whether samples were purged or unpurged (see Guidance Document 4-05). If purged, indicate purging method.

Introduction

This Annual Monitoring Report (AMR) includes groundwater monitoring results for monitoring events conducted since Terracon's *Annual Monitoring Report* dated June 30, 2006. In addition, this AMR includes the results of source area assessment activities, the installation of additional groundwater monitoring wells, and additional soil gas sampling activities performed in February, March and April 2007.

Background

The Paynesville Municipal Water Supply / Former Midtown Service Station site is located within the City of Paynesville (Figure 1). Based on available information and previous assessment work conducted by Terracon Consultants, Inc. (Terracon), the site has petroleum impacted soil, soil gas and groundwater in addition to a significant source mass of light non-aqueous phase liquid (LNAPL) which appears to consist primarily of gasoline. Soil gas impacts appear to be concentrated along Lake Avenue between the former Midtown Service Station and State Highway 23. Benzene and 1,2-dichloroethane have been detected in groundwater samples from City Wells CW-3 and CW-4 on several occasions in the past. The most recent corrective action for this issue involved assisting the City of Paynesville with the installation of new municipal water supply wells (CW-7 and CW-8) and utilizing City Well CW-4 as a plume containment well. The available information indicates that the source of the impacts is a petroleum release that occurred at the former Midtown Service Station located at 500 Lake Avenue South (southwest corner of Lake Avenue South and Mill Street).

Previous soil gas assessment activities were conducted at the site and included six soil probes (VP-1 through VP-6, Figure 2A) completed in the right-of-way of Lake Avenue as part of a Vapor Intrusion Assessment (VIA) Pilot Study performed for the MPCA. The results of the initial vapor monitoring work are discussed in Terracon's *VIA Pilot – Midtown Station* report dated January 21, 2005. Subsequent VIA activities included advancing four hand-driven soil gas probes (VP-7 through VP-10, Figure 2A) to assess the vapor migration potential to receptors (i.e., buildings) located near the previously identified source area. The results of the additional work were discussed in Terracon's *Annual Monitoring Report* dated June 29, 2005.

Various petroleum-related VOCs have been detected in the soil gas samples collected from the soil-gas probes. Soil vapor probes VP-7, VP-8, VP-9, VP-10, VP-12 and VP-13 were completed near residences. In these and other soil gas samples, one or more petroleum related VOCs were detected at concentrations that exceeded one of the MPCA soil gas action levels [i.e., Minnesota Department of Health (MDH) Health Risk Values (HRVs) or Environmental Protection Agency (EPA) Reference Concentrations (RfCs)] (Tables 10A through 10C).

In addition to the activities described in this document, Terracon completed a review of the Minnesota Pollution Control Agency (MPCA) file for the former Midtown Service Station (LEAK00002181) in order to develop a limited focused feasibility study (FFS). The results of the FFS were submitted to the MPCA in Terracon's *Focused Feasibility Study* dated March 15, 2006. The FFS included a summary of the historic activities on site and assessment of the effectiveness of corrective actions that have previously targeted the source area at the site. The FFS also included recommendations for further definition of the source area to be remediated, proposed a plan for developing cleanup objectives for the site, and provided a summary of potential corrective actions. Corrective action alternatives evaluated in the FFS included: free product recovery, excavation, bioslurping (multi-phase extraction), soil excavation and in situ soil flushing. The FFS did not include a recommendation for implementing a specific corrective action to address the current extent and magnitude of the petroleum impacts in and near the source area.

VOCs

Corrective

Hydrogeologic Conditions

Depth to groundwater measurements were conducted at the following wells on a semi-annual basis during this reporting period (Figure 2).

Well ID	Map ID	Well ID	Map ID
DW-1	1	*Midtown wells*	
DW-2	2	MW-1	23
DW-3R	3	MW-10	24
DW-4	4	MW-10D	5
DW-5	45	MW-14	25
DW-6	46	MW-14D	6
DW-7S	48	MW-15	27
DW-7D	49	MW-17	28
DW-8	55	MW-19	30
DW-9	56	MW-20	31
MW-4	44	MW-21	50
MW-5	7	MW-22	51
MW-16	27	MW-23	52

Well ID	Map ID	Well ID	Map ID
City of Paynesville monitoring wells		MW-24	53
CMW-42	42	MW-25	54
CMW-43	43	RW-1	32
CMW-44	44		

Well construction information is summarized in Table 1. The groundwater level data is presented in Table 2. The fluid level data from wells screened in the drinking water aquifer between 75 and 95 feet below ground surface were used to prepare the groundwater contour maps depicted in Figures 3A and 3B. The estimated groundwater contours for groundwater levels measured on November 29, 2006 and March 20, 2007 show the regional groundwater flow is generally to the east-southeast. Available information indicates the local horizontal groundwater flow direction in the water able aquifer near the source area is to the north, towards the North Fork of the Crow River. However, local fluctuations and variations due to seasonal infiltration/exfiltration, geologic formations, groundwater pump-out and/or other site features can affect the groundwater flow. 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 seasonal 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 Sampling

The following table summarizes the groundwater monitoring/sampling schedule.

Location	Analysis	Quarterly	Semi-Annual	Annual
WTP Influent	VOCs		*	
WTP Effluent	VOCs		*	
CW-3	VOCs		*	
CW-4	VOCs	*		
CW-5	VOCs		*	
CW-6	VOCs		*	
CW-7	VOCs		*	
CW-8	VOCs			*
Nursery Well	VOCs			*
DW-3R	BTEX, MTBE, GRO		*	
DW-5	BTEX, MTBE, GRO		*	
DW-6	BTEX, MTBE, GRO		*	
DW-7S	BTEX, MTBE, GRO			*
DW-7D	BTEX, MTBE, GRO			*
DW-8	VOC, GRO		*	
DW-9	VOCs, GRO		*	
MW-14D	BTEX, MTBE, GRO		*	
MW-16	BTEX, MTBE, GRO		*	
MW-17	BTEX, MTBE, GRO		*	

Groundwater samples were collected from the City Wells via sampling taps after purging. Groundwater samples were collected from the monitoring wells after purging three 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. Copies of laboratory reports are included in Appendix A and the sampling information forms are included in Appendix C.

Semi-annual and annual groundwater monitoring events occurred during November 2006 and March/May 2007, respectively. The most recent monitoring event was conducted in March/May 2007 and included collecting groundwater samples from monitoring wells DW-3R, DW-5, DW-6, DW-7S, DW-7D, DW-8, DW-9, MW-14D, MW-16, MW-17, CW-3, CW-4, CW-5, CW-6, CW-7, CW-8, WTP influent and WTP effluent. The laboratory analytical results for the groundwater samples from these monitoring locations were below laboratory reporting limits for VOCs, except for concentrations detected in samples collected from wells DW-5, DW-6, DW-8 and CW-4. The VOCs detected in the groundwater samples collected from well DW-5 include benzene (64-74 ug/L), ethyl benzene (42-55 ug/L), total xylenes (19 ug/L), MTBE (1.6-1.8 ug/L) and GRO (260-280 ug/L). The VOCs detected in the groundwater samples

from well DW-6 include benzene (22-24 ug/L), ethyl benzene (2.5-2.8 ug/L), xylenes (2.4-2.7 ug/L), MTBE (1.1-1.2 ug/L) and GRO (80-100 ug/L). The VOCs detected in the groundwater sample from well DW-8 include benzene (7.6 ug/L). The VOCs detected in the groundwater sample from well MW-14D include MTBE (0.43 ug/L). The VOCs detected in the groundwater sample from well CW-4 include benzene (0.66-0.78 ug/L). The detected VOCs are consistent with laboratory analytical results from groundwater samples collected during previous monitoring events. Monitoring well DW-3 was abandoned on May 5, 2006 following the annual sampling event because Pomeroy Avenue was being realigned and the well would be within the road surface. Monitoring well DW-3 was replaced with well DW-3R in April 2007. Attempts to access to the Nursery well to collect a groundwater sample were not successful.

Plume Containment Activities (CW-4)

City Well CW-4 is continually pumped to contain the dissolved phase petroleum plume. Water from the well is discharged to the City of Paynesville storm sewer without needing treatment under an NPDES Permit. Groundwater samples were collected from the discharge from City Well CW-4 on a quarterly basis for laboratory analysis as required in the NPDES Permit. The groundwater samples were analyzed for the MDH list of VOCs. The target VOCs were not detected in the discharge samples, except for benzene in the September and November 2006 samples at concentrations between the laboratory reporting limit (RL) and method detection limit (MDL). The groundwater analytical results are summarized in Table 3. The laboratory reports are included in Appendix A. The sampling information forms are included in Appendix C.

The laboratory analytical results for samples collected from City Well CW-4 have been decreasing steadily from March 2003 (13 ug/L benzene) to the present. However, there were estimated ("J-flagged") results reported for the August 2006 and November 2006 samples (0.66 and 0.78 ug/L, respectively). This decrease may be indicative of a reduction in the dissolved phase petroleum, a decreased pumping rate or other unidentified well or pump issue.

The groundwater pumping rate for City Well CW-4 decreased from approximately 103 gallons per minute (gpm) during Summer 2005 until it was shutdown on August 31, 2005 to replace the RPZ backflow preventer on the well that had failed. The pump was restarted on September 14, 2005 and the maximum pumping rate was approximately 90 gpm. The pump in City Well CW-4 failed during March 2006. A new pump was installed in the City Well CW-4 on May 5, 2006, but it had the wrong voltage motor. The pump was reinstalled in City Well CW-4 on June 1, 2006 and started the next day. The pumping rate was set to approximately 90 gpm. The current pumping rate at City Well CW-4 of approximately 90-105 gpm appears to be controlling dissolved phase petroleum plume migration in the direction of City Wells

CW-3, CW-5, CW-6 and 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 to the north or downward into the drinking water aquifer. The pump installed in the well during May/June 2006 may operate at lower pumping rates than the previous pump.

Laser-Induced Fluorescence (LIF) and Soil Probes

In February and March 2007, 62 laser-induced fluorescence (LIF) probes (LIF-1 through LIF-58 and LIF-60 and LIF-61) and 13 soil probes (P-38 through P-50) confirming LIF probes were conducted in and surrounding the former Midtown Service Station. Two of the 62 LIF probes (LIF-8dup and LIF-13dup) were advanced within a few of feet from another LIF probe to assess the precision of the LIF data. In general, the LIF probes were advanced to 10-feet beyond significant LIF response. Some LIF probes were advanced beyond 10-feet of significant LIF response to determine potential deep presence of NAPL. Refer to Figures 5A through 5G for cross sections based on LIF probes and soil borings/probes. See Appendix C for LIF images at full-scale, LIF images at 20 percent scale and soil boring/probe logs. See Figures 9A, 9B and 9C for site maps with extents of LNAPL.

Based on interpretation of LIF data, extents of LNAPL were estimated. The estimated extent of LNAPL is approximately within a 160-foot radius of the former tank basins. There are four areas where the horizontal extent of LNAPL is not defined by LIF data: on the northwest (LIF-54 and LIF-55), northeast (LIF-45 and LIF-46), southeast (LIF-36 and LIF-42) and southwest (LIF-13 and LIF-18) of the extent drawn on Figure 9A. Considering the significant thickness of LNAPL near the source area (18.5-feet) and the transition to low thickness in these four areas (0.5- to 3.5-feet), it is likely that the extent of LNAPL ends close to these areas. The interpreted depth to the top of the LNAPL ranges from 5-feet to 24-feet bgs. The interpreted depth to the bottom of the LNAPL is generally near 25-feet bgs, but ranges from approximately 6- to 26-feet.

A total of 13 soil probes (P-38 through P-50) were completed in February/March 2007 to collect soil, soil-gas and groundwater samples to confirm the LIF probes and assess other aspects of petroleum impacts near the source area. Soil probes (P-38 through P-44 and P-47 through P-50) were advanced to collect data to confirm the LIF probes. Soil probe (P-50) was completed as a discrete sample corresponding to a depth of an elevated response in probe LIF-42. Two of the soil probes (P-45 and P-46) were advanced north-northeast of the site to aid in locating a monitoring well down-gradient of the source area and attempt to collect a sample of soil-gas from pocket of pressurized soil-gas previously encountered in soil probes P-32 and VP-3. Soil-gas under pressure was not encountered during the assessment activities performed during February/March 2007.

Soil headspace analysis indicates impacts in confirmation soil probes that generally coincide with impacts noted in the LIF probes (Table 6). Headspace screening and analytical results of the two soil samples from soil probe P-38 suggest that petroleum impacts are primarily limited to depths shallower than approximately 25-feet. Select soil samples collected from the soil probes were analyzed for BTEX, MTBE and GRO. Groundwater samples were collected from the soil probes P-39 and P-41 through P-49 and analyzed for BTEX, MTBE and GRO. The groundwater samples from soil probe P-45 was also analyzed for the MDH list of VOCs. Laboratory analytical results of soil and groundwater samples indicate that elevated concentrations of petroleum impacted soil and groundwater are present within the source area at the site (Tables 7 and 9). GRO concentrations in soil samples collected from soil probes P-38 through P-43 exceeding 100 milligrams per kilogram (mg/kg). GRO concentrations in groundwater samples collected from soil probes P-48 and P-49 exceeded 10,000 micrograms per liter (ug/L). A soil analytical sample was not collected at P-50, but coincident with the depth of elevated LIF readings at LIF-42, a sheen test was conducted. The sheen test was positive. Therefore, it appears that soil probe P-50 confirms the suspected petroleum saturated soil based on a review of LIF-42. Groundwater analytical results collected from soil borings indicate significant petroleum impacts to groundwater.

The results of the LIF and soil probe assessment activities indicated that in and near the source area that the subsurface generally consists of up to 13-feet of fine to coarse grained sand with gravel and fill overlying a fine grained alluvium unit composed of sandy clay and clay to 17- to 24-feet bgs. The fine grained alluvium unit overlies a water bearing coarse grain alluvium unit consisting of fine to coarse grain sand and even gravel which extends to at least 35-feet bgs in some areas. Perched water was occasionally encountered within the upper sand / fill unit and in sand lenses within the fine grained alluvium unit. The water table was encountered within the source area approximately 18-feet bgs. Data from the LIF probes indicated that the LNAPL migrated laterally on top of the fine grained alluvium unit as well as downward to the water bearing coarse grained alluvium unit. The LNAPL also migrated laterally in the water bearing coarse grained alluvium unit.

Soil organic vapor monitoring data are summarized in Table 6. The soil analytical results from the soil probes are summarized in Table 7. The groundwater sampling information and analytical results from the soil probes are summarized in Tables 8 and 9. The laboratory analytical reports are included in Appendix A. The soil probes were advanced and samples collected as described in Appendix B. The sampling information forms are included in Appendix C. Boring logs and soil grain size distribution curves are included in Appendix D.

Monitoring Wells

Three monitoring wells (DW-3R, DW-8 and DW-9) were installed April 23 to 25, 2007 to the east-northeast and northeast of the source area. Monitoring well DW-3R was installed to replace monitoring well DW-3 which was sealed during May 2006 as part of the reconstruction on Pomeroy Avenue. Monitoring well DW-8 was located approximately 700-feet east-northeast of the source area as a sentinel well between the site and City Wells CW-5 and CW-6. Monitoring wells DW-3R and DW-8 were installed at a depth of 90-feet bgs and instrumented with wire wrapped stainless steel well screen set from a depth of 85-feet to 90-feet bgs within the drinking water aquifer. Monitoring well DW-9 was located approximately 400-feet northeast of the source as a down-gradient monitoring well. Monitoring well DW-9 was installed at a depth of 31-feet bgs and instrumented with wire wrapped Schedule 40 PVC well screen set from a depth of 26-feet to 31-feet bgs in the petroleum impacted sand and gravel unit. The monitoring wells were installed using a hollow stem auger drilling method as described in Appendix B.

Soil samples collected from the soil borings DW-3R, DW-8 and DW-9 were screened in the field with a PID. One sample from each boring was collected at the depth of the water table and submitted for laboratory analysis for the presence of BTEX, MTBE and GRO. Laboratory analyses of the soil samples did not detect the target compounds at concentrations at or above the laboratory reporting limits.

Soil organic vapor monitoring data are summarized in Table 6. The soil analytical results from the soil probes are summarized in Table 7. The laboratory analytical reports are included in Appendix A. The soil boring were advanced and monitoring wells installed as described in Appendix B. Boring logs and well construction records are included in Appendix D.

Trip blanks and equipment analyzed as part of field and laboratory Quality Assurance / Quality Control (QA/QC) did not contain concentrations of the target analytes above laboratory reporting limits. BTEX, MTBE, and GRO samples were analyzed using Wisconsin Modified GRO Method. The MDH list of VOCs were analyzed using EPA Method 8260. The analytical results for the duplicate samples are similar to the actual samples. Soil samples collected from soil probes P-38 through P-43 were not analyzed within the 14 day hold time. The soil and groundwater samples collected from soil probes P-38 through P-49 were received by the laboratory at 10 degrees Celsius and no longer on ice. In addition, groundwater samples collected from soil probes P-39 and P-41 through P-43 were not analyzed within the 14 day hold time. The soil and groundwater samples from soil probes P-38 through P-49 were received by the laboratory late because the cooler was couriered from Minneapolis to Green Bay and then returned to Minneapolis by the currier. A review of data indicated that the analytical data is viable for its intended use.

Samples

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.

Past vapor intrusion assessment (VIA) activities near the source area have included both soil probes advanced as part of the MPCA VIA Pilot Study and site risk assessment activities. Various petroleum-related VOCs were detected in the soil gas samples collected from the soil-gas probes (VP-1A through VP-11). One or more petroleum related VOCs were detected in samples from soil gas probes VP-1A and VP-11 at concentrations that exceeded their respective soil gas MPCA action levels (i.e., MDH HRVs and EPA RfCs) (Table 10A).

Two additional soil gas probes (VP-12 and VP-13) were advanced in conjunction with the February/March 2007 LIF probes and soil probes to further assess the risk of vapor intrusion to nearby residences (347 Lake Avenue and 410 Lake Avenue). Laboratory analytical results from both of the soil gas samples (VP-12 at 8-feet and VP-13 at 8-feet) detected a variety of petroleum related and non-petroleum related VOCs (Tables 10A-C). Benzene concentrations in the soil-gas samples from VP-12 [ug/cubic meter of air (18.0 ug/m^3)] and VP-13 (30.4 ug/m^3) exceeded the MPCA action level [Minnesota Department of Health's (MDH) Health Base Values of 1.3 to 4.5 ug/m^3] Therefore, there is a risk for petroleum vapors to potentially intrude into the living spaces of the residences located at 347 Lake Avenue and 410 Lake Avenue.

The soil-gas analytical results are summarized in Tables 10A-C. The laboratory analytical reports are included in Appendix A. The soil-gas sampling methods are described in Appendix B. Soil-gas sampling information forms are included in Appendix C.

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 Guidance Document 1-01 *Petroleum Remediation Program General Policy.*

The dissolved phase petroleum plume emanating from the former Midtown Service Station continues to impact the water quality in the water table aquifer at the site and off-site to the north and northeast. In addition, the petroleum impacts groundwater appear to migrate downward into the underlying drinking water aquifer to the north and northeast of the site. The primary source of the dissolved phase petroleum plume appears to be light non-aqueous phase liquid (LNAPL) which has consistently been observed in several monitoring wells on the former Midtown Service Station property (MW-1, MW-20, MW-21, MW-22, MW-25 and MW-25). Groundwater quality data indicates the dissolved phase petroleum plume within the drinking water aquifer is responsive to groundwater pumping activities. In comparing data from similar time periods, the City Well CW-4 pumping rates and laboratory analytical data for groundwater samples collected from wells at the site appear to correlate well. During increased groundwater pumping rates at City Well CW-4, dissolved phase petroleum concentrations for samples collected from City Well CW-4 at times increase while those in nearby monitoring wells MW-17 and DW-3 have remained below laboratory reporting limits or at concentrations below their respective MDH Health Risk Limits (HRLs) or MDH Health Based Values (HBVs). However, benzene concentrations in groundwater samples from monitoring wells DW-5 and DW-6, which appear to be completed near the top of the drinking water aquifer, consistently exceed the MDH HRL indicating that the dissolved phase petroleum plume continues to impact the drinking water aquifer and poses a continuing risk of once again impacting one of the City Wells if pumping activities at City Well CW-4 cease. Continued analysis of groundwater 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 plume stability or migration.

The results from vapor intrusion assessment activities completed to date have detected concentrations of benzene and 1,2,4-trimethylbenzene in soil-gas samples adjacent to several residences that exceed MPCA action levels. The available data indicate that petroleum vapor poses a risk of potentially intruding into living spaces of the residences located at 330 Lake Avenue, 347 Lake Avenue, 400 Lake Avenue, 410 Lake Avenue and 154 Mill Street. Additional assessment is needed to further quantify the risk posed to the residential properties.

If additional corrective action is recommended, please provide your justification.

As discussed above, Terracon's *Focused Feasibility Study* dated March 15, 2006 identifies a list of potentially effective corrective actions for the former Midtown Service Station site that may address source area petroleum impacts; decrease dissolved phase petroleum concentrations in the drinking water aquifer; and mitigate potential vapor migration into nearby buildings. The list of potentially effective corrective actions included: soil excavation and multi-phase extraction. In-situ soil washing was judged as having a moderate potential for long term effectiveness, but the presence of the clay and sandy clay unit in the source area would limited the ability of this technology to remediate a significant mass of LNAPL in the unsaturated zone.

Excavation

Based on the data generated during the LIF and soil probes assessment activities in the source area described above cross-sections (Figures 5A through 5G) and an isopach map (Figure 9A) of the approximate LNAPL impacted area and soil thickness have been developed. Based on the same LIF data, LNAPL contour maps were prepared of the approximate elevation of the top and bottom of the LNAPL impacted soil. For soil excavation to remove a sufficient portion of the LNAPL it would likely involve the removal of the non-impacted overburden, petroleum vapor impacted overburden and then excavating the LNAPL impacted soil from an area as depicted on Figure 9A. The proposed area is roughly bounded by the north side of Mill Street, the center of Lake Avenue, the southern site property boundary, and the western site property boundary. The proposed excavation area depicted on Figure 9A was developed with the goal of removing the greatest possible volume of LNAPL impacted soil without requiring the removal or extensive shoring of buildings other than those on the site. It is anticipated that approximately 75 percent of the known LNAPL impacted soil could be removed given the proposed area on Figure 9A. The impacted soil would be removed from the site for disposal or treated near the site and returned to the excavation. Soil excavation would be a very effective method of rapidly removing LNAPL impacted soil. The excavation process will need to reach a depth of approximately 25-feet such that LNAPL impacted soil as much as 7-feet below the water table could be removed which will require dewatering and treatment. Portions of Mill Street and Lake Avenue would need to be removed and then replaced. Since the excavation will go as deep as 25-feet which will require at least a 25-foot set back from the edge of the excavation for sloping and access. It is estimated that approximately 8,500 cubic yards of overburden would need to be removed to excavate approximately 6,000 cubic yards of LNAPL impacted soil. The estimated volume of overburden does not include sloping required for safety and access. It is anticipated that a significant portion of the overburden would be heavily impacted by petroleum vapors and should also be removed for disposal as it could act as a continuing source of vapor that could migrate into the living spaces of nearby residences. The estimated cost for the soil excavation alternative discussed above is approximately $1,400,000 with significant portions of this cost associated with the removal of the buildings on the site, dewatering/treatment, and reconstruction of Mill Street and Lake Avenue. The cost of the soil excavation

alternative could be significantly reduced if innovative methods or site conditions allowed for the removal of LNAPL impacted soil from the water bearing sand unit without dewatering and treatment.

The typical multi-phase extraction (MPE) approach would involve: installing two extraction wells and several monitoring points for pilot testing; performing an MPE pilot test; and implementing a system consisting of several conventional extraction wells. An MPE system would likely have the advantage of recovering LNAPL from under the existing building, streets and landscaped / paved areas. A significant disadvantage of MPE using vertical extraction wells would be that the underground piping and operation of the system would require a significant disruption of the site and surrounding properties and likely take several years to complete. In addition, in areas near the former tank basins extraction well clusters would be needed to remediate the shallow LNPLP impacted areas. There is also a possible issue as to whether vertical extraction wells could produce sufficient drawdown in the coarse grained alluvium unit to dewater it sufficiently to allow for a significant volume of LNAPL to be removed in the vapor phase. However, an MPE system using a combination of vertical extraction wells on site and horizontal extraction wells extending off-site and targeting the LNAPL coarse grained alluvium unit may provide a more effective means removing the LNAPL. In addition, the larger surface area of a horizontal extraction well would probably achieve a greater radius of influence in the coarser grained units than the typical vertical extraction well design. Installation of horizontal extraction wells using a directional bore would have the advantage of minimizing the need for site restoration and disruption of activities on and near the site. The estimated cost for the MPE alternatives discussed above is approximately $950,000 with significant portions of this cost associated with installation and operation/maintenance of the remedial equipment. Unfortunately the potential effectiveness of MPE using a horizontal extraction well(s) can not be pilot tested for without installing the well which would be a significant portion of the cost. It is also unfortunate that it is difficult to quantify how much LNAPL impact soil or what magnitude of the LNAPL impact would need to be remediated to have the net result of the dissolved phase petroleum plume attenuating before it reaches the drinking water aquifer.

Terracon recommends additional assessment of the extent and magnitude of the LNAPL impacts in and near the source area and the risk to potential vapor receptor, then possibly performing a MPE pilot test, before further evaluating of the feasibility and potential effectiveness of implementing the identified corrective actions. The results of the additional assessment and pilot testing may indicate that one technology will be more effective than another at addressing risk(s) or that a combination of technologies (i.e. on-site soil excavation and down-gradient MPE) may the most effective corrective action. After completion of the additional assessment activities,

Terracon recommends that a Conceptual Corrective Action Design (CCAD) be completed, if appropriate, that recommends a corrective action technology for addressing the LNAPL impacts to the source area. Specifically, Terracon recommends the following:

- **Indoor air or sub-slab soil-gas samples should be collected from the residences near the source area that have been identified as being at risk of intrusion of petroleum vapors (330 Lake Avenue, 347 Lake Avenue, 400 Lake Avenue, 410 Lake Avenue and 154 Mill Street).**

- **Additional LIF and soil probes should advanced along the northern, western and east edge of the proposed area for soil excavation shown on Figure 9A. Additional LIF and soil probes should also be advanced in the four areas where the horizontal extent of LNAPL is not fully defined by LIF data: on the northwest (LIF-54 and LIF-55), northeast (LIF-45 and LIF-46), southeast (LIF-36 and LIF-42) and southwest (LIF-13 and LIF-18) of the extent drawn on Figure 9A**

- **Based upon the result of the source area assessment activities, a CCAD report should be prepare that evaluates potential corrective action alternatives and recommends a CAD. The results of the assessment activities and pilot testing, if applicable, would be summarized in the CCAD report. Pilot testing or test pits may be required prior to the CCAD or before full scale implementation. Additionally, a Corrective Action Design report should be prepared consistent with the requirements of MPCA Guidance Document 4-11.**

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.

On going semi-annual groundwater monitoring activities should continue at the at the Midtown Service Station. Terracon recommends the following:

- **Continue groundwater extraction activities utilizing City Well CW-4 to contain the dissolved phase petroleum plume. Continue to adjust the pumping rate of City Well CW-4 to establish an extraction rate that helps prevent excessive migration of the dissolved phase petroleum plume in the direction of either well CW-4 or wells DW-7S, DW-7D, CW-3, CW-5, CW-6 and CW-7. Continue to collect quarterly discharge samples from City Well CW-4 for laboratory analysis. The discharges**

samples should be analyzed for the MDH list of VOCs per the requirement of the NPDES Permit.

- Collect semi-annual groundwater samples from City Wells CW-3, CW-5, CW-6, water treatment plant influent, and water treatment effluent. The groundwater samples should be analyzed for the MDH list of VOCs. The sampling schedule should be adjusted to monthly if the contaminant plume appears to become unstable.

- Collect annual groundwater samples from the nursery well, City Wells CW-7 and CW-8. The groundwater samples should be analyzed for the MDH list of VOCs.

- Conduct semi-annual site visits to collect fluid level data from wells DW-1(1), DW-2(2), DW-3R, DW-4(4), DW-5(45), DW-6(46), DW-7S(48), DW-7D(49) DW-8 and DW-9; Midtown wells MW-1(20), MW-10(24), MW-10D(5), MW-14(25), MW-14D(6), MW-15(26), MW-16(27), and MW-17(28), MW-18(29), MW-19(30), MW-20(31), MW-21, MW-22, MW-23, MW-24, MW-25, and RW-1(32); Johnson Motors wells MW-4(44) and MW-5(7); City of Paynesville monitoring wells identified as CMW-42 and CMW-43.

- Collect semi-annual groundwater quality samples for laboratory analysis from monitoring wells DW-3R, DW-5, DW-6, DW-8, DW-9, MW-16 and MW-17; and annual samples from monitoring wells DW-7S and DW-7D. Well DW-5 should be sampled after purging with the recovery well pump. The samples should be analyzed for BTEX, MTBE, and GRO. The samples from monitoring wells MW-8 and MW-9 should also be analyzed for the MDH list of VOCs. A duplicate sample and field blank should be analyzed during each sampling event.

- Perform reporting and project management duties associated with the continued sampling of the municipal water supply and plume containment which includes permitting requirements, utility costs, submission of data to MPCA Staff and the City of Paynesville, and the preparation of an annual monitoring report. Update the groundwater analytical results table for the monitoring and municipal wells to include other petroleum and non-petroleum related VOCs detected during the sampling activities. The annual report will fulfill the requirements of MPCA Guidance Document 4-08.

NOTE: THE GROUNDWATER CONTOURS ILLUSTRATED ARE BASED UPON INTERPOLATIONS OF WATER LEVEL DATA OBTAINED FROM WELLS ON 11/29/06. ACTUAL CONDITIONS MAY VARY.

MINNIE ST.
LAKE AVE.
INDUSTRIAL LOOP "W"
RAILROAD ST.
JAMES ST.
WASHBURNE AVE.
AUGUSTA AVE.
POWERDY AVE.
GARFIELD AVE.
HOFFMAN ST.
HOFFMAN ST. (STATE HWY 23)
AMPE DRIVE
AMPE DR.
CITY GARAGE
FARMER'S UNION CO-OP
JOHNSON MOTORS
CASEY'S
NURSERY
CITY WELL FIELD
KORDUS AVE.
T.H. 124
DW-1(90) (1150.76)
DW-2(85) (1150.03)
JMMW-5(89) (1150.33)
MTMW-10D(90) (1150.47)
DW-9(31.5)
MTMW-14D(90) (1152.55)
DW-8(90)
DW-3R(90)
DW-7D(95) (1150.63)
(1150.73) DW-4(90)
1150.0
1148.0
1146.0
CMW-42(95) (1144.82)
CMW-43(95) (1144.91)

LEGEND

—— 1150.00 —— GROUNDWATER CONTOUR LINE W/ ELEVATION IN FEET AMSL

WELL NAME (WELL DEPTH) IN FEET — FUMW-7(89) (1151.39) — GROUNDWATER LEVEL IN FEET AMSL

8 — WELL LOCATION

⊗ PRIVATE POTABLE WELLS

MUNICIPAL POTABLE WELLS

0 400
Approximate Scale (Feet)

N

DIAGRAM IS [redacted] NOT INTENDED FOR CONSTRUCTION PURPOSES

GROUNDWATER CONTOUR MAP (11/29/06)
PAYNESVILLE MUNICIPAL WATER SUPPLY
MINNESOTA STATE HIGHWAY 23
PAYNESVILLE, MN
MPCA

Project Mngr:	PJW	Terracon	Project No.	41987018
Designed By:	KWC	3535 Hoffman Road East	Scale:	AS SHOWN
Checked By:	KWC	White Bear Lake, MN 55110	Date:	5/18/07
Approved By:	PJW		Drawn By:	MTO (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 3/20/07. ACTUAL CONDITIONS MAY VARY.

MINNIE ST.
INDUSTRIAL LOOP "W"
LAKE AVE.
SOO LINE RAILROAD
RAILROAD ST.
JAMES ST.
WASHBURNE AVE.
AUGUSTA AVE.
HOFFMAN ST.
HOFFMAN ST. (STATE HWY. 23)
POWERGY AVE.
GARFIELD AVE.
AMPE DRIVE
AMPE CR
KOROMS AVE.
T.H. 124
CASEY'S
JOHNSON MOTORS
CITY GARAGE
FARMER'S UNION CO-OP
NURSERY
CITY WELL FIELD

DW-1(90)
(1151.43)
DW-2(85)
(1151.38)
JMMW-5(89)
(1148.27)
(1151.14)
DW-4(90)
MTMW-14D(90)
(1150.84)
MTMW-10D(90)
(1150.70)
DW-9(31.5)
DW-8(90)
DW-3R(90)
DW-7D(95)
(1150.84)
(1147.13)
CMW-42(95)
CMW-43(95)
(1147.17)
1151.0
1150.0
1149.0
1148.0

LEGEND

1150.72 — GROUNDWATER CONTOUR LINE W/ ELEVATION IN FEET AMSL

WELL NAME (WELL DEPTH) IN FEET — FUMW-7(89)

GROUNDWATER LEVEL IN FEET AMSL — (1150.20)

8 — WELL LOCATION

PRIVATE POTABLE WELLS

MUNICIPAL POTABLE WELLS

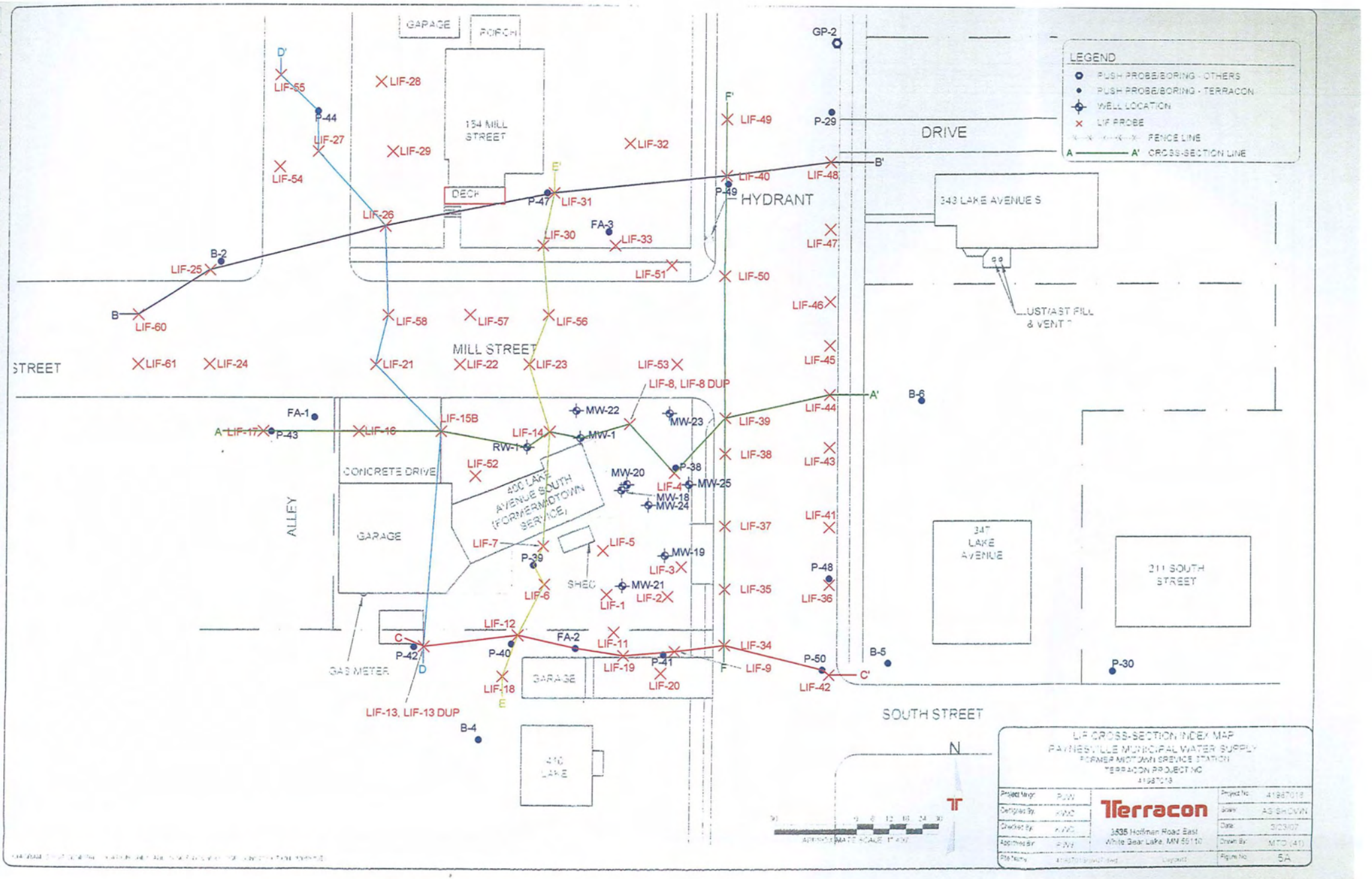
0 400
Approximate Scale (Feet)

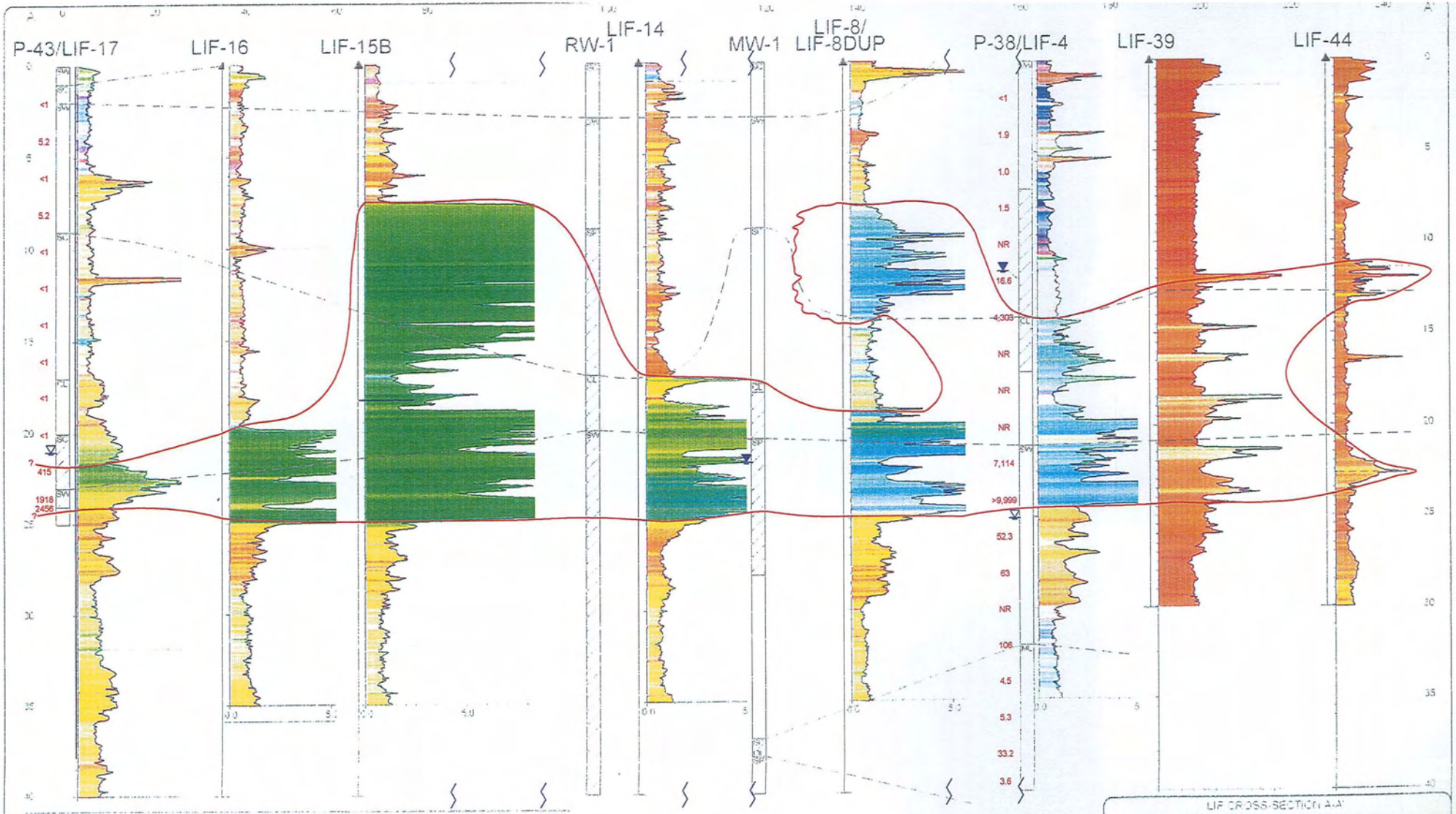
N

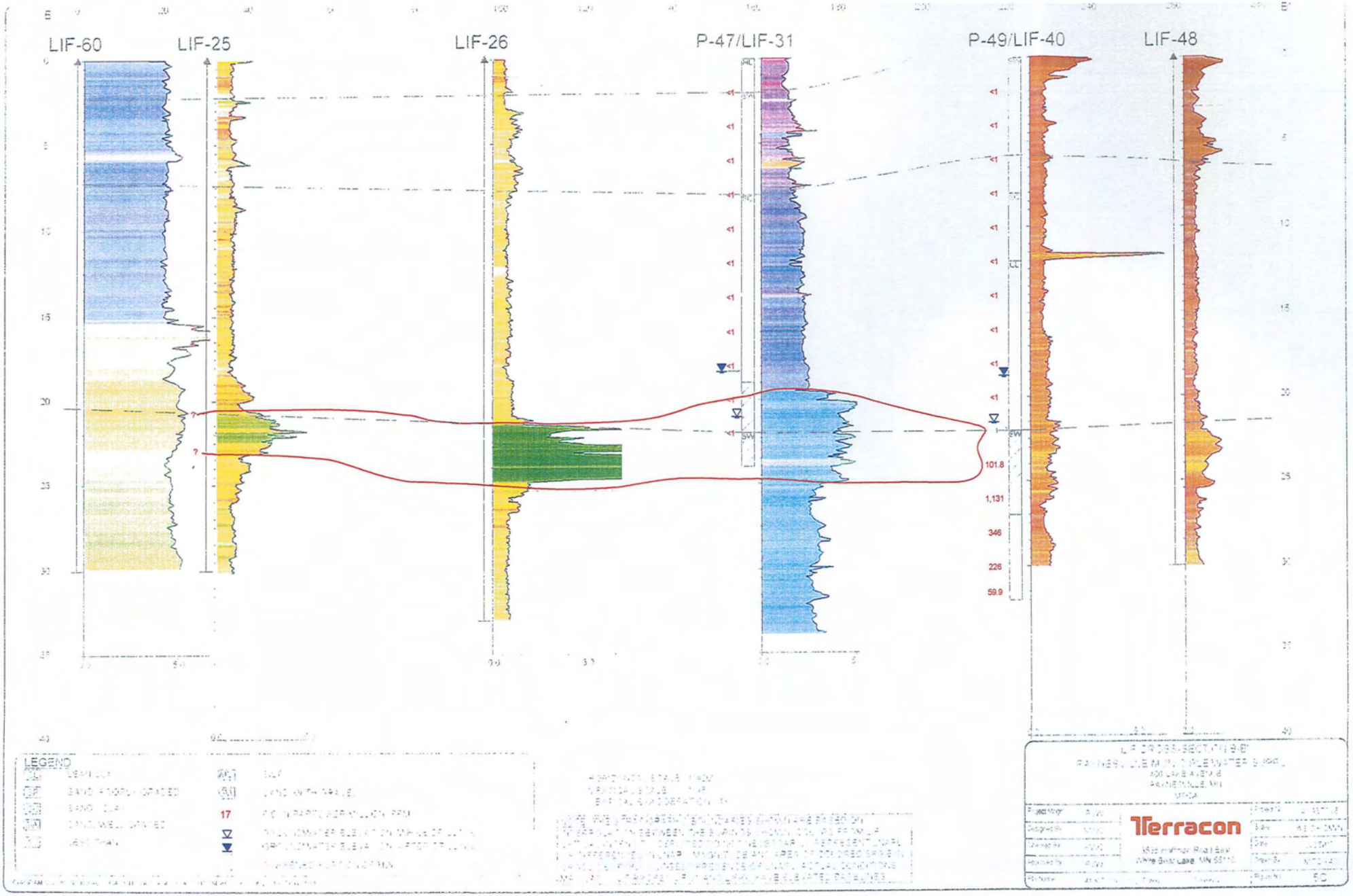
DIAGRAM IS FOR GENERAL LOCA[illegible] CONSTRUCTION PURPOSES

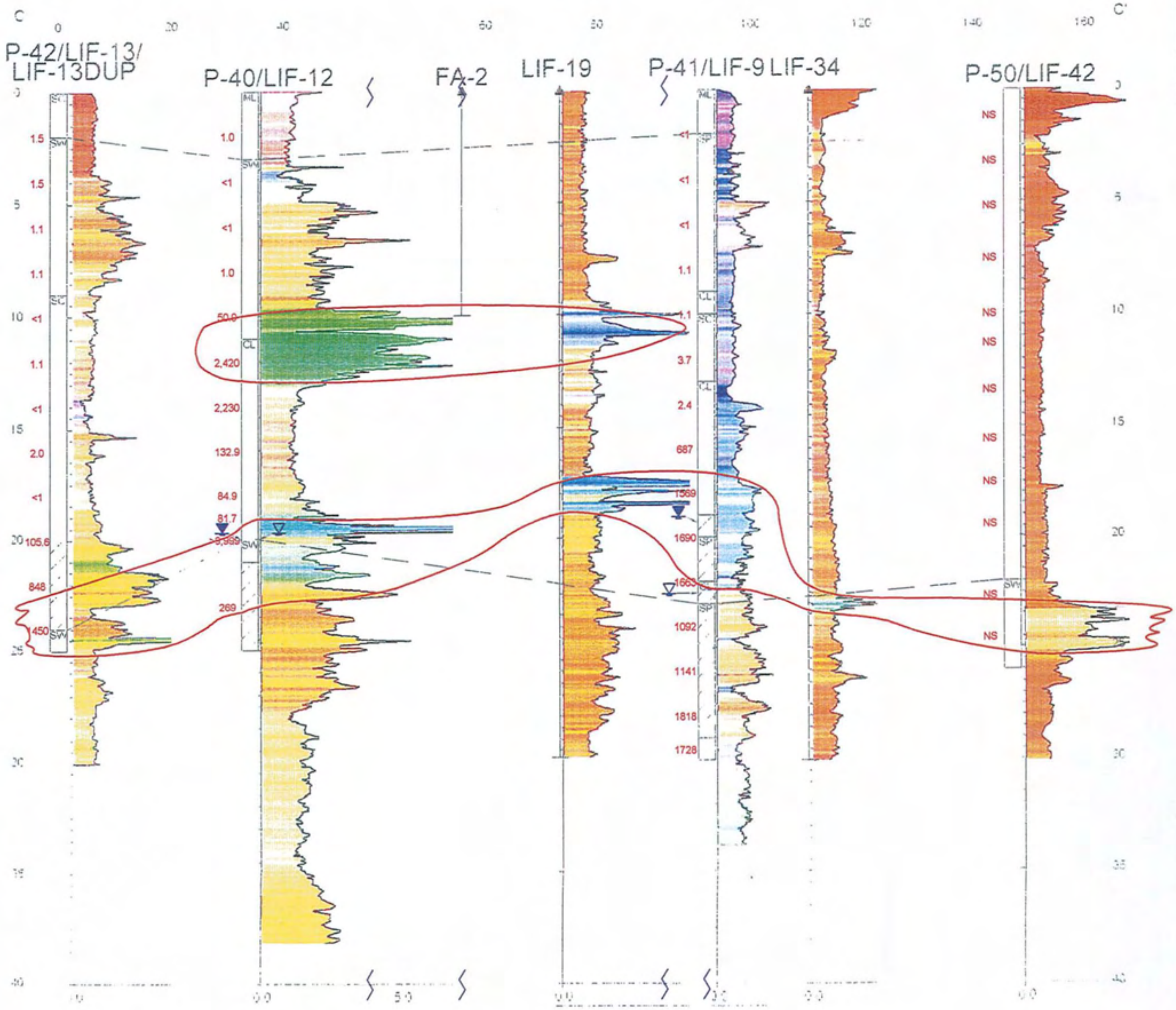
GROUNDWATER CONTOUR MAP (3/20/07)
PAYNESVILLE MUNICIPAL WATER SUPPLY
MINNESOTA STATE HIGHWAY 23
PAYNESVILLE, MN
MPCA

Project Mngr:	PJW	Terracon	Project No.	41987018
Designed By:	KWC		Scale:	AS SHOWN
Checked By:	KWC	3535 Hoffman Road East White Bear Lake, MN 55110	Date:	5/18/07
Approved By:	PJW		Drawn By:	MTO (41)
File Name:	41987018gw.dwg	Layout2	Figure No.	3B


LEGEND
PUSH PROBE/BORING - OTHERS
PUSH PROBE/BORING - TERRACON
WELL LOCATION
LIF PROBE
FENCE LINE
A — A' CROSS-SECTION LINE
GARAGE
PORCH
154 MILL STREET
DECK
HYDRANT
DRIVE
343 LAKE AVENUE S
UST/AST FILL & VENT
MILL STREET
STREET
ALLEY
CONCRETE DRIVE
GARAGE
400 LAKE AVENUE SOUTH (FORMER MIDTOWN SERVICE)
SHED
GAS METER
347 LAKE AVENUE
211 SOUTH STREET
SOUTH STREET
410 LAKE
LIF-8, LIF-8 DUP
LIF-13, LIF-13 DUP
N
LIF CROSS-SECTION INDEX MAP
PAYNESVILLE MUNICIPAL WATER SUPPLY
FORMER MIDTOWN SERVICE STATION
TERRACON PROJECT NO
Terracon
3535 Hoffman Road East
White Bear Lake, MN 55110
Project Mgr.
Designed By
Checked By
Approved By
File Name
Project No.
Scale
AS SHOWN
Date
Drawn By
Figure No.
5A


P-43/LIF-17
LIF-16
LIF-15B
RW-1
LIF-14
MW-1
LIF-8/
LIF-8DUP
P-38/LIF-4
LIF-39
LIF-44
A
A'
LEGEND
CLEAN CLAY
SILT
SAND, POORLY GRADED
SAND WITH GRAVEL
SANDY CLAY
17
PPM PARTS PER MILLION (PPM)
SAND, WELL GRADED
GROUNDWATER ELEVATION, WHILE DRILLING
LESS THAN
GROUNDWATER ELEVATION (AFTER DRILLING)
SCREENED PORTION OF MW
HORIZONTAL SCALE 1"=20'
VERTICAL SCALE 1"=5'
VERTICAL EXAGGERATION 4X
NOTE: THE STRATIGRAPHIC BOUNDARIES SHOWN ARE BASED ON INTERPOLATION BETWEEN THE BORINGS SHOWN. COLORS FROM LIF OPTICAL INTENSITY, DEPTHS DO NOT NECESSARILY REPRESENT UNAPL OR DIFFERENCES IN UNAPL MASS, PLUME AREA OF COLORED SPHERE IN CROSS SECTIONS DOES NOT REPRESENT UNAPL ACTUAL CONDITIONS MAY VARY.
LIF CROSS-SECTION A-A'
PAYNESVILLE MUNICIPLE WATER SUPPLY
400 LAKE AVENUE
PAYNESVILLE, MN
MPCA
Project Mngr: RJM
Designed By: KWC
Checked By: KWC
Approved By: RJM
Terracon
3535 Hoffman Road East
White Bear Lake, MN 55110
Project No: 41937018
Scale: AS SHOWN
Date: 3/23/07
Drawn By: MTO (41)
Figure No: 5B


LIF-60
LIF-25
LIF-26
P-47/LIF-31
P-49/LIF-40
LIF-48
101.8
1,131
346
226
59.9
LEGEND
Terracon



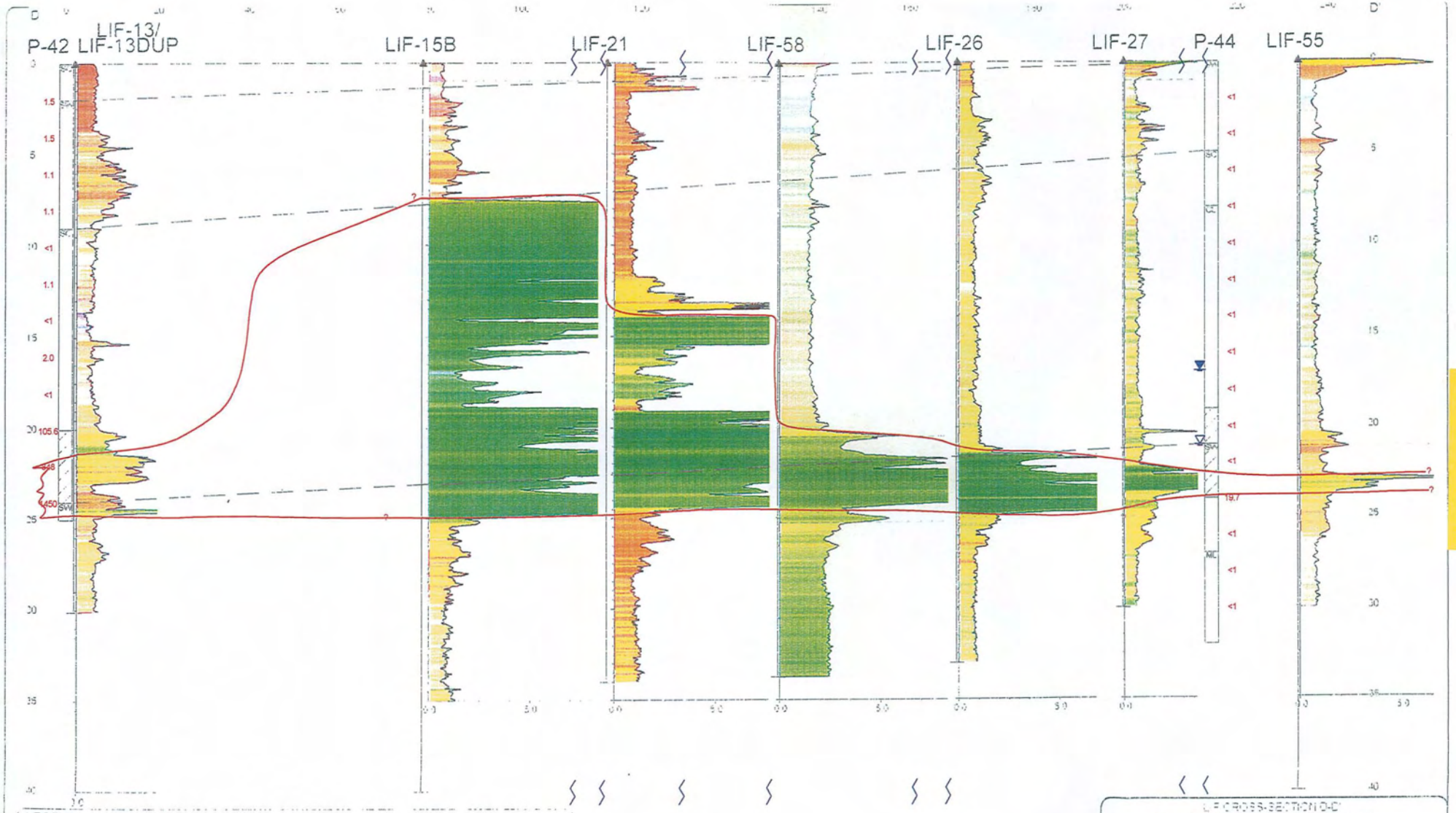
LEGEND

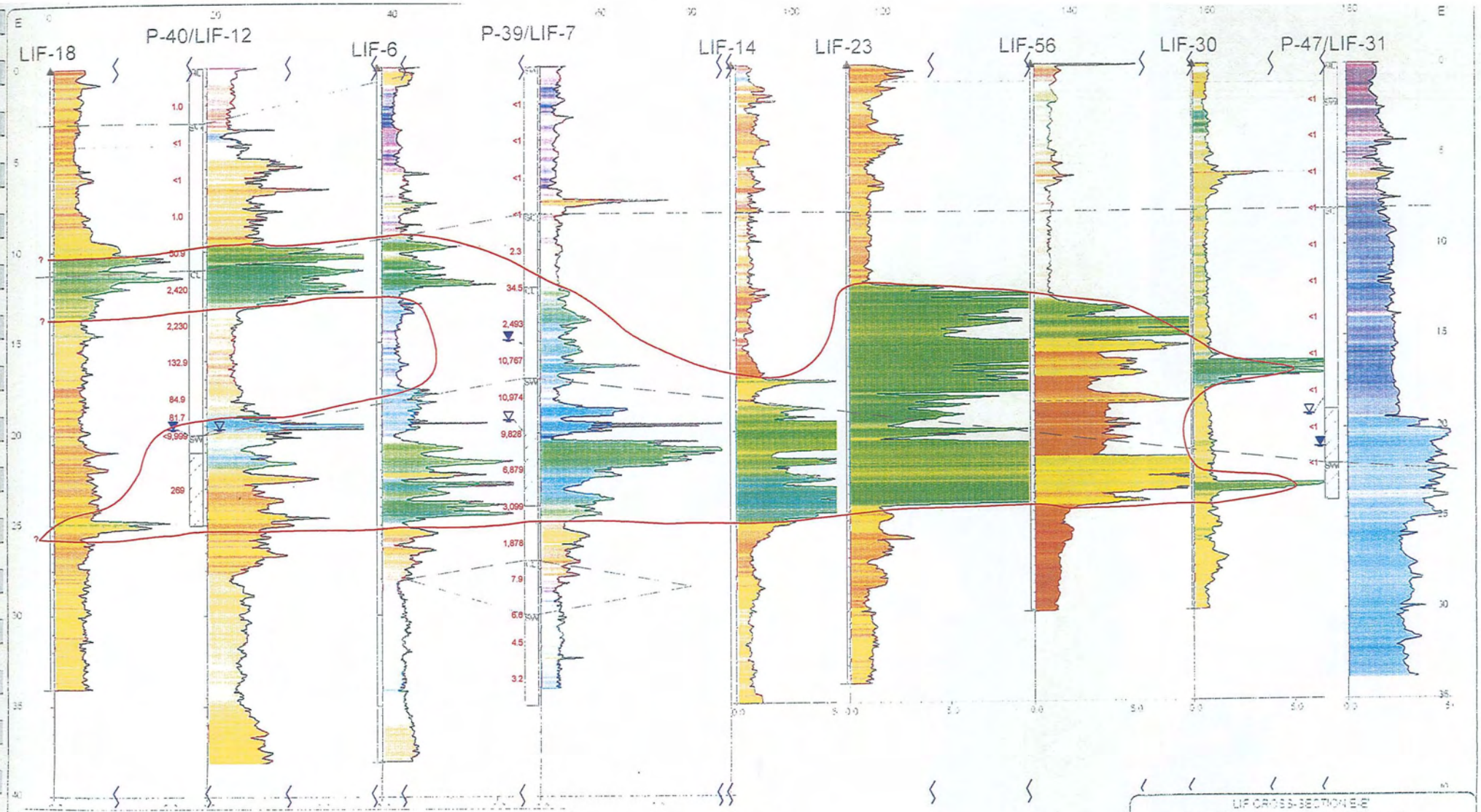
CL	LEAN CLAY	<	LESS THAN
SP	SAND, POORLY GRADED	17	PID IN PARTS PER MILLION (PPM)
SC	SANDY CLAY	▽	GROUNDWATER ELEVATION (WHILE DRILLING)
SW	SAND, WELL GRADED	▼	GROUNDWATER ELEVATION (AFTER DRILLING)
ML	SILT		
GW	SAND, WITH GRAVEL		SCREENED PORTION OF MW

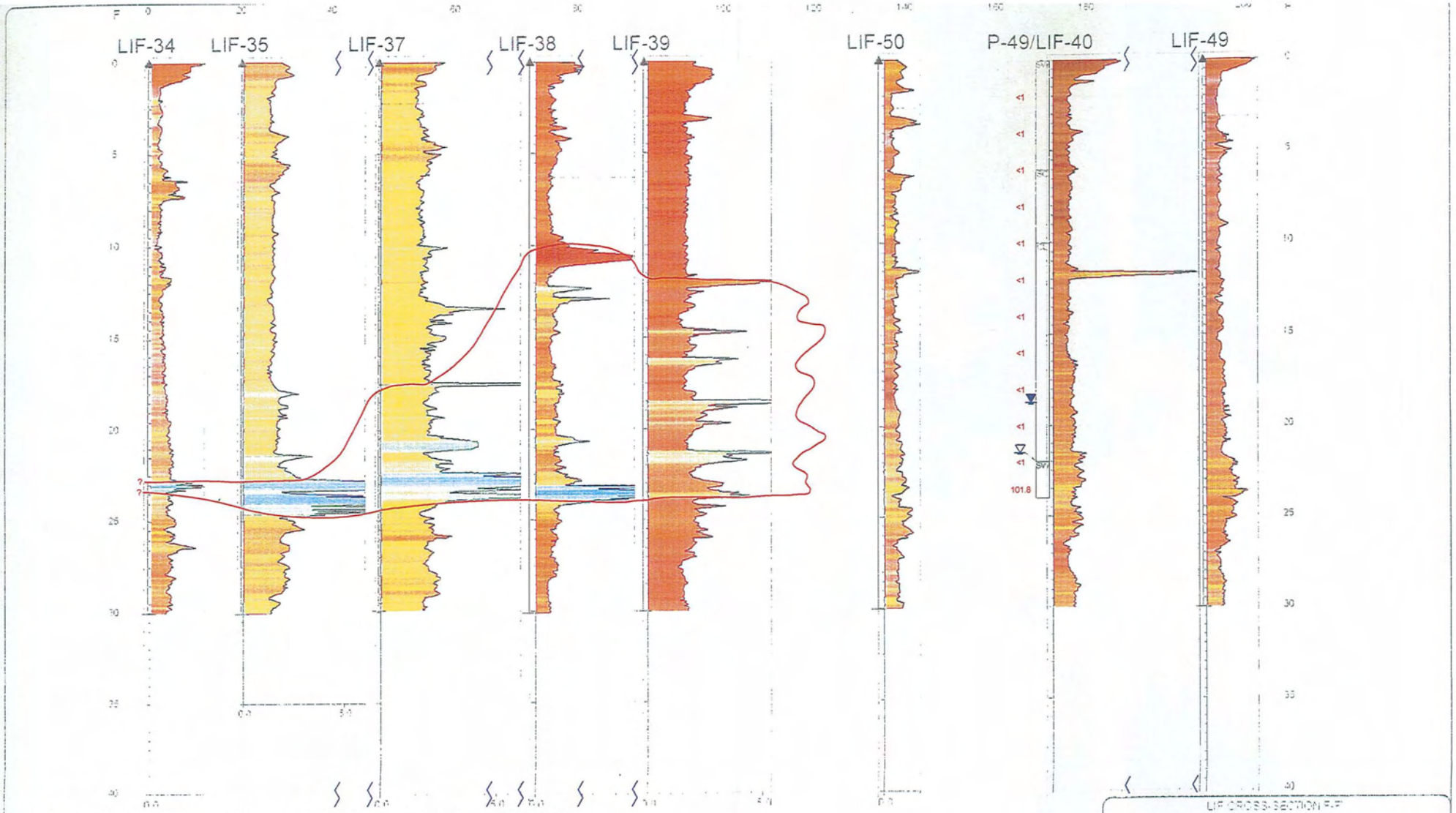
NOTE:
THE STRATIGRAPHIC BOUNDARIES SHOWN ARE BASED ON INTERPOLATION BETWEEN THE BORINGS SHOWN. COLORS FROM LIF OPTICAL INTENSITY DEPICTED IN GRAPH DO NOT NECESSARILY REPRESENT LNAPL OR DIFFERENCES IN LNAPL MAGNITUDE AND AREA OF COLORED SPIKE IN CROSS-SECTIONS SUGGEST PRESENCE OF LNAPL. ACTUAL CONDITIONS MAY VARY.

LIF CROSS-SECTION C-C'
PAYNESVILLE MUNICIPLE WATER SUPPLY
400 LAKE AVENUE
PAYNESVILLE, MN
MPCA

Project Mngr:	PJW	Terracon	Project No.	41967013
Designed By:	KWC		Scale:	AS SHOWN
Checked By:	KWC	3535 Hoffman Road East	Date:	5/16/07
Approved By:	PJW	White Bear Lake, MN 55110	Drawn By:	MTO (41)
File Name:			Figure No.	5D


D
D'
P-42
LIF-13/
LIF-13DUP
LIF-15B
LIF-21
LIF-58
LIF-26
LIF-27
P-44
LIF-55
LEGEND
CLAY
SILT
SAND, POORLY GRADED
SAND WITH GRAVEL
SAND, SILT
17
PARTS PER MILLION (PPM)
SAND, WELL GRADED
GROUNDWATER ELEVATION (WHILE DRILLING)
LESS THAN
GROUNDWATER ELEVATION (AFTER DRILLING)
SCREENED PORTION OF WELL
HORIZONTAL SCALE
VERTICAL SCALE
VERTICAL EXAGGERATION
NOTE
THE STRATIGRAPHIC BOUNDARIES SHOWN ARE BASED ON INTERPOLATION BETWEEN THE BORINGS SHOWN. COLORS FROM LIGHT TO DARK INDICATE DIFFERENCES IN CLAY, SILT, SAND, GRAVEL, REPRESENT MATERIAL DIFFERENCES IN CLAY, SILT, SAND, GRAVEL AND TREAT COLORED SAME IN CROSS-SECTIONS. SUBSEQUENT PRESENCE OF SAND, ACTUAL CONDITIONS MAY VARY.
LIF CROSS-SECTION D-D'
PAINESVILLE MUNICIPLE WATER SUPPLY
400 LAKE AVENUE
PAINESVILLE, MN
MPCA
Terracon
3535 Hoffman Road East
White Bear Lake, MN 55110
Project Mgr.
Checked By
Approved By
Project No.
Scale
Date
Drawn By
Figure No.
5E


LIF-18
P-40/LIF-12
LIF-6
P-39/LIF-7
LIF-14
LIF-23
LIF-56
LIF-30
P-47/LIF-31
LEGEND
Terracon



LEGEND

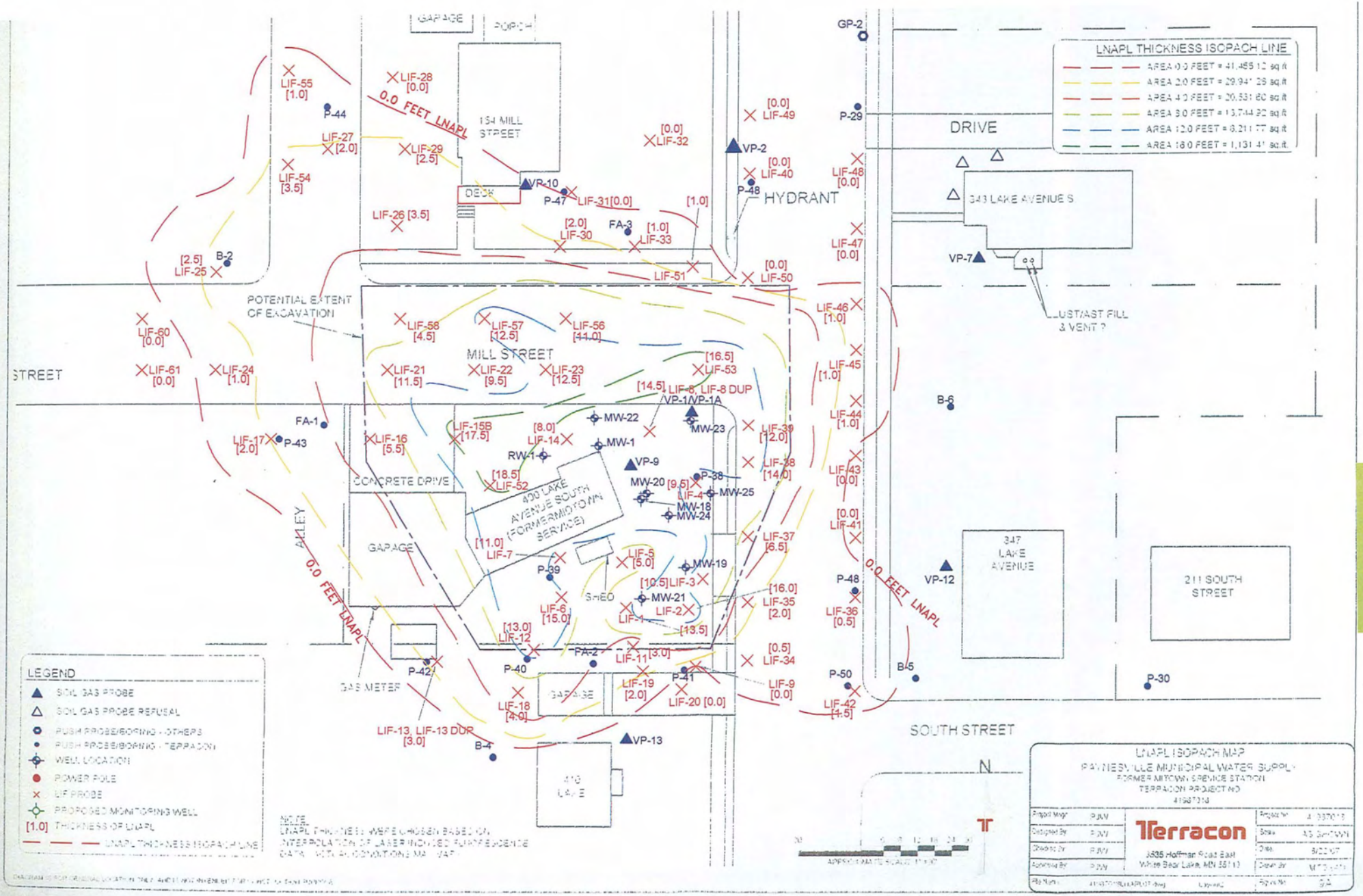
CL	CLAY	MC	SILT
GP	GRAVEL, POORLY GRADED	GW	GRAVEL WITH GRAVEL
SP	SAND, POORLY GRADED	17	PID READINGS PER MILLION (PPM)
SW	SAND, WELL GRADED	▽	GROUNDWATER ELEVATION, WHILE DRILLING
<1	LESS THAN	▼	GROUNDWATER ELEVATION, AFTER DRILLING
			SCREENED INTERVAL OF WELL

HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=5'
VERTICAL EXAGGERATION: 4X

NOTE:
THE STRATIGRAPHIC BOUNDARIES SHOWN ARE BASED ON INTERPOLATION BETWEEN THE BORINGS SHOWN. COLORS FROM PHOTOVOLTAIC INTENSITY DERIVED DO NOT NECESSARILY REPRESENT LITHOLOGY DIFFERENCES IN SAMPLE. MAGNITUDE AND AREA OF COLORED SPIKE IN SOME CORRELATIONS SUGGEST PRESENCE OF NAPL. ADDITIONAL CONTOURING MAY VARY.

LIF CROSS-SECTION F-F'
PAINESVILLE MUNICIPLE WATER SUPPLY
400 LAKE AVENUE
PAINESVILLE, MN
MPCA

Drawn By:	PJW	Terracon	Project No:
Designed By:	VVC	1535 Hoffman Road East	Scale:
Checked By:	VVC	White Bear Lake, MN 55110	Date:
Approved By:	PJW		Drawn By:
Revisions:			Figure No: 5C


LNAPL THICKNESS ISOPACH LINE
AREA 0.0 FEET = 41,465.12 sq.ft.
AREA 2.0 FEET = 29,947.28 sq.ft.
AREA 4.0 FEET = 20,531.60 sq.ft.
AREA 8.0 FEET = 13,744.20 sq.ft.
AREA 12.0 FEET = 8,211.77 sq.ft.
AREA 18.0 FEET = 1,131.41 sq.ft.
GARAGE
PORCH
154 MILL STREET
DECK
0.0 FEET LNAPL
HYDRANT
DRIVE
343 LAKE AVENUE S
UST/AST FILL & VENT ?
POTENTIAL EXTENT OF EXCAVATION
MILL STREET
STREET
CONCRETE DRIVE
400 LAKE AVENUE SOUTH (FORMER MIDTOWN SERVICE)
ALLEY
SHED
GAS METER
347 LAKE AVENUE
211 SOUTH STREET
SOUTH STREET
LEGEND
SOIL GAS PROBE
SOIL GAS PROBE REFUSAL
PUSH PROBE/BORING (OTHERS)
PUSH PROBE/BORING (TERRACON)
WELL LOCATION
POWER POLE
LIF PROBE
PROPOSED MONITORING WELL
[1.0] THICKNESS OF LNAPL
LNAPL THICKNESS ISOPACH LINE
NOTE:
LNAPL THICKNESS WERE CHOSEN BASED ON INTERPOLATION OF LABERINCHED FURNEVIDENCE DATA WITH ADDITIONS MADE BY
N
APPROXIMATE SCALE 1" = 30'
LNAPL ISOPACH MAP
PAYNESVILLE MUNICIPAL WATER SUPPLY
FORMER MITOWN SERVICE STATION
TERRACON PROJECT NO
Terracon
3535 Hoffman Road East
White Bear Lake, MN 55110

LNAPL

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (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	-
3	DW-3		08/24/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		02/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3		11/02/05	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
3	DW-3		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
3	DW-3 Abandoned		05/05/06									
3	DW-3R	12	05/03/07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
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**	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
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	-
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	-
46	DW-6		08/24/04	29	<1.0	1.6	<3.0	<5.0	-	-	140	-
46	DW-6		02/16/05	33	<1.0	2.4	<3.0	5.3	-	-	170	-
46	DW-6		11/03/05	26	<1.0	<1.0	<3.0	<1.0	-	-	63	-
46	DW-6		05/04/06	27	<1.0	1.7	<3.0	<1.0	-	-	71	-
46	DW-6		12/01/06	22	<0.36	2.5	2.7	1.2	-	-	80	-
46	DW-6	9	03/20/07	24	<1.0	2.8	2.4	1.1	-	-	100	-
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	-
48	DW-7S		02/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
48	DW-7S		11/02/05	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
48	DW-7S		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
48	DW-7S		11/30/06	<0.14	<0.36	<0.40	<1.1	<0.36	-	-	<26	-
48	DW-7S		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
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	-
49	DW-7D		02/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
49	DW-7D		11/02/05	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
49	DW-7D		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
49	DW-7D		11/30/06	<0.14	<0.36	<0.40	<1.1	<0.36	-	-	<26	-
49	DW-7D		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
55	DW-8	12	05/03/07	7.6	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
56	DW-9	11	05/03/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
21	BEI-MW-2		03/25/98	<0.30	0.61	<0.50	<1.2	<1.0	<0.40	<0.50	-	170
23	MW-1		7/17/91	4,000	8,800	2,000	9,600	2,700	-	-	50,000	73,000
23	MW-1		8/13/91	3,800	8,700	2,200	8,900	11,000	-	-	87,000	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
23	MW-1	1/13/92	5,100	8,400	2,700	6,800	2,000	-	-	63,000	-
23	MW-1	3/30/93	560	1,800	400	3,000	ND	-	-	17,000	43,000
23	MW-1	6/1/93	1,000	3,000	750	3,480	ND	-	-	300	-
23	MW-1	9/21/93	360	1,900	ND	2,680	1,500	-	-	20,000	-
23	MW-1	12/23/93	ND	ND	ND	ND	ND	-	-	140	-
23	MW-1	6/27/94	-	-	-	-	-	-	-	-	-
23	MW-1	12/1/94	1,180	1,600	602	2,380	ND	-	-	13,400	-
24	MW-10	7/17/91	ND	ND	ND	ND	ND	-	-	7	ND
24	MW-10	8/13/91	ND	ND	ND	ND	ND	-	-	ND	-
24	MW-10	1/13/92	7	2	ND	ND	34	-	-	150	-
24	MW-10	3/30/93	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	6/1/93	ND	ND	ND	ND	ND	-	-	ND	-
24	MW-10	9/21/93	ND	ND	ND	ND	ND	-	-	ND	-
24	MW-10	12/23/93	ND	ND	ND	ND	ND	-	-	140	-
24	MW-10	6/27/94	11	ND	ND	13	ND	-	-	1890	-
24	MW-10	12/1/94	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	3/19/95	ND	ND	ND	ND	ND	-	-	ND	-
24	MW-10	7/2/96	ND	ND	ND	ND	ND	-	-	ND	100
24	MW-10	4/10/97	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	6/13/97	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	9/9/97	ND	ND	ND	ND	ND	-	-	ND	400
24	MW-10	1/29/98	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	4/30/98	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	8/3/98	ND	ND	ND	ND	ND	-	-	ND	ND
24	MW-10	12/3/98	ND	ND	ND	4.1	ND	-	-	ND	ND
24	MW-10	4/5/99	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	ND
24	MW-10	6/21/99	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	ND
24	MW-10	10/6/99	<1.0	<1.0	<1.0	<3.0	-	-	-	ND	ND
24	MW-10	12/28/00	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	ND
24	MW-10	3/22/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	110
24	MW-10	6/26/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
24	MW-10	9/28/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	110
24	MW-10	3/12/02	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
24	MW-10	10/11/02	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	160
24	MW-10	6/9/03	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
24	MW-10	2/25/04	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<94
25	MW-14	7/17/91	ND	ND	ND	ND	ND	-	-	ND	ND
25	MW-14	8/13/91	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	1/13/92	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	3/30/93	50	1.1	ND	ND	ND	-	-	130	ND
25	MW-14	6/1/93	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	9/21/93	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	12/23/93	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	6/27/94	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	12/1/94	ND	ND	ND	ND	ND	-	-	ND	-
25	MW-14	3/9/95	ND	ND	ND	ND	ND	-	-	ND	ND
25	MW-14	7/2/96	ND	ND	ND	ND	ND	-	-	ND	100
25	MW-14	4/10/97	ND	ND	ND	ND	ND	-	-	ND	ND
25	MW-14	6/13/97	ND	ND	ND	ND	ND	-	-	ND	ND
25	MW-14	9/9/97	ND	<1.0	<1.0	<1.0	<3.0	-	-	<10	300
25	MW-14	1/29/98	ND	ND	ND	ND	ND	-	-	ND	300
25	MW-14	4/30/98	ND	ND	ND	ND	ND	-	-	ND	100
25	MW-14	8/3/98	ND	ND	ND	ND	ND	-	-	ND	210
25	MW-14	12/3/98	ND	ND	1	5.1	ND	-	-	ND	ND
25	MW-14	4/5/99	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	ND

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
25	MW-14	6/21/99	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	190
25	MW-14	10/6/99	<1.0	<1.0	<1.0	<3.0	ND	-	-	ND	ND
25	MW-14	12/28/00	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	3/22/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	6/26/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	9/28/01	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	3/12/02	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	1700
25	MW-14	10/11/02	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	6/19/03	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<100
25	MW-14	2/25/04	<1.0	<1.0	<1.0	<3.0	ND	-	-	<50	<120
6	MW-14D	11/30/06	<0.14	<0.36	<0.40	<1.1	**0.43 J**	-	-	<26	-
6	MW-14D	3/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
26	MW-15	7/17/91	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	8/13/91	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	1/13/92	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	3/30/93	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	6/1/93	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	9/21/93	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	12/23/93	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	6/27/94	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	12/1/94	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	3/9/95	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	7/2/96	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	4/10/97	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	6/13/97	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	9/9/97	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	1/29/98	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	4/30/98	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	8/3/98	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	12/3/98	ND	ND	ND	ND	ND	-	-	ND	ND
26	MW-15	4/5/99	<1.0	<1.0	<1.0	<3.0	-	-	-	ND	ND
26	MW-15	6/21/99	-	-	-	-	-	-	-	-	-
26	MW-15	10/6/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
26	MW-15	12/28/00	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
26	MW-15	3/22/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
26	MW-15	6/26/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
26	MW-15	9/28/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
26	MW-15	3/12/02	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	230
26	MW-15	10/11/02	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	170
26	MW-15	2/25/04	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<94
27	MW-16	5/7/93	**550**	**23**	**74**	ND	ND	-	-	2,600	400
27	MW-16	6/1/93	**1,300**	**190**	**110**	ND	ND	-	-	390	-
27	MW-16	9/21/93	**390**	**73**	**1**	**9.9**	**740**	-	-	4,100	-
27	MW-16	12/23/93	**1,200**	**6**	**41**	ND	**72**	-	-	1,800	-
27	MW-16	6/27/94	**2,520**	**16**	**134**	ND	**105**	-	-	6,530	-
27	MW-16	12/1/94	**34**	ND	ND	ND	ND	-	-	1,050	-
27	MW-16	3/9/95	**10**	ND	ND	ND	ND	-	-	1,100	-
27	MW-16	7/2/96	**1.3**	ND	ND	ND	ND	-	-	ND	100
27	MW-16	4/10/97	ND	ND	ND	ND	ND	-	-	ND	ND
27	MW-16	6/13/97	ND	ND	ND	ND	ND	-	-	ND	ND
27	MW-16	9/9/97	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	ND	100
27	MW-16	1/29/98	<1.0	<1.0	<1.0	<3.0	<10	-	-	ND	100
27	MW-16	4/30/98	ND	ND	ND	ND	ND	-	-	ND	200
27	MW-16	8/3/98	ND	ND	ND	ND	ND	-	-	ND	620

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
27	MW-16		12/3/98	ND	ND	ND	ND	ND	-	-	ND	ND
27	MW-16		4/5/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		6/21/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		10/6/99	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		12/9/99	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
27	MW-16		4/20/00	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
27	MW-16		12/28/00	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		3/22/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		6/26/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		9/28/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		3/12/02	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		10/11/02	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		6/9/03	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
27	MW-16		2/25/04	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<94
27	MW-16		11/30/06	<0.14	<0.36	<0.40	<1.1	<0.36	-	-	<26	-
27	MW-16		3/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
28	MW-17		9/21/93	ND	ND	ND	ND	ND	-	-	ND	-
28	MW-17		12/23/93	ND	ND	ND	ND	ND	-	-	ND	-
28	MW-17		6/27/94	ND	ND	ND	ND	ND	-	-	ND	-
28	MW-17		12/1/94	ND	ND	ND	ND	ND	-	-	ND	ND
28	MW-17		3/9/95	ND	ND	ND	ND	ND	-	-	ND	-
28	MW-17		7/2/96	**3.7**	ND	ND	ND	ND	-	-	ND	-
28	MW-17		4/10/97	**2.6**	ND	ND	ND	ND	-	-	ND	ND
28	MW-17		6/13/97	ND	ND	ND	ND	ND	-	-	ND	ND
28	MW-17		9/9/97	<1.0	<1.0	<1.0	<3.0	<10	-	-	-	300
28	MW-17		1/29/98	ND	ND	ND	ND	ND	-	-	ND	ND
28	MW-17		4/30/98	**1,540**	<10	<10	<30	<10	-	-	**2,100**	**300**
28	MW-17	G	6/13/98	**2,100**	<100	<100	<300	-	<500	**140**	-	-
28	MW-17		8/3/98	**407**	1.1	ND	ND	ND	-	-	580	**120**
28	MW-17		12/3/98	**980**	ND	ND	ND	-	-	-	1,300	ND
28	MW-17		4/5/99	**360**	<2.0	<2.0	<6.0	-	-	-	**540**	<100
28	MW-17		6/21/99	**35**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		10/6/99	**2.8**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		12/9/99	**9.2**	**1.7**	**1.2**	**5.8**	<5.0	-	-	<100	-
28	MW-17		4/20/00	**2.9**	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		12/28/00	**3.4**	<1.0	<1.0	<3.0	-	-	-	<50	130
28	MW-17		3/22/01	**2.1**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		6/26/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		9/28/01	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		3/12/02	**2.5**	<1.0	<1.0	<3.0	-	-	-	<50	<100
28	MW-17		10/11/02	<1.0	<1.0	<1.0	<3.9	-	-	-	<50	<100
28	MW-17		6/9/03	<1.0	<1.0	<1.0	3.2	-	-	-	<50	<100
28	MW-17		7/24/03	<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		2/25/04	<1.0	<1.0	<1.0	<3.0	-	-	-	<50	<94
28	MW-17		4/7/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		8/24/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		2/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17		11/2/05	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
28	MW-17		5/4/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
28	MW-17		12/1/06	<0.14	<0.36	<0.40	<1.1	<0.36	-	-	<26	-
28	MW-17		3/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
30	MW-19		6/12/03	**62**	**73**	**8.6**	**118**	<5.0	-	-	**2,200**	**15,000**
30	MW-19		2/26/04	**900**	**3,000**	**690**	**3,040**	-	-	-	**13,000**	**1,700**

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
31	MW-20		7/2/96	7,340	11,800	1,930	1,160	2,750	-	-	56,900	100
31	MW-20		4/10/97	4,500	12,500	1,640	13,100	<500	-	-	46,600	10,600
31	MW-20		6/13/97	8,370	9,810	1,900	11,400	361	-	-	52,300	11,200
31	MW-20		9/9/97	1,980	3,060	790	3,730	<2000	-	-	15,200	400
31	MW-20		1/29/98	16,700	3,370	4,330	24,100	<2000	-	-	137,000	822,000
32	MW-21		2/26/04	240	490	120	720	<2.5	-	-	5,600	3,800
34	MW-23		6/12/03	3,800	3,100	1,200	6,300	<25	-	-	24,000	4,300
34	MW-23		2/26/04	1,100	930	520	2,410	-	-	-	12,000	1,600
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	-	-
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	G	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	G	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	G	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	G	11/05/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	G	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	G	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
9	CW-3	G	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	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
9	CW-3		04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
9	CW-3		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
9	CW-3		02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
9	CW-3		11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
9	CW-3		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
9	CW-3		11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
9	CW-3		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-
10	CW-4	c	12/19/90	**2.2**	<0.2	<0.2	**0.4**	<0.2	<0.5	**0.3**	-	-
10	CW-4	c	10/23/97	**16**	<0.30	<0.50	<1.2	<1.0	<0.40	**1.5**	-	-
10	CW-4	c	03/25/98	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c, G	06/10/98	**3.0**	<1	<1	<3	-	<5	**2.2**	-	-
10	CW-4	c	06/10/98	**2.9**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	-	-
10	CW-4	c, G	06/13/98	**3.5**	<1	<1	<3	-	<5	**2.7**	-	-
10	CW-4	c	08/20/98	**6.6**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4	c	09/09/98	**8.8**	<0.3	<0.5	<1.2	<1.0	<0.4	**0.78**	-	-
10	CW-4	c	10/05/98	**12**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4	c	11/18/98	**19**	<0.3	<0.5	<1.2	<1.0	<0.4	**0.6**	-	-
10	CW-4	c	12/15/98	**18**	**0.4**	<0.5	<1.2	<1.0	<0.4	**0.8**	-	-
10	CW-4	c	01/25/99	**20**	**0.38**	**0.51**	<1.2	<1.0	<0.4	**1.1**	-	-
10	CW-4	c	02/18/99	**19**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
10	CW-4	c	03/17/99	**19**	<0.3	**0.55**	<1.2	<1.0	<0.4	**0.88**	-	-
10	CW-4	c	04/22/99	**12**	<0.3	<0.50	<1.2	<1.0	<0.4	**0.51**	-	-
10	CW-4	c	05/21/99	**8.8**	<0.3	<0.50	<1.2	<1.0	<0.4	**0.62**	-	-
10	CW-4	c	06/24/99	**11**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c	07/19/99	**7.7**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c	08/23/99	**7.3**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c	09/22/99	**6.7**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.59**	-	-
10	CW-4	c	10/25/99	**6.6**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c	11/24/99	**5.7**	<0.30	<0.50	<1.2	<1.0	<0.40	**0.5**	-	-
10	CW-4	c	12/09/99	**4.9**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
10	CW-4	c	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**	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
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**	-	-
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	-	-
10	CW-4	3	05/25/04	**1.2**	<0.50	<0.50	<1.5	<0.50	<0.50	**0.38 J**	-	-
10	CW-4	3	06/17/04	**1.1**	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
10	CW-4	3	07/26/04	**0.79**	<0.50	<0.50	<1.5	<0.50	<0.50	**0.42 J**	-	-
10	CW-4	3	08/25/04	**0.92**	<0.50	<0.50	<1.50	<0.50	<0.50	**0.37 J**	-	-
10	CW-4	3	09/15/04	**0.84**	<0.50	<0.50	<1.5	<0.50	<0.50	**0.42 J**	-	-
10	CW-4	3	10/22/04	**0.48 J**	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
10	CW-4	3	11/10/04	**0.3 J**	<0.50	<0.50	<1.5	<0.50	<0.50	**0.29 J**	-	-
10	CW-4	3	12/02/04	**0.18 J**	<0.50	<0.50	<1.5	<0.50	<0.50	**0.85**	-	-
10	CW-4	3	01/18/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.05	**0.92**	-	-
10	CW-4	3	02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	**0.46 J**	-	-
10	CW-4	3	03/14/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
10	CW-4	3	05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	**0.31 J**	-	-
10	CW-4	3	09/19/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
10	CW-4	3	11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	**0.36 J**	-	-
10	CW-4	3	02/15/06	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
10	CW-4	3	06/02/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
10	CW-4	3	08/21/06	**0.66 J**	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
10	CW-4	1,3	11/30/06	**0.78 J**	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
10	CW-4		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
10	CW-4		04/25/07	<0.41	<1.0	<1.0	<3.0	<1.0	<5.0	<0.56	-	-
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	-	-
11	CW-5		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
11	CW-5		05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
11	CW-5		11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
11	CW-5		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
11	CW-5	1	11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
11	CW-5		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
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	-	-
12	CW-6		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
12	CW-6		05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
12	CW-6		11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
12	CW-6		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
12	CW-6	1	11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
12	CW-6		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-
	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-7		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-7		02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-7		05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
	CW-7		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
	CW-7		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-
	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	-	-
	CW-8		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-8		02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-8		05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
	CW-8		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
	CW-8		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-
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	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	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	-	-
	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-Influent		08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-Influent		02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-Influent		11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
	CW-Influent		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36		
	CW-Influent	1	11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36		
	CW-Influent		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0		
	CW-Filtered	c	03/25/98	**6.8**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c, G	04/23/98	<1	<1	<1	<3	<5	<5	<1	-	-
	CW-Filtered	c	06/10/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	08/20/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	10/05/98	**0.73**	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	11/18/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	CW-Filtered	c	12/15/98	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	01/25/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	02/18/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	03/17/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	04/22/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	05/21/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	06/24/99	<0.3	<0.3	<0.5	<1.2	<1.0	<0.4	<0.5	-	-
	CW-Filtered	c	07/19/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	08/23/99	**0.35**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	09/22/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	10/25/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	11/24/99	**5.80**	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	12/09/99	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	01/13/00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
	CW-Filtered	c	02/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	2.1**	<0.50	-	-
	CW-Filtered	c	03/13/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	04/20/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1 c	05/23/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1, c	06/17/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	1, c	07/27/00	<0.30	<0.30	<0.50	<1.2	<1.0	<0.40	<0.50	-	-
	CW-Filtered	c	08/16/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, c	09/12/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, c	10/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1 c	11/20/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	12/13/00	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	01/16/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	<100	-
	CW-Filtered	c	02/15/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	02/28/01	**0.2**	<0.2	<0.2	<0.4	<2.0	<0.5	<0.2	-	-
	CW-Filtered	c	03/08/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	04/12/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	05/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	06/22/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	3 c	07/30/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, 3, c	08/13/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, 3 c	09/11/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1 c	10/09/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1, 3, c	11/19/01	<0.50	<0.50	<0.50	<1.5	<1.0	**0.92**	<0.50	-	-
	CW-Filtered	3 c	12/03/01	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1 3 c	01/29/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1 3 c	02/08/02	**0.36 J**	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	5 c	03/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	3 c	04/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	1 3 c	05/23/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.50	<0.50	-	-
	CW-Filtered	c	06/07/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3, c	07/30/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3, c	08/19/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	09/09/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3, c	10/11/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3, c	11/05/02	**0.24 J**	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	12/16/02	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	01/16/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	02/06/03	**0.43 J**	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	03/06/03	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	CW-Filtered	3 c	04/03/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 c	05/19/03	<0.50	<0.50	**0.55**	**3.9**	<1.0	<0.5	<0.50	-	-
	CW-Filtered	3 4 c	06/19/03	<0.50	<0.50	<0.50	<1.5	<1.0	<2.0	<0.50	-	-
	CW-Filtered	1 3 c	07/24/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	CW-Filtered	3, c	10/28/03	<0.50	<0.50	<0.50	<1.5	<1.0	<0.5	<0.50	-	-
	CW-Filtered	6 c	01/28/04	<0.50	<0.50	<0.50	<1.5	<5.0	<0.50	<0.50	-	-
	CW-Filtered	c	04/07/04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-
	CW-Filtered	c	08/25/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-Filtered	c	02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-Filtered	c	05/04/06	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	CW-Filtered	1, c	11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
	CW-Filtered		03/20/07	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-
	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	Nursery Well	G	02/26/98	<1	<1	<1	<3	<5	<5	<1	-	-
13	Nursery 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 & EXTRACTION												
10	CW-4-1		05/20/98	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-
10	CW-4-2		05/20/98	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<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**	-	-	<100	-
10	CW-4-5		05/21/98	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<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**	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
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	-
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	-
45	DW-5		08/24/04	230	<1.0	10	18	<5.0	-	-	510	-
45	DW-5		02/16/05	180	2.1	31	39	<5.0	-	-	400	-
45	DW-5		11/03/05	160	2.3	30	25	<1.0	-	-	350	-
45	DW-5		05/04/06	180	1.5	32	32	1.3	-	-	440	-
45	DW-5	9	12/14/06	74	<1.0	42	19	1.6	-	-	260	-
45	DW-5	9	03/20/07	64	<1.0	55	19	1.8	-	-	280	-
QA/QC DUPLICATES & 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	C	04/07/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
3	DW-3	D	08/24/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
28	MW-17	D	02/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
45	DW-5	D	11/02/05	160	2.3	29	26	<1.0	-	-	340	-
45	DW-5	D	05/04/06	180	1.5	32	33	1.3	-	-	440	-
28	MW-17	D	12/01/06	<0.14	<0.36	<0.40	<1.1	<0.36	-	-	<26	-
45	DW-5	D 9	03/20/07	64	<1.0	55	19	1.8	-	-	270	-
	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	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	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	[illegible]	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	-
	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	-	-
	Trip Blank	[illegible]	04/30/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank	[illegible]	05/03/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank	[illegible]	06/17/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank	[illegible] 1	07/26/04	<0.50	**0.22 J**	0.16 J	0.62 J	<0.50	<0.50	<0.50	-	-
	Trip Blank		08/24/04	<1.0	<1.0	<1.0	<3.0	<5.0	<0.50	<0.50	-	-
	Trip Blank		09/16/04	<1.0	**0.2 J**	<1.0	<3.0	<5.0	<0.50	<0.50	-	-
	Trip Blank		11/22/04	<1.0	<1.0	<1.0	<3.0	<5.0	<0.50	<0.50	-	-
	Trip Blank		11/10/04	<1.0	<1.0	<1.0	<3.0	<5.0	<0.50	<0.50	-	-
	Trip Blank		12/02/04	<1.0	**0.21**	<1.0	<3.0	<5.0	<0.50	<0.50	-	-
	Trip Blank	8	01/19/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank		02/16/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank	3	03/14/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Trip Blank		05/27/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
	Trip Blank		09/19/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
	Trip Blank		11/02/05	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	<50	-
	Trip Blank		02/15/06	<0.41	<1.0	<1.0	<3.0	<1.0	<1.0	<0.36	-	-
	Trip Blank		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<50	-
	Trip Blank	10	06/02/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
	Trip Blank		08/21/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
	Trip Blank		12/01/06	<0.14	<0.36	<0.40	<1.1	<0.36	<0.74	<0.36	<26	-
	Trip Blank		12/01/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36		
	Trip Blank		12/14/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
	Trip Blank		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	<50	-
	Trip Blank	1	04/25/07	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	<50	-
	Trip Blank	12	05/03/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<50	-
	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	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	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	-	-
	Method Blank		06/17/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		07/26/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		08/24/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<100	-
	Method Blank		09/21/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		10/26/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		11/10/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		12/02/04	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		01/19/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		02/19/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		03/22/05	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	-	-
	Method Blank		06/02/05	<0.50	<0.50	<0.50	<1.5	<2.0	<0.50	<0.50	-	-
	Method Blank		09/19/05	<0.41	<1.0	<1.0	<3.0	<1.0	<5.0	<0.36	-	-
	Method Blank		11/02/05	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<50	-
	Method Blank		02/15/06	<0.41	<1.0	<1.0	<3.0	<1.0	<5.0	<0.36	-	-
	Method Blank		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<50	-
	Method Blank		06/02/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
	Method Blank		08/21/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
	Method Blank		11/30/06	<0.41	<0.67	<0.54	<2.6	<0.61	<0.74	<0.36	-	-
	Method Blank		12/01/06	<0.41	<0.36	<0.4	<1.1	<0.36	<0.74	<0.36	<26	-
	Method Blank		12/01/06	<0.41	<0.36	<0.4	<1.1	<0.36	-	-	<26	-
	Method Blank		12/14/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
	Method Blank		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	-	-

TABLE 3 - GROUNDWATER A-LYTICAL RESULTS (WELLS)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Map ID#	Sample ID		Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)
	Method Blank		04/25/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	-	-
	Method Blank		05/03/07	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<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	-
	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	-
	Pump Blank		08/24/04	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank		02/16/05	<1.0	<1.0	<1.0	<3.0	<5.0	-	-	<100	-
	Pump Blank		11/02/05	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
	Pump Blank		05/04/06	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
	Pump Blank		03/20/07	<1.0	<1.0	<1.0	<3.0	<1.0	-	-	<50	-
	HRL / *HBV*	a	-	10	10,000	700	10,000	*70*	300	4	*200*	*200*
	MCL	b	-	5	1,000	700	10,000	NE	NE	5	NE	NE
	NPDES	c	-	5	253	5	5	NE	NE	5	NE	NE

Note: Concentrations in micrograms per liter (µg/L), equivalent to parts per billion.
Results at or below the laboratory reporting limits (RLs) were preceded by the less than symbol (<).
A-lytes not sampled, or results not applicable, were represented with a hyphen (-).
Bolded values exceeded the reporting limits for the selected a-lytes.
- - Not A-lyzed
ND - Not Detected
D - Duplicate
G - Samples a-lyzed using GC in Geoprobe Sampling Vehicle.
* - Other petroleum related volatile organic compounds detected.
** - Concentration due to sample carry over
a. Health Risk Limit / Health Based Values (Minnesota Department of Health, http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html, 11/30/2004)
b Maximum Contami-nt Levels (Environmental Protection Agency, http://www.epa.gov/safewater/mcl.html#mcls, 3/8/2005)
c NPDES National Pollutant Discharge Elimination System limits only apply to water discharged from CW-4 (last revised 4/11/06).
d Analysis performed 7 days past holding time, received past hold.

1 One or more non-petroleum VOCs detected.
2 Large unidentified 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 -phthalene was raised due to carryover from a previous sample.
5 Benzene and 1,2 DCA were J-flagged
6 pH of the sample was greater than 2.0
7 Quantitation was performed on a dilution of the sample.
8 Trip-blank was received and a-lyzed past holding time
9 Early and late eluting peaks were present outside the window of a-lysis.
10 Methylene chloride at 1.3 ug/L.
11 2-Butanone (MEK) at 10.3 ug/L, sec-Butylbenzene at 1.1 ug/L.
12 Acetone at 6.3 ug/L.

Terracon

TABLE 6 - RESULTS OF SOIL HEADSPACE SCREENING (SOURCE AREA)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

DEPTH	SOIL BORING OR PROBE																			
(ft)	B-1/MW-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15	FA-1	FA-2	FA-3	VP-1	VP-2
0-2	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	TR	<1	<4
2-4	1	ND	TR	ND	TR	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	<1	<4
4-6	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	TR	<1	<4
6-8	3	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350	NS	<1	<4
8-10	260	ND	ND	65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	<1	<4
10-12	300	TR	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	300	10	6426	<4
12-14	280	TR	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	110	1275	<4
14-16	220	80	ND	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	240	NS	NS	<4
16-18	70	280	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	140	EOB=15 ft	<4
18-20	320	280	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	200	NS		<4
20-22	70	NS	ND	20	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	320	NS	200		<4
22-24	320	NS	ND	2	ND	ND	120	ND	ND	ND	ND	20	ND	ND	ND	300	NS	240		72.4
24-26	240	60	ND	2	ND	45	30	45	80	EOB=24 ft	EOB=24 ft	15	ND	ND	EOB=24 ft	EOB=24 ft	EOB=25 ft			52.2
26-28	230	EOB=26.5 f	EOB=26.5 f	EOB=26.5 f	EOB=26.5 f	EOB=26.5 f	EOB=26.5 f	34	170			EOB=26.5 f	ND	ND						EOB=25 ft
28-30	30							EOB=29 ft	EOB=29 ft				EOB=29 ft	EOB=29 ft						
30-32	3																			
32-34	4																			
34-36	2																			
36-38	ND																			
38-40	EOB=40 ft																			

DEPTH	SOIL BORING OR PROBE																			
(ft)	VP-3	VP-4	VP-5	VP-6	P-38	P-39	P-40	P-41	P-42	P-43	P-44	P-45	P-46	P-47	P-48	P-49	P-50	DW-3R	DW-8	DW-9
0-2	<1	<1	<1	<1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1	<1
2-4	<1	<1	<1	<1	<1	<1	1	<1	1.5	<1	<1	<1	5.9	<1	<1	<1	NS	NS	NR	<1
4-6	<1	<1	NR	<1	1.9	<1	<1	<1	1.5	5.2	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
6-8	<1	<1	NR	<1	1	<1	<1	<1	1.1	<1	<1	<1	5.9	<1	<1	<1	NS	NS	<1	<1
8-10	<1	<1	NR	<1	1.5	<1	1	1.1	1.1	5.2	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
10-12	<1	<1	<1	<1	NR	2.3	50.9	1.1	<1	<1	<1	<1	<1	<1	<1	<1	NS	NS	<1	<1
12-14	<1	<1	<1	<1	16.6	34.5	2420	3.7	1.1	<1	<1	<1	<1	<1	<1	<1	NS	NS	<1	<1
14-16	<1	<1	<1	NS	4303	2493	2230	2.4	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
16-18	<1	<1	<1	<1	NR	10767	132.9	687	2	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
18-20	16.1	<1	<1	<1	NR	10974	84.9	1569	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
20-22	EOB=20 ft	EOB=20 ft	EOB=20 ft	EOB=20 ft	NR	9828	81.7	1690	105.6	<1	<1	<1	5.9	<1	<1	<1	NS	<1	<1	<1
22-24					71114	6879	>9999	1663	848	415	<1	<1	29.8	<1	<1	101.8	NA	<1	<1	<1
24-26					>9999	3099	269	1092	1450	2456	19.7	<1	53.7	EOB=24 ft	8395	EOB=24 ft	NA	NS	<1	<1
26-28					52.3	1878	EOB=25 ft	1818	EOB=25 ft	EOB=25 ft	<1	14	5.9		1131		EOB=26 ft	NS	<1	<1
28-30					63	7.9		1728			<1	64.7	EOB=28 ft		346			NS	<1	<1
30-32					106	6.6		EOB=30 ft			<1	EOB=30 ft			226			<1	<1	<1
32-34					4.5	4.5					EOB=32 ft				EOB=32 ft			NS	<1	EOB=31 ft
34-36					5.3	3.2												<1	<1	
36-38					33.2	EOB=35 ft												NS	<1	
38-40					3.6													<1	<1	
					EOB=40 ft													<1 to 90 ft	<1 to 90 ft	
																		EOB=90 ft	EOB=90 ft	

Notes:

6/19/07

Organic vapor concentrations measured in parts per million (ppm) using an OVM 580B photoionization detector with a 10.6 eV lamp as referenced to an isobutylene standard.

< = Less than
ND = Not detected (<1 ppm)
NR = No Recovery
NS = Not Sampled
NA = Not Analyzed
EOB = End of Boring

TABLE 7 - SOIL ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location		Depth (feet)	Sample Date	Analytical Method	Percent Moisture	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl Tert-Butyl Ether	Gasoline Range Organics	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil Probe Samples													
VP-1	1, 3	12	11/04/04	TPH GRO/PVOC WI	10.3	**0.71**	**9.7**	**5.6**	**13.0**	<0.89	**826**	**87.3**	**25.6**
VP-2	2	24	11/04/04	TPH GRO/PVOC WI	12.6	**0.062**	<0.057	<0.057	<0.17	<0.23	<5.7	**1.7**	**0.86**
VP-3	2	20	11/04/04	TPH GRO/PVOC WI	5.5	<0.053	<0.053	<0.053	<0.16	<0.21	**7.5**	**0.56**	**0.54**
VP-4	2	19	11/04/04	TPH GRO/PVOC WI	11.1	<0.056	<0.056	<0.056	<0.17	<0.22	<5.6	**0.39**	**0.42**
VP-5		16	11/04/04	TPH GRO/PVOC WI	10.6	<0.056	<0.056	<0.056	<0.17	<0.22	<5.6	**0.33**	**0.22**
VP-6		14	11/04/04	TPH GRO/PVOC WI	6.3	<0.053	<0.053	<0.053	<0.16	<0.21	<5.3	**0.28**	**0.20**
P-38	4,5	22-24	02/20/07	BTEX/MTBE/GRO	9.9	**2.1**	**11**	**5**	**24.3**	**0.15**	**260**	-	-
P-38	5	36-38	02/20/07	BTEX/MTBE/GRO	19.8	**0.097**	<0.031	<0.031	<0.093	<0.031	<3.1	-	-
P-39	4,5	18-20	02/21/07	BTEX/MTBE/GRO	8.6	<0.068	**0.2**	**3.4**	**10.2**	**0.28**	**290**	-	-
P-40	4,5	20-21	02/21/07	BTEX/MTBE/GRO	9.4	<0.055	<0.055	<0.055	**4.5**	<0.055	**210**	-	-
P-41	4,5	26-28	02/22/07	BTEX/MTBE/GRO	7.6	<0.027	<0.027	**0.56**	**1.91**	**0.098**	**160**	-	-
P-42	4,5	22-24	02/22/07	BTEX/MTBE/GRO	15.4	<0.12	<0.12	<0.12	**2.36**	<0.12	**280**	-	-
P-43	4,5	24-26	02/22/07	BTEX/MTBE/GRO	7.3	<0.054	<0.054	**0.45**	**1.29**	**0.095**	**170**	-	-
P-44		22-24	02/26/07	BTEX/MTBE/GRO	9.3	<0.028	<0.028	<0.028	<0.083	<0.028	<2.8	-	-
P-45		26-28	02/26/07	BTEX/MTBE/GRO	13.1	<0.029	<0.029	**0.045**	**0.075**	<0.029	<2.9	-	-
P-46		22-24	02/27/07	BTEX/MTBE/GRO	10.2	<0.028	<0.028	**0.041**	**0.11**	<0.028	<2.8	-	-
P-47	4	22-24	02/27/07	BTEX/MTBE/GRO	11.8	<0.028	<0.028	**0.081**	**0.16**	<0.028	**2.9**	-	-
P-48	4	22-24	02/27/07	BTEX/MTBE/GRO	11.6	<0.028	<0.028	<0.028	<0.085	<0.028	**4.0**	-	-
P-49	4	22-24	02/28/07	BTEX/MTBE/GRO	11.5	**0.13**	**0.067**	**0.15**	**0.66**	<0.028	**4.7**	-	-
DW-3R		16-18	04/23/07	BTEX/MTBE/GRO	9.7	<0.029	<0.029	<0.029	<0.087	<0.029	<2.9	-	-
DW-8		10-12	04/24/07	BTEX/MTBE/GRO	13.4	<0.029	<0.029	<0.029	<0.087	<0.029	<2.9	-	-
DW-9		18-20	04/25/07	BTEX/MTBE/GRO	12.0	<0.028	<0.028	<0.028	<0.085	<0.028	<2.8	-	-
QA/QC Samples													
MeOH Trip blank		-	02/21/07	BTEX/MTBE/GRO	-	<0.025	<0.025	<0.025	<0.050	<0.025	<2.5	-	-
MeOH Trip blank		-	04/25/07	BTEX/MTBE/GRO	-	<0.050	<0.050	<0.050	<0.050	<0.050	-	<0.050	<0.050

TABLE 7 - SOIL ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location	Depth (feet)	Sample Date	Analytical Method	Percent Moisture	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl Tert-Butyl Ether	Gasoline Range Organics	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Blank (ug/L)	-	11/04/04	TPH GRO/PVOC WI	-	<0.050	<0.050	<0.050	<0.15	<0.20	<5.0	<0.050	<0.050
Method Blank	-	02/21/07	BTEX/MTBE/GRO	-	<1.0	<1.0	<1.0	<2	<1.0	<50	-	-
Method Blank (ug/L)	-	04/25/07	BTEX/MTBE/GRO		<0.025	<0.025	<0.025	<0.050	<0.025	<2500	-	-
SRVs (Tier 1)	-	-	-	-	1.5	107	200	110	NE	NE	NE	NE
SLVs (Tier 1)	-	-	-	-	0.034	6.4	4.7	45	0.027	NE	NE	NE

Note: Soil analytical results reported in milligrams per kilogram (mg/kg), which is the same as parts per million (ppm). Methanol trip blanks reported in mg/L.

Results at or below the laboratory reporting limits (RLs) are preceded by the less than symbol (<).

Analytes without Tier 1 limits were denoted with NE (Not Established).

Bolded values indicate results were above the laboratory RLs.

1. Analytes were diluted for laboratory analysis
2. High boiling point hydrocarbons were present in the sample.
3. Result for surrogate was outside the acceptable recovery limit due to sample dilution.
4. Early and late eluting peaks were present outside the window of analysis.
5. Analyzed outside holding time

TABLE 9 - GROUNDWATER ANALYTICAL RESULTS (BORINGS/PROBES)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample		Date	Depth	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,3,5-Trimethyl-benzene (µg/L)
P-1	G	2/24/98	19	<1	<1	<1	<3	<5	<5	**1.2**	-	-	-	-
P-2	G	2/24/98	18	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-2		2/24/98	18	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-5	G	2/25/98	22	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-5		2/25/98	22	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-6	G	2/25/98	10	<1	<1	<1	<3	<5	<5	**120**	-	-	-	-
P-6		2/25/98	10	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-7	G	2/25/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-8	G	2/25/98	17	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-9	G	2/26/98	18	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-9		2/26/98	18	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-10	G	2/26/98	21	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-11	G	2/26/98	21	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-11		2/26/98	21	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-	-	-
P-12	G	2/27/98	21	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-12		2/27/98	21	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	<100	-	-	-
P-13	G	2/27/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-14	G	2/27/98	16	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-14		2/27/98	16	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-15	G	3/4/98	18	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-16	G	3/4/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-16		3/4/98	20	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-17	G	3/6/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-17		3/6/98	20	<1.0	<1.0	<1.0	<1.0	<5.0	-	-	**130**	**1,600**	-	-
P-19	G	3/6/98	19	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
P-20	G	3/6/98	21	<1	<1	<1	<3	<5	<5	**1.7**	-	-	-	-
P-20		3/6/98	21	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-21-45	G	4/23/98	45	**2.2**	<1	<1	<3	-	<5	**4.7**	-	-	-	-
P-22-36'	G	4/23/98	36	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-22-36'		4/23/98		<0.30	**0.42**	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-22-48'	G	4/23/98	48	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-23-24'	G	4/23/98	24	**1.3**	<1	<1	<3	-	<5	<1	-	-	-	-
P-23-24'		4/23/98		**1.5**	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
P-23-32'	G	4/23/98	32	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-24-24'	G	4/23/98	24	<1	**3.5**	<1	<3	-	<5	<1	-	-	-	-
P-24-24'		4/23/98	24	<0.30	**0.3**	<0.50	<0.80	<1.0	**1.5**	<0.50	-	-	-	-
P-24-36'	G	4/23/98	36	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-25-24'	G	6/10/98	24	**69**	<1	<1	<3	-	<5	<1	-	-	-	-
P-25-44'	G	6/10/98	44	**350**	<10	<10	<30	-	<50	**19.8**	-	-	-	-
P-25-60'	G	6/10/98	60	**22**	<1	<1	<3	-	<5	**6.7**	-	-	-	-
P-25-60'		6/10/98	60	**18**	<1.0	**3.4**	**9.4**	**1.6**	<1.0	**4.6**	-	-	-	-
P-26-24'	G	6/10/98	24	<10	<10	<10	<30	-	<50	<10	-	-	-	-
P-26-24'	1	6/10/98	24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-
P-26-44'	G	6/10/98	44	<10	<10	<10	<30	-	<50	<10	-	-	-	-
P-26-58'	G	6/10/98	58	**2**	<1	<1	<3	-	<5	<1	-	-	-	-
P-26-58'		6/10/98	58	**1.4**	<1.0	<1.0	<1.0	-	-	-	<100	-	-	-

TABLE 9 - GROUNDWATER ANALYTICAL RESULTS (BORINGS/PROBES)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample		Date	Depth	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,3,5-Trimethyl-benzene (µg/L)
P-27-24'	G	6/11/98	24	<10	<10	81	<30	-	<50	<10	-	-	-	-
P-27-32'	G	6/11/98	32	<10	<10	45	<30	-	<50	<10	-	-	-	-
P-27-40'	G	6/11/98	40	<10	<10	29	<30	-	<50	<10	-	-	-	-
P-27-48'	G	6/11/98	48	<10	<10	30	<30	-	<50	<10	-	-	-	-
P-27-56'	G	6/11/98	56	<10	<10	24	<30	-	<50	<10	-	-	-	-
P-27-56'		6/11/98	56	7.5	2.1	24	<1.0	-	-	-	220	-	-	-
P-28-24'	G	6/11/98	24	1.0	<1	1.9	<3	-	<5	<1	-	-	-	-
P-28-44'	G	6/11/98	44	<1	1.0	<1	<3	-	<5	<1	-	-	-	-
P-28-56'	G	6/11/98	56	<1	1.0	<1	<3	-	<5	<1	-	-	-	-
P-28-56'		6/11/98	56	<1.0	<1.0	<1.0	<1.0	-	-	-	<100	-	-	-
P-29-24'	G	6/11/98	24	270	130	130	240	-	<500	<100	-	-	-	-
P-29-37'	G	6/11/98	37	1.3	3.0	2.5	6.7	-	<5	<1	-	-	-	-
P-29-55'	G	6/11/98	55	<1	1.9	1.7	4.1	-	<5	<1	-	-	-	-
P-29-55'		6/11/98	55	<1.0	1.6	1.3	1.6	-	-	-	<100	-	-	-
P-30-24'	G	6/11/98	24	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-30-44'	G	6/11/98	44	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-30-44'		6/11/98	44	<1.0	<1.0	<1.0	<1.0	-	-	-	<100	-	-	-
P-30-52'	G	6/11/98	52	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-31-24'	G	6/12/98	24	67	<10	<10	<30	-	<50	<10	-	-	-	-
P-31-34'	G	6/12/98	34	150	10	<10	<30	-	<50	12	-	-	-	-
P-31-42'	G	6/12/98	42	1,300	<50	<50	<150	-	<250	77	-	-	-	-
P-31-50'	G	6/12/98	50	320	<20	<20	<60	-	<100	43	-	-	-	-
P-31-55'	G	6/12/98	55	880	<20	<20	<60	-	<100	36	-	-	-	-
P-31-55'	E	6/12/98	55	510	1.3	3.1	29	1.6	<1.0	40				
P-33-30'	G	6/12/98	30	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-33-44'	G	6/12/98	44	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-33-55'	G	6/12/98	55	<1	<1	<1	<3	-	<5	1.4	-	-	-	-
P-33-55'		6/12/98	55	<1.0	<1.0	<1.0	1.2	9.6	<1.0	<1.0	-	-	-	-
P-34-24'	G	6/12/98	24	150	<20	48	<60	-	<100	<20	-	-	-	-
P-34-44'	G	6/12/98	44	1,200	<100	<100	<300	-	<500	69	-	-	-	-
P-34-44'	E	6/12/98	44	180	14	57	200	1.4	<1.0	71	-	-	-	-
P-35-24'	G	6/12/98	24	2.4	<1	7.7	<3	-	17.5	<1	-	-	-	-
P-35-44'	G	6/12/98	44	2.2	<1	21	<3	-	<5	<1	-	-	-	-
P-35-44'		6/12/98	44	2.8	<1.0	23	<1.0	<1.0	<1.0	<1.0	-	-	-	-
P-36-24'	G	6/12/98	24	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-36-44'	G	6/12/98	44	<1	<1	<1	<3	-	<5	<1	-	-	-	-
P-36-44'		6/12/98	44	<1.0	<1.0	<1.0	<1.0	-	-	-	<100	-	-	-
P-37-24'	G	6/13/98	24	<10	<10	12	<30	-	<50	<10	-	-	-	-
P-37-24'		6/13/98	24	8	<1.0	11	<1.0	-	-	-	490	-	-	-
P-37-44'	G	6/13/98	44	235	60	<10	<30	-	<50	<10	-	-	-	-
P-37-44'		6/13/98	44	170	41	160	58.3	<1.0	2.6	11	-	-	-	-
P-39W (20-24)	2,4	2/21/07	20-24	63	31	120	318	16	-	-	9700	-	-	-
P-41W (19-29)	2,4	2/22/07	19-29	3.7	130	41	110	9.4	-	-	4300	-	-	-
P-42W (20-24)	2,4	2/22/07	20-24	<1.0	<1.0	5.0	1.2	<1.0	-	-	1400	-	-	-
P-43W	2,4,D	2/22/07	20-24	<2.0	<2.0	10	42	5.8	-	-	3900	-	-	-

TABLE 9 - GROUNDWATER ANALYTICAL RESULTS (BORINGS/PROBES)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample		Date	Depth	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,3,5-Trimethyl-benzene (µg/L)
P-44W (19-24)	2	2/26/07	19-24	1.2	1.1	2.5	5.9	2.0	-	-	1500	-	-	-
P-45W (23-28)	2, 3	2/26/07	23-28	36	89	220	406	2.3	51	<2.5	2400	-	130	24
P-46W (19-24)	2	2/27/07	19-24	70	86	350	940	<5.0	-	-	5400	-	-	-
P-47W (19-24)	2	2/27/07	19-24	150	58	600	1,470	5.1	-	-	7800	-	-	-
P-48W (22-27)	2	2/27/07	22-27	<10	<10	210	936	10	-	-	11000	-	-	-
P-49W (19-24)	2	2/28/07	19-24	750	390	930	3,480	<10	-	-	14000	-	-	-
GP-1-28'-32'	G	4/23/98	28-32	3.6	3.4	140	3.3	-	<5	<1	-	-	-	-
GP-1-36'-40'	G	4/23/98	36-40	274	360	70	<150	-	<250	<50	-	-	-	-
GP-1-46'-50'	G	4/23/98	46-50	750	60	74	82	-	<5	51	-	-	-	-
GP-2-16'-20'	G	4/23/98	16-20	<1	<1	<1	<3	-	<5	<1	-	-	-	-
GP-2-26'-30'	G	4/23/98	26-30	<1	5.4	10.9	4.1	-	<5	<1	-	-	-	-
GP-2-36'-40'	G	4/23/98	36-40	3.5	<1	<1	<3	-	<5	<1	-	-	-	-
GP-2-46'-50'	G	4/23/98	46-50	<1	1.2	<1	<3	-	<5	<1	-	-	-	-
DW-1-55'	G	2/26/98	55	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DW-1-55'		2/26/98	55	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-1-20'	G	2/27/98	20	6.7	<1	<1	<3	<5	135	11.6	-	-	-	-
DB-1-20'		2/27/98	20	4.9	<0.30	<0.50	2.6	<1.0	56	<0.50	-	57,000	-	-
DB-1-40'	G	2/27/98	40	<1	<1	<1	<3	<5	<5	1.3	-	-	-	-
DB-1-40'		2/27/98	40	0.84	0.54	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-1-90'	G	2/27/98	90	<1	<1	1.6	<3	7.4	<5	3.5	-	-	-	-
DB-1-90'		2/27/98	90	0.42	0.72	0.58	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-2-20'	G	3/3/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DB-2-20'		3/3/98	20	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-2-50'	G	3/3/98	50	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DB-2-50'		3/3/98	50	0.62	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-2-90'	G	3/3/98	90	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DB-2-90'		3/3/98	90	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DB-3-20'	G	3/4/98	20	<1	<1	<1	<3	<5	400	<1	-	-	-	-
DB-3-20'		3/4/98	20	0.45	<0.30	0.96	1.94	<1.0	240	<0.50	-	-	-	-
DB-3-65'	G	3/4/98	65	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DB-3-65'		3/4/98	65	<0.30	<0.30	<0.50	<0.80	<1.0	0.41	<0.50	-	-	-	-
DW-2-50'	G	3/3/98	50	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DW-2-50'		3/3/98	50	0.38	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DW-3-40'	G	3/5/98	40	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DW-3-40'		3/5/98	40	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DW-4-20'	G	3/6/98	20	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DW-4-20'		3/6/98	20	<0.30	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
DW-4-20'	G	3/6/98	60	<1	<1	<1	<3	<5	<5	<1	-	-	-	-
DW-4-20'		3/6/98	60	0.36	<0.30	<0.50	<0.80	<1.0	<0.40	<0.50	-	-	-	-
VIA PILOT SOIL BORINGS														
VP-1 (11-15')		11/4/04	15	198	122	20.0	298	<40.0	-	-	2,940	-	172	144
VP-2 (21 -25')		11/4/04	25	250	188	781	2,670	96.9	-	-	8,340	-	719	187
VP-4 (16 -20')		11/4/04	20	1.0	1.5	2.1	6.4	<4.0	-	-	<100	-	<1.0	6.0
VP-5 (16 -20')		11/4/04	20	<1.0	<1.0	<1.0	<3.0	<4.0	-	-	<100	-	<1.0	<1.0

TABLE 9 - GROUNDWATER ANALYTICAL RESULTS (BORINGS/PROBES)
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample	Date	Depth	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2-Dichloro-ethane (µg/L)	Gasoline Range Organics (µg/L)	Diesel Range Organics (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,3,5-Trimethyl-benzene (µg/L)
VP-6 (16 -20')	11/4/04	20	<1.0	<1.0	<1.0	<3.0	<4.0	-	-	<100	-	<1.0	<1.0
QA/QC DUPLICATES & BLANKS													
Trip Blank	3/20/07	-	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	<50	-	<1.0	<1.0
Method Blank	11/4/04	-	<1.0	<1.0	<1.0	<3.0	<4.0	-	-	<100	-	<0.51	<0.52
Method Blank	3/20/07	-	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	-	-	<1.0	<1.0
HRL/*HBV*	-	-	10	1,000	700	10,000	*70*	300	4	*200*	*200*	NE	NE
MCL			5	1,000	700	10,000	NE	NE	5	NE	NE	NE	NE

Note: Concentrations in micrograms per liter (µg/L), equivalent to parts per billion.
Results at or below the laboratory reporting limits (RLs) are preceded by the less than symbol (<).
Analytes not sampled, or results not applicable, were represented with a hyphen (-).
Bolded values exceeded the RL for the analyte.
G - Samples analyzed using GC in Geoprobe Sampling Vehicle.
D - Duplicate
* - Other petroleum related volatile organic compounds detected.
HRL/HBV - Health Risk Limit / Health Based Values (Minnesota Department of Health, http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html, 11/30/2004)
MCL - Maximum Contami-nt Levels (Environmental Protection Agency, http://www.epa.gov/safewater/mcl.html#mcls, 3/8/2005)
1 - Tetrachloroethane detected: P-26-24 = 83 µg/l E, E denotes concentrations exceeds calibration curve and should be considered an estimate.
2 - Early and late eluting peaks were present outside the window of analysis.
3 - Other VOCs detected. See laboratory report.
4 - Analyzed outside holding time

TABLE 10A - SOIL GAS ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location (depth in feet)		Sample Date	Sample Duration	Benzene (ug/m3)	Ethylbenzene (ug/m3)	Toluene (ug/m3)	Total Hydrocarbons as Gas (ug/m3)	1,3,5-Trimethylbenzene (ug/m3)	1,2,4-Trimethylbenzene (ug/m3)	m-& p-Xylene (ug/m3)	o-Xylene (ug/m3)	Method
Soil Vapor Assessment												
VP-1 2' - 0724	1	11/04/04	Grab	**20.5**	18.5	35.2	1,650	<17	<17	<30	<15	TO-15
VP-1 5' - 0633	1	11/04/04	Grab	<11	<15	16.5	<580	<17	<17	<30	<15	TO-15
VP-1A 5' - 0682		10/18/05	Grab	**520**	**16,800**	**5,360**	-	**1,750**	**1,500**	**38,400**	**7,060**	TO-14
VP-2 5' - 0145	1	11/04/04	Grab	**24.4**	53	54.4	5,990	<18	<17	31.8	<16	TO-15
VP-2 16' - 0501	1	11/04/04	Grab	**34.1**	34	105.0	8,290	<17	**44.5**	75.9	27.4	TO-15
VP-3 5' - 0561	1	11/04/04	Grab	<750	**1000**	**880**	72,900	<1100	<1100	<2000	<1000	TO-15
VP-3 19.5' - 0357	1	11/04/04	Grab	<6000	<8100	<7000	16,900,000	<9200	<9000	<16000	<8100	TO-15
VP-4 5' - 0722	1	11/04/04	Grab	**61.4**	39.3	64.4	38,400	<17	**25**	36.2	15.9	TO-15
VP-4 14' - 0088	1	11/04/04	Grab	<45	<61	<53	46,900	<69	<68	<120	<61	TO-15
VP-5 5' - 0354	1	11/04/04	Grab	<12	<16	28.0	10,500	<18	**19.5**	48.1	<16	TO-15
VP-5 14' - 0007	1	11/04/04	Grab	**15.6**	21.6	69.3	3,290	<18	**63.5**	79.5	30.0	TO-15
VP-6 5' - 0324	1	11/04/04	Grab	**23.1**	<16	18.8	4,730	<18	**18.0**	<30	<16	TO-15
VP-6 12' - 0414	1	11/04/04	Grab	**14.6**	19.4	48.7	2,740	<17	**52.0**	75.9	27.8	TO-15
VP-7 8.5' - 0741		04/21/05	Grab	<3.2	5.3	8.4	525	<4.9	**12.0**	21.2	8.4	TO-15
VP-8 5.5' - 0803		04/21/05	Grab	**66.2**	20.7	56.7	2,010	<4.5	**13.5**	32.2	13.2	TO-15
VP-9 5.5' - 0126		04/21/05	Grab	**5.9**	14.6	17.6	677	5.0	**15.5**	26.9	11.9	TO-15
VP-10 6.5' - 0566		04/21/05	Grab	**12.7**	30.9	26.8	1,980	**15.0**	**34.5**	71.5	36.2	TO-15
VP-11 6' - 0425		10/18/05	Grab	<5.3	167	49.7	-	**27.1**	**50.7**	417	48.4	TO-15
VP-11 6' - 1033 (dup)		10/18/05	Grab	**4.5**	42.4	15.9	-	**7.6**	**17.4**	107	15.9	TO-15
VP-12 8' - 0017		02/23/07	Grab	**18.0**	25.2	34.9	-	<3.4	**7.5**	13.8	5.5	TO-15
VP-13 8' - 0147		02/23/07	Grab	**30.4**	18.0	45.7	-	<3.4	**11.9**	22.5	8.4	TO-15

TABLE 10A - SOIL GAS ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location (depth in feet)		Sample Date	Sample Duration	Benzene (ug/m3)	Ethylbenzene (ug/m3)	Toluene (ug/m3)	Total Hydrocarbons as Gas (ug/m3)	1,3,5-Trimethylbenzene (ug/m3)	1,2,4-Trimethylbenzene (ug/m3)	m-& p-Xylene (ug/m3)	o-Xylene (ug/m3)	Method
QA/QC Samples												
Method Blank: 25167		11/04/04	-	<0.52	ND	ND	-	ND	ND	ND	ND	TO-15
Method Blank: 81927		04/21/05	-	<0.52	ND	ND	-	ND	ND	ND	ND	TO-15
Method Blank: 156048		10/18/05	-	ND	ND	ND	-	ND	ND	ND	ND	TO-15
Method Blank: 317227		02/23/07	-	ND	ND	ND	-	ND	ND	ND	ND	TO-15
MDH HRV Acute / *Chronic*	A	-	-	1000 / *1.3 - 4.5*	10000 / *NE*	37000 / *400*	NE	NE	NE	43000t / *NE*	43000t / *NE*	-
EPA Rfc	B			NE	1,000	NE	NE	6	6	700t	700t	-
MDH ISC	C	-	-	NE	NE	NE	NE	NE	NE	NE	NE	-

Notes: Analytical data reported in micrograms per cubic meter (ug/m3).
Results at or below the laboratory reporting limits (RLs) were preceded by the less than symbol (<).
Concentrations MPCA above screening levels (A through B) are in bold.
A. MDH Health Risk Value (http://www.health.state.mn.us/divs/eh/air/hrvtable.htm, 3/21/05)
B. EPA Reference concentrations
C. MDH Interim Screening Concentration

6/21/07

ND - Non-detect
NE - Not Established
1. Sample diluted during laboratory analysis.

TABLE 10B - OTHER NOTABLE SOIL GAS ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location (depth in feet)		Sample Date	Sample Duration	Acetone (ug/m3)	1,3-Butadiene (ug/m3)	2-Butanone (MEK) (ug/m3)	Cyclohexane (ug/m3)	4-Ethyltoluene (ug/m3)	Methylene Chloride (ug/m3)	n-Heptane (ug/m3)	n-Hexane (ug/m3)	Propylene (ug/m3)	Tetrahydro-furan (ug/m3)	Method
Soil Vapor Assessment														
VP-1 2' - 0724	1	11/04/04	Grab	54.8	<7.9	20.7	<12	<18	<12	<15	19.7	87.1	<10	TO-15
VP-1 5' - 0633	1	11/04/04	Grab	32.1	<7.9	<11	<12	<18	<12	<15	<13	16.4	<10	TO-15
VP-2 5' - 0145	1	11/04/04	Grab	<9.2	<8.1	<11	<13	<18	<13	37.9	177	<6.1	<11	TO-15
VP-2 16' - 0501	1	11/04/04	Grab	280	**99.2**	124	<12	27.5	<12	30.8	53	359	40.8	TO-15
VP-3 5' - 0561	1	11/04/04	Grab	<590	<520	<730	<800	<1200	**4,240**	<960	<840	<390[2]	<690	TO-15
VP-3 19.5' - 0357	1	11/04/04	Grab	<4700	<4100	<5800	<6400	<9300	<6500	<7700	<6700	<3100	<5500	TO-15
VP-4 5' - 0722	1	11/04/04	Grab	321	<7.9	121	<12	<18	<12	<15	<13	227	<10	TO-15
VP-4 14' - 0088	1	11/04/04	Grab	128.0	<31	51.0	261	<71	<49	<58	<51	<24[2]	<42	TO-15
VP-5 5' - 0354	1	11/04/04	Grab	133.0	<8.3	42.0	<13	<19	<13	<15	<14	250[2]	<11	TO-15
VP-5 14' - 0007	1	11/04/04	Grab	161	<8.1	44.7	<13	37	<13	<15	24	268	<11	TO-15
VP-6 5' - 0324	1	11/04/04	Grab	46.1	<8.1	15.6	<13	<18	<13	<15	<13	213	<11	TO-15
VP-6 12' - 0414	1	11/04/04	Grab	101	<7.9	37.8	<12	30.5	<12	<15	<13	<5.9[2]	<10	TO-15
VP-7 8.5' - 0741		04/21/05	Grab	4.83	**5.85**	8.99	<3.4	20.5	<3.5	<4.1	<3.6	<6.6	<2.9	TO-15
VP-8 5.5' - 0803		04/21/05	Grab	3.62	**103**	10.5	5.6	13.5	<3.2	15	26.2	341	<2.7	TO-15
VP-9 5.5' - 0126		04/21/05	Grab	3.38	**8.77**	8.09	3.85	12	<3	5.42	7.52	12.1	<2.6	TO-15
VP-10 6.5' - 0566		04/21/05	Grab	7.49	**21.8**	14.7	25.9	21	<2.6	15	21.9	27.8	<2.2	TO-15
VP-1A 5' - 0682		10/18/05	Grab	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TO-14
VP-11 6' - 0425	*	10/18/05	Grab	<3.9	<3.7	<4.9	12,900	60.6	<5.8	11,600	**27,800**	<2.8	<4.9	TO-15
VP-11 6' - 1033 (dup)	*	10/18/05	Grab	<0.81	<0.76	<1.0	460	15.6	<1.2	426	964	<0.59	<1.0	TO-15
VP-12 8' - 0017	*	02/23/07	Grab	49.6	**9.8**	8.20	15.2	3.7	<0.95	21.5	21.7	85.4	13.1	TO-15
VP-13 8' - 0147	*	02/23/07	Grab	104	<0.60	23.6	22.5	6.0	<1.1	24.1	50.1	361	19.6	TO-15
QA/QC Samples														
Method Blank: 25167		11/04/04	-	ND	ND	ND	ND	ND	ND	ND	ND	ND[2]	ND	TO-15
Method Blank: 81927		04/21/05	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	TO-15
Method Blank: 156048		10/18/05	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	TO-15
Method Blank: 317227		02/23/07	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	TO-15

TABLE 10B - OTHER NOTABLE SOIL GAS ANALYTICAL RESULTS
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

Sample Location (depth in feet)		Sample Date	Sample Duration	Acetone	1,3-Butadiene	2-Butanone (MEK)	Cyclohexane	4-Ethyltoluene	Methylene Chloride	n-Heptane	n-Hexane	Propylene	Tetrahydro-furan	Method
				(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	
MDH HRV Acute / *Chronic*	A	-	-	NE / *NE*	0.04 / *NE*	NE / *NE*	NE / NE	NE / NE	10,000 / 20	NE / NE	2000 / *NE*	NE / *NE*	NE / *NE*	-
EPA Rfc	B			350	2	1000	NE	NE	NE	NE	200	NE	NE	-
MDH ISC	C	-	-	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	-

Notes: Analytical data reported in micrograms per cubic meter (ug/m3)

Results at or below the laboratory reporting limits (RLs) were preceded by the less than symbol (<).

Concentrations above MPCA screening levels (A through C) are in bold.

A. MDH Health Risk Value (http://www.health.state.mn.us/divs/eh/air/hrvtable.htm, 3/21/05)

B. EPA Reference concentrations

C. MDH Interim Screening Concentration

ND - Non detect above RLs

NE - Not Established

* - Other VOCs Detected (see laboratory report)

1. Sample diluted during laboratory analysis

2. Initial calibration for this compound is outside of method control limits, therefore results is an estimation

6/19/07

TABLE 10C - RESULTS OF SOIL GAS SAMPLES FOR VAPOR INTRUSION SCREENING
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

SAMPLE LOCATION	VP-12			VP-13												Action Level	
DATE SAMPLE	2/23/07			2/23/07													
DEPTH (-#) or HEIGHT (+#) in feet	-8			-8													
PARAMETERS	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	(µg/m³)	Source HRV[A], ISC[B], RFC[C]
1,1,1-Trichloroethane	ND	1.5		ND	1.5											140000	HRV (Acute)
1,1,2,2-Tetrachloroethane	ND	1.9		ND	1.9											0.4	RfC
1,1,2-Trichloroethane	ND	1.5		ND	1.5											2	RfC
1,1,2-Trichlorotrifluoroethane	ND	2.1		ND	2.1											30000	RfC
1,1-Dichloroethane	ND	1.1		ND	1.1											500	RfC
1,1-Dichloroethene	ND	1.1		ND	1.1											200	RfC
1,2,4-Trichlorobenzene	ND	1.3		ND	1.3											200	RfC
1,2,4-Trimethylbenzene	**7.5**	3.4		**11.9**	3.4											6	RfC
1,2-Dibromoethane (EDB)	ND	2.1		ND	2.1											0.05	HRV (Chronic)
1,2-Dichlorobenzene	ND	1.6		ND	1.6											200	RfC
1,2-Dichloroethane	ND	1.1		ND	1.1											1	RfC
1,2-Dichloropropane	ND	1.3		ND	1.3											4	RfC
1,3,5-Trimethylbenzene	ND	3.4		ND	3.4											6	RfC
1,3-Butadiene	**9.8**	0.60		ND	0.60											0.04	HRV (Chronic)
1,3-Dichlorobenzene	ND	1.6		ND	1.6											110	RfC
1,4-Dichlorobenzene	ND	1.6		ND	1.6											800	RfC
2-Butanone (MEK)	8.2	0.80		23.6	0.80											1000	RfC
2-Hexanone	ND	1.1		ND	1.1											NE	-
4-Ethyltoluene	3.7	3.4		6.0	3.4											NE	-
4-Methyl-2-pentanone (MIBK)	ND	1.1		13.1	1.1											80	RfC
Acetone	49.6	0.64	L1, SS	104	6.4	D6, L1, SS										350	RfC
Benzene	**18.0**	0.87		**30.4**	0.87											1,000 / 1.3-4.5	HRV (Acute / Chronic)
Bromodichloromethane	ND	1.9		ND	1.9											1	RfC
Bromoform	ND	2.8		ND	2.8											22	RfC
Bromomethane	ND	1.1		2.0	1.1											5	HRV (Chronic)
Carbon disulfide	5.0	0.84		3.4	0.84											6,000 / 700	HRV (Acute / Chronic)
Carbon tetrachloride	ND	1.7		ND	1.7											2	RfC
Chlorobenzene	ND	1.3		ND	1.3											60	RfC
Chloroethane	ND	0.72		ND	0.72											10000	RfC
Chloroform	ND	1.3		ND	1.3											1	RfC
Chloromethane	ND	0.56		ND	0.56											90	RfC
Cyclohexane	15.2	0.91		22.5	0.91											NE	-
Dibromochloromethane	ND	2.3		ND	2.3											NE	-
Dichlorodifluoromethane	2.4	1.3		3.4	1.3											200	RfC
Dichlorotetrafluoroethane	ND	1.9		ND	1.9											NE	-
Ethyl acetate	ND	0.98		ND	0.98											3200	RfC
Ethylbenzene	25.2	1.2		18.0	1.2											10000	HRV (Acute)
Hexachloro-1,3-butadiene	ND	2.9		ND	2.9											1	RfC
Methyl-tert-butyl ether	ND	0.98		ND	0.98											10,000 / 20	HRV (Acute / Chronic)
Methylene Chloride	ND	0.95		ND	0.95											3000	RfC
Naphthalene	5.1	3.6		5.5	3.6											3000	RfC
Propylene	85.4	0.47	E	361	4.7	D6										NE	-
Styrene	1.4	1.2		2.4	1.2											21,000 / 1,000	HRV (Acute / Chronic)
Tetrachloroethene	ND	1.9		ND	1.9											20000 / 30	HRV (Acute / Chronic)
Tetrahydrofuran	13.1	0.80	L1, SS	19.6	0.80	L1, SS										NE	-
Toluene	34.9	1.0		45.7	1.0											37,000 / 400	HRV (Acute / Chronic)
Trichloroethene	ND	1.5		ND	1.5											2000	HRV (Acute)

TABLE 10C - RESULTS OF SOIL GAS SAMPLES FOR VAPOR INTRUSION SCREENING
PAYNESVILLE PUBLIC WATER SUPPLY - MPCA
PAYNESVILLE, MINNESOTA 56362
TERRACON PROJECT NO. 41987018

SAMPLE LOCATION	VP-12			VP-13												Action Level	
DATE SAMPLE	2/23/07			2/23/07													
DEPTH (-#) or HEIGHT (+#) in feet	-8			-8													Source: HRV[A], ISC[B], RFC[C]
PARAMETERS	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	Result (µg/m³)	RL (µg/m³)	Q	(µg/m³)	
Trichlorofluoromethane	ND	1.5		ND	1.5											700	RfC
Vinyl acetate	ND	0.95		ND	0.95											200	HRV (Chronic)
Vinyl chloride	ND	0.70		ND	0.70											1	HRV (Chronic)
cis-1,2-Dichloroethene	ND	1.1		ND	1.1											35	RfC
cis-1,3-Dichloropropene	ND	1.2		ND	1.2											6	RfC
m&p-Xylene	13.8	2.4		22.5	2.4											43,000*	HRV (Acute)
n-Heptane	21.5	1.1		24.1	1.1											NE	-
n-Hexane	21.7	0.96		50.1	0.96											2000	HRV (Chronic)
o-Xylene	5.5	1.2		8.4	1.2											43,000*	HRV (Acute)
trans-1,2-Dichloroethene	ND	1.1		ND	1.1											70	RfC
trans-1,3-Dichloropropene	ND	1.2		ND	1.2											6	RfC

Notes: Analytical data reported in micrograms per cubic meter (ug/m3). 6/18/07
Results below the laboratory reporting limits (RLs) were preceded by the less than symbol (<) or listed as not detected (ND).
Bold indicates parameter concentration above the respective action level criteria
NE indicates action levels are not established for the respective parameter.
RL column includes laboratory reporting limits for the respective parameter.
* The action levels shown are for TOTAL Xylenes (combined m&p-Xylene and o-Xylene).
Q column includes footnotes for referencing laboratory reporting qualifiers.
D6 = The relative percent difference (RDP) between the sample and the sample duplicate exceeds laboratory control limits
E = Analyte concentration exceeded the calibration range. The reported result is estimated
L1 = Analyte recovery in the laboratory control sample (LCS) wa above QC limits. Results for this analyte in associated samples may be biased high.
SS = Analyte did not meet the secondary source verfiication criteria for the initial calibration. The reported result should be considered and estimate.

A. MDH Health Risk Value (http://www.health.state.mn.us/divs/eh/air/hrvtable.htm, 3/21/05) (HRV)
B. MDH Interim Screening Concentration (ISC)
C. EPA Reference concentrations (RFC)