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Ms. Karen Kromar &
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Subject:

March 2008 Quarterly Groundwater Sampling Event
Ford Twin Cities Assembly Plant, St. Paul, Minnesota
MPCA VIC Project Number VP23530
MPCA PBP Project Number PB3682

Dear Ms. Kromar and Ms. Hendry-Van Patten:

This letter report summarizes the results of the March 2008 quarterly groundwater sampling event completed by ARCADIS on behalf of Ford Motor Company (Ford) at the Twin Cities Assembly Plant (TCAP) in St. Paul, Minnesota (see Figure 1). Groundwater monitoring at the TCAP was conducted in accordance with the requirements of the Minnesota Pollution Control Agency (MPCA) Voluntary Investigation and Cleanup (VIC) Program and the Petroleum Brownfields Program (PBP), as well as the June 2007 *Field Sampling Plan* (FSP) developed for the TCAP and the December 2007 *Quarterly Groundwater Sampling Events and Annual Underground Storage Tank (UST) Discharge Monitoring Work Plan*.

Site Location

The TCAP is located at 966 South Mississippi River Boulevard in St. Paul, Ramsey County, Minnesota at the approximate easting coordinate 484562.5 meters (m) and northing coordinate 4973822.5 m. The TCAP is located in a mixed industrial-, commercial-, and residential-use area on the eastern shore of the Mississippi River, along the east side of South Mississippi River Boulevard, south of Ford Parkway and west of South Cleveland Avenue, in St. Paul, Minnesota (see Figure 1).

Monitoring Well Network

A network of 15 groundwater monitoring wells located at the TCAP was sampled during the quarterly monitoring event. Groundwater elevations and samples were

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collected from these wells to characterize each of the saturated zones as indicated in the table below:

Unconsolidated Soils Perched Water (Shallow Saturated Zone)	Platteville Limestone (Intermediate Saturated Zone)	St. Peter Sandstone (Deep Saturated Zone)
MW-4	AMW-01	AMW-03B
MW-5	AMW-02	AMW-05
MW-6	AMW-03A	AMW-05B
	AMW-04	AMW-07
	AMW-06	
	AMW-08	
	AMW-09	
	AMW-10	

The monitoring well construction details are summarized in Table 1, and the well locations are shown on Figure 2. The following sections of this report summarize the procedures followed and the analytical results from this groundwater sampling event.

Groundwater Sampling Procedures

Water-Level Measurements

On March 11, 2008, site-wide groundwater elevation levels were measured at the monitoring wells using an electronic water-level indicator in accordance with procedures outlined in the Field Sampling Plan (FSP). These levels were measured to the nearest 0.01 foot. Groundwater elevations were calculated using surveyed top-of-well casing elevations. The water-level indicator was cleaned between each well using a detergent solution and rinsed with clean distilled water prior to deploying it into the next monitoring well. The water-level data were used to calculate purge volumes and evaluate groundwater gradients and flow directions where applicable. Groundwater levels for Monitoring Wells MW-4, MW-5, MW-6 and AMW-05 could not be determined because the wells did not contain water during this monitoring event. Monitoring Well AMW-04 was inaccessible due to a large snow pile covering the well during this monitoring event; therefore, a groundwater level could not be measured.

A summary of water levels and groundwater elevations collected to date are presented in Table 2. A copy of the water sample logs are provided in Attachment 1.

Unconsolidated Soils Perched Groundwater

No evidence exists of a continuous water body within the unconsolidated soils at this site. Isolated areas of perched water are likely located throughout the area and vary in thickness and extent. These factors are affected by the surface topography, ability to receive rainwater infiltration, and bedrock topography. During the site-wide water-level monitoring event conducted in March 2008, Monitoring Wells MW-4, MW-5, and MW-6 did not contain water. From the data collected to date at the site, the perched groundwater observed in the unconsolidated soils is discontinuous.

Platteville Limestone Groundwater

Based on the data collected during this monitoring event, groundwater was present in the Platteville Limestone at depths ranging from 18.27 to 79.60 feet below ground surface (bgs) at elevations from 778.53 to 793.53 feet above mean sea level (amsl). Monitoring Well AMW-04 was inaccessible during the sampling event. The Platteville Formation is a dolomitic limestone, with water movement generally controlled by fractures, joints, and bedding planes. Groundwater migration through these structural features cannot be reliably evaluated using water-elevation measurements.

During a December 20, 2007 site visit, groundwater was observed to be discharging from the Platteville Limestone at seeps visible along the Mississippi River bluff where the Platteville Limestone outcrops. On April 28, 2008, ARCADIS field staff met with Amy Hadiaris, Karen Kromar, and Bassou Oulgout of the MPCA to locate seep areas to collect groundwater samples. The bedrock face was observed to be wet along a few areas of the outcrops; however, there were no locations with sufficient seep flow to be sampled. The MPCA determined that the samples did not need to be collected and that the sampling of the seeps will be attempted again in March 2009.

St. Peter Sandstone Groundwater

Based on the data collected during this monitoring event, groundwater was present in the St. Peter Sandstone at depths ranging from 32.82 to 100.67 feet bgs at elevations from 690.25 to 711.05 feet amsl. Monitoring Well AMW-05 did not contain water. Generally, the direction of groundwater flow was west, with some southwesterly components of flow toward the nearby Mississippi River (see Figure 3).

Groundwater Sample Collection

Groundwater samples were collected from March 11 to 13, 2008. Based on the observed water level and total well depth for a given well, approximately three well volumes were purged prior to collecting a water sample. Monitoring Wells AMW-01, AMW-02, AMW-03A, AMW-06, AMW-07, AMW-08, AMW-09, and AMW-10 were purged and sampled using disposable bailers and nylon rope or a check valve and disposable tubing. Monitoring Wells AMW-03B and AMW-05B were purged and sampled using a submersible pump and disposable tubing. The submersible pump was decontaminated prior to its first use and after use in each well by circulating a detergent solution through the pump, followed by two distilled water rinses. New tubing was used in each monitoring well and was disposed when sampling was complete. Due to insufficient water present at the time of sampling, Monitoring Wells MW-4, MW-5, MW-6 and AMW-05 could not be sampled. Monitoring well AMW-04 was inaccessible at the time of sampling.

Immediately following sample collection, groundwater field parameters, including specific conductivity, temperature, pH, dissolved oxygen, turbidity, and oxidation/reduction potential, were measured at each well using a multi-parameter water-quality monitor. Groundwater field parameter measurements are presented in Table 3.

Groundwater samples were collected into laboratory-supplied containers and submitted with appropriate chain-of-custody documentation to TestAmerica of North Canton, Ohio. Groundwater samples collected from Monitoring Wells AMW-01, AMW-02, AMW-03A, AMW-03B, AMW-05B, AMW-07, and AMW-10 were submitted for analysis of volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) Method 8260, semi-volatile organic compounds (SVOCs) using USEPA Method 8270, Resource Conservation and Recovery Act (RCRA) metals (dissolved) using USEPA Method 6010, polychlorinated biphenyls (PCBs) using USEPA Method 8082, and diesel range organics (DRO) and gasoline range organics (GRO) using the Wisconsin Modified Method. Monitoring Wells AMW-06, AMW-08, and AMW-09 could not produce sufficient sample volume to allow analyses for all parameters. The groundwater sample collected from Monitoring Well AMW-06 was submitted for analysis of only VOCs and SVOCs; the groundwater sample collected from Monitoring Well AMW-08 was submitted for analysis of only VOCs, SVOCs, RCRA metals (dissolved), and DRO; and the groundwater sample collected from Monitoring Well AMW-09 was submitted for analysis of only VOCs, SVOCs, and RCRA metals (dissolved). Samples for dissolved metal analyses were field filtered in accordance with the FSP.

In accordance with the FSP, quality assurance/quality control (QA/QC) samples (duplicates, field blanks, trip blanks, and matrix spikes/matrix spike duplicates) were collected and analyzed. The QA/QC protocols meet or exceed the standards of care required by the State of Minnesota and by Ford. Level 4 QA/QC was completed on 10 percent of all samples collected. The sample analyzed at Monitoring Well AMW-01 underwent a Level 4 validation, and all other samples underwent Enovis verification.

Groundwater Sampling Results

Groundwater sample analytical results were compared to the Minnesota Department of Health (MDH) Health Risk Limits (HRLs)/USEPA Maximum Contaminant Levels (MCLs). The groundwater analytical results are summarized in Table 4. The laboratory analytical reports are provided in Attachment 2.

Trip Blank and Equipment Blank Sample Results

During the March 2008 quarterly groundwater sampling event, five trip blanks and one equipment blank were submitted to the laboratory for analysis. The trip blank and equipment blank data are reviewed during verification and validation for conditions that may impact the quality of the analytical results for groundwater samples collected during the sampling event. The trip blanks were submitted to the laboratory for analysis of VOCs. The following compounds were detected in one or more of the trip blanks: acetone, 2-butanone, methylcyclohexane, methylene chloride, naphthalene, and 1,2,3-trichlorobenzene. The detections in the trip blanks were all below the established MDH HRLs/USEPA MCLs.

Based on a review of the trip blanks, equipment blank, and laboratory method blanks, select low-level detected results for the three compounds acetone, bis-(2-ethylhexyl) phthalate, and diesel range organics were determined to be non-detect at the reporting limit. The adjusted results are presented on Table 5. As indicated on Table 5, all of these results were originally reported by the laboratory as estimated between the detection limit and the reporting limit and were also identified in an associated blank. In addition, all of these results were below their respective MDH HRL/USEPA MCL.

The equipment blank was submitted to the laboratory for analysis of VOCs, SVOCs, PCBs, RCRA metals (dissolved), and DRO. The following constituents were detected in the equipment blank: acetone, 2-butanone, PCBs, and DRO. PCBs were detected at a concentration that exceeded the MDH HRLs/USEPA MCLs. The equipment blank was collected from a Grundfos pump that was used to sample

Monitoring Wells AMW03-B and AMW-05B. Analytical results from these samples did not detect PCBs. A review of site groundwater data indicate that PCBs have not been detected in any of the groundwater samples collected during the Phase II groundwater sampling events (see Table 4).

A review of field procedures was conducted in an attempt to identify any potential sources of cross contamination that could have caused the PCB detection in the equipment blank. The pump was decontaminated prior to being used and after each well was sampled. The sample tubing was sealed in a plastic bag until it was used. The deionized water used for the equipment blank was a new bottle, and the entire volume was used to collect the equipment blank sample. The pump and sampling equipment did not come into contact with any impacted material prior to or during sample collection. ARCADIS believes that it is unlikely that the sample was cross contaminated in the field.

ARCADIS requested that the laboratory review their procedures to determine if the equipment blank sample became impacted at the laboratory. The laboratory Group Leader reviewed the PCB data and prior runs, and there did not appear to be any carryover in the analytical run. The laboratory review of the 10 positions that ran prior to the equipment blank sample found no carryover, and the method blank that ran four positions after this sample was clean (flat line).

ARCADIS then requested that the laboratory use the remaining equipment blank sample volume to run a second sample to confirm the PCB detection. The second sample was extracted after the hold time had expired; however, since PCBs are persistent it is unlikely that the analysis after expiration of the hold time would impact the potential to detect PCBs. The analysis of the confirmation sample was non-detect for PCBs.

Based on the available data, it appears that the equipment blank sample was cross contaminated at the laboratory prior to being analyzed.

Analytical Results – Unconsolidated Soils Perched Groundwater

The previously installed Monitoring Wells MW-4, MW-5, and MW-6 are completed into the perched groundwater within the unconsolidated formation. Due to insufficient water present at the time of sampling, Monitoring Wells MW-4, MW-5, and MW-6 could not be sampled.

Analytical Results – Platteville Limestone

Platteville Limestone Monitoring Wells AMW-01, AMW-02, AMW-03A and AMW-10 were sampled and analyzed for VOCs, SVOCs, RCRA metals (dissolved), PCBs, DRO and GRO. As indicated previously, Monitoring Wells AMW-06, AMW-08, and AMW-09 could not produce sufficient sample volume to allow analyses for all parameters. The groundwater sample collected from Monitoring Well AMW-06 was submitted for analysis of only VOCs and SVOCs; the Monitoring Well AMW-08 groundwater sample was submitted for analysis of only VOCs, SVOCs, RCRA metals (dissolved), and DRO; and the Monitoring Well AMW-09 groundwater sample was submitted for analysis of only VOCs, SVOCs, and RCRA metals (dissolved). Figure 4 highlights the constituents exceeding the HRLs, along with their detected concentrations in individual wells from the three sampling events (July 2007, December 2007, and March 2008).

No analytes were detected at concentrations that exceeded the HRLs in the Platteville groundwater samples collected during this sampling event. The following text summarizes the analytes that were detected.

Volatile Organic Compounds

The constituent 2-butanone (MEK) was detected in Monitoring Well AMW-02 at an estimated concentration of 2 micrograms per liter ($\mu\text{g/L}$), in AMW-06 at an estimated concentration of 1.7 $\mu\text{g/L}$ and in Monitoring Well AMW-10 at an estimated concentration of 1.5 $\mu\text{g/L}$, which are less than the HRL.

Carbon disulfide was detected in Monitoring Well AMW-02 at a concentration of 1.3 $\mu\text{g/L}$, in Monitoring Well AMW-03 at an estimated concentration of 0.61 $\mu\text{g/L}$, in Monitoring Well AMW-08 at an estimated concentration of 0.33 $\mu\text{g/L}$, and in Monitoring Well AMW-09 at an estimated concentration of 0.37 $\mu\text{g/L}$, which are less than the HRL.

The constituent cis-1,2-dichloroethene was detected in Monitoring Well AMW-03 at an estimated concentration of 0.55 $\mu\text{g/L}$, which is less than the HRL.

Cyclohexane was detected in Monitoring Well AMW-06 at an estimated concentration of 0.5 $\mu\text{g/L}$, which is less than the HRL.

Semi-Volatile Organic Compounds

The constituent bis(2-ethylhexyl)phthalate was detected in Monitoring Well AMW-01 at an estimated concentration of 1.5 µg/L, which is less than the HRL.

Resource Conservation and Recovery Act Metals (Dissolved)

Arsenic was detected in Monitoring Well AMW-09 at a concentration of 3.9 µg/L, which is less than the HRL.

Barium was detected in Monitoring Well AMW-01 at an estimated concentration of 92.4 µg/L, in Monitoring Well AMW-02 at an estimated concentration of 131 µg/L, in Monitoring Well AMW-03A at an estimated concentration of 159 µg/L, in Monitoring Well AMW-08 at an estimated concentration of 105 µg/L, in Monitoring Well AMW-09 at an estimated concentration of 68.5 µg/L, and in Monitoring Well AMW-10 at an estimated concentration of 87.7 µg/L, which are less than the HRL.

Diesel Range Organics and Gasoline Range Organics

DRO was detected in Monitoring Well AMW-01 at an estimated concentration of 2.3 µg/L, in Monitoring Well AMW-02 at an estimated concentration of 0.38 µg/L, in Monitoring Well AMW-03A at an estimated concentration of 0.43 µg/L, in Monitoring Well AMW-08 at an estimated concentration of 0.79 µg/L, and in Monitoring Well AMW-10 at an estimated concentration of 1.2 µg/L. There are no HRLs established for GRO or DRO.

Analytical Results – St. Peter Sandstone

St. Peter Sandstone Monitoring Wells AMW-03B, AMW-05B, and AMW-07 were sampled and analyzed for VOCs, SVOCs, RCRA metals (dissolved), PCBs, DRO and GRO. Figure 5 highlights the constituents exceeding the HRLs, along with their detected concentrations in individual wells from the three sampling events (July 2007, December 2007 and March 2008).

No analytes were detected at concentrations that exceeded HRLs in the St. Peter Sandstone groundwater samples collected during this sampling event. The following text summarizes the analytes that were detected.

Volatile Organic Compounds

Trichloroethene was detected in Monitoring Well AMW-7 at a concentration of 2.9 µg/L, which is less than the HRL.

Resource Conservation and Recovery Act Metals (Dissolved)

Barium was detected in Monitoring Well AMW-03B at an estimated concentration of 84.2 µg/L, in Monitoring Well AMW-05B at an estimated concentration of 79.7 µg/L, and in Monitoring Well AMW-07 at an estimated concentration of 26 µg/L, which are less than the HRL.

Cadmium was detected in Monitoring Well AMW-07 at an estimated concentration of 0.85 µg/L, which is less than the HRL.

Chromium was detected in Monitoring Well AMW-5B at an estimated concentration of 3.4 µg/L, which is less than the HRL.

Diesel Range Organics and Gasoline Range Organics

DRO was detected in Monitoring Well AMW-07 at an estimated concentration of 0.13 µg/L. There are no HRLs established for GRO or DRO.

Summary

Unconsolidated Soils Perched Groundwater

Monitoring Wells MW-4, MW-5, and MW-6 are completed into the perched groundwater within the unconsolidated formation. Due to insufficient water present at the time of this sampling event, Monitoring Wells MW-4, MW-5, and MW-6 could not be sampled.

During the December 2007 sampling event only Monitoring Well MW-4 had sufficient water present to sample. Groundwater samples collected from Monitoring Well MW-4 did not contain constituents at concentrations that exceed the HRLs.

During the July 2007 sampling event, chromium was detected above the HRL at Monitoring Well MW-5 and lead was detected above the HRL at Monitoring Well MW-6. However, these samples were analyzed for total metals (unfiltered samples) and will be analyzed for dissolved metals during the next sampling event if enough water is present.

Platteville Limestone

The wells screened in the Platteville Limestone (AMW-01, AMW-02, AMW-03A, AMW-04, AMW-06, AMW-08, AMW-09, and AMW-10) did not contain constituents at concentrations that exceed the HRLs during this sampling event.

During the December 2007 sampling event, the Monitoring Well AMW-09 groundwater sample exceeded the HRLs for arsenic (total), bis(2-ethylhexyl)phthalate, and lead (total). Arsenic and lead were not detected at concentrations above the HRLs in the filtered samples analyzed for dissolved metals.

During the July 2007 sampling event, the Monitoring Well AMW-06 groundwater sample exceeded the HRLs for arsenic (total) and lead (total); the Monitoring Well AMW-08 groundwater sample exceeded the HRLs for arsenic (total), chromium (total), and lead (total); and the Monitoring Well AMW-09 groundwater sample exceeded the HRLs for arsenic (total), cadmium (total), chromium (total), and lead (total). Subsequent filtered sample results from March 2008 were consistently below the HRLs for these metals, thus indicating that the earlier unfiltered sample results are biased high due to particulates that contain these metals.

St. Peter Sandstone

The wells screened in the St. Peter Sandstone (AMW-03, AMW-05B, and AMW-07) did not contain constituents at concentrations that exceed the HRLs during this sampling event or the December 2007 sampling event.

During the July 2007 sampling event, Monitoring Well AMW-05B contained lead (total) above the HRL, and Monitoring Well AMW-07 contained benzo(a)pyrene above the HRL.

Potentiometric head levels measured during this monitoring event were consistent with historical measurements with the projected direction of groundwater flow generally to the west, with some southwesterly components of flow toward the nearby Mississippi River.

Conclusion

No analytes were detected at concentrations that exceeded the HRLs in the groundwater samples collected during this sampling event.

We appreciate your assistance with this project. If you have questions or need additional information, please call Bryan Zinda of ARCADIS at your convenience.

Sincerely,

ARCADIS



Bryan Zinda, PE
Project Manager



Andrew Fiskness, PG
Staff Geologist



Eric Carman
Principal In Charge, Vice President

Copies:

Ms. Barbara Rusinowski, Ford Motor Company, Dearborn, Michigan
Mr. John Meyers, Ford Twin Cities Assembly Plant, St. Paul, Minnesota

I hereby certify that this plan, document, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Geologist under the laws of the State of Minnesota.

Print Name: Andrew M. Fiskness

Signature: 

Date: 6-27-08 License # 44133

ARCADIS

Tables

Table 1. Monitoring Well Construction
Twin Cities Assembly Plant, St. Paul, Minnesota

Well ID	Unique Well Number	Date Installed	Surface Elevation (feet amsl)	Top of Casing Elevation (feet amsl)	Bottom of Well Elevation (feet amsl)	Screen Interval (Elevation - Elevation) (feet amsl)	Surface Completion Type
AMW-01	751337	7/9/2007	810.32	813.03	774.03	784.03 - 774.03	Aboveground
AMW-02	751330	6/22/2007	810.35	812.86	772.86	782.86 - 772.86	Aboveground
AMW-03A	751333	7/2/2007	812.03	811.80	771.80	781.80 - 771.80	Flush Mount
AMW-03B	751332	6/29/2007	811.93	811.72	660.72	670.72 - 660.72	Flush Mount
AMW-04	751334	7/10/2007	830.13	829.92	768.92	778.92 - 768.92	Flush Mount
AMW-05	751339	7/2/2007	722.07	725.25	696.25	706.25 - 696.25	Aboveground
AMW-05B	756581	7/19/2007	721.79	723.99	670.99	680.99 - 670.99	Aboveground
AMW-06	751331	7/3/2007	811.56	814.06	773.06	783.06 - 773.06	Aboveground
AMW-07	751338	7/4/2007	733.71	733.48	688.48	698.48 - 688.48	Flush Mount
AMW-08	751336	6/20/2007	831.07	830.80	785.80	795.80 - 785.80	Flush Mount
AMW-09	751335	6/21/2007	858.39	858.13	768.13	778.13 - 768.13	Flush Mount
AMW-10	756582	7/20/2007	808.77	811.27	771.27	781.27 - 771.27	Aboveground
MW-4	487652	5/6/1991	830.73	833.66	825.53	825.53 - 823.53	Aboveground
MW-5	487653	5/6/1991	827.86	827.76	823.56	823.56 - 821.56	Flush Mount
MW-6	487654	5/6/1991	827.86	827.76	823.42	823.42 - 821.42	Flush Mount

Notes:

- amsl Above mean sea level.
- AMW ARCADIS Monitoring Well.
- MW Monitoring Well.

**Table 2: Groundwater-Elevation Data
Twin Cities Assembly Plant, St. Paul, Minnesota**

Well ID	Date	Top of Casing Elevation (feet amsl)	Bottom of Well Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)
AMW-01	7/16/2007	813.03	774.03	27.86	785.17
	8/13/2007	813.03	774.03	27.20	785.83
	1/9/2008	813.03	774.03	26.76	786.27
	3/11/2008	813.03	774.03	26.21	786.82
AMW-02	7/16/2007	812.86	772.86	23.99	788.87
	8/13/2007	812.86	772.86	24.43	788.43
	1/9/2008	812.86	772.86	25.00	787.86
	3/11/2008	812.86	772.86	26.18	786.68
AMW-03A	7/16/2007	811.80	771.80	18.02	793.78
	8/13/2007	811.80	771.80	18.71	793.09
	1/9/2008	811.80	771.80	17.90	793.90
	3/11/2008	811.80	771.80	18.27	793.53
AMW-03B	7/16/2007	811.72	660.72	100.86	710.86
	8/13/2007	811.72	660.72	100.82	710.90
	1/9/2008	811.72	660.72	100.86	710.86
	3/11/2008	811.72	660.72	100.67	711.05
AMW-04	7/16/2007	829.92	768.92	40.65	789.27
	8/13/2007	829.92	768.92	39.14	790.78
	1/9/2008	829.92	768.92	39.13	790.79
	3/11/2008	829.92	768.92	NA	NA
AMW-05	7/16/2007	725.25	696.25	Dry	Dry
	8/13/2007	725.25	696.25	Dry	Dry
	1/9/2008	725.25	696.25	Dry	Dry
	3/11/2008	725.25	696.25	Dry	Dry
AMW-05B	7/16/2007	723.99	670.99	32.53	691.46
	8/13/2007	723.99	670.99	32.83	691.16
	1/9/2008	723.99	670.99	32.43	691.56
	3/11/2008	723.99	670.99	32.82	691.17

See page 3 for notes.

**Table 2: Groundwater-Elevation Data
Twin Cities Assembly Plant, St. Paul, Minnesota**

Well ID	Date	Top of Casing Elevation (feet amsl)	Bottom of Well Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)
AMW-06	7/16/2007	814.06	773.06	37.83	776.23
	8/13/2007	814.06	773.06	30.22	783.84
	1/9/2008	814.06	773.06	30.53	783.53
	3/11/2008	814.06	773.06	26.78	787.28
AMW-07	7/16/2007	733.48	688.48	42.82	690.66
	8/13/2007	733.48	688.48	43.21	690.27
	1/9/2008	733.48	688.48	42.85	690.63
	3/11/2008	733.48	688.48	43.23	690.25
AMW-08	7/16/2007	830.8	785.80	42.89	787.91
	8/13/2007	830.8	785.80	38.13	792.67
	1/9/2008	830.8	785.80	38.19	792.61
	3/11/2008	830.8	785.80	38.04	792.76
AMW-09	7/16/2007	858.13	768.13	83.86	774.27
	8/13/2007	858.13	768.13	78.82	779.31
	1/9/2008	858.13	768.13	81.23	776.90
	3/11/2008	858.13	768.13	79.60	778.53
AMW-10	7/16/2007	811.27	771.27	20.09	791.18
	8/13/2007	811.27	771.27	18.90	792.37
	1/9/2008	811.27	771.27	18.45	792.82
	3/11/2008	811.27	771.27	19.18	792.09
MW-4	7/16/2007	833.66	825.53	7.75	825.91
	8/13/2007	833.66	825.53	7.64	826.02
	1/9/2008	833.66	825.53	7.47	826.19
	3/11/2008	833.66	825.53	Dry	Dry
MW-5	7/16/2007	827.76	823.56	2.07	825.69
	8/13/2007	827.76	823.56	2.72	825.04
	1/9/2008	827.76	823.56	Dry	Dry
	3/11/2008	827.76	823.56	Dry	Dry

See page 3 for notes.

**Table 2: Groundwater-Elevation Data
Twin Cities Assembly Plant, St. Paul, Minnesota**

Well ID	Date	Top of Casing Elevation (feet amsl)	Bottom of Well Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)
MW-6	7/16/2007	827.76	823.42	2.11	825.65
	8/13/2007	827.76	823.42	2.12	825.64
	1/9/2008	827.76	823.42	Dry	Dry
	3/11/2008	827.76	823.42	Dry	Dry

Notes:

- amsl Above mean sea level.
- AMW ARCADIS Monitoring Well.
- MW Monitoring Well.
- NA Not accessible.

Table 3. Natural Attenuation Parameters in Groundwater
Twin Cities Assembly Plant, St. Paul, Minnesota

Well ID	Date	Temperature (°C)	Dissolved Oxygen (ppm)	pH	Field Specific Conductivity (umhos/cm)	Adjusted Specific Conductivity (umhos/cm @ 25°C)	ORP (mV)
AMW-01	7/17/2007	15.40	3.57	7.85	916	1,134	-150.6
AMW-01	12/19/2007	9.09	4.66	7.11	930	1,364	-139.6
AMW-01	3/13/2008	12.22	2.30	7.18	887	1,174	-76.6
AMW-02	7/17/2007	14.02	8.04	12.29	2,371	3,038	-127.8
AMW-02	12/20/2007	9.42	6.60	7.57	897	1,303	-83.5
AMW-02	3/13/2008	10.31	8.62	7.66	649	902	50.5
AMW-03A	7/17/2007	17.64	5.32	6.22	1,061	1,244	-9.0
AMW-03A	12/18/2007	9.21	4.84	7.15	929	1,358	-91.1
AMW-03A	3/13/2008	11.52	2.51	7.10	690	930	-84.6
AMW-03B	6/12/2007	16.50	5.88	7.81	430	518	-91.5
AMW-03B	12/17/2007	9.09	4.66	7.11	454	666	-139.6
AMW-03B	3/11/2008	11.96	0.06	7.05	355	470	-111.2
AMW-04	7/17/2007	17.35	7.07	8.63	786	928	-11.7
AMW-04	12/19/2007	9.13	6.54	7.15	975	1,428	-135.9
AMW-04	3/13/2008	NS	NS	NS	NS	NS	NS
AMW-05	7/17/2007	NS	NS	NS	NS	NS	NS
AMW-05	12/17/2007	NS	NS	NS	NS	NS	NS
AMW-05	3/13/2008	NS	NS	NS	NS	NS	NS
AMW-05B	7/24/2007	17.10	1.82	6.19	1,041	1,236	-25.7
AMW-05B	12/17/2007	11.03	1.21	6.60	997	1,384	-183.5
AMW-05B	3/11/2008	14.21	1.20	6.57	NM	1,008	-148.9
AMW-06	7/18/2007	16.91	12.89	7.68	528	630	20.1
AMW-06	12/21/2007	NM	NM	NM	NM	NM	NM
AMW-06	3/13/2008	NM	NM	NM	NM	NM	NM
AMW-07	7/17/2007	16.22	7.48	7.42	747	906	47.4
AMW-07	12/20/2007	10.77	6.38	6.00	581	812	-51.9
AMW-07	3/13/2008	12.16	7.01	5.63	461	611	147.5
AMW-08	7/18/2007	13.71	2.27	7.88	1,185	1,531	-51.5
AMW-08	12/20/2007	11.27	1.76	7.33	1,022	1,409	-189.9
AMW-08	3/13/2008	NM	NM	NM	NM	NM	NM
AMW-09	7/18/2007	14.65	5.88	7.20	1,361	1,716	-13.0
AMW-09	12/20/2007	NM	NM	NM	NM	NM	NM
AMW-09	3/13/2008	NM	NM	NM	NM	NM	NM
AMW-10	7/25/2007	15.55	7.91	6.75	898	1,107	43.0
AMW-10	12/20/2007	11.77	1.74	7.54	954	1,297	-163.5
AMW-10	3/13/2008	11.95	2.40	7.15	759	1,010	-138.9

See page 2 for notes.

Table 3. Natural Attenuation Parameters in Groundwater
Twin Cities Assembly Plant, St. Paul, Minnesota

Well ID	Date	Temperature (°C)	Dissolved Oxygen (ppm)	pH	Field Specific Conductivity (umhos/cm)	Adjusted Specific Conductivity (umhos/cm @ 25°C)	ORP (mV)
MW-4	7/18/2007	17.82	2.50	6.95	1,020	1,191	-13.5
MW-4	12/19/2007	3.36	12.64	7.50	830	1,463	-149.7
MW-4	3/13/2008	NS	NS	NS	NS	NS	NS
MW-5	7/18/2007	25.79	2.96	7.24	1,196	1,177	-30.2
MW-5	12/17/2007	NS	NS	NS	NS	NS	NS
MW-5	3/13/2008	NS	NS	NS	NS	NS	NS
MW-6	7/18/2007	25.55	7.62	7.00	1,078	1,066	9.2
MW-6	12/17/2007	NS	NS	NS	NS	NS	NS
MW-6	3/13/2008	NS	NS	NS	NS	NS	NS

Notes:

°C Degrees Celsius.
AMW ARCADIS Monitoring Well.
mV Millivolts.
MW Monitoring Well.

NM Not Measured.
NS Not sampled.
ORP Oxidation/Reduction Potential.
ppm Parts per million.
umhos/cm Micromhos per centimeter.

Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location	MDH HRLs/ EPA MCL	AMW-01			AMW-02			AMW-03A		
Sample Name	Units	AMW-01(20070717)	AMW-01(20071219)	AMW-01(20080313)	AMW-02(20070717)	AMW-02(20071220)	AMW-02(20080313)	AMW-03A(20070717)	DUP-001(20070717)(AMW-03A)	
Sample Date	Standards	7/17/2007	12/19/2007	3/13/2008	7/17/2007	12/20/2007	3/13/2008	7/17/2007	7/17/2007	
Diesel Range Organics	µg/L	NS	NA	NA	2.3 J	NA	NA	0.38 J	NA	NA
VOC										
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	0.48 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	< 10	< 10	0.68 J	2 J	< 10	< 10
Acetone	µg/L	700	4.2 J	< 10	< 10	3.1 J	3.3 J	< 10	< 10	< 10
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	< 1	< 1	0.64 J	1.3	< 1	< 1
Chloroform	µg/L	60	0.33 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	0.45 J	0.53 J
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC										
Acetophenone	µg/L	NS	< 10	< 10	< 10	0.77 J	< 10	< 10	< 10	< 10
Benzaldehyde	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene	µg/L	0.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
bis(2-Ethylhexyl)phthalate	µg/L	6	< 10	1.1 J	1.5 J	< 10	4.9 J	< 10	< 10	< 10
Caprolactam	µg/L	NS	< 10	< 10	< 10 J	< 10	< 10	< 10	< 10	< 10
Fluoranthene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isophorone	µg/L	100	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Phenanthrene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Phenol	µg/L	4000	< 10	< 10	< 10	3.2 J	< 10	< 10	< 10	< 10
Pyrene	µg/L	200	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
PCB										
Aroclor 1260	µg/L	0.04 ¹	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Metals - Total										
Arsenic	µg/L	10	< 10	< 10	NA	< 10	6 J	NA	< 10	< 10
Barium	µg/L	2000	145 J	124 J	NA	48.4 J	248	NA	162 J	161 J
Cadmium	µg/L	4	< 5	< 5	NA	< 5	< 5	NA	< 5	< 5
Chromium	µg/L	100	14.8	14.8	NA	5.6 J	30.3	NA	4.7 J	3.9 J
Lead	µg/L	15	< 3	< 3	NA	< 3	3	NA	< 3	< 3
Silver	µg/L	30	< 10	< 10	NA	< 10	< 10	NA	< 10	< 10
Mercury	µg/L	2	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2
Metals - Dissolved										
Arsenic	µg/L	10	NA	< 10	< 10	NA	3.7 J	< 10	NA	NA
Barium	µg/L	2000	NA	134 J	92.4 J	NA	160 J	131 J	NA	NA
Cadmium	µg/L	4	NA	< 5	< 5	NA	< 5	< 5	NA	NA
Chromium	µg/L	100	NA	< 10	< 10	NA	< 10	< 10	NA	NA
Lead	µg/L	15	NA	< 3	< 3	NA	< 3	< 3	NA	NA
Silver	µg/L	30	NA	< 10	< 10	NA	< 10	< 10	NA	NA
Mercury	µg/L	2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	NA

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Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location Sample Name Sample Date	MDH HRLs/ Units EPA MCL Standards	AMW-03A				AMW-03B			
		AMW-3A(20071218) 12/18/2007	AMW-03A (DUP001(20071218)) 12/18/2007	AMW-03A(20080313) 3/13/2008	AMW-03A (DUP 001(20080313)) 3/13/2008	AMW-03B(20070718) 7/18/2007	AMW-3B(20071217) 12/17/2007	AMW-03B(20080311) 3/11/2008	
Diesel Range Organics	µg/L	NS	NA	NA	0.43	0.41	NA	NA	< 0.1
VOC									
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	µg/L	700	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	0.29 J	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	0.61 J	0.31 J	1.2	< 1	< 1
Chloroform	µg/L	60	< 1	< 1	< 1	< 1	2.3	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	0.57 J	0.55 J	0.55 J	0.54 J	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5 J	< 5 J	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1 J	< 1 J	< 1	< 1	< 1	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC									
Acetophenone	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Benzaldehyde	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Benzo(a)pyrene	µg/L	0.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Benzo(b)fluoranthene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
bis(2-Ethylhexyl)phthalate	µg/L	6	0.97 J	1.7 J	< 10	< 10	< 10	< 10	< 10 J
Caprolactam	µg/L	NS	< 10	< 10	< 10 J	< 10 J	< 10	< 10 J	< 10 J
Fluoranthene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Isophorone	µg/L	100	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Naphthalene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Phenanthrene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Phenol	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
Pyrene	µg/L	200	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J
PCB									
Aroclor 1260	µg/L	0.04 ¹	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Metals - Total									
Arsenic	µg/L	10	< 10	< 10	NA	NA	5.6 J	< 10	NA
Barium	µg/L	2000	182 J	184 J	NA	NA	123 J	89.6 J	NA
Cadmium	µg/L	4	< 5	< 5	NA	NA	< 5	< 5	NA
Chromium	µg/L	100	3.5 J	3.1 J	NA	NA	24	4.2 J	NA
Lead	µg/L	15	< 3	< 3	NA	NA	< 3	< 3	NA
Silver	µg/L	30	< 10	< 10	NA	NA	< 10	< 10	NA
Mercury	µg/L	2	< 0.2	< 0.2	NA	NA	0.24	< 0.2	NA
Metals - Dissolved									
Arsenic	µg/L	10	< 10	< 10	< 10	< 10	NA	< 10	< 10
Barium	µg/L	2000	170 J	177 J	137 J	159 J	NA	85.3 J	84.2 J
Cadmium	µg/L	4	< 5	< 5	< 5	< 5	NA	< 5	< 5
Chromium	µg/L	100	< 10	< 10	< 10	< 10	NA	< 10	< 10
Lead	µg/L	15	< 3	< 3	< 3	< 3	NA	< 3	< 3
Silver	µg/L	30	< 10	< 10	< 10	< 10	NA	< 10	< 10
Mercury	µg/L	2	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.2

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Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location Sample Name Sample Date	Units	MDH HRLs/ EPA MCL Standards	AMW-04		AMW-05B			AMW-06		
			AMW-04(20070717) 7/17/2007	AMW-4(20071219) 12/19/2007	AMW-05B(20070724) 7/24/2007	AMW-05B(12172007) 12/17/2007	AMW-05B(20080311) 3/11/2008	AMW-06(20070718) 7/18/2007	AMW-06(20071221) 12/21/2007	AMW-06(20080313) 3/13/2008
Diesel Range Organics	µg/L	NS	NA	NA	NA	NA	< 0.1	NA	NA	NA
VOC										
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	1 J	1.7 J
Acetone	µg/L	700	2.1 J	< 10	< 10	< 10	< 10	< 10	8.9 J	< 10
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	0.69 J	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	0.82 J	< 1	< 1	< 1	< 1	1.1	0.56 J	< 1
Chloroform	µg/L	60	0.7 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	0.54 J	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5	< 5 J	< 5	< 5	< 5	0.38 J	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1	< 1 J	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	µg/L	100	0.57 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	0.2 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC	µg/L									
Acetophenone	µg/L	NS	0.93 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzaldehyde	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene	µg/L	0.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
bis(2-Ethylhexyl)phthalate	µg/L	6	< 10	< 10	< 10	< 10	< 10	< 10	1 J	< 10
Caprolactam	µg/L	NS	44	< 10	< 10	< 10 J	< 10	0.68 J	1.6 J	< 10
Fluoranthene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Isophorone	µg/L	100	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Phenanthrene	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Phenol	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Pyrene	µg/L	200	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
PCB										
Aroclor 1260	µg/L	0.04 ¹	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA
Metals - Total										
Arsenic	µg/L	10	< 10	< 10	< 10	< 10	NA	10.7	7.5 J	NA
Barium	µg/L	2000	130 J	136 J	371	88.8 J	NA	246	198 J	NA
Cadmium	µg/L	4	< 5	< 5	0.63 J	< 5	NA	< 5	< 5	NA
Chromium	µg/L	100	33.7	15.3	54.6	7.9 J	NA	99.6	61.2	NA
Lead	µg/L	15	4.8	2.7 J	77.6	< 9.3	NA	16	8.1	NA
Silver	µg/L	30	< 10	< 10	2.4 J	< 10	NA	< 10	< 10	NA
Mercury	µg/L	2	< 0.2	< 0.2	< 0.2	< 0.2	NA	0.13 J	< 0.2	NA
Metals - Dissolved										
Arsenic	µg/L	10	NA	< 10	NA	< 10	< 10	NA	< 10	NA
Barium	µg/L	2000	NA	118 J	NA	82.3 J	79.7 J	NA	70.3 J	NA
Cadmium	µg/L	4	NA	< 5	NA	< 5	< 5	NA	< 5	NA
Chromium	µg/L	100	NA	< 10	NA	4.2 J	3.4 J	NA	< 10	NA
Lead	µg/L	15	NA	< 3	NA	< 3	< 3	NA	< 3	NA
Silver	µg/L	30	NA	< 10	NA	< 10	< 10	NA	< 10	NA
Mercury	µg/L	2	NA	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	NA

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Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location Sample Name Sample Date	MDH HRLs/ Units EPA MCL Standards	AMW-07			AMW-08			AMW-09			
		AMW-07(20070717) 7/17/2007	AMW-07(20071220) 12/20/2007	AMW-07(20080313) 3/13/2008	AMW-08(20070718) 7/18/2007	AMW-08(20071220) 12/20/2007	AMW-08(20080313) 3/13/2008	AMW-09(20070718) 7/18/2007	AMW-09(20071220) 12/20/2007	AMW-09(20080313) 3/13/2008	
Diesel Range Organics	µg/L	NS	NA	NA	0.13 J	NA	NA	0.79 J	NA	NA	NA
VOC											
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	µg/L	700	< 10	< 10	< 10	< 10	< 10	< 10	< 20	1.6 J	< 10
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	< 1	4.1	0.41 J	0.33 J	5.1	< 1	0.37 J
Chloroform	µg/L	60	0.35 J	< 1	< 1	< 1	< 1	< 1	0.91 J	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5	< 5 J	< 5	0.64 J	< 5 J	< 5	0.83 J	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1	< 1 J	< 1	< 1	< 1 J	< 1	< 1	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	2.9	2.7	2.9	< 1	< 1	< 1	< 1	< 1	< 1
SVOC											
Acetophenone	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Benzaldehyde	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Benzo(a)pyrene	µg/L	0.2	0.79 J	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Benzo(b)fluoranthene	µg/L	NS	0.78 J	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
bis(2-Ethylhexyl)phthalate	µg/L	6	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J	8.8 J	< 10
Caprolactam	µg/L	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10 J
Fluoranthene	µg/L	300	0.84 J	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Isophorone	µg/L	100	< 10	< 10	< 10	0.66 J	< 10	< 10	< 10 J	< 24	< 10
Naphthalene	µg/L	300	< 10	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Phenanthrene	µg/L	NS	0.39 J	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
Phenol	µg/L	4000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 24	< 10
Pyrene	µg/L	200	1 J	< 10	< 10	< 10	< 10	< 10	< 10 J	< 24	< 10
PCB											
Aroclor 1260	µg/L	0.04 ¹	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2 J	< 0.2	NA
Metals - Total											
Arsenic	µg/L	10	< 10	4.9 J	NA	20.7	6.1 J	NA	171	10.5	NA
Barium	µg/L	2000	142 J	84.7 J	NA	993	380	NA	1240	821	NA
Cadmium	µg/L	4	< 5	1.1 J	NA	2.1 J	< 5	NA	13	< 5	NA
Chromium	µg/L	100	19.3	26.8	NA	252	43.3	NA	802	98.4	NA
Lead	µg/L	15	3.1	6.4	NA	27.5	4	NA	733	24.1	NA
Silver	µg/L	30	< 10	< 10	NA	< 10	< 10	NA	< 10	< 10	NA
Mercury	µg/L	2	< 0.2	< 0.2	NA	0.19 J	< 0.2	NA	1.8	< 0.2	NA
Metals - Dissolved											
Arsenic	µg/L	10	NA	< 10	< 10	NA	< 10	< 10	NA	5.5 J	3.9
Barium	µg/L	2000	NA	49.4 J	26 J	NA	152 J	105 J	NA	69.8 J	68.5 J
Cadmium	µg/L	4	NA	1.3 J	0.85 J	NA	< 5	< 5	NA	< 5	< 5
Chromium	µg/L	100	NA	< 10	< 10	NA	< 10	< 10	NA	< 10	< 10
Lead	µg/L	15	NA	< 3	< 3	NA	< 3	< 3	NA	< 3	< 3
Silver	µg/L	30	NA	< 10	< 10	NA	< 10	< 10	NA	< 10	< 10
Mercury	µg/L	2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2

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Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location Sample Name Sample Date	Units	MDH HRLs/ EPA MCL Standards	AMW-10			MW-4		MW-5	MW-6	Equipment Blanks		
			AMW-10(20070725) 7/25/2007	AMW-10(20071220) 12/20/2007	AMW-10(20080313) 3/13/2008	MW-4(20070718) 7/18/2007	MW-4(20071219) 12/19/2007	MW-5(20070718) 7/18/2007	MW-6(20070718) 7/18/2007	EB-001(20070719) 7/19/2007	EB-001(20071217) 12/17/2007	EB-001(20080311) 3/11/2008
Diesel Range Organics	µg/L	NS	NA	NA	1.2 J	NA	NA	NA	NA	NA	NA	0.023 J
VOC												
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	1.5 J	< 10	< 10	< 10	< 10	< 10	1.5 J	2.3 J
Acetone	µg/L	700	< 10	1.4 J	< 10	< 10	< 10	< 10	< 10	< 10	2.4 J	7.9 J
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	µg/L	60	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1	< 1	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0.73 J	< 5	< 5
Toluene	µg/L	1000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.25 J	0.39 J	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC												
Acetophenone	µg/L	NS	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Benzaldehyde	µg/L	NS	< 10	< 10	< 10	NA	NA	NA	< 12	1.9 J	< 10	< 10
Benzo(a)pyrene	µg/L	0.2	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Benzo(b)fluoranthene	µg/L	NS	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
bis(2-Ethylhexyl)phthalate	µg/L	6	< 10	0.91 J	< 10	NA	NA	NA	< 12	1.8 J	< 10	< 10
Caprolactam	µg/L	NS	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10 J	< 10
Fluoranthene	µg/L	300	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Isophorone	µg/L	100	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Naphthalene	µg/L	300	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Phenanthrene	µg/L	NS	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Phenol	µg/L	4000	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
Pyrene	µg/L	200	< 10	< 10	< 10	NA	NA	NA	< 12	< 10	< 10	< 10
PCB												
Aroclor 1260	µg/L	0.04 ¹	< 0.2	< 0.2	< 0.2	NA	NA	NA	NA	< 0.2	< 0.2	0.071 J
Metals - Total												
Arsenic	µg/L	10	< 10	< 10	NA	< 10	< 10	< 10	< 20	< 10	< 10	NA
Barium	µg/L	2000	150 J	109 J	NA	333	142 J	60.9 J	52.8	< 200	< 200	NA
Cadmium	µg/L	4	< 5	< 5	NA	3.5 J	< 5	2.4 J	2.4 J	< 5	< 5	NA
Chromium	µg/L	100	7.1 J	4.5 J	NA	72.3	79.6	907	11.3	< 10	< 10	NA
Lead	µg/L	15	< 3	< 3	NA	8.9	2.7 J	11.4	15.9	< 3	< 3	NA
Silver	µg/L	30	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NA
Mercury	µg/L	2	< 0.2	< 0.2	NA	0.15 J	< 0.2	0.1 J	< 0.2	< 0.2	< 0.2	NA
Metals - Dissolved												
Arsenic	µg/L	10	NA	< 10	< 10	NA	< 10	NA	NA	NA	< 10	< 10
Barium	µg/L	2000	NA	105 J	87.7 J	NA	107 J	NA	NA	NA	< 200	< 200
Cadmium	µg/L	4	NA	< 5	< 5	NA	< 5	NA	NA	NA	< 5	< 5
Chromium	µg/L	100	NA	< 10	< 10	NA	< 10	NA	NA	NA	< 10	< 10
Lead	µg/L	15	NA	< 3	< 3	NA	< 3	NA	NA	NA	< 3	< 3
Silver	µg/L	30	NA	< 10	< 10	NA	< 10	NA	NA	NA	< 10	< 10
Mercury	µg/L	2	NA	< 0.2	< 0.2	NA	< 0.2	NA	NA	NA	< 0.2	< 0.2

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Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota

Location Sample Name Sample Date	Units	MDH HRLs/ EPA MCL Standards	Trip Blanks										
			TRIP BLANK01(20070717) 7/17/2007	TB-003(20070718) 7/18/2007	TB-002(20070718) 7/18/2007	TRIP BLANK 7/24/2007	TRIP BLANK 7/25/2007	TRIP BLANK TB-001(20071217) 12/17/2007	TRIPBLANK-TB-004(20071218) 12/18/2007	TB-003(20071220) 12/20/2007	TB-006(20071219) 12/20/2007		
Diesel Range Organics	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOC													
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	0.18 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	1.2 J	1.4 J	1.1 J	< 10	1.1 J	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	µg/L	700	< 10	1.4 J	< 10	1.4 J	4 J	3.9 J	5 J	4.3 J	4.2 J		
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	µg/L	60	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5	< 5	< 5	< 5	< 5	< 5	< 5 J	< 5 J	< 5	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	µg/L	300	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 J	< 1 J	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	0.48 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	< 1	0.2 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC													
Acetophenone	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	µg/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	µg/L	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	µg/L	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	µg/L	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	µg/L	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	µg/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB													
Aroclor 1260	µg/L	0.04 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Total													
Arsenic	µg/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	µg/L	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	µg/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	µg/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Dissolved													
Arsenic	µg/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	µg/L	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	µg/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	µg/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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**Table 4. Summary of Compounds Detected in Groundwater Sampling Events
Twin Cities Assembly Plant, St. Paul, Minnesota**

Location Sample Name Sample Date	Units	MDH HRLs/ EPA MCL Standards	Trip Blanks							
			TRIPBLANK-TB-005(20071220) 12/20/2007	TRIPBLANK-TB-001(20071221) 12/21/2007	TB-002(20080311) 3/11/2008	TB-001(20080311) 3/11/2008	TB-002(20080313)216 3/13/2008	TB-002(20080313)158 3/13/2008	TB-001(20080313) 3/13/2008	
Diesel Range Organics	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
VOC										
1,2,3-Trichlorobenzene	µg/L	NS	< 1	< 1	< 1	0.25 J	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	µg/L	4000	< 10	< 10	2.1 J	2.2 J	< 10	< 10	< 10	< 10
Acetone	µg/L	700	3.9	3.3 J	6.8 J	7.2 J	7.8 J	7.3 J	7.8 J	7.8 J
Benzene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	µg/L	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	µg/L	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	µg/L	60	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	µg/L	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cyclohexane	µg/L	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	µg/L	300	< 5 J	< 5 J	< 5	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	µg/L	NS	< 1	< 1	< 1	0.5 J	< 1	< 1	< 1	< 1
Methylene chloride	µg/L	5	< 1	< 1	< 1	< 1	2	1.6	1.7	1.7
Naphthalene	µg/L	300	< 1	< 1	< 1	0.26 J	< 1	< 1	< 1	< 1
Styrene	µg/L	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran	µg/L	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	µg/L	1000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC	µg/L									
Acetophenone	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	µg/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	µg/L	6	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	µg/L	300	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	µg/L	300	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	µg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	µg/L	4000	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	µg/L	200	NA	NA	NA	NA	NA	NA	NA	NA
PCB										
Aroclor 1260	µg/L	0.04 ¹	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Total										
Arsenic	µg/L	10	NA	NA	NA	NA	NA	NA	NA	NA
Barium	µg/L	2000	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	4	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	NA	NA	NA	NA	NA	NA	NA	NA
Silver	µg/L	30	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	µg/L	2	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Dissolved										
Arsenic	µg/L	10	NA	NA	NA	NA	NA	NA	NA	NA
Barium	µg/L	2000	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	4	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	µg/L	100	NA	NA	NA	NA	NA	NA	NA	NA
Lead	µg/L	15	NA	NA	NA	NA	NA	NA	NA	NA
Silver	µg/L	30	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	µg/L	2	NA	NA	NA	NA	NA	NA	NA	NA

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**Table 4. Summary of Compounds Detected in Groundwater Monitoring Wells
Twin Cities Assembly Plant, St. Paul, Minnesota**

Notes:

Results are reported in micrograms per liter ($\mu\text{g/L}$).

Monitoring Wells MW-5 and MW-6 were dry; therefore, no groundwater samples were collected.

ASB ARCADIS Soil Boring Location.

AMW ARCADIS Monitoring Well.

NA Not analyzed.

NS No standard.

J Estimated result.

Value is above the Minnesota Department of Health (MDH) Health Risk Limits (HRLs) and United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs).

DUP Duplicate.

VOCs Volatile organic compounds.

SVOCs Semi-volatile organic compounds.

MEK Methyl ethyl ketone.

¹ Standard is for total PCBs.

Table 5. Summary of Validated Non-Detect Compounds in March 2008 Groundwater Sampling Event
Twin Cities Assembly Plant, St. Paul, Minnesota

Location	Sample Name	Sample Date	Chemical	Original Lab		Original Lab Result	MDL	RL	MDH HRLs/USEPA	
				Flag	Validator Flag				MCLs	SDG
AMW-01	AMW-01(20080313)	3/13/2008	Acetone	J B	UB	1.8	1.1	10	700	A8C140216
AMW-02	AMW-02(20080313)	3/13/2008	Acetone	J B	UB	8.6	1.1	10	700	A8C140216
AMW-03B	DUP 001(20080313)FD	3/13/2008	Acetone	J B	UB	3.2	1.1	10	700	A8C150158
AMW-03B	AMW-03B(20080311)	3/11/2008	Acetone	J B	UB	1.2	1.1	10	700	A8C130246
AMW-06	AMW-06(20080313)	3/13/2008	Acetone	J B	UB	4.9	1.1	10	700	A8C140216
AMW-08	AMW-08(20080313)	3/13/2008	Acetone	J B	UB	2.9	1.1	10	700	A8C140216
AMW-09	AMW-09(20080313)	3/13/2008	Acetone	J B	UB	2.3	1.1	10	700	A8C150158
AMW-10	AMW-10(20080313)	3/13/2008	Acetone	J B	UB	3.3	1.1	10	700	A8C140216
AMW-03A	AMW-03A(20080313)	3/13/2008	Acetone	J B	UB	3.2	1.1	10	700	A8C150158
AMW-05B	AMW-05B(20080311)	3/11/2008	bis(2-Ethylhexyl) phthalate	J B	UB	3.9	0.88	10	6	8C13254
AMW-03B	AMW-03B(20080311)	3/11/2008	Diesel Range Organics	J B	UB	0.062	0.016	0.1	NS	A8C130246
AMW-05B	AMW-05B(20080311)	3/11/2008	Diesel Range Organics	J B	UB	0.097	0.016	0.1	NS	8C13254

Notes:

Results are reported in micrograms per liter (µg/L).

AMW ARCADIS Monitoring Well.

NS No standard.

J Original lab flag: result is between the method detection limit (MDL) and reporting limit (RL)

B Original lab flag: result is detected in one or more of the associated blanks.

UB Validator Flag: result should be reported as non-detect at the reporting limit.

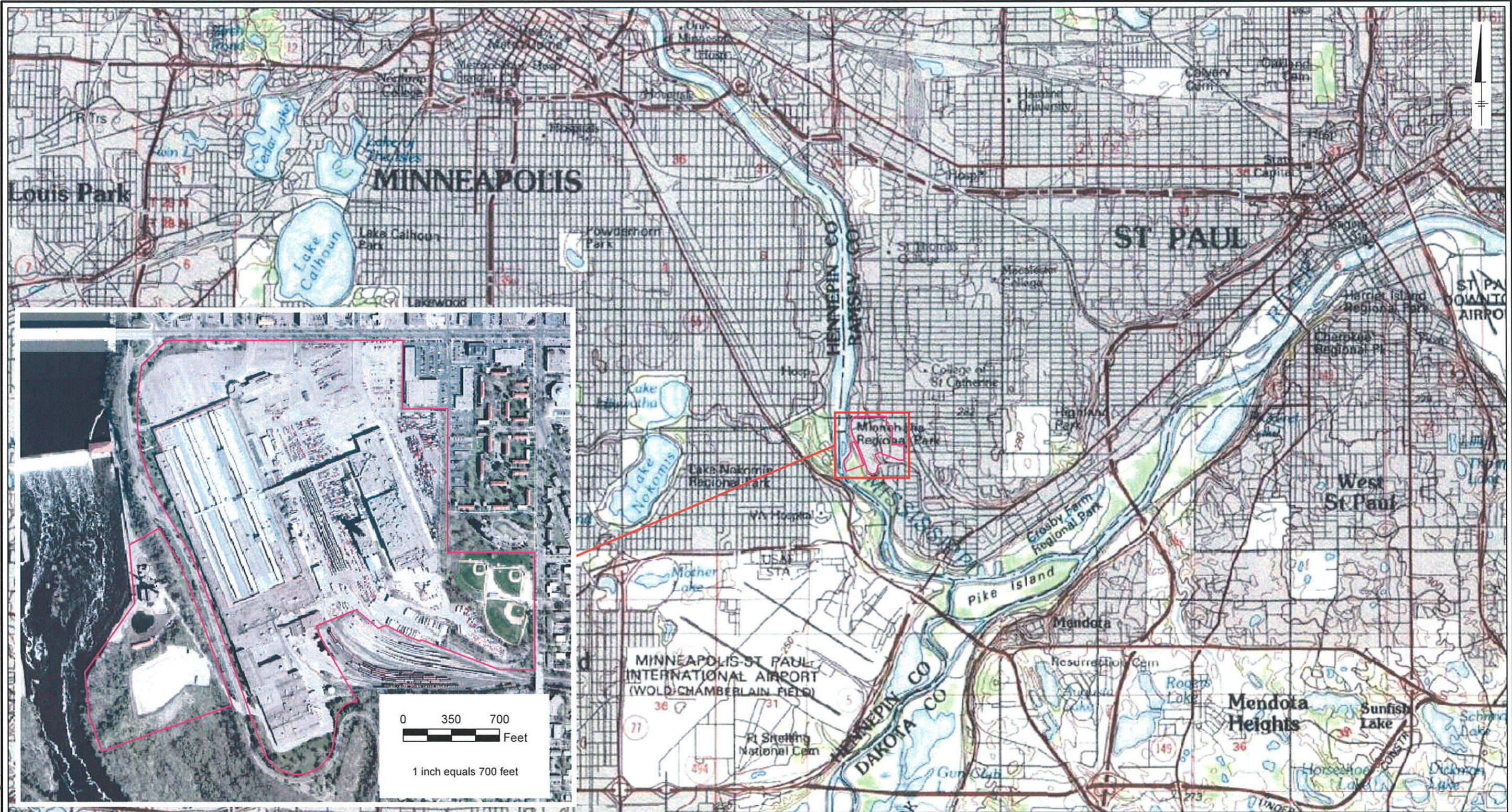
Value is above the Minnesota Department of Health (MDH) Health Risk Limits (HRLs) and United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs).

DUP Duplicate.

SDG Sample delivery group (report number).

ARCADIS

Figures



CITY: Minneapolis, MN DB: MGregg PM: BZinda
 Project: MN000593
 G:\GIS\Projects\Ford Ranger\ArcMap\Fig1_Site_Location_Topo.mxd

LEGEND:

— Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey
 High Resolution Orthoimagery for the Minneapolis-St. Paul,
 Minnesota Urban Area

Topographic Map Source:
 © 2007 National Geographic Society



1 inch equals 1 miles



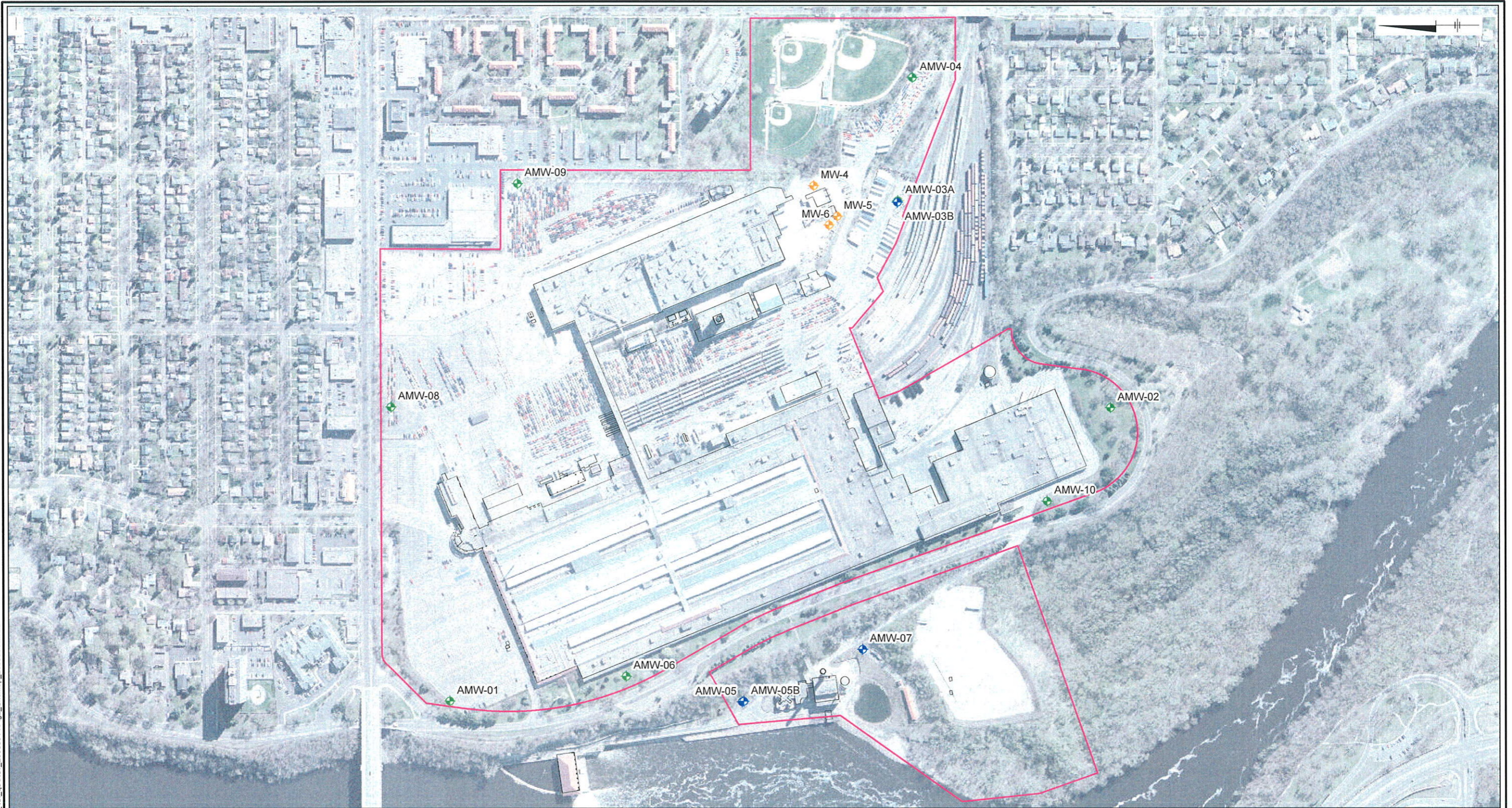
Twin Cities Assembly Plant
 Ford Motor Company
 St. Paul, Minnesota

Site Location / Property Layout



FIGURE
1

CITY: Minneapolis, MN DB: MGrass PM: BZinda
 Project: MN000593
 G:\GIS\Projects\Ford Ranger\ArcMap\GW_Report_4th_qtr\Rev_20080514\Fig2_SiteMap_20080514.mxd



LEGEND:

Monitoring Wells

- ◆ Unconsolidated Soils Perched Groundwater Monitoring Well
- ◆ Platteville Monitoring Well
- ◆ St. Peter Monitoring Well
- Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey
 High Resolution Orthoimagery for the
 Minneapolis-St. Paul, Minnesota Urban Area

AMW: ARCADIS Monitoring Well
 MW: Monitoring Well



1 inch equals 400 feet

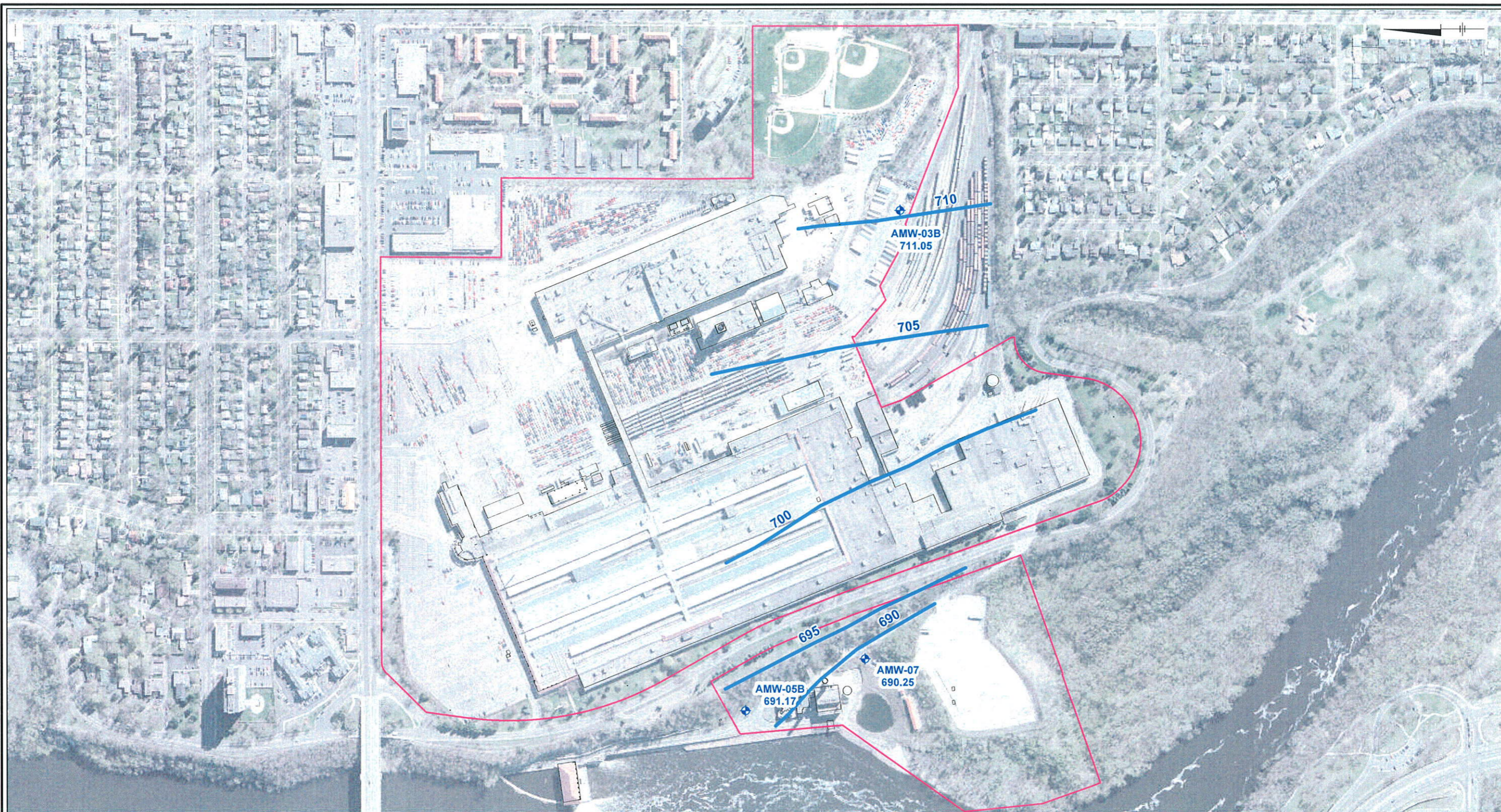


Twin Cities Assembly Plant
 Ford Motor Company
 St. Paul, Minnesota

Site Map



CITY: Minneapolis, MN DB: MGress PM: BZinda
 Project: MN000593
 G:\GIS\Projects\Ford Ranger\ArcMap\GW_Report_4th_qtr\Rev_20080514\Fig3_SS_Contour.mxd



LEGEND:

- ◆ St. Peter Monitoring Well
- Groundwater Elevation (705)
- Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey
 High Resolution Orthoimagery for the
 Minneapolis-St. Paul, Minnesota Urban Area

Groundwater Elevations (690.63)
 (Feet above Mean Sea Level)
 Measured on March 11, 2008

AMW: ARCADIS Monitoring Well
 MW: Monitoring Well



1 inch equals 400 feet

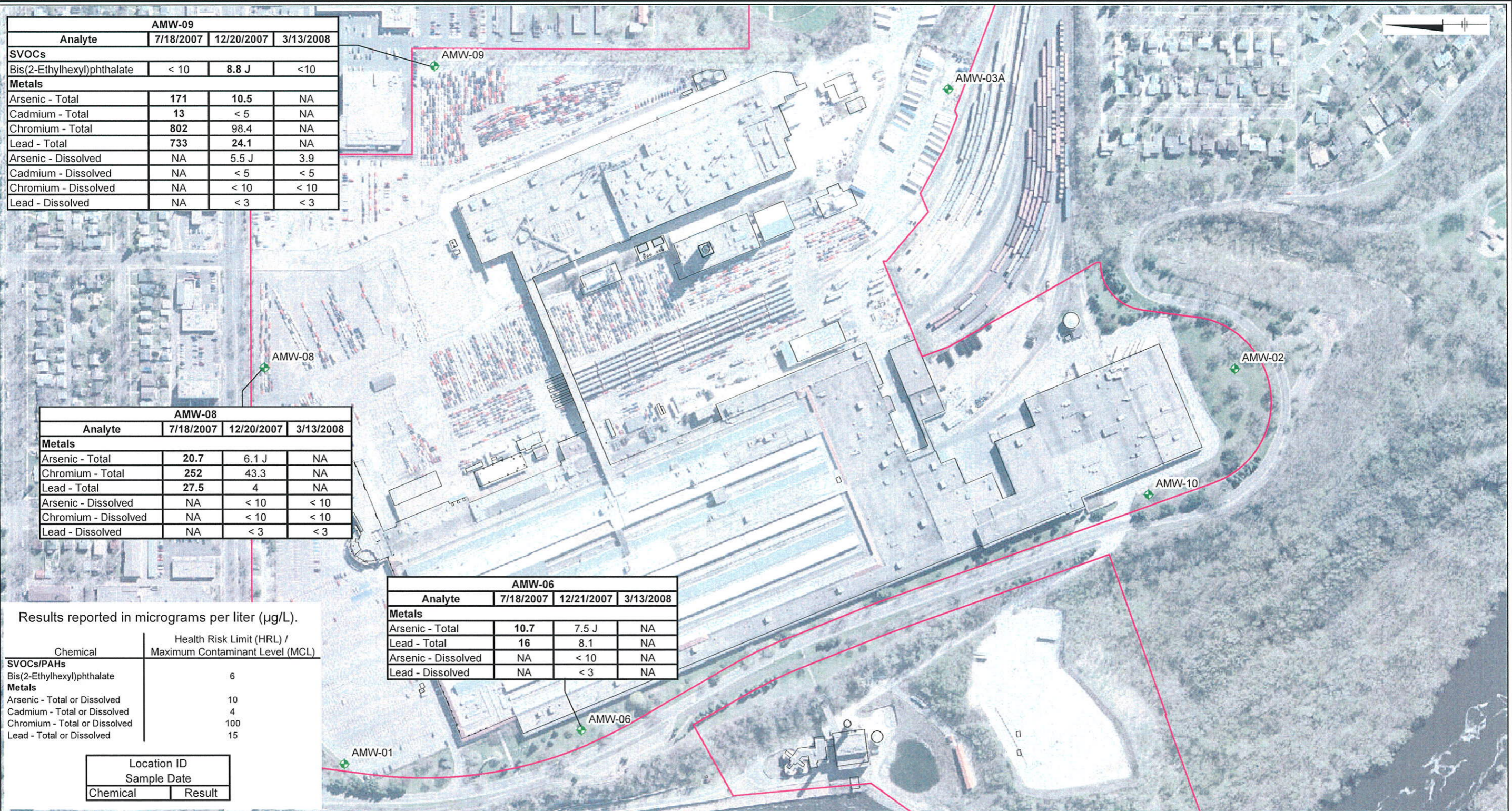


Twin Cities Assembly Plant
 Ford Motor Company
 St. Paul, Minnesota

**St. Peter Sandstone
 Groundwater Contours**



FIGURE
3



AMW-09			
Analyte	7/18/2007	12/20/2007	3/13/2008
SVOCs			
Bis(2-Ethylhexyl)phthalate	< 10	8.8 J	<10
Metals			
Arsenic - Total	171	10.5	NA
Cadmium - Total	13	< 5	NA
Chromium - Total	802	98.4	NA
Lead - Total	733	24.1	NA
Arsenic - Dissolved	NA	5.5 J	3.9
Cadmium - Dissolved	NA	< 5	< 5
Chromium - Dissolved	NA	< 10	< 10
Lead - Dissolved	NA	< 3	< 3

AMW-08			
Analyte	7/18/2007	12/20/2007	3/13/2008
Metals			
Arsenic - Total	20.7	6.1 J	NA
Chromium - Total	252	43.3	NA
Lead - Total	27.5	4	NA
Arsenic - Dissolved	NA	< 10	< 10
Chromium - Dissolved	NA	< 10	< 10
Lead - Dissolved	NA	< 3	< 3

AMW-06			
Analyte	7/18/2007	12/21/2007	3/13/2008
Metals			
Arsenic - Total	10.7	7.5 J	NA
Lead - Total	16	8.1	NA
Arsenic - Dissolved	NA	< 10	NA
Lead - Dissolved	NA	< 3	NA

Results reported in micrograms per liter (µg/L).

Chemical	Health Risk Limit (HRL) / Maximum Contaminant Level (MCL)
SVOCs/PAHs	
Bis(2-Ethylhexyl)phthalate	6
Metals	
Arsenic - Total or Dissolved	10
Cadmium - Total or Dissolved	4
Chromium - Total or Dissolved	100
Lead - Total or Dissolved	15

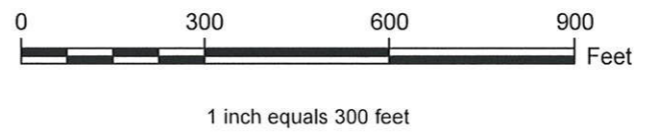
Location ID	Sample Date	Chemical	Result

- LEGEND:**
- ◆ Platteville Monitoring Well
 - Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey High Resolution Orthoimagery for the Minneapolis-St. Paul, Minnesota Urban Area

AMW: ARCADIS Monitoring Well
 SVOCs: Semi-Volatile Organic Compounds
 PAHs: Polycyclic Aromatic Hydrocarbons
 NA: Not Analyzed
Bold Exceeds Health Risk Limit and Maximum Contaminant Level
 USEPA United States Environmental Protection Agency
 J: Estimated Result





Twin Cities Assembly Plant
 Ford Motor Company
 St. Paul, Minnesota

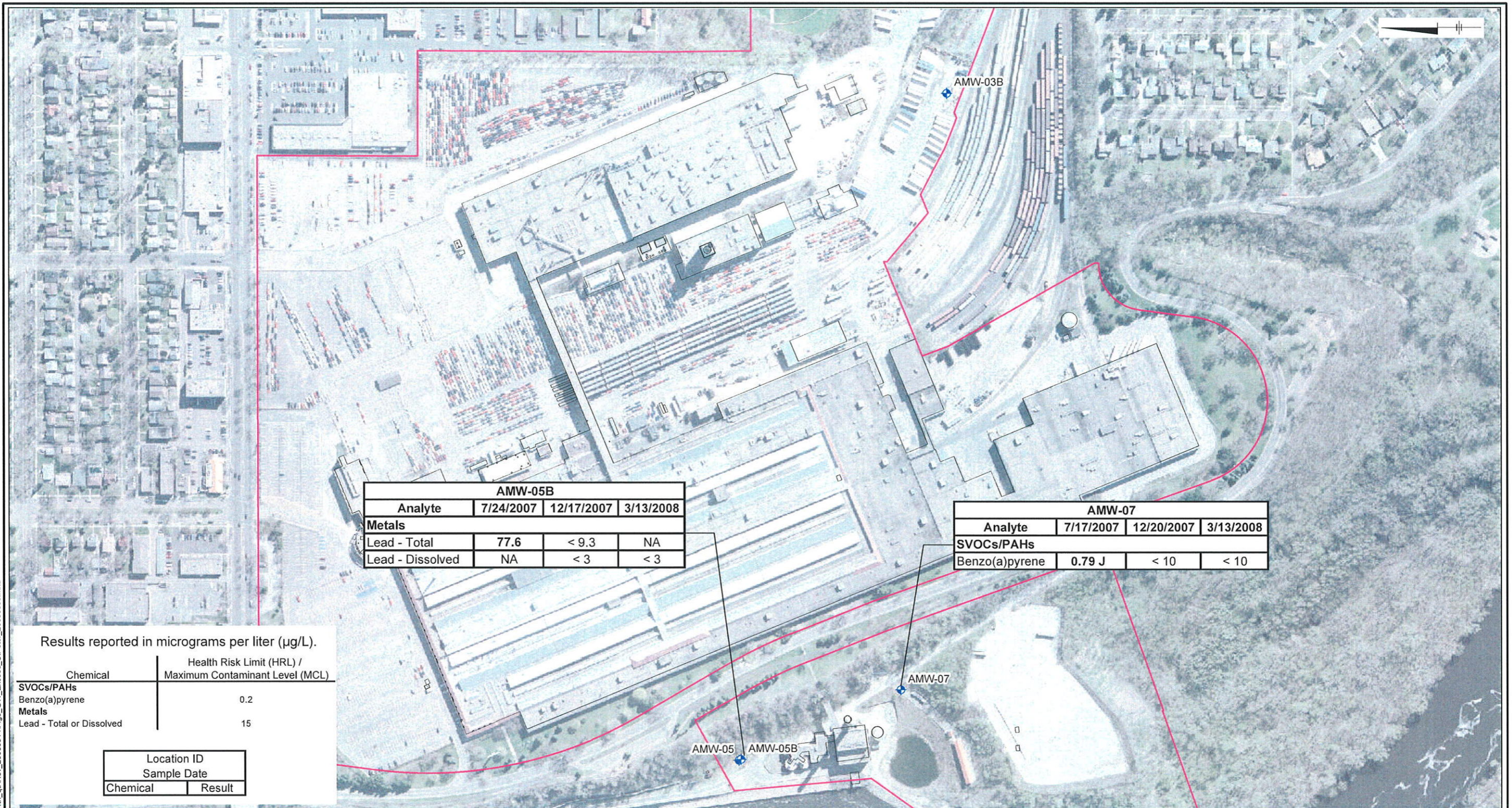
Platteville Monitoring Well Locations
 Exceeding Minnesota Department of Health, Health Risk Limits
 and USEPA Maximum Contaminant Levels



FIGURE
4

CITY: Minneapolis, MN DB: MGress PM: BZinda
 Project: MN000593
 G:\GIS\Projects\Ford Ranger\ActMap\GW_Report_4th_qtr\Rev_20080514\Fig4_GW_Exceed_Platteville_20080606.mxd

CITY: Minneapolis, MN DB: MGress PM: BZinda
 Project: MN000593
 G:\GIS\Projects\Ford Ranger\ArcMap\GW_Report_4th_qtr\Rev_20080514\Fig5_GW_Excel_SIPeter_20080603.mxd



AMW-05B			
Analyte	7/24/2007	12/17/2007	3/13/2008
Metals			
Lead - Total	77.6	< 9.3	NA
Lead - Dissolved	NA	< 3	< 3

AMW-07			
Analyte	7/17/2007	12/20/2007	3/13/2008
SVOCs/PAHs			
Benzo(a)pyrene	0.79 J	< 10	< 10

Results reported in micrograms per liter (µg/L).

Chemical	Health Risk Limit (HRL) / Maximum Contaminant Level (MCL)
SVOCs/PAHs	
Benzo(a)pyrene	0.2
Metals	
Lead - Total or Dissolved	15

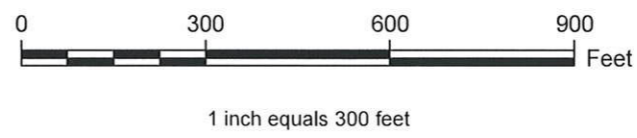
Location ID	
Sample Date	Chemical
	Result


- LEGEND:**
- St. Peter Monitoring Well
 - Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey High Resolution Orthoimagery for the Minneapolis-St. Paul, Minnesota Urban Area

AMW: ARCADIS Monitoring Well
 SVOCs: Semi-Volatile Organic Compounds
 PAHs: Polycyclic Aromatic Hydrocarbons
 NA: Not Analyzed
Bold: Exceeds Health Risk Limit and Maximum Contaminant Level
 USEPA: United States Environmental Protection Agency
 J: Estimated Result





Twin Cities Assembly Plant
 Ford Motor Company
 St. Paul, Minnesota

St. Peter Monitoring Well Locations
 Exceeding Minnesota Department of Health, Health Risk Limits
 and USEPA Maximum Contaminant Levels




FIGURE
5

ARCADIS

Attachment 1

Water Sampling Logs

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-01 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1325 End 1355

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 813.03
 Land Surface Elevation (ft) 810.32
 Sounded Well Depth (ft bmp) 41.61
 Depth to Water (ft bmp) 26.21
 Water-Level Elevation (ft) 786.82
 Water Column in Well (ft) 15.40
 Casing Diameter/Type 2" Black Steel/Stick up
 Gallons in Well 2.40
 Gallons Pumped/Bailed Prior to Sampling 8.5 gal
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 10:48 end 11:08
~~13:43~~ ~~13:54~~
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color CLEAR
 Odor No odor
 Appearance CLEAR
 pH (s.u.) 7.18
 Conductivity (mS/cm) 887
 (umhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 12.22
 Dissolved Oxygen (mg/L) 2.30
 ORP (mV) -76.6
 Sampling Method Grab
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
<u>DRD</u>	<u>1L AMBER</u>	<u>2</u>	<u>HCl</u>
<u>GRD</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCl</u>

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes

Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/15/08
 Site/Well No. AMW-02 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1115 End 1150

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 812.86
 Land Surface Elevation (ft) 810.35
 Sounded Well Depth (ft bmp) 42.64
 Depth to Water (ft bmp) 26.18
 Water-Level Elevation (ft) 786.68
 Water Column in Well (ft) 16.46
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well 2.63
 Gallons Pumped/Bailed Prior to Sampling 8.5
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 1013 end 1022
~~1325~~ ~~1332~~
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color LT. GRAY
 Odor NO ODOR
 Appearance SLIGHTLY CLOUDY
 pH (s.u.) 7.66
 Conductivity (mS/cm) 649
 (umhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 10.31
 Dissolved Oxygen (mg/L) 8.62
 ORP (mV) 50.5
 Sampling Method BAILER / GRAB
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
<u>DRO</u>	<u>1L AMBER</u>	<u>2</u>	<u>HCl</u>
<u>GRD</u>	<u>40 ML VOA</u>	<u>3</u>	<u>HCl</u>

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes				
Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-03A Replicate No. Dup 001 Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1650 End 1746

Evacuation Data		Field Parameters	
Measuring Point	<u>North Edge TOC</u>	Color	<u>CLEAR</u>
MP Elevation (ft)	<u>811.80</u>	Odor	<u>SLIGHT ODOR</u>
Land Surface Elevation (ft)	<u>812.03</u>	Appearance	<u>CLEAR</u>
Sounded Well Depth (ft bmp)	<u>39.53</u>	pH (s.u.)	<u>7.10</u>
Depth to Water (ft bmp)	<u>18.27</u>	Conductivity (mS/cm)	<u>690</u>
Water-Level Elevation (ft)	<u>793.53</u>	(µmhos/cm)	_____
Water Column in Well (ft)	<u>21.26</u>	Turbidity (NTU)	<u>---</u>
Casing Diameter/Type	<u>2" Black Steel/Flush Mount</u>	Temperature (°C)	<u>11.52</u>
Gallons in Well	<u>3.40</u>	Dissolved Oxygen (mg/L)	<u>2.51</u>
Gallons Pumped/Bailed Prior to Sampling	<u>14.5</u>	ORP (mV)	<u>-84.6</u>
Sample Pump Intake Setting (ft bmp)	<u>---</u>	Sampling Method	<u>GRAB</u>
Purge Time	begin <u>1220</u> end <u>1252</u>	Remarks	<u>Dup 001 TAKEN</u>
	<u>1430</u> <u>1441</u>		
Pumping Rate (gpm)	<u>---</u>		
Evacuation Method	<u>Disposable Bailer</u>		

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	<u>40 mL VOA</u>	<u>3</u>	<u>HCl</u>
SVOC Method 8270	<u>1L Amber</u>	<u>2</u>	<u>None</u>
RCRA Metals (Method 6010) Dissolved	<u>500 mL Plastic</u>	<u>1</u>	<u>HNO₃</u>
PCBs (Method 8082)	<u>1L Amber</u>	<u>2</u>	<u>None</u>
<u>SDO</u>	<u>1L Amber</u>	<u>2</u>	<u>HCl</u>
<u>CRD</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCl</u>

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes				
Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	µmhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/11/08
 Site/Well No. AMW-03B Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1515 End 1535

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 811.72
 Land Surface Elevation (ft) 811.93
 Sounded Well Depth (ft bmp) 150.96
 Depth to Water (ft bmp) 100.67
 Water-Level Elevation (ft) 711.05
 Water Column in Well (ft) 50.29
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well 8.04
 Gallons Pumped/Bailed Prior to Sampling 40
 Sample Pump Intake Setting (ft bmp) 148.96
 Purge Time begin 1420 end 1535
 Pumping Rate (gpm) 1
 Evacuation Method Grundfos Pump

Field Parameters

Color CLEAR
 Odor No odor
 Appearance CLEAR
 pH (s.u.) 7.05
 Conductivity (mS/cm) 355
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 11.96
 Dissolved Oxygen (mg/L) 0.06
 ORP (mV) -111.2
 Sampling Method Grab
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
<u>DRO</u>	<u>1L AMBER</u>	<u>2</u>	<u>HCl</u>
<u>GRD</u>	<u>40ML VOA</u>	<u>3</u>	<u>HCl</u>

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes				
Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp below measuring point ml milliliter NTU Nephelometric Turbidity Units
 °C Degrees Celsius mS/cm Millisiemens per centimeter PVC Polyvinyl chloride
 ft feet msl mean sea-level s.u. Standard units
 gpm Gallons per minute N/A Not Applicable umhos/cm Micromhos per centimeter
 mg/L Milligrams per liter NR Not Recorded VOC Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-04 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 829.92
 Land Surface Elevation (ft) 830.13
 Sounded Well Depth (ft bmp) _____
 Depth to Water (ft bmp) _____
 Water-Level Elevation (ft) _____
 Water Column in Well (ft) _____
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well _____
 Gallons Pumped/Bailed Prior to Sampling _____
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin _____ end _____
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color _____
 Odor _____
 Appearance _____
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method Grab

Remarks NO SAMPLES TAKEN; WELL COVERED BY IDEF + SNOWPILE (PLOWED SNOWPILE)

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes				
Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp below measuring point ml milliliter NTU Nephelometric Turbidity Units
 °C Degrees Celsius mS/cm Millisiemens per centimeter PVC Polyvinyl chloride
 ft feet msl mean sea-level s.u. Standard units
 gpm Gallons per minute N/A Not Applicable umhos/cm Micromhos per centimeter
 mg/L Milligrams per liter NR Not Recorded VOC Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-05 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 725.25
 Land Surface Elevation (ft) 722.07
 Sounded Well Depth (ft bmp) _____
 Depth to Water (ft bmp) _____
 Water-Level Elevation (ft) _____
 Water Column in Well (ft) _____
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well _____
 Gallons Pumped/Bailed Prior to Sampling _____
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin _____ end _____
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color _____
 Odor _____
 Appearance _____
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method Grab

Remarks WELL DRY; NO SAMPLES TAKEN

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/11/08
 Site/Well No. AMW-05B Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1115 End 1135

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 723.99
 Land Surface Elevation (ft) 721.79
 Sounded Well Depth (ft bmp) 59.98
 Depth to Water (ft bmp) 32.82
 Water-Level Elevation (ft) 22.61.17
 Water Column in Well (ft) 22.86
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well 3.55
 Gallons Pumped/Bailed Prior to Sampling 40
 Sample Pump Intake Setting (ft bmp) 52.98
 Purge Time begin 1045 end 1135
 Pumping Rate (gpm) 1
 Evacuation Method Grundfos Pump

Field Parameters

Color CLEAR
 Odor SLIGHT ODDOR
 Appearance CLEAR
 pH (s.u.) 6.57
 Conductivity (mS/cm) 1.008
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 14.21
 Dissolved Oxygen (mg/L) 0.12
 ORP (mV) -148.9
 Sampling Method Grab
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
DRO	1L Amber	2	HCl
GRO	40 mL VOA	3	HCl

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes				
Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp below measuring point ml milliliter NTU Nephelometric Turbidity Units
 °C Degrees Celsius mS/cm Milisiemens per centimeter PVC Polyvinyl chloride
 ft feet msl mean sea-level s.u. Standard units
 gpm Gallons per minute N/A Not Applicable umhos/cm Micromhos per centimeter
 mg/L Milligrams per liter NR Not Recorded VOC Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-06 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1215 End 1230

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 814.06
 Land Surface Elevation (ft) 811.56
 Sounded Well Depth (ft bmp) 43.15
 Depth to Water (ft bmp) 26.78
 Water-Level Elevation (ft) 787.28
 Water Column in Well (ft) 16.37
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well 2.62
 Gallons Pumped/Bailed Prior to Sampling 7
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin ¹⁰²² 1335 end ¹⁰⁴⁵ 1341
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color LT GRAY
 Odor SLIGHT ODOA
 Appearance CLOUDY
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (umhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method GRAB
 Remarks NO PARAMETERS TAKEN; WELL WENT DRY; ONLY VOC, SVOC SAMPLED

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
BCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes

Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-07 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 855 End 950

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 733.48
 Land Surface Elevation (ft) 733.71
 Sounded Well Depth (ft bmp) 44.96
 Depth to Water (ft bmp) 43.23
 Water-Level Elevation (ft) 690.25
 Water Column in Well (ft) 1.73
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well 0.277
 Gallons Pumped/Bailed Prior to Sampling 2.0
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 825 end 845
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color CLEAR
 Odor NO ODOR
 Appearance CLEAR
 pH (s.u.) 5.63
 Conductivity (mS/cm) 461
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 12.16
 Dissolved Oxygen (mg/L) 7.0
 ORP (mV) 147.5
 Sampling Method Grab
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
PRD GRD	1L AMBER 40ML VOA	2 3	HCl HCl

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes

Gal./Ft. 1-¼" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65
 1-½" = 0.09 2-½" = 0.26 3-½" = 0.50 6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-08 Replicate No. _____ Code No. _____
 Weather SUNNY, 40'S Sampling Time: Begin 1455 End 1530

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 830.80
 Land Surface Elevation (ft) 831.07
 Sounded Well Depth (ft bmp) 44.44
 Depth to Water (ft bmp) 38.04
 Water-Level Elevation (ft) 792.76
 Water Column in Well (ft) 6.40
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well 1.02
 Gallons Pumped/Bailed Prior to Sampling 3.75
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 1124 end 1136
1359 1405
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color LT GRAY
 Odor NO ODOR
 Appearance CLOUDY
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method _____

Remarks SAMPLED FOR VOC, SVOC, AND (AND METALS)
RCRA METALS; WELL DRY;
NO PARAMETERS TAKEN

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes

Gal./Ft. 1-¼" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65
 1-½" = 0.09 2-½" = 0.26 3-½" = 0.50 6" = 1.47

bmp below measuring point ml milliliter NTU Nephelometric Turbidity Units
 °C Degrees Celsius mS/cm Milisiemens per centimeter PVC Polyvinyl chloride
 ft feet msl mean sea-level s.u. Standard units
 gpm Gallons per minute N/A Not Applicable umhos/cm Micromhos per centimeter
 mg/L Miligrams per liter NR Not Recorded VOC Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-09 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1555 End 1620

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 858.13
 Land Surface Elevation (ft) 858.39
 Sounded Well Depth (ft bmp) 89.26
 Depth to Water (ft bmp) 79.60
 Water-Level Elevation (ft) 768.87
 Water Column in Well (ft) 9.66
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well 1.55
 Gallons Pumped/Bailed Prior to Sampling 4.0
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 1140 end 1206
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color CLEAR
 Odor NO ODOR
 Appearance CLEAR
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (umhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method _____

Remarks NO PARAMETERS TAKEN; WELL DRY; ONLY SAMPLED FOR VOC, SURF. RCRA METALS (FIELD FILTERED)

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes

Gal./Ft. 1-1/4" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65
 1-1/2" = 0.09 2-1/2" = 0.26 3-1/2" = 0.50 6" = 1.47

bmp below measuring point ml milliliter NTU Nephelometric Turbidity Units
 °C Degrees Celsius mS/cm Milisiemens per centimeter PVC Polyvinyl chloride
 ft feet msl mean sea-level s.u. Standard units
 gpm Gallons per minute N/A Not Applicable umhos/cm Micromhos per centimeter
 mg/L Miligrams per liter NR Not Recorded VOC Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. AMW-10 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin 1015 End 1055

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 811.27
 Land Surface Elevation (ft) 808.77
 Sounded Well Depth (ft bmp) 42.21
 Depth to Water (ft bmp) 19.18
 Water-Level Elevation (ft) 792.09
 Water Column in Well (ft) 23.03
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well 3.68
 Gallons Pumped/Bailed Prior to Sampling 12.5
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin 916/1306 end 942/1323
 Pumping Rate (gpm) ---
 Evacuation Method Disposable Bailer

Field Parameters

Color TAN
 Odor SLIGHT ODOR
 Appearance SLIGHTLY Cloudy
 pH (s.u.) 7.15
 Conductivity (mS/cm) 759
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) 11.59
 Dissolved Oxygen (mg/L) 2.04
 ORP (mV) -138.9
 Sampling Method GRAB
 Remarks _____

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None
DRO	1L AMBER	2	HCl
GRD	70 mL VOA	3	HCl

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes				
Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. MW-4 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 833.66
 Land Surface Elevation (ft) 830.73
 Sounded Well Depth (ft bmp) _____
 Depth to Water (ft bmp) _____
 Water-Level Elevation (ft) _____
 Water Column in Well (ft) _____
 Casing Diameter/Type 2" Black Steel/Stick Up
 Gallons in Well _____
 Gallons Pumped/Bailed Prior to Sampling _____
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin _____ end _____
 Pumping Rate (gpm) ---
 Evacuation Method _____

Field Parameters

Color _____
 Odor _____
 Appearance _____
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method Grab
 Remarks Well dry; No Samples Taken

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes

Gal./Ft.	1-1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. MW-05 Replicate No. _____ Code No. _____
 Weather Sunny, 40's Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 827.76
 Land Surface Elevation (ft) 827.86
 Sounded Well Depth (ft bmp) _____
 Depth to Water (ft bmp) _____
 Water-Level Elevation (ft) _____
 Water Column in Well (ft) _____
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well _____
 Gallons Pumped/Bailed Prior to Sampling _____
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin _____ end _____
 Pumping Rate (gpm) ---
 Evacuation Method _____

Field Parameters

Color _____
 Odor _____
 Appearance _____
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method Grab
 Remarks WELL DRY; NO SAMPLES TAKEN

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwsen

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project Ford St. Paul Project No. MN000593.0001 Page 1 of 1
 Site Location St. Paul, MN Date 3/13/08
 Site/Well No. MW-6 Replicate No. _____ Code No. _____
 Weather SUNNY, 40'S Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point North Edge TOC
 MP Elevation (ft) 827.76
 Land Surface Elevation (ft) 827.86
 Sounded Well Depth (ft bmp) _____
 Depth to Water (ft bmp) _____
 Water-Level Elevation (ft) _____
 Water Column in Well (ft) _____
 Casing Diameter/Type 2" Black Steel/Flush Mount
 Gallons in Well _____
 Gallons Pumped/Bailed Prior to Sampling _____
 Sample Pump Intake Setting (ft bmp) ---
 Purge Time begin _____ end _____
 Pumping Rate (gpm) ---
 Evacuation Method _____

Field Parameters

Color _____
 Odor _____
 Appearance _____
 pH (s.u.) _____
 Conductivity (mS/cm) _____
 (µmhos/cm) _____
 Turbidity (NTU) ---
 Temperature (°C) _____
 Dissolved Oxygen (mg/L) _____
 ORP (mV) _____
 Sampling Method Grab
 Remarks WELL DRY; NO SAMPLES TAKEN

Constituents Sampled	Container Description	Number	Preservative
VOC 465F Method 8260	40 mL VOA	3	HCl
SVOC Method 8270	1L Amber	2	None
RCRA Metals (Method 6010) Dissolved	500 mL Plastic	1	HNO ₃
PCBs (Method 8082)	1L Amber	2	None

Sampling Personnel Melissa Meeuwssen

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Attachment 2

Laboratory Reports

Laboratory reports submitted on CD.