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N.W. Mauthe Site, System Evaluation

Wisconsin Department of Natural Resources
Bureau of Remediation & Redevelopment

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May 19, 2006

BRRTS Number 02-45-000127
Contract Number 05RRYU

ENGINEERING • ARCHITECTURE • ENVIRONMENTAL

OMNI
ASSOCIATES



May 19, 2006

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Ms. Jennifer Borski
Hydrogeologist/Project Manager
WDNR-Northeast Region RR
625 E. County Road Y, Suite 700
Oshkosh, WI 54901-9731

RE: N.W. Mauthe (02-45-000127), System Evaluation – Final Work Plan for Monitoring Well Installation. (Contract No. 05RRYU)

Dear Ms. Borski:

Enclosed please find two copies of the final Work Plan for the monitoring well installation at the N.W. Mauthe project. The N.W. Mauthe project is located at 725 S. Outagamie Street, Appleton, Wisconsin.

If you have any questions regarding this work plan or the project in general, please do not hesitate to call.

Very truly yours,
OMNI Associates, Inc.

Brian D. Wayner

Brian D. Wayner, P.E.
Environmental Manager

Enclosures

**Evaluation of the Collection and Treatment
System, N.W. Mauthe Project
Conducted For
The Wisconsin Department of Natural Resources**

Work Plan

**N.W. Mauthe Site
725 S. Outagamie Street
Appleton, Wisconsin 54914-5072**

Prepared by:
OMNNI Associates, Inc.
One Systems Drive
Appleton, WI 54914-1654
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May 19, 2006

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EXECUTIVE SUMMARY

The following report outlines the work plan proposed by OMNNI Associates, Inc. (OMNNI) for additional investigation activities at the N.W. Mauthe (Mauthe) property located at 725 S. Outagamie Street, Appleton, Wisconsin 54914-5072. (See Figure 1 – Site Location Map, Appendix 1.)

Prior investigative activities and the U.S. EPA soil removal encountered elevated levels of volatile organic compounds (VOCs) and metals in the soil and groundwater. VOCs included trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, and toluene. Metals included cadmium, chromium (hexavalent and total), cyanide, and zinc.

The Wisconsin Department of Natural Resources (WDNR) requested the installation of piezometers at the Mauthe project as part of the evaluation of the collection and treatment system. The four piezometers were installed on May 25th - 26th, 2005, to understand the extent of contaminants in the soil and groundwater. The WDNR requested in May 2006, the installation of five additional monitoring wells to further understand the extent of contaminants in the soil and groundwater. The data collected from these additional monitoring wells will assist in identifying the remaining soil contamination on the property and with estimating the timeframe to achieve cleanup goals.

GENERAL INFORMATION

Project Title

Evaluation of the collection and treatment system, N.W. Mauthe Project

Project Identification Numbers

WDNR Bureau for Remediation and Redevelopment Tracking System (BRRTS)
Number: 02-45-000127.

WDNR Contract Number 05RRYU.

OMNNI Associates, Inc. Project Number: N1866A05.

Purpose

The purpose of the additional investigation portion of the project is to delineate the vertical extent of the contamination on-site, which will provide an understanding of the remaining soil contamination. Soil and groundwater data will be collected to assist with site modeling efforts. The purpose of the modeling efforts is to update the estimate of time to achieve site remedial goals.

Contact Information

Responsible Party: N.W. Mauthe, Contact: Carol Mauthe.

Regulatory Agency: Wisconsin Department of Natural Resources, Bureau of Remediation and Redevelopment, Ms. Jennifer Borski, Project Manager, 625 E. County Road Y, Suite 700, Oshkosh, WI 54901-9731, Telephone: 920/424-7887, Fax: 920/424-4404.

Regulatory Agency's Consultant: OMNNI Associates, Inc., Mr. Brian Wayner, Project Manager, One Systems Drive, Appleton, WI 54914-1654, Telephone: 920/735-6900, Fax: 920/830-6100.

Driller: Midwest Engineering Services, Inc., 1125 Tuckaway Lane, Suite B, Menasha, WI 54952; (920) 735-1200. Contact: Mr. John D. McAfee.

Analytical Laboratory: Pace Analytical, 1241 Bellevue Street, Suite 9, Green Bay, WI 54302; 1-800-736-2436. Contact: Mr. Brian Basten.

Site Location

The additional investigation will take place on the Mauthe property, which is located at 725 S. Outagamie Street, Appleton, Wisconsin 54914-5072. The project is located in the NE¼, NW¼, Section 34, T21N, R17E, Outagamie County. (See Figure 1 – Site Location Map, Appendix 1.)

Geographic coordinates of the site are 645411,421476 and were obtained from the on-line GIS Registry of Closed Remediation Sites at a scale of 1:1,173 using the Wisconsin Transverse Mercator '91 (WTM) coordinate system.

SITE INVESTIGATION SCOPING

Facility Description

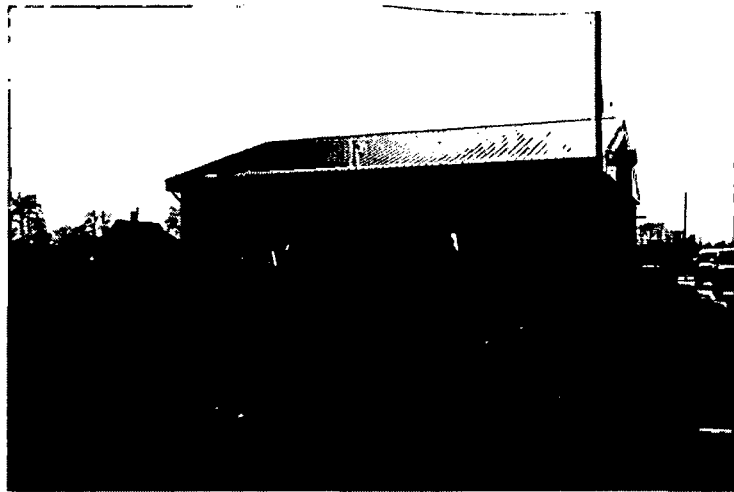
The Mauthe site is a former electroplating facility located at 725 South Outagamie Street in Appleton, Wisconsin. The facility consisted of a zinc building and a chromium building. Zinc, cadmium, copper, and possibly silver were electroplated in the zinc building from 1978 to 1987. Hard chromium plating was conducted in the chromium building from 1960 to 1976. In 1982, the WDNR received a report that yellowish-green water was observed south of the chromium building. Apparently, for several years plating solutions and waste solvents had leaked from holding vats and tanks, and sump pumps allegedly discharged plating tank solutions onto the ground outside the facility.

The WDNR began an investigation of the site in April 1982. A shallow groundwater collection system was installed parallel to the railroad tracks in May 1982, where groundwater and surface water were collected for two years. The Mauthe site was added to the National Priorities List in 1989.

From November 1991 to May 1992, CH2MHILL performed a Remedial Investigation for the WDNR. The Remedial Investigation is documented in the *Remedial Investigation Report, N.W. Mauthe Site, Appleton, Wisconsin*, dated February 1993. The remedial investigation showed the greatest concentrations of soil and groundwater contamination in the area around the zinc and chromium buildings. The chemicals most often detected above background levels or state standards include total chromium, hexavalent chromium, zinc, cadmium, cyanide, trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, and toluene. Subsurface soil contamination was detected up to 25 feet deep near the former buildings. Groundwater contamination extended over most of the block bordered by Melvin, Outagamie, and Second Streets.

CH2MHILL conducted a feasibility study for the WDNR. The Feasibility Study is documented in the *Feasibility Study Report, N.W. Mauthe Site, Appleton, Wisconsin*, dated May 1993. A Record of Decision was signed in March 1994.

Remedial design/remedial action activities took place at the Mauthe site in a phased approach. Phase I, which took place in 1995, involved the excavation of contaminated soils and the installation of groundwater containment trenches. Phase II, which took place in 1996, involved the construction of a groundwater treatment system, which began operation in June 1997.



Site Description

The site is located within the city limits in an area of mixed commercial, light industrial, and residential properties. The property is approximately 1 acre in size and triangular in shape. Melvin Street borders the site to the north, a parking lot owned by Miller Electric and Manufacturing Company is on the west, and railroad tracks are on the southeast. Private residences are located north of Melvin Street and south of the railroad tracks. The former zinc building was located on the

northeast portion of the property. The former chromium building was located on the southwest portion of the property. Approximately half of the land immediately surrounding the site contains impervious structures or paved roads and parking areas.

The groundwater collection system consists of three trenches. The west trench crosses the Miller Electric Property to the west of the site and is approximately 200 linear feet in length. The central trench runs south of the site parallel to the railroad and is approximately 280 linear feet in length. The southeast trench runs along Second Street and Outagamie Street and is approximately 600 linear feet in length.

The west trench and southeast trench were located outside the estimated extent of the groundwater contamination and are designed to prevent further migration of groundwater contamination. The central trench was designed to collect contaminated groundwater and prevent further migration of the groundwater contamination off-site.

Groundwater will enter the trench based on the head differential between the local water table and the level maintained in the trench. The trenches are backfilled with course sand. A 6-inch perforated high-density polyethylene collection pipe in the bottom of the trench drains water from the trench to manholes where the water is collected and pumped to the groundwater treatment facility.

In normal operation, the water level in the trenches is maintained at or near the bottom of the trench. The trenches can provide storage and continue to act as a hydraulic barrier until the water in the trench rises to the level of the water table. This storage capacity can be taken advantage of if the treatment system needs to be shutdown for repair or maintenance for a short period of time.

Three properties south and southeast of the facility have foundation drain systems that are connected to the groundwater collection system via gravity piping (801 S. Outagamie Street, 1410 W. Second Street, and 1414 W. Second Street). Additionally, the sump pump discharge at 1428 W. Second Street is connected to the collection system.

Groundwater collected in the west trench flows by gravity to manhole No. 1 where the maximum depth of the trench extends approximately 32 feet below ground surface (fbgs). Groundwater in the central and southeast trenches flows by gravity to manhole No. 2, where the maximum depth of the trench extends approximately 31 fbgs.

The groundwater monitoring wells and piezometers were designed to provide information on containment of the groundwater plume and on water quality at the site and adjacent residential properties. There are currently 11 monitoring wells (W-2, W-8, W-15, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, MW-107 and MW-108) and four piezometers (PZ-5 through PZ-8).

Monitoring wells W-2 and MW-108 are located up-gradient of the site to monitor background conditions. Monitoring well MW-101, which is located west of the site, is used to monitor the effectiveness of the west trench. Three down-gradient wells, MW-102, MW-103 and MW-104, are used to monitor changes in groundwater quality down-gradient of the central trench and to monitor hydraulic gradient control. Four wells, W-8, W-15, MW-105 and MW-106, are used to monitor changes in groundwater quality outside of the southeast trench. Monitoring wells MW-106 and W-15 are also used to monitor hydraulic gradient control of the southeast trench. Monitoring well MW-107 is used to provide source area groundwater quality data and hydraulic gradient information up-gradient of the central trench. Isoconcentration maps from quarterly progress report #24¹ and groundwater analysis from the piezometers indicate that monitoring well MW-107 remains the most impacted well in the monitoring well network.

The property's parcel Identification number is 313011500. Outagamie County property record describes the property as "LENOX PARK ADDN 3 WD 141D227 LOT 12,13,14 &15 BLK 3 1501 W MELVIN ST & 725 S OUTAGAMIE ST 9086M22." The property is zoned manufacturing.

Geology and Hydrogeology

The site is located in the Fox-Wolf River basin of Wisconsin. Surficial deposits in this basin consist of glacial sediment deposited during the Wisconsin glaciation. The glaciers were present during the Pleistocene period. United States Geological Survey maps *Water Resources of Wisconsin – Fox-Wolf River Basin*, by Perry G. Alcott, 1968, indicate that the materials in the vicinity of the site are composed of glacial lake deposits consisting of silt and clay. The site overlies bedrock formed during the Ordovician Period and bedrock in this area is comprised of the undifferentiated Platteville Formation, Decorah Formation, and Galena Dolomite.

The Phase I remedial action at the site involved excavating soils with chromium contaminations in excess of 500 mg/kg. The depth of the excavation varied across the site from four to 20 fbs. The excavation was filled with excavated material, which had a chromium concentration less than 50 ppm, a two foot clay cap, and topsoil.

Prior to the excavation, previous work completed at the site identified fill ranging in thickness from one to seven feet. Underlying the fill was a till unit that could be divided into two layers. The upper till unit varied in thickness from five to 10 feet. The bottom of the upper till was at an elevation of 792 to 795 feet above mean sea level (MSL) and was noted to be fairly uniform across the site. The soils in the upper till were generally classified as silty clay with sand (CL).

¹ Reference Quarterly Progress Report #24 & Semi-Annual Operation & Maintenance Report, Dated October 28, 2004.

The lower till was observed to be approximately 60 feet thick and extended down to bedrock. The lower till was described as soft to firm, light brown-gray clay with trace gravel and sand. Some of the deep borings showed peat lenses several inches thick. The soils in the lower till were generally classified as silty clay with sand (CL).

Bedrock was encountered in one boring at an elevation of 72 fbs. The bedrock was thought to be dolomitic.

Topography across most of the site is generally flat. Regionally, the topography is also generally flat with an approximate elevation of 805 feet above MSL.

Groundwater depth and flow direction are influenced by the collection system. During the groundwater treatment system operation: groundwater elevation at monitoring well MW-103 has been observed from 788 to 799 feet above MSL; groundwater elevation at monitoring well MW-104 has been observed from 790 to 800 feet above MSL; and groundwater elevation at monitoring well MW-107 has been observed from 796 to 800 feet above MSL. Regional groundwater flow is expected to be to the south-southeast toward the Fox River. The Fox River is located approximately ½ mile to the south-southeast of the site. The Fox River flows to the north.

Other Potential Sources of Contamination

The Christensen & Wisnet Bulk Oil Plant site (BRRTS #02-45-000382) is located at 702 S. Outagamie Street, approximately 380 feet east of the Mauthe project. Although this project has received closure from the Department of Commerce, petroleum soil and groundwater contamination remains on and off property. Based on data collected from monitoring wells for this project, it is not anticipated that contamination would have impacted the Mauthe study area.

The Midwest Plating Corporation site (BRRTS #02-45-191769) is located at 1315 West Fourth Street, approximately 700 feet east of the Mauthe project. This site is also a former electroplating facility that engaged in hard chrome plating. Soil and groundwater results observed to date reveal that the site is contaminated with cadmium, chromium, lead, and nickel. Based on data collected from downgradient monitoring wells for the Mauthe project and the groundwater flow direction observed at both projects, it is not anticipated that contamination from the Midwest Plating Corporation site would have impacted the Mauthe project area.

There are several other leaking underground storage tank sites, spill sites, and sites in the environmental repair program located around the Mauthe study area. However, these sites have either had a minimum amount of reported contamination, or are located at a distance, which make them unlikely to have impacted the Mauthe study area.

Site Access

Access agreements are in place with Carol Mauthe for the 725 S. Outagamie Street property and the property owners of 1635 W. Spencer Street; 715 and 801² S. Outagamie Street; and 1400, 1410, 1414, and 1428 W. Second Street.

Potential For Impacts

At this time the remaining contamination from the Mauthe property does not appear to be impacting: species, habitat, or ecosystems sensitive to the contamination; wetlands; outstanding resource waters; or sites or facilities of historic or archaeological significance.

SITE INVESTIGATION WORK PLAN

The monitoring well installation will be performed in general accordance with the requirements of ch. NR 141 Wisconsin Administrative Code (Wis. Adm. Code).

OMNNI will meet with representatives from the City of Appleton utilities to have sewer and water utilities located. Digger's Hotline will also be contacted prior to any drilling performed. Since system electrical lines, controls, and piping are present near the location of one of the proposed monitoring wells, an electrical contractor will be used to locate private utilities in that area. As-built information documenting the location of the manhole #2 effluent line does not provide enough information to locate the line. The assumption will be made that the electrical and control lines are in the same trench as the effluent line; therefore, locating the electrical lines will locate the effluent line.

Drilling is tentatively scheduled for May 24th and 25th, 2006. The five additional monitoring wells will be placed on the Mauthe property at locations indicted on Figure 2 – Site Detail Map.

Soil Boring Installation Procedures

OMNNI proposes to use Midwest Engineering Services, Inc. (MES) to advance the drilled borings and construct the monitoring wells. Borings are advanced using 7.625-inch outside diameter (O.D.) x 4.5-inch inside diameter (I.D.) hollow stem augers or 6.25-inch O.D. solid stem augers powered by a truck-mounted drill rig.

Samples from the drilled borings are typically obtained from each boring at 2.5-foot intervals by split- spoon sampling according to American Society for Testing and Materials (ASTM) Standard D-1586.

² Residents at this address did not agree to the installation of new wells. If new wells are needed on their property, the residents need to be contacted with details for permission.

Soil Sampling Procedures

Field Screening

A portion of each sample will be field screened with a photoionization detector (PID) equipped with a lamp suitable for detecting vapors of petroleum and chlorinated solvents. At each sampling interval, a representative portion of the soil will also be collected for possible laboratory analysis. If a soil boring is not used for monitoring well installation it will be abandoned according to section NR 141.25, Wis. Admin. Code.

Soil Laboratory Analysis

Select soil samples collected during the boring installation will be submitted for laboratory analysis. The soil samples collected from the drilled borings that are not submitted for laboratory analysis will be placed in re-closeable plastic storage bags and labeled with the boring number, sample interval depth, and sample collection date. The samples will be kept for up to six months (maximum holding time) for possible additional metals analysis.

Soil Sampling Parameters

Sample Depth (feet)	MW-109	MW-110	MW-111	MW-112	MW-113
0-2					
2-4	Total Chromium	Total Chromium	Total Chromium	Total: Chromium, Cadmium, Zinc, Cyanide	Total Chromium
4-6	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC, Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity
6-8	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density
8-10	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC ¹ Total: Chromium, Cadmium, Zinc, Cyanide, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC ¹ Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity
10-12	Total Chromium	Total Chromium	Total Chromium	Total: Chromium, Cadmium, Zinc, Cyanide	Total Chromium
12-14	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density	Sieve / hydrometer, Specific Graviety, Moisture Density
14-06	Total Chromium	Total Chromium	Total Chromium	Total: Chromium, Cadmium, Zinc, Cyanide	Total Chromium
16-18					
18-20	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC ¹ Total: Chromium, Cadmium, Zinc, Cyanide, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity	VOC ¹ Total: Chromium, Manganese Hex Chromium, Total Organic Carbon, Total Cr(VI) reducing capacity, pH, Cation exchange capacity

¹ or at water table

Monitoring Well Installation And Development Procedures

The monitoring wells are typically constructed of two-inch, schedule 40, flush-threaded polyvinyl chloride (PVC) casings and slotted well screens. Prior to use, well parts are individually wrapped in plastic. Monitoring wells will be protected by a protective cover pipe (Protop).

The monitoring wells will be installed and developed according to chapter NR 141, Wis. Admin. Code, WDNR Groundwater Monitoring Well Requirements. Each monitoring well will be assigned a Wisconsin unique well number. The monitoring wells will be installed to a depth of 20 feet with 15-foot screens. Filter pack and annular space seal material are installed by gravity as the augers are withdrawn from the hole. The PVC casing will be cut to the required height using a PVC pipe cutter.

An as-constructed well and boring survey will be performed by OMNNI once fieldwork is complete. The monitoring wells will be located and the PVC well casings, and ground surfaces near each monitoring well will be surveyed with a level to 0.01-foot accuracy. We will use existing site elevation data from monitoring wells MW-103, MW-104, and MW-107 as a reference to the new monitoring wells and the treatment building as a reference for the location of the new monitoring wells.

To properly develop each monitoring well, water will be removed until a consistent water quality is obtained. Removing 10 times the water volume in the well and filter pack, removing water until it is free of sediment, or removing the water until the well is purged dry, does this. Water will be removed from the wells by bailing the water with as little agitation as possible. If the water level is unaffected by bailing and large amounts of water are to be removed, the well will be developed by using the surge and purge method with a centrifugal pump or equivalent. No water is added to the well during development. The development water will be placed into manhole #1 for treatment through the on-site treatment plant.

Groundwater Sampling Procedures

Groundwater samples collected during the first sampling event will be analyzed for total and hexavalent chromium; total: cadmium, copper, cyanide, manganese, mercury, and zinc; VOCs; total organic carbon; and dissolved organic carbon.

Groundwater samples collected during the second sampling event will be analyzed for total chromium, total organic carbon, dissolved organic carbon, and parameters of concern based on the first sampling event. Hexavalent chromium analysis is not planned for this sampling event.

The groundwater samples collected for metals analysis will be filtered, with the exception of hexavalent chromium, which will not be filtered.

The WDNR project manager has indicated that subsequent groundwater sampling events from the new monitoring wells will be performed by the O&M contractor.

INVESTIGATIVE WASTE MANAGEMENT

The investigative waste from the Mauthe project will consist of soil cuttings from borings, well development and purge water, equipment decontamination, and sampling wastes.

The sampling material wastes (disposable gloves, disposable bailers, cleaning supplies, plastic tubing, etc.) generated during the investigative activities will be removed from the property and disposed of as solid waste.

Soil wastes generated will be handled, stored, transported, and disposed of as a special solid waste. These wastes will be stored on the Mauthe property until transported to an approved Subtitle D landfill.

Liquid generated from decontamination activities, piezometer development, and purge water will be placed into manhole #1.


SCHEDULE

Major Tasks	Anticipated Date
Monitoring Well Construction	
Utility Locates	May 18, 2006
Installation of soil borings and monitoring well construction	May 24-25, 2006
Develop monitoring wells	June 12, 2006
Survey monitoring wells	June 14, 2006
Sample monitoring wells (first event)	June 26, 2006
Sample monitoring wells (second event)	September 26, 2006

STANDARD OF CARE

The conclusions presented in this report were arrived at using generally accepted hydrogeologic and engineering practices. The conclusions presented herein represent our professional opinions, based on data collected at the time of the previous investigations and remedial work discussed in this report. Conditions at other locations on the property may be different than described in the previous work. The scope of this report is limited to the specific project and location described herein.

Prepared By:



Brian D. Wayner, P.E.
Project Manager

Reviewed By:

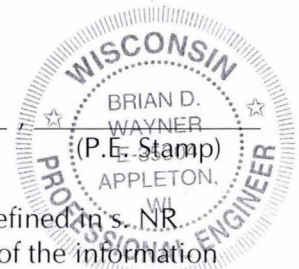


Dave Fries, P.G.
Hydrogeologist

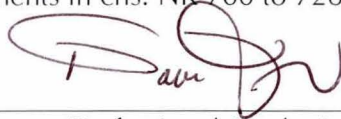
"I, Brian D. Wayner, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



(Professional Engineer)



"I, Dave Fries, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



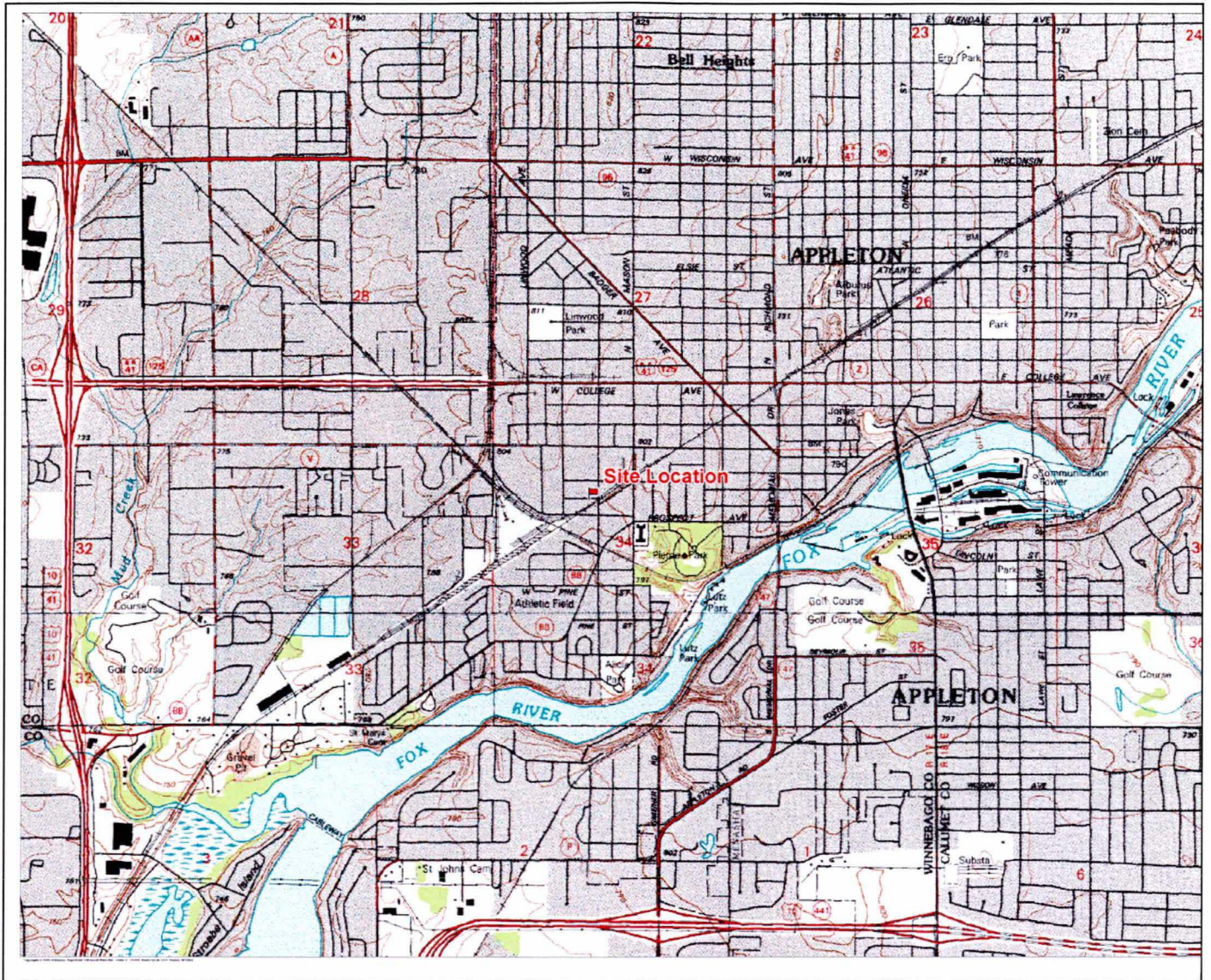
(Professional Geologist)



DISTRIBUTION

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Contract Coordinator
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Madison, WI 53707-7921



Source: 2000 DeLorme Topo Tools



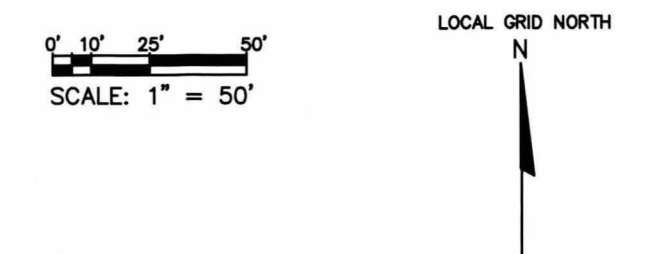
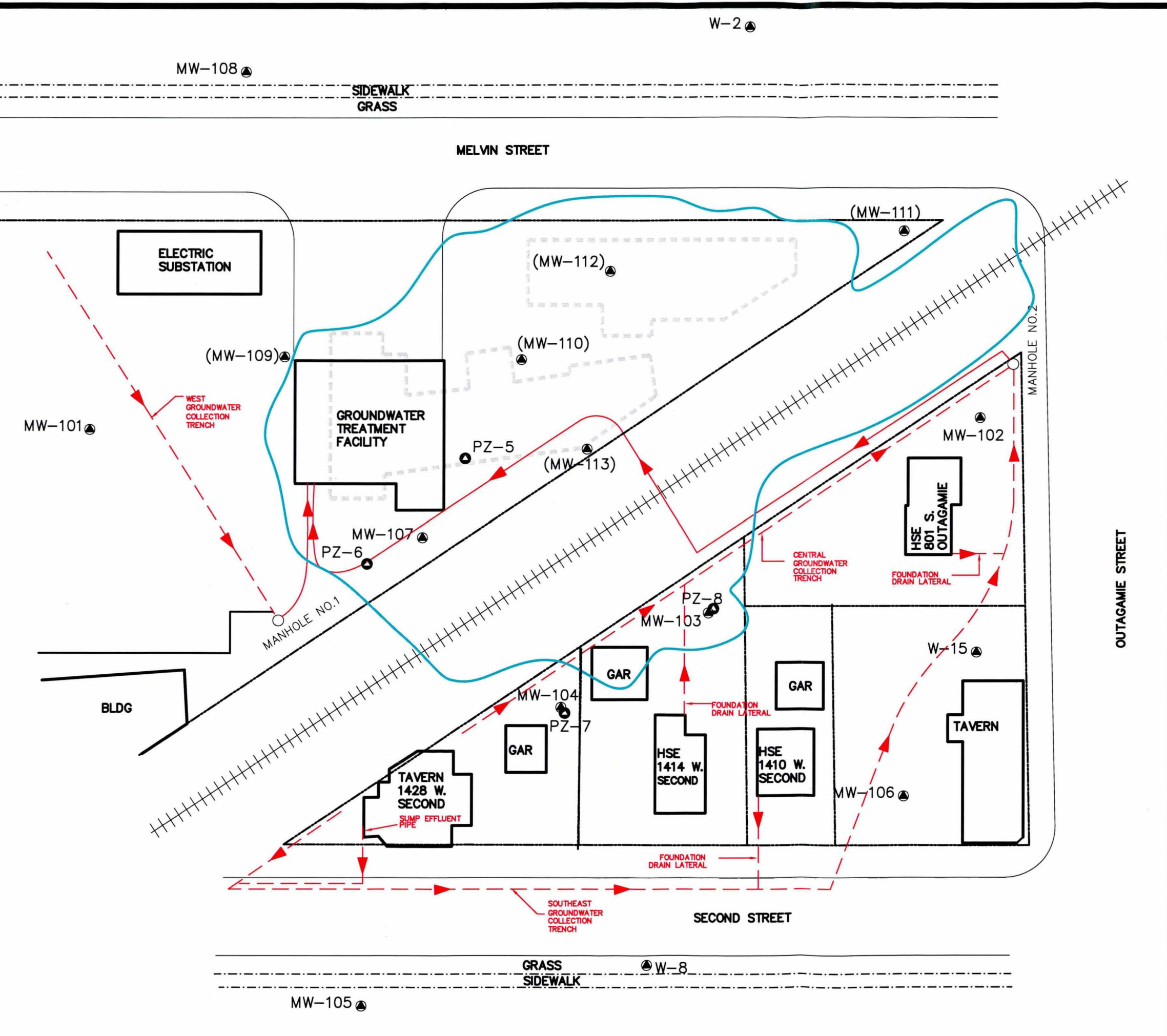
Figure 1
Site Location Map

N.W. Mauthe
725 South Outagamie Street
Appleton, Wisconsin 54914-5072



Project Number:
N1866A05
Date: January 18, 2005

One Systems Drive, Appleton, Wisconsin 54914-1654
Phone: (920) 735-6900 Fax: (920) 830-6100



- LEGEND:**
- (MW-109) ● Proposed Well Location and I.D. No.
 - PZ-3 ● Piezometer Location and I.D. No.
 - MW-108 ● Well Location and I.D. No.
 - +++++ Rail Road Tracks
 - Building Face
 - Property Line
 - - - - Edge of Concrete Pavement
 - - - - Collection System
 - Pump Discharge
 - Approximate Soil Remediation Limits Jul 11 – October 27, 1995 (10,834 Tons)
 - - - - Approximate Location of Former Building

**FIGURE 2
SITE DETAIL MAP**

**N.W. MAUTHE
725 SOUTH OUTAGAMIE STREET
APPLETON, WISCONSIN**

OMNI ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914
PHONE (920) 735-6900
FAX (920) 830-6100

PROJECT MANAGER:	BDW	PROJECT NO:	N1866A05
PROJECT ENGINEER:	BDW	CAD FILE NO:	SITE
DRAWN BY:	DLD	SCALE:	1" = 50'
REVIEWED BY:	BDW	DATE:	3/23/2006

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