WISCONSIN
DEPT. OF NATURAL RESOURCES

George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOUR.

Southeast District - Annex Building
4041 N. Richards Street
P. O. Box 12436
Milwaukee, WI 53212
TELEPHONE 414-961-2727
TELEFAX 414-961-2770

July 20, 1994

File Ref.: FID# 24148443 0
ERR - LUST
UID# 4373

Mr. Dennis Behrens
Menard, Inc.
4777 Menard Drive
Eau Claire, WI 53703-9625

Dear Mr. Behrens:

The Department of Natural Resources acknowledges the reciept of your Form 4 for reimbursement under the state's Petroleum Storage Remedial Action Fund (PSRAF) for the investigation and remediation activities associated with petroleum contamination at the above mentioned site. I have reviewed the May 6. 1994 report entitled *Tank Closure and Soil Remediation, Menards Cashway Lumber - West Allis Yard*, prepared and submitted to the Department by Cooper Environmental. The report describes the removal of a 550 gallon diesel underground storage tank and the characterization and removal of 78 tons of contaminated soil. On May 6, 1994, you requested case closure.

Based on the information in the case file, we have signed your Form 4 for a completed remedial action. No further action will be required at the site at this time. The WDNR signature on the enclosed PECFA Form 4 signifies compliance with regulations pertaining to the site investigation as outlined in the referenced report. The signed Form 4 is enclosed. You will need to forward the white copy and a copy of this letter to the Wisconsin Department of Industry, Labor and Human Relations (DILHR) with your completed claim.

You should note that this letter does not constitute Department "certification" under s. 144.765 (2)(a)3, Stats., as created by 1993 Wisconsin Act 453 (May 12, 1994). Persons who meet the definition of "purchaser" in s. 144.765 (1) (c) must receive Department pre-approval prior to conducting a site investigation in order to be eligible for the liability exemption under s. 144.765, Stats.

The Department appreciates the actions you have undertaken to restore the environment at this site. If you have any questions about this letter, please write to the above address. You may also call me at 414/961-2774, or Chip Krohn at 414/961-2729.

Printed on Recycled Paper

Sincerely,

Kathleen Schneider
Environmental Specialist
Underground Storage Tank Program

Charles J. Krohn
Unit Leader
Underground Storage Tank Program

cc: Paul Miller
SED Case File

Wisconsin Department of Industry,
Labor and Human Relations
Safety and Buildings Division

FORM 4

DNR SITE INVESTIGATION AND REMEDIAL ACTION PLAN REVIEW

Bureau of Petroleum Inspection
and Fire Protection
P.O. Box 7969
Madison, WI 53707
(608) 267-4545
(608) 267-7538
(608) 266-9420

Section 101.143 (3) (c) 4, Wis. Stats., requires that a claimant obtain written approval from the Department of Natural Resources (DNR) when requesting reimbursement for activities in response to a discharge from a commercial petroleum product storage system or home oil tank. The DNR approval must indicate that the site investigation and remedial action plan is adequate to meet requirements of s. 144.76, Wis. Stats. The DNR approval is created for the purpose of meeting the requirements of s. 101.143 (3), Wis. Stats., only and does not bar the DNR from requiring that additional investigation and/or remediation activities be performed by persons responsible under s. 144.76, Wis. Stats.

DNR Use Only

Any DNR / DOJ Enforcement Action(s) or DNR LUST Trust Expenditures on this site? ☐ Yes ☑ No

If answer is yes, please provide pertinent details on attached sheet.

Claimant's Name	Remedial Action Site Name (if business)
Menard, Inc./Vice President/Real Estate	Menards Cashway Lumber - West Allis Yard
Street Address	**Remedial Action Site Address**
4777 Menard Drive	2335 South 108th St.
City, State, Zip Code	**City, State, Zip Code**
Eau Claire, WI 54703-9625	West Allis, WI 53227-1923
Claimant's Telephone Number	**Telephone Number of Site**
(715) 876-2911	( )

Claimant is

☒ Owner ☐ Operator ☐ Other - please specify:

Approval requested for: ☒ Petroleum Product Storage System ☐ Home Oil Tank System ☐ Aboveground

FOR DNR USE ONLY (Indicate Whether Completed Remedial Action or Other Action(s))

A copy of this completed document must be submitted to DNR for approval of initial activities (emergency action, site investigation and remediation) in accordance with s. 101.143 (3) (c) 4, Wis. Stats.

☒ Completed Remedial Action (complete cleanup and single claim for reimbursement) (Steps 1 through 3)

Progress Payments For:

☐ Emergency Action (Step 1 - check only if emergency action was performed)

☐ Completion of Site Investigation (Step 1) and Proposed Remedial Action Plan (Step 2)

☐ Remedial Action (Step 3)

☐ Operation/Maintenance and Environmental Monitoring (annual claim for remedial action activities) (Step 4)

☐ Site Investigation **By Order** of DNR And/Or DILHR - No Remedial Action

Check Appropriate Box(es)

The DNR received a request for approval of the above identified activities for the site listed on this document on the following date _____.

The DNR response for purposes of s. 101.143 (3), Wis. Stats., is attached.

Remedial action activities conducted by owners/operators are not eligible for funding under 42 USC 6991 (L.U.S.T. Funding). (See s. 101.143 (3) (a) 2., Wis. Stats.)

Send one copy of this completed form to the address shown in the upper right corner and one copy to the claimant.

Reviewer's Signature _____ Date Signed 7/25/14

Reviewer's Title _____

Cooper
ENVIRONMENTAL & ENGINEERING RESOURCES INC.

Request for closure
PECFA Form 4

May 17, 1994

Mr. Chip Krohn
Wisconsin Department of Natural Resources
Richards Street Annex
4041 North Richards Street
P.O. Box 12436
Milwaukee, Wisconsin 53212

RE: Submittal of Report Entitled "Tank Closure and Soil Remediation, Menards Cashway Lumber - West Allis Yard, 2535 South 108th Street, West Allis, Wisconsin 53227-1923"

Dear Mr. Krohn:

Enclosed is a copy of the report entitled "Tank Closure and Soil Remediation, Menards Cashway Lumber - West Allis Yard, 2535 South 108th Street, West Allis, Wisconsin 53227-1923" dated May 6, 1994. Also enclosed is a Form 4 for your review and signature.

Please contact the undersigned at (414) 338-9697 if you have any questions or require further information.

Sincerely,
Cooper Environmental & Engineering Resources, Inc.

Paul E. Miller
Project Manager

Robert L. Hackenberg, R.P.G.
Director of Operations/Principal Hydrogeologist

PEM/lmd
Enclosure
MNWATRA.DNR

TANK CLOSURE AND SOIL REMEDIATION
Menards Cashway Lumber -
West Allis Yard
2535 South 108th Street
West Allis, Wisconsin 53227-1923
May 6, 1994

Prepared for:
Menard, Incorporated
Vice President/Real Estate
4777 Menard Drive
Eau Claire, Wisconsin 54703-9625

Submitted by:
Cooper Environmental & Engineering Resources, Incorporated
1411 North Main Street
West Bend, Wisconsin 53095

CERTIFICATION

This Tank Closure and Soil Remediation Report for

Menards Cashway Lumber - West Allis Yard

dated May 6, 1994

was prepared by

Cooper Environmental & Engineering Resources, Incorporated
Wisconsin Certification Number 00058

Gregory J. Taubner
Cooper Environmental & Engineering Resources, Incorporated
Environmental Scientist
Wisconsin Certification Number 05133

Paul E. Miller
Cooper Environmental & Engineering Resources, Incorporated
Senior Environmental Scientist/Project Manager
Wisconsin Certification Number 01840

Robert L. Hackenberg, R.P.G.
Cooper Environmental & Engineering Resources, Incorporated
Director of Operations/Principal Hydrogeologist

FACILITY DESCRIPTION ABSTRACT

Responsible Party:	Menard, Inc. Attn: Vice President/Real Estate 4777 Menard Drive Eau Claire, Wisconsin 54703-9625 (715) 876-5911
Site Representative:	Mr. Dennis Behrens Project Manager Menard, Inc. 4777 Menard Drive Eau Claire, Wisconsin 54703-9625 (715) 876-2319
Site Location:	Menards Cashway Lumber - West Allis Yard 2535 South 108th Street West Allis, Wisconsin 53227-1923
Site Description:	SE 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, City of West Allis, Milwaukee County, Wisconsin
Type of Operation:	Retail Lumber and Home Improvement Supply
Tank Removal:	One 550-gallon diesel fuel containing, coated steel tank
DILHR Registration Number:	40100-0880
Project Description:	UST Removal and Soil Remediation
Cooper Project Number:	920902B
WDNR Notification Date:	September 21, 1992

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APPENDICES

Appendix A	Water Supply Well Construction Logs
Appendix B	Tank Excavation/Removal Analytical Data Result Sheets and Chain of Custody Forms
Appendix C	Remedial Confirmation Analytical Data Result Sheets and Chain of Custody Forms

ATTACHMENTS

Attachment 1	Underground Petroleum Product Tank Inventory Form (SBD-7437)
Attachment 2	Site Assessor Certification
Attachment 3	Tank Cleaning Invoice
Attachment 4	Tank Sludge Disposal Invoice
Attachment 5	Tank Disposal Statement
Attachment 6	Cooper Correspondence "Landfill Variance Request for Soils to be Disposed of From Menards Cashway Lumber - West Allis Yard, 2535 South 108th Street, West Allis, Wisconsin", dated October 6, 1993.
Attachment 7	WDNR Correspondence "Petroleum Contaminated Soils, Menards Cashway, 2535 South 108th, West Allis, Wisconsin", dated October 25, 1993.
Attachment 8	Application to Treat or Dispose of Petroleum Contaminated Soil (Form 4400-120)

1.0 INTRODUCTION

Cooper Environmental & Engineering Resources, Incorporated (Cooper) was contracted by Petroleum Equipment, Incorporated of Milwaukee, Wisconsin (PEI), to document the removal of one underground storage tank (UST) at Menards Cashway Lumber in West Allis, Wisconsin (site). The project site is located at the Menards Cashway Lumber - West Allis Yard, 2535 South 108th Street, West Allis, Wisconsin (Figure 1-1). Documentation included conducting environmental monitoring activities during UST removal and impacted soil remediation activities, and completion of report documentation.

One UST containing diesel fuel was removed from the Menards - West Allis site on September 21, 1992. The tank was excavated and removed by PEI, vented and cleaned by Central Tank Service of West Allis, Wisconsin, and site assessment activities performed by Cooper.

The project site is geographically located in the southeast 1/4 of the northeast 1/4 of Section 7, Township 6 North, Range 21 East, in the City of West Allis, Milwaukee County, Wisconsin. The site representative is Mr. Dennis Behrens, Project Manager for Menard, Inc. of Eau Claire, Wisconsin. The site is serviced by the City of West Allis Water and Sanitary Sewer Utilities.

Information concerning the UST was obtained from Mr. Behrens and the Wisconsin Department of Industry, Labor and Human Relations (WDILHR) in order to establish tank size and contents prior to removal. According to information provided by WDILHR, the tank was assigned the following registration number: 40100-0880. After completion of the removal, an Underground Petroleum Product Tank Inventory Form (SBD-7437) was completed to update WDILHR tank registration files. The completed Tank Inventory Form is presented in Attachment 1.

The scope of services provided by Cooper during the UST removal included the documentation of the condition of the removed UST, documentation of soil type(s), and the condition of soil(s) and groundwater (if any) within the excavation. Representative soil samples were collected and chemically analyzed for petroleum content.

Based on results of the UST removal/excavation activities, Cooper concluded that petroleum impact to site soils was limited to the immediate UST area. Furthermore, soil analytical data indicated minimal petroleum detections beneath the bottom ends of the tank with higher detections located beneath the fuel dispenser located atop the southeast end of the UST. On the basis of field observation and soil analytical data, Cooper petitioned the Wisconsin Department of Natural Resources (WDNR) for approval of a limited soil overexcavation beneath the fuel dispenser.

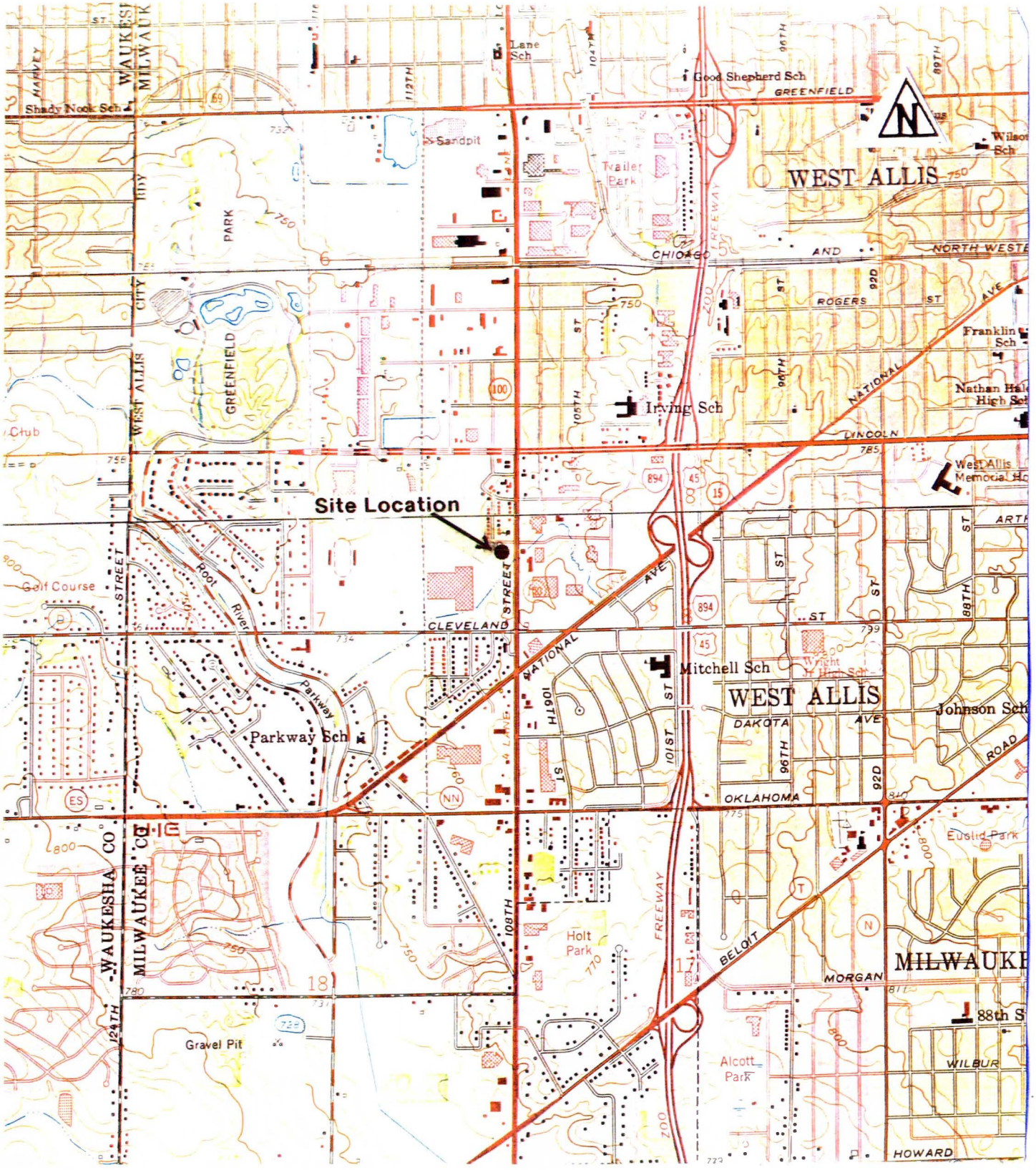

Figure 1-1

SITE LOCATION

Menards Cashway Lumber - West Allis Yard

2535 South 108th Street

West Allis, Wisconsin

source: USGS 7.5' Quadrangles:
(Hales Corners and Wauwatosa; 1976 and 1971)

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1411 North Main Street, West Bend, Wisconsin, 53095
scale: 1 : 24,000 date: 4/13/94 drawn by PDF

Upon receipt of WDNR approval, Cooper proceeded to schedule the excavation of impacted soil for transport and landfill disposal. Approximately 77.60 tons of soil was removed from the site on December 9, 1993 and transported to the Waste Management of Wisconsin (WMWI) Metro Recycling and Disposal Facility in Franklin, Wisconsin.

2.0 SITE BACKGROUND

The project site is located at 2535 South 108th Street, in the City of West Allis, Milwaukee County, Wisconsin (Figure 1-1). Geographically located in the southeast 1/4 of the northeast 1/4 of Section 7, Township 6 North, Range 21 East, the site is situated adjacent to a major commercial retail area in the City of West Allis. The site consists of a large retail home improvement facility and lumberyard. The UST was formerly located behind the facility in the lumberyard (Figure 2-1). The lumberyard area consists of an asphalt paved surface for the storage of bulk lumber goods for consumer selection and purchase. The UST fueled fleet transport vehicles and forklifts used for the storage and movement of bulk materials.

Land uses in the immediate vicinity include retail, commercial, and industrial facilities. The site and surrounding areas are served by the City of West Allis Water and Sanitary Sewer Utilities.

The UST was located to the immediate west of the site facility in an asphalt paved area. The UST was situated against a large, pole constructed, sheet metal warehouse used to store lumber and construction materials. Due to the location of the UST system in a heavily trafficked customer area, and the potential for disruption of daily business operations, UST removal, site assessment, and remedial action activities were performed with an emphasis on time and safety.

2.1 Site Conditions

2.1.1 Physiography

The approximate elevation of the site is 760 feet Mean Sea Level (MSL). The surface of the site slopes to the east. Area surface water drains into the north branch of the Root River Watershed located approximately 2,000 feet southwest of the site.

2.1.2 Soils

Soils of the area belong to the Ozaukee-Morely-Mequon Association (Steingraeber and Reynolds, 1971). Soils in this grouping are described as somewhat poorly drained and have a subsoil of silty clay loam glacial till. The infiltration rate of these soils is 0.2 to 0.8 inches per hour (Skinner and Borman, 1973). Generally these soils were formed on moraines in a thin layer of loess and underlying silty clay loam.

The general site profile observed during tank removal and soil remedial activities is as follows:

0.0 to 0.5 feet	Asphalt and gravel basecourse
0.5 to 4.0 feet	Tan silty fine to coarse sands and gravels

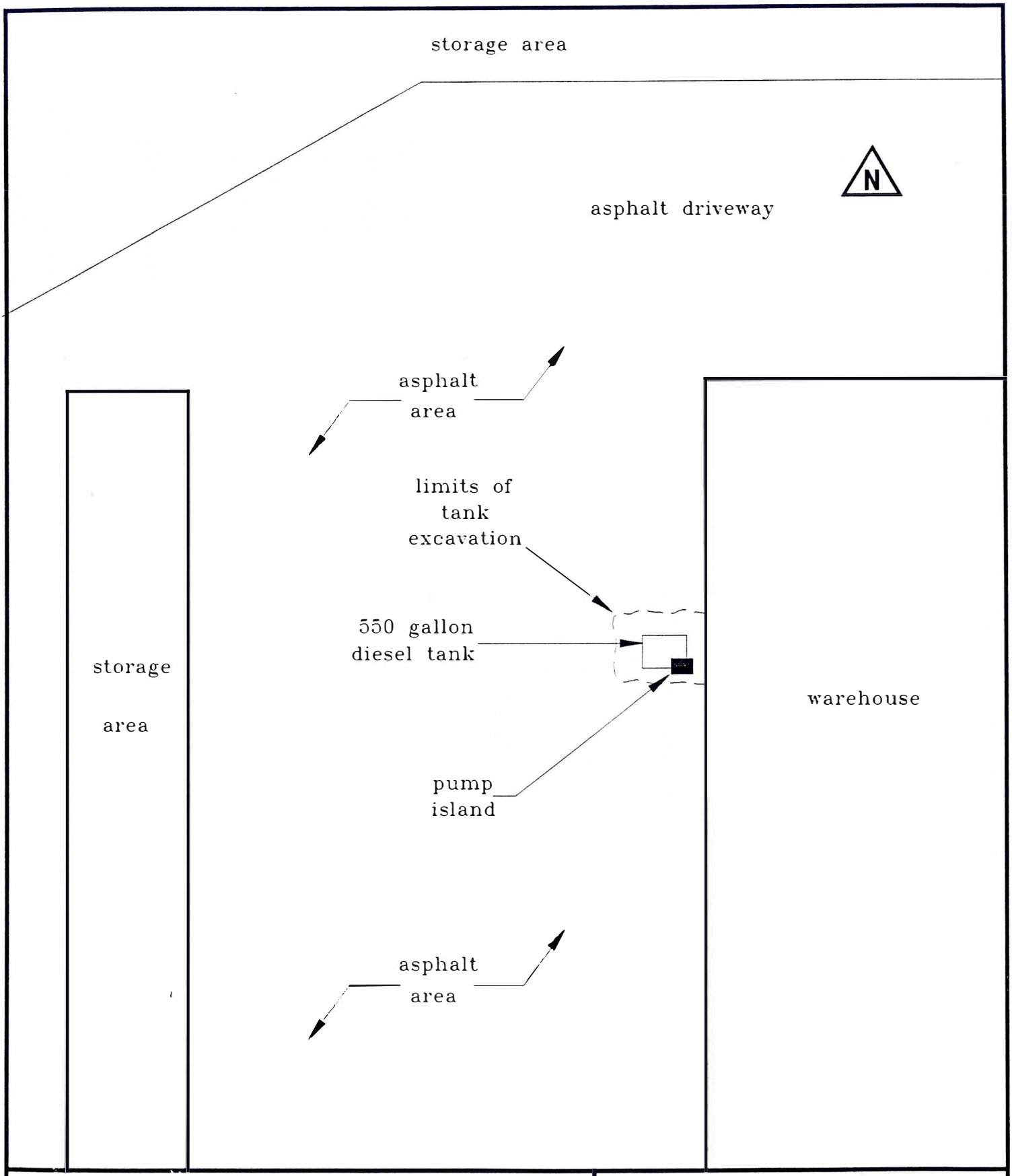

Figure 2-1

SITE LAYOUT

Menards Cashway Lumber - West Allis Yard

2535 South 108th Street

West Allis, Wisconsin

file: MNRDWASL

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scale: 1 : 20 date: 5/5/94 drawn by PDF

4.0 to 7.0 feet	Reddish brown silty clay with some fine to coarse sand and organics
7.0 to 9.0 feet	Reddish brown silty clay with some fine to coarse gravel

2.2 Geology

2.2.1 Bedrock Geology

Bedrock underlying the glacial deposits is comprised of rock units from Precambrian through Devonian Ages. These units dip gently towards the east. From oldest to youngest these rock units are: Precambrian rock units, consisting of crystalline rocks; Cambrian sandstones, consisting of mainly Mount Simon Sandstone and Eau Claire Sandstone, approximately 1,200 feet thick; Ordovician rock units, consisting of sandstone, dolomite, and shale, the combined thickness of these units is approximately 800 feet thick, Silurian and Devonian rock units, consisting of undifferentiated dolomite strata, ranging from 100 to 450 feet thick. The bedrock at the site is Silurian dolomite. The subsurface elevation of the dolomite is approximately 685 feet MSL (SEWRPC, 1976). Site surface elevation is approximately 760 feet MSL.

2.2.2 Glacial Geology

The unconsolidated deposits of the Quaternary Age are largely glacial deposits of till with minor outwash deposits and lake basin deposits (Lacustrine). These were deposited by the Lake Michigan Lobe of glaciation during Pleistocene time. Till deposits consist of an unsorted and poorly stratified heterogeneous mixture of clay, silt, sand, and gravel. Outwash consists of stratified deposits of predominantly sand and gravel. Lacustrine deposits consist of stratified deposits of clay, silt, and sand. At the site, glacial deposits are approximately 75 feet thick.

2.3 Hydrogeology

2.3.1 Bedrock and Glacial Aquifers

There are three principal aquifers underlying the Root River Watershed; the sandstone aquifer, the dolomite aquifer, and the sand and gravel aquifer (Table 2-1). The latter two are hydraulically connected and are sometimes considered to comprise a single aquifer. The sand and gravel is not considered to be a very important aquifer because it may be very thin or non-existent in some areas.

The Cambrian-Ordovician aged sandstone aquifer is a principal source of water for municipal, commercial, and industrial users. This aquifer is located approximately 470 feet below ground surface (bgs) in the area of the site. The sandstone aquifer is overlain by a generally impermeable layer of shale. The shale layer at the site is approximately 175 feet thick. Water within this aquifer occurs under artesian conditions where the confining

STRATIGRAPHIC UNITS AND HYDRAULIC CHARACTERISTICS OF THE MAJOR AQUIFERS OF THE MILWAUKEE RIVER WATERSHED

MAJOR AQUIFER	STRATIGRAPHIC UNIT	WATER - BEARING CHARACTERISTICS	RANGE OF AQUIFER HYDRAULIC CHARACTERISTICS			
			SATURATED THICKNESS (FT.)	AVERAGE TRANSMISSIVITY (GPD/FT.)	STORAGE COEFFICIENT	AVERAGE RECHARGE RATE (GPD/SQ. MI.)
SAND AND GRAVEL	ALLUVIUM	SATURATED SAND AND GRAVEL UNITS VERY PERMEABLE BUT THIN, NOT IMPORTANT AS AN AQUIFER.	10 - 200+	10,000 - 200,000	0.0001 - 0.2	46,000 - 191,000
	GLACIAL DEPOSITS	SATURATED SAND AND GRAVEL UNITS VERY PERMEABLE.				
DOLOMITE	MILWAUKEE FORMATION THIENSVILLE FORMATION LAKE CHURCH FORMATION	PERMEABILITY LOW.	0 - 600	2,000 - 10,000	0.0001 - 0.005	< 10,000 - 143,000
	DOLOMITE UNDIFFERENTIATED	PERMEABILITY GENERALLY LOW, SOLUTION CAVITIES AND CREVICES PRESENT THROUGH-OUT BUT DENSITY OF OPENINGS IS IRREGULAR. IMPORTANT AQUIFER UNIT.				
SANDSTONE	GALENA DOLOMITE DECORAH FORMATION PLATTEVILLE FORMATION	PERMEABILITY LOW.	300 - > 1,000	3,000 - 28,300	0.0001 - 0.00001	< 3,000
	ST. PETER SANDSTONE	PERMEABILITY MODERATE TO LOW. IMPORTANT AQUIFER UNIT.				
	PRAIRIE DU CHIEN GROUP	PERMEABILITY LOW.				
	TREMPEALEAU FORMATION	PERMEABILITY LOW.				
	FRANCONIA SANDSTONE	PERMEABILITY LOW.				
	GALESVILLE SANDSTONE	PERMEABILITY MODERATE.				
	EAU CLAIRE SANDSTONE	PERMEABILITY MODERATELY LOW.				
	MT. SIMON SANDSTONE	PERMEABILITY MODERATE. IMPORTANT AQUIFER UNIT.				

Table 2-1

AQUIFER CHARACTERISTICS

Menards Cashway Lumber - West Allis Yard

2535 South 108th Street

West Allis, Wisconsin

source: Southeastern Wisconsin Regional Planning Commission, Report No. 13, December, 1970.

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Environmental and Engineering Resources, Inc.
1411 North Main Street, West Bend, Wisconsin, 53095

Date: 5/5/94 Drawn by PDF

shale is present. Locally, the sandstone aquifer is approximately 920 feet thick. The potentiometric surface of the sandstone aquifer is approximately 355 feet MSL (SEWRPC, 1976).

The Silurian aged dolomite aquifer is also a major source of water. It is underlain by the relatively impermeable Maquoketa Shale. The generalized water table surface of the dolomite aquifer and glacial deposits ranges from 735 feet to 745 feet.

The sand and gravel aquifer in the Root River Watershed consist of stratified, unconsolidated glacial and alluvial sand and gravel deposits. This aquifer can be developed by large capacity wells only where the grain size of the materials is larger than very fine sand. The thickness of this aquifer is variable. Where fine-grained soils, clay, silt, or till form the surficial deposits, the aquifer may be very small or non-existent. The sand and gravel aquifer is not considered to be present at the site.

2.3.2 Water Supply

The project site as well as the immediate surrounding area obtains water from municipal well sources. Water well information was requested from the Wisconsin Geological and Natural History Survey (WGNHS) on wells near the site location. Information obtained from the WGNHS includes data on eight wells located within an approximate one-half mile radius of the site. The locations of the wells are presented in Table 2-2 and displayed on Figure 2-2. Copies of the WGNHS records for the water supply wells are presented in Appendix A.

Table 2-2
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin

Water Supply Well Locations

1. SE 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, at one block north of Highway 100 between Cleveland and National Avenue, City of Milwaukee, Wisconsin.

2. SW 1/4 of the SE 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, at 11029 West Cleveland Avenue, Town of Greenfield, Wisconsin.

3. NW 1/4 of the SE 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, at 2506 North 111th Street, Town of West Allis, Wisconsin.

4. NE 1/4 of the NW 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, at 11327 West Lincoln Avenue, Town of Greenfield, Wisconsin.

5. NE 1/4 of the NE 1/4 of Section 7, Township 6 North, Range 21 East, at South 109th Street south of Hayes Circle, Town of Greenfield, Wisconsin.

6. SW 1/4 of the SW 1/4 of the NW 1/4 of Section 8, Township 6 North, Range 21 East, at 2667 South 107th Street, City of West Allis, Wisconsin.

7. SW 1/4 of the NW 1/4 of the NW 1/4 of Section 8, Township 6 North, Range 21 East, at 2449 South 107th Street, Town of Greenfield, Wisconsin.

8. NW 1/4 of the NW 1/4 of the NW 1/4 of Section 8, Township 6 North, Range 21 East, at 2328 South 107th Street, City of West Allis, Wisconsin.

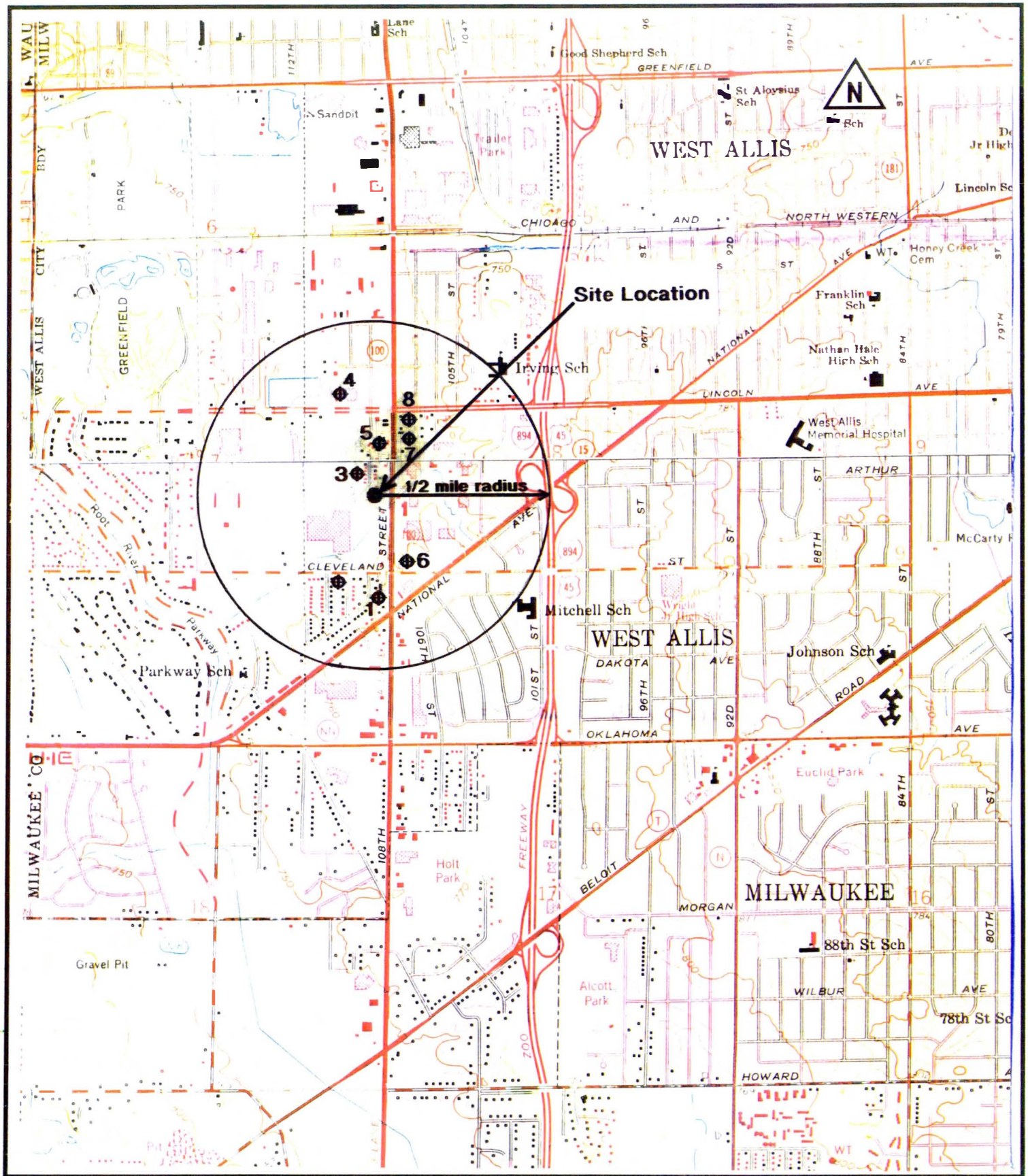

Figure 2-2

WATER SUPPLY WELL LOCATIONS

Menards Cashway Lumber - West Allis Yard

2535 South 108th Street

West Allis, Wisconsin

1 ⊕ – water supply well location and I.D.

source: USGS 7.5' Quadrangles:
(Hales Corners and Wauwatosa; 1976 and 1971)

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Environmental and Engineering Resources, Inc.
1411 North Main Street, West Bend, Wisconsin, 53095
scale: 1 : 24,000 date: 4/13/94 drawn by PDF

3.0 TANK REMOVAL/EXCAVATION ACTIVITIES

The WDILHR requires that soil samples are to be obtained from native soil, not from tank backfill material. Samples must be collected from the following locations.

a. At points where strong odors or soil discolorations indicate the presence of impact.

b. In native soil 1 to 3 feet beneath the bottom of each end of each tank in the excavation.

c. In native soil 1 to 3 feet beneath the surface underneath each island on the supply side.

d. In native soil 1 to 3 feet beneath the surface every 20 feet, or segment thereof, along piping runs. In meeting this requirement, samples should preferentially be taken under swing joints, flex connectors, or pipe elbows.

e. If a remote fill pipe is present, in native soil 5 feet beneath the fill opening.

NOTE: A minimum of two samples along the piping are required - one at the island and one along the piping run.

However, if it is obvious that subsurface petroleum product impacts have occurred, the WDNR allows alternate sampling locations and procedures.

3.1 Tank Removal Activities

On September 21, 1992, PEI completed UST removal and excavation operations. A Cooper representative, WDILHR Certification No. 01522 (presented in Attachment 2), was present on-site during the tank removal to perform environmental monitoring and sample collection activities. The 550-gallon diesel fuel containing UST was located west of the main facility (Figure 2-1). The excavation was completed by removing surface materials and soils from around the tank and exposing the sides and top of the tank.

The UST was located approximately 3 to 4 feet below ground surface (bgs). Product piping and a product dispenser were located atop the southeast end of the UST. Excavation dimensions for the tank removal location were 10 feet by 11 feet by 10.5 feet deep. Backfill surrounding the UST consisted of tan silty sands and gravels. Native soil consisted of reddish brown silty clay. Soil staining and a petroleum odor was recorded during tank removal activities. Water was not encountered during tank removal activities.

Specific observations pertaining to the excavated tank are as follows:

Removal Date	Dimensions	Conditions
9-21-92	4'0" x 6'2"	550-gallon diesel fuel containing UST, no noticeable holes or leaks, no visible surface corrosion, epoxy coated surface

Tank piping consisted of single wall steel and was located directly above the southeast end of the UST. All piping displayed some surface corrosion but no noticeable holes or leaks. The product dispenser was observed to be in good condition.

Tank cleaning was performed by Central Tank Service of Milwaukee, Wisconsin. One 55-gallon container of petroleum residuals was collected during tank cleaning activities. An invoice confirming the removal of residuals is presented in Attachment 3.

The residuals accumulated by Central Tank Service were disposed of by Midstate Oil of Little Suamico, Wisconsin. An invoice prepared for the transport and disposal of residuals is presented in Attachment 4. A statement from PEI detailing the disposal of the UST is presented in Attachment 5.

3.1.1 Photoionization Detector Screening

Field screenings for Ionizable Organic Compound (IOC) content were conducted with a Model 580B Thermo Environmental Instruments Organic Vapor Monitor (OVM). The OVM is equipped with a 10.6 eV lamp, a positive displacement pump, and is calibrated to an Isobutylene standard of 100 parts per million (ppm). A total of 13 tank excavation split spoon soil samples were field screened. Laboratory submitted samples were not field screened.

Field screening procedures were conducted in the following manner. Soil samples were broken up and placed in clean glass sample containers. The containers were covered with aluminum foil and capped with a Teflon-lined screw lid. Each sample was subsequently agitated and allowed to warm to 70°F for a minimum of 20 minutes. The OVM sampling probe was then inserted into the headspace by breaking the aluminum foil seal. The highest IOC reading, in ppm instrument units (i.u.), was observed and logged for each field screened sample.

Soils excavated from the former tank location were monitored with an OVM to assess the concentration of IOCs within the soil. Detectable IOC concentrations ranged from 0.9 ppm i.u. to 125 ppm i.u. (Table 3-1). Based on field observations and OVM indications during tank removal activities, the excavated soils appeared to have been "impacted" by a petroleum release. These

Table 3-1
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin
Tank Excavation/Removal - OVM Field Screening Summary

OVM Sample Number	Sample Location	Depth (ft.) "bgs	Field OVM Reading (i.u.) ppm
OVM #1	Excavated Soils	3.5	93.0
OVM #2	Excavated Soils	3.5	0.9
OVM #3	Excavated Soils	3.5	125.0
OVM #4	Excavated Soils	6.0	0.9
OVM #5	Excavated Soils	6.5	2.0
OVM #6	Excavated Soils	6.0	50.5
OVM #7	Excavated Soils	7.5	5.5
OVM #8	Excavated Soils	8.0	8.5
OVM #9	Excavated Soils	8.0	2.1
OVM #10	Excavated Soils	7.0	7.8
MWA/WB**	West Bottom of Tank Excavation	10.5	5.9
MWA/EB**	East Bottom of Tank Excavation	10.5	7.8
MWA/EW2**	East Wall of Tank Excavation	2.0	119.0

"bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million
** = Samples collected as splits (duplicates) to analytical samples.

"impacted" soils were segregated during tank removal operations. Upon completion of the tank removal, the excavation pit was lined with a heavy gauge plastic and backfilled with the segregated "impacted" soil. Immediate backfilling was necessitated due to heavy pedestrian and vehicular traffic at the excavation location.

3.1.2 Analytical Soil Samples

Two representative soil samples were collected from native soils located on the west and east sidewall bottoms adjacent to the former tank location and excavation base (Figure 3-1). One additional soil sample was collected from native soils located on the southeast corner of the excavation approximately 2 feet below the former diesel fuel dispenser.

Soil samples were collected in the following manner:

- The first 18 inches of soil was removed immediately before sampling in order to collect the sample from a previously unexposed soil surface.

- Each sample was collected using a decontaminated stainless steel sampling spoon. Care was taken to cause the least possible disturbance to each sample.

- Soil samples were placed directly into pre-labeled glass containers supplied by the laboratory, preserved (if applicable), and then placed in an insulated container, with bagged ice, to maintain the samples at or below 4°C.

- The samples were subsequently delivered to Precision Analytical Laboratory, Inc. (PAL), 205 West Galena Street, Milwaukee, Wisconsin (WDNR Certification No. 241369260).

Soil samples submitted for laboratory analysis were generally collected from areas displaying either the highest measured OVM indications, visual signs of soil staining, and/or a petroleum odor. Soil samples were submitted to PAL for the analyte (product) known to have been contained within the UST (diesel fuel). A total of three samples were submitted for laboratory analysis of Total Petroleum Hydrocarbons (TPHs) using a Diesel Range Organics (DRO) standard.

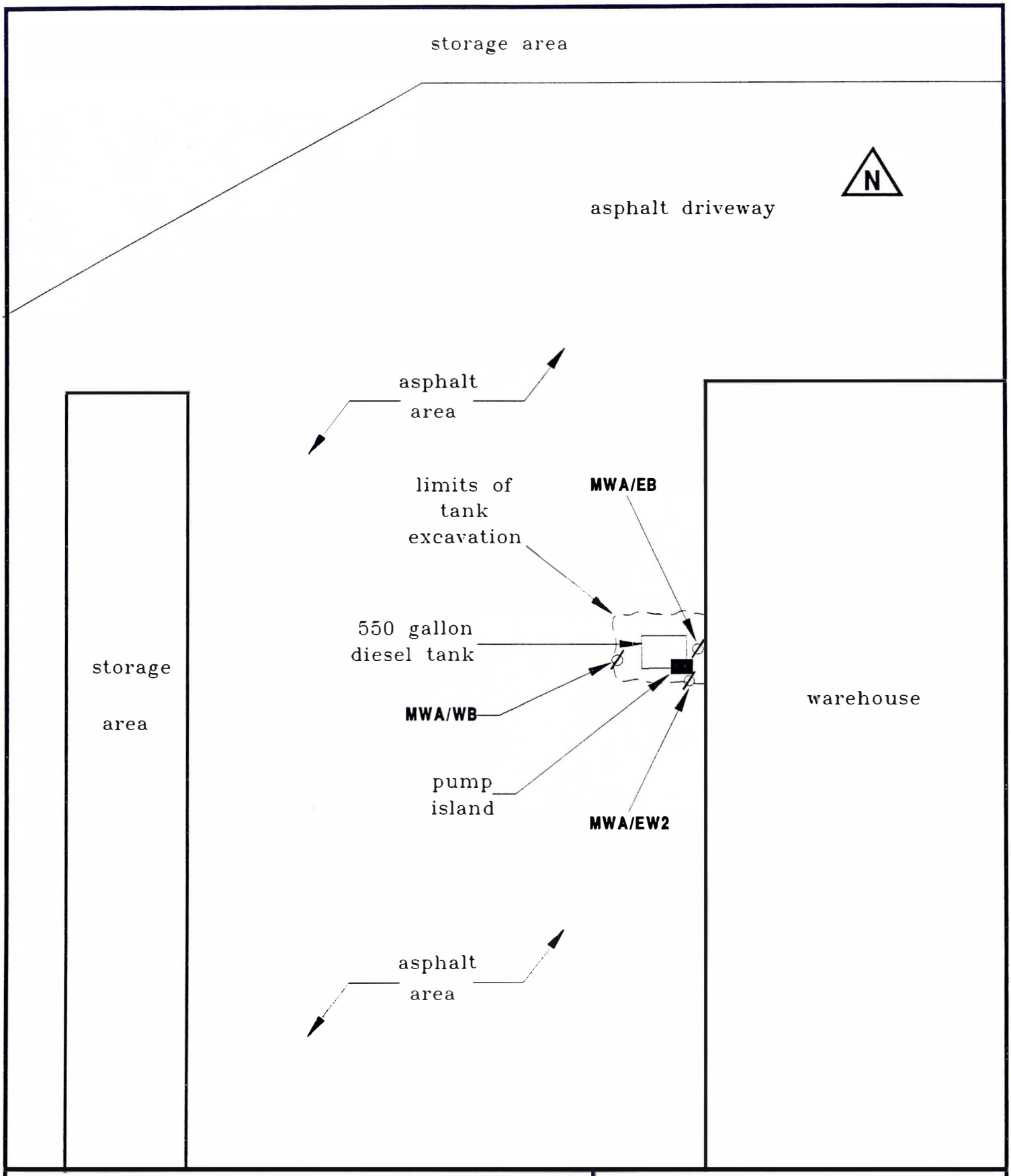


Figure 3-1
LIMITS OF TANK EXCAVATION AND ANALYTICAL SOIL SAMPLE LOCATIONS
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin

MWA/EB
ϕ – analytical soil sample location and I.D.

Cooper
Environmental and Engineering Resources, Inc.
1411 North Main Street, West Bend, Wisconsin, 53095
scale: 1 : 20 date: 4/13/94 drawn by PDF

4.0 TANK REMOVAL ANALYTICAL RESULTS

The DRO laboratory analytical results for each of the submitted tank excavation samples are summarized in Table 4-1. Also included in Table 4-1 are OVM field screening results of soil samples collected as splits, as described in Section 3.1.1.

Analytical results from the submitted closure samples indicate the following:

- Detectable DRO concentrations of 25 mg/kg and 34 mg/kg were indicated in samples collected from the west and east bottoms of the excavation (MWA/WB and MWA/EB, respectively).

- A detectable DRO concentration of 3,400 mg/kg was indicated in soil sample No. MWA/EW2 collected from the southeast corner of the excavation at a depth of 2 feet bgs.

Soil analytical results indicate that DRO concentrations exceeding the WDNR 10 ppm TPH cleanup guideline were evident in site soils. Water was not encountered during tank excavation/removal activities.

Analytical result sheets and chain-of-custody forms are presented in Appendix B. Validation of holding times and date of analyses were checked upon receipt of analytical result sheets. A review of the laboratory data sheets did not indicate that holding/extraction times were exceeded for the requested analyses. Verification dates are included on the analytical data result sheets.

4.1 Waste Profile Analytical Results

One composite soil sample (MA/Waste Profile) was collected during tank removal activities and submitted for WMWI analytical acceptance requirements. The composite soil sample was collected from "impacted" soils excavated during tank removal activities. The waste profile analytical results are summarized in Table 4-2.

Analytical result sheets and chain-of-custody forms are located in Appendix B. Validation of holding times and date of analyses were checked upon receipt of analytical result sheets. A review of the laboratory data sheets did not indicate that holding/extraction times were exceeded for the requested analyses. Verification dates are included on the analytical data result sheets.

Table 4-1
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin
Tank Excavation/Removal -
Soil Sample Analytical Result Summary

Soil Sample Number	Sample Location	Depth of Sample (ft.) *bgs	Date Collected	Field OVM Reading (i.u) ppm	Analytical Results (mg/kg)
					WDNR (Mod)
					DRO
MWA/WB	Tank Excavation - West Bottom	10.5	9-21-93	5.9	25
MWA/EB	Tank Excavation - East Bottom	10.5	9-21-93	7.8	34
MWA/EW2	Tank Excavation - East Wall	2.0	9-21-93	119	3,400

*bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million
mg/kg = Milligrams per kilogram (ppm)

Table 4-2
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin
Waste Profile Analytical Result Summary

Parameter	Sample No. MA/Waste Profile
Appearance	Solid
Layers	1
Free Liquids	0%
Color	Brown
Odor	Slight
Flash Point	>210°F
PVOCs DETECTED Method 8240 (µg/kg)	
Benzene	ND(<1.0)
Ethylbenzene	7.8
Toluene	1.3
Xylenes, Total	24
DRO (mg/kg)	3,400

µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ND = Not detected above laboratory method detection values (detection limit is presented in parenthesis)

5.0 SOIL REMEDIAL ACTION

Tank closure analytical results indicated low level TPH concentrations in soil samples collected from beneath the former UST. Additionally, analytical results and field observations indicated that a petroleum release was most evident in soils located beneath the former product dispenser. Based on these indications, Cooper petitioned the WDNR for a limited soil overexcavation in lieu of performing impact plume assessment activities. A Cooper correspondence transmitted to the WDNR on October 6, 1993, detailed a request for landfilling of "impacted" soils. The Cooper correspondence titled "Landfill Variance Request for Soils to be Disposed of From Menards Cashway Lumber - West Allis Yard, 2535 South 108th Street, West Allis, Wisconsin" is presented in Attachment 6.

In response to the Cooper request, the WDNR approved landfilling of the impacted soils. The October 25, 1993 WDNR correspondence titled "Petroleum Contaminated Soils, Menards Cashway, 2535 South 108th, West Allis, Wisconsin" is presented in Attachment 7.

5.1 Impacted Soil Overexcavation Activities

The excavation and landfill disposal of "impacted" soils was conducted on December 6, 1993. Northshore Excavating, Inc. of Mequon, Wisconsin (WDNR License No. 12361) provided excavation and hauling services. A Cooper representative was present on-site to observe excavation activities, field screen freshly exposed subsurface soils using an OVM, and collect confirmation soil samples from the excavation sidewalls and base. A total of 77.60 tons of impacted soil was disposed of at the WMWI Metro Landfill in Franklin, Wisconsin under profile number MW000181.

Excavation activities were continued until "clean" soils were encountered or site conditions prohibited further soil removal. Periodic OVM field screening of soils was conducted to evaluate when "clean" soils had been encountered. An OVM value of less than 5 ppm was used to represent "clean" conditions. Soil screening was also performed by visual methods.

Field screenings for IOC content were conducted with a Model 580B Thermo Environmental Instruments OVM. The OVM is equipped with a 10.6 eV lamp, a positive displacement pump, and is calibrated daily to an Isobutylene standard of 100 ppm. A total of four soil overexcavation samples were field screened. Laboratory submitted samples were not field screened. IOC field screening procedures were conducted as described in Section 3.1.1.

The periodic OVM field screening method and clean soil criteria were used over a uniform distribution of sidewall advancement locations. The final advancement locations of the remedial excavation boundaries as well as remedial confirmation sample locations are displayed on Figure 5-1. The final maximum depth of the excavation was approximately 11.5 feet at the base of the

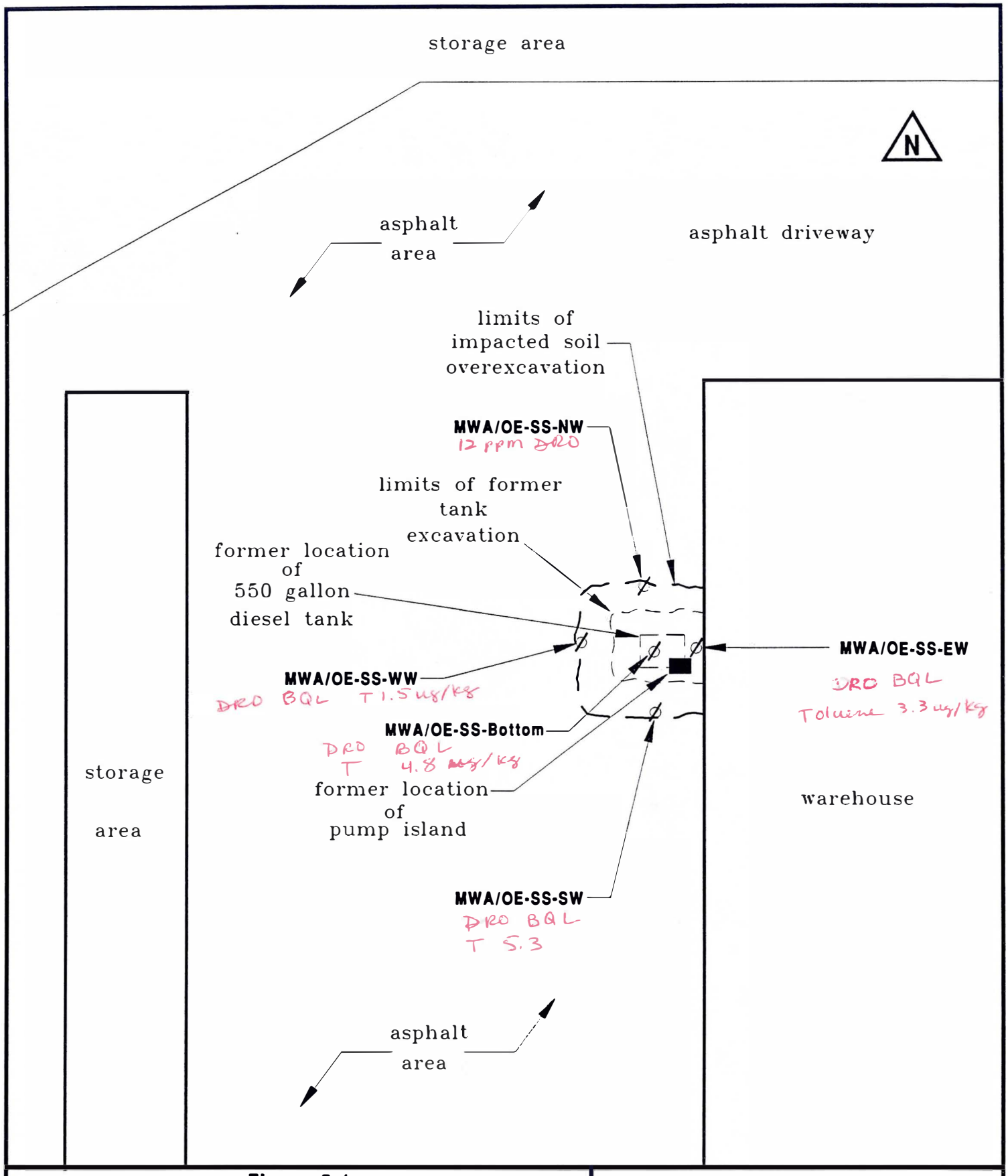


Figure 5-1

LIMITS OF IMPACTED SOIL OVEREXCAVATION AND ANALYTICAL SOIL SAMPLE LOCATIONS

Menards Cashway Lumber - West Allis Yard

2535 South 108th Street

West Allis, Wisconsin

MWA/OE-SS-NW

Ø – overexcavation analytical soil sample location and I.D.

Cooper

Environmental and Engineering Resources, Inc.
1411 North Main Street, West Bend, Wisconsin, 53095
scale: 1 : 20 date: 4/15/94 drawn by PDF

former tank location. The final lateral excavation dimensions were approximately 13 feet by 15 feet.

Representative soil samples, one per truckload of removed, "impacted" soil, were field screened with the OVM. A total of four truckloads of impacted soil were transported to the landfill. The field screening results are provided in Table 5-1. The WDNR Form 4400-120 "Application to Treat or Dispose of Petroleum Contaminated Soils", complete with emission calculations, is presented in Attachment 8. According to the Form 4400-120, a total of 77.60 tons of impacted soil was removed from the site on December 6, 1993. The Form 4400-120 was completed by WMWI personnel.

Confirmation soil samples were collected from the final horizontal and vertical advancement limits of the excavation. These samples were collected according to WDNR requirements for the purpose of confirming that the "impacted" soils had been removed. A total of four sidewall samples and one bottom sample were collected and submitted for laboratory analysis. Laboratory analyses included TPH using a DRO standard and Petroleum Volatile Organic Compounds (PVOCs) analysis per the WDNR July 1993 LUST Analytical Guidance.

5.1.1 Remedial Confirmation Soil Sample Analytical Results

Confirmation soil samples were collected from the final horizontal and vertical advancement limits of the excavation. Analytical results for each of the submitted samples are presented in Table 5-2.

Analytical results obtained from the limits of the remedial excavation indicate the following:

- A total of five soil samples were submitted for DRO analysis. Laboratory analytical results do not indicate DRO concentrations above laboratory method detection values (5.1 mg/kg to 7.0 mg/kg) with the exception of sample No. MWA/OE-SS-NW collected from the north wall/base of the excavation (12.0 mg/kg).

- A total of five soil samples were submitted for PVOC analysis. Laboratory analytical results indicate no detectable PVOC analyte concentrations above laboratory method detection values (1.1 µg/kg to 2.3 µg/kg) with the exception of Toluene. Toluene concentrations ranged from no detectable concentration in soil sample No. MWA/OE-SS-NW to 5.3 µg/kg in soil sample No. MWA/OE-SS-SW.

- Groundwater was not encountered during "impacted" soil overexcavation activities.

Table 5-1
Menards Castway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin
Impacted Soil Overexcavation -
OVM Field Screening Summary

OVM Sample Number	Sample Location	Depth (ft.) *bgs	Date Collected	Field OVM Reading (i.u.) ppm
Truck #1	Excavated Soils	6.0	12-6-93	84.3
Truck #2	Excavated Soils	7.0	12-6-93	136.0
Truck #3	Excavated Soils	8.0	12-6-93	72.3
Truck #4	Excavated Soils	9.0	12-6-93	29.9

*bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million

Table 5-2
Menards Cashway Lumber - West Allis Yard
2535 South 108th Street
West Allis, Wisconsin
Remedial Confirmation Soil Sample Analytical Result Summary

Sample Location	Sample Depth Interval (ft.) *bgs	Laboratory Sample I.D.	Date Sampled	Field OVM Readings (i.u.) ppm	***Laboratory Analyses***								
					WDNR (MOD) mg/kg		PVOCs detected (µg/kg)						
					DRO	Heavier than DRO	Benzene	Ethylbenzene	MTBE	Toluene	1,2,4-Tri-methylbenzene	1,3,5-Tri-methylbenzene	Total Xylenes
North Wall Base of Excavation	11.0	MWA/OE-SS-NW	12-6-93	2.3	12	NP	ND(<1.1)	ND(<1.1)	ND(<1.1)	ND(<1.1)	ND(<1.1)	ND(<1.1)	ND(<2.3)
East Wall Base of Excavation	11.5	MWA/OE-SS-EW	12-6-93	1.1	ND(5.1)	NP	ND	ND	ND	3.3	ND	ND	ND
South Wall Base of Excavation	11.5	MWA/OE-SS-SW	12-6-93	3.5	ND(<7.0)	NP	ND	ND	ND	5.3	ND	ND	ND
West Wall Base of Excavation	11.0	MWA/OE-SS-WW	12-6-93	2.3	ND(<5.1)	NP	ND	ND	ND	1.5	ND	ND	ND
Center Bottom of Excavation	11.0	MWA/OE-SS-Bottom	12-6-93	1.1	ND(<5.2)	NP	ND	ND	ND	4.8	ND	ND	ND

*bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million
mg/kg = Milligrams per kilogram (ppm)
µg/kg = Micrograms per kilogram
NP = Not present
ND = Not detected above detection limits (detection limit given in parentheses)

Analytical result sheets and chain-of-custody forms are presented in Appendix C. Validation of holding times and date of analyses were checked upon receipt of analytical result sheets. Review of the laboratory data sheets did not indicate that holding/extraction times were exceeded for the requested analyses. Verification dates are included on the analytical data result sheets.

6.0 REMEDIAL ACTION CONCLUSIONS AND RECOMMENDATIONS

Based on the results of tank closure and "impacted" soil overexcavation activities, Cooper presents the following conclusions:

- Results from tank removal/closure activities indicate that subsurface soils had been impacted by past petroleum storage and dispensing activities.
- On the basis of tank removal observations and closure sample analytical results, Cooper petitioned the WDNR for a limited soil remedial action in lieu of performing site investigation activities.
- Soil analytical results from remedial confirmation soil sampling activities indicate no remaining DRO concentrations above laboratory method detection values with the exception of one 12 mg/kg DRO detection.
- Soil analytical results from remedial confirmation soil sampling activities indicate no remaining PVOC analyte concentrations above laboratory method detection values with the exception of Toluene detected at a maximum concentration of 5.3 µg/kg.
- Groundwater was not encountered during tank removal and/or soil overexcavation activities.
- Observed native soil consists of silty clay.

Cooper concludes that the bulk of the impacted soil has been removed from the site and that the remaining DRO concentration is residual. Therefore, Cooper recommends that no further soil remedial activities be required at this location.

Copies of this report have been forwarded to:

Menard, Inc.
Vice President/Real Estate
4777 Menard Drive
Eau Claire, Wisconsin 54703-9625

Menard, Inc.
Mr. Dennis Behrens
Project Manager
4777 Menard Drive
Eau Claire, Wisconsin 54703-9625

Mr. Chip Krohn
Wisconsin Department of
Natural Resources
Richards Street Annex
4041 North Richards Street
P.O. Box 12436
Milwaukee, Wisconsin 53212

Wisconsin Department of Industry,
Labor and Human Relations
Safety and Buildings Division
201 East Washington Avenue
Madison, Wisconsin 53707

7.0 LIMITATIONS OF ASSESSMENT

The interpretations and conclusions contained within this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentration of certain chemical constituents in samples taken from the subject property. Such testing and analysis have been conducted by independent state certified testing laboratories. Cooper has no control over such testing and analysis and, therefore, disclaims any responsibility for any errors or omissions arising therefrom.

Subsurface information was generalized from and interpolated between soil sampling locations. Information pertaining to actual subsurface conditions exists only at the described sample locations. It is possible that subsurface conditions may vary from those indicated.

Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by Professional Consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusion and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. This report serves a specific purpose and may not be suitable for other applications.

REFERENCES

Skinner, Earl and Ronald Borman, "Water Resources of Wisconsin - Lake Michigan Basin", Atlas HA-432, Department of the Interior, USGS, Washington D.C., 1973.

Southeastern Wisconsin Regional Planning Commission (SEWRPC), "A Comprehensive Plan for the Milwaukee River Watershed", 1970.

Steingraeber, J.A., and C.A. Reynolds, "Soil Survey of Milwaukee and Waukesha Counties", Soil Conservation Service and WGHHS, 1971.

County Milw Twp. City Sec. SE NE Sec 7 T6 R21E
(Office Record—Do not fill in)
~~Sec 8~~ T. 6 N. R. 21 E. SE NE, Sec. 7, T6N, R21E

TO THE WISCONSIN STATE BOARD OF HEALTH, WELL DRILLING DIVISION, MADISON, WIS.

WELL LOG, PREMISES DIAGRAM, and REPORT

For Official Record of the Board.

(TO BE USED FOR THAT PURPOSE ONLY)

Owner Mr R. Vander Heyden Driller Knaack & Son Co.
(If a joint ownership give name of responsible official. Also name of each individual holding an interest. Use a separate sheet and attach hereto.)
Address 915 N. Hawley Rd.
Address 1 blk w. Hy 100 bet ~~Oklahoma~~ Cleveland & National Ave Milwaukee
(City, village, township, county)
Date of Report May 4 1937
1 blk w. Hy 100 bet ~~Oklahoma~~ Cleveland & National Registration No. 226
Give below the location of the property on which well is drilled.

If incorporated village or city: Name Lot Blk. Street and No.
If unincorporated hamlet Name County Twp. Highway
If Lake Shore Plat Name of Plat Lake Lot Blk. Street
If Farm County Twp. Sec. Highway
If School County Twp. Sec. District
If other public building Kind County Twp. Sec.
Miscellaneous Kind County Twp. Sec.

WELL LOG and REPORT

Screens, Seals Grouts, etc.	Well Diagram (Each vertical line equals 1")	Kind of Casing, liner, shoe, etc. (Each horizontal line equals 5')	Formations State if dry or water bearing	Record of FINAL Pumping Test
	8 6 4 2 0 2 4 6 8	5" Steel Casing	Bored well	
	25	5" Forged Shoe	30'	Duration of test. Hours 8
	50		Sand & Clay 20'	
	75		Clay 25'	Pumping Rate. G. P. M. 10
	100		Hard pan 10'	
			Shell Rock 7 ft	
	125		Limestone 8 ft	Depth of pump in well. Ft. 40
	150			
	175			Standing water-level (from surface.) Ft. 18
	200			
	225			Water level when pumping Ft. 22 ft
	250			
	300			Water. End of test. Check: Clear ✓ Cloudy Turbid
	350			Was well sterilized before test? Yes ✓ No Date
	400			To which Laboratory was sample sent? Madison Date Sept 1936
	500			Was the well sealed on completion? Yes ✓ No
	600			How high did you leave casing above grade? 5'
	700			Well was completed Sept 25 1936
				Well Driller: Signature.
				(Be sure to complete the report on the reverse side)

PREMISES DIAGRAM

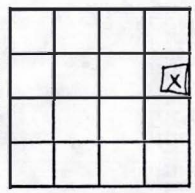
(See Rules)

Draw a representative sketch of the premises on which this well is located, showing the location of the well with reference to buildings and possible sources of pollution. Indicate the condition of the surroundings by printing descriptive words like high, low, level, slope, lake, river, swamp, forest meadow, barnyard, cesspool, privy, sewer, etc., at their respective locations and show distance from the well on the sketch. Also show direction of the compass. See Part III for specimen Diagram.

REMARKS:

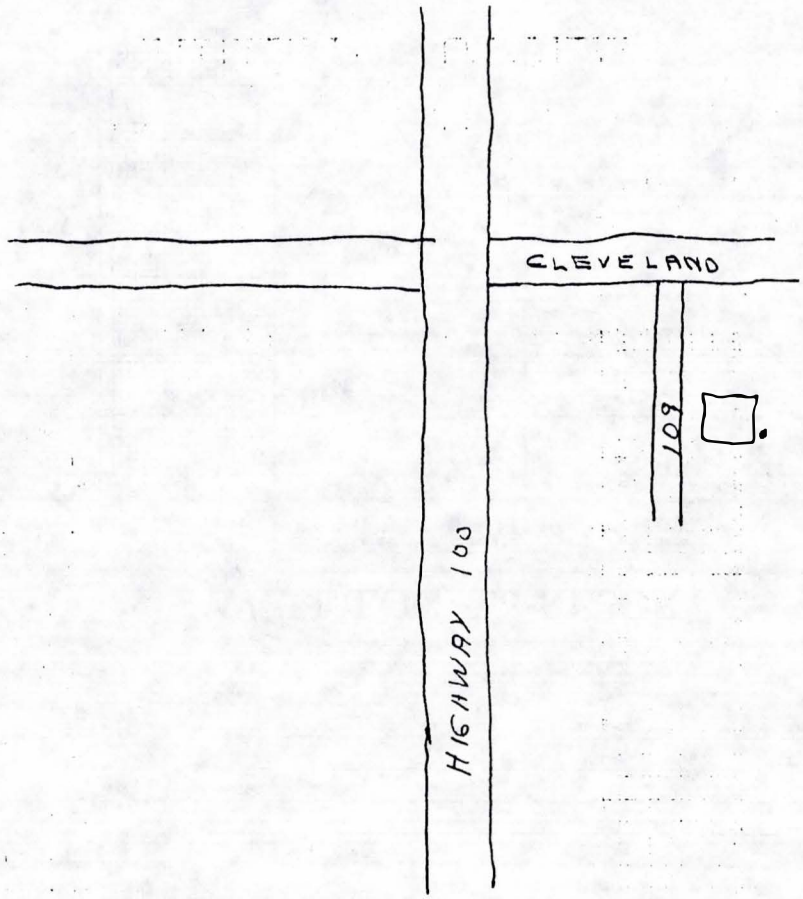
NORTH

Indicate position of premises in the Section

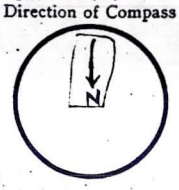


Sec. 7 T. 6 R. 21 (E) (W)

(Each division equals 10') (If more or less indicate: .....)



Show in circle the Direction of Compass



Note: Additional copies of this form may be obtained at 5c per copy in lots of 10 or more. Send remittance with order to State Board of Health, Well Drilling Division, Madison.

RECEIVED
OCT 18 1949
BUREAU SAN. ENG.

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Milwaukee {Town ☑ / Village ☐ / City ☐} Greenfield
Check one and give name

2. Location 11029 West Cleveland Ave.
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☒ or Agent ☐ Victor E. Britt SW SE NE Sec 7 T6N R21E
Name of individual, partnership or firm

4. Mail Address 11024 W. Cleveland Ave. West Allis 14 Wis.
Complete address required

5. From well to nearest: Building_____ft; sewer_____ft; drain_____ft; septic tank_____ft; dry well or filter bed_____ft; abandoned well_____ft. New home not complete

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	30			
6	30	80			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Standard weight Black steel pipe	0	70

9. GROUT:

Kind	From (ft.)	To (ft.)
puddled clay	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
red clay	18	18
blue clay	16	34
fine sand	17	51
stony blue clay	23	74
broken rock	3	77
rock	3	80

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 12 GPM.

Depth from surface to water-level: 14 ft.

Water-level when pumping: 18 ft.

Water sample was sent to the state laboratory at: Madison City on Oct. 15 1949

Construction of the well was completed on: 6-4 1949

The well is terminated 6 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ☒ No ☐

Was the well sealed watertight upon completion? Yes ☒ No ☐

Signature Frank Lehrke
Registered Well Driller

9621 W. Beloit Rd West Allis 14 Wis.
Complete Mail Address

Please do not write in space below

Rec'd_____ No._____

Ans'd _____

Interpretation _____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner_____

Wel 6

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Milwaukee — Town ☒ Village ☐ City ☐ — W [illegible] (Check one and give name)

(NWSENE [illegible])

2. Location 2506 No. 111th St — Wisconsin
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☒ or Agent ☐ Wimmer & Blatter
Name of individual, partnership or firm

4. Mail Address 6701 W National West Allis Wis
Complete address required

RECEIVED AUG 28 1961 SANITARY ENGINEERING

5. From well to nearest: Building 15 ft; sewer ✓ ft; drain ____ ft; septic tank ____ ft; ____
dry well or filter bed ____ ft; abandoned well ____ ft.

6. Well is intended to supply water for: home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	6			
6	0	25			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Steel	0	131

9. GROUT:

Kind	From (ft.)	To (ft.)
Puddle Clay	0	25

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Puddle Clay	0	25
Shale	25	80
Sand	80	124
Nail Pam	124	131
Lime Rock	131	280

11. MISCELLANEOUS DATA:

Yield test: 8 Hrs. at 8 GPM.

Depth from surface to water-level: 80 ft.

Water-level when pumping: 160 ft.

Water sample was sent to the state laboratory at:
Madison (City) on Aug 21 1961

Construction of the well was completed on:
Aug 7 1961

The well is terminated 8 inches
☐ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?
Yes ✓ No ____

Was the well sealed watertight upon completion?
Yes ✓ No ____

Signature Joseph Delby Rt 1 Longlake Waterford Wis
Registered Well Driller — Complete Mail Address

3 Coy [illegible]

Please do not write in space below

Rec'd AUG 22 1961 No. 32785

Ans'd ____

Interpretation SAFE—BACTERIOLOGICALLY

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	0				

Examiner ____ plot 624305

Wel. 6-30M (6-50)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Milwaukee {Town ☒ / Village ☐ / City ☐} Greenfield
   Check one and give name
2. Location 11327 W. Lincoln ave 1952
   Name of street and number of premise or Section, Town and Range numbers
3. Owner ☒ or Agent ☐ Walter C. Duket
   Name of individual, partnership or firm
4. Mail Address Milwaukee
   Complete address required
5. From well to nearest: Building 42 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed ____ ft; abandoned well ____ ft.
6. Well is intended to supply water for: house

NE, NW, NE, Sec. 7 T 6N R 21E

N. ENG.

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	20			
6	20	167			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std. Steel	0	77

9. GROUT:

Kind	From (ft.)	To (ft.)
mud	0	20

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
gravel	0	38
stoney clay	38	44
gravel	44	77
limestone	77	167

Construction of the well was completed on: Dec 27 1951

The well is terminated 6 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 10 GPM.

Depth from surface to water-level: 15 ft.

Water-level when pumping: 30 ft.

Water sample was sent to the state laboratory at: Kenosha (City) on Dec 31 1951

Signature Earl Acker (Registered Well Driller) Rt. 14 Box 632 Milwaukee (Complete Mail Address)

Please do not write in space below

Rec'd 1-2-52 No. 58

Ans'd 1-4-52

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner ____

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

NE¼ SE¼ T7N R21E

See Instructions on Reverse Side

1. County Milwaukee — Town ☑ / Village ☐ / City ☐ Greenfield (Check one and give name)

2. Location So. 109th & So. of Hayes Circle
Name of street and number of premise or section, Town and Range numbers

3. Owner ☑ or Agent ☐ Joe Krasevec
Name of individual, partnership or firm

4. Mail Address 1616 Conrad Pl. West Allis 14
Complete address required

RECEIVED FEB 10 1953 WISCONSIN DEPARTMENT OF HEALTH SANITATION

5. From well to nearest: Building 5 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed 60 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	30			
5	30	62			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Steel	0	62

9. GROUT:

Kind	From (ft.)	To (ft.)
Drill Cuttings	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sandy Clay	0	40
Clay	40	60
Gravel	60	62

Construction of the well was completed on: January 24 1953

The well is terminated 8 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ____ No ✓

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 12 GPM.

Depth from surface to water-level: 15 ft.

Water-level when pumping: 17 ft.

Water sample was sent to the state laboratory at: Kenosha City on Jan. 26 1953

Signature Ronald J. Carey — Registered Well Driller

R. 11 Box 291 West Allis 14 — Complete Mail Address

Please do not write in space below

Rec'd 2-4-53 No. 1852

Ans'd 2-5-53

Interpretation Unsafe

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	+	+	+	+	0
48 hrs.					
Confirm					
B. Coli					

Examiner C. C.

Wd. 6

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Mil (T6N R21E) — Town ☐ Village ☐ City ☑ West Allis — Check one and give name

2. Location 2667 So. 107th St. (SW, SW NW Sec. 8) — Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Mr. John Burghaus — Name of individual, partnership or firm

4. Mail Address Same — Complete address required

5. From well to nearest: Building 15 ft; sewer 50 ft; drain 50 ft; septic tank 50 ft; dry well or filter bed ____ ft; abandoned well ____ ft.

6. Well is intended to supply water for: home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	25			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	1945 Steel	0	110

9. GROUT:

Kind	From (ft.)	To (ft.)
Puddle Clay	0	25

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Puddle Clay	0	25
Sandy Clay		40
Hard Pan		20
Sand + Gravel		25
		110

Construction of the well was completed on: March 20 1956

The well is terminated 12 inches ☐ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 10 Hrs. at 8 GPM.

Depth from surface to water-level: ____ ft.

Water-level when pumping: ____ ft.

Water sample was sent to the state laboratory at: Madison (City) on March 21 1956

Signature Lloyd J. Schaefer (Registered Well Driller) 5591 So. 42 St. Mil 15, Wis. (Complete Mail Address)

Please do not write in space below

Rec'd MAR 22 1956 No. 7229

Ans'd ____

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

plot

62430

Examiner ____

Wel. 6-30M (6-50)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

RECEIVED MAY 21 1951 BUREAU SAN. ENG.

1. County Milwaukee · Town ☑ Village ☐ City ☐ Greenfield
Check one and give name

2. Location 2449 So. 107th St. SW NW NW Sec. 8 T6N R21E
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Raymond Nolte
Name of individual, partnership or firm

4. Mail Address 2449 So. 107th St. West Allis 14, Wis.
Complete address required

5. From well to nearest: Building 15 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed ____ ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	20			
6	20	85			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Steel	0	85

9. GROUT:

Kind	From (ft.)	To (ft.)
Drill Cuttings	0	20

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sandy Clay	0	35
Gravely Clay	35	80
Gravel	80	85

Construction of the well was completed on: May 11 19 51

The well is terminated 8 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?
Yes ____ No ✓

Was the well sealed watertight upon completion?
Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 5 Hrs. at 12 GPM.

Depth from surface to water-level: 20 ft.

Water-level when pumping: 30 ft.

Water sample was sent to the state laboratory at: Madison (City) on May 14 1951

Signature Gerald J. Carey
Registered Well Driller

R 11 Box 291 West Allis 14, Wis.
Complete Mail Address

Please do not write in space below

Rec'd MAY 15 1951 No. 6351

Ans'd ____

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	0	0	0	0	0
48 hrs.	0	0	0	+	+
Confirm					
B. Coli	0	0	0	+	+ plot

Examiner ____ 624306

WNW NW SEC. 8 T.6 N. R.21 E.

Wis. 6

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

NW NW NW Sec 8, T6N R21E

1. County Milwaukee — Town ☐ Village ☐ City ☑ West Allis (Check one and give name)

2. Location 2328 S. 107 St. — NW NW NW Sec 8
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Carl Neumann
Name of individual, partnership or firm

4. Mail Address 2328 S 107 St. West Allis
Complete address required

RECEIVED JUN 2 1955 ENVIRONMENTAL SANITATION

5. From well to nearest: Building 15 ft; sewer 47 ft; drain 15 ft; septic tank 51 ft; dry well or filter bed ℄ ft; abandoned well ℄ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	33			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Steel	0	

9. GROUT:

Kind	From (ft.)	To (ft.)
clay	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Red clay	14	14
Blue clay	81	95
Gravel	5	100
Blue clay	3	103
Limestone	1	104
Blue clay	3	107
Hard Pan	4	111
Limestone	6	117

11. MISCELLANEOUS DATA:

Yield test: 14 Hrs. at 12 GPM.

Depth from surface to water-level: 25 ft.

Water-level when pumping: 50 ft.

Water sample was sent to the state laboratory at: Madison City on 5-25 1955

Construction of the well was completed on: 5-25 1955

The well is terminated 9 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Signature John Bros 8620 W National Ave West Allis 14 Wis
Registered Well Driller — Complete Mail Address

Please do not write in space below

19886

Rec'd MAY 26 1955 No

Ans'd

Interpretation

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	Dil 5				

Examiner

State of Wisconsin
Department of Natural Resources

PAL

CHAIN OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

Note: This form is required by the Department of Natural Resources for leaking underground storage tank sites in compliance with ch. NR 500-540, NR 158 and NR 419, Wis. Adm. Code.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
M. Volkert	Cooper Environmental Resources	414-338-9697
Property Owner	**Property Address**	**Telephone Number (include area code)**
Menards West Allis #9209020	2535 S. 108 St West Allis, WI	

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
Mark Volkert	9-21-92 / 1:45	Richard Lesley
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)

Temperature of temperature blank: 4°C

If samples were received on ice and there was ice remaining, you may report the temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

9209240

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote 2)	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
MWA/WB	9-21-92	11:00	Soil	Spoon		Menards West Allis/ West Base	DRO / DRY WT	-1	2-2 oz / 1-4 oz	✓			
MWA/EB	9-21-92	11:15	Soil	Spoon		Menards West Allis/ East Base	DRO / DRY WT	-2	2-2 oz / 1-4 oz	✓			
MWA/EW2'	9-21-92	11:30	Soil	Spoon		Menards West Allis/ East Wall 2 ft.	DRO / DRY WT	-3	2-2 oz / 1-4 oz	✓			
IWA/WMA	9-21-92	12:00	Soil	Spoon		Menards West Allis Waste Management of North America	DRY WT / DRO / DI / Benzene / Free liquid	-4 / Protocol / -5	2-2 oz / 1-Liter	✓			

[1] Specify groundwater, surface water, soil, leachate, sludge, etc.

[2] Sample description must clearly correlate the sample ID to the sampling location.

* Special RATE - See Gary Pfister

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ____ days

☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)

Accepted? ☐ Yes ☐ No (Check one)

Accepted By: _____
Signature

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Phone: (414) 272-5222

Cooper Environmental
1411 North Main Street
West Bend, WI 53095

Attn: M. Volkert
Invoice Number:

Order #: 92-09-240
Date: 10/09/92 18:33
Work ID: 920902A
Date Received: 09/21/92
Date Completed: 10/09/92
Client Code: COOPER_ENV

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	MWA/WB	03	MWA/EW2
02	MWA/EB	04	MWA/WMA

Laboratory ID Number (Wisconsin DNR): 241369260

Certified By
Jeff Bushner,Linda Woodie

Sample: 01A MWA/WB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	25		mg/kg	10/05/92	SEL

Sample: 02A MWA/EB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	34		mg/kg	10/05/92	SEL

Sample: 03A MWA/EW2 **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	3400		mg/kg	10/06/92	SEL

Sample: 04A MWA/WMA **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Appearance	SOLID		-	09/25/92	MHM
BTEX Soil					
Benzene	< 1.0		ug/kg	10/01/92	LJS
Toluene	1.3		ug/kg	10/01/92	LJS
Ethyl Benzene	7.8		ug/kg	10/01/92	LJS
Total Xylenes	24		ug/kg	10/01/92	LJS
Color	BROWN		-	09/25/92	MHM
Flash Point, Open Cup	> 210		degrees F	09/30/92	MJH
Free Liquids	0		%	09/25/92	MHM
Layers	1		-	09/25/92	MHM
Mod. DRO (WDNR)	3400		mg/kg	10/04/92	SEL
Odor	SLIGHT		-	09/25/92	MHM

The organic data is reported out on a dry-weight basis.

Sample was covered air tight in approved container, shipped in cooler from the source to our lab, temperature upon arrival was 4 degrees C.

The samples ordered for BTEX were analyzed by EPA Method 8020 (40 CFR 136 Appendix A, "Methods for Organic Analysis of Municipal and Industrial Waste.").

The samples ordered for DRO were analyzed by the Wisconsin DNR Modified DRO method.

PAL

State of Wisconsin
Department of Natural Resources

CHAIN OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

Note: This form is required by the Department of Natural Resources for leaking underground storage tank sites in compliance with ch. NR 500-540, NR 158 and NR 419, Wis. Adm. Code.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
Greg Taubner	Env. Scientist — Cooper Environmental Resources	414-338-9697
Property ~~Owner~~	**Property Address**	**Telephone Number (include area code)**
Menards Cashway Lumber - West Allis, WI #920902	2535 S. 108th Street, West Allis, WI	338-9697

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
[signature]	12/8/93 12:30	[signature]
Relinquished By (Signature)	Date/Time	Received By (Signature)
	12/9/93 0800	[signature]
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)
		[signature]

Temperature of temperature blank: 4°C

If samples were received on ice and there was ice remaining, you may report the temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

312113

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote [2])	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked/Broken	Sample Condition: Improperly Sealed	Sample Condition: Good Condition	Other Comments
1 JA/OE-SS-NW	12/6/93	9:00	Soil	Trowel	—	NorthWall	DRO		3-2oz.	DRO (1)	DRO (1)	PVOC DRO (1)	
						*	PVOC						
2 JA/OE-SS-EW	12/6/93	10:15	Soil	Trowel	—	EastWall	DRO		3-2oz.	(1)	(1)	(1)	
						*	PVOC						
3 JA/OE-SS-SW	12/6/93	10:20	Soil	Trowel	—	SouthWall	DRO		3-2oz.	(1)	(1)	(1)	
						*	PVOC						
4 JA/OE-SS-WW	12/6/93	9:25	Soil	Trowel	—	WestWall	DRO		3-2oz.	(1)	(1)	(1)	
						*	PVOC						
5 JA/OE-SS-Bottom	12/6/93	9:40	Soil	Trowel	—	Bottom	DRO		3-2oz.	(1)	(1)	(1)	
						*	PVOC						

[1] Specify groundwater, surface water, soil, leachate, sludge, etc.

[2] Sample description must clearly correlate the sample ID to the sampling location.

*Low Level PVOC

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ____ days

☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)

Accepted? ☐ Yes ☐ No (Check one)

Accepted By: _____
Signature

PRECISION ANALYTICAL LABORATORY

205 WEST GALENA
MILWAUKEE, WI 53212
(414) 272-5222

12/17/93
14:04

Analytical Report

Attn: Greg Taubner
Client: Cooper Environmental
1411 North Main Street
West Bend, WI 53095

WORK ID: 920902

Date Received: 12/08/93
Date Reported: 12/17/93

PAL ORDER #: 9312113

SAMPLE DESCRIPTION	LAB ID	DATE COLLECTED
MWA/OE-SS-NW	01A	12/06/93
MWA/OE-SS-NW	01B	12/06/93
MWA/OE-SS-EW	02A	12/06/93
MWA/OE-SS-EW	02B	12/06/93
MWA/OE-SS-SW	03A	12/06/93
MWA/OE-SS-SW	03B	12/06/93
MWA/OE-SS-WW	04A	12/06/93
MWA/OE-SS-WW	04B	12/06/93
MWA/OE-SS-BOTTOM	05A	12/06/93
MWA/OE-SS-BOTTOM	05B	12/06/93

Laboratory ID Number (Wisconsin DNR): 241369260

Reviewed By

Rosemary L. Dineen

Rosemary L. Dineen

Laboratory Director

PRECISION ANALYTICAL LABORATORY

CLIENT: **Cooper Environmental**

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
Sample ID: MWA/OE-SS-NW			Lab ID:	9312113-01A		Collected: 12/06/93	
Dry Weight - Organic	89		%	12/10/93		MDA	
Mod. DRO (WDNR), Soil							WDNR MDRO
Diesel Range Organics	12	5.0	mg/kg	12/16/93	12/09/93	CJG	
Heavier than DRO	NP		mg/kg	12/16/93	12/09/93	CJG	
Sample ID: MWA/OE-SS-NW			Lab ID:	9312113-01B		Collected: 12/06/93	
VOC Soil							8020
Benzene	BQL	1.1	ug/kg	12/10/93		EMC	
Ethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
Methyl-t-butylether	BQL	1.1	ug/kg	12/10/93		EMC	
Toluene	BQL	1.1	ug/kg	12/10/93		EMC	
1,2,4-Trimethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
1,3,5-Trimethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
Total Xylenes	BQL	2.3	ug/kg	12/10/93		EMC	
Sample ID: MWA/OE-SS-EW			Lab ID:	9312113-02A		Collected: 12/06/93	
Dry Weight - Organic	84		%	12/10/93		MDA	
Mod. DRO (WDNR), Soil							WDNR MDRO
Diesel Range Organics	BQL	5.1	mg/kg	12/15/93	12/09/93	CJG	
Heavier than DRO	NP		mg/kg	12/15/93	12/09/93	CJG	
Sample ID: MWA/OE-SS-EW			Lab ID:	9312113-02B		Collected: 12/06/93	
PVOC Soil							8020
Benzene	BQL	1.2	ug/kg	12/10/93		EMC	
Ethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Methyl-t-butylether	BQL	1.2	ug/kg	12/10/93		EMC	
Toluene	3.3	1.2	ug/kg	12/10/93		EMC	
1,2,4-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
1,3,5-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Total Xylenes	BQL	2.4	ug/kg	12/10/93		EMC	
Sample ID: MWA/OE-SS-SW			Lab ID:	9312113-03A		Collected: 12/06/93	
Dry Weight - Organic	82		%	12/10/93		MDA	
Mod. DRO (WDNR), Soil							WDNR MDRO
Diesel Range Organics	BQL	7.0	mg/kg	12/16/93	12/09/93	CJG	
Heavier than DRO	NP		mg/kg	12/16/93	12/09/93	CJG	

BQL - Below Quantification Limit NP - Not Present P - Present

CLIENT: Cooper Environmental

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
Sample ID: MWA/OE-SS-SW			**Lab ID:**	**9312113-03B**		**Collected:**	**12/06/93**
PVOC Soil							8020
Benzene	BQL	1.2	ug/kg	12/10/93		EMC	
Ethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Methyl-t-butylether	BQL	1.2	ug/kg	12/10/93		EMC	
Toluene	5.3	1.2	ug/kg	12/10/93		EMC	
1,2,4-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
1,3,5-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Total Xylenes	BQL	2.4	ug/kg	12/10/93		EMC	
Sample ID: MWA/OE-SS-WW			**Lab ID:**	**9312113-04A**		**Collected:**	**12/06/93**
Dry Weight - Organic	89		%	12/10/93		MDA	
Mod. DRO (WDNR), Soil							WDNR MDRO
Diesel Range Organics	BQL	5.1	mg/kg	12/16/93	12/09/93	CJG	
Heavier than DRO	NP		mg/kg	12/16/93	12/09/93	CJG	
Sample ID: MWA/OE-SS-WW			**Lab ID:**	**9312113-04B**		**Collected:**	**12/06/93**
PVOC Soil							8020
Benzene	BQL	1.1	ug/kg	12/10/93		EMC	
Ethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
Methyl-t-butylether	BQL	1.1	ug/kg	12/10/93		EMC	
Toluene	1.5	1.1	ug/kg	12/10/93		EMC	
1,2,4-Trimethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
1,3,5-Trimethylbenzene	BQL	1.1	ug/kg	12/10/93		EMC	
Total Xylenes	BQL	2.2	ug/kg	12/10/93		EMC	
Sample ID: MWA/OE-SS-BOTTOM			**Lab ID:**	**9312113-05A**		**Collected:**	**12/06/93**
Dry Weight - Organic	84		%	12/10/93		MDA	
Mod. DRO (WDNR), Soil							WDNR MDRO
Diesel Range Organics	BQL	5.2	mg/kg	12/16/93	12/09/93	CJG	
Heavier than DRO	NP		mg/kg	12/16/93	12/09/93	CJG	
Sample ID: MWA/OE-SS-BOTTOM			**Lab ID:**	**9312113-05B**		**Collected:**	**12/06/93**
PVOC Soil							8020
Benzene	BQL	1.2	ug/kg	12/10/93		EMC	
Ethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Methyl-t-butylether	BQL	1.2	ug/kg	12/10/93		EMC	
Toluene	4.8	1.2	ug/kg	12/10/93		EMC	

BQL - Below Quantification Limit NP - Not Present P - Present

CLIENT: Cooper Environmental

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
PVOC Soil							8020
1,2,4-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
1,3,5-Trimethylbenzene	BQL	1.2	ug/kg	12/10/93		EMC	
Total Xylenes	BQL	2.4	ug/kg	12/10/93		EMC	

BQL - Below Quantification Limit NP - Not Present P - Present

PRECISION ANALYTICAL LABORATORY

12/17/93

Report Comments

CLIENT: Cooper Environmental

PAL Order #: 9312113

All analysis as per approved method found in one or more of the following:
Standard Methods for Evaluation of Water and Wastewater, 17th Edition
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed or certified by Precision Analytical Laboratory

The organic data is reported out on a dry-weight basis.

isconsin Department of Industry,
bor and Human Relations

or Office Use Only:
nk ID #

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Information Required By Sec. 102.142, Wis. Stats.

Send Completed Form To:
Safety & Buildings Division
P.O. Box 7969
Madison, WI 53707
Telephone (608) 267-5280

nderground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. lease see the reverse side for additional information on this program. An underground storage tank is defined as any tank lth at least 10 percent of its total volume (included piping) located below ground level. A separate form is needed for ch tank. Send each completed form to the agency designated in the top right corner. Have you previously registered is tank by submitting a form? ☒ YES ☐ NO If yes, are you correcting/updating information only? ☒ Yes ☐ No

his registration applies to a tank that is (check one):
1. ☐ In Use or 1B. ☐ Newly Installed
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☒ Closed - Tank Removed
6. ☐ Closed - Filled With Inert Material
7. ☐ Out of Service - Provide Date: _____
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: West Allis

IDENTIFICATION: (Please Print)

Tank Site Name	Site Address	Site Telephone No.
Menard's	2535 S. 108th St.	(414) 545-1903

City	☐ Village	☐ Town of:	State	Zip Code	County
West Allis			WI	53227	Milwaukee

Owner Name (mail sent here unless Indicated otherwise in #3 below)	Owner Mailing Address (mail sent here unless indicated otherwise in #3)
Menard Inc	4777 Menard Drive

City	☐ Village	☐ Town of:	State	Zip Code	County
Eau Claire			WI	54703	Eau Claire

Alternate Mailing Name If Different Than #2	Alternate Mailing Street Address If Different From #2

☐ City	☐ Village	☐ Town of:	State	Zip Code	County

Tank Age (date installed, if known: or years old)	5. Tank Capacity (gallons)	6. Tank Manufacturer's Name (if known)
Unknown	550	Unknown

TYPE OF USER (check one):
1. ☐ Gas Station
2. ☐ Bulk Storage
3. ☐ Utility
4. ☐ Mercantile
5. ☐ Industrial
6. ☐ Government
7. ☐ School
8. ☐ Residential
9. ☐ Agricultural
10. ☒ Other (specify): Lumber Yard

TANK CONSTRUCTION:
1. ☒ Bare Steel
2. ☐ Cathodically Protected and Coated Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined - Date _____
7. ☐ Steel - Fiberglass Reinforced Plastic Composite
9. ☐ Unknown

Approval: 1. ☒ Nat'l Std. 2. ☐ UL 3. ☐ Other: | Is Tank Double Walled? ☐ Yes ☒ No

Overfill Protection Provided? ☐ Yes ☒ No If yes, identify type: | Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☐ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less) None

PIPING CONSTRUCTION
1. ☒ Bare Steel
2. ☐ Cathodically Protected and Coated or Wrapped Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
9. ☐ Unknown

Piping System Type: 1. ☐ Pressurized piping with: A. ☐ auto shutoff; B. ☐ alarm; or C. ☐ flow restrictor 2. ☐ Suction piping with check valve at tank 3. ☒ Suction piping with check valve at pump and inspectable

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring 3. ☐ Groundwater monitoring 4. ☐ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required None

Approval: 1. ☒ Nat'l Std 2. ☐ UL 3. ☐ Other: | Double Walled: ☐ Yes ☒ No

TANK CONTENTS
1. ☒ Diesel
2. ☐ Leaded
3. ☐ Unleaded
4. ☐ Fuel Oil
5. ☐ Gasohol
6. ☐ Other
7. ☐ Empty
8. ☐ Sand/Gravel/Slurry
9. ☐ Unknown
10. ☐ Premix
11. ☐ Waste Oil
12. ☐ Propane
13. ☐ Chemical * _____ _____ _____
14. ☐ Kerosene
15. ☐ Aviation

If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste.

Tank Closed: Give Date (mo/day/yr):	Has a site assessment been completed? (see reverse side for details)
9/21/92	☒ Yes ☐ No Cooper Environmental

Installation of a new tank is being reported, indicate who performed the installation inspection:
1. ☐ Fire Department
2. ☐ DILHR
3. ☐ Other (identify) _____

Name of Owner or Operator (please print):	Indicate Whether:
Bryan Wilson	☐ Owner or ☒ Operator
Signature of Owner or Operator: Bryan Wilson	Date Signed: 9/21/92

SBD-7437 (R. 12/91)

IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient information may cause you to fall under additional regulations.

The State of Wisconsin

Dept. of Industry, Labor & Human Relations
Safety & Buildings Division

Certification

Expiration Date:	Certification Number:
05/01/94	01522

Activity:

SA

Name:

MARK C VOLKERT

CENTRAL TANK SERVICE, INC.

1904 S. 71st Street
West Allis, WI 53219
(414) 543-4800

INVOICE

Date September 25, 1992 # 2432

To Petroleum Equipment 466-3000
3950 W. Douglas
Milwaukee, WI 53209

Description of Services	
September 21	
Clean and prepare for scrap one 550	
gallon diesel tank located at Menards	
2535 S. 108th St., West Allis	
Two men for 1 hour at $40/hour/man	$ 80.00
One 55 gallon drum at $20/drum	$ 20.00
S3327	
SEP 28 1992	
50110	
S23327	N/15 Days
TOTAL	$100.00

Job Bene

MIDSTATE OIL
P.O. BOX 32
LITTLE SUAMICO, WI 54141
414-433-4501

CUSTOMER'S ORDER NO.	DEPT.	DATE
		10-14-92

NAME Petroleum Equipment Inc.

ADDRESS 3950 W. Douglas ave. Milwaukee WI 53209

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RTD.	PAID OUT

QUAN.		DESCRIPTION	PRICE	AMOUNT	
1	1	drum diesel fuel	110.00	110	00
	2				
	3				
	4	Picked up at			
	5	Menards			
	6	2535 South 108 St.			
	7	West Allis WI			
	8				
	9	3327			
	10	RECEIVED			
	11	OCT 16 1992			
	12	Cooper			
	13	RECEIVED			
	14	PETROLEUM EQUIPMENT			
	15				
	16				
	17	Tax		5	50
	18	Total		115	50

REC'D BY

REDIFORM
5L350/01350

KEEP THIS SLIP FOR REFERENCE

X1.15 = $132.83

Billed on 11th Partial 10/30/92

Received from Petroleum Equipment, Inc., the following tank(s) for scrap.

Tank Size	Owner/Site	Job#	Address
550	Menards West Allis	5-3327	2535 S. 108th St. West Allis

All tanks de-fumed, cleaned and rendered harmless. Tanks to be cut in manageable pieces on site, removed and sold for scrap.

Signed R-D. Smith

Date 9/22/92

SMITTY'S SCRAP IRON
1701 W. WRIGHT
MILWAUKEE, WI 53206

Cooper
ENVIRONMENTAL RESOURCES INC

FILE

October 6, 1993

Mr. Chip Krohn
LUST Hydrogeologist
Wisconsin Department of Natural Resources
Southeast District - Richards Street Annex
4041 N. Richards Street
P.O. Box 12436
Milwaukee, WI 53212

RE: Landfill Variance Request for Soils to be Disposed of from Menards Cashway Lumber - West Allis Yard, 2535 S. 108th Street, West Allis, Wisconsin

Dear Mr. Krohn,

Pursuant to our telephone conversation on September 14, 1993, Cooper Environmental & Engineering Resources, Inc. (Cooper) would petition the Wisconsin Department of Natural Resources (WDNR) for a variance request for landfilling of petroleum impacted soils at the Waste Management of Wisconsin (WMWI) Metro Landfill in Franklin, Wisconsin. Cooper proposes to the WDNR to excavate and landfill soils from the Menards - West Allis Yard that exceed the 2,000 Total Petroleum Hydrocarbon (TPH) standard established by the WDNR and WMWI. As indicated by the WDNR to Cooper, the following correspondence is presented to provide justification for the Cooper petition.

Background

On September 21, 1993, Petroleum Equipment Inc. of Milwaukee, Wisconsin completed UST removal and excavation operations. A Cooper representative, DILHR Certification No. 01840, was present on-site during the removal operations to perform environmental monitoring and sample collection activities. The UST was located in one common excavation located west of the main facility (Figure 1). The excavation was completed by removing surface materials and soils from around the tanks and exposing the sides and top of each tank. The UST was located approximately three feet below ground surface (bgs). Product piping and the product dispenser were located atop the southeast corner of the tank. The extraction of the UST resulted in a final excavation dimension of 11 feet by 10 feet by 9 feet deep.

Backfill surrounding the tank consisted of sand and gravels. Native soils consist of reddish brown silty clay. Groundwater was not encountered during tank removal activities.

Specific observations pertaining to the excavated tank are as follows:

Removal Date	Dimensions	Conditions
9-21-93	4'0" x 6'2"	550-gallon diesel fuel containing, epoxy coated steel, no noticeable holes or leaks, slight surface corrosion

The piping consisted of single wall steel. All piping was observed to have no noticeable holes or leaks; however, slight visible surface corrosion was observed. The product dispenser was observed to be in good condition.

Cooper personnel observed indications of petroleum product soil staining on the southeast corner of the excavation at a depth of approximately 2 feet. Cooper personnel also recorded a noticeable product odor to be emanating from that location. This impacted location corresponds to the former location of the product dispenser.

Field screenings for Ionizable Organic Compound (IOC) content were conducted with a Model 580B Thermal Environmental Instruments Organic Vapor Monitor (OVM). The OVM is equipped with a 10.6 eV lamp, a positive displacement pump, and is calibrated to an Isobutylene standard of 100 parts per million (ppm). A total of thirteen tank excavation split soil samples were field screened. Laboratory submitted samples were not field screened.

Field screening procedures were conducted in the following manner. Soil samples were broken up and placed in clean glass sample containers. Each container was covered with aluminum foil and capped with a Teflon-lined screw lid. Each sample was agitated and allowed to warm to 70°F for a minimum of 20 minutes. The OVM sampling probe was then inserted into the headspace by breaking the aluminum foil seal. The highest IOC reading, in ppm instrument units (i.u.) was ascertained and logged.

Native soils from the UST excavation were monitored with an OVM to assess the concentration of IOCs within the soil. Concentrations of IOCs were indicated by the OVM during soil excavation activities ranging from 0.9 to 119 ppm i.u. (Table 1). Based on field observations and OVM indications during tank removal activities, the excavated soils appeared to have been impacted by petroleum product residuals. The excavated soils were placed back into the UST excavation due to vehicle and pedestrian traffic concerns.

Soil samples submitted for laboratory analysis were collected from areas displaying either the highest measured OVM indications, visual signs of product staining, and/or a product odor. Soil samples were submitted to Precision Analytical Laboratories for the analyte

(product) known to have been contained within the UST (diesel fuel). A total of three locations were sampled and submitted for laboratory analysis of Total Petroleum Hydrocarbons (TPH) using a Diesel Range Organics (DRO) standard.

The DRO laboratory analysis results for each of the submitted tank excavation soil samples are summarized in Table 2. Also included in Table 2 are OVM field screening results of soil samples collected as splits as previously described.

Laboratory analysis results from the three submitted closure samples indicated the following:

- Three soil samples were submitted for DRO analysis. Laboratory results indicate detectable DRO concentrations ranging from 25 mg/kg (MWA/WB) and 34 mg/kg (MWA/EB) in soil samples collected from beneath the west bottom and east bottom of the tank excavation to 3,400 mg/kg (MWA/EW2) in the soil sample collected from soils located approximately two feet below the former fuel dispenser.

One composite soil sample (MWA/WMA) was submitted for laboratory analysis for eventual landfilling of the on-site impacted soils. The composite soil sample was collected from the temporary impacted soil stockpile accumulated during tank removal activities. The waste profile analytical results are summarized in Table 3.

Laboratory analytical result sheets and chain-of-custody forms are presented in Attachment 1. Validation of holding time and date of analyses were checked upon receipt of analytical result sheets from the laboratory. Based upon the information supplied by the laboratory, holding times for the requested analyses were not exceeded. Verification dates are included on the soil analytical data sheets.

Conclusions and Recommendations

Based on field observations, soil monitoring, and laboratory analysis a relatively confined area of petroleum impacted soil appears to be present on-site. Soil sample analyses from beneath the former tank location do not display TPH-DRO concentrations above 34 mg/kg. The area displaying excessive TPH-DRO concentrations (3,400 mg/kg) corresponds to the former location of the system fuel dispenser. This area was observed to be located on the southeast corner of the tank excavation at a depth of approximately two feet.

Based on the above presented conclusions, Cooper suggests that a limited overexcavation in the excessive TPH-DRO concentration displaying location may successfully remediate the impacted area. Utilizing the standard five foot WDNR overexcavation guideline, Cooper estimates the amount of impacted soil to not exceed 85 cubic yards.

Cooper petitions the WDNR for permitting the disposal of the excessive TPH-DRO impacted soil at the WMWI-Metro Landfill. Should the quantity of impacted soil appear to exceed the 85 cubic yard soil estimate, Cooper will recommend to the client the commencement of site investigation activities. Cooper appreciates your expedited review of this correspondence and will be more than pleased to present additional information if requested.

Sincerely,
Cooper Environmental & Engineering Resources, Inc.

Paul E. Miller
Senior Environmental Scientist

Robert L. Hackenberg
Director of Operations

PEM/rab
Enclosures
MenWesAll.WMA

cc: Mr. Dennis Behrens, Menard, Inc.

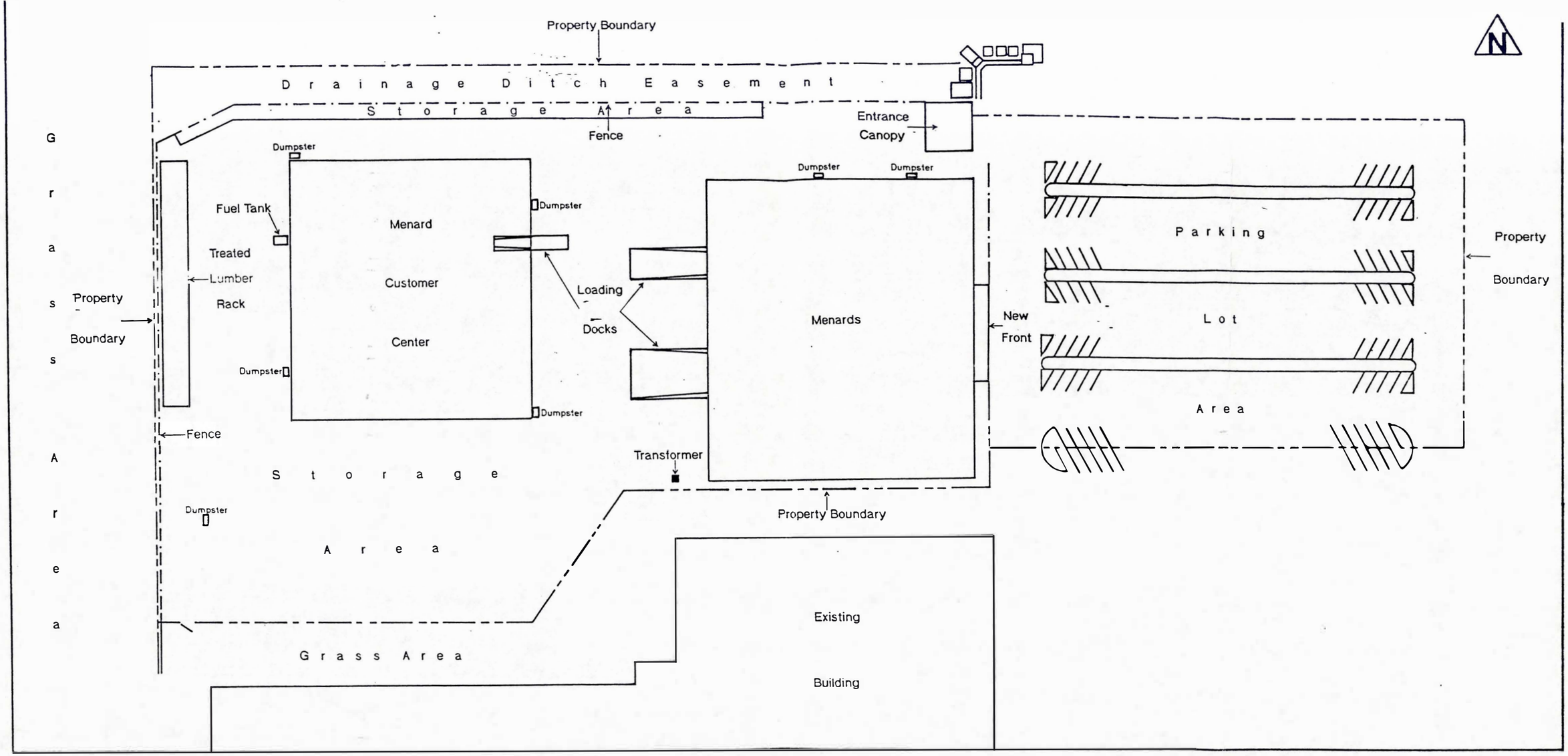


Figure 1
SITE LAYOUT

Menard – West Allis

2535 S. 108th Street

West Allis, WI

Scale: 1 : 80
Date: 10/1/92
Drawn By PDF

Cooper
ENVIRONMENTAL RESOURCES INC.
1411 North Main Street, West Bend, Wisconsin 53095
Project # – 920902 A & B

Table 1
Menards - West Allis Yard
West Allis, Wisconsin
Tank Excavation OVM Readings

OVM Sample Number	Sample Location	Depth (ft.) *bgs	Field OVM Reading (i.u.) ppm
OVM #1	Excavated Soils	3.5	93.0
OVM #2	Excavated Soils	3.5	0.9
OVM #3	Excavated Soils	3.5	125.0
OVM #4	Excavated Soils	6.0	0.9
OVM #5	Excavated Soils	6.5	2.0
OVM #6	Excavated Soils	6.0	50.5
OVM #7	Excavated Soils	7.5	5.5
OVM #8	Excavated Soils	8.0	8.5
OVM #9	Excavated Soils	8.0	2.1
OVM #10	Excavated Soils	7.0	7.8
MWA/WB	West Bottom of Tank Excavation	10.5	5.9
MWA/EB	East Bottom of Tank Excavation	10.5	7.8
MWA/EW2	East Wall of Tank Excavation	2.0	119.0

*bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million

Table 2
Menards - West Allis Yard
Tank Excavation Samples
and
Analytical Results Summary

Soil Sample Number	Sample Location	Depth of Sample (ft.) "bgs	Date Collected	Field OVM Reading (i.u.)	Analytical Results (mg/l)
					WDNR (Mod)
					DRO
MWA/WB	Tank Excavation - West Wall	10.5	9-21-93	5.9	25
MWA/EB	Tank Excavation - East Wall	10.5	9-21-93	7.8	34
MWA/EW2	Tank Excavation - East Wall	2.0	9-21-93	119	3,400

"bgs = Below ground surface
i.u. = Instrument Units
ppm = Parts per million
mg/kg = Parts per million

Table 3
Menards - West Allis Yard
West Allis, Wisconsin
Diesel Tank
Waste Profile Sample Analytical Results

Parameter	Sample No. MA/Waste Profile
Appearance	Solid
Total Solids	100%
Layers	Single
Free Liquids	0%
Color	Brown
Odor	Slight
Flash Point	>210°F
PVOCs DETECTED Method 8240 (µg/kg)	
Benzene	<1.0
Ethylbenzene (300)	7.8
Toluene (300)	1.3
Xylenes, Total	24
DRO (10 mg/kg)	3,400

µg/kg = micrograms per liter
mg/kg = milligrams per kilogram

Precision Analytical Lab, Inc
205 West Calena
Milwaukee, WI 53212

Phone: (414) 272-5222

Cooper Environmental
1411 North Main Street
West Bend, WI 53095

Attn: M. Volkert
Invoice Number:

Order #: 92-09-240
Date: 10/09/92 18:33
Work ID: 920902A
Date Received: 09/21/92
Date Completed: 10/09/92
Client Code: COOPER_ENV

Menards - West Allis

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	MWA/WB	03	MWA/EW2
02	MWA/EB	04	MWA/WMA

Laboratory ID Number (Wisconsin DNR): 241369260

Certified By
Jeff Bushner, Linda Woodie

Sample: 01A MWA/WB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	25		mg/kg	10/05/92	SEL

Sample: 02A MWA/EB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	34		mg/kg	10/05/92	SEL

Sample: 03A MWA/EW2 **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	3400		mg/kg	10/06/92	SEL

Sample: 04A MWA/WWA **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Appearance	SOLID		-	09/25/92	MEM
BTEX Soil					
Benzene	< 1.0		ug/kg	10/01/92	LJS
Toluene	1.3		ug/kg	10/01/92	LJS
Ethyl Benzene	7.8		ug/kg	10/01/92	LJS
Total Xylenes	24		ug/kg	10/01/92	LJS
Color	BROWN		-	09/25/92	MEM
Flash Point, Open Cup	> 210		degrees F	09/30/92	MJH
Free Liquids	0		%	09/25/92	MEM
Layers	1		-	09/25/92	MEM
Mod. DRO (WDNR)	3400		mg/kg	10/04/92	SEL
Odor	SLIGHT		-	09/25/92	MEM

The organic data is reported out on a dry-weight basis.

Sample was covered air tight in approved container, shipped in cooler from the source to our lab, temperature upon arrival was 4 degrees C.

The samples ordered for BTEX were analyzed by EPA Method 8020 (40 CFR 136 Appendix A, "Methods for Organic Analysis of Municipal and Industrial Waste.").

The samples ordered for DRO were analyzed by the Wisconsin DNR Modified DRO method.

State of Wisconsin
Department of Natural Resources

PAL

CHAIN OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

Note: This form is required by the Department of Natural Resources for leaking underground storage tank sites in compliance with ch. NR 500-540, NR 158 and NR 419, Wis. Adm. Code.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
M. Volkert	Cooper Environmental Resources	414-338-9697
Property Owner	**Property Address**	**Telephone Number (include area code)**
Menards West Allis #920902A	2535 S. 108 St West Allis, WI	

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
Mark Volkert	9-21-92 / 1:45	Richard [illegible]
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)

Temperature of temperature blank: 40 C

If samples were received on ice and there was ice remaining, you may report the temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote 2)	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
MWA/WB	9-21-92	11:00	Soil	Spoon		Menards West Allis/ West Base	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/EB	9-21-92	11:15	Soil	Spoon		Menards West Allis/ East Base	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/EW2'	9-21-92	11:30	Soil	Spoon		Menards West Allis/ East Wall 2 ft.	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/WMA	9-21-92	12:00	Soil	Spoon		Menards West Allis Waste Management of North America	DRY wt / DRO / DI / Protocol / Full Liquid	Protocol	2-2 oz / 1-Liter				

[1] Specify groundwater, surface water, soil, leachate, sludge, etc.

[2] Sample description must clearly correlate the sample ID to the sampling location.

* Special RATE - See Gary Pfister

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ____ days
☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)
Accepted? ☐ Yes ☐ No (Check one)

Accepted By: _____
Signature

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southeast District - Annex building
Post Office Box 12436
4041 N. Richards St.
Milwaukee, Wisconsin 53212
TELEPHONE: 414-961-2727
TELEFAX # : 414-961-2770

Carroll D. Besadny
Secretary

October 25, 1993

File Ref: 4440

Peggy Slind
Waste Management of Wisconsin
N96 W13475 County Line Rd.
Menomonee Falls, WI 53051

Dear Ms. Slind,

RE: Petroleum Contaminated Soils
Menards Cashway
2535 S. 108th
West Allis, WI

Based on the information contained in the attached landfill variance request submitted by Cooper Environmental, the Wisconsin Department of Natural Resources hereby approves the landfilling of soils characterized by the attached Precision Analytical laboratory results.

Since limited remedial options and/or disposal outlets exist for the soils in question, the Wisconsin Department of Natural Resources hereby waives the LUST Program restrictions concerning landfilling of petroleum contaminated soils in excess of 2,000 ppm DRO for the referenced site.

Sincerely,

Charles J. Krohn
Hydrogeologist

c: Paul Miller - Cooper Environmental

Printed on Recycled Paper

APPLICATION TO TREAT OR DISPOSE OF PETROLEUM CONTAMINATED SOIL

Form 4400-120

This form is required by the Department of Natural Resources for leaking underground storage tank sites (Wis. Adm. Code NR 419). Failure to complete and submit this form may lead to violations of subchapters III and IV of ch. 144 Wis. Stats. and may result in forfeitures of not less than $10 or more than $25,000 for each violation, pursuant to ss. 144.426, 144.469, 144.74 (1), and 144.99, Wis. Stats., or fines of not less than $100 or more than $150,000 or imprisonment for not more than 10 years, or both, pursuant to s. 144.74 (2), Wis. Stats. Each day of a continuing violation constitutes a separate violation. Department approval of this form is required prior to site remediation, except for soils to be buried in landfills.

ALL SITES MUST COMPLETE PART I.

Part I. Source of Soil

Site/Facility Name: Menard Cashway Lumber - West Allis Yard

Site I.D. # (for DNR use only):

Site Address: 2535 S. 108th Street

Contact Name: Mr. Dennis Behrens

City, State, Zip Code: West Allis, WI 53227

1/4, 1/4, Section, Township, and Range:

The information on this form is accurate to the best of my knowledge.
NOTE: Waste disposed of in landfills may incur future liability.

Signature: Cooper for Menard, Inc.

Telephone Number (include area code): (715) 876-5911

Consulting Firm: Cooper Environmental & Engineering Resources, Inc.

Contact: Paul Miller

Telephone Number: 414-338-9697

Estimated Volume Contaminated Soil

77.60 (Tons)/cubic yards (circle one)

Soil Type (USCS)

- ___ sand (SP, SW)
- ✓ silty/clayey sands (SM, SC)
- ___ silt (ML, MH, OL)
- ✓ clay (Cl, CH, OH)
- ___ gravel (GC, GM, GP, GW)
- ___ peat (PT)

Type of Petroleum Contamination (Circle):

Gasoline (Diesel Fuel)/#2 Fuel Oil

Other _____

Contaminant concentration:

One screened sample per 15 yds³ and one laboratory analysis per 300 yds³ of contaminated soil *when the PID registers contamination* OR one laboratory analysis per 100 yds³ when the PID *does not register contamination on soil shown to be contaminated during the site investigation/excavation or stockpiling.* PLEASE ATTACH A TABLE SHOWING THE RESULTS OF BOTH FIELD SCREENING AND ANALYSES. IN ADDITION TO PROVIDING THE FOLLOWING INFORMATION.

Total Benzene in soil to be remediated (attach calculations) < 0.13 lbs

Total Petroleum Hydrocarbons in soil to be remediated (attach calculations) 456.01 lbs

Total TPH as 3,400 ppm DRC

Distance to Nearest Residence/Business < 75'

ATTACH EMISSIONS CALCULATIONS

(a/1,000,000) x (2,800 lbs/yd³) x b = benzene emission in lbs., where

a = benzene concentration of soil sample in ppm or mg/kg dry weight basis

b = amount of contaminated soil in yds³

NOTE: This calculation can also be used to estimate TPH emissions by substituting TPH concentration (ppm or mg/kg) for "a." It may also be used to calculate VOCs.

3.91:1.2P

COMPLETE ONLY THOSE SECTIONS OF PART II THAT PERTAIN TO YOUR SITE

Part II: Proposed method of treatment

1. SOIL VENTING/VACUUM EXTRACTION

Note: This option may require an air pollution control permit. An activated carbon unit or similar treatment system to strip VOCs fr the blower discharge will be required if emissions exceed limits established by Air Management. System design and monitoring information must be included.

Contact responsible for system maintenance

Telephone Number (include area code) ..... Anticipated start date

Total VOC discharge rate from Pilot testing or calculations _____ lbs/hr at _____scfm

Benzene Discharge Rate from Pilot testing or calculations _____lbs/hr at _____scfm _____Project Total

2. ANY METHOD OF REMEDIATION NOT LISTED IN PART II (NOTE: For thermal treatment, use Form 4400-121.)

Attach narrative and drawing(s) to describe the remediation method to be used. A final report is required. At a minimum, the information submitted should include the following applicable items:

a. proposed treatment method
b. location/size of remediation site
c. distance to nearest residence/business
d. field sampling methods
e. protective covering and curbing techniques
f. volume estimate and soil thickness needing remediation
g. method of turning/mixing soil
h. highest estimated hourly/daily VOC emissions
i. highest estimated daily/total benzene emissions
k. anticipated startup and completion dates
l. proposed verification method of contaminant content
m. project contact person
n. final destination of soil

LEAVE BLANK - DEPARTMENT OF NATURAL RESOURCES USE ONLY

Application Concurrence:

Air Management _____ Date _____

Project Manager _____ Date _____

Comments:

3. DISPOSAL OF CONTAMINATED SOILS AT A SANITARY LANDFILL-NR 500
NOTE: Landfill data must be within Solid Waste guidelines and must be submitted within 30 days of disposal.
PLEASE COMPLETE PART III BELOW AFTER LANDFILLING IS COMPLETED.

THIS SECTION TO BE COMPLETED BY DISPOSAL FACILITY ACCEPTING CONTAMINATED SOIL

Part III

Transporter Name North Shore Excavating, Inc. Transporter License Number WDNR 12361

Name of landfill WMWI - Metro License No. 01077

Actual Volume of soil landfilled 77.60 Indicate yds³ or (tons) ___ cover soil X buried

Date received at landfill 12/6/93 Accumulated Benzene emissions to date -0-

Signature of facility representative Peggy L. Schmid WM 000181

DIRECTIONS: 1) Complete part I. 2) Select the treatment option in part II. Pretreatment approval is required for any treatment other than landfilling. Submit this form to the DNR project manager for approval. 3) If your treatment option is landfilling, complete part III before submitting the ORIGINAL form to the project manager.

3.91:2

APPLICATION TO TREAT OR DISPOSE OF PETROLEUM CONTAMINATED S
Form 4400-120
EMISSIONS CALCULATIONS

Benzene emission [lbs] = (a/1,000,000) x (2800 lbs/cubic yard) x b

where: a = Benzene concentration of soil sample in ppm or mg/kg (dry wt. basis)
Note: This calculation can also be used to estimate TPH emissions by substituting TPH concentration (ppm or mg/kg) for "a".
b = amount of contaminated soil in cubic yards

For the Menard Inc - West Allis Yard, 77.60 tons of impacted soil was excavated
To obtain a volume, assume a density of 120 lbs/cubic foot:

b = (77.60 tons) x (2000 lbs/ton) x (1 cubic foot/120lbs) x (1 cubic yard/27 cubic feet)

b = 47.90 cubic yards

Use Soil Sample Number MWA/WMA (Waste Profile Sample),

a = [Benzene] = < 1.0 ppb

Benzene emission = (< 1.0/1,000,000) x (2800 lbs/cubic yard) x (47.90 cubic yards)

Benzene emission = < 0.13 lbs

a = [Total TPH] = 3400 ppm as DRO

TPH emission = (3400/1,000,000) x (2800 lbs/cubic yard) x (47.90 cubic yards) =

TPH emission = 456.01 lbs

241617750
ERR LUST

WISCONSIN
DEPT. OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southeast District - Annex building
Post Office Box 12436
4041 N. Richards St.
Milwaukee, Wisconsin 53212
TELEPHONE: 414-961-2727
TELEFAX # : 414-961-2770

October 25, 1993

File Ref: 4440

Peggy Slind
Waste Management of Wisconsin
N96 W13475 County Line Rd.
Menomonee Falls, WI 53051

Dear Ms. Slind,

RE: Petroleum Contaminated Soils
Menards Cashway
2535 S. 108th
West Allis, WI

Based on the information contained in the attached landfill variance request submitted by Cooper Environmental, the Wisconsin Department of Natural Resources hereby approves the landfilling of soils characterized by the attached Precision Analytical laboratory results.

Since limited remedial options and/or disposal outlets exist for the soils in question, the Wisconsin Department of Natural Resources hereby waives the LUST Program restrictions concerning landfilling of petroleum contaminated soils in excess of 2,000 ppm DRO for the referenced site.

Sincerely,

Charles J. Krohn
Hydrogeologist

c: Paul Miller - Cooper Environmental

Printed on Recycled Paper

Cooper
ENVIRONMENTAL RESOURCES INC

October 6, 1993

Mr. Chip Krohn
LUST Hydrogeologist
Wisconsin Department of Natural Resources
Southeast District - Richards Street Annex
4041 N. Richards Street
P.O. Box 12436
Milwaukee, WI 53212

RE: Landfill Variance Request for Soils to be Disposed of from Menards Cashway Lumber - West Allis Yard, 2535 S. 108th Street, West Allis, Wisconsin

Dear Mr. Krohn,

Pursuant to our telephone conversation on September 14, 1993, Cooper Environmental & Engineering Resources, Inc. (Cooper) would petition the Wisconsin Department of Natural Resources (WDNR) for a variance request for landfilling of petroleum impacted soils at the Waste Management of Wisconsin (WMWI) Metro Landfill in Franklin, Wisconsin. Cooper proposes to the WDNR to excavate and landfill soils from the Menards - West Allis Yard that exceed the 2,000 Total Petroleum Hydrocarbon (TPH) standard established by the WDNR and WMWI. As indicated by the WDNR to Cooper, the following correspondence is presented to provide justification for the Cooper petition.

Background

On September 21, 1993, Petroleum Equipment Inc. of Milwaukee, Wisconsin completed UST removal and excavation operations. A Cooper representative, DILHR Certification No. 01840, was present on-site during the removal operations to perform environmental monitoring and sample collection activities. The UST was located in one common excavation located west of the main facility (Figure 1). The excavation was completed by removing surface materials and soils from around the tanks and exposing the sides and top of each tank. The UST was located approximately three feet below ground surface (bgs). Product piping and the product dispenser were located atop the southeast corner of the tank. The extraction of the UST resulted in a final excavation dimension of 11 feet by 10 feet by 9 feet deep.

Backfill surrounding the tank consisted of sand and gravels. Native soils consist of reddish brown silty clay. Groundwater was not encountered during tank removal activities.

Specific observations pertaining to the excavated tank are as follows:

Removal Date	Dimensions	Conditions
9-21-93	4'0" x 6'2"	550-gallon diesel fuel containing, epoxy coated steel, no noticeable holes or leaks, slight surface corrosion

The piping consisted of single wall steel. All piping was observed to have no noticeable holes or leaks; however, slight visible surface corrosion was observed. The product dispenser was observed to be in good condition.

Cooper personnel observed indications of petroleum product soil staining on the southeast corner of the excavation at a depth of approximately 2 feet. Cooper personnel also recorded a noticeable product odor to be emanating from that location. This impacted location corresponds to the former location of the product dispenser.

Field screenings for Ionizable Organic Compound (IOC) content were conducted with a Model 580B Thermal Environmental Instruments Organic Vapor Monitor (OVM). The OVM is equipped with a 10.6 eV lamp, a positive displacement pump, and is calibrated to an Isobutylene standard of 100 parts per million (ppm). A total of thirteen tank excavation split soil samples were field screened. Laboratory submitted samples were not field screened.

Field screening procedures were conducted in the following manner. Soil samples were broken up and placed in clean glass sample containers. Each container was covered with aluminum foil and capped with a Teflon-lined screw lid. Each sample was agitated and allowed to warm to 70°F for a minimum of 20 minutes. The OVM sampling probe was then inserted into the headspace by breaking the aluminum foil seal. The highest IOC reading, in ppm instrument units (i.u.) was ascertained and logged.

Native soils from the UST excavation were monitored with an OVM to assess the concentration of IOCs within the soil. Concentrations of IOCs were indicated by the OVM during soil excavation activities ranging from 0.9 to 119 ppm i.u. (Table 1). Based on field observations and OVM indications during tank removal activities, the excavated soils appeared to have been impacted by petroleum product residuals. The excavated soils were placed back into the UST excavation due to vehicle and pedestrian traffic concerns.

Soil samples submitted for laboratory analysis were collected from areas displaying either the highest measured OVM indications, visual signs of product staining, and/or a product odor. Soil samples were submitted to Precision Analytical Laboratories for the analyte

(product) known to have been contained within the UST (diesel fuel). A total of three locations were sampled and submitted for laboratory analysis of Total Petroleum Hydrocarbons (TPH) using a Diesel Range Organics (DRO) standard.

The DRO laboratory analysis results for each of the submitted tank excavation soil samples are summarized in Table 2. Also included in Table 2 are OVM field screening results of soil samples collected as splits as previously described.

Laboratory analysis results from the three submitted closure samples indicated the following:

- Three soil samples were submitted for DRO analysis. Laboratory results indicate detectable DRO concentrations ranging from 25 mg/kg (MWA/WB) and 34 mg/kg (MWA/EB) in soil samples collected from beneath the west bottom and east bottom of the tank excavation to 3,400 mg/kg (MWA/EW2) in the soil sample collected from soils located approximately two feet below the former fuel dispenser.

One composite soil sample (MWA/WMA) was submitted for laboratory analysis for eventual landfilling of the on-site impacted soils. The composite soil sample was collected from the temporary impacted soil stockpile accumulated during tank removal activities. The waste profile analytical results are summarized in Table 3.

Laboratory analytical result sheets and chain-of-custody forms are presented in Attachment 1. Validation of holding time and date of analyses were checked upon receipt of analytical result sheets from the laboratory. Based upon the information supplied by the laboratory, holding times for the requested analyses were not exceeded. Verification dates are included on the soil analytical data sheets.

Conclusions and Recommendations

Based on field observations, soil monitoring, and laboratory analysis a relatively confined area of petroleum impacted soil appears to be present on-site. Soil sample analyses from beneath the former tank location do not display TPH-DRO concentrations above 34 mg/kg. The area displaying excessive TPH-DRO concentrations (3,400 mg/kg) corresponds to the former location of the system fuel dispenser. This area was observed to be located on the southeast corner of the tank excavation at a depth of approximately two feet.

Based on the above presented conclusions, Cooper suggests that a limited overexcavation in the excessive TPH-DRO concentration displaying location may successfully remediate the impacted area. Utilizing the standard five foot WDNR overexcavation guideline, Cooper estimates the amount of impacted soil to not exceed 85 cubic yards.

Cooper petitions the WDNR for permitting the disposal of the excessive TPH-DRO impacted soil at the WMWI-Metro Landfill. Should the quantity of impacted soil appear to exceed the 85 cubic yard soil estimate, Cooper will recommend to the client the commencement of site investigation activities. Cooper appreciates your expedited review of this correspondence and will be more than pleased to present additional information if requested.

Sincerely,
Cooper Environmental & Engineering Resources, Inc.

Paul E. Miller
Senior Environmental Scientist

Robert L. Hackenberg
Director of Operations

PEM/rab
Enclosures
MenWesAll.WMA

cc: Mr. Dennis Behrens, Menard, Inc.

Table 1
Menards - West Allis Yard
West Allis, Wisconsin
Tank Excavation OVM Readings

OVM Sample Number	Sample Location	Depth (ft.) *bgs	Field OVM Reading (i.u.) ppm
OVM #1	Excavated Soils	3.5	93.0
OVM #2	Excavated Soils	3.5	0.9
OVM #3	Excavated Soils	3.5	125.0
OVM #4	Excavated Soils	6.0	0.9
OVM #5	Excavated Soils	6.5	2.0
OVM #6	Excavated Soils	6.0	50.5
OVM #7	Excavated Soils	7.5	5.5
OVM #8	Excavated Soils	8.0	8.5
OVM #9	Excavated Soils	8.0	2.1
OVM #10	Excavated Soils	7.0	7.8
MWA/WB	West Bottom of Tank Excavation	10.5	5.9
MWA/EB	East Bottom of Tank Excavation	10.5	7.8
MWA/EW2	East Wall of Tank Excavation	2.0	119.0

*bgs = Below ground surface
i.u. = Instrument units
ppm = Parts per million

Table 2
Menards - West Allis Yard
Tank Excavation Samples
and
Analytical Results Summary

Soil Sample Number	Sample Location	Depth of Sample (ft.) *bgs	Date Collected	Field OVM Reading (i.u.)	Analytical Results (mg/l)
					WDNR (Mod)
					DRO
MWA/WB	Tank Excavation - West Wall	10.5	9-21-93	5.9	25
MWA/EB	Tank Excavation - East Wall	10.5	9-21-93	7.8	34
MWA/EW2	Tank Excavation - East Wall	2.0	9-21-93	119	3,400

*bgs = Below ground surface
i.u. = Instrument Units
ppm = Parts per million
mg/kg = Parts per million

Table 3
Menards - West Allis Yard
West Allis, Wisconsin
Diesel Tank
Waste Profile Sample Analytical Results

Parameter	Sample No. MA/Waste Profile
Appearance	Solid
Total Solids	100%
Layers	Single
Free Liquids	0%
Color	Brown
Odor	Slight
Flash Point	>210°F
PVOCs DETECTED Method 8240 (µg/kg)	
Benzene	<1.0
Ethylbenzene (300)	7.8
Toluene (300)	1.3
Xylenes, Total	24
DRO (10 mg/kg)	3,400

µg/kg = micrograms per liter
mg/kg = milligrams per kilogram

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Phone: (414) 272-5222

Cooper Environmental
1411 North Main Street
West Bend, WI 53095

Attn: M. Volkert
Invoice Number:

Order #: 92-09-240
Date: 10/09/92 18:33
Work ID: 920902A *Menards - West Allis*
Date Received: 09/21/92
Date Completed: 10/09/92
Client Code: COOPER_ENV

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	MWA/WB	03	MWA/EW2
02	MWA/EB	04	MWA/WMA

Laboratory ID Number (Wisconsin DNR): 241369260

Certified By
Jeff Bushner, Linda Woodie

Sample: 01A MWA/WB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	25		mg/kg	10/05/92	SEL

Sample: 02A MWA/EB **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	34		mg/kg	10/05/92	SEL

Sample: 03A MWA/EW2 **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Mod. DRO (WDNR)	3400		mg/kg	10/06/92	SEL

Sample: 04A MWA/WMA **Collected: 09/21/92**

Test Description	Result	Limit	Units	Analyzed	By
Appearance	SOLID		-	09/25/92	MHM
BTEX Soil					
Benzene	< 1.0		ug/kg	10/01/92	LJS
Toluene	1.3		ug/kg	10/01/92	LJS
Ethyl Benzene	7.8		ug/kg	10/01/92	LJS
Total Xylenes	24		ug/kg	10/01/92	LJS
Color	BROWN		-	09/25/92	MHM
Flash Point, Open Cup	> 210		degrees F	09/30/92	MJH
Free Liquids	0		%	09/25/92	MHM
Layers	1		-	09/25/92	MHM
Mod. DRO (WDNR)	3400		mg/kg	10/04/92	SEL
Odor	SLIGHT		-	09/25/92	MHM

The organic data is reported out on a dry-weight basis.

Sample was covered air tight in approved container, shipped in cooler from the source to our lab, temperature upon arrival was 4 degrees C.

The samples ordered for BTEX were analyzed by EPA Method 8020 (40 CFR 136 Appendix A, "Methods for Organic Analysis of Municipal and Industrial Waste.").

The samples ordered for DRO were analyzed by the Wisconsin DNR Modified DRO method.

State of Wisconsin
Department of Natural Resources

PAL

CHAIN OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

Note: This form is required by the Department of Natural Resources for leaking underground storage tank sites in compliance with ch. NR 500-540, NR 158 and NR 419, Wis. Adm. Code.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
M. Volkert	Cooper Environmental Resources	414-338-9697
Property Owner	**Property Address**	**Telephone Number (include area code)**
Menards West Allis #920902A	2535 S. 108 St West Allis, WI	

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
Mark Volkert	9-21-92 / 1:45	Richard [illegible]
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)

Temperature of temperature blank: 40 C

If samples were received on ice and there was ice remaining, you may report he temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote 2)	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
MWA/WB	9-21-92	11:00	Soil	Spoon		Menards West Allis/ West Base	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/EB	9-21-92	11:15	Soil	Spoon		Menards West Allis/ East Base	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/EW2'	9-21-92	11:30	Soil	Spoon		Menards West Allis/ East Wall 2 ft.	DRO / DRY wt		2-2 oz / 1-4 oz				
MWA/WMA	9-21-92	12:00	Soil	Spoon		Menards West Allis Waste Management of North America	DRY wt / DRO / DI / Benzene / Free liquid	Pentanol	2-2 oz / 1-Liter				

[1] Specify groundwater, surface water, soil, leachate, sludge, etc.
[2] Sample description must clearly correlate the sample ID to the sampling location.

* Special RATE - See Gary Pfister

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ____ days
☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)
Accepted? ☐ Yes ☐ No (Check one)

Accepted By: _____
Signature

Return this form to:

Wisconsin Department of Natural Resources
Tank Response Unit - Annual Report SW/3
P.O. Box 7921
Madison, WI 53707

ANNUAL SITE STATUS FORM
LEAKING UNDERGROUND STORAGE TANK (LUST) SITE

Form 4400-161 5-93

INSTRUCTIONS: The information on this form will be used to monitor progress on site clean up, and to determine whether action by the Department is necessary to attain compliance with s. 144.76, Wis. Stats., Hazardous Substance Spills. Personally identifiable information on this form will be used by the Department for no other purpose. This voluntary form is for actions taken in the preceding calendar year. Actions taken at LUST sites in other years are not to be included, unless specified below. A separate form is to be completed for each site. This form is to be completed in addition to technical reports which have been submitted to the Department.

Krohn
241617750 - LUST

SITE IDENTIFICATION

Site Name: WEST ALLIS MENARD STORE	Site Owner's Name: MENARD INC.
Site Address: 2535 SOUTH 108TH St.	Site Owner's Telephone Number: 715-876-5911
City, State, Zip Code (Site Address): WEST ALLIS, WI 53227	Environmental Consulting Firm: COOPER ENVIRONMENTAL RESOURCE INC.
County in Which Site is Located: MILWAUKEE	DNR Site Identification Number: 3161-3-SED (from DNR correspondence)

SITE STATUS - Check all which apply, enter yards and gallons in the spaces provided. **Definitions are on back of page.**

✓ Field Investigation - This site was still being investigated in the preceding calendar year to identify the extent of contamination.

___ Soil Excavation in preceding calendar year.
(Indicate cubic yards for each below.)

- _____ yds^3 Landfilled
- _____ yds^3 Mixed into asphalt
- _____ yds^3 Thermal treatment process ("incineration")
- _____ yds^3 Thinspead
- _____ yds^3 Excavated and placed into active bioremediation
- _____ yds^3 Landspread (Ch. NR 518, Wis. Adm. Code)
- _____ yds^3 Placed in a stockpile awaiting treatment or disposal
- _____ yds^3 Other: _____

___ In-situ (in place) Soil Treatment in preceding calendar year.
(Indicate systems active in 1992, regardless of the year started.)

- _____ (est.) yds^3 Soil vapor extraction system
- _____ (est.) yds^3 Natural (passive) contaminant biodegradation
- _____ (est.) yds^3 Active bioremediation
- _____ (est.) yds^3 Other: _____

___ Groundwater Treatment in preceding calendar year

- _____ gals. Pumped and airstripped
- _____ gals. Pumped and other aboveground treatment
  Type of treatment unit - _____
- _____ (est.) gals. Air sparging
- _____ (est.) gals. Active groundwater bioremediation
- _____ gals. Other: _____

___ Free Product Recovery - _____ gallons of petroleum product were removed from the water table at this site in the preceding calendar year.

Signature: Dennis J. Behrens Date Signed: 7-5-93

■ Site owner

X Other (indicate your relationship to this site) PROJECT MANAGER — PROPERTIES DIVISION

Please use this space and the back of the page to provide any additional information you would like the Department to have regarding the status of this site.

Thank You.

- LOW LEVEL PETROLEUM PRODUCT CONCENTRATIONS WERE FOUND
- COOPER ESTIMATES 75 CUBIC YDS OF IMPACTED SOILS
- NO - GROUND WATER CONTAMINATION WAS FOUND
- REPORT HAS BEEN FILED WITH THE WDNR
- OVER EXCAVATION AND INCINERATION TO BE DONE AS SOON AS APPROVALS ARE RECEIVED FROM THE WDNR.

Definitions:

FIELD INVESTIGATION - The initial investigation to determine the extent and degree of contamination in soil and groundwater was in progress.

SOIL EXCAVATION - Contaminated soil was excavated and stored, treated or disposed. This may be a partial or total response to contamination. This defmition does not include removal of clean tank backfill material. Enter the cubic yards of soil which went to each destination.

LANDFILLED - Excavated contaminated soil was disposed of at a licensed landfill.

MIXED INTO ASPHALT - Excavated contaminated soil was mixed into asphalt as a plant which is permitted to accept petroleum contaminated soil.

THERMAL TREATMENT - Excavated contaminated soil was treated in a unit which heats soil to volatilize contaminants and controls emissions of contaminants to the atmosphere.

THIN SPREAD - Excavated contaminated soil was spread on an impermeable surface and remediated by exposure to the atmosphere and naturally occurring microbes.

ACTIVE BIOREMEDIATION - Oxygen and/or nutrients were added to soil or groundwater to promote the breakdown of contaminants by microbes. Active bioremediation may be an in-situ or ex-situ treatment method.

LANDSPREAD - Excavated contaminated soil was spread on the land surface to promote natural degradation of the contaminants through exposure to the atmosphere and naturally occurring microbes. Landspreading must be conducted in accordance with the requirements of Ch. NR 518, Wis. Adm. Code.

IN-SITU TREATMENT - Contaminated soil and/or groundwater was remediated without removal from its original location. Soil vapor extraction is an example of in-situ soil treatment .

SOIL VAPOR EXTRACTION - A system consisting of vapor recovery wells, pumps and, in some cases, an off-gas treatment system, was installed to remove contamination from the soil.

NATURAL BIODEGRADATION - The rate of natural breakdown of petroleum compounds by naturally occurring microbes in soil or groundwater was monitored.

GROUNDWATER TREATMENT - Contaminated groundwater was treated in compliance with applicable state and federal requirements to remove contaminants.

PUMPED AND AIRSTRIPPED - Contaminated groundwater was pumped from the aquifer and treated to remove the contaminants by mixing the water with air in a tower or other structure.

AIR SPARGING - Air was injected into the aquifer to move dissolved contaminants from groundwater into the air. Air sparging is usually used in conjunction with soil vapor extraction.

FREE PRODUCT - Liquid petroleum which was floating on the water table was removed by pumping.

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

George E., Secretary
Box 12436
Milwaukee, Wisconsin 53212
TELEFAX NO. 414-961-2770

May 19, 1993

File Ref: 4440-3161
County: Milwaukee
ER-LUST

Mr. Dennis Behrens
Menards, Inc.
2535 South 108th Street
West Allis, WI 53227

Dear Mr. Behrens:

RE: Menards, Inc. - 2535 South 108th Street, West Allis, WI

Wisconsin Department of Natural Resources (WDNR) has been notified that petroleum contamination was discovered September 21, 1992, at the above referenced location. Based on the site specific information provided, this case has been assigned to the Medium Priority Rank group. The purpose of this letter is to inform you of your legal responsibilities to address this situation.

Releases from underground storage tanks regulated under Subtitle I of the Resource Conservation and Recovery Act require compliance with the provisions of 40 CFR Parts 280 and 281. The Environmental Protection Agency (EPA) has the authority to take enforcement action at any time, but will generally not take action against parties cooperating with the state. The WDNR proceeds in LUST cases under the authority of s. 144.76, Wisconsin Statutes, commonly referred to as Wisconsin's Hazardous Substance Spill Law. The definition of "hazardous substance" as found in s. 144.01(4m), Wisconsin Statutes, includes petroleum products.

> Wisconsin Statute 144.76(2a) states: "A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall notify the Department immediately of any discharge not exempted under sub.(9)."
>
> Wisconsin Statute 144.76(3) states: "A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of this state."

Because you possess or control a hazardous substance which has been released to the environment, the Department identifies you as the party responsible for taking the actions necessary to restore the environment. You are required to:

1. Immediately notify the WDNR Spills Hotline at (414) 263-8491 should emergency conditions involving explosive vapors and/or well contamination develop.

2. Conduct an investigation to determine the extent of soil and groundwater contamination.

3. Remediate all of the environmental impacts caused by this situation.

4. Sample private water supply wells which may have been impacted by the release.

The Department suggests that you have a qualified environmental engineer or hydrogeologist direct the remedial investigation, assess the environmental impact, and coordinate the implementation of a cleanup program. Within 15 days of receiving this letter, you should provide the WDNR with the date the remedial investigation will begin.

The Department requires that the location of the tank and/or release be submitted with the work plan. **Requirements for location are Latitude, Longitude, 1/4, 1/4, Township, and Range (east or west).**

Final documentation of the investigation and cleanup should be prepared according to the guidance enclosed and sent to this office on completion of compliance with all applicable federal, state and local laws and regulations. Remedial actions must adequately cleanup contaminated soil and/or groundwater to current WDNR guidelines and/or standards. All product, soil, wastewater, and sludge must be disposed of in compliance with all applicable federal, state and local laws and regulations. Because the Department is experiencing a backlog of leaking underground storage tank cases of emergency status and your case is not currently ranked as an emergency, your submittals will be reviewed as time permits. Investigation and cleanup should not, however, be delayed pending WDNR review of your case.

The WDNR requests that concise LUST project updates be submitted every six months for all medium priority sites; biannual updates will enable WDNR project managers to monitor the status of remedial investigations and/or corrective actions on projects which are not under direct WDNR oversight.

You are encouraged to contact the Department of Industry, Labor, and Human Relations (DILHR), the state agency that administers the Petroleum Environmental Cleanup Fund (PECFA). This fund may reimburse you for eligible costs associated with the remedial investigation and cleanup. DILHR should be contacted at (608) 267-4545 to obtain current information regarding the PECFA program.

Please be aware that your ability to utilize PECFA funds will be dependent on your cooperation in adequately addressing this problem.

Sincerely,

Giselle Red

Giselle Red
Program Assistant, Environmental Repair Section

Enclosures: Remedial Investigation Checklist

c: Paul E. Miller - Cooper Environmental Resources, Inc.
SED Case File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OCT 30 1992

REPLY TO THE ATTENTION OF:

Dear Notifier:

Enclosed you will find the United States Environmental Protection Agency (U.S. EPA) Identification (ID) number that has been assigned to your installation. You will find your twelve character ID number on the top portion of the enclosed notification form. This ID number acknowledges that you have filed a Notification of Regulated Waste Activity for the installation referenced on the notification form to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). This ID number must be included on all shipping manifest(s) for transporting hazardous wastes; on all correspondence; and on all reports required under Subtitle C of RCRA by the U.S. EPA and State agencies.

Please carefully review your status to determine whether the box you have checked is correct for your installation. If you checked Box 1A "Generator" you are a large generator producing over 1000 kg/mo (2200 lbs). Large generators are subject to all applicable regulations under Subtitle C of RCRA including the Annual/Biennial Report. If you determine Box 1A was checked in error, you can change your status to either a Small Quantity Generator (100-1000 kg/mo) or a Conditionally Exempt Generator (less than 100 kg/mo) by notifying the U.S. EPA in writing at the address at the top of this letter. Please indicate which generator category is correct for your installation.

Please note the U.S. EPA number is site-specific. If your installation changes locations, a new notification is required for a new ID number. If your installation has changed ownership, a subsequent notification must be filed to allow the new owner to use the ID number.

If the purpose of your notification is a one-time disposal for a clean-up, PCB removal, underground storage tank removal, etc., please notify U.S. EPA in writing upon completion of the project. U.S. EPA will deactivate the ID number at that time. Any other notification changes not mentioned can be sent to U.S. EPA by letter.

If you have any further questions regarding hazardous waste activity, please contact the Region V Notification Hotline at (312) 886-4001.

Sincerely,

Sharon J. Kiddon

Sharon J. Kiddon
Environmental Protection Specialist

Printed on Recycled Paper

41292

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Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 10-31-91
GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act)*.

EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)
OCT 26 1992
U. S. EPA, R...

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[X] A. First Notification [ ] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number: WID988631131

II. Name of Installation *(Include company and specific site name)*

MENARD'S

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 2535 S 108 ST

Street (continued):

City or Town: WEST ALLIS | State: WI | ZIP Code: 53227-

County Code: 41 | County Name: MILWAUKEE

IV. Installation Mailing Address *(See instructions)*

Street or P.O. Box: 4777 MENARDS DR

City or Town: EAU CLAIRE | State: WI | ZIP Code: 54703-

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(last)*: BEHRENS | *(first)*: DENNIS

Job Title: PROJECT MANAGER | Phone Number *(area code and number)*: 715-876-2319

VI. Installation Contact Address *(See instructions)*

A. Contact Address Location [ ] Mailing [X]

B. Street or P.O. Box: 4777 MENARD DR

City or Town: EAU CLAIRE | State: WI | ZIP Code: 54703-

VII. Ownership *(See instructions)*

A. Name of Installation's Legal Owner: MENARDS INC.

Street, P.O. Box, or Route Number: 4777 MENARD DRIVE

City or Town: EAU CLAIRE | State: WI | ZIP Code: 54703-

Phone Number *(area code and number)*: 715-876-5911

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [ ] No [X]

(Date Changed) Month Day Year:

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ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate box(es). Refer to instructions.)

A. Hazardous Waste Activity

1. Generator (See instructions)
   - [ ] a. Greater than 1000kg/mo (2,200 lbs.)
   - [ ] b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
   - [X] c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [ ] b. For commercial purposes

   Mode of Transportation
   - [ ] 1. Air
   - [ ] 2. Rail
   - [ ] 3. Highway
   - [ ] 4. Water
   - [ ] 5. Other - specify
3. [ ] Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.
4. Hazardous Waste Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketers
   - [ ] c. Burner - indicate device(s) - Type of Combustion Device
     - [ ] 1. Utility Boiler
     - [ ] 2. Industrial Boiler
     - [ ] 3. Industrial Furnace
5. [ ] Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketer
   - [ ] c. Burner - indicate device(s) - Type of Combustion Device
     - [X] 1. Utility Boiler
     - [ ] 2. Industrial Boiler
     - [ ] 3. Industrial Furnace
2. [ ] Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (D000)	5. (List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s))
[X]	[ ]	[ ]	[ ]	

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
D001					
7	**8**	**9**	**10**	**11**	**12**

C. Other Wastes. (State or other wastes requiring an I.D. number. See instructions.)

1	2	3	4	5	6

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature	Name and Official Title (type or print)	Date Signed
X Dennis Behrens	X PROJECT MANAGER	X 10-20-92

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

#3167

Cooper
ENVIRONMENTAL RESOURCES INC

RECEIVED
OCT 0 2 1992
D.N.R. SED Hqtrs.
Milwaukee, WI

September 22, 1992

Ms. Giselle Red
Wisconsin Department of Natural Resources
Southeast District Headquarters
2300 N. Dr. Martin Luther King Jr. Drive
P.O. Box 12436
Milwaukee, WI 53212

RE: Notification of Potential Leaking Underground Storage Tank, Menards, 2535 S. 108th Street, West Allis, Wisconsin 53227

Dear Ms. Red,

Cooper Environmental Resources, Incorporated (CERI) would like to notify the Wisconsin Department of Natural Resources (WDNR) of a potential leaking underground storage tank (LUST) at Menards, 2535 S. 108th Street, West Allis, Wisconsin 53227. As per our earlier phone conversation on September 21, 1992, visual-signs of petroleum staining, and elevated field instrument recordings were documented during tank removal activities.

Please contact the undersigned at (414) 338-9697 if you have any questions or need additional information.

Sincerely,
Cooper Environmental Resources, Inc.

Paul E. Miller
Senior Environmental Scientist

Robert L. Hackenberg, R.P.G.
Director of Operations

cc: Mr. Dennis Behrens - Menards, Inc.

PEM/dks
Men108.dnr