

CARDINAL

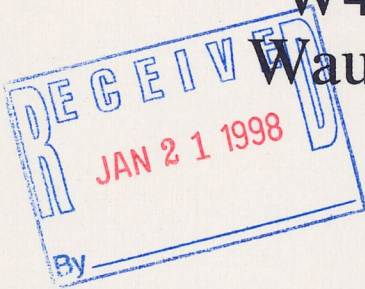


ENVIRONMENTAL

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300 Gallon Diesel Fuel
Underground Storage Tank
Closure Assessment

Waubeka Mill Inc.
W4132 Mill Street
Waubeka, Wisconsin



prepared for:

Ms. Jacquelyn M. Voeks
Waubeka Mill Inc.
W4132 Mill Street
Waubeka, Wisconsin 53021

prepared by:

Signature:  Date: 1/14/98

Bruce Ten Haken, CHMM
Senior Project Manager
DILHR Certification Number 41751

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E N V I R O N M E N T A L

COPY

**300 GALLON DIESEL FUEL
UNDERGROUND STORAGE TANK CLOSURE ASSESSMENT**

PREPARED FOR:

**WAUBEKA MILL INCORPORATED
W4132 MILL STREET
WAUBEKA, WI**

A. SITE BACKGROUND INFORMATION

A 300 gallon diesel fuel Underground Storage Tank (UST) was closed in place on January 02, 1998, from Waubeka Mill Inc., W4132 Mill Street, Waubeka, Wisconsin ("the site"). The UST's ID # is 450900076, and is registered as storing leaded gasoline for industrial purposes. According to Jacquelyn Voeks, the owner of the Mill, the UST was last used for storing diesel fuel for industrial purposes (fueling the Mill's vehicles). The UST has not been used for a number of years.

The UST is located 2' from the east side of the Mill, next to a steep slope. The section of the Mill that the UST is next to is supported by steel beams attached to concrete piling/footings. Part of the Milwaukee River passes underneath this section. Over the years, the slope has been eroding, mainly from water running down Park Avenue. Removing the UST may increase the erosion and undermine the footings on the southeast side of the mill. Approval for the closure in place was obtained from Independent Inspections, Ltd. (IIL), the DILHR local program operator for this area.

Cardinal Environmental Inc. (Cardinal) was hired by the owner to close the UST. Mr. Roman Nespodzany from IIL was the on site inspector, Inspector Cert. #35245.

B. TANK ACTIVITIES AND EXCAVATION

Bruce Ten Haken (DILHR Cert. #41751) from Cardinal Environmental Inc., Sheboygan, Wisconsin, was the acting Cleaner/Remover and Site Assessor. Attachment III contains a diagram of the UST system. The UST was 3' D x 6'L (300 gal.). The fill and vent pipes were still in place. The pump had been removed prior to Cardinal's arrival. An excavator was used to expose the top portion of the UST so the top could be cut off.

C. TANK CLEANING AND DISPOSAL

A hole was cut in the top portion of the UST which was exposed by the excavator. There was 2" (5 gallons) of diesel fuel in the UST. The diesel fuel was transferred to a 5 gallon metal can. A small amount of sludge was also removed. The diesel fuel and sludge were taken back to Cardinal's Sheboygan location, and transferred to a 55 gallon drum of waste fuels. The drum was picked up on January 5, 1998, by Laidlaw Environmental Services, Inc., Pecatonica, IL. for proper disposal (fuels blending).

D. SURPLUS PRODUCT AND TANK SLUDGE MANAGEMENT

The diesel fuel and sludge removed from the UST were taken back to Cardinal and placed in a 55 gallon drum of waste fuels. The drum was picked up on January 5, 1998, by Laidlaw Environmental Services, Inc., for disposal. A copy of the manifest is in Attachment I.

E. SITE LOCATION AND LAYOUT MAP.

The property is located at W4132 Mill Street in the village of Waubeka, Wisconsin. The property is located in Ozaukee County, and is between Mill Street and the Milwaukee River. The property is located on the north side of the Mill Street and Park Avenue intersection. The mailing address for the site is Fredonia, WI. Site maps are located in Attachment III.

F. VISUAL INSPECTION

The weather conditions the day of the closure were as follows: temperature of 34°F; partly cloudy; wind from the west - southwest at 10 mph. The UST was located under gravel. Native soil was never encountered.

While uncovering the UST, it was observed that the soil under and around the dispenser location was stained and had a petroleum odor. After cleaning, the UST was inspected. There did not appear to be any holes in the UST. A hole was cut in the bottom for the collection of soil samples. The soil under the UST was stained and had a petroleum odor.

G. SOIL SAMPLING AND ANALYSIS

The soil 1 foot below the bottom of the UST was sampled for Diesel Range Organics (DRO) and Gasoline Range Organics (GRO). The sample location was given a Field ID# of WM-1. An En Chem "Encore" sampling tool was used to collect the DRO. The GRO sample was collected using a 2 ounce glass jar with a teflon lined lid. About 20 grams of soil was placed in the jar and preserved with methanol. The samples were placed on ice.

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The samples were transported to En Chem Inc. of Green Bay, WI., WDNR Lab Certification #405132750, on January 5, 1998. En Chem analyzed the samples by the Wisconsin Modified DRO and GRO Methods. WM-1 had a DRO of 17 mg/kg, and a GRO of 350 mg/kg. The chain of custody and lab results can be found in Attachment IV.

H. SUPPORTING DOCUMENTATION

Copies of the tank inventory form, closure checklist, and other supporting documentation are provided in Attachment I. Site photographs are in Attachment II.

I. CONCLUSIONS AND RECOMMENDATIONS

While uncovering the UST, it was observed that the soil under and around the dispenser location was stained and had a petroleum odor. After cleaning, the UST was inspected. There did not appear to be any holes in the UST. A hole was cut in the bottom for the collection of soil samples. Since the UST was used to store gasoline before being used to store diesel fuel, the soil was analyzed for both DRO and GRO.

The soil under the UST was also stained and had a petroleum odor. The results of the DRO and GRO analyses were received on January 14, 1998. The DRO was 17 mg/kg, and the GRO was 350 mg/kg. The laboratory report states that the "Sample exhibits hydrocarbon pattern resembling gasoline". The Wisconsin Department of Natural Resources (WDNR) requires that UST sites with DRO/GRO results greater than 10 mg/kg be reported as suspected releases. Mr. Mike Farley from the WDNR was notified by Cardinal via fax of the suspected release on January 14, 1998. A copy of the release notification is in Attachment I. The WDNR will be notifying you in the form of a letter with the actions you will be required to take.

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ATTACHMENT I



COPY

Independent Inspections, Ltd.
Certified Construction Inspectors
S30 W24670 Sunset Drive
Waukesha, WI 53186

December 23, 1997

Mr. Bruce Ten Haken, CHMM
3303 Paine Avenue
Sheboygan, WI 53081

Re: Closure-in-Place for Waubeka Mill Inc., W4132 Mill Street, Waubeka, WI

Dear Mr. Haken:

I do agree with you that a closure-in-place may be the most practical method in which to close the underground storage tank the above referenced address because of the following cited reason:

"The UST is located next to the Mill in steep slope and removing may cause the slope to erode faster and undermine the footings on the southeast side of the Mill."

Therefore, I am granting a "conditional" approval; however, the inspector will make the final decision at the time of the closure inspection.

The State certified remover/cleaner will need to mail or FAX (414-544-8291) an ILHR 10 Notification Record showing the date and time for the inspector to be on site to verify and sign the necessary paperwork. If you have any questions, please feel free to call the office at (800)422-5220.

Sincerely,

Ronald C. Habermann, Vice President
Co-Director Fire and Tank Services
INDEPENDENT INSPECTIONS, LTD.

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UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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Send Completed Form To:
Department of Commerce
ERS Division
Bureau of Storage Tank Regulation
P.O. Box 7969, Madison, WI 53707

WI Tank ID#: 450900076

Information Required By Section 101.142, Wis. Stats.

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

Personal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)]

This registration applies to a tank that is (check one):			Fire Department providing fire coverage where tank is located: <input type="checkbox"/> City <input checked="" type="checkbox"/> Village <u>Waubeka</u> ⁴⁵⁰⁰ <input type="checkbox"/> Town of _____
1A. <input type="checkbox"/> In Use or	4. <input type="checkbox"/> Closed - Tank Removed	8. <input type="checkbox"/> Ownership Change (Indicate new owner name in block 2)	
1B. <input type="checkbox"/> Newly Installed	6. <input checked="" type="checkbox"/> Closed - Filled with Inert Materials		
2. <input type="checkbox"/> Abandoned with Product	7. <input type="checkbox"/> Out of Service - Provide Date: _____		
3. <input type="checkbox"/> Abandoned No Product (empty) or with Water			

A. IDENTIFICATION (Please Print)		
1. Tank Site Name <u>Waubeka Mill Inc.</u>	Site Address <u>W4132 Mill Street</u>	Site Telephone Number <u>(414) 692-9414</u>
<input type="checkbox"/> City <input checked="" type="checkbox"/> Village <input type="checkbox"/> Town of: <u>Waubeka</u>	State <u>WI</u>	Zip Code <u>53021</u>
2. Tank Owner Name <u>Jacquelyn M. Voeks</u>	Mailing Address <u>N6002 Valley Heights</u>	Telephone Number <u>414-692-9414</u>
<input type="checkbox"/> City <input checked="" type="checkbox"/> Village <input type="checkbox"/> Town of: <u>Fredonia</u>	State <u>WI</u>	Zip Code <u>53021</u>
3. Previous Name	Previous site address if different than #1	
4. Tank Age (date installed, if known or years old)	5. Tank Capacity (gallons) <u>300 Gallon</u>	6. If more than one tank is located at facility, please provide tank #

B. TYPE OF USER (check one)					
1. <input type="checkbox"/> Gas/Retail Sales	2. <input type="checkbox"/> Bulk Storage	3. <input type="checkbox"/> Utility	4. <input checked="" type="checkbox"/> Mercantile/Commercial	5. <input type="checkbox"/> Industrial	
6. <input type="checkbox"/> Government	7. <input type="checkbox"/> School	8. <input type="checkbox"/> Residential	9. <input type="checkbox"/> Agricultural	10. <input type="checkbox"/> Other (specify):	
11. <input type="checkbox"/> Tribal Nation	12. <input type="checkbox"/> Federal Property	13. <input type="checkbox"/> Backup Generator			

C. TANK CONSTRUCTION (check one)					
1. <input type="checkbox"/> Bare Steel	2. <input type="checkbox"/> Cathodically Protected & Coated Steel (Check one: A. <input type="checkbox"/> Sacrificial Anodes or B. <input type="checkbox"/> Impressed Current)				
3. <input checked="" type="checkbox"/> Coated Steel	4. <input type="checkbox"/> Fiberglass	5. <input type="checkbox"/> Other (specify):			
6. <input type="checkbox"/> Lined - Date:	7. <input type="checkbox"/> Steel - Fiberglass Reinforced Plastic Composite	9. <input type="checkbox"/> Unknown			
Approval: 1. <input type="checkbox"/> Nat'l Std.	2. <input type="checkbox"/> UL	3. <input type="checkbox"/> Other:	Is tank double walled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Overfill Protection Provided? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, identify type:		Spill Containment? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Tank leak detection method:	1. <input type="checkbox"/> Automatic tank gauging	2. <input type="checkbox"/> Vapor monitoring	3. <input type="checkbox"/> Groundwater monitoring		
	4. <input type="checkbox"/> Inventory control and tightness testing	5. <input type="checkbox"/> Interstitial monitoring			
	7. <input type="checkbox"/> Manual tank gauging (only for tanks of 1,000 gallons or less)	8. <input type="checkbox"/> Statistical Inventory Reconciliation (SIR)			

D. PIPING CONSTRUCTION					
1. <input checked="" type="checkbox"/> Bare Steel	2. <input type="checkbox"/> Cathodically Protected & Coated Steel (Check one: A. <input type="checkbox"/> Sacrificial Anodes or B. <input type="checkbox"/> Impressed Current)				
3. <input type="checkbox"/> Coated Steel	4. <input type="checkbox"/> Fiberglass	5. <input type="checkbox"/> Other (Specify):	9. <input type="checkbox"/> Unknown		
Vapor Recovery/Stage II	4. <input type="checkbox"/> Fiberglass	6. <input type="checkbox"/> Flexible	5. <input type="checkbox"/> Other (specify):	CARB #: _____	
Piping System Type:	Operational - Provide Date (mo/day/yr): _____				
2. <input type="checkbox"/> Suction piping with check valve at tank	1. <input type="checkbox"/> Pressurized piping with A. <input type="checkbox"/> auto shutoff; B. <input type="checkbox"/> alarm or C. <input type="checkbox"/> flow restrictor	3. <input type="checkbox"/> Suction piping with check valve at pump and inspectable			
Piping leak detection method: used if pressurized or check valve at tank:	1. <input type="checkbox"/> Vapor monitoring	2. <input type="checkbox"/> Interstitial monitoring			
3. <input type="checkbox"/> Groundwater monitoring	4. <input type="checkbox"/> Tightness testing	5. <input type="checkbox"/> Line leak detector	6. <input type="checkbox"/> Not required	8. <input type="checkbox"/> SIR	
Approval: 1. <input type="checkbox"/> Nat'l Std.	2. <input type="checkbox"/> UL	3. <input type="checkbox"/> Other:	Is pipe double walled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

E. TANK CONTENTS					
1. <input checked="" type="checkbox"/> Diesel	2. <input type="checkbox"/> Leaded	3. <input type="checkbox"/> Unleaded	4. <input type="checkbox"/> Fuel Oil	5. <input type="checkbox"/> Gasohol	
6. <input type="checkbox"/> Other (Specify):	7. <input type="checkbox"/> Empty*	8. <input type="checkbox"/> Sand/Gravel/Slurry*	9. <input type="checkbox"/> Unknown* 10. <input type="checkbox"/> Premix		
11. <input type="checkbox"/> Waste/Used Motor Oil	13. <input type="checkbox"/> Chemical _____	14. <input type="checkbox"/> Kerosene	15. <input type="checkbox"/> Aviation		
(Indicate chemical name and number)					

* If 7, 8, 9, or 13 is chosen, this tank is NOT PECFA eligible.

If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): <u>1/2/98</u>	Has a site assessment been completed (see reverse side for details) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--	--

Owner or Operator Name (please print): <u>Jacquelyn M. Voeks</u>	Indicate whether: <input checked="" type="checkbox"/> Owner or <input type="checkbox"/> Operator
Owner or Operator Signature: <u>Jacquelyn M. Voeks (B.M. - Cash)</u>	Date Signed: <u>1/2/98</u>

IMPORTANT: Failure to provide sufficient information may cause you to fall under additional regulations, and may delay PECFA eligibility determination. It is necessary to complete ALL shaded areas and as many other items as possible.

COPY CHECKLIST FOR UNDERGROUND TANK CLOSURE

RETURN COMPLETED CHECKLIST TO:
Safety & Buildings Division
Fire Prevention & Underground
Storage Tank Section
P. O. Box 7969, Madison, WI 53707

**Complete one form for
each site closure.**

The information you provide may be used by other
government agency programs [Privacy Law, s. 15.04 (1) (m)].

A. IDENTIFICATION: (Please Print) Indicate whether closure is for: Tank System Tank Only Piping Only

1. Site Name <i>Waubesa Mill Inc.</i>		2. Owner Name <i>Jacquelyn M. Voets</i>	
Site Street Address (not P.O. Box) <i>W4132 Mill Street</i>		Owner Street Address <i>N6002 Valley Heights</i>	
<input type="checkbox"/> City	<input checked="" type="checkbox"/> Village <i>Waubesa</i>	<input type="checkbox"/> City	<input checked="" type="checkbox"/> Village <i>Fredonia</i>
State <i>WI</i>		State <i>WI</i>	
Zip Code <i>53021</i>		Zip Code <i>53021</i>	
County <i>Ozaukee</i>		County <i>Ozaukee</i>	
Telephone No. (include area code) <i>(414) 692-9414</i>		Telephone No. (include area code) <i>(414) 692-9414</i>	
3. Closure Company Name (Print) <i>Cardinal Environmental Inc.</i>		Closure Company Street Address <i>3303 Paine Avenue</i>	
Closure Company Telephone No. (include area code) <i>(920) 459-2500</i>		Closure Company City, State, Zip Code <i>Sheboygan, WI 53081</i>	
4. Name of Company Performing Closure Assessment <i>Cardinal Environmental</i>		Assessment Company Street Address, City, State, Zip Code <i>3303 Paine Av. Sheboygan, WI 53081</i>	
Telephone # (include area code) <i>(920) 459-2500</i>	Certified Assessor Name (Print) <i>Bruce Ten Haken</i>	Assessor Signature <i>Bruce Ten Haken</i>	Assessor Certification No. <i>41751</i>

Tank ID #	Closure	Temp. Closure	Closure in Place	Tank Capacity	Contents *	Closure Assessment
1. <i>450900076</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>300</i>	<i>1</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N

* Indicate which product by numeric code: 01-Diesel; 02-Leaded; 03-Unleaded; 04-Fuel Oil; 05-Gasohol; 06-Other; 09-Unknown; 10-Premix; 11-Waste oil; 13-Chemical (indicate the chemical name(s) or numbers(s)); 14-Kerosene; 15-Aviation.

Written notification was provided to the local agent 15 days in advance of closure date. N NA
All local permits were obtained before beginning closure. N NA

Check applicable box at right in response to all statements in Sections B - E.

B. TEMPORARILY OUT OF SERVICE	Remover Verified	Inspector Verified	NA
Written inspector approval of temporary closure obtained, which is effective until (provide date) _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
1. Product Removed	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
b. All product removed to bottom of suction line, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
c. All product removed to within 1" of bottom.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
4. Dispensers/pumps left in place but locked and power disconnected.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
5. Vent lines left open.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
6. Inventory form filed indicating temporary closure.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>

C. CLOSURE BY REMOVAL

1. Product from piping drained into tank (or other container).	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
2. Piping disconnected from tank and removed.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
6. Vent lines left connected until tanks purged.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
7. Tank openings temporarily plugged so vapors exit through vent.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
9. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
10. Tank cleaned before being removed being removed from site.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>

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C. CLOSURE BY REMOVAL (continued)

- | | Remover Verified | Inspector Verified | NA |
|--|---|--------------------------|--------------------------|
| 11. Tank labeled in 2" high letters after removal but before being moved from site. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE. | | | |
| 12. Tank vent hole (1/8 th " in uppermost part of tank) installed prior to moving the tank from site. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Inventory form filed by owner with Safety and Buildings Division indicating closure by removal. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Site security is provided while the excavation is open. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |

D. CLOSURE IN PLACE

NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS OR LOCAL AGENT.

- | | | | |
|--|--|--------------------------|--------------------------|
| 1. Product from piping drained into tank (or other container). | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Piping disconnected from tank and removed. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. All liquid and residue removed from tank using explosion proof pumps or hand pumps. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. All pump motors and suction hoses bonded to tank or otherwise grounded. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR - EDUCTOR OUTPUT 12 FT ABOVE GRADE. | | | |
| 6. Vent lines left connected until tanks purged. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Tank openings temporarily plugged so vapors exit through vent. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Tank properly cleaned to remove all sludge and residue. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Vent line disconnected or removed. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Inventory form filed by owner with Safety and Buildings Division indicating closure in place. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |

E. CLOSURE ASSESSMENTS

NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO ILHR 10.

- | | | | |
|--|--|--------------------------|--------------------------|
| 1. Individual conducting the assessment has a closure assessment plan (written) which is used as the basis for their work on the site. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do points of obvious contamination exist? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are there strong odors in the soils? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Was a field screening instrument used to pre-screen soil sample locations? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Was a closure assessment omitted because of obvious contamination? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Was the DNR notified of suspected or obvious contamination? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> | <input type="checkbox"/> |
| Agency, office and person contacted: <u>WDNR - S.E. District</u> | | | |
| 7. Contamination suspected because of: <input type="checkbox"/> Odor <input type="checkbox"/> Soil Staining <input type="checkbox"/> Free Product <input type="checkbox"/> Sheen On Groundwater <input type="checkbox"/> Field Instrument Test | | | |

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

- Educator Or Diffused Air Blower
 - Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground.
 - Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.
- Dry Ice
 - Dry ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.
- Inert Gas (CO/2 or N/2) **NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT**
 - Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent.
 - Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.
- Tank atmosphere monitored for flammable or combustible vapor levels.
 - Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before removing tank from ground.

G. NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

H. REMOVER/CLEANER INFORMATION

Bruce TenHaken [Signature] 41751 1/2/98
 Remover Name (print) Remover Signature Remover Certification No. Date Signed

I. INSPECTOR INFORMATION

[Signature] [Signature] 35245
 Inspector Name (print) Inspector Signature Inspector Certification No.
1150900070 900-1122-3220 1/2/98
 FDID # For Location Where Inspection Performed Inspector Telephone Number Date Signed

OWNER

Notification of Petroleum Contamination from Underground Storage Tank System

Please complete this form and FAX it to Giselle Red, LUST Program Assistant, Southeast District, Milwaukee, immediately upon discovery of a release from an UST system.

TO: WDNR, Attn: Mike Farley
FAX #: 414-229-0810

1. Name, company, mailing address and phone number of person reporting the discharge:

Bruce Ten Haken
Cardinal Environmental Inc.
3303 Paine Avenue
Sheboygan, WI 53081 920-459-2500

2. Site Information

Name of site at which discharge occurred (local name of site/business - not responsible party name, unless a residence):

Waubeka Mill Inc.

Location (actual street address, not PO box; if no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60):

W4132 Mill Street, Waubeka, Wisconsin

Municipality (city, village, township in which the site is located - not mailing address):

Waubeka

County:

Ozaukee

Legal Description: ___ 1/4, ___ 1/4, Section ___, Tn ___, Range ___ E / W

3. Responsible Party (RP) and/or RP Representative Information

Company Name: Waubeka Mill Inc.

Contact Person: Jacquelyn M. Voeks

Mailing Address (with zip code):

W4132 Mill Street, Fredonia, WI, 53021

Telephone Number:

(414) 692-9414

4. Identify tank size(s) and contents (list all that apply):

____ Unleaded gasoline
____ Leaded gasoline
300 Diesel

____ Fuel oil
____ Waste oil
____ Other _____

5. Impacts to the environment:

- Fire/explosion threat
- Contaminated private wells
(#of wells _____)
- Contaminated public wells
- Groundwater contamination
- Soil contamination
- Surface water impacts
- Floating product
- Other _____

6. Contamination was discovered as a result of:

- Tank closure assessment
- Site assessment
- (Other) _____

7. Immediate actions being taken and the name of the contractor or other person performing the actions:

8. Source, speed of movement, and destination or probable destination of the discharged hazardous substance:

9. Local soil type and topography in the area of the discharge, depth to groundwater, and distance to surface water:

Milwaukee River is located about 50 feet away, down

10. Weather conditions existing at the scene, including presence of precipitation, and wind direction and velocity:

11. Soil contaminant concentration of laboratory analytical samples (if known):

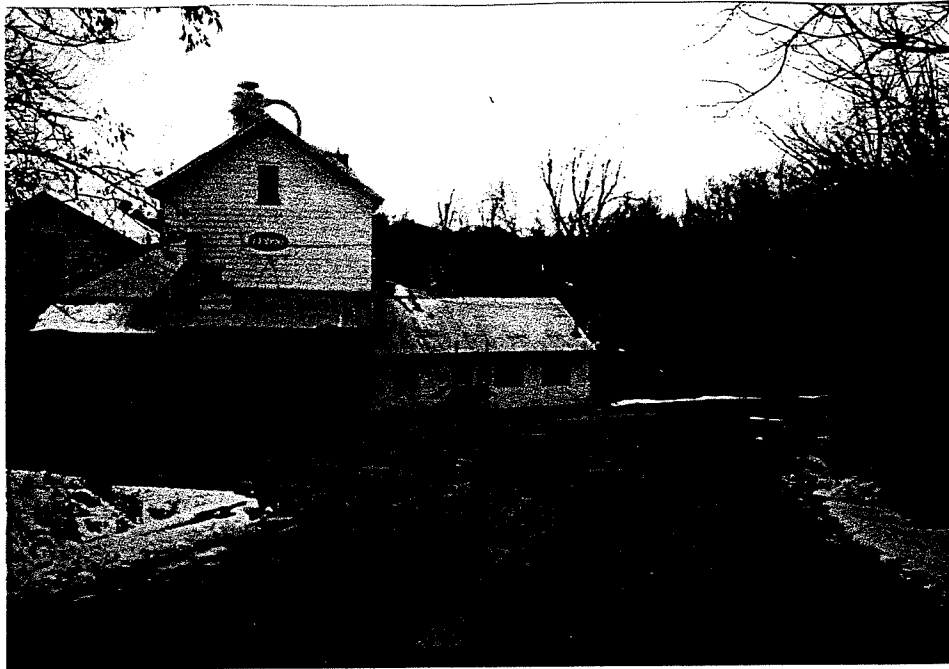
DRO - 17 mg/kg
 G-RO - 350 mg/kg

Additional Comments:

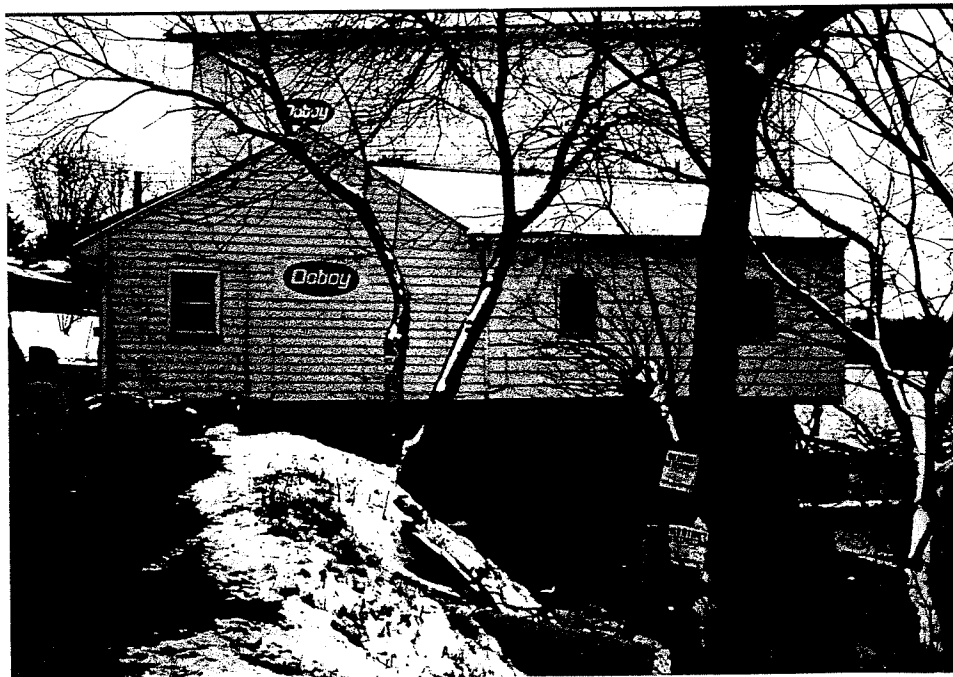
- The UST originally contained gasoline, but was later used for diesel fuel.
- The UST was closed-in-place. Samples were collected through a hole cut in the bottom of the UST.
- UST located on top of a steep slope that drops to the Milwaukee River.

COPY

ATTACHMENT II



South Side (Front) of Waubeca Mill, looking down from Park Avenue.



East side of Waubeca Mill.



East side of Waubeca Mill. UST under bales. Vent pipe running up the south east corner of building at a slight angle.



Looking North along east side of mill. The Milwaukee River is visible in the background.



Waubeka Mill UST uncovered with top cut off.



Two inches of diesel fuel in UST.



After UST was cleaned, a hole was cut in the bottom.
Soil removed during soil sampling is on left side of hole.



After sampling, the UST was filled in place
with gravel. Excavation brought to grade.

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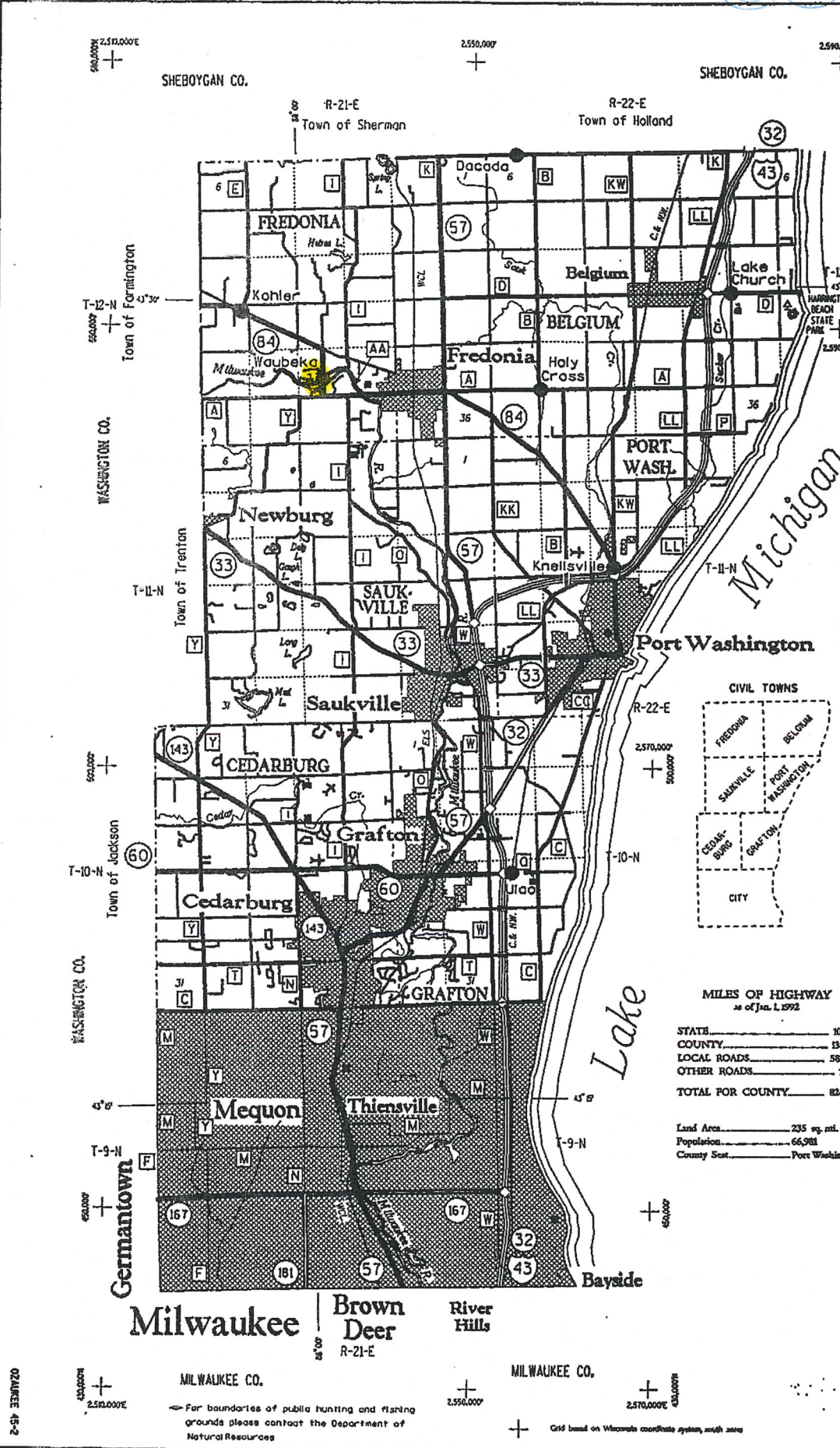
ATTACHMENT III

FIGURE 1

COPY

LEGEND

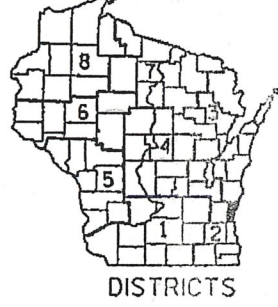
- Freeway
- U.S. or State Hwy
- County Trunk Hwy
- Town Road
- Firelane
- Multilane Divided
- Interchange
- Highway Separation
- Interstate Highway No.
- U.S. Highway No.
- State Highway No.
- County Highway Letter
- Railroad
- State Boundary
- County Boundary
- Civil Town Boundary
- Section Line
- Corporate Limits
- Natl. & State Forest Boundary
- Dam
- Hospital
- Schools
- Airport
- County Seat
- Unincorporated Village
- Fish Hatchery
- Game Farm
- Public Hunt, or Fish, Grds.
- Public Camp & Pleas. Grds.
- Ranger Station
- State Park
 - With Campsites
 - Without Campsites
- County Park
 - With Facilities
 - Without Facilities
- Wayside
 - With Facilities
 - Without Facilities



MILES OF HIGHWAY as of Jan. 1, 1992

STATE	301
COUNTY	138
LOCAL ROADS	583
OTHER ROADS	2
TOTAL FOR COUNTY	824

Land Area..... 235 sq. mi.
 Population..... 64,981
 County Seat..... Port Washington



TOWNSHIP NUMBERING

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

OZAUKEE CO.

DEPARTMENT OF TRANSPORTATION
 STATE OFFICE BUILDING
 Madison, Wisconsin



Corrected for
 JAN. 1994

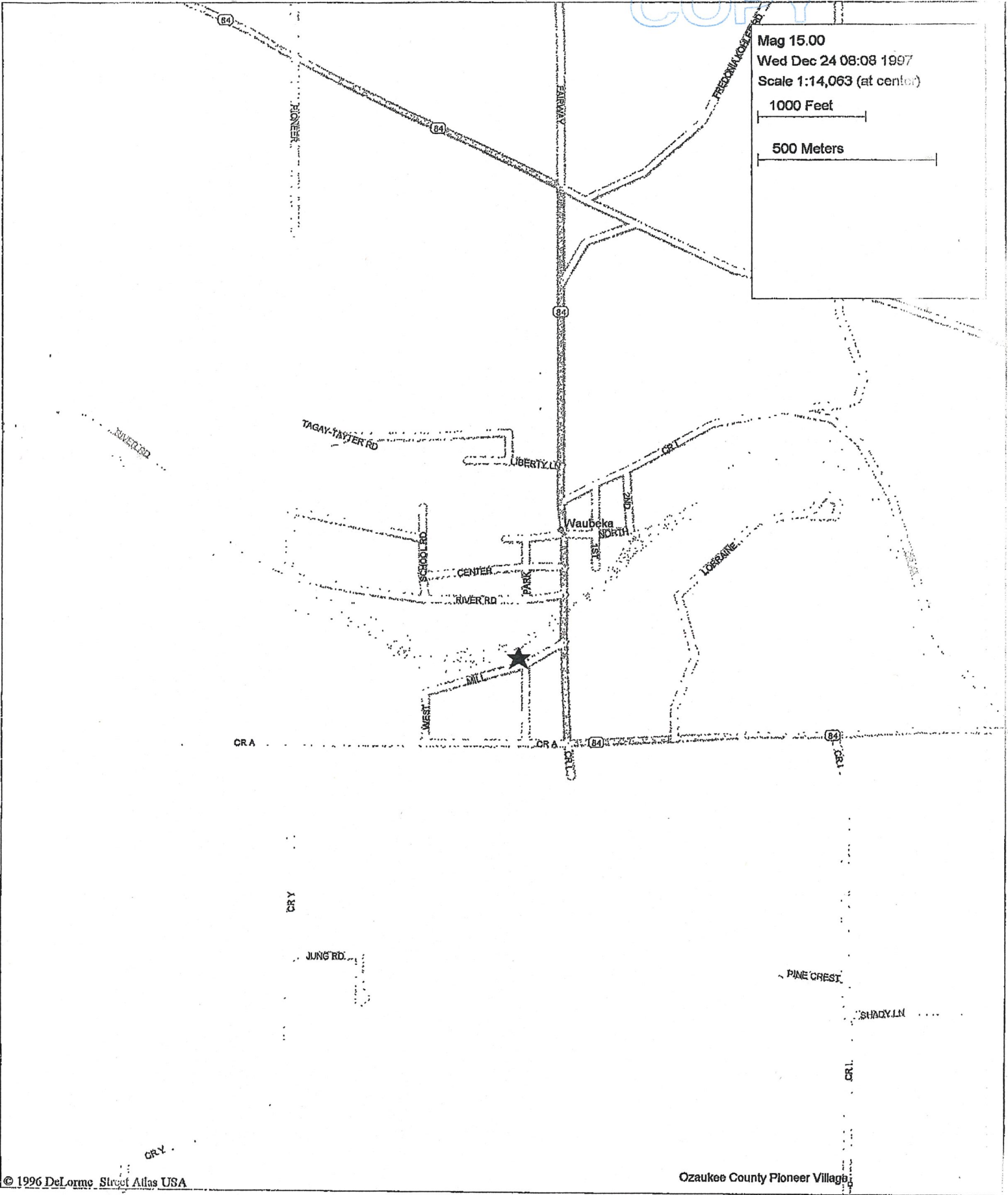
Now compiled from U.S.G.S. Quadmaps
 1:50,000 Scale

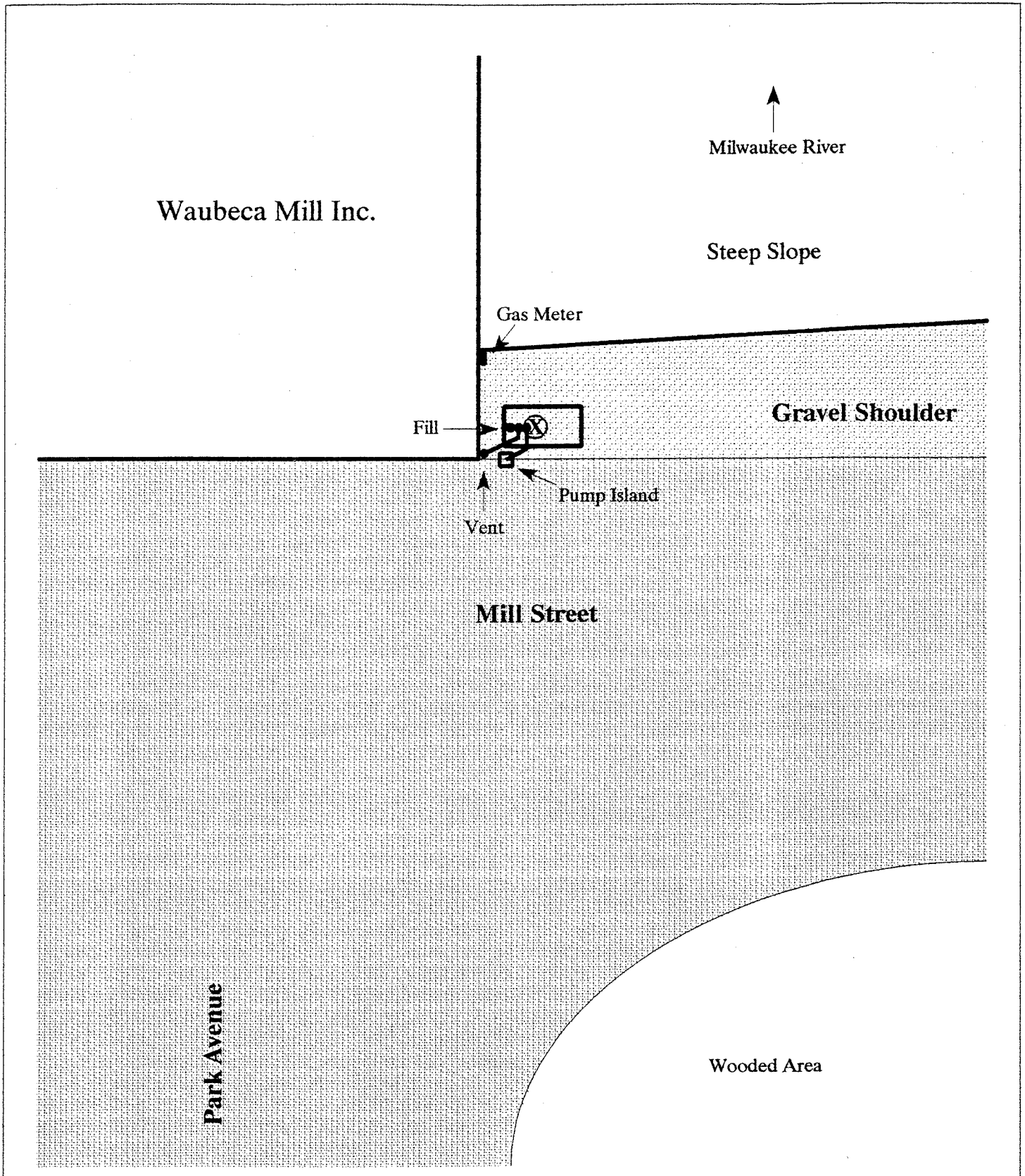
COPY





Mag 15.00
Wed Dec 24 08:08 1997
Scale 1:14,063 (at center)

1000 Feet

500 Meters





LEGEND		Site Map	Cardinal	
Scale 0'  10'	N 	Waubeka Mill Inc.	Environmental Inc.	
 = 300 Gallon Gasoline UST (3'D x 6'L)		W4132 Mill Street	Date: 1/02/98	
 = Sampling Location		Waubeca, WI	By: BTH	Scale: 1" = 10'
		300 Gal. UST Closure in Place	FIGURE 3	

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ATTACHMENT IV



Note: Use of this form is voluntary but is requested by the Department pursuant to ch. NR 149, NR 500-540, NR 158 and NR 419, Wis. Adm. Code. Personally identifiable information will be used for no other purpose.

Sample Collector(s) <u>Bruce Ten Haken</u>	Title/Work Station/Company <u>Project Manager / Cardinal Env.</u>	Telephone Number (include area code) <u>920-459-2500</u>
Property Owner <u>Waubesa Mill Inc.</u>	Property Address <u>W4132 Mill Street, Waubesa, WI 53021</u>	Telephone Number (include area code) <u>414-692-9414</u>

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

Relinquished By (Signature) <u>[Signature]</u>	Date/Time <u>1/2/98 3:00pm.</u>	Received By (Signature) <u>[Signature]</u>
Relinquished By (Signature) <u>[Signature]</u>	Date/Time <u>1/5/98 2:45</u>	Received By (Signature) <u>[Signature]</u>
Relinquished By (Signature)	Date/Time	Received for EN CHEM by (Signature) <u>[Signature] 1/5/98 1445</u>

LABORATORY USE ONLY
Temperature of temperature blank ROJ
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	Device	Preserv. Type	Field Screening	Location/Description (see footnote 2)	Analysis Type	Sample Condition							
									Lab ID Number	no./Type of Containers	Cracked /broken	Improp. Sealed	Good Cond.	Other Comments		
WM-1	1/2/98	12:00 p.m.	SOIL	Jar W. T. Weston 2143	Methanol ICE	ODOR	1 Foot Below UST	GRO 1	001	1-SDZ 2-DRG 1-LEACH					X	2143
WM-1	1/2/98	12:00 p.m.	SOIL	EnCore 2143	ICE	ODOR	1 Foot Below UST	DRO 5	↓						↓	

FOOTNOTES
1. specify groundwater, surface water, soil, leachate, sludge, etc.
2. sample description must clearly correlate the sample ID to the sampling location.
QTA# _____ En Chem Project# 880022

ANALYSIS CODES
1. GRO 5. DRO 9. Free Liquids 13. BETX
2. PVOC 6. PAH 10. pH 14. Protocol D1-GRO
3. Lead 7. Flashpoint 11. TCLP-Benzene 15. Protocol D1-DRO
4. 8021 8. Percent Solids 12. TCLP-Lead 16. 8260

BILLING ADDRESS:
Cardinal Environmental Inc.
3303 Paine Ave.
Sheboygan, WI 53081

Job Name/Number: PR# 772-01 Waubesa Mill
Job Description: 300 Gal. UST Closure in Place



COPY

1795 Industrial Drive
Green Bay, WI 54302
920-469-2430
800-7-ENCHIE
Fax: 920-469-8327

- Analytical Report -

Project Name : WAUBEKA MILL

Project Number : 772.01

WI DNR LAB ID : 405132750

Client: CARDINAL ENVIRONMENTAL

Report Date : 1/9/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
880022-001	WM-1	1/2/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Durancean
Approval Signature

1/9/98
Date



COPY

1795 Industrial Drive
Green Bay, WI 54309
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

Lab#:

880022-001

TestGroupID:

DRO-S

GRO-S-ME

Comment:

Early peaks present outside of window of analysis.

Sample exhibits hydrocarbon pattern resembling gasoline. Early and late peaks were present outside of window.



COPY

1795 Industrial Drive
 Green Bay, WI 54302
 920-469-2430
 800-7 EN-CHEM
 Fax: 920-469-8827

- Analytical Report -

Project Name : WAUBEKA MILL
 Project Number : 772.01
 Field ID : WM-1
 Lab Sample Number : 880022-001
 WI DNR LAB ID : 405132750

Client : CARDINAL ENVIRONMENTAL
 Report Date : 1/8/98
 Collection Date : 1/2/98
 Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	84.2				%		1/6/98	SM2540G	SM2540G	PHS

Organic Results

Preservation Date : 1/6/98

DIESEL RANGE ORGANICS - SOIL

Prep Method: WI MOD DRO Prep Date: 1/7/98 Analyst: PHS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	17			3.8	mg/kg		1/7/98	WI MOD DRO
Blank spike	89			50	%Recov		1/7/98	WI MOD DRO
Blank spike duplicate	84			50	%Recov		1/7/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		1/7/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL

Prep Method: WI MOD.GRO Prep Date: 1/6/98 Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	350			15	mg/kg		1/7/98	WDNR MOD GRO
Blank Spike	92			1.0	%Recov		1/7/98	WDNR MOD GRO
Blank Spike Duplicate	105			1.00	%Recov		1/7/98	WDNR MOD GRO
Blank	< 2.5			2.5	mg/kg		1/7/98	WDNR MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.