

**GIS REGISTRY INFORMATION**

**SITE NAME:** Central Wisconsin Coop Cenex Gas Station (f.k.a. Marshfield Cooperative)  
**BRRTS #:** 03-72-000044 **FID # (if appropriate):** 772016190  
**COMMERCE # (if appropriate):** 54449-4540-16  
**CLOSURE DATE:** 02/21/2007  
**STREET ADDRESS:** 116 South Peach Avenue  
**CITY:** Marshfield

**SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection):** X= 506828 Y= 465567

**CONTAMINATED MEDIA:** Groundwater  Soil  Both

**OFF-SOURCE GW CONTAMINATION >ES:**  Yes  No

**IF YES, STREET ADDRESS 1:** \_\_\_\_\_

**GPS COORDINATES (meters in WTM91 projection):** X= \_\_\_\_\_ Y= \_\_\_\_\_

**OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL):**  Yes  No

**IF YES, STREET ADDRESS 1:** \_\_\_\_\_

**GPS COORDINATES (meters in WTM91 projection):** X= \_\_\_\_\_ Y= \_\_\_\_\_

**CONTAMINATION IN RIGHT OF WAY:**  Yes  No

**DOCUMENTS NEEDED:**

- Closure Letter, and any conditional closure letter or denial letter issued
- Copy of any maintenance plan referenced in the final closure letter.
- Copy of (soil or land use) deed restriction *if any required as a condition of closure*
- Copy of most recent deed, including legal description, for all affected properties
- Certified survey map or relevant portion of the recorded plat map (*if referenced in the legal description*) for all affected properties
- County Parcel ID number, *if used for county*, for all affected properties
- Location Map** which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site.
- Detailed Site Map(s) for all affected properties**, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs.
- Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)**
- Tables of Latest Soil Analytical Results (no shading or cross-hatching)**
- Isoconcentration map(s), if required for site investigation (SI)** (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of groundwater contamination defined. **If not available, include the latest extent of contaminant plume map.**
- GW: Table of water level elevations, with sampling dates, and free product noted if present**
- GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees)**
- SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour**
- Geologic cross-sections, if required for SI.** (8.5x14" if paper copy)
- RP certified statement that legal descriptions are complete and accurate**
- Copies of off-source notification letters (if applicable)**
- Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW)**

X
NA
X
X
NA
X
X
X
X
X
NA
NA



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Scott Hassett, Secretary  
Scott Humrickhouse, Regional Director

Wisconsin Rapids Service Center  
473 Griffith Avenue  
Wisconsin Rapids, Wisconsin 54494  
Telephone 715-421-7800  
FAX 715-421-7830

February 21, 2007

BRRTS #03-72-000044

Mr. Frank Brenner  
Central Wisconsin Cooperative  
P.O. Box 14  
Stratford, WI 54484

**SUBJECT:** Final Case Closure By Closure Committee With Conditions Met  
Central Wisconsin Coop Cenex Gas Station  
116 South Peach Avenue, Marshfield, Wisconsin

Dear Mr. Brenner:

On December 21, 1998, the Wisconsin Department of Natural Resources Westcentral Region Closure Committee reviewed your request for closure of the case described above. The Closure Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. On January 4, 1999, you were notified that the Closure Committee had granted conditional closure to this case.

On February 2, 2007, the Department received the final correspondence indicating that you have complied with the conditions of closure. The conditions for closure included monitoring well abandonment, and recording a groundwater use restriction and a deed notice on the property deed regarding presence of residual groundwater and soil contamination on the property. On July 18, 2002, the Department notified you that final closure for this site was still pending, and in light of an administrative rule revision you were given the option, regarding the groundwater contamination, to have the property placed on the Geographic Information Systems (GIS) Registry of Closed Remediation Sites with the State. On June 23, 2003, the Department received a copy of the groundwater use restriction filed with Wood County, however, the restriction filed with the County did not incorporate the deed notice regarding the residual soil contamination, and on July 18, 2003, the Department notified you that the issue regarding the residual soil contamination remained unresolved. On January 12, 2007, the Department notified your consultant, REI, that the issue regarding the deed notice for the residual soil contamination remained unresolved and that filing the deed notice regarding the residual soil contamination was no longer an option at this site, and instead, this property would have to be included in the Soil GIS Registry. On February 2, 2007, the Department received the fees necessary to place the property on the Soil GIS Registry. Based on the correspondence and data provided, it appears that your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

February 21, 2007  
Mr. Frank Brenner - Central Wisconsin Cooperative  
Page 2

BRRTS #03-72-000044

Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wisconsin Administrative Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If your property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <http://www.dnr.state.wi.us/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

Section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement. If there is equipment purchased with PECFA funds remaining at the site, contact the Commerce PECFA Program to determine the method for salvaging the equipment.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact me at (715) 421-7850.

Sincerely,



Tom Hvizdak  
Hydrogeologist  
Bureau for Remediation & Redevelopment

c: Dave Larson, REI, 4080 N. 20<sup>th</sup> Ave., Wausau, WI 54401



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Scott Hassett, Secretary  
Scott Humrickhouse, Regional Director

Wisconsin Rapids Service Center  
473 Griffith Avenue  
Wisconsin Rapids, Wisconsin 54494  
Telephone 715-421-7800  
FAX 715-421-7830

July 18, 2003

BRRTS #: 03-72-000044

Mr. Frank Bremmer  
Marshfield Co-op  
P.O. Box 14  
Stratford, WI 54484

**FILE COPY**

RE: Conditions for Case Closure, Marshfield Co-op Site,  
116 South Peach Avenue, Marshfield, Wisconsin.

Dear Mr. Bremmer:

On January 6, 2003, the Wisconsin Department of Natural Resources (DNR) received the a copy of the groundwater use restriction you file on the property deed for the above-referenced site, as required in the Department's letter to you dated January 4, 1999. After careful review of the deed restriction it was noticed that you did not include the notification for the residual soil contamination, which was also required in that same letter. I regret to inform you that because the soil notification was not included in the deed restriction document, the site does not meet the conditions for closure at this time.

To correct this problem you have two options.

1. Submit a soil GIS packet and the associated fee (\$200).
2. Record a deed notice giving notice of the remaining soil contamination associated with the site. Residual soil contamination remains at this site as indicated in the information submitted to the Department of Natural Resources. If soil at this site is excavated in the future, the property owner at that time will be required to sample and analyze the excavated soil in order to determine whether the contamination still remains. The owner will also have to properly store, treat, or dispose of any excavated materials, based upon the results of that characterization, and take special precautions during excavation activities to prevent a direct contact threat to humans. The purpose of the notice is to notify all future owners that excavation of the contaminated soil may pose an inhalation or other direct contact hazard at the time of excavation.

You will need to submit a draft deed notice to me before the document is signed and recorded. You may find a model deed notice enclosed for your use or visit our web site at [www.dnr.state.wi.us/org/rr](http://www.dnr.state.wi.us/org/rr). To assist us in our review of the deed notice, you should submit a copy of the property deed to me along with the draft document. After Department of Natural Resources has reviewed the document for completeness, you should sign it if you own the property, or have the appropriate property owner sign it, and have it recorded at the

July 18, 2003  
Mr. Frank Bremmer - Marshfield Co-op  
Page 2

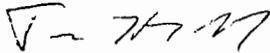
BRRTS #03-72-000044

Wood County Register of Deeds Office. Then, you must submit a copy of the recorded document, with the recording information stamped on it, to me. Please be aware that if a deed notice is recorded for the wrong property because of an inaccurate legal description that you have provided, you will be responsible for recording corrected documents at the Register of Deeds Office to correct the problem.

Your consultant should be knowledgeable in helping you with either of the options you have to close this site.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (715) 421-7850.

Sincerely,



Tom Hvizdak  
Hydrogeologist

c: Dave Larson, REI, 4080 N. 20<sup>th</sup> Ave., Wausau, WI 54401



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor  
Darrell Bazzell, Secretary  
Scott A. Humrickhouse, Regional Director

Wausau Office  
5301 Rib Mountain Drive  
Wausau, WI 54401  
Telephone 715-359-4522  
FAX 715-355-5253

July 18, 2002

BRRTS ID # 0372000044

Mr. Frank Brenner  
Central Wisconsin Cooperative  
P.O. Box 14  
Stratford, WI 54484

SUBJECT: Pending Site Closure: Marshfield Coop; 116 S. Peach Avenue; Marshfield, WISCONSIN

Dear Mr. Brenner:

According to our records the Department of Natural Resources (DNR) granted a conditional closure pending the recording of a Groundwater Use Restriction for the above referenced case on January 4, 1999. Since that time, this agency has not received proof that this restriction has been recorded. In light of administrative rule revisions that became effective November 1, 2001, you now have two options for fulfilling this obligation and obtaining final closure. One option is to record a Groundwater Use Restriction at the County Register of Deeds office for your property and for any impacted neighborhood properties, if applicable. The other option now available is to have the property placed on the Geographic Information Systems Registry of Closed Remediation Sites (GIS Registry) with the State.

By utilizing the option of placing the information on the GIS Registry, you will not be required to record a Groundwater Use Restriction at the Register of Deeds office. To place the property on the GIS Registry, you will need to accomplish the steps on the attached list.

Please note that, whichever option you choose, you are still required to comply with any other conditions of closure (monitoring well abandonment forms, soil disposal documents, etc.) outlined in the conditional closure approval letter (enclosed) that was sent to you.

Within 30 Days of receipt of this notice, please inform this agency which option you intend to pursue. Please be advised that your failure to respond to this letter will be viewed as an admission that you do not intend to pursue final closure of your site. In that situation, we will recommend further enforcement action be initiated. Enforcement actions could include the recording of an affidavit at the County Register of Deed office indicating contamination remains, while at the same time issuing an administrative order or making a direct referral to the State Attorney General's Office to recoup our costs and any associated fees that may have been due. Any referral to the State Attorney General's Office could result in forfeitures.

The Department appreciates your efforts to restore the environment at this site and encourages you to take the final steps necessary to get case closure. If you have any questions about this letter, please contact your project manager, Tom Applegate, at (715) 359-8782.

Sincerely,

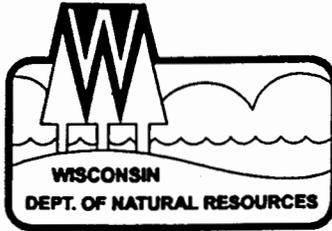
Tom Applegate  
Hydrogeologist  
Enclosures

## GIS Registry of Closed Remediation Sites

- Submit to the appropriate State agency that granted the conditional closure the following:
  - Copy of most recent deed, with legal description for each property where groundwater contamination remains.
  - Copy of certified survey map or portion of recorded plat where the legal description refers to certified survey map or portion of recorded plat.
  - Parcel identification numbers, if used by county, for each property.
  - Geographic positions coordinates (longitude and latitude) for each impacted property (meters in the WTM91 projection).
- Location map or maps outlining all properties in enough detail to permit the parcels to be identified (no larger than 8.5"x14");
- Map or maps showing site boundaries including roads, buildings, contaminant sources, utility lines, monitoring wells, potable wells, etc. (no larger than 8.5"x14");
- Table of the most recent groundwater analytical results from all wells with collection dates;
- Isoconcentration maps with the prominent groundwater flow direction indicated, if available;
- Geologic cross-section, if available;
- Signed statement that certifies that the legal descriptions that are attached to the statement are complete and accurate,
- For cases where the neighboring property(s) have been impacted, a formal notification must be sent, via certified mail with a return receipt, to the property owner explaining that their property will also be listed on the GIS Registry. The specific language of this notification can be found in the rule language in Appendix A of chapter NR 726. Please contact your project manager referenced in the letter for additional details.
- Evidence that the owners of neighboring impacted properties, if any have been notified, either received the letter referenced above or refused to sign for it, as indicated on the certified mail return receipt.
- Pay a GIS Registry fee of \$250.00 to the Department of Natural Resources.

*To view the GIS Registry go to: <http://gomapout.dnr.state.wi.us/org/at/et/geo/gwurindex.htm>*

*For more information on the GIS Registry contact your local DNR Service Center*



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
Scott A. Humrickhouse, Regional  
Director

Wausau Office  
5301 Rib Mountain Drive  
Wausau, Wisconsin 54401  
Telephone 715-359-4522  
FAX 715-355-6253

January 4, 1999

UID# 03-72-000044

Mr. Ted Meyer  
Central Wisconsin Co-op  
P.O. Box 14  
Stratford, WI 54484

FILE COPY

**SUBJECT:** Closure Request - Central Wisconsin Co-op - Cenex Gas Station  
116 South Peach Ave., Marshfield, WI

Dear Mr. Meyer:

On December 29, 1989, the Department of Natural Resources provided a notice to you that the degree and extent of petroleum contamination at the above-named site was required to be investigated and remediated. We have since been informed that the required investigation and remediation has been accomplished. On December 21, 1998, the site was reviewed by the West Central Regional Close Out Committee for a determination as to whether or not the case qualified for close out under chs. NR 726 and NR 720.19(2), Wis. Adm. Code.

Based on the investigative and remedial documentation provided to the Department, there is soil and groundwater contamination remaining at the site. The soil contamination exceeds NR 720 soil standards and the groundwater contamination exceeds NR 140 ES standards. Closure under NR 726.05(2)(b)4, Wis. Adm. Code has been requested and the closure committee has approved this closure with the following conditions:

- A groundwater use restriction must be recorded at the county register of deeds office. Since there is soil contamination remaining at the site, a map delineating the areas of residual soil contamination must be included with the groundwater use restriction. This notification will alert any future owner of the property that there is residual soil and groundwater contamination at the site. The groundwater use restriction must satisfy the requirements of 726.05(8)(am). Please provide the Department with a copy of the notification for our review. If the notification is acceptable, you will be notified. The Department will then need a copy of the completed deed notification after it has been registered with the county Recorder of Deeds. At the time the completed notification is received, the case will be considered closed.
- The groundwater monitoring wells must be properly abandoned per Wisconsin Administrative Code NR 141. The Department believes that it would be in your best interests to not abandon MW-9 and MW-9P. MW-9 and MW-9P should be added to the



Quality Natural Resources Management  
Through Excellent Customer Service



list of monitoring wells being sampled for your Above Ground Storage facility site located at 111 South Peach Avenue, UID# 02-72-000418.

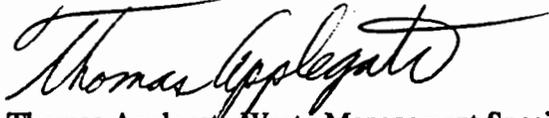
- Upon receipt of the abandonment forms and a copy of the completed deed notification, the Department will send you a final closure letter.

The case may be reopened pursuant to s. NR 726.05(2)(b)2-5 or NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination from the site poses a threat to public health, safety, or welfare of the environment.

The Department appreciates the efforts you have taken to clean up your site. If you have any questions or concerns regarding this letter or your site, please do not hesitate to call me at (715) 359-8782.

Sincerely,

WEST CENTRAL REGION



Thomas Applegate-Waste Management Specialist  
Bureau of Remediation and Redevelopment

cc: File

Mr. Steve Karklins, Wisconsin Department of Natural Resources, Bureau of Drinking  
Water and Groundwater, DG/2, P.O. Box 7921, Madison, WI 53707-7921

Mr. Dave Larsen, REI, 4080 N. 20<sup>th</sup>. Ave., Wausau, WI 54401

Mr. Ted Johnson, WisDOT

FROM: CENTRAL WI COOP 1-715-687-4125

TO: 715 675 4060  
846437

937  
DECLARATION OF GROUNDWATER USE RESTRICTION

PT LOT 16, LOTS 17 & 18, BLK 116,  
MFLD

WOOD CO. WIS.

'99 MAY 19 AM 9 42

RECORD IN  
VOL: 937 REC PAGE 14  
REGISTER OF DEEDS

*René K. K... (Signature)*

Stamber, Junco & Wolgram, S.C.  
PO Box 1178  
Marshfield, WI 54449

1020 P

(Parcel Identification Number)

Located in the plat of the Second Addition to the Village (now known as City) of Marshfield, Wood County, Wisconsin more particularly described as follows:

Lot 17 and Lot 18 and the South one-half of Lot 16 and the East one-half of the vacated Alley abutting said Lots 16, 17 and 18, all in Block 116 of the Second Addition to the Village (now known as City) of Marshfield.

WHEREAS, Central Wisconsin Cooperative, a Wisconsin Cooperation is the owner of the above-described property.

WHEREAS, one or more petroleum discharges have occurred at this property. Petroleum contaminated groundwater above NR 140 enforcement standards and soil contamination exists on the above described property.

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct additional soil or groundwater remediation activities on the property at the present time.

WHEREAS, natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch NR 140 groundwater standards within the boundaries of this property.

WHEREAS, construction of wells where the water quality exceeds the drinking water standards in ch. NR 809 is restricted by ch. NR 811 and ch. No. 812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply.

NOW THEREFORE, the owner hereby declares that all of the property described above is held and shall be held, conveyed or encumbered, leased, rented, used occupied and improved subject to the following limitation and restrictions:

Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater, or its successor agency, to determine what specific prohibitions or requirements are applicable and to obtain DNR approval, prior to constructing or reconstructing a well on this property. No well may be constructed or reconstructed on this property unless applicable requirements are met.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by, the Wisconsin Department of Natural Resources, its successors and assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that the restrictions set forth in this covenant are no longer required. Upon receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit can be recorded to give notice that this groundwater use restriction is no longer binding.

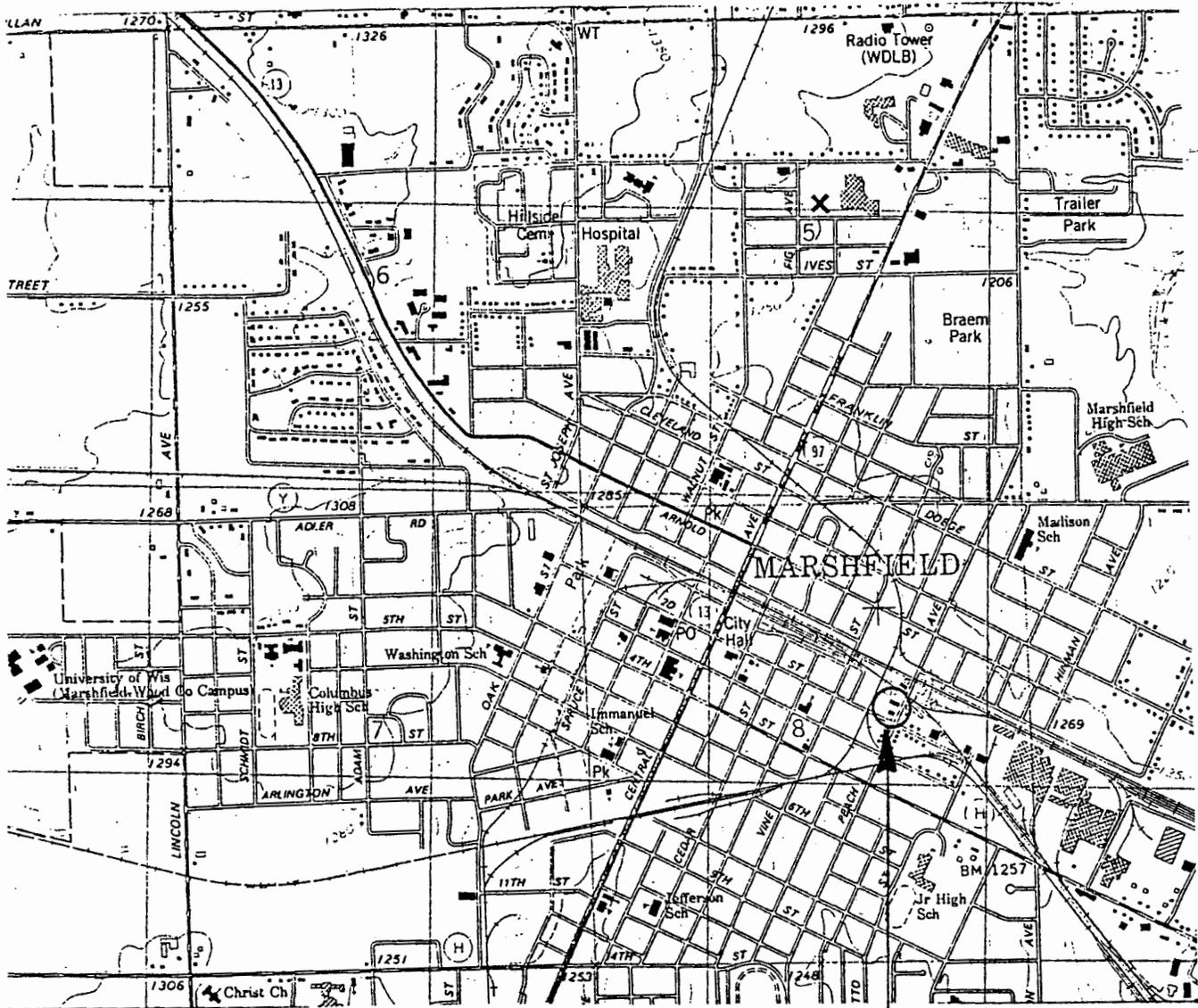
IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this 17 day of May, 1999.  
Central Wisconsin Cooperative

*Central Wisconsin Cooperative (Seal)* By *Frank H. Brenner CEO/Gen. Mgr. (Seal)*  
Frank H. Brenner, CEO/Gen. Mgr.  
\_\_\_\_\_(Seal) Agent \_\_\_\_\_(Seal)

AUTHENTICATION

ACKNOWLEDGMENT



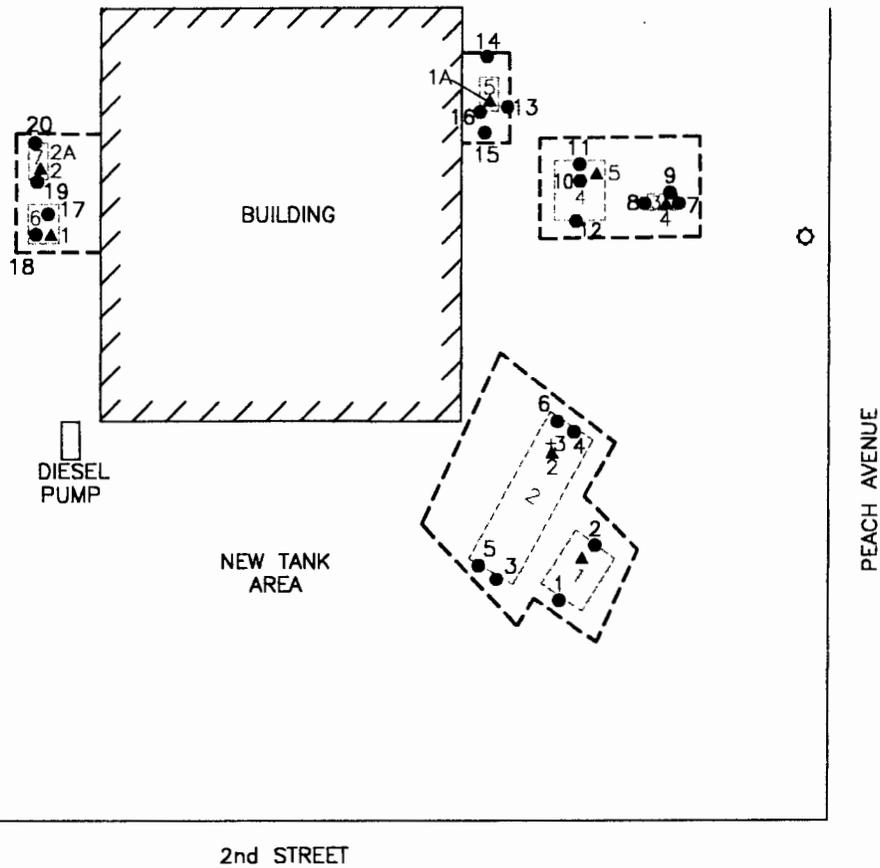


SITE LOCATION



REFERENCE:  
 USGS TOPOGRAPHIC MAP  
 MARSHFIELD, WI.  
 7 1/2 MIN. QUADRANGLE  
 -1979

NO.	BY	DATE	REVISION	APP'
SHEET TITLE				
SITE LOCATION MAP				
PROJECT				
MARSHFIELD CO-OP MARSHFIELD, WISCONSIN				
CENTRAL WISCONSIN ENGINEERS, INC.		DRAWN BY R.H.		FIGURE 1
		CHECKED BY <i>[Signature]</i>		
		APP'D. BY <i>[Signature]</i>		
		DATE 3/93		
		PROJ. NO. 83089070		DNR NO. NCD/UID 4.4



OVM FIELD TESTS

No.	DEPTH IN FEET	PPM
1	14.0	ND
2	14.0	ND
3	14.0	165.0
4	14.0	130.0
5	15.5	15.0
6	16.0	ND
7	6.0	360.0
8	6.0	130.0
9	14.0	70.0
10	2.5	102.0
11	12.0	312.0
12	14.0	320.0
13	2.9	120.0
14	3.0	90.0
15	2.5	171.0
16	7.0	25.0
17	1.0	30.2
18	7.5	1.1
19	8.0	5.2
20	8.5	ND

LAB SAMPLES

No.	DEPTH IN FEET	DATE COLLECTED
1	14.0	10/17
2	16.0	10/18
+3	16.0	10/18
4	14.0	10/18
5	14.0	10/18
1A	7.5	10/27
1	7.5	11/1
2	8.5	11/1
2A	8.5	11/1

+ WATER

NOTE: DRAWING WAS DIGITIZED FROM DRAWING BY CENTRAL WISCONSIN ENGINEERS.

**LEGEND**

0 30  
  
 SCALE: 1" = 30'

- - SOIL SAMPLE (OVM)
- + - WATER SAMPLE (LAB)
- ▲ - SOIL SAMPLE (LAB)
- - POWER POLE
- - - - - FORMER UST AREA
- - - - - EXCAVATION AREA

F:\DRAFTING\1088CENT\1088CWE1.DWG

CENTRAL WISCONSIN CO-OP  
 116 S. PEACH STREET  
 MARSHFIELD, WISCONSIN

FIGURE 2a : SITE MAP

PROJECT NO.	DRAWN BY:	DATE:
#1088	TAW	9/29/98

Table 2a  
 Summary of Groundwater Analytical Results  
 MW1  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	ES	Date		Units	05-Feb-90	15-Mar-90	05-Nov-90	01-Jul-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94
		PAL											
GRO				µg/l	X	X	NA	X	X	X	X	X	NS
DRO				µg/l	NA	X	NA	X	NA	NA	NA	NA	NS
Lead	15	1.5		µg/l	X	3.88	NA	X	NA	NA	NA	NA	NS
<b>VOC Parameters</b>													
Benzene	5	0.5		µg/l	X	X	X	X	X	X	X	X	NS
Ethylbenzene	700	140		µg/l	X	X	X	X	X	X	X	X	NS
Toluene	343	68.6		µg/l	14.6	X	X	X	X	X	X	X	NS
Xylenes (Total)	620	124		µg/l	X	X	X	X	X	X	X	X	NS
Methyl tert Butyl Ether	60	12		µg/l	NA	NA	NA	X	X	X	X	X	NS
1,2,4-Trimethylbenzene				µg/l	NA	NA	NA	X	X	X	X	X	NS
1,3,5-Trimethylbenzene				µg/l	NA	NA	NA	X	X	X	X	X	NS
<b>Inorganics</b>													
Dissolved Oxygen				mg/l	NA	NS							
Temperature				°C	NA	NS							
pH					NA	NS							
Alkalinity				mg/l	NA	NS							
Nitrate - Nitrogen	10	2		mg/l	NA	NS							
Dissolved Iron	0.3	0.15		mg/l	NA	NS							
Sulfate	250	125		mg/l	NA	NS							

Parameter	ES	Date		Units	03-Aug-94	29-Nov-94	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
		PAL											
GRO				µg/l	X	X	X	X	X	X	20	NS	NS
DRO				µg/l	NS								
Lead	15	1.5		µg/l	NS								
<b>VOC Parameters</b>													
Benzene	5	0.5		µg/l	X	X	X	X	X	X	0.6	2.1	NS
Ethylbenzene	700	140		µg/l	X	X	X	X	X	X	1.1	2.5	NS
Toluene	343	68.6		µg/l	X	X	X	X	X	X	5.5	16	NS
Xylenes (Total)	620	124		µg/l	X	X	X	X	X	X	6.8	13.7	NS
Methyl tert Butyl Ether	60	12		µg/l	X	X	X	X	X	X	X	X	NS
1,2,4-Trimethylbenzene				µg/l	X	X	X	X	X	X	1.3	2.3	NS
1,3,5-Trimethylbenzene				µg/l	X	X	X	X	X	X	0.3	0.7	NS
<b>Inorganics</b>													
Dissolved Oxygen				mg/l	NA	NA	NA	NA	NA	NA	1.1	0.4	8.37
Temperature				°C	NA	NA	NA	NA	NA	NA	8.1	7.5	7.59
pH					NA	NA	NA	NA	NA	NA	6.58	6.41	6.45
Alkalinity				mg/l	NA	NA	NA	NA	NA	NA	340	470	NS
Nitrate - Nitrogen	10	2		mg/l	NA	NA	NA	NA	NA	NA	0.68	X	NS
Dissolved Iron	0.3	0.15		mg/l	NA	NA	NA	NA	NA	NA	0.017	X	NS
Sulfate	250	125		mg/l	NA	NA	NA	NA	NA	NA	117	134	NS

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
- = ES exceeded
- = PAL exceeded

Table 2b  
 Summary of Groundwater Analytical Results  
 MW2  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	Date		Units	05-Feb-90	15-Mar-90	05-Nov-90	01-Jul-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94
	ES	PAL										
GRO			µg/l	X	X	NA	190	180	130	116	142	NS
DRO			µg/l	X	X	NA	X	NA	NA	X	NA	NS
Lead	15	1.5	µg/l	X	X	NA	X	NA	NA	NA	NA	NS
<b>VOC Parameters</b>												
Benzene	5	0.5	µg/l	X	X	X	8.8	8	6.2	10.2	8.2	NS
Ethylbenzene	700	140	µg/l	X	X	X	X	X	X	X	X	NS
Toluene	343	68.6	µg/l	9.47	1.76	X	X	X	X	X	X	NS
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	X	X	X	NS
Methyl tert Butyl Ether	60	12	µg/l	NA	NA	NA	330	290	250	316	261	NS
1,2,4-Trimethylbenzene			µg/l	NA	NA	NA	X	X	X	X	X	NS
1,3,5-Trimethylbenzene			µg/l	NA	NA	NA	X	X	X	X	X	NS
<b>Inorganics</b>												
Dissolved Oxygen			mg/l	NA	NS							
Temperature			°C	NA	NS							
pH				NA	NS							
Alkalinity			mg/l	NA	NS							
Nitrate - Nitrogen	10	2	mg/l	NA	NS							
Dissolved Iron	0.3	0.15	mg/l	NA	NS							
Sulfate	250	125	mg/l	NA	NS							

Parameter	Date		Units	03-Aug-94	29-Nov-94	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
	ES	PAL										
GRO			µg/l	131	NS	NS	210	NA	170	180	X	NS
DRO			µg/l	NA	NS	NS	NA	NA	NA	NA	X	NS
Lead	15	1.5	µg/l	NA	NS	NS	NA	NA	NA	NA	NA	NS
<b>VOC Parameters</b>												
Benzene	5	0.5	µg/l	1.5	NS	NS	11	NS	6.4	9	4.1	17
Ethylbenzene	700	140	µg/l	X	NS	NS	X	NS	X	X	X	X
Toluene	343	68.6	µg/l	X	NS	NS	X	NS	X	X	X	X
Xylenes (Total)	620	124	µg/l	X	NS	NS	X	NS	X	X	X	X
Methyl tert Butyl Ether	60	12	µg/l	231	NS	NS	330	NS	220	300	280	150
1,2,4-Trimethylbenzene			µg/l	X	NS	NS	X	NS	X	X	X	X
1,3,5-Trimethylbenzene			µg/l	X	NS	NS	X	NS	X	X	X	X
<b>Inorganics</b>												
Dissolved Oxygen			mg/l	NA	NS	NS	NA	NS	NA	0.0	0.3	3.50
Temperature			°C	NA	NS	NS	NA	NS	NA	9.4	8.6	10.04
pH				NA	NS	NS	NA	NS	NA	5.48	5.55	5.12
Alkalinity			mg/l	NA	NS	NS	NA	NS	NA	87	130	NA
Nitrate - Nitrogen	10	2	mg/l	NA	NS	NS	NA	NS	NA	1.78	1.6	1.4
Dissolved Iron	0.3	0.15	mg/l	NA	NS	NS	NA	NS	NA	0.034	0.031	0.012
Sulfate	250	125	mg/l	NA	NS	NS	NA	NS	NA	87.8	94.2	46

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
-  ES exceeded
-  PAL exceeded

**Table 2c**  
**Summary of Groundwater Analytical Results**  
**MW3**  
**Central Wisconsin Cooperative**  
**Marshfield, WI**

Parameter	Date		Units	05-Feb-90	15-Mar-90	05-Nov-90	01-Jul-92	27-Aug-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93
	ES	PAL										
GRO			µg/l	X	X	NA	X	X	X	X	X	X
DRO			µg/l	X	X	NA	X	NA	NA	NA	NA	NA
Lead	15	1.5	µg/l	X	X	NA	X	NA	NA	NA	NA	NA
<b>VOC Parameters</b>												
Benzene	5	0.5	µg/l	X	X	X	X	X	X	X	X	X
Ethylbenzene	700	140	µg/l	X	X	X	X	X	X	X	X	X
Toluene	343	68.6	µg/l	4.68	X	X	X	X	X	X	X	X
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	X	X	X	X
Methyl tert Butyl Ether	60	12	µg/l	NA	NA	NA	6.2	7.3	7.1	8.8	12.1	12.6
1,2,4-Trimethylbenzene			µg/l	NA	NA	NA	X	NA	X	X	X	X
1,3,5-Trimethylbenzene			µg/l	NA	NA	NA	X	NA	X	X	X	X
<b>Inorganics</b>												
Dissolved Oxygen			mg/l	NA								
Temperature			°C	NA								
pH				NA								
Alkalinity			mg/l	NA								
Nitrate - Nitrogen	10	2	mg/l	NA								
Dissolved Iron	0.3	0.15	mg/l	NA								
Sulfate	250	125	mg/l	NA								

Parameter	Date		Units	13-Apr-94	03-Aug-94	29-Nov-94	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
	ES	PAL											
GRO			µg/l	NS	X	X	X	X	X	25	37	NA	NS
DRO			µg/l	NS	NA	NS							
Lead	15	1.5	µg/l	NS	NA	NS							
<b>VOC Parameters</b>													
Benzene	5	0.5	µg/l	NS	X	X	X	X	X	X	0.8	2.7	1.5
Ethylbenzene	700	140	µg/l	NS	X	X	X	X	X	X	1.4	3.3	X
Toluene	343	68.6	µg/l	NS	X	X	X	X	X	X	6.6	21	X
Xylenes (Total)	620	124	µg/l	NS	X	X	X	X	X	X	9.1	18.3	X
Methyl tert Butyl Ether	60	12	µg/l	NS	19.1	11.6	X	45	36	33	25	19	19
1,2,4-Trimethylbenzene			µg/l	NS	X	X	X	X	X	X	1.8	2.9	X
1,3,5-Trimethylbenzene			µg/l	NS	X	X	X	X	X	X	0.4	0.9	X
<b>Inorganics</b>													
Dissolved Oxygen			mg/l	NS	NA	NA	NA	NA	NA	NA	0.5	0.6	8.37
Temperature			°C	NS	NA	NA	NA	NA	NA	NA	9.1	11.4	7.59
pH				NS	NA	NA	NA	NA	NA	NA	5.56	5.52	6.45
Alkalinity			mg/l	NS	NA	NA	NA	NA	NA	NA	56	80	NS
Nitrate - Nitrogen	10	2	mg/l	NS	NA	NA	NA	NA	NA	NA	4.04	1.52	1
Dissolved Iron	0.3	0.15	mg/l	NS	NA	NA	NA	NA	NA	NA	0.03	0.015	0.0099
Sulfate	250	125	mg/l	NS	NA	NA	NA	NA	NA	NA	71.6	82.7	48

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
- = ES exceeded
- = PAL exceeded

Table 2d  
 Summary of Groundwater Analytical Results  
 MW4  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	Date		Units	17-Jan-91	01-Jul-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93
	ES	PAL							
GRO			µg/l	NA	X	X	X	X	X
DRO			µg/l	NA	X	NA	NA	NA	X
Lead	15	1.5	µg/l	NA	X	NA	NA	NA	NA
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	X	X	X	X	X	X
Ethylbenzene	700	140	µg/l	X	X	X	X	X	X
Toluene	343	68.6	µg/l	X	X	X	X	X	X
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	X
Methyl tert Butyl Ether	60	12	µg/l	NA	X	X	X	X	X
1,2,4-Trimethylbenzene			µg/l	NA	X	X	X	X	X
1,3,5-Trimethylbenzene			µg/l	NA	X	X	X	X	X
<b>Inorganics</b>									
Dissolved Oxygen			mg/l	NA	NA	NA	NA	NA	NA
Temperature			°C	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	NA	NA	NA
Alkalinity			mg/l	NA	NA	NA	NA	NA	NA
Nitrate - Nitrogen	10	2	mg/l	NA	NA	NA	NA	NA	NA
Dissolved Iron	0.3	0.15	mg/l	NA	NA	NA	NA	NA	NA
Sulfate	250	125	mg/l	NA	NA	NA	NA	NA	NA

Parameter	Date		Units	13-Apr-94	03-Aug-94	28-Nov-94	15-Aug-96	11-Feb-97	21-May-98
	ES	PAL							
GRO			µg/l	NS	NS	NS	31	NA	NS
DRO			µg/l	NS	NS	NS	NA	NA	NS
Lead	15	1.5	µg/l	NS	NS	NS	NA	NA	NS
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	NS	NS	NS	0.7	X	NS
Ethylbenzene	700	140	µg/l	NS	NS	NS	1.2	X	NS
Toluene	343	68.6	µg/l	NS	NS	NS	5.4	X	NS
Xylenes (Total)	620	124	µg/l	NS	NS	NS	7.4	X	NS
Methyl tert Butyl Ether	60	12	µg/l	NS	NS	NS	X	X	NS
1,2,4-Trimethylbenzene			µg/l	NS	NS	NS	1.5	X	NS
1,3,5-Trimethylbenzene			µg/l	NS	NS	NS	0.4	X	NS
<b>Inorganics</b>									
Dissolved Oxygen			mg/l	NS	NS	NS	0.7	0.8	2.07
Temperature			°C	NS	NS	NS	8.9	8.1	9.2
pH				NS	NS	NS	5.6	5.49	5.44
Alkalinity			mg/l	NS	NS	NS	52	67	NS
Nitrate - Nitrogen	10	2	mg/l	NS	NS	NS	4.04	3.41	NS
Dissolved Iron	0.3	0.15	mg/l	NS	NS	NS	0.027	0.028	NS
Sulfate	250	125	mg/l	NS	NS	NS	114	271	NS

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS= Not Sampled
- NA= Not Analyzed
- = ES exceeded
- = PAL exceeded

Table 2c  
 Summary of Groundwater Analytical Results  
 MW5  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	ES	Date		Units	17-Jan-91	01-Jul-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94	03-Aug-94
		PAL										
GRO				µg/l	NA	100	94	X	X	X	51.3	X
DRO				µg/l	NA	X	X	NA	NA	NA	NA	NA
Lead	15	1.5		µg/l	NA	X	X	NA	NA	NA	NA	NA
<b>VOC Parameters</b>												
Benzene	5	0.5		µg/l	X	X	X	X	X	X	X	2.9
Ethylbenzene	700	140		µg/l	X	X	X	X	X	X	X	2.1
Toluene	343	68.6		µg/l	X	X	X	1.24	X	X	X	X
Xylenes (Total)	620	124		µg/l	X	X	X	X	X	X	X	1.2
Methyl tert Butyl Ether	60	12		µg/l	NA	190	190	177	124	108	128	75.1
1,2,4-Trimethylbenzene				µg/l	NA	X	X	X	X	X	X	X
1,3,5-Trimethylbenzene				µg/l	NA	X	X	X	X	X	X	X
<b>Inorganics</b>												
Dissolved Oxygen				mg/l	NA							
Temperature				°C	NA							
pH					NA							
Alkalinity				mg/l	NA							
Nitrate - Nitrogen	10	2		mg/l	NA							
Dissolved Iron	0.3	0.15		mg/l	NA							
Sulfate	250	125		mg/l	NA							

Parameter	ES	Date		Units	28-Nov-94	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
		PAL										
GRO				µg/l	NS	NS	41	NS	48	X	NA	NA
DRO				µg/l	NS	NS	NA	NS	NA	NA	NA	NA
Lead	15	1.5		µg/l	NS	NS	NA	NS	NA	NA	NA	NA
<b>VOC Parameters</b>												
Benzene	5	0.5		µg/l	NS	NS	X	NS	X	X	X	X
Ethylbenzene	700	140		µg/l	NS	NS	X	NS	X	X	X	X
Toluene	343	68.6		µg/l	NS	NS	X	NS	X	X	0.4	X
Xylenes (Total)	620	124		µg/l	NS	NS	X	NS	X	X	X	X
Methyl tert Butyl Ether	60	12		µg/l	NS	NS	65	NS	68	23	44	15
1,2,4-Trimethylbenzene				µg/l	NS	NS	X	NS	X	X	X	X
1,3,5-Trimethylbenzene				µg/l	NS	NS	X	NS	X	X	X	X
<b>Inorganics</b>												
Dissolved Oxygen				mg/l	NS	NS	NA	NS	NA	0.7	1.3	2.43
Temperature				°C	NS	NS	NA	NS	NA	9.6	8.1	10.28
pH					NS	NS	NA	NS	NA	5.71	5.59	6.13
Alkalinity				mg/l	NS	NS	NA	NS	NA	88	120	NA
Nitrate - Nitrogen	10	2		mg/l	NS	NS	NA	NS	NA	2.43	0.47	X
Dissolved Iron	0.3	0.15		mg/l	NS	NS	NA	NS	NA	X	0.021	0.2
Sulfate	250	125		mg/l	NS	NS	NA	NS	NA	93.5	97.3	50

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
- ES exceeded
- PAL exceeded

Table 2f  
 Summary of Groundwater Analytical Results  
 MW6  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	Date		Units	13-Apr-94	10-May-94	09-Aug-95	28-Nov-95	15-Feb-96
	ES	PAL						
GRO			µg/l	NS	NS	210	NS	15,000
DRO			µg/l	NS	NS	21,000	NS	50,000
Lead	15	1.5	µg/l	NS	NS	NA	NS	NA
<b>VOC Parameters</b>								
Benzene	5	0.5	µg/l	NS	NS	45	NS	5,300
Ethylbenzene	700	140	µg/l	NS	NS	8	NS	670
Toluene	343	68.6	µg/l	NS	NS	9.4	NS	1,200
Xylenes (Total)	620	124	µg/l	NS	NS	27	NS	2,590
Methyl tert Butyl Ether	60	12	µg/l	NS	NS	X	NS	X
1,2,4-Trimethylbenzene			µg/l	NS	NS	10	NS	700
1,3,5-Trimethylbenzene			µg/l	NS	NS	2.7	NS	190
<b>Inorganics</b>								
Dissolved Oxygen (mg/L)			mg/l	NS	NS	NA	NS	NA
Temperature (°C)			°C	NS	NS	NA	NS	NA
pH				NS	NS	NA	NS	NA
Alkalinity (mg/L)			mg/l	NS	NS	NA	NS	NA
Nitrate - Nitrogen (mg/L)	10	2	mg/l	NS	NS	NA	NS	NA
Dissolved Iron (mg/L)	0.3	0.15	mg/l	NS	NS	NA	NS	NA
Sulfate (mg/L)	250	125	mg/l	NS	NS	NA	NS	NA

*Notes:*

MW6 removed during excavation on 4/29/96

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NS= Not Sampled

NA= Not Analyzed

 = ES exceeded

 = PAL exceeded

Table 2g  
 Summary of Groundwater Analytical Results  
 MW7  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	ES	Date		Units	01-Jul-92	26-Feb-93	11-Aug-93	10-Nov-93	13-Apr-94	03-Aug-94	29-Nov-94
		PAL									
GRO				µg/l	24	X	X	X	NS	X	NS
DRO				µg/l	110	NA	NA	NA	NS	NA	NS
Lead	15	1.5		µg/l	NA	NA	NA	NA	NS	NA	NS
<b>VOC Parameters</b>											
Benzene	5	0.5		µg/l	X	X	X	X	NS	X	NS
Ethylbenzene	700	140		µg/l	X	X	X	X	NS	1.4	NS
Toluene	343	68.6		µg/l	11	X	X	X	NS	X	NS
Xylenes (Total)	620	124		µg/l	X	X	X	X	NS	X	NS
Methyl tert Butyl Ether	60	12		µg/l	X	X	X	X	NS	X	NS
1,2,4-Trimethylbenzene				µg/l	X	X	X	X	NS	X	NS
1,3,5-Trimethylbenzene				µg/l	X	X	X	X	NS	1	NS
<b>Inorganics</b>											
Dissolved Oxygen				mg/l	NA	NA	NA	NA	NS	NA	NS
Temperature				°C	NA	NA	NA	NA	NS	NA	NS
pH					NA	NA	NA	NA	NS	NA	NS
Alkalinity				mg/l	NA	NA	NA	NA	NS	NA	NS
Nitrate - Nitrogen	10	2		mg/l	NA	NA	NA	NA	NS	NA	NS
Dissolved Iron	0.3	0.15		mg/l	NA	NA	NA	NA	NS	NA	NS
Sulfate	250	125		mg/l	NA	NA	NA	NA	NS	NA	NS

Parameter	ES	Date		Units	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
		PAL									
GRO				µg/l	NS	25	NS	X	46	NA	NA
DRO				µg/l	NS	NA	NS	NA	NA	NA	NA
Lead	15	1.5		µg/l	NS	NA	NS	NA	NA	NA	NA
<b>VOC Parameters</b>											
Benzene	5	0.5		µg/l	NS	X	NS	X	0.6	2.1	4.3
Ethylbenzene	700	140		µg/l	NS	X	NS	X	1.2	3	1.7
Toluene	343	68.6		µg/l	NS	X	NS	X	6.4	17	X
Xylenes (Total)	620	124		µg/l	NS	X	NS	X	8	16.7	X
Methyl tert Butyl Ether	60	12		µg/l	NS	X	NS	X	X	X	X
1,2,4-Trimethylbenzene				µg/l	NS	X	NS	X	1.8	3	X
1,3,5-Trimethylbenzene				µg/l	NS	X	NS	X	0.5	0.9	X
<b>Inorganics</b>											
Dissolved Oxygen				mg/l	NS	NA	NS	NA	0.3	0.4	2.72
Temperature				°C	NS	NA	NS	NA	9.5	7.9	9.11
pH					NS	NA	NS	NA	6.96	6.52	6.36
Alkalinity				mg/l	NS	NA	NS	NA	140	200	NA
Nitrate - Nitrogen	10	2		mg/l	NS	NA	NS	NA	0.33	X	X
Dissolved Iron	0.3	0.15		mg/l	NS	NA	NS	NA	0.91	1.7	1.9
Sulfate	250	125		mg/l	NS	NA	NS	NA	59.3	31.3	50

**Notes:**

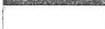
- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
-  ES exceeded
-  PAL exceeded

Table 2h  
 Summary of Groundwater Analytical Results  
 MW8  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	ES	Date PAL	Units	27-Aug-92	26-Feb-93	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94	03-Aug-94
GRO			µg/l	X	X	X	X	X	X	X
DRO			µg/l	X	NA	NA	NA	NA	NA	NA
Lead	15	1.5	µg/l	NA						
<b>VOC Parameters</b>										
Benzene	5	0.5	µg/l	X	X	X	X	X	X	1.6
Ethylbenzene	700	140	µg/l	X	X	X	X	X	X	1.3
Toluene	343	68.6	µg/l	1.1	X	X	X	X	X	1.3
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	X	X
Methyl tert Butyl Ether	60	12	µg/l	X	X	X	X	X	X	X
1,2,4-Trimethylbenzene			µg/l	X	X	X	X	X	X	X
1,3,5-Trimethylbenzene			µg/l	X	X	X	X	X	X	X
<b>Inorganics</b>										
Dissolved Oxygen			mg/l	NA						
Temperature			°C	NA						
pH				NA						
Alkalinity			mg/l	NA						
Nitrate - Nitrogen	10	2	mg/l	NA						
Dissolved Iron	0.3	0.15	mg/l	NA						
Sulfate	250	125	mg/l	NA						

Parameter	ES	Date PAL	Units	29-Nov-94	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
GRO			µg/l	X	X	X	X	X	X	NA	NS
DRO			µg/l	NA	NS						
Lead	15	1.5	µg/l	NA	NS						
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	X	X	X	X	X	0.5	X	NS
Ethylbenzene	700	140	µg/l	X	X	X	X	X	1	X	NS
Toluene	343	68.6	µg/l	X	X	X	X	1.3	4.9	X	NS
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	6.7	X	NS
Methyl tert Butyl Ether	60	12	µg/l	X	X	X	X	X	X	X	NS
1,2,4-Trimethylbenzene			µg/l	X	X	X	X	X	1.4	X	NS
1,3,5-Trimethylbenzene			µg/l	X	X	X	X	X	0.4	X	NS
<b>Inorganics</b>											
Dissolved Oxygen			mg/l	NA	NA	NA	NA	NA	0.2	0.3	5.4
Temperature			°C	NA	NA	NA	NA	NA	11	8	11.25
pH				NA	NA	NA	NA	NA	5.47	5.48	5.11
Alkalinity			mg/l	NA	NA	NA	NA	NA	51	80	NS
Nitrate - Nitrogen	10	2	mg/l	NA	NA	NA	NA	NA	8.1	6.76	NS
Dissolved Iron	0.3	0.15	mg/l	NA	NA	NA	NA	NA	0.019	0.024	NS
Sulfate	250	125	mg/l	NA	NA	NA	NA	NA	134	148	NS

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS = Not Sampled
- NA = Not Analyzed
- = ES exceeded
- = PAL exceeded

Table 2i  
Summary of Groundwater Analytical Results  
MW9  
Central Wisconsin Cooperative  
Marshfield, WI

Parameter	ES	Date PAL	Units	27-Aug-92	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94	03-Aug-94
GRO			µg/l	X	X	X	X	X	X
DRO			µg/l	X	NA	NA	NA	NA	NA
Lead	15	1.5	µg/l	X	NA	NA	NA	NA	NA
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	X	X	X	X	X	1.6
Ethylbenzene	700	140	µg/l	X	X	X	X	X	1.4
Toluene	343	68.6	µg/l	1.6	X	X	X	X	1.4
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	2.5
Methyl tert Butyl Ether	60	12	µg/l	X	X	X	X	X	X
1,2,4-Trimethylbenzene			µg/l	X	X	X	X	X	X
1,3,5-Trimethylbenzene			µg/l	X	X	X	X	X	1
<b>Inorganics</b>									
Dissolved Oxygen			mg/l	NA	NA	NA	NA	NA	NA
Temperature			°C	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	NA	NA	NA
Alkalinity			mg/l	NA	NA	NA	NA	NA	NA
Nitrate - Nitrogen	10	2	mg/l	NA	NA	NA	NA	NA	NA
Dissolved Iron	0.3	0.15	mg/l	NA	NA	NA	NA	NA	NA
Sulfate	250	125	mg/l	NA	NA	NA	NA	NA	NA

Parameter	ES	Date PAL	Units	29-Nov-94	10-May-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
GRO			µg/l	X	X	X	X	NA	NS
DRO			µg/l	NA	NA	NA	NA	NA	NS
Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	NS
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	X	X	X	X	X	NS
Ethylbenzene	700	140	µg/l	X	X	X	X	X	NS
Toluene	343	68.6	µg/l	X	X	X	X	X	NS
Xylenes (Total)	620	124	µg/l	X	X	X	X	X	NS
Methyl tert Butyl Ether	60	12	µg/l	X	X	X	X	X	NS
1,2,4-Trimethylbenzene			µg/l	X	X	X	X	X	NS
1,3,5-Trimethylbenzene			µg/l	X	X	X	X	X	NS
<b>Inorganics</b>									
Dissolved Oxygen			mg/l	NA	NA	NA	3.7	10.4	8.67
Temperature			°C	NA	NA	NA	10.3	6.7	10
pH				NA	NA	NA	7.83	7.15	6.27
Alkalinity			mg/l	NA	NA	NA	320	300	NS
Nitrate - Nitrogen	10	2	mg/l	NA	NA	NA	2.41	2.06	NS
Dissolved Iron	0.3	0.15	mg/l	NA	NA	NA	1.5	0.014	NS
Sulfate	250	125	mg/l	NA	NA	NA	21.7	21.7	NS

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS= Not Sampled
- NA= Not Analyzed
- = ES exceeded
- = PAL exceeded

Table 2j  
 Summary of Groundwater Analytical Results  
 MW9P  
 Central Wisconsin Cooperative  
 Marshfield, WI

Parameter	ES	Date		Units	27-Aug-92	20-May-93	11-Aug-93	10-Nov-93	13-Apr-94	03-Aug-94	29-Nov-94
		PAL									
GRO				µg/l	X	X	X	X	NS	X	NS
DRO				µg/l	X	NA	NA	NA	NS	NA	NS
Lead	15	1.5		µg/l	X	NA	NA	NA	NS	NA	NS
<b>VOC Parameters</b>											
Benzene	5	0.5		µg/l	X	X	X	X	NS	X	NS
Ethylbenzene	700	140		µg/l	X	X	X	X	NS	X	NS
Toluene	343	68.6		µg/l	1.8	X	X	X	NS	X	NS
Xylenes (Total)	620	124		µg/l	X	X	X	X	NS	X	NS
Methyl tert Butyl Ether	60	12		µg/l	X	X	X	X	NS	X	NS
1,2,4-Trimethylbenzene				µg/l	X	X	X	X	NS	X	NS
1,3,5-Trimethylbenzene				µg/l	X	X	X	X	NS	X	NS
<b>Inorganics</b>											
Dissolved Oxygen				mg/l	NA	NA	NA	NA	NS	NA	NS
Temperature				°C	NA	NA	NA	NA	NS	NA	NS
pH					NA	NA	NA	NA	NS	NA	NS
Alkalinity				mg/l	NA	NA	NA	NA	NS	NA	NS
Nitrate - Nitrogen	10	2		mg/l	NA	NA	NA	NA	NS	NA	NS
Dissolved Iron	0.3	0.15		mg/l	NA	NA	NA	NA	NS	NA	NS
Sulfate	250	125		mg/l	NA	NA	NA	NA	NS	NA	NS

Parameter	ES	Date		Units	10-May-95	09-Aug-95	28-Nov-95	15-Feb-96	15-Aug-96	11-Feb-97	21-May-98
		PAL									
GRO				µg/l	NS	X	NS	X	X	NA	NS
DRO				µg/l	NS	NA	NS	NA	NA	NA	NS
Lead	15	1.5		µg/l	NS	NA	NS	NA	NA	NA	NS
<b>VOC Parameters</b>											
Benzene	5	0.5		µg/l	NS	X	NS	X	X	X	NS
Ethylbenzene	700	140		µg/l	NS	X	NS	X	X	X	NS
Toluene	343	68.6		µg/l	NS	1	NS	X	X	X	NS
Xylenes (Total)	620	124		µg/l	NS	X	NS	X	X	X	NS
Methyl tert Butyl Ether	60	12		µg/l	NS	X	NS	X	X	X	NS
1,2,4-Trimethylbenzene				µg/l	NS	X	NS	X	X	X	NS
1,3,5-Trimethylbenzene				µg/l	NS	X	NS	X	X	X	NS
<b>Inorganics</b>											
Dissolved Oxygen				mg/l	NS	NA	NS	NA	1.1	0.4	9.05
Temperature				°C	NS	NA	NS	NA	10	7.5	10.77
pH					NS	NA	NS	NA	7.23	7.11	6.48
Alkalinity				mg/l	NS	NA	NS	NA	390	500	NS
Nitrate - Nitrogen	10	2		mg/l	NS	NA	NS	NA	3.76	3.48	NS
Dissolved Iron	0.3	0.15		mg/l	NS	NA	NS	NA	X	X	NS
Sulfate	250	125		mg/l	NS	NA	NS	NA	143	80.9	NS

**Notes:**

- ES = NR140.10 Enforcement Standards
- PAL = NR140.10 Preventive Action Limits
- X = Not Detected
- NS= Not Sampled
- NA= Not Analyzed
- = ES exceeded
- = PAL exceeded

**Table 4**  
 Central Wisconsin Co-operative (Cenex Gasoline Station)  
 Summary of Soil Analytical Results following Overexcavation  
 Marshfield, WI

Parameter	RCL	Sample	2B	4S	5S	7B	8S	9S	12S	13B	14B
		Date	4/29/96	4/29/96	4/29/96	4/29/96	4/29/96	4/29/96	4/29/96	4/30/96	4/30/96
		Depth (ft)	14	8	16	17	11	13	12	18	19
<b>GRO</b>	100		X	X	X	X	2,190	X	X	X	X
<b>DRO</b>	100		NS								
<b>Lead</b>	50		X	X	NS	NS	X	NS	NS	X	X
<b>VOC Parameters</b>											
Benzene	5.5		81	X	92	736	3,110	439	X	366	32
Ethylbenzene	2900			X	X	40	13,200	49	X	X	X
Toluene	1500		X	X	X	36	15,300	X	X	X	X
Xylenes (Total)	4100		X	X	X	86	60,900	X	X	X	X
Methyl tert Butyl Ether			X	X	X	X	566	35	X	X	X
1,2,4-Trimethylbenzene			X	X	X	42	69,600	X	X	X	X
1,3,5-Trimethylbenzene			X	X	X	X	32,700	X	X	X	X
1,2-Dichloroethane			46	NS	NS	156	240	NS	NS	X	X

Parameter	RCL	Sample	15S	16B	17B	18S	19S	20S	21S	22S	23B
		Date	4/30/96	4/30/96	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96
		Depth (ft)	10	19	19	13	12	14	14	13	19
<b>GRO</b>	100		X	X	X	X	X	X	X	X	X
<b>DRO</b>	100		NS	NS	NS	NS	NS	X	X	5.47	X
<b>Lead</b>	50		NS	NS	NS	NS	NS	X	NS	NS	NS
<b>VOC Parameters</b>											
Benzene	5.5		X	X	X	X	X	X	X	X	X
Ethylbenzene	2900		X	X	X	X	X	X	X	X	X
Toluene	1500		X	X	X	X	X	X	X	X	X
Xylenes (Total)	4100		X	X	X	X	X	X	X	X	X
Methyl tert Butyl Ether			X	X	X	X	X	X	X	X	X
1,2,4-Trimethylbenzene			X	X	X	X	X	X	X	X	X
1,3,5-Trimethylbenzene			X	X	X	X	X	X	X	X	X
1,2-Dichloroethane			NS	NS	NS	NS	NS	X	NS	NS	X

**Notes:**

VOC parameters reported in µg/kg (ppb) remaining parameters reported in mg/kg (ppm)

RCL = NR720.09 Residual Contaminant Levels

X = Not Detected

NS = Not Sampled

NA = Not Analyzed

RCL exceeded



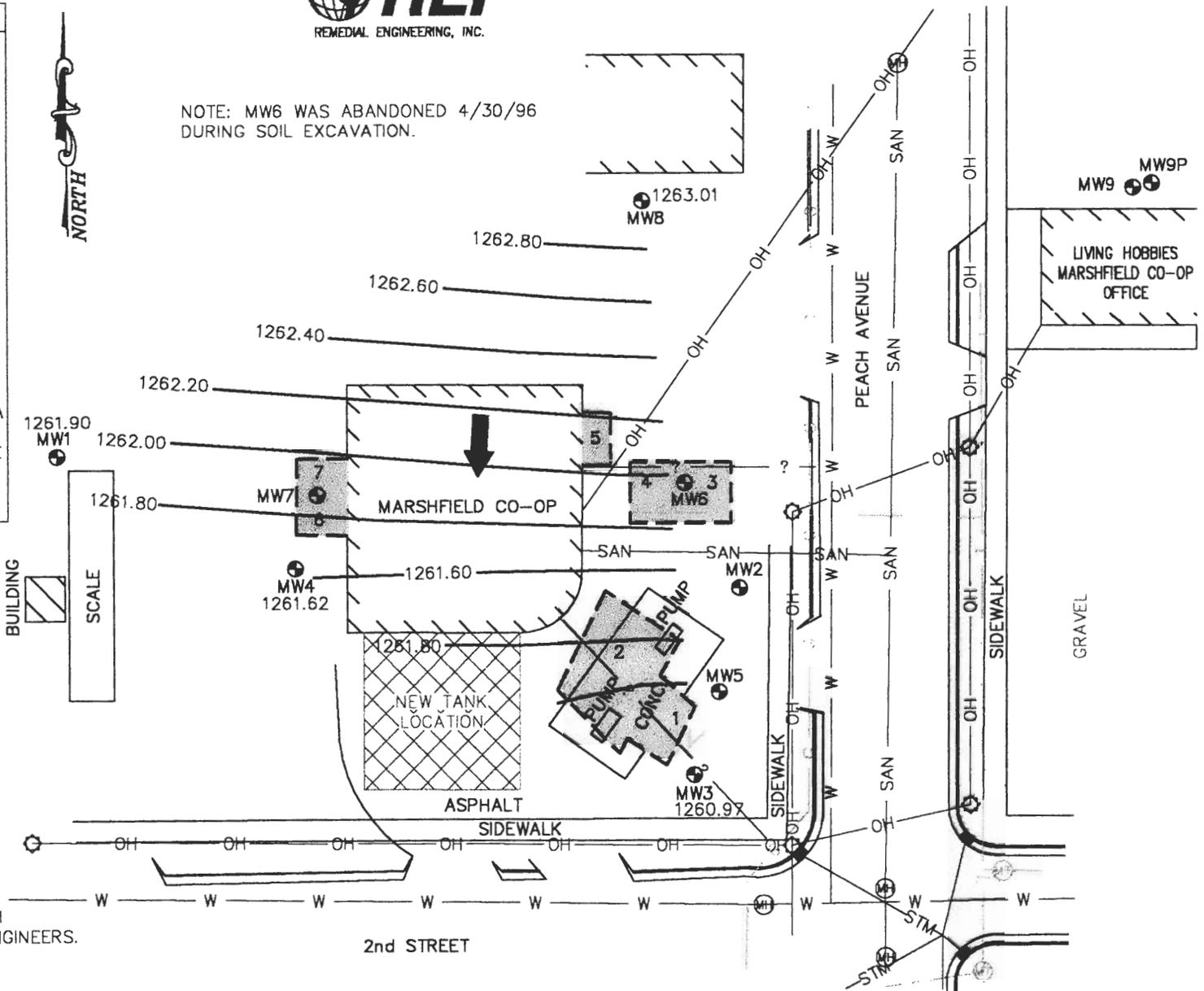
**LEGEND**

0 40  
SCALE: 1" = 40'

- ⊕ - MONITORING WELL
- GAS LINE
- OH— OVERHEAD UTILITIES
- SAN— SANITARY LINE
- W— WATER LINE
- ?— WATER OR SANITARY LINE
- STM— STORM LINE
- TELEPHONE LINE
- ⊕ (circle) - MANHOLE
- ⊕ (circle with X) - TELEPHONE MANHOLE
- ⊕ (circle with dot) - UTILITY POLE
- ⊕ (circle with triangle) - CURB INLET
- [Hatched Box] - APPROX. EXCAVATION AREA
- - GROUNDWATER CONTOUR LINE
- 1262.80 - GROUNDWATER FLOW DIRECTION (INTERVAL - 0.20 FT. - MSL)



NOTE: MW6 WAS ABANDONED 4/30/96 DURING SOIL EXCAVATION.



- FORMER TANK INFO**
- 1 = 3700 GAL. REGULAR
  - 2 = 10,000 GAL. UNLEADED
  - 3 = 555 GAL. #1 FUEL OIL
  - 4 = 3700 GAL. DIESEL
  - 5 = 300 GAL. KEROSENE
  - 6 = 1000 GAL. FUEL OIL
  - 7 = 300 GAL. DRAIN OIL

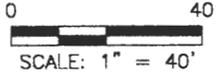
NOTE: DRAWING WAS DIGITIZED FROM DRAWING BY CENTRAL WISCONSIN ENGINEERS.

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CENTRAL WISCONSIN CO-OP 116 S. PEACH STREET MARSHFIELD, WISCONSIN		FIGURE 3c : WATER LEVEL CONTOUR MAP (8/15/96)	
		PROJECT NO. #1088	DRAWN BY: TAW
		DATE: 9/30/98	



LEGEND

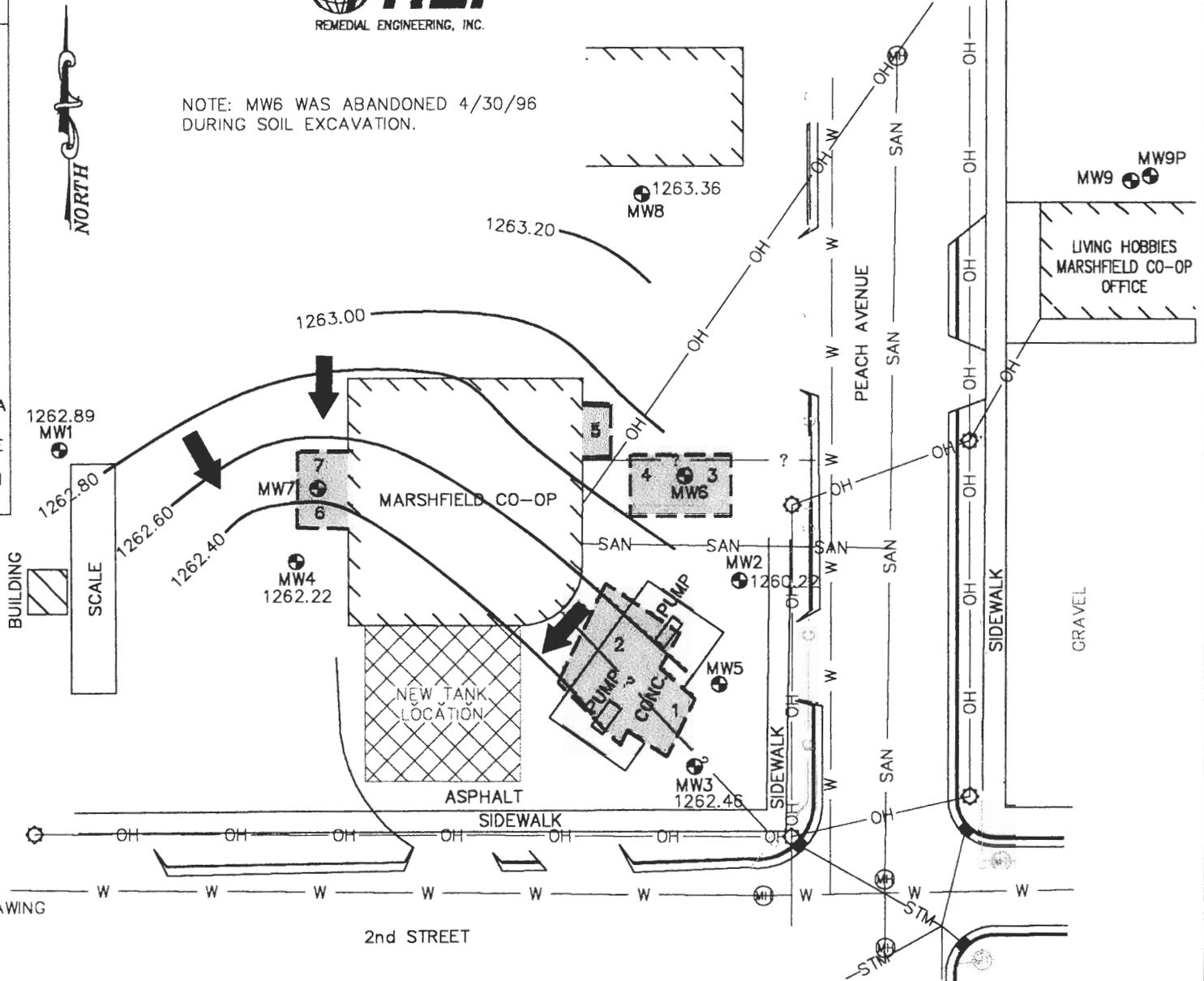


- ⊕ - MONITORING WELL
- - GAS LINE
- OH — OVERHEAD UTILITIES
- SAN — SANITARY LINE
- W — WATER LINE
- ? — WATER OR SANITARY LINE
- STM — STORM LINE
- - TELEPHONE LINE
- ⊙ — TELEPHONE MANHOLE
- ⊙ — UTILITY POLE
- ⊙ — CURB INLET
- ▭ — APPROX. EXCAVATION AREA
- ➔ — GROUNDWATER CONTOUR LINE
- 1262.80 — GROUNDWATER FLOW DIRECTION (INTERVAL - 0.20 FT. - MSL)

FORMER TANK INFO

- 1 = 3700 GAL. REGULAR
- 2 = 10,000 GAL. UNLEADED
- 3 = 555 GAL. #1 FUEL OIL
- 4 = 3700 GAL. DIESEL
- 5 = 300 GAL. KEROSENE
- 6 = 1000 GAL. FUEL OIL
- 7 = 300 GAL. DRAIN OIL

NOTE: MW6 WAS ABANDONED 4/30/96 DURING SOIL EXCAVATION.



NOTE: DRAWING DIGITIZED FROM DRAWING BY CENTRAL WISCONSIN ENGINEERS.

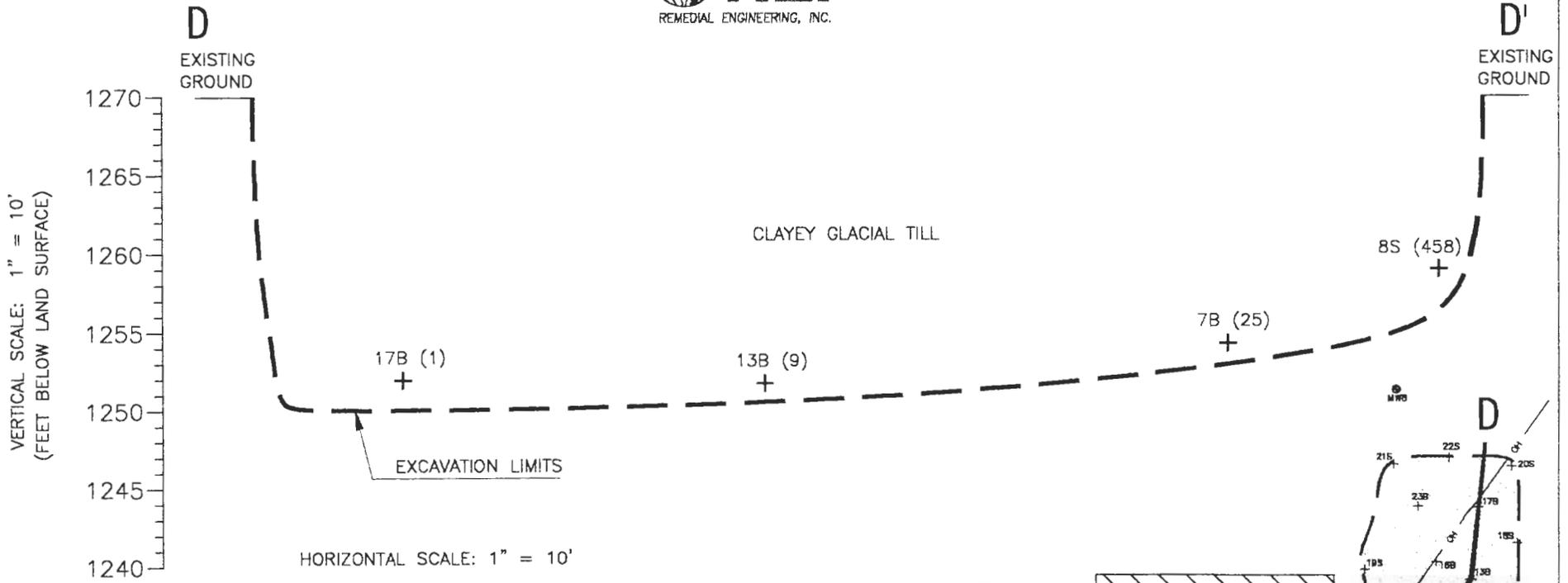
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CENTRAL WISCONSIN CO-OP  
116 S. PEACH STREET  
MARSHFIELD, WISCONSIN

FIGURE 3b : WATER LEVEL CONTOUR MAP (5/21/98) WITH MW2 IGNORED

PROJECT NO.	DRAWN BY:	DATE:
#1088	TAW	9/30/98





**LEGEND**

+ - FIELD SCREENED AND LAB SAMPLES (CONCENTRATION IN METER UNITS AS ISOBUTYLENE)

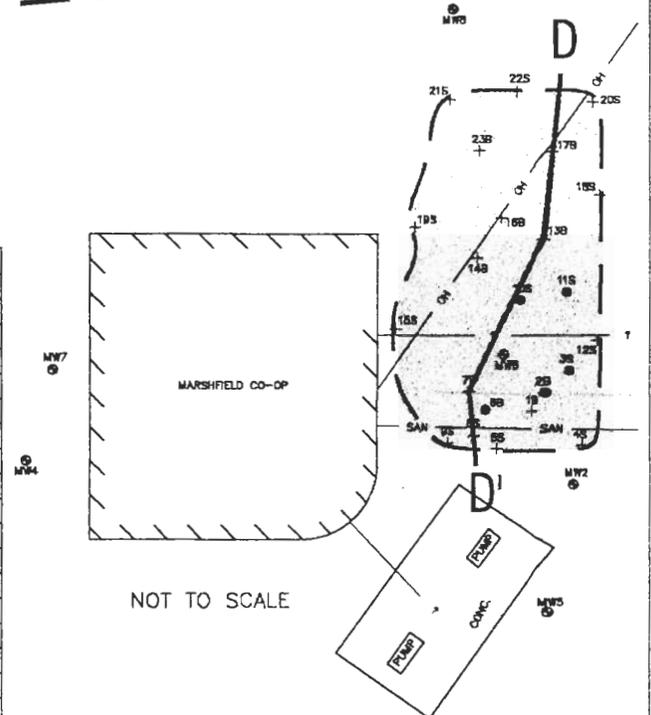
ND - NOT DETECTED

NA - NOT ANALYZED

 - EXCEEDS NR720 SOIL CLEANUP STANDARD

NOTE: DRAWING DIGITIZED FROM DRAWING BY CENTRAL WISCONSIN ENGINEERS.

Sample I.D.	7B	8S	13B	17B
Sample Depth (FT.)	17	11	18	19
Sample Date	4/29/96	4/29/96	4/30/96	5/1/96
ORGANICS (TPH)				
GRO	ND	2,190	ND	ND
DRO	NA	NA	NA	NA
ORGANICS (VOC)				
Benzene	0.736	3.11	0.368	ND
Ethylbenzene	0.04	13.2	ND	ND
Toluene	0.036	15.3	ND	ND
o Xylene & Styrene	0.035	20.7	ND	ND
m & p Xylenes	0.051	45.6	ND	ND
1,2 - DCA	0.156	0.24	ND	NA
MTBE	ND	0.566	ND	ND
1,2,4-TMB	0.042	69.6	ND	ND
1,3,5-TMB	31	32.7	ND	ND
METALS				
Lead	ND	ND	ND	NA



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CENTRAL WISCONSIN CO--OP  
116 S. PEACH STREET  
MARSHFIELD, WISCONSIN

FIGURE 4b : CROSS-SECTION D-D'

PROJECT NO.

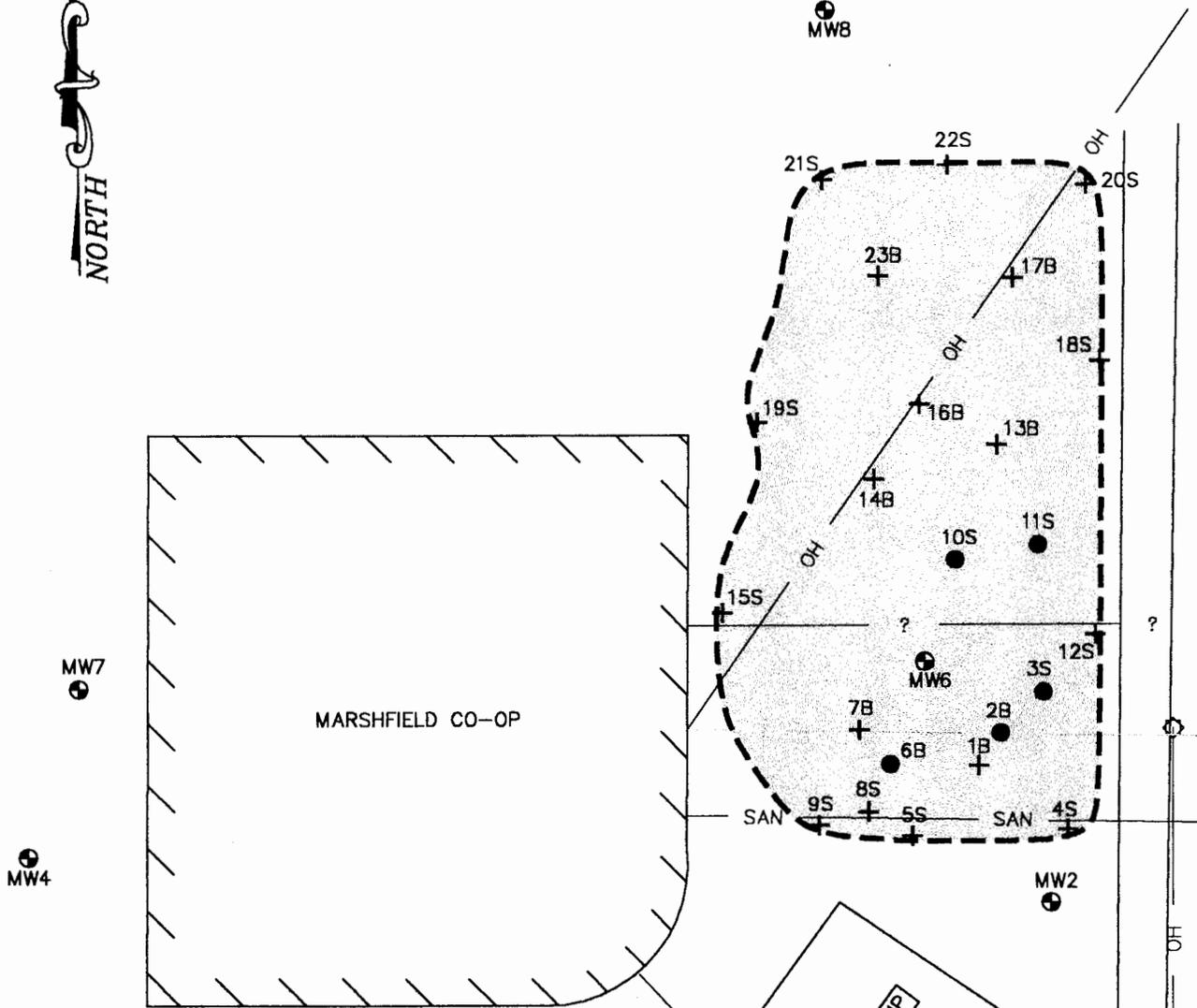
#1088

DRAWN BY:

TAW

DATE:

10/1/98

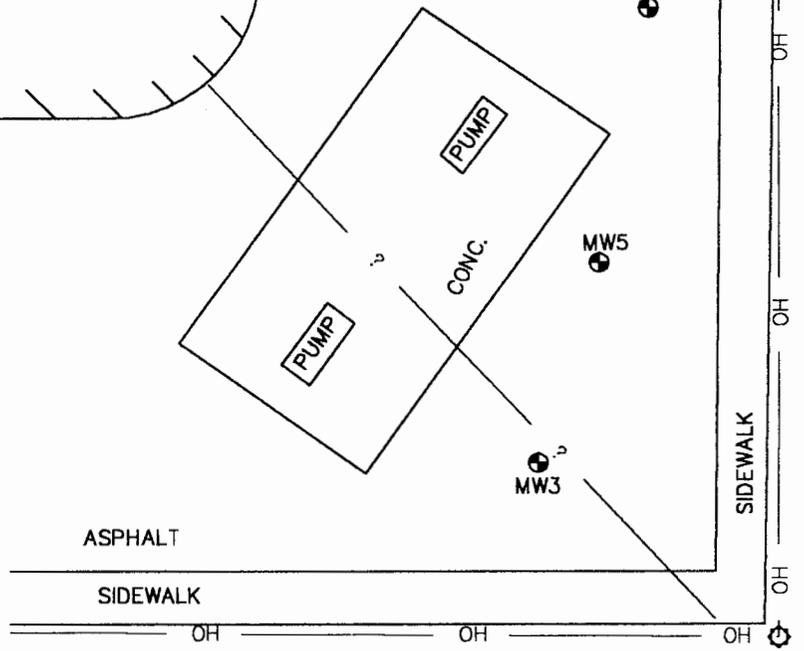


NOTE: DRAWING DIGITIZED FROM DRAWING BY CENTRAL WISCONSIN ENGINEERS.

**LEGEND**

0 20  
SCALE: 1" = 20'

- ⊕ - MONITORING WELL
- - SOIL SAMPLE
- + - SOIL SAMPLE
- OH — OVERHEAD UTILITIES
- ? — WATER OR SANITARY LINE
- TELEPHONE LINE
- SAN — SANITARY SEWER
- ⊙ - UTILITY POLE
- [ - - ] - APPROX. EXCAVATION AREA



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CENTRAL WISCONSIN CO-OP  
116 S. PEACH STREET  
MARSHFIELD, WISCONSIN

FIGURE 4a : POST REMEDIATION SOIL SAMPLE LOCATIONS

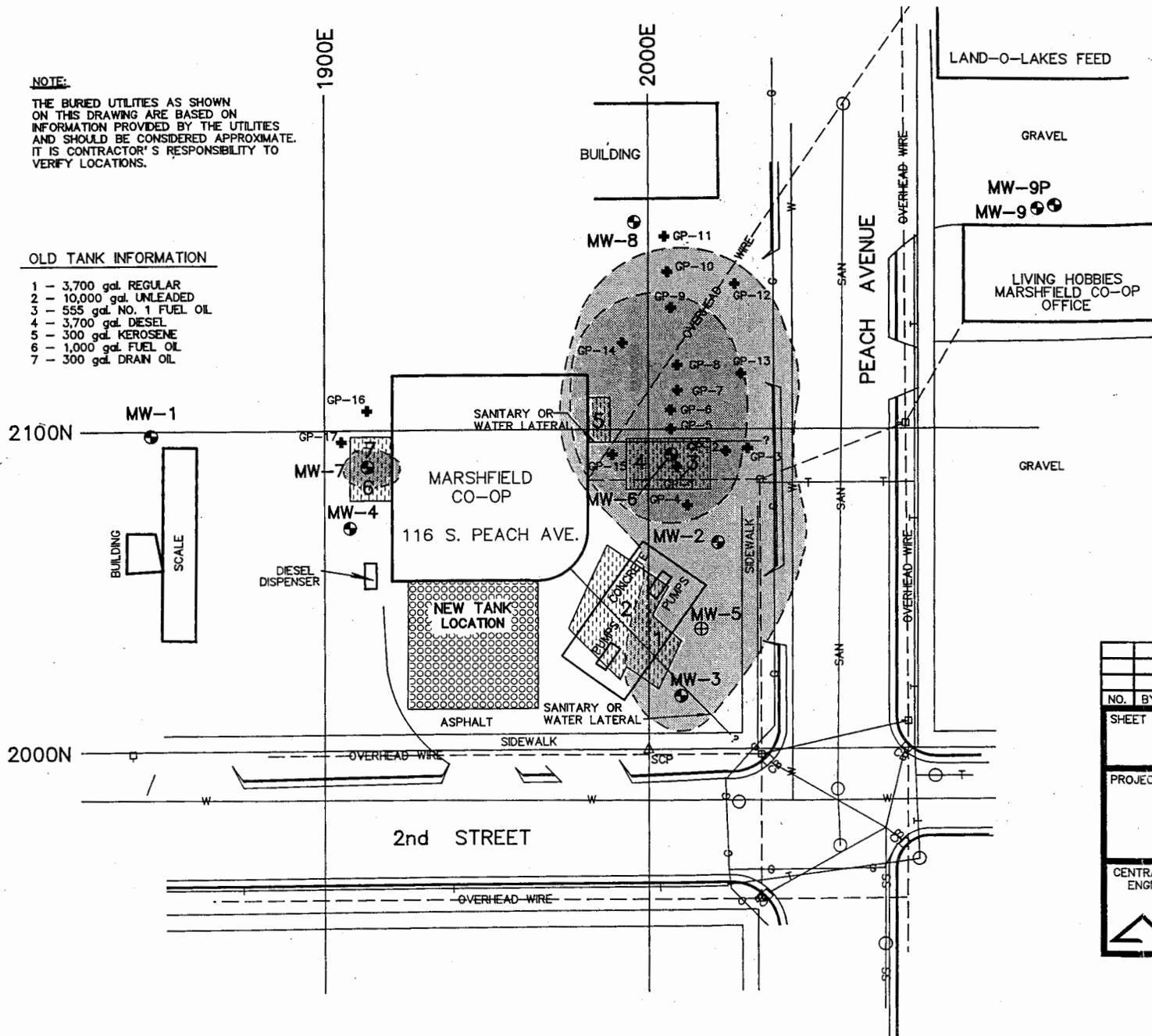
PROJECT NO.	DRAWN BY:	DATE:
#1088	TAW	9/30/98

**NOTE:**

THE BURIED UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY THE UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. IT IS CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS.

**OLD TANK INFORMATION**

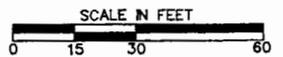
- 1 - 3,700 gal. REGULAR
- 2 - 10,000 gal. UNLEADED
- 3 - 555 gal. NO. 1 FUEL OIL
- 4 - 3,700 gal. DIESEL
- 5 - 300 gal. KEROSENE
- 6 - 1,000 gal. FUEL OIL
- 7 - 300 gal. DRAIN OIL



**LEGEND**

- CATCH BASIN
- ⊕ MONITORING WELL
- ⊕ GEOPROBE BORING
- △ SURVEY CONTROL POINT
- POWER POLE
- MANHOLE
- BURIED GAS
- BURIED TELEPHONE
- SAN SANITARY SEWER
- SS STORM SEWER
- W WATER MAIN
- ▨ NEW TANK LOCATION
- ▨ TANK EXCAVATION AREA
- ▨ GROUNDWATER CONTAMINATION
- ▨ SOIL CONTAMINATION

NOTE: TRUE NORTH IS 34° WEST FROM GRID NORTH



NO.	BY	DATE	REVISION	APP' D.
SHEET TITLE				
EXTENT OF GROUNDWATER AND SOIL CONTAMINATION				
PROJECT				
MARSHFIELD CO-OP MARSHFIELD, WISCONSIN				
CENTRAL WISCONSIN ENGINEERS, INC.		DRAWN BY R.H.		FIGURE 1
		CHECKED BY <i>M.D.</i>		
		APP' D. BY <i>M.D.</i>		
		DATE 3/93		
		PROJ. NO. 83089070		DNR NO. NCD/UID 44