State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN DEPT. OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
William H. Smith, Regional Director

Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-0818
Telephone 715-365-8900
FAX 715-365-8932
TDD 715-365-8957

November 6, 2000

George & Estelle Christl
2048 Treeridge Dr SE
Grand Rapids, MI 49508

Subject: Christl Motors, 4245 CTH B, Land O'Lakes, WI BRRTS # 03-64-001090

Dear Mr. and Mrs. Christl:

The above-referenced site has been reviewed for closure by the Northern Region Closure Committee. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On May 17, 2000, you were notified that the Closure Committee had granted conditional closure to this case.

On November 4, 2000, the Department received correspondence indicating that you have complied with the conditions of closure, specifically the recording of a groundwater use restriction for the property. Based on the correspondence and the data provided, it appears that your site has been remediation to Department standards in accordance with 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.

However, please be aware that this case may be reopened pursuant to NR 726.09, Wis Adm 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.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 715-365-8990.

Sincerely,
NORTHERN REGION

Janet Kazda

Janet Kazda
Remediation and Redevelopment Program

c: File

Chris Mattson
MSA
1835 N Stevens St
Rhinelander, WI 54501

366966

Document Number

VOL 937 PAGE 646

GROUNDWATER USE RESTRICTION

Declaration of Restrictions

In Re: A parcel of land being a part of Government Lot 4, Section 35, Township 43 North, Range 10 East, Town of Land O' Lakes, more particularly described as follows: Commencing at the intersection of the Wisconsin-Michigan State line with the centerline of the abandoned Chicago & Northwestern Railroad marked by an iron pipe: Thence South along said centerline 189.00 feet; thence West at a right angle 150.00 feet to an iron pipe on the northerly R/W line of Country Trunk Hwy. B and the westerly R/W line of a town road and the PLACE OF BEGINNING: Thence continuing West in a straight line 105.00 feet along said northerly R/W line to an iron pipe; thence North at a right angle 118.00 feet to an iron pipe; thence West at a right angle 100.00 feet to an iron pipe; thence North at a right angle 7.00 feet to an iron pipe; thence West at a right angle 140.00 feet to an iron pipe; thence North at a right angle 50.00 feet to an iron pipe on the southerly line of Volume 105, Page 232, Vilas County Records; thence East at a right angle 285.00 feet along said southerly line to an iron pipe; thence South at a right angle 51.00 feet; thence East at a right angle 60.00 feet to an iron pipe on the westerly R/W line of said town road; thence South at a right angle 124.00 feet parallel with and 150.00 feet West of said railroad centerline back to the PLACE OF BEGINNING.

RECORDED

OCT 2 5 2000

10:15am

Joan Hansen

REGISTER OF DEEDS, VILAS CO., WI

Recording Area

Name and Return Address

Mark and Barbara Renc

4246 County Highway B

Land O' Lakes, WI 54540

14-pl

CHRIS MATTSON

MSA PROFESSIONAL SERVICES INC

1835 N Stevens ST

Rhinelander, WI 54501

Parcel Identification Number (PIN)

STATE OF WISCONSIN)
) ss
COUNTY OF VILAS)

WHEREAS, Mark and Barbara Renc are the owners of the above-described property.

WHEREAS, one or more petroleum discharges have occurred at this property. Groundwater samples were collected on July 28, 1999, and monitoring well MW-2A contained total xylenes above the Wis. Adm. Code NR 140 preventive action limits (PALs) at 190 ug/L, and naphthalene above the Wis. Adm. Code NR 140 enforcement standard (ES) at 311 ug/L.

The locations of the monitoring wells are shown on Figure 3, which is attached and hereby made a part of this restriction.

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 at the present time.

WHEREAS, natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 Wis. Adm. Code 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 Wis. Adm. Code is restricted by ch. NR 811 Wis. Adm. Code and ch. NR 812 Wis. Adm. Code. 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:

If construction is proposed on this property that will require dewatering, or if groundwater is to be otherwise extracted from this property, while this groundwater use restriction is in effect, the groundwater shall be sampled

and analyzed for contaminants that were previously detected on the property and any extracted groundwater shall be managed in compliance with applicable statutes and rules.

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 requirements are applicable, 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, with a copy of the Department's written determination, may 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 20th day of October, 2000.

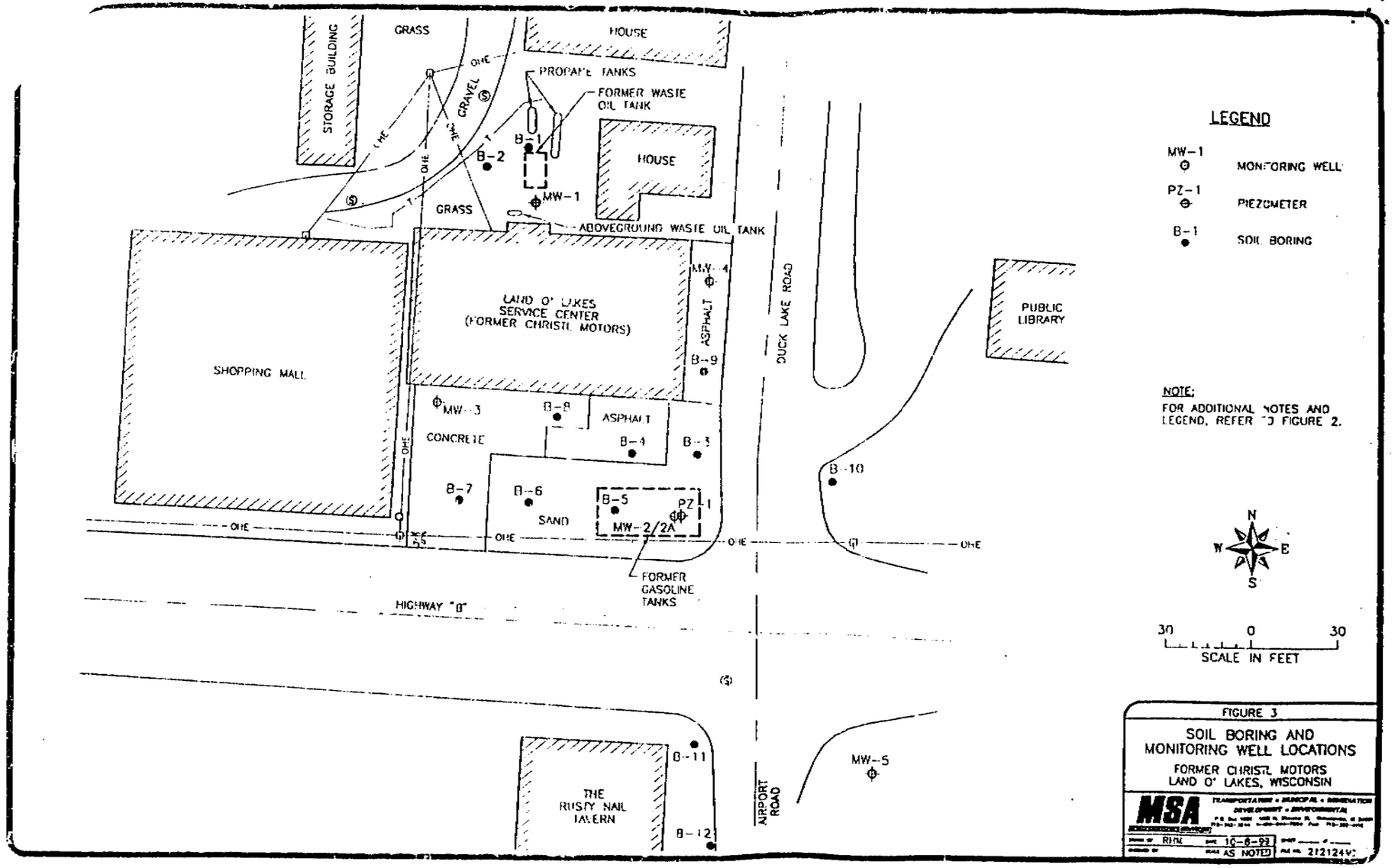
Signature: Mark E. Renc
Printed Name: Mark E. Renc

Signature: Barbara A. Renc
Printed Name: Barbara A. Renc

Subscribed and sworn to before me
this 20th day of October 2000.

Pamela L. Fox
Notary Public, State of Wis.
My commission 1-19-2003

Brian Hegge
This document was drafted by MSA Professional Services, 1835 N. Stevens Street, Rhinelander, WI 54501, based on comments from the Wisconsin Department of Natural Resources.


STORAGE BUILDING
GRASS
HOUSE
PROPANE TANKS
FORMER WASTE OIL TANK
GRAVEL
OHE
B-1
B-2
MW-1
HOUSE
GRASS
ABOVEGROUND WASTE OIL TANK
SHOPPING MALL
LAND O' LAKES SERVICE CENTER (FORMER CHRISTL MOTORS)
MW-4
ASPHALT
B-9
DUCK LAKE ROAD
PUBLIC LIBRARY
MW-3
B-8
ASPHALT
CONCRETE
B-4
B-3
B-10
B-7
B-6
B-5
PZ-1
SAND
MW-2/2A
FORMER GASOLINE TANKS
HIGHWAY "B"
B-11
THE RUSTY NAIL TAVERN
B-12
AIRPORT ROAD
MW-5
LEGEND
MW-1 MONITORING WELL
PZ-1 PIEZOMETER
B-1 SOIL BORING
NOTE:
FOR ADDITIONAL NOTES AND LEGEND, REFER TO FIGURE 2.
N
W
E
S
30 0 30
SCALE IN FEET
FIGURE 3
SOIL BORING AND MONITORING WELL LOCATIONS
FORMER CHRISTL MOTORS
LAND O' LAKES, WISCONSIN
MSA
RHM
10-8-93
AS NOTED

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
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Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-0818
Telephone 715-365-8900
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TDD 715-365-8957

May 17, 2000

Mr. George Christl
2048 Trieridge Dr SE
Grand Rapids, MI 49508

Subject: Christl Motors, 4246 CTH B, Land O'Lakes, WI
BRRTS # 03-64-001090 PECFA #54540*0540-46

Dear Mr. Christl:

The Department of Natural Resources provided a notice to you that the degree and extent of petroleum products 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 May 5, 2000, the above-named site was reviewed by the Northern Region Closeout Committee for a determination as to whether or not the case qualified for close out under ch. NR 726, Wis. Adm. Code.

Based on the investigative and remedial documentation provided to the Department, it appears that the petroleum products contamination at the above-named site has been remediated to the extent practicable under current site conditions, and that no further action is necessary at this time. Therefore, the Department will consider the case "closed," pursuant to NR 726.05(8)(am), if the responsible party sign and record a Groundwater Use Restriction for the property.

Please send a copy of the deed for your property to me at the above address within 30 days.

Enclosed is an example of a Groundwater Use Restriction. Please draft a specific Groundwater Use Restriction for this site and submit the draft to me. This document is available on the Department's website at www.dnr.state.wi.us. Department of Natural Resources attorneys will review the draft and return it to you with revisions. After you have made the revisions, you should sign and record the restriction with the County Register of Deeds. To document that this condition has been complied with, the responsible party must submit to the Department a copy of the recorded Groundwater Use Restriction, with the recording information stamped on it, within 15 days after the Register of Deeds returns the Groundwater Use Restriction to the responsible party. The Groundwater Use Restriction may be amended in the future with the approval of DNR is conditions change at the site and the residual contamination is remediated.

The groundwater use restriction is an option that the Department can offer to you in order to close this site. If you choose not to accept this option, you may perform additional investigation and cleanup of the remaining contamination. Note that this additional work may not be eligible for reimbursement through the Petroleum Environmental Cleanup Fund Award (PECFA) Program. You should contact the Department of Commerce to determine eligibility of the additional work for reimbursement.

Please note that this case closure is contingent upon proper documentation of proper abandonment of the monitoring wells on site. If monitoring wells remain at this site, please provide the documentation that this action has been completed, or have your consultant do so. Please complete Form 3300-5B and send it to my attention at the above address.

If you have any additional information which was not formerly provided to the Department, and which you feel would significantly impact this closure decision, you may submit that information for our re-evaluation of case closure.

If you have any questions, please call me at 715-365-8990.

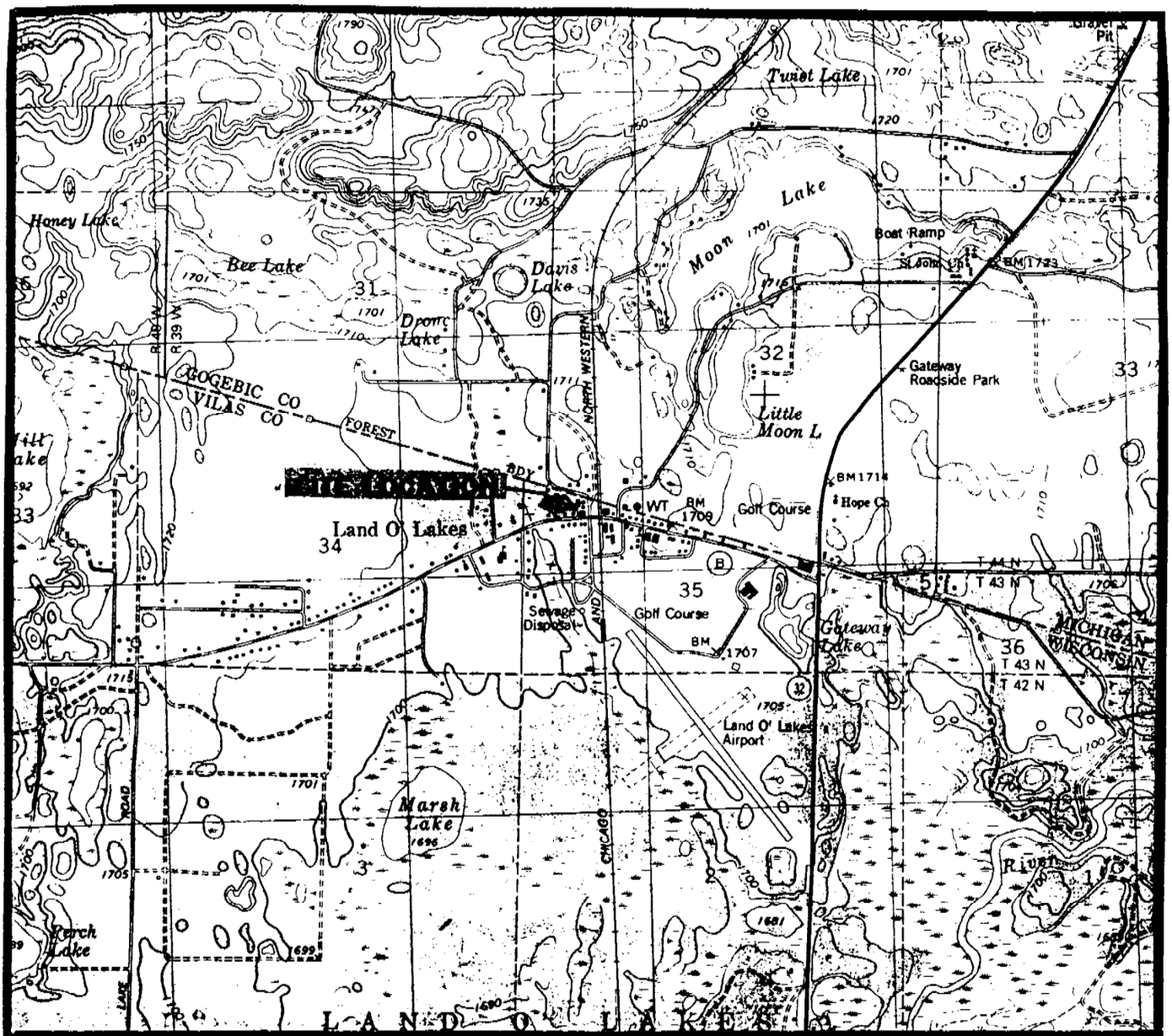
Sincerely,
NORTHERN REGION

Janet Kazda

Janet Kazda
Case Closeout Committee

cc: File
Lori Huntoon, Dept of Commerce
Steve Karklins, DG/2
Chuck Fitzgerald, Rhinelander
Ron Becker, Rhinelander
Chuck Weister, Rhinelander

Brian Hegge
MSA
1835 N Stevens St
Rhinelander, WI 54501



MSA

CHRISTL MOTORS
LAND O' LAKES, WI

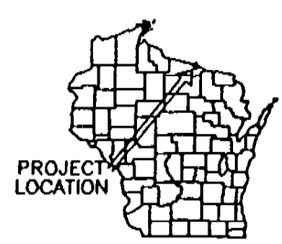
N
W E
S

FIGURE 1
SITE LOCATION MAP

UNITED STATES DEPARTMENT OF
THE INTERIOR GEOLOGICAL SURVEY

LAND O' LAKES, WI–MI
N4607.5–W8907.5/7.5
1982

SCALE
0 1/2 1
MILES



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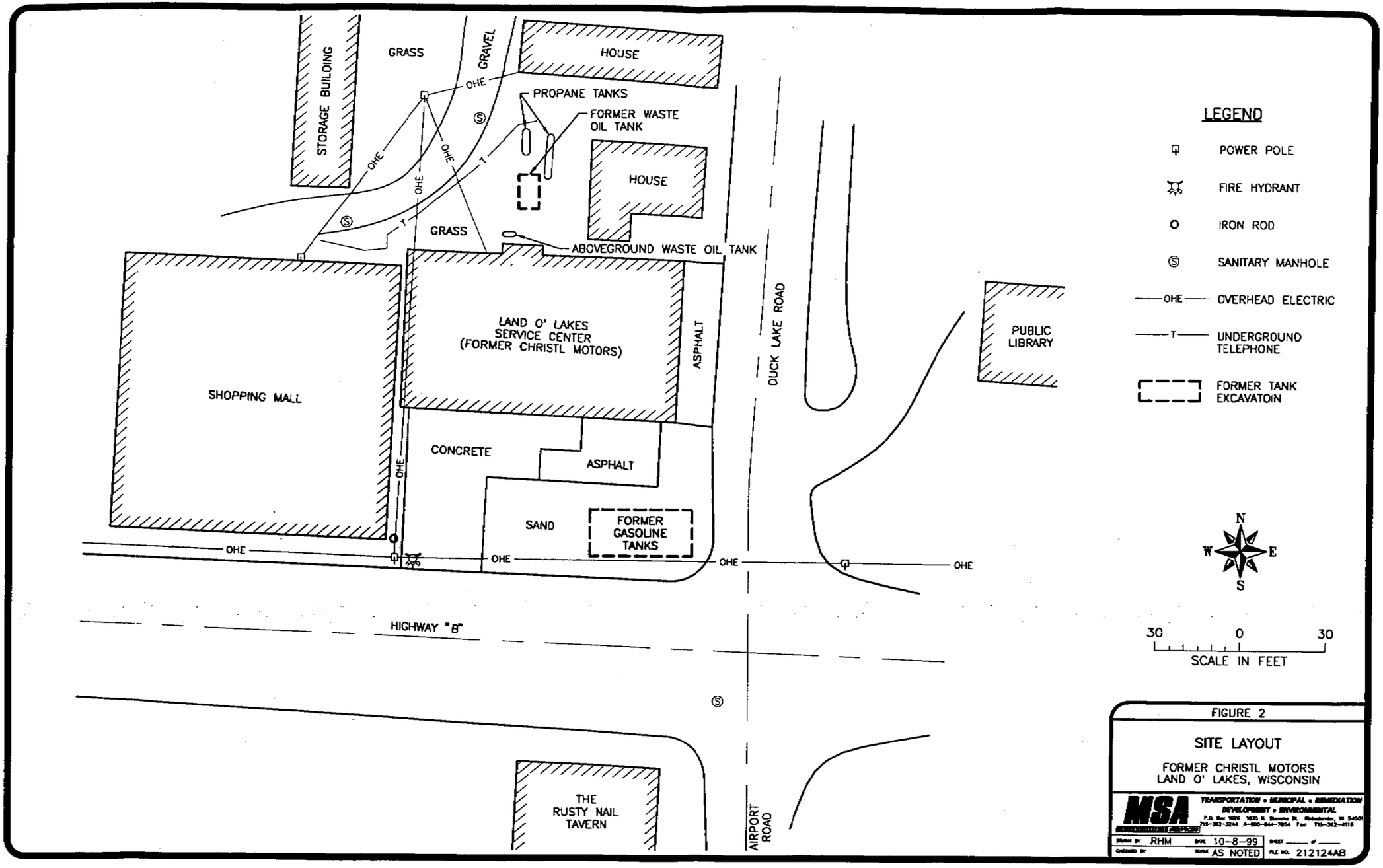

FIGURE 2

SITE LAYOUT

FORMER CHRISTL MOTORS
LAND O' LAKES, WISCONSIN

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DEVELOPMENT • ENVIRONMENTAL
P.O. Box 1025 1635 N. Stevens St. Rhinelander, WI 54501
715-362-3244 1-800-841-7654 Fax 715-362-4116

DRAWN BY RHM	DATE 10-8-99	SHEET ___ of ___	
CHECKED BY	SCALE AS NOTED	FILE NO. 212124AB	

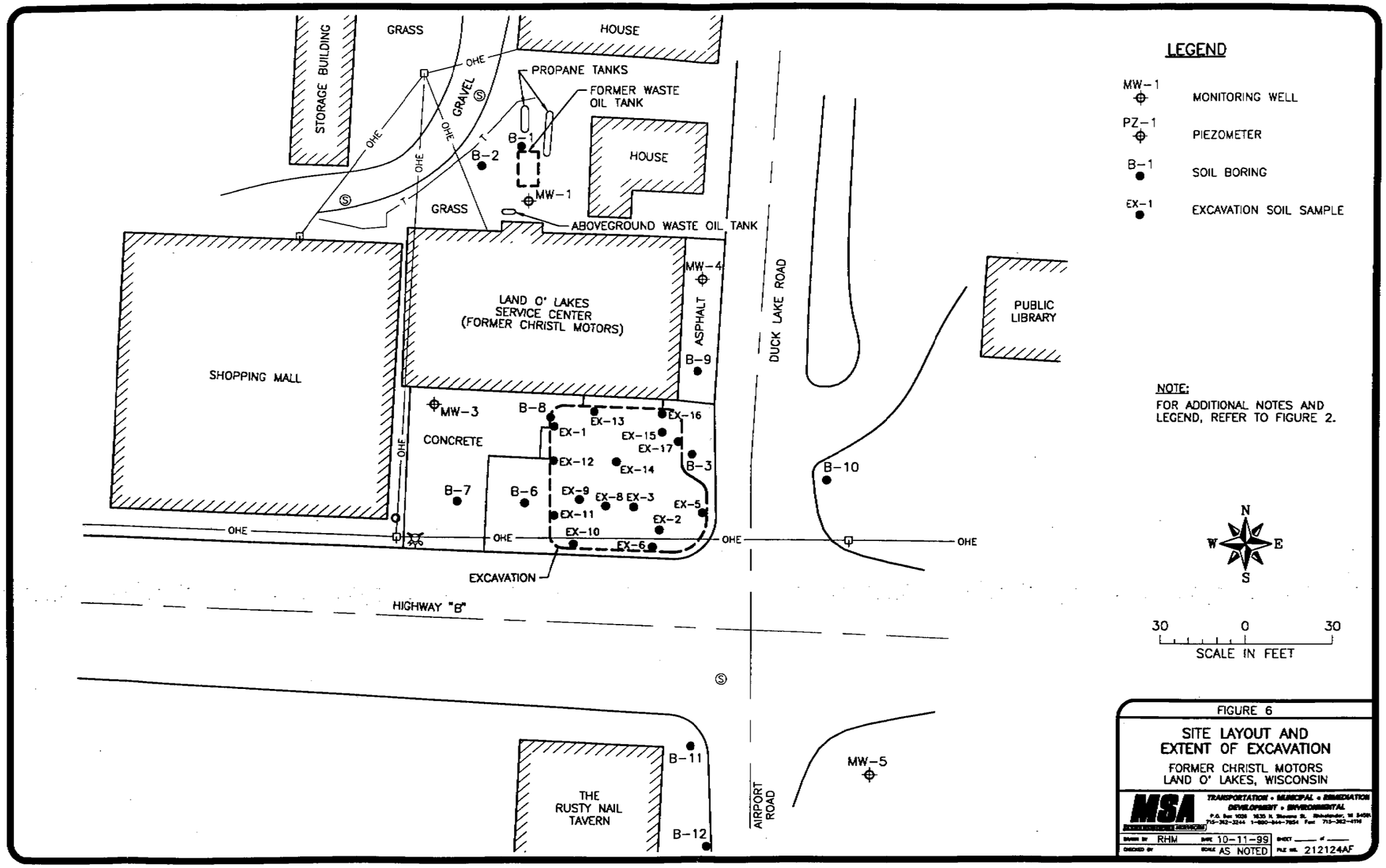

FIGURE 6

SITE LAYOUT AND EXTENT OF EXCAVATION

FORMER CHRISTL MOTORS
LAND O' LAKES, WISCONSIN

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DRAWN BY RHM DATE 10-11-99 SHEET ___ of ___
CHECKED BY SCALE AS NOTED FILE NO. 212124AF

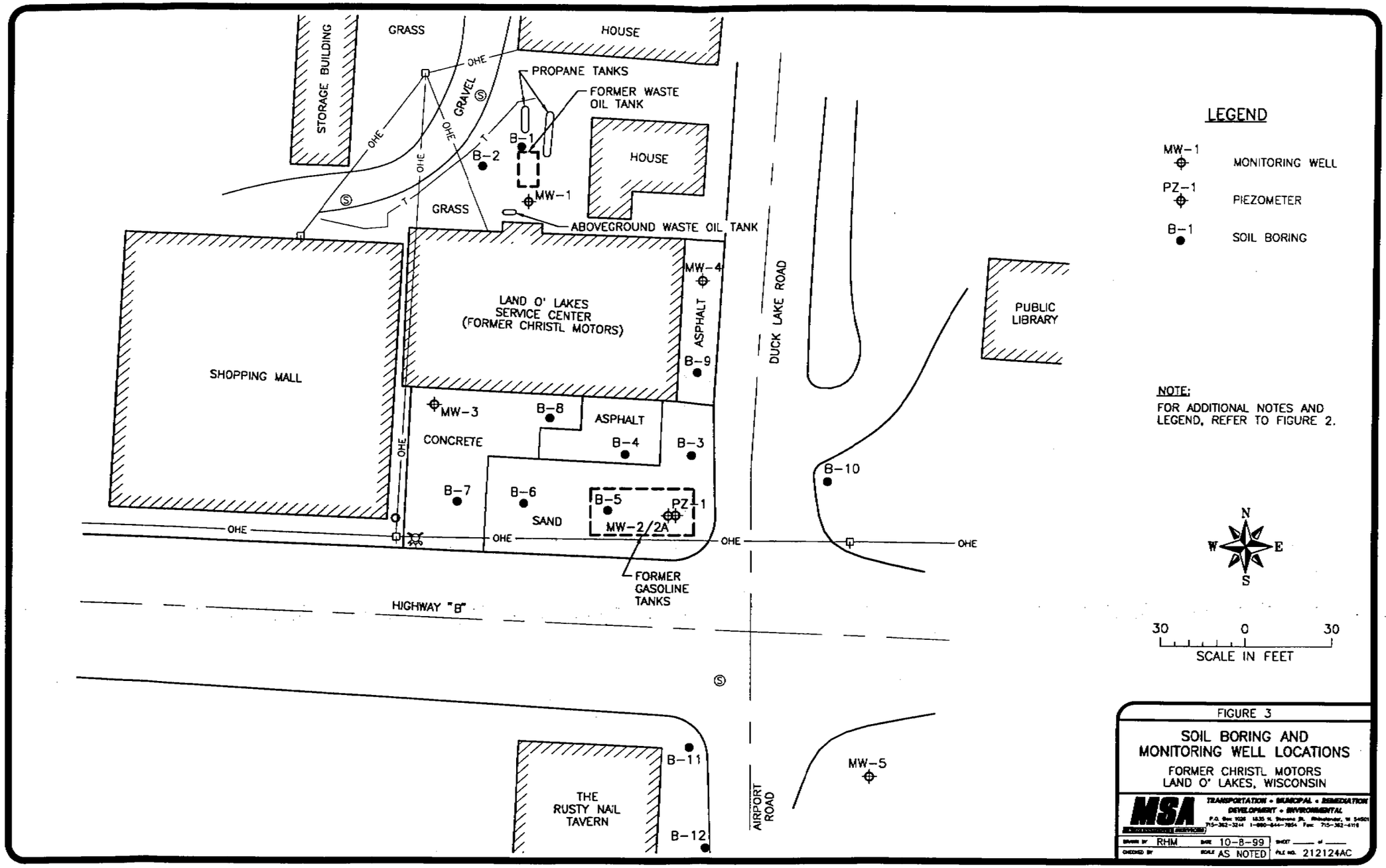

FIGURE 3

SOIL BORING AND MONITORING WELL LOCATIONS

FORMER CHRISTL MOTORS
LAND O' LAKES, WISCONSIN

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DRAWN BY RHM DATE 10-8-99 SHEET ___ of ___
CHECKED BY SCALE AS NOTED FILE NO. 212124AC

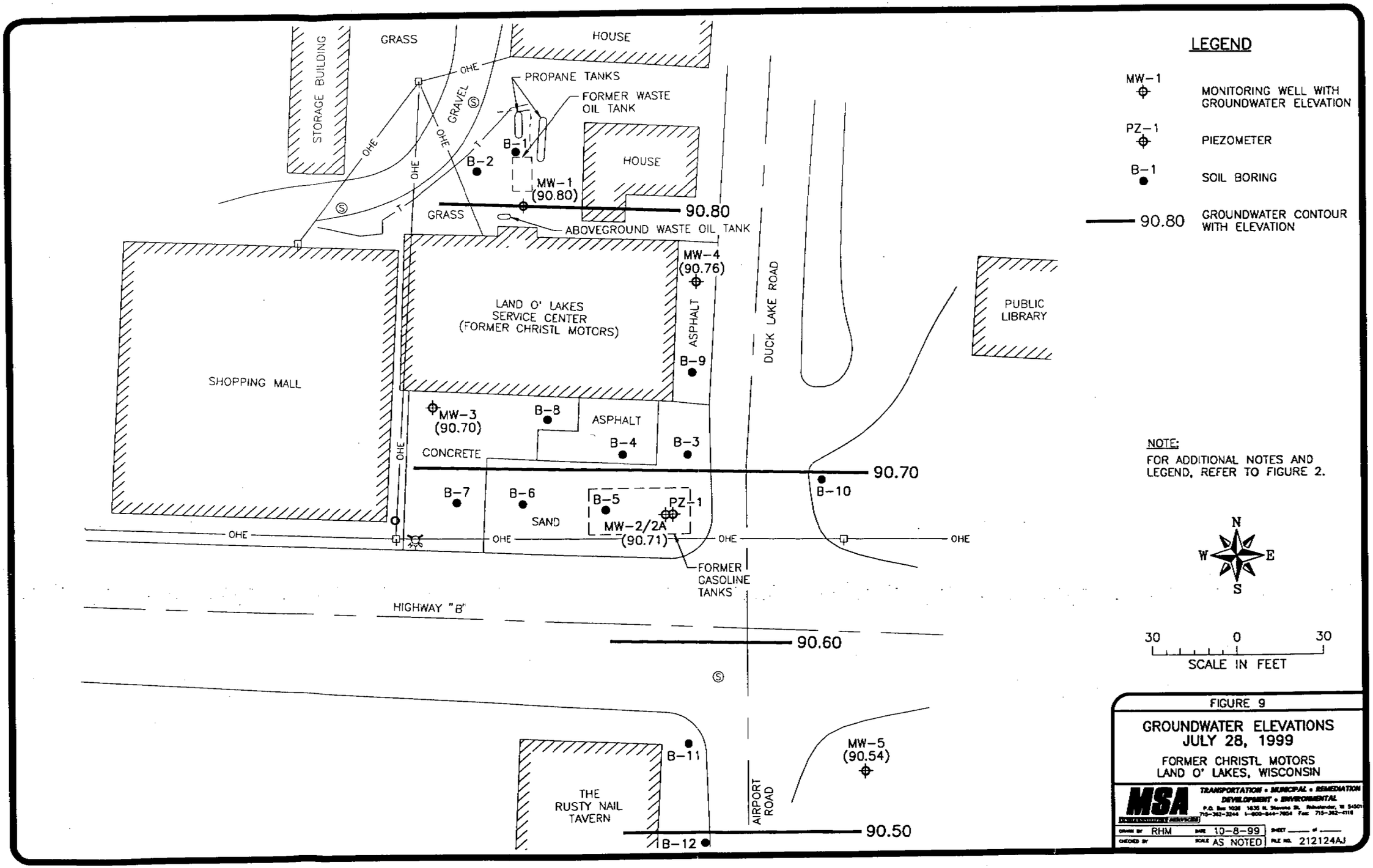

FIGURE 9

GROUNDWATER ELEVATIONS
JULY 28, 1999

FORMER CHRISTL MOTORS
LAND O' LAKES, WISCONSIN

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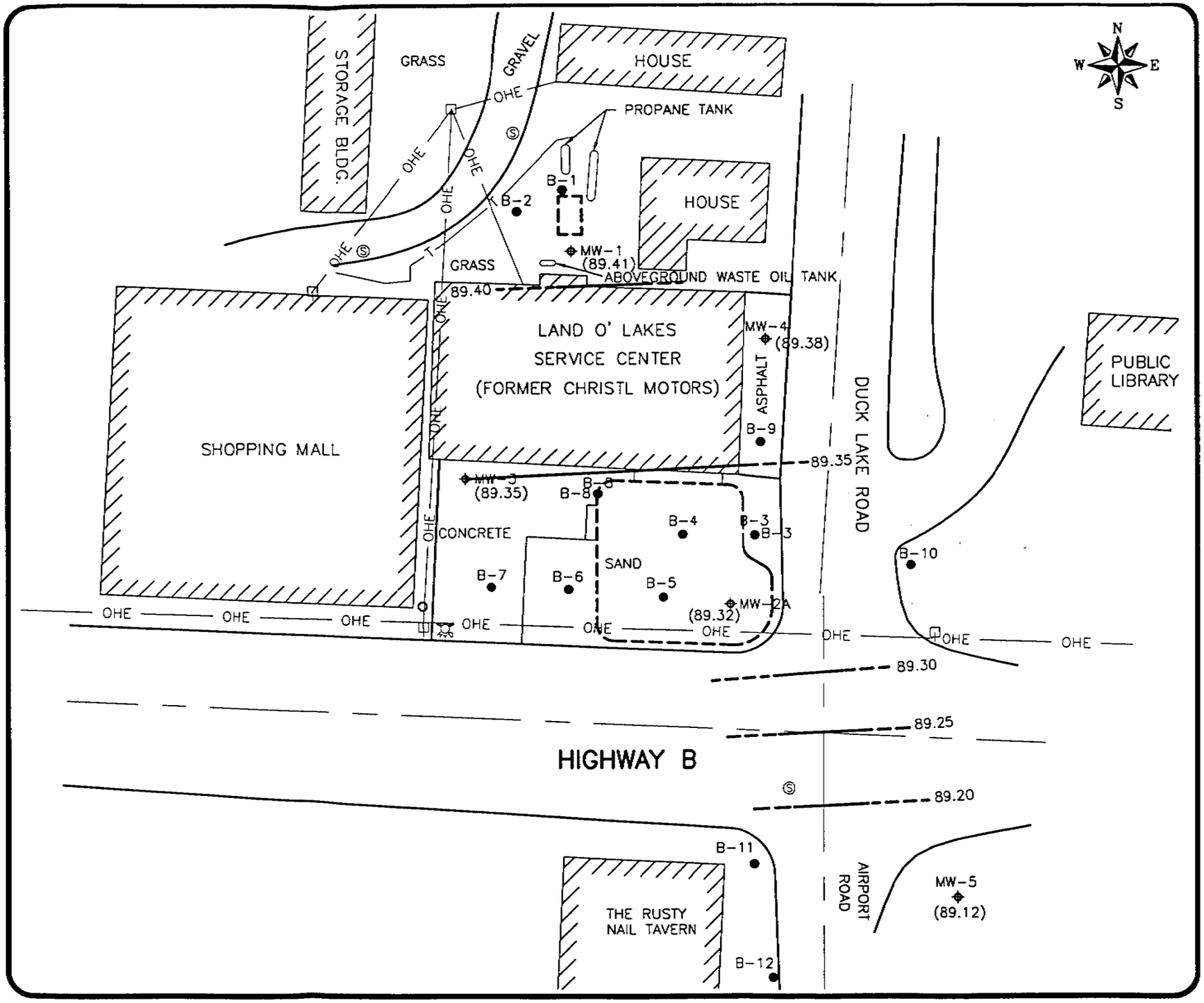
DRAWN BY RHM DATE 10-8-99 SHEET ___ of ___
CHECKED BY SCALE AS NOTED FILE NO. 212124AJ



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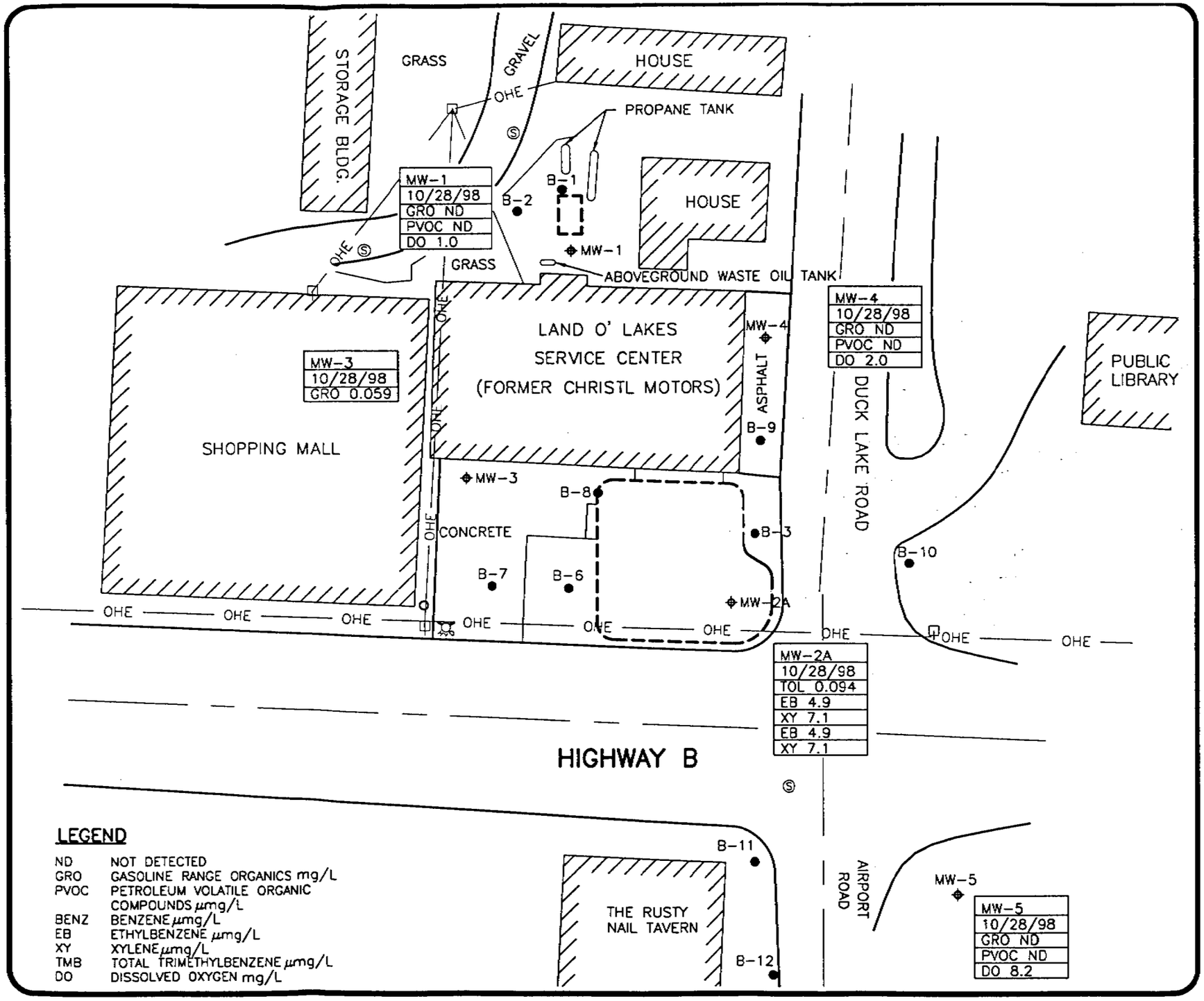
P.O. BOX 1026 1835 N. STEVENS ST. RHINELANDER, WI 54501
715-362-3244 1-800-844-7854 Fax 715-362-4116

LEGEND

MW-1 — MONITORING WELL
PZ-1 — PIEZOMETER
SOIL BORING
OHE — OVERHEAD ELECTRIC
T — UNDERGROUND TELEPHONE
FORMER TANK EXCAVATION
POWER POLE
FIRE HYDRANT
IRON ROD
SANITARY SEWER MANHOLE
91.20 — GROUNDWATER CONTOURS (DASHED WHERE INFERRED) 0.05' INTERVAL

30 0 30
SCALE IN FEET

FIGURE 6
GROUNDWATER ELEVATIONS
10/28/98
FORMER CHRISTL MOTORS
LAND O'LAKES, WI



LEGEND

ND	NOT DETECTED
GRO	GASOLINE RANGE ORGANICS mg/L
PVOC	PETROLEUM VOLATILE ORGANIC COMPOUNDS µmg/L
BENZ	BENZENE µmg/L
EB	ETHYLBENZENE µmg/L
XY	XYLENE µmg/L
TMB	TOTAL TRIMETHYLBENZENE µmg/L
DO	DISSOLVED OXYGEN mg/L

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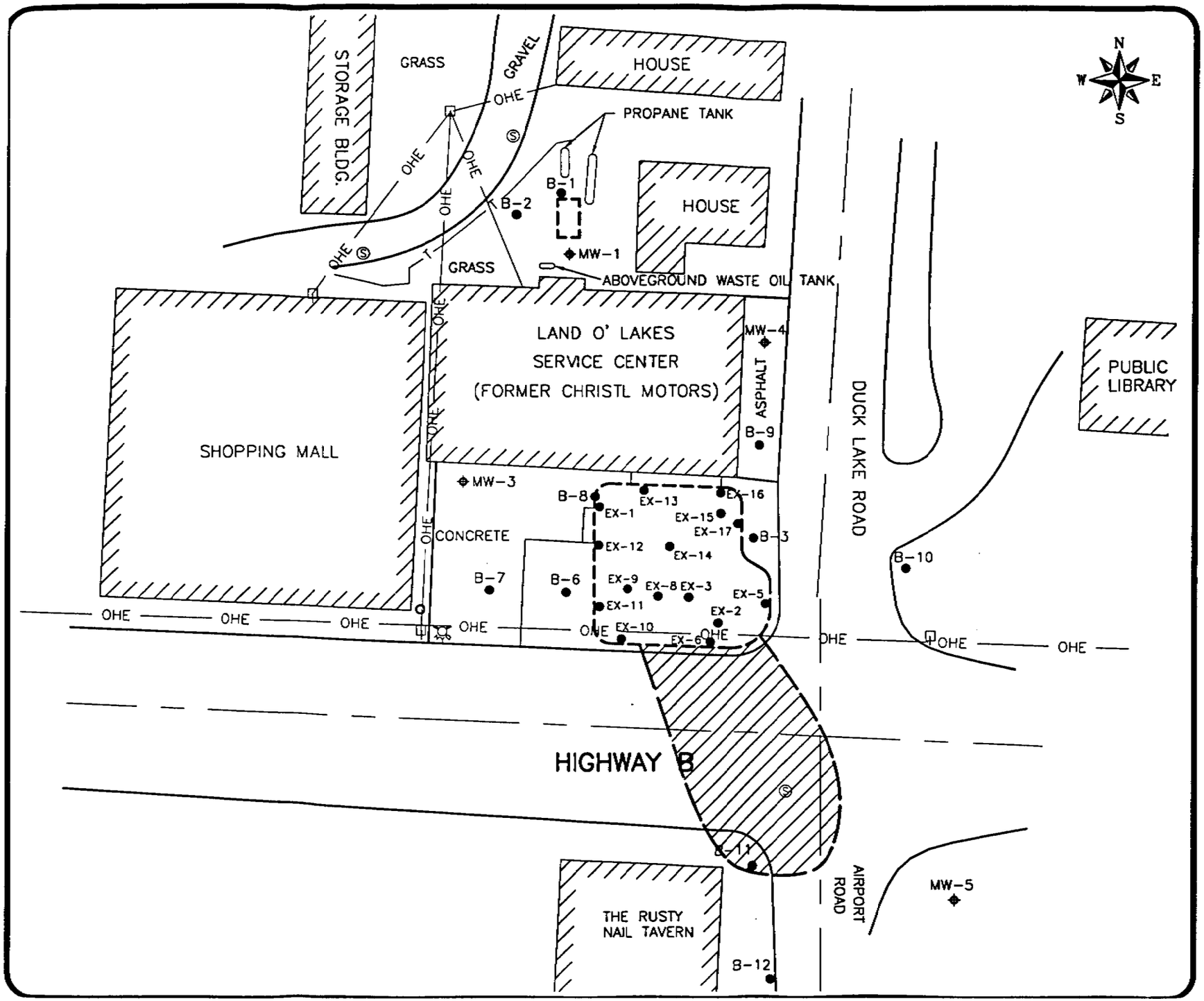
LEGEND

MW-1	MONITORING WELL
PZ-1	PIEZOMETER
●	SOIL BORING
OHE	OVERHEAD ELECTRIC
T	UNDERGROUND TELEPHONE
	EXCAVATION
	POWER POLE
	FIRE HYDRANT
	IRON ROD
Ⓢ	SANITARY SEWER MANHOLE

N W E S

30 0 30
SCALE IN FEET

FIGURE 2
CONTAMINATION DISTRUBUTION MAP
FORMER CHRISTL MOTORS
LAND O'LAKES, WI



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715-362-3244 1-800-944-7854 Fax 715-362-4116

LEGEND

MW-1 — MONITORING WELL

PZ-1 — PIEZOMETER

SOIL BORING

EX-1 — EXCAVATION SOIL SAMPLE

OHE — OVERHEAD ELECTRIC

T — UNDERGROUND TELEPHONE

EXCAVATION

POWER POLE

FIRE HYDRANT

IRON ROD

SANITARY SEWER MANHOLE

APPROXIMATE EXTENT OF SOIL CONTAMINATION GREATER THAN NR 720 GRCLs (DASHED WHERE INFERRED)

30 0 30
SCALE IN FEET

FIGURE 5
EXTENT OF PETROLEUM CONTAMINATION IN SOIL
FORMER CHRISTL MOTORS
LAND O'LAKES, WI

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	MW-1										WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98	05/04/98	05/04/98	10/28/98	01/20/99	04/14/99	07/28/99	PAL	ES
DRO (mg/L)	0.14	0.14	--	--	--	--						
GRO (mg/L)	0.49	0.21					--	0.026	0.055	<0.015		
Lead (µg/L)	--										1.5	15
VOCs (µg/L)												
Benzene	--	--	--	--	--	--	--	--	**2.3**	<0.22	0.5	5
Methyl tert-butyl ether	--	0.37	--	--	--	--	--	--	5.2	<0.27	12	60
Toluene	--	--	--	--	--	--	--	--	--	<0.21	68.6	343
Ethylbenzene	--	--	--	--	--	--	--	--	--	<0.23	140	700
m/p-Xylene	--	--	--	--	--	--	--	--	--	<0.52	124*	620*
o- Xylene	--	--	--	--	--	--	--	--	--	<0.27		
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	<0.21	96	480
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	<0.18		
Naphthalene	--	--								<0.35		
Isopropylbenzene	--	--										
p-Isopropyltoluene	--	--										
n-Propylbenzene	--	--									8	40
Methylene Chloride	--	--									15	75
cis-1,2-Dichloroethene	**60**	**26**									7	70
trans-1,2-Dichloroethene	--	0.55										
Tetrachloroethene	[illegible]	[illegible]									0.5	5
Trichloroethene	2.9	[illegible]									0.5	5
n-Butylbenzene	--	--										
sec-Butylbenzene	--	--										
PAHs (µg/L)												
Naphthalene	0.31										8	40

WAC = Wisconsin Administrative Code.

PAL = ch. NR 140, WAC, Preventive Action Limits

ES = ch. NR 140, WAC, Enforcement Standard.

* = Combined Xylene Standard

Blank = Parameter not analyzed.

-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).

Bold = PAL exceedance.

Shaded & Bold = ES exceedance.

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	MW-2				MW-2 DUP**		MW-2A						WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98*	12/20/94	06/08/95	05/04/98	07/29/98	10/28/98	01/20/99	04/14/99	07/28/99	PAL	ES
GRO (mg/L)	2.1	2.0	1.4		2.1	3.0	1.3	0.52	0.1	0.29	0.94	1.2		
Lead (µg/L)	1.3												1.5	15
VOCs (µg/L)														
Benzene	--	**2.3**	--		--	**1.3**	--	--	--	--	--	<1.3	0.5	5
Methyl tert-butyl ether	--	0.62	--		--	0.24	1.0	0.7	--	--	--	<2.7>	12	60
Toluene	36	17	--		41	10	25	2.7	0.094	2.2	5.5	3.7	68.6	343
Ethylbenzene	98	37	--		100	75	50	22	4.9	23	52	82	140	700
m/p-Xylene	**360**	**210**	--		**320**	**400**	**170**	58	4.4	59	**160**	[redacted]	124*	620*
o- Xylene	**110**	**80**	--		**110**	**130**	**50**	20	2.7	18	**45**	**61**		
1,3,5-Trimethylbenzene	**78**	**74**	--		**100**	**100**	**44**	18	2.7	7.6	26	22	96	480
1,2,4-Trimethylbenzene	**250**	**120**	**170**		**220**	**180**	**120**	49	9.9	29	49	36		
Naphthalene	30	14			29	8.7						**190**	8	40
Isopropylbenzene	7	2.6			7.1	1.6						59		
p-Isopropyltoluene	--	--			--	20								
n-Propylbenzene	25	4.8			34	3.5							8	40
Methylene Chloride	--	--			--	--							15	75
cis-1,2-Dichloroethene	--	--			--	--							7	70
trans-1,2-Dichloroethene	--	--			--	--								
Tetrachloroethene	--	**3.5**			--	**3.9**							0.5	5
Trichloroethene	--	--			--	--							0.5	5
n-Butylbenzene	62	37			65	18								
sec-Butylbenzene	--	0.48			--	--								
PAHs (µg/L)														
Naphthalene													8	40

* = MW-2 abandoned during contaminated soil excavation
** = Sample exceeded laboratory holding time
WAC = Wisconsin Administrative Code.
PAL = ch. NR 140, WAC, Preventive Action Limits
ES = ch. NR 140, WAC, Enforcement Standard.
* = Combined Xylene Standard
Blank = Parameter not analyzed.
-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).
Bold = PAL exceedance.
Shaded & Bold = ES exceedance.

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	MW-3								WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98	10/28/98	01/20/99	04/14/99	07/28/99	PAL	ES
DRO (mg/L)										
GRO (mg/L)	0.028	0.018	--	--	0.059	--	--	<0.015		
Lead (µg/L)									1.5	15
VOCs (µg/L)										
Benzene	--	--	--	--	--	--	--	<0.22	0.5	5
Methyl tert-butyl ether	1.4	--	--	--	--	--	--	<0.27	12	60
Toluene	--	--	--	--	--	--	--	<0.21	68.6	343
Ethylbenzene	--	--	--	--	--	--	--	<0.23	140	700
m/p-Xylene	--	--	--	--	--	--	--	<0.52	124*	620*
o- Xylene	--	--	--	--	--	--	--	<0.27		
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	<0.21	96	480
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	<0.18		
Naphthalene	--	--						<0.35		
Isopropylbenzene	--	--								
p-Isopropyltoluene	--	--								
n-Propylbenzene	--	--							8	40
Methylene Chloride	--	--							15	75
cis-1,2-Dichloroethene	--	--							7	70
trans-1,2-Dichloroethene	--	--								
Tetrachloroethene	[illegible]	[illegible]							0.5	5
Trichloroethene	**0.52**	**0.71**							0.5	5
n-Butylbenzene	--	--								
sec-Butylbenzene	--	--								
PAHs (µg/L)										
Naphthalene									8	40

WAC = Wisconsin Administrative Code.
PAL = ch. NR 140, WAC, Preventive Action Limits
ES = ch. NR 140, WAC, Enforcement Standard.
* = Combined Xylene Standard
Blank = Parameter not analyzed.
-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).
Bold = PAL exceedance.
Shaded & Bold = ES exceedance.

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	MW-4								MW-4 DUP					WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98	10/28/98	01/20/99	04/14/99	07/28/99	10/29/97	10/28/98	01/20/99	04/14/99	07/28/99	PAL	ES
DRO (mg/L)															
GRO (mg/L)	0.013	--	--	--	--	--	--	<0.015	--	--	--	--	<0.015		
Lead (µg/L)	--													1.5	15
VOCs (µg/L)															
Benzene	--	--	--	--	--	--	--	<0.22	--	--	--	--	<0.22	0.5	5
Methyl tert-butyl ethe	--	--	--	--	--	--	--	<0.27	--	--	--	--	<0.27	12	60
Toluene	--	--	--	--	--	--	--	<0.21	--	--	--	--	<0.21	68.6	343
Ethylbenzene	--	--	--	--	--	--	--	<0.23	--	--	--	--	<0.23	140	700
m/p-Xylene	--	--	--	--	--	--	--	<0.52	--	--	--	--	<0.52	124*	620*
o- Xylene	--	--	--	--	--	--	--	<0.27	--	--	--	--	<0.27		
1,3,5-Trimethylbenze	--	--	--	--	--	--	--	<0.21	--	--	--	--	<0.21	96	480
1,2,4-Trimethylbenze	--	--	--	--	--	--	--	<0.18	--	--	--	--	<0.18		
Naphthalene	--	--						<0.35					<0.35		
Isopropylbenzene	--	--													
p-Isopropyltoluene	--	--													
n-Propylbenzene	--	--												8	40
Methylene Chloride	--	--												15	75
cis-1,2-Dichloroethen	--	--												7	70
trans-1,2-Dichloroeth	--	--													
Tetrachloroethene	[illegible]	[illegible]												0.5	5
Trichloroethene	--	--												0.5	5
n-Butylbenzene	--	--													
sec-Butylbenzene	--	--													
PAHs (µg/L)															
Naphthalene														8	40

WAC = Wisconsin Administrative Code.
PAL = ch. NR 140, WAC, Preventive Action Limits
ES = ch. NR 140, WAC, Enforcement Standard.
* = Combined Xylene Standard
Blank = Parameter not analyzed.
-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).
Bold = PAL exceedance.
Shaded & Bold = ES exceedance.

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	MW-5								WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98*	10/28/98	01/20/99	04/14/99	07/28/99	PAL	ES
DRO (mg/L)										
GRO (mg/L)	--	--	--		--	--	--	<0.015		
Lead (µg/L)	--								1.5	15
VOCs (µg/L)										
Benzene	--	--	--		--	--	--	<0.22	0.5	5
Methyl tert-butyl ether	--	--	--		--	--	--	<0.27	12	60
Toluene	--	--	--		--	--	--	<0.21	68.6	343
Ethylbenzene	--	--	--		--	--	--	<0.23	140	700
m/p-Xylene	--	--	--		--	--	--	<0.52	124*	620*
o- Xylene	--	--	--		--	--	--	<0.27		
1,3,5-Trimethylbenzene	--	--	--		--	--	--	<0.21	96	480
1,2,4-Trimethylbenzene	--	--	--		--	--	--	<0.18		
Naphthalene	--	0.38						<0.35		
Isopropylbenzene	--	--								
p-Isopropyltoluene	--	--								
n-Propylbenzene	--	--							8	40
Methylene Chloride	--	--							15	75
cis-1,2-Dichloroethene	--	--							7	70
trans-1,2-Dichloroethene	--	--								
Tetrachloroethene	**1.6**	**2.7**							0.5	5
Trichloroethene	--	--							0.5	5
n-Butylbenzene	--	--								
sec-Butylbenzene	--	--								
PAHs (µg/L)										
Naphthalene									8	40

* = MW-5 inaccessable for sampling
WAC = Wisconsin Administrative Code.
PAL = ch. NR 140, WAC, Preventive Action Limits
ES = ch. NR 140, WAC, Enforcement Standard.
* = Combined Xylene Standard
Blank = Parameter not analyzed.
-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).
Bold = PAL exceedance.
Shaded & Bold = ES exceedance.

Table 3
Summary of Groundwater Chemistry Data
Former Christl Motors, Land O' Lakes, Wisconsin

Monitoring Well ID	P-1				WAC NR 140	
Date Collected	12/20/94	06/08/95	10/29/97	01/22/98*	PAL	ES
DRO (mg/L)						
GRO (mg/L)	--	--	--			
Lead (µg/L)		--			1.5	15
VOCs (µg/L)						
Benzene	--	--	--		0.5	5
Methyl tert-butyl ether	--	--	--		12	60
Toluene	--	--	--		68.6	343
Ethylbenzene	--	--	--		140	700
m/p-Xylene	--	--	--		124*	620*
o- Xylene	--	--	--			
1,3,5-Trimethylbenzene	--	--	--		96	480
1,2,4-Trimethylbenzene	--	--	--			
Naphthalene	--	--				
Isopropylbenzene	--	--				
p-Isopropyltoluene	--	--				
n-Propylbenzene	--	--			8	40
Methylene Chloride	--	--			15	75
cis-1,2-Dichloroethene	--	--			7	70
trans-1,2-Dichloroethene	--	--				
Tetrachloroethene	--	--			0.5	5
Trichloroethene	--	--			0.5	5
n-Butylbenzene	--	--				
sec-Butylbenzene	--	--				
PAHs (µg/L)						
Naphthalene					8	40

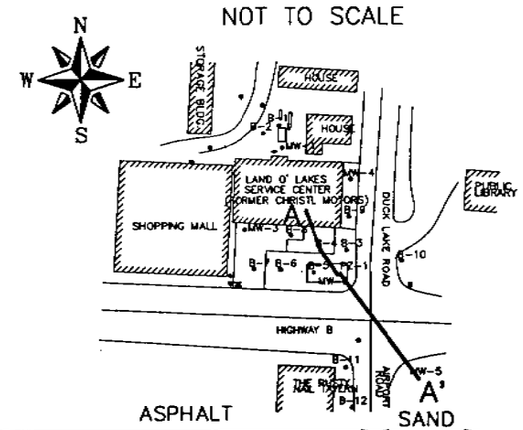
* = P-1 abandoned during soil excavation activities
WAC = Wisconsin Administrative Code.
PAL = ch. NR 140, WAC, Preventive Action Limits
ES = ch. NR 140, WAC, Enforcement Standard.
* = Combined Xylene Standard
Blank = Parameter not analyzed.
-- = Parameter analyzed but not detected above laboratory Method Detection Limits (MDLs).
Bold = PAL exceedance.
Shaded & Bold = ES exceedance.

NR 720 GENERIC RESIDUAL CONTAMINANT LEVELS

BENZENE (BENZ)	5.5	µg/Kg
TOLUENE (TOL)	1500	µg/Kg
ETHYLBENZENE (EB)	2900	µg/Kg
TOTAL XYLENE (XY)	4100	µg/Kg
GASOLINE RANGE ORGANICS (GRO)	100	mg/Kg
DIESEL RANGE ORGANICS (DRO)	100	mg/Kg

LOCATION OF GEOLOGIC CROSS SECTION

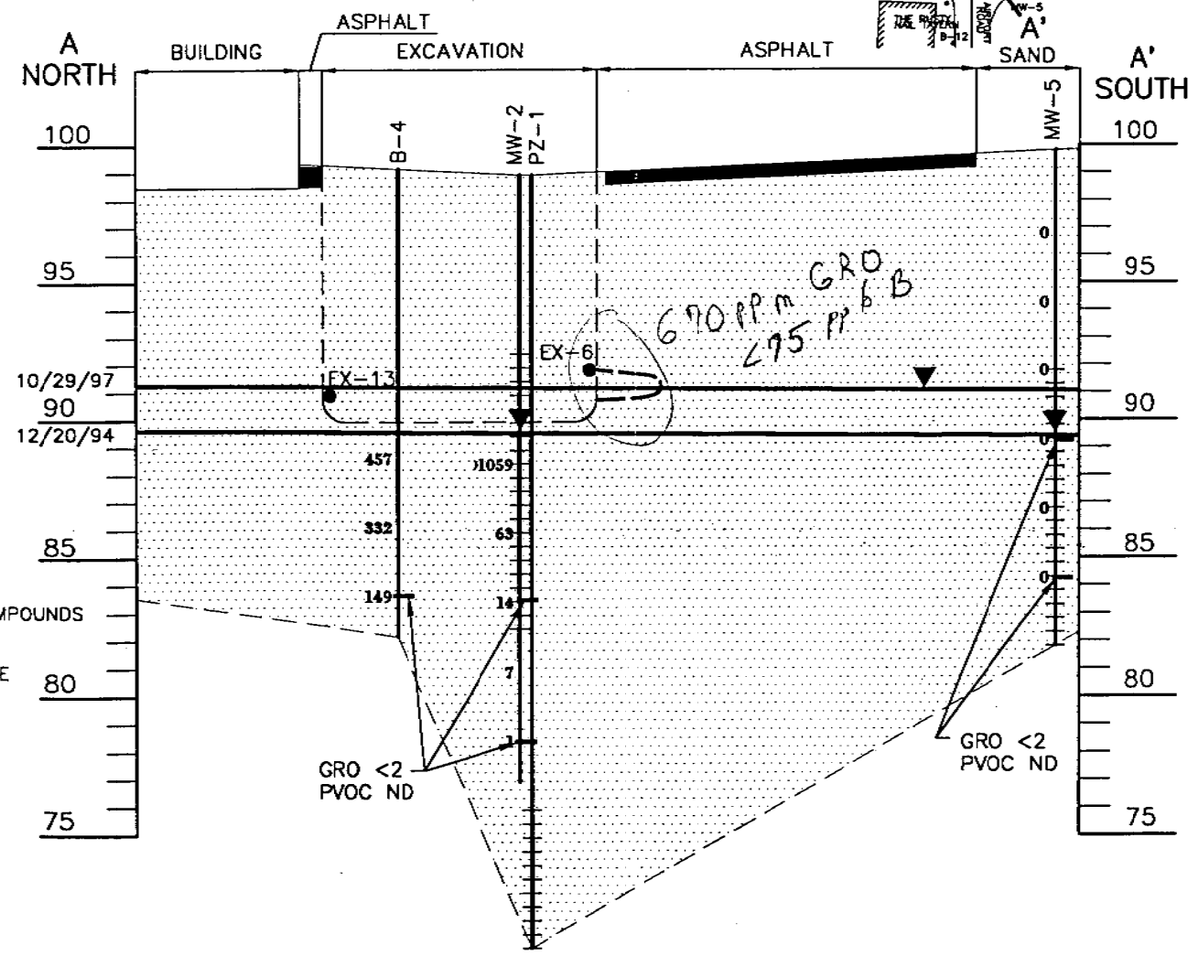
NOT TO SCALE



LEGEND

SAND–FINE TO MEDIUM, TAN TO BROWN

APPROX. EXTENT OF PETROLEUM CONTAMINATION TO SOIL GREATER THAN THE NR 720 GRCLs.



EXPLANATION

SOIL BORING

0 ORGANIC VAPOR METER READINGS

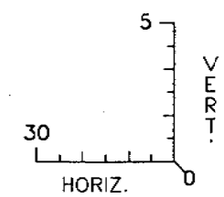
0 MONITORING WELL SCREEN

— LABORATORY SAMPLE
GRO & DRO RESULTS IN mg/Kg
VOC & PVOC RESULTS IN µg/Kg

ND NOT DETECTED
PVOC PETROLEUM VOLATILE ORGANIC COMPOUNDS
VOC VOLATILE ORGANIC COMPOUNDS
n-B n-BUYTLBENZENE
TMB 1,2,4,- & 1,3,5-TRIMETHYLBENZENE
NAPH NAPHTHALENE

GROUNDWATER

NOTE:
INFORMATION BETWEEN SOIL BORINGS IS INTERPRETED BASED UPON AVAILABLE DATA. ACTUAL CONDITIONS BETWEEN SOIL BORINGS ARE UNKNOWN.



SCALE IN FEET

FIGURE 7

POST–REMEDIAL GEOLOGIC CROSS SECTION A–A'

FORMER CHRISTL MOTORS
LAND O, LAKES, WISCONSIN

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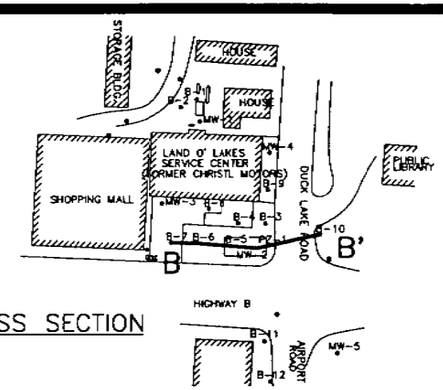
1438 N. Stevens Street Rhinelander, WI 54501
715-362-3244 1-800-944-7654 Fax 715-362-4114

DRAWN BY RHM	DATE 10-11-99	SHEET ___ of ___	
CHECKED BY	SCALE AS NOTED	FILE NO. 212124AG	

NR 720 GENERIC RESIDUAL CONTAMINANT LEVELS

BENZENE (BENZ)	5.5	µg/Kg
TOLUENE (TOL)	1500	µg/Kg
ETHYLBENZENE (EB)	2900	µg/Kg
TOTAL XYLENE (XY)	4100	µg/Kg
GASOLINE RANGE ORGANICS (DRO)	100	mg/Kg
DIESEL RANGE ORGANICS (DRO)	100	mg/Kg



LOCATION OF GEOLOGIC CROSS SECTION
NOT TO SCALE

LEGEND

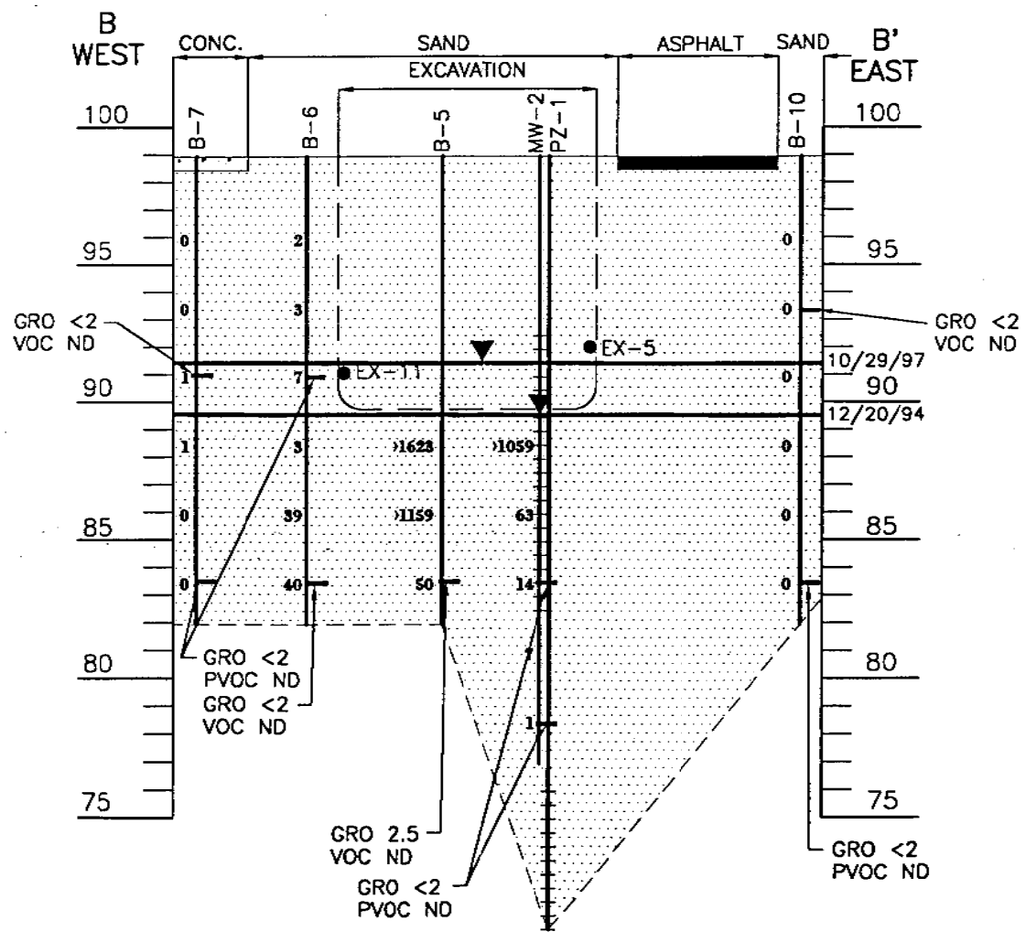
- SAND–FINE TO MEDIUM, TAN TO BROWN
- ASPHALT
- CONCRETE

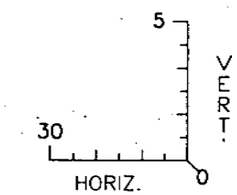
EXPLANATION

- SOIL BORING
- ORGANIC VAPOR METER READINGS
- MONITORING WELL SCREEN

—	LABORATORY SAMPLE GRO & DRO RESULTS IN mg/Kg VOC & PVOC RESULTS IN µg/Kg
ND	NOT DETECTED
PVOC	PETROLEUM VOLATILE ORGANIC COMPOUNDS
VOC	VOLATILE ORGANIC COMPOUNDS
n–B	n–BUYTLBENZENE
n–P	n–PROPYLBENZENE
TMB	1,2,4,– & 1,3,5–TRIMETHYLBENZENE
NAPH	NAPHTHALENE
EB	ETHYLBENZENE
▼	GROUNDWATER

NOTE:
INFORMATION BETWEEN SOIL BORINGS IS INTERPRETED BASED UPON AVAILABLE DATA. ACTUAL CONDITIONS BETWEEN SOIL BORINGS ARE UNKNOWN.





SCALE IN FEET

FIGURE 8

POST–REMEDIAL GEOLOGIC CROSS SECTION B–B'

FORMER CHRISTL MOTORS
LAND O, LAKES, WISCONSIN

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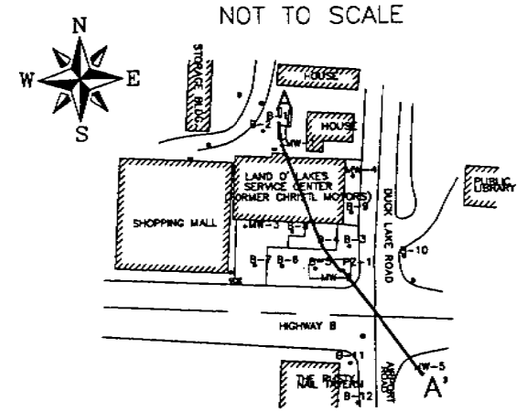
DRAWN BY RHM	DATE 10–11–99	SHEET ___ of ___	
CHECKED BY	SCALE AS NOTED	FILE NO. 212124AH	

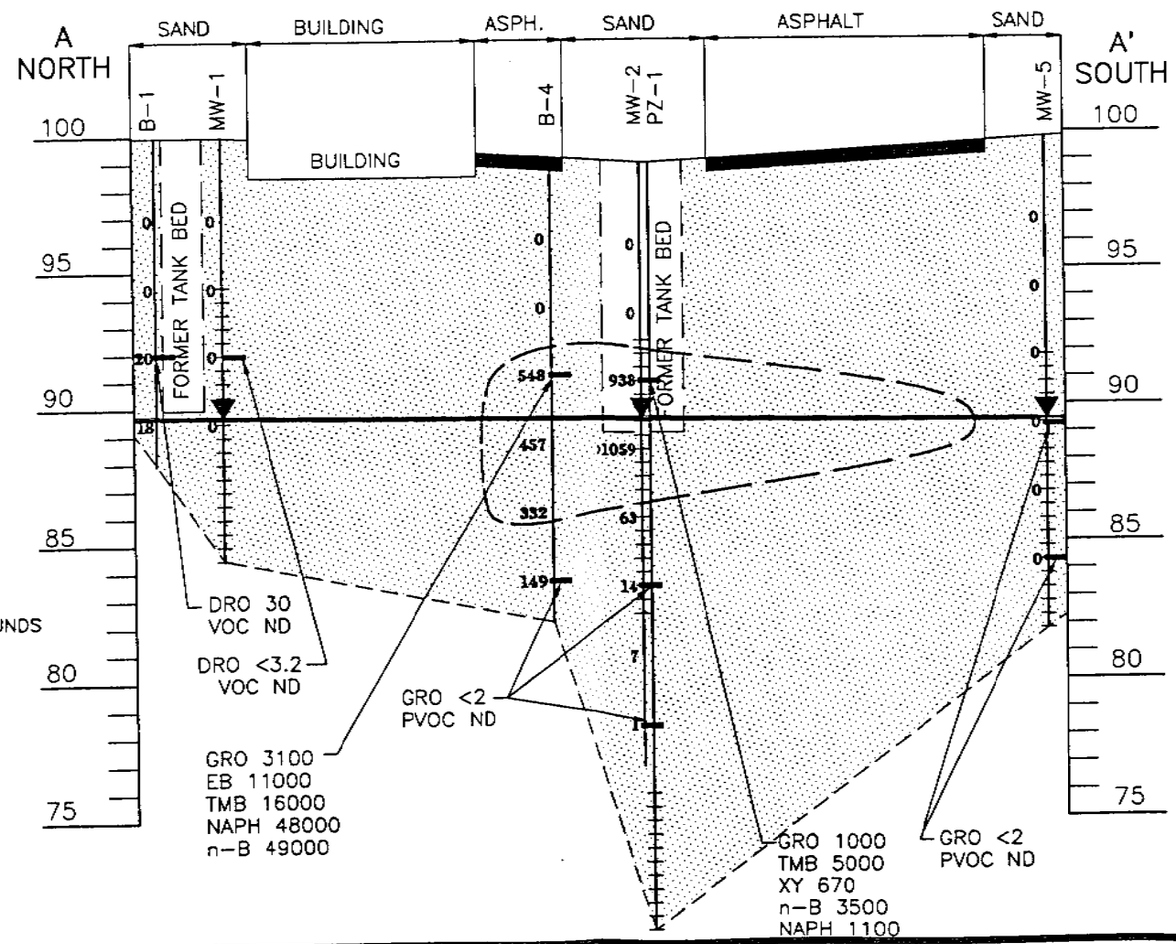
NR 720 GENERIC RESIDUAL CONTAMINANT LEVELS

BENZENE (BENZ)	5.5	µg/Kg
TOLUENE (TOL)	1500	µg/Kg
ETHYLBENZENE (EB)	2900	µg/Kg
TOTAL XYLENE (XY)	4100	µg/Kg
GASOLINE RANGE ORGANICS (DRO)	100	mg/Kg
DIESEL RANGE ORGANICS (DRO)	100	mg/Kg

LOCATION OF GEOLOGIC CROSS SECTION

NOT TO SCALE





EXPLANATION

- SOIL BORING
- ORGANIC VAPOR METER READINGS
- MONITORING WELL SCREEN

—	LABORATORY SAMPLE GRO & DRO RESULTS IN mg/Kg VOC & PVOC RESULTS IN µg/Kg
ND	NOT DETECTED
PVOC	PETROLEUM VOLATILE ORGANIC COMPOUNDS
VOC	VOLATILE ORGANIC COMPOUNDS
n-B	n-BUYTLBENZENE
TMB	1,2,4,- & 1,3,5-TRIMETHYLBENZENE
NAPH	NAPHTHALENE

GROUNDWATER (12/20/94)

NOTE:
INFORMATION BETWEEN SOIL BORINGS IS INTERPRETED BASED UPON AVAILABLE DATA. ACTUAL CONDITIONS BETWEEN SOIL BORINGS ARE UNKNOWN.

MSA
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Rhinelander, Wi.
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MID-STATE ASSOCIATES, INC.
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LEGEND

SAND –fine to medium, tan to brown.

APPROX. EXTENT OF PETROLEUM CONTAMINATION TO SOIL GREATER THAN THE NR 720 GRCLs.

5 VERT.
40 HORIZ. 0
SCALE IN FEET

FIGURE 4
VERTICAL EXTENT OF PETROLEUM CONTAMINATION
A-A'
FORMER CHRISTL MOTORS
LAND O'LAKES, WI

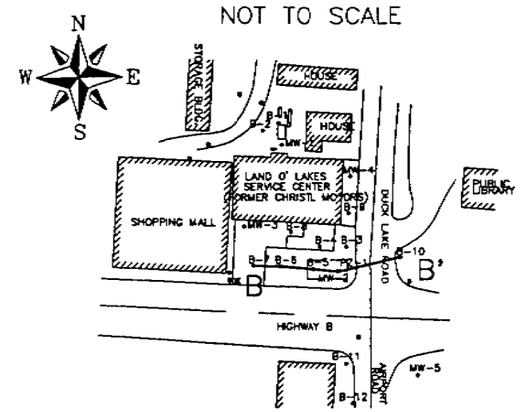
212124XA.DWG

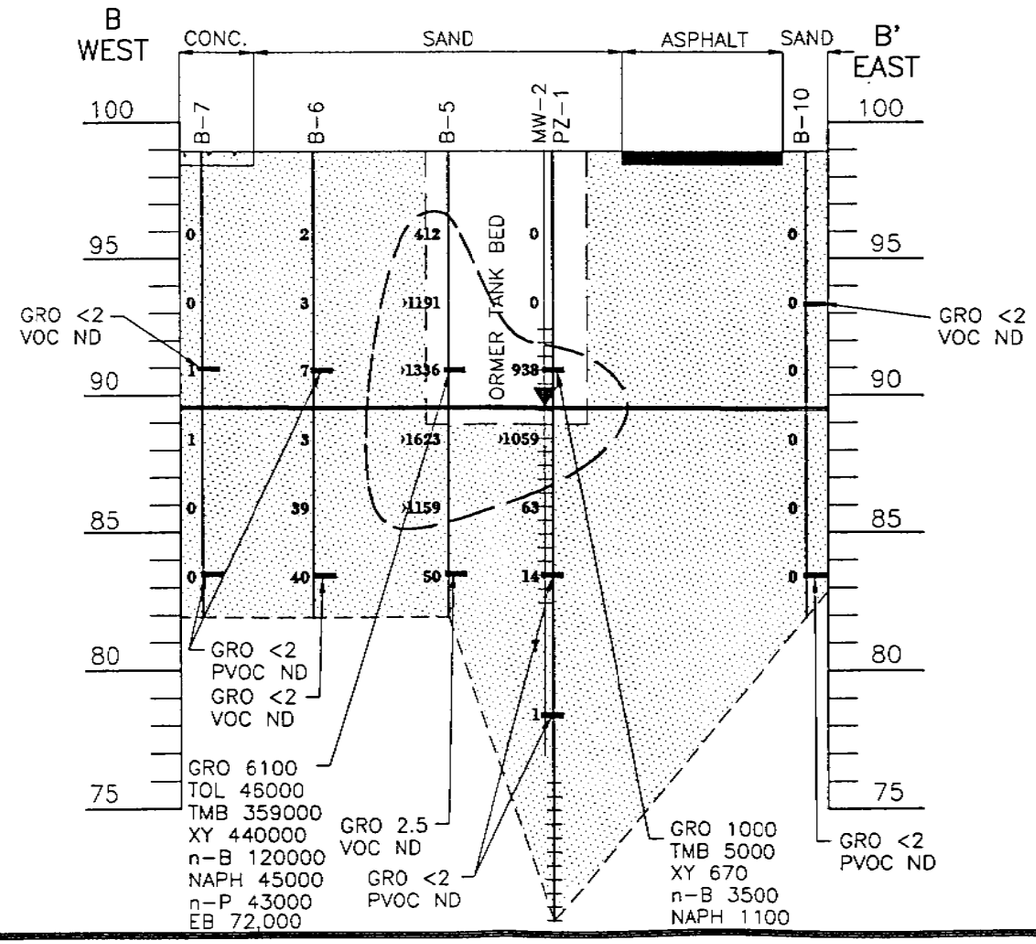
NR 720 GENERIC RESIDUAL CONTAMINANT LEVELS

BENZENE (BENZ)	5.5	µg/Kg
TOLUENE (TOL)	1500	µg/Kg
ETHYLBENZENE (EB)	2900	µg/Kg
TOTAL XYLENE (XY)	4100	µg/Kg
GASOLINE RANGE ORGANICS (DRO)	100	mg/Kg
DIESEL RANGE ORGANICS (DRO)	100	mg/Kg

LOCATION OF GEOLOGIC CROSS SECTION

NOT TO SCALE





EXPLANATION

- SOIL BORING
- 0 — ORGANIC VAPOR METER READINGS
- 0 — MONITORING WELL SCREEN

—	LABORATORY SAMPLE GRO & DRO RESULTS IN mg/Kg VOC & PVOC RESULTS IN µg/Kg
ND	NOT DETECTED
PVOC	PETROLEUM VOLATILE ORGANIC COMPOUNDS
VOC	VOLATILE ORGANIC COMPOUNDS
n-B	n-BUYTLBENZENE
n-P	n-PROPYLBENZENE
TMB	1,2,4,- & 1,3,5-TRIMETHYLBENZENE
NAPH	NAPHTHALENE
EB	ETHYLBENZENE

GROUNDWATER (12/20/94)

NOTE:
INFORMATION BETWEEN SOIL BORINGS IS INTERPRETED BASED UPON AVAILABLE DATA. ACTUAL CONDITIONS BETWEEN SOIL BORINGS ARE UNKNOWN.

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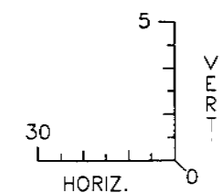
Rhinelander, Wi.
54501
715-362-3244
MID-STATE ASSOCIATES, INC.
Engineers · Architects · Planners · Surveyors · Scientists

LEGEND

- SAND – fine to medium, tan to brown.
- ASPHALT
- CONCRETE
- APPROX. EXTENT OF PETROLEUM CONTAMINATION TO SOIL GREATER THAN THE NR 720 GRCLs.



SCALE IN FEET

FIGURE 5
VERTICAL EXTENT OF PETROLEUM CONTAMINATION
B-B'
FORMER CHRISTL MOTORS
LAND O'LAKES, WI

212124XB.DWG