03-07-000148

PHASE I TANK CLOSURE ASSESSMENT

BOB'S SERVICE
10531 State Road 70
Falun, WI 54872

September 30, 1993

Prepared by

Cooper Engineering Company, Inc.
310 West South Street
Rice Lake, WI 54868

Telephone (715) 234-7008
Facsimile (715) 234-1025

bobsserv.rep\cb

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Phase I Tank Closure Assessment
Bob's Service

INTRODUCTION

Cooper Engineering Company, Inc., was retained by Oachs Construction, Inc., Grantsburg, Wisconsin, to perform a Phase I tank closure site assessment at property known as Bob's Service and located in Falun, Wisconsin (as indicated on Figure 1). A discussion of the field work and analytical results developed during the Phase I portion of this investigation is presented in the following narrative.

SUMMARY

On July 16, 19, and 20, 1993, two underground storage tanks (UST) were removed at Bob's Service, 10531 State Road 70, Falun, Wisconsin. On site to perform the removal was Oachs Construction, Inc. Both underground storage tanks were exposed and floating above grade due to the high groundwater (see Figure 2A). Both tanks were found upside down and had released gasoline into the water-filled depression. Excavating began with rolling over the tanks to expose the tops. The two tanks were excavated and cleaned on site by Oachs Construction. Select soil and water samples were collected and transported to a laboratory for analysis (see Figure 3). Both tanks appeared in very good condition. Groundwater was standing in the excavation up to two feet below grade (see Appendix B - Photographs).

BACKGROUND INFORMATION

The following information has been collected about the underground storage tanks removed at Bob's Service, Falun, Wisconsin. No other tanks were previously removed. Also, information obtained shows no records of tightness tests nor any reported spills or repairs at the site.

Tank Owner: Mr. Bob Anderson
10531 State Road 70
Falun, WI 54872

Contact Person: Mr. Bob Anderson
10531 State Road 70
Falun, WI 54872
Phone (715) 689-2445

DANIELS

T.38N.–R.17W.

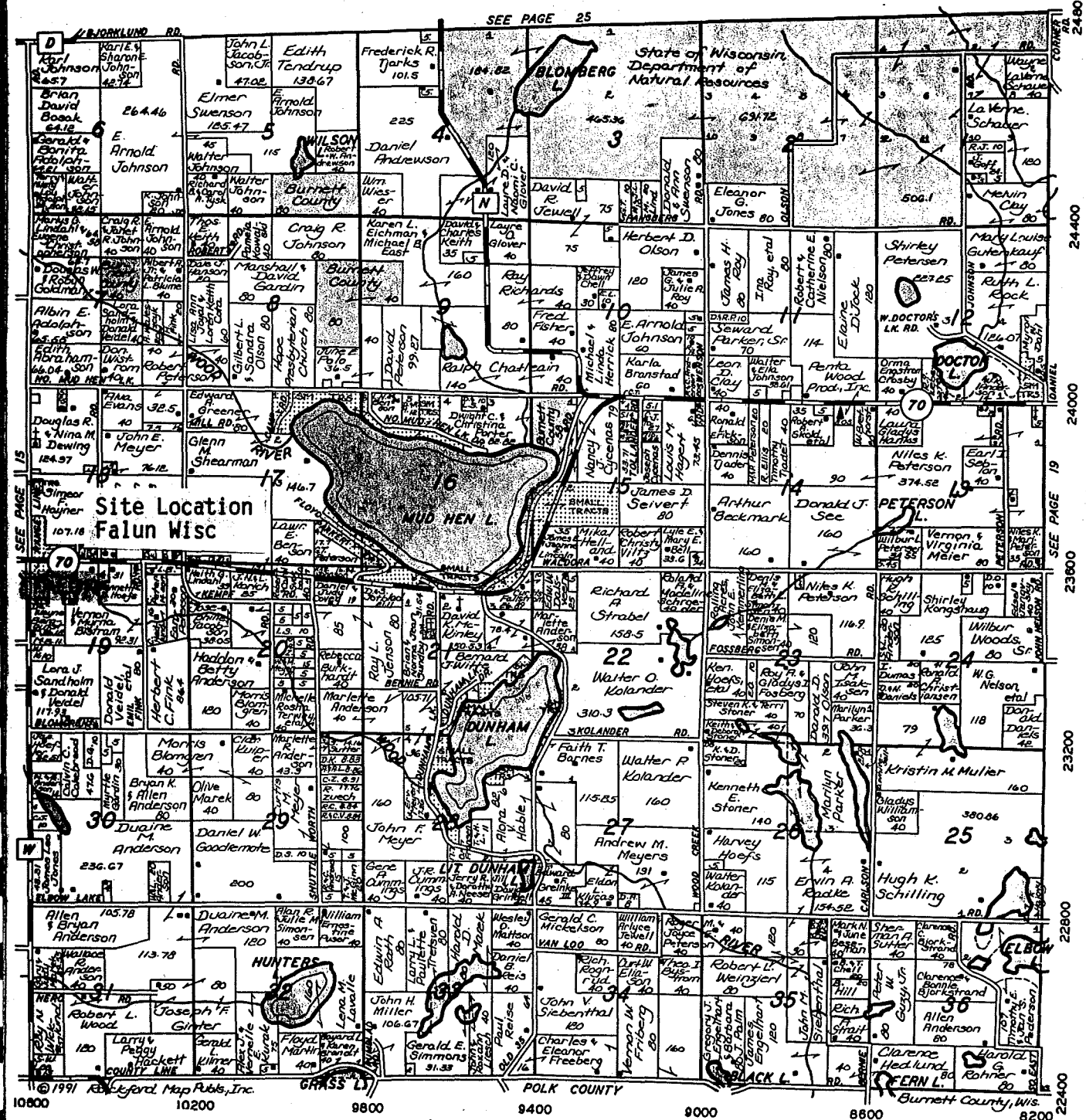


FIGURE 1

BOB'S SERVICE SITE SKETCH

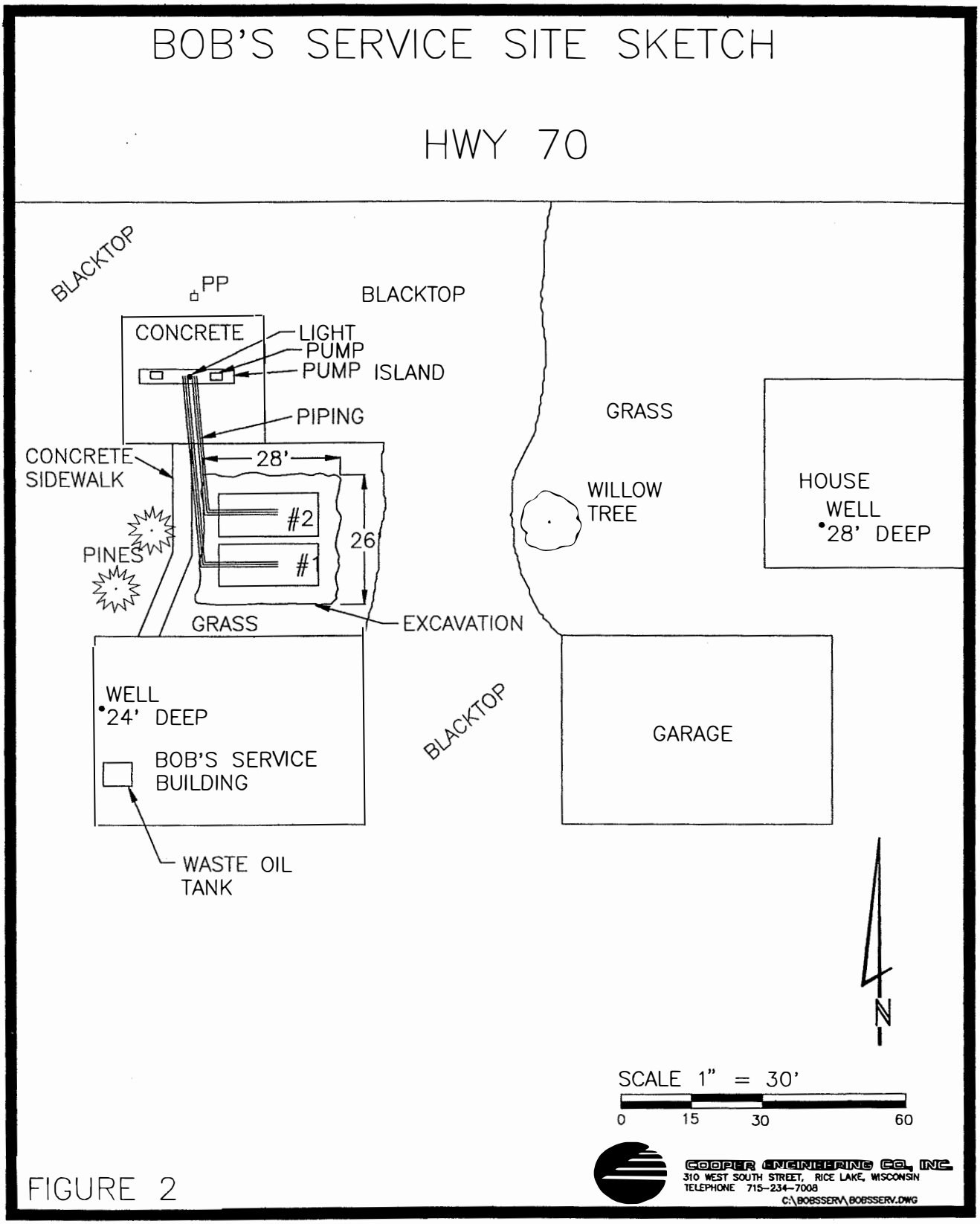


FIGURE 2

TANK SECTION

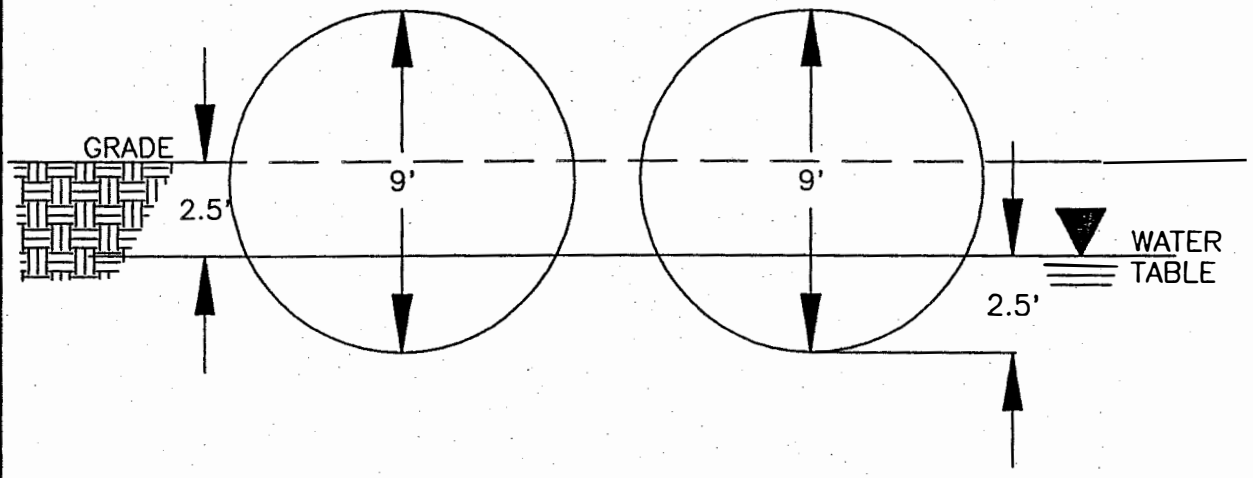


FIGURE 2 **A**

COOPER ENVIRONMENTAL CO., INC.
310 WEST SOUTH STREET, RICE LAKE, WISCONSIN
TELEPHONE 715-234-7008
C:\USTDWGS\BRUCE\BRUCEDIL.DWG

BOB'S SERVICE SITE SKETCH

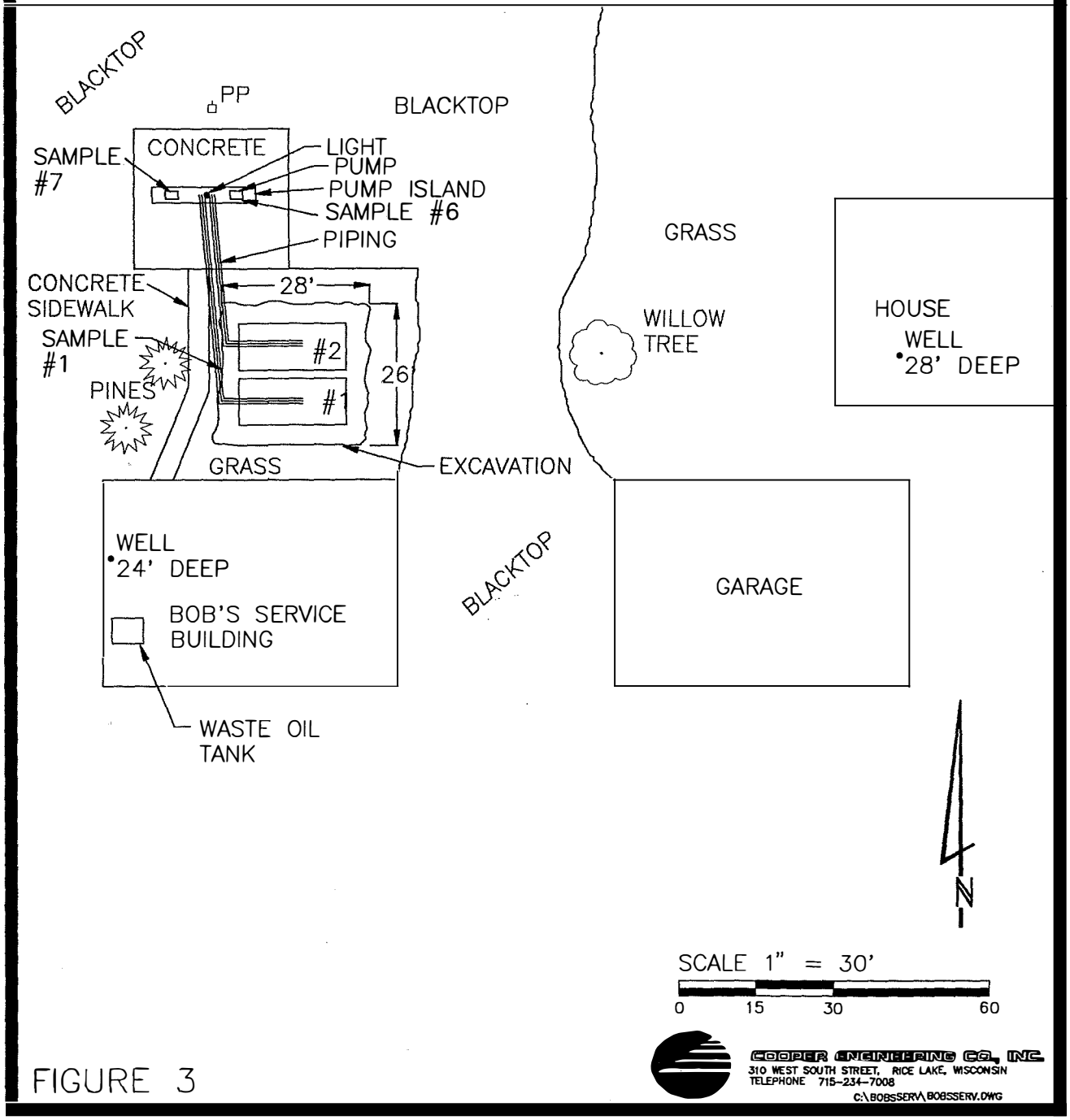


FIGURE 3

COOPER ENGINEERING CO., INC.
310 WEST SOUTH STREET, RICE LAKE, WISCONSIN
TELEPHONE 715-234-7008

C:\BOBSSERV\BOBSSERV.DWG

Tank Information	Tank 1	Tank 2
Tank size (gallons)	10,000	10,000
Product stored	unleaded gasoline	regular gasoline
Construction	coated steel	coated steel
Piping	bare steel	bare steel
Age/installer	18/unknown	18/unknown
Tanks last used	7/4/93	7/4/93
Weather conditions	mid 70s, partly cloudy, July 16, 1993	
Site location	N 1/2 NW 1/4, Section 19, T38N, R17W	

SITE

One 2,000 gallon above ground waste oil tank remains on this site. The site is located north of Bob's Service shop (refer to Bob's Service site sketch, Figure 2). The site is used for a service garage. Past property use included a creamery during the 1930s.

On site for removal

Pat Mahowald	Cooper Engineering Co., Inc., SA#00850
Cary Oachs	Oachs Construction, Inc., RC#03926
Robert Anderson	Owner, Bob's Service
Jon Foster	Chippewa Fire District

EXCAVATION AND TANK DISPOSAL

Oachs Construction performed the removal and tank cleaning. The tank disposal documentation is provided in Appendix E of this report.

OBSERVATIONS AND RESULTS

On July 16, 1993, Oachs Construction excavated two 10,000 gallon USTs. Both tanks contained gasoline. The pump island was located 30 feet north of the underground storage tanks. The pump island area was covered with concrete which is in place today. Both tanks were exposed due to high groundwater and the piping was broken and exposed. Tank 1 was inerted using dry ice. A diffused air blower was used to purge Tank 2.

Once the tanks were safe, they were cut open to remove the excess product and sludge that had been left in the tanks. The amount of water removed from the USTs was approximately 1,000 gallons, along with approximately 30 gallons of scale and sludge. The gasoline/water mixture was a result of product released when the groundwater rose, forcing the tanks out of the ground and breaking the piping. The mixed gasoline and water will be stored on site until proper disposal arrangements are made. Sludge was also containerized and stored on site.

As Tanks 1 and 2 (gasoline) were lifted out of the area, a strong odor of gasoline was observed. Visual observations, staining and strong odor indicated the presence of contamination.

Soil samples were collected from below the pump island. A water sample was collected at 2.5 feet below grade from the groundwater in the area of the removed USTs for laboratory analysis.

The area around the tanks was backfilled with sand at the time the tanks were placed in 1975. The native soil in this area is CL inorganic clays of low to medium plasticity, lean clay.

SOIL SAMPLING PROCEDURES

Soil samples at Bob's Service were collected using a disposable syringe with the end cut off. Each syringe was used at only one sampling location.

Samples collected were placed in 60 ml vials provided by the laboratory. Approximately 25 ml of methanol was then added to each soil sample as a preservative. Two methanol preserved samples and one dry weight sample were obtained from each sampling location.

Laboratory samples were submitted with chain of custody documentation to SERCO Laboratories, 1931 West County Road C2, St. Paul, MN 55113, for GRO (gasoline range organics) analysis. The laboratory is certified (#999446690) and uses Wisconsin Department of Natural Resources approved methods for GRO analysis.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Evaluation of available data indicates the presence of on-site water and soil contamination below Tank 1 and 2. The extent of this suspected contamination is currently unknown.

TABLE 1

TABLE OF SAMPLE RESULTS

Soil Sample Number	Sample Location	Sample Depth (ft)	Soil Type	Date Collected	Time Collected	Sample Odor?	Analysis Performed	GRO Results
#1	water in excavation	2.5	N/A	7/16/93	12:48 pm	strong	GRO	300,000 ppb
#6	west pump	3	silty sand	7/16/93	3:00 pm	none	GRO	ND
#7	east pump	3	silty sand	7/16/93	3:10 pm	none	GRO	13 ppm
#1A	water drum on site	N/A	N/A	7/19/93	1:00 am	yes	GRO/PVOC*	78,000 ppb
N/A = Not Analyzed or Not Applicable ND = Not detected ppm = Parts per million ppb = Parts per billion								

* PVOC results are shown in Appendix A.

Recommendations

Performance of a Phase II Site Investigation in accordance with State of Wisconsin Department of Natural Resources guidelines is recommended for the subject site to determine the lateral and vertical extent of suspected contamination. Typically the scope of a Phase II investigation includes the following:

1) Performance of test pits and/or borings and collection of subsurface samples for laboratory analysis.

2) Installation of groundwater monitoring wells and water sampling.

3) Assessment of potential spill pathways.

4) Identification of potential contaminant receptors.

5) Preliminary evaluation of appropriate remediation options (as required).

STANDARD OF CARE

This report has been specifically prepared for Bob's Service with specific application to a Phase I Tank Closure Assessment for property known as Bob's Service located at 10531 State Highway 70, Falun, WI 54872. This document has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented herein.

REPORT PREPARATION

This report has been developed by Cooper Engineering Company, Inc., and was prepared and reviewed by the following:

Pat Mahowald
DILHR Certified Site Assessor, #00850

Bruce Markgren, P.E.
Vice President of Environmental Services

A P P E N D I C E S

A. Laboratory Results and Chain of Custody

B. Site Photographs

C. Tank Inventory Forms (SBD-7437)

D. ASTM Soil Classification

E. Tank Disposal Documentation

F. Checklist for Underground Tank Closure (SBD-8951)

Appendix A

Laboratory Results and Chain of Custody

SERCO Laboratories

1931 West County Road C2. St. Paul. Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 32569 PAGE 1 of 2
07/30/93

Cooper Engineering
310 W. South Street
Rice Lake, WI 54868

Attn: Bob Anderson

DATE COLLECTED: 07/16/93
DATE RECEIVED: 07/17/93
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : SOIL
WATER

CLIENT'S ID: Bob Service, Falun, WI

SERCO SAMPLE NO:	88683	88693	88703	88713
SAMPLE DESCRIPTION:	#1 Water Removed	#6 West Pump 3' Below Grade	#7 East Pump 3' Below Grade	Methano Trip Blank
ANALYSIS:				
Gasoline Range Organics, C6-C10, ug/L	300000	-	-	<100
Analytical Method for MOD GRO	MOD GRO	MOD GRO	MOD GRO	MOD GRO
Date of Analysis for MOD GRO	07/27/93	07/26/93	07/26/93	07/27/9
Gasoline Range Organics, C6-C10, dry weight, mg/kg	-	<10	13	-
Total Solids, percent	-	85.1	81.7	-

SERCO SAMPLE NO:	88723	88733	88743
SAMPLE DESCRIPTION:	Detect Limits Not Dry Weight	Water Detect Limits	Water Para-Meter Numbers
ANALYSIS:			
Gasoline Range Organics, C6-C10, dry weight, mg/kg	10	-	-
Gasoline Range Organics, C6-C10, ug/L	-	100	78920

< means "not detected at this level". 1 mg = 1000 ug.

SERCO Laboratories

1931 West County Road C2. St. Paul. Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature may be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO Laboratories. Please contact me if other arrangements are needed. This report may not be reproduced, except in its entirety, without prior written approval from SERCO Laboratories.

Report submitted by,

Diane J. Anderson

Diane J. Anderson
Project Manager

State of [Wisc]onsin
Department of Natural Resources

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

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

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
Pat Mahowald	Cooper Eng	715 234-7008
Property Owner	**Property Address**	**Telephone Number (include area code)**
Robert Anderson Bob Service	Falun Wisconsin	—

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

Relinquished By (Signature)	Date/Time	Received By (Signature)
P Mahowald	7/16/93 5:30pm	
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)
	7/17/93 10:20am	[signature] SEKCO

Note: Saturday Delivery! 7/17/93

Temperature of temperature blank: ______ Rcvd on ice.

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

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote [2])	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
#1	7/16/93	12:45	Water		Hydrochloric Acid	Water Removed For Excavation	GRO		3-vials				
#6	7/16/93	3:00	Soil		Meth	West Pump @ 3'0 below grade	GRO		Soil 3 vials				
#7	7/16/93	3:10	Soil		Meth	East Pump @ 3'0 below grade	GRO		Two, One Soil, One Dry				

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

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

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ____ days

☐ Return ☐ Other

DEPARTMENT USE ONLY

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

Accepted? ☐ Yes ☐ No (Check one)

Accepted By: ______________________
Signature

SERCO Laboratories

1931 West County Road C2. St. Paul. Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 32593 PAGE 1 of 2
07/23/93

Cooper Engineering
310 W. South Street
Rice Lake, WI 54868

Attn: Pat Mahowald

DATE COLLECTED: 07/19/93
DATE RECEIVED: 07/20/93
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : WATER

CLIENT'S ID: Bob's Service Falun

SERCO SAMPLE NO:	89313	89323	89333
SAMPLE DESCRIPTION:	Sample #2 Drum Water	Water Detect. Limit	Water Para-meter Numbers
ANALYSIS:			
Benzene, ug/L	25000	1.0	78124
Ethylbenzene, ug/L	2300	1.0	78113
Methyl tertiary butyl ether, ug/L	<100 A	10	-
Toluene, ug/L	31000	1.0	78131
1,2,4-Trimethylbenzene, ug/L	1600	0.2	77222
1,3,5-Trimethylbenzene, ug/L (Mesitylene)	360	0.3	77226
Total Xylene, ug/L	11000	1.0	81551
Analytical Method for PVOC's	8020	-	-
Date of Analysis for PVOC's	07/21/93	-	-
Gasoline Range Organics, C6-C10, ug/L	78000	100	78920
Analytical Method for MOD GRO	MOD GRO	-	-
Date of Analysis for MOD GRO	07/21/93	-	-
Notes regarding MOD-GRO analysis	B	-	-

A: Increased detection limits due to sample matrix.
B: Unidentified peaks present after C10.

< means "not detected at this level". 1 mg = 1000 ug.

SERCO Laboratories

1931 West County Road C2. St. Paul. Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 32533 PAGE 2 of 2
07/23/93

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature may be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO Laboratories. Please contact me if other arrangements are needed. This report may not be reproduced, except in its entirety, without prior written approval from SERCO Laboratories.

Report submitted by,

Thomas A. Anni for

Diane J. Anderson
Project Manager

State of .onsin
Department of Natural Resources

CHA.. OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

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

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
Pat Mahowald	Cooper Engineering	715 234-7008
Property Owner	**Property Address**	**Telephone Number (include area code)**
Bob's Service	Falun	

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

Relinquished By (Signature)	Date/Time	Received By (Signature)
[signature]	5:00pm 7/19/93	
Relinquished By (Signature)	**Date/Time**	**Received By (Signature)**
Relinquished By (Signature)	**Date/Time**	**Received for Laboratory By (Signature)**
	7/20/93 11:00am	D. Dellull

Temperature of cooler ~~temperature blank~~: 16.7°C

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

Field ID Number	Date Collected	Time Collected	Sample Type[1]	Sample Device	Preserv. Type	Location/Description (see footnote [2])	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition: Cracked /Broken	Sample Condition: Improperly Sealed	Sample Condition: Good Condition	Sample Condition: Other Comments
Sample #1	7/19/93	[illegible]	Water	Grab	Hydrochloric Acid	Drum water @ 55 gal.	GRO PVOC	89813	3 vials			X	

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

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

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ___ days

☐ Return ☐ Other

DEPARTMENT USE ONLY

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

Accepted? ☐ Yes ☐ No (Check one)

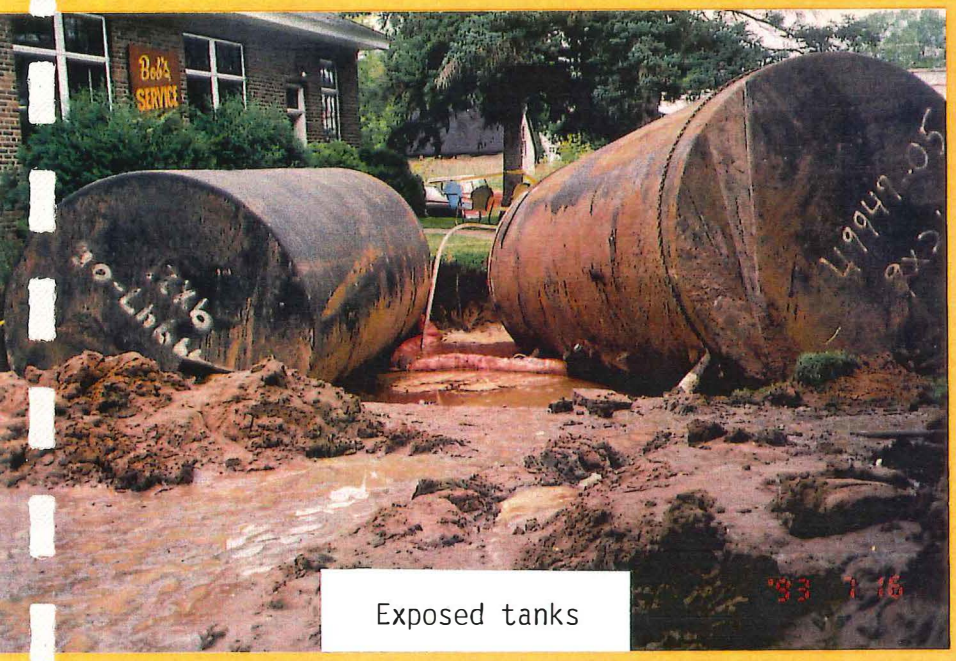
Accepted By: ______________________
Signature

Appendix B

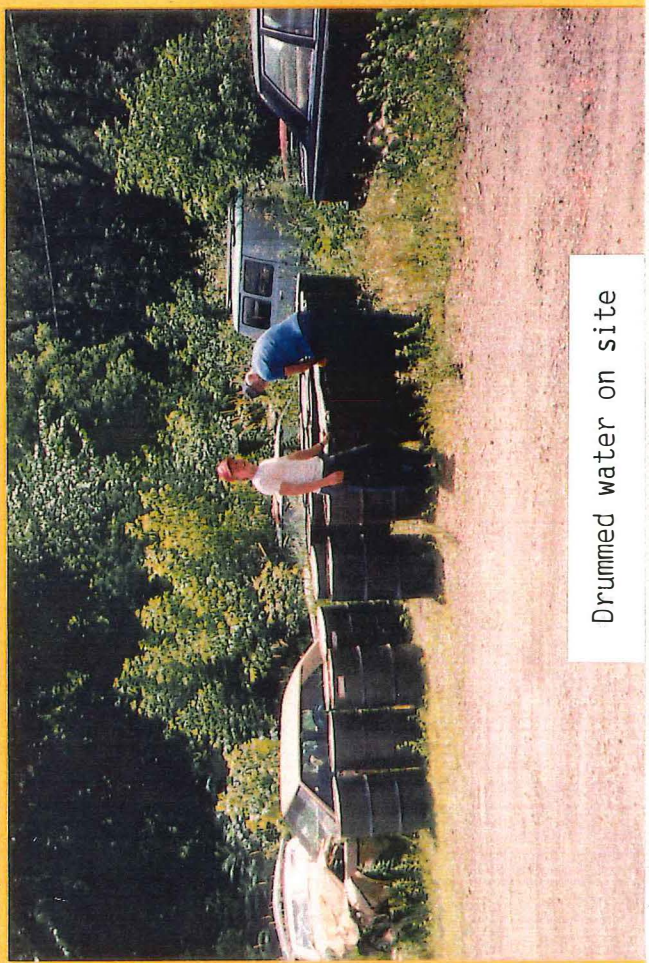
Site Photographs

Site overview

Inerting tanks



Exposed tanks



Drummed water on site

Appendix C

Tank Inventory Forms (SBD-7437)

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

COPY

Information Required By Sec. 102.142, Wis. Stats.

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

For Office Use Only:
Tank ID #

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 (included 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

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

Fire Department Providing Fire Coverage Where Tank Located:

A. IDENTIFICATION: (Please Print)

1. Tank Site Name: BoBs Service
Site Address: 10531 STATE ROAD 70
Site Telephone No.: (715) 689-2445
☐ City ☒ Village ☐ Town of: Falun
State: Wisconsin
Zip Code: 54872
County: Burnett

2. Owner Name (mail sent here unless indicated otherwise in #3 below): Robert Anderson
Owner Mailing Address (mail sent here unless indicated otherwise in #3): 10531 STATE Hwy 70
☐ City ☒ Village ☐ Town of: Falun
State: Wisconsin
Zip Code: 54872
County: Burnett

3. Alternate Mailing Name If Different Than #2
Alternate Mailing Street Address If Different From #2
☐ City ☐ Village ☐ Town of:
State
Zip Code
County

4. Tank Age (date installed, if known: or years old): 1975
5. Tank Capacity (gallons): 10,000
6. Tank Manufacturer's Name (if known): Unknown

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

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

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other:
Is Tank Double Walled? ☐ Yes ☒ No
Overfill Protection Provided? ☐ Yes ☐ No If yes, identify type:
Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☐ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less)

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

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

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring 3. ☐ Groundwater monitoring 4. ☐ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required

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

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

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

If Tank Closed, Give Date (mo/day/yr): 7/19/93
Has a site assessment been completed? (see reverse side for details) ☒ Yes ☐ No

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

Name of Owner or Operator (please print): Mr Robert Anderson
Indicate Whether: ☒ Owner or ☐ Operator

Signature of Owner or Operator:
Date Signed:

SBD-7437 (R. 12/91) IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

COPY

Information Required By Sec. 102.142, Wis. Stats.

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

For Office Use Only:
Tank ID #

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 (included 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

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

Fire Department Providing Fire Coverage Where Tank Located:

A. IDENTIFICATION: (Please Print)

1. Tank Site Name	Site Address	Site Telephone No.
Bob's Service	10531 STATE ROAD 70	(715) 689-2445

☐ City ☒ Village ☐ Town of:	State	Zip Code	County
Falun	Wisconsin	54872	Burnett

2. Owner Name (mail sent here unless indicated otherwise in #3 below)	Owner Mailing Address (mail sent here unless indicated otherwise in #3)
Robert Anderson	10531 STATE Hwy 70

☐ City ☒ Village ☐ Town of:	State	Zip Code	County
Falun	Wisconsin	54872	Burnett

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

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

4. Tank Age (date installed, if known: or years old)	5. Tank Capacity (gallons)	6. Tank Manufacturer's Name (if known)
1975	10,000	Unknown

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

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

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other:
Is Tank Double Walled? ☐ Yes ☒ No
Overfill Protection Provided? ☐ Yes ☐ No If yes, identify type:
Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☐ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less)

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

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

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring 3. ☐ Groundwater monitoring 4. ☐ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required

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

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

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

If Tank Closed, Give Date (mo/day/yr):	Has a site assessment been completed? (see reverse side for details)
7/19/93	☒ Yes ☐ No

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

Name of Owner or Operator (please print):	Indicate Whether:
Mr Robert Anderson	☒ Owner or ☐ Operator
Signature of Owner or Operator:	Date Signed:

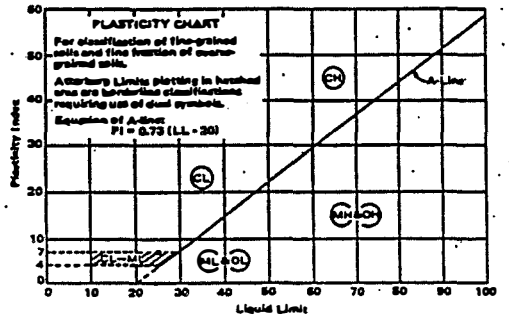
SBD-7437 (R. 12/91) IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient

Appendix D

ASTM Soil Classification

Table 4. ASTM Soil Classification System (Unified)

Major Divisions			Group Symbols	Typical Names	Classification Criteria	
Coarse-Grained Soils* More than 50% retained on No. 200 sieve*	Gravels 50% or more of coarse fraction retained on No. 4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 4 $C_z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3	
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines	Not meeting both criteria for GW	
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures	Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
			GC	Clayey gravels, gravel-sand-clay mixtures	Atterberg limits plot above "A" line and plasticity index greater than 7	
	Sands More than 50% of coarse fraction passes No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 6 $C_z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3	
			SP	Poorly graded sands and gravelly sands, little or no fines	Not meeting both criteria for SW	
		Sands with Fines	SM	Silty sands, sand-silt mixtures	Atterberg limits plot below "A" line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
			SC	Clayey sands, sand-clay mixtures	Atterberg limits plot above "A" line and plasticity index greater than 7	
Fine-Grained Soils 50% or more passes No. 200 sieve*	Silts and Clays Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	Classification on basis of percentage of fines Less than 5% pass No. 200 sieve GW, GP, SW, SP More than 12% pass No. 200 sieve GM, GC, SM, SC 5% to 12% pass No. 200 sieve Borderline classification requiring use of dual symbols	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
			OL	Organic silts and organic silty clays of low plasticity		
	Silts and Clays Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts		
			CH	Inorganic clays of high plasticity, fat clays		
			OH	Organic clays of medium to high plasticity		
Highly Organic Soils			PT	Peat, muck, and other highly organic soils	Visual-Manual Identification, see ASTM Designation D2488.	



*Based on the material passing the 3-in. (75-mm.) sieve.

COOPER ENGINEERING COMPANY
100 WEST ORCHARD BEACH LANE RICE LAKE, WISCONSIN
TELEPHONE 715-234-7008

Appendix E

Tank Disposal Documentation

Cooper Engineering Company, Inc.

CONSULTING ENGINEER

100 WEST ORCHARD BEACH LANE
RICE LAKE, WISCONSIN 54868
TELEPHONE 715-234-7008
FAX 715-234-1025

UST CHAIN OF CUSTODY FORM

PROJECT NAME Bob's Service DATE 7/16/93

LOCATION 10531 STATE Hwy 70 FALUN WI CEC REP Pat MAHowALD

TRANSPORTER'S NAME OACHS Construction
(Trucker)

LICENSE # 039276

RELINQUISHED BY Bob Anderson (Owner) DATE 7/19/93

TIME

RECEIVED BY On site DATE 7/16/93
(Name)

(Salvage Company Name)

TANK SIZE 10,000 PRODUCT Gasoline

CONSTRUCTION Coated Steal

COMMENTS: Tank was cleaned and cut open on-site.

RETURN COMPLETED FORM TO COOPER ENGINEERING

Cooper Engineering Company, Inc.

CONSULTING ENGINEER

100 WEST ORCHARD BEACH LANE
RICE LAKE, WISCONSIN 54868
TELEPHONE 715-234-7008
FAX 715-234-1025

UST CHAIN OF CUSTODY FORM

PROJECT NAME Bob's Service DATE 7/16/93

LOCATION 10531 STATE HWY 70 Falun WI CEC REP Pat Mahowald

TRANSPORTER'S NAME Tank on-site
(Trucker)

LICENSE _____

RELINQUISHED BY Tank on-site DATE 7/19/93

TIME —

RECEIVED BY Tank on-site DATE 7/19/93
(Name)

Tank on site
(Salvage Company Name)

TANK SIZE 10,000 PRODUCT Gasoline

CONSTRUCTION Coated Steel

COMMENTS: Tank on-site to be used as a wood shed.

RETURN COMPLETED FORM TO COOPER ENGINEERING

Appendix F

Checklist for Underground Tank Closure (SBD-8951)

Wisconsin Department of Industry, Labor and Human Relations

Complete one form for each site closure

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

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

1. Site Name	2. Owner Name
Bob's Service	Bob Anderson
Site Street Address (not P.O. Box)	Owner Street Address
10531 State Road 70	10531 State Road 70
☐ City ☐ Village ☒ Town of: Siren	☐ City ☐ Village ☒ Town of: Siren
State: WI Zip Code: 54872	State: WI Zip Code: 54872
County: Burnett	County: Burnett
Telephone No. (include area code): ( )	

3. Closure Company Name (Print)	Closure Company Street Address,
Jack's Construction	11491 North State Rd
Closure Company Telephone No. (include area code): ( )	Closure Company City, State, Zip Code: Grantsburg 54840
4. Name of Company Performing Closure Assessment: Cooper Engineering	Assessment Company Street Address, City, State, Zip Code
Telephone # (include area code): ( )	Certified Assessor Name (Print): Pat Mahowald
Assessor Signature	Assessor Certification No.

Tank ID #	Closure	Temp. Closure	Closure In Place	Tank Capacity	Contents	Closure Assessment
1.	☒	☐	☐	10,000	OZ	☒ Y ☐ N
2.	☒	☐	☐	10,000	OZ	☒ Y ☐ N
3.	☐	☐	☐			☐ Y ☐ N
4.	☐	☐	☐			☐ Y ☐ N
5.	☐	☐	☐			☐ Y ☐ N
6.	☐	☐	☐			☐ Y ☐ 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. ☒ Y ☐ N ☐ NA
All local permits were obtained before beginning closure. ☒ Y ☐ N ☐ NA

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

	Remover Verified	Inspector Verified	NA
B. TEMPORARILY OUT OF SERVICE			
Written inspector approval of temporary closure obtained, which is effective until (provide date) _____	☐ Y ☐ N	☐	☐
1. Product Removed			
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	☐ Y ☐ N	☐	☐
b. All product removed to bottom of suction line, OR	☐ Y ☐ N	☐	☐
c. All product removed to within 1" of bottom.	☐ Y ☐ N	☐	☐
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐ Y ☐ N	☐	☐
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐ Y ☐ N	☐	☐
4. Dispensers/pumps left in place but locked and power disconnected.	☐ Y ☐ N	☐	☐
5. Vent lines left open.	☐ Y ☐ N	☐	☐
6. Inventory form filed indicating temporary closure.	☒ Y ☐ N	☐	☐
C. CLOSURE BY REMOVAL			
1. Product from piping drained into tank (or other container).	☐ Y ☐ N	☐	☐
2. Piping disconnected from tank and removed.	☐ Y ☐ N	☐	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☐ Y ☐ N	☐	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐ Y ☐ N	☐	☐
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.**	☐ Y ☐ N	☐	☐
6. Vent lines left connected until tanks purged.	☐ Y ☐ N	☐	☐
7. Tank openings temporarily plugged so vapors exit through vent.	☐ Y ☐ N	☐	☐
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	☐ Y ☐ N	☐	☐
9. Tank removed from excavation after **PURGING/INERTING**; placed on level ground and blocked to prevent movement.	☐ Y ☐ N	☐	☐
10. Tank cleaned before being removed being removed from site.	☐ Y ☐ N	☐	☐

C. CLOSURE BY REMOVAL (continued)

	Remover Verified
11. Tank labeled in 2" high letters after removal but before being moved from site.	☑Y ☐N
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.	☑Y ☐N
13. Inventory form filed by owner with Safety and Buildings Division indicating closure by r moval.	☑Y ☐N
14. Site security is provided while the excavation is open.	☑Y ☐N

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).				
2. Piping disconnected from tank and removed.	☐Y	☐N	☑	
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☐Y	☐N	☑	
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐Y	☐N	☑	
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☐Y	☐N	☑	
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.	☐Y	☐N	☑	
7. Tank openings temporarily plugged so vapors exit through vent.	☐Y	☐N	☑	
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	☐Y	☐N	☑	
9. Tank properly cleaned to remove all sludge and residue.	☐Y	☐N	☑	
10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled.	☐Y	☐N	☑	
11. Vent line disconnected or removed.	☐Y	☐N	☑	
12. Inventory form filed by owner with Safety and Buildings Division indicating closure in place.	☐Y	☐N	☑	

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.	☑Y	☐N	☑	☐
2. Do points of obvious contamination exist?	☑Y	☐N	☑	☐
3. Are there strong odors in the soils?	☑Y	☐N	☑	☐
4. Was a field screening instrument used to pre-screen soil sample locations?	☑Y	☐N	☑	☐
5. Was a closure assessment omitted because of obvious contamination?	☐Y	☑N	☐	☑
6. Was the DNR notified of suspected or obvious contamination?	☐Y	☑N	☐	☑

Agency, office and person contacted: _____

7. Contamination suspected because of: ☐ Odor ☐ Soil Staining ☐ Free Product ☐ Sheen On Groundwater ☐ 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 pre ure 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

REMOVER/CLEANER INFORMATION

Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed
[illegible]	[signature]	3596	7-20-93

INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
Joel M FOSTER	[signature]	0159

FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed
Fredonia	715 723-5485	7-20-93