

09-41-296155

**UNDERGROUND STORAGE TANK
REMOVAL AND
CLOSURE ASSESSMENT**

**ONE HOUR MARTINIZING FACILITY
6737 MILWAUKEE AVENUE
WAUWATOSA, WISCONSIN**

April 1997

Prepared for

Mr. Charles Cass
One Hour Martinizing
N42 W27251 County Highway JJ
Pewaukee, Wisconsin 53072

Prepared by

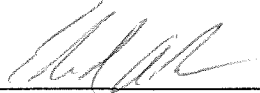
Geraghty & Miller, Inc.
126 North Jefferson Street, Suite 400
Milwaukee, Wisconsin 53202
(414) 276-7742

**UNDERGROUND STORAGE TANK
REMOVAL AND
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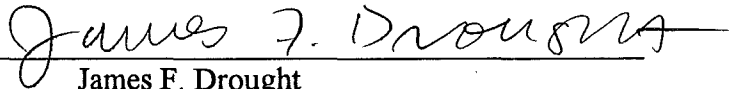
**ONE HOUR MARTINIZING FACILITY
6737 MILWAUKEE AVENUE
WAUWATOSA, WISCONSIN**

April 11, 1997

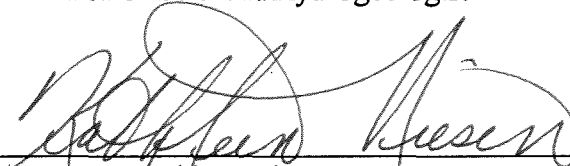
Prepared by GERAGHTY & MILLER, INC.



Edmund A. Buc
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WAUWATOSA, WISCONSIN**

INTRODUCTION

At the request of Mr. Charles Cass, Geraghty and Miller, Inc. has completed an underground storage tank (UST) removal and closure assessment at the One Hour Martinizing facility located at 6737 Milwaukee Avenue in the City of Wauwatosa, Wisconsin. One 550-gallon fuel oil UST was removed from the site. The UST removal activities were conducted by North Shore Environmental Construction, Inc. (North Shore) (Germantown, Wisconsin). Geraghty & Miller was retained by Mr. Cass to perform oversight and site assessor duties during the UST removal.

During the closure assessment, soil samples were collected from the native soils beneath the base of the UST. One of the samples contained diesel range organics (DRO) at a concentration above the Wisconsin Department of Natural Resources (WDNR) "trigger" guideline limit of 10 milligrams per kilogram (mg/kg). However, the detected concentration was less than the generic Residual Contaminant Level (RCL) of 100 mg/kg set forth in Chapter NR 720.09 of the Wisconsin Administrative Code (WAC). Furthermore, soil staining or petroleum odors were not observed in the UST cavity. Therefore, further action is not considered warranted.

SITE BACKGROUND

The One Hour Martinizing Facility is located at 6737 Milwaukee Avenue in the City of Wauwatosa, Milwaukee County, Wisconsin. The site is located within the southwest one-



quarter of U.S. Public Land Survey Section No. 22, Township 7 North, Range 21 East. The location of the property is presented on Figure 1. The property is approximately 0.2 acre in size and is located on the southeast corner of Milwaukee Avenue and North 68th Street. The site is currently developed with an 1,380-square foot single-story building which is utilized for commercial dry cleaning operations. The site features are illustrated on Figure 2.

One 550-gallon fuel oil UST was located adjacent to the west side of the building. The date of installation and the date the UST was removed from service is unknown. The location of the UST is illustrated on Figure 2.

SCOPE OF WORK

The services performed by Geraghty & Miller for this project were completed in accordance with Chapter ILHR 10 of the WAC and included the following:

1. Oversight of the removal of the 550-gallon fuel oil UST.
2. Field screening and analytical testing of soil confirmation samples collected from the UST excavation side walls and excavation bottom.
3. The preparation of a written report that summarizes the scope of services, the results of the analytical testing, and appropriate recommendations.

Details regarding the tank closure and soil excavation activities are presented in the following sections. Photographs that were taken during the removal activities are included in Appendix A.



UNDERGROUND STORAGE TANK REMOVAL

Removal of the 550-gallon heating oil UST and the related closure assessment activities were performed on February 5, 1997. A summary of the services provided for the UST removal, sludge disposal, and consulting activities is presented in Table 1.

TANK REMOVAL ACTIVITIES

On February 5, 1997, North Shore performed the tank removal. Tank removal was completed following acquisition of a removal permit from the City of Wauwatosa Fire Department. The location and extent of the UST excavation are shown on Figure 3. To provide access to the UST, the overburden soils were removed and temporarily stockpiled on a synthetic liner north of the UST.

Following removal of the overburden soils, the UST was vented, and an access hole was cut into the tank to allow for cleaning. Mr. Thomas Novara of the Wauwatosa Fire Prevention Bureau was present during the UST venting and cleaning activities. After the UST was cleaned, it was removed and placed near the excavation on the north side of the property for inspection. The UST consisted of bare-steel construction. An evaluation of the condition of the UST revealed no holes, pitting, or rust stains, nor any apparent faults or defects. Copies of the Wisconsin Department of Industry, Labor, and Human Relations (WDILHR) Underground Petroleum Product Tank Inventory and Checklist for Underground Tank Closure forms are included in Appendix B.

TANK CLEANING , FUEL AND SLUDGE DISPOSAL

Prior to removal of the UST, North Shore purged the tanks of volatile and explosive vapors by vacuum extraction. The explosive and volatile vapor levels within the UST were



measured with a combustible gas monitor. An opening was made in the UST when non-detectable vapor levels were recorded. Representatives of North Shore removed approximately 30 gallons of product and sludge from the UST. The product and sludge was placed into a 55-gallon drum and temporarily stored on-site. One Step Environmental, Inc. (Port Washington, Wisconsin) was contacted regarding the disposal of the product/sludge. The product/sludge disposal documentation is included in Appendix C.

SOIL SAMPLE COLLECTION, FIELD SCREENING, AND ANALYSIS

During the removal of the UST, no soil staining or petroleum odors were observed. A total of four confirmation soil samples were collected by Geraghty & Miller as part of the UST removal and closure activities. Two samples were collected from the north and south walls of the excavation. Samples were also collected from the native soils beneath each end of the UST. The soil sample locations and laboratory analyses were selected based on the WDNR technical guidance entitled "Site Assessments for Underground Storage Tanks". The soil sample locations are shown on Figure 3. The Geraghty & Miller scientist providing oversight and collecting the confirmation soil samples is certified by WDILHR as a UST Site Assessor.

The soil samples were collected and placed into new 8-ounce glass jars and covered with aluminum foil for field screening with a flame ionization detector (FID). In addition to the field screening samples, soil samples from beneath the UST were collected for laboratory analysis. For each analytical sample, a 25-gram aliquot of soil was placed into a new 2-ounce glass jar supplied by the laboratory, and a second 2-ounce glass jar was filled completely with soil. The soil samples collected for analysis were then placed in a cooler with ice. The samples were shipped on ice to En Chem, Inc. of Green Bay, Wisconsin (WDNR Certification No. 405132750), following standard chain-of-custody protocol.



The two samples collected from the sidewalls of the excavation (Sample Nos. SS and NS) did not exhibit detectable FID readings. The two samples collected from beneath the base of the former UST (Sample Nos. EB and WB) exhibited FID readings of 4.5 and 6.0 parts per million (ppm), respectively. These two soil samples were submitted for analysis of DRO following the WDNR-Modified DRO Method. One sample, collected from beneath the west end of the former UST, did not contain a detectable concentration of DRO. The remaining sample, collected from beneath the east end of the former UST contained DRO at a concentration of 19 mg/kg. The measured DRO does not exceed the generic RCL of 100 mg/kg set forth in Chapter NR 720.09 of the WAC. Copies of the chain-of-custody form and laboratory report are included in Appendix D.

BACKFILL PLACEMENT AND COMPACTION

Approximately 50 cubic yards of soil generated during overexcavation of the UST basin were temporarily stockpiled on-site. Based on visual observations and field screening results, the soils were placed back into the excavation and compacted after the UST was removed. To bring the excavation up to grade, clean, imported gravel was placed in the excavation and compacted. The backfilled excavation will likely be paved with asphaltic concrete in the spring of 1997.

TANK DISPOSAL

Following completion of the tank cleaning activities the tank was transported to Kimmel Metals, Inc. for recycling as scrap metal. A copy of the tank recycling bill-of-lading is included in Appendix C.

SUMMARY AND CONCLUSIONS



The following is a summary of the tank closure activities completed at the One Hour Martinizing site:

1. One 550-gallon fuel oil UST was removed from the site on February 5, 1997. Four soil confirmation samples were collected from the sidewalls and base of the UST excavation for field screening. Two samples collected from beneath the former UST were submitted for laboratory analyses of DRO.
2. The four soil samples exhibited low to nondetectable FID readings. One of the two samples submitted for analysis contained a DRO concentration of 19 mg/kg. The measured DRO does not exceed the generic RCL set forth in Chapter NR 720.09 of the WAC. The remaining sample did not contain a detectable concentration of DRO.
3. The UST was properly cleaned prior to off-site recycling. The sludge was removed from the UST and subsequently transported off-site for proper disposal.
4. The UST excavation was backfilled and compacted with the excavated overburden soils and clean, imported backfill material.

RECOMMENDATIONS

Based on the tank closure and site assessment services completed by Geraghty & Miller at the location of the former fuel oil UST at the One Hour Martinizing facility, further investigation and/or remediation is not warranted. Geraghty & Miller recommends that the site receive closure from the WDNR in accordance with Chapter NR 726 of the WAC.

onehrmar\wi0615\ust\reports\ustclos.doc



Table 1. Summary of Tank Removal, Disposal, and Consulting Services, One Hour Martinizing, 6737 Milwaukee Avenue, Wauwatosa, Wisconsin.

UST Closure Consultant:	Kevin Daleness Scientist/Hydrogeologist WDILHR UST Site Assessor No. 242351 Geraghty & Miller, Inc. Milwaukee, Wisconsin
UST Removal and Disposal and Soil Excavation Contractor:	North Shore Environmental Construction, Inc. Germantown, Wisconsin
City of Wauwatosa UST Inspector:	Thomas Novara WDILHR Inspector No. 00139
Tank Cleaning Contractor:	North Shore Environmental Construction, Inc. Germantown, Wisconsin
Sludge Disposal Facility:	One Step Environmental, Inc. Port Washington, Wisconsin
Tank Disposal Location:	Kimmel Metals, Inc. Milwaukee, Wisconsin
Soil Analytical Laboratory:	En Chem, Inc., Green Bay, Wisconsin (WDNR Certification No. 405132750)

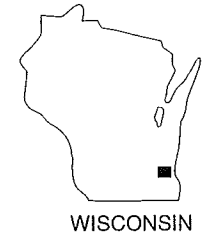
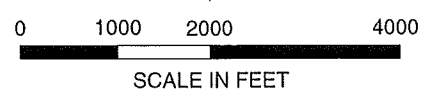
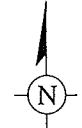
hertzpen/wi0590/ustremov/tables/tanksum.xls



DRAWING: WL_SITE/AL
 FILE NO.: GRAPHICS
 PN: ONEHRMARIW10615/UST
 DWG DATE: 03MAR97



SOURCE: Composite of USGS 7.5 Minute Topographic Maps, MILWAUKEE (1971) and WAUWATOSA (1994), WISCONSIN Quadrangles

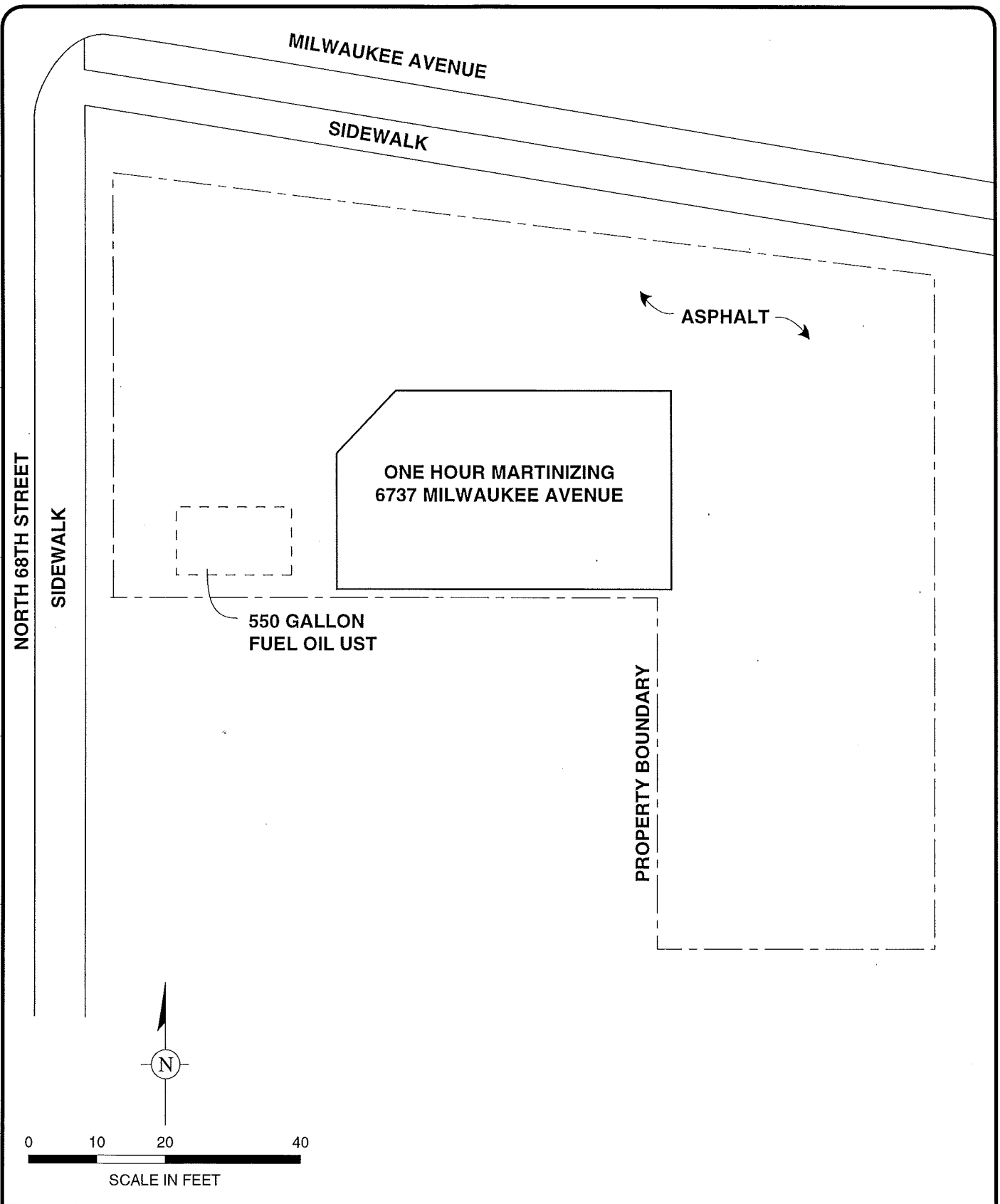


GERAGHTY & MILLER, INC.
 Environment and Infrastructure
 a heidemi| company

SITE LOCATION MAP
 ONE HOUR MARTINIZING
 WAUWATOSA, WISCONSIN

FIGURE
1

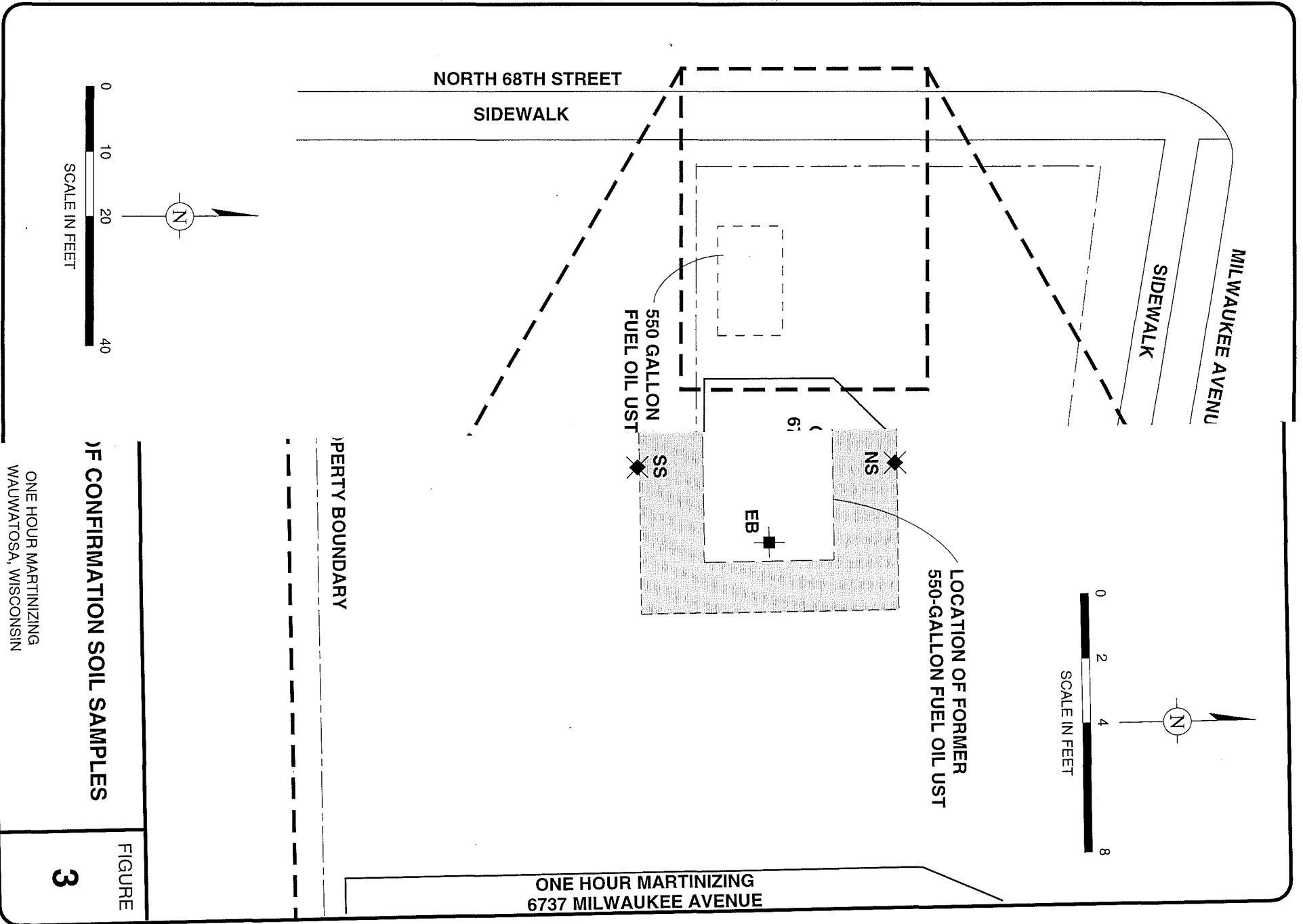
DWG DATE: 27MAR97 | PN: W10615.001W10615UJST | FILE NO.: GRAPHICS | DRAWING: SITE-A1 | CHECKED: EAB | APPROVED: | DRAFTER: LEELELS



SITE LAYOUT

ONE HOUR MARTINIZING
WAUAWTOSA, WISCONSIN

FIGURE
2



UF CONFIRMATION SOIL SAMPLES

ONE HOUR MARTINIZING
WAUWATOSA, WISCONSIN

FIGURE

3

**ONE HOUR MARTINIZING
6737 MILWAUKEE AVENUE**

APPENDIX A

Photographs of UST Removal Activities



DWG DATE: 27MAR97

PN: ONEHRMARW10615UST

FILE NO.: GRAPHICS

DRAWING: PHOT_PG1.AI

CHECKED: EAB

APPROVED:

DRAFTER: ELS

PHOTOGRAPH 1:
A worker from North Shore Environmental Construction is exposing the top of the 550-gallon fuel oil UST.



PHOTOGRAPH 2: Removal of the UST from the excavation prior to cleaning.

DWG DATE: 27MAR97

PN: ONEHRMARWI0615UUST

FILE NO.: GRAPHICS

DRAWING: PHOT_PG2.AI

CHECKED: EAB

APPROVED:

DRAFTER: ELS



PHOTOGRAPH 3: Opening of the UST to provide access for cleaning.



PHOTOGRAPH 4: Backfilling of the excavation with imported fill material following collection of confirmation samples.

APPENDIX B

**Underground Petroleum Product Tank Inventory Form and WDILHR Checklist for
UST Closure**



UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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

Office Use Only:

ID #

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that store or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (including piping) located below ground level. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner.

Registration applies to a tank that is (check one):			Fire Department Providing Fire Coverage Where Tank Located:	
<input type="checkbox"/> In Use or New	4. <input checked="" type="checkbox"/> Closed - Tank Removed	8. <input type="checkbox"/> Changed Ownership	Wauwatosa	
<input type="checkbox"/> Abandoned With Product	6. <input type="checkbox"/> Closed - Filled With Inert Material	(Indicate new owner below)		
<input type="checkbox"/> Abandoned No Product (empty)	7. <input type="checkbox"/> Out of Service			
<input type="checkbox"/> or With Water				

IDENTIFICATION: (Please Print)

Tank Site Name _____ Site Address 6737 W. Milwaukee Ave. Site Telephone No. _____

City <u>Wauwatosa</u> <input type="checkbox"/> Village <input type="checkbox"/> Town of: _____	State <u>WI</u>	Zip Code <u>53213</u>	County <u>Milwaukee</u>
Owner Name (mail sent here unless indicated otherwise in #3 below) <u>Charles Cass</u>	Owner Mailing Address (mail sent here unless indicated otherwise in #3) <u>N42 W27251 Highway JJ</u>		
City <u>Pewaukee</u> <input checked="" type="checkbox"/> Village <input type="checkbox"/> Town of: _____	State <u>WI</u>	Zip Code <u>53072</u>	County <u>Waukesha</u>
Alternate Mailing Name If Different Than #2 _____	Alternate Mailing Street Address If Different From #2 _____		
City _____ <input type="checkbox"/> Village <input type="checkbox"/> Town of: _____	State _____	Zip Code _____	County _____

Tank Age (date installed, if known: or years old) _____	5. Tank Capacity (gallons) <u>550</u>	6. Tank Manufacturer's Name (if known) _____
---	---------------------------------------	--

TYPE OF USER (check one):

<input checked="" type="checkbox"/> Gas Station <u>Former</u>	2. <input type="checkbox"/> Bulk Storage	3. <input type="checkbox"/> Utility	4. <input type="checkbox"/> Mercantile
<input type="checkbox"/> Industrial	6. <input type="checkbox"/> Government	7. <input type="checkbox"/> School	8. <input type="checkbox"/> Residential
<input type="checkbox"/> Agricultural	10. <input type="checkbox"/> Other (specify): _____		

TANK CONSTRUCTION:

<input checked="" type="checkbox"/> Bare Steel	2. <input type="checkbox"/> Cathodically Protected and Coated Steel (A. <input type="checkbox"/> Sacrificial Anodes or B. <input type="checkbox"/> Impressed Current)
<input type="checkbox"/> Coated Steel	4. <input type="checkbox"/> Fiberglass
<input type="checkbox"/> Relined	7. <input type="checkbox"/> Steel - Fiberglass Reinforced Plastic Composite
	5. <input type="checkbox"/> Other (specify): _____
	9. <input type="checkbox"/> Unknown

Approval: 1. <input type="checkbox"/> Nat'l Std. 2. <input type="checkbox"/> UL 3. <input type="checkbox"/> Other: _____	Is Tank Double Walled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Spill Protection Provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify type: _____	Spill Containment? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Leak detection method: 1. <input type="checkbox"/> Automatic tank gauging 2. <input type="checkbox"/> Vapor monitoring 3. <input type="checkbox"/> Groundwater monitoring 4. <input type="checkbox"/> Inventory control and pressure testing 5. <input type="checkbox"/> Interstitial monitoring 6. <input checked="" type="checkbox"/> Not required at present 7. <input type="checkbox"/> Manual Tank Gauging (only for tanks of 1,000 gallons or less)	

PIPING CONSTRUCTION

<input checked="" type="checkbox"/> Bare Steel	2. <input type="checkbox"/> Cathodically Protected and Coated or Wrapped Steel (A. <input type="checkbox"/> Sacrificial Anodes or B. <input type="checkbox"/> Impressed Current)	3. <input type="checkbox"/> Coated Steel
<input type="checkbox"/> Fiberglass	5. <input type="checkbox"/> Other (specify): <u>Copper</u>	9. <input type="checkbox"/> Unknown
System Type: 1. <input type="checkbox"/> Pressurized piping with: A. <input type="checkbox"/> auto shutoff; B. <input type="checkbox"/> alarm; or C. <input type="checkbox"/> flow restrictor	2. <input checked="" type="checkbox"/> Suction piping with check valve at tank	
	3. <input type="checkbox"/> Suction piping with check valve at pump and inspectable	

Leak detection method: used if pressurized or check valve at tank: 1. <input type="checkbox"/> Vapor monitoring 2. <input type="checkbox"/> Interstitial monitoring	3. <input type="checkbox"/> Groundwater monitoring 4. <input type="checkbox"/> Tightness testing	5. <input type="checkbox"/> Line Leak Detector 6. <input checked="" type="checkbox"/> Not Required
Approval: 1. <input type="checkbox"/> Nat'l Std. 2. <input type="checkbox"/> UL 3. <input type="checkbox"/> Other: _____	Double Walled: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

TANK CONTENTS

<input type="checkbox"/> Diesel	2. <input type="checkbox"/> Leaded	3. <input type="checkbox"/> Unleaded	4. <input checked="" type="checkbox"/> Fuel Oil
<input type="checkbox"/> Gasohol	6. <input type="checkbox"/> Other	7. <input type="checkbox"/> Empty	8. <input type="checkbox"/> Sand/Gravel/Slurry
<input type="checkbox"/> Unknown	10. <input type="checkbox"/> Premix	11. <input type="checkbox"/> Waste Oil	12. <input type="checkbox"/> Propane
<input type="checkbox"/> Chemical *		14. <input type="checkbox"/> Kerosene	15. <input type="checkbox"/> Aviation

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

Tank Closed, Give Date (mo/day/yr): <u>2-5-97</u>	Has a site assessment been completed? (see reverse side for details) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	---

Installation of a new tank is being reported, indicate who performed the installation inspection:

<input type="checkbox"/> Fire Department	2. <input type="checkbox"/> DILHR	3. <input type="checkbox"/> Other (identify) _____
--	-----------------------------------	--

Signature of Owner or Operator (please print): <u>Charles Cass</u>	Indicate Whether: <input checked="" type="checkbox"/> Owner or <input type="checkbox"/> Operator
Signature of Owner or Operator: <u>Charles Cass</u>	Date Signed: <u>2-5-97</u>

CHECKLIST FOR UNDERGROUND TANK CLOSURE

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

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

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

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

1. Site Name		2. Owner Name <i>Charles Cass</i>	
Site Street Address (not P.O. Box) <i>6737 W. Milwaukee</i>		Owner Street Address <i>N42 W 2725 Hwy JJ</i>	
<input checked="" type="checkbox"/> City <i>Wauwatosa</i>	<input type="checkbox"/> Village	<input type="checkbox"/> City	<input checked="" type="checkbox"/> Village <i>Pewaukee</i>
State <i>WI</i>	Zip Code <i>53213</i>	County <i>Milwaukee</i>	Telephone No. (include area code) <i>(414) 691-4133</i>
Closure Company Name (Print) <i>North Shore Env. Const., Inc.</i>		Closure Company Street Address <i>1117 W 18493 Fullen Dr.</i>	
Closure Company Telephone No. (include area code) <i>414) 255-4468</i>		Closure Company City, State, Zip Code <i>Curmantown, WI 53622</i>	
Name of Company Performing Closure Assessment <i>Geraghty & Miller</i>		Assessment Company Street Address, City, State, Zip Code <i>126 N. Jefferson St., Suite 400, Milwaukee, WI 53202</i>	
Telephone # (include area code) <i>414) 276-7142</i>	Certified Assessor Name (Print) <i>KEVIN L. DALENESS</i>	Assessor Signature <i>[Signature]</i>	Assessor Certification No. <i>242351</i>

Tank ID #	Closure	Temp. Closure	Closure In Place	Tank Capacity	Contents *	Closure Assessment
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>550</i>	<i>04</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Y <input type="checkbox"/> N

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

Written notification was provided to the local agent 15 days in advance of closure date. Y N NA
 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

TEMPORARILY OUT OF SERVICE

Written inspector approval of temporary closure obtained, which is effective until (provide date) _____

1. Product Removed	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
b. All product removed to bottom of suction line, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
c. All product removed to within 1" of bottom.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
4. Dispensers/pumps left in place but locked and power disconnected.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
5. Vent lines left open.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>
6. Inventory form filed indicating temporary closure.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	<input type="checkbox"/>

CLOSURE BY REMOVAL

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

CLOSURE BY REMOVAL (continued)

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

CLOSURE IN PLACE

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

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

CLOSURE ASSESSMENTS

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

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

METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

- Educator Or Diffused Air Blower
Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground. Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.
- Dry Ice
Dry ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.
- Inert Gas (CO₂ or N₂) **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.

NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

REMOVER/CLEANER INFORMATION

Steven M. Strande *[Signature]* 01853 2-5-97
Remover Name (print) Remover Signature Remover Certification No. Date Signed

INSPECTOR INFORMATION

Thomas M. Jovara *[Signature]* 01137
Inspector Name (print) Inspector Signature Inspector Certification No.
FDID # For Location Where Inspection Performed Inspector Telephone Number Date Signed

OWNER

APPENDIX C

Tank and Sludge Disposal Documentation



NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Number
00359

2. Page 1 of 1

00359

3. Generator's Name and Mailing Address
**Chuck Cass Property
6737 W. Milwaukee St
Wauwatosa WI 53213**

4. Generator's Phone
414 284 8950 (one step)

5. Transporter 1 Company Name
Advanced Waste Services

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
**STABILIZATION SYSTEMS, INC.
3801K WEST MCKINLEY AVE.
MILWAUKEE, WI 53208**

10. US EPA ID Number

A. Transporter's Phone
B. Transporter's Phone
C. Facility's Phone
414-342-1852

11. Waste Shipping Name and Description

12. Containers	13. Total Quantity	14. Unit Weight
201	040	6

non hazardous UST Waste

D. Additional Descriptions for Materials Listed Above
**SSI Profile # 97269
Bill to One Step Environmental**

E. Handling Codes for Wastes Listed Above
9-gallons

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the information stated above on this manifest complies with all applicable regulations for the proper disposal of Hazardous Waste.
Printed/Typed Name: **Pamela J. Loiselle**
Signature: **Pamela J. Loiselle**
Month/Day/Year: **3/13/97**

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: **SCOTT LODGE**
Signature: **[Signature]**
Month/Day/Year: **03/13/97**

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name: _____
Signature: _____
Month/Day/Year: _____

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: **JEFF DEAN**
Signature: **[Signature]**
Month/Day/Year: **03/13/97**

WHITE - Original Return to Generator • CANARY - Transporter #1 • PINK - Transporter #2 • BLUE - Generator's Copy • GOLD - TANK Copy



WI office:
 133 E. Main • P.O. Box 248
 Port Washington, WI 53074
 414-284-8950 • FAX 414-284-8951

IL office:
 913 Knottingham Dr. • Suite 1-A
 Schaumburg, IL 60193
 708-894-5746 • FAX 708-894-6089

ENVIRONMENTAL, INC.

DRUMMED TANK/SOIL WASTE DISPOSAL FORM

for: *NORTH SHORE ENVIRONMENTAL CONSTRUCTION, INC.*

Today's Date 2-5-97
 Project # 97C05

SITE INFORMATION

Company Name Chuck Cass
 Site Address 6237 W. Milwaukee St.
 City Wauwatosa State WI Zip Code _____
 Federal EPA ID # NA

PROJECT INFORMATION

Fuel oil

Project type: Gas Station
 Drycleaner
 Other _____ Specify: Former Gas Station

Waste is: Liquid
 Sludge
 Solid
 Waste is from: Excavation _____
 Tank
 Other _____
 Specify: _____

Container type: 55gl openhead (17-H)
 55gl bunge (17-E) _____
 85gl overpack _____
 Other _____ Specify: _____

Number of Containers for Project: 1

COMMENTS: 98% liquids ; 1% Sludge ; 1% Solids
1 dot 1/2 full Fuel oil

This form completed by: Steve Strande Phone # 255-4468

ALL SAMPLES TO BE PICKED UP THURSDAY P.M.'s.



One Step Environmental, Inc.
 33 E. Main St.
 P.O. Box 248
 Port Washington, WI 53074
 Voice: (414)284-8950
 Fax: (414)284-8951

INVOICE
 Invoice Number:
 2009
 Invoice Date:
 Mar 14, 1997
 Page:
 1

Sold To:
 Mr. Ken Nelson
 North Shore Environmental
 N117 W18493 Fulton Dr.
 Germantown, WI 53022

Ship to:

Customer ID	Customer PO	Payment Terms	
North Shore		Net 30 Days	
Sales Rep ID	Shipping Method	Ship Date	Due Date
	none	3/11/97	4/13/97

Quantity	Item	Description	Unit Price	Extension
1.00	W/S #UST NS-135	Re: Chuck Cass Property Project # 97C05 Pumping, transportation and disposal of waste taken from the referenced site on the ship date. Non-Haz Fuel Oil	200.00	200.00

Check No:

Subtotal	200.00
Sales Tax	
Total Invoice Amount	200.00
Payment Received	0.00
TOTAL	200.00

THIS SHIPPING ORDER must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

Shipper's No. _____

CARRIER: North Shore Environmental Construction, Inc. SCAC

Carrier's No. _____ Date 2/5/97

TO: Kimmel Metals
 Consignee 11000 W. Brown Deer Rd.
 Street Milwaukee, WI 53224
 Destination Zip

FROM: 6737 W. Milwaukee, Ave.
 Shipper Wauwatosa, WI 53213
 Street Origin Zip

Route: _____ Vehicle Number _____ U.S. DOT Hazmat Reg. No. _____

No. Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	Packing Group	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
		Clean, cut & scrap 1-550 gal.						
		Fuel Oil Underground Storage Tank	N/A					

Remit C.O.D. to: _____
 Address: _____
 City: _____ State: _____ Zip: _____

C.O.D. Amt: \$ N/A C. O. D. FEE: Prepaid Collect \$ _____

FREIGHT CHARGES PREPAID COLLECT

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ _____ Per _____

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges. (Signature of Consignor)

Where the applicable tariff provisions specify a limitation of the carrier's liability (HMFC Item 172), if there is no release or value declaration by the shipper, and the shipper does not declare a value or release the carrier's liability, that liability shall be limited to the extent provided by HMFC Item 172. California interstate shipments must comply with HMFC Item 173.

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PLACARDS REQUIRED N/A PLACARDS SUPPLIED YES NO - FURNISHED BY CARRIER

DRIVERS SIGNATURE: _____

SHIPPER: _____
 PER: _____
 DATE: _____
 EMERGENCY RESPONSE _____
 TELEPHONE NUMBER: _____

CARRIER: North Shore Environmental Construction, Inc.
 PER: Keith M. Fittzke / Keith M. Fittzke, President
 DATE: 2/5/97 / KB

Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (172.604).

CONTAINS HAZARDOUS MATERIALS

CONTAINS HAZARDOUS MATERIALS

APPENDIX D

Chain-of-Custody Form and Soil Analytical Results





Lab Certifications

Wisconsin: 405132750
 Minnesota: 055-999-334
 Iowa: 135

... chemistry for the environment

1795 Industrial Drive
 Green Bay, WI 54302
 414-469-2436
 800-7-ENCHEM
 FAX: 414-469-8827

Location : OHM-WAUWATOSA/#WI0597002
 Your Sample ID: WB
 Sample Desc. :
 Sample Matrix : SOIL Date Collected: 02/05/1997
 En Chem Proj# : 9702059 Date Received : 02/06/1997
 En Chem Lab # : 214707 Date Reported : 02/10/1997

Report to: GERAGHTY & MILLER, INC.
 126 NORTH JEFFERSON STREET
 MILWAUKEE, WI 53202

Bill to: GERAGHTY & MILLER, INC

Analysis	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
TOTSOLID			SM2540G	02/07/1997	PHS

Parameter	Result	Units	Flag	LOD	LOQ
Total Solids	81	percent			

Analysis	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
DRO-S		02/07/1997	WDNR MOD DRO	02/08/1997	PHS

Parameter	Result	Units	Reporting Limit
Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.9
Soil spike	85 % RECOV		
Soil spike duplicate	85 % RECOV		

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by appropriately certified laboratories.

These results have been reviewed and their authenticity verified by: J. Duran



1795 Industrial Drive
 Green Bay, WI 54302
 414-469-2436
 800-7-ENCHEM
 FAX: 414-469-8827

Lab Certifications

Wisconsin: 405132750
 Minnesota: 055-999-334
 Iowa: 135

... chemistry for the environment

Location : OHM-WAUWATOSA/#WI0597002
 Your Sample ID: EB
 Sample Desc. :
 Sample Matrix : SOIL Date Collected: 02/05/1997
 En Chem Proj# : 9702059 Date Received : 02/06/1997
 En Chem Lab # : 214708 Date Reported : 02/10/1997

Report to: GERAGHTY & MILLER, INC.
 126 NORTH JEFFERSON STREET
 MILWAUKEE, WI 53202

Bill to: GERAGHTY & MILLER, INC

Analysis	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
TOTSOLID			SM2540G	02/07/1997	PHS

Parameter	Result	Units	Flag	LOD	LOQ
Total Solids	95	percent			

Analysis	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
DRO-S		02/07/1997	WDNR MOD DRO	02/08/1997	PHS

Parameter	Result	Units	Reporting Limit
Diesel Range Organics(DRO)-Soil	19	mg/kg	3.6
Soil spike	85	% RECOV	
Soil spike duplicate	85	% RECOV	

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by appropriately certified laboratories.

These results have been reviewed and their authenticity verified by: J. Durawean

