ANSUL

ANSUL FIRE PROTECTION
ONE STANTON STREET
MARINETTE, WI 54143-2542
TELEPHONE (715) 735-7411

February 23, 1993

RECEIVED
JUL 14 2000
ERS DIVISION

Ms. Eileen Kramer
Wisconsin Department of Natural Resources
Industrial Parkway
P.O. Box 16
Marinette, WI 54143-0016

Dear Ms. Kramer:

I have attached a copy of a report by E & K Hazardous Waste Services concerning the removal of a underground storage tank at Ansul's Pierce Avenue facility.

If you have any questions, please contact me.

Sincerely,

ANSUL FIRE PROTECTION

George E. Rogers
Environmental Control Manager

GER/nwp

Attachment

RECEIVED
FEB 24 1993

DAMES & MOORE
250 EAST WISCONSIN AVENUE, SUITE 1500, MILWAUKEE, WISCONSIN 53202-4209
(414) 347-0800 FAX: (414) 347-0288

January 10, 1994

Ms. Eileen Kramer
Wisconsin Department of Natural Resources
Industrial Parkway, Box 16
Marinette, Wisconsin 54143

RECEIVED
JUL 14 2000
ERS DIVISION

Re: Ansul Fire Technology Center, Marinette, Wisconsin
LUST Case #38-01345

Dear Eileen:

Enclosed is a copy of the site investigation report for the above-referenced site. Please call if you have any questions.

Sincerely,

DAMES & MOORE, Inc.

Kristine M. Casper
Project Manager/Hydrogeologist

Enclosure

cc: Mr. George E. Rogers

RECEIVED
JAN 12 1994
DNR MARINETTE

Site Assessment
and
Tank Closure Report

Underground Storage Tank Removal at

Ansul Fire Technology Center
Pierce Avenue
Marinette, Wisconsin 54143

November 18, 1992

Prepared for:

Mr. George Rogers
Ansul Fire Protection

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ERS DIVISION

Prepared by:

E&K Hazardous Waste Services, Inc.
2905 Paine Avenue
Sheboygan, Wisconsin 53082

E&K Project Number: 17006

January 27, 1993

Pete Madden
Environmental Services Manager

Jed Hoffman
Project Manager

TABLE OF CONTENTS

E&K Project Number: 17006

EXECUTIVE SUMMARY

The site where the 564 gallon unleaded gasoline underground storage tank was removed is located at Ansul's Pierce Avenue facility, Marinette, Wisconsin. This site lies in the NE¼ of the NE¼ of Section 13, T 30 N, R 23 E in Marinette County.

The property is owned and occupied by the Ansul Fire Technology Center. Mr. George Rogers can be reached at [715] 735-7411.

Analytical results indicate petroleum hydrocarbons above the current WDNR guidelines for underground storage tank closure assessments.

E&K Project Number: 17006

TECHNICAL REPORT

SCOPE OF WORK

E&K Hazardous Waste Services, Inc. supplied personnel and equipment to perform the following services:

- Excavate and remove (1) 564 gallon unleaded gasoline underground storage tank (UST) and associated piping.
- Monitor the excavation activities using a Foxboro Century Organic Vapor Analyzer (OVA) Flame Ionization Detector (FID) calibrated to methane, if required.
- Pump tank contents prior to removal.
- Properly contain and dispose of the residue generated from cleaning the underground storage tank.
- Vent, clean, transport and dispose of the underground storage tank upon cleaning.
- Collect soil samples that are representative of the site as per Department of Industry, Labor, and Human Relations (DILHR) guidelines.
- Submit samples for WI Modified Gasoline Range Organics (WI GRO) analysis to Precision Analytical Lab, Inc., a WDNR certified laboratory.
- Compile the necessary data to complete the site assessment and tank closure report for Mr. George Rogers.

TOPOGRAPHY AND SOILS

According to the United States Department of Agriculture Soil Conservation Service Soil Survey of Marinette County issued February 1991, the native soils at this location consist of loamy Udorthents with nearly level slopes. The soil consists of variably sized particals ranging from sand to gravel and cobbles. The soils range from moderately well drained to poorly drained areas.

E&K Project Number: 17006

FIELD ACTIVITIES

E&K field personnel were on-site November 18, 1992, to perform the tank removal and site assessment. Mark Stock was E&K's certified remover/cleaner and site assessor {Certification #03059}. Weather conditions at the time of tank removal consisted of clear skies with an outside air temperature of 20° Fahrenheit with no precipitation occurring during tank removal. The location of the tank and the adjacent surroundings can be found in Appendices 1 and 2.

E&K personnel pumped approximately 1/4 gallon of gasoline from the tank and contained it into one 5 gallon container supplied by Ansul. The product was later used for contained test fires by Ansul. See Appendix 3 for photos of the tank removal activities.

The black, loamy soil overburden was removed to a depth of 4 inches. The sand fill above and around the tank was removed to expose the top of the tank at 26 inches below grade. Staining and gasoline odor were present in the soils adjacent to the underground storage tank. All contaminated soils removed from the excavation were stockpiled on visqueen plastic and covered with visqueen plastic on site. Ventilation of the tank commenced and was continued until the atmosphere in the tank was at less than 10% of the lower explosive limit.

The tank and related piping were removed and visual inspection found the tank and piping to be in good condition. The tank was vented and cut open. No residue remained in the tank. The tank was left on site to be picked up at a later date and scrapped. The completed DILHR Underground Petroleum Product Tank Inventory form can be found in Appendix 5.

Samples were collected from the north wall and the bottom of the excavation for field screening. The samples were allowed to equilibrate for 1 hour before being screened with a Foxboro flame ionization detector. The sample from the north wall was screened with a result of 117 meter units. The sample from the bottom of the excavation was screened with a result of 214 meter units. A soil sample was collected from the north wall of the excavation to provide laboratory confirmation of the contamination present.

The excavation dimensions were 15' long x 8' wide x 8' deep. The excavation was filled and brought to grade. Mr. Rogers was advised that this was a reportable release to the environment and that the WDNR requires immediate notification.

E&K Project Number: 17006

SAMPLING PROCEDURES

E&K Hazardous Waste Services, Inc. technicians followed DILHR and DNR soil sampling specifications.

Prior to collecting the soil sample for laboratory analysis, the weight of the soil was determined. After this was complete, 10 grams of soil was collected using a disposable plastic syringe. The sample was then released into a 60 ml glass vial with a Teflon-lined cap. Ten milliliters of purge and trap grade methanol was released into the glass vial.

The samples were stored in a cooler packed with ice, then stored in E&K's refrigerator at 36° Fahrenheit prior to being shipped in an iced cooler to Precision Analytical Lab, Inc., a WDNR certified laboratory, for analysis. The samples were handled in accordance with EPA protocol regarding chain-of-custody procedures. A copy of the chain-of-custody is included in Appendix 6. Locations where the laboratory samples were collected are noted on the site map found in Appendix 2.

ANALYTICAL RESULTS

Analytical results are described in Table 1, below. WI GRO analysis was performed on all samples to quantify contamination present in the tank excavation. Soil samples were collected at the north wall of the tank excavation. Laboratory analysis data can be found in Appendix 7.

TABLE 1
Laboratory Results From Soil Samples Collected
at Pierce Avenue, Marinette

SAMPLE ID	LOCATION	ANALYSIS PERFORMED	RESULTS
10343	North Wall @ 32" deep	WI GRO	5400 mg/kg
10344	Trip Blank	WI GRO	< 5.0 mg/kg

E&K Project Number: 17006

CONCLUSIONS

Odor and soil staining were observed in the excavation. Approximately 7 yards of soil was excavated and stockpiled on-site.

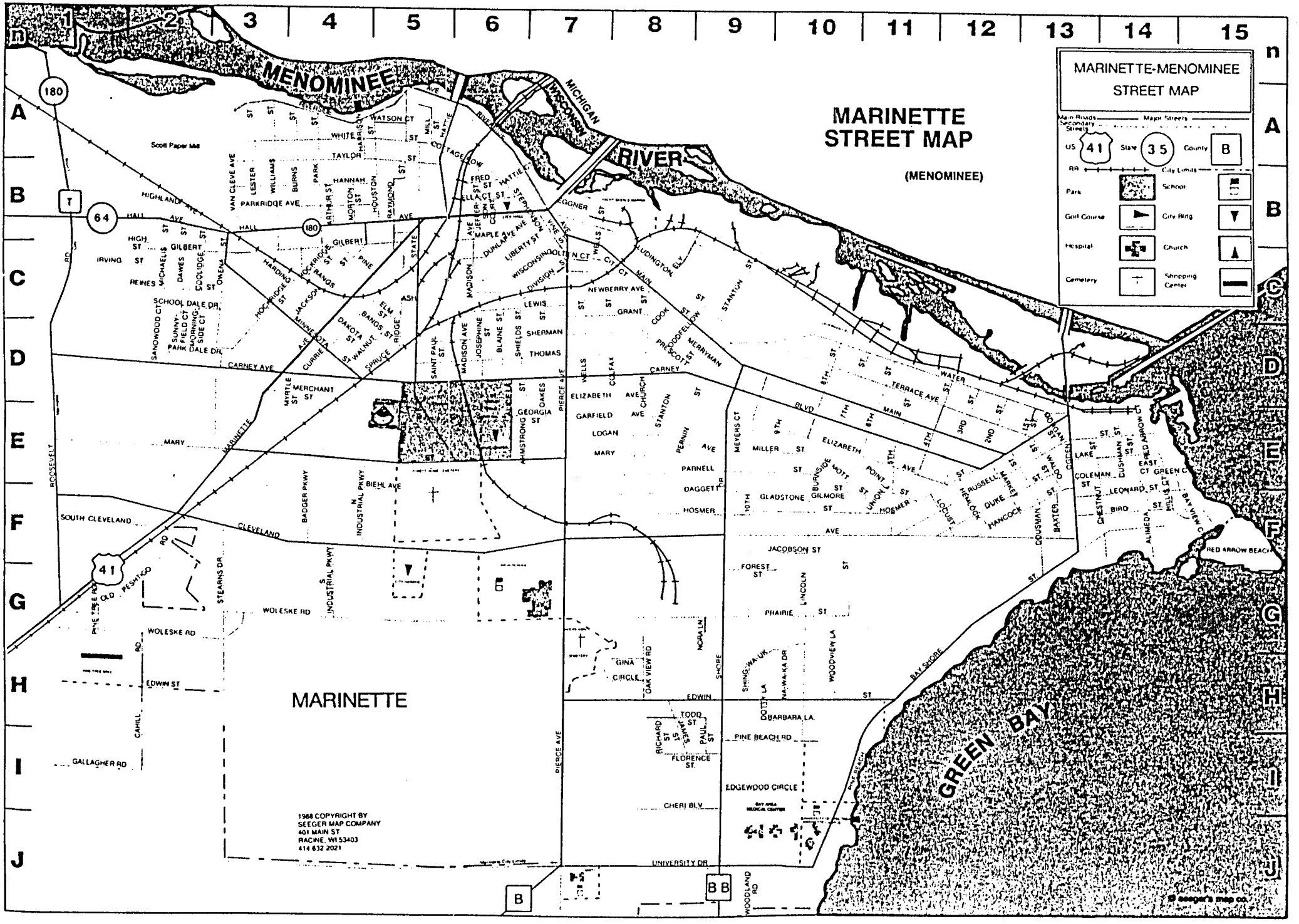
Laboratory analyses of the soil from the gasoline tank excavation indicate levels that are above the WDNR 10 ppm petroleum hydrocarbon guideline at the present time at the north end of the tank.

RECOMMENDATIONS

E&K Hazardous Waste Services, Inc. recommends that a remedial investigation be undertaken at Ansul's Pierce Avenue facility, Marinette, Wisconsin. The investigation should be conducted with the objective of defining the vertical and lateral extent of contamination in the tank excavation. Following the investigative work, a Remedial Action Plan should be drafted and implemented.

Appendix 1

Area Community Map


MARINETTE
STREET MAP
(MENOMINEE)
MARINETTE-MENOMINEE
STREET MAP
MENOMINEE
MICHIGAN
WISCONSIN
RIVER
MARINETTE
GREEN BAY
1968 COPYRIGHT BY
SEEGER MAP COMPANY
401 MAIN ST.
RACINE, WI 53403
414 632 2021

Appendix 2

Site Map

Ansul Fire Tech. Ctr.
Pierce Avenue
Marinette, WI

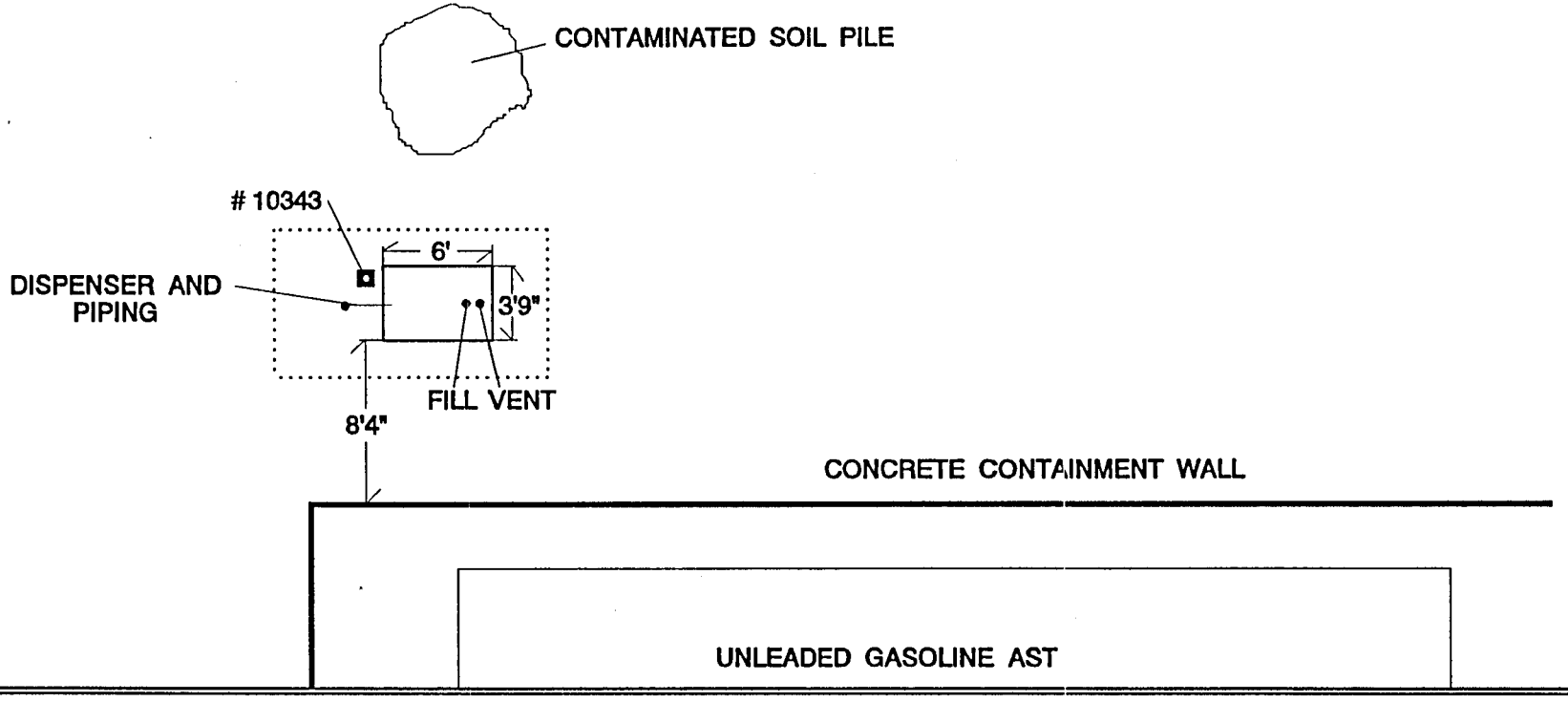
NORTH

11/18/92

Scale 1"=10'

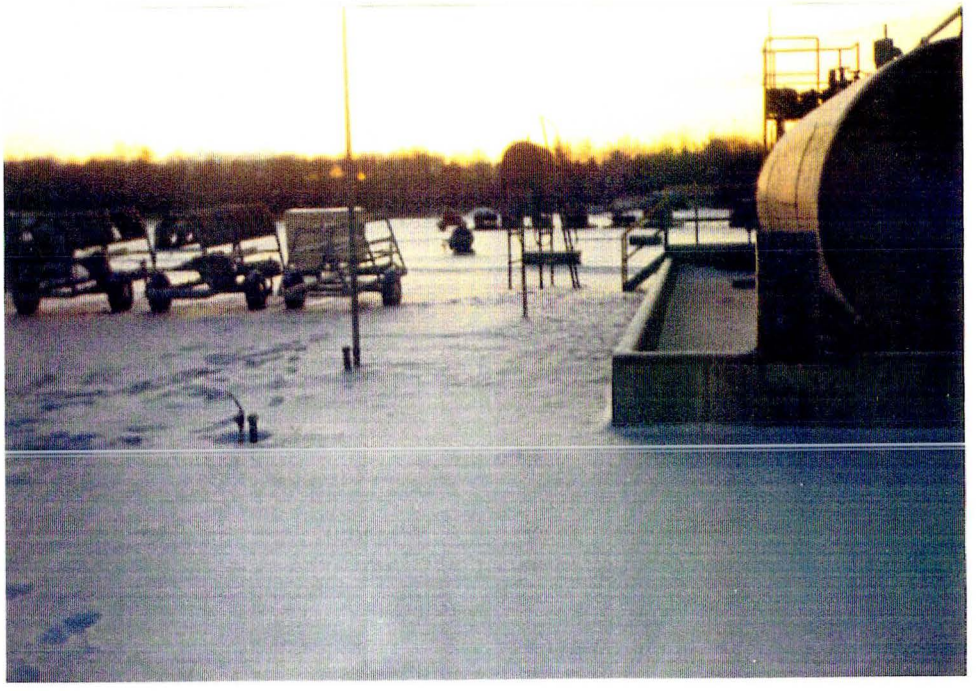
MAP SYMBOLS	
.....	Excavation boundaries
◘	Sample locations

E & K Hazardous Waste Services, Inc.



Appendix 3

Photographs of Tank Removal Activities



Description Area before excavation
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 1-2 **Camera Setting** auto **Project #** 17006
Project Manager Jed Hoffman

Description Tank Uncovered
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 3-4 **Camera Setting** auto **Project #**17006
Project Manager Jed Hoffman

Description Tank being removed from excavation
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 5-6 **Camera Setting** auto **Project #** 17006
Project Manager Jed Hoffman

Description Empty Excavation
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 7-8 **Camera Setting** auto **Project #** 17006
Project Manager Jed Hoffman

Description Tank cut and cleaned/Stockpiled soil
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 9-10 **Camera Setting** auto **Project #** 17,006
Project Manager Jed Hoffman

Description Finished excavation
Date 11-18-92 **Customer** Ansul Fire Protection
Photo # 11-12 **Camera Setting** auto **Project #** 17,006
Project Manager Jed Hoffman

Appendix 4

Calibration Data

INSTRUMENT CALIBRATION DOCUMENTATION

Instrument Make and Model: Foxboro Century 128 OVA FID

CALIBRATION INFORMATION

DATE	TYPE OF CALIBRATION	CALIBRATION GAS USED	PERFORMED BY
11/16/92	Scheduled	Methane 100 PPM in air	Dave Kodel

Appendix 5

Department of Industry, Labor and Human Relations
Underground Petroleum Product
Tank Inventory

SBD-7437

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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:
Marinette Fire Department

A. IDENTIFICATION: (Please Print)

1. Tank Site Name: Ansul Fire Technology Center
Site Address: Pierce Avenue
Site Telephone No.: (715)735-7411
☒ City ☐ Village ☐ Town of: Marinette
State: WI
Zip Code: 54143
County: Marinette

2. Owner Name (mail sent here unless indicated otherwise in #3 below): Ansul Fire Protection
Owner Mailing Address (mail sent here unless indicated otherwise in #3): One Stanton Street
☒ City ☐ Village ☐ Town of: Marinette
State: WI
Zip Code: 54143
County: Marinette

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): Unknown
5. Tank Capacity (gallons): 564 gal.
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: None Noted
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 N/A

Approval: 1. ☐ Nat'l Std 2. ☐ UL 3. ☐ Other: None Noted
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): 11-18-92
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): George E. Kogers for Ansul Fire Protection
Indicate Whether: ☒ Owner or ☐ Operator
Signature of Owner or Operator: George E Kogers
Date Signed: 11/17/92

SBD-7437 (R. 12-91) IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient information may cause you to fall under additional regulations.

Appendix 6

Chain of Custody

State of Wisconsin
Department of Natural Resources

Proj # 17006

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)
Mark STOCK	Field Technician/E+K Hazardous Waste Services	414-458-6030
Property Owner	**Property Address**	**Telephone Number (include area code)**
ANSUL Fire Technology Center	Pierce Ave Marinette, WI 54143	715-735-7411

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

Relinquished By (Signature)	Date/Time	Received By (Signature)
Mark Stock	11-19-92 8:15 AM	Janice Hinton
Relinquished By (Signature)	Date/Time	Received By (Signature)
Janice Hinton	11-19-92 1:35 PM	Richard Lesley
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)

Temperature of temperature blank: _____

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
10343A	11 18 92	9:40	Soil	Syringe	Methanol on Ice 9:40	Confirmation Sample. Contaminated Sand 32' depth	GRO	9211255-1	2x60ml				
10343A	11 18 92	9:40	Soil	ST SS spoon	on Ice 9:40	Dry Wt Sample Contaminated Sand 32' depth	Dry Wt		1x4oz				
10344					On Ice	Trip Blank	GRO	-2	1x60ml				

[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 7

Laboratory Results

17006 (Jed) 12-2-

PRECISION ANALYTICAL LABORATORY
205 WEST GALENA
MILWAUKEE, WI 53212
(414) 272-5222

Analytical Report

ATTN: Janice Hintz
CLIENT: E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI 53082

WORK ID: 17006

RECEIVED DATE: 11/19/92
REPORTED DATE: 11/30/92

PAL ORDER #: 9211255

SAMPLE DESCRIPTION	LAB ID	DATE COLLECTED
10343	01A	11/18/92
10344	02A	11/18/92

Laboratory ID Number (Wisconsin DNR): 241369260

Certified By
Jeff Bushner

CLIENT: **E & K Hazardous Waste Service**

Test	Result	Quant.Lmt.	Units	Analyzed	Extracted	BY	Method(SW846)
Sample ID: **10343**			Lab ID: 9211255-01A		Collected: 11/18/92		
Dry Weight	89		%	11/30/92		JAH	
Mod. GRO (WDNR)	5400		mg/kg	11/24/92		EMC	Wis Mod. DNR
Sample ID: **10344**			Lab ID: 9211255-02A		Collected: 11/18/92		
Mod. GRO (WDNR)	< 5.0		mg/kg	11/23/92		SEL	Wis Mod. DNR

BQL - Below Quantification Limit

PRECISION ANALYTICAL LABORATORY

11/30/92

Report Comments

CLIENT: E & K Hazardous Waste Service PAL Order #: 9211255

All analysis as per approved method found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed or certified by Precision Analytical Laboratory

The organic data is reported out on a dry-weight basis.

Sample was covered air tight in approved container, shipped in cooler from the source to our lab, temperature upon arrival was 4 degrees C.

The samples ordered for GRO were analyzed by the Wisconsin DNR Modified GRO method.