STS Consultants Ltd.
Consulting Engineers

3650 Annapolis Lane
Minneapolis, Minnesota 55447
(612) 559-1900

July 27, 1989

Mr. Ken Wingard
Minnesota Petroleum Services, Inc.
5333 University Avenue N.E.
Minneapolis, MN 55421

STS Project 94800-XF

Re: Tank Closure Documentation Report for the Removal of Two Underground Storage Tanks at Schreier Malting Company, Minneapolis, Minnesota

Dear Mr. Wingard:

STS Consultants, Ltd. has completed the documentation report detailing the results of the removal of the 1,000 and 15,000 gallon underground storage tanks located at Schreier Malting Company, 3600 Dight Avenue in Minneapolis, Minnesota. The scope of work for this project consisted of performing visual observations regarding tank removal, an HNU survey of the soils encountered during excavation, collection of soil samples for chemical analysis and preparation of a documentation report detailing these activities.

If you have any questions regarding this report or if we may be of any further assistance to you, please contact us at 612/559-1900.

Sincerely,

STS CONSULTANTS, LTD.

Steve J. Carlson
Environmental Technician

Allen R. Paulson, EIT
Assistant Project Engineer

SJC/dj
Encs.

Report

Project

Tank Closure Documentation Report for the Removal of Two Underground Storage Tanks at Schreier Malting Company, Minneapolis, Minnesota

Client

Mr. Ken Wingard
Minnesota Petroleum Services, Inc.
5333 University Avenue N.E.
Minneapolis, Minnesota 55421

Project # 94800-XF

Date July 27, 1989

STS Consultants Ltd.
Consulting Engineers

3650 Annapolis Lane
Minneapolis, Minnesota 55441

(612) 559-1900

Tank Closure Documentation
Schreier Malting Company

INTRODUCTION

STS Consultants, Ltd. contracted with Minnesota Petroleum Services, Inc. to provide professional engineering services for removal of two underground storage tanks at Schreier Malting Company in Minneapolis, Minnesota.

The scope of services to be provided included visual observations, an HNU survey, collection of soils for chemical analysis and preparation of a documentation report detailing these activities.

Site #1

The first underground storage tank removed was a 15,000 gallon steel tank measuring 18 feet in diameter by 21 feet long, which had been used to store No. 2 fuel oil for heating purposes. Excavation commenced along the northern side of the tank, adjacent to the building and the sidewalk slab. Petroleum odors were immediately evident, as the excavation began in the vicinity of the tank piping system. The transfer pump for the tank was housed in an enclosure on the sidewalk near the tank piping. The impacted soils removed were stockpiled on-site.

Excavation continued along the southern side of the tank, uncovering a Northern States Power Company (NSP) conduit for electrical supply to the facility. Soils were removed from around the tank, and the tank was removed. See Figure 1 in the Appendix for the Site Layout Diagram of the excavation.

The total volume of impacted soils excavated from tank No. 1 is approximately 15 cubic yards. Because the impacted soils extended beneath the concrete slab and building foundation, complete removal of impacted soils was not possible. The quantity of petroleum impacted soils left in-place is expected to be less than 2 cubic yards, based upon field measurements.

The tank was found to be uniformly corroded with no signs of pitting. No evidence of tank leakage was observed. The tank was loaded on a flat bed trailer for transport to the disposal site.

An HNU photoionizer equipped with a 10.2 eV lamp and calibrated to a benzene referral was used to screen the samples. Soil samples were placed in clean glass jars and agitated. The HNU probe was introduced into the head space above the sample and the reading noted.

In the vicinity of the piping, at a depth of 2 feet, HNU readings of 100 parts per million (ppm) were found. The bottom and sides of the excavation showed no deflection on the HNU meter.

Soil samples for laboratory analysis were taken from the impacted soils associated with the piping and from the bottom of the excavation. Soil samples were taken from the vicinity of the piping at a depth of 2 feet and from a depth of approximately 12 feet along the eastern edge of the excavation. The samples were placed in clean glass vials, logged on the STS Chain of Custody Form, and submitted to Pace Laboratories of Golden Valley, Minnesota for laboratory analysis. The results of the chemical analysis conducted by Pace Laboratories appear in the Appendix. The samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) as fuel oil.

The excavation was backfilled to the level of the NSP power conduit, using non-impacted material excavated from the tank envelope. NSP would not resume electrical service until the conduit was buried.

STS prepared an Underground Storage Tank Removal Information Form for the site. A copy of this form appears in the Appendix.

Site No. 2

The second tank removed was a 530 gallon fuel oil storage tank measuring 3.5 feet in diameter by 8 feet long. The tank was once connected to a product dispenser for use in fueling railroad switch engines and other equipment. Excavation began along the north side of the tank. The piping to the abandoned dispenser pad was removed and the excavation continued.

The location allowed excavation only from the east, as railroad rails were piled on the north and south sides, with railroad tracks on the west side of the site, immediately adjacent to the excavation. See Figure 1 in the Appendix for the Site Layout Diagram.

Strong petroleum odors and elevated HNU readings were encountered almost immediately below the abandoned dispenser pad, and generally increased with depth. HNU readings at 6 feet of depth were typically 50 parts per million. The readings on the HNU meter at 9 feet were 100 ppm. The contaminated soils were stockpiled next to the excavation.

A chain was connected to the lifting lugs on the tank, and the tank removed. The tank showed little corrosion and no pitting was evident. The tank was loaded and transported to Determan Welding & Tank Service for disposal.

Excavation continued to remove impacted soils from the excavations. At a depth of 9 feet, a concrete pad was encountered. According to Ken Wingard of Minnesota Petroleum Services, the site was previously occupied by a large structure. The concrete pad is believed to be the basement floor for the abandoned building foundation. Excavation was halted due to the presence of this pad and a buried concrete wall along the railroad tracks just west of the tank excavation, and the inability to extend the excavation to the north due to the scrap steel pile.

A soil sample collected from the 9 foot depth of the pump island was submitted to Pace Laboratories for chemical analysis. The results of the chemical analysis conducted by Pace appear in the Appendix.

In order to prevent damage to the railroad bed west of the excavation, the excavation was backfilled using the non-contaminated soils from the excavation. These soils were compacted in lifts to avoid undermining of the railroad bed.

Approximately 10 cubic yards of contaminated soils remained stockpiled on the site, and await disposal. An Underground Storage Tank Removal Information Form was prepared for the site by STS. A copy of this form appears in the Appendix.

SUMMARY

The underground storage tanks removed at the Schreier Malt Company on June 12, 1989 were properly disposed of at Determan Welding & Tank Service. A copy of the Tank Receipt from Determan appears in the Appendix. Petroleum impacted soils removed in the excavation were stockpiled on-site, covered with plastic sheeting, and await disposal. It is the understanding of STS Consultants that Ken Wingard of Minnesota Petroleum Services contacted the Minnesota Pollution Control Agency about the presence of petroleum impacted soils at the site.

GENERAL QUALIFICATIONS

This report has been prepared in accordance with generally accepted engineering practices to assist the owner in evaluation of the site. No other warranty, expressed or implied, is made. The scope of this report is limited to the specific project and the location described herein and our description of the project represents our understanding of the significant aspects in reference to the site.

APPENDIX

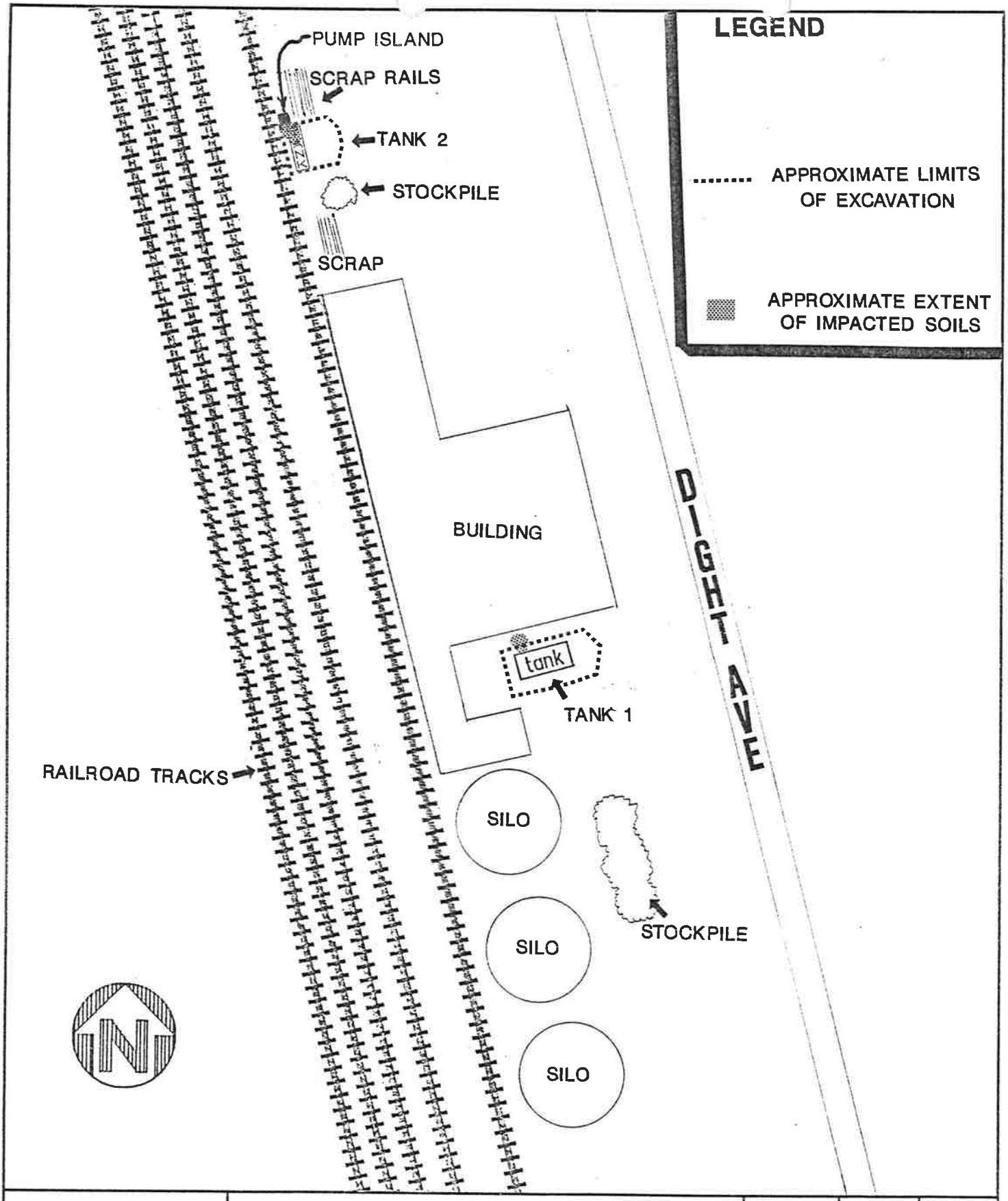
Figure 1 - Site Layout Diagram

Underground Storage Tank Removal Information Form

Tank Receipt from Determan

Laboratory Results

BRUNING 521880



STS Consultants Ltd.
Consulting Engineers

PROJECT/CLIENT

SITE LAYOUT DIAGRAM
SCHREIER MALT COMPANY
3600 DIGHT AVENUE SOUTH
MINNEAPOLIS, MINNESOTA

PREPARED FOR MIDWEST PETROLEUM SERVICES

DRAWN BY	SJC	
CHECKED BY	RLD	
APPROVED BY	RLD	
SCALE NONE	FIGURE NO. 1	
STS DRAWING NO. 94800XF		

UNDERGROUND STORAGE TANK REMOVAL INFORMATION FORM

This Form Is Provided To Tank Owners And Operators, Fire Department Representatives And Others To Assist The Observation Of Underground Storage Tank Removals. It Is The Legal Duty Of The Tank Owner And Operator To Report Any Evidence Of Petroleum Contamination To The Minnesota Pollution Control Agency (MPCA).

Observer Steve Carlson **Date:** 6-12-89 **Time:** ~~1320-1420~~ 1320-1420

Signature: Steve Carlson
Organization Name: STS Consultants, LTD.
Position: Environmental Technician
Address: 3650 Annapolis Lane **City:** Plymouth 55447
Telephone No.(s): 559-1900

<<<<<<<<<<<<<<<<<<<<<<<< **TANK INFORMATION** >>>>>>>>>>>>>>>>>>>>>>>>

Tank Owner Name: Minnesota Petroleum
Contact Person: Ken Wingard **Title:**
Tank Location Name: Schrier Matting Company Warehouse
Address: 3600 Daht Ave So. **City:** Minneapolis
County: Hennepin **Telephone Number:**
Excavation Contractor: Don Zarda and Son
Address: 1549 Berne Rd. Minneapolis
Telephone Number: 571-3309

TANK	Condition & Size	Contents (Product)	Visible Corrosion	Visible Leakage	Soil Contamination
1	15,000 gallon	#2 fuel oil	even	none	yes
2	uniform corrosion			(piping yes)	
3					
4					
5					
6					

<<<<<<<<<<<<<< **SOIL CONDITIONS WITHIN THE EXCAVATION** >>>>>>>>>>>>>>

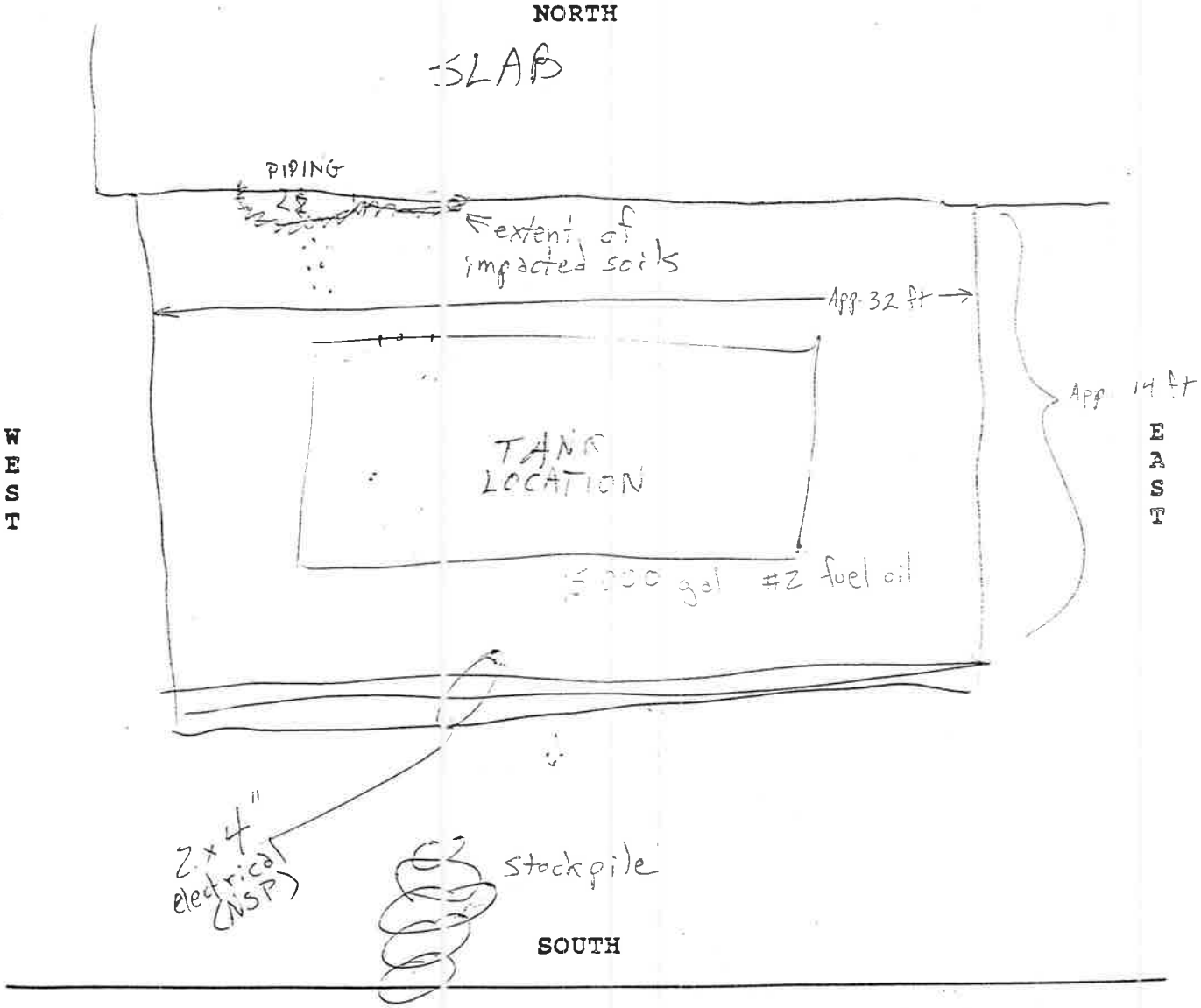
1. Detectable Petroleum Contamination Was Found?	(YES) / NO
2. Petroleum Odors:(Circle; Weak, Moderate, Strong)	(YES) / NO
3. Visible Petroleum Product In Soil:	(YES) / NO
4. Sheen On Water Mixed With Soil:	(YES) / NO
5. Sheen On Ground Water In Excavation: NA	YES / (NO)
6. Petroleum Product On Ground Water In Excavation:	YES / (NO)
7. Vapor Detection Instrument Used (hNu or other device)	(YES) / NO
8. Soil Samples Taken From Under Tank(s)	(YES) / NO
9. Soil Type:(Circle; (Clay, Silt, (Sand, Gravel, (Fill)	
11. Pictures Taken: (Y) / N, By: Steve Carlson	
10. Tank Disposed By: Determan Tank Where: Fridley	

The **Minnesota Pollution Control Agency (MPCA)** must be notified immediately of any evidence of petroleum contamination
24 Hour Emergency Leak or Spill Number: **(1-612-296-8100)**
During Business Hours:(1-612-296-7235) **or** (1-612-296-7709)

CONTINUED ON BACK ---------->

ADDITIONAL COMMENTS, DETAILS AND DESCRIPTIONS: Contamination confined by a clay seam. Excavation of all impacted material not possible due to proximity to building foundation.

Sketch the property site and tank location(s) in the space provided below.



Please fill out this form as completely as possible. Provide a copy to the local Fire Department Official and send the original form to the MPCA at the address below.

Minnesota Pollution control Agency
Tanks and Spills Section
Hazardous Waste Division
520 Lafayette Road, St. Paul, Minnesota 55155

UNDERGROUND STORAGE TANK REMOVAL INFORMATION FORM

This Form Is Provided To Tank Owners And Operators, Fire Department Representatives And Others To Assist The Observation Of Underground Storage Tank Removals. It Is The Legal Duty Of The Tank Owner And Operator To Report Any Evidence Of Petroleum Contamination To The Minnesota Pollution Control Agency (MPCA).

Observer Steve Carlson **Date:** 6-12-89 **Time:** 1420-1515

Signature: Steve Carlson
Organization Name: STS Consultants, LTD
Position: Environmental Technician
Address: 3660 Annapolis Lane **City:** Plymouth 55447
Telephone No.(s): 559-1100

<<<<<<<<<<<<<<<<<<<<<<<< TANK INFORMATION >>>>>>>>>>>>>>>>>>>>>>>>

Tank Owner Name: Minneapolis Petroleum
Contact Person: Ken Wiinegard **Title:**
Tank Location Name: Schrier Malting Company Warehouse
Address: 3500 Digh Ave. So. **City:** Minneapolis
County: Hennepin **Telephone Number:**
Excavation Contractor: Dan Zaaps and Son Excavating
Address: 1549 Berne Rd., Minneapolis
Telephone Number: 571-3309

TANK	Condition & Size	Contents (Product)	Visible Corrosion	Visible Leakage	Soil Contamination
1					
2	1000 gal good cond.	Diesel	some	NO	Yes
3					
4					
5					
6					

<<<<<<<<<<<<<< SOIL CONDITIONS WITHIN THE EXCAVATION >>>>>>>>>>>>>>

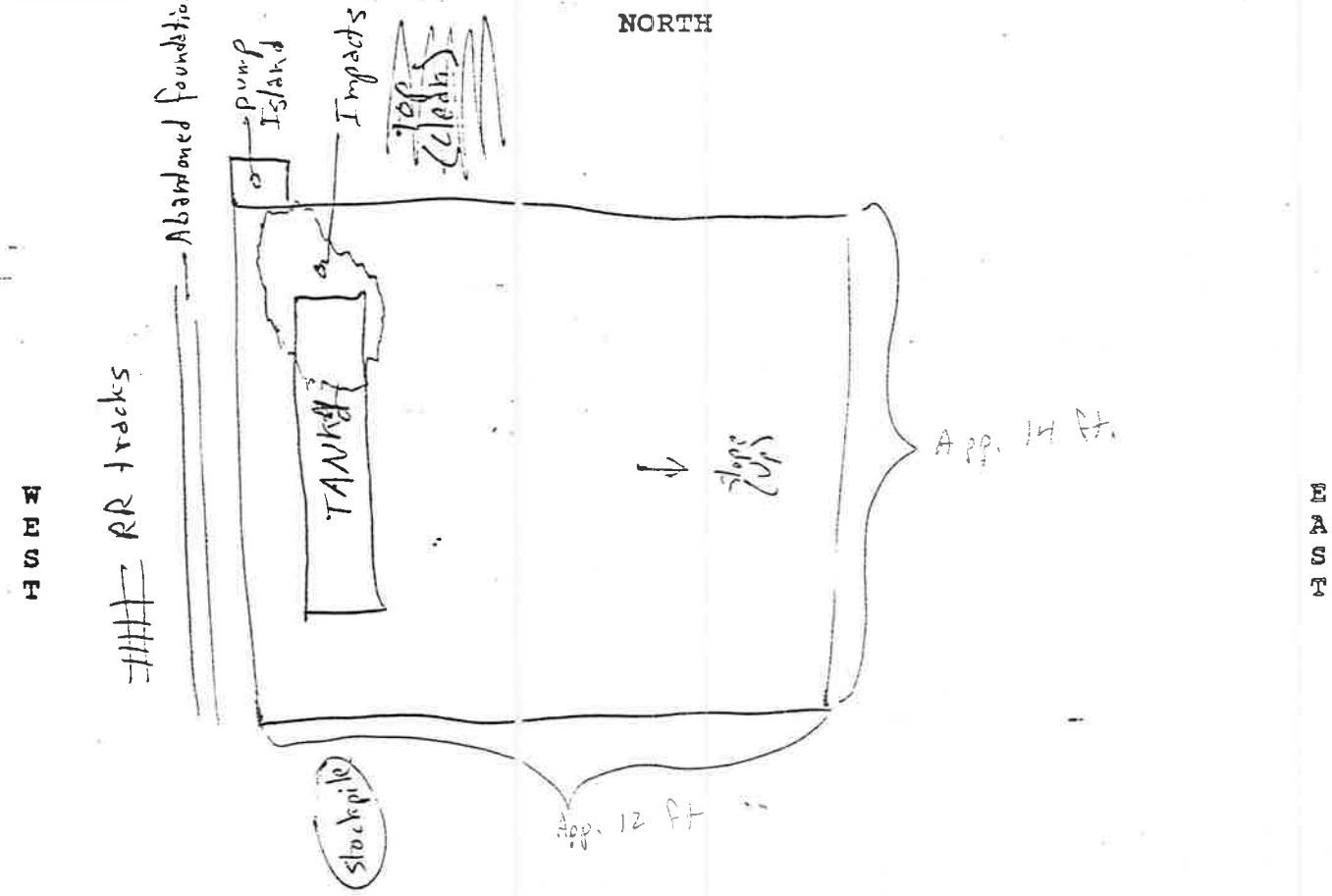
1. Detectable Petroleum Contamination Was Found?	(YES) / NO
2. Petroleum Odors: (Circle; Weak, Moderate, Strong)	(YES) / NO
3. Visible Petroleum Product In Soil:	(YES) / NO
4. Sheen On Water Mixed With Soil:	(YES) / NO
5. Sheen On Ground Water In Excavation:	YES / (NO)
6. Petroleum Product On Ground Water In Excavation:	YES / (NO)
7. Vapor Detection Instrument Used (hNu or other device)	(YES) / NO
8. Soil Samples Taken From Under Tank(s)	(YES) / NO
9. Soil Type: (Circle; Clay, Silt, (Sand), Gravel, Fill)	
11. Pictures Taken: (Y) / N, By: Steve Carlson	
10. Tank Disposed By: Doherman Tank Where: Fridley	

The Minnesota Pollution Control Agency (MPCA) must be notified immediately of any evidence of petroleum contamination
24 Hour Emergency Leak or Spill Number: (1-612-296-8100)
During Business Hours: (1-612-296-7235) or (1-612-296-7709)

CONTINUED ON BACK ---------->

ADDITIONAL COMMENTS, DETAILS AND DESCRIPTIONS: Abandoned foundation
Overlyded excavation to greater depth. Site configuration not conducive to large-scale soil removal.

Sketch the property site and tank location(s) in the space provided below.



Please fill out this form as completely as possible. Provide a copy to the local Fire Department Official and send the original form to the MPCA at the address below.

Minnesota Pollution control Agency
Tanks and Spills Section
Hazardous Waste Division
520 Lafayette Road, St. Paul, Minnesota 55155