

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary

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Madison, Wisconsin 53707-7821
Telephone 608-266-1987
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September 5, 2008

REF: BRRTS # 02-41-552089

Ms. Shirley A. Carlson
Shirton, Inc.
4300 N. Oakland Ave
Shorewood, WI 53211

FID: 241 094540

Subject: Potential Claim Notification for Shorewood Queensway Cleaners

Dear Ms. Carlson,

The purpose of this letter is to acknowledge the receipt of your potential claim notification for the Dry Cleaners Environmental Response Fund (DERF). As required by s. 292.65(4)(d), Wis. Stats., I am advising you that, based on the preliminary information you provided on the Potential Claim Notification form, I estimate that you are eligible to apply to DERF for reimbursement of your cleanup costs.

Due to increasing demand on the DERF for reimbursements, it is likely that reimbursements will be delayed. At this time, we are unable to predict the length of this delay in reimbursement, but audited claims will be reimbursed on a first-come, first-serve basis as funds become available.

Complete information and details of the dry-cleaning program are available on-line at <http://www.dnr.state.wi.us/org/aw/tr/financial/dryclean.html>.

Please keep in close contact with your DNR Project Manager, John Hnat at 414-263-8644 in Milwaukee throughout the entire clean up and site investigation bidding process. Be sure to communicate with your DNR Project Manager because you will need his approval sign off on the site investigation bid before work gets started, in order to get reimbursed for any work.

Please call me (608)-266-1967 if you have any questions about the program or the reimbursement process. Thank you for participating in this important project.

Sincerely,

Jillian Steffes

Jillian Steffes
Dry Cleaning Fund Manager

cc: John Hnat - DNR - Milwaukee
Kathy Zimmerman, Zippo Corporation, 7313 N. Teutonia Ave, Milwaukee WI 53209

dnr.wi.gov
wisconsin.gov





George E. Meyer
Secretary

May 4, 1995

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southeast District - Annex Building

4041 N. Richards Street

P. O. Box 12438

Milwaukee, WI 53212

TELEPHONE 414-229-0800

TELEFAX 414-229-0810

File Ref: FID# 241094590

ERR/ERP

FILE

Mr. James Lynch
Village of Shorewood
3930 North Murray Avenue
Shorewood, WI 53211

Dear Mr. Lynch:

SUBJECT: Soil Contamination in the Oakland Avenue Right-of-Way,
Adjacent to the Queen's-Way Dry Cleaners, 4300 North Oakland
Avenue, Shorewood

The Wisconsin Department of Natural Resources (WDNR) was notified that soil contamination was discovered within the Oakland Avenue right-of-way. The *Limited Soil Assessment*, dated March 14, 1995, prepared by Cooper Environmental, was submitted to the Leaking Underground Storage Tank Program (LUST) to address petroleum spill concerns. The Environmental Repair Program (ERP) has been informed of the discovery of an elevated level of tetrachloroethene in the shallow soil adjacent to the Queen's-Way Dry Cleaners.

Under the state's Hazardous Substance Discharge Law, s.144.76, Stats, the Village could be held responsible by the Department for addressing soil contamination on its property, regardless of where the contamination originated. It is the Department's policy, however, to seek action from the person(s) who have caused the contamination. Based on the information received by the Department, we believe the soil contamination originated from Queen's-Way Dry Cleaners, and have notified Queen's-Way of their responsibility to address the contamination in a prompt manner (enclosure). The Department is not requiring action from the Village of Shorewood at this time. However, should the Village deny access to their property during an environmental investigation or cleanup, the Department may then require the Village to address the contamination which remains on their property.

When the Village of Shorewood continues work on the right-of-way, contaminated soils must be considered a solid waste and handled accordingly. A hazardous waste determination must be made for soil contaminated by tetrachloroethene, in accordance with the requirements of Ch. NR 605, Wisconsin Administrative Code. Excavated soil must be handled in accordance with solid and hazardous waste regulations and in a manner that does not pose a threat to human health or the environment.

If you have any questions about this letter, please call me at (414) 229-0873 or Pam Mylotta at (414) 229-0842.



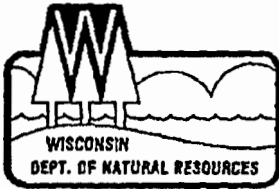
Thank you for your cooperation.

Sincerely,



Linda Michalets
Environmental Specialist

enclosure



George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southeast District - Annex Building

Post Office Box 12436
4041 N. Richards Street
Milwaukee, Wisconsin 53212
TELEPHONE: 414-229-0800
TELEFAX #: 414-229-0810

April 26, 1995

File Ref: FID# 241094590
ERR/ERP

Owner
Queen's-Way Dry Cleaner
4300 North Oakland Avenue
Shorewood, WI 53211

SUBJECT: Reported Contamination at Queen's-Way Dry Cleaner at 4300 North Oakland Avenue, Shorewood

Dear Sir or Madam:

The Wisconsin Department of Natural Resources (WDNR) was notified by the Village of Shorewood that soil contamination was discovered within the right-of-way adjacent to the subject site. The "Limited Soil Assessment," dated March 14, 1995, prepared by Cooper Environmental, documented an elevated level of the solvent tetrachloroethene within a shallow soil boring in front of the dry cleaning facility. The extent and degree of contamination has not been determined. The referenced report is on file with this office and can be obtained for your review.

Based on the information received by the Department of Natural Resources, we believe Queen's-Way Dry Cleaners is responsible for restoring the environment at this site under Section 144.76, Wisconsin Stats., known as the hazardous substances spills law. The conditions present at this site may pose a serious threat to human health and/or the environment. The site specific information known to the WDNR at this time, however, is not adequate to evaluate the relative potential threat from this site.

WDNR SE District Review Prioritization Policy

Due to the WDNR workload, it is necessary to rank all contamination cases for review priority. The highest priority sites have assigned WDNR project managers who are actively reviewing and approving investigation and remediation plans. Lower priority cases do not always have assigned project managers, however, responsible parties are required to proceed with investigation and clean-up efforts. Due to the lack of information about this site, it's relative priority cannot be determined. Therefore, the priority ranking of this site is considered unknown. Until a priority has been assigned to this site, you should proceed with the required response work, submitting all plans and reports, along with quarterly status reports, to this office. The WDNR will notify you if active oversight for you site will be given.

Your responsibilities include investigating the extent of the contamination and then selecting and implementing the most appropriate remedial action. Enclosed is information to help you understand what you need to do to ensure your compliance with the spills law.

The purpose of this letter is threefold: 1) to describe your legal responsibilities, 2) to explain what



WDNR000177

you need to do to investigate and clean up the contamination, and 3) to provide you with information about cleanups, environmental consultants, and working cooperatively with the Department of Natural Resources.

Legal Responsibilities:

Your legal responsibilities are defined both in statute and in administrative codes. The hazardous substances spill law, Section 144.76 (3) Wisconsin Statutes, states:

- * **RESPONSIBILITY.** A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Codes chapters NR 700 through NR 728 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Chapter NR 708 includes provisions for immediate actions in response to limited contamination. Wisconsin Administrative Code chapter NR 140 establishes groundwater standards for contaminants that reach groundwater.

Steps to Take:

The longer contamination is left in the environment the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and to neighboring properties and reduce your costs in investigating and cleaning up the contamination. To ensure that your cleanup complies with Wisconsin's laws and administrative codes, you should hire a professional environmental consultant who understands what needs to be done. These are the first four steps to take:

1. By May 29, 1995, please submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. You will need to work quickly to meet this timeline.
2. By June 26, 1995, your consultant must submit a workplan and a schedule for conducting the investigation. The consultant must follow the Department's administrative codes and our technical guidance documents. Please include with your workplan a copy of any previous information that has been completed (such as an underground tank removal report or a preliminary soil excavation report).
3. Please keep us informed of what is being done at your site. You or your consultant must provide us with a brief report at least every 90 days, starting after your workplan is submitted. These quarterly reports should summarize the work completed since the last report. Quarterly reports need only include one or two pages of text, plus any relevant maps and tables. However, please note that should conditions at your site warrant, you may receive a letter requiring more frequent contacts with the Department.
4. When the site investigation is complete, your consultant must submit a full report on the extent and degree of soil and groundwater contamination and a proposal for cleaning up the contamination.

Due to the number of contaminated sites and our staffing levels, we will be unable to respond to each report. To maintain your compliance with the spills law and chs. NR 700 through NR 728, do not delay the investigation and cleanup of your site by waiting for WDNR responses. We have provided detailed technical guidance to environmental consultants. Your consultant is expected to be familiar

with our technical procedures and administrative codes and should be able to answer your questions on meeting Wisconsin's cleanup requirements.

Your correspondence and reports regarding this site should be sent to the Department at the following address:

Ms. Pam Mylotta, c/o ERR/ERP, Wisconsin Department of Natural Resources, 4041 North Richards Street, P.O. Box 12436, Milwaukee, Wisconsin 53212

Unless otherwise requested, please send only one copy of all plans and reports. Correspondence should be identified with the assigned WDNR facility identification number (FID#, ERR/ERP) which is listed at the top of this letter.

Information for Site Owners:

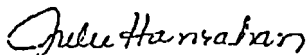
Enclosed is a list of environmental consultants and some important tips on selecting a consultant. Also enclosed are materials on controlling costs, understanding the cleanup process, and choosing a site cleanup method. This information has been prepared to help you understand your responsibilities and what your environmental consultant needs to do. Please read this information carefully.

If you are interested in obtaining the protection of limited liability under s. 144.765, Stats., please contact Mark Giesfeldt at (608) 267-7562 or Darsi Foss at (608) 267-6713, in the Department of Natural Resources' Madison office for more information. The liability exemption under s. 144.765, Stats., is available to persons who meet the definition of "purchaser" in s. 144.765(1)(c) and receive Department approval for the response actions taken at the property undergoing cleanup. The Department will determine eligibility for this program on a case-by-case basis, prior to the "purchaser" developing a scope of work for conducting a ch. NR 716 site investigation at the property.

If you have any questions about this letter or your responsibilities, please call me at (414) 229-0801.

Thank you for your cooperation.

Sincerely,



Julie Hanrahan
Program Assistant

Enclosures: Selecting an Environmental Consultant
 Environmental Services Contractors List
 Cleanup Process for the Emergency and Remedial Response Program
 Quarterly Updates for Cleanup of Contaminated Properties
 Cleanup Methods for Petroleum-Contaminated Soil and Groundwater
 Wisconsin Administrative Code NR 700 Outline

c: SED Casefile
 Mr. James Lynch, Village of Shorewood

FD# 241094590
ERR EXP

SHOREWOOD / QUEEN'S WAY DRY CLEANER
4300 N OAKLAND AVE
SHOREWOOD

Site Screening Worksheet

Answering yes to any of the questions below indicates the site has a high potential of causing or threatening to cause environmental pollution (mark yes in Box V. on form 4430-4).

1. Evidence (attributable to site) of groundwater within 1200 feet exceeding a preventive action limit (PAL) for any substance of public health concern or public welfare concern listed in ss. NR 140.10 and 140.12. Yes No

2. Evidence (attributable to site) of surface water within 1200 feet exceeding water quality standards contained in chs. NR 102, 103 and 104. Yes No

3. Evidence (attributable to site) of air within 1200 feet exceeding air quality standards contained in chs. NR 400 to 499. Yes No

4. Qualitative analysis of: Size of site, depth to groundwater, surface and underlying soils, distance to nearest private or public water supply, population within 1/4 mile, type or characteristics and volume of waste, proximity to protected natural resources or environments, or any other appropriate factors. Some examples:

SB-7 1-3'
Clayey Silt to 2.2'
Silty Sand, trace Gravel
wet 2.2-3' AD:6.6

a. Waste disposal area is less than 5 acres and nearest water supply used for human consumption is within 600 feet.

SO-8
Clayey Silt to 2.8'
Silty Sand, trace Gravel
moist 2.8-3'
P10 = 34.5

b. Waste disposal area is between 5 and 10 acres and nearest water supply used for human consumption is within 1200 feet.

SO-7 VOL NO

c. There is insufficient (less than 5 feet) confining layer of silt or clay separating the bottom of the site from bedrock or groundwater table.

SB-8 VOL .23 ppm

as .23 ppm PCE

UO < 5.7 - Heavy HC Present

d. There is a significant amount of hazardous material at the site.

e. There is a protected natural resource or environment nearby.

Based on the above, is there a reason to believe the environment and/or public health is at risk of contamination at this site?

Yes No
Unknown

If Yes, then site shall be classified High Potential under ss.144.442 or ss.144.76. Unanticipated environmental consequences at a landfill fall under ss.144.442. Most other significant releases of hazardous materials fall under 144.76.

ss.144.442
ss.144.76

4/14/95



File # 241094590 ER

April 12, 1995

Mr. Chip Krohn
Wisconsin Department of Natural Resources
Richards Street Annex
4041 North Richards Street
Milwaukee, Wisconsin 53212

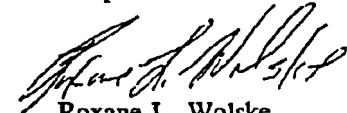
RE: Submittal of Limited Soil Assessment, North Oakland Avenue, Village of Shorewood Report


Dear Mr. Krohn:

Enclosed is a copy of the Cooper Environmental & Engineering Resources, Incorporated (Cooper) report entitled "Limited Soil Assessment, North Oakland Avenue, Village of Shorewood", dated March 14, 1995.

The undersigned can be contacted at (414) 338-9697.

Sincerely,
Cooper Environmental & Engineering Resources, Inc.


Roxane L. Wolske
Staff Hydrogeologist


Kevin J. Cooper, CHMM
President

RLW/lmd
Enclosure

cc: Mr. James Lynch, Village of Shorewood
Mr. John Penschorn, J.C. Zimmerman Engineering

SHWD0412.TR2

1411 NORTH MAIN STREET • WEST BEND, WI 53095 • 414-338-9697 • 1-800-924-5602 • FAX 414-338-9645

Environmental & Engineering Solutions
For Business, Industry and Government

WDNR000181

LIMITED SOIL ASSESSMENT
North Oakland Avenue
Village of Shorewood
March 14, 1995

Prepared for:
J.C. Zimmerman Engineering
Corporation
ATTN: Mr. John W. Penshorn
5200 West Loomis Road
Greendale, Wisconsin 53129

Submitted by:
Cooper Environmental &
Engineering Resources, Inc.
1411 North Main Street
West Bend, Wisconsin 53095

CERTIFICATION

This Limited Soil Assessment Report

for

North Oakland Avenue, Village of Shorewood

dated March 14, 1995

was prepared by:

Cooper Environmental & Engineering Resources, Inc.
Wisconsin Certification Number 00058



Roxane L. Wolske
Cooper Environmental & Engineering Resources, Inc.
Staff Hydrogeologist



Kevin D. Cooper, CHMM
Cooper Environmental & Engineering Resources, Inc.
President

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EXECUTIVE SUMMARY

Findings and Conclusions

On January 25 and 26, 1995, Cooper Environmental and Engineering Resources, Incorporated (Cooper) completed a limited assessment of the soil quality within the right of way of North Oakland Avenue, from Capitol Drive north to Glendale Avenue, in Shorewood, Wisconsin. The assessment consisted of the drilling and sampling of 18 Geoprobe® boreholes. The borehole locations were selected based on information provided by the Village of Shorewood relating to the historical use of the properties immediately adjacent to the right of way. Two boreholes were drilled and sampled within the right of way and immediately adjacent to each property where solvents or petroleum compounds are currently or were previously used. Soil samples were collected from each borehole at a depth of 1.0 to 3.0 feet below ground surface. The depth of sampling was selected to correlate with the anticipated depth of excavation during the right of way upgrade. At each sample location, soil was headspace field screened and samples were prepared and submitted for laboratory analysis of Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Volatile Organic Compounds (VOCs).

*Right of
way
upgrade*

The following is a summary of the soil assessment results and findings:

- The soils encountered consist primarily of silty clays and clayey silts with occasional thin lenses of sand and gravel. Groundwater was not encountered during the investigation.
- Visual and olfactory observations indicated a petroleum odor associated with the borehole adjacent to 4230 North Oakland Avenue. No visual staining was noted within any of the soil samples.
- Field screening indicated elevated instrument readings associated with the soils collected from a borehole adjacent to 4230 North Oakland Avenue.
- Laboratory results indicate soils collected adjacent to 4230 North Oakland Avenue exceed the WDNR NR 720 interim soil clean-up guidelines for Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) and also contain the highest concentration of Volatile Organic Compounds (VOCs). No other soil sample exceeded the NR 720 guidelines for DRO, GRO, or any VOC compound.
- Tetrachloroethene, a solvent compound, was detected in a soil sample collected adjacent to 4300 North Oakland Avenue. The VOC compounds detected in all other soil samples consisted of petroleum related compounds.

- Low level VOC or DRO concentrations were detected within soils collected adjacent to 4559, 4301, and 4201 North Oakland Avenue.
- The field observations and laboratory findings and results indicate clean soil conditions exist at boring locations adjacent to 4144, 4170, 4514, and 4601 North Oakland Avenue.

Recommendation

Based on the above findings and results, Cooper recommends the following:

- The owner of the property at 4230 North Oakland Avenue should be notified as to the exceedances of NR 720 guidelines. The WDNR currently requires responsible party(ies) to complete a site investigation when such exceedances occur.
- Tetrachloroethene is considered a potential carcinogen; therefore, health and safety precautions are recommended during the excavation of the soils located in the vicinity of 4300 North Oakland Avenue. The Village of Shorewood may consider contacting their WDNR caseworker to discuss whether further investigation with respect to impact extent is warranted.
- Soils containing low level DRO and VOC concentrations, below NR 720 guidelines, do not require remediation; however, these soils should be considered impacted and any removal or disposal will require proper management.
- Also, the soils containing low level DRO and/or VOC concentrations possibly represent the lateral extents of larger areas of impact. Therefore, the Village of Shorewood may want to discuss the results of this soil assessment with their WDNR caseworker. The WDNR may require individual responsible parties to conduct site investigations as to the full level and extent of impact.

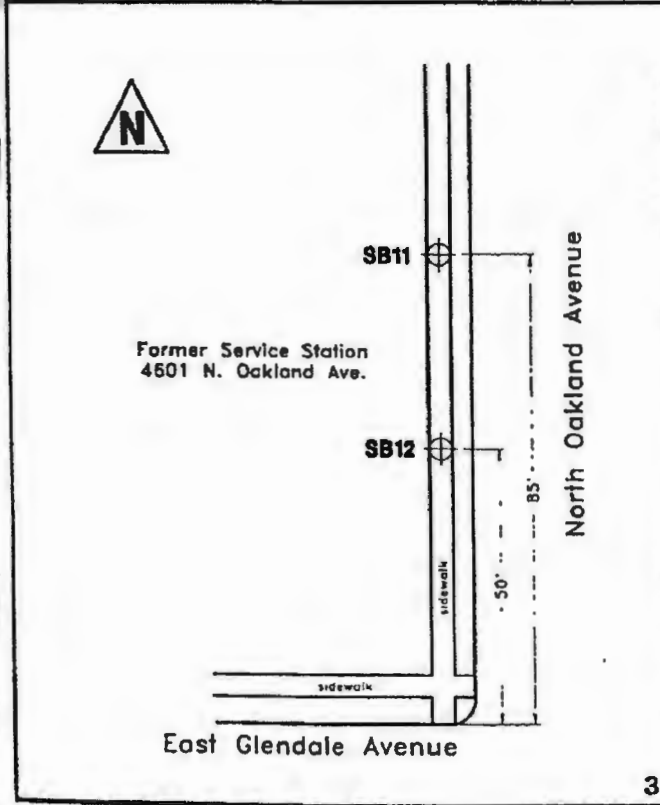
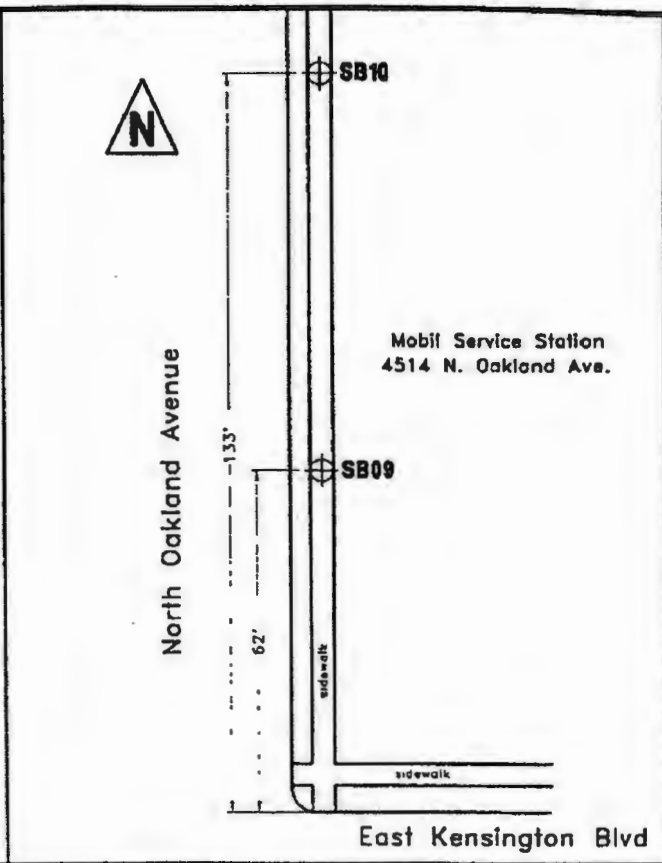
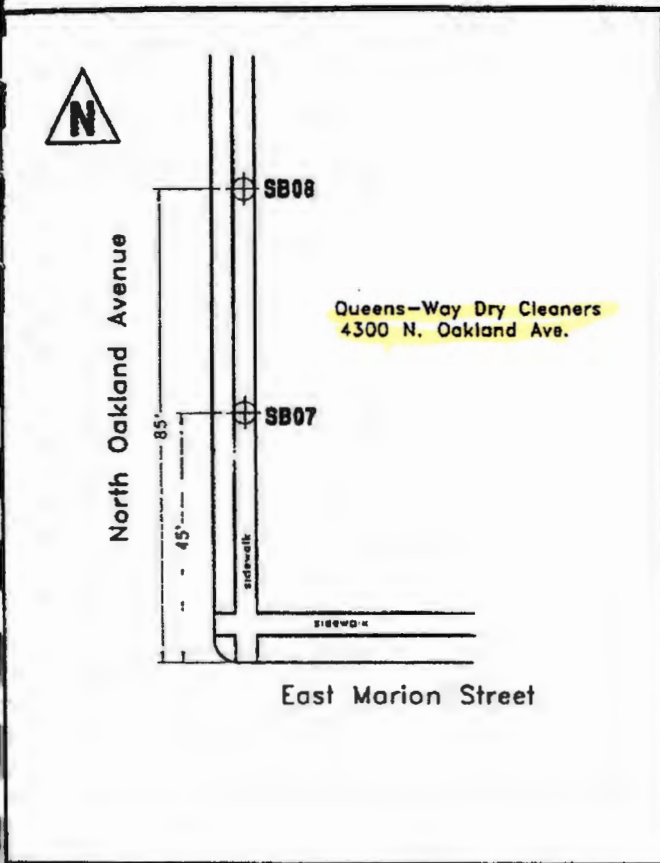
1.0 INTRODUCTION

Cooper Environmental and Engineering Resources, Incorporated (Cooper) was contracted by J.C. Zimmerman Engineering Corporation on behalf of the Village of Shorewood, Wisconsin to conduct an assessment of soil quality within the right of way of North Oakland Avenue Shorewood, Wisconsin. The site assessment was conducted to generally assess the quality of soil which will be encountered during excavation of the existing right of way and the subsequent right of way and roadway upgrade. The scope of services provided by Cooper include the following:

- Provide technical oversight during the geoprobe installation.
- Document soil types and the condition of soils at each geoprobe location.
- Collect representative soil samples for headspace field screening and laboratory analysis from each geoprobe borehole.
- Prepare a report summarizing the soil assessment field activities and the soil sampling findings and results.

1.1 Purpose and Scope

On January 25 and 26, 1995, Cooper completed assessment of the soil quality within the right of way of North Oakland Avenue, extending from Capitol Drive north to Glendale Avenue, in Shorewood, Wisconsin. Figures 1-1 through 1-3 are the borehole location maps. The soil assessment consisted of the drilling and sampling of 18 boreholes using a van-mounted hydraulic soil probe (Geoprobe®). Each borehole was completed to a depth of 3 feet below ground surface (bgs). The depth of sampling was selected to correlate with the maximum depth of soil excavation anticipated by the Village of Shorewood during the right of way upgrade. The location of the boreholes was based on information provided by the Village of Shorewood related to historical property use. Two boreholes were placed in the vicinity of each property where solvents or petroleum related compounds are currently or were formerly used (i.e. present or former gasoline stations and dry cleaners). The boreholes were drilled within or immediately adjacent to the sidewalk at each property to insure the closest possible sampling to potential source areas. At each borehole location, soil samples were collected from 1.0 to 3.0 feet below grade. A portion of each soil sample was headspace field screened using an Organic Vapor Monitor (OVM). The remaining portion of sample was submitted for laboratory analysis of Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Volatile Organic Compounds (VOCs). The drilling, soil sampling, and field screening procedures are described in Appendix A.



LEGEND

⊕ SB01 = GEOPROBE LOCATION AND I.D.

Figure 1-2
BOREHOLE LOCATIONS

Village of Shorewood
North Oakland Avenue
Shorewood, WI

DATE	DRAFTED BY:	CHECKED BY:	APPROVED BY:
2/27/95	PDF	RW	<i>RW</i>

Cooper

Environmental & Engineering Resources Inc.
1411 North Main Street, West Bend, Wisconsin 53095
SCALE 1" = 30' FILE: C:\SHORWOOD\GPLOC2BL

2.0 RESULTS

2.1 Field Observations

The generalized site stratigraphy, based on the drilling and sampling of 18 boreholes, consists predominantly of red to brown clayey silts and silty clays with occasional thin (<0.5 feet thick) lenses of sand and gravel. The silty clays and clayey silts were generally dry and firm. Moisture content and plasticity of the sediments increased proportionally with increase in sand and gravel content. Groundwater was not encountered during the soil assessment. The soil boring forms and borehole abandonment forms are included in Appendix B.

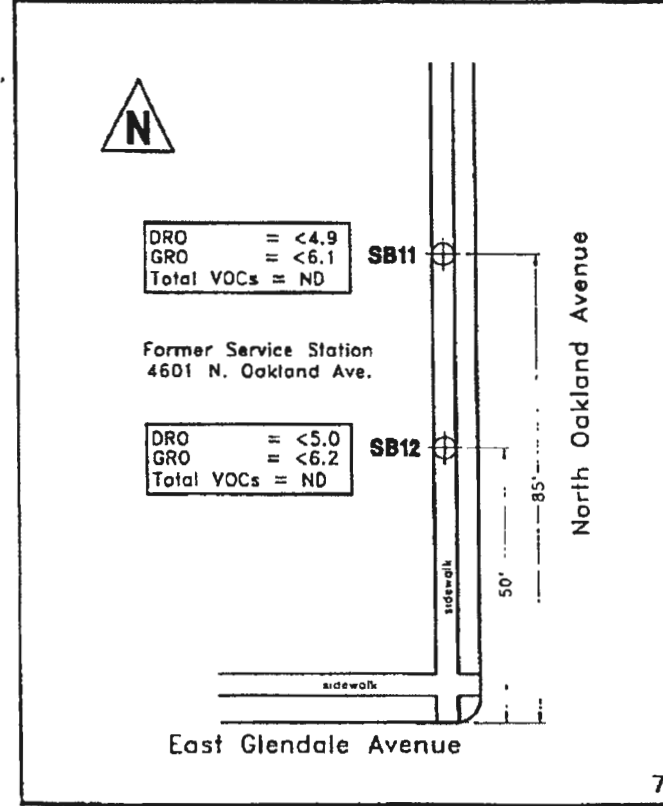
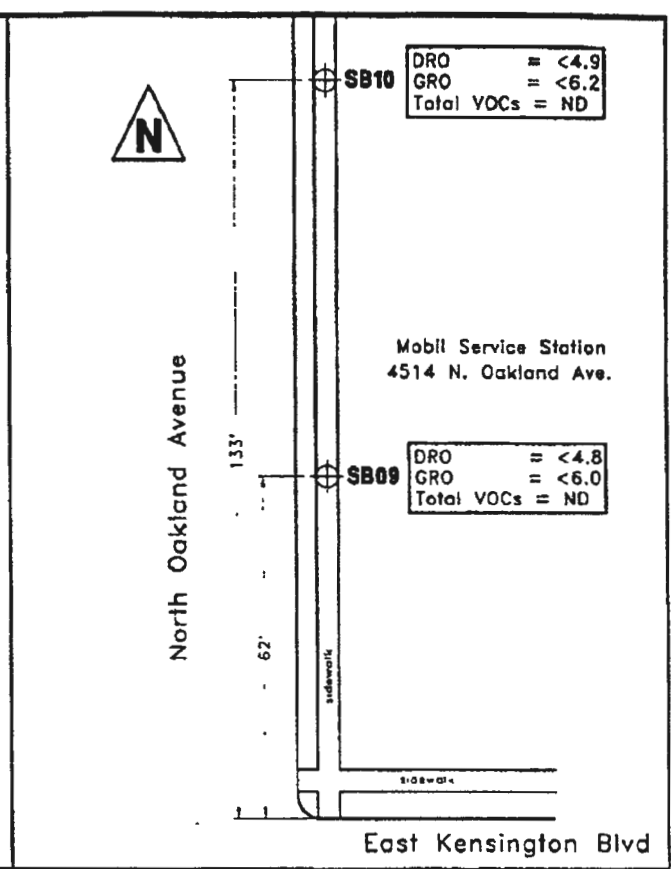
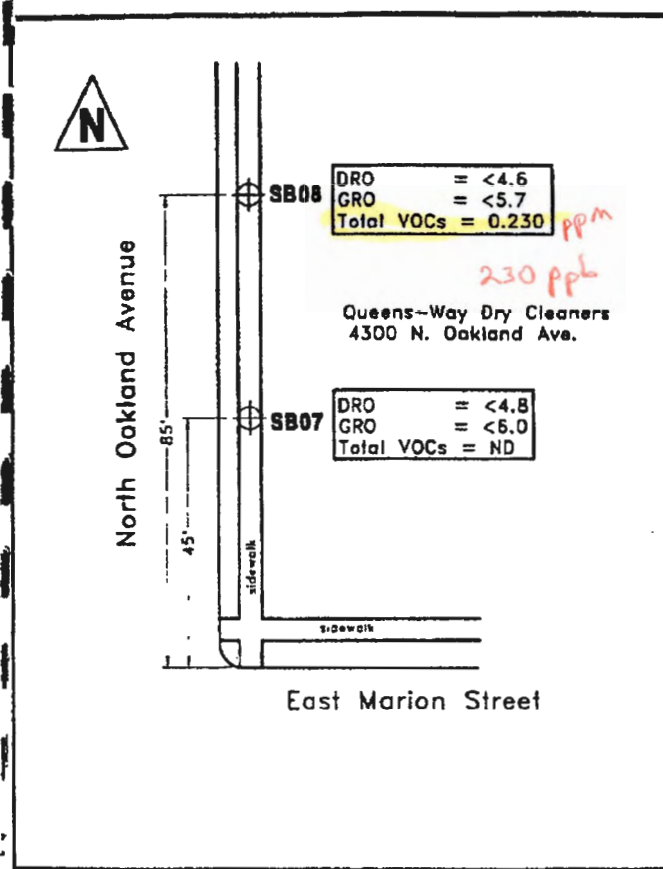
Field observations indicated strong petroleum odors throughout the sampling interval of borehole SB06 (4230 North Oakland Avenue). Petroleum staining was not noted in any of the soil samples. Headspace field screening indicated a highly elevated OVM reading of 607.7 instrument units (i.u.) at borehole SB06 (4230 North Oakland Avenue). Low level OVM readings were recorded at SB05 (6.9 i.u.), SB07 (6.6 i.u.), SB08 (34.5 i.u.), and SB09 (4.7 i.u.) (Figures 2-1 through 2-3).

2.2 Analytical Results

The analytical results are summarized in Table 2-1 and the laboratory reports and chain of custody forms are included in Appendix C. The analytical results with corresponding sampling locations are shown on Figures 2-1 through 2-3. Laboratory results indicated the presence of impacted soil at boring SB06 (4230 North Oakland Avenue). The soil sample collected from SB06 contained 280 mg/kg DRO and 350 mg/kg GRO, exceeding the interim Wisconsin Department of Resources (WDNR) NR 720 soil cleanup guidelines of 100 to 250 mg/kg for both DRO and GRO. A low level concentration of 7.0 mg/kg DRO was detected at borehole SB17 (4201 North Oakland Avenue) and GRO was not detected within any of the remaining borehole soil samples.

VOC concentrations were detected in seven of the 18 boreholes. The VOC concentrations did not exceed interim NR 720 guidelines for any soil sample. The soil sample collected from SB06 (4230 North Oakland Avenue) contained the highest total VOC concentration at 2.859 mg/kg. The soil sample collected from SB08 (4300 North Oakland Avenue) contained 0.230 mg/kg total VOCs; of which the chlorinated solvent Tetrachloroethene comprised the entire total. The soil sample collected from SB08 was the only sample in which a solvent compound was detected. The VOCs detected in the remaining samples consisted of petroleum related compounds; predominantly ethylbenzene, the xylenes, and toluene. Low level total VOCs, less than 0.0059 mg/kg, were detected at boreholes SB13 and SB14 (4559 North Oakland Avenue), SB15 and SB16 (4301 North Oakland Avenue), and SB18 (4201 North Oakland Avenue). VOC concentrations were not detected in any of the remaining borehole samples.

Shoreland Q
- PCE
230ppb



LEGEND

- ⊕ SB001 = GEOPROBE LOCATION AND I.D.
- DRO = DIESEL RANGE ORGANICS (mg/kg)
- GRO = GASOLINE RANGE ORGANICS (mg/kg)
- Total VOC's = TOTAL VOLATILE ORGANIC COMPOUNDS (mg/kg)
- ND = NOT DETECTED

Figure 2-2
BOREHOLE LOCATIONS AND ANALYTICAL RESULTS

Village of Shorewood
North Oakland Avenue
Shorewood, WI

DATE	DRAFTED BY:	CHECKED BY:	APPROVED BY:
2/17/95	JAW	RW	KC

Cooper
 Environmental & Engineering Resources Inc.
 1411 North Main Street, West Bend, Wisconsin 53095
 SCALE 1" = 30' FILE: C:\SHORWOOD\GPLOC2

Table 2-1 (Continued)
 Village of Shorewood
 North Oakland Avenue
 Soil Analytical Results

Shorewood Q

Address	4300 N. Oakland Ave.		4514 N. Oakland Ave.		4601 N. Oakland Ave.		NR720 INTERIM GUIDELINES (mg/kg)
Sample ID	VS/RW-SB07-1	VS/RW-SB08-1	VS/RW-SB09-1	VS/RW-SB10-1	VS/RW-SB11-1	VS/RW-SB12-1	
Date	1/25/95	1/25/95	1/25/95	1/25/95	1/26/95	1/26/95	
Depth (feet *bgs)	X 1.0-3.0	X 1.0-3.0	1.0-3.0	1.0-3.0	1.0-3.0	1.0-3.0	
Detected Volatile Organic Compounds (VOCs) (mg/kg)							
1,2,4-Trimethylbenzene	ND (<0.0012)	ND (<0.0011)	ND (<0.0012)	ND (<0.0012)	ND (<0.0012)	ND (<0.0012)	NG
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	NG
Ethylbenzene	ND	ND	ND	ND	ND	ND	2.9
Isopropylbenzene	ND	ND	ND	ND	ND	ND	NG
n-Butylbenzene	ND	ND	ND	ND	ND	ND	NG
n-Propylbenzene	ND	ND	ND	ND	ND	ND	NG
Naphthalene	ND (<0.0036)	ND (<0.0034)	ND (<0.0036)	ND (<0.0037)	ND (<0.0036)	ND (<0.0038)	NG
o-Xylene	ND (<0.0012)	ND (<0.0011)	ND (<0.0012)	ND (<0.0012)	ND (<0.0012)	ND (<0.0012)	4.1**
p,m-Xylenes	ND	ND	ND	ND	ND	ND	4.1**
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	NG
Tetrachloroethene	ND	0.23	ND	ND	ND	ND	NG
Toluene	ND	ND (<0.0011)	ND	ND	ND	ND	1.5
Total VOCs	ND	X 0.23	ND	ND	ND	ND	NG
Diesel Range Organics (DRO) (mg/kg)							
DRO	ND (<4.8)	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<4.9)	ND (<5.0)	100-250***
Gasoline Range Organics (GRO) (mg/kg)							
GRO	ND (<6.0)	ND (<5.7)	ND (<6.0)	ND (<6.2)	ND (<6.1)	ND (<6.2)	100-250***

Notes: bgs* = below ground surface
 mg/kg = milligrams per kilogram (parts per million)
 Bold type indicates compound detected above method detection limit
 ND = Not detected (detection limit is in parenthesis)
 NG = No guideline exists
 ** = Guideline is for total xylenes
 *** = Guideline for GRO and DRO are dependent on saturated hydraulic conductivity (K):
 Guideline = 100 mg/kg if K>10E-6 cm/s
 Guideline = 250 mg/kg if K=10E-6 cm/s or K<10E-6cm/s

WQDR000191

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the laboratory results, impacted soil exists in the vicinity of borehole SB06 (4230 North Oakland Avenue). The soil sample collected at borehole SB06 exceeds the proposed NR 720 guidelines for GRO and DRO. Due to the compounds detected and the level and proximity of the impacted soils to the adjacent property, it is likely the impacts are related to the gasoline station formerly located at 4230 North Oakland Avenue. The presence of the impacted soil should be reported to the current property owner. As required by the WDNR, the responsible party(ies) must conduct a site investigation to determine the extent and degree of the soil and possible groundwater impact.

Tetrachloroethene is considered a potential carcinogen by the National Institute for Occupational Safety and Health; therefore, health and safety precautions should be taken to limit occupational exposure during the excavation of soils located at 4300 North Oakland Avenue. Although laboratory results indicate a relatively low concentration of Tetrachloroethene, the potential exists for increased concentrations at depths greater than the sampling depth of 3 feet or at other locations along the property right of way. The Village of Shorewood may wish to consider contacting their WDNR caseworker to discuss the occurrence of Tetrachloroethene, and to determine whether any further investigation is warranted.

The soils which contain detectable concentrations of DRO and VOCs below the NR 720 guidelines, may not require remediation. However, any excavation and removal of these soils will require proper management. Proper management and treatment or disposal of these soil may include, and are not limited to, off-site bioremediation or landfilling. Also, the detection of low level DRO and/or VOC concentrations within the right of way suggests a potential for a lateral extent of the observed concentrations. The Village of Shorewood may wish to discuss the occurrence of these low level concentrations with the WDNR. The WDNR may require individual responsible party(ies) to conduct site investigations to determine the full level and extent of impacts.

Copies of this report have been forwarded to:

Mr. John W. Penshorn
J. C. Zimmerman Engineering Corporation
5200 West Loomis Road
Greendale, Wisconsin 53129

4.0 LIMITATIONS OF ASSESSMENT

The interpretations and conclusions contained within this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentration of certain chemical constituents in samples taken from the subject property. Such testing and analysis have been conducted by independent state certified testing laboratories. Cooper has no control over such testing and analysis and, therefore, disclaims any responsibility for any errors or omissions arising therefrom.

Subsurface information was generalized from and interpolated between soil sampling locations. Information pertaining to actual subsurface conditions exists only at the described sample locations. It is possible that subsurface conditions may vary from those indicated.

Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by Professional Consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusion and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. This report serves a specific purpose and may not be suitable for other applications.

FIELD METHODS

Soil Sampling

The following procedures were used to collect the soil samples:

- The soil borings were drilled using a van-mounted hydraulic soil probe (Geoprobe®) unit.
- The samples were collected using a 1.5-inch diameter, 24-inch long stainless steel large bore sampler with disposable acetate liners.
- New disposable latex gloves were used to collect and prepare the soil samples at each sampling point.
- The bore samplers were washed in a potable water/detergent solution and rinsed with distilled water between each sampling event. A new acetate liner was used at each sampling location.
- Five soil samples were collected from each sampling point; one for headspace field screening and four for laboratory analysis. The field screening sample was placed in a clean container, covered with aluminum foil, and capped with a metal lid. The following procedures were used in collection of soils for laboratory analysis:
 - For DRO sample analysis, approximately 25 grams of soil was placed in each of 2-2 oz jars.
 - For GRO sample analysis, approximately 25 grams of soil was placed in one 2 oz jar with methanol as a preservative.
 - For VOC sample analysis, soil was placed in two 4 oz jars with no headspace or preservative.
 - For dry weight determination, soil was placed in one laboratory supplied plastic bag and sealed.
- All laboratory samples were immediately refrigerated in an ice-filled cooler to maintain the samples at approximately 4°C.
- The samples were shipped to CBC Environmental Laboratories Inc., 140 East Ryan Road, Oak Creek, Wisconsin (WDNR Certification No. 241283020) for laboratory analysis.

Field Screening

Field screening for ionizable organic compound (IOC) content was conducted with a Model 580B Thermo Environmental Instruments organic vapor monitor (OVM). The OVM is equipped with a 10.6 eV lamp, a positive displacement pump, and is calibrated daily to an isobutylene standard of 100 ppm. The following IOC field screening procedures were used:

- A portion of soil was transferred to a clean sample container, covered with aluminum foil, and capped with a screw lid.
- The samples were allowed to equilibrate in a heated area until they reached a temperature of approximately 70 F.
- The sample was agitated for at least 30 seconds to break up soil clods and release vapors.
- Following equilibration and agitation, the OVM probe was inserted into the headspace by breaking the aluminum foil seal. The highest IOC reading, in ppm i.u., was then recorded.

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. min. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location <u>Well/Drillhole/Borehole Location</u>	County <u>MILWAUKEE</u>	Original Well Owner (If Known) <u>VILLAGE OF SNAREWOOD</u>	
<u>NN 1/4 of SW 1/4 of Sec. 3</u>	T. <u>7</u> N. R. <u>22</u>	Present Well Owner <u>VILLAGE OF SNAREWOOD</u>	
(If applicable)	Gov't Lot	Grid Number <u>5930 N OAKLAND AVE</u>	Street or Route
Grid Location	ft. <input type="checkbox"/> N <input type="checkbox"/> S	City, State, Zip Code <u>SNAREWOOD WI 53211-0016</u>	City, State, Zip Code
Civil Town Name	ft. <input type="checkbox"/> E <input type="checkbox"/> W	Factory or No. and/or Name (If Applicable)	WI Unique Well No.
Street Address of Well <u>300 N. MAIN ST (RIGHT OF WAY)</u>	Reason for Abandonment <u>SOIL ASSESSMENT COMPLETE</u>	Date of Abandonment <u>1/25/95</u>	
City, Village <u>SNAREWOOD</u>			

WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) Depth to Water (Feet) <u>NA</u>	
Original Well/Drillhole/Borehole Construction Completed On (Date) <u>1/25/95</u>	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pumps & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (Specify) <u>GRAPROBE</u>	Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, Explain _____
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	Total Well Depth (ft.) _____ Casing Diameter (ins.) _____	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Casing Depth (ft.) _____	Was Well Annular Space Grouted? If Yes, To What Depth? _____ Feet	Did Material Settle After 24 Hours? If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		(5) Sealing Method of Placing Sealing Material	
		<input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)	
		(6) Sealing Materials For monitoring wells and monitoring well boreholes only:	
		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chopped Bentonite <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>BENTONITE</u>	Surface	<u>3.0'</u>	<u>.02sacks</u>	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
COOPER ENVIRONMENTAL & ENGINEERING RESOURCES

Signature of Person Doing Work: [Signature] Date Signed: 2/24/95

Street or Route: 1411 N. MAIN ST Telephone Number: (414) 338-9697

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected: _____ District/County: _____

Renewal/Inspector: _____

Follow-up Necessary: _____

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

(1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location <u>NR 14 of SW 14 of Sec 3 : T. 7 N. R. 22</u> (If applicable)	County <u>MILWAUKEE</u>	Original Well Owner (If Known) <u>VILLAGE OF SHOREWOOD</u>	Present Well Owner <u>VILLAGE OF SHOREWOOD</u>
Gov't Lot	Grid Number	Street or Route <u>3930 N OAKLAND AVE</u>	City, State, Zip Code <u>SHOREWOOD, WI 53211-0016</u>
Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Civil Town Name	Factory, Well No. and/or Name (If Applicable) <u>5B08</u>	WI Unique Well No.
Street Address of Well <u>4300 N. OAKLAND AVE (RIGHT OF WAY)</u> City, Village <u>SHOREWOOD</u>	Reason for Abandonment <u>SOIL ASSASSMENT COMPLETE</u>	Date of Abandonment <u>1/25/95</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>1/25/95</u>	(4) Depth to water (feet) <u>NA</u>
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (Specify) <u>GEOPROBE</u>	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s), Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____ Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock Total Well Depth (ft.) _____ Casing Diameter (ins.) _____ (From ground surface) Casing Depth (ft.) _____ Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	(5) Required Method of Placing Sealing Material <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dime Bailer <input type="checkbox"/> Other (Explain) _____
(6) Sealing Materials	For monitoring wells and monitoring well boreholes only:
<input type="checkbox"/> Near Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite	<input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>BENTONITE</u>	<u>Surface</u>	<u>3.0'</u>	<u>.02sacks</u>	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work <u>COOPER ENVIRONMENTAL ENGINEERING RESOURCES</u>	(10) FOR DNR OR COUNTY USE ONLY	
	Signature of Person Doing Work <u>[Signature]</u>	Date Signed <u>2/24/95</u>
Street or Route <u>1411 N. MAIN ST</u>	Telephone Number <u>(414) 338-9697</u>	Date Received (Inspector) _____ Reviewed (Inspector) _____ Follow-up Necessary _____
City, State, Zip Code <u>_____, WI, _____</u>		

Department of Federal Resources
Cooper
 Construction & Engineering Resources, Inc.
 1001 North Main Street, Suite 100, Waukegan, IL 60087

- Solid Traps
 Emergency Response
 Tank/Drum
 Hazardous Waste
 Underground Tanks
 Vapor Enclosures
 Other

SOIL BORING LOG INFORMATION
 Form 4400-112

Page 1 of 1

Facility/Project Name: **VILLAGE OF SHARPLEWOOD**
 Boring Performed By (Firm name and name of crew chief): **BRADY ENVIRONMENTAL CONTRACTORS**
 Boring Method: **Hand Drilling**
 Date Boring Started: **01-25-95**
 Date Boring Completed: **01-25-95**
 Borehole Diameter: **3.0"**
 Borehole Identifier: **BE-03-E**

BNR Facility Well No.: _____
 Common Well No.: _____
 Final State Water Level: _____ Feet MSL
 Surface Elevation: _____ Feet MSL

Boring Location: State: **IL** Section: **3** T: **7** R: **8** S: **22**
 Local Grid Location (if applicable): _____ feet N _____ feet S _____ feet E _____ feet W

City/Town/Village: **SHARPLEWOOD**
 BNR County Code: _____

Sample Number	Length (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties				Rqm/Constituents
									Standard Penetration	Molature Content	Liquid Limit	Plastic Limit	
1	24			1.0'-2.8': Brown to Red Clayey Silty - Very Fine 2.8'-3.0': Silty Sand, Very Fine Grained, Trace Gravel, Moist EDB @ 3.0' 4300 N. OAKLAND AVE Sample: VS/RW-5808-1	ML			345	Day				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: *[Signature]* Firm: **Cooper Environmental & Engineering Resources, Inc.**

This form is authorized by Cooper 144-117 and 112, W. State. Completion of this report is mandatory. Penalties: Period not less than 90 days nor more than 365 days for each violation. Fines not less than \$100 or imprisonment not less than 30 days or both for each violation. Each day of continued violation is a separate offense, pursuant to 141.05 and 142.04, W. Stat.

Cooper Project ID No.: _____ Number of Soil Cutting Containers Accumulated: _____ Sample Intervals Submitted: _____



ENVIRONMENTAL LABORATORIES INC.

Page: 2

Date of Report: 02/09/95
Project Number: 09509560
Lab ID: 95-0001092
Account Number: 726
Date Collected: 01/25/95 14:25
Collected By: Client
Date Received: 01/27/95 12:00
C of C Number: 1
Temperature: Received on Ice.

Attention: Roxane Wolske
Cooper Environmental Resources
1411 North Main Street
West Bend WI 53095-0000

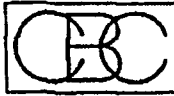
Sample Desc: VS/RW-SB07-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD 4300 W. OAKLAND AVE.

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

Table with 6 columns: Wet Result, Dry Result, Unit, Det. Limit, Procedure, and Date. Rows include Inorganic WET CHEMISTRY (Moisture %) and Organic GC VOLATILES (various chlorinated hydrocarbons and benzene).

jml
wrs

Handwritten initials: WDW



**ENVIRONMENTAL
LABORATORIES INC.**

Page: 2

Date of Report: 02/09/95
Project Number: 09509560
Lab ID: 95-0001092
Account Number: 726
Date Collected: 01/25/95 14:25
Collected By: Client
Date Received: 01/27/95 12:00
C of C Number: 1
Temperature: Received on Ice.

Attention: Roxane Wolske
Cooper Environmental Resources
1411 North Main Street
West Bend WI 53095-0000

Sample Desc: VS/RW-SB07-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD ^{4300 SW} ~~1111~~ N. OAKLAND AVE.

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Wet Result	Dry Result	Unit	Det. Limit	Procedure	Test Date
Bromochloromethane	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Bromodichloromethane	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Bromoform	<0.0030	<0.0036	mg/kg	0.0036	SW 8021	02/02/95
Bromomethane (Methyl Bromide)	<0.0050	<0.0060	mg/kg	0.0060	SW 8021	02/02/95
Carbon Tetrachloride	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Chlorobenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Chloroethane	<0.0050	<0.0060	mg/kg	0.0060	SW 8021	02/02/95
Chloroform	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Chloromethane	<0.0050	<0.0060	mg/kg	0.0060	SW 8021	02/02/95
cis-1,2-Dichloroethene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
di-Isopropyl ether (isopropyl ether)	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Dibromochloromethane	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Dibromomethane	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Dichlorodifluoromethane (Freon 12)	<0.010	<0.012	mg/kg	0.012	SW 8021	02/02/95
Ethylbenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Hexachlorobutadiene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Isopropylbenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Methyl Tertiary Butyl Ether (MTBE)	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Methylene Chloride (Dichloromethane)	<0.0050	<0.0060	mg/kg	0.0060	SW 8021	02/02/95
n-Butylbenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
n-Propylbenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Naphthalene	<0.0030	<0.0036	mg/kg	0.0036	SW 8021	02/02/95
o-Xylene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
p,m-Xylenes	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
p-Isopropyltoluene (p-Cymene)	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95

WRS

LDW



**ENVIRONMENTAL
LABORATORIES INC.**

Page: 7

Date of Report: 02 23 95
Project Number: 09513550
Lab ID: 95-100109
Account Number: 725
Date Collected: 01 23 95 11:25
Collected By: Client
Date Received: 01 27 95 12:00
C of C Number: 1
Temperature: Received on Ice.

Attention: Roxane Wolske
Cooper Environmental Resources
1411 North Main Street
West Bend WI 53095-0000

Sample Desc: VS/RW-SB07-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD ⁴³⁰⁰ ~~3144~~ N. OAKLAND AVE

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Wet Result	Dry Result	Unit	Det. Limit	Procedure	Test Date
sec-Butylbenzene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Styrene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
tert-Butylbenzene	<0.0030	<0.0036	mg/kg	0.0036	SW 8021	02/02/95
Tetrachloroethene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Toluene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
trans-1,2-Dichloroethene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Trichloroethene	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Trichlorofluoromethane (Freon 11)	<0.0010	<0.0012	mg/kg	0.0012	SW 8021	02/02/95
Vinyl Chloride	<0.0030	<0.0036	mg/kg	0.0036	SW 8021	02/02/95
LUST						
Diesel Range Organics	<4.0	<4.8	mg/kg	4.8	WIMODDRO	02/03/95
Gasoline Range Organics	<5.0D	<6.0	mg/kg	6.0	WIMODGRO	01/30/95
Other heavier hydrocarbons present after the GRO window.						

Please Contact Client Services with any questions. Water samples are disposed of 30 days after receipt; soil samples will be disposed of 6 weeks after receipt; waste samples (non-water, non-soil) will be returned 6 weeks after receipt.

N/T = Not Tested, N/A = Not Applicable, N/D = Not Detected.

D = Detected below the Quantitation Limit. J = Estimated below the Quantitation Limit.

Elevated Detection Limits:

= Due to matrix interference.

\$ = Due to sample quantity.

= Due to sample concentration.

+ = Due to extract volume.

Reviewed and Approved by:

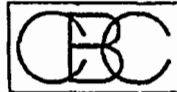
WWS
Wes Saferite

Reviewed and Approved by:

WWS
Joanne Lipo

140 East Ryan Road, Oak Creek, WI 53154-4599 • 414-764-7005 • FAX 414-764-0486 • 1-800-422-2195
Client Services Direct Line 414-768-7460 • WI DNR Lab Certification #241283020

WDNR000202



**ENVIRONMENTAL
LABORATORIES INC.**

Page: 7

Date of Report: 02/09/95
Project Number: 09509560
Lab ID: 95-0001093
Account Number: 726
Date Collected: 01/25/95 15:00
Collected By: Client
Date Received: 01/27/95 12:00
C of C Number: 1
Temperature: Received on Ice

Attention: Roxane Walske
Cooper Environmental Resources
1411 North Main Street
West Bend WI 53095-0000

Sample Desc: VS/RW-SB08-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD ⁴³⁰⁰ ~~4144~~ N. OAKLAND AVE

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Wet Result	Dry Result	Unit	Det. Limit	Procedure	Test Date
INORGANIC						
WET CHEMISTRY						
Moisture (%)	13		%	0.10	SW 5030	01/30
ORGANIC						
GC VOLATILES						
1,1,1,2-Tetrachloroethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,1,1-Trichloroethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,1,2,2-Tetrachloroethane	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01
1,1,2-Trichloroethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,1-Dichloroethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,1-Dichloroethene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,1-Dichloropropene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2,3-Trichlorobenzene	<0.0020	<0.0023	mg/kg	0.0023	SW 8021	02/01
1,2,3-Trichloropropane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2,4-Trichlorobenzene	<0.0020	<0.0023	mg/kg	0.0023	SW 8021	02/01
1,2,4-Trimethylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2-Dibromo-3-Chloropropane (DBCP)	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01
1,2-Dibromoethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2-Dichlorobenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2-Dichloroethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,2-Dichloropropane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,3,5-Trimethylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,3-Dichlorobenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,3-Dichloropropane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
1,4-Dichlorobenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
2,2-Dichloropropane	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01
2-Chlorotoluene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
4-Chlorotoluene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
Benzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01
Bromobenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01

jml
wrs

WVW
WVW



Date of Report: 02/09/95
 Project Number: 09509560
 Lab ID: 95-0001093
 Account Number: 726
 Date Collected: 01/25/95 13:00
 Collected By: Client
 Date Received: 01/27/95 12:00
 C of C Number: 1
 Temperature: Received at: Ice.

Attention: Roxane Wolske
 Cooper Environmental Resources
 1411 North Main Street
 West Bend WI 53095-0000

Sample Desc: VS/RW-SB08-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD ^{4300 rd} N. OAKLAND AVE

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Wet Result	Dry Result	Unit	Det. Limit	Procedure	Test Date
Bromochloromethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Bromodichloromethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Bromoform	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01/95
Bromomethane (Methyl Bromide)	<0.0050	<0.0057	mg/kg	0.0057	SW 8021	02/01/95
Carbon Tetrachloride	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Chlorobenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Chloroethane	<0.0050	<0.0057	mg/kg	0.0057	SW 8021	02/01/95
Chloroform	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Chloromethane	<0.0050	<0.0057	mg/kg	0.0057	SW 8021	02/01/95
cis-1,2-Dichloroethene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
di-Isopropyl ether (isopropyl ether)	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Dibromochloromethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Dibromomethane	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Dichlorodifluoromethane (Freon 12)	<0.010	<0.011	mg/kg	0.011	SW 8021	02/01/95
Ethylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Hexachlorobutadiene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Isopropylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Methyl Tertiary Butyl Ether (MTBE)	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Methylene Chloride (Dichloromethane)	<0.0050	<0.0057	mg/kg	0.0057	SW 8021	02/01/95
n-Butylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
n-Propylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Naphthalene	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01/95
o-Xylene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
P,M-Xylenes	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
p-Isopropyltoluene (p-Cymene)	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95

wrs LNW



**ENVIRONMENTAL
LABORATORIES INC.**

Date of Report: 02/09/95
Project Number: 09509560
Lab ID: 95-0001093
Account Number: 726
Date Collected: 01/25/95 15:00
Collected By: Client
Date Received: 01/27/95 12:00
C of C Number: 1
Temperature: Received on Ice.

Attention: Roxane Wolske
Cooper Environmental Resources
1411 North Main Street
West Bend WI 53095-0000

Sample Desc: VS/RW-SB08-1 (1.0-3.0') / SOIL / VILLAGE OF SHOREWOOD ^{4300 EW} 1144 N. OAKLAND AVE

Container Integrity: Meets Standard, Sample Integrity: Meets Standard

	Wet Result	Dry Result	Unit	Det. Limit	Procedure	Test Date
sec-Butylbenzene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Styrene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
tert-Butylbenzene	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01/95
Tetrachloroethene	0.20	0.23	mg/kg	0.0057	SW 8021	02/02/95
Toluene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
trans-1,2-Dichloroethene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Trichloroethene	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Trichlorofluoromethane (Freon 11)	<0.0010	<0.0011	mg/kg	0.0011	SW 8021	02/01/95
Vinyl Chloride	<0.0030	<0.0034	mg/kg	0.0034	SW 8021	02/01/95
LUST						
Diesel Range Organics	<4.0	<4.6	mg/kg	4.6	WIMODDRO	02/03/95
Gasoline Range Organics	<5.0D	<5.7	mg/kg	5.7	WIMODGRO	01/30/95

Other heavier hydrocarbons present after the GRO window.

Please Contact Client Services with any questions. Water samples are disposed of 30 days after receipt; soil samples will be disposed of 6 weeks after receipt; waste samples (non-water, non-soil) will be returned 6 weeks after receipt.

N/T = Not Tested, N/A = Not Applicable, N/D = Not Detected.

D = Detected below the Quantitation Limit. J = Estimated below the Quantitation Limit.

Elevated Detection Limits :

© = Due to matrix interference.

= Due to sample concentration.

\$ = Due to sample quantity.

+ = Due to extract volume.

Reviewed and Approved by:

WW
Wes Saferite

Reviewed and Approved by:

WW
Joanne Lipo



**ENVIRONMENTAL
LABORATORIES INC.**

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) <i>NOVAE WOLKE</i>	Title/Work Station/Company <i>HYDROGEOLOGIST / COPEX ENVIRONMENTAL</i>	Telephone Number (include area code) <i>(414) 338-9697</i>
Property Owner <i>VILLAGE OF SHOREWOOD</i>	Property Address <i>N. DARLAND AVE</i>	Telephone Number (include area code) <i>(414) 963-6983</i>

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

Relinquished By (Signature) <i>[Signature]</i>	Date/Time <i>1/27/95 11:30</i>	Received By (Signature) <i>[Signature]</i>
Relinquished By (Signature) <i>T. Larson</i>	Date/Time <i>1/27/95 13:40</i>	Received By (Signature) <i>T. Larson</i>
Relinquished By (Signature) <i>T. Larson</i>	Date/Time <i>1/27/95 13:40</i>	Received for Laboratory By (Signature) <i>[Signature]</i>

Temperature of temperature blank: ROI *Accl. 726*
1/27/95

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		Preserv. Type	Location/Description (see footnote 2)	Analysis Type	Lab ID Number	No./Type of Containers	Sample Condition			
			Type	Device						Cracked / Broken	Improperly Sealed	Good Condition	Other Comments
<i>RW-SB01-1</i>	<i>1/25/95</i>	<i>11:00 am</i>	<i>Soil</i>	<i>60700 5000</i>	<i>METANOL 40C</i>	<i>4199 N. DARLAND AVE SB01 @ 1.0'-3.0'</i>	<i>DEO, GRO VOC</i>	<i>1086</i>	<i>2-4oz Jars 3-2oz Jars 2-Bags</i>				
<i>RW-SB02-1</i>	<i>1/25/95</i>	<i>11:40 am</i>				<i>4199 N. DARLAND AVE SB02 @ 1.0'-3.0'</i>		<i>1087</i>					
<i>RW-SB03-1</i>		<i>12:15 pm</i>				<i>4109 N. DARLAND AVE SB03 @ 1.0'-3.0'</i>		<i>1088</i>					
<i>RW-SB04-1</i>		<i>12:35 pm</i>				<i>4107 N. DARLAND AVE SB04 @ 1.0'-3.0'</i>		<i>1089</i>					
<i>RW-SB05-1</i>		<i>1:25 pm</i>				<i>4230 N. DARLAND AVE SB05 @ 1.0'-3.0'</i>		<i>1090</i>					
<i>RW-SB06-1</i>		<i>1:55 pm</i>				<i>4230 N. DARLAND AVE SB06 @ 1.0'-3.0'</i>		<i>1091</i>					
<i>RW-SB07-1</i>		<i>2:25 pm</i>				<i>4300 N. DARLAND AVE SB07 @ 1.0'-3.0'</i>		<i>1092</i>					
<i>RW-SB08-1</i>		<i>3:00 pm</i>				<i>4300 N. DARLAND AVE SB08 @ 1.0'-3.0'</i>		<i>1093</i>					
<i>RW-SB09-1</i>	<i>✓</i>	<i>3:40 pm</i>	<i>✓</i>	<i>✓</i>		<i>4514 N. DARLAND AVE SB09 @ 1.0'-3.0'</i>	<i>✓</i>	<i>1094</i>	<i>✓</i>				

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

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

PLS ACCT CT.

<p>DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS</p> <p>Disposition of unused portion of sample Laboratory should:</p> <p><input type="checkbox"/> Dispose <input type="checkbox"/> Retain for ___ days</p> <p><input type="checkbox"/> Return <input type="checkbox"/> Other</p>	<p>DEPARTMENT USE ONLY</p> <p>Split samples: Offered? <input type="checkbox"/> Yes <input type="checkbox"/> No (Check one)</p> <p>Accepted? <input type="checkbox"/> Yes <input type="checkbox"/> No (Check one)</p> <p>Accepted By: _____ Signature</p>
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WDNR000206

April 17, 2015

Paul Grittner
Hydrogeologist
Remediation & Redevelopment
Department of Natural Resources
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, WI 53212-3128

Re: Request for Project Details at a Closed Environmental Remediation Site Harnischfeger Corp HQ, 3600 South Lake Drive, St. Francis, Wisconsin WDNR BRTTS Activity # 02-41-001161, FID #241828730

Dear Mr. Grittner

Thank you for your letter of April 10, 2015 confirming some of the requirements for maintaining the requirements of the closure letter for our project at 3600 South Lake Drive St. Francis, WI. As you noted, we have endeavored to keep WDNR up to date with our planned construction activities. Please find below and attached comprehensive response to the issues raised in your letter.

Storm Water Retention Pond

Please find below a summary on the storm water ponds from our civil engineer. I believe this meets the dual requirements outlined by DNR, both to meet the water quality requirements and to not allow the infiltration of water through the fly ash materials located on site. Per your letter, we will complete a Form 4400-237 to formalize our planned activities. Our team would prefer your feedback on the current plans prior to filling this out, in order to expedite a solution that allows us to proceed. I have included the drawings referenced by our civil engineer.

“The 3600 South Lake Drive site will have four (4) new storm water bio-retention basins. These basins are intended to meet the requirements of the WisDNR NR 151 Runoff Management Performance Standards. Storm water basin SWB#1 is located at the north edge of the new parking canopy, and collects runoff from the canopy prior to discharge to the existing on-site storm sewer system. Storm water basin SWB #2 is located north of the existing drive that accesses the below grade parking garage.

The storm water bio-retention basin design is based on the Wisconsin DNR Conservation Practice Standard 1004. The bio-retention basins include an 18” or 24” depth of engineering soil mix with an aggregate encased under drain that discharges to the on-site storm sewer system (see attached drawings and detail 7/C501). The existing site soils were characterized in geotechnical reports prepared by Terracon and Wagner Komurka. Terracon completed twenty three (23) borings extending to depths of 5’ to 65’ - the subsurface profile in the pavement and building construction areas generally consisted of 1 to 8 feet of lean clay topsoil and/or fill underlain by native lean clay or lean clay with sand. Groundwater was not observed in the borings during drilling or the short duration that the boring were open.

Considering that the storm water basins have an underdrain system and are constructed over clay soils, infiltration is unlikely to occur.”

Material Management of Excavated Materials

Our environmental consultant on this project, James Hutchens with Environ has prepared a soil management plan in accordance with the requirements outlined in this paragraph of your letter. I have attached that soil management plan for review. Overall, the soil management plan describes the necessity to characterize material found on site during our excavation and drilling operations. Once materials are characterized it is to be handled appropriately. For native soils, we are allowed to move them on site without restriction. Any suspect soils or fly ash is to be characterized and either placed under an approved cap or removed as solid waste. Our contractor and subcontractors have been provided this soil management plan and are working in alignment with the requirements therein. As the materials are excavated, moved and potentially removed from site, we will fully document those materials in order to fulfill the requirements of completing our post closure documentation.

Required 'Post-Closure' Documentation

We understand that we need to submit documentation to WDNR at the completion of our project including copies of disposal documentation and documentation of how the cap has been modified by construction activities. Our team will complete these items upon completion of construction.

I trust the above responses answer your outstanding questions and allows us to move forward with our project without issue. We will complete the required forms for the review of our storm water ponds shortly. If there are any other questions, please call me at (770) 817-3082 to discuss. If necessary, I can make other members of the design and construction team available for a conference call to insure thorough coordination of the DNR requirements for our site.

Best regards,

William Valentine
Director - Development

Cc: Victoria Stovall – Wisconsin Department of Natural Resources
Matt Connolly - Vice President, The Molasky Group of Companies
Kenny Horns - Civil Engineer, HGA
Dan Francois - Project Manager Kraus Anderson Construction Company
James Hutchens - Senior Manager, Environ

Grittner, Paul V - DNR

From: William Valentine <williamv@molaskyco.com>
Sent: Friday, April 17, 2015 1:37 PM
To: Grittner, Paul V - DNR
Cc: Lambert, Jamie D - DNR; Demers, Gerald L - DNR; Stovall, Victoria - DNR; Matt Connolly; Kenny Horns; James L. Hutchens; dan.francois@krausanderson.com
Subject: RE: Former Harnischfeger Corp. HQ Site
Attachments: Response letter to WDNR 4 17 15.pdf; 01-C400_SI04.pdf; 01-C501_SI04.pdf; Soil Management Plan - 3600 S Lake Drive St. Francis WI.pdf

Paul,

Please find attached a comprehensive response to your letter. We have included the soil management plan that was developed by our environmental consultant for this site along with the details of our planned storm water basins.

As noted in the letter, we would like some feedback on the storm water basins prior to submitting the WDNR form that you requested.

Thank you,

William Valentine
770.817.3082 (d) / 404.895.6124 (c)

From: Grittner, Paul V - DNR [<mailto:Paul.Grittner@wisconsin.gov>]
Sent: Friday, April 10, 2015 3:32 PM
To: William Valentine
Cc: Lambert, Jamie D - DNR; Demers, Gerald L - DNR
Subject: Former Harnischfeger Corp. HQ Site

Subject: Request for Project Details at a Closed Environmental Remediation Site
Harnischfeger Corp HQ, 3600 South Lake Drive, St. Francis, Wisconsin
WDNR BRRTS Activity # 02-41-001161, FID # 241828730

Dear Mr. Valentine:

Find attached a copy of the letter requesting information regarding site development activities being conducted at the above site. Please let me know if you would like a hard copy of this letter sent to you. I can be contacted at the number or email listed below if you have any questions regarding anything outlined in this letter.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Paul Grittner
Hydrogeologist – Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
Phone: (414) 263-8541
paul.grittner@wisconsin.gov

Soil Management Plan

Former Harnischfeger Corporate Headquarters Site Located at 3600 South Lake Drive, St. Francis, Wisconsin

Historic fly ash fill placed at the site was addressed by capping the site in conjunction with the construction of the former Harnischfeger Corporation Headquarters building in 1996. The construction of the existing building was granted under an exemption to build on an abandoned landfill issued by the Wisconsin Department of Natural Resources. Because of the historic fill, excavated material requires special handling and disposal.

Soils and fill encountered during placement of foundations for canopy and fence posts will be managed according to one of the following soil management options:

- **Non impacted native soil** (e.g., undisturbed natural soils) may be reused on site or removed as clean fill.
- **Non impacted fill** (i.e., fill soils with no obvious visual or olfactory contamination) may be reused on site.
- **Construction debris** (e.g., building foundations, other concrete, bricks or cured asphalt including asphalt pieces) may be reused on site based on the type and size of debris. The debris if removed off-site will need to be managed as construction debris or solid waste depending on the type of debris.
- **Potentially contaminated soil or fill** (e.g., material with unusual visual, olfactory, or other characteristics that suggest existing contamination) will be stockpiled separately from the other materials, sampled and chemically characterized, and then properly disposed of.

Soils will be stockpiled in areas designated as “green” (clean), “yellow” (potentially impacted), or “red” (confirmed as impacted). Soil will be flagged as yellow based on visual assessment for fly ash content, staining, or odors. Yellow flagged soils with different characteristics will be stockpiled separately. The final characterization of the yellow flagged soils will be completed by taking one composite sample for waste disposal characterization. After sampling, the yellow flagged soils will be appropriately characterized as green flagged (clean) or red flagged (contaminated). Red flagged soils will be transported off-site for disposal in a designated licensed solid waste landfill facility.

When areas of suspected contamination are identified, the on-site environmental professional shall be notified and, based on visual and olfactory observations, this material shall be stockpiled accordingly. Disposal will be in conformance with all applicable local, state, and federal regulations.

Dewatering is unlikely; however, if required, liquids will be managed in a manner to minimize the volume of groundwater that will require off-site treatment/disposal. Water pumped from any excavation will be stored in an appropriate container until laboratory testing is completed. If the groundwater exceeds regulatory standards, the groundwater will either be treated and discharge to the City of St. Francis storm sewer or treated/disposed off site. Discharge to the storm sewer will require permits from the City of St. Francis.