1st drive - Midwest Tanning Co

WISCONSIN
DEPT. OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southeast District
2300 N. Dr. Martin Luther King Jr. Dr.
Post Office Box 12436
Milwaukee, Wisconsin 53212
Telephone: 414-263-8500
Telefax: 414-263-8483

January 6, 1992

File Ref: 4440

Fred Schmian
Midwest Tanning
1200 Davis Avenue
South Milwaukee, WI 53172

Dear Mr. Schmian,

RE: Midwest Tanning Co. Corrective Action

Based on information contained in the October 30, 1991 Sigma Environmental Remedial Action Report for the referenced site, no further action will be required by the Wisconsin Department of Natural Resources at this time. The WDNR retains the right to require remedial action in the future if additional petroleum contamination is discovered at Midwest Tanning.

Enclosed please find an executed PECFA Form 4. Please direct reimbursement question directly to the Department of Industry, Labor, and Human Relations in Madison.

Sincerely,

Charles J. Krohn
Hydrogeologist

c: Sigma

Department of Industry,
and Human Relations

FORM 4

DNR SITE INVESTIGATION AND REMEDIAL ACTION PLAN REVIEW

Safety and Buildings Division
Bureau of Petroleum Inspection
and Fire Protection
P.O. Box 7969
Madison, WI 53707
(608) 267-4545
(608) 267-7538

Section 101.143 (3) (c) 4, Wis. Stats., requires that a claimant obtain written approval from the Department of Natural Resources (DNR) when requesting reimbursement for activities in response to a discharge from a commercial petroleum product storage system or home oil tank. The DNR approval must indicate that the site investigation and remedial action plan is adequate to meet requirements of s. 144.76, Wis. Stats. The DNR approval is created for the purpose of meeting the requirements of s. 101.143 (3), Wis. Stats., only and does not bar the DNR from requiring that additional investigation and/or remediation activities be performed by persons responsible under s. 144.76, Wis. Stats.

Office Use Only Application Case # _____

Tank ID # _____ Installation Date _____
Tank ID # _____ Installation Date _____
Tank ID # _____ Installation Date _____

Claimant's Name	Remedial Action Site Name (if business)
Midwest Tanning CC Attn: Fred Sam	Midwest Tanning CO
Street Address	Remedial Action Site Address
1200 Davis Avenue	1200 Davis Avenue
City, State, Zip Code	City, State, Zip Code
South Milw. WIS 53172	South Milw WIS 53172
Claimant's Telephone Number	Telephone Number of Site
(414) 769-7000	(414) 769-7000

Claimant is
☐ Owner ☒ Operator ☐ Other - please specify:

Approval requested for: ☒ Petroleum Product Storage System ☐ Home Oil Tank System ☐ Aboveground

FOR DNR USE ONLY (Indicate Whether Completed Remedial Action or Other Action(s))

A copy of this completed document must be submitted to DNR for approval of initial activities (emergency action, site investigation and remediation) in accordance with s. 101.143 (3) (c) 4, Wis. Stats.

☒ Completed Remedial Action (complete cleanup and single claim for reimbursement) (Steps 1 through 3)

Progress Payments For:

Check Appropriate Box(es)

☐ Emergency Action (Step 1 - check only if emergency action was performed)

☐ Completion of Site Investigation (Step 1) and Proposed Remedial Action Plan (Step 2)

☐ Remedial Action (Step 3)

☐ Operation/Maintenance and Environmental Monitoring (annual claim for remedial action activities) (Step 4)

☐ Site Investigation **By Order** of DNR And/Or DILHR - No Remedial Action

The DNR received a request for approval of the above identified activities for the site listed on this document on the following date _____.

The DNR response for purposes of s. 101.143 (3), Wis. Stats., is attached.

Remedial action activities conducted by owners/operators are not eligible for funding under 42 USC 6991 (L.U.S.T. Funding). (See s. 101.143 (3) (a) 2., Wis. Stats.)

Send one copy of this completed form to the address shown in the upper right corner and one copy to the claimant.

Reviewer's Signature _____ Date Signed 1-6-92

Reviewer's Title _____

SIGMA
ENVIRONMENTAL SERVICES INC.

BRRTS# 03-41-000468

9555 South Howell Avenue
Oak Creek, WI 53154 Suite 100
414-768-7144
FAX: 414-768-7158

November 4, 1991

Project Reference No. CAV0079

Mr. Charles Krohn
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King Jr. Drive
Box 12436
Milwaukee, Wisconsin 53212

Re: Clean Closure Request for Midwest Tanning Company
LUST Project

Dear Mr. Krohn:

Enclosed please find the report titled "A Revised Report of Remediation of Petroleum Impacted Soils by Over-Excavation at Midwest Tanning Company, 1200 Davis Avenue, South Milwaukee, Wisconsin".

The purpose of the report is to document successful site remediation by overexcavation of kerosene-impacted soils discovered at the site following an underground storage tank (UST) removal, and to request that clean site closure be granted to the Midwest Tanning Company for this UST project.

Subsurface investigation within the Midwest Tanning Company warehouse building indicates that no gross contamination of soils or groundwater has occurred due to the leaking kerosene UST.

If you have any questions or comments, please feel free to call me at 768-7144.

Respectfully Submitted,

SIGMA ENVIRONMENTAL SERVICES, INC.

Steven Benton

Steven Benton
Staff Hydrogeologist

SB/st

Enclosure

BRRTS#03-41-000468

A REVISED REPORT OF REMEDIATION OF PETROLEUM IMPACTED SOILS BY OVER-EXCAVATION AT MIDWEST TANNING COMPANY 1200 DAVIS AVENUE SOUTH MILWAUKEE, WISCONSIN

PREPARED FOR:
MR. FRED SCHIMIAN
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN 53172

PREPARED BY:
SIGMA ENVIRONMENTAL SERVICES, INC.
9555 SOUTH HOWELL AVENUE
SUITE 100
OAK CREEK, WISCONSIN 53154

PROJECT REFERENCE #CAV0079

OCTOBER 30, 1991

Steven Benton
Staff Hydrogeologist

Craig A. Varland
Project Manager

EXECUTIVE SUMMARY

Mr. Fred Schimian of Midwest Tanning Company contracted Sigma Environmental Services, Inc. (Sigma) of Oak Creek, Wisconsin to over-excavate impacted soils discovered during the removal of a 560 gallon kerosene underground storage tank (UST).

The UST was removed on November 30, 1989 by Page Brothers Excavating and Trenching. CBC Environmental Services (presently Sigma) was contracted to perform a subsurface investigation following the discovery of the release. CBC (Sigma) personnel supervised the advancement of four (4) profile soil borings by Giles Engineering and Associates on December 13, 1989. Analysis of a soil sample collected from soil boring SB-1 revealed total petroleum hydrocarbon (TPH) concentrations in excess of the Wisconsin Department of Natural Resources (WDNR) 10 parts per million (ppm) clean up guideline.

Natural sediments encountered during the excavation consisted of brown and grey clayey-silts and silty-clays.

On March 9, 1990 four (4) additional soil borings were advanced. One (1) of the four soil borings was drilled inside the warehouse west of the former UST location. TPH impacts were revealed by analysis of a sample collected from soil boring (SB-8) conducted inside the warehouse.

On June 17, 1991 remediation by the over-excavation of impacted soils was supervised by Sigma. Approximately 190 tons of impacted soils were excavated and disposed by C & D Investments, Ltd. at Metro Landfill in Franklin, Wisconsin. Excavated soils were field screened during excavation activities. One confirmational sample was collected every 15 yards as required by the WDNR. One sample was submitted and analyzed for diesel range organics (DRO) to verify the contamination of landfilled soils. Following the excavation of the impacted soils, samples were collected from the base and sidewalls of the excavation, containerized, and submitted for DRO analysis. Laboratory results confirmed that DRO concentrations were below detection limits of the analytical method employed.

On September 24 and 26, 1991 three (3) additional soil borings were advanced within the warehouse building west of the former UST. Diesel Range Organics (DRO) and Petroleum Volatile Organic Compounds (PVOC) analysis of soil samples collected during soil boring operations did not reveal the presence of these chemical constituents above limits established by the WDNR.

Laboratory analysis of soil samples collected during soil boring operations within the Midwest Tanning Co. Warehouse indicate that no gross contamination of soils underlying the building has occurred due to the leaking kerosene UST. Additionally, no groundwater was encountered during soil boring operations. These observations, along with successful remediation by over-excavation of impacted soils in the immediate vicinity of the removed kerosene UST prompts Sigma Environmental Services, Inc. to request clean closure be granted for this project.

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1. INTRODUCTION

Sigma Environmental Services, Inc. has been retained by Fred Schimian of Midwest Tanning Company to remediate by over-excavation a former 560 gallon kerosene UST location and verify that gross impact has not occurred to soils present beneath the Midwest Tanning company Warehouse. The purpose of this report is to provide documentation of the remedial activity performed on June 17, 1991 and investigative activity performed on September 24 and 26, 1991. The report identifies personnel involved with the project, summarizes work completed in the past, and details the appropriate site information, field procedures, observations, and all laboratory analysis required by the Wisconsin Department of Natural resources. In addition, a request for final site closure is presented.

2. PURPOSE AND SCOPE OF WORK

2.1 General Discussion. The purpose of the over-excavation performed at the site was to remove petroleum hydrocarbon impacted soils with diesel range organic (DRO) concentrations in excess of the 10 ppm WDNR clean-up guideline. The completion of a subsurface investigation through the advancement of eight (8) soil borings justified remediation by over excavation. As requested by the WDNR, a subsurface investigation was also completed within the warehouse building west of the former UST location to determine if kerosene had migrated under the warehouse building.

2.2 Scope of Work. The following tasks were performed pertinent to the remediation by over excavation performed at the Midwest Tanning Company site.

- A permit was granted by Metro Landfill in Franklin, Wisconsin to dispose of petroleum impacted soils (permit # WMA 122190).
- Approximately 190 tons of impacted soils were excavated, transported, and landfilled at Metro Landfill.
- Excavated soils were field screened at least every 15 yards to verify impact.

- One soil sample was submitted and analyzed for DRO for landfilling confirmation of impact based on a DNR mandate of one sample per 300 yd^3 transported for disposal.

- Six (6) soil samples were collected from the excavation and submitted for DRO analysis to verify remediation.

- The excavation was back-filled to grade with clean sand and gravel fill.

- Three (3) soil borings were advanced within the warehouse building west of the former UST location.

- Soil samples collected during soil boring operations were analyzed for Diesel Range Organics (DRO) and Petroleum Volatile Organic Compounds (PVOC) concentrations.

- This remediation report was prepared to present observations, procedures, conclusions and a request for clean closure for the site to the WDNR.

2.3 Contractors/Personnel Performing Work. The following contractors and personnel were involved with this project.

Environmental Consulting Firm

Sigma Environmental Services, Inc. (formerly CBC)
9555 South Howell Avenue, Suite 100
Oak Creek, Wisconsin 53154
Phone: (414) 768-7144
Project Supervisor: Craig Varland
Staff Hydrogeologist: Steve Benton

Laboratory Services

Swanson Environmental, Inc.
3150 North Brookfield Road
Brookfield, Wisconsin 53045
WDNR Certification #268181760

CBC Environmental Laboratories
140 East Ryan Road
Oak Creek, Wisconsin 53154
WDNR Certification #241283020

Excavating and Transportation Contractor

C & D Investments, Ltd.
2000 Oakes Road
Racine, Wisconsin 53406
WDNR # 12490

Drilling Contractor

Giles Engineering Associates
N8 W22350 Johnson Road, Suite A-1
Waukesha, Wisconsin 53186

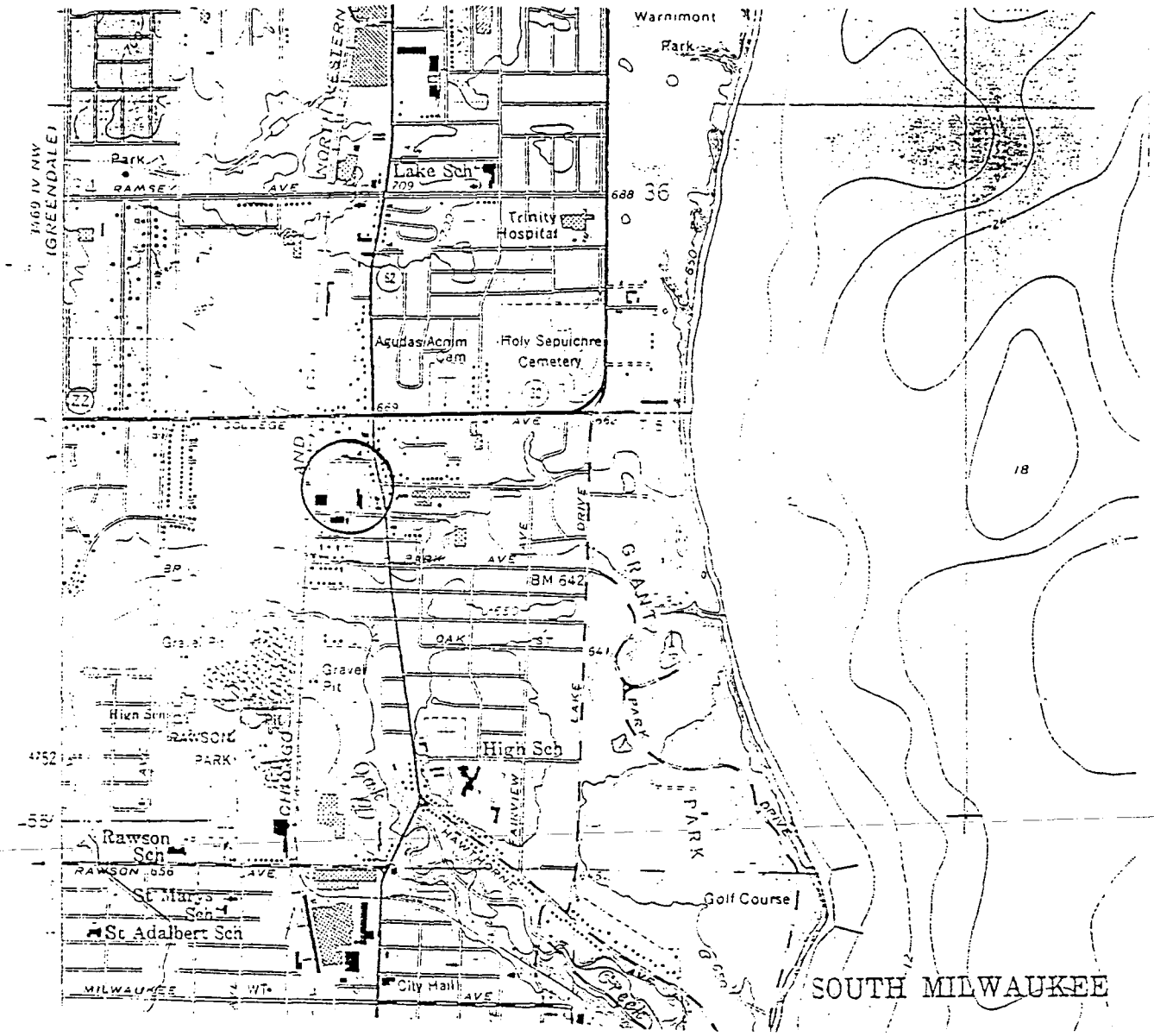
3. SITE DESCRIPTION AND PREVIOUS WORK

3.1 Site Location. The Midwest Tanning Company is located in the Northeast 1/4 of the Northwest 1/4 of Section 2, Township 5 North, Range 22 East, Milwaukee County, Wisconsin (see Figure 1). More specifically the property is located at 1200 Davis Avenue, South Milwaukee, Wisconsin 53172.

3.2 Site Description. The Midwest Tanning Company is located in a predominantly commercial/industrial area of Southeastern Wisconsin. Significant site features related to the former UST location can be found on the Site Plan Map (See Figure 2).

3.3 Previous Site Activities.

3.3.1 UST Removal. On November 6, 1989, Page Brothers Excavating and Trenching was contracted to remove a 560 gallon kerosene UST from the Midwest Tanning Company property. The removal was



MIDWEST TANNING COMPANY
SITE LOCATION MAP

1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN

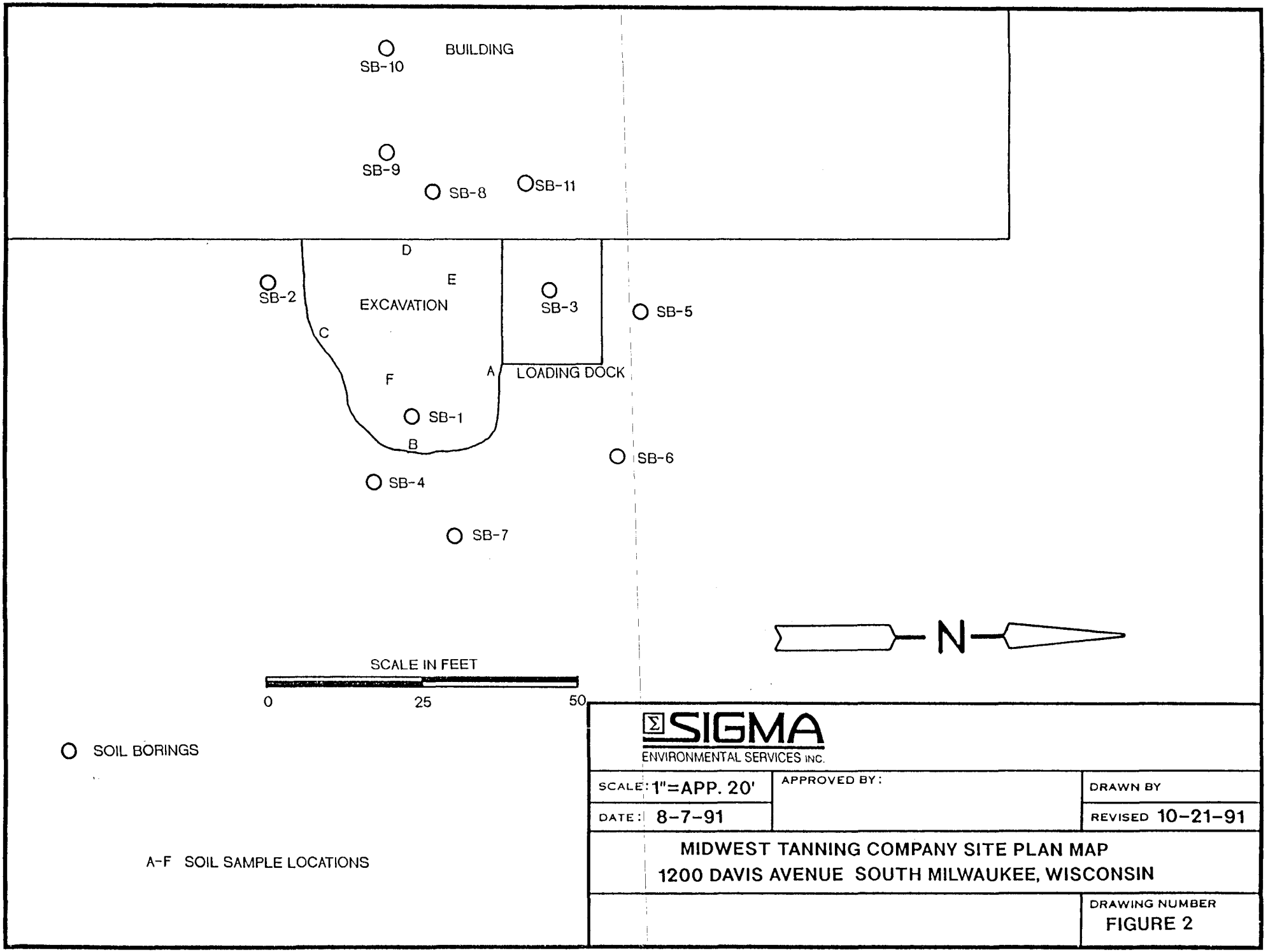
N

FIGURE 1

SCALE 1:24 000

0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 0 1 KILOMETER

ADAPTED FROM USGS SOUTH MILWAUKEE QUADRANGLE



SIGMA
ENVIRONMENTAL SERVICES INC.

SCALE: 1"=APP. 20'	APPROVED BY:	DRAWN BY
DATE: 8-7-91		REVISED 10-21-91

MIDWEST TANNING COMPANY SITE PLAN MAP
1200 DAVIS AVENUE SOUTH MILWAUKEE, WISCONSIN

DRAWING NUMBER
FIGURE 2

performed on November 30, 1989. During the removal, obvious petroleum hydrocarbon impact was identified. The WDNR was notified of the release and CBC Environmental Services (Sigma) was contacted and visited the site.

3.3.2 Preliminary Subsurface Investigation. On December 13, 1989 CBC (Sigma) supervised the advancement of four (4) investigative soil borings by Giles Engineering and Associates, Inc. The soil borings were drilled to determine the horizontal and vertical extent of impacts to native soils in the vicinity of the former UST. A soil sample from soil boring SB-1 (see Figure 2) contained TPH concentration in excess of the WDNR clean-up guideline of 10 ppm. CBC (Sigma) recommended further subsurface investigation including soil borings inside the building to determine soil quality west of the former UST location. The original UST site assessment report is presented as Appendix A.

3.3.3 Follow-up Subsurface Investigation. On March 9, 1990, four (4) additional soil borings were drilled by Giles Engineering under the supervision of CBC (Sigma). Three (3) of the soil borings were drilled to the north of the previous borings to determine if contaminants had migrated in a north-east direction and one (1) soil boring was drilled inside the Midwest Tanning Company building to determine soil quality beneath the building. Petroleum hydrocarbon impact was identified in a soil sample analyzed from soil boring SB-8 (inside building) that exceeded WDNR clean-up guidelines. Further investigation was proposed by CBC (Sigma) that included additional borings to determine extent of impact under the building and justify the over excavation of exterior impacted soils. In addition, Charles Krohn, WDNR LUST Project Manager for the site stated in a September 19, 1990, letter that "The WDNR conditionally approves the work plan/recommendations outlined by (Sigma) pending inclusion of one monitoring well to determine impacts to groundwater". The original report of a soil quality assessment is included as Appendix B.

4. REMEDIAL PROCEDURES/OBSERVATIONS

4.1 Over-excavation Procedures. On June 17, 1991, over-excavation of impacted soil in the vicinity of the former UST was performed. Sigma supervised the excavating activities conducted by C&D Investments, Ltd. Approximately 190 tons of impacted soils were hauled to Metro Landfill in Franklin, Wisconsin under profile #WMA 1221190.

Laboratory analysis of soil samples analyzed from soil borings SB-1 through SB-7 justified over-excavation as a cost-effective remedial option.

Excavated soils were sampled and field screened with a Photoionization Detector (PID) meter every 15 cubic yards to verify contamination. In addition, one (1) excavated soil sample was submitted and analyzed for DRO in compliance with WDNR requirements for confirmation of landfilled soil.

4.2 Remediation Verification Sampling. Following the excavating activities, six (6) confirmational soil samples were collected from the excavation.

A hand trowel was used to collect samples from the excavation. Four (4) samples were collected from the excavation walls and two (2) samples were collected from the base of the excavation. Preferential sample collection was given to areas visibly stained or where strong odors were evident. However, following the over-excavation, neither strong odors nor visible staining were noted.

Two (2) samples were collected from each sampling location. One sample was containerized into a four ounce glass jar and sealed with a teflon-lined cap. The sample jar was filled so that no headspace remained. Each sample was labeled and placed into a cooler for transport to the laboratory.

The second sample was containerized into a four ounce glass jar and sealed with a screw on cap. The sample jar was filled approximately 1/2 to 3/4 full to allow for headspace screening. Soil sample locations are presented in Figure 2.

4.3 Excavation Geology/Hydrogeology. Soils encountered during the excavation consisted primarily of brown and grey clays and silty clays. No groundwater was encountered during the over-excavation.

5. LABORATORY ANALYSIS RESULTS/WISCONSIN REGULATIONS

5.1 Laboratory Analysis Results. The six soil samples collected from the excavation were submitted to Swanson Environmental, Inc. for DRO analysis. Laboratory analysis revealed no elevated petroleum hydrocarbon impacts to native soils above the detection limit of the analytical method employed (<5.0 ppm). Laboratory results, including methodology, are presented as Appendix C. A summary of field screening and laboratory analytical results is presented as Table 1.

TABLE 1
EXCAVATION PERIMETER SOIL SAMPLE
FIELD SCREENING AND LABORATORY RESULTS

SEI I.D.	Sample I.D.	Location	PID Values (ppm)	DRO Analysis Results (ppm)
7474-1	A	North Wall	6.0	<5.0
7474-2	B	East Wall	N/D	<5.0
7474-3	C	South Wall	N/D	<5.0
7474-4	D	West Wall	N/D	<5.0
7474-5	E	West Base	N/D	<5.0
7474-6	F	East Base	N/D	<5.0

ppm = parts per million
N/D = less than 4.0 ppm

5.2 Wisconsin Soil Quality Regulations. The Wisconsin Department of Natural Resources (WDNR) reviews each case individually to determine if additional investigation or some type of remediation is necessary. Currently, The WDNR is enforcing a cleanup guideline of 10 ppm for diesel range organics (DRO) in soil. Laboratory results from the six (6) soil samples submitted for DRO analysis were lower than the WDNR established guidelines.

6. FINAL SUBSURFACE INVESTIGATION

6.1 Investigative Procedures. On September 24 and 26, 1991, three (3) soil borings were advanced within the Midwest Tanning Company warehouse building. The soil borings were drilled in an attempt to determine the degree and extent of soil impact under the building. Soil boring SB-9 was advanced to 13.3 feet below ground surface (bgs). Soil boring SB-10 was advanced to 10 feet bgs and soil boring SB-11 was advanced to 12 feet bgs. Soil borings SB-9, SB-10 and SB-11 were drilled with 2-¼ inch hollow-stem augers advanced by a portable General 550 drill rig. The locations of the soil borings are presented in Figure 2.

Soil samples were collected at two foot depth intervals by hand driving a Shelby Tube Sampler. Soil samples were examined and classified on the basis of their color, texture and plasticity. Subsurface soil conditions are summarized in the soil boring logs presented in Appendix E.

Two representative soil samples were collected from each sampling interval. One sample was placed in a four-ounce glass jar and sealed with a teflon-lined screw-on cap. The sample jar was filled to the top, such that no headspace remained. The samples were labeled and placed in a cooler filled with ice for possible laboratory analysis.

The duplicate sample from each sampling interval was containerized in a clean four ounce glass jar and sealed with a screw-on cap. The sample jar was filled approximately ½ - ¾ full to allow the screening of the headspace of the sample. The duplicate sample was allowed to equilibrate for twenty minutes to room temperature (65 - 75°F), then field screened for the presence of Volatile Organic Compounds by means of headspace analysis utilizing a Microtip Photoionization Detector (PID). The PID utilized a 10.6 electron volt (eV) lamp calibrated for direct response to 100 parts per million isobutylene. The sample screening results are summarized in Table 2 and presented with the soil boring logs (Appendix E).

Two (2) samples, accompanied by a Chain-of-Custody document, were submitted for laboratory analysis from each soil boring. The sampling

interval exhibiting the highest PID value from each soil boring was submitted for Diesel Range Organics and Petroleum Volatile Organic Compounds laboratory analysis to identify the maximum concentration of soil impacts. Additionally, the soil sample collected from the deepest interval of each soil boring was analyzed for Diesel Range Organics to verify the absence of impacts at depth. The soil samples were submitted to CBC Environmental Laboratories in Oak Creek, Wisconsin (WDNR Lab Certification #241283020) for analysis. CBC analytical results are presented in Appendix C.

Standard Sigma protocol for decontamination was used on all drilling equipment. This included steam cleaning all downhole equipment between soil borings with special analysis on Shelby Tube Samplers. Additionally, the Shelby Tube Samplers were washed in Alconox soap, rinsed with tap water, sprayed with Hexane and triple rinsed with deionized water.

Boreholes not converted into monitoring wells were abandoned. Boreholes were backfilled with hole plug bentonite chips to less than two feet bgs and the borehole was capped with concrete. Borehole Abandonment Forms (WDNR Form 3300-5B) are presented in Appendix E.

6.2 Investigative Laboratory Analysis Results. Information obtained during soil boring procedures and from soil sample laboratory analysis results suggest that no significant impacts the native soils underlying the Midwest Tanning Company warehouse have occurred related to the leaking kerosene UST that has since then been removed. A summary of laboratory results can be found in Table 2. Copies of the laboratory results are presented in Appendix C.

TABLE 2
FINAL SUBSURFACE INVESTIGATION
SOIL SAMPLE FIELD SCREENING
AND LABORATORY RESULTS

	SB-9 2'-3'	SB-9 12.5'-13'	SB-10 2'-2.8'	SB-10 7'-7.8'	SB-11 2-2.8'	SB-11 11.5'-12'
PID Value[1]	202	4.4	235	4.7	175	2.5
DRO Value[2] (ppm)	21[3]	<4.5	19[3]	<4.5	<4.8	<4.5
Benzene[2] (ppm)	<0.0024	—	<0.0024	—	.0024	—
Toluene[2] (ppm)	0.006	—	<0.0024	—	.049	—
Ethylbenzene[2] (ppm)	0.0036	—	<0.0024	—	.077	—
Total Xylenes[2] (ppm)	0.019	—	0.024	—	.68	—
Methyl-T-Butyl Ether[2] (ppm)	0.021	—	0.0082	—	0.0071	—
1,3,5-Trimethyl Benzene[2]	<0.0024	—	<0.0024	—	.26	—
1,2,4-Trimethyl Benzene[2]	0.0095	—	0.0035	—	.63	—

[1] PID Values are reported in ppm equivalents
[2] Dry weight result
[3] No diesel pattern match

Brief summaries of laboratory analysis results from soil samples collected during the final subsurface investigations are as follows.

SB-9. Diesel Range Organics (DRO) and Petroleum Volatile Organic Compounds (PVOC) analysis of a soil sample collected from the 2 to 3 foot interval of boring SB-9 revealed a dry result DRO concentration of 21 parts per million (ppm). However, no true diesel pattern match was detected through analysis by gas chromatograph. Additionally, trace of toluene, Ethylbenzene, Xylene, Methy-T-Butyl-ether and 1,2,4-Trimethyl Benzene were detected.

DRO analysis of a soil sample collected from the 12.5 to 13.3 foot interval of boring SB-9 failed to detect DRO concentrations above the detection limit of the analytical method employed (<4.5 ppm).

SB-10. DRO and PVOC analysis of a soil sample collected from the 2 to 2.8 foot interval of boring SB-10 revealed a dry result DRO concentration of 19 ppm. However, no true diesel pattern match was detected through analysis by gas chromatograph. Additionally, trace concentrations of Xylene, Methyl-t-butyl-ether and 1,2,4-Trimethyl Benzene were detected.

DRO analysis of a soil sample collected from the 7 to 7.8 foot interval of boring SB-10 failed to detect DRO concentrations above the detection limit of the analytical method employed (<4.5 ppm).

SB-11. DRO and PVOC analysis of a soil sample collected from the 2 to 2.8 foot interval of boring SB-11 failed to detect DRO concentrations above the detection limit of the analytical method employed (<4.8 ppm). Additionally, low concentrations of Benzene, Toluene, Ethylbenzene, Xylene, Methyl-t-butyl Ether, 1,3,5-Trimethyl Benzene and 1,2,4-Trimethyl Benzene were detected.

DRO analysis of a soil sample collected from the 11.5 to 12 foot interval of boring SB-11 failed to detect DRO concentrations above the detection limit of the analytical method employed (<4.5 ppm).

A detailed method summary of DRO analysis is presented in Appendix C.

Groundwater was not encountered during the final subsurface investigation. The absence of DRO concentrations above the detection limit of the analytical method employed in soil samples collected from the deepest intervals of the soil borings installed inside the warehouse building suggest that groundwater has not been adversely impacted by the now removed kerosene UST.

7. SUMMARY AND CONCLUSION

The following project summary is based on the observations and data obtained during the remediation by over-excavation performed at the Midwest Tanning Company in South Milwaukee, Wisconsin.

- A 560 gallon kerosene tank was removed from the site on November 30, 1989.

- Petroleum Hydrocarbon impacts were observed during the UST removal.

- Two of the eight (8) soil borings drilled during previous subsurface investigations revealed TPH concentrations in excess of WDNR guidelines. Specifically, SB-1 and SB-8 were reported at 120 and 1100 ppm Total Petroleum Hydrocarbons, respectively.

- A permit was obtained for disposal of impacted soils at Metro Landfill in Franklin, Wisconsin (Profile #WMA122190).

- Approximately 190 tons of petroleum hydrocarbon impacted soils were excavated, transported and landfilled.

- Native soils in the excavation consisted of brown and grey clays and silty clays.

- Excavated soils were field screened at least every 15 cubic yards to confirm impact.

- One soil sample was submitted and analyzed for DRO in compliance with landfilling requirements.

- Six confirmational soil samples were collected from the excavation following the removal of impacted soils and analyzed for DRO.

- Laboratory results confirm that DRO concentrations in soil samples collected from the base and sidewalls of the excavation are lower than the detection limit of the analytical methods employed.

- The excavation was back filled to grade with clean sand and gravel fill.

- Three (3) soil borings were advanced within the warehouse building west of the former kerosene UST.

- Soil samples collected during soil boring operations were analyzed for DRO and PVOC concentrations.

- All accessible impacted soils were removed and landfilled during this remedial activity. Further remediation by over-excavation is not possible without threatening the structural integrity of the Midwest Tanning Company building and loading dock area.

- Groundwater was not encountered during the over-excavation or soil boring operations.

8. RECOMMENDATIONS

Based upon observations and data obtained during this project, previous investigations, and WDNR requirements, Sigma Environmental Services, Inc. requests that clean closure be granted to Midwest Tanning Company for this project.

9. LIMITATIONS OF INVESTIGATIONS

This report was prepared under constraints of cost, time, and scope, and reflects a limited assessment and evaluation rather than a full, total, complete or extensive assessment and evaluation.

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.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentrations of certain chemical constituents in samples taken from the subject property. Sigma Environmental Services, Inc. has no control over such testing and analysis and therefore, disclaims any responsibility for any errors and omissions arising therefrom.

A subsurface exploration was performed and presented in this report. However, subsurface exploration cannot reveal totally what is below the surface. Depending upon the sampling method and frequency, every soil condition may not be observed, and some materials or layers which are present in the subsurface may not be noted.

This report is issued with the understanding that it is the responsibility of the owner(s) to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agency(ies).

This report has been prepared specifically for Midwest Tanning Company. Reproduction or distribution of this report should not be performed without written consent of Midwest Tanning Company and Sigma.

APPENDIX A
A REPORT FOR AN UNDERGROUND STORAGE TANK SITE ASSESSMENT

A REPORT FOR AN UNDERGROUND STORAGE TANK SITE ASSESSMENT

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN

PREPARED FOR:
MR. FRED SCHIMIAN
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN 53172

PREPARED BY:
CRAIG A. VARLAND
PROJECT SUPERVISOR
CBC ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD
OAK CREEK, WISCONSIN 53154

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I. INTRODUCTION

Chem-Bio Corporation (CBC) Environmental Services of Oak Creek, Wisconsin, has been retained by Mr. Fred Schimian of Midwest Tanning Company, to conduct a soils assessment at the facility located at 1200 Davis Avenue in South Milwaukee, Wisconsin. The purpose of the assessment was to determine the extent of soil contamination at the location of a former underground storage tank. The tank had been removed prior to this assessment. This report details the results of the initial phase of the soils study performed on December 13, 1989.

II. SUBSURFACE INVESTIGATION

Work conducted at the site during this portion of the investigation included drilling profile soil borings and collecting samples for analysis.

Four (4) profile soil borings were drilled to total depths ranging from eleven (11) to sixteen (16) feet (see Site Map). Borings were drilled on December 13, 1989, by Giles Engineering. Boring logs are found at Appendix A. During advancement of the auger, split-spoon samples were collected at 2.5 foot intervals to 10 feet, and at 5 foot intervals to completion in Borings SB-2 and SB-3. Borings SB-1 and SB-4 were sampled at 2.5 foot intervals to completion. Two (2) samples at each interval were collected.

One (1) sample was immediately containerized in a glass jar, sealed with a teflon-lined cap and placed into a cooler. The other sample was allowed to warm to room temperature and was tested for volatile compounds utilizing a Photovac Photoionization Detection (PID) Meter. PID results are included with the boring logs in Appendix A.

One sample from each boring displaying the highest PID value was accompanied with a Chain-of-Custody and transported to the CBC laboratory for analysis of Total Petroleum Hydrocarbons (TPH). In addition, a composite sample of the excavated soils was submitted for analysis of those parameters required for the acquisition of a disposal permit. The laboratory results are presented in Appendix B.

All downhole drilling equipment (augers, drill rods, and spoons) were steam cleaned prior to mobilization to the site. Between each boring, split-spoons were rinsed with hexane and triple rinsed with deionized water. In addition, split-spoons were washed with an alconox soap solution and a final rinse between each sampling interval. All borings were grouted after completion with Baroid Holeplug$_{TM}$.

III. SOIL QUALITY

Laboratory results show that the sample collected from SB-1 exceeded Wisconsin Department of Natural Resources (WDNR) general soil guidelines of 10 parts per million (ppm) for Total Petroleum Hydrocarbons. Samples from SB-2, SB-3, and SB-4 were at Total Petroleum Hydrocarbon (TPH) concentrations of less than 4 ppm.

IV. SITE GEOLOGY

The regional geology of the area is dominated by Pleistocene-age deposits of the Wisconsinan stage glaciation. Locally, the predominant glacial till is the Oak Creek Formation. The Oak Creek Formation includes fine-grained till, lacrustrine clay, silt, and sand, and some glaciofluvial sand and gravel.

Soils encountered in the soil borings consisted of brown and gray clayey-silts to silty-clays. Groundwater was not encountered in the borings.

V. REGULATIONS

The State of Wisconsin has not established standards for the levels of contaminants detected in soil. The Wisconsin Department of Natural Resources (WDNR) evaluates each situation separately to determine if the existence of contaminants in soils will have an adverse effect on the groundwater or otherwise on the environment and public health. The WDNR has stated that corrective action is required if the level of Total Petroleum Hydrocarbons in soils is above 10 ppm.

VI. CONCLUSIONS

The preliminary soil quality assessment at 1200 Davis Avenue in South Milwaukee, Wisconsin, is completed. The following conclusions are made based on the preliminary study:

1. The site geology consists of brown and gray clayey-silts and silty-clays.

2. Hydrocarbons were identified at shallow depths in SB-1; however, lateral migration eastward was not detected in SB-4. PID screens of samples in SB-3 and SB-4 revealed the presence of volatile organic compounds.

3. Soil quality west of the former tank has not been established.

4. Groundwater was not encountered in the borings on site. The thickness of the silty clay formation suggests that groundwater has not been impacted.

VII. RECOMMENDATIONS

As a result of our preliminary findings, the following recommendations are offered:

1. Determine possible lateral contaminant migration west of the former underground tank by installing a soil boring inside the building.

2. Submit a sample for a solvent scan and TPH analysis.

3. Install additional borings near SB-3 and SB-4. Submit samples for solvent scan analysis to identify compounds detected by previous PID screens.

APPENDIX A
SOIL BORING LOGS

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-4 Completion Date: 12/13/89

Drilling Co: Giles Engineering Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Change		MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	7	15	17	18"		2-3.5'	GRAY-BROWN MOTTLED SILT. TRACE COARSE SAND	46.5	*
2	13	14	17	21"		4.5-6'	BROWN MOTTLED CLAYEY SILT. TRACE SMALL GRAVEL	12.3	
3	8	11	15	15"		7-8.5'	BROWN SILT IN TIP WITH BROWN MOTTLED CLAYEY SILT ABOVE	2.5	
4	8	7	8	14"	10"	9.5-11'	GRAY SILTY CLAY WITH TRACE COARSE SAND	1.5	
							BORING TERMINATED AT 11'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

Page 1 of 1

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-3 Completion Date: 12/13/89

Drilling Co: Giles Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Change	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
								Strong Odor
1	11	14	14	22"		2-3.5' GREEN-BLACK-BROWN MOTTLED SILT WITH DECAYED ORGNAIC MATTER	23.8	
2	11	14	15	21"		4.5-6' BROWN SILT VERY FINE SAND (WET)	45.2	* Strong Odor
3	7	7	9	22"		7-8.5' BROWN-GRAY, CLAYEY SILT WITH TRACE COARSE SAND	4.5	Odor
4	5	7	9	20"		9.5-11' GRAY CLAYEY SILT, VERY FINE SAND	3.5	
5	16	30	18	24"	15.5	14.5-16' GRAY SILT VERY FINE SAND (WET)	3.0	
						BORING TERMINATED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-2 Completion Date: 12/13/89

Drilling Co: Giles Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	12	15	20"		2-3.5' BROWN SILTY CLAY WITH COARSE SAND TRACE ORGANICS	7.3	*
2	10	15	20	22"		4.5-6' BROWN SILTY CLAY WITH COARSE SAND. TRACE ORGANICS	3.9	
3	12	15	19	22"		7-8.5' BROWN CLAYEY SILT-SILTY CLAY WITH TRACE MEDIUM SAND	4	
4	5	6	8	20"	10'	9.5-11' SOFT GRAY SILTY CLAY WITH VERY FINE SAND	1.8	Moist
5	4	4	9	14"		14.5-16' SOFT GRAY SILTY CLAY WITH VERY FINE SAND AND SMALL GRAVEL (WET).	N/D	
						BORING TERMINATED AT 16'		

5 10 15 20 25 30 35 40

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-1 Completion Date: 12/13/89

Drilling Co: Giles Engineering Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Change	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	10	12	20"		2-3.5' GRAY-BROWN MOTTLED SILT WITH VERY FINE SAND	2.5	
2	7	8	10	18"		4.5-6' GRAY-BROWN MOTTLED CLAYEY SILT WITH TRACE OF COARSE SAND	55.9*	Moist. Odor
3	13	17	24	18"		7-8.5' BROWN SILTY CLAY WITH COARSE SAND	3.5	
4	5	8	8	18"	9.5	9.5-11' GRAY SILTY-CLAY WITH SOME COARSE SAND	1.6	Moist
5	4	6	9	13"		12-13.5' SOFT GRAY SILTY CLAY WITH TRACE COARSE SAND. 1½" SEAM VERY FINE SAND AT 13'	3.3	Moist
6	9	17	23	18"		14.5-16' GRAY SILTY CLAY IN TIP GRAY CLAYEY-SILT ABOVE	3.4	
						BORING TERMINATED AT 16'		

APPENDIX B
LABORATORY RESULTS

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M02601 SOIL/BORING/SB-1(4-5.6')
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	120	PPM
	KEROSENE.	BASED ON SIMILARITIES TO KEROSENE
	STANDARD.	

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

CHEM-BIO CORPORATION
ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

12/22/89 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04845 SOIL/BORING/SB-2(2-3.5')
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

12/29/89 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04846 SOIL/BORING SB-3/4.5-6'
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL URS

ENVIRONMENTAL SERVICES
CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

12/21/89 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04847 SOIL/BORING SB-4/2-3.5'
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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

For Office Use Only: Tank ID # 40220-73

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (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.

This registration applies to a tank that is (check one).

1. [ ] In Use
2. [ ] Abandoned With Product
3. [ ] Abandoned No Product (empty) or With Water
4. [X] Abandoned - Tank Removed
6. [ ] Abandoned - Filled With Inert Material
7. [ ] Out of Service

Fire Department Providing Fire Coverage Where Tank Located: SOUTH MILWAUKEE FIRE DEPARTMENT

A. IDENTIFICATION: (Please Print)

1 Installation Name: MIDWEST TANNING CO.

2 Mailing Name if Different Than #1:

Installation Street Address: 1200 DAVIS AVE

Mailing Address if Different Than #1: P.O. BOX 189

[X] City [ ] Village [ ] Town of: SOUTH MILWAUKEE

[ ] City [ ] Village [ ] Town of:

State: WI Zip Code: 53172 County: MILWAUKEE

State: Zip Code: County:

3 Name of Contact Person: FRED SCHIMIAN

4 Owner Name if Different Than #3: MARMON GROUP

Street Address:

Street Address: 225 W. WASHINGTON STREET

[ ] City [ ] Town [ ] Village of: State: Zip Code:

[X] City [ ] Town [ ] Village of: CHICAGO State: ILL Zip Code: 60603

County: Telephone No (include area code): 414-768-7000

County: Telephone No (include area code):

5 Tank Age (date installed, if known; or years old): 1970

6 Tank Capacity (gallons): 560

7 Tank Manufacturer's Name (if known): UNKNOWN

RECEIVED FEB 7 1990 DILHR SAFETY & BUILDINGS

B. TYPE OF USER (check one):

1. [ ] Gas Station
2. [ ] Bulk Storage
3. [ ] Utility
4. [ ] Mercantile
5. [X] Industrial
6. [ ] Government
7. [ ] School
8. [ ] Residential
9. [ ] Agricultural
10. [ ] Other (specify):

C. TANK CONSTRUCTION:

1. [X] Bare Steel
2. [ ] Cathodically Protected and Coated Steel ([ ] Sacrificial Anodes or [ ] Impressed Current)
3. [ ] Coated Steel
4. [ ] Fiberglass
5. [ ] Other (specify):
6. [ ] Relined
7. [ ] Steel - Fiberglass Reinforced Plastic Composite

Is tank UL Approved? [ ] Yes [ ] No

Is Tank Double Walled? [ ] Yes [ ] No

Overfill Protection Provided? [ ] Yes [ ] No If yes, identify type:

D. PIPING CONSTRUCTION

1. [X] Bare Steel
2. [ ] Cathodically Protected Steel (With Coating? [ ] Yes [ ] No)
3. [ ] Coated Steel
4. [ ] Fiberglass
5. [ ] Other (specify):
6. [ ] Unknown

Cathodic Protection By: [ ] Sacrificial Anodes or [ ] Impressed Current | UL Approved? [ ] Yes [ ] No | 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. [X] Kerosene
15. [ ] Aviation

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

If Tank Abandoned, Give Date (mo/day/yr): 11-30-89

Has Clean Closure Status Been Verified? (see reverse side for details) [ ] Yes [X] No

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

1. [ ] Fire Department 2. [ ] DILHR 3. [ ] Other (identify)

90-02-07

Signature of Person Completing Report: [signature]

Date Signed: 2-5-90

6L

SBD 7437 (R 08/88)

APPENDIX B
SOILS QUALITY ASSESSMENT

SOILS QUALITY ASSESSMENT
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN

PREPARED FOR:
MR. FRED SCHIMIAN
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN 53172

PREPARED BY:
CRAIG A. VARLAND
PROJECT SUPERVISOR
CBC ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD
OAK CREEK, WISCONSIN 53154

APRIL 17, 1990

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

I. INTRODUCTION

Chem-Bio Corporation (CBC) Environmental Services of Oak Creek, Wisconsin, has been retained by Mr. Fred Schimian of Midwest Tanning Company, to conduct an additional soils assessment at 1200 Davis Avenue in South Milwaukee, Wisconsin. The purpose of the additional work was to determine soil quality beneath the building adjacent to a former underground storage tank (UST) and to attempt to identify volatile organic compounds detected in previous borings drilled adjacent to the UST. This report details the results of additional field activities performed on March 9, 1990.

II. PREVIOUS WORK

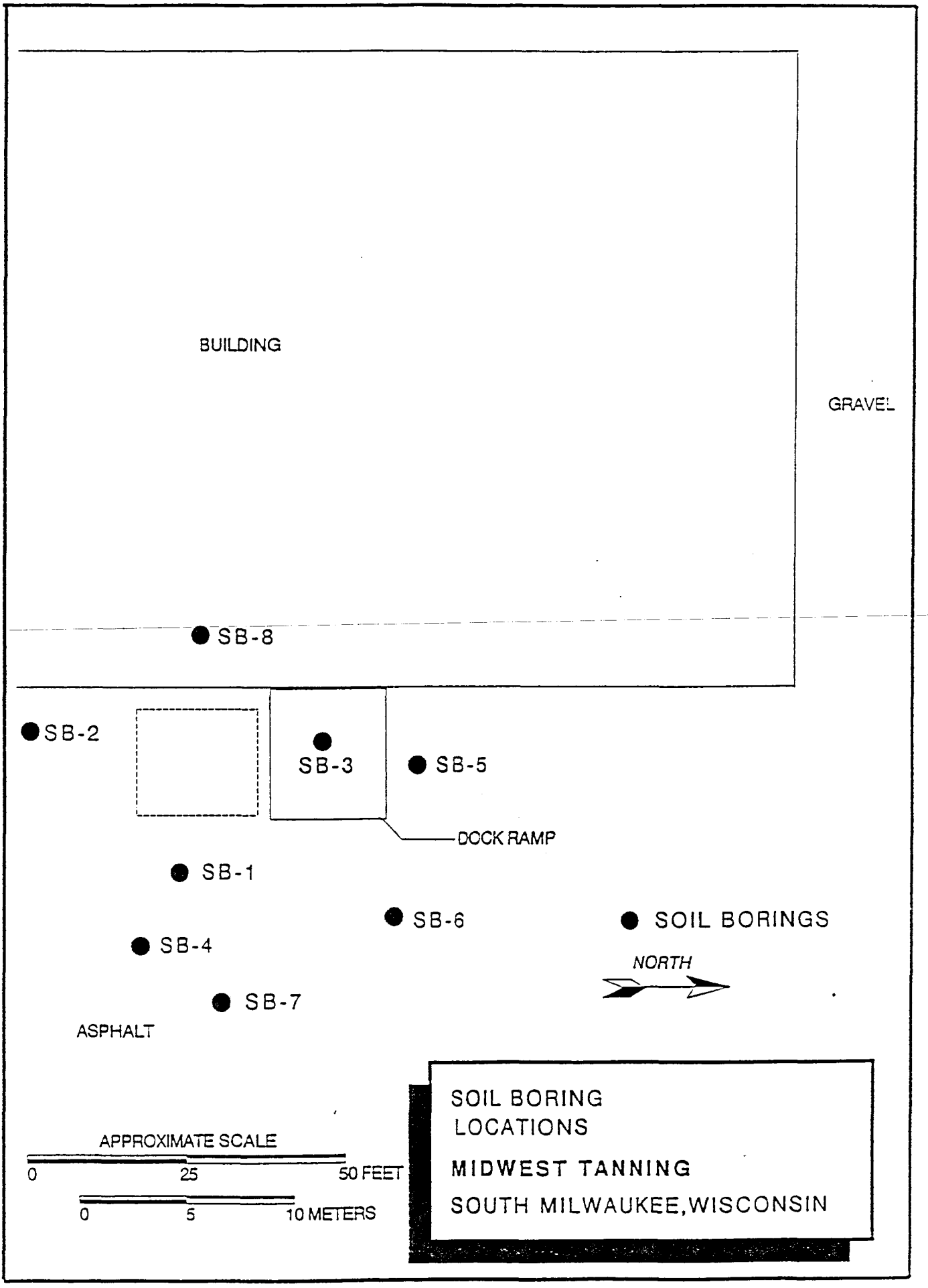
Previous work had been completed on December 13, 1989, by CBC. Samples collected from SB-1 (see Soil Boring Location Map) exceeded Wisconsin Department of Natural Resources (WDNR) general soil guidelines of 10 parts per million (ppm).

In "A report for an Underground Storage Tank Site Assessment", dated January 18, 1990, CBC recommended additional borings to identify compounds detected by PID screens of samples previously collected and to determine soil quality west of the former underground tank.

III. SUBSURFACE INVESTIGATION

Work conducted at the site during this portion of the investigation included drilling one (1) boring inside the warehouse west of the former UST location and three (3) additional borings north and east of the excavation (see Soil Boring Location Map).

Three (3) borings were drilled near the former tank location to total depths ranging from eleven (11) to sixteen (16) feet.


BUILDING
GRAVEL
SB-8
SB-2
SB-3
SB-5
DOCK RAMP
SB-1
SB-6
SOIL BORINGS
SB-4
NORTH
SB-7
ASPHALT
APPROXIMATE SCALE
0
25
50 FEET
0
5
10 METERS
SOIL BORING LOCATIONS
MIDWEST TANNING
SOUTH MILWAUKEE, WISCONSIN

One (1) boring was placed inside the warehouse and was drilled to a depth of 9.4 feet. Borings were drilled on March 9, 1990, by Giles Engineering. During advancement of the auger, split-spoon samples were collected. Two (2) samples were collected at each sampling interval.

One (1) sample from the split-spoon sampler was immediately containerized in a glass jar, sealed with a teflon-lined cap and placed into a cooler. The other sample was allowed to warm to room temperature and was screened for volatile organic compounds utilizing a Photovac$_{TM}$ Photoionization Detector (PID) meter. PID results for all samples collected are included with the boring logs in Appendix A. One sample from each boring displaying the highest PID value was accompanied with a Chain-of-Custody document and transported to the CBC laboratory for analysis. Samples from all borings were submitted for solvent scan analysis. In addition, the sample from boring SB-8 was analyzed for total petroleum hydrocarbons (TPH). Laboratory results are presented in Appendix B.

All downhole equipment (augers, drill rods, and spoons) were steam cleaned prior to mobilization to the site. Between each boring, split-spoons were rinsed with hexane and triple rinsed with deionized water. In addition, split-spoons were washed with an alconox soap solution and a final rinse between each sampling interval. All borings were grouted after completion with Baroid Holeplug$_{TM}$.

IV. SOIL QUALITY

Laboratory results show that solvent scan analysis for the samples submitted did not detect or confirm any significant levels of the compounds analyzed. However, the sample from inside the building (SB-8 / 5.4-6 foot depth) showed total petroleum hydrocarbon concentrations of 2800 ppm).

Laboratory analysis of the sample previously collected from SB-1 (January 1990 report) had identified kerosene in concentrations of 120 ppm. The sample collected from SB-8 on March 9, 1990, identified kerosene in concentrations of 1100 ppm. Laboratory results are presented as Appendix B.

V. SITE GEOLOGY

The regional geology of the area is dominated by Pleistocene age deposits of the Wisconsinan stage glaciation. Locally, the predominant glacial till is the Oak Creek formation. The Oak Creek formation includes fine-grained till, lacrustrine, clay, silt, and sand, and some glaciofluvial sand and gravel.

Soils encountered in the soil borings consisted of brown and gray clayey-silts to silty-clays. Groundwater was not encountered in the borings.

VI. REGULATIONS

The State of Wisconsin has not established standards for the levels of contaminants detected in soil. The Wisconsin Department of Natural Resources (WDNR) evaluates each situation separately to determine if the existence of contaminants in soils will have an adverse effect on the groundwater or otherwise on the environment and public health. The WDNR has stated that corrective action is required if the level of total petroleum hydrocarbons in soils is above 10 ppm.

VII. CONCLUSIONS

The additional soil quality assessment work at 1200 Davis Avenue in South Milwaukee, Wisconsin, is completed. The following conclusions are made based on field activities conducted at the site.

1) The site geology consists of brown and gray clayey-silts and silty-clays.

2) Hydrocarbons were identified at shallow depths in SB-1 and SB-8 at concentrations of 120 ppm and 1100 ppm respectively.

3) Conformational solvent scan analysis of positive soil samples did not detect or confirm any significant levels.

4) Groundwater was not encountered in the borings on site. The presence of an impermeable silty clay formation suggests that groundwater has not been impacted.

VIII. RECOMMENDATIONS

As a result of our preliminary findings, the following recommendations are offered.

1) Drill additional borings inside the building to determine the lateral and vertical extent of contaminants revealed at SB-8.

2) Remove contaminated soils in and around the former tank location to the extent practicable.

APPENDIX A
SOIL BORING LOGS

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING
Location: South Milwaukee Start Date: 3/9/90
Boring Number: SB-5 Completion Date: 3/9/90
Drilling Co: Giles Eng. Rig: Mobile B-47
Driller: Rollie Auger or Casing Size: 2¼"
Helper: John Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
1 hour reading	3/9/90	2:30PM	3.2' (Perched)	
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	3	5	6	19"		2-3.5' Green-gray-brown motled silty clay with trace fine-medium sand	37.8	Odor
2	6	11	17	18"		4.5-6' Brown-gray mottled clayey silt with brick, limestone	42.2	Fill, odor
3	20	10	8	18"	8'	7-8.5' Gray-brown clayey silt, drove rock	19.7	Odor, natural material
4	9	9	9	24"	10.5	9.5-11' Gray clayey silt in tip, brown clayey silt above, trace clayey sand	19.8	Odor
							9.8	
5	11	17	16	18"		12-13.5' Gray clayey silt with trace fine-coarse sand		
6	13	16	15	20"		14.5-16' Gray silty clay in tip, 6" layer wet very fine sand above	13.6	
						BORING TERMIANTED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 3/9/90

Boring Number: SB-6 Completion Date: 3/9/90

Drilling Co: Giles Eng. Rig: B-47

Driller: Rollie Auger or Casing Size: 2¼"

Helper: John Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge		MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	4	6	8	20"		2-3.5'	Gray-brown mottled clayey silt with very fine sand, trace coarse sand	8.2	
2	7	7	8	20"		4.5-6'	Brown clayey silt with very fine-medium sand, trace coarse sand	8.5	
				18"				6.1	
3	6	7	9			7-8.5'	Same		
4	9	4	4	20"	9.5"	9.5-11'	Gray silty clay, trace coarse sand	4.8	
5	14	9	12	18"	15.7	14.5-16'	Gray silt very fine-fine sand in tip, gray silty clay above	6.5	
							BORING TERMINATED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING
Location: South Milwaukee Start Date: 3/9/90
Boring Number: SB-7 Completion Date: 3/9/90
Drilling Co: Giles Eng. Rig: B-47
Driller: Rollie Auger or Casing Size: 2¼"
Helper: John Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	11	13	17"		2-3.5' Gray-brown mottled silt, trace clay	5.5	
2	7	13	15	21"		4.5-6' Brown silt with very fine sand, trace clay	2.3	
3	7	15	13	24"		7-8.5' Gray-brown clayey silt, trace coarse sand	3.5	
4	8	7	9	22"	10'	9.5-11' Gray silty clay, trace coarse sand	4.0	Moist
						BORING TERMIANTED AT 11'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Boring inside building, west of UST

Client: MIDWEST TANNING
Location: South Milwaukee — Start Date: 3/9/90
Boring Number: SB-8 — Completion Date: 3/9/90
Drilling Co: Giles Eng. — Rig: Mobile Minuteman
Driller: Rollie — Auger or Casing Size: 3" O.D.
Helper: John — Hole Advanced By: ☐ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6 6/12 12/18	Sample Recovery	Material Change	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1		5"		.9-1.5' Black silt with fine-coarse sand	66.3	Strong odor
2		6"		3.0-3.6' Dark gray-green mottled clayey silt with fine-coarse sand	30.9	Strong odor
3		5"		5.4-6.0' Brown clayey silt with trace coarse sand. Moist.	119	Odor
4		6"		8.8-9.4' Same		
				BORING TERMINATED AT 9.4'	27	

APPENDIX B
LABORATORY RESULTS

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

04/11/90 LABORATORY REPORT

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M09683 SOIL/SOUTH MILWAUKEE/SB-5/4.5-6'/PID=42.2
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL M-Th

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

04/09/90 LABORATORY REPORT

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04845 SOIL/SOUTH MILWAUKEE/SB-6/(4.5 - 6')/PID = 8.5
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.E.A. ACCREDITED
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04846 SOIL/SOUTH MILWAUKEE/SB-7/(2-3.5')/PID = 5.5
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL M.T.

CHEM-BIO CORPORATION
ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

04/18/90 LABORATORY REPORT

M066 8447132 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04847 SOIL/SOUTH MILWAUKEE/SB-8/(5.4-6') PID = 119
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS	
TRICHLOROFLUOROMETHANE	<0.010	PPM	!
ETHYL ETHER	<0.010	PPM	!
METHANOL	<0.010	PPM	!
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM	!
ETHANOL	<0.010	PPM	!
ACETONE	<0.010	PPM	!
METHYLENE CHLORIDE	<0.010	PPM	!
ISOPROPANOL	<0.010	PPM	!
CARBON TETRACHLORIDE	<0.010	PPM	!
ETHYL ACETATE	<0.010	PPM	!
METHYL ETHYL KETONE	<0.010	PPM	!
1,1,1-TRICHLOROETHANE	<0.010	PPM	!
BENZENE	<0.010	PPM	!
TRICHLOROETHYLENE	<0.010	PPM	!
ISOBUTANOL	<0.010	PPM	!
N-BUTANOL	<0.010	PPM	!
TOLUENE	<0.010	PPM	!
2-ETHOXYETHANOL	<0.010	PPM	!
METHYL ISOBUTYL KETONE	<0.010	PPM	!
TETRACHLOROETHYLENE	<0.010	PPM	!
BUTYL ACETATE	<0.010	PPM	!
ETHYLBENZENE	<0.010	PPM	!
XYLENES	<0.010	PPM	!
STYRENE	<0.010	PPM	!
2-ETHOXYETHYL ACETATE	<0.010	PPM	!
2-BUTOXYETHANOL	<0.010	PPM	!
CYCLOHEXANONE	<0.010	PPM	!
CHLOROBENZENE	<0.010	PPM	!
O-DICHLOROBENZENE	<0.010	PPM	!
CARBON DISULFIDE	<0.010	PPM	!
CHLOROFORM	<0.010	PPM	!
TOTAL PETROLEUM HYDROCARBONS	1100	PPM	!

BASED ON SIMILARITIES TO KEROSENE STANDARD
KEROSENE. AMENDED RESULT DUE TO REEVALUATION OF

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.

! = REPRINT N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL MFZ

ENVIRONMENTAL SERVICES
CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

M066 8447132 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04847 SOIL/SOUTH MILWAUKEE/SB-8/(5.4-6') PID = 119
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
CHROMATOGRAM. 4-18-90		

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

APPENDIX C
LABORATORY ANALYTICAL REPORTS INCLUDING METHODOLOGY

SWANSON ENVIRONMENTAL INC.

3150 North Brookfield Road
Brookfield, Wisconsin 53045
telephone (414) 783-8111
facsimile (414) 783-5752

AIHA Accreditation #352
WDNR Certification #268181760

ANALYTICAL REPORT

REPORT NUMBER: B5782

Signa Environmental
9555 South Howell Avenue
Oak Creek, WI 53154

Attn: Mr. Craig Varland

DATE: July 12, 1991
PURCHASE ORDER:
SEI JOB NO: WL7474
DATE COLLECTED: 07/02/91
DATE RECEIVED: 07/02/91

Soil Samples

Units: mg/kg (ppm)

SEI ID	Sample ID	Total Petroleum Hydrocarbons* (DRO)
7474-1	A	<5
7474-2	B	<5
7474-3	C	<5
7474-4	D	<5
7474-5	E	<5
7474-6	F	<5

* Concentration based on a diesel fuel standard using the State of California Method.

~~Reviewed~~ & Approved by:

Rosemary L. Dineen
Laboratory Director

ORIGINAL

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

06/28/91 LABORATORY REPORT PAGE 1

C739 8464099 W21

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: CRAIG VARLAND

SAMPLE 91168-C11529 SOIL/METRO CONFIRMATORY SAMPLE/MIDWEST TANNING
CAV0079
DATE COLLECTED 06/17/91 DATE RECEIVED 06/17/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	13	%	06/25/91	ASTM D1744	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
DIESEL RANGE ORGANICS	160	180	PPM	06/21/91	MOD.CALIF.METHD
	STANDARD OBTAINED FROM NEARBY VENDOR				
DRO EXTRACTION -- SOIL	06/18/91			06/18/91	SW846 3540

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.
$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL Kmm/M.T.

140 East Ryan Road, Oak Creek, WI 53154-4599 • 414-764-7005 • FAX 414-764-0486 • 1-800-365-3840
Client Services Direct Line 414-768-7460 • WI DNR Lab Certification #241283020 • IEPA Lab Certification #100243

CHEM-BIC CORPORATION

ENVIRONMENTAL SERVICES

140 E. RYAN RD.
OAK CREEK, WI 53154
(414) 764-7005
1-800-365-3840

CHAIN OF CUSTODY

No. 38254

PLEASE PRESS FIRMLY WHEN WRITING

CLIENT	
PROJECT LOCATION	
QUOTE NUMBER	

SAMPLER *(Signature)*	AFFILIATION	DATE	TIME

PURPOSE OF ANALYSIS

DRO + PVOC

ITEM NUMBER	NUMBER AND SIZE OF CONTAINERS	DESCRIPTION	TRANSFER NUMBER 1	2	3	4	5
1							

TRANSFER NUMBER	ITEM NUMBER	RELINQUISHED BY *(Signature)*	ACCEPTED BY *(Signature)*	DATE	TIME
1					
2					3:40
3					
4					
5					

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467263 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11535 B-9/2-3/PID = 202/MIDWEST TANNING CO./CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	16	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
BENZENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
TOLUENE	0.005	0.006	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.003 PPM				
ETHYLBENZENE	0.003	0.0036	PPM	10/04/91	SW846 8020
TOTAL XYLENES	0.016	0.019	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.013 PPM				
METHYL TERT BUTYL ETHER	0.018	0.021	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.005 PPM				
1,3,5 - TRIMETHYL BENZENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
1,2,4 - TRIMETHYL BENZENE	0.008	0.0095	PPM	10/04/91	SW846 8020
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	18	21	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	14	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.
$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467263 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11537 B-11/2-2.8/PID = 175/MIDWEST TANNING CO./CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	16	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
BENZENE	0.002	0.0024	PPM	10/04/91	SW846 8020
TOLUENE	0.041	0.049	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.003 PPM				
ETHYLBENZENE	0.065	0.077	PPM	10/04/91	SW846 8020
TOTAL XYLENES	0.57	0.68	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.013 PPM				
METHYL TERT BUTYL ETHER	0.006	0.0071	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.005 PPM				
1,3,5 - TRIMETHYL BENZENE	0.22	0.26	PPM	10/04/91	SW846 8020
1,2,4 - TRIMETHYL BENZENE	0.53	0.63	PPM	10/04/91	SW846 8020
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	<4.0	<4.8	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	14	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.
$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

CHEM-BIO CORPORATION
ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467263 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11536 B-10/2-2.8/PID = 235/MIDWEST TANNING CO./CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	15	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
BENZENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
TOLUENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.003 PPM				
ETHYLBENZENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
TOTAL XYLENES	0.020	0.024	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.013 PPM				
METHYL TERT BUTYL ETHER	0.007	0.0082	PPM	10/04/91	SW846 8020
	BLANK CONCENTRATION = 0.005 PPM				
1,3,5 - TRIMETHYL BENZENE	<0.002	<0.0024	PPM	10/04/91	SW846 8020
1,2,4 - TRIMETHYL BENZENE	0.003	0.0035	PPM	10/04/91	SW846 8020
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	16	19	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	14	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.
$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

CHEM-BIO CORPORATION

ENVIRONMENTAL SERVICES

140 E. RYAN RD.
OAK CREEK, WI 53154
(414) 764-7005
1-800-365-3840

CLIENT

PROJECT LOCATION

QUOTE NUMBER

CHAIN OF CUSTODY

No. 38253

PLEASE PRESS FIRMLY WHEN WRITING

SAMPLER *(Signature)*	AFFILIATION	DATE	TIME

PURPOSE OF ANALYSIS

DRO

ITEM NUMBER	NUMBER AND SIZE OF CONTAINERS	DESCRIPTION	TRANSFER NUMBER 1	2	3	4	5
1	1 4oz	B-1 / 12.5-13.3 / PID 4.4		1153	2	10/1	
2		B-10 / 2.-2.5 / PID 7.7		1153	3	10/1	
3		B-11 / 11.5-12 / PID 2.5		1153	4	10/1	
			1534				

TRANSFER NUMBER	ITEM NUMBER	RELINQUISHED BY *(Signature)*	ACCEPTED BY *(Signature)*	DATE	TIME
1					
2				9/25/91	3:40
3					
4					
5					

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467275 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11532 B-9/12.5-13.3/PID = 4.4/MIDWEST TANNING CO.
CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	11	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	<4.0	<4.5	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	13	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

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IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467275 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11533 B-10/7.0-7.8/PID = 4.7/MIDWEST TANNING CO.
CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	12	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	<4.0	<4.5	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	14	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
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IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL WRS

CHEM-BIO CORPORATION

ENVIRONMENTAL LABORATORIES

10/16/91 LABORATORY REPORT

C739 8467275 W61

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: STEVE BENTON

CHAIN OF CUSTODY

SAMPLE 91268-C11534 B-11/11.5-12/PID = 2.5/MIDWEST TANNING CO.
CAV0079
DATE COLLECTED 09/25/91 DATE RECEIVED 09/25/91
PRESERVED: NO TEMPERATURE: ON ICE
INTEGRITY: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
% MOISTURE	12	%	09/26/91	SW846 5030	

TEST NAME	WET RESULT	DRY RESULT	UNITS	ANALYZED	METHOD
DRO EXTRACTION - SOIL	COMPLETE			09/30/91	SW846 3540
DIESEL RANGE ORGANICS	<4.0	<4.5	PPM	10/11/91	MOD CA METHOD
	STANDARD OBTAINED FROM NEARBY VENDOR				
BLANK CONCENTRATION (DRO)	12	14	PPM	10/11/91	MOD CA METHOD
DIESEL	N/A		PPM	10/11/91	MOD CA METHOD
	NOT APPLICABLE; NO DIESEL PATTERN MATCH.				

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED
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$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

DIESEL RANGE ORGANICS (DRO)

METHOD SUMMARY

1. Summary of Method

The Diesel Range Organics (DRO) method provides chromatographic conditions for the detection of diesel range petroleum hydrocarbons. Sample extracts are prepared by soxhlet extraction or liquid-liquid extraction and concentrated by Kuderna Danish (K-D) concentrator. Sample extracts are introduced into the GC by direct injection. A temperature program is used in the gas chromatograph to separate organic compounds. Detection is achieved using a Flame Ionization Detector (FID).

2. Scope and Application

The DRO method is used to determine the concentration of hydrocarbons that elute from C-10 (Decane) to C-28 (Octacosane). Subsets of this range can also be quantified (e.g. Diesel; from C-10 to C-22).

Analyte	Method Detection Limit (MDL)*	Practical Quantitation Limit (PQL)*
DRO (soil)	2.2	4.0
DRO (aqueous)	0.055	0.1

3. Quality Control

a. Five point calibration as necessary per method.

b. Calibration quantification check standard*

c. Calibration retention time check standard*

d. Solvent blank*

e. Extraction blank*

f. Matrix spike*

g. Matrix spike replicate*

*Per set of ten or less samples of the same matrix.

4. Preparatory Methods

a. California LUST Analysis Method.

b. Wisconsin Department of Natural Resources draft DRO Method.

c. CBC Environmental Laboratories draft SOP for DRO.

5. Interferences

a. The method is particularly sensitive in the region from C-22 to C-28 which is beyond the characteristic diesel pattern (C-10 to C-22). Organic material from soil biota may, as a result, contribute to the DRO concentration which covers the range from C-10 to C-28.

b. Any hydrocarbon that elutes within the DRO range will contribute to the total DRO value; therefore, any contamination added to the sample in handling must be avoided.

c. Some matrices may absorb organic materials and not release them in extraction, thereby resulting in lower results.

d. Contamination by carryover can occur whenever high-concentration and low-concentration samples are analyzed sequentially. Whenever a high-concentration sample is suspected, it is run in dilution to avoid carryover. In the event that a high-concentration sample is run, all subsequent runs are carefully examined for carryover, and if there is any question, the samples are re-analyzed. If the injection system becomes contaminated, the entire run will be repeated.

6. Modifications

a. Calibration and quantification are based upon an actual Diesel standard, per the California Method, rather than the Alkane mixture listed in the DNR method (the DNR has directed CBC to use the Diesel standard for quantification). The calibration factors are similar in both calibrations, and the DRO window is still determined by the Alkane mixture. This results in a dual standard method where the standards can be compared against one another.

b. Post-run reprocessing of computer data files is performed for adjustment of baselines in certain samples where the automated program is unable to accurately establish a forced baseline.

7. Sample Collection, Handling and Preservation

a. For all samples, refer to the California LUST Manual or the DNR DRO method for proper sample containers, volumes, preservation and holding times and to the document prepared by CBC Environmental related to the DNR LUST Program (see notes below).

b. CBC Environmental Laboratories will extract all samples within seven calendar days.

Notes

a. The Method Detection Limits (MDLs) are determined periodically. For this reason, the actual MDLs may vary slightly over a period of time. CBC Environmental Laboratories reports the Practical Quantitation Limits (PQLs) to allow for daily variance in instrument operating conditions. This allows us greater confidence in the limit we report to our clients. MDLs and PQLs are reported as mg/kg (ppm), herein.

b. For time purposes, soxhlet extraction requires about two hours sample preparation per set, and sixteen hours of subsequent extraction. Separatory funnel preparation requires about three hours, as does dilution. Kuderna Danish concentration requires about three to four hours per set. The GC run requires about thirty minutes preparation time per set and each run is about forty-five minutes (15 to 20 runs per set). Calculation time is about two to three hours per set. Thus, the quickest turnaround time for soils is three to four days, while liquids require two to three days.

c. Current capacity is a maximum of three extraction sets per day (soils). The GC is capable of about thirty runs per day, but about two hours are required for maintenance. Standards, quality control and reruns account for about 50 percent of the runs; so effectively the GC can only run about fifteen samples per day. The GC is capable of running unattended for most of the weekend, increasing capacity to about 105 samples per week. Future equipment enhancements will increase capacity and allow a more rapid turnaround time.

d. To ensure an adequate volume of a water sample for Quality Control, please submit one (1) quart per sample and one (1) extra quart for one (1) sample per each set of ten (10) samples or less [i.e. eight (8) samples = one (1) sample at two (2) quarts and seven (7) samples at one (1) quart].

APPENDIX D
APPLICATION TO TREAT OR DISPOSE AND WASTE PROFILE SHEETS

State of Wisconsin
Department of Natural Resources

APPLICATION TO TREAT OR DISPOSE OF PETROLEUM CONTAMINATED SOIL

Form 4400-120 11-89

This form is required to be submitted by subchapters III and IV of ch. 144, Wis. Stats. Failure to submit this form may result in forfeitures of not less than $10 or more than $25,000 for each violation, pursuant to ss. 144.426, 144.469, 144.74(1), and 144.99, Wis. Stats., or fines of not less than $100 or more than $150,000 or imprisonment for not more than 10 years, or both, pursuant to s. 144.74(2), Wis. Stats. Each day of a continuing violation constitutes a separate violation.

Sections I, II & IV must be filled out completely. Also, complete other sections that apply.

Return completed forms to: L.U.S.T. Specialist at the appropriate District or Area Office.

I. SOURCE OF SOIL

Facility Name: Midwest Tanning Company

Site ID# (For DNR use only):

Site Address: 1200 Davis Avenue

Contact Name:

City, State, Zip Code: South Milwaukee, WI 53172

Telephone Number (Include Area Code):

Section, Township and Range: Sec 2 T5N R22E

Facility Owner/Operator Signature:

II. CONTAMINATION DETAILS

Volume Soil (Cubic yards): 135 yd^3

Certified DNR Lab Number: 241283020

Type of Petroleum Contamination (Circle one)

1 Gasoline 2 Diesel Fuel 3 #2 Fuel Oil

(4 Other) Kerosene

Lab Name: CBC Environmental Laboratories

Sampling Method (Brief description of method used to obtain representative sample of soil): Composite Sample Collected from Four (4) locations and Placed in 1 Quart Container

Contaminant Concentration (Two representative composite samples for every 300 cubic yards of soil, in ppm.) Attach Laboratory Analyses

Sample No.		
Benzene		.005 ppm
Toluene		< .002 ppm
Ethylbenzene		< .002 ppm
Total Xylenes		< .002 ppm
Total Petroleum Hydrocarbons as ~~Gasoline~~ Kerosene		< 4.0 ppm
Total Petroleum Hydrocarbons as Fuel Oil		

Total Benzene In Soil To Be Remediated (Attach calculations): 1.87×10^{-3} lbs

Total Amount of Petroleum Hydrocarbons In Soil to Be Remediated (Attach calculations): < 1.5 lbs

Percent Soil Less Than 200 Mesh or 74 Microns:

Soil Classification Type (Sand, silt, clay, etc.): Silty Clay

Anticipated Time Frame for Remediation: Start Date 6-17-91 End Date 6-17-91

Method of Pulverizing Silt or Clay Soils:

III. PROPOSED METHOD OF SOIL TREATMENT

1. Asphalt Plant/Other Type of Thermal Evaporation Unit

Name:

Address:

City, State, Zip Code:

(If portable, where will plant be located)

Plant Number and Model:

DNR Facility Identification Number:

Contact Name:

Title:

Telephone Number (Include area code):

Site Telephone Number (Include area code):

WDNR Air Quality Permit Number:

WPDES Permit Number:

s. 144.04 Plan Approval Number or Equivalent:

(Sealed ponds according to NR 213)

Distance to Nearest Residence/Business:

Burner Temperature During Soil Treatment:

Soil Residence Time in Burner During Treatment:

Anticipated Date Treatment Will be Completed:

(If stockpiled before being treated, all petroleum contaminated soil must be underlain and overlain by an impermeable membrane.)

Final Disposition of Treated Soil (How used, specific location):

Section 1 continued on side 2

Section 1 continued.

If soils will not be incorporated into asphalt, post burn soil testing is required. Soils will need to be sampled for the same parameters listed in Item II. Two composite soil samples are to be taken every 300 cubic yards of soil.

Highest Emission of VOC's Intended to Occur

_____ hourly* _____ daily*

Highest Emission of Benzene Intended to Occur

_____ daily* _____ total*

*Attach Calculations

2. Volatilization of Contaminants In Soil (Passive Evaporation)

Type of Impervious Surface

Curbing or Berms (Existing or proposed construction)

Thickness of Soil Undergoing Remediation (As placed)

Techniques to Cover During Inclement Weather

Method of Turning or Mixing Soil

Method of Field Sampling

Proposed Verification Method of Contaminant Content (Lab sampling)

Location and Size of Remediation Site

Distance to Nearest Residence/Business

Highest Emission of VOC's Intended to Occur

_____ hourly* _____ daily*

Highest Emission of Benzene Intended to Occur

_____ daily* _____ total*

*Attach Calculations

3. Disposal of Contaminated Soils at a Sanitary Landfill-NR 500

Name: Metro Recycling & Disposal

License No.: 01099

Location: 10712 S 124th St Franklin WI 53132

Section 3 Continued

Contact Name

DNR Area Investigator Contacted

Name: CHARLES KROHN

Date

Volume to Be Disposed Of: 135 Cubic Yards

Amount Total VOCs*: < 1.5 lbs

Amount Benzene*: 1.87×10^{-3}

*Attach Calculations

Attach Map Showing Location of Approved Landfill

4. Soil Venting/Vacuum Extraction

Responsible Party

Consultant Responsible for System

Size and Rating (In cfm) of Blower

Distance to Nearest Residence/Business

VOC Discharge Rate From Pilot Testing

_____ lbs/day at _____ CFM

Benzene Discharge Rate From Pilot Testing

_____ lbs/day at _____ CFM

Note: This option may need an air pollution control permit. Any exceedance of an emission limit will require the installation of an activated carbon unit or similar treatment system to strip VOCs from the blower discharge.

5. Other Method of Soil Remediation

Please Describe the Method to Be Used

IV. OWNER/OPERATOR OR CONSULTANT SUBMITTING REQUEST

Company Name: Sigma Environmental Services Inc.

Address: 9555 [redacted] South Howell ave Suite 100

City, State, Zip Code: Oak Creek WI 53154

Contact Name: STEVEN BENTON

Telephone Number (Include area code): (414) 768-7144

Signature: Steve Benton

LEAVE BLANK - DEPARTMENT OF NATURAL RESOURCES USE ONLY

APPLICATION

Concurrance

Contact Name

_____ Air Management _____ Date _____

_____ Solid Waste _____ Date _____

_____ _____ Date _____

Comments

EMISSION CALCULATIONS FOR
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
MILWAUKEE, WI

$$\text{Benzene} = \frac{.005}{1{,}000{,}000} \times 2000 \times 187 = 1.87 \times 10^{-3} \text{ lbs.}$$

$$\text{TPH} = \frac{<4.0}{1{,}000{,}000} \times 2000 \times 187 = <1.5 \text{ lbs.}$$

$$\text{VOC's} = \frac{<4.0}{1{,}000{,}000} \times 2000 \times 187 = <1.5 \text{ lbs.}$$

ENVIRONMENTAL SERVICES
CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

C739 8461904 W21

SIGMA ENVIRONMENTAL SERVICES, INC.
9555 S. HOWELL AVE.
OAK CREEK ,WI 53154
ATTN: NATHAN WARD

SAMPLE 91098-C11556 SOIL/MIDWEST TANNING/CAVOCR0079/EXCAVATION SOIL
DATE COLLECTED 04/08/91 DATE RECEIVED 04/08/91

TEST NAME	RESULT	UNITS	EP RESULT	TCLP RESULT	LIMIT
BENZENE	0.005	PPM			
TOLUENE	<0.002	PPM			
XYLENE	<0.002	PPM			
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM			
ETHYLBENZENE	<0.002	PPM			
LEAD - TOTAL	9.4	PPM		<0.20	5.0
FREE LIQUIDS	0	%			
FLASH POINT (OPEN CUP)	>210	OC/DEG F			
PH (UNITS)	7.9				2.0-12.5
	PH MEASURED AS SOLID IN WATER.				
TOTAL SOLIDS	84	%			
TCLP METALS EXTRACT				04/11/91 PPM	

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$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.
IL EPA CERTIFICATION # 100243; AIHA ACCREDITED. APPROVAL

Midwest Tanning Company

TANNERS

HIGH GRADE SHOE AND GLOVE LEATHER

1200 DAVIS AVENUE, P.O. BOX 189
SOUTH MILWAUKEE, WI 53172-0189

PHONE: 414-768-7000

FAX: 414-768-7014

May 28, 1991

SIGMA ENVIRONMENTAL SERVICES
9555 S. Howell Avenue, Suite 100
Oak Creek, WI 53154

Attn: Amber E. Rauter
Technical Service Representative

SUBJECT: WASTE CHARACTERIZATION PROFILE FORMS

Dear Ms. Rauter:

Please find enclosed the Waste Profile Forms, completed and signed, as per your letter of 5-24-91. Please advise schedule of soil removal and disposal.

Sincerely,

MIDWEST TANNING COMPANY

Fred R. Schiman
Plant Engineer
FRS/ct

c.c. Dave Scherrer
A. J. Glubka
J. A. Brotz

Waste Management of North America
GENERATOR'S SPECIAL WASTE PROFILE SHEET
TYPE A Waste
PLEASE PRINT IN INK OR TYPE

METRO WMA 122190
Waste Profile Sheet Code

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For WMNA Use Only)

Renewal Date of Service Agreement: **WMNA Sales Rep#:**

A. WHERE IS THE WASTE GENERATED?

1. Generator Name: MIDWEST TANNING
2. Facility Address (site of waste generation): 1300 DAVIS AVENUE
3. Generator City, State/Province: SOUTH MILWAUKEE, WI 4. Zip/Postal Code: 53172
5. Generator USEPA/Federal ID: N-A
6. Generator State/Province ID: N-A
7. Technical Contact: FRED SCHIMAN 8. Phone: (414) 762-7000

B. WHERE ARE WASTE MANAGEMENT, INC. INVOICES SENT?

1. ☒ Generating Facility (A, above), or
2. Company Name: 3. Phone: ( ) -
4. Address:
5. Generator City, State/Province: 6. Zip/Postal Code:

C. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Name of Waste: DIESEL CONTAM. SOIL
2. Process Generating Waste: UST REMOVAL
3. Special Handling Instructions:

4. Color	5. Does the waste have a strong incidental odor?	6. Physical State @ 70°F/21°C:	7. Layers	8. Specific Gravity:	9. Free Liquids:
BROWN	☒ No ☐ Yes if so, describe:	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other:	☐ Multi-layered ☐ Bi-layered ☒ Single Phased	Range N-A	☐ Yes ☒ No Volume: 0 %

10. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☒ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range ☐ NA

11. Flash Point: ☐ None ☐ <140°F/60°C ☐ 140°-199°F/60°-83°C ☒ ≥ 200°F/93°C ☐ Closed Cup ☒ Open Cup

D. TRANSPORTATION INFORMATION

1. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Sludge ☒ Bulk Solid ☐ Drum/Box ☐ Other
2. Annual Amount/Units: 130 YD³
3. Supplemental Information:

4. Is this a DOT hazardous material? ☒ No ☐ Yes (If so, complete 5, 6 &7) 5. Hazard Class/ID #:
6. Reportable Quantity/ Units (lb/kg): 7. Shipping Name:

☒ Check this box if additional information is attached.

Turn Page and Complete Side 2

Waste Management of North America
GENERATOR'S SPECIAL WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

E. CHEMICAL COMPOSITION

1.	RANGE MIN.-MAX.	
OIL	98 - 100	%
DIESEL FUEL	0 - 2	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. Total: _____ %

2. Does this waste contain any of the following (provide concentration if known):

	NO or	LESS THAN or	ACTUAL
PCB's	☐	☐ <50 ppm	N-A ppm
Cyanides	☐	☐ <50 ppm	ppm
Sulfides	☐	☐ <50ppm	ppm
Phenolics	☐	☐ <50 ppm	ppm

F. METALS

1. Does this waste contain any of the following metals (provide concentration if known):

Arsenic	☐<5 or N-A ppm	Barium	☐<100 or N-A ppm	Cadmium	☐<1 or N-A ppm
Chromium	☐<5 or ____ ppm	Lead	☐<5 or 9.4/<0.3 ppm	Mercury	☐<0.2 or ____ ppm
Selenium	☐<1 or ____ ppm	Silver	☐<5 or N-A ppm	Copper	☐ ____ ppm
Nickel	☐ ____ ppm	Zinc	☐ ____ ppm		____ ppm

2. Indicate method used to determine concentration (if provided): ☐ EP TOX ☒ TCLP, or ☐ Total

G. GENERATOR CERTIFICATION

By signing this profile sheet, the generator certifies that unless clearly stated above or in attachments:

1. This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
2. This waste does not contain regulated quantities of PCB's (Polychlorinated Biphenyls).
3. This sheet and its attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.
4. The Contractor's Definition of Special Waste (Form WMNA 0038 AD) has been read, signed and attached.

Fred Schimian
5. Signature

PLT. ENGR.
6. Title

FRED SCHIMIAN
7. Name (Type or Print)

5-28-91
8. Date

WASTE MANAGEMENT OF NORTH AMERICA
GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE

METRO WMA 122190

(Shaded area for WMNA use only) WMNA Sales Rep. #: Waste Profile Sheet Code

This completed form must be returned, with the representative sample, to:

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Waste Management of North America (WMNA) can accept the Special Waste described in the Generator's Special Waste Profile Sheet referenced above, you must supply a representative sample of the waste, or sign Part E below certifying that analytical data presented to Waste Management were derived from testing of a representative sample. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in Federal, State or Provincial Regulations. If you collect a representative sample of your waste, apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions, please refer to the instructions for this form, or contact your WMNA sales representative.

A. SAMPLING METHOD (Indicate the method used and sign line 5 in Section C to certify a representative sample was taken)

1. ☒ I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I or equivalent Canadian rules.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above by an equivalent method.

B. SAMPLING SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

PILE

C. REPRESENTATIVE SAMPLE CERTIFICATION AND SAMPLE LABEL (COMPLETE LABEL BEFORE REMOVING)

1. Waste Profile Sheet Code: WMA 122190 — 1. Waste Profile Sheet Code
2. [redacted] Generator's Name: MIDWEST TANNING — 2. Generator's Name
3. [redacted] Name of Waste: GASOLINE CONTAM. SOIL — 3. Name of Waste
4. [redacted] Sample Hour/Date: N-5-91, 11:00 — 4. Sample Hour/Date
5. [redacted] Sampler's Signature: [signature] — 5. Sampler's Signature

6. Print Sampler's Name: CRAIG LABLANC
7. Sampler's Title: REMEDIAL SERVICES
8. Sampler's Employer (if other than generator, see D. below): SIGMA ENVIRONMENTAL

D. WITNESS VERIFICATION (if required) In most circumstances the customer will obtain the sample. However, in those cases in which WMNA or another contractor obtains the sample, one of the customer's employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: [signature]
2. Witness' Name: FRED SCHIMIAN
3. Witness' Title: PLT. ENGR
4. Witness' Employer: MIDWEST TANNING CO.
5. Date: 5-28-91

E. REPRESENTATIVE DATA CERTIFICATION (Complete Parts A, B, & C to the extent possible)

By signing below the customer is certifying that:
The analytical data presented to Waste Management of North America were derived from testing of a representative sample taken in accordance with one of the methods listed in Part A of this form.

[signature] — Signature

PLT. ENGR — Title

FRED SCHIMIAN — Name

5-28-91 — Date

Printed on recycled paper

WASTE MANAGEMENT OF WISCONSIN, INC.
(PURSUANT TO NR181.16)

	1	2	2	1	9	C

THIS FORM AND ANY SUPPLEMENTAL INFORMATION SHOULD BE RETURNED TO:

Parkview Landfill
N96 W13475 County Line Road
Menomonee Falls, WI 53051

GENERATOR NAME: MIDWEST TANNING

GENERATING FACILITY NAME/ADDRESS: 1300 DAVIS AVE.
SOUTH MILWAUKEE, WI 53172

COMPANY CONTACTS:

GENERAL FRED SCHIMAN TITLE PLT. ENG. DATE 5-23-91
TECHNICAL 1 TITLE 1 DATE 1

WASTE NAME: DIESEL FUEL CONTAMINATED SOIL

PROCESS GENERATING WASTE: UST REMOVAL

THE UNDERSIGNED DOES HEREBY REPRESENT TO
METRO LANDFILL
(Insert Name of Disposal Company) THAT:

1. The referenced profile sheet had been executed by FRED SCHIMAN (Insert Name of Authorized Signatory) on 5-28-91 (Insert date)

2. The waste does NOT contain the halogenated compounds tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, ortho-dichlorobenzene, dichlorodifluoromethane, 1,1,2-trichloro-1,2, 2-trifluoroethane, trichlorofluoromethane, 1,1-dichloroethylene, and 1,2-dichloroethylene at greater than 1% (10,000 ppm) total solvent concentration. This listing includes any combination of the above named halogenated compounds where the total concentration of the sum of the concentrations of the individual compounds exceeds 1% or 10,000 ppm on a weight to weight basis.

5-28-91
(DATE)

GENERATORS AUTHORIZED SIGNATORY:

NAME: FRED SCHIMIAN
SIGNATURE: Fred Schimian
TITLE: PLT. ENGR.

Parkview Landfill
N96 W13475 County Line Road
Menomonee Falls, WI 53051
(414) 251-3790 • FAX (414) 255-3798

A Waste Management Company

PESTICIDE/HERBICIDE
DECLARATION LETTER

Dear Customer:

If, to the best of your knowledge, your waste stream does not contain any of the pesticide and herbicide parameters listed below please complete and sign this form.

If, pesticides and/or herbicides may be present in your waste stream, a pesticide/herbicide analysis must be completed and submitted with your Waste Management Generator's Waste Material Profile Sheet.

By signing this document, I MIDWEST TANNING hereby certify
(Generator's Name)

that the waste stream as described on Waste Management Generator's Waste Material Profile Sheet # 122190 does not contain the following pesticides and herbicides: Chlordane, Endrin, Heptachlor (and its hydroxide), Lindane, Methoxychlor, Toxaphene, 2,4-D, 2,4,5-TP (Silvex).

Fred Schmidt
Generator's Signature

PLT. ENGR.
Title

5-28-91
Date

CONTRACTOR'S DEFINITION OF SPECIAL WASTE

1. "Special Waste" means Type A or Type B Special wastes as defined below.

WMA 122190
WASTE PROFILE CODE

2. "Type A Special Waste" means any waste, from a commercial or industrial activity meeting any of the following descriptions.
   a. A containerized waste (e.g., a drum, portable tank, lugger box, roll-off box, pail, bulk tanker, etc.) listed in b.-g. below.
   b. A waste containing free liquids.
   c. A sludge waste.
   d. A waste from an industrial process.
   e. A waste from a pollution control process.
   f. Residue and debris from the cleanup of a spill of a chemical substance or commercial product or a waste listed in a.-e. or g.
   g. Contaminated residuals, or articles from the cleanup of a facility generating, storing, treating, recycling, or disposing of wastes listed in a.-f.

3. Incidental Amounts of Special Waste
   The Contractor recognizes that many customers will produce some "Type B Special Waste," as defined below. Incidental quantities of "Type B Special Waste," do not require a Generator's Type B Special Waste Profile Sheet (Form WMNA-0089B) to be signed by the customer. However, the customer must identify the type and amount of Type B Special Wastes which will be provided to the Contractor in incidental amounts by completing the box in the lower right corner.

4. "Type B Special Waste" means any waste from a commercial or industrial activity meeting the descriptions which follow:
   a. Friable asbestos waste from building demolition or cleaning; wall board, wall spray coverings, pipe insulation, etc. Nonfriable asbestos is not a special waste unless it has been processed, handled or used in such a way that asbestos fibers may be freely released. Asbestos-bearing industrial process waste is a "Type A Special Waste.
   b. Commercial products or chemicals which are off-specification, outdated, unused or banned. Out-dated or off-specification, uncontaminated food or beverage products in original consumer containers are not included in this category, however, containers which once held commercial products or chemicals are included unless the container is empty. A container is empty when:
      All wastes have been removed that can be removed using the practices commonly employed to remove materials from the type of container, e.g., pouring, pumping or aspirating, and an end has been removed (for containers in excess of 25 gallons), and no more than 1 inch (2.54 centimeters) of residue remains on the bottom of the container or inner liner, or no more than 3% by weight of the total capacity of the container remains in the container (containers $\leq$ 110 gallons), or no more than 0.3% by weight of the total capacity of the container remains in the container (containers > 110 gallons.) Containers which once held ACUTELY HAZARDOUS WASTES must be triple rinsed with an appropriate solvent or cleaned by an equivalent method. Containers which once held substances regulated under the Federal Insecticide, Fungicide, and Rodenticide Act must be empty according to label instructions or triple rinsed.
   c. Untreated bio-medical waste - Any waste capable of inducing infection due to contamination with infectious agents from a bio-medical source including but not limited to a medical practitioner, hospital, medical clinic, nursing home, university medical laboratory, mortuary, taxidermist, veterinarian, veterinary hospital or animal testing laboratory. Sharps from these sources must be rendered harmless or placed in needle puncture proof containers. Residue from incineration of infectious wastes is a "Type A Special Waste."
   d. Treated bio-medical wastes - Any wastes from a bio-medical source including but not limited to a hospital, medical clinic, nursing home, medical practitioner, mortuary, taxidermist, veterinarian hospital, animal testing laboratory, or university medical laboratory which has been autoclaved or otherwise heat treated or sterilized so that it is no longer capable of inducing infection. Any sharps from these sources must be rendered harmless or placed in needle puncture proof containers.
   e. Liquids and sludges from septic tanks, food service grease traps, or washwater and wastewaters from commercial laundries, laundromats and car washes unless these wastes are managed at commercial or public treatment works.
   f. Chemical-containing equipment removed from service. Examples: filters, cathode ray tubes, lab equipment, acetylene tanks, fluorescent light tubes, etc.
   g. Waste produced from the demolition or dismantling of industrial process equipment or facilities contaminated with chemicals from the industrial process Chemicals or wastes removed or drained from such equipment or facility are "Type A Special Wastes."

CUSTOMER ACKNOWLEDGES THAT HE HAS READ THE FOREGOING DEFINITION AND HAS IDENTIFIED THE TYPES AND AMOUNTS OF ANY TYPE B WASTE STREAMS PRODUCED IN INCIDENTAL AMOUNTS.

MIDWEST TANNING CO
CUSTOMER

Fred Schmidt
AUTHORIZED SIGNATURE

5-28-91
DATE

INCIDENTAL WASTE TYPES AND AMOUNTS:

General Manager of WMNA Division concurs that the above amounts of "Type B Special Wastes" are incidental to the load.
Signature:

Form WMNA-0038AD (2/89) Waste Management of North America
White - WMNA Division Canary - Customer

APPENDIX E

FINAL SUBSURFACE INVESTIGATION SOIL BORING LOGS AND BOREHOLE ABANDONMENT FORMS

SIGMA
ENVIRONMENTAL SERVICES INC.

NOTES:

Client: Midwest Tanning
Location: 1200 Davis Avenue — Start Date: 9-24-91
Boring Number: B-9 — Completion Date: 9-24-91
Drilling Co: Giles — Rig: General 550
Driller: Rolly — Auger or Casing Size: 2¼"
Helper: Pat — Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Change	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
						6" Concrete		
1				8"		2-2.8- Dark Brown Sandy Silt with Trace Clay and Gravel	202	
					4			
2				8"		4.7-5.5- Brown Clayey Silt with Trace Sand and Gravel	21.5	
3				8"		7.0-7.8-	5.0	
4				8"		9.2-10 -	70.5	
5				8"	12	12.5-13.3	4.4	
						Grey Clayey Silt with Trace Sand and Gravel		
						BORING TERMINATED AT 13.3		
						ABANDONED WITH BENTONITE CHIPS		

SIGMA
ENVIRONMENTAL SERVICES INC.

NOTES:

Client: Midwest Tanning
Location: 1200 Davis Avenue — Start Date: 9-24-91
Boring Number: B-10 — Completion Date: 9-24-91
Drilling Co: Giles — Rig: General 550
Driller: Rolly — Auger or Casing Size: 2¼"
Helper: Pat — Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6 6/12 12/18	Sample Recovery	Material Change	Signature: MATERIAL CLASSIFICATION	PID PPM	REMARKS
				6" Concrete		
1		8"		2.0-2.8- Brown/Green Mottled Clayey Silt	235	
2		8"	5	4.7-5.5-		
3		8"		7.0-7.8- Brown Clayey Silt with Trace Sand and Gravel	4.7	
			9			
4				9.2-10- Grey Silty Clay	-	No Recovery of Sample
				BORING TERMINATED AT 10'		
				ABANDONED WITH BENTONITE CHIPS		

SIGMA
ENVIRONMENTAL SERVICES INC.

NOTES:

Client: Midwest Tanning
Location: 1200 Davis Avenue — Start Date: 9-25-91
Boring Number: B-11 — Completion Date: 9-25-91
Drilling Co: Giles — Rig: General 550
Driller: Rolly — Auger or Casing Size: 2¼"
Helper: Pat — Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Change	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
						6" Concrete		
1				8"		2-2.8 - Brown/Green Mottled Sandy Clayey Silt	175	
2				8"		4.3-5.5-	45	
					6			
3				8"		7.0-7.8- Brown Clayey Silt with Trace Sand and Gravel	2.5	
					9			
4				8"			2.5	
						11.5-12- Grey Silty Clay		
						BORING TERMINATED AT 12'		
						ABANDONED WITH BENTONITE CHIPS		

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B

Rev. 7-89

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

Well/Drillhole/Borehole Location

County: MILWAUKEE

NE 1/4 of NW 1/4 of Sec. 2 ; T. 5 N; R. 22 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: MILWAUKEE

Street Address of Well: 1200 DAVIS AVENUE

City, Village

(2) FACILITY NAME

Original Well Owner (If Known): MIDWEST TANNING CO

Present Well Owner: SAME

Street or Route: 1200 DAVIS AVENUE

City, State, Zip Code: MILWAUKEE WI 53172

Facility Well No. and/or Name (If Applicable): SB-9

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: INVESTIGATIVE BORING

Date of Abandonment: 9-24-91

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 9-24-91

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 13.3 Casing Diameter (ins.) 6"
(From groundsurface)

Casing Depth (ft.) _____

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) —

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
Did Sealing Material Rise to Surface?	☐ Yes	☒ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☐ No

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☒ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Concrete	Surface	1	1	
Bentonite Chips	1	13.3	4	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Sigma Environmental Services Inc

Signature of Person Doing Work: Stan Burton
Date Signed: 10-21-91

Street or Route: 9555 S. Howell ave
Telephone Number: (414) 768-7144

City, State, Zip Code: Oak Creek WI 53154

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B

Rev. 7-89

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

Well/Drillhole/~~Borehole~~ Location

County: MILWAUKEE

NE 1/4 of NW 1/4 of Sec. 2 ; T. 5 N; R. 22 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1200 DAVIS AVENUE

City, Village: MILWAUKEE

(2) FACILITY NAME

Original Well Owner (If Known): MIDWEST TANNING CO

Present Well Owner: SAME

Street or Route: 1200 DAVIS AVENUE

City, State, Zip Code: OAK CREEK WI 53172

Facility Well No. and/or Name (If Applicable): SB-10

WI Unique Well No. _____

Reason For Abandonment: INVESTIGATIVE BORING

Date of Abandonment: 9-24-91

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/~~Borehole~~ Construction Completed On

(Date) 9-24-91

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 10 Casing Diameter (ins.) ____
(From groundsurface)

Casing Depth (ft.) _____

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) —

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
Did Sealing Material Rise to Surface?	☐ Yes	☒ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☐ No

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☒ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Concrete	Surface	1	1	
Bentonite Chips	1	10	3	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Sigma Environmental Services Inc

Signature of Person Doing Work: Stan Kenton

Date Signed: 10-21-91

Street or Route: 9555 S. Howell ave

Telephone Number: (414) 768-7144

City, State, Zip Code: Oak Creek WI 53154

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5B
Rev. 7-89

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

Well/Drillhole/~~Borehole~~ Location

County: MILWAUKEE

NE 1/4 of NW 1/4 of Sec. 2 ; T. 5 N; R. 22 ☒ E ☐ W

(If applicable) Gov't Lot _____ Grid Number _____

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1200 DAVIS AVENUE

City, Village: MILWAUKEE

(2) FACILITY NAME

Original Well Owner (If Known): MIDWEST TANNING CO.

Present Well Owner: SAME

Street or Route: 1200 DAVIS AVENUE

City, State, Zip Code: MILWAUKEE WI 53172

Facility Well No. and/or Name (If Applicable): SB-11

WI Unique Well No.: ------

Reason For Abandonment: INVESTIGATIVE BORING

Date of Abandonment: 9-26-91

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/~~Borehole~~ Construction Completed On

(Date) 9-26-91

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 12 Casing Diameter (ins.) ____
(From groundsurface)

Casing Depth (ft.) ____

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) —

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
Did Sealing Material Rise to Surface?	☐ Yes	☒ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☐ No

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☒ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CONCRETE	Surface	1	1	
Bentonite Chips	1	12	4	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Sigma Environmental Services Inc

Signature of Person Doing Work: Steve Beaton
Date Signed: 10-21-91

Street or Route: 9555 S. Howell
Telephone Number: (414) 768-7144

City, State, Zip Code: Oak Creek WI 53154

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

DNR/COUNTY

BRRTS#03-41-000468

468

REV. 10/89

DEPARTMENT OF NATURAL RESOURCES
LEAKING UNDERGROUND STORAGE TANK

COMPUTER TRACKING FORM 4400

PMN#: _____ FID#: _____

PROJECT MGR: C. Krohn

SUPPORT PERSON: _____

DISTRICT: SE0 COUNTY: Milw. HNDI: ____

SITE NAME: Midwest Tanning Co.

ADDRESS: 1200 Davis Ave.

South Milw. __TN__CITY__VIL

LEGAL DESC: ___1/4___1/4 SEC___T___R___E/W

DATE OF INITIAL CONTACT: 12/6/89 (mo day yr)

DATE OF RP LETTER: 12/13/89 (mo day yr)

DATE SITE CLOSURE APPROVED: 1/6/92 (mo day yr)

LUST TRUST ELIGIBLE: (X)
___ 1 = FEDERAL
___ 2 = NON-FEDERAL

Kerosene 550 gal

STATUS: (X)
___ 1 = STATE LEAD
___ 2 = RP LEAD

PRIORITY SCREENING: (X)
___ 1 = HIGH SCORE:____
✓ 2 = MEDIUM
___ 3 = LOW
___ 4 = UNKNOWN

(see worksheet on back)

FUNDING SOURCE: (X)
___ 1 = RESPONSIBLE PARTY
___ 2 = LUST TRUST FUND
___ 3 = ENVIRONMENTAL RESPONSE FUND
___ 4 = SUPER FUND
___ 5 = NONE
___ 6 = OTHER_____

(X AS APPROPRIATE)	DATE INITIATED (MO DAY YR)	DATE COMPLETED (MO DAY YR)
___ NO ACTION TAKEN		
___ EMERGENCY		
___ EMERGENCY RESPONSE		
✓ FIELD INVESTIGATION	12/6/89	
✓ REMEDIAL ACTION	12/6/89	
___ LONG TERM MONITORING		

COMMENTS: _____

FIRM OR PERSON RESPONSIBLE: As above

CONTACT: Fred Schimian

ADDRESS: As above

PHONE: _____/_____

(list additional on separate list & attach)

CONSULTANT: CBC

CONTACT: _____

ADDRESS: _____

PHONE: _____/_____

AMOUNT COMMITTED: $_____.___ AMOUNT SPENT: $_____.___

(list additional on separate list & attach)

PECFA REVIEW REQUESTED:(X) ___YES ___NO

DATE PECFA REQUEST RECEIVED:(mo day yr) ___/___/___

	KNOWN IMPACTS:(x)	POTENTIAL IMPACTS:(X)
FIRE/EXPLOSION THREAT	___	___
CONTAMINATED PRIVATE WELL	___	___
CONTAMINATED PUBLIC WELL	___	✓
GROUNDWATER CONTAMINATION	___	✓
SOIL CONTAMINATION	✓	___
OTHER:_____	___	___

SUBSTANCES:(X) QUANTITY DISCHARGED:(gals)_____

___ LEADED GAS ___ VOCS
___ UNLEADED GAS ___ PESTICIDE
___ DIESEL
___ FUEL OIL
___ UNKNOWN HYDROCARBONS
✓ OTHER Kerosene

ENFORCEMENT ACTION TAKEN

01=INF. CONTACT,RESP INITIATED
02=RP LETTER,RESP INITIATED
03=NTC OF NON COMPLIANCE
06=INSPECTION LETTER
07=RESPONSE RECEIVED
11=CLOSE OUT
14=NOTICE OF VIOLATION
18=ADMIN. ORDER FINAL
20=ADMIN. ORDER CANCELLED
23=REFERRAL TO DOJ
25=REFERRAL TO EPA
99=OTHER ACTION:_____

ACTION (code from above)	DATE (mo/day/yr)	COMMENT:
99	2/14/90	Report Recieved Workplan approved
02	12/13/89	RP Letter
11	1/6/92	
___	___/___/___	

(for additional action codes see instructions/list additional on separate list and attach)

OVER ALL CASE COMMENT: Hole in bottom of tank 550 gallons.

LUST CASE PRIORITY SCREENING WORKSHEET

HIGH FACTORS: (DEFINITION: Any case which presents an actual threat to human health, or has a high potential of causing a threat to human health and property; and/or any case which has caused or has a high potential of causing substantial impacts to the soil waters and air of the State of Wisconsin)

HIGH FACTORS:

____ Contaminated private or public well >NR140 enf. std.
____ Explosive or toxic vapors in structures
____ Threat of fire
____ Floating product
____ Known gw contamination
____ Impacted surface water--wetland, trout stream, etc. impacted

MEDIUM FACTORS: (DEFINITION: Any case which does not appear to be an immediate threat to human health or vital natural resources but which shows levels of contamination that may cause substantial environmental impacts if left unaddressed.)

____ saturated soil contamination
____ Moderate soil contamination with moderate potential for impacting groundwater.
____ Impacted surface wetar--no critical habitat threats.

LOW FACTORS: (DEFINITION: Any case where contamination has been documented, but which presents limited potential for any immediate threat to human health and vital natural resources.)

____ Soil contamination which appears to have a limited potential for impacting groundwater. (less than 100 ppm TPH)
____ Initial remedial action has substantially reduced environmental threat.

UNKNOWN FACTOR: (DEFINITION: Any case where some indication of contamination is present, but due to incomplete or inaccurate information the level of threat to human health or the environment can not be assessed at this time.)

____ Inadequate information to assign a high, medium, or low ranking.

OVERALL RANKING: The screening rank for the site along with the date of ranking. This may be updated when additional information is received. Special circumstances for a particular case may be taken into account in the comment section. The District LUST coordinator may independently set the ranking of a site based upon "special circumstances."

Circle one & date, indicate in priority screening box opposite side _____HIGH 12/11/89 (MEDIUM)_____LOW_____UNKNOWN

COMMENT: _____

NUMERICAL LUST SCORING WORKSHEET (complete for LUST cases ranked HIGH)

1. GROUNDWATER & SOILS: (circle one)

POINTS	Documented Petroleum Contamination:	POINTS	
20	Municipal well	8	Soil & gw within 1200' of a public well
18	>6 private wells	6	Soil & gw within 1200' of one or more private wells
16	4 - 6 private wells	4	GW contamination, no wells within 1200'
14	2 - 3 private wells	2	Soil contamination
12	1 private well		

2. EXPLOSIVE OR TOXIC VAPORS: (circle one)

POINTS CONFIRMED	POTENTIAL	
20	10	Explosive levels in a residence or building
16	8	Explosive levels in a sewer or structure
12	6	Toxic levels in a residence or building

Note: Explosive levels determined to be >20% LEL as per an explosivity meter; toxicity levels are based on OSHA permissible exposure limits (PEL)

3. HYDROGEOLOGIC SETTING: (circle one)

POINTS	
12	Highly permeable sub-soils (gravel, well sorted sand, fractured bedrock or utilities capable of intercepting and directing flow) and groundwater within 25 feet of the ground surface.
10	Highly permeable sub-soils and groundwater more than 25 feet below ground surface.
8	Moderately permeable sub-soils (silty sands, silty gravel, clayey sands) and groundwater within 25 feet of ground surface
6	Moderately permeable sub-soils and groundwater greater than 25 feet below ground surface.
4	Low permeability sub-soils (silt, clayey silt, sand clays) and groundwater within 25 feet of ground surface.
2	Low permeability sub-soils and groundwater greater than 25 feet below ground surface.

4. TYPE OF PRODUCT: (circle one)

POINTS	NOTE: Add 4 points if free product is present. (score in parentheses)
8 (12)	Gasoline, mixture of gasoline and other products, other light petroleum products.
6 (10)	Diesel, fuel oil
2 (6)	Bunker oil, other heavy oils or crude fractions

_____ TOTAL SCORE (indicate score in priority screening box on opposite side)

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

Southeast District
2300 N. Dr. Martin Luther King Jr. Dr.
Post Office Box 12436
Milwaukee, Wisconsin 53212
Telephone: 414-263-8500
Telefax: 414-263-8483

January 6, 1992

File Ref: 4440

Fred Schmian
Midwest Tanning
1200 Davis Avenue
South Milwaukee, WI 53172

Dear Mr. Schmian,

RE: Midwest Tanning Co. Corrective Action

Based on information contained in the October 30, 1991 Sigma Environmental Remedial Action Report for the referenced site, no further action will be required by the Wisconsin Department of Natural Resources at this time. The WDNR retains the right to require remedial action in the future if additional petroleum contamination is discovered at Midwest Tanning.

Enclosed please find an executed PECFA Form 4. Please direct reimbursement question directly to the Department of Industry, Labor, and Human Relations in Madison.

Sincerely,

Charles J. Krohn
Hydrogeologist

c: Sigma

Wisconsin Department of Industry, Labor and Human Relations

FORM 4

DNR SITE INVESTIGATION AND REMEDIAL ACTION PLAN REVIEW

Safety and Buildings Division
Bureau of Petroleum Inspection and Fire Protection
P.O. Box 7969
Madison, WI 53707
(608) 267-4545
(608) 267-7538

Section 101.143 (3) (c) 4, Wis. Stats., requires that a claimant obtain written approval from the Department of Natural Resources (DNR) when requesting reimbursement for activities in response to a discharge from a commercial petroleum product storage system or home oil tank. The DNR approval must indicate that the site investigation and remedial action plan is adequate to meet requirements of s. 144.76, Wis. Stats. The DNR approval is created for the purpose of meeting the requirements of s. 101.143 (3), Wis. Stats., only and does not bar the DNR from requiring that additional investigation and/or remediation activities be performed by persons responsible under s. 144.76, Wis. Stats.

Office Use Only Application Case # _____

Tank ID # _____ Installation Date _____
Tank ID # _____ Installation Date _____
Tank ID # _____ Installation Date _____

Claimant's Name	Remedial Action Site Name (if business)
Midwest Tanning Co Att: Fred	Midwest Tanning Co
Street Address	Remedial Action Site Address
1200 Davis Avenue	1200 Davis Avenue
City, State, Zip Code	City, State, Zip Code
South Milw. WIS 53172	South Milw WIS 53172
Claimant's Telephone Number (414) 768-7000	Telephone Number of Site (414) 768-1000

Claimant is
☐ Owner ☒ Operator ☐ Other - please specify:

Approval requested for: ☒ Petroleum Product Storage System ☐ Home Oil Tank System ☐ Aboveground

FOR DNR USE ONLY (Indicate Whether Completed Remedial Action or Other Action(s))

A copy of this completed document must be submitted to DNR for approval of initial activities (emergency action, site investigation and remediation) in accordance with s. 101.143 (3) (c) 4, Wis. Stats.

☒ Completed Remedial Action (complete cleanup and single claim for reimbursement) (Steps 1 through 3)

Progress Payments For:

Check Appropriate Box(es)

☐ Emergency Action (Step 1 - check only if emergency action was performed)

☐ Completion of Site Investigation (Step 1) and Proposed Remedial Action Plan (Step 2)

☐ Remedial Action (Step 3)

☐ Operation/Maintenance and Environmental Monitoring (annual claim for remedial action activities) (Step 4)

☐ Site Investigation **By Order** of DNR And/Or DILHR - No Remedial Action

The DNR received a request for approval of the above identified activities for the site listed on this document on the following date _____.

The DNR response for purposes of s. 101.143 (3), Wis. Stats., is attached.

Remedial action activities conducted by owners/operators are not eligible for funding under 42 USC 6991 (L.U.S.T. Funding). (See s. 101.143 (3) (a) 2., Wis. Stats.)

Send one copy of this completed form to the address shown in the upper right corner and one copy to the claimant.

Reviewer's Signature Charles J. Krahn Date Signed 1-6-92

Reviewer's Title Hydrogeologist

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny, Secretary
Box 12436
Milwaukee, Wisconsin 53212
TELEFAX NO. 414-263-8483

September 19, 1990

File Ref:

Mr. Fred Schmian
Midwest Tanning Co.
1200 Davis Ave.
P.O. Box 189
South Milwaukee, WI 53172

Dear Mr. Schimian:

RE: CBC Workplan and Report dated April 17, 1990

This letter is in response to your inquiry on Sept. 19, 1990. The Wisconsin Department of Natural Resources conditionally approves the workplan/recommendations outlined by your consultant on page 4 of the referenced report, pending inclusion of the following:

> In addition to soil borings, one monitoring well should be installed in order to determine impacts to groundwater.

The CBC Environmental boring recommendations were made to conform with WDNR regulations requiring determination of the horizontal and vertical extent of contamination.

The WDNR will make a determination on the contaminated soils beneath the building after review of the extent of soil contamination and the impacts to groundwater, if any.

Sincerely,

Charles J. Krohn
Hydrogeologist

c: CBC Environmental
SED case file

EARTH YEAR
WISCONSIN
1970 April 22 1990

Midwest Tanning Company

TANNERS

HIGH GRADE SHOE AND GLOVE LEATHER

1200 DAVIS AVENUE, P.O. BOX 189
SOUTH MILWAUKEE, WI 53172-0189

PHONE: 414-768-7000

FAX: 414-768-7014

May 29, 1990

State of Wisconsin
Department of Natural Resources
P. O. Box 12436
Milwaukee, WI 53212

Attn: Mr. Charles J. Krohn
Environmental Repair Hydrogeologist

SUBJECT: Underground Storage Tank WDNR File Reference #4440

Dear Mr. Krohn:

Enclosed please find a copy of the report titled "Soils Quality Assessment" outlining the additional field services that were performed by CBC Environmental Services on March 9, 1990, as requested in your letter of February 14, 1990. Also enclosed is a copy of the Lab Analysis "Soil/Composite Excavation Soils", which was performed by CBC.

Based on the conclusions of the report, we would like your approval to proceed with remediation of the site. As recommended by CBC, we would like to remove the contaminated soils in and around the former tank location to the extent practicable for those soils on the exterior of the building. However, based on CBC's Conclusions 1-4, the potential nature of risk for those soils beneath the building is low with the building acting as a cap to immobilize the migration of any contamination. We would like your approval to leave the soils under the building in place.

We request your approval to proceed with the cleanup as outlined above. If you have any questions, or wish to discuss this matter further, please feel free to contact me at 414-768-7000.

Sincerely,

MIDWEST TANNING COMPANY

Fred Schimian
Plant Engineer
FS/ct

c.c. A. J. Glubka
J. A. Brotz
D. F. Scherzer (CBC)

Enclosures - 2

ENVIRONMENTAL SERVICES
CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

REC'D FEB 06 1990

02/05/90 LABORATORY REPORT PAGE 1

M066 8443869 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M09683 SOIL/COMPOSITE EXCAVATION SOILS
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS	EP TOXICITY		EP LIMIT	HAZ.CODE
BENZENE	0.11	PPM				
TOLUENE	0.14	PPM				
XYLENE	1.4	PPM				
TOTAL PETROLEUM HYDROCARBONS	530	PPM				
	#1 DIESEL. BASED ON SIMILARITIES TO #1 DIESEL STANDARD.					
LEAD - TOTAL	5.5	PPM	0.2	MG/L	5.0	
FREE LIQUIDS	0	%				
FLASH POINT (OPEN CUP)	>210	PPM				
	OPEN - CUP					
PH (UNITS)	8.0				2.0-12.5	
	PH MEASURED AS SOLID IN WATER.					
TOTAL SOLIDS	68	%				

METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 1979, EPA-600/4-79-020.
TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, 1982, EPA SW846.
PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

SOILS QUALITY ASSESSMENT
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN

PREPARED FOR:
MR. FRED SCHIMIAN
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN 53172

PREPARED BY:
CRAIG A. VARLAND
PROJECT SUPERVISOR
CBC ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD
OAK CREEK, WISCONSIN 53154

APRIL 17, 1990

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

I. INTRODUCTION

Chem-Bio Corporation (CBC) Environmental Services of Oak Creek, Wisconsin, has been retained by Mr. Fred Schimian of Midwest Tanning Company, to conduct an additional soils assessment at 1200 Davis Avenue in South Milwaukee, Wisconsin. The purpose of the additional work was to determine soil quality beneath the building adjacent to a former underground storage tank (UST) and to attempt to identify volatile organic compounds detected in previous borings drilled adjacent to the UST. This report details the results of additional field activities performed on March 9, 1990.

II. PREVIOUS WORK

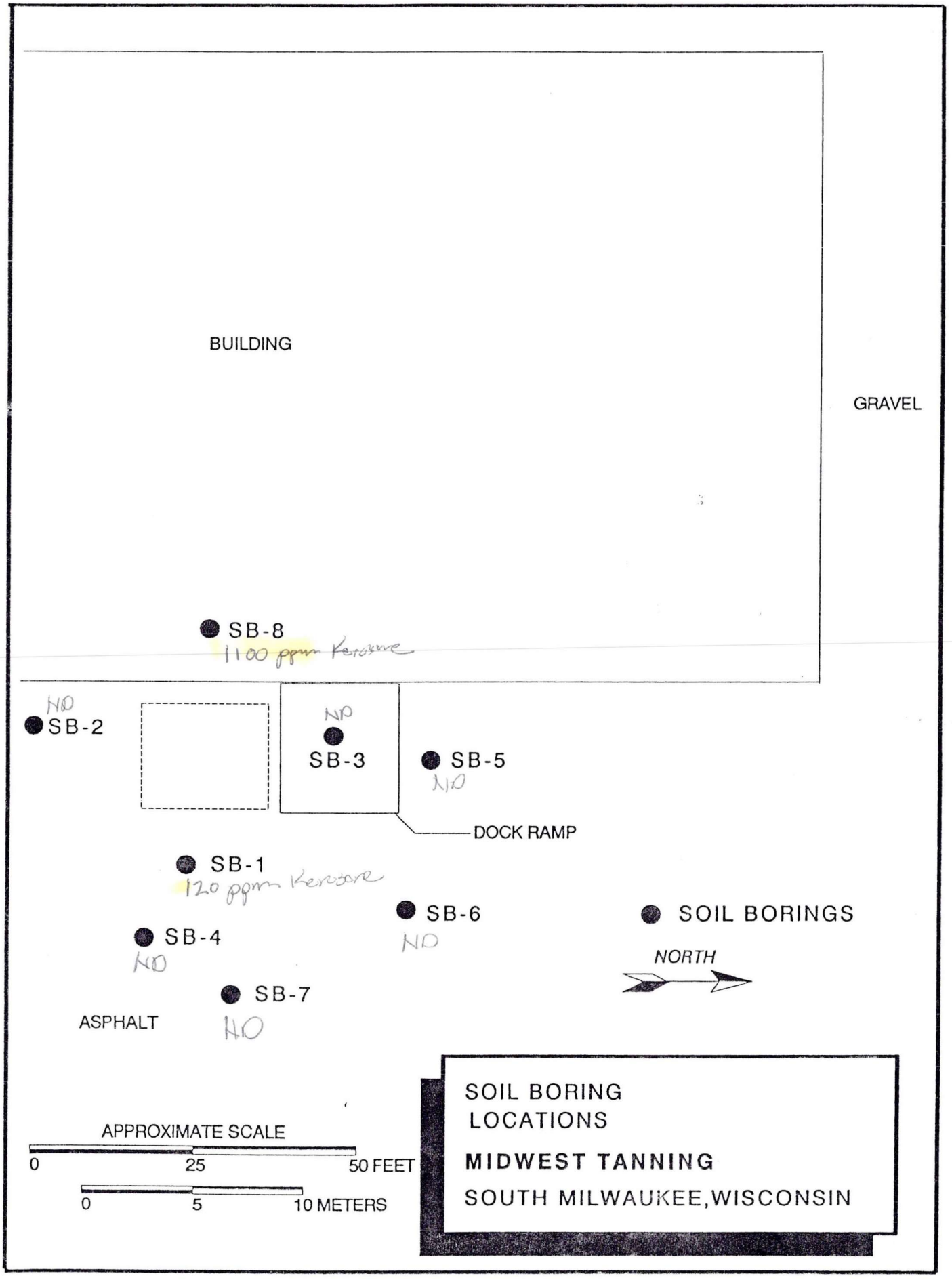
Previous work had been completed on December 13, 1989, by CBC. Samples collected from SB-1 (see Soil Boring Location Map) exceeded Wisconsin Department of Natural Resources (WDNR) general soil guidelines of 10 parts per million (ppm).

In "A report for an Underground Storage Tank Site Assessment", dated January 18, 1990, CBC recommended additional borings to identify compounds detected by PID screens of samples previously collected and to determine soil quality west of the former underground tank.

III. SUBSURFACE INVESTIGATION

Work conducted at the site during this portion of the investigation included drilling one (1) boring inside the warehouse west of the former UST location and three (3) additional borings north and east of the excavation (see Soil Boring Location Map).

Three (3) borings were drilled near the former tank location to total depths ranging from eleven (11) to sixteen (16) feet.


BUILDING
GRAVEL
SB-8
1100 ppm Kerosene
ND
SB-2
ND
SB-3
SB-5
ND
DOCK RAMP
SB-1
120 ppm Kerosene
SB-6
ND
SOIL BORINGS
SB-4
ND
NORTH
SB-7
ASPHALT
ND
APPROXIMATE SCALE
0
25
50 FEET
0
5
10 METERS
SOIL BORING
LOCATIONS
MIDWEST TANNING
SOUTH MILWAUKEE, WISCONSIN

One (1) boring was placed inside the warehouse and was drilled to a depth of 9.4 feet. Borings were drilled on March 9, 1990, by Giles Engineering. During advancement of the auger, split-spoon samples were collected. Two (2) samples were collected at each sampling interval.

One (1) sample from the split-spoon sampler was immediately containerized in a glass jar, sealed with a teflon-lined cap and placed into a cooler. The other sample was allowed to warm to room temperature and was screened for volatile organic compounds utilizing a Photovac$_{TM}$ Photoionization Detector (PID) meter. PID results for all samples collected are included with the boring logs in Appendix A. One sample from each boring displaying the highest PID value was accompanied with a Chain-of-Custody document and transported to the CBC laboratory for analysis. Samples from all borings were submitted for solvent scan analysis. In addition, the sample from boring SB-8 was analyzed for total petroleum hydrocarbons (TPH). Laboratory results are presented in Appendix B.

All downhole equipment (augers, drill rods, and spoons) were steam cleaned prior to mobilization to the site. Between each boring, split-spoons were rinsed with hexane and triple rinsed with deionized water. In addition, split-spoons were washed with an alconox soap solution and a final rinse between each sampling interval. All borings were grouted after completion with Baroid Holeplug$_{TM}$.

IV. SOIL QUALITY

Laboratory results show that solvent scan analysis for the samples submitted did not detect or confirm any significant levels of the compounds analyzed. However, the sample from inside the building (SB-8 / 5.4-6 foot depth) showed total petroleum hydrocarbon concentrations of 1100 ppm).

Laboratory analysis of the sample previously collected from SB-1 (January 1990 report) had identified kerosene in concentrations of 120 ppm. The sample collected from SB-8 on March 9, 1990, identified kerosene in concentrations of 1100 ppm. Laboratory results are presented as Appendix B.

V. SITE GEOLOGY

The regional geology of the area is dominated by Pleistocene age deposits of the Wisconsinan stage glaciation. Locally, the predominant glacial till is the Oak Creek formation. The Oak Creek formation includes fine-grained till, lacrustrine, clay, silt, and sand, and some glaciofluvial sand and gravel.

Soils encountered in the soil borings consisted of brown and gray clayey-silts to silty-clays. Groundwater was not encountered in the borings.

VI. REGULATIONS

The State of Wisconsin has not established standards for the levels of contaminants detected in soil. The Wisconsin Department of Natural Resources (WDNR) evaluates each situation separately to determine if the existence of contaminants in soils will have an adverse effect on the groundwater or otherwise on the environment and public health. The WDNR has stated that corrective action is required if the level of total petroleum hydrocarbons in soils is above 10 ppm.

VII. CONCLUSIONS

The additional soil quality assessment work at 1200 Davis Avenue in South Milwaukee, Wisconsin, is completed. The following conclusions are made based on field activities conducted at the site.

1) The site geology consists of brown and gray clayey-silts and silty-clays.

2) Hydrocarbons were identified at shallow depths in SB-1 and SB-8 at concentrations of 120 ppm and 1100 ppm respectively.

3) Conformational solvent scan analysis of positive soil samples did not detect or confirm any significant levels.

4) Groundwater was not encountered in the borings on site. The presence of an impermeable silty clay formation suggests that groundwater has not been impacted.

VIII. RECOMMENDATIONS

As a result of our preliminary findings, the following recommendations are offered.

1) Drill additional borings inside the building to determine the lateral and vertical extent of contaminants revealed at SB-8.

2) Remove contaminated soils in and around the former tank location to the extent practicable.

APPENDIX A
SOIL BORING LOGS

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING
Location: South Milwaukee — Start Date: 3/9/90
Boring Number: SB-5 — Completion Date: 3/9/90
Drilling Co: Giles Eng. — Rig: Mobile B-47
Driller: Rollie — Auger or Casing Size: 2¼"
Helper: John — Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
1 hour reading	3/9/90	2:30PM	3,2' (Perched)	
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	3	5	6	19"		2-3.5' Green-gray-brown motled silty clay with trace fine-medium sand	37.8	Odor
2	6	11	17	18"		4.5-6' Brown-gray mottled clayey silt with brick, limestone	42.2	Fill, odor
3	20	10	8	18"	8'	7-8.5' Gray-brown clayey silt, drove rock	19.7	Odor, natural material
4	9	9	9	24"	10.5	9.5-11' Gray clayey silt in tip, brown clayey silt above, trace clayey sand	19.8	Odor
							9.8	
5	11	17	16	18"		12-13.5' Gray clayey silt with trace fine-coarse sand		
6	13	16	15	20"		14.5-16' Gray silty clay in tip, 6" layer wet very fine sand above	13.6	
						BORING TERMIANTED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 3/9/90

Boring Number: SB-6 Completion Date: 3/9/90

Drilling Co: Giles Eng. Rig: B-47

Driller: Rollie Auger or Casing Size: 2¼"

Helper: John Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	4	6	8	20"		2-3.5' Gray-brown mottled clayey silt with very fine sand, trace coarse sand	8.2	
2	7	7	8	20"		4.5-6' Brown clayey silt with very fine-medium sand, trace coarse sand	8.5	
				18"			6.1	
3	6	7	9			7-8.5' Same		
4	9	4	4	20"	9.5'	9.5-11' Gray silty clay, trace coarse sand	4.8	
5	14	9	12	18"	15.7	14.5-16' Gray silt very fine-fine sand in tip, gray silty clay above	6.5	
						BORING TERMINATED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 3/9/90

Boring Number: SB-7 Completion Date: 3/9/90

Drilling Co: Giles Eng. Rig: B-47

Driller: Rollie Auger or Casing Size: 2¼"

Helper: John Hole Advanced By: [X] HS. Auger [ ] Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	11	13	17"		2-3.5' Gray-brown mottled silt, trace clay	5.5	
2	7	13	15	21"		4.5-6' Brown silt with very fine sand, trace clay	2.3	
3	7	15	13	24"		7-8.5' Gray-brown clayey silt, trace coarse sand	3.5	
4	8	7	9	22"	10'	9.5-11' Gray silty clay, trace coarse sand	4.0	Moist
						BORING TERMIANTED AT 11'		

10 15 20 25 30 35 40

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

Client: MIDWEST TANNING
Location: South Milwaukee Start Date: 3/9/90
Boring Number: SB-8 Completion Date: 3/9/90
Drilling Co: Giles Eng. Rig: Mobile Minuteman
Driller: Rollie Auger or Casing Size: 3" O.D.
Helper: John Hole Advanced By: ☐ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

NOTES:

Boring inside building, west of UST

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled				
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler (0/6 6/12 12/18)	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1		5"		.9-1.5' Black silt with fine-coarse sand	66.3	Strong odor
2		6"		3.0-3.6' Dark gray-green mottled clayey silt with fine-coarse sand	30.9	Strong odor
3		5"		5.4-6.0' Brown clayey silt with trace coarse sand. Moist.	119	Odor
4		6"		8.8-9.4' Same		
					27	

BORING TERMINATED AT 9.4'

APPENDIX B
LABORATORY RESULTS

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

04/11/90 LABORATORY REPORT

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M09683 SOIL/SOUTH MILWAUKEE/SB-5/4.5-6'/PID=42.2
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED

N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL M.T.

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

04/09/90 LABORATORY REPORT

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04845 SOIL/SOUTH MILWAUKEE/SB-6/(4.5 - 6')/PID = 8.5
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL-ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED,
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CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

M066 8447129 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04846 SOIL/SOUTH MILWAUKEE/SB-7/(2-3.5')/PID = 5.5
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
TRICHLOROFLUOROMETHANE	<0.010	PPM
ETHYL ETHER	<0.010	PPM
METHANOL	<0.010	PPM
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM
ETHANOL	<0.010	PPM
ACETONE	<0.010	PPM
METHYLENE CHLORIDE	<0.010	PPM
ISOPROPANOL	<0.010	PPM
CARBON TETRACHLORIDE	<0.010	PPM
ETHYL ACETATE	<0.010	PPM
METHYL ETHYL KETONE	<0.010	PPM
1,1,1-TRICHLOROETHANE	<0.010	PPM
BENZENE	<0.010	PPM
TRICHLOROETHYLENE	<0.010	PPM
ISOBUTANOL	<0.010	PPM
N-BUTANOL	<0.010	PPM
TOLUENE	<0.010	PPM
2-ETHOXYETHANOL	<0.010	PPM
METHYL ISOBUTYL KETONE	<0.010	PPM
TETRACHLOROETHYLENE	<0.010	PPM
BUTYL ACETATE	<0.010	PPM
ETHYLBENZENE	<0.010	PPM
XYLENES	<0.010	PPM
STYRENE	<0.010	PPM
2-ETHOXYETHYL ACETATE	<0.010	PPM
2-BUTOXYETHANOL	<0.010	PPM
CYCLOHEXANONE	<0.010	PPM
CHLOROBENZENE	<0.010	PPM
O-DICHLOROBENZENE	<0.010	PPM
CARBON DISULFIDE	<0.010	PPM
CHLOROFORM	<0.010	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
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CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

04/18/90 LABORATORY REPORT

M066 8447132 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04847 SOIL/SOUTH MILWAUKEE/SB-8/(5.4-6') PID = 119
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS	
TRICHLOROFLUOROMETHANE	<0.010	PPM	!
ETHYL ETHER	<0.010	PPM	!
METHANOL	<0.010	PPM	!
1,1,2TRICHLORO-1,2,2TRIFLU	<0.010	PPM	!
ETHANOL	<0.010	PPM	!
ACETONE	<0.010	PPM	!
METHYLENE CHLORIDE	<0.010	PPM	!
ISOPROPANOL	<0.010	PPM	!
CARBON TETRACHLORIDE	<0.010	PPM	!
ETHYL ACETATE	<0.010	PPM	!
METHYL ETHYL KETONE	<0.010	PPM	!
1,1,1-TRICHLOROETHANE	<0.010	PPM	!
BENZENE	<0.010	PPM	!
TRICHLOROETHYLENE	<0.010	PPM	!
ISOBUTANOL	<0.010	PPM	!
N-BUTANOL	<0.010	PPM	!
TOLUENE	<0.010	PPM	!
2-ETHOXYETHANOL	<0.010	PPM	!
METHYL ISOBUTYL KETONE	<0.010	PPM	!
TETRACHLOROETHYLENE	<0.010	PPM	!
BUTYL ACETATE	<0.010	PPM	!
ETHYLBENZENE	<0.010	PPM	!
XYLENES	<0.010	PPM	!
STYRENE	<0.010	PPM	!
2-ETHOXYETHYL ACETATE	<0.010	PPM	!
2-BUTOXYETHANOL	<0.010	PPM	!
CYCLOHEXANONE	<0.010	PPM	!
CHLOROBENZENE	<0.010	PPM	!
O-DICHLOROBENZENE	<0.010	PPM	!
CARBON DISULFIDE	<0.010	PPM	!
CHLOROFORM	<0.010	PPM	!
TOTAL PETROLEUM HYDROCARBONS	1100	PPM	!

BASED ON SIMILARITIES TO KEROSENE STANDARD
KEROSENE. AMENDED RESULT DUE TO REEVALUATION OF

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.

! = REPRINT N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL MFR.

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

M066 8447132 W36
CM/* / / /
CAVOCR0079

MIDWEST TANNING COMPANY
P. O. BOX 189
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 90068-M04847 SOIL/SOUTH MILWAUKEE/SB-8/(5.4-6') PID = 119
DATE COLLECTED 03/09/90 DATE RECEIVED 03/09/90

TEST NAME	RESULT	UNITS
CHROMATOGRAM. 4-18-90		

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

Box 12436
Milwaukee, Wisconsin 53212
Fax: (414) 562-1258

February 14, 1990

File Copy

File Ref: 4440

Mr. Fred R. Schimian
Midwest Tanning Company
1200 Davis Avenue
P.O. Box 189
South Milwaukee, WI 53172

Dear Mr. Schimian:

RE: CBC Tank Assessment Report

This letter is to acknowledge the receipt of the referenced CBC report on February 7, 1990.

The Department of Natural Resources approves the work plan as proposed on Page 4 pending inclusion of the following:

1. The lateral and horizontal extent of all contaminants must be determined.

2. The report for the proposed work shall conclude with recommendations for remediation.

Sincerely,

Charles J. Krohn
Environmental Response Hydrogeologist

CJK:jmw

Feb90\1231-1

A REPORT FOR AN
UNDERGROUND STORAGE TANK
SITE ASSESSMENT
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN

PREPARED FOR:
MR. FRED SCHIMIAN
MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE, WISCONSIN 53172

PREPARED BY:
CRAIG A. VARLAND
PROJECT SUPERVISOR
CBC ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD
OAK CREEK, WISCONSIN 53154

TABLE OF CONTENTS

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LIST OF APPENDICES

I. INTRODUCTION

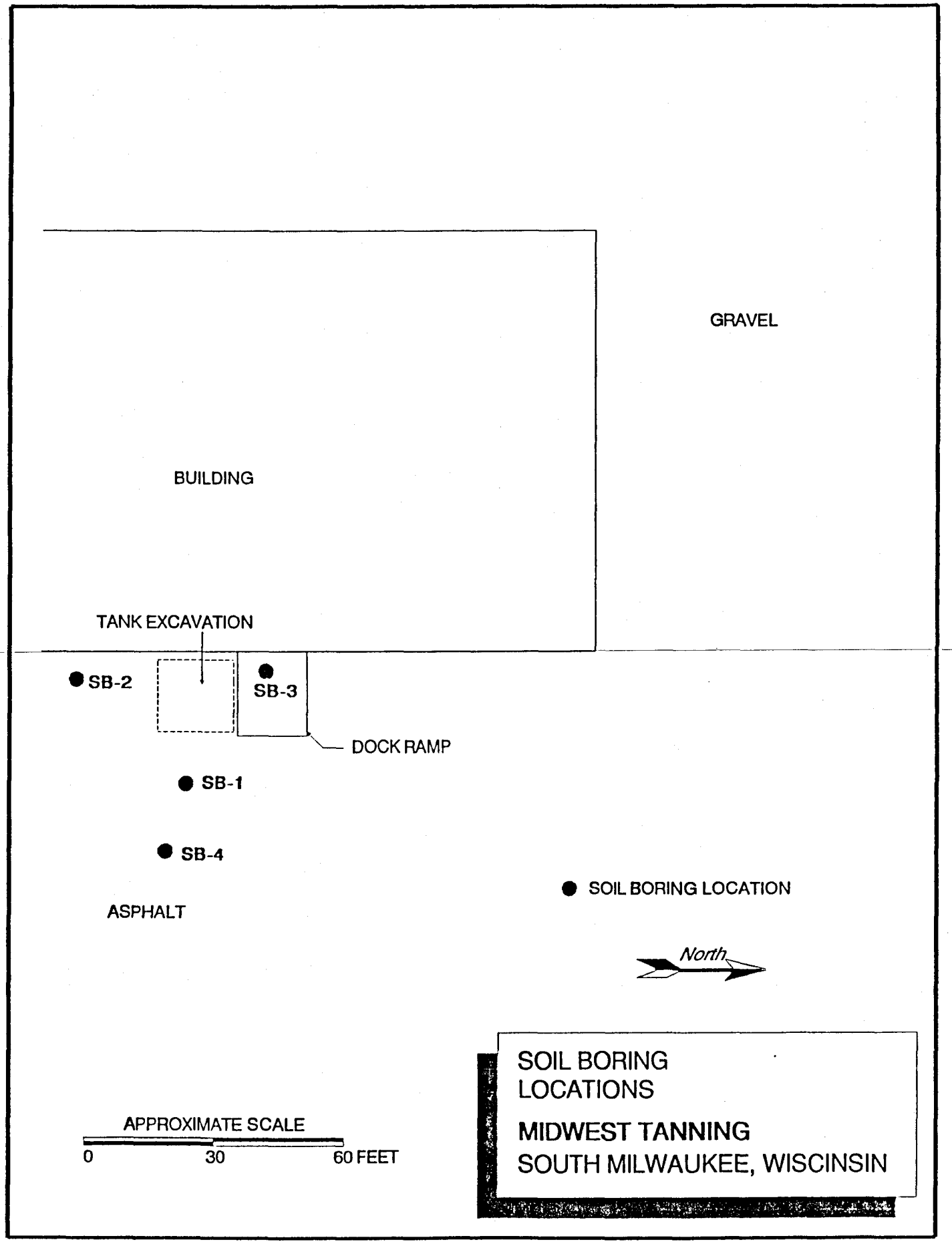
Chem-Bio Corporation (CBC) Environmental Services of Oak Creek, Wisconsin, has been retained by Mr. Fred Schimian of Midwest Tanning Company, to conduct a soils assessment at the facility located at 1200 Davis Avenue in South Milwaukee, Wisconsin. The purpose of the assessment was to determine the extent of soil contamination at the location of a former underground storage tank. The tank had been removed prior to this assessment. This report details the results of the initial phase of the soils study performed on December 13, 1989.

II. SUBSURFACE INVESTIGATION

Work conducted at the site during this portion of the investigation included drilling profile soil borings and collecting samples for analysis.

Four (4) profile soil borings were drilled to total depths ranging from eleven (11) to sixteen (16) feet (see Site Map). Borings were drilled on December 13, 1989, by Giles Engineering. Boring logs are found at Appendix A. During advancement of the auger, split-spoon samples were collected at 2.5 foot intervals to 10 feet, and at 5 foot intervals to completion in Borings SB-2 and SB-3. Borings SB-1 and SB-4 were sampled at 2.5 foot intervals to completion. Two (2) samples at each interval were collected.

One (1) sample was immediately containerized in a glass jar, sealed with a teflon-lined cap and placed into a cooler. The other sample was allowed to warm to room temperature and was tested for volatile compounds utilizing a Photovac Photoionization Detection (PID) Meter. PID results are included with the boring logs in Appendix A.



SOIL BORING LOCATIONS

MIDWEST TANNING
SOUTH MILWAUKEE, WISCINSIN

One sample from each boring displaying the highest PID value was accompanied with a Chain-of-Custody and transported to the CBC laboratory for analysis of Total Petroleum Hydrocarbons (TPH). In addition, a composite sample of the excavated soils was submitted for analysis of those parameters required for the acquisition of a disposal permit. The laboratory results are presented in Appendix B.

All downhole drilling equipment (augers, drill rods, and spoons) were steam cleaned prior to mobilization to the site. Between each boring, split-spoons were rinsed with hexane and triple rinsed with deionized water. In addition, split-spoons were washed with an alconox soap solution and a final rinse between each sampling interval. All borings were grouted after completion with Baroid Holeplug$_{TM}$.

III. SOIL QUALITY

Laboratory results show that the sample collected from SB-1 exceeded Wisconsin Department of Natural Resources (WDNR) general soil guidelines of 10 parts per million (ppm) for Total Petroleum Hydrocarbons. Samples from SB-2, SB-3, and SB-4 were at Total Petroleum Hydrocarbon (TPH) concentrations of less than 4 ppm.

IV. SITE GEOLOGY

The regional geology of the area is dominated by Pleistocene-age deposits of the Wisconsinan stage glaciation. Locally, the predominant glacial till is the Oak Creek Formation. The Oak Creek Formation includes fine-grained till, lacrustrine clay, silt, and sand, and some glaciofluvial sand and gravel.

Soils encountered in the soil borings consisted of brown and gray clayey-silts to silty-clays. Groundwater was not encountered in the borings.

V. REGULATIONS

The State of Wisconsin has not established standards for the levels of contaminants detected in soil. The Wisconsin Department of Natural Resources (WDNR) evaluates each situation separately to determine if the existence of contaminants in soils will have an adverse effect on the groundwater or otherwise on the environment and public health. The WDNR has stated that corrective action is required if the level of Total Petroleum Hydrocarbons in soils is above 10 ppm.

VI. CONCLUSIONS

The preliminary soil quality assessment at 1200 Davis Avenue in South Milwaukee, Wisconsin, is completed. The following conclusions are made based on the preliminary study:

1. The site geology consists of brown and gray clayey-silts and silty-clays.

2. Hydrocarbons were identified at shallow depths in SB-1; however, lateral migration eastward was not detected in SB-4. PID screens of samples in SB-3 and SB-4 revealed the presence of volatile organic compounds.

3. Soil quality west of the former tank has not been established.

4. Groundwater was not encountered in the borings on site. The thickness of the silty clay formation suggests that groundwater has not been impacted.

VII. RECOMMENDATIONS

As a result of our preliminary findings, the following recommendations are offered:

1. Determine possible lateral contaminant migration west of the former underground tank by installing a soil boring inside the building.

2. Submit a sample for a solvent scan and TPH analysis.

3. Install additional borings near SB-3 and SB-4. Submit samples for solvent scan analysis to identify compounds detected by previous PID screens.

APPENDIX A
SOIL BORING LOGS

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-1 Completion Date: 12/13/89

Drilling Co: Giles Engineering Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	10	12	20"		2-3.5' GRAY-BROWN MOTTLED SILT WITH VERY FINE SAND	2.5	
2	7	8	10	18"		4.5-6' GRAY-BROWN MOTTLED CLAYEY SILT WITH TRACE OF COARSE SAND	55.9*	Moist. Odor
3	13	17	24	18"		7-8.5' BROWN SILTY CLAY WITH COARSE SAND	3.5	
4	5	8	8	18"	9.5	9.5-11' GRAY SILTY-CLAY WITH SOME COARSE SAND	1.6	Moist
5	4	6	9	13"		12-13.5' SOFT GRAY SILTY CLAY WITH TRACE COARSE SAND. 1½" SEAM VERY FINE SAND AT 13'	3.3	Moist
6	9	17	23	18"		14.5-16' GRAY SILTY CLAY IN TIP GRAY CLAYEY-SILT ABOVE	3.4	
						BORING TERMINATED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING
Location: South Milwaukee Start Date: 12/13/89
Boring Number: SB-2 Completion Date: 12/13/89
Drilling Co: Giles Rig: Mobile B-47
Driller: Vic Auger or Casing Size: 2¼"
Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	8	12	15	20"		2-3.5' BROWN SILTY CLAY WITH COARSE SAND. TRACE ORGANICS	7.3	*
2	10	15	20	22"		4.5-6' BROWN SILTY CLAY WITH COARSE SAND. TRACE ORGANICS	3.9	
3	12	15	19	22"		7-8.5' BROWN CLAYEY SILT-SILTY CLAY WITH TRACE MEDIUM SAND	4	
4	5	6	8	20"	10'	9.5-11' SOFT GRAY SILTY CLAY WITH VERY FINE SAND	.8	Moist
5	4	4	9	14"		14.5-16' SOFT GRAY SILTY CLAY WITH VERY FINE SAND AND SMALL GRAVEL (WET). BORING TERMINATED AT 16'	N/D	

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING

Location: South Milwaukee Start Date: 12/13/89

Boring Number: SB-3 Completion Date: 12/13/89

Drilling Co: Giles Rig: Mobile B-47

Driller: Vic Auger or Casing Size: 2¼"

Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring

If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulled			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
								Strong Odor
1	11	14	14	22"		2-3.5' GREEN-BLACK-BROWN MOTTLED SILT WITH DECAYED ORGNAIC MATTER	23.8	
2	11	14	15	21"		4.5-6' BROWN SILT VERY FINE SAND (WET)	45.2	* Strong Odor
3	7	7	9	22"		7-8.5' BROWN-GRAY, CLAYEY SILT WITH TRACE COARSE SAND	4.5	Odor
4	5	7	9	20"		9.5-11' GRAY CLAYEY SILT, VERY FINE SAND	3.5	
5	16	30	18	24"	15.5	14.5-16' GRAY SILT VERY FINE SAND (WET)	3.0	
						BORING TERMINATED AT 16'		

ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: MIDWEST TANNING
Location: South Milwaukee Start Date: 12/13/89
Boring Number: SB-4 Completion Date: 12/13/89
Drilling Co: Giles Engineering Rig: Mobile B-47
Driller: Vic Auger or Casing Size: 2¼"
Helper: Jay Hole Advanced By: ☒ HS. Auger ☐ Wash Boring
If wash boring used Depth _____ to _____ ft.

WATER LEVEL	READING DATE	READING TIME	WATER LEVEL BELOW SURFACE	DEPTH CAVED
Encountered when drilling				
After auger or casing pulied			Dry	
24 hour reading				
_____ hour reading				
Observation well installed			Depth _____ Feet	

Sample Number	Blows on Sampler 0/6	6/12	12/18	Sample Recovery	Material Charge	MATERIAL CLASSIFICATION Signature:	PID PPM	REMARKS
1	7	15	17	18"		2-3.5' GRAY-BROWN MOTTLED SILT. TRACE COARSE SAND	46.5	*
2	13	14	17	21"		4.5-6' BROWN MOTTLED CLAYEY SILT. TRACE SMALL GRAVEL	12.3	
3	8	11	15	15"		7-8.5' BROWN SILT IN TIP WITH BROWN MOTTLED CLAYEY SILT ABOVE	2.5	
4	8	7	8	14"	10'	9.5-11' GRAY SILTY CLAY WITH TRACE COARSE SAND	1.5	
						BORING TERMINATED AT 11'		

5 10 15 20 25 30 35 40

APPENDIX B
LABORATORY RESULTS

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

01/03/90 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M02601 SOIL/BORING/SB-1(4-5.6')
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	120	PPM
	KEROSENE.	BASED ON SIMILARITIES TO KEROSENE
	STANDARD.	

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
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ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

12/22/89 LABORATORY REPORT PAGE 1

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04845 SOIL/BORING/SB-2(2-3.5')
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL

CHEM-BIO CORPORATION
ENVIRONMENTAL SERVICES
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

12/29/89 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04846 SOIL/BORING SB-3/4.5-6'
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL URS

CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

ENVIRONMENTAL SERVICES

12/21/89 LABORATORY REPORT

M066 8443868 W61
CM/* / / /

MIDWEST TANNING COMPANY
1200 DAVIS AVENUE
SOUTH MILWAUKEE ,WI 53172
ATTN: FRED SCHIMIAN

SAMPLE 89349-M04847 SOIL/BORING SB-4/2-3.5'
DATE COLLECTED 12/15/89 DATE RECEIVED 12/15/89

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT WITH QUESTIONS. REMAINING WASTE SAMPLES WILL BE RETURNED 6 WEEKS FROM THE RECEIVING DATE OF SAMPLE. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT. WI DNR LAB CERTIFICATION #241283020/A.I.H.A. ACCREDITED.
N/T = NOT TESTED N/A = NOT APPLICABLE APPROVAL M.J.R.

Midwest Tanning Company
TANNERS
HIGH GRADE SHOE AND GLOVE LEATHER
1200 DAVIS AVENUE, P.O. BOX 189
SOUTH MILWAUKEE, WI 53172-0189
PHONE: 414-768-7000
FAX: 414-768-7014

February 5, 1990

Department of Natural Resources
2300 Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53210

Attn: Mr. Jim Schmidt

SUBJECT: Underground Storage Tank WDNR File Reference #4440

Dear Mr. Schmidt:

Please find enclosed a copy of a report for an underground storage tank site assessment prepared by CBC Environmental Services concerning the 560 G. Tank which was removed on November 30th, 1989.

Also enclosed is a copy of the underground Petroleum Product Tank inventory completed for an abandoned tank which has been removed.

As recommended by CBC, further sampling and analysis will be conducted at the site.

Sincerely,

MIDWEST TANNING COMPANY

Fred R. Schimian
Plant Engineer

FRS:llz

cc: A. J. Glubka
J. A. Brotz
R. J. Boucher
File

Wisconsin Department of Industry, Labor and Human Relations

For Office Use Only:
Tank ID #

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (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.

This registration applies to a tank that is (check one):
1. ☐ In Use
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☒ Abandoned - Tank Removed
6. ☐ Abandoned - Filled With Inert Material
7. ☐ Out of Service

Fire Department Providing Fire Coverage Where Tank Located:
SOUTH MILWAUKEE FIRE DEPARTMENT

A. IDENTIFICATION: (Please Print)

1 Installation Name: MIDWEST TANNING CO.

2 Mailing Name if Different Than #1:

Installation Street Address: 1200 DAVIS AVE

Mailing Address if Different Than #1: P.O. BOX 189

☒ City ☐ Village ☐ Town of: SOUTH MILWAUKEE

☐ City ☐ Village ☐ Town of:

State	Zip Code	County
WI	53172	MILWAUKEE

State	Zip Code	County

3 Name of Contact Person: FRED SCHIMIAN

4. Owner Name if Different Than #3: MARMON GROUP

Street Address:

Street Address: 225 W. WASHINGTON STREET

☐ City ☐ Town ☐ Village of:

State	Zip Code

☒ City ☐ Town ☐ Village of: CHICAGO

State	Zip Code
ILL	60603

County:

Telephone No. (include area code): 414-768-7000

County:

Telephone No. (include area code):

5. Tank Age (date installed, if known: or years old)	6. Tank Capacity (gallons)	7. Tank Manufacturer's Name (if known)
1970	560	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 (☐ Sacrificial Anodes or ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined
7. ☐ Steel - Fiberglass Reinforced Plastic Composite

Is tank UL Approved? ☐ Yes ☐ No

Is Tank Double Walled? ☐ Yes ☐ No

Overfill Protection Provided? ☐ Yes ☐ No If yes, identify type:

D. PIPING CONSTRUCTION

1. ☒ Bare Steel
2. ☐ Cathodically Protected Steel (With Coating? ☐ Yes ☐ No)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Unknown

Cathodic Protection By: ☐ Sacrificial Anodes or ☐ Impressed Current

UL Approved? ☐ Yes ☐ No

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 Abandoned, Give Date (mo/day/yr): 11-30-89

Has Clean Closure Status Been verified? (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) _____

Signature of Person Completing Report: Fred Schimian

Date Signed: 2-5-90

SBD 7437 (R 08/88)

Wisconsin Department of Industry, Labor and Human Relations

For Office Use Only:
Tank ID #

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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4. ☒ Abandoned - Tank Removed
6. ☐ Abandoned - Filled With Inert Material
7 ☐ Out of Service

Fire Department Providing Fire Coverage Where Tank Located:
SOUTH MILWAUKEE FIRE DEPARTMENT

A. IDENTIFICATION: (Please Print)

1 Installation Name: MIDWEST TANNING CO.

2 Mailing Name if Different Than #1:

Installation Street Address: 1200 DAVIS AVE

Mailing Address if Different Than #1: P.O. BOX 189

☒ City ☐ Village ☐ Town of: SOUTH MILWAUKEE

State: WI | Zip Code: 53172 | County: MILWAUKEE

☐ City ☐ Village ☐ Town of:

State | Zip Code | County

3 Name of Contact Person: FRED SCHIMIAN

4. Owner Name if Different Than #3: MARMON GROUP

Street Address:

Street Address: 225 W. WASHINGTON STREET

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

☒ City ☐ Town ☐ Village of: CHICAGO | State: ILL | Zip Code: 60603

County | Telephone No. (include area code): 414-768-7000

County | Telephone No. (include area code)

5. Tank Age (date installed, if known: or years old): 1970

6. Tank Capacity (gallons): 560

7. 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 (☐ Sacrificial Anodes or ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined
7. ☐ Steel - Fiberglass Reinforced Plastic Composite

Is tank UL Approved? ☐ Yes ☐ No | Is Tank Double Walled? ☐ Yes ☐ No

Overfill Protection Provided? ☐ Yes ☐ No If yes, identify type:

D. PIPING CONSTRUCTION

1. ☒ Bare Steel
2. ☐ Cathodically Protected Steel (With Coating? ☐ Yes ☐ No)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Unknown

Cathodic Protection By: ☐ Sacrificial Anodes or ☐ Impressed Current | UL Approved? ☐ Yes ☐ No | 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 Abandoned, Give Date (mo/day/yr): 11-30-89

Has Clean Closure Status Been verified? (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) _____

Signature of Person Completing Report: Fred Schimian

Date Signed: 2-5-90

SBD 7437 (R 08/88)

Department of Natural Resources

SOLID WASTE MANAGEMENT FACILITY CONTACT FORM
Form 4400-106 6-86

NOTE: DO NOT USE THIS FORM WHEN DOCUMENTING INSPECTIONS AT HAZARDOUS WASTE AND SOLID WASTE FACILITIES. SEE BACK SIDE OF THIS FORM FOR MORE INFORMATION.

ATTN: _____

License Number _ _ _ _ _

☐ Residuals Management SW/3 ☐ District SED

EPA ID Number WI- _ _ _ _ _ _ _ _ _ _

☐ Hazardous Waste Management SW/3 Unit _____ ☐ Environmental Enforcement EE/5

Facility ID Number _ _ _ _ _ _ _ _ _ _

☐ Systems Management SW/3 ☐ _____

Facility/Company Name	Location (Address or ¼¼)	City, State, Zip Code
Midwest Tanning		

Facility Type	District	County	Contact Method	Date	Time (24-Hour Clock)
Tannery	SED	Mil.	☐ Telephone ☐ In-Person	12/28/89 (M M D D Y Y)	_ _ _ _

Facility Representative Contacted	Title or Position of Representative	Telephone Number (include area code)
AL Glubka	—	( )

Asked for extension of 10 day limit on the Letter. I Granted extension - GBC shall have report by Jan 8/90. Giles drilled exploratory borings.

Check if additional sheets attached ☐

By Carl J Yde

INSTRUCTIONS

USE THIS FORM TO:

1. Document telephone or in-person conversations.

2. Document meetings.

DO NOT USE THIS FORM:

1. For hazardous waste facilities inspection documentation. Use the Compliance Monitoring and Enforcement Summary Form 4430-5 and the appropriate inspection form(s).

2. For solid waste facilities inspection documentation. Use the Solid Waste Inspection Form 4400-104.

Midwest Tanning Company

TANNERS

HIGH GRADE SHOE AND GLOVE LEATHER

1200 DAVIS AVENUE, P.O. BOX 189
SOUTH MILWAUKEE, WI 53172-0189

PHONE: 414-768-7000

FAX: 414-768-7014

December 20, 1989

State of Wisconsin
Department of Natural Resources
P. O. Box 12436
Milwaukee, WI 53212

Subject: File Reference #4440
Your letter of 12-13-89

Attn: Mr. Charles J. Krohn
Environmental Repair Hydrogeologist

Dear Mr. Krohn:

We have been unable to reach you by telephone and do acknowledge receipt of your letter.

The following events have taken place as of this date:

A permit from the City of South Milwaukee was taken out and the tank was excavated and removed from the ground on November 30th by Page Brothers Excavating. It was discovered at the time of removal that this tank had a hole 1" x 1/4" directly on the bottom of the tank.

Skip Baker of the DNR was notified by Dennis Donneau of the South Milwaukee Fire Department at 3:00 P.M. that same afternoon.

I tried to reach Mr. Baker on December 1st and December 4th. He did not return my calls.

CBC Environmental Services were contacted on Decebmer 4th and came out to review the site that afternoon. A proposal for a sub-surface soil investigation was verbally given to me on December 7th and P.O. #001369 was given to CBC. The written quotation was received on December 11th. (A copy is attached.)

Soil borings were done by Giles Engineering on December 13th under the supervision of CBC. CBC also conducted site checks with a PID instrument. Samples were taken to CBC Lab for further analysis (BETX) which will determine the extent of the contamination and what further action is required to clean up the site.

On December 15th we received your packet stating we are in violation of State Statute 144.76(3), i.e. Discharging a Hazardous Substance to the Environment. You also identify Midwest Tanning Company as the party responsible for taking the necessary actions to repair the environment. You also request a scope of work plan containing the information on the enclosed sheet that should be submitted to your office within ten (10) days.

In as much as we will not receive from CBC the lab analysis and other information necessary to complete your request until the week of January 8, 1990, we cannot comply with the ten (10) day request.

We request an extension of this time period until February 1, 1990, so we can comply with the information request.

Please verify this extension in writing to us.

Sincerely,

MIDWEST TANNING COMPANY

Fred Schimian
Plant Engineer
FS/ct

c.c. A. J. Glubka
J. A. Brotz
R. J. Boucher

CBC ENVIRONMENTAL SERVICES
CHEM-BIO CORPORATION
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

December 7, 1989

Mr. Fred Schimian
Midwest Tanning
1200 Davis Avenue
South Milwaukee, Wisconsin 53172

Dear Mr. Schimian:

Please find the attached proposal and cost estimate titled "A Proposal and Cost Estimate for a Sub-Surface Soil Investigation of a Tank Excavation at 1200 Davis Avenue, South Milwaukee, Wisconsin".

If you have any questions pertaining to this proposal, please do not hesitate to call me. We plan to begin work on December 13, 1989.

Respectfully Submitted,

CBC ENVIRONMENTAL SERVICES

Craig A. Varland
Project Supervisor

CAV/st

Attch.

I. INTRODUCTION

CBC Environmental Services was asked by Mr. Fred Schimian to submit a proposal and cost estimate for a sub-surface investigation near a former underground storage tank at your property located at 1200 Davis Avenue, South Milwaukee, Wisconsin. The contents of this proposal will outline the scope of work required to complete this project.

II. SCOPE OF WORK

CBC Environmental Services will coordinate, schedule and implement all work associated with the sub-surface investigation at the South Milwaukee site. A final report will be submitted within two (2) weeks of the completion of all field and laboratory activities. The sub-surface investigation will include the following services:

* In order to minimize on-site hazards, the site will be prepared in accordance with CBC standard operating procedure. Protocol will include the location and marking of all known underground utilities within the work area.

* Three (3) to four (4) boreholes will be drilled to a depth of fifteen (15) feet.

* Soil samples will be collected at 2.5 foot intervals.

* Additional boreholes may be installed, if necessary, to perimeterize the extent of the contamination.

* In-field analysis of the soil samples from each boring will be performed using a Photoionization Detector (PID). The PID will provide a semi-quantitative value of the volatile organics in the unsaturated soils.

* One (1) sample from each boring will be accompanied with a Chain-of-Custody document and transported to the CBC laboratory. Each of the samples will be analyzed for Total Petroleum Hydrocarbons.

* Information collected during the field investigation will be evaluated and compiled in a sub-surface investigation report. The report will include investigative findings and recommendations.

II. COST PROPOSAL

A cost estimate is provided for your review. This estimate is based on a site visit and our experiences with similar projects. In the event that on-site conditions warrant changes to this work plan, Mr. Fred Schimian will be notified that additional costs may be incurred. The actual invoicing will be submitted on a time and materials basis. Every effort will be exercised to perform this project in a timely and cost effective manner.

COST ESTIMATE

MIDWEST TANNING
SOUTH MILWAUKEE, WISCONSIN

- FIELD SERVICES

  Includes: All labor and materials for site preparation; drilling of three(3) to four (4) boreholes to a depth of fifteen (15) feet; on-site project supervision, expenses and field equipment. . $1,580.00-$1,800.00

- LABORATORY ANALYSIS

  Includes: Total Petroleum Hydrocarbons, three (3) to four (4) samples; contaminated soil profile (for disposal permit); permitting fee . . . . . $ 465.00-$ 525.00

- PROFESSIONAL SERVICES

  Includes: Data compilation, report, and recommendations $1,000.00

TOTAL ESTIMATED COST . . . . . $3,045.00-$3,325.00

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

Box 12436
Milwaukee, Wisconsin 53212
Fax: (414) 562-1258

December 13, 1989

File Ref: 4440

Mr. Fred Schimian
Midwest Tanning Company
1200 Davis Avenue
South Milwaukee, WI 53172

Dear Mr. Schimian:

RE: Midwest Tanning Co.

A report from Dennis Bonneau of the South Milwaukee Fire Department indicates that Midwest Tanning Co. is responsible for a release of kerosene to the environment.

> Wisconsin Statute 144.76(3) states: "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 this state."

The Department identifies Midwest Tanning Co., as the party responsible for taking the actions necessary to restore the environment. Midwest Tanning is required under state law to conduct a subsurface investigation to determine the extent and character of the contamination and implement a clean up program. A scope of work plan including the information contained on the enclosed sheet should be submitted to this office within 10 days.

To assist in hiring a consultant I have enclosed a list of firms which conduct environmental investigations.

If you have any questions please contact me at (414) 562-9685 or at the above address.

Sincerely,

Charles J. Krohn
Environmental Repair Hydrogeologist

Enclosure Guidelines for Scope of Work
List of Environmental Contractors
PECTA Overview

Dec89\0396-1

State of Wisconsin
Department of Natural Resources

TOXIC AND HAZARDOUS SPILL REPORT

Form 4400-91 Rev. 6-86

State Div. Emergency Gov't. (608) 266-3232
U.S. Nat'l. Response Center (800) 424-8802
Chemtrec/Pesticides/Chlorine (800) 424-9300

Spill ID Number
Y Y M M D D 0-99

Date of Incident	Day of Week	Time of Incident	Reported By (Name)	Telephone Number
12/6/89	wed	☐ A.M. ☐ P.M.	Dennis Bonneau	( )
Date Reported	**Day of Week**	**Time Reported**	**Agency or Firm Reporting**	**Reported thru Div. Emergen. Gov't.**
12/6/89	wed	4:00 ☐ A.M. ☒ P.M.	DILHR → Fire insp.	☐ Yes ☐ No

Substance Involved	Quantity	Units	Person or Firm Responsible
			Midwest Tanning Co.
Substance Involved	**Quantity**	**Units**	**Contact Name / Telephone Number**
			Fred Schimian ( ) 768-7000

Physical Characteristics

☐ Solid ☒ Liquid Color _____
☐ Semisolid ☐ Gas Odor strong

Address — Street or Route
1200 Davis Ave

City, State, Zip Code
South Milwaukee

Cause of Incident
LUST

Exact Location Description (intersection, mileage, etc.)
1200 Davis Ave.

County Location	¼¼, ¼, Section, Town, Range
Milw.	___, ___, ___, T___N, R___

DNR Dist	DNR Area	Groundwaters Affected
SED	S.Milw	☐ Yes ☐ No ☒ Potential

Surface Waters Affected	Name of Surface Water
☐ Yes ☐ No ☒ Potential	

Date District Notified	Day of Week	Time District Notified
12/6/89	wed	☐ A.M. ☐ P.M.
District Person Notified		**Telephone Number**
Skip Baker		( ) 562 9589
Date Investigated	**Day of Week**	**Time Investigated**
		☐ A.M. ☐ P.M.
Person Investigating		**Telephone Number**
		( )

Action Taken By DNR

☐ No Action Taken ☐ Investigation ☐ Supervise/Conduct Cleanup
☐ Spiller Required To Take Action; Type _____
☐ Contractor Hired By DNR; Name _____
☐ Amount Recovered _____
☐ 29.29 Enforcement

Other Agencies on Scene

Local South Milw. Fire Dept.
State _____
Federal _____

Action Taken By Spiller

☐ No Action Taken ☐ No Notification ☐ Investigate
☐ Containment; Type _____
☐ Cleanup; Method _____
☐ Amount Recovered _____
☐ Monitor _____
☒ Contractor Hired; Name Wayne Page
☐ Other Action _____

Spill Location

☒ Industrial Facility/Paper Mill/Chem. Co.
☐ Gas/Service Station/Garage, Auto Dealer, Repair Shop
☐ Ag Coop/Facility/Cheese Factory/Creamery
☐ Other Small Business (bank, grocery, insurance co., etc.)
☐ Public Property (city, county, state, church, school, etc.)
☐ Utility Co., Power Generating/Transfer Facility
☐ Private Property (home/farm)
☐ Pipeline, Terminal, Tank Farm, Oil Jobber/Wholesaler
☐ Transportation Accident, Fuel Supply Tank Spill
☐ Transportation Accident, Load Spill
☐ Construction, Excavation, Wrecking, Quarry, Mine
☐ Other _____

Spilled Substance Destination

☐ Air
☒ Soil
☐ Groundwater
☐ Surface Water
☐ Storm Sewer
☐ Sanitary Sewer
☐ Contained/Recovered
☐ Other _____

Person Filing This Report (print name)

Signature	Date Signed

Additional Comments:

550 gal Kerosine Tank hole size of quarter in Bottom corner of tank, stained soil, strong odor. Midwest Tanning co. aware that Dennis called to report spill.

FID# 241043330

UNIFORM CONSERVATION, BOATING AND SNOWMOBILE CITATION
SECTION 23.54, WIS. STATUTES.

DEPARTMENT OF NATURAL RESOURCES — FORM 4100-70 REV. 9-80

C 13210

STATE OF WISCONSIN
THE UNDERSIGNED, BEING DULY SWORN AND UNDER OATH, COMPLAINS FOR AND ON BEHALF OF THE State OF Wisconsin UPON INFORMATION AND BELIEF, THAT ON OR ABOUT,

DEPOSIT PERMITTED: $314.00

Circuit COURT OF Milwaukee COUNTY

$ 160.00	Forfeiture
$ 24.00	Penalty Assess.
$ 10.00	Court Costs
$ 120.00	Nat. Res. Assess.
$	Nat. Res. Restit.
$ 314.00	TOTAL

DAY OF WEEK	DATE VIOLATION	TIME ☐ AM ☒ PM	COUNTY	CODE	TWP-VILLAGE-CITY	CODE
Friday	7-8-83	2:15 PM	Milwaukee	41	South Milwaukee	58

NAME LAST FIRST MI: Midwest Tanning Company
DATE OF BIRTH MO. DAY YR.:
AGE:
☐ WHI ☐ BLK ☐ NAT. AM. ☐ ASN ☐ HSP ☐ NON-HSP ____ EYES ____ HAIR ____ WGT. ____ HGT

STREET OR ROUTE: 1230 Davis Ave.
CITY, STATE, ZIP CODE: South Milwaukee, WI 53172
SEX ☐ M ☐ F

DID UNLAWFULLY Pollute Waters Of The State (Deposit Waste Materials Into Wat[ers])
ON THE ABOVE STATED TIME, DATE AND LOCATION, THE DEFENDANT (DESCRIBE VIOLATION — STATE FACTS)
Was Observed By Robert P. Grosch Of DNR Waste Water Section To Be Depositing To A Storm Sewer Which Leads To Oak Creek A Liquid Substance From Their Property Which By Sample Analysis Contained A Biochemical Oxygen Demand Of 7400 Mg/liter, 130,000 Mg/l Chlorides And 1720 Mg/liter Suspended Solids All Which Are In Excess Of What May Be Legally Discharged To A Storm Sewer And Deposited, Untreated, To State Waters.

in violation of section(s) ____________ of the ☐ Wis. Stats. ☐ Wis. Admin. Code ☐ Local Ordinance — CODE 03

and prays that he/she may be held to answer therefor.

Signature of Officer: [signature]

SUBSCRIBED AND SWORN TO Before me this date ____________ 19 ____

Title: Cons. Warden — Badge No. 62

Name ____________ Title ____________

Department or Agency: DNR

YOU ARE HEREBY NOTIFIED TO APPEAR IN THE ABOVE NAMED COURT
ON August 19, 1983 AT 10 ☒ A.M. ☐ P.M.
CITY 821 W. State St. Room 315

Milwaukee, Wis. 53233

THE MAXIMUM FORFEITURE FOR THIS VIOLATION IS $ 200.00 plus costs + Assessm. ($390.00)

THE COURT MAY ALSO REVOKE ALL LICENSES, CONFISCATE ALL EVIDENCE AND REQUIRE RESTORATION OR RESTITUTION OF ANY ENVIRONMENTAL DAMAGE.

[redacted]

~~FGS~~
~~RPG~~
DGM

Midwest Tanning Company

TANNERS

HIGH GRADE SHOE AND GLOVE LEATHER

1200 DAVIS AVENUE
P. O. Box 402
SOUTH MILWAUKEE, WIS. 53172-0402

PHONE
414-762-2642 - 43

July 29, 1983

Mr. Robert P. Grosch
DNR - State of Wisconsin
P. O. Box 13248
Milwaukee, WI

Dear Mr. Grosch: File Ref. 4430

Pumping water from the truck dock area to a storm catch basin has ceased.

Yours very truly,

MIDWEST TANNING COMPANY

D. F. Holloway

Donald F. Holloway
DFH/ct

LOCATION 41MISC | DATE 830708 | TIME 1330 | DEPTH | ACCOUNT# 090020 | LAB#SLIP# 004117 | END#DATE | END#TIME

TEST#	STORET#	TEST#NAME##AND##UNITS	TEST#VALUE
		EXTRA INFORMATION ABOUT SAMPLE:	GROSCH
		EXTRA INFORMATION ABOUT SAMPLE:	026.H.T.
106	00530	RESIDUE TOT NFLT MG/L	1420
035	00940	CHLORIDE CL MG/L	130000

***** COMMENT: STREET GUTTER ON 11TH AVE

Department of Natural Resources — SEWAGE AND INDUSTRIAL WASTE
FORM 3200-33

Collected By	Field No.	Basin No.	Sta. Est. Form Required
999 GROSCH			Yes [ ] No [ ]

Sample Description: STREET GUTTER ON 11TH AVE. IN 30. MILW. PRIOR TO DISCHARGE TO CATCH BASIN (STORM SEWER) @ 11TH & CARROLL (SLD SCREEN)

BOD Estimate 730 — MFFCC Estimate

Send Report To: Copy to →

Name: ROBERT GROSCH
Address: Box 13248
City, State, Zip Code: MILWAUKEE, WIS 53213

WA

Shaded Areas for Lab Use Only: 09020

Primary Sta. No.: 41MISC

Collection Date (beginning or grab): 830708 (Y Y M M D D)

Collection Date (ending): 830708 (Y Y M M D D)

Time (24 Hr. Clock) (beginning or grab): 13:30

Time (24 Hr. Clock) (ending): 13:30

Sample Location (See reverse for Code): F

131	Temp. (°C) Field	
091	DO Field	
096	pH Field	
038	Residual Chlorine	
130	Flow Rate MGD	
129	or GPM	

Field Inspection Form? (circle one) 1-Yes (0-No)

BOD₅ > 4,200 mg/l

[X] 020	BOD-5 Total	H.T.
[ ] 137	BOD-5 Diss	
[ ] 134	MFFCC*	
[ ] 148	Focal Strep	
[ ] 097	pH (su) Lab	
[ ] 138	Total Solids	
[ ] 107	Vol. Total Solids	
[X] 100	Suspended Solids	1420
[ ] 109	Vol. Susp. Solids	
[ ] 100	Total-P	
[ ] 136	Diss-P	
[ ] 087	Tot Kjeldahl-N	
[ ] 086	Ammonia-N	BAS.
[ ] 085	NO_2 - N + NO_3 - N	
[ ] 004	COD	
[X] ~~080~~	~~Oil & Grease~~	
[X]	~~Screen for chrome~~	
[X]	CHLORIDES 035	130,000 mg/L

All analyses reported in mg/L unless otherwise specified.
*Samples for both water chemistry and water bacteriology should be submitted in separate bottles.

R. H. Laessig, Ph.D., Director
Wisconsin State Laboratory of Hygiene
Madison, Wisconsin 53706 Rev 5-81

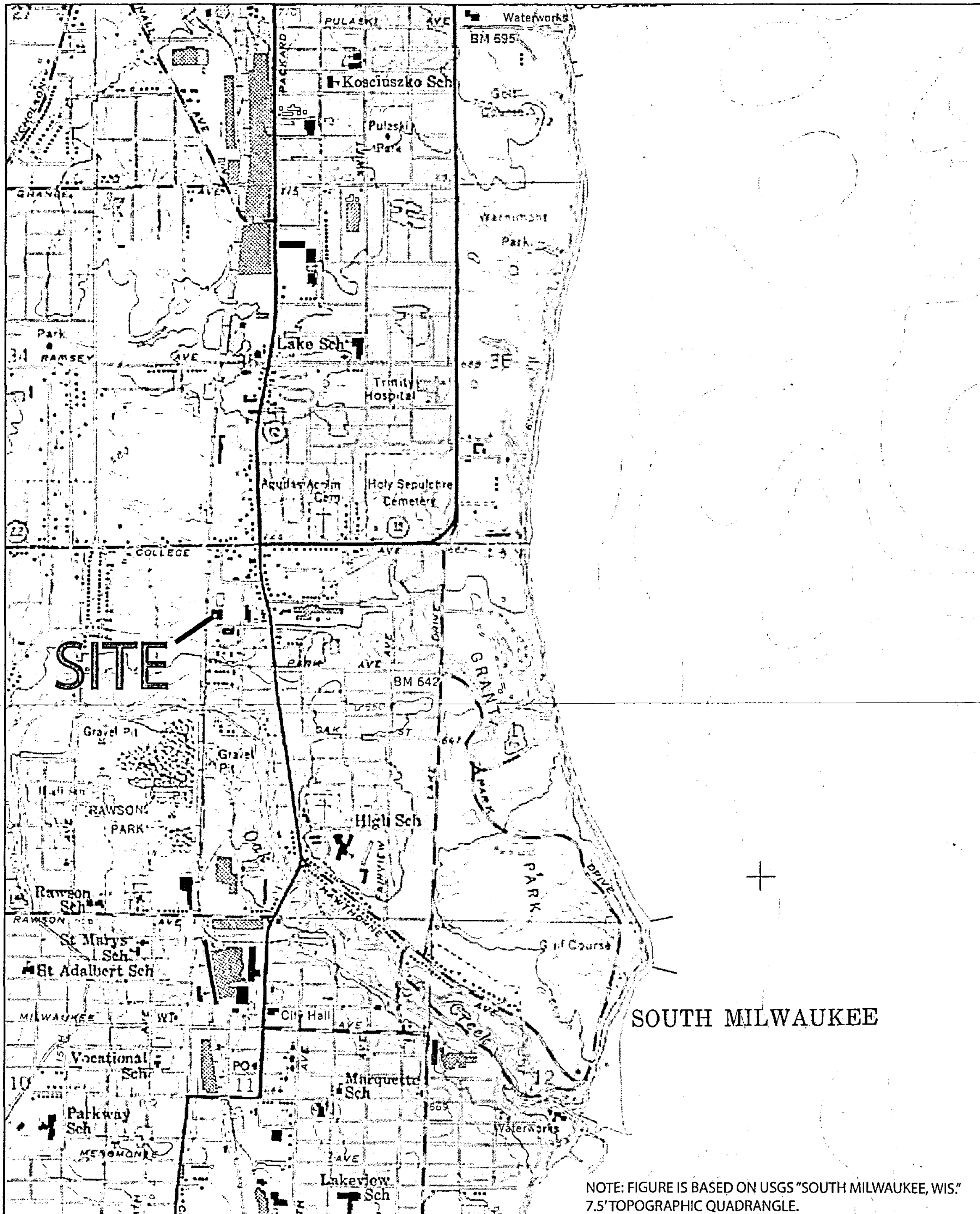
Date Received JUL 15 83 004117

Lab. No.

Date Reported JUL 29 1983 3

F-2600

Project : 12101 | Directory: I:\Innovation Park\12101 | Filename: 12101 SLM Figures 09-22-2010.ai | Created By: ERS | Date: 09/22/2010 | Plot File: 12101 SLM Figures 09-22-2010.pdf



THE SIGMA GROUP
Single Source. Sound Solutions.

SITE LOCATION MAP

Former Midwest Tanning Corp.
1200 Davis Avenue, South Milwaukee, Wisconsin

FIGURE

1

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-28	SB-29	SB-30	SB-31	SB-32	SB-33	SB-34	SB-35	SB-37	SB-38	SB-39	SB-40	SB-41	SB-42	SB-43	SB-44		SB-45	SB-46	SB-47	SB-48	SB-49	SB-50	SB-51	SB-52	SB-53
Sample Depth (ft):					4-7	7-8	8.5-10	6.5-7	4-5	4-7	4-8	0-6	4-5	4-7	7-9	5-6	2-4	4-6	5-6.5	4-7	9-10	4-5	2-3	5-7	3-4	4-6	1-2	2-3	4-5	3-4
VOLATILE ORGANIC COMPOUNDS	Unit	SSL (3) GW	SSL (1) D.C.-R	NR 746 (2) Table 1	07/17/01	07/17/01	7/17/2001	07/17/01	07/17/01	07/17/01	07/17/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/19/01	07/19/01	07/19/01
n-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1610**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1750**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**188**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**726**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<17	<17	NA	NA	NA	NA	NA	NA	<18	NA	**148**	<17	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**444**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	7,449	33,700	83,000	NA	NA	NA	NA	NA	<5.7	**6.8**	NA	NA	NA	NA	NA	NA	<6.0	NA	**2420**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.
SSL (D.C.-R) = Soil Screening Level for the direct contact pathway (residential) calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and a site area of 5 acres. For reference only; most appropriate values for several parameters were not determined.
µg/kg = micrograms per kilogram (equivalent to parts per billion)
NA = Not Analyzed NS = No Standard
NC = Not Calculated (for SSLs)
NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.
Exceedances: **BOLD** = detected compound
(1) = concentration exceeds residential direct contact pathway SSL
(2) = concentration exceeds NR 726 Table 1 value
(3) = concentration exceeds groundwater pathway SSL

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27
Sample Depth (ft):					2-4	1-2	4-6	5-6	3.5-4.5	8-9	14-14.5	5-7	10-12	6-8	7-8	6-7	5-6	7-8	5-6	6-8	5-6	9-10	11-12	9-10	6-7	7-8	10-11	10-12	7-9	7-10
VOLATILE ORGANIC COMPOUNDS	Unit	SSL (3) GW	SSL (1) D.C.-R	NR 746 (2) Table 1	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	07/17/01	07/17/01	07/17/01
n-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	**19**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
sec-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	**10**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
Isopropylbenzene	µg/kg	NC	NC	NS	NA	NA	<6.4	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
p-Isopropyltoluene	µg/kg	NC	NC	NS	NA	NA	**13**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
Methylene chloride	µg/kg	NC	NC	NS	NA	NA	<19	NA	NA	NA	<18	NA	NA	<18	NA	<17	NA	<17	NA	NA	NA	NA	NA	NA	<18	NA	<18	NA	NA	<17
n-Propylbenzene	µg/kg	NC	NC	NS	NA	NA	<6.4	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
1,2,4-Trimethylbenzene	µg/kg	7,449	33,700	83,000	NA	NA	**43**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7

Notes:

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

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(2) = concentration exceeds NR 726 Table 1 value

(3) = concentration exceeds groundwater pathway SSL

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-28	SB-29	SB-30	SB-31	SB-32	SB-33	SB-34	SB-35	SB-37	SB-38	SB-39	SB-40	SB-41	SB-42	SB-43	SB-44		SB-45	SB-46	SB-47	SB-48	SB-49	SB-50	SB-51	SB-52	SB-53
Sample Depth (ft):					4-7	7-8	8.5-10	6.5-7	4-5	4-7	4-8	0-6	4-5	4-7	7-9	5-6	2-4	4-6	5-6.5	4-7	9-10	4-5	2-3	5-7	3-4	4-6	1-2	2-3	4-5	3-4
VOLATILE ORGANIC COMPOUNDS	Unit	SSL (3) GW	SSL (1) D.C.-R	NR 746 (2) Table 1	07/17/01	07/17/01	7/17/2001	07/17/01	07/17/01	07/17/01	07/17/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/19/01	07/19/01	07/19/01
n-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1610**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1750**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**188**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**726**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<17	<17	NA	NA	NA	NA	NA	NA	<18	NA	**148**	<17	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**444**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	7,449	33,700	83,000	NA	NA	NA	NA	NA	<5.7	**6.8**	NA	NA	NA	NA	NA	NA	<6.0	NA	**2420**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

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Sample Depth (ft):					4-7	7-8	8.5-10	6.5-7	4-5	4-7	4-8	0-6	4-5	4-7	7-9	5-6	2-4	4-6	5-6.5	4-7	9-10	4-5	2-3	5-7	3-4	4-6	1-2	2-3	4-5	3-4
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n-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1610**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**1750**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**188**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**726**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<17	<17	NA	NA	NA	NA	NA	NA	<18	NA	**148**	<17	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	µg/kg	NC	NC	NS	NA	NA	NA	NA	NA	<5.7	<5.8	NA	NA	NA	NA	NA	NA	<6.0	NA	**444**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	7,449	33,700	83,000	NA	NA	NA	NA	NA	<5.7	**6.8**	NA	NA	NA	NA	NA	NA	<6.0	NA	**2420**	<5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.
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Sample Depth (ft):					4-7	7-8	8.5-10	6.5-7	4-5	4-7	4-8	0-6	4-5	4-7	7-9	5-6	2-4	4-6	5-6.5	4-7	9-10	4-5	2-3	5-7	3-4	4-6	1-2	2-3	4-5	3-4
METALS	Units	SSL (GW)	NR 720 RCL Table 2 (1) Non-Industrial	(2) Industrial	07/17/01	07/17/01	7/17/2001	07/17/01	07/17/01	07/17/01	07/17/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/19/01	07/19/01	07/19/01
Arsenic	mg/kg	NC	0.039	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**(1,2) 6.0**	NA	**(1,2) 8.5**	**(1,2) 5.0**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**87**	NA	**175**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NC	8.0	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.6	NA	**0.85**	<0.57	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, ICP	mg/kg	NC	NS	NS	**16**	**24**	**24**	**18**	**672**	**19**	**60**	**36**	**25**	**25**	**34**	**21**	**26**	**24**	**57**	**54**	**20**	**38**	**31**	**31**	**33**	**34**	**38**	**25**	**27**	**30**
Chromium, Trivalent	mg/kg	359,854	16,000	NS	**16**	**24**	**24**	**18**	**672**	**19**	**60**	**36**	**25**	**25**	**34**	**21**	**26**	NA	**57**	NA	NA	**38**	**31**	**31**	**33**	**34**	**38**	**25**	**27**	**30**
Chromium, Hexavalent	mg/kg	NC	14	200	<5.7	<5.9	<6.3	<6.0	<6.0	<5.7	<5.8	<6.0	<5.7	<6.0	<6.2	<5.9	<6.2	NA	<5.8	NA	NA	<5.6	<5.8	<5.8	<6.1	<5.7	<6.0	<5.7	<5.7	<6.2
Lead	mg/kg	NC	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**11**	NA	**19**	**9.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.048	NA	<0.054	<0.045	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	<2.0	<1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.4	NA	<2.7	<2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS		SSL (GW)	SSL (D.C.-R)																											
pH, Non-Aqueous	units	NS	NS		**9.5**	**10.88**	**9.63**	**8.75**	**9.4**	**8.71**	**9.33**	**9.61**	**9.53**	**8.2**	**8.69**	**8.87**	**9.24**	NA	**8.58**	NA	NA	**8.19**	**8.42**	**8.43**	**7.33**	**8.42**	**7.59**	**8.58**	**8.91**	**8.55**
Sulfide, total	mg/kg	NS	NS		<23[S]	<23.5[S]	**50.6[S]**	<23.9[S]	<24[S]	<22.9[S]	<23.2[S]	**134[S]**	<22.9[S]	<23.9[S]	<24.9[S]	<23.5[S]	<24.8[S]	NA	<23.2[S]	NA	NA	<22.3[S]	<23.3[S]	<23[S]	<24.4[S]	<22.8[S]	<24[S]	<22.7[S]	<22.9[S]	<24.9[S]
N-Ammonia	mg/kg	NS	10,900,000		NA	NA	NA	NA	NA	NA	**506**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANIC COMPOUNDS		Suggested Generic RCLs for PAHs in Soil (for PAHs) OR SSLs (other SVOCs) (3) GW Pathway	(1) Non-Industrial	(2) Industrial																										
Fluorene	µg/kg	100,000	600,000	40,000,000	NA	NA	NA	NA	NA	<287[MS]	NA	NA	NA	NA	NA	NA	NA	<298	NA	**632**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	µg/kg	87.7	13,000	NC	NA	NA	NA	NA	NA	<287	NA	NA	NA	NA	NA	NA	NA	<298	NA	(3) **753**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	µg/kg	1,800	18,000	390,000	NA	NA	NA	NA	NA	<287	NA	NA	NA	NA	NA	NA	NA	<298	NA	**1340**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

SSL (D.C.-R) = Soil Screening Level for the direct contact pathway (residential) calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and a site area of 5 acres. For reference only; most appropriate values for several parameters were not determined.

mg/kg = milligrams per kilogram (equivalent to parts per million)

NA = Not Analyzed

NS = No Standard Established (for SSLs this indicates analyte not available in EPA web site).

NC = Not Calculated (for SSLs)

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

Suggested Generic Interim RCL = More stringent generic Residual Contaminant Level for protection of groundwater (gw) or direct contact (dc) pathway for non-industrial land use from WDNR Publication RR-519-97 *"Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance"* (April 1997)

Exceedances:
BOLD = detected compound
(1) = concentration exceeds Non-Industrial Direct Contact RCLs
(2) = concentration exceeds Industrial Direct Contact RCLs
(3) = concentration exceeds suggested generic Groundwater Pathway RCLs (PAHs) or groundwater pathway SSLs (other analytess)

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27
Sample Depth (ft):					2-4	1-2	4-6	5-6	3.5-4.5	8-9	14-14.5	5-7	10-12	6-8	7-8	6-7	5-6	7-8	5-6	6-8	5-6	9-10	11-12	9-10	6-7	7-8	10-11	10-12	7-9	7-10
VOLATILE ORGANIC COMPOUNDS	Unit	SSL (3) GW	SSL (1) D.C.-R	NR 746 (2) Table 1	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	07/17/01	07/17/01	07/17/01
n-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	**19**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
sec-Butylbenzene	µg/kg	NC	NC	NS	NA	NA	**10**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
Isopropylbenzene	µg/kg	NC	NC	NS	NA	NA	<6.4	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
p-Isopropyltoluene	µg/kg	NC	NC	NS	NA	NA	**13**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
Methylene chloride	µg/kg	NC	NC	NS	NA	NA	<19	NA	NA	NA	<18	NA	NA	<18	NA	<17	NA	<17	NA	NA	NA	NA	NA	NA	<18	NA	<18	NA	NA	<17
n-Propylbenzene	µg/kg	NC	NC	NS	NA	NA	<6.4	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7
1,2,4-Trimethylbenzene	µg/kg	7,449	33,700	83,000	NA	NA	**43**	NA	NA	NA	<6.1	NA	NA	<6.0	NA	<5.7	NA	<5.8	NA	NA	NA	NA	NA	NA	<5.9	NA	<5.9	NA	NA	<5.7

Notes:

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

SSL (D.C.-R) = Soil Screening Level for the direct contact pathway (residential) calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and a site area of 5 acres. For reference only; most appropriate values for several parameters were not determined.

µg/kg = micrograms per kilogram (equivalent to parts per billion)

NA = Not Analyzed NS = No Standard

NC = Not Calculated (for SSLs)

NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.

Exceedances: **BOLD** = detected compound

(1) = concentration exceeds residential direct contact pathway SSL

(2) = concentration exceeds NR 726 Table 1 value

(3) = concentration exceeds groundwater pathway SSL

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27
Sample Depth (ft):					2-4	1-2	4-6	5-6	3.5-4.5	8-9	14-14.5	5-7	10-12	6-8	7-8	6-7	5-6	7-8	5-6	6-8	5-6	9-10	11-12	9-10	6-7	7-8	10-11	10-12	7-9	7-10
METALS	Units	SSL (GW)	NR 720 RCL Table 2 (1) Non-Industrial	(2) Industrial	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/11/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	06/13/01	07/17/01	07/17/01	07/17/01
Arsenic	mg/kg	NC	0.039	1.6	**(1,2) 5.5**	NA	**(1,2) 4.3**	NA	NA	NA	**(1,2) 3.3**	NA	NA	**(1,2) 6.5**	NA	<1.7	NA	**(1,2) 5.2**	**(1,2) 4.3**	NA	NA	NA	NA	NA	**(1,2) 3.3**	NA	**(1,2) 5.6**	NA	NA	**(1,2) 5.7**[MS]
Barium	mg/kg	NC	NS	NS	**94**	NA	**50**	NA	NA	NA	**48**	NA	NA	**96**	NA	**4.9**	NA	**46**	**19**	NA	NA	NA	NA	NA	**83**	NA	**33**	NA	NA	**67**
Cadmium	mg/kg	NC	8.0	510	**0.74**	NA	<0.64	NA	NA	NA	<0.61	NA	NA	<0.6	NA	<0.57	NA	<0.58	<0.58	NA	NA	NA	NA	NA	<0.59	NA	<0.59	NA	NA	**0.54**
Chromium, ICP	mg/kg	NC	NS	NS	**417**	NA	**24**	NA	NA	NA	**17**	NA	NA	**30**	NA	**4.9**	NA	**17**	**1100**	NA	NA	NA	NA	NA	**21**	NA	**14**	**17**	**17**	**22**
Chromium, Trivalent	mg/kg	359,854	16,000	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**17**	**17**	NA
Chromium, Hexavalent	mg/kg	NC	14	200	NA	<5.7	NA	<6.5	<5.9	<5.9	NA	<6.1	<5.7	NA	<5.7	NA	<5.7	NA	NA	<5.8	<6.4	<5.9	<5.8	<5.6	NA	<5.8	NA	<5.8	<5.6	NA
Lead	mg/kg	NC	50	500	**26**	NA	**9.1**	NA	NA	NA	**7.4**	NA	NA	**12**	NA	<4.6	NA	**8.4**	**6.7**	NA	NA	NA	NA	NA	**9.4**	NA	**8.5**	NA	NA	**11**
Mercury	mg/kg	NC	NS	NS	**0.061**	NA	<0.051	NA	NA	NA	<0.049	NA	NA	<0.048	NA	<0.046[MS]	NA	<0.046	**0.068**	NA	NA	NA	NA	NA	<0.047	NA	<0.047	NA	NA	<0.046
Selenium	mg/kg	NC	NS	NS	<1.8	NA	<1.9	NA	NA	NA	<1.8	NA	NA	<1.8	NA	<1.7	NA	<1.7	<1.7	NA	NA	NA	NA	NA	<1.8	NA	<1.8	NA	NA	<1.7[M+]
Silver	mg/kg	NC	NS	NS	<2.5	NA	<2.6	NA	NA	NA	<2.5	NA	NA	<2.4	NA	<2.3	NA	<2.3	<2.3	NA	NA	NA	NA	NA	<2.4	NA	<2.3	NA	NA	**2.3**
INORGANICS		SSL (GW)	SSL (D.C.-R)																											
pH, Non-Aqueous	units	NS	NS		NA	**8.77**	NA	**7.96**	**8.92**	**9.79**	NA	**9.14**	**8.67**	NA	**8.54**	NA	**9.28**	NA	NA	**8.48**	**8.53**	**8.45**	**8.38**	**8.82**	NA	**8.51**	NA	**8.02**	**8.09**	NA
Sulfide, total	mg/kg	NS	NS		NA	<11[S]	NA	<13[S]	<12[S]	<12[S]	NA	<12[S]	<11[S]	NA	<11[S]	NA	<11[S]	NA	NA	<12[S]	<13[S]	<12[S]	<12[S]	<11[S]	NA	<12[S]	NA	<23.1[S]	<22.4[S]	NA
N-Ammonia	mg/kg	NS	10,900,000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POLYNUCLEAR AROMATIC HYDROCARBONS		Suggested Generic RCLs for PAHs in Soil (for PAHs) OR SSLs (other SVOCs) (3) GW Pathway	(1) Non-Industrial	(2) Industrial																										
Fluorene	µg/kg	100,000	600,000	40,000,000	NA	NA	<320	NA	NA	NA	NA	NA	NA	<300	NA	NA	NA	<290	NA	NA	NA	NA	NA	NA	<290	NA	<290	NA	NA	<285
N-Nitrosodiphenylamine	µg/kg	87.7	13,000	NC	NA	NA	<320	NA	NA	NA	NA	NA	NA	<300	NA	NA	NA	<290	NA	NA	NA	NA	NA	NA	<290	NA	<290	NA	NA	<285
Phenanthrene	µg/kg	1,800	18,000	390,000	NA	NA	<320	NA	NA	NA	NA	NA	NA	<300	NA	NA	NA	<290	NA	NA	NA	NA	NA	NA	<290	NA	<290	NA	NA	<285

Notes

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

SSL (D.C.-R) = Soil Screening Level for the direct contact pathway (residential) calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and a site area of 5 acres. For reference only; most appropriate values for several parameters were not determined.

mg/kg = milligrams per kilogram (equivalent to parts per million)

NA = Not Analyzed

NS = No Standard Established (for SSLs this indicates analyte not available in EPA web site).

NC = Not Calculated (for SSLs)

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

Suggested Generic RCL = More stringent generic Residual Contaminant Level for protection of groundwater (gw) or direct contact (dc) pathway for non-industrial land use from WDNR Publication RR-519-97 *"Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance"* (April 1997)

Exceedances:
BOLD = detected compound
(1) = concentration exceeds Non-Industrial Direct Contact RCLs
(2) = concentration exceeds Industrial Direct Contact RCLs
(3) = concentration exceeds suggested generic Groundwater Pathway RCLs (PAHs) or groundwater pathway SSLs (other analytess)

TABLE 1

SOIL ANALYTICAL QUALITY RESULTS

DETECTS ONLY

1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Soil Boring Identification:					SB-28	SB-29	SB-30	SB-31	SB-32	SB-33	SB-34	SB-35	SB-37	SB-38	SB-39	SB-40	SB-41	SB-42	SB-43	SB-44		SB-45	SB-46	SB-47	SB-48	SB-49	SB-50	SB-51	SB-52	SB-53
Sample Depth (ft):					4-7	7-8	8.5-10	6.5-7	4-5	4-7	4-8	0-6	4-5	4-7	7-9	5-6	2-4	4-6	5-6.5	4-7	9-10	4-5	2-3	5-7	3-4	4-6	1-2	2-3	4-5	3-4
METALS	Units	SSL (GW)	NR 720 RCL Table 2 (1) Non-Industrial	(2) Industrial	07/17/01	07/17/01	7/17/2001	07/17/01	07/17/01	07/17/01	07/17/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/18/01	07/19/01	07/19/01	07/19/01
Arsenic	mg/kg	NC	0.039	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**(1,2) 6.0**	NA	**(1,2) 8.5**	**(1,2) 5.0**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**87**	NA	**175**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NC	8.0	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.6	NA	**0.85**	<0.57	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, ICP	mg/kg	NC	NS	NS	**16**	**24**	**24**	**18**	**672**	**19**	**60**	**36**	**25**	**25**	**34**	**21**	**26**	**24**	**57**	**54**	**20**	**38**	**31**	**31**	**33**	**34**	**38**	**25**	**27**	**30**
Chromium, Trivalent	mg/kg	359,854	16,000	NS	**16**	**24**	**24**	**18**	**672**	**19**	**60**	**36**	**25**	**25**	**34**	**21**	**26**	NA	**57**	NA	NA	**38**	**31**	**31**	**33**	**34**	**38**	**25**	**27**	**30**
Chromium, Hexavalent	mg/kg	NC	14	200	<5.7	<5.9	<6.3	<6.0	<6.0	<5.7	<5.8	<6.0	<5.7	<6.0	<6.2	<5.9	<6.2	NA	<5.8	NA	NA	<5.6	<5.8	<5.8	<6.1	<5.7	<6.0	<5.7	<5.7	<6.2
Lead	mg/kg	NC	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**11**	NA	**19**	**9.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.048	NA	<0.054	<0.045	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.8	NA	<2.0	<1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NC	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.4	NA	<2.7	<2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS		SSL (GW)	SSL (D.C.-R)																											
pH, Non-Aqueous	units	NS	NS		**9.5**	**10.88**	**9.63**	**8.75**	**9.4**	**8.71**	**9.33**	**9.61**	**9.53**	**8.2**	**8.69**	**8.87**	**9.24**	NA	**8.58**	NA	NA	**8.19**	**8.42**	**8.43**	**7.33**	**8.42**	**7.59**	**8.58**	**8.91**	**8.55**
Sulfide, total	mg/kg	NS	NS		<23[S]	<23.5[S]	**50.6[S]**	<23.9[S]	<24[S]	<22.9[S]	<23.2[S]	**134[S]**	<22.9[S]	<23.9[S]	<24.9[S]	<23.5[S]	<24.8[S]	NA	<23.2[S]	NA	NA	<22.3[S]	<23.3[S]	<23[S]	<24.4[S]	<22.8[S]	<24[S]	<22.7[S]	<22.9[S]	<24.9[S]
N-Ammonia	mg/kg	NS	10,900,000		NA	NA	NA	NA	NA	NA	**506**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANIC COMPOUNDS		Suggested Generic RCLs for PAHs in Soil (for PAHs) OR SSLs (other SVOCs) (3) GW Pathway	(1) Non-Industrial	(2) Industrial																										
Fluorene	µg/kg	100,000	600,000	40,000,000	NA	NA	NA	NA	NA	<287[MS]	NA	NA	NA	NA	NA	NA	NA	<298	NA	**632**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	µg/kg	87.7	13,000	NC	NA	NA	NA	NA	NA	<287	NA	NA	NA	NA	NA	NA	NA	<298	NA	**(3) 753**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	µg/kg	1,800	18,000	390,000	NA	NA	NA	NA	NA	<287	NA	NA	NA	NA	NA	NA	NA	<298	NA	**1340**	<284	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes

SSL (GW) = Soil Screening Level for the groundwater pathway calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and methodology in Appendix D of WDNR publication RR-682.

SSL (D.C.-R) = Soil Screening Level for the direct contact pathway (residential) calculated using EPA Soil Screening Level Web site using Wisconsin Default Paramaters and a site area of 5 acres. For reference only; most appropriate values for several parameters were not determined.

mg/kg = milligrams per kilogram (equivalent to parts per million)

NA = Not Analyzed

NS = No Standard Established (for SSLs this indicates analyte not available in EPA web site).

NC = Not Calculated (for SSLs)

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

Suggested Generic Interim RCL = More stringent generic Residual Contaminant Level for protection of groundwater (gw) or direct contact (dc) pathway for non-industrial land use from WDNR Publication RR-519-97 *"Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance"* (April 1997)

Exceedances:
BOLD = detected compound
(1) = concentration exceeds Non-Industrial Direct Contact RCLs
(2) = concentration exceeds Industrial Direct Contact RCLs
(3) = concentration exceeds suggested generic Groundwater Pathway RCLs (PAHs) or groundwater pathway SSLs (other analytess)

TABLE 2
GROUNDWATER ANALYTICAL QUALITY RESULTS
Former Midwest Tanning Site
1200 Davis Avenue
South Milwaukee, Wisconsin
Project Reference #12101

Monitoring Well Identification:				TWSB-13	TWSB-14	TWSB-15		TWSB-16	TWSB-38	TWSB-44
METALS	Unit	NR 140 (1) ES	NR 140 (2) PAL	08/07/01	08/07/01	08/07/01	9/18/01 (F)	08/07/01	08/07/01	08/07/01
Arsenic, Trace ICP	µg/L	50	5.0	**(2) 15**	<5.0	**(1) 170**	NA	NA	**(1) 89**	NA
Barium, ICP	µg/L	2,000	400	**200**	**47**	**(2) 1900**	NA	NA	**(2) 860**	NA
Cadmium, ICP	µg/L	5.0	0.5	<10	<10	<50 ELV	NA	NA	<50 ELV	NA
Chromium, ICP	µg/L	100	10	**(1) 140**	**(1) 100**	**(1) 250000**	**(2) 13.3**	NA	**(1) 450**	NA
Lead, Trace ICP	µg/L	15	1.5	**(1) 27**	<5.0	**(1) 700**	NA	NA	**(1) 220**	NA
Mercury, ICP	µg/L	2.0	0.2	<0.2	<0.2	**(1) 2.5**	NA	NA	<0.2	NA
Selenium, Trace ICP	µg/L	50	10	<10	<10	**(1) 96**	NA	NA	<50 ELV	NA
Silver, ICP	µg/L	50	10	<40	<40	<200 ELV	NA	NA	<200 ELV	NA
POLYNUCLEAR AROMATIC HYDROCARBONS										
Acenaphthene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.5
Acenaphthylene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.5
Anthracene	µg/L	3,000	600	<10	<10	NA	NA	<10	NA	<0.5
Benzo(a)anthracene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.13
Benzo(b)fluoranthene	µg/L	0.2	0.02	<10	<10	NA	NA	<10	NA	<0.18
Benzo(k)fluoranthene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.17
Benzo(ghi)perylene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.5
Benzo(a)pyrene	µg/L	0.2	0.02	<10	<10	NA	NA	<10	NA	<0.2
Chrysene	µg/L	0.2	0.02	<10	<10	NA	NA	<10	NA	<0.5
Dibenzo(a,h)anthracene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.3
Fluoranthene	µg/L	400	80	<10	<10	NA	NA	<10	NA	<0.5
Fluorene	µg/L	400	80	<10	<10	NA	NA	<10	NA	<0.5
Indeno(1,2,3-cd)pyrene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.3
Naphthalene	µg/L	100	10	<10	<10	NA	NA	<10	NA	<0.5
Phenanthrene	µg/L	NS	NS	<10	<10	NA	NA	<10	NA	<0.5
Pyrene	µg/L	250	50	<10	<10	NA	NA	<10	NA	<0.5
VOLATILE ORGANIC COMPOUNDS										
Benzene	µg/L	5.0	0.5	<1.0	NA	<1.0	NA	<1.0	<1.0	NA
Ethylbenzene	µg/L	700	140	<1.0	NA	<1.0	NA	<1.0	<1.0	NA
Methyl Tert Butyl Ether (MTBE)	µg/L	60	12	<2.0	NA	<2.0	NA	<2.0	<2.0	NA
Toluene	µg/L	1,000	200	<1.0	NA	<1.0	NA	<1.0	<1.0	NA
Xylenes (total)	µg/L	10,000	1,000	<3.0	NA	<3.0	NA	<3.0	<3.0	NA

Notes:

(F) = the 9/18/01 groundwater sample from well TWSB-15 was filtered at the laboratory prior to analysis.
µg/L = micrograms per liter (equivalent to parts per billion)
NA = Not Analyzed NS =No Standard
NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard
NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit
Exceedances: **BOLD** = detected compound
(1) = concentration exceeds = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard
(2) = concentration exceeds '= Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit