PHASE 1 HAZARDOUS MATERIALS ASSESSMENT

USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI
Project ID: 3120-10-00

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October 2013

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ACRONYMS, ABBREVIATIONS, AND SYMBOLS

ADA	Americans with Disabilities Act
AST	Aboveground Storage Tank
BETX	Benzene, Ethylbenzene, Toluene, Xylenes
BRRTS	Bureau of Remediation and Redevelopment Tracking System
CERCLIST	Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS-NFRAP	CERCLIS- No Further Remedial Action Planned
CORRACTS	Corrective Action Sites
CRS	Closed Remediation Sites
EDR	Environmental Data Resources
ERNS	Emergency Response Notification System
ERP	Environmental Repair Program
ES	Enforcement Standard
FDM	Facilities Development Manual
FINDS	Facility Index System
LAST	Leaking Aboveground Storage Tank
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
ND	Not Detected
NPL	National Priority List
NRCS	Natural Resources Conservation Service
PAH	Polycyclic Aromatic Hydrocarbon
PAL	Preventive Action Limit
PADS	PCB Activity Database System
PID	Photoionization Detector
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RCL	Residual Contaminant Level
R/W	Right-of-way
STA	Station
SQG	Small Quantity Generator
SPT	Standard Penetration Test
TPH	Total Petroleum Hydrocarbons
TMB	Trimethylbenzene
TRIS	Toxic Release Inventory System
USDOT	United States Department of Transportation
USGS	United States Geological Survey
US EPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VPLE	Voluntary Party Liability Exemption
WDS	Waste Disposal Sites
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
>	Greater than
<	Less than
~	Approximately

1.0 EXECUTIVE SUMMARY

Himalayan Consultants, LLC (Himalayan) was contracted by Short Elliott and Hendrickson (SEH) to perform a Phase 1 Hazardous Materials Assessment (HMA) for the proposed improvements of an approximately 7.3-mile section of USH 12 located between STH 20 and the USH 12 / STH 67 Split, Walworth County, Wisconsin (hereafter referred to as the project corridor). The USH 12 / CTH A intersection (STA 626+00 to STA 651+00) is located within the project corridor; however, the Phase 1 HMA was completed as a separate report for this location under Project ID 3120-09-00.

The proposed improvements along the project corridor include the rehabilitation of the pavement structure. The pavement rehabilitation may require the full-depth removal of the existing pavement structure, including the underlying existing concrete pavement, and replacement with a new base course layer(s) and pavement surface(s). Depth of excavation for these improvements is estimated to be approximately 2 to 4 feet bgs.

The existing retaining wall located at the northwest quadrant of Territorial Road and USH 12 (STA 426+00 to 429+00 RT) is proposed to be relocated outside of the clear zone. Depth of excavation for the construction of the new retaining wall will be approximately 8 to 10 feet bgs.

The intersection of Surfwood Drive / Robinson Road with USH 12 will be realigned / reconstructed approximately 150 feet west of its current location to improve the intersection angle. Depth of excavation for this improvement will be approximately 3 to 5 feet bgs. All other intersections within the corridor will be upgraded to current WisDOT standards pertaining to lane and shoulder widths, acceleration/deceleration lanes/tapers, and curb radii. Excavation for these improvements may be in the vicinity of 2 to 3 feet bgs in depth.

Existing USH 12 from Pleasant Lake Road to 600 feet south of Plantation Road may be shifted to the east to eliminate a beam guard installation and a retaining wall located within the roadway's clear zone, and to correct sub-standard horizontal and vertical alignments. Excavation depths for these improvements may be in the vicinity of 3 to 6 feet bgs.

Several existing beam guard installations located within the corridor will be investigated for removal. Slopes within these areas would be flattened by placing fill material. No excavation is anticipated in these areas.

The purpose of this Phase 1 HMA was to identify sites with potential hazardous materials that may be present within or immediately adjacent to the proposed improvements limits of the project corridor and recommend, if considered necessary, a list of sites for additional hazardous material investigation. These identified sites may have hazardous materials impact(s) that could potentially be displaced and require additional management, during the proposed improvement activities.

A summary of the findings of this HMA include:

- Based on Himalayan's record search (environmental database reviews, historical aerial photographs, topographic maps, personal interviews, etc.), field reconnaissance, and the location / type of proposed construction activities, thirteen potentially hazardous material sites (Sites #1 through #13) were identified within the project corridor. However, considering the potential for construction activities to encounter contaminated materials (i.e. excavations > 2 feet bgs or distance) and R/W acquisition proposed, Himalayan recommends further hazardous materials investigations (FDM Procedures 21-35-10 or 21-35-12) only be considered for Sites #5, #6, #7, #8, #9, #12, and #13:

    - Lockhart's Service Station, N6424 US Highway 12 / W4889 County Highway ES [Site #5] - Phase 2.5
    - Abell's Restaurant & Bar / Former Rolling Thunder Motorcycle Shop, N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12 [Site #6] - Phase 2.5
    - D & E Auto Parts, N6388 US Highway 12 / N6396 US Highway 12 [Site #7] - Phase 2
    - Evergreen Golf Club / Bunker Bar & Grill, N6246 US Highway 12 [Site #8] - Phase 2.5
    - Mann Brothers, Inc., N6147 US Highway 12 / 1950 N. Wisconsin Street [Site #9] – Phase 2.5
    - Elkhorn Express (Former Swatek Sales Express), 1390 N. Wisconsin Street [Site #12] - Phase 2.5
    - Walworth County Park and Ride Lot 64-20, US Highway 12 [Site #13] - Phase 2

- The existing bridge structure B-64-60 (STA 668+50 to 671+50) and an unnumbered culvert (STA 762+50 to 764+00) may contain ACMs. An asbestos survey should be performed to confirm the presence of potential ACMs in the structure. A completed Notification of Demolition and/or Renovation (WDNR Form 4500-113 or subsequent revisions) should be submitted to the WDNR at least 10 working days prior to beginning any demolition per NR 447, even if no ACMs are identified from the asbestos survey. All appropriate and applicable engineering and regulatory controls should be followed during the handling and management of ACMs. All ACM work activities should comply with local, state, and federal regulations. Special provisions will be required to manage the ACMs during construction.

- Considering the age of the existing bridge structure Bridge B-64-60 (originally built in 1966) and unnumbered culvert (STA 762+50 to 764+00), steel components / structural elements of the structures may contain lead-based paint (LBP). Note that WisDOT currently treats all bridges as having LBP on the steel. All appropriate and applicable engineering and regulatory controls should be followed during the handling and management of LBP. All LBP work activities should comply with local, state, and federal regulations. Special provisions will be required to manage the LBP during construction.

- The need for special provisions related to potential soil and/or groundwater, ACMs, and LBP should be assessed once additional design information is available or additional investigation activities are completed. Activities should be completed in accordance with local, state, and federal regulations.

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2.0 PROJECT CORRIDOR INFORMATION

2.1 Introduction

This report presents the results of a Phase 1 Hazardous Materials Assessment (HMA) performed for the proposed improvements of an approximately 7.3-mile section of USH 12 located between STH 20 and the USH 12 / STH 67 Split, Walworth County, Wisconsin (hereafter referred to as the project corridor). The USH 12 / CTH A intersection (STA 626+00 to STA 651+00) is located within the project corridor; however, the Phase 1 HMA was completed as a separate report for this location under Project ID 3120-09-00. Refer to Figures 1.1 and 2.1 in Appendix A for general location and overview of the project corridor.

2.2 Purpose and Scope

The purpose of this Phase 1 HMA is to identify sites with potential hazardous materials that may be present within or immediately adjacent to the proposed improvement limits of the project corridor and to recommend a list of sites, if considered necessary, for additional hazardous materials investigation. These identified sites may have hazardous materials impact(s) that could potentially be displaced and require management, during the proposed improvement activities.

The HMA was performed in general accordance with the Wisconsin Department of Transportation (WisDOT) Facilities Development Manual (FDM) Procedure 21-35-5 (revised December 22, 2011) and included a review of state and federal [United States Environmental Protection Agency (U.S. EPA)] databases and preliminary project construction information, and a field reconnaissance of the project corridor in order to identify the sites/parcels with potential hazardous materials concerns.

2.3 Methodology

Several sources were reviewed for information; such as regulatory agency listings, historical land use records and aerial photographs, which would indicate the potential use/handling/storage of hazardous materials or the generation of hazardous wastes. If such information was found, the parcel was noted as a potential hazardous material site and/or parcel that may require further hazardous materials investigation (see Table 2). To assist in determining the locations where additional investigation may be appropriate, the identified parcels were further screened with respect to three additional criteria:

- The potential that the parcel could be acquired for R/W;
- The potential that construction activities (such as excavation > 2 feet below grade) could encounter contaminated materials, and;

- The potential for contamination on the subject parcel to migrate and adversely affect either WisDOT R/W parcels or other parcels that may be disturbed during construction.

2.4 Project Description

Based on the preliminary project information provided by Short Elliott and Hendrickson (SEH), the proposed improvements along the project corridor include the rehabilitation of the pavement structure for approximately 7.3 miles of USH 12 from STH 20 to the USH 12/STH 67 Split in Walworth County. The pavement rehabilitation may require the full-depth removal of the existing pavement structure, including the underlying existing concrete pavement, and replacement with a new base course layer(s) and pavement surface(s). Depth of excavation for these improvements is estimated to be approximately 2 to 4 feet bgs.

The existing retaining wall located at the northwest quadrant of Territorial Road and USH 12 (STA 426+00 to 429+00 RT) is proposed to be relocated outside of the clear zone. Depth of excavation for the construction of the new retaining wall will be approximately 8 to 10 feet bgs.

The intersection of Surfwood Drive / Robinson Road with USH 12 will be realigned/reconstructed approximately 150 feet west of its current location to improve the intersection angle. Depth of excavation for these improvements will be approximately 3 to 5 feet bgs. All other intersections within the corridor will be upgraded to current WisDOT standards pertaining to lane and shoulder widths, acceleration/deceleration lanes/tapers, and curb radii. Excavation for these improvements may be in the vicinity of 2 to 3 feet bgs in depth.

Existing USH 12 from Pleasant Lake Road to 600 feet south of Plantation Road may be shifted to the east to eliminate a beam guard installation and a retaining wall located within the roadway's clear zone, and to correct sub-standard horizontal and vertical alignments. Excavation depths for this improvement may be in the vicinity of 3 to 6 feet bgs.

The USH 12 / CTH A intersection (STA 626+00 to STA 651+00) is located within the project corridor; however, the Phase 1 HMA was completed as a separate report for this location under Project ID 3120-09-00.

Several existing beam guard installations located within the corridor will be investigated for removal. Slopes within these areas would be flattened by placing fill material. No excavation is anticipated in these areas.

2.5 Responsible Unit of Government

WisDOT is the unit of government responsible for the project.

2.6 Historical Land Use

2.6.1 Aerial Photographs

Himalayan reviewed historical aerial photographs of the project corridor for the years 1940, 1956, 1963, 1970, 1980, 1990, 2000, and 2010 (see Appendix P). The aerial photographs were obtained from Walworth County GIS System on-line [Ref. 1]. Based on the scale and general nature of most of these historical photographs, only the razing of structures and other major development or construction activities within the project area could be confirmed. The following is a brief summary of land use in the project corridor, based on Himalayan's review of these photographs:

Summary of Aerial Photographs	
Year	Description
1940	The project corridor is depicted as a two land roadway. The project area is generally agricultural. Several farmsteads are depicted along the project corridor. A small building is depicted on the parcel to the west of Site #1. A farmstead is identified at Site #2 and a small building is identified on Site #3. No buildings are located on Site #4; however, unpaved roads appear on the site. Several buildings are depicted along CTH ES, including at Site #6 and #7. A farmstead and additional small building are depicted on Site #10. A small building is depicted at Site #8 and Site #12.
1956	The weigh station at Site #13 appears to have been constructed.
1963	The area surrounding the lakes in the north portion of the corridor begins being built-up with residences.
1970	A large building is depicted on Site #4, Lauderdale Lakes Marina. A gravel pit is depicted to the east of the project corridor, north of CTH A.
1980	Additional subdivisions and man-made ponds are under construction along the project corridor area.
1990	Additional subdivisions and residences are depicted along the project corridor.
2000	Several man-made ponds and subdivisions were constructed along the central portion of the project corridor. The weigh station at Site #13 appears to be a park and ride lot in this photograph.
2010	The project corridor appears similar to the 2005 aerial photograph.

2.6.2 Topographic Map

Himalayan reviewed the topographic maps of the project corridor (USGS Little Prairie, WI (1971, photorevised 1987) and Elkhorn, WI (1960, photorevised 1994) 7.5' Quadrangles) [Ref. 2]. The

project corridor is depicted as USH 12. Five lakes are depicted in the north portion of the project corridor. Several small buildings were depicted along the project corridor. A few gravel pits are depicted in the central portion and a trailer park and golf course are depicted in the south portion of the project corridor.

2.6.3 Sanborn Maps

Based on EDR's search, no Sanborn maps are available for the project corridor [Ref. 3].

2.6.4 WisDOT Historical Plan Sets

Himalayan obtained the historic structure data for the project bridges locations from WisDOT's Highway Structure Information System database (HSIS) [Ref. 4]. The on-line plan sets were reviewed for any potential environmental concerns located along the project corridor. One plan was identified in the project corridor for structure B-64-60 (STA 668+50 to 671+50). According to the plans, the original structure was constructed in 1966. Additional plans for 1996 were also available for review.

No issues of potential environmental concern, such as former gas stations, impacted material noted in soil boring logs, auto repair shops, or any fill areas were identified in these plans.

Additionally, a culvert and guardrail area was observed during the site reconnaissance (STA 762+50 to 764+00) which appears to be unnumbered. No plans for this culvert could be located.

2.7 Surficial Hydrogeology

According to the United States Geological Survey (USGS) topographic map, the average ground surface elevation along the project corridor undulates from approximately 980 to 860 feet above mean sea level (MSL) [Ref. 2]. The highest elevation along the corridor is located at the intersection of STH 20 and STH 67. The lowest elevation appears to be at a stream crossing between CTH A and CTH ES. A second stream crossing was located in the south portion of the project corridor at 905 feet above MSL.

Surface water runoff for most portions of the project corridor appears to collect in roadside drainage ditches that periodically flow through culverts underneath the road surface and driveway entrances.

Himalayan obtained information on the subsurface conditions along the project corridor from an Internet based program containing the Soil Survey of Walworth County, Wisconsin [Ref. 5]. Based on USDA NRCS soil survey report, soils along the project corridor consist mainly of loams and silt loams (Casco, Fox, and Plano Series). Based on the water table information obtained from the

USDA NRCs soil survey, depth to the seasonal high water table is generally ranges from 0 inches to greater than 80 inches throughout the project area.

2.8 Record Search

Himalayan retained EDR of Milford, Connecticut to conduct a search of state and federal databases within ¼-mile of the project corridor [Ref. 6]. The records review consisted of identifying potential hazardous materials sites within ¼-mile of the project corridor, in accordance with the FDM Procedure 21-35-5. Refer to Appendix O for a summary of findings from the EDR database search. A CD containing the full contents of EDR report is also provided in Appendix O. Additionally, Himalayan conducted online database searches of the following WDNR, WDSPS, and EPA programs to cross-reference and supplement the EDR database search results [Ref. 7 through 12]:

- The WDNR's Contaminated Lands Environmental Action Network (CLEAN) on-line database "BRRTS on the Web" and web based mapping system "RR Sites Map" (provides information on contaminated sites in the WDNR system) [see Appendix O for CLEAN search results];

- WDSPS Storage Tank Database (provides information on registered USTs and ASTs);

- WDNR Solid and Hazardous Waste Information System (SHWIMS) [provides access to information on sites, and facilities operating at sites, that are regulated by the WDNR Waste Management program];

- The WDNR Historic Registry of Waste Disposal sites (provides waste management information for sites prior to 1999); and

- USEPA Envirofacts Multisystem Search (searches multiple environmental databases for facility information, including toxic chemical releases, water discharge permit compliance, hazardous waste handling processes, Superfund status, and air emission estimates).

Table 1 presents the list of several potential hazardous materials sites identified by EDR, within the search distance (¼-mile) of the project corridor:

Table 1: Environmental Data Resources - Search Results
Phase 1 Hazardous Materials Assessment
USH 12 (STH 20 to USH 12 / STH 67 Split)
Walworth County, WI
Project ID: 3120-10-00

Database	Search Distance (mile)	Total Number of Sites*
FEDERAL		
NPL	1/4	0
Proposed NPL	1/4	0
Delisted NPL	1/4	0
CERCLIS	1/4	0
CORRACTS	1/4	0
RCRA-TSDF	1/4	0
RCRA-LQG	1/4	0
RCRA-SQG	1/4	0
RCRA-CESQG	1/4	1
RCRA-NonGen	1/4	0
ERNS	1/4	1
TRIS	1/4	0
US BROWNFIELDS	1/4	0
US Mines	1/4	1
FINDS	1/4	3
SCRD DRYCLEANERS	1/4	0
STATE AND LOCAL		
SHWS	1/4	0
BRRTS	1/4	1
WI ERP	1/4	0
SWF/LF	1/4	0
WI WDS	1/4	0
LUST	1/4	5
UST	1/4	10
LAST	1/4	0
AST	1/4	2
MANIFEST	1/4	1
WI SPILLS	1/4	1
AGSPILLS	1/4	0
CRS	1/4	4
AUL	1/4	3
VCP	1/4	0
DRYCLEANERS	1/4	0
WI WRRSER	1/4	1
BROWNFIELDS	1/4	0
SHWIMS	1/4	3
TRIBAL		
INDIAN RESERV	1/4	0
INDIAN LUST	1/4	0
INDIAN UST	1/4	0
EDR PROPRIETARY		
Historical Cleaners	1/4	0
Historical Auto Stations	1/4	1

Note:
NPL: National Priority List; CERCLIS: Comprehensive Environment Response, Compensation, and Liability Information System; CORRACTS: Corrective Action Reports; RCRA: Resource Conservation and Recovery Act; TSDF: Transporters, Storage and Disposal; LQG: Large Quantity Generators; SQG: Small Quantity Generators; CESQG: Conditionally Exempt SQG; ERNS: Emergency Response Notification System; TRIS: Toxic Chemical Release Inventory System; FINDS: Facility Index System; SHWS: State Hazardous Waste Sites; BRRTS: Bureau of Remediation and Redevelopment Tracking System; ERP: Emergency Repair Program; SWF/LF: Solid Waste Facilities/Landfill Sites; WDS; Waste Disposal Sites; UST: Underground Storage Site; LUST: Leaking UST; AST: Aboveground Storage Tank; LAST: Leaking AST; CRS: Close Remediation Sites; AUL: Activity & Use Limitation Sites; VCP: Voluntary Party Liability Exemption Sites; WRRSER: Wisconsin Remedial Response Site Evaluation Report; SHWIMS: Solid & Hazardous Waste Information Management System * Sites may be listed in one or more databases

Based on the EDR database review, the following sites were identified within 200 feet of the project corridor:

- STH 20 & STH 67 Intersection, State Highway 20 & State Highway 67 (Potential concern - BRRTS) [Site #1]
- Baker's Polled Herefords, N7850 US Highway 12 (Potential concern - AST, Tractor Repair) [Site #2]
- Millard Feed Mill @ Elkhorn, N7843 US Highway 12 (Potential concern - AGSpills) [Site #3]
- Lauderdale Lakes Marina, N7536 Sterlingworth Drive (Potential concern - BRRTS, UST, SHWIMS) [Site #4]
- Lockhart's Service Station, N6424 US Highway 12 / W4889 County Highway ES (Potential concern - LUST, UST, CRS, AUL, SHWIMS) [Site #5]
- Abell's Restaurant & Bar, N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12 (Potential concern - LUST, UST, CRS, AUL) [Site #6]
- Evergreen Golf Club / Bunker Bar & Grill, N6246 US Highway 12 (Potential concern - LUST, CRS, AUL) [Site #8]
- Mann Brothers, Inc., N6147 US Highway 12 / 1950 N. Wisconsin Street (Potential concern - LUST, US Mines, CRS, UST, AST, SHWIMS, EDR Historical Auto Station) [Site #9]
- Thelen Total Construction, Inc. (Former Reynolds Property), 1497 N. Wisconsin Street / N5890 US Highway 12 / W4879 Potter Road (Potential concern - LUST, UST) [Site #10]
- Southern Lakes Plumbing and Heating Inc., N5860 US Highway 12 (Potential concern - AST, Scrap Metal Recycling) [Site #11]
- Elkhorn Express (Former Swatek Sales Express), 1390 N. Wisconsin Street (Potential concern - LUST, UST, Spills) [Site #12]
- Walworth County Park and Ride Lot 64-20, US Highway 12 (Potential concern - UST) [Site #13]

Refer to site-specific appendices (Appendix B to N) for additional information these sites.

One additional site, 7791 Asta Drive, identified with two USTs located on site, was identified within 200 feet of the project corridor. However, both of the USTs were removed in 2003 (per SPS 310) with no LUST activities or further investigation required. Therefore, this site is not expected to impact the proposed improvements.

The remaining sites identified by EDR (Table 1) are located at 200 feet or more from the project corridor and are not considered hazardous materials threat to the proposed improvements due to their considerable distance.

2.9 Asbestos Containing Materials

The existing bridge structure (Bridge B-64-60) located within the project corridor (see Section 2.6.4) and the unnumbered culvert (STA 762+50 to 764+00) may contain asbestos-containing materials (ACM). Under the proposed improvements, these structures may be replaced.

2.10 Lead Based Paint

Considering the age of the existing bridge structure Bridge B-64-60 (originally built in 1966) and unnumbered culvert (STA 762+50 to 764+00), steel components / structural elements of the structures may contain lead-based paint (LBP). Note that WisDOT currently treats all bridges as having LBP on the steel.

2.11 Field Reconnaissance

On October 16, 2013, Himalayan performed a reconnaissance of the project corridor to identify the sites and/or parcels with potential hazardous materials concerns. Land surface observations were made by walking and driving along the roadway. In general, visual observations were made for the possible presence of potential contaminant indicators (such as mounded soils, odors, stressed vegetation, marked and unmarked bulk containers, vent pipes, etc.) to identify potential hazardous materials concerns within the project corridor.

Land use within the project corridor consists of a mixture of commercial, residential and agricultural properties. One site was identified as an auto salvage company during the site reconnaissance:

- D & E Auto Parts, N6388 US Highway 12 / N6396 US Highway 12 (Potential concern - Auto Salvage) [Site #7]

Additional information on this site is located in Appendix H.

No obvious contaminant indicators, such as unmarked bulk containers, debris piles, or fill dirt were observed at or immediately adjacent to the project corridor during field reconnaissance.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the record search and field reconnaissance, thirteen potentially hazardous materials sites (Sites # 1 through #13) were identified within the project corridor (see Table 2). Considering the potential for construction activities to encounter contaminated materials (i.e. excavations > 2 feet bgs and distance) and the proposed R/W acquisition, Himalayan recommends further hazardous materials investigations (FDM Procedures 21-35-10 or 21-35-12) only be considered for Sites #5,

#6, #7, #8, #9, #12, and #13. A discussion of the hazardous material concerns associated with each of these sites and how they relate to the proposed construction requirements for the project corridor, including the hazardous materials site assessment site summary for each site, is presented in Appendices B to N. Additionally, pertinent excerpts (relevant figures, data, text, photographs, and correspondence) are included in the respective appendices for the sites, where applicable.

Table 2 presents a summary of site names and addresses, potential contaminants of concern, construction requirements and real estate interests adjacent to the identified thirteen sites, and recommendations based on the potential presence and type of contamination:

Table 2: Potential Hazardous Materials Sites
Phase 1 Hazardous Materials Assessment
USH 12
STH 20 to USH 12 / STH 67 Split, Walworth County, WI
Project ID: 3120-10-00

Site #	SITE NAME AND ADDRESS	POTENTIAL HAZMAT CONCERNS[1]	REAL ESTATE INTERESTS	CONSTRUCTION REQUIREMENTS	RECOMMENDATIONS
1	STH 20 & STH 67 Intersection State Highway 20 & State Highway 67 USH 12: STA 415+50	BRRTS	--	Depth of cut (roadway): 2.5-3’	No Further Investigation
2	Baker's Polled Herefords N7850 US Highway 12 USH 12: STA 501+50 to 515+00 LT	AST, Tractor Repair	PROP R/W, 45’, STA 513+00 to 515+00	Depth of cut (roadway): 2.5-3’	No Further Investigation
3	Millard Feed Mill @ Elkhorn N7843 US Highway 12 USH 12: STA 507+75 to 514+50 RT	AGSpills	--	Depth of cut (roadway): 2.5-3’	No Further Investigation
4	Lauderdale Lakes Marina N7536 Sterlingworth Drive USH 12: STA 546+50 to 552+50 RT	BRRTS, UST, SHWIMS	--	Depth of cut (roadway): 2.5-3’	No Further Investigation
5	Lockhart's Service Station N6424 US Highway 12/ W4889 County Highway ES USH 12: STA 705+00 to 707+75 LT	LUST, UST, CRS, AUL, SHWIMS	--	Depth of cut (roadway): 2.5-3’	Phase 2.5
6	Abell's Restaurant & Bar N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12 USH 12: STA 705+00 to 707+25 RT	LUST, UST, CRS, AUL	--	Depth of cut (roadway): 2.5-3’	Phase 2.5
7	D & E Auto Parts N6388 US Highway 12 / N6396 US Highway 12 USH 12: STA 707+65 to 712+00 LT	Auto Salvage	--	Depth of cut (roadway): 2.5-3’	Phase 2
8	Evergreen Golf Club / Bunker Bar & Grill N6246 US Highway 12 USH 12: STA 724+50 to 732+50 LT	LUST, UST, CRS, AUL	PROP R/W 52’- 33’, STA 724+68 to 725+00	Depth of cut (roadway): 2.5-3’	Phase 2.5
9	Mann Brothers, Inc. N6147 US Highway 12 / 1950 N. Wisconsin Street USH 12: STA 735+50 to 747+00 RT	LUST, US Mines, CRS, UST, AST, SHWIMS, EDR Historical Auto Station	PROP R/W 45’, STA 721+00 to 744+00	Depth of cut (roadway): 2.5-3’	Phase 2.5

Table 2: Potential Hazardous Materials Sites
Phase 1 Hazardous Materials Assessment
USH 12
STH 20 to USH 12 / STH 67 Split, Walworth County, WI
Project ID: 3120-10-00

10	Thelen Total Construction, Inc. (Former Reynolds Property) 1497 N. Wisconsin Street / N5890 US Highway 12 / W4879 Potter Road USH 12: STA 776+00 to 779+50 LT	LUST, UST	--	Depth of cut (roadway): 2.5-3'	No Further Investigation
11	Southern Lakes Plumbing and Heating Inc. N5860 US Highway 12 USH 12: STA 779+50 to 782+50 LT	AST, Scrap Metal Recycling	--	Depth of cut (roadway): 2.5-3'	No Further Investigation
12	Elkhorn Express (Former Swatek Sales Express) 1390 N. Wisconsin Street USH 12: STA 788+00 to 791+50 LT	LUST, UST, Spills	--	Depth of cut (roadway): 2.5-3'	Phase 2.5
13	Walworth County Park and Ride Lot 64-20 US Highway 12 USH 12: STA 782+00 to 790+75 RT	UST	--	Depth of cut (roadway): 2.5-3'	Phase 2

Notes:
-- = Not applicable
AST = Aboveground Storage Tank; AUL = Activity and Use Limitations; BRRTS = Bureau of Remediation and Redevelopment Tracking System; CRS = Closed Remediation Site; ERP = Environmental Repair Program; UST = Underground Storage Tank; LUST = Leaking UST; R/W = Right-of-way; SHWIMS = Solid and Hazardous Waste Information System; STA = Station; TLE = Temporary Limited Easement; ft = feet
[1] Sites may be listed in one or more databases

- The Phase 2/2.5 hazardous materials investigation for Sites #5, #6, #7, #8, #9, #12, and #13 should consist of: at least two soil borings located in the areas of excavation proposed adjacent to these sites; laboratory analysis of two or more discrete soil samples from each boring; and collection / laboratory analysis of a composite sample from each site to characterize the soils for potential disposal and/or treatment at a licensed landfill facility. Depending on project excavation requirements, the borings should be advanced to the maximum depths of excavation anticipated for the proposed structures. In addition to soil sampling, the Phase 2/2.5 investigations for these sites should also include at least one groundwater sample from temporary wells installed at each of the sites if groundwater is encountered in the borings. This should provide characterization for potential disposal options, if dewatering is needed in excavations adjacent to the sites. This investigation should be performed, prior to the planned improvements, to address any special provisions possibly needed for handling impacted soil and/or groundwater displaced during construction activities.

- The existing bridge structure B-64-60 (STA 668+50 to 671+50) and an unnumbered culvert (STA 762+50 to 764+00) may contain ACMs. An asbestos survey should be performed to confirm the presence of potential ACMs in the structure. A completed Notification of Demolition and/or Renovation (WDNR Form 4500-113 or subsequent revisions) should be submitted to the WDNR at least 10 working days prior to beginning any demolition per NR 447, even if no ACMs are identified from the asbestos survey. All appropriate and applicable engineering and regulatory controls should be followed during the handling and management of

ACMs. All ACM work activities should comply with local, state, and federal regulations. Special provisions will be required to manage the ACMs during construction.

- Considering the age of the existing bridge structure Bridge B-64-60 (originally built in 1966) and unnumbered culvert (STA 762+50 to 764+00), steel components / structural elements of the structures may contain lead-based paint (LBP). Note that WisDOT currently treats all bridges as having LBP on the steel. All appropriate and applicable engineering and regulatory controls should be followed during the handling and management of LBP. All LBP work activities should comply with local, state, and federal regulations. Special provisions will be required to manage the LBP during construction.

- The need for special provisions related to potential soil and/or groundwater, ACMs, and LBP should be assessed once additional design information is available or additional investigation activities are completed. Activities should be completed in accordance with local, state, and federal regulations.

4.0 LIMITATIONS

Himalayan prepared this report for Short Elliott and Hendrickson's and WisDOT's use as part of the environmental evaluation of the properties in the project corridor that most likely would have the potential for causing hazardous materials impact(s) to the proposed improvements. It was prepared in accordance with the currently accepted environmental and engineering practices. Because the evaluation is based solely on site visits, interviews, and review of available data from various regulatory agencies, unknown hazardous materials locations may be present in the project corridor that could not be identified within the scope of the investigation or that were not apparent at the time of report preparation. **The conclusions and recommendations contained in this report represent our professional opinions based on the project construction information available at the time of this report.** No warranty or guarantee is expressed or implied regarding the findings of this assessment.

This is a technical report and is not a legal representation or interpretation of environmental laws, rules, regulations, or policies of local, state, or federal governmental agencies. This report is based, in part, on unverified information supplied to Himalayan from several sources during the project research; therefore, Himalayan does not guarantee its completeness or accuracy.

No investigation is thorough enough to exclude the presence of hazardous substances at a given site. If hazardous substances or hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such substances or conditions, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

5.0 REFERENCES

1. Walworth County, WI. (2010). Web Mapping Application 2.0, GIS Portal. URL: http://gisapps.co.walworth.wi.us/map2x/index.html?config=config/walco.xml

2. USGS Topographic Map. Little Prairie, WI (1971, photorevised 1987) and Elkhorn, WI (1960, photorevised 1994) 7.5' Quadrangles.

3. Environmental Data Resources, Inc. Milford, CT. Sanborn Map Report, USH 12, Elkhorn, WI

4. WisDOT's Highway Structure Information System database. http://on.dot.wi.gov/dtid_bos/extranet/structures/

5. United States Department of Agriculture--Natural Resources Conservation Service (URL: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx). Web Soil Survey, Soil Survey of Walworth County, Wisconsin.

6. Environmental Data Resources, Inc. The EDR Radius Map Report, USH 12, Elkhorn, Wisconsin.

7. Wisconsin Department of Natural Resources. (2013). Contaminated Lands Action Network, WDNR BRRTS on the Web. URL: http://dnr.wi.gov/botw/SetUpBasicSearchForm.do

8. Wisconsin Department of Natural Resources. (2013). Contaminated Lands Action Network, WDNR RR Sites Map. URL: http://dnrmaps.wi.gov/sl/?Viewer=RR%20Sites

9. Wisconsin Department of Safety and Professional Services. (2010). Storage Tank Database. URL: http://apps.commerce.wi.gov/ER_Tanks/ER-EN-TankSearch.htm

10. Wisconsin Department of Natural Resources. (2011). Solid and Hazardous Waste Information System, WDNR SHWIMS on the Web. URL: http://dnr.wi.gov/sotw/SetUpBasicSearchForm.do

11. Wisconsin Department of Natural Resources. (2013). The Historic Registry of Waste Disposal Sites Spreadsheet. URL: http://dnr.wi.gov/topic/landfills/registry.html#data

12. United States Environmental Protection Agency. (2013). Envirofacts Multisystem Search. URL: http://www.epa.gov/enviro/facts/multisystem.html

APPENDICES

Appendix A Figures and Maps

- Figure 1: Project Location Map
- Figure 2: Project Corridor Overview Map

Appendix B STH 20 & STH 67 Intersection [Site #1]

Appendix C Baker's Polled Herefords [Site #2]

Appendix D Millard Feed Mill @ Elkhorn [Site #3]

Appendix E Lauderdale Lakes Marina [Site #4]

Appendix F Lockhart's Service Station [Site #5]

Appendix G Abell's Restaurant & Bar / Former Rolling Thunder Motorcycle Shop [Site #6]

Appendix H D & E Auto Parts [Site #7]

Appendix I Evergreen Golf Club / Bunker Bar & Grill [Site #8]

Appendix J Mann Brothers, Inc. [Site #9]

Appendix K Thelen Total Construction, Inc. (Former Reynolds Property) [Site #10]

Appendix L Southern Lakes Plumbing and Heating Inc. [Site #11]

Appendix M Elkhorn Express (Former Swatek Sales Express) [Site #12]

Appendix N Walworth County Park and Ride Lot 64-20 [Site #13]

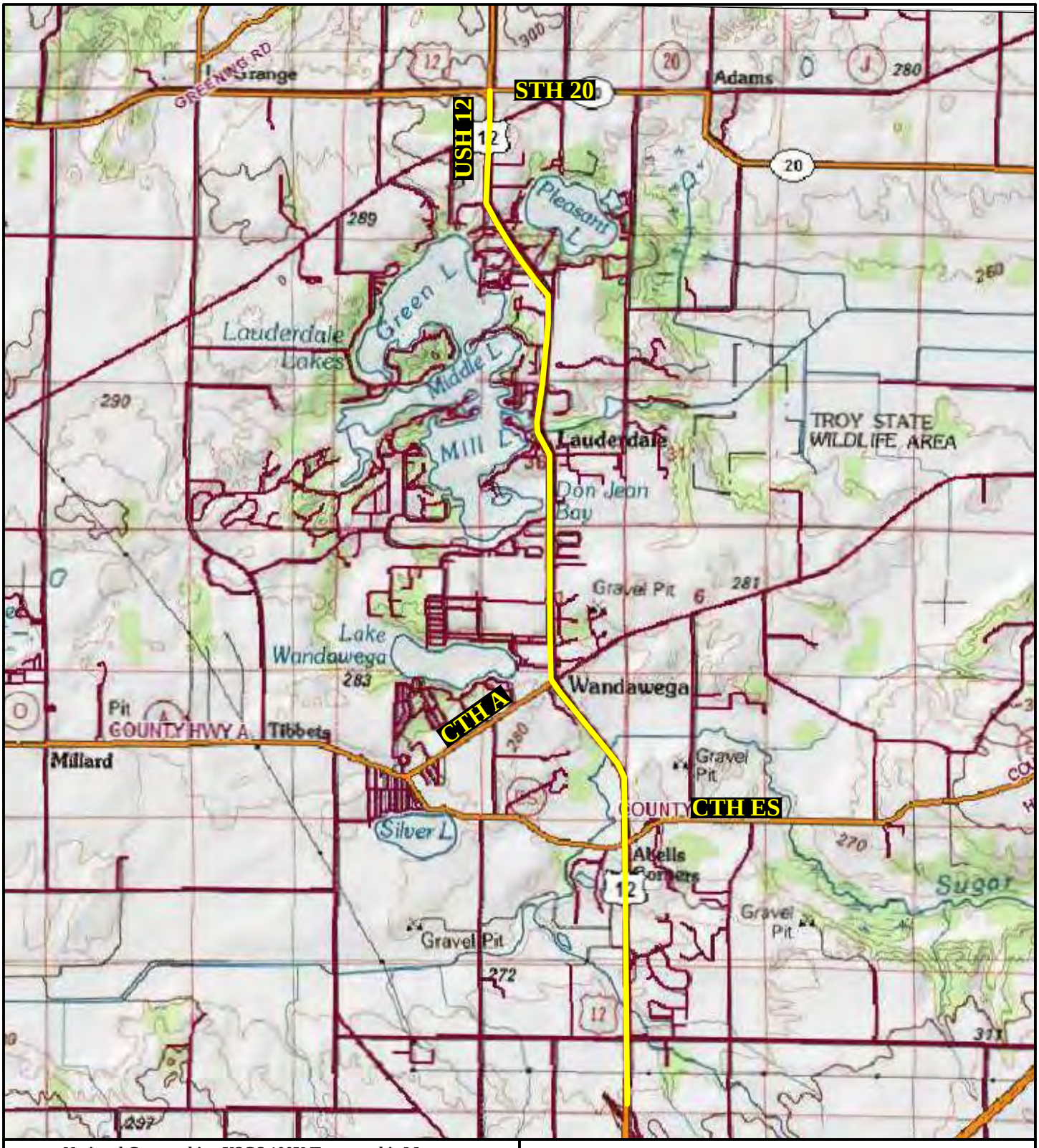
Appendix O EDR Radius Map Report / CLEAN Search Results

Appendix P Historical Land Use Information

DRAFT

APPENDIX A

FIGURES AND MAPS



Source: **National Geographic - USGS 100K Topographic Map**
Little Prairie & Elkhorn Quadrangle 1971, Revised 1987

Scale: 0 2500 5000 10000

FIGURE 1. PROJECT LOCATION MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

FIGURE 2.1 SITES OVERVIEW MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

FIGURE 2.2 SITES OVERVIEW MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

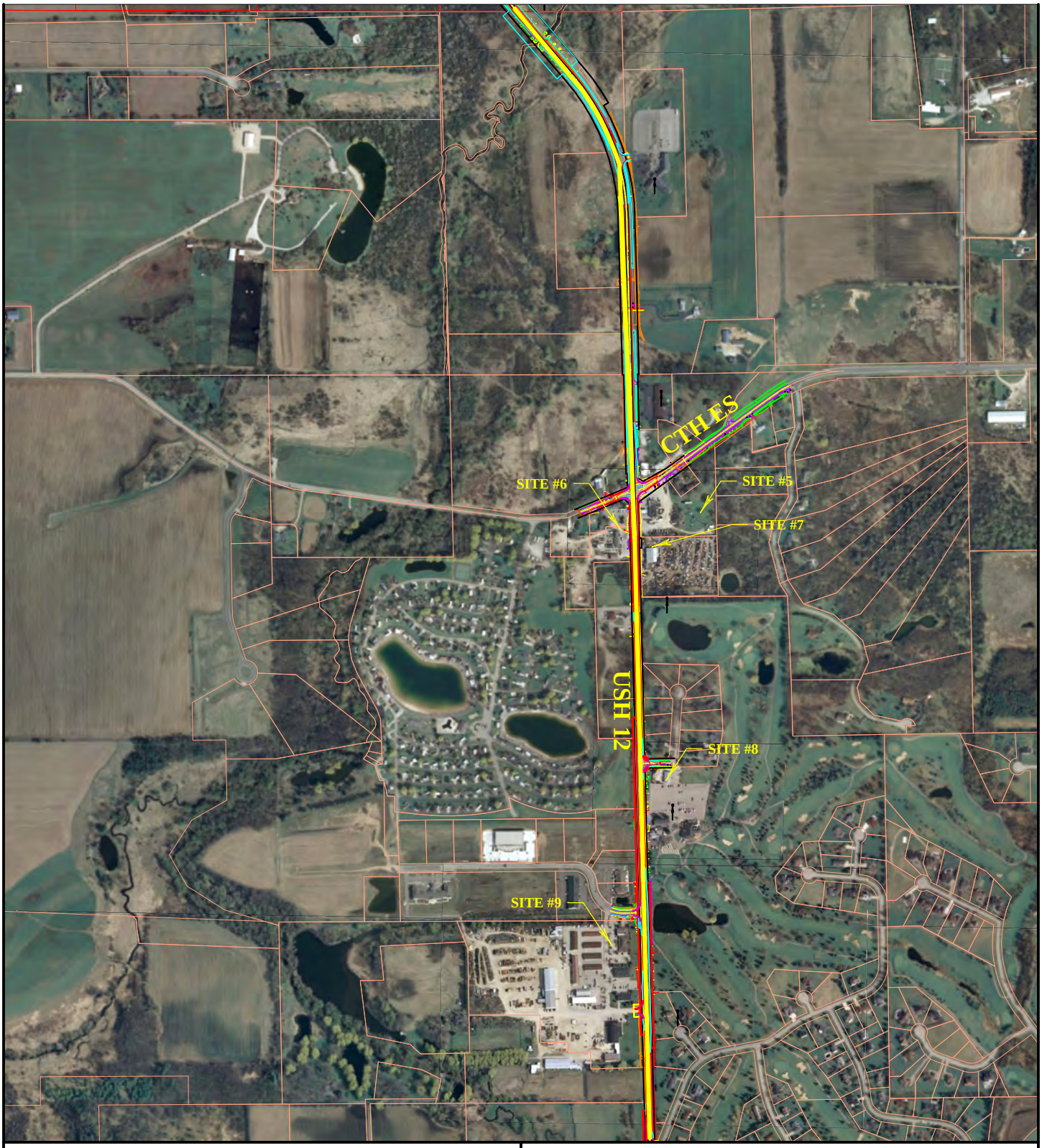
Scale: 0 500 1000 2000

FIGURE 2.3 SITES OVERVIEW MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

FIGURE 2.4 SITES OVERVIEW MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

FIGURE 2.5 SITES OVERVIEW MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N

APPENDIX B

STH 20 & STH 67 INTERSECTION
[SITE # 1]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **STH 20 & STH 67 Intersection [Site # 1]**
DOT parcel number (if known):
Property Address: State Highway 20 & State Highway 67
Owner's Name: WisDOT
Owner's Address: 141 NW Barstow Street, Waukesha, WI 53188
Owner's Phone: 262-548-5682
Current Land Use: intersection
Past Land Use:

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☐ site has registered tanks ☐ASTs ☐USTs
- ☐ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☒ Other (please describe) BRRTS # 08-65-527806 Abandoned Container on roadside, closed 09/02

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #1
STH 20 & STH 67 Intersection
State Highway 20 & State Highway 67
USH 12: STA 415+50

The site is identified on the BRRTS (BRRTS #08-65-527806) database. Based on field reconnaissance, the site is currently an intersection. According to the WDSPS Storage Tank Database, no tanks are registered to the site.

Review of the Walworth County GIS System online indicated that the site is owned by WisDOT [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

BRRTS #08-65-527806: According to the WDNR file, two 5-gallon pails containing an unknown substance were abandoned at the intersection of STH 20 and STH 67 on April 22, 2002. The containers were collected by WDNR, and the activity was closed September 24, 2002 [Ref. 2].

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist primarily of McHenry silt loam (MpB). McHenry silt loam is described as well drained silt loam underlain by silty clay loam and clay loam, further underlain by gravelly sandy loam. The depth to groundwater is generally about 60 to 80 inches [Ref. 3].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering the type of BRRTS activity and the disposal of the containers without any investigation deemed necessary by WDNR, this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Wisconsin Department of Natural Resources (April 22, 2002). Substance Release Notification Form. 08-65-527806 Hwy 20 & Hwy 67.

3. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

Figure 3.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #1: STH 20 & STH 67 Intersection, State Highway 20 & State Highway 67
View north from west side of USH 12/STH 67 south of STH 20

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web is a searchable database containing information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.

Navigation: BOTW Home >> Basic Search >> Search Results >> 08-65-527806 Activity Details

08-65-527806 HWY 20 & HWY 67

ABND CONT - CLOSED

Location Name (Click name to view details and other activities)				County	WDNR Region
HWY 20 & HWY 67				WALWORTH	SOUTHEAST
Address				Municipality	
HWY 20 & HWY 67				EAST TROY	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
NOT AVAILABLE					
Additional Location Description			Longitude	Facility ID	Size (Acres)
@ INTERSECTION					UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR			2002-04-22	2002-09-24	2002-09-24

Comments

ACTIVITY TYPE CHANGED ON 05-DEC-07. ORIGINAL ACTIVITY NO. WAS 04-65-527806

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
2002-04-22	1	Notification	-
2002-04-23	99	Miscellaneous	ZC HIRED BY DNR
2002-09-10	201	Immediate Action Response Cost	ZC COST WAS $4,451.10
2002-09-24	11	Activity Closed	CONTAINERS COLLECTED BY WDNR

Substances

Substance	Type	Amount Released	Units
Unknown Substance	Unknown	10	G

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Project Manager	SCOTT FERGUSON 2300 N DR MLK JR DR MILWAUKEE, WI 53212

Quick Response Codes

Scan to Transfer Information to Your Wireless Device

Page URL Google Maps

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the disclaimers page for more information.

The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Release 2.12.7 | 09/19/2013

APPENDIX C

BAKER'S POLLED HEREFORDS
[SITE # 2]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Baker's Polled Herefords [Site # 2]**
DOT parcel number (if known):
Property Address: N7850 US Highway 12
Owner's Name: Paul W. & Sylvia L. Baker Trust
Owner's Address: N7850 US Highway 12, Elkhorn, WI 53121
Owner's Phone: 262-742-3205
Current Land Use: farmstead, including a farm tractor and equipment repair business
Past Land Use:

Real Estate Requirements:
☐None ☐Total take ☒Strip acquisition of 45 feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☐ site has registered tanks ☐ASTs ☐USTs
- ☐ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☒ASTs Location, number and condition of tanks, contents, comments: Used Motor oil for burning in furnace ~120' from r/w
Location in relationship to current right of way: ☒ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

Site #2
Baker's Polled Herefords
N7850 US Highway 12
USH 12: STA 501+50 to 515+00 LT

The site is not identified on any databases searched for this report. Based on field reconnaissance, the site is currently occupied by a farmstead. Based on an internet search, a farm tractor and equipment repair business has also operated at the site. According to the WDSPS Storage Tank Database, no tanks are registered to the site. During the field reconnaissance, six ASTs were observed on the site.

Review of the Walworth County GIS System online indicated that the site is owned by the Paul W. & Sylvia L. Baker Trust [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

Himalayan interviewed Sylvia Baker (phone: 262-742-3205), who indicated that she has owned the property for approximately 45 years. Ms. Baker stated the ASTs are utilized for storing used motor oil, which is then burned in a furnace during the winter as a heating fuel. Ms. Baker indicated that she is not aware of any spills or other environmental concerns associated with the property. Ms. Baker stated that a septic system is located on the east side of the house, and a potable well is located adjacent to the south side of the house. It appears that the potable well is located approximately 20 feet from the areas of proposed improvements within the existing USH 12 R/W.

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist primarily of Casco loam (CeB2, CeC2, CeD2), Casco-Rodman complex (CrE2), Fox silt loam (FsB), and St. Charles silt loam (SeA). Casco loam is described as well drained loam underlain by clay loam, with the depth to groundwater generally about 60 to 80 inches. Casco-Rodman complex is described as well drained silt loam underlain by clay loam, with the depth to groundwater generally about 70 to 80 inches. Fox silt loam is described as silt loam underlain by silty clay loam and clay loam, further underlain by sand and gravel. The depth to groundwater is generally about 60 to 80 inches. St. Charles silt loam is described as silt loam underlain by silty clay loam and loam, further underlain by gravelly coarse sand. The depth to groundwater is generally about 60 to 80 inches [Ref. 2].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

It appears that the minimum distance of the ASTs located at the site, relative to the areas of proposed improvements within the existing USH 12 R/W, is approximately 120 feet.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

R/W (FEE) acquisition of 45 feet is anticipated from STA 513+00 to 515+00 at the site.

Recommendations

Considering the distance of the ASTs at the site relative to the areas of proposed improvements within the existing USH 12 R/W (~120 feet), this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 500 1000 2000

Figure 4.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #2: Baker's Polled Herefords, N7850 US Highway 12
View east from west side of USH 12

APPENDIX D

MILLARD FEED MILL @ ELKHORN
[SITE # 3]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Millard Feed Mill @ Elkhorn [Site # 3]**
DOT parcel number (if known):
Property Address: N7843 US Highway 12
Owner's Name: Thompson Investments, LLC
Owner's Address: 5206 Harbor Court, Madison, WI 53705
Owner's Phone: Sally C. Merrell, 414-287-1278
Current Land Use: residence
Past Land Use:

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☐ site has registered tanks ☐ASTs ☐USTs
- ☐ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments: DATCP Ag Spill: traffic accident release of ~1,000 pounds of anhydrous ammonia at the site. Approximately 112 tons excavated. Closed 07/2012

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #3
Millard Feed Mill @ Elkhorn
N7843 US Highway 12
USH 12: STA 507+75 to 514+50 RT

The site is identified on the AGSpills (DATCP Case No. 12-435-032201) database. Based on field reconnaissance, the site is currently occupied by a residence. According to the WDSPS Storage Tank Database, no tanks are registered to the site.

Review of the Walworth County GIS System online indicated that the site is owned by Thompson Investments, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

DATCP Case No. 12-435-032201: According to the DATCP case closure report, on March 20, 2012 a traffic accident resulted in the release of approximately 1,000 pounds of anhydrous ammonia at the site. On March 26, 2012 a total of 28 surface soil samples were collected. Ammonia concentrations up to 1,200 mg/kg were detected in the source area. On March 30, 2012 additional soil samples were collected at greater depths to vertically define the extent of the ammonia impacts. On April 26, 2012 approximately 112.13 tons of contaminated soil was excavated and disposed of off-site. A total of 10 confirmation soil samples were collected from the base and sidewalls of the resulting excavation, and analyzed for ammonia-ammonium and total nitrogen. The case was closed by DATCP on July 31, 2012 with no additional investigation or remediation required [Ref. 2].

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist primarily of Fox silt loam (FsA and FsB). Fox silt loam is described as well drained silt loam, underlain by silty clay loam and clay loam, further underlain by sand and gravel. The depth to groundwater is generally about 60 to 80 inches [Ref. 3].

Soil Impacts

Based on the DATCP closure report, nitrogen compounds were not detected in the confirmation soil samples collected from the base and sidewalls of the remedial excavation. The report does not provide any information regarding the ammonia-ammonium analytical results [Ref. 2].

Groundwater Impacts

Based on the DATCP closure report, groundwater was not encountered during the subsurface investigation or remedial activities at the site [Ref. 2].

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering that no additional investigation was required by DATCP following the remedial excavation at the site, this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Department of Agriculture, Trade and Consumer Protection. (August 2012). Case No. 12-435-032201 File, Millard Feed Mill @ Elkhorn, Case Closure.

3. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 5.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #3: Millard Feed Mill @ Elkhorn, N7843 US Highway 12
View west from east side of USH 12

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Department of Agriculture, Trade and Consumer Protection

Bureau of Agrichemical Management
Containment & Remediation Section

DATE: August 2, 2012

TO: Case No. 12-435-032201 File
Millard Feed Mill @Elkhorn

FROM: Spills Coordinator
Ph.: (608) 224-4515
e-mail: jason.lowery@wi.gov

SUBJECT: Case Closure

This case is closed based on the following information:

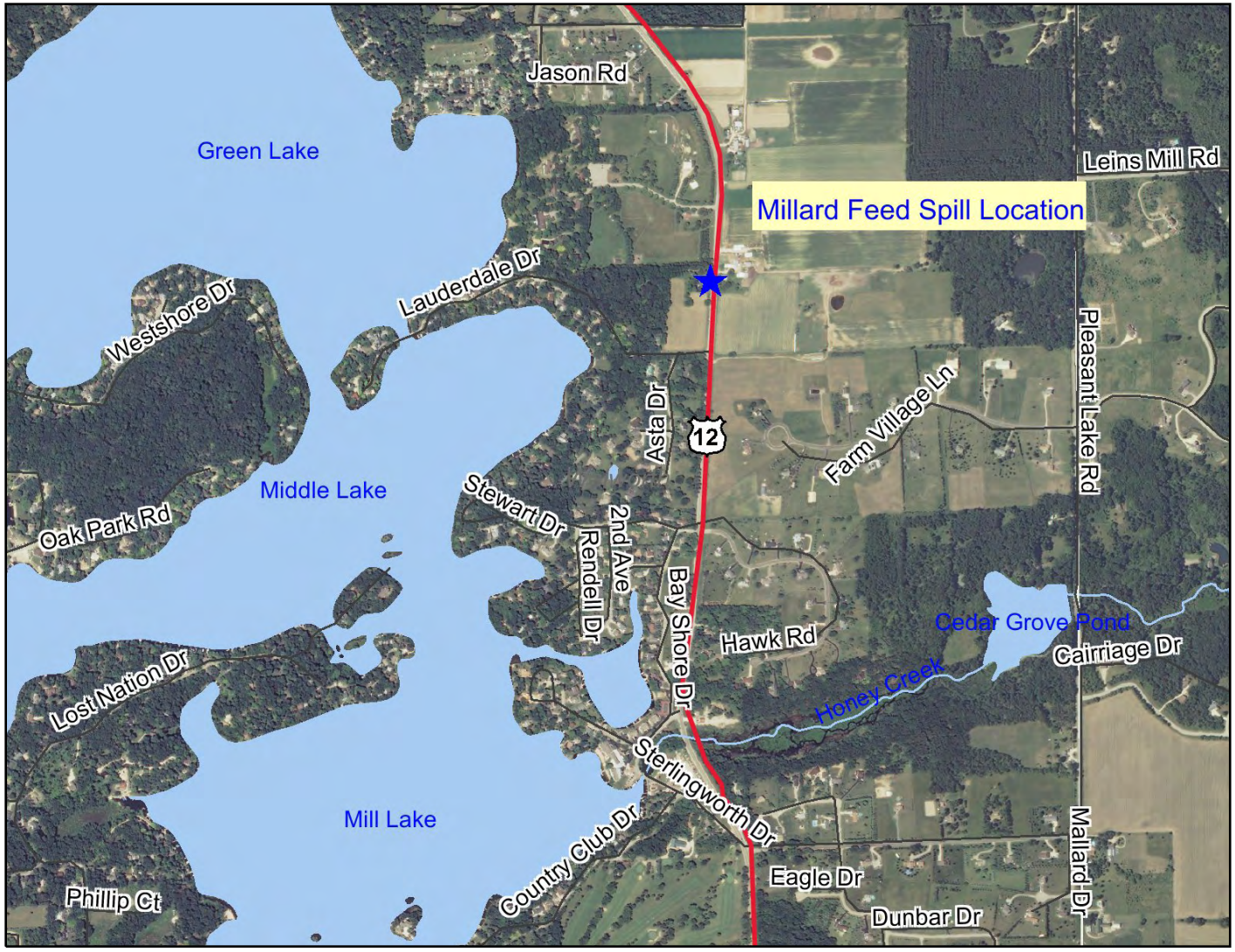
On March 20, 2012, a traffic accident resulted in a broken valve and subsequent release of approximately 1,000 pounds of anhydrous ammonia from an application bottle owned by Millard Feed Mill in Elkhorn. The application bottle landed in the ditch on the west side of U.S. Highway 12. No initial actions were taken to control, investigate, or remediate potential soil contamination. The spill was reported on March 21. Spill Coordinator Lowery informed the Responsible Person, Mr. Bob Cook from Millard Feed Mill, that he would have to hire a consultant to investigate the spill area.

Millard Feed Mill contracted with SCS BT Squared (BT Squared), who collected 28 surface soil samples on March 26. The samples were collected from the spill area as well as the adjacent fields. Ammonia contamination was detected at concentrations as high as 1,200 mg/kg in the source area but ammonia contamination was generally not detected in soil samples collected from the adjacent fields. BT Squared returned to the site on March 30 to collect deeper samples from the source area and vertically define the extent of ammonia impacts.

Weis Excavating, Inc. was hired to excavate the contaminated soil on April 26, 2012. The excavated area was approximately 46 feet long, 16 to 22 feet wide, and 2 to 4 feet deep (approximately 97 cubic yards). The approximately 112.13 tons of contaminated soil was immediately transported to Veolia ES Mallard Ridge Landfill in Delevan. BT Squared collected 4 base samples and 6 sidewall samples from the excavation and submitted them to ECCS for ammonia-ammonium and nitrite-nitrate (total nitrogen) analyses. Nitrogen compounds were not detected in the confirmation samples.

DATCP received the Soil Excavation Report from BT Squared on July 31, 2012 and agreed with the conclusion that additional investigation or remediation should not be required.

12-01 Millard Feed Mill @Elkhorn





Legend

- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities

0 1500 3000 4500 ft.

Map created on Mar 22, 2012

Note: Not all RR Sites have been geo-located yet.

N

Scale: 1:16,023

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Notes: Spill Date: 3/20/2012
Spill Substance: Anhydrous Ammonia
Spill Amount: ~1000 lb

APPENDIX E

LAUDERDALE LAKES MARINA
[SITE # 4]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Lauderdale Lakes Marina [Site # 4]**
DOT parcel number (if known):
Property Address: N7536 Sterlingworth Drive
Owner's Name: Lauderdale Real Estate Investments, Inc.
Owner's Address: N7536 Sterlingworth Drive, Elkhorn, WI 53121
Owner's Phone: Mark J. Neuman, 262-742-3898
Current Land Use: Lauderdale Lakes Marina
Past Land Use: Marina since 1930's or 1940's

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☒ tanks are currently in use
- ☒ tanks are abandoned date: 03/1993
- Tank contents:
  - ☒ Leaded gasoline ☒ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☒ Other (please describe) BRRTS #: 09-65-004350 06/2006 – tank assessment closed with no detector insignigicant contamination

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #4
Lauderdale Lakes Marina
N7536 Sterlingworth Drive
USH 12: STA 546+50 to 552+50 RT

The site is identified on the BRRTS (BRRTS #09-65-004350), UST, and SHWIMS databases. Based on field reconnaissance, the site is currently used by Lauderdale Lakes Marina. According to the WDSPS Storage Tank Database, five tanks are registered to the site under the address of N7536 Sterlingworth Drive, and one tank is registered to the site under the address of N7535 Sterlingworth Court. One 550-gallon leaded gasoline UST, one 550-gallon unleaded gasoline UST, and three 1,000-gallon unleaded gasoline USTs were closed / removed from the site in March 1993. The use for the tanks is listed as other. One 10,000-gallon unleaded gasoline UST was installed in August 1993, and is currently in use at the site. The use for the tank is listed as retail fuel sales.

Review of the Walworth County GIS System online indicated that the site is owned by Lauderdale Real Estate Investments, Inc. [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

According to WDNR "SHWIMS on the Web", the site is an active very small quantity hazardous water generator, with the specific waste type(s) not designated. The site is also listed as an inactive small quantity generator of non-listed ignitable wastes [Ref. 2].

Himalayan interviewed Jackie Rumer (phone: 262-742-3898), who indicated that the site has been owned by Lauderdale Real Estate Investments for approximately 5 years, and has been used as a marina since the 1930's or 1940's. Ms. Rumer stated that the UST currently in use at the site is located at N7543 Sterlingworth Drive, just west of the southwest corner of Sterlingworth Drive and Country Club Drive. Ms. Rumer believes the closed / removed tanks had been situated in roughly the same location. Ms. Rumer indicated that she was not aware of any spills or other environmental concerns associated with the property. Ms. Rumer stated that a potable well is located is located on the southwest side of the marina.

Based on Himalayan's conversation with Ms. Rumer, it appears that the current and former tank locations are approximately 285 feet from the current USH 12 R/W.

BRRTS #09-65-004350: No regulatory file was available for this activity. According to WDNR "BRRTS on the Web", a Tank Closure Environmental Assessment Report was received in August 1993, and a revised report was received in December 1993. The activity was closed by WDNR in June 2006, citing no detect or insignificant contamination [Ref. 3].

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist primarily of Casco-Fox silt loam (ClC2) and Casco-Rodman complex (CrE2). Casco-Fox silt loam and Casco-Rodman complex are described as well drained silt loam underlain by clay loam. The depth to groundwater is generally about 60 to 80 inches [Ref. 4].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering the distance of the current and former tank locations at the site relative to the current STH 20 R/W (~285 feet), this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Wisconsin Department of Natural Resources. WDNR SHWIMS on the Web. Solid and Hazardous Waste Information System. http://dnr.wi.gov/sotw/SetUpBasicSearchForm.do

3. Wisconsin Department of Natural Resources. WDNR BRRTS on the Web. http://dnr.wi.gov/botw/SetUpBasicSearchForm.do

4. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 6.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #4: Lauderdale Lakes Marina, N7536 Sterlingworth Drive
View northwest from east side of USH 12

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web is a searchable database containing information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.

Navigation: BOTW Home >> Basic Search >> Search Results >> 09-65-004350 Activity Details

09-65-004350 LAUDERDALE LAKES MARINA

NO ACTION REQUIRED

Location Name (Click name to view details and other activities)			County	WDNR Region
LAUDERDALE LAKES MARINA			WALWORTH	SOUTHEAST
Address			Municipality	
RT 5 BOX 323			LAGRANGE	
Public Land Survey System		Latitude	Google Maps	RR Sites Map
SE 1/4 of the NW 1/4 of Sec 36, T04N, R16E		42.7651084	CLICK TO VIEW	
Additional Location Description		Longitude	Facility ID	Size (Acres)
NONE		-88.5561649	265133440	UNKNOWN

Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121275736		1993-10-25	06/06/2006	2006-06-06

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1993-08-10	33	Tank Closure Environmental Site Assessment Rpt Received	-
1993-09-24	3	Notice of Noncompliance (NON)	DUE TO EXPOSED SOIL PILE
1993-10-25	1	Notification	-
1993-10-25	147	Remedial Design Report Received (w/out Fee)	-
1993-11-17	14	Notice of Violation (NOV)	DUE TO LACK OF INVESTIGATION AND EXPOSED SOIL PILE
1993-12-01	99	Miscellaneous	LETTER SENT SUMMARIZING NOV CONFERENCE
1993-12-08	33	Tank Closure Environmental Site Assessment Rpt Received	REVISED RPT
1994-01-20	183	No Further Action Request with Fee	NO FEE
2004-01-15	59	Enforcement Action Completed	-
2004-01-15	99	Miscellaneous/2	BB. LETTER SENT REQUESTING TANK CLEANING WASTE DISPOSAL DOC.
2006-05-11	200	Push Action Taken	JD - CALL MADE, FAXED SENT REGARDING NFA INFORMATION
2006-06-06	801	No Detect or Insignificant Contamination	-

Impacts

Type	Comment
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	LAUDERDALE LAKES MARINA ROUTE 5 LA GRANGE, WI 53121
Project Manager	JAMES DELWICHE 141 NW BARSTOW RD WAUKESHA, WI 53188

Quick Response Codes

Scan to Transfer Information to Your Wireless Device

	Page URL	Google Maps		

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the disclaimers page for more information.

The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Release 2.12.7 | 09/19/2013

APPENDIX F

LOCKHART'S SERVICE STATION
[SITE # 5]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Lockhart's Service Station [Site # 5]**
DOT parcel number (if known):
Property Address: N6424 US Highway 12 / W4889 County Highway ES
Owner's Name: Lockhart Enterprises, LLC
Owner's Address: N6424 US Highway 12, Elkhorn, WI 53121
Owner's Phone: Dennis E. Lockhart, 262-742-2972
Current Land Use: Lockhart's Service Station, a BP gasoline station and automobile repair facility
Past Land Use:

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☒ tanks are currently in use
- ☒ tanks are abandoned date: 1998
  - Tank contents:
    - ☐ Leaded gasoline ☒ Unleaded gasoline ☐ Fuel Oil ☒ Diesel
    - ☐ Kerosene ☐ Unknown ☒ Other (describe) Used Oil
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☒ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☒ USTs ☐ASTs Location, number and condition of tanks, contents, comments: South portion of site ~65 feet east of r/w
Location in relationship to current right of way: ☒ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☒ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #5
Lockhart's Service Station
N6424 US Highway 12 / W4889 County Highway ES
USH 12: STA 705+00 to 707+75 LT

The site is identified on the LUST (BRRTS #03-65-004253), UST, CRS, AUL, and SHWIMS databases. Based on field reconnaissance, the site is currently occupied by Lockhart's Service Station, a BP gasoline station and automobile repair facility. According to the WDSPS Storage Tank Database, twelve tanks are registered to the site. One 1,000-gallon diesel UST, one 2,000-gallon diesel UST, one 6,000-gallon diesel UST, one 2,000-gallon unleaded gasoline UST, one 4,000-gallon unleaded gasoline UST, and two 8,000-gallon unleaded gasoline USTs were closed / removed from the site in October 1998. One 1,000-gallon used oil UST was closed / removed from the site in December 1998. One 8,000-gallon diesel UST, one 4,000-gallon unleaded gasoline UST, one 8,000-gallon unleaded gasoline UST, and one 12,000-gallon unleaded gasoline UST were installed in December 1998, and are currently in use at the site. The use for the tanks is listed as retail fuel sales.

Review of the Walworth County GIS System online indicated that the site is owned by Lockhart Enterprises, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

According to WDNR “SHWIMS on the Web”, the site is an inactive very small and small quantity hazardous water generator. Wastes previously handled at this facility include benzene, non-listed ignitable wastes, non-listed toxic wastes, and tetrachloroethylene [Ref. 2].

BRRTS #03-65-004253: Based on the Groundwater Monitoring Report prepared by Environmental Compliance Consultants, Inc. (ECCI), water was observed in a 2,000-gallon unleaded gasoline UST located west of the building at the site in 1993, prompting a site investigation [Ref. 3]. According to the WDNR GIS Registry Packet, in October 1995, 20 soil borings (SB-1 to SB-20) were advanced to a terminal depth of 30.5 feet bgs at the site [Ref. 4]. A total of 26 soil samples and seven groundwater samples were collected and analyzed for GRO and PVOCs. In February 1996, four monitoring wells (MW-1 to MW-4) were installed on the west and southwest sides of the building at the site. In May 1996, two additional nested monitoring wells (MW-5 and PW-5) were installed on the northwest corner of the site. In May 1997, monitoring well MW-6 was installed on the property located at the northwest quadrant of the USH 12 and CTH ES intersection. Five to 15 rounds of groundwater monitoring were conducted on the wells between 1996 and 2003, and several private wells were also sampled during this time. Samples were collected and analyzed for GRO, DRO, and/or PVOCs.

Petroleum impacted soil and groundwater discovered during the subsurface investigations was thought to be the result of leaking pump islands, piping runs, and USTs located at the site [Ref. 3]. In October 1998, a total of 2,674.5 tons of soil were excavated and disposed of off-site. Eleven confirmation soil samples (SW-1 to SW-10 and Bottom 2*) were collected from the sidewalls and bottom of the resulting excavation, and analyzed for GRO, PVOCs, and lead. The excavation reached approximately 9 feet bgs at the deepest point, and was backfilled / compacted with clean sand. Groundwater was encountered during excavation activities, and approximately 8,500 gallons were pumped and disposed of off-site. Six rounds of groundwater monitoring were conducted after the remedial excavation.

The activity was closed by WDNR in May 2006, with deed restrictions at the site for residual soil and groundwater contamination.

Geology / Hydrogeology

According to the ECCI report, soils at the site consisted of silts and clays to depths of approximately 7 to 10 feet bgs, underlain by sands to 30.5 feet bgs [Ref. 3].

Groundwater was encountered from approximately 4 to 8 feet bgs at the site, and is anticipated to flow northwest, toward the USH 12 and CTH ES intersection.

Soil Impacts

According to the WDNR GIS Registry Packet, soil analytical results indicated the detection of GRO, benzene, ethylbenzene, toluene, xylenes, MTBE, trimethylbenzenes, and/or lead in confirmation soil samples collected from the sidewalls (SW-1 to SW-10 at 5 feet bgs) and base (Bottom 2* at 9 feet bgs) of the remedial excavation [Ref. 4]. Benzene (140 µg/kg in SW-3, 510 µg/kg in SW-5, 1,000 µg/kg in SW-7, 1,500 µg/kg in SW-8, 660 µg/kg in SW-9, and 100 µg/kg in SW-10), ethylbenzene (22,000 µg/kg in SW-8 and 10,000 µg/kg in Bottom 2*), toluene (14,000 µg/kg in SW-8 and 2,400 µg/kg in Bottom 2*), xylenes (6,100 µg/kg in SW-7, 70,000 µg/kg in SW-8, 4,200 µg/kg in SW-9, and 41,000 µg/kg in Bottom 2*), and GRO (110 mg/kg in SW-2, 180 mg/kg in SW-4, 650 mg/kg in SW-8, and 430 mg/kg in Bottom 2*) were identified at concentrations exceeding the respective NR 720 RCL.

It appears that residual soil contamination at the site (in SW-3, SW-4, and SW-5) is located within the current USH 12 R/W.

Groundwater Impacts

According to the WDNR GIS Registry Packet, during the last round of groundwater monitoring conducted November 2003, no VOCs were detected in the monitoring wells

located at the site. MTBE (17 µg/L) was detected above the NR 140 PAL in MW-6, located off-site at the northwest quadrant of the USH 12 and CTH ES intersection [Ref. 4].

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering that residual soil contamination at the site exists within the current USH 12 R/W, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

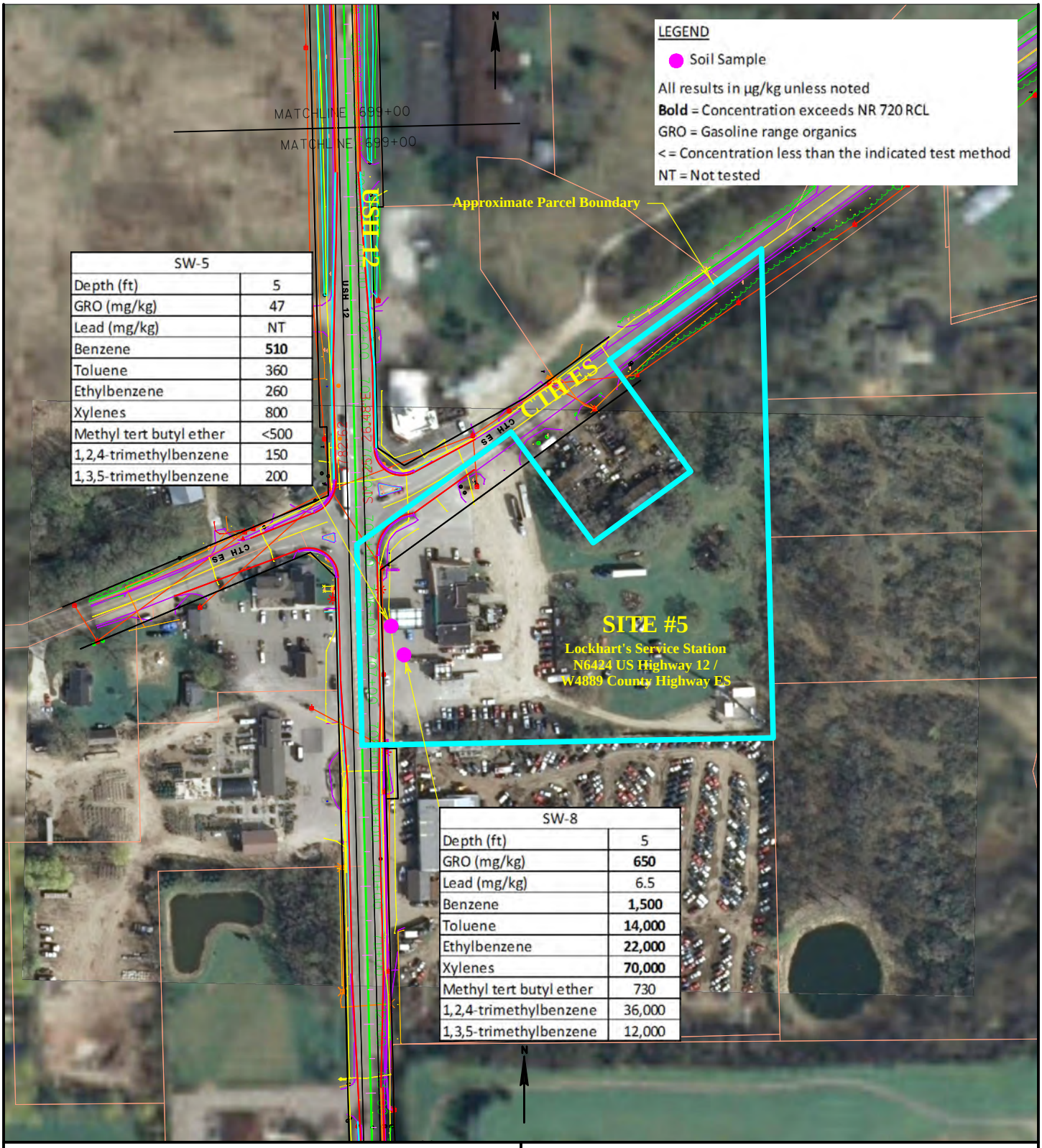
References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Wisconsin Department of Natural Resources. WDNR SHWIMS on the Web. Solid and Hazardous Waste Information System. http://dnr.wi.gov/sotw/SetUpBasicSearchForm.do

3. Environmental Compliance Consultants, Inc. (December 2004). Construction Documentation and Groundwater Monitoring Report for Lockhart's Service, Hwys 12/67 & ES, Elkhorn, WI 53121. WDNR BRRTS #03-65-004253.

4. Wisconsin Department of Natural Resources (WDNR). (May 2006). GIS Registry Information Packet, Lockhart's Service, STH 12/67 and CTH ES, Elkhorn. WDNR BRRTS #03-65-004253.



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 7.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #5: Lockhart's Service Station, N6424 US Highway 12 / W4889 County Highway ES
View east from west side of USH 12 to the south of CTH ES

SUB
342-08
SW

e

GIS REGISTRY INFORMATION

SITE NAME: LOCKHARTS SERVICE

BRRTS #: 03-65-004253 **FID # (if appropriate): 265099010**

COMMERCE # (if appropriate):

CLOSURE DATE: 05/30/2006

STREET ADDRESS: STH 12/67 AND CTH ES

CITY: ELKHORN

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): **X=** 639337 **Y=** 251334

CONTAMINATED MEDIA: Groundwater [ ] Soil [ ] Both [X]

OFF-SOURCE GW CONTAMINATION >ES: [ ] Yes [X] No

IF YES, STREET ADDRESS 1:

GPS COORDINATES (meters in WTM91 projection): **X=** **Y=**

OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL): [ ] Yes [X] No

RECEIVED APR 18 2006

IF YES, STREET ADDRESS 1:

GPS COORDINATES (meters in WTM91 projection): **X=** **Y=**

CONTAMINATION IN RIGHT OF WAY: [ ] Yes [X] No

DOCUMENTS NEEDED:

Closure Letter, and any conditional closure letter or denial letter issued

Copy of most recent deed, including legal description, for all affected properties

Certified survey map or relevant portion of the recorded plat map (*if referenced in the legal description*) for all affected properties

County Parcel ID number, *if used for county*, for all affected properties

Location Map which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site.

Detailed Site Map(s) for all affected properties, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs.

Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)

Tables of Latest Soil Analytical Results (no shading or cross-hatching)

Isoconcentration map(s), *if required for site investigation (SI)* (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of groundwater contamination defined. **If not available, include the latest extent of contaminant plume map.**

GW: Table of water level elevations, with sampling dates, and free product noted if present

GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees)

SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour

Geologic cross-sections, *if required for SI.* (8.5x14' if paper copy)

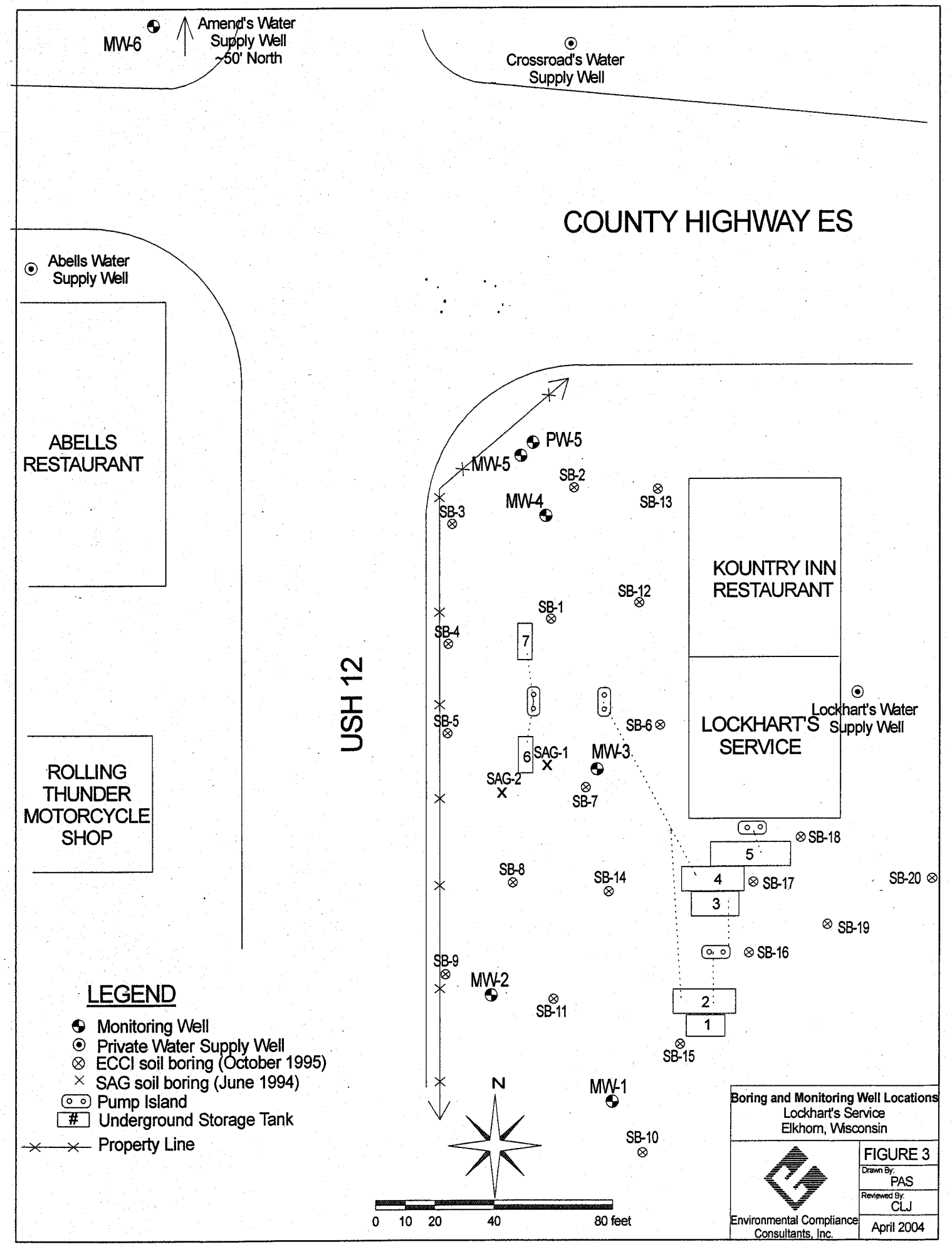
RP certified statement that legal descriptions are complete and accurate

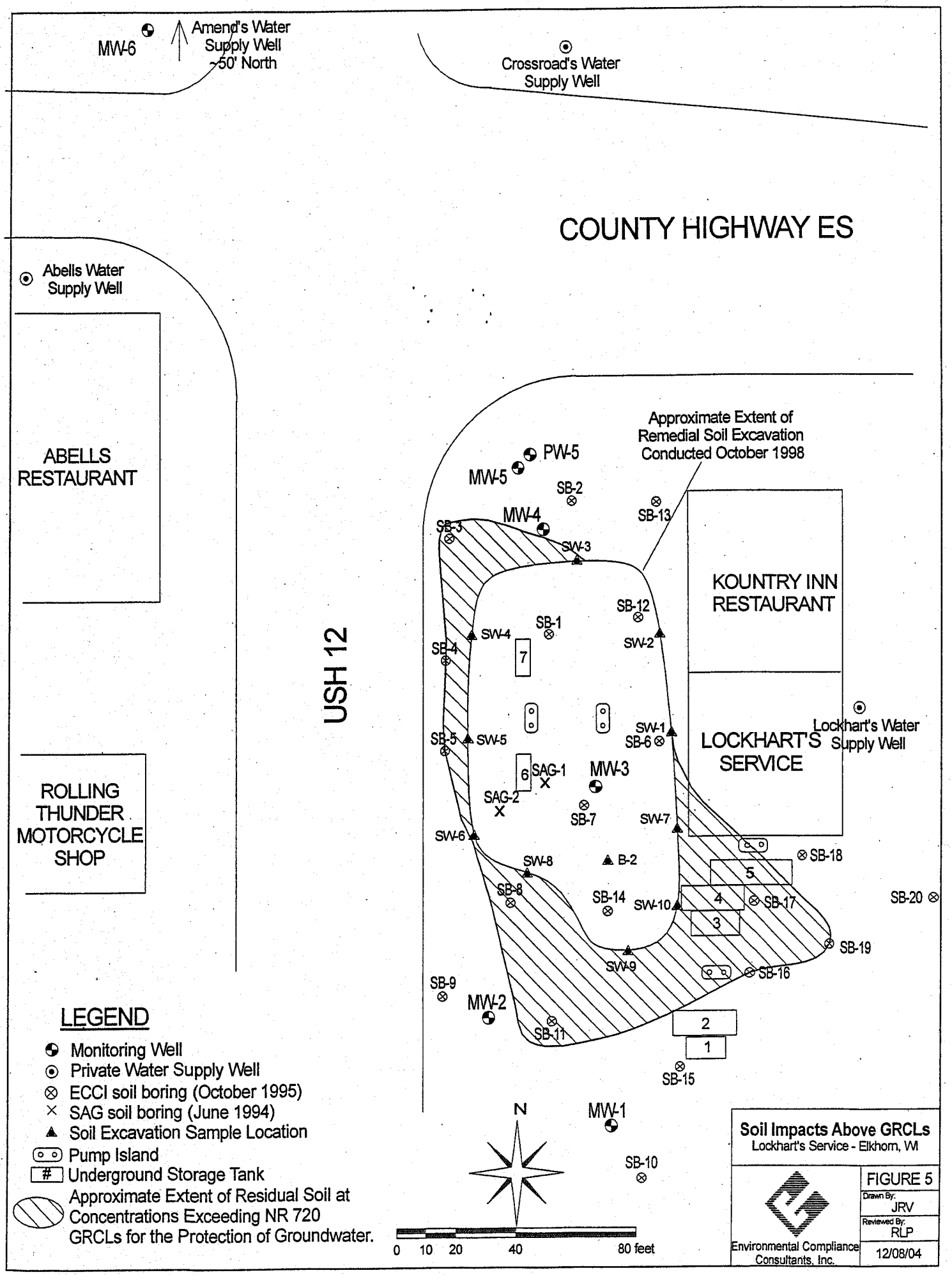
Copies of off-source notification letters (if applicable)

Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW)

Copy of (soil or land use) deed restriction(s) or deed notice *if any required as a condition of closure*

Copy of any maintenance plan referenced in the deed restriction.


MW-6
Amend's Water Supply Well ~50' North
Crossroad's Water Supply Well
COUNTY HIGHWAY ES
Abells Water Supply Well
ABELLS RESTAURANT
ROLLING THUNDER MOTORCYCLE SHOP
USH 12
PW-5
MW-5
SB-2
MW-4
SB-13
SB-3
KOUNTRY INN RESTAURANT
SB-12
SB-1
SB-4
7
SB-5
SB-6
LOCKHART'S SERVICE
Lockhart's Water Supply Well
6
SAG-1
MW-3
SAG-2
SB-7
SB-18
5
SB-8
SB-14
4
SB-17
SB-20
3
SB-19
SB-16
SB-9
MW-2
SB-11
2
1
SB-15
MW-1
SB-10
N
0 10 20 40 80 feet
LEGEND
Monitoring Well
Private Water Supply Well
ECCI soil boring (October 1995)
SAG soil boring (June 1994)
Pump Island
Underground Storage Tank
Property Line
Boring and Monitoring Well Locations
Lockhart's Service
Elkhorn, Wisconsin
Environmental Compliance Consultants, Inc.
FIGURE 3
Drawn By: PAS
Reviewed By: CLJ
April 2004



Soil Impacts Above GRCLs
Lockhart's Service - Elkhorn, WI

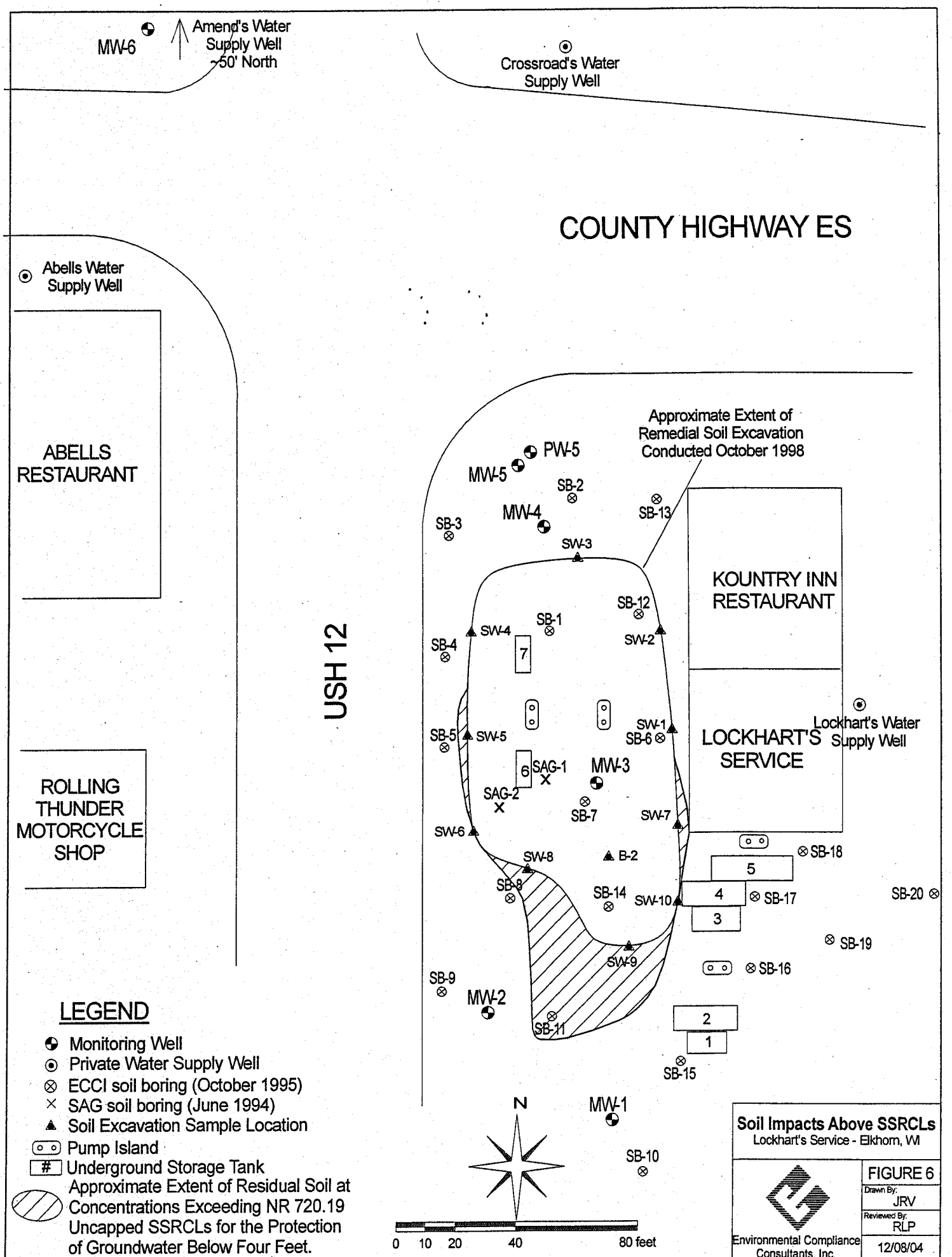
FIGURE 5

Drawn By: JRV

Reviewed By: RLP

Environmental Compliance Consultants, Inc.

12/08/04


MW-6
Amend's Water Supply Well ~50' North
Crossroad's Water Supply Well
COUNTY HIGHWAY ES
Abells Water Supply Well
ABELLS RESTAURANT
ROLLING THUNDER MOTORCYCLE SHOP
USH 12
Approximate Extent of Remedial Soil Excavation Conducted October 1998
KOUNTRY INN RESTAURANT
LOCKHART'S SERVICE
Lockhart's Water Supply Well
PW-5
MW-5
MW-4
MW-3
MW-2
MW-1
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-16
SB-17
SB-18
SB-19
SB-20
SW-1
SW-2
SW-3
SW-4
SW-5
SW-6
SW-7
SW-8
SW-9
SW-10
SAG-1
SAG-2
B-2
1
2
3
4
5
6
7
LEGEND
Monitoring Well
Private Water Supply Well
ECCI soil boring (October 1995)
SAG soil boring (June 1994)
Soil Excavation Sample Location
Pump Island
Underground Storage Tank
Approximate Extent of Residual Soil at Concentrations Exceeding NR 720.19 Uncapped SSRCLs for the Protection of Groundwater Below Four Feet.
N
0 10 20 40 80 feet
Soil Impacts Above SSRCLs
Lockhart's Service - Elkhorn, WI
FIGURE 6
Drawn By: JRV
Reviewed By: RLP
Environmental Compliance Consultants, Inc.
12/08/04

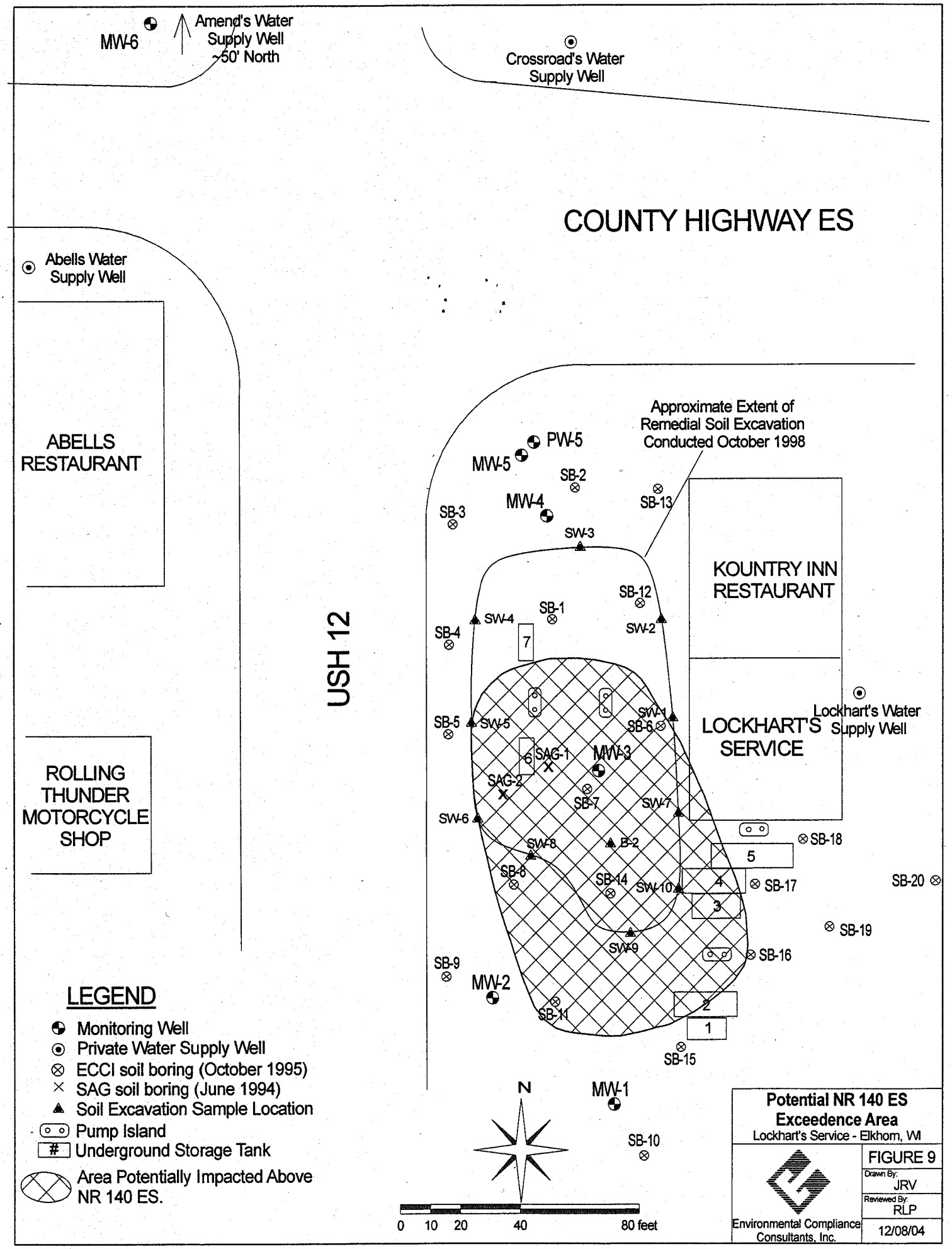

MW-6
Amend's Water Supply Well ~50' North
Crossroad's Water Supply Well
COUNTY HIGHWAY ES
Abells Water Supply Well
ABELLS RESTAURANT
ROLLING THUNDER MOTORCYCLE SHOP
USH 12
Approximate Extent of Remedial Soil Excavation Conducted October 1998
KOUNTRY INN RESTAURANT
LOCKHART'S SERVICE
Lockhart's Water Supply Well
PW-5
MW-5
MW-4
MW-3
MW-2
MW-1
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-16
SB-17
SB-18
SB-19
SB-20
SW-1
SW-2
SW-3
SW-4
SW-5
SW-6
SW-7
SW-8
SW-9
SW-10
SAG-1
SAG-2
B-2
1
2
3
4
5
6
7
LEGEND
Monitoring Well
Private Water Supply Well
ECCI soil boring (October 1995)
SAG soil boring (June 1994)
Soil Excavation Sample Location
Pump Island
Underground Storage Tank
Area Potentially Impacted Above NR 140 ES.
N
0 10 20 40 80 feet
Potential NR 140 ES Exceedence Area
Lockhart's Service - Elkhorn, WI
FIGURE 9
Drawn By: JRV
Reviewed By: RLP
Environmental Compliance Consultants, Inc.
12/08/04

Table 4
Groundwater Analytical Results
Lockharts Service
Elkhorn, Wisconsin
ECCI Project No: 940482
BRRTS No: 03-65-004253

Sample Location	Date	GRO	DRO	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	Total TMB	Naphtha-lene
NR 140	ES			**5**	**1000**	**700**	**10000**	**60**	**480**	**40**
NR 140	PAL			0.5	200	140	1000	12	96	8
MW-1	02/21/96	<50		<0.6	<1.0	<1.0	<1.0	5.0	<1.0	<1.0
MW-1	11/05/96	<50		<0.6	<1.0	<1.0	<1.0	4.4	<1.0	
MW-1	05/09/97			<0.20	<0.40	<0.30	<0.90	<0.20	<0.3	
MW-1	09/21/99			<0.27	<0.27	<0.32	<0.43	1.4	<0.27	
MW-1	05/16/00			<0.26	0.59	<0.24	<0.97	0.77	<0.86	
MW-1	11/14/00			<0.35	0.42	<0.37	<0.76	0.71	0.49	
MW-1	04/16/01			<0.45	<0.68	<0.82	<1.7	<0.43	<0.94	
MW-1	11/26/03			<0.30	<0.58	<0.60	<1.2	0.64	<0.66	
MW-2	02/21/96	78		<0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2	11/05/96	<50		<0.6	<1.0	<1.0	<1.0	6.2	<1.0	
MW-2	09/21/99			<0.27	0.47	<0.32	<0.43	2.5	0.26	
MW-2	05/16/00			0.3	0.22	<0.24	<0.97	1.5	<0.86	
MW-2	11/14/00			<0.35	<0.38	<0.37	<0.76	<0.36	<0.37	
MW-2	04/16/01			<0.45	<0.68	<0.82	<1.7	<0.43	<0.94	
MW-2	11/26/03			<0.30	<0.58	<0.60	<1.2	<0.58	<0.66	
MW-3	02/21/96	32000		**1600**	**8600**	**1700**	6400	<100	**1670**	**150**
MW-3	11/05/96	26000		**1100**	**6900**	**1400**	5600	**86**	**1280**	
MW-3	05/09/97			**3700**	**20000**	**2700**	**11600**	**110**	**2040**	
MW-3	12/23/97			**2700**	**20000**	**3500**	**14400**	<110	**6500**	
MW-4	02/21/96	6100		**2400**	56	270	760	**170**	<50	<50
MW-5	05/23/96	2900	1400	**1500**	<20	26	62	**130**	<20	28
MW-5	11/05/96	4400		**2100**	35	34	133	**180**	<10	
MW-5	05/09/97			**1400**	13	12	91	**120**	3.5	
MW-5	12/23/97			**1500**	11	4.8	81	**140**	<3.4	
MW-5	06/24/99			**1200**	5.4	<2.4	26.5	**62**	<8.6	
MW-5	09/21/99			**390**	2.1	<1.6	18	29	<1.1	
MW-5	05/16/00			**96**	5	0.72	8.5	25	<0.86	13
MW-5	11/14/00			**150**	1.5	0.46	7.8	22	<0.37	12
MW-5	04/16/01			**160**	0.93	<0.82	4.2	17	<0.94	5.6
MW-5	11/26/03			<0.30	<0.58	<0.60	<1.2	5.4	<0.66	
PW-5	05/23/96	<50	210	1.3	<1.0	<1.0	<1.0	1.6	<1.0	<1.0
PW-5	11/05/96	<50		<0.6	<1.0	<1.0	<1.0	1.9	<1.0	
PW-5	09/21/99			<0.27	<0.27	<0.32	<0.43	2.2	<0.27	
PW-5	05/16/00			<0.26	0.28	<0.24	<0.97	1.6	<0.86	<0.89
PW-5	11/14/00			<0.35	<0.38	<0.37	<0.76	2.2	<0.37	
PW-5	04/16/01			<0.45	<0.68	<0.82	<1.7	2.2	<0.94	
PW-5	11/26/03			<0.30	<0.58	<0.60	<1.2	1.0	<0.66	
MW-6	05/09/97			0.2	<0.4	<0.3	<0.9	41	<0.3	<0.3
MW-6	06/28/97			<0.2	<0.28	<0.3	<1.0	32	<0.45	
MW-6	12/23/97			<0.16	<0.36	<0.29	<0.94	32	<0.34	
MW-6	06/24/99			<0.27	<0.27	<0.32	<0.43	23	<0.27	
MW-6	09/21/99			<0.27	0.36	<0.32	<0.43	18	<0.27	
MW-6	05/16/00			<0.26	<0.21	<0.24	<0.97	32	<0.86	<0.89
MW-6	11/14/00			<0.35	<0.38	<0.37	<0.76	24	<0.37	
MW-6	04/16/01			<0.45	<0.68	<0.82	<1.7	18	<0.94	
MW-6	11/26/03			<0.30	<0.58	<0.60	<1.2	17	<0.66	
Lockharts*	10/16/95	<50	<100	<0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Lockharts*	11/14/00			<0.28	<0.26	<0.28	<0.59	<0.34	<0.27	<0.38
Amend*	3/19/1996			<0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Abell*	3/19/1996			<0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Crossroads*	3/19/1996			<0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

All concentrations reported in micrograms per liter (ug/l) [equivalent to parts per billion (ppb)]
< = concentration less than the listed detection limit
GRO = Gasoline range organics
DRO = Diesel Range Organics
MTBE = Methyl tert butyl ether
TMB = Trimethylbenzene
EDB = 1,2-Dibromoethane (Ethylene dibromide)
1,2-DCA = 1,2-Dichloroethane
* = Private Water Supply Well
First samples from monitoring wells, and samples from water supply wells were analyzed according to method 8260.
Compounds not listed were not detected in the samples.

LOCKHART'S SERVICE
ELKHORN, WISCONSIN

TABLE 4A

PRE-REMEDIAL GEOPROBE GROUNDWATER SAMPLING - OCTOBER 12, 1995

Compound	NR 140 Groundwater Enforcement Standard	Sample No.						
		SB1-W (Excav)	SB5-W	SB9-W	SB12-W (Excav)	SB13-W	SB15-W	SB16-W
GRO	--	98479	359	<50	2810	<50	<50	19166
Benzene	5	**7492**	3	<1	**829**	<1	<1	**10**
Ethylbenzene	700	465	<1	<1	6	<1	<1	4
Methyl-tert-butyl-ether	60	**748**	6	<1	54	6	4	14
Toluene	1000	528	2	1	8	<1	<1	7
1,3,5-Trimethylbenzene	480	**378**	<1	<1	26	<1	<1	40
1,2,4-Trimethylbenzene		**912**	1	<1	123	<1	<1	34
Xylenes, -m & -p	10000	1434	22	<1	260	<1	<1	<1
Xylene, -o		627	1	<1	16	<1	<1	<1

NOTES:

Analysis by EnChem in Green Bay, Wisconsin.
All samples in units of ug/L.
Data in **bold** exceed NR140 groundwater enforcement standard.
(Excav) = location of soil boring was within the remedial soil excavation area (excavation post dated the boring)

LOCKHART'S SERVICE
ELKHORN, WISCONSIN

TABLE 2

SUMMARY OF PRE-REMEDIATION SOIL ANALYTICAL RESULTS - OCTOBER 12, 1995

Compound	NR 720 Generic Soil RCLs	NR 720 SSRCL (No Cap)	NR 720 SSRCL (Cap)	Sample No.													
				SB1-1 (Excav)	SB1-2 (Excav)	SB2-2	SB3-2	SB3-4	SB4-1	SB4-2	SB5-2	SB6-1 (Excav)	SB7-2 (Excav)	SB8-2	SB9-1	SB10-2	SB11-1
Depth in feet	--	--	--	0-4	4-8	4-8	4-8	12-16	0-4	4-8	4-8	0-4	4-8	4-8	0-4	4-8	0-4
GRO (mg/kg)	100	--	--	2	**158**	<50	1	0	0	0	2	**748**	**2358**	4	0	1	4
Benzene	5.5	315	7121	**68**	**936**	<1	**48**	4	2	2	**12**	**7141**	**27079**	**29**	5	7	**314**
Ethylbenzene	2900	206061	4363636	13	493	<1	5	<1	<1	<1	3	**15704**	**68558**	45	<1	1	123
Methyl-tert-butyl-ether	--	1212	50909	8	357	3	30	4	2	1	13	4251	24730	36	8	6	33
Toluene	1500	90909	2000000	5	119	<1	1	<1	<1	<1	30	**33011**	**140188**	29	<1	4	52
1,3,5-Trimethy-lbenzene	--	--	--	20	1694	<1	4	<1	<1	<1	4	8767	32222	24	<1	<1	44
1,2,4-Trimethyl-benzene	--	--	--	7	685	<1	<1	<1	<1	<1	3	27844	99403	144	<1	<1	131
Xylenes, -m & -p	4100	187879	4242424	5	302	<1	12	<1	<1	<1	6	**43533**	**174257**	132	<1	1	301
Xylene, -o				9	473	<1	<1	<1	<1	<1	7	**17781**	**71838**	66	<1	<1	115

NOTES:

Analysis by EnChem in Green Bay, Wisconsin.
All samples in units of ug/kg except where noted.
Data in **bold** exceeds NR 720.09 Generic Residual Contaminant Levels for the protection of groundwater.
Underlined data exceeds the NR 720.19 Site Specific Residual Contaminant Levels for the protection of groundwater without a cap.
Boxed data exceeds the NR 720.19 Site Specific Residual Contaminant Levels for the protection of groundwater with a cap.
(Excav) = location of soil boring was within the remedial soil excavation area (excavation post dated the boring)

LOCKHART'S SERVICE
ELKHORN, WISCONSIN

TABLE 2 CONT.

SUMMARY OF PRE-REMEDIAL SOIL ANALYTICAL RESULTS - OCTOBER 12, 1995

Compound	NR 720 Generic Soil RCLs	NR 720 SSRCL (No Cap)	NR 720 SSRCL (Cap)	Sample No.											
				SB11-2	SB12-2	SB13-1	SB14-1 (Excav)	SB15-1	SB16-1	SB17-2	SB17-3	SB18-2	SB18-3	SB19-2	SB20-2
Depth in feet	--	--	--	4-8	4-8	0-4	0-4	0-4	0-4	4-8	8-12	4-8	8-12	4-8	4-8
GRO (mg/kg)	100	--	--	67	<50	0	**2350**	0	0	1	4	40	9	3	<50
Benzene	5.5	315	7121	**1372**	<1	2	**7529**	<1	<1	**12**	**79**	<1	<1	42.1	<1
Ethylbenzene	2900	206061	4363636	1563	<1	<1	**44782**	<1	<1	4	10	<1	<1	138.4	<1
Methyl-tert-butyl-ether	--	1212	50909	562	4	2	2486	<1	<1	13	131	<1	<1	11.3	<1
Toluene	1500	90909	2000000	**2923**	<1	<1	**18515**	<1	<1	7	22	<1	<1	243.6	<1
1,3,5-Trimethylbenzene	--	--	--	754	<1	<1	46381	<1	<1	4	4	305.8	<1	48.3	<1
1,2,4-Trimethylbenzene	--	--	--	2224	<1	1	137575	4	<1	22	10	220.8	<1	188	<1
Xylenes, -m & -p	4100	187879	4242424	**3694**	<1	<1	**118983**	<1	<1	6	115	<1	<1	506.5	<1
Xylene, -o				**1713**	<1	<1	**47160**	<1	<1	4	120	<1	<1	246.3	<1

NOTES:

Analysis by EnChem in Green Bay, Wisconsin.
All samples in units of ug/kg except where noted.
Data in **bold** exceeds NR 720.09 Generic Residual Contaminant Levels for the protection of groundwater.
Underlined data exceeds the NR 720.19 Site Specific Residual Contaminant Levels for the protection of groundwater without a cap.
Boxed data exceeds the NR 720.19 Site Specific Residual Contaminant Levels for the protection of groundwater with a cap.
(Excav) = location of soil boring was within the remedial soil excavation area (excavation post dated the boring)

Table 1
Soil Laboratory Analytical Results - Post Remediation Samples
From Sidewalls and Base of Remedial Excavation
Lockhart's Service, Elkhorn, Wisconsin
ECCI Project No: 940482
BRRTS No: 03-65-004253

Soil Sample	Location	Depth	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	1,3,5 TMB	1,2,4 TMB	GRO	Lead
NR 746 Table 1			**8,500**	**38,000**	**4,600**	**42,000**		**11,000**	**83,000**		
NR 746 Table 2		0-4'	1,100								
NR 720.09 GRCLs			5.5	1,500	2,900	4,100					
NR 720.19 SSRCLs (No Cap)			*315*	*90,909*	*206,061*	*187,879*	*1,212*				
NR 720.19 SSRCLs (Cap)			*7,121*	*2,000,000*	*4,363,636*	*4,242,424*	*50,909*				
Samples from Final Excavation Limits											
Certified Laboratory Samples - En Chem, Inc.											
SW-1	Sidewall	5'	<25	72	<25	64	<25	<25	62	<2.9	7.2
SW-2	Sidewall	5'	<50	<50	280	750	<50	1,100	1,900	110	8.6
SW-4	Sidewall	5'	<100	<100	400	1,010	<100	1,800	<100	180	5.2
SW-6	Sidewall	5'	<25	35	70	192	<25	150	340	17	6.7
SW-8	Sidewall	5'	1,500	14,000	**22,000**	**70,000**	730	**12,000**	36,000	650	6.5
Bottom 2*	Base	9'	<100	2,400	**10,000**	41,000	<100	**11,000**	33,000	430	5.8
Mobile Lab Samples - Matrix Technologies											
SW-3	Sidewall	5'	140	130	>200	300	<100	>200	>200	38	
SW-5	Sidewall	5'	510	360	260	800	<500	200	150	47	
SW-7	Sidewall	5'	1,000	480	1,000	6,100	<2,500	750	2,300	33	
SW-9	Sidewall	5'	660	1,200	880	4,200	<1,000	>200	>200	69	
SW-10	Sidewall	5'	100	80	140	420	<1,000	220	280	6.7	
Samples of Excavated Soil - Mobile Lab Samples - Matrix Technologies											
T-6	Removed		75,000	250,000	85,000	620,000	<250,000	290,000	210,000	6,100	
T-11	Removed		85,000	240,000	130,000	760,000	<250,000	460,000	300,000	7,300	
T-17	Removed		110,000	>200,000	30,000	410,000	68,000	>200,000	>200,000	9,000	
T-35	Removed		51,000		68,000	280,000	<50,000	<100,000	120,000	3,600	
T-56	Removed		100,000	140,000	44,000	250,000	<100,000	76,000	64,000	1,600	
T-17	Removed		250	420	270	1,600	<1,200	600	450	14	
T-76	Removed		950	700	1,100	6,700	<2,500	>5,000	2,600	78	
T-86	Removed		2,000	1,900	3,700	7,700	<5,000	2,000	32,000	140	
Water Removed from Excavation - Mobile Lab Results (all concentrations in micrograms per liter (ug/l))											
W-1	Removed		6,100	4,400	720	4,800	<1,000	810	980	25,000	
W-2	Removed		34,000	52,000	32,000	150,000	<20,000	110,000	78,000	2,700,000	

GRO and Lead concentrations in soil in miligrams per kilogram (mg/kg) [equivalent to parts per million (ppm)]
PVOC concentrations in micrograms per kilogram (ug/kg) [equivalent to parts per billion (ppb)]
< = concentration less than the indicated method detection limit
MTBE = methyl tert butyl ether
GRO = gasoline range organics
DRO = diesel range organics
1,3,5 TMB=1,3,5-Trimethylbenzene
1,2,4 TMB= 1,2,4-Trimethylbenzene
* Sample B-2 collected from below the water table
Bold indicates concentration exceeds NR 746 Table 1 screening levels
Underline indicates concentration exceeds NR 720.09 Generic Residual Contaminant Levels (GRCL) for the protection of groundwater.
[ ] indicates concentration exceeds SSRCL (Site Specific Residual Contaminant Level) wo/cap, for the protection of groundwater calculated in accordance with s.NR 720.19 using SESOIL modeling.
Samples collected October 27-28, 1998.

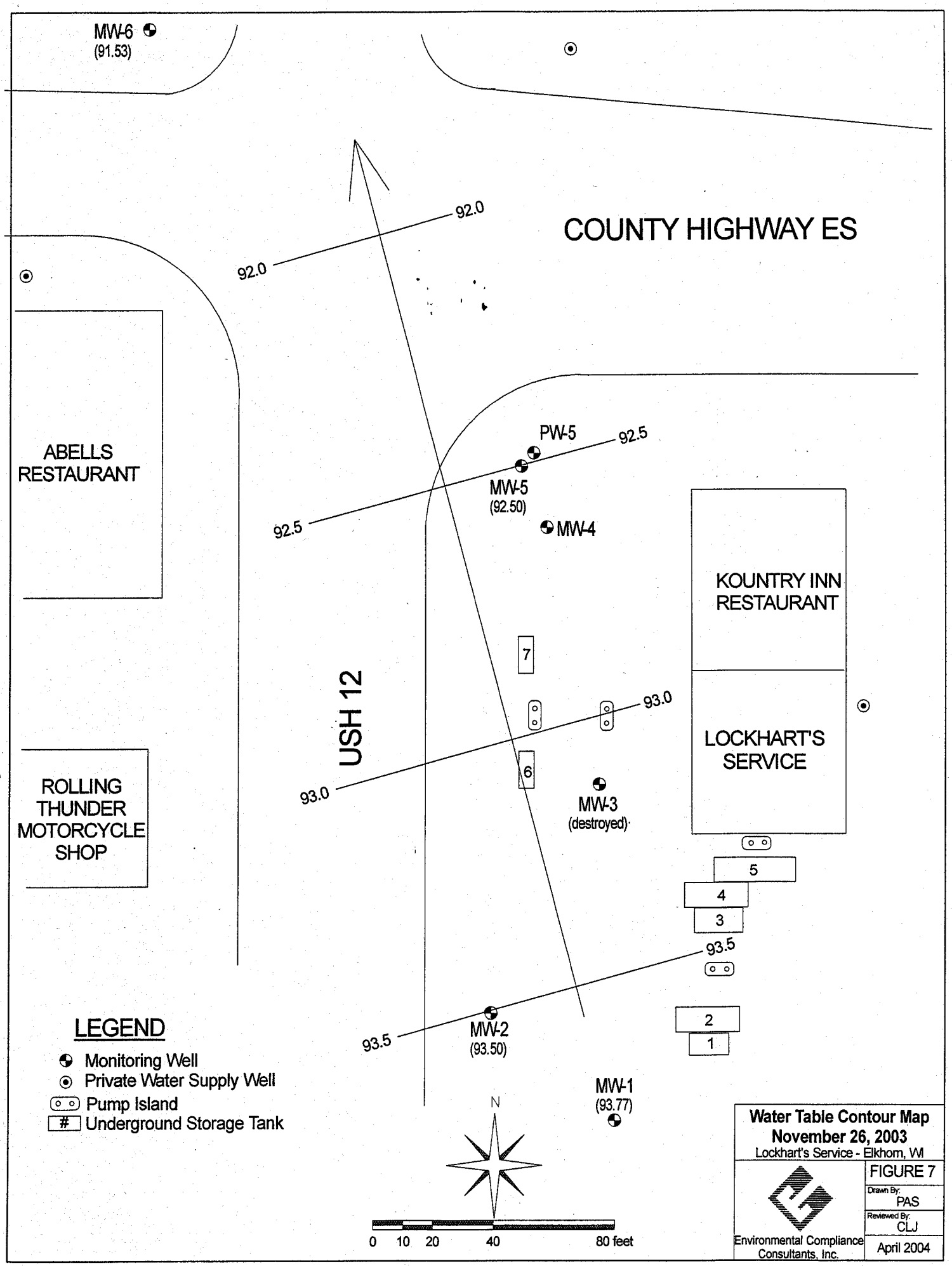
Table 2
Grounwater Elevation Data
Lockharts Service
Elkhorn, Wisconsin
ECCI Project No: 940482
BRRTS No: 03-65-004253

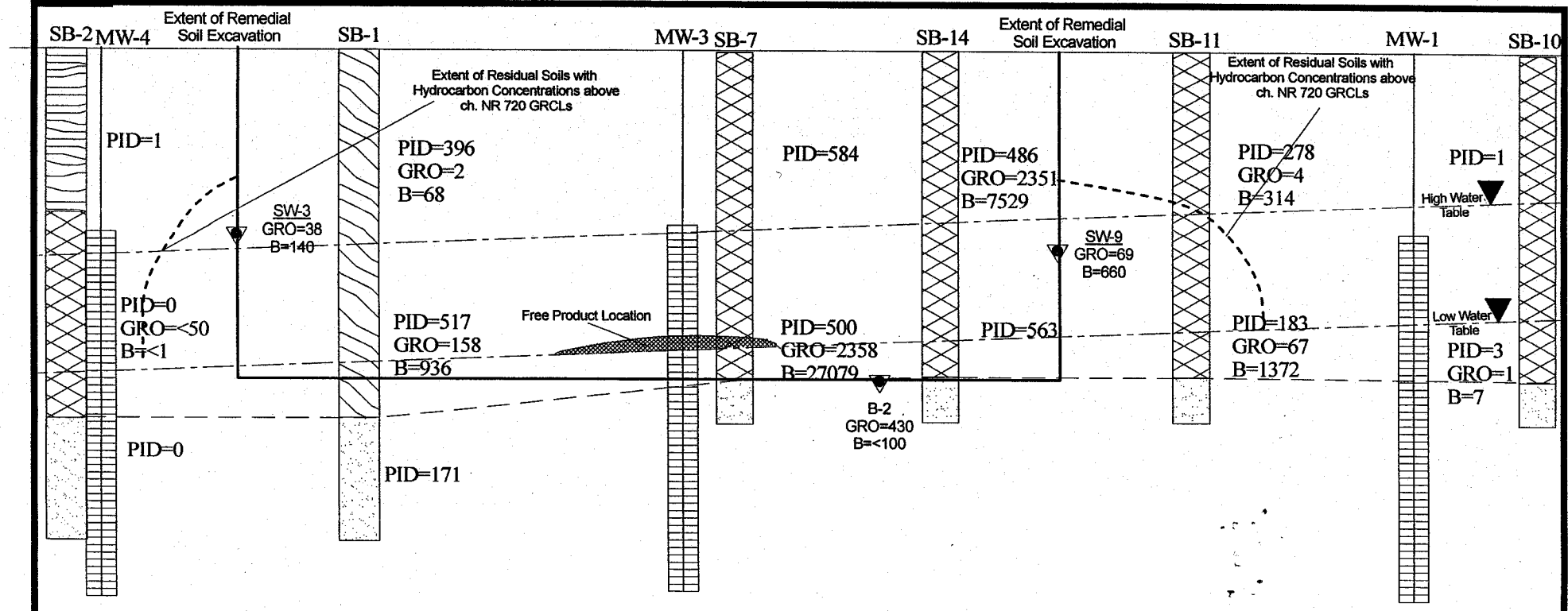
Well No.	Date	Top of Riser Elevation	Ground Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Depth to Water	Water Elevation	Product Thickness
MW-1	02/15/96	99.91	100.2	95.3	85.3	4.99	94.92	
MW-1	02/21/96	99.91	100.2	95.3	85.3	5.04	94.87	
MW-1	03/19/96	99.91	100.2	95.3	85.3	5.13	94.78	
MW-1	05/14/96	99.91	100.2	95.3	85.3	3.36	96.55	
MW-1	11/05/96	99.91	100.2	95.3	85.3	5.16	94.75	
MW-1	05/09/97	99.91	100.2	95.3	85.3	3.91	96.00	
MW-1	06/28/97	99.91	100.2	95.3	85.3	4.68	95.23	
MW-1	07/25/97	99.91	100.2	95.3	85.3	5.41	94.50	
MW-1	12/23/97	99.91	100.2	95.3	85.3	6.31	93.60	
MW-1	09/21/99	99.91	100.2	95.3	85.3	5.99	93.92	
MW-1	05/16/00	99.91	100.2	95.3	85.3	4.81	95.10	
MW-1	11/14/00	99.91	100.2	95.3	85.3	5.19	94.72	
MW-1	04/16/01	99.91	100.2	95.3	85.3	3.70	96.21	
MW-1	04/05/02	99.91	100.2	95.3	85.3	4.49	95.42	
MW-1	11/26/03	99.91	100.2	95.3	85.3	6.14	93.77	
MW-2	02/15/96	100.16	100.3	95.3	85.3	5.66	94.50	
MW-2	02/21/96	100.16	100.3	95.3	85.3	5.78	94.38	
MW-2	03/19/96	100.16	100.3	95.3	85.3	5.91	94.25	
MW-2	05/14/96	100.16	100.3	95.3	85.3	4.34	95.82	
MW-2	11/05/96	100.16	100.3	95.3	85.3	6.06	94.10	
MW-2	05/09/97	100.16	100.3	95.3	85.3	5.01	95.15	
MW-2	06/28/97	100.16	100.3	95.3	85.3	5.59	94.57	
MW-2	07/25/97	100.16	100.3	95.3	85.3	6.20	93.96	
MW-2	12/23/97	100.16	100.3	95.3	85.3	7.20	92.96	
MW-2	09/21/99	100.16	100.3	95.3	85.3	6.50	93.66	
MW-2	05/16/00	100.16	100.3	95.3	85.3	5.42	94.74	
MW-2	11/14/00	100.16	100.3	95.3	85.3	5.74	94.42	
MW-2	04/16/01	100.16	100.3	95.3	85.3	4.34	95.82	
MW-2	04/05/02	100.16	100.3	95.3	85.3	4.98	95.18	
MW-2	11/26/03	100.16	100.3	95.3	85.3	6.66	93.50	
MW-3	02/15/96	100.38	100.7	95.7	85.7	5.97	94.41	
MW-3	02/21/96	100.38	100.7	95.7	85.7	6.11	94.27	
MW-3	03/19/96	100.38	100.7	95.7	85.7	6.24	94.14	
MW-3	05/14/96	100.38	100.7	95.7	85.7	4.96	95.42	
MW-3	11/05/96	100.38	100.7	95.7	85.7	6.39	93.99	
MW-3	05/09/97	100.38	100.7	95.7	85.7	5.54	94.84	
MW-3	06/28/97	100.38	100.7	95.7	85.7	6.04	94.34	
MW-3	07/25/97	100.38	100.7	95.7	85.7	6.67	93.71	
MW-3	12/23/97	100.38	100.7	95.7	85.7	8.41	91.97	0.17
MW-3	04/01/98	100.38	100.7	95.7	85.7			0.08
MW-3	10/26/98	Well removed during soil excavation activities						
MW-4	02/15/96	100.12	100.3	95.9	85.9	6.00	94.12	
MW-4	02/21/96	100.12	100.3	95.9	85.9	6.12	94.00	
MW-4	03/19/96	100.12	100.3	95.9	85.9	6.25	93.87	
MW-4	05/14/96	100.12	100.3	95.9	85.9	5.31	94.81	
MW-4	11/05/96	Well location found to be paved over with blacktop.						

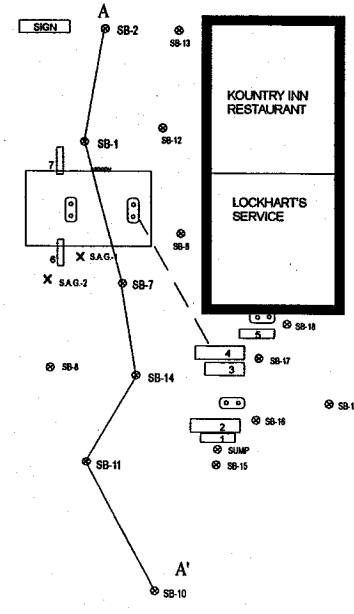
Table 2
Grounwater Elevation Data
Lockharts Service
Elkhorn, Wisconsin
ECCI Project No: 940482
BRRTS No: 03-65-004253

Well No.	Date	Top of Riser Elevation	Ground Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Depth to Water	Water Elevation	Product Thickness
MW-5	11/05/96	99.89	100.2	96.4	86.4	6.92	92.97	
MW-5	05/09/97	99.89	100.2	96.4	86.4	6.19	93.70	
MW-5	06/28/97	99.89	100.2	96.4	86.4	6.62	93.27	
MW-5	07/25/97	99.89	100.2	96.4	86.4	7.20	92.69	
MW-5	12/23/97	99.89	100.2	96.4	86.4	7.99	91.90	
MW-5	09/21/99	99.89	100.2	96.4	86.4	7.26	92.63	
MW-5	05/16/00	99.89	100.2	96.4	86.4	6.62	93.27	
MW-5	11/14/00	99.89	100.2	96.4	86.4	6.62	93.27	
MW-5	04/16/01	99.89	100.2	96.4	86.4	5.46	94.43	
MW-5	04/05/02	99.89	100.2	96.4	86.4	5.88	94.01	
MW-5	11/26/03	99.89	100.2	96.4	86.4	7.39	92.50	
PW-5	11/05/96	99.81	100.1	75.3	70.3	7.01	92.80	
PW-5	05/09/97	99.81	100.1	75.3	70.3	6.36	93.45	
PW-5	06/28/97	99.81	100.1	75.3	70.3	6.90	92.91	
PW-5	12/23/97	99.81	100.1	75.3	70.3	8.06	91.75	
PW-5	09/21/99	99.81	100.1	75.3	70.3	7.39	92.42	
PW-5	05/16/00	99.81	100.1	75.3	70.3	6.79	93.02	
PW-5	11/14/00	99.81	100.1	75.3	70.3	6.66	93.15	
PW-5	04/16/01	99.81	100.1	75.3	70.3	5.56	94.25	
PW-5	04/05/02	99.81	100.1	75.3	70.3	6.09	93.72	
PW-5	11/26/03	99.81	100.1	75.3	70.3	7.76	92.05	
MW-6	05/09/97	99.81	100.3	95.5	85.5	7.14	92.67	
MW-6	06/28/97	99.81	100.3	95.5	85.5	7.66	92.15	
MW-6	07/25/97	99.81	100.3	95.5	85.5	7.91	91.90	
MW-6	12/23/97	99.81	100.3	95.5	85.5	8.76	91.05	
MW-6	09/21/99	99.81	100.3	95.5	85.5	8.23	91.58	
MW-6	05/16/00	99.81	100.3	95.5	85.5	7.51	92.30	
MW-6	11/14/00	99.81	100.3	95.5	85.5	7.47	92.34	
MW-6	04/16/01	99.81	100.3	95.5	85.5	6.45	93.36	
MW-6	04/05/02	99.81	100.3	95.5	85.5	6.88	92.93	
MW-6	11/26/03	99.81	100.3	95.5	85.5	8.28	91.53	

all measurements and elevations in feet.
elevation set to arbitrary datum.


MW-6
(91.53)
COUNTY HIGHWAY ES
92.0
92.0
ABELLS
RESTAURANT
PW-5
92.5
MW-5
(92.50)
92.5
MW-4
KOUNTRY INN
RESTAURANT
7
USH 12
93.0
LOCKHART'S
SERVICE
6
93.0
MW-3
(destroyed)
ROLLING
THUNDER
MOTORCYCLE
SHOP
5
4
3
93.5
93.5
2
1
MW-2
(93.50)
MW-1
(93.77)
LEGEND
Monitoring Well
Private Water Supply Well
Pump Island
Underground Storage Tank
N
0 10 20 40 80 feet
Water Table Contour Map
November 26, 2003
Lockhart's Service - Elkhorn, WI
FIGURE 7
Drawn By: PAS
Reviewed By: CLJ
Environmental Compliance Consultants, Inc.
April 2004





4'

30'

SCALE: HORIZONTAL-1"=30'
VERTICAL -1"=4'

LEGEND

Silt Loam S/L

MEDIUM SAND S/P

Silt/Clay S/L

WATER TABLE

B = Benzene in ppb
GRO in ppm
PID in i.u. (ppm)

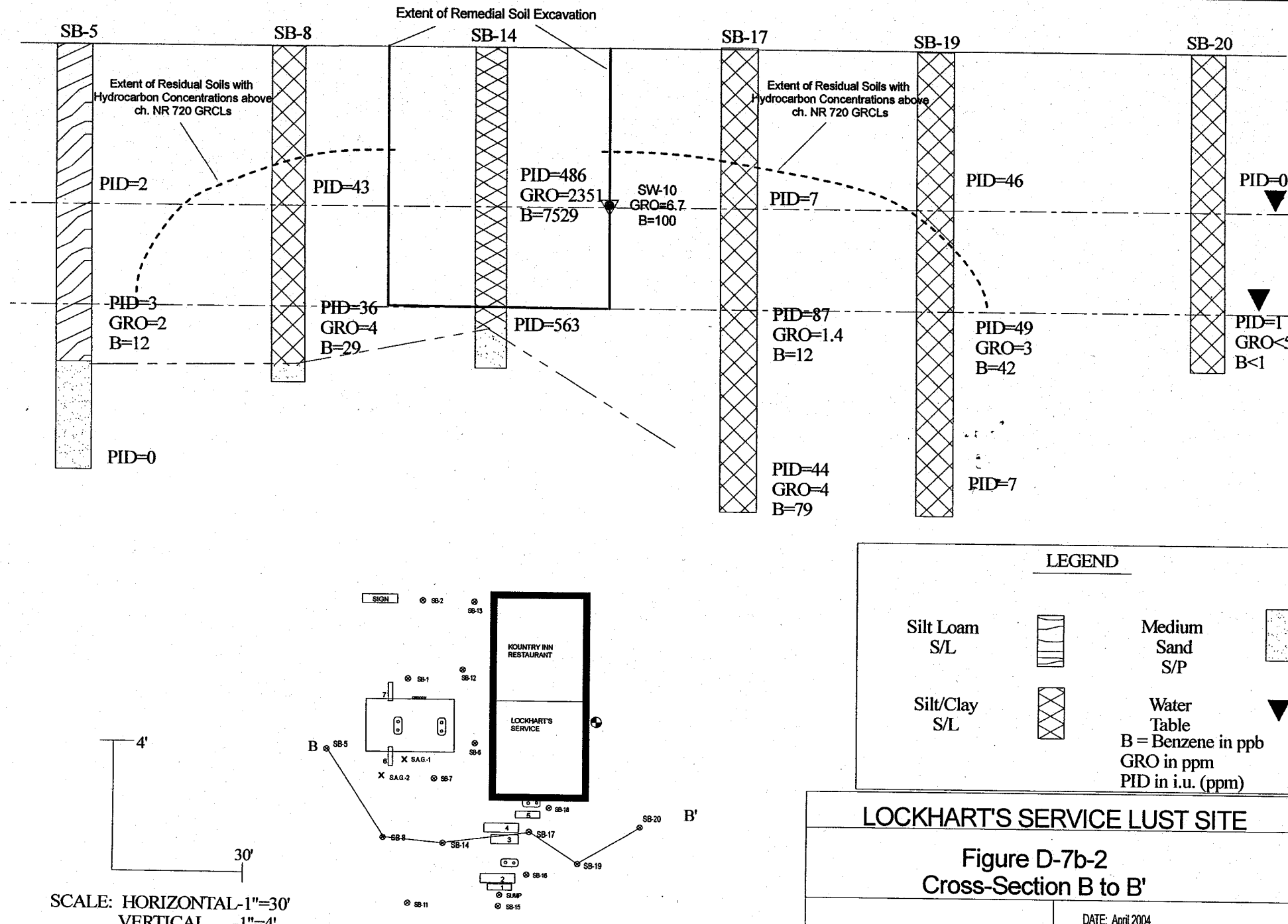
LOCKHART'S SERVICE LUST SITE

Figure D-7b-1
Cross-Section A-A'

DATE: April 2004

Environmental Compliance Consultants, Inc.

BY: PAS



LOCKHART'S SERVICE LUST SITE

Figure D-7b-2
Cross-Section B to B'

DATE: April 2004

Environmental Compliance Consultants, Inc.

BY: PAS

Construction Documentation and Groundwater Monitoring Report

for

Lockhart's Service
Hwys 12/67 & ES
Elkhorn, WI 53121

WDNR BRRTS # 03-65-004253
PECFA Claim # 53121-3956-24
ECCI Project # 940482

Prepared for:

Mr. Les Lockhart
N6424 Hwys. 12/67
Elkhorn, WI 53121

December 2004

I, Amy Wren, hereby certify that I am a Scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR700 to 726, Wis. Adm. Code.

Amy Wren 12/14/04
Environmental Scientist Date

I, Richard Panosh, hereby certify that I am a geologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code; that I am a registered professional geologist in the State of Wisconsin, registered in accordance with the requirements of Ch. A-E 10, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Richard Panosh #400 12-13-04
Prof. Geologist # Date



Environmental Compliance Consultants, Inc.
317 N. Main Street
Suite B
Edgerton, WI 53534

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2004

EXECUTIVE SUMMARY

This report documents the excavation of petroleum-impacted soil and subsequent groundwater monitoring at Lockhart's Service at the intersection of Highways 12/67 and County Road ES, Elkhorn, Wisconsin. Environmental Compliance Consultants, Inc. (ECCI), conducted the excavation for the property owner as part of a Remedial Action Plan (RAP), dated July 15, 1998, approved by the Wisconsin Department of Commerce.

The goals of the RAP were to excavate soil which contained hydrocarbons at concentrations that exceeded Site-Specific Residual Contaminant Levels (SSRCLs), remove free product detected at monitoring well MW-3, and then allow natural attenuation of the hydrocarbons left *in situ*. The SSRCLs were determined by SESOIL modeling. The extent of soil to be excavated was estimated by applying the SSRCLs to data collected from soil borings. Soil was to be excavated from the vicinity of the dispenser islands and two 2,000-gallon unleaded gasoline underground storage tanks (UST), located on the west side of the site building.

A total of 2674.5 tons of soil were excavated from the site and hauled to Waste Management's Mallard Ridge Recycling & Disposal Facility in Delavan, Wisconsin, for disposal on October 26-28, 1998. Excavation was conducted to depths below the ground water table to remove the most impacted soil. A vacuum truck was used to pump approximately 8,500 gallons of impacted water from the excavation to remove any residual free product. The extent of excavation was determined by field observations and by information provided in the SESOIL modeling report. A mobile laboratory was present at the site to perform field analyses of samples to determine when removal of soil with hydrocarbon concentrations greater than SSRCLs was complete.

Soil samples were collected from the sidewalls and base of the completed excavation and submitted to a certified laboratory for analyses of Petroleum Volatile Organic Compounds (PVOCs), Gasoline Range Organics (GRO), and Lead. A portion of the soil remaining *in situ* in the base and sidewalls of the completed excavation contained hydrocarbons at concentrations above the NR 720.09 GRCLs and "no cap" SSRCLs for the protection of groundwater. Residual hydrocarbon concentrations did not exceed the "cap" SSRCLs.

Six rounds of groundwater sampling were conducted following the remedial soil excavation Prior to remedial action, hydrocarbons were only detected at concentrations exceeding the ES in samples from wells MW-3, MW-4, and MW-5. MTBE was also detected in samples from well MW-6 at concentrations exceeding the PAL. Well MW-3 was removed during excavation activities, and the location of MW-4 has been paved over. Hydrocarbon concentrations in groundwater have declined since the remedial soil excavation was conducted. No hydrocarbons were detected in the most recent water sample collected from MW-5 at concentrations exceeding the ES or PAL. MTBE concentrations at MW-6 have remained above the PAL, but have never exceeded the ES. Mann Kendall statistical analyses of the hydrocarbon concentrations at MW-5 and MW-6 confirm that the concentrations are declining.

The remedial soil excavation and natural attenuation have adequately remediated the hydrocarbons in soil and groundwater at the site, based on the groundwater monitoring data.

1.0 INTRODUCTION

The purpose of this report is to document the excavation of petroleum-impacted soil at Lockhart's Service. This report has been prepared in accordance with the required documentation for construction and implementation of a remedial action mandated in Wisconsin Administrative Code NR 724.

Environmental Compliance Consultants, Inc. (ECCI) has prepared this Construction Documentation Report on behalf of Lockhart's Service. The location of the property, the owners, and the consultant involved in the project are listed below. The site location is shown on Figure 1.

Site Location: Lockhart's Service
Highways 12/67 and County Road ES
Elkhorn, Wisconsin 53121
NW 1/4, NW 1/4, Section 18, Township 3 North, Range 17 East,
Walworth County

Owners: Les Lockhart
N6424 Highway 12/67
Elkhorn, WI 53121
(414) 742-2451

Consultant: Environmental Compliance Consultants, Inc.
Amy Wren, Project Manager
317 N. Main Street
Suite B
Edgerton, WI 53534
(608) 884-9280, Fax (608) 884-3138

1.2 Scope of Work

The work performed for this report consisted of the following:

- Excavating petroleum-impacted soil from the site for transport to and disposal at Waste Management's Mallard Ridge Recycling & Disposal Facility (Mallard Ridge RDF) in Delavan, Wisconsin.
- Pumping petroleum-impacted groundwater from the open soil excavation to facilitate excavation of impacted soil from the smear zone and below the water table, and to removed any residual free product which may have been present on the groundwater.
- Collecting soil samples for field screening.

- Collecting soil samples from the excavation base and sidewalls for on-site laboratory analysis, and off-site analysis at a certified laboratory
- Conducting follow-up groundwater monitoring to determine if the remedial action and natural attenuation would mitigate the residual dissolved phase hydrocarbons in groundwater.
- Preparing this report.

2.0 BACKGROUND

The following background information is from the *Site Investigation Report* (ECCI, August 1997) and is presented here to help explain the reasoning for, and goals of, the remedial action.

2.1 Site Summary

Work performed for the remedial investigation consisted of advancing soil borings, installing seven monitoring wells (including piezometers), collecting background information pertaining to the site, and preparing the Site Investigation Report and Remedial Action Plan.

The source of petroleum compounds in soil and groundwater at the site appears to have been the result of leakage from pump islands, piping runs, and tanks on the site. One specific incident of petroleum discharge is known at the site. Water was observed in a 2,000-gallon gasoline UST located west of the building (Figure 2) in 1993. The UST was then removed from service. That incident was the reason the site investigation was conducted.

The type of petroleum reported at the site is unleaded gasoline. Free petroleum product was detected in monitoring well MW-3, located near the location of the tank which contained water (Figure 3). This well was eventually removed from the site during the remedial soil excavation.

The surficial geology in the vicinity of the site consists of glacial outwash. The outwash is composed of a surface layer of silt and clay that ranges in thickness from approximately 7 to 10 feet, overlying sand. The sand was encountered to the termination depth of all borings (maximum depth of 30.5 feet). The outwash sediments at the site are approximately 150 feet thick and overlie bedrock. Bedrock in the vicinity of the site is shale. Depth to water varies from approximately 4 to 8 feet below ground surface.

Hydraulic conductivity of the soil ranges from 8.0×10^{-5} cm/sec to 1.7×10^{-2} cm/sec, based on slug and modified pump test analyses. The horizontal hydraulic gradient ranges from approximately 0.006 to 0.013 ft/ft. Groundwater flow direction is toward the northwest. The vertical hydraulic gradient at the site has been downward (negative) at a gradient of 0.007 to 0.027 ft/ft as measured at nested wells MW-5/PW-5.

Petroleum-impacted soil within the vadose zone was detected in the vicinity of the USTs and dispensers located west of the building, and was found to extend southward in the area between the USTs located west of the building and the USTs located on the south side of the building (Figure 3). The hydrocarbon plume in groundwater was present in the vicinity of the soil plume and was found to extend to the northwest into the right-of-way of Highways 12/67 and County Road ES.

The highest hydrocarbon concentrations in groundwater were detected at MW-3, where product was detected at a maximum thickness of approximately 0.17 feet. Benzene and MTBE were also detected at concentrations exceeding the NR 140 Enforcement Standard (ES) in wells MW-4 and MW-5 located downgradient of MW-3. MTBE has also been detected at concentrations exceeding the NR 140 Preventative Action Limit (PAL) at downgradient well MW-6. It should be noted that MW-6 is also located downgradient of **Abells Restaurant**, another leak site located directly west and across Highway 12/76 from Lockhart's Service.

The approved RAP for the site consisted of excavating impacted vadose zone soil that contained hydrocarbon concentrations in excess of Site Specific Residual Contaminant Levels (SSRCLs); removing impacted water and any detected free product from the excavation; then allowing natural attenuation to remediate the remaining hydrocarbons in soil and groundwater. SSRCLs were determined through SESOIL modeling. The SSRCL calculations were presented to the Wisconsin Department of Natural Resources in ECCI's May 1, 1998 report titled *Site-Specific Residual Contaminant Level (RCL) Calculations for Petroleum-Contaminated Soils.*

3.0 REMEDIATION SAMPLING PROCEDURES

3.1 Headspace Field Readings

Soil samples were collected for field screening during the excavation. The samples were analyzed in the field with a portable PID following approved headspace procedures. Soil samples were collected from the bucket of the excavating equipment, or directly from the sidewalls of the excavation, and transferred directly into dedicated Ziploc™ bags. The bags were filled approximately one-half to two-thirds full. Once sealed, the samples were allowed to reach ambient temperature (60° to 70° F) in conformance with the equilibration times found in Comm 10, Attachment 2, Sub. C.2. After sample equilibration, the headspace readings were taken by puncturing the bag with the instrument probe and observing the meter for the highest reading detected after inserting the instrument probe into the headspace. This reading was recorded on the field data sheet as the field PID reading for the sample.

3.2 Soil Sampling

Soil samples collected from the sidewalls and base of the excavation, following completion of excavation activities, were analyzed in the field in a Mobile Laboratory (Matrix Technologies, Inc.) to determine whether all soil with hydrocarbon concentrations that exceeded SSRCLs had been removed. After it was determined that excavation was complete based on field laboratory results,

selected sampled were submitted to a certified laboratory (EnChem, Inc.) for confirmation of the results. Soil samples were analyzed for Gasoline Range Organics (GRO), and Petroleum Volatile Organic Compounds (PVOCs), and lead.

3.3 Quality Assurance/Quality Control

Quality assurance/quality control programs were used throughout the sampling. Once collected and preserved with methanol, the samples were placed on ice to ensure sample integrity. Within 24 hours of sample collection, the samples were transported to the state-certified laboratory following Chain-of-Custody procedures. At the laboratory, the samples were logged in and placed into a cooler or refrigerator for temporary storage. The check-in process for the samples included reviewing and signing the chain-of-custody record that detailed the client name and discrete number, sampler name, sample information, and analytical requirements. Additionally, the form identified the individuals that had physical control of the samples, and when the samples were transferred from one individual to another.

4.0 REMEDIAL ACTION

Plans and specifications were prepared by ECCI for the excavation, hauling, and disposal of petroleum-contaminated soil. Satisfactory bids were received from three qualified bidders. The job was awarded to the low bidder, TNT Services, Inc. of Franksville, Wisconsin. Remedial activities commenced on October 26, 1998, and were completed on October 28, 1998.

4.1 Remedial Excavation and Soil Sampling

Excavation of petroleum-impacted soil was conducted in the vicinity of the USTs and dispenser islands located on the west side of the building. The two 2,000-gallon USTs were removed during excavation activities. Well MW-3 was also removed. Approximately 2,674.5 tons of petroleum impacted soil were removed from the excavation. The extent of excavation is shown on Figure 4. Impacted soil removed from the excavation was transported to the Mallard Ridge RDF for treatment. A summary of the Mallard Ridge RDF scale tickets is included in Appendix A.

Approximately 8,500 gallons of impacted water were also removed from the excavation to facilitate removal of impacted soil below the water table, and to ensure that residual product was removed from the site.

Excavation of impacted soil was initiated based on data collected from soil borings and the results of the SESOIL modeling, and directed based on field observations during excavation activities. ECCI collected soil samples for field headspace analysis during excavation activities. At least one field screening sample was analyzed per truckload (approximately 15 to 18 cubic yards). The samples were continually collected from the base and sidewalls of the excavation to guide the removal of impacted soil.

Samples were collected for laboratory analysis from the sidewalls and base of the completed excavation to document the concentrations of hydrocarbon remaining in place. The laboratory analysis results are presented on Table 1.

The excavated soils were dominantly silt with some sand. The sidewalls remained nearly vertical with very little caving. Groundwater was encountered at a depth of approximately 5 feet below grade during excavation activities. Some excavation of soil was conducted below the water table, and soil in the vicinity of the water table level was generally the most impacted. The deepest part of the excavation reached approximately 9 feet below ground surface. The excavation was backfilled and compacted with sand.

4.2 Laboratory Analysis

In accordance with DNR guidance documents, soil samples were collected from the sidewalls and base of each excavation upon completion of excavation activities. The soil sample locations are shown on Figure 4 ("SW" and "SB" series). Soil samples were initially analyzed in a field laboratory (Matrix Technologies) to determine if excavation was complete. Selected samples were then submitted to En Chem, Inc., for laboratory analysis of GRO, PVOCs, and lead. Results are summarized on Table 1. Laboratory analytical reports are presented in Appendix B.

Hydrocarbon concentrations in soil samples collected from the final extent of the excavation were less than SSRCLs and below NR 746.06 Table 1 Screening Levels, except, ethylbenzene, xylenes, and 1,3,5-trimethylbenzene concentrations exceeded NR 746.06 Table 1 Screening Levels in sidewall sample SW-8, and bottom sample "Bottom-2" (also referred to as "B-2" on Figure 4) collected from the base of the excavation and below the water table level. Samples of excavated soil generally had hydrocarbon concentrations in excess of SSRCLs and NR 746.06 Table 1 Screening Levels.

4.3 Discussion

The SSRCLs calculated for the site through SESOIL modeling included "capped" and "no cap" values for the protection of groundwater. These values in µg/kg (micrograms per kilogram) were:

	Capped	No Cap
Benzene	7,121	315
Toluene	2,000,000	90,909
Ethylbenzene	4,363,000	206,061
Xylenes	4,242,424	187,879
MTBE	50,909	1,212

SSRCLs were not calculated for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

Soil samples collected from the base and sidewalls of the completed excavation all contained hydrocarbons at concentrations less than the "capped" SSRCLs. Only sample SW-8, collected from the smear zone (Bottom-2 was collected below the water table level), contained hydrocarbon concentrations that exceeded NR 746.06 Table 1 Screening Levels (Table 1). The location of SW-8 was approximately 15 feet from soil boring SB-8, where hydrocarbon concentrations in soil were less than NR 746.06 Table 1 Screening Levels.

Soil samples from the sidewalls of the excavation were collected from just above the water table level — a depth of approximately 5 feet as observed in the excavation. As excavation progressed away from the UST and dispenser island location, the soil at the water table level was the most impacted zone of soil. PVOC concentrations in the sidewall samples were less than the direct contact risk concentrations as listed in NR 746.06 Table 2. Therefore, it appears that no direct contact risks are present in soil in the upper 4 feet of the soil horizon.

Soil with hydrocarbon concentrations exceeding the SSRCLs was removed from the excavations. However, a limited amount of soil with hydrocarbon concentrations exceeding the NR 746.06 Table 1 Screening Level remained in place in the southwestern corner of the excavation after completion of soil removal activities. A portion of the remaining in situ soil also exceeded the NR 720.09 GRCLs and NR 720.19 "no cap" SSRCLs for the protection of groundwater. It is estimated that approximately 1,000 cubic yards and 100 cubic yards of remaining in situ soil had hydrocarbon concentrations above the GRCLs and "no cap" SSRCLs, respectively. Most of this soil was present within the smear zone. Table 5 and 6 show the approximate areas where the GRCLs and "no cap" SSRCLs were exceeded.

Additionally, approximately 8,500 gallons of impacted groundwater were removed to facilitate excavation below the groundwater table, and to ensure that residual free product was removed from the site.

Following the completion of the remedial excavation, groundwater monitoring was conducted to determine whether natural attenuation would remediate the residual hydrocarbons at the site.

5.0 GROUNDWATER MONITORING RESULTS

Groundwater monitoring was conducted to determine if natural attenuation of hydrocarbons in groundwater was occurring at a rate sufficient to provide remediation of the site and be protective of human health and the environment. Six rounds of groundwater sampling have been conducted since the remedial soil excavation was conducted.

Six water table monitoring wells and one piezometer were installed during the site investigation. Piezometer PW-5 was nested with water table well MW-5. Well MW-3 was located in the area of soil excavation and was removed during excavation activities in October 1998. The location of well MW-4 was paved over in 1996, and the well has not been accessed since May 1996.

Groundwater elevation data are presented on Table 2. The relative elevations of the water table measured in each well have remained consistent through time, and the groundwater water flow direction has remained consistent. A water table contour map for the most recent data (November 26, 2003) is presented as Figure 7. The groundwater flow direction was toward the northwest at a gradient of approximately 0.013 ft/ft. Hydrographs for the water table wells are shown on Figure 8.

The vertical hydraulic gradient at the site has been downward at a gradient of -0.007 to -0.027 as measured at nested wells MW-5/PW-5. Vertical gradient data and calculations are shown on Table 3.

Groundwater analytical results are summarized on Table 4. Prior to remedial action, hydrocarbons were detected at concentrations exceeding the ES only in samples from wells MW-3, MW-4, and MW-5. MTBE was also detected in samples from well MW-6 at concentrations exceeding the PAL.

Hydrocarbon concentrations in groundwater have declined since the remedial soil excavation was conducted. In the most recent sample collected from MW-5, no hydrocarbons were detected at concentrations exceeding the ES or PAL. MTBE concentrations at MW-6 have remained above the PAL, but have never exceeded the ES. No other VOCs have been detected at MW-6, except for benzene at a concentration of 0.2 µg/l in the first sample from the well in 1997. Although no impacts above the NR 140 ESs were observed during the most recent (November 2003) sampling event, residual soil hydrocarbon impacts within and adjacent to the remedial excavation, suggest the possibility of localized onsite ES exceedences. Figure 9 presents an approximation of the area where NR 140 ES exceedences may exist.

No hydrocarbons have been detected in samples from nearby water supply wells.

Mann Kendall statistical analyses of the hydrocarbon concentrations at MW-5 and MW-6 confirm that the concentrations are declining at a 90 percent confidence level for all tracked parameters. Mann Kendall analyses are presented in Appendix C.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A total of 2674.5 tons of hydrocarbon-impacted soil was excavated from the site on October 26 to 28, 1998. Approximately 8,500 gallons of impacted groundwater were also pumped from the excavation to facilitate excavation of impacted soil at and below the water table level and to remove any residual product from the groundwater. Soil samples collected from the sidewalls and base of the completed excavation indicated that no soil with hydrocarbon concentrations exceeding the "capped" SSRCLs were present in remaining soil. Only a relatively small amount of in situ soil (primarily in the smear zone) contained residual hydrocarbon concentrations above the "no cap" SSRCLs. One sample collected from smear zone soil on the southwest sidewall, did contain hydrocarbons at concentrations exceeding NR 746.06 Table 1 Screening Values. Data from soil borings advanced prior to excavation activities indicate that the area with NR 746.06 Table 1 exceedences is limited in extent. All soil where NR 746.06 Table 2 direct contact values were

exceeded in the upper 4 feet of soil was removed by excavation. Soil samples collected from the sidewalls of the excavation indicate that no direct contact risks remain at the site.

Hydrocarbon concentrations in groundwater have declined and the extent of the plume in groundwater has receded at the site. No free product has been detected in the monitoring wells since the excavation was conducted, and no hydrocarbons were detected at concentrations exceeding the ES in the most recent round of samples collected from the remaining wells.

The remedial soil excavation and natural attenuation have adequately remediated the hydrocarbons in soil and groundwater at the site, based on the groundwater monitoring data. ECCI recommends closure for this site. A Case Summary and Closeout Form will be presented as a separate submittal.

7.0 PROFESSIONAL STANDARDS

This report has been developed from data obtained at a specific time and place. Its scope was limited to the specific project and location described herein. Our description of the project represented our understanding of the significant aspects of the project. Our assessment was performed using the degree of care and skill ordinarily exercised by Professional Consultants practicing in this or similar localities. No warranty, expressed or implied, has been made.

A subsurface exploration was performed and presented in this report. However, subsurface exploration cannot reveal all aspects of the subsurface. Sampling methods and frequency do not permit the observation of every condition, and some materials or layers present in the subsurface may not be noted.

The findings of this report are valid as of the 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 work 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 for other reasons. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside of ECCI's control.

APPENDIX G

ABELL'S RESTAURANT & BAR /
FORMER ROLLING THUNDER MOTORCYCLE SHOP
[SITE # 6]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name: **Abell's Restaurant & Bar/ Former Rolling Thunder Motorcycle Shop [Site # 6]**
DOT parcel number (if known):
Property Address: N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12
Owner's Name: RAMK, LLC
Owner's Address: N6427 US Highway 12, Elkhorn, WI 53121
Owner's Phone: Michael Kapitan, 262-742-3831
Current Land Use: Abell's Restaurant & Bar, closed drive through liquor store
Past Land Use: Gasoline Station 1940's-1960's, motorcycle repair facility

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 1960
- Tank contents:
  - ☒ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-65-107090
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☒ Other (please describe) BRRTS #: 07-65-523079 off-site liability exemption

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☒ Contamination discovered in 1996 during highway reconstruction activities feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☒ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☒ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☒ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

Site #6
Abell's Restaurant & Bar / Former Rolling Thunder Motorcycle Shop
N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12
USH 12: STA 705+00 to 707+25 RT

The site is identified on the BRRTS (BRRTS #07-65-523079), LUST (BRRTS #03-65-107090), UST, CRS, and AUL databases. Based on field reconnaissance, the site is currently used by Abell's Restaurant & Bar. A closed drive-through liquor store (former Rolling Thunder Motorcycle Shop) was also observed on the site. According to the WDSPS Storage Tank Database, one 1,000-gallon leaded gasoline UST was closed / removed from the site in 1960. The use for the tank is listed as retail fuel sales.

Review of the Walworth County GIS System online indicated that the site is owned by RAMK, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

BRRTS #03-65-107090: According to the Environmental Compliance Consultants, Inc. (ECCI) Site Investigation and Closure Report, the site was utilized as a service station from the 1940's through the 1960's, at which point the USTs are believed to have been removed [Ref. 2]. The tanks had been located on the south side of the former Rolling Thunder Motorcycle Shop.

In April 1996, obvious soil contamination from a petroleum release was detected along the west side of USH 12 during highway reconstruction activities. Approximately 200 cubic yards of soil was excavated at this time, and disposed of off-site. In July 1997, five soil borings (B-1 to B-5) were advanced at the site. A total of eleven soil samples were collected and analyzed for GRO, lead, and PVOCs. In March 1998, five monitoring wells (MW-1 to MW-5) were installed at the site. A total of eight soil samples were collected from the borings during drilling, and analyzed for GRO, lead, and PVOCs. A total of four rounds of groundwater monitoring were conducted on the five wells between March 1998 and September 1999. Groundwater samples were collected and analyzed for nitrogen, sulfates, and PVOCs. Based on the WDNR GIS Registry Packet, it appears that one additional monitoring well (MW-6) was installed at the site in June 2004, and that four rounds of groundwater monitoring were conducted on the six wells between June 2004 and September 2005 [Ref. 3]. Groundwater samples were collected and analyzed for PVOCs.

The activity was closed by WDNR in May 2007, with use restrictions at the site due to residual soil and groundwater contamination.

BRRTS #07-65-523079: According to WDNR "BRRTS on the Web", a general property liability exemption for contamination from off-site was issued in March 2004 [Ref. 4].

Geology / Hydrogeology

Based on the ECCI report, soils at the site consist predominantly of silty clays to approximately 5 to 13 feet bgs, underlain by medium to coarse grain sands with some gravel to the terminal boring depths of 15 feet bgs [Ref. 2]. Groundwater was encountered at approximately 4.5 to 6.5 feet bgs.

Soil Impacts

Based on the WDNR GIS Registry Packet, GRO (130 to 2,600 mg/kg), lead (62 mg/kg), ethylbenzene (3,300 to 64,000 µg/kg), toluene (6,300 µg/kg), and/or xylenes (8,400 to 156,000 µg/kg) were detected at concentrations exceeding the respective NR 720 RCL in soil borings B-1 to B-3, and MW-2 [Ref. 3]. Naphthalene (30,000 µg/kg) was detected above the Interim RCL for PAHs in B-1.

It appears that residual soil contamination at the site is located within the current USH 12 R/W.

Groundwater Impacts

Based on the WDNR GIS Registry Packet, benzene (1.65 µg/L in MW-2) and naphthalene (26 µg/L in MW-2 and 23 µg/L in MW-3) were detected above the respective NR 140 PAL during the last round of groundwater sampling conducted in September 2005 [Ref. 3].

It appears that residual groundwater contamination in MW-2 and MW-3 is located within the current USH 12 R/W.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering that residual soil and groundwater contamination at the site exists within the current USH 12 R/W, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

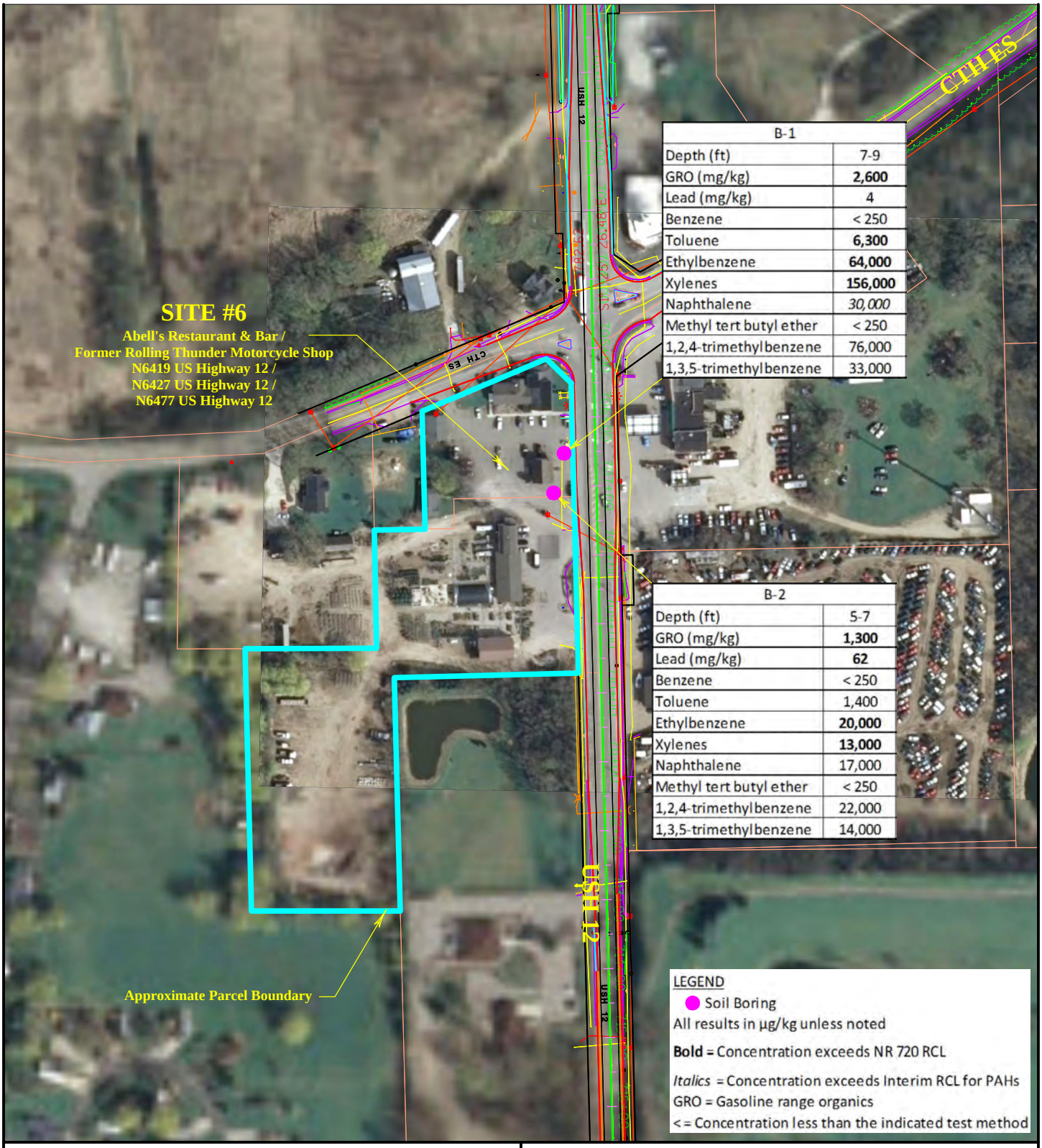
1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Environmental Compliance Consultants, Inc. (November 2000). Site Investigation and Closure Report of Hydrocarbon Fuel Contamination, Abell's Corners Restaurant and Wisconsin Rolling Thunder Motorcycle Shop, N6419 Highway 12, Elkhorn, Wisconsin.

3. Wisconsin Department of Natural Resources. (July 2007). GIS Registry Information Packet, Abell's Corners, N6419 Hwy 12, Town of Sugar Creek. BRRTS #03-65-107090.

4. Wisconsin Department of Natural Resources. BRRTS on the Web. http://dnr.wi.gov/botw/SetUpBasicSearchForm.do

5. Wisconsin Department of Natural Resources. (April 1997 Corrected). Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance. Publication RR-519-97.



Source: **Base Map Provided By SEH Inc**

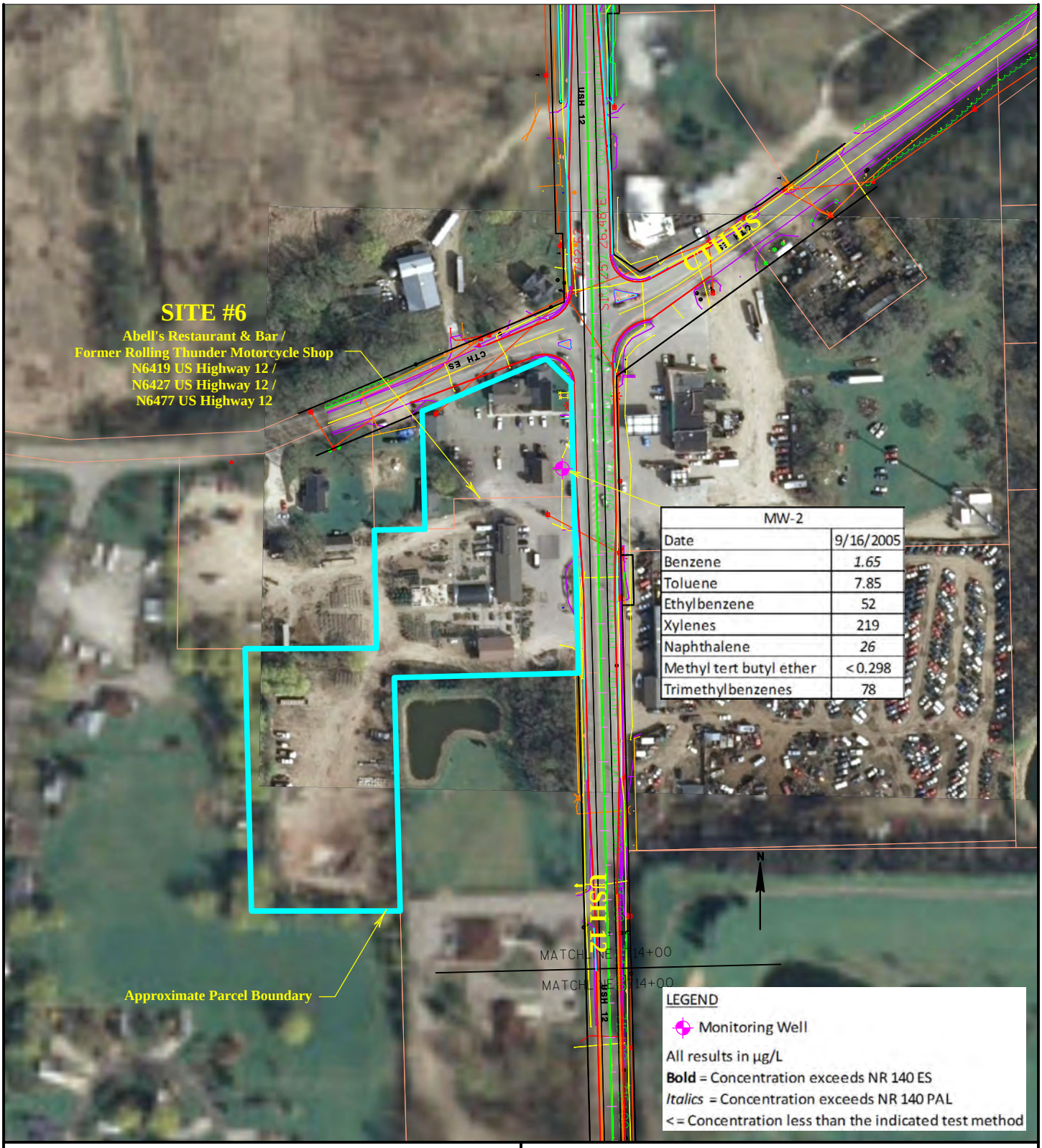
Scale: 0 100 200 400

Figure 8.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 8.1
GROUNDWATER QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #6: Abell's Restaurant & Bar / Former Rolling Thunder Motorcycle Shop, N6419 US Highway 12 / N6427 US Highway 12 / N6477 US Highway 12
View west from east side of USH 12 to the south of CTH ES

Site Investigation and Closure Report
of Subsurface
Hydrocarbon Fuel Contamination

Abell's Corners Restaurant and
Wisconsin Rolling Thunder Motorcycle Shop
N6419 Highway 12
Elkhorn, Wisconsin 53121

WDNR LUST Reference No. 03-65-107090
PECFA Claim ID No. 53121-3956-19

Prepared for:
Cynthia Ahearn-McKenna
N6419 Highway 12
Elkhorn, Wisconsin 53121

November 2000

I, Polly Doyle, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code; that I am a registered professional geologist in the State of Wisconsin, registered in accordance with the requirements of Ch. GHSS 2, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Ch. GHSS 5, Wis. Adm. Code; and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Polly Doyle/mcp

Polly Doyle, Senior Hydrogeologist

P.G. #: 597

Date: 11/7/00

I, Mary C. Possin, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code; that I am a registered professional hydrologist in the State of Wisconsin, registered in accordance with the requirements of Ch. GHSS 3, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Ch. GHSS 5, Wis. Adm. Code; and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Mary C. Possin, Hydrologist

P.H. #: 117

Date: 11/7/00

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EXECUTIVE SUMMARY

The Abell's Restaurant property included a small service station from about the 1940s through the 1960s when the underground storage tanks (USTs) were believed to have been removed. Obvious soil contamination from a petroleum release was detected along the west side of Highway 12 just east of the former service station building in April 1996 when Highway 12 was reconstructed. The WDOT excavated approximately 200 cubic yards of contaminated soil from the area being rebuilt. A letter from the Wisconsin Department of Natural Resources (WDNR) was sent to the site owner in November 1996 requiring additional investigation to determine the extent of contamination. Environmental Associates, Inc. (EAI), of Mequon, Wisconsin started the site investigation during the Summer of 1997. Environmental Compliance Consultants, Inc. (ECCI) was hired in February 1998 to complete the site investigation.

Five Geoprobe® soil borings were advanced by EAI and five monitoring wells were installed by ECCI as part of the site investigation. This report documents the findings of the work completed by EAI and ECCI and is designed to meet the requirements of NR 716.

Soils at the Abell's site comprise two basic soil types, clay and sand. A surface unit of silty clay from about 5 to 13 feet in thickness is underlain by a sand unit to the end of boring depth. Based on information from an adjacent LUST site, the sand probably extends to over 30 feet below grade.

The water table is shallow, between 4.5 and 6.5 feet below grade, and generally fluctuates near the top of the sand unit or at the base of the clay. The site is underlain by an unconfined aquifer which is probably greater than 50 feet in thickness. The horizontal hydraulic gradient is approximately 0.007 ft/ft north northeast. The hydraulic conductivity ranges between 3.4×10^{-3} cm/sec and 7.4×10^{-3} cm/sec.

Soil contamination was detected at the site at concentrations exceeding the Wis. Adm. Code NR 720 Generic Residual Contaminant Levels for GRO, ethylbenzene, toluene, and xylenes. The maximum extent of contaminated soil exceeding the standards covers an irregular ovoid-shaped area measuring approximately 80-foot by 50-foot areal dimension. However, it should be noted that much of the soil contamination occurs in the water table fluctuation zone and thus this material does not meet the definition of "soil" as specified in NR 700.03(58).

With the exception of one monitoring well, MW-2, groundwater contamination no longer exceeds the Wis. Adm. Code NR 140 PALs. Initially benzene was detected in all five monitoring wells and two wells contained PAL or ES exceedances. The downgradient well closest to the former tank location (MW-2) had enforcement standard exceedances of benzene, xylenes, and naphthalene. Over the course of the site investigation in 1998-1999, the PVOC concentrations decreased in all the monitoring wells except MW-2. The PVOC concentrations in MW-2 have fluctuated greatly over the 1.5 year site investigation period.

The site's potable well is located about 225 feet downgradient from the LUST site. It has been tested twice (once during the Abell site investigation and once during the site investigation of the adjacent Lockhart LUST site) and no VOCs were detected. Another private well located on the property adjacent to the south side of the site was also tested during the Abell site investigation and no VOCs were detected. Two other private wells are located adjacent to the north side of the site and they were tested when the LUST site adjacent to the east side of the Abell property was investigated. No VOCs have been detected in any of the private wells.

Based upon the results of the site characterization, ECCI believes that the threat to human health and safety and to the environmental is minimal. Therefore, closure is requested.

1.0 GENERAL AND BACKGROUND INFORMATION

This section of the report contains subsections that discuss general information, the purpose of the report, the site's classification, background information, including activities that may have caused the release, environmental response activities taken to date, methods of investigation, and the results of the site investigation scoping process.

1.1 General Information

Environmental Compliance Consultants, Inc. (ECCI) has prepared this *Site Investigation and Closure Report* for Cynthia Ahearn-McKenna, the owner of the property upon which the work was conducted. The location of the subject property, the owner, and the consultant involved in the project are listed below. The previous environmental consultant for this LUST site was Environmental Associates, Inc. (EAI), of Mequon, Wisconsin.

Site Location: Abell's Corner Restaurant/Wisconsin Rolling Thunder Motorcycle Shop
N6419 Hwy 12
Elkhorn, Wisconsin
NE 1/4 of the NE 1/4 Section 13, Township 3 North, Range 16 East
Sugar Creek Township, Walworth County

Owner: Cynthia Ahearn-McKenna
N6419 Hwy 12
Elkhorn, Wisconsin 53121
(414) 742-3100

Consultant: Environmental Compliance Consultants, Inc.
P. O. Box 6438
Madison, Wisconsin 53716-0438
(608) 223-0875

Figures 1, 2 and 3 are site location maps at various scales. Figure 1 is a site location and topographic map which was taken from the USGS 7.5-minute Elkhorn, Wis. Topographic Quadrangle, 1960 (revised 1994). Figure 2 is the Site Layout, showing the site at a detailed scale. Figure 3 shows the site and adjacent properties with nearby private wells. The site is located three miles north of Elkhorn in Walworth County. The Abell's Restaurant Property also includes the Rolling Thunder Motorcycle Shop building.

The Abell's LUST site has been issued a Wisconsin Department of Natural Resources (WDNR) BRRTS number of 03-65-107090.

1.1.1 Consultant

The principal author of this report is Polly Doyle, Project Hydrogeologist. She has been assisted in the site investigation and preparation of this report by Ms. Mary Possin, P.H., Project

Hydrologist, and Mr. Mark Janowiak (former ECCI employee). This report has been reviewed by Mr. Boyd N. Possin, P.G., President of ECCI.

1.1.2 Purpose of the Report

The fourfold purpose of this report is to:

- Fulfill the site owner's responsibility under 292.11, Wis. Statutes, and the NR 700 series to conduct a site investigation.
- Describe subsurface investigative work that has been performed at this site.
- Present the results of this investigation.
- Provide the basis for recommending closure.

1.1.3 Site Classification

The Abell's Restaurant site does not meet the criteria for a site with an environmental factor as set forth in Comm 47.337(2)(a).

Under s. 101.144(1)(aq), Wis. Stats., the site would be considered a "high risk" site because "*3. An enforcement standard is exceeded in groundwater ... within 100 feet of any other well used to provide water for human consumption.*"

ECCI had all surrounding potable wells tested for VOCs and none were detected.

1.2 Background Information

This section of the report describes activities at or near the site that may have caused contamination, previous discharges of hazardous substances, and response activities taken to date

1.2.1 Activities at or Near the Site which May Have Caused Hazardous Substance Discharges

The Abell's Restaurant site is currently in operation as a working restaurant. The Wisconsin Rolling Thunder Motorcycle Shop is housed in what is believed to have been the former service station building on the south side of the property. According to neighboring property owners, in the 1940s a prior owner installed underground storage tanks (USTs) for retail sale on the south side of the Motorcycle Shop building. The neighbors stated that they recall the USTs being removed from the property in the 1960s.

1.2.2 Previous Hazardous Substance Discharges on the Site

No specific incident of petroleum leakage or spillage was identified during this investigation that can account for the contaminants discovered on the property. Rather, the release of contaminants appears to have occurred over 30 years ago at the probable location of the former tank and dispensers. No other discharges or response activities are known to have occurred on the property.

1.2.3 Environmental Response Activities Taken to Date

In April 1996, the WDOT removed approximately 200 cubic yards of petroleum impacted soil from the Abell's Restaurant property during reconstruction of Highway 12. The location of the WDOT excavation is shown on Figure 2. Five Geoprobe® soil borings and five monitoring wells have been installed in an effort to define the extent and degree of soil and groundwater contamination on the site. A water sample has been collected from the private well on site and from each of the four private wells adjacent to the site.

1.3 Methods of Investigation

In general, work performed for this site investigation consisted of drilling and sampling soil borings and monitoring wells, sampling private wells, collection of background information pertaining to the site, interpretation of the results, presentation of the data, and conclusions derived therefrom. Specifically, the tasks conducted were designed to comply with Chapter NR 716 rules governing site investigations and included the following.

- Corresponding with the WDNR regarding available site information.
- Interviewing the site owner, neighbors, and others with knowledge of prior activities on the site.
- Completing the site investigation scoping process as described in NR 716.07.
- Observing and documenting the drilling of soil borings and installation of monitoring wells on the site.
- Describing soil samples in the field according to the Unified Soil Classification System (USCS).
- Collecting and field screening soil samples for laboratory analyses.
- Developing and sampling monitoring wells.
- Surveying monitoring wells for groundwater flow direction determination.
- Evaluating the data from this investigation, and compiling the results and conclusions in this report.

The first phase of the site investigation, consisting of five Geoprobe® borings, was performed by EAI in 1997. ECCI was hired in February 1998 to complete the site investigation. ECCI oversaw installation of five monitoring wells and sampled nearby private wells. The methods used in conducting this investigation were consistent with the *Site Investigation Work Plan* submitted by EAI, to the WDNR in 1997. That plan described the following: soil boring methods, photoionization detection (PID) sample and data collection procedures, instrument calibration methods, the analytical parameters and sample collection methods used in the soil sampling program, and the site waste management plan. Pursuant to NR 716.15(2)(f), detailed descriptions of these procedures need not be included in the *Site Investigation Report* when the procedures used were performed in accordance with the *Work Plan* submitted for the site, or when the procedures were in accordance with published departmental guidance.

The Geoprobe® boring logs and boring abandonment forms prepared by EAI are found in Appendix A. The boring logs, well construction and development forms prepared by ECCI are in Appendix B.

1.4 Site Investigation Scoping

Site investigation scoping is required as part of the response activities associated with petroleum releases from USTs, and the elements requiring analyses during the scoping process are also set forth in Administrative Rule NR 716.07. Documenting the results of the scoping process in the *Site Investigation Report* is mandatory. Scoping issues to be researched for a complex site are specified in NR 716.07 and are discussed below.

1.4.1 History of the Site

The site is currently occupied by a restaurant and the Wisconsin Rolling Thunder Motorcycle Shop, as shown on Figure 2. The building in which the Motorcycle Shop is located is believed to have originally been part of a small service station. Several USTs of unknown size and content were thought to be located on the south side of the Motorcycle Shop building. Neighboring property owners told ECCI that the USTs were installed in the 1940s and were removed in the 1960s. ECCI was unable to determine the probably location of the pump island(s).

1.4.2 Type and Amount of Known Contamination

Obvious soil contamination was noted beneath the asphalt surface during Highway 12 reconstruction in April 1996, and was reported to the WDNR. It is unknown if the petroleum releases came from the tanks and/or the associated piping. The amount of the discharge and the dispersion of the contaminants is discussed later in this report.

The WDNR issued a responsible party letter to the site owner in November 1996, requiring the owner to conduct additional investigation to determine the source or sources and extent of contamination. Other than the removal of 200 cubic yards of impacted soil by the WDOT in April 1996 and this site investigation, no further remedial environmental work has been conducted on the site to date.

1.4.3 History of Previous Discharges and Environmental Pollution on the Site

There is no record or knowledge of previous discharges or environmental pollution on the site. The petroleum release at this site is estimated to have occurred over 30 years ago.

1.4.4 Environmental Media Affected by the Contamination

Petroleum contamination has impacted the soil in the vadose zone under and adjacent to the probable former UST system location and extends to the groundwater surface. Due to the known soil impact and the shallow depth to groundwater (approximately five feet below grade), five monitoring wells were installed.

1.4.5 Location of the Site Relative to Other Sources of Contamination

The Abell's Restaurant site is located in a semi-rural area. The Rolling Thunder Motorcycle Shop repairs motorcycles. The property across Highway 12 is Lockhart's Service, a LUST site also managed by ECCI. The site investigation at the Lockhart site has been completed and long-term groundwater monitoring is currently being performed. Another property to the southeast is an auto recycling yard. The Prairie Tree Nursery is located adjacent to the south side of the site. Residential properties are also located to the south and on the northwest and northeast corners of the Highway 12 and County Road ES intersection.

1.4.6 Potential and/or Known Impacts to Water Supplies and Other Receptors

The site is in a semi-rural area served by a private water supply. Figure 3 is a site map which shows that the on-site private well is about 225 feet north (downgradient) of the probable former UST location. The extent of soil contamination at the water table surface in relation to the location of the on-site and off-site private wells is shown on subsequent figures. Although there is a potential to contaminate the private water supply, the likelihood of the release impacting the water supply is reduced because of the distance from the source and the greater depth to which potable wells are usually drilled. The on-site private well and the adjacent well to the south at Prairie Tree Nursery (about 70 feet upgradient from the former UST location) were sampled during the site investigation and are discussed in Section 2.4.3. There are three other private wells (shown on Figure 3) within a 500-foot radius of the site, all of which have a lesser likelihood of impact from this release than the on-site well and the Prairie Tree Nursery well. The two wells on the north side of County Road ES and the Lockhart private well were sampled previously as part of the Lockhart's Service investigation with no detection of contaminants.

The Wisconsin Geologic & Natural History Survey was unable to locate Well Constructor's Reports for any of the potable wells.

The contamination on the site, as it is currently defined, poses no known or perceived threat to:

- State- or federal-listed, threatened or endangered species.
- Wetlands, especially those in areas of special natural resource interest, as designated in s. NR 103.04.
- Outstanding resource waters and exceptional resource waters as defined in ss. NR 102.10 and NR 102.11.
- Sites or facilities of historical or archaeological significance.

2.0 RESULTS OF THE SITE INVESTIGATION

The following subsections contain discussions of the sequence of events leading up to and including the site investigation, site geology and soils, site hydrogeology and aquifer characteristics, site environmental setting, and the analytical laboratory results of the site sampling activities.

2.1 Sequence of Significant Events during the Site Investigation

The sequence of events related to the site investigation are summarized below.

1940s	Former property owners install several USTs on the south side of the Rolling Thunder Motorcycle Shop property for retail sale.
1960s	The tanks are taken out of operation and removed.
April 1996	Contamination is discovered during Highway 12 reconstruction and the WDOT excavates approximately 200 cubic yards of petroleum-contaminated soil.
November 1996	WDNR issues RP letter to site owner.
July 18, 1997	EAI describes and samples five Geoprobe® soil borings (B-1 through B-5). Figure 2 illustrates the location of the borings.
March 30, 1998	ECCI directs installation of five monitoring wells (MW-1 through MW-5).
1998	ECCI samples the monitoring wells three times; in March, June and December.
June 24, 1999	ECCI samples MW-2
September 1999	ECCI surveys and samples all five monitoring wells.
December 1999	ECCI completes this *Site Investigation Report and Request for Closure* as required by NR 716 (this report).

2.2 Geology and Soils

The following section, describing the results of the site investigation, is presented to satisfy the requirements of NR 716.15(2)(g). Geologic logging of samples collected during the completion of five soil borings by EAI to a total depth of 15 feet and construction of five monitoring wells by ECCI, provides the basis for the interpretation on the site geology. The soil borings were logged in the field according to the USCS. The Geoprobe® boring logs and borehole abandonment forms are found in Appendix A. Appendix B contains the well construction and development forms. Two geologic cross sections for the site have been constructed at the locations shown on Figure 2.

Some vertical exaggeration occurs in presenting the cross sections. The relatively small horizontal scale, relative to the vertical scale in the sections, exaggerates the steepness of geologic contacts. The soil units shown on the cross sections are interpretative, and are based upon a few borings that are relatively widely spaced. While the interpretation of the geology between the borings is useful in remediation planning, the interpretative nature of the methods used in developing the section should be remembered. Soil units between borings shown on the cross section may or may

not be representative of actual soil conditions at the locations shown. Following is a discussion of the regional geology and the soil units encountered in this investigation.

2.2.1 Regional Soil and Geology

The soil in the immediate site vicinity was mapped by the Soil Conservation Service as Sebewa silt loam (Sm) and Casco-Fox silt loams with 6 to 12 % slopes, eroded (ClC2). The Soil Conservation Service described the Sebewa silt loam as a poorly drained soil formed in silty and loamy deposits over sand and gravel. Permeability is moderate in the upper part and rapid to very rapid in the substrate. It is a hydric soil which ponds during wet periods. The Casco-Fox silt loam was described as a well drained soil formed in loamy deposits over sand and gravel. Permeability is moderate in the upper part and rapid or very rapid in the substrate. The soil is very erodible. In USCS terminology both soil types generally appear to comprise silt and clay overlying sand and gravel.

Information on the regional site geology was taken from *Ground-Water Resources and Geology of Walworth County, Wisconsin* by R. G. Borman; USGS Information Circular No. 34, 1976. The site is located in the glaciated area of southeastern Wisconsin. The site area is mapped as "pitted outwash and other ice-contact deposits". The outwash plain is stratified and can consist of gravel, sand, silt, and clay deposited by water from melting ice fronts. Borman states that in Walworth County outwash plains of sand and gravel, which were in places covered by a layer of clay, were deposited in front of the Quaternary-age Green Bay and Delavan lobe ice fronts. The thickness of the unconsolidated materials on top of the bedrock surface is estimated at about 150 feet.

The uppermost bedrock unit is mapped as the Ordovician-age Maquoketa Shale which includes shale and shaly dolomite. The Maquoketa Shale is describe as a blue-gray dolomitic shale with dolomite beds up to 40 feet in thickness. Immediately north of the site the Maquoketa Shale is absent and the Galena, Decorah and Platteville Formations form the uppermost bedrock surface. These formations consist of predominately dolomite with some shaly zones and are light-gray to blue-gray in color. The bedrock surface slopes to the north and northwest in the site vicinity and occurs at a depth of about 750 feet mean sea level. The Ordovician-age St. Peter Sandstone underlies the Galena, Decorah, and Platteville Formations. The St. Peter Sandstone is fine- to medium-grained and white to light-gray in color. It may be dolomitic in some zones.

Although no well constructor's reports were available for the private wells at and adjacent to the Abell site, several were found for properties further away in Section 13 and in the NW ¼ of Section 18. These reports are provided in Appendix C and show a variety of hydrogeologic conditions. Total depths of these private wells ranged between 46 feet and 500 feet. Most of the private residential wells in the NW ¼ of Section 18 were relatively shallow (total depths between 46 and 81 feet) and they were completed in sand and gravel. The top of bedrock was logged between 142 and 170 feet below grade. The deeper wells which were drilled into bedrock were generally for commercial establishments such as a motel, resort or country club. The closest detailed geologic log was for the Outdoor Resort well (SE ¼ of Section 13) and it showed 170 feet of sand and clay overlying the dolomite bedrock of the Sinnipee Group. The bedrock wells were completed in either the dolomite (limestone) of the Sinnipee Group or the underlying sandstone at total depths between 300 and 500 feet.

2.2.2 Site Soil and Geology

Two basic soil types were encountered on the Abell's Restaurant site during this investigation: silty clay and sand with some gravel. The five Geoprobe® borings were 15 feet in total depth. The five borings for the monitoring wells extended to about 13.5 feet.

Silty Clay (CL)

The uppermost unit consists of inorganic silt or clay. This unit is generally gray to greenish-gray to black and was found throughout the site. The silt/clay varies between 5 and 13 feet in thickness.

Medium-Grained Sand (SP)

The lower unit consists of generally medium- to coarse-grained sand with some gravel. This unit is characterized as a fairly well-sorted to poorly sorted, olive gray, black, or sometimes brown sand with occasional silty zones or coarse gravel and pebbles. The sand unit is found below the silt/clay unit, and ranges in depths starting from 5 to 13 feet below grade and extending to at least 30.5 feet, the depth of the deepest adjacent Lockhart Service piezometer. The water table monitoring wells at the Abell site are screened from 3 to 13 feet primarily in this sand unit and are relatively productive.

2.2.3 Summary of Soils and Geology

As shown on the geologic cross sections (Figures 4 and 5), soils at and adjacent to the Abell's Restaurant site have been divided into two units based upon their geologic properties. The units are: a surface layer of predominantly silty clay, found across the site in varying thicknesses but generally between 5 and 13 feet thick and a medium- to coarse-grained sand unit found at depth. A sandy zone also occurs on the south side of the site from the surface to a depth of about 3 feet. The geologic logs are provided in Appendices A and B.

2.3 Site Hydrogeology and Aquifer Characteristics

2.3.1 Topography and Surface Water

The site elevation is approximately 881 feet mean sea level and the immediate site area is fairly flat as shown on Figure 1. Sugar Creek crosses County Road ES about 1500 feet west of the site and drains to the north and northeast. A hummocky marshy area that trends north-south is located about 1500 feet east of the site. Several small lakes and ponds are located to the north, northwest, and south of the site.

2.3.2 Regional and Local Hydrogeology

A *Regional Water Table* map prepared by R. G. Borman in 1973 showed the depth to the water table in the site vicinity at less than 10 feet. The water table sloped to the northeast toward the main stretch of Sugar Creek A smaller segment of Sugar Creek drains to the north just west of the Abell site which could affect the local flow direction.

Five water table monitoring wells were installed on the Abell's Restaurant site to total depths of about 13 feet on March 30, 1998. The boring logs, well construction and development forms are provided in Appendix B. Data obtained from the monitoring wells installed on the Abell's site and from the piezometer well nest and water table monitoring wells at the adjacent Lockhart's Service site provide the basis for the following interpretation of the site hydrogeology.

Groundwater elevations were measured four times between March 1998 and December 1998 and once in 1999 on September 19, 1999. These elevations have been graphed and are provided on Figure 6 and in Appendix D. On September 19, 1999, groundwater elevations were taken at both the Lockhart site and the Abell site. A water table contour map has been developed using the data from both sites and is presented in Figure 7. The depth to the water table varies across the site from approximately 4.5 feet below ground surface (bgs) to approximately 6.5 feet bgs. In the area of the estimated former tank and pump location between MW-1 and MW-2, the groundwater also ranged between 4.5 and 6.5 bgs, depending on the season. Groundwater elevations fluctuated between each round of water level measurements, but the five wells have varied consistently throughout the seasonal changes. The water table elevation was highest in June 1998 and lowest in September 1999 (Figure 6).

The water levels show a typical rise in the spring and decline in the fall. The maximum seasonal fluctuation appears to be about two feet. MW-1 is consistently the most upgradient well and MW-3 is the downgradient well. At the well nest of MW-5 and PW-5 at Lockhart's Service, the water level in MW-5 has consistently been slightly higher than in PW-5, indicating a persistent downward vertical gradient. Well casing and screen depths are provided in Appendix B.

Water table elevations have been plotted for five measuring events and contoured for one measuring event. Figure 7 is a water table contour map for September 19, 1999. The contour interval across the LUST area is 0.10 foot.

The September 1999 contours indicate that the water table slopes north to northeast toward a wetland complex which eventually connects to Sugar Creek. The regional groundwater flow direction is generally northeastward, but could vary to the northwest, as can be observed by examining the surface water features on the USGS topographic map in Figure 1. Borman shows that the water table surface slopes to the north or northeast in the vicinity of the Abell's Restaurant site. The groundwater flow direction previously determined for the adjacent Lockhart's Service site was in the north-northwest direction. It is possible that the storm sewers (Figure 2) traversing the Abell site influence the shallow groundwater flow direction.

2.3.3 Hydraulic Gradient

The horizontal hydraulic gradient was calculated to be between about 0.004 and 0.007 ft/ft based on data from the June 29, 1998, and September 19, 1999, measurements. The vertical hydraulic gradient for the site was calculated using the groundwater elevation data from the water table monitoring well and piezometer well nest MW-5/PW-5 at the Lockhart's Service LUST site. The vertical gradient was calculated to be about 0.016 ft/ft downward from an average of three measuring events. The vertical and horizontal extent of groundwater contamination is discussed in Sections 2.4 and 3.2 of this report.

2.3.4 Hydraulic Conductivity

Hydraulic conductivity was estimated using a simplified pump test method by Fletcher Driscoll presented in *Groundwater and Wells*. The Driscoll method is only applicable to wells which can provide a sustained flow of water. Monitoring wells MW-2, MW-3, MW-4 and MW-5 were pumped until a constant drawdown was measured. A table showing the pertinent data is included in Appendix D. The Bouwer and Rice Method was used to calculate the hydraulic conductivity for MW-1. The estimated hydraulic conductivity for each well is as follows:

Monitoring Well	Hydraulic Conductivity
MW-1	2.3×10^{-4} cm/sec
MW-2	7.4×10^{-3} cm/sec
MW-3	3.4×10^{-3} cm/sec
MW-4	4.9×10^{-3} cm/sec
MW-5	4.2×10^{-3}, cm/sec

The hydraulic conductivity values are reasonably close among four wells (MW-2, MW-3, MW-4, and MW-5) and are typical for medium-grained sand. MW-1 appears to be screened in more silt/clay.

The horizontal seepage velocity (average linear velocity) of the aquifer was estimated by multiplying the average hydraulic conductivity of the aquifer by the horizontal hydraulic gradient and then dividing by the effective porosity. Using an average hydraulic conductivity value of 4.8 x 10^{-3} (or about 13.6 feet/day), an average gradient of 0.004 to 0.007 ft/ft, and assuming an effective porosity of 25 percent, the average horizontal seepage velocity of the water table aquifer was calculated at 0.22 to 0.38 feet/day or about 80 to 140 feet/year. The actual velocity may be less and could easily vary by an order of magnitude depending on the variables selected. The actual rate of contaminant transport was not calculated due to various unknowns such as the retardation factor and would be expected to be less than the groundwater velocity. Since the extent of groundwater contamination is minimal at this time (probably due to the age of the original release and the removal of the USTs over 30 years ago), no further calculations were performed.

2.3.5 Summary

In summary, the site is underlain by an unconfined aquifer consisting of primarily medium-grained sand which is probably greater than 50 feet in thickness. The water table occurs about 4.5 to 6.5 feet below grade generally at the top of the sand or the base of the clay. The horizontal hydraulic gradient is approximately 0.004 to 0.007 ft/ft and slopes north northeast, (or an approximate 0.5-foot drop over 100 horizontal feet). The vertical hydraulic gradient was estimated at 0.016 ft/ft downward. Since the downward vertical gradient is greater than the horizontal gradient, contaminant transport may angle vertically downward as well as moving horizontally to the

northeast. However, groundwater sampling at the adjacent Lockhart site indicates that horizontal movement is more significant than downward movement. Hydraulic conductivity values ranged between about 3.4×10^{-3} cm/sec and 7.4×10^{-3} cm/sec.

2.4 Environmental Sampling and Analytical Results

Soil samples for laboratory analysis were collected by EAI with a Geoprobe® operated by Giles Engineering and Associates, Inc., of Waukesha, Wisconsin.

The monitoring wells were installed by Badger State Drilling of Stoughton, Wisconsin.

The following sections of the report use the term "GRCL-exceeding" to describe soil laboratory samples that contained exceedances of the generic residual contaminant levels in Table 1 of chapter NR 720. For example, a particular soil sample may show an exceedance of benzene, while another shows toluene and GRO exceedances in Table 1. Both of these samples would simply be referred to as "GRCL-exceeding" soils without necessarily distinguishing the particular compound or compounds that are in exceedance. The concept is a useful one. Since all GRCL-exceeding soils require consideration, they can be mapped and discussed together.

It is also important to consider that most of the GRCL-exceeding soils do not necessarily meet the NR 703 definition of "soil' since they are within the water table fluctuation zone and therefore are not unsaturated during periods of high groundwater. However, it is useful to consider these data since they are indicative of the degree and extent of the contaminant plume.

The analytical laboratory for the sampling performed by ECCI on this project was:

En Chem, Inc.
1795 Industrial Drive
Green Bay, WI 54302
Cert. #405132750

EAI used U.S. Oil Inc. of Kimberly, WI (cert # 445027660) for analysis of the soil probe samples collected in July 1997.

The laboratory data sheets are provided in Appendices E, F, and G.

2.4.1 Findings with Respect to Soils

The logging, sampling and analyses of soil borings and monitoring wells during the course of this investigation provide the basis for the discussion and conclusions reached in this section. Five Geoprobe® borings and five monitoring wells were completed for this investigation and are shown on Figures 2 and 3.

2.4.1.1 PID Results

Table 1 and EAI's boring logs include headspace data compiled by EAI and ECCI. This PID information was collected during the logging and sampling of soil borings at the Abell's Restaurant

site. The PID values' relationship to laboratory analytical data indicates that higher PID data generally correspond to higher laboratory analytical data, but some exceptions occur.

The PID sample material is never the same material that is laboratory analyzed, even when it is collected from the same sampler tube. Furthermore, due to local variations in contaminant concentrations, even within the same sample, it cannot be concluded that PID and laboratory results are uniformly and directly correlative to each other. However, conclusions incorporating the PID data, based upon correlations with laboratory results, are useful as a qualitative guide to the presence of GRCL-exceeding soils.

The PID results are also shown on the cross sections in Figures 4 and 5 and are used to assist in defining the horizontal and vertical extent of GRCL-exceeding soil above and below the water table.

2.4.1.2 Soil Laboratory Analytical Results

Selected soil samples were analyzed for Gasoline Range Organics (GRO) and Petroleum Volatile Organic Compounds (PVOCs). At least one sample (frequently two or three samples) was submitted for laboratory analysis from each boring, usually from the water table interface and/or total depth. Soil laboratory reports for both EAI and ECCI's samples, with chain-of-custody forms, are found in Appendix E.

The soil laboratory results are presented in Table 1. The results exceeding the GRCLs are **highlighted** in the table. GRCL-exceeding concentrations of contaminants were detected in soils at the site in three of five Geoprobe® borings, B-1, B-2, and B-3, and one of five monitoring well borings, MW-2. These contaminants include: GRO, toluene, ethylbenzene, and xylenes. GRO concentrations ranged up to 2600 mg/kg (B-1). The area where GRO concentrations exceed the NR 720 GRCL of 100 mg/kg is shown on Figure 8. As shown on the cross sections in Figures 4 and 5, throughout much of this area the elevated GRO values occur at or near the water table in the water table fluctuation zone. The same is true of the ethylbenzene and xylenes exceedances. The maximum ethylbenzene concentration measured was 64,000 µg/kg (B-1). The areal extent where ethylbenzene concentrations exceed the NR 720 GRCL is not as large the GRO area, as shown on Figure 9.

Xylenes ranged up to 156,000 µg/kg, again in boring B-1. Figure 10 shows the probable extent of xylenes exceeding the NR 720 GRCL. All three figures show the limits of contamination extending in a northeasterly direction from the probable source area.

Only one sample which was from B-1 contained a toluene concentration exceeding the NR 720 GRCL. This toluene concentration was 6300 µg/kg. The seven to nine foot interval in boring B-1, which is in the water table fluctuation zone, appeared the most contaminated. All five of these compounds are typical constituents of gasoline. No benzene was found in soil samples above detection levels; however, the detection limits were occasionally somewhat higher than normal. A lead concentration of 62 mg/kg was measured in a sample from B-2.

In general, boring B-1, followed by B-2 and MW-2 were the most contaminated, as shown on Figures 8, 9, and 10. Contamination appears to be spread through the water table fluctuation zone in the areas of B-2 and B-3 and in a northeasterly direction from the former UST location.

2.4.2 Groundwater Laboratory Analytical Results

Three rounds of groundwater samples were collected in 1998 from each of the five monitoring wells—on March 31, June 29, and December 16. All five wells were also sampled on September 21, 1999. A full VOC analysis (EPA Method 8021) was performed on the first round of groundwater samples. The samples were analyzed for PVOCs during subsequent sampling events, since only petroleum-related VOCs were detected in the first round. Because MW-2 was the only monitoring well with significant levels of petroleum contaminants, one additional sample was collected from it on June 24, 1999.

Groundwater laboratory results are presented in Table 2. Complete groundwater laboratory reports, including chain-of-custody forms, are found in Appendix F. In Table 2, the left-hand column shows the effective regulatory guideline; i.e., the WDNR NR 140 Enforcement Standard (ES)/Preventive Action Limit (PAL) in effect for the parameter analyzed. Shaded cells within the table indicate an exceedance of the ES and **bolded** cells indicate a PAL exceedance.

During the first round of sampling in March 1998, MW-2 contained ES exceedances of benzene, xylenes and naphthalene. In addition, MW-1 contained a benzene concentration exceeding the PAL.

By the time the second round of samples was collected in June 1998, the benzene concentrations in all the wells had decreased to below the PALs. Xylenes continued to be detected in MW-2 but had decreased from 1140 µg/L, above the ES, to 330 µg/L, below the PAL.

The third round of groundwater samples was collected from all five wells in December 1998. No PVOCs exceeding the NR 140 PALs were measured in any well.

The fourth complete sampling round was carried out on September 21, 1999. With the exception of MW-2, no PAL exceedances occurred. Monitoring well MW-2 contained enforcement standard exceedances of benzene, xylenes, and naphthalene and PAL exceedances of ethylbenzene and toluene. This was unexpected because the previous two rounds of sampling from MW-2 had not shown any PAL exceedances.

The extent of groundwater contamination has been defined at the site. Low levels of petroleum-related contamination have been detected in all the monitoring wells. However, only monitoring well MW-2 had results above NR 140 Enforcement Standards. Lower levels of groundwater contamination, below NR 140 Groundwater Quality Enforcement Standards but above Preventive Action Limits, were initially detected in monitoring well MW-1. In the last three rounds of groundwater sampling, no NR 140 PAL exceedances were measured in four of the five monitoring wells—MW-1, MW-3, MW-4, and MW-5.

Groundwater contamination in excess of the NR 140 Enforcement Standards for PVOCs continues to sporadically occur at MW-2, at or above the same levels measured in March 1998, as listed in Table 2. The highest concentrations were measured when the water table was at its lowest elevation. This contamination appears restricted to the vicinity of MW-2, as contaminant concentrations in all other monitoring wells has decreased (Figure 11). MW-2 is the downgradient well closest to the former UST location.

2.4.3. Results of Private Well Sampling

One private well is located on the Abell's Restaurant property as shown on Figure 3 and four other private wells are located in the site vicinity (within 400 feet). The four closest off-site private well locations are shown on Figure 3. These private wells are designated the Prairie Tree Nursery, CrossRoads, Amend, and Lockhart wells. No well constructor's reports were available from the WGNHS for these private wells or the on-site Abell private well.

As part of the Abell's Restaurant site investigation, two private wells—the on-site well and the nearby adjacent well to the south at the Prairie Tree Nursery—were sampled for potential contaminant impacts. Each of these two private wells was sampled on June 29, 1998, for 8021 VOC constituents after running the tap at least 15 minutes. There were no detections of any VOC constituents in either well.

The Abell's site private well along with the CrossRoads and Amend wells were sampled for 8021 VOC constituents on March 19, 1996 as part of the adjacent Lockhart LUST site investigation. There were no detections of any VOC constituents in any of the wells. The Lockhart private well was sampled on October 16, 1995, as part of the Lockhart investigation and no VOCs were detected.

Appendix G contains copies of laboratory analytical results for the private well samples.

3.0 EXTENT AND DEGREE OF PETROLEUM CONTAMINATION

The following subsections discuss the degree of petroleum contamination in the soil and groundwater, including the extent and its potential impact on the public health.

3.1 Nature, Extent and Degree of Soil Contamination

Soil analytical data (Table 1), were used to define the lateral and vertical extent of soil contamination.

To assist in remediation decisions, GRCL-exceeding soils have been plotted on Figures 8, 9, and 10, and the geologic cross sections (Figures 4 and 5). On Figures 8, 9, and 10, a line depicts the compliance boundary–drawn approximately at the limit of GRCL-exceeding soils for GRO, ethylbenzene, and xylenes, as discussed in Section 2.4.1.2 of this report.

Using the compliance boundary lines for GRO, because the extent of GRO contamination exceeding the NR 720 GRCLs covers the largest area (Figure 8), the maximum horizontal extent of soil contamination was estimated at approximately 80 feet by 50 feet over a somewhat irregular ovoid-shaped area. The vertical extent of contamination shown on the cross section (Figures 4 and 5) indicates GRCL-exceeding contaminant concentrations exist below the water table to a maximum total depth of about ten feet in a portion of the area. During periods of low groundwater (depth to water table $\simeq$ 6 ft), the total volume of GRCL-exceeding soils above the water table is approximately 800 cubic yards. During periods of high groundwater, all of these soils are within the water table zone. This estimate does not cover the area previously excavated by the WDOT.

3.2 Nature, Extent and Degree of Groundwater Contamination

No groundwater contamination above the NR 140 PALs was measured during the last three rounds of sampling in June and December 1998 and September 1999, except at MW-2. Initially all five monitoring wells contained benzene detections. Only MW-2 contained ES exceedances of benzene, xylenes, and naphthalene. Concentrations decreased over the course of the site investigation at MW-1, MW-3, MW-4, and MW-5. Very low levels of several PVOCs (below the PALs) are still present in these four monitoring wells.

PVOC concentrations in MW-2 decreased dramatically to below the PALs in June 1998, December 1998, and June 1999 and then increased significantly in September 1999 to above the enforcement standards when the water table was lowest. Apparently an irregular plume of groundwater contamination is still present in the immediate vicinity of MW-2 and contaminant slugs will sporadically appear in MW-2 depending on the water table elevation and rainfall. This groundwater plume does not extend to the other four wells on-site. The maximum shape and extent of this plume as it might have appeared in September 1999 is shown on Figure 11.

3.2.1. Results of Remediation through Natural Attenuation (RNA) Testing

Groundwater samples were collected for evidence of biodegradation activity during the site investigation. Table 2 summarizes the results of this bioremediation analytical work. Laboratory reports for the Remediation through Natural Attenuation (RNA) data are found in Appendix F. Nitrogen and sulfate were analyzed at the laboratory; dissolved oxygen was analyzed in the field with a YSI 55 Dissolved Oxygen meter using a downhole probe.

The most important evidence that RNA is occurring at a LUST site is decreasing PVOC concentrations in conjunction with a stable or shrinking contaminant plume in the groundwater. The contaminant plume at the Abell site generally appears to be shrinking in overall size and concentration, based on the four rounds of data summarized on Table 2 and discussed previously. As shown on Table 2, contaminant concentrations are now below the NR 140 Preventive Action Limits and there has been an overall decreasing trend in concentration at all wells except MW-2 which is located immediately downgradient from the former UST location. The plume at MW-2 is somewhat erratic (i.e., sometimes there is a plume and sometimes there isn't) as it appears contaminant slugs occur which cause concentrations to rise and then decrease to below the detection limit instead of a steady decline from a continuous source. This phenomenon could be a reflection of the seasonal water table fluctuation.

Additional evidence that RNA has the potential to occur can be provided by geochemical parameters which indicate if biodegradation is occurring. Some of the indicator parameters for biodegradation include dissolved oxygen, nitrate/nitrite-nitrogen, ferric/ferrous iron, sulfate, alkalinity, oxidation reduction potential, etc. Dissolved oxygen concentrations define aerobic versus anaerobic conditions. Dissolved oxygen (DO) is the most thermodynamically favored electron acceptor used in biodegradation of petroleum hydrocarbons in groundwater. (Electron acceptors are defined as elements or compounds that are reduced by gaining electrons produced by the oxidation of organic compounds through microbial metabolism or abiotic chemical oxidation processes.) Oxidation reduction potential identifies oxidizing versus reducing conditions in the aquifer. Nitrate, ferric iron, and sulfate can act as electron acceptors after DO is depleted. The alkalinity of the groundwater is its quantitative capacity to neutralize a strong acid to a designated pH. Alkalinity is primarily a function of the carbonate, bicarbonate, and hydroxide content. Generally, areas contaminated by petroleum hydrocarbons have a higher alkalinity than that measured in background wells.

Concentrations of these biodegradation indicator parameters should be measured at several wells both inside the contaminant plume and upgradient and downgradient from it, in order that the concentrations can be compared and evaluated. At the Abell site, several of the indicator parameters for biodegradation (dissolved oxygen, nitrogen, and sulfate) were measured in the monitoring wells during two of the sampling events and the results are summarized in Table 2. The locations of these wells are shown on Figures 3 and 11. The monitoring wells were about 13.5 feet in total depth. The upgradient monitoring well is MW-1; MW-2 is located in the most contaminated portion of the plume downgradient from the former UST location; MW-5 is downgradient of MW-2; and MW-3 and MW-4 are further downgradient and almost unaffected by petroleum contamination.

The highest DO levels were measured in downgradient well MW-4 (1.24 ppm) and upgradient well MW-1 (1.11 ppm) in March 1998. Dissolved oxygen was present in all the wells, but was lowest in MW-2, which was the most contaminated well. The DO concentrations were considerably lower in December 1998 than when first measured in March 1998. It is possible that the groundwater temperature affected the DO concentrations.

Typical concentrations of nitrogen and sulfate are summarized in Table 2 for all the monitoring wells. Overall the nitrogen (NO_3+NO_2-N) concentrations varied considerably, ranging between no detection (<0.017 mg/L) and 91 mg/L. Nitrogen was not detected in upgradient monitoring well MW-1 in December 1998, but was measured at 21 mg/L in September 1999. The same situation was present in MW-2. The highest nitrogen level measured was 91 mg/L in September 1999 in MW-3 which is above the NR 140 enforcement standard of 10 mg/L. The nitrogen concentrations measured in September 1999 when the water table was at its lowest were considerably higher than those measured in two previous rounds of sampling in March and December 1998.

Sulfate concentrations ranged between 3.3 mg/L and 50 mg/L. Sulfate concentrations were somewhat similar in all five wells. The greatest concentration variations occurred in the samples collected in September 1999.

The RNA data from monitoring wells shows that the level of dissolved oxygen is relatively low in the shallow water table sand and gravel aquifer, possibly indicating that active RNA processes are occurring throughout the contaminant plume.

The RNA parameters provide only general trends in the degradation of petroleum contamination. Factors other than petroleum, such as natural organic peat, can account for levels of reducing agents being absent where they are expected based on petroleum contamination levels. Thus it is important to look at the entire data set and not individual datum when interpreting RNA results.

3.3 Contaminant Migration Pathway and Receptor Assessment

The purpose of this section of the report is to discuss those physical properties of the site, either natural or manmade, which could potentially allow the rapid and concentrated transmission and/or enhanced reception of either vapors or liquid product resulting from the LUST release at this site. This section of the report will also assess health-related issues connected with such transmission and/or reception.

3.3.1 Potential Contaminant Migration Pathways

Two primary contaminant migration routes and/or mechanisms are present at the Abell's site. Groundwater contamination continues to be generated as infiltrating precipitation encounters contaminated soil and carries dissolved contaminants downward to the water table. Once there, contaminants may migrate in dissolved form with the local flow of groundwater. Based upon the site hydrogeology, such contaminants would be expected to migrate laterally in a northerly direction toward the on site potable well and, possibly, vertically in a downward sloping direction. Based upon the contaminant hydrogeology, the leading edge of the plume is at the location of

MW-3 and MW-4, about 100 feet from the former tank system. The average groundwater velocity (80 ft/year) in conjunction with possible contaminant transport rates and the estimated age of the release (>35 years) support the conclusion that the plume at this site is attenuated and receding.

Contaminants may also migrate in vapor form within soil pore spaces in the vadose zone. The vapors may migrate upward, eventually discharging to the atmosphere, or be consumed by soil microbes in the near-surface, oxygen-rich environment. Based on the migration pattern of contaminants it appears that this contaminant migration mechanism is not as prevalent as the former groundwater transport mechanism. The clay layer may limit transfer of DO and PVOCs.

Preferential contaminant transport can also occur along buried utility lines and into basements. The restaurant has a basement; however, no odors or problems have been noted in regards to the basement.

Buried utilities such as sewer lines can act as conduits causing preferential contaminant transport. Several types of buried utilities are present on site as shown on Figure 2. Although it is hypothetically possible that some contaminant transport occurred along the sewer line many years ago, this seems unlikely given that the hydraulic conductivity of the native sandy soil below the upper clay is likely not significantly less than the material which would have been used as trench backfill.

3.3.2 Potential Receptors of Contamination

The site is located about 200 yards from Sugar Creek and its associated wetlands to the northwest. Besides the creek, it is not likely that critical habitats, endangered species, or sensitive or unique ecosystems are potentially at risk. The groundwater data collected in this investigation suggest that the plume 1) does not now and never has extended to such a distance (200 yards), and, 2) even at its present more limited extent, is shrinking, not growing.

There are several private residences and small businesses between the Abell's Restaurant site and the creek. All these properties are served by private water supplies which have the potential to be impacted by a contaminant plume issuing from the Abell's site. In particular Abell's on-site well appears to have the highest likelihood of potential impact. The well on this property was sampled twice and the four private wells on adjacent properties were sampled once for VOC contaminants. None were found to contain any contaminants above detection limits. This is not surprising since the existing plume is shrinking and, even at its present size, is not large enough to reach these wells.

3.3.3 Potential Health Impacts

The site is in a lightly populated area served by private water supply wells. There are approximately ten private wells within an 800-foot radius of the site.

The on-site private well and the four closest private wells to the site were tested. No appreciable risks to human health, associated with this site's contamination, can be determined at this time. Specifically, the following points can be made:

- No known private, potable wells in the area have been impacted by Abell's petroleum contamination and no complaints have been reported concerning contamination in any downgradient wells.

- Dermal contact would not be expected unless and until additional excavations or borings are performed. Trace amounts of hydrocarbons could emanate from the unpaved portions of the surface on warm days, but these are likely to be insignificant from a health-risk point of view.

- Dissolved oxygen RNA data and generally decreasing PVOC concentrations in the groundwater show that bioattenuation of the petroleum contamination is occurring at the site.

4.0 CONCLUSIONS and REQUEST FOR CLOSURE

The Abell's site has been investigated through the installation of five Geoprobe® soil borings, five monitoring wells, and private well sampling. Soils at the site include a surface horizon of silty clay varying from 5 to 13 feet in thickness and a subsurface layer of permeable medium- to coarse-grained sand with some gravel. Groundwater is found at a depth of approximately 4.5 to 6.5 feet.

This Site Investigation (SI) revealed that vadose soils and groundwater in the vicinity of the former UST system were contaminated by petroleum product. An irregular area covering about 50 by 80 feet has petroleum impacted soil above NR 720 GRCLs. The WDOT removed about 200 cubic yards of contaminated soil during Highway 12 reconstruction in 1996.

The extent of contamination has been adequately defined. A zone of contamination exceeding NR 720 GRCLs for GRO, ethylbenzene, and xylenes exists in the immediate area around the former UST system locations and extends about 65 feet downgradient. Although the soil contamination is moderate, it does not pose a known hazard to human health or safety or to the environment.

Contaminant concentrations in the groundwater have generally decreased over the course of the site investigation. No NR 140 PAL exceedances were measured during the last three rounds of groundwater sampling in four out of the five site monitoring wells. The monitoring well immediately downgradient from the former UST location still occasionally contains NR 140 Enforcement Standard exceedances. No Comm 47.337 Environmental Factors have been identified.

The horizontal and vertical extent of soil contamination in the vadose zone has been defined and is fairly localized. Some of the contaminated soil occurs underneath the building and is inaccessible to excavation. The contamination which once extended under Highway 12 has been excavated. No basements are located within or adjacent to the zone of soil contamination.

Subsurface, saturated soils are predominately sand. Given the probable dates of release (>35 years ago) and the relatively small area of impact above the water table fluctuation zone, it appears the release was not extensive and the groundwater contaminant plume has shrunk somewhat, and is now restricted to a very limited area in the vicinity of MW-2. Whether slugs of contaminated water enter MW-2 is probably dependant on the water table fluctuation and precipitation. No significant groundwater contamination is present at the other four shallow monitoring wells.

Over the course of time, the residual soil contamination will continue to passively biodegrade and the remaining groundwater contamination will continue to undergo natural attenuation.

No private wells around the Abell's site show any indication of petroleum impact.

In summary, the site does not appear to pose a significant threat to human health and safety or to the environment. Based on the limited extent of the contamination, the characteristics of the contaminant plume and the lack of off-site impacts, site closure is requested without further remedial activities under NR 726.

State of Wisconsin
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Route To:
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☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name: Rollins Thunder Motorcycle Shop
License/Permit/Monitoring Number:
Boring Number: B1
Boring Drilled By (Firm name and name of crew chief): Biles Drilling, Dale Gruss
Date Drilling Started: 07/18/97
Date Drilling Completed: 07/18/97
Drilling Method: Geoprobe
DNR Facility Well No.:
WI Unique Well No.:
Common Well Name:
Final Static Water Level: Feet MSL
Surface Elevation: Feet MSL
Borehole Diameter: 1.5 inches
Boring Location
State Plane N, E S/C/N
Lat Long
SE 1/4 of NE 1/4 of Section 13, T 2 N, R 16 E/W
Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W
County: Walworth
DNR County Code:
Civil (Town)/City/ or Village: Sugar Creek

Sample Number	Length Recovered (in)	Blow Counts	Depth in Foot	Soil/Rock Description And Geologic Origin For: Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
				Asphalt at surface										
S1			1.0	Silty clay with some fine to coarse gravel, poorly graded, dark gray, slight odor	CL			5						
S2			3.0					19						
S3			5.0	Gravelly sand with little silt, poorly graded, olive gray, saturated, slight odor	SP	▽		107						
S4			7.0					587						
S5			9.0	Sand with trace of silt, well graded, olive gray, saturated little to no odor	SM			37						
S6			11.0					7						
S7			13.0	Gravelly sand, poorly graded, olive gray, saturated, no odor	SP			3						
			15.0	E.O.B. = 15.0 feet										

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature: Amy C. Powers
Firm: Environmental Associates, Inc.

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☐ Wastewater ☐ Water Resources
☐ Other

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Rolling Thunder Motorcycle Shop		B2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Giles Drilling, Dale Gruss	07/18/97	07/18/97	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.5 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
SE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E/W

Local Grid Location (If applicable)
☐ N ____ Feet ☐ S ☐ E ____ Feet ☐ W

County: Walworth
DNR County Code:
Civil (Town)/City/ or Village: Sugar Creek

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For: Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
				Asphalt at Surface.										
S1			1.0	Gravelly sand, poorly graded, light brown, no odor.	SP			4						
S2			3.0	Silty clay with trace of coarse gravel, streaks of reddish brown and streaks of greenish gray, moist, slight odor.	CL			29						
S3			5.0	Clay with occasional gravel, greenish gray moist, slight odor	CL	▽		277						
S4			9.0	Clay, olive gray, wet, slight odor.	CH			215						
S5			11.0	Silty clay, with occasional fine sand, dark grey, wet, slight odor.	CL			83						
S6			13.0	Gravelly sand, poorly graded, olive gray, saturated, no odor	SP			183						
S7			15.0					9						
				E.O.B. = 15 feet										

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature: Craig C. Porreca
Firm: Environmental Associates, Inc.

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Department of Natural Resources

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☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name: Rolling Thunder Motorcycle Shop
License/Permit/Monitoring Number:
Boring Number: B3

Boring Drilled By (Firm name and name of crew chief): Giles Drilling, Dale Gruss
Date Drilling Started: 07/18/97 (M M D D Y Y)
Date Drilling Completed: 07/18/97 (M M D D Y Y)
Drilling Method: Geoprobe

DNR Facility Well No.:
WI Unique Well No.:
Common Well Name:
Final Static Water Level: ____ Feet MSL
Surface Elevation: ____ Feet MSL
Borehole Diameter: 1.5 inches

Boring Location
State Plane ____ N, ____ E S/C/N
Lat ____ Long ____
SE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 (E/W)
Local Grid Location (If applicable): ☐ N ☐ E ____ Feet ☐ S ____ Feet ☐ W

County: Walworth
DNR County Code:
Civil (Town) City/ or Village: Sugar Creek

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For: Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
				Asphalt at Surface										
S1			1.0	Gravelly sand with little silt, poorly graded, reddish-brown, slight odor	SP			4						
S2			3.0	Clay with trace of silt and occasional sand, greenish-gray, moist, slight odor.	CL	▽		76						
S3			5.0	Note: silty sand lens at 5 feet.	SM									
					CL			81						
S4			7.0	Sand with some silty clay, poorly graded, olive gray, wet, little to no odor.	SP			16						
S5			9.0	Gravelly sand, poorly graded, olive gray, saturated, no odor	SP			5						
S6			11.0	Note: silty clay lens at 12 feet				3						
			12.0		CL									
S7			13.5		SP			4						
			15	E.O.B. = 15 feet										

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature: Amy C. Pomeroy
Firm: Environmental Associates, Inc.

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☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Rolling Thunder Motorcycle Shop		B4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Giles Drilling, Dale Gruss	07/18/97	07/18/97	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.5 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E/W

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County: Walworth | DNR County Code | Civil Town/City/ or Village: Sugar Creek

Sample Number	Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For: Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
				Asphalt at surface.										
			1.0	Gravelly sand with some clayey silt, poorly graded, reddish-brown, no odor.	SC			1						
			3.0											
			5.0	Clay with some silt, reddish-brown with occasional greenish-gray streaks, no odor.	CL			4						
			7.0					2						
			9.0	Gravelly sand with some silt, poorly graded, olive gray, wet, no odor.	SP	▽		3						
			11.0	Sandy clay, olive gray, wet, no odor.	CL			3						
			13.5	Sand with occasional gravel and some silt, olive gray, wet, no odor	SM			3						
			15.0	E.O.B. = 15 feet										

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

Signature: Craig C. Pomeroy | Firm: Environmental Associates, Inc.

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION

Form 4400-122 7-91

Facility/Project Name: Rolling Thunder Motorcycle Shop
License/Permit/Monitoring Number:
Page ___ of ___
Boring Number:

Boring Drilled By (Firm name and name of crew chief): Giles Drilling, Dale Gruss
Date Drilling Started: 07/18/97 (M M D D Y Y)
Date Drilling Completed: 07/18/97 (M M D D Y Y)
Drilling Method: Geoprobe

DNR Facility Well No.:
WI Unique Well No.:
Common Well Name:
Final Static Water Level: ___ Feet MSL
Surface Elevation: ___ Feet MSL
Borehole Diameter: 1.5 inches

Boring Location
State Plane ___ N, ___ E S/C/N
Lat ___ Long ___
SE 1/4 of NE 1/4 of Section 13, T 5 N, R 16 E/W
Local Grid Location (If applicable)
☐ N ___ Feet ☐ S ☐ E ___ Feet ☐ W

County: Walworth
DNR County Code:
Civil Town/City/ or Village: Sugar Creek

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Foot	Soil/Rock Description And Geologic Origin For: Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
				Asphalt at surface.										
S1			1.0	Gravelly sand with some clayey silt, poorly graded, reddish brown, no odor.	SC			0						
S2			3.0	Silty clay with occasional sand, greenish-gray, no odor. Note: reddish-brown streaks from 5-7 feet	CL			1						
S3			5.0					1						
S4			7.0					1						
			8.0	Sand with some silt and occasional gravel, olive gray, wet, no odor.	SM	▽		2						
S5			9.0	Gravelly sand with some silt, poorly graded, brown, wet, no odor.	SP			2						
S6			11.0	Silty clay with coarse gravel throughout, brownish gray, wet, no odor.	CL			2						
S7			13.0					2						
			15.0	E.O.B. = 15 feet										

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature: Amy C. Pomeroy
Firm: Environmental Associates, Inc.

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Abells Corners Restaurant/Rolling Thunder Motorcycle Shop	— — — — — — — —	MW-1

Boring Drilled By (firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Badger State Drilling Co.	03/30/98 (M M D D Y Y)	06/30/98 (M M D D Y Y)	Hollow-stem Auger

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — —	MW-1	_____ Feet MSL	_____ Feet MSL	8.25 inches

Boring Location
State Plane _____ N. _____ E S/C/N
NE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E

Lat ___ ___ ___
00
Long ___ ___ ___

Local Grid Location (if applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Walworth	65	Elkhorn

Sample Number	Sample Length Recovered	Sample Blow	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
			2	1" - Asphalt underlain by crushed stone to 1' 1'-11.5' = CLAY/SILT, gray to black	Fill ML/ CL					M				
1	2'	4 9 7 10	4 6	**4-6'** SILT/CLAY, gray to black weathered gas odor @5' = saturated	ML/ CL			486		M Wet				
			8											
2	1.5'	3 4 3 6	10 12	**10-12'** SILT/CLAY, S.A.A. to 11.5' @11.5' = SAND, medium-grain, black, odor	ML/ CL SP			5		Wet				
			14	E.O.B. 13.5'										
			16											
			18											
			20											

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

Signature: P. Doyle for Mark Janowiak

Firm: ECCI, P. O. BOX 6438, Madison, WI 53716

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Abells Corners Restaurant/Rolling Thunder Motorcycle Shop	— — — — — — — —	**MW-2**

Boring Drilled By (firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Badger State Drilling Co.	03/30/98 (M M D D Y Y)	06/30/98 (M M D D Y Y)	Hollow-stem Auger

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	MW-2	_____ Feet MSL	_____ Feet MSL	8.25 inches

Boring Location
State Plane _____ N. _____ E S/C/N
NE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E

Lat — — — — — —
00
Long — — — — — —

Local Grid Location (if applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Walworth	65	**Elkhorn**

Sample Number	Sample Length Recovered	Sample Blow	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
			2	1" - Asphalt underlain by crushed stone to 3'	Fill					M				
			4	3' to ~5' or 6' = CLAY/SILT, gray to black	ML/ CL									
1	2'	3 6 4 7	6	**4-6'** SILT/CLAY, gray to black strong petroleum odor @5' = saturated @~5-6' = SILT/SAND, fine grain w/trace fine gravel, gray	ML/ CL SW/ ML			216		M Wet				
			8											
2	2'	2 9 5 10	10	**10-12'** SILT/SAND, fine-grain w/trace gravel, gray to black, saturated odor	ML/ SW			18		Wet				
			12											
			14	E.O.B. 13.5'										
			16											
			18											
			20											

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

Signature	Firm
P. Doyle for Mark Janowiak	**ECCI, P. O. BOX 6438, Madison, WI 53716**

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Abells Corners Restaurant/Rolling Thunder Motorcycle Shop	— — — — — — — —	**MW-3**

Boring Drilled By (firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Badger State Drilling Co.	03/30/98 (M M D D Y Y)	06/30/98 (M M D D Y Y)	Hollow-stem Auger

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	MW-3	_____ Feet MSL	_____ Feet MSL	8.25 inches

Boring Location
State Plane _____ N. _____ E S/C/N
Lat ___ ___ ___ Long ___ ___ ___ 00
Local Grid Location (if applicable) ☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

NE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E

County	DNR County Code	Civil Town/City/or Village
Walworth	65	**Elkhorn**

Sample Number	Sample Length Recovered	Sample Blow	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
			2	1" - Asphalt underlain by crushed stone to 2'	Fill					M				
				2' to ~7' = CLAY/SILT, gray green to black	ML/ CL									
1	2'	5 8 7 10	4	**4-6'** SILT/CLAY, gray to black no odor	ML/ CL			0		M				
			6	@5.5' = saturated						Wet				
			8	@7' = SAND, fine grain w/ trace fine gravel & silt, gray	SW									
2	2'	5 7 6 9	10	**10-12'** SAND, coarse grain & gravel, black, no odor	SW			0		Wet				
			12	E.O.B. 13.5'										
			14											
			16											
			18											
			20											

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

Signature	Firm
P. Doyle for Mark Janowiak	**ECCI, P. O. BOX 6438, Madison, WI 53716**

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Abells Corners Restaurant/Rolling Thunder Motorcycle Shop	— — — — — — — —	**MW-4**

Boring Drilled By (firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Badger State Drilling Co.	03/30/98 (M M D D Y Y)	06/30/98 (M M D D Y Y)	Hollow-stem Auger

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	MW-4	_____ Feet MSL	_____ Feet MSL	8.25 inches

Boring Location
State Plane _____ N. _____ E S/C/N
NE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E

Lat ___ ___ ___
00
Long ___ ___ ___

Local Grid Location (if applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Walworth	65	**Elkhorn**

Sample Number	Sample Length Recovered	Sample Blow	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
			2	1" - Asphalt underlain by crushed stone to 2'	Fill					M				
			2	2' to ~10' = CLAY/SILT, gray green to brown	ML/ CL									
1	2'	5 7 6 8	4	**4-6'** SILT/CLAY, gray to brown no odor	ML/ CL			0		M				
			6											
			8											
2	2'	7 8 11 13	10	**10-12'** SAND, coarse grain w/some gravel, gray to black, saturated no odor	SW			0		Wet				
			12											
			14	E.O.B. 13.5'										
			16											
			18											
			20											

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

Signature	Firm
P. Doyle for Mark Janowiak	**ECCI, P. O. BOX 6438, Madison, WI 53716**

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State of Wisconsin
[redacted]partment of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Abells Corners Restaurant/Rolling Thunder Motorcycle Shop	— — — — — — — —	**MW-5**

Boring Drilled By (firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Badger State Drilling Co.	03/30/98 (M M D D Y Y)	06/30/98 (M M D D Y Y)	Hollow-stem Auger

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — —	MW-5	_____ Feet MSL	_____ Feet MSL	8.25 inches

Boring Location
State Plane _____ N. _____ E S/C/N
Lat ___ ___ ___ 00 Long ___ ___ ___
Local Grid Location (if applicable) ☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

NE 1/4 of NE 1/4 of Section 13, T 3 N, R 16 E

County	DNR County Code	Civil Town/City/or Village
Walworth	65	Elkhorn

Sample Number	Sample Length Recovered	Blow	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			2	1" - Asphalt underlain by crushed stone to 2'	Fill					M				
			4	2' to ~7' = CLAY/SILT, gray-green to black,	ML/ CL									
1	1.5'	3 6 5 8	6	**4-6'** SILT/CLAY, gray to black no odor @5.5' = saturated	ML/ CL			3		M Wet				
			8	@~7' = SAND, fine grain w/ trace fine gravel & silt, gray	SW									
2	2'	7 11 8 14	10 12	**10-12'** SAND, coarse grain w/some gravel, gray, saturated, slight odor	SW			58		Wet				
			14 16 18 20	E.O.B. 13.5'										

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

Signature: P. Doyle for Mark Janowiak

Firm: **ECCI, P. O. BOX 6438, Madison, WI 53716**

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DELIVERED JUL 20 2007

GIS REGISTRY INFORMATION

SITE NAME: Abells Corners

BRRTS #: 03-65-107090 **FID # (if appropriate):** 265021680

COMMERCE # (if appropriate): 53121-3956-19

CLOSURE DATE: 5-30-07

STREET ADDRESS: N6419 HWY 12 Sub 7/23/07

CITY: Sugar Creek

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): X= 639296 Y= 251325

CONTAMINATED MEDIA: Groundwater [ ] Soil [ ] Both [X]

OFF-SOURCE GW CONTAMINATION >ES: [ ] Yes [X] No

IF YES, STREET ADDRESS 1:

GPS COORDINATES (meters in WTM91 projection): X= Y=

CHECKED JUL 23 2007

OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL): [ ] Yes [X] No

IF YES, STREET ADDRESS 1:

GPS COORDINATES (meters in WTM91 projection): X= Y=

CONTAMINATION IN RIGHT OF WAY: [X] Yes [ ] No

DOCUMENTS NEEDED:

Closure Letter, and any conditional closure letter or denial letter issued [X]

Copy of most recent deed, including legal description, for all affected properties [X]

Certified survey map or relevant portion of the recorded plat map ***(if referenced in the legal description)*** **for all affected properties** [ ]

County Parcel ID number, ***if used for county*****, for all affected properties** PIN: 6 SC1300006 [X]

Location Map which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site. [X]

Detailed Site Map(s) for all affected properties, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs. [X]

Tables of Latest Groundwater Analytical Results (no shading or cross-hatching) [X]

Tables of Latest Soil Analytical Results (no shading or cross-hatching) [X]

Isoconcentration map(s), ***if required for site investigation (SI)*** **(**8.5x14" if paper copy**)**. The isoconcentration map should have flow direction and extent of groundwater contamination defined. **If not available, include the latest extent of contaminant plume map.** [X]

GW: Table of water level elevations, with sampling dates, and free product noted if present [X]

GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees) [X]

SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour [X]

Geologic cross-sections, ***if required for SI.*** (8.5x14' if paper copy) [X]

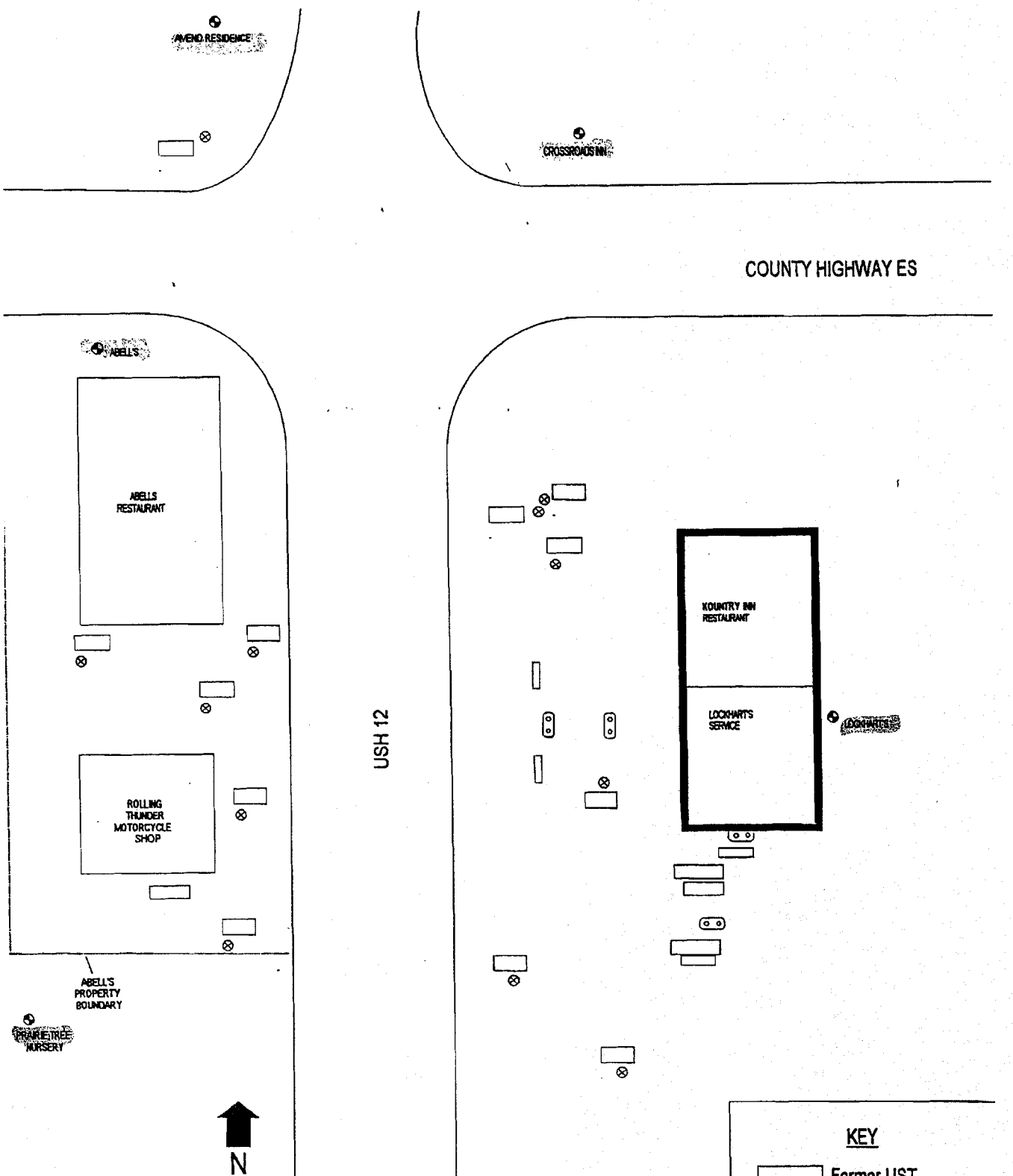
RP certified statement that legal descriptions are complete and accurate [X]

Copies of off-source notification letters (if applicable) NA

Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW) [X]

Copy of (soil or land use) deed restriction(s) or deed notice ***if any required as a condition of closure*** NA

Copy of any maintenance plan referenced in the deed restriction. NA



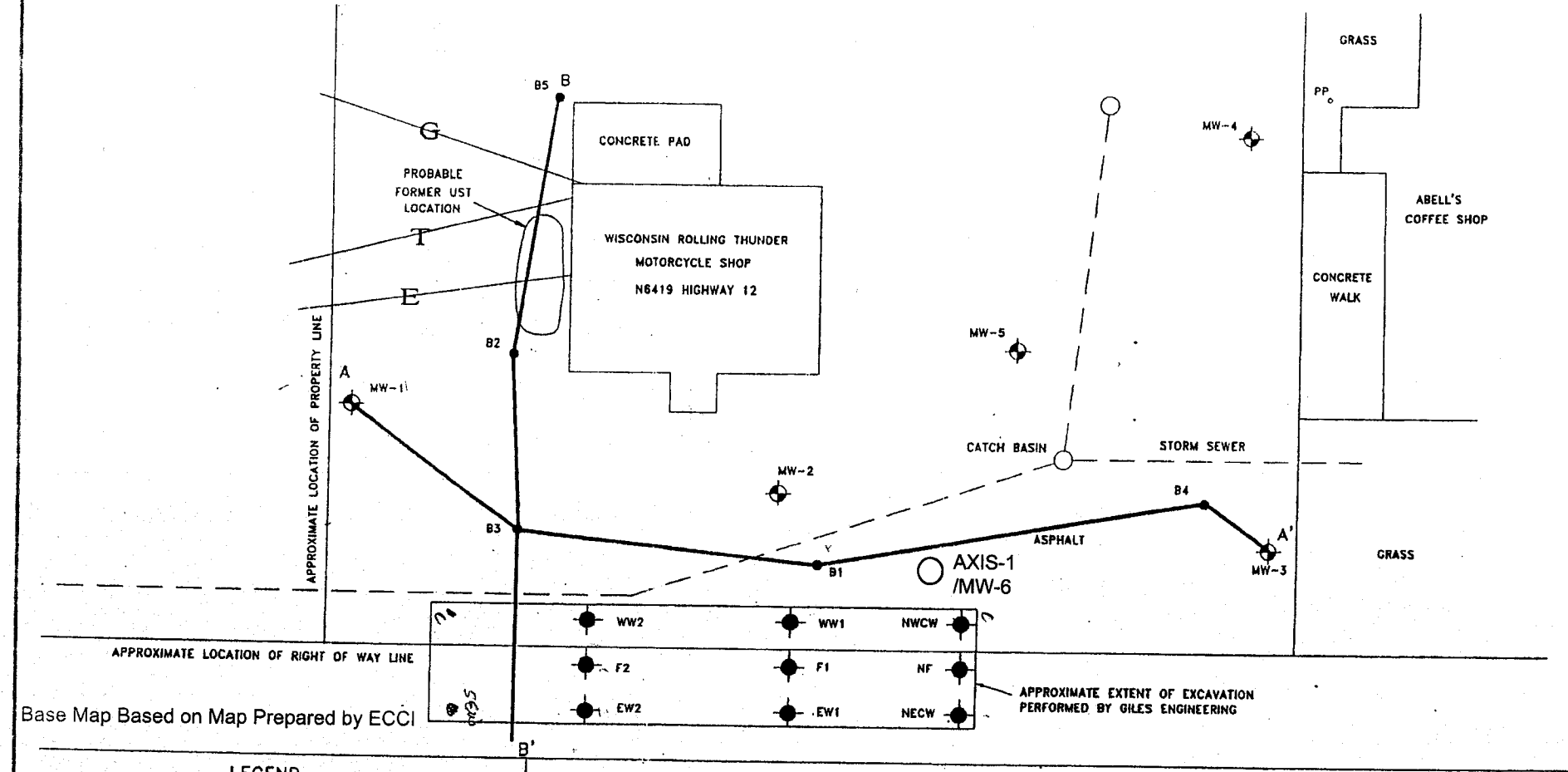
ABELL'S CORNERS, ELKHORN, WI

Figure 3. Site Vicinity With Nearby Private Well Locations

Date: June 11, 1999 | Scale: 1" = ~60'

Environmental Compliance Consultants, Inc. | By: M. Jangwiak

Note: former UST locations and dimensions approximate



Base Map Based on Map Prepared by ECCI

ABELL'S CORNER
Elkhorn, WI
Figure 1. Soil Boring and Monitoring Well Locations

AXIS CONSULTING
P.O. BOX 709, BROOKFIELD, WI 53008

TABLE 1

SOIL ANALYTICAL RESULTS

Abells Corners Restaurant Site, Elkhorn, Wisconsin

Soil Boring	Depth (ft.)	USCS	PID	Parameter									
			(i.u.)	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	1,2,4-TMB	1,3,5-TMB	Xylenes	GRO	Lead
NR 720 Standard:				5.5 ug/kg	2900 ug/kg			1500 ug/kg			4100 ug/kg	100 mg/kg	50 mg/kg
Environmental Associates, Inc. Soil Boring Results July 18, 1997													
Boring B1	5-7	SP	107	< 25	590	< 25	370	< 25	450	590	227	81	6
	7-9	SP	587	< 250	**64,000**	< 250	30,000	**6,300**	76,000	33,000	**156,000**	**2,600**	4
	13-15	SP	3	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 10	< 3
Boring B2	5-7	CL	277	< 250	**20,000**	< 250	17,000	1,400	22,000	14,000	**13,000**	**1,300**	**62**
	7-9	CH	215	< 25	610	< 25	1,130	177	2,300	1,010	1,620	**130**	7
	13-15	SP	9	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 10	< 3
Boring B3	3-5	CL	76	< 25	2,400	< 25	360	179	880	1,500	967	**210**	18
	5-7	CL	81	< 250	**3,300**	< 250	1,880	< 250	1,430	2,320	1,250	**250**	10
	13-15	SP	4	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 10	< 3
Boring B4	7-9	SP	2	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 10	9
Boring B5	7-9	CL/SM	2	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 10	12
Environmental Compliance Consultants, Inc. Soil Boring Results March 30, 1998													
Monitoring Well MW-1	4-6	ML/CL	486	< 25	< 25	< 25	--	< 25	390 48	< 25	68	58	--
Monitoring Well MW-2	4-6	ML/CL	216	< 62	1,000	< 62	--	< 62	3,000	4,300	**8,400**	**250**	--
	10-12	SW/ML	18	< 25	87	< 25	--	< 25	120	100	380	7.9	--
Monitoring Well MW-3	4-6	ML/CL	0	< 25	< 25	< 25	--	< 25	< 25	< 25	< 50	< 3.2	--
Monitoring Well MW-4	4-6	ML/CL	0	< 25	< 25	< 25	--	< 25	< 25	< 25	< 50	< 3.3	--
	10-12	SW	0	< 25	< 25	< 25	--	< 25	< 25	< 25	< 50	< 2.9	--
Monitoring Well MW-5	4-6	ML/CL	3	< 25	< 25	< 25	--	< 25	< 25	< 25	< 50	< 3.0	--
	10-12	SW	58	< 25	< 25	< 25	--	< 25	< 25	< 25	< 50	< 2.9	--

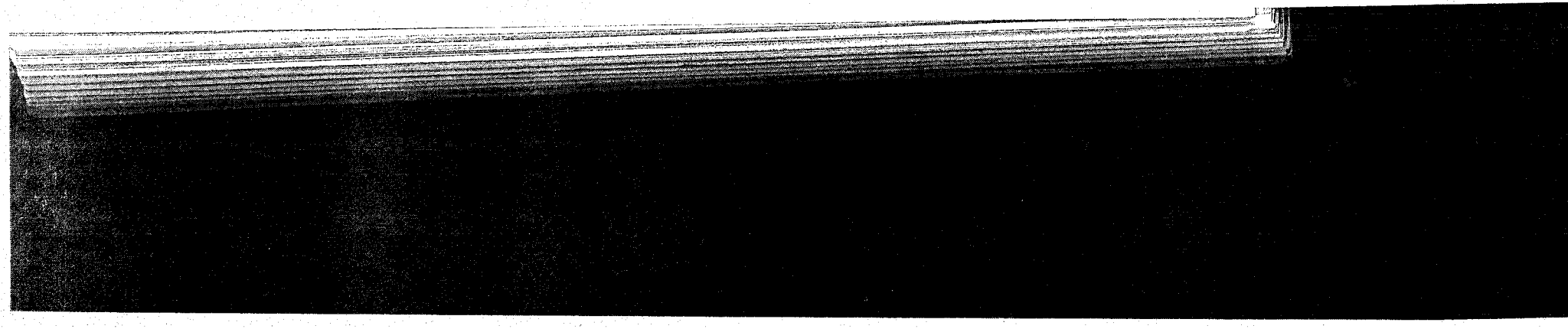


TABLE 2

Summary of Groundwater Sample Analytical Results
Abell's Corner Restaurant
N6419 Highway 12
Elkhorn, WI 53212

Well No.	Date	Benzene ppb	Toluene ppb	Ethybenzene ppb	Xylenes ppb	TMBs ppb	MTBE ppb	Naphthalene ppb
ES		5	1,000	700	10,000	480	60	40
PAL		0.5	200	140	1,000	96	12	8
MW-1	3/31/1998	3.6	11	14	72	23	1.4	7.2
	6/29/1998	0.28	0.73	*0.24*	3.39	13.4	0.36	NA
	12/16/1998	*0.26*	0.43	*0.24*	1.98	*0.86*	0.57	NA
	9/21/1999	*0.27*	0.30	*0.32*	*0.43*	*0.26*	*0.32*	*0.35*
	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	7/6/2005	*0.25*	0.24	1.2	5.5	2.9	*0.23*	NA
	9/16/2005	*0.443*	*0.442*	*0.568*	*1.484*	*1.248*	*0.298*	*1.214*
MW-2	3/31/1998	**15**	50	230	1,140	326	*0.80*	**160**
	6/29/1998	*1.30*	8	71	330	290	4.1	NA
	12/16/1998	*0.26*	0.29	*0.24*	*0.37*	0.86	0.62	NA
	6/24/1999	*0.27*	0.53	1.5	4.3	7	*0.32*	0.77
	9/21/1999	**53**	85	350	1,730	460	*3.2*	**290**
	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	**18.7**	10.7	56.9	226	77.1	5.28	**42.4**
	7/6/2005	*0.6*	20	110	500	163	*0.46*	NA
	9/16/2005	1.646	7.849	52	219	78.0	*0.298*	26
MW-3	3/31/1998	0.37	1.1	*0.32*	*0.77*	0.22	0.55	*0.35*
	6/29/1998	*0.26*	0.59	*0.24*	*0.37*	*0.86*	*0.22*	NA
	12/16/1998	*0.26*	*0.21*	*0.24*	*0.37*	*0.86*	*0.22*	NA
	9/21/1999	*0.27*	0.29	*0.32*	*0.43*	*0.27*	*0.32*	*0.35*
	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	7/6/2005	*0.25*	*0.11*	*0.22*	*0.39*	*0.44*	*0.23*	NA
	9/16/2005	*0.443*	*0.442*	*0.568*	3.587	3.104	*0.298*	23
MW4	3/31/1998	0.46	1.3	*0.32*	0.84	*0.27*	0.73	*0.35*
	6/29/1998	*0.26*	0.25	*0.24*	*0.37*	*0.86*	0.47	NA
	12/16/1998	*0.26*	1.1	*0.24*	1.43	*0.86*	0.52	NA
	9/21/1999	*0.27*	0.38	*0.32*	*0.43*	*0.27*	*0.32*	*0.35*
	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	7/6/2005	*0.25*	*0.11*	*0.22*	*0.39*	*0.44*	*0.23*	NA
	9/16/2005	*0.443*	*0.442*	*0.568*	*1.484*	*1.248*	*0.298*	*1.214*
MW-5	3/31/1998	0.40	1.0	*0.32*	0.50	*0.27*	0.74	*0.35*
	6/29/1998	0.31	0.42	*0.24*	1.20	*0.86*	*0.22*	NA
	12/16/1998	*0.26*	2.0	25	1.04	94	3.9	NA
	9/21/1999	*0.27*	0.46	*0.32*	0.59	*0.27*	0.40	*0.35*
	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	7/6/2005	*0.25*	*0.11*	*0.22*	0.66	0.82	*0.23*	NA
	9/16/2005	*0.443*	*0.442*	*0.568*	*1.484*	*1.248*	*0.298*	*1.214*
AXIS-1/MW6	6/1/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	10/21/2004	*0.5*	*5*	*5*	*5*	*10*	*1*	*8*
	7/6/2005	*0.25*	*0.11*	*0.22*	*0.39*	*0.44*	*0.23*	NA
	9/16/2005	*0.443*	*0.442*	*0.568*	*1.484*	*1.248*	*0.298*	*1.214*

TABLE 2

Summary of Groundwater Sample Analytical Results

Abell's Corner Restaurant

N6419 Highway 12

Elkhorn, WI 53212

Well No.	Date	Benzene ppb	Toluene ppb	Ethybenzene ppb	Xylenes ppb	TMBs ppb	MTBE ppb	Naphthalene ppb
ES		5	1,000	700	10,000	480	60	40
PAL		0.5	200	140	1,000	96	12	8

Notes:

Bold values indicate concefltrations that exceed NR 140 ES.

Italicized values indicate detection limit, the concentration was below detection limit.

ES=NR 140 Enforcement Standard

PAL=NR 140 Preventive Action limit

GRO=gasoline range organics

DRO=diesel range organics

NE=standard not established

NA -not analyzed

ppb - parts per billion (uglE)

ppm - parts per million (mWL)

B = benzene

T = toluene

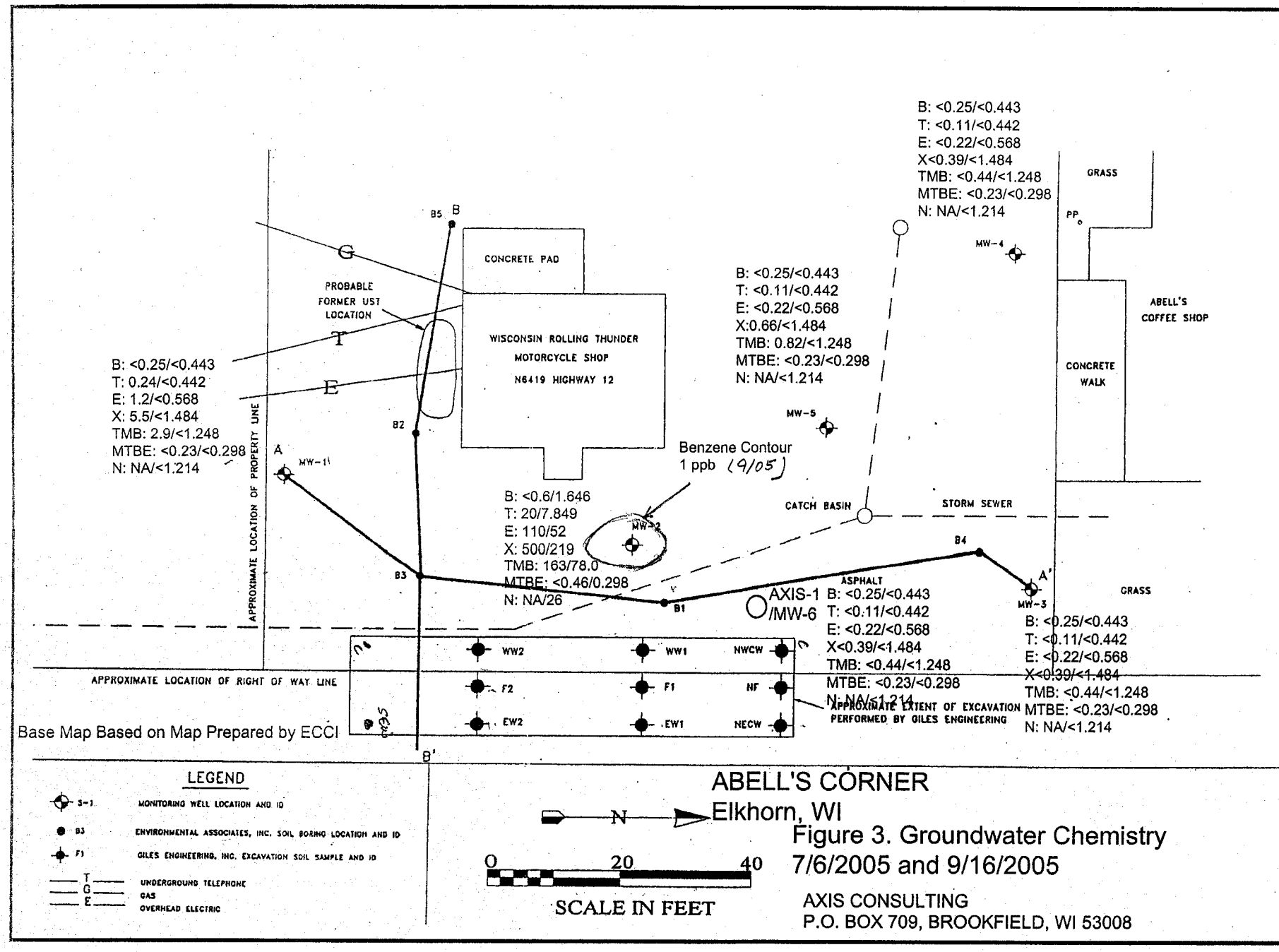
E = etylbenzenc

X = total xylenes

TMB: total trimethylbenzene

MTBE = methyl tert butyl ether

1,2-DCA = 1,2-Dichioroethane



ABELL'S CORNER

Elkhorn, WI

Figure 3. Groundwater Chemistry
7/6/2005 and 9/16/2005

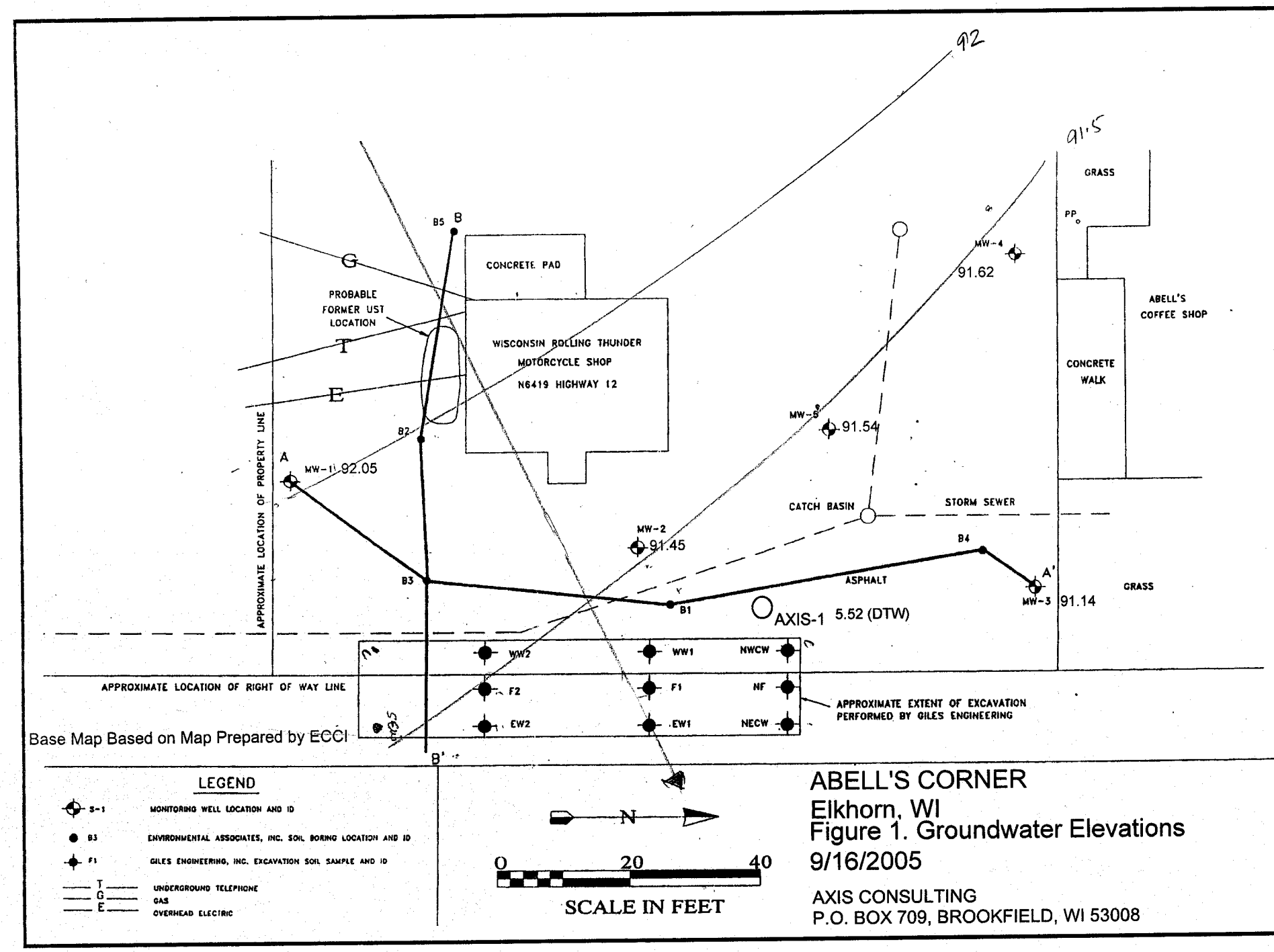
AXIS CONSULTING
P.O. BOX 709, BROOKFIELD, WI 53008

Table 1
Groundwater Monitoring Data
Abell's Corner Restaurant
N6419 Highway 12
Elkhorn, WI 53212

Well No.	Date	PVC Pipe Elevation	Depth to Water	Groundwater Elevation
		ft, Benchmark	ft	ft, Benchmark
MW-1	3/31/1998	97.41	4.91	92.50
	6/29/1998	97.41	4.38	93.03
	12/16/1998	97.41	5.75	91.66
	9/21/1999	97.41	6.30	91.11
	4/5/2002	97.41	4.84	92.57
	6/1/2004	97.41	3.80	93.61
	10/21/2004	97.41	5.32	92.09
	7/6/2005	97.41	3.82	93.59
	9/16/2005	97.41	5.36	92.05
MW-2	3/31/1998	97.47	5.12	92.35
	6/29/1998	97.47	4.61	92.86
	12/16/1998	97.47	5.91	91.56
	9/21/1999	97.47	6.44	91.03
	4/5/2002	97.47	4.92	92.55
	6/1/2004	97.47	4.05	93.42
	10/21/2004	97.47	5.58	91.89
	7/6/2005	97.47	4.10	93.37
	9/16/2005	97.47	6.02	91.45
MW-3	3/31/1998	97.46	5.44	92.02
	6/29/1998	97.46	4.91	92.55
	12/16/1998	97.46	6.13	91.33
	9/21/1999	97.46	6.64	90.82
	4/5/2002	97.46	5.32	92.14
	6/1/2004	97.46	4.38	93.08
	10/21/2004	97.46	5.91	91.55
	7/6/2005	97.46	4.76	92.70
	9/16/2005	97.46	6.32	91.14
MW-4	3/31/1998	97.47	5.16	92.31
	6/29/1998	97.47	4.73	92.74
	12/16/1998	97.47	6.02	91.45
	9/21/1999	97.47	6.59	90.88
	4/5/2002	97.47	5.14	92.33
	6/1/2004	97.47	3.97	93.50
	10/21/2004	97.47	5.48	91.99
	7/6/2005	97.47	4.29	93.18
	9/16/2005	97.47	5.85	91.62
MW-5	3/31/1998	96.88	4.51	92.37
	6/29/1998	96.88	4.05	92.83
	12/16/1998	96.88	5.36	91.52
	9/21/1999	96.88	5.89	90.99
	4/5/2002	96.88	4.46	92.42
	6/1/2004	96.88	3.43	93.45
	10/21/2004	96.88	4.95	91.93
	7/6/2005	96.88	3.82	93.06
	9/16/2005	96.88	5.34	91.54
AXIS-1/MW-6	6/1/2004		3.59	
	10/21/2004		5.11	
	7/6/2005		3.96	
	9/16/2005		5.52	

Notes:

PVC pipe elevations are taken from ECCI Site Invesfigation Report



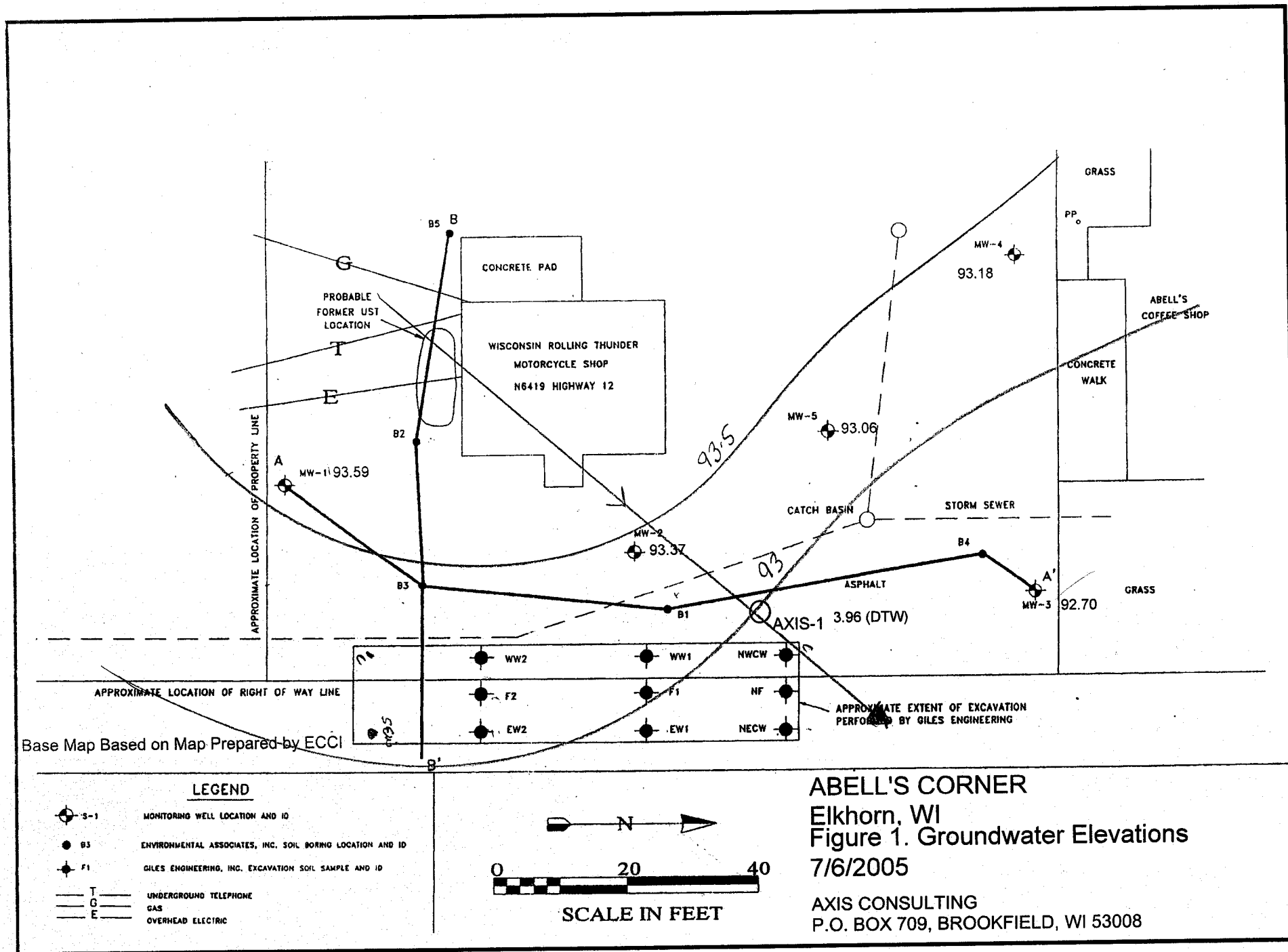
ABELL'S CORNER

Elkhorn, WI

Figure 1. Groundwater Elevations

9/16/2005

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ABELL'S CORNER

Elkhorn, WI

Figure 1. Groundwater Elevations

7/6/2005

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TABLE 2

SOIL ANALYTICAL RESULTS

ABELL'S CORNERS
SWC USH 12 AND CTH ES
TOWN OF SUGAR CREEK, WALWORTH COUNTY, WISCONSIN
WISDOT PROJECT NO. 3020-00-72
PROJECT NO. 1E-9604049

Sample No.	Date Collected	Depth (feet)	PID (HNu Units)	GRO (mg/kg)	Lead (mg/kg)	PVOCs (µg/kg)						
						B	E	T	X	MTBE	1,2,4-TMB	1,3,5-TMB
*Pump Island	4-23-96	7	150-200	1500	8.2	550	4000	4200	20,000	<PQL	13,000	7200
NW Corner Wall	5-2-96	5	20	7.9	<LOD	<LOD	<LOD	35	<LOD	<LOD	61	<LOD
N Wall	5-2-96	5	BDL	<LOD	NA	<LOD	<LOD	<LOD	<LOD	<LOD	34	<LOD
N Floor	5-2-96	7	5	4.9	<LOD	<LOD	55	<LOD	220	<LOD	32	<LOD
NE Corner Wall	5-2-96	5	8	0.94	NA	<LOD	<LOD	<LOD	<LOD	<LOD	47	<LOD
WW-1	5-2-96	4	220	4200	6.6	770	12,000	11,000	71,000	<LOD	56,000	20,000
F-1	5-2-96	7	200	1300	<LOD	270	3100	2300	18,000	<LOD	11,000	3700
EW-1	5-2-96	5	40	59	NA	<LOD	260	170	1100	<LOD	430	410
WW-2	5-2-96	6	110	1600	4.9	560	3300	4700	21,000	<LOD	20,000	6600
F-2	5-2-96	7	60	81	NA	<LOD	200	88	810	<LOD	86	360
EW-2	5-2-96	5	BDL	6.5	<LOD	<LOD	73	30	210	<LOD	170	60
SW Wall	5-2-96	5	BDL	<LOD	NA	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD

TABLE 2 (Continued)

SOIL ANALYTICAL RESULTS

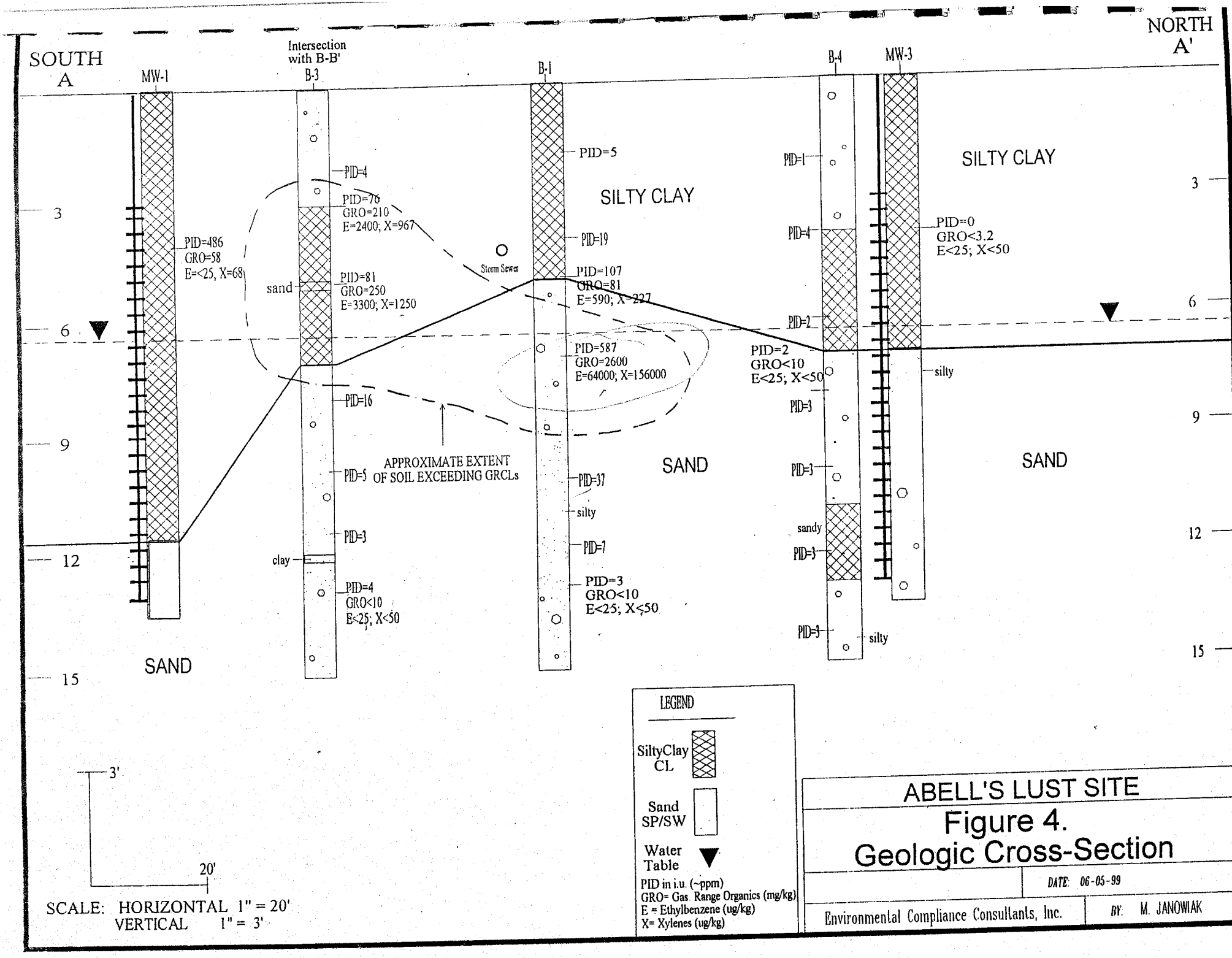
Sample No.	Date Collected	Depth (feet)	PID (HNu Units)	GRO (mg/kg)	Lead (mg/kg)	PVOCs (µg/kg)						
						B	E	T	X	MTBE	1,2,4-TMB	1,3,5-TMB
S Floor	5-2-96	8	BDL	<LOD	NA	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
SE Wall	5-2-96	4	BDL	<LOD	2.5	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
S Wall	5-2-96	5	BDL	<LOD	NA	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Field Blank	5-2-96	--	NA	<LOD	NA	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
NR 720.09 Residual Contamination Level (RCL) presented in same units as compound.				100	50	5.5	2900	1500	4100	No RCL	No RCL	No RCL

* Sample collected from test trench and used to obtain biosite disposal approval.

BDL Below Detection Limit
<PQL Less than Practical Quantitation Limit
<LOD Less than Limit of Detection
NA Not Analyzed
mg/kg milligrams per kilogram
µg/kg micrograms per kilogram
PID photoionization detector measured in HNu units
GRO gasoline range organics

PVOC Petroleum Volatile Organic Compounds
B Benzene
T Toluene
E Ethylbenzene
X Xylene (Total)
MTBE Methyl tert butyl ether
TMB trimethylbenzene

(1e960449.t4/djr)



ABELL'S LUST SITE

Figure 4. Geologic Cross-Section

DATE: 06-05-99

Environmental Compliance Consultants, Inc.

BY: M. JANOWIAK

WEST
B

EAST
B'

B-5

B-2

Intersection with A-A'
B-3

B-1

Highway 12

Giles Engineering Excavation

SAND

PID=0

PID=4

PID=4

PID=76
GRO=210
E=2400; X=967

Gas Phone

Storm Sewer

Former UST Area

PID=1

PID=29

PID=277
GRO=1300
E=20000; X=13000

sand

PID=81
GRO=250
E=3300; X=1250

SILTY CLAY

SILTY CLAY

PID=1

PID=2
GRO<10
E<25; X<50

PID=215
GRO=130
E=610; X=1620

PID=16

APPROXIMATE EXTENT OF SOIL EXCEEDING GRCLs

silty

PID=5

PID=2

PID=83

silty

PID=3

SAND

SAND

PID=2

PID=183

clay

PID=2

PID=9
GRO<10
E<25; X<50

PID=4
GRO<10
E<25; X<50

PID=2

3

6

9

12

15

3'

20'

SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 3'

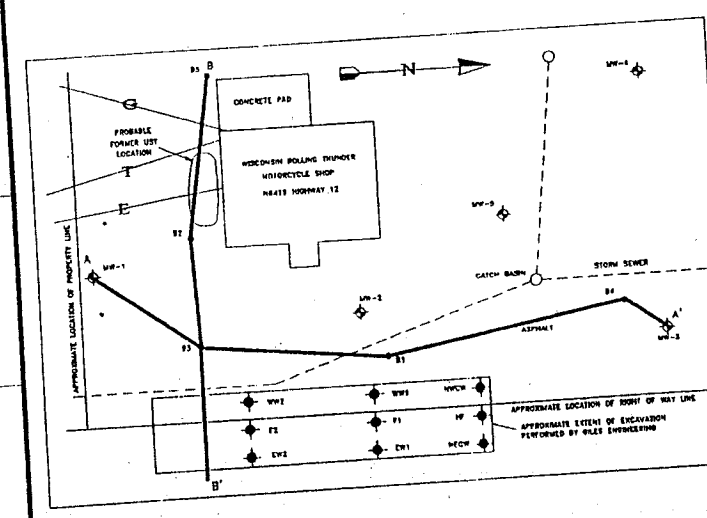
LEGEND

SiltyClay CL

Sand SP/SW

Water Table

PID in i.u. (~ppm)
GRO= Gas. Range Organics (mg/kg)
E = Ethylbenzene (ug/kg)
X= Xylenes (ug/kg)



ABELL'S LUST SITE

Figure 5.
Geologic Cross-Section

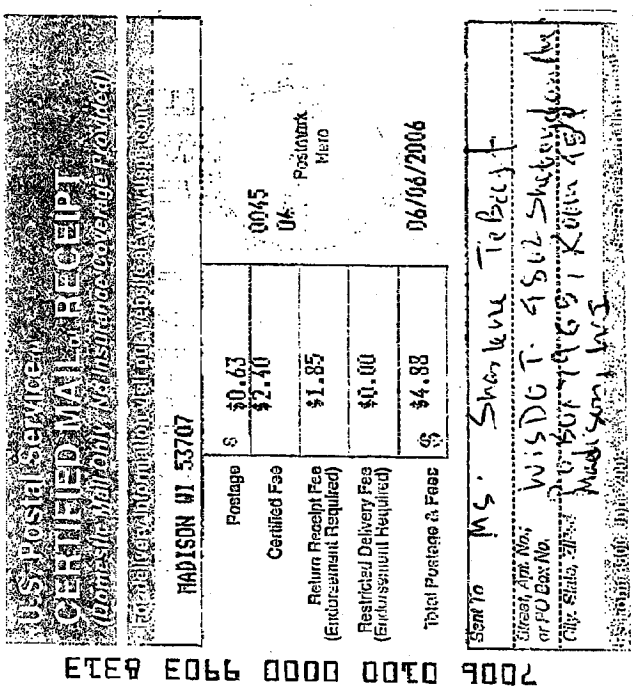
DATE: 06-05-99

Environmental Compliance Consultants, Inc.

BY: M. JANOWIAK

Attention –
Ms. Brenda Boyce
WDNR, REMED & REDEV
Waukesha Service Center

AXIS CONSULTING, LLC
VIRENDRA S. VERMA



CERTIFIED MAIL

June 5, 2006

Ms. Sharlene TeBeest
Hazardous Materials Specialist
Wisconsin Department of Transportation
Bureau of Environment
4802 Sheboygan Ave
PO Box 7965, Room 451
Madison, WI 53707-7965

Subject: **Notice of Residual Contamination Within Public Street Right-of Way**
Abell's Corner Restaurant, N6427 Highway 12, Elkhorn, WI 53121
COMM # 53121-3956-19, WDNR BRRTS # 03-65-107090, FID# 265021680

Dear Ms. TeBeest:

On behalf of our client, Ms. Cynthia Ahearn-McKenna, we are notifying the Wisconsin Department of Transportation regarding the potential presence of residual petroleum hydrocarbons within the Public Street Right-of-Way at the referenced site. We are in the process of obtaining site closure by the Wisconsin Department of Natural Resources (WDNR) upon the condition of filing GIS registry information and notifying the municipal authorities of residual contamination in the publicly owned property and adjacent right-of-ways.

Pursuant to Wisconsin Administrative Code (WAC) NR 726.05(2)(b)(4), Axis is notifying your department of the potential presence of soil and groundwater impact beneath Highway 12 right-of-ways, which may exceed applicable WAC NR 746 standard for soil and NR 140 standard for groundwater (Figure 1).

Soil and groundwater contamination that appears to have originated on the property located at N6427 Highway 12, Elkhorn, Wisconsin and may have migrated onto the adjacent road right of way. The levels of PVOCs in soil exceeded NR 720 RCLs. During Highway 12 reconstruction in April 1996, the WDOT excavated approximately 200 cubic yards of contaminated soil from the area being rebuilt. Residual soil contamination remains in place. There is a potential of contaminant migration following the utility backfill. We believe that allowing natural attenuation to complete the cleanup at this site will meet the requirements for

case closure that are found in WAC chapters NR 726 and NR 746, and we have requested that the Department of Natural Resources accept natural attenuation as the final remedy for this site and grant case closure. Closure means that the Department will not be requiring any further investigation or cleanup action to be taken, other than the reliance on natural attenuation.

The WDNR will not review my closure request for at least 30 days after the date of this letter. As an affected property owner, you have a right to contact the Department to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the WDNR that is relevant to this closure request, you should mail that information to:

Ms. Brenda Boyce
Hydrogeologist
Waukesha Service Center
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, WI 54188
Phone: 262/ 574-2100
Fax: 262/ 574-2117
e-mail: Thomas. Sturm@ dnr. state. wi. us

Once the Department makes a decision on my closure request, it will be documented in a letter. If the Department grants closure, you may obtain a copy of this letter by requesting a copy from us, by writing to the WDNR or by accessing the DNR GIS Registry of Closed Remediation Sites on the internet at www.dnr.state.wi.us/org/at/et/geo/gwur. A copy of the closure letter is included as part of the site file on the GIS Registry of Closed Remediation Sites.

If you need more information, you may contact us or you may contact Mr. Tom Sturm at the address and phone number given above.

Sincerely,

AXIS CONSULTING, LLC

Virendra S. Verma P.G.
Project Manager

cc: Cynthia Ahearn-McKenna/Owner
PECFA Claim File

APPENDIX H

D & E AUTO PARTS
[SITE # 7]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **D & E Auto Parts [Site # 7]**
DOT parcel number (if known):
Property Address: N6388 US Highway 12 / N6396 US Highway 12
Owner's Name: Maurice D. & Sylvia A. McDonald
Owner's Address: N6396 US Highway 12, Elkhorn, WI 53121
Owner's Phone: 262-723-6868
Current Land Use: D & E Auto Parts
Past Land Use: Auto Salage since 1936

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☐ site has registered tanks ☐ASTs ☐USTs
- ☐ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments: Several AST's within 15 feet of USH 12 r/w

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☒ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

Site #7
D & E Auto Parts
N6388 US Highway 12 / N6396 US Highway 12
USH 12: STA 707+65 to 712+00 LT

The site is not identified on any databases searched for this report. Based on field reconnaissance, the site is currently used by D & E Auto Parts, an auto salvage company. According to the WDSPS Storage Tank Database, no tanks are registered to the site.

Review of the Walworth County GIS System online indicated that the site is owned by Maurice D. & Sylvia A. McDonald [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site. According to historical aerial photographs, the site appears to have been used for auto salvage since at least 1940. Between 1975 and 1980, an additional large building structure was constructed on the west portion of the site.

Himalayan interviewed Mark McDonald (phone: 262-723-6868), who indicated that his family has owned the property since 1936, and that it has been operated as a salvage yard since this time. Mr. McDonald stated that several ASTs are located outside of the garage, and behind the fence, on the property. Only the diesel AST is currently in use, and all of the tanks are enclosed in concrete secondary containment units. Mr. McDonald indicated that he is not aware of any spills or other environmental concerns associated with the property, and that the property is inspected annually for storm water runoff compliance. Mr. McDonald stated that a potable well is located south of the repair shop, and a septic system is located east of the repair shop at the site.

Based on Himalayan's conversation with Mr. McDonald, it appears that the minimum distance of the ASTs at the site, relative to the current USH 12 R/W, is approximately 15 feet.

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist of Sebewa silt loam (Sm). Sebewa silt loam is described as poorly drained silty loam underlain by sandy clay loam and gravelly sand. Depth to groundwater is generally 0 inches [Ref. 2].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering the use of the site as an auto salvage facility for over 75 years, and the lack of investigation at the site, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 9.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #7: D & E Auto Parts, N6388 US Highway 12 / N6396 US Highway 12
View southeast from the west side of USH 12

APPENDIX I

EVERGREEN GOLF CLUB / BUNKER BAR & GRILL [SITE # 8]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Evergreen Golf Club / Bunker Bar & Grill [Site # 8]**
DOT parcel number (if known):
Property Address: N6246 US Highway 12
Owner's Name: Evergreen Holdings, LLC
Owner's Address: N6246 US Highway 12, Elkhorn, WI 53121
Owner's Phone: Mel Helms, 262-495-4818
Current Land Use: Evergreen Golf Club
Past Land Use:

Real Estate Requirements:
☐None ☐Total take ☒Strip acquisition of 33-52 feet (STA 724+68 to 725+00)
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 11/1994
  Tank contents:
  - ☒ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-65-004916
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☒ site is a closed ☒LUST ☐ERP site; closure date: 11/2004
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments: Adjacent property at N6293 / 6295 Oak Court also has groundwater use restriction

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☒ Contaminated groundwater known to be within proposed right of way at 22 feet below ground surface.
☒ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☒ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #8
Evergreen Golf Club / Bunker Bar & Grill
N6246 US Highway 12
USH 12: STA 724+50 to 732+50 LT

The site is identified on the LUST (BRRTS #03-65-004916), UST, CRS, and AUL databases. Based on field reconnaissance, the site is currently used by Evergreen Golf Club. According to the WDSPS Storage Tank Database, one 950-gallon leaded gasoline UST was closed / removed from the site in November 1994. The use for the tank is listed as industrial.

Review of the Walworth County GIS System online indicated that the site is owned by Evergreen Holdings, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

BRRTS #03-65-004916: According to the Montgomery Watson Harza (MWH) Closure Report, one 950-gallon gasoline UST was closed / removed from the site in November 1994 [Ref. 2]. The tank had been situated at the northeast corner of the country club shop building, which is located on the northwest portion of the property, just south of Oak Court. Soil contamination was detected below the former tank location, and in March 1995, approximately 200 to 300 cubic yards of petroleum impacted soil was excavated and eventually disposed of off-site. In August 1995, five soil borings (HP01 to HP05) were advanced at the site. A total of six soil samples were collected and analyzed for GRO and PVOCs. During December 1995, five groundwater monitoring wells (MW01 to MW05) were installed at the site. Five soil samples were collected and analyzed for GRO, lead, and PVOCs. Groundwater samples were collected and analyzed for PVOCs.

In October and November 1996, six additional groundwater monitoring wells (MW06A, MW06B, MW07, MW08A, MW08B, and MW09) were installed both at the site, and at adjacent properties. Two additional groundwater monitoring wells (MW10 and MW11) were installed off-site and downgradient from the former UST location in November 1997. Between January 1998 and March 2004, a total of 14 to 18 rounds of groundwater monitoring were conducted on the 13 monitoring wells, during which groundwater samples were collected and analyzed for PVOCs [Ref. 2, 3].

During July and August 1998, a soil vapor extraction (SVE) system including 13 wells, underground piping, and a blower was installed at the site [Ref. 2]. The SVE system operated from November 1998 through November 2001. Approximately 4,089 pounds of VOCs were removed from the soil and groundwater using the SVE system.

The activity was closed by WDNR in November 2004, with use restrictions at the site due to residual soil and groundwater contamination. In addition, the adjacent property located at

N6293/N6295 Oak Court, and the USH 12 roadway, were included on the WDNR GIS Registry with use restrictions due to groundwater contamination.

Geology / Hydrogeology

According to the MWH report, soils at the site consist predominantly of coarse grained sands, and sands with gravel, to depths of approximately 20 to 25 feet bgs [Ref. 2]. Groundwater was encountered at approximately 22 feet bgs.

Soil Impacts

Based on the MWH report, benzene (64 to 2,000 µg/kg) was detected in HP01 through HP05 at concentrations exceeding the NR 720 RCL [Ref. 2]. Toluene (12,000 and 1,900 µg/kg), xylenes (30,000 and 6,000 µg/kg), and GRO (460 and 160 mg/kg) were detected in HP04 and HP05 respectively, at concentrations exceeding the relevant NR 720 RCL. Ethylbenzene (4,600 µg/kg) was detected in HP04 at a concentration exceeding the NR 720 RCL.

It appears that the minimum distance of the residual soil contamination at the site, relative to the proposed USH 12 R/W, is approximately 50 feet.

Groundwater Impacts

Based on the Seymour Case Closure Request Appeal, xylenes (2,280 to 11,100 µg/L) and trimethylbenzenes (2,130 to 5,300 µg/L) were detected at concentrations exceeding the respective NR 140 ES in MW01, MW02, and MW07 during the last round of groundwater monitoring conducted in March 2004 [Ref. 3]. Additionally in MW07, ethylbenzene (850 µg/L) was detected above the NR 140 ES, and toluene (410 µg/L) was detected above the NR 140 PAL.

It appears that residual groundwater contamination in MW01, MW02, and MW07 is located within the proposed USH R/W.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

R/W (FEE) acquisition of 33 to 52 feet is anticipated from STA 724+68 to 725+00 at the site.

Recommendations

Considering that residual soil and groundwater contamination at the site exists within the proposed USH 12 R/W, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

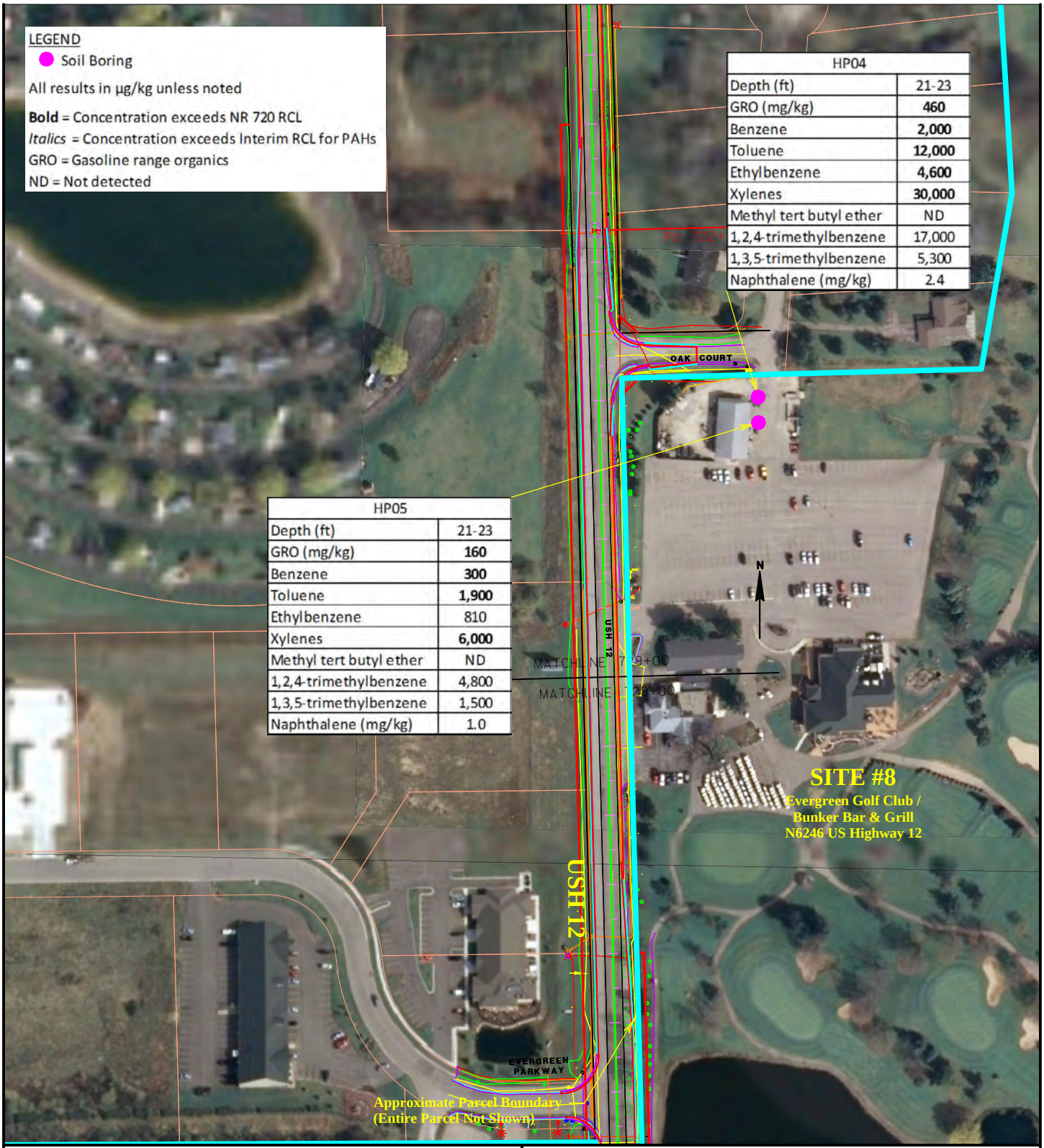
Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Montgomery Watson Harza. (March 2003). Request for Closure, Evergreen County Club, N6246 Highway 12 and 67, Elkhorn, Wisconsin. WDNR BRRTS Case #03-65-004916.

3. Seymour, J. D. (June 2004). Case Closure Request Appeal for Evergreen Country Club Inc ., N6246 US Highway 12/67, Elkorn: FID#265021460; BRRTS# 03-65-004916.



Source: **Base Map Provided By SEH Inc**

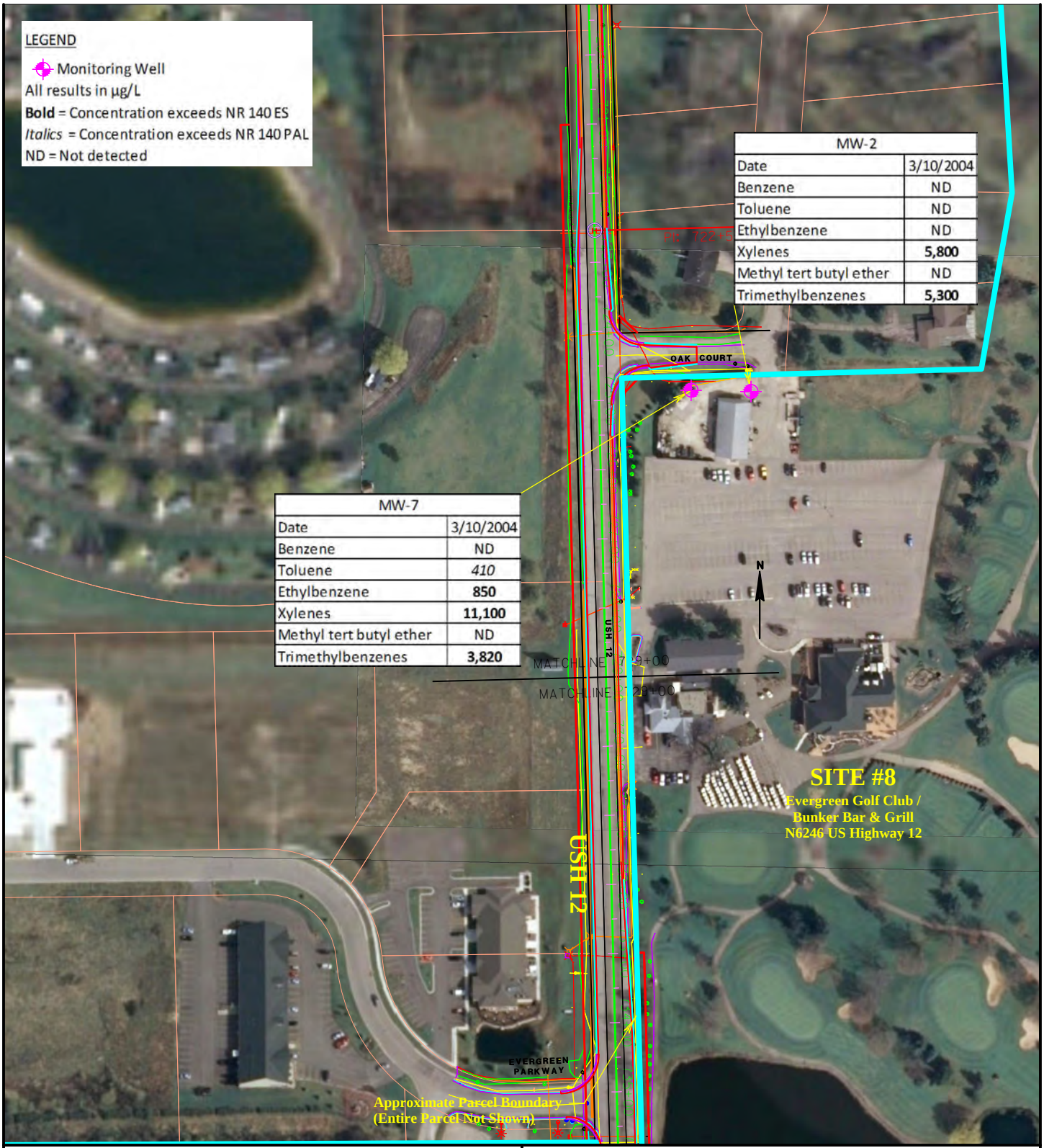
Scale: 0 100 200 400

Figure 10.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 8.2
GROUNDWATER QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #8: Evergreen Golf Club / Bunker Bar & Grill, N6246 US Highway 12
View southeast from east side of USH 12

MWH
MONTGOMERY WATSON HARZA

11

March 24, 2003

Mr. Walt Ebersohl
Wisconsin Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee, Wisconsin 53212

Re: Request for Closure
Evergreen Country Club
N6246 Highway 12 and 67
Elkhorn, Wisconsin

BRRTS 03-65-004916

RECEIVED
MAR 25 2003
By VS

Dear Mr. Ebersohl:

On the behalf of Evergreen Country Club, MWH Americas, Inc. (MWH) has prepared this request for closure for the site located at N6246 Highway 12 and 67, Elkhorn, Wisconsin. The request for closure was prepared using WDNR Form 4400-202. As required by ch. NR 749, Wis. Adm. Code, the $750 review fee is enclosed with this letter.

Closure is requested under the requirement of ch. NR 746 for the groundwater. Groundwater contamination in excess of the NR 140 Enforcement Standards remains at the site, so if closure is granted, the site will be listed on the WDNR GIS Registry of Closed Remediation Sites. As required by ch. NR 749, the $250 fee for addition of the site to the GIS Registry is enclosed with this letter. Several of the items required for the GIS Registry are included in the attached CD in .pdf format.

We look forward to working with you in bringing this site to closure. If you have any questions, please call us.

Sincerely,

MWH AMERICAS, INC.

Keith R. Gilkey, P.E.
Environmental Engineer

Enclosures: Request for Closure
Check in the Amount of $1,000
CD

cc: Dr. Joseph Seymour, Ph.D., CHE - Montana State University (w/o CD)
Mr. Bill Rogers - Evergreen Country Club (w/o CD)
Mr. Steven Koch - Seymour, Kremer, Nommensen, Morrissy and Koch (w/o CD)
MWH PECFA File

KRG/vlr/DTL
N:\Jobs\208\2452\01\wp\rpt\99_Ebersohl.doc
2082452.01180101 MAD-1

One Science Court
P.O. Box 7921
Madison, Wisconsin
53707-7921

Tel: 608 831 4747
Fax: 608 831 4777

WDNR BRRTS CASE # 03 - 65 - 004916 WDNR SITE NAME : Evergreen Country Club

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based upon all available data as of January 2, 2003 (date). I have read the Case Summary and Close Out Form instructions and all required information has been included.

Form Completed By: Keith Gilkey 3/24/03
(Signature) (Date)

X $750.00 Closeout Review Fee Attached
X $250.00 GIS Registry Maintenance fee GW sites Fee Attached
___ $200.00 GIS Registry Maintenance fee for Soil sites Fee Attached

Printed Name: Keith Gilkey Company Name: MWH

Email address: keith.r.gilkey@mwhglobal.com

If not site owner, relationship to site owner: Consultant

Address: One Science Court, Madison, WI 53711

Telephone Number: (608) 231-4747 FAX Number:(608) 231-4777

Environmental Consultant (if different then above):

Address:

Telephone Number: (_____) FAX Number:(_____)

The following items should be included in the order shown (if any item is not included, please attach an explanation as part of attachment A):

A. Brief Written Case History should be attached as Attachment A that includes the Executive Summary from the Site Investigation Report, a succinct summary of any investigative activities conducted subsequent to the Site Investigation Report, and a summary of the interim and remedial actions taken at the site and the justification for case closure. The summary should also specify the pathway to closure requested for both the soil and groundwater as specified in section H of the form and include a description of any residual contamination in soils or groundwater and their locations on the property(s) within the contamination site boundaries. Submission of tabulated analytical results from previous reports is acceptable (i.e., it is not necessary to create new tables). Do not attach previously submitted reports, but please make sure you correctly reference these reports in the case summary as applicable.

1. Site Name Evergreen Country Club
   Street Address: N 6246 US Highway 12/67
   City: Elkhorn
2. BRRTS #: 03 - 65 - 004916
3. DNR FID #: 265021460 PECFA Claim#: 53121-0616-46
4. Responsible Party Name & Complete Address: Mr. Bill Rogers, Evergreen Country Club, P.O. Box 616, Elkhorn, WI 53121
5. Date of Incident/Discovery: 4/27/1995 Contaminant Type(s): Petroleum
6. Quantity Released: Unknown
7. Post Remedial Zoning Classification : Residential and commercial **(do not abbreviate zoning terms)**
8. Method Used to Obtain GPS Coordinates: ____On-site using GPS Locator converted or projected onto WTM83/91 X Using RR GIS Registry web site to get WTM83/91 coordinates ____ Other (specify): 639371, 250757
9. On X Y __N **or** Off X Y __N Source Property Groundwater Contamination Remaining (>ES)
10. On __Y X N **or** Off __Y X N Source Property Residual Soil Contamination > Generic or Site-Specific RCL?
11. Contamination in Right of Way: X Y ___ N

WDNR BRRTS CASE # 03 - 65 - 004916 WDNR SITE NAME : Evergreen Country Club

13. **A copy of the letters sent by the RP to all owners of properties with groundwater exceeding ESs** (including the current source- property owner, if the RP is not the current source-property owner) as required by s. NR 726.05(3)(a)(4)(g). (Off source properties are listed separately on the GIS Registry with a link to the source property.) Letters must contain standard provisions of Appendix A of ch. NR 726.
14. **A copy of all written notifications** provided to the City/village/municipal/state agency or other entity responsible for maintenance of a public street or highway or railroad right-of-way, within or partially within the boundaries of the contaminated site, for contamination exceeding groundwater ESs and/or soil exceeding generic or site specific RCLs.

C. RECEPTORS

1. Identify **all** pre-remedial actual receptors, the assessed risk and their locations (e.g., both on- and off-site utility corridors, basements or sumps of nearby buildings, direct contact threat from soil, water supplies, surface waters, sediments, etc.) (For definitions, refer to s. NR 700.03 (47), Wis. Adm. Code): A water supply well for 6293/6295 Oak Court of subdivision to the north of the site.
2. Have the remedial actions addressed the potential or actual impacts to these receptors? X Y ___N
   If no, provide details in case history summary.
   If yes, please identify the nature of the remaining risk and the receptor at risk, if any A new water supply well was installed in May 1996. The well has a total depth of 343 ft and is cased to a depth of 182 ft.

D. SOIL INVESTIGATION INFORMATION

1. Extent Defined? X Y ___N If not, explain why? ___
2. Soil Type(s): SP, CL, SP/SM, ML, GS Depth of Contamination: to groundwater ~22 ft
3. Type of Bedrock: limestone Depth to Bedrock: ~180 ft
4. Is Any Contaminated Soil (Unsaturated or Saturated) in Contact With the Bedrock? ___Y X N
5. List **All** Contaminants Found in Soil (Regardless of ch. NR 720 standards/attach table as part of **attachment D** if necessary) See Table 5 in Attachment D
6. Measurable Free Product? X Y ___N Depth/Location: 24-29 ft, MW01, MW02, MW05, MW06A, and MW07 - Jan. 1997
7. **Attach the Following Maps** to this Form as **Attachment D**:
   a. Pre-Remedial Soil Sample Location Map(s) that depict all soil sample locations relative to site facilities. Note in bold font those sample locations that exceed ch. NR 720 (including free product location) and identify the extent of contamination. Maps should be prepared according to the applicable portions of s. NR 716.15(2)(h)1. You may submit more than one map, for example various contaminant isoconcentration maps. **Drawing 4467.0020-B7**
   b. Pre-Remedial Geologic Cross Section(s) including source location(s), extent of soil and groundwater contamination, free product location/depth, soil sample locations, water table elevation, and bedrock elevation, if encountered. Maps should be prepared according to the requirements in ss. NR 716.15(2)(g)5-8 and 716.15(2)(h)1-2. **Drawing 4467.0020-B7**

E. SOIL REMEDIATION INFORMATION

1. Remedial Action Completed? X Y ___N s. NR 720.19 Analysis? ___Y X N If yes, Attach supporting documentation as **Attachment E.**
2. Were Immediate or Interim Actions Conducted? X Y ___N If yes, what action was taken? 200 - 300 cy of contaminated soil was excavated in March 1995.
3. Brief Description of Remedial Action Taken: SVE system was installed and operated at the site from November 1998 through November 2001.
4. Were Soils Excavated? X Y ___N Quantity: 200-300 cy Disposal Method: landfill
5. Final Confirmation Sample Collection Methods: Not performed
6. Final Soil/Drill Cuttings Disposal Location: NA
7. Estimated Volume and Depth of In Situ Soils Exceeding ch. NR 720 Table RCLs or Site Specific RCLs: NA
8. Estimated Volume and Depth of In Situ Soils Exceeding ch. NR 746 Table 1 or Table 2 or Site Specific RCLs: NA

WDNR BRRTS CASE # 03 - 65 - 004916 WDNR SITE NAME : Evergreen Country Club

F. GROUNDWATER INFORMATION

1. Extent of Contamination Defined? X Y ____N ____N/A
2. Remedial Action Completed? X Y ____N ____N/A Brief Description of Remedial Action Taken: An SVE system was installed and operated from November 1998 through November 2001.
3. # of Sample Rounds: 13 Depth(s) to Groundwater 22 ft Flow Direction(s): Northwest
4. Field Analyses? X Y ____N Lab Analyses? X Y ____N
5. # of Sampling points: 20 # NR 141 Monitoring Wells Sampled: 13
   # Temporary Groundwater Sampling Points Sampled: 0 # Recovery Sumps Sampled: 0
   # Municipal Wells Sampled: 0 # Private Wells Sampled: 7
6. List All Contaminants Found in Groundwater (Regardless of ch. NR 140 Standards/**Attach Table as F** if Necessary) See Table 2 in Attachment F
7. Has DNR Been Notified of Substances in Groundwater Without Standards? X Y ____N
   If Yes, How Many? 5 What Substances? See Table 2 in Attachment F
8. Preventive Action Limit Currently Exceeded? X Y ____N If yes, Identify Location(s) MW01, MW02, MW05, MW07, and MW10
9. Enforcement Standard Currently Exceeded? X Y ____N If yes, Identify Location(s) MW05, MW07, and MW10
10. Measurable Free Product Detected? X Y ____N Yes Pre-remediation? No Post-remediation?
11. Was Free Product remediated? X Y ____N Explain: Product was collected using passive collectors and hand bailing
12. Potable Wells Within 1200 Feet of Site? X Y ____N Have They Been Sampled? X Y ____N
    [NOTE: Wells Included **on Map** Described in Item B. 4]
13. Have Well Owners/Occupants Been Notified of Results? X Y ____N
    Are Notification Letters Attached as part of section B requirements? ___Y X N
14. Include a **Groundwater Sample Location Map(s)** as **Attachment F** of this form, which shows the site facilities and all monitoring wells, sumps, extraction wells, and potable wells. Use bold font to indicate those wells that have PAL or ES exceedances in the most recent round of sampling (differentiate between PAL and ES). Maps should be prepared according to the applicable portions of ss. NR 716.15(2)(h)1 and 726.05(3)(a)(4)d. **Drawing 2082452.01180101-B3**
15. Include a **table** of all historic groundwater analytical data for the site as part of **Attachment F. Table 2**

G. OTHER CONTAMINATED MEDIA INFORMATION

1. Have Other Media Been Impacted (Either On-site or Off-site eg. Sediment, Utilities)? ____Y X N
   Briefly Describe Type and Extent of **All** Contamination Found in Media Other Than Soil or Groundwater:
2. Remedial Action Completed? ____Y ____N X N/A Brief Description of Remedial Action Taken:
3. # of Post Remedial Sample Rounds: _____ Field Analyses? ____Y ____N
   Lab Analyses? ____Y ____N # of Sampling Points: _____
4. Tables of Analytical Results for all contaminants should be **attached as G.**

WDNR BRRTS CASE # 03 - 65 - 004916 WDNR SITE NAME : Evergreen Country Club

H. PATHWAY TO CLOSURE PROPOSED AND ASSOCIATED SITE INFORMATION:

Soil

___< s. NR 720.09/720.11 Generic RCLs
___s. NR 720.19(2) Soil Performance Standards(SPS)
___s. NR 720.19(3) Site Specific Standards(SSRCLs)
___s. NR 720.19(5)(c)1.b. Industrial Site Specific RCLs
___s. NR 720.19(5)(c)2.b. Industrial Site Specific RCLs

Groundwater

___< s. NR 140.10 Table 1 & Table 2 Values
___s. NR 140.28(2) PAL Exemption
___s. NR 726.05(2)(b), ES Natural Attenuation

Petroleum Storage Tank Soil Options for Closure:

___s. NR 746.07 Requirements Met-Post Investigation
___s. NR 746.08 Requirements Met-Post Remediation

Petroleum Storage Tank GW Options for Closure:

___s. NR 746.07 PAL <ES Low Permeability Site- Post Investigation
___s. NR746.07 ES, Permeable Site- Post Investigation
___s. NR 746.08 ES, Low Permeability Site- Post Remediation
_X_s. NR 746.08 ES, Permeable Site- Post Remediation

1. Enforcement Actions Closed Out? ___Y ___N _X_N/A Permits Closed Out? ____Y _____N _X_N/A
2. Proposed Post Remediation Land Use: _X_ Residential _X_ Commercial ____ Industrial ____ Other
   Specify: Existing subdivision and golf course will remain.
3. Does Remedy Include Soil Performance Standard (SPS)? ____Y _X_N
   Type: ____Cap ____Soil ____Building ____Natural Attenuation of Groundwater ____Other
   Specify: _____
4. Will the Maintenance of the SPS be Consistent With the Proposed Post Remediation Land Use? ___Y _X_N
   Why? NA
5. Maps and Photos **Attached as part of H** Documenting the Cap Area, Construction, and/or the Integrity of the Cap? ____Y ____N _X_N/A
6. Is a Maintenance Plan Attached to a Draft Deed Restriction (included with **attachment I**) for the Performance Standard per ss. NR 720.19(2) and 724.13(2), Wis. Adm. Code? ___Y _X_N
7. Is Zoning Change Required and if so, Has it Been Completed for Post Remedial Land Use? _____Y _X_N
   If yes, Have you Attached Verification of the Zoning for Affected Properties? _____Y _____N
8. Complete Assumptions and Calculations for SSRCLs as **attachment H** with Justification.
9. Are EPA Soil Screening Level Model Used as Justification for Closure of Sites with Residual Contaminated Soils? ___Y _X_N Are the Numbers Used: _____Site Specific Inputs or _____ Defaults? Include Calculations and Results as Part of **attachment H.**
10. Describe How the Following Pathways are Protected:

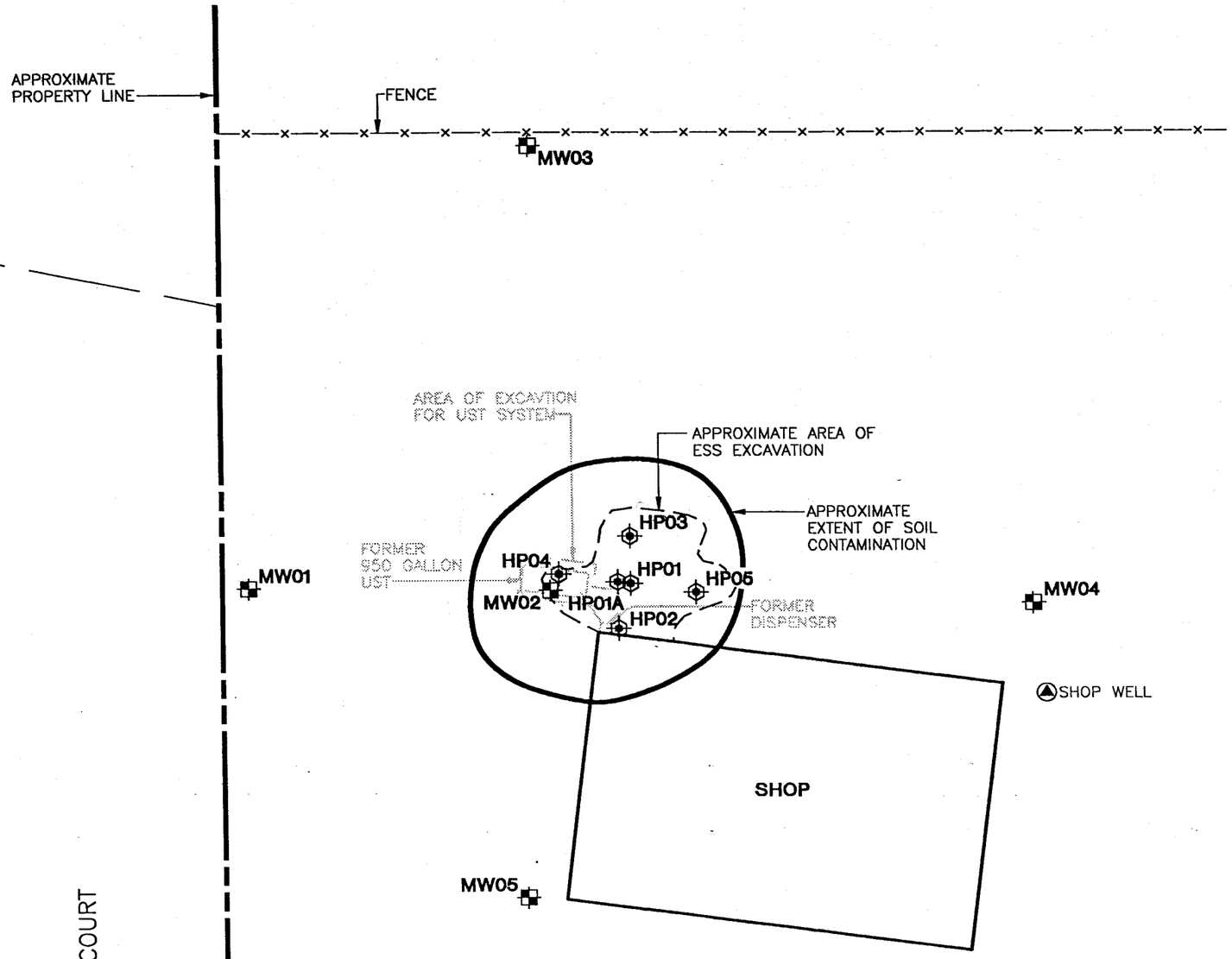
a) Direct Contact Pathway: Contaminated soil above depth of the watertable (22 ft) has been excavated.

b) Groundwater: The one impacted water supply well has been replaced.

c) Include as part of **Attachment H, graphs and statistical analyses** (Mann-Kendall/Mann-Whitney U Results) which demonstrate the dynamics of the groundwater plume, for sites requesting closure using Natural Attenuation that meet the criteria of s. NR 746 (permeable sites) or s. NR 726.05(2)(b). Refer to WDNR Publication RR-614 for guidance. **See Mann-Kendall graphs in Attachment H.**

I. PROPOSED INSTITUTIONAL CONTROLS (See PUB. RR-606)

1. Is copy of draft deed document(s) included as **attachment I**? ___Y ___N Refer to RR- 606 for information at: http://www.dnr.state.wi.us/org/aw/rr/index.html. If so, what type?
   _X_ RR GIS Registry of Closed Sites ____ Deed Notice
   ____ Deed Restriction ____ Other



LEGEND

- MW01 MONITORING WELL LOCATION AND NUMBER
- HP01 HYDROPUNCH BORING LOCATION AND NUMBER
- APPROXIMATE EXTENT OF SOIL CONTAMINATION BASED ON NR720 RESIDUAL CLEAN-UP LEVELS

NOTES

1. BASE MAP DEVELOPED FROM A SITE PREPARED BY GARY P. WELSCH, P.E., ELKHORN, WISCONSIN, UNDATED, AND FIELD OBSERVATIONS BY MONTGOMERY WATSON ON AUGUST 24 AND DECEMBER 12, 1995.
2. ENVIRONMENTAL SOLUTIONS AND SERVICES (ESS) PERFORMED A LIMITED SOURCE CONTROL MEASURE DURING MARCH 1995. APPROXIMATELY 200-300 C.Y. OF CONTAMINATED SOIL WERE EXCAVATED ADJACENT TO THE FORMER UST AND DISPENSER.
3. HYDROPUNCH BORINGS HP01 THROUGH HP05 INSTALLED BY SOILS ESSENTIALS UNDER THE SUPERVISION OF MONTGOMERY WATSON ON AUGUST 24, 1995.
4. MONITORING WELLS MW01 THROUGH MW05 WERE INSTALLED BY BADGER DRILLING COMPANY INC., UNDER THE SUPERVISION OF MONTGOMERY WATSON ON DECEMBER 11 AND 12, 1995.
5. LOCATION AND ELEVATION OF MONITORING WELLS MW01 THROUGH MW05 WERE OBTAINED BY MONTGOMERY WATSON ON DECEMBER 12, 1995.

north

0 20 40

SCALE IN FEET

Developed By MDP | Drawn By DLF,LCL | Approved By [signature] Date 6/17/97 | Reference | Revisions

AUGUST 1995 HYDROPUNCH BORING LOCATIONS

SOIL AND GROUNDWATER INVESTIGATION AND REMEDIAL ACTION PLAN
EVERGREEN COUNTRY CLUB
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

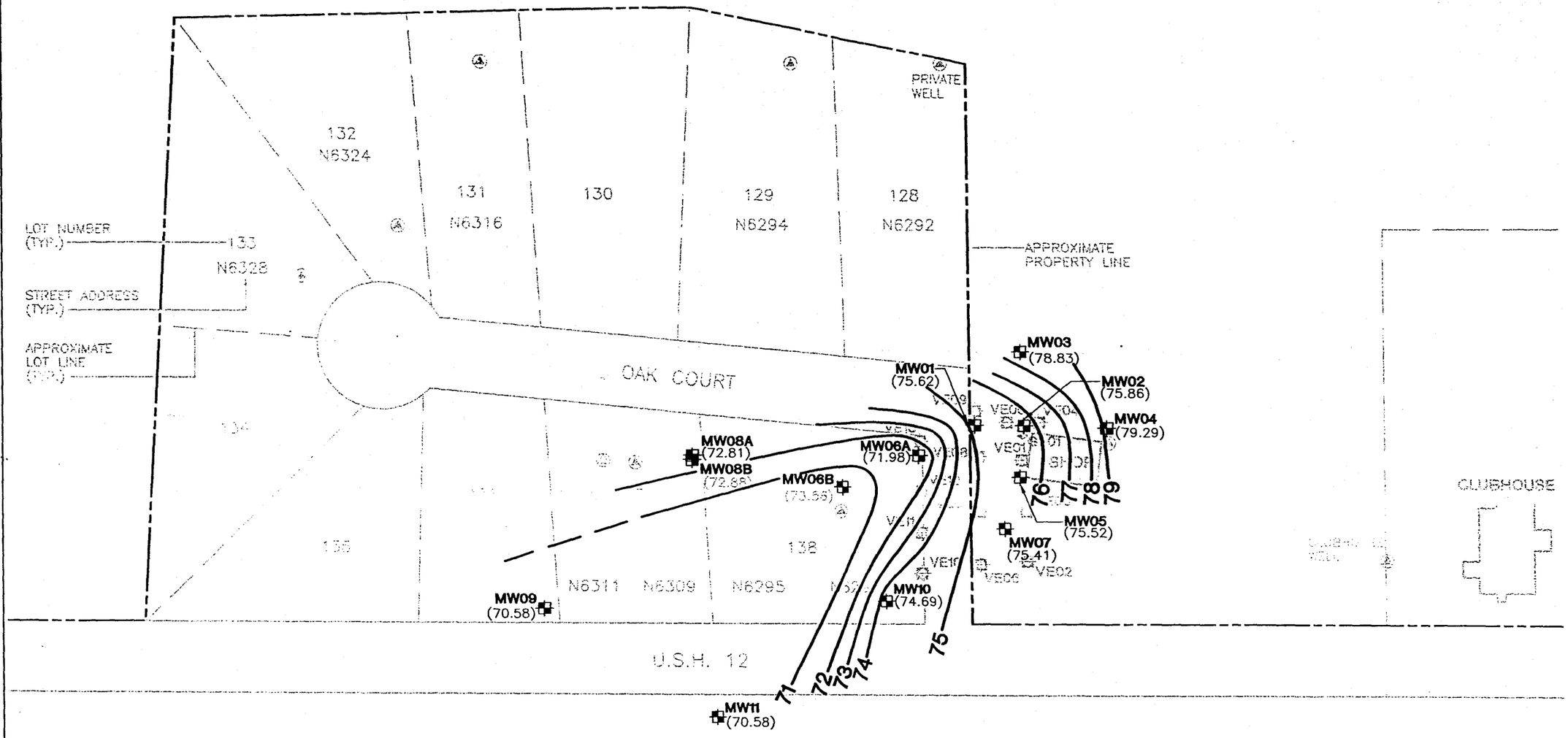
Drawing Number 4467.0020 **B6**

MONTGOMERY WATSON

Management Review: Other
Technical Review: MCB 2-19-97 | Project Manager: 1-3-97 | 2-20-97
Graphic Standards: DLF | Lead Professional: KRG
QUALITY CONTROL

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File Path: J:\1242\082\022.CADD\B6.DWG



LEGEND

- PRIVATE WATER SUPPLY WELL LOCATION (LOCATION IS APPROXIMATE)
- VE01 — SOIL VAPOR EXTRACTION WELL LOCATION AND NUMBER
- PROPOSED REPLACEMENT PRIVATE WATER SUPPLY WELL LOCATION
- GP01 — GAS PROBE LOCATION AND NUMBER
- MW01 (75.62) — MONITORING WELL LOCATION, NUMBER, AND WATER TABLE ELEVATION
- 76 — WATER TABLE CONTOUR (CONTOUR INTERVAL: 1 FT, DASHED WHERE INFERRED)

NOTES

1. BASE MAP DEVELOPED FROM A SITE PLAN PREPARED BY GARY P. WELSH, P.E., ELKHORN, WISCONSIN, UNDATED, FIELD OBSERVATIONS BY MONTGOMERY WATSON ON DECEMBER 12, 1995, NOVEMBER 7, 1996, AND A SURVEY PLAT BY JENSEN SURVEYING AND MAPPING, DATED MARCH 21, 1996.
2. MONITORING WELLS MW01 THROUGH MW05 WERE INSTALLED BY BADGER STATE DRILLING COMPANY INC., UNDER THE SUPERVISION OF MONTGOMERY WATSON ON DECEMBER 11 & 12, 1995. MONITORING WELLS MW06A, MW06B, MW07, MW08A, MW08B, AND MW09 WERE INSTALLED BY BADGER STATE DRILLING COMPANY INC., UNDER THE SUPERVISION OF MONTGOMERY WATSON ON OCTOBER 28–31, AND NOVEMBER 1, 1996.
3. LOCATIONS AND ELEVATIONS OF MONITORING WELLS MW01 THROUGH MW05 WERE OBTAINED BY MONTGOMERY WATSON ON DECEMBER 12, 1995. LOCATIONS AND ELEVATIONS OF MONITORING WELLS MW06A, MW06B, MW07, MW08A, MW08B, AND MW09 WERE OBTAINED BY MONTGOMERY WATSON ON NOVEMBER 7, 1996
4. LOT NUMBERS 130, 134, 135, AND 136 HAVE NOT BEEN DEVELOPED.
5. PRIVATE WATER SUPPLY WELL ON LOT 138 REPLACED ON MAY 8, 1996 BY HYINK WELL DRILLING UNDER MONTGOMERY WATSON SUPERVISION.
6. WELLS MW10, MW11, GAS PROBE GP01 AND SOIL VAPOR EXTRACTION WELL VE01 WERE INSTALLED BY BOART LONGYEAR UNDER THE SUPERVISION OF MONTGOMERY WATSON ON NOVEMBER 17–19, 1997.
7. WATER TABLE ELEVATIONS OBTAINED BY MWH ON SEPTEMBER 25–26, 2002.
8. THE GROUNDWATER ELEVATIONS AT MONITORING WELLS MW06B AND MW08B WERE NOT USED TO DEVELOP THIS WATER TABLE CONTOUR MAP BECAUSE THE WELL SCREENS DO NOT INTERCEPT THE WATER TABLE.

north

0 100 200

SCALE IN FEET

Developed By KRG Drawn By DLF

Approved By [signature] Date 1/3/03

Reference 2082334.01810101-B3

Revisions

WATER TABLE MAP (SEPTEMBER 25-26, 2002)

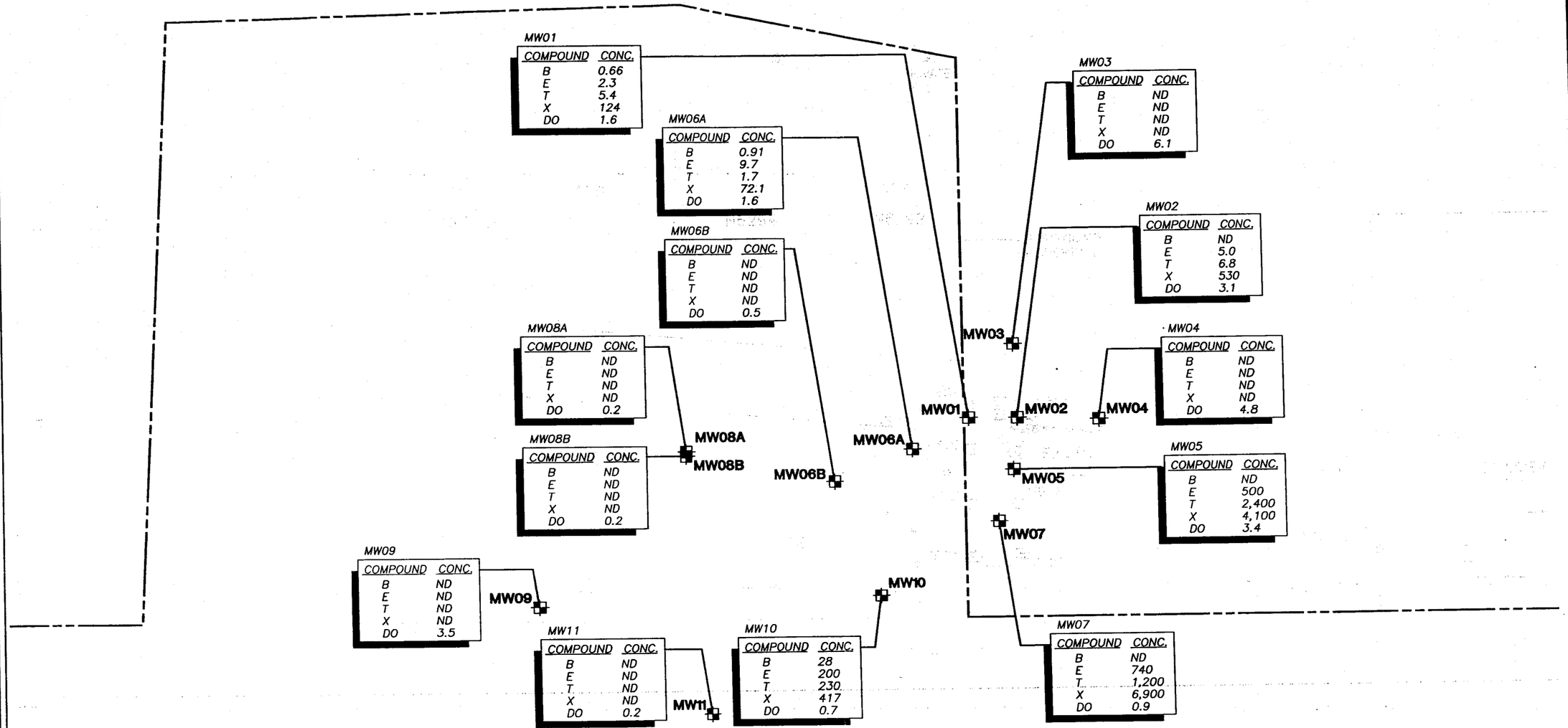
EVERGREEN COUNTRY CLUB, INC.
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

Drawing Number
2082452
01180101 B1

MWH
MONTGOMERY WATSON HARZA

	DLF	12-13-02	Technical Review	MDP	12-03	Management Review	
	KRG	12-31-02	Project Manager	KRG	1-2-03	Other	
QUALITY CONTROL	Graphic Standards	DLF					
	Lead Professional	KRG					

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LEGEND

PRIVATE WATER SUPPLY WELL LOCATION (LOCATION IS APPROXIMATE)

SOIL VAPOR EXTRACTION WELL LOCATION AND NUMBER

PROPOSED REPLACEMENT PRIVATE WATER SUPPLY WELL LOCATION

GAS PROBE LOCATION AND NUMBER

MW01

MONITORING WELL LOCATION AND NUMBER

MW01

COMPOUND	CONC.
B	0.66
E	2.3
T	5.4
X	124
DO	1.6

B	BENZENE IN ug/L
E	ETHYLBENZENE IN ug/L
T	TOLUENE IN ug/L
X	TOTAL XYLENES IN ug/L
D.O.	DISSOLVED OXYGEN IN mg/L
ND	NO DETECTION

NOTES

1. BASE MAP DEVELOPED FROM A SITE PLAN PREPARED BY GARY P. WELSH, P.E., ELKHORN, WISCONSIN, UNDATED, FIELD OBSERVATIONS BY MONTGOMERY WATSON ON DECEMBER 12, 1995, NOVEMBER 7, 1996, AND A SURVEY PLAT BY JENSEN SURVEYING AND MAPPING, DATED MARCH 21, 1996.
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4. LOT NUMBERS 130, 134, 135, AND 136 HAVE NOT BEEN DEVELOPED.
5. PRIVATE WATER SUPPLY WELL ON LOT 138 REPLACED ON MAY 8, 1996 BY HYINK WELL DRILLING UNDER MONTGOMERY WATSON SUPERVISION
6. WELLS MW10, MW11, GAS PROBE GP01 AND SOIL VAPOR EXTRACTION WELL VE01 WERE INSTALLED BY BOART LONGYEAR UNDER THE SUPERVISION OF MONTGOMERY WATSON ON NOVEMBER 17–19, 1997.
7. GROUNDWATER SAMPLES OBTAINED BY MWH ON SEPTEMBER 25–26, 2002.

north

0 100 200

SCALE IN FEET

GROUNDWATER CONTAMINANT MAP (SEPTEMBER 25-26, 2002)

EVERGREEN COUNTRY CLUB, INC.
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

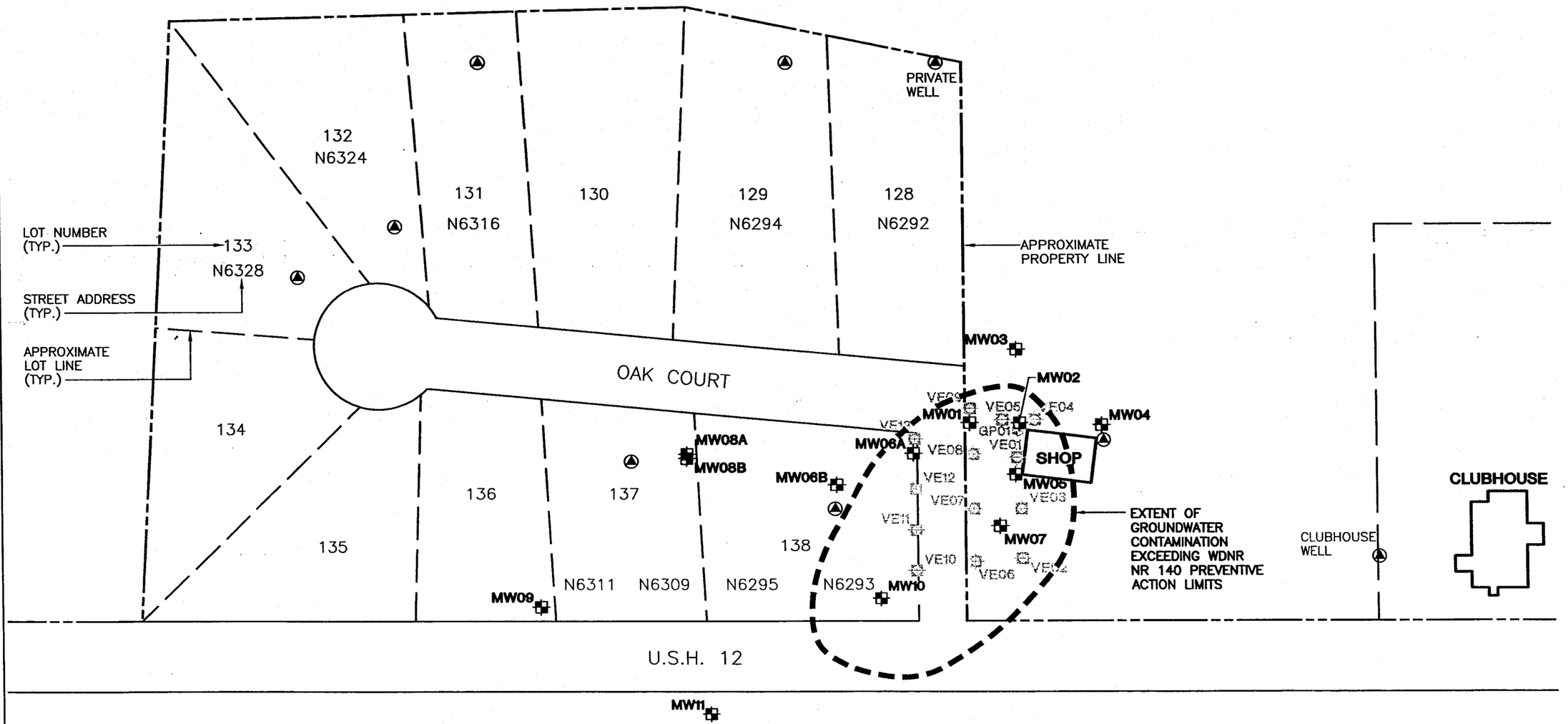
Drawing Number
2082452
01180101 B2

MWH MONTGOMERY WATSON HARZA

Developed By KRG Drawn By LCL
Approved By Date 1/13/03
Reference 2082334.01810101-B3
Revisions

Management Review
Other
Technical Review
Project Manager
QUALITY CONTROL
Graphic Standards DLF
Lead Professional

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LEGEND

- PRIVATE WATER SUPPLY WELL LOCATION (LOCATION IS APPROXIMATE)
- VE01 — SOIL VAPOR EXTRACTION WELL LOCATION AND NUMBER
- GP01 — GAS PROBE LOCATION AND NUMBER
- MW01 — MONITORING WELL LOCATION AND NUMBER

NOTES

1. BASE MAP DEVELOPED FROM A SITE PLAN PREPARED BY GARY P. WELSH, P.E., ELKHORN, WISCONSIN, UNDATED, FIELD OBSERVATIONS BY MONTGOMERY WATSON ON DECEMBER 12, 1995, NOVEMBER 7, 1996, AND A SURVEY PLAT BY JENSEN SURVEYING AND MAPPING, DATED MARCH 21, 1996.
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north

0 100 200

SCALE IN FEET

Developed By KRG | Drawn By LCL | Approved By | Date 1/21/03 | Reference 2082334.01810101-B3 | Revisions

EXTENT OF GROUNDWATER CONTAMINATION MAP (SEPTEMBER 26-28, 2002)

EVERGREEN COUNTRY CLUB, INC.
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

Drawing Number 2082452 01180101 B4

MWH MONTGOMERY WATSON HARZA

Management Review — Other
Technical Review 1-16-03 KRG
Project Manager 1-16-03
QUALITY CONTROL
Graphic Standards KRG
Lead Professional

This document has been developed for a specific application and may not be used without the written approval of Montgomery Watson Harza.

SOIL AND GROUNDWATER INVESTIGATION REPORT AND REMEDIAL ACTION PLAN JUNE 1997

EXECUTIVE SUMMARY

During November 1994, a gasoline underground storage tank (UST) system consisting of one 950-gal tank and the associated piping and dispenser was closed by removal at the site. Gabriel Environmental Services (Gabriel) of Milwaukee, Wisconsin performed the closure assessment. The tank appeared to be in good condition upon removal from the ground. Soil contamination, in the form of gasoline range organics at a concentration of 60 mg/kg, was detected below the former tank. During March 1995 Gabriel subcontracted Environmental Services and Solutions (ESS) to excavate petroleum contaminated soils adjacent to the former UST system. A total of 200 to 300 cy of contaminated soil was excavated and stored on-site.

Under Montgomery Watson supervision, on August 24, 1995, five Geoprobe® borings were completed. Soil analytical results indicated that the coarse textured sandy soils present at the site allowed contaminants to migrate to the water table with little lateral movement.

During December 1995, five groundwater monitoring wells were installed at the site. Soil analytical results indicated that the lateral and vertical extent of soil contamination had been defined and was limited to the immediate former tank location. Free product was detected at monitoring wells MW01 and MW02 during the development of these wells. On January 9, 1996, while performing hydraulic conductivity estimations, free product was detected in monitoring wells MW01, MW02, and MW05.

Based on the northwesterly groundwater flow direction and the detection of free product in wells upgradient of a subdivision with private water supply wells, Montgomery Watson contacted the Wisconsin Department of Natural Resources on December 13, 1995 and January 12, 1996. On January 30, 1996, the WDNR collected a groundwater sample from the private water supply well which serves the residences located at N6293 and N6295 Oak Court, Lot 138. Upon receipt of the analytical results, which indicated benzene was detected at a concentration of 120 ug/L, the WDNR declared that emergency actions were required. The emergency actions consisted of supplying bottled water to the affected residences, sampling all private water supply wells on Oak Court, initiating product removal activities and ultimately replacing the private water supply well for N6293/N6295 Oak Court, Lot 138.

Passive product collection devices were installed in monitoring wells MW01, MW02, and MW05 during March 1996. The private supply well for Lot 138 was replaced on May 8, 1996. Samples collected from the new well indicated that the water was benzene and coliform bacteria free. The Emergency Response Actions were completed and Evergreen ceased supplying bottled drinking water to the residences in early June 1996.

During October 1996, five additional groundwater monitoring wells were installed at the site and the former water supply well for Lot 138 was converted to a piezometer. Groundwater samples were collected from site wells and private wells located at N6293 and N6311 Oak Court, the clubhouse, and the shop on November 7, 1996. Analytical results indicated that the lateral extent of groundwater contamination has been defined in all directions except sidegradient to the west/northwest. Free petroleum product was found to extend off-site to well MW06A. At downgradient off-site well MW08A, benzene was detected at a concentration of 0.7 ug/L which is above the NR 140 PAL (0.5 ug/L), but below the NR 140 ES (5 ug/L). This monitoring well is located within approximately 40 ft of the private water supply well on Lot 137. Petroleum contaminants have not been detected in water samples collected from the private water supply well on Lot 137.

On January 23, 1997, the first round of quarterly groundwater monitoring was performed. Free petroleum product was detected at on-site wells MW01, MW02, MW05, and MW07 and at off-site well MW06A. The January 1997 groundwater analytical results indicated improvement relative to the November 1996 results. In particular, benzene was not detected at well MW08A.

Due to the proximity of private water supply wells to the site and the detection of free petroleum product extending off-site, there is an urgent need to control further migration of petroleum contaminants and remove free petroleum from the source area. Each remedial option considered included the replacement of the private water supply well on Lot 137 to remove it as a potential receptor of petroleum contaminated groundwater.

An analysis of three remedial alternatives concludes that Soil Vapor Extraction (SVE) followed by groundwater monitoring for evidence of natural attenuation will remediate the site in the most cost effective manner. This alternative includes the installation of SVE wells throughout the free product plume to remove VOCs from the free product layer. The SVE system will be operated until free product removal is complete. It is estimated that it will take three years to remove the free product. At that time, the SVE system will be turned off and groundwater monitoring for natural attenuation indicator parameters will continue on a semi-annual basis. It is expected that the monitoring will provide evidence that natural attenuation will reduce groundwater contamination to below NR 140 standards within reasonable period of time based on risk to downgradient receptors.

J:\1242\082\02\WP\RPT\99_EXEC.DOC

SUMMARY OF INVESTIGATION ACTIVITIES AND REMEDIAL ACTIONS SINCE THE SITE INVESTIGATION REPORT (JUNE 1997)

Evergreen Country Club
WDNR BRRTS Case # 03-65-004916

Down-gradient monitoring wells MW10 and MW11 were installed in November 1997.

1998
Dakota Intertek Corp installed the soil vapor extraction (SVE) system during July and August 1998. The SVE system consists of 13 SVE wells located within the area of contamination and underground piping connecting the wells to a SVE blower. The SVE blower was located in a small remediation building. Two granular activated carbon units were installed to provide treatment of the extracted soil vapor. A Construction Observation Report was prepared by Montgomery Watson and submitted to the WDNR in February 1999.

The SVE system was started on November 18, 1998.

1999 – 2002
The SVE system operated during this time period. Status Reports, which contained summary tables and figures detailing the operation of the SVE system, were prepared by Montgomery Watson and submitted to the WDNR on June 25, 1999, January 19, 2000, February 1, 2001, September 18, 2001, and January 14, 2003.

The SVE system was turned off on November 15, 2001. Approximately 4,089 pounds of volatile organic compounds (VOCs) were removed from the soil and groundwater by the SVE system.

Since the SVE system was turned off, groundwater monitoring has occurred in April and September 2002.

FREE PRODUCT

The number of monitoring wells that contained free product has decreased since groundwater monitoring began in 1995. Passive product collectors were installed in wells MW01, MW02, and MW05 in March 1996. The product collectors were periodically emptied into drums for storage prior to disposal. A total of approximately 40 gallons of free product was removed from the site in this manner.

In January 1997, free product was detected in 5 monitoring wells: MW01, MW02, MW05, MW06A, and MW07. In March 1999, free product was detected in 3 wells: MW01, MW02, and MW07. In September 1999, only MW07 contained free product. Free product was last detected in well MW07 on January 2000. No free product has been detected since this date.

GROUNDWATER CONTAMINATION

The plume of groundwater contamination has been adequately defined by the results of groundwater monitoring at the site. The horizontal extent of groundwater contamination based on laboratory analysis of groundwater samples collected in September 2002 is shown on Drawing 2082452.01180101-B4 contained in Attachment B7. A historical summary of the groundwater monitoring results is included in Table 2 of Attachment B6. The size of the plume is defined by the following:

- To the northwest, down-gradient: monitoring well MW11 provides a location for monitoring groundwater quality at the furthest reaches of the plume. Petroleum compounds above the WDNR NR140 enforcement standards (ESs) were last detected at this well in June 1999 (benzene, 13 ug/L). No petroleum compounds have been detected at this well since October 2001.

- To the northeast, side-gradient: monitoring well MW01 and MW06A provide locations to monitor groundwater quality at the side of the plume. Groundwater quality has steadily improved since monitoring began. At monitoring well MW01, in September 2002, the concentration of benzene was 0.66 ug/L and toluene 5.4 ug/L. At monitoring well MW06A, the concentration of benzene was 0.91 ug/L in September 2002 and toluene 1.7 ug/L.

- To the southeast, up-gradient: Monitoring wells MW03 and MW04 provide locations to monitor groundwater quality up-gradient of the plume. Well MW03 has never contained any petroleum compounds and well MW04 did contain compounds at low concentrations in 1995 and 1996 (e.g., benzene 30 ug/L), but has not contained any petroleum compounds since January 1997.

- To the southwest, side-gradient: There are no monitoring wells to the southwest of the contaminant plume. Based on the information from the other monitoring wells, it can be assumed that the plume of contamination is in the shape of an oval, with the long axis of the oval parallel to the groundwater flow direction (southeast to northwest). No groundwater receptors are located to the southwest of the plume.

Groundwater contamination concentrations have been steadily decreasing since monitoring began in 1995. Based on the results of the groundwater monitoring, it appears that the plume of groundwater contamination is shrinking in size. This is based on the following observations:

- **Down-gradient:**
  At monitoring well MW11, the concentration of benzene has decreased from a maximum of 13 ug/L in June 1999 to below laboratory detection limits (0.45 ug/L) in September 2002.

At monitoring well MW10, the concentration of benzene has decreased from a maximum of 3,200 ug/L in January 1998 to 28 ug/L in September 2002 and toluene has decreased from 13, 000 ug/L to 230 ug/L for the same time period.

- **Side-gradient:**
  At monitoring well MW01, from December 1995 until September 2002, the concentration of benzene has decreased from 280 ug/L to 0.66 ug/L and the concentration of toluene has decreased from 20,300 ug/L to 5.4 ug/L.

  At monitoring well MW06, benzene decreased from a maximum concentration of 300 ug/L in March 1999 to 0.91 in September 2002 and toluene has decreased from 400 ug/L to 1.7 ug/L for the same time period.

- **Up-gradient:**
  Up-gradient monitoring well MW03 has never contained any petroleum compounds and well MW04 did contain compounds at low concentrations in 1995 and 1996 (e.g., benzene 30 ug/L), but has not contained any petroleum compounds since January 1997.

Mann-Kendall statistical tests were performed on the laboratory results for wells MW01, MW02, MW07 and MW10. The Mann-Kendall spreadsheets are included in Attachment H. At wells MW01, MW02, and MW10, a decreasing trend of contamination was calculated for benzene, ethylbenzene, toluene, total trimethylbenzenes, and total xylenes. For well MW07, a decreasing trend of contamination was calculated for benzene, ethylbenzene, toluene, and total trimethylbenzenes; neither an increasing or decreasing trend was calculated for total xylenes, but the concentration was determined to be stable. Based on the Mann-Kendall tests, the contaminant plume is stable or decreasing in size.

JUSTIFICATION FOR CASE CLOSURE

Case closure for the site is warranted due to:

- Soil: During the soil investigation of 1995, soil contamination above the NR 720.09 Generic Residual Screening Levels was discovered in the soil borings at depths close to the groundwater table. It is believed that the soil contamination is due to the presence of free product and the fluctuation of the water table creating a zone of soil contamination directly above the water table. Within the fluctuation zone of the water table, the SVE system has remediated the contaminated soil at the site.

Groundwater: The site meets the requirements for closure under Chapter NR 746.08(4), site closure for a site with groundwater contamination exceeding enforcement standards within a permeable material. The specific requirements of NR 746.08(4) are:

746.08(4)(a) A site investigation that complies with the requirements of ch. NR 716 has been conducted.

A site investigation in accordance with NR 716 was completed in 1997. The report was submitted to the WDNR in a June 1997 Report "Soil and Groundwater Investigation Report and Remedial Action Plan."

746.08(4)(b) The site meets all of the risk screening criteria in s. NR 746.06(2).

746.06(2)(a) None of the following environmental factors are present at the site:

1. *Documented expansion of the plume margin.*

   Based on the Mann-Kendall analysis, the plume is stable or decreasing in size.

2. *Verified contaminant concentration in a private or public potable well that attains or exceeds the preventive action limit.*

   The one private well that contained contamination was replaced with a new well in 1996. No private or public potable wells have exceedances of the preventative action limits.

3. *Contamination in bedrock or within one meter of bedrock.*

   Bedrock is located at approximately 180 ft below the ground surface and contamination does not extent to this depth.

4. *Petroleum product that is not in a dissolved phase is present with a thickness of 0.01 ft or more, and has been verified by more than one sampling event.*

   Free product has not been measured at the site since January 2000.

5. *Documented contamination discharges to a surface water or wetland.*

   There is no discharge of contaminated groundwater to surface water or a wetland.

746.06(2)(b) No soil contamination is present at the site that exceeds any of the soil screening levels in Table 1.

During the soil investigation of 1995, soil contamination above the soil screening levels was discovered in the soil boring for monitoring well MW02 at a depth of 19 – 21 feet below the ground surface. Further monitoring at well MW02 found free product at this well. It is believed that the soil contamination is due to the presence of free product and the fluctuation of the water table creating a zone of soil contamination directly above the water table. Two vapor extraction wells (VE04 and VE05) for the SVE system were installed approximately 10 ft to the north and south of well MW02. Free product was last measured at well MW02 in June 1999. The SVE system has remediated the contaminated soil above the water table within the fluctuation zone at this location.

746.06(2)(c) There is no soil contamination within 4 ft of the ground surface that exceeds any of the direct contact soil contaminant concentrations for the substances listed in Table 2.

There is no soil contamination within 4 ft of the ground surface.

746.06(2)(d) For substances not listed in Table 2 that are present within 4 ft of the ground surface and that have been approved by the agency with administrative authority for the site for analysis as contaminants of concern as defined by s. NR 720.03(2), any potential human health risk from direct contact has been addressed.

There is no soil contamination within 4 ft of the ground surface.

746.06(2)(e) Except for the substances listed in Table 2, there are no human health risks from direct contact for a substance listed in Table 1 if the substances'' concentration is below the Table 1 soil screening level.

There are no human health risks from direct contact for a substance listed in Table 1.

746.06(2)(f) No release of a petroleum product to the soil or groundwater at the site has occurred within the last 10 years.

No known release of a petroleum product has occurred since the underground storage tanks were removed in November 1994.

746.06(2)(g) There is no evidence of migration or imminent migration of petroleum product contamination within a utility corridor or within a permeable material or soil along which vapors, free product, or contaminated water may flow.

There is no evidence of migration or imminent migration of contamination within a utility corridor, permeable material or soil.

746.06(2)(h) There is no evidence of migration or imminent migration of petroleum product contamination to building foundation drain tile, sumps, or other points of entry into a basement or other enclosed structure where petroleum vapors could collect and create odors or an adverse impact on indoor air quality or where the contaminants may pose an explosion hazard.

There is no evidence of migration or imminent migration of contamination to building foundation drain tile, sumps, or other points of entry into a basement or other enclosed structures.

746.06(2)(i) No enforcement standard is attained or exceeded in any groundwater within 1000 feet of a well operated by a public utility, as defined in s. 196.01(5), Stats, or within 100 feet of any other well used to provide water for human consumption.

The private water supply well for 6293/6295 Oak Court is within 100 feet of monitoring well MW06A, which has exceedances of enforcement standards. The well was installed in May 1996 and is approximately 343 feet deep and is

constructed with steel casing to a depth of approximately 182 feet. This well has been sampled 19 times since 1996 for petroleum compounds and has never had an exceedance of a preventive action limit.

746.08(4)(c) The requirements of ch. NR 726, other than 726.05(2)(b)(2), have been satisfied, including the signing and recording of any required deed restriction or deed notice.

NR 726.05 (2)(b) where NR 140 ES or PALs are exceeded, which state:

1. *Adequate source control measures have been taken which include all the following:*
   a. *Whether regulated or registered under ch. Comm 10 or not, all existing underground storage tanks have been removed, permanently closed or upgraded to prevent new discharges of hazardous substances to the groundwater that would violate ch. NR 140. The same requirement applies to all new and replacement underground storage tanks not regulated under ch. Comm. 10.*

      a. The UST, dispenser, and piping were removed in November 1994.

   b. *All new and replacement underground storage tanks regulated under ch. Comm 10 have been constructed and are being monitored in accordance with ch. Comm 10.*

      b. No new storage tanks have been installed.

   c. *All other existing tanks, pipes, barrels or other containers which may discharge a hazardous substance have been removed, contained or controlled to prevent, to the maximum extent practicable, new discharges of hazardous substances to the groundwater that would violate ch. NR 140.*

      c. All storage tanks and associated equipment was removed in November 1994.

   d. *Where applicable, immediate and interim actions have been taken in accordance with ch. NR 708 to protect public health, safety and welfare and the environment.*

      d. Immediate actions include the installation of a new private water supply well for 6293/6295 Oak Court in May 1996. This well is a total of 343 feet deep and is constructed with steel casing to a depth of 182 feet. Remedial actions including soil excavation and the operation of a SVE system have been performed at the site to protect public health, safety and welfare and the environment.

e. Free product has been removed in accordance with the criteria in s. NR 708.13.

e. Free product was discovered at the site in 1995. Remedial actions including product collection using passive product collectors and hand bailing appear to have removed the free product. Free product has not been measured in site monitoring wells since January 2000.

f. The concentration and mass of a substance and its break-down-products in groundwater have been reduced due to naturally occurring physical, chemical and biological process as necessary to adequately protect public health and the environment, and prevent groundwater contaminant from migrating beyond the boundaries of the property or properties for which groundwater use restrictions have been recorded, except that sites contaminated with petroleum products discharged from petroleum storage tanks that satisfy all of the risk screening criteria in s. NR 746.06 (2) and are eligible for closure under s. NR 746.07(2) or 746.08(2) shall be considered to have satisfied the criterion in this subdivision paragraph without having to provide supporting documentation other than documentation required by ch. NR 746.

f. The remedial actions (soil excavation and the operation of a soil vapor extraction system) and natural attenuation processes have removed a majority of contaminant mass in the groundwater and soil. Natural attenuation of the remaining groundwater contamination will adequately protect human health and the environment. The WDNR's GIS registry will be used for the properties impacted by the groundwater contamination.

2. Natural attenuation will bring the groundwater into compliance with ch. NR 140 groundwater quality standards within a reasonable period of time, considering the criteria in s. NR 722.07, except that sites contaminated with petroleum products discharged from petroleum storage tanks that satisfy all of the risk screening criteria in s. NR 746.06(2) and are eligible for closure under s. NR 746.07(2) or (4) or 746.08(2) or (4), shall be considered to have satisfied the criterion in this subdivision without having to provide supporting documentation other than documentation required by ch. NR 746.

2. Not required.

3. *After case closure, groundwater contamination exceeding ch. NR 140 preventive action limits will not migrate beyond the site boundaries of any property that falls into one of the following categories:*

   a. *Properties for which a preventive action limit exemption has been granted.*

      a. Not applicable.

   b. *Properties that have been identified as having existing groundwater contamination that exceeds ch. NR 140 enforcement standards and that will be included on the department's geographic information system registry of closed remediation sites.*

      b. Both on and off-site properties which are affected by groundwater contamination in excess of NR 140 enforcement standards shall be included on the WDNR's geographic information system registry of closed remediation sites. The properties include the Evergreen Country Club property, 6293/6295 Oak Court, and U.S. Highway 12/67 owned by the WI DOT.

4. *If there are ch. NR 140 enforcement standard exceedances on any property within or partially within the contamination site boundaries, each property with ch. NR 140 enforcement standard exceedances will be included on the department's geographic information system registry of closed remediation sites, and for a public street or highway right-of-way where there are ch. NR 140 enforcement standard exceedances, the responsible party has given written notification of the presence of the residual soil and groundwater contamination from the responsible party's source property that remains within the right-of-way to the clerk of the town and county, or village or city where the right-of-way is located, and the municipal department or state agency that is responsible for maintaining the street or highway.*

   4. Properties which contain groundwater that exceeds NR 140 enforcement standards will be included on the WDNR's geographic information system registry of closed remediation sites. The groundwater contamination does extend off-site to property owned by the WI DOT. A letter giving written notification of the groundwater contamination shall be submitted to the WI DOT. A copy of this letter is included in Attachment B.

5. *There is no existing or anticipated threat to public health, safety or welfare, or the environment.*

   5. There are not existing or anticipated threats to public health, safety or welfare, or the environment at the site.

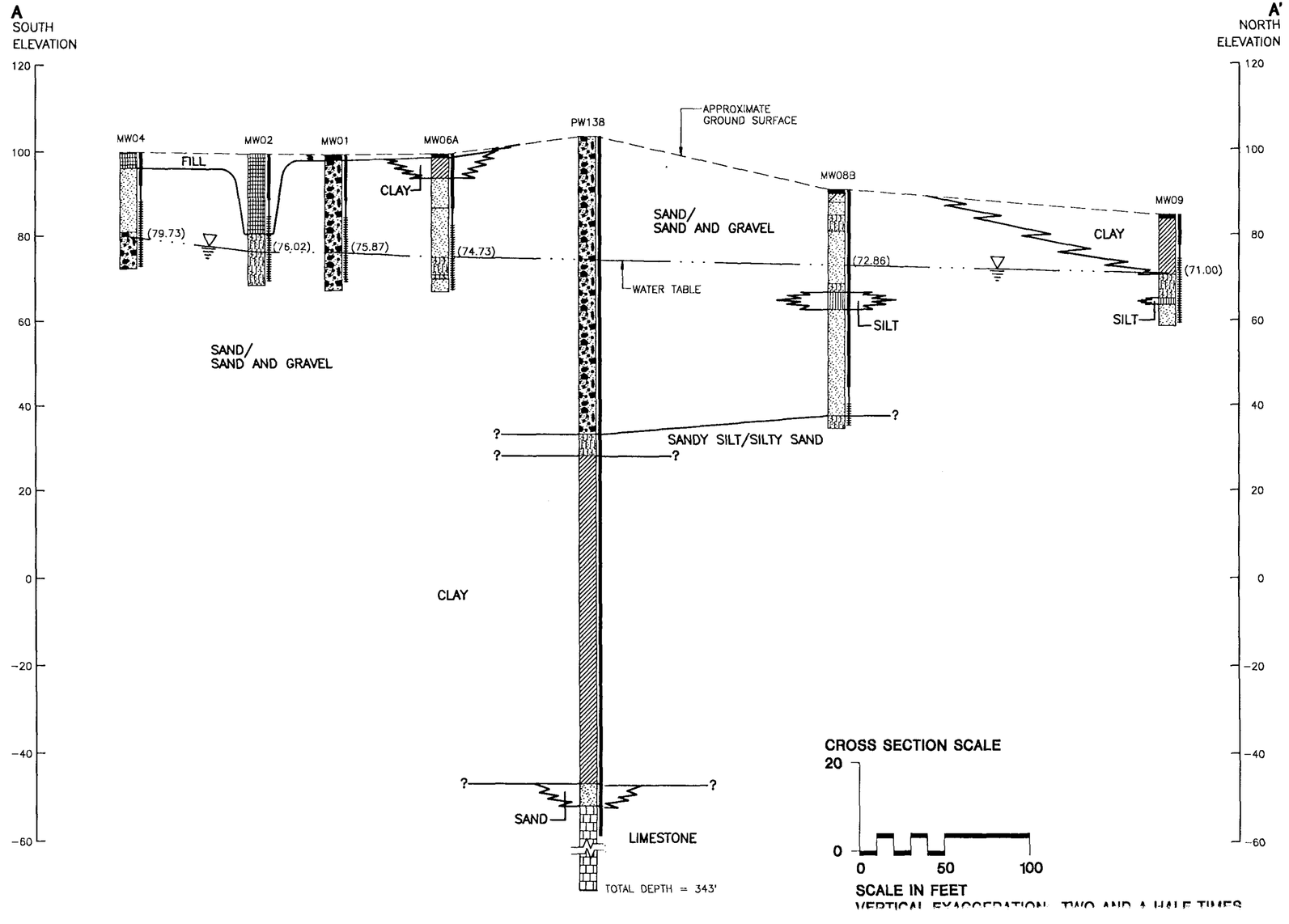
746-08(4)(d) One of the following tests has been satisfied:

1. *There is a minimum of 4 rounds of sampling data that are free of seasonal variation, and those sample results established, through the use of the Mann-Kendall statistical test that is set forth in Appendix A, that the concentrations of contaminants with confirmed exceedances of enforcement standards are decreasing at the downgradient perimeter and along the centerline of the contaminant plume.*

2. *For sampling data not free of seasonal variation, an appropriate number and frequency of sampling rounds has been conducted consistent with the requirements of Appendix A, and the sample results establish, through the use of the Mann-Whitney U statistical test that is set forth in Appendix A, that the concentrations of contaminants with confirmed exceedances of enforcement standards are decreasing at the downgradient perimeter and along the centerline of the contaminant plume.*

   Graphs for the Mann-Kendall statistical test for monitoring wells MW01, MW02, and MW10 are included in Attachment H. The concentration of contaminants is decreasing at wells MW01 (side gradient), MW02 (at the source of contamination), and MW10 (downgradient). At well MW07, which is located in the center of the contaminant plume, concentrations of benzene, ethylbenzene, and toluene are decreasing, total xylenes does not have a trend.

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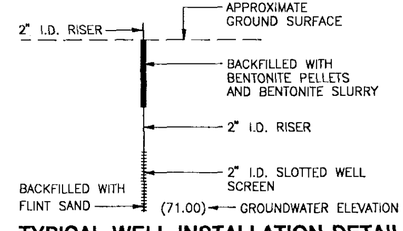


LEGEND

- TOPSOIL
- FILL
- SAND WITH LOW SILT AND CLAY CONTENT (SP OR SW), MAY ALSO INCLUDE SW-SM, SW-SC, SP-SM AND SP-SC
- SILTY SAND (SM), MAY ALSO INCLUDE SP-SM AND SW-SM
- CLAYEY SAND (SC), MAY ALSO INCLUDE SP-SC AND SW-SC
- SAND AND GRAVEL WITH LOW SILT AND CLAY CONTENT (SP/GP OR SW/GW), MAY ALSO INCLUDE SW-SM/GW-GM, SW-SC/GW-GC, SP-SM/GP-GM, AND SP-SC/GP-GC
- SILT, NON-PLASTIC OR LOW PLASTICITY (ML)
- LEAN CLAY, MODERATE PLASTICITY (CL)
- LIMESTONE

NOTES

1. THE STRATUM LINES ARE BASED ON INTERPOLATION BETWEEN BORINGS AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
2. REFER TO DRAWING 4467.0020-B3 FOR ADDITIONAL NOTES AND LEGEND.
3. CROSS SECTION LOCATION IS SHOWN ON DRAWING 4467.0020-B3.
4. FOR THE PURPOSE OF ILLUSTRATING SUBSOIL CONDITIONS ON THE CROSS SECTIONS, SOME OF THE BORING LOGS HAVE BEEN SIMPLIFIED. FOR A DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT INDIVIDUAL BORINGS, REFER TO SOIL BORING LOGS, APPENDIX A1 OF TEXT.
5. FOR COMPLETE MONITORING WELL INSTALLATION DETAILS REFER TO APPENDIX A3 OF TEXT.
6. HORIZONTAL DISTANCES ARE MEASURED WITH RESPECT TO THE CENTER OF EACH SOIL BORING LOCATION.
7. BENCHMARK OF TOP OF CASING OF SHOP WELL (100.92 FT) USED FOR SITE SPECFIC DATUM. THE ELEVATION OF 100.92 FT TAKEN FROM SUPPLEMENTAL PLAN SUBMITTED TO EVERGREEN COUNTRY CLUB BY GARY P. WELSH, P.E. ON OCTOBER 10, 1995.
8. QUESTION MARKS AT THE CONTACTS BETWEEN SUBSOIL TYPES INDICATES THE CONTACTS ARE INFERRED.
9. THE WATER TABLE ELEVATIONS ARE BASED ON MEASUREMENTS OBTAINED BY MONTGOMERY WATSON ON NOVEMBER 7, 1996.
10. PW138 IS REPLACEMENT PRIVATE WATER SUPPLY WELL INSTALLED ON LOT 138 (N6293/N6295 OAK COURT) IN MAY 1996. NOTE TOTAL DEPTH OF WELL IS 343 FT. BOREHOLE IS CASED TO A DEPTH OF 182 FT WITHIN THE LIMESTONE. OPEN BOREHOLE EXTENDS BENEATH THE CASING TO THE BOTTOM OF THE BOREHOLE.



TYPICAL WELL INSTALLATION DETAIL

NOT TO SCALE

QUALITY CONTROL

Graphic Standards	DLF	1-3-97
Lead Professional	KRG	2-20-97
Technical Review		
PM Review	MCB	2-19-97
Management Review		
Other		

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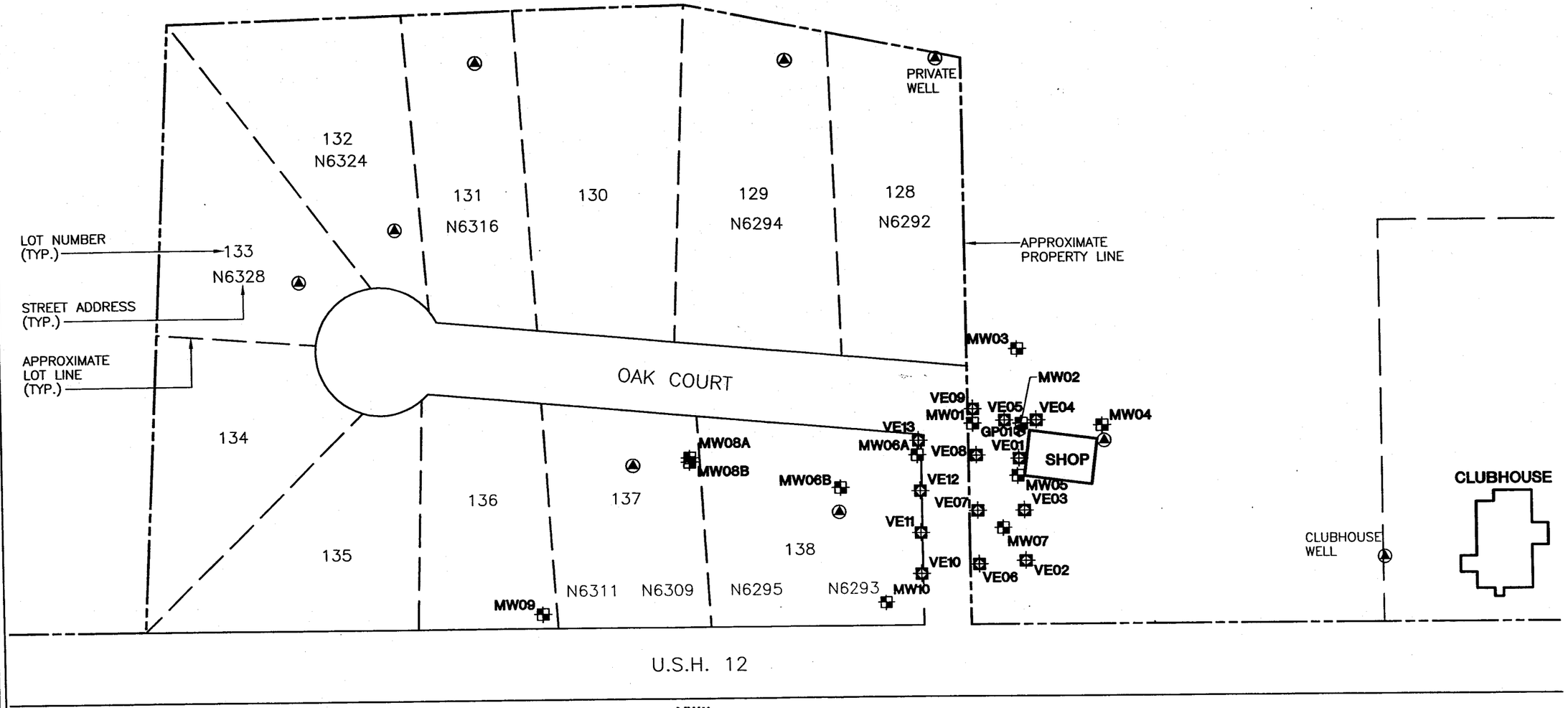
Developed By MDP Drawn By DLF
Approved [signature] Date 6/17/97
Reference
Revisions

GEOLOGIC CROSS SECTION A-A'

SOIL AND GROUNDWATER INVESTIGATION AND REMEDIAL ACTION PLAN
EVERGREEN COUNTRY CLUB
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

Drawing Number
4467.0020 **B7**

MONTGOMERY WATSON



LEGEND

- PRIVATE WATER SUPPLY WELL LOCATION (LOCATION IS APPROXIMATE)
- VE01 — SOIL VAPOR EXTRACTION WELL LOCATION AND NUMBER
- GP01 — GAS PROBE LOCATION AND NUMBER
- MW01 — MONITORING WELL LOCATION AND NUMBER

NOTES

1. BASE MAP DEVELOPED FROM A SITE PLAN PREPARED BY GARY P. WELSH, P.E., ELKHORN, WISCONSIN, UNDATED, FIELD OBSERVATIONS BY MONTGOMERY WATSON ON DECEMBER 12, 1995, NOVEMBER 7, 1996, AND A SURVEY PLAT BY JENSEN SURVEYING AND MAPPING, DATED MARCH 21, 1996.
2. MONITORING WELLS MW01 THROUGH MW05 WERE INSTALLED BY BADGER STATE DRILLING COMPANY INC., UNDER THE SUPERVISION OF MONTGOMERY WATSON ON DECEMBER 11 & 12, 1995. MONITORING WELLS MW06A, MW06B, MW07, MW08A, MW08B, AND MW09 WERE INSTALLED BY BADGER STATE DRILLING COMPANY INC., UNDER THE SUPERVISION OF MONTGOMERY WATSON ON OCTOBER 28–31, AND NOVEMBER 1, 1996.
3. LOCATIONS AND ELEVATIONS OF MONITORING WELLS MW01 THROUGH MW05 WERE OBTAINED BY MONTGOMERY WATSON ON DECEMBER 12, 1995. LOCATIONS AND ELEVATIONS OF MONITORING WELLS MW06A, MW06B, MW07, MW08A, MW08B, AND MW09 WERE OBTAINED BY MONTGOMERY WATSON ON NOVEMBER 7, 1996
4. LOT NUMBERS 130, 134, 135, AND 136 HAVE NOT BEEN DEVELOPED.
5. PRIVATE WATER SUPPLY WELL ON LOT 138 REPLACED ON MAY 8, 1996 BY HYINK WELL DRILLING UNDER MONTGOMERY WATSON SUPERVISION.
6. WELLS MW10, MW11, GAS PROBE GP01 AND SOIL VAPOR EXTRACTION WELL VE01 WERE INSTALLED BY BOART LONGYEAR UNDER THE SUPERVISION OF MONTGOMERY WATSON ON NOVEMBER 17–19, 1997.

north

0 100 200

SCALE IN FEET

Developed By KRG Drawn By LCL

Approved By Date 1/13/03

Reference 2082334.01810101-B3

Revisions

SITE FEATURES MAP

EVERGREEN COUNTRY CLUB, INC.
HIGHWAYS 12 & 67 NORTH
ELKHORN, WISCONSIN

Drawing Number
2082452
01180101 B3

MWH
MONTGOMERY WATSON HARZA

Management Review
Other
Technical Review
Project Manager
QUALITY CONTROL
Graphic Standards DLF
Lead Professional

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RECEIVED
JUN 17 2004
By VS

June 11, 2004

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Brenda H. Boyce, P.G.
Hydrogeologist
Remediation and Redevelopment Program
Waukesha Service Center
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Room 180
Waukesha, WI 53188

Subject: Case Closure Request Appeal for Evergreen Country Club Inc., N 6246 US Highway 12/67, Elkhorn: FID#265021460; BRRTS# 03-65-004916

Dear Ms. Boyce:

I am writing in response to your denial letter for the closure appeal for Evergreen Country Club Inc. LUST site of September 18, 2003. I believe that the site referenced should now be closed by the WDNR based on the actions taken below, which meet the conditions of your letter, and based on the current state of scientific understanding of contaminant plume transport and WDNR policy to apply scientific based reasoning and current knowledge to closure decisions.

1. Enclosed is a check for $200 for the soil GIS registry fee. I have been assured by Mr. Keith Gilkey that the required documentation for inclusion in the soil GIS registry is contained in the original closure request from MWH received by your office on April 8, 2003.

2. "Extent of groundwater contamination not adequately defined...install permanent monitoring wells..." west of MW10 and southwest of MW07. An attempt was made to conduct geoprobing to water level from HWY 12/67 to the SW of MW07, no water nor impacted soil was struck to 30'. Based on current technical understanding of contaminant plume transport, local topography and groundwater flow and the continued decrease of contaminant concentration in the plume, no further action is justified. This argument, put forth in my 1st appeal letter of September 4, 2004 and reiterated here with more supporting documentation, is fully supported by the quarterly samplings reported below 3). In Appendix A are topographic maps of the area showing the adjacent land use of an RV park, the RV park well location and two man made ponds (A1), and a blow up of the area of the plume impact (A2). It is clear that the well serving the RV park is over

2000' from the plume area and is not impacted. The topographic map in A2 shows MW 11, MW10 and MW07 and the fact that there is a steep uphill slope to a plateau to the West (W) of MW10 and Southwest (SW) of MW07. The nearest receptor is a shallow man made pond which has been measured at site to be 690' from MW07. MW11 represents a sampling point directly down hydraulic gradient, *i.e.* the groundwater flow direction in which convective transport and longitudinal dispersion are present as transport mechanisms, has shown only Benzene in the <10 ppb range and has been clean since October 2001. MW11 indisputably represents the leading plume edge and maximum extent of contaminant transport in any direction. The only mechanism for transport to the SW and W directions are by transverse dispersion and molecular diffusion, both mechanisms orders of magnitude smaller than the transport to MW11 (Jacob Bear, Milovan S. Beljin, and Randall R. Ross, Fundamentals of Ground-Water Modeling, EPA/540/S-92/005 April 1992). Hence in a porous non-fractured high permeability media such as is present on this site MW11 represents a maximum extent of plume spreading of 540'. This fact coupled to the fact that plumes are always extended in the flow direction indicates an extent of contamination in the SW and W direction of less than 540' as a high maximum. This argument is consistent with multiple year analysis of plumes at sites such as the USGS Cape Cod Study Site (*e.g.* EPA Document 500R01007A Multispecies Reactive Tracer Test in a Sand and Gravel Aquifer, Cape Cod, Massachusetts: Part 1 Experimental Design and Transport of Bromide and Nickel-EDTA Tracers) that indicate transport of contaminants is slower than expected and plumes tend to be fairly stationary and contiguous, and eliminates the man made pond as a receptor and negates further drilling. To the SSW of MW07 there is a septic field which generates a water influx which will serve to decrease any transport of the plume to the SW or W as well as generate microbial biofilms growth which would serve as a barrier to transport in that direction as well. In addition as reported here all wells continue to show decreasing contamination adding a decreasing source to the arguments put forth against further drilling to the W and SW. Should you wish to dispute this argument I ask that a scientific basis for a contrary position be put forward.

3. "A minimum of four rounds of quarterly groundwater monitoring at steady-state conditions are required to establish the contaminant trends within the plume." An additional two rounds of groundwater monitoring have been conducted and full results are shown in Appendix B. All wells continue to show decreasing contaminant concentrations. The Mann-Kendall statistics for MW10, Appendix C, shows a decreasing trend at the centerline of the plume. The wells in the former free product zone MW05 and MW07 also show decreasing behavior for the most volatile compounds and stable trends for all others consistent with significant natural attenuation continuing after the SVE shutdown and corresponding rebound. Note MW05 was destroyed during construction by the current operators of the golf course during construction on the maintenance shop and was not sampled in the last round.

4. "A figure of the site including locations of underground utilities, surface bodies of water and land uses on adjacent properties should have been included as per NR

716.15(2)(d)6." In Appendix D is a drawing showing all underground utilities and the Residential land use on the West of Hwy 12&67. Also included in Appendix A is a topographic map which shows a pond to the West of HWY 12&67 as discussed in point 2 above, where the land use is also discussed.

5. "Soil disposal and other investigative waste and free product disposal documentation must be included." Already received as indicated in your letter.

The site should be closed based on the technological data and scientific arguments presented above. No reasonable case based on current understanding of contaminant fate and remediation can be made in light of the decreasing contaminant concentrations and plume extent data. I believe a failure to grant closure at this juncture would represent a decision which is contrary to 30 years of data and analysis of plume transport and as such would violate the current procedures by which WDNR is assessing closure issues. If you have any concerns or questions regarding the arguments put forward in this appeal please feel free to contact me.

Sincerely,

Joseph D. Seymour, Ph.D. Chemical Engineer

Attachments: A. Topographic Maps w/ land use
B. Groundwater Quarterly Sampling Results
C. Mann-Kendall Statistics
D. Utility Map

cc: Mr. Daniel S. Seymour
Mr. Steven Koch, Attorney at Law
Mr. Keith R. Gilkey, P.E., MWH Madison

Appendix B
Groundwater Quarterly Sampling Results

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	GRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
MW01																											
12/12/1995	X	280**	20300**	13700**	75,200	36,900	112,100**	23,100	76,000	99,100**	40,000	1,360	X	1260.0	591	18,700**	2*	NA	NA	NA	NA	NA	NA	NA	NA	NA	582,000
11/7/1996	X	130**	3990**	1290**	7,320	3,010	10,330**	928	3,210	4,138**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	X	15**	190*	55	900	390	1,290**	320	1000	1320**	NA	NA	NA	NA	NA	NA	NA	317	584**	0.98	26.9	X	NA	NA	NA	NA	NA
11/18/1999	X	4	10	6	340	130	470*	90	280	370*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/11/2000	X	X	10	46	1400	480	1,880**	480	1500	1980**	NA	NA	NA	NA	NA	NA	NA	NA	239**	8.46*	28.80	0.219*	NA	NA	NA	NA	NA
4/25/2000	3.0	X	X	5.7	110	32	142*	36	100	136*	NA	NA	NA	NA	NA	NA	NA	342	127*	3.39*	26.9	X	4.7	23	7.30	835	NA
8/17/2000	30*	2.6*	200*	7.7	2600	840	3,440**	600	160	760**	NA	NA	NA	NA	NA	NA	NA	226	266**	1.28[U]	20.5	X	NA	NA	7.32	490	NA
10/13/2000	18*	X	27	X	270	85	355*	73	250	323*	NA	NA	NA	NA	NA	NA	NA	360	447**	6.2*	35.9	X	7.7	-3	7.23	1,332	NA
4/26/2001	X	X	18	1.3	210	83	293*	58	190	248*	NA	NA	NA	NA	NA	NA	NA	340	220**	2.2*	21.0	0.025	NA	NA	NA	NA	NA
7/25/2001	X	X	130*	X	3500	640	4,140**	320	1200	1,520**	NA	NA	NA	NA	NA	NA	NA	280	570**	1.00	20.0	0.013	1.0	112	7.95	607	NA
10/23/2001	X	X	59	X	1,500	340	1,840**	210	800	1,010**	NA	NA	NA	NA	NA	NA	NA	350	830**	NA	28	0.100	0.4	-56	7.26	845	NA
4/26/2002	X	X	2.9	X	96	20	116	38	120	158*	X	X	X	3.1	3.3	46**	NA	380	340**	4.5	21	X	4.5	98	7.42	879	NA
9/26/2002	9.6	0.66*	5.4	2.3	110	14	124*	95	250	345*	NA	NA	NA	NA	NA	NA	NA	390	420**	2.3*	23	X	1.6	12	7.74	651	NA
12/16/2003	X	X	90 Q	120.0	1,700	720	2420	730	2,200	2930	NA	NA	NA	NA	NA	NA	NA	410	170	3.7	28	0.250	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	1,600	680	2280	530	1,600	2130	NA	NA	NA	NA	NA	NA	NA	340	360	11.0	24	0.220	NA	NA	NA	NA	NA
MW02																											
12/12/1995	28*	11600**	26800**	2760**	8,360	3,760	12,120**	220	2,920	3,140**	373	X	260	38.0	X	848**	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	87,500
11/7/1996	X	2570**	29800**	5330**	27,100	11,400	38,500**	4,540	15,100	19,640**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/16/1999	X	40**	2,000**	680*	4,400	1,700	6,100**	1,200	2,200	3,400**	NA	NA	NA	NA	NA	NA	NA	NA	446**	3.69*	47.7	X	NA	NA	NA	NA	NA
1/11/2000	X	5.7**	1500**	540*	3,200	1,300	4500**	450	1,400	1,850**	NA	NA	NA	NA	NA	NA	NA	NA	273**	9.1*	26.9	1.10**	NA	NA	NA	NA	NA
4/25/2000	X	X	230*	150*	1,600	700	2,300**	550	1,600	2,100*	NA	NA	NA	NA	NA	NA	NA	397	199**	10.8**	56.1	0.37**	6.4	-43	7.26	1,190	NA
8/17/2000	X	43**	24	33	350	140	490*	320	730	1,050**	NA	NA	NA	NA	NA	NA	NA	313	414**	7.44*[U]	43.3	0.409*	NA	NA	NA	NA	NA
10/13/2000	6.6	X	23	29	220	90	310*	81	200	281*	NA	NA	NA	NA	NA	NA	NA	316	827**	10.8**	42.3	X	12.7	-12	6.82	1,177	NA
1/25/2001	X	X	57	11	230	130	360*	46	110	156*	NA	NA	NA	NA	NA	NA	NA	390	490**	15**	29	0.05	6.3	26	7.12	1,490	NA
4/26/2001	X	X	1	1	58	30	88	19	40	59	NA	NA	NA	NA	NA	NA	NA	290	680**	13**	39	0.03	NA	NA	NA	NA	NA
7/25/2001	X	X	1	2	72	39	111	52	72	124*	NA	NA	NA	NA	NA	NA	NA	310	49*	8.9*	33	X	6.4	96	7.90	736	NA
10/23/2001	X	X	0.65	2.0	120	60	180*	120	190	310*	NA	NA	NA	NA	NA	NA	NA	330	60**	NA	35	X	3.7	-66	7.35	965	NA
4/26/2002	X	X	16	X	55	29	84	33	63	96*	X	X	X	0.48Q	2.6	14*	NA	370	31*	13**	32	X	4.6	101	7.26	917	NA
9/26/2002	4.9	X	6.8	5.0	300	230	530*	89	220	309*	NA	NA	NA	NA	NA	NA	NA	410	740**	5.6*	30.0	X	3.1	-64	7.74	846	NA
12/16/2003	X	X	X	X	15000 Q	6600 Q	21,600 Q	11000 Q	18,000	29000	NA	NA	NA	NA	NA	NA	NA	460	110	9.7	40	0.088					
3/10/2004	X	X	X	X	4,100	1700	5800	1,700	3,600	5300	NA	NA	NA	NA	NA	NA	NA	370	100	12.0	150	0.019	NA	NA	NA	NA	NA
MW03																											
12/12/1995	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	X
7/23/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	339	X	4.99*	37	X	5.4	175	6.83	1,140	NA
11/7/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	511	X	11.2**	24	X	4.9	281	6.68	1,410	NA
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	470	X	10.4**	29	X	3.5	156	6.86	1,150	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	389	0.4	4.63*	38.3	X	4.8	208	7.11	880	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	381	0.7	4.14*	30.4	X	6.4	50	7.49	1,230	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	1.7	9.58*	27.4	X	6.6	192	6.35	1,230	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	423	X	7.71*	25.0	X	5.6	120	7.16	1,120	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	376	X	7.26*	25.8	X	7.9	239	6.69	978	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	1.16	7.02*	28.3	0.0450	10.3	230	6.73	979	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	134**	5.07*	25.4	0.96**	1.20	206	7.03	1,129	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	333	1.4	2.97*	27.1	X	7.1	12	7.35	685	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	350	4.2	8.12*[U]	42.3	X	12.3	80	7.11	1,012	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	380	2.9	10.0**	29.0	X	14.6	120	6.91	1,497	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	420	5.2	11**	23.0	0.11	7.1	33	7.16	1,295	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	340	24.0	6.1*	17.0	0.57**	6.9	24	7.26	736	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	310	1.2	4.2*	20.0	X	7.6	63	7.96	644	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	390	1.9	NA	24.0	X	3.2	60	7.11	1,192	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	350	2.2	4.1	22.0	0.023Q	7.5	105	7.42	697	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	400	15.0	11**	31.0	X	6.1	62	7.17	1,033	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	1	9.7	27	X	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	320	X	8.3	21	0.011	NA	NA	NA	NA	NA
MW04																											
12/12/1995	X	30**	69*	13	66	29	95	10	28	38	11	X	0.5	X	X	11*	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	654
7/23/1996	X	0.5*	0.30	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	362	110**	5.34*	30.00	0.10	0.6	188	6.86	990	NA
11/7/1996	X	1.7*	0.20	1.50	0	X	0	X	0	X	NA	NA	NA	NA	NA	NA	NA	485	X	13.2**	28.00	X	3.8	216	6.80	1,480	NA
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	470	17	18.3**	26.00	X	3.3	60	6.69	1,460	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	464	0.7	21.6**	34.8	X	3.4	214	7.08	1,850	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	393	1.0	6.36*	29.9	X	5.6	75	7.29	1,240	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	1.7	15.7**	32.3	X	5.4	186	6.26	1,770	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	425	0.423	14.6**	26.9	X	6.0	176	7.11	1,520	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	349	X	7.71*	25.9	X	7.8	227	6.62	952	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	2.43	8.91*	33.3	X	8.7	232	6.81	1,047	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	X	18.3**	26.9	X	0.8	226	6.93	2,234	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	341	X	8.9*	33.1	X	6.8	12	7.28	1,110	NA

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	GRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	327	1.50	4.36*(V)	31.4	X	11.5	303	NA	NA	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	384	0.70	9.69*	34.6	X	8.9	168	7.15	1,312	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	2.30	15**	26	0.0270	6.1	49	7.11	1,470	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	340	0.83	5.4*	27	X	6.2	60	7.26	738	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	350	0.67	3.60	27	X	8.4	57	8.00	647	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	360	2.0	NA	26	X	4.7	71	7.34	941	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	370	0.43Q	11	24	X	5.9	85	7.32	1,028	NA
9/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	420	X	19**	38	X	4.8	104	7.39	1,177	
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	460	1.2	14.0	37	X	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	X	14.0	27	0.006Q	NA	NA	NA	NA	NA
MW05																											
12/12/1995	X	6840**	14700**	1320**	6,160	2,800	8960**	385	1,600	1,985	255	16	127	32.0	X	469**	15**	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,600
11/7/1996	X	3370**	7510**	829**	4,440	1,940	6380**	479	1,650	2,129	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/19/1998	X	1700**	12000**	970**	5,300	2,400	7700**	1,900	2,400	4,300	NA	NA	NA	NA	NA	NA	NA	NA	381**	8.66*	36.5	X	NA	NA	6.74	1,440	NA
6/9/1999	X	800**	4,900**	650*	5,000	2,400	7,400**	1,600	5,000	6,600**	NA	NA	NA	NA	NA	NA	NA	327	596**	8.05*	30.2	X	NA	NA	NA	NA	NA
9/16/1999	X	680**	5,000**	580*	3,000	1,300	4,300**	420	1,200	1,620**	NA	NA	NA	NA	NA	NA	NA	NA	222**	6.57*	34.8	0.042	9.0	210	6.76	1,419	NA
1/11/2000	X	63**	1800**	350**	2,300	930	3230**	410	1,300	1710**	NA	NA	NA	NA	NA	NA	NA	NA	95.5**	13.8**	39.2	X	NA	NA	NA	NA	NA
4/25/2000	8.70	25**	770**	150*	930	380	1,310**	140	480	620**	NA	NA	NA	NA	NA	NA	NA	410	103**	14.3**	30.6	X	5.0	47	7.21	1,485	NA
8/17/2000	X	160**	4,700**	630*	3,600	1,700	5,300**	490	1,700	2,190**	NA	NA	NA	NA	NA	NA	NA	370	NA	4.01*(V)	39.6	NA	NA	NA	NA	NA	NA
10/13/2000	X	30**	2,300**	230*	1,600	980	2,580**	160	670	830**	NA	NA	NA	NA	NA	NA	NA	356	111**	5.11*	29.2	X	9.9	34	7.15	1,126	NA
1/25/2001	X	10**	700**	170*	990	410	1,400**	160	540	700**	NA	NA	NA	NA	NA	NA	NA	410	130**	12**	34	0.023	NA	NA	NA	NA	NA
4/26/2001	X	7.1**	1,200**	160*	1,100	510	1,610**	77	330	407*	NA	NA	NA	NA	NA	NA	NA	420	130**	10**	27	X	2.7	85	7.17	1,062	NA
7/25/2001	X	X	2,700**	650*	4,000	1,500	5,500**	460	1,600	2,060**	NA	NA	NA	NA	NA	NA	NA	310	170**	4.0*	22	X	NA	NA	NA	NA	NA
10/23/2001	X	X	1,200**	370*	2,700	1,100	3,800**	330	1,200	1,530**	NA	NA	NA	NA	NA	NA	NA	320	130**	NA	35	0.009	NA	NA	NA	NA	NA
4/26/2002	X	X	530**	110	910	360	1270**	160	560	720**	X	X	X	11Q	X	130**	NA	390	61**	10**	26	X	3.5	92	7.72	1,141	NA
9/26/2002	31*	X	2,400**	500*	2,900	1,200	4,100**	400	1,300	1,700**	NA	NA	NA	NA	NA	NA	NA	420	84**	8.0*	27	X	3.4	-4	7.48	1,026	NA
12/16/2003	X	9.1Q	310.0	77.0	640	190	830	130	350	480	NA	NA	NA	NA	NA	NA	NA	430	78.0	6.4	36	0.032Q	NA	NA	NA	NA	NA
MW06A																											
11/19/1998	100**	<40	140*	100	1,800	620	2,420**	2,000	2,400	4,400**	NA	NA	NA	NA	NA	NA	NA	NA	864**	0.62	33.6	X	NA	NA	6.93	1,000	NA
3/4/1999	X	300**	400**	550*	3,800	1,200	5,000**	3,600	12,000	15,600**	NA	NA	NA	NA	NA	NA	NA	439	616**	2.22*	30.6	X	4.5	8	6.57	1,130	NA
6/9/1999	X	0.80*	1.6	32	X	5.2	5.20	22	36	58	NA	NA	NA	NA	NA	NA	NA	361	194**	3.93*	28.9	X	3.4	120	7.10	879	NA
9/16/1999	X	2.0*	10	X	120	52	172**	84	200	284*	NA	NA	NA	NA	NA	NA	NA	NA	627**	0.340	24.1	X	3.1	230	6.95	1,146	NA
1/11/2000	X	X	9	X	420	110	530**	550	1,100	1650**	NA	NA	NA	NA	NA	NA	NA	NA	637**	1.39	25.7	0.26**	1.3	58	6.93	1,122	NA
4/25/2000	21**	X	X	7.8	190	57	247*	230	650	880**	NA	NA	NA	NA	NA	NA	NA	370	680**	2.97*	33.0	X	0.9	5	7.35	975	NA
8/17/2000	13*	31**	X	X	36	10	46	64	160	224*	NA	NA	NA	NA	NA	NA	NA	306	287**	1.63(V)	30.2	X	NA	NA	7.20	580	NA
10/13/2000	6.60	X	2	2.6	22	7	29	29	92	121*	NA	NA	NA	NA	NA	NA	NA	297	250**	2.88*	22.2	X	11.6	6	6.99	839	NA
1/25/2001	X	X	7	13.0	180	45	225*	180	500	680**	NA	NA	NA	NA	NA	NA	NA	350	660**	3.6*	25.0	0.093	4.9	17	7.34	1,000	NA
4/26/2001	X	X	1	0.8	10	2	12	9	24	33	NA	NA	NA	NA	NA	NA	NA	310	110**	4.0*	24.0	X	2.9	11	7.24	768	NA
7/25/2001	X	X	1	1.2	20	6	26	29	50	79	NA	NA	NA	NA	NA	NA	NA	270	180**	2.8*	18.0	X	1.9	104	7.96	622	NA
10/23/2001	X	X	X	0.78	7.3	1.4	8.7	17	40	57	NA	NA	NA	NA	NA	NA	NA	350	340**	NA	22.0	X	1.5	21	7.21	846	NA
4/26/2002	X	X	X	0.52Q	5.1	X	5.1	7.7	19	27	X	X	X	X	X	1.4Q	NA	350	160**	3.5	22.0	X	4.4	83	7.45	872	NA
9/25/2002	3.40	0.91*	1.70	9.70	64.0	8.1	72.1	64.0	170	234*	NA	NA	NA	NA	NA	NA	NA	380	1,000**	1.2	21.0	0.22*	1.6	-24	7.42	827	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	420	70.0	10.0	36	0.083Q	NA	NA	NA	NA	NA
3/10/2004	X	X	23.0	0.79Q	2.1Q	X	2.1Q	18	18	36	NA	NA	NA	NA	NA	NA	NA	330	350	5.7	26	0.099	NA	NA	NA	NA	NA
MW06B																											
1/30/1996	X	120**	64	X	31	72.00	103.00	2.40	6.60	9.00	X	X	NA	1.1	X	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/27/1996	X	120**	49	1	31	62.00	93.00	10.00	2.40	12.40	X	X	NA	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/1996	X	42**	1.9	X	5	X	4.6	X	X	X	X	X	3.4	X	X	X	X	452	80**	9.52*	32.0	0.04	0.3	180	6.75	1,340	97
1/23/1997	X	1.5*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	456	68**	9.14*	45.0	0.04	0.3	15	6.87	1,250	NA
1/7/1998	X	77**	2.1	X	13	6.2	19.2	0.6	3.9	5	NA	NA	NA	NA	NA	NA	NA	490	154**	8.38*	38.2	0.05	0.1	6	7.18	1,325	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	417	2.3	6.24*	57.6	X	0.9	13	7.33	1,555	NA
11/19/1998	X	26**	0.20	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	119**	9.52*	47.7	0.03	1.7	5	6.83	1,390	NA
3/4/1999	X	0.80*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	416	113**	6.86*	61.8	0.039	5.1	4	7.03	1,290	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	83.1**	5.52*	60.1	0	3.1	39	7.01	1,103	NA
9/16/1999	X	4.2*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	130**	3.39*	60.8	X	1.6	238	6.89	1,496	NA
1/11/2000	X	20**	0.23	X	X	2	2	X	0.1	0.1	NA	NA	NA	NA	NA	NA	NA	NA	296**	2.3*	33.7	X	2.0	214	6.83	1,483	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	399	176**	10.7**	47.8	X	0.7	-41	7.24	1,370	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	407	68.6**	6.15*(V)	56.3	X	7.4	13	7.20	1,183	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	415	89.3**	11.6**	39.9	0.0	10.9	126	6.84	1,681	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	410	97**	11**	39.0	0.1	6.5	38	7.21	1,235	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	58**	5.2*	53.0	0.0	0.7	-10	7.19	968	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	390	51**	7.5*	47.0	0.1	1.4	101	7.70	1,007	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	58**	NA	43.0	0.009	0.6	24	7.25	1,107	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	350	20	5.5*	50.0	0.054	0.8	NA	7.46	992	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	400	1.9	3.5*	55.0	X	0.5	-7	7.44	916	NA
12/16/2003	X	X	X	X	X	X	X	19	20	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	350	18	8.4	41	0.110	NA	NA	NA	NA	NA

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	GRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
MW07																											
11/7/1996	X	1910**	8350**	1200**	5,560	2,550	8,111**	1,450	554	2,004**	X	X	230	58.0	X	433**	X	463	670**	1.13	15.0	X	0.9	262	6.72	905	24,300
4/25/2000	X	50**	4800**	940**	6,500	2,700	9,200**	720	2,600	3,320**	NA	NA	NA	NA	NA	NA	NA	397	206**	10.9**	28.7	X	5.0	29	7.24	1,465	NA
10/13/2000	X	200**	12,000**	960**	9,600	4,800	14,400**	890	3,300	4,190**	NA	NA	NA	NA	NA	NA	NA	323	531**	1.20	27.3	1.14	NA	NA	NA	NA	NA
1/25/2001	X	63**	7,800**	1,000**	7,600	3,600	11,200**	830	2,900	3,730**	NA	NA	NA	NA	NA	NA	NA	360	400**	7.2*	28.0	0.7**	NA	NA	7.25	1,100	NA
4/26/2001	X	31**	8,500**	1,000**	8,100	4,100	12,200**	1,200	4,400	5,600**	NA	NA	NA	NA	NA	NA	NA	310	430**	3.8*	28.0	1.1**	NA	NA	NA	NA	NA
7/25/2001	X	37**	9,300**	1,700**	11,000	4,500	15,500**	1,200	4,000	5,200**	NA	NA	NA	NA	NA	NA	NA	340	260**	1.80	24.0	.32**	NA	NA	NA	NA	NA
10/23/2001	X	15**	3600**	930**	5,900	2,700	8,600**	860	2,900	3,760**	NA	NA	NA	NA	NA	NA	NA	300	370**	NA	24.0	0.23	NA	NA	NA	NA	NA
4/26/2002	X	11**Q	4100**	2100**	13,000	5,900	18,900**	1,700	5,600	7,300**	X	X	X	86	120	1400**	NA	340	360**	5.5*	33.0	2.1**	2.7	-27	7.39	946	NA
9/25/2002	16*	X	1,200**	740**	4,700	2,200	6,900**	600	1,900	2,500**	NA	NA	NA	NA	NA	NA	NA	400	310**	3.2*	24.0	0.29*	0.9	-10	7.74	714	NA
12/16/2003	X	93Q	880**	1400**	11,000	4400	15,400**	1,000	2,900	3900**	NA	NA	NA	NA	NA	NA	NA	440	41.0	4.9	28	0.110	NA	NA	NA	NA	NA
3/10/2004	X	X	410**	850**	7,800	3300	11,100**	720	3,100	3820**	NA	NA	NA	NA	NA	NA	NA	370	140	7.8	29	0.064	NA	NA	NA	NA	NA
MW08A																											
11/7/1996	X	0.7*	0.20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	365	330**	0.19	40.0	X	0.2	108	6.98	760	X
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	373	155**	X	51.0	0.03	0.7	-12	7.04	745	NA
1/7/1998	X	0.8*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	374	84.1**	0.22E	56.6	X	0.3	-43	7.47	810	NA
7/23/1998	X	1.9*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	393	44.6*	X	60.4	0.09	0.5	-70	7.50	1,230	NA
11/19/1998	X	8.3**	0.4	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	59.1**	X	71.5	0.03	1.2	-40	6.59	970	NA
12/17/1998	X	3.9*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/6/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/4/1999	X	19**	1.2	X	X	0.50	0.50	X	X	X	NA	NA	NA	NA	NA	NA	NA	428	68.5**	0.27	65.1	0.067	4.0	-32	7.29	1,000	NA
3/25/1999	0.30	14**	1.4	0.30	X	2.3	2.3	X	0.40	0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/28/1999	X	0.30	0.50	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	1.3	12**	31	1.6	5.5	8.2	13.7	0.50	1.7	2.20	NA	NA	NA	NA	NA	NA	NA	387	78.6**	0.22	61.1	X	1.5	-25	6.99	845	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	73.5**	X	48.6	X	2.9	190	7.08	1,284	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	63.3**	X	60.1	0.259*	0.8	68	7.09	1,167	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	388	72.4**	0.18	78.60	0.33**	0.80	-87	7.48	1,014	NA
8/17/2000	X	X	8.90	4.70	7.60	12.00	19.60	2.60	3.40	6.00	NA	NA	NA	NA	NA	NA	NA	402	71.7**	0.22 (J)	62.40	0.158*	8.80	NA	7.20	911	NA
10/13/2000	X	X	0.72	0.46	X	1.00	1.00	X	0.45	0.45	NA	NA	NA	NA	NA	NA	NA	401	68.8**	0.1	52.1	0.304**	11	-42	7.20	1,045	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	65**	0.2	52.0	0.49**	4	-75	7.28	905	NA
4/26/2001	X	X	0.41	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	60**	0.2	54.0	0.21*	1	12	7.31	806	NA
7/25/2001	X	X	X	X	X	2.00	2.00	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	76**	0.4	56.0	0.28*	1	154	7.90	757	NA
10/23/2001	X	X	X	X	X	0.66	0.66	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	73**	NA	54.0	0.22*	0.2	-45	7.13	950	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	390	75	0.36Q	53.0	0.14	3.0	100	7.37	827	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	390	140**	1.20	48.0	.29*	0.2	-95	7.52	822	
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	470	75**	1.1	53	0.940	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	62	1.1	51	0.018	NA	NA	NA	NA	NA
MW08B																											
11/7/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	369	70**	X	47.0	X	0.1	107	7.07	880	X
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	377	87**	X	60.0	0.693**	0.2	-76	6.92	900	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	425	111**	X	81.4	0.775**	0.2	-84	7.26	1,155	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	433	49.8*	X	85.9	0.184*	0.4	-110	7.46	1,485	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	95.4**	0.39	95.9	0.41**	2.7	-38	6.74	1,210	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	430	105**	X	86.2	0.355**	4.8	-79	7.26	1,130	NA
4/28/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	385	60.7**	0.15	78.7	X	3.5	63	7.03	1,041	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	11.4	X	72.9	X	1.4	220	7.10	1,337	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	45.0*	X	66.7	0.594**	1.9	90	9.90	1,067	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	392	94.2**	X	97.4	0.97**	0.6	-98	7.33	1,125	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	412	89.9**	X (1)	98.0	1.41**	9.2	NA	7.15	1,176	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	431	92.7**	X	76.7	1.18**	11.6	-53	7.14	1,265	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	86**	X	72	0.97**	6.4	-69	7.24	1,020	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	380	75**	X	69	1.3**	0.5	-71	7.16	948	NA
7/22/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	380	110**	X	66	0.72**	1.5	71	7.70	905	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	120**	NA	60	0.85**	0.5	-25	7.14	974	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	360	96	0.14Q	64	0.76**	9.8	56	7.57	900	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	430	100**	X	66	1.1**	0.2	-80	7.40	860	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	480	100**	X	77	0.910	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	370	100	X	71	0.160	NA	NA	NA	NA	NA
MW09																											
11/7/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	496	70**	1.37	33.0	X	4.4	122	6.74	1,015	X
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	560	24.0	0.86	37.0	X	3.6	67	6.68	1,230	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	468	1.2	1.60	40.0	X	3.8	229	7.04	1,030	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	606	2.1	1.44	32.3	X	3.6	210	7.21	1,510	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	1.8	0.64	39.4	X	3.7	182	6.47	1,790	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	610	1.0	0.37	36.7	X	5.6	48	6.62	1,880	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	612	0.6	0.29	35.4	X	1.8	195	6.45	1,916	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	8.31	1.61	32.0	0.110	3.0	222	6.52	1,726	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	1.6	1.50	44.6	X	0.8	387	6.71	1,450	NA

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	CRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	569	0.98	0.44	42.1	X	1.7	40	6.83	1,645	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	440	X	1.64 (J)	52.1	X	11.3	105	6.81	1,160	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	519	2.80	1.92	60.5	X	15.3	192	7.24	1,404	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	540	1.90	1.00	43.0	0.040	8.9	73	6.92	1,465	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	550	4.0	0.29	32.0	X	1.1	57	7.04	1,460	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	520	1.1	1.10	41	X	5.1	117	7.46	984	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	530	2.1	NA	70	X	2.1	97	6.87	1,409	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	510	2.2	0.34	32	X	8.7	103	6.78	1,418	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	490	X	1.40	100	X	3.5	67	7.49	1,118	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	580	2.50	1.4	61	0.048Q	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	490	1.9Q	0.7	40	X	NA	NA	NA	NA	NA
MW10																											
1/7/1998	X	3200**	13000**	900**	3,500	3,000	6500**	240	900	1,140**	35E	X	160	X	X	220**	NA	576	829**	0.49	28.3	X	0.5	20	7.02	1,345	NA
7/23/1998	X	600**	2300**	260*	650	550	1200**	90	240	330*	NA	NA	NA	NA	NA	NA	NA	612	0.7	X	27.1	0.147	0.5	-43	6.63	2,100	NA
11/19/1998	X	1400*	4600**	360*	1,200	840	2040**	280	380	660**	NA	NA	NA	NA	NA	NA	NA	NA	688**	0.7	35.4	0.368**	2.4	-43	6.63	2,100	NA
3/4/1999	X	1500**	4900**	600*	2,000	1,100	3100**	160	600	760**	NA	NA	NA	NA	NA	NA	NA	547	665**	0.36	28.0	0.932**	4.1	-132	6.98	1,650	NA
6/9/1999	X	280**	800**	100	300	160	460*	20	100	120*	NA	NA	NA	NA	NA	NA	NA	512	451**	1.52	26.0	0.181*	1.6	-8	6.73	1,337	NA
9/16/1999	X	220**	1,600**	200*	600	280	880**	55	170	225*	NA	NA	NA	NA	NA	NA	NA	NA	282**	0.950	25.8	0.025	12.4	192	6.91	1,223	NA
1/11/2000	X	410**	2,000**	290*	1,300	510	1,810**	160	400	560**	NA	NA	NA	NA	NA	NA	NA	NA	344**	2.07*	28.4	0.108	0.9	200	6.92	1,750	NA
4/25/2000	X	450**	3,000**	310*	1,300	750	2,050**	84	370	454*	NA	NA	NA	NA	NA	NA	NA	456	436**	2.52*	39.0	X	1.3	-68	7.33	1,535	NA
8/17/2000	X	4.1*	1	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	289	94.1**	3.89* (J)	26.4	X	7.1	NA	7.07	1,353	NA
10/13/2000	22*	220**	1,900**	310*	1,100	430	1,530**	89	320	409*	NA	NA	NA	NA	NA	NA	NA	457	449**	1.28	21.0	.193*	11.9	-25	7.05	1,182	NA
1/25/2001	X	140**	390**	170*	530	140	670**	60	230	290*	NA	NA	NA	NA	NA	NA	NA	440	390**	2.7	26.0	0.23*	6.5	-76	7.13	1,345	NA
4/26/2001	X	190**	1,200**	350*	1,100	410	1,510**	110	410	520**	NA	NA	NA	NA	NA	NA	NA	400	460**	1.6	27.0	0.48**	0.9	-62	7.17	1,019	NA
7/25/2001	X	16**	120*	69*	200	57	257*	15	58	73	NA	NA	NA	NA	NA	NA	NA	400	150**	1.8	29.0	.48**	2.8	92	7.69	851	NA
10/23/2001	X	28**	190*	100	250	57	307*	31	120	151*	NA	NA	NA	NA	NA	NA	NA	410	290**	NA	26	0.053	0.7	-44	7.07	1,095	NA
4/26/2002	X	22**	140*	120	510	40	550*	44	170	124*	X	X	X	3.7	X	59**	NA	350	130**	6.3*	40	X	2.8	80	7.39	1,209	NA
9/25/2002	5.90	28**	230*	200*	340	77	417*	51	190	241*	NA	NA	NA	NA	NA	NA	NA	400	260**	1.8	20	X	0.7	-11	7.47	745	NA
12/16/2003	X	X	80*	110.0	170	X	170*	X	230	230*	NA	NA	NA	NA	NA	NA	NA	570	540.00	2.0	24	0.500	NA	NA	NA	NA	NA
3/10/2004	X	X	18.0	68.0	79	X	79	7.5Q	47	55	NA	NA	NA	NA	NA	NA	NA	350	490	4.0	23	0.110	NA	NA	NA	NA	NA
MW11																											
1/7/1998	X	5.3**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	419	171**	0.17E	68.1	X	0.3	-93	7.23	1,045	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	479	76.2**	X	70.8	0.438**	0.6	-115	7.28	1,415	NA
11/19/1998	X	1.3*	0.20	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	92.4**	0.60	77.3	X	2.5	-15	6.45	1,030	NA
3/4/1999	0.40	7.1**	X	X	X	0.70	0.70	X	X	X	NA	NA	NA	NA	NA	NA	NA	424	68.2**	0.16	69.8	X	4.5	-51	6.76	1,000	NA
6/9/1999	0.30	13**	X	0.30	X	0.60	0.60	X	X	X	NA	NA	NA	NA	NA	NA	NA	387	89.7**	0.28	59.9	0.158*	1.4	-44	6.90	853	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	62.1**	0.22	76.0	X	2.6	121	6.72	893	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	53.8**	X	69.6	0.012	1.7	214	6.98	1,180	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	406	83.6**	X	72.3	0.16*	2.1	-78	7.24	935	NA
8/17/2000	X	3.1*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	442	282**	X (J)	63.4	4.8**	9.2	NA	7.14	1,015	NA
10/13/2000	X	4.8*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	463	80.7**	0.130	56.7	0.124*	9.0	-52	7.33	1,306	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	410	81**	0.075	61.0	0.73**	6.5	-72	7.29	910	NA
4/26/2001	X	1.6*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	380	75**	0.170	59.0	0.32**	0.4	-75	7.35	698	NA
7/25/2001	X	0.84*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	400	110**	0.210	58.0	2.6**	2.4	82	7.50	796	NA
10/23/2001	X	0.59*	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	410	88**	NA	54.0	0.26*	0.1	-57	6.93	894	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	370	79	0.29Q	57	0.031	2.1	97	7.51	793	NA
9/25/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	420	90**	X	62	X	0.2	-46	8.01	710	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	730	73**	X	56	0.180	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	380	75	0.089Q	52	0.049	NA	NA	NA	NA	NA
Clubhouse																											
12/12/1995	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	X
7/23/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	GRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
9/25/2002	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shop Well																											
12/12/1995	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	X
7/23/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6292 (Lot 128)																											
3/21/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New Supply Well N6293 (Lot 138)																											
5/16/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/1996	X	X	X	X	X	0.30	0.30	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/26/2002	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/16/2003	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/10/2004	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6294 (Lot 129)																											
2/27/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6311 (Lot 137)																											
2/27/1996	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/1996	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/23/1997	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/7/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/19/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/17/1998	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/6/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/4/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/28/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/16/1999	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/11/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/25/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/17/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/13/2000	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/25/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/23/2001	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2

Summary of Groundwater Analytical Results
Evergreen Country Club
Elkhorn, Wisconsin

	PVOCs (ug/L)										VOC's (ug/L)							Natural Attenuation Parameters									
	Methyl-tert-butyl ether	Benzene	Toluene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Trimethylbenzenes	n-Butylbenzene	sec-Butylbenzene	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Dissolved Lead (ug/L)	Alkalinity (mg/L)	Manganese (ug/L)	Nitrate-Nitrogen (mg/L)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Oxygen (mg/L)	Redox (eH)	pH	Specific Conductivity (umhos/cm)	CRO (ug/L)
NR 140 ES	60	5	343	700	NS	NS	620	NS	NS	480	NS	NS	NS	NS	NS	40	15	NS	50	10	250	0.3	NS	NS	NS	NS	NS
NR 140 PAL	12	0.5	68.6	140	NS	NS	124	NS	NS	96	NS	NS	NS	NS	NS	8	1.5	NS	25	2	125	0.15	NS	NS	NS	NS	NS
9/26/2002	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6316 (Lot 131) 2/27/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6328 (Lot 133) 2/27/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well N6324 (Lot 132) 2/27/1996	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: X= Analyzed but not detected
NA= Not analyzed
NS= No standard established in NR140
VOCs= A total of 51 VOC compounds analyzed, only compounds detected were included in this table.
** = Attains or exceeds NR140 Enforcement Standard
* = Attains or exceeds NR140 Preventive Action Limit
Q =Analyte was detected between Limit of Detection (LOD) and Limit of Quantitation (LOQ).

Footnotes: 1. Groundwater samples from 8/17/2000 and 9/25-26-02 sampling events were analyzed for nitrate + nitrite nitrogen.

Table 5

Summary of Soil Analytical Results
Soil and Groundwater Investigation Report and Remedial Action Plan
Evergreen Country Club
Elkhorn, Wisconsin

	HP01 21-23 ft 8/24/1995	HP02 11-13 ft 8/24/1995	HP02 23-25 ft 8/24/1995	HP03 17-19 ft 8/24/1995	HP04 21-23 ft 8/24/1995	HP05 21-23 ft 8/24/1995	Methanol Blank 8/24/1995	MW01 19-21 ft 12/11/1995	MW02 19-21 ft 12/11/1995	MW03 14-16 ft 12/11/1995	MW04 14-16 ft 12/11/1995	MW05 19-21 ft 12/11/1995	MeOH Blank 12/11/1995	NR720 RCLs
Total Lead (mg/kg)	NA	NA	NA	NA	NA	NA	NA	2.12	2.80	2.03	1.60	1.50	NA	250
GRO (mg/kg)	31	8	4.1	7.5	**460**	**160**	X	9.7	**14000**	X	X	6.3	X	100
PVOCs (mg/kg)														
Methyl-tert-butyl ether	X	X	X	X	X	X	X	X	X	X	X	X	X	NS
Benzene	**0.13**	**0.26**	**0.064**	**0.29**	**2.0**	**0.3**	X	X	**226**	X	X	X	X	0.0055
Toluene	0.70	1.3	0.43	0.87	**12**	**1.9**	X	0.16	**980**	X	X	0.26	X	1.5
Ethylbenzene	0.19	0.28	0.046	0.098	**4.6**	0.81	X	0.037	**261**	X	X	0.068	X	2.9
m&p-Xylene	1.4	1.8	0.28	1.2	20	4.0	X	0.32	1060	X	X	0.45	X	NS
o-Xylene	0.83	0.91	0.13	0.77	10	2.0	X	0.045	369	X	X	0.16	X	NS
Total Xylenes	2.23	2.71	0.41	1.97	**30**	**6.0**	X	0.365	**1429**	X	X	0.61	X	4.1
1,2,4-Trimethylbenzene	1.7	1.3	0.38	0.79	17	4.8	X	0.28	597	X	X	0.49	X	NS
1,3,5-Trimethylbenzene	0.53	0.4	0.1	0.29	5.3	1.5	X	0.095	190	X	X	0.13	X	NS
VOCs (mg/kg)														
n-Butylbenzene	0.9	0.43	0.13	0.21	7.1	2.4	X	NA	NA	NA	NA	NA	NA	NS
Diisopropyl ether	X	0.054	X	X	1.2	X	X	NA	NA	NA	NA	NA	NA	NS
Isopropylbenzene	0.032	0.036	X	X	0.68	0.15	X	NA	NA	NA	NA	NA	NA	NS
Methylene Chloride	X	X	X	X	X	X	0.16	NA	NA	NA	NA	NA	NA	NS
Naphthalene	0.53	0.51	0.094	0.091	2.4	1.0	X	NA	NA	NA	NA	NA	NA	NS
n-Propylbenzene	0.14	0.12	0.032	X	2.3	0.55	X	NA	NA	NA	NA	NA	NA	NS

Note:
X= Analyzed but not detected
NA= Not analyzed
NS= No RCL established in NR 720
RCL= NR720 Residual Contaminant Levels
VOCs= A total of 51 VOC compounds analyzed, only compounds detected were included in this table.
Bold = Indicates level reported exceeds NR 720 generic RCL value.

APPENDIX J

MANN BROTHERS, INC.
[SITE # 9]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Mann Brothers, Inc. [Site # 9]**
DOT parcel number (if known):
Property Address: N6147 US Highway 12 / 1950 N. Wisconsin Street
Owner's Name: J R Mini-Warehouses LLC[1], Timmer Enterprises LLC[2], R Mann Investments LLC[3], Mann Ventures LLC[1], Mann Bros Inc[1], Mann Bros Inc[2], Billy Lee Venhousen[4], Mann Sisters LLC[5], Stateline Veterinary Hospital[6]
Owner's Address: (1) P.O. Box 48, Elkhorn, WI 53121, (2) 1950 N. Wisconsin Street, Elkhorn, WI 53121, (3) 1950 N. Wisconsin Street, Suite 8C, Elkhorn, WI 53121, (4) 17 Spencer Street, Elkhorn, WI 53121, (5) 1950 N. Wisconsin Street, Suite 2A, Elkhorn, WI 53121, (6) 407 Church Street, Clinton, WI 53525
Owner's Phone:
Current Land Use: Mann Brothers, Inc. (construction company, motorcycle repair, mini-warehouses, day care)
Past Land Use: Construction Company

Real Estate Requirements:
☐None ☐Total take ☒Strip acquisition of 45 feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☒ASTs ☒USTs
- ☒ tanks are currently in use
- ☒ tanks are abandoned date: 1991-2013
- Tank contents:
  - ☒ Leaded gasoline ☒ Unleaded gasoline ☐ Fuel Oil ☒ Diesel
  - ☐ Kerosene ☐ Unknown ☒ Other (describe) used oil
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: # 03-65-109659 and #03-65-001968
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☒ site is a closed ☒LUST ☐ERP site; closure date: 2001, 2001
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☒ site is a hazardous waste generator
- ☒ Other (please describe) US Mines Database

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments: Groundwater at 2 feet bgs at this site.

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☒ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

Site #9
Mann Brothers, Inc.
N6147 US Highway 12 / 1950 N. Wisconsin Street
USH 12: STA 735+50 to 747+00 RT

The site is identified on the LUST (BRRTS #03-65-109659 and #03-65-001968), US Mines, CRS, UST, AST, SHWIMS, and EDR Historical Auto Station databases. Based on field reconnaissance, the site is currently used by multiple businesses including Mann Brothers, Inc. Road Builders and Excavators, Hometown Motorcycle Service, G&S Builders, Mann Sisters Mini Warehouses, and The Learning Curve Childcare & Preschool.

According to the WDSPS Storage Tank Database, eleven tanks are registered to the site. One 10,000-gallon diesel UST, one 10,000-gallon leaded gasoline UST, and one 12,000-gallon unleaded gasoline UST were closed / removed from the site in December 1991. The use for the tanks is listed as bulk plant storage. One 1,000-gallon used oil UST was closed / removed from the site in September 1996, with the use for the tank listed as industrial. One 650-gallon used oil AST was closed / removed from the site in March 2002 and one 30,000-gallon diesel AST was closed / removed from the site in April 2013. The use for the tanks is listed as mercantile / commercial. One 650-gallon used motor oil AST (installed June 1995), one 650-gallon used oil AST (installed January 2002), one 10,000-gallon unleaded gasoline AST (installed April 2007), and one 10,000-gallon diesel AST (installed in April 2007) are currently in use at the site. The use for the tanks is listed as mercantile / commercial. One 280-gallon diesel AST (installed September 2002) is currently in use at the site as a backup or emergency generator.

Review of the Walworth County GIS System online indicated that the parcel is comprised of 21 separate tax keys, with a total of eight owners listed including J R Mini-Warehouses LLC, Timmer Enterprises LLC, R Mann Investments LLC, Mann Ventures LLC, Mann Bros Inc., Billy Lee Venhousen, Mann Sisters LLC, and Stateline Veterinary Hospital [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site. The site is listed on the US Mines database under a non-coal mining operation class. The site was identified on the EDR Historical Auto Station database as Accurate Auto & Truck Repair from 2005 through 2012.

According to WDNR "SHWIMS on the Web", the site is listed as an inactive solid waste / recyclables transporter. Wastes handled under this activity include bark / brush, contaminated soil, demolition debris, garbage, and tires [Ref. 2].

BRRTS #03-65-001968: According to the Site Investigation Report submitted by STS Consultants, Ltd. (STS), three USTs (one 8,000-gallon diesel UST, one 10,000-gallon gasoline UST, and one 12,000-gallon gasoline UST) were removed from the site in December

1991 [Ref. 3]. A release from the UST systems was evident during tank removal activities. Analytical results for samples collected from the UST excavation confirmed the presence of gasoline and diesel fuel in both the soil and groundwater, and WDNR was notified of the release.

Between June 1992 and January 1993, a total of 11 test pits (TP-1 to TP-11) and ten soil borings (B-1 to B-10) were completed at the site. The depth of excavation for the test pits ranged from 9.5 to 13.5 feet bgs, and the soil borings were advanced to terminal depths of 9 to 21.5 feet bgs. A total of 18 soil samples were collected from the test pits and borings, and analyzed for GRO, DRO, PVOCs, and/or lead. Nine of the ten soil borings (B-1 and B-3 to B-10) were completed as monitoring wells (MW-1 and MW-3 to MW-10). Groundwater samples were collected and analyzed for GRO, DRO, PVOCS, and/or lead. In July 1993, 12 direct push borings (GP-1 to GP-12) were advanced at the site, and groundwater samples were collected and analyzed for PVOCs. No soil samples were collected from these borings.

In August 1993, four additional monitoring wells (MW-11 to MW-14) were developed at the site, and in September 1993 groundwater samples were collected and analyzed for GRO, DRO, and PVOCs. Between August 1996 and October 1998, a total of four rounds of groundwater monitoring were conducted at the site. Groundwater samples were collected from MW-1 and MW-3 through MW-14 and analyzed for GRO, DRO, PVOCs, and/or PAHs [Ref. 4]. In May 1997, approximately 310 pounds of Oxygen Release Compound (ORC) were injected near the source area at the site in an attempt to stabilize the contaminant plume.

BRRTS #03-65-109659: According to the Remedial Investigation Report submitted by Braun Intertec Corporation (Braun), in September 1996 three used oil / motor oil USTs (one 1,000-gallon and two 2,000-gallon USTs) were removed from the site [Ref. 6]. During the tank closure assessment it was determined that a release from these tanks had occurred, and the incident was reported to WDNR. In December 1996, three soil borings (B-2R, B-15, and B-16) were advanced at the site to a terminal depth of 14 feet bgs, and developed into monitoring wells (MW-2, MW-15, and MW-16). A total of five soil samples were collected and analyzed for GRO, DRO, PVOCs, lead, and/or cadmium. In January 1997, a groundwater sample was collected from each of the three wells and analyzed for GRO and PVOCs. In May 1997, approximately 310 pounds of Oxygen Release Compound (ORC) were injected near the source area at the site in an attempt to stabilize the contaminant plume [Ref. 4]. Between October 1997 and October 1998, a total of three rounds of groundwater monitoring were conducted at the site. Groundwater samples were collected from MW-2, MW-15, and MW-16 and analyzed for GRO, DRO, PVOCs, and/or PAHs.

A total of approximately 880 cubic yards of contaminated soils, which were excavated during tank removal and investigation activities for both BRRTS activities, were mixed with lime and thin spread on-site. In March 2001, a hand auger was used to collect 12 soil samples (HAP-1 to HAP-12) from the thin spread area at a depth of 6 inches bgs. The samples were

analyzed for GRO, DRO, and PVOCs [Ref. 5]. The activity was closed by WDNR in December 2001, and the site was listed on the GIS Registry with use restrictions for residual soil and groundwater contamination.

Geology / Hydrogeology

Based on the STS report, soils at the site consist predominantly of silty sand and clayey sand fill to approximately 3.5 to 6.5 feet bgs, underlain by native silty sand and sand with gravel to the terminal boring depths of 9 feet to 21.5 feet bgs [Ref. 2]. Silt to silty clay was present beneath the fill in the southern and eastern portion of the investigation area. Groundwater was encountered at depths ranging from approximately 2 feet bgs at the eastern limit of the investigation area to 10 feet bgs at the western limit of the investigation area. Groundwater flow direction was determined to be toward the west / southwest.

Soil Impacts

Based on the Braun report, soil analytical results indicated the detection of GRO, DRO, and 1,2,4-trimethylbenzene in the thin spread area soil samples collected from 6 inches bgs in March 2001 [Ref. 5]. GRO (57 mg/kg in HAP-4) and DRO (77 mg/kg in HAP-5) were detected above the WDNR "trigger" level of 10 mg/kg. DRO (138 mg/kg in HAP-2, 1,890 mg/kg in HAP-4, and 269 mg/kg in HAP-12) was detected above the NR 720 RCL.

Pre-remedial soil analytical results indicated the detection of GRO, DRO, benzene, ethylbenzene, MTBE, toluene, trimethylbenzenes, xylenes, lead, and/or cadmium in several samples [Ref. 4]. Soil samples collected from the test pits (TP-1, TP-2, TP-4 to TP-6, TP-10, and TP-11) and borings (B-2 to B-4) conducted in June and December 1992 had concentrations of benzene (430 to 9,000 µg/kg), ethylbenzene (3,500 to 80,000 µg/kg), toluene (1,800 to 200,000 µg/kg), xylenes (9,600 to 370,000 µg/kg), GRO (160 to 2,350 mg/kg), and DRO (100 to 470 mg/kg) that exceeded the respective NR 720 RCL. One soil sample collected from boring B-2R in December 1996 had a concentration of benzene (170 µg/kg at 4 to 6 feet bgs) that exceeded the NR 720 RCL. No soil samples were collected at depths greater than 6 inches after remedial activities were conducted.

It appears that the minimum distance of residual soil impacts at the site, relative to the proposed USH 12 R/W, is approximately 100 feet.

Groundwater Impacts

Based on the Braun report, groundwater analytical results indicated the detection of GRO, DRO, benzene, 1,2-Dichloroethane, ethylbenzene, MTBE, naphthalene, PCE, toluene, trimethylbenzenes, and xylenes in several monitoring wells during the last round of groundwater monitoring conducted in October 1998 [Ref. 4]. Benzene (2.2 µg/L in MW-10),

1,2-Dichloroethane (0.8 µg/L in MW-10), ethylbenzene (224 µg/L in MW-3), MTBE (12.4 µg/L in MW-1), and toluene (234 µg/L in MW-4) were detected above the respective NR 140 PAL. Benzene (21.4 µg/L in MW-1, 15.7 µg/L in MW-2, 727 µg/L in MW-3, 753 µg/L in MW-4, and 5.01 µg/L in MW-7) and tetrachloroethene (25.7 µg/L in MW-2) were detected above the respective NR 140 ES.

It appears that the minimum distance of residual groundwater impacts at the site, relative to the proposed USH 12 R/W, is approximately 100 feet.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

R/W (FEE) acquisition of 45 feet from STA 721+00 to 744+00 is anticipated at the site.

Recommendations

Considering the degree of contamination at the site, the depth to groundwater on the eastern portion of the site (~ 2 feet bgs), the proposed excavation depth (2.5 to 3 feet bgs), and the lack of investigation on the east portion of the site (within 100 feet of the proposed USH 12 R/W), this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

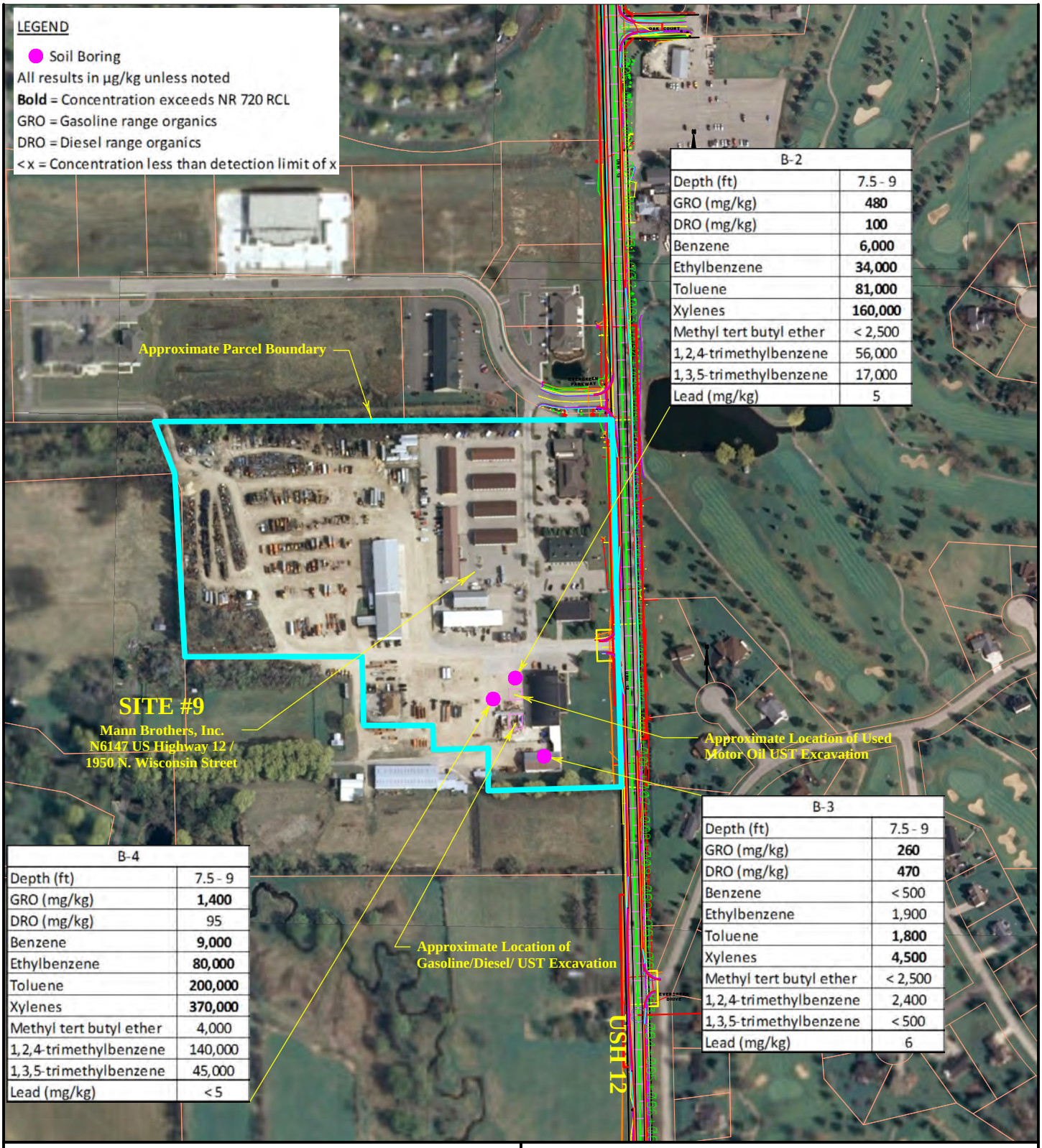
2. Wisconsin Department of Natural Resources. WDNR SHWIMS on the Web. Solid and Hazardous Waste Information System. http://dnr.wi.gov/sotw/SetUpBasicSearchForm.do

3. STS Consultants Ltd. (September 1996). Site Investigation Report, US Highway 12, Mann Brothers, Inc., Elkhorn, Wisconsin.

4. Braun Intertec Corporation. (March 1999). OMM Report and Closure Request Form for the Mann Brothers Petroleum Release Site, N6147 Highways 12 & 67, Elkhorn, Wisconsin, WDNR BRRTS #03-65-001968 (Diesel and Gasoline) and BRRTS #03-65-109659 (Motor Oil and Waste Oil).

5. Braun Intertec Corporation. (May 2001). Commerce #53121-9999-47A&B, BRRTS #03-65-001968 and 03-65-109659, Mann Brothers Inc., N6147 Hwy 12 & 67, Elkhorn, WI.

6. Braun Intertec Corporation. (February 1997). Remedial Investigation and Remedial Action Options Report for the Mann Brothers Inc. Property, Highway 12, Elkhorn, Wisconsin.



Source: **Base Map Provided By SEH Inc**

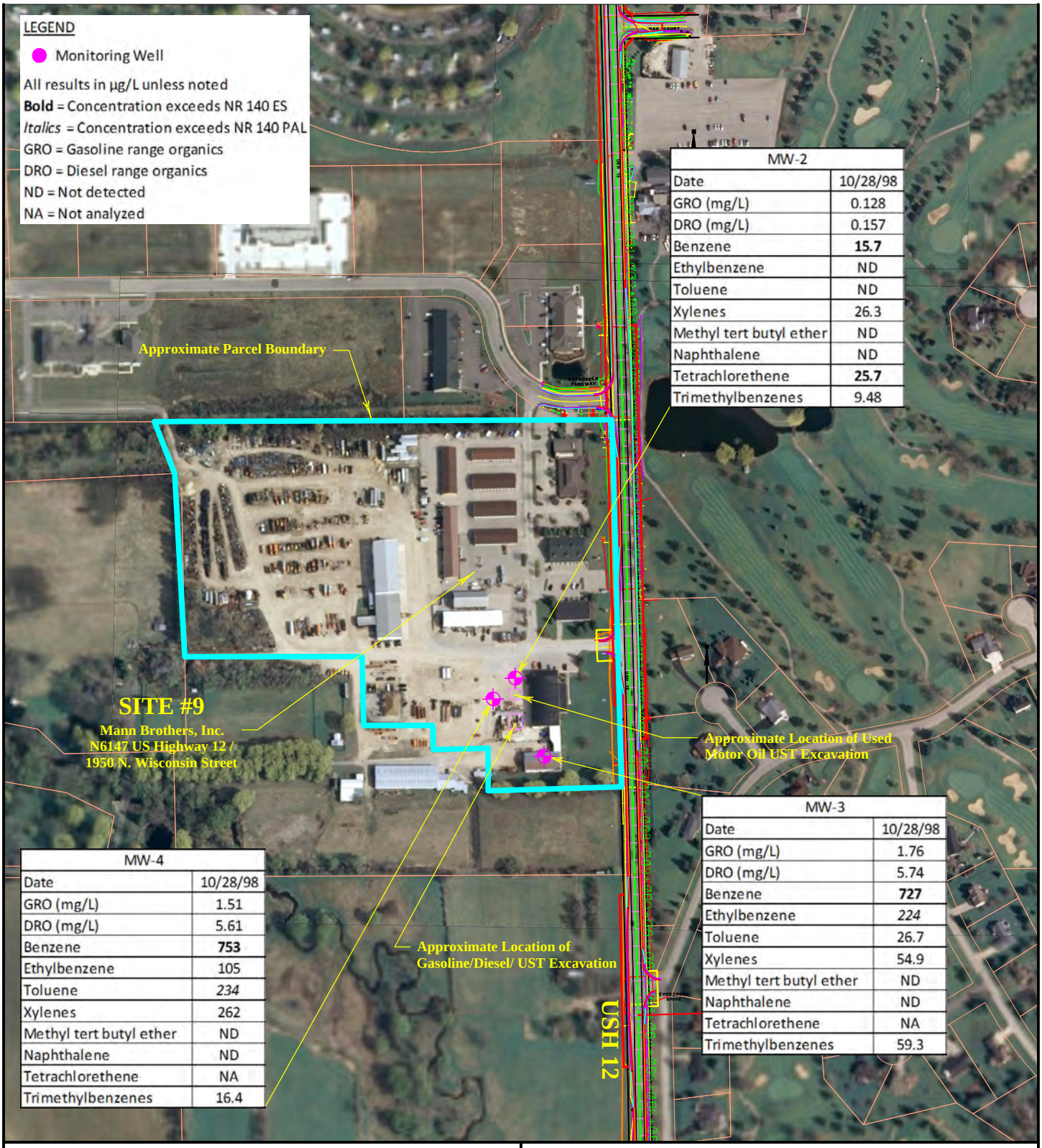
Scale: 0 100 200 400

Figure 11.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 11.1
GROUNDWATER QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #9: Mann Brothers, Inc., N6147 US Highway 12 / 1950 N. Wisconsin Street
View west from east side of USH 12

BRAUN INTERTEC

Braun Intertec Corporation
2831 Larson Street
La Crosse, Wisconsin 54603-1814
608-781-7277 Fax: 781-7279

Engineers and Scientists Serving the Built and Natural Environments®

RECEIVED
MAY 16 2001
PECFA SITE REVIEW
MILWAUKEE OFFICE

May 11, 2001

Project No. LWXX-97-0096

Mr. Lee R. Delcore
Wisconsin Department of Commerce
PECFA Site Review Section
101 West Pleasant Street Suite 100A
Milwaukee, WI 53212

Re: Commerce #53121-9999-47A&B, BRRTS#03-65-001968 and 03-65-109659
Mann Brothers Inc., N6147 Hwy 12 & 67, Elkhorn, WI 53121

Dear Mr. Delcore:

On behalf of Mann Brothers, Inc., we are providing this response to your letter dated March 13, 2001 regarding the referenced site. Your letter requested a response to the Wisconsin Department of Natural Resources (WDNR) letter entitled "Request for Flexible Site Closure – Mann Brothers, Inc", dated February 2, 2000.

On March 30, 2001 confirmation sampling in the area of thin-spread soil was completed. Samples were collected at twelve locations using a hand auger, at a depth of 6 inches below ground surface (Figure 1). Field screening did not indicate the presence of petroleum impacts in any of the samples. Six of the samples were submitted for laboratory analysis of petroleum volatile organic compounds (PVOC), gasoline range organics (GRO) and diesel range organics (DRO). Analytical results are summarized in the attached laboratory report and Table 1. As shown, all of the samples had detectable levels of DRO, several of which exceeded NR720 residual contaminant levels (RCLs).

As detailed in the Case Summary, approximately 3,700 cubic yards of impacted soils were present at the site based on pre-remedial soil samples collected during the tank removals and site investigation. A portion of this volume of impacted soils has likely degraded to levels below NR720 RCLs.

Based on the information provided in this letter, Braun Intertec requests that the site be re-evaluated for closure. Please call me at (608) 781-7277 if you have questions or require further information.

Sincerely,
BRAUN INTERTEC CORPORATION

Ted R. Hubbes, PG
Environmental Geologist

cc: Robert Mann – Mann Brothers, Inc.
Buck Sweeney – Michael Best and Friedrich

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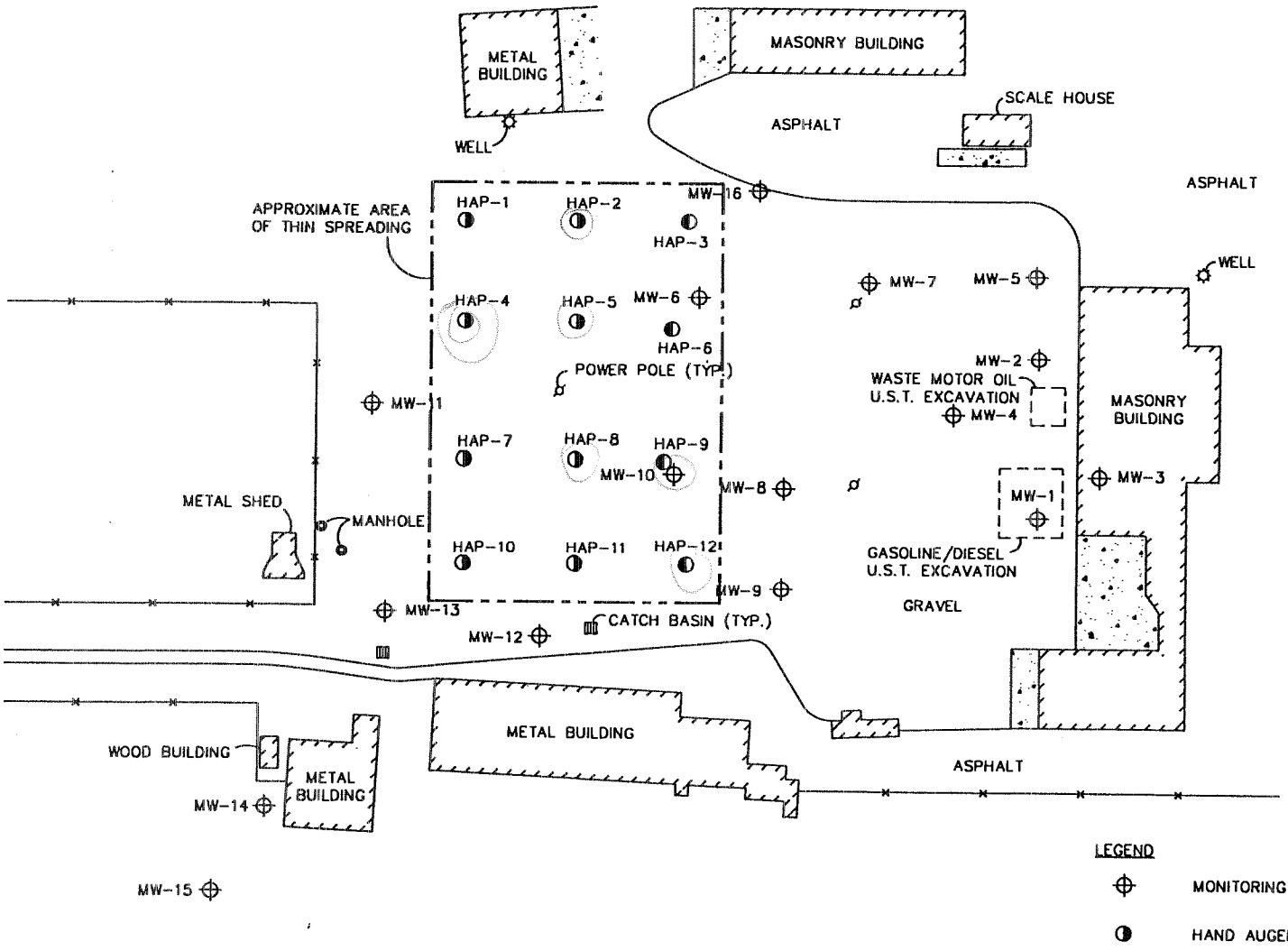


FIGURE NO.	INT	DATE
	DRAWN BY: JAG	7-14-98
	APP'D BY: RMF	4-23-01
	JOB NO. LWXX-97-0096	
	DWG. NO. WX70096	SHEET / OF
	SCALE NONE	

SOIL SAMPLING LOCATIONS (3/30/01)
MANN BROTHERS, INC.
ELKHORN, WISCONSIN

BRAUN INTERTEC

Table 1
Soil Sampling Results
Mann Brothers, Inc.
Elkhorn, WI

Sample	Depth (feet)	Benzene	Ethylbenzene	MTBE	Toluene	1,2,4 TMB	1,3,5 TMB	Total Xylenes	GRO (mg/kg)	DRO (mg/kg)
HAP-2	0.5	<27	<27	<27	<27	<27	<27	<80	<5.3	138 *
HAP-4	0.5	<26	<26	<26	<26	116	<26	<79	57	1890
HAP-5	0.5	<26	<26	<26	<26	<26	<26	<77	<5.1	77
HAP-8	0.5	<26	<26	<26	<26	<26	<26	<78	<5.2	9.6
HAP-9	0.5	<26	<26	<26	<26	<26	<26	<79	<5.2	5.7
HAP-12	0.5	<26	<26	<26	<26	<26	<26	<78	<5.2	269

results in µg/kg except as otherwise noted

* Note: PAH ≅ N.D. in soil samples from B1/MW1 (9/df UST pit) & B2R (w/o/mo UST pit).

BRAUN SM
INTERTEC

Braun Intertec Corporation
2831 Larson Street
La Crosse, Wisconsin 54603-1814
608-781-7277 Fax: 781-7279

Engineers and Scientists Serving the Built and Natural Environments

March 12, 1999

Project LWXX-97-0096

Mr. Robert Mann
Mann Brothers, Inc.
P.O. Box 48
Elkhorn, WI 53121

Dear Mr. Mann:

Re: OMM Report and Closure Request Form for the Mann Brothers Petroleum Release Site, N6147 Highways 12 & 67, Elkhorn, Wisconsin, WDNR BRRTS# 03-6500-1968 (Diesel and Gasoline) and BRRTS# 03-6510-9659 (Motor Oil and Waste Oil)

Attached are two copies of the OMM report and closure review request for the referenced site. Please review these and let me know if any changes are required. If no changes are needed, please attached a check for $750.00 and forward one copy of the OMM report and closure review request to the Wisconsin Department of Natural Resources—Southeast Region for review. As indicated on the Letter of Transmittal, WDNR requires a mandatory fee of $750.00 to review this information for site closure.

Any questions or comments may be directed to Rachel Fields at (608) 781-7277.

Sincerely,

Rachel M. Fields

Rachel M. Fields, PG
Environmental Geologist/Hydrogeologist

Attachments:
Letter of Transmittal
Wisconsin Department of Natural Resources-Case Summary and Closure Out Form 4400-202
1998 Second Semi-Annual Operation, Maintenance, Monitoring and Optimization Report

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WISCONSIN DEPARTMENT OF NATURAL RESOURCES
CASE SUMMARY AND CLOSE OUT FORM

Form 4400-202
5-98

03 65 00 1968 Diesel/Gasoline

WDNR BRRTS Case #: 03-65-109659 WDNR Site Name: Mann Brothers, Inc. (Mann Land Company)
Motor Oil/Waste Oil

NOTE: Use of this form is required by the Department for any case close out application filed pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code. Completion of this form is mandatory for applications for case closure. The Department will not consider or act upon your application unless you complete and submit this application form. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing close out requests and determining the need for additional response action.

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based upon all available data as of 3/5/99 (date). I have read the Case Summary and Close Out Form Instructions and all required information has been included.

Form Completed By: Rachel M. Fields 3/5/99
(Signature) (Date)

Printed Name: Rachel M. Fields Company Name: Braun Intertec Corp.

If not site owner, relationship to site owner: Environmental Consultant

Address: 2831 Larson Street, La Crosse, Wisconsin 54603

Telephone Number: (608) 781-7277 FAX Number: (608) 781-7279

Environmental Consultant (if different then above): _____

Address: _____

Telephone Number: (____)_____ FAX Number: (____)_____

FOR DEPARTMENT USE ONLY

Type of Case: LUST Spill ER Land Recycling Other_____ DNR Reviewer:_____

WDNR Site Name: Mann Brothers, Inc. (Mann Land Company)

Complete Site Address: N6147 Highways 12 and 67, Elkhorn, Wisconsin 53121

WDNR BRRTS Case #: 03-65-001968 (Diesel/Gasoline) 03-65-109659 (Motor Oil/Waste Oil) FID #: _____

PECFA Claim #: 53121-9999-47

Responsible Party Name: Mann Land Company

Complete Responsible Party Address: P.O. Box 48, N6147 Hwy 12 & 67, Elkhorn, WI 53121

Site Legal Description : ____ 1/4, SE 1/4, SE 1/4, Sec 13, T 3 N, R 16 (E/W) Town: Sugar Creek

County: Walworth Latitude: 88° 32' 40.0" Longitude: 42° 43' 00.0"

Type Of Closure Requested:

Soil
- ___ < NR 720.09/720.11 Generic RCLs
- X NR 720.19(2) Soil Performance Stds.
- ___ NR 720.19(3) Site Specific Stds.

Groundwater
- ___ < NR 140.10 Table 1 & Table 2 Values
- ___ NR 140.28(2) PAL Exemption
- X NR 726.05(2)(b) Natural Attenuation

03 65 001968 Diesel/Gasoline
WDNR BRRTS Case #: 03-65-109659 WDNR Site Name: Mann Brothers, Inc. (Mann Land Co.)
Motor Oil/Waste Oil

Contaminant Type(s): Diesel/Gasoline/Motor & Waste Oil Quantity Released: Unknown

Date of Incident/Discovery: December 12, 1991 Zoning of Property: Industrial

Enforcement Actions Closed Out? ____Yes ____No __X__NA Permits Closed Out? ____Yes ____No __X__NA

Form 4 Pending? ____Yes ____No __X__NA Date Closure Submitted to DNR: ____

1. **CASE HISTORY AND JUSTIFICATION FOR CLOSURE ATTACHED?** _X_Yes ___No

2. **SOIL PRE-REMEDIATION OR INVESTIGATION ANALYTICAL RESULTS**

Extent Defined? _X_Yes ____No Soil Type(s): Silty Clay to Sand Depth to Bedrock: ~170 feet below surface

Potential Receptors for Direct Contact (i.e. vapor migration, contaminated soil left in place): Contaminated soil left in place.

Tables of Pre-remedial Analytical Results Attached? _X_Yes ___No Maps of Pre-remedial Sample Locations Attached? _X_Yes __No

3. **SOIL POST REMEDIATION ANALYTICAL RESULTS**

Remedial Action Completed? _X_Yes ____No 720.19 Analysis? ____Yes _X_No (If yes, attach supporting documentation)

Were Soils Excavated? _X_Yes ____No Quantity: Approx. 880 cubic yards Disposal Method: Mixed with lime and thin-spread on-site.

Final Confirmation Sampling Methods: Soil probes, test pits and soil excavation samples.

Soil Disposal Form Attached? ____Yes _X_No Final Disposal Location: On-site thin-spreading

Estimated volume of insitu soils exceeding NR 720 RCLs: ____

Tables for Post Remedial Analytical Results Attached? __Yes _X_No Maps of Post Remedial Sample Locations Attached? __Yes _X_No

Brief Description of Remedial Action Taken: Removal of contamination source (two excavations/tank removals) and ORC injection in May, 1997.

4. **GROUNDWATER ANALYTICAL RESULTS**

Potential Receptors for Groundwater Migration Pathway: Sugar Creek located approximately ½ mile north of the site.

Extent of Contamination Defined? _X_Yes ____No ____NA Remedial Action Completed? _X_Yes ____No ____NA

# of Sample Rounds: 3 Depth(s) to Groundwater/Flow Direction(s): 3 to 10 feet below surface to the south/southwest

Field Analyses? ____Yes _X_No Lab Analyses? _X_Yes ____No # of Sampling Points: 16

NR 141 Monitoring Wells Sampled: 16 # Temporary Groundwater Sampling Points Sampled: --

Recovery Sumps Sampled: -- # Municipal Wells Sampled: -- # Private Wells Sampled: --

Has DNR Been Notified of Substances in Groundwater w/o Standards? ____Yes _X_No

Any Potable Wells Within 1200 Feet of Site? _X_Yes ____No If Yes, How Many? 2

Have They Been Sampled? ____Yes _X_No Have Well Owners/Occupants Been Notified of Results? ____Yes _X_No

Preventive Action Limit Exceeded? _X_Yes ____No (If Yes, identify location(s) MW-1, MW-2, MW-3, MW-4, MW-7, and MW-10

Enforcement Standard Exceeded? _X_Yes ____No (If Yes, identify location(s) MW-1, MW-2, MW-3, MW-4 and MW-7

Tables of Analytical Results Attached? _X_Yes ___No Map of Groundwater Sample Locations Attached? _X_Yes____No

Brief Description of Remedial Action Taken: Injection of ORC in May, 1997.

LWXX-97-0096
Mann Brothers, Inc. (Mann Land Company)
WDNR BRRTS Case # 03-65-001968 (Diesel and Gasoline)
WDNR BRRTS Case # 03-65-109659 (Motor Oil and Waste Oil)
N6147 US Highways 12 and 67
Elkhorn, Wisconsin

Case Summary

Mann Brothers operate a construction yard located approximately 2 miles north of Elkhorn, Wisconsin at N6147 US Highways 12 and 67. Three underground storage tanks (USTs) are located at the site containing petroleum for fleet fueling purposes. The USTs consisted of one 12,000-gallon gasoline UST; one 10,000-gallon gasoline UST; and one 8,000-gallon diesel UST. The three USTs were removed in December, 1991 by McCutchin Crane Service of Dodgeville, Wisconsin. Odors and other evidence of a release from the UST systems were present during the UST closure assessment. Laboratory analyses of soil and groundwater samples collected from the UST excavation during the closure confirmed the presence of gasoline and diesel fuel in the soil and groundwater. Ms. Gena Keenan of the Wisconsin Department of Natural Resources (WDNR) was notified of the release on December 10, 1991.

Due to the release from the UST systems, STS Consultants were retained to conduct a site investigation as required by the WDNR. The site investigation consisted of excavating 11 test pits and collecting 12 soil samples to be laboratory analyzed for the presence of gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOCs) and lead; completing 14 soil borings and analyzing six soil samples for the presence of GRO, DRO, PVOCs and lead; completing groundwater sampling with a Geoprobe at 12 location and completing field gas chromatograph analyses of the 12 samples; installing 13 groundwater monitoring wells, and collecting and analyzing groundwater samples from the monitoring wells for the presence of GRO, DRO, volatile organic compounds (VOCs) and lead.

Soil types encountered typically consisted of a silty sand and clayey sand fill from the ground surface to a depth of 3.5 to 6.5 feet below ground surface. A silt to silty clay was present beneath the fill in the eastern and southern portion of the area of investigation. Sand ranging from silty sand to sand with gravel was present below the fill in the northern and western portions of the area of investigation and below the silt and silty clay layer. The water table was mostly within the sand unit and it appeared that groundwater was primarily in the sand unit.

STS Consultants estimated that the total volume of vadose zone impacted soil was between 1,000 to 1,500 cubic yards. The groundwater contaminant plume was reported to be approximately 200 feet wide by 600 feet long.

In July, 1996, Mann Brothers, Inc. retained Braun Intertec to finalize the investigation and determine a remedial alternative for the site. Braun Intertec recommended that a remaining waste oil UST be removed. On September 6, 1996, the 1,000-gallon waste oil USTs was removed and in addition one 2,000-gallon motor/waste oil and one 2,000-gallon motor oil tanks were also removed. These tanks were located to the north of the previously removed gasoline and diesel tanks. The tank closure assessment, performed by Braun Intertec, determined that there had been a release from the waste oil and motor oil tanks. Based on the findings of the tank closure assessment, Braun Intertec recommended and completed three additional soil borings and monitoring wells to further delineate the contaminant plume and to investigate the waste/motor oil release.

It was concluded that natural attenuation processes appear to have been moderately effective at reducing contaminant concentrations and preventing further plume migration at the site. Significant groundwater contamination in MW-3, MW-4, MW-8 and MW-10 was identified. Benzene, 1,2-dichloroethane, methyl tertiary butyl ether (MTBE), toluene and xylenes are found in the groundwater at concentrations that exceed their respective Enforcement Standards. The contaminant plume has not advanced beyond MW-14.

The groundwater contaminant plume in December, 1997, extends approximately 700 feet from the source and is approximately 150 feet wide. Soil contamination appears to be limited to the areas of the previous USTs and underneath the building. Impacted soil extends 10 feet vertically and is approximately 100 feet by 100 feet wide based on the tank closure assessment and soil investigation. This equates to approximately 3,700 cubic yards of impacted soil remaining at the site.

As recommended in the *Remedial Investigation and Remedial Action Options Report* dated February 19, 1997, Braun Intertec injected 310 pounds of Oxygen Release Compound (ORC©) on May 20 and 21, 1997. The ORC was injected at the source area and at three lines that cross the dissolved petroleum plume at three downgradient locations. It is estimated that 100 pounds of ORC was injected in the source area through 37 injection points starting at a depth of 5 feet below the water table and continuing to 5 feet above the water table. For the DRO Barrier, approximately 60 pounds of ORC was injected through five injection points. Barrier 1 consisted of 14 injection points through which approximately 90 pounds of ORC were injected, while at Barrier 2 approximately 60 pounds of ORC was injected through five injection points. The spacing between injection points was maintained at 5 feet for the source area and the downgradient barriers. For each downgradient barrier, ORC injection started 5 feet below the water table and extended 2 feet above the water table.

Groundwater has been monitored semi-annually and contaminant concentrations have reduced to below NR 140 clean up standards, except for the monitoring wells located in the source area, MW-1, MW-3 and MW-4. Since the groundwater concentrations indicate that the groundwater plume is not expanding and that natural attenuation is occurring, the contaminant plume has not extend beyond the property boundaries, Braun Intertec recommends flexible site closure with a ~~deed~~ restriction for groundwater use and soil and ~~if~~ the existing shop is ever moved or soil excavation is completed at the site.

deed restriction

LWXX-97-0096
Mann Brothers, Inc. (Mann Land Company)
Highway 12
Elkhorn, Wisconsin

PRE-REMEDIAL SOIL ANALYTICAL RESULTS
Results in Milligrams per Kilogram (mg/Kg)

Parameter	Residual Contaminant Level (mg/Kg)	Test Pit/Sample Number						
		TP-1/S-3	TP-1/S-4	TP-2/S-3	Duplicate TP-2/S-3	TP-2/S-4	TP-3/S-5	TP-4/S-4
Sample Depth		8.0'	11.0'	6.0'	6.0'	11.0'	12.0'	10.5'
Sample Date		06/09/92	06/09/92	06/09/92	06/09/92	06/09/92	06/09/92	06/09/92
Benzene	0.0055	-	<2.0	-	-	-	<0.05	-
Ethyl Benzene	2.9	-	3.5	-	-	-	<0.05	-
Methyl Tertiary Butyl Ether	-	-	-	-	-	-	-	-
Toluene	1.5	-	3.7	-	-	-	<0.05	-
1,2,4-Trimethylbenzene	-	-	10.4	-	-	-	<0.05	-
1,3,5-Trimethylbenzene	-	-	7.4	-	-	-	<0.05	-
Total Xylenes	4.1	-	14.2	-	-	-	<0.05	-
GRO	-	<12	-	1700	50	1600	-	2350
DRO	-	96	-	220	-	<10	-	<10
Lead	-	-	-	-	-	-	<5	-

Parameter	Residual Contaminant Level (mg/Kg)	Test Pit/Sample Number						
		TP-5/S-5	TP-6/S-5	Duplicate TP-6/S-5	TP-7/S-5	TP-9/S-4	TP-10/S-4	TP-11/S-5
Sample Depth		12.0'	11.5'	11.5'	13.0'	8.0'	8.0'	10.5'
Sample Date		06/09/92	06/09/92	06/09/92	06/09/92	12/23/92	12/23/92	12/23/92
Benzene	0.0055	-	-	-	-	<0.05	0.43	0.83
Ethyl Benzene	2.9	-	-	-	-	0.07	0.59	2.7
Methyl Tertiary Butyl Ether	-	-	-	-	-	<2.5	<2.5	<2.5
Toluene	1.5	-	-	-	-	0.39	0.45	0.89
1,2,4-Trimethylbenzene	-	-	-	-	-	0.18	0.69	7.9
1,3,5-Trimethylbenzene	-	-	-	-	-	0.08	0.3	2.3
Total Xylenes	4.1	-	-	-	-	1.1	2.2	9.6
GRO	-	<12	460	-	<12	<10	<10	99
DRO	-	290	<10	29	72	<10	<10	<10
Lead	-	-	-	-	-	-	-	-

Parameter	Residual Contaminant Level (mg/Kg)	Soil Boring/Sample Number						
		B-1/S-4	B-2/S-4	B-3/S-3	B-3/S-4	B-4/S-4	B-5/S-4	B-6 through B-14 not analyzed
Sample Depth		7.5-9.0'	7.5-9.0'	5.0-6.5'	7.5-9.0'	7.5-9.0'	7.5-9.0'	
Sample Date		06/17/92	06/18/92	06/18/92	06/18/92	06/18/92	06/18/92	
Benzene	0.0055	<0.50	6	-	<0.50	9	<0.50	-
Ethyl Benzene	2.9	<0.50	34	-	1.9	80	<0.50	-
Methyl Tertiary Butyl Ether	-	<0.50	<2.5	-	<2.50	4	<2.50	-
Toluene	1.5	<0.50	81	-	1.8	200	<0.50	-
1,2,4-Trimethylbenzene	-	<0.50	56	-	2.4	140	<0.50	-
1,3,5-Trimethylbenzene	-	<0.50	17	-	<0.50	45	<0.50	-
Total Xylenes	4.1	<0.50	160	-	4.5	370	0.6	-
GRO	-	<12	480	160	260	1400	<12	-
DRO	-	<10	100	29	470	95	<10	-
Lead	-	-	5	-	6	<5	<5	-

- = Not Analyzed

PRE-REMEDIAL SOIL ANALYTICAL RESULTS
Mann Brothers, Inc.
December 11, 1996

Compound (mg/kg)	B-15 (6-8')	B-16 (6-8')	B2R (4-6')	B-2R (6-8')	B2R (12-14')
Lead	3.2	1.9	13	4.7	1.4
Cadmium	1.1	1.1	3.8	2.1	< .56
GRO	< 5.6	< 5.5	< 5.7	< 5.7	< 5.6
DRO	5.7	< 5.5	< 5.7	< 5.7	< 5.6
Compound (ug/kg)					
Benzene	< 2.6	< 2.6	170	NA	< 2.6
n-Butylbenzene	< 9.6	< 9.6	< 9.6	NA	< 9.6
1,4-Dichlorobenzene	< 7.6	< 7.6	< 7.6	NA	< 7.6
Ethylbenzene	< 3.5	< 3.5	49	NA	< 3.5
n-Propylbenzene	< 8.4	< 8.4	< 8.4	NA	< 8.4
Toluene	< 3.4	< 3.4	< 3.4	NA	< 3.4
Total Xylenes	< 6.6	< 6.6	36	NA	< 6.6

NA - Not analyzed

GARAGE

WELL

BUILDING

SCALE HOUSE

WATER SUPPLY WELL

3 RAIL WOOD FENCE

SHED

B-6

B-7

B-5

TP-9

SHOP

TP-10

B-2

B-4

TP-6

TP-2

TP-4

B-11

B-10

B-3

B-8

TP-7

B-1

TP-11

TP-1

TP-5

TP-3

TANK CAVITY

B-9

TP-8

B-13

B-12

SHOP

GARAGE

B-14

SHED

POLE BARN

U.S. HWY. 12

PROPERTY LINE

SCALE IN FEET

100 50 0 100

LEGEND

TP-3 TEST PIT

B-2 BORING

PRE-REMEDIAL SOIL SAMPLE LOCATION MAP

SOIL BORING & TEST PIT LOCATIONS

MANN BROTHERS

ELKHORN, WISCONSIN

DRAWN BY	J.M.I.
AUTOCAD FILE	83918005
DATE	12/15/93
CHK. BY	M.J.S.
APPROVED BY	T.W.K.

NO.	REVISION	DATE	BY

STS Consultants, Ltd.
Consulting Engineers

STS PROJECT NUMBER 83918WF

STS PROJECT FILE

SCALE 1"=100'

DRAWING NUMBER 3

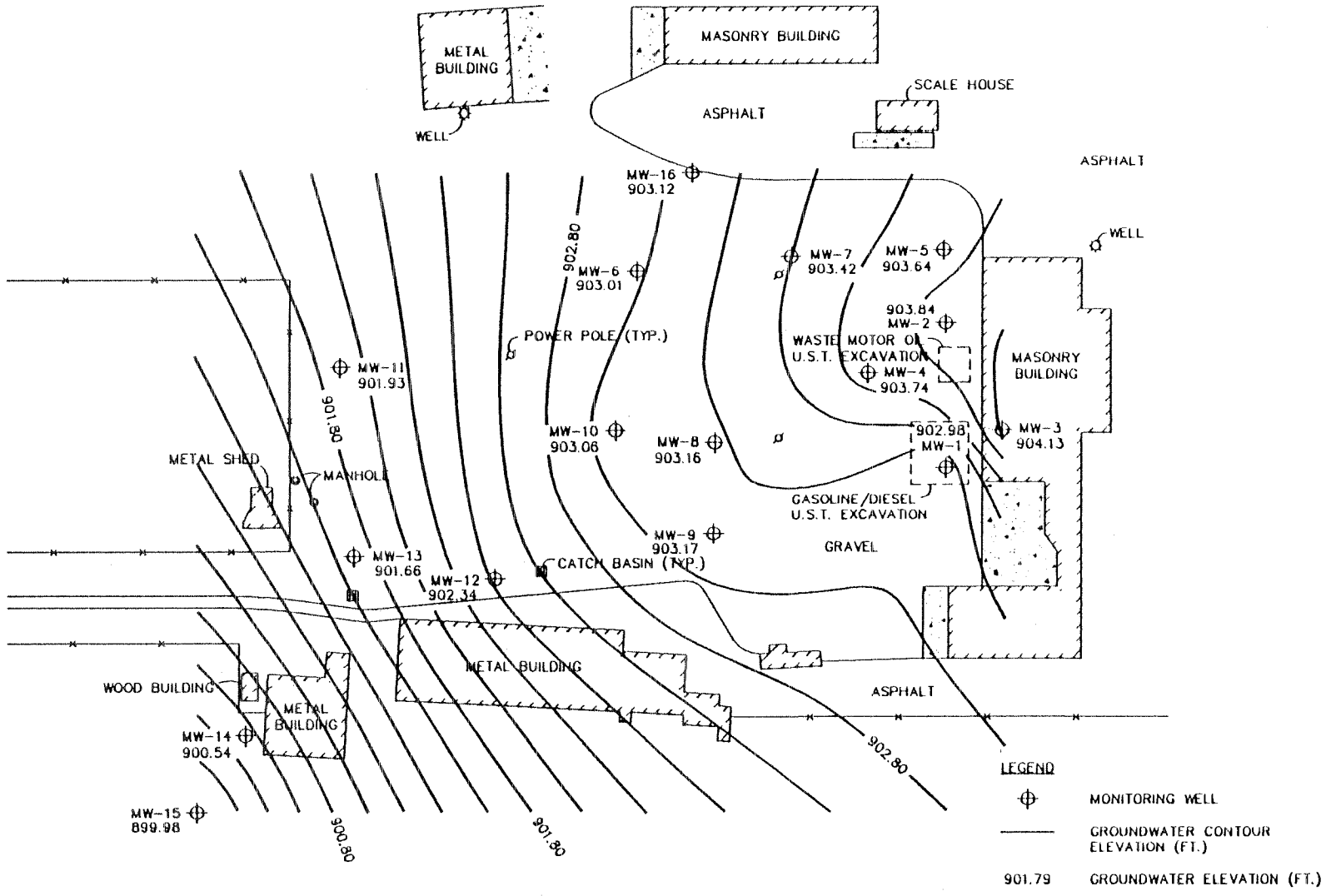


FIGURE NO.	INT	DATE
	DRAWN BY: JAG	7-14-98
	APP'D BY: RMF	12-21-98
	JOB NO. LWXX-97-0096	
	DWG. NO. WX70096	SHEET / OF
	SCALE NONE	

GROUNDWATER CONTOUR MAP – (10/28/98)
SYSTEM OPERATION AND MAINTENANCE MONITORING
MANN BROTHERS, INC.
ELKHORN, WISCONSIN

BRAUN INTERTEC

LWXX-97-0096
Mann Brothers, Inc. (Mann Land Company)
Highway 12
Elkhorn, Wisconsin

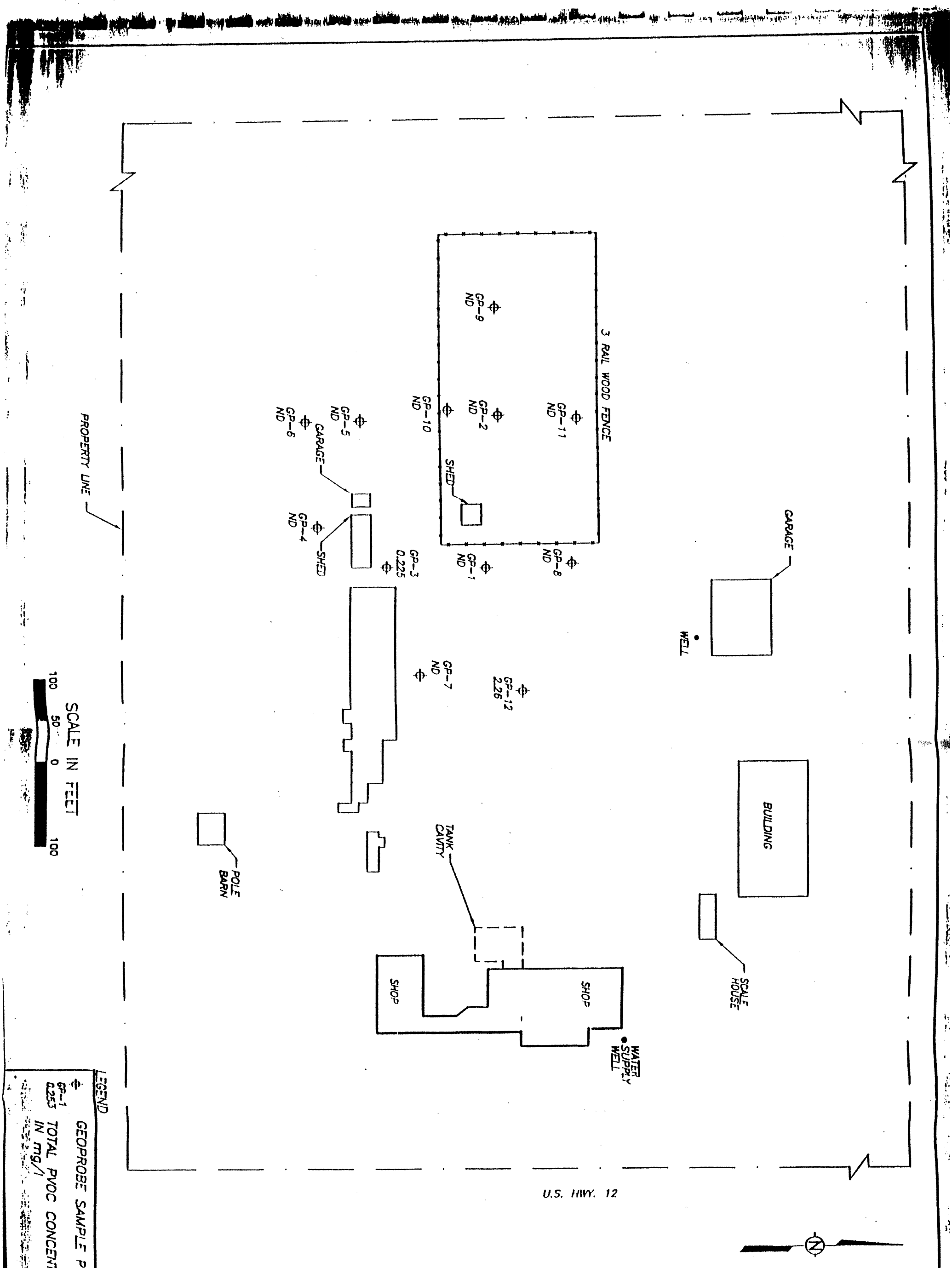
Geoprobe Groundwater Analytical Results
Results Reported in Milligrams per Liter (mg/L)

Parameter	Enforcement Standard	Preventative Action Limit	GP-1	Duplicate GP-1	GP-2	GP-3	Duplicate GP-3
Sample Date	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93
Benzene	0.005	0.000067	0.01	<0.0002	0.008	0.183	0.148
Ethyl Benzene	1.36	0.272	ND	<0.001	0.006	0.005	NA
Naphthalene	0.04	0.008	ND	NA	ND	ND	NA
Toluene	0.343	0.0686	0.039	<0.005	0.025	0.028	NA
1,2,4-Trimethylbenzene	-	-	ND	<0.001	0.019	ND	NA
1,3,5-Trimethylbenzene	-	-	ND	<0.001	0.004	ND	NA
Total Xylenes	0.62	0.124	0.028	<0.001	0.021	0.009	NA
Total PVOCs	-	-	0.077	NA	0.083	0.225	NA

Parameter	Enforcement Standard	Preventative Action Limit	GP-4	GP-5	GP-6	GP-7	GP-8
Sample Date	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93
Benzene	0.005	0.000067	0.006	0.008	0.003	0.006	0.008
Ethyl Benzene	1.36	0.272	ND	ND	ND	ND	ND
Naphthalene	0.04	0.008	ND	ND	ND	ND	ND
Toluene	0.343	0.0686	0.011	0.009	0.007	0.007	0.016
1,2,4-Trimethylbenzene	-	-	0.013	0.012	ND	0.007	ND
1,3,5-Trimethylbenzene	-	-	ND	ND	ND	ND	ND
Total Xylenes	0.62	0.124	0.006	0.006	0.004	0.004	0.004
Total PVOCs	-	-	0.036	0.035	0.014	0.024	0.028

Parameter	Enforcement Standard	Preventative Action Limit	GP-9	GP-10	GP-11	GP-12
Sample Date	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93	07/20/93
Benzene	0.005	0.000067	0.008	0.005	0.005	0.774
Ethyl Benzene	1.36	0.272	ND	0.011	ND	0.456
Naphthalene	0.04	0.008	ND	ND	ND	ND
Toluene	0.343	0.0686	0.009	0.004	0.005	0.231
1,2,4-Trimethylbenzene	-	-	0.007	ND	ND	0.294
1,3,5-Trimethylbenzene	-	-	ND	ND	ND	0.089
Total Xylenes	0.62	0.124	0.004	0.006	0.006	0.414
Total PVOCs	-	-	0.028	0.026	0.016	2.26

ND = Not Detected
NA = Not Analyzed
- = Standard not established



PRE-REMEDIAL GEOPROBE

GROUNDWATER SAMPLE LOCATION MAP

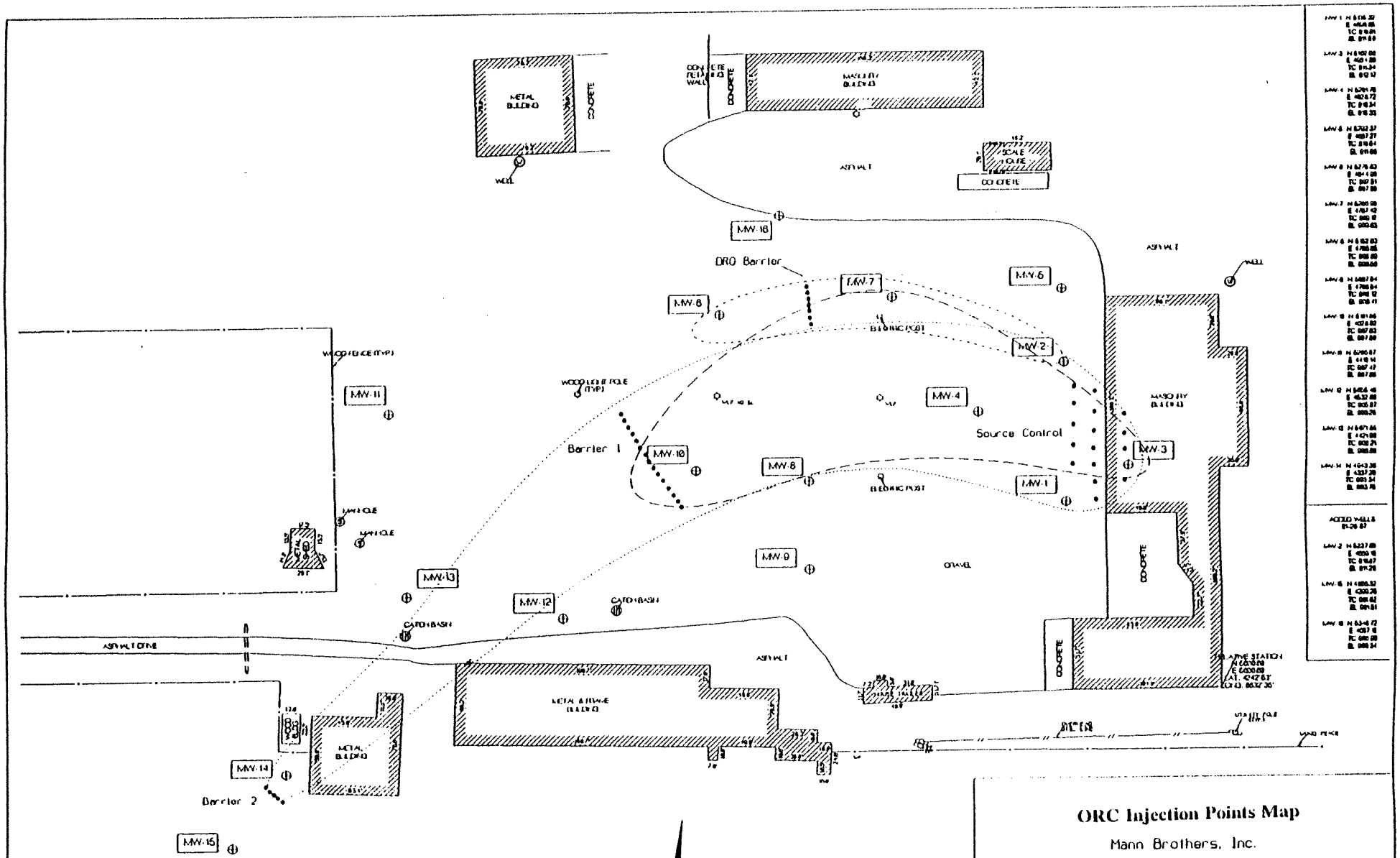
GEOPROBE SAMPLE AND RESULTS
MANN BROTHERS
ELKHORN, WISCONSIN

STS Consultants, Ltd.
Consulting Engineers

STS PROJECT NUMBER: 83918WF
STS PROJECT NO.:
SCALE: 1" = 100'
FIGURE NUMBER: 6

DRAWN BY	J.M.I.
DATE	10/19/93
CHK. BY	M.J.S.
APPROVED BY	T.W.K.
AUTOCAD FILE	83918007

DATE	BY	REVISION

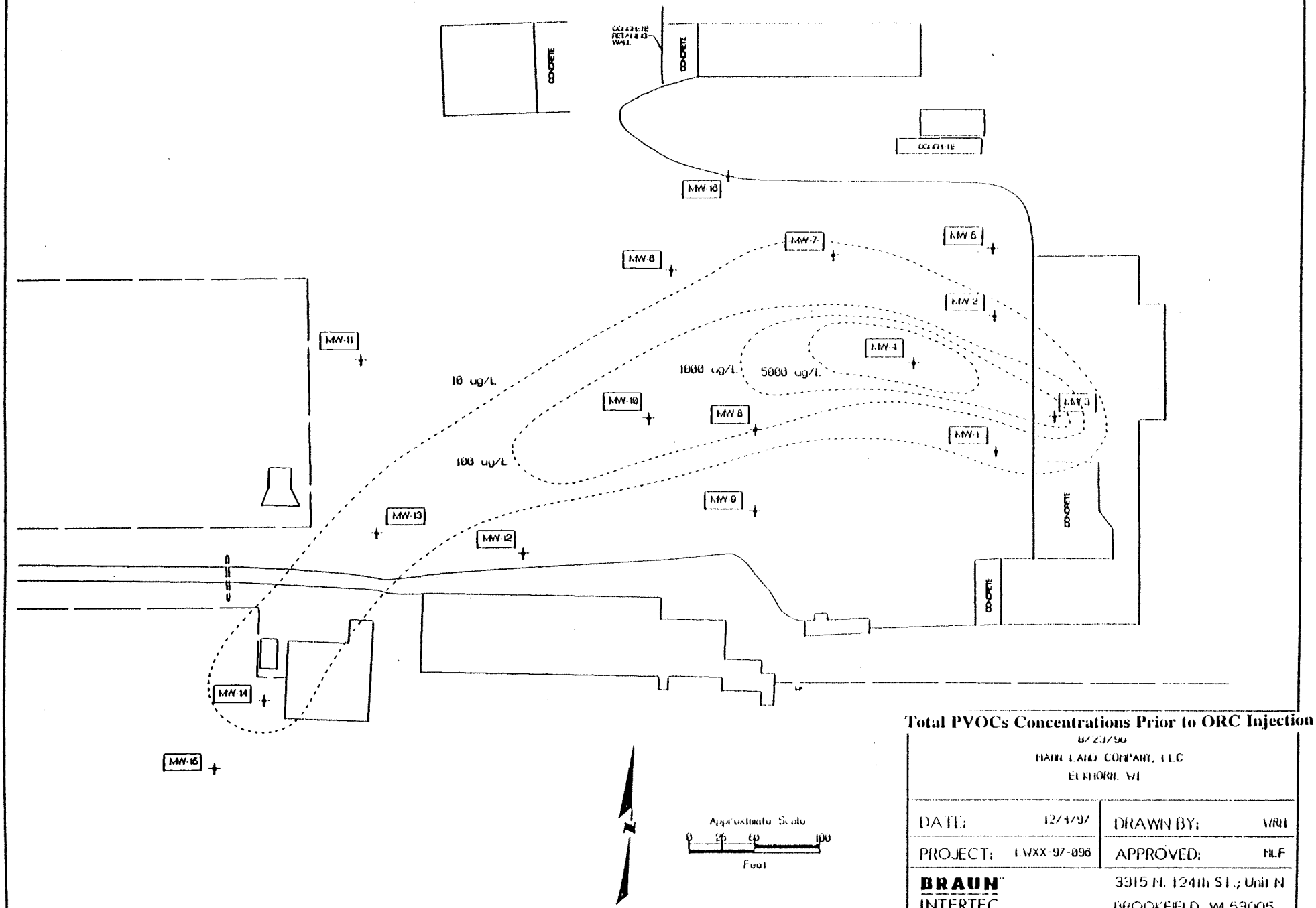


ORC Injection Points Map

Mann Brothers, Inc.

DATE:	2/13/97	DRAWN BY:	BHB
PROJECT:	WE2455	APPROVED:	MLT

BRAUN INTERTEC
3315 N. 124th ST.; Unit N
BROOKFIELD, WI 53005



Total PVOCs Concentrations Prior to ORC Injection

8/23/96

MAIN LAND COMPANY, LLC

ELKHORN, WI

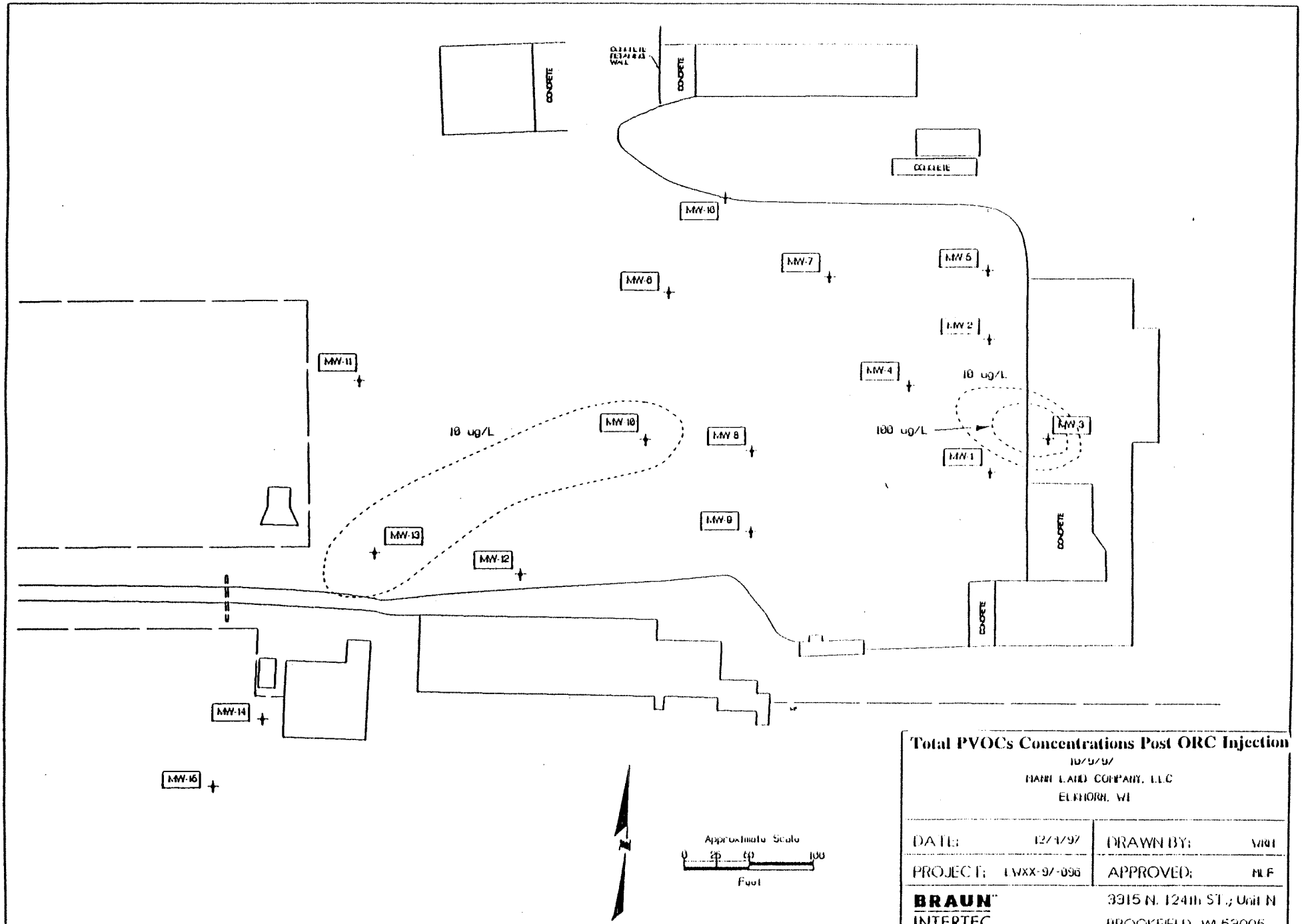
DATE:	12/4/97	DRAWN BY:	VRH
PROJECT:	LVXX-97-096	APPROVED:	NLF

BRAUN INTERTEC

3315 N. 124th St.; Unit N

BROOKFIELD, WI 53005

1,3,5,6,7,8,10,12,27,29 (97-0096FCD)



Total PVOCs Concentrations Post ORC Injection

10/9/97

HAHN LAND COMPANY, LLC

ELKHORN, WI

DATE:	12/4/97	DRAWN BY:	VMH
PROJECT:	LWXX-97-096	APPROVED:	MLF

BRAUN INTERTEC

3315 N. 124th ST.; Unit N

BROOKFIELD, WI 53005

1,3,5,6,7,8,10,12,28,30 (97-0096.FCD)

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	6/30/92	8/23/96	10/9/97	05/01/98	10/28/98
MW-1	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	29	3.9	ND	ND	21.4
Ethylbenzene	140	700	26	3.7	ND	ND	21.5
Methylene Chloride	0.5	5	6	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	19	ND	ND	12.4
Naphthalene	8	40	3.78	ND	ND	ND	0.8
Toluene	68.6	343	ND	0.57	ND	ND	2.38
1,2,4-Trimethylbenzene	10	50	13	ND	ND	ND	4.2
1,3,5-Trimethylbenzene	10	50	ND	2.3	ND	ND	3.36
m&p-Xylenes	124	620	52	5.6	ND	ND	13.5
o- Xylene	124	620	10	ND	ND	ND	1.21
PAHs (ug/L)							
1-Methylnaphthalene	-	-	0.999	NA	NA	NA	ND
2-Methylnaphthalene	-	-	0.838	NA	NA	NA	ND
Naphthalene	8	40	3.78	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	0.8	ND	<0.017	<0.017	0.175
DRO (mg/L)	--	--	ND	ND	2.06	2.42	1.88
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.277	0.073	0.013
Manganese			NA	NA	0.294	0.0062	0.484
Nitrate			NA	NA	0.25	0.79	0.41
Sulfate			NA	NA	45	<0.26	14
Alkalinity			NA	NA	NA	NA	331
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.12	7.07	6.91
Specific Conductivity (uS/cm)			NA	NA	1200	1097	1157
Temperature (C)			NA	NA	19.3	8.6	9.5
ORP (mV)			NA	NA	-48.5	-10	-47
Dissolved Oxygen (ppm)			NA	NA	0	0.86	0.99
Dissolved Carbon Dioxide (ppm)			NA	NA	14	NA	NA

[redacted] > PAL

Stable

MANN BROTHERS ELKHORN, WISCONSIN **MW-2**	PAL	DATE--> ES	1/7/93	9/7/93	8/23/96	1/3/97	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)									
Benzene	0.5	5	NS	NS	NS	4.3	NS	262	15.7
n-Butylbenzene	–	–	NS	NS	NS	0.82	NS	10	ND
1,4-Dichlorobenzene	15	75	NS	NS	NS	8.5	NS	ND	ND
Ethylbenzene	140	700	NS	NS	NS	0.9	NS	159	ND
Methyl tert-butyl ether	12	60	NS	NS	NS	ND	NS	ND	ND
n-Propylbenzene	–	–	NS	NS	NS	0.56	NS	15	ND
Tetrachlorethene	0.5	5	NS	NS	NS	ND	NS	ND	25.7
Toluene	68.6	343	NS	NS	NS	ND	NS	ND	ND
1,2,4-Trimethylbenzene	10	50	NS	NS	NS	ND	NS	ND	ND
1,3,5-Trimethylbenzene	10	50	NS	NS	NS	ND	NS	ND	9.48
m&p-Xylenes	124	620	NS	NS	NS	0.55	NS	301	15
o- Xylene	124	620	NS	NS	NS	ND	NS	74	11.3
PAHs (ug/L)									
Acenaphthene	-	-	NS	NS	NS	NA	NS	NA	ND
Acenaphthylene	1	5	NS	NS	NS	NA	NS	NA	ND
Anthracene	600	3000	NS	NS	NS	NA	NS	NA	ND
Benzo (a) anthracene	-	-	NS	NS	NS	NA	NS	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NS	NS	NS	NA	NS	NA	ND
Benzo (k) fluoranthene	-	-	NS	NS	NS	NA	NS	NA	ND
Benzo (a) pyrene	-	-	NS	NS	NS	NA	NS	NA	ND
Benzo (g,h,i) perylene	-	-	NS	NS	NS	NA	NS	NA	ND
Chrysene	0.02	0.2	NS	NS	NS	NA	NS	NA	ND
Dibenzo (a,h) anthracene	-	-	NS	NS	NS	NA	NS	NA	ND
Fluoranthene	-	-	NS	NS	NS	NA	NS	NA	ND
Fluorene	80	400	NS	NS	NS	NA	NS	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NS	NS	NS	NA	NS	NA	ND
1-Methylnaphthalene	-	-	NS	NS	NS	NA	NS	NA	ND
2-Methylnaphthalene	-	-	NS	NS	NS	NA	NS	NA	ND
Naphthalene	8	40	NS	NS	NS	NA	NS	NA	ND
Phenanthrene	-	-	NS	NS	NS	NA	NS	NA	ND
Pyrene	50	250	NS	NS	NS	NA	NS	NA	ND
PETROL. INDICATORS (mg/L)									
GRO (mg/L)	–	–	NS	NS	NS	0.051	NS	1880	0.128
DRO (mg/L)	–	–	NS	NS	NS	NA	NS	685	0.157
INORG. PARAM. (mg/L)									
Iron			NS	NS	NS	NA	NS	0.059	0.016
Manganese			NS	NS	NS	NA	NS	1.89	1.07
Nitrate			NS	NS	NS	NA	NS	<0.004	3
Sulfate			NS	NS	NS	NA	NS	25	35
Alkalinity			NS	NS	NS	NA	NS	NA	403
FIELD PARAMETERS									
pH (Standard Units)			NS	NS	NS	NA	NS	6.7	6.85
Specific Conductivity (uS/cm)			NS	NS	NS	NA	NS	1498	1522
Temperature (C)			NS	NS	NS	NA	NS	8.5	9.4
ORP (mV)			NS	NS	NS	NA	NS	56	13
Dissolved Oxygen (ppm)			NS	NS	NS	NA	NS	1.11	1.46
Dissolved Carbon Dioxide (ppm)			NS	NS	NS	NA	NS	NA	NA

> PAL

MANN BROTHERS
ELKHORN, WISCONSIN

MW-3	PAL	ES	DATE--> 6/30/92	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)								
Benzene	0.5	5	1100	2170	1100	219	573	727
n-Butylbenzene	--	--	100	ND	61	72	ND	ND
1,2-Dichloroethane	0.5	5	6	ND	ND	ND	ND	ND
Ethylbenzene	140	700	670	1330	670	201	237	224
Isopropylbenzene	--	--	30	ND	29	7.9	11	ND
Methylene Chloride	0.5	5	ND	ND	ND	9.2	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND	ND	ND
Naphthalene	8	40	ND	129	ND	33	18	ND
n-Propylbenzene	--	--	120	ND	75	20	23	11.6
Toluene	68.6	343	130	58.4	63	13	25	26.7
1,2,4-Trimethylbenzene	10	50	510	675	340	104	84	39.7
1,3,5-Trimethylbenzene	10	50	290	293	190	113	63	19.6
m&p-Xylenes	124	620	1400	127	600	195	252	224
o- Xylene	124	620	870	ND	ND	15	48	32.5
PAHs (ug/L)								
Acenaphthene	-	-	0.686	NA	NA	NA	NA	ND
Fluorene	80	400	0.056	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	2.37	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	0.614	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)								
GRO (mg/L)	--	--	11	8.64	6.5	1.86	1.97	1.76
DRO (mg/L)	--	--	1.5	8.82	NA	3.06	3.84	5.74
INORG. PARAM. (mg/L)								
Iron			NA	NA	NA	6.55	5.4	12
Manganese			NA	NA	NA	0.642	0.864	1.5
Nitrate			NA	NA	NA	<0.01	<0.004	<0.004
Sulfate			NA	NA	NA	22	<0.26	<0.13
Alkalinity			NA	NA	NA	NA	NA	441
FIELD PARAMETERS								
pH (Standard Units)			NA	NA	NA	6.2	6.39	6.39
Specific Conductivity (uS/cm)			NA	NA	NA	1410	1235	1235
Temperature (C)			NA	NA	NA	19.9	8.9	8.9
ORP (mV)			NA	NA	NA	-73.7	-38	-38
Dissolved Oxygen (ppm)			NA	NA	NA	0	0.69	0.69
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	NA	NA	NA

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MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	6/30/92	8/23/96	10/9/97	05/01/98	10/28/98
MW-4	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	1600	1300	ND	244	753
n-Butylbenzene	--	--	230	ND	ND	ND	ND
sec-Butylbenzene	--	--	5	ND	ND	ND	ND
1,2-Dibromoethane	--	--	10	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	33	ND	ND	13	ND
Ethylbenzene	140	700	1000	510	ND	16	105
Isopropylbenzene	--	--	40	ND	ND	ND	ND
Methylene Chloride	0.5	5	16	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND	ND
Naphthalene	8	40	75.7	ND	ND	0.5	ND
n-Propylbenzene	--	--	220	41	ND	ND	ND
Toluene	68.6	343	3700	750	ND	41	234
1,2,4-Trimethylbenzene	10	50	1300	360	ND	1.7	16.4
1,3,5-Trimethylbenzene	10	50	430	92	ND	ND	ND
m&p-Xylenes	124	620	3700	2300	ND	20	187
o- Xylene	124	620	1900	ND	ND	7.5	75
PAHs (ug/L)							
Fluorene	80	400	0.719	NA	NA	NA	ND
1-Methylnaphthalene	-	-	44.1	NA	NA	NA	ND
2-Methylnaphthalene	-	-	34.2	NA	NA	NA	ND
Naphthalene	8	40	75.7	NA	NA	NA	ND
Phenanthrene	-	-	0.028	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	16	8.6	<0.017	0.517	1.51
DRO (mg/L)	--	--	2.2	NA	0.066	NA	5.61
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.02	0.059	4.4
Manganese			NA	NA	0.636	0.146	0.126
Nitrate			NA	NA	3.9	0.06	0.15
Sulfate			NA	NA	22	7.4	<0.13
Alkalinity			NA	NA	NA	NA	370
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	6.9	6.75	6.77
Specific Conductivity (uS/cm)			NA	NA	1660	1591	1493
Temperature (C)			NA	NA	20.2	8.6	9.7
ORP (mV)			NA	NA	-63.9	-20	-26
Dissolved Oxygen (ppm)			NA	NA	0	0.77	0.65
Dissolved Carbon Dioxide (ppm)			NA	NA	16	NA	NA

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MANN BROTHERS ELKHORN, WISCONSIN MW-5	PAL	DATE--> ES	6/30/92	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)								
Benzene	0.5	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND	ND	ND
Naphthalene	8	40	0.133	ND	ND	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND	ND
PAHs (ug/L)								
Acenaphthene	-	-	NA	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)								
GRO (mg/L)	--	--	ND	ND	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	ND	ND	ND	3.32	1.18	1.87
INORG. PARAM. (mg/L)								
Iron			NA	NA	NA	0.059	0.061	0.019
Manganese			NA	NA	NA	0.038	0.082	0.112
Nitrate			NA	NA	NA	2.7	10	4.3
Sulfate			NA	NA	NA	65	60	17
Alkalinity			NA	NA	NA			306
FIELD PARAMETERS								
pH (Standard Units)			NA	NA	NA	6.92	6.89	6.8
Specific Conductivity (uS/cm)			NA	NA	NA	1640	1522	1755
Temperature (C)			NA	NA	NA	20.3	8.5	9.8
ORP (mV)			NA	NA	NA	-36.9	43	31
Dissolved Oxygen (ppm)			NA	NA	NA	3.5	1.88	1.22
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	20	NA	NA

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MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
MW-6	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	7.8	2.3	ND	0.9	ND
Ethylbenzene	140	700	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND	ND
Toluene	68.6	343	ND	0.64	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	0.71	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	ND	ND	0.017	<0.017	<0.017
DRO (mg/L)	--	--	0.267	0.17	2.22	0.091	2.01
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.043	0.049	0.037
Manganese			NA	NA	0.073	0.249	0.189
Nitrate			NA	NA	2.5	1.1	0.024
Sulfate			NA	NA	59	20	20
Alkalinity			NA	NA			437
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.3	7.22	7.15
Specific Conductivity (uS/cm)			NA	NA	2040	2130	2250
Temperature (C)			NA	NA	20.6	8.5	9.6
ORP (mV)			NA	NA	113.3	93	16
Dissolved Oxygen (ppm)			NA	NA	1.5	1.92	1.37
Dissolved Carbon Dioxide (ppm)			NA	NA	23	NA	NA

> PAL

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	1/7/93	8/23/96	10/9/97	05/01/98	10/28/98
MW-7	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	ND	ND	ND	22	5.01
n-Butylbenzene	--	--	ND	6.8	ND	ND	ND
sec-Butylbenzene	--	--	ND	0.91	ND	ND	ND
Ethylbenzene	140	700	ND	1.1	ND	ND	ND
Isopropylbenzene	--	--	ND	0.91	ND	ND	ND
p-Isopropylbenzene	--	--	ND	1.5	ND	ND	ND
Methylene Chloride	0.5	5	ND	ND	0.7	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND	ND
n-Propylbenzene	--	--	ND	1.6	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND	1.22
1,2,4-Trimethylbenzene	10	50	ND	14	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	2.4	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	ND	0.26	<0.017	<0.017	0.036
DRO (mg/L)	--	--	ND	13	6.33	NA	5.69
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.218	0.35	2.4
Manganese			NA	NA	0.312	0.629	1.03
Nitrate			NA	NA	0.16	<0.004	<0.004
Sulfate			NA	NA	129	18	0.35
Alkalinity			NA	NA	NA	NA	478
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.03	7.13	7.2
Specific Conductivity (uS/cm)			NA	NA	1950	2110	2070
Temperature (C)			NA	NA	20.1	8.7	9.9
ORP (mV)			NA	NA	-93.3	-47	-60
Dissolved Oxygen (ppm)			NA	NA	0	1.24	0.98
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	NA	NA

> PAL

MANN BROTHERS ELKHORN, WISCONSIN **MW-8**	PAL	DATE--> ES	1/7/93	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)								
Benzene	0.5	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	ND	ND	45	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	59	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND	ND	0.3
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND	ND
PAHs (ug/L)								
Acenaphthene	-	-	NA	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)								
GRO (mg/L)	--	--	ND	ND	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	ND	NA	NA	0.495	1.55	1.87
INORG. PARAM. (mg/L)								
Iron			NA	NA	NA	0.037	0.022	0.073
Manganese			NA	NA	NA	0.177	0.857	0.738
Nitrate			NA	NA	NA	1.2	0.15	<0.004
Sulfate			NA	NA	NA	57	35	40
Alkalinity			NA	NA	NA	NA	NA	277
FIELD PARAMETERS								
pH (Standard Units)			NA	NA	NA	7.21	7.18	7.13
Specific Conductivity (uS/cm)			NA	NA	NA	2570	2680	2510
Temperature (C)			NA	NA	NA	23.1	8.8	9.9
ORP (mV)			NA	NA	NA	41.8	22	6
Dissolved Oxygen (ppm)			NA	NA	NA	1.5	0.98	0.77
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	35	NA	NA
		> PAL						

MANN BROTHERS ELKHORN, WISCONSIN **MW-9**	PAL	DATE--> ES	1/7/93	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)								
Benzene	0.5	5	NA	11.3	ND	ND	ND	ND
Ethylbenzene	140	700	NA	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	NA	3.8	ND	ND	ND	ND
Toluene	68.6	343	NA	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	NA	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	NA	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	NA	ND	ND	ND	ND	ND
o- Xylene	124	620	NA	ND	ND	ND	ND	ND
PAHs (ug/L)								
Acenaphthene	-	-	NA	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)								
GRO (mg/L)	--	--	NA	ND	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	NA	0.065	NA	0.824	1.05	0.654
INORG. PARAM. (mg/L)								
Iron			NA	NA	NA	1.46	0.026	0.022
Manganese			NA	NA	NA	0.552	0.281	0.458
Nitrate			NA	NA	NA	0.36	1.8	0.73
Sulfate			NA	NA	NA	33	26	23
Alkalinity			NA	NA	NA	NA	NA	396
FIELD PARAMETERS								
pH (Standard Units)			NA	NA	NA	6.93	6.85	6.83
Specific Conductivity (uS/cm)			NA	NA	NA	1840	1844	1621
Temperature (C)			NA	NA	NA	21.4	8.8	10
ORP (mV)			NA	NA	NA	-48	-16	-43
Dissolved Oxygen (ppm)			NA	NA	NA	1.5	1.44	1.01
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	35	NA	NA

[redacted] > PAL

MANN BROTHERS ELKHORN, WISCONSIN **MW-10**	PAL	DATE--> ES	1/7/93	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (g/L)								
Benzene	0.5	5	1300	757	390	18	ND	2.2
1,2-Dichloroethane	0.5	5	ND	ND	18	3.5	ND	0.8
Ethylbenzene	140	700	440	209	2.4	ND	ND	ND
Isopropylbenzene	–	–	ND	ND	2.8	0.8	ND	0.4
Methyl tert-butyl ether	12	60	43	ND	12	ND	ND	ND
Naphthalene	8	40	ND	26.1	ND	ND	ND	ND
n-Propylbenzene	–	–	ND	ND	3.4	1.3	ND	0.9
Toluene	68.6	343	120	ND	20	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	380	143	15	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	45	32.7	ND	ND	ND	ND
m&p-Xylenes	124	620	890	136	34	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND	ND
PAHs (ug/L)								
Acenaphthene	-	-	NA	NA		NA	NA	ND
Acenaphthylene	1	5	NA	NA		NA	NA	ND
Anthracene	600	3000	NA	NA		NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA		NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA		NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA		NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA		NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA		NA	NA	ND
Chrysene	0.02	0.2	NA	NA		NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA		NA	NA	ND
Fluoranthene	-	-	NA	NA		NA	NA	ND
Fluorene	80	400	NA	NA		NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA		NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA		NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA		NA	NA	ND
Naphthalene	8	40	NA	NA		NA	NA	ND
Phenanthrene	-	-	NA	NA		NA	NA	ND
Pyrene	50	250	NA	NA		NA	NA	ND
PETROL. INDICATORS (mg/L)								
GRO (mg/L)	–	–	ND	2.53	0.87	0.053	<0.017	0.029
DRO (mg/L)	–	–	ND	0.675	NA	2.54	2.23	7.91
INORG. PARAM. (mg/L)								
Iron			NA	NA	NA	1.18	0.064	0.069
Manganese			NA	NA	NA	0.517	0.341	0.329
Nitrate			NA	NA	NA	<0.01	<0.004	<0.004
Sulfate			NA	NA	NA	42	8.7	11
Alkalinity			NA	NA	NA	NA	NA	300
FIELD PARAMETERS								
pH (Standard Units)			NA	NA	NA	7.23	NA	6.88
Specific Conductivity (uS/cm)			NA	NA	NA	1550	NA	2200
Temperature (C)			NA	NA	NA	20.3	8.9	10
ORP (mV)			NA	NA	NA	-61	-44	-68
Dissolved Oxygen (ppm)			NA	NA	NA	1.5	0.85	0.75
Dissolved Carbon Dioxide (ppm)			NA	NA	NA	40	NA	NA

[redacted] > PAL

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	9/7/93	8/23/96 ND	10/9/97	05/01/98	10/28/98
MW-11	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	ND	ND	NA	ND	ND
Ethylbenzene	140	700	ND	ND	NA	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	NA	ND	ND
Toluene	68.6	343	ND	ND	NA	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	NA	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	NA	ND	ND
m&p-Xylenes	124	620	ND	ND	NA	ND	ND
o- Xylene	124	620	ND	ND	NA	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	ND	ND	NA	<0.017	<0.017
DRO (mg/L)	--	--	ND	NA	NA	0.227	0.027
INORG. PARAM. (mg/L)							
Iron			NA	NA	NA	<0.0089	0.012
Manganese			NA	NA	NA	0.0032	0.014
Nitrate			NA	NA	NA	3.8	3.9
Sulfate			NA	NA	NA	27	29
Alkalinity			NA	NA	NA	NA	290
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	NA	7.12	7.54
Specific Conductivity (uS/cm)			NA	NA	NA	2170	2020
Temperature (C)			NA	NA	NA	10.8	10.9
ORP (mV)			NA	NA	NA	81	44
Dissolved Oxygen (ppm)			NA	NA	4.5	4.48	2.51
Dissolved Carbon Dioxide (ppm)			NA	NA	23	NA	NA

[redacted] > PAL

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
MW-12	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	ND	ND	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND	ND
Methylene Chloride	0.5	5	ND	ND	0.6	ND	ND
Methyl tert-butyl ether	12	60	6.1	ND	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	ND	ND	<0.017	0.017	<0.017
DRO (mg/L)	--	--	ND	NA	NA	1.41	2.06
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.04	0.0094	0.023
Manganese			NA	NA	0.036	0.043	0.73
Nitrate			NA	NA	1.1	0.61	0.61
Sulfate			NA	NA	33	27	18
Alkalinity			NA	NA	NA	NA	382
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.26	7.37	7.11
Specific Conductivity (uS/cm)			NA	NA	1560	1847	1535
Temperature (C)			NA	NA	20.1	10.1	10.8
ORP (mV)			NA	NA	22.8	7	-3
Dissolved Oxygen (ppm)			NA	NA	1.5	1.78	1.55
Dissolved Carbon Dioxide (ppm)			NA	NA	42	NA	NA

[redacted] > PAL

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
MW-13	PAL	ES					
PVOCs (µg/L)							
Benzene	0.5	5	42.7	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	11.1	3.2	ND	ND	0.3
Ethylbenzene	140	700	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	26.8	3.1	20	11	8.8
Toluene	68.6	343	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	0.0803	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	0.172	NA	0.115	0.225	0.166
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.043	<0.0089	0.01
Manganese			NA	NA	0.654	0.534	0.56
Nitrate			NA	NA	<0.01	16	0.054
Sulfate			NA	NA	32	16	11
Alkalinity			NA	NA	NA	NA	359
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.12	7.1	7.07
Specific Conductivity (uS/cm)			NA	NA	1280	1680	1665
Temperature (C)			NA	NA	21.1	9.8	11
ORP (mV)			NA	NA	14.2	33	10
Dissolved Oxygen (ppm)			NA	NA	2.5	2.02	1.41
Dissolved Carbon Dioxide (ppm)			NA	NA	42	NA	NA

> PAL

MANN BROTHERS ELKHORN, WISCONSIN **MW-14**	PAL	DATE--> ES	9/7/93	8/23/96	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)							
Benzene	0.5	5	ND	1.3	ND	ND	ND
1,2-Dichloroethane	0.5	5	4.1	3	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	5.2	9.4	ND	ND	3.7
Toluene	68.6	343	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND	ND
PAHs (ug/L)							
Acenaphthene	-	-	NA	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)							
GRO (mg/L)	--	--	ND	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	0.71	NA	2.13	1.487	7.1
INORG. PARAM. (mg/L)							
Iron			NA	NA	0.288	<0.0089	<0.0089
Manganese			NA	NA	0.126	0.234	0.349
Nitrate			NA	NA	0.1	0.058	<0.004
Sulfate			NA	NA	24	17	17
Alkalinity			NA	NA	NA	NA	355
FIELD PARAMETERS							
pH (Standard Units)			NA	NA	7.48	7.3	7.12
Specific Conductivity (uS/cm)			NA	NA	1250	1077	1108
Temperature (C)			NA	NA	18.9	10.8	11.2
ORP (mV)			NA	NA	-51.3	27	55
Dissolved Oxygen (ppm)			NA	NA	1.5	3.3	2.02
Dissolved Carbon Dioxide (ppm)			NA	NA	35	NA	NA

> PAL

MANN BROTHERS ELKHORN, WISCONSIN **MW-15**	PAL	DATE--> ES	1/3/97 ND	10/9/97	05/01/98	10/28/98
PVOCs (µg/L)						
Benzene	0.5	5	ND	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND
PAHs (ug/L)						
Acenaphthene	-	-	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)						
GRO (mg/L)	--	--	ND	<0.017	<0.017	<0.017
DRO (mg/L)	--	--	NA	0.051	0.059	0.069
INORG. PARAM. (mg/L)						
Iron			NA	0.224	0.012	0.02
Manganese			NA	0.234	0.107	0.108
Nitrate			NA	<0.01	<0.004	<0.004
Sulfate			NA	20	9.3	8.6
Alkalinity			NA	NA	NA	361
FIELD PARAMETERS						
pH (Standard Units)			NA	7.49	7.38	7.36
Specific Conductivity (uS/cm)			NA	1340	1106	1067
Temperature (C)			NA	19.1	10.8	11.3
ORP (mV)			NA	-57.5	-31	-2
Dissolved Oxygen (ppm)			NA	0	2.17	1.87
Dissolved Carbon Dioxide (ppm)			NA	30	NA	NA

> PAL

MANN BROTHERS ELKHORN, WISCONSIN		DATE-->	1/3/97	10/9/97	05/01/98	10/28/98
MW-16	PAL	ES				
PVOCs (µg/L)						
Benzene	0.5	5	ND	ND	ND	ND
Ethylbenzene	140	700	ND	ND	ND	ND
Methyl tert-butyl ether	12	60	ND	ND	ND	ND
Toluene	68.6	343	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	50	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	50	ND	ND	ND	ND
m&p-Xylenes	124	620	ND	ND	ND	ND
o- Xylene	124	620	ND	ND	ND	ND
PAHs (ug/L)						
Acenaphthene	-	-	NA	NA	NA	ND
Acenaphthylene	1	5	NA	NA	NA	ND
Anthracene	600	3000	NA	NA	NA	ND
Benzo (a) anthracene	-	-	NA	NA	NA	ND
Benzo (b) fluoranthene	0.02	0.2	NA	NA	NA	ND
Benzo (k) fluoranthene	-	-	NA	NA	NA	ND
Benzo (a) pyrene	-	-	NA	NA	NA	ND
Benzo (g,h,i) perylene	-	-	NA	NA	NA	ND
Chrysene	0.02	0.2	NA	NA	NA	ND
Dibenzo (a,h) anthracene	-	-	NA	NA	NA	ND
Fluoranthene	-	-	NA	NA	NA	ND
Fluorene	80	400	NA	NA	NA	ND
Indeno (1,2,3-cd) pyrene	-	-	NA	NA	NA	ND
1-Methylnaphthalene	-	-	NA	NA	NA	ND
2-Methylnaphthalene	-	-	NA	NA	NA	ND
Naphthalene	8	40	NA	NA	NA	ND
Phenanthrene	-	-	NA	NA	NA	ND
Pyrene	50	250	NA	NA	NA	ND
PETROL. INDICATORS (mg/L)						
GRO (mg/L)	--	--	ND	<0.017	0.017	<0.017
DRO (mg/L)	--	--	NA	<0.018	0.531	<0.011
INORG. PARAM. (mg/L)						
Iron			NA	0.04	0.011	0.0091
Manganese			NA	0.0095	0.025	0.026
Nitrate			NA	1.6	1.3	1.2
Sulfate			NA	32	37	38
Alkalinity			NA	NA	NA	472
FIELD PARAMETERS						
pH (Standard Units)			NA	6.89	7.11	7.06
Specific Conductivity (uS/cm)			NA	2590	2590	2260
Temperature (C)			NA	20.2	9.7	10.7
ORP (mV)			NA	15.5	-127	-95
Dissolved Oxygen (ppm)			NA	1.5	2.43	1.6
Dissolved Carbon Dioxide (ppm)			NA	35	NA	NA

[redacted] > PAL

Mann Land Company, LLC; Elkhorn, WI
LWXX-97-0096
Groundwater Elevations

Well #	Northing (y) [feet]	Easting (x) [feet]	Casing Elevation (ft)	Ground Elevation (ft)	Well Bot. Elevation (ft)	GW Elev. 12/10/93	GW Elev. 8/22/96
MW-1	5135.32	4890.85	910.91	911.59	896.67	903.82	904.51
MW-2	5237.60	4889.18	910.87	911.29	897.47		
MW-3	5162.66	4934.96	911.34	912.17	896.92	903.93	904.50
MW-4	5201.76	4828.72	910.04	911.06	895.66	903.33	903.93
MW-5	5292.37	4887.27	910.04	911.06	895.06	903.56	904.08
MW-6	5275.63	4644.90	907.51	907.96	893.37	902.80	903.16
MW-7	5286.98	4767.42	909.17	909.63	895.06	903.04	903.75
MW-8	5152.63	4708.85	908.09	908.56	894.56	903.05	903.28
MW-9	5087.94	4708.64	908.12	908.41	894.51	902.90	903.36
MW-10	5161.55	4628.02	907.03	907.50	892.13	902.58	902.89
MW-11	5205.07	4410.14	907.47	907.96	899.75	902.05	902.00
MW-12	5055.40	4532.88	905.97	906.25	897.12	902.52	902.36
MW-13	5071.55	4421.99	906.21	906.66	898.78	901.71	901.55
MW-14	4943.36	4337.20	903.34	903.70	895.16	900.07	900.28
MW-15	4888.32	4299.26	901.02	901.51	887.02		
MW-16	5346.72	4687.10	908.96	909.34	895.16		

Well #	GW Elev. 5/20/97	GW Elev. 10/8/97	GW Elev. 01/19/98	GW Elev. 05/01/98	GW Elev. 08/05/98	GW Elev. 10/28/98
MW-1	903.51	901.65	901.79	904.91	904.78	902.98
MW-2	903.37		901.87	904.76	904.47	903.84
MW-3	903.66	901.77	902.09	905.06	904.72	904.13
MW-4	903.23	900.59	901.84	904.49	904.05	903.74
MW-5	903.25	901.34	901.26	904.53	904.02	903.64
MW-6	902.49	900.86	901.09	903.68	903.15	903.01
MW-7	902.91	901.21	901.28	904.19	903.65	903.42
MW-8	902.71	901.09	901.42	903.94	903.79	903.16
MW-9	902.70	900.97	901.42	903.90	903.60	903.17
MW-10	901.46	900.43	900.82	900.97	903.21	903.06
MW-11	901.78	900.24	900.87	902.71	902.59	901.93
MW-12	901.95	900.47		902.89	902.60	902.34
MW-13	901.34	899.88	900.38	902.15	902.15	901.66
MW-14	900.13	899.36	900.04	900.53	901.16	900.54
MW-15	899.74	898.24	899.22	900.20	901.02	899.98
MW-16	902.59	901.02	901.04	903.78	903.28	903.12

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Remedial Investigation and Remedial Action Options Report for the Mann Brothers, Inc. Property Highway 12 Elkhorn, Wisconsin

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February 19, 1997
Project # WE2455

Braun Intertec Corporation

Engineers and Scientists Serving the Built and Natural Environments

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Engineers and Scientists Serving the Built and Natural Environments®

I. Introduction

Mann Brothers, Inc. retained Braun Intertec Corporation (Braun Intertec) to perform a remedial investigation at the property located at N6147 US Highway 12, approximately two miles north of Elkhorn, Wisconsin. The site occupies the southeast quarter of the southeast quarter of Section 13, Township 3 North, Range 16 East, Walworth county. A site location map is found on Figure 1.

The purpose of the remedial investigation was to further delineate the contaminant plume and to investigate the petroleum impacts to soil and groundwater in the area of the previously removed motor/waste oil tanks. This report presents the methodologies, observations, and laboratory results of the investigation, discusses remedial action options and recommends a remedial technique.

II. Background

Mann Brothers, Inc. (Mann Brothers) owns and operates a road construction company at the subject property. The operations at the site consist of machinery maintenance, storage and repair. On December 12, 1991, two gasoline underground storage tanks, USTs, (12,000-gallon and 10,000-gallon) and one diesel UST (8,000-gallon) were removed. Obvious soil contamination was apparent in the tank excavation. Mann Brothers contracted STS Consultants (STS) to investigate the release. STS estimated that the total volume of vadose zone impacted soil was between 1,000 and 1,500 cubic yards. The groundwater contaminant plume was reported to be approximately 200 feet wide by 600 feet long.

In July of 1996, Mann Brothers, Inc. retained Braun Intertec to finalize the investigation and determine the best remedial technique for the site. Groundwater data and samples were collected on August 23, 1996 from the existing wells to assess current groundwater quality conditions. The results of the sampling revealed that levels of petroleum compounds continue to exceed Wisconsin Administrative Code NR 140 groundwater quality standards. In addition, upon review of the STS reports, Braun Intertec recommended that the remaining waste oil UST be removed. On September 6, 1996, the 1,000-gallon waste oil UST was removed and in addition, one 2,000-gallon motor/waste oil and one 2,000-gallon motor oil tanks were also removed. These tanks were located to the north of the previously removed

gasoline and diesel tanks. The locations of the former tank excavations are indicated on Figure 2. The tank closure assessment, performed by Braun Intertec, determined that there had also been a release from the waste oil and motor oil tanks. For further details, see the Braun Intertec report entitled, *UST Closure Assessment and Status Report* for the Mann Brothers Property dated November 15,1996. Based on the findings in this report, Braun Intertec recommended that three soil borings/monitoring wells be installed to further delineate the contaminant plume and to investigate the waste/motor oil release.

III. Remedial Investigation

A. Soil Investigation

On December 11, 1996, three soil borings were drilled on the property and identified as B-15, B-16 and B-2R. (The "R" designation of B-2 represents that it is a replacement boring to the original B-2 conducted by STS at approximately the same location.) Wisconsin Soil Testing of Butler, Wisconsin was contracted to perform the work. Soil samples were collected continuously with a split-spoon sampling tube to a depth of approximately 14 feet. Each soil sample was examined and characterized according to the Unified Soil Classification System (USCS). Generally, the soil encountered consisted of silty, sand and gravel. B-15 had an organic rich silty clay from the surface to six feet below ground surface. Further detail on field methodologies can be found in Appendix A. All observations were recorded on the soil boring logs. The soil boring logs are presented as Appendix B. A site map indicating soil boring locations is presented on Figure 2.

Soil samples were collected from each sampling interval and containerized in laboratory supplied sample jars with teflon-lined lids and plastic Ziploc bags. Soil samples to be analyzed for gasoline range organics (GRO), diesel range organics (DRO) and volatile organic compounds (VOCs) were collected by measuring 25 grams of soil as it was placed within a two-ounce jar. The GRO and VOC samples were immediately preserved with 25 milliliters (ml) methanol. The samples collected for polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), lead (Pb) and cadmium (Cd) analyses were placed in sample jars filled as full as possible with soil. The samples collected for laboratory analyses were immediately placed in a cooler on ice. The samples from the interval just above the apparent water table were selected for GRO, VOC, Pb and Cd analyses. A "worst-case" soil

sample was collected from B-2R for PCB and PAH analysis. Following field activities, the samples were transported to Great Lakes Analytical Laboratory in Buffalo Grove, Illinois.

The samples collected in bags for the purpose of field screening were allowed to warm to 70°F and equilibrate out of direct sunlight. A Photovac Microtip Photoionization Detector (PID) equipped with a 10.6 eV lamp was calibrated in the field with 100 ppm isobutylene and used to screen soil samples. Volatile compounds were not detected in any of the samples from B-15 or B-16, however, there were some slight detects in B-2R. The results of the field screening were recorded on the soil boring logs and are summarized on Table 1.

B. Groundwater Investigation

All three soil borings were converted to groundwater monitoring wells (MW-15, MW-16 and MW-2). The wells were installed in accordance with NR 141 requirements to a depth of 12 (MW-15) or 14 feet (MW-16 and MW-2) with ten foot screens. On December 17, 1996, the wells were developed according to Wisconsin Administrative Code NR 141. Each well was surged and pumped until the purge water ran clear. All development water was stored on site in labeled 55-gallon drums. The well construction and development forms are presented as Appendix C. A map indicating the monitoring well locations is found on Figure 2.

On January 3, 1997, groundwater field measurements were collected from the three new wells. The groundwater was measured for pH, specific conductance, temperature, and dissolved oxygen. Each well was purged until readings for the above parameters (except DO) stabilized. Dissolved oxygen levels recorded were between 2-3 parts per million (ppm). Field measurements are summarized in Table 2. Groundwater samples were collected for GRO, DRO, VOCs, lead and cadmium analyses in accordance with the workplan. All samples were placed in a cooler on ice and transported to Great Lakes Analytical Laboratory in Buffalo Grove, Illinois, for analysis.

IV. Laboratory Analytical Results

A. Soil Quality

The results of the soil analyses revealed that B-15 and B-16 are not impacted by petroleum constituents. However, the results from B-2R soil samples do indicate that gasoline compounds (benzene, ethylbenzene and xylenes) are present in the soil at the water table

interface. Apparently, the gasoline constituents are more mobile and thus more pervasive in soil than the motor/waste oil or DRO constituents. Perhaps the clay layer found in B-2R from 4 to 6 feet is retaining some of the heavier hydrocarbons from migrating down to groundwater. The bottom sample B-2R (12-14') did not contain any detectable concentrations of VOCs. Neither PAHs nor PCBs were detected in the sample B-2R (6-8'). In addition, the organic rich silty clay in the shallow soil (surface to six feet) of B-15 is possibly impeding the downgradient migration of the contaminants by adsorption to the clay particles and decreased hydraulic conductivity. Groundwater is found to be very shallow (less than one foot below the surface) in B-15/MW-15. The analytical results are summarized in Table 3. Laboratory chain-of-custody forms and reports are presented as Appendix D.

B. Groundwater Quality

The results of the groundwater analyses revealed that the contaminant plume has not extended downgradient beyond MW-14 nor to the north beyond MW-6 and MW-7. The groundwater in MW-2 is not significantly impacted with waste oil or motor oil constituents. The DRO concentration was 51 micrograms per liter (ug/L), which is only slightly above the detection limit of 50 ug/L. Benzene, ethylbenzene, n-butyl benzene, 1,4-dichlorobenzene, n-propylbenzene, toluene and xylenes were detected at low levels in MW-2. The concentration of benzene in MW-2 exceeded the NR 140 Preventive Action Limit (PAL) of 0.5 ug/L. Laboratory results are presented in Table 4. The laboratory reports and chain-of-custody forms are found in Appendix D. A revised contaminant plume map is found on Figure 3.

V. Conclusions

Natural attenuation processes appear to have been moderately effective at reducing contaminant concentrations and preventing further plume migration over the past three years at the site. There is significant groundwater contamination in MW-3, MW-4, MW-8 and MW-10. Benzene, 1,2-dichloroethane, methyl tert-butyl ether (MTBE), toluene and xylenes are found in the groundwater at concentrations that exceed their respective Enforcement Standards. The contaminant plume has not advanced beyond MW-14. Hydraulic conductivities were reported previously by STS to be from 10^{-2} to 10^{-5} in the wells tested.

The groundwater contaminant plume extends approximately seven hundred feet from the source and is approximately one hundred and fifty feet wide. Soil contamination appears to be limited to the areas of the previous USTs and underneath the building. Impacted soil extends ten feet vertically and is approximately 100 feet by 100 feet wide based on the tank closure and soil investigation. This equates to approximately 3,700 cubic yards of impacted soil. A contaminated soil extent map is found on Figure 4. Based on the UST closure samples and previous soil data, petroleum concentrations exceed the NR 720 residual cleanup levels for soil. Therefore, soil and groundwater remediation are recommended to move the site toward WDNR closure.

VI. Remedial Alternatives Discussion

A. Soil

Excavation and treatment is not considered a cost-effective option due to the large amount of soil that would need to be removed. In addition, some of the impacted soil is inaccessible (underneath the building) and if left in place would likely continue to leach into the groundwater. The soil appears to be permeable enough that vapor extraction techniques can be considered.

B. Groundwater

If the biodegradation process could be enhanced in the subsurface, the microorganisms could metabolize contaminants at a faster rate. Engineered groundwater treatment systems historically have been slow to achieve groundwater clean up standards. They can be plagued with fouling problems and can become very costly with successive years of operation and maintenance. Nevertheless, they are a viable groundwater remediation method and have proved to be an effective remedial technique.

VII. Remedial Action Options

In accordance with NR 722, remedial action options must be considered and the results reported to the WDNR prior to selecting a remedial action. This section of this report will evaluate the remedial options for soil and groundwater at the site and discuss the feasibility

September 13, 1996

Ms. Gena Keenan
Wisconsin Department of Natural Resources
Southern Region Annex
4041 N. Richards Street
Milwaukee, Wisconsin 53212

Re: Site Investigation Report, Mann Brothers Facility, USH 12, Elkhorn, Wisconsin -- STS Project No. 83918WF

Dear Ms. Keenan:

Enclosed is a copy of the subject report, which we are submitting on behalf of Mann Brothers. Field work was completed in 1992 and 1993 and the Report prepared on February 21, 1994, prior to the issuance of WDNR Guidance Documents on site closure.

STS is not currently involved with the project. Therefore, if you have any questions or comments I suggest you contact Mr. Robert Mann of Mann Brothers or Mr. Charles V. "Buck" Sweeney of Michael Best & Friedrich in Madison.

Sincerely,

STS CONSULTANTS, LTD.

Bruce A. Weber, P.E.
Principal

Thomas W. Kroeger
Principal Scientist

Attachments

©STS Consultants Ltd., September 1996

cc: Mr. Robert Mann (w/enclosure)
Mr. Buck Sweeney (w/enclosure)
Ms. Brenda Boyce (w/enclosure)

STS Consultants Ltd.
Consulting Engineers

11425 West Lake Park Drive
Milwaukee, Wisconsin 53224
414.359.3030/Fax 414.359.0822

Report

PROJECT

SITE INVESTIGATION REPORT
US HIGHWAY 12
MANN BROTHERS, INC.
ELKHORN, WISCONSIN

CLIENT

MR. DENNIS HOMMEN
MANN BROTHERS, INC.
P.O. BOX 48
ELKHORN, WISCONSIN 53121

Project No.

83918WF

Date

SEPTEMBER 13, 1996

STS Consultants, Ltd.
Consulting Engineers
11425 West Lake Park Drive
Milwaukee, Wisconsin 53224
414.359.3030/Fax 413.359.0822

EXECUTIVE SUMMARY

Mann Brothers operates a construction yard located approximately 2 miles north of Elkhorn, Wisconsin at N6147 US Highways 12 and 67. Three underground storage tanks (USTs) located at the site were used for petroleum for fleet fueling purposes. The USTs consisted of:

- one 12,000-gallon gasoline UST;
- one 10,000-gallon gasoline UST; and
- one 8,000-gallon diesel UST.

The USTs were removed in December, 1991 by McCutchin Crane Service of Dodgeville, Wisconsin. Odors and other evidence of a release from the UST systems were present during the UST closure. Laboratory analysis of soil and water samples collected from the UST excavation during the closure confirmed the presence of gasoline and diesel fuel in the soil and water. Ms. Gena Keenan of the Wisconsin Department of Natural Resources (WDNR) was notified of the release on December 10, 1991.

Due to the release from the UST systems, STS Consultants was retained to conduct a site investigation as required by the WDNR. The site investigation was conducted between June, 1992 and December, 1993 and consisted of:

- Excavating eleven test pits including laboratory analysis of twelve soil samples for gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOC) and lead;
- Conducting fourteen soil borings including laboratory analysis of six soil samples for GRO, DRO, PVOC, and lead;
- Conducting groundwater sampling with a GeoProbe at twelve locations and conducting field gas chromatograph analysis of the twelve samples;
- Installing thirteen groundwater monitoring wells;
- Collecting groundwater samples from the monitoring wells for laboratory analysis of GRO, DRO, VOC, and lead;

Performing hydraulic conductivity testing on three monitoring wells; and
Surveying the well riser pipe elevations to allow calculation of groundwater elevations.

EXECUTIVE SUMMARY (Cont.)

The results of photoionization detector (PID) field screening and laboratory analysis of soil samples collected from test pits and soil borings indicated the presence of GRO and DRO in soil samples collected from near the groundwater table elevation. In the immediate vicinity of the former UST basin, soil samples collected from the unsaturated (vadose) zone above the water table zone also had elevated field screening readings. Laboratory analysis indicated that the soil samples with elevated PID readings contained GRO and DRO. Concentrations of GRO and DRO up to 2,350 milligrams per kilogram (mg/kg), and 470 mg/kg, respectively, were detected in the soil samples analyzed.

Based on PID readings from soil samples collected from test pits and soil borings, the zones of soil contamination were estimated. The total volume of contaminated vadose zone soil is estimated at between 1,000 and 1,500 cubic yards.

The soil types encountered typically consisted of a silty sand and clayey sand fill from the ground surface to a depth of 3.5 to 6.5 feet below ground surface (bgs). A silt to silty clay was present beneath the fill in the eastern and southern portion of the area of investigation. Sand ranging from silty sand to sand with gravel was present below the fill in the northern and western portions of the area of investigation and below the silt and silty clay layer. The water table was mostly within the sand unit and it appeared that groundwater was primarily in the sand unit.

Groundwater samples were collected from the monitoring wells for laboratory analysis of GRO, DRO, volatile organic compounds (VOCs) and lead. Groundwater sample analyses indicated exceedances of enforcement standards (ESs) established in Chapter NR 140 of the Wisconsin Administrative Code for several VOCs as well as the presence of GRO and DRO. Concentrations of benzene, toluene, xylenes, naphthalene, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (DCA) exceeded the ESs. Based on contaminant concentrations, gasoline constituents appeared to be the major contaminant at the site, with diesel fuel being less significant. The entire contaminant plume appears to be approximately 200 feet wide by 600 feet long. The area of ES exceedances is limited to an area approximately 350 feet long, with the exception of the benzene exceedance.

Based on the contaminant concentrations in the soil and groundwater and the magnitude of ES exceedances, it has been STS' experience that the WDNR will require soil and groundwater remediation at the site. Based on review of potential remedial technologies, a modified application of air sparging combined with soil vapor extraction appears to be the most suitable alternative for application at the site. This method appears to be the least costly, and potentially, most effective remedial method.

SITE INVESTIGATION REPORT
MANN BROTHERS, INC.
ELKHORN, WISCONSIN

1.0 INTRODUCTION

1.1 Site Location

Mann Brothers, Inc. (Mann) is located approximately 2 miles north of Elkhorn, Wisconsin on US Highway 12 at N 6147 Highway 12 and 16. The state plane coordinate system location description is SE 1/4 of the SE 1/4 of section 13, Township 3 North, Range 16 East. The site location is shown in Figure 1.

1.2 Site Background

The site is used as a construction yard and has an adjacent sand and gravel pit. The site and immediately surrounding area are used for commercial purposes. Three underground storage tanks (USTs)1were used for storage of petroleum for fueling vehicles. The USTs were removed from service on December 12, 1991 by McCutchin Crane Service (MCS) of Dodgeville, Wisconsin. The USTs consisted of:

- one 12,000-gallon gasoline UST;
- one 10,000-gallon gasoline UST; and
- one 8,000-gallon diesel UST.

The USTs were located in one basin located immediately west of the maintenance shop. The dispensers were located directly above the USTs. The USTs reportedly did not have significant corrosion and no holes were observed during tank removal or cleaning. The former location of the USTs is indicated in Figure 2. One UST, used for waste oil storage, is still in place adjacent to the former UST basin area.

Petroleum odors and staining were observed in the fill material around the USTs during removal. Because there was an obvious release, site closure assessment samples were not collected by MCS. Two soil samples and one water sample were collected from the UST excavation for laboratory analysis of total petroleum hydrocarbons (TPH) as gasoline and diesel fuel. The water sample was also analyzed for benzene, toluene, ethylbenzene, and

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A fold-out list of acronym definitions is provided in Appendix A for use while reading report.

xylenes (BTEX). The laboratory analytical results for these samples indicated the presence of gasoline and diesel fuel in all three samples and BTEX compounds in the water sample. Approximately 780 cubic yards of soil were removed and stockpiled on site during the UST removal. The observations made during the UST closure and laboratory analytical results were presented in the Underground Storage Tank Removal Report dated January 8, 1992, prepared by MCS.

STS Consultants, Ltd. (STS) was retained by Mann after completion of the UST closure to conduct an environmental investigation as required by the Wisconsin Department of Natural Resources (WDNR).

2.0 PHYSICAL SITE CONDITIONS

2.1 Site Vicinity And Physiography

The site vicinity is primarily used for commercial purposes or is undeveloped. The site itself is used as a construction yard for heavy equipment storage and an employee parking lot. There are a limited number of residences located within 1/2 mile of the site. The area has a gently rolling topography. The elevation of the site ranges from 900 to 910 feet above mean sea level (msl). The area that appears to be impacted has approximately 6 feet of ground surface relief over most of the area. The ground surface at the far western end of the groundwater contaminant plume has an additional drop of approximately 3 feet.

2.2 Geologic Site Characteristics

2.2.1 Regional Geology

Generally, the unconsolidated deposits beneath the site are glacial outwash consisting of stratified gravel, sand, silt and clay (R.G. Borman 1976; Ground-Water Resources and Geology of Walworth County, Wisconsin). Based on the well log for a high capacity well located immediately northwest of the area of investigation at the Mann site, the unconsolidated sediments beneath the site generally consist of sand with silt and trace clay to a depth of 115 feet below ground surface (bgs). The sand is underlain by clay with silt and trace sand to a depth of 170 feet bgs (Wisconsin Geological and Natural History Survey well log number N151-Ww-840). The location of the high capacity well is shown in Figure 2.

The bedrock beneath the site is shown to be Maquoketa Shale in Ground-Water Resources and Geology of Walworth County, Wisconsin. However, the Mann well log indicates the rock type encountered during drilling was dolomite of the Sinnipee Group and Glenwood unit from 170 feet to 470 feet bgs. The dolomite is underlain by sandstone of the Tonti unit (Wisconsin Geological and Natural History Survey well log number N151-Ww-840).

2.2.2 Regional Hydrogeology

The near surface sand and gravel aquifer is the aquifer most likely to be impacted by releases from the site. Groundwater in the area is generally within approximately 10 feet of the ground surface (R.G. Borman 1976; Ground-Water Resources and Geology of Walworth County, Wisconsin).

Based on site topography, the local direction of groundwater flow was anticipated to be to the west or southwest toward the intermittent creek. This general flow direction was confirmed during the investigation.

2.3 Potential Receptors

2.3.1 Groundwater/Potable Wells

The site vicinity is served by private potable wells. The majority of the private potable wells are finished in the sand and gravel or dolomite aquifers. Municipal wells are more typically completed in the lower sandstone aquifers. There are several non-municipal high capacity wells in Walworth county that are completed in the sand and gravel aquifer (R.G. Borman 1976; Ground-Water Resources and Geology of Walworth County, Wisconsin). None of the high capacity wells finished in the sand and gravel were located on the site in the area of concern. The locations of the shallow high capacity wells were not investigated further.

A high capacity well serves the Mann site. The well is located adjacent to the area of investigation and is shown on Figure 2. The well construction log, obtained from the Wisconsin Natural History and Geologic Survey, indicated the well was completed in bedrock at a depth of 470 feet bgs (Wisconsin Geological and Natural History Survey well log number N151-Ww-840). A second groundwater well is located northeast of the shop. This well is no longer used.

2.3.2 Surface Water

A small unnamed tributary to Sugar Creek is located immediately south and west of the site. Sugar Creek is located approximately 1/2 mile north of the site and flows to the east. Sugar Creek drains to the Fox River approximately 10 miles downstream. There are no other surface water bodies within one mile of the site (USGS, 1960, photorevised 1971; 7.5 Minute Topographic Quadrangle, Elkhorn, Wisconsin).

2.3.3 Underground Utilities

No utility survey was conducted for this project because there are no municipal utilities and the electric and telephone service at the site are located overhead. The potable water supply and sanitary sewer/septic system at the site are privately owned.

3.0 REMEDIAL INVESTIGATION ACTIVITIES

3.1 Scope Of Work

The site investigation was conducted in four phases which consisted of:

Phase I, conducted in June, 1992

- Completing five soil borings, four of which were finished as groundwater monitoring wells; and
- Completing eight test pits.

Phase II, conducted in December, 1992 and January, 1993

- Completing five additional soil borings all of which were finished as monitoring wells; and
- Completing three additional test pits.

Phase III, conducted in July, 1993

- Sampling groundwater at twelve locations using a GeoProbe.

Phase IV, conducted in August and September, 1993

- Installing four additional monitoring wells;
- Completing an elevation survey of the monitoring wells; and
- Completing hydraulic conductivity testing of three monitoring wells.

Following completion of the field investigation, this report was prepared, summarizing the site investigation activities and presenting remedial alternatives.

3.2 Soil Investigation

The investigation of vadose zone soil impacts was completed in phases one and two of the investigation. These phases both included conducting test pits and soil borings with all but one of the borings completed as monitoring wells. Soil borings and test pits were conducted to determine the extent of soil contamination. Soil borings also allowed installation of monitoring wells while test pits allowed a more detailed assessment of soil types and

stratigraphy. The methods used to complete the site investigation are described in detail in Appendix B.

3.2.1 Field Activities

Test Pits - A total of eleven test pits were completed during the investigation. The test pits were excavated in the area around the former UST basin at progressively greater distances from the basin until the area of vadose zone impacts was defined. The locations of the test pits are shown in Figure 3.

Test pits TP-1 through TP-8 were completed on June 6, 1992. Test pits TP-9 through TP-11 were conducted on December 23, 1992. The depth of excavation ranged from 9.5 feet bgs to 13.5 feet bgs. The excavating was performed by Mann Brothers with STS personnel observing.

Soil samples were collected from the excavations at each change in soil type. Soil samples were classified and test pit logs were prepared describing the soil types and indicating changes in sediment type. Test pit logs indicating soil classifications and approximate interfaces between sediment types and generalized cross-sections are provided in Appendix C.

Soil Borings - A total of fourteen soil borings were completed during the investigation. The soil borings were conducted in the area around the former UST basin and in a down gradient direction with respect to groundwater flow (west). All the soil borings except B-2 were completed as groundwater monitoring wells.

Soil borings were completed as follows:

- B-1 through B-5 on June 17 and 18, 1992;
- B-6 through B-10 on January 5, 1993; and
- B-11 through B-14 on August 25, 1993.

The depths of soil borings B-1 through B-10 ranged from 16.5 feet bgs to 21.5 feet bgs. Soil borings B-11 through B-14 were terminated at a depth of 9.0 feet bgs. Boring B-11A, located adjacent to B-11, was terminated at a depth of 21.5 feet bgs. Drilling of borings B-1 through B-10 was performed by STS. Borings B-11 through B-14 were performed by Sauter Drilling with STS personnel observing. The locations of the soil borings/monitoring wells are shown in Figure 3.

Soil samples were collected from the borings at 2.5-foot depth intervals to termination depth of the borings. Soil samples were classified and soil boring logs describing the soil types and indicating changes in sediment type were prepared. Generalized cross-sections are provided in Appendix C along with the boring logs.

Soil Types - The soil types encountered in the test pits and soil borings typically consisted of a silty sand and clayey sand fill from the ground surface to a depth of 3.5 to 6.5 feet bgs. A silt to silty clay was present beneath the fill in the eastern and southern portion of the area of investigation. Sand ranging from silty sand to sand with gravel was present below the fill in the northern and western portions of the area of investigation and below the silt and silty clay layer. The depths of interfaces between these units varied considerably. A silt to clay layer was present beneath the sand layer in borings B-8 and B-9. The lateral extent of the silt/clay layer is undetermined. The cross-sections provided in Appendix C show the relationships between the soil types in detail.

Field Screening Results - The soil samples collected from the soil borings and test pits were field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) equipped with a 10.2 eV probe which emits ionization energy at 10.0 eV and 10.6 eV. Screening was conducted using a headspace method as described in the standard methods attached in Appendix B. The PID screening results for soil samples collected from test pits are summarized in Table 1. The water levels indicated in Table 1 were measured in the open excavations and do not necessarily represent stabilized groundwater levels. The PID screening results for soil samples collected from soil borings are summarized in Table 2.

PID screening results ranged from less than detectable to 500 parts per million (ppm)-isobutylene equivalent (IE) in soil samples collected from near the former UST basin. Field screening results indicated that VOCs were present above the water table in the vadose (or unsaturated) zone in soils adjacent to the former UST basin. Impacts above the water table were limited to a relatively small area. The test pits that had contamination present above the water table were TP-1, TP-2, TP-4, and TP-6. No indications of significant contamination above the zone of the water table were present in any other test pits.

Field screening results from the soil borings corroborated the results obtained from the test pits. VOCs were present above the water table (in the vadose zone) in soil samples collected from borings B-2, B-3, B-4. Significant concentrations of VOCs in borings B-2 and B-4 were only present in the sample interval above the groundwater table and may represent fluctuations in the groundwater level rather than migration in non-saturated conditions.

Twelve soil samples collected from the test pits and six soil samples collected from soil borings B-1 through B-5 were submitted for laboratory analysis. Soil samples from borings B-6 through B-7 were not submitted for laboratory analysis because the only field detected contamination was at the groundwater table and groundwater monitoring wells were installed. The groundwater monitoring wells would allow determination of the extent and magnitude of contaminants.

Table 1
Test Pit PID Headspace Field Screening Results (a)
Mann Brothers
Elkhorn, Wisconsin

Test Pit Number	Sample Number	Depth (b)	Soil Type	PID Reading (a)	Water Level (b)
TP-1	1	2.5	Silty Sand Fill	40	11.0
	2	5.5	Silty Clay	140	
	3 (c)	8.0	Silt	240	
	4 (c)	11.0	Fine Sand	220	
TP-2	1	1.5	Silty Sand Fill	20	10.5
	2	4.0	Sandy Clay	400	
	3 (c)	6.0	Fine Sand	500	
	4 (c)	11.0	Silty Fine Sand	300	
	5	12.5	Silty Fine Sand	300	
TP-3	1	1.0	Sand Fill	1	11.0
	2	3.5	Clayey Sand Fill	1	
	3	6.0	Clayey Silt	3	
	4	8.0	Silt	<1	
	5 (c)	12.0	Fine Sand	<1	
TP-4	1	1.5	Silty Sand Fill	130	10.5
	2	4.0	Clayey Sand Fill	70	
	3	7.0	Clayey Silt	500	
	4 (c)	10.5	Fine Sand	400	
TP-5	1	1.0	Silty Sand Fill	<1	11.0
	2	3.5	Clayey Silt Fill	<1	
	3	7.0	Silty Clay	<1	
	4	9.5	Silt	<1	
	5 (c)	12.0	Fine Sand	<1	
TP-6	1	1.5	Silty Sand Fill	4	10.5
	2	2.5	Clayey Silt Fill	3	
	3	6.3	Silt	20	
	4	8.3	Silty Clay	230	
	5 (c)	11.5	Fine Sand	200	
TP-7	1	2.0	Silty Sand Fill	<1	11.5
	2	5.0	Clayey Silt Fill	<1	
	3	6.5	Clayey Silt	10	
	4	9.0	Silt	250	
	5 (c)	13.0	Fine Sand	300	
TP-8	1	1.0	Silty Sand Fill	<1	10.0
	2	3.5	Clayey Silt Fill	<1	
	3	7.0	Silty Clay	<1	
	4	8.5	Silt	<1	
	5	13.0	Fine - Med. Sand	<1	

a - Results in parts per million isobutylene equivalent, lamp energy at 10.0 and 10.6eV

b - Depth in feet below ground surface

c - Sample reserved for laboratory analysis

Table 1 (cont.)
Test Pit PID Headspace Field Screening Results (a)
Mann Brothers
Elkhorn, Wisconsin

Test Pit Number	Sample Number	Depth (b)	Soil Type	PID Reading (a)	Water Level (b)
TP-9	1	2.0	Silty Sand Fill	<1	8.8
	2	4.5	Clayey Silt Fill	<1	
	3	6.0	Clayey Silt	<1	
	4	8.0	Silty Sand	<1	
TP-10	1	2.0	Sand Fill	<1	8.5
	2	4.5	Clayey Silt	<1	
	3	6.3	Clayey Silt	1	
	4	8.0	Fine - Coarse Sand	18	
	5	9.5	Fine - Coarse Sand	130	
TP-11	1	2.0	Fine - Med. Sand	<1	10.3
	2	4.5	Clayey Silt	1	
	3	6.3	Clayey Silt	3	
	4	8.3	Clayey Silt	180	
	5	10.5	Fine - Med. Sand	140	
	6	12.0	Fine - Coarse Sand	45	

a - Results in parts per million isobutylene equivalent, lamp energy at 10.0 and 10.6eV

b - Depth in feet below ground surface

c - Sample reserved for laboratory analysis

3.2.2 Laboratory Analytical Results

Soil samples from test pits and soil borings were analyzed for gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOC), and lead. The analyses were conducted by Enviroscan Corporation of Rothschild, Wisconsin. Laboratory analytical results generally confirmed the results of the PID field screening. The laboratory analytical results are presented in Tables 3 and 4. Laboratory reports are attached in Appendix D.

Soil samples collected from test pits TP-1 and TP-2 were the only test pit samples collected within the vadose zone. Sample TP-1,S-3 collected from a depth of 8.0 feet bgs contained 96 mg/kg DRO; however, GRO was not detected. Sample TP-2,S-3 collected from a depth of 6.0 feet bgs contained 1,700 mg/kg GRO and 220 mg/kg DRO. Neither of these samples were analyzed for PVOC. The remaining soil samples collected from test pits were collected from what appeared to be at or below the water table zone at the time of sampling. The groundwater elevation has risen by approximately 2 feet since the investigation was begun.

The remaining test pit soil samples all had detectable concentrations of some analytes with the exception of the sample from test pit TP-3 which was non-detect for PVOC and lead, which were the only parameters analyzed.

Only the soil sample collected for laboratory analysis from boring B-3 was collected from the vadose zone. The other soil samples collected from soil borings for laboratory analysis were collected from near the water table zone. Significant concentrations of GRO, DRO, and PVOC were present in the soil sample collected from soil boring B-3.

Significant concentrations of GRO, DRO, and PVOC were also present in soil samples collected from borings B-2 and B-4, which were collected from the water table zone. Samples from B-1 and B-5 were non-detect for all parameters analyzed. No elevated lead concentrations were detected in the analyses.

3.2.3 Field Activity Summary - Soil

Eleven test pits and fourteen soil borings were conducted between June, 1992 and August, 1993. The soil types varied across the site with the near surface soils typically consisting of silty sand to clayey sand fill to a depth of 3.5 to 6.5 feet bgs. A silt to silty clay soil was present beneath the fill in the eastern and southern portions of the area of investigation. Silty sand to sand and gravel were present beneath the fill in the northern and western portions of the area of investigation and beneath the silt and silty clay soil. The interfaces between the soil types was highly variable across the site. The relationships of the soil units are shown in cross-sections provided in Appendix C.

Soil samples were collected from the test pits and soil borings for field screening and laboratory analysis. The results of both field screening and laboratory analysis indicate that contamination by both gasoline and diesel fuel is present in the vadose (unsaturated) zone in the immediate vicinity of the former UST basin. Soil impacts near the water table zone are more widespread. The approximate areas of vadose zone and water table zone soil contamination are shown in Figure 4. The volume of impacted soil within the vadose zone is estimated to be approximately 1,000 to 1,500 cubic yards in place.

3.3 Groundwater Quality Investigation

3.3.1 Field Activities

The groundwater quality investigation consisted of installing thirteen monitoring wells and conducting sampling at twelve additional locations using a GeoProbe. Monitoring well locations are shown in Figure 5 and GeoProbe locations are shown in Figure 6. Nine monitoring wells were installed during two initial phases of investigation. After it was determined that the contaminant plume appeared to extend a significant distance from the release, it was decided to continue groundwater sampling using a GeoProbe and field gas chromatograph (GC) due to the increased speed and decreased cost of the investigative method. This method allowed rapid definition of the gross contaminant plume. After completion of the GeoProbe sampling, four additional monitoring wells (MW-11 through MW-14) were installed to verify the results obtained using the GeoProbe.

GeoProbe Sampling - Groundwater sampling using the GeoProbe and a field GC was completed after the groundwater investigation had been partially completed. Twelve sample locations were selected based on the existing contaminant plume information. The GeoProbe sampling and analysis was conducted by Layne Geoscience, Inc. of Pewaukee, Wisconsin on July 20, 1993. An STS Engineer was present to oversee the sampling effort and direct modifications to sample locations. The sample locations are indicated in Figure 6. A grid pattern was established as a basis to begin sampling. As sampling was conducted, the grid was modified based on sample results to complete definition of the contaminant plume.

The GeoProbe consists of a steel probe that is driven into the ground using a hydraulic ram. When the probe tip reaches the desired depth, the probe rod is drawn back to allow water to enter the probe. Groundwater samples are collected using a peristaltic pump to draw water from the probe. The groundwater was collected in 40-mL VOC vials. The groundwater samples were then analyzed for PVOCs immediately using a field GC. The field GC was calibrated using standards of known concentration and blank samples of organic-free water. An analyte concentration of less than twice the contaminant concentration established in the blank samples was considered non-detect (or background) for field analysis purposes. The degree of accuracy of the GC allowed reasonably accurate analyte detection to approximately 100 micrograms per liter (μg/l). The results for each sample were typically available in 15 to 30 minutes, allowing relocation of future sample points, as necessary.

A duplicate sample was collected from sample location GP-1 for laboratory analysis to confirm the accuracy of the field analyses. The results for both the field-analyzed and laboratory-analyzed samples from GP-1 were less than detectable, or considered less than detectable in the case of the field analysis. The field and laboratory analytical results for the groundwater samples are presented in Table 5 and the analytical reports are provided in Appendix E. Total PVOC concentrations are shown on Figure 6.

The field analytical results indicated that the groundwater contaminant plume continued in a westerly direction beyond the most down-gradient monitoring well (MW-10) and then turned sharply to the southwest. Only GeoProbe sample locations GP-3 and GP-12 were considered to be above background. The contaminant plume concentrations decreased rapidly and did not appear to extend more than 200 to 300 feet beyond monitoring well MW-10, which was the most down-gradient monitoring well existing at the time of the GeoProbe investigation.

Monitoring Wells - Groundwater monitoring wells were installed during three phases of the investigation. Four wells were installed on June 17 and 18, 1992 and an additional five wells were installed on January 5, 1993 by STS. Four additional monitoring wells were installed on August 25, 1993 by Sauter Drilling with STS personnel observing. The locations of the monitoring wells are shown in Figure 5.

All thirteen monitoring wells were completed as water table wells with the well screen located to intersect the water table surface. This allows determination of the presence of phase-separated petroleum (free product) floating on the groundwater surface. Groundwater was typically encountered at depths ranging from approximately 2 to 10 feet bgs. The groundwater level has risen by approximately 2 feet during the course of the investigation. Depth to groundwater on December 10, 1993 ranged from approximately 8 feet bgs in monitoring well MW-3 at the eastern limit of investigation to less than 4 feet bgs in monitoring well MW-14 at the western limit of investigation. The depth to groundwater indicates that the groundwater table is primarily present beneath the fill materials in the sand soils. The groundwater surface is indicated in the cross-sections in Figure C-2 in Appendix C.

Because several well covers were damaged, it was not possible to obtain water levels in all the wells at the time of sampling. The well covers were subsequently repaired. The tops of the well riser pipes were surveyed and depth to groundwater measured on December 10, 1993. This data was used to calculate groundwater elevations, establish a direction of flow and calculate the hydraulic gradient. The results of the survey are presented in Table 6.

The groundwater elevations indicate that groundwater flows to the west beneath the shop area where the USTs were located. Toward the west end of the lot the groundwater appears to flow to the southwest toward the un-named creek. The groundwater gradient ranges from approximately 0.008 feet per foot (ft/ft) at the eastern portion of the area of investigation to 0.02 ft/ft at the western portion. Groundwater elevation contours are shown in Figure 7.

3.3.2 Laboratory Analytical Results

Monitoring wells MW-1 through MW-5 (there is no MW-2) were developed on June 25, 1992 and sampled on June 30, 1992. Soil boring B-2 was abandoned and not completed as a monitoring well. Wells MW-3 and MW-5 bailed dry during sampling. Samples were laboratory analyzed for GRO, DRO, VOCs and lead.

Monitoring wells MW-6 through MW-10 were developed on January 6, 1993. Groundwater samples were collected from MW-7, MW-9, and MW-10 on January 7, 1993. The other wells were not sampled in an effort to minimize costs. Well MW-7 bailed dry during sampling. Samples were laboratory analyzed for PVOC.

Monitoring wells MW-11 through MW-14 were developed on August 25, 1993 by Sauter Drilling. Wells MW-3, MW-5, MW-6, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 were sampled on September 7, 1993. The selected wells were sampled because the groundwater contaminant plume could be delineated and the magnitude of contaminant concentrations determined through these wells. The remaining wells which were not sampled during this phase of investigation were used for determination of water elevations and may be sampled during subsequent groundwater quality monitoring events.

Wells MW-3, MW-6, and MW-11 bailed dry during sampling. Samples were laboratory analyzed for GRO, DRO, and PVOCs. Naphthalene, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (DCA) were added to the PVOC list due to detection of these compounds in previous samples. A summary of the analytical results for each of the three sample events are presented in Table 7. Only those compounds detected and of significant concern are included in Table 7. Other compounds for which ESs are not established were detected at low concentrations are not included in the Table. The laboratory analytical reports are attached in appendix E.

Concentrations of several compounds exceeded enforcement standards (ES) and preventative action limits (PALs) in all but five monitoring wells. The ESs and PALs are established in Chapter NR 140 of the Wisconsin Administrative Code (WAC), Groundwater Quality. ESs for benzene, toluene, xylenes, naphthalene, DCA, and EDB were exceeded in at least one well each. In addition, the PAL for ethylbenzene was exceeded in three wells. No concentrations of lead were detected at or above the method detection limit. These compounds are all common petroleum related substances. Naphthalene is present in diesel fuel and the others are gasoline constituents. DCA and EDB are both anti-knock additives.

The data are not comprehensive enough to evaluate any apparent trends in contaminant concentrations over time. The estimated limits of the exceedances of ESs and PALs are contoured in Figures 8 and 9. The contours are drawn at the extrapolated point where the concentration of the respective compound is equal to the ES or PAL.

It appears that there are groundwater quality impacts due to releases of both gasoline and diesel fuel. Constituents of both were present in the groundwater samples analyzed. The estimated 100 microgram per liter (μg/l) concentration contour of the GRO and DRO groundwater plumes are indicated in Figures 8 and 9 with the ES and PAL contours.

It appears that the main area of groundwater impact is located within 350 feet of the shop area, while the end of the contaminant plume is another 250 to 300 feet distant. The main groundwater contaminant based on concentration appears to be gasoline, while diesel fuel contamination appears to be relatively minor. The only PAH that was detected at or above a PAL or ES was naphthalene. All other PAL and ES exceedances were for gasoline constituents.

The apparent contaminant plume conforms to the pattern that would be expected based on the calculated direction of groundwater flow. The concentrations of the contaminants present have a similar spacial distribution. The variation of the limits of ES and PAL exceedances are due more to the differences in the values of the individual groundwater standards than contaminant concentrations. Because benzene has a very low ES concentration, the aerial limit of the exceedance is much greater than for the other compounds which have significantly higher values for their ES.

It should be noted that the diesel fuel plume appears to have expanded farther than the gasoline plume, based on DRO concentrations present in groundwater samples. Diesel fuel typically migrates more slowly in groundwater than gasoline. This is due primarily to three factors, stronger adsorption to soil, lower solubility, and lower dispersion of diesel fuel. The greater apparent length of the diesel fuel plume could be due to several reasons, explained further below.

The low concentrations detected near the end of the diesel plume (MW-14) may have been either raised by, or solely due to, positive interferences from contaminants introduced by sampling equipment and/or in the laboratory. The presence of two of the compounds appearing within the DRO window in laboratory analyses is recently commonly observed in chromatographs from DRO analysis. One of these compounds has been identified as bis (2-ethylhexyl) phthalate (BEHP). The other compound has not been positively identified. These compounds have appeared in laboratory blanks as well as samples on several investigations and do not appear to be related to the diesel fuel. A letter from Enviroscan Corporation, the laboratory conducting the analyses, further explaining this issue is attached in Appendix E.

The remaining portion of the diesel plume up-gradient of MW-14, through well MW-13, is typical of what might be expected. The presence of naphthalene in well MW-10 and not in

wells farther down-gradient is strong evidence that the diesel plume does extend beyond MW-10 but not to wells farther down-gradient.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary

Three USTs were used for petroleum for fleet fueling purposes. The USTs consisted of:

- One 12,000-gallon gasoline UST;
- One 10,000-gallon gasoline UST; and
- One 8,000-gallon diesel UST.

The USTs were removed in December, 1991 by McCutchin crane service of Dodgeville, Wisconsin. Odors and other evidence of a release from the UST systems were present during the UST closure. Laboratory analysis of soil and water samples collected from the UST excavation during the closure confirmed the presence of gasoline and diesel fuel in the soil and water. Approximately 780 cubic yards of soil were excavated and stockpiled on site during removal of the USTs. This soil was transferred to the adjacent gravel pit and is still stockpiled there.

The results of PID field screening and laboratory analysis of soil samples indicated the presence of GRO and DRO in soil samples collected from the groundwater table area. In the immediate vicinity of the former UST basin, soil samples collected from the unsaturated zone above the water table also had elevated field screening readings. Laboratory analytical results indicated the soil samples with elevated field screening readings contained GRO and DRO. Concentrations of GRO ranged up to 2,350 mg/kg, and DRO ranged up to 470 mg/kg. The zone of soil impacts in the vadose zone appeared to be limited to the area immediately adjacent to the former UST basin. The estimated volume of contaminated soil in place in the vadose zone is 1,000 to 1,500 cubic yards. The impacted soils were primarily the fill and underlying sands. Soil impacts at the groundwater table were much more extensive.

Groundwater sample analyses indicated exceedances of ESs for several VOCs as well as the presence of GRO and DRO. Concentrations of benzene, toluene, xylenes, naphthalene, EDB, and DCA exceeded the ESs. Based on contaminant concentrations, gasoline constituents appeared to be the major contaminant at the site, with diesel fuel being a minor constituent. The overall contaminant plume is approximately 650 to 700 feet long. The portion of the plume with the highest concentrations is approximately 350 feet long.

The contaminant plume conforms to the direction of groundwater flow as determined from water level elevations as would be expected for a plume generated by one source. The hydraulic gradient varies across the site from 0.008 at the eastern end to 0.02 at the western end. The results of hydraulic conductivity testing indicate values in the range of 3.0×10^{-5}

cm/s at the extreme eastern edge of the contaminant plume, to 5.8 x 10^{-4} cm/s to 1.6 x 10^{-2} cm/s through the remainder of the site. the calculated rate of groundwater flow beneath the site based on the hydraulic gradient and conductivity is 0.0015 ft/day at MW-3 and varies from approximately 0.1 to 2 ft/day over the rest of the site.

4.2 Conclusions

The WDNR typically requires soil contaminants to be cleaned up to concentrations below the detection limit. In the case of petroleum impacted sites, 10 mg/kg DRO/GRO is frequently used as a clean up target, however, The final closure is at the discretion of the WDNR project manager. It is usually possible to obtain site closure with higher concentrations of contaminants in place if the extent is not significant or the potential for human exposure or groundwater impacts is low. The gasoline and diesel fuel concentrations present in the vadose zone soils are significantly above the extent and magnitude at which the WDNR would typically require remedial action.

Both gasoline and diesel fuel are present in the groundwater beneath the site. Concentrations of several compounds are above the groundwater quality standards established in chapter NR 140 WAC in the area of the site shown in figures 8 and 9. These impacts are typically required to be cleaned up to concentrations below the ES. If it is not possible to attain the ES, as is typically the case, the remediation is usually considered complete by the WDNR when the best available technology has been applied and no further improvement is obtained. If there is a significant potential for potable wells to be impacted additional clean up or containment efforts may be required.

4.3 Recommendations

Based on the contaminant concentrations in the soil and groundwater and the magnitude of ES exceedances, STS recommends remediation of the soil and groundwater at the site including the stockpiled soil. The potentially viable remedial alternatives are assessed in section 6.0 to determine the best option for the site. No additional investigation is recommended.

STS also recommends implementing a quarterly or tri-annual groundwater quality monitoring program. This program will further establish existing water quality and monitor changes in the water quality with time to aid in determining the effectiveness of the remedial action and allow appropriate adjustment. The data generated through the monitoring program will also be used to determine when remediation of the groundwater is complete.

APPENDIX K

THELEN TOTAL CONSTRUCTION, INC.
(FORMER REYNOLDS PROPERTY)
[SITE # 10]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Thelen Total Construction, Inc. (Former Reynolds Property) [Site # 10]**
DOT parcel number (if known):
Property Address: 1497 N. Wisconsin Street / N5890 US Highway 12
Owner's Name: RJT Enterprises, LLC
Owner's Address: W5590 Hill View Road, Elkhorn, WI 53121
Owner's Phone: Randy J. Thelen, 262-742-4161
Current Land Use: Thelen Total Construction, Inc.
Past Land Use: Gasoline Sation

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 1991-1997
- Tank contents:
  - ☒ Leaded gasoline ☒ Unleaded gasoline ☒ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-65-001536
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☒ site is a closed ☒LUST ☐ERP site; closure date: 12/1991
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #10
Thelen Total Construction, Inc. (Former Reynolds Property)
1497 N. Wisconsin Street / N5890 US Highway 12
USH 12: STA 776+00 to 779+50 LT

The site is identified on the LUST (BRRTS #03-65-001536) and UST databases. Based on field reconnaissance, the northern portion of the site is currently used by Thelen Total Construction, Inc., and the southern portion of the site is occupied by a residence.

According to the WDSPS Storage Tank Database, five USTs are registered to the site. Two 1,000-gallon fuel oil USTs, one 500-gallon leaded gasoline UST, and one 1,000-gallon unleaded gasoline UST were closed / removed from the site in May 1991. The uses for the fuel oil tanks are listed as residential and mercantile / commercial. The use for the gasoline USTs is listed as retail fuel sales. One 1,111-gallon leaded gasoline UST was closed / removed from the site in October 1997, with the tank use listed as agricultural.

Review of the Walworth County GIS System online indicated that the site is comprised of two tax parcels, both owned by RJT Enterprises, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

BRRTS #03-65-001536: Based on the Closure Assessment report prepared by Graef, Anhalt, Schloemer & Associates, Inc. (GAS), the site was formerly occupied by a service station. In May 1991, a total of four USTs (two 1,000-gallon fuel oil USTs, one 1,000-gallon gasoline UST, and one 500-gallon gasoline UST) were removed from the site in three excavations [Ref. 2]. Obvious soil contamination was noted in the excavation that contained the two gasoline USTs (excavation 1), located on the south side of the commercial building on the property. Obvious soil contamination was also noted in the fuel oil UST excavation (excavation 3) located on the north side of the commercial building. Soil analytical results confirmed a release in the two excavations. Contamination was not detected in the fuel oil UST excavation (excavation 2) located behind the residence on the southern portion of the property.

In May and June 1991, eight soil borings (SB-1 to SB-8) were advanced in the proximity of the commercial building at the site, to determine the extent of the contamination. A total of 16 soil samples were collected and analyzed for total petroleum hydrocarbons (TPH). In July 1991, approximately 150 cubic yards of petroleum contaminated soil were overexcavated from the former tank locations and disposed of off-site. A total of 13 confirmation soil samples were collected from the bottom and sidewalls of the resulting remedial excavations, and analyzed for TPH.

The activity was closed by WDNR in December 1991.

Geology / Hydrogeology

Based on the GAS report, soils at the site primarily consist of silts and clays [Ref. 2].

Approximately 50 gallons of groundwater were observed in the gasoline UST excavation during the initial tank removal activities. The water was removed from the excavation, and no additional water was subsequently observed in the pit, which remained open until after site remediation was complete. Groundwater was not encountered in soil borings advanced at the site to approximately 18 feet bgs.

Soil Impacts

According to the GAS report, soil analytical results did not indicate concentrations of TPH in excess of the 1990 WDNR Action Level of 10 mg/kg in the soil boring samples, or in the remedial excavation confirmation soil samples. The highest concentration of TPH (8.20 mg/kg) was observed at the north end of the west wall of excavation 1, at approximately 9 feet bgs.

Groundwater Impacts

According to the GAS report, groundwater was not encountered to depths of approximately 18 feet bgs, and no groundwater analytical data is available for the site [Ref. 2].

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

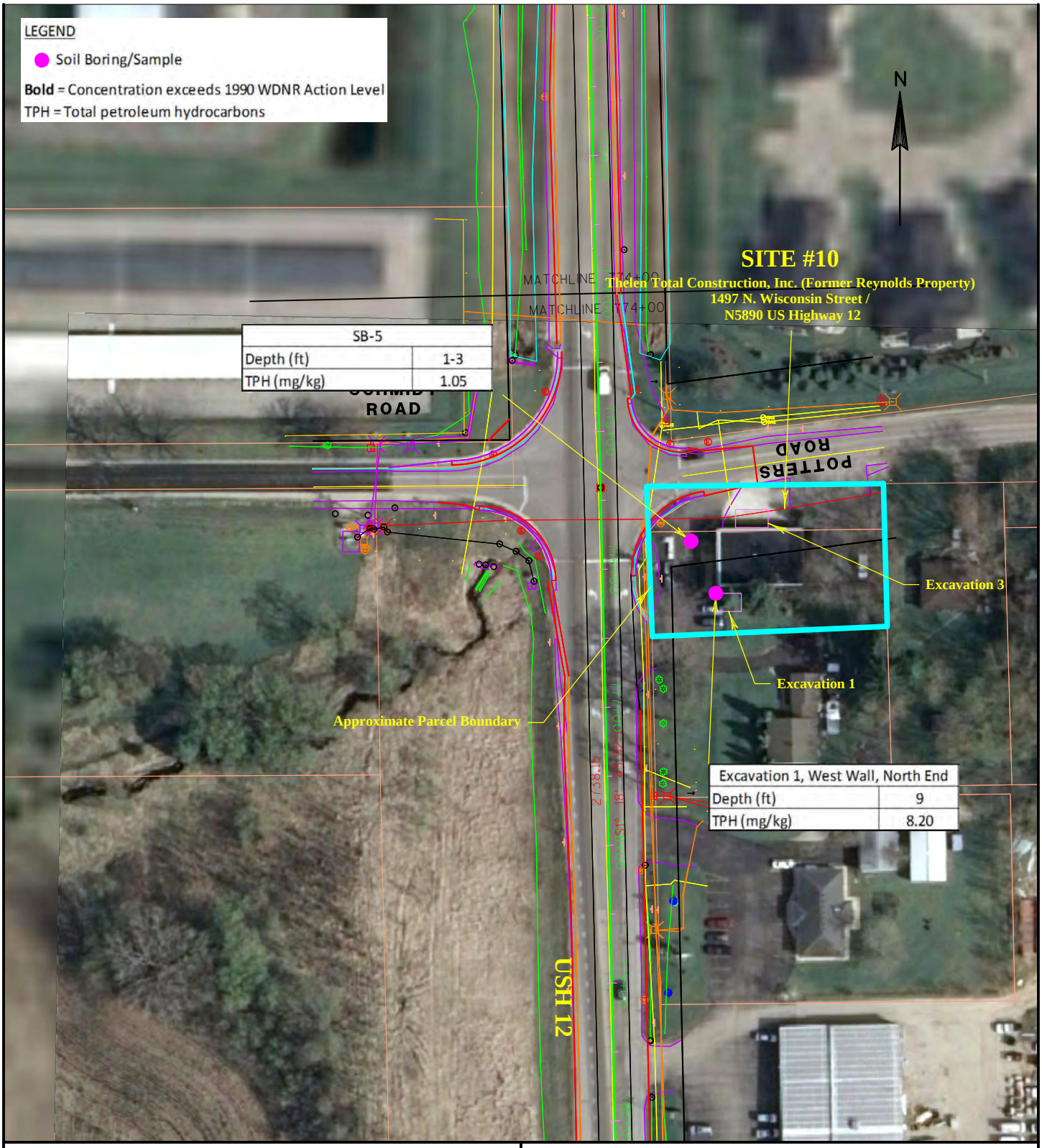
Considering that all petroleum contaminated soils appear to have been removed from the site, the length of time that has passed (~ 20 years) since the tanks were removed, and the lack of R/W acquisition at the site, this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Graef, Anhalt, Schloemer & Associates, Inc. (August 1991). Closure Assessment, Remediation Investigation, and Remediation Report, Reynolds Property, Route 5, Box 7, Elkhorn, Wisconsin.



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 12.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #10: Thelen Total Construction, Inc. (Former Reynolds Property), 1497 N. Wisconsin Street /N5890 US Highway 12
View east from west side of USH 12 on south side of Potter Road

CLOSURE ASSESSMENT
REMEDIATION INVESTIGATION
AND
REMEDIATION REPORT

Project No. 918012

August 21, 1991

Prepared For: Robert Reynolds
Route 1, Box 285
Elkhorn, Wisconsin

Site Address: Route 5, Box 7
Elkhorn, Wisconsin 53121

Prepared By: Graef, Anhalt, Schloemer & Associates Inc.
Consulting Engineers
345 North 95th Street
Milwaukee, Wisconsin 53226
(414) 259-1500

Jerome S. Chudzik, P.E.
Vice President, Manager Environmental Services Division

Stephen G. Bartoszewski
Environmental Engineer

Laura L. Barreto
Hydrogeologist

Edward G. Diesch
Environmental Specialist

I. FACILITY DESCRIPTION

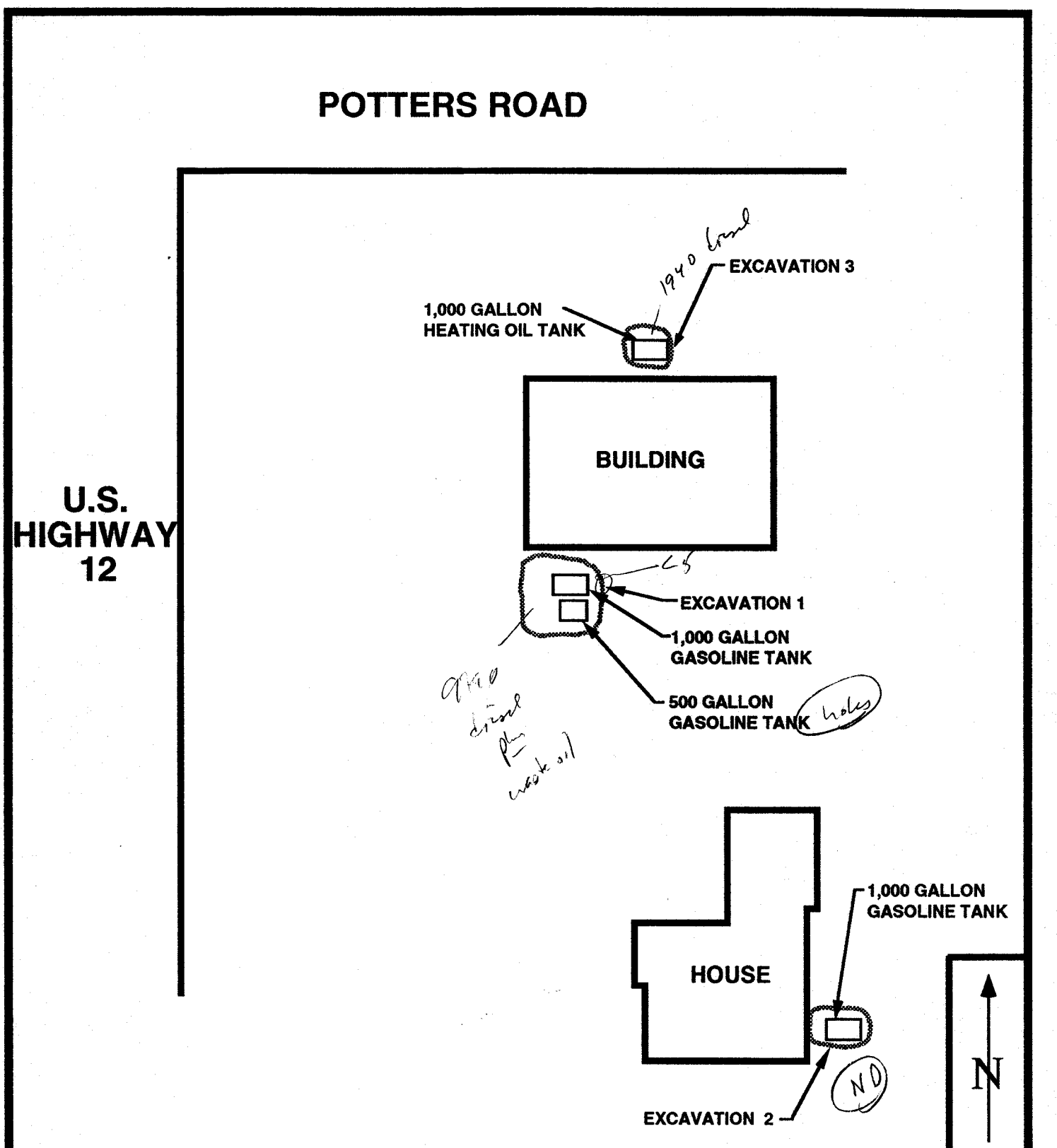
Person Responsible:	Mr. Robert Reynolds Route 1, Box 285 Elkhorn, Wisconsin 53121 (414) 742-3197
Site Location:	Reynolds Property Route 5, Box 7 Elkhorn, Wisconsin 53121
Cadastral Location:	NW 1/4, SW 1/4, S19, T3N, R17E
Type of Operation:	Abandoned Service Station
Tank Excavation:	Four Underground Storage Tanks (USTs) • Excavation 2 One 1,000 Gallon Heating Oil Tank (Removed May 7, 1991) • Excavation 3 One 1,000 Gallon Home Heating Oil Tank (Removed May 7, 1991) • Excavation 1 One 1,000 Gallon Gasoline Tank (Removed May 8, 1991) • Excavation 1 One 500 Gallon Gasoline Tank (Removed May 8, 1991)
Volume of Soil Removed:	Approximately 125 Cubic Yards (Excavation 1) Approximately 25 Cubic Yards (Excavation 3) The soil was landfilled at Mallard Range Landfill, Delavan, Wisconsin on July 10, 1991. No soil from Excavation 2 was removed from the site.

II. INTRODUCTION

Graef, Anhalt, Schloemer & Associates Inc. (GAS) was retained by Mr. Robert Reynolds to perform an environmental assessment of subsurface soils encountered during the excavation of four underground storage tanks (USTs), located at Route 5, Box 7 Elkhorn, Wisconsin (Figure 1). The four underground storage tanks are described as follows: one 1,000 gallon heating oil tank; one 1,000 gallon home heating oil tank; one 1,000 gallon gasoline tank; and one 500 gallon gasoline tank. The site is both a residential and a commercial property.

In this report, field observations and procedures of the on-site assessment are discussed. This includes sampling techniques, flame ionization detector readings (FID field screening) and soil results of samples submitted for laboratory analyses. The environmental assessment followed the Department of Industry, Labor and Human Relations (DILHR) Guidelines, concerning the abandonment of underground storage tanks storing petroleum products. It was also necessary to follow the Wisconsin Department of Natural Resources (WDNR) Guidelines concerning releases of a hazardous substance from a leaking underground storage tank.

Field activities were initiated on May 7 and 8, 1991, with the removal of four tanks from three excavations (Figure 2). An extent of contamination investigation performed on May 31, and June 3, 1991, included the completion of eight soil borings outside the limits of the original excavations. Further excavation and soil removal from the site occurred on July 10, 1991. Soil samples were submitted to a state certified laboratory for analysis of total petroleum hydrocarbons (TPH).



SCALE : 1"=30'	DRAWN BY : MAS	JOB #918012	DATE : 6-13-91

TANK LOCATION MAP
REYNOLDS PROPERTY
ELKHORN, WISCONSIN

GRAEF ANHALT SCHLOEMER and Associates Inc.
CONSULTING ENGINEERS

FIGURE 2

III. ANALYTICAL SAMPLE COLLECTION METHODS

DILHR requirements state that soil samples should be taken in the UST excavation at the following locations:

A. At both ends of the tank.
B. Every 20 feet, or segment thereof, along piping runs.
C. At points where strong odors or soil discoloration indicated contamination.
D. If groundwater is encountered within the excavation, a groundwater sample must be taken.

Soil samples were collected from the excavations during the tank removals after overexcavation was complete to show that all contaminated soil was removed. These samples were split, with one-half of the sample sealed in 9-ounce glass jars with a foil lined lid (flame ionization detector screening). The second half of the samples were tightly packed (to avoid headspace) into 4-ounce glass jars with Teflon-lined lids, stored on ice, and sent to a state certified laboratory for total petroleum hydrocarbon (TPH) analysis. A sample was collected from the staged soil pile for benzene, toluene, ethylbenzene, xylene (BTEX), and TPH analysis. The samples were shipped along with the proper chain-of-custody record to the laboratory (Appendix D).

IV. FIELD SCREENING METHODS

Foxboro, Inc. a organic vapor analyzer (OVA), Model 128 manufactured by Foxboro, Inc., was used to field screen the soil samples. The OVA is equipped with a flame ionization detector (FID) and is calibrated each working day with methane gas. Therefore, the units for field screening of soil samples are reported as OVA units as methane. The field screening process consisted of sealing the soil samples in 9-ounce glass jars and allowing them to warm to ambient temperature. The contaminants, if present in the soil sample, then volatilized and entered the headspace of the glass jar. Volatile organic compound (VOC) levels were then obtained from a linear scale meter after inserting the OVA probe into the headspace of the glass jar. Scans of airborne VOCs in the area detected a background level of 0.0 OVA units as methane.

V. GEOLOGIC AND HYDROGEOLOGIC SETTING

A. Soils

The soils at the site are Miami and Pella silt loams with zero to six percent slopes (Figure 3). Miami Silt Loams are well drained and moderately permeable; formed in silty and loamy deposits over loam till. Pella Silt Loams are poorly drained, and moderately permeable, formed in silty deposits over loamy till.

B. Glacial Geology

Glacial deposits in the region are end moraine, ground moraine, outwash, pitted outwash, and lake-basin deposits. End moraines consist of unsorted debris ranging in size from clay to boulders. Ground moraine is deposited as a blanket of unsorted rock debris of irregular thickness, ranging in size from clay to boulders. An outwash plain is a stratified deposit, consisting of gravel, sand, silt and clay, laid down by water from melting ice fronts. In Walworth County, outwash plains of sand and gravel, in places covered by a layer of till, were deposited in front of the Delavan Sublobe of the Lake Michigan Lobe ice front. Lake-basin deposits are composed of materials derived from glaciers and laid down in fresh-water lakes. In Walworth County, lake-basin deposits are in the northwest near Whitewater and in the east-center part of the County (Figure 4). Deposits at the site are New Berlin Formation tills and outwash, deposited behind the Elkhorn Moraine. The tills are yellow brown (10 YR hues) gravelly sandy loams.

C. Bedrock Geology

Bedrock in Walworth County is composed of rocks from Precambrian through Silurian ages, all of which dip eastward (Figure 5). Crystalline rocks of the Precambrian age underlie the entire County. The surface ranges from approximately 900 feet below ground surface (bgs) to more than 2,400 bgs along the east County line. Cambrian sandstone overlies the Precambrian rocks and is present under the entire County. The sandstone thickens to the east ranging from about 540 feet to 1,700 feet along the eastern County line. The Ordovician rocks present in Walworth County include the Prairie Du Chien group (mostly dolomite), St. Peter Sandstone, the Platteville and Decorah Formations, Galena Dolomite and Maquoketa Shale. The St. Peter Sandstone ranges in depth from over 650 feet along the northern quarter

of the County to less than 150 feet along the southern one-third of the eastern County line. The base of the Maquoketa Shale ranges in altitude from approximately 700 feet at its westernmost extent to less than 400 feet in the southeast corner of the County. Silurian dolomite is the youngest rock in Walworth County and is found in the eastern one-third of the County. Bedrock at the site is Ordovician Maquoketa Shale.

D. Local Hydrogeology

Walworth County depends on groundwater water supplies. The principal source of water, in order of increasing depth below ground surface, are the unconsolidated sand-and-gravel aquifer, the Niagara (shallow dolomite) aquifer, the Galena-Platteville aquifer, and the sandstone aquifer. The sand-and-gravel and sandstone aquifers are capable of the highest yields. Water-bearing sand and gravel is present throughout much of the County. It may extend down from the surface or be buried below relatively impermeable materials. The Niagara (shallow dolomite) aquifer furnishes water for only eleven percent of the private domestic supplies in Walworth County, but it is an important source of water because it occurs in many areas where the sand and gravel aquifer is absent. Water in this aquifer is confined locally, but is generally under water table conditions. The Niagara aquifer of Walworth County consists of Silurian dolomite, ranging in thickness from zero to more than 100 feet. The Galena-Platteville aquifer is a dolomite of the Galena-Platteville unit. Saturated thickness of this aquifer ranges from less than 50 feet to more than 300 feet. The Galena-Platteville aquifer supplies water for 22 percent of the private domestic supplies in the County, and is present in many areas where sand-and-gravel and Niagara aquifers are absent. Water in this locally confined aquifer is also generally under water table conditions. The sandstone aquifer is the principal source for many municipal and industrial supplies in Walworth County. Saturated thickness ranges from less than 800 feet to over 2,200 feet.

The quality of groundwater in the County is generally good. However, some water has chemical characteristics that make it objectionable or unsuitable for domestic or industrial uses.

The water table map (Figure 6) shows the altitude of the top of the zone of saturation in the unconfined aquifer. Generally the water table lies within the glacial drift. The altitude ranges from over 1,000 feet to less than 775 feet. The water table altitude at the site is between 890 and 910 feet.

The potentiometric surface map (Figure 7) shows the altitude to which water rose in wells in the sandstone aquifer. The general slope of the surface is downward from the ground-water divide in western Walworth County toward pumping centers in eastern Wisconsin and Illinois. Some distortion of the surface in Elkhorn is caused by local pumping from the sandstone aquifer.

VI. TANK REMOVAL ACTIVITIES

A. Excavation 1

Two tanks were removed on May 8, 1991, from the excavation (Figure 2). Before the actual tank removal, a total of 525 gallons of water was removed from the tanks by National Tank Service and disposed. The first tank removed from Excavation 1 was a 500 gallon gasoline tank. Visual inspection by GAS revealed pitting and holes in the tank. The second tank removed was a 1,000 gallon gasoline tank. Although no holes were visible in the tank, contaminated soil was detected in the excavation as visible staining during FID field screening for volatile organic compounds (VOCs) (Table 1), and substantiated by the laboratory results of soil samples submitted to a state certified laboratory for TPH analysis. Detected VOC field concentrations ranged from 0.2 instrument units (IU) to greater than 1,000 IU, continuously screened from ground surface to 10 feet below ground surface (bgs). Soil samples submitted for laboratory analysis were collected from west and east tank ends at 9 and 10 feet bgs, respectively. The sample collected from the west end of the excavation had a TPH concentration of 9,790 ppm as diesel fuel and waste oil (Table 2). Gasoline in this sample was below 50 ppm. The sample collected from the east of the excavation had a TPH concentration below the laboratory detection level of five ppm.

Approximately 50 gallons of backfill water was observed in the pit during the tank removal. This water was removed during overexcavation and mixed with the excavated soils, which were then staged on plastic on-site until July 10, 1991. No additional water was observed in the pit during subsequent site visits. The excavation remained open until after remediation of the site was completed.

TABLE 2

SOIL SAMPLE LABORATORY RESULTS

Tank Excavation

Reynolds Property

Elkhorn, Wisconsin

May 7 and 8, 1991

Location	Depth Feet	Total Petroleum Hydrocarbon (TPH) (ppm)	
Excavation 1			
West End of Tank	9	<50	(G)*
		6,810	(D)*
		2,980	(W)*
East End of Tank	10	<5	(G)
		<5	(D)
Excavation 2			
West Tank Bottom	8	<5	(G)
		<5	(D)
East Tank Bottom	8	<5	(G)
		<5	(D)
Excavation 3			
North Floor	8	<50	(G)
		1,940	(D)
West End of Tank	8	<5	(G)
		<5	(D)

* G = Gasoline
D = Diesel Fuel
W = Waste Oil

B. Excavation 2

A 1,000 gallon heating fuel oil tank was removed on May 7, 1991 (Figure 7). There were no visible holes in this tank. The walls and floor were field screened for VOCs with an FID; readings ranged from 0.3 to 1.6 IU (Table 3), continuously screened from the surface to a depth of 8 feet bgs. In addition, two samples were collected from the excavation floor (8 feet bgs) and submitted to the laboratory for TPH content analysis.

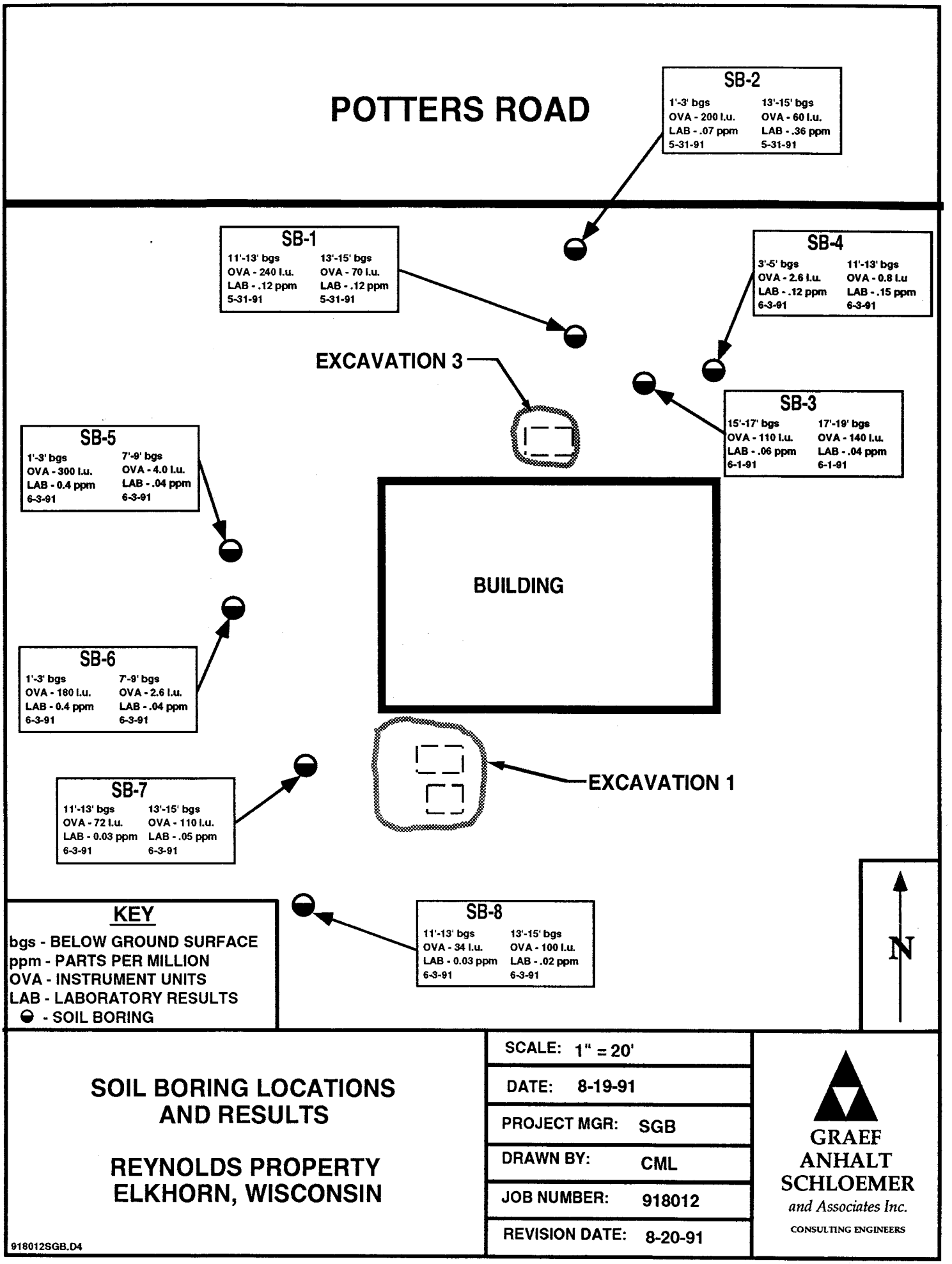
Laboratory results confirmed the field screening readings, which detected TPH concentrations of below five ppm as diesel fuel and gasoline. After the tanks were removed, the excavated soil was placed back in the hole. Additional soil material was brought in to completely fill the excavation. The size of the excavated pit was approximately 130 square feet.

C. Excavation 3

A 1,000 gallon heating fuel oil tank was removed on May 7, 1991. Petroleum contaminated soil was detected during the excavation as visible staining, petroleum odor, during FID field screening for VOCs, and substantiated by laboratory results. Detected field screening ranged from 0.4 to 580 IU (Table 4), continually screened from ground surface to 8 feet bgs. Soil samples from the north floor (8 feet bgs) and the west wall (8 feet bgs) were submitted to the laboratory for TPH analysis.

The sample collected from the north floor had a 1940 ppm TPH concentration as diesel fuel, while the sample collected from the west end of the excavation had a TPH concentration below the laboratory limit of five ppm.

The Elkhorn Area Fine Marshal required that approximately 80 square feet of the excavation be backfilled immediately after the tank removal, because of it's closure proximity to Potter Road. The hole was lined with plastic and backfilled with the excavated soils.



SOIL BORING LOCATIONS AND RESULTS

REYNOLDS PROPERTY ELKHORN, WISCONSIN

SCALE:	1" = 20'
DATE:	8-19-91
PROJECT MGR:	SGB
DRAWN BY:	CML
JOB NUMBER:	918012
REVISION DATE:	8-20-91

GRAEF ANHALT SCHLOEMER *and Associates Inc.*
CONSULTING ENGINEERS

918012SGB.D4

FIGURE 8

VII. EXTENT OF CONTAMINATION INVESTIGATION

On May 31, 1991 and June 3, 1991, eight soil borings were drilled around Excavation No. 1 and Excavation No. 3, to determine the extent of contamination (refer to Figure 9 for boring locations). Each boring was advanced using a 6.25 inch outside diameter hollow-stem auger, without the addition of drilling fluids. The augers were steam-cleaned between borings.

Samples were collected, and logged continuously using a 2-foot split spoon sampler. The split spoon and all personal sampling tools were washed with Alconox and double rinsed with potable water between collection intervals. Each sample collected was divided into two samples; one sample was placed in an 8-ounce jar (3 inch headspace provided), covered with foil, then a jar lid, and allowed to warm to ambient temperatures before field screening (approximately 20-30 minutes required)(Table 4). An activated carbon filter was attached to the OVA probe so that a methane reading could be obtained. The methane reading subtracted from the OVA probe reading of the same sample without the filter attached, yields the amount of non-methane VOCs present. The other sample was tightly packed in a 4-ounce jar, sealed with a Teflon-lined lid and placed on ice for possible laboratory analysis.

Soil samples for laboratory analysis were selected from the two highest field screening readings from each borehole. The samples were placed on ice and submitted to a state certified laboratory along with the chain-of-custody (Appendix A) for TPH analysis referenced to gasoline and diesel oil. Laboratory analysis was by the Modified California Method with a detection limit of 0.20 ppm. The soil sample results were all less than 2 ppm (Table 5).

All boreholes were abandoned using bentonite chips (Appendix B). The drill cuttings and discarded soil samples were staged on, and covered with plastic on site.

VIII. SITE REMEDIATION

Based upon soil boring results and conversations with a WDNR representative, overexcavation was the alternative chosen to remove the remaining contaminated soil from Excavations 1 and 3.

TABLE 6
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORINGS

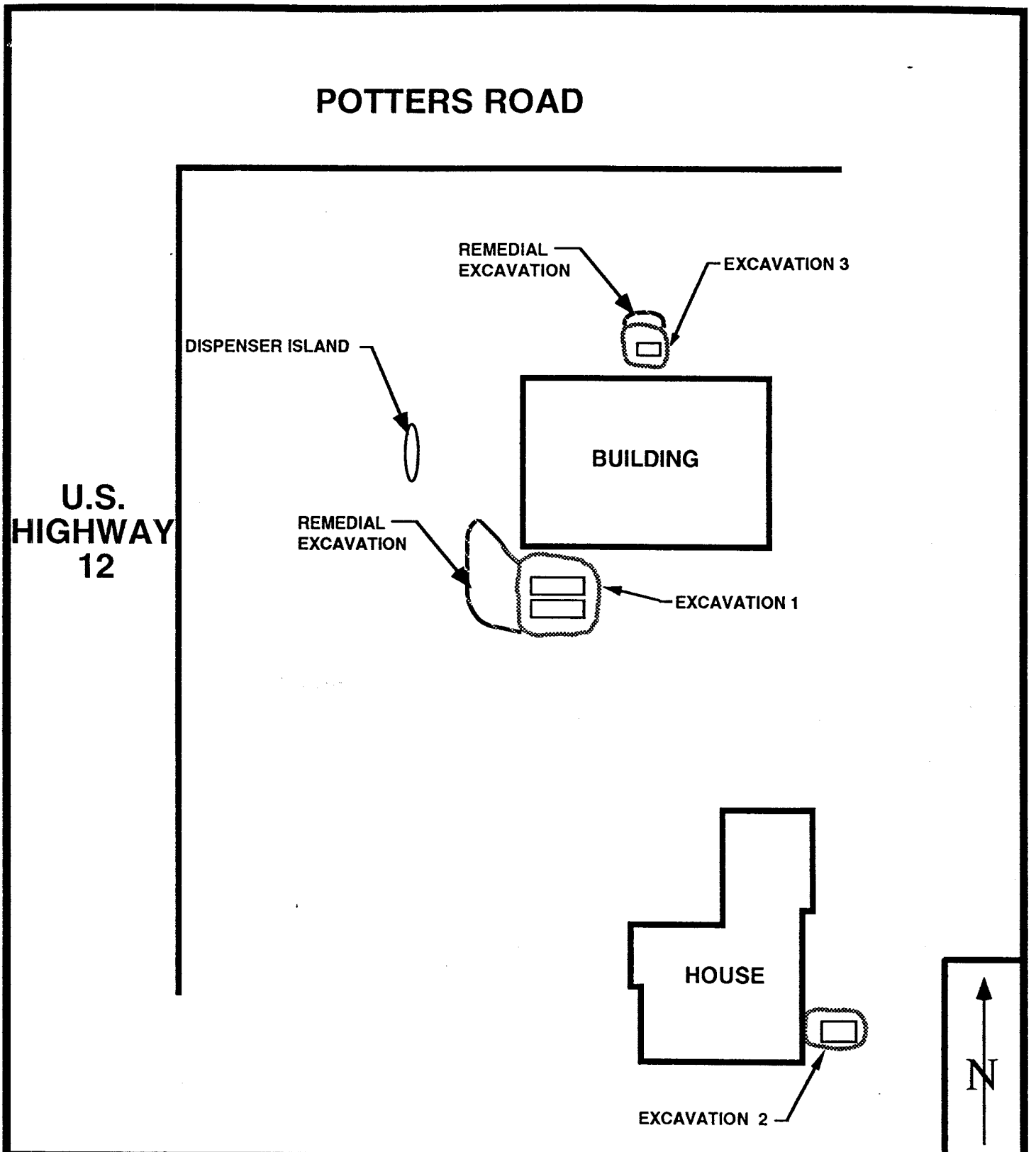
REYNOLDS PROPERTY
Elkhorn, Wisconsin

May 31, 1991
and
June 3, 1991

Location	Depth Feet	Total Petroleum Hydrocarbon (TPH) mg/kg (ppm)
SB 1-6	11-13	0.12 (D)
SB 1-7	13-15	0.12 (D)
SB 2-1	1-3	0.07 (D)
SB 2-7	13-15	0.36 (D)
SB 3-8	15-17	0.06 (G)
SB 3-9	17-19	0.04 (G)
SB 4-2	3-5	0.12 (G)
SB 4-6	11-13	0.15 (G)
SB 5-2	1-3	1.05 (D)
SB 5-5	7-9	0.04 (D)
SB 6-2	1-3	0.40 (G)
SB 6-5	7-9	0.03 (G)
SB 7-6	11-13	0.03 (G)
SB 7-7	13-15	0.05 (G)
SB 8-6	11-13	0.03 (G)
SB 8-7	13-15	0.02 (G)

*G=TPH as Gasoline

*D=TPH as Diesel Oil



SCALE : 1"=30'	DRAWN BY : MAS	JOB #918012	DATE : 6-13-91

EXTENT OF REMEDIAL EXCAVATION
REYNOLDS PROPERTY
ELKHORN, WISCONSIN

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FIGURE 9

On July 10, 1991, petroleum contaminated soil (125 cubic yards from Excavation 1 and 25 cubic yards from Excavation 3) was excavated. The excavated and staged soil was disposed of at Mallard Ridge Landfill, Delavan, Wisconsin, on July 10, 1991.

Soil was removed from the floors and walls of each excavation until minimal amounts of VOCs were detected using a OVA. Each sample collected was divided into two duplicate samples; one sample was placed in an 8-ounce jar (3 inch headspace provided), covered with foil, then a jar lid, and allowed to warm to approximately 72 degrees Fahrenheit before field screening (approximately 20-30 minutes required). The other sample was tightly packed in a 4-ounce jar, sealed with a Teflon-lined lid, placed on ice and submitted to a state certified laboratory for analysis of TPH contents.

Overexcavation proceeded in the excavations until OVA field screening results were minimal (Table 7, Figure 9). Soil samples submitted for laboratory analysis of TPH as gas and diesel were collected from all four walls and both ends of the excavation bottom for Excavation 1 and 3 (Figure 10 and 11). Soil sample laboratory results were all below the WDNR, TPH guideline for Leaking Underground Storage Tanks (LUST) site (Table 8).

The excavations were backfilled prior to the contractor leaving the site on July 10, 1991.

The highest TPH laboratory result in Excavation 1 was 8.2 ppm as gas and diesel on the north end of the west wall at a depth of nine feet. The lowest result (0.02 ppm) was on the south end floor at eleven feet.

Sample results from Excavation 3 soils ranged from 0.36 ppm as gas and diesel (north wall, east end at a depth of seven feet) to 0.06 ppm (south wall at a eight foot depth).

Petroleum contamination was not found in Excavation 2 (Figure 12), therefore a remedial investigation was not required for the site.

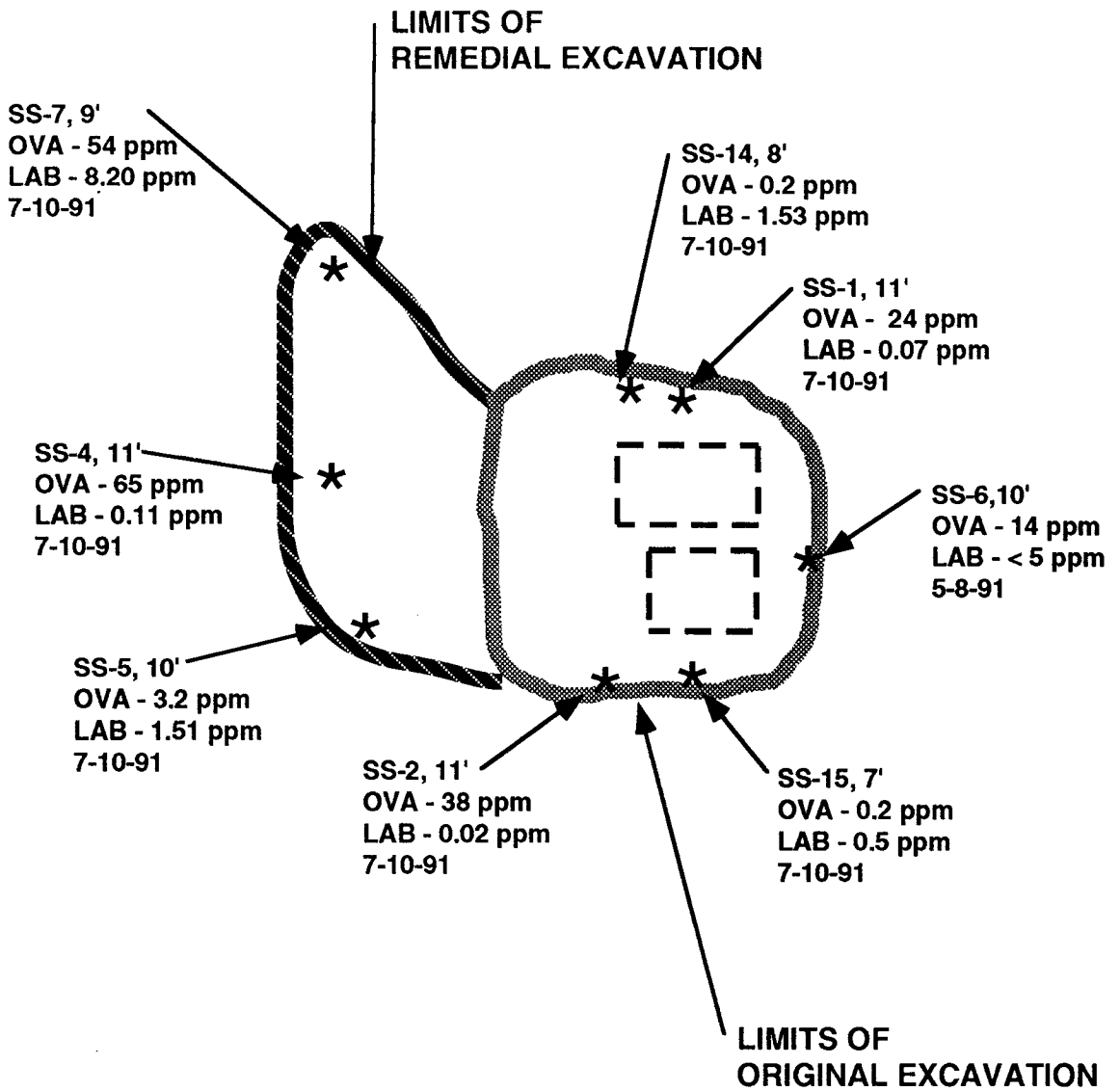
TABLE 8
ANALYTICAL RESULTS
SITE REMEDIATION

REYNOLDS PROPERTY
Elkhorn, Wisconsin

July 10, 1991

Location	Depth Feet	Total Petroleum Hydrocarbon (TPH) mg/kg (ppm)
Excavation 1		
West Wall, South End	10	1.51
West Wall, North End	9	8.20
North Wall	8	1.53
South Wall	7	0.50
West End Floor	11	0.11
North End Floor	11	0.07
South End Floor	11	0.02
Excavation 3		
North End Floor	8	0.17
North End Floor	9	0.10
North Wall, East End	7	0.36
East Wall	7	0.06
South Wall	8	0.08
South End Floor	11	0.45

* TPH as Gas, Diesel

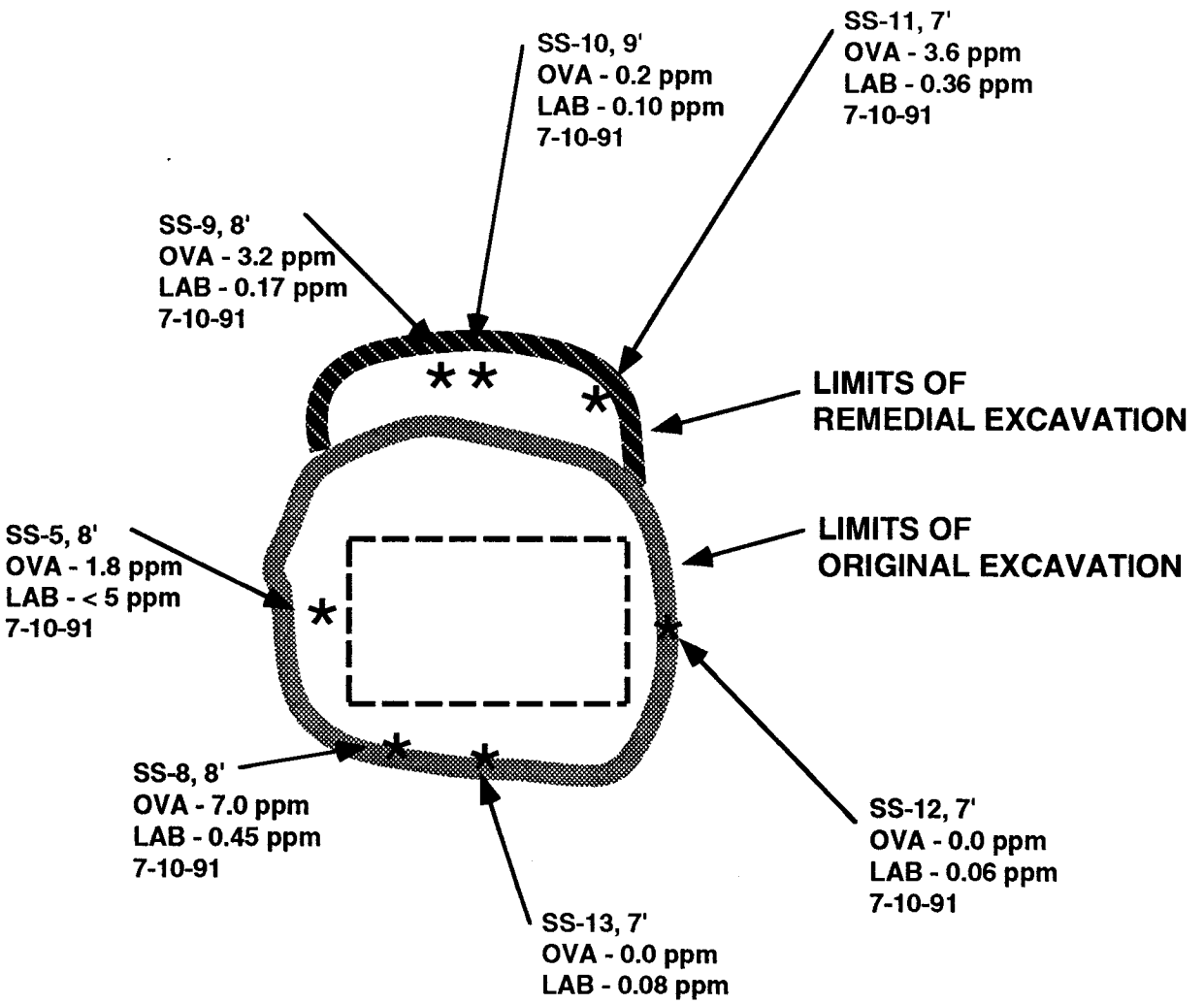


FINAL SOIL SAMPLE RESULTS
EXCAVATION 1
REYNOLDS PROPERTY
ELKHORN, WISCONSIN

SCALE:	1"=10'
DATE:	8-13-91
PROJECT MGR:	SGB
DRAWN BY:	MAS
JOB NUMBER:	918012
REVISION DATE:	8-14-91

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FIGURE 10

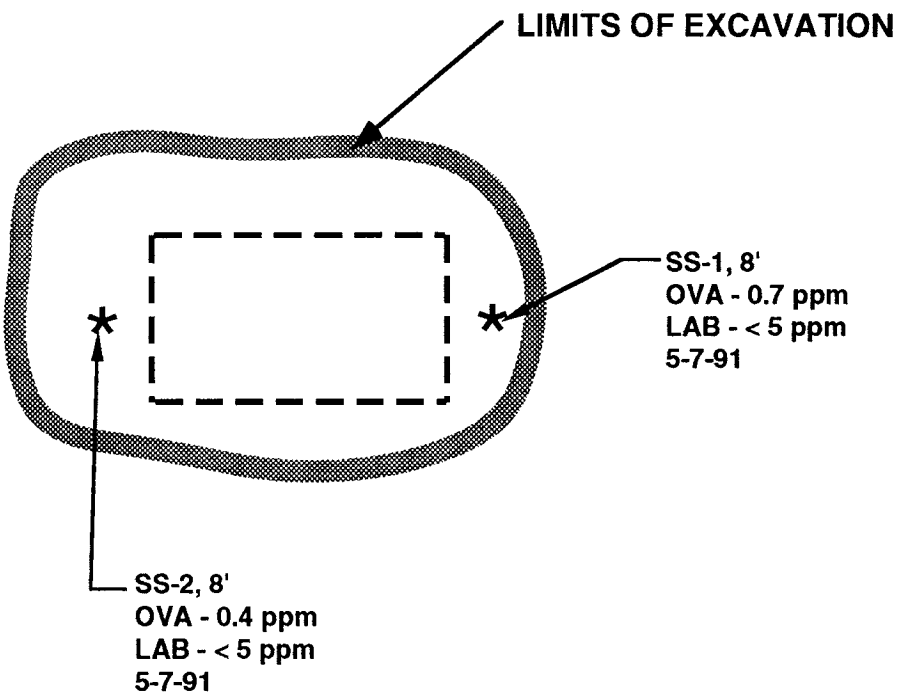


FINAL SOIL SAMPLE RESULTS
EXCAVATION 3
REYNOLDS PROPERTY
ELKHORN, WISCONSIN

SCALE:	1"=5
DATE:	8-13-91
PROJECT MGR:	SGB
DRAWN BY:	MAS
JOB NUMBER:	918012
REVISION DATE:	

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and Associates Inc.
CONSULTING ENGINEERS

FIGURE 11



N

FINAL SOIL SAMPLE RESULTS
EXCAVATION 2
REYNOLDS PROPERTY
ELKHORN, WISCONSIN

SCALE:	1"=5'
DATE:	8-13-91
PROJECT MGR:	SGB
DRAWN BY:	MAS
JOB NUMBER:	918012
REVISION DATE:	8-14-91

GRAEF ANHALT SCHLOEMER
and Associates Inc.
CONSULTING ENGINEERS

FIGURE 12

IX. RISK ASSESSMENT

A. Groundwater Contamination

Groundwater was not encountered during any site activities associated with the tank removal and extent of contamination investigation so impact, if any, to the groundwater is unknown.

B. Known or Potential Impact to Water Supply Wells

There are no known factors to indicate that a potential exists that any water supply wells have been impacted by petroleum contamination from this site.

Where are the wells ??

C. Vapor Migration Potential

The soils encountered at the site were primarily silts and clays; pathways for contaminant migration are limited because of the soil texture.

D. Impact From Seepage

Any remaining petroleum contamination would be in quantities too low to constitute a seepage concern.

X. CONCLUSION/RECOMMENDATION

Field screening and laboratory results from analysis of soil samples collected from the floors and walls of the three excavations were below the WDNR's TPH concentration guideline for LUST sites.

Predicated on these results, GAS recommends that no further soil remedial action be performed at these excavations.

APPENDIX L

SOUTHERN LAKES PLUMBING AND HEATING INC.
[SITE # 11]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Southern Lakes Plumbing and Heating Inc. [Site # 11]**
DOT parcel number (if known):
Property Address: N5860 US Highway 12
Owner's Name: Triple K Properties, LLC
Owner's Address: N5860 US Highway 12, Elkhorn, WI 53121
Owner's Phone: Scott Plucinski, 262-723-6426
Current Land Use: Southern Lakes Plumbing and Heating Inc.
Past Land Use:

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☒ASTs ☐USTs
- ☒ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments: Miscellaneous vehicles equipment and debris on east portion of site (~100 feet from USH 12 r/w)

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☐ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☒ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

Site #11
Southern Lakes Plumbing and Heating Inc.
N5860 US Highway 12
USH 12: STA 779+50 to 782+50 LT

The site is identified on the AST database. Based on field reconnaissance, the site is currently occupied by a multi-tenant commercial building. Tenants at the site include Southern Lakes Plumbing and Heating, Inc., LCE Lawn Commercial Equipment, and Designers Edge Ltd. (hair salon). At the time of the site visit, Himalayan observed miscellaneous vehicles, farm equipment, and debris on the south and central portions of the site (over 100 feet from USH 12 R/W). According to the WDSPS Storage Tank Database, one 1,000-gallon unleaded gasoline AST and one 1,000-gallon diesel AST are currently in use at the site. The ASTs were installed in 2008 and registered to Southern Lakes Plumbing and Heating, Inc. The use for the tanks is listed as mercantile / commercial.

Review of the Walworth County GIS System online indicated that the site is owned by Triple K Properties, LLC [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

Himalayan interviewed Scott Plucinski (phone: 262-723-6426), who indicated that he has owned the property for approximately 20 years. Mr. Plucinski stated that the two ASTs currently in use at the site are located on the east side of the building, and that both tanks use a secondary containment system. Mr. Plucinski indicated that he is not aware of any spills or other environmental concerns associated with the property, and that he has had a tank assessment completed within the last year. Mr. Plucinski stated that a potable well and septic system are also located on the east side of the building at the site.

Based on Himalayan's conversation with property owner Scott Plucinski, it appears that the minimum distance of the ASTs at the site, relative to the current USh 12 R/W, is approximately 135 feet.

<u>Geology / Hydrogeology</u>

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist primarily of Pella silt loam (Ph). Pella silt loam is described as poorly drained silt loam underlain by silty clay loam and stratified sandy loam. Depth to groundwater is approximately 0 inches [Ref. 2].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

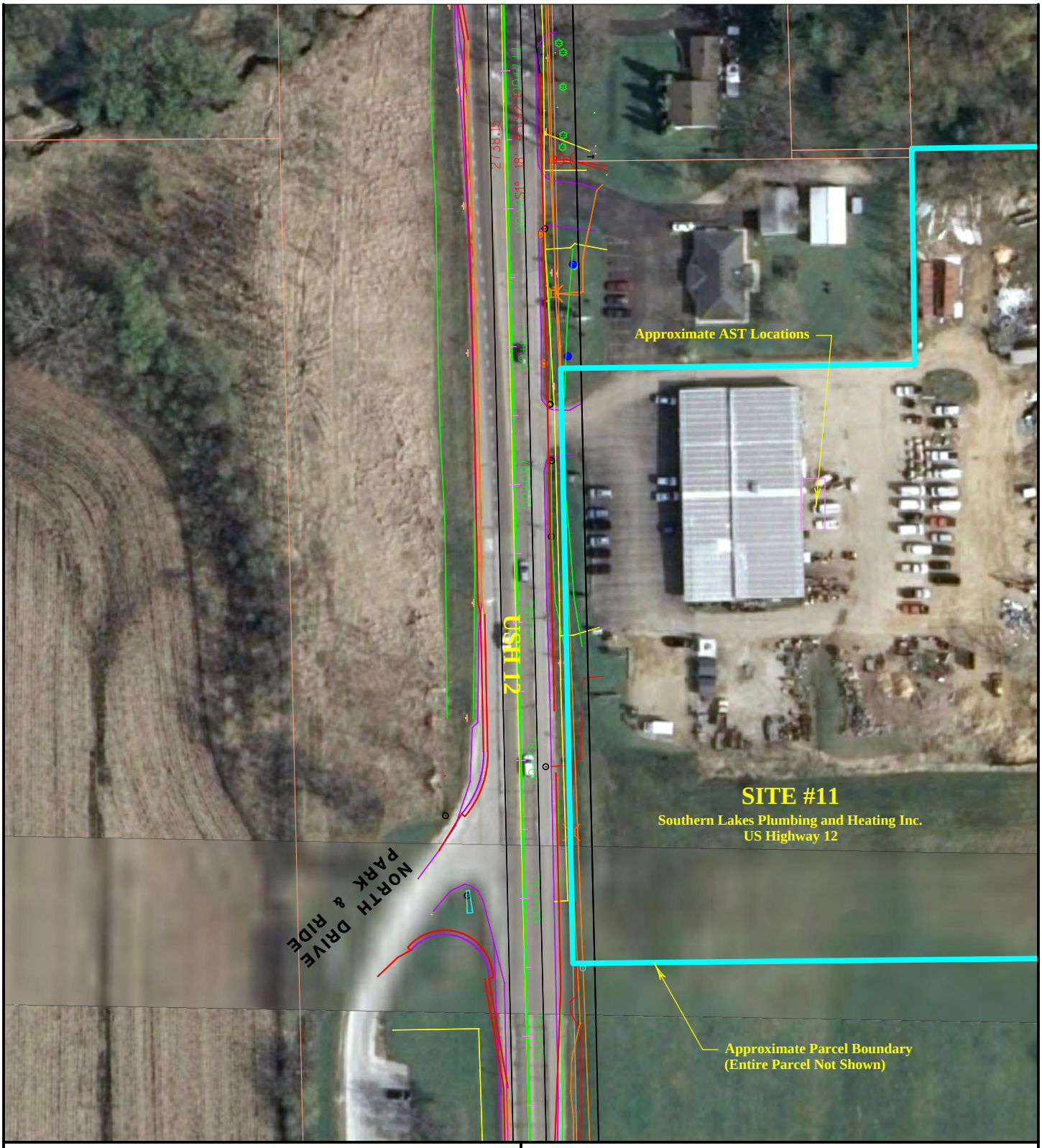
Considering the distance of the ASTs at the site relative to the current USH 12 R/W (~135 feet), and the lack of R/W acquisition at the site, this site is unlikely to impact the proposed improvements. Therefore, no further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 13.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #11: Southern Lakes Plumbing and Heating Inc., N5860 US Highway 12
View northeast from the west side of USH 12

APPENDIX M

ELKHORN EXPRESS
(FORMER SWATEK SALES EXPRESS)
[SITE # 12]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Elkhorn Express (Former Swatek Sales Express) [Site # 12]**
DOT parcel number (if known):
Property Address: 1390 N. Wisconsin Street
Owner's Name: Pramukh Darshan Corporation
Owner's Address: 1721 W. Whispering Court, Addison, IL 60101
Owner's Phone:
Current Land Use: Elkhorn Express, a Mobil gasoline station
Past Land Use:

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☒ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☒ Unleaded gasoline ☐ Fuel Oil ☒ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-65-553992
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☒ Other (please describe) Spill BRRTS #: 04-65-547720 closed 07/2006

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☒ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☒ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☒ Contaminated soil known to be within proposed right of way from 6 feet to 2 feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☒ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☒ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

Site #12
Elkhorn Express (Former Swatek Sales Express)
1390 N. Wisconsin Street
USH 12: STA 788+00 to 791+50 LT

The site is identified on the LUST (BRRTS #03-65-553992), UST, and Spills (BRRTS #04-65-547720) databases under the former address of N5788 US Highway 12. Based on field reconnaissance, the site is currently occupied by Elkhorn Express, a Mobil gasoline station. According to the WDSPS Storage Tank Database, five tanks are registered to the site. Three 8,000-gallon unleaded gasoline USTs were installed in 1979 and two 8,000-gallon diesel USTs were installed in 1981, and are currently in use at the site. The use for the tanks is listed as retail fuel sales.

Review of the Walworth County GIS System online indicated that the site is owned by Pramukh Darshan Corporation [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site.

BRRTS #03-65-553992: According to the Subsurface Investigation Report and Request for Case Closure submitted by Sigma Environmental Services, Inc. (Sigma), the site has been utilized as a gasoline fueling station since at least 1979 [Ref. 2]. In October 2001, six soil borings (GP-1 to GP-6) were advanced at the site to a terminal depth of 8 feet bgs, to investigate potential petroleum impacts associated with the UST system and pump islands. A total of seven soil samples were collected and analyzed for GRO, DRO, PVOCs, and/or PAHs.

A Tank System Site Assessment was completed by Giles Engineering Associates, Inc. (Giles) in May 2009, on a portion of the UST system that was planned for replacement [Ref. 3]. An excavation 35 feet long, 10 feet wide, and 2 feet deep was conducted under the canopy area. Four soil samples (S-1 to S-4) were collected from beneath the dispensers and tank piping and analyzed for GRO and PVOCs.

The activity remains open with WDNR at this time.

BRRTS #04-65-547720: According to the Giles report, a leak detector for a #2 diesel line failed a test in October 1993 [Ref. 3]. The failed test was reported to WDNR, and the site was listed on BRRTS for a spill / release activity. The activity was closed by WDNR in July 2006.

<u>Geology / Hydrogeology</u>

Based on the Sigma report, soils at the site consist primarily of silty clays, sandy clays, and clays to 8 feet bgs [Ref. 2]. Silty and gravelly sands were noted from approximately 4 to 8

feet bgs in boring GP-5. Groundwater was not encountered to the terminal boring depths of 8 feet bgs. Based on the Giles report, depth to groundwater is approximately 20 feet bgs at the site [Ref. 3].

Soil Impacts

Based on the Sigma report, analytical results indicate that no GRO, DRO, PVOCs or PAHs were detected above the respective NR 720 RCL or Interim RCLs, in samples collected from soil borings during the site investigation conducted in 2001 [Ref. 4]. Based on the Giles report, benzene (61.1 to 561 µg/kg in S-1 to S-3), and GRO (162 µg/kg in S-2), were detected at concentrations exceeding the respective NR 720 RCL at 2 feet bgs during the tank system site assessment conducted in May 2009.

It appears that residual soil impacts in S-2 and S-3 are located within the current USH 12 R/W.

Groundwater Impacts

Based on the Sigma report, groundwater was not encountered to depths of 8 feet bgs, and no groundwater analytical data is available for the site [Ref. 2].

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering that residual soil contamination exists within the current USH 12 R/W, and the open LUST activity at the site, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

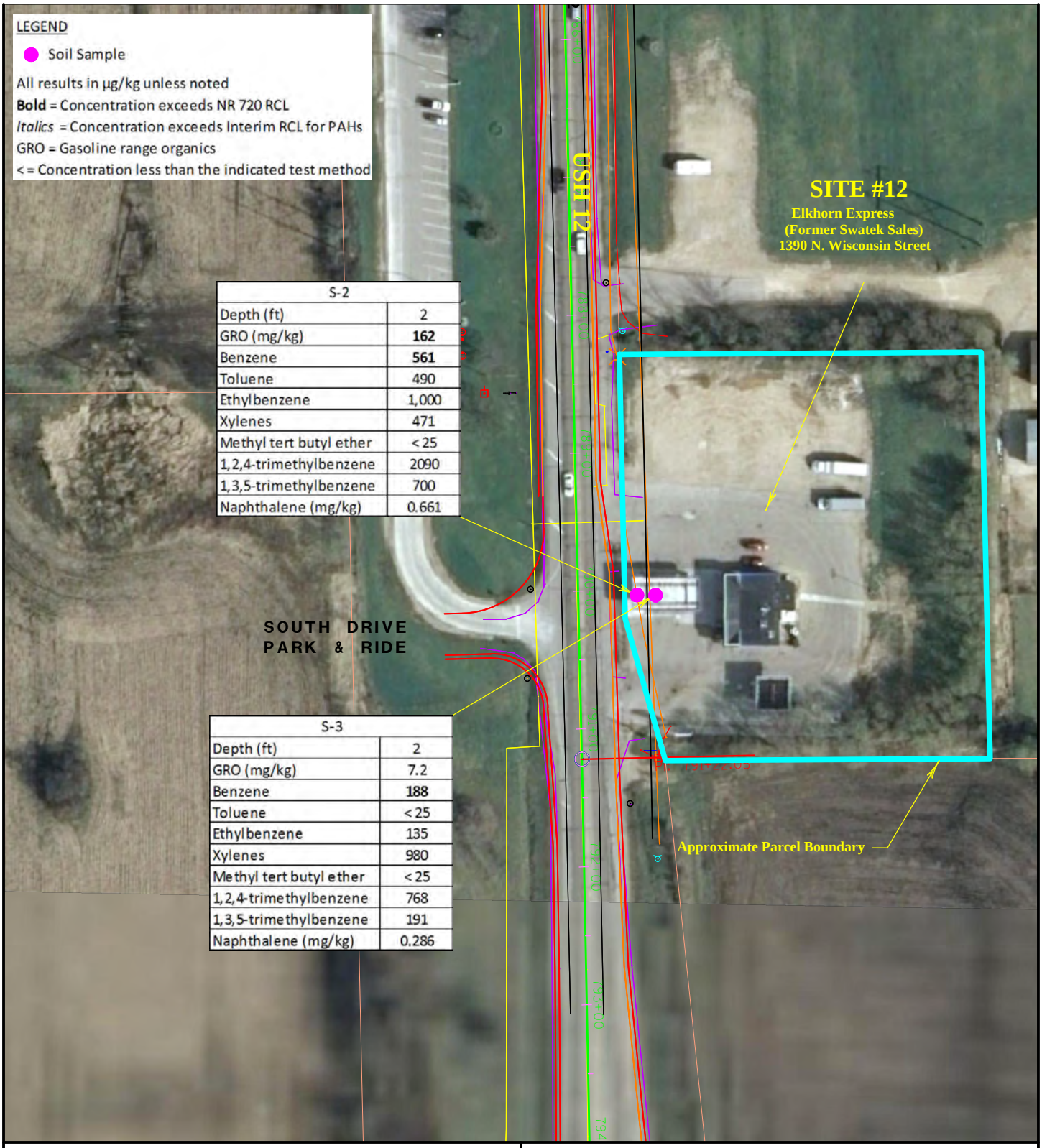
Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Sigma Environmental Services, Inc. (February 2006). Subsurface Investigation Report and Request for Case Closure, Swatek Sales Corporation, N5788 Highway 12, Elkhorn, Wisconsin.

3. Giles Engineering Associates, Inc. (June 2009). Tank System Site Assessment, Mobil C-Store, N5788 US Highway 12, Elkhorn, Wisconsin, BRRTS No. 04-65-547720.



S-2	
Depth (ft)	2
GRO (mg/kg)	**162**
Benzene	**561**
Toluene	490
Ethylbenzene	1,000
Xylenes	471
Methyl tert butyl ether	< 25
1,2,4-trimethylbenzene	2090
1,3,5-trimethylbenzene	700
Naphthalene (mg/kg)	0.661

S-3	
Depth (ft)	2
GRO (mg/kg)	7.2
Benzene	**188**
Toluene	< 25
Ethylbenzene	135
Xylenes	980
Methyl tert butyl ether	< 25
1,2,4-trimethylbenzene	768
1,3,5-trimethylbenzene	191
Naphthalene (mg/kg)	0.286

Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 14.1 SOIL QUALITY MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #12: Elkhorn Express (Former Swatek Sales Express), 1390 N. Wisconsin Street
View east from the west side of USH 12

GILES
ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

• Atlanta, GA
• Baltimore/Wash. DC
• Dallas, TX
• Los Angeles, CA
• Milwaukee, WI
• Orlando, FL

RECEIVED
JUN 16 2009
BY

June 12, 2009

Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King Jr. Drive
P.O. Box 12436
Milwaukee, WI 53212-0436

Attention: Ms. Nancy Ryan
Hydrogeologist – Bureau of Remediation and Redevelopment

Subject: Tank System Site Assessment
Mobil C-Store
N5788 US Highway 12
Elkhorn, Wisconsin
BRRTS No. 04-65-547720
Giles Project No. 1E-0905002

Dear Ms. Ryan:

Giles Engineering Associates, Inc. (Giles) has prepared the following letter to briefly discuss the results of a Tank System Site Assessment (TSSA), completed on behalf of VR Estates, LLC, at the Mobil C-Store property, herein referred to as the Site. On May 5, 2009 Giles Engineering Associates, Inc. (Giles) was on-Site to complete a TSSA on a portion of the gasoline underground storage tank (UST) system that was planned for replacement. This area was beneath the gasoline dispenser canopy on the west portion of the property.

Field observations confirmed the steel piping and fittings appeared to be in good condition with no corrosion or holes. However, volatile vapors and gasoline petroleum odor was observed in the soil beneath the piping and dispenser area. No free product was observed. Four soil samples were collected from beneath the fuel dispensers and pipe joint/fitting areas and submitted to Pace Analytical laboratory for gasoline range organics (GRO) and petroleum volatile organic compounds (PVOCs) plus naphthalene analyses. Concentrations of GRO and PVOCs plus naphthalene were detected in soil samples at concentrations greater than the NR 720 generic groundwater protection residual contaminant level. Part B of the TSSA form is attached.

A previous environmental investigation was completed at the Site to investigate a reported line leak detector failure for a #2 diesel line on October 7, 1993. The failed test was reported to the Wisconsin Department of Natural Resources (WDNR) on October 7, 1993, and the Site was listed on the BRRTS for a release/spill. Subsequently, Sigma Environmental (Sigma) completed a *Subsurface Investigation Report and Request for Case Closure* (February 2006) for the Site. Sigma completed six direct-push soil borings during October 2001 to investigate the possible petroleum hydrocarbon impacts associated with the current UST systems. The investigation completed by Sigma did identify petroleum impact in the vicinity of the gasoline fuel dispensers but concluded the impact was very limited in extent and magnitude. Sigma submitted a NR 708 closure request that was approved by the WDNR on July 19, 2006. The Sigma report and WDNR BRRTS activity details are attached.

It is Giles opinion that the petroleum impact identified during the TSSA closure sampling is consistent with the soil sample results from the February 2006 Sigma request for case closure. The

NO
JAA
9-9-11

N8 W22350 Johnson Drive • Suite A1 • Waukesha, WI 53186
262/544-0118 • Fax 262/549-5868 • E-mail milwauke@gilesengr.com

TSSA soil analytical results are not indicative of a new release from the gasoline UST system after the completion of the investigation by Sigma. Giles on behalf of VR Estates, LLC requests the WDNR to evaluate the TSSA information, the Sigma report, and consider listing a no further action status for the activity associated with the recent TSSA.

Please contact the undersigned at (262) 544-0118 with any questions or concerns regarding the TSSA Results, request for no action, or the project in general.

Respectfully submitted,

GILES ENGINEERING ASSOCIATES, INC.

Thomas J. Bauman, P.G.
Project Hydrogeologist

Steven C. Thuemling
Assistant Environmental
Department Manager

Attachments

Attachment A.	TSSA Form (Part B ERS-8951)
Attachment B.	*Subsurface Investigation Report and Request for Case Closure* (Sigma Environmental, February 2006)
Attachment C.	WDNR Notification For Hazardous Substance Discharge

Distribution: Wisconsin Department of Natural Resources
Attn: Ms. Nancy Ryan (1)
VR Estates, LLC
Attn: Mr. Ramu Langala (1)

Part B – To be completed by environmental professional

I. TANK-SYSTEM SITE ASSESSMENT (TSSA)

Site Name: Marathon (Mobil) Gas Station **Address:** N5788 US Highway 12, Elkhorn, WI

To determine if a TSSA is required, see Comm 10 and section II part B of *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

If a TSSA is required, then follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

1. Site Information

a. Has there been a previously documented release at this site? ☒ Y ☐ N

If yes, provide the Commerce # _____, or DNR BRRT's # 04-65-547720.

b. Number of active tanks[1] at facility prior to completion of current services USTs 5 ASTs _____.

(NOTE 1: Do not include previously closed systems or system components.)

c. Excavation/trench dimensions (in feet). (Photos must be provided.)

EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
Canopy Area	35'	10'	2'

2. Visual Excavation/Trench Inspection (Photos must be provided for "Yes" responses, except item b.)

Do any of the following conditions exist in or about the excavation(s)?

a. Stained soils: ☒ Y ☐ N b. Petroleum odor: ☒ Y ☐ N c. Water In excavation/trench: ☒ Y ☐ N (perched water)

d. Free product in the excavation/trench: ☐ Y ☒ N e. Sheen or free product on water: ☐ Y ☒ N

3. Geology/Hydrogeology

a. Depth to groundwater ± 20' feet b. Indicate type of geology[2] Silty Clay

(Note 2: Use these symbols individually or in combination as appropriate: C = Clay, SLT = Silt, S = Sand, Gr = Gravel)

4. Receptors

a. Water supply well(s) within 250 feet of the facility? ☐ Y ☒ N If yes, specify _____

b. Surface water(s) within 1000 feet of the facility? ☐ Y ☒ N If yes, specify _____

5. Sampling

a. Follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

b. Complete Tables 1 and 2 as appropriate. (Attach chain-of-custody and laboratory analytical reports.)

c. Attach a detailed map of site features and sample locations.

J. NOTE RELEVANT OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW

TABLE 1 SOIL FIELD SCREENING & GRO/DRO LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	Sample Location & Soil/Geologic Description	Sample Collection Method				Depth Below Tank/(Piping) (feet)	Field Screening Result (ppm)	GRO (mg/kg)	DRO (mg/kg)
		Grab	Shelby Tube	Direct Push	Split Spoon				
S-1	East Dispenser / Silty Clay	☒	☐	☐	☐	2.0'	49	3.2	—
S-2	West Dispenser / Silty Clay	☒	☐	☐	☐	2.0'	2,908	162	—
S-3	Piping Elbows / Silty Clay	☒	☐	☐	☐	2.0'	530	7.2	—
S-4	Piping Joins / Silty Clay	☒	☐	☐	☐	2.0'	BDL	< 3.1	—
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				

TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	BENZENE	TOLUENE	ETHYLBENZENE	MTBE	TRIMETHYL - BENZENES (TOTAL)	XYLENES (TOTAL)	NAPHTHALENE
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
S-1	61.1 J	< 25.0	< 25.0	< 25.0	84.5	80.4 J	< 25.0
S-2	561	490	1,000	< 25.0	2,790	470.9	661
S-3	188	< 25.0	135	< 25.0	959	980	286
S-4	< 25.0	< 25.0	< 25.0	< 25.0	< 50	< 75	< 25.0

K. TANK-SYSTEM SITE ASSESSMENT INFORMATION

☐ As a tank-system site assessor certified under Wis. Admin. Code section Comm 5.83, it is my opinion that there is no indication of a release of a regulated substance to the environment.

☒ Sampling at the site indicates there has been a release to the environment. Pursuant to Wis. Admin. Code section Comm 10.585 (2) (a) and Wis. Stats. section 292.11 (2) (a), the owner or operator or contractor performing work under chapter Comm 10 shall immediately report any release of a regulated substance to the Wisconsin Department of Natural Resources. Failure to do so may result in forfeitures of a minimum of $10 and a maximum of $5000 for each violation under Wis. Stats. section 101.09 (5). Each day of continued violation and each tank are treated as separate offenses.

Tom Bauman		646797
Tank-System Site Assessor Name (print)	Tank-System Site Assessor Signature	Certification Number #
(262) 544-0118	5/29/09	Giles Engineering
Tank-System Site Assessor Telephone Number	Date Signed	Company Name

Copy Distribution: White – Commerce Blue – Inspector Pink – Contractor Yellow - Owner

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: IE-0905002 MARATHON
Pace Project No.: 4016931

Sample: S-1 4.0' **Lab ID: 4016931001** Collected: 05/05/09 00:00 Received: 05/07/09 08:45 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**61.1J**	ug/kg	72.1	30.0	1	05/08/09 09:08	05/08/09 16:15	71-43-2	
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	100-41-4	W
Gasoline Range Organics	**3.2**	mg/kg	3.0	3.0	1	05/08/09 09:08	05/08/09 16:15		
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	108-88-3	W
1,2,4-Trimethylbenzene	**84.5**	ug/kg	72.1	30.0	1	05/08/09 09:08	05/08/09 16:15	95-63-6	
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	108-67-8	W
m&p-Xylene	**80.4J**	ug/kg	144	60.1	1	05/08/09 09:08	05/08/09 16:15	1330-20-7	
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:15	95-47-6	W
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	05/08/09 09:08	05/08/09 16:15	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		05/08/09 08:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: IE-0905002 MARATHON
Pace Project No.: 4016931

Sample: S-2 4.0' **Lab ID: 4016931002** Collected: 05/05/09 00:00 Received: 05/07/09 08:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**561**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	71-43-2	
Ethylbenzene	**1000**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	100-41-4	
Gasoline Range Organics	**162**	mg/kg	2.8	2.8	1	05/08/09 09:08	05/08/09 16:41		
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 16:41	1634-04-4	W
Naphthalene	**661**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	91-20-3	Z2
Toluene	**490**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	108-88-3	
1,2,4-Trimethylbenzene	**2090**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	95-63-6	
1,3,5-Trimethylbenzene	**700**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	108-67-8	
m&p-Xylene	**386**	ug/kg	137	57.0	1	05/08/09 09:08	05/08/09 16:41	1330-20-7	
o-Xylene	**84.9**	ug/kg	68.3	28.5	1	05/08/09 09:08	05/08/09 16:41	95-47-6	
a,a,a-Trifluorotoluene (S)	203	%	80-120		1	05/08/09 09:08	05/08/09 16:41	98-08-8	S7
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.2**	%	0.10	0.10	1		05/08/09 08:18		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: IE-0905002 MARATHON
Pace Project No.: 4016931

Sample: S-3 4.0' **Lab ID: 4016931003** Collected: 05/05/09 00:00 Received: 05/07/09 08:45 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**188**	ug/kg	71.6	29.8	1	05/08/09 09:08	05/11/09 10:07	71-43-2	
Ethylbenzene	**135**	ug/kg	71.6	29.8	1	05/08/09 09:08	05/11/09 10:07	100-41-4	
Gasoline Range Organics	**7.2**	mg/kg	3.0	3.0	1	05/08/09 09:08	05/11/09 10:07		
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/11/09 10:07	1634-04-4	W
Naphthalene	**286**	ug/kg	71.6	29.8	1	05/08/09 09:08	05/11/09 10:07	91-20-3	Z2
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/11/09 10:07	108-88-3	W
1,2,4-Trimethylbenzene	**768**	ug/kg	71.6	29.8	1	05/08/09 09:08	05/11/09 10:07	95-63-6	
1,3,5-Trimethylbenzene	**191**	ug/kg	71.6	29.8	1	05/08/09 09:08	05/11/09 10:07	108-67-8	
m&p-Xylene	**980**	ug/kg	143	59.7	1	05/08/09 09:08	05/11/09 10:07	1330-20-7	
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/11/09 10:07	95-47-6	W
a,a,a-Trifluorotoluene (S)	110	%	80-120		1	05/08/09 09:08	05/11/09 10:07	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		05/08/09 08:18		

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: IE-0905002 MARATHON
Pace Project No.: 4016931

Sample: S-4 4.0' **Lab ID: 4016931004** Collected: 05/05/09 00:00 Received: 05/07/09 08:45 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	100-41-4	W
Gasoline Range Organics	**<3.1**	mg/kg	3.1	3.1	1	05/08/09 09:08	05/08/09 14:33		
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/08/09 09:08	05/08/09 14:33	1330-20-7	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/08/09 09:08	05/08/09 14:33	95-47-6	W
a,a,a-Trifluorotoluene (S)	105	%	80-120		1	05/08/09 09:08	05/08/09 14:33	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.10	0.10	1		05/08/09 08:18		

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALIFIERS

Project: IE-0905002 MARATHON
Pace Project No.: 4016931

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

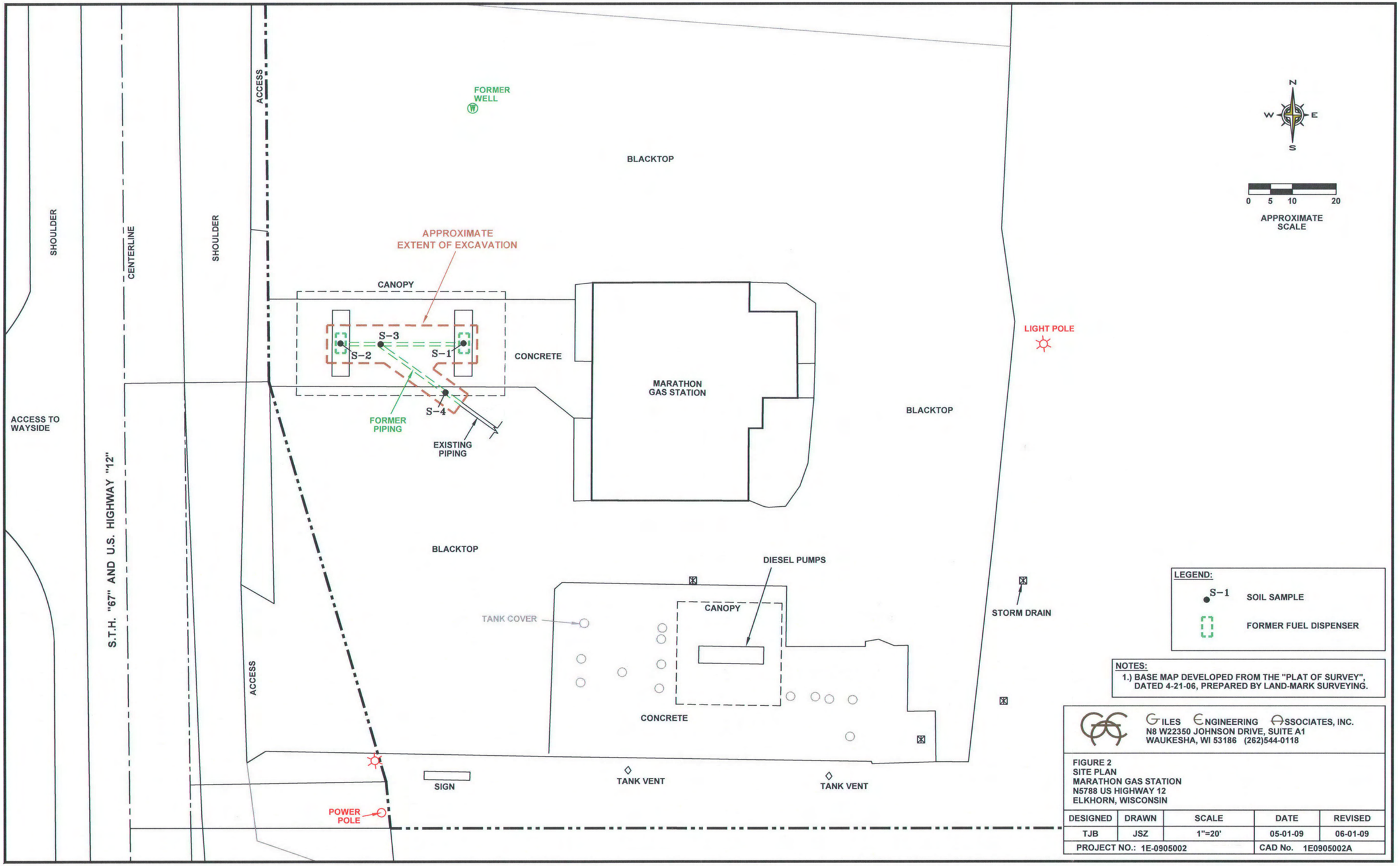
PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

S7	Surrogate recovery outside control limits (not confirmed by re-analysis).
W	Non-detect results are reported on a wet weight basis.
Z2	Analyte present in the associated method blank above the detection limit.

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LEGEND:

- S-1 — SOIL SAMPLE
- FORMER FUEL DISPENSER

NOTES:

1.) BASE MAP DEVELOPED FROM THE "PLAT OF SURVEY", DATED 4-21-06, PREPARED BY LAND-MARK SURVEYING.

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)544-0118

FIGURE 2
SITE PLAN
MARATHON GAS STATION
N5788 US HIGHWAY 12
ELKHORN, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
TJB	JSZ	1"=20'	05-01-09	06-01-09
PROJECT NO.: 1E-0905002			CAD No. 1E0905002A	

SUBSURFACE INVESTIGATION REPORT
AND REQUEST FOR CASE CLOSURE
SWATEK SALES CORPORATION
N5788 HIGHWAY 12
ELKHORN, WISCONSIN

PREPARED FOR:
MR. MARK SWATEK
SWATEK SALES CORPORATION
1050 CAREY STREET
LAKE GENEVA, WISCONSIN 53147

PREPARED BY:
SIGMA ENVIRONMENTAL SERVICES, INC.
1300 WEST CANAL STREET
OAK CREEK, WISONSIN 53154
(414) 643-4200

PROJECT REFERENCE # 7031

February 2006

EXECUTIVE SUMMARY

Swatek Sales Corporation retained Sigma Environmental Services, Inc. (Sigma) of Oak Creek, Wisconsin, to conduct a subsurface investigation of the current tank basin and pump islands at the property located at N5788 Highway 12, Elkhorn, Wisconsin (here after "the site"). The purpose of the subsurface investigation was to 1) define the nature and extent of petroleum hydrocarbon impacts to the soil beneath the site associated with the former underground storage tank (UST) system, former dispenser islands, and the current UST system; 2) satisfy the requirements of Wisconsin Administrative Code, Chapter NR 716.05 for subsurface investigations; 3) generate sufficient geologic data to evaluate risks to the surrounding environment and human health; and 4) provide a recommendation for no further action under Chapter NR 708.

On October 25, 2001 Sigma advanced six Geoprobe soil borings (GP-1 through GP-6) to investigate the possible petroleum hydrocarbon impacts associated with the current USTs and pump islands to investigate possible impacts associated with the current system. Soil samples were collected from each soil boring at the depth interval exhibiting the highest photo ionization detector (PID) reading [generally between four to eight feet below ground surface (bgs)] and analyzed for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Petroleum Volatile Organic Compounds (PVOCs). An additional sample was collected from soil borings GP-1 and GP-2 and analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). DRO and PVOC concentrations were not detected above the laboratory detection limits in any of the soil samples. GRO was detected at concentrations below NR 720 residual contaminant levels (RCLs) at soil borings GP-5 and GP-6 (4-6 feet bgs). In addition several PAHs (benzo(a)anthracene, chrysene, flouranthene, phenanthrene, and pyrene) were detected at concentrations below the PAH interim guidance RCLs in the soil sample from boring GP-1. Due to the very limited extent and magnitude of impacts, Sigma requests no further action for the site under Chapter NR 708.

1. INTRODUCTION

Swatek Sales Corporation retained Sigma Environmental Services, Inc. (Sigma) of Milwaukee, Wisconsin, to conduct a subsurface investigation of the current tank basin and pump islands at the property located at N5788 Highway 12, Elkhorn, Wisconsin (here after "the site"). The purpose of the subsurface investigation was to 1) define the nature and extent of petroleum hydrocarbons impacts to the soil beneath the site associated with the former underground storage tank (UST) system, former dispenser islands, and the current UST system; 2) satisfy the requirements of Wisconsin Administrative Code, Chapter NR 716.05 for subsurface investigations; 3) generate sufficient geologic data to evaluate risks to the surrounding environment and human health; and 4) provide a recommendation for no further action under Chapter NR 708.

1.1 Site Background

The site is currently a gasoline fueling station. According to the Wisconsin Department of Commerce on-line tank database, there are five underground storage tanks (USTs) in use at the station. The database indicates that there are three 8,000-gallon fiberglass USTs containing unleaded gasoline (installed in January 1979), and two 8,000-gallon fiberglass USTs containing diesel fuel (installed in January 1981). The steel lines were upgraded with an impressed current system in 1998, and the entire system meets the upgrade requirements for underground storage tank systems.

Sigma interviewed Mr. Swatek for specific information pertaining to the property. Mr. Swatek provided copies of tank and line tightness testing reports and line leak detector test reports for the tank systems at the project site. As part of our scope of work, Gary Genteman of Sigma reviewed the tank and line tightness test reports and leak detector test reports.

Based on Gary Genteman's review of the reports provided, all tanks and lines passed the tightness testing performed. On one occasion, however, a line leak detector failed a leak detector test. On October 7, 1993, the Vaporless LD 2000 leak detector for the #2 diesel line failed the leak detector test. A new leak detector (Vaporless L.D. 2000) was installed and tested on the same day. The new leak detector passed the leak detector test.

Please note that a failed leak detector test does not indicate that there was a release from the product lines. Rather, it indicates that the line leak detectors were not functioning properly.

1.1 **General Discussion.** Sigma has prepared this report to document and discuss previous site activities, to present the investigation results, and to provide an interpretation of the data as it relates to established State of Wisconsin rules and regulations. All investigation activities were completed in general accordance with Wisconsin rules and regulations at the time work was performed;

specifically, Wisconsin Administrative Code, Chapter NR 700 through NR 747 (Chapter NR 700-747).

2. PURPOSE AND SCOPE OF WORK

2.1 Purpose of Work. The purpose of Sigma's investigation was four fold: 1) to define the nature and extent of petroleum hydrocarbon impacts associated with the former and current UST systems to soil beneath the site; 2) to satisfy the requirements of Chapter NR 716.05 for subsurface investigations; 3) to evaluate the potential risk to human health and the surrounding environment; and 4) to provide a recommendation for no further action under Chapter NR 708.

2.2 Scope of Work. Sigma's scope of work included evaluating the presence, type, and extent of potential soil impacts, and documenting the soil types encountered. The following activities were conducted during Sigma's subsurface investigation.

- On October 25, 2001, six Geoprobe soil borings were advanced to evaluate potential soil impacts from the current upgraded UST systems and dispenser islands. Soil samples from each boring were collected from the interval exhibiting the highest photoionization detector (PID) reading. The soil samples submitted for laboratory analysis were collected from two to four feet below ground surface (bgs) or from four to six feet bgs.

- Soil samples were submitted to the laboratory for analysis of one or more of the following parameters: Wisconsin Modified Method Gasoline Range Organic Compounds (GRO), Wisconsin Modified Method Diesel Range Organic Compounds (DRO), EPA Method 8020 petroleum volatile organic compounds (PVOCs), and EPA Method 8310 polynuclear aromatic hydrocarbons (PAHs).

Additional details regarding the general site conditions, completion of each field activity and an interpretation of the data collected during the investigation are included in Sections 3, 4 and 5 of this report.

2.3 Project Team. The following firms and contractors provided services during remedial investigation activities completed at the site.

Client:

Swatek Sales Corporation
1050 Carey Street
Lake Geneva, Wisconsin
Telephone: (262) 248-8304
Client Contact: Mr. Mark Swatek

Environmental Consulting Firm:

Sigma Environmental Services, Inc.
1300 West Canal Street
Milwaukee, Wisconsin 53233
Telephone: (414) 643-4200

Laboratory Services:
Test America
602 Commerce Drive
Watertown, Wisconsin 53094
Telephone: (920) 261-8120

3. SITE AND SURROUNDING AREA DESCRIPTION

3.1 Site Location and Description. The property address is N5788 Highway 12, Elkhorn, Wisconsin (Southwest ¼ of the Northwest ¼, Section 5, Township 4 North, Range 15 East, Walworth County, Wisconsin). The site location is shown on Figure 1.

The site is currently operates as a fueling station consisting of a five underground storage tanks (USTs), associated piping, 5 dispenser islands, and a building. The property is covered by a mix of asphalt and concrete. The area surrounding the site is mostly comprised of farmland and undeveloped property.

3.1.1 Utility Review. Based on Digger's Hotline markings and a site visit by Sigma personnel, there are no subsurface municipal utilities such as water and sewer. Utility locations are illustrated on the Site Plan Map in Figure 2.

3.1.2 Potential Receptors. The nearest body of water is a stream located approximately 1,400 feet northeast of the site. In addition, Silver Lake is located approximately 2 miles northwest of the site. A survey map from 1998 indicates that there is an on-site potable well on the property.

4. INVESTIGATIVE PROCEDURES

Sigma completed a subsurface remedial investigation at the site that consisted of the advancement of 6 Geoprobe soil borings. Soil samples were collected from each soil boring and field screened for potential laboratory analysis. A discussion of the investigation activities is presented below.

4.1 Soil Borings. On October 24, 2001 Sigma advanced six Geoprobe soil borings (GP-1 through GP-6) to investigate the possible petroleum hydrocarbon impacts associated with the current UST system. During boring advancement, continuous soil samples were collected and described on the basis of color, texture, grain size, and plasticity, and classified in accordance with the Unified Soil Classification System (USCS). The soil classifications, sampling intervals, and descriptions are presented on the Soil Boring Logs in Appendix A.

Soil samples were collected from each sampling interval and containerized for headspace analysis using a photo ionization detector (PID) that was periodically calibrated for direct response to 100 ppm isobutylene in air. Field screening results are presented on Soil Boring Logs in Appendix A. Soil samples were collected from each sample interval, containerized, and preserved (where necessary) for potential laboratory analysis of GRO, DRO, PVOCs, and PAHs. Select soil samples, accompanied by a chain-of-custody document, were

submitted to a certified laboratory for analysis based on field screening results and observations.

Soil borings GP-1 through GP-6 were subsequently abandoned in accordance with Chapter NR 141 requirements. The abandonment forms are presented as Appendix B.

5. INVESTIGATION RESULTS

Geology beneath the site was characterized during the Geoprobe activities. Soil quality beneath the site was evaluated based on the results of field screening measurements and analytical results of soil samples. The following is a discussion of the site-specific physical and chemical characteristics of the soil.

5.1 Site-Specific Subsurface Characteristics.

5.1.1 Site Geology. The subsurface soil observed during Geoprobe activities is comprised primarily of silty clay, sandy clay, and clay to 8 ft bgs, the total depth of the borings. A silty and gravelly sand were described from 4 to 8 feet bgs in boring GP-8. The soil characteristics and depths encountered during Geoprobe activities are interpreted on soil boring logs (Appendix A).

5.1.2 Site Hydrogeology. Based upon soil moisture and plasticity, the depth to groundwater was inferred to be approximately 6 feet bgs.

5.2 Soil Quality. Field screening and laboratory analytical data collected during the investigation were used to evaluate the soil conditions beneath the site and to determine the potential impacts to the environment resulting from the storage and distribution of petroleum hydrocarbon products. The following section presents the laboratory analytical results for the soil samples, and how the concentrations of the compounds detected compare to applicable Chapter NR 720 Generic Residual Contaminant Levels (RCLs), Chapter NR 746 Table 1 and Table 2 soil screening levels, and Interim PAH Guidance RCLs.

5.2.1 Soil Quality Results. A review of the soil quality results indicates PVOCs were not detected at concentrations above the laboratory detection limits in any of the soil samples. GRO was detected at concentrations below the NR 720 RCL in the soil samples from borings GP-5 and GP-6 (4-6 feet bgs). DRO was detected at a concentration below the NR 720 RCL in one of the soil samples from borings GP-2 (4-6 feet bgs). In addition several PAHs (benzo(a)anthracene, chrysene, flouranthene, phenanthrene, and pyrene) were detected at concentrations below the PAH interim guidance RCLs in the soil sample from boring GP-1 (2-4 feet bgs). PAHs were not detected in the soil sample from GP-2 (2-4 feet bgs), which was the only other sample submitted for PAH analysis. No compounds were detected at concentrations above Chapter NR 746 Table 1 or Table 2 values in the soil samples from any of the borings. The soil analytical results are

presented in Table 1, and the soil analytical reports are included in Appendix C.

6. SUMMARY OF SUBSURFACE INVESTIGATION

The purpose of the subsurface investigation completed at the site was to provide the information necessary to define the nature and extent of petroleum hydrocarbon impacts associated with the former and current UST systems. The following is a summary of the geologic, hydrogeologic, and analytical data obtained from the Swatek Sales property located at N5788 Highway 12, Elkhorn, Wisconsin.

- The subsurface soil observed during Geoprobe activities is comprised primarily of silty clay, sandy clay, and clay to 8 ft bgs, the total depth of the borings. A silty and gravelly sand were described from 4 to 8 feet bgs in boring GP-8.

- Review of the soil analytical results indicates that GRO was detected at concentrations well below the NR 720 RCL in the samples from soil borings GP-5 and GP-6 (4-6 feet bgs). DRO was detected at a concentration well below the NR 720 RCL in the samples from soil borings GP-2 (4-6 feet bgs). In addition, several PAHs were detected at concentrations below the PAH interim guidance RCLs in the soil sample from boring GP-1 (2-4 feet bgs). Due to the fact that the magnitude of the soil impacts are low, groundwater was not analyzed at the site.

7. CONCLUSIONS

Low-level petroleum hydrocarbon detects (GRO) were detected at soil borings GP-5 and GP-6 near the pump islands, GP-1 (PAH) near the UST, and GP-2 (DRO). No other significant impacts were noted in the soil at the site. Therefore, due to the very limited extent and magnitude of impacts, Sigma requests Chapter NR 708 case closure and requests no further action at the site.

8. LIMITATIONS OF INVESTIGATION

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.

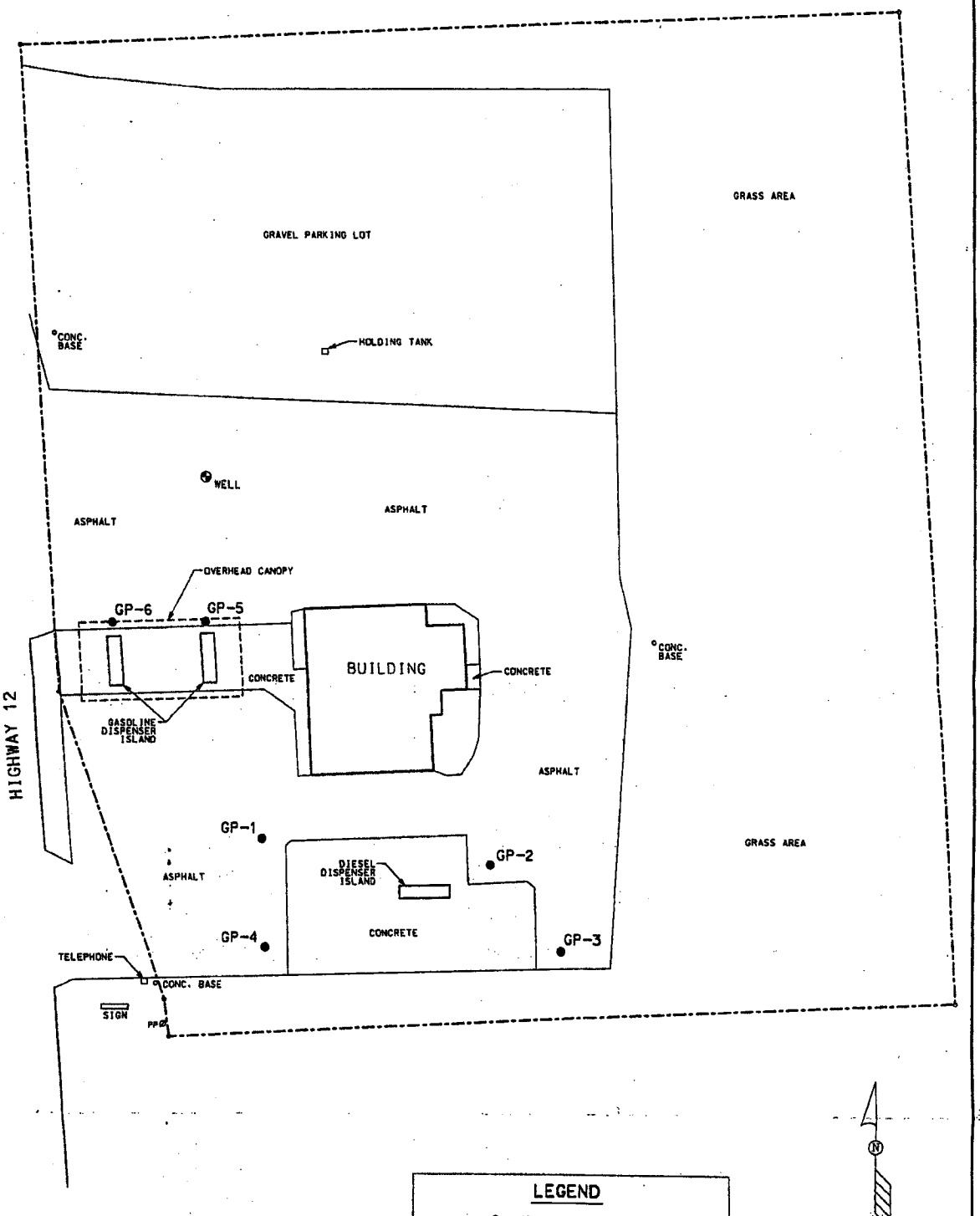
Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by Professional Consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusions and professional advice included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

TABLE 1
SOIL LABORATORY ANALYTICAL RESULTS
Swatek Sales Corporation
Elkhorn, Wisconsin
Project Reference #7031

Analyte	Units	GP-1	GP-2		GP-3	GP-4	GP-5	GP-6	NR 720 RCL	NR 746 Table 1 Values
	feet bgs	2-4	2-4	4-6	2-4	2-4	4-6	4-6		
GRO	mg/kg	<5.9	-	<6.4	<5.7	<6.0	7.1	9.9	100	NS
DRO	mg/kg	<5.9	-	9.8	-	-	-	-	100	NS
Petroleum Volatile Organic Compounds:										
Benzene	ug/kg	<30	-	<32	<29	<30	<29	<30	5.5	8,500
Ethylbenzene	ug/kg	<30	-	<32	<29	<30	<29	<30	2,900	4,600
Toluene	ug/kg	<30	-	<32	<29	<30	<29	<30	1,500	38,000
Xylene (total)	ug/kg	<89	-	<95	<86	<89	<86	<91	4,100	42,000
Methyl Tert Butyl Ether	ug/kg	<30	-	<32	<29	<30	<29	<30	NS	NS
1,2,4-Trimethylbenzene	ug/kg	<30	-	<32	<29	<30	<29	<30	NS	83,000
1,3,5-Trimethylbenzene	ug/kg	<30	-	<32	<29	<30	<29	<30	NS	11,000
Polynuclear Aromatic Hydrocarbons:										
Acenapthene	ug/kg	<59	<57	-	-	-	-	-	NS	NS
Acenaphthylene	ug/kg	<100	<97	-	-	-	-	-	NS	NS
Anthracene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
Benzo(a)anthracene	ug/kg	41	<5.7	-	-	-	-	-	NS	NS
Benzo(b)fluoranthene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
Benzo(k)fluoranthene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
Benzo(a)pyrene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
Benzo(ghi)perylene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
Chrysene	ug/kg	9.4	<5.7	-	-	-	-	-	NS	NS
Dibenzo(a,h)anthracene	ug/kg	<8.9	<8.6	-	-	-	-	-	NS	NS
Fluoranthene	ug/kg	15	<11	-	-	-	-	-	NS	NS
Fluorene	ug/kg	<12	<11	-	-	-	-	-	NS	NS
Indeno(1,2,3-cd)pyrene	ug/kg	<5.9	<5.7	-	-	-	-	-	NS	NS
1-Methylnaphthalene	ug/kg	<36	<34	-	-	-	-	-	NS	NS
2-Methylnaphthalene	ug/kg	<30	<29	-	-	-	-	-	NS	NS
Naphthalene	ug/kg	<36	<34	-	-	-	-	-	NS	2,700
Phenanthrene	ug/kg	28	<5.7	-	-	-	-	-	NS	NS
Pyrene	ug/kg	44	<5.7	-	-	-	-	-	NS	NS

KEY:
DRO = Diesel Range Organic Compounds
GRO = Gasoline Range Organic Compounds
RCL = Residual contaminant level
bold = Concentration exceeds NR 720 RCL
[ ] = Concentration exceeds NR 746 Table 1 Values
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
NS = No standard established
- = Not Analyzed



LEGEND

- ● = GEOPROBE SOIL BORING LOCATION
- ⊕ = WELL LOCATION
- PP = POWER POLE
- ---------- = PROPERTY LINE

GRAPHIC SCALE

0' 15' 30' 60'

NOTE:
SITE MAP ADAPTED FROM SURVEY MAP DATED JULY 20, 1998 PREPARED BY ABERNATHY& ASSOCIATES.

SWATEK SALES N5788 HIGHWAY 12, ELKHORN, WISCONSIN			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: 3-22-05	DR. BY: BEB	DR.# 7031-001	SCALE: 1" = 30'
SITE PLAN MAP			FIGURE 2

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Swatek Sales		**GP-1**

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Sigma Environmental Services, Inc **Joe Sikora**	10 / 24 / 01 (MM DD YY)	10 / 24 / 01 (MM DD YY)	**Geoprobe**

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.25 inches

Boring Location
State Plane _____ N, _____ E S
NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Walworth	65	**Elkhorn**

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			0	**0.0 to 2.0 Silty clay fine to coarse grained sand, salt and pepper appearance**	SP			3.8						
			1.0											
2			2.0	**2.0 to 4.0 Brown silty clay fine to coarse grained sand (2-3 ft), wet silty clay (3-4 ft)**	CL			6.2						
			3.0											
3			4.0	**4.0 to 6.0 No sample**										
			5.0											
4			6.0	**6.0 to 8.0 Brown very sandy clay, saturated with trace gravel**	CL			5.6						
			7.0											
			8.0	**End of boring**										
			9.0											
			10.0											
			11.0											
			12.0											

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

Signature Gary F. Gedemer

Firm **Sigma Environmental Services, Inc.**
220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Swatek Sales		**GP-2**

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Sigma Environmental Services, Inc **Joe Sikora**	10 / 24 / 01 (MM DD YY)	10 / 24 / 01 (MM DD YY)	**Geoprobe**

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.25 inches

Boring Location
State Plane _____ N, _____ E S
NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Walworth	65	**Elkhorn**

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			0	**0.0 to 2.0 Black to gray silty clay**	CL			2.3						
2			2.0	**2.0 to 4.0 Brown sandy to gravely clay**	CL			3.1						
3			4.0	**4.0 to 6.0 Brown silty clay**	CL			4.4						
4			6.0	**6.0 to 8.0 Brown silty clay with sand and gravel, saturated**	CL			2.2						
			8.0	**End of boring**										
			9.0											
			10.0											
			11.0											
			12.0											

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

Signature Gary E Gerdman

Firm **Sigma Environmental Services, Inc.**
220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name: **Swatek Sales**	License/Permit/Monitoring Number	Boring Number: **GP-3**
Boring Drilled By (Firm name and name of crew chief): **Sigma Environmental Services, Inc** **Joe Sikora**	Date Drilling Started: 10 / 24 / 01 (MM DD YY)	Date Drilling Completed: 10 / 24 / 01 (MM DD YY) — Drilling Method: **Geoprobe**
DNR Facility Well No. ___ ___ ___ — WI Unique Well No. ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ — Common Well Name	Final Static Water Level: _____ Feet MSL	Surface Elevation: _____ Feet MSL — Borehole Diameter: 1.25 inches
Boring Location: State Plane _____ N, _____ E S — NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E — Lat ° ' " — Long ° ' "		Local Grid Location (If applicable): _____ Feet ☐ N ☐ S — _____ Feet ☐ E ☐ W
County: Walworth	DNR County Code: 65	Civil Town/City/ or Village: **Elkhorn**

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			0.0	**0.0 to 2.0 Black to gray silt**	ML			3.0						
			2.0											
2				**2.0 to 4.0 Gray silty clay with trace sand**	CL			3.6						
			4.0											
3				**4.0 to 6.0 No sample**										
			6.0											
4				**6.0 to 8.0 Red sandy clay with trace gravel, saturated**	CL			3.1						
			8.0	**End of boring**										
			9.0											
			10.0											
			11.0											
			12.0											

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

Signature: Gary E Hunter for — Firm: **Sigma Environmental Services, Inc.** 220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Swatek Sales		**GP-4**

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Sigma Environmental Services, Inc **Joe Sikora**	10 / 24 / 01 (MM DD YY)	10 / 24 / 01 (MM DD YY)	**Geoprobe**

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.25 inches

Boring Location
State Plane _____ N, _____ E S
NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Walworth	65	**Elkhorn**

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			1.0	**0.0 to 2.0 Black to gray sandy silt**	ML			2.1						
2			2.0 3.0	**2.0 to 4.0 Sandy silt, brown clay**	CL			5.2						
3			4.0 5.0	**4.0 to 6.0 No sample**										
4			6.0 7.0	**6.0 to 8.0 Red sandy clay with trace gravel**	CL			1.6						
			8.0 9.0 10.0 11.0 12.0	**End of boring**										

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

Signature _____ Firm **Sigma Environmental Services, Inc.**
220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Swatek Sales		GP-5

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Sigma Environmental Services, Inc **Joe Sikora**	10 / 24 / 01 (MM DD YY)	10 / 24 / 01 (MM DD YY)	**Geoprobe**

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	1.25 inches

Boring Location
State Plane _____ N, _____ E S
NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

County: Walworth
DNR County Code: 65
Civil Town/City/ or Village: **Elkhorn**

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			0	**0.0 to 2.0 No sample**										
2			2.0	**2.0 to 4.0 Gray sandy silty clay**	CL			4.4						
3			4.0	**4.0 to 6.0 Gray sandy silt to silty sand**	ML			6.7						
4			6.0	**6.0 to 8.0 Gray silty gravely sand**	SM			4.3						
			8.0	**End of boring**										
			9.0											
			10.0											
			11.0											
			12.0											

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

Signature: Gary A Gutenkauf

Firm: **Sigma Environmental Services, Inc.**
220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☒ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name: **Swatek Sales**	License/Permit/Monitoring Number	Boring Number: **GP-6**	
Boring Drilled By (Firm name and name of crew chief): **Sigma Environmental Services, Inc** **Joe Sikora**	Date Drilling Started: 10 / 24 / 01 (MM DD YY)	Date Drilling Completed: 10 / 24 / 01 (MM DD YY)	Drilling Method: **Geoprobe**
DNR Facility Well No. / WI Unique Well No. / Common Well Name	Final Static Water Level: _____ Feet MSL	Surface Elevation: _____ Feet MSL	Borehole Diameter: 1.25 inches
Boring Location: State Plane _____ N, _____ E S; NW 1/4 of SW 1/4 of Section 19, T 3 N, R 17 E; Lat ° ' "; Long ° ' "		Local Grid Location (If applicable): ☐ N ☐ E _____ Feet ☐ S ☐ W _____ Feet	
County: Walworth	DNR County Code: 65	Civil Town/City/ or Village: **Elkhorn**	

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1			0.0	**0.0 to 2.0 Brown gravely silty sand**	SM			12.0						
			1.0											
2			2.0	**2.0 to 4.0 Gray sandy silty clay**	CL			44.8						
			3.0											
3			4.0	**4.0 to 6.0 Brown sandy silt to silty sand**	ML			98.0						
			5.0											
4			6.0	**6.0 to 8.0 Brown gravely sandy clay, saturated**	CL			34.6						
			7.0											
			8.0	**End of boring**										
			9.0											
			10.0											
			11.0											
			12.0											

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

Signature: Gary E Gentemann

Firm: **Sigma Environmental Services, Inc.**
220 E. Ryan Road, Oak Creek, WI 53154 (414) 768-7144

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APPENDIX N

WALWORTH COUNTY PARK AND RIDE LOT 64-20
[SITE # 13]

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 11/11/2011)

WisDOT Project ID: 3120-10-00
Highway/Street: USH 12
Termini/Limits: STH 20 to USH 12 / STH 67 Split
County: Walworth County

Property Information:
Site Name(s): **Walworth County Park and Ride Lot 64-20 [Site # 13]**
DOT parcel number (if known):
Property Address: US Highway 12
Owner's Name: WisDOT
Owner's Address: 141 NW Barstow Street, Waukesha, WI 53188
Owner's Phone: Frank Furdek, 262-548-8657
Current Land Use: Walworth County Park and Ride Lot 64-20
Past Land Use: Weigh Station (Elkhorn Scale # 23)

Real Estate Requirements:
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to 3 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Safety and Professional Services (DSPS)
- ☒ site has registered tanks ☐ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 1986
  - Tank contents:
    - ☐ Leaded gasoline ☒ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
    - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DSPS administered LUST site; DCOMM ID number:
- ☐ site is a closed DSPS LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a weigh station on photo dated 1963-1995. Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments:

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations
☐ No additional hazardous materials investigation is required.
☐ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☒ Conduct additional investigation
- ☒ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: Michelle Peed
Recommendations accepted by (name and title): on

Signature: _____

A check in a checkbox indicates a positive or “yes” response.

Site #13
Walworth County Park and Ride Lot 64-20
US Highway 12
USH 12: STA 782+00 to 790+75 RT

The site is identified on the UST database. Based on field reconnaissance, the site is currently occupied by Walworth County Park and Ride Lot 64-20. According to the WDSPS Storage Tank Database, one 1,000-gallon unleaded gasoline UST was closed / removed from the site in June 1986. The tank was registered to Elkhorn Scale #23, and the use is listed as government fleet.

Review of the Walworth County GIS System online indicated that the site is owned by WisDOT [Ref. 1].

According to the EDR report, no Sanborn map coverage is available for the site. Himalayan reviewed historical aerial photographs for the former site location, which is no longer listed on the State Patrol Safety and Weight Enforcement Facilities database [Ref. 2]. The historical aerial photographs identified the scale from 1963 to 1995. By 2000, the site had been redeveloped as a park and ride lot. It appears that the minimum distance of the former scale location, relative to the current USH 12 R/W, is approximately 50 feet.

Geology / Hydrogeology

Based on the USDA NRCS Web Soil Survey of Walworth County, soils at the site consist of Kendall silt loam (KlA). Kendall silt loam is described as somewhat poorly drained silt loam, underlain by silty clay loam and stratified sandy loam to silt loam. Depth to groundwater is generally 0 to 24 inches [Ref. 3].

Soil / Groundwater Impacts

Based on Himalayan's record search, it appears that no soil or groundwater analytical data is available for the site.

Construction / Real Estate Requirements

Based on the proposed design plans, the maximum depth of excavation adjacent to the site is anticipated to be approximately 2.5 to 3 feet bgs for roadway improvements.

No R/W (FEE) acquisition is anticipated at the site. The details of any R/W acquisition have yet to be determined.

Recommendations

Considering the distance of the former scale at the site relative to the current USH 12 R/W (~50 feet), the removal of the UST prior to SPS 310 regulations, and the lack of investigation at the site, this site has the potential to impact the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, site-specific figure(s), and / or pertinent excerpts for more detailed information on the site.

References

1. Walworth County GIS System. http://gisapps.co.walworth.wi.us/map/index.html

2. Wisconsin Department of Transportation. State Patrol Safety and Weight Enforcement Facilities List. http://www.dot.wisconsin.gov/about/locate/sp/scales.htm

3. United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, Soil Survey of Walworth County, Wisconsin. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Source: **Base Map Provided By SEH Inc**

Scale: 0 100 200 400

Figure 15.1 SITE SPECIFIC MAP

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID:3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Site #13: Walworth County Park and Ride Lot 64-20, US Highway 12
View south from the west side of USH 12

APPENDIX O

EDR RADIUS MAP REPORT / CLEAN SEARCH RESULTS

USH 12
Elkhorn, WI 53121

Inquiry Number: 3753358.1s
October 11, 2013

EDR DataMap™ Area Study

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

ELKHORN, WI 53121
ELKHORN, WI 53121

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA NonGen / NLR	RCRA - Non Generators
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	Clandestine Drug Labs
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System

RADINFO Radiation Information Database
RAATS RCRA Administrative Action Tracking System
RMP Risk Management Plans
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
US HIST CDL National Clandestine Laboratory Register
PCB TRANSFORMER PCB Transformer Registration Database
FEDERAL FACILITY Federal Facility Site Information listing
US FIN ASSUR Financial Assurance Information
EPA WATCH LIST EPA WATCH LIST
PRP Potentially Responsible Parties
2020 COR ACTION 2020 Corrective Action Program List
COAL ASH DOE Steam-Electric Plant Operation Data
FEMA UST Underground Storage Tank Listing
LEAD SMELTERS Lead Smelter Sites
US AIRS Aerometric Information Retrieval System Facility Subsystem

STATE AND LOCAL RECORDS

SHWS Hazard Ranking List
WI ERP Environmental Repair Program Database
SWF/LF List of Licensed Landfills
WDS Registry of Waste Disposal Sites
NPDES NPDES Permit Listing
SWRCY Recycling Center Listing
LAST Leaking Aboveground Storage Tank Listing
LIENS Environmental Liens Listing
AGSPILLS Agricultural Spill Cases
VCP Voluntary Party Liability Exemption Sites
DRYCLEANERS Five Star Recognition Program Sites
BEAP Brownfields Environmental Assessment Program
BROWNFIELDS Brownfields Site Locations Listing
CDL Clandestine Drug Lab Listing
AIRS Air Permit Program Listing
TIER 2 Tier 2 Facility Listing
LEAD Lead Inspection Data
COAL ASH Coal Ash Disposal Site Listing

TRIBAL RECORDS

INDIAN RESERV Indian Reservations
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land
INDIAN VCP Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners EDR Exclusive Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

EXECUTIVE SUMMARY

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 07/11/2013 has revealed that there is 1 RCRA-CESQG site within the searched area.

Site	Address	Map ID	Page
AMON B R AND SONS INC	***HWY 11 E***	***13***	***62***

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2012 has revealed that there is 1 ERNS site within the searched area.

Site	Address	Map ID	Page
Not reported	SOUTH OF INTERSECTION C	8	11

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, and dated 08/01/2013 has revealed that there is 1 US MINES site within the searched area.

Site	Address	Map ID	Page
MANN BROTHERS SAND AND GR		6	9

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 03/08/2013 has revealed that there are 3

EXECUTIVE SUMMARY

FINDS sites within the searched area.

Site	Address	Map ID	Page
LAUDERDALE LAKES MARINA	N7536 STERLINGWORTH DR	5	9
WANDAWEGA COUNTRY CLUB	N6900 LAFAYETTE LANE	7	10
BUNKER BAR & GRILL	***HWY 12/67 N***	***11***	***36***

STATE AND LOCAL RECORDS

BRRTS: BRRTS is a tracking system of contaminated sites. It holds key information for finding out more about a site or an activity. Activity types included are: Abandoned Container - An abandoned container with potentially hazardous contents recovered from a site. No discharge to the environment occurs. If the container did release a hazardous substance, a spill would be associated with the site. Superfund - is a federal program created by Congress in 1980 to finance cleanup of the nation's worst hazardous waste sites. VPLE - Voluntary Property Liability Exemptions apply to sites in which a property owner conducts an environmental investigation and cleanup of an entire property and then receives limits on their future liability. General Property - Environmental actions which apply to the property as a whole, rather than a specific source of contamination, such as the LUST or environmental repair site. Examples would be off-site letters, municipal liability clarification letters, lease letters, voluntary party liability exemption actions, and general liability clarification letters

A review of the BRRTS list, as provided by EDR, and dated 06/03/2013 has revealed that there is 1 BRRTS site within the searched area.

Site	Address	Map ID	Page
HWY 20 & HWY 67	HWY 20 & HWY 67	1	4

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Natural Resource's LUST Database.

A review of the LUST list, as provided by EDR, and dated 06/03/2013 has revealed that there are 5 LUST sites within the searched area.

Site	Address	Map ID	Page
WI DOT ROLLING THUNDER MOTORCY Facility Status: CLOSED	***N6419 HWY 12***	***10***	***11***
LOCKHART AMOCO SERVICE STATION Facility Status: CLOSED	***STH 12/67 & CTH ES***	***10***	***25***
BUNKER BAR & GRILL Facility Status: CLOSED	***HWY 12/67 N***	***11***	***36***
REYNOLDS PROPERTY Facility Status: CLOSED	USH 12 & POTTERS RD	13	69
SWATEK SALES EXPRESS LANE C-ST Facility Status: OPEN	***N5788 HIGHWAY 12***	***15***	***72***

EXECUTIVE SUMMARY

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Commerces' List: All Underground Storage Tanks Except for Fuel Oil.

A review of the UST list, as provided by EDR, and dated 07/26/2013 has revealed that there are 10 UST sites within the searched area.

Site	Address	Map ID	Page
Not reported	3064 SPRAGUE LN	2	6
Not reported	W5239 LAUDERDALE DR	3	6
Not reported	N7535 STERLINGWORTH CT	4	7
Not reported	N7536 STERLINGWORTH DR	4	8
Not reported	N6419 HWY 12	10	24
Not reported	***1950 N WISCONSIN STREET***	***12***	***57***
Not reported	N6246 HWY 67	12	61
Not reported	N5788 ELKHORN RD	14	70
Not reported	HWY 12	15	75
Not reported	RTE 3	16	76

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Industry, Labor & Human Resources' List: All Aboveground Storage Tanks Except for Fuel Oil.

A review of the AST list, as provided by EDR, and dated 07/26/2013 has revealed that there are 2 AST sites within the searched area.

Site	Address	Map ID	Page
Not reported	HWY 12 & COUNTY A	8	10
Not reported	***1950 N WISCONSIN STREET***	***12***	***57***

MANIFEST: Hazardous waste manifest information.

A review of the MANIFEST list, as provided by EDR, and dated 12/31/2012 has revealed that there is 1 MANIFEST site within the searched area.

Site	Address	Map ID	Page
AMON B R AND SONS INC	***HWY 11 E***	***13***	***62***

SPILLS: The Spills Database comes from the Department of Natural Resources. Site of discharge of a hazrdous substance that may adversely impact or threaten to adversely impact public health,welfare or environment.

A review of the SPILLS list, as provided by EDR, and dated 06/03/2013 has revealed that there is 1 SPILLS site within the searched area.

Site	Address	Map ID	Page
SWATEK SALES EXPRESS LANE C-ST	***N5788 HIGHWAY 12***	***15***	***72***

EXECUTIVE SUMMARY

CRS: A Closed Remediation Site is parcel of land at which the groundwater has become contaminated and which is affected by a particular type of legal restriction. Specifically, certain steps have been taken to stabilize/remediate the contamination, and the state is satisfied that no further efforts are necessary provided that the property is not used for certain purposes.

A review of the CRS list, as provided by EDR, and dated 08/19/2013 has revealed that there are 4 CRS sites within the searched area.

Site	Address	Map ID	Page
MANN BROTHERS	N6147 HWY 12 & 67	1	5
LOCKHARTS SERVICE	STH 12/67 & CTH ES	9	11
WI DOT ROLLING THUNDER MOTORCY	***N6419 HWY 12***	***10***	***11***
BUNKER BAR & GRILL	***HWY 12/67 N***	***11***	***36***

AUL: Date a deed restriction is recorded at the Register of Deeds office for a property. Extent of soil contamination is known but impracticable to remove now or an engineering control is required to be maintained or NR720 industrial stds are applied. Restricts property use or requires future actions.

A review of the AUL list, as provided by EDR, and dated 06/03/2013 has revealed that there are 3 AUL sites within the searched area.

Site	Address	Map ID	Page
WI DOT ROLLING THUNDER MOTORCY	***N6419 HWY 12***	***10***	***11***
LOCKHART AMOCO SERVICE STATION	***STH 12/67 & CTH ES***	***10***	***25***
BUNKER BAR & GRILL	***HWY 12/67 N***	***11***	***36***

WI WRRSER: The WRRSER provides information about location, status, and priority of sites or facilities in the state which are known to cause of have a high potential to cause environmental pollution.

A review of the WI WRRSER list, as provided by EDR, and dated 10/01/1995 has revealed that there is 1 WI WRRSER site within the searched area.

Site	Address	Map ID	Page
REYNOLDS PROPERTY	US HWY 12 & POTTERS RD	13	62

SHWIMS: Information on sites, and facilities operating at sites, that are regulated by the Waste Management program

A review of the SHWIMS list, as provided by EDR, and dated 07/01/2013 has revealed that there are 3 SHWIMS sites within the searched area.

Site	Address	Map ID	Page
LOCKHART AMOCO SERVICE STATION	***STH 12/67 & CTH ES***	***10***	***25***
MANN BROS TRUCKING INC	1950 N WISCONSIN ST	12	60
AMON B R AND SONS INC	***HWY 11 E***	***13***	***62***

EXECUTIVE SUMMARY

EDR PROPRIETARY RECORDS

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there is 1 EDR US Hist Auto Stat site within the searched area.

Site	Address	Map ID	Page
Not reported	1950 N WISCONSIN ST	12	60

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

Database	Total Plotted
FEDERAL RECORDS	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
CERCLIS	0
CERC-NFRAP	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	1
RCRA NonGen / NLR	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	1
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
DEBRIS REGION 9	0
ODI	0
US MINES	1
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	3
RAATS	0
RMP	0
COAL ASH EPA	0
SCRD DRYCLEANERS	0
US HIST CDL	0
PCB TRANSFORMER	0
FEDERAL FACILITY	0
US FIN ASSUR	0
EPA WATCH LIST	0

MAP FINDINGS SUMMARY

Database	Total Plotted
PRP	0
2020 COR ACTION	0
COAL ASH DOE	0
FEMA UST	0
LEAD SMELTERS	0
US AIRS	0

STATE AND LOCAL RECORDS

SHWS	0
BRRTS	1
WI ERP	0
SWF/LF	0
WDS	0
NPDES	0
SWRCY	0
LUST	5
UST	10
LAST	0
LIENS	0
AST	2
MANIFEST	1
SPILLS	1
AGSPILLS	0
CRS	4
AUL	3
VCP	0
DRYCLEANERS	0
WI WRRSER	1
BEAP	0
BROWNFIELDS	0
CDL	0
AIRS	0
TIER 2	0
SHWIMS	3
LEAD	0
COAL ASH	0

TRIBAL RECORDS

INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0

EDR PROPRIETARY RECORDS

EDR MGP	0
EDR US Hist Auto Stat	1
EDR US Hist Cleaners	0

MAP FINDINGS SUMMARY

Database	Total Plotted

NOTES:

Sites may be listed in more than one database

1 **HWY 20 & HWY 67** **BRRTS** **S108949616**
HWY 20 & HWY 67 **N/A**
EAST TROY, WI 53120

BRRTS:

Site Id:	11472900
Region Name:	SOUTHEAST
Facility ID:	Not reported
Owner Name:	Not reported
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Activity Number:	0865527806
Activity Display Number:	08-65-527806
Detail Seq No:	527806
Status:	CLOSED
Activity Type:	ABANDONED CONTAINER
Activity Name:	HWY 20 & HWY 67
Activity Detail Address:	@ INTERSECTION
Activity Comments:	ACTIVITY TYPE CHANGED ON 05-DEC-07. ORIGINAL ACTIVITY NO. WAS 04-65-527806
Start Date:	04/22/2002
End Date:	09/24/2002
Last Action:	09/24/2002
Dept Of Commerce Number:	NONE
Comm Occurrence Id:	NONE
EPA Cerclis Id:	Not reported
Jurisdiction:	DNR RR
Act Code:	310
Risk Code:	N/A
Acres:	UNKNOWN
Acres 100:	N
EPA NPL Site?:	No
Dept Of Commerce Tracking:	No
PECFA Funds Eligible ?:	No
Above Ground Storage Tank?:	No
Drycleaner?:	No
Co-contamination?:	No
Public Land Survey System Desc:	? 1/4 of the ? 1/4 of Sec ?, T?N, R??
Geo Located:	N
DNR GIS Registry View Map Layers:	N
GIS Area Point Flag:	Not reported

Actions:

Action Date:	04/23/2002	Action Code:	99
Action Name:	Miscellaneous		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	ZC HIRED BY DNR		

Action Date:	09/10/2002	Action Code:	201
Action Name:	Immediate Action Response Cost		
Action Desc:	Date that DNR incurred costs in response to an environmental incident where no responsible party was identified or was willing and able to respond.		
Action Comments:	ZC COST WAS $4,451.10		

Action Date:	04/22/2002	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		

HWY 20 & HWY 67 (Continued) **S108949616**

Action Comments: Not reported

Action Date: 09/24/2002 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: CONTAINERS COLLECTED BY WDNR

Incident Date: 04/22/2002
Report Date: 04/22/2002 8:54:00 PM
Spill Source: Not reported
Notify Flag: Not reported
DNR Investigate: Not reported
Spill Cause: Two abandoned containers
Spill Color: Not reported
Spill Odor: Not reported
Physical Description: Not reported
Spill Comments: Not reported
Spill Comments: Not reported

Substances:
Substance Desc: Unknown Substance
Amount Released: 10
Release Code: Unknown

Contacts:
Role Desc: Project Manager
Contact Name: SCOTT FERGUSON
Contact Address: 2300 N DR MLK JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212-0436
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

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1 **MANN BROTHERS** **CRS** **S102323622**
N6147 HWY 12 & 67 **N/A**
SUGAR CREEK, WI

CRS:
DNR Activity Number: 0365109659
Site ID: 2936300
Facility ID: 265044890
Detail Seq Num: 109659
Activity Open: LUST closed
Off Type: Not reported
X Coordinate: 639262.762
Y Coordinate: 250178.118
Start Date: 09/13/1996
End Date: 12/05/2001
Date Last Updated: 05/11/2011
Soil or Groundwater: Groundwater and Soil

DNR Activity Number: 0365001968
Site ID: 2936300
Facility ID: 265044890
Detail Seq Num: 28626

MANN BROTHERS (Continued) **S102323622**

Activity Open:	LUST closed
Off Type:	Not reported
X Coordinate:	639259.457
Y Coordinate:	250160.745
Start Date:	12/10/1991
End Date:	12/05/2001
Date Last Updated:	05/11/2011
Soil or Groundwater:	Groundwater and Soil

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2 **UST** **U003828824**
N/A

3064 SPRAGUE LN
ELKHORN, WI 53121

UST:

Facility ID:	92005
Federally Regulated:	No
Facility County:	WALWORTH
Site Municipality:	City
Municipality Name:	ELKHORN
Fire Dept ID:	Lauderdale-La Grange
Town Cust ID:	322412
Land Owner Type:	Private
Owner Name:	JAMES OBERG
Owner Address:	1538 N WELLS ST
Owner PO Box:	Not reported
Owner City,St,Zip:	CHICAGO, IL 60610
Building Name:	JAMES OBERG
Building Address:	3064 SPRAGUE LN
Building City,St,Zip:	ELKHORN 53121
Object ID:	358425
Tank Wang Object ID:	641200043
Tank Status:	**Closed/Removed**
Tank Status Date:	07/27/1993
Tank Size (gal):	200
Tank Contents:	Fuel Oil
Object Type:	UST
Tank Occupancy:	Residential
Tank Market:	No
Wall Size:	Single

---

3 **UST** **U003457850**
N/A

W5239 LAUDERDALE DR
ELKHORN, WI 53121

UST:

Facility ID:	129316
Federally Regulated:	No
Facility County:	WALWORTH
Site Municipality:	Town
Municipality Name:	LA GRANGE
Fire Dept ID:	Elkhorn Area
Town Cust ID:	870562
Land Owner Type:	Private
Owner Name:	ROBERT GEURKINK
Owner Address:	14 WOODGATE DR

(Continued) **U003457850**

Owner PO Box: Not reported
Owner City,St,Zip: BURR RIDGE, IL 60521
Building Name: ROBERT GEURKINK
Building Address: W5239 LAUDERDALE DR
Building City,St,Zip: ELKHORN 53121

Object ID: 357797
Tank Wang Object ID: 640900257
Tank Status: Closed/Removed
Tank Status Date: 06/26/2001
Tank Size (gal): 550
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Residential
Tank Market: No
Wall Size: Single

---

4 **UST** **U003441274**

N7535 STERLINGWORTH CT **N/A**
ELKHORN, WI 53121

UST:
Facility ID: 102376
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Lauderdale-La Grange
Town Cust ID: 335047
Land Owner Type: Private
Owner Name: LAUDERDALE LAKES MARINA - ATTN VICKI
Owner Address: N7536 STERLINGWORTH COURT
Owner PO Box: Not reported
Owner City,St,Zip: ELKHORN, WI 53121
Building Name: LAUDERDALE LAKES MARINA
Building Address: N7535 STERLINGWORTH CT
Building City,St,Zip: ELKHORN 53121

Object ID: 358422
Tank Wang Object ID: 641200040
Tank Status: Closed/Removed
Tank Status Date: 03/26/1993
Tank Size (gal): 550
Tank Contents: Leaded Gasoline
Object Type: UST
Tank Occupancy: Other
Tank Market: No
Wall Size: Single

4 **UST** **U003441275**

N7536 STERLINGWORTH DR **N/A**
ELKHORN, WI 53121

UST:

Facility ID:	102377
Federally Regulated:	Yes
Facility County:	WALWORTH
Site Municipality:	City
Municipality Name:	ELKHORN
Fire Dept ID:	Lauderdale-La Grange
Town Cust ID:	335048
Land Owner Type:	Private
Owner Name:	STEVE SMITH
Owner Address:	N7536 STERLINGWORTH CT
Owner PO Box:	Not reported
Owner City,St,Zip:	ELKHORN, WI 53121
Building Name:	LAUDERDALE LAKES MARINA LLC
Building Address:	N7536 STERLINGWORTH DR
Building City,St,Zip:	ELKHORN 53121

Object ID:	358420
Tank Wang Object ID:	641200037
Tank Status:	**Closed/Removed**
Tank Status Date:	03/26/1993
Tank Size (gal):	1000
Tank Contents:	Unleaded Gasoline
Object Type:	UST
Tank Occupancy:	Other
Tank Market:	No
Wall Size:	Single

Object ID:	358421
Tank Wang Object ID:	641200038
Tank Status:	**Closed/Removed**
Tank Status Date:	03/26/1993
Tank Size (gal):	550
Tank Contents:	Unleaded Gasoline
Object Type:	UST
Tank Occupancy:	Other
Tank Market:	No
Wall Size:	Single

Object ID:	358424
Tank Wang Object ID:	641200042
Tank Status:	**In Use**
Tank Status Date:	Not reported
Tank Size (gal):	10000
Tank Contents:	Unleaded Gasoline
Object Type:	UST
Tank Occupancy:	Gas/Retail Sales
Tank Market:	Yes
Wall Size:	Single

Object ID:	358427
Tank Wang Object ID:	641200045

(Continued) **U003441275**

Tank Status:	**Closed/Removed**
Tank Status Date:	03/26/1993
Tank Size (gal):	1000
Tank Contents:	Unleaded Gasoline
Object Type:	UST
Tank Occupancy:	Other
Tank Market:	No
Wall Size:	Single

Object ID:	358428
Tank Wang Object ID:	641200046
Tank Status:	**Closed/Removed**
Tank Status Date:	03/26/1993
Tank Size (gal):	1000
Tank Contents:	Unleaded Gasoline
Object Type:	UST
Tank Occupancy:	Other
Tank Market:	No
Wall Size:	Single

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5 **LAUDERDALE LAKES MARINA** **FINDS** **1007685212**
N7536 STERLINGWORTH DR **N/A**
ELKHORN, WI

FINDS:

Registry ID: 110016898883

Environmental Interest/Information System
WI-ESR (Wisconsin - Environmental System Registry) is a database that contains core information about facilities, organizations, and people related to Wisconsin's DNR (Department of Natural Resources).

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6 **MANN BROTHERS SAND AND GR** **US MINES** **1011253936**
N/A

WALWORTH (County), WI

US MINES:

Mine ID:	4701288
SIC code(s):	14410 00000 00000 00000 00000 00000
Entity name:	CRUSHER NO. 2
Company:	MANN BROTHERS SAND AND GR
State FIPS code:	WI
County FIPS code:	WALWORTH
Status:	4
Status date:	19890802
Operation Class:	non-Coal Mining
Number of shops:	0
Number of plants:	0
Latitude:	42 45 03
Longitude:	088 32 58

7 **WANDAWEGA COUNTRY CLUB** **FINDS** **1007680981**
N6900 LAFAYETTE LANE **N/A**
ELKHORN, WI

FINDS:

Registry ID: 110016855820

Environmental Interest/Information System
WI-ESR (Wisconsin - Environmental System Registry) is a database that contains core information about facilities, organizations, and people related to Wisconsin's DNR (Department of Natural Resources).

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8 **AST** **A100355989**
HWY 12 & COUNTY A **N/A**
SUGAR CREEK, WI 53121

AST:

Facility ID:	174834
Facility County:	WALWORTH
Site Municipality:	SUGAR CREEK
Land Owner Type:	Private
Fire Dept ID:	Elkhorn Area
Town Customer ID:	369441
Owner Name:	WISCONSIN DEPARTMENT OF TRANSPORTATION
Owner Address:	4802 SHEBOYGAN AVE PO BOX 7915 RM 751
Owner PO Box:	Not reported
Owner City,St,Zip:	MADISON, WI 53707
Building Name:	ABANDONED TANKS
Building Address:	HWY 12 AND CTY A
Building City,St,Zip:	SUGAR CREEK 53121

Tank Reg Object ID:	475374
Tank Wang Object ID:	Not reported
Tank Status:	Closed/Removed
Tank Status Date:	04/23/1998
Tank Size (gal):	275
Tank Contents:	Unknown
Object Type:	AST
Tank Occupancy:	Not reported
Tank Market:	No
Wall Size:	Single
Federally Regulated:	Not reported

Tank Reg Object ID:	475383
Tank Wang Object ID:	Not reported
Tank Status:	Closed/Removed
Tank Status Date:	04/23/1998
Tank Size (gal):	275
Tank Contents:	Unknown
Object Type:	AST
Tank Occupancy:	Not reported
Tank Market:	No
Wall Size:	Single
Federally Regulated:	Not reported

8 **ERNS** **89121642**
SOUTH OF INTERSECTION COUNTY TRUNK A AND HWY 67 **N/A**
ELKHORN, WI

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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9 **LOCKHARTS SERVICE** **CRS** **S108980318**
STH 12/67 & CTH ES **N/A**
ELKHORN, WI

CRS:

DNR Activity Number:	0365004253
Site ID:	1471900
Facility ID:	265099010
Detail Seq Num:	31671
Activity Open:	LUST closed
Off Type:	Not reported
X Coordinate:	639336.999
Y Coordinate:	251334.000
Start Date:	06/01/1994
End Date:	05/30/2006
Date Last Updated:	03/12/2008
Soil or Groundwater:	Groundwater and Soil

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10 **WI DOT ROLLING THUNDER MOTORCYCLE SHOP** **LUST** **S104944196**
N6419 HWY 12 **CRS** **N/A**
SUGAR CREEK, WI **AUL**

LUST:

Region Name:	SOUTHEAST
Facility ID:	265021680
Status:	**CLOSED**
Start Date:	04/24/1996
End Date:	05/30/2007
Last Action:	07/23/2007
Site Id:	4632200
Detail Seq No:	107090
Activity Type:	LUST
Act Code:	340
Activity Name:	ABELLS CORNERS
Activity Number:	0365107090
Activity Display Number:	03-65-107090
Activity Detail Address:	NONE
Activity Comments:	Not reported
Jurisdiction:	DNR RR
Owner Name:	CINDY J AHERN
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	53121395619
Comm Occurrence Id:	10670
EPA Cerclis Id:	Not reported
Risk Code:	HIGH
Acres:	1.5
Acres 100:	No
EPA NPL Site?:	No

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Dept Of Commerce Tracking:	Yes
PECFA Funds Eligible ?:	Yes
Above Ground Storage Tank?:	No
Drycleaner?:	No
Co-contamination?:	No
Public Land Survey System Desc:	NE 1/4 of the NE 1/4 of Sec 13, T03N, R16E
Geo Located:	Yes
DNR GIS Registry View Map Layers:	Yes

Actions:

Action Date:	03/25/1997	Action Code:	35
Action Name:	Site Investigation Workplan Received (w/out Fee)		
Action Desc:	Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.		
Action Comments:	Not reported		

Action Date:	11/14/1996	Action Code:	99
Action Name:	Miscellaneous		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	NEW RP, ADDRESS, ETC (OLD RP WI DOT)		

Action Date:	11/14/1996	Action Code:	2
Action Name:	RP Letter Sent/2		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	CORRECTED LETTER TO NEW RP		

Action Date:	04/24/1996	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		
Action Comments:	Not reported		

Action Date:	08/12/1996	Action Code:	2
Action Name:	RP Letter Sent		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	Not reported		

Action Date:	12/02/2005	Action Code:	80
Action Name:	Closure Not Approved/3		
Action Desc:	Date closure not approved letter is sent.		
Action Comments:	BB. MISSING ELEMENTS		

Action Date:	06/14/2006	Action Code:	84
Action Name:	Conditional Closure		
Action Desc:	Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.		
Action Comments:	BB. PENDING WELL ABAND & WASTE DISPOSAL		

Action Date:	11/26/2002	Action Code:	90
Action Name:	Start FIFO Review		
Action Desc:	Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).		
Action Comments:	BG. ADDITIONAL INFO FOR CASE CLOSURE		

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Date: 02/04/2003 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: NEED MORE INFORMATION

Action Date: 09/04/2002 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: BG.REC'D LETTER REGARDING CLOSURE

Action Date: 01/09/2002 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BG

Action Date: 10/11/2002 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LETTER REGARDING CLOSURE

Action Date: 07/18/2001 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: BG $ 750.00 CHECK # 1542 RECEIVED

Action Date: 05/30/2007 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Action Date: 05/30/2007 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/18/2007 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D ABANDONMENT FORMS

Action Date: 05/30/2007 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: FINAL CLOSURE LETTER SENT

Action Date: 07/23/2007 Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Comments: AB

Action Date: 05/03/2006 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06

Action Date: 07/06/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WASTE DISPOSAL DOC'S

Action Date: 10/19/2005 Action Code: 179
Action Name: Closure Review Req Received (no fee required)
Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: FEE PREVIOUSLY SUBMITTED

Action Date: 05/03/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF FOR CLOSURE. REC'D GIS PKT. GIVEN TO RB 05/10/06 - COMPLETE 5/11/06 BR

Action Date: 05/03/2006 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 1887 $250.00

Action Date: 05/03/2006 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 1887 $200.00

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 534767
Impact Code: 16
Impact Comments: Within 100 ft of Private Well
Impact Potential: Not reported

Impact Number: 534759
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 534758
Impact Code: 21
Impact Comments: Contamination in Right of Way
Impact Potential: Not reported

Impact Number: 107092
Impact Code: 05

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Impact Comments: Soil Contamination
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: ROLLING THUNDER MOTORCYCLE SHOP
Contact Address: N6419 HY 12
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Consultant
Contact Name: AXIS ENGINEERING LLC
Contact Address: 16225 CUMBERLAND TRAIL
Contact Addr2: Not reported
Contact City,St,Zip: BROOKFIELD, WI 53005
Contact Country: UNITED STATES
Company Address: BROOKFIELD, WI 53005

Role Desc: RP Contact/Agent
Contact Name: CINDY AHERN
Contact Address: N6419 HY 12
Contact Addr2: ROLLING THUNDER MOTORCYCLE SH
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Former Project Manager
Contact Name: BRENDA BOYCE
Contact Address: 2300 DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Project Manager
Contact Name: JAMES KASDORF
Contact Address: 2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

CRS:
DNR Activity Number: 0365107090
Site ID: 4632200
Facility ID: 265021680
Detail Seq Num: 107090
Activity Open: LUST closed
Off Type: RIGHT_OF_WAY
X Coordinate: 639295.999
Y Coordinate: 251325.000
Start Date: 04/24/1996
End Date: 05/30/2007
Date Last Updated: 07/23/2007

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Soil or Groundwater: Groundwater and Soil

AUL:

Facid:	265021680
Site Id:	4632200
Detail Seq No:	107090
Region Name:	SOUTHEAST
Action Code:	50
Action Comments:	AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06
Action Date:	05/03/2006
Activity Type:	LUST
Activity Name:	ABELLS CORNERS
Activity Number:	0365107090
Display Number:	03-65-107090
Act Name:	GIS Registry Site
ACT Description:	Site conditions merit placement on GIS registry.
Activity Comments:	Not reported
Detail Address:	NONE
Start Date:	04/24/1996
End Date:	05/30/2007
Last Action:	07/23/2007
Status Cd:	C
Status:	CLOSED
Jurisdiction:	DNR RR
Risk Code:	HIGH
EPA NPL Site?:	No
Acres:	1.5
Acres 100:	N
Drycleaner:	No
Geo Located:	Y
Owner Name:	CINDY J AHERN
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	53121395619
Comm Occurrence Id:	10670
EPA Cerclis Id:	Not reported
Dept Of Commerce Tracking:	Yes
PECFA Funds Eligible ?:	Yes
Above Ground Storage Tank?:	No
Co-contamination?:	No
Public Land Survey System Desc:	NE 1/4 of the NE 1/4 of Sec 13, T03N, R16E
DNR GIS Registry View Map Layers:	Y
GIS Area Point Flag:	P

Actions:

Action Date:	03/25/1997	Action Code:	35
Action Name:	Site Investigation Workplan Received (w/out Fee)		
Action Desc:	Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.		
Action Comments:	Not reported		

Action Date:	11/14/1996	Action Code:	99
Action Name:	Miscellaneous		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	NEW RP, ADDRESS, ETC (OLD RP WI DOT)		

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Date: 11/14/1996 Action Code: 2
Action Name: RP Letter Sent/2
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: CORRECTED LETTER TO NEW RP

Action Date: 04/24/1996 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 08/12/1996 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: Not reported

Action Date: 12/02/2005 Action Code: 80
Action Name: Closure Not Approved/3
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. MISSING ELEMENTS

Action Date: 06/14/2006 Action Code: 84
Action Name: Conditional Closure
Action Desc: Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.
Action Comments: BB. PENDING WELL ABAND & WASTE DISPOSAL

Action Date: 11/26/2002 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: BG. ADDITIONAL INFO FOR CASE CLOSURE

Action Date: 02/04/2003 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: NEED MORE INFORMATION

Action Date: 09/04/2002 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: BG.REC'D LETTER REGARDING CLOSURE

Action Date: 01/09/2002 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BG

Action Date: 10/11/2002 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LETTER REGARDING CLOSURE

Action Date: 07/18/2001 Action Code: 79
Action Name: Closure Review Request Received with Fee

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: BG $ 750.00 CHECK # 1542 RECEIVED

Action Date: 05/30/2007 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Action Date: 05/30/2007 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/18/2007 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D ABANDONMENT FORMS

Action Date: 05/30/2007 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: FINAL CLOSURE LETTER SENT

Action Date: 07/23/2007 Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: AB

Action Date: 05/03/2006 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06

Action Date: 07/06/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WASTE DISPOSAL DOC'S

Action Date: 10/19/2005 Action Code: 179
Action Name: Closure Review Req Received (no fee required)
Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: FEE PREVIOUSLY SUBMITTED

Action Date: 05/03/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Comments: REC'D ADD'L INF FOR CLOSURE. REC'D GIS PKT. GIVEN TO RB 05/10/06 - COMPLETE 5/11/06 BR

Action Date: 05/03/2006 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 1887 $250.00

Action Date: 05/03/2006 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 1887 $200.00

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 534767
Impact Code: 16
Impact Comments: Within 100 ft of Private Well
Impact Potential: Not reported

Impact Number: 534759
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 534758
Impact Code: 21
Impact Comments: Contamination in Right of Way
Impact Potential: Not reported

Impact Number: 107092
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: ROLLING THUNDER MOTORCYCLE SHOP
Contact Address: N6419 HY 12
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Consultant
Contact Name: AXIS ENGINEERING LLC
Contact Address: 16225 CUMBERLAND TRAIL
Contact Addr2: Not reported
Contact City,St,Zip: BROOKFIELD, WI 53005
Contact Country: UNITED STATES
Company Address: BROOKFIELD, WI 53005

Role Desc: RP Contact/Agent

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Contact Name:	CINDY AHERN
Contact Address:	N6419 HY 12
Contact Addr2:	ROLLING THUNDER MOTORCYCLE SH
Contact City,St,Zip:	ELKHORN, WI 53121
Contact Country:	UNITED STATES
Company Address:	ELKHORN, WI 53121

Role Desc:	Former Project Manager
Contact Name:	BRENDA BOYCE
Contact Address:	2300 DR MARTIN LUTHER KING JR DR
Contact Addr2:	Not reported
Contact City,St,Zip:	MILWAUKEE, WI 53212
Contact Country:	UNITED STATES
Company Address:	MILWAUKEE, WI 53212

Role Desc:	Project Manager
Contact Name:	JAMES KASDORF
Contact Address:	2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2:	Not reported
Contact City,St,Zip:	MILWAUKEE, WI 53212
Contact Country:	UNITED STATES
Company Address:	MILWAUKEE, WI 53212

AUL:

Facid:	265021680
Site Id:	4632200
Detail Seq No:	107090
Region Name:	SOUTHEAST
Action Code:	50
Action Comments:	AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06
Action Date:	05/03/2006
Activity Type:	LUST
Activity Name:	ABELLS CORNERS
Activity Number:	0365107090
Display Number:	03-65-107090
Act Name:	GIS Registry Site
ACT Description:	Site conditions merit placement on GIS registry.
Activity Comments:	Not reported
Detail Address:	NONE
Start Date:	04/24/1996
End Date:	05/30/2007
Last Action:	07/23/2007
Status Cd:	C
Status:	CLOSED
Jurisdiction:	DNR RR
Risk Code:	HIGH
EPA NPL Site?:	No
Acres:	1.5
Acres 100:	N
Drycleaner:	No
Geo Located:	Y
Owner Name:	CINDY J AHERN
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	53121395619
Comm Occurrence Id:	10670

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

EPA Cerclis Id: Not reported
Dept Of Commerce Tracking: Yes
PECFA Funds Eligible ?: Yes
Above Ground Storage Tank?: No
Co-contamination?: No
Public Land Survey System Desc: NE 1/4 of the NE 1/4 of Sec 13, T03N, R16E
DNR GIS Registry View Map Layers: Y
GIS Area Point Flag: P

Actions:

Action Date: 03/25/1997 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: Not reported

Action Date: 11/14/1996 Action Code: 99
Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: NEW RP, ADDRESS, ETC (OLD RP WI DOT)

Action Date: 11/14/1996 Action Code: 2
Action Name: RP Letter Sent/2
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: CORRECTED LETTER TO NEW RP

Action Date: 04/24/1996 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 08/12/1996 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: Not reported

Action Date: 12/02/2005 Action Code: 80
Action Name: Closure Not Approved/3
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. MISSING ELEMENTS

Action Date: 06/14/2006 Action Code: 84
Action Name: Conditional Closure
Action Desc: Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.
Action Comments: BB. PENDING WELL ABAND & WASTE DISPOSAL

Action Date: 11/26/2002 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: BG. ADDITIONAL INFO FOR CASE CLOSURE

Action Date: 02/04/2003 Action Code: 80

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: NEED MORE INFORMATION

Action Date: 09/04/2002 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: BG.REC'D LETTER REGARDING CLOSURE

Action Date: 01/09/2002 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BG

Action Date: 10/11/2002 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LETTER REGARDING CLOSURE

Action Date: 07/18/2001 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: BG $ 750.00 CHECK # 1542 RECEIVED

Action Date: 05/30/2007 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Action Date: 05/30/2007 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/18/2007 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D ABANDONMENT FORMS

Action Date: 05/30/2007 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: FINAL CLOSURE LETTER SENT

Action Date: 07/23/2007 Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: AB

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Action Date: 05/03/2006 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06

Action Date: 07/06/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WASTE DISPOSAL DOC'S

Action Date: 10/19/2005 Action Code: 179
Action Name: Closure Review Req Received (no fee required)
Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: FEE PREVIOUSLY SUBMITTED

Action Date: 05/03/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF FOR CLOSURE. REC'D GIS PKT. GIVEN TO RB 05/10/06 - COMPLETE 5/11/06 BR

Action Date: 05/03/2006 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 1887 $250.00

Action Date: 05/03/2006 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 1887 $200.00

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 534767
Impact Code: 16
Impact Comments: Within 100 ft of Private Well
Impact Potential: Not reported

Impact Number: 534759
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 534758
Impact Code: 21
Impact Comments: Contamination in Right of Way
Impact Potential: Not reported

Impact Number: 107092
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

WI DOT ROLLING THUNDER MOTORCYCLE SHOP (Continued) **S104944196**

Contacts:
Role Desc: Responsible Party
Contact Name: ROLLING THUNDER MOTORCYCLE SHOP
Contact Address: N6419 HY 12
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Consultant
Contact Name: AXIS ENGINEERING LLC
Contact Address: 16225 CUMBERLAND TRAIL
Contact Addr2: Not reported
Contact City,St,Zip: BROOKFIELD, WI 53005
Contact Country: UNITED STATES
Company Address: BROOKFIELD, WI 53005

Role Desc: RP Contact/Agent
Contact Name: CINDY AHERN
Contact Address: N6419 HY 12
Contact Addr2: ROLLING THUNDER MOTORCYCLE SH
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Former Project Manager
Contact Name: BRENDA BOYCE
Contact Address: 2300 DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Project Manager
Contact Name: JAMES KASDORF
Contact Address: 2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

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10 **UST** **U003242968**
N6419 HWY 12 **N/A**
ELKHORN, WI 53121

UST:
Facility ID: 50448
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 275391
Land Owner Type: Private
Owner Name: ABELLS WOODS LLC
Owner Address: Not reported

(Continued) **U003242968**

Owner PO Box: 860
Owner City,St,Zip: ELKHORN, WI 53121
Building Name: ABELLS CORNERS
Building Address: N6419 HWY 12
Building City,St,Zip: ELKHORN 53121

Object ID: 357893
Tank Wang Object ID: 640900354
Tank Status: Closed/Removed
Tank Status Date: 01/01/1960
Tank Size (gal): 1000
Tank Contents: Leaded Gasoline
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

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10 **LOCKHART AMOCO SERVICE STATION** **LUST** **S103228700**
STH 12/67 & CTH ES **AUL** **N/A**
ELKHORN, WI 53121 **SHWIMS**

LUST:
Region Name: SOUTHEAST
Facility ID: 265099010
Status: CLOSED
Start Date: 06/01/1994
End Date: 05/30/2006
Last Action: 04/18/2008
Site Id: 1471900
Detail Seq No: 31671
Activity Type: LUST
Act Code: 340
Activity Name: LOCKHARTS SERVICE
Activity Number: 0365004253
Activity Display Number: 03-65-004253
Activity Detail Address: NONE
Activity Comments: Not reported
Jurisdiction: DNR RR
Owner Name: LOCKHART ENTERPRISES LLC
Owner Addr: N6707 STALLMAN RD
Owner City,St,Zip: ELKHORN, WI 53121
Dept Of Commerce Number: 53121395624
Comm Occurrence Id: 6164
EPA Cerclis Id: Not reported
Risk Code: HIGH
Acres: 2
Acres 100: No
EPA NPL Site?: No
Dept Of Commerce Tracking: Yes
PECFA Funds Eligible ?: Yes
Above Ground Storage Tank?: No
Drycleaner?: No
Co-contamination?: No
Public Land Survey System Desc: NW 1/4 of the NW 1/4 of Sec 18, T03N, R17E
Geo Located: Yes
DNR GIS Registry View Map Layers: Yes

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Actions:

Action Date: 06/01/1994 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 09/15/1995 Action Code: 99
Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: CHANGE SCORE TO 24

Action Date: 06/02/1994 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: RP LETTER

Action Date: 09/08/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: SI WORK PLAN RECV'D

Action Date: 08/31/1998 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 04/28/1998 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: CHANGE OF OWNERSHIP TO LOCKHART ENTERPRISES

Action Date: 08/19/1997 Action Code: 37
Action Name: SI Report Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.
Action Comments: Not reported

Action Date: 11/05/1998 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: LANDSPRED PLAN FILED. UNREVIEWED. NO FEE.

Action Date: 07/12/2005 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF. FOR CLOSURE

Action Date: 12/21/2004 Action Code: 79

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: REC'D CK# 6107 $750.00 REC'D GIS PKT GIVEN TO MW 01/13/05-COMPLETE

Action Date: 12/21/2004 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 6107 $250.00

Action Date: 12/21/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 6107 $200.00

Action Date: 05/30/2006 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Action Date: 05/30/2006 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/30/2006 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: JD - LETTER SENT - FINAL CLOSURE ISSUED

Action Date: 01/18/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 02/23/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF FOR CLOSURE

Action Date: 09/29/2005 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: JD - LETTER SENT - CLOSURE PER WELL ABANDONMENT FORMS

Action Date: 12/21/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05

Action Date: 03/03/2005 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: JD. NATURAL ATTENUATION DEMONSTRATION NEEDED

Action Date: 04/18/2008 4:02:42 PM Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: Not reported

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75101
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 75102
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 240354
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: LOCKHART ENTERPRISES LLC
Contact Address: N6707 STALLMAN RD
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Project Manager
Contact Name: JAMES DELWICHE
Contact Address: 141 NW BARSTOW RD
Contact Addr2: ROOM 180
Contact City,St,Zip: WAUKESHA, WI 53188
Contact Country: UNITED STATES
Company Address: WAUKESHA, WI 53188

AUL:
Facid: 265099010
Site Id: 1471900
Detail Seq No: 31671
Region Name: SOUTHEAST
Action Code: 50
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Date:	12/21/2004
Activity Type:	LUST
Activity Name:	LOCKHARTS SERVICE
Activity Number:	0365004253
Display Number:	03-65-004253
Act Name:	GIS Registry Site
ACT Description:	Site conditions merit placement on GIS registry.
Activity Comments:	Not reported
Detail Address:	NONE
Start Date:	06/01/1994
End Date:	05/30/2006
Last Action:	04/18/2008
Status Cd:	C
Status:	CLOSED
Jurisdiction:	DNR RR
Risk Code:	HIGH
EPA NPL Site?:	No
Acres:	2
Acres 100:	N
Drycleaner:	No
Geo Located:	Y
Owner Name:	LOCKHART ENTERPRISES LLC
Owner Addr:	N6707 STALLMAN RD
Owner City,St,Zip:	ELKHORN, WI 53121
Dept Of Commerce Number:	53121395624
Comm Occurrence Id:	6164
EPA Cerclis Id:	Not reported
Dept Of Commerce Tracking:	Yes
PECFA Funds Eligible ?:	Yes
Above Ground Storage Tank?:	No
Co-contamination?:	No
Public Land Survey System Desc:	NW 1/4 of the NW 1/4 of Sec 18, T03N, R17E
DNR GIS Registry View Map Layers:	Y
GIS Area Point Flag:	P

Actions:

Action Date:	06/01/1994	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		
Action Comments:	Not reported		

Action Date:	09/15/1995	Action Code:	99
Action Name:	Miscellaneous		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	CHANGE SCORE TO 24		

Action Date:	06/02/1994	Action Code:	2
Action Name:	RP Letter Sent		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	RP LETTER		

Action Date:	09/08/1995	Action Code:	35
Action Name:	Site Investigation Workplan Received (w/out Fee)		
Action Desc:	Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.		
Action Comments:	SI WORK PLAN RECV'D		

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Date: 08/31/1998 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 04/28/1998 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: CHANGE OF OWNERSHIP TO LOCKHART ENTERPRISES

Action Date: 08/19/1997 Action Code: 37
Action Name: SI Report Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.
Action Comments: Not reported

Action Date: 11/05/1998 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: LANDSPRED PLAN FILED. UNREVIEWED. NO FEE.

Action Date: 07/12/2005 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF. FOR CLOSURE

Action Date: 12/21/2004 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: REC'D CK# 6107 $750.00 REC'D GIS PKT GIVEN TO MW 01/13/05-COMPLETE

Action Date: 12/21/2004 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 6107 $250.00

Action Date: 12/21/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 6107 $200.00

Action Date: 05/30/2006 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Date: 05/30/2006 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/30/2006 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: JD - LETTER SENT - FINAL CLOSURE ISSUED

Action Date: 01/18/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 02/23/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF FOR CLOSURE

Action Date: 09/29/2005 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: JD - LETTER SENT - CLOSURE PER WELL ABANDONMENT FORMS

Action Date: 12/21/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05

Action Date: 03/03/2005 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: JD. NATURAL ATTENUATION DEMONSTRATION NEEDED

Action Date: 04/18/2008 4:02:42 PM Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: Not reported

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75101
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 75102
Impact Code: 05

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 240354
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: LOCKHART ENTERPRISES LLC
Contact Address: N6707 STALLMAN RD
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Project Manager
Contact Name: JAMES DELWICHE
Contact Address: 141 NW BARSTOW RD
Contact Addr2: ROOM 180
Contact City,St,Zip: WAUKESHA, WI 53188
Contact Country: UNITED STATES
Company Address: WAUKESHA, WI 53188

AUL:
Facid: 265099010
Site Id: 1471900
Detail Seq No: 31671
Region Name: SOUTHEAST
Action Code: 50
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05
Action Date: 12/21/2004
Activity Type: LUST
Activity Name: LOCKHARTS SERVICE
Activity Number: 0365004253
Display Number: 03-65-004253
Act Name: GIS Registry Site
ACT Description: Site conditions merit placement on GIS registry.
Activity Comments: Not reported
Detail Address: NONE
Start Date: 06/01/1994
End Date: 05/30/2006
Last Action: 04/18/2008
Status Cd: C
Status: CLOSED
Jurisdiction: DNR RR
Risk Code: HIGH
EPA NPL Site?: No
Acres: 2
Acres 100: N
Drycleaner: No
Geo Located: Y
Owner Name: LOCKHART ENTERPRISES LLC
Owner Addr: N6707 STALLMAN RD

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Owner City,St,Zip:	ELKHORN, WI 53121
Dept Of Commerce Number:	53121395624
Comm Occurrence Id:	6164
EPA Cerclis Id:	Not reported
Dept Of Commerce Tracking:	Yes
PECFA Funds Eligible ?:	Yes
Above Ground Storage Tank?:	No
Co-contamination?:	No
Public Land Survey System Desc:	NW 1/4 of the NW 1/4 of Sec 18, T03N, R17E
DNR GIS Registry View Map Layers:	Y
GIS Area Point Flag:	P

Actions:

Action Date:	06/01/1994	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		
Action Comments:	Not reported		

Action Date:	09/15/1995	Action Code:	99
Action Name:	Miscellaneous		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	CHANGE SCORE TO 24		

Action Date:	06/02/1994	Action Code:	2
Action Name:	RP Letter Sent		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	RP LETTER		

Action Date:	09/08/1995	Action Code:	35
Action Name:	Site Investigation Workplan Received (w/out Fee)		
Action Desc:	Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.		
Action Comments:	SI WORK PLAN RECV'D		

Action Date:	08/31/1998	Action Code:	39
Action Name:	Remedial Action Options Report received (w/out Fee)		
Action Desc:	Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.		
Action Comments:	Not reported		

Action Date:	04/28/1998	Action Code:	99
Action Name:	Miscellaneous/2		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	CHANGE OF OWNERSHIP TO LOCKHART ENTERPRISES		

Action Date:	08/19/1997	Action Code:	37
Action Name:	SI Report Received (w/out Fee)		
Action Desc:	Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.		
Action Comments:	Not reported		

Action Date:	11/05/1998	Action Code:	99

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: LANDSPRED PLAN FILED. UNREVIEWED. NO FEE.

Action Date: 07/12/2005 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF. FOR CLOSURE

Action Date: 12/21/2004 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: REC'D CK# 6107 $750.00 REC'D GIS PKT GIVEN TO MW 01/13/05-COMPLETE

Action Date: 12/21/2004 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 6107 $250.00

Action Date: 12/21/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 6107 $200.00

Action Date: 05/30/2006 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Action Date: 05/30/2006 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 05/30/2006 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: JD - LETTER SENT - FINAL CLOSURE ISSUED

Action Date: 01/18/2006 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 02/23/2006 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

track submittals in SER. (SER code).
Action Comments: REC'D ADD'L INF FOR CLOSURE

Action Date: 09/29/2005 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: JD - LETTER SENT - CLOSURE PER WELL ABANDONMENT FORMS

Action Date: 12/21/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05

Action Date: 03/03/2005 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: JD. NATURAL ATTENUATION DEMONSTRATION NEEDED

Action Date: 04/18/2008 4:02:42 PM Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: Not reported

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75101
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 75102
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 240354
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: LOCKHART ENTERPRISES LLC
Contact Address: N6707 STALLMAN RD
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Project Manager
Contact Name: JAMES DELWICHE
Contact Address: 141 NW BARSTOW RD
Contact Addr2: ROOM 180

LOCKHART AMOCO SERVICE STATION (Continued) **S103228700**

Contact City,St,Zip: WAUKESHA, WI 53188
Contact Country: UNITED STATES
Company Address: WAUKESHA, WI 53188

SHWIMS:
FID: 265099010
Status: OPERATING
Region: SOUTHEAST

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11 **BUNKER BAR & GRILL** **FINDS** **1007688099**
HWY 12/67 N **LUST** **N/A**
ELKHORN, WI **CRS**
AUL

FINDS:

Registry ID: 110016928244

Environmental Interest/Information System
WI-ESR (Wisconsin - Environmental System Registry) is a database that contains core information about facilities, organizations, and people related to Wisconsin's DNR (Department of Natural Resources).

LUST:
Region Name: SOUTHEAST
Facility ID: 265021460
Status: **CLOSED**
Start Date: 04/27/1995
End Date: 11/10/2004
Last Action: 02/14/2006
Site Id: 4164800
Detail Seq No: 32319
Activity Type: LUST
Act Code: 340
Activity Name: EVERGREEN COUNTRY CLUB
Activity Number: 0365004916
Activity Display Number: 03-65-004916
Activity Detail Address: NONE
Activity Comments: Not reported
Jurisdiction: DNR RR
Owner Name: EVERGREEN COUNTRY CLUB
Owner Addr: SAME
Owner City,St,Zip: 53121
Dept Of Commerce Number: 53121061646
Comm Occurrence Id: 8191
EPA Cerclis Id: Not reported
Risk Code: HIGH
Acres: UNKNOWN
Acres 100: No
EPA NPL Site?: No
Dept Of Commerce Tracking: Yes
PECFA Funds Eligible ?: Yes
Above Ground Storage Tank?: No
Drycleaner?: No
Co-contamination?: No

BUNKER BAR & GRILL (Continued) **1007688099**

Public Land Survey System Desc: NW 1/4 of the SW 1/4 of Sec 18, T03N, R17E
Geo Located: Yes
DNR GIS Registry View Map Layers: Yes

Actions:

Action Date: 04/27/1995 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 04/27/1995 Action Code: 99
Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: INITIAL CONTACT DATE

Action Date: 10/16/1995 Action Code: 43
Action Name: Status Report Received
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: QRTLY/MTHLY STATUS RPT

Action Date: 11/28/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/2
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: SI WORK PLAN RECV'D

Action Date: 01/09/1996 Action Code: 77
Action Name: Free Product Removal Start
Action Desc: Date free product removal is started for the activity.
Action Comments: Not reported

Action Date: 01/18/1996 Action Code: 43
Action Name: Status Report Received/2
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 07/26/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: SI WORK PLAN RECV'D

Action Date: 05/01/1995 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: Not reported

Action Date: 05/31/1995 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LTR NAMING CONSULTANT

BUNKER BAR & GRILL (Continued) **1007688099**

Action Date: 10/17/1996 Action Code: 43
Action Name: Status Report Received/3
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/14/1996 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/3
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: REVISED SI WORKPLAN

Action Date: 03/14/1996 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: FREE PROD RECOVERY FROM 3 WELLS INITIATED

Action Date: 01/24/1997 Action Code: 43
Action Name: Status Report Received/4
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 37
Action Name: SI Report Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 10/03/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)/2
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 09/30/1997 Action Code: 43
Action Name: Status Report Received/5
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 01/24/2000 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/3
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: PROGRESS REPORT #2

Action Date: 04/05/1999 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: SOIL VAPOR EXTRACTION REPORT

Action Date: 05/25/1999 Action Code: 43
Action Name: Status Report Received/6
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 04/05/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/2
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 03/08/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/18/1999 Action Code: 41
Action Name: Remedial Action Report Received
Action Desc: [OBSOLETE] Date the DNR receives the Remedial Action Report detailing remedial action efforts for an activity.
Action Comments: Not reported

Action Date: 06/09/2003 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. EXTENT NOT DEFINED, ADDT'L MONITORING NEEDED

Action Date: 09/20/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/6
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 10/12/1998 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: VARIOUS CORRES RECD

Action Date: 11/15/2002 Action Code: 99
Action Name: Miscellaneous/7
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: JD.ANALYTICAL RESULTS 11/2001

Action Date: 12/10/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/7
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: GW ANALYTICAL RESULTS 10/2001

Action Date: 09/05/2001 Action Code: 99
Action Name: Miscellaneous/6
Action Desc: Miscellaneous action. Please see action comments.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: GROUNDWATER ANALYTICAL RESULTS 07/01

Action Date: 05/23/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/5
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/07/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/4
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: mw PROGRESS REPORT

Action Date: 11/10/2004 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: BB. SENT FINAL CLOSURE LETTER

Action Date: 11/09/2004 Action Code: 90
Action Name: Start FIFO Review/3
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS (13)

Action Date: 10/21/2004 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 08/27/2004 Action Code: 84
Action Name: Conditional Closure
Action Desc: Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.
Action Comments: BB. PENDING WELL ABANDONMENT & WASTE DISP.

Action Date: 08/27/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: SOIL & GW

Action Date: 06/17/2004 Action Code: 179
Action Name: Closure Review Req Received (no fee required)
Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: Not reported

Action Date: 06/17/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 412038871 $200.00

Action Date: 09/18/2003 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. RESPONSE LETTER SENT

BUNKER BAR & GRILL (Continued) **1007688099**

Action Date:	09/08/2003	Action Code:	43
Action Name:	Status Report Received/8		
Action Desc:	Date updates on progress are received. Can be 30, 60, 90 days or other interval.		
Action Comments:	CLOSURE DENIAL APPEAL		
Action Date:	06/05/2002	Action Code:	99
Action Name:	Miscellaneous/8		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	REC'D GW ANALYTICAL RESULTS - APRIL 2002		
Action Date:	06/05/2002	Action Code:	99
Action Name:	Miscellaneous/8		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	REC'D REVISED GW ANALYTICAL RESULTS - APRIL 2002		
Action Date:	11/06/1997	Action Code:	99
Action Name:	Miscellaneous/4		
Action Desc:	Miscellaneous action. Please see action comments.		
Action Comments:	REC'D TEMP. ACCESS AGREEMENT		
Action Date:	04/10/2003	Action Code:	90
Action Name:	Start FIFO Review		
Action Desc:	Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).		
Action Comments:	GIS PKT COMPLETE MW		
Action Date:	03/25/2003	Action Code:	700
Action Name:	Date Groundwater Registry Fee Received		
Action Desc:	Date Fee received for Closed Remediation Groundwater Site Registry.		
Action Comments:	REC'D CK# 1147 $250.00		
Action Date:	03/25/2003	Action Code:	79
Action Name:	Closure Review Request Received with Fee		
Action Desc:	Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.		
Action Comments:	JD.REC'D CK# 1147 $750.00 - REC'D GIS PKT GIVEN TO MW 3/27/03		
Action Date:	01/17/2003	Action Code:	43
Action Name:	Status Report Received/7		
Action Desc:	Date updates on progress are received. Can be 30, 60, 90 days or other interval.		
Action Comments:	JD.REC'D PROGRESS REPT #5		
Action Date:	11/10/2004	Action Code:	236
Action Name:	Continuing Obligation - Residual GW Contamination		
Action Desc:	Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard Not reported		
Action Comments:	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***		
Action Date:	02/14/2006	Action Code:	100
Action Name:	GIS Registry QAQC Completed		
Action Desc:	Date and status that this site had QAQC completed for GIS registry.		
Action Comments:	AB		

BUNKER BAR & GRILL (Continued) **1007688099**

Action Date: 11/10/2004 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75807
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 97213
Impact Code: 02
Impact Comments: Contaminated Private Well
Impact Potential: Not reported

Impact Number: 97214
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 97215
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: EVERGREEN COUNTRY CLUB
Contact Address: HWY 12/67 N
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: Consultant
Contact Name: MONTGOMERY WATSON
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: MADISON, WI 53705-0385
Contact Country: UNITED STATES
Company Address: MADISON, WI 53705

Role Desc: RP Contact/Agent
Contact Name: BILL ROGERS
Contact Address: Not reported
Contact Addr2: EVERGREEN COUNTRY CLUB
Contact City,St,Zip: Not reported
Contact Country: Not reported

BUNKER BAR & GRILL (Continued) **1007688099**

Company Address: ,

Role Desc: Former Project Manager
Contact Name: BRENDA BOYCE
Contact Address: 2300 DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Project Manager
Contact Name: JAMES KASDORF
Contact Address: 2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

CRS:
DNR Activity Number: 0365004916
Site ID: 4164800
Facility ID: 265021460
Detail Seq Num: 32319
Activity Open: LUST closed
Off Type: DEEDED_AND_RIGHT_OF_WAY
X Coordinate: 639370.999
Y Coordinate: 250757.000
Start Date: 04/27/1995
End Date: 11/10/2004
Date Last Updated: 11/09/2009
Soil or Groundwater: Groundwater and Soil

AUL:
Facid: 265021460
Site Id: 4164800
Detail Seq No: 32319
Region Name: SOUTHEAST
Action Code: 50
Action Comments: SOIL & GW
Action Date: 08/27/2004
Activity Type: LUST
Activity Name: EVERGREEN COUNTRY CLUB
Activity Number: 0365004916
Display Number: 03-65-004916
Act Name: GIS Registry Site
ACT Description: Site conditions merit placement on GIS registry.
Activity Comments: Not reported
Detail Address: NONE
Start Date: 04/27/1995
End Date: 11/10/2004
Last Action: 02/14/2006
Status Cd: C
Status: CLOSED
Jurisdiction: DNR RR
Risk Code: HIGH
EPA NPL Site?: No

BUNKER BAR & GRILL (Continued) **1007688099**

Acres: UNKNOWN
Acres 100: N
Drycleaner: No
Geo Located: Y
Owner Name: EVERGREEN COUNTRY CLUB
Owner Addr: SAME
Owner City,St,Zip: 53121
Dept Of Commerce Number: 53121061646
Comm Occurrence Id: 8191
EPA Cerclis Id: Not reported
Dept Of Commerce Tracking: Yes
PECFA Funds Eligible ?: Yes
Above Ground Storage Tank?: No
Co-contamination?: No
Public Land Survey System Desc: NW 1/4 of the SW 1/4 of Sec 18, T03N, R17E
DNR GIS Registry View Map Layers: Y
GIS Area Point Flag: P

Actions:

Action Date: 04/27/1995 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 04/27/1995 Action Code: 99
Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: INITIAL CONTACT DATE

Action Date: 10/16/1995 Action Code: 43
Action Name: Status Report Received
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: QRTLY/MTHLY STATUS RPT

Action Date: 11/28/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/2
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: SI WORK PLAN RECV'D

Action Date: 01/09/1996 Action Code: 77
Action Name: Free Product Removal Start
Action Desc: Date free product removal is started for the activity.
Action Comments: Not reported

Action Date: 01/18/1996 Action Code: 43
Action Name: Status Report Received/2
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 07/26/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: SI WORK PLAN RECV'D

Action Date: 05/01/1995 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: Not reported

Action Date: 05/31/1995 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LTR NAMING CONSULTANT

Action Date: 10/17/1996 Action Code: 43
Action Name: Status Report Received/3
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/14/1996 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/3
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: REVISED SI WORKPLAN

Action Date: 03/14/1996 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: FREE PROD RECOVERY FROM 3 WELLS INITIATED

Action Date: 01/24/1997 Action Code: 43
Action Name: Status Report Received/4
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 37
Action Name: SI Report Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 10/03/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)/2
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the

BUNKER BAR & GRILL (Continued) **1007688099**

discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 09/30/1997 Action Code: 43
Action Name: Status Report Received/5
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 01/24/2000 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/3
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: PROGRESS REPORT #2

Action Date: 04/05/1999 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: SOIL VAPOR EXTRACTION REPORT

Action Date: 05/25/1999 Action Code: 43
Action Name: Status Report Received/6
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 04/05/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/2
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 03/08/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/18/1999 Action Code: 41
Action Name: Remedial Action Report Received
Action Desc: [OBSOLETE] Date the DNR receives the Remedial Action Report detailing remedial action efforts for an activity.
Action Comments: Not reported

Action Date: 06/09/2003 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. EXTENT NOT DEFINED, ADDT'L MONITORING NEEDED

Action Date: 09/20/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/6
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 10/12/1998 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: VARIOUS CORRES RECD

BUNKER BAR & GRILL (Continued) **1007688099**

Action Date: 11/15/2002 Action Code: 99
Action Name: Miscellaneous/7
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: JD.ANALYTICAL RESULTS 11/2001

Action Date: 12/10/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/7
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: GW ANALYTICAL RESULTS 10/2001

Action Date: 09/05/2001 Action Code: 99
Action Name: Miscellaneous/6
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: GROUNDWATER ANALYTICAL RESULTS 07/01

Action Date: 05/23/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/5
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/07/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/4
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: mw PROGRESS REPORT

Action Date: 11/10/2004 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: BB. SENT FINAL CLOSURE LETTER

Action Date: 11/09/2004 Action Code: 90
Action Name: Start FIFO Review/3
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS (13)

Action Date: 10/21/2004 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 08/27/2004 Action Code: 84
Action Name: Conditional Closure
Action Desc: Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.
Action Comments: BB. PENDING WELL ABANDONMENT & WASTE DISP.

Action Date: 08/27/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: SOIL & GW

Action Date: 06/17/2004 Action Code: 179
Action Name: Closure Review Req Received (no fee required)

BUNKER BAR & GRILL (Continued) **1007688099**

Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: Not reported

Action Date: 06/17/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 412038871 $200.00

Action Date: 09/18/2003 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. RESPONSE LETTER SENT

Action Date: 09/08/2003 Action Code: 43
Action Name: Status Report Received/8
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: CLOSURE DENIAL APPEAL

Action Date: 06/05/2002 Action Code: 99
Action Name: Miscellaneous/8
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D GW ANALYTICAL RESULTS - APRIL 2002

Action Date: 06/05/2002 Action Code: 99
Action Name: Miscellaneous/8
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D REVISED GW ANALYTICAL RESULTS - APRIL 2002

Action Date: 11/06/1997 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D TEMP. ACCESS AGREEMENT

Action Date: 04/10/2003 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: GIS PKT COMPLETE MW

Action Date: 03/25/2003 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 1147 $250.00

Action Date: 03/25/2003 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: JD.REC'D CK# 1147 $750.00 - REC'D GIS PKT GIVEN TO MW 3/27/03

Action Date: 01/17/2003 Action Code: 43
Action Name: Status Report Received/7
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: JD.REC'D PROGRESS REPT #5

Action Date: 11/10/2004 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard
Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 02/14/2006 Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: AB

Action Date: 11/10/2004 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75807
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 97213
Impact Code: 02
Impact Comments: Contaminated Private Well
Impact Potential: Not reported

Impact Number: 97214
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 97215
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: EVERGREEN COUNTRY CLUB
Contact Address: HWY 12/67 N
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

BUNKER BAR & GRILL (Continued) **1007688099**

Role Desc: Consultant
Contact Name: MONTGOMERY WATSON
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: MADISON, WI 53705-0385
Contact Country: UNITED STATES
Company Address: MADISON, WI 53705

Role Desc: RP Contact/Agent
Contact Name: BILL ROGERS
Contact Address: Not reported
Contact Addr2: EVERGREEN COUNTRY CLUB
Contact City,St,Zip: Not reported
Contact Country: Not reported
Company Address: ,

Role Desc: Former Project Manager
Contact Name: BRENDA BOYCE
Contact Address: 2300 DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Project Manager
Contact Name: JAMES KASDORF
Contact Address: 2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

AUL:
Facid: 265021460
Site Id: 4164800
Detail Seq No: 32319
Region Name: SOUTHEAST
Action Code: 50
Action Comments: SOIL & GW
Action Date: 08/27/2004
Activity Type: LUST
Activity Name: EVERGREEN COUNTRY CLUB
Activity Number: 0365004916
Display Number: 03-65-004916
Act Name: GIS Registry Site
ACT Description: Site conditions merit placement on GIS registry.
Activity Comments: Not reported
Detail Address: NONE
Start Date: 04/27/1995
End Date: 11/10/2004
Last Action: 02/14/2006
Status Cd: C
Status: CLOSED
Jurisdiction: DNR RR
Risk Code: HIGH
EPA NPL Site?: No

BUNKER BAR & GRILL (Continued) **1007688099**

Acres: UNKNOWN
Acres 100: N
Drycleaner: No
Geo Located: Y
Owner Name: EVERGREEN COUNTRY CLUB
Owner Addr: SAME
Owner City,St,Zip: 53121
Dept Of Commerce Number: 53121061646
Comm Occurrence Id: 8191
EPA Cerclis Id: Not reported
Dept Of Commerce Tracking: Yes
PECFA Funds Eligible ?: Yes
Above Ground Storage Tank?: No
Co-contamination?: No
Public Land Survey System Desc: NW 1/4 of the SW 1/4 of Sec 18, T03N, R17E
DNR GIS Registry View Map Layers: Y
GIS Area Point Flag: P

Actions:

Action Date: 04/27/1995 Action Code: 1
Action Name: Notification
Action Desc: Date the DNR is notified of the discovery of the contamination.
Action Comments: Not reported

Action Date: 04/27/1995 Action Code: 99
Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: INITIAL CONTACT DATE

Action Date: 10/16/1995 Action Code: 43
Action Name: Status Report Received
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: QRTLY/MTHLY STATUS RPT

Action Date: 11/28/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/2
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: SI WORK PLAN RECV'D

Action Date: 01/09/1996 Action Code: 77
Action Name: Free Product Removal Start
Action Desc: Date free product removal is started for the activity.
Action Comments: Not reported

Action Date: 01/18/1996 Action Code: 43
Action Name: Status Report Received/2
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 07/26/1995 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: SI WORK PLAN RECV'D

Action Date: 05/01/1995 Action Code: 2
Action Name: RP Letter Sent
Action Desc: Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.
Action Comments: Not reported

Action Date: 05/31/1995 Action Code: 99
Action Name: Miscellaneous/2
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D LTR NAMING CONSULTANT

Action Date: 10/17/1996 Action Code: 43
Action Name: Status Report Received/3
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/14/1996 Action Code: 35
Action Name: Site Investigation Workplan Received (w/out Fee)/3
Action Desc: Date the DNR receives the Site Investigation Workplan. States the objectives of the investigation to determine the degree and extent of contamination.
Action Comments: REVISED SI WORKPLAN

Action Date: 03/14/1996 Action Code: 99
Action Name: Miscellaneous/3
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: FREE PROD RECOVERY FROM 3 WELLS INITIATED

Action Date: 01/24/1997 Action Code: 43
Action Name: Status Report Received/4
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 37
Action Name: SI Report Received (w/out Fee)
Action Desc: Date the DNR receives the Site Investigation Report. Provides information regarding activities performed to determine degree & extent of contamination and forming a basis for choosing the appropriate remedial action.
Action Comments: Not reported

Action Date: 06/20/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 10/03/1997 Action Code: 39
Action Name: Remedial Action Options Report received (w/out Fee)/2
Action Desc: Date DNR receives the RAOR (a workplan). It identifies and evaluates options to prevent, minimize, stabilize or eliminate threats from the

BUNKER BAR & GRILL (Continued) **1007688099**

discharged hazardous substances and to restore the environment to the extent practicable.
Action Comments: Not reported

Action Date: 09/30/1997 Action Code: 43
Action Name: Status Report Received/5
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 01/24/2000 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/3
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: PROGRESS REPORT #2

Action Date: 04/05/1999 Action Code: 99
Action Name: Miscellaneous/5
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: SOIL VAPOR EXTRACTION REPORT

Action Date: 05/25/1999 Action Code: 43
Action Name: Status Report Received/6
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: Not reported

Action Date: 04/05/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/2
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 03/08/1999 Action Code: 92
Action Name: O&M Report Received (w/out Fee)
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/18/1999 Action Code: 41
Action Name: Remedial Action Report Received
Action Desc: [OBSOLETE] Date the DNR receives the Remedial Action Report detailing remedial action efforts for an activity.
Action Comments: Not reported

Action Date: 06/09/2003 Action Code: 80
Action Name: Closure Not Approved
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. EXTENT NOT DEFINED, ADDT'L MONITORING NEEDED

Action Date: 09/20/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/6
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 10/12/1998 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: VARIOUS CORRES RECD

BUNKER BAR & GRILL (Continued) **1007688099**

Action Date: 11/15/2002 Action Code: 99
Action Name: Miscellaneous/7
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: JD.ANALYTICAL RESULTS 11/2001

Action Date: 12/10/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/7
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: GW ANALYTICAL RESULTS 10/2001

Action Date: 09/05/2001 Action Code: 99
Action Name: Miscellaneous/6
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: GROUNDWATER ANALYTICAL RESULTS 07/01

Action Date: 05/23/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/5
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: Not reported

Action Date: 02/07/2001 Action Code: 92
Action Name: O&M Report Received (w/out Fee)/4
Action Desc: Date the Operation & Maintenance Report is received. Form 4400-194.
Action Comments: mw PROGRESS REPORT

Action Date: 11/10/2004 Action Code: 11
Action Name: Activity Closed
Action Desc: Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.
Action Comments: BB. SENT FINAL CLOSURE LETTER

Action Date: 11/09/2004 Action Code: 90
Action Name: Start FIFO Review/3
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS (13)

Action Date: 10/21/2004 Action Code: 90
Action Name: Start FIFO Review/2
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: REC'D WELL ABANDONMENT FORMS

Action Date: 08/27/2004 Action Code: 84
Action Name: Conditional Closure
Action Desc: Date conditional closure approval letter is sent - the site will not be formally closed until receipt of documentation of abandonment of wells, disposal of soil, etc.
Action Comments: BB. PENDING WELL ABANDONMENT & WASTE DISP.

Action Date: 08/27/2004 Action Code: 50
Action Name: GIS Registry Site
Action Desc: Site conditions merit placement on GIS registry.
Action Comments: SOIL & GW

Action Date: 06/17/2004 Action Code: 179
Action Name: Closure Review Req Received (no fee required)

BUNKER BAR & GRILL (Continued) **1007688099**

Action Desc: Date DNR received a Closure Review Request for a site where the fee has previously been paid or no fee is required (i.e. VPLE).
Action Comments: Not reported

Action Date: 06/17/2004 Action Code: 710
Action Name: Date Soil Registry Fee Paid
Action Desc: Date Fee received for Closed Remediation Soil Site Registry.
Action Comments: REC'D CK# 412038871 $200.00

Action Date: 09/18/2003 Action Code: 80
Action Name: Closure Not Approved/2
Action Desc: Date closure not approved letter is sent.
Action Comments: BB. RESPONSE LETTER SENT

Action Date: 09/08/2003 Action Code: 43
Action Name: Status Report Received/8
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.
Action Comments: CLOSURE DENIAL APPEAL

Action Date: 06/05/2002 Action Code: 99
Action Name: Miscellaneous/8
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D GW ANALYTICAL RESULTS - APRIL 2002

Action Date: 06/05/2002 Action Code: 99
Action Name: Miscellaneous/8
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D REVISED GW ANALYTICAL RESULTS - APRIL 2002

Action Date: 11/06/1997 Action Code: 99
Action Name: Miscellaneous/4
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: REC'D TEMP. ACCESS AGREEMENT

Action Date: 04/10/2003 Action Code: 90
Action Name: Start FIFO Review
Action Desc: Southeast Region FIFO (First in, First out) review start. Used to track submittals in SER. (SER code).
Action Comments: GIS PKT COMPLETE MW

Action Date: 03/25/2003 Action Code: 700
Action Name: Date Groundwater Registry Fee Received
Action Desc: Date Fee received for Closed Remediation Groundwater Site Registry.
Action Comments: REC'D CK# 1147 $250.00

Action Date: 03/25/2003 Action Code: 79
Action Name: Closure Review Request Received with Fee
Action Desc: Date DNR Project Manager determined that the Case Closure - GIS Registry (Form 4400-202) submittal was administratively complete and a review can begin. Fees have been paid for the review.
Action Comments: JD.REC'D CK# 1147 $750.00 - REC'D GIS PKT GIVEN TO MW 3/27/03

Action Date: 01/17/2003 Action Code: 43
Action Name: Status Report Received/7
Action Desc: Date updates on progress are received. Can be 30, 60, 90 days or other interval.

BUNKER BAR & GRILL (Continued) **1007688099**

Action Comments: JD.REC'D PROGRESS REPT #5

Action Date: 11/10/2004 Action Code: 236
Action Name: Continuing Obligation - Residual GW Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual groundwater contamination in excess of ch. NR 140 groundwater enforcement standard
Not reported
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***

Action Date: 02/14/2006 Action Code: 100
Action Name: GIS Registry QAQC Completed
Action Desc: Date and status that this site had QAQC completed for GIS registry.
Action Comments: AB

Action Date: 11/10/2004 Action Code: 232
Action Name: Continuing Obligation - Residual Soil Contamination
Action Desc: Closure or ongoing cleanup was approved with the requirement to record this site on the GIS Registry due to residual soil contamination at or above the Residual Contamination Level (RCL) or Site Specific Residual Contaminant Level (SSRCL).
Action Comments: *** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 75807
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Impact Number: 97213
Impact Code: 02
Impact Comments: Contaminated Private Well
Impact Potential: Not reported

Impact Number: 97214
Impact Code: 04
Impact Comments: Groundwater Contamination
Impact Potential: Not reported

Impact Number: 97215
Impact Code: 09
Impact Comments: Free Product
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: EVERGREEN COUNTRY CLUB
Contact Address: HWY 12/67 N
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

BUNKER BAR & GRILL (Continued) **1007688099**

Role Desc: Consultant
Contact Name: MONTGOMERY WATSON
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: MADISON, WI 53705-0385
Contact Country: UNITED STATES
Company Address: MADISON, WI 53705

Role Desc: RP Contact/Agent
Contact Name: BILL ROGERS
Contact Address: Not reported
Contact Addr2: EVERGREEN COUNTRY CLUB
Contact City,St,Zip: Not reported
Contact Country: Not reported
Company Address: ,

Role Desc: Former Project Manager
Contact Name: BRENDA BOYCE
Contact Address: 2300 DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Project Manager
Contact Name: JAMES KASDORF
Contact Address: 2300 N DR MARTIN LUTHER KING JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

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12 **UST U003956564**
AST N/A

1950 N WISCONSIN STREET
ELKHORN, WI 53121

UST:
Facility ID: 677245
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 340211
Land Owner Type: Private
Owner Name: MANN BROTHERS INC
Owner Address: N6147 HWY 12 & 67
Owner PO Box: 48
Owner City,St,Zip: ELKHORN, WI 53121
Building Name: MANN BROS INC
Building Address: 1950 N WISCONSIN STREET
Building City,St,Zip: ELKHORN 53121

Object ID: 357580
Tank Wang Object ID: 640900031
Tank Status: Closed/Removed
Tank Status Date: 12/09/1991

(Continued) **U003956564**

Tank Size (gal): 12000
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Bulk Storage
Tank Market: Yes
Wall Size: Single

Object ID: 357581
Tank Wang Object ID: 640900032
Tank Status: Closed/Removed
Tank Status Date: 12/09/1991
Tank Size (gal): 10000
Tank Contents: Leaded Gasoline
Object Type: UST
Tank Occupancy: Bulk Storage
Tank Market: Yes
Wall Size: Single

Object ID: 357582
Tank Wang Object ID: 640900033
Tank Status: Closed/Removed
Tank Status Date: 12/09/1991
Tank Size (gal): 10000
Tank Contents: Diesel
Object Type: UST
Tank Occupancy: Bulk Storage
Tank Market: Yes
Wall Size: Single

Object ID: 357878
Tank Wang Object ID: 640900339
Tank Status: Closed/Removed
Tank Status Date: 09/06/1996
Tank Size (gal): 1000
Tank Contents: Waste/Used Motor Oil
Object Type: UST
Tank Occupancy: Industrial
Tank Market: No
Wall Size: Single

AST:
Facility ID: 677245
Facility County: WALWORTH
Site Municipality: ELKHORN
Land Owner Type: Private
Fire Dept ID: Elkhorn Area
Town Customer ID: 521200
Owner Name: WALWORTH COUNTY METROPOLITAN SEWERAGE DIST - THOMAS JOHNSON
Owner Address: 975 W WALWORTH AVE
Owner PO Box: 157A
Owner City,St,Zip: DELAVAN, WI 53115
Building Name: ELKHORN #2 LIFT STATION
Building Address: 1950 N WISCONSIN ST
Building City,St,Zip: ELKHORN 53121

(Continued) **U003956564**

Tank Reg Object ID: 886955
Tank Wang Object ID: Not reported
Tank Status: In Use
Tank Status Date: Not reported
Tank Size (gal): 280
Tank Contents: Diesel
Object Type: AST
Tank Occupancy: Back -Up Generator
Tank Market: No
Wall Size: Double
Federally Regulated: Not reported

Tank Reg Object ID: 1132094
Tank Wang Object ID: Not reported
Tank Status: Temporarily Out of Service
Tank Status Date: 03/26/2013
Tank Size (gal): 10000
Tank Contents: Unleaded Gasoline
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Double
Federally Regulated: Not reported

Tank Reg Object ID: 1132101
Tank Wang Object ID: Not reported
Tank Status: Temporarily Out of Service
Tank Status Date: 03/26/2013
Tank Size (gal): 10000
Tank Contents: Diesel
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Double
Federally Regulated: Not reported

Tank Reg Object ID: 212930
Tank Wang Object ID: 640900025
Tank Status: Closed/Removed
Tank Status Date: 03/15/2002
Tank Size (gal): 650
Tank Contents: Waste/Used Motor Oil
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Single
Federally Regulated: Not reported

Tank Reg Object ID: 9099
Tank Wang Object ID: Not reported
Tank Status: Closed/Removed
Tank Status Date: 04/25/2013
Tank Size (gal): 30000

(Continued) **U003956564**

Tank Contents: Diesel
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Single
Federally Regulated: Not reported

Tank Reg Object ID: 965190
Tank Wang Object ID: Not reported
Tank Status: In Use
Tank Status Date: Not reported
Tank Size (gal): 650
Tank Contents: Waste/Used Motor Oil
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Single
Federally Regulated: Not reported

Tank Reg Object ID: 212929
Tank Wang Object ID: 640900024
Tank Status: In Use
Tank Status Date: Not reported
Tank Size (gal): 650
Tank Contents: Waste/Used Motor Oil
Object Type: AST
Tank Occupancy: Mercantile/Commercial
Tank Market: No
Wall Size: Single
Federally Regulated: Not reported

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12 **MANN BROS TRUCKING INC** **SHWIMS** **S108154401**
1950 N WISCONSIN ST **N/A**
ELKHORN, WI 53121

SHWIMS:
FID: 265119140
Status: OPERATING
Region: SOUTHEAST

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12 **EDR US Hist Auto Stat** **1015295727**
1950 N WISCONSIN ST **N/A**
ELKHORN, WI 53121

EDR Historical Auto Stations:
Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2005
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2007
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR

(Continued) **1015295727**

Year: 2008
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2009
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2010
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2011
Address: 1950 N WISCONSIN ST

Name: ACCURATE AUTO & TRUCK REPAIR
Year: 2012
Address: 1950 N WISCONSIN ST

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12 **UST** **U003490926**

N6246 HWY 67 **N/A**
ELKHORN, WI 53121

UST:
Facility ID: 77097
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 306022
Land Owner Type: Private
Owner Name: EVERGREEN MANAGEMENT INC
Owner Address: N6246 STATE HWY 67
Owner PO Box: Not reported
Owner City,St,Zip: ELKHORN, WI 53121
Building Name: EVERGREEN COUNTRY CLUB
Building Address: N6246 HWY 67
Building City,St,Zip: ELKHORN 53121

Object ID: 357866
Tank Wang Object ID: 640900327
Tank Status: **Closed/Removed**
Tank Status Date: 11/30/1994
Tank Size (gal): 950
Tank Contents: Leaded Gasoline
Object Type: UST
Tank Occupancy: Industrial
Tank Market: No
Wall Size: Single

13 **REYNOLDS PROPERTY** **WI WRRSER** **S100767620**
US HWY 12 & POTTERS RD **N/A**
ELKHORN, WI

WI WRRSER:
Route of Concern: Not reported
Repair Action: Not reported
Added to Inventory: Not reported
Added to HRS List: Not reported
Scoring System: Not reported
Begin Date: 05/09/91
Site Priority: MEDIUM

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13 **AMON B R AND SONS INC** **RCRA-CESQG** **1000304137**
HWY 11 E **MANIFEST** **WID008960072**
ELKHORN, WI 53121 **SHWIMS**

RCRA-CESQG:
Date form received by agency: 06/22/2011
Facility name: AMON B R AND SONS INC
Facility address: HWY 11 E
ELKHORN, WI 53121
EPA ID: WID008960072
Mailing address: RTE 3 BOX 37
ELKHORN, WI 53121
Contact: GENE BUCHANAN
Contact address: RTE 3 BOX 37
ELKHORN, WI 53121
Contact country: US
Contact telephone: (414) 723-2547
Contact email: Not reported
EPA Region: 05
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: NAME NOT REPORTED
Owner/operator address: ADDRESS NOT REPORTED
CITY NOT REPORTED, AK 99998
Owner/operator country: Not reported
Owner/operator telephone: (312) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

AMON B R AND SONS INC (Continued) **1000304137**

Owner/operator name: AMON B R AND SONS INC
Owner/operator address: ADDRESS NOT REPORTED
CITY NOT REPORTED, AK 99998
Owner/operator country: Not reported
Owner/operator telephone: (312) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/25/1988
Facility name: AMON B R AND SONS INC
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D000
Waste name: Not Defined

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

AMON B R AND SONS INC (Continued) **1000304137**

Waste code: F004
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D000
Waste name: Not Defined

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F004
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

WI MANIFEST:
Year: 08
EPA ID: WID008960072
FID: 265061390
ACT Code: 203
ACT Status: A
ACT Code 1: 203
ACT Name: HW Generator - Very Small
Contact First Name: DONALD
Contact Last Name: PALMER
Contact Title: FOREMAN
Contact Address: W2950 HWY 11
Contact State: WI
Contact City: ELKHORN
Contact Zip: 53121
Contact Telephone: 2627232547
Contact Extention: Not reported

AMON B R AND SONS INC (Continued) **1000304137**

Contact Email Address: Not reported
Shipped: -
Year: Not reported
Manifest DOC ID: Not reported
Copy Type: Not reported
Gen EPA ID: Not reported
Gen Date: Not reported
TSD Date: Not reported
TSD EPA ID: Not reported
GEN Copy Revd Date: Not reported
TSG Copy Revd Date: Not reported

Transport: -
Year: Not reported
Manifest Doc ID: Not reported
Transporter EPA ID: Not reported
Transport Order Num: Not reported
Transport Date: Not reported

Waste:
Year: Not reported
Manifest DOC ID: Not reported
Waste Page No: Not reported
Waste Line No: Not reported
Waste Code: Not reported
Waste Amount: Not reported
Unit of Measure: Not reported
Waste LBS: Not reported

Year: 07
EPA ID: WID008960072
FID: 265061390
ACT Code: 203
ACT Status: A
ACT Code 1: 203
ACT Name: HW Generator - Very Small
Contact First Name: DONALD
Contact Last Name: PALMER
Contact Title: FOREMAN
Contact Address: W2950 HWY 11
Contact State: WI
Contact City: ELKHORN
Contact Zip: 53121
Contact Telephone: 2627232547
Contact Extention: Not reported
Contact Email Address: Not reported
Shipped: -
Year: Not reported
Manifest DOC ID: Not reported
Copy Type: Not reported
Gen EPA ID: Not reported
Gen Date: Not reported
TSD Date: Not reported
TSD EPA ID: Not reported
GEN Copy Revd Date: Not reported
TSG Copy Revd Date: Not reported

AMON B R AND SONS INC (Continued) **1000304137**

Transport: -
Year: Not reported
Manifest Doc ID: Not reported
Transporter EPA ID: Not reported
Transport Order Num: Not reported
Transport Date: Not reported

Waste:
Year: Not reported
Manifest DOC ID: Not reported
Waste Page No: Not reported
Waste Line No: Not reported
Waste Code: Not reported
Waste Amount: Not reported
Unit of Measure: Not reported
Waste LBS: Not reported

Year: 06
EPA ID: WID008960072
FID: 265061390
ACT Code: 203
ACT Status: A
ACT Code 1: 203
ACT Name: HW Generator - Very Small
Contact First Name: DONALD
Contact Last Name: PALMER
Contact Title: FOREMAN
Contact Address: W2950 HWY 11
Contact State: WI
Contact City: ELKHORN
Contact Zip: 53121
Contact Telephone: 2627232547
Contact Extention: Not reported
Contact Email Address: Not reported
Shipped: -
Year: Not reported
Manifest DOC ID: Not reported
Copy Type: Not reported
Gen EPA ID: Not reported
Gen Date: Not reported
TSD Date: Not reported
TSD EPA ID: Not reported
GEN Copy Revd Date: Not reported
TSG Copy Revd Date: Not reported

Transport: -
Year: Not reported
Manifest Doc ID: Not reported
Transporter EPA ID: Not reported
Transport Order Num: Not reported
Transport Date: Not reported

Waste:
Year: Not reported
Manifest DOC ID: Not reported

AMON B R AND SONS INC (Continued) **1000304137**

Waste Page No:	Not reported
Waste Line No:	Not reported
Waste Code:	Not reported
Waste Amount:	Not reported
Unit of Measure:	Not reported
Waste LBS:	Not reported

Year:	05
EPA ID:	WID008960072
FID:	265061390
ACT Code:	203
ACT Status:	A
ACT Code 1:	203
ACT Name:	HW Generator - Very Small
Contact First Name:	DONALD
Contact Last Name:	PALMER
Contact Title:	FOREMAN
Contact Address:	W2950 HWY 11
Contact State:	WI
Contact City:	ELKHORN
Contact Zip:	53121
Contact Telephone:	2627232547
Contact Extention:	Not reported
Contact Email Address:	Not reported
Shipped:	-
Year:	Not reported
Manifest DOC ID:	Not reported
Copy Type:	Not reported
Gen EPA ID:	Not reported
Gen Date:	Not reported
TSD Date:	Not reported
TSD EPA ID:	Not reported
GEN Copy Revd Date:	Not reported
TSG Copy Revd Date:	Not reported

Transport:	-
Year:	Not reported
Manifest Doc ID:	Not reported
Transporter EPA ID:	Not reported
Transport Order Num:	Not reported
Transport Date:	Not reported

Waste:

Year:	Not reported
Manifest DOC ID:	Not reported
Waste Page No:	Not reported
Waste Line No:	Not reported
Waste Code:	Not reported
Waste Amount:	Not reported
Unit of Measure:	Not reported
Waste LBS:	Not reported

Year:	04
EPA ID:	WID008960072
FID:	265061390

AMON B R AND SONS INC (Continued) **1000304137**

ACT Code:	203
ACT Status:	A
ACT Code 1:	203
ACT Name:	HW Generator - Very Small
Contact First Name:	DONALD
Contact Last Name:	PALMER
Contact Title:	FOREMAN
Contact Address:	W2950 HWY 11
Contact State:	WI
Contact City:	ELKHORN
Contact Zip:	53121
Contact Telephone:	2627232547
Contact Extention:	Not reported
Contact Email Address:	Not reported
Shipped:	-
Year:	Not reported
Manifest DOC ID:	Not reported
Copy Type:	Not reported
Gen EPA ID:	Not reported
Gen Date:	Not reported
TSD Date:	Not reported
TSD EPA ID:	Not reported
GEN Copy Revd Date:	Not reported
TSG Copy Revd Date:	Not reported

Transport:	-
Year:	Not reported
Manifest Doc ID:	Not reported
Transporter EPA ID:	Not reported
Transport Order Num:	Not reported
Transport Date:	Not reported

Waste:

Year:	Not reported
Manifest DOC ID:	Not reported
Waste Page No:	Not reported
Waste Line No:	Not reported
Waste Code:	Not reported
Waste Amount:	Not reported
Unit of Measure:	Not reported
Waste LBS:	Not reported

SHWIMS:

FID:	265061390
Status:	OPERATING
Region:	SOUTHEAST

13 **REYNOLDS PROPERTY** **LUST** **S104943935**
USH 12 & POTTERS RD **N/A**
ELKHORN, WI

LUST:

Region Name:	SOUTHEAST
Facility ID:	265128600
Status:	**CLOSED**
Start Date:	05/09/1991
End Date:	12/30/1991
Last Action:	12/30/1991
Site Id:	3774500
Detail Seq No:	27409
Activity Type:	LUST
Act Code:	340
Activity Name:	REYNOLDS PROPERTY
Activity Number:	0365001536
Activity Display Number:	03-65-001536
Activity Detail Address:	NONE
Activity Comments:	Not reported
Jurisdiction:	DNR RR
Owner Name:	Not reported
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	53121930125
Comm Occurrence Id:	1444
EPA Cerclis Id:	Not reported
Risk Code:	MEDIUM
Acres:	UNKNOWN
Acres 100:	No
EPA NPL Site?:	No
Dept Of Commerce Tracking:	Yes
PECFA Funds Eligible ?:	Yes
Above Ground Storage Tank?:	No
Drycleaner?:	No
Co-contamination?:	No
Public Land Survey System Desc:	NW 1/4 of the SW 1/4 of Sec 19, T03N, R17E
Geo Located:	Yes
DNR GIS Registry View Map Layers:	No

Actions:

Action Date:	05/09/1991	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		
Action Comments:	Not reported		

Action Date:	12/30/1991	Action Code:	11
Action Name:	Activity Closed		
Action Desc:	Date the Closure Letter or No Further Action letter is sent. NOTE: This is the ONLY action code that will close an activity.		
Action Comments:	Not reported		

Action Date:	05/16/1991	Action Code:	2
Action Name:	RP Letter Sent		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	RP LETTER, MEDIUM		

Action Date:	12/30/1991	Action Code:	99

REYNOLDS PROPERTY (Continued) **S104943935**

Action Name: Miscellaneous
Action Desc: Miscellaneous action. Please see action comments.
Action Comments: OTHER

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Substance Desc: Petroleum - Unknown Type
Amount Released: Not reported
Release Code: Not reported

Impact Number: 70732
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Contacts:
Role Desc: Responsible Party
Contact Name: PERSONAL INFORMATION WITHHELD
Contact Address: RT 1 BOX 285
Contact Addr2: Not reported
Contact City,St,Zip: ELKHORN, WI 53121
Contact Country: UNITED STATES
Company Address: ELKHORN, WI 53121

Role Desc: DNR File Contact
Contact Name: WENDY WEIHEMULLER
Contact Address: 3911 FISH HATCHERY ROAD
Contact Addr2: Not reported
Contact City,St,Zip: MADISON, WI 53711
Contact Country: UNITED STATES
Company Address: MADISON, WI 53711

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14 **UST** **U003489590**

N5788 ELKHORN RD **N/A**
ELKHORN, WI 53121

UST:
Facility ID: 74979
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 1181789
Land Owner Type: Private
Owner Name: PRAMUKH DARSHAN CORPORATION
Owner Address: 1721 WHISPERING ST
Owner PO Box: Not reported
Owner City,St,Zip: ADDISON, IL 60101
Building Name: ELKHORN MOBIL
Building Address: N5788 ELKHORN RD
Building City,St,Zip: ELKHORN 53121

Object ID: 357756

(Continued) **U003489590**

Tank Wang Object ID: 640900215
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 8000
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

Object ID: 357757
Tank Wang Object ID: 640900216
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 8000
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

Object ID: 357758
Tank Wang Object ID: 640900217
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 8000
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

Object ID: 357759
Tank Wang Object ID: 640900218
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 8000
Tank Contents: Diesel
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

Object ID: 357760
Tank Wang Object ID: 640900219
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 8000
Tank Contents: Diesel
Object Type: UST
Tank Occupancy: Gas/Retail Sales
Tank Market: Yes
Wall Size: Single

15 **SWATEK SALES EXPRESS LANE C-STORE** **LUST** **S108168430**
N5788 HIGHWAY 12 **SPILLS** **N/A**
ELKHORN, WI

LUST:

Region Name:	SOUTHEAST
Facility ID:	265119910
Status:	**OPEN**
Start Date:	06/16/2009
End Date:	Not reported
Last Action:	09/09/2011
Site Id:	16337400
Detail Seq No:	553992
Activity Type:	LUST
Act Code:	340
Activity Name:	MOBIL C-STORE (FKA SWATEK SALES EXPRESS LN C
Activity Number:	0365553992
Activity Display Number:	03-65-553992
Activity Detail Address:	NONE
Activity Comments:	Not reported
Jurisdiction:	DNR RR
Owner Name:	Not reported
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	NONE
Comm Occurrence Id:	NONE
EPA Cerclis Id:	Not reported
Risk Code:	UNKNOWN
Acres:	UNKNOWN
Acres 100:	No
EPA NPL Site?:	No
Dept Of Commerce Tracking:	No
PECFA Funds Eligible ?:	No
Above Ground Storage Tank?:	No
Drycleaner?:	No
Co-contamination?:	No
Public Land Survey System Desc:	SW 1/4 of the SW 1/4 of Sec 19, T03N, R17E
Geo Located:	Yes
DNR GIS Registry View Map Layers:	No

Actions:

Action Date:	06/16/2009	Action Code:	1
Action Name:	Notification		
Action Desc:	Date the DNR is notified of the discovery of the contamination.		
Action Comments:	Not reported		

Action Date:	08/06/2009	Action Code:	2
Action Name:	RP Letter Sent		
Action Desc:	Date of letter to RP notifying of legal responsibilities associated with the discovery of contamination.		
Action Comments:	Not reported		

Action Date:	06/02/2009	Action Code:	33
Action Name:	Tank Closure Environmental Site Assessment Rpt Received		
Action Desc:	Date that the DNR received an Environmental Site Assessment of a tank system (above-ground or underground) for tank closure or change in services which usually includes sample results.		
Action Comments:	Not reported		

SWATEK SALES EXPRESS LANE C-STORE (Continued) **S108168430**

Action Date: 10/14/2010 Action Code: 200
Action Name: Push Action Taken
Action Desc: Any action, either written or verbal, taken by DNR to get an inactive site moving again.
Action Comments: Not reported

Action Date: 09/07/2011 Action Code: 130
Action Name: DNR Regulatory Reminder Sent
Action Desc: Date DNR sent written notification to Responsible Parties and/or other interested parties reminding them of a regulatory obligation.
Action Comments: VAPOR INTRUSION (VI) ASSESSMENT NOTIFICATION LTR SENT - 2ND ATTEMPT SUCCESSFULLY SENT 10/12/11

Action Date: 09/09/2011 Action Code: 200
Action Name: Push Action Taken/2
Action Desc: Any action, either written or verbal, taken by DNR to get an inactive site moving again.
Action Comments: Not reported

Substances:
Substance Desc: Gasoline - Unleaded and Leaded
Amount Released: Not reported
Release Code: Not reported

Impact Number: 561174
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Contacts:
Role Desc: Consultant
Contact Name: GILES ENGINEERING ASSOCIATES INC
Contact Address: N8 W22350 JOHNSON RD A1
Contact Addr2: SUITE A1
Contact City,St,Zip: WAUKESHA, WI 53186
Contact Country: UNITED STATES
Company Address: WAUKESHA, WI 53186

Role Desc: Project Manager
Contact Name: JEFF ACKERMAN
Contact Address: 3911 FISH HATCHERY RD
Contact Addr2: Not reported
Contact City,St,Zip: FITCHBURG, WI 53711
Contact Country: UNITED STATES
Company Address: FITCHBURG, WI 53711

Role Desc: Responsible Party
Contact Name: VR ESTATES, LLC
Contact Address: 5575 BERKSHIRE CT
Contact Addr2: Not reported
Contact City,St,Zip: NEW BERLIN, WI 53151
Contact Country: UNITED STATES
Company Address: NEW BERLIN, WI 53151

WI Spills:
Site Id: 16337400

SWATEK SALES EXPRESS LANE C-STORE (Continued) **S108168430**

Detail Seq No:	547720
Activity Type:	SPILL
Activity Name:	SWATEK SALES EXPRESS LANE C-STORE
Activity Number:	0465547720
Activity Display Number:	04-65-547720
Activity Detail Address:	NONE
Activity Comments:	Not reported
Region Name:	SOUTHEAST
Faclity ID:	265119910
Start Date:	10/07/1993
End Date:	07/19/2006
Last Action:	07/19/2006
Status Cd:	C
Status:	CLOSED
Jurisdiction:	DNR RR
Act Code:	350
Owner Name:	Not reported
Owner Addr:	Not reported
Owner City,St,Zip:	Not reported
Dept Of Commerce Number:	NONE
Comm Occurrence Id:	NONE
EPA Cerclis Id:	Not reported
Risk Code:	UNKNOWN
Acres:	UNKNOWN
Acres 100:	N
EPA NPL Site?:	No
Dept Of Commerce Tracking:	No
PECFA Funds Eligible ?:	No
Above Ground Storage Tank?:	No
Drycleaner?:	No
Co-contamination?:	No
Public Land Survey System Desc:	? 1/4 of the ? 1/4 of Sec ?, T?N, R??
Geo Located:	N
DNR GIS Registry View Map Layers:	N
GIS Area Point Flag:	Not reported

Actions:

Action Date:	07/13/2006	Action Code:	183
Action Name:	No Further Action Request with Fee		
Action Desc:	No Further Action letter issued by the DNR in accordance with NR708 and a fee is paid.		
Action Comments:	REC'D CK# 10510 $250.00		

Action Date:	07/19/2006	Action Code:	11
Action Name:	Spill Closed		
Action Desc:	No further action; RP is not required to conduct NR716 investigation. NOTE: This is the ONLY action code that will close an activity.		
Action Comments:	Not reported		

Action Date:	07/19/2006	Action Code:	83
Action Name:	Close-out Under NR708.09		
Action Desc:	No Further Action required. RP not required to conduct NR716 investigation. Not closed out under NR726.		
Action Comments:	Not reported		

Action Date:	10/07/1993	Action Code:	1
Action Name:	Spill Incident Occurred		
Action Desc:	Date the Spill occurred or the date reported to DNR if actual date		

SWATEK SALES EXPRESS LANE C-STORE (Continued) **S108168430**

unknown.
Action Comments: Not reported

Substances:
Substance Desc: Other Substance Not Listed
Amount Released: Not reported
Release Code: Not reported

Impact Number: 550015
Impact Code: 05
Impact Comments: Soil Contamination
Impact Potential: Not reported

Contacts:
Role Desc: Consultant
Contact Name: GILES ENGINEERING ASSOCIATES INC
Contact Address: N8 W22350 JOHNSON RD A1
Contact Addr2: SUITE A1
Contact City,St,Zip: WAUKESHA, WI 53186
Contact Country: UNITED STATES
Company Address: WAUKESHA, WI 53186

Role Desc: Project Manager
Contact Name: SCOTT FERGUSON
Contact Address: 2300 N DR MLK JR DR
Contact Addr2: Not reported
Contact City,St,Zip: MILWAUKEE, WI 53212-0436
Contact Country: UNITED STATES
Company Address: MILWAUKEE, WI 53212

Role Desc: Responsible Party
Contact Name: SWATEL SALES CORP
Contact Address: 1050 CAREY STREET
Contact Addr2: Not reported
Contact City,St,Zip: LAKE GENEVA, WI
Contact Country: Not reported
Company Address: LAKE GENEVA, WI

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15 **UST** **U003257804**
HWY 12 **N/A**
ELKHORN, WI 53121

UST:
Facility ID: 74985
Federally Regulated: Yes
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 369441
Land Owner Type: Other Governmnt
Owner Name: WISCONSIN DEPARTMENT OF TRANSPORTATION
Owner Address: 4802 SHEBOYGAN AVE PO BOX 7915 RM 751
Owner PO Box: Not reported
Owner City,St,Zip: MADISON, WI 53707
Building Name: ELKHORN SCALE #23
Building Address: HWY 12

(Continued) **U003257804**

Building City,St,Zip: ELKHORN 53121

Object ID: 357743
Tank Wang Object ID: 640900202
Tank Status: **Closed/Removed**
Tank Status Date: 06/12/1986
Tank Size (gal): 1000
Tank Contents: Unleaded Gasoline
Object Type: UST
Tank Occupancy: Government Fleet
Tank Market: No
Wall Size: Single

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16 **UST** **U003571087**
N/A

RTE 3
ELKHORN, WI 53121

UST:
Facility ID: 134087
Federally Regulated: No
Facility County: WALWORTH
Site Municipality: City
Municipality Name: ELKHORN
Fire Dept ID: Elkhorn Area
Town Cust ID: 370003
Land Owner Type: Private
Owner Name: STEVE S SCHMITT
Owner Address: RT 4 BOX 16
Owner PO Box: Not reported
Owner City,St,Zip: ELKHORN, WI 53121
Building Name: STEVE SCHMITT
Building Address: RTE 3
Building City,St,Zip: ELKHORN 53121

Object ID: 357638
Tank Wang Object ID: 640900089
Tank Status: **In Use**
Tank Status Date: Not reported
Tank Size (gal): 500
Tank Contents: Leaded Gasoline
Object Type: UST
Tank Occupancy: Agricultural
Tank Market: No
Wall Size: Single

Count: 116 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EAST TROY	S103925109	TROY AREA LF INC--BFI OF N AMERICA INC	7617 HWY 120	53120	SWF/LF, SHWIMS
EAST TROY	S106735607	TROY AREA LF INC--BFI OF N AMERICA INC	7617 HWY 120	53120	WI ERP, SHWIMS
EAST TROY	S108153622	KEY, GREG PROPERTY	7566 HWY 120	53120	SHWIMS
EAST TROY	U003448158		RT 2	53120	UST
EAST TROY	U003491542		121 HWY 67	53120	UST
EAST TROY	S107433690	EAST TROY VIL AIRPORT	BLDG HWY	53120	BRRTS
EAST TROY	S106976225	WISCONSIN PRECISION CASTING CORP	405 CORD L	53120	WI ERP
EAST TROY	U003823329		9080 COUNTY E	53120	UST
EAST TROY	S108153925	LAKESIDE PAINTING INC (FORMER)	4282 HWY ES	53120	SHWIMS
EAST TROY	1012050928	COOPERATIVE PLUS INC	8265 HWY_N	53120	SSTS
EAST TROY	1011822749	EAST TROY - NH3	8265 HWY N	53121	RMP
EAST TROY	1004615266	BURLINGTON CONSUMERS COOP	8265 HWY N	53120	SSTS
EAST TROY	1005425710	BURLINGTON CONSUMERS COOPERATIVE	3525 HWY N.	53120	SSTS
EAST TROY	U003859178		8312 PLEASANT LAKE RD	53120	UST
ELKHORN	S107681900	MANN BROTHERS, INC.	N6147 & HWY 12		TIER 2
ELKHORN	U003824566		RT 1	53121	UST
ELKHORN	U003828465		RT 1	53121	UST
ELKHORN	S110352882	B R AMON & SONS SHOP	2950 HWY 11		NPDES
ELKHORN	U003908615		4252 HWY 11	53121	UST
ELKHORN	U003468658		2950 HWY 11	53121	AST
ELKHORN	U003820488		1312 HWY 11	53121	UST
ELKHORN	1006812340	JEANNE SHEAHAN PROPERTY	4252 HWY 11	53121	RCRA NonGen / NLR, FINDS, SHWIM
ELKHORN	1006321053	B. R. AMONS & SONS, INC #1111	2950 HWY 11	53121	US AIRS
ELKHORN	1006321084	B.R. AMON & SONS 1109	2950 HWY 11	53121	US AIRS
ELKHORN	1008210591	B.R. AMON & SONS INC.1116	2950 HWY 11	53121	US AIRS
ELKHORN	1009798595	B R AMON & SONS INC #9	2950 HWY 11	53121	US AIRS
ELKHORN	U003958931		6424 HWY 12	53121	UST
ELKHORN	S104943616	SHAVERS GENERAL STORE	5495 HWY 120		LUST
ELKHORN	S107433354	ANR PIPELINE SPRING PRAIRIE	5570 HWY 120	53121	BRRTS
ELKHORN	S101678576	VANDER VEEN FARMS, INC.	HWY 2		WI WRRSER
ELKHORN	S106976050	VANDERVEEN FARMS INC	HWY 2		LUST
ELKHORN	1007688119	SUGAR CREEK LUTHERAN CHURCH	RT 2		FINDS, BRRTS
ELKHORN	S108153326	JIMS REPAIR INC	RT 2	53121	SHWIMS
ELKHORN	U003573487		RT 2	53121	UST
ELKHORN	U003572204		RT 2	53121	UST
ELKHORN	1005433431	MILLARD FEED MILL, INC. (CB)	ROUTE 2, BOX 192-A	53121	SSTS
ELKHORN	U003810762		RT 3	53121	UST
ELKHORN	U003831083		RT 3	53121	UST
ELKHORN	U003498846		RT 3	53121	UST
ELKHORN	U003572885		RT 3	53121	UST
ELKHORN	U003573583		RT 3	53121	UST
ELKHORN	1004797824	LAIDLAW TRANSIT STUDENT TRANS	RT 3	53121	RCRA-CESQG
ELKHORN	1006245707	B. R. AMON & SONS, INC. - PLANT #4	RT 3	53121	FINDS, US AIRS

Count: 116 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ELKHORN	1006245708	B. R. AMON & SONS, INC. - PLANT #5	RT 3	53121	FINDS, US AIRS
ELKHORN	1006245709	B. R. AMON & SONS, INC. - PLANT #7	RT 3	53121	FINDS, US AIRS
ELKHORN	1006245710	B. R. AMON & SONS, INC. - PLANT #8	RT 3	53121	FINDS, US AIRS
ELKHORN	1004798474	ALPINE VALLEY RESORT INC	RT 3	53121	RCRA-CESQG, MANIFEST, SHWIMS
ELKHORN	U003810971		RT 4	53121	UST
ELKHORN	S102850250	LAUDERDALE LAKES MARINA	RT 5	53121	BRRTS, SHWIMS
ELKHORN	U003812115		RT 5	53121	UST
ELKHORN	U003502815		RT 5	53121	UST
ELKHORN	U003490369		RT 5	53121	UST
ELKHORN	U003453224		RT 5	53121	UST
ELKHORN	1000662711	LOCKHARTS SVC	RT 5	53121	RCRA NonGen / NLR
ELKHORN	1000880316	LAUDERDALE LAKES MARINA	RT 5	53121	RCRA-CESQG, FINDS
ELKHORN	U003454823		RT 6	53121	UST
ELKHORN	U003496196		RT 6	53121	UST
ELKHORN	U003812151		RT 6	53121	UST
ELKHORN	U003826229		RT 6	53121	UST
ELKHORN	U003664670		RT 6	53121	UST
ELKHORN	S105845282	ELKHORN MOTORS	HWY 67 N	53121	BRRTS
ELKHORN	1004799097	TASCH MOTORS INC	1300 HWY 67 S	53121	RCRA-CESQG, FINDS, MANIFEST, SHWIMS
ELKHORN	S102849971	SCUREK FARM	3510 HWY A		LUST
ELKHORN	S108980338	SUPER MIX OF WISCONSIN	4772 HWY A		TIER 2
ELKHORN	S106654389	SUGAR CREEK TN LF	HWY A	53121	SWF/LF
ELKHORN	S107603995	SUGAR CREEK TN LF	HWY A	53121	BRRTS, SHWIMS
ELKHORN	S109615842	ALLEY IMMED. E OF 201 W CENTRALIA ST	ADJ TO W CENTRALIA ST		WI ERP
ELKHORN	U003908689		7791 ASTA DR	53121	UST
ELKHORN	S105961973	ELKO/CLAUSEN RD - ELKHORN	CLAUSEN RD		SPILLS, AGSPILLS
ELKHORN	S105962002	MILLARD FEED MILL INC @ELKHORN	CORD A		SPILLS, AGSPILLS
ELKHORN	A100361601		CORD NN & HWY 12	53121	AST
ELKHORN	S108149135	BALESTRIERI ENVIRONMENTAL & DEVELOPMENT INC	1538 COUNTRY CLUB PKWY	53121	SHWIMS
ELKHORN	U003978600		7258 COUNTRY SIDE LN	53121	UST
ELKHORN	1005433432	MILLARD FEED MILL, INC. (CB)	W6406 COUNTY RD A	53121	SSTS
ELKHORN	A100317528		3899 COUTNY HWY	53121	AST
ELKHORN	S107922322	COOK/MILLARD FEED MILL	6362 DUNHAM SCHOOL RD		WI ERP
ELKHORN	S107922323	COOK/MILLARD FEED MILL/LIESCH ENVIRONMENTAL	FOSTER RD		WI ERP
ELKHORN	S106801573	IZET ISEINI	HWY H & CORD NN		BRRTS
ELKHORN	S110356513	STUART TANK SALES CORP	HWY H & NN		NPDES
ELKHORN	U003470988		50 HWY H S	53121	AST
ELKHORN	S110499824	AMERIGAS PROPANE LP	700 HWY H	53121	TIER 2
ELKHORN	1007279375	GETZEN CO	HWY H SOUTH	53121	FTTS, HIST FTTS
ELKHORN	S110674601	SETTLERS RIDGE PROPERTY	HAZEL RIDGE RD		BRRTS, WI ERP, BROWNFIELDS
ELKHORN	U004082684		2897 HIGH RD	53121	UST
ELKHORN	S105041576	MANN BROS LF	HODGES ROAD FROM HWY E	53121	SWF/LF, SHWIMS
ELKHORN	1000662667	CONSOLIDATED FREIGHTWAYS	700 S HWY H	53121	RCRA NonGen / NLR, FINDS, SHWIM
ELKHORN	S111705482	THE STATE LONG DISTANCE TELEPHONE CO.	5119 KENOSHA DR	53121	TIER 2

Count: 116 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ELKHORN	S108151692	FLITCROFT SEPTIC SYSTEMS INC	HWY M	53121	SHWIMS
ELKHORN	S111761390	CONSUMERS COOP-ANHYDROUS PLANT-ELKHORN	NATHAN		WI ERP, AUL
ELKHORN	S105041432	ELKHORN CTY LF	NATHAN LN	53121	SWF/LF, SHWIMS
ELKHORN	S100671914	LAKELAND MEDICAL CENTER	11002 HWY NN		WI WRRSER
ELKHORN	U003958145		4051 HWY NN	53121	UST
ELKHORN	S110674865	LAKELAND MEDICAL CENTER (DUPL)	HWY NN	53121	SHWIMS
ELKHORN	1004797293	LAKELAND HOSPITAL	HWY NN	53121	RCRA NonGen / NLR, FINDS
ELKHORN	S111761216	STH 12 JUST S OF I-43	S OF		SPILLS
ELKHORN	1015737333	ALLIED MUSIC CORPORATION (SIA)	HWY OH S	53121	CERC-NFRAP, RCRA-LQG
ELKHORN	S107679027	B. R. AMON & SONS, INC.	4899 POTTER RD		AIRS
ELKHORN	A100354338		4204 POTTER RD	53121	AST
ELKHORN	S107922443	MILLARD FEED-ELKHORN	PROCTOR DR		WI ERP
ELKHORN	S107433323	ABELL'S WOODS, LLC	W SIDE OF & HWY 12	53121	BRRTS
ELKHORN	S108666409	CZAR CONSTRUCTION INC (FORMER)	5213 STERLINGWORTH CT	53121	SHWIMS
ELKHORN	S109401141	STERLINGWORTH MARINA	7557 STERLINGWORTH DR		LUST
ELKHORN	S108150615	CZAR CONSTRUCTION INC	5154 STEWART DR	53121	SHWIMS
ELKHORN	U003797539		5520 STEWART DR	53121	UST
ELKHORN	S112089034	STH 12 & MACLEAN RD	STH 12 & MACLEAN RD		SPILLS
ELKHORN	U003816702		6017 TERRITORIAL RD	53121	UST
ELKHORN	U003823192		1 TERRITORIAL RD	53121	UST
ELKHORN	U003880233		6359 TERRITORIAL RD	53121	UST
ELKHORN	S108158866	VANDERVEEN FARMS INC	HWY TN	53121	SHWIMS
ELKHORN	S111829608	MILLARD FEED MILL @ELKHORN	7843 USHY 12	53121	AGSPILLS
ELKHORN	1008216302	MANN BROTHERS PLANT #847	6147 USHY 12	53121	US AIRS
ELKHORN	1008216303	MANN BROTHERS CRUSHING PLANT #846	6147 USHY 12	53121	US AIRS
ELKHORN	1008216322	MANN BROTHERS CRUSHING PLANT - #840	6147 USHY 12	53121	US AIRS
ELKHORN	1008216323	MANN BROTHERS CRUSHING PLANT - #842	6147 USHY 12	53121	US AIRS
ELKHORN	1006835409	MANN BROTHERS CRUSHING PLANT #839	6147 USHY 12	53121	US AIRS
ELKHORN	A100321081		5860 USHY 12	53121	AST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/09/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 10/11/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/09/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 10/11/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/09/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 10/11/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 72

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/27/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 72

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 09/27/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 07/11/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 10/02/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 104

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/10/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 104

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/10/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 29

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/01/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/01/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/05/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/06/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 22

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/04/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/24/2013
Date Data Arrived at EDR: 06/25/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/24/2013
Next Scheduled EDR Contact: 01/08/2014
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/10/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/15/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/07/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/13/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 09/05/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 28

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/05/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/30/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/24/2013
Next Scheduled EDR Contact: 01/08/2014
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/09/2014
Next Scheduled EDR Contact: 01/27/2014
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 114

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/17/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/20/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 112

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/10/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/09/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/21/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 111

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 09/11/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/26/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Biennially

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/02/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/13/2013
Next Scheduled EDR Contact: 12/23/2013
Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing
A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 10/09/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 72
Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/11/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13
Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 09/24/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/27/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/13/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/01/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/16/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Varies

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 07/03/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 72

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/04/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

SHWS: Hazard Ranking List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 11/30/1994
Date Data Arrived at EDR: 02/10/1995
Date Made Active in Reports: 03/01/1995
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: 608-266-2632
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: No Update Planned

BRRTS: Bureau of Remediation & Redevelopment Tracking System

BRRTS is a tracking system of contaminated sites. It holds key information for finding out more about a site or an activity. Activity types included are: Abandoned Container - An abandoned container with potentially hazardous contents recovered from a site. No discharge to the environment occurs. If the container did release a hazardous substance, a spill would be associated with the site. Superfund - is a federal program created by Congress in 1980 to finance cleanup of the nation's worst hazardous waste sites. VPLE - Voluntary Property Liability Exemptions apply to sites in which a property owner conducts an environmental investigation and cleanup of an entire property and then receives limits on their future liability. General Property - Environmental actions which apply to the property as a whole, rather than a specific source of contamination, such as the LUST or environmental repair site. Examples would be off-site letters, municipal liability clarification letters, lease letters, voluntary party liability exemption actions, and general liability clarification letters.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ERP: Environmental Repair Program Database

Environmental Repair Program sites are sites other than LUST's that have contaminated soil and/or groundwater. Often, these are old historic releases to the environment.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

SWF/LF: List of Licensed Landfills

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/08/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 77

Source: Department of Natural Resources
Telephone: 608-267-7557
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Semi-Annually

WDS: Registry of Waste Disposal Sites

The registry was created by the DNR to serve as a comprehensive listing of all sites where solid or hazardous wastes have been or may have been deposited.

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 04/04/2013
Date Made Active in Reports: 05/23/2013
Number of Days to Update: 49

Source: Department of Natural Resources
Telephone: 608-266-2632
Last EDR Contact: 10/03/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: No Update Planned

NPDES: NPDES Permit Listing

A listing of stormwater permit industrial facilities.

Date of Government Version: 08/26/2013
Date Data Arrived at EDR: 08/28/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 30

Source: Department of Natural Resources
Telephone: 608-264-8971
Last EDR Contact: 08/28/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

SWRCY: Recycling Center Listing

A listing of recycling center locations.

Date of Government Version: 08/21/2013
Date Data Arrived at EDR: 08/23/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 35

Source: Solid & Hazardous Waste Education center
Telephone: 608-262-0936
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/27/2014
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Registered Underground Storage Tanks

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/26/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 56

Source: Department of Commerce
Telephone: 608-266-7874
Last EDR Contact: 09/19/2013
Next Scheduled EDR Contact: 12/30/2013
Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Listing

A listing of leaking aboveground storage tank sites.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Varies

AST: Tanks Database

Aboveground storage tank site locations.

Date of Government Version: 07/26/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 56

Source: Department of Commerce
Telephone: 608-266-7874
Last EDR Contact: 09/19/2013
Next Scheduled EDR Contact: 12/30/2013
Data Release Frequency: Quarterly

LIENS: Environmental Liens Listing

Environmental liens listing.

Date of Government Version: 07/08/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 77

Source: Department of Natural Resources
Telephone: 608-267-6713
Last EDR Contact: 10/07/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Varies

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 49

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/16/2013
Next Scheduled EDR Contact: 12/30/2013
Data Release Frequency: Annually

SPILLS: Spills Database

A discharge of a hazardous substance that may adversely impact, or threaten to adversely impact public health, welfare or the environment. Spills are usually cleaned up quickly.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

AG SPILLS: Agricultural Spill Cases

Spills reported to the Department of Agriculture, Trade & Consumer Protection. There are two types of spills. Long-term: These are mainly pesticide and fertilizer cases. Some might include other contaminants at the same site. Some might involve wood-treaters - which use pesticides. All of them involve spills of products, but these spills generally result from day to day use (chronic spills) rather than accidental spills (acute). Accidental: These are the acute spills of pesticides and fertilizers and only involve pesticides and fertilizers. Most of these are cleaned up and closed within 3 to 6 months.

Date of Government Version: 07/10/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/18/2013
Number of Days to Update: 68

Source: Department of Agriculture, Trade & Consumer Protection
Telephone: 608-224-5058
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Varies

CRS: Closed Remediation Sites

A Closed Remediation Site is parcel of land at which the groundwater has become contaminated and which is affected by a particular type of legal restriction. Specifically, certain steps have been taken to stabilize/remediate the contamination, and the state is satisfied that no further efforts are necessary provided that the property is not used for certain purposes.

Date of Government Version: 08/19/2013
Date Data Arrived at EDR: 08/22/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 36

Source: Department of Natural Resources
Telephone: 608-267-0554
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Semi-Annually

AUL: Deed Restriction at Closeout Sites

Date a deed restriction is recorded at the Register of Deeds office for a property. Extent of soil contamination is known but impracticable to remove now or an engineering control is required to be maintained or NR720 industrial stds are applied. Restricts property use or requires future actions.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

VCP: Voluntary Party Liability Exemption Sites

The Voluntary Party Liability Exemption is an elective environmental cleanup program. Interested persons who meet the definition of "voluntary party" are eligible to apply. A "voluntary party" is any person who submits an application and pays all the necessary fees.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Varies

DRYCLEANERS: Five Star Recognition Program Sites

Drycleaning facilities enrolled in the Five Star Recognition Program. The primary focus of the Five Star program is to encourage reductions in the use and emissions of perchloroethylene (perc), a common but potentially hazardous drycleaning solvent. Participating cleaners pursue recycling opportunities, spill prevention strategies, more efficient solvent use, and more wet cleaning to reduce their perc consumption.

Date of Government Version: 04/02/2012
Date Data Arrived at EDR: 04/05/2012
Date Made Active in Reports: 04/24/2012
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: 608-267-3125
Last EDR Contact: 09/16/2013
Next Scheduled EDR Contact: 12/30/2013
Data Release Frequency: Varies

WRRSER: Wisconsin Remedial Response Site Evaluation Report

The WRRSER provides information about location, status, and priority of sites or facilities in the state which are known to cause or have a high potential to cause environmental pollution.

Date of Government Version: 10/01/1995
Date Data Arrived at EDR: 01/02/1996
Date Made Active in Reports: 02/01/1996
Number of Days to Update: 30

Source: Department of Natural Resources
Telephone: 608-261-6422
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BEAP: Brownfields Environmental Assessment Program

The Brownfields Environmental Assessment Program (BEAP) was a federal program that assisted municipalities with Environmental Site Assessments (ESA's) for tax delinquent or bankrupt properties, or properties a local government acquired for redevelopment. Using federal dollars, site assessments were conducted by Department of Natural Resources (DNR) staff to determine if the properties were contaminated.

Date of Government Version: 12/31/2000
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 06/29/2001
Number of Days to Update: 31

Source: Department of Natural Resources
Telephone: 608-266-1618
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: No Update Planned

BROWNFIELDS: Brownfields Site Locations Listing

A listing of brownfields sites included in the BRRTS database. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/26/2013
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: 608-266-3084
Last EDR Contact: 10/10/2013
Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations in the state.

Date of Government Version: 08/06/2013
Date Data Arrived at EDR: 08/22/2013
Date Made Active in Reports: 09/18/2013
Number of Days to Update: 27

Source: Department of Justice
Telephone: 920-832-2751
Last EDR Contact: 09/25/2013
Next Scheduled EDR Contact: 01/08/2014
Data Release Frequency: Varies

AIRS: Air Permit Program Listing

A listing of permits issued by the Air Permit Program.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/26/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 63

Source: Department of Natural Resources
Telephone: 608-266-2621
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Annually

TIER 2: Tier 2 Facility Listing

A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 04/10/2013
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: 608-242-3225
Last EDR Contact: 08/16/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Varies

SHWIMS: Solid & Hazardous Waste Information Management System

Information on sites, and facilities operating at sites, that are regulated by the Waste Management program

Date of Government Version: 07/01/2013
Date Data Arrived at EDR: 07/05/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 84

Source: Department of Natural Resources
Telephone: 608-266-2414
Last EDR Contact: 10/03/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Quarterly

LEAD: Lead Inspection Data
Lead inspection information.

Date of Government Version: 07/10/2013
Date Data Arrived at EDR: 07/12/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 77

Source: Department of Health & Family Services
Telephone: 608-267-0473
Last EDR Contact: 09/23/2013
Next Scheduled EDR Contact: 01/08/2014
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal combusion monofills.

Date of Government Version: 05/02/2013
Date Data Arrived at EDR: 05/09/2013
Date Made Active in Reports: 07/26/2013
Number of Days to Update: 78

Source: Deaprtment of Natural Resources
Telephone: 608-267-3538
Last EDR Contact: 09/30/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/31/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/01/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 162
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/02/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 156
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/02/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 45

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/01/2013
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

MILWAUKEE COUNTY:

List of Tax Delinquent Brownfields

Current owners of these sites have not paid their property taxes for one or more years. Based on at least an initial screening of these properties (including a historical land use check and a site visit), the City has decided not to foreclose because of potential environmental contamination. However, the City (using State Statute 75.106) may begin foreclosure, and then assign the foreclosure judgment to a new party that will remediate and redevelop the site. Testing may demonstrate that the site is clean or needs limited environmental clean-up.

Date of Government Version: 08/05/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 50

Source: Redevelopment Authority of the City of Milwaukee
Telephone: 414-286-5642
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/19/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/07/2013
Date Made Active in Reports: 09/10/2013
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/23/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 08/14/2013
Date Made Active in Reports: 09/20/2013
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Day Care Directory
Source: Department of Health & Family Services
Telephone: 608-266-9314

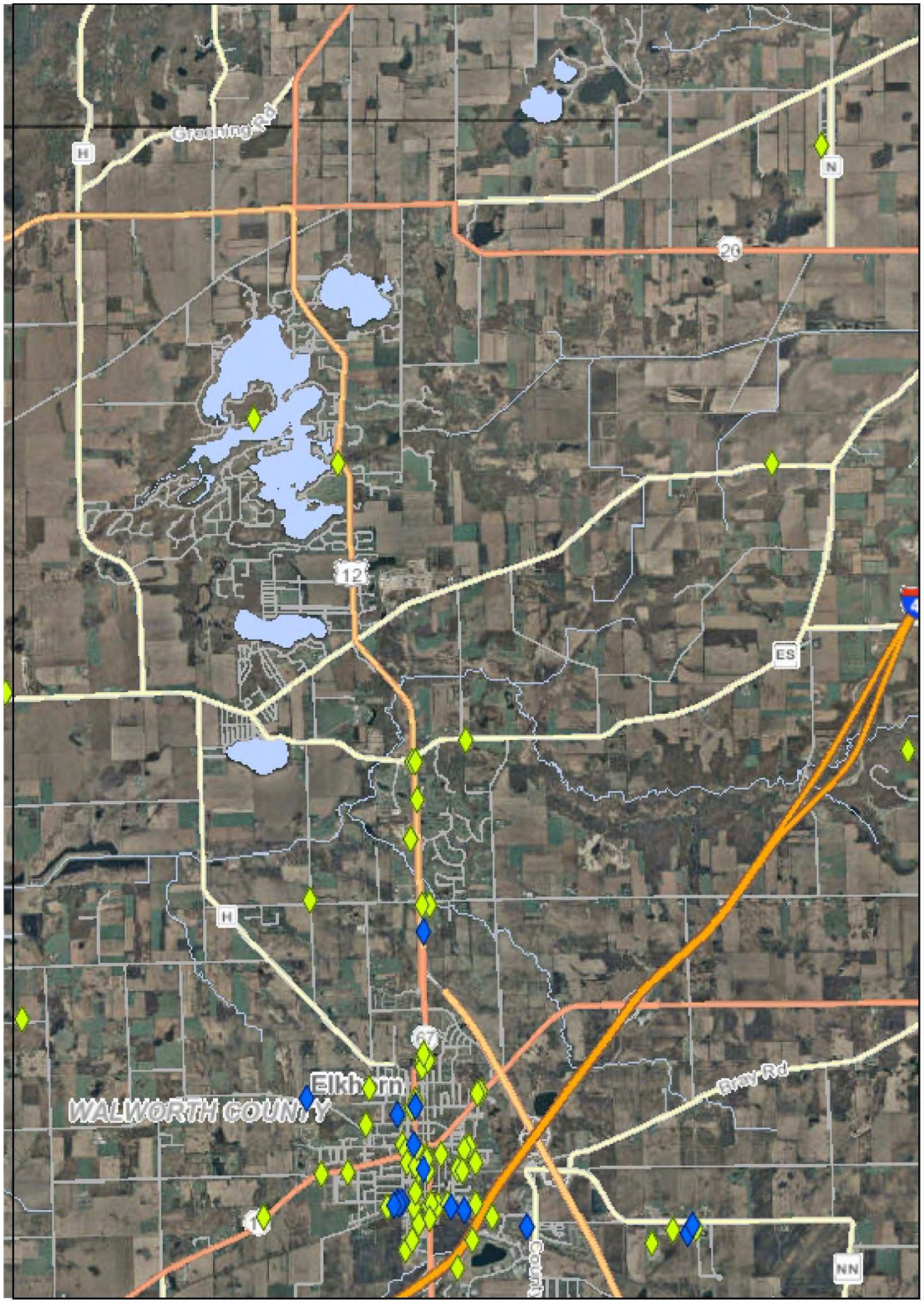
Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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CLEAN SEARCH RESULTS





Legend

- Open Site (ongoing cleanup)
- Closed Site (completed cleanup)
- Airport
- 2010 Air Photos (WROC)
- Cities
- Villages

2.9 0 Distance / 2 2.9 Miles

1: 93,130

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

Note: Not all sites are mapped.

Notes

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web is a searchable database containing information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.

03-65-001244 FLESCH FARM

LUST - CLOSED

Location Name (Click name to view details and other activities)			County	WDNR Region
FLESCH FARM			WALWORTH	SOUTHEAST
Address			Municipality	
HWY 67 & POTTER RD			LAFAYETTE	
Public Land Survey System		Latitude	Google Maps	RR Sites Map
NW 1/4 of the SW 1/4 of Sec 19, T03N, R17E		42.7058458	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description		Longitude	Facility ID	Size (Acres)
NONE		-88.5400337	265128160	UNKNOWN

Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR			1990-04-17	1993-01-08	1993-01-08

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1990-04-17	1	Notification	-
1991-01-09	2	RP Letter Sent	RP LETTER, HIGH
1991-02-08	3	Notice of Noncompliance (NON)	NON SENT
1993-01-08	11	Activity Closed	-

Impacts

Type	Comment
Groundwater Contamination	-
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	ERWIN & SUZANNE FLISCH RT2 BOX 90 SEYMOUR, WI 54165
DNR File Contact	WENDY WEIHEMULLER 3911 FISH HATCHERY ROAD FITCHBURG, WI 53711

Quick Response Codes

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Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

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03-65-001536 REYNOLDS PROPERTY

LUST - CLOSED

Location Name (Click name to view details and other activities)				County	WDNR Region
REYNOLDS PROPERTY				WALWORTH	SOUTHEAST
Address				Municipality	
USH 12 & POTTERS RD				ELKHORN	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
NW 1/4 of the SW 1/4 of Sec 19, T03N, R17E			42.7059348	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description			Longitude	Facility ID	Size (Acres)
NONE			-88.5417078	265128600	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121930125		1991-05-09	1991-12-30	1991-12-30

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1991-05-09	1	Notification	-
1991-05-16	2	RP Letter Sent	RP LETTER, MEDIUM
1991-12-30	11	Activity Closed	-
1991-12-30	99	Miscellaneous	OTHER

Impacts

Type	Comment
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		
Petroleum - Unknown Type	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	ROBERT REYNOLDS RT 1 BOX 285 ELKHORN, WI 53121
DNR File Contact	WENDY WEIHEMULLER 3911 FISH HATCHERY ROAD FITCHBURG, WI 53711

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Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

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03-65-001968 MANN BROTHERS

LUST - CLOSED



Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination click here. **You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.**

Location Name (Click name to view details and other activities)				County	WDNR Region
MANN BROS INC				WALWORTH	SOUTHEAST
Address				Municipality	
N6147 HWY 12 & 67				SUGAR CREEK	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
SE 1/4 of the SE 1/4 of Sec 13, T03N, R16E			42.7146902	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description			Longitude	Facility ID	Size (Acres)
NONE			-88.543577	265044890	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121999947		1991-12-10	2001-12-05	2013-07-02

Comments

SITE WAS CLOSED UNDER THE JURISDICTION OF THE DEPT OF SAFETY AND PROFESSIONAL SERVICES (DSPS) OR DEPT OF COMMERCE – SITE TRANSFERRED BACK TO DNR JURISDICTION IN 2013

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	Yes

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1991-12-10	1	Notification	-
1992-01-17	2	RP Letter Sent	RP LETTER SENT
1996-09-17	37	SI Report Received (w/out Fee)	*** SITE INVESTIGATION DETERMINED BY DSPS TO BE COMPLETE - FROM DSPS DATA INTERCHANGE ***
1997-03-06	37	SI Report Received (w/out Fee)/2	-
1997-03-06	39	Remedial Action Options Report received (w/out Fee)	-
1997-03-20	39	Remedial Action Options Report received (w/out Fee)/2	-
1997-07-21	43	Status Report Received	-
1998-05-12	92	O&M Report Received (w/out Fee)	-
1999-12-06	79	Closure Review Request Received with Fee	BG.1-10-00 CLOSURE REQ, MISSING
1999-12-06	92	O&M Report Received (w/out Fee)/2	-
2000-01-03	80	Closure Not Approved	-
2001-07-05	76	Activity Transferred to DSPS (formerly Commerce)	PER CONSULTANT REQUEST
2001-10-22	84	Conditional Closure	*** Conditional Closure from Commerce Data Interchange ***
2001-11-15	51	Deed Affidavit at Closeout	-

2001-12-05	11	Activity Closed	*** NR726 Closure from Commerce Data Interchange ***
2001-12-05	232	Continuing Obligation - Residual Soil Contamination	-
2001-12-05	236	Continuing Obligation - Residual GW Contamination	-
2002-04-23	50	GIS Registry Site	AB
2002-04-23	100	GIS Registry QAQC Completed	AB
2013-07-02	89	DSPS (formerly Commerce) Transferred Back to DNR	PECFA PROGRAM TRANSFER 2013-2015 STATE BUDGET

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : GIS Registry Packet	

Impacts

Type	Comment
Groundwater Contamination	above pal
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Diesel Fuel	Petroleum		
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	MANN BROS INC N6147 HWY 12/67 ELKHORN, WI 53121
Former Project Manager	WI DEPT OF SAFETY & PROFESSIONAL SERVICES (DSPS)
DNR File Contact	MAY VANG 2300 N MARTIN LUTHER KING DR MILWAUKEE, WI 53212

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Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

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03-65-004253 LOCKHARTS SERVICE

LUST - CLOSED



Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination click here. **You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.**

Location Name (Click name to view details and other activities)			County	WDNR Region
LOCKHART AMOCO SERVICE STATION			WALWORTH	SOUTHEAST
Address			Municipality	
STH 12/67 & CTH ES			ELKHORN	
Public Land Survey System		Latitude	Google Maps	RR Sites Map
NW 1/4 of the NW 1/4 of Sec 18, T03N, R17E		42.7252405	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description		Longitude	Facility ID	Size (Acres)
NONE		-88.5423831	265099010	2

Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121395624		1994-06-01	2006-05-30	2008-04-18

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	Yes

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1994-06-01	1	Notification	-
1994-06-02	2	RP Letter Sent	RP LETTER
1995-09-08	35	Site Investigation Workplan Received (w/out Fee)	SI WORK PLAN RECV'D
1995-09-15	99	Miscellaneous	CHANGE SCORE TO 24
1997-08-19	37	SI Report Received (w/out Fee)	-
1998-04-28	99	Miscellaneous/2	CHANGE OF OWNERSHIP TO LOCKHART ENTERPRISES
1998-08-31	39	Remedial Action Options Report received (w/out Fee)	-
1998-11-05	99	Miscellaneous/3	LANDSPRED PLAN FILED. UNREVIEWED. NO FEE.
2004-12-21	50	GIS Registry Site	AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 20-OCT-05
2004-12-21	79	Closure Review Request Received with Fee	REC'D CK# 6107 $750.00 REC'D GIS PKT GIVEN TO MW 01/13/05-COMPLETE
2004-12-21	700	Date Groundwater Registry Fee Received	REC'D CK# 6107 $250.00
2004-12-21	710	Date Soil Registry Fee Paid	REC'D CK# 6107 $200.00
2005-03-03	80	Closure Not Approved	JD. NATURAL ATTENUATION DEMONSTRATION NEEDED
2005-07-12	90	Start FIFO Review	REC'D ADD'L INF. FOR CLOSURE
2005-09-29	80	Closure Not Approved/2	JD - LETTER SENT - CLOSURE PER WELL ABANDONMENT FORMS

2006-01-18	99	Miscellaneous/4	REC'D WELL ABANDONMENT FORMS
2006-02-23	90	Start FIFO Review/2	REC'D ADD'L INF FOR CLOSURE
2006-05-30	11	Activity Closed	JD - LETTER SENT - FINAL CLOSURE ISSUED
2006-05-30	232	Continuing Obligation - Residual Soil Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***
2006-05-30	236	Continuing Obligation - Residual GW Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***
2008-04-18	100	GIS Registry QAQC Completed	-

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : GIS Registry Packet	

Impacts

Type	Comment
Free Product	1999 Survey of Petroleum Discharge Case Files
Groundwater Contamination	above pal
Soil Contamination	SOIL CONTAMINATION

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	LOCKHART ENTERPRISES LLC N6707 STALLMAN RD ELKHORN, WI 53121
Project Manager	JAMES DELWICHE 141 NW BARSTOW RD WAUKESHA, WI 53188

Quick Response Codes

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Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

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03-65-004916 EVERGREEN COUNTRY CLUB

LUST - CLOSED



Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination click here. **You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.**

Location Name (Click name to view details and other activities)				County	WDNR Region
EVERGREEN COUNTRY CLUB				WALWORTH	SOUTHEAST
Address				Municipality	
HWY 12/67 N				ELKHORN	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
NW 1/4 of the SW 1/4 of Sec 18, T03N, R17E			42.7200407	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description			Longitude	Facility ID	Size (Acres)
NONE			-88.5420896	265021460	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121061646		1995-04-27	2004-11-10	2006-02-14

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	Yes

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1995-04-27	1	Notification	-
1995-04-27	99	Miscellaneous	INITIAL CONTACT DATE
1995-05-01	2	RP Letter Sent	-
1995-05-31	99	Miscellaneous/2	REC'D LTR NAMING CONSULTANT
1995-07-26	35	Site Investigation Workplan Received (w/out Fee)	SI WORK PLAN RECV'D
1995-10-16	43	Status Report Received	QRTLY/MTHLY STATUS RPT
1995-11-28	35	Site Investigation Workplan Received (w/out Fee)/2	SI WORK PLAN RECV'D
1996-01-09	77	Free Product Removal Start	-
1996-01-18	43	Status Report Received/2	-
1996-03-14	99	Miscellaneous/3	FREE PROD RECOVERY FROM 3 WELLS INITIATED
1996-06-14	35	Site Investigation Workplan Received (w/out Fee)/3	REVISED SI WORKPLAN
1996-10-17	43	Status Report Received/3	-
1997-01-24	43	Status Report Received/4	-
1997-06-20	37	SI Report Received (w/out Fee)	-
1997-06-20	39	Remedial Action Options Report received (w/out Fee)	-
1997-09-30	43	Status Report Received/5	-
1997-10-03	39	Remedial Action Options Report received (w/out Fee)/2	-
1997-11-06	99	Miscellaneous/4	REC'D TEMP. ACCESS AGREEMENT

1998-10-12	99	Miscellaneous/4	VARIOUS CORRES RECD
1999-02-18	41	Remedial Action Report Received	-
1999-03-08	92	O&M Report Received (w/out Fee)	-
1999-04-05	92	O&M Report Received (w/out Fee)/2	-
1999-04-05	99	Miscellaneous/5	SOIL VAPOR EXTRACTION REPORT
1999-05-25	43	Status Report Received/6	-
2000-01-24	92	O&M Report Received (w/out Fee)/3	PROGRESS REPORT #2
2001-02-07	92	O&M Report Received (w/out Fee)/4	mw PROGRESS REPORT
2001-05-23	92	O&M Report Received (w/out Fee)/5	-
2001-09-05	99	Miscellaneous/6	GROUNDWATER ANALYTICAL RESULTS 07/01
2001-09-20	92	O&M Report Received (w/out Fee)/6	-
2001-12-10	92	O&M Report Received (w/out Fee)/7	GW ANALYTICAL RESULTS 10/2001
2002-06-05	99	Miscellaneous/8	REC'D GW ANALYTICAL RESULTS - APRIL 2002
2002-06-05	99	Miscellaneous/8	REC'D REVISED GW ANALYTICAL RESULTS - APRIL 2002
2002-11-15	99	Miscellaneous/7	JD.ANALYTICAL RESULTS 11/2001
2003-01-17	43	Status Report Received/7	JD.REC'D PROGRESS REPT #5
2003-03-25	79	Closure Review Request Received with Fee	JD.REC'D CK# 1147 $750.00 - REC'D GIS PKT GIVEN TO MW 3/27/03
2003-03-25	700	Date Groundwater Registry Fee Received	REC'D CK# 1147 $250.00
2003-04-10	90	Start FIFO Review	GIS PKT COMPLETE MW
2003-06-09	80	Closure Not Approved	BB. EXTENT NOT DEFINED, ADDT'L MONITORING NEEDED
2003-09-08	43	Status Report Received/8	CLOSURE DENIAL APPEAL
2003-09-18	80	Closure Not Approved/2	BB. RESPONSE LETTER SENT
2004-06-17	179	Closure Review Req Received (no fee required)	-
2004-06-17	710	Date Soil Registry Fee Paid	REC'D CK# 412038871 $200.00
2004-08-27	50	GIS Registry Site	SOIL & GW
2004-08-27	84	Conditional Closure	BB. PENDING WELL ABANDONMENT & WASTE DISP.
2004-10-21	90	Start FIFO Review/2	REC'D WELL ABANDONMENT FORMS
2004-11-09	90	Start FIFO Review/3	REC'D WELL ABANDONMENT FORMS (13)
2004-11-10	11	Activity Closed	BB. SENT FINAL CLOSURE LETTER
2004-11-10	232	Continuing Obligation - Residual Soil Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***
2004-11-10	236	Continuing Obligation - Residual GW Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***
2006-02-14	100	GIS Registry QAQC Completed	AB

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : GIS Registry Packet	

Impacts

Type	Comment
Contaminated Private Well	Replacement well drilled
Free Product	Remediated
Groundwater Contamination	-
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	EVERGREEN COUNTRY CLUB HWY 12/67 N ELKHORN, WI 53121
Consultant	MONTGOMERY WATSON MADISON, WI 53705
RP Contact/Agent	BILL ROGERS ,
Former Project Manager	BRENDA BOYCE
Project Manager	JAMES KASDORF 2300 N DR MARTIN LUTHER KING JR DR MILWAUKEE, WI 53212

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BRRTS on the Web

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03-65-107090 ABELLS CORNERS

LUST - CLOSED



Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination click here. **You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.**

Location Name (Click name to view details and other activities)			County	WDNR Region
WI DOT ROLLING THUNDER MOTORCYCLE SHOP			WALWORTH	SOUTHEAST
Address			Municipality	
N6419 HWY 12			SUGAR CREEK	
Public Land Survey System		Latitude	Google Maps	RR Sites Map
NE 1/4 of the NE 1/4 of Sec 13, T03N, R16E		42.7251659	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description		Longitude	Facility ID	Size (Acres)
NONE		-88.5428856	265021680	1.5

Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	53121395619		1996-04-24	2007-05-30	2007-07-23

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	Yes	Yes	No	No	No	Yes

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1996-04-24	1	Notification	-
1996-08-12	2	RP Letter Sent	-
1996-11-14	2	RP Letter Sent/2	CORRECTED LETTER TO NEW RP
1996-11-14	99	Miscellaneous	NEW RP, ADDRESS, ETC (OLD RP WI DOT)
1997-03-25	35	Site Investigation Workplan Received (w/out Fee)	-
2001-07-18	79	Closure Review Request Received with Fee	BG $ 750.00 CHECK # 1542 RECEIVED
2002-01-09	80	Closure Not Approved	BG
2002-09-04	99	Miscellaneous/2	BG.REC'D LETTER REGARDING CLOSURE
2002-10-11	99	Miscellaneous/3	REC'D LETTER REGARDING CLOSURE
2002-11-26	90	Start FIFO Review	BG. ADDITIONAL INFO FOR CASE CLOSURE
2003-02-04	80	Closure Not Approved/2	NEED MORE INFORMATION
2005-10-19	179	Closure Review Req Received (no fee required)	FEE PREVIOUSLY SUBMITTED
2005-12-02	80	Closure Not Approved/3	BB. MISSING ELEMENTS
2006-05-03	50	GIS Registry Site	AUTOPOPULATED FROM 700/710 ACTION ENTRY ON 11-MAY-06
2006-05-03	90	Start FIFO Review/2	REC'D ADD'L INF FOR CLOSURE. REC'D GIS PKT. GIVEN TO RB 05/10/06 - COMPLETE 5/11/06 BR
2006-05-03	700	Date Groundwater Registry Fee Received	REC'D CK# 1887 $250.00
2006-05-03	710	Date Soil Registry Fee Paid	REC'D CK# 1887 $200.00

2006-06-14	84	Conditional Closure	BB. PENDING WELL ABAND & WASTE DISPOSAL
2006-07-06	99	Miscellaneous/4	REC'D WASTE DISPOSAL DOC'S
2007-05-18	99	Miscellaneous/5	REC'D ABANDONMENT FORMS
2007-05-30	11	Activity Closed	FINAL CLOSURE LETTER SENT
2007-05-30	232	Continuing Obligation - Residual Soil Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***
2007-05-30	236	Continuing Obligation - Residual GW Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***
2007-07-23	100	GIS Registry QAQC Completed	AB

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : GIS Registry Packet	

Impacts

Type	Comment
Contamination in Right of Way	-
Groundwater Contamination	-
Soil Contamination	-
Within 100 ft of Private Well	Prairie Tree Nursery well to south of property

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	ROLLING THUNDER MOTORCYCLE SHOP N6419 HY 12 ELKHORN, WI 53121
Consultant	AXIS ENGINEERING LLC 16225 CUMBERLAND TRAIL BROOKFIELD, WI 53005
RP Contact/Agent	CINDY AHERN N6419 HY 12 ELKHORN, WI 53121
Former Project Manager	BRENDA BOYCE
Project Manager	JAMES KASDORF 2300 N DR MARTIN LUTHER KING JR DR MILWAUKEE, WI 53212

Quick Response Codes

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BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the disclaimers page for more information.

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

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03-65-109659 MANN BROS INC #2

LUST - CLOSED



Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination click here. **You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.**

Location Name (Click name to view details and other activities)				County	WDNR Region
MANN BROS INC				WALWORTH	SOUTHEAST
Address				Municipality	
N6147 HWY 12 & 67				SUGAR CREEK	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
SE 1/4 of the SE 1/4 of Sec 13, T03N, R16E			42.7148461	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description			Longitude	Facility ID	Size (Acres)
NONE			-88.543533	265044890	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR			1996-09-13	2001-12-05	2013-07-02

Comments

SITE WAS CLOSED UNDER THE JURISDICTION OF THE DEPT OF SAFETY AND PROFESSIONAL SERVICES (DSPS) OR DEPT OF COMMERCE – SITE TRANSFERRED BACK TO DNR JURISDICTION IN 2013

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	Yes

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
1997-03-06	37	SI Report Received (w/out Fee)	*** SITE INVESTIGATION DETERMINED BY COMMERCE TO BE COMPLETE - FROM DCOM DATA INTERCHANGE ***
1998-05-12	92	O&M Report Received (w/out Fee)	-
2000-06-01	76	Activity Transferred to DSPS (formerly Commerce)	-
2001-10-22	84	Conditional Closure	*** Conditional Closure from Commerce Data Interchange ***
2001-11-15	51	Deed Affidavit at Closeout	-
2001-12-05	11	Activity Closed	*** NR726 Closure from Commerce Data Interchange ***
2001-12-05	232	Continuing Obligation - Residual Soil Contamination	-
2001-12-05	236	Continuing Obligation - Residual GW Contamination	-
2002-04-23	50	GIS Registry Site	AB
2002-04-23	100	GIS Registry QAQC Completed	AB
2013-07-02	89	DSPS (formerly Commerce) Transferred Back to DNR	PECFA PROGRAM TRANSFER 2013-2015 STATE BUDGET

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : GIS Registry Packet	

Impacts

Type	Comment
Groundwater Contamination	-
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Petroleum - Unknown Type	Petroleum		
Engine Waste Oil	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	MANN BROS INC N6147 HWY 12/67 ELKHORN, WI 53121
Consultant	BRAUN INTERTEC 515 N DEARBORN ST CHICAGO, IL 60610
Former Project Manager	WI DEPT OF SAFETY & PROFESSIONAL SERVICES (DSPS)
RP Contact/Agent	ROBERT MANN ELKHORN, WI 53121
DNR File Contact	MAY VANG 2300 N MARTIN LUTHER KING DR MILWAUKEE, WI 53212

Quick Response Codes

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03-65-521518 STERLINGWORTH MARINA

LUST - CLOSED

Location Name (Click name to view details and other activities)			County	WDNR Region
STERLINGWORTH MARINA			WALWORTH	SOUTHEAST
Address			Municipality	
N7557 STERLINGWORTH DRIVE			ELKHORN	
Public Land Survey System		Latitude	Google Maps	RR Sites Map
SE 1/4 of the NW 1/4 of Sec 36, T04N, R16E		42.7654679	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description		Longitude	Facility ID	Size (Acres)
NONE		-88.5556466	265112870	1
Jurisdiction	PECFA No. / EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR		2004-01-22	2008-12-08	2008-12-08

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
2004-01-22	1	Notification	-
2004-02-09	2	RP Letter Sent	-
2004-02-20	99	Miscellaneous	DV. (2/27/04 TALKED TO RP AND ATTY.) REC'D LTR FROM RP - WANTS CONTACT ABOUT RP LTR
2007-06-28	200	Push Action Taken	DV.
2007-08-28	99	Miscellaneous/2	REC'D NOTIFICATION THAT GZA WILL BE CONSULTANT
2007-08-28	99	Miscellaneous/2	DV. 10/15/07 REC'D LTR RE CONSULTANT SELECTION
2008-10-08	79	Closure Review Request Received with Fee	REC'D CK# 3060 $750.00
2008-12-08	11	Activity Closed	DV.

Impacts

Type	Comment
Groundwater Contamination	-
Other	2 550 Gal UST (GAS)
Other	1 1000 Gal UST (GAS)
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Consultant	GZA GEOENVIRONMENTAL INC 20900 SWENSON DR STE 150 WAUKESHA, WI 53186
Responsible Party	STERLINGWORTH MARINA N7547 STERLINGWORTH DRIVE ELKHORN, WI 53121
Project Manager	DAVE VOLKERT 141 NW BARSTOW WAUKESHA, WI 53188
Former Consultant	AES CONSULTANTS LTD 1009 WASHINGTON ST GRAFTON, WI 53024

Quick Response Codes

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Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

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03-65-553992 MOBIL C-STORE (FKA SWATEK SALES EXPRESS LN C

LUST - OPEN

Location Name (Click name to view details and other activities)				County	WDNR Region
SWATEK SALES EXPRESS LANE C-STORE				WALWORTH	SOUTHEAST
Address				Municipality	
N5788 HIGHWAY 12				ELKHORN	
Public Land Survey System			Latitude	Google Maps	RR Sites Map
SW 1/4 of the SW 1/4 of Sec 19, T03N, R17E			42.7023066	CLICK TO VIEW	CLICK TO VIEW
Additional Location Description			Longitude	Facility ID	Size (Acres)
NONE			-88.5413203	265119910	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR			2009-06-16		2013-07-16

Characteristics

EPA NPL Site?	PECFA Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No

Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
2009-06-02	33	Tank Closure Environmental Site Assessment Rpt Received	-
2009-06-16	1	Notification	-
2009-08-06	2	RP Letter Sent	-
2010-10-14	200	Push Action Taken	-
2011-09-07	130	DNR Regulatory Reminder Sent	VAPOR INTRUSION (VI) ASSESSMENT NOTIFICATION LTR SENT - 2ND ATTEMPT SUCCESSFULLY SENT 10/12/11
2011-09-09	200	Push Action Taken/2	-
2013-07-16	200	Push Action Taken/3	-

Documents

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
Vapor Intrusion Letters : 0365553992_VI_Letter.pdf	PDF

Impacts

Type	Comment
Soil Contamination	-

Substances

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

Who

Click Project Manager Name to Compose Email

Role	Name/Address
Consultant	GILES ENGINEERING ASSOCIATES INC N8 W22350 JOHNSON RD A1 WAUKESHA, WI 53186
Project Manager	JEFF ACKERMAN 3911 FISH HATCHERY RD FITCHBURG, WI 53711
Responsible Party	VR ESTATES, LLC 5575 BERKSHIRE CT NEW BERLIN, WI 53151

Quick Response Codes

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APPENDIX P

HISTORICAL LAND USE INFORMANTION

AERIAL PHOTOGRAPHS



Source: **Aerial Photograph Retrieved From Walworth County GIS**

Scale: 0 500 1000 2000

1940 AERIAL PHOTOGRAPH

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

N



Source: **Aerial Photograph Retrieved From Walworth County GIS**

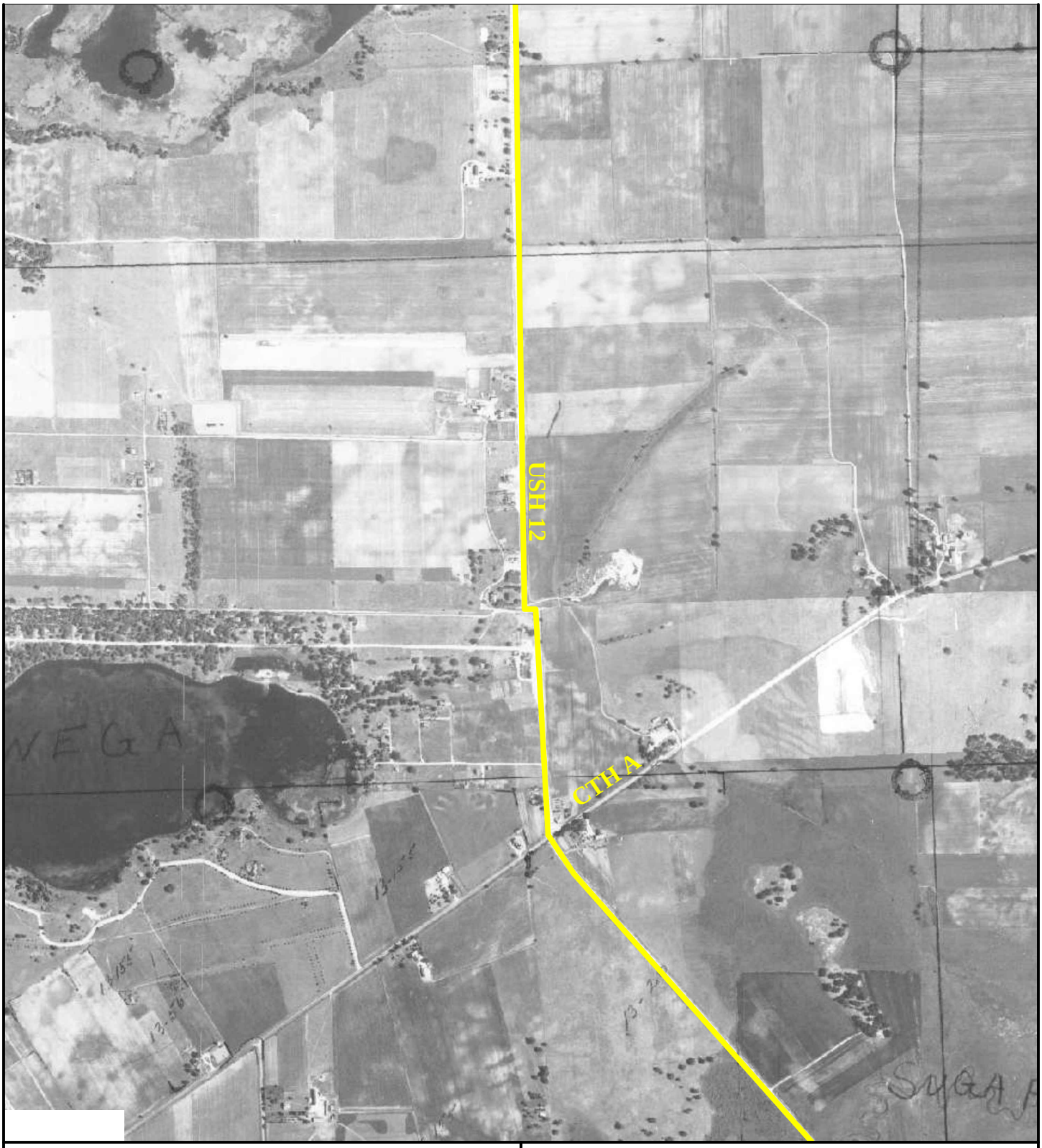
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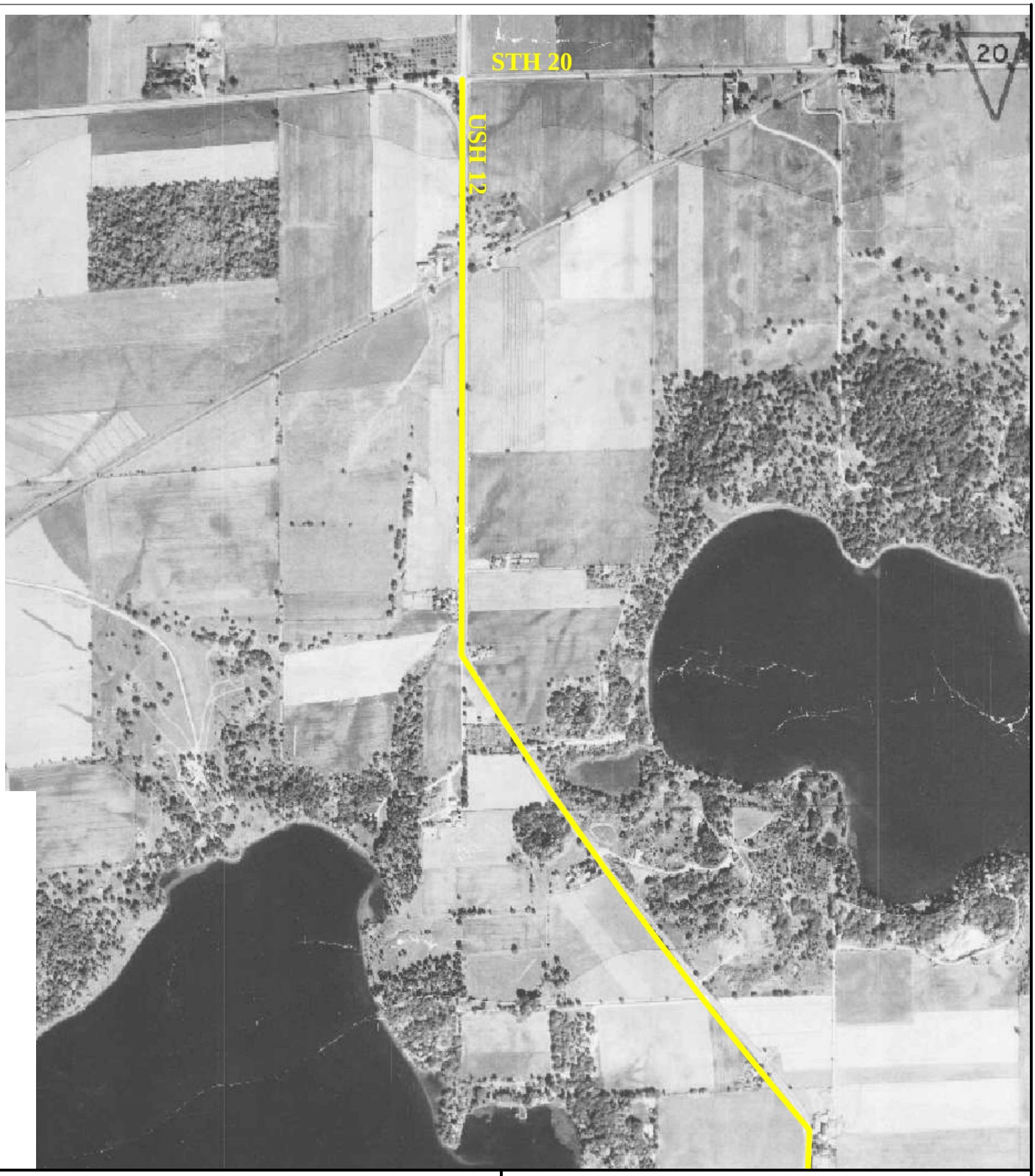
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1956 AERIAL PHOTOGRAPH

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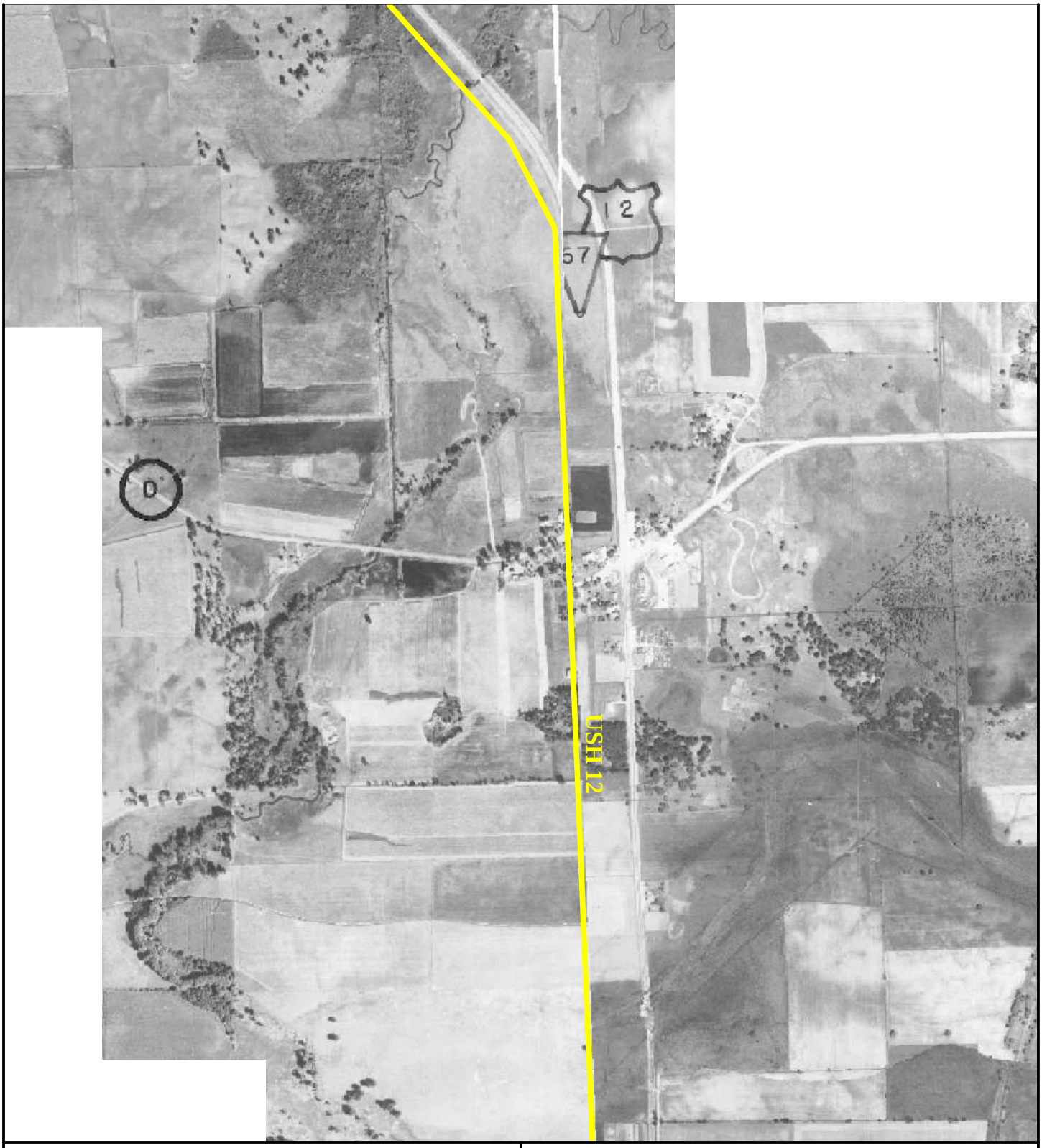
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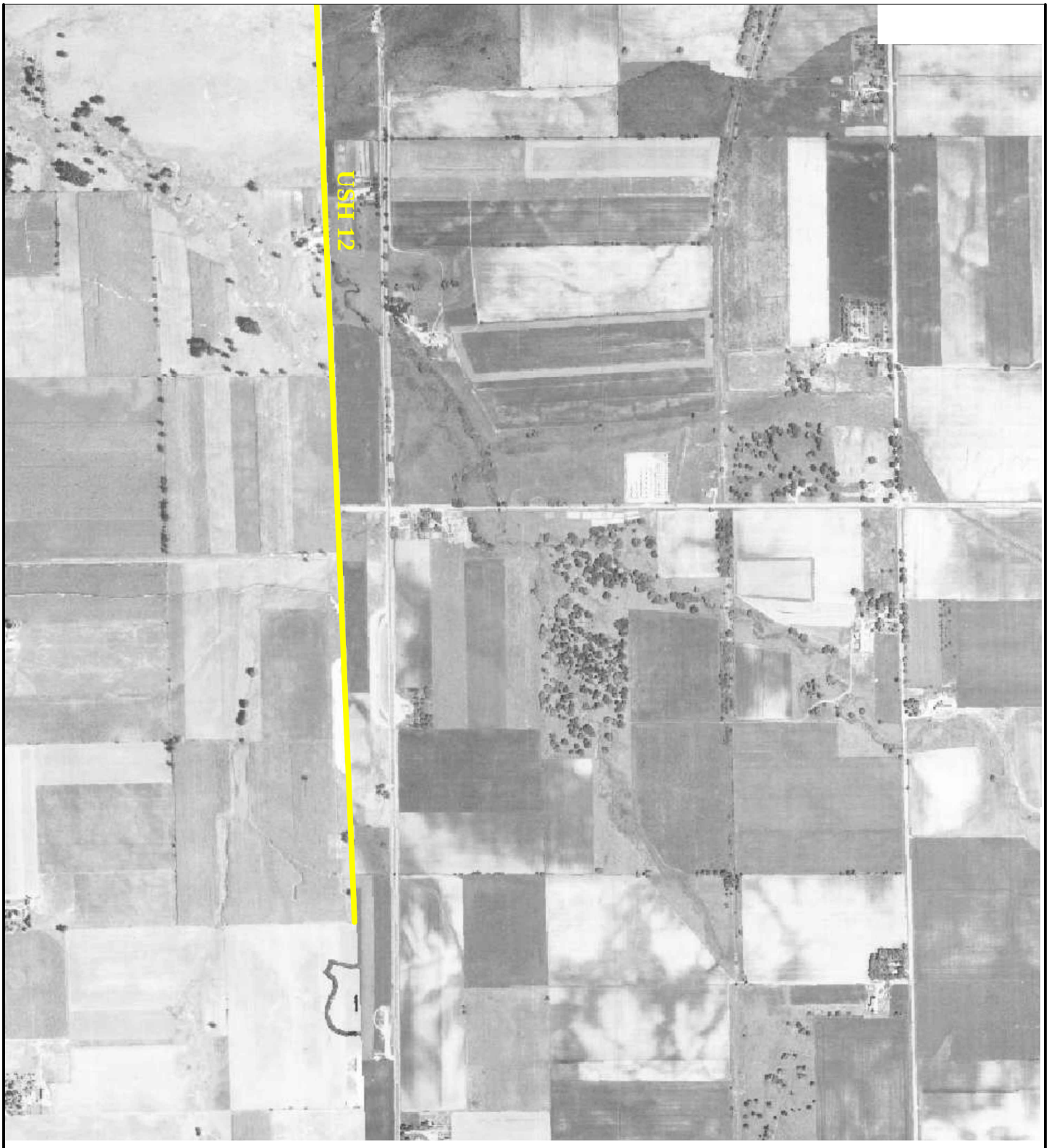
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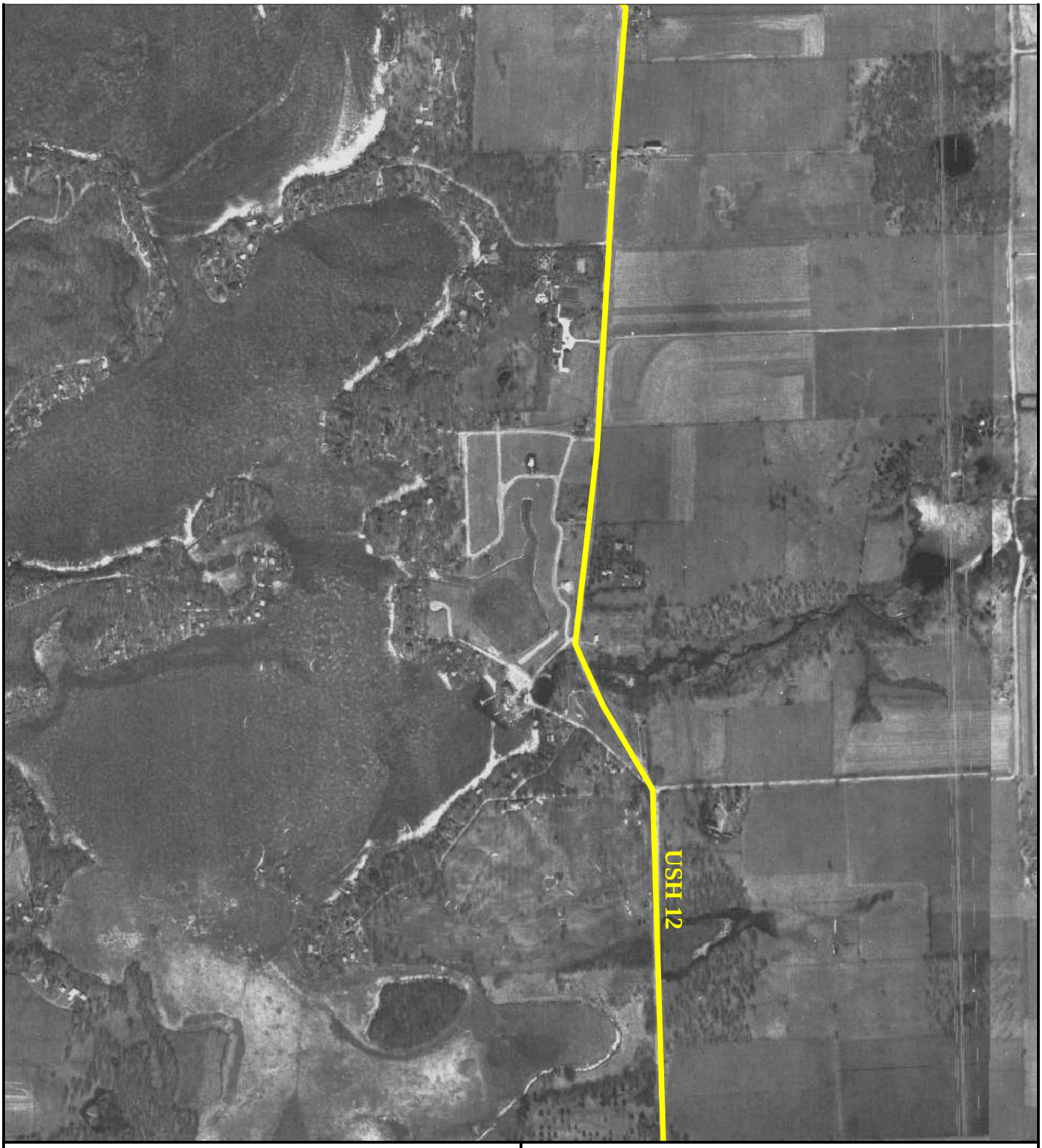
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1963 AERIAL PHOTOGRAPH

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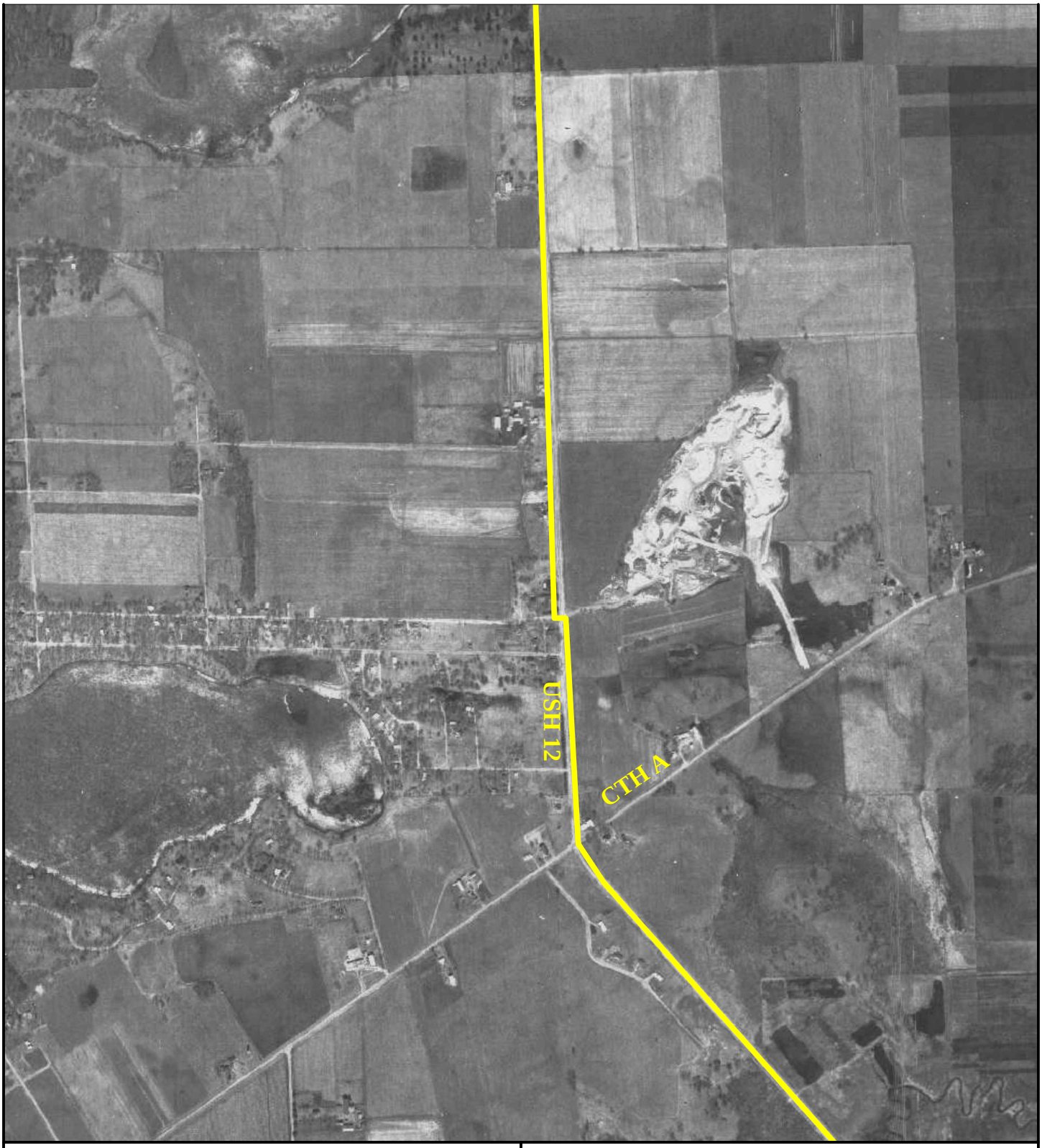
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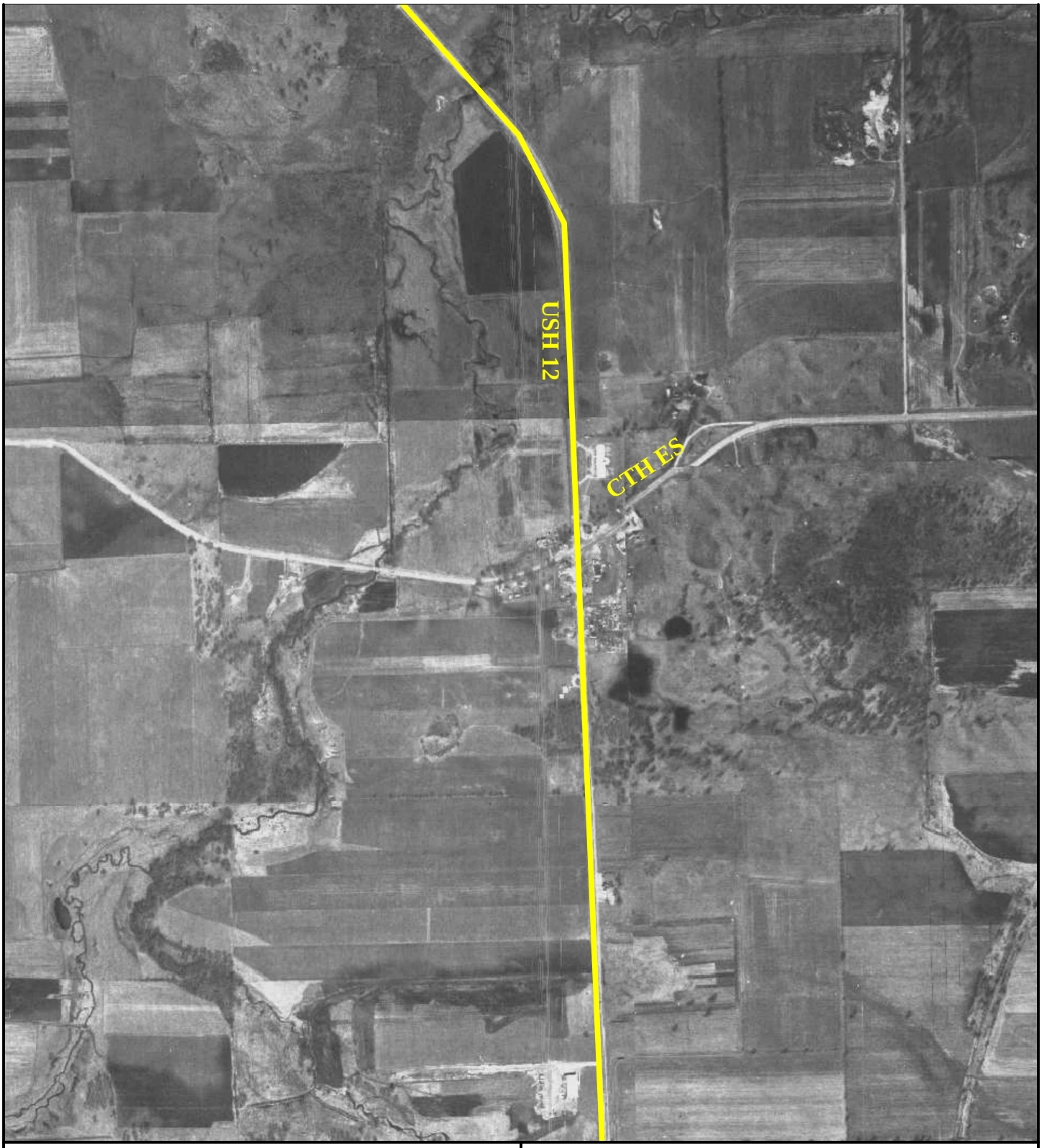
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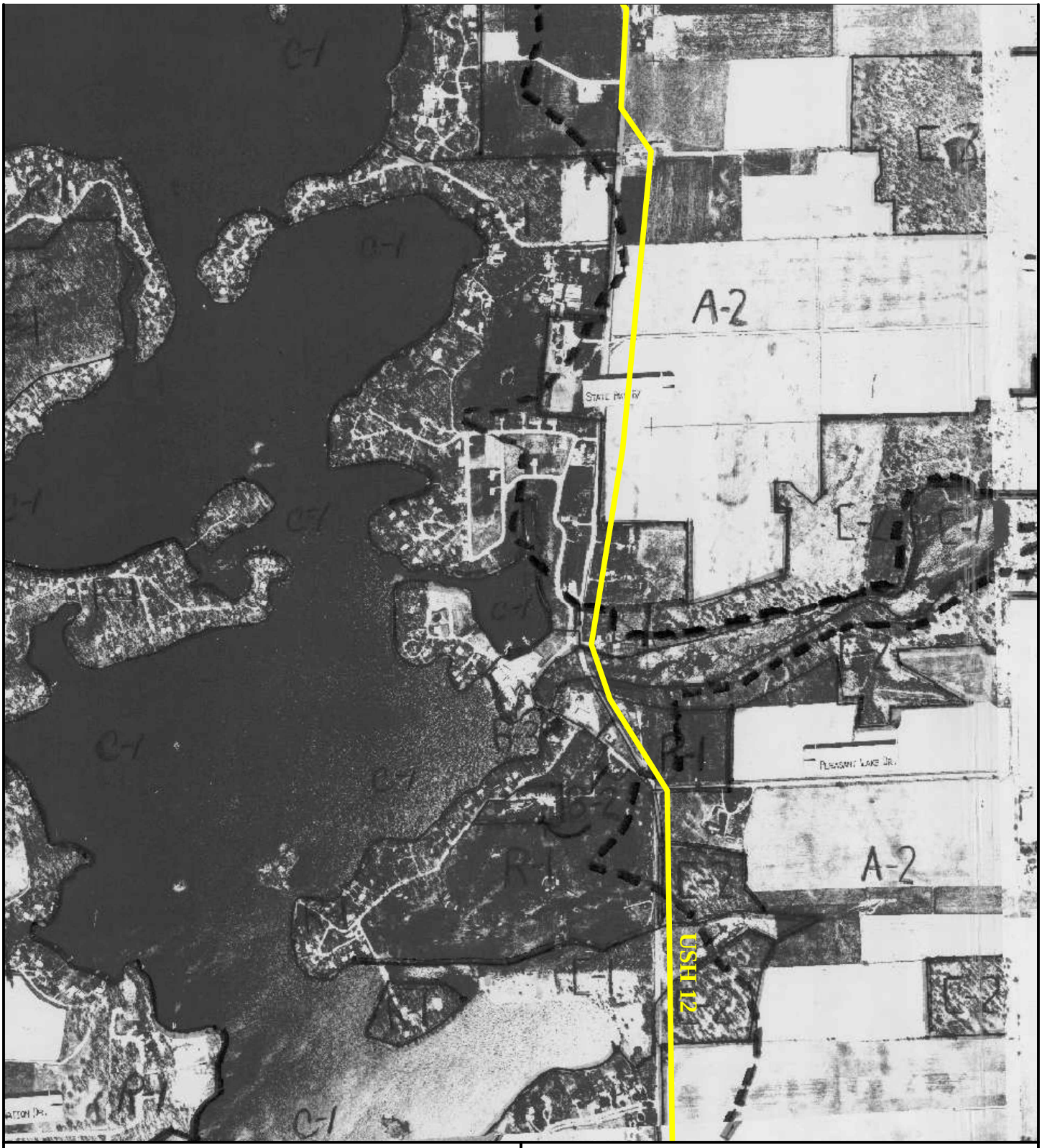
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1970 AERIAL PHOTOGRAPH

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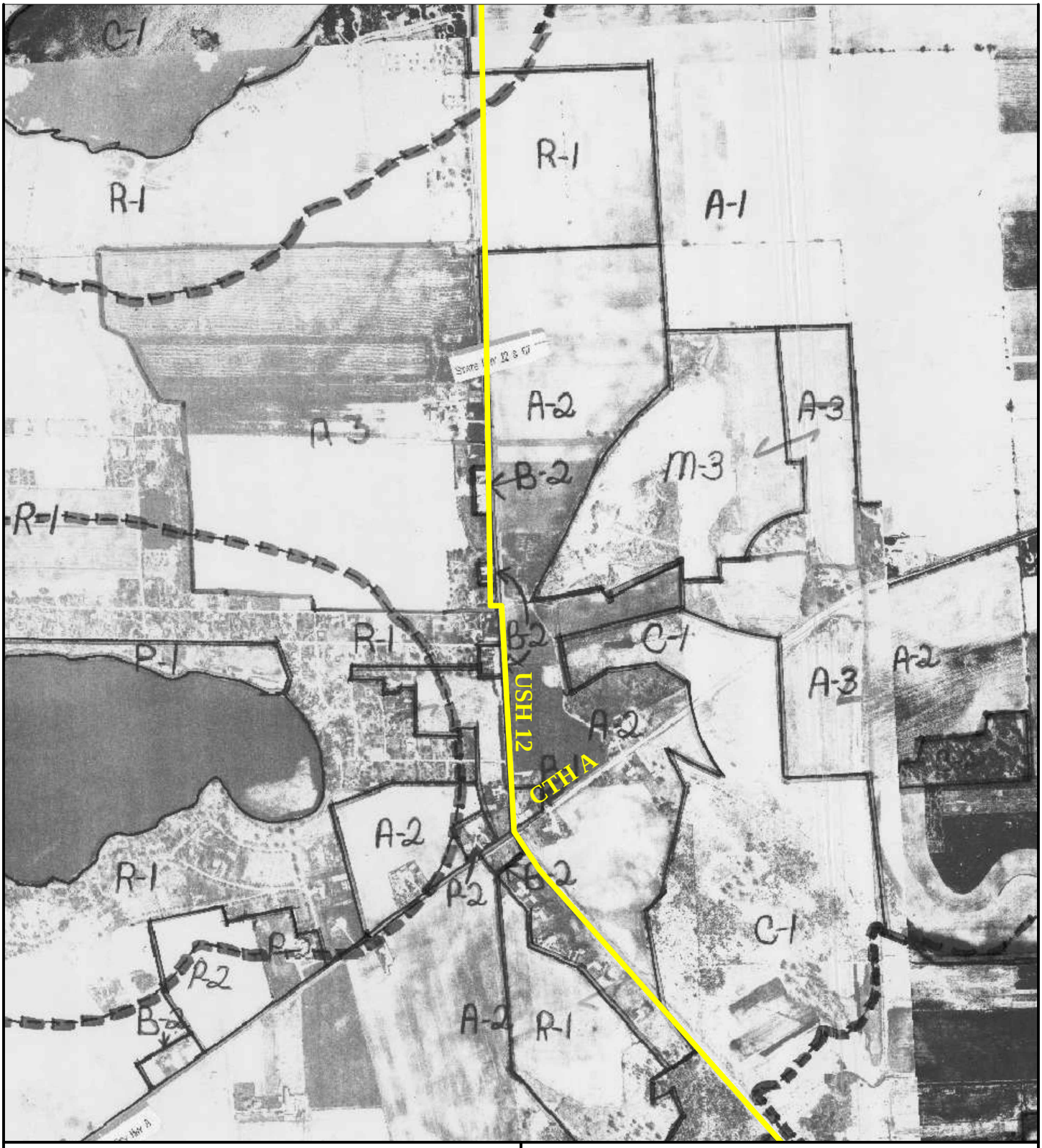
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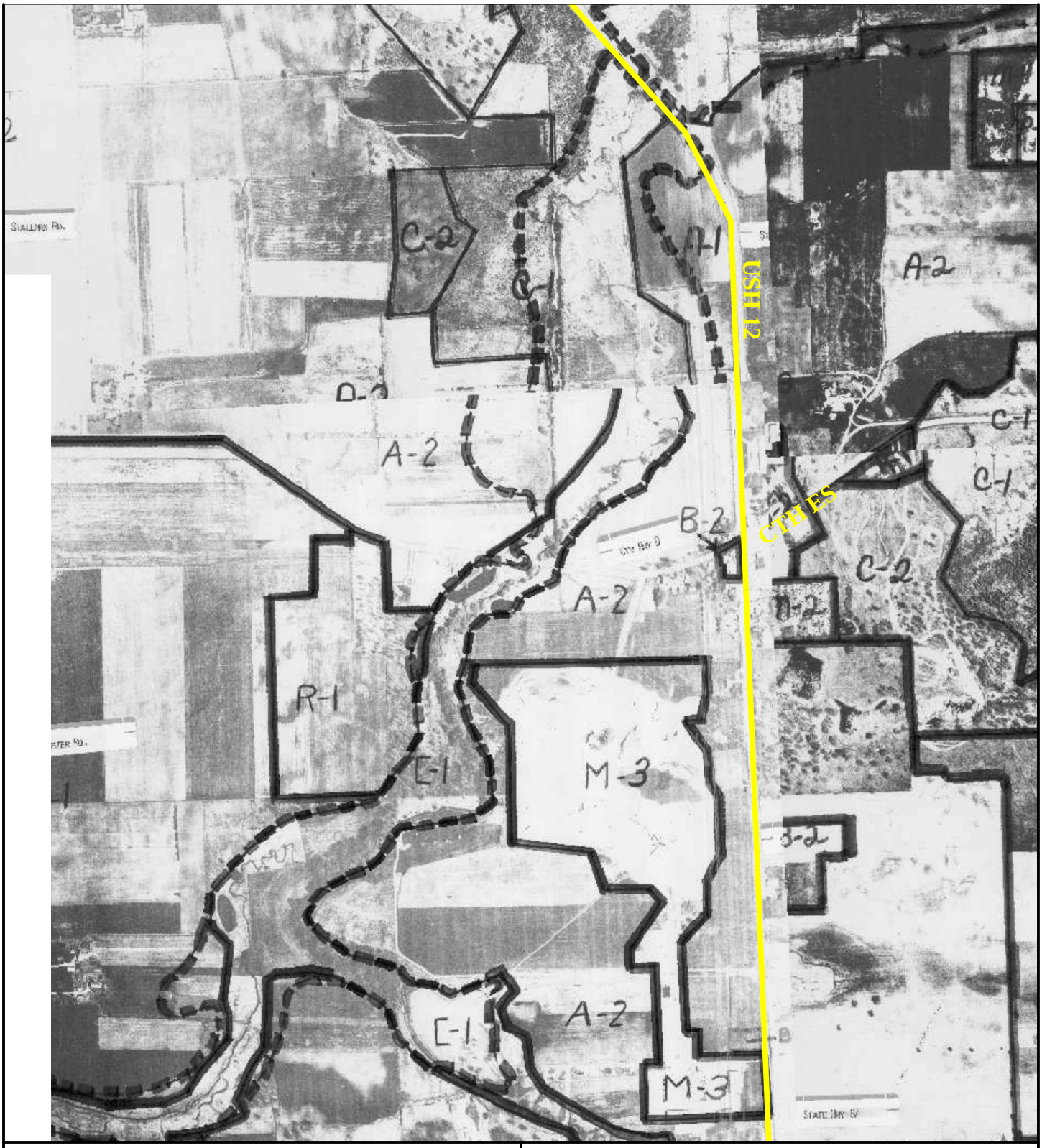
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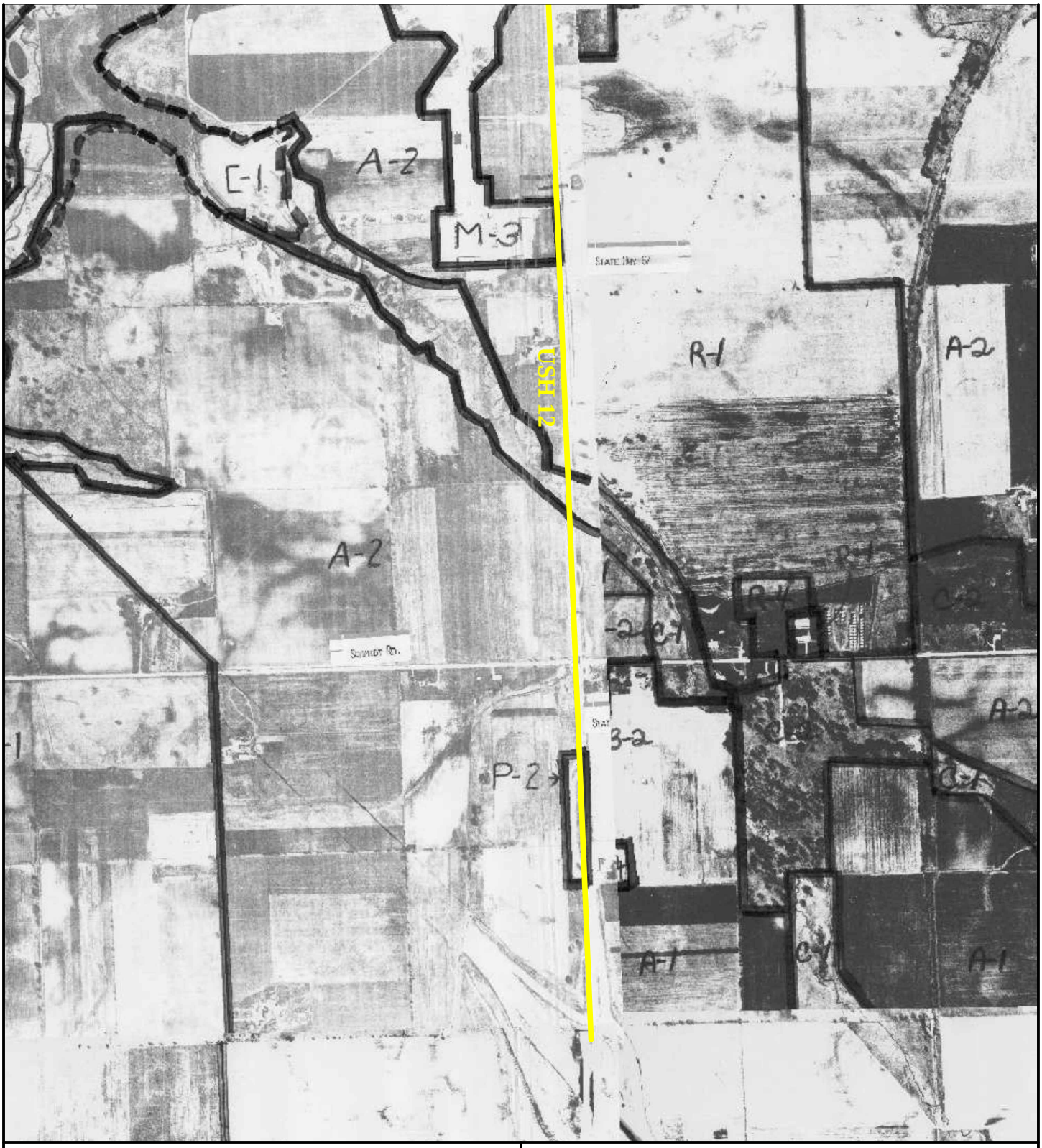
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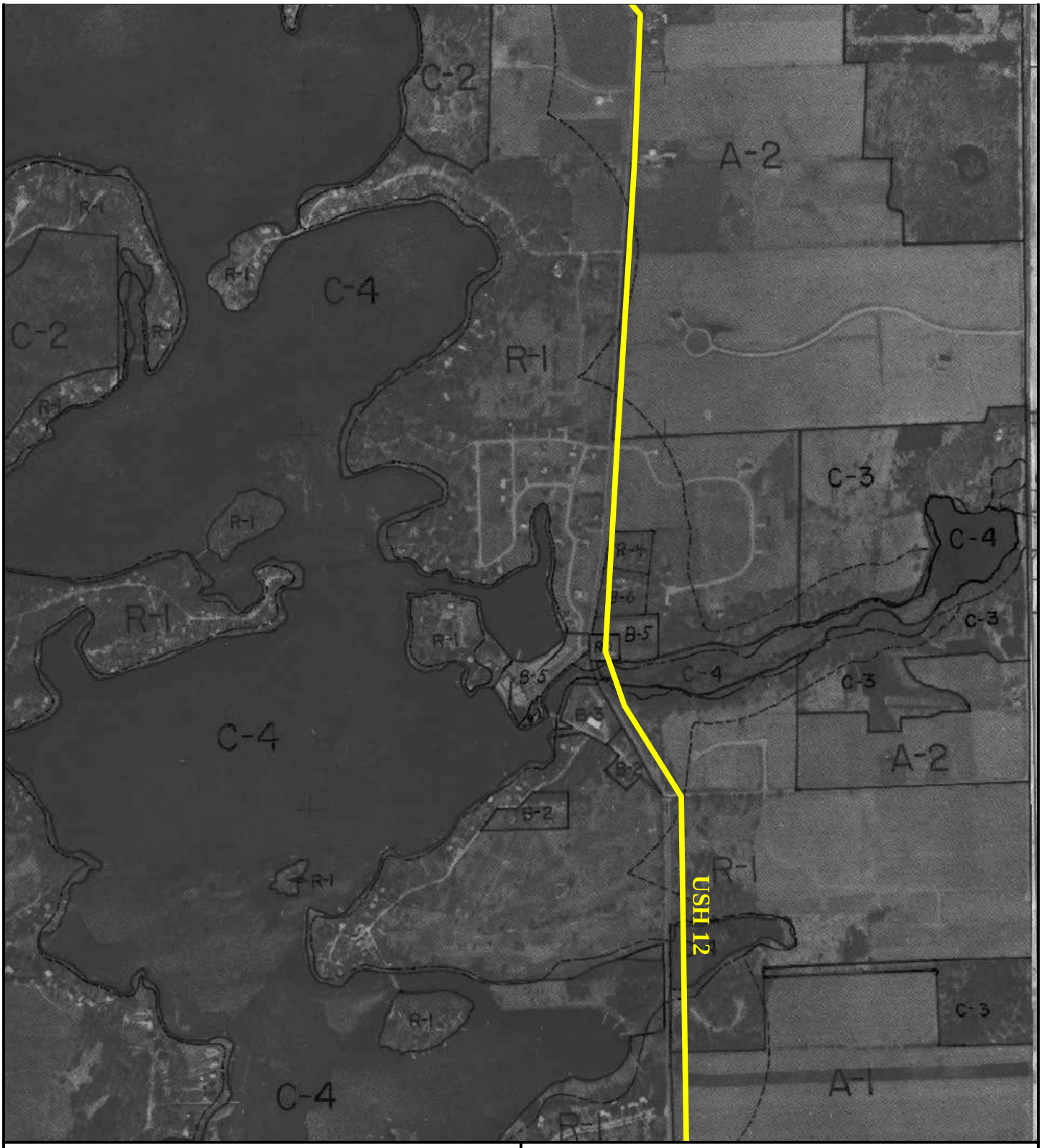
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1980 AERIAL PHOTOGRAPH

HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 3120-10-00
USH 12
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Walworth County, WI

N



Source: **Aerial Photograph Retrieved From Walworth County GIS**

Scale: 0 500 1000 2000

1980 AERIAL PHOTOGRAPH

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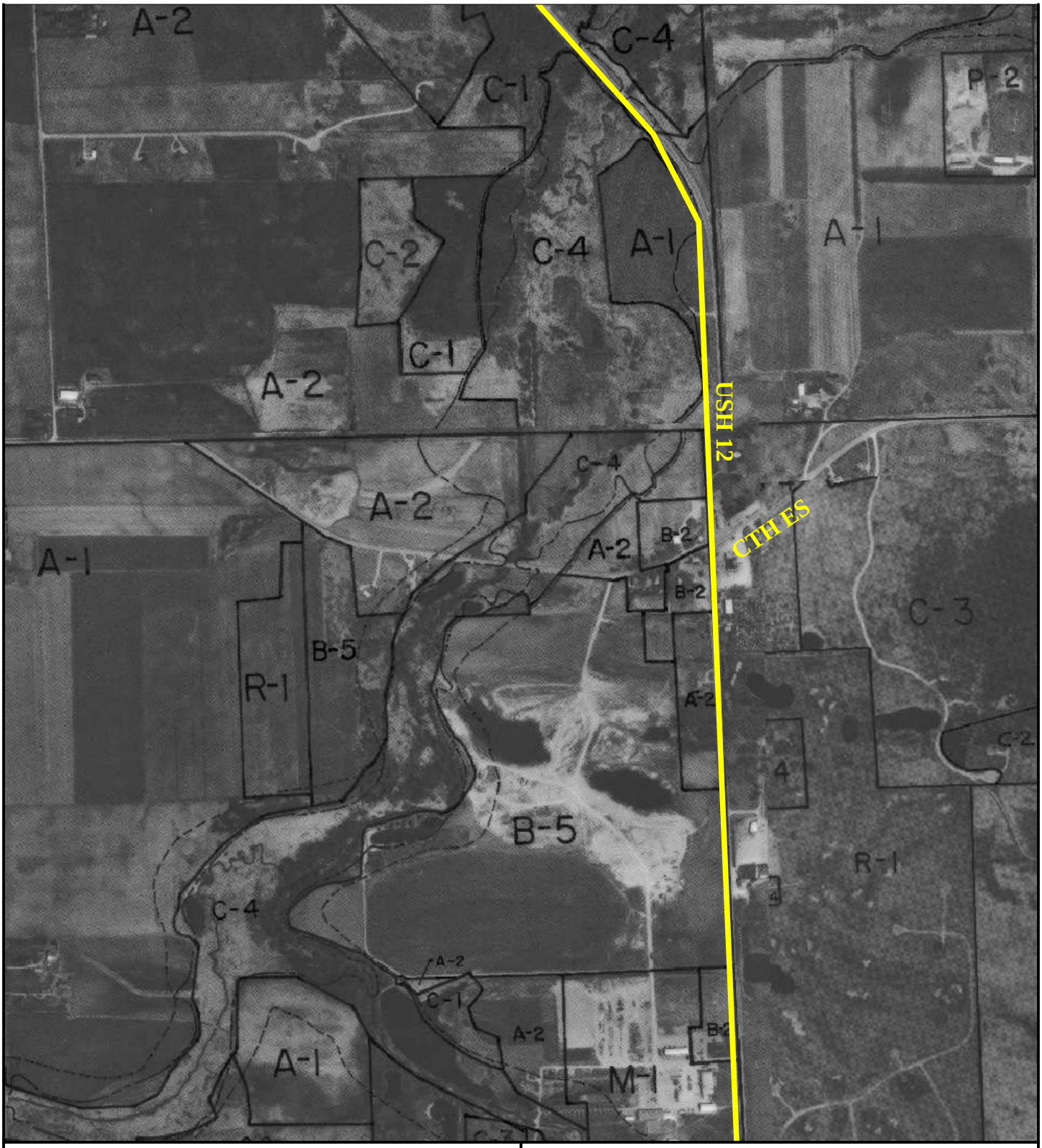
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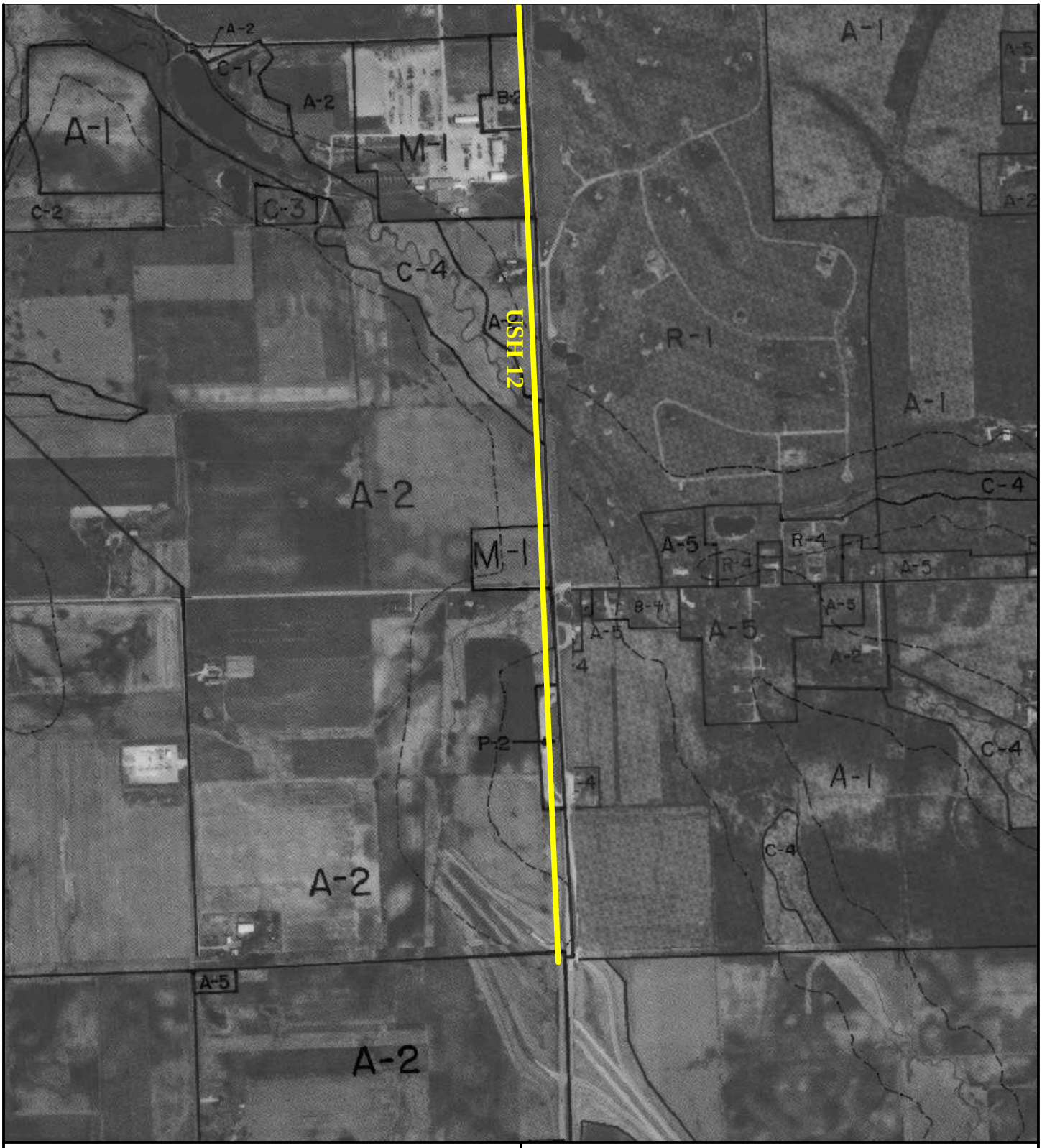
Scale: 0 500 1000 2000

1980 AERIAL PHOTOGRAPH

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Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 3120-10-00
USH 12
STH 20 to USH 12 / STH 67 Split
Walworth County, WI

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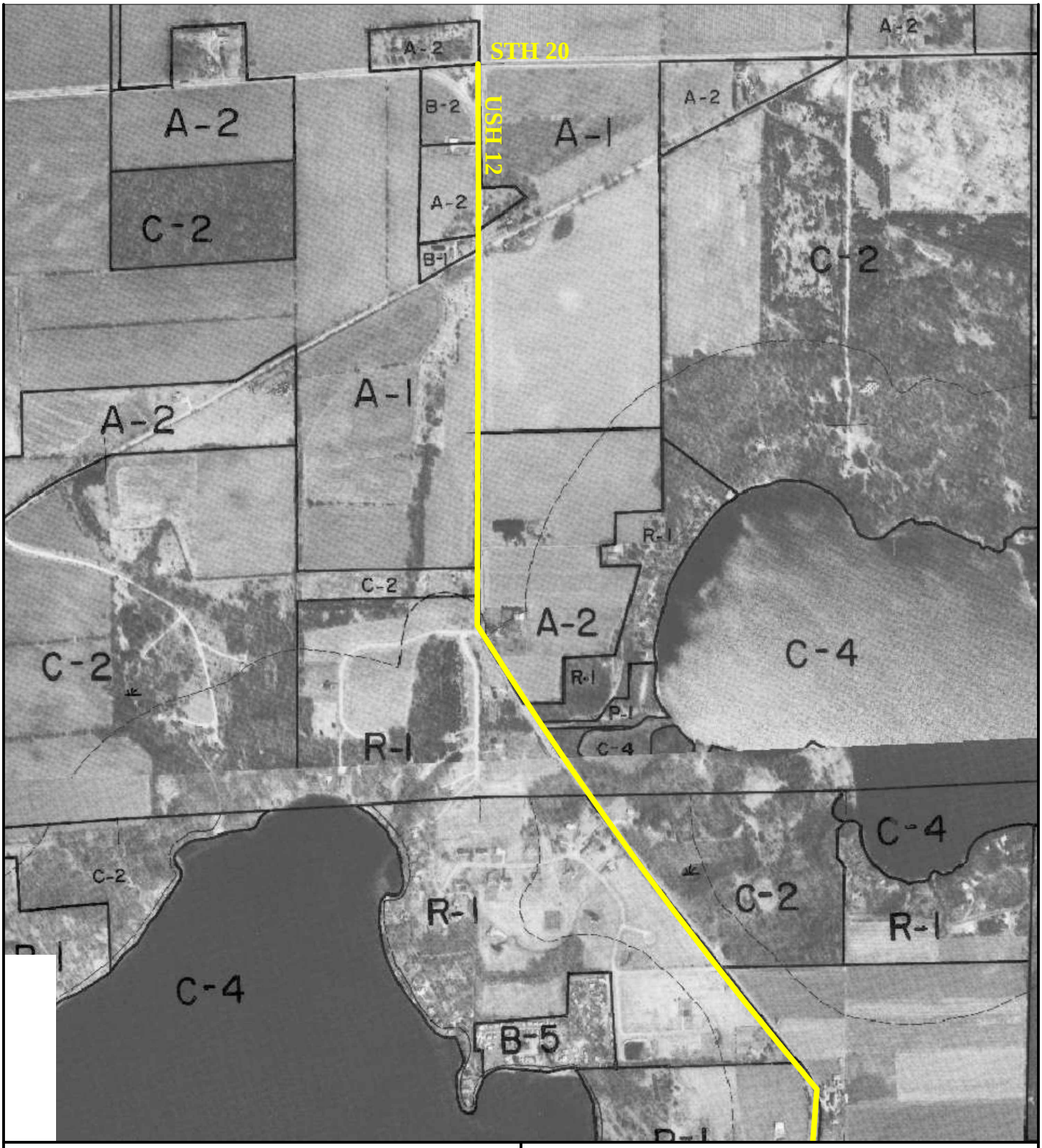
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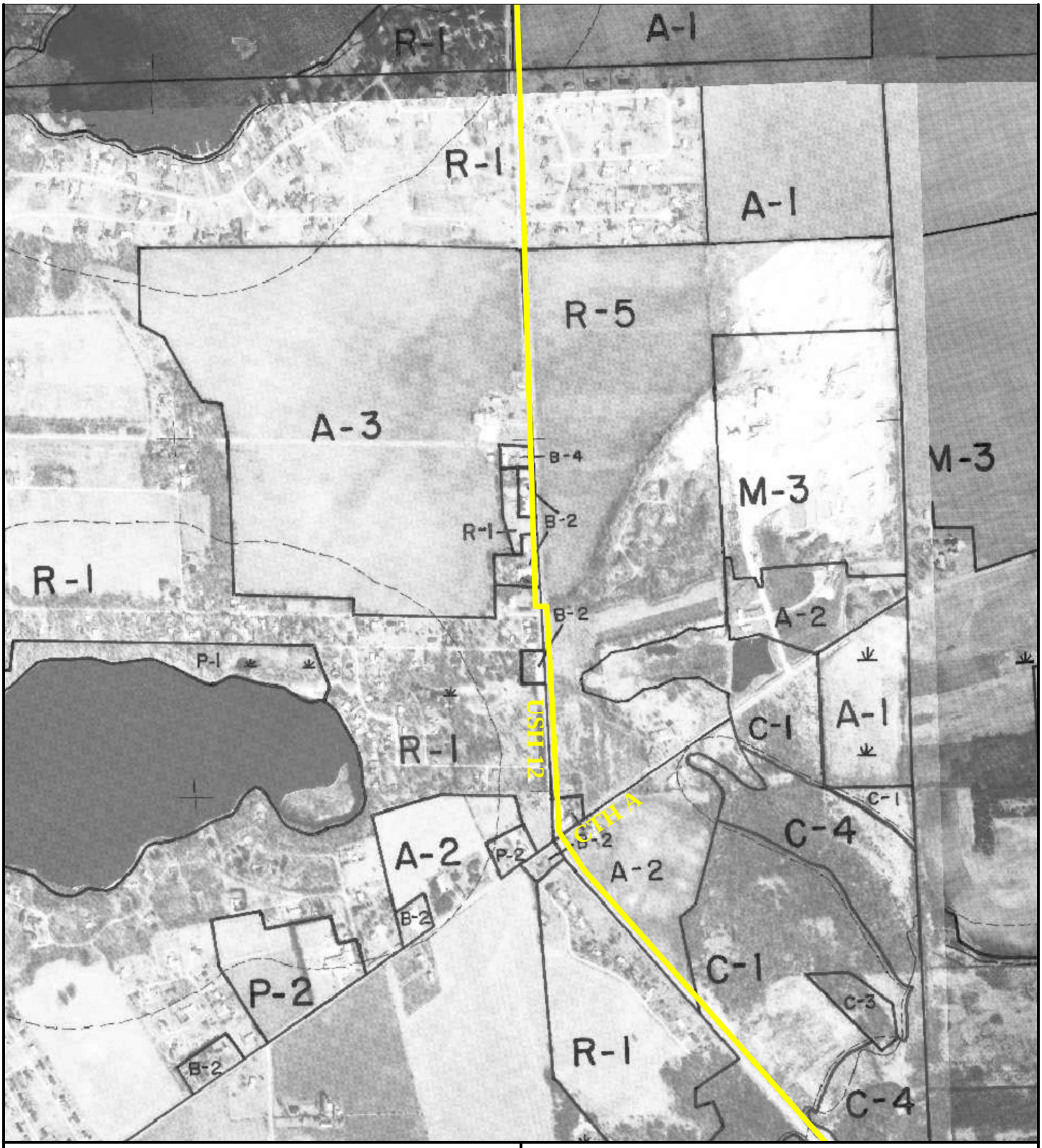
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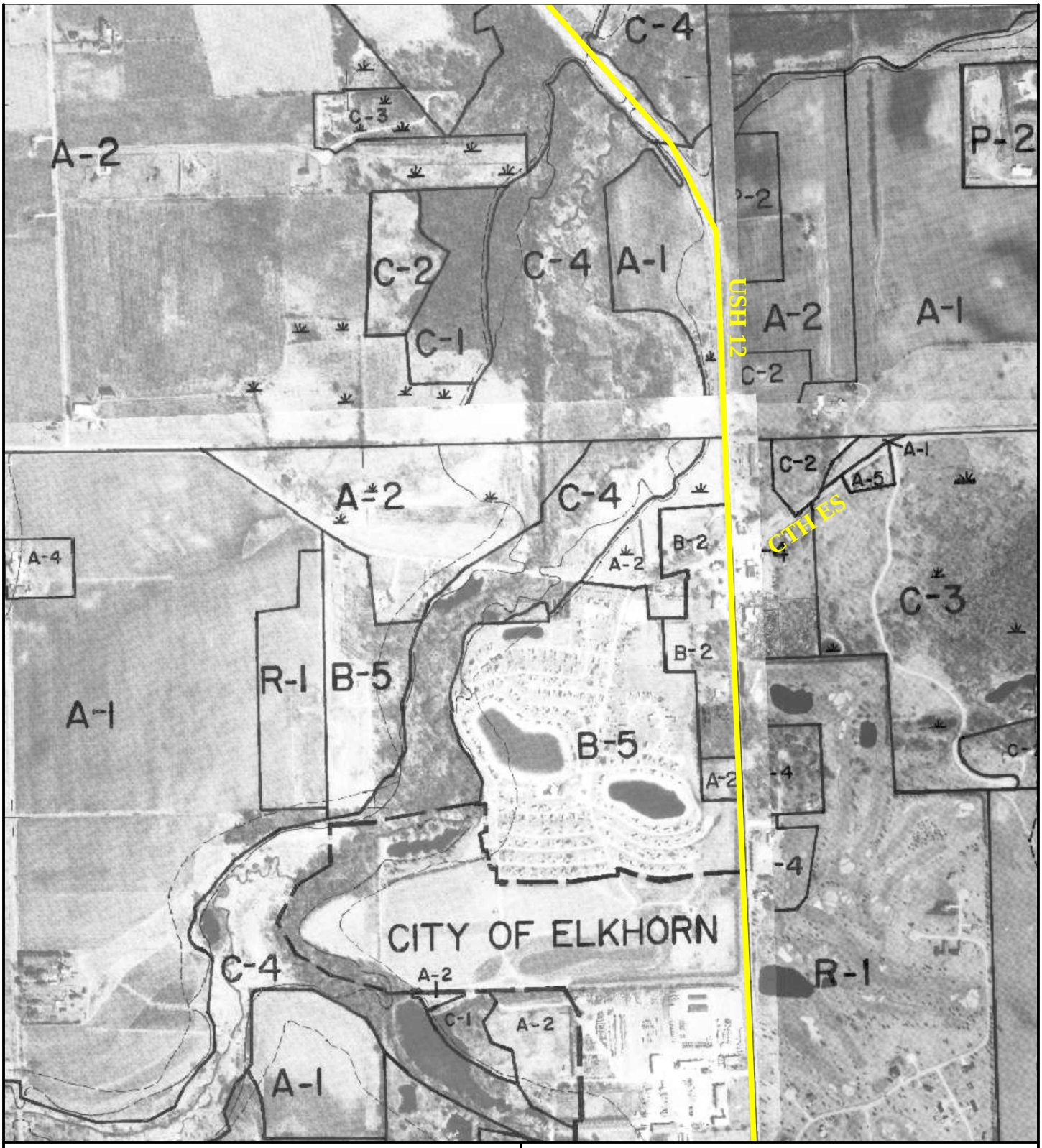
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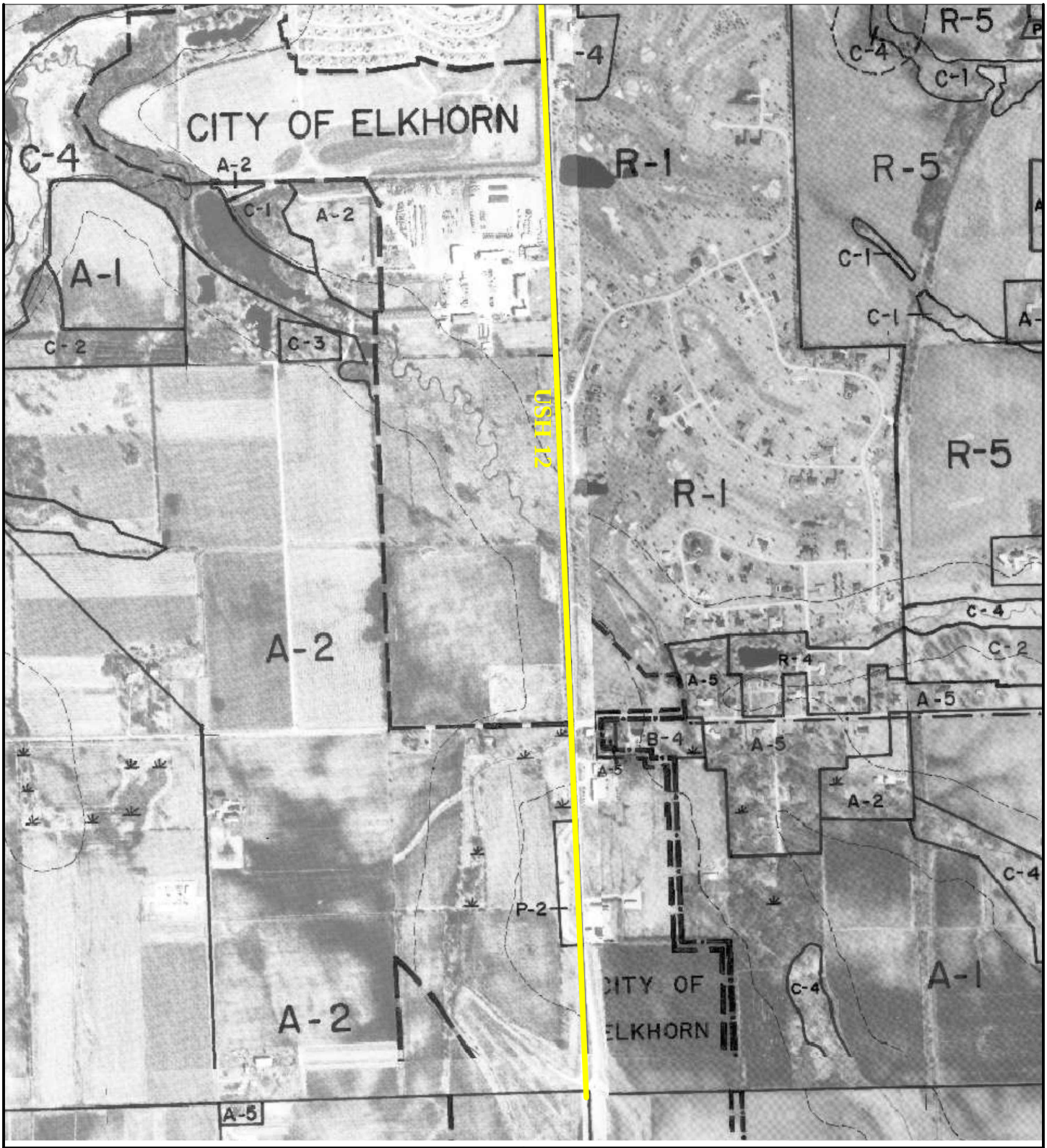
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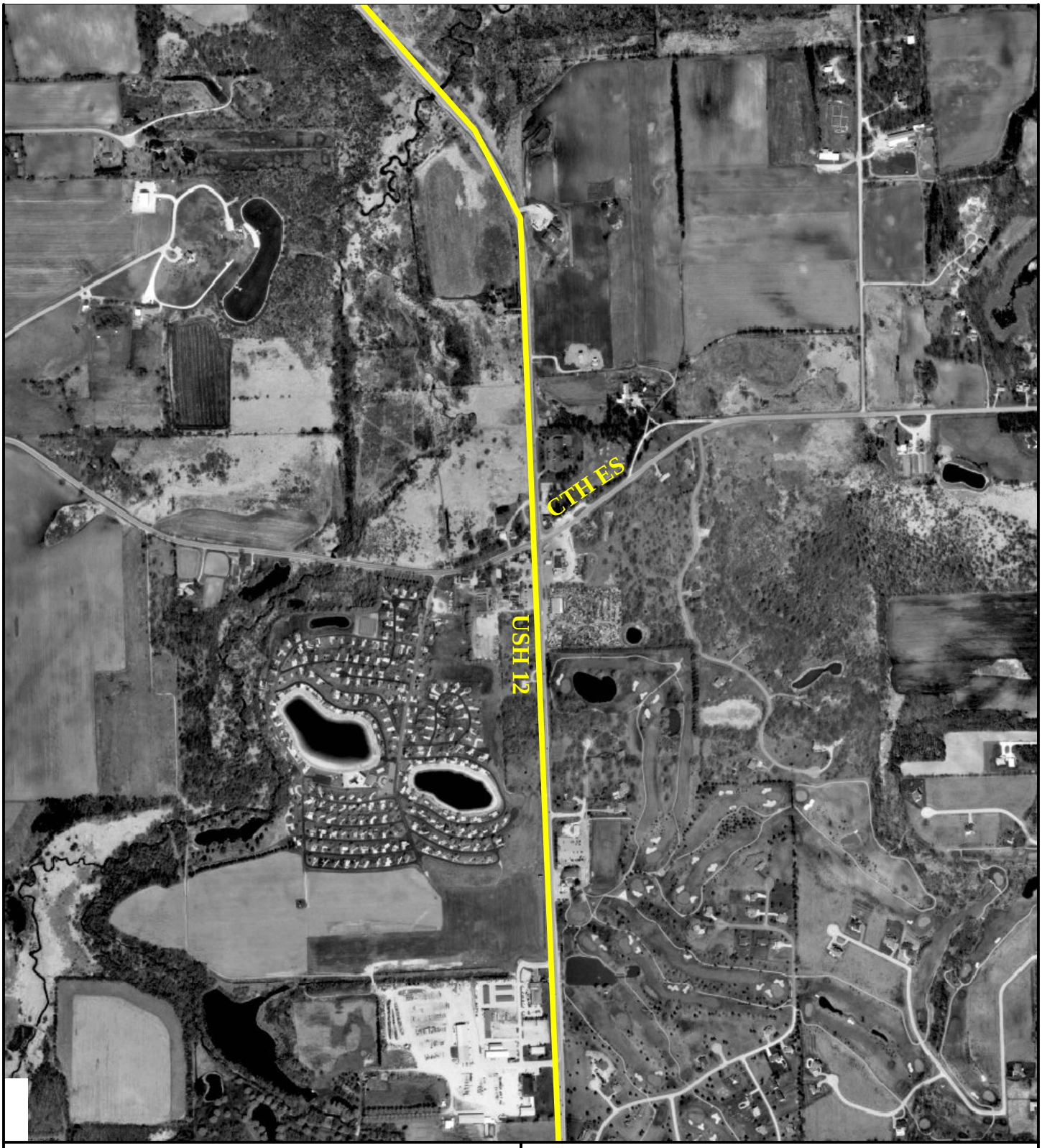
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Walworth County, WI

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SANBORN MAPS

USH 12
W5098-W5009 CORD A
Elkhorn, WI 53121

Inquiry Number: 3753358.2
October 09, 2013

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/09/13

Site Name:
USH 12
W5098-W5009 CORD A
Elkhorn, WI 53121

Client Name:
Himalayan Consultants, LLC
W156 N11357 Pilgrim Road
Germantown, WI 53022

EDR Inquiry # 3753358.2

Contact: Michelle Peed

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Address: W5098-W5009 CORD A
City, State, Zip: Elkhorn, WI 53121
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