



RMT, Inc.  
744 Heartland Trail  
P.O. Box 8923  
Madison, WI 53708-8923  
Phone: 608-831-4444  
FAX: 608-831-3334

6-28-91

**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT  
KENNETH JACOMET PROPERTY  
FORMER GASOLINE STATION  
USH 141, MARINETTE COUNTY  
MIDDLE INLET, WISCONSIN**

**WDOT PROJECT #1490-11-01**

**PREPARED FOR  
WISCONSIN DEPARTMENT OF TRANSPORTATION  
MADISON, WISCONSIN**

**PREPARED BY  
RMT, INC.  
MADISON, WISCONSIN**

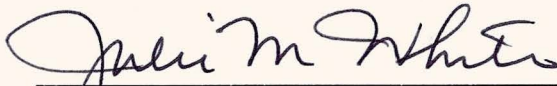
**JUNE 1991**

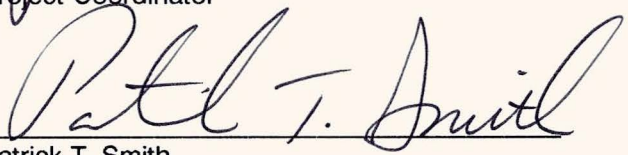


6/28/91

Steven L. Streblov, P.E., C.H.M.M.  
Senior Project Engineer

10101.01 0000:RTH:jaco0605

  
Julie M. White  
Project Coordinator

  
Patrick T. Smith  
Project Manager

## TABLE OF CONTENTS

| <u>Title</u>  | <u>Page</u> |
|---|-------------|
| 1. INTRODUCTION .....                                 | 1-1         |
| 1.1 Background .....                                  | 1-1         |
| 1.2 Purpose and Scope .....                           | 1-1         |
| 2. FINDINGS AND CONCLUSIONS .....                     | 2-1         |
| 3. RECOMMENDATIONS .....                              | 3-1         |
| 4. DISCUSSION .....                                   | 4-1         |
| 4.1 Phase I Activities .....                          | 4-1         |
| 4.1.1 General Approach .....                          | 4-1         |
| 4.1.2 Site Visit .....                                | 4-1         |
| 4.1.3 Site History .....                              | 4-3         |
| 4.1.4 Regulatory Review .....                         | 4-4         |
| 4.2 Phase II Activities .....                         | 4-5         |
| 4.2.1 Boring and Sampling Program .....               | 4-5         |
| 4.2.2 Geology .....                                   | 4-5         |
| 4.2.3 Sampling and Analysis Program .....             | 4-5         |
| 4.2.4 Sampling and Analysis Results .....             | 4-6         |
| 5. DISCUSSION OF POTENTIAL FUTURE INVESTIGATION ..... | 5-1         |
| 6. REFERENCES .....                                   | 6-1         |

### List of Tables

|  |     |
|--|-----|
| Table 4-1 - Summary of Field-Screening and Laboratory Analyses Results ..... | 4-7 |
|--|-----|

### List of Figures

|  |     |
|--|-----|
| Figure 1-1 - Site Location Map .....                   | 1-2 |
| Figure 4-1 - Site Plan View and Boring Locations ..... | 4-2 |

### List of Appendices

- Appendix A - Site Photographs
- Appendix B - Soil Sampling and Field-Screening Procedures
- Appendix C - Boring Logs
- Appendix D - Boring Abandonment Forms
- Appendix E - Chain-of-Custody Forms
- Appendix F - Laboratory Data Sheets

## 1. INTRODUCTION

### 1.1 Background

The Wisconsin Department of Transportation (WDOT) is planning to conduct highway improvements to United States Highway (USH) 141 from Crivitz to Wausaukee, in 1993. As a part of this improvement project (WDOT Project # 1490-11-01), the WDOT will be conducting work along the USH 141 right-of-way, located in Middle Inlet, Wisconsin, approximately 1,000 feet south of County Trunk Highway (CTH) X.

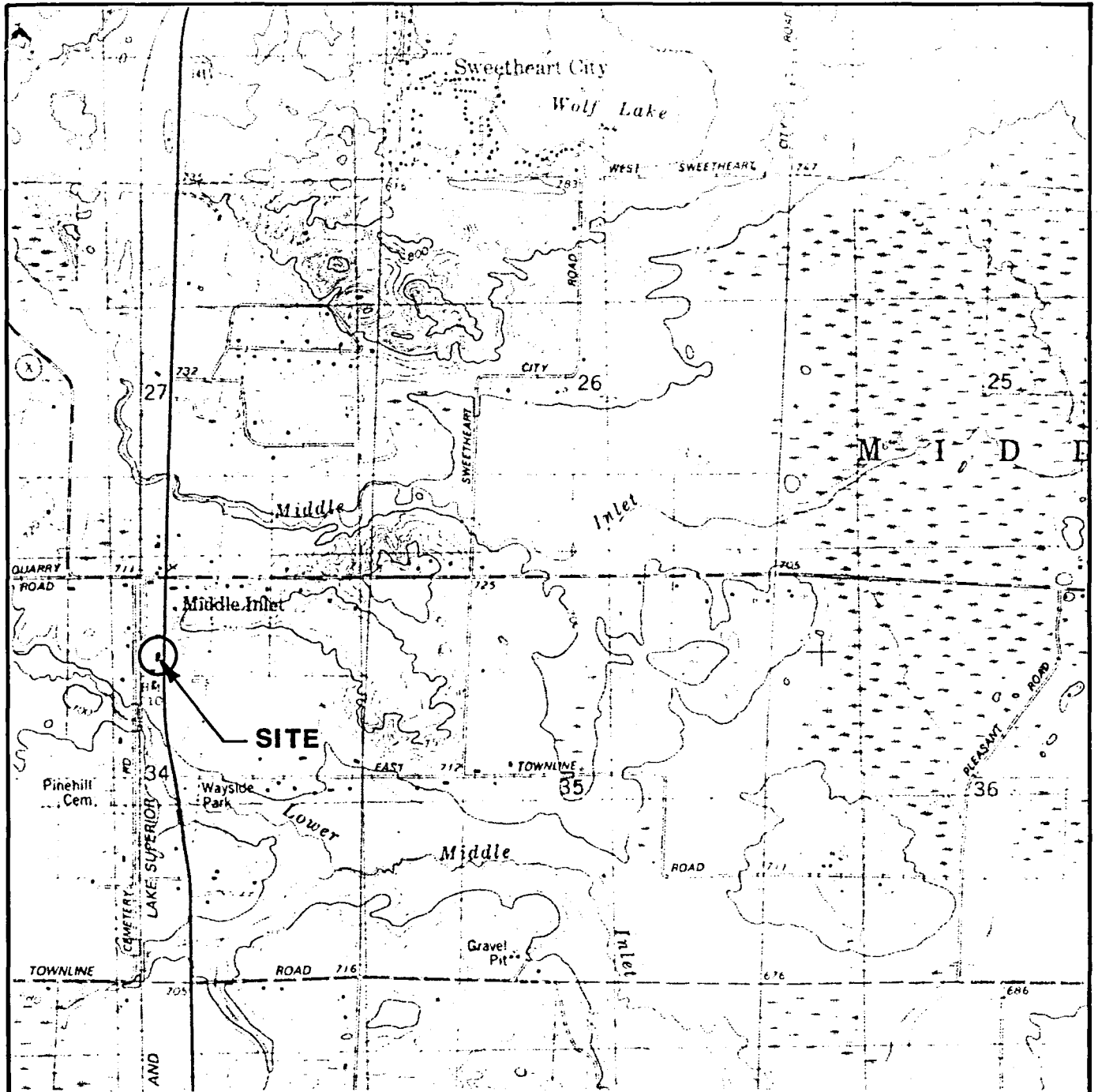
The USH 141 right-of-way borders the Kenneth Jacomet property (RR 4, Box 382, Crivitz, WI 54114). Figure 1-1 shows the approximate property location. Because the WDOT had information that indicated this property had formerly been the site of a gasoline station, the WDOT retained RMT, Inc. (RMT), to perform a Phase I and II Environmental Assessment of the WDOT right-of-way property adjacent to the Jacomet property.

### 1.2 Purpose and Scope

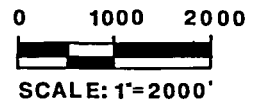
The objective of this Phase I and II Environmental Assessment was to provide the WDOT with information with respect to potential environmental liabilities associated with the WDOT right-of-way adjacent to the Jacomet property. The purpose of this report is to present the findings and conclusions of the environmental assessment.

The scope of services performed for this project included the following:

- Reviewed available site information supplied by the WDOT.
- Interviewed available persons who are knowledgeable about past and present activities at the site.
- Reviewed the WDOT site and the Jacomet site for evidence of spills or leaks, such as discolored soils, barren ground, vegetative stress, unusual odors, disturbed soils, surface debris; and for indications of the presence of underground storage tanks (USTs). Site photographs were taken to document the condition of the property at the time the investigation was conducted.
- Reviewed contiguous land uses to visually identify possible sources of surface migration of hazardous constituents onto the WDOT property.



NOTE: BASE MAP FROM USGS 7.5 MIN. QUAD.  
WAUSAUKEE SOUTH, WI-MI, 1982.



**SITE LOCATION MAP**

|  |                 |
|--|-----------------|
|  | DWN. BY: BLF    |
|  | DATE: MAY, 1991 |
|  | PROJ.# 10101.01 |

- Reviewed the National Priorities List (NPL) and available Comprehensive Environmental Response, Compensation, and Liability Index System (CERCLIS) listings for known or suspected contaminated sites within 1 mile of the subject property.
- Reviewed the Wisconsin Department of Industry, Labor and Human Relations (WDILHR) UST data base, the State of Wisconsin Spills Report, and the WDNR Leaking Underground Storage Tank (LUST) case tracking system listing for information on USTs on the Jacomet property.
- Contacted state and local agencies to obtain the following information (if available):
  - Correspondence regarding environmental issues at the Jacomet property (enforcement actions, compliance inspections, hazardous material/waste activities, spills, etc.).
  - List of active and inactive municipal waste landfills to determine if the Jacomet property was previously a known municipal waste disposal site.
  - Aerial photographs of the property.
- Subcontracted with Environmental and Foundation Drilling, Inc. (EFD), of Madison, Wisconsin, to drill and sample two soil borings.
- Coordinated the location and clearing of underground utilities and conduits.
- Prepared a site-specific Health and Safety plan.
- Observed and documented the drilling of two soil borings in the WDOT right-of-way adjacent to the Jacomet property, conducted field-screening of soil samples with an Hnu photoionization detector (PID), and collected soil samples for laboratory analysis.
- Described soil samples according to the Unified Soil Classification System, and prepared soil boring log forms.
- Laboratory-analyzed soil samples that had the highest PID reading for total petroleum hydrocarbons (TPH) as gasoline and TPH as diesel.
- Laboratory-analyzed one ground water sample for BTEX compounds.
- Evaluated the field and laboratory testing results.

## 2. FINDINGS AND CONCLUSIONS

1. The Jacomet property is located approximately 1,000 feet south of CTH "X" in Middle Inlet, Wisconsin, and currently consists of an approximately 75-foot by 150-foot lot which contains a building (former gasoline station and general store) with an attached home. The building is currently used as a private residence.
2. The Jacomet property was operated as a general store and gasoline station from the 1930s until 1978. Aerial photographs of the site in 1958 and 1968 confirm the presence of the building.
3. Contiguous property uses are as follows:
  - To the immediate north is a vacant lot, further north is the Driftwood Tavern, owned by the Churka's.
  - To the south is the Garrett Eye Center, and further south are private residences.
  - To the west is a small residential area.
  - To the east are vacant wooded lots and private residences.
4. At the time of the site visit, there was no visual evidence of spills or leaks on the Jacomet property.
5. At the time of the site visit, three USTs were identified. These include the following:
  - One 300-gallon premium leaded gasoline UST, to the east of the existing building.
  - One 500-gallon regular leaded gasoline UST, to the east of the existing building.
  - One 300-gallon fuel oil UST, to the north of the existing building.
6. According to Mr. Ken Jacomet, the present owner, the site has not been used as a gasoline station since 1978. According to Mr. Jacomet, the USTs were filled with a slurry mix in 1984.
7. According to the Wisconsin Department of Industry, Labor and Human Relations (WDILHR) data base, there are no USTs registered for the Jacomet property.
8. A review of the WDNR spills data base indicated that no reported spills have occurred at the Jacomet or adjacent WDOT right-of-way properties, or in the immediate vicinity.
9. The Wisconsin Department of Natural Resources (WDNR) Area Office in Marinette, Wisconsin, does not have a file regarding environmental problems at the Jacomet property. Furthermore, the WDNR is not aware of any environmental problems in the vicinity of the Jacomet property.

10. The property is not an NPL, CERCLIS, EERP, LUST, or abandoned landfill site.
11. Based on available information, the closest known waste disposal site to the WDOT property is the Town of Middle Inlet Landfill, which is approximately 1.5 miles from the Jacomet property.
12. Two soil borings were drilled in the WDOT right-of-way. Borings were drilled to a depth of 18 feet, and ground water was encountered at approximately 15 feet below the ground surface.
13. Field-screening of soil samples while drilling two soil borings (B-1 and B-2) in the WDOT right-of-way bordering the Jacomet property revealed detected concentrations of volatile organic compounds (VOCs). Results of the field-screening were as follows:
  - Field-screening results from B-1 ranged from 0 to 230 parts per million by volume (ppmv).
  - Field-screening results from B-2 ranged from 0 to 180 ppmv.
14. Two soil samples from each of the two borings were analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel. Results of the analyses are as follows:
  - The TPH as diesel samples analyzed did not result in detected concentrations.
  - The TPH as gasoline samples analyzed from boring B-2 did not result in detected concentrations.
  - One of the two TPH as gasoline samples analyzed from boring B-1 had detected concentrations of TPH as gasoline of 7.4 mg/kg. Guidance from the WDNR specifies the remediation of TPH-contaminated soils associated with UST for concentrations above 10 mg/kg.
15. A ground water sample was collected and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). The laboratory analyses revealed detected concentrations of 3,100  $\mu\text{g/L}$  (ppb), 19,000  $\mu\text{g/L}$ , 4,200  $\mu\text{g/L}$ , 22,000  $\mu\text{g/L}$  for benzene, toluene, ethylbenzene, and xylenes, respectively.
16. Based upon field observations and field-screening results, there is evidence that limited soil contamination may exist at or near the depth of ground water in soils in the WDOT right-of-way adjacent to the Jacomet property.
17. Based upon field observations and the results of laboratory analysis of a ground water sample, there is evidence of significant ground water contamination in the WDOT right-of-way adjacent to the Jacomet property.
18. A Phase I and II environmental site assessment was conducted concurrently by RMT under a separate Scope of Services at the Driftwood Tavern owned by Andrew Churka (located approximately 300 feet north of the Jacomet property). No contamination was identified in the samples analyzed along the WDOT right-of-way adjacent to the Driftwood Tavern.

PAL  
B = 1.5  
T = 68.6  
E = 140  
X = 124

GW

OFF-SITE SOURCE ?

### 3. RECOMMENDATIONS

The results of the soil sampling and analysis do not indicate evidence of soil contamination exceeding WDNR enforcement standards. Based on field observations and the results of laboratory analyses, there is evidence of petroleum contamination in the ground water on the WDOT right-of-way at the Jacomet property. The exact orientation of the USTs is unknown; therefore, they may be located on or partially on the WDOT right-of-way. The USTs are approximately 40 feet from the centerline of USH 141. The WDOT has indicated that USH 141 improvement activities will not require excavation to a depth greater than 3 feet. Since evidence of contamination was observed at a depth greater than 6 feet, contamination would not be expected to be encountered in the WDOT right-of-way unless construction activities exceed those depths currently anticipated.



## 4. DISCUSSION

### 4.1 Phase I Activities

#### 4.1.1 General Approach

In conducting the Phase I activities of the environmental assessment, RMT representatives reviewed USH 141 plan sets and other information supplied by the WDOT; visited the site; interviewed persons knowledgeable about the site; reviewed Wisconsin Department of Natural Resources (WDNR) files; and reviewed local, county, state, and federal information.

#### 4.1.2 Site Visit

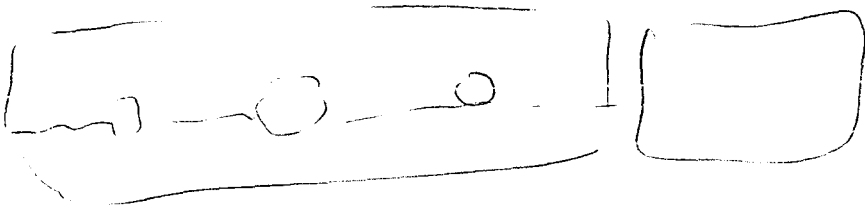
On March 28, 1991, RMT representatives visited the site and reviewed the property. The Jacomet property is located on the west side of USH 141, approximately 1,000 feet south of CTH "X" in Middle Inlet, Wisconsin.

The Jacomet property consists of approximately a 75-foot by 150-foot parcel. The property contains a building (the former gasoline station and general store) with an attached residence. Figure 4-1 contains a map of the Jacomet site, and Appendix A contains site photographs.

Contiguous property uses are residential and agricultural. To the north and east are vacant wooded lots. Approximately 300 feet north along USH 141 is the Driftwood Tavern, owned by Andrew Churka. To the south is the Garrett Eye Center, and further south are private residences. To the west is a small residential area. Overall land uses for the surrounding area are agricultural and residential.

Concurrent with this investigation, but under a separate Scope of Services, RMT conducted a Phase I and II environmental site assessment at the Churka property (located approximately 300 feet north of the Jacomet property). No petroleum contamination was identified in the soil or ground water samples analyzed.

NEARBY PROPERTY



KJ:

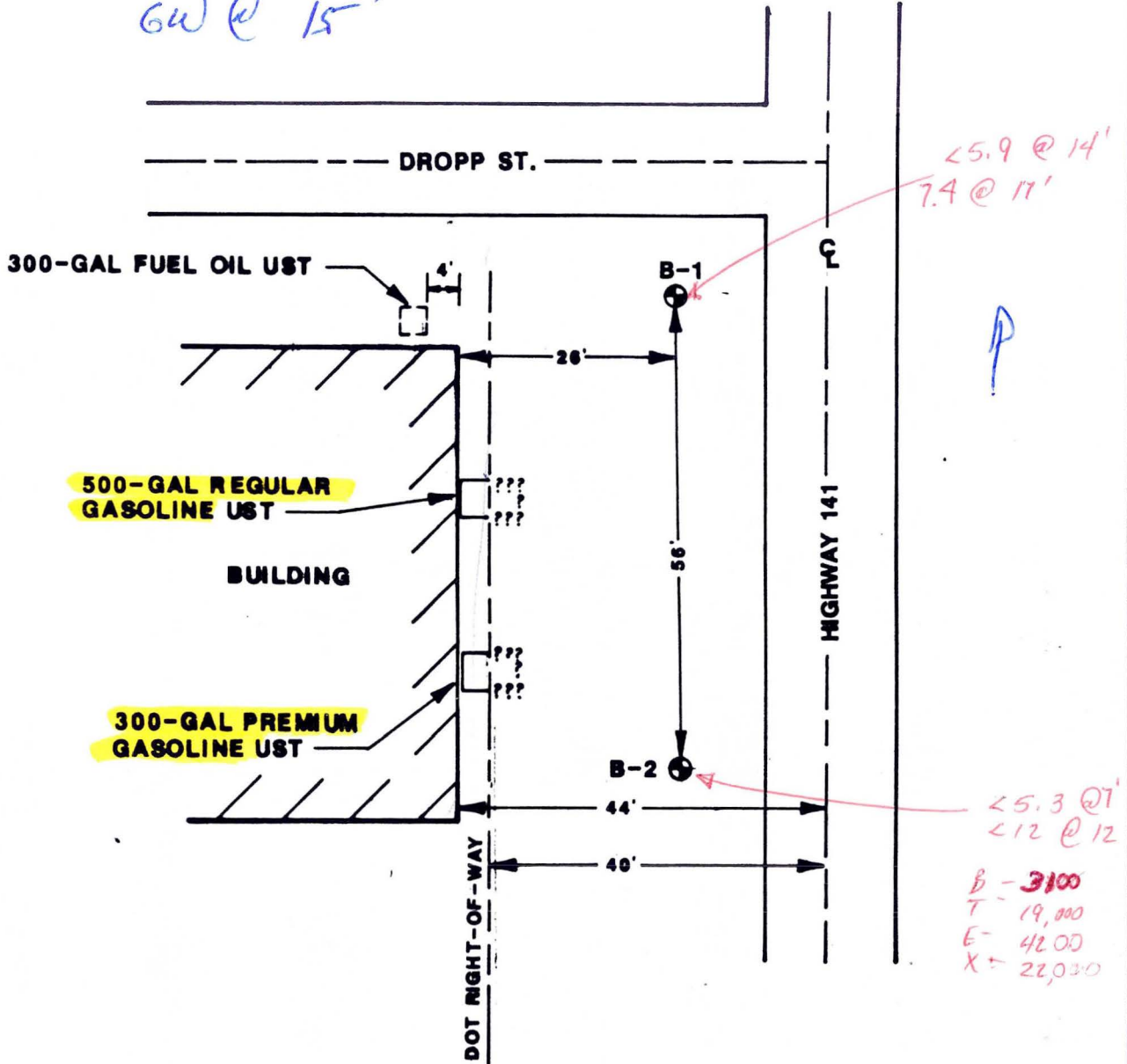
Wadoms (sp?) bought by Campbell Bruce when purchased in 1964, KJ owned all except tanks. Tank ownership transferred from Campbell Bruce to Crivitz Dilz  $\approx$  1965.

May be record of KJ not owning tanks.

$\approx$  15 yrs <sup>ago</sup> fuel truck accident at Co. Rd X & 141, Up to several thousand gallons spilled, not in winter time. ~~No~~ <sup>pro</sup> 50% - 80% spilled, none recovered.

RED NOS ARE SOIL LAB TPH(G JTD) PPM  
AND BECO BTEX (PPB)

GW @ 15'



B - 3100  
T - 19,000  
E - 42.00  
X - 22,030

**LEGEND**

- ⊕ BORING
- DOT RIGHT-OF-WAY

NOTE: UNDERGROUND STORAGE TANK LOCATIONS ARE APPROXIMATE.



NOT TO SCALE

**BORING LOCATION MAP**

|  |                   |
|--|-------------------|
|  | Dwn. by: BLF      |
|  | Date: MAY, 1991   |
|  | Proj. #: 10101.01 |

FIGURE 4-1

During the site visit, the RMT representatives viewed the subject property for indications of the presence of an UST, such as vent or fill pipes. The concrete base of the former pump island remains on the east side of the building. According to Mr. Ken Jacomet, the present owner, three USTs are located on the property. One 300-gallon premium leaded gasoline UST and one 500-gallon regular unleaded gasoline UST are located on the east side of the property, next to the building. The exact orientation of the USTs is unknown; therefore, they may be located on, or partially on, the WDOT right-of-way. One 300-gallon fuel oil UST is located on the northern side of the property, next to the building, approximately 8 feet from the WDOT right-of-way. The WDOT right-of-way ends approximately 4 feet from the existing building.

The property was also viewed for evidence of spills, leaks, and waste disposal. At the time of the site visit, there was no readily apparent evidence of spills or leaks on the Jacomet property or on the WDOT right-of-way.

**4.1.3 Site History**

In an effort to investigate previous land uses of the Jacomet property, aerial photographs were reviewed by RMT from the years 1958, 1966, and 1985. A review of these photographs indicates that the site has not changed significantly in appearance since 1958.

During an interview, Mr. Ken Jacomet, the current property owner, stated that he and his wife purchased the property in 1964. They operated a general store and sold gasoline from 1964 until 1978. In 1978, they sold the house and business under a land contract; and, due to default, they regained ownership of the property. The Jacometes have not operated the general store and gasoline station since 1978. In 1984, Mr. Jacomet stated that he had all three USTs filled with a slurry mix. Documentation of the in-place abandonment was not available.

*DID THEY USE THE SAME TANKS INSTALLED IN 1934?*

*TANKS ABANDONED*

FORMER  
GASOLINE SALES

According to Mr. Jacomet, Mr. Henry Thode owned the property from approximately 1922 until 1934. In 1934, Mr. E.W. Dropp purchased the property from Mr. Thode. Mr. Dropp built the general store and sold gasoline from approximately 1934 until 1964. Mr. Jacomet stated that Mr. Dropp removed 4 feet from the front of his original building in 1941 due to a WDOT project which widened USH 141.

#### 4.1.4 Regulatory Review

On March 27, 1991, RMT representatives visited the WDNR Marinette Area Office in Marinette, Wisconsin, to review files for the Middle Inlet area. While at the Marinette office, RMT representatives spoke with Mr. Matt Hostak regarding known environmental problems in the subject area. At that time, Mr. Hostak indicated that he was unaware of any WDNR files or environmental problems at the Jacomet property.

A review of the Wisconsin Department of Industry, Labor and Human Relations (WDILHR) data base indicated that there are no USTs registered with WDILHR for the Jacomet property.

A review of available information indicated that neither the WDOT right-of-way property nor the Jacomet property is an NPL, CERCLIS, EERP, LUST, or abandoned landfill site.

A review of the WDNR spills data base indicated that no reported spills have occurred at the Jacomet or adjacent WDOT right-of-way properties, or in the immediate vicinity.

Based on a review of available information, the closest waste disposal site to the WDOT property is the Middle Inlet Landfill located in Middle Inlet, Wisconsin, which is approximately 1.5 miles from the Jacomet property.

## 4.2 Phase II Activities

### 4.2.1 Boring and Sampling Program

To investigate if there was evidence of petroleum contamination associated with the former gasoline station on the Jacomet property which could potentially be impacting the WDOT right-of-way, two soil borings (B-1 and B-2) were drilled in the WDOT right-of-way bordering the Jacomet property. Figure 4-1 and photographs provided in Appendix A show the approximate locations of the soil borings. During the drilling of these borings, soil samples were collected at 2.5-foot intervals and field-screened with an Hnu photoionization detector for the presence of volatile organic compounds (VOCs).

A description of the soil sampling procedure is contained in Appendix B. Appendix C contains the boring logs for borings B-1 and B-2, Appendix D contains boring abandonment forms, and Appendix E contains the soil sample chain-of-custody forms.

### 4.2.2 Geology

The soils underlying the Jacomet property from a depth of 0 to 18 feet generally consist of a dark yellowish-brown sand and silt. The soil was visually classified as poorly graded silty sand (SP-SM). Surface material from a depth of 0 to 1 foot at borings B-1 and B-2 is fill material consisting of concrete and asphalt used for construction of the highway. A fuel-like odor was detected in soil samples from a depth of 16 to 18 feet at borings B-1 and B-2.

Ground water was encountered in both borings at a depth of approximately 15.5 feet.

Soil boring logs are included in Appendix C.

### 4.2.3 Sampling and Analysis Program

Soil and ground water samples were selected for laboratory analysis based upon field-screening results and visual observation. The two soil samples from each boring which had

SOILS  
GW

the highest field-screening result were laboratory-analyzed for TPH using USEPA Method 8015 (modified), and for TPH as diesel using USEPA Method 8100 (modified) according to the California Method. If no VOCs were detected during field-screening, the soil sample collected at the ground water interface was selected for analysis.

One ground water sample, collected from the boring which had the highest soil sample field-screening results, was laboratory-analyzed for BTEX according to USEPA Method 602/8020. Ground water samples were collected from within the hollow-stemmed augers using a clean bailer.

*NOT SAME AS AA SAMPLE FROM AN NR 141 MW.*

#### 4.2.4 Sampling and Analysis Results

The results of the laboratory analyses and field-screening are summarized in Table 4-1. The laboratory data sheets are contained in Appendix F.

The results of the field-screening revealed detected concentrations of VOCs. Samples collected from boring B-1 had readings below background concentrations with the exception of sample 7, from 16 to 18 feet, which had a detected concentration of 230 ppmv. Samples collected from boring B-2 had detected concentrations beginning at sample 3, from 6 to 8 feet, at 140 ppmv, through sample 7, from 16 to 18 feet, at 150 ppmv. A fuel-like odor was detected in the soil samples from a depth of 16 to 18 feet at borings B-1 and B-2. It should be noted that field-screening provides a qualitative evaluation of samples to be selected for laboratory analysis, and is not intended to provide a quantitative measure of the level of contamination.

Only one of the soil samples analyzed resulted in detected concentrations of TPH as gasoline; the concentration result was 7.4 mg/kg, which is less than the WDNR guidelines for remedial action. None of the samples analyzed for TPH as diesel resulted in detected concentrations.

TABLE 4-1

SUMMARY OF FIELD-SCREENING AND LABORATORY ANALYSES RESULTS

| Soils   |                      |                                       |                               |                             |         |
|---|----------------------|---------------------------------------|-------------------------------|-----------------------------|---------|
| Sample ID<br>(Boring #, Sample #)   | Sample<br>Depth (ft) | Hnu<br>Reading<br>(ppmv) <sup>1</sup> | TPH as<br>Gasoline<br>(mg/kg) | TPH as<br>Diesel<br>(mg/kg) |         |
| B-1, S-1  | 1-3                  | ND                                    |                               |                             |         |
| B-1, S-2  | 3.5-5.5              | ND                                    |                               |                             |         |
| B-1, S-3  | 6-8                  | ND                                    |                               |                             |         |
| B-1, S-4  | 8.5-10.5             | ND                                    |                               |                             |         |
| B-1, S-5  | 11-13                | ND                                    |                               |                             |         |
| B-1, S-6  | 13.5-15.5            | < 1.0                                 | < 5.9                         | < 10                        |         |
| B-1, S-7  | 16-18                | 230                                   | 7.4                           | < 10                        |         |
| B-2, S-1  | 1-3                  | ND                                    |                               |                             |         |
| B-2, S-2  | 3.5-5.5              | ND                                    |                               |                             |         |
| B-2, S-3  | 6-8                  | 140                                   | < 5.3                         | < 10                        |         |
| B-2, S-4  | 8.5-10.5             | 40                                    |                               |                             |         |
| B-2, S-5  | 11-13                | 180                                   | < 5.3                         | < 10                        |         |
| B-2, S-6  | 13.5-15.5            | 70                                    |                               |                             |         |
| B-2, S-7  | 16-18                | 150                                   |                               |                             |         |
| Ground Water  |                      |                                       |                               |                             |         |
| Sample I.D.   | Sample<br>Depth (ft) | µg/L                                  |                               |                             |         |
|   |                      | Benzene                               | Toluene                       | Ethylbenzene                | Xylenes |
| B-2   | 15.3                 | 1,300                                 | 19,000                        | 4,200                       | 22,000  |
| ND = not detected.  |                      |                                       |                               |                             |         |
| <sup>1</sup> Results of the headspace analysis conducted during field-screening. Units are parts per million by volume, based on isobutylene calibration. |                      |                                       |                               |                             |         |

GW @ 15.6' →

GW @ 15.3' →

WHY WAS NO  
GW SAMPLE  
COLLECTED FROM  
B-1?



The ground water sample collected and analyzed revealed detected concentrations of 3,100  $\mu\text{g/L}$  (ppb), 19,000  $\mu\text{g/L}$ , 4,200  $\mu\text{g/L}$ , 22,000  $\mu\text{g/L}$  for benzene, toluene, ethylbenzene, and xylenes, respectively. It should be noted that, because the ground water sample was obtained from inside the auger after drilling, the sample may not be representative of ground water at the site. The results of the analyses provide a qualitative indication of the presence of potential contamination, and are not intended to provide a quantitative measure of the level of contamination.

yes!

Based upon the results of the field-screening and the laboratory analyses, it appears that soils which were sampled are not contaminated with the petroleum compounds analyzed above the WDNR actions limits. However, based on the laboratory analyses of ground water, there is evidence of petroleum-contaminated ground water in the WDOT right-of-way adjacent to the Jacomet property.

The WDOT has indicated that USH 141 improvement activities will not require excavation to a depth greater than 3 feet. Since evidence of contamination was observed at a depth greater than 6 feet, contamination would not be expected to be encountered in the WDOT right-of-way unless construction activities exceed those depths currently anticipated.

## 5. DISCUSSION OF POTENTIAL FUTURE INVESTIGATION

The results of the Phase I and Phase II Environmental Assessment indicate that petroleum contamination is present in the soil and ground water on the WDOT right-of-way. Recommended follow-up investigative work is described below.

### **Phase III Investigation**

The vertical and areal extent of soil and ground water contamination within the WDOT right-of-way is not known. The contamination is suspected to have resulted from spills and/or releases associated with USTs present at the Jacomet property. If additional characterization is undertaken, either by the WDOT or by other parties, the following program is recommended:

1. Installation of 3 to 8 soil borings in the area of contamination, and analysis of two soil samples from each boring for gasoline range organics, diesel range organics, petroleum VOCs (EPA Method 8020), and compositional concentrations of lead. The purpose of these borings would be to characterize the areal extent of contamination.
2. Installation of approximately four ground water monitoring wells to establish local ground water flow conditions and help determine the extent of impacts to ground water. One round of ground water samples would be analyzed for gasoline range organics, diesel range organics, petroleum VOCs (EPA Method 8020 and 8021), and compositional concentrations of lead.
3. It is recommended that private water supply wells located in areas of potential ground water contamination be identified, sampled, and analyzed for VOCs concurrent with the recommended investigation above. In light of potential access restrictions for private entities, and uncertainties regarding the location of the source of the contamination, the WDNR should consider conducting the recommended private well identification, sampling, and analysis.

NEARBY  
PRIVATE  
WELLS



Costs for the field, subcontract, analytical data evaluation, and report writing work associated with this Phase III program (excluding the recommended private well survey) would range from \$30,000 to \$35,000 (costs may be higher if bedrock drilling is necessary).

A Phase III investigation conducted solely in the WDOT right-of-way would likely limit the adequacy of information necessary to determine local ground water flow direction and the

extent of soil contamination. Therefore, should the WDOT choose to undertake the additional investigation, it may wish to consider obtaining the consent of area property owners for the installation of monitoring wells and soil borings on their property.

Owners and operators of underground petroleum products storage systems may be eligible for coverage under the Wisconsin Department of Industry, Labor and Human Relations (WDILHR) Petroleum Environmental Cleanup Fund Act (PECFA) for reimbursement of costs incurred in investigating, assessing, remediating, removing, and/or monitoring contamination caused by the discharge of a petroleum product. Owners of eligible leaking underground storage tanks may be provided coverage up to \$1,000,000, with a \$5,000 deductible. Information regarding PECFA eligibility and funding can be obtained from the WDILHR by calling (608) 267-4545 or (608) 267-7538.

## 6. REFERENCES

- USEPA. 1989. Comprehensive Environmental Response, Compensation, and Liability Index System (CERCLIS). November 14, 1989.
- USEPA. 1990. National Priorities List. Federal Register. Volume 55, No. 169. August 30, 1990.
- WDILHR. 1990. Underground Storage Tank (UST) Data Base. May 1990.
- WDNR. 1990. Registry of Waste Disposal Sites. February 1990.
- WDNR. 1990. Spills Data Base. March 6, 1990.
- WDNR. 1991. Emergency Environmental Response Project List (EERP). June 1991.
- WDNR. 1991. Leaking Underground Storage Tank (LUST) List. January 3, 1991.

**APPENDIX A**  
**SITE PHOTOGRAPHS**



PHOTO 2 - LOCATION OF BORING B-1



PHOTO 1 - VIEW OF FORMER GAS STATION LOOKING SOUTH FROM USH 141

# COUNTRY GENERAL STORE

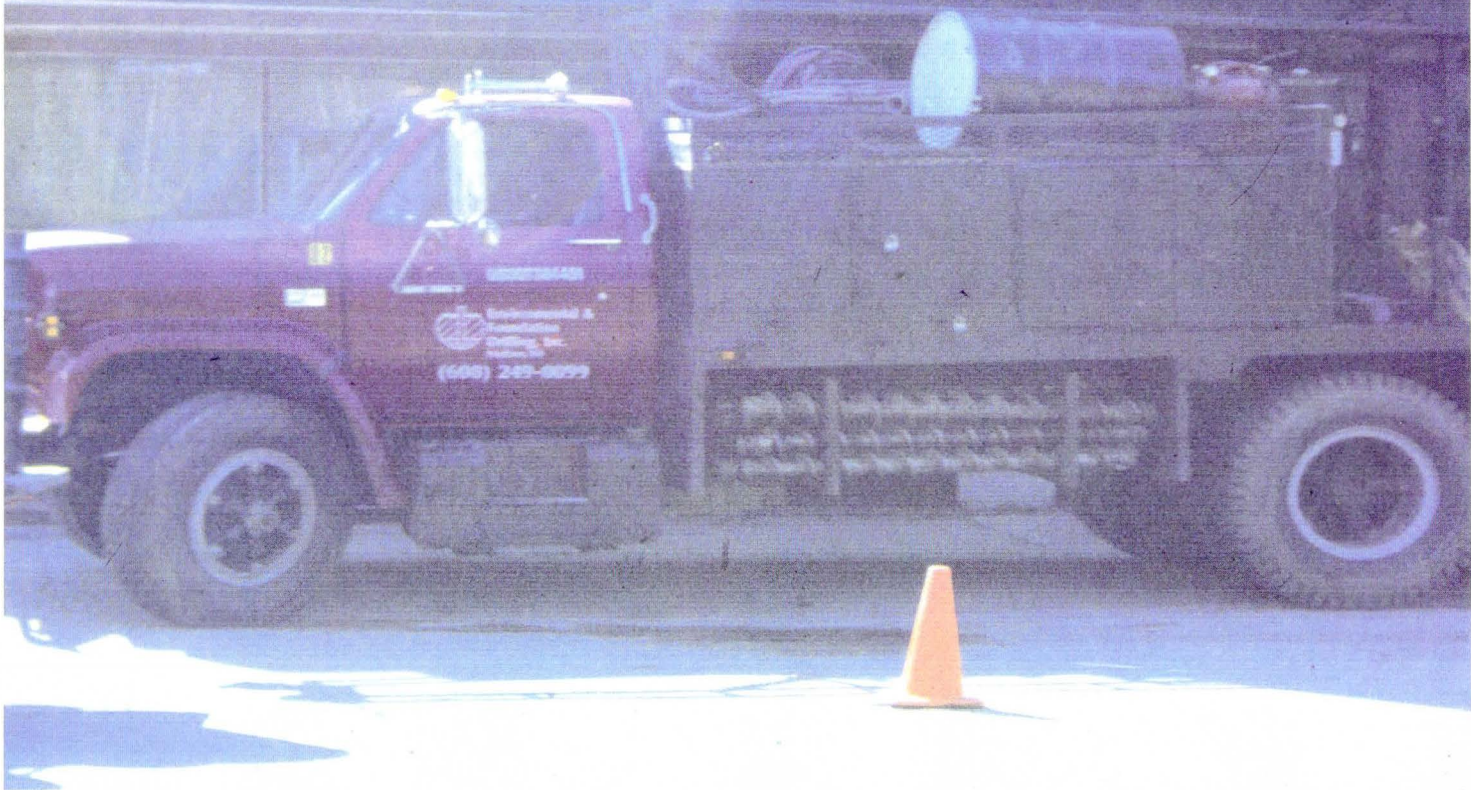


PHOTO 3 - LOCATION OF BORING B-2



**APPENDIX B**

**SOIL SAMPLING AND FIELD-SCREENING PROCEDURES**

## APPENDIX B

### SOIL SAMPLING AND FIELD-SCREENING PROCEDURES

The soil borings were drilled and sampled by Environmental and Foundation Drilling, Inc. (EFD), of Madison, Wisconsin. Soil borings were advanced using 4 1/4-inch inside diameter (I.D.) hollow-stemmed augers. Soil was sampled at 2.5-foot intervals using ASTM Method 1584-84 for the split-barrel (2-inch I.D. split-spoons) sampling of soils. Split-spoons were washed with a phosphate-free soap and tap water solution, and subsequently rinsed with tap water prior to sampling. Augers were cleaned between boring locations using a pressurized spray of hot water. All soil borings were abandoned by backfilling with coarse granular bentonite.

All soil samples were removed from the split-spoon by the RMT field representative and immediately placed into appropriate containers for field-screening and laboratory analysis. Soil to be analyzed for TPH as gasoline was placed into two 60-mL glass jars. Soil to be analyzed for TPH as diesel was placed into a 500-mL amber glass jar.

Each soil sample collected was classified according to the Unified Soil Classification System (USCS), and sample descriptions were recorded on boring logs.

A soil sample from each split-spoon was screened for volatile organic compounds using an Hnu photoionization detector, with a 10.2 eV probe. The soil sample to be screened was transferred immediately from the split-spoon to a glass jar, to prevent the volatilization of organics. A piece of aluminum foil was quickly placed over the jar opening, and the lid was screwed onto the jar. The sample jar was thoroughly shaken; and, approximately 15 minutes after the sample was collected, the cap of the jar was removed and the probe of the Hnu was inserted through the foil and into the jar. The Hnu probe was inserted into the container for a minimum of 15 seconds, to allow for gas in the jar to enter the Hnu probe. The maximum reading from the analog meter was recorded.

Sample containers for laboratory analysis were labeled with the boring and sample number, the date, the RMT project number, and the sample collector's name. All samples were placed on ice in a cooler. Chain-of-custody forms were completed and transported with the samples to RMT Laboratories in Madison, Wisconsin.

**APPENDIX C**  
**BORING LOGS**

---



# LOG OF TEST BORING

F-203 (R 01-87)

BORING NO. B-1  
 SHEET NO. 1 OF 1  
 PROJECT NO. 10101.01  
 INSTALLATION 04/24/91  
 SURFACE ELEV. \_\_\_\_\_  
 BOREHOLE DIA. 6 1/4 IN.

PROJECT NAME WDOT Jacomet  
 LOCATION Middle Inlet, WI  
 CONTRACTOR E & F Drilling  
 DRILLING METHOD HSA 2 1/4"

| SAMPLING NOTES |      |          |    |          | VISUAL CLASSIFICATION<br>AND GENERAL OBSERVATIONS  |
|----------------|------|----------|----|----------|--|
| INTERVAL       |      | RECOVERY |    | MOISTURE |  |
| NO.            | TYPE | N        | IN | DEPTH    |  |
| 1              | SS   | 3        | 22 |          | ASPHALT, (FILL).<br>CONCRETE, (FILL).<br>Fine SAND and SILT, some clay, trace fine gravel,<br>dark yellowish brown 10YR 4/4, poorly graded, loose,<br>soft, very slightly plastic, moist, (SP-SM). |
| 2              | SS   | 3        | 24 |          | Less silt 3.5 to 5.3 ft.   |
| 3              | SS   | 5        | 22 | 5        | Fine SAND, trace fine gravel, little silt, dark yellowish<br>brown 10YR 4/4, poorly graded, loose, moist, (SP).  |
| 4              | SS   | 10       | 23 | 10       |  |
| 5              | SS   | 12       | 22 |          | Trace to little silt at 11 to 13 ft.   |
| 6              | SS   | 35       |    |          | Some green mottling 13.5 to 15.5 ft.   |
| 7              | SS   |          | 20 | 15       | Same as above, but wet, odor sweet-like, fuel-like at<br>16 to 18 ft.  |
|                |      |          |    |          | End of Boring at 18 Ft.  |

**GENERAL NOTES**  
 DATE STARTED 24 APR 91  
 DATE COMPLETED 24 APR 91  
 RIG CME-75  
 CREW CHIEF B. Powers  
 LOGGED R. Vaughn CHECKED D. Graff

**WATER LEVEL OBSERVATIONS**  
 WHILE DRILLING 15.6 Ft.  
 AT COMPLETION \_\_\_\_\_  
 AFTER DRILLING \_\_\_\_\_  
 CAVE-IN: DATE/TIME \_\_\_\_\_ DEPTH \_\_\_\_\_  
 WATER: DATE/TIME \_\_\_\_\_ DEPTH \_\_\_\_\_



# LOG OF TEST BORING

F-203 (R 01-87)

BORING NO. B-2  
 SHEET NO. 1 OF 1  
 PROJECT NO. 10101.01  
 INSTALLATION 04/24/91  
 SURFACE ELEV. \_\_\_\_\_  
 BOREHOLE DIA. 6 1/4 IN.

PROJECT NAME WDOT Jacomet  
 LOCATION Middle Inlet, WI  
 CONTRACTOR E & F Drilling  
 DRILLING METHOD HSA 2 1/4"

| SAMPLING NOTES |      |          |    |          | VISUAL CLASSIFICATION<br>AND GENERAL OBSERVATIONS  |
|----------------|------|----------|----|----------|--|
| INTERVAL       |      | RECOVERY |    | MOISTURE |  |
| NO.            | TYPE | N        | IN | DEPTH    |  |
| 1              | SS   | 5        | 23 |          | ASPHALT, (FILL).<br>CONCRETE, (FILL).<br>Fine SAND, little silt, dark yellowish brown 10YR 4/4,<br>poorly graded, loose, moist, (SP).                        |
| 2              | SS   | 18       | 20 |          | Fine SAND and SILT, little clay, trace fine gravel,<br>dark yellowish brown 10YR 4/4, well graded to poorly<br>graded, loose, soft, nonplastic, moist, (SM). |
| 3              | SS   | 20       | 21 |          | Little to some silt below 6 ft.  |
| 4              | SS   | 18       | 22 |          |  |
| 5              | SS   | 32       | 24 |          |  |
| 6              | SS   | 43       | 24 |          |  |
| 7              | SS   | 41       | 24 |          | Fuel-like odor below 13.5 ft.  |
|                |      |          |    |          | End of Boring at 18 Ft.  |

**GENERAL NOTES**  
 DATE STARTED 24 APR 91  
 DATE COMPLETED 24 APR 91  
 RIG CME-75  
 CREW CHIEF B. Powers  
 LOGGED R. Vaughn CHECKED D. Gruff

**WATER LEVEL OBSERVATIONS**  
 WHILE DRILLING  $\nabla$  15.3 Ft.  
 AT COMPLETION  $\nabla$  \_\_\_\_\_  
 AFTER DRILLING \_\_\_\_\_  
 CAVE-IN: DATE/TIME \_\_\_\_\_ DEPTH \_\_\_\_\_  
 WATER: DATE/TIME \_\_\_\_\_ DEPTH \_\_\_\_\_

**APPENDIX D**  
**BORING ABANDONMENT FORMS**

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

|   |                     |   |                    |
|---|---------------------|---|--------------------|
| <b>(1) GENERAL INFORMATION</b>  |                     | <b>(2) FACILITY NAME</b>  |                    |
| Well/Drillhole/Borehole Location<br>B-1   | County<br>Marinette | Original Well Owner (If Known)                                      |                    |
| 1/4 of ___ 1/4 of Sec. ___ ; T. ___ N; R. ___<br>(If applicable)  |                     | Present Well Owner<br>Jacomet Property                              |                    |
| Gov't Lot _____   | Grid Number _____   | Street or Route<br>1000 ft. S of CTH "X" & USH 141                  |                    |
| Grid Location<br>_____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. |                     | City, State, Zip Code<br>Middle Inlet, WI 54148                     |                    |
| Civil Town Name<br>Middle Inlet   |                     | Facility Well No. and/or Name (If Applicable)                       | WI Unique Well No. |
| Street Address of Well<br>1000 Ft. S of CTH "X" & USH 141   |                     | Reason For Abandonment<br>Stop potential ground water contamination |                    |
| City, Village<br>Middle Inlet   |                     | Date of Abandonment<br>04-24-91                                     |                    |

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

|   |  |
|---|--|
| <p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b><br/>(Date) <u>04-24-91</u></p> <p><input type="checkbox"/> Monitoring Well      <input type="checkbox"/> Construction Report Available?<br/> <input type="checkbox"/> Water Well                      <input type="checkbox"/> Yes    <input type="checkbox"/> No<br/> <input type="checkbox"/> Drillhole<br/> <input checked="" type="checkbox"/> Borehole</p> <p>Construction Type:<br/> <input checked="" type="checkbox"/> Drilled      <input type="checkbox"/> Driven (Sandpoint)      <input type="checkbox"/> Dug<br/> <input type="checkbox"/> Other (Specify) _____</p> <p>Formation Type:<br/> <input checked="" type="checkbox"/> Unconsolidated Formation      <input type="checkbox"/> Bedrock</p> <p>Total Well Depth (ft.) _____ Casing Diameter (ins.) _____<br/>(From ground surface)</p> <p>Casing Depth (ft.) <u>N/A</u></p> <p>Was Well Annular Space Grouted?    <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Unknown<br/> If Yes, To What Depth?                      <u>N/A</u>                      Feet</p> | <p><b>(4) Depth to Water (Feet)</b> <u>15.6</u></p> <p>Pump &amp; Piping Removed?    <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable<br/> Liner(s) Removed?            <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable<br/> Screen Removed?              <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable<br/> Casing Left in Place?        <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No<br/> If No, Explain <u>This is a soil boring.</u></p> <hr/> <p>Was Casing Cut Off Below Surface?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No<br/> Did Sealing Material Rise to Surface?    <input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No<br/> Did Material Settle After 24 Hours?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No<br/> If Yes, Was Hole Retopped?            <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</p> |
| <p><b>(5) Required Method of Placing Sealing Material</b><br/> <input checked="" type="checkbox"/> Conductor Pipe-Gravity      <input type="checkbox"/> Conductor Pipe-Pumped<br/> <input type="checkbox"/> Dump Bailer                      <input type="checkbox"/> Other (Explain) _____</p>   | <p><b>(6) Sealing Materials</b>                      For monitoring wells and monitoring well boreholes only</p> <p><input type="checkbox"/> Neat Cement Grout<br/> <input type="checkbox"/> Sand-Cement (Concrete) Grout<br/> <input type="checkbox"/> Concrete                                      <input type="checkbox"/> Bentonite Pellets<br/> <input type="checkbox"/> Clay-Sand Slurry                            <input checked="" type="checkbox"/> Granular Bentonite<br/> <input type="checkbox"/> Bentonite-Sand Slurry                      <input type="checkbox"/> Bentonite - Cement Grout<br/> <input type="checkbox"/> Chipped Bentonite</p>   |

| (7) Sealing Material Used | From (Ft.) | To (Ft.) | No. Yards, Sacks Sealant or Volume | Mix Ratio or Mud Weight |
|---------------------------|------------|----------|------------------------------------|-------------------------|
| Granular Bentonite        | Surface    | 18.0     | 6-50# bags                         | Dry                     |
|                           |            |          |                                    |                         |
|                           |            |          |                                    |                         |

(8) Comments: This is a soil boring, not a well.

**(9) Name of Person or Firm Doing Sealing Work**  
Environmental & Foundation Drilling, Inc.  
Signature of Person Doing Work: *[Signature]*      Date Signed: 04-29-91  
Street or Route: 217 Raemisch Road      Telephone Number: (608) 849-9896  
City, State, Zip Code: Waunakee, WI 53597

| (10) FOR DNR OR COUNTY USE ONLY |                 |
|---------------------------------|-----------------|
| Date Received/Inspected         | District/County |
| Reviewer/Inspector              |                 |
| Follow-up Necessary             |                 |



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

|   |                     |   |                    |
|---|---------------------|---|--------------------|
| <b>(1) GENERAL INFORMATION</b>  |                     | <b>(2) FACILITY NAME</b>  |                    |
| Well/Drillhole/Borehole Location B-2  | County<br>Marinette | Original Well Owner (If Known)                                      |                    |
| 1/4 of 1/4 of Sec. ; T. N. R. <input type="checkbox"/> E <input type="checkbox"/> W<br>(If applicable)                                    |                     | Present Well Owner<br>Jacomet Property                              |                    |
| Gov't Lot   | Grid Number         | Street or Route<br>1000 ft. S of CTH "X" & USH 141                  |                    |
| Grid Location<br>ft. <input type="checkbox"/> N. <input type="checkbox"/> S., ft. <input type="checkbox"/> E. <input type="checkbox"/> W. |                     | City, State, Zip Code<br>Middle Inlet, WI 54148                     |                    |
| Civil Town Name<br>Middle Inlet   |                     | Facility Well No. and/or Name (If Applicable)                       | WI Unique Well No. |
| Street Address of Well<br>1000 Ft. S of CTH "X" & USH 141   |                     | Reason For Abandonment<br>Stop potential ground water contamination |                    |
| City, Village<br>Middle Inlet   |                     | Date of Abandonment<br>04-24-91                                     |                    |

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

|  |  |  |  |
|--|--|--|--|
| <b>(3) Original Well/Drillhole/Borehole Construction Completed On</b><br>(Date) 04-24-91   |  | <b>(4) Depth to Water (Feet)</b> 15.3  |  |
| <input type="checkbox"/> Monitoring Well<br><input type="checkbox"/> Water Well<br><input type="checkbox"/> Drillhole<br><input checked="" type="checkbox"/> Borehole                  |  | Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable<br>Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable<br>Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable<br>Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If No, Explain This is a soil boring. |  |
| Construction Report Available?<br><input type="checkbox"/> Yes <input type="checkbox"/> No   |  | Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |  |
| Construction Type:<br><input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug<br><input type="checkbox"/> Other (Specify) |  | <b>(5) Required Method of Placing Sealing Material</b>   |  |
| Formation Type:<br><input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock   |  | <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped<br><input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)   |  |
| Total Well Depth (ft.) Casing Diameter (ins.)<br>(From ground surface)   |  | <b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only   |  |
| Casing Depth (ft.) N/A   |  | <input type="checkbox"/> Neat Cement Grout<br><input type="checkbox"/> Sand-Cement (Concrete) Grout<br><input type="checkbox"/> Concrete<br><input type="checkbox"/> Clay-Sand Slurry<br><input type="checkbox"/> Bentonite-Sand Slurry<br><input type="checkbox"/> Chipped Bentonite  |  |
| Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown<br>If Yes, To What Depth? N/A Feet                           |  | <input type="checkbox"/> Bentonite Pellets<br><input checked="" type="checkbox"/> Granular Bentonite<br><input type="checkbox"/> Bentonite - Cement Grout  |  |

| (7) Sealing Material Used | From (Ft.) | To (Ft.) | No. Yards, Sacks Sealant or Volume | Mix Ratio or Mud Weight |
|---------------------------|------------|----------|------------------------------------|-------------------------|
| Granular Bentonite        | Surface    | 18.0     | 6-50# bags                         | Dry                     |
|                           |            |          |                                    |                         |
|                           |            |          |                                    |                         |

(8) Comments: This is a soil boring, not a well.

**(9) Name of Person or Firm Doing Sealing Work**  
Environmental & Foundation Drilling, Inc.

|  |                                    |
|--|------------------------------------|
| Signature of Person Doing Work<br><i>[Signature]</i> | Date Signed<br>04-29-91            |
| Street or Route<br>217 Raemisch Road                 | Telephone Number<br>(608) 849-9896 |
| City, State, Zip Code<br>Waunakee, WI 53597          |                                    |

**(10) FOR DNR OR COUNTY USE ONLY**

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

**APPENDIX E**  
**CHAIN-OF-CUSTODY FORMS**



Madison, WI 53717  
744 Heartland Trail  
Phone (608) 831-4444  
FAX (608) 831-7530

Washington, D.C.

1072

Santa Monica, CA

Grand Lodge, MI  
Nashville, TN

Greenville, SC  
Schaumburg, IL

F-268 (R2/88)  
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

Sample Type: (GW) WW, SW (Soil) Other)

No 021237

Bottles Prepared by: E. PUTMAN Date/Time: 4-19-91 Office Code: (State) WI

Project No. 10101.01  
10103.01  
10103.01 Client: WDOT - CRUITE

| RMT Lab NO. | Yr. <u>91</u><br>Date | Time | Sample Station ID | Total Number<br>Of Containers |
|-------------|-----------------------|------|-------------------|-------------------------------|
|             | 4-24                  | -    | B-2 #1            | 3                             |
|             | 4-24                  | -    | B-2 #2            | 3                             |
|             | 4-24                  | -    | B-2 #3            | 3                             |
|             | 4-24                  | -    | B-2 #4            | 3                             |
|             | 4-24                  | -    | B-2 #5            | 3                             |
|             | 4-24                  | -    | B-2 #6            | 3                             |
|             | 4-24                  | -    | B-2 #7            | 3                             |
|             | 4-25                  | -    | B-1 #1            | 3                             |
|             | 4-25                  | -    | B-1 #2            | 3                             |
|             | 4-25                  | -    | B-1 #3            | 3                             |
|             | 4-25                  | -    | B-1 #4            | 3                             |
|             | 4-25                  | -    | B-1 #5            | 3                             |
|             | 4-25                  | -    | B-2 #1            | 3                             |

|                     |              |   |   |   |  |  |  |  |
|---------------------|--------------|---|---|---|--|--|--|--|
| Container Inventory | 40 ml VIAL   | N | N | N |  |  |  |  |
|                     | 500 ml AMBER | E | A | A |  |  |  |  |
|                     | 60 ml JAR    | Y | Y | Y |  |  |  |  |

Filtered (Yes/No)  
Preserved (Code)  
Refrigerated (Yes/No)

Code: A - None  
B - HNO3  
C - H2SO4  
D - NaOH  
E - HCl

Comments:

Hau = ND (10101.01) SOIL  
Hau = ND (10101.01) SOIL  
Hau = 140 (10101.01) SOIL  
Hau = 40 (10101.01) SOIL  
Hau = 180 (10101.01) SOIL  
Hau = 70 (10101.01) SOIL  
Hau = 15 (10101.01) SOIL  
Hau = 380 (10103.01) SOIL  
Hau = 200 (10103.01) SOIL  
Hau = 500 (10103.01) SOIL  
Hau = 400 (10103.01) SOIL  
Hau = 320 (10103.01) SOIL  
Hau = 220 (10103.01) SOIL

SAMPLER Relinquished by (Sig.)  
① R. V. G.

Date/Time  
4-25-91 7:45P

Received by (Sig.)  
②  
Shipper Name & #

Date/Time

RECEIVED  
By MAN

Relinquished by (Sig.)  
③

Date/Time

Received by (Sig.)  
④  
Shipper Name & #

Date/Time

Relinquished by (Sig.)  
⑤

Date/Time

Received by (Sig.)  
⑥ Mad Lahn  
Shipper Name & #

Date/Time  
4/25/91 7:45

(For Lab Use Only)  
Receipt Temp good Receipt pH \_\_\_\_\_  
Client P.O. Number \_\_\_\_\_  
Subsequent Analysis: \_\_\_\_\_ (Check)

Seal # at'chd by  Recvd. intact by  Seal # at'chd by  Recvd. Intact by  Date Resubmitted \_\_\_\_\_



F-268 (R2/88)  
(Use Black Ink Only)

Madison, WI 53717  
744 Heartland Trail  
Phone (608) 831-4444  
FAX (608) 831-7530

Washington, D.C.

2 of 2

Santa Monica, CA

Grand Ledge, MI  
Nashville, TN

Greenville, SC  
Schaumburg, IL

### CHAIN OF CUSTODY RECORD

Sample Type: (GW, WW, SW, Soil, Other) **GW**

No 021244

|                       |  |
|-----------------------|--|
| Filtered (Yes/No)     |  |
| Preserved (Code)      |  |
| Refrigerated (Yes/No) |  |

Code: A - None  
B - HNO3  
C - H2SO4  
D - NaOH  
E - HCl

Comments:

Bottles Prepared by: **E. PUTMAN** Date/Time: **4-19-91** Office Code: (State) **WI**

Project No. **10102.01** Client: **WDOT CRIVITZ**

| RMT Lab NO. | Yr. <u>91</u><br>Date | Time   | Sample Station ID | Total Number Of Containers |
|-------------|-----------------------|--------|-------------------|----------------------------|
|             | 4-24                  | 10:10A | B-2               | 3                          |
|             | 4-24                  | -      | B-2 #1            | 3                          |
|             | 4-24                  | -      | B-2 #2            | 3                          |
|             | 4-24                  | -      | B-2 #3            | 3                          |
|             | 4-24                  | -      | B-2 #4            | 3                          |
|             | 4-24                  | -      | B-2 #5            | 3                          |
|             | 4-24                  | -      | B-2 #6            | 3                          |
|             |                       |        | B-1 #1            | 3                          |
|             |                       |        | B-1 #2            | 3                          |
|             |                       |        | B-1 #3            | 3                          |
|             |                       |        | B-1 #4            | 3                          |
|             |                       |        | B-1 #5            | 3                          |
|             |                       |        | B-1 #6            | 3                          |
|             |                       |        | B-1 #7            | 3                          |
|             |                       |        | B-1               | 3                          |

| Container Inventory | ADN | VIAL | 500ml | AMORR | 60ml | JAR | Other | Comments               |
|---------------------|-----|------|-------|-------|------|-----|-------|------------------------|
|                     |     |      |       |       |      |     |       | (10102.01) WATER       |
|                     |     |      |       |       |      |     |       | HAN=ND (10102.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10102.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10102.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10102.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10102.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10101.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10101.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10101.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=ND (10101.01) SOIL |
|                     |     |      |       |       |      |     |       | HAN=0.4 10101.01 SOIL  |
|                     |     |      |       |       |      |     |       | HAN=230 10101.01 SOIL  |
|                     |     |      |       |       |      |     |       | HAN 10101.01 WATER     |

|   |                                   |   |                                   |
|---|-----------------------------------|---|-----------------------------------|
| SAMPLER Relinquished by (Sig.)<br>① <b>R.P. [Signature]</b> | Date/Time<br><b>4-24-91 2:30P</b> | Received by (Sig.)<br>② <b>LANTER Co.</b> | Date/Time<br><b>4-24-91 2:30P</b> |
| Relinquished by (Sig.)<br>③ <b>LANTER Co</b>                | Date/Time<br><b>4-25-91</b>       | Received by (Sig.)<br>④                   | Date/Time                         |
| Relinquished by (Sig.)<br>⑤                                 | Date/Time                         | Received by (Sig.)<br>⑥                   | Date/Time                         |

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)

Receipt Temp \_\_\_\_\_ Receipt pH \_\_\_\_\_

Client P.O. Number \_\_\_\_\_

Subsequent Analysis: \_\_\_\_\_ (Check)

Seal # \_\_\_\_\_ at'chd by  Recvd. intact by  Seal # \_\_\_\_\_ at'chd by  Recvd. intact by  Date Resubmitted \_\_\_\_\_

**APPENDIX F**  
**LABORATORY DATA SHEETS**



CLIENT: WDOT - JACOMET  
PROJECT #: 10101.01  
WORK ORDER #: 910426-1010101

REPORT DATE: 05/08/91  
SAMPLE COLLECTOR: RHV

TOTAL PETROLEUM HYDROCARBONS

| SAMPLE<br>===== | DATE<br>===== | STATION ID<br>===== | GASOLINE<br>===== | UNITS<br>===== |
|-----------------|---------------|---------------------|-------------------|----------------|
| 65640           | 04/24/91      | B-1 #6              | <5.4              | mg/kg dry wt.  |
| 65641           | 04/24/91      | B-1 #7              | 7.4               | mg/kg dry wt.  |

  
\_\_\_\_\_  
Mark Mieritz, Organic Supervisor



page: 1 of 1

CLIENT: WDOT - JACOMET  
PROJECT #: 10101.01  
WORK ORDER #: 910426-1010101

REPORT DATE: 05/02/91  
SAMPLE COLLECTOR: RHV

TOTAL PETROLEUM HYDROCARBONS

| SAMPLE<br>===== | DATE<br>===== | STATION ID<br>===== | DIESEL<br>===== | UNITS<br>===== |
|-----------------|---------------|---------------------|-----------------|----------------|
| 65640           | 04/24/91      | B-1 #6              | <10.0           | mg/kg dry wt.  |
| 65641           | 04/24/91      | B-1 #7              | <10.0           | mg/kg dry wt.  |

  
Mark Mieritz, Organic Supervisor



CLIENT: WDOT - CRIVITZ (JACOMET)  
PROJECT #: 10101.01  
WORK ORDER #: 910430-1010101

REPORT DATE: 05/09/91  
SAMPLE COLLECTOR: RHV

TOTAL PETROLEUM HYDROCARBONS

| SAMPLE<br>===== | DATE<br>===== | STATION ID<br>===== | GASOLINE<br>===== | UNITS<br>===== |
|-----------------|---------------|---------------------|-------------------|----------------|
| 65716           | 04/24/91      | B-2 #3              | <5.3              | mg/kg dry wt.  |
| 65718           | 04/24/91      | B-2 #5              | <5.3              | mg/kg dry wt.  |

  
Mark Mieritz, Organic Supervisor



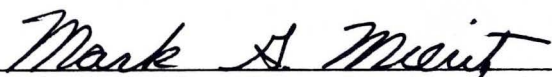


CLIENT: WDOT - JACOMET  
SAMPLE #: 65642  
PROJECT #: 10101.01  
WORK ORDER #: 910426-1010101

REPORT DATE: 05/15/91  
COLLECTION DATE: 04/24/91  
STATION ID: B-1  
SAMPLE COLLECTOR: RHV

VOLATILE ORGANIC ANALYSIS REPORT

| PARAMETER<br>===== | RESULT<br>===== | UNITS<br>===== |
|--------------------|-----------------|----------------|
| BENZENE            | 3100            | ug/l           |
| TOLUENE            | 19000           | ug/l           |
| ETHYL BENZENE      | 4200            | ug/l           |
| XYLENES            | 22000           | ug/l           |

  
\_\_\_\_\_  
Mark Mieritz, Organic Supervisor



CLIENT: WDOT - CRIVITZ (JACOMET)  
PROJECT #: 10101.01  
WORK ORDER #: 910430-1010101

REPORT DATE: 05/14/91  
SAMPLE COLLECTOR: RHV

TOTAL PETROLEUM HYDROCARBONS

| SAMPLE<br>===== | DATE<br>===== | STATION ID<br>===== | DIESEL<br>===== | UNITS<br>===== |
|-----------------|---------------|---------------------|-----------------|----------------|
| 65716           | 04/24/91      | B-2 #3              | <10.0           | mg/kg dry wt.  |
| 65718           | 04/24/91      | B-2 #5              | <10.0           | mg/kg dry wt.  |

Mark A. Mieritz  
Mark Mieritz, Organic Supervisor