



Site
Investigation
Report
Review

**SIRR Report
for
Unassigned Uncontrolled Sites**

SIRR ID P33-0001
Site Name KEYS MOTOR COMPANY
City Location Oelwein
Site Type Property Audit
County Fayette

Screening Activity Extended Site Screening

SITE INFORMATION

Property Owner Birdnow Motor Trade
Mailing Address 1440 S. Frederick Avenue
Oelwein, IA 50662
Phone: 319-283-5571

OR

Curtis A. Ward
Brooks Ward & Robertson
Attorneys At Law
6 West Main Street
P. O. Box 908, Marshalltown, IA 50158

Location/Legal Description 1440 South Frederick Avenue
Oelwein, IA

Size Of Property 4.4 acres

Report Prepared By Clear Consulting

Date Report Submitted 08/12/2002

Report Submitted By Brooks Ward & Robertson, Attorneys At Law

Current Usage Auto salvage yard

REPORT INFORMATION SUMMARY

I. Summarize the data submitted (no., type, depth of soil borings, surface samples, ground water samples, other sampling conducted, analyses performed, contamination identified, etc.)

Eight boreholes were drilled in the areas previously identified as exhibiting recognized environmental concerns (RECs). These areas included the automotive salvage yard, near interior former hydraulic lifts, and a drainage feature north of property. Borings were between 15 and 20 feet below ground surface (bgs). Soil samples were collected at 5-foot intervals and screened using a photoionization detector (PID). Two temporary monitoring wells were constructed in the shallow groundwater aquifer.

Soil and groundwater samples were analyzed for VOCs and RCRA common metals.

ESS:



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The Department's review of the Phase I/II report resulted in IDNR's request (September 30, 2002) that Keys Motor develop and submit a work plan to further assess the environmental conditions at the site. A workplan was submitted October 31, 2002 and approved November 12, 2002. Three borings and 4 monitoring wells were installed in the winter of 2002. One additional boring and 1 additional monitoring well installed in March 2003.

The ESS constitutes 9 new sampling points. Nine surface soil samples were taken at 0 to 2 feet bgs and tested for metals and ethylene glycol. The soil sample from soil boring B-11, a heavily stained area near the automotive dismantling area, was also analyzed for the 8 common PCB isomers and congeners.

Six groundwater samples were analyzed for metals, ethylene glycol, and VOCs. All wells and borings terminate at 15 feet bgs. Site was visited on 9/4/03. Soil sampling with a hand probe was attempted in the area of B4, the ethylene glycol stained area. Two shallow (0-18" bgs) samples were obtained. Both exhibited visible staining and odor. Visible staining was limited to 1" bgs. Stained area surface extent was approximately 18 by 25 feet.

II. Summarize the site history (past usages, known or suspected contamination pathways such as tanks, S.W. burial, septic tank/tile field, lagoon, land application, etc.)

The 250 Building Corporation owned the former service station at the northeastern portion of the property. A majority of the remainder of the property was first developed in approximately 1968 through 1969 by the estate of Earl W. Moore, after a tornado demolished an on-site market formerly fronting Iowa Hwy. 150 (now South Frederick Avenue). A GM dealership constructed an on-site business known as Mulder Motors. It conducted automotive sales, servicing and repair. Tim Vanderdahl Inc. and 250 Building Corporation bought the property on August 2, 1982 and continued operation as Mulder Motors. The business was acquired by Gordon Walker, Lorraine Walker, James Watson Jr. and Kathleen Walker on November 21, 1984 and operated as Keys Motor Company. Automotive salvaging/parts collection and sales began on the western portion of the site in 1979, following the construction of the main parts storage building. In 1984, two additional frame salvage structures were brought to the site. Then in 1988, a metal-framed engine house (storage) was constructed in the salvage yard.

ESS:

Jon Isham is now listed (May 20, 2003 Site Assessment Report) as contact for Keys Motor Company. According to a phone conversation (8/20/03) Mr. Doug Keys passed away in Feb., 2003 and Mr. Isham, who was part owner at the time, assumed management responsibility for the business, now listed as Keys Motor Co./Birdnow Motor Trade. John Isham sent a letter (dated August 21, 2003) notifying the department that Birdnow Motor Trade had purchased the property of Keys Motor Company as of June 14, 2003.

III. Summarize the other relevant information (include what may have been learned or known from sources other than the report itself, such as DNR files)

Soil stratigraphy beneath the pavement and fill materials generally consisted of a brown to dark brown, fine silty sand to clayey sand to depths ranging between 3 to 5 feet. Brown fine to medium sized sand was observed beneath this material and graded into a brown to light brown fine to very fine sand at lower depth. Shallow groundwater occurs at about 10 feet bgs. Direction of groundwater flow is presumably westward towards Otter Creek.

Municipal wells are about one mile to the north.

The bedrock surface in the area is irregular. Bedrock was encountered at Oelwein Soil Service site just south of the Keys Motor Company at depths varying from 7 to 33 feet bgs. The dolostone bedrock is Silurian in age and consists of Niagaran dolomite of the Gower and Hopkinton formations.

ESS:

Groundwater flow to the west/southwest was confirmed in the Site Assessment Report.

A Tier II SCR has been submitted for old gas station site (LUST No. 9LTK33) northeast of the contaminated site. The UST was removed in 1987. The consultant attributes benzene and naphthalene at this site to the LUST site even though preliminary



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LUST modeling and other well samples do not directly support the claim. A letter from IDNR LUST Section dated August 22, 2003, requests more information be submitted for the Tier II Site Cleanup Report for LUST Site No. 9LTK33. IDNR visited site on 9/4/2003 and, along with Mr. Isham, was able to find all monitoring wells except MW-1. John Isham is sure that MW-1 is still there (all wells were permanent installations) but is currently obstructed by a junk car. When this inventory gets moved, Mr. Isham will mark MW-1's position and maintain access to it. Phone contact with Mr. Isham on 11/24/2003 confirms that monitoring well, MW-1 is still in place and now marked.

K-Mart did submit a State of Iowa Public Drinking Water Program Annual Compliance Report in July, 2001 for its Public Water Supply well. This report indicates that the well at K-Mart had exceedances of copper and lead in January, 2001 and arsenic in July, 2000. The report in July, 2001 indicated compliance with the standards for these contaminants had been achieved

REVIEW SUMMARY

Contaminant Type Petroleum & Other

I. Summarize your findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values known criteria such as water quality standards, MCLs, established cleanup levels, background or any other relevant or useful benchmarks used to determine the site's priority.

Soil
Ethylene glycol was detected at 2,310 mg/kg. The statewide standard (IAC Chapter 137) is 160,000 mg/kg. Low amounts of other VOCs were detected in soil. The concentrations of detected VOCs ranged from a high 2.20 mg/kg for tert-butylbenzene to a low 0.0072 mg/kg for benzene. The levels of VOCs observed in soil were lower than their statewide standards. Eight RCRA metals were tested in soil. These included arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver. Arsenic was detected at concentrations ranging from 1.3 to 3.0 mg/kg. These concentrations are within the levels observed in Iowa soils. Barium was detected at concentrations ranging from 6.2 to 140 mg/kg. Cadmium was detected at 2.8 mg/kg. Chromium was detected at concentrations ranging from 2.1 to 14 mg/kg. Lead levels in soil ranged from 5.8 to 100 mg/kg. Mercury levels ranged from 0.021 to 0.12 mg/kg. Selenium was detected at 1 mg/kg. Silver was not detected. All the common RCRA metal levels were lower than the statewide standards in IAC Chapter 137.

Groundwater
Ethylene glycol was detected at 59,400 ug/L compared to the statewide standard of 7,000 ug/L (unfiltered sample). The following RCRA common metals were detected in groundwater (unfiltered samples):
Arsenic, 51 to 90 ug/L, compared to the statewide standard of 50 ug/L.
Barium, 1,800 - 3,100 ug/L, compared to statewide standard of 2,000 ug/L.
Cadmium, 5.8 - 6.6 ug/L, compared to 5 ug/L.
Chromium, 575 - 807 ug/l, compared to statewide standard of 100 ug/L.
Lead, 297 - 483 ug/L, compared to statewide standard of 15 ug/L.
Mercury, 1.05 - 1.66 ug/L, compared to statewide standard of 2 ug/L.

ESS
Soil results, (Reported May 20, 2003)
Arsenic: <1.0 to 6.1 mg/kg compared to statewide standard of 1.4 mg/kg
Barium, cadmium, chromium, and lead were all below statewide standards.
Ethylene glycol was below detectable limit of 10 ug/g in all samples, (statewide standard of 160,000 ug/g).
PCBs in sample from B-11 were all below detectable limit of 0.27 ug/g, (statewide standard of 2.1 ug/g).



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Groundwater results from May 20, 2003: (Current results are from filtered samples.)

Benzene: (MW-1) 128 ug/L compared to statewide standard of 5 ug/L, all other samples below statewide standard.

Naphthalene: (MW-1) 97.2 ug/L compared to statewide standard of 20 ug/L, all samples below statewide standard.

Ethylene glycol: All samples < 10,000 ug/L, statewide standard for protected groundwater is 7,000 ug/L.

Metals: All metals were below statewide standards. (Previous samples were unfiltered and several showed exceedances of statewide standards for protected groundwater.

II. Summarize the potential or actual impacts of the contamination. What is known about the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there wells in the area that could be potentially impacted? Are there identified contaminant pathways such as water or sewer lines, drain tiles, or fissures? Identify any other use/location issues that deserve consideration in any priority assignment.

The area is zoned commercial to industrial. To the west of the facility was vacant grassland; to the north was Mainstay of Oelwein, Inc.; to the east was former Hwy. 150; to the south was FECO, Ltd.; and to the north was a former Dekalb seed storage and processing plant.

A drainage ditch is located along the northern portion of the site and flows to the west. The site is located near the meandering floodplain of Otter Creek, prior to discharge to Lake Oelwein. The lake is located about one-quarter (1/4) mile to the southwest. The westernmost portion of the property merges into the wetland east of Otter Creek.

According to the land title survey conducted for the facility, a well is depicted in the south central portion of the service department.

The facility's sewage is directed to two septic tanks within the automotive salvage yard, located west of the main facility and south of the winter dismantling structure. From the septic tank, fluids are directed to an outfall located within the northern drain feature. Apparently, the floor drain effluent in the service building is directed to the discharge line that leads from the septic tanks to the outfall.

12 municipal wells (2 bedrock wells of unknown depth, 6 wells 120 to 140 feet deep, and 4 wells 1,200 to 1,400 feet deep) serve as the water supply for the City of Oelwein and are located from 1 to 1.75 miles north and upgradient of the site.

Municipal wells of known depth are finished in bedrock which is encountered at 35 to 40 feet bgs, is Silurian in age, and consists of Niagaran dolomite of the Gower and Hopkinton formations. Several businesses south of the facility have private non-drinking water wells. These businesses are supplied municipal water for drinking purposes. It is, however, not known if any private wells are used for food processing or other processes that could adversely be impacted by site contaminants.

ESS:

The site is located in the preliminary (2,500 foot) Source Water Protection Area for the K-Mart non-municipal public water supply well. K-Mart did submit a State of Iowa Public Drinking Water Program Annual Compliance Report in July, 2001. This report indicates that the well at K-Mart had exceedances of copper and lead in January, 2001 and arsenic in July, 2000. The report in July, 2001 indicated compliance with the standards for these contaminants had been achieved. No other reported problems are on record. A site visit on 9/4/2003 did not indicate any receptors immediately downgradient of the site other than surface water 300 yards west of the site.

III. Summarize any other information, knowledge, or reasoning used in determining your recommendation regarding the priority assigned to this site.

Soil and groundwater contamination has been detected at the site. The facility is less than one-quarter of a mile from Otter Creek and Lake Oelwein. Groundwater from the site probably discharges into both Lake Oelwein and Otter Creek. There is a wetland immediately west of the site. Lake Oelwein is a recreational resource. Additional investigation is necessary to fully define the lateral extent of contamination. It is recommended the site proceed to ESS under PreCERCLA.



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ESS:
Metals in groundwater detected in initial testing appear to be result of suspended solids in those samples and appear to be present at concentrations below statewide standards as a dissolved component of groundwater. A detection limit of 10,000 ug/L was used in analyzing ethylene glycol in the groundwater samples. Ethylene glycol was apparently tested against statewide standard for non-protected groundwater (70,000 ug/L). The statewide standard for protected groundwater of 7,000 ug/L for ethylene glycol should have been used. All 6 samples analyzed showed concentrations below the 10,000 ug/L detection limit. The ethylene glycol contamination appears to be localized.
Six VOCs were detected in the groundwater sample from MW-1. Two (naphthalene and benzene) were above statewide standards for protected groundwater. Well MW-1 is located downgradient from the former Keys Motor Company LUST site (No. 9LTK33) and contaminants are attributed to the LUST. The Tier 2 modeling does not directly support this contention. This LUST site is in Tier 2, awaiting approval of a proposed plan that requires, at the very least, annual monitoring. In view of this and the contaminant level, monitoring for naphthalene and BTEX shall be performed on monitoring well MW-1 on this site at the same frequency and duration as prescribed for the wells at LUST No. 9LTK33. The facility is required to submit a copy of all analytical results from MW-1 to the Contaminated Sites section, IDNR.

PRIORITY LEVEL

Priority Level 2

PROGRAM AUTHORITY REFERRAL

Program Authority Referral Chapter 133

Other Referral RBCA

ISS/Form Completed By Lambert A. Nnadi

ESS Completed By Hylton Jackson

Date ISS Completed

Date ESS Completed 01/06/2004

Date Completed

Form Reviewed

Date Reviewed

2/3/04

Drainage

Flow

Drainage

Note: B-1 and B-2 were conducted in May 2002, on the eastern portion of the property fronting South Frederick Avenue, as part of a Phase 2 property transfer assessment

4' - 6' Topographic Decline to West

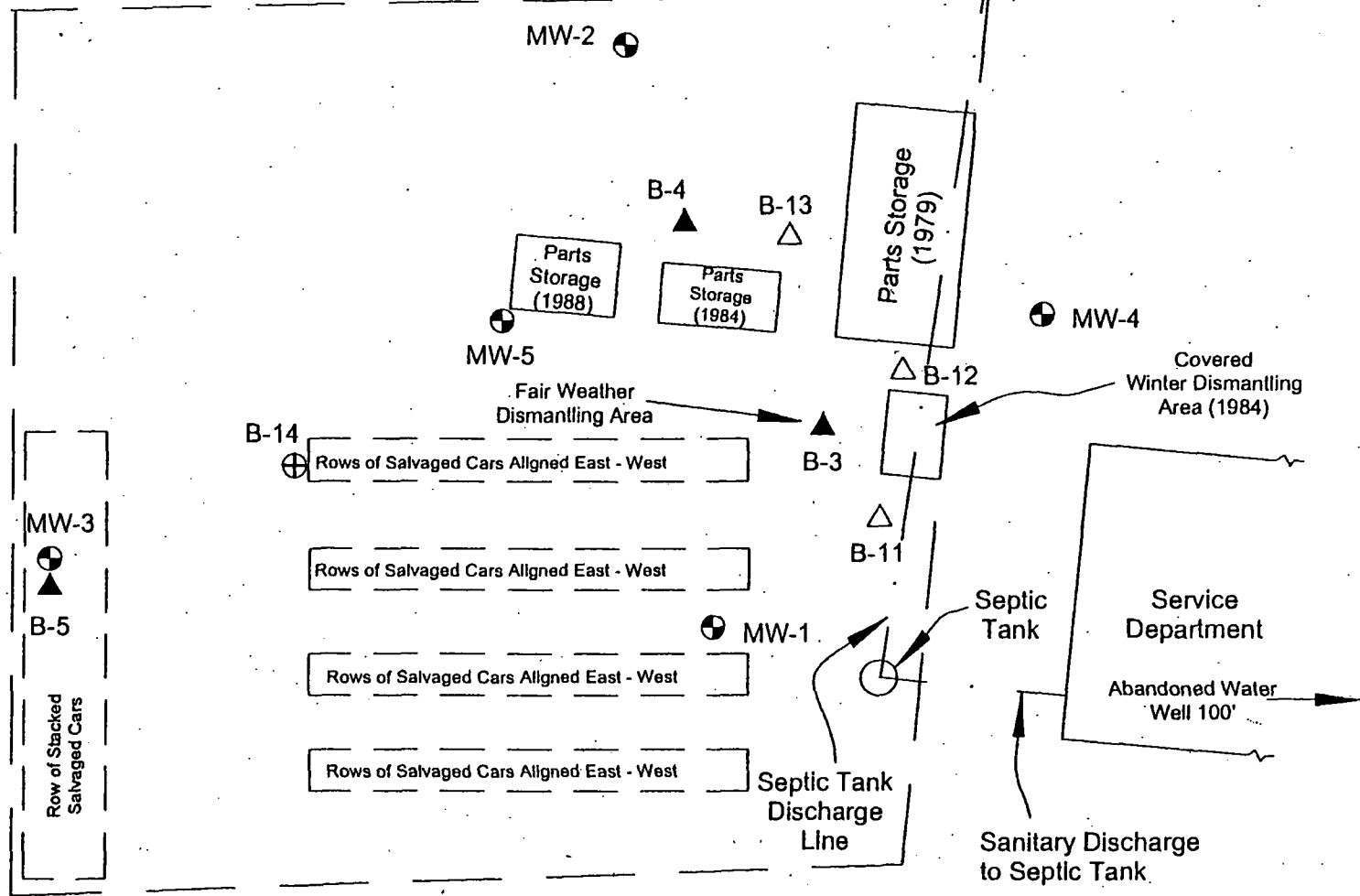


Figure 2 - Soil Boring and Monitoring Well Diagram



1" = 60'

PREPARED BY:

CLEAR CONSULTING
2611 16TH AVENUE
MOLINE, IL 61265

- ▲ Previous Soil Boring (5/02)
- △ Soil Boring (11/02)
- Monitoring Well (MW-1 - MW-4, 12/02, MW-5, 3/03)
- ⊕ Temporary Monitoring Well (3/03)

**KEYS MOTOR COMPANY
SITE ASSESSMENT**

1440 SOUTH FREDERICK AVENUE

OELWEIN, IOWA

Project No. 02121

Date May 13, 2003

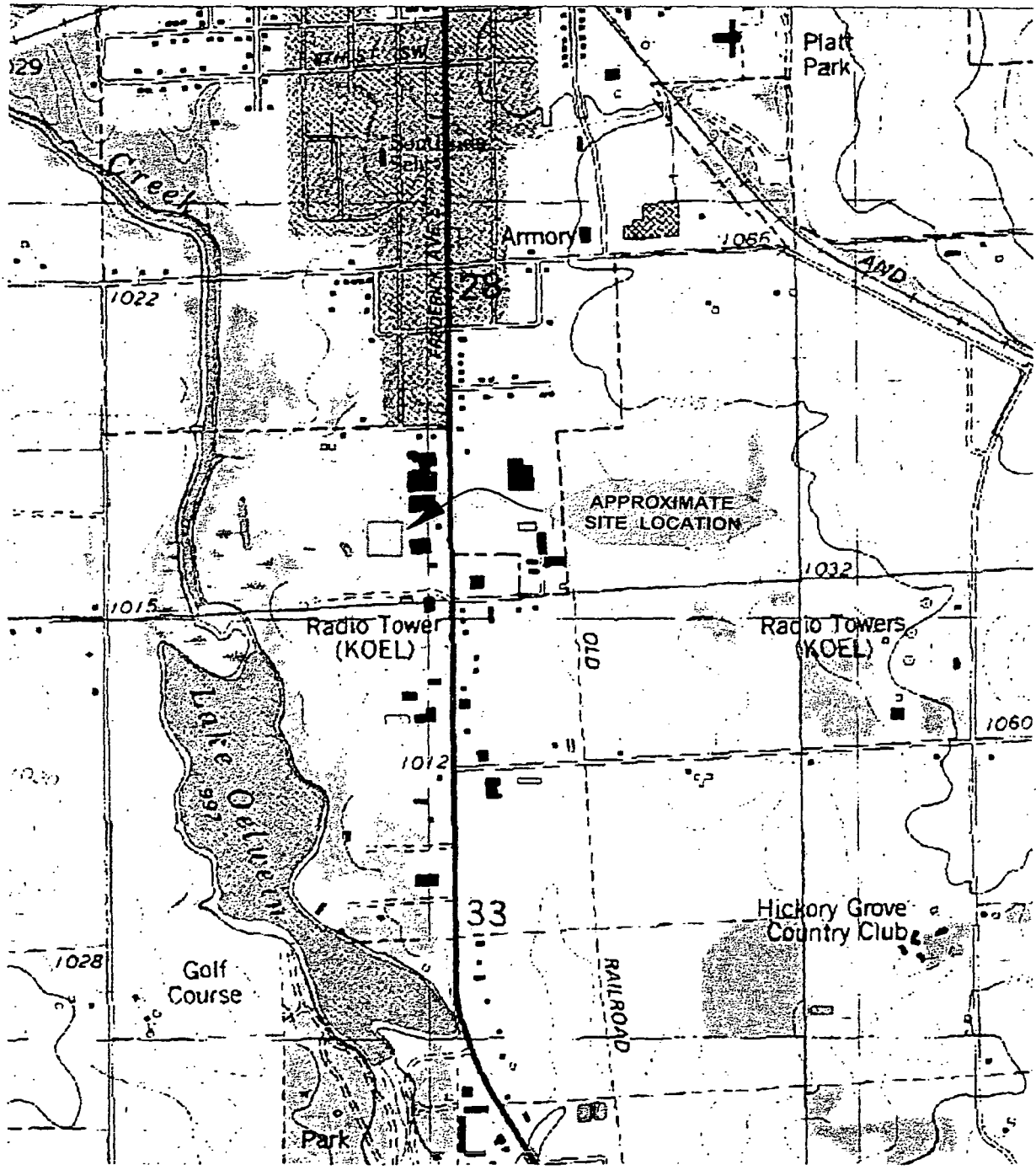


Figure 1 - Site Location Map

Prepared by:

Map courtesy of the
U.S. Geological Survey

Clear Consulting
2611 16th Avenue
Moline, IL 61265

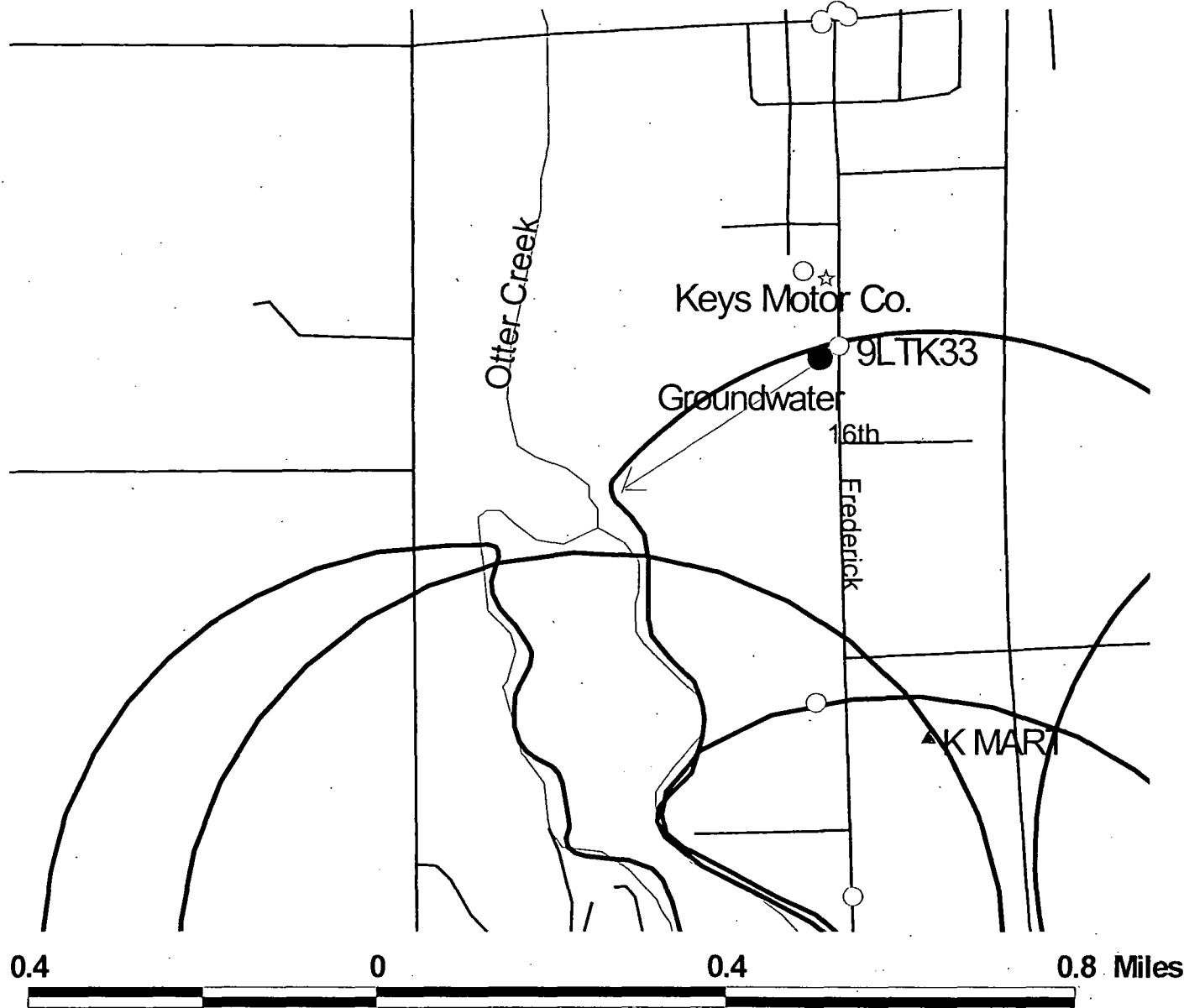
**KEYS MOTOR COMPANY
SITE ASSESSMENT**
1440 SOUTH FREDERICK AVENUE
OELWEIN, IOWA















Project No. 02121
Date December 4, 2002

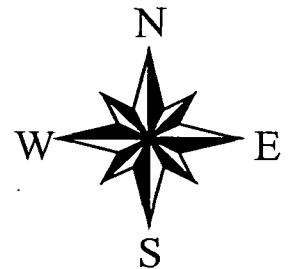


NOT TO SCALE

View1



-  Fayette Co. - Rivers
-  LUST sites
-  UST Sites
-  Municipal wells
-  Nonmunicipal PWS
- Source Water Protection Area**
-  2-year
-  5-year
-  10-year
-  2500-foot
-  1-mile
-  primary protection area
-  surface runoff area
-  hydrologic boundary
-  County



PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Hylton Jackson, IDNR
(Name/Title) (Date)
502 E 9th Street, Des Moines, IA 50319 (515) 242-5084
(Address) (Phone)
Hylton.Jackson@dnr.state.ia.us
(E-mail Address)

Site Name: Keys Motor Company

Previous Names (if any): _____

Site Location: 1440 S Fredrick Avenue
(Street)
Oelwein IA 50662
(City) (ST) (Zip)

Latitude: 42.65999 **Longitude:** 91.914530

| Compare the following checklist. If "yes" is marked, please explain below. | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 1. Does the site already appear in CERCLIS? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance release have occurred, EPA approved risk assessment completed)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Please explain all "yes" answer(s), attach additional sheets if necessary:

While ethylene glycol concentration (59.4 mg/L) exceeds statewide standards for protected groundwater (7 mg/L), area of contamination is limited and potential risk to environment and risk of exposure is low. Contaminants (naphthalene and benzene) detected in monitoring well MW-1 will be monitored under requirements for LUST site #9LTK33.

- Site Determination: Enter the site into CERCLIS. Further assessment is recommended (Explain below).
 The site is not recommended for placement into CERCLIS (Explain below).
 Further assessment is recommended under PRE-CERCLA (Explain below).

DECISION/DISCUSSION/RATIONALE:
Contaminants (naphthalene and benzene) detected in monitoring well MW-1 will be monitored under requirements for LUST site #9LTK33.

Regional EPA Reviewer:

Print Name/Signature _____ Date _____

State Agency/Tribe:

CALIFORNIA *Cal Jolley* *2/3/04*
Print Name/Signature _____ Date _____

REGION VII U.S. EPA SUPERFUND
NO DISCOVERY DATE

PRE-CERCLIS INITIATION FORM
NPL Status = O-NOT A VALID SITE OR INCIDENT

Site Name: Keys Motor Company
Facilities: FUD Site

Brownfields Other Federal Agency States
Identified By: Removal Site Assessment Federal

Address: 1440 S Fredrick Avenue

County Name: Fayette

City, State, Zip: Oelwein, IA 50662

State ID (if one exists): P33-0001

Congressional District: 1

NPL Status: = : Not a Valid Site or Incident

Federal Facility Indicator: Federal Facility Not a Federal Facility Status Undetermined

Section: C-(STAR) SPFD Technical Assistance/Re-Use Branch L-(EFLR) Enfr/Fund Lead RV Branch F-(FFSE) Federal Facilities/Special Emphasis Branch
 M-(MOKS) MO/KS remedial Branch I-(IANE) IA/NE Remedial Branch O-(ER&R) Emergency Response & RV Branch

List Site Alias Name (s): _____

Directions to Site: From Iowa Highway 150 on the south side of Oelwein: Turn east on 18th Street, proceed 1 block. Turn north on Frederick Avenue, proceed 1/4 mile. Site is on west side of Frederick Avenue. Signage indicates Birdnow Motor Trade.

Site Description: Auto Salvage yard

Site Size: 4.4

Site Dimension: Acres Square Feet
 Feet Square Miles Miles

USGS Quadrant: Oelwein 7.5' USGS Hydro Unit: _____

Latitude: 42.659999 Longitude: 91.914530

(Decimal Degree format)

Lat/Long Accuracy: Seconds Miles Feet
 Degrees Minutes Kilometers Meters

Lat/Long Source: EPA Region 7 EPIC
 Regulated Entity Private Geograph
 SNAP Other Other Fed Agency
 Contractor EPA HQ

Owner Bank/Loan Company Indian Lands
Operator County Owned Other
Type District Owned Private
(choose 1): Federally Owned Mixed Ownership
 Former Federally Owned or Operated State Owned
 Government Owned/Contractor Operated Trustee, Federal
 Privately Owned/Government Operated Trustee, State
 Property Defaulted Back to Government
 Municipality

Operational Status: Active Inactive Unknown
Incident Type: Non-Oil Spill Oil Spill Unknown

Non-NPL Status (Choose one):

Not a Valid Site or Incident Not a Valid Site or Incident: NRC Lead
 Not a Valid Site or Incident: RCRA Lead Not a Valid Site or Incident: State Lead
 Not a Valid Site or Incident: Tribal Lead

Add Action: OU_00

: PRE-CERCLIS SCREENING

Planned Complete: 11/19/2003

Actual Complete: _____

Lead code (choose one):

F-EPA Fund Financed FF - Federal Facility S - State, Fund Financed

SCAP Note: _____

Add below Action (if No Further Action):

OU_00 Lead: EP

PRE-CERCLIS ARCHIVE

Actual Complete: _____

SCAP Note: _____

Comment: Site or Action:

Site Type (Choose all that apply - for every main category chosen in bold at least one sub-category must be selected; if more than one main and sub category is selected indicate which is primary):
Primary designation:

MP-Manufacturing/Processing/Maintenance - Applicable sub-categories:

- CA-Chemicals and allied products
- CG-Coal gasification
- CP-Coke production
- EP-Electric power generation and distribution.
- EE-Electronic/electrical equipment
- FT-Fabrics/textiles
- LW-Lumber and wood products/pulp and paper
- WP-Lumber and wood products/wood preserving/treatment
- MF-Metal fabrication/finishing/coating and allied industries
- OR-Oil and gas refining
- OP-Ordnance production
- PR-Plastics and rubber products
- PM-Primary metals/mineral processing
- RA-Radioactive products
- TA-Tanneries G OT-Other-Description(needed): _____
- TS-Trucks/ships/trains/aircraft and related components

MI-Mining - Applicable sub-categories

- CO-Coal ME-Metals NM-Non-metal minerals
- OG-Oil and Gas OT-Other-Description(needed): _____

WM-Waste Management - Applicable sub-categories

- CL-Co-disposal landfill (municipal and industrial)
- ID-Illegal disposal/open dump
- IF-Industrial waste facility (non-generator)
- IL-Industrial waste landfill
- MD-Mine tailings disposal
- OT-Other-Desc.(needed)_____
- ML-Municipal solid waste landfill
- RW-Radioactive waste treatment, storage, disposal (non-generator)

OT-Other - Applicable sub-categories

- AG-Agricultural (e.g., grain elevator)
- CS-Contaminated sediment site with no identifiable source
- DC-Dust control G OT-Other-Desc.(needed)_____
- GP-Ground water plume site with no identifiable source
- MO-Military/Other Ordinance
- PS-Product storage/distribution
- RD-Research, development, and testing facility
- RC-Retail/commercial
- SE-Spill or other one-time event
- TP-Transportation (e.g., railroad yards, airport, barge docking, site)
- TW-Treatment works/septic tanks/other sewage treatment

RE-Recycling - Applicable sub-categories

- AT-Automobiles/tires G DT-Drums/tanks G WO-Waste/used
- BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- CC-Chemicals/chemical waste (e.g., solvent recovery)
- OT-Other-Description(needed): _____

Signatures: States: Cal Kelley

Date: 2/3/04 RPM/OSC/SAM: _____

Date: _____

| | | |
|---|------------------------------|------------|
| I. SITE NAME AND LOCATION: | | |
| NAME: Keys Motor Company | | |
| ADDRESS OR OTHER LOCATION IDENTIFIER: 1440 S. Fredrick Avenue | | |
| CITY: Oelwein | STATE: IA | ZIP: 50662 |
| DIRECTIONS TO SITE: From Iowa Highway 150 on the south side of Oelwein: Turn east on 18 th Street, proceed 1 block. Turn north on Fredrick Avenue, proceed ¼ mile. Site is on west side of Fredrick Avenue. Signage indicates Birdnow Motor Trade. | | |
| MAP ATTACHED: Yes | | |
| II. PROGRAM CONTACTS: | | |
| REQUESTED BY: Ken Rapplean | DATE OF REQUEST: | |
| AGENCY/OFFICE: EPA Region 7 | | |
| MAILING ADDRESS: EPA Region 7 901 N. 5 th Street | | |
| CITY: Kansas City | STATE: KS | ZIP: 66101 |
| TELEPHONE: 913-551-7818 | FAX: | |
| EVALUATOR: Hylton Jackson | | |
| AGENCY/OFFICE: Iowa Department of Natural Resources | | |
| MAILING ADDRESS: Wallace State Office Bldg. 502 East 9 th Street | | |
| CITY: Des Moines | STATE: IA | ZIP: 50319 |
| TELEPHONE: 515 242-5084 | FAX: 515-281-8995 | |
| III. SITE INFORMATION: | | |
| TYPE OF FACILITY: Auto Salvage Yard | TYPE OF OWNERSHIP: Private | |
| OWNER/OPERATOR INFORMATION: | | |
| SITE STATUS (active/inactive): active | YEARS OF OPERATION: 30 years | |

OPERATIONAL HISTORY: (How was the site identified?)

The property was identified through property audit. Most of the information was obtained from Phase 1 and Phase 2 environmental assessment reports. The 250 Building Corporation owned the former service station at the northeastern portion of the property. A majority of the remainder of the property was first developed in approximately 1968 through 1969 by the estate of Earl W. Moore, after a tornado demolished an on-site market formerly fronting Iowa Hwy. 150 (now South Frederick Avenue). A GM dealership constructed an on-site business known as Mulder Motors. It conducted automotive sales, servicing and repair. Tim Vanderdahl Inc. and 250 Building Corporation bought the property on August 2, 1982 and continued operation as Mulder Motors. The business was acquired by Gordon Walker, Lorraine Walker, James Watson Jr. and Kathleen Walker on November 21, 1984 and operated as Keys Motor Company. Automotive salvaging/parts collection and sales began on the western portion of the site in 1979, following the construction of the main parts storage building. In 1984, two additional frame salvage structures were brought to the site. Then in 1988, a metal-framed engine house (storage) was constructed in the salvage yard.

Jon Isham is now listed (May 20, 2003 Site Assessment Report) as contact for Keys Motor Company. According to a phone conversation with Mr. Isham (8/20/03) Mr. Doug Keys passed away in Feb., 2003 and Mr. Isham, who was part owner at the time, assumed management responsibility for the business, now listed as Keys Motor Co./Bowden Motor Trade. John Isham, President of Keys Motor Company, sent a letter (dated August 21, 2003) notifying the department that Birdnow Motor Trade had purchased the property of Keys Motor Company as of June 14, 2003.

IV. PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISIONS

(Criteria from "Improving site Assessment: Pre-CERCLIS Screening Assessments", OSWER Directive #9375.2-11FS, EPA-540-F-98-039, PB98-963310, October 1999)

| | |
|---|-----------------------|
| 1. Does the site already appear in CERCLIS? (If YES, this Form may be inappropriate to document site decisions, i.e., a CERCLA PA (at a minimum) is required.) | YES __ or NO <u>x</u> |
| 2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures? (If YES, then explain in Section V.) | YES __ or NO <u>x</u> |
| 3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or solely through naturally occurring processes or phenomena, from a location where it is naturally found? (If YES, then explain in Section V.) | YES __ or NO <u>x</u> |
| 4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use? (If YES, then explain in Section V.) | YES __ or NO <u>x</u> |
| 5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)? (If YES, then explain in Section V). State LUST Site # 9LTK33 | YES <u>x</u> or NO __ |
| 6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)? (If YES, then explain in Section V.) | YES __ or NO <u>x</u> |
| 7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)? (If YES, then explain in Section V.) | YES __ or NO <u>x</u> |
| Check one, either 8.a or 8.b, whichever applies | |
| 8. a. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)? (Explain in Section V). | YES __ or NO __ |
| 8. b. Base on limited sampling that has been performed at/near the site in conjunction with Pre-CERCLIS Screening Assessment, is there a release or a potential for a release that could cause adverse environmental or human health impacts? (Explain in Section V). | YES <u>x</u> or NO __ |
| Yes -> Explain in the following Sections whether or not a CERCLA response action (CERCLIS entry) is warranted. No -> No CERCLIS entry is warranted. Explain in the following Sections. | |

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| V. SUPERFUND SITE SCREENING CRITERIA |
| A. REMEDIAL CRITERIA |
| 1. SOURCE AND WASTE CHARACTERISTICS |
| KNOWN OR SUSPECTED SOURCE TYPES AND LOCATIONS: Ethylene glycol from on-site removal and collection of anti-freeze from salvage vehicles and benzene and naphthalene plume migrating from off-site UST. |
| SIZE OF SOURCES AND QUANTITIES (Volume, Area): Unknown volume from UST release. Area of ethylene glycol stained soil is approximaely 18 by 25 feet |
| WASTE TYPES OR HAZARDOUS SUBSTANCES KNOWN OR SUSPECTED TO BE PRESEN: Naphthalene, benzene and ethylene glycol detected in groundwater. |
| 2. GROUND WATER PATHWAY: |
| What is the likelihood that a release to groundwater has occurred at the site? Naphthalene and benzene have been detected in shallow groundwater in monitoring well MW-1. Ethylene glycol was detected in groundwater sample from boring B-4. If a release is not suspected proceed to A.3. |
| a. USE AND CHARACTERISTICS: |
| GENERAL STRATIGRAPHY AND HYDROLOGY: Approximately 35 feet of unconsolidated alluvial material overlays Silurian age dolomitic bedrock at the site. Shallow groundwater gradient is to the southwest. |
| PRESENCE OF KARST TERRAIN: Not evident at this specific site. |
| DEPTH TO SHALLOWEST AQUIFER: 10 feet to a protected groundwater source in the alluvial deposits. |
| PRIVATE WELLS WITHIN 4 MILES (locations and population served): There are 9 identified, nonmunicipal PWS: K-Mart located 1/3 of a mile southeast. Lakeview Golf Course located 1/2 mile southwest (on west side of Otter Creek). Lake Shore Resort located 1/2 mile southwest. The others are greater than 1/2 mile away from the site. Records indicate a total of 48 private wells within a 4 mile radius serving approximately 108 people. There are also 7 wells listed as commercial, irrigation, or livestock wells within 4 miles. |
| MUNICIPAL WELLS WITHIN 4 MILES (locations and population served): A total of 16 municipal wells are located within 4 miles of the site. 12 municipal wells (2 bedrock wells of unknown depth, 6 wells 120 to 140 feet deep, and 4 wells 1,200 to 1,400 feet deep) serve as the water supply for the City of Oelwein (population 6,700) and are located from 1 to 1.75 miles north and upgradient of the site. Records indicate the small town of Hazleton (population 750) has 4 municipal wells located 3 miles south of the site. |
| DISTANCE TO NEAREST DRINKING WATER WELL: According to information provided, the nearest well (K-Mart) is located 1/3 mile to the southeast, cross-gradient to shallow groundwater flow. |
| WELLHEAD PROTECTION AREAS: The site is located in the preliminary (2,500 foot) Source Water Protection Area for the K-Mart nonmunicipal PWS well. The site is also close to the Protection Areas for the PWS well at Lakeview Golf Course located 1/2 mile southwest and the PWS well for Lake Shore Resort located 1/2 mile southwest. |
| 3. SURFACE WATER PATHWAY: |
| What is the likelihood that a release to surface water has occurred at the site? Possible in a flooding event with no evidence of past release. If a release is not suspected proceed to A.4. |
| a. USE AND CHARACTERISTICS: |
| FLOOD FREQUENCY: Site elevation is above the 100-year floodplain and below the 500-year floodplain of Otter Creek. |
| DISTANCE TO NEAREST SURFACE WATER: Otter Creek is 0.4 miles to the west/southwest. |
| SURFACE WATER BODIES WITHIN 15 DOWNSTREAM MILES: 23-acre Lake Oelwein is 0.5 miles to the southwest. |
| DESIGNATED AND/OR PROTECTED USES OF SURFACE WATER BODIES: Boating and recreational/sport fishing on Lake Oelwein. |

DRINKING WATER INTAKES WITHIN 15 DOWNSTREAM MILES (locations and populations served): None known or suspected.

FISHERIES WITHIN 15 DOWNSTREAM MILES: Lake Oelwein is 0.5 miles to the southwest.

KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS AND WETLANDS WITHIN 15 DOWNSTREAM MILES: Wetland area associated with Otter Creek/Lake Oelwein is located 1,150 feet southwest of the site.

4. SOIL EXPOSURE PATHWAY:

What is the likelihood of exposure to hazardous substances at the site?

Possible ethylene glycol exposure to employees on site. Soil concentrations of ethylene glycol detected at 2,300 ug/g in soil boring B-4 at 0-5 feet bgs (Statewide Standard, Land Recycling Program is 160,000 ug/g). Ingestion is the most important exposure route. Dermal absorption is negligible and does not contribute significantly to systemic toxicity.

If a release is not suspected proceed to A.5.

a. CHARACTERISTICS:

NUMBER OF PEOPLE LIVING WITHIN 200 FEET: None

SCHOOLS OR DAY-CARES WITHIN 200 FEET: None

POPULATIONS WITHIN 1 MILE: 6,700

NUMBER OF WORKERS AT THE FACILITY OR ADJACENT FACILITIES WHOSE CONTAMINATION IS SUSPECTED:

None

LOCATIONS OF KNOWN OR POTENTIAL TERRESTRIAL SENSITIVE ENVIRONMENTS: Wetland area associated with Otter Creek/Lake Oelwein is located 1,150 feet southwest of the site.

5. AIR PATHWAY:

What is the likelihood that a release of hazardous substances are migrating from the site to the air?

None

If a release is not suspected proceed to B.

a. CHARACTERISTICS

POPULATIONS WITHIN 4 MILES:

DISTANCE TO NEAREST INDIVIDUAL:

LOCATIONS OF KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS WITHIN 0 TO 1/4 MILE AND 1/4 TO 1/2 MILE:

B. REMOVAL CRITERIA

IS THERE A RELEASE AS DEFINED BY THE NCP?

YES or NO

EXPLAIN:

(A RELEASE is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release. [40 CFR 300.410(e)])

B. REMOVAL CRITERIA (continued):

IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP?

YES x or NO

EXPLAIN:

The site meets the definition of a facility.

(A FACILITY is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or POTW), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. A VESSEL is defined as any description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel. [40 CFR 300.410(e)])

DOES THE RELEASE INVOLVE A HAZARDOUS SUBSTANCE, POLLUTANT OR CONTAMINANT AS DEFINED BY THE NCP?

YES x or NO

EXPLAIN:

(A HAZARDOUS SUBSTANCE means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. The definition of POLLUTANT or CONTAMINANT includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas.) [40 CFR 300.410(e)]

IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE? YES or NO x

EXPLAIN:

(The LIMITATIONS ON RESPONSE provisions of the NCP (40 CFR 300.400(B) states that removals shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use.) [40 CFR 300.410(e)]

DOES THE QUANTITY OR CONCENTRATION WARRANT RESPONSE? YES or NO x

EXPLAIN:

Soil concentrations of ethylene glycol detected at 2,300 ug/g in soil boring B-4 at 0-5 feet bgs (Statewide Standard, Land Recycling Program is 160,000 ug/g). While ethylene glycol concentration in groundwater (59.4 mg/L) exceeds Statewide Standard for Protected Groundwater (7mg/L) the area of contamination is limited and potential risks to the environment and risk of exposure is low. Contaminants (naphthalene and benzene) detected in monitoring well MW-1 will be monitored under the Tier II requirements for LUST site #9TK33.

HAS A PRP BEEN IDENTIFIED? (Include name, address and telephone number) YES x or NO

EXPLAIN: Previous Operator: Mr. Doug Keys

Current Owner: Mr. John Isham
1440 South Fredrick Avenue
Oelwein, IA 50622
Phone: (319) 283-5571

[40 CFR 300.410(e)]

B. REMOVAL CRITERIA (continued):

IS THERE AN ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS, OR CONTAMINANTS?

YES x or NO

EXPLAIN: Possible ethylene glycol exposure to employees on site. Soil concentrations of ethylene glycol detected at 2,300 ug/g in soil boring B-4 at 0-5 feet bgs (Statewide Standard, Land Recycling Program is 160,000 ug/g). Ingestion is the most important exposure route. Dermal absorption is negligible and does not contribute significantly to systemic toxicity. Direct exposure risk is minimal at the site.

IS THERE ACTUAL OR A POTENTIAL FOR CONTAMINATION OF DRINKING WATER SUPPLIES?

YES or NO

EXPLAIN: Naphthalene, benzene, and ethylene glycol detected in groundwater. The site is located in the preliminary (2,500 foot) Source Water Protection Area for the K-Mart nonmunicipal PWS well. The site is also close to the Protection Areas for the PWS well at Lakeview Golf Course located 1/2 mile southwest and the PWS well for Lake Shore Resort located 1/2 mile southwest.

ARE THERE HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS, OR BULK STORAGE CONTAINERS?

YES or NO

EXPLAIN: No drums or barrels were observed on-site.

ARE THERE HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN NEAR-SURFACE SOILS?

YES or NO

EXPLAIN:
 ("High levels" may be determined by streamlined risk assessments, health consultations, state or federal soil screening criteria, and/or Superfund program policies or directives.)

ARE THERE CONDITIONS ON SITE WHICH MAY BE SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS?

YES or NO

EXPLAIN: Flooding/heavy rainfall may increase the potential for ethylene glycol surface water contamination in nearby Otter Creek and Lake Oelwein.

IS THERE A THREAT OF FIRE OR EXPLOSION?

YES or NO

EXPLAIN:

IS THERE A POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS? IF SO, IDENTIFY THE APPROPRIATE PROGRAM:

YES or NO

RCRA NRC FIFRA UST OTHER FEDERAL () STATE DEFERRAL

EXPLAIN:
 Contaminants (benzene and naphthalene) are believed to be part of a plume from neighboring LUST site # 9LTK33 on adjoining, co-owned property.

ARE THERE OTHER SITUATIONS OR FACTORS WHICH WARRANT FURTHER SUPERFUND RESPONSE?

YES or NO

EXPLAIN:

VI. SUPERFUND SITE SCREENING FINDINGS AND RECOMMENDATIONS:

NO FURTHER SUPERFUND RESPONSE ACTION REQUIRED - SUPERFUND CERCLIS ENTRY NOT WARRANTED

(Cite the appropriate criteria from SECTION V as the basis for the above determination.)

| Yes | No | Unknown | Issue | Yes | No | Unknown | Issue |
|-----|----|---------|------------------------------|-----|----|---------|--------------------------------|
| X | | | Ground Water Pathway Threat | X | | | Direct Exposure Pathway Threat |
| X | | | Surface Water Pathway Threat | | X | | Air Pathway Threat |
| X | | | Release Or Threat Of Release | X | | | A Facility Or Vessel |

| | | | | | | | |
|---|---|--|--|---|---|--|--|
| X | | | Hazardous Substance, Pollutant, or Contaminant | | X | | Subject To Response Limitations |
| | X | | Quantity Or Concentration Warrant Response | | X | | Exposure To Hazardous Substances Or Pollutants Or Contaminants |
| | X | | Drums, Barrels Or Bulk Containers Present | | X | | High Levels Of Contaminants In Surface Soils |
| X | | | Site Susceptible To Adverse Weather Conditions | | X | | Threat Of Fire Or Explosion |
| X | | | Willing/Capable PRP Response | X | | | Referred To Another Program |

COMMENT: While past activities associated with the auto salvage operation have resulted in low-level contamination of soils and shallow groundwater at the site, the remaining concern is the source of the naphthalene and benzene contamination detected in monitoring well MW-1. This contamination has been initially attributed to a release from an adjacent LUST site # 9LTK33. This site and LUST site # 9LTK33 are under single ownership, Birdnow Motor Trade. The LUST site is in Tier II review and monitoring of MW-1 will be required in conjunction with the Tier II monitoring at LUST site # 9LTK33.

REMOVAL ACTION RECOMMENDED: __ EMERGENCY __ TIME-CRITICAL __ NON-TIME-CRITICAL

(Cite one or more of the conditions or factors from Section V. REMOVAL CRITERIA, as a basis for recommending that a removal action be conducted.)

| Yes | No | Unknown | Issue | Yes | No | Unknown | Issue |
|-----|----|---------|--|-----|----|---------|--|
| | | | Exposure To Hazardous Substances Or Pollutants Or Contaminants | | | | Actual Or A Potential For Contamination Of Drinking Water Supplies |
| | | | Drums, Barrels Or Bulk Containers Present | | | | High Levels of Contaminants Near-Surface Soils |
| | | | Site Susceptible To Adverse Weather Conditions | | | | Fire/Explosion Threat |
| | | | Other Response Mechanism | | | | Other Factors |

COMMENT:

VI. SUPERFUND SITE SCREENING RECOMMENDATIONS (continued):

ADDITIONAL INTEGRATED ASSESSMENT RECOMMENDED

(Cite the appropriate criteria from Section V as a basis for recommending that additional site evaluation be performed.)

| Yes | No | Unknown | Issue | Yes | No | Unknown | Issue |
|-----|----|---------|--|-----|----|---------|--|
| | | | Ground Water Pathway Threat | | | | Direct Exposure Pathway Threat |
| | | | Surface Water Pathway Threat | | | | Air Pathway Threat |
| | | | Release Or Threat Of Release | | | | A Facility Or Vessel |
| | | | Hazardous Substance, Pollutant, or Contaminant | | | | Subject To Response Limitations |
| | | | Quantity Or Concentration Warrant Response | | | | Exposure To Hazardous Substances Or Pollutants Or Contaminants |
| | | | Drums, Barrels Or Bulk Containers Present | | | | High Levels Of Contaminants In Surface Soils |
| | | | Site Susceptible To Adverse Weather Conditions | | | | Threat Of Fire Or Explosion |
| | | | Willing/Capable PRP Response | | | | Referred To Another Program |

COMMENT:

VII. ADDITIONAL INFORMATION OR COMMENTS

The site should be removed from further CERCLA action. While ethylene glycol concentration in groundwater (59.4 mg/L) exceeds statewide standard for protected groundwater (7mg/L) the area of contamination is limited and potential risks to the environment and risk of exposure is low. Contaminants (naphthalene and benzene) detected in monitoring well MW-1 will be monitored under the Tier II requirements for LUST site #9TK33.

DNR USE ONLY

VIII. DETERMINATION

SIGNATURE:

Cal G. Galloway, Supervisor
Name/Title/Office

DATE:

3/3/04