



W66 N215 Commerce Court  
Cedarburg, Wisconsin 53012  
(262) 375-4750  
(800) 645-7365  
Fax (262) 375-9680

October 3, 2002



Ms. Victoria Stovall  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King Jr. Drive  
Post Office Box 12436  
Milwaukee, Wisconsin 53212-0436

Reference: *Additional Information*  
Former Hein Werner Property  
1005 Perkins Avenue  
Waukesha, Wisconsin  
WDNR FID #: ~~268001890~~  
BRRTS #: 02-68-000916

268003120

KEY ENGINEERING GROUP, LTD.  
File No. 0810009

Dear Ms. Stovall:

The letter was prepared on behalf of Hein Werner to document additional data collection pursuant to a Wisconsin Department of Natural Resources (WDNR) July 11, 2002 letter request (provided as Attachment 1).

This letter has been formatted according to the numbered items in the July 11, 2002 WDNR letter.

**WDNR Item No. 1.** *"KEY's Final Report dated December 18, 2000, indicates that two drums of hazardous waste were removed from the site in a final sweep of surface waste [November 2000]. Please provide a site map showing the locations of where the hazardous waste was removed."*

A map depicting the approximate locations of the removed surficial paint waste is provided as Figure 1 in Attachment 2. Areas 2 (also location of August 1999 surficial paint waste removal), A and B were the locations of surface paint waste removal in November 2000. It should be noted that this map is an update (based on survey information) of the sketch that was included in Appendix 4 of the February 2002 *Site Investigation Report*.

In addition, during Key Engineering Group, Ltd.'s (KEY's) July 2002 soil sampling effort to address WDNR Item No. 2 (below), some additional surficial paint waste (a total of approximately 1/3 of a 55-gallon drum) was observed, containerized and properly disposed. The additional paint waste locations (designated Areas C, D and E) are depicted on Figure 1 in Attachment 2. Documentation of the additional paint waste disposal is provided in Attachment 3.

**WDNR Item No. 2** *"Soil confirmation sampling following the removal of paint residue drums appears to be lacking. Appendix 4 of the Site Investigation Report (February 10, 2000) identifies two areas (#3 and #5) on the northeast portion of the sites where orange paint was removed on August 30, 1999. (Analytical testing of this paint indicated that the residue is a characteristic hazardous waste for lead). However, there is no*

*documentation of soil sampling underneath these areas where paint drums were removed to determine the residual lead levels in the soil at either the August 1999 or November 2000 events. In addition, the highest level in the soil from soil boring was reported at the northeastern-most boring, B-11 from 1 to 3 feet below grade. Therefore, additional shallow soil sampling is required in this area, as well as any other areas where orange paint residue was previously removed, to determine if lead concentrations exceed the Wisconsin Administration Code NR 720.11 Table 2 industrial direct contact level."*

A total of nine near surface soil samples (composite of the top 18 inches) were collected and analyzed for total lead. In addition, the toxicity characteristic leaching procedure (TCLP) for lead was performed on soil samples with total lead concentrations exceeding 100 milligrams per kilogram (mg/kg) (five samples). Soil samples were collected in the following areas:

- Area 2, where paint waste was removed in August 1999 and in November 2000.
- Areas 3 and 5, where paint waste was removed in August 1999.
- Areas A and B, where paint waste was removed in November 2000.
- Areas C, D and E, where paint waste was removed in July 2002 (during subject soil sampling).
- Location of soil boring B-11, where the highest total lead concentration was detected in soil during the site investigation.

The soil sample laboratory analytical report is presented in Attachment 4. The total lead results ranged from 38 mg/kg to 712 mg/kg as depicted on Figure 1 in Attachment 2. The TCLP lead results were all less than the laboratory limit of detection (0.6 milligrams per liter).

To assess the direct contact exposure pathway at the site, consistent with WDNR guidance, a relevant direct contact exposure concentration was determined for lead. This lead direct contact exposure concentration was calculated as the upper 95% confidence limit (on the arithmetic mean) of all the near surface (0 to 4 feet) total lead data (as documented on Figure 1 in Attachment 2).

The results of this analysis indicated an upper 95% confidence limit concentration of 254 mg/kg assuming the data is normally distributed (or 353 mg/kg assuming the data is log normally distributed). Supporting documentation is provided in Attachment 5. These exposure concentrations are less than the NR 720.11 Table 2 industrial direct contact residual contaminant level (500 mg/kg); therefore, lead does not represent an excess direct contact risk at the site.

**WDNR Item No. 3.** *"The source of the methyl tert-butyl ether found at MW-2 and MW-3 above the NR 140 Enforcement Standard has not been identified, nor has the extent of this plume been delineated. No party has clearly demonstrated that this release is from an off-site sources (Waukesha Iron and Metal Company). Until these issues are resolved, this aspect of the case cannot be closed."*

As previously indicated to WDNR, Hein Werner will not be performing additional groundwater sampling or evaluation. Hein Werner and KEY feel that the data and rationale presented in the *Site Investigation Report* (KEY, February 10, 2000) and *Addendum to Final Report* (KEY, February 15, 2001) clearly points to the adjacent Waukesha Iron & Metal Company (WIMC) salvage yard as the source of the on-site methyl tert-butyl ether (MTBE) impacts to groundwater.

**Please refer to the *Site Investigation Report* (KEY, February 10, 2000) and to the *Addendum to Final Report* (KEY, February 15, 2001) which provide detail on Hein Werner's position on this issue.**

Ms. Victoria Stovall  
October 3, 2002  
Page 3

Pursuant to your July 19, 2002 email, it is the understanding of Hein Werner and KEY that WIMC's consultant E2M Environmental and Engineering Management, LLC have executed an access agreement with Mallory Properties to sample the on-site wells containing MTBE (pursuant to WIMC's WDNR case, BRRTS # 02-68-275715).

**CLOSING**

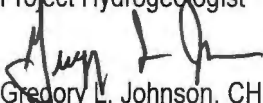
It is the opinion of KEY and Hein Werner that the additional data documented herein provides further supporting rationale for a WDNR finding of *No Further Action* for Hein Werner. A closure review fee was previously submitted to WDNR.

Please contact Hein Werner or KEY with any questions.

Sincerely,

KEY ENGINEERING GROUP, LTD.

  
Daniel K. Pelczar, CPG, P.G.  
Project Hydrogeologist

  
Gregory L. Johnson, CHMM, P.H., P.G., P.E.  
Senior Engineer/Scientist

DKP/clh

Attachments: Attachment 1 July 11, 2002 WDNR Letter  
Attachment 2 Figure 1 - Summary of Shallow Total Lead Soil Sample Analytical Results  
Attachment 3 Waste Disposal Documentation  
Attachment 4 Soil Sample Analytical Report  
Attachment 5 Exposure Concentration Documentation

cc: Mr. Hiram J. Buffington, Snap-On Tools  
Ms. Brenda Boyce, WDNR



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor  
Darrell Bazzell, Secretary  
Gloria L. McCutcheon, Regional Director

Waukesha Service Center  
407 Pilot Court, Suite 100  
Waukesha, Wisconsin 53188  
Telephone 262-574-2100  
FAX 262-574-2117

July 11, 2002

Mr. Hiram J. Buffington  
Snap-on Tools  
2801 80th St.  
Kenosha, WI 53141

FID# 268091890  
FID# 268003120  
BRRTS# 02-68-000916

Subject: Former Hein Werner Property, 1005 Perkins Avenue, Waukesha

Dear Mr. Buffington:

The Department of Natural Resources (Department) has received your closure request with the associated fee and reviewed the file information for compliance with state requirements regarding case closure. The case was presented to the Southeast Region closure committee on July 2, 2002. After careful review of your closure request, the closure committee has decided that additional information and work is necessary at the site in order to meet the requirements for closure. Please address the following concerns:

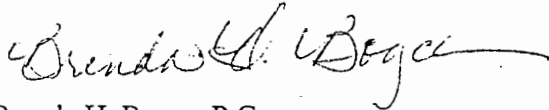
1. Key Engineering Group, Ltd.'s (Key) *Final Report* dated December 18, 2000, indicates that two drums of hazardous waste were removed from the site in a final sweep of surface waste. Please provide a site map showing the locations of where the hazardous waste was removed.
2. Soil confirmation sampling following the removal of paint residue drums appears to be lacking. Appendix 4 of the *Site Investigation Report* (2/10/00) identifies two areas (#3 and #5) on the northeast portion of the site where orange paint was removed on August 30, 1999. (Analytical testing of this paint indicated that the residue is a characteristic hazardous waste for lead.) However, there is no documentation of soil sampling underneath these areas where paint drums were removed to determine the residual lead levels in the soil at either the August 1999 or November 2000 events. In addition, the highest lead level in the soil from soil borings was reported at the northeastern-most boring, B-11 from 1-3 feet below grade. Therefore, additional shallow soil sampling is required in this area, as well as any other areas where orange paint residue was previously removed, to determine if lead concentrations exceed the Wisconsin Administrative Code NR 720.11 Table 2 industrial direct contact level.
3. The source of the MTBE found at MW-2 and MW-3 above the NR 140 Enforcement Standard (ES) has not been identified, nor has the extent of this plume been delineated. No party has clearly demonstrated that this release is from an off-site source (Waukesha Iron and Metal Co.). Until these issues are resolved, this aspect of the case cannot be closed.

When the additional work outlined above has been completed, a brief submittal should be sent to the Department, and the case will again be reviewed for closure. Please direct correspondence with the site FID and BRRTS numbers noted above to: Ms. Victoria Stovall, Wisconsin Department of Natural Resources, 2300 N. Dr. ML King Jr. Dr., P.O. Box 12436, Milwaukee, WI 53212-0436.

If there is additional relevant information that was not previously provided to the Department, which you believe might change the Department's closure decision, you may submit that information for our re-evaluation of your closure request.

The Department appreciates the actions you have taken to restore the environment at this site. A copy of this letter has been forwarded to your environmental consultant. If you have any questions, you may contact me at (262) 574-2140.

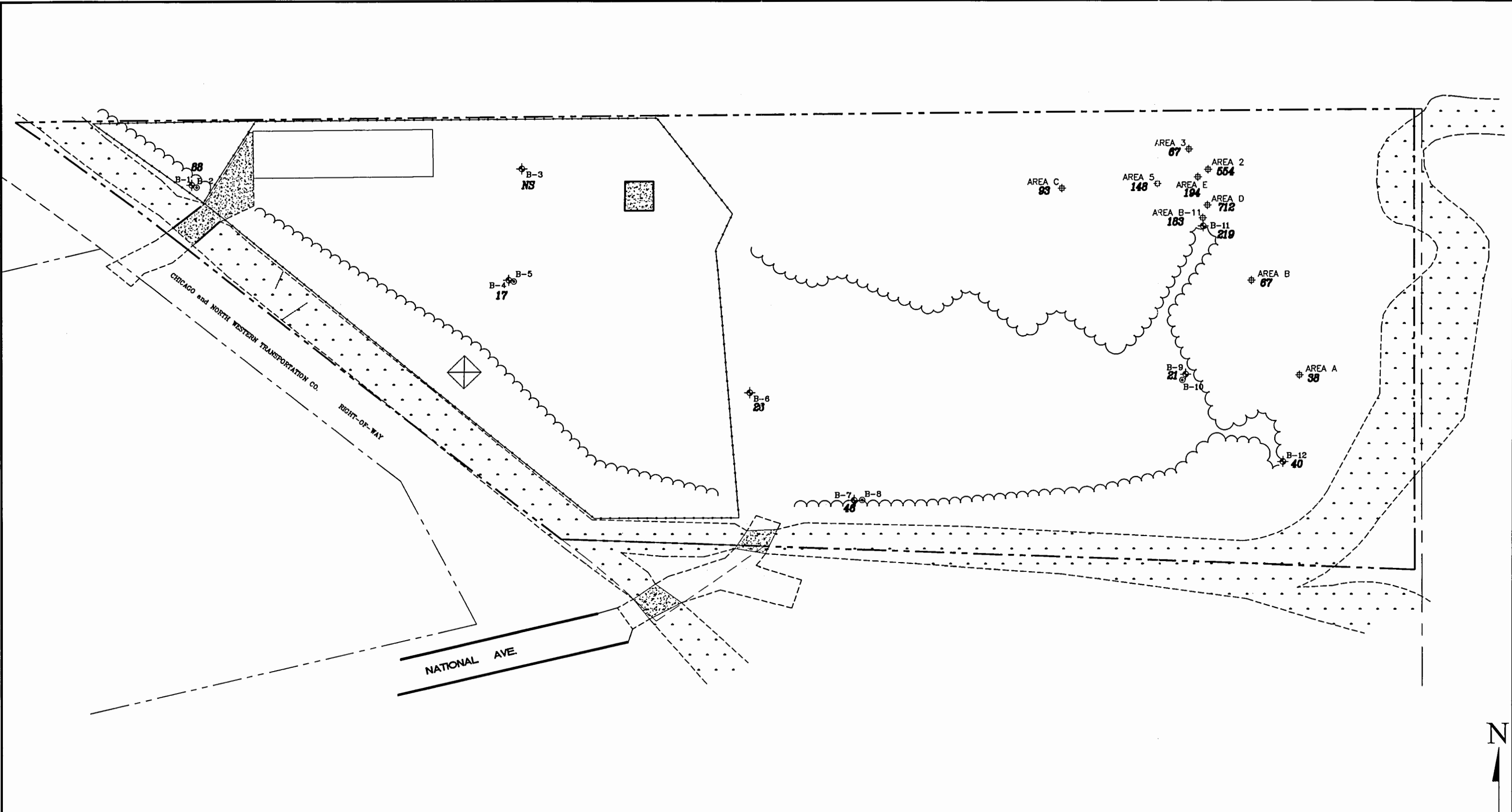
Sincerely,

A handwritten signature in cursive script that reads "Brenda H. Boyce". The signature is written in black ink and is positioned above the typed name.

Brenda H. Boyce, P.G.  
Hydrogeologist  
Remediation and Redevelopment Program

C: Greg Johnson – Key Engineering Group, Ltd.  
File

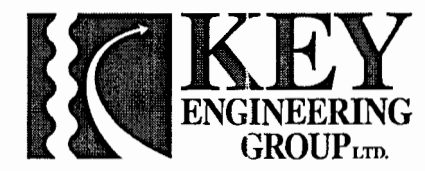




**LEGEND**  
 ⊙ PIEZOMETER/BORING LOCATION  
 ⊕ MONITORING WELL/BORING LOCATION  
 ⊕ SURFACE SAMPLE LOCATION (0-18")  
 88 TOTAL LEAD, mg/kg

**NOTES**  
 mg/kg: MILLIGRAMS PER KILOGRAM  
 NS: NO SAMPLE COLLECTED WITHIN 0'-4'

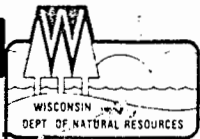
0 40 80	
SCALE: 1"=80'	
DRN. BY: J.J.J.	DATE: 09/23/02
DSN. BY: D.K.P.	FILE NO.: 0810009
CHK. BY: D.K.P.	DWG. NO.: 8192a
REV. BY: G.L.J.	SHEET NO.: 6



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**FIGURE 1**  
**SUMMARY OF SHALLOW**  
**TOTAL LEAD SOIL SAMPLE**  
**ANALYTICAL RESULTS**

FORMER HEIN WERNER PROPERTY  
 1005 PERKINS AVENUE  
 WAUKESHA, WISCONSIN



STATE OF WISCONSIN  
Chapter 291, Wis. Stats.  
Form 4400-66P

Rev. 1-99

ALL COPIES MUST BE LEGIBLE,  
PLEASE TYPE

State of Wisconsin  
Department of Natural Resources  
Bureau of Waste Management  
Box 8094  
Madison, WI 53708

FOR DNR USE ONLY

Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039.

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. WI000000000000	Manifest Document No. 11111	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address Rogers Main Service Property 105 Parkway Ave Cedarburg, WI 53015				Site Location If Different EPA: 466 W215 Commerce Ct. Cedarburg, WI 53015		A. State Manifest Document Number WI <b>K282854</b>		
4. Generator's Phone (608) 556-5475 Dennis McDonald				6. US EPA ID Number WI00000015001		B. State Generator's ID		
5. Transporter 1 Company Name Advanced Waste Carriers, Inc.			7. Transporter 2 Company Name Pollution Control Industries		C. State Transporter's ID UFW508337MN			
8. US EPA ID Number WI00000066862			9. Designated Facility Name and Site Address Pollution Control Industries 4343 Kennedy Ave. East Chicago IN 46312		D. Transporter's Phone 800-842-9792			
10. US EPA ID Number IN0000066862			11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) a. Hazardous Waste Solid, NOS, 9, NA3077, PGLII (D008) FRC# 171		12. Containers No. Type 201 EM		13. Total Quantity 210.7	
14. Unit wt/vol P			15. I. Waste No. D 0 0 8		E. State Transporter's ID			
16. Facility's Phone 219-397-3951			17. Facility's ID ADM		F. Transporter's Phone 219-397-295			
18. Handling Codes for Wastes Listed Above G = Gallons P = Pounds			SOI					
19. Special Handling Instructions and Additional Information 24 Hour Emergency Contact #800-842-9792 Emergency Response Guide on board				20. Additional Descriptions for Materials Listed Above a: 245482IM Paint Solids				
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;  OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name & Position Title Dennis McDonald				Signature <i>[Signature]</i>		Date 07/29/02		
17. TRANSPORTER 1 Acknowledgement of Receipt of Materials Printed/Typed Name & Position Title Dennis McDonald				Signature <i>[Signature]</i>		Date 07/29/02		
18. TRANSPORTER 2 Acknowledgement of Receipt of Materials Printed/Typed Name & Position Title CHIEF OFFICER				Signature <i>[Signature]</i>		Date 07/29/02		
19. Discrepancy Indication Space								
20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name & Position Title James J. Reid				Signature <i>[Signature]</i>		Date 07/29/02		

PA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution: 1 - Generator send to Wis. DNR  
2 - Generator retain  
3 - Facility send to Wis. DNR

4 - Facility retain  
5 - Facility send to Generator  
6 - Transporter retain

Emergency 24 Hour Assistance  
and Spill Reporting

COPY 5 -

Copies 1 & 3 mail to Wis. DNR at above address.

Telephone Number: (800) 943-0003 FACILITY SEND TO GENERATOR

**ADVANCED WASTE CARRIERS, INC.**  
(800) 842-9792

Manifest No. WIK 293751  
Carrier No. 82065  
Date 07/29/02

Shipper <u>H.P.W. WARREN / KEY</u>		Receiving Facility <u>PCF</u>	
Street Address		Street Address	
City, State <u>Cedarburg, WI</u>		City, State <u>EAST Chicago, IN</u>	
Bill TO:		Emergency Response ( ) Phone No.	Vehicle Number

No. Shipping Units	HM	DOT Shipping Description
<u>1 X 550m</u>	<u>X</u>	<u>Hazardous Waste Solid, No. 9, 1165077</u>

Scheduled arrival time	Actual arrival time	Departure
------------------------	---------------------	-----------

Explanation of Work Performed

I accept this work as complete \_\_\_\_\_

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of his Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms

and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns. NOTICE: Freight moving under this Bill of Lading is subject to the classifications and lawfully filed tariffs in effect on the date of this Bill of Lading. This notice supersedes and negates any claimed, alleged or asserted oral or written contract, promise, representation or understanding between the parties with respect to this freight, except to the extent of any written contract which establishes lawful contract carriage and is signed by authorized representatives of both parties to the contract.

SHIPPER: <u>H.P.W. Warren / Key</u>	CARRIER: <b>ADVANCED WASTE CARRIERS, INC.</b>
PER: <u>Jim Baker</u> <u>Key Engineering Group</u> <u>consultant for</u> <u>SNAP-on Tools</u>	PER: <u>[Signature]</u> DATE <u>7/29/02</u>



# UNIFORM HAZARDOUS WASTE REGISTRATION AND DISPOSAL FORM I

Generator Name / Location Former Hein Werner Property 105 Perkins Ave. Lakesha, WI 53186  
 EPA ID Number WI D006072698 Manifest Number WPK 283854

Waste Analysis Available Yes  No  On file at facility  Date \_\_\_\_\_

PROFILE	RCRA NON-REGULATED Please check if waste stream is not regulated by RCRA.	RCRA WASTE CODES (List all that apply)	SUBCATEGORY (See table II and Select Key# if applicable)	TREATABILITY GROUP Please check the applicable group.		CALIFORNIA LIST WASTES	REGULATED CONSTITUENTS FOR D001*, D002, D017-D043 F001-F005 & F039
				Nonwastewater >1% TOC & <1% TSS	Wastewater		
a	b	c	d	e	f	g	h
249482nm		D003	12	✓			239

### CALIFORNIA WASTES (for Column g)

- 1) PCB > = 50 ppm    2) Halogenated Organic Carbon HOC's . = 1000 mg/l    3) Nickel (NI) > = 134 mg/l    4) Thallium (TI) > = 130 mg/l

### REGULATED CONSTITUENTS FOR F001, F002, F003, F004, F005 (For Column h)

- |                                 |                                   |                            |   |
|---------------------------------|-----------------------------------|----------------------------|---|
| 5) Acetone                      | 12) Cresylic Acid                 | 19) Methanol               | 26) Toluene                               |
| 6) Benzene                      | 13) Cyclohexanone                 | 20) Methylene Chloride     | 27) -1,1,1 Trichloroethane                |
| 7) N-Butyl Alcohol              | 14) 1,2-Dichlorobenzene           | 21) Methyl Ethyl Ketone    | 28) 1,1,2 Trichloroethane                 |
| 8) Carbon Disulfide             | 15) Ethyl Acetate                 | 22) Methyl Isobutyl Ketone | 29) Methyl Isobutyl Ketone                |
| 9) Carbon Tetrachloride         | 16) Ethyl Benzene                 | 23) Nitrobenzene           | 30) 1,1,2 Trichloro 1,2,2 Trifluoroethane |
| 10) Chlorobenzene               | 17) Ethyl Ether                   | 24) Pyridine               | 31) Trichlorofluoromethane                |
| 11) Cresols (o,m, or p isomers) | 18) Isobutanol (Isobutyl alcohol) | 25) Tetrachloroethylene    | 32) Xylene (Total)                        |

I certify under penalty of law that the above information is accurate and true.

Signature: [Signature] Key Engineering Group Ltr. CONSULTANT TO SANDRIN TOOLS Print Name: Dan Pelczar

# En Chem, Inc.

GREG JOHSON  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0810009  
Project Name FORMER HEIN WERNER PRO  
Invoice # E42233

Report Date 09-Aug-02

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5042233A						Sample Type	Soil	
Sample ID	AREA B-11						Sample Date	7/26/2002	

Inorganic

General

Solids Percent	85.2	%				1	7/31/2002	5021	AJV	1
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Metals

Lead, Total	183	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
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Lab Code	5042233B						Sample Type	Soil	
Sample ID	AREA 3						Sample Date	7/26/2002	

Inorganic

General

Solids Percent	90.2	%				1	7/31/2002	5021	AJV	1
----------------	------	---	--	--	--	---	-----------	------	-----	---

Metals

Lead, Total	67	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
-------------	----	-------	---	---	---	----------	-------	-----	---

Lab Code	5042233C						Sample Type	Soil	
Sample ID	AREA 5						Sample Date	7/26/2002	

Inorganic

General

Solids Percent	88.7	%				1	7/31/2002	5021	AJV	1
----------------	------	---	--	--	--	---	-----------	------	-----	---

Metals

Lead, Total	148	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
-------------	-----	-------	---	---	---	----------	-------	-----	---

Lab Code	5042233D						Sample Type	Soil	
Sample ID	AREA 2						Sample Date	7/26/2002	

Inorganic

General

Solids Percent	88.7	%				1	7/31/2002	5021	AJV	1
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Metals

Lead, Total	554	mg/kg	3	9	1	8/2/2002	6010B	JLA	1
-------------	-----	-------	---	---	---	----------	-------	-----	---

# En Chem, Inc.

GREG JOHSON  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0810009  
 Project Name FORMER HEIN WERNER PRO  
 Invoice # E42233

Report Date 09-Aug-02

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5042233E							<b>Sample Type</b> Soil		
<b>Sample ID</b> AREA A						<b>Sample Date</b> 7/26/2002			
Inorganic									
General									
Solids Percent	86.6	%			1	7/31/2002	5021	AJV	1
Metals									
Lead, Total	38	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
<b>Lab Code</b> 5042233F							<b>Sample Type</b> Soil		
<b>Sample ID</b> AREA B						<b>Sample Date</b> 7/26/2002			
Inorganic									
General									
Solids Percent	88.5	%			1	7/31/2002	5021	AJV	1
Metals									
Lead, Total	67	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
<b>Lab Code</b> 5042233G							<b>Sample Type</b> Soil		
<b>Sample ID</b> AREA C						<b>Sample Date</b> 7/27/2002			
Inorganic									
General									
Solids Percent	88.4	%			1	7/31/2002	5021	AJV	1
Metals									
Lead, Total	93	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
<b>Lab Code</b> 5042233H							<b>Sample Type</b> Soil		
<b>Sample ID</b> AREA D						<b>Sample Date</b> 7/27/2002			
Inorganic									
General									
Solids Percent	85.4	%			1	7/31/2002	5021	AJV	1
Metals									
Lead, Total	712	mg/kg	9	27	3	8/1/2002	6010B	DLB	1

# En Chem, Inc.

GREG JOHSON  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0810009  
Project Name FORMER HEIN WERNER PRO  
Invoice # E42233

Report Date 09-Aug-02

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5042233I									
Sample ID AREA E									
Sample Type Soil									
Sample Date 7/27/2002									
Inorganic									
General									
Solids Percent	87.7	%			1	7/31/2002	5021	AJV	1
Metals									
Lead, Total	194	mg/kg	3	9	1	8/1/2002	6010B	DLB	1
Lab Code 5042233J									
Sample ID AREA B-11									
Sample Type TCLP									
Sample Date 7/27/2002									
Inorganic									
TCLP									
TCLP Lead	<0.6	mg/l	0.6	1.8	10	8/8/2002	6010B	JLA	1
Lab Code 5042233K									
Sample ID AREA 5									
Sample Type TCLP									
Sample Date 7/27/2002									
Inorganic									
TCLP									
TCLP Lead	<0.6	mg/l	0.6	1.8	10	8/8/2002	6010B	JLA	1
Lab Code 5042233L									
Sample ID AREA D									
Sample Type TCLP									
Sample Date 7/27/2002									
Inorganic									
TCLP									
TCLP Lead	<0.6	mg/l	0.6	1.8	10	8/8/2002	6010B	JLA	1
Lab Code 5042233M									
Sample ID AREA E									
Sample Type TCLP									
Sample Date 7/27/2002									
Inorganic									
TCLP									
TCLP Lead	<0.6	mg/l	0.6	1.8	10	8/8/2002	6010B	JLA	1

# En Chem, Inc.

GREG JOHSON  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0810009  
Project Name FORMER HEIN WERNER PRO  
Invoice # E42233

Report Date 09-Aug-02

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5042233N						Sample Type	TCLP	
Sample ID	AREA 2						Sample Date	7/27/2002	

Inorganic

TCLP

TCLP Lead	< 0.6	mg/l	0.6	1.8	10	8/8/2002	6010B	JLA	1
-----------	-------	------	-----	-----	----	----------	-------	-----	---

LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

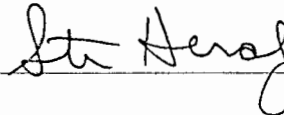
*Code*

*Comment*

1

All laboratory QC requirements were met for this sample.

Authorized Signature





**CHAIN OF CUSTODY RECORD**



**Analytical Lab**

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 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # No **24794**

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Lab I.D. # **5042233**  
 Account No.: \_\_\_\_\_ Quote No.: \_\_\_\_\_

Project #: **0819009** Sample Integrity - To be completed by receiving lab.  
 Method of Shipment: **Carry** Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice:   
 Sampler: (signature) *[Signature]* Cooler seal intact upon receipt:  Yes  No Labcoded By: **GU**

Project (Name / Location): **Former Hein Werner Property**

Reports To: <b>Greg Johnson</b>	Invoice To: <b>Same</b>	<b>Sample Handling Request</b> <input type="checkbox"/> Rush Analysis Date Required _____ <input checked="" type="checkbox"/> Normal Turn Around	<b>Analysis Requested</b>												
Company: <b>Key Engineering Group, Ltd</b>	Company: _____		DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	VOC DW (EPA 524.2)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb Total	Flash Point	Other Analysis	
Address: <b>W66 N415 Commerce Ct.</b>	Address: _____														
City State Zip: <b>Cedarburg WI 53012</b>	City State Zip: _____														
Phone: <b>262/375-4750</b>	Phone: _____														

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	VOC DW (EPA 524.2)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb Total	Flash Point	PID/FID
JTCLP A	Area B-11	7/26/02	10:35	2 - 4oz	Soil	None										X		n/a
	B	7/26/02	11:05													X		
KTCLP C	Area 5	7/26/02	11:25													X		
NTCLP D	Area 2	7/26/02	11:40													X		
	E	7/26/02	12:20													X		
	F	7/26/02	12:25													X		
LTCLP G	AREA C	7/27/02	10:20 AM	2 4oz	SOIL	NONE										X		X
	H	7/27/02	10:20 AM	↓	↓	↓										X		X
MTCLP I	AREA E	7/27/02	10:45 AM	↓	↓	↓										X		X

**Department Use Only**  
 Split Samples: Offered?  Yes  No  
 Accepted?  Yes  No  
 Accepted By: \_\_\_\_\_

**Comments/ Special Instructions**  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.  
**IF total Pb is ≥ 100 ppm please run TCLP-Pb.**  
 \* TCLP Pb added to A-C-H-I-GW 8/2/02

**Department Use Optional for: Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 Dispose  Retain for \_\_\_\_\_ days  
 Return  Other \_\_\_\_\_

Relinquished By: (sign) *[Signature]* Time **10:25** Date **7/29/02**  
 Received By: (sign) *[Signature]* Time **10:25** Date **7/29/02**  
 Received in Laboratory By: *[Signature]* Time: **10:40** Date: **7/29/02**



## EXPOSURE CONCENTRATION ANALYSIS DIRECT CONTACT EXPOSURE PATHWAY

### SURFICIAL (0' TO 4') TOTAL LEAD

**Upper 95% Confidence Limit Concentration (mg/kg)**

**Former Hein Werner Property**

Confirmation Soil Sample	Soil Sample Depth (feet)	Total Pb Concentration (mg/kg)	LN Transformed Data
B-1	3.5 to 5.5	88	4.48
B-4	1 to 3	17	2.83
B-6	3.5 to 5.5	26	3.26
B-7	1 to 3	46	3.83
B-9	3.5 to 5.5	21	3.04
B-11	1 to 3	219	5.39
B-12	3.5 to 5.5	40	3.69
Area B-11	0 to 1.5	183	5.21
Area 2	0 to 1.5	554	6.32
Area 3	0 to 1.5	67	4.20
Area 5	0 to 1.5	148	5.00
Area A	0 to 1.5	38	3.64
Area B	0 to 1.5	67	4.20
Area C	0 to 1.5	93	4.53
Area D	0 to 1.5	712	6.57
Area E	0 to 1.5	194	5.27

<b>Upper 95% Confidence Limit Concentration(mg/kg)</b>	
<i>Assuming Data is Normally Distributed</i>	
Number of Samples	16
Mean Concentration (mg/kg)	[AVERAGE] 157
Standard Deviation	[STDEV] 199
	[CONFIDENCE(0.05,16,20)] 97
<b>Upper 95% Confidence Limit Concentration(mg/kg)</b>	<b>254</b>

<b>Upper 95% Confidence Limit Concentration(mg/kg)</b>	
<i>Assuming Data is Log Normally Distributed</i>	
Number of Samples	16
Mean of LN Transformed Data	[AVERAGE] 4.47
Standard Deviation of LN Transformed Data	[STDEV] 1.10
	H-STATISTIC [Gilbert, 1987] 2.80
<b>Upper 95% Confidence Limit Concentration(mg/kg)</b>	<b>353</b>

**References:**

Gilbert, R.O. (1987). *Statistical Methods for Environmental Pollution Monitoring*.

USEPA (1997). *The Lognormal Distribution in Environmental Applications, EPA/600/R-97/006, December 1997*.

USEPA (1992). *Supplemental Guidance to RAGS: Calculating the Concentration Term, OSWER Publ 9285.7-081, May 1992*.

USEPA (1989). *Methods for Evaluating the Attainment of Cleanup Standards, Vol. 1: Soils and Solid Media, EPA 230/02-89-042, February 1989*.

WDNR (1997). *Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance, PUBL RR-519-97, April 1997 (corrected)*.