Natural Resource Technology, Inc.

N R T

August 12, 2003
(1508)

Ms. Jennifer Tobias
Bureau for Remediation & Redevelopment
Wisconsin Department of Natural Resources, Northeast Region
Oshkosh Service Center
625 East County Road Y, Suite 700
Oshkosh, WI 54901-9731

RE: Assessment of Canal and Inland MGP Impacted Materials
Former Manufactured Gas Plant (MGP)
337 Water Street, Appleton, WI
WDNR ERP Case # 02-45-000042
FID #445033380

Dear Ms. Tobias:

On behalf of We Energies, we completed an assessment of the canal and inland MGP impacted materials for the characteristics of a hazardous waste. This assessment was performed, as requested, during the July 31, 2003 conference call between you, Mr. Mark Collins of We Energies and Mr. Chris Robb and Mr. Roy Wittenberg of Natural Resource Technology, Inc. (NRT). The following characteristics were reviewed to further demonstrate the materials are not a hazardous waste in accordance with the regulatory requirements stipulated under NR 605.08:

- Ignitability
- Corrosivity
- Reactivity
- Toxicity

Ignitability

A composite of the canal material was collected during the interim remedial action activities completed in August 2002 (Soil Composite collected on 8/12/02). As indicated by the laboratory analytical "Soil Composite" sample results provided in Appendix A, the flashpoint result is greater than 210 degrees Fahrenheit (°F) or 99 degrees Celsius (°C). In addition, this material is not capable of causing a fire through friction, absorption of moisture or spontaneous chemical changes as indicated under NR 605.08 (2). As a result, the canal material does not meet the hazardous waste characteristic for ignitability.

A copy of the waste characterization laboratory analytical report that has been previously used to profile inland materials as non-hazardous special waste is provided in Appendix B. The flashpoint result of "1-Soil" sample was determined to be greater than 140 °F as shown on the attached analytical report. Similarly, as with the canal material, the inland material does not meet the requirements stipulated under NR 605.08 (2). Therefore, the inland material also does not meet the hazardous waste characteristic for ignitability.

Corrosivity

In accordance with NR 605.08(3), the criteria for demonstrating the characteristic for corrosivity only applies if the material is a liquid. The canal and inland materials are not considered liquids, but solids as demonstrated by the results of previous print filter tests provided in Appendices A and B, respectively. Therefore, the MGP impacted materials do not meet the hazardous waste characteristic for corrosivity.

Reactivity

As indicated during the July 31 conference call, the WDNR considers materials with total cyanide concentrations greater than 590 mg/kg to be indicative of a characteristic hazardous waste for reactivity. Previously detected total cyanide concentrations from all monitoring well soil borings are below 590 mg/kg. Total cyanide concentrations in unsaturated and saturated soil are summarized in Tables 5-3 and 5-5 of the *2001 URS Site Investigation Report* and are also provided in Appendix C. The highest concentration of total cyanide (425 mg/kg) detected at the site was from the soil boring for monitoring well MW-01-14D at 1 to 2 feet below ground surface as indicated on Table 5-3. No total cyanide data are available for the materials from the bottom of the canal; however, reactive cyanide was analyzed as part of a Waste Management Protocol B characterization (Appendix A). The results indicated a concentration less than 2.5 mg/kg and the material was found to be acceptable for disposal as a non-hazardous special waste. In addition, it is our understanding that assessment of the characteristic for reactive sulfide will not be required. As a result, the canal and the inland materials do not meet the hazardous waste characteristic for reactivity.

Toxicity

Confirming our conversation during the July 31 conference call, TCLP testing of MGP waste material for the toxicity characteristic will not be required.

Based on this assessment, the canal and inland materials are not characterized as a hazardous waste. If you have any questions or comments pertaining to this assessment, please contact Mr. Collins of We Energies at 414-221-2162.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

Heather M. Simon
Environmental Engineer

Roy E. Wittenberg, P.E.
Project Manager

Appendices: Appendix A: Waste Profile Analytical Data for the Canal Materials
Appendix B: Waste Profile Analytical Data for the Inland Materials
Appendix C: Summaries of Total Cyanide Concentrations in Soil

cc: Mr. Mark Collins, We Energies (w/ attachments)
Mr. Bruce Urben, WDNR - Green Bay (w/o attachments)

[1508/corres 2003/1508 WDNR WasteCharac 030812 ltr]

APPENDIX A

WASTE PROFILE ANALYTICAL DATA FOR THE CANAL MATERIALS

Corporate Office & Laboratory
1241 Bellevue Street
Green Bay, WI 54302
920-469-2436 • Fax: 920-469-8827
800-7-ENCHEM

ENCHEM INC.

Madison Office & Laboratory
525 Science Drive
Madison, WI 53711
608-232-3300 • Fax: 608-233-0502
888-5-ENCHEM

Project Name: WE ENERGIES
Project Number: 1508

NATURAL RESOURCE TECHNOLOGY
23713 W. PAUL RD
PEWAUKEE, WI 53072

ATTRNTION: RICK FOX

Attached are the following for Batch Number: **922739**

X **Organic**
X **Inorganic**
____ **QC Data**
____ **Diskette**

Ship By: X First Class Mail ____ FedEx
____ Priority Mail ____ Other: _____

Comments:

If you have any questions please call your Client Manager: **Lynn Dieffenbach**

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525 Science Drive
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- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508

Client : WE ENERGIES
Report Date : 8/22/02
WI DNR LAB ID : 113172950

Lab Sample No.	Field ID	Collection Date	Lab Sample No.	Field ID	Collection Date
922739-001	SOIL COMPOSITE	8/12/02			

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Lynn M Diegenbach
Approval Signature

8-22-02
Date

EN CHEM
SAMPLE NARRATIVE

CLIENT : NRT
PROJECT NAME : WE Energies
WORKORDER NUMBER : 922739

DRO: A late eluting hump along with diesel range peaks were present in the chromatogram.

En Chem, Inc.

Organic Data Qualifiers

B	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	Elevated detection limit (see Sample Narrative).
D	Analyte value from diluted analysis, or surrogate result not applicable due to sample dilution.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
F	Surrogate results outside control criteria.
H(n)	Extraction or analysis performed "n" days past holding time.
J	Qualitative evidence of analyte present: concentration detected is greater than the method detection limit but less than the reporting limit.
K	Detection limit may be elevated due to the presence of an unrequested analyte.
N	Spiked sample recovery not within control limits.
P	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	The analyte was not detected above the reporting limit.
W	Sample received with headspace.
X	See Sample Narrative.
&	Laboratory Control Spike recovery not within control limits.
*	Duplicate analyses not within control limits.
SUB1	Assay was subcontracted to an approved lab.
SUB2	Assay was subcontracted to En Chem Green Bay WI Cert. #405132750.

En Chem, Inc.

Inorganic Data Qualifiers

A	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	The analyte has been detected between the method detection limit and the reporting limit.
C	Elevated detection limit due to matrix effects.
E	Estimated concentration due to matrix interferences. During the metals analysis using the inductively coupled plasma (ICP), the serial dilution failed to meet the established control limits of 0-10% and the sample concentration is greater than 50 times the IDL (100 times the IDL for analysis done on the ICP-MS). The result was flagged with the E qualifier to indicate that a physical interference was observed.
F	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
H(n)	Preservation or analysis performed "n" days past holding time (See Sample Narrative).
K	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
L	Elevated detection limit due to low sample volume.
N	Spiked sample recovery not within control limits.
Q	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
U	The analyte was not detected above the reporting limit.
X	See sample narrative.
&	Laboratory Control Spike recovery not within control limits.
*	Duplicate analyses not within control limits.
SUB1	Assay was subcontracted to an approved lab.
SUB2	Assay was subcontracted to En Chem Green Bay WI Cert. #405132750.
1	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria. (See Sample Narrative).
3	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

6	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

[redacted]ease [redacted]ibly)

Company Name: Natural Resource Technology

Branch or Location: Pewaukee WI 53072

Project Contact: Rick Fox

Telephone: 262-523-9000

Project Number: 1508

Project Name: WE Energies

Project State: Wisconsin

Sampled By (Print): Jody Barbeau

EN CHEM INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-469-2436
FAX 920-469-8827

525 Science Drive
Madison, WI 53711
608-232-8300
FAX: 608-233-0502

CHAIN OF CUSTODY

86347

Page 1 of 1

P.O. # 4760000001 Quote #

Mail Report To: Rick Fox

Company: NRT

Address: 23713 W. Paul Rd.
Pewaukee, WI 53072

Invoice To: Ken Shroeder

Company: WEPCO

Address:

Mail Invoice To: Ken Shroeder

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=EnCore F=Methanol G=NaOH
H = Sodium Bisulfate Solution I = Sodium Thiosulfate J = Other

Data Package Options - (please circle if requested)

Sample Results Only (no QC)
EPA Level II (Subject to Surcharge)
EPA Level III (Subject to Surcharge)
EPA Level IV (Subject to Surcharge)

Regulatory Program: UST, RCRA, SDWA, NPDES, CERCLA

Matrix Codes: W=Water, S=Soil, A=Air, C=Charcoal, B=Biota, Sl=Sludge

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	ANALYSES REQUESTED: Moisture content	BTU	TPH	TCLP Metals	TCLP VOCs	chlorine	Reactive Sulfide	RCRA phenol	TOTAL # OF BOTTLES SENT	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
922739-001	Soil Composite	8-12-02	16:30	S			X	X	X	X	X	X	X			Protocol B + moisture content, BTU, TPH, total sulfer	

Rush Turnaround Time Requested (TAT) - Prelim
(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (circle):
Phone Fax E-Mail

Phone #:

Fax #:

E-Mail Address:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	8-12-02 5:30	FedEx	
FedEx	8/13/02 1015	[signature]	8/13/02 1015

En Chem Project No:

Sample Receipt Temp: R01 2.2°C

Sample Receipt pH (Wet Metals): NA

Cooler Custody Seal: Present / Not Present

Intact / Not Intact

Version 2.0: 1/02

En Chem, Inc. Cooler Receipt Log

Batch No. 922739

Project Name or ID WE Energies No. of Coolers: 1 Temps: 2C

A. Receipt Phase: Date cooler was opened: 8/13/02 **By:** Km

1: Were samples received on ice? (Must be ≤ 6 C) ..... (YES) NO[2]

2. Was there a Temperature Blank? ..... YES (NO)

3: Were custody seals present and intact? (Record on COC) ..... YES (NO)

4: Are COC documents present? ..... (YES) NO[2]

5: Does this Project require quick turn around analysis? ..... YES (NO)

6: Is there any sub-work? ..... (YES) NO

7: Are there any short hold time tests? ..... YES (NO)

8: Are any samples nearing expiration of hold-time? (Within 2 days) ..... YES[1] (NO) Contacted by/Who_____

9: Do any samples need to be Filtered or Preserved in the lab? ..... YES[1] (NO) Contacted by/Who_____

B. Check-in Phase: Date samples were Checked-in: 8/13/02 **By:** Km

1: Were all sample containers listed on the COC received and intact? ..... (YES) NO[2] NA

2: Sign the COC as received by En Chem. Completed ..... (YES) NO

3: Do sample labels match the COC? ..... (YES) NO[2]

4: Check sample pH of preserved samples. (Not VOCs) Completed ..... YES NO (NA)

5: Do samples have correct chemical preservation? ..... YES NO[2] (NA)

6: Are dissolved parameters field filtered? ..... YES NO[2] (NA)

7: Are sample volumes adequate for tests requested? ..... (YES) NO[2]

8: Are VOC samples free of bubbles >6mm ..... YES NO[2] (NA)

9: Enter samples into logbook. Completed ..... (YES) NO

10: Place laboratory sample number on all containers and COC. Completed ..... (YES) NO

11: Complete Laboratory Tracking Sheet (LTS). Completed ..... (YES) NO NA

12: Start Nonconformance form. ..... YES NO (NA)

13: Initiate Subcontracting procedure. Completed ..... (YES) NO NA

14: Check laboratory sample number on all containers and COC. ..... Km (YES) NO NA

Short Hold-time tests:

8 Hours or less	7 days	Footnotes
oliform (6 hrs)	Flashpoint	1 Notify proper lab group immediately.
exavalent Chromium (24 Hrs)	TSS	
BOD	Total Solids	2 Complete nonconformance memo.
itrite or Nitrate	TDS	
ow Level Mercury	Sulfide	
rtho Phosphorus	Free Liquids	
Turbidity	Total Volatile Solids	
urfactants	Aqueous Extractable Organics- ALL	
ulfite	Unpreserved VOC's	
Core Preservation	Ash	
Color		

ev. 9/5/2001, Attachment to 1-REC-5.
ubject to QA Audit.
p:/everyone/forms/samplereceiving/crl.doc

Reviewed by/date MA 8/14

- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508
Sample ID : SOIL COMPOSITE
Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/21/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

Inorganic Results

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Arsenic - TCLP	0.50			0.20	mg/L		8/16/02	SW846 3015	SW846 6010B
Barium - TCLP	0.65			0.20	mg/L		8/16/02	SW846 3015	SW846 6010B
Cadmium - TCLP	< 0.050			0.050	mg/L		8/16/02	SW846 3015	SW846 6010B
Chromium - TCLP	< 0.050			0.050	mg/L		8/16/02	SW846 3015	SW846 6010B
Copper - TCLP	< 0.050			0.050	mg/L		8/16/02	SW846 3015	SW846 6010B
Lead - TCLP	< 0.20			0.20	mg/L		8/16/02	SW846 3015	SW846 6010B
Mercury - TCLP	< 0.00020			0.00020	mg/L		8/19/02	SW846 7470A	SW846 7470A
Nickel - TCLP	< 0.050			0.050	mg/L		8/16/02	SW846 3015	SW846 6010B
Selenium - TCLP	< 0.20			0.20	mg/L		8/16/02	SW846 3015	SW846 6010B
Silver - TCLP	< 0.050			0.050	mg/L		8/16/02	SW846 3015	SW846 6010B
Zinc - TCLP	0.34			0.20	mg/L	E	8/16/02	SW846 3015	SW846 6010B
Cyanide, reactive	< 2.5			2.5	mg/kg as is		8/19/02	SW - 7.3.3.2	SW - 7.3.3.2
Flashpoint	>210				degrees F		8/16/02	SW846 1010	SW846 1010
Free liquids (paint filter)	NFLP				%			SW846 9095A	SW846 9095A
Percent Moisture	22				%		8/19/02	SM 2540G M	SM 2540G M
pH, measured in water	8.1			0.10	su		8/15/02	SW846 9045C	SW846 9045C
Phenolics, total recoverable - TC	0.89			0.050	mg/L		8/19/02	EPA 420.2	EPA 420.2
Solids, percent	77.6				%		8/14/02	SM 2540G M	SM 2540G M
Solids, total	56	0.10	0.32		%		8/15/02	EPA 160.3M	EPA 160.3M
Specific gravity - Soil	1.9							SM 2710F	SM 2710F
Sulfide, reactive	45			25	mg/kg as is		8/19/02	SW846 7.3.4.	SW846 7.3.4.

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508
Sample ID : SOIL COMPOSITE
Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/22/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

Semivolatile Organic Results

TCLP LIST - SEMIVOLATILES **Prep Method:** SW846 3510 **Prep Date:** 8/15/02

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,4-Dichlorobenzene	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
2,4,5-Trichlorophenol	< 0.12			0.12	mg/L		8/16/02	SW846 8270C
2,4,6-Trichlorophenol	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
2,4-Dinitrotoluene	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
Cresol, total	0.35			0.050	mg/L		8/16/02	SW846 8270C
Hexachlorobenzene	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
Hexachlorobutadiene	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
Hexachloroethane	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
Nitrobenzene	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
Pentachlorophenol	< 0.12			0.12	mg/L		8/16/02	SW846 8270C
Pyridine	< 0.050			0.050	mg/L		8/16/02	SW846 8270C
1,2-Dichlorobenzene-d4	85			1.0	%Recov		8/16/02	SW846 8270C
2,4,6-Tribromophenol	86			1.0	%Recov		8/16/02	SW846 8270C
2-Chlorophenol-d4	80			1.0	%Recov		8/16/02	SW846 8270C
2-Fluorobiphenyl	79			1.0	%Recov		8/16/02	SW846 8270C
2-Fluorophenol	62			1.0	%Recov		8/16/02	SW846 8270C
Nitrobenzene-d5	136			1.0	%Recov		8/16/02	SW846 8270C
Phenol-d5	45			1.0	%Recov		8/16/02	SW846 8270C
Terphenyl-d14	106			1.0	%Recov		8/16/02	SW846 8270C

NOTE: N-Nitrosodiphenylamine cannot be separated from diphenylamine.

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

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Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/22/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3550 **Prep Date:** 8/15/02

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1221	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1232	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1242	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1248	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1254	< 28	28	89		ug/kg		8/21/02	SW846 8082
Aroclor 1260	< 28	28	89		ug/kg		8/21/02	SW846 8082
Total PCBs	< 28	28	89		ug/kg		8/21/02	SW846 8082
Decachlorobiphenyl	70				%Recov		8/21/02	SW846 8082
Tetrachloro-m-xylene	78				%Recov		8/21/02	SW846 8082

Semivolatile Organic Results

DIESEL RANGE ORGANICS **Prep Method:** Wi MOD DRO **Prep Date:** 8/15/02

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	< 5.0	5.0	16		mg/kg	SUB2	8/19/02	Wi MOD DRO
Diesel Range Organics	9000	340	1100		mg/kg	SUB2	8/19/02	Wi MOD DRO
Blank spike	77				%Recov	SUB2	8/19/02	Wi MOD DRO
Blank spike duplicate	75				%Recov	SUB2	8/19/02	Wi MOD DRO

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508
Sample ID : SOIL COMPOSITE
Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/22/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

Volatile Organic Results

EPA 8260 VOLATILE LIST-Modified **Prep Method:** SW846 5030B **Prep Date:** 8/16/02

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1,1,2-Tetrachloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1,1-Trichloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1,2,2-Tetrachloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1,2-Trichloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1-Dichloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1-Dichloroethene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,1-Dichloropropene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2,3-Trichlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2,3-Trichloropropane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2,4-Trichlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2,4-Trimethylbenzene	9000	6400	15000		ug/kg	QSUB2	8/19/02	SW846 8260B
1,2-Dibromo-3-chloropropane	< 20000	20000	48000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2-Dibromoethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2-Dichlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2-Dichloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,2-Dichloropropane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,3,5-Trimethylbenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,3-Dichlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,3-Dichloropropane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
1,4-Dichlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
2,2-Dichloropropane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
2-Chlorotoluene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
4-Chlorotoluene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Benzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Bromobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Bromochloromethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Bromodichloromethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Bromoform	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Bromomethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Carbon tetrachloride	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Chlorobenzene	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Chlorodibromomethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Chloroethane	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B
Chloroform	< 5000	5000	12000		ug/kg	SUB2	8/19/02	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508
Sample ID : SOIL COMPOSITE
Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/22/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

Chloromethane	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
cis-1,2-Dichloroethene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
cis-1,3-Dichloropropene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Dibromomethane	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Dichlorodifluoromethane	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Diisopropyl ether	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Ethylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Fluorotrichloromethane	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Hexachlorobutadiene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Isopropylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Methyl-tert-butyl-ether	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Methylene chloride	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
n-Butylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
n-Propylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Naphthalene	1500000	6400	15000	ug/kg	SUB2	8/19/02	SW846 8260B
p-Isopropyltoluene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
s-Butylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Styrene	< 5000	5000	12000	ug/kg	&	8/19/02	SW846 8260B
t-Butylbenzene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Tetrachloroethene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Toluene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
trans-1,2-Dichloroethene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
trans-1,3-Dichloropropene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Trichloroethene	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Vinyl chloride	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Xylene, o-	< 5000	5000	12000	ug/kg	SUB2	8/19/02	SW846 8260B
Xylenes, m-, p-	10000	6400	15000	ug/kg	QSUB2	8/19/02	SW846 8260B
4-Bromofluorobenzene	< 1.0			%Recov	F	8/19/02	SW846 8260B
Dibromofluoromethane	< 1.0			%Recov	F	8/19/02	SW846 8260B
Toluene-d8	< 1.0			%Recov	F	8/19/02	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WE ENERGIES
Project Number : 1508
Sample ID : SOIL COMPOSITE
Lab Sample Number : 922739-001
Lab Project Number : 922739

Submitter : WE ENERGIES
Report Date : 8/22/02
Collection Date : 8/12/02
Matrix : SOIL
WI DNR LAB ID : 113172950

TCLP LIST - VOLATILES **Prep Method:** SW846 5030B

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1-Dichloroethene	< 0.0023	0.0023	0.0073		mg/L		8/15/02	SW846 8260B
1,2-Dichloroethane	< 0.0027	0.0027	0.0086		mg/L		8/15/02	SW846 8260B
2-Butanone	< 0.0063	0.0063	0.020		mg/L		8/15/02	SW846 8260B
Benzene	0.14	0.0022	0.0070		mg/L		8/15/02	SW846 8260B
Carbon tetrachloride	< 0.0045	0.0045	0.014		mg/L		8/15/02	SW846 8260B
Chlorobenzene	< 0.0022	0.0022	0.0070		mg/L		8/15/02	SW846 8260B
Chloroform	< 0.0020	0.0020	0.0064		mg/L		8/15/02	SW846 8260B
Tetrachloroethene	< 0.0020	0.0020	0.0064		mg/L		8/15/02	SW846 8260B
Trichloroethene	< 0.0024	0.0024	0.0076		mg/L		8/15/02	SW846 8260B
Vinyl chloride	< 0.0026	0.0026	0.0083		mg/L		8/15/02	SW846 8260B
4-Bromofluorobenzene	98				%Recov		8/15/02	SW846 8260B
Dibromofluoromethane	90				%Recov		8/15/02	SW846 8260B
Toluene-d8	94				%Recov		8/15/02	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

APPENDIX B

WASTE PROFILE ANALYTICAL DATA FOR THE INLAND MATERIALS

Wisconsin Electric
A WISCONSIN ENERGY COMPANY

Wisconsin Electric
231 W. Michigan
P.O. Box 2046
Milwaukee, WI 53201-2046
Phone 414 221-2345

October 20, 2000

Ms. Peggy Slind
Special Waste Coordinator
Special Waste Service Center
Waste Management
W124 N9355 Boundary Road
Menomonee Falls, WI 53051

Dear Ms. Slind:

RE: SPECIAL WASTE DISPOSAL REQUEST – PROFILE MW484497

Attached is the completed Waste Profile Sheet for the coal tar contaminated dredge spoils from the DOT bridge project in Appleton. I understand you have been in contact with Mr. Tim Gehring of RMT, Inc. and believe that Mr. Gehring has provide you with the analytical data. Because of our upstream former manufactured gas plant site Wisconsin Electric is accepting finical responsibility for the disposal of this material with billing to us. I understand that a disposal has been quoted at $26.05 per ton. Mr. Gehring estimates the volume to be approximately 600 cubic yards of material.

I am requesting approval for the disposal of this material at your Orchard Ridge Recycling and Disposal Facility in the Village of Menomonee Falls, Wisconsin.

Your early attention to this request would be greatly appreciated. There is strong interest to begin hauling this material on Tuesday, October 24, 2000.

If you have any questions or need additional information, please feel free to contact me at (414) 221-2181.

Very truly yours,

Tim G. Krueger
Hazardous Waste Specialist
Environmental Services

(Original/Hard Copy To Follow In The Mail)

Attachment

WASTE MANAGEMENT, INC.

SPECIAL WASTE PLAN

ANALYTICAL TESTING VARIANCE

Generator WEPCO

Profile Number MW-502 484/497

Reason for variance from Plan

Waste is adequately characterized by this testing

Signature

10/23/00

Date

testvar

CARDINAL
ENVIRONMENTAL
3303 Paine Avenue, Sheboygan, WI 53081
(920)459-2500 Fax: (920)459-2503
www.cardinalenvironmental.com
E mail: info@cardinalenvironmental.com

Timothy Gehring
RMT, Inc.
4351 West College Avenue - Suite 210
Appleton, WI 54914-3928

Batch Number: 1962
Report Date: 10/20/2000
Date Received: 10/19/2000
Project Mgr (PM): BTH

Parameter	Result	Units	LOD	LOQ	Method	Analyst	Date Analyzed
Cardinal Sample Number: 52731 Date Collected: 10/5/2000 Grab							
Sample Description: Soil							
Sulfide, Reactive	114	mg/kg	8	25	SW846 7.3.4.1	COK	10/19/2000

LOD Limit of Detection
LOQ Limit of Quantitation
+ Result estimated below the LOQ.
* Result falls between LOD and LOQ

Comments:

Approved By: _____ Date: 10/20/00

PM: _____ Date: 10/20/00

Cardinal Environmental

CHAIN OF CUSTODY RECORD

U.S. Analytical Lab
1090 Kennedy Ave. • Kimberly, WI 54136
(920) 735-8295 • FAX 920-739-1738 • 800-490-4902
LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # 22306

Page ___ of ___ 1963

Account No.: Quote No.:

Project #: 503031

Sampler: (signature)

Sample Integrity - To be completed by receiving lab. Method of Shipment: Temp. of Temp. Blank: °C On Ice: Cooler seal intact upon receipt: ___ Yes ___ No Lab Coded By:

Project (Name / Location):

Reports To:		Invoice To:	
Company	U S oil	Company	
Address	1090 Kennedy Ave	Address	
City State Zip	Kimberly, WI	City State Zip	
Phone	920-735-8295	Phone	

Sample Handling Request
___ Rush Analysis Date Required ___
___ Normal Turn Around

Analysis Requested: DRO (Mod/TPH), GRO (Mod/TPH), PVOC (EPA 8021), BTEX (EPA 8021), VOC (EPA 8021), VOC (EPA 8260), O&G (EPA 413.1), PAH (EPA 8310), Pb, Flash Point, Other Analysis, PID/FID

Lab I.D.	Sample I.D.	Collection Date	Collection Time	No. of Containers Size and Type	Description*	Preservation	Analysis
	1-Soil	10/10/00	16:00		Soil	none	53731 Cardinal ID#

Timothy Gehring
RMT, Inc.
Renaissance Plaza Suite 210
4351 West College Avenue
Appleton, WI 54914-3928

Washed - oil
Oneida Bridge
P. Eager 10/23/00

Comments/ Special Instructions
*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

Attn: Bruce Tenhaken

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Wes Huss	9:10	10-17-00	D Martin	9:10	10/17/00
D Martin	9:10	10/17/00			

Received in Laboratory By: Time: 3:30 Date: 10/18/00

U.S. Analytical Lab

TIM GEHRING
RMT
4351 W COLLEGE AVE
APPLETON WI 54914

Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date 20-Oct-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5031031A						**Sample Type** Soil			
Sample ID 1- SOIL						**Sample Date** 10/5/00			
Inorganic									
General									
Solids Percent	78.1	%			1	10/6/00	5021	TJW	1
Reactive Cyanide	< 0.013	mg/kg	0.013	0.045		10/13/00	7.3	REL	1 61
Solids Total	780000	mg/kg	200	670	1	10/17/00	160.3	CAH	1
Metals									
Arsenic	19	mg/kg	0.65	2.2	1	10/9/00	6010B	JLA	1
Barium	22	mg/kg	0.28	0.93	1	10/9/00	6010B	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	10/9/00	6010B	JLA	1
Chromium	8.3	mg/kg	0.55	1.8	1	10/9/00	6010B	JLA	1
Copper	8.7	mg/kg	1	3.3	1	10/19/00	6010B	JLA	1
Lead	73	mg/kg	6	20	1	10/9/00	6010B	JLA	1
Mercury	0.075 "J"	mg/kg	0.03	0.1	1	10/11/00	245.1	SJV	1
Nickel	5.8	mg/kg	0.69	3.3	1	10/19/00	6010B	JLA	1
Selenium	< 2.5	mg/kg	2.5	8.3	1	10/9/00	6010B	JLA	1
Silver	< 3	mg/kg	3	10	1	10/9/00	6010B	JLA	1
Zinc	62	mg/kg	1.04	3.5	1	10/19/00	6010B	JLA	1
Physicals									
Free Liquids	not liquid	%			1	10/17/00	9095	CAH	1
Soil pH	7.2	su			1	10/17/00	9045	CAH	1
Specific Gravity	2.0				1	10/17/00	D2547	CAH	1
Flash Point	> 140	F			1	10/18/00	1020	JDB	1
Organic									
PAH's									
Acenaphthene	27000	ug/kg	800	2600	20	10/9/00	M8270	DJM	1
Acenaphthylene	5900	ug/kg	820	2800	20	10/9/00	M8270	DJM	1
Anthracene	26000	ug/kg	780	2600	20	10/9/00	M8270	DJM	1
Benzo(a)anthracene	17000	ug/kg	680	2400	20	10/9/00	M8270	DJM	1
Benzo(a)pyrene	12000	ug/kg	800	2600	20	10/9/00	M8270	DJM	1
Benzo(b)fluoranthene	6500	ug/kg	1200	4000	20	10/9/00	M8270	DJM	1
Benzo(g,h,i)perylene	10000	ug/kg	1600	5400	20	10/9/00	M8270	DJM	1
Benzo(k)fluoranthene	6700	ug/kg	1420	4800	20	10/9/00	M8270	DJM	1
Chrysene	17000	ug/kg	800	2600	20	10/9/00	M8270	DJM	1
Dibenzo(a,h)anthracene	3600	ug/kg	1600	5400	20	10/9/00	M8270	DJM	1
Fluoranthene	28000	ug/kg	660	2200	20	10/9/00	M8270	DJM	1
Fluorene	20000	ug/kg	760	2600	20	10/9/00	M8270	DJM	1

U.S. Analytical Lab

TIM GEHRING
RMT
4351 W COLLEGE AVE
APPLETON WI 54914

Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date 20-Oct-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5031031A						**Sample Type** Soil			
Sample ID 1-SOIL						**Sample Date** 10/5/00			
Indeno(1,2,3-cd)pyrene	9200	ug/kg	560	1880	20	10/9/00	M8270	DJM	1
1-Methyl naphthalene	17000	ug/kg	860	2800	20	10/9/00	M8270	DJM	1
2-Methyl naphthalene	15000	ug/kg	1060	3600	20	10/9/00	M8270	DJM	1
Naphthalene	2200 "J"	ug/kg	580	2200	20	10/9/00	M8270	DJM	1
Phenanthrene	88000	ug/kg	4700	16000	100	10/9/00	M8270	DJM	1
Pyrene	34000	ug/kg	940	3200	20	10/9/00	M8270	DJM	1
PCB's									
Aroclor 1016	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1221	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1232	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1242	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1248	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1254	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Aroclor 1260	<32	ug/kg	3.2	11	1	10/9/00	8082	TJW	1
Semi Volatiles									
Acenaphthene	27000	ug/kg	800	2600	20	10/9/00	8270C	DJM	1
Acenaphthylene	5900	ug/kg	820	2800	20	10/9/00	8270C	DJM	1
Anthracene	28000	ug/kg	780	2600	20	10/9/00	8270C	DJM	1
Benzidine	<1800	ug/kg	1800	6000	20	10/9/00	8270C	DJM	2 3 7
Benzo[a]anthracene	17000	ug/kg	680	2400	20	10/9/00	8270C	DJM	1
Benzo(a)pyrene	12000	ug/kg	800	2600	20	10/9/00	8270C	DJM	1
Benzo(b)fluoranthene	6800	ug/kg	1200	4000	20	10/9/00	8270C	DJM	1
Benzo(g,h,i)perylene	10000	ug/kg	1680	5480	20	10/9/00	8270C	DJM	1
Benzo(k)fluoranthene	8600	ug/kg	1820	6000	20	10/9/00	8270C	DJM	1
Butyl benzyl phthalate	<920	ug/kg	920	3000	20	10/9/00	8270C	DJM	1
Bis(2-chloroethoxy)methane	<860	ug/kg	860	2800	20	10/9/00	8270C	DJM	1
Bis(2-chloroethyl)ether	<720	ug/kg	720	2400	20	10/9/00	8270C	DJM	1
Bis(2-chloroisopropyl)ether	<740	ug/kg	740	2400	20	10/9/00	8270C	DJM	1
Bis(2-ethylhexyl)phthalate	<1560	ug/kg	1560	5400	20	10/9/00	8270C	DJM	1
4-Bromophenylphenyl ether	<940	ug/kg	940	3200	20	10/9/00	8270C	DJM	1
4-Chloro-3-methylphenol	<700	ug/kg	700	2400	20	10/9/00	8270C	DJM	1
2-Chloronaphthalene	<820	ug/kg	820	2800	20	10/9/00	8270C	DJM	1
2-Chlorophenol	<660	ug/kg	680	2200	20	10/9/00	8270C	DJM	1
4-Chlorophenylphenyl ether	<980	ug/kg	980	3300	20	10/9/00	8270C	DJM	1
Chrysene	17000	ug/kg	800	2600	20	10/9/00	8270C	DJM	1
o-Cresol	<1100	ug/kg	1100	3800	20	10/9/00	8270C	DJM	1

U.S. Analytical Lab

TIM GEHRING
RMT
4351 W COLLEGE AVE
APPLETON WI 54914

Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date 20-Oct-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5031031A						Sample Type Soil			
Sample ID 1-SOIL						Sample Date 10/5/00			
m/&p-Cresol	< 1300	ug/kg	1300	4200	20	10/9/00	8270C	DJM	1
Dibenzo(a,h)anthracene	9500	ug/kg	1600	5400	20	10/9/00	8270C	DJM	1
1,4-Dichlorobenzene	< 760	ug/kg	760	2600	20	10/9/00	8270C	DJM	1
1,3-Dichlorobenzene	< 660	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
1,2-Dichlorobenzene	< 660	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
3,3'-Dichlorobenzidine	< 5200	ug/kg	5200	17400	20	10/9/00	8270C	DJM	7
2,4-Dichlorophenol	< 800	ug/kg	800	2600	20	10/9/00	8270C	DJM	1
Diethyl phthalate	< 840	ug/kg	840	2800	20	10/9/00	8270C	DJM	1
Dimethyl phthalate	< 900	ug/kg	900	3000	20	10/9/00	8270C	DJM	1
2,4-Dimethylphenol	< 3200	ug/kg	3200	10400	20	10/9/00	8270C	DJM	1
Di-n-butyl phthalate	< 2600	ug/kg	2600	8400	20	10/9/00	8270C	DJM	2
2,4-Dinitrophenol	< 980	ug/kg	980	3200	20	10/9/00	8270C	DJM	7
2,6-Dinitrotoluene	< 900	ug/kg	900	3000	20	10/9/00	8270C	DJM	1
2,4-Dinitrotoluene	< 900	ug/kg	900	3000	20	10/9/00	8270C	DJM	1
Di-n-octyl phthalate	< 1020	ug/kg	1020	3400	20	10/9/00	8270C	DJM	1
1,2-Diphenylhydrazine	< 980	ug/kg	980	3200	20	10/9/00	8270C	DJM	1
Fluoranthene	28000	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
Fluorene	20000	ug/kg	780	2600	20	10/9/00	8270C	DJM	1
Hexachlorobenzene	< 860	ug/kg	860	2800	20	10/9/00	8270C	DJM	1
Hexachlorobutadiene	< 660	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
Hexachlorocyclopentadiene	< 1740	ug/kg	1740	5800	20	10/9/00	8270C	DJM	1
Hexachloroethane	< 660	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
Indeno(1,2,3-cd)pyrene	9300	ug/kg	560	1880	20	10/9/00	8270C	DJM	1
Isophorone	< 660	ug/kg	660	2200	20	10/9/00	8270C	DJM	1
2-Methyl-4,6-dinitrophenol	< 740	ug/kg	740	2400	20	10/9/00	8270C	DJM	1
Naphthalene	2200 J	ug/kg	680	2200	20	10/9/00	8270C	DJM	1
Nitrobenzene	< 920	ug/kg	920	3000	20	10/9/00	8270C	DJM	1
2-Nitrophenol	< 900	ug/kg	900	3000	20	10/9/00	8270C	DJM	1
4-Nitrophenol	< 680	ug/kg	680	2200	20	10/9/00	8270C	DJM	1
n-Nitrosodimethylamine	< 1020	ug/kg	1020	3400	20	10/9/00	8270C	DJM	1
n-Nitrosodi-n-propylamine	< 840	ug/kg	840	2800	20	10/9/00	8270C	DJM	1
n-Nitrosodiphenylamine	< 860	ug/kg	860	2800	20	10/9/00	8270C	DJM	1
Pentachlorophenol	< 680	ug/kg	680	2200	20	10/9/00	8270C	DJM	1
Phenanthrene	89000	ug/kg	4700	16000	100	10/9/00	8270C	DJM	1
Phenol	< 820	ug/kg	820	2800	20	10/9/00	8270C	DJM	1
Pyrene	34000	ug/kg	940	3200	20	10/9/00	8270C	DJM	1
Pyridine	< 2400	ug/kg	2400	8000	20	10/9/00	8270C	DJM	1

U.S. Analytical Lab

TIM GEHRING
RMT
4351 W COLLEGE AVE
APPLETON WI 54914

Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date *20-Oct-00*

Analyte	Result	Units	LOD	LOQ	Dil	Prep Date	Method	Analyst	QC Code
Lab Code 503103 LA						**Sample Type** Soil			
Sample ID 1- SOIL						**Sample Date** 10/5/00			
1,2,4-Trichlorobenzene	<700	ug/kg	700	2400	20	10/9/00	8270C	DJM	1
2,4,6-Trichlorophenol	<700	ug/kg	700	2400	20	10/9/00	8270C	DJM	1
2,4,5-Trichlorophenol	<2000	ug/kg	2000	6800	20	10/9/00	8270C	DJM	1
VOC's									
Acrylonitrile	<25	ug/kg	14	48	1	10/10/00	8260B	CJR	15
Acrolein	<25	ug/kg	25	75	1	10/10/00	8260B	CJR	15
Benzene	<25	ug/kg	6.8	23	1	10/10/00	8260B	CJR	15
Bromobenzene	<25	ug/kg	14	48	1	10/10/00	8260B	CJR	15
Bromodichloromethane	<25	ug/kg	9.8	19	1	10/10/00	8260B	CJR	15
Bromoform	<25	ug/kg	10	34	1	10/10/00	8260B	CJR	15
Bromomethane	<25	ug/kg	10	35	1	10/10/00	8260B	CJR	15
tert-Butylbenzene	<25	ug/kg	7.4	25	1	10/10/00	8260B	CJR	15
sec-Butylbenzene	<25	ug/kg	6.1	20	1	10/10/00	8260B	CJR	15
n-Butylbenzene	35	ug/kg	7	23	1	10/10/00	8260B	CJR	15
Carbon Tetrachloride	<25	ug/kg	10	33	1	10/10/00	8260B	CJR	15
Chlorobenzene	<25	ug/kg	5.6	19	1	10/10/00	8260B	CJR	15
Chloroethane	<25	ug/kg	10	34	1	10/10/00	8260B	CJR	15
Chloroform	<25	ug/kg	4.1	14	1	10/10/00	8260B	CJR	15
Chloromethane	<25	ug/kg	10	33	1	10/10/00	8260B	CJR	15
2-Chlorotoluene	<25	ug/kg	6.5	22	1	10/10/00	8260B	CJR	15
4-Chlorotoluene	<25	ug/kg	6.4	21	1	10/10/00	8260B	CJR	15
1,2-Dibromo-3-chloropropane	<25	ug/kg	18	61	1	10/10/00	8260B	CJR	15
Dibromochloromethane	<25	ug/kg	9.1	30	1	10/10/00	8260B	CJR	15
1,4-Dichlorobenzene	<25	ug/kg	11	38	1	10/10/00	8260B	CJR	15
1,3-Dichlorobenzene	<25	ug/kg	11	36	1	10/10/00	8260B	CJR	15
1,2-Dichlorobenzene	<25	ug/kg	6	20	1	10/10/00	8260B	CJR	15
Dichlorodifluoromethane	<25	ug/kg	10	32	1	10/10/00	8260B	CJR	15
1,3-Dichloropropane	<25	ug/kg	3.8	13	1	10/10/00	8260B	CJR	15
1,1-Dichloroethane	<25	ug/kg	8.3	28	1	10/10/00	8260B	CJR	15
1,1-Dichloroethene	<25	ug/kg	8.7	29	1	10/10/00	8260B	CJR	15
cis-1,2-Dichloroethene	<25	ug/kg	9.2	31	1	10/10/00	8260B	CJR	15
trans-1,2-Dichloroethene	<25	ug/kg	8.8	29	1	10/10/00	8260B	CJR	15
1,2-Dichloropropane	<25	ug/kg	8.8	29	1	10/10/00	8260B	CJR	15
2,2-Dichloropropane	<25	ug/kg	10	33	1	10/10/00	8260B	CJR	15
1,3-Dichloropropene	<25	ug/kg	8.2	27	1	10/10/00	8260B	CJR	15
Di-isopropyl ether	<25	ug/kg	6.6	22	1	10/10/00	8260B	CJR	15

0.810 + 1.745 = 2.555

2.555 × 2800 / 1,000,000 = 0.00715

131.8 / 0.0075 = 18,240 cu yds / Day

U.S. Analytical Lab

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APPLETON WI 54914

Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date 20-Oct-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5031031A						**Sample Type** Soil			
Sample ID 1- SOIL						**Sample Date** 10/5/00			
EDB (1,2-Dibromoethane)	<25	ug/kg	6	20	1	10/10/00	8260B	CJR	15
Ethylbenzene	35	ug/kg	4.4	15	1	10/10/00	8260B	CJR	15
2-Chloroethylvinyl ether	<25	ug/kg	5.8	19	1	10/10/00	8260B	CJR	15
Hexachlorobutadiene	<25	ug/kg	19	65	1	10/10/00	8260B	CJR	15
Isopropylbenzene	<25	ug/kg	6.6	22	1	10/10/00	8260B	CJR	15
p-Isopropyltoluene	35	ug/kg	4.4	15	1	10/10/00	8260B	CJR	15
Methyl ethyl ketone	<25	ug/kg	10	35	1	10/10/00	8260B	CJR	15
Methylene chloride	<25	ug/kg	8	30	1	10/10/00	8260B	CJR	15
MTBE	<25	ug/kg	7.6	25	1	10/10/00	8260B	CJR	15
Naphthalene	1100	ug/kg	7.7	26	1	10/10/00	8260B	CJR	15
n-Propylbenzene	<25	ug/kg	8.2	27	1	10/10/00	8260B	CJR	15
1,1,2,2-Tetrachloroethane	<25	ug/kg	5.2	17	1	10/10/00	8260B	CJR	15
Tetrachloroethene	<25	ug/kg	6.6	22	1	10/10/00	8260B	CJR	15
Toluene	<25	ug/kg	7	23	1	10/10/00	8260B	CJR	15
1,2,4-Trichlorobenzene	<25	ug/kg	9.1	30	1	10/10/00	8260B	CJR	15
1,2,3-Trichlorobenzene	<25	ug/kg	11	36	1	10/10/00	8260B	CJR	15
1,1,1-Trichloroethane	<25	ug/kg	10	33	1	10/10/00	8260B	CJR	15
1,1,2-Trichloroethane	<25	ug/kg	9.3	31	1	10/10/00	8260B	CJR	15
Trichloroethene	<25	ug/kg	7.7	26	1	10/10/00	8260B	CJR	15
Trichlorofluoromethane	<25	ug/kg	15	50	1	10/10/00	8260B	CJR	15
1,2,4-Trimethylbenzene	<25	ug/kg	6.6	22	1	10/10/00	8260B	CJR	15
1,3,5-Trimethylbenzene	<25	ug/kg	3.6	12	1	10/10/00	8260B	CJR	15
Vinyl Chloride	<25	ug/kg	10	34	1	10/10/00	8260B	CJR	15
m&p-Xylene	<50	ug/kg	9.3	31	1	10/10/00	8260B	CJR	15
o-Xylene	<25	ug/kg	7	23	1	10/10/00	8260B	CJR	15
Lab Code 5031031B	1,745 = 1.745 ppm					**Sample Type** Water			
Sample ID 1 WATER	2.55					**Sample Date** 10/5/00			
Inorganic									
General									
Reactive Cyanide	<0.001	mg/l	0.001	0.003		10/13/00	7.3	REL	1 61
Metals									
Arsenic	8.5	ug/l	1	3.2	1	10/9/00	7060A	JLA	1
Barium	0.170	mg/l	0.005	0.019	1	10/6/00	6010B	JLA	1
Cadmium	0.29 "J"	ug/l	0.08	0.3	1	10/11/00	7131A	KAH	1
Chromium	8.1	ug/l	0.7	2.5	1	10/9/00	7191	JLA	1

U.S. Analytical Lab

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Project # OLD ONEIDA STREET BRIDG
Project Name OLD ONEIDA STREET BRIDG
Invoice # E31031

Report Date 20-Oct-00

Analyte	Result	Units	LOD	LOQ	DF	Run Date	Method	Analyst	QC Code
Lab Code 5031031B						Sample Type Water			
Sample ID 1 WATER						Sample Date 10/5/00			
Vinyl Chloride	< 0.23	ug/l	0.23	0.77	1	10/6/00	8260B	CJR	1
m&p-Xylene	< 0.52	ug/l	0.52	1.7	1	10/6/00	8260B	CJR	1
o-Xylene	< 0.22	ug/l	0.22	0.72	1	10/6/00	8260B	CJR	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.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
7	The LCS spike recovery failed to meet acceptable QC limits.
15	The sample did not meet method specific weight requirements.
61	Analysis performed by sub contract lab.
68	Sample analyzed by method of standard additions.

Authorized Signature Katherine A Brandstadt

APPENDIX C

SUMMARIES OF TOTAL CYANIDE CONCENTRATIONS IN SOIL

Table 5-5
Summary of Inorganic Constituents Detected in Saturated Soils
2001 URS Site Investigation
Wisconsin Electric Power Company
Former Manufactured Gas Plant Site - Appleton, WI

Location	MW-01-11D			MW-01-12D			MW-01-13D		MW-01-14D		MW-01-14D DUPLICATE	MW-01-15D		MW-01-18D	
Sample Date	10/09/01	10/09/01	10/10/01	10/09/01	10/09/01	10/09/01	10/11/01	10/12/01	10/11/01	10/11/01	10/11/01	10/12/01	10/12/01	10/15/01	10/15/01
Sample Interval (ft bgs)	11-12	16-17	23-23	8-10	16-18	19-20	13-13	16-16	6-7	14-14	14-14	14-14	21-21	12-12	20-20
PID (ppm)	121	34.5	23.8	3	65.8	8.7	178.6	16.8	2000	211	211	205	11.1	5.3	11.9
Metals and Inorganic Constituents (mg/kg)															
Antimony	7.7	<0.57	<0.54	<0.97	<0.56	<0.52	<0.55	<0.53	<0.62	<0.5	<0.55	0.25 A	<0.035 A	0.16 A	<0.039 A
Arsenic	14	2.4	3.6	3.2	1.5 Q	3.3	3.8	3.2	17	25	31	5	3.1	2.4	1.5
Beryllium	0.66	0.4	0.86	0.25 Q	0.23	0.74	0.19	0.23	0.81	0.19	0.22	1.3	0.95	0.49	0.22
Cadmium	7.1	0.22 A	0.2 A	0.14 QA	0.14 QA	0.25 A	0.17 A	0.18 A	0.24 A	0.16 QA	0.18 Q,A	0.4	0.083	0.19	0.1
Chromium	31	13	23	11	5.9	18	5.4	6.3	25	6.8	7.5	45	19	20	8.1
Copper	340	14	7.1	10	13	6.8	7.4	11	20	9	9.9	37	4.7 A	17	10
Lead	440	4.8 A	14	17	4.3 A	12	3.9 A	5.5 A	5.5 A	3.8 A	4.3 A	9.3	12	5.8	3.8
Mercury	3.6	0.0077 Q	0.016 Q	1.3	<0.0061	0.0074 Q	8.7	0.33	0.018 Q	<0.0055	<0.0057	0.053 A	0.027 A	<0.0059 A	<0.0056
Nickel	21	9.8	11	5.4	6.6	8.8	4.4	5.3	19	5.1	6.3	39	7.9	15	7.5
Selenium	1.7	<0.41	<0.42	<0.66	<0.38	<0.35	<0.35	<0.34	0.61 Q	<0.34	<0.39	0.35	0.2 Q	0.25	0.27
Silver	0.75	<0.067	<0.063	<0.11	<0.065	<0.06	<0.064	<0.061	<0.072	<0.058	<0.064	0.091	0.085	0.36 Q	0.024 Q
Thallium	<0.7	<0.57	<0.59	<0.92	<0.53	<0.48	<0.48	<0.48	<0.67	<0.47	<0.55	0.22	0.078	0.11	0.057 Q
Zinc	2000	17	8.7 A	21	9.2 A	6.7 A	8.5 A	6.9 A	28	7.2 A	11	59	4.4	19	9.2
Percent Solids (%)	73.9	90.7	87.8	55.1	84.8	91.4	91.1	95	79.4	93.1	90.9	73.6	95.5	88.1	91.9
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
Cyanide Complexes (mg/kg)															
Cyanide, Total	162	0.241	0.119	1.32	0.967	0.160	1.41	0.093	2.83	0.182	0.363	1.61	<0.090	0.412	0.171
Cyanide, Free	0.558	<0.224	<0.227	<0.499	0.236	<0.213	<0.221	<0.212	0.395	<0.212	0.345	0.840	<0.213	<0.218	<0.212
Cobalt Cyanide	<0.028	<0.023	<0.226	<0.051	<0.022	<0.022	<0.022	<0.021	<0.025	<0.021	<0.022	0.068	<0.021	<0.022	<0.021
Copper Cyanide	<0.014	<0.011	<0.113	0.048	0.021	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	<0.014	<0.011	<0.011	<0.011
Gold Cyanide	<0.138	<0.114	<0.023	<0.253	<0.108	<0.108	<0.112	<0.106	<0.123	<0.107	<0.108	<0.136	<0.106	<0.113	<0.106
Iron Cyanide	123	<0.011	<0.011	<0.025	0.217	<0.011	0.067	<0.011	<0.086	0.043	<0.011	<0.014	<0.011	0.426	0.160
Nickel Cyanide	<0.277	<0.227	<0.011	<0.505	<0.217	<0.217	<0.224	<0.213	<0.246	<0.215	<0.217	<0.272	<0.212	<0.218	<0.212
Silver Cyanide	<0.277	<0.227	<0.226	<0.505	<0.217	<0.217	<0.224	<0.213	<0.246	<0.215	<0.217	<0.272	<0.212	<0.218	<0.212

Notes
ft bgs - feet below ground surface
ppm - parts per million
NA - Not Analyzed for this constituent
A- Indicates analyte detected in the method blank.
Method Reporting Limit.
D- Analyte value from diluted analysis.
F- Due to interference within SW 846, this analyte has been confirmed and reported by a different method.
N- Spiked sample recovery not within control limits.
Q- The analyte has been detected between the Limit of Detection and the Limit of Quantitation.

Table 5-5
Summary of Inorganic Constituents Detected in Saturated Soils
2001 URS Site Investigation
Wisconsin Electric Power Company
Former Manufactured Gas Plant Site - Appleton, WI

Location	**MW-07RD**		**MW-07RD DUPLICATE**	**MW-07RD**	**MW-01-11S**	**MW-01-14D**	
Sample Date	10/13/01	10/13/01	10/13/01	10/13/01	10/10/01	10/11/01	10/11/01
Sample Interval (ft bgs)	17-17	25-25	25-25	30-30	14-15	8-8	13-15
PID (ppm)	241	86	86	157	NA	2000	211
Metals and Inorganic Constituents (mg/kg)							
Antimony	<0.04 A	0.26 A	0.27	<0.043 A	NA	NA	NA
Arsenic	1.8	3	2.9	7.1	NA	NA	NA
Beryllium	0.64	1.7	1.3	0.65	NA	NA	NA
Cadmium	0.21	0.45	0.46	0.09	NA	NA	NA
Chromium	25	48	38	15	NA	NA	NA
Copper	16	42	37	4.4 A	NA	NA	NA
Lead	7.1	11	8.9	13	NA	NA	NA
Mercury	0.039 A	0.042 A	0.9	0.022 A	NA	NA	NA
Nickel	17	43	33	7.8	NA	NA	NA
Selenium	0.23 Q	0.29	0.32	0.35	NA	NA	NA
Silver	0.058 Q	0.11	0.1	0.083	NA	NA	NA
Thallium	0.15	0.24	0.21	0.091	NA	NA	NA
Zinc	31	63	50	3.8	NA	NA	NA
Percent Solids (%)	84.8	78.3	78.2	90.3	88.6	83	91
Total Organic Carbon	NA	NA	NS	NA	30,000	7,900	42,000
Cyanide Complexes (mg/kg)							
Cyanide, Total	0.200	0.559	0.141	<0.094	NA	NA	NA
Cyanide, Free	<0.234	<0.250	<0.246	<0.223	NA	NA	NA
Cobalt Cyanide	<0.023	<0.025	<0.025	<0.022	NA	NA	NA
Copper Cyanide	<0.012	<0.012	<0.013	<0.011	NA	NA	NA
Gold Cyanide	<0.117	<0.125	<0.126	<0.110	NA	NA	NA
Iron Cyanide	0.028	<0.012	0.143	<0.011	NA	NA	NA
Nickel Cyanide	<0.234	<0.249	<0.251	<0.220	NA	NA	NA
Silver Cyanide	<0.234	<0.249	<0.263	<0.220	NA	NA	NA

Notes
ft bgs - feet below ground surface
ppm - parts per million
NA - Not Analyzed for this constituent
A- Indicates analyte detected in the method blank.
Method Reporting Limit.
D- Analyte value from diluted analysis.
F- Due to interference within SW 846, this analyte has been confirmed and reported by a different method.
N- Spiked sample recovery not within control limits.
Q- The analyte has been detected between the Limit of Detection and the Limit of Quantitation.