



AECOM
200 Indiana Avenue
Stevens Point, WI 54481
www.aecom.com

715 341 8110 tel
715 341 7390 fax

March 18, 2011

Richard Goding P.E.
City Engineer/Deputy Director of Public Works
City of Fond du Lac
160 South Macy Street
Fond du Lac, WI 54935

**Subject: Geotechnical Borings-Environmental Soil Sampling
Rueping-Macy Stormwater Quality Pond
Fond du Lac, Wisconsin
AECOM Project No. 60130644 (formerly 103003)**

Dear Mr. Goding:

This letter report presents the results of preconstruction environmental soil sampling conducted in conjunction with Rueping-Macy Force Main geotechnical work to characterize subsurface materials along the proposed force main route west of the proposed stormwater detention pond. Materials characterization identified soil contamination along the force main route. Laboratory analytical results were used to evaluate options for management of contaminated materials that will be encountered during construction of the force main.

FIELD ACTIVITIES AND LABORATORY ANALYSIS

On April 15 and 16, 2009, AECOM personnel partnered with a geotechnical investigation performed by AECOM, Green Bay, Wisconsin, to describe subsurface conditions and collect soil samples for laboratory analysis from four soil borings (Borings SB-1 through SB-4) as indicated on the enclosed Figure ENV-1. One soil sample was collected from Boring SB-1 (5.0 to 6.5 feet below ground surface (bgs)) and two samples were collected from Boring SB-3 (2.5 to 4.0 feet bgs and 7.5 to 9.0 feet bgs) and were analyzed for diesel range organics (DRO), gasoline range organics (GRO), petroleum volatile organic compounds (PVOCs), cadmium, and lead. One soil sample was collected from Boring SB-2B (6.0 to 7.5 feet bgs) and was analyzed for cadmium and lead. Coal pieces and coal ash residue were observed in Boring SB-3 from the ground surface to approximately 4 feet bgs. Soil Boring SB-2 was advanced three times (SB-2, SB-2R, and SB-2B) to obtain sufficient recovery for geotechnical analysis and sample collection. No soil samples were collected from Boring SB-4 because the boring was not within the construction limits of the proposed force main. Soil Boring Log Information forms are enclosed.

ANALYTICAL RESULTS

No PVOCs, GRO, or cadmium, and very low concentrations of DRO (8.42 milligrams per kilogram (mg/kg)) and lead (2.71 mg/kg) were detected in the soil sample collected from Boring SB-1. The Wisconsin Administrative Code (WAC), Chapter NR 720, Residual Contaminant Level (RCL) for DRO is 100 mg/kg, and the NR 720, Table 2 RCL for direct contact at non-industrial sites for lead is 50 mg/kg.

GRO was not detected in either soil sample collected from Boring SB-3. Benzene was not detected in the 2.5 feet to 4.0 feet bgs sample but was detected at a concentration of 85 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in the 7.5 feet to 9.0 feet bgs sample, exceeding the NR 720 RCL for benzene of $5.5 \mu\text{g}/\text{kg}$. Low-level concentrations of total xylenes were detected in both SB-3 soil samples and low-level concentrations of total trimethylbenzenes were detected in the 7.5 feet to 9.0 feet bgs soil sample. DRO was detected in both SB-3 soil samples at concentrations of $63.9 \text{ mg}/\text{kg}$ (2.5 feet to 4.0 feet bgs) and $169 \text{ mg}/\text{kg}$ (7.5 feet to 9.0 feet bgs), exceeding the NR 720 RCL for DRO.

Cadmium was detected at concentrations of $2.47 \text{ mg}/\text{kg}$ (2.5 feet to 4.0 feet bgs) and $0.984 \text{ mg}/\text{kg}$ (7.5 feet to 9.0 feet bgs). The NR 720, Table 2 RCL for direct contact at non-industrial sites for cadmium is $8 \text{ mg}/\text{kg}$. Lead was detected in both SB-3 soil samples at concentrations of $17.5 \text{ mg}/\text{kg}$ (2.5 feet to 4.0 feet bgs) and $34.6 \text{ mg}/\text{kg}$ (7.5 feet to 9.0 feet bgs).

Cadmium and lead were detected in the soil sample collected from Boring SB-2B at concentrations of $0.138 \text{ mg}/\text{kg}$ and $38.2 \text{ mg}/\text{kg}$, respectively. Soil sample analytical results are summarized on the enclosed Table 1. The laboratory analytical report is also enclosed.

Coal pieces and coal ash residue are classified by the Wisconsin Department of Natural Resources (WDNR) as a "lower risk" waste (DNR PUB-RR-685, Development at Historic Fill Sites and Licensed Landfills: Considerations and Potential Problems, April 2002).

SOIL DISPOSAL

Four USDOT approved 55-gallon steel drums were filled with soil cuttings during the geotechnical investigation. Additionally, three 55-gallon drums were filled with soil cuttings during a prior Pre-Development Investigation (February 2009). All of the drums were transported to the City of Fond du Lac, Public Works facility for temporary storage.

On December 3, 2009, SGS Environmental Contracting, LLC, Merrill, Wisconsin, transported all of the drums to the Lincoln County Landfill, Merrill, Wisconsin for disposal. Soil disposal documentation is enclosed.

CONCLUSIONS AND OPINION

- Soils within the construction limits of the proposed force main route west of the proposed stormwater detention pond, in the vicinity of Boring SB-3 have been impacted by petroleum hydrocarbons at concentrations exceeding regulatory standards.
- Coal pieces and coal ash residue were observed in the vicinity of Boring SB-3. Coal and coal ash residue are considered to be "low risk" waste by the WDNR.

It is AECOM's opinion that excavation within the construction limits of the proposed stormwater force main should be field monitored by field screening and visual observations for indications of soil contamination, as appropriate, and that all excavated soil that is determined to be contaminated be disposed in a WDNR approved landfill as solid waste.

If you have any questions regarding the subsurface soil sampling or results, please contact me at (715) 342-3037.

Sincerely,



Phil Eagan
Hydrogeologist
phil.eagan@aecom.com

Enclosures: As Noted

c/enc: Christine Lilek, WDNR Oshkosh
Caroline Burger, AECOM
David Senfelds, AECOM

L:\work\Projects\103003\wp\r5_pond\goding_pje.docx

Route To: Watershed/Wastewater Waste Management
 Remediation/Revelopment Other

Page 1 of 2

Facility/Project Name: RUEPING MACY SITE License/Permit/Monitoring Number: _____ Boring Number: SB-1

Boring Drilled By: Name of crew chief (first, last) and Firm
First Name: JOHN Last Name: DENKIEAY Date Drilling Started: 04.16.2009 Date Drilling Completed: 04.16.2009 Drilling Method: SSA

Firm: AECOM

WI Unique Well No. _____ DNR Well ID No. _____ Well Name _____ Final Static Water Level _____ Feet MSL Surface Elevation _____ Feet MSL Borehole Diameter: 4.0 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N. _____ E S/C/N Lat _____ Long _____ Local Grid Location _____ Feet N E S W

NW 1/4 of SE 1/4 of Section 10, T 15 N, R 17 EW

Facility ID _____ County: FOND DU LAC County Code: 20 Civil Town/City or Village: FOND DU LAC

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/PLD	Soil Properties					RQD/Comments	
									Compressive Strength	Moisture Content	Shrinkage Limit	Plasticity Index	P 200		
				<u>GRASS COVERED</u>											
<u>1</u>			<u>1</u>	<u>0.5 TO 1.5 COARSE YELLOWISH BROWN (10AR 5/4) P/M SAND, MOIST, TRACE GRAVEL</u>	<u>SP</u>			<u>0.3</u>							<u>8:15</u>
			<u>2</u>												
			<u>3</u>	<u>2.5 TO 4.0 SAA</u>				<u>0.2</u>							<u>8:20</u>
			<u>4</u>		<u>SP</u>										
			<u>5</u>	<u>5.0 TO 6.5 SAA</u>											
			<u>6</u>		<u>SP</u>			<u>0.2</u>							<u>8:25</u>
			<u>7</u>												<u>5.0 TO 6.5</u>
			<u>8</u>	<u>7.5 TO 9.0 SAA</u>				<u>0.2</u>							<u>PRO GRD</u>
			<u>9</u>		<u>SP</u>										<u>P/CCs, Pb Col</u>
			<u>10</u>												<u>8:30</u>
			<u>11</u>	<u>10.0 TO 12.5 SAA</u>				<u>0.2</u>							
			<u>12</u>		<u>SP</u>			<u>0.2</u>							

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

Signature: Phil Egan Firm: AECOM

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater Waste Management
 Remediation/Revelopment Other

Page 1 of 2

Facility/Project Name RUEPING MACY SITE		License/Permit/Monitoring Number		Boring Number SB-2	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: JOHN Last Name: DENNIEAY		Date Drilling Started 04/15/2009		Date Drilling Completed 04/15/2009	
WI Unique Well No.		DNR Well ID No.		Well Name	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Final Static Water Level Feet MSL		Surface Elevation Feet MSL	
State Plane <u>N</u> E S/C/N		Lat <u>0</u> ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of SE 1/4 of Section <u>10</u> , T <u>15</u> N, R <u>17</u> EW		Long <u>0</u> ' "		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County FOND DU LAC		County Code 20	
				Civil Town/City/Village FOND DU LAC	

Sample Number and Type	Length Alt. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/RID	Soil Properties				RQD/ Comments	
									Compressive Strength	Moisture Content	Shrinkage Limit	Plasticity Index		
				GRASS COVERED										
			0.0 TO 0.5	TOPSOIL										
			0.5 TO 1.5	FIRM, YELLOWISH BROWN (10YR 5/4) SILTY SAND, MOIST	SM						NONE			
			2.5 TO 4.0	SAA GRAVELLY	SM						NONE			
			5.0 TO 6.5	SAA	SM						NONE			
			7.5 TO 9.0	SANDY GRAVEL SATURATED	GW									
			10.0 TO 11.5	SAA	GW									

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

Signature *John Denney* Firm **AECOM**

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater Waste Management
Remediation/Revelpment Other

Page 1 of 2

Facility/Project Name RUEPING MACY SITE		License/Permit/Monitoring Number	Boring Number SB-2R
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: JOHN Last Name: BENNEH		Date Drilling Started 04.15.2009 m m d d y y y y	Date Drilling Completed 04.15.2009 m m d d y y y y
Firm: AECOM		Drilling Method	
WI Unique Well No.	DNR Well ID No.	Well Name	
		Final Static Water Level Feet MSL	Surface Elevation Feet MSL
			Borehole Diameter inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane N. E S/C/N		Lat. 0 ' "	
NW 1/4 of SE 1/4 of Section 10, T 15 N, R 17 EW		Long. 0 ' "	
Facility ID		County FOND DU LAC	County Code 20
		Civil Town/City/Village FOND DU LAC	

Sample Number and Type	Length Alt. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/APP	Soil Properties				RQD/Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	
				GRASS COVERED									
			0.0 TO 0.8	CLAY LAM TOTAL									
			0.8 TO 1.5	FIRM REDDISH BROWN (25% 1/4) SILTY CLAY, MOIST	CL								
			2.5 TO 4.0	GRAVEL OVER TAN F/M SAND MOIST	SP								
			5.0 TO 6.0	SAA									
			6.0 TO 6.5	FIRM, REDDISH BROWN (25% 1/4) SILTY CLAY, TRACE GRAVEL, MOIST	CL								
			7.5 TO 9.0	NO RECOVERY, SATURATED @ 8.0'									
			10.0 TO 11.5	CONCRETE PIECES SATURATED - POOR RECOVERY									

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

Signature Phil Egan Firm AECOM

Route To: Watershed/Wastewater Waste Management
 Remediation/Revelpment Other

Page 1 of 2

Facility/Project Name RUEPING MACY SITE		License/Permit/Monitoring Number		Boring Number SB-3	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: JOHN Last Name: DEHNEAN		Date Drilling Started 04/15/2009 m m d d y y y y		Date Drilling Completed 04/15/2009 m m d d y y y y	
Firm: AECOM		Drilling Method SSA			
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 4.0 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane <u>N</u> , <u>E</u> S/C/N			Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		
NW 1/4 of <u>SE</u> 1/4 of Section <u>10</u> , T <u>15</u> N, R <u>17</u> <u>EW</u>			Lat <u>0</u> ' " Long <u>0</u> ' "		
Facility ID	County FOND DU LAC	County Code 20	Civil Town (City) or Village FOND DU LAC		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphite Log	Well Diagram	PID/APPD	Soil Properties				RQD/ Comments
									Compressive Strength	Moisture Content	SHRIMP Limit	Plasticity Index	
				GRASS COVERED									
S-1			1	0.0 TO 0.9 CLAY LOAM RESIDUE									
			2	0.8 TO 1.5 LOOSE BLACK (10YR 3/1) GRAVELLY SAND, MOIST w/COAL PIECES	SP			0.2					14:30
			3	2.5 TO 4.0 SAA, MIXED w/COAL PIECES									14:35
S-2			4	CLAY	SP			0.3					2.5 TO 4.0 DRE GCS PLOGS PLOG
			5	5.0 TO 6.5 FIRM, DARK BROWN (10YR 2/2) GRAVELLY SILTY CLAY, MOIST	CL			0.3					14:40
			6	7.5 TO 9.0 SAA, LESS GRAVEL, ROOTS	CL								14:45
S-4			9	-SATURATED				0.2					7.5 TO 9.0 DRE GCS PLOGS PLOG
			10	10.0 TO 11.5 FIRM, DARK GRAY (10YR 4/1) SILTY, SANDY CLAY, SATURATED	CL			0.2					
S-5			11										

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

Signature [Signature] Firm **AECOM**

Route To: Watershed/Wastewater Waste Management
 Remediation/Revelopment Other

Page 1 of 2

Facility/Project Name RUEPING MACY SITE		License/Permit/Monitoring Number		Boring Number SR-4	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: JOHN Last Name: BENHEAY		Date Drilling Started 04/15/2009 m m d d y y y y		Date Drilling Completed 04/15/2009 m m d d y y y y	
Firm: AECOM				Drilling Method SSA	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 4.0 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>			Local Grid Location		
State Plane <u>N</u> , <u>E</u> S/C/N			Lat <u>0</u> ' "		
<u>NW</u> 1/4 of <u>SE</u> 1/4 of Section <u>10</u> , T <u>15</u> N, R <u>17</u> <u>EW</u>			Long <u>0</u> ' "		
Facility ID		County FOND DU LAC	County Code 20	Civil Town/City or Village FOND DU LAC	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/PHD	Soil Properties					ROD/Comments	
									Compressive Strength	Moisture Content	Shrinkage Limit	Plasticity Index	P 200		
				GRASS COVERED											
			1	0.0 TO 0.8 CLAY LOAM TOPSOIL											
			2	0.8 TO 1.5 DENSE, REDDISH BROWN (2.5% 9/2) SILTY CLAY, TRACE SAND, MOIST	CL								NONE		
			3	1.5 TO 2.0 RUBBLE											
			4	2.0 TO 4.0 DARK BROWN (2.5% 9/2) SILTY CLAY MOIST	CL										
			5	5.0 TO 6.5 FIRM, WEAK RED (2.5% 9/2) SANDY SILTY CLAY, TRACE GRAVEL, MOIST SATURATED?	CL								NONE		
			6												
			7												
			8	7.5 TO 9.0 DENSE, REDDISH BROWN (2.5% 9/2) SILTY CLAY, TRACE GRAVEL, MOIST	CL								NONE		
			9												
			10	10.0 TO 11.5 SAND, FIRM											
			11		CL										
			12	ORGANIC LAYER									NONE		

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

Signature: Phil Eszner Firm: AECOM

TABLE 1
GEOTECHNICAL INVESTIGATION SOIL SAMPLE ANALYTICAL RESULTS
RUEPING-MACY SITE
FOND DU LAC, WISCONSIN

Analyte	NR 720 RCL	Results			
		GRO (mg/kg)	100	<5.28	NA
DRO (mg/kg)	100	8.42 ^{D3 LCH}	NA	63.9 ^{LCH D2B D3}	169 ^{LCH D2B D3}
PVOCs (µg/kg)					
Benzene	5.5	<17	NA	<16	85
Ethylbenzene	2,900	<19	NA	<18	<21
Methyl Tert Butyl Ether (MTBE)	NE	<12	NA	<11	<13
Toluene	1,500	<18	NA	<17	141
Trimethylbenzenes (Total)	NE	<33	NA	<31	<104
Xylenes (Total)	4,100	<39	NA	251	<227
Total Metals (mg/kg)					
Cadmium	8	<0.0598	0.138 ^J	2.47	0.984 ^J
Lead	50	2.71	38.2	17.5	34.6

Notes:

1. NE means "Not Established."
2. NA means "Not Analyzed."
3. "--" means "Not Applicable."
4. "NR 720 RCL" refers to applicable "Residual Contaminant Level" as listed in Table 1 and Table 2 of NR 720.
5. **Bold** indicates RCL exceedence.
6. ^J means "Estimated concentration below laboratory quantitation level."
7. ^{LCH} means "Laboratory control sample exhibited a high bias. Sample results may also be biased high."
8. ^{D2B} means "The chromatogram is characteristic for a heavier petroleum product other than diesel (i.e. motor oil, hydraulic oil, etc.)."
9. ^{D3} means "The chromatogram is not characteristic for diesel or any other single petroleum product."

SIEMENS

April 24, 2009

AECOM, Inc.
200 Indiana Avenue
Stevens Point, WI 54481

RECEIVED
APR 29 2009

Attn: Dave Senfelds

REPORT NO.: 0904330

PROJECT NO.: Rueping Macy Site

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received April 16, 2009.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

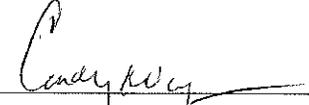
If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies


Bruce Schertz
Lab Manager
Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Reviewed by: 

Certifications:

Wisconsin 737053130
Minnesota 055-999-302
Illinois 100317



Siemens Water Technologies Corp.

301 West Military Road
Rothschild, WI 54474

Tel: 800-338-7226
Fax: 715-355-3221

www.siemens.com/enviroscan

SIEMENS

SAMPLE SUMMARY

<u>Lab Id</u>	<u>Client Sample Id</u>	<u>Date/Time</u>	<u>Matrix</u>
0904330-01	MeOH Blank	04/15/09 15:00	Soil
0904330-02	SB-3 2.5 - 4.0	04/15/09 14:35	Soil
0904330-03	SB-3 7.5 - 9.0	04/15/09 14:45	Soil
0904330-04	SB-1 5.0 - 6.5	04/16/09 08:25	Soil
0904330-05	SB2B 6.0 - 7.5	04/16/09 09:45	Soil

SIEMENS

AECOM, Inc.
200 Indiana Avenue
Stevens Point, WI 54481

PROJECT NO. : Rueping Macy Site
REPORT NO. : 0904330
DATE REC'D: 04/16/09 15:15
REPORT DATE : 04/24/09 10:29
PREPARED BY : BMS

Attn: Dave Senfelds
Sample ID: MeOH Blank

Matrix: Soil

Sample Date/Time: 04/15/09 15:00 Lab No. : 0904330-01

	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Dilution Factor</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>	<u>Analyst</u>
<u>EPA 8021B/ WI DNR GRO</u>								
1,2,4-Trimethylbenzene	ND	mg/kg	0.013	0.025	1		04/21/09	ALZ
1,3,5-Trimethylbenzene	ND	mg/kg	0.018	0.025	1		04/21/09	ALZ
Benzene	ND	mg/kg	0.016	0.025	1		04/21/09	ALZ
Ethylbenzene	ND	mg/kg	0.018	0.025	1		04/21/09	ALZ
Gasoline Range Organics	ND	mg/kg	5.00	5.00	1		04/21/09	ALZ
m&p-Xylene	ND	mg/kg	0.021	0.025	1		04/21/09	ALZ
Methyl Tert Butyl Ether	ND	mg/kg	0.011	0.025	1		04/21/09	ALZ
o-Xylene	ND	mg/kg	0.016	0.025	1		04/21/09	ALZ
Toluene	ND	mg/kg	0.017	0.025	1		04/21/09	ALZ

SIEMENS

AECOM, Inc.
200 Indiana Avenue
Stevens Point, WI 54481

PROJECT NO. : Rueping Macy Site
REPORT NO. : 0904330
DATE REC'D: 04/16/09 15:15
REPORT DATE : 04/24/09 10:29
PREPARED BY : BMS

Attn: Dave Senfelds

Sample ID: SB-3 2.5 - 4.0

Matrix: Soil

Sample Date/Time: 04/15/09 14:35

Lab No. : 0904330-02

	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Dilution Factor</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>	<u>Analyst</u>
<u>EPA 3050B</u>								
ICP Solid Metal Prep	Completed	N/A			1		04/21/09	DJB
<u>EPA 6010B - Total</u>								
Total Cadmium	2.47	mg/kg dry	0.0685	2.02	1		04/23/09	DJB
Total Lead	17.5	mg/kg dry	0.645	2.13	1		04/24/09	DJB
<u>EPA 8021B/ WI DNR GRO</u>								
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.013	0.025	1		04/22/09	ALZ
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.018	0.025	1		04/22/09	ALZ
Benzene	ND	mg/kg dry	0.016	0.025	1		04/22/09	ALZ
Ethylbenzene	ND	mg/kg dry	0.018	0.025	1		04/22/09	ALZ
Gasoline Range Organics	ND	mg/kg dry	5.00	5.00	1		04/22/09	ALZ
m&p-Xylene	0.170	mg/kg dry	0.021	0.025	1		04/22/09	ALZ
Methyl Tert Butyl Ether	ND	mg/kg dry	0.011	0.025	1		04/22/09	ALZ
o-Xylene	0.081	mg/kg dry	0.016	0.025	1		04/22/09	ALZ
Toluene	ND	mg/kg dry	0.017	0.025	1		04/22/09	ALZ
<u>MOSA21-2</u>								
Total Solids	82.6	% by Weight	0.03	0.03	1		04/20/09	LNB
<u>WI DNR DRO</u>								
Prep Method: WI DNR Soil Extraction	By: KAM				Date Prepared: 04/21/09			
Diesel Range Organics	63.9	mg/kg dry	5.00	5.00	1.01	LCH, D2B, D3	04/21/09	ALZ

SIEMENS

AECOM, Inc.
200 Indiana Avenue
Stevens Point, WI 54481

PROJECT NO. : Rueping Macy Site
REPORT NO. : 0904330
DATE REC'D: 04/16/09 15:15
REPORT DATE : 04/24/09 10:29
PREPARED BY : BMS

Attn: Dave Senfelds

Sample ID: SB-3 7.5 - 9.0

Matrix: Soil

Sample Date/Time: 04/15/09 14:45

Lab No. : 0904330-03

	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Dilution Factor</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>	<u>Analyst</u>
<u>EPA 3050B</u>								
ICP Solid Metal Prep	Completed	N/A			1		04/21/09	DJB
<u>EPA 6010B - Total</u>								
Total Cadmium	0.984	mg/kg dry	0.0703	2.07	1	J	04/23/09	DJB
Total Lead	34.6	mg/kg dry	0.662	2.19	1		04/24/09	DJB
<u>EPA 8021B/ WI DNR GRO</u>								
1,2,4-Trimethylbenzene	0.083	mg/kg dry	0.015	0.029	1.17		04/22/09	ALZ
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.021	0.029	1.17		04/22/09	ALZ
Benzene	0.085	mg/kg dry	0.019	0.029	1.17		04/22/09	ALZ
Ethylbenzene	ND	mg/kg dry	0.021	0.029	1.17		04/22/09	ALZ
Gasoline Range Organics	ND	mg/kg dry	5.85	5.85	1.17		04/22/09	ALZ
m&p-Xylene	0.208	mg/kg dry	0.025	0.029	1.17		04/22/09	ALZ
Methyl Tert Butyl Ether	ND	mg/kg dry	0.013	0.029	1.17		04/22/09	ALZ
o-Xylene	ND	mg/kg dry	0.019	0.029	1.17		04/22/09	ALZ
Toluene	0.141	mg/kg dry	0.020	0.029	1.17		04/22/09	ALZ
<u>MOSA21-2</u>								
Total Solids	80.5	% by Weight	0.03	0.03	1		04/20/09	LNB
<u>WI DNR DRO</u>								
<i>Prep Method: WI DNR Soil Extraction</i>		<i>By: KAM</i>		<i>Date Prepared: 04/21/09</i>				
Diesel Range Organics	169	mg/kg dry	23.5	23.5	4.7	LCH, D2B, D3	04/21/09	ALZ

SIEMENS

AECOM, Inc.
200 Indiana Avenue
Stevens Point, WI 54481

PROJECT NO. : Rueping Macy Site
REPORT NO. : 0904330
DATE REC'D: 04/16/09 15:15
REPORT DATE : 04/24/09 10:29
PREPARED BY : BMS

Attn: Dave Senfelds

Sample ID: SB-1 5.0 - 6.5

Matrix: Soil

Sample Date/Time: 04/16/09 8:25

Lab No. : 0904330-04

	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Dilution Factor</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>	<u>Analyst</u>
<u>EPA 3050B</u>								
ICP Solid Metal Prep	Completed	N/A			1		04/21/09	DJB
<u>EPA 6010B - Total</u>								
Total Cadmium	ND	mg/kg dry	0.0598	1.76	1		04/23/09	DJB
Total Lead	2.71	mg/kg dry	0.563	1.86	1		04/24/09	DJB
<u>EPA 8021B/ WI DNR GRO</u>								
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.014	0.026	1.06		04/21/09	ALZ
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.019	0.026	1.06		04/21/09	ALZ
Benzene	ND	mg/kg dry	0.017	0.026	1.06		04/21/09	ALZ
Ethylbenzene	ND	mg/kg dry	0.019	0.026	1.06		04/21/09	ALZ
Gasoline Range Organics	ND	mg/kg dry	5.28	5.28	1.06		04/21/09	ALZ
m&p-Xylene	ND	mg/kg dry	0.022	0.026	1.06		04/21/09	ALZ
Methyl Tert Butyl Ether	ND	mg/kg dry	0.012	0.026	1.06		04/21/09	ALZ
o-Xylene	ND	mg/kg dry	0.017	0.026	1.06		04/21/09	ALZ
Toluene	ND	mg/kg dry	0.018	0.026	1.06		04/21/09	ALZ
<u>MOSA21-2</u>								
Total Solids	94.7	% by Weight	0.03	0.03	1		04/20/09	LNB
<u>WI DNR DRO</u>								
<i>Prep Method: WI DNR Soil Extraction</i>		<i>By: KAM</i>		<i>Date Prepared: 04/21/09</i>				
Diesel Range Organics	8.42	mg/kg dry	4.80	4.80	0.96	D3, LCH	04/22/09	ALZ

SIEMENS

AECOM, Inc.
 200 Indiana Avenue
 Stevens Point, WI 54481

PROJECT NO. : Rueping Macy Site
 REPORT NO. : 0904330
 DATE REC'D: 04/16/09 15:15
 REPORT DATE : 04/24/09 10:29
 PREPARED BY : BMS

Attn: Dave Senfelds

Sample ID: SB2B 6.0 - 7.5

Matrix: Soil

Sample Date/Time: 04/16/09 9:45

Lab No. : 0904330-05

	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Dilution Factor</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>	<u>Analyst</u>
<u>EPA 3050B</u>								
ICP Solid Metal Prep	Completed	N/A			1		04/21/09	DJB
<u>EPA 6010B - Total</u>								
Total Cadmium	0.138	mg/kg dry	0.0680	2.01	1	J	04/23/09	DJB
Total Lead	38.2	mg/kg dry	0.641	2.12	1		04/24/09	DJB
<u>MOSA21-2</u>								
Total Solids	83.2	% by Weight	0.03	0.03	1		04/20/09	LNB

SIEMENS

Qualifier Descriptions

LCH	Laboratory control sample exhibited a high bias. Sample results may also be biased high.
J	Estimated concentration below laboratory quantitation level.
D3	The chromatogram is not characteristic for diesel or any single common petroleum product.
D2B	The chromatogram is characteristic for a heavier petroleum product other than diesel (i.e. motor oil, hydraulic oil, etc.).
COMP	Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m³ = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

SIEMENS

Client: AECOM

Date Received: 4 / 16 / 09

Analytical Number: 0904330 -1 through -5

Check all deviations from the EPA or WDNR sample protocol.

- Sample(s) received at _____ °C which is above the EPA and WDNR limit of 4°C.
- VOC vial(s) received with headspace.
- Sample(s) received in bottles not furnished by Siemens Water Technologies. The preservation method, if used, is unknown.
- Sample(s) were not properly preserved per EPA or WDNR protocol for the following analyses:
 - _____
- Sample(s) were received beyond the EPA/WDNR holding time for the following analyses:
 - _____
- Sample date/time not supplied by client. Actual holding time is unknown.
- GRO / PVOC / VOC / DRO (circle) sample(s) are <19.5 grams. This report is the qualifier flag for that QC failure. The client has been contacted for further instructions. Analytical number(s) of the sample(s) under weight are:
 - _____
- GRO / PVOC / VOC (circle) sample(s) were between 26.4 and 35.4 grams. Methanol was added in a 1:1 ratio in the lab. Analytical number(s) of the sample(s) affected are:
 - 0904330 - 2A + 2ml
- GRO / PVOC / VOC / DRO (circle) sample(s) are >35.4 grams and are required to be rejected. This report is the qualifier flag for that QC failure. The client has been contacted for further instructions. Analytical number(s) of the sample(s) affected are:
 - _____
- Other problems:
 - _____

Client contacted concerning the above deviations:

_____ notified of the above deviation(s) on ____ / ____ / ____ @
_____ contact name
_____ am/pm by _____ and the client ordered the following:
_____ initial

- Proceed with analyses as ordered.
- Proceed with analyses after taking the following corrective action:
 - _____
- Do NOT proceed with analyses.

Siemens Water Technologies Corp.

301 West Military Road
Rothschild, WI 54474

Tel: (800)338-7226
Fax: (715)355-3221

Company Name: AECOM
Report Mailing Address: 250 INDIANA AVE
 STEVENS POINT, WI 54481
Invoice Address: SAME

Project: RUEPING MACH SITE
Contact Name, Phone, Fax, Email: DAVE SENFELDS 715-342-3039
 715-341-7390
Invoice Contact and Phone No.: SAME

Purchase Order #: _____
Invoice Order #: _____

Matrix: Drinking Water Groundwater Wastewater Soil/Solid Other: _____

Wis. PECFA Project subject to U&C? Yes No

For Compliance Monitoring? Yes No

Agency/Reg.: WPM

Turnaround Request: Normal (10 Bus. Days) Rush (Must be pre-approved by Lab and is subject to surcharges)
 Date Needed: _____

WO No.: 0904330

Lab Use Only	Sample		No. of Containers		Sample ID	Comments
	Date	Time	Comp	Grab		
-1	4/1/09	15:00		1	MECHA BRANK	1-202 MECH, no info
-2	4/1/09	14:35		3	SB-3 2.5 TO 4.0	1-202 MECH, 1-202 BR, 1-402
-3	4/1/09	14:45		3	SB-3 7.5 TO 9.0	
-4	4/1/09	8:25		3	SB-1 5.0 TO 6.5	
-5	4/1/09	9:45		1	SB-2B 6.0 TO 7.5	

Analyses Requested: DRP, GRC/PRES, Pb + Cd

Delivered by: Walkin
Ship. Cont. OK? N
Samples Leaking? Y
Seals OK? N
Rec'd on Ice? N

Sample Receiving Comments: 32

Relinquished By: Phil Egan

Date: 4/1/09 Time: 2:00 Received By: MW L. Meech

Date: 4/1/09 Time: 3:15 Received By: MW L. Meech

SGS ENVIRONMENTAL CONTRACTING LLC

N2570 Daytona Drive
Merrill, WI 54452

1-800-261-2803
715-539-2803 715-539-2661 FAX
jschlueter@hughes.net

Invoice

Date	Invoice #
12/4/2009	23037

AECOM
200 INDIANA AVE
STEVENS POINT WI 54481

Site Address

RECEIVED
DEC 07 2009

P.O. No.	Terms	Customer Contact		
103003	Due on receipt	Kyle Wagner	09-1745-05 Fond du Lac Municipal	
Units	Description		Rate	Amount
	Mobilization		450.00	450.00
	Transport and disposal of 7 soil drums and documentation		425.00	425.00
It's been a pleasure working with you!			Total	\$875.00

A CHARGE OF 1.5% PER MONTH WILL BE ADDED TO ACCOUNTS OVER 30 DAYS

LINCOLN COUNTY LANDFILL 715-536-9636
N4750 Landfill Lane, Merrill, WI 54452

Operating Hours Monday-Friday SUMMER (May 1 - Sept. 30) 7:00 am - 4:00 pm
WINTER (Oct. 1 - Apr. 30) 8:00 am - 4:00 pm
1st and 3rd Sat. 8:00 am - Noon

DATE: 12/3/2009 TICKET #: 107715 Vehicle #:
Time In: 01:39 PM Time Out: 02:04 PM
BILL TO: SGS Environmental Contracting, LLC HAULER: SGS Environmental Contracti
g, LLC
JOB : -

\$29.90 ton exempt (Con33) 1.39 tn
Gross: 14660 Tare: 11880 Net Weight: 2780

Scale Notes:

HAVE A NICE DAY!

Charge Transaction

Customer Signature  Weighed By: Administrator
I certify that the waste in this vehicle complies with the Wisconsin Recycling
law and the landfill bans. I also agree to pay 1.5% per month Late payment
charge after 30 days.

**Lincoln County Solid Waste Facility
Petroleum Contaminated Soil Profile Form**

Responsible Party

Name City of Fond Du Lac
Site Address 93 Doty Street
City, State, Zip Fond Du Lac, WI 54935
Contact Mark O. Lentz, P.E.
Phone (902) 322-3472
FAX _____
E-mail mlentz@fond-du-lac.wi.us

Billing Information

Name SGS Environmental Contracting, LLC
Address N2570 Daytona Drive
City, State, Zip Merrill, WI 54452
Contact Jay Schlueter
Phone (715) 539-2803
FAX (715) 539-2661
E-mail jschlueter@hughes.net

Type of Contamination (Please circle all that apply)

Leaded Gasoline Gasoline Diesel Fuel Oil Waste Oil
Chlorinated Organics Other (Explain) Generic low level, VOCs, SVOCs and metals from former manufacturing site.

Soil Classification (Please circle the most representative soil type)

Sand Silty Sand Silty Clay Clay
Other (Explain) _____

Estimated volume of soil 1.9 (7 drums) Circle Cubic Yards or Tons

Circle Source of Contamination: Underground Storage Tank

Aboveground Storage Tank Spill
Other (explain) Former Manufacturing Site

Average Soil Concentration GRO NA mg/kg DRO 69.8 mg/kg
BTEX 0.384 mg/kg Lead 17.6 mg/kg Other Total Chromium 118.1 mg/kg

Circle Analytical Attached Yes No Table
Analytical in excess of 100 pages – available electronically.

Do you have an up-to-date charge account with Lincoln County Solid Waste Facility

Circle Yes or No or circle payment plan approved with Manager Yes No

Waste Limitations, Lincoln County Solid Waste Facility will not accept any of the following:

1. This waste is not a hazardous waste as defined in Wisconsin Administrative Code NR 605 of 40 CFR 261.
2. This waste does not contain regulated quantities of PCB's.
3. This waste does not contain regulated quantities of herbicides or pesticides.
4. This waste does not contain regulated quantities of solvents as specified in Wisconsin Administrative Code NR 605.
5. This waste does not contain infectious waste as defined in Wisconsin Administrative Code NR 526.
6. All information submitted in this and all attached documents contains true and accurate descriptions of this waste. All relevant information regarding or suspect hazards in the possession of the generator has been disclosed.

Generators Signature _____
Print Name STEPHEN E. KEES

Title OPERATIONS DIRECTOR
Date 10/30/09

Lincoln County Solid Waste Facility • N4750 Landfill Lane • Merrill, WI 54452 •
Tel (715) 536-9636 • Fax (715) 536-6361

For office use only:

Bio pile

Daily cover