



231 W. Michigan St.  
Milwaukee, WI 53203

[www.we-energies.com](http://www.we-energies.com)

January 30, 2009

Ms. Kimberly Bose  
Federal Energy Regulatory Commission  
Division of Licensing & Compliance  
888 First Street, N.E.  
Washington, D.C. 20426

Dear Ms Bose:

**RE: Chalk Hill Hydroelectric Project – FERC No. 2394 – 017  
White Rapids Hydroelectric Project – FERC No. 2357 – 003**

**Article 405 – Water Quality Monitoring Report  
Article 406 – Water Chemistry / Sediment Chemistry Monitoring Report**

Wisconsin Electric ( WE ) doing business as We Energies, is hereby electronically filing the results of the water quality, water chemistry, and sediment chemistry monitoring for the above mentioned Projects performed during 2008 in fulfillment of the monitoring plan approved and incorporated in the articles identified above by FERC for these Projects.

The results of this work satisfy the current Water Quality / Water Chemistry / Sediment Chemistry aspects of the Water Quality Monitoring Plan. The original Water Quality Monitoring Plan ( Article 405 ) was approved by the Commission by order dated January 21, 1998 while, the Water Chemistry / Sediment Chemistry Monitoring Plan ( Article 406 ) was approved by the Commission by order dated December 30, 1997. The Water Quality Monitoring Plan was subsequently modified by the Company, approved by the state agencies, and filed with the Commission in correspondence dated July 17, 2001.

Included in this filing are the following:

Exhibit A; Results of spot check measurements of temperature and dissolved oxygen;  
Exhibit B; Results of the quarterly water chemistry measurements;  
Exhibit C; Laboratory results for sediment samples collected from the Chalk Hill and White Rapids flowages

With respect to spot check measurements, no violations of Michigan's water quality standards for temperature and dissolved oxygen were found with this revised monitoring program in 2008.

The patterns in water chemistry analytical results among stations and across seasons were substantially similar with data collected in 2003 and 1998 as well as in line with baseline measurements made in 1989-90, contained in Appendix 11 and 10 of the final license applications for the White Rapids and Chalk Hill Projects, respectively.



January 30, 2009  
Page 2

The sediment collected from Chalk Hill flowage appeared to have lower concentrations of metals and nutrients relative to what was found in 2004. The values for Chalk Hill flowage were also lower than values for White Rapids Flowage. By contrast, the sediment chemistry analytical results for the White Rapids flowage, which is situated downstream of Chalk Hill flowage, were slightly higher than values reported for White Rapids flowage in 2004.

Enclosed is a proof of service to the agencies listed on the copy list.

Please call me at 906-779-4099 if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Todd P. Jastremski". The signature is written in a cursive, flowing style.

Todd P. Jastremski, Manager  
Hydroelectric Operations Division

cc: Michael Donofrio, WDNR  
Jessica Mistak, MDNR  
John Suppnick, MDEQ

bcc: John Hrobar  
Dave Michaud  
Annie Salmona

**CHALK HILL HYDROELECTRIC  
PROJECT FERC No. 2394-017**

**WHITE RAPIDS HYDROELECTRIC  
PROJECT FERC No. 2357-003**

**EXHIBIT A**

**RESULTS OF SPOT CHECK MEASUREMENTS OF  
TEMPERATURE AND DISSOLVED OXYGEN**

**We Energies  
January 2009**

## DO & TEMPERATURE MEASUREMENT LOG SHEET

"Z" BRIDGE UPSTREAM OF CHALK HILL				WHITE RAPIDS TAILRACE			REMARKS
DATE	TIME	DO IN PPM	TEMP °C	TIME	DO IN PPM	TEMP °C	
6/2/2008	1030	9.40	18.0	1155	9.20	18.0	71°, sunny, smell none/72°, sunny, smells fishy, DO readings by titration
6/5/2008	1400	9.20	17.0	1500	9.00	17.0	70°, cloudy, flow normal / 70°, cloudy, light rain, DO readings by titration
6/6/2008	1000	8.50	17.0	1100	8.60	17.0	70 ,cloudy,flow normal / 73 cloudy,flow normal, DO Readings by titration
6/9/2008	1500	8.20	20.0	900	8.30	20.0	74 cloudy,flow normal,/ 70 cloudy,flow normal, DO Readings by titration
6/11/2008	945	8.20	18.0	1400	8.00	21.0	45 ,cloudy,flow normal, / 60 cloudy, flow normal, DO Readings by titration
6/14/2008	915	8.00	19.0	1205	7.80	20.0	58 ,sunny,flow normal,muddy,/ 60 ,partly cloudy, DO readings by titration
6/16/2008	935	7.70	19.0	1245	7.90	19.0	55 ,cloudy, river high, DO readings by titration
6/18/2008	900	7.50	18.0	1300	8.30	19.0	55 ,mostly cloudy, river high, DO readings by titration
6/20/2008	1430	7.80	20.0	1215	8.00	20.0	79 , sunny,river normal, DO readings by titration
6/23/2008	830	7.70	19.0	1215	7.90	21.0	58 , partly cloudy,flow normal, DO readings by titration
6/25/2008	900	8.10	22.0	1330	7.60	22.0	75 , clear, flow normal, DO readings by titration
6/27/2008	900	7.60	23.0	1400	7.50	24.0	77 , partly cloudy, fiow normal, DO readings by titration
6/30/2008	935	7.60	21.0	1238	7.50	23.0	70 , sunny , flow normal, DO readings by titration
7/2/2008	1100	7.55	21.0	1305	7.30	23.0	70 , cloudy, flow normal,DO readings by titration
7/4/2008	800	7.60	21.0	1015	7.40	22.0	75 , clear, flow normal, DO readings by titration
7/7/2008	840	7.50	24.0	1205	8.00	24.0	75 , sunny,river getting low, DO readings by titration
7/9/2008	840	7.30	23.0	1230	7.80	24.0	78 , partly cloudy,flow normal,DO readings by titration
7/11/2008	945	7.30	22.0	1400	7.80	23.0	80 , partly cloudy,flow normal, DO readings by titration
7/14/2008	850	8.00	21.0	950	7.60	23.0	66 , partly cloudy, river low, DO readings by titration

<b>"Z" BRIDGE UPSTREAM OF CHALK HILL</b>				<b>WHITE RAPIDS TAILRACE</b>			<b>REMARKS</b>
<b>DATE</b>	<b>TIME</b>	<b>DO IN PPM</b>	<b>TEMP °C</b>	<b>TIME</b>	<b>DO IN PPM</b>	<b>TEMP °C</b>	
7/16/2008	1415	7.80	24.0	1130	8.00	23.0	82 , sunny, river low, DO readings by titration
7/18/2008	1340	7.60	24.0	900	7.50	23.0	85 , partly cloudy,river low, DO readings by titration
7/21/2008	845	7.50	23.0	1350	7.60	24.0	75 , partly cloudy, river low, DO readings by titration
7/23/2008	845	7.80	23.0	1155	7.50	24.0	80 , mostly sunny, river low, DO readings by titration
7/25/2008	850	7.70	24.0	1115	7.90	24.0	72 , sunny, river low, DO readings by titration
7/28/2008	900	7.90	24.0	1230	8.10	25.0	69 , mostly sunny, river low , DO readings by titration
7/30/2008	1345	7.70	25.0	1020	7.50	24.0	73 , mostly sunny , river low, DO readings by titration
8/1/2008	815	7.10	23.0	1120	7.50	25.0	65 , mostly sunny , river low , DO readings by titration
8/4/2008	1415	7.30	25.0	1330	8.10	25.0	78 , cloudy, humid, river low, DO readings by titration
8/6/2008	1240	8.10	25.0	900	7.80	25.0	75 , partly cloudy, river low, DO readings by titration
8/8/2008	1000	7.90	23.0	845	7.70	24.0	60 , mostly sunny , river low, Do readings by titration
8/11/2008	900	7.80	22.0	1245	7.80	23.0	80 , clear, river low, DO readings by titration
8/13/2008	940	7.50	23.0	1245	7.60	23.0	73 , clear, river low , DO readings by titration
8/15/2008	845	7.40	21.0	1330	7.50	23.0	82 , mostly sunny, river low, DO readings by titration
8/18/2008	900	7.60	23.0	1350	7.50	24.0	82 , mostly sunny, river low, DO readings by titration
8/20/2008	1015	7.80	22.0	1300	7.60	23.0	85 , partly cloudy,river low, DO readings by titration
8/25/2008	920	8.00	20.0	1300	7.60	22.0	70, clear,river low,DO readings by titration
8/29/2008	1505	9.00	23.0	930	7.80	22.0	80, partly cloudy, river low, DO readings by titration
9/1/2008	850	7.80	22.0	1250	7.60	23.0	86, sunny, river low, DO readings by titration
9/3/2008	1020	7.80	22.0	1550	8.00	23.0	72, partly cloudy, river low, DO readings by titration
9/5/2008	910	7.80	19.0	1300	7.60	21.0	70, mostly cloudy, riverlow, DO readings by titration

"Z" BRIDGE UPSTREAM OF CHALK HILL				WHITE RAPIDS TAILRACE			REMARKS
DATE	TIME	DO IN PPM	TEMP °C	TIME	DO IN PPM	TEMP °C	
9/8/2008	915	8.00	18.0	1230	8.00	20.0	63, mostly cloudy, river low, DO readings by titration
9/10/2008	950	8.40	18.0	1430	8.10	19.0	74, partly cloudy, river low, DO readings by titration
9/12/2008	1345	8.10	18.0	1230	8.30	19.0	75, mostly sunny, river low, recent rain fall, DO readings by titration
9/15/2008	820	8.00	16.0	930	8.20	18.0	54, cloudy, river low, DO readings by titration
9/17/2008	850	8.40	17.0	1300	8.10	18.0	75, partly cloudy, river low, DO readings by titration
9/19/2008	830	8.30	17.0	1230	8.70	18.0	83, clear, river low, DO readings by titration
9/22/2008	850	8.20	17.0	950	8.70	18.0	62, cloudy, river low, DO readings by titration
9/24/2008	910	8.20	19.0	1220	9.70	20.0	65, partly cloudy, river low, DO readings by titration
9/26/2008	1000	8.70	18.0	1345	9.10	19.0	81, clear, river low, DO readings by titration

**CHALK HILL HYDROELECTRIC  
PROJECT FERC No. 2394-017**

**WHITE RAPIDS HYDROELECTRIC  
PROJECT FERC No. 2357-003**

**EXHIBIT B**

**RESULTS OF QUARTELY WATER CHEMISTRY  
MEASUREMENTS**

**We Energies  
January 2009**

## 2008 Hydro Water Quality Data Summary

Location	Field Temperature Degrees C	Field Conductivity umhos	Field pH pH	Field Dissolved Oxygen mg/l	Alkalinity as CaCO3 mg/l	Total Suspended Solids mg/l	Total Dissolved Solids mg/l	Sulfate mg/l	Color -	Ammonia Nitrogen mg/l	Total Kjeldahl Nitrogen mg/l	Nitrite Nitrogen as N mg/l	Nitrate Nitrogen as N mg/l	Total Phosphorus mg/l	Total Organic Carbon mg/l	Chlorophyll A mg/m3	Total Hardness as CaCO3 mg/l
CHZ 05/09/08	10.7	192	7.7	10.8	68	3	120	14	107	<0.50	<0.42	<0.036	0.28	<0.17	20.1	1.4	77
CHZ 07/18/08	23.9	281	7.8	8	100	1	170	22	64	<0.50	0.74	<0.036	0.24	0.025	11.3	1.3	120
CHZ 10/29/08	7.3	336	7.9	12.7	130	1	220	33	52	<0.25	<0.42	<0.036	0.17	<0.17	9.3	1.8	140
CHZ 12/03/08	0.1	317	8.4	14	120	<1	210	25	38	<0.25	<0.42	<0.036	0.23	<0.17	7.3	1	130
CHTR 05/09/08	11.2	181	7.6	10.4	60	3	120	14	95	<0.50	<0.42	<0.036	0.28	<0.17	22.5	1.4	86
CHTR 07/18/08	23.1	290	8	7.2	97	2	160	20	60	<0.50	0.69	<0.036	0.21	0.025	12	3.3	110
CHTR 10/29/08	7.3	326	7.8	11.3	120	1	190	36	50	<0.25	<0.42	<0.036	0.17	<0.17	7.7	1.3	140
CHTR 12/03/08	0.5	322	8.3	13.5	120	1	210	25	45	<0.25	<0.42	<0.036	0.22	0.53	7.5	0.84	130
WRTR 05/09/08	11.5	182	7.5	10.6	60	10	110	14	104	<0.50	<0.42	<0.036	0.28	<0.17	25	2.5	77
WRTR 07/18/08	2.5	281	7.7	7.2	98	1	160	20	53	<0.50	0.76	<0.036	0.2	0.03	12	1.3	110
WRTR 10/29/08	7.8	327	8	12.7	130	1	190	32	44	<0.25	<0.42	<0.036	0.15	0.35	7.7	0.54	140
WRTR 12/03/08	0.9	325	8.1	14.6	120	<1	200	26	33	<0.25	<0.42	<0.036	0.21	<0.17	7.2	0.41	140
QC1 05/09/08 (WRTR)					60	11	120	13	93	<0.50	<0.42	<0.036	0.27	<0.17	23.7	3.4	82
QC1 07/18/08 (CHTR)					97	2	150	20	75	<0.50	0.78	<0.036	0.21	0.026	11.9	3.1	110
QC1 10/29/08 (WRTR)					120	<1	210	33	46	<0.25	<0.42	<0.036	0.15	1.5	7.7	0.85	140
QC1 12/03/08 (WRTR)					120	<1	200	25	34	<0.25	<0.42	<0.036	0.21	<0.17	7.7	0.74	140

Location codes: CHZ-upstream of Chalk Hill dam and CTH Z Bridge; CHTR: Chalk Hill Dam Tailrace; WRTR: White Rapis Dam Tailrace



**CHALK HILL HYDROELECTRIC  
PROJECT FERC No. 2394-017**

**WHITE RAPIDS HYDROELECTRIC  
PROJECT FERC No. 2357-003**

**EXHIBIT C**

**LABORATORY RESULTS FOR SEDIMENT SAMPLES  
COLLECTED FROM CHALK HILL AND WHITE RAPIDS  
FLOWAGES**

**We Energies  
January 2009**



Pace Analytical Services, Inc.  
1700 Elm Street  
Minneapolis, MN 55414  
(612)607-1700

August 28, 2008

Client Services  
Pace Analytical Green Bay  
1241 Bellevue Street  
Suite 9  
Green Bay, WI 54302

RE: Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

sylvia.hunter@pacelabs.com  
Project Manager

Florida (Nelap) Certification #: E87605  
Illinois Certification #: 200011  
Iowa Certification #: 368  
Minnesota Certification #: 027-053-137  
Wisconsin Certification #: 999407970

Enclosures

**REPORT OF LABORATORY ANALYSIS**

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Pace Analytical Services, Inc.  
1700 Elm Street  
Minneapolis, MN 55414  
(612)607-1700

## SAMPLE SUMMARY

Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
407829001	CHALK HILL SEDIMENT	Solid	08/14/08 12:00	08/15/08 00:00
407829002	WHITE RAPIDS SEDIMENT	Solid	08/14/08 14:00	08/15/08 00:00

## REPORT OF LABORATORY ANALYSIS

Page 2 of 7

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Pace Analytical Services, Inc.  
1700 Elm Street  
Minneapolis, MN 55414  
(612)607-1700

### SAMPLE ANALYTE COUNT

Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

Lab ID	Sample ID	Method	Analysts	Analytes Reported
407829001	CHALK HILL SEDIMENT	EPA 1664 OG	MJS	1
407829002	WHITE RAPIDS SEDIMENT	EPA 1664 OG	MJS	1

### REPORT OF LABORATORY ANALYSIS

Page 3 of 7

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**ANALYTICAL RESULTS**

Project: 407829 WE ENERGIES  
 Pace Project No.: 1079129

Sample: CHALK HILL SEDIMENT Lab ID: 407829001 Collected: 08/14/08 12:00 Received: 08/15/08 00:00 Matrix: Solid  
 Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>1664 HEM, Oil and Grease</b>		Analytical Method: EPA 1664 OG Preparation Method: EPA 1664 OG							
Oil and Grease	100J	mg/kg	250	66.0	1	08/26/08 13:42	08/26/08 13:50		

Sample: WHITE RAPIDS SEDIMENT Lab ID: 407829002 Collected: 08/14/08 14:00 Received: 08/15/08 00:00 Matrix: Solid  
 Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>1664 HEM, Oil and Grease</b>		Analytical Method: EPA 1664 OG Preparation Method: EPA 1664 OG							
Oil and Grease	<66.0	mg/kg	250	66.0	1	08/26/08 13:42	08/26/08 13:50		



**QUALITY CONTROL DATA**

Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

QC Batch: WET/13780 Analysis Method: EPA 1664 OG  
QC Batch Method: EPA 1664 OG Analysis Description: 1664 HEM, Oil and Grease  
Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 517135 Matrix: Solid  
Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/kg	95.0J	250	08/26/08 13:50	

LABORATORY CONTROL SAMPLE: 517136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/kg	2000	1900	95	78-114	

MATRIX SPIKE SAMPLE: 517137

Parameter	Units	1078945001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/kg	25600	44100	68200	96	78-114	

SAMPLE DUPLICATE: 517138

Parameter	Units	1078945001 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/kg	25600	21400	18	18	



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1700 Elm Street  
Minneapolis, MN 55414  
(612)607-1700

## QUALIFIERS

Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.



Pace Analytical Services, Inc.  
1700 Elm Street  
Minneapolis, MN 55414  
(612)607-1700

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 407829 WE ENERGIES  
Pace Project No.: 1079129

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
407829001	CHALK HILL SEDIMENT	EPA 1664 OG	WET/13780	EPA 1664 OG	WET/13808
407829002	WHITE RAPIDS SEDIMENT	EPA 1664 OG	WET/13780	EPA 1664 OG	WET/13808





Pace Analytical Services, Inc.  
1241 Bellevue Street  
Green Bay, WI 54302  
(920)469-2436

October 02, 2008

David Kollakowsky  
We Energies  
PO Box 2179  
Room P129  
Milwaukee, WI 532012179

RE: Project: 1208640 HYDRO SEDIMENT  
Pace Project No.: 407829

Dear David Kollakowsky:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Brian Basten".

Brian Basten

brian.basten@pacelabs.com  
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**

Page 1 of 18

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Pace Analytical Services, Inc.  
1241 Bellevue Street  
Green Bay, WI 54302  
(920)469-2436

### CERTIFICATIONS

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

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#### Green Bay Certification IDs

Louisiana Certification #: 04168

Kentucky Certification #: 82

Wisconsin DATCP Certification #: 105-444

Wisconsin Certification #: 405132750

South Carolina Certification #: 83006001

Minnesota Certification #: 055-999-334

North Carolina Certification #: 503

North Dakota Certification #: R-150

New York Certification #: 11888

Illinois Certification #: 200050

Florida (NELAP) Certification #: E87948

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#### Green Bay Volatiles Certification IDs

Louisiana Certification #: 04169

Kentucky Certification #: 83

Wisconsin DATCP Certification #: 105-444

Wisconsin Certification #: 405132750

South Carolina Certification #: 83006001

Minnesota Certification #: 055-999-334

North Carolina Certification #: 503

North Dakota Certification #: R-200

New York Certification #: 11887

Illinois Certification #: 200051

Florida (NELAP) Certification #: E87951

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### REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

Lab ID	Sample ID	Matrix	Date Collected	Date Received
407829001	CHALK HILL SEDIMENT	Solid	08/14/08 12:00	08/15/08 13:10
407829002	WHITE RAPIDS SEDIMENT	Solid	08/14/08 14:00	08/15/08 13:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
407829001	CHALK HILL SEDIMENT	ASTM D2974-87	AG	1	PASI-G
		EPA 160.4	RRS	1	PASI-G
		EPA 351.2	DAW	1	PASI-G
		EPA 365.4	DAW	1	PASI-G
		EPA 6010	DLB	11	PASI-G
		EPA 7471	LMS	1	PASI-G
		EPA 8082	CAH	10	PASI-G
		EPA 9060 Modified	PK1	3	PASI-G
		407829002	WHITE RAPIDS SEDIMENT	ASTM D2974-87	AG
EPA 160.4	RRS			1	PASI-G
EPA 351.2	DAW			1	PASI-G
EPA 365.4	DAW			1	PASI-G
EPA 6010	DLB			11	PASI-G
EPA 7471	LMS			1	PASI-G
EPA 8082	CAH			10	PASI-G
EPA 9060 Modified	PK1			3	PASI-G

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

Sample: CHALK HILL SEDIMENT Lab ID: 407829001 Collected: 08/14/08 12:00 Received: 08/15/08 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	12674-11-2	
PCB-1221 (Aroclor 1221)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	11104-28-2	
PCB-1232 (Aroclor 1232)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	11141-16-5	
PCB-1242 (Aroclor 1242)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	53469-21-9	
PCB-1248 (Aroclor 1248)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	12672-29-6	
PCB-1254 (Aroclor 1254)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	11097-69-1	
PCB-1260 (Aroclor 1260)	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	11096-82-5	
PCB, Total	<21.7	ug/kg	171	21.7	1	08/19/08 06:46	08/19/08 21:31	1336-36-3	
Tetrachloro-m-xylene (S)	80	%	50-137		1	08/19/08 06:46	08/19/08 21:31	877-09-8	
Decachlorobiphenyl (S)	79	%	56-130		1	08/19/08 06:46	08/19/08 21:31	2051-24-3	
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.1	mg/kg	1.7	0.10	1	08/19/08 15:10	08/21/08 00:09	7440-38-2	
Barium	30.4	mg/kg	0.43	0.090	1	08/19/08 15:10	08/21/08 00:09	7440-39-3	
Cadmium	0.11J	mg/kg	0.43	0.011	1	08/19/08 15:10	08/21/08 00:09	7440-43-9	
Chromium	9.1	mg/kg	0.43	0.049	1	08/19/08 15:10	08/21/08 00:09	7440-47-3	
Copper	6.0	mg/kg	0.85	0.27	1	08/19/08 15:10	08/21/08 00:09	7440-50-8	M0,R1
Lead	4.1	mg/kg	0.85	0.058	1	08/19/08 15:10	08/21/08 00:09	7439-92-1	
Manganese	655	mg/kg	0.43	0.027	1	08/19/08 15:10	08/21/08 00:09	7439-96-5	P6
Nickel	5.5	mg/kg	0.85	0.038	1	08/19/08 15:10	08/21/08 00:09	7440-02-0	
Selenium	0.19J	mg/kg	1.7	0.12	1	08/19/08 15:10	08/21/08 00:09	7782-49-2	
Silver	0.030J	mg/kg	0.85	0.019	1	08/19/08 15:10	08/21/08 00:09	7440-22-4	
Zinc	25.2	mg/kg	3.4	0.37	1	08/19/08 15:10	08/21/08 00:09	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.081	mg/kg	0.017	0.0028	1	08/19/08 11:18	08/19/08 15:34	7439-97-6	B
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	41.5	%	0.10	0.10	1		08/16/08 08:18		
<b>160.4 Total Volatile Solids</b> Analytical Method: EPA 160.4									
Total Volatile Solids	5.7	% (w/w)	0.10	0.10	1		08/20/08 12:53		
<b>351.2 Total Kjeldahl Nitrogen</b> Analytical Method: EPA 351.2									
Nitrogen, Kjeldahl, Total	2820	mg/kg	155	45.0	1		08/22/08 12:02	7727-37-9	M0,Z2
<b>365.4 Total Phosphorus</b> Analytical Method: EPA 365.4									
Phosphorus	577	mg/kg	77.6	10.2	1		08/22/08 14:22	7723-14-0	
<b>Total Organic Carbon</b> Analytical Method: EPA 9060 Modified									
Total Organic Carbon	13100	mg/kg	4350	1220	1		08/19/08 11:19	7440-44-0	
Total Organic Carbon	13100	mg/kg	3700	1040	1		08/19/08 11:22	7440-44-0	
Mean Total Organic Carbon	13100	mg/kg	4000	1120	1		08/19/08 11:22	7440-44-0	

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## ANALYTICAL RESULTS

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

Sample: WHITE RAPIDS SEDIMENT Lab ID: 407829002 Collected: 08/14/08 14:00 Received: 08/15/08 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	11096-82-5	
PCB, Total	<38.4	ug/kg	303	38.4	1	08/19/08 06:47	08/19/08 21:56	1336-36-3	
Tetrachloro-m-xylene (S)	83	%	50-137		1	08/19/08 06:47	08/19/08 21:56	877-09-8	
Decachlorobiphenyl (S)	83	%	56-130		1	08/19/08 06:47	08/19/08 21:56	2051-24-3	
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	7.1	mg/kg	3.0	0.18	1	08/19/08 15:10	08/21/08 00:21	7440-38-2	
Barium	70.0	mg/kg	0.76	0.16	1	08/19/08 15:10	08/21/08 00:21	7440-39-3	
Cadmium	0.38J	mg/kg	0.76	0.019	1	08/19/08 15:10	08/21/08 00:21	7440-43-9	
Chromium	20.7	mg/kg	0.76	0.086	1	08/19/08 15:10	08/21/08 00:21	7440-47-3	
Copper	16.4	mg/kg	1.5	0.48	1	08/19/08 15:10	08/21/08 00:21	7440-50-8	
Lead	10.3	mg/kg	1.5	0.10	1	08/19/08 15:10	08/21/08 00:21	7439-92-1	
Manganese	1450	mg/kg	0.76	0.048	1	08/19/08 15:10	08/21/08 00:21	7439-96-5	
Nickel	11.2	mg/kg	1.5	0.067	1	08/19/08 15:10	08/21/08 00:21	7440-02-0	
Selenium	0.59J	mg/kg	3.0	0.22	1	08/19/08 15:10	08/21/08 00:21	7782-49-2	
Silver	<0.034	mg/kg	1.5	0.034	1	08/19/08 15:10	08/21/08 00:21	7440-22-4	
Zinc	68.1	mg/kg	6.1	0.66	1	08/19/08 15:10	08/21/08 00:21	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.34	mg/kg	0.030	0.0050	1	08/19/08 11:18	08/19/08 15:36	7439-97-6	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	67.0	%	0.10	0.10	1		08/16/08 08:18		
<b>160.4 Total Volatile Solids</b> Analytical Method: EPA 160.4									
Total Volatile Solids	13.6	% (w/w)	0.10	0.10	1		08/20/08 12:53		
<b>351.2 Total Kjeldahl Nitrogen</b> Analytical Method: EPA 351.2									
Nitrogen, Kjeldahl, Total	3170	mg/kg	209	60.6	1		09/03/08 09:27	7727-37-9	
<b>365.4 Total Phosphorus</b> Analytical Method: EPA 365.4									
Phosphorus	951	mg/kg	105	13.8	1		09/03/08 13:37	7723-14-0	
<b>Total Organic Carbon</b> Analytical Method: EPA 9060 Modified									
Total Organic Carbon	61400	mg/kg	11100	3110	1		08/19/08 11:33	7440-44-0	
Total Organic Carbon	57400	mg/kg	11100	3110	1		08/19/08 11:36	7440-44-0	
Mean Total Organic Carbon	59400	mg/kg	11100	3110	1		08/19/08 11:36	7440-44-0	

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**Pace Analytical Services, Inc.**  
 1241 Bellevue Street  
 Green Bay, WI 54302  
 (920)469-2436

**QUALITY CONTROL DATA**

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

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QC Batch:	PMST/1727	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	407829001, 407829002		

---

SAMPLE DUPLICATE: 65641

Parameter	Units	407808001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.7	15.6	6	10	

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## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WETA/2138 Analysis Method: EPA 9060 Modified  
 QC Batch Method: EPA 9060 Modified Analysis Description: 9060 TOC Average  
 Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 66166 Matrix: Solid

Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/kg	<70.0	250	08/19/08 08:10	

LABORATORY CONTROL SAMPLE: 66167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/kg	1000	940	94	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 66168 66169

Parameter	Units	9225179003 Result	MS		MSD		% Rec		% Rec Limits	Max		Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result	% Rec	% Rec		RPD	RPD	
Mean Total Organic Carbon	mg/kg	893	1250	1830	1250	1730	75	67	50-150	5	30	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 66170 66171

Parameter	Units	1078946001 Result	MS		MSD		% Rec		% Rec Limits	Max		Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result	% Rec	% Rec		RPD	RPD	
Mean Total Organic Carbon	mg/kg	60000	36400	67000	28600	79000	19	66	50-150	16	30	M0





## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: OEXT/2351

Analysis Method: EPA 8082

QC Batch Method: EPA 3541

Analysis Description: 8082 GCS PCB

Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 66415

Matrix: Solid

Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1221 (Aroclor 1221)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1232 (Aroclor 1232)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1242 (Aroclor 1242)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1248 (Aroclor 1248)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1254 (Aroclor 1254)	ug/kg	<12.7	100	08/19/08 17:13	
PCB-1260 (Aroclor 1260)	ug/kg	<12.7	100	08/19/08 17:13	
Decachlorobiphenyl (S)	%	85	56-130	08/19/08 17:13	
Tetrachloro-m-xylene (S)	%	82	50-137	08/19/08 17:13	

LABORATORY CONTROL SAMPLE: 66416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<12.7			
PCB-1221 (Aroclor 1221)	ug/kg		<12.7			
PCB-1232 (Aroclor 1232)	ug/kg		<12.7			
PCB-1242 (Aroclor 1242)	ug/kg		<12.7			
PCB-1248 (Aroclor 1248)	ug/kg		<12.7			
PCB-1254 (Aroclor 1254)	ug/kg		<12.7			
PCB-1260 (Aroclor 1260)	ug/kg	500	419	84	53-109	
Decachlorobiphenyl (S)	%			93	56-130	
Tetrachloro-m-xylene (S)	%			87	50-137	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 66417

66418

Parameter	Units	407808001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<117			<14.9	<14.9						21
PCB-1221 (Aroclor 1221)	ug/kg	<117			<14.9	<14.9						21
PCB-1232 (Aroclor 1232)	ug/kg	<117			<14.9	<14.9						21
PCB-1242 (Aroclor 1242)	ug/kg	<117			<14.9	<14.9						21
PCB-1248 (Aroclor 1248)	ug/kg	<117			<14.9	<14.9						21
PCB-1254 (Aroclor 1254)	ug/kg	<117			<14.9	<14.9						21
PCB-1260 (Aroclor 1260)	ug/kg	<117	586	586	454	434	77	74	38-110	4		21
Decachlorobiphenyl (S)	%						82	79	56-130			
Tetrachloro-m-xylene (S)	%						91	86	50-137			

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### QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WET/2058

Analysis Method: EPA 160.4

QC Batch Method: EPA 160.4

Analysis Description: 160.4 Total Volatile Solids

Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 66464

Matrix: Solid

Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Volatile Solids	% (w/w)	<0.10	0.10	08/20/08 12:55	

SAMPLE DUPLICATE: 66463

Parameter	Units	407829002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Volatile Solids	% (w/w)	13.6	14.5	7	20	



## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: MERP/1219

Analysis Method: EPA 7471

QC Batch Method: EPA 7471

Analysis Description: 7471 Mercury

Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 66514

Matrix: Solid

Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	0.0030J	0.010	08/19/08 15:24	

LABORATORY CONTROL SAMPLE: 66515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.25	0.26	103	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 66516

66517

Parameter	Units	407754007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.031	.27	.27	0.31	0.31	104	104	85-115	.7	20	



## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: MPRP/1652 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3050 Analysis Description: 6010 MET  
 Associated Lab Samples: 407829001, 407829002

METHOD BLANK: 66630 Matrix: Solid

Associated Lab Samples: 407829001, 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.059	1.0	08/21/08 00:01	
Barium	mg/kg	<0.053	0.25	08/21/08 00:01	
Cadmium	mg/kg	<0.0063	0.25	08/21/08 00:01	
Chromium	mg/kg	<0.028	0.25	08/21/08 00:01	
Copper	mg/kg	<0.16	0.50	08/21/08 00:01	
Lead	mg/kg	<0.034	0.50	08/21/08 00:01	
Manganese	mg/kg	0.029J	0.25	08/21/08 00:01	
Nickel	mg/kg	<0.022	0.50	08/21/08 00:01	
Selenium	mg/kg	<0.073	1.0	08/21/08 00:01	
Silver	mg/kg	<0.011	0.50	08/21/08 00:01	
Zinc	mg/kg	0.47J	2.0	08/21/08 00:01	

LABORATORY CONTROL SAMPLE: 66631

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	25	24.3	97	80-120	
Barium	mg/kg	25	24.5	98	80-120	
Cadmium	mg/kg	25	24.1	96	80-120	
Chromium	mg/kg	25	24.8	99	80-120	
Copper	mg/kg	25	24.2	97	80-120	
Lead	mg/kg	25	23.9	96	80-120	
Manganese	mg/kg	25	23.7	95	80-120	
Nickel	mg/kg	25	24.5	98	80-120	
Selenium	mg/kg	25	23.2	93	80-120	
Silver	mg/kg	12.5	11.6	93	80-120	
Zinc	mg/kg	25	24.1	97	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 66632 66633

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		407829001 Result	Spike Conc.	Spike Conc.	Result							Result
Arsenic	mg/kg	3.1	42.7	42.7	42.3	41.9	92	91	75-125	1	20	
Barium	mg/kg	30.4	42.7	42.7	66.8	67.1	85	86	75-125	.6	20	
Cadmium	mg/kg	0.11J	42.7	42.7	39.4	39.1	92	91	75-125	.8	20	
Chromium	mg/kg	9.1	42.7	42.7	50.1	47.0	96	89	75-125	6	20	
Copper	mg/kg	6.0	42.7	42.7	62.3	50.6	132	104	75-125	21	20	M0,R1
Lead	mg/kg	4.1	42.7	42.7	41.4	41.0	87	86	75-125	.9	20	
Manganese	mg/kg	655	42.7	42.7	609	571	-107	-198	75-125	7	20	P6
Nickel	mg/kg	5.5	42.7	42.7	50.9	45.4	106	94	75-125	11	20	
Selenium	mg/kg	0.19J	42.7	42.7	37.0	36.6	86	85	75-125	1	20	

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### QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

Parameter	Units	66632		66633		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		407829001 Result	MS Spike Conc.	MSD Spike Conc.									
Silver	mg/kg	0.030J	21.4	21.4	19.3	18.8	90	88	75-125	3	20		
Zinc	mg/kg	25.2	42.7	42.7	64.1	59.2	91	80	75-125	8	20		



## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WETA/2175 Analysis Method: EPA 351.2  
 QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN  
 Associated Lab Samples: 407829001

METHOD BLANK: 67690 Matrix: Solid

Associated Lab Samples: 407829001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	44.3J	100	08/22/08 11:08	

LABORATORY CONTROL SAMPLE: 67691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	500	558	112	81-121	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 67692 67693

Parameter	Units	407786008 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result						
Nitrogen, Kjeldahl, Total	mg/kg	866	447	447	1180	1370	70	112	79-129	15	20	M0

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 67694 67695

Parameter	Units	407829001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result						
Nitrogen, Kjeldahl, Total	mg/kg	2820	777	777	3220	3110	51	37	79-129	3	20	M0



## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WETA/2180

Analysis Method: EPA 365.4

QC Batch Method: EPA 365.4

Analysis Description: 365.4 Total Phosphorus

Associated Lab Samples: 407829001

METHOD BLANK: 68444

Matrix: Solid

Associated Lab Samples: 407829001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/kg	<6.6	50.0	08/22/08 13:58	

LABORATORY CONTROL SAMPLE: 68445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/kg	500	534	107	79-125	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 68446

68447

Parameter	Units	407786008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Phosphorus	mg/kg	284	447	447	775	786	110	112	54-139	1	20	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 68448

68449

Parameter	Units	407829001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Phosphorus	mg/kg	577	777	777	1370	1330	102	97	54-139	3	20	



### QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WETA/2243 Analysis Method: EPA 351.2  
 QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN  
 Associated Lab Samples: 407829002

METHOD BLANK: 71712 Matrix: Solid

Associated Lab Samples: 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	46.6J	100	09/03/08 09:25	

LABORATORY CONTROL SAMPLE: 71713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	500	497	99	81-121	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 71714 71715

Parameter	Units	1079596001		71715		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Kjeldahl, Total	mg/kg	4660	4660	60700	54800	196	69	79-129	10	20	P6





## QUALITY CONTROL DATA

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

QC Batch: WETA/2247

Analysis Method: EPA 365.4

QC Batch Method: EPA 365.4

Analysis Description: 365.4 Total Phosphorus

Associated Lab Samples: 407829002

METHOD BLANK: 72000

Matrix: Solid

Associated Lab Samples: 407829002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/kg	<6.6	50.0	09/03/08 13:35	

LABORATORY CONTROL SAMPLE: 72001

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/kg	500	550	110	79-125	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 72002

72003

Parameter	Units	1079596001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Phosphorus	mg/kg	1710	4660	4660	6830	6710	110	107	54-139	2	20



## QUALIFIERS

Project: 1208640 HYDRO SEDIMENT

Pace Project No.: 407829

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M0 Matrix spike recovery was outside laboratory control limits.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

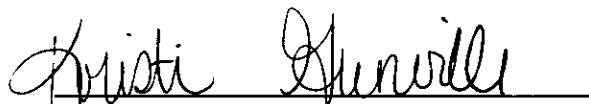
R1 RPD value was outside control limits.

Z2 Analyte present in the associated method blank above the detection limit.

## Certificate of Service

I hereby certify that I have this day served the foregoing document upon all entities specified in the order to issue license to be consulted on matters related to the Commission filing. Service was done pursuant to Rule 2010 of FERC's Rules of Practice and Procedure 18 CFR, Section 385.2010

Dated this day Friday, January 30, 2009

A handwritten signature in black ink, reading "Kristi Gunville", written over a horizontal line.

Kristi Gunville  
We Energies

Kristi Gunville  
We Energies  
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Iron Mountain, MI 49801  
(906) 779-2490

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