ORIGINAL

we energies

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Milwaukee, WI 53203
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February 17, 2004

Ms. Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

063 2106-1
064 2106-2

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

Dear Ms Sales:

Wisconsin Electric (WE) doing business as We Energies, is hereby filing one original and eight additional copies of the results of water quality, water chemistry, and sediment chemistry monitoring for the above mentioned Projects performed during 2003 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

Some instrument problems were encountered as part of the spot check measurement program. The problem was resolved by performing in-field titrations for dissolved oxygen.

The patterns in water chemistry analytical results among stations and across seasons were substantially similar with data filed in April, 1999 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.

The sediment collected from Chalk Hill flowage appeared to have higher concentrations of metals and nutrients relative to what was found in 1998. By contrast, the results of sediment chemistry analyses for the more downstream situated White Rapids flowage were very similar to what was found in 1998.

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

Please call me at 906-779-2547 if you have any questions regarding this matter.

Sincerely

William Rauscher

William Rauscher
Manager, Hydroelectric Operations

cc: Thomas Meronek, WDNR
Jessica Mistak, MDNR
Larry Thompson. USFWS
John Suppnick, MDEQ

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 Tuesday February 17, 2004

Annie Salmona
We Energies

Annie Salmona
We Energies
333 W. Everett Street
Milwaukee, WI 53203
(414) 221-4151

June-September, 2003

Spot Check Program for Monitoring Temperature and Dissolved Oxygen

Chalk Hill, FERC Project No. 2394-017

White Rapids, FERC Project No. 2357-003

Synopsis of Spot Check Monitoring Program:

With agreement from the MDEQ, the continuous monitoring requirement was struck and in its place, a "spot check" monitoring program was created for the subject two Projects. It is to occur during the period of June 1 through September 30th, every fifth year (starting in 2003) and is to continue through the end of the existing license period, pending additional modification. The temperature and DO measurements are to be made 3X/week. The measurements are to be taken at two locations: at the CTH Z bridge, upstream of CH and in the WR tailrace.

In April of 2003, Hydro operations along with input from environmental staff purchased a hand held dissolved oxygen/temperature meter to obtain the necessary readings The instrument purchased was a Corning Checkmate II dissolved oxygen/temperature meter.

The south hydro plant operator was trained in the use of the DO meter.

The operator was informed, with input from We Energies' Environmental Staff, where and how to obtain the readings. At Hwy Z (the upstream station) just west of the first support pylon (walking out from the Mich. side) on the downstream side. At White Rapids, park on a flat area above the river just south and west of the substation fenced area (Mich. Side) and upstream of the sign and road to the launch in the WR tailrace. The operator was also to note if there were any unusual conditions that might affect readings like high water , low water , rain event, oil sheen, dead and dying fish, crayfish... odors, etc.

Beginning the first week of June, 2003 the south operator began taking the readings at the designated areas. Attached to this synopsis is a spread sheet that contains the DO and temperature readings for the time frame of 6/1/03 through 9/30/03. The spread sheet contains a remark column that indicates how the readings were obtained.

Hydro operations began taking the readings using a hand held portable DO/temperature meter. The probe for this instrument failed on 3 occasions.

There was a two week period from 7/2/03 - 7/16/03 where several of the DO readings dropped below 5.0 mg/l, we believe these readings were in error and that the DO meter had begun to fail. The meter calibrated properly and appeared to be OK. After the probe failed, and while we were waiting for replacement parts, our backup means of obtaining the readings were done with a portable titration kit. The titration kit was supplied by Schneider Instruments and was a Winkler kit. The readings obtained with the portable titration kit were 1-2 mg/l higher than with the DO meter.

After the DO meter was repaired, two sets of readings were obtained with the meter and by titration, the readings by titration were a minimum of 1.2 mg/l higher than the DO meter.

Based on the reliability of the DO meter, the cost of failed parts and lack of confidence in the results obtained from the DO meter, it is recommended the DO readings in the future be obtained using the portable titration kit. Note, the readings for Chalk Hill and White Rapids are required every 5 years, the next set of readings will be in the year 2008.

The hard copies of the DO log sheets are filed in the Chalk Hill and White Rapids Hydro Engineering Library.

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
FEBRUARY 2004

DO & TEMPERATURE MEASUREMENT LOG SHEET

	"Z" BRIDGE UPSTREAM OF CHALK HILL			WHITE RAPIDS TAILRACE			
DATE	TIME	DO IN PPM	TEMP °C	TIME	DO IN PPM	TEMP °C	REMARKS
6/2/2003	1135	7.30	17.7	1210	7.07	17.3	Readings with DO Meter
6/4/2003	1645	6.06	19.7	1616	5.69	20.2	Readings with DO Meter
6/6/2003	1115	5.85	18.2	1405	5.17	19.1	Readings with DO Meter
6/9/2003	1710	6.00	19.3	1641	5.19	19.7	Readings with DO Meter
6/11/2003	828	5.87	15.1	1250	5.94	17.3	Readings with DO Meter
6/17/2003	1440	6.99	22.2	1400	6.82	21.7	Readings with DO Meter
6/18/2003	842	5.32	19.8	1350	8.00	23.9	Readings with DO Meter
6/20/2003	910	6.01	18.3	1240	7.90	22.7	Readings with DO Meter
6/23/2003	1358	8.89	24.9	1712	8.61	25.4	Readings with DO Meter
6/25/2003	823	7.02	23.6	1308	7.34	26.4	Readings with DO Meter
6/27/2003	1425	8.43	22.6	1155	7.72	24.7	Readings with DO Meter
6/30/2003	1220	5.37	22.0	1532	6.37	23.9	Readings with DO Meter
7/2/2003	810	4.94	26.6	1508	5.61	23.1	DO Meter Calibrating Properly; Probe Begin. to Fail
7/4/2003	1134	4.90	25.5	945	5.16	24.2	DO Meter Calibrating Properly; Probe Begin. to Fail
7/7/2003	1337	5.57	26.1	1115	7.20	25.9	DO Meter Calibrating Properly; Probe Begin. to Fail
7/14/2003	1620	4.62	24.5	1400	6.32	22.5	DO Meter Calibrating Properly; Probe Begin. to Fail
7/16/2003	903	4.66	23.5	1509	4.67	26.2	DO Meter Calibrating Properly; Probe Begin. to Fail
7/18/2003	952	5.10	24.1	1244	5.09	27.4	DO Meter Calibrating Properly; Probe Begin. to Fail
7/24/2003	1010	7.40	21.6	1050	7.80	23.5	DO Meter Failure Began Using Titration
7/25/2003	1430	8.10	23.9	1045	7.70	23.1	DO Readings by Titration
7/28/2003	1140	8.00	22.4	1335	8.00	24.1	DO Readings by Titration
7/30/2003	1233	7.28	26.1	1521	5.79	23.6	DO Readings by Titration
8/1/2003	912	7.80	27.2	1230	7.60	24.0	DO Readings by Titration & DO Meter Titration listed
8/4/2003	1337	8.00	25.3	1245	8.00	27.6	DO Readings by Titration & DO Meter Titration listed
8/6/2003	859	8.40	23.1	1238	8.20	24.8	DO Readings by Titration
8/11/2003	1321	8.13	24.4	1246	7.57	24.7	Readings with DO Meter
8/13/2003	1414	9.00	25.4	1350	8.60	24.8	Readings with DO Meter
8/15/2003	1245	8.20	25.1	1000	7.80	24.5	Readings with DO Meter
8/20/2003	819	7.30	24.2	1400	8.00	27.3	Readings with DO Meter

	"Z" BRIDGE UPSTREAM OF CHALK HILL			WHITE RAPIDS TAILRACE			
DATE	TIME	DO IN PPM	TEMP °C	TIME	DO IN PPM	TEMP °C	REMARKS
8/25/2003	806	6.14	23.9	1250	6.00	27.6	Readings with DO Meter
8/27/2003	909	6.14	22.4	1402	7.04	26.3	Readings with DO Meter
8/29/2003	905	6.37	21.9	1400	6.62	25.2	Readings with DO Meter
9/1/2003	810	6.54	23.8	1200	6.41	23.1	Readings with DO Meter
9/3/2003	1453	6.43	23.1	1423	7.01	23.8	Readings with DO Meter
9/5/2003	1305	7.69	21.0	1106	7.51	20.9	Readings with DO Meter
9/8/2003	1324	7.90	24.2	1253	7.09	25.4	Readings with DO Meter
9/10/2003	1420	7.79	26.1	1358	7.59	24.8	Readings with DO Meter
9/12/2003	1417	7.89	22.0	1355	7.24	22.3	Readings with DO Meter
9/15/2003	1256	7.87	19.5	1037	7.19	19.1	Readings with DO Meter
9/17/2003	1351	8.06	20.9	1319	7.25	20.9	Readings with DO Meter
9/22/2003	1440	8.37	18.9	1410	7.92	18.7	Readings with DO Meter
9/24/2003	1430	8.20	16.8	1400	8.40	17.1	Readings with DO Meter
9/26/2003	1348	9.20	18.0	1125	9.00	17.6	DO Readings by Titration
9/29/2003	1525	10.10	15.4	1440	9.80	15.8	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
FEBRUARY 2004

Table B- 1 : Water Chemistry Data for Chalk Hill, White Rapids Projects- May 2003 Sampling

Parameter	Units	Chalk Hill Highway Z	Chalk Hill Tailrace	White Rapids Tailrace	Replicate
Field Temperature	Degree C	9.3	10	11	-
Field Conductivity	umhos	163	151	157	-
Disssolved Oxygen Field	mg/l	11.7	11.3	11.7	-
Field pH	Units	7.8	7.8	7.9	-
Total Suspended Solids	ppm	3	5	22	3
Total Dissolved Solids	ppm	104	96	88	76
Alkalinity as CaCO3	ppm	70	61	65	70
Sulfate	ppm	10	9.8	10	10
Color	color units	100	100	110	110
Ammonia Nitrogen	ppm	0.29	<0.11	<0.11	<0.11
Total K-N	ppm	<0.29	0.46	0.43	0.34
Nitrite as N	ppm	<0.018	<0.018	<0.018	<0.018
Nitrate as N	ppm	0.39	0.4	0.39	0.39
Nitrate Nitrite as N	ppm	0.22	0.23	0.23	0.22
Total Phosphorus	ppm	0.13	0.14	0.19	0.16
Total Organic - C	ppm	8.4	7.2	10	9.9
Chlorophyll a	ug/l	0.003	0.0047	0.0087	0.0029
Dissolved Calcium	ppm	19	20	24	18
Dissolved Magnesium	ppm	8.2	8.5	12.0	8.2
Total Hardness as CaCO3	ppm	81	85	110	79

Sampling on May 20, 2003

Table B-2 : Water Chemistry Data for Chalk Hill, White Rapids Projects- July 2003 Sampling

Parameter	Units	Chalk Hill Highway Z	Chalk Hill Tailrace	White Rapids Tailrace	Replicate
Field Temperature	Degree C	24.5	24.1	24.6	-
Field Conductivity	umhos	288	298	297	-
Disssolved Oxygen Field	mg/l	9.0	7.1	8.1	-
Field pH	Units	8.2	7.9	8.1	-
Total Suspended Solids	ppm	<2	3	3	3
Total Dissolved Solids	ppm	160	168	170	168
Alkalinity as CaCO3	ppm	110	110	110	110
Sulfate	ppm	20	24	23	23
Color	color units	70	99	110	110
Ammonia Nitrogen	ppm	<0.11	<0.11	<0.11	0.39
Total K-N	ppm	0.74	0.78	0.85	0.96
Nitrite as N	ppm	<0.018	<0.018	<0.018	<0.018
Nitrate as N	ppm	<0.058	<0.058	<0.058	<0.058
Nitrate Nitrite as N	ppm	<0.058	<0.058	<0.058	<0.058
Total Phosphorus	ppm	<0.12	<0.12	<0.12	<0.12
Total Organic - C	ppm	7.2	7.7	7.8	7.6
Chlorophyll a	ug/l	1.7	5.6	8.9	9
Dissolved Calcium	ppm	28	27	27	27
Dissolved Magnesium	ppm	12	12	12	12
Total Hardness as CaCO3	ppm	120	120	120	120

Sampling on July 17, 2003

Table B-3: Water Chemistry Data for Chalk Hill, White Rapids Projects- October 2003 Sampling

Parameter	Units	Chalk Hill Highway Z	Chalk Hill Tailrace	White Rapids Tailrace	Replicate
Field Temperature	Degree C	9.7	10.1	10.7	-
Field Conductivity	umhos	301	288	291	-
Disssolved Oxygen Field	mg/l	11.0	11.3	11.3	-
Field pH	Units	8.2	8.2	8.2	-
Total Suspended Solids	ppm	<2	2	3	<2
Total Dissolved Solids	ppm	152	152	154	168
Alkalinity as CaCO3	ppm	120	120	120	120
Sulfate	ppm	20	18	19	20
Color	color units	61	63	64	60
Ammonia Nitrogen	ppm	<0.11	<0.11	<0.11	<0.11
Total K-N	ppm	0.67	0.62	0.74	0.62
Nitrite as N	ppm	<0.018	<0.018	<0.018	<0.018
Nitrate as N	ppm	<0.058	<0.058	<0.058	<0.058
Nitrate Nitrite as N	ppm	<0.047	0.054	<0.047	<0.047
Total Phosphorus	ppm	0.22	<0.12	<0.12	<0.12
Total Organic - C	ppm	7.0	6.6	6.0	6.7
Chlorophyll a	ug/l	1.4	2.0	1.4	1.8
Dissolved Calcium	ppm	31	30	29	30
Dissolved Magnesium	ppm	15	14	14	14
Total Hardness as CaCO3	ppm	140	130	130	130

Sampling on October 3, 2003

Table B- 4: Water Chemistry Data for Chalk Hill, White Rapids Projects- December 2003 Sampling

Parameter	Units	Chalk Hill Highway Z	Chalk Hill Tailrace	White Rapids Tailrace	Replicate
Field Temperature	Degree C	0.1	0.2	0.3	-
Field Conductivity	umhos	290	298	294	-
Disssolved Oxygen Field	mg/l	14.4	14.4	14.4	-
Field pH	Units	7.5	7.7	7.7	-
Total Suspended Solids	ppm	2	30	<2	<2
Total Dissolved Solids	ppm	160	168	166	152
Alkalinity as CaCO3	ppm	110	120	110	110
Sulfate	ppm	26	27	25	25
Color	color units	48	60	52	66
Ammonia Nitrogen	ppm	<0.11	<0.11	<0.11	<0.11
Total K-N	ppm	0.86	0.88	0.88	0.99
Nitrite as N	ppm	<0.038	<0.038	<0.038	<0.038
Nitrate as N	ppm	0.55	0.55	0.55	0.55
Nitrate Nitrite as N	ppm	0.55	0.55	0.55	0.55
Total Phosphorus	ppm	<0.12	<0.12	<0.12	< 0.12
Total Organic - C	ppm	9.4	10.0	9.0	8.0
Chlorophyll a	ug/l	2.4	1.5	0.97	0.99
Dissolved Calcium	ppm	30	32	32	31
Dissolved Magnesium	ppm	14	15	15	14
Total Hardness as CaCO3	ppm	130	140	140	140

Sampling on December 17, 2003

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
FEBRUARY 2004

EN CHEM INC.

Corporate Office & Laboratory
1241 Bellevue Street, Suite 9, Green Bay, WI 54302
920-469-2436, 800-7-ENCHEM, Fax: 920-469-8827
www.enchem.com

Analytical Report Number: 838226

Client : WE ENERGIES
Project Name : HYDRO SEDIMENT
Project Number : 1208640

Lab Sample Number	Field ID	Matrix	Collection Date
838226-001	CH SEDIMENT	SLUDG	08/28/03
838226-002	WR SEDIMENT	SLUDG	08/28/03

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 comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. Reported results shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested.

Approval Signature

Date 9/25/03

En Chem Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

Analytical Report Number: 838226

Client : WE ENERGIES
Project Name : HYDRO SEDIMENT
Project Number : 1208640
Field ID : CH SEDIMENT

Matrix Type : SLUDGE
Collection Date : 08/28/03
Report Date : 09/25/03
Lab Sample Number : 838226-001

INORGANICS

Test		Result	EQL	Dilution	Units	Code	Analysis Date	Prep Method	Analysis Method
Arsenic		8.2	0.99	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Barium		62	0.99	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Cadmium		0.51	0.33	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Chromium		27	0.99	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Copper		20	3.3	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Lead		13	0.82	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Manganese		1100	0.66	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Mercury		0.29	0.033	1	mg/Kg		09/09/03	SW846 7471A	SW846 7471A
Nickel		17	0.99	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Selenium	<	3.3	3.3	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Silver	<	0.99	0.99	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Zinc		93	9.9	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Acid Volatile Sulfides		6.7	4.3	10	umole/g		09/09/03	EPA DR 1629	EPA DR 1629
Nitrogen, Total Kjeldahl		3300	330	1	mg/kg		09/16/03	EPA 351.2	EPA 351.2
Oil & Grease, Total Recoverable		1500	700	1	mg/kg		09/19/03	EPA 1664A	EPA 1664A
Percent Solids		30.4	—	1	%		08/29/03	SM 2540G M	SM 2540G M
Phosphorus		650	160	1	mg/kg	A	09/16/03	EPA 365.4	EPA 365.1
TOC as NPOC		94000	33000	1	mg/kg		09/04/03	SW846 M9060	SW846 M9060
Total Solids		340000	82	1	mg/Kg		09/04/03	EPA 160.3	EPA 160.3
Total Volatile Solids		14	—	1	%		09/04/03	EPA 160.4	EPA 160.4

PCB

Prep Date: 09/09/03

Analyte		Result	EQL	Dilution	Units	Code	Analysis Date	Prep Method	Analysis Method
Aroclor 1016	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1221	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1232	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1242	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1248	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1254	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1260	<	160	160	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Tetrachloro-m-xylene		74	—	1	%Recov		09/10/03	SW846 3550B	SW846 8082
Decachlorobiphenyl		73	—	1	%Recov		09/10/03	SW846 3550B	SW846 8082

All soil results are reported on a dry weight basis unless otherwise noted.

En Chem Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

Analytical Report Number: 838226

Client : WE ENERGIES
Project Name : HYDRO SEDIMENT
Project Number : 1208640
Field ID : WR SEDIMENT

Matrix Type : SLUDGE
Collection Date : 08/28/03
Report Date : 09/25/03
Lab Sample Number : 838226-002

INORGANICS

Test		Result	EQL	Dilution	Units	Code	Analysis Date	Prep Method	Analysis Method
Arsenic		6.7	0.58	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Barium		48	0.58	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Cadmium		0.30	0.19	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Chromium		17	0.58	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Copper		13	1.9	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Lead		7.4	0.48	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Manganese		1100	0.38	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Mercury		0.14	0.019	1	mg/Kg		09/09/03	SW846 7471A	SW846 7471A
Nickel		10	0.58	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Selenium	<	1.9	1.9	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Silver	<	0.58	0.58	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Zinc		62	5.8	5	mg/Kg		09/09/03	SW846 3050B	SW846 6020
Acid Volatile Sulfides	<	2.5	2.5	10	umole/g		09/09/03	EPA DR 1629	EPA DR 1629
Nitrogen, Total Kjeldahl		2100	190	1	mg/kg		09/16/03	EPA 351.2	EPA 351.2
Oil & Grease, Total Recoverable		480	300	1	mg/kg		09/19/03	EPA 1664A	EPA 1664A
Percent Solids		51.7	—	1	%		08/29/03	SM 2540G M	SM 2540G M
Phosphorus		550	97	1	mg/kg	A	09/16/03	EPA 365.4	EPA 365.1
TOC as NPOC		110000	67000	1	mg/kg		09/04/03	SW846 M9060	SW846 M9060
Total Solids		440000	64	1	mg/Kg		09/04/03	EPA 160.3	EPA 160.3
Total Volatile Solids		8.2	—	1	%		09/04/03	EPA 160.4	EPA 160.4

PCB

Prep Date: 09/09/03

Analyte		Result	EQL	Dilution	Units	Code	Analysis Date	Prep Method	Analysis Method
Aroclor 1016	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1221	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1232	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1242	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1248	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1254	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Aroclor 1260	<	110	110	1	ug/kg		09/10/03	SW846 3550B	SW846 8082
Tetrachloro-m-xylene		75	—	1	%Recov		09/10/03	SW846 3550B	SW846 8082
Decachlorobiphenyl		73	—	1	%Recov		09/10/03	SW846 3550B	SW846 8082

All soil results are reported on a dry weight basis unless otherwise noted.

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Lab Number	TestGroupID	Field ID	Comment
838226	W-TPO4-S	All Samples	A - Analyte is detected in the method blank at a concentration of -15 mg/kg for samples 001 and 002.

Qualifier Codes

Flag	Applies To	Explanation
A	Inorganic	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	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	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	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	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.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	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.
F	Organic	Surrogate results outside control criteria.
H	All	Preservation, extraction or analysis performed past holding time.
J	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
J	Organic	Concentration detected is greater than the method detection limit but less than the reporting limit.
K	Inorganic	*Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.*
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
N	All	Spiked sample recovery not within control limits.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	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	Organic	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	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	*Precision not within control limits.*
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	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	Inorganic	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	Inorganic	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	Inorganic	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.

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Analysis Summary by Laboratory

1241 Bellevue Street
Green Bay, WI 54302

1090 Kennedy Avenue
Kimberly, WI 54136

Test Group Name	838226-001	838226-002
ACID VOLATILE SULFIDES	K	K
ARSENIC	G	G
BARIUM	G	G
CADMIUM	G	G
CHROMIUM	G	G
COPPER	G	G
LEAD	G	G
MANGANESE	G	G
MERCURY	G	G
NICKEL	G	G
NITROGEN, TOTAL KJELDAHL	K	K
OIL & GREASE, TOT RECOVER	S	S
PCB	K	K
PERCENT SOLIDS	G	G
PHOSPHORUS	K	K
SELENIUM	G	G
SILVER	G	G
TOC AS NPOC	K	K
TOTAL SOLIDS	G	G
TOTAL VOLATILE SOLIDS	G	G
ZINC	G	G

Michigan Certification	
G = En Chem Green Bay	Not Applicable
K = En Chem Kimberly	Not Applicable
S = Subcontracted Analysis	

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Documentation of Subcontracted Analysis

Listed below are labs used for subcontracted analysis and their associated State Certification numbers.

Analyst Code	Sub-laboratory	Wisconsin Cert #	Minnesota Cert #	Phone
*BD	Badger Labs	445023150	NA	920-729-1100
*BR	Braun Intertec Corp	999462640	027-053-117	800-279-6100
*CT	CT Laboratories	157066030	07-053-117	608-356-2760
*DL	Daily Lab	NA	NA	309-691-4513
*ELA	E-LAB	NA	NA	616-399-6070
*ECS	ECCS	113289110		608-221-8700
*EHL	Environmental Health Labs	999766900	018-999-338	574-233-4777
*ERA	ERA Labs	999446800	027-137-152	218-727-6380
*NL	Northern Lake Service	721026460	NA	715-478-2777
*NSA	North Shore Analytical	399017190	027-137-389	218-729-4658
*PAC	PACE	999407970	027-053-137	612-607-1700
*SF	S-F Analytical	241249360	NA	414-475-6700
*SLH	State Lab of Hygiene	113133790	NA	800-442-4618
*STC	STL - Chicago	999580010	017-999-101	708-534-5200
*STS	STL - Savannah	999819810	NA	912-354-7858
*SUB	Any lab not on this sheet	NA	NA	NA
*TA	Test America	128053530	055-999-366	800-833-7036
*CQM	CQM	NA	NA	920-465-3911
*CTE	CT&E Environmental Services	999959180	NA	231-843-1877
*GLA	Great Lakes Analytical	99991716	NA	847-808-7766
*USF	US Filter/Enviroscan	737053130	055-999-302	715-359-7226

En Chem, Inc. Cooler Receipt Log

Batch No. 838226

Project Name or ID Hydro Sediment No. of Coolers: 1 Temps: 4.0°C

A. Receipt Phase: Date cooler was opened: 8/29/03 By: KP

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: 8/29/03 By: KP

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: Completed pH check on preserved samples.. *(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*	YES	NO	(NA)
5: Do samples have correct chemical preservation? *(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*	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. AMV	(YES)	NO	NA

Short Hold-time tests:

48 Hours or less	7 days
Coliform (6 hrs)	Flashpoint
Hexavalent Chromium (24 Hrs)	TSS
BOD	Total Solids
Nitrite or Nitrate	TDS
Low Level Mercury	Sulfide
Ortho Phosphorus	Free Liquids
Turbidity	Total Volatile Solids
Surfactants	Aqueous Extractable Organics- ALL
Sulfite	Unpreserved VOC's
En Core Preservation	Ash
Color	

Footnotes
1 Notify proper lab group immediately.
2 Complete nonconformance memo.

Rev. 4/11/03, Attachment to 1-REC-5.
Subject to QA Audit.

Reviewed by/date JJT 9/4/03

p:/everyone/forms/samplereceiving/crl.doc

AMV

EN CHEM INC.

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CHAIN OF CUSTODY

98397

(Please Print Legibly)

Company Name: WE ENERGIES
Branch or Location: LABORATORY SERVICES
Project Contact: David Kollakowsky
Telephone: 414-221-2835
Project Number: 1208640
Project Name: HYDRO SEDIMENT
Project State: MI
Sampled By (Print): JN

Page 1 of 1
P.O. #: 4700000351
Quote #:
Mail Report To: David Kollakowsky
Company: WE ENERGIES
Address: 333 W. EVERETT St. MILWAUKEE, WI 53203
Invoice To: KEN SCHROEDER
Company:
Address:
Mail Invoice To:

*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

FILTERED? (YES/NO)
PRESERVATION (CODE)*

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

ANALYSES REQUESTED: Total As, Ba, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, Ag, Zn; Acid Volatile Sulfides; TKN, Total Phosphorus; HEM 1664; Total Solids, Total Volatile Solids; TOC; PCB's; TOTAL # OF BOTTLES SENT

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Total metals	Acid Volatile Sulfides	TKN, Total Phosphorus	HEM 1664	Total Solids, TVS	TOC	PCB's	TOTAL # OF BOTTLES SENT	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
001	CH SEDIMENT	8/28	1530	Sl								2		2-1L Glass
002	WR SEDIMENT	8/28	1700	Sl								2		↓

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
John Huller	8/29/03 0935	[signature]	8/29/03 0935

En Chem Project No.: 838226
Sample Receipt Temp.: [illegible] 4.0°C
Sample Receipt pH (Wet/Metals): NA
Cooler Custody Seal: Present / Not Present (circled: Not Present)
Intact / Not Intact

Version 2.0 1/02