ASHLAND/NSP LAKEFRONT SITE
APRIL 15, 2008 PROGRESS REPORT (No. 53)
WDNR BRRTS #02-02-00013
CERCLA Docket No. V-W-04-C-764
USEPA ID# WISFN057952

This is the fifty-third progress report prepared in accordance with the Administrative Order on Consent (AOC) for the Ashland/NSP Lakefront Site, effective November 14, 2003. This report covers activities completed during March 2008. It is intended to meet the requirements described in Task 8 of the Statement of Work appended to the AOC.

Field Activities Completed

Free-Product Recovery System

The free-product recovery system operated continuously from March 7th until April 2nd. However, free-product was only recovered between March 7th and 10th, and between March 28th and April 2nd. As described in the March (No. 52) report, system monitoring on the 10th found nearly 204 gallons of product settled at the base of the oil-water separator. This material was transferred to the storage tank on that date, and all other system components continued to operate normally throughout the month. Only an additional 8 gallons was collected in the tank between March 28th and April 2nd. Although this 212 gallon volume yields a constant rate of more than 8 gallons/day during the 26-day period, the data shows that since early December the recovery rate has averaged approximately 3.4 gallons/day.[1]

The total discharge to the sanitary sewer during this same 26-day period was 22,600 gallons. This total includes 14,464 gallons collected from EW-4 between March 7th and March 28th (the meter battery had failed sometime before the later date, and not yet replaced by April 2nd). Incremental measurements for the EW-4 extraction well included 962 gallons between March 7th and 10th; 9,755 gallons between the 10th and 20th, and 3,747 gallons between the 20th and 28th. The rapid increase after March 10th is the likely cause of the absence in free-product recovery after this date. This increase at EW-4, which corresponds to the time of increasing ambient temperatures, likely overwhelmed the combined system recovery from the deeper extraction wells screened in the Copper Falls Aquifer. As the flow approached normal levels later in the month, free-product recovery was again measurable.

March water quality data confirms that the liquid phase treatment system continues to operate properly. The concentration of total VOCs measured at the influent was 6,165 µg/l, and the total at the effluent was 0.34 µg/l. The quarterly samples for PAHs yielded similar results.[2] The concentration of total PAHs measured at the influent was 4,649 µg/l, compared to 3.32 µg/l measured at the effluent.

Air monitoring samples were unintentionally not collected during March.

The summary of system monitoring data is included in Tables 1 – 4. Lab analysis reports for the system monitoring samples are included in the Appendix.

[1] It was incorrectly reported in the March (No. 52) report that the average recovery rate between December 6, 2007 and March 7. 2008 was 2.6 gal/day. This correct rate during this period was about 4.6 gal/day.
[2] PAHs are only collected during March, June, September and December

Coleman Engineering was notified by NSPW that employees had observed a water/free-product mixture slowly discharging from two floor drains in the car barn area (the southwest corner) of the service center, near Prentice Avenue, on April 2nd. Coleman inspected the site the following day, and found the water levels in both drains at floor level. Both drains were confirmed by on-site records to be open sumps with no outlets (located east of the former ravine and the former MGP holders). The mixture, reported to have the odor of transmission fluid, was bailed from each drain and containerized, then discharged to the treatment system. After bailing the mixture, water levels stabilized in the drains at 7-inches and 10-inches below the floor level. Coleman concluded that the incursion was caused by the rise in the spring water table below the floor, and that the product was caused by several decades of accumulation of small drips from vehicle maintenance.

RI Activities

All RI field activities were completed during November 2005.

SITE Program Activities

The SITE injection program was completed on February 2, 2007 and all equipment demobilized from the Ashland site the week of February 5, 2007.

USEPA's final report on the demonstration is pending.

Treatability Studies

NSPW submitted the draft Bench Scale Air Emissions Treatability Study report to USEPA for review on August 16, 2007. The Cap Flux Test Treatability Study report was submitted on September 18, 2007. The third and final treatability study report, the Multiphase Flow and Consolidation Testing Report, was submitted for review on October 26, 2007. NSPW subsequently submitted Addendum One to the Cap Flux Test Treatability Study report, the Extended Duration Column Test report, on January 9, 2008.

<u>Reporting Activities Completed</u>

Final RI Report

USEPA provided a formal RI Report approval letter to NSPW on February 5, 2008.

Draft Comparative Analysis of Alternatives Memorandum/Draft FS

NSPW submitted the revised draft Comparative Analysis of Alternatives Memorandum (CAA) to USEPA on October 5, 2007; the draft Feasibility Study (FS) was submitted on October 29, 2007.

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As mentioned in the March (No. 52) report, representatives from NSPW, USEPA and WDNR met on March 3rd to discuss the Agencies' review comments to the draft FS. The representatives subsequently held conference calls to discuss the final format for the revised draft FS on March 17th, March 28th and April 3rd. The revised format will include a new chapter that integrates the remedial alternatives for the upland and sediment affected areas in a series of nine scenarios. The purpose of this integrated approach is to provide the National Remedy Review board a range of combined alternatives from which a proposed remedial plan will be developed.

Field Activities Planned

Coleman Engineering continues to monitor the free-product removal system on a weekly basis during April.

Reporting Activities Planned

NSPW and the Agencies confirmed during the April 3rd conference call that the submittal date for the revised draft FS will be May 15, 2008.

The next monthly report will also be submitted on May 15, 2008.

Attachments:

Table 1 - Remediation System Water Quality Monitoring Results
Table 2 - Summary of Free-Product and Groundwater Volume Removed
Table 3 – Remediation System – Air Treatment Summary
Table 4 – Remediation System – Water Treatment Summary

Appendix – Interim Treatment System - Laboratory Reporting Forms

Table 1
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin

March 2008

Analyte	Units	Influent	Precarbon	Effluent	Trip Blank	[1]POTW	Method	[3]Frequency
VOCs								
1,1,1,2-TETRACHLOROETHANE	ug/L	<54	<0.22	<0.22	<0.22	--	EPA 8260	Monthly
1,1,1-TRICHLOROETHANE	ug/L	<45	<0.18	<0.18	<0.18	--	EPA 8260	Monthly
1,1,2,2-TETRACHLOROETHANE	ug/L	<45	<0.18	<0.18	<0.18	--	EPA 8260	Monthly
1,1,2-TRICHLOROETHANE	ug/L	<41	<0.16	<0.16	<0.16	--	EPA 8260	Monthly
1,1-DICHLOROETHANE	ug/L	<53	<0.21	<0.21	<0.21	--	EPA 8260	Monthly
1,1-DICHLOROETHENE	ug/L	<60	<0.24	<0.24	<0.24	--	EPA 8260	Monthly
1,1-DICHLOROPROPENE	ug/L	<45	<0.18	<0.18	<0.18	--	EPA 8260	Monthly
1,2,3-TRICHLOROBENZENE	ug/L	<49	<0.2	<0.2	<0.2	--	EPA 8260	Monthly
1,2,3-TRICHLOROPROPANE	ug/L	<51	<0.2	<0.2	<0.2	--	EPA 8260	Monthly
1,2,4-TRICHLOROBENZENE	ug/L	<48	<0.19	<0.19	<0.19	--	EPA 8260	Monthly
1,2,4-TRIMETHYLBENZENE	ug/L	**75J**	**2**	<0.22	<0.22	--	EPA 8260	Monthly
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	<44	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
1,2-DIBROMOETHANE	ug/L	<37	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
1,2-DICHLOROBENZENE	ug/L	<55	<0.22	<0.22	<0.22	--	EPA 8260	Monthly
1,2-DICHLOROETHANE	ug/L	<39	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
1,2-DICHLOROPROPANE	ug/L	<56	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
1,3,5-TRIMETHYLBENZENE	ug/L	<61	**0.84J**	<0.24	<0.24	--	EPA 8260	Monthly
1,3-DICHLOROBENZENE	ug/L	<54	<0.21	<0.21	<0.21	--	EPA 8260	Monthly
1,3-DICHLOROPROPANE	ug/L	<42	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
1,4-DICHLOROBENZENE	ug/L	<46	<0.18	<0.18	<0.18	--	EPA 8260	Monthly
2,2-DICHLOROPROPANE	ug/L	<42	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
2-CHLOROTOLUENE	ug/L	<58	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
4-CHLOROTOLUENE	ug/L	<60	<0.24	<0.24	<0.24	--	EPA 8260	Monthly
BENZENE	ug/L	**1700**	**2.9**	<0.21	<0.21	--	EPA 8260	Monthly
BROMOBENZENE	ug/L	<61	<0.24	<0.24	<0.24	--	EPA 8260	Monthly
BROMOCHLOROMETHANE	ug/L	<46	<0.18	<0.18	<0.18	--	EPA 8260	Monthly
BROMODICHLOROMETHANE	ug/L	<43	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
BROMOFORM	ug/L	<35	<0.14	<0.14	<0.14	--	EPA 8260	Monthly
BROMOMETHANE	ug/L	<28	<0.11	<0.11	<0.11	--	EPA 8260	Monthly
CARBON TETRACHLORIDE	ug/L	<54	<0.22	<0.22	<0.22	--	EPA 8260	Monthly
CHLOROBENZENE	ug/L	<57	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
CHLOROETHANE	ug/L	<220	<0.88	<0.88	<0.88	--	EPA 8260	Monthly
CHLOROFORM	ug/L	<50	<0.2	**0.34J**	<0.2	--	EPA 8260	Monthly
CHLOROMETHANE	ug/L	<37	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
CIS-1,2-DICHLOROETHYLENE	ug/L	<52	<0.21	<0.21	<0.21	--	EPA 8260	Monthly
CIS-1,3-DICHLOROPROPENE	ug/L	<38	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
CYMENE	ug/L	<58	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
DIBROMOCHLOROMETHANE	ug/L	<42	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
DIBROMOMETHANE	ug/L	<43	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
DICHLORODIFLUOROMETHANE	ug/L	<36	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
ETHYLBENZENE	ug/L	<57	**0.41J**	<0.23	<0.23	--	EPA 8260	Monthly
HEXACHLOROBUTADIENE	ug/L	<69	<0.28	<0.28	<0.28	--	EPA 8260	Monthly
ISOPROPYL ETHER	ug/L	<47	<0.19	<0.19	<0.19	--	EPA 8260	Monthly
ISOPROPYLBENZENE (CUMENE)	ug/L	<52	<0.21	<0.21	<0.21	--	EPA 8260	Monthly
M,P-XYLENE (SUM OF ISOMERS)	ug/L	**290**	**3.9**	<0.43	<0.43	--	EPA 8260	Monthly
METHYLENE CHLORIDE	ug/L	<100	<0.4	<0.4	<0.4	--	EPA 8260	Monthly
NAPHTHALENE	ug/L	**2300**	**14**	<0.25	<0.25	--	EPA 8260	Monthly
N-BUTYLBENZENE	ug/L	<58	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
N-PROPYLBENZENE	ug/L	<58	<0.23	<0.23	<0.23	--	EPA 8260	Monthly
O-XYLENE (1,2-DIMETHYLBENZENE)	ug/L	**180J**	**1.2**	<0.23	<0.23	--	EPA 8260	Monthly
SEC-BUTYLBENZENE	ug/L	<60	<0.24	<0.24	<0.24	--	EPA 8260	Monthly
STYRENE	ug/L	**420**	**1.4**	<0.24	<0.24	--	EPA 8260	Monthly
T-BUTYLBENZENE	ug/L	<64	<0.26	<0.26	<0.26	--	EPA 8260	Monthly
TERT-BUTYL METHYL ETHER	ug/L	<29	<0.12	<0.12	<0.12	--	EPA 8260	Monthly
TETRACHLOROETHYLENE (PCE)	ug/L	<53	<0.21	<0.21	<0.21	--	EPA 8260	Monthly
TOLUENE	ug/L	**1200**	**2.3**	<0.2	<0.2	--	EPA 8260	Monthly
TRANS-1,2-DICHLOROETHENE	ug/L	<55	<0.22	<0.22	<0.22	--	EPA 8260	Monthly
TRANS-1,3-DICHLOROPROPENE	ug/L	<37	<0.15	<0.15	<0.15	--	EPA 8260	Monthly
TRICHLOROETHYLENE (TCE)	ug/L	<50	<0.2	<0.2	<0.2	--	EPA 8260	Monthly
TRICHLOROFLUOROMETHANE	ug/L	<32	<0.13	<0.13	<0.13	--	EPA 8260	Monthly
VINYL CHLORIDE	ug/L	<43	<0.17	<0.17	<0.17	--	EPA 8260	Monthly
Total VOCs	ug/L	**6,165**	**29.0**	**0.34**	**0**	[2]**1000**		

Collected March 10, 2008

< - Less Than Limit of Detection

J Between Limit of Detection and Limit of Quantification

Concentrations exceeding the POTW have been shaded

[1] POTW standards for effluent discharge

[2] 1000 = POTW standard for total BTEX and total PAH for effluent discharge

[3] BTEX and PVOCs collected monthly, remaining analytes collected semi-annually

Table 1
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin

March 2008

Analyte	Units	Influent	Precarbon	Effluent	Trip Blank	[1]POTW	Method	Frequency
PAHs, DRO, GRO								
1-METHYLNAPHTHALENE	ug/L	**1000**	[4]	<0.017	[4]	--	SW8270C	Quarterly
2-METHYLNAPHTHALENE	ug/L	**780**	[4]	<0.024	[4]	--	SW8270C	Quarterly
ACENAPHTHENE	ug/L	**41**	[4]	<0.019	[4]	--	SW8270C	Quarterly
ACENAPHTHYLENE	ug/L	**420**	[4]	**0.14**	[4]	--	SW8270C	Quarterly
ANTHRACENE	ug/L	**140**	[4]	**0.022J**	[4]	--	SW8270C	Quarterly
BENZO(A)ANTHRACENE	ug/L	**95**	[4]	**0.36**	[4]	--	SW8270C	Quarterly
BENZO(A)PYRENE	ug/L	**71**	[4]	**0.41**	[4]	--	SW8270C	Quarterly
BENZO(B)FLUORANTHENE	ug/L	**61**	[4]	**0.38**	[4]	--	SW8270C	Quarterly
BENZO(G,H,I)PERYLENE	ug/L	**29**	[4]	**0.24**	[4]	--	SW8270C	Quarterly
BENZO(K)FLUORANTHENE	ug/L	**21**	[4]	**0.19**	[4]	--	SW8270C	Quarterly
CHRYSENE	ug/L	**56**	[4]	**0.21**	[4]	--	SW8270C	Quarterly
DIBENZO(A,H)ANTHRACENE	ug/L	**8.2J**	[4]	**0.1**	[4]	--	SW8270C	Quarterly
FLUORANTHENE	ug/L	**170**	[4]	**0.42**	[4]	--	SW8270C	Quarterly
FLUORENE	ug/L	**180**	[4]	<0.017	[4]	--	SW8270C	Quarterly
INDENO(1,2,3-C,D)PYRENE	ug/L	**27**	[4]	**0.22**	[4]	--	SW8270C	Quarterly
NAPHTHALENE	ug/L	**890**	[4]	<0.024	[4]	--	SW8270C	Quarterly
PHENANTHRENE	ug/L	**450**	[4]	<0.021	[4]	--	SW8270C	Quarterly
PYRENE	ug/L	**210**	[4]	**0.63**	[4]	--	SW8270C	Quarterly
DIESEL RANGE ORGANICS (DRO)	mg/L	[4]	[4]	<0.021	[4]	50	WI MOD DRO	Semi-Annual
GASOLINE RANGE ORGANICS (GRO)	mg/L	[4]	[4]	<0.015	[4]	50	WI MOD GRO	Semi-Annual
Total PAHs	ug/L	**4,649**		**3.32**		[2]**1000**		
Inorganics								
CADMIUM, TOTAL (UG/L CD)	ug/L	[4]	[4]	**1.3**	[4]	110	SW6010	Semi-Annual
CHROMIUM, TOTAL (UG/L CR)	ug/L	[4]	[4]	<1	[4]	2500	SW6010	Semi-Annual
COPPER, TOTAL (UG/L CU)	ug/L	[4]	[4]	**7.5**	[4]	2000	SW6010	Semi-Annual
LEAD, TOTAL (UG/L PB)	ug/L	[4]	[4]	**17**	[4]	100	SW6010	Semi-Annual
MERCURY, TOTAL (UG/L HG)	ug/L	[4]	[4]	<0.025	[4]	0.5	245.7M/1631M	Semi-Annual
OIL & GREASE, TOTAL REC	mg/L	[4]	[4]	**20**	[4]	--	SW1664	Quarterly
PH, LAB (STANDARD UNITS)	pH units	[4]	[4]	**7.88**	[4]	5.5<pH>9.5	SW9040	Semi-Annual
PHOSPHORUS, TOTAL (MG/L P)	mg/L	[4]	[4]	**0.08**	[4]	5	E365.2	Semi-Annual

Collected March 10, 2008
< - Less Than Limit of Detection
J Between Limit of Detection and Limit of Quantification
Concentrations exceeding the POTW have been shaded
[1] POTW standards for effluent discharge
[2] 1000 = POTW standard for total BTEX and total PAH for effluent discharge
[4] Parameter not analyzed

Table 2
Summary of Free Product and Groundwater Volume Removed

Date	Cumulative Volume of Free Product Removed (gals)	Cumulative Volume of Free Product Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
20-Feb-01	554.2	4,853	22,826	0	22,826
30-Mar-01	850.0	7,443	44,613	0	44,613
26-Apr-01	915.2	8,014	56,978	0	56,978
17-May-01	1,078.2	9,442	58,967	0	58,967
11-Jun-01	1,291.2	11,307	61,094	0	61,094
31-Jul-01	1,535.2	13,444	65,758	0	65,758
15-Aug-01	1,578.0	13,819	65,758	0	65,758
12-Sep-01	1,578.0	14,193	81,524	0	81,524
28-Sep-01	1,789.9	15,674	104,500	0	104,500
12-Nov-01[1]	2,486.4	21,773	104,900	0	104,900
13-Nov-01	2,551.6	22,344	106,200	0	106,200
14-Nov-01	2,559.7	22,415	107,600	0	107,600
19-Nov-01	2,600.5	22,772	114,200	0	114,200
28-Nov-01	2,682.0	23,486	125,200	0	125,200
03-Dec-01	2,779.8	24,342	131,500	0	131,500
12-Dec-01	2,877.6	25,199	142,300	0	142,300
19-Dec-01	2,975.4	26,055	155,328	0	155,328
03-Jan-02	3,105.8	27,197	172,000	0	172,000
05-Feb-02	3,105.7	27,197	173,116	0	173,116
11-Feb-02	3,122.0	27,340	178,300	0	178,300
12-Feb-02	3,122.1	27,340	180,100	0	180,100
19-Feb-02	3,122.1	27,340	182,900	0	182,900
06-Mar-02	3,138.4	27,483	183,000	0	183,000
12-Mar-02	3,187.3	27,911	194,400	0	194,400
18-Mar-02	3,219.9	28,196	199,400	0	199,400
27-Mar-02	3,317.7	29,053	210,500	0	210,500
03-Apr-02	3,350.3	29,338	216,600	0	216,600
09-Apr-02	3,399.2	29,767	224,000	0	224,000
23-Apr-02	3,473.6	30,419	238,100	0	238,100
30-Apr-02	3,514.3	30,775	246,700	0	246,700
08-May-02	3,538.8	30,989	256,900	0	256,900
15-May-02	3,587.7	31,418	264,500	0	264,500
20-May-02	3,612.1	31,631	266,900	0	266,900
24-May-02	3,636.5	31,845	268,365	10,935	279,300
28-May-02	3,652.8	31,988	272,215	13,185	285,400
17-Jun-02	3,669.1	32,131	287,693	28,507	316,200
25-Jun-02	3,726.2	32,631	295,908	35,492	331,400
02-Jul-02	3,766.9	32,987	299,147	42,153	341,300
09-Jul-02	3,783.2	33,130	306,783	42,717	349,500
17-Jul-02	3,799.5	33,272	314,710	49,990	364,700
22-Jul-02	3,824.0	33,487	319,384	54,516	373,900
29-Jul-02	3,864.7	33,843	326,542	57,158	383,700
08-Aug-02	3,905.5	34,201	334,406	68,394	402,800
15-Aug-02	3,921.8	34,343	340,391	68,609	409,000
09-Sep-02	3,942.1	34,521	343,084	79,816	422,900
19-Sep-02	4,003.3	35,057	350,659	91,441	442,100
26-Sep-02	4,003.3	35,057	356,565	91,535	448,100
04-Oct-02	4,003.3	35,057	363,135	93,265	456,400
11-Oct-02	4,003.3	35,057	374,863	94,737	469,600
18-Oct-02	4,027.8	35,272	374,863	94,737	485,600
25-Oct-02	4,158.2	36,414	379,459	116,901	496,360
31-Oct-02	4,166.3	36,484	381,556	121,045	502,600
08-Nov-02	4,166.3	36,484	390,756	121,045	511,800
21-Nov-02	4,753.3	41,625	387,629	124,272	511,900
26-Nov-02	4,773.6	41,803	391,434	127,566	519,000
04-Dec-02	4,789.9	41,945	398,205	129,795	528,000
10-Dec-02	4,802.2	42,053	403,230	130,971	534,200
18-Dec-02	4,826.6	42,267	410,356	132,444	542,800
23-Dec-02	4,842.9	42,409	412,967	133,333	546,300
30-Dec-02	4,855.1	42,516	415,842	134,458	550,300
10-Jan-03	4,883.7	42,767	425,575	136,125	561,700
15-Jan-03	4,900.0	42,910	429,541	136,859	566,400
20-Jan-03	4,920.3	43,087	434,133	137,567	571,700
30-Jan-03	4,952.9	43,373	442,556	138,844	581,400
13-Feb-03	4,989.6	43,694	454,019	140,881	594,900
19-Feb-03	5,007.8	43,854	456,851	141,149	598,000
26-Feb-03	5,036.3	44,103	463,081	142,019	605,100
04-Mar-03	5,036.3	44,103.1	468,458	142,742	611,200
27-Mar-03	5,036.3	44,103.1	471,979	143,488	615,467
02-Apr-03	5,097.5	44,639	478,430	144,870	623,300
09-Apr-03	5,105.6	44,710	483,745	145,855	629,600

Table 2
Summary of Free Product and Groundwater Volume Removed

Date	Cumulative Volume of Free Product Removed (gals)	Cumulative Volume of Free Product Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
16-Apr-03	5,121.9	44,853	487,333	148,267	635,600
23-Apr-03[2]	4,910.0	42,997	492,504	152,796	645,300
29-Apr-03	4,926.3	43,140	495,729	155,771	651,500
07-May-03	4,926.3	43,140	499,877	158,223	658,100
15-May-03	4,926.3	43,140	499,877	158,223	658,100
21-May-03	4,942.6	43,283	515,230	172,470	687,700
28-May-03	4,958.9	43,425	522,943	175,357	698,300
03-Jun-03	4,967.1	43,497	524,602	176,598	701,200
10-Jun-03	4,975.2	43,568	529,728	178,472	708,200
17-Jun-03	4,983.4	43,640	534,411	179,789	714,200
26-Jun-03	4,983.4	43,640	540,050	180,950	721,000
02-Jul-03	4,983.4	43,640	543,291	181,909	725,200
09-Jul-03	4,983.4	43,640	549,991	181,909	731,900
16-Jul-03	4,991.5	43,711	553,174	185,526	738,700
22-Jul-03	4,999.7	43,783	556,643	186,957	743,600
30-Jul-03	5,007.8	43,854	560,726	188,074	748,800
06-Aug-03	5,040.4	44,139	562,275	188,825	751,100
20-Aug-03	5,081.2	44,496	567,361	191,139	758,500
28-Aug-03	5,138.2	44,995	570,561	191,139	761,700
04-Sep-03	5,316.7	46,559	572,759	191,841	764,600
11-Sep-03	5,382.7	47,137	575,659	191,841	767,500
19-Sep-03	5,423.5	47,494	579,259	191,841	771,100
25-Sep-03	5,366.4	46,994	578,399	197,101	775,500
03-Oct-03	5,382.7	47,137	584,399	197,101	781,500
09-Oct-03	5,399.0	47,279	583,771	198,229	782,000
24-Oct-03	5,452.0	47,743	589,679	200,821	790,500
29-Oct-03	5,481.5	48,002	592,579	200,821	793,400
06-Nov-03	5,530.4	48,430	596,979	200,821	797,800
13-Nov-03	5,546.7	48,573	598,764	200,836	799,600
11/192003	5,571.2	48,787	598,895	201,005	799,900
25-Nov-03	5,591.5	48,965	601,544	202,056	803,600
03-Dec-03	5,620.1	49,215	604,762	203,438	808,200
11-Dec-03	5,644.5	49,429	608,144	204,556	812,700
19-Dec-03	5,669.0	49,644	612,612	205,488	818,100
26-Dec-03	5,685.5	49,788	615,254	206,146	821,400
29-Dec-03	5,693.4	49,857	615,310	206,190	821,500
09-Jan-04	5,705.6	49,964	618,110	206,190	824,300
20-Jan-04	5,709.7	50,000	619,147	207,153	826,300
29-Jan-04	5,713.8	50,036	626,409	208,091	834,500
03-Feb-04	5,726.0	50,143	630,515	208,485	839,000
11-Feb-04	5,726.0	50,143	633,094	208,706	841,800
17-Feb-04	5,734.2	50,215	637,911	209,089	847,000
26-Feb-04	5,742.3	50,286	645,083	209,617	854,700
02-Mar-04	5,754.5	50,392	649,270	209,930	859,200
12-Mar-04	5,774.9	50,571	657,501	210,999	868,500
19-Mar-04	5,807.9	50,860	664,798	212,102	876,900
25-Mar-04	5,819.7	50,963	669,603	214,997	884,600
02-Apr-04	5,823.8	50,999	669,738	215,163	884,900
05-Apr-04	5,823.8	50,999	672,233	217,667	889,900
23-Apr-04	5,827.9	51,035	672,869	218,231	891,100
27-Apr-04	5,836.0	51,106	673,684	219,616	893,300
12-May-04	5,852.3	51,249	678,475	223,625	902,100
17-May-04	5,856.4	51,285	682,349	225,151	907,500
25-May-04	5,872.7	51,427	688,062	226,538	914,600
04-Jun-04	5,884.9	51,534	697,811	230,589	928,400
10-Jun-04	5,913.5	51,785	703,940	232,060	936,000
14-Jun-04	5,937.9	51,998	708,258	232,742	941,000
24-Jun-04	5,995.0	52,498	719,009	234,191	953,200
02-Jul-04	6,039.8	52,891	726,095	235,205	961,300
06-Jul-04	6,064.2	53,104	729,338	235,762	965,100
14-Jul-04	6,133.5	53,711	745,363	237,038	982,400
20-Jul-04	6,133.5	53,711	739,893	238,007	977,900
26-Jul-04	6,182.4	54,139	744,946	238,654	983,600
04-Aug-04	6,235.4	54,604	749,874	239,426	989,300
10-Aug-04	6,284.3	55,032	752,585	239,915	992,500
19-Aug-04	6,316.9	55,317	753,677	240,923	994,600
26-Aug-04	6,345.4	55,567	759,482	241,618	1,001,100
31-Aug-04	6,378.0	55,852	762,807	242,793	1,005,600
10-Sep-04	6,422.8	56,245	766,587	243,514	1,010,100
15-Sep-04	6,439.1	56,387	770,402	244,599	1,015,000
24-Sep-04	6,451.4	56,495	777,825	247,575	1,025,400

Table 2
Summary of Free Product and Groundwater Volume Removed

Date	Cumulative Volume of Free Product Removed (gals)	Cumulative Volume of Free Product Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
27-Sep-04	6,492.1	56,852	780,289	248,111	1,028,400
07-Oct-04	6,508.4	56,994	789,339	249,261	1,038,600
15-Oct-04	6,528.8	57,173	795,323	250,477	1,045,800
19-Oct-04	6,541.0	57,280	798,370	251,030	1,049,400
28-Oct-04	6,557.3	57,422	805,072	252,428	1,057,500
04-Nov-04	6,577.7	57,601	809,388	254,112	1,063,500
11-Nov-04	6,663.3	58,351	809,373	254,427	1,063,800
17-Nov-04	6,679.6	58,493	813,846	255,954	1,069,800
23-Nov-04	6,704.0	58,707	815,871	256,629	1,072,500
01-Dec-04	6,708.1	58,743	818,447	257,353	1,075,800
09-Dec-04	6,720.3	58,850	825,818	258,582	1,084,400
15-Dec-04	6,744.8	59,064	831,411	259,289	1,090,700
21-Dec-04	6,761.1	59,207	836,911	259,289	1,096,200
03-Jan-05	6,850.7	59,992	848,711	259,289	1,108,000
12-Jan-05	6,891.5	60,349	853,611	259,289	1,112,900
20-Jan-05	6,924.1	60,635	859,476	259,824	1,119,300
27-Jan-05	6,981.1	61,134	864,329	260,671	1,125,000
01-Feb-05	7,013.7	61,419	867,637	261,264	1,128,900
08-Feb-05	7,058.5	61,811	872,617	262,083	1,134,700
17-Feb-05	7,103.4	62,205	879,040	263,060	1,142,100
23-Feb-05	7,225.7	63,276	883,368	263,632	1,147,000
03-Mar-05	7,274.6	63,704	889,041	264,459	1,153,500
08-Mar-05	7,307.2	63,989	892,526	264,974	1,157,500
15-Mar-05	7,347.9	64,346	895,198	265,602	1,160,800
22-Mar-05	7,372.4	64,560	899,294	266,206	1,165,500
29-Mar-05	7,413.1	64,917	898,895	269,205	1,168,100
06-Apr-05	7,453.9	65,274	904,348	270,652	1,175,000
14-Apr-05	7,494.6	65,630	903,599	277,501	1,181,100
20-Apr-05	7,531.3	65,952	904,434	278,967	1,183,400
27-Apr-05	7,572.0	66,308	905,998	279,902	1,185,900
03-May-05	7,572.0	66,308	907,569	280,831	1,188,400
13-May-05	7,576.1	66,344	909,996	281,504	1,191,500
17-May-05	7,576.1	66,344	910,118	281,583	1,191,700
27-May-05	7,584.3	66,416	911,688	282,912	1,194,600
03-Jun-05	7,590.4	66,469	912,599	283,802	1,196,400
09-Jun-05	7,590.4	66,469	913,562	285,038	1,198,600
15-Jun-05	7,604.6	66,594	914,093	286,707	1,200,800
22-Jun-05	7,596.5	66,523	914,759	286,741	1,201,500
06-Jul-05	7,600.6	66,559	917,068	287,132	1,204,200
14-Jul-05	7,604.6	66,594	920,201	287,499	1,207,700
21-Jul-05	7,606.7	66,612	923,019	287,681	1,210,700
03-Aug-05	7,620.9	66,736	927,240	287,760	1,215,000
11-Aug-05	7,625.0	66,772	927,840	287,760	1,215,600
15-Aug-05	7,625.0	66,772	927,836	287,764	1,215,600
17-Aug-05	7,625.0	66,772	927,836	287,764	1,215,600
25-Aug-05	7,633.2	66,844	931,061	288,139	1,219,200
31-Aug-05	7,637.2	66,879	933,239	289,261	1,222,500
08-Sep-05	7,641.3	66,915	935,371	291,729	1,227,100
14-Sep-05	7,649.5	66,987	937,386	292,915	1,230,300
20-Sep-05	7,653.5	67,022	939,692	294,009	1,233,700
29-Sep-05	7,665.8	67,130	943,360	294,240	1,237,600
07-Oct-05	7,669.8	67,165	946,494	294,406	1,240,900
11-Oct-05	7,673.9	67,201	948,107	294,493	1,242,600
20-Oct-05	7,694.3	67,379	951,719	294,682	1,246,400
27-Oct-05	7,702.4	67,450	954,582	294,819	1,249,400
03-Nov-05	7,714.7	67,558	957,847	294,953	1,252,800
07-Nov-05	7,740.4	67,783	959,285	295,015	1,254,300
17-Nov-05	7,747.3	67,843	964,061	295,139	1,259,200
22-Nov-05	7,759.5	67,950	965,991	295,209	1,261,200
01-Dec-05	7,771.7	68,057	969,762	295,338	1,265,100
07-Dec-05	7,775.8	68,093	971,880	295,420	1,267,300
15-Dec-05	7,796.2	68,272	974,873	295,527	1,270,400
20-Dec-05	7,804.3	68,342	976,634	295,566	1,272,200
29-Dec-05	7,812.5	68,414	980,395	295,605	1,276,000
05-Jan-06	7,820.6	68,485	983,272	295,628	1,278,900
11-Jan-06	7,828.8	68,557	985,872	295,628	1,281,500
17-Jan-06	7,836.9	68,628	988,572	295,628	1,284,200
23-Jan-06	7,841.0	68,664	990,801	296,099	1,286,900
02-Feb-06	7,853.2	68,771	995,042	298,159	1,293,200
06-Feb-06	7,869.5	68,913	997,242	298,159	1,295,400
16-Feb-06	7,877.7	68,985	1,002,623	298,177	1,300,800

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Date	Cumulative Volume of Free Product Removed (gals)	Cumulative Volume of Free Product Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
21-Feb-06	7,889.9	69,092	994,712	299,188	1,293,900
22-Feb-06	7,902.1	69,199	994,712	299,188	1,293,900
01-Mar-06	7,922.5	69,378	997,166	300,234	1,297,400
07-Mar-06	7,930.7	69,449	999,465	301,035	1,300,500
15-Mar-06	7,942.9	69,556	1,002,489	302,611	1,305,100
22-Mar-06	7,959.2	69,699	1,005,334	304,466	1,309,800
31-Mar-06	7,963.3	69,735	1,009,815	306,985	1,316,800
04-Apr-06	7,965.4	69,753	1,012,473	309,427	1,321,900
11-Apr-06	7,967.3	69,770	1,015,913	312,387	1,328,300
19-Apr-06	7,971.4	69,806	1,019,668	314,232	1,333,900
28-Apr-06	7,975.5	69,842	1,019,920	314,780	1,334,700
04-May-06	7,979.6	69,878	1,022,600	316,100	1,338,700
09-May-06	7,979.6	69,878	1,024,909	316,891	1,341,800
18-May-06	7,991.8	69,984	1,028,874	318,826	1,347,700
24-May-06	7,999.9	70,055	1,031,888	320,312	1,352,200
31-May-06	8,012.2	70,163	1,035,443	321,557	1,357,000
07-Jun-06	8,020.3	70,234	1,039,065	322,335	1,361,400
16-Jun-06	8,028.5	70,306	1,042,872	323,528	1,366,400
22-Jun-06	8,044.8	70,449	1,045,736	324,064	1,369,800
29-Jun-06	8,069.2	70,662	1,049,141	324,459	1,373,600
06-Jul-06	8,073.3	70,698	1,051,834	325,366	1,377,200
12-Jul-06	8,085.5	70,805	1,054,222	326,078	1,380,300
19-Jul-06	8,093.7	70,876	1,056,982	326,919	1,383,900
26-Jul-06	8,101.8	70,948	1,059,674	327,826	1,387,500
01-Aug-06	8,114.0	71,055	1,064,153	327,348	1,391,500
10-Aug-06	8,122.2	71,126	1,071,862	334,139	1,406,000
16-Aug-06	8,146.6	71,340	1,078,381	335,819	1,414,200
23-Aug-06	8,154.8	71,412	1,085,230	336,871	1,422,100
31-Aug-06	8,158.9	71,448	1,090,690	337,910	1,428,600
06-Sep-06	8,171.1	71,555	1,094,914	338,486	1,433,400
13-Sep-06	8,179.2	71,625	1,097,754	339,346	1,437,100
19-Sep-06	8,183.3	71,661	1,104,061	340,139	1,444,200
27-Sep-06	8,211.8	71,911	1,107,431	341,069	1,448,500
03-Oct-06	8,224.1	72,018	1,110,093	341,808	1,451,900
11-Oct-06	8,226.1	72,036	1,113,607	342,794	1,456,400
16-Oct-06	8,226.1	72,036	1,115,800	343,400	1,459,200
17-Oct-06	8,228.1	72,054	1,116,122	343,478	1,459,600
26-Oct-06	8,236.3	72,125	1,120,707	343,793	1,464,500
06-Nov-06	8,244.5	72,197	1,125,881	344,619	1,470,500
14-Nov-06	8,256.7	72,304	1,129,682	345,218	1,474,900
21-Nov-06	8,260.8	72,340	1,132,849	345,651	1,478,500
29-Nov-06	8,273.0	72,447	1,136,723	346,077	1,482,800
06-Dec-06	8,277.1	72,483	1,138,386	346,415	1,484,800
11-Dec-06	8,281.1	72,518	1,140,343	346,657	1,487,000
19-Dec-06	8,285.2	72,554	1,144,773	346,927	1,491,700
27-Dec-06	8,293.4	72,626	1,152,915	347,385	1,500,300
03-Jan-07	8,297.4	72,661	1,158,558	347,742	1,506,300
09-Jan-07	8,301.5	72,696	1,163,598	348,202	1,511,800
18-Jan-07	8,309.7	72,768	1,169,548	348,953	1,518,500
22-Jan-07	8,313.7	72,803	1,173,360	349,240	1,522,600
01-Feb-07	8,321.9	72,875	1,182,142	349,959	1,532,100
08-Feb-07	8,338.2	73,018	1,186,156	350,444	1,536,600
15-Feb-07	8,358.6	73,196	1,191,766	350,834	1,542,600
21-Feb-07	8,370.8	73,303	1,195,200	351,100	1,546,300
01-Mar-07	8,383.0	73,410	1,199,427	351,473	1,550,900
06-Mar-07	8,383.0	73,410	1,202,260	351,640	1,553,900
15-Mar-07	8,440.0	73,909	1,209,660	351,641	1,561,300
22-Mar-07	8,456.3	74,052	1,213,560	351,641	1,565,200
29-Mar-07	8,537.9	74,767	1,227,660	351,641	1,579,300
10-Apr-07	8,562.3	74,980	1,227,433	351,967	1,579,400
17-Apr-07	8,619.4	75,480	1,232,571	367,329	1,599,900
23-Apr-07	8,664.2	75,873	1,229,536	377,664	1,607,200
30-Apr-07	8,709.0	76,265	1,231,877	387,623	1,619,500
09-May-07	8,729.4	76,444	1,236,096	398,904	1,635,000
15-May-07	8,766.1	76,765	1,243,207	403,393	1,646,600
23-May-07	8,843.5	77,443	1,252,542	403,758	1,656,300
30-May-07	8,855.7	77,550	1,257,605	412,795	1,670,400
05-Jun-07	8,880.2	77,764	1,261,410	416,990	1,678,400
11-Jun-07	8,896.5	77,907	1,265,114	419,945	1,685,059
19-Jun-07	8,912.8	78,050	1,267,664	422,336	1,690,000
25-Jun-07	8,933.1	78,227	1,271,172	426,771	1,697,943
05-Jul-07	8,945.4	78,335	1,278,051	430,249	1,708,300
12-Jul-07	8,969.8	78,549	1,281,828	431,673	1,713,501
20-Jul-07	8,982.0	78,656	1,290,577	433,771	1,724,348

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Date	Cumulative Volume of Free Product Removed (gals)	Cumulative Volume of Free Product Removed (lbs)	Cumulative Volume of Groundwater Removed from Wells EW-1, EW-2, EW-3 (gals)	Cumulative Volume of Groundwater Removed from well EW-4 (gals)	Cumulative Volume of Total Groundwater Removed (gals)
16-Aug-07	9,153.2	80,155	1,305,010	437,790	1,742,800
20-Aug-07	9,153.2	80,155	1,307,902	440,198	1,748,100
29-Aug-07	9,165.4	80,262	1,315,407	443,793	1,759,200
05-Sep-07	9,185.8	80,440	1,322,292	445,808	1,768,100
10-Sep-07	9,198.0	80,547	1,327,954	446,946	1,774,900
19-Sep-07	9,202.1	80,583	1,332,189	449,836	1,782,025
26-Sep-07	9,206.2	80,619	1,333,696	457,254	1,790,949
02-Oct-07	9,210.3	80,655	1,334,914	462,412	1,797,325
12-Oct-07	9,210.3	80,655	1,334,717	462,809	1,797,525
22-Oct-07	9,210.3	80,655	1,331,638	469,763	1,801,400
06-Nov-07	9,222.5	80,762	1,330,449	489,294	1,819,742
12-Nov-07	9,234.7	80,868	1,331,478	495,067	1,826,544
21-Nov-07	9,242.9	80,940	1,334,520	501,132	1,835,651
29-Nov-07	9,246.9	80,975	1,337,816	504,345	1,842,160
06-Dec-07	9,251.0	81,011	1,340,906	506,666	1,847,571
10-Dec-07	9,267.3	81,154	1,342,685	507,837	1,850,521
19-Dec-07	9,283.6	81,297	1,346,224	510,677	1,856,900
27-Dec-07	9,312.1	81,546	1,349,590	512,962	1,862,551
02-Jan-08	9,336.6	81,761	1,352,432	514,171	1,866,602
08-Jan-08	9,365.1	82,010	1,352,568	514,533	1,867,100
18-Jan-08	9,385.5	82,189	1,356,915	518,176	1,875,090
24-Jan-08	9,405.9	82,368	1,359,510	519,289	1,878,798
31-Jan-08	9,409.9	82,403	1,362,684	520,622	1,883,305
07-Feb-08	9,442.5	82,688	1,365,922	521,979	1,887,900
13-Feb-08	9,471.1	82,939	1,367,735	523,266	1,891,000
26-Feb-08	9,475.1	82,974	1,371,204	526,234	1,897,437
07-Mar-08	9,487.4	83,081	1,372,849	527,552	1,900,400
10-Mar-08	9,691.1	84,865	1,373,978	528,514	1,902,491
20-Mar-08	9,691.1	84,865	1,374,132	538,269	1,912,400
28-Mar-08	9,691.1	84,865	1,375,385	542,016	1,917,400
02-Apr-08	9,699.3	84,937	1,380,985	542,016	1,923,000

[1] Increase in free product removal w/ no change in groundwater removal volume due to free product collection tank and wash tank being pumped out and shipped to WRR in Eau Claire, WI. Total volume of 1324 gallons, w/ a current estimate of 85% free product in that volume.

[2] Correction of revised quantity of free product removed on 4/23/2003 of -211.9 gallons due to settling of emulsified free product measured on this date.

Table 3
Remediation System Air Treatment Summary
Northern States Power, Ashland, Wisconsin

Sample Date	Total Elapsed Time (days)[1]	Sample Type (Influent/ Effluent)	Air Flow Rate (CFM)	Effluent Temp. (F)	Total Hydrocarbons (mg/m^3)[2]	Benzene (mg/m^3)[2]	Total Hydrocarbon Rate (lbs/day)[3]	Benzene Rate (lbs/day)[3]	Cummulative Mass of Hydrocarbons Removed by Carbon (lbs.)[4]	Cummulative Mass of Benzene Removed by Carbon (lbs.)[4]	Cummulative Mass of Hydrocarbons Emitted (lbs.)[4]	Cummulative Mass of Benzene Emitted (lbs.)[4]
28-Sep-00	2	Effluent	176	70	5	3.33	0.08	0.05	-	-	0.2	0.1
19-Jan-01	21	Influent	176	-	45.5	9.1	0.71	0.14	10.36	0.00		
19-Jan-01	21	Effluent	176	45	13.7	9.1	0.21	0.14			4.2	2.8
30-Mar-01	84	Influent	176	-	71.7	26.3	1.11	0.41	50.73	18.08		
30-Mar-01	84	Effluent	176	52	30.4	7.8	0.47	0.12			33.9	10.4
11-Apr-01	96	Influent	176	-	33	7.67	0.51	0.12	56.32	19.14		
11-Apr-01	96	Effluent	176	62	3	2	0.05	0.03			34.5	10.8
17-May-01	110	Effluent	176	68	5	3.33	0.08	0.05			35.6	11.5
13-Jun-01	125	Effluent	176	80	5	3.33	0.08	0.05			36.7	12.3
31-Jul-01	135	Effluent	176	80	5	3.33	0.08	0.05			37.5	12.8
7-Dec-01	196	Influent	176	35	60	10	0.93	0.16	116.90	26.49		
7-Dec-01	196	Effluent	176	35	5	3.33	0.08	0.05			44.2	17.2
22-Feb-02	232	Influent	176	30	303	39	4.70	0.61	284.47	47.15		
22-Feb-02	232	Effluent	176	30	3	2	0.05	0.03			45.8	18.4
4-Apr-02	267	Influent	176	55	33	8	0.51	0.12	300.76	50.41		
4-Apr-02	267	Effluent	176	55	3	2	0.05	0.03			47.5	19.4
8-Aug-02	393	Influent	15	80	1270	311	1.68	0.41	473.04	91.27		
8-Aug-02	393	Effluent	15	80	236	65.8	0.31	0.09			86.8	30.4
31-Oct-02	456	Influent	125	32	2100	410	23.14	4.52	1919.39	373.59		
31-Oct-02	456	Intermediate	125	32	32.7	3.33	0.36	0.04				
31-Oct-02	456	Effluent	125	32	16.6	2	0.18	0.02			98.3	31.8
27-Nov-02	470	Influent	125	25	1780	500	19.61	5.51	2193.53	450.21		
27-Nov-02	470	Intermediate	125	25	15.3	3.33	0.17	0.04				
27-Nov-02	470	Effluent	125	25	3	2	0.03	0.02			98.8	32.1
30-Jan-03	534	Influent	125	20	17.7	3.33	0.20	0.04	2189.80	445.01		
30-Jan-03	534	Intermediate	125	20	19.7	6.67	0.22	0.07				
30-Jan-03	534	Effluent	125	20	23	10.7	0.25	0.12			115.0	39.7
19-Feb-03	554	Influent	125	19	5	3.33	0.06	0.04	2188.43	444.73		
19-Feb-03	554	Intermediate	125	19	5	3.33	0.06	0.04				
19-Feb-03	554	Effluent	125	19	11.2	4.6	0.12	0.05			117.5	40.7
2-Apr-03	580	Influent	125	29	22	3.33	0.24	0.04	2187.11	442.42		
2-Apr-03	580	Intermediate	125	29	47.3	14.7	0.52	0.16				
2-Apr-03	580	Effluent	125	29	26.6	11.4	0.29	0.13			125.1	43.9
23-Apr-03	596	Influent	125	29	66.3	18.3	0.73	0.20	2195.52	444.62		
23-Apr-03	596	Intermediate	125	29	20.7	3.33	0.23	0.04				
23-Apr-03	596	Effluent	125	29	18.6	5.8	0.20	0.06			128.4	45.0
21-May-03	619	Influent	125	29	43	10	0.47	0.11	2198.51	445.69		
21-May-03	619	Intermediate	125	29	36.7	3.33	0.40	0.04				
21-May-03	619	Effluent	125	29	31.2	5.8	0.34	0.06			136.3	46.4
25-Jun-03	654	Influent	125	29	22	3.33	0.24	0.04	2196.74	442.57		
25-Jun-03	654	Intermediate	125	29	47.3	14.7	0.52	0.16				
25-Jun-03	654	Effluent	125	29	26.6	11.4	0.29	0.13			146.5	50.8
30-Jul-03	684	Influent	125	29	10	3.33	0.11	0.04	2187.05	442.57		
30-Jul-03	684	Intermediate	125	29	15.7	3.33	0.17	0.04				
30-Jul-03	684	Effluent	125	29	39.3	3.33	0.43	0.04			159.5	51.9
28-Aug-03	713	Influent	125	29	5	3.33	0.06	0.04	2183.67	443.00		
28-Aug-03	713	Intermediate	125	29	15	3.33	0.17	0.04				
28-Aug-03	713	Effluent	125	29	15.6	2	0.17	0.02			164.5	52.6
29-Sep-03	745	Influent	125	29	21.3	3.33	0.23	0.04	2182.22	442.34		
29-Sep-03	745	Intermediate	125	29	15	3.33	0.17	0.04				
29-Sep-03	745	Effluent	125	29	25.4	5.2	0.28	0.06			173.5	54.4
29-Oct-03	775	Influent	125	29	5	3.33	0.06	0.04	2179.24	442.78		
29-Oct-03	775	Intermediate	125	29	14.3	3.33	0.16	0.04				
29-Oct-03	775	Effluent	125	29	14	2	0.15	0.02			178.1	55.1
19-Nov-03	796	Influent	125	29	5	3.33	0.06	0.04	2179.71	443.09		
19-Nov-03	796	Intermediate	125	29	5	3.33	0.06	0.04				
19-Nov-03	796	Effluent	125	29	3	2	0.03	0.02			178.8	55.5
29-Dec-03	836	Influent	125	29	5	3.33	0.06	0.04	2177.59	443.67		
29-Dec-03	836	Intermediate	125	29	5	3.33	0.06	0.04				
29-Dec-03	836	Effluent	125	29	9.8	2	0.11	0.02			183.1	56.4
20-Jan-04	858	Influent	125	29	12.7	3.33	0.14	0.04	2179.94	444.00		
20-Jan-04	858	Intermediate	125	29	5	3.33	0.06	0.04				
20-Jan-04	858	Effluent	125	29	3	2	0.03	0.02			183.8	56.9
26-Feb-04	895	Influent	125	29	28.3	6.67	0.31	0.07	2183.65	443.78		
26-Feb-04	895	Intermediate	125	29	23.7	8.33	0.26	0.09				
26-Feb-04	895	Effluent	125	29	19.2	7.20	0.21	0.08			191.7	59.8
19-Mar-04	917	Influent	125	29	12.7	3.33	0.14	0.04	2183.52	442.94		
19-Mar-04	917	Intermediate	125	29	20.0	9.00	0.22	0.10				
19-Mar-04	917	Effluent	125	29	13.2	6.80	0.15	0.07			194.9	61.5
27-Apr-04	956	Influent	125	29	11.3	3.33	0.12	0.04	2184.26	443.51		
27-Apr-04	956	Intermediate	125	29	11.0	3.33	0.12	0.04				
27-Apr-04	956	Effluent	125	29	9.6	2.00	0.11	0.02			199.0	62.3
26-May-04	985	Influent	125	29	5.0	3.33	0.06	0.04	2178.25	443.11		
26-May-04	985	Intermediate	125	29	19.7	3.33	0.22	0.04				
26-May-04	985	Effluent	125	29	23.8	4.60	0.26	0.05			206.6	63.8
24-Jun-04	1014	Influent	125	29	11.7	3.33	0.13	0.04	2179.11	443.53		
24-Jun-04	1014	Intermediate	125	29	13.0	3.33	0.14	0.04				
24-Jun-04	1014	Effluent	125	29	9.0	2.00	0.10	0.02			209.5	64.4
6-Jul-04	1026	Influent	125	29	108.0	3.33	1.19	0.04	2191.17	443.71		
6-Jul-04	1026	Intermediate	125	29	23.0	3.33	0.25	0.04				
6-Jul-04	1026	Effluent	125	29	16.8	2.00	0.19	0.02			211.7	64.7
19-Aug-04	1070	Influent	125	29	5.0	3.33	0.06	0.04	2192.14	444.35		
19-Aug-04	1070	Intermediate	125	29	5.0	3.33	0.06	0.04				
19-Aug-04	1070	Effluent	125	29	3.0	2.00	0.03	0.02			213.1	65.7
30-Sep-04	1112	Influent	125	29	10.3	3.33	0.11	0.04	2190.89	444.97		
30-Sep-04	1112	Intermediate	125	29	14.3	3.33	0.16	0.04				
30-Sep-04	1112	Effluent	125	29	13.0	2.00	0.14	0.02			219.2	66.6

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28-Oct-04	1140	Influent	125	29	13.3	3.33	0.15	0.04	2186.48	442.48		
28-Oct-04	1140	Intermediate	125	29	37.3	13.70	0.41	0.15				
28-Oct-04	1140	Effluent	125	29	27.6	11.40	0.30	0.13			227.7	70.1
17-Nov-04	1160	Influent	125	29	23.7	7.00	0.26	0.08	2186.54	442.21		
17-Nov-04	1160	Intermediate	125	29	21.0	6.67	0.23	0.07				
17-Nov-04	1160	Effluent	125	29	23.4	8.20	0.26	0.09			232.8	71.9
15-Dec-04	1188	Influent	125	29	84.7	23.30	0.93	0.26	2197.50	445.51		
15-Dec-04	1188	Intermediate	125	29	52.0	15.00	0.57	0.17				
15-Dec-04	1188	Effluent	125	29	49.2	12.60	0.54	0.14			248.0	75.8
12-Jan-05	1216	Influent	125	29	12.3	3.33	0.14	0.04	2200.37	445.92		
12-Jan-05	1216	Intermediate	125	29	5.0	3.33	0.06	0.04				
12-Jan-05	1216	Effluent	125	29	3.0	2.00	0.03	0.02			248.9	76.4
8-Feb-05	1243	Influent	125	29	15.3	4.17	0.17	0.05	2201.05	446.42		
8-Feb-05	1243	Intermediate	125	29	14.0	4.17	0.15	0.05				
8-Feb-05	1243	Effluent	125	29	13.0	2.50	0.14	0.03			252.8	77.2
25-Mar-05	1288	Influent	125	29	5.0	3.33	0.06	0.04	2199.66	447.08		
25-Mar-05	1288	Intermediate	125	29	5.0	3.33	0.06	0.04				
25-Mar-05	1288	Effluent	125	29	7.8	2.00	0.09	0.02			256.7	78.2
6-Apr-05	1300	Influent	125	29	13.0	3.33	0.14	0.04	2200.32	447.26		
6-Apr-05	1300	Intermediate	125	29	11.0	3.33	0.12	0.04				
6-Apr-05	1300	Effluent	125	29	8.0	2.00	0.09	0.02			257.7	78.4
12-May-05	1336	Influent	125	29	5.0	3.33	0.06	0.04	2195.09	445.72		
12-May-05	1336	Intermediate	125	29	16.2	6.50	0.18	0.07				
12-May-05	1336	Effluent	125	29	18.2	7.20	0.20	0.08			265.0	81.3
15-Jun-05	1370	Influent	125	29	5.0	3.33	0.06	0.04	2192.76	446.22		
15-Jun-05	1370	Intermediate	125	29	10.0	3.33	0.11	0.04				
15-Jun-05	1370	Effluent	125	29	11.2	2.00	0.12	0.02			269.2	82.0
6-Jul-05	1391	Influent	125	29	5.0	3.33	0.06	0.04	2193.23	446.53		
6-Jul-05	1391	Intermediate	125	29	5.0	3.33	0.06	0.04				
6-Jul-05	1391	Effluent	125	29	3.0	2.00	0.03	0.02			269.8	82.5
3-Aug-05	1419	Influent	125	29	5.0	3.33	0.06	0.04	2193.84	446.94		
3-Aug-05	1419	Intermediate	125	29	5.0	3.33	0.06	0.04				
3-Aug-05	1419	Effluent	125	29	3.0	2.00	0.03	0.02			270.8	83.1
14-Sep-05	1461	Influent	125	29	5.0	3.33	0.06	0.04	2194.77	447.55		
14-Sep-05	1461	Intermediate	125	29	5.0	3.33	0.06	0.04				
14-Sep-05	1461	Effluent	125	29	3.0	2.00	0.03	0.02			272.2	84.0
12-Oct-05	1489	Influent	125	29	5.0	3.33	0.06	0.04	2194.40	447.96		
12-Oct-05	1489	Intermediate	125	29	5.0	3.33	0.06	0.04				
12-Oct-05	1489	Effluent	125	29	6.2	2.00	0.07	0.02			274.1	84.7
7-Nov-05	1515	Influent	125	29	5.0	3.33	0.06	0.04	2190.79	446.57		
7-Nov-05	1515	Intermediate	125	29	12.0	3.33	0.13	0.04				
7-Nov-05	1515	Effluent	125	29	17.6	8.20	0.19	0.09			279.1	87.0
1-Dec-05	1539	Influent	125	29	5.0	3.33	0.06	0.04	2191.32	446.92		
1-Dec-05	1539	Intermediate	125	29	5.0	3.33	0.06	0.04				
1-Dec-05	1539	Effluent	125	29	3.0	2.00	0.03	0.02			279.9	87.5
5-Jan-06	1574	Influent	125	29	5.0	3.33	0.06	0.04	2192.09	447.43		
5-Jan-06	1574	Intermediate	125	29	5.0	3.33	0.06	0.04				
5-Jan-06	1574	Effluent	125	29	3.0	2.00	0.03	0.02			281.1	88.3
6-Feb-06	1606	Influent	125	29	5.0	3.33	0.06	0.04	2192.09	447.43		
6-Feb-06	1606	Intermediate	125	29	5.0	3.33	0.06	0.04				
6-Feb-06	1606	Effluent	125	29	5.0	3.33	0.06	0.04			282.8	89.5
7-Mar-06	1635	Influent	125	29	8.4	3.33	0.09	0.04	2193.16	447.86		
7-Mar-06	1635	Intermediate	125	29	8.4	3.33	0.09	0.04				
7-Mar-06	1635	Effluent	125	29	5.0	2.00	0.06	0.02			284.4	90.1
11-Apr-06	1670	Influent	125	29	5.0	3.33	0.06	0.04	2192.47	448.37		
11-Apr-06	1670	Intermediate	125	29	11.3	3.33	0.12	0.04				
11-Apr-06	1670	Effluent	125	29	6.8	2.00	0.07	0.02			287.1	90.9
4-May-06	1693	Influent	125	29	12.7	3.33	0.14	0.04	2193.86	448.71		
4-May-06	1693	Intermediate	125	29	11.7	3.33	0.13	0.04				
4-May-06	1693	Effluent	125	29	7.2	2.00	0.08	0.02			288.9	91.4
6-Jun-06	1726	Influent	125	29	5.0	3.33	0.06	0.04	2186.59	446.28		
6-Jun-06	1726	Intermediate	125	29	25.7	8.67	0.28	0.10				
6-Jun-06	1726	Effluent	125	29	25.0	10.00	0.28	0.11			298.0	95.0
12-Jul-06	1762	Influent	125	29	10.7	3.33	0.12	0.04	2182.38	446.28		
12-Jul-06	1762	Intermediate	125	29	12.3	3.33	0.14	0.04				
12-Jul-06	1762	Effluent	125	29	21.3	3.33	0.23	0.04			306.4	96.4
10-Aug-06	1791	Influent	125	29	10.7	3.33	0.12	0.04	2181.33	444.98		
10-Aug-06	1791	Intermediate	125	29	51.7	17.30	0.57	0.19				
10-Aug-06	1791	Effluent	125	29	14.0	7.40	0.15	0.08			310.9	98.7
6-Sep-06	1818	Influent	125	29	5.0	3.33	0.06	0.04	2181.92	445.38		
6-Sep-06	1818	Intermediate	125	29	5.0	3.33	0.06	0.04				
6-Sep-06	1818	Effluent	125	29	3.0	2.00	0.03	0.02			311.8	99.3
11-Oct-06	1853	Influent	125	29	5.0	3.33	0.06	0.04	2180.84	445.89		
11-Oct-06	1853	Intermediate	125	29	5.0	3.33	0.06	0.04				
11-Oct-06	1853	Effluent	125	29	7.8	2.00	0.09	0.02			314.8	100.1
1-Nov-06	1874	Influent	125	29	12.3	3.33	0.14	0.04	2181.10	446.20		
1-Nov-06	1874	Intermediate	125	29	11.7	3.33	0.13	0.04				
1-Nov-06	1874	Effluent	125	29	11.2	2.00	0.12	0.02			317.4	100.5
13-Dec-06	1916	Influent	125	29	18.0	3.33	0.20	0.04	2184.71	446.81		
13-Dec-06	1916	Intermediate	125	29	13.7	3.33	0.15	0.04				
13-Dec-06	1916	Effluent	125	29	10.2	2.00	0.11	0.02			322.1	101.5
4-Jan-07	1938	Influent	125	29	32.7	10.70	0.36	0.12	2188.61	447.66		
4-Jan-07	1938	Intermediate	125	29	23.0	8.30	0.25	0.09				
4-Jan-07	1938	Effluent	125	29	16.6	7.20	0.18	0.08			326.1	103.2
15-Feb-07	1980	Influent	125	29	14.3	3.33	0.16	0.04	2186.34	445.59		
15-Feb-07	1980	Intermediate	125	29	22.7	3.33	0.25	0.04				
15-Feb-07	1980	Effluent	125	29	19.2	7.80	0.21	0.09			335.0	106.8

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7-Mar-07	2000	Influent	125	29	5.0	3.33	0.06	0.04	2185.02	445.89		
7-Mar-07	2000	Intermediate	125	29	14.3	3.33	0.16	0.04				
7-Mar-07	2000	Effluent	125	29	11.0	2.00	0.12	0.02			337.4	107.3
11-Apr-07	2035	Influent	125	29	16.7	3.33	0.18	0.04	2190.30	446.40		
11-Apr-07	2035	Intermediate	125	29	5.0	3.33	0.06	0.04				
11-Apr-07	2035	Effluent	125	29	3.0	2.00	0.03	0.02			338.6	108.0
1-May-07	2055	Influent	125	29	17.7	3.33	0.20	0.04	2191.21	445.72		
1-May-07	2055	Intermediate	125	29	21.7	7.67	0.24	0.08				
1-May-07	2055	Effluent	125	29	13.6	6.40	0.15	0.07			341.6	109.5
5-Jun-07	2090	Influent	125	29	5.0	3.33	0.06	0.04	2181.87	443.84		
5-Jun-07	2090	Intermediate	125	29	20.0	3.33	0.22	0.04				
5-Jun-07	2090	Effluent	125	29	29.2	8.20	0.32	0.09			352.9	112.6
5-Jul-07	2120	Influent	125	29	5.0	3.33	0.06	0.04	2175.59	442.17		
5-Jul-07	2120	Intermediate	125	29	25.0	7.67	0.28	0.08				
5-Jul-07	2120	Effluent	125	29	24.0	8.4	0.26	0.09			360.8	115.4
16-Aug-07	2162	Influent	125	29	5.0	3.33	0.06	0.04	2176.52	442.78		
16-Aug-07	2162	Intermediate	125	29	5.0	3.33	0.06	0.04				
16-Aug-07	2162	Effluent	125	29	3.0	2.0	0.03	0.02			362.2	116.3
5-Sep-07	2182	Influent	125	29	5.0	3.33	0.06	0.04	2176.96	443.08		
5-Sep-07	2182	Intermediate	125	29	5.0	3.33	0.06	0.04				
5-Sep-07	2182	Effluent	125	29	3.0	2.0	0.03	0.02			362.8	116.8
2-Oct-07	2209	Influent	125	29	13.7	3.33	0.15	0.04	2180.14	443.47		
2-Oct-07	2209	Intermediate	125	29	5.0	3.33	0.06	0.04				
2-Oct-07	2209	Effluent	125	29	3.0	2.0	0.03	0.02			363.7	117.4
6-Nov-07	2244	Influent	125	29	5.0	3.33	0.06	0.04	2180.91	443.99		
6-Nov-07	2244	Intermediate	125	29	5.0	3.33	0.06	0.04				
6-Nov-07	2244	Effluent	125	29	3.0	2.0	0.03	0.02			364.9	118.1
10-Dec-07	2278	Influent	125	29	5.0	3.33	0.06	0.04	2181.66	444.48		
10-Dec-07	2278	Intermediate	125	29	5.0	3.33	0.06	0.04				
10-Dec-07	2278	Effluent	125	29	3.0	2.0	0.03	0.02			366.0	118.9
8-Jan-08	2307	Influent	125	29	5.0	3.33	0.06	0.04	2182.30	444.91		
8-Jan-08	2307	Intermediate	125	29	5.0	3.33	0.06	0.04				
8-Jan-08	2307	Effluent	125	29	3.0	2.0	0.03	0.02			367.0	119.5
13-Feb-08	2343	Influent	125	29	5.0	3.33	0.06	0.04	2183.10	445.44		
13-Feb-08	2343	Intermediate	125	29	5.0	3.33	0.06	0.04				
13-Feb-08	2343	Effluent	125	29	3.0	2.0	0.03	0.02			368.2	120.3

(1) Total Elapsed Time, in days, only for days of remediation system operation, not days since start-up.
(2) When a below detection result occurs, the assumed value is half of the detection limit.
For the 1/19/01 sampling, the samples were incorrectly labeled: Drum #1 is influent to Drum #1, Drum #2 is influent to Drum #2, and Air Stripper is Air Effluent.
(3) Daily emission rate based on laboratory results.
(4) Emission rate to date calculated from average daily emission rate and total days of remediation system operation.

Table 4
Remediation System Water Treatment Summary
Northern States Power, Ashland, Wisconsin

Sample Date	Total Elapsed Time (days)[1]	Sample Type	Cummulative Volume of Treated Effluent (gal.)	VOCs (ug/L)[2]	Benzene (ug/L)[2]	Cummulative Mass of VOCs Removed (lbs.)[3]	Cummulative Mass of Benzene Removed (lbs.)[3]	Cummulative Mass of VOCs Discharged (lbs.)[4]	Cummulative Mass of Benzene Discharged (lbs.)[4]
5-Oct-00	9	Influent[5]		121,985	60,000				
5-Oct-00	9	Effluent	10,592	12.9	0.94	10.8	5.3	0.00114	0.00008
19-Jan-01	21	Inlet[6]		859.5	90.4				
19-Jan-01	21	Mid Carbon		17.3	0.62				
19-Jan-01	21	Effluent	17,346	16.6	0.7	17.7	8.7	0.00208	0.00012
30-Mar-01	84	Inlet[6]		1,120.60	140				
30-Mar-01	84	Effluent	44,613	14.45	0.05	45.6	22.4	0.00520	0.00024
11-Apr-01	96	Influent[5]		100,629	46,000				
11-Apr-01	96	Inlet[6]		557.5	110				
11-Apr-01	96	Mid Carbon		50.73	5.1				
11-Apr-01	96	Effluent	54,636	13.79	0.94	54.0	26.3	0.00636	0.00031
17-May-01	110	Effluent	58,967	23.46	1.3	57.6	27.9	0.00721	0.00036
13-Jun-01	125	Effluent	61,094	7.74	0.05	59.4	28.8	0.00735	0.00036
13-Jul-01	135	Influent[5]		97,450	51,000				
31-Jul-01	135	Effluent	65,758	12.36	0.05	63.2	30.7	0.00783	0.00036
20-Sep-01	157	Influent[5]		113,925	58,000				
20-Sep-01	157	Inlet[6]		3,205	1,100				
20-Sep-01	157	Effluent	91,894	19.23	0.05	88.1	43.4	0.01203	0.00038
7-Dec-01	196	Influent[5]		101,620	52,000				
7-Dec-01	196	Inlet[6]		4,153.5	530				
7-Dec-01	196	Effluent	136,300	9.835	0.05	125.7	62.7	0.01567	0.00039
14-Feb-02	224	Influent		83,055	35,000				
14-Feb-02	224	Precarbon		35,355.3	7,200				
14-Feb-02	224	Effluent	181,000	8.1	0.2	156.7	75.7	0.01869	0.00047
21-Mar-02	256	Influent		143,140	53,000				
21-Mar-02	256	Precarbon		15,716.5	1,600				
21-Mar-02	256	Effluent	202,700	88.22	67	182.6	85.3	0.03467	0.01264
11-Jun-02	323	Influent		63,570	23,000				
11-Jun-02	323	Precarbon		26,320.0	6,400				
11-Jun-02	323	Effluent	286,524	1,244	1,100	226.2	100.6	0.90481	0.78458
8-Aug-02	393	Influent		87,060	41,000				
8-Aug-02	393	Precarbon		26,320.0	18,695				
8-Aug-02	393	Effluent	402,800	6,554.1	4,000	304.3	136.5	7.26406	4.67835
31-Oct-02	456	Influent		27,090.0	5,600				
31-Oct-02	456	Precarbon		24,362.5	13,000				
31-Oct-02	456	Effluent	502600	2,438.3	1,600	324.9	139.9	9.30128	6.01517
27-Nov-02	470	Influent		52,350.0	22,000				
27-Nov-02	470	Precarbon		15,633.0	7,300				
27-Nov-02	470	Effluent	519000	6,449.5	4,600	331.1	142.2	10.18390	6.64674
18-Dec-02	491	Influent		45,325.0	19,000				
18-Dec-02	491	Precarbon		7,685.0	2,700				
18-Dec-02	491	Effluent	542,800	4,785.0	3,300	339.2	145.4	11.13420	7.30426
30-Jan-03	534	Influent		35,275.0	9,600				
30-Jan-03	534	Precarbon		4,230.0	1,700				
30-Jan-03	534	Effluent	581,400	4,584.7	2,200	349.1	147.7	12.61092	8.01520
19-Feb-03	554	Influent		71,520.0	32,000				
19-Feb-03	554	Precarbon		3,149.0	81				
19-Feb-03	554	Effluent	598,000	4,004.0	1,500	358.4	152.0	13.16556	8.22366
2-Apr-03	580	Influent		20,876.0	6,300				
2-Apr-03	580	Precarbon		1,553.0	120				
2-Apr-03	580	Effluent	623,300	114.7	22	362.8	153.3	13.18977	8.22832
23-Apr-03	596	Influent		30,060.0	9,500				
23-Apr-03	596	Precarbon		2,095.0	29				
23-Apr-03	596	Effluent	645,300	3.0	0.15	368.3	155.0	13.19032	8.22835
21-May-03	619	Influent		25,470.0	6,100				
21-May-03	619	Precarbon		5,491.0	71				
21-May-03	619	Effluent	687,700	3.1	0.15	377.3	157.2	13.19142	8.22840
25-Jun-03	654	Influent		42,650.0	26,000				
25-Jun-03	654	Precarbon		3,310.0	150				
25-Jun-03	654	Effluent	721,000	1.9	0.12	389.2	164.4	13.19195	8.22843
30-Jul-03	684	Influent		8,440.0	1,400				
30-Jul-03	684	Precarbon		144.0	6				
30-Jul-03	684	Effluent	748,800	1.2	0.19	391.1	164.7	13.19224	8.22848
28-Aug-03	713	Influent		10,630.0	2,200				
28-Aug-03	713	Precarbon		434.3	36				
28-Aug-03	713	Effluent	761,700	0.5	0.16	392.3	165.0	13.19229	8.22849
29-Sep-03	745	Influent		18,770	3,400				
29-Sep-03	745	Precarbon		300.1	17				
29-Sep-03	745	Effluent	781,500	0.7	0.12	395.4	165.5	13.19241	8.22851
29-Oct-03	775	Influent		8,730	1,200				
29-Oct-03	775	Precarbon		169.7	3				
29-Oct-03	775	Effluent	793,400	0.3	0.18	396.3	165.7	13.19243	8.22853
19-Nov-03	796	Influent		10,940	2,000				
19-Nov-03	796	Precarbon		529	23				
19-Nov-03	796	Effluent	799,900	3.5	0.71	396.8	165.8	13.19262	8.22857
29-Dec-03	836	Influent		11,710	2,100				
29-Dec-03	836	Precarbon		7,815	2,900				
29-Dec-03	836	Effluent	821,500	0.0	0.12	399.0	166.1	13.19262	8.22859
20-Jan-04	858	Influent		9,021	2,200				
20-Jan-04	858	Precarbon		576	44				
20-Jan-04	858	Effluent	826,300	2.57	0.50	399.3	166.2	13.19273	8.22861
26-Feb-04	895	Influent		21,425	4,900				
26-Feb-04	895	Precarbon		631	38				
26-Feb-04	895	Effluent	854,700	0.49	0.05	404.4	167.4	13.19284	8.22862

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15-Mar-04	917	Influent		20,660	4,500				
15-Mar-04	917	Precarbon		673	39				
15-Mar-04	917	Effluent	876,900	0	0.05	408.2	168.2	13.19284	8.22863
27-Apr-04	956	Influent		11,650	3,500				
27-Apr-04	956	Precarbon		430	74				
27-Apr-04	956	Effluent	893,300	0.28	0.09	409.8	168.7	13.19288	8.22865
26-May-04	985	Influent		22,300	4,800				
26-May-04	985	Precarbon		500	12				
26-May-04	985	Effluent	914,600	0	0.15	413.8	169.6	13.19288	8.22867
24-Jun-04	1014	Influent		24,040	4,800				
24-Jun-04	1014	Precarbon		627	47				
24-Jun-04	1014	Effluent	953,200	0	0.15	421.5	171.1	13.19288	8.22872
6-Jul-04	1026	Influent		15,530	2,600				
6-Jul-04	1026	Precarbon		153.1	9.8				
6-Jul-04	1026	Effluent	965,100	0.59	0.09	423.1	171.4	13.19294	8.22873
19-Aug-04	1070	Influent		15,060	1,900				
19-Aug-04	1070	Precarbon		82.2	5.2				
19-Aug-04	1070	Effluent	994,600	0.37	0.09	426.8	171.8	13.19303	8.22875
27-Sep-04	1109	Influent		23,520	5,800				
27-Sep-04	1109	Precarbon		645.9	17.0				
27-Sep-04	1109	Effluent	1,028,400	0.29	0.09	433.4	173.5	13.19311	8.22878
28-Oct-04	1140	Influent		21,680	5,000				
28-Oct-04	1140	Precarbon		274.6	26				
28-Oct-04	1140	Effluent	1,057,500	0.64	0.09	438.7	174.7	13.19327	8.22880
17-Nov-04	1160	Influent		29,010	9,600				
17-Nov-04	1160	Precarbon		201.7	14				
17-Nov-04	1160	Effluent	1,069,800	0.00	0.09	441.7	175.7	13.19327	8.22881
15-Dec-04	1188	Influent		22,710	6,200				
15-Dec-04	1188	Precarbon		199.4	21				
15-Dec-04	1188	Effluent	1,090,700	201.1	200	445.6	176.7	13.22834	8.26380
12-Jan-05	1216	Influent		69,060	23,000				
12-Jan-05	1216	Precarbon		11.8	1.9				
12-Jan-05	1216	Effluent	1,112,900	167.5	160	458.3	180.9	13.25937	8.29354
8-Feb-05	1243	Influent		18,930	4,300				
8-Feb-05	1243	Precarbon		211.8	27				
8-Feb-05	1243	Effluent	1,134,700	0.7	0.42	461.8	181.7	13.25950	8.29362
18-Mar-05	1281	Influent		10,710	2,100				
18-Mar-05	1281	Precarbon		926	510				
18-Mar-05	1281	Effluent	1,160,800	1.13	0	464.1	182.2	13.25974	8.29362
6-Apr-05	1300	Influent		7,750	1,200				
6-Apr-05	1300	Precarbon		220.6	18				
6-Apr-05	1300	Effluent	1,175,000	0	0	465.0	182.3	13.25974	8.29362
12-May-05	1336	Influent		5,610	850				
12-May-05	1336	Precarbon		349.4	79				
12-May-05	1336	Effluent	1,191,500	1.0	0	465.8	182.4	13.25988	8.29362
15-Jun-05	1370	Influent		47,000	14,000				
15-Jun-05	1370	Precarbon		21.1	0.95				
15-Jun-05	1370	Effluent	1,200,800	0	0	469.5	183.5	13.25988	8.29362
6-Jul-05	1391	Influent		9,550	2,100				
6-Jul-05	1391	Precarbon		130.8	18				
6-Jul-05	1391	Effluent	1,204,200	0	0	469.7	183.6	13.25988	8.29362
3-Aug-05	1419	Influent		74,740	32,000				
3-Aug-05	1419	Precarbon		70.0	3.0				
3-Aug-05	1419	Effluent	1,215,000	0	0	476.5	186.5	13.25988	8.29362
14-Sep-05	1461	Influent		11,200	1,600				
14-Sep-05	1461	Precarbon		54.1	4.3				
14-Sep-05	1461	Effluent	1,230,300	1	0	477.9	186.7	13.25995	8.29362
11-Oct-05	1488	Influent		5,920	1,200				
11-Oct-05	1488	Precarbon		54.1	7.6				
11-Oct-05	1488	Effluent	1,242,600	1.24	0	478.5	186.8	13.26008	8.29362
7-Nov-05	1515	Influent		16,320	2,000				
7-Nov-05	1515	Precarbon		43,100	19,000				
7-Nov-05	1515	Effluent	1,254,300	0.29	0.29	480.1	187.0	13.26010	8.29365
1-Dec-05	1539	Influent		69,740	28,000				
1-Dec-05	1539	Precarbon		217	55				
1-Dec-05	1539	Effluent	1,265,100	0.28	0	486.4	189.5	13.26013	8.29365
5-Jan-06	1574	Influent		69,710	31,000				
5-Jan-06	1574	Precarbon		132	23				
5-Jan-06	1574	Effluent	1,278,900	0.86	0	494.4	193.1	13.26023	8.29365
6-Feb-06	1606	Influent		14,260	3,200				
6-Feb-06	1606	Precarbon		113	12				
6-Feb-06	1606	Effluent	1,295,400	0.39	0	496.4	193.5	13.26028	8.29365
7-Mar-06	1635	Influent		6,107	710				
7-Mar-06	1635	Precarbon		324	310				
7-Mar-06	1635	Effluent	1,300,500	7.73	0.27	496.6	193.6	13.26061	8.29366
11-Apr-06	1670	Influent		11,760	2,000				
11-Apr-06	1670	Precarbon		280.5	28				
11-Apr-06	1670	Effluent	1,328,300	319.4	290	499.3	194.0	13.33471	8.36115
4-May-06	1693	Influent		53,032	21,000				
4-May-06	1693	Precarbon		349.4	96				
4-May-06	1693	Effluent	1,338,700	3.74	2.7	503.9	195.8	13.33503	8.36139
6-Jun-06	1726	Influent		11,110	1,800				
6-Jun-06	1726	Precarbon		498	34				
6-Jun-06	1726	Effluent	1,361,400	0.4	0	506.0	196.1	13.33511	8.36139

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Sample Date	Total Elapsed Time (days)[1]	Sample Type	Cummulative Volume of Treated Effluent (gal.)	VOCs (ug/L)[2]	Benzene (ug/L)[2]	Cummulative Mass of VOCs Removed (lbs.)[3]	Cummulative Mass of Benzene Removed (lbs.)[3]	Cummulative Mass of VOCs Discharged (lbs.)[4]	Cummulative Mass of Benzene Discharged (lbs.)[4]
12-Jul-06	1762	Influent		64,080	25,000				
12-Jul-06	1762	Precarbon		4	1.5				
12-Jul-06	1762	Effluent	1,380,300	0.6	0.23	516.1	200.1	13.33520	8.36142
10-Aug-06	1791	Influent		10,760	1,200				
10-Aug-06	1791	Precarbon		1,434	46.0				
10-Aug-06	1791	Effluent	1,406,000	0.8	0	518.4	200.3	13.33537	8.36142
6-Sep-06	1818	Influent		8,860	600				
6-Sep-06	1818	Precarbon		1,039	31.0				
6-Sep-06	1818	Effluent	1,433,400	0.95	0	520.4	200.5	13.33559	8.36142
11-Oct-06	1853	Influent		48,460	22,000				
11-Oct-06	1853	Precarbon		257	59.0				
11-Oct-06	1853	Effluent	1,456,400	5.44	1.8	529.7	204.7	13.33663	8.36177
1-Nov-06	1874	Influent		60,910	25,000				
1-Nov-06	1874	Precarbon		100	6.9				
1-Nov-06	1874	Effluent	1,470,500	1.00	0	536.9	207.6	13.33675	8.36177
13-Dec-06	1916	Influent		19,600	4,300				
13-Dec-06	1916	Precarbon		690	54.0				
13-Dec-06	1916	Effluent	1,487,000	0.32	0	539.6	208.2	13.33680	8.36177
4-Jan-07	1938	Influent		37,940	13,000				
4-Jan-07	1938	Precarbon		338.9	36.0				
4-Jan-07	1938	Effluent	1,506,300	3.39	2.8	545.7	210.3	13.33734	8.36222
15-Feb-07	1980	Influent		26,990	7,900				
15-Feb-07	1980	Precarbon		357.9	78.0				
15-Feb-07	1980	Effluent	1,542,600	0.53	0.2	553.9	212.7	13.33750	8.36227
6-Mar-07	1999	Influent		73,170	28,000				
6-Mar-07	1999	Precarbon		347.9	33.0				
6-Mar-07	1999	Effluent	1,553,900	2.43	0.27	560.8	215.3	13.33773	8.36229
11-Apr-07	2035	Influent		45,400	18,000				
11-Apr-07	2035	Precarbon		157.0	20				
11-Apr-07	2035	Effluent	1,579,400	1.10	0	570.4	219.2	13.33796	8.36229
30-Apr-07	2054	Influent		19,280	4,900				
30-Apr-07	2054	Precarbon		98.4	87				
30-Apr-07	2054	Effluent	1,619,500	49.2	3.7	576.9	220.8	13.35442	8.36353
5-Jun-07	2090	Influent		28,510	9,800				
5-Jun-07	2090	Precarbon		68.3	3.7				
5-Jun-07	2090	Effluent	1,678,400	4.6	1.0	590.9	225.6	13.35668	8.36403
5-Jul-07	2120	Influent		34,990	11,000				
5-Jul-07	2120	Precarbon		106.3	16				
5-Jul-07	2120	Effluent	1,708,300	2.4	1.8	599.6	228.4	13.35727	8.36448
16-Aug-07	2162	Influent		81	0				
16-Aug-07	2162	Precarbon		35.6	2				
16-Aug-07	2162	Effluent	1,742,800	1.3	1.1	599.6	228.4	13.35763	8.36480
5-Sep-07	2182	Influent		11,640	1,900				
5-Sep-07	2182	Precarbon		59.8	4.1				
5-Sep-07	2182	Effluent	1,768,100	4.4	3.6	602.1	228.8	13.35857	8.36556
2-Oct-07	2209	Influent		19,590	5,200				
2-Oct-07	2209	Precarbon		118.4	5.3				
2-Oct-07	2209	Effluent	1,797,325	5.3	4.1	606.9	230.0	13.35987	8.36656
6-Nov-07	2244	Influent		55,030	24,000				
6-Nov-07	2244	Precarbon		24.0	7.3				
6-Nov-07	2244	Effluent	1,819,742	53.6	49.0	617.1	234.5	13.36990	8.37576
10-Dec-07	2278	Influent		56,230	22,000				
10-Dec-07	2278	Precarbon		121.3	14.0				
10-Dec-07	2278	Effluent	1,850,521	1.0	0.0	631.6	240.2	13.37016	8.37576
8-Jan-08	2307	Influent		2,967	1,100				
8-Jan-08	2307	Precarbon		36.5	1.5				
8-Jan-08	2307	Effluent	1,867,100	1.4	0.0	632.0	240.3	13.37035	8.37576
13-Feb-08	2343	Influent		2,095	300				
13-Feb-08	2343	Precarbon		17.0	1.5				
13-Feb-08	2343	Effluent	1,891,000	1.2	0.0	632.4	240.4	13.37060	8.37576
10-Mar-08	2369	Influent		6,165	1,700				
10-Mar-08	2369	Precarbon		29.0	2.9				
10-Mar-08	2369	Effluent	1,902,491	0.3	0.0	633.0	240.5	13.37063	8.37576

(1) Total Elapsed Time, in days, only for days of remediation system operation, not days since start-up.
(2) When a below detection result occurs, the assumed value is half of the detection limit.
(3) Removal based on Influent vs. Effluent
(4) Emission rate to date calculated from average concentrations in effluent and total days of remediation system operation.
(5) This sample was collected at the oil-water separator discharge, prior to the air diffuser.
(6) This sample was collected at the inlet to the liquid phase carbon.

Appendix

Interim Treatment System
Laboratory Reporting Forms

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

Client: **URS Corporation (Milwaukee)**
Attn: Paul Sklar
6737 West Washington Street #2265
Milwaukee,WI 53214

NLS Project: 115946
NLS Customer: 91206
Fax: 414 831 4101 Phone: 414 831 4100

Project: **Xcel Energy - Ashland**

Influent NLS ID: 470287
COC: 106533:1 Matrix: GW
Collected: 03/10/08 00:00 Received: 03/12/08

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA Method 8260B	see attached					03/18/08	SW846 8260	721026460
PAH (water) by EPA Method 8270C - SIM	see attached					04/01/08	SW846 8270C	721026460
Organics Extraction PAH (water) EPA 8270C - SIM	yes					03/14/08	EPA 8270C	721026460

Pre Carbon NLS ID: 470288
COC: 106533:2 Matrix: GW
Collected: 03/10/08 00:00 Received: 03/12/08

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA Method 8260B	see attached					03/18/08	SW846 8260	721026460

Effluent NLS ID: 470289
COC: 106533:3 Matrix: GW
Collected: 03/10/08 00:00 Received: 03/12/08

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Cadmium, tot. recoverable as Cd by ICP-Trace	1.3	ug/L	1	0.17	0.55	03/17/08	SW846 6010	721026460
Chromium, tot. recoverable as Cr by ICP-Trace	ND	ug/L	1	1.0	3.3	03/17/08	SW846 6010	721026460
Copper, tot. recoverable as Cu by ICP-Trace	7.5	ug/L	1	1.3	4.0	03/17/08	SW846 6010	721026460
Lead, tot. recoverable as Pb by ICP-Trace	17	ug/L	1	1.3	4.1	03/17/08	SW846 6010	721026460
Mercury, tot. as Hg	ND	ug/L	1	0.025	0.050	03/20/08	245.7M/ 1631M	721026460
Oil and Grease, water (hexane)	20	mg/L	1	1.1	3.8	03/14/08	EPA 1664	721026460
pH, Lab	7.88	s.u.	1			03/14/08	SW846 9040	721026460
Phosphorus, tot. as P	0.080	mg/L	1	0.0070*		03/20/08	EPA 365.2	721026460
Metals digestion - tot. recov.ICP	yes					03/13/08	SW846 3005M	721026460
VOCs (water) by EPA Method 8260B	see attached					03/14/08	SW846 8260	721026460
GRO (water)	ND	mg/L	1	0.015	0.050	03/20/08	WI MOD GRO	721026460
	Surrogate-109%.							
DRO (water)	ND	mg/L	1	0.021	0.074	03/26/08	WI MOD DRO	721026460
	spike-76%, duplicate-84%, surrogate-91%							
Organics Extraction (DRO WATER)	yes					03/17/08	WI MOD DRO	721026460
PAH (water) by EPA Method 8270C - SIM	see attached					03/26/08	SW846 8270C	721026460
Organics Extraction PAH (water) EPA 8270C - SIM	yes					03/14/08	EPA 8270C	721026460

Trip Blank NLS ID: 470290
COC: 106533 Matrix: TB
Collected: 03/10/08 00:00 Received: 03/12/08

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
VOCs (water) by EPA Method 8260B	see attached					03/14/08	SW846 8260	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD) 1000 ug/L = 1 mg/L
DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by: _____

Authorized by:
R. T. Krueger
President

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)

Customer: URS Corporation (Milwaukee) **NLS Project: 115946**

Project Description: Xcel Energy - Ashland

Project Title: **Template: SAT2W** **Printed: 04/08/2008 11:13**

Sample: 470287 Influent Collected: 03/10/08 Analyzed: 03/18/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Benzene	1700	ug/L	250	53	190	
Bromobenzene	ND	ug/L	250	61	220	
Bromochloromethane	ND	ug/L	250	46	160	
Bromodichloromethane	ND	ug/L	250	43	150	
Bromoform	ND	ug/L	250	35	120	
Bromomethane	ND	ug/L	250	28	100	CC
n-Butylbenzene	ND	ug/L	250	58	210	
sec-Butylbenzene	ND	ug/L	250	60	210	
tert-Butylbenzene	ND	ug/L	250	64	230	
Carbon Tetrachloride	ND	ug/L	250	54	190	
Chlorobenzene	ND	ug/L	250	57	200	
Chloroethane	ND	ug/L	250	220	780	
Chloroform	ND	ug/L	250	50	180	
Chloromethane	ND	ug/L	250	37	130	
2-Chlorotoluene	ND	ug/L	250	58	200	
4-Chlorotoluene	ND	ug/L	250	60	210	
Dibromochloromethane	ND	ug/L	250	42	150	
1,2-Dibromo-3-Chloropropane	ND	ug/L	250	44	150	
1,2-Dibromoethane	ND	ug/L	250	37	130	
Dibromomethane	ND	ug/L	250	43	150	
1,2-Dichlorobenzene	ND	ug/L	250	55	190	
1,3-Dichlorobenzene	ND	ug/L	250	54	190	
1,4-Dichlorobenzene	ND	ug/L	250	46	160	
Dichlorodifluoromethane	ND	ug/L	250	36	130	
1,1-Dichloroethane	ND	ug/L	250	53	190	
1,2-Dichloroethane	ND	ug/L	250	39	140	
1,1-Dichloroethene	ND	ug/L	250	60	210	
cis-1,2-Dichloroethene	ND	ug/L	250	52	190	
trans-1,2-Dichloroethene	ND	ug/L	250	55	190	
1,2-Dichloropropane	ND	ug/L	250	56	200	
1,3-Dichloropropane	ND	ug/L	250	42	150	
2,2-Dichloropropane	ND	ug/L	250	42	150	
1,1-Dichloropropene	ND	ug/L	250	45	160	
cis-1,3-Dichloropropene	ND	ug/L	250	38	130	
trans-1,3-Dichloropropene	ND	ug/L	250	37	130	
Ethylbenzene	ND	ug/L	250	57	200	
Hexachlorobutadiene	ND	ug/L	250	69	240	
Isopropylbenzene	ND	ug/L	250	52	180	
p-Isopropyltoluene	ND	ug/L	250	58	200	
Methylene chloride	ND	ug/L	250	100	180	
Naphthalene	2300	ug/L	250	61	220	
n-Propylbenzene	ND	ug/L	250	58	200	
ortho-Xylene	[180]	ug/L	250	59	210	
Styrene	420	ug/L	250	60	210	
1,1,1,2-Tetrachloroethane	ND	ug/L	250	54	190	
1,1,2,2-Tetrachloroethane	ND	ug/L	250	45	160	
Tetrachloroethene	ND	ug/L	250	53	190	
Toluene	1200	ug/L	250	50	180	
1,2,3-Trichlorobenzene	ND	ug/L	250	49	170	
1,2,4-Trichlorobenzene	ND	ug/L	250	48	170	
1,1,1-Trichloroethane	ND	ug/L	250	45	160	
1,1,2-Trichloroethane	ND	ug/L	250	41	140	

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470287 Influent Collected: 03/10/08 Analyzed: 03/18/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Trichloroethene	ND	ug/L	250	50	180	
Trichlorofluoromethane	ND	ug/L	250	32	110	
1,2,3-Trichloropropane	ND	ug/L	250	51	180	
1,2,4-Trimethylbenzene	[75]	ug/L	250	54	190	
1,3,5-Trimethylbenzene	ND	ug/L	250	61	220	
Vinyl chloride	ND	ug/L	250	43	150	
meta,para-Xylene	[290]	ug/L	250	110	380	
MTBE	ND	ug/L	250	29	100	
Isopropyl ether	ND	ug/L	250	47	170	
Dibromofluoromethane (SURR)	98%					S
Toluene-d8 (SURR)	101%					S
1-Bromo-4-Fluorobenzene (SURR)	101%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.
CC = Continuing calibration verification standard recovery was outside QC limits.
Bromomethane recovery 66%

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470288 Pre Carbon Collected: 03/10/08 Analyzed: 03/18/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Benzene	2.9	ug/L	1	0.21	0.75	
Bromobenzene	ND	ug/L	1	0.24	0.86	
Bromochloromethane	ND	ug/L	1	0.18	0.65	
Bromodichloromethane	ND	ug/L	1	0.17	0.61	
Bromoform	ND	ug/L	1	0.14	0.50	
Bromomethane	ND	ug/L	1	0.11	0.40	CC
n-Butylbenzene	ND	ug/L	1	0.23	0.82	
sec-Butylbenzene	ND	ug/L	1	0.24	0.85	
tert-Butylbenzene	ND	ug/L	1	0.26	0.91	
Carbon Tetrachloride	ND	ug/L	1	0.22	0.76	
Chlorobenzene	ND	ug/L	1	0.23	0.80	
Chloroethane	ND	ug/L	1	0.88	3.1	
Chloroform	ND	ug/L	1	0.20	0.70	
Chloromethane	ND	ug/L	1	0.15	0.53	
2-Chlorotoluene	ND	ug/L	1	0.23	0.82	
4-Chlorotoluene	ND	ug/L	1	0.24	0.85	
Dibromochloromethane	ND	ug/L	1	0.17	0.60	
1,2-Dibromo-3-Chloropropane	ND	ug/L	1	0.17	0.62	
1,2-Dibromoethane	ND	ug/L	1	0.15	0.52	
Dibromomethane	ND	ug/L	1	0.17	0.60	
1,2-Dichlorobenzene	ND	ug/L	1	0.22	0.77	
1,3-Dichlorobenzene	ND	ug/L	1	0.21	0.76	
1,4-Dichlorobenzene	ND	ug/L	1	0.18	0.65	
Dichlorodifluoromethane	ND	ug/L	1	0.15	0.52	
1,1-Dichloroethane	ND	ug/L	1	0.21	0.75	
1,2-Dichloroethane	ND	ug/L	1	0.15	0.55	
1,1-Dichloroethene	ND	ug/L	1	0.24	0.85	
cis-1,2-Dichloroethene	ND	ug/L	1	0.21	0.74	
trans-1,2-Dichloroethene	ND	ug/L	1	0.22	0.77	
1,2-Dichloropropane	ND	ug/L	1	0.23	0.80	
1,3-Dichloropropane	ND	ug/L	1	0.17	0.59	
2,2-Dichloropropane	ND	ug/L	1	0.17	0.60	
1,1-Dichloropropene	ND	ug/L	1	0.18	0.63	
cis-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
trans-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
Ethylbenzene	[0.41]	ug/L	1	0.23	0.80	
Hexachlorobutadiene	ND	ug/L	1	0.28	0.98	
Isopropylbenzene	ND	ug/L	1	0.21	0.74	
p-Isopropyltoluene	ND	ug/L	1	0.23	0.81	
Methylene chloride	ND	ug/L	1	0.40	0.71	
Naphthalene	14	ug/L	1	0.25	0.87	
n-Propylbenzene	ND	ug/L	1	0.23	0.82	
ortho-Xylene	1.2	ug/L	1	0.23	0.83	
Styrene	1.4	ug/L	1	0.24	0.85	
1,1,1,2-Tetrachloroethane	ND	ug/L	1	0.22	0.76	
1,1,2,2-Tetrachloroethane	ND	ug/L	1	0.18	0.64	
Tetrachloroethene	ND	ug/L	1	0.21	0.76	
Toluene	2.3	ug/L	1	0.20	0.71	
1,2,3-Trichlorobenzene	ND	ug/L	1	0.20	0.70	
1,2,4-Trichlorobenzene	ND	ug/L	1	0.19	0.68	
1,1,1-Trichloroethane	ND	ug/L	1	0.18	0.63	
1,1,2-Trichloroethane	ND	ug/L	1	0.16	0.57	

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470288 Pre Carbon Collected: 03/10/08 Analyzed: 03/18/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Trichloroethene	ND	ug/L	1	0.20	0.70	
Trichlorofluoromethane	ND	ug/L	1	0.13	0.46	
1,2,3-Trichloropropane	ND	ug/L	1	0.20	0.72	
1,2,4-Trimethylbenzene	2.0	ug/L	1	0.22	0.76	
1,3,5-Trimethylbenzene	[0.84]	ug/L	1	0.24	0.86	
Vinyl chloride	ND	ug/L	1	0.17	0.61	
meta,para-Xylene	3.9	ug/L	1	0.43	1.5	
MTBE	ND	ug/L	1	0.12	0.41	
Isopropyl ether	ND	ug/L	1	0.19	0.66	
Dibromofluoromethane (SURR)	92%					S
Toluene-d8 (SURR)	91%					S
1-Bromo-4-Fluorobenzene (SURR)	92%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.
CC = Continuing calibration verification standard recovery was outside QC limits.
Bromomethane recovery 66%

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470289 Effluent Collected: 03/10/08 Analyzed: 03/14/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Benzene	ND	ug/L	1	0.21	0.75	
Bromobenzene	ND	ug/L	1	0.24	0.86	
Bromochloromethane	ND	ug/L	1	0.18	0.65	
Bromodichloromethane	ND	ug/L	1	0.17	0.61	
Bromoform	ND	ug/L	1	0.14	0.50	
Bromomethane	ND	ug/L	1	0.11	0.40	
n-Butylbenzene	ND	ug/L	1	0.23	0.82	
sec-Butylbenzene	ND	ug/L	1	0.24	0.85	
tert-Butylbenzene	ND	ug/L	1	0.26	0.91	
Carbon Tetrachloride	ND	ug/L	1	0.22	0.76	
Chlorobenzene	ND	ug/L	1	0.23	0.80	
Chloroethane	ND	ug/L	1	0.88	3.1	
Chloroform	[0.34]	ug/L	1	0.20	0.70	
Chloromethane	ND	ug/L	1	0.15	0.53	
2-Chlorotoluene	ND	ug/L	1	0.23	0.82	
4-Chlorotoluene	ND	ug/L	1	0.24	0.85	
Dibromochloromethane	ND	ug/L	1	0.17	0.60	
1,2-Dibromo-3-Chloropropane	ND	ug/L	1	0.17	0.62	
1,2-Dibromoethane	ND	ug/L	1	0.15	0.52	
Dibromomethane	ND	ug/L	1	0.17	0.60	
1,2-Dichlorobenzene	ND	ug/L	1	0.22	0.77	
1,3-Dichlorobenzene	ND	ug/L	1	0.21	0.76	
1,4-Dichlorobenzene	ND	ug/L	1	0.18	0.65	
Dichlorodifluoromethane	ND	ug/L	1	0.15	0.52	
1,1-Dichloroethane	ND	ug/L	1	0.21	0.75	
1,2-Dichloroethane	ND	ug/L	1	0.15	0.55	
1,1-Dichloroethene	ND	ug/L	1	0.24	0.85	
cis-1,2-Dichloroethene	ND	ug/L	1	0.21	0.74	
trans-1,2-Dichloroethene	ND	ug/L	1	0.22	0.77	
1,2-Dichloropropane	ND	ug/L	1	0.23	0.80	
1,3-Dichloropropane	ND	ug/L	1	0.17	0.59	
2,2-Dichloropropane	ND	ug/L	1	0.17	0.60	
1,1-Dichloropropene	ND	ug/L	1	0.18	0.63	
cis-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
trans-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
Ethylbenzene	ND	ug/L	1	0.23	0.80	
Hexachlorobutadiene	ND	ug/L	1	0.28	0.98	
Isopropylbenzene	ND	ug/L	1	0.21	0.74	
p-Isopropyltoluene	ND	ug/L	1	0.23	0.81	
Methylene chloride	ND	ug/L	1	0.40	0.71	
Naphthalene	ND	ug/L	1	0.25	0.87	
n-Propylbenzene	ND	ug/L	1	0.23	0.82	
ortho-Xylene	ND	ug/L	1	0.23	0.83	
Styrene	ND	ug/L	1	0.24	0.85	
1,1,1,2-Tetrachloroethane	ND	ug/L	1	0.22	0.76	
1,1,2,2-Tetrachloroethane	ND	ug/L	1	0.18	0.64	
Tetrachloroethene	ND	ug/L	1	0.21	0.76	
Toluene	ND	ug/L	1	0.20	0.71	
1,2,3-Trichlorobenzene	ND	ug/L	1	0.20	0.70	
1,2,4-Trichlorobenzene	ND	ug/L	1	0.19	0.68	
1,1,1-Trichloroethane	ND	ug/L	1	0.18	0.63	
1,1,2-Trichloroethane	ND	ug/L	1	0.16	0.57	

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470289 Effluent Collected: 03/10/08 Analyzed: 03/14/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Trichloroethene	ND	ug/L	1	0.20	0.70	
Trichlorofluoromethane	ND	ug/L	1	0.13	0.46	
1,2,3-Trichloropropane	ND	ug/L	1	0.20	0.72	
1,2,4-Trimethylbenzene	ND	ug/L	1	0.22	0.76	
1,3,5-Trimethylbenzene	ND	ug/L	1	0.24	0.86	
Vinyl chloride	ND	ug/L	1	0.17	0.61	
meta,para-Xylene	ND	ug/L	1	0.43	1.5	
MTBE	ND	ug/L	1	0.12	0.41	
Isopropyl ether	ND	ug/L	1	0.19	0.66	
Dibromofluoromethane (SURR)	96%					S
Toluene-d8 (SURR)	90%					S
1-Bromo-4-Fluorobenzene (SURR)	93%					S

NOTES APPLICABLE TO THIS ANALYSIS:
S = This compound is a surrogate used to evaluate the quality control of a method.

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470290 Trip Blank Collected: 03/10/08 Analyzed: 03/14/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Benzene	ND	ug/L	1	0.21	0.75	
Bromobenzene	ND	ug/L	1	0.24	0.86	
Bromochloromethane	ND	ug/L	1	0.18	0.65	
Bromodichloromethane	ND	ug/L	1	0.17	0.61	
Bromoform	ND	ug/L	1	0.14	0.50	
Bromomethane	ND	ug/L	1	0.11	0.40	
n-Butylbenzene	ND	ug/L	1	0.23	0.82	
sec-Butylbenzene	ND	ug/L	1	0.24	0.85	
tert-Butylbenzene	ND	ug/L	1	0.26	0.91	
Carbon Tetrachloride	ND	ug/L	1	0.22	0.76	
Chlorobenzene	ND	ug/L	1	0.23	0.80	
Chloroethane	ND	ug/L	1	0.88	3.1	
Chloroform	ND	ug/L	1	0.20	0.70	
Chloromethane	ND	ug/L	1	0.15	0.53	
2-Chlorotoluene	ND	ug/L	1	0.23	0.82	
4-Chlorotoluene	ND	ug/L	1	0.24	0.85	
Dibromochloromethane	ND	ug/L	1	0.17	0.60	
1,2-Dibromo-3-Chloropropane	ND	ug/L	1	0.17	0.62	
1,2-Dibromoethane	ND	ug/L	1	0.15	0.52	
Dibromomethane	ND	ug/L	1	0.17	0.60	
1,2-Dichlorobenzene	ND	ug/L	1	0.22	0.77	
1,3-Dichlorobenzene	ND	ug/L	1	0.21	0.76	
1,4-Dichlorobenzene	ND	ug/L	1	0.18	0.65	
Dichlorodifluoromethane	ND	ug/L	1	0.15	0.52	
1,1-Dichloroethane	ND	ug/L	1	0.21	0.75	
1,2-Dichloroethane	ND	ug/L	1	0.15	0.55	
1,1-Dichloroethene	ND	ug/L	1	0.24	0.85	
cis-1,2-Dichloroethene	ND	ug/L	1	0.21	0.74	
trans-1,2-Dichloroethene	ND	ug/L	1	0.22	0.77	
1,2-Dichloropropane	ND	ug/L	1	0.23	0.80	
1,3-Dichloropropane	ND	ug/L	1	0.17	0.59	
2,2-Dichloropropane	ND	ug/L	1	0.17	0.60	
1,1-Dichloropropene	ND	ug/L	1	0.18	0.63	
cis-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
trans-1,3-Dichloropropene	ND	ug/L	1	0.15	0.53	
Ethylbenzene	ND	ug/L	1	0.23	0.80	
Hexachlorobutadiene	ND	ug/L	1	0.28	0.98	
Isopropylbenzene	ND	ug/L	1	0.21	0.74	
p-Isopropyltoluene	ND	ug/L	1	0.23	0.81	
Methylene chloride	ND	ug/L	1	0.40	0.71	
Naphthalene	ND	ug/L	1	0.25	0.87	
n-Propylbenzene	ND	ug/L	1	0.23	0.82	
ortho-Xylene	ND	ug/L	1	0.23	0.83	
Styrene	ND	ug/L	1	0.24	0.85	
1,1,1,2-Tetrachloroethane	ND	ug/L	1	0.22	0.76	
1,1,2,2-Tetrachloroethane	ND	ug/L	1	0.18	0.64	
Tetrachloroethene	ND	ug/L	1	0.21	0.76	
Toluene	ND	ug/L	1	0.20	0.71	
1,2,3-Trichlorobenzene	ND	ug/L	1	0.20	0.70	
1,2,4-Trichlorobenzene	ND	ug/L	1	0.19	0.68	
1,1,1-Trichloroethane	ND	ug/L	1	0.18	0.63	
1,1,2-Trichloroethane	ND	ug/L	1	0.16	0.57	

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)
Customer: URS Corporation (Milwaukee) NLS Project: 115946
Project Description: Xcel Energy - Ashland
Project Title: Template: SAT2W Printed: 04/08/2008 11:13

Sample: 470290 Trip Blank Collected: 03/10/08 Analyzed: 03/14/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Trichloroethene	ND	ug/L	1	0.20	0.70	
Trichlorofluoromethane	ND	ug/L	1	0.13	0.46	
1,2,3-Trichloropropane	ND	ug/L	1	0.20	0.72	
1,2,4-Trimethylbenzene	ND	ug/L	1	0.22	0.76	
1,3,5-Trimethylbenzene	ND	ug/L	1	0.24	0.86	
Vinyl chloride	ND	ug/L	1	0.17	0.61	
meta,para-Xylene	ND	ug/L	1	0.43	1.5	
MTBE	ND	ug/L	1	0.12	0.41	
Isopropyl ether	ND	ug/L	1	0.19	0.66	
Dibromofluoromethane (SURR)	96%					S
Toluene-d8 (SURR)	94%					S
1-Bromo-4-Fluorobenzene (SURR)	95%					S

NOTES APPLICABLE TO THIS ANALYSIS:
S = This compound is a surrogate used to evaluate the quality control of a method.

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8270C SIM

Customer: URS Corporation (Milwaukee) **NLS Project: 115946**

Project Description: Xcel Energy - Ashland

Project Title: **Template: 8270PAHW** **Printed: 04/08/2008 11:13**

Sample: 470287 Influent Collected: 03/10/08 Analyzed: 04/01/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Acenaphthene	41	ug/L	250	4.8	16	
Acenaphthylene	420	ug/L	250	4.0	13	
Anthracene	140	ug/L	250	4.5	15	
Benzo (a) anthracene	95	ug/L	250	3.0	10	
Benzo (a) pyrene	71	ug/L	250	3.5	12	
Benzo (b) fluoranthene	61	ug/L	250	4.3	14	
Benzo (g,h,i) perylene	29	ug/L	250	3.5	12	
Benzo (k) fluoranthene	21	ug/L	250	4.0	13	
Chrysene	56	ug/L	250	4.5	15	
Dibenzo (a,h) anthracene	[8.2]	ug/L	250	3.5	12	
Fluoranthene	170	ug/L	250	4.8	16	
Fluorene	180	ug/L	250	4.3	14	
Indeno (1,2,3-cd) pyrene	27	ug/L	250	3.0	10	
Methyl-1-Naphthalene	1000	ug/L	250	4.3	14	LD
Methyl-2-Naphthalene	780	ug/L	250	6.0	20	CC
Naphthalene	890	ug/L	250	6.0	20	LD
Phenanthrene	450	ug/L	250	5.3	17	
Pyrene	210	ug/L	250	5.0	17	
Nitrobenzene-d5 (SURR)	118%					SR S
2-Fluorobiphenyl (SURR)	98%					SR S
Terphenyl-d14 (SURR)	67%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

FV = Final extract volume is 10 mL.

CC = Continuing calibration verification standard recovery was outside QC limits.
Methyl-2-Naphthalene recovery 77%

LD = Laboratory control spike and laboratory control spike duplicate relative percent difference exceed QC limits.

SR = Surrogate recovery was outside QC limits.
2-Fluorobiphenyl recovered above QC limits.
Nitrobenzene-d5 recovered above QC limits.

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8270C SIM

Customer: URS Corporation (Milwaukee) **NLS Project: 115946**

Project Description: Xcel Energy - Ashland

Project Title: **Template: 8270PAHW** **Printed: 04/08/2008 11:13**

Sample: 470289 Effluent Collected: 03/10/08 Analyzed: 03/26/08 -

ANALYTE NAME	RESULT	UNITS	DIL	LOD	LOQ	Note
Acenaphthene	ND	ug/L	1	0.019	0.064	
Acenaphthylene	0.14	ug/L	1	0.016	0.052	
Anthracene	[0.022]	ug/L	1	0.018	0.061	
Benzo (a) anthracene	0.36	ug/L	1	0.012	0.041	
Benzo (a) pyrene	0.41	ug/L	1	0.014	0.047	
Benzo (b) fluoranthene	0.38	ug/L	1	0.017	0.057	
Benzo (g,h,i) perylene	0.24	ug/L	1	0.014	0.047	
Benzo (k) fluoranthene	0.19	ug/L	1	0.016	0.052	
Chrysene	0.21	ug/L	1	0.018	0.060	
Dibenzo (a,h) anthracene	0.10	ug/L	1	0.014	0.047	
Fluoranthene	0.42	ug/L	1	0.019	0.064	
Fluorene	ND	ug/L	1	0.017	0.055	
Indeno (1,2,3-cd) pyrene	0.22	ug/L	1	0.012	0.041	
Methyl-1-Naphthalene	ND	ug/L	1	0.017	0.057	
Methyl-2-Naphthalene	ND	ug/L	1	0.024	0.079	
Naphthalene	ND	ug/L	1	0.024	0.080	
Phenanthrene	ND	ug/L	1	0.021	0.069	
Pyrene	0.63	ug/L	1	0.020	0.068	MS
Nitrobenzene-d5 (SURR)	62%					S
2-Fluorobiphenyl (SURR)	74%					S
Terphenyl-d14 (SURR)	80%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

MS = Matrix spike recovery was outside QC limits.
Pyrene recovered above QC limits.