

ASHLAND/NSP LAKEFRONT SITE
JULY 15, 2010 PROGRESS REPORT (No. 69)
WDNR BRRTS #02-02-00013
CERCLA Docket No. V-W-04-C-764
USEPA ID# WISFN057952

This is the sixty-ninth progress report prepared in accordance with the Administrative Order on Consent (AOC) for the Ashland/NSP Lakefront Site, effective November 14, 2003. This report describes activities completed during April – June 2010. 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 system operated during the April – June monitoring period recovering product at a reduced rate compared to the two previous three-month intervals. Between March 31st and June 29th, 93.7 gallons of material were recovered for a rate of 1.04 gal/day. This compares to a rate of 1.8 gal/day during October – December 2009, and 1.43/gal/day during January March 2010. The primary cause for this decline was failure of the transfer pump at the oil water separator sump conveying product to the storage tank between April 6th and May 21st. The extraction system pumps operated during this period conveying effluent through the treatment system; however, separated product was manually transferred to the storage tank while the transfer pump was rebuilt. This reduced efficiency resulting in only five gallons of product recovered between these dates (19.5 gallons of product were recovered on May 21st when the rebuilt pump was reinstalled). From May 21st through June 29th an additional 65.2 gallons were recovered a rate of 1.67 gal/day, consistent with fully operational production values.

During the 90-day monitoring period 60,932 gallons of effluent were treated and discharged for a rate of 4,739 gal/wk. These production values are comparable to and slightly exceed previous spring records. The majority of this flow was removed from EW-4 screened in the fill at the outlet of the ravine.¹

System performance monitoring samples were collected on April 6th, May 26th and June 15th. Quarterly PAH and oil/grease values for the liquid phase system were collected during the June event. The liquid phase influent values for VOCs for the three events were 15,090, 43,330 and 44,160 µg/l, respectively. The effluent values measured during these events were 0.53, 1.31 and 0.0 µg/l, respectively. The PAH effluent value for June totaled 0.064 µg/l for two low molecular weight compounds detected, but below the respective quantitation limits for each (acenaphthylene and phenanthrene); oil/grease was also detected but below its respective quantitation limit (the measurements are noted as “J” values that indicate a concentration below the quantitation limit, but above the detection limit). The vapor phase samples collected on these same dates yielded below detection values for all points along the treatment line (air diffuser, pre-carbon and effluent).

The treatment system additive preventing scale build-up on the air diffuser baffles continued to

¹ A low battery signal for the EW-4 flow meter was recorded on June 15th; the meter continued to operate through June 29th but the recorded flow was erratic. Coleman Engineering will evaluate the condition of the meter and extraction pump (as necessary) during the upcoming reporting period.

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be applied to the system during regular inspections via batch. This procedure has proved effective and will be continued.

Northern Minnesota Services (NMS) removed one drum of spent personal protective equipment (PPE) for off-site disposal properly manifested as hazardous waste on April 22nd.

Coleman Engineering replaced four warning signs for the contaminated sediment area at Kreher Park on May 21st.

The summary of system monitoring data during this three month period is included in Tables 1 – 9. Lab analysis reports for the system monitoring samples are included in the Appendix.

RI Activities

All RI field activities were completed during November 2005. Two rounds of supplementary groundwater monitoring were performed at the request of USEPA and WDNR in August 2008 and April 2009. The unvalidated results of these supplementary sampling events were included in the October 2008 and July 2009 reports (Progress Reports Nos. 59 and 65, respectively).

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.

Reporting Activities Completed

Final RI Report

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

Final Feasibility Study (FS)

USEPA issued formal approval of the FS report, which included the three previous Technical Memoranda (Remedial Action Options Tech Memo, Alternatives Screening Tech Memo, and the Comparative Analysis of Alternatives Tech Memo) along with the Treatability Study Reports, on December 4, 2008.

Preliminary Remedial Action Plan (PRAP)

USEPA issued the formal PRAP outlining its preferred remedies for soil, groundwater and sediments at the Lakefront Site on June 12, 2009. The Agency held a public informational meeting describing these remedies in Ashland on June 17, 2009, followed by a public hearing accepting formal verbal comments to the PRAP in Ashland on June 29, 2009. USEPA accepted written comments until August 17, 2009.

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Record of Decision

USEPA's Record of Decision (ROD) for the site is pending as of the date of this progress report.

Field Activities Planned

Coleman Engineering will continue to monitor the free-product removal system and evaluate system operations during the upcoming reporting period from July – September 2010.

Reporting Activities Planned

The next progress report is scheduled for submittal on October 15, 2010. Future progress reports will continue to be submitted on the 15th of the month following completion of the calendar year quarter, until NSPW receives formal notice of AOC completion.

Attachments:

Table 1 - Remediation System Water Quality Monitoring Results –April 2010
Table 2 - Remediation System Water Quality Monitoring Results – May 2010
Table 3 - Remediation System Water Quality Monitoring Results – June 2010
Table 4 - Remediation System Air Monitoring Results – April 2010
Table 5 - Remediation System Air Monitoring Results – May 2010
Table 6 - Remediation System Air Monitoring Results – June 2010
Table 7 - Summary of Free-Product and Groundwater Volume Removed
Table 8 – Remediation System – Air Treatment Summary
Table 9 – 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**

April 2010

| Analyte | Units | Influent | Precarbon | Effluent | Trip Blank | ⁽¹⁾ POTW | Method | ⁽³⁾ Frequency |
|--------------------------------|-------|---------------|--------------|--------------|--------------|----------------------------|----------|--------------------------|
| VOCs | | | | | | | | |
| 1,1,1,2-TETRACHLOROETHANE | ug/L | <56 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| 1,1,1-TRICHLOROETHANE | ug/L | <98 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| 1,1,2,2-TETRACHLOROETHANE | ug/L | <64 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 1,1,2-TRICHLOROETHANE | ug/L | <83 | <0.17 | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHANE | ug/L | <82 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHENE | ug/L | <76 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROPROPENE | ug/L | <54 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROBENZENE | ug/L | <110 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROPROPANE | ug/L | <130 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| 1,2,4-TRICHLOROBENZENE | ug/L | <150 | <0.3 | <0.3 | <0.3 | -- | EPA 8260 | Monthly |
| 1,2,4-TRIMETHYLBENZENE | ug/L | 170J | 1 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMO-3-CHLOROPROPANE | ug/L | <110 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMOETHANE | ug/L | <74 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROBENZENE | ug/L | <65 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROETHANE | ug/L | <110 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROPROPANE | ug/L | <100 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,3,5-TRIMETHYLBENZENE | ug/L | <61 | 0.28J | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROBENZENE | ug/L | <71 | <0.14 | <0.14 | <0.14 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROPROPANE | ug/L | <100 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,4-DICHLOROBENZENE | ug/L | <64 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 2,2-DICHLOROPROPANE | ug/L | <64 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 2-CHLOROTOLUENE | ug/L | <73 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 4-CHLOROTOLUENE | ug/L | <54 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| BENZENE | ug/L | 3900 | 4.1 | 0.2J | <0.13 | -- | EPA 8260 | Monthly |
| BROMOBENZENE | ug/L | <60 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| BROMOCHLOROMETHANE | ug/L | <67 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| BROMODICHLOROMETHANE | ug/L | <54 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| BROMOFORM | ug/L | <93 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| BROMOMETHANE | ug/L | <170 | <0.35 | <0.35 | <0.35 | -- | EPA 8260 | Monthly |
| CARBON TETRACHLORIDE | ug/L | <63 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CHLOROBENZENE | ug/L | <52 | <0.1 | <0.1 | <0.1 | -- | EPA 8260 | Monthly |
| CHLOROETHANE | ug/L | <340 | <0.67 | <0.67 | <0.67 | -- | EPA 8260 | Monthly |
| CHLOROFORM | ug/L | <65 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CHLOROMETHANE | ug/L | <140 | <0.28 | <0.28 | 0.87J | -- | EPA 8260 | Monthly |
| CIS-1,2-DICHLOROETHYLENE | ug/L | <60 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| CIS-1,3-DICHLOROPROPENE | ug/L | <64 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CYMENE | ug/L | <54 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| DIBROMOCHLOROMETHANE | ug/L | <56 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| DIBROMOMETHANE | ug/L | <94 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| DICHLORODIFLUOROMETHANE | ug/L | <67 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| ETHYLBENZENE | ug/L | 130 | 0.42J | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| HEXACHLOROBUTADIENE | ug/L | <180 | <0.36 | <0.36 | <0.36 | -- | EPA 8260 | Monthly |
| ISOPROPYL ETHER | ug/L | <100 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| ISOPROPYLBENZENE (CUMENE) | ug/L | <51 | <0.1 | <0.1 | <0.1 | -- | EPA 8260 | Monthly |
| M,P-XYLENE (SUM OF ISOMERS) | ug/L | 740 | 3.4 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| METHYLENE CHLORIDE | ug/L | 240J | <0.27 | <0.27 | <0.27 | -- | EPA 8260 | Monthly |
| NAPHTHALENE | ug/L | 5200 | 6.7 | 0.33J | <0.31 | -- | EPA 8260 | Monthly |
| N-BUTYLBENZENE | ug/L | <68 | <0.14 | <0.14 | <0.14 | -- | EPA 8260 | Monthly |
| N-PROPYLBENZENE | ug/L | <73 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| O-XYLENE (1,2-DIMETHYLBENZENE) | ug/L | 410 | 2.2 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| SEC-BUTYLBENZENE | ug/L | <62 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| STYRENE | ug/L | 1300 | 4.1 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| T-BUTYLBENZENE | ug/L | <67 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TERT-BUTYL METHYL ETHER | ug/L | <64 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TETRACHLOROETHYLENE (PCE) | ug/L | <90 | <0.18 | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| TOLUENE | ug/L | 3000 | 4.8 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| TRANS-1,2-DICHLOROETHENE | ug/L | <63 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TRANS-1,3-DICHLOROPROPENE | ug/L | <65 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TRICHLOROETHYLENE (TCE) | ug/L | <82 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| TRICHLOROFLUOROMETHANE | ug/L | <54 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| VINYL CHLORIDE | ug/L | <87 | <0.17 | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| Total VOCs | ug/L | 15,090 | 27.0 | 0.53 | 0.87 | ⁽²⁾ 1000 | | |

Collected April 6, 2010

< - 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 2
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin

May 2010

| Analyte | Units | Influent | Precarbon | Effluent | Trip Blank | ⁽¹⁾ POTW | Method | ⁽³⁾ Frequency |
|--------------------------------|-------|---------------|--------------|---------------|--------------|---------------------------|----------|--------------------------|
| VOCs | | | | | | | | |
| 1,1,1,2-TETRACHLOROETHANE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| 1,1,1-TRICHLOROETHANE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| 1,1,2,2-TETRACHLOROETHANE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 1,1,2-TRICHLOROETHANE | ug/L | <170 | <0.17 | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHANE | ug/L | <160 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHENE | ug/L | <150 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROPROPENE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROBENZENE | ug/L | <230 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROPROPANE | ug/L | <260 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| 1,2,4-TRICHLOROBENZENE | ug/L | <300 | <0.3 | <0.3 | <0.3 | -- | EPA 8260 | Monthly |
| 1,2,4-TRIMETHYLBENZENE | ug/L | 730 | 0.45 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMO-3-CHLOROPROPANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMOETHANE | ug/L | <150 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROBENZENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROETHANE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROPROPANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,3,5-TRIMETHYLBENZENE | ug/L | 210J | 0.17J | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROBENZENE | ug/L | <140 | <0.14 | <0.14 | <0.14 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROPROPANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,4-DICHLOROBENZENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 2,2-DICHLOROPROPANE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| 2-CHLOROTOLUENE | ug/L | <150 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| 4-CHLOROTOLUENE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| BENZENE | ug/L | 13000 | 0.6 | 0.19 J | <0.13 | -- | EPA 8260 | Monthly |
| BROMOBENZENE | ug/L | <120 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| BROMOCHLOROMETHANE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| BROMODICHLOROMETHANE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| BROMOFORM | ug/L | <190 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| BROMOMETHANE | ug/L | <350 | <0.35 | <0.35 | <0.35 | -- | EPA 8260 | Monthly |
| CARBON TETRACHLORIDE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CHLOROBENZENE | ug/L | <100 | <0.1 | <0.1 | <0.1 | -- | EPA 8260 | Monthly |
| CHLOROETHANE | ug/L | <670 | <0.67 | <0.67 | <0.67 | -- | EPA 8260 | Monthly |
| CHLOROFORM | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CHLOROMETHANE | ug/L | <280 | <0.28 | <0.28 | <0.28 | -- | EPA 8260 | Monthly |
| CIS-1,2-DICHLOROETHYLENE | ug/L | <120 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| CIS-1,3-DICHLOROPROPENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| CYMENE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| DIBROMOCHLOROMETHANE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| DIBROMOMETHANE | ug/L | <190 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| DICHLORODIFLUOROMETHANE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| ETHYLBENZENE | ug/L | 450 | 0.22J | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| HEXACHLOROBUTADIENE | ug/L | <360 | <0.36 | <0.36 | <0.36 | -- | EPA 8260 | Monthly |
| ISOPROPYL ETHER | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| ISOPROPYLBENZENE (CUMENE) | ug/L | <100 | <0.1 | <0.1 | <0.1 | -- | EPA 8260 | Monthly |
| M,P-XYLENE (SUM OF ISOMERS) | ug/L | 3100 | 1.8 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| METHYLENE CHLORIDE | ug/L | 840J | 0.63J | <0.27 | 0.27J | -- | EPA 8260 | Monthly |
| NAPHTHALENE | ug/L | 9500 | 2.7 | 1.0 J | <0.31 | -- | EPA 8260 | Monthly |
| N-BUTYLBENZENE | ug/L | <140 | <0.14 | <0.14 | <0.14 | -- | EPA 8260 | Monthly |
| N-PROPYLBENZENE | ug/L | <150 | <0.15 | <0.15 | <0.15 | -- | EPA 8260 | Monthly |
| O-XYLENE (1,2-DIMETHYLBENZENE) | ug/L | 1600 | 0.86 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| SEC-BUTYLBENZENE | ug/L | <120 | <0.12 | <0.12 | <0.12 | -- | EPA 8260 | Monthly |
| STYRENE | ug/L | 3900 | 0.67 | 0.12J | <0.11 | -- | EPA 8260 | Monthly |
| T-BUTYLBENZENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TERT-BUTYL METHYL ETHER | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TETRACHLOROETHYLENE (PCE) | ug/L | <180 | <0.18 | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| TOLUENE | ug/L | 10000 | 0.69 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| TRANS-1,2-DICHLOROETHENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TRANS-1,3-DICHLOROPROPENE | ug/L | <130 | <0.13 | <0.13 | <0.13 | -- | EPA 8260 | Monthly |
| TRICHLOROETHYLENE (TCE) | ug/L | <160 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| TRICHLOROFLUOROMETHANE | ug/L | <110 | <0.11 | <0.11 | <0.11 | -- | EPA 8260 | Monthly |
| VINYL CHLORIDE | ug/L | <170 | <0.17 | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| Total VOCs | ug/L | 43,330 | 8.79 | 1.31 | 0.27 | ⁽²⁾1000 | | |

Collected May 26, 2010

< - 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 3
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin**

June 2010

| Analyte | Units | Influent | Precarbon | Effluent | Trip Blank | ⁽¹⁾ POTW | Method | ⁽³⁾ Frequency |
|--------------------------------|-------|---------------|--------------|------------|------------|----------------------------|----------|--------------------------|
| VOCs | | | | | | | | |
| 1,1,1,2-TETRACHLOROETHANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,1,1-TRICHLOROETHANE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 1,1,2,2-TETRACHLOROETHANE | ug/L | <250 | <0.25 | <0.25 | <0.25 | -- | EPA 8260 | Monthly |
| 1,1,2-TRICHLOROETHANE | ug/L | <230 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROETHENE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,1-DICHLOROPROPENE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROBENZENE | ug/L | <270 | <0.27 | <0.27 | <0.27 | -- | EPA 8260 | Monthly |
| 1,2,3-TRICHLOROPROPANE | ug/L | <340 | <0.34 | <0.34 | <0.34 | -- | EPA 8260 | Monthly |
| 1,2,4-TRICHLOROBENZENE | ug/L | <320 | <0.32 | <0.32 | <0.32 | -- | EPA 8260 | Monthly |
| 1,2,4-TRIMETHYLBENZENE | ug/L | 530J | 0.19J | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMO-3-CHLOROPROPANE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| 1,2-DIBROMOETHANE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROBENZENE | ug/L | <160 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROETHANE | ug/L | <160 | <0.16 | <0.16 | <0.16 | -- | EPA 8260 | Monthly |
| 1,2-DICHLOROPROPANE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 1,3,5-TRIMETHYLBENZENE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROBENZENE | ug/L | <230 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| 1,3-DICHLOROPROPANE | ug/L | <230 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| 1,4-DICHLOROBENZENE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| 2,2-DICHLOROPROPANE | ug/L | <140 | <0.14 | <0.14 | <0.14 | -- | EPA 8260 | Monthly |
| 2-CHLOROTOLUENE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| 4-CHLOROTOLUENE | ug/L | <240 | <0.24 | <0.24 | <0.24 | -- | EPA 8260 | Monthly |
| BENZENE | ug/L | 15000 | 0.32J | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| BROMOBENZENE | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| BROMOCHLOROMETHANE | ug/L | <260 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| BROMODICHLOROMETHANE | ug/L | <260 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| BROMOFORM | ug/L | <350 | <0.35 | <0.35 | <0.35 | -- | EPA 8260 | Monthly |
| BROMOMETHANE | ug/L | <260 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| CARBON TETRACHLORIDE | ug/L | <270 | <0.27 | <0.27 | <0.27 | -- | EPA 8260 | Monthly |
| CHLOROBENZENE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| CHLOROETHANE | ug/L | <1500 | <1.5 | <1.5 | <1.5 | -- | EPA 8260 | Monthly |
| CHLOROFORM | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| CHLOROMETHANE | ug/L | <230 | <0.23 | <0.23 | <0.23 | -- | EPA 8260 | Monthly |
| CIS-1,2-DICHLOROETHYLENE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| CIS-1,3-DICHLOROPROPENE | ug/L | <190 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| CYMENE | ug/L | <190 | <0.19 | <0.19 | <0.19 | -- | EPA 8260 | Monthly |
| DIBROMOCHLOROMETHANE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| DIBROMOMETHANE | ug/L | <280 | <0.28 | <0.28 | <0.28 | -- | EPA 8260 | Monthly |
| DICHLORODIFLUOROMETHANE | ug/L | <290 | <0.29 | <0.29 | <0.29 | -- | EPA 8260 | Monthly |
| ETHYLBENZENE | ug/L | 430J | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| HEXACHLOROBUTADIENE | ug/L | <450 | <0.45 | <0.45 | <0.45 | -- | EPA 8260 | Monthly |
| ISOPROPYL ETHER | ug/L | <250 | <0.25 | <0.25 | <0.25 | -- | EPA 8260 | Monthly |
| ISOPROPYLBENZENE (CUMENE) | ug/L | <220 | <0.22 | <0.22 | <0.22 | -- | EPA 8260 | Monthly |
| M,P-XYLENE (SUM OF ISOMERS) | ug/L | 2800 | 0.52J | <0.33 | <0.33 | -- | EPA 8260 | Monthly |
| METHYLENE CHLORIDE | ug/L | <480 | <0.48 | <0.48 | <0.48 | -- | EPA 8260 | Monthly |
| NAPHTHALENE | ug/L | 11000 | 1.4J | <0.41 | <0.41 | -- | EPA 8260 | Monthly |
| N-BUTYLBENZENE | ug/L | <180 | <0.18 | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| N-PROPYLBENZENE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| O-XYLENE (1,2-DIMETHYLBENZENE) | ug/L | 1400 | 0.27J | <0.24 | <0.24 | -- | EPA 8260 | Monthly |
| SEC-BUTYLBENZENE | ug/L | <200 | <0.2 | <0.2 | <0.2 | -- | EPA 8260 | Monthly |
| STYRENE | ug/L | 3800 | 0.35J | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| T-BUTYLBENZENE | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| TERT-BUTYL METHYL ETHER | ug/L | <280 | <0.28 | <0.28 | <0.28 | -- | EPA 8260 | Monthly |
| TETRACHLOROETHYLENE (PCE) | ug/L | <210 | <0.21 | <0.21 | <0.21 | -- | EPA 8260 | Monthly |
| TOLUENE | ug/L | 9200 | 0.32J | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| TRANS-1,2-DICHLOROETHENE | ug/L | <260 | <0.26 | <0.26 | <0.26 | -- | EPA 8260 | Monthly |
| TRANS-1,3-DICHLOROPROPENE | ug/L | <180 | <0.18 | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| TRICHLOROETHYLENE (TCE) | ug/L | <170 | <0.17 | <0.17 | <0.17 | -- | EPA 8260 | Monthly |
| TRICHLOROFUOROMETHANE | ug/L | <320 | <0.32 | <0.32 | <0.32 | -- | EPA 8260 | Monthly |
| VINYL CHLORIDE | ug/L | <180 | <0.18 | <0.18 | <0.18 | -- | EPA 8260 | Monthly |
| Total VOCs | ug/L | 44,160 | 3.4 | 0.0 | 0.0 | ⁽²⁾ 1000 | | |

Collected June 15, 2010

< - 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 3
Remediation System Water Quality Monitoring Results
Northern States Power, Ashland, Wisconsin**

June 2010

| Analyte | Units | Influent | Precarbon | Effluent | Trip Blank | ⁽¹⁾ POTW | Method | Frequency |
|-------------------------------|----------|----------|-----------|---------------|------------|----------------------------|--------------|-------------|
| PAHs, DRO, GRO | | | | | | | | |
| 1-METHYLNAPHTHALENE | ug/L | (4) | (4) | <0.017 | (4) | -- | SW8270C | Quarterly |
| 2-METHYLNAPHTHALENE | ug/L | (4) | (4) | <0.024 | (4) | -- | SW8270C | Quarterly |
| ACENAPHTHENE | ug/L | (4) | (4) | <0.019 | (4) | -- | SW8270C | Quarterly |
| ACENAPHTHYLENE | ug/L | (4) | (4) | 0.041J | (4) | -- | SW8270C | Quarterly |
| ANTHRACENE | ug/L | (4) | (4) | <0.018 | (4) | -- | SW8270C | Quarterly |
| BENZO(A)ANTHRACENE | ug/L | (4) | (4) | 0.013J | (4) | -- | SW8270C | Quarterly |
| BENZO(A)PYRENE | ug/L | (4) | (4) | <0.014 | (4) | -- | SW8270C | Quarterly |
| BENZO(B)FLUORANTHENE | ug/L | (4) | (4) | <0.017 | (4) | -- | SW8270C | Quarterly |
| BENZO(G,H,I)PERYLENE | ug/L | (4) | (4) | <0.014 | (4) | -- | SW8270C | Quarterly |
| BENZO(K)FLUORANTHENE | ug/L | (4) | (4) | <0.016 | (4) | -- | SW8270C | Quarterly |
| CHRYSENE | ug/L | (4) | (4) | <0.018 | (4) | -- | SW8270C | Quarterly |
| DIBENZO(A,H)ANTHRACENE | ug/L | (4) | (4) | <0.014 | (4) | -- | SW8270C | Quarterly |
| FLUORANTHENE | ug/L | (4) | (4) | <0.019 | (4) | -- | SW8270C | Quarterly |
| FLUORENE | ug/L | (4) | (4) | <0.017 | (4) | -- | SW8270C | Quarterly |
| INDENO(1,2,3-C,D)PYRENE | ug/L | (4) | (4) | <0.012 | (4) | -- | SW8270C | Quarterly |
| NAPHTHALENE | ug/L | (4) | (4) | <0.024 | (4) | -- | SW8270C | Quarterly |
| PHENANTHRENE | ug/L | (4) | (4) | 0.023J | (4) | -- | SW8270C | Quarterly |
| PYRENE | ug/L | (4) | (4) | <0.02 | (4) | -- | SW8270C | Quarterly |
| DIESEL RANGE ORGANICS (DRO) | mg/L | (4) | (4) | (4) | (4) | 50 | WI MOD DRO | Semi-Annual |
| GASOLINE RANGE ORGANICS (GRO) | mg/L | (4) | (4) | (4) | (4) | 50 | WI MOD GRO | Semi-Annual |
| Total PAHs | ug/L | | | 0.064 | | ⁽²⁾ 1000 | | |
| Inorganics | | | | | | | | |
| CADMIUM, TOTAL (UG/L CD) | ug/L | (4) | (4) | (4) | (4) | 110 | SW6010 | Semi-Annual |
| CHROMIUM, TOTAL (UG/L CR) | ug/L | (4) | (4) | (4) | (4) | 2500 | SW6010 | Semi-Annual |
| COPPER, TOTAL (UG/L CU) | ug/L | (4) | (4) | (4) | (4) | 2000 | SW6010 | Semi-Annual |
| LEAD, TOTAL (UG/L PB) | ug/L | (4) | (4) | (4) | (4) | 100 | SW6010 | Semi-Annual |
| MERCURY, TOTAL (UG/L HG) | ug/L | (4) | (4) | (4) | (4) | 0.5 | 245.7M/1631M | Semi-Annual |
| OIL & GREASE, TOTAL REC | mg/L | (4) | (4) | 2.2J | (4) | -- | SW1664 | Quarterly |
| PH, LAB (STANDARD UNITS) | pH units | (4) | (4) | (4) | (4) | 5.5<pH>9.5 | SW9040 | Semi-Annual |
| PHOSPHORUS, TOTAL (MG/L P) | mg/L | (4) | (4) | (4) | (4) | 5 | E365.2 | Semi-Annual |

Collected June 15, 2010

< - 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 4
Remediation System Air Monitoring Results
Northern States Power, Ashland, Wisconsin

April 2010

| Analyte | Units | Air Stripper | 1st Stage Carbon | Effluent | Method | Frequency |
|----------------------|-------------------|--------------|------------------|----------|------------|-----------|
| VOCs | | | | | | |
| Volume Collected | Liters | 3.0 | 3.0 | 5.0 | | |
| Benzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Benzene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Ethylbenzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Ethylbenzene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Hydrocarbons (total) | ug | <30 | <30 | <30 | NIOSH 1550 | Monthly |
| Hydrocarbons (total) | mg/m ³ | <10 | <10 | <6 | NIOSH 1550 | Monthly |
| Toluene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Toluene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Xylenes, Total | ug | <30 | <30 | <30 | NIOSH 1501 | Monthly |
| Xylenes, Total | mg/m ³ | <10 | <10 | <6 | NIOSH 1501 | Monthly |

Collected April 6, 2010

< - Less Than Limit of Detection

<> Between Limit of Detection and Limit of Quantification

Table 5
Remediation System Air Monitoring Results
Northern States Power, Ashland, Wisconsin

May 2010

| Analyte | Units | Air Stripper | 1st Stage Carbon | Effluent | Method | Frequency |
|----------------------|-------------------|--------------|------------------|----------|------------|-----------|
| VOCs | | | | | | |
| Volume Collected | Liters | 3.0 | 3.0 | 5.0 | | |
| Benzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Benzene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Ethylbenzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Ethylbenzene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Hydrocarbons (total) | ug | <50 | <50 | <50 | NIOSH 1550 | Monthly |
| Hydrocarbons (total) | mg/m ³ | <16.7 | <16.7 | <10 | NIOSH 1550 | Monthly |
| Toluene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Toluene | mg/m ³ | <6.67 | <6.67 | <4 | NIOSH 1501 | Monthly |
| Xylenes, Total | ug | <30 | <30 | <30 | NIOSH 1501 | Monthly |
| Xylenes, Total | mg/m ³ | <10 | <10 | <6 | NIOSH 1501 | Monthly |

Collected May 26, 2010

< - Less Than Limit of Detection

<> Between Limit of Detection and Limit of Quantification

Table 6
Remediation System Air Monitoring Results
Northern States Power, Ashland, Wisconsin

June 2010

| Analyte | Units | Air Stripper | 1st Stage Carbon | Effluent | Method | Frequency |
|----------------------|-------------------|--------------|------------------|----------|------------|-----------|
| VOCs | | | | | | |
| Volume Collected | Liters | 3.0 | 3.0 | 5.0 | | |
| Benzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Benzene | mg/m ³ | <6.67 | <6.67 | <6.67 | NIOSH 1501 | Monthly |
| Ethylbenzene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Ethylbenzene | mg/m ³ | <6.67 | <6.67 | <6.67 | NIOSH 1501 | Monthly |
| Hydrocarbons (total) | ug | <30 | <30 | <30 | NIOSH 1550 | Monthly |
| Hydrocarbons (total) | mg/m ³ | <10 | <10 | <10 | NIOSH 1550 | Monthly |
| Toluene | ug | <20 | <20 | <20 | NIOSH 1501 | Monthly |
| Toluene | mg/m ³ | <6.67 | <6.67 | <6.67 | NIOSH 1501 | Monthly |
| Xylenes, Total | ug | <30 | <30 | <30 | NIOSH 1501 | Monthly |
| Xylenes, Total | mg/m ³ | <10 | <10 | <10 | NIOSH 1501 | Monthly |

Collected June 15, 2010

< - Less Than Limit of Detection

<> Between Limit of Detection and Limit of Quantification

Table 7
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 |

Table 7
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) |
|------------------------|--|---|---|--|---|
| 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 |
| 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 |

Table 7
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) |
|-----------|--|---|---|--|---|
| 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 |
| 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 |

Table 7
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) |
|-----------|--|---|---|--|---|
| 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 |
| 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 |

Table 7
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) |
|-----------|--|---|---|--|---|
| 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 |
| 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 |
| 08-Apr-08 | 9,703.3 | 84,972 | 1,388,850 | 542,016 | 1,930,865 |
| 14-Apr-08 | 9,707.4 | 85,008 | 1,393,168 | 542,016 | 1,935,183 |
| 21-Apr-08 | 9,711.5 | 85,044 | 1,409,516 | 542,021 | 1,951,537 |
| 29-Apr-08 | 9,715.6 | 85,080 | 1,418,809 | 548,709 | 1,967,517 |
| 07-May-08 | 9,715.6 | 85,080 | 1,425,927 | 554,298 | 1,980,224 |
| 13-May-08 | 9,719.6 | 85,115 | 1,427,167 | 557,668 | 1,984,834 |
| 21-May-08 | 9,727.8 | 85,187 | 1,427,250 | 559,351 | 1,986,600 |
| 29-May-08 | 9,731.9 | 85,222 | 1,425,839 | 567,573 | 1,993,411 |
| 05-Jun-08 | 9,731.9 | 85,222 | 1,425,306 | 573,325 | 1,998,630 |
| 10-Jun-08 | 9,731.9 | 85,222 | 1,421,474 | 579,600 | 2,001,073 |
| 17-Jun-08 | 9,740.0 | 85,293 | 1,414,903 | 591,898 | 2,006,800 |
| 24-Jun-08 | 9,764.5 | 85,508 | 1,414,108 | 597,692 | 2,011,800 |
| 30-Jun-08 | 9,780.8 | 85,651 | 1,411,785 | 604,744 | 2,016,529 |
| 09-Jul-08 | 9,801.1 | 85,828 | 1,410,159 | 611,441 | 2,021,600 |
| 16-Jul-08 | 9,805.2 | 85,864 | 1,408,756 | 616,844 | 2,025,600 |
| 24-Jul-08 | 9,829.7 | 86,079 | 1,407,392 | 622,081 | 2,029,473 |
| 30-Jul-08 | 9,854.1 | 86,293 | 1,406,859 | 625,208 | 2,032,067 |
| 07-Aug-08 | 9,878.6 | 86,507 | 1,408,044 | 627,256 | 2,035,300 |
| 13-Aug-08 | 9,886.7 | 86,578 | 1,408,829 | 629,071 | 2,037,900 |
| 20-Aug-08 | 9,898.9 | 86,685 | 1,411,104 | 630,296 | 2,041,400 |
| 26-Aug-08 | 9,964.2 | 87,257 | NA | reading not taken | reading not taken |
| 04-Sep-08 | 10,159.8 | 88,970 | 1,428,551 | 631,949 | 2,060,500 |
| 10-Sep-08 | 10,184.3 | 89,184 | 1,435,303 | 632,497 | 2,067,800 |
| 17-Sep-08 | 10,184.3 | 89,184 | 1,444,350 | 633,150 | 2,077,500 |
| 24-Sep-08 | 10,245.4 | 89,719 | 1,452,349 | 633,751 | 2,086,100 |
| 01-Oct-08 | 10,257.6 | 89,826 | 1,460,522 | 634,278 | 2,094,800 |
| 09-Oct-08 | 10,273.9 | 89,969 | 1,460,969 | 634,631 | 2,095,600 |
| 13-Oct-08 | 10,278.0 | 90,005 | 1,465,893 | 635,024 | 2,100,917 |
| 22-Oct-08 | 10,283.1 | 90,049 | 1,470,402 | 636,442 | 2,106,844 |
| 30-Oct-08 | 10,286.1 | 90,076 | 1,473,777 | 637,623 | 2,111,400 |
| 05-Nov-08 | 10,290.2 | 90,111 | 1,476,314 | 638,766 | 2,115,080 |
| 12-Nov-08 | 10,306.5 | 90,254 | 1,475,456 | 639,624 | 2,115,080 |
| 19-Nov-08 | 10,310.6 | 90,290 | 1,477,209 | 640,392 | 2,117,600 |
| 25-Nov-08 | 10,325.0 | 90,416 | 1,478,139 | 641,061 | 2,119,200 |

Table 7
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) |
|-------------|---|--|--|---|--|
| 03-Dec-08 | 10,326.9 | 90,433 | 1,479,165 | 641,935 | 2,121,100 |
| 10-Dec-08 | 10,339.1 | 90,540 | 1,479,356 | 643,044 | 2,122,400 |
| 18-Dec-08 | 10,343.2 | 90,576 | 1,479,497 | 645,003 | 2,124,500 |
| 23-Dec-08 | 10,347.3 | 90,612 | 1,479,254 | 646,269 | 2,125,523 |
| 29-Dec-08 | 10,351.3 | 90,647 | 1,479,764 | 647,636 | 2,127,400 |
| 07-Jan-09 | 10,355.4 | 90,682 | 1,484,007 | 648,893 | 2,132,900 |
| 14-Jan-09 | 10,363.6 | 90,754 | 1,485,691 | 649,609 | 2,135,300 |
| 21-Jan-09 | 10,367.6 | 90,789 | 1,486,382 | 650,664 | 2,137,045 |
| 28-Jan-09 | 10,375.8 | 90,861 | 1,485,914 | 652,231 | 2,138,145 |
| 04-Feb-09 | 10,379.9 | 90,897 | 1,486,481 | 653,219 | 2,139,700 |
| 10-Feb-09 | 10,383.9 | 90,932 | 1,488,499 | 653,601 | 2,142,100 |
| 16-Feb-09 | 10,388.0 | 90,968 | 1,490,025 | 653,875 | 2,143,900 |
| 25-Feb-09 | 10,396.2 | 91,040 | 1,492,643 | 654,157 | 2,146,800 |
| 04-Mar-09 | 10,416.5 | 91,217 | 1,495,095 | 654,305 | 2,149,400 |
| 12-Mar-09 | 10,436.9 | 91,396 | 1,496,422 | 655,178 | 2,151,600 |
| 18-Mar-09 | 10,457.3 | 91,575 | 1,497,318 | 657,182 | 2,154,500 |
| 26-Mar-09 | 10,485.8 | 91,824 | 1,497,779 | 666,121 | 2,163,900 |
| 02-Apr-09 | 10,489.9 | 91,860 | 1,498,145 | 672,955 | 2,171,100 |
| 08-Apr-09 | 10,494.0 | 91,896 | 1,495,422 | 678,878 | 2,174,300 |
| 15-Apr-09 | 10,498.0 | 91,931 | 1,493,491 | 680,809 | 2,174,300 |
| 21-Apr-09 | 10,498.0 | 91,931 | 1,495,693 | 681,007 | 2,176,700 |
| 29-Apr-09 | 10,498.0 | 91,931 | 1,495,632 | 681,168 | 2,176,800 |
| 06-May-09 | 10,514.3 | 92,074 | 1,493,349 | 687,551 | 2,180,900 |
| 15-May-09 | 10,522.5 | 92,146 | 1,493,242 | 687,658 | 2,180,900 |
| 18-May-09 | 10,530.6 | 92,217 | 1,491,269 | 692,231 | 2,183,500 |
| 26-May-09 | 10,538.6 | 92,287 | 1,488,069 | 698,531 | 2,186,600 |
| 02-Jun-09 | 10,542.8 | 92,324 | 1,487,813 | 701,327 | 2,189,140 |
| 08-Jun-09 | 10,555.1 | 92,431 | 1,487,265 | 703,935 | 2,191,200 |
| 18-Jun-09 | 10,567.4 | 92,539 | 1,489,737 | 704,163 | 2,193,901 |
| 23-Jun-09 | 10,571.4 | 92,574 | 1,490,965 | 704,163 | 2,195,128 |
| 29-Jun-09 | 10,584.3 | 92,687 | 1,491,880 | 706,621 | 2,198,501 |
| 09-Jul-09 | 10,599.9 | 92,824 | 1,492,375 | 711,825 | 2,204,200 |
| 14-Jul-09 | 10,604.0 | 92,859 | 1,492,765 | 713,432 | 2,206,196 |
| 24-Jul-09 | 10,648.8 | 93,252 | 1,491,879 | 717,421 | 2,209,300 |
| 28-Jul-09 | 10,665.0 | 93,394 | 1,491,976 | 719,424 | 2,211,400 |
| 05-Aug-09 | 10,685.4 | 93,572 | 1,492,680 | 722,420 | 2,215,100 |
| 12-Aug-09 | 10,767.0 | 94,286 | 1,493,168 | 724,834 | 2,218,002 |
| 19-Aug-09 | 10,795.5 | 94,536 | 1,491,491 | 726,511 | 2,218,002 |
| 25-Aug-09 | 10,803.6 | 94,607 | 1,495,362 | 727,739 | 2,223,101 |
| 02-Sep-09 | 10,864.8 | 95,143 | 1,498,161 | 727,739 | 2,225,900 |
| 09-Sep-09 | 10,930.0 | 95,714 | 1,500,561 | 727,739 | 2,228,300 |
| 16-Sep-09 | 10,938.1 | 95,785 | 1,503,261 | 727,739 | 2,231,000 |
| 22-Sep-09 | 10,938.1 | 95,785 | 1,505,461 | 727,739 | 2,233,200 |
| 30-Sep-09 | 10,950.3 | 95,892 | 1,508,355 | 727,745 | 2,236,100 |
| 07-Oct-09 | 10,958.4 | 95,963 | 1,508,446 | 727,954 | 2,236,400 |
| 12-Oct-09 | 10,978.9 | 96,142 | 1,509,524 | 729,176 | 2,238,700 |
| 21-Oct-09 | 10,987.0 | 96,213 | 1,509,880 | 731,720 | 2,241,600 |
| 29-Oct-09 | 11,003.3 | 96,356 | 1,509,742 | 734,958 | 2,244,700 |
| 03-Nov-09 | 11,023.6 | 96,534 | 1,510,038 | 736,662 | 2,246,700 |
| 10-Nov-09 | 11,035.9 | 96,642 | 1,510,715 | 739,810 | 2,250,525 |
| 19-Nov-09 | 11,048.0 | 96,748 | 1,513,421 | 742,979 | 2,256,400 |
| 24-Nov-09 | 11,060.3 | 96,855 | 1,515,481 | 744,720 | 2,260,200 |
| 02-Dec-09 | 11,076.6 | 96,998 | 1,517,761 | 747,439 | 2,265,200 |
| 09-Dec-09 | 11,084.8 | 97,070 | 1,515,718 | 749,482 | 2,265,200 |
| 15-Dec-09 | 11,093.0 | 97,142 | 1,522,461 | 750,539 | 2,273,000 |
| 22-Dec-09 | 11,101.1 | 97,213 | 1,524,759 | 752,041 | 2,276,800 |
| 30-Dec-09 | 11,117.4 | 97,355 | 1,527,425 | 753,075 | 2,280,500 |
| 05-Jan-10 | 11,125.6 | 97,427 | 1,527,534 | 753,566 | 2,281,100 |
| 14-Jan-10 | 11,137.7 | 97,533 | 1,530,264 | 755,136 | 2,285,400 |
| 20-Jan-10 | 11,137.8 | 97,534 | 1,532,514 | 756,486 | 2,289,000 |
| 25-Jan-10 | 11,158.2 | 97,713 | 1,533,664 | 759,036 | 2,292,700 |
| 04-Feb-10 | 11,158.2 | 97,713 | 1,535,462 | 761,438 | 2,296,900 |
| 11-Feb-10 | 11,174.5 | 97,855 | 1,538,882 | 761,700 | 2,300,582 |
| 17-Feb-10 | 11,190.8 | 97,998 | 1,539,867 | 763,434 | 2,303,301 |
| 23-Feb-10 | 11,203.0 | 98,105 | 1,542,308 | 763,992 | 2,306,300 |
| 02-Mar-10 | 11,207.1 | 98,141 | 1,545,619 | 764,281 | 2,309,900 |
| 09-Mar-10 | 11,215.3 | 98,213 | 1,549,119 | 764,281 | 2,313,400 |
| 18-Mar-10 | 11,227.4 | 98,319 | 1,553,310 | 768,190 | 2,321,500 |
| 22-Mar-10 | 11,235.6 | 98,390 | 1,555,209 | 771,862 | 2,327,071 |
| 31-Mar-10 | 11,247.9 | 98,498 | 1,557,287 | 775,381 | 2,332,668 |
| 06-Apr-10 | 11,251.9 | 98,533 | 1,559,281 | 778,387 | 2,337,668 |
| 14-Apr-10 | 11,251.9 | 98,533 | 1,560,708 | 783,492 | 2,344,200 |

Table 7
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) |
|-------------|---|--|--|---|--|
| 22-Apr-10 | 11,251.9 | 98,533 | 1,563,450 | 786,990 | 2,350,440 |
| 28-Apr-10 | 11,254.9 | 98,559 | 1,567,610 | 786,990 | 2,354,600 |
| 05-May-10 | 11,255.9 | 98,568 | 1,568,234 | 790,966 | 2,359,200 |
| 13-May-10 | 11,256.9 | 98,577 | 1,571,590 | 793,410 | 2,365,000 |
| 21-May-10 | 11,276.4 | 98,748 | 1,575,144 | 795,866 | 2,371,010 |
| 26-May-10 | 11,284.5 | 98,819 | 1,577,208 | 796,793 | 2,374,000 |
| 02-Jun-10 | 11,292.7 | 98,890 | 1,580,497 | 797,903 | 2,378,400 |
| 07-Jun-10 | 11,300.8 | 98,961 | 1,582,571 | 799,329 | 2,381,900 |
| 15-Jun-10 | 11,317.1 | 99,104 | 1,591,271 | 799,329 | 2,390,600 |
| 23-Jun-10 | 11,325.2 | 99,175 | 1,588,269 | 808,231 | 2,396,500 |
| 29-Jun-10 | 11,341.6 | 99,319 | 1,589,564 | 809,036 | 2,398,600 |

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 8
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.) ⁵ |
|-------------|--|---------------------------------|---------------------|--------------------|---|--------------------------------|---|-------------------------------------|--|---|--|---|
| 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 |
| 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 | | | | |

Table 8
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 Emited (lbs.) ⁴ | Cummulative Mass of Benzene Emited (lbs.) ⁵ |
|-------------|--|---------------------------------|---------------------|--------------------|---|--------------------------------|---|-------------------------------------|--|---|---|--|
| 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 |
| 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 | | |

Table 8
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 |
|-------------|--|---------------------------------|---------------------|--------------------|---|--------------------------------|---|-------------------------------------|--|---|--|---|
| 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 |
| 2-Apr-08 | 2392 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2184.18 | 446.15 | | |
| 2-Apr-08 | 2392 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 2-Apr-08 | 2392 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 369.8 | 121.4 |
| 7-May-08 | 2427 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2184.18 | 446.15 | | |
| 7-May-08 | 2427 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 7-May-08 | 2427 | Effluent | 125 | 29 | 5.0 | 3.3 | 0.06 | 0.04 | | | 371.7 | 122.7 |
| 5-Jun-08 | 2456 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2184.82 | 446.58 | | |
| 5-Jun-08 | 2456 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 5-Jun-08 | 2456 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 372.7 | 123.3 |
| 9-Jul-08 | 2490 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2185.56 | 447.08 | | |
| 9-Jul-08 | 2490 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 9-Jul-08 | 2490 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 373.8 | 124.1 |
| 7-Aug-08 | 2519 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2186.20 | 447.50 | | |
| 7-Aug-08 | 2519 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 7-Aug-08 | 2519 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 374.8 | 124.7 |
| 10-Sep-08 | 2553 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2186.95 | 448.00 | | |
| 10-Sep-08 | 2553 | Intermediate | 125 | 29 | 10.7 | 3.33 | 0.12 | 0.04 | | | | |
| 10-Sep-08 | 2553 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 375.9 | 125.4 |
| 9-Oct-08 | 2582 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2187.59 | 448.43 | | |
| 9-Oct-08 | 2582 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 9-Oct-08 | 2582 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 376.8 | 126.1 |
| 3-Dec-08 | 2637 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2188.80 | 449.23 | | |
| 3-Dec-08 | 2637 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 3-Dec-08 | 2637 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 378.7 | 127.3 |
| 7-Jan-09 | 2672 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2189.58 | 449.75 | | |
| 7-Jan-09 | 2672 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 7-Jan-09 | 2672 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 379.8 | 128.1 |
| 4-Feb-09 | 2700 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2190.19 | 450.16 | | |
| 4-Feb-09 | 2700 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 4-Feb-09 | 2700 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 380.7 | 128.7 |
| 4-Mar-09 | 2728 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2190.81 | 450.57 | | |
| 4-Mar-09 | 2728 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 4-Mar-09 | 2728 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 381.7 | 129.3 |
| 2-Apr-09 | 2757 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2191.45 | 450.99 | | |
| 2-Apr-09 | 2757 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 2-Apr-09 | 2757 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 382.6 | 129.9 |
| 15-May-09 | 2800 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2192.40 | 451.62 | | |
| 15-May-09 | 2800 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 15-May-09 | 2800 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 384.0 | 130.9 |
| 18-Jun-09 | 2834 | Influent | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | 2193.63 | 452.12 | | |
| 18-Jun-09 | 2834 | Intermediate | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | | | | |
| 18-Jun-09 | 2834 | Effluent | 125 | 29 | 5.0 | 2.0 | 0.06 | 0.02 | | | 385.9 | 131.6 |
| 14-Jul-09 | 2860 | Influent | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | 2194.58 | 452.50 | | |
| 14-Jul-09 | 2860 | Intermediate | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | | | | |
| 14-Jul-09 | 2860 | Effluent | 125 | 29 | 5.0 | 2.0 | 0.06 | 0.02 | | | 387.3 | 132.2 |
| 19-Aug-09 | 2896 | Influent | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | 2195.89 | 453.03 | | |
| 19-Aug-09 | 2896 | Intermediate | 125 | 29 | 8.3 | 3.33 | 0.09 | 0.04 | | | | |
| 19-Aug-09 | 2896 | Effluent | 125 | 29 | 5.0 | 2.0 | 0.06 | 0.02 | | | 389.3 | 133.0 |
| 9-Sep-09 | 2917 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2196.35 | 453.34 | | |
| 9-Sep-09 | 2917 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 9-Sep-09 | 2917 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 390.0 | 133.5 |
| 12-Oct-09 | 2950 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2197.08 | 453.82 | | |
| 12-Oct-09 | 2950 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 12-Oct-09 | 2950 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 391.1 | 134.2 |
| 10-Nov-09 | 2979 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2197.72 | 454.24 | | |
| 10-Nov-09 | 2979 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 10-Nov-09 | 2979 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 392.1 | 134.8 |
| 9-Dec-09 | 3008 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2198.36 | 454.67 | | |
| 9-Dec-09 | 3008 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 9-Dec-09 | 3008 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 393.0 | 135.5 |
| 5-Jan-10 | 3035 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2198.95 | 455.07 | | |
| 5-Jan-10 | 3035 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 5-Jan-10 | 3035 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 393.9 | 136.1 |
| 11-Feb-10 | 3072 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2199.77 | 455.61 | | |
| 11-Feb-10 | 3072 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 11-Feb-10 | 3072 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 395.1 | 136.9 |
| 2-Mar-10 | 3091 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2200.19 | 455.89 | | |
| 2-Mar-10 | 3091 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 2-Mar-10 | 3091 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 395.8 | 137.3 |
| 6-Apr-10 | 3126 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2200.96 | 456.40 | | |
| 6-Apr-10 | 3126 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 6-Apr-10 | 3126 | Effluent | 125 | 29 | 3.0 | 2.0 | 0.03 | 0.02 | | | 396.9 | 138.1 |
| 26-May-10 | 3176 | Influent | 125 | 29 | 8.4 | 3.33 | 0.09 | 0.04 | 2202.80 | 457.13 | | |
| 26-May-10 | 3176 | Intermediate | 125 | 29 | 8.4 | 3.33 | 0.09 | 0.04 | | | | |
| 26-May-10 | 3176 | Effluent | 125 | 29 | 5.0 | 2.0 | 0.06 | 0.02 | | | 399.7 | 139.2 |
| 15-Jun-10 | 3196 | Influent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | 2202.80 | 457.13 | | |
| 15-Jun-10 | 3196 | Intermediate | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | | |
| 15-Jun-10 | 3196 | Effluent | 125 | 29 | 5.0 | 3.33 | 0.06 | 0.04 | | | 400.8 | 139.9 |

- (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 9
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 | 502,600 | 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 | 519,000 | 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 |
| 28-Sep-03 | 745 | Influent | | 18,770 | 3,400 | | | | |
| 28-Sep-03 | 745 | Precarbon | | 300.1 | 17 | | | | |
| 28-Sep-03 | 745 | Effluent | 781,500 | 0.7 | 0.12 | 395.4 | 165.5 | 13.19241 | 8.22851 |
| 28-Oct-03 | 775 | Influent | | 8,730 | 1,200 | | | | |
| 28-Oct-03 | 775 | Precarbon | | 169.7 | 3 | | | | |
| 28-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 |
| 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 |

**Table 9
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 |
|-------------|--|-------------|---|--------------------------|-----------------------------|--|---|---|--|
| 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 | 496.4 | 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 | 29 | 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 |
| 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 | 2 | | | | |
| 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 | | | | |

**Table 9
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 |
|-------------|--|-------------|---|--------------------------|-----------------------------|--|---|---|--|
| 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 |
| 2-Apr-08 | 2392 | Influent | | 67,500 | 31,000 | | | | |
| 2-Apr-08 | 2392 | Precarbon | | 394.8 | 30.0 | | | | |
| 2-Apr-08 | 2392 | Effluent | 1,923,000 | 0.72 | 0.0 | 644.6 | 245.8 | 13.37075 | 8.37576 |
| 7-May-08 | 2427 | Influent | | 12.4 | 0 | | | | |
| 7-May-08 | 2427 | Precarbon | | 94,180 | 34,000 | | | | |
| 7-May-08 | 2427 | Effluent | 1,923,000 | 0.54 | 0.0 | 644.6 | 245.8 | 13.37075 | 8.37576 |
| 5-Jun-08 | 2456 | Influent | | 90,950.0 | 34,000 | | | | |
| 5-Jun-08 | 2456 | Precarbon | | 14 | 1.3 | | | | |
| 5-Jun-08 | 2456 | Effluent | 1,998,630 | 1.20 | 0.0 | 702.0 | 267.3 | 13.37151 | 8.37576 |
| 9-Jul-08 | 2490 | Influent | | 147.4 | 2.2 | | | | |
| 9-Jul-08 | 2490 | Precarbon | | 2.5 | 0.0 | | | | |
| 9-Jul-08 | 2490 | Effluent | 2,021,600 | 0.5 | 0.0 | 702.0 | 267.3 | 13.37161 | 8.37576 |
| 7-Aug-08 | 2519 | Influent | | 107,860 | 42,000 | | | | |
| 7-Aug-08 | 2519 | Precarbon | | 2.3 | 0.0 | | | | |
| 7-Aug-08 | 2519 | Effluent | 2,035,300 | 1.4 | 0.0 | 714.3 | 272.1 | 13.37177 | 8.37576 |
| 10-Sep-08 | 2553 | Influent | | 20,100 | 3,500 | | | | |
| 10-Sep-08 | 2553 | Precarbon | | 724.0 | 34 | | | | |
| 10-Sep-08 | 2553 | Effluent | 2,067,800 | 1.2 | 0.0 | 719.8 | 273.1 | 13.37209 | 8.37576 |
| 9-Oct-08 | 2582 | Influent | | 16,370 | 4,700 | | | | |
| 9-Oct-08 | 2582 | Precarbon | | 568.0 | 31 | | | | |
| 9-Oct-08 | 2582 | Effluent | 2,095,600 | 3.9 | 2.1 | 723.6 | 274.1 | 13.37299 | 8.37625 |
| 5-Nov-08 | 2609 | Influent | | 27,100 | 6,600 | | | | |
| 5-Nov-08 | 2609 | Precarbon | | 9.6 | 0 | | | | |
| 5-Nov-08 | 2609 | Effluent | 2,115,080 | 2.3 | 0.7 | 728.0 | 275.2 | 13.37337 | 8.37635 |
| 3-Dec-08 | 2637 | Influent | | 1,070 | 170 | | | | |
| 3-Dec-08 | 2637 | Precarbon | | 3.9 | 0 | | | | |
| 3-Dec-08 | 2637 | Effluent | 2,121,100 | 2.4 | 0.3 | 728.0 | 275.2 | 13.37349 | 8.37637 |
| 7-Jan-09 | 2672 | Influent | | 8,860 | 1,600 | | | | |
| 7-Jan-09 | 2672 | Precarbon | | 180.0 | 46 | | | | |
| 7-Jan-09 | 2672 | Effluent | 2,132,900 | 1.0 | 0.46 | 728.9 | 275.4 | 13.37359 | 8.37641 |
| 4-Feb-09 | 2700 | Influent | | 37,030 | 12,000 | | | | |
| 4-Feb-09 | 2700 | Precarbon | | 11.9 | 1.9 | | | | |
| 4-Feb-09 | 2700 | Effluent | 2,139,700 | 0.0 | 0.0 | 731.0 | 276.1 | 13.37359 | 8.37641 |
| 4-Mar-09 | 2728 | Influent | | 2,458 | 0 | | | | |
| 4-Mar-09 | 2728 | Precarbon | | 31.3 | 4.1 | | | | |
| 4-Mar-09 | 2728 | Effluent | 2,149,400 | 0.4 | 0.0 | 731.2 | 276.1 | 13.37362 | 8.37641 |
| 2-Apr-09 | 2757 | Influent | | 54 | 2 | | | | |
| 2-Apr-09 | 2757 | Precarbon | | 1.1 | 0.0 | | | | |
| 2-Apr-09 | 2757 | Effluent | 2,171,100 | 0.3 | 0.3 | 731.2 | 276.1 | 13.37366 | 8.37646 |
| 15-May-09 | 2800 | Influent | | 40,010 | 17,000 | | | | |
| 15-May-09 | 2800 | Precarbon | | 2.9 | 0.0 | | | | |
| 15-May-09 | 2800 | Effluent | 2,180,900 | 0.0 | 0.0 | 734.5 | 277.5 | 13.37366 | 8.37646 |
| 18-Jun-09 | 2834 | Influent | | 49,680 | 19,000 | | | | |
| 18-Jun-09 | 2834 | Precarbon | | 5.8 | 0.0 | | | | |
| 18-Jun-09 | 2834 | Effluent | 2,193,901 | 1.3 | 0.0 | 739.9 | 279.5 | 13.37380 | 8.37646 |
| 14-Jul-09 | 2860 | Influent | | 45,170 | 18,000 | | | | |
| 14-Jul-09 | 2860 | Precarbon | | 7.2 | 0.4 | | | | |
| 14-Jul-09 | 2860 | Effluent | 2,206,196 | 0.0 | 0.0 | 744.5 | 281.4 | 13.37380 | 8.37646 |
| 19-Aug-09 | 2896 | Influent | | 60,710 | 22,000 | | | | |
| 19-Aug-09 | 2896 | Precarbon | | 2.7 | 0.0 | | | | |
| 19-Aug-09 | 2896 | Effluent | 2,218,002 | 1.7 | 0.3 | 750.5 | 283.5 | 13.37398 | 8.37649 |
| 2-Sep-09 | 2910 | Influent | | 6,236 | 1,600 | | | | |
| 2-Sep-09 | 2910 | Precarbon | | 271.9 | 12.0 | | | | |
| 2-Sep-09 | 2910 | Effluent | 2,228,300 | 0.0 | 0.0 | 751.0 | 283.7 | 13.37398 | 8.37649 |
| 12-Oct-09 | 2950 | Influent | | 52,110 | 16,000 | | | | |
| 12-Oct-09 | 2950 | Precarbon | | 9.1 | 1.1 | | | | |
| 12-Oct-09 | 2950 | Effluent | 2,238,700 | 2.3 | 0.0 | 755.6 | 285.1 | 13.37418 | 8.37649 |
| 10-Nov-09 | 2979 | Influent | | 53,970 | 18,000 | | | | |
| 10-Nov-09 | 2979 | Precarbon | | 3.2 | 0.0 | | | | |
| 10-Nov-09 | 2979 | Effluent | 2,250,525 | 22.0 | 2.6 | 760.9 | 286.8 | 13.37635 | 8.37674 |
| 9-Dec-09 | 3008 | Influent | | 16,670 | 4,900 | | | | |
| 9-Dec-09 | 3008 | Precarbon | | 183.9 | 50.0 | | | | |
| 9-Dec-09 | 3008 | Effluent | 2,265,200 | 0.3 | 0.0 | 762.9 | 287.4 | 13.37639 | 8.37674 |
| 5-Jan-10 | 3035 | Influent | | 41,330 | 15,000 | | | | |
| 5-Jan-10 | 3035 | Precarbon | | 33.9 | 5.2 | | | | |
| 5-Jan-10 | 3035 | Effluent | 2,281,100 | 0.0 | 0.0 | 768.4 | 289.4 | 13.37639 | 8.37674 |
| 11-Feb-10 | 3072 | Influent | | 47,030 | 15,000 | | | | |
| 11-Feb-10 | 3072 | Precarbon | | 34.9 | 5.1 | | | | |
| 11-Feb-10 | 3072 | Effluent | 2,300,582 | 1.3 | 0.0 | 776.0 | 291.9 | 13.37661 | 8.37674 |
| 2-Mar-10 | 3091 | Influent | | 57,690 | 18,000 | | | | |
| 2-Mar-10 | 3091 | Precarbon | | 373.3 | 37.0 | | | | |
| 2-Mar-10 | 3091 | Effluent | 2,309,900 | 0.0 | 0.0 | 780.5 | 293.3 | 13.37661 | 8.37674 |
| 6-Apr-10 | 3126 | Influent | | 15,090 | 3,900 | | | | |
| 6-Apr-10 | 3126 | Precarbon | | 27.0 | 4.1 | | | | |
| 6-Apr-10 | 3126 | Effluent | 2,337,668 | 0.5 | 0.2 | 784.0 | 294.2 | 13.37673 | 8.37679 |
| 26-May-10 | 3176 | Influent | | 43,330 | 13,000 | | | | |
| 26-May-10 | 3176 | Precarbon | | 8.8 | 0.6 | | | | |
| 26-May-10 | 3176 | Effluent | 2,374,000 | 1.3 | 0.2 | 797.2 | 298.1 | 13.37713 | 8.37685 |
| 15-Jun-10 | 3196 | Influent | | 44,160 | 15,000 | | | | |
| 15-Jun-10 | 3196 | Precarbon | | 3.4 | 0.3 | | | | |
| 15-Jun-10 | 3196 | Effluent | 2,390,600 | 0.0 | 0.0 | 803.3 | 300.2 | 13.37713 | 8.37685 |

- (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

Printed: 04/13/10 Code: S Page 1 of 1

Client: Coleman Engineering Company Inc
 Attn: Jerry Winslow
 635 Circle Drive
 Iron Mountain, MI 49801 1473

NLS Project: 143462

NLS Customer: 06715

Fax: 906 774 7776 **Phone:** 906 774 3440

Project: Xcel Energy

Influent NLS ID: 558277

COC: 122443:1 Matrix: WW
 Collected: 04/06/10 00:00 Received: 04/07/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 04/09/10 | SW846 8260 | 721026460 |

Pre Carbon NLS ID: 558278

COC: 122443:2 Matrix: WW
 Collected: 04/06/10 00:00 Received: 04/07/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 04/08/10 | SW846 8260 | 721026460 |

Effluent NLS ID: 558279

COC: 122443:3 Matrix: WW
 Collected: 04/06/10 00:00 Received: 04/07/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 04/08/10 | SW846 8260 | 721026460 |

Trip Blank NLS ID: 558280

COC: 122443 Matrix: TB
 Collected: 04/06/10 00:00 Received: 04/07/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 04/08/10 | 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

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558277 Influent Collected: 04/06/10 Analyzed: 04/09/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|-----|------|-------|
| Benzene | 3900 | ug/L | 500 | 66 | 230 | |
| Bromobenzene | ND | ug/L | 500 | 60 | 210 | |
| Bromochloromethane | ND | ug/L | 500 | 67 | 240 | |
| Bromodichloromethane | ND | ug/L | 500 | 54 | 190 | |
| Bromoform | ND | ug/L | 500 | 93 | 330 | |
| Bromomethane | ND | ug/L | 500 | 170 | 620 | CC |
| n-Butylbenzene | ND | ug/L | 500 | 68 | 240 | |
| sec-Butylbenzene | ND | ug/L | 500 | 62 | 220 | |
| tert-Butylbenzene | ND | ug/L | 500 | 67 | 240 | |
| Carbon Tetrachloride | ND | ug/L | 500 | 63 | 220 | |
| Chlorobenzene | ND | ug/L | 500 | 52 | 180 | |
| Chloroethane | ND | ug/L | 500 | 340 | 1200 | |
| Chloroform | ND | ug/L | 500 | 65 | 230 | |
| Chloromethane | ND | ug/L | 500 | 140 | 490 | |
| 2-Chlorotoluene | ND | ug/L | 500 | 73 | 260 | |
| 4-Chlorotoluene | ND | ug/L | 500 | 54 | 190 | |
| Dibromochloromethane | ND | ug/L | 500 | 56 | 200 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 500 | 110 | 370 | |
| 1,2-Dibromoethane | ND | ug/L | 500 | 74 | 260 | |
| Dibromomethane | ND | ug/L | 500 | 94 | 330 | |
| 1,2-Dichlorobenzene | ND | ug/L | 500 | 65 | 230 | |
| 1,3-Dichlorobenzene | ND | ug/L | 500 | 71 | 250 | |
| 1,4-Dichlorobenzene | ND | ug/L | 500 | 64 | 230 | |
| Dichlorodifluoromethane | ND | ug/L | 500 | 67 | 240 | |
| 1,1-Dichloroethane | ND | ug/L | 500 | 82 | 290 | |
| 1,2-Dichloroethane | ND | ug/L | 500 | 110 | 390 | |
| 1,1-Dichloroethene | ND | ug/L | 500 | 76 | 270 | |
| cis-1,2-Dichloroethene | ND | ug/L | 500 | 60 | 210 | |
| trans-1,2-Dichloroethene | ND | ug/L | 500 | 63 | 220 | |
| 1,2-Dichloropropane | ND | ug/L | 500 | 100 | 370 | |
| 1,3-Dichloropropane | ND | ug/L | 500 | 100 | 370 | |
| 2,2-Dichloropropane | ND | ug/L | 500 | 64 | 230 | |
| 1,1-Dichloropropene | ND | ug/L | 500 | 54 | 190 | |
| cis-1,3-Dichloropropene | ND | ug/L | 500 | 64 | 230 | |
| trans-1,3-Dichloropropene | ND | ug/L | 500 | 65 | 230 | |
| Ethylbenzene | [130] | ug/L | 500 | 60 | 210 | |
| Hexachlorobutadiene | ND | ug/L | 500 | 180 | 640 | |
| Isopropylbenzene | ND | ug/L | 500 | 51 | 190 | |
| p-Isopropyltoluene | ND | ug/L | 500 | 54 | 190 | |
| Methylene chloride | [240] | ug/L | 500 | 130 | 470 | BD LB |
| Naphthalene | 5200 | ug/L | 500 | 150 | 540 | |
| n-Propylbenzene | ND | ug/L | 500 | 73 | 260 | |
| ortho-Xylene | 410 | ug/L | 500 | 78 | 280 | |
| Styrene | 1300 | ug/L | 500 | 55 | 190 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 500 | 56 | 200 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 500 | 64 | 230 | |
| Tetrachloroethene | ND | ug/L | 500 | 90 | 320 | |
| Toluene | 3000 | ug/L | 500 | 78 | 280 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 500 | 110 | 390 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 500 | 150 | 540 | |
| 1,1,1-Trichloroethane | ND | ug/L | 500 | 98 | 350 | |
| 1,1,2-Trichloroethane | ND | ug/L | 500 | 83 | 290 | |
| Trichloroethene | ND | ug/L | 500 | 82 | 290 | |

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558277 Influent Collected: 04/06/10 Analyzed: 04/09/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|---------|-------|-----|-----|-----|------|
| Trichlorofluoromethane | ND | ug/L | 500 | 54 | 190 | |
| 1,2,3-Trichloropropane | ND | ug/L | 500 | 130 | 460 | |
| 1,2,4-Trimethylbenzene | [170] | ug/L | 500 | 60 | 210 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 500 | 61 | 210 | |
| Vinyl chloride | ND | ug/L | 500 | 87 | 310 | |
| meta,para-Xylene | 740 | ug/L | 500 | 110 | 390 | |
| MTBE | ND | ug/L | 500 | 64 | 230 | |
| Isopropyl Ether | ND | ug/L | 500 | 100 | 370 | |
| Dibromofluoromethane (SURR) | 100.7% | | | | | S |
| Toluene-d8 (SURR) | 111.35% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 108.22% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

LB = Compound is suspected of being a laboratory contaminant.

CC = Continuing calibration verification standard recovery was outside QC limits.

Bromomethane recovery 45.4%

BD = Compound was detected in the laboratory method blank.

Methylene chloride detected at .436 ug/L.

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558278 Pre Carbon Collected: 04/06/10 Analyzed: 04/08/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | 4.1 | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | ND | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | 0.42 | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | ND | ug/L | 1 | 0.27 | 0.95 | |
| Naphthalene | 6.7 | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | 2.2 | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | 4.1 | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | 4.8 | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558278 Pre Carbon Collected: 04/06/10 Analyzed: 04/08/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|---------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.26 | 0.91 | |
| 1,2,4-Trimethylbenzene | 1.0 | ug/L | 1 | 0.12 | 0.43 | |
| 1,3,5-Trimethylbenzene | [0.28] | ug/L | 1 | 0.12 | 0.43 | |
| Vinyl chloride | ND | ug/L | 1 | 0.17 | 0.62 | |
| meta,para-Xylene | 3.4 | ug/L | 1 | 0.22 | 0.78 | |
| MTBE | ND | ug/L | 1 | 0.13 | 0.45 | |
| Isopropyl Ether | ND | ug/L | 1 | 0.20 | 0.75 | |
| Dibromofluoromethane (SURR) | 109.7% | | | | | S |
| Toluene-d8 (SURR) | 108.42% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 104.35% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558279 Effluent Collected: 04/06/10 Analyzed: 04/08/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | [0.20] | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | ND | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | ND | ug/L | 1 | 0.27 | 0.95 | |
| Naphthalene | [0.33] | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | ND | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | ND | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

Customer: Coleman Engineering Company Inc NLS Project: 143462

Project Description: Xcel Energy

Project Title: Template: SATW Printed: 04/13/2010 08:45

Sample: 558280 Trip Blank Collected: 04/06/10 Analyzed: 04/08/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | ND | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | [0.87] | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | ND | ug/L | 1 | 0.27 | 0.95 | |
| Naphthalene | ND | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | ND | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | ND | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

April 14, 2010

Client:

NEWFIELDS - MADISON
2110 Luann Lane, Ste. 101
Madison, WI 53713

Work Order: CTD0558
Project Name: Xcel Energy - Ashland
Project Number: Air Samples

Attn: Dave Trainor

Date Received: 04/09/10

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

| SAMPLE IDENTIFICATION | LAB NUMBER | COLLECTION DATE AND TIME |
|-----------------------|------------|--------------------------|
| Air Stripper | CTD0558-01 | 04/06/10 |
| 1st Stage Carbon | CTD0558-02 | 04/06/10 |
| Air Effluent | CTD0558-03 | 04/06/10 |

Total Hydrocarbons quantified as Gasoline.

Field blanks are not used in sample correction unless noted.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:



Michael K. McGee, CIH - Laboratory Director

AIHA Lab Certification Number: #101044

TestAmerica Cedar Falls

Brian C. Graettinger
Operations Manager

NEWFIELDS - MADISON
 2110 Luann Lane, Ste. 101
 Madison, WI 53713
 Dave Trainor

Work Order: CTD0558
 Project: Xcel Energy - Ashland
 Project Number: Air Samples

Received: 04/09/10
 Reported: 04/14/10 13:52

ANALYTICAL REPORT

| Analyte | Result | Data Qualifiers | Date Analyzed | Analyst | Method | Quant. Limit |
|---|--------------|-------------------------------|---------------|--------------------------|----------------|--------------|
| Sample ID: CTD0558-01 (Air Stripper) | | Sample Air Volume: 3 L | | Sampled: 04/06/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <10 mg/m3 | --- ppm | 4/14/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 4/13/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTD0558-02 (1st Stage Carbon) | | Sample Air Volume: 3 L | | Sampled: 04/06/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <10 mg/m3 | --- ppm | 4/14/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 4/13/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTD0558-03 (Air Effluent) | | Sample Air Volume: 5 L | | Sampled: 04/06/10 | | |
| Benzene | <20.0ug/tube | <4 mg/m3 | <1.25 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <4 mg/m3 | <0.92 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <6 mg/m3 | --- ppm | 4/14/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <4 mg/m3 | <1.06 ppm | 4/13/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <6 mg/m3 | <1.38 ppm | 4/13/2010 | tjt NIOSH 1501 | 30.0 |

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

Printed: 06/11/10 Code: NNNN-S Page 1 of 1

Client: Coleman Engineering Company Inc
 Attn: Jerry Winslow
 635 Circle Drive
 Iron Mountain, MI 49801 1473

NLS Project: 145929

NLS Customer: 06715

Fax: 906 774 7776 **Phone:** 906 774 3440

Project: Xcel Remediation System (Ashland)

Influent NLS ID: 565840

COC: 123517:1 Matrix: WW
 Collected: 05/26/10 00:00 Received: 05/28/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/04/10 | SW846 8260 | 721026460 |

Pre-Carbon NLS ID: 565841

COC: 123517:2 Matrix: WW
 Collected: 05/26/10 00:00 Received: 05/28/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/03/10 | SW846 8260 | 721026460 |

Effluent NLS ID: 565842

COC: 123517:3 Matrix: WW
 Collected: 05/26/10 00:00 Received: 05/28/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/03/10 | SW846 8260 | 721026460 |

Trip Blank NLS ID: 565843

COC: 123517:4 Matrix: WW
 Collected: 05/26/10 00:00 Received: 05/28/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/03/10 | 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 2000)

Page 1 of 8

Customer: Coleman Engineering Company Inc NLS Project: 145929

Project Description: Xcel Remediation System (Ashland)

Project Title: Template: SATW Printed: 06/11/2010 09:45

Sample: 565840 Influent Collected: 05/26/10 Analyzed: 06/04/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|------|-----|------|-------|
| Benzene | 13000 | ug/L | 1000 | 130 | 470 | |
| Bromobenzene | ND | ug/L | 1000 | 120 | 420 | |
| Bromochloromethane | ND | ug/L | 1000 | 130 | 480 | |
| Bromodichloromethane | ND | ug/L | 1000 | 110 | 380 | |
| Bromoform | ND | ug/L | 1000 | 190 | 660 | |
| Bromomethane | ND | ug/L | 1000 | 350 | 1200 | CC |
| n-Butylbenzene | ND | ug/L | 1000 | 140 | 480 | |
| sec-Butylbenzene | ND | ug/L | 1000 | 120 | 440 | |
| tert-Butylbenzene | ND | ug/L | 1000 | 130 | 480 | |
| Carbon Tetrachloride | ND | ug/L | 1000 | 130 | 440 | |
| Chlorobenzene | ND | ug/L | 1000 | 100 | 370 | |
| Chloroethane | ND | ug/L | 1000 | 670 | 2400 | |
| Chloroform | ND | ug/L | 1000 | 130 | 460 | |
| Chloromethane | ND | ug/L | 1000 | 280 | 990 | |
| 2-Chlorotoluene | ND | ug/L | 1000 | 150 | 510 | |
| 4-Chlorotoluene | ND | ug/L | 1000 | 110 | 380 | |
| Dibromochloromethane | ND | ug/L | 1000 | 110 | 390 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1000 | 210 | 740 | |
| 1,2-Dibromoethane | ND | ug/L | 1000 | 150 | 520 | |
| Dibromomethane | ND | ug/L | 1000 | 190 | 660 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1000 | 130 | 460 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1000 | 140 | 500 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1000 | 130 | 450 | |
| Dichlorodifluoromethane | ND | ug/L | 1000 | 130 | 480 | |
| 1,1-Dichloroethane | ND | ug/L | 1000 | 160 | 580 | |
| 1,2-Dichloroethane | ND | ug/L | 1000 | 220 | 780 | |
| 1,1-Dichloroethene | ND | ug/L | 1000 | 150 | 540 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1000 | 120 | 420 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1000 | 130 | 440 | |
| 1,2-Dichloropropane | ND | ug/L | 1000 | 210 | 740 | |
| 1,3-Dichloropropane | ND | ug/L | 1000 | 210 | 740 | |
| 2,2-Dichloropropane | ND | ug/L | 1000 | 130 | 450 | |
| 1,1-Dichloropropene | ND | ug/L | 1000 | 110 | 370 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1000 | 130 | 450 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1000 | 130 | 460 | |
| Ethylbenzene | 450 | ug/L | 1000 | 120 | 420 | |
| Hexachlorobutadiene | ND | ug/L | 1000 | 360 | 1300 | |
| Isopropylbenzene | ND | ug/L | 1000 | 100 | 370 | |
| p-Isopropyltoluene | ND | ug/L | 1000 | 110 | 380 | |
| Methylene chloride | [840] | ug/L | 1000 | 270 | 950 | BD LB |
| Naphthalene | 9500 | ug/L | 1000 | 310 | 1100 | |
| n-Propylbenzene | ND | ug/L | 1000 | 150 | 520 | |
| ortho-Xylene | 1600 | ug/L | 1000 | 160 | 550 | |
| Styrene | 3900 | ug/L | 1000 | 110 | 380 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1000 | 110 | 390 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1000 | 130 | 450 | |
| Tetrachloroethene | ND | ug/L | 1000 | 180 | 640 | |
| Toluene | 10000 | ug/L | 1000 | 160 | 550 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1000 | 230 | 780 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1000 | 300 | 1100 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1000 | 200 | 700 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1000 | 170 | 580 | |
| Trichloroethene | ND | ug/L | 1000 | 160 | 580 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)

Page 3 of 8

Customer: Coleman Engineering Company Inc NLS Project: 145929

Project Description: Xcel Remediation System (Ashland)

Project Title: Template: SATW Printed: 06/11/2010 09:45

Sample: 565841 Pre-Carbon Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|-------|
| Benzene | 0.60 | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | CC |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | ND | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | [0.22] | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | [0.63] | ug/L | 1 | 0.27 | 0.95 | BD LB |
| Naphthalene | 2.7 | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | 0.86 | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | 0.67 | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | 0.69 | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)**Customer: Coleman Engineering Company Inc NLS Project: 145929****Project Description: Xcel Remediation System (Ashland)****Project Title: Template: SATW Printed: 06/11/2010 09:45**

Sample: 565841 Pre-Carbon Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|--------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.26 | 0.91 | |
| 1,2,4-Trimethylbenzene | 0.45 | ug/L | 1 | 0.12 | 0.43 | |
| 1,3,5-Trimethylbenzene | [0.17] | ug/L | 1 | 0.12 | 0.43 | |
| Vinyl chloride | ND | ug/L | 1 | 0.17 | 0.62 | |
| meta,para-Xylene | 1.8 | ug/L | 1 | 0.22 | 0.78 | |
| MTBE | ND | ug/L | 1 | 0.13 | 0.45 | |
| Isopropyl Ether | ND | ug/L | 1 | 0.20 | 0.75 | |
| Dibromofluoromethane (SURR) | 99.19% | | | | | S |
| Toluene-d8 (SURR) | 105.5% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 96.84% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

LB = Compound is suspected of being a laboratory contaminant.

CC = Continuing calibration verification standard recovery was outside QC limits.

Bromomethane recovery 57.3%

BD = Compound was detected in the laboratory method blank.

Methylene chloride detected at .725 ug/L.

Customer: Coleman Engineering Company Inc NLS Project: 145929

Project Description: Xcel Remediation System (Ashland)

Project Title: Template: SATW Printed: 06/11/2010 09:45

Sample: 565842 Effluent Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | [0.19] | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | CC |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | ND | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | ND | ug/L | 1 | 0.27 | 0.95 | |
| Naphthalene | [1.0] | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | ND | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | [0.12] | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | ND | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2000)**Customer: Coleman Engineering Company Inc NLS Project: 145929****Project Description: Xcel Remediation System (Ashland)****Project Title: Template: SATW Printed: 06/11/2010 09:45**

Sample: 565842 Effluent Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|---------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.26 | 0.91 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 1 | 0.12 | 0.43 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1 | 0.12 | 0.43 | |
| Vinyl chloride | ND | ug/L | 1 | 0.17 | 0.62 | |
| meta,para-Xylene | ND | ug/L | 1 | 0.22 | 0.78 | |
| MTBE | ND | ug/L | 1 | 0.13 | 0.45 | |
| Isopropyl Ether | ND | ug/L | 1 | 0.20 | 0.75 | |
| Dibromofluoromethane (SURR) | 104.12% | | | | | S |
| Toluene-d8 (SURR) | 108.97% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 103.64% | | | | | 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 57.3%

Customer: Coleman Engineering Company Inc NLS Project: 145929

Project Description: Xcel Remediation System (Ashland)

Project Title: Template: SATW Printed: 06/11/2010 09:45

Sample: 565843 Trip Blank Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|-------|
| Benzene | ND | ug/L | 1 | 0.13 | 0.47 | |
| Bromobenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Bromochloromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| Bromoform | ND | ug/L | 1 | 0.19 | 0.66 | |
| Bromomethane | ND | ug/L | 1 | 0.35 | 1.2 | CC |
| n-Butylbenzene | ND | ug/L | 1 | 0.14 | 0.48 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.12 | 0.44 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.13 | 0.48 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.13 | 0.44 | |
| Chlorobenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| Chloroethane | ND | ug/L | 1 | 0.67 | 2.4 | |
| Chloroform | ND | ug/L | 1 | 0.13 | 0.46 | |
| Chloromethane | ND | ug/L | 1 | 0.28 | 0.99 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.15 | 0.51 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.15 | 0.52 | |
| Dibromomethane | ND | ug/L | 1 | 0.19 | 0.66 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.46 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.13 | 0.45 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.13 | 0.48 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.22 | 0.78 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.15 | 0.54 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.12 | 0.42 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.13 | 0.44 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.13 | 0.45 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.11 | 0.37 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.45 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.13 | 0.46 | |
| Ethylbenzene | ND | ug/L | 1 | 0.12 | 0.42 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.36 | 1.3 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.10 | 0.37 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.11 | 0.38 | |
| Methylene chloride | [0.27] | ug/L | 1 | 0.27 | 0.95 | BD LB |
| Naphthalene | ND | ug/L | 1 | 0.31 | 1.1 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.15 | 0.52 | |
| ortho-Xylene | ND | ug/L | 1 | 0.16 | 0.55 | |
| Styrene | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.11 | 0.39 | |
| 1,1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.13 | 0.45 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Toluene | ND | ug/L | 1 | 0.16 | 0.55 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.23 | 0.78 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.30 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.20 | 0.70 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.17 | 0.58 | |
| Trichloroethene | ND | ug/L | 1 | 0.16 | 0.58 | |

Customer: Coleman Engineering Company Inc NLS Project: 145929

Project Description: Xcel Remediation System (Ashland)

Project Title: Template: SATW Printed: 06/11/2010 09:45

Sample: 565843 Trip Blank Collected: 05/26/10 Analyzed: 06/03/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|---------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.11 | 0.38 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.26 | 0.91 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 1 | 0.12 | 0.43 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1 | 0.12 | 0.43 | |
| Vinyl chloride | ND | ug/L | 1 | 0.17 | 0.62 | |
| meta,para-Xylene | ND | ug/L | 1 | 0.22 | 0.78 | |
| MTBE | ND | ug/L | 1 | 0.13 | 0.45 | |
| Isopropyl Ether | ND | ug/L | 1 | 0.20 | 0.75 | |
| Dibromofluoromethane (SURR) | 100.62% | | | | | S |
| Toluene-d8 (SURR) | 109.61% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 102.22% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

LB = Compound is suspected of being a laboratory contaminant.

CC = Continuing calibration verification standard recovery was outside QC limits.

Bromomethane recovery 57.3%

BD = Compound was detected in the laboratory method blank.

Methylene chloride detected at .725 ug/L.

June 11, 2010

Client:

NEWFIELDS - MADISON
2110 Luann Lane, Ste. 101
Madison, WI 53713

Work Order: CTF0027
Project Name: Xcel Energy - Ashland
Project Number: Air Samples

Attn: Dave Trainor

Date Received: 06/01/10

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

| SAMPLE IDENTIFICATION | LAB NUMBER | COLLECTION DATE AND TIME |
|-----------------------|------------|--------------------------|
| Air Stripper | CTF0027-01 | 05/26/10 |
| 1st Stage Carbon | CTF0027-02 | 05/26/10 |
| Air Effluent | CTF0027-03 | 05/26/10 |

Total Hydrocarbons quantified as Gasoline.

Field blanks are not used in sample correction unless noted.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:



Michael K. McGee, CIH - Laboratory Director

AIHA Lab Certification Number: #101044

TestAmerica Cedar Falls

Brian C. Graettinger
Operations Manager

NEWFIELDS - MADISON
 2110 Luann Lane, Ste. 101
 Madison, WI 53713
 Dave Trainor

Work Order: CTF0027
 Project: Xcel Energy - Ashland
 Project Number: Air Samples

Received: 06/01/10
 Reported: 06/11/10 14:44

ANALYTICAL REPORT

| Analyte | Result | Data Qualifiers | Date Analyzed | Analyst | Method | Quant. Limit |
|---|--------------|---------------------------------|---------------|--------------------------|----------------|--------------|
| Sample ID: CTF0027-01 (Air Stripper) | | Sample Air Volume: 3.0 L | | Sampled: 05/26/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <50.0ug/tube | <16.7 mg/m3 | --- ppm | 6/9/2010 | tjt NIOSH 1550 | 50.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 6/7/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTF0027-02 (1st Stage Carbon) | | Sample Air Volume: 3.0 L | | Sampled: 05/26/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <50.0ug/tube | <16.7 mg/m3 | --- ppm | 6/9/2010 | tjt NIOSH 1550 | 50.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 6/7/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 6/7/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTF0027-03 (Air Effluent) | | Sample Air Volume: 5.0 L | | Sampled: 05/26/10 | | |
| Benzene | <20.0ug/tube | <4 mg/m3 | <1.25 ppm | 6/8/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <4 mg/m3 | <0.92 ppm | 6/8/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <50.0ug/tube | <10 mg/m3 | --- ppm | 6/9/2010 | tjt NIOSH 1550 | 50.0 |
| Toluene | <20.0ug/tube | <4 mg/m3 | <1.06 ppm | 6/8/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <6 mg/m3 | <1.38 ppm | 6/8/2010 | tjt NIOSH 1501 | 30.0 |

ANALYTICAL REPORT

Client: Xcel Energy
 Attn: Jerry Winslow
 1518 Chestnut Avenue N
 Minneapolis, MN 55403

NLS Project: 147001
NLS Customer: 96730
 Phone: 612 630 4506

Project: Ashland Remediation

Influent NLS ID: 568839

COC: 124089:1 Matrix: WW
 Collected: 06/15/10 00:00 Received: 06/17/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/24/10 | SW846 8260 | 721026460 |

Pre Carbon NLS ID: 568840

COC: 124089:2 Matrix: WW
 Collected: 06/15/10 00:00 Received: 06/17/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/24/10 | SW846 8260 | 721026460 |

Effluent NLS ID: 568841

COC: 124089:3 Matrix: WW
 Collected: 06/15/10 00:00 Received: 06/17/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|---|--------------|-------|----------|-----|-----|----------|-------------|-----------|
| Oil and Grease, water (hexane) | [2.2] | mg/L | 1 | 1.3 | 4.2 | 06/25/10 | EPA 1664 | 721026460 |
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/22/10 | SW846 8260 | 721026460 |
| PAH (water) by EPA Method 8270C - SIM | see attached | | | | | 06/18/10 | SW846 8270C | 721026460 |
| Organics Extraction PAH (water) EPA 8270C - SIM | yes | | | | | 06/18/10 | EPA 8270C | 721026460 |

Trip Blank NLS ID: 568842

COC: 124089 Matrix: TB
 Collected: 06/15/10 00:00 Received: 06/17/10

| Parameter | Result | Units | Dilution | LOD | LOQ | Analyzed | Method | Lab |
|----------------------------------|--------------|-------|----------|-----|-----|----------|------------|-----------|
| VOCs (water) by EPA Method 8260B | see attached | | | | | 06/22/10 | 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)

Page 1 of 8

Customer: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: SAT2W Printed: 06/29/2010 15:48

Sample: 568839 Influent Collected: 06/15/10 Analyzed: 06/24/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|------|------|------|------|
| Benzene | 15000 | ug/L | 1000 | 200 | 690 | |
| Bromobenzene | ND | ug/L | 1000 | 220 | 790 | |
| Bromochloromethane | ND | ug/L | 1000 | 260 | 940 | |
| Bromodichloromethane | ND | ug/L | 1000 | 260 | 910 | |
| Bromoform | ND | ug/L | 1000 | 350 | 1200 | |
| Bromomethane | ND | ug/L | 1000 | 260 | 920 | |
| n-Butylbenzene | ND | ug/L | 1000 | 180 | 640 | |
| sec-Butylbenzene | ND | ug/L | 1000 | 200 | 690 | |
| tert-Butylbenzene | ND | ug/L | 1000 | 210 | 730 | |
| Carbon Tetrachloride | ND | ug/L | 1000 | 270 | 970 | |
| Chlorobenzene | ND | ug/L | 1000 | 200 | 730 | |
| Chloroethane | ND | ug/L | 1000 | 1500 | 5400 | |
| Chloroform | ND | ug/L | 1000 | 200 | 720 | |
| Chloromethane | ND | ug/L | 1000 | 230 | 830 | |
| 2-Chlorotoluene | ND | ug/L | 1000 | 200 | 710 | |
| 4-Chlorotoluene | ND | ug/L | 1000 | 240 | 850 | |
| Dibromochloromethane | ND | ug/L | 1000 | 200 | 690 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1000 | 210 | 750 | |
| 1,2-Dibromoethane | ND | ug/L | 1000 | 200 | 710 | |
| Dibromomethane | ND | ug/L | 1000 | 280 | 980 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1000 | 160 | 560 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1000 | 230 | 800 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1000 | 220 | 790 | |
| Dichlorodifluoromethane | ND | ug/L | 1000 | 290 | 1000 | |
| 1,1-Dichloroethane | ND | ug/L | 1000 | 210 | 740 | |
| 1,2-Dichloroethane | ND | ug/L | 1000 | 160 | 580 | |
| 1,1-Dichloroethene | ND | ug/L | 1000 | 210 | 740 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1000 | 200 | 720 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1000 | 260 | 920 | |
| 1,2-Dichloropropane | ND | ug/L | 1000 | 220 | 770 | |
| 1,3-Dichloropropane | ND | ug/L | 1000 | 230 | 820 | |
| 2,2-Dichloropropane | ND | ug/L | 1000 | 140 | 500 | |
| 1,1-Dichloropropene | ND | ug/L | 1000 | 220 | 790 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1000 | 190 | 660 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1000 | 180 | 640 | |
| Ethylbenzene | [430] | ug/L | 1000 | 210 | 730 | |
| Hexachlorobutadiene | ND | ug/L | 1000 | 450 | 1600 | |
| Isopropylbenzene | ND | ug/L | 1000 | 220 | 770 | |
| p-Isopropyltoluene | ND | ug/L | 1000 | 190 | 680 | |
| Methylene chloride | ND | ug/L | 1000 | 480 | 1700 | |
| Naphthalene | 11000 | ug/L | 1000 | 410 | 1400 | |
| n-Propylbenzene | ND | ug/L | 1000 | 210 | 750 | |
| ortho-Xylene | 1400 | ug/L | 1000 | 240 | 850 | |
| Styrene | 3800 | ug/L | 1000 | 170 | 610 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1000 | 210 | 760 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1000 | 250 | 880 | |
| Tetrachloroethene | ND | ug/L | 1000 | 210 | 730 | |
| Toluene | 9200 | ug/L | 1000 | 170 | 610 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1000 | 270 | 940 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1000 | 320 | 1100 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1000 | 220 | 770 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1000 | 230 | 800 | |
| Trichloroethene | ND | ug/L | 1000 | 170 | 590 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)**Customer: Xcel Energy NLS Project: 147001****Project Description: Ashland Remediation****Project Title: Template: SAT2W Printed: 06/29/2010 15:48**

Sample: 568839 Influent Collected: 06/15/10 Analyzed: 06/24/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|--------|-------|------|-----|------|------|
| Trichlorofluoromethane | ND | ug/L | 1000 | 320 | 1100 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1000 | 340 | 1200 | |
| 1,2,4-Trimethylbenzene | [530] | ug/L | 1000 | 180 | 640 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1000 | 200 | 690 | |
| Vinyl chloride | ND | ug/L | 1000 | 180 | 650 | |
| meta,para-Xylene | 2800 | ug/L | 1000 | 330 | 1200 | |
| MTBE | ND | ug/L | 1000 | 280 | 1000 | |
| Isopropyl ether | ND | ug/L | 1000 | 250 | 870 | |
| Dibromofluoromethane (SURR) | 113% | | | | | S |
| Toluene-d8 (SURR) | 107% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 115% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

Customer: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: SAT2W Printed: 06/29/2010 15:48

Sample: 568840 Pre Carbon Collected: 06/15/10 Analyzed: 06/24/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | [0.32] | ug/L | 1 | 0.20 | 0.69 | |
| Bromobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Bromochloromethane | ND | ug/L | 1 | 0.26 | 0.94 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.26 | 0.91 | |
| Bromoform | ND | ug/L | 1 | 0.35 | 1.2 | |
| Bromomethane | ND | ug/L | 1 | 0.26 | 0.92 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.18 | 0.64 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.27 | 0.97 | |
| Chlorobenzene | ND | ug/L | 1 | 0.20 | 0.73 | |
| Chloroethane | ND | ug/L | 1 | 1.5 | 5.4 | |
| Chloroform | ND | ug/L | 1 | 0.20 | 0.72 | |
| Chloromethane | ND | ug/L | 1 | 0.23 | 0.83 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.20 | 0.71 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.24 | 0.85 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.20 | 0.69 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.75 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.20 | 0.71 | |
| Dibromomethane | ND | ug/L | 1 | 0.28 | 0.98 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.16 | 0.56 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.23 | 0.80 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.29 | 1.0 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.21 | 0.74 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.20 | 0.72 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.26 | 0.92 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.23 | 0.82 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.22 | 0.79 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.19 | 0.66 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Ethylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.45 | 1.6 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.22 | 0.77 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.19 | 0.68 | |
| Methylene chloride | ND | ug/L | 1 | 0.48 | 1.7 | |
| Naphthalene | 1.4 | ug/L | 1 | 0.41 | 1.4 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.21 | 0.75 | |
| ortho-Xylene | [0.27] | ug/L | 1 | 0.24 | 0.85 | |
| Styrene | [0.35] | ug/L | 1 | 0.17 | 0.61 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.21 | 0.76 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.25 | 0.88 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Toluene | [0.32] | ug/L | 1 | 0.17 | 0.61 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.27 | 0.94 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.23 | 0.80 | |
| Trichloroethene | ND | ug/L | 1 | 0.17 | 0.59 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)**Customer: Xcel Energy NLS Project: 147001****Project Description: Ashland Remediation****Project Title: Template: SAT2W Printed: 06/29/2010 15:48**

Sample: 568840 Pre Carbon Collected: 06/15/10 Analyzed: 06/24/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|--------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.34 | 1.2 | |
| 1,2,4-Trimethylbenzene | [0.19] | ug/L | 1 | 0.18 | 0.64 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| Vinyl chloride | ND | ug/L | 1 | 0.18 | 0.65 | |
| meta,para-Xylene | [0.52] | ug/L | 1 | 0.33 | 1.2 | |
| MTBE | ND | ug/L | 1 | 0.28 | 1.0 | |
| Isopropyl ether | ND | ug/L | 1 | 0.25 | 0.87 | |
| Dibromofluoromethane (SURR) | 117% | | | | | S |
| Toluene-d8 (SURR) | 109% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 111% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

Customer: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: SAT2W Printed: 06/29/2010 15:48

Sample: 568841 Effluent Collected: 06/15/10 Analyzed: 06/22/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| Bromobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Bromochloromethane | ND | ug/L | 1 | 0.26 | 0.94 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.26 | 0.91 | |
| Bromoform | ND | ug/L | 1 | 0.35 | 1.2 | |
| Bromomethane | ND | ug/L | 1 | 0.26 | 0.92 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.18 | 0.64 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.27 | 0.97 | |
| Chlorobenzene | ND | ug/L | 1 | 0.20 | 0.73 | |
| Chloroethane | ND | ug/L | 1 | 1.5 | 5.4 | |
| Chloroform | ND | ug/L | 1 | 0.20 | 0.72 | |
| Chloromethane | ND | ug/L | 1 | 0.23 | 0.83 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.20 | 0.71 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.24 | 0.85 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.20 | 0.69 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.75 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.20 | 0.71 | |
| Dibromomethane | ND | ug/L | 1 | 0.28 | 0.98 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.16 | 0.56 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.23 | 0.80 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.29 | 1.0 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.21 | 0.74 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.20 | 0.72 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.26 | 0.92 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.23 | 0.82 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.22 | 0.79 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.19 | 0.66 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Ethylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.45 | 1.6 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.22 | 0.77 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.19 | 0.68 | |
| Methylene chloride | ND | ug/L | 1 | 0.48 | 1.7 | |
| Naphthalene | ND | ug/L | 1 | 0.41 | 1.4 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.21 | 0.75 | |
| ortho-Xylene | ND | ug/L | 1 | 0.24 | 0.85 | |
| Styrene | ND | ug/L | 1 | 0.17 | 0.61 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.21 | 0.76 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.25 | 0.88 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Toluene | ND | ug/L | 1 | 0.17 | 0.61 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.27 | 0.94 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.23 | 0.80 | |
| Trichloroethene | ND | ug/L | 1 | 0.17 | 0.59 | |

Customer: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: SAT2W Printed: 06/29/2010 15:48

Sample: 568841 Effluent Collected: 06/15/10 Analyzed: 06/22/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|--------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.34 | 1.2 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 1 | 0.18 | 0.64 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| Vinyl chloride | ND | ug/L | 1 | 0.18 | 0.65 | |
| meta,para-Xylene | ND | ug/L | 1 | 0.33 | 1.2 | |
| MTBE | ND | ug/L | 1 | 0.28 | 1.0 | |
| Isopropyl ether | ND | ug/L | 1 | 0.25 | 0.87 | |
| Dibromofluoromethane (SURR) | 125% | | | | | S |
| Toluene-d8 (SURR) | 111% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 117% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

Customer: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: SAT2W Printed: 06/29/2010 15:48

Sample: 568842 Trip Blank Collected: 06/15/10 Analyzed: 06/22/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|-----------------------------|--------|-------|-----|------|------|------|
| Benzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| Bromobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Bromochloromethane | ND | ug/L | 1 | 0.26 | 0.94 | |
| Bromodichloromethane | ND | ug/L | 1 | 0.26 | 0.91 | |
| Bromoform | ND | ug/L | 1 | 0.35 | 1.2 | |
| Bromomethane | ND | ug/L | 1 | 0.26 | 0.92 | |
| n-Butylbenzene | ND | ug/L | 1 | 0.18 | 0.64 | |
| sec-Butylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| tert-Butylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Carbon Tetrachloride | ND | ug/L | 1 | 0.27 | 0.97 | |
| Chlorobenzene | ND | ug/L | 1 | 0.20 | 0.73 | |
| Chloroethane | ND | ug/L | 1 | 1.5 | 5.4 | |
| Chloroform | ND | ug/L | 1 | 0.20 | 0.72 | |
| Chloromethane | ND | ug/L | 1 | 0.23 | 0.83 | |
| 2-Chlorotoluene | ND | ug/L | 1 | 0.20 | 0.71 | |
| 4-Chlorotoluene | ND | ug/L | 1 | 0.24 | 0.85 | |
| Dibromochloromethane | ND | ug/L | 1 | 0.20 | 0.69 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/L | 1 | 0.21 | 0.75 | |
| 1,2-Dibromoethane | ND | ug/L | 1 | 0.20 | 0.71 | |
| Dibromomethane | ND | ug/L | 1 | 0.28 | 0.98 | |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | 0.16 | 0.56 | |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | 0.23 | 0.80 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | 0.22 | 0.79 | |
| Dichlorodifluoromethane | ND | ug/L | 1 | 0.29 | 1.0 | |
| 1,1-Dichloroethane | ND | ug/L | 1 | 0.21 | 0.74 | |
| 1,2-Dichloroethane | ND | ug/L | 1 | 0.16 | 0.58 | |
| 1,1-Dichloroethene | ND | ug/L | 1 | 0.21 | 0.74 | |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | 0.20 | 0.72 | |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | 0.26 | 0.92 | |
| 1,2-Dichloropropane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,3-Dichloropropane | ND | ug/L | 1 | 0.23 | 0.82 | |
| 2,2-Dichloropropane | ND | ug/L | 1 | 0.14 | 0.50 | |
| 1,1-Dichloropropene | ND | ug/L | 1 | 0.22 | 0.79 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | 0.19 | 0.66 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | 0.18 | 0.64 | |
| Ethylbenzene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Hexachlorobutadiene | ND | ug/L | 1 | 0.45 | 1.6 | |
| Isopropylbenzene | ND | ug/L | 1 | 0.22 | 0.77 | |
| p-Isopropyltoluene | ND | ug/L | 1 | 0.19 | 0.68 | |
| Methylene chloride | ND | ug/L | 1 | 0.48 | 1.7 | |
| Naphthalene | ND | ug/L | 1 | 0.41 | 1.4 | |
| n-Propylbenzene | ND | ug/L | 1 | 0.21 | 0.75 | |
| ortho-Xylene | ND | ug/L | 1 | 0.24 | 0.85 | |
| Styrene | ND | ug/L | 1 | 0.17 | 0.61 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 1 | 0.21 | 0.76 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | 0.25 | 0.88 | |
| Tetrachloroethene | ND | ug/L | 1 | 0.21 | 0.73 | |
| Toluene | ND | ug/L | 1 | 0.17 | 0.61 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 1 | 0.27 | 0.94 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | 0.22 | 0.77 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | 0.23 | 0.80 | |
| Trichloroethene | ND | ug/L | 1 | 0.17 | 0.59 | |

ANALYTICAL RESULTS: VOC's by EPA 8260 - Water - (Saturn 2)**Customer: Xcel Energy NLS Project: 147001****Project Description: Ashland Remediation****Project Title: Template: SAT2W Printed: 06/29/2010 15:48**

Sample: 568842 Trip Blank Collected: 06/15/10 Analyzed: 06/22/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------------|--------|-------|-----|------|------|------|
| Trichlorofluoromethane | ND | ug/L | 1 | 0.32 | 1.1 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1 | 0.34 | 1.2 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 1 | 0.18 | 0.64 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1 | 0.20 | 0.69 | |
| Vinyl chloride | ND | ug/L | 1 | 0.18 | 0.65 | |
| meta,para-Xylene | ND | ug/L | 1 | 0.33 | 1.2 | |
| MTBE | ND | ug/L | 1 | 0.28 | 1.0 | |
| Isopropyl ether | ND | ug/L | 1 | 0.25 | 0.87 | |
| Dibromofluoromethane (SURR) | 114% | | | | | S |
| Toluene-d8 (SURR) | 107% | | | | | S |
| 1-Bromo-4-Fluorobenzene (SURR) | 108% | | | | | 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: Xcel Energy NLS Project: 147001

Project Description: Ashland Remediation

Project Title: Template: 8270PAHW Printed: 06/29/2010 15:48

Sample: 568841 Effluent Collected: 06/15/10 Analyzed: 06/18/10 -

| ANALYTE NAME | RESULT | UNITS | DIL | LOD | LOQ | Note |
|--------------------------|---------|-------|-----|-------|-------|------|
| Acenaphthene | ND | ug/L | 1 | 0.019 | 0.064 | |
| Acenaphthylene | [0.041] | ug/L | 1 | 0.016 | 0.052 | |
| Anthracene | ND | ug/L | 1 | 0.018 | 0.061 | |
| Benzo (a) anthracene | ND | ug/L | 1 | 0.012 | 0.041 | |
| Benzo (a) pyrene | ND | ug/L | 1 | 0.014 | 0.047 | |
| Benzo (b) fluoranthene | ND | ug/L | 1 | 0.017 | 0.057 | |
| Benzo (g,h,i) perylene | ND | ug/L | 1 | 0.014 | 0.047 | |
| Benzo (k) fluoranthene | ND | ug/L | 1 | 0.016 | 0.052 | |
| Chrysene | ND | ug/L | 1 | 0.018 | 0.060 | |
| Dibenzo (a,h) anthracene | ND | ug/L | 1 | 0.014 | 0.047 | |
| Fluoranthene | ND | ug/L | 1 | 0.019 | 0.064 | |
| Fluorene | ND | ug/L | 1 | 0.017 | 0.055 | |
| Indeno (1,2,3-cd) pyrene | ND | 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 | [0.023] | ug/L | 1 | 0.021 | 0.069 | BD |
| Pyrene | ND | ug/L | 1 | 0.020 | 0.068 | |
| Terphenyl-d14 (SURR) | 88% | | | | | S |
| Nitrobenzene-d5 (SURR) | 83% | | | | | S |
| 2-Fluorobiphenyl (SURR) | 83% | | | | | S |

NOTES APPLICABLE TO THIS ANALYSIS:

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

BD = Compound was detected in the laboratory method blank.

Phenanthrene detected at .027 ug/L.

June 24, 2010

Client:

NEWFIELDS - MADISON
2110 Luann Lane, Ste. 101
Madison, WI 53713

Work Order: CTF0951
Project Name: Xcel Energy - Ashland
Project Number: Air Samples

Attn: Dave Trainor

Date Received: 06/17/10

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

| SAMPLE IDENTIFICATION | LAB NUMBER | COLLECTION DATE AND TIME |
|-----------------------|------------|--------------------------|
| Air Stripper | CTF0951-01 | 06/15/10 |
| 1st Stage Carbon | CTF0951-02 | 06/15/10 |
| Air Effluent | CTF0951-03 | 06/15/10 |

Total Hydrocarbons quantified as Gasoline.

Field blanks are not used in sample correction unless noted.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:



Michael K. McGee, CIH - Laboratory Director

AIHA Lab Certification Number: #101044

TestAmerica Cedar Falls

Brian C. Graettinger
Operations Manager

NEWFIELDS - MADISON
 2110 Luann Lane, Ste. 101
 Madison, WI 53713
 Dave Trainor

Work Order: CTF0951
 Project: Xcel Energy - Ashland
 Project Number: Air Samples

Received: 06/17/10
 Reported: 06/24/10 16:16

ANALYTICAL REPORT

| Analyte | Result | Data Qualifiers | Date Analyzed | Analyst | Method | Quant. Limit |
|---|--------------|---------------------------------|---------------|--------------------------|----------------|--------------|
| Sample ID: CTF0951-01 (Air Stripper) | | Sample Air Volume: 3.0 L | | Sampled: 06/15/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <10 mg/m3 | --- ppm | 6/22/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 6/22/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTF0951-02 (1st Stage Carbon) | | Sample Air Volume: 3.0 L | | Sampled: 06/15/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <10 mg/m3 | --- ppm | 6/23/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 6/22/2010 | tjt NIOSH 1501 | 30.0 |
| Sample ID: CTF0951-03 (Air Effluent) | | Sample Air Volume: 3.0 L | | Sampled: 06/15/10 | | |
| Benzene | <20.0ug/tube | <6.67 mg/m3 | <2.09 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Ethylbenzene | <20.0ug/tube | <6.67 mg/m3 | <1.54 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Hydrocarbons, Total | <30.0ug/tube | <10 mg/m3 | --- ppm | 6/23/2010 | tjt NIOSH 1550 | 30.0 |
| Toluene | <20.0ug/tube | <6.67 mg/m3 | <1.77 ppm | 6/22/2010 | tjt NIOSH 1501 | 20.0 |
| Xylenes, total | <30.0ug/tube | <10 mg/m3 | <2.3 ppm | 6/22/2010 | tjt NIOSH 1501 | 30.0 |