



Prairie Island Nuclear Generating Plant  
1717 Wakonade Drive East  
Welch, MN 55089

February 22, 2010

Ms. Beckie Olson  
Minnesota Pollution Control Agency  
Majors and Remediation Division  
Attention: Ms. Beckie Olson  
520 Lafayette Road North  
St. Paul, MN 55155-4194

Subject: Prairie Island Nuclear Generating Plant  
NPDES Permit – MN0004006  
Application for Renewal

Dear Ms. Olson:

This application for renewal of the Prairie Island Plant's NPDES Permit (#MN 0004006) is being submitted at least 180 days prior to the expiration date of August 31, 2010 in accordance with Minnesota Rules, 7001.0040 subpart 3. The Plant's water flow diagram has been updated and is included as required with EPA Form 2C. The basic discharge points have not changed. Please utilize the attached NPDES Matrix for details of effluent characterization.

Priority pollutant sampling and analyses were conducted during November, 2009 – February, 2010. For the intake and discharges (SD001, 002, 005, 006, and 010) 24-hour composite sampling, individual samples were drawn to represent each hour of the 24-hour period as well as individual grab samples. Discharge sample point SD003 is a batch release, and therefore only grab samples are obtained when sampling. Deviations from required sampling was requested and approved by MPCA on November 23, 2009 e-mail correspondences which include:

- Delete sampling of the screen backwash and fish return line (SD012);
- Delete sampling of reverse osmosis system discharge (SD004);
- Not include sampling at cooling water discharges WS001 & WS002, as these are internal sample points and ultimately discharge at SD001 and points were not required during previous priority sampling in 2004;
- Collect only grab samples for batch release of Radwaste Treatment

Priority pollutant sampling results have been compiled under Part V of EPA Form 2C. Values reported under discharge SD001 as discharge flow were obtained from Prairie Island's PINGP 45, Rev. 41, External Circ Water Log. Winter and summer temperatures, and pH were derived from the Monthly Discharge Monitoring Reports (DMRs) for the previous 24-month period January 2008 – December 2009. Average flows reported under Part II of EPA Form 2C were derived from monthly DMRs for the previous 24 month period.

Previous negotiations with the Minnesota Pollution Control Agency (MPCA) concluded that submittal of a NPDES Limits matrix along with a cover letter and application would suffice for identifying outfalls, limits, and restrictions. Approved requests for new chemicals are included in the attached updated matrix dated February 16, 2010. This updated matrix replaces the previous NPDES Limits matrix dated November 1, 2004.

Regarding present NPDES Permit language and conditions, we request the following changes or inclusions when reissuing the permit.

**1. Land-lock Area Drainage System**

Pursuant to the Public Utilities Commission (PUC) Order, *In the matter of the Application of Northern States Power Company d/b/a Xcel Energy for an LEPPG Site Permit for the Extended Power Uprate Project at the Prairie Island Nuclear Generating Plant*, Docket No. E-002/GS-08-690, the Commission order requires that Prairie Island discontinue permanently the discharge of any liquid waste into the landlocked area. We are requesting that all references related to the use of the landlocked area be removed from the NPDES permit. The plant has discontinued discharging any liquid waste into the landlocked area per the PUC order dated December 18, 2009.

**2. Emergency Intake Treatment**

Parameter "Biocide" removed. The chemical treatment line has been disconnected from the Emergency Intake, biocide will not be used.

**3. Circulating Cooling Water & Condenser Cooling Water (SD001)**

Parameter "Condenser Cleaning Balls" added. This is a previously approved and identified request. Added reporting requirements associated with condenser cleaning ball losses (Per MPCA e-mail directions received July 27<sup>th</sup>, 2006 and MPCA compliance evaluation response dated August 8<sup>th</sup>, 2008.)

#### **4. Steam Generator Blowdown (SD002)**

Parameter "Boric Acid" removed restriction. "Boron is added in higher concentration for steam generator crevice flushing". Boron will not be used for crevice flushing.

Parameter "Morpholine" removed. This chemical is no longer used.

Parameter "Hydrazine" updated the limit from "0-150 ppm" to "0-250 ppm" to more accurately reflect the concentration maintained in the steam generators.

Parameter "Carbohydrazide" updated the limit from "0-150 ppm" to "0-250 ppm" to more accurately reflect the concentration maintained in the steam generators.

Parameter "Methoxypropylamine" updated the limit from "0-150 ppm to "0-250" to more accurately reflect the concentration maintained in the steam generators.

#### **5. Radioactive Waste Effluent (SD003)**

Parameter "Boron" updated. Restrictions have been rewritten from "Concentration not to exceed 0.5-ppm ambient value at the sluice gates." to "If Mississippi River flow is less than 4200 cfs, then analyze tank for boron concentration."

Parameter "Potassium Chromate, Potassium Dichromate, Potassium Hydroxide" added and updated. Previously approved and identified request. Language to chromate restrictions include processing chromated water from normal seal leakage, system overflow, and planned system maintenance through the Liquid Rad Waste Treatment System. (Per MPCA e-mail approval received August 10<sup>th</sup>, 2009.)

#### **6. Reverse Osmosis System (SD004)**

Removed the reference to the land-lock drainage area. The plant has permanently discontinued the discharge of any liquid waste into the landlocked area per December 18<sup>th</sup>, 2009 PUC order.

**7. Turbine Building Sumps (TBS) (SD005 & SD006)**

Removed the reference to the land-lock drainage area. The plant has permanently discontinued the discharge of any liquid waste into the landlocked area per December 18<sup>th</sup>, 2009 PUC order.

Parameter "Aqueous Alkylamine" removed. This chemical is no longer used.

Parameter "Steam Cleaning Waste Water" added. Previously approved and identified request. Waste from occasional steam cleaning of motors and equipment may be directed to the Turbine Building Sump after oil sorbents have removed oil and grease from the water.

**8. Fire Protection System**

Parameter "Fire Protection Deluge System, Hose Stations and Accessory Equipment" added. Previously approved and identified request. The Fire Protection Deluge System, hose stations, and accessory equipment, containing river water, is flushed annually and land applied.

**9. Miscellaneous Plant Floor Drains (SD010)**

No changes requested.

**10. Unit 1 & 2 Plant Cooling Water Outfalls (WS001 & WS002)**

Parameter "Scale Inhibitor" added. Previously approved and identified request. Nalco 22300 added to replace NaBr as scale inhibitor (per MPCA e-mail approval received September 19<sup>th</sup>, 2007).

**11. Screen Backwash and Fish Return (SD012)**

Parameter "Screen Size" removed.



## **12. Miscellaneous Use/Disposal Requests and Land Application**

Removed the reference to the land-lock drainage area. The plant has permanently discontinued the discharge of any liquid waste into the landlocked area per December 18<sup>th</sup>, 2009 PUC order.

Parameter "Fish Disposal" added. Previously approved and identified request. "Fish carcasses collected from plant surface waters will be buried on site." (per MPCA approval letter dated December 18<sup>th</sup>, 1986, Don L. Kreins, Team Leader)

Parameter "Cooling Water" added. Periodically, during quarterly surveillance procedures cooling water is discharged to the ground and land applied via the cooling water return dump to grade valves.

Parameter "Insecticide" added. Previously approved and identified request. Applied by licensed applicator for spider control (per MPCA e-mail approval received Wednesday, May 6<sup>th</sup>, 2009).

Parameter "Herbicide" added. Applied by licensed applicator along fence areas, rock areas, and other areas for weed control.

Parameter "Screen Rinsing" reference removed. Reference to "Green Kleen" removed. Screens are washed with water only which may be land applied.

Parameter "Soda Blast Water" removed. This cleaning method is no longer used.

Parameter "Titanic C or Zyme" removed. This cleaning method is no longer used.

Parameter "Flush Water From Shock Chlorination of Potable Water Systems Piping and Wells" added. Previously approved and identified request. Flush water from shock chlorination of potable water systems piping and wells is drained to land application at least 50 feet from the river, and to ensure runoff does not reach the surface water.

Parameter "Non-Motorized Equipment Rinsing" added. Periodic rinsing of non-motorized equipment. Use of clean water only to rid equipment of dirt, grime and road salts accumulated during transport.

**13. Temperature Limitations**

No changes requested.

**14. Plant Discharge Limits**

During the months of April and June the plant has two discharge limits within each month, we are requesting that the DMRs for these months be formatted to allow the entry of two total and monthly average flow values.

**15. Water Conservation Measures**

Prairie Island utilizes various means to minimize impact on the Mississippi River. Based on requirements of the plant's NPDES permit, Prairie Island operates cooling towers to minimize thermal discharges to the river. Prairie Island further minimizes thermal impact by recycling approximately 50% of the discharge water back to the intake during winter, and as regulated in spring by Chapter 1, Section 5.1 of the present permit thus reducing impingement impacts on early-life stages of fish.

Additionally, existing wastewater re-utilization arrangements include, providing discharge canal water to an adjacent wetland to support variable water levels and simulate seasonal fluctuations for the benefit of wildlife, in accordance with MDNR requirements. Reuse of plant systems effluent by directing discharge to the recycle canal for mixing with circulating water prior to reentering the plant, ultimately reduces overall intake of river water.

**16. Ecological Monitoring**

As proposed in the Verification Monitoring Plan included with the 316(b) Comprehensive Demonstration Study submitted October 27, 2006, the PINGP Annual Environmental Report should be considered as the 316(b) bi-annual status report outlined in Chapter 1, Section 5.19 of the current NPDES permit. The annual report will include data consistent with past Annual Environmental Reports.

**17. Emergency Intake Bay Cleaning**

Request inclusion in NPDES permit of annual cleaning and inspection of Emergency Intake Bay located in the plant screenhouse. This is a previously approved and identified request. We are requesting that approval to route decant water from this work back to the plants internal canal be included with the conditions as outlined in the below approval:

Pursuant to the February 24, 2009 e-mail request, “the Minnesota Pollution Control Agency (MPCA) is hereby approving cleaning the Emergency Intake Bay located inside the plant screenhouse. The cleaning will be conducted by a contractor using a diver and a hydraulic pump to provide suction. The water and material will be routed to a large bag filter (Geotube) in a sealed roll off box to separate out the material. Decant water will either be routed to the intake canal or to a bay located within the plant screenhouse. Material removed during the cleaning will be disposed of in the plant’s existing dredge spoils site. Storage, reuse, and/or disposal of the material removed from the intake bay must be managed in accordance with the requirements of the plant’s NPDES/SDS permit.”

## 18. Zebra Mussel Treatment

Request inclusion in NPDES permit. Prairie Island conducted its first treatment of the circulating/cooling water system in 2000 with subsequent annual treatments in 2001, 2002, 2004, 2005 and 2006. In 2007 to the present, treatments were conducted twice per year.

During this time period the zebra mussel population has also continued to increase in the river system. Prairie Island expects to continue to conduct one or two zebra mussel treatments each year to minimize the zebra mussel densities within the plants circulating and cooling water systems.

We are requesting to add the following zebra mussel treatment plan and limits to the NPDES permit based on historical data and recently utilized chemical application concentrations.

### Historical Data

Date of Treatment	Amount of CL-2005 (lbs)	Amount of Clay (lbs)	Blowdown Rate (cfs)	System Demand	Ave.Temp. (Deg. F)
19-Apr-06	10,100	62,000	141	1.8	79.57
24-Apr-07	4,417	35,000	179	0.39	80.00
26-Sep-07	6,300	38,000	250	1.52	82.38
15-May-08	6,301	39,350	195	0.8	83.00
4-Sep-08	4,770	36,350	172	1.9	83.00
6-May-09	2,996	41,500	180	0.3	83.00
27-Aug-09	7,921	45,430	385	0.1	83.00

As data shows, the amount of chemical and clay is dependent on the blowdown rate, system demand and the temperature of the water. The higher the blowdown rate and system demand, the more chemical and clay is needed. The lower the water temperature, the more chemical and clay is needed. Also with lower temperatures, the treatment will take longer to complete. Ideally, the water temperature should be around 83.00° F, the blowdown rate at less than 300 cfs and the system demand less than 1.2. However, these conditions can not always be met. Prairie Island is requesting enough chemical and clay to treat worst case conditions.

### Worst Case Conditions

Amount of CL-2005 (lbs)	Amount of Clay (lbs)	Blowdown Rate (cfs)	System Demand	Ave.Temp. (Deg. F)
12,300	87,000	300 to 400	3.2 to 4.0	79

All efforts to minimize the amount of chemical and clay used will be made.

### **Zebra Mussel Treatment-Chemical Application**

A quaternary amine (molluscicide, CL-2005) shall be applied in the recycle canal and allowed to flow through the circulation water and parts of the cooling water systems.

- a. Targeted chemical concentrations shall be 4 to 5 ppm above the system demand as measured the morning of the treatment.
- b. No more than 12,300 pounds of chemical will be applied.
- c. A MN Licensed Aquatic Pest Control applicator shall be present during the treatment.
- d. The chemical application shall last approximately 8 to 12 hours.
- e. The chemical shall be allowed to naturally dissipate for 2 hours or more prior to detoxification of the entire water system.

### **Zebra Mussel Treatment-Clay Application**

- a. No more than 87,000 pounds (total) of Bentonite clay shall be used to detoxify the chemical.
- b. The clay shall be applied in the discharge canal, downstream from the discharge gates, at the sluice gates and in the fish return line.
- c. The discharge gate clay application system and the fish return clay application system shall start prior to the start of the chemical application.
- d. The sluice gate clay application system shall start a couple hours after the start of the chemical addition.
- e. At the end of the treatment, clay shall be applied to the discharge basin to detoxify the entire recycle canal, circulation water system and cooling water system.
- f. The clay detoxification shall continue until all sampling points show no detection in 2 consecutive samples taken at least 1 hour apart.

### **Zebra Mussel Treatment-Air Sparge Systems**

- a. Two air sparging systems shall be installed at or near the discharge canal gates.
- b. One shall be located on the clay header, and one located 10 to 15 feet downstream from the clay header.

### **Zebra Mussel Treatment-Monitoring**

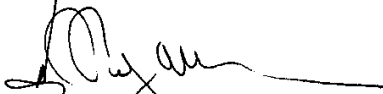
- a. The sample points shall be monitored hourly and are as follows:
  - Unit 1 Intake
  - Unit 2 Intake
  - Discharge Basin
  - Discharge Canal  $\frac{1}{4}$
  - Sluice Gate
- b. Samples from U1 and U2 Intake shall be grabbed the day before the treatment and analyzed for system demand.
- c. A Sample from the river shall be grabbed and analyzed for river demand the day before the treatment.
- d. Samples from U1 and U2 Intake shall be grabbed the morning of the treatment and analyzed for system demand. The treatment application rate shall be based on this result.
- e. If the system demand is 4 ppm or greater, the treatment will not occur.
- f. If the system demand is less the 4 ppm, but greater than 3.2 ppm, the MPCA shall be informed.
- g. If the Discharge Canal  $\frac{1}{4}$  sample point result shows a residual and it is less than 1.5 ppm, THEN
  - The chemical addition shall continue.
  - Reanalysis of the sample will be initiated OR a new sample will be grabbed and analyzed.
- h. If the Discharge Canal  $\frac{1}{4}$  sample point result shows a residual that is greater than 1.5 ppm, THEN
  - The chemical addition shall be halted.
  - Reanalysis of the sample shall be initiated OR a new sample shall be grabbed and analyzed.
- i. Continuation of the treatment may commence if no residual is seen at the sluice gates after 3 hours has elapsed from the time of the exceedance, depending on the time of day the residual was seen.
- j. If the Sluice Gate sample point result shows a residual, THEN
  - The chemical addition shall be halted and not restarted.
  - Reanalysis of the sample shall be initiated OR a new sample shall be grabbed and analyzed.

**Zebra Mussel Treatment-Post Job Summation Report**

- a. The Post Job Summation Report shall include the following information:
- Date of treatment
  - Description of application set up
  - The amount of chemical used
  - The amount of clay used
  - System Demand results
  - Blowdown rate
  - Temperature of the water
  - Monitoring results
  - Effectiveness of treatment
  - Description of any issues
- b. A Report will be provided to MPCA after each treatment.

Your review and consideration of our requests and proposals discussed above is appreciated. A check for \$350.00 payable to the Minnesota Pollution Control Agency is enclosed to cover the application fee. Please forward a draft of the reissued permit for review prior to public notice. If you have questions or comments, please contact Brent Kuhl at 651-388-1121 ext. 4419, or Jeanne Tobias at 651-388-1121 ext 4626.

Sincerely,



Kevin P. Ryan  
Plant Manager  
Prairie Island Nuclear Generating Plant

c: Dave Gauger  
Jeanne Tobias  
Brent Kuhl  
Pat Flowers  
ES Records Center

NPDES LIMITS 2/16/2010

EMERGENCY INTAKE TREATMENT		
PARAMETER	LIMIT	RESTRICTIONS
Hydro Lasing Emergency Intake Gates	NA	Periodic cleaning of emergency intake gates. The water and river silt is discharged into the plant intake canal.
Intake Pipe Back-Flushing	NA	Back-flush intake piping periodically to remove accumulated river sediment. Displaced sediment from the pipe would not be removed from the river, only shifted some distance away from the intake pipe suction.
COOLING WATER & CONDENSER CIRCULATING WATER (SD001)		
PARAMETER	LIMIT	RESTRICTIONS
Biocide	Per request/MPCA approval required	Used for zebra mussel control, with restrictions per NPDES permit.
Condenser Cleaning Balls	Not to exceed a loss of 750 condenser cleaning balls per week per ball collector unit.	Notification to Duty Officer immediately. Notification to MPCA-WQ within next business day.
Floating Solids or Visible Foam	Trace amounts	NA
Oil or Other Substances	No visible color film on surface of receiving waters.	NA
pH	6.0 - 9.0	Shall be monitored by weekly grab samples. Limits are not subject to averaging and shall be met at all times.
Total Residual Oxidant, Bromine Used	Intermittent 0.05 ppm (Instantaneous Max) Continuous = 0.001 ppm	Intermittent by daily grab sample. Continuous by daily calculation.
Total Residual Oxidant, Chlorine Used	Intermittent 0.2 ppm (Instantaneous Max) Continuous = 0.04 ppm	Intermittent by daily grab sample. Continuous by daily calculation, but may be done by analysis.
CHILLED WATER, CONTAINMENT, AND ZX SYSTEM (SD001)		
PARAMETER	LIMIT	RESTRICTIONS
Microbiocide	0 - 200 ppm	Used for microbial attack in closed loop systems. Has been used in the containment chillers.
Molybdate Based Corrosion Inhibitor	0 - 70 ppm	Used in the containment chillers.
Nitrite Based Corrosion Inhibitor with Additives	0 - 900 ppm	Used in the chilled water system. 700 to 900 ppm normal operating range.
STEAM GENERATOR BLOWDOWN (SD002)		
PARAMETER	LIMIT	RESTRICTIONS
Ammonium Hydroxide	NA	Used for steam generator pH adjustment during wet lay-up.
Boric Acid	0 - 5000 ppm	0 - 10 ppm is routine range.
Carbohydrazide	0 - 250 ppm	Carbohydrazide may be used in conjunction with or in place of hydrazine. Used during steam generator wet lay up.
Floating Solids or Visible Foam	Trace amounts	None
Hydrazine	0 - 250 ppm	Normal operating range 0 - 125 ppb in the feedwater. Steam generator wet lay-up range is 75 - 150 ppm.
Hydrogen Peroxide	3000 ppm	Biological decontamination.
Methoxypropylamine (MPA)	0 - 250 ppm	Normal operating range 0 - 25 ppm. Steeam generator wet lay-up range is 75 - 150 ppm.
Oil or Other Substances	No visible color film on surface of receiving waters.	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	NA



NPDES LIMITS 2/16/2010

RADWASTE TREATMENT SYSTEM EFFLUENT (SD003)		
PARAMETER	LIMIT	RESTRICTIONS
Boron	NA	If Mississippi River flow less than 4200 cfs, then analyze tank for boron concentration.
Chlorine Bleach	NA	Used for laundering radioactively contaminated protective clothing, towels, and rags.
Ethylene Glycol	NA	Minor system leakage from routine operations.
Floating Solids or Visible Foam	Trace amounts	NA
Hot Lab Sink Effluent	NA	Miscellaneous indicators, reagents, samples and expired laboratory standards.
Hydrogen Peroxide	Miscellaneous Amounts	Addition to decrease biological oxygen demand levels. Used in laundry and as a cleaning preparation prior to painting. Also used for personnel and equipment decontamination.
Nitrite Based Corrosion Inhibitor with Additives and Biocide	NA	Minor system leakage from routine operations. Essentially removed by ion exchangers prior to discharge.
Oil or Other Substances	No visible color film on surface of receiving waters.	NA
Polyquaternary Amine Coagulant	NA	Typically 500 grams added to 5000 gallons in Waste Hold-Up Tank. Used to precipitate large particles for increased filtration efficiency.
Potassium Chromate Potassium Dichromate Potassium Hydroxide	NA	Minor system leakage from routine operations and maintenance. Laundering of reusable towels and rags contaminated with potassium chromate. Analyze the next two ADT Monitor tanks following a potassium chromate release of > 20 gallons.
Potassium Chromate Potassium Dichromate Potassium Hydroxide	1000 gallons /year	Chromated water collected in containers from normal seal leakage, system overflow, and planned system maintenance. Processed through the Liquid Rad Waste Treatment System. Analyze the next two ADT Monitor tanks.
Sodium Hydroxide	NA	Minor system leakage from routine operations as well as small amounts from drainage for maintenance of system components.
Special Respirator Cleaner Plus	NA	Used for cleaning and decontamination in the Radiation Controlled Area.
Decontamination Agents	Miscellaneous Amounts	Radiacwash and Quick Decon. Used for radioactive decontamination.
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	NA
TSP Free Detergent	NA	Used for laundering, protective clothing, towels, rags, and as a cleaning preparation prior to painting

NPDES LIMITS 2/16/2010

REVERSE OSMOSIS EFFLUENT (SD004)		
PARAMETER	LIMIT	RESTRICTIONS
Clean in Place Skid (CIP) Total Suspended Solids	Batch release <= 30 ppm	Sample each batch before release. Batches may be discharged to the turbine building sump or SD004, depending on the suspended solids results. Report results in the Discharge Monitoring Report (DMR).
Clean in Place Skid (CIP) pH	> 2.0 - < 12.0	Sample each batch before release. Batches may be pH adjusted and discharged to the Turbine Building Sump or SD004. Report results in the DMR.
Floating Solids or Visible Foam	Trace amounts	NA
Hydrogen Peroxide	3000 ppm	Used for biological decontamination, discharge to TBS or SD004.
Oil or Other Substances	No visible color film on surface of receiving waters	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
RO and Continuous Deionizing Units (CDI) cleaning includes: hydrochloric acid, sodium hydroxide, sodium chloride, sodium percarbonate, sodium laurel sulfate		Periodic cleaning
Total Reverse Osmosis Effluent Flow		Total effluent from all processes must be summed monthly and reported in the DMR.
TURBINE BUILDING SUMP (UNIT 1 = SD005; UNIT 2 = SD006)		
PARAMETER	LIMIT	RESTRICTIONS
Cold Lab Effluent	75 gallons/year	Miscellaneous indicators, reagents samples and expired laboratory standards. Sinks and floor drains may collect small amounts of various cleaning solutions.
Corrosion Inhibitor with additives and biocide	NA	Minor pump leakage and triple rinsing empty drums.
Ethylene Glycol	NA	Minor pump leakage and triple rinsing empty drums.
Floating Solids or Visible Foam	Trace amounts	NA
Formula 65	Infrequent Use	Used for condenser tube leak testing.
Hydrazine, Boric Acid, Morpholine, Carbohydrazide, Ammonium Hydroxide, Methoxypropylamine, Aqueous Alkylamine	Miscellaneous amounts from Steam Generator carryover, Heating Boiler and condenser draining for maintenance	Draining of chemical feed tanks and triple rinse chemical drums for safety reasons to the TBS. Draining of chemical feed tanks for maintenance and outages.
Hydrogen Peroxide	NA	Used for biological decontamination, discharge to SD001.
Neutralizer	NA	Needed for neutralizing hydrazine, acid, and caustic spills in the turbine building sump. If safe to do so, neutralization may be done at the spill location and then flushed to the turbine building sump system.
Oil and Grease	Monthly average = 10 ppm Daily Max = 15 ppm	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
Oil or Other Substances	No visible color film on surface of receiving waters	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
Radiac Wash	NA	Wetting agent used for steam cleaning.
Steam Cleaning Waste Water	NA	Steam cleaning of motors and equipment may be directed to the Turbine Building Sump. Oil sorbents will be used to ensure oil and grease is not transferred to the TBS.
Total Suspended Solids	Monthly average = 30 ppm Daily Max = 100 ppm	Where the background level of the natural origin is reasonably definable and normally is higher than the specified limits, the natural level may be used as the limit.

NPDES LIMITS 2/16/2010

FIRE PROTECTION SYST. LAND APPLICATION OR TBS		
PARAMETER	LIMIT	RESTRICTIONS
Biocide	Per request/approval letters	Used for zebra mussel control, with restrictions per approval letters
Fire Protection Deluge System, Hose Stations and Accessory Equipment (containing river water only)	No runoff to surface waters	Testing and flushing or cleaning of fire suppression system, hose stations and auxiliary equipment may be directed to land application.
MISCELLANEOUS PLANT BUILDING FLOOR DRAINS (SD010)		
PARAMETER	LIMIT	RESTRICTIONS
Floating Solids or Visible Foam	Trace amounts	NA
Flow	0.004 MGD	NA
Hydrogen Peroxide	3000 ppm	Used for biological decontamination.
Oil and Grease	Monthly average = 10 ppm Daily Max = 15 ppm	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
Oil and Other Substances	No visible color film on surface of receiving waters	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.
Sodium Sulfite	NA	Used on as needed basis for chlorine/bromine neutralization.
Total Suspended Solids	Monthly average = 30 ppm Daily Max = 100 ppm	Where the background level of the natural origin is reasonably definable and normally is higher than the specified limits, the natural level may be used as the limit.
UNIT 1 AND 2 PLANT COOLING WATER OUTFALL (WS001, WS002)		
PARAMETER	LIMIT	RESTRICTIONS
Scale Inhibitor	NA	20 ppm concentration in the drive water line or a feed rate of approximately .004 gpm to each skid. At the maximum rate of feed, the additive will create a maximum concentration of 0.49 ppm (mg/l).
Total Residual Oxidants, Bromine/Chlorine	2.0 ppm	Sample daily, may be obtained from Generator Hydrogen Coolers or from Cooling Water Pump Discharge if cooling water outfall lines are plugged or any point representative of system discharge. These additional sample points would be more conservative.
SCREEN BACKWASH & FISH RETURN EFFLUENT (SD012)		
PARAMETER	LIMIT	RESTRICTIONS
Debris	NA	Large debris collected at the trash racks shall be disposed of on dry land so as to prevent it from entering waters of the state.
Floating Solids or Visible Foam	Trace amounts	NA
Flow	2.0 MGD	Monthly estimate.
Oil or Other Substances	No visible color film on surface of receiving waters	Oil or other substances shall not be discharged from the sump in amounts that create a visible color film.

NPDES LIMITS 2/16/2010

MISCELLANEOUS USE/DISPOSAL REQUESTS AND LAND APPLICATION		
PARAMETER	LIMIT	RESTRICTIONS
Bio Action Biological Drain Opener	NA	Treatment of outside transformer pits for stagnant rainwater
Cinders and Corn	NA	Use for controlling leakage through stop logs while dewatering bays. Approval given for P1 as well as other NSP facilities.
Chlorine	NA	Land apply for Total Coliform disinfection.
Cooling Water	NA	Periodically during quarterly surveillance procedures cooling water is discharged to the ground and land applied via the cooling water return dump to grade valve.
Diagnostic Trasar	0 - 5 ppm 0 - 6 times per year Intermittent 24 hour tests	To detect and correct possible chemical leakage in various plant systems.
Fish Disposal	NA	Fish carcasses collected from plant surface waters will be buried on site.
Flush Water From Shock Chlorination of Potable Water Systems Piping and Wells	No runoff to surface waters	Land application at least 50 feet from the river.
Herbicide	Licensed Applicator Per request/MPCA approval required	Applied along fence lines, rock areas, and other areas as needed for weed control.
Insecticide	Licensed Applicator Per request/MPCA approval required	A hand sprayer will be used to apply 4-5 gallons of diluted product. Plant staff will vacuum or clean areas to be sprayed prior to application. A cloth or rag saturated with the insecticide will be used to apply the insecticide over bays, fish return lines, or other areas where there is potential for the product to contaminate the water.
Non-Motorized Equipment Rinsing	No runoff to surface waters	Rinsing of non-motorized equipment to remove road grime.
Rainwater Collection Sumps/Berms	Rainwater only	Rainwater only, no petroleum products or chemicals discharged to river or groundwater.
Screen Rinsing	NA	Water for rinsing/cleaning of screens with discharge to surface waters or land application.



Northern States Power Company  
 d/b/a Xcel Energy  
 414 Nicollet Mall  
 Minneapolis, MN 55401  
 303-628-2644

Wells Fargo Bank, N.A.  
 115 Hospital Drive  
 Van Wert, OH 45891



0000678522

54-382  
 812

9600019921

Date 02/08/10

\$350.00 USD

Pay THREE HUNDRED FIFTY & 00/100\*\*\*\*\* DOLLARS

VOID IF NOT CASHED IN 90 DAYS

To The Order Of  
 MINNESOTA POLLUTION CONTROL  
 AGENCY  
 520 LAFAYETTE RD N  
 ST PAUL MN 55155

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER AND A TRUE WATERMARK HOLD TO LIGHT TO VIEW

⑈0000678522⑈ ⑆041203824⑆9600019921⑈

Payee  
 MINNESOTA POLLUTION CONTROL

Vendor ID	Employee #	Check No.	Date
MINNEPOLC1 01		0000678522	02/08/10

Payment Ref Invoice No.	PO/Contract	Disc/Wth	Pay Amount
097446300000 020410		.00	\$350.00

Pymt Comments: Attn: Beckie Olson, MAR / MAJ  
 Prairie Island NPDES  
 application renewal  
 Route: Brent Kuhl  
 Prairie Island - Env Lab



# **Minnesota Pollution Control Agency**

## **NPDES PERMIT APPLICATION - APPENDIX A**

The 1993 Legislature revised the Minnesota Pollution Control Agency's responsibilities in Minn. Stat. § 115.03, subd. 1(e)(10) "Requiring that applicants for wastewater discharge permits evaluate in their applications the potential reuses of the discharged wastewater;"

As a result of this 1993 Law, the Minnesota Pollution Control Agency has been charged with requiring permit applicants to evaluate the reuse potential of their wastewater prior to discharge.

Therefore, please provide in narrative form in the space below, an evaluation of reuse potential of your wastewater prior to discharge to a receiving stream, lake, or storm sewer. Some ideas include water conservation measures, use of cooling tower blowdown for thermal discharges, lawn watering or irrigation of parks and public property, wetland reclamation/development/recharge.

Prairie Island utilizes various means to minimize impact on the Mississippi River. Based on requirements of the plant's NPDES permit, Prairie Island operates cooling towers to minimize thermal discharges to the river. Prairie Island further minimizes thermal impact by recycling approximately 50% of the discharge water back to the intake during winter, and as regulated in spring by Chapter 1, Section 5.1 of the present permit thus reducing impingement impacts on early-life stages of fish.

Additionally, existing wastewater reutilization arrangements include, providing discharge canal water to an adjacent wetland to support variable water levels and simulate seasonal fluctuations for the benefit of wildlife, in accordance with MDNR requirements; Reuse of plant systems effluent by directing discharge to the recycle canal for mixing with circulating water prior to reentering the plant, ultimately reduces overall intake of river water.

---

Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194

(651) 296-6300, toll-free (800) 657-3864, TTY (651) 282-5332 or (800) 657-3864

This material can be made available in alternative formats for people with disabilities.



Printed on recycled paper containing at least 20 percent fibers from paper recycled by consumers.



# WATER QUALITY TRANSMITTAL FORM

MPCA USE ONLY		
Application Number		
MN		
Date Received		
Month	Day	Year

*COMPLETE APPLICATION BY PRINTING OR TYPING.  
PLEASE MAKE A PHOTOCOPY FOR YOUR RECORDS.*

## FACILITY INFORMATION

**Facility Owner**  and/or Operator  (Public Entity, City or Business Firm legally responsible for facility operation)  
[see Minn. R. 7001.0050]

Permittee Name: Northern States Power Company- Phone: (612)330-6278 FAX: (612)330-6556  
Minnesota, an Xcel Energy Company

Mailing Address: Environmental Services 414 Nicollet Mall MP7 City: Minneapolis  
State: MN Zip: 55401 Type of ownership Public  / Private

**Facility Location** No Post Office Boxes allowed. Actual physical location of facility -- must use actual street or highway address (or Section/Township/Range coordinates). *If applying for a permit that can cover more than one site (e.g. aggregate and/or hot mix asphalt operations), write NA.*

Facility Name: Prairie Island Nuclear Generating Plant Phone: (651)388-1121  
Location Address: 1717 Wakonade Dr. East

Facility is located in the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of section 4,5,9 township Welch  
of Goodhue \_\_\_\_\_ county. Township # 113N Range # 15 East  West   
City: Welch State: MN Zip: 55089

Is the facility located on tribal land?  yes  no If yes, apply to EPA Region V, John Coletti; (312) 886-6106.

**Technical Agent or Consulting Engineer** \_\_\_\_\_ Title: \_\_\_\_\_

Name of firm or organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Person (Operator, Plant Manager, City Official): \_\_\_\_\_ Title: \_\_\_\_\_

## APPLICATION INFORMATION

Reason for Application (check all that apply):

- Expiration of existing permit (reissue)   
  Modification to existing permit   
  Agency request  
 New permit/facility   
  Land Application Site Approval   
  Other, please specify NPDES

Type of Application (check all that apply):

- Municipal/Domestic /  Sanitary Sewer /  Biosolids /  Pretreatment /  Industrial Process Wastewater /  
 Industrial By-product Land Application /  Land Disposal Site Approval for Wastewater /  
 Stormwater /  Water Treatment Plant /  Non-contact Cooling Water /  Ground Water Pump Out /  
 Dredge /  Feedlot /  Aquaculture /  Aggregate/Hot Mix

Have you ever applied for, or do you currently have a National Pollutant Discharge Elimination System (NPDES) or State Disposal System (SDS) permit for this facility? yes no

If yes, please list permit number(s) MN0004006

Name on existing permit Northern States Power Company d/b/a Xcel Energy Prairie Island Nuclear Generating Plant

List all current MPCA permits or certificates, and their numbers, which also may apply to this facility: Hazardous Waste #MND049537780, Title 5 Part 70 Air Emission Permit 0490003-03, SDS Septic Permit MN0062677

If this is a new or expanded facility, has an Environmental Impact Statement or an Environmental Assessment Worksheet been prepared?  
yes  no  If yes, note the title and date: \_\_\_\_\_

Annual Permit fee invoice should be mailed to  Owner/operator address  Facility location address  Not applicable

Discharge Monitoring Report forms should be mailed to  Owner/operator address  Facility location address  Not applicable

### APPLICATION FEES

An application fee is required under Minn. Stat. § 116.07, subd. 4d (1990) and Minn. R. ch. 7002 (Permit Fee Rules). This application fee must be submitted with the application. **The application fee is \$350.**

#### **Reminder:**

- ✓ ***Did you sign attachment form(s)?***
- ✓ ***Attach your \$350 application fee?***
- ✓ ***Enclose completed attachments?***

***Applications that are submitted without an authorized signature, the required application fee, and attachments will be returned. Please make your check payable to the Minnesota Pollution Control Agency. Send the completed permit application, attachments (including plans and specifications, if applicable) and check to:***

**Minnesota Pollution Control Agency  
Beckie Olson, MAR/MAJ  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194**

**For more information please contact the Customer Assistance Center at:**

**In Metro Area: (651) 297-2274  
Outside Metro Area: (800) 646-6247**

**NOTE:** The Minnesota Pollution Control Agency (MPCA) is proposing rules that affect permit application fees. The proposed rules and statement of need and reasonableness (SONAR) are available on the MPCA Web page at [www.pca.state.mn.us/permits/airwaterfees.html](http://www.pca.state.mn.us/permits/airwaterfees.html). Permit applications received by the MPCA on and after July 1, 2009, and before implementation of the rule, are subject to the new fees and will be charged retroactive fees, as necessary.





Minnesota  
Pollution  
Control  
Agency

**ATTACHMENT FOR  
Dredged Material Management  
National Pollutant Discharge Elimination System (NPDES)  
and/or State Disposal System (SDS) Permit**

MPCA USE ONLY		
Application Number		
MN		
Date Received		
Month	Day	Year

*COMPLETE APPLICATION BY PRINTING OR TYPING. PLEASE MAKE A PHOTOCOPY FOR YOUR RECORDS.*

**PERMITTEE:** Northern States Power Company-Minnesota, an Xcel Energy Company, Prairie Island Nuclear Generating Plant

**BASIC INFORMATION**

**1. Principal Facility Activity:** Steam Electric Generation  
 Products Produced: \_\_\_\_\_  
 Raw Material Consumed: \_\_\_\_\_  
 Average and maximum amount per Unit Time (such as tons/year, kilograms/day) of product: \_\_\_\_\_  
 Average and maximum amount per Unit Time (such as tons/year, kilograms/day) of raw material: \_\_\_\_\_  
 Standard Industrial Classification (SIC) Code Number: 4911

**2. Description of Project.**

- a. Attach a detailed textual description of the proposed dredging project, including a description of how the dredged material is to be managed in both the short- and long-term. **(2A)**
- b. Location of the activity: in Mississippi River  lake,  river,  wetland,  
 at river mile 798 and/or at elevation(s): \_\_\_\_\_ msl/nvgd
- c. Type of activity (dredging, cable placement, etc.): Dredging
- d. Estimated frequency of dredging:  One-time only. Indicate the estimated duration of the project: 45 days  
 On-going/maintenance: Semi-annually/Annually/Biennially/Other (circle one)
- e. Projected volume of material to be dredged: 56,000 yd<sup>3</sup> (total), \_\_\_\_\_ yd<sup>3</sup> per \_\_\_\_\_  
 (Time Period)
- f. Method or Equipment Used:  
 Hydraulic Dredge: pumping rate: \_\_\_\_\_ gpm; \_\_\_\_\_ # of hours of operation/day.  
 Mechanical Dredge by:  backhoe  dragline  clamshell  
 Other (describe): \_\_\_\_\_
- g. Attach a detailed map(s) **(2G)** depicting the following, as applicable to the project: the dredging site(s); the dredged material disposal site(s)/treatment system(s); any discharge point(s); storm sewer outlets (if the discharge will be routed to a storm sewer); the surface and ground water sampling points; land application site(s); the receiving water(s); and/or known drinking water supplies. This map should be based on a 7.5-minute U.S. Geological Survey quadrangle, County Soil Survey, or County Plat location map.

**3. Other Permits Required.**

- a. Is the project site now covered by an MPCA storm water NPDES/SDS permit?  Yes  No  
 If yes, indicate the permit number, or date applied for: MN0004006
- b. Does this project require a federal permit for dredging or filling activity?  Yes  No  
 If yes, indicate permit number or date applied for, and the name(s) of the US Army Corps of Engineers (USCOE) staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application **(3B)**.

Permit number or date applied for: December 7, 2009 Staff name: Eric Norton

c. Does this project require a state permit for work in the bed of public waters?  Yes  No

If yes, indicate permit number or date applied for, and the name(s) of the Minnesota Department of Natural Resources (MDNR) staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application (3C).

Permit number or date applied for: 2010-0317 Staff name: Dale Homuth

d. Does this project require a state permit for the appropriation of water?  Yes  No

If yes, indicate permit number of date applied for, and the name(s) of the MDNR staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application (3D).

Permit number or date applied for: \_\_\_\_\_ Staff name: \_\_\_\_\_

e. Does this project require an Environmental Assessment to be completed?  Yes  No

If yes, attach a copy of the completed Environmental Assessment Worksheet (3E).

**EFFLUENT CHARACTERIZATION**

4. Does this project involve hydraulic dredging?  Yes  No

5. Does this project involve the discharge of water from the project site or a management unit?  Yes  No

*If No to questions 4 and 5, skip to 'Dredged Material Characterization' section.*

6. Indicate how the water from the hydraulic dredging process and/or management unit will be managed.

Discharged to surface water (eg. ditch, stream, lake, wetland, municipal storm sewer, drain tile system).

*If checked, complete the balance of this section.*

Discharged to a municipal sanitary sewer system.

If checked, indicate the name(s) of the system and the staff person(s) involved in approval of the discharge; attach a copy of the letter granting authorization to discharge to the system (6A). Skip to question 13.

Name of sanitary sewer system: \_\_\_\_\_ Staff name: \_\_\_\_\_

Discharged to an on-site septic tank/drainfield system. *If checked, skip to question 13.*

Discharged to storm water retention basin or pond with no outlet. *If checked, skip to question 13.*

Managed by on-land disposal via spray irrigation or land application.

*If checked, skip to question 13, and complete and submit an Industrial By-Product Site Application Form (wq-landapp7-11) for each proposed land application or spray site. Forms are available electronically at: <http://www.pca.state.mn.us/publications/wq-landapp7-11.pdf>.*

No discharge, all carriage water will filter into the ground at and/or evaporate from the placement site.

*If checked, skip to question 13.*

Other (explain in detail): \_\_\_\_\_

7. Indicate the information requested for each discharge point. Discharge points include, for example, pipes and culverts. Type of wastewater refers to, for example, storm water, pit dewatering, sand and gravel washing wastewater, scrubber wastewater, vehicle wash wastewater, contaminated ground water pumpout, boiler blowdown, non-contact cooling water or sewage. Route to receiving waters is, for example, "to unnamed wetlands adjacent to Black Lake", "to an unnamed ditch to the Cottonwood River", "to Twin Lakes" or "to an unnamed pond adjacent to Lake Cornelia via storm sewer."

Discharge Point/ Outfall #	Discharge flow rate, million gallons per day		Type of wastewater	Flow duration and frequency			Where will discharge go? What route will it take to surface receiving waters?
	Average	Maximum		Months of flow	Days/ week	Hours /day	

--	--	--	--	--	--	--	--

8. a. **Attach (8A) test results** for total suspended solids and pH at each of the facility discharge points.
- b. **Attach (8B) test results** for all other pollutants known or reasonably believed to be present at each of the facility discharge points. Such pollutants may include biochemical oxygen demand, fecal coliform, temperature (heat), nutrients (phosphorus, ammonia, nitrate, nitrite), metals, salts, cyanide, residual chlorine, fluoride, oil and grease, polychlorinated biphenyls, phenols, polynuclear aromatic hydrocarbons, volatile organic compounds, pesticides, and/or radioactivity.
- c. **If this is an application for reissuance** of an existing permit, review your existing NPDES/SDS permit to see if it has special testing requirements for the application for reissuance of the permit. If so, be sure to comply with those requirements. The existing permit also may have special requirements for reports or other submittals for the application for reissuance of the permit. Be sure to comply with these requirements also. Failure to complete the application for reissuance of a permit as required by the permit is a violation of the permit itself and is subject to enforcement action.
9. **Describe the proposed treatment for the discharge from the dredged material placement site.** Explain in detail the extent to which this treatment system will reduce the levels of the potential pollutants, which includes the dredged material itself as well as the contaminants identified in the discharge. For permit reissuance or modification, note any changes to the treatment system since this permit was last issued. Attach plans and flow diagrams for the treatment system and equipment (9A).

---



---



---



---



---



---

10. **In the table below, list the chemical additives that are used or proposed to be used in the treatment system.** This includes the process reagents, flocculants, biocides, wastewater treatment chemical additives, chlorine or other disinfectants, detergents, cleaning products, chemical dust suppressants, etc.

Attach Material Safety Data Sheets and/or complete product labels for each additive (10A).

Product Name	How often added	Purpose of additive	Maximum rate of use (weight or volume/year)

11. **Indicate the name of the laboratory that analyzes your effluent samples:** \_\_\_\_\_
12. **Indicate the MN Department of Health (MDH) Laboratory Certification No. for this laboratory:** \_\_\_\_\_
13. **What is the reuse potential of the water before discharge to surface waters?** Have you considered, for example, water conservation measures, or use of the water for industrial process water supply, cropland or lawn irrigation?

---



---



---

**DREDGED MATERIAL CHARACTERIZATION**

14. Will 93% of dredged material be retained on a #200 sieve?  Yes  No

If yes, attach the results from at least six representative sediment samples using ASTM Method D-422 and US Standard sieve numbers 10, 40, 100 and 200. Report the results for each of the discrete sample locations as a mass percentage of retained sediments (14A).

If yes, additional analysis is not required; skip to the "Dredged Material Management" section of this attachment. If no, additional analysis is required; continue completing this section.

15. Type of material to be dredged (for example, sand, silt, clay): sand, silt

16. **Baseline Analytes.** Dredged material not excluded from additional analysis, as determined using the grain size analysis described above, must be analyzed for the baseline analytes indicated in the table below.

Complete the following table with analytical results from a sample that is representative of the dredged material; attach lab sheets for all analytical data (16A). The sampling date(s), location(s) and method(s) must be included with all of the analysis results.

Analyte	Reporting Unit <sup>1</sup>	Number of Samples <sup>2</sup>	Date of Analysis	Results
Arsenic	mg/kg	5	4/17/09	6.7
Cadmium	mg/kg	5	4/17/09	1.7
Chromium III	mg/kg	5	4/22/09	21.1
Chromium VI	mg/kg	5	4/20/09	<7.0
Copper	mg/kg	5	4/17/09	13.9
Lead	mg/kg	5	4/17/09	15.2
Mercury	mg/kg	5	4/21/09	0.1
Nickel	mg/kg	5	4/17/09	12.5
Selenium	mg/kg	5	4/17/09	1.2
Zinc	mg/kg	5	4/17/09	49.1
Total Phosphorus	mg/kg	5	4/20/09	348
Nitrate + Nitrite	mg/kg	5	4/21/09	<1.6
Ammonia Nitrogen	mg/kg			
Total Kjeldahl Nitrogen	mg/kg	5	4/21/09	925
PCBs (Total)	mg/kg	5	4/27/09	None Detected
Total Organic Carbon	%	5	4/21/09	48800
Sieve and Hydrometer Analysis	%			
Moisture Content	%	5	4/16/09	43.3

<sup>1</sup> Report the results as dry weight, unless noted otherwise.

<sup>2</sup> Analysis must be conducted on samples that are representative of, and in consideration of the dredged material and activities at the project site. At a minimum, the number of samples to be collected at a proposed dredge site is specified in Table 6 of the MPCA document "Managing Dredged Materials in the State of Minnesota, 4/06."

17. **Additional Analytes.** Using the MPCA guidelines and factors described in the MPCA document "Managing Dredged Materials in the State of Minnesota, 4/06," complete a risk assessment for the dredge project site and determine the reasonable potential of pollutants to be present in sediment to be dredged. Dredged material must be analyzed for the additional analytes indicated in the table below, as appropriate, based on a risk assessment and the "reasonable potential" for a pollutant to be present in the dredged material.

Complete the following table with analytical results from a sample that is representative of the dredged material; attach lab sheets for all analytical data (17A). The sampling date(s), location(s) and method(s) must be included with all of the analysis results.

Analyte	Reporting Unit <sup>1</sup>	Number of Samples <sup>2</sup>	Date of Analysis	Results
Barium	mg/kg	5	4/17/09	59.9
Cyanide	mg/kg	5	4/22/09	<0.76
Manganese	mg/kg	5	4/17/09	320
Oil & Grease	%	5	4/17/09	None detected
Aldrin	mg/kg	5	4/22/09	None detected
Chlordane	mg/kg	5	4/22/09	None detected
Endrin	mg/kg	5	4/22/09	None detected
Dieldrin	mg/kg	5	4/22/09	None detected
Heptachlor	mg/kg	5	4/22/09	None detected
Lindane (Gamma BHC)	mg/kg	5	4/22/09	None detected
DDT	mg/kg	5	4/22/09	None detected
DDD	mg/kg	5	4/22/09	None detected
DDE	mg/kg	5	4/22/09	None detected
Toxaphene	mg/kg	5	4/22/09	None detected
2,3,7,8-dioxin, 2,3,7,8-furan and 15 2,3,7,8-substituted dioxin and furan congeners	pg/kg			
Polycyclic Aromatic Hydrocarbons (PAHs)	ug/kg	5		
Naphthalene	ug/kg	5	4/22/09	None detected
Pyrene	ug/kg	5	4/22/09	110
Fluorene	ug/kg	5	4/22/09	None detected
Acenaphthene	ug/kg	5	4/22/09	None detected
Anthracene	ug/kg	5	4/22/09	None detected
Fluoranthene	ug/kg	5	4/22/09	101
Benzo (a) pyrene (BAP)/BAP equivalent <sup>3</sup>	ug/kg	5	4/22/09	0.084

<sup>1</sup> Report the results as dry weight, unless noted otherwise.

<sup>2</sup> Analysis must be conducted on samples that are representative of, and in consideration of the dredged material and activities at the project site. At a minimum, the number of samples to be collected at a proposed dredge site is specified in Table 6 of the MPCA document "Managing Dredged Materials in the State of Minnesota."

<sup>3</sup> The results for the following analytes should be used to calculate the BAP equivalent, as described by the MPCA document Polycyclic Aromatic Hydrocarbons,(p-eao2-03), and the Soil Reference Value (SRV) spreadsheet at [www.pca.state.mn.us/publications/risk-tier2srv.xls](http://www.pca.state.mn.us/publications/risk-tier2srv.xls). The BAP equivalent is compared against the soil reference value for Benzo (a) pyrene, above: Benzo (a) anthracene, Benzo (b) fluoranthene, Benzo (j) fluoranthene, Benzo (k) fluoranthene, Benzo (a) pyrene, Chrysene, Dibenz (a,j) acridine, Dibenz (a,h) acridine, 7,12 Dimethylbenz-anthracene, Dibenz (a,h)anthracene, 7H-Dibenzo(c,g) carbazole, Dibenzo (a,e) pyrene, Dibenzo (a,h) pyrene, Dibenzo (a,i) pyrene, Dibenzo (a,l) pyrene, 1,6-Dinitropyrene, 1,8-

Dinitropyrene, Indeno (1,2,3-cd) pyrene, 3-Methylcholanthrene, 5-Methylchrysene, 5-Nitroacenaphthene, 1-Nitropyrene, 6-Nitrochrysene, 2-Nitrofluorene, and Quinoline.

18. Indicate the name of the laboratory that analyzes your sediment samples: Pace Analytical

19. Indicate the MN Department of Health (MDH) Laboratory Certification No. for this laboratory: 027-053-137

20. **Management Level.** The management tier for dredged material is used to determine the appropriate management method(s) for dredged material from a given project, or subset of dredged material from a project. The management tier for dredged material is based on the analyzed characteristics of the dredged material in comparison to Soil Reference Values (SRVs) for those analytes.

Using the MPCA document "Managing Dredged Materials in the State of Minnesota," determine the applicable management level for the dredged material. If the dredged material is proposed to be managed in subsets (based on applicable management level), indicate all applicable levels, and the approximate volume proposed to be managed within each level.

- Level 1, 56,000 yd<sup>3</sup>
- Level 2, \_\_\_\_\_ yd<sup>3</sup>
- Level 3, \_\_\_\_\_ yd<sup>3</sup>

**DREDGED MATERIAL MANAGEMENT**

21. **Indicate how dredged material is proposed to be managed (check all that apply).** If the dredged material is proposed to be managed in subsets (based on applicable management level or another factor), indicate all applicable management method(s), and the approximate volume proposed to be managed by each method. If storage or disposal is proposed at a USCOE placement site, indicate the USCOE site identification number and the name of the USCOE staff person with whom arrangements for placement are being made. If disposal is proposed at a site or landfill that has an MPCA permit, provide the permit number.

Management Method	<i>If proposed to be managed off-site, provide the following information about each placement site, use additional sheets as necessary.</i>
<input checked="" type="checkbox"/> Short-term storage at a placement site (storage for less than or equal to 1 year) <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> On-site, <u>56,000</u> yd<sup>3</sup></li> <li><input type="checkbox"/> Off-site, _____ yd<sup>3</sup></li> <li><input type="checkbox"/> Discharge from management unit. <i>If yes, complete 'Effluent Characterization' section.</i></li> </ul>	Site Name or ID#: _____ Location City: _____ Public Land Survey (PLS) Coordinates: T _____ N, R _____ W, Section _____ Placement site is owned by: _____ Placement site is operated by: _____
<input type="checkbox"/> Long-term storage at a placement site (storage for more than 1 year) <ul style="list-style-type: none"> <li><input type="checkbox"/> On-site, _____ yd<sup>3</sup> <i>(also complete questions 22 - 24)</i></li> <li><input type="checkbox"/> Off-site, _____ yd<sup>3</sup></li> <li><input type="checkbox"/> Discharge from management unit. <i>If yes, complete 'Effluent Characterization' section.</i></li> </ul>	Site Name or ID#: _____ Location City: _____ Public Land Survey (PLS) Coordinates: T _____ N, R _____ W, Section _____ Placement site is owned by: _____ Placement site is operated by: _____

Management Method	<i>If proposed to be managed off-site, provide the following information about each placement site, use additional sheets as necessary.</i>
<input type="checkbox"/> Permanent disposal <input type="checkbox"/> On-site, _____ yd <sup>3</sup> <i>(also complete question 22 - 24)</i> <input type="checkbox"/> Off-site, _____ yd <sup>3</sup>  <input type="checkbox"/> Discharge from management unit. <i>If yes, complete 'Effluent Characterization' section.</i>	Site Name, ID# or Permit #: _____ Location City: _____ Public Land Survey (PLS) Coordinates: T _____ N, R _____ W, Section _____ Placement site is owned by: _____ Placement site is operated by: _____
<input type="checkbox"/> Reuse of dredged material  <input type="checkbox"/> On-site, _____ yd <sup>3</sup> <input type="checkbox"/> Off-site, _____ yd <sup>3</sup>	Description of proposed reuse project(s): _____ _____ _____
<input type="checkbox"/> Deep water disposal or other in-water disposal, _____ yd <sup>3</sup>	Name of water body: _____
<input type="checkbox"/> Beach nourishment, _____ yd <sup>3</sup>	Name of water body: _____

**22. Initial Site Plan.** If proposing to use a long-term storage or disposal facility on-site, attach a site plan for MPCA review and approval (22A). The initial site plan consists of volume calculations for the final permitted capacity and a map of the facility. The map of the facility shall include the permitted boundaries, dimensions, site contours, at contour intervals of two feet or less, soil boring locations with surface elevations and present and planned pertinent features, including but not limited to roads, screening, buffer zone, fencing, gate, shelter and equipment buildings, and surface water diversion and drainage. The initial site plan must be signed by a land surveyor registered in Minnesota or a professional engineer registered in Minnesota.

**23. Site selection and use.** If proposing to use a long-term storage or disposal facility on-site, locational prohibitions and setbacks apply; indicate by checking the appropriate box(es) whether the facility/proposed facility meets these standards.

- The facility is/proposed to be located in an area entirely above the high water table.
- The facility is not/proposed to be located within a shoreland or wild and scenic river land use district governed by Minn. R. chapters 6105 and 6120.
- The facility is not/proposed to be located in a wetland, or if located in a wetland, has the appropriate federal, state and/or local approvals required.
- The facility is not/proposed to be located in the designated Karst Region in the Southeastern portion of Minnesota that was subject to the 1993 Administrative Order that required preparation of a contingency plan.
- The facility is not/proposed to be located in an area which is unsuitable because of topography, geology, hydrology, or soils.
- The boundaries of the facility/proposed facility are at least 50 feet from the site property line.

**24. Closure Plan.** If proposing to use a long-term storage or disposal facility on-site, attach a closure plan for the final closure of a dredged material disposal facility for MPCA review and approval (24A). A "Closure Plan" identifies the steps needed to close the entire site at the end of its operating life, and must include: (a.) A description of how and when the entire facility will be closed, including the estimated year of closure and a schedule for completing each fill phase. (b.) An estimate of the maximum quantity of dredged material in storage at any time during the life of the facility. (c.) A cost estimate including an itemized breakdown for closure of each fill phase and the total cost associated with closure activities at dredged material disposal facilities.

25. If the system is currently covered under an NPDES/SDS permit, has the system been in compliance with the permit limits during the past five years?  Yes  No

If no, explain below.

**ATTACHMENTS (Checklist):** Check all that are attached.

- Question (2A): Textual description of proposed dredging project.
- Question (2G): Detailed map: 7.5-minute U.S. Geological Survey quadrangle, County Soil Survey, or County Plat location map.
- Question (3B): Copy of USACE Permit or permit application for dredging or filling activity.
- Question (3C): Copy of MDNR Permit or permit application for work in bed of public waters.
- Question (3D): Copy of MDNR Permit or permit application for water appropriation.
- Question (3E): Copy of completed EAW.
- Question (6A): Copy of authorization to discharge to sanitary sewer system.
- Question (8A): Test results for TSS and/or pH.
- Question (8B): Test results for pollutants reasonably present in discharge.
- Question (9A): Plans and/or flow diagram for the treatment system and equipment.
- Question (10A): MSDSs and/or product labels for chemical additives.
- Question (14A): Test results for grain size analysis.
- Question (16A): Test results for baseline analytes.
- Question (17A): Test results for additional analytes.
- Question (22A): Initial site plan for long-term storage or disposal site.
- Question (24A): Closure plan for long-term storage or disposal site.

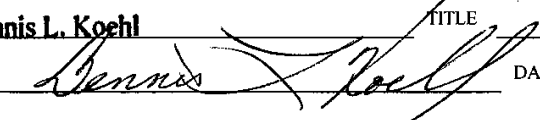
**CERTIFICATION**

Federal regulations (Section 309(c)(2) of the Clean Water Act and State regulations (Minn. R. 7001.0070) require the authorized signer to be one of the following:

- A. For corporation, a principal executive officer of at least the level of vice president;
- B. For a partnership or sole proprietorship, a general partner or the proprietor, respectively; or
- C. For a municipality, State, Federal, or other public facility, either a principal executive officer or ranking executive official.
- D. If the operator of the facility is different than the owner, both the operator and the owner according to items A to C.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Vice President & Chief Nuclear Officer

PRINTED NAME Dennis L. Koehl TITLE \_\_\_\_\_  
AUTHORIZED SIGNATURE  DATE 2/17/10  
STATE TAX I.D. # MN8122673 FEDERAL TAX I.D. # 41-0448030

**Applications submitted without an authorized signature, the required application fee and attachments, will be returned. Please make your check payable to the Minnesota Pollution Control Agency and mail to:**

**Minnesota Pollution Control Agency  
Beckie Olson, Permit Document Coordinator  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194**



**St. Paul, Minnesota 55155-4194**

**Attachment 2A—Description of Dredging Project (see Item 6 of Environmental Assessment Worksheet)**

**Attachment 3E—Copy of completed EAW**

# ENVIRONMENTAL ASSESSMENT WORKSHEET

**Note to preparers:** This form and EAW Guidelines are available at the Environmental Quality Board's website at: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. The complete question as well as the answer must be included if the EAW is prepared electronically.

**Note to reviewers:** Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title:** Prairie Island Nuclear Generating Plant Maintenance Dredging

2. **Proposer:** Xcel Energy Prairie Island Nuclear Generating Plant  
Contact person: Mike Wadley  
Title: Site Vice President  
Address: 1717 Wakonade Dr. E.  
City, state, ZIP: Welch, MN 55089  
Phone : 651-388-1121  
Fax : 612 330-6247  
E-mail : [Mike.Wadley@xenuclear.com](mailto:Mike.Wadley@xenuclear.com)

3. **RGU:** City of Red Wing  
Contact person: Brian Peterson  
Title: Planning Director  
Address: 419 Bush St.  
City, state, ZIP: Red Wing, MN 55041  
Phone : 651-385-3617  
Fax : 651-388-9608  
E-mail : [Brian.Peterson@ci.redwing.mn.us](mailto:Brian.Peterson@ci.redwing.mn.us)

4. **Reason for EAW preparation (check one)**

EIS scoping  Mandatory EAW  Citizen petition  RGU discretion  Proposer volunteered

If EAW or EIS is mandatory give EQB rule category subpart number Minn. R. 4410.4300 subp. 27A and subpart name: Wetlands and Public Waters

5. **Project location** County: Goodhue

City/Township: Red Wing

Sections 4 and 5 Township: 113N Range: 15W

GPS Coordinates N 4941269

w 529279

Tax Parcel Number: N/A — site is in bed of Mississippi River.

**Attach each of the following to the EAW:**

- County map showing the general location of the project; (See Attachment A)
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); (See Attachment B)
- Site plan showing all significant project and natural features. (See Attachments A, C, and D)

6. Description

a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*.

Xcel Energy proposes to complete maintenance dredging on 16 acres in the bed of the Mississippi River at Prairie Island Nuclear Generating Plant in Red Wing, Minnesota. The re-dredging is needed to maintain the existing intake approach canal for cooling water and emergency cooling water supply for electric power generation.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

Prairie Island Nuclear Generating Plant (Prairie Island) is located in Red Wing, Minnesota, on the west bank of the Mississippi River in Pool 3, just upstream from Lock and Dam 3.

Xcel Energy proposes to perform maintenance dredging at Prairie Island in order to maintain the existing intake approach canal for the supply of cooling water for generation of electric power. Prairie Island uses river water for cooling and requires a minimum depth of water over the intakes to operate.

The intake channel was first dredged in 1971, under a permit issued by the Minnesota Department of Natural Resources (MnDNR) (see Attachment E). The Prairie Island maintenance dredging will involve the dredging of approximately 56,000 cubic yards of accumulated sediments from the bed of the Mississippi River within the originally-dredged area. The dredging area extends from the plant intake to the navigation channel, 575 feet wide north to south with 3:1 side slopes along the south and north boundaries of the dredge cut. Dredging will be conducted mechanically and will involve a spud barge with an excavator and two material barges, as well as a motor vessel to push the barges. Dredged material will be dewatered and stockpiled immediately west of the plant's substation in the existing storage area, which resides within the boundary of the Prairie Island plant site (see Attachment D). The dredged material in the on-site storage area will be managed as per the existing NPDES/SDS Industrial Permit (MN0004006; see Attachment G: Minnesota NPDES/SDS Industrial Permit Section 5) and then removed from the storage area within one year after completion of dredging. The dredge material will be transported approximately 3 miles north of Prairie Island to Holst Excavating's Pit #3 in Welch Township for

use by Holst Excavating consistent with the existing NPDES/SDS Industrial Permit requirements (MN0004006; see Attachment D: Dredge Material Disposal Location).

Dredging is proposed to occur in April of 2010. It is anticipated that dredging will take approximately 10 working days to complete.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose of the proposed project is to perform maintenance dredging at Prairie Island. This maintenance dredging is necessary in order to maintain the existing intake approach canal for the supply of cooling water for generation of electric power. Sedimentation over the years had led to shoaling, a diminished cross sectional area, and a decrease in water volume in the intake channel.

Lock and Dam 3, completed in 1938, is located approximately one mile downstream of Prairie Island. Study and analysis by the U.S. Army Corps of Engineers (COE) has shown that a breach of the Lock and Dam 3 dike system could cause an accidental pool drawdown that would affect the operation of Prairie Island. The effects of a seven-foot drawdown at the dam would be to lower the pool elevation from a normal pool of elevation 674.0' MSL to 667.0' MSL.

Prairie Island uses river water for cooling and requires a minimum depth of water over the plant's intakes to operate. The invert elevation of the intakes, the needed cooling water flow rate and design of the circulating water pumps determines the minimum water level needed over the intakes. The design invert for the Prairie Island intake channel is 664.5' MSL, while the emergency cooling water intake elevation is 664.0 MSL.

Sedimentation in the intake channel since construction in 1971 has reduced the depth of water in the intake channel such that flows from the main channel are restricted, with flow entering the system primarily from Sturgeon Lake during low pool elevations. The present intake channel cross-section needs to be re-dredged to the design configuration to ensure that the emergency intake structure has sufficient flow in the event of a failure at Lock and Dam 3 and during low pool elevation periods. The depth profile of the intake channel, from the main channel border, across

the emergency intake to the screen house is shown for 1971 and 2009 in Attachments F.

d. Are future stages of this development including development on any other property planned or likely to happen?  Yes  No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

Ongoing maintenance dredging will likely be required for the intake channel in the future given the past history of sedimentation in the area and the continued high sediment loadings to the Mississippi River. Regular monitoring of the channel depth will be completed by Xcel Energy to determine future dredging needs and timing.

e. Is this project a subsequent stage of an earlier project?  Yes  No

If yes, briefly describe the past development, timeline and any past environmental review.

The Prairie Island intake channel was first dredged in 1971 under a MnDNR permit issued on August 17, 1971 (Attachment E). The proposed dredging is maintenance of the original intake channel configuration created by the 1971 dredging.

In April 2009, Xcel Energy completed 0.9 acres of dredging within the intake channel to address immediate water intake issues under a MnDNR Public Waters Work Permit #2009-0323. All of the April 2009 dredging work was consistent with the existing NPDES/SDS Industrial Permit requirements (MN0004006).

**7. Project magnitude data**

Total project acreage

16 acres

Number of residential units: unattached 0 attached 0 maximum units per building 0  
Commercial, industrial or institutional building area (gross floor space): total square feet 0

Indicate areas of specific uses (in square feet):

Office 0

Retail 0

Warehouse 0

Light industrial 0

Other commercial (specify)

Building height 0

Manufacturing 0

Other industrial 0

Institutional 0

Agricultural 0

If over 2 stories, compare to heights of nearby buildings

8. **Permits and approvals required.** List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. *All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.*

The following table summarizes the local, state, and federal permits necessary for the Prairie Island maintenance dredging project.

Unit of Government	Type of Application	Status
U.S. Army Corps of Engineers	Section 404 permit (Nationwide Permit 35)	2008-05683-EMN issued March 9, 2009 (see attachment G) Recent adjustments to the calculated dredging volumes, based upon May 2009 bathymetry may require a modification to this permit
Minnesota Pollution Control Agency	NPDES/SDS Industrial Permit	Modified/reissued on June 30, 2006 - Permit # MN 0004006 (see attachment G)
City of Red Wing, MN	Grading Permit	GP08-007 issued December 30, 2008 (see attachment G)
MN Department of Natural Resources	Public Waters Work Permit - Application #2009-0323	Submitted to MnDNR; pending completion of Environmental Review process*

\* MnDNR correspondence dated January 27, 2009

9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The Prairie Island maintenance dredging is compatible with adjacent and nearby land uses. Prairie Island is and will remain an electric generating plant. The proposed maintenance dredging project, which will occur within the Sturgeon Lake backwater area eastward to the Mississippi River navigation channel, is immediately adjacent to the plant site. The dredging will not expand the existing footprint of the Prairie Island plant site or the existing intake approach canal and will not disturb any previously undisturbed dredge areas. The Prairie Island plant site is an industrial area and has been cleared of vegetation for previous construction activities. Holst Excavating's Pit #3 is currently and will remain a sand and gravel pit. The Prairie Island maintenance dredging project will not alter existing land uses in the vicinity of Holst Excavating's Pit #3.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

If Before and After totals are not equal, explain why:

	PROPOSED SITE			
	Before		After	
	Acreage (Est.)	%	Acreage (Est.)	%
Types 1-8 wetlands	0	0%	0	0%
Wooded/forest	0	0%	0	0%
Brush/Grassland	0	0%	0	0%
Cropland	0	0%	0	0%
Lawn/landscaping	0	0%	0	0%
Impervious surfaces	0	0%	0	0%
Other – Non-wetland river bottom	16	77.3%	16	77.3%
Other – Storage Area	4.7	22.7%	4.7	22.7%
<b>Total</b>	<b>20.7</b>	<b>100%</b>	<b>20.7</b>	<b>100%</b>

11. **Fish, wildlife and ecologically sensitive resources**

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

The major nearby fish and wildlife resources are shown in Attachment A. Resources in the vicinity of Prairie Island and Holst Excavating's Pit #3 include several lakes and streams, the Mississippi River National River and Recreation Area, the Cannon River, which is designated as a Wild and Scenic River, the Gores Pool #3 Wildlife Management Area, the Cannon River Turtle Scientific and Natural Area (SNA), the Spring Creek Prairie SNA, and Minnesota State Forest land (Attachment A). It is not anticipated that any of these resources will be impacted by the maintenance dredging.

Several fish and mussel surveys have been conducted within the dredging location and its vicinity. Xcel Energy has monitored the fish community in the vicinity of Prairie Island since 1970. The MnDNR has also conducted fish surveys in the Upper Mississippi River since 1993 (Dieterman 2007); Pool 3 has been included in these surveys.

The riverine fish communities upstream of Lock and Dam 3 have been monitored since 1970 to determine if Prairie Island operation was having an effect on distribution, abundance, and overall health of aquatic biota. Since the mid-1970s, fish have been the focus of monitoring and study. Although big river ecosystems show a high degree of natural variability and aquatic populations in these rivers can experience dramatic changes between years, fish populations in the area of Prairie Island show a high degree of stability. Fish populations in the vicinity of Prairie Island today look similar to fish



populations in the 1970s. A relatively small number of native species (carp, planted in the Mississippi River in the 19th century are the exception) has dominated collections for 35 years. All indications are that these populations are healthy, composed of fish in good condition, and are reproducing successfully year after year.

The total number of species caught each year over the 1988-2006 period has remained relatively constant, ranging from 34 – 41 species. Relative abundance of eight representative (common) species is monitored. These species are carp, white bass, freshwater drum, sauger, black crappie, shorthead redhorse, walleye, and gizzard shad. These eight species make up 69 to 82 percent of all fish caught each year. Relative abundance of most species has been consistent over the 17-year period. For example, white bass relative abundance ranged from 10 to 20 percent over the 1988-2004 period; freshwater drum ranged from 8 to 19 percent, shorthead redhorse ranged from 8 to 17 percent. Carp and gizzard shad abundance were more variable, presumably because reproductive success in these species depends on adequate water levels in backwater areas. The species with more consistent measures of abundance between years tend to be species that spawn in deeper water (main channel) habitats or tributary streams.

The fish community is healthy and composed of fish in good condition, and are reproducing successfully year after year. Maintenance dredging is a short-term impact and fish will avoid the dredging area during these activities. No long-term impacts are expected on the fish community of Pool 3. The deeper water created by the dredging may be beneficial to some species of the fish community.

Extensive mussel surveys have been conducted in the Upper Mississippi River since the establishment of zebra mussels in the early 1990's. Some of the mussel survey results are documented in the Natural Heritage Information System (NHIS) database query discussed in section 11b.

Based upon review of the NHIS database and subsequent discussions with MnDNR and U.S. Fish and Wildlife Service (FWS) personnel regarding documented occurrences of threatened and endangered mussel species within the vicinity of the dredge area, Xcel Energy undertook a Level I Mussel Survey on June 9 – 11, 2009. The purpose of the mussel study was to evaluate the mussel population in the dredge area and evaluate potential impacts. The Level 1 Mussel Survey involved conducting a qualitative survey for mussels at a frequency of at least one qualitative dive search per

every 20,000 square feet of project impact zone (35 dives). Each qualitative survey sample is comprised of a dive that lasts 20 minutes in duration. All mussels found in each dive location were identified to species. Where more than 1 mussel was found per minute of dive, or if a state/federal listed species was collected, a quantitative 0.25 m<sup>2</sup> total substrate sample was collected. When state or federally listed mussel species were found, consultation with the MnDNR and FWS, respectively was also initiated. Communications were completed with MnDNR during all phases of the sampling.

Overall, 903 live unionids representing 19 species were collected from the proposed dredge area. Of the 35 qualitative dive searches, all had at least one live unionid; however only seven yielded less than 10 live unionids. A total of 888 unionids were collected in the qualitative dives and all were moved to the relocation area outside the dredge area. The dominant species were *A. plicata* (24.1%), *O. reflexa* (34.3%), and *Q. quadrula* (14.2%). (Table 3-1 in Attachment H - Unionid Survey Mississippi River Mile 798). One additional species, *Fusconaia ebena*, was collected as sub-fossil shell only. Five Minnesota listed species were observed: *Arvidens confragosus* (MN Endangered, 5 individuals); *Ligumia recta* (MN Special Concern, 1 individual); *Megolonaias nervosa* (MN Threatened, 2 individuals); *Obovaria olivaria* (MN Special Concern, 5 individuals), and *Quadrula nodulata* (MN Endangered, 6 individuals); see Table 3-1 in Attachment H - Unionid Survey Mississippi River Mile 798 and below. Unionid abundance ranged between one and 161 live unionids per qualitative dive searches, and seventeen qualitative dive searches yielded high catch per unit effort (CPUE); *i.e.*, >20 unionids per sample (see Table 3-2 in Attachment H - Unionid Survey Mississippi River Mile 798). The CPUE was 1.3 unionids/minute and juveniles comprised 3.7% of the total catch. Eight of the 19 species collected were represented by juveniles (including *O. olivaria*). Length and age data collected on unionid mussels is presented in Table 3-3 in Attachment H - Unionid Survey Mississippi River Mile 798.

Quantitative samples were then taken and quadrats were placed near the 18 highest CPUE qualitative dive search locations. Care was given not to place the quadrat within the same corridor that had been searched during qualitative dive sampling (determined by GPS and path recoded on the boat depth finder). Fifteen live unionids were collected from 18 of the 0.25 m<sup>2</sup> quantitative quadrat samples. Density was 3.3 unionids/m<sup>2</sup> and four species were collected. All species collected were represented by both juveniles and adults; juveniles represented 60% of the density (see Table 3-1 in

Attachment H - Unionid Survey Mississippi River Mile 798). No state or federally listed species were collected in the quantitative quadrats. All fifteen live unionid mussels collected during qualitative dive sampling were relocated outside the dive area

Although 903 live unionids were relocated during the sampling effort, it is likely that more unionids are scattered throughout the area. Dredging at this location will directly impact unionids still present in the dredge area. State listed species were collected in low abundance (see Table 3-1 and Figure 4-1 in Attachment H - Unionid Survey Mississippi River Mile 798); the poor habitat quality and dominance of common species suggests this project will not have a long-term impact on the overall unionid community within Pool 3.

The MnDNR is reviewing the mussel survey information and will provide additional guidance on mitigation as part of the MnDNR's review of the EAW. The MnDNR will likely impose mussel mitigation requirements as part of the Division of Waters – Public Waters Work Permit Special Provisions.

Species Documented in Mussel Survey – June 9 – 11, 2009

Scientific Name	Common Name	Minnesota Status	Federal Status
<i>Amblema plicata</i>	Threeridge	None	None
<i>Arcidens confragosus</i>	Rock pocketbook	Endangered	None
<i>Fusconia flava</i>	Wabash pigtoe	None	None
<i>Lampsilis cardium</i>	Pocketbook	None	None
<i>Lasmigona complanata</i>	White heelsplitter	None	None
<i>Leptodea fragilis</i>	Fragile papershell	None	None
<i>Ligumia recta</i>	Black sandshell	Special Concern	None
<i>Megalonalas nervosa</i>	Washboard	Threatened	None
<i>Obliquaria reflexa</i>	Threehorned wartyback	None	None
<i>Obovaria olivaria</i>	Hickorynut	Special Concern	None
<i>Potamilus alatus</i>	Pink heelsplitter	None	None
<i>Potamilus ohioensis</i>	Pink papershell	None	None
<i>Pyganodon grandis</i>	Giant floater	None	None
<i>Quadrula nodulata</i>	Wartyback	Endangered	None
<i>Quadrula pustulosa</i>	Pimpleback	None	None
<i>Quadrula quadrula</i>	Mapleleaf	None	None
<i>Strophitus undulatus</i>	Creeper	None	None
<i>Truncilla donaciformis</i>	Fawnsfoot	None	None
<i>Truncilla truncate</i>	Deertoe	None	None

The NHIS database query also identified two “non-status” species within the vicinity of the Holst Excavating’s Pit #3 site. The pugnose minnow (*Opsopoeodus emiliae*) was documented northeast of the site and the western harvest mouse (*Reithrodontomys megalotis*) was documented north of the site. It is anticipated that there will not be any impacts to these two species.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources on or near the site?  Yes  No  
If yes, describe the resource and how it would be affected by the project. Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-501) and/or Division of Ecological Resources contact number (ERDB \_\_\_\_\_) from which the data were obtained and attach the response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.

The MnDNR’s NHIS database was queried in March of 2009 by Barr Engineering (Barr) for preparation of the EAW data submittal. Barr has a license agreement with the MnDNR for access to the NHIS database. . The NHIS database contains known locations of endangered, threatened, and special concern species, as well as occurrences of unique or uncommon plant communities and habitat types.

#### Prairie Island

As indicated above, the Level I Mussel Survey documented several state-listed mussel species within the dredging area. In addition, the NHIS database query identified several fish, mollusks, plants, and amphibians within the vicinity of the Prairie Island plant site and maintenance dredging location. The most abundant group of species identified were mussels, with 14 species documented within the vicinity of the Prairie Island plant site and maintenance dredging location. Six of the mussel species are state-listed as endangered; these species include: ebonyshell (*Fusconaia ebena*), elephant-ear (*Elliptio crassidens*), Higgins-eye (*Lampsilis higginsii*), rock pocketbook (*Arvidens confragosus*), sheepnose (*Plethobasus cyphus*), and yellow sandshell (*Lampsilis teres*). The Higgins-eye is also listed as endangered at the federal level and the sheepnose is a federal candidate species. The ebonyshell (dead shells only), Higgins-eye, and yellow sandshell have been documented both upstream and downstream of the maintenance dredging location, while the rock pocketbook, elephant ear, and sheepnose have just been documented downstream of the maintenance dredging location. However, neither the elephant-ear nor the sheepnose have been documented within this area

since 1944; the ebonyshell records in the database are for dead shells and this species is believed to be extirpated.

In 2000, the U.S. Fish and Wildlife Service (USFWS) prepared an action plan to help prevent extinction of the Higgins-eye mussel in the Upper Mississippi River System. This effort resulted in large Higgins-eye mussel relocations; one of these relocation sites is approximately one-third of a mile upstream of the dredging location. These relocation efforts continue to the present day.

According to the NHIS database query, the only listed species previously documented within the dredging location is the ebonyshell mussel; however, only dead shells have been found in recent surveys and this species is expected to be extirpated from the area (Personal communication with Mike Davis, MnDNR; 4/1/09).

During the Level 1 and 2 mussel survey conducted by Xcel Energy on June 9-11, 2009, five Minnesota listed species were observed: *Arcidens confragosus* (MN Endangered, 5 individuals); *Ligumia recta* (MN Special Concern, 1 individual); *Megolonaias nervosa* (MN Threatened, 2 individuals); *Obovaria olivaria* (MN Special Concern, 5 individuals), and *Quadrula nodulata* (MN Endangered, 6 individuals); see Table 3-1 in Attachment H - Unionid Survey Mississippi River Mile 798. However, no federally-listed mussel species were documented during the Level 1 or Level 2 survey.

The MnDNR is reviewing the mussel survey information and will provide additional guidance on mitigation as part of the MnDNR's review of the EAW. The MnDNR will likely impose mussel mitigation requirements as part of the Division of Waters – Public Waters Work Permit Special Provisions.

Aside from mussel species, a NHIS database query also identified three state-listed threatened species within the vicinity of the plant site and maintenance dredging location; these include the peregrine falcon, (*Falco peregrinus*), the Blanding's turtle (*Emydoidea blandingii*), and the paddlefish (*Polyodon spathula*).

Several state-listed species of special concern have been documented within the vicinity of the plant site and maintenance dredging location; these include two birds, the bald eagle (*Haliaeetus leucocephalus*) and the cerulean warbler (*Dendroica cerulean*); five fish, pallid shiner (*Notropis amnis*), black

buffalo (*Ictiobus niger*), blue sucker (*Cyprinella elongata*), crystal darter (*Ammocrypta asprella*), and lake sturgeon (*Acipenser fulvescens*); one turtle, the smooth softshell (*Apalone mutica*); and one vascular plant, American ginseng (*Panax quinquefolius*).

In addition, four rare plant communities have been identified within the vicinity of the plant site and maintenance dredging location; these include: Dry Sand - Gravel Oak Savanna (Southern) Type, Silver Maple - Green Ash - Cottonwood Terrace Forest Type, Spikerush - Bur Reed Marsh (Northern) Type, and Sugar Maple - Basswood - (Bitternut Hickory) Forest Type. Each of these communities has been documented west of the plant site and maintenance dredging location.

It is anticipated that all impacts to listed terrestrial species and rare plant communities will be avoided during the maintenance dredging. Impacts to fish and bird species resulting from maintenance dredging are expected to be minimal. Impacts may include temporary displacement of fish and bird species during dredging activities. It is anticipated that fish and bird species will generally avoid the maintenance dredging area during construction, which will therefore minimize impacts to these species. While impacts to mussels that reside within the dredging location will be temporary, dredging will inevitably result in the mortality of mussels in the dredged area. It is anticipated that the turbidity of the water within the dredging location may increase slightly as a result of the maintenance dredging, but based upon April 2009 measurements, total suspended solids (TSS) should not rise above background levels (see question #17), and therefore should not adversely affect these species.

#### Holst Excavating's Pit #3

Within the vicinity of Holst Excavating's Pit #3, the NHIS database query identified one state-listed special concern species, the bald eagle, which was documented southwest of the site. In addition, the NHIS database query identified three rare plant communities within the vicinity of the site. The three communities located within the vicinity of Holst Excavating's Pit #3 include a Black/White Oak Woodland, a Dry Sand-Gravel Oak Savanna, and a Silver Maple Floodplain Forest. These three communities were documented southwest of the site.

Because the dredge material disposal location is an existing sand and gravel pit, it is anticipated that there will not be any impacts to listed species and

rare communities in the vicinity of the disposal site.

It is anticipated that none of these resources will be impacted by the maintenance dredging.

12. **Physical impacts on water resources.** Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch?  Yes  No  
If yes, identify water resource affected and give the DNR Public Waters Inventory number(s) if the water resources affected are on the PWI:

The location of the maintenance dredging is in a designated Public Waters Inventory (PWI) stream, the Mississippi (U.S. Lock and Dam #3 Pool), and PWI basin # 25001700 Sturgeon Lake (Attachment H : PWI Inventory).

Sediment samples were collected within the proposed dredging area for analyses; three were collected in October 2008 (identified as PISED 1, 2 and 3) and five additional samples were collected in April 2009 (identified as EAW 1, 2, 3, 4, and 5). Locations of the five samples collected in 2009 are shown in Attachment I – Sediment Core Locations and River Bathymetry. The five samples were collected as per minimum number of samples required for sediment evaluation for dredging as per Xcel Energy's NPDES/SDS Industrial Permit (Attachment G).

Analysis results for the PISED1-3 samples from 2008 all pass Sediment Reference Values (SRV) Level I which classifies the materials as suitable for residential and recreation use for the metals and polycyclic aromatic hydrocarbons (PAHs). The material is sandy, with one sample (PISED 2) yielding >95% sand, qualifying for “no chemical analysis needed.” Sample 3 is close, at 91.4% sand and sample PISED 1 is 74.3% sand. Sample PISED 1 was high in nutrients (total Kjeldahl nitrogen(TKN) = 898 mg/kg and total phosphorus = 347 mg/kg) but there are no regulatory values for those analytes. The low total suspended solids (TSS) concentrations measured suggest that sediment resuspension and mobilization of nutrients will be quite small and likely not above background concentrations. The low levels of all other constituents analyzed for in the sediment samples indicates that contamination from resuspension will not be a concern.

The five sediment samples collected in April 2009, EAW-1 through EAW-5, also pass the SRV Level I (suitable for residential and recreation use) for the metals, pesticides, polychlorinated biphenyls (PCB) arochlors, & PAHs. The sediment in the 2009 samples is not as sandy as the previous

sediments samples collected in 2008. None of the samples are > 95% sand (retained on a #200 sieve), and do not qualify for “no chemical analysis needed.” The calculated PAH B(a)P equivalents are included in Attachment I – PAH Results, which document the PAH SRV levels. All of the sediments samples are below the 2 mg/kg threshold for Level I (suitable for residential and recreation use).

Describe alternatives considered and proposed mitigation measures to minimize impacts.

Dredging can cause temporary water quality impacts within the immediate area of the active dredging operations and in the immediately adjacent downstream areas. Because the maintenance dredging is necessary in order to maintain the existing intake approach canal and ensure emergency cooling water is available, which is within PWI water bodies, there are no alternatives to the project.

On April 20, 2009, during the previously permitted, 0.9 acre dredging operations, water samples were collected and analyzed for TSS to evaluate the impact of comparable dredging activities proposed in this project on water quality. Based upon the 2009 measurements, the TSS concentration changes caused by the resuspension of sediments during dredging will be within the range of background concentrations measured for the growing season periods during 2003 to 2009. Any temporary water quality impacts will be immeasurable over background TSS levels in the river.

<u>Location</u>	<u>Measured TSS</u>
<i>April 2009 Dredging Measurements</i>	
100 feet downstream of dredge	43.0 ppm
Downstream of barge unloader	44.0 ppm
River inlet at intake screen house	51.0 ppm
<i>Background Concentration – April 2009</i>	
Main channel	40.0 ppm
Sturgeon Lake (upstream of dredge work area)	46.0 ppm
<i>2003 – 2009 River Intake TSS Measurements at Prairie Island</i>	
All samples (n= 37)	51.6 ppm (std dev = 21.6)
May – October samples (n= 23)	36.6 ppm (std dev = 25.6)

Dredge material will be stored within the storage area containment berm for up to one year as per the requirements of the current Prairie Island



NPDES/SDS Industrial Permit MN0004006 – Chapter 5 (Attachment G) and Prairie Island’s March 2006 Stormwater Pollution Prevention Plan (SWPPP). The NPDES/SDS Industrial Permit authorizes Prairie Island to discharge storm water associated with industrial activity in accordance with the terms and conditions of the permit. Prairie Island’s SWPPP is designed to reduce the amount of pollution that enters surface and ground water in the form of storm water runoff. The plan is designed to eliminate or minimize storm water contact with significant materials that may result in polluted storm water discharges from the site.

All dewatering and storage of dredge materials will be with the confines of the storage area so as to prevent any off-site impacts. The dredge material will be transported to Holst Excavating’s Pit #3 in Welch Township for final use by Holst Excavating as per the existing NPDES/SDS Industrial Permit requirements (MN0004006; see Attachment D for site location).

13. **Water use.** Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?  Yes  No  
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.
14. **Water-related land use management district.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?  Yes  No  
If yes, identify the district and discuss project compatibility with district land use restrictions.

A draft zoning map for the City of Red Wing and a zoning map for Holst Excavating’s Pit #3 are provided in Attachment J. The Prairie Island site is zoned as General Industrial, Agriculture Conservation, and Agriculture. The plant site adjacent to the dredging area is zoned General Industrial. Holst Excavating’s Pit #3 is zoned as Agricultural. No incompatibilities with existing land uses are anticipated. The maintenance dredging area is located within the Mississippi River; a FEMA floodplain map is provided in Attachment K.

15. **Water surface use.** Will the project change the number or type of watercraft on any water body?  
 Yes  No  
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

Boating access to the maintenance dredging area is currently restricted by

the U.S. Department of Homeland Security.

16. **Erosion and sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved:  
acres 16; cubic yards estimated at 56,000.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

There are no steep slopes or highly erodible soils impacted by the project.

17. **Water quality: surface water runoff**  
a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

The will be no surface water runoff generated by the project.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

Not Applicable

18. **Water quality: wastewaters**  
a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

There will be no wastewater discharge resulting from the maintenance dredging.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

Not applicable.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

Not applicable.

19. **Geologic hazards and soil conditions**  
a. Approximate depth (in feet) to ground water: Not Applicable; the project involves underwater dredging in the Mississippi River;

Approximate depth (in feet) to bedrock: 154 feet minimum, 159 feet average (data from County Well Index).

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

There are no environmental problems identified for the project due to geologic site hazards. Prairie Island resides on a stable outwash terrace formed on the Minnesota side of the Mississippi River. The type of bedrock beneath the area is predominantly composed of sedimentary rock of the St. Lawrence and Franconia Formations, both within the Upper Cambrian System. Overlying the bedrock is sand and gravel of the Holocene and Pleistocene age Grey Cloud terrace. The Grey Cloud terrace is comprised of coarse, clean sand and gravel derived from the Mississippi valley train and reworked by the swift water of the River Warren, an ancient river formed by the meltwater of the combined ice lobes of the Minnesota and western Wisconsin glaciers.

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil texture and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

There are five Goodhue County NRCS soil series classifications mapped within the Prairie Island project boundary ; these include the following soil series:

- Sparta loamy sand, 0-6% slopes
- Basset fine sandy loam, 0-6% slopes
- Hawick sandy loam, 18-45% slopes
- Calco silt loam, ponded, 0-1% slopes, frequently flooded
- Ankeny-Zumbro Complex, 0-3% slopes, occasionally flooded

The Sparta loamy sand is the most dominant soil type within Prairie Island and is the only soil type mapped within the vicinity of the temporary storage area. Sparta loamy sand is a nearly level, excessively drained soil on benches of major streams. This soil formed in sandy outwash. Permeability is very rapid and water capacity is low in this soil. The hazard of erosion or soil blowing is also severe in areas without vegetative cover. Some deep gullies occur along escarpments where surface runoff spills over. Water dominates the maintenance dredging location.

The sediment samples collected in 2008 and 2009 indicate that the sediments do not have any contamination that would impact groundwater quality (Attachment I: Sediment Core Results) due to infiltration of the dewatering through the soil. The potential for ground water contamination

is not likely.

**20. Solid wastes, hazardous wastes, storage tanks**

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

The project does not result in production of solid or hazardous waste and the maintenance dredging will not influence the amounts of solid or hazardous waste produced at the Prairie Island plant site.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

No toxic or hazardous materials will be used for the maintenance dredging.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

No above- or below-ground storage tanks for petroleum or other products will be used for the maintenance dredging.

**21. Traffic. Parking spaces added: None**

Existing spaces (if project involves expansion):

Estimated total average daily traffic generated:

Average daily traffic on west bound Sturgeon Lake Road was measured in a 2008 traffic study by the city of Red Wing as 6,647 vehicles (Attachment L.1). The maintenance dredging project is estimated to generate 88 daily truck trips for ten weeks for transporting the dewatered material from the project site to the Holst Excavating Pit #3 located approximately three miles northwest of the project site. The hauling route used by these trucks is shown in Attachment L. All truck drivers will limit speeds to the posted limit along the entire haul route. An additional seven daily round trips will be generated by the dredging crew for two weeks. The traffic volume to Prairie Island is currently estimated to be approximately 700 vehicles per shift, for three shifts per day.

Estimated maximum peak hour traffic generated and time of occurrence:

According to the 2008 traffic study completed by the City of Red Wing, the peak hour on west bound Sturgeon Lake Road occurs between 5pm and 6pm; peak hour traffic ranges from 584 to 657 vehicles. This project would add up to seven trips during the peak hour for the dredging crew leaving the

project site. Truck hauling operations would be completed prior to the peak hour period.

Indicate source of trip generation rates used in the estimates.

Truck trip generation rates are based on hauling 56,000 cubic yards of dredged material from the site between December 2010 and March 2011. Excluding weekends, holidays, and poor weather, there will be approximately 50 work days. It will take approximately 4,400 truck loads to remove this material. The trucks will operate between 8am and 5pm Monday to Friday. A truck can complete a pick-up/delivery cycle every twenty-five minutes. It is anticipated that the contractor would have no more than eight trucks on the job on any given day. On this schedule there will be approximately 88 truck round trips per day for ten weeks (4,400 loads divide by 50 work days)

*If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAIIV. Using the format and procedures described in the Minnesota Department of Transportation's Traffic Impact Study Guidance (available at: <http://www.ohm.dot.state.mn.us/access/pdfs/Chapter%205.pdf>) or a similar local guidance, provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system.*

22. **Vehicle-related air emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.

No significant air quality impacts are anticipated from vehicle-related air emissions due the small number of additional vehicles and short duration impacts on traffic volumes over the short duration of the project.

23. **Stationary source air emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

The Prairie Island maintenance dredging project will not alter existing air emissions.

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation?  Yes  No  
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Noise from dredging equipment and barges hauling dredged material will occur; however, this noise associated with the dredging will be temporary, occur only during working hours, and will cease once all of the dredging has been completed (10 working days).

Noise and dust associated with the removal and transport of the dewatered dredge material will occur during the winter months when most nearby homes will have their windows closed. Traffic levels of 88 truck trips per day will lead to a temporary increase in road noise during working hours. The frozen condition of the dredge materials during the winter transport will limit the amount of dust generated by truck traffic.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?

Archaeological, historical or architectural resources?  Yes  No

Prime or unique farmlands or land within an agricultural preserve?  Yes  No

Designated parks, recreation areas or trails?  Yes  No

Scenic views and vistas?  Yes  No

Other unique resources?  Yes  No

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

The Plant is located adjacent to the Prairie Island Indian Community (Community) Reservation. In 1936, the federal government officially recognized the Community as a reservation for the Mdewakanton, and transferred 534 acres of land to the Community. In addition, there are six National Register historic sites located within five miles of the Plant. Five of the historical sites are in Goodhue County and one is in Pierce County Wisconsin (see table below).

National Register Sites within Five Miles of Prairie Island			
Name of Historic Site	Location	Approximate Distance from Prairie Island	Comments
Barron Archaeological Site	Undisclosed location on Prairie Island	0-1 miles	Prehistoric site
Metro Archeological District	Pierce County Wisconsin Restricted Address	1-2 miles	810 acres prehistoric site
Mendota to Wabasha Military Road	Cannon Bottom Road, Red Wing, MN	2-4 miles	48 acre military roadway
Alexander Anderson Estate	West of Red Wing on U.S. 61	2-4 miles	50 acres, brick, stone structure of architecture and engineering significance
Cross of Christ Lutheran Church	U.S. 61 Red Wing	4.5 miles	50 acres, architecture, engineering, religious significance.
Silvernale Site	Goodhue County Restricted Address	4-5 miles	No Information available

The Minnesota Historical Society was contacted and subsequently performed a query of the State Historic Preservation Office (SHPO) database in April of 2009. In addition to the National Register Sites in the table above, there are also eight known archaeological sites and one known historic site within the vicinity of Prairie Island (Sections 4 and 5 of Township 113N and Range 15W; see Attachment M – Archeology Resources Location List). No impacts to archaeological artifacts are anticipated.

According to the records on file at the State Historic Preservation Office (SHPO), four professional archaeological surveys and one testing project have been conducted within the study area to date. In addition, in 2009 two Phase I archaeological investigations were conducted at the proposed dredge storage area and access road at Prairie Island. The results from the dredge material storage area investigation indicated that, although archaeological deposits were not recognized on the landscape or within the boring samples, there is a moderate to high potential that deeply buried archaeological sites are present (Attachment M – Foth 2009). An ancient buried soil was discovered within Prairie Island; this soil, which is estimated to be approximately 620 A.D., represents a relatively stable land surface for human use. As per concurring correspondence from SHPO on May 4, 2009 (see Attachment M – Letter from SHPO), no impacts are anticipated within the dredge storage area.

A Phase I cultural resources reconnaissance survey of the construction corridor for an access road between the dredge holding area and County Road 18 was completed in May 2009 (see Attachment M – Merjent, 2009).

This Phase I survey including pedestrian walk over and limited shovel testing was done at the dredge holding area in the fall of 2008. In January and February of 2009 a geomorphology study, including deep coring and a microartifact analysis of core samples, was conducted for the dredge holding area and the access road (see Attachment M – Foth, 2009). The Phase I reconnaissance survey of the access road finalized the Phase I cultural resources investigation of the proposed project area for expansion of the dredge holding area and construction of the access road.

The Phase I pedestrian survey and shovel tests did not yield any cultural resources. The findings confirmed the existence of fill material extending more than 350 feet to the west beyond the dredge holding area. The access road project area was tested for deeply buried sites earlier this year as part of the larger geomorphology study of the entire project area. Like the previous studies of the dredge holding location, the Phase I survey did not locate any significant cultural resources, and concluded that no cultural resources will be impacted by the proposed construction of the access road between the dredge holding area and County Road 18.

Xcel Energy has committed to following standard procedures to avoid potential impacts to artifacts that may have not yet been discovered on the site. The Site Environmental Coordinator is responsible for determining if proposed land-disturbing activity will occur in the vicinity of a culturally-significant site, and if so, consulting with a qualified archaeologist and the SHPO to mitigate potential impacts. The Site Environmental Coordinator is also responsible for contacting a qualified archaeologist to evaluate cultural artifacts inadvertently discovered during construction to determine if the material discovered has potential archaeological or historic significance and thus should be reported to the SHPO. In any case, the discovery of cultural artifacts at Xcel Energy-managed nuclear plants requires employees to stop work until the Site Environmental Coordinator has evaluated the situation. Work can resume only after the situation had been addressed, disposition of any material or artifacts has been documented, and the Site Environmental Coordinator agrees that culturally-significant material is not at risk.

26. **Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?  Yes  No  
If yes, explain.

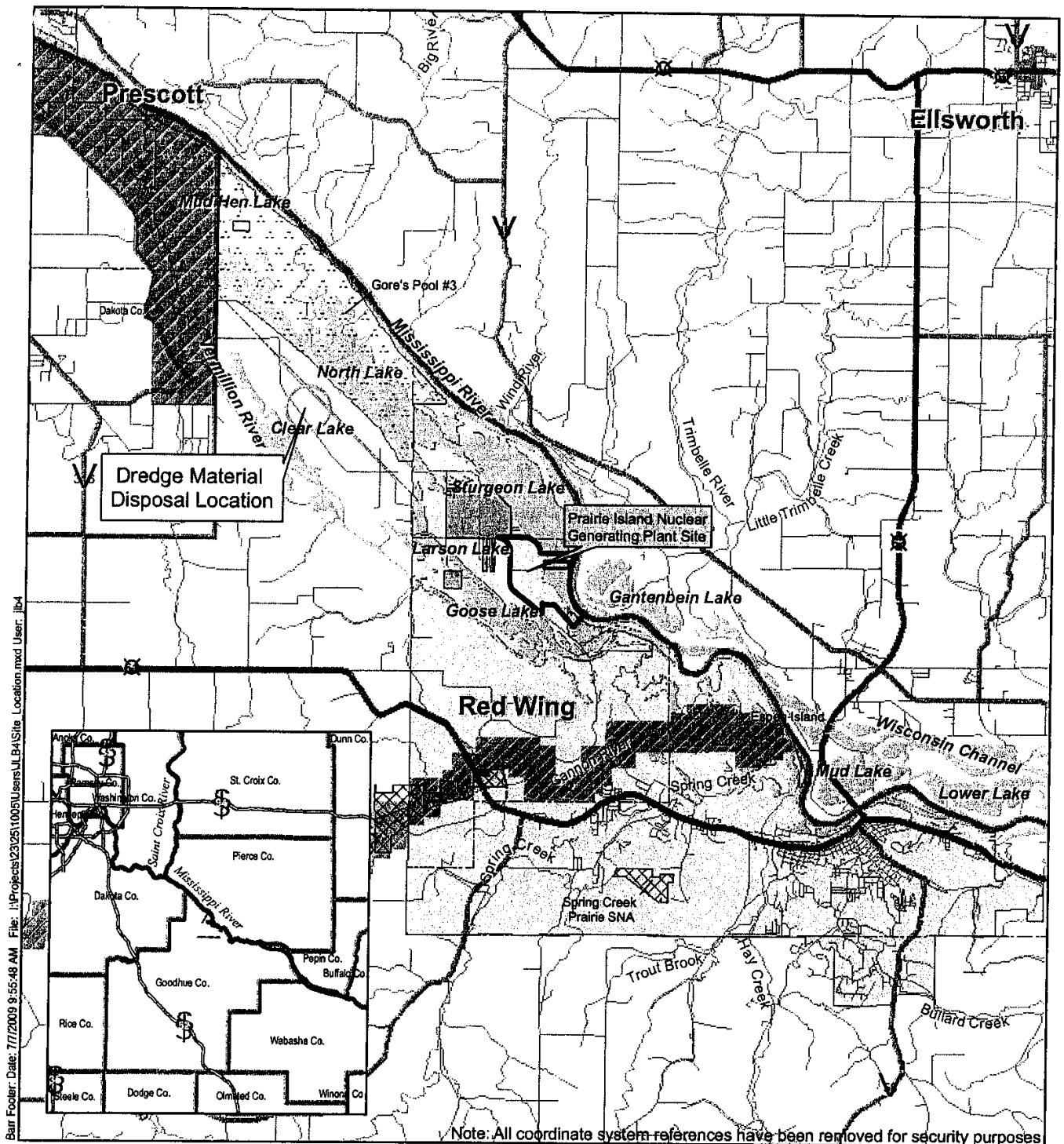
Neither the dredging, which is temporary, or the storage of dredged materials would affect the views of the surrounding communities.



## **Attachments**

- Attachment A Site Location
- Attachment B USGS Project Boundary
- Attachment C Site Plan
- Attachment D Dredge Material Storage and Disposal
  - Dredge Material Storage Area
  - Dredge Material Disposal Location
- Attachment E Original MnDNR Permit from 1971
- Attachment F Intake Channel Profiles
  - Original Site Plan and Discharge Location – 1971
  - Intake Channel Invert Profile – 2009
- Attachment G Permits
  - Minnesota NPDES/SDS Industrial Permit Section 5;
  - Army Corps of Engineers Permit and Jurisdictional Determination;
  - City of Red Wing Grading Permit
- Attachment H Resource Inventory
  - Final Report: Unionid Survey Mississippi River Mile 798
  - Public Water Inventory
- Attachment I Sediment Cores and Bathymetry
  - Sediment Core Locations and River Bathymetry
  - PAH Results
  - Sediment Core Results
- Attachment J Zoning Maps
  - City of Red Wing Draft Zoning Map
  - Goodhue County Zoning Map
- Attachment K FEMA Floodplain Map
- Attachment L Transportation
  - 2008 Traffic Counts
  - Hauling Route Map
- Attachment M Cultural Resources Information
  - Archaeology Resources – Location List
  - Historic Resources – Location List
  - Foth Infrastructure & Environmental (2009). Geological Testing in Support of a Phase I Archeological Investigation (pages 1-37)
  - Letter from SHPO
  - Merjent (2009). Phase I Reconnaissance Survey of an Access Road between the Dredge Holding Area and CR 18.

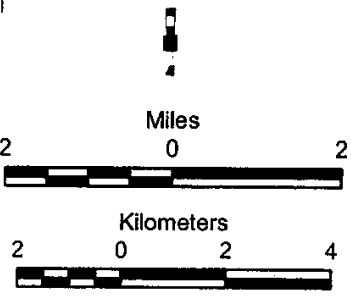
**Attachment 2G—Detailed Maps**



Barr Footer: Date: 7/17/2009 9:55:48 AM File: J:\Projects\23\05\1005\Users\ULBA\Site Location.mxd User: jlb4

Note: All coordinate system references have been removed for security purposes





- Security Exclusion Boundary
- Approximate Dredging Location
- Dredge Material Disposal Location
- Prairie Island Indian Community
- MN State Forest Boundary
- Scientific and Natural Area
- Mississippi River National River & Recreation Area
- Wild and Scenic River Designation
- Wildlife Management Area
- Stream/River
- Larger Water Body/River
- Urban Area
- County Boundary

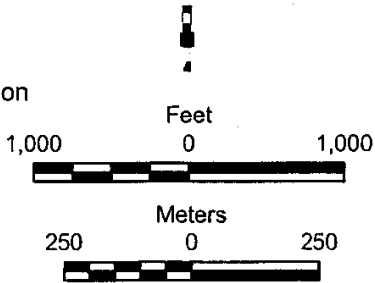


Attachment A  
SITE LOCATION  
Prairie Island  
Red Wing, MN



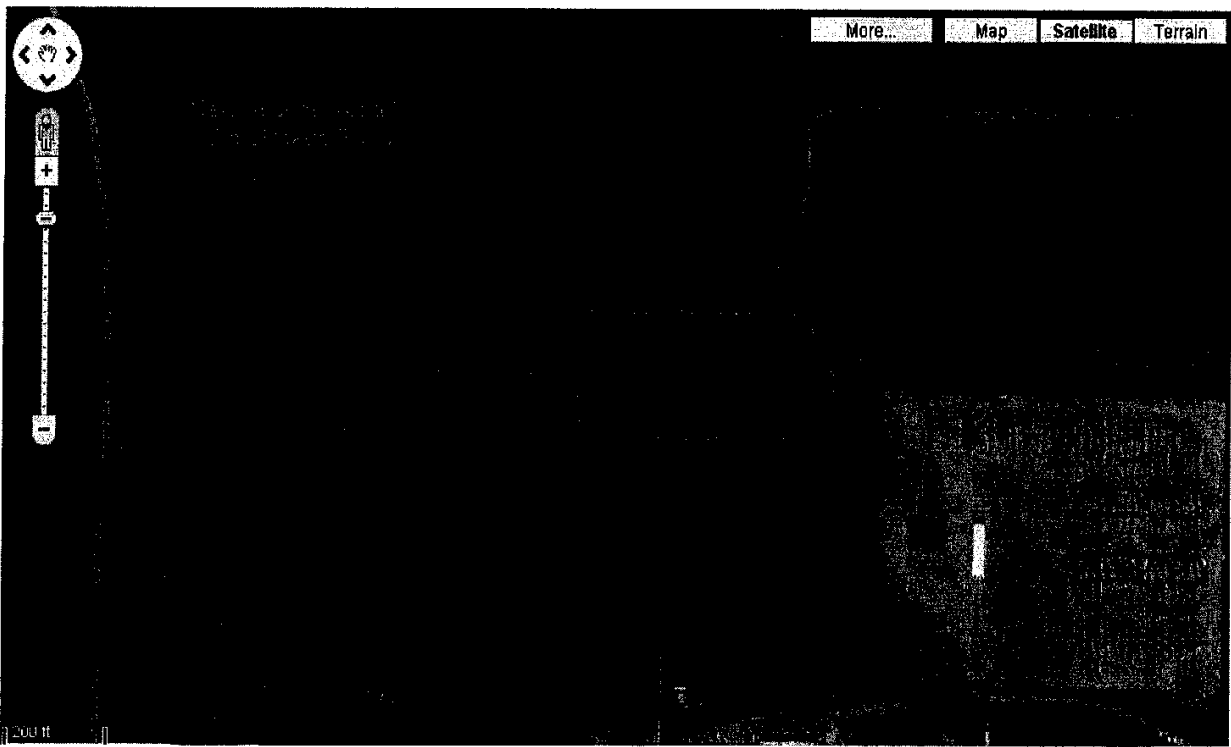
Barr Footer: Date: 6/8/2009 3:59:13 PM File: I:\Projects\232510051\Users\JLB4\Site Plan and Natural Features.mxd User: jlb4  
 Imagery Source: FSA, 2003

-  Security Exclusion Boundary
-  Approximate Dredging Location
-  Site Features
-  Prairie Island Indian Community



Attachment C

SITE PLAN  
 Prairie Island  
 Red Wing, MN



Attachment D

BERM AND HOLDING POND AREA  
Prairie Island  
Red Wing, MN

**Attachment 3B—Copy of USACE permit application**

# Minnesota Local/State/Federal Application Form for Water/Wetland Projects

Application No.	Field Office Code	Date Initial Application Received	Date initial Application Deemed Complete
-----------------	-------------------	-----------------------------------	--

## PART I: BASIC APPLICATION

“See HELP” directs you to important additional information and assistance in Instructions, Page 1.

**1. LANDOWNER/APPLICANT CONTACT INFORMATION (See Help 1)**

Name: Northern States Power-Minnesota Phone: 651-388-1121 ext 4419 E-mail: brent.a.kuhl@xcelenergy.com  
 Complete mailing address: 414 Nicollet Mall Minneapolis, MN 55401

**1A. AUTHORIZED AGENT (See Help 1A) (Only if applicable; an agent is not required)**

Name: Phone: E-mail:  
 Complete mailing address:

**2. NAME, TYPE AND SIZE OF PUBLIC WATERS or WETLANDS IMPACTED (Attach Additional Project Area sheets if needed)**

Name or I.D. # of Waters Impacted (if applicable; if known): Mississippi River  
 (Check all that apply):  Lake  River  Circular 39 Wetland type:  1,  1L,  2,  3,  4,  5,  6,  7,  8  
 Wetland plant community type<sup>1</sup>:  shallow open water,  deep marsh,  shallow marsh,  sedge meadow,  fresh meadow,  
 wet to wet-mesic prairie,  calcareous fen,  open bog or coniferous bog,  shrub-carr/alder thicket,  
 hardwood swamp or coniferous swamp,  floodplain forest,  seasonally flooded basin  
 Indicate size of entire lake or wetland (check one):  Less than 10 acres (indicate size: )  10 to 40 acres  Greater than 40 acres

**3. PROJECT LOCATION (Information can be found on property tax statement, property title or title insurance):**

Project street address: Prairie Island Plant 1717 Wakonde Dr. East Fire #:  
 City (if applicable): Welch, MN 55089  
 ¼ Section: Section: 5 Township #: 113N Range #: 15W County: Goodhue  
 Lot #: Block: Subdivision: Watershed (name or #) UTM location: N 4,941,200 E 529,300

Attach a simple site locator map. If needed, include on the map written directions to the site from a known location or landmark, and provide distances from known locations. Label the sheet *SITE LOCATOR MAP*.

**4. TYPE OF PROJECT:** Describe the type of proposed work. Attach *TYPE OF PROJECT* sheet if needed. Mechanical dredging. See attached Environmental Assessment Worksheet.

**5. PROJECT PURPOSE, DESCRIPTION AND DIMENSIONS:** Describe what you plan to do and why it is needed, how you plan to construct the project with dimensions (length, width, depth), area of impact, and when you propose to construct the project. **This is the most important part of your application. See HELP 5 before completing this section; see What To Include on Plans (Instructions, page 1).** Attach *PROJECT DESCRIPTION* sheet.  
 The purpose of this project is to remove the accumulation of sediments at the Prairie Island Nuclear Generating Plant within the existing approach canal between the main navigation channel and the intake screenhouse.  
 See attached Environmental Assessment Worksheet and Figures.  
 Footprint of project: 16 acres or square feet drained, filled or excavated.

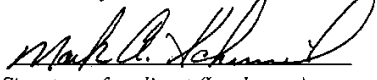
**6. PROJECT ALTERNATIVES:** What alternatives to this proposed project have you considered that would avoid or minimize impacts to wetlands or waters? List at least **TWO** additional alternatives to your project in Section 5 that avoid wetlands (one of which may be “no build” or “do nothing”), and explain why you chose to pursue the option described in this application over these alternatives. Attach *PROJECT ALTERNATIVES* sheet if needed.  
 Because the maintenance dredging is necessary in order to maintain the existing intake approach canal and ensure emergency cooling water is available, there are no alternatives to the project.

**7. ADJOINING PROPERTY OWNERS:** For projects that impact more than 10,000 square feet of water or wetlands, list the complete mailing addresses of adjacent property owners on an attached separate sheet. (See **HELP 7**)

**8. PORTION OF WORK COMPLETED:** Is any portion of the work in wetland or water areas already completed?  Yes  No. If yes, describe the completed work on a separate sheet of paper labeled **WORK ALREADY COMPLETED**. (See **HELP 8**)

**9. STATUS OF OTHER APPROVALS:** List any other permits, reviews or approvals related to this proposed project that are either **pending** or **have already been approved or denied** on a separate attached sheet. See **HELP 9**.

**10. I am applying for state and local authorization** to conduct the work described in this application. I am familiar with the information contained in this application. To the best of my knowledge and belief, all information in Part I is true, complete, and accurate. I possess the authority to undertake the work described, or I am acting as the duly authorized agent of the applicant.


12/07/07
\_\_\_\_\_
\_\_\_\_\_  
 Signature of applicant (Landowner)                      Date                      Signature of agent (if applicable)                      Date

This block must be signed by the person who desires to undertake the proposed activity and has the necessary property rights to do so. If only the Agent has signed, please attach a separate sheet signed by the landowner, giving necessary authorization to the Agent.

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325)**

**OMB APPROVAL NO. 0710-003 Expires Dec 31, 2004**

The public burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please **DO NOT RETURN** your form to either of these addresses. Completed applications must be submitted to the District engineer having jurisdiction over the location of the proposed activity.

**PRIVACY ACT STATEMENT:** Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research and Sanctuaries Act, 33 USC 1413, Section 103. Principal purpose: Information provided on this form will be used in evaluating the application for a permit. Routine uses: This information may be shared with the Department of Justice and other Federal, state, and local government agencies. Submission of requested information is voluntary; however, if information is not provided, the permit application cannot be evaluated nor can a permit be issued.

**ITEMS 1 THROUGH 4 TO BE FILLED IN BY THE CORPS**

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
--------------------	----------------------	------------------	-------------------------------

**YOU DO NOT NEED TO COMPLETE ITEMS 6-10 and 12-25 in the SHADED AREAS.**  
All applicants must complete non-shaded items 5 and 26. If an agent is used, also complete items 8 and 11. This optional Federal form is valid for use *only* when included as part of this entire state application packet.

5. APPLICANT'S NAME  
Northern States Power-Minnesota

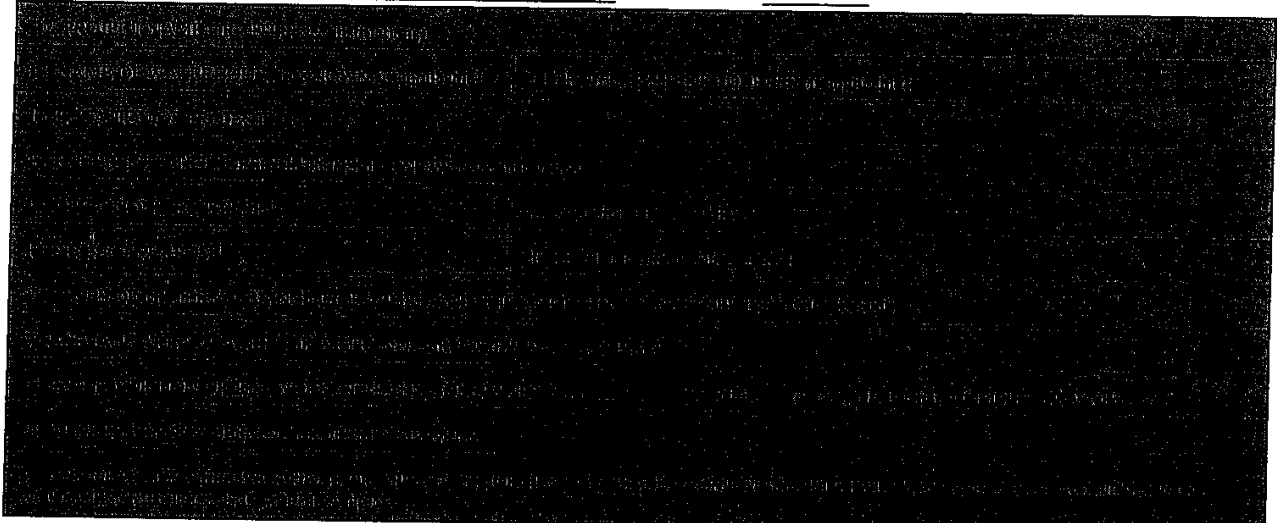
8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)



**11. STATEMENT OF AUTHORIZATION (if applicable; complete only if authorizing an agent)**

I hereby authorize \_\_\_\_\_ to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_



26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Mark A. Schmitt      12/02/09  
Signature of applicant      Date

\_\_\_\_\_  
Signature of agent (if any)      Date

The application must be signed by the person who desires to undertake the proposed activity (applicant), or it may be signed by a duly authorized agent if the statement in Block 11 has been filled out and signed. 18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up with any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

ENG FORM 4345, Jul 97

EDITION OF FEB 94 IS OBSOLETE.

(Proponent: CECW-OR)



**PART 1 ATTACHMENTS**

**Item 3.** Site Locator Map—see EAW Attachments A, C, and D figures.

**Item 4.** Type of Project—see EAW page 2, 6. Description

**Item 5.** Project Description—see EAW page 2, 6. Description and Proposed Dredging Plan Topography with Channel Cross-Sections.

**Item 7.** Adjoining Property Owners:

Alberta Nauer Suter  
RR 2  
Welch, MN 55089

United States of America  
US Army Corps of Engineers  
180 Kellogg Blvd. East, Room 1421  
St. Paul, MN 55101

Prairie Island Tribal Community  
Council Administrator  
1158 Island Lake Blvd.  
Welch, MN 55089

**Item 8.** Portion of Work Completed—see EAW page 4, 6.e.

**Item 9.** Status of Other Approvals—see EAW page 5, 8. Permits and approvals required.

**Attachment 3C—Copy of MNDNR Permit**



# PUBLIC WATERS WORK PERMIT

**Permit Number**  
  
**2010-0317**

Pursuant to Minnesota Statutes, Chapter 103G, and on the basis of statements and information contained in the permit application, letters, maps, and plans submitted by the applicant and other supporting data, all of which are made a part hereof by reference, **PERMISSION IS HEREBY GRANTED** to the applicant to perform the work as authorized below:

<b>Public Water</b>	<b>County</b>
Mississippi River-Pool 3 (25001700)	Goodhue
<b>Name of Permittee</b>	<b>Telephone Number (Include Area Code)</b>
Xcel Energy, c/o Brent A. Kuhl	651-388-1121 ext 4419
<b>Address (No. &amp; Street, RFD, Box No., City, State, Zip Code)</b>	
414 Nicollet Mall, Minneapolis, MN 55401	
<b>Authorized Work:</b> Excavate approximately 56,000 cubic yards from a 16 acre area within the Prairie Island Generating Plant's approach canal (intake screenhouse to the navigation channel); all according to plans and specifications submitted with the permit application and the following conditions.	
<b>Purpose of Permit:</b>	<b>Expiration Date of Permit</b>
165-Excavation/Dredging	November 30, 2014
<b>Property Described As:</b>	
Section 5, T113N, R15W. UTM: Northing 4,941,200; Easting 529,300	

This permit is granted **subject to** the following **CONDITIONS**:

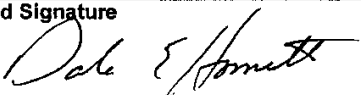
1. The **permittee** is not released from any rules, regulations, requirements, or standards of any applicable federal, state, or local agencies; including, but not limited to, the U.S. Army Corps of Engineers, Board of Water and Soil Resources, MN Pollution Control Agency, watershed districts, water management organizations, county, city and township zoning. This permit does not release the **permittee** of any permit requirement of the St. Paul district, U.S. Army Corps of Engineers, Army Corps of Engineers Centre, 190 Fifth Street East, St. Paul, MN 55101-1638.
2. This permit is not assignable by the **permittee** except with the written consent of the Commissioner of Natural Resources.
3. The **permittee** shall notify the Area Hydrologist at least five days in advance of the commencement of the work authorized hereunder and notify him/her of its completion within five days. The Notice of Permit issued by the Commissioner shall be kept securely posted in a conspicuous place at the site of operations.
4. The **permittee** shall make no changes, without written permission previously obtained from the Commissioner of Natural Resources, in the dimensions, capacity or location of any items of work authorized hereunder.
5. The **permittee** shall grant access to the site at all reasonable times during and after construction to authorized representatives of the Commissioner of Natural Resources for inspection of the work authorized hereunder.
6. This permit may be terminated by the Commissioner of Natural Resources at any time deemed necessary for the conservation of water resources of the state, or in the interest of public health and welfare, or for violation of any of the provisions or applicable law of this permit, unless otherwise provided in the Special Provisions.
7. Construction work authorized under this permit shall be completed on or before the date specified above. The **permittee** may request an extension of the time to complete the project, stating the reason thereof, upon written request to the Commissioner of Natural Resources.

8. In all cases where the **permittee** by performing the work authorized by this permit shall involve the taking, using, or damaging of any property rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the **permittee**, before proceeding, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests needed for the work.
9. This permit is permissive only. No liability shall be imposed by the State of Minnesota or any of its officers, agents or employees, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the **permittee** or any of its agents, employees, or contractors. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the **permittee**, its agents, employees, or contractors, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the **permittee**, its agents, employees, or contractors for violation of or failure to comply with the permit or applicable provisions of law.
10. Any extension of the surface of public waters from work authorized by this permit shall become public waters and left open and unobstructed for use by the public.
11. Where the work authorized by this permit involves the draining or filling of wetlands not subject to DNR regulations, the **permittee** shall not initiate any work under this permit until the **permittee** has obtained official approval from the responsible local government unit as required by the Minnesota Wetland Conservation Act.
12. The **permittee** shall comply with all rules, regulations, requirements, or standards of the Minnesota Pollution Control Agency and other applicable federal, state or local agencies. This includes the WDNR 401 water quality certification testing frequencies, parameters, monitoring locations and limiting concentrations requirements.
13. Future maintenance required for this project shall not exceed the work herein authorized. Prior to commencing any maintenance work, permittee shall advise the Division of Waters, Region 3 of the location, starting date, and extent of the work. Maintenance work shall not be commenced until the permittee's receipt of Division of Waters' approval.
14. No activity affecting the bed of the Public Water may be conducted between March 15 and May 15 to minimize impacts on fish spawning and migration. If work during this time is essential, it shall be done only upon written approval of the Area Fisheries Manager at 1801 South Oak Street, Lake City, MN 55066 or 651/345-5601 ext. 229.
15. Xcel Energy must be in receipt of a Minnesota Endangered Species Takings Permit prior to dredging of the approach canal.
16. The permittee shall ensure that all equipment used for water resource work has been adequately decontaminated prior to use and upon leaving the project area. All equipment including but not limited to tracked vehicles, barges, boats, turbidity curtains, sheet pile, and pumps that have come in contact with any potentially infested waters must be thoroughly decontaminated. The permittee shall use the following inspection and removal procedures for decontamination:
  - a) Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments and any other areas where water may be trapped.
  - b) Inspect boat hulls, propellers, trailers, tracks, tires and other surfaces, scrape off any mussels, scrape off all mud, remove any aquatic plant material (fragments, stems, leaves, or roots) and dispose of them properly prior to transporting any equipment on public roads.
  - c) Flush the inside and outside of all equipment with hot water of 105 – 110 degrees F for a period of 30 minutes or 140 degrees F for a period of 5 minutes; or, instead flushing equipment, leave the equipment in a location so that it dries completely for a minimum of 5 consecutive full days.

ec: Scot Johnson, River Hydrologist  
 Goodhue County Planning  
 Kevin Stauffer, Area Fisheries Supervisor  
 Tyler Quandt, Conservation Officer  
 DNR Central Office Permits Unit  
 Rich Baker, Eco Resources

Bill Huber, Area Hydrologist  
 Goodhue SWCD  
 Mike Tenney, Area Wildlife Manager  
 COE, Regulatory Branch  
 Brian Peterson, City of Red Wing  
 Melissa Doperalski, Eco Resources

Version 12/12/2001  
 This information is available in an alternative format upon request

Authorized Signature	Title	Date
 Dale E. Homuth	Regional Hydrologist	Jan. 20, 2010

# Minnesota Department of Natural Resources

DNR Waters, 1200 Warner Road, St. Paul, MN 55106

Telephone: (651) 259-5766 Fax: (651) 772-7977



February 2, 2010

Xcel Energy  
Northern States Power - Minnesota  
c/o, Brent A. Kuhl  
414 Nicollet Mall  
Minneapolis, MN 55401

RE: Administrative Amendment to Permit #2010-0317, Mississippi River-Pool 3 (25001700),  
Goodhue County, Prairie Island Generating Plant

Dear Mr. Kuhl:

Thank you for the information you submitted regarding an error in Permit Condition 12. Below you will find the correct Permit Condition 12 language:

12. The **permittee** shall comply with all rules, regulations, requirements, or standards of the Minnesota Pollution Control Agency and other applicable federal, state or local agencies.

By this letter we are amending Permit #2010-0317 to reflect this correction.

All other terms and conditions of Permit #2010-0317 remain in full force and effect.

Please feel free to contact Mississippi River Hydrologist Scot Johnson at 651-345-5601 ext. 245 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dale E. Homuth'.

Dale E. Homuth  
Regional Hydrologist

cc: Scot Johnson, River Hydrologist  
Goodhue County Planning  
Kevin Stauffer, Area Fisheries Supervisor  
Tyler Quandt, Conservation Officer  
DNR Central Office Permits Unit  
Rich Baker, Eco Resources  
Bill Huber, Area Hydrologist  
Goodhue SWCD  
Mike Tenney, Area Wildlife Manager  
COE, Regulatory Branch  
Brian Peterson, City of Red Wing  
Melissa Doperalski, Eco Resources

[www.dnr.state.mn.us](http://www.dnr.state.mn.us)

AN EQUAL OPPORTUNITY EMPLOYER



PRINTED ON RECYCLED PAPER CONTAINING A MINIMUM OF 10% POST-CONSUMER WASTE

**Attachments 16A and 17A—Test results for baseline and additional analysis**

P


Bath  
Value

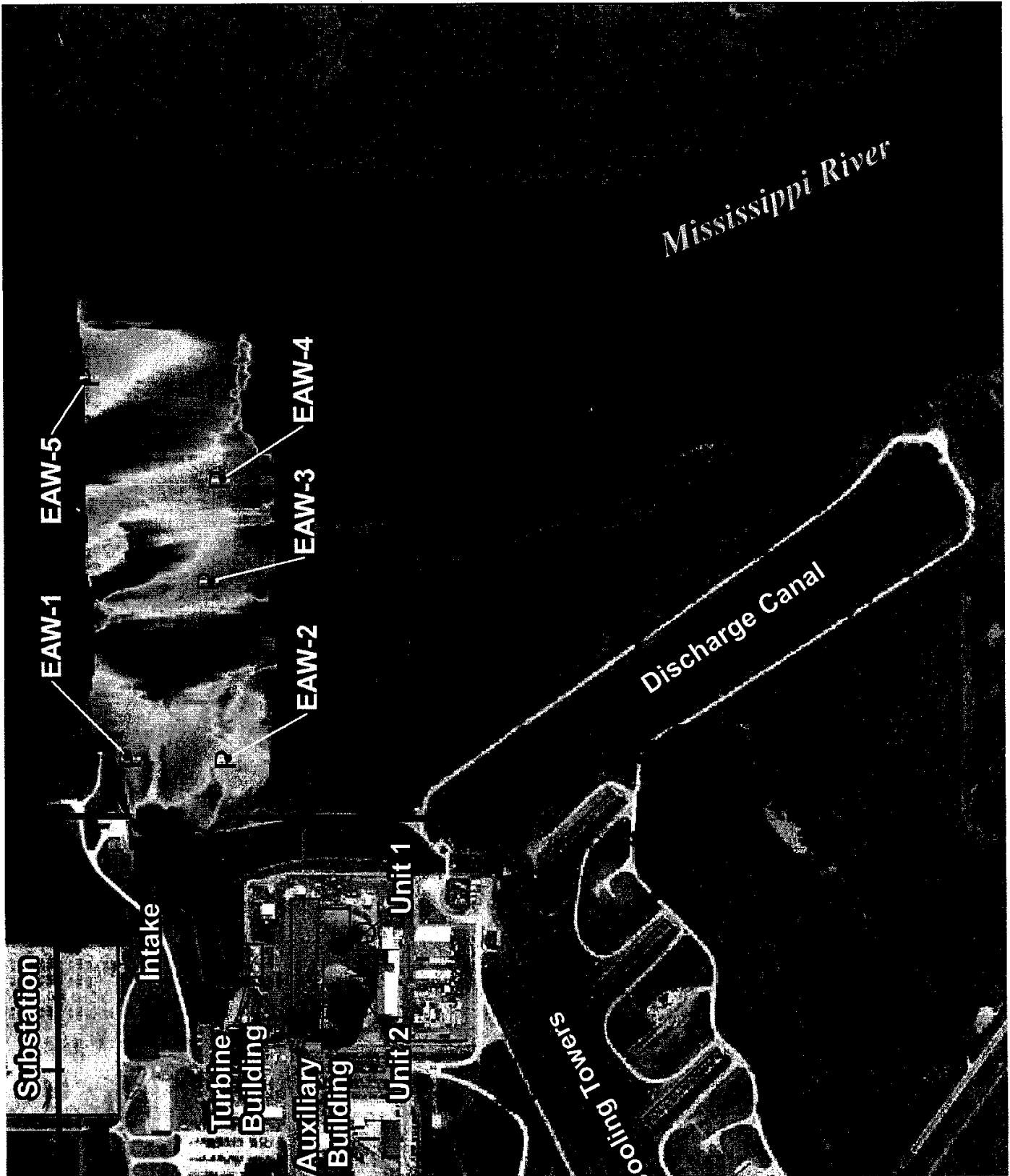
--

500

--

100

--





Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

May 12, 2009

Mr. Brent Kuhl  
Xcel Energy, Inc.  
1717 Wakonade Drive East  
Welch, MN 55089

RE: Project: JDE#11155013 Prairie Island  
Pace Project No.: 1093010

Dear Mr. Kuhl:

Enclosed are the analytical results for sample(s) received by the laboratory on April 15, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

This report contains data that were produced by a subcontracted laboratory certified for the fields of testing performed.

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

Sincerely,

Andrea Opland

andrea.opland@pacelabs.com  
Project Manager

Enclosures

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..







Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

## CERTIFICATIONS

Project: JDE#11155013 Prairie Island  
Pace Project No.: 1093010

---

### Minnesota Certification IDs

Wisconsin Certification #: 999407970  
Washington Certification #: C754  
Tennessee Certification #: 02818  
Pennsylvania Certification #: 68-00563  
Oregon Certification #: MN200001  
North Dakota Certification #: R-036  
North Carolina Certification #: 530  
New York Certification #: 11647  
New Jersey Certification #: MN-002  
Montana Certification #: MT CERT0092  
Minnesota Certification #: 027-053-137

Maine Certification #: 2007029  
Louisiana Certification #: LA080009  
Louisiana Certification #: 03086  
Kansas Certification #: E-10167  
Iowa Certification #: 368  
Illinois Certification #: 200011  
Florida/NELAP Certification #: E87605  
California Certification #: 01155CA  
Arizona Certification #: AZ-0014  
Alaska Certification #: UST-078

---

### Green Bay Certification IDs

Wisconsin DATCP Certification #: 105-444  
Wisconsin DATCP Certification #: 105-444  
Wisconsin Certification #: 405132750  
Wisconsin Certification #: 405132750  
South Carolina Certification #: 83006001  
South Carolina Certification #: 83006001  
North Dakota Certification #: R-200  
North Dakota Certification #: R-150  
North Carolina Certification #: 503  
North Carolina Certification #: 503  
New York Certification #: 11887

New York Certification #: 11888  
Minnesota Certification #: 055-999-334  
Minnesota Certification #: 055-999-334  
Louisiana Certification #: 04169  
Louisiana Certification #: 04168  
Kentucky Certification #: 83  
Kentucky Certification #: 82  
Illinois Certification #: 200051  
Illinois Certification #: 200050  
Florida/NELAP Certification #: E87951  
Florida/NELAP Certification #: E87948

---

## REPORT OF LABORATORY ANALYSIS

Page 2 of 37

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

### SAMPLE SUMMARY

Project: JDE#11155013 Prairie Island  
Pace Project No.: 1093010

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1093010001	EAW-1	Solid	04/13/09 09:00	04/15/09 11:41
1093010002	EAW-2	Solid	04/13/09 09:30	04/15/09 11:41
1093010003	EAW-3	Solid	04/13/09 10:00	04/15/09 11:41
1093010004	EAW-4	Solid	04/13/09 10:30	04/15/09 11:41
1093010005	EAW-5	Solid	04/13/09 11:00	04/15/09 11:41

### REPORT OF LABORATORY ANALYSIS

Page 3 of 37

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### SAMPLE ANALYTE COUNT

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1093010001	EAW-1	% Moisture	JDL	1	PASI-M
		EPA 160.4	RRS	1	PASI-G
		EPA 351.2	DAW	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 365.4	DAW	1	PASI-G
		EPA 6010	TEM	10	PASI-M
		EPA 7196	NMH	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		EPA 8270 by SIM	HRG	19	PASI-M
		EPA 9012	NMH	1	PASI-M
		EPA 9060 Modified	DJR	3	PASI-G
		EPA 9071	MJS	1	PASI-M
		SM 2540G	RRS	1	PASI-G
		1093010002	EAW-2	Trivalent Chromium Calculation	NMH
% Moisture	JDL			1	PASI-M
EPA 160.4	RRS			1	PASI-G
EPA 351.2	DAW			1	PASI-G
EPA 353.1	NMH			1	PASI-M
EPA 365.4	DAW			1	PASI-G
EPA 6010	TEM			10	PASI-M
EPA 7196	NMH			1	PASI-M
EPA 7471	TEM			1	PASI-M
EPA 8081	DMH			24	PASI-G
EPA 8082	KL1			11	PASI-M
EPA 8270 by SIM	HRG			19	PASI-M
EPA 9012	NMH			1	PASI-M
EPA 9060 Modified	DJR			3	PASI-G
EPA 9071	MJS			1	PASI-M
1093010003	EAW-3			Trivalent Chromium Calculation	NMH
		% Moisture	JDL	1	PASI-M
		EPA 160.4	RRS	1	PASI-G
		EPA 351.2	DAW	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 365.4	DAW	1	PASI-G
		EPA 6010	TEM	10	PASI-M

### REPORT OF LABORATORY ANALYSIS

Page 4 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**SAMPLE ANALYTE COUNT**

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7196	NMH	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		EPA 8270 by SIM	HRG	19	PASI-M
		EPA 9012	NMH	1	PASI-M
		EPA 9060 Modified	DJR	3	PASI-G
		EPA 9071	MJS	1	PASI-M
		Trivalent Chromium Calculation	NMH	1	PASI-M
1093010004	EAW-4	% Moisture	JDL	1	PASI-M
		EPA 160.4	RRS	1	PASI-G
		EPA 351.2	DAW	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 365.4	DAW	1	PASI-G
		EPA 6010	TEM	10	PASI-M
		EPA 7196	NMH	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		EPA 8270 by SIM	HRG	19	PASI-M
		EPA 9012	NMH	1	PASI-M
		EPA 9060 Modified	DJR	3	PASI-G
		EPA 9071	MJS	1	PASI-M
		Trivalent Chromium Calculation	NMH	1	PASI-M
1093010005	EAW-5	% Moisture	JDL	1	PASI-M
		EPA 160.4	RRS	1	PASI-G
		EPA 351.2	DAW	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 365.4	DAW	1	PASI-G
		EPA 6010	TEM	10	PASI-M
		EPA 7196	NMH	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		EPA 8270 by SIM	HRG	19	PASI-M
		EPA 9012	NMH	1	PASI-M
		EPA 9060 Modified	DJR	3	PASI-G

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

### SAMPLE ANALYTE COUNT

Project: JDE#11155013 Prairie Island  
Pace Project No.: 1093010

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9071	MJS	1	PASI-M
		Trivalent Chromium Calculation	NMH	1	PASI-M

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-1 Lab ID: 1093010001 Collected: 04/13/09 09:00 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b>		Analytical Method: EPA 8081						
Aldrin	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	309-00-2	
alpha-BHC	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	319-84-6	
beta-BHC	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	319-85-7	
delta-BHC	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	58-89-9	
Chlordane (Technical)	ND	ug/kg	58.8	1	04/20/09 08:02	04/22/09 17:50	57-74-9	
alpha-Chlordane	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	5103-71-9	L2
gamma-Chlordane	3.2	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	5103-74-2	
4,4'-DDD	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	72-54-8	
4,4'-DDE	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	72-55-9	
4,4'-DDT	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	50-29-3	
Dieldrin	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	60-57-1	C2
Endosulfan I	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	959-98-8	
Endosulfan II	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	33213-65-9	
Endosulfan sulfate	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	1031-07-8	
Endrin	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	72-20-8	
Endrin aldehyde	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	7421-93-4	
Endrin ketone	ND	ug/kg	5.9	1	04/20/09 08:02	04/22/09 17:50	53494-70-5	
Heptachlor	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	76-44-8	
Heptachlor epoxide	ND	ug/kg	2.9	1	04/20/09 08:02	04/22/09 17:50	1024-57-3	
Methoxychlor	ND	ug/kg	29.4	1	04/20/09 08:02	04/22/09 17:50	72-43-5	
Toxaphene	ND	ug/kg	176	1	04/20/09 08:02	04/22/09 17:50	8001-35-2	
Tetrachloro-m-xylene (S)	48	%	34-130	1	04/20/09 08:02	04/22/09 17:50	877-09-8	
Decachlorobiphenyl (S)	61	%	30-130	1	04/20/09 08:02	04/22/09 17:50	2051-24-3	
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3550						
PCB-1016 (Aroclor 1016)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	582	10	04/16/09 08:15	04/27/09 19:12	11100-14-4	
Tetrachloro-m-xylene (S)	0	%	30-150	10	04/16/09 08:15	04/27/09 19:12	877-09-8	D3,S4
Decachlorobiphenyl (S)	0	%	30-150	10	04/16/09 08:15	04/27/09 19:12	2051-24-3	S4
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	6.7	mg/kg	0.67	1	04/16/09 14:23	04/17/09 16:01	7440-38-2	
Barium	59.9	mg/kg	0.67	1	04/16/09 14:23	04/17/09 16:01	7440-39-3	
Cadmium	1.7	mg/kg	0.067	1	04/16/09 14:23	04/17/09 16:01	7440-43-9	
Chromium	21.1	mg/kg	0.67	1	04/16/09 14:23	04/17/09 16:01	7440-47-3	
Copper	13.9	mg/kg	0.67	1	04/16/09 14:23	04/17/09 16:01	7440-50-8	
Lead	15.2	mg/kg	0.40	1	04/16/09 14:23	04/17/09 16:01	7439-92-1	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 7 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-1 Lab ID: 1093010001 Collected: 04/13/09 09:00 Received: 04/15/09 11:41 Matrix: Solid  
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Manganese	320	mg/kg	0.34	1	04/16/09 14:23	04/17/09 16:01	7439-96-5	Z2
Nickel	12.5	mg/kg	1.3	1	04/16/09 14:23	04/17/09 16:01	7440-02-0	
Selenium	1.2	mg/kg	1.0	1	04/16/09 14:23	04/17/09 16:01	7782-49-2	
Zinc	49.1	mg/kg	1.3	1	04/16/09 14:23	04/17/09 16:01	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.10	mg/kg	0.033	1	04/21/09 09:23	04/21/09 12:33	7439-97-6	
<b>Dry Weight</b> Analytical Method: % Moisture								
Percent Moisture	43.3	%	0.10	1		04/16/09 00:00		
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	83-32-9	
Acenaphthylene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	208-96-8	
Anthracene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	120-12-7	
Benzo(a)anthracene	47.9	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	56-55-3	
Benzo(a)pyrene	58.3	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	50-32-8	
Benzo(b)fluoranthene	88.8	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	205-99-2	
Benzo(g,h,i)perylene	36.6	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	191-24-2	
Benzo(k)fluoranthene	34.0	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	207-08-9	
Chrysene	56.1	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	53-70-3	
Fluoranthene	101	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	206-44-0	
Fluorene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	86-73-7	
Indeno(1,2,3-cd)pyrene	33.1	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	193-39-5	
Naphthalene	ND	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	91-20-3	
Phenanthrene	31.0	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	85-01-8	
Pyrene	110	ug/kg	17.6	1	04/15/09 20:46	04/22/09 08:38	129-00-0	
Nitrobenzene-d5 (S)	80	%	45-126	1	04/15/09 20:46	04/22/09 08:38	4165-60-0	
2-Fluorobiphenyl (S)	69	%	48-125	1	04/15/09 20:46	04/22/09 08:38	321-60-8	
Terphenyl-d14 (S)	79	%	67-125	1	04/15/09 20:46	04/22/09 08:38	1718-51-0	
<b>160.4 Total Volatile Solids</b> Analytical Method: EPA 160.4								
Total Volatile Solids	2.4	% (w/w)	0.10	1		04/17/09 15:02		
<b>2540G Total Percent Solids</b> Analytical Method: SM 2540G								
Total Solids	68.1	%		1		04/30/09 00:00		H1
<b>9071 Oil and Grease, Soxhlet</b> Analytical Method: EPA 9071 Preparation Method: EPA 3540								
Oil and Grease	ND	mg/kg	441	1	04/17/09 07:53	04/17/09 07:55		
<b>Trivalent Chromium Calculation</b> Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	21.1	mg/kg	1.0	1		04/22/09 16:41	16065-83-1	

Date: 05/12/2009 01:43 PM

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-1 Lab ID: 1093010001 Collected: 04/13/09 09:00 Received: 04/15/09 11:41 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>351.2 Total Kjeldahl Nitrogen</b>	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	925	mg/kg	110	1		04/21/09 09:55	7727-37-9	
<b>353.1 Nitrate + Nitrite</b>	Analytical Method: EPA 353.1							
Nitrogen, NO2 plus NO3	ND	mg/kg	1.6	1		04/21/09 13:23		
<b>365.4 Total Phosphorus</b>	Analytical Method: EPA 365.4							
Phosphorus	348	mg/kg	55.1	1		04/20/09 09:49	7723-14-0	
<b>7196 Chromium, Hexavalent</b>	Analytical Method: EPA 7196 Preparation Method: EPA 3060A							
Chromium, Hexavalent	ND	mg/kg	7.0	1	04/20/09 09:22	04/20/09 16:52	18540-29-9	M0
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012 Preparation Method: EPA 9012							
Cyanide	ND	mg/kg	0.76	1	04/22/09 10:05	04/22/09 16:08	57-12-5	
<b>Total Organic Carbon</b>	Analytical Method: EPA 9060 Modified							
Total Organic Carbon	49300	mg/kg	7690	1		04/21/09 10:27	7440-44-0	
Total Organic Carbon	48200	mg/kg	9090	1		04/21/09 10:33	7440-44-0	
Mean Total Organic Carbon	48800	mg/kg	8330	1		04/21/09 10:33	7440-44-0	

Sample: EAW-2 Lab ID: 1093010002 Collected: 04/13/09 09:30 Received: 04/15/09 11:41 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b>	Analytical Method: EPA 8081							
Aldrin	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	309-00-2	
alpha-BHC	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	319-84-6	
beta-BHC	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	319-85-7	
delta-BHC	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	319-86-8	C2
gamma-BHC (Lindane)	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	58-89-9	
Chlordane (Technical)	ND	ug/kg	53.8	1	04/20/09 08:02	04/22/09 19:10	57-74-9	
alpha-Chlordane	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	5103-71-9	L2
gamma-Chlordane	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	5103-74-2	
4,4'-DDD	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	72-54-8	
4,4'-DDE	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	72-55-9	
4,4'-DDT	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	50-29-3	
Dieldrin	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	60-57-1	
Endosulfan I	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	959-98-8	
Endosulfan II	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	33213-65-9	
Endosulfan sulfate	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	1031-07-8	
Endrin	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	72-20-8	
Endrin aldehyde	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	7421-93-4	
Endrin ketone	ND	ug/kg	5.4	1	04/20/09 08:02	04/22/09 19:10	53494-70-5	
Heptachlor	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	76-44-8	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 9 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-2 Lab ID: 1093010002 Collected: 04/13/09 09:30 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b>		Analytical Method: EPA 8081						
Heptachlor epoxide	ND	ug/kg	2.7	1	04/20/09 08:02	04/22/09 19:10	1024-57-3	
Methoxychlor	ND	ug/kg	26.9	1	04/20/09 08:02	04/22/09 19:10	72-43-5	
Toxaphene	ND	ug/kg	161	1	04/20/09 08:02	04/22/09 19:10	8001-35-2	C2
Tetrachloro-m-xylene (S)	50	%	34-130	1	04/20/09 08:02	04/22/09 19:10	877-09-8	
Decachlorobiphenyl (S)	64	%	30-130	1	04/20/09 08:02	04/22/09 19:10	2051-24-3	
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3550						
PCB-1016 (Aroclor 1016)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	53.3	1	04/16/09 08:15	04/24/09 20:55	11100-14-4	
Tetrachloro-m-xylene (S)	84	%	30-150	1	04/16/09 08:15	04/24/09 20:55	877-09-8	
Decachlorobiphenyl (S)	90	%	30-150	1	04/16/09 08:15	04/24/09 20:55	2051-24-3	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	7.0	mg/kg	0.71	1	04/16/09 14:23	04/17/09 16:07	7440-38-2	
Barium	61.7	mg/kg	0.71	1	04/16/09 14:23	04/17/09 16:07	7440-39-3	
Cadmium	0.86	mg/kg	0.071	1	04/16/09 14:23	04/17/09 16:07	7440-43-9	
Chromium	16.5	mg/kg	0.71	1	04/16/09 14:23	04/17/09 16:07	7440-47-3	
Copper	11.4	mg/kg	0.71	1	04/16/09 14:23	04/17/09 16:07	7440-50-8	
Lead	11.3	mg/kg	0.43	1	04/16/09 14:23	04/17/09 16:07	7439-92-1	
Manganese	481	mg/kg	0.36	1	04/16/09 14:23	04/17/09 16:07	7439-96-5	Z2
Nickel	12.9	mg/kg	1.4	1	04/16/09 14:23	04/17/09 16:07	7440-02-0	
Selenium	ND	mg/kg	1.1	1	04/16/09 14:23	04/17/09 16:07	7782-49-2	
Zinc	43.2	mg/kg	1.4	1	04/16/09 14:23	04/17/09 16:07	7440-66-6	
<b>7471 Mercury</b>		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	0.075	mg/kg	0.030	1	04/21/09 09:23	04/21/09 12:34	7439-97-6	
<b>Dry Weight</b>		Analytical Method: % Moisture						
Percent Moisture	38.1	%	0.10	1		04/16/09 00:00		
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550						
Acenaphthene	ND	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	83-32-9	
Acenaphthylene	ND	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	208-96-8	
Anthracene	ND	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	120-12-7	
Benzo(a)anthracene	42.8	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	56-55-3	
Benzo(a)pyrene	48.6	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	50-32-8	
Benzo(b)fluoranthene	77.6	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	205-99-2	
Benzo(g,h,i)perylene	28.4	ug/kg	16.1	1	04/15/09 20:46	04/22/09 08:59	191-24-2	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 10 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-2 Lab ID: 1093010002 Collected: 04/13/09 09:30 Received: 04/15/09 11:41 Matrix: Solid  
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550						
Benzo(k)fluoranthene	25.0 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	207-08-9	
Chrysene	48.6 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	53-70-3	
Fluoranthene	83.2 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	206-44-0	
Fluorene	ND ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	86-73-7	
Indeno(1,2,3-cd)pyrene	27.7 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	193-39-5	
Naphthalene	ND ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	91-20-3	
Phenanthrene	24.6 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	85-01-8	
Pyrene	89.5 ug/kg		16.1	1	04/15/09 20:46	04/22/09 08:59	129-00-0	
Nitrobenzene-d5 (S)	80 %		45-126	1	04/15/09 20:46	04/22/09 08:59	4165-60-0	
2-Fluorobiphenyl (S)	68 %		48-125	1	04/15/09 20:46	04/22/09 08:59	321-60-8	
Terphenyl-d14 (S)	78 %		67-125	1	04/15/09 20:46	04/22/09 08:59	1718-51-0	
<b>160.4 Total Volatile Solids</b>		Analytical Method: EPA 160.4						
Total Volatile Solids	3.3 % (w/w)		0.10	1		04/17/09 15:02		
<b>9071 Oil and Grease, Soxhlet</b>		Analytical Method: EPA 9071 Preparation Method: EPA 3540						
Oil and Grease	ND mg/kg		404	1	04/17/09 07:53	04/17/09 07:55		
<b>Trivalent Chromium Calculation</b>		Analytical Method: Trivalent Chromium Calculation						
Chromium, Trivalent	9.1 mg/kg		1.0	1		04/22/09 16:41	16065-83-1	
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	1160 mg/kg		80.7	1		04/21/09 09:56	7727-37-9	
<b>353.1 Nitrate + Nitrite</b>		Analytical Method: EPA 353.1						
Nitrogen, NO2 plus NO3	ND mg/kg		1.6	1		04/21/09 13:43		
<b>365.4 Total Phosphorus</b>		Analytical Method: EPA 365.4						
Phosphorus	599 mg/kg		40.4	1		04/20/09 09:50	7723-14-0	
<b>7196 Chromium, Hexavalent</b>		Analytical Method: EPA 7196 Preparation Method: EPA 3060A						
Chromium, Hexavalent	7.4 mg/kg		5.1	1	04/20/09 09:22	04/20/09 16:52	18540-29-9	
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012 Preparation Method: EPA 9012						
Cyanide	ND mg/kg		0.71	1	04/22/09 10:05	04/22/09 16:08	57-12-5	
<b>Total Organic Carbon</b>		Analytical Method: EPA 9060 Modified						
Total Organic Carbon	20100 mg/kg		8330	1		04/21/09 10:40	7440-44-0	
Total Organic Carbon	18600 mg/kg		6670	1		04/21/09 10:50	7440-44-0	
Mean Total Organic Carbon	19300 mg/kg		7410	1		04/21/09 10:50	7440-44-0	

Date: 05/12/2009 01:43 PM

**REPORT OF LABORATORY ANALYSIS**

Page 11 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-3 Lab ID: 1093010003 Collected: 04/13/09 10:00 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b>		Analytical Method: EPA 8081						
Aldrin	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	309-00-2	
alpha-BHC	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	319-84-6	
beta-BHC	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	319-85-7	
delta-BHC	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	58-89-9	
Chlordane (Technical)	ND	ug/kg	44.4	1	04/20/09 08:02	04/22/09 19:37	57-74-9	
alpha-Chlordane	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	5103-71-9	L2
gamma-Chlordane	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	5103-74-2	
4,4'-DDD	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	72-54-8	
4,4'-DDE	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	72-55-9	
4,4'-DDT	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	50-29-3	
Dieldrin	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	60-57-1	
Endosulfan I	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	959-98-8	
Endosulfan II	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	33213-65-9	
Endosulfan sulfate	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	1031-07-8	
Endrin	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	72-20-8	
Endrin aldehyde	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	7421-93-4	
Endrin ketone	ND	ug/kg	4.4	1	04/20/09 08:02	04/22/09 19:37	53494-70-5	
Heptachlor	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	76-44-8	
Heptachlor epoxide	ND	ug/kg	2.2	1	04/20/09 08:02	04/22/09 19:37	1024-57-3	
Methoxychlor	ND	ug/kg	22.2	1	04/20/09 08:02	04/22/09 19:37	72-43-5	
Toxaphene	ND	ug/kg	133	1	04/20/09 08:02	04/22/09 19:37	8001-35-2	
Tetrachloro-m-xylene (S)	47 %		34-130	1	04/20/09 08:02	04/22/09 19:37	877-09-8	
Decachlorobiphenyl (S)	64 %		30-130	1	04/20/09 08:02	04/22/09 19:37	2051-24-3	
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3550						
PCB-1016 (Aroclor 1016)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	440	10	04/16/09 08:15	04/27/09 19:28	11100-14-4	
Tetrachloro-m-xylene (S)	0 %		30-150	10	04/16/09 08:15	04/27/09 19:28	877-09-8	D3,S4
Decachlorobiphenyl (S)	0 %		30-150	10	04/16/09 08:15	04/27/09 19:28	2051-24-3	S4
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	4.0	mg/kg	0.60	1	04/16/09 14:23	04/17/09 16:12	7440-38-2	
Barium	30.3	mg/kg	0.60	1	04/16/09 14:23	04/17/09 16:12	7440-39-3	
Cadmium	0.22	mg/kg	0.060	1	04/16/09 14:23	04/17/09 16:12	7440-43-9	
Chromium	5.9	mg/kg	0.60	1	04/16/09 14:23	04/17/09 16:12	7440-47-3	
Copper	3.1	mg/kg	0.60	1	04/16/09 14:23	04/17/09 16:12	7440-50-8	
Lead	3.7	mg/kg	0.36	1	04/16/09 14:23	04/17/09 16:12	7439-92-1	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 12 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-3 Lab ID: 1093010003 Collected: 04/13/09 10:00 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Manganese	315 mg/kg		0.30	1	04/16/09 14:23	04/17/09 16:12	7439-96-5	Z2
Nickel	5.5 mg/kg		1.2	1	04/16/09 14:23	04/17/09 16:12	7440-02-0	
Selenium	ND mg/kg		0.90	1	04/16/09 14:23	04/17/09 16:12	7782-49-2	
Zinc	16.3 mg/kg		1.2	1	04/16/09 14:23	04/17/09 16:12	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND mg/kg		0.023	1	04/21/09 09:23	04/21/09 12:35	7439-97-6	
<b>Dry Weight</b> Analytical Method: % Moisture								
Percent Moisture	24.9 %		0.10	1		04/16/09 00:00		
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550								
Acenaphthene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	83-32-9	
Acenaphthylene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	208-96-8	
Anthracene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	120-12-7	
Benzo(a)anthracene	14.5 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	56-55-3	
Benzo(a)pyrene	16.7 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	50-32-8	
Benzo(b)fluoranthene	25.7 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	207-08-9	
Chrysene	17.0 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	53-70-3	
Fluoranthene	27.8 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	206-44-0	
Fluorene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	193-39-5	
Naphthalene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	91-20-3	
Phenanthrene	ND ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	85-01-8	
Pyrene	29.4 ug/kg		13.3	1	04/15/09 20:46	04/22/09 09:20	129-00-0	
Nitrobenzene-d5 (S)	73 %		45-126	1	04/15/09 20:46	04/22/09 09:20	4165-60-0	
2-Fluorobiphenyl (S)	64 %		48-125	1	04/15/09 20:46	04/22/09 09:20	321-60-8	
Terphenyl-d14 (S)	81 %		67-125	1	04/15/09 20:46	04/22/09 09:20	1718-51-0	
<b>160.4 Total Volatile Solids</b> Analytical Method: EPA 160.4								
Total Volatile Solids	0.94 % (w/w)		0.10	1		04/17/09 15:02		
<b>9071 Oil and Grease, Soxhlet</b> Analytical Method: EPA 9071 Preparation Method: EPA 3540								
Oil and Grease	460 mg/kg		333	1	04/17/09 07:53	04/17/09 07:55		
<b>Trivalent Chromium Calculation</b> Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	5.9 mg/kg		1.0	1		04/22/09 16:41	16065-83-1	
<b>351.2 Total Kjeldahl Nitrogen</b> Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	309 mg/kg		80.7	1		04/21/09 09:56	7727-37-9	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 13 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-3 Lab ID: 1093010003 Collected: 04/13/09 10:00 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>353.1 Nitrate + Nitrite</b> Analytical Method: EPA 353.1								
Nitrogen, NO2 plus NO3	ND	mg/kg	1.3	1		04/21/09 13:23		
<b>365.4 Total Phosphorus</b> Analytical Method: EPA 365.4								
Phosphorus	319	mg/kg	40.4	1		04/20/09 09:51	7723-14-0	
<b>7196 Chromium, Hexavalent</b> Analytical Method: EPA 7196 Preparation Method: EPA 3060A								
Chromium, Hexavalent	ND	mg/kg	4.9	1	04/20/09 09:22	04/20/09 16:52	18540-29-9	
<b>9012 Cyanide, Total</b> Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.59	1	04/22/09 10:05	04/22/09 16:08	57-12-5	
<b>Total Organic Carbon</b> Analytical Method: EPA 9060 Modified								
Total Organic Carbon	5850	mg/kg	5560	1		04/21/09 10:59	7440-44-0	
Total Organic Carbon	14900	mg/kg	5000	1		04/21/09 11:06	7440-44-0	
Mean Total Organic Carbon	10600	mg/kg	5260	1		04/21/09 11:06	7440-44-0	

Sample: EAW-4 Lab ID: 1093010004 Collected: 04/13/09 10:30 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b> Analytical Method: EPA 8081								
Aldrin	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	309-00-2	
alpha-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	319-84-6	
beta-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	319-85-7	
delta-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	58-89-9	
Chlordane (Technical)	ND	ug/kg	49.3	1	04/20/09 08:02	04/22/09 20:04	57-74-9	
alpha-Chlordane	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	5103-71-9	L2
gamma-Chlordane	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	5103-74-2	C2
4,4'-DDD	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	72-54-8	
4,4'-DDE	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	72-55-9	
4,4'-DDT	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	50-29-3	
Dieldrin	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	60-57-1	
Endosulfan I	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	959-98-8	
Endosulfan II	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	33213-65-9	
Endosulfan sulfate	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	1031-07-8	
Endrin	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	72-20-8	
Endrin aldehyde	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	7421-93-4	
Endrin ketone	ND	ug/kg	4.9	1	04/20/09 08:02	04/22/09 20:04	53494-70-5	
Heptachlor	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	76-44-8	
Heptachlor epoxide	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:04	1024-57-3	
Methoxychlor	ND	ug/kg	24.7	1	04/20/09 08:02	04/22/09 20:04	72-43-5	
Toxaphene	ND	ug/kg	148	1	04/20/09 08:02	04/22/09 20:04	8001-35-2	C2

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 14 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-4 Lab ID: 1093010004 Collected: 04/13/09 10:30 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b> Analytical Method: EPA 8081								
Tetrachloro-m-xylene (S)	52 %		34-130	1	04/20/09 08:02	04/22/09 20:04	877-09-8	
Decachlorobiphenyl (S)	62 %		30-130	1	04/20/09 08:02	04/22/09 20:04	2051-24-3	
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3550								
PCB-1016 (Aroclor 1016)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	12674-11-2	
PCB-1221 (Aroclor 1221)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	11104-28-2	
PCB-1232 (Aroclor 1232)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	11141-16-5	
PCB-1242 (Aroclor 1242)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	53469-21-9	
PCB-1248 (Aroclor 1248)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	12672-29-6	
PCB-1254 (Aroclor 1254)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	11097-69-1	
PCB-1260 (Aroclor 1260)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	11096-82-5	
PCB-1262 (Aroclor 1262)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	37324-23-5	
PCB-1268 (Aroclor 1268)	ND ug/kg		48.8	1	04/16/09 08:15	04/24/09 21:27	11100-14-4	
Tetrachloro-m-xylene (S)	76 %		30-150	1	04/16/09 08:15	04/24/09 21:27	877-09-8	
Decachlorobiphenyl (S)	81 %		30-150	1	04/16/09 08:15	04/24/09 21:27	2051-24-3	
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	5.4 mg/kg		0.54	1	04/16/09 14:23	04/17/09 16:18	7440-38-2	
Barium	47.8 mg/kg		0.54	1	04/16/09 14:23	04/17/09 16:18	7440-39-3	
Cadmium	0.64 mg/kg		0.054	1	04/16/09 14:23	04/17/09 16:18	7440-43-9	
Chromium	10.9 mg/kg		0.54	1	04/16/09 14:23	04/17/09 16:18	7440-47-3	
Copper	6.4 mg/kg		0.54	1	04/16/09 14:23	04/17/09 16:18	7440-50-8	
Lead	8.0 mg/kg		0.33	1	04/16/09 14:23	04/17/09 16:18	7439-92-1	
Manganese	394 mg/kg		0.27	1	04/16/09 14:23	04/17/09 16:18	7439-96-5	Z2
Nickel	8.8 mg/kg		1.1	1	04/16/09 14:23	04/17/09 16:18	7440-02-0	
Selenium	1.0 mg/kg		0.82	1	04/16/09 14:23	04/17/09 16:18	7782-49-2	
Zinc	30.8 mg/kg		1.1	1	04/16/09 14:23	04/17/09 16:18	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.053 mg/kg		0.026	1	04/21/09 09:23	04/21/09 12:37	7439-97-6	
<b>Dry Weight</b> Analytical Method: % Moisture								
Percent Moisture	32.4 %		0.10	1		04/16/09 00:00		
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550								
Acenaphthene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	83-32-9	
Acenaphthylene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	208-96-8	
Anthracene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	120-12-7	
Benzo(a)anthracene	21.5 ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	56-55-3	
Benzo(a)pyrene	24.4 ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	50-32-8	
Benzo(b)fluoranthene	35.1 ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	207-08-9	
Chrysene	25.4 ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		14.8	1	04/15/09 20:46	04/22/09 09:40	53-70-3	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 15 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-4 Lab ID: 1093010004 Collected: 04/13/09 10:30 Received: 04/15/09 11:41 Matrix: Solid  
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550						
Fluoranthene	40.0	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	206-44-0	
Fluorene	ND	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	193-39-5	
Naphthalene	ND	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	91-20-3	
Phenanthrene	ND	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	85-01-8	
Pyrene	45.4	ug/kg	14.8	1	04/15/09 20:46	04/22/09 09:40	129-00-0	
Nitrobenzene-d5 (S)	78	%	45-126	1	04/15/09 20:46	04/22/09 09:40	4165-60-0	
2-Fluorobiphenyl (S)	66	%	48-125	1	04/15/09 20:46	04/22/09 09:40	321-60-8	
Terphenyl-d14 (S)	79	%	67-125	1	04/15/09 20:46	04/22/09 09:40	1718-51-0	
<b>160.4 Total Volatile Solids</b>		Analytical Method: EPA 160.4						
Total Volatile Solids	2.1	% (w/w)	0.10	1		04/17/09 15:02		
<b>9071 Oil and Grease, Soxhlet</b>		Analytical Method: EPA 9071 Preparation Method: EPA 3540						
Oil and Grease	377	mg/kg	370	1	04/17/09 07:53	04/17/09 07:55		
<b>Trivalent Chromium Calculation</b>		Analytical Method: Trivalent Chromium Calculation						
Chromium, Trivalent	6.7	mg/kg	1.0	1		04/22/09 16:41	16065-83-1	
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	536	mg/kg	72.2	1		04/21/09 09:57	7727-37-9	
<b>353.1 Nitrate + Nitrite</b>		Analytical Method: EPA 353.1						
Nitrogen, NO2 plus NO3	ND	mg/kg	1.4	1		04/21/09 13:23		
<b>365.4 Total Phosphorus</b>		Analytical Method: EPA 365.4						
Phosphorus	404	mg/kg	36.1	1		04/20/09 09:51	7723-14-0	
<b>7196 Chromium, Hexavalent</b>		Analytical Method: EPA 7196 Preparation Method: EPA 3060A						
Chromium, Hexavalent	4.2	mg/kg	4.2	1	04/20/09 09:22	04/20/09 16:52	18540-29-9	
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012 Preparation Method: EPA 9012						
Cyanide	ND	mg/kg	0.36	1	04/22/09 10:05	04/22/09 15:53	57-12-5	
<b>Total Organic Carbon</b>		Analytical Method: EPA 9060 Modified						
Total Organic Carbon	12600	mg/kg	2130	1		04/21/09 11:12	7440-44-0	
Total Organic Carbon	11900	mg/kg	2170	1		04/21/09 11:19	7440-44-0	
Mean Total Organic Carbon	12200	mg/kg	2150	1		04/21/09 11:19	7440-44-0	





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-5 Lab ID: 1093010005 Collected: 04/13/09 11:00 Received: 04/15/09 11:41 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8081 GCS Pesticides</b>		Analytical Method: EPA 8081						
Aldrin	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	309-00-2	
alpha-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	319-84-6	
beta-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	319-85-7	
delta-BHC	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	319-86-8	
gamma-BHC (Lindane)	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	58-89-9	
Chlordane (Technical)	ND	ug/kg	50.0	1	04/20/09 08:02	04/22/09 20:30	57-74-9	
alpha-Chlordane	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	5103-71-9	L2
gamma-Chlordane	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	5103-74-2	C2
4,4'-DDD	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	72-54-8	
4,4'-DDE	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	72-55-9	
4,4'-DDT	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	50-29-3	
Dieldrin	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	60-57-1	
Endosulfan I	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	959-98-8	
Endosulfan II	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	33213-65-9	
Endosulfan sulfate	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	1031-07-8	
Endrin	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	72-20-8	
Endrin aldehyde	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	7421-93-4	
Endrin ketone	ND	ug/kg	5.0	1	04/20/09 08:02	04/22/09 20:30	53494-70-5	
Heptachlor	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	76-44-8	
Heptachlor epoxide	ND	ug/kg	2.5	1	04/20/09 08:02	04/22/09 20:30	1024-57-3	
Methoxychlor	ND	ug/kg	25.0	1	04/20/09 08:02	04/22/09 20:30	72-43-5	
Toxaphene	ND	ug/kg	150	1	04/20/09 08:02	04/22/09 20:30	8001-35-2	
Tetrachloro-m-xylene (S)	50 %		34-130	1	04/20/09 08:02	04/22/09 20:30	877-09-8	
Decachlorobiphenyl (S)	64 %		30-130	1	04/20/09 08:02	04/22/09 20:30	2051-24-3	
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3550						
PCB-1016 (Aroclor 1016)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	495	10	04/16/09 08:15	04/27/09 19:44	11100-14-4	
Tetrachloro-m-xylene (S)	0 %		30-150	10	04/16/09 08:15	04/27/09 19:44	877-09-8	D3,S4
Decachlorobiphenyl (S)	0 %		30-150	10	04/16/09 08:15	04/27/09 19:44	2051-24-3	S4
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	10.9	mg/kg	0.55	1	04/16/09 14:23	04/17/09 16:24	7440-38-2	
Barium	96.8	mg/kg	0.55	1	04/16/09 14:23	04/17/09 16:24	7440-39-3	
Cadmium	0.60	mg/kg	0.055	1	04/16/09 14:23	04/17/09 16:24	7440-43-9	
Chromium	13.9	mg/kg	0.55	1	04/16/09 14:23	04/17/09 16:24	7440-47-3	
Copper	8.2	mg/kg	0.55	1	04/16/09 14:23	04/17/09 16:24	7440-50-8	
Lead	11.7	mg/kg	0.33	1	04/16/09 14:23	04/17/09 16:24	7439-92-1	

Date: 05/12/2009 01:43 PM

### REPORT OF LABORATORY ANALYSIS

Page 17 of 37

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







**ANALYTICAL RESULTS**

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-5 Lab ID: 1093010005 Collected: 04/13/09 11:00 Received: 04/15/09 11:41 Matrix: Solid  
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Manganese	684	mg/kg	0.27	1	04/16/09 14:23	04/17/09 16:24	7439-96-5	Z2
Nickel	11.9	mg/kg	1.1	1	04/16/09 14:23	04/17/09 16:24	7440-02-0	
Selenium	1.8	mg/kg	0.82	1	04/16/09 14:23	04/17/09 16:24	7782-49-2	
Zinc	46.2	mg/kg	1.1	1	04/16/09 14:23	04/17/09 16:24	7440-66-6	
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.066	mg/kg	0.025	1	04/21/09 09:23	04/21/09 12:41	7439-97-6	
<b>Dry Weight</b> Analytical Method: % Moisture								
Percent Moisture	33.4	%	0.10	1		04/16/09 00:00		
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	83-32-9	
Acenaphthylene	ND	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	208-96-8	
Anthracene	19.9	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	120-12-7	
Benzo(a)anthracene	76.5	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	56-55-3	
Benzo(a)pyrene	79.8	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	50-32-8	
Benzo(b)fluoranthene	92.0	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	205-99-2	
Benzo(g,h,i)perylene	35.9	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	191-24-2	
Benzo(k)fluoranthene	47.2	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	207-08-9	
Chrysene	75.4	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	53-70-3	
Fluoranthene	112	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	206-44-0	
Fluorene	ND	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	86-73-7	
Indeno(1,2,3-cd)pyrene	32.8	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	193-39-5	
Naphthalene	ND	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	91-20-3	
Phenanthrene	31.3	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	85-01-8	
Pyrene	137	ug/kg	15.0	1	04/15/09 20:46	04/22/09 10:01	129-00-0	
Nitrobenzene-d5 (S)	76	%	45-126	1	04/15/09 20:46	04/22/09 10:01	4165-60-0	
2-Fluorobiphenyl (S)	67	%	48-125	1	04/15/09 20:46	04/22/09 10:01	321-60-8	
Terphenyl-d14 (S)	74	%	67-125	1	04/15/09 20:46	04/22/09 10:01	1718-51-0	
<b>160.4 Total Volatile Solids</b> Analytical Method: EPA 160.4								
Total Volatile Solids	3.5	% (w/w)	0.10	1		04/17/09 15:02		
<b>9071 Oil and Grease, Soxhlet</b> Analytical Method: EPA 9071 Preparation Method: EPA 3540								
Oil and Grease	ND	mg/kg	375	1	04/17/09 07:53	04/17/09 07:55		
<b>Trivalent Chromium Calculation</b> Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	8.5	mg/kg	1.0	1		04/22/09 16:41	16065-83-1	
<b>351.2 Total Kjeldahl Nitrogen</b> Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	1180	mg/kg	107	1		04/21/09 09:58	7727-37-9	





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: JDE#11155013 Prairie Island  
 Pace Project No.: 1093010

Sample: EAW-5 Lab ID: 1093010005 Collected: 04/13/09 11:00 Received: 04/15/09 11:41 Matrix: Solid  
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>353.1 Nitrate + Nitrite</b>	Analytical Method: EPA 353.1							
Nitrogen, NO2 plus NO3	ND	mg/kg	1.2	1		04/21/09 13:23		
<b>365.4 Total Phosphorus</b>	Analytical Method: EPA 365.4							
Phosphorus	848	mg/kg	53.6	1		04/20/09 09:52	7723-14-0	
<b>7196 Chromium, Hexavalent</b>	Analytical Method: EPA 7196 Preparation Method: EPA 3060A							
Chromium, Hexavalent	5.4	mg/kg	3.8	1	04/20/09 09:22	04/20/09 16:52	18540-29-9	
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012 Preparation Method: EPA 9012							
Cyanide	ND	mg/kg	0.49	1	04/22/09 10:05	04/22/09 15:53	57-12-5	
<b>Total Organic Carbon</b>	Analytical Method: EPA 9060 Modified							
Total Organic Carbon	13100	mg/kg	1720	1		04/21/09 11:40	7440-44-0	
Total Organic Carbon	11000	mg/kg	1920	1		04/21/09 11:50	7440-44-0	
Mean Total Organic Carbon	12100	mg/kg	1820	1		04/21/09 11:50	7440-44-0	



Risk-Based Site Evaluation Guidance for the Soil - Human Health Pathway  
 Prairielsland\_SedsMS4\_Analytes\_BaPeq.xls

<b>Benzo(a)pyrene (BaP) Equivalents (9/06 Version) - place site concentration in column E</b>					
<b>Prairie Island sediment samples (EAW1 - 5). NAH review 5/8/09</b>					
Shading = PAHs the Lab can detect					
Sample Name				EAW1	
Chemical	CAS No.	Oral Cancer Slope Factor (mg/kg-d) <sup>-1</sup>	Relative Potency Factor	Site Concn. (ug/L) or (mg/kg)	BaP Equivalent
Shading = PAHs the Lab can detect					
<i>italics = ND substituted with 1/2(reporting limit)</i>					
Benz[a]anthracene	56-55-3		0.1	0.048	0.0048
Benzo[b]fluoranthene	205-99-2		0.1	0.088	0.0088
Benzo[j]fluoranthene	205-82-3		0.1		
Benzo[k]fluoranthene	207-08-9		0.1	0.034	0.0034
<b>Benzo[a]pyrene (1)</b>	<b>50-32-8</b>	<b>7.3</b>	<b>1</b>	<b>0.058</b>	<b>0.058</b>
Chrysene	218-01-9		0.01	0.056	0.00056
Dibenz[a,j]acridine	224-42-0		0.1		
Dibenz[a,h]acridine	226-36-8		0.1		
<b>Dibenz(a,h)anthracene (2)</b>	<b>53-70-3</b>	<b>4.1</b>	<b>0.56</b>	<b>0.0088</b>	<b>0.0049</b>
7H-Dibenzo[c,g]carbazole	194-59-2		1		
Dibenzo[a,e]pyrene	192-65-4		1		
Dibenzo[a,h]pyrene	189-64-0		10		
Dibenzo[a,i]pyrene	189-55-9		10		
Dibenzo[a,l]pyrene	191-30-0		10		
<b>7,12-Dimethylbenzanthracene (2)</b>	<b>57-97-6</b>	<b>250</b>	<b>34</b>		
1,6-Dinitropyrene	42397-64-8		10		
1,8-Dinitropyrene	42397-65-9		1		
Indeno[1,2,3,-c,d]pyrene	193-39-5		0.1	0.033	0.0033
<b>3-Methylcholanthrene (2)</b>	<b>56-49-5</b>	<b>22</b>	<b>3</b>		
5-Methylchrysene	3351-31-3		1		
<b>5-Nitroacenaphthene (2)</b>	<b>602-87-9</b>	<b>0.13</b>	<b>0.02</b>		
1-Nitropyrene	5522-43-0		0.1		
4-Nitropyrene	57835-92-4		0.1		
6-Nitrochrysene	7496-02-8		10		
2-Nitrofluorene	607-57-8		0.01		
				Total BaP equivalents =	<b>0.084</b>
				compare this value	
				to the BaP criteria	
(1) Oral slope factor utilized by MDH (MDH Rules Relating to Health Risk Values, 2002)					
(2) "PEF" based on ratioing OEHHA oral cancer slope factor to the BaP oral cancer slope factor utilized by MDH.					
Source: MDH Memorandum 2001. Based on California EPA Office of Environmental Health Hazard Assessment (OEHHA) 1999 Risk Assessment Guidelines, Part II: Technical Support Document for Describing Available Cancer Potency Factors.					
<a href="http://www.oehha.org/air/cancer_guide/hzca2.html#download">http://www.oehha.org/air/cancer_guide/hzca2.html#download</a>					

Risk-Based Site Evaluation Guidance for the Soil - Human Health Pathway  
 Prairieland\_SedsMS4\_Analytes\_BaPeq.xls

Sample Name	CAS No.	Oral		EAW2	
		Cancer	Relative	Site Concen.	BaP
		Slope Factor (mg/kg-d) <sup>-1</sup>	Potency Factor	(ug/L) or (mg/kg)	Equivalent
Shading = PAHs the Lab can detect					
<i>italics = ND substituted with 1/2(reporting limit)</i>					
Benz[a]anthracene	56-55-3		0.1	0.043	0.0043
Benzo[b]fluoranthene	205-99-2		0.1	0.078	0.0078
Benzo[j]fluoranthene	205-82-3		0.1		
Benzo[k]fluoranthene	207-08-9		0.1	0.025	0.0025
<b>Benzo[a]pyrene (1)</b>	<b>50-32-8</b>	<b>7.3</b>	<b>1</b>	<b>0.049</b>	<b>0.049</b>
Chrysene	218-01-9		0.01	0.049	0.00049
Dibenz[a,i]acridine	224-42-0		0.1		
Dibenz[a,h]acridine	226-36-8		0.1		
<b>Dibenz[a,h]anthracene (2)</b>	<b>53-70-3</b>	<b>4.1</b>	<b>0.56</b>	<b>0.008</b>	<b>0.0045</b>
7H-Dibenzo[c,g]carbazole	194-59-2		1		
Dibenzo[a,e]pyrene	192-65-4		1		
Dibenzo[a,h]pyrene	189-64-0		10		
Dibenzo[a,i]pyrene	189-55-9		10		
Dibenzo[a,j]pyrene	191-30-0		10		
<b>7,12-Dimethylbenzanthracene (2)</b>	<b>57-97-6</b>	<b>250</b>	<b>34</b>		
1,6-Dinitropyrene	42397-64-8		10		
1,8-Dinitropyrene	42397-65-9		1		
Indeno[1,2,3-c,d]pyrene	193-39-5		0.1	0.028	0.0028
<b>3-Methylcholanthrene (2)</b>	<b>56-49-5</b>	<b>22</b>	<b>3</b>		
5-Methylchrysene	3351-31-3		1		
<b>5-Nitroacenaphthene (2)</b>	<b>602-87-9</b>	<b>0.13</b>	<b>0.02</b>		
1-Nitropyrene	5522-43-0		0.1		
4-Nitropyrene	57835-92-4		0.1		
6-Nitrochrysene	7496-02-8		10		
2-Nitrofluorene	607-57-8		0.01		
				Total BaP equivalents =	<b>0.071</b>
				compare this value	
				to the BaP criteria	
(1) Oral slope factor utilized by MDH (MDH Rules Relating to Health Risk Values, 2002)					
(2) "PEF" based on ratioing OEHHA oral cancer slope factor to the BaP oral cancer slope factor utilized by MDH.					
Source: MDH Memorandum 2001. Based on California EPA Office of Environmental					
Health Hazard Assessment (OEHHA) 1999 Risk Assessment Guidelines, Part II:					
Technical Support Document for Describing Available Cancer Potency Factors.					
<a href="http://www.oehha.org/air/cancer_guide/hasca2.html#download">http://www.oehha.org/air/cancer_guide/hasca2.html#download</a>					

Risk-Based Site Evaluation Guidance for the Soil - Human Health Pathway  
 Prairieland\_SedsMS4\_Analytes\_BaPeq.xls

Sample Name	CAS No.	Oral		EAW3	
		Cancer	Relative	Site Concen.	BaP
		Slope Factor (mg/kg-d) <sup>-1</sup>	Potency Factor	(ug/L) or (mg/kg)	Equivalent
Shading = PAHs the Lab can detect					
<i>italics = ND substituted with 1/2(reporting limit)</i>					
Benz[a]anthracene	56-55-3		0.1	0.015	0.0015
Benzo[b]fluoranthene	205-99-2		0.1	0.026	0.0026
Benzo[j]fluoranthene	205-82-3		0.1		
Benzo[k]fluoranthene	207-08-9		0.1	0.007	0.0007
<b>Benzo[a]pyrene (1)</b>	<b>50-32-8</b>	<b>7.3</b>	<b>1</b>	<b>0.017</b>	<b>0.017</b>
Chrysene	218-01-9		0.01	0.017	0.00017
Dibenz[a,i]acridine	224-42-0		0.1		
Dibenz[a,h]acridine	226-36-8		0.1		
<b>Dibenz(a,h)anthracene (2)</b>	<b>53-70-3</b>	<b>4.1</b>	<b>0.56</b>	<b>0.006</b>	<b>0.0034</b>
7H-Dibenzo[c,g]carbazole	194-59-2		1		
Dibenzo[a,e]pyrene	192-65-4		1		
Dibenzo[a,h]pyrene	189-64-0		10		
Dibenzo[a,i]pyrene	189-55-9		10		
Dibenzo[a,l]pyrene	191-30-0		10		
<b>7,12-Dimethylbenzanthracene (2)</b>	<b>57-97-6</b>	<b>250</b>	<b>34</b>		
1,6-Dinitropyrene	42397-64-8		10		
1,8-Dinitropyrene	42397-65-9		1		
Indeno[1,2,3,-c,d]pyrene	193-39-5		0.1	0.007	0.0007
<b>3-Methylcholanthrene (2)</b>	<b>56-49-5</b>	<b>22</b>	<b>3</b>		
5-Methylchrysene	3351-31-3		1		
<b>5-Nitroacenaphthene (2)</b>	<b>602-87-9</b>	<b>0.13</b>	<b>0.02</b>		
1-Nitropyrene	5522-43-0		0.1		
4-Nitropyrene	57835-92-4		0.1		
6-Nitrochrysene	7496-02-8		10		
2-Nitrofluorene	607-57-8		0.01		
				Total BaP equivalents =	<b>0.026</b>
				compare this value	
				to the BaP criteria	
(1) Oral slope factor utilized by MDH (MDH Rules Relating to Health Risk Values, 2002)					
(2) "PEF" based on ratioing OEHHA oral cancer slope factor to the BaP oral cancer slope factor utilized by MDH.					
Source: MDH Memorandum 2001. Based on California EPA Office of Environmental Health Hazard Assessment (OEHHA) 1999 Risk Assessment Guidelines, Part II: Technical Support Document for Describing Available Cancer Potency Factors.					
<a href="http://www.oehha.org/air/cancer_guide/hasca2.html#download">http://www.oehha.org/air/cancer_guide/hasca2.html#download</a>					

Risk-Based Site Evaluation Guidance for the Soil - Human Health Pathway  
 Prairielsland\_SedsMS4\_Analytes\_BaPeq.xls

Sample Name	CAS No.	EAW4			
		Oral	Relative	Site Concen.	BaP
		Cancer	Potency	(ug/L)	Equivalent
Shading = PAHs the Lab can detect		Slope Factor	Factor	or	
		(mg/kg-d) <sup>-1</sup>		(mg/kg)	
<i>italics = ND substituted with 1/2(reporting limit)</i>					
Benz[a]anthracene	56-55-3		0.1	0.022	0.0022
Benzo[b]fluoranthene	205-99-2		0.1	0.035	0.0035
Benzo[j]fluoranthene	205-82-3		0.1		
Benzo[k]fluoranthene	207-08-9		0.1	0.007	0.0007
<b>Benzo[a]pyrene (1)</b>	<b>50-32-8</b>	<b>7.3</b>	<b>1</b>	<b>0.024</b>	<b>0.024</b>
Chrysene	218-01-9		0.01	0.025	0.00025
Dibenz[a,i]acridine	224-42-0		0.1		
Dibenz[a,h]acridine	226-36-8		0.1		
<b>Dibenz[a,h]anthracene (2)</b>	<b>53-70-3</b>	<b>4.1</b>	<b>0.56</b>	<b>0.007</b>	<b>0.0039</b>
7H-Dibenzo[c,g]carbazole	194-59-2		1		
Dibenzo[a,e]pyrene	192-65-4		1		
Dibenzo[a,h]pyrene	189-64-0		10		
Dibenzo[a,i]pyrene	189-55-9		10		
Dibenzo[a,l]pyrene	191-30-0		10		
<b>7,12-Dimethylbenzanthracene (2)</b>	<b>57-97-6</b>	<b>250</b>	<b>34</b>		
1,6-Dinitropyrene	42397-64-8		10		
1,8-Dinitropyrene	42397-65-9		1		
Indeno[1,2,3-c,d]pyrene	193-39-5		0.1	0.007	0.0007
<b>3-Methylcholanthrene (2)</b>	<b>56-49-5</b>	<b>22</b>	<b>3</b>		
5-Methylchrysene	3351-31-3		1		
<b>5-Nitroacenaphthene (2)</b>	<b>602-87-9</b>	<b>0.13</b>	<b>0.02</b>		
1-Nitropyrene	5522-43-0		0.1		
4-Nitropyrene	57835-92-4		0.1		
6-Nitrochrysene	7496-02-8		10		
2-Nitrofluorene	607-57-8		0.01		
				Total BaP equivalents =	<b>0.036</b>
				compare this value	
				to the BaP criteria	
(1) Oral slope factor utilized by MDH (MDH Rules Relating to Health Risk Values, 2002)					
(2) "PEF" based on ratioing OEHHA oral cancer slope factor to the BaP oral cancer slope factor utilized by MDH.					
Source: MDH Memorandum 2001. Based on California EPA Office of Environmental Health Hazard Assessment (OEHHA) 1999 Risk Assessment Guidelines, Part II: Technical Support Document for Describing Available Cancer Potency Factors.					
<a href="http://www.oehha.org/air/cancer_guide/hsca2.html#download">http://www.oehha.org/air/cancer_guide/hsca2.html#download</a>					

Risk-Based Site Evaluation Guidance for the Soil - Human Health Pathway  
 Prairieland\_SedsMS4\_Analytes\_BaPeq.xls

Sample Name	CAS No.	Oral		EAW5	
		Cancer	Relative	Site Concen.	BaP
		Slope Factor (mg/kg-d) <sup>-1</sup>	Potency Factor	(ug/L) or (mg/kg)	Equivalent
Shading = PAHs the Lab can detect					
<i>italics = ND substituted with 1/2(reporting limit)</i>					
Benz[a]anthracene	56-55-3		0.1	0.076	0.0076
Benzo[b]fluoranthene	205-99-2		0.1	0.092	0.0092
Benzo[j]fluoranthene	205-82-3		0.1		
Benzo[k]fluoranthene	207-08-9		0.1	0.047	0.0047
<b>Benzo[a]pyrene (1)</b>	<b>50-32-8</b>	<b>7.3</b>	<b>1</b>	<b>0.080</b>	<b>0.080</b>
Chrysene	218-01-9		0.01	0.075	0.00075
Dibenz[a,i]acridine	224-42-0		0.1		
Dibenz[a,h]acridine	226-36-8		0.1		
<b>Dibenz[a,h]anthracene (2)</b>	<b>53-70-3</b>	<b>4.1</b>	<b>0.56</b>	<b>0.0075</b>	<b>0.0042</b>
7H-Dibenzo[c,g]carbazole	194-59-2		1		
Dibenzo[a,e]pyrene	192-65-4		1		
Dibenzo[a,h]pyrene	189-64-0		10		
Dibenzo[a,i]pyrene	189-55-9		10		
Dibenzo[a,l]pyrene	191-30-0		10		
<b>7,12-Dimethylbenzanthracene (2)</b>	<b>57-97-6</b>	<b>250</b>	<b>34</b>		
1,6-Dinitropyrene	42397-64-8		10		
1,8-Dinitropyrene	42397-65-9		1		
Indeno[1,2,3,-c,d]pyrene	193-39-5		0.1	0.033	0.0033
<b>3-Methylcholanthrene (2)</b>	<b>56-49-5</b>	<b>22</b>	<b>3</b>		
5-Methylchrysene	3351-31-3		1		
<b>5-Nitroacenaphthene (2)</b>	<b>602-87-9</b>	<b>0.13</b>	<b>0.02</b>		
1-Nitropyrene	5522-43-0		0.1		
4-Nitropyrene	57835-92-4		0.1		
6-Nitrochrysene	7496-02-8		10		
2-Nitrofluorene	607-57-8		0.01		
				Total BaP equivalents =	<b>0.11</b>
				compare this value	
				to the BaP criteria	
(1) Oral slope factor utilized by MDH (MDH Rules Relating to Health Risk Values, 2002)					
(2) "PEF" based on ratioing OEHHA oral cancer slope factor to the BaP oral cancer slope factor utilized by MDH.					
Source: MDH Memorandum 2001. Based on California EPA Office of Environmental Health Hazard Assessment (OEHHA) 1999 Risk Assessment Guidelines, Part II: Technical Support Document for Describing Available Cancer Potency Factors.					
<a href="http://www.oehha.org/air/cancer_guide/hasca2.html#download">http://www.oehha.org/air/cancer_guide/hasca2.html#download</a>					

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM <b>1</b> GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY <b>GENERAL INFORMATION</b> Consolidated Permits Program <i>(Read the "General Instructions" before starting.)</i>			I. EPA I.D. NUMBER MND0049537780			T/A	C				
LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION		PLEASE PLACE LABEL IN THIS SPACE			GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.								
II. POLLUTANT CHARACTERISTICS INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.													
SPECIFIC QUESTIONS				Mark "X" YES NO FORM ATTACHED			SPECIFIC QUESTIONS				Mark "X" YES NO FORM ATTACHED		
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)				YES NO FORM ATTACHED 16 17 18			B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)				YES NO FORM ATTACHED 19 20 21		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)				YES NO FORM ATTACHED 22 23 24			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)				YES NO FORM ATTACHED 25 26 27		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)				YES NO FORM ATTACHED 28 29 30			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)				YES NO FORM ATTACHED 31 32 33		
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)				YES NO FORM ATTACHED 34 35 36			H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)				YES NO FORM ATTACHED 37 38 39		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)				YES NO FORM ATTACHED 40 41 42			J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)				YES NO FORM ATTACHED 43 44 45		
III. NAME OF FACILITY													
1 SKIP Prairie Island Nuclear Generating Plant													
IV. FACILITY CONTACT													
A. NAME & TITLE (last, first, & title)					B. PHONE (area code & no.)								
2 Pat Flowers, Manager Water Quality					(612) 330-6278								
V. FACILITY MAILING ADDRESS													
A. STREET OR P.O. BOX													
3 414 Nicollet Mall MP7													
B. CITY OR TOWN					C. STATE		D. ZIP CODE						
4 Minneapolis					MN		55401						
VI. FACILITY LOCATION													
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER													
5 1717 Wakonade Drive East													
B. COUNTY NAME													
Goodhue													
C. CITY OR TOWN					D. STATE		E. ZIP CODE		F. COUNTY CODE (if known)				
6 Welch					MN		55089		25				



CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)			
A. FIRST		B. SECOND	
7	4911 (specify) Electric Power Services	7	(specify)
C. THIRD		D. FOURTH	
7	(specify)	7	(specify)

VIII. OPERATOR INFORMATION	
A. NAME	B. Is the name listed in Item VIII-A also the owner? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
8 Northern States Power Company-Minnesota an Xcel Energy Company	

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.)		D. PHONE (area code & no.)
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC (other than federal or state) O = OTHER (specify)	
P		

E. STREET OR P.O. BOX
414 Nicollet Mall

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
B Minneapolis	MN	55401	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

X. EXISTING ENVIRONMENTAL PERMITS			
A. NPDES (Discharges to Surface Water)		D. PSD (Air Emissions from Proposed Sources)	
9 N	MN0004006	9 P	
B. UIC (Underground Injection of Fluids)		E. OTHER (specify)	
9 U		9	04900030-03 (specify) MPCA Title 5 Part 70 Air Emission Permit
C. RCRA (Hazardous Wastes)		E. OTHER (specify)	
9 R	MND049537780	9	(specify)

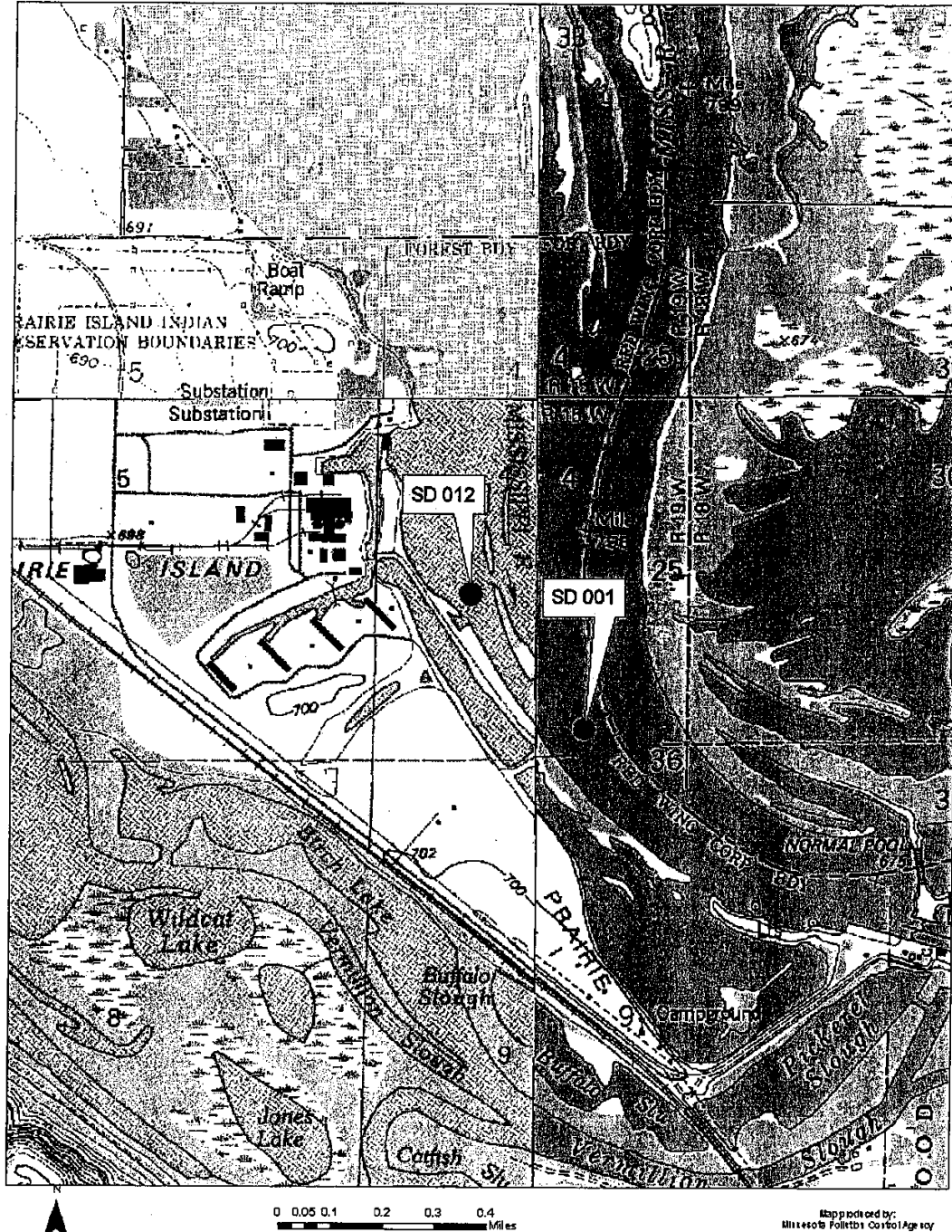
XI. MAP  
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)  
This facility is a dual unit, nuclear, pressurized water electric generating plant, capable of producing approximately 1100 megawatts.

XIII. CERTIFICATION (see instructions)		
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.		
A. NAME & OFFICIAL TITLE (type or print) Dennis L. Koehl Vice President & Chief Nuclear Officer	B. SIGNATURE 	C. DATE SIGNED 2/17/10

COMMENTS FOR OFFICIAL USE ONLY	
C	


The location of the facility and the selected monitoring stations is shown on the map below.  
**Topographic Map of Permitted Facility**



EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MND049537780

Form Approved.  
OMB No. 2040-0086.  
Approval expires 3-31-98.


Please print or type in the unshaded areas only.

<b>FORM 2C NPDES</b>				U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER <b>EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS</b> <i>Consolidated Permits Program</i>			
<b>I. OUTFALL LOCATION</b>							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER <i>(list)</i>	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER <i>(name)</i>
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
SD001	44.00	37.00	20.00	92.00	27.00	54.00	Mississippi River Surface Discharge
SD002	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
SD003	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
SD004	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
SD005	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
<b>II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES</b>							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUTFALL NO. <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW			3. TREATMENT			
	a. OPERATION <i>(list)</i>	b. AVERAGE FLOW <i>(include units)</i>		a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1		
	Intake Mississippi River			Background sample			
001	Cooling water and Condenser	490 mgd		Discharge to Surface Water	4-A		
	Circulating water						
002	Steam Generator Blowdown	10,000 gpd		Discharge to Surface Water	4-A		
003	Radioactive Waste Treatment System	3,000 gpd		Ion Exchange	2-J		
	Effluent						
004	Reverse Osmosis Effluent	3,400 gpd					
005	Unit 1 Turbine Building Sump	23,000 gpd		Carbon Adsorption	2-A		
				Sedimentation	1-U		
OFFICIAL USE ONLY <i>(effluent guidelines sub-categories)</i>							

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MND049537780

Form Approved.  
OMB No. 2040-0086.  
Approval expires 3-31-98.

Please print or type in the unshaded areas only.

<b>FORM 2C NPDES</b>		<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> <b>APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER</b> <b>EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS</b> <i>Consolidated Permits Program</i>					
<b>I. OUTFALL LOCATION</b>							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER <i>(list)</i>	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER <i>(name)</i>
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
SD006	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
SD010	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
SD012	44.00	37.00	20.00	92.00	27.00	54.00	Mississippi River Surface Discharge
WS001	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
WS002	44.00	37.00	20.00	92.00	27.00	54.00	via Mississippi River outfall 001
<b>II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES</b>							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUTFALL NO. <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW			3. TREATMENT			
	a. OPERATION <i>(list)</i>	b. AVERAGE FLOW <i>(include units)</i>		a. DESCRIPTION		b. LIST CODES FROM TABLE 2C-1	
006	Unit 2 Turbine Building Sump	55,000 gpd		Carbon Adsorption		2-A	
				Sedimentation		1-U	
010	Miscellaneous Plant Building	4,000 gpd		Discharge to Surface Water		4-A	
	Floor Drains			Carbon Adsorption		2-A	
				Sedimentation		1-U	
012	Screenwash and Fish return effluent	2 mgd		Discharge to Surface Water		4-A	
WS001	Unit 1 Plant Cooling Water	10.0 mgd		Discharge to Surface Water		4-A	
WS002	Unit 2 Plant Cooling Water	10.0 mgd		Discharge to Surface Water		4-A	
OFFICIAL USE ONLY <i>(effluent guidelines sub-categories)</i>							

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal? <input type="checkbox"/> YES (complete the following table) <input checked="" type="checkbox"/> NO (go to Section III)								
1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				C. DURATION (in days)
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
<b>III. PRODUCTION</b>								
A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility? <input checked="" type="checkbox"/> YES (complete Item III-B) <input type="checkbox"/> NO (go to Section IV)								
B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)? <input type="checkbox"/> YES (complete Item III-C) <input checked="" type="checkbox"/> NO (go to Section IV)								
C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.								
1. AVERAGE DAILY PRODUCTION						2. AFFECTED OUTFALLS (list outfall numbers)		
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)						
<b>IV. IMPROVEMENTS</b>								
A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. <input type="checkbox"/> YES (complete the following table) <input checked="" type="checkbox"/> NO (go to Item IV-B)								
1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE				
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED			
B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. <input type="checkbox"/> MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED								

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MND049537780

CONTINUED FROM PAGE 2

**V. INTAKE AND EFFLUENT CHARACTERISTICS**

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.  
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

**VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS**

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?  
 YES (list all such pollutants below)       NO (go to Item VI-B)

Empty space for listing pollutants.

CONTINUED FROM THE FRONT

**VII. BIOLOGICAL TOXICITY TESTING DATA**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

YES (identify the test(s) and describe their purposes below)  NO (go to Section VIII)

See Part VII Attachment.

**VIII. CONTRACT ANALYSIS INFORMATION**

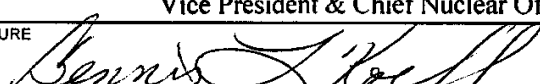
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

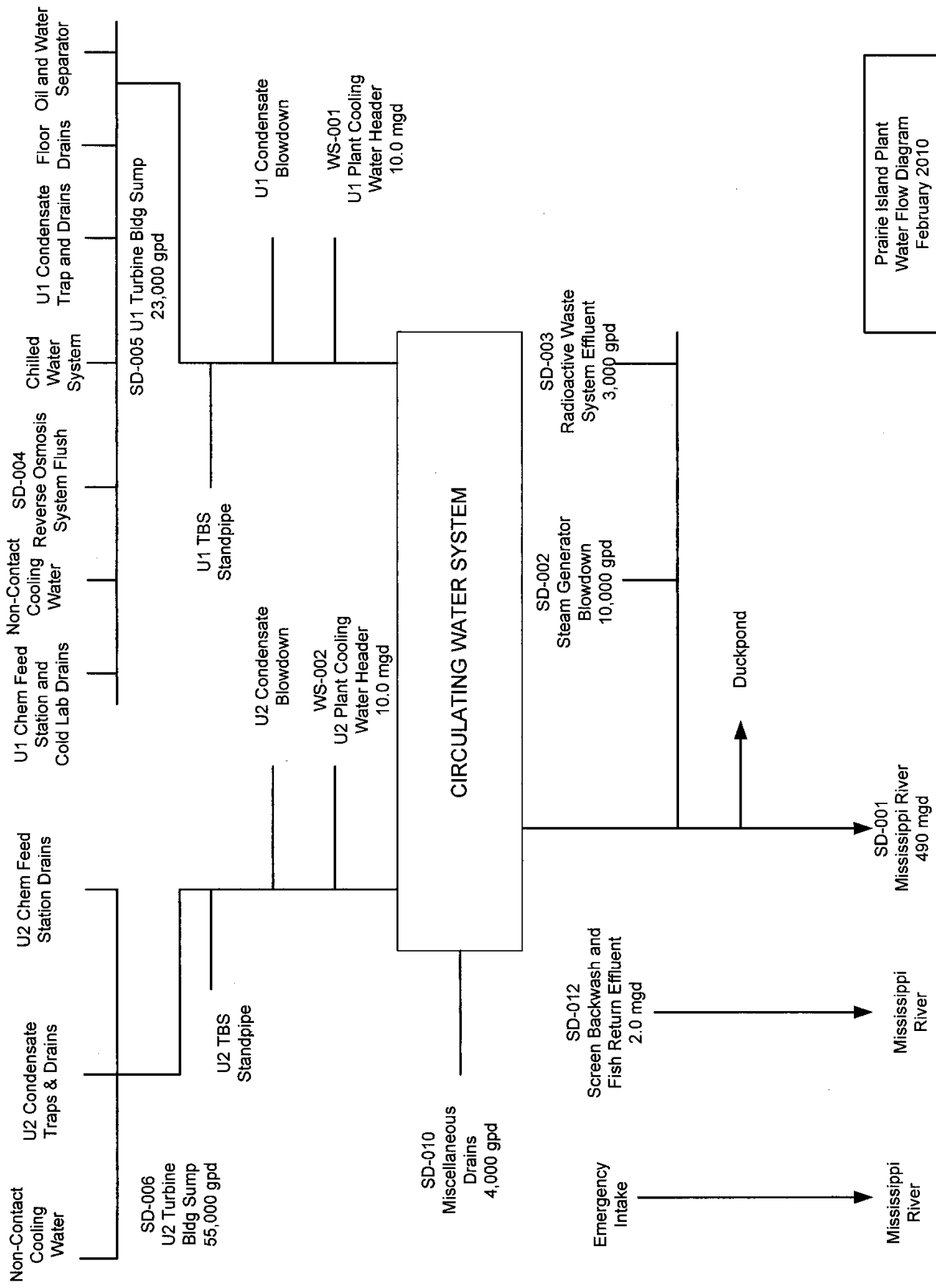
YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)  NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Pace Analytical Services, Inc	1700 Elm Street Suite 200 Minneapolis, MN 55414	612-607-1700	See enclosed EPA Form 3510-2C Part V SD001, SD002, SD005, SD006 SD010, Intake
Pace Analytical Services, Inc	1638 Roseytown Rd Suites 2,3 & 4 Greensburg, PA 15601	724-850-5600	Radwaste Treatment System Effluent SD003 EPA Form 3510-2C Part V

**IX. CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print) <b>Dennis L. Koehl Vice President &amp; Chief Nuclear Officer</b>	B. PHONE NO. (area code & no.) <b>612-330-2871</b>
C. SIGNATURE 	D. DATE SIGNED <b>2/17/10</b>



Prairie Island Plant  
Water Flow Diagram  
February 2010



**Part VII. Biological Toxicity Testing Data**

**Attachment**

# **TOXICITY TEST RESULTS**

## **XCEL ENERGY PRAIRIE ISLAND PLANT**

**Report Date: May 1, 2007**

**Project No. 2-7-044**

Prepared for:

**XCEL ENERGY  
Environmental Services  
414 Nicollet Mall  
Minneapolis, MN 55401**



**6265 Applewood Road • Woodbury, Minnesota 55125  
Phone 651 501-2075 • Fax 651 501-2076**



**PROJECT: WHOLE EFFLUENT TOXICITY TESTING  
XCEL ENERGY, PRAIRIE ISLAND PLANT**

**PROJECT NUMBER: 2-7-044**

---

## **TOXICITY TEST RESULTS**

### **INTRODUCTION:**

This report presents the results of toxicity testing on water samples received by Environmental Toxicity Control (ETC) on April 25, 2007. The samples were waste water discharge and its receiving water (Mississippi River) from the XCEL Energy Prairie Island Plant and were collected by plant employees on April 24, 2007. The scope of our services was limited to conducting a 96-hour static renewal acute toxicity test on the fathead minnow, *Pimephales promelas*, and a 48-hour static renewal acute toxicity test on the invertebrate, *Ceriodaphnia dubia*, in the laboratory.

### **SUMMARY:**

Our analysis determined that the water discharged by the XCEL Energy Prairie Island Plant was not acutely toxic in a 96-hour test to the minnow species tested and was not acutely toxic in a 48-hour test to the invertebrate species tested.

### **TEST METHODS:**

Tests were conducted in accordance with the procedures outlined in Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012.

Testing on both species was started on 4/25/07, approximately 24 hours after sample collection.

### **RESULTS:**

Toxicity test results are summarized in Table 1 and test conditions are summarized in Table 2.

No fathead minnow mortality nor *Ceriodaphnia dubia* mortality was observed in any of the test treatments.

**QUALITY ASSURANCE AND QUALITY CONTROL:**

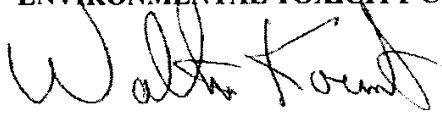
Satisfactory laboratory performance on an ongoing basis is demonstrated by conducting at least one acceptable toxicity test per month with a reference toxicant. Control charts for a reference toxicant and successive endpoints ( $LC_{50}$ ) are plotted to determine if results are within prescribed limits. Results from our most recent reference tests are shown in the following table:

Reference Toxicity Test,		
Species	$LC_{50}$	Test Date
<i>Pimephales promelas</i>	8.79 g/l NaCl	4/11/07
<i>Ceriodaphnia dubia</i>	2.14 g/l NaCl	4/11/07

Our results are within range of EPA expected results for the type of tests conducted.

Test methods and procedures are documented in ETC's Standard Operating Procedures (SOPs). Test and analysis protocols are reviewed by ETC's Quality Assurance/Quality Control Officer. Procedures are documented and followed as written. Any deviation from a QA/QC procedure is documented and kept in the project file. During this project, no deviation in method was warranted.

**ENVIRONMENTAL TOXICITY CONTROL**



Walter Koenst  
Bioassay Manager

**TABLE 1. PERCENT SURVIVAL OF *PIMEPHALES PROMELAS* (FATHEAD MINNOW) AND *CERIODAPHNIA DUBIA***

Percent Effluent	Fathead Minnow	<i>Ceriodaphnia dubia</i>
0 (Control)	100	100
6.25	100	100
12.5	100	100
25	100	100
50	100	100
100	100	100
Organism Age:	11 days	< 24 hours
LC <sub>50</sub>	N/A	N/A
Tu <sub>a</sub>	N/A	N/A

**TABLE 2. SUMMARY OF CHEMICAL AND PHYSICAL DATA OF TOXICITY TESTS**

Species: <i>Pimephales promelas</i>						
% Effluent	pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Total Hardness (mg/L)	Total Alkalinity (mg/L)	Conductivity (µmhos/cm)
Control	8.19 - 8.65	7.1 - 12.3	25	288	176	584
6.25	8.15 - 8.62	6.7 - 11.4	25			
12.5	8.16 - 8.64	6.7 - 11.4	25			
25	8.14 - 8.64	6.7 - 11.4	25			
50	8.16 - 8.64	6.7 - 11.3	25			
100	8.18 - 8.63	6.9 - 11.7	25	288	180	598

**TABLE 2 (CONTINUED). SUMMARY OF CHEMICAL AND PHYSICAL DATA OF TOXICITY TESTS**

<b>Species: Ceriodaphnia dubia</b>						
<b>% Effluent</b>	<b>pH</b>	<b>Dissolved Oxygen (mg/L)</b>	<b>Temperature (°C)</b>	<b>Total Hardness (mg/L)</b>	<b>Total Alkalinity (mg/L)</b>	<b>Conductivity (µmhos/cm)</b>
Control	8.51 - 8.65	8.4 - 12.3	25	288	176	584
6.25	8.50 - 8.62	8.4 - 11.4	25			
12.5	8.51 - 8.64	8.4 - 11.4	25			
25	8.52 - 8.64	8.4 - 11.4	25			
50	8.52 - 8.64	8.4 - 11.3	25			
100	8.50 - 8.63	8.4 - 11.7	25	288	180	598

EPA Methods:

<u>Parameter</u>	<u>EPA Method Number</u>
Dissolved oxygen (mg/L)	360.1
pH	150.1
Total Hardness (as mg/CaCO <sub>3</sub> /L)	130.2
Total Alkalinity (as mg/CaCO <sub>3</sub> /L)	310.2
Specific conductivity (µmhos/cm)	120.1

**BIOASSAY TEST CONDITIONS**

Client: <u>Xcel Energy</u>	Project No.: <u>2-7-044</u>
Type of sample: <u>Composite</u>	Test type: <u>Acute</u>
Test length: <u>96h</u>	Species: <u>Pimephales promelas</u>
# of treatments: <u>6</u>	Organism age: <u>11 days</u>
# of replicates: <u>2</u>	mL/replicate: <u>250</u>
Organisms/rep.: <u>10</u>	Organisms/treatment: <u>20</u>
Temperature (°C): <u>25.0</u>	Light intensity: <u>60-65 ft-c</u>
Type of dilution water: <u>Receiving</u>	Photoperiod: <u>16/8</u>
Collection date/time of sample/effluent: <u>1505, 1535, 1605 4/24/07</u>	Source: <u>Mississippi River</u>

**TEST SOLUTION PREPARATION**

Nominal conc. or % effluent	0	6.25	12.5	25	50	100	
mL of effluent or stock	0	40	80	160	320	640	
mL of dilution water	640	600	560	480	320	0	
TOTAL mL	640	640	640	640	640	640	

Comments:

Analyst: SW

Reviewed by: Walter Kowal

ACUTE TOXICITY TEST SURVIVAL DATA

Client: Xcel Energy		Project # 2-7-044		Species/Age: Pimephales promelas / 11 days							
Date/Time/Analyst		0 Hour	1420 4/25/07 24 Hour SW		1400 4/27/07 48 Hour SW		1400 4/28/07 72 Hour SW		1420 4/29/07 96 Hour SW		Remarks/Observations
Conc.	Rep	# of Org.	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	
Control	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
6.25	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
12.5	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
25	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
50	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
100	A	10	10	0	10	0	10	0	10	0	
	B	10	10	0	10	0	10	0	10	0	
	C										
	D										
A											
B											
C											
D											

KEY TO OBSERVATIONS:  
 N = Normal behavior  
 L = Lethargic behavior  
 P = Pigmentation change

Test start: 1420 4/25/07  
 Test termination: 1420 4/29/07  
 Reviewed by: LJK



**Toxicity Test  
Daily Chemistries**

Client: <u>XCEL ENERGY</u>	Project Number: <u>2-7-044</u>
Test Type: <u>Acids</u>	Species: <u>Pimephales promelas</u>

Day/Date/Analyst	Parameter	Concentration						Remarks
		0	6.25	12.5	25	50	100	
Day: <u>0</u>	pH	<u>8.65</u>	<u>8.62</u>	<u>8.64</u>	<u>8.64</u>	<u>8.64</u>	<u>8.63</u>	
	Dissolved Oxygen (mg/l)	<u>12.3</u>	<u>11.4</u>	<u>11.4</u>	<u>11.4</u>	<u>11.3</u>	<u>11.7</u>	
Date: <u>4/25/07</u>	Temperature (°C)	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	
	Conductivity (µmhos)	<u>584</u>					<u>598</u>	
Analyst: <u>Wk.</u>	Total Alkalinity (mg/l)	<u>176</u>					<u>180</u>	
	Total Hardness (mg/l)	<u>288</u>					<u>288</u>	
	Total Ammonia (mg/l)							
Day: <u>1</u> <u>old</u>	pH	<u>8.19</u>	<u>8.15</u>	<u>8.16</u>	<u>8.14</u>	<u>8.16</u>	<u>8.18</u>	
	Dissolved Oxygen (mg/l)	<u>7.1</u>	<u>6.7</u>	<u>6.7</u>	<u>6.7</u>	<u>6.9</u>	<u>7.0</u>	
Date: <u>4/26/07</u>	Temperature (°C)	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>1</u> <u>New</u>	pH	<u>8.58</u>	<u>8.58</u>	<u>8.59</u>	<u>8.59</u>	<u>8.58</u>	<u>8.57</u>	
	Dissolved Oxygen (mg/l)	<u>10.8</u>	<u>9.8</u>	<u>10.1</u>	<u>10.1</u>	<u>10.1</u>	<u>10.6</u>	
Date: <u>4/26/07</u>	Temperature (°C)	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>2</u> <u>old</u>	pH	<u>8.21</u>	<u>8.22</u>	<u>8.21</u>	<u>8.20</u>	<u>8.18</u>	<u>8.22</u>	
	Dissolved Oxygen (mg/l)	<u>7.2</u>	<u>7.1</u>	<u>6.9</u>	<u>7.0</u>	<u>6.9</u>	<u>7.1</u>	
Date: <u>4/27/07</u>	Temperature (°C)	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>2</u> <u>New</u>	pH	<u>8.48</u>	<u>8.55</u>	<u>8.55</u>	<u>8.55</u>	<u>8.55</u>	<u>8.55</u>	
	Dissolved Oxygen (mg/l)	<u>9.5</u>	<u>10.6</u>	<u>10.5</u>	<u>10.5</u>	<u>10.4</u>	<u>10.9</u>	
Date: <u>4/27/07</u>	Temperature (°C)	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							

Reviewed by: Walter Kound

Date: 5/1/07

Toxicity Test  
Daily Chemistries

Client: <u>Xcel Energy</u>	Project Number: <u>2-7-044</u>
Test Type: <u>Acute</u>	Species: <u>P. promelas</u>

Day/Date/Analyst	Parameter	Concentration						Remarks
		0	6.25	12.5	25	50	100	
Day: <u>3</u> <u>old</u>	pH	8.23	8.27	8.26	8.25	8.25	8.29	
	Dissolved Oxygen (mg/l)	7.3	7.0	6.8	6.8	6.8	6.9	
Date: <u>4/28/07</u>	Temperature (°C)	25.2	25.2	25.2	25.2	25.2	25.2	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
	Total Ammonia (mg/l)							
Day: <u>3</u> <u>New</u>	pH	8.50	8.53	8.53	8.53	8.51	8.55	
	Dissolved Oxygen (mg/l)	10.3	9.5	9.6	9.7	9.7	10.1	
Date: <u>4/28/07</u>	Temperature (°C)	25.0	25.0	25.0	25.0	25.0	25.0	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>4</u> <u>FINAL</u>	pH	8.32	8.22	8.21	8.31	8.20	8.23	
	Dissolved Oxygen (mg/l)	7.4	7.0	6.9	6.8	6.7	7.1	
Date: <u>4/29/07</u>	Temperature (°C)	25.4	25.4	25.4	25.4	25.4	25.4	
	Conductivity (µmhos)							
Analyst: <u>WK</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>  </u>	pH							
	Dissolved Oxygen (mg/l)							
Date: <u>  /  /</u>	Temperature (°C)							
	Conductivity (µmhos)							
Analyst: <u>  </u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>  </u>	pH							
	Dissolved Oxygen (mg/l)							
Date: <u>  /  /</u>	Temperature (°C)							
	Conductivity (µmhos)							
Analyst: <u>  </u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							

Reviewed by: W. K. Kount

Date: 5/1/07

**BIOASSAY TEST CONDITIONS**

Client: <i>Xcel Energy</i>	Project No.: <i>2-7-044</i>
Type of sample: <i>Composite</i>	Test type: <i>Acute</i>
Test length: <i>48h</i>	Species: <i>Ceriodaphnia dubia</i> Organism age: <i>&lt;24h</i>
# of treatments: <i>6</i>	# of replicates: <i>4</i> mL/replicate: <i>15</i>
Organisms/rep.: <i>5</i>	Organisms/treatment: <i>20</i>
Temperature (°C): <i>25.0</i>	Light intensity: <i>60-65 ft-c</i> Photoperiod: <i>16/8</i>
Type of dilution water: <i>Receiving</i>	Source: <i>Mississippi River</i>
Collection date/time of sample/effluent:	<i>1505, 1535, 1605 4/24/07</i>

**TEST SOLUTION PREPARATION**

Nominal conc. or % effluent	0	6.25	12.5	25	50	100	
mL of effluent or stock	0	40	80	160	320	640	
mL of dilution water	640	600	560	480	320	0	
TOTAL mL	640	640	640	640	640	640	

Comments:

Analyst: *SW*

Reviewed by: *Walt Kord*

ACUTE TOXICITY TEST SURVIVAL DATA

Client: <u>Xcel Energy</u>		Project # <u>2-7-044</u>				Species/Age: <u>Ceriodaphnia dubia / &lt; 24h</u>					
Date/Time/Analyst		0 Hour	1410 4/26/07 24 Hour		1410 4/27/07 48 Hour		72 Hour		96 Hour		Remarks/Observations
Conc.	Rep	# of Org.	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	
Control	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
6.25	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
12.5	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
25	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
50	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
100	A	5	5	0	5	0					
	B	5	5	0	5	0					
	C	5	5	0	5	0					
	D	5	5	0	5	0					
A											
B											
C											
D											

KEY TO OBSERVATIONS:  
 N = Normal behavior  
 L = Lethargic behavior  
 P = Pigmentation change

Test start: 1410 4/25/07  
 Test termination: 1410 4/27/07  
 Reviewed by: WJR

**Toxicity Test**  
Daily Chemistries

Client: <u>Xcel Energy</u>	Project Number: <u>2-7-044</u>
Test Type: <u>Acute</u>	Species: <u>Ceriodaphnia dubia</u>

Day/Date/Analyst	Parameter	Concentration						Remarks
		0	6.25	12.5	25	50	100	
Day: <u>0</u>	pH	<u>8.65</u>	<u>8.62</u>	<u>8.64</u>	<u>8.64</u>	<u>8.64</u>	<u>8.63</u>	
	Dissolved Oxygen (mg/l)	<u>12.3</u>	<u>11.4</u>	<u>11.4</u>	<u>11.4</u>	<u>11.3</u>	<u>11.7</u>	
Date: <u>4/25/07</u>	Temperature (°C)	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	
	Conductivity (µmhos)	<u>584</u>					<u>598</u>	
Analyst: <u>WK/sw</u>	Total Alkalinity (mg/l)	<u>176</u>					<u>180</u>	
	Total Hardness (mg/l)	<u>288</u>					<u>288</u>	
	Total Ammonia (mg/l)							
Day: <u>1 old</u>	pH	<u>8.51</u>	<u>8.50</u>	<u>8.51</u>	<u>8.52</u>	<u>8.52</u>	<u>8.50</u>	
	Dissolved Oxygen (mg/l)	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	
Date: <u>4/26/07</u>	Temperature (°C)	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>1 New</u>	pH	<u>8.58</u>	<u>8.58</u>	<u>8.59</u>	<u>8.59</u>	<u>8.58</u>	<u>8.57</u>	
	Dissolved Oxygen (mg/l)	<u>10.8</u>	<u>9.8</u>	<u>10.1</u>	<u>10.1</u>	<u>10.1</u>	<u>10.6</u>	
Date: <u>4/26/07</u>	Temperature (°C)	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day: <u>2 Final</u>	pH	<u>8.52</u>	<u>8.52</u>	<u>8.52</u>	<u>8.52</u>	<u>8.52</u>	<u>8.52</u>	
	Dissolved Oxygen (mg/l)	<u>8.6</u>	<u>8.5</u>	<u>8.5</u>	<u>8.5</u>	<u>8.6</u>	<u>8.5</u>	
Date: <u>4/27/07</u>	Temperature (°C)	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	<u>25.3</u>	
	Conductivity (µmhos)							
Analyst: <u>SW</u>	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							
Day:	pH							
	Dissolved Oxygen (mg/l)							
Date: <u>1/1</u>	Temperature (°C)							
	Conductivity (µmhos)							
Analyst:	Total Alkalinity (mg/l)							
	Total Hardness (mg/l)							

Reviewed by: Walter Kuentz

Date: 5/1/07

## CORRESPONDENCE/MEMORANDUM

DATE: May 23, 2007

TO: John Sullivan – WC/LaCrosse

FROM: Kari Fleming - Biomonitoring Coordinator, Bureau of Watershed Management

SUBJECT: **SLH Biomonitoring Results for Prairie Island Nuclear Generating Plant**

Attached is a copy of the "Whole Effluent Toxicity Test Report Form", which summarizes the toxicity tests completed by the University of Wisconsin-Madison's State Laboratory of Hygiene (SLH) with samples collected in April 2007 from the Prairie Island Nuclear Generating Plant.

Acute tests passed with *Ceriodaphnia dubia*, the fathead minnow, and fat mucket juvenile mussels ( $LC_{50} > 100\%$  for each species). The  $LC_{50}$  is a statistical interpretation of acute data, which predicts the percentage of effluent that would cause 50% of the test population to die. This is a standard measure used to predict whether an effluent has the potential to have an effect on the survival of aquatic life in the receiving stream.

Chronic tests passed with *Ceriodaphnia dubia*, the fathead minnow, and the green algae, *Selenastrum capricornutum* ( $IC_{25} > 100\%$  for each species). An  $IC_{25}$  is a statistical interpretation of chronic data, which predicts the percentage of effluent that would cause a significant reduction (25%) in growth or reproduction of the test population, when compared to a control. This is a standard measure used to predict whether an effluent has the potential to have a damaging effect on the reproduction or growth of aquatic life in the receiving stream.

**Based on these toxicity test results, it has been determined that the effluent tested on April 25, 2007 from Prairie Island Nuclear Generating Plant did not appear to have the potential to impact the aquatic life community of the Mississippi River.**

If you have any questions concerning this report or biomonitoring in general, please call me at (608) 267-7663 or email to: [Kari.Fleming@dnr.state.wi.us](mailto:Kari.Fleming@dnr.state.wi.us).

Cc: Paul LaLiberte - WCR

## WHOLE EFFLUENT TOXICITY (WET) TEST REPORT FORM

GENERAL INFORMATION											
FACILITY: <b>Prairie Island Nuclear Generating P</b>					PERMIT NO.: MN00004006						
OUTFALL NO.: NA					LABORATORY NAME: Wisconsin State Laboratory of Hygiene						
RECEIVING WATER: Mississippi River					REPORT NUMBER: FR000810						
REPORT TYPE: <input checked="" type="checkbox"/> Original <input type="checkbox"/> Amended					If amended, original report number:						
SAMPLE INFORMATION											
SAMPLE NO.	SAMPLE TYPE	SAMPLE COLLECTION			SAMPLE TEMP °C		pH at LAB	HAND DELIVER? (If Yes, ≤ 4 hr?)	HOLD TIME ≤ 36 HR?	SAMPLE ACCEPTABLE?	
		BEGINNING DATE	END DATE	DATE at LAB	COLLECTION	AT LAB					
1	RW-G	4/24/2007		4/25/2007	15.0	5.8	8.82	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2	EFF-24C	4/24/2007	4/24/2007*	4/25/2007	18.8	8.3	8.83	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Describe any unusual conditions during sampling that may influence test results. (see Part 6.1.2 of the Methods Manual for examples.)											
COMMENTS: * composite sample was taken. 1.5 hours long.											
TEST INFORMATION											
ACUTE					CHRONIC						
Date Test Initiated: 4/25/2007					Date Test Initiated: 4/25/2007						
Tests Are For: WPDES Compliance (Required by Permit) ▼					Tests Are For: WPDES Compliance (Required by Permit) ▼						
Date of Initial Test:					Date of Initial Test:						
ZID/IWC Info.: ZID Compliance Concentration =					Instream Waste Concentration = 59%						
Dilution Water:			C. dubia			FHM			Other		
			<input checked="" type="checkbox"/> RW			<input checked="" type="checkbox"/> RW			<input checked="" type="checkbox"/> RW		
			<input type="checkbox"/> LW			<input type="checkbox"/> LW			<input type="checkbox"/> LW		
			<input checked="" type="checkbox"/> RW			<input checked="" type="checkbox"/> RW			<input checked="" type="checkbox"/> RW		
			<input type="checkbox"/> LW			<input type="checkbox"/> LW			<input type="checkbox"/> LW		
QA/QC CONDITIONS											
Temperatures maintained during test? (20 ± 1°C or 25 ± 1°C)							ACUTE		CHRONIC		
							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Dissolved oxygen ≥ 4.0 mg/l throughout test?							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Effluent pH maintained within 6.0 - 9.0 s.u. throughout test?							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Concurrent or monthly reference tests within acceptable limits?							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Tests conducted in a carbon dioxide atmosphere throughout test?							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Light intensity for <i>Selenastrum</i> maintained throughout test? (4,300 ± 430 lux)							<input type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were effluent samples modified prior to testing?(ex. filtration, aeration, chem addition)							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
COMMENTS: NOTE: Algae test temps were elevated. 26.0-27.3 in the blank wells. Incubator temps were adjusted and the final temps were within range.											
WATER CHEMISTRY (All values reported in mg/L, except pH)											
SAMPLE TYPE	NO.	HARDNESS	ALKALINITY	TOTAL AMMONIA	pH (s.u.) After Warming	TOTAL RESIDUAL CHLORINE					
Receiving Water	NA	288	185	<0.2	8.7	NA					
Effluent	#1	292	190	<0.2	8.7	<0.01					
	#2										
	#3										
Lab Water	MHW	80	60	NA	8.1	NA					
	DC	128	300	NA	8.9	NA					
COMMENTS: MHW = Moderately hard water is used as the lab control water for the <i>Ceriodaphnia dubia</i> test. DC = Dechlorinated Madison tap water is used as the lab control for the fathead minnow test.											

**ACUTE TEST CONTROL PERFORMANCE**

RECEIVING WATER CONTROLS		LAB WATER CONTROLS	
Fathead Minnow	<i>Ceriodaphnia dubia</i>	Fathead Minnow	<i>Ceriodaphnia dubia</i>
Survival > 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 90% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
COMMENTS:			

**ACUTE TEST DATA**

SPECIES	EFFLUENT TREATMENT	Percent Survival By Replicate				Mean Percent Survival
		1	2	3	4	
Fathead Minnow Age of Organism: 10 Days	LW Control	100	100	90	100	97.5
	RW Control	100	100	100	100	100.0
	6.25%	100	100	80	100	95.0
	12.5%	90	100	100	100	97.5
	25%	100	100	100	100	100.0
	50%	100	100	100	100	100.0
100%	90	100	100	100	97.5	

**FATHEAD MINNOW ACUTE RESULTS:** LC<sub>50</sub> = >100% C.I.% = none TU<sub>a</sub> = 1.00  
 Statistics Program:  Probit  Spearman-Kärber  Other (See Comments Below)

*Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

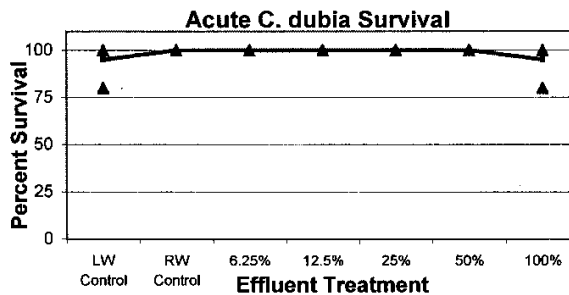
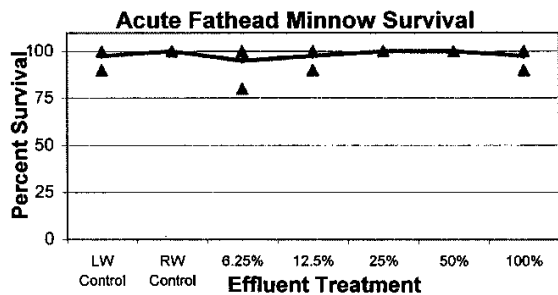
COMMENTS:

SPECIES	EFFLUENT TREATMENT	Percent Survival By Replicate				Mean Percent Survival
		1	2	3	4	
<i>Ceriodaphnia dubia</i> Age of Organism: < 24 Hours Old	LW Control	100	80	100	100	95.0
	RW Control	100	100	100	100	100.0
	6.25%	100	100	100	100	100.0
	12.5%	100	100	100	100	100.0
	25%	100	100	100	100	100.0
	50%	100	100	100	100	100.0
100%	100	80	100	100	95.0	

***Ceriodaphnia dubia* ACUTE RESULTS:** LC<sub>50</sub> = >100% C.I.% = none TU<sub>a</sub> = 1.00  
 Statistics Program:  Probit  Spearman-Kärber  Other (See Comments Below)

*Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

COMMENTS:



Facility : Prairie Island Nuclear Generating Plant  
 Permit # : MN00004006  
 Report # : FR000810  
 Acute Test Date : 4/25/2007



CHRONIC TEST CONTROL PERFORMANCE			
RECEIVING WATER CONTROLS		LAB WATER CONTROLS	
<b>Fathead Minnow</b>	<b>Ceriodaphnia dubia</b>	<b>Fathead Minnow</b>	<b>Ceriodaphnia dubia</b>
Survival > 80% <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Survival > 80% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 80% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival > 80% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
> 0.25 mg/fish <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	> 15 neonates/female <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	> 0.25 mg/fish <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	> 15 neonates/female <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Survival Weight CV ≤ 40% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reproduction CV ≤ 40% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Survival Weight CV ≤ 40% <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reproduction CV ≤ 40% <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
%CV = 23	> 80% 3rd brood <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ≤ 20% males <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	%CV = 8	> 80% 3rd brood <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ≤ 20% males <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

COMMENTS:

### CHRONIC TEST DATA

SPECIES	EFFLUENT TREATMENT	MEAN % SURVIVAL	MEAN DRY BIOMASS PER REPLICATE PAIR (mg)					MEAN BIOMASS (mg)	SURVIVAL WEIGHT %CV
			1	2	3	4	5		
Fathead Minnow Growth & Survival Test	LW Control	100%	0.368	0.348	0.400	0.333	0.390	0.368	8
	survival weight		0.368	0.348	0.400	0.333	0.390		
	RW Control	79%	0.378	0.385	0.160	0.368	0.363	0.331	23
	survival weight		0.378	0.513	0.320	0.368	0.545		
	13%	100%	0.345	0.393	0.380	0.388	0.338	0.369	
	25%	95%	0.315	0.388	0.363	0.340	0.403	0.362	
	50%	100%	0.365	0.368	0.383	0.392	0.495	0.401	
75%	100%	0.453	0.323	0.375	0.455	0.413	0.404		
100%	85%	0.320	0.375	0.333	0.455	0.358	0.368		

FHM CHRONIC RESULTS: IC<sub>25</sub> = >100% C.I.% = none rTUC = 1.00

Statistics Program:  EPA's ICp  Other (See Comments Below)

COMMENTS:

SPECIES	EFFLUENT TREATMENT	NEONATE PRODUCTION BY REPLICATE										MEAN NEONATES	%CV	% ADULT SURVIVAL
		1	2	3	4	5	6	7	8	9	10			
C. dubia Reproduction & Survival Test	LW Control	27	39	19	29	21	36	31	0	LA	30	26	45	90%
	RW Control	3	42	41	29	37	37	31	36	32	35	32	34	100%
	13%	32	36	42	36	33	38	35	15	36	34	34		90%
	25%	31	35	19	21	37	32	37	30	38	30	31		90%
	50%	44	36	32	30	41	41	21	43	40	37	37		90%
	75%	32	41	36	28	24	34	37	45	29	38	34		100%
100%	31	29	19	27	36	35	32	31	34	30	30		90%	

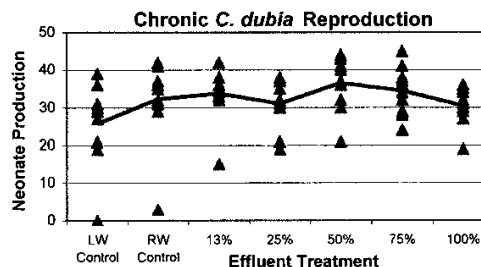
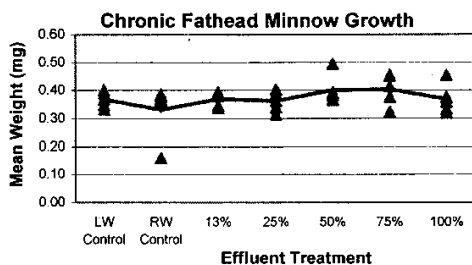
Male Production ≤ 20% Over All Treatments?  Yes  No

C. dubia CHRONIC RESULTS: IC<sub>25</sub> = >100% C.I.% = none rTUC = 1.00

Statistics Program:  EPA's ICp  Other (See Comments Below)

Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)

COMMENTS:



Facility : Prairie Island Nuclear Generating Plant

Permit # : MN00004006

Report # : FR000810

Chronic Test Date : 4/25/2007

**CHRONIC TEST CONTROL PERFORMANCE**

**RECEIVING WATER CONTROLS**

*Selenastrum*  
 $\geq 1 \times 10^6$  cells/ml  
 ( $\geq 130$  Fluorescence)  
 Yes    No  
  
 $CV \leq 20\%$   
 Yes    No  
 %CV = 1

**LAB WATER CONTROLS**

*Selenastrum*  
 $\geq 1 \times 10^6$  cells/ml  
 ( $\geq 130$  Fluorescence)  
 Yes    No  
  
 $CV \leq 20\%$   
 Yes    No  
 %CV = 5

**GROWTH MEASUREMENT PER REPLICATE**

SPECIES	EFFLUENT TREATMENT	blank	1		2		3		4		MEAN GROWTH	%CV
			initial	adjusted	initial	adjusted	initial	adjusted	initial	adjusted		
<i>Selenastrum capricornutum</i> GROWTH TEST	LW Control	20	170	150	169	149	155	135	170	150	146	5
	RW Control	22	168	146	167	145	164	142	165	143	144	1
	13%	22	163	141	168	146	164	142	155	133	141	4
	25%	22	187	165	167	145	174	152	162	140	151	7
	50%	22	170	148	177	155	168	146	165	143	148	3
	75%	22	161	139	181	159	179	157	173	151	152	6
	100%	22	169	147	169	147	166	144	169	147	146	1

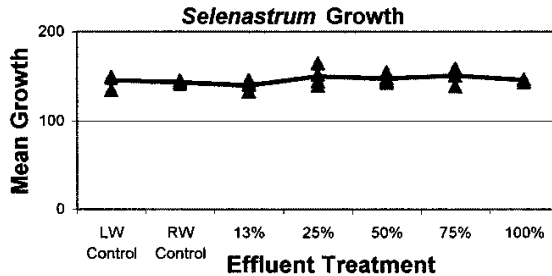
**Test Type:**    flask    microplate      **Endpoint:**    count    spec.    fluor.

***Selenastrum* CHRONIC RESULTS: IC<sub>50</sub> = >100%      C.I.% = none      rTUc = 1.00**

**Statistics Program:**    EPA's ICp    Other (See Comments Below)

*Please describe any unusual appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*

**COMMENTS:** Two blank wells (treatments 1 and 5) had a brown growth resulting in high blank readings in those wells (30 and 88, respectively). These numbers were not used and an average blank reading of 22 was calculated from the blank readings of treatments 2,3,4 and 6.



Facility : Prairie Island Nuclear Genera  
 Permit # : MN00004006  
 Report # : FR000810  
 Chronic Test Date : 4/25/2007

**ACUTE TEST CONTROL PERFORMANCE**

RECEIVING WATER CONTROLS		LAB WATER CONTROLS	
Fat mucket		Fat mucket	
Survival > 90%		Survival > 90%	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

COMMENTS:

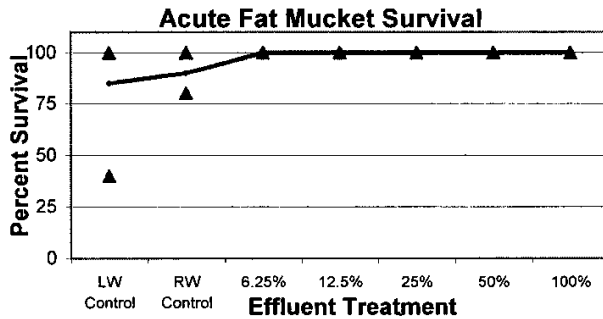
**ACUTE TEST DATA**

SPECIES	EFFLUENT TREATMENT	Percent Survival By Replicate				Mean Percent Survival
		1	2	3	4	
Fat mucket Age: 2-3 months	LW Control	100	100	40	100	85.0
	RW Control	100	100	80	80	90.0
	6.25%	100	100	100	100	100.0
	12.5%	100	100	100	100	100.0
	25%	100	100	100	100	100.0
	50%	100	100	100	100	100.0
100%	100	100	100	100	100.0	

**FAT MUCKET ACUTE RESULTS:**       $LC_{50} = >100\%$      $C.I.\% = \text{none}$      $TU_a = 1.00$

Statistics Program:  Probit     Spearman-Kärber     Other (See Comments Below)

*Please describe any unusual behavior and/or appearance of organisms. (see Part 6.1.2 of the Methods Manual for ex.)*



Facility : Prairie Island Nuclear Generating Plant  
 Permit # : MN0004006  
 Report # : FR000810  
 Acute Test Date : 4/25/2007

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I also certify that these results relate only to these samples.

LAB REPRESENTATIVE:	Miel Barman	SIGNATURE:	
DATE:	5/23/2007		
PHONE:	(608) 224-6230	WDNR LAB CERT #:	113133790
		NELAP CERT #:	E37658
LAB ADDRESS:	Wisconsin State Laboratory of Hygiene, 2601 Agriculture Drive, Madison, WI 53718		
REVIEWED BY:		DATE:	
PERMITTEE REPRESENTATIVE:		SIGNATURE:	
PHONE:		DATE:	

Send **all 5 pages** of this form (plus any attachments or additional information which you believe to be relevant to the test) to: Biomonitoring Coordinator, Bureau of Watershed Management, Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, WI 53707-7921; according to the timelines specified in your WPDES permit.

Copies of the State of Wisconsin Aquatic Life Toxicity Testing Methods Manual (Methods Manual) and the WET Guidance Document can be obtained from the Biomonitoring Coordinator at the address given above or at: <http://dnr.wi.gov/org/water/wm/www/biomon/biomon.htm>

TO BE COMPLETED BY THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES			
		DID TESTS PASS?	
ACUTE	Fathead Minnow	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Inconclusive <input type="checkbox"/> Unacceptable
	<i>Ceriodaphnia dubia</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Inconclusive <input type="checkbox"/> Unacceptable
CHRONIC	Fathead Minnow	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Inconclusive <input type="checkbox"/> Unacceptable
	<i>Ceriodaphnia dubia</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Inconclusive <input type="checkbox"/> Unacceptable
Retests Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Acute / Chronic: Both Species <input type="checkbox"/> <i>C. dubia</i> only <input type="checkbox"/> FHM only	
Due To:	<input type="checkbox"/> Failure <input type="checkbox"/> QA Problem		
WET Limit Violation?	<input type="checkbox"/> Yes <input type="checkbox"/> No limit in permit	Results Entered Into Database? <input type="checkbox"/> Yes <input type="checkbox"/> No	
COMMENTS:	Algae test and Fat Mucket acute also "passed". NO effluent toxicity was indicated.		
REVIEWED BY:	Kari Fleming	DATE: May 23, 2007	
CC:	John Sullivan - WCR/LaCrosse		
	Paul LaLiberte - WCR		

Facility : Prairie Island Nuclear Generati  
 Permit # : MN00004006  
 Report # : FR000810  
 Test Date : 4/25/2007

MND049537780

OUTFALL NO.  
Intake

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVERG. VALUE (if available)		3. UNITS (specify if dilute)		4. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERG. VALUE (1) CONCENTRATION	d. NO. OF ANALYSES (2) MASS	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE (1) CONCENTRATION	h. NO. OF ANALYSES (2) MASS
a. Biochemical Oxygen Demand (BOD)	ND			1	mg/L			
b. Chemical Oxygen Demand (COD)	28			1	mg/L			
c. Total Organic Carbon (TOC)	7.82			1	mg/L			
d. Total Suspended Solids (TSS)	23.2			1	mg/L			
e. Ammonia (as N)	0.23			1	mg/L			
f. Flow	VALUE 780.7	VALUE 771.6	VALUE	731	MGD		VALUE	
g. Temperature (winter)	VALUE 56.4	VALUE 47.6	VALUE	363	% OF		VALUE	
h. Temperature (summer)	VALUE 79.1	VALUE 76.2	VALUE	368	% OF		VALUE	
i. pH	MINIMUM 8.21	MAXIMUM 8.21	MINIMUM	1	STANDARD UNITS			

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' (a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z)	3. EFFLUENT		3. LONG TERM AVERG. VALUE (if available)		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERG. VALUE (1) CONCENTRATION	d. NO. OF ANALYSES (2) MASS	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE (1) CONCENTRATION	h. NO. OF ANALYSES (2) MASS
a. Bromide (24959-67-9)	X	ND			1	mg/L			
b. Chlorine Total Residual	X	<0.03			1	mg/L			
c. Color	X	60.0			1	units			
d. Fecal Coliform	X	14			1	CFU/100 mL			
e. Fluoride (16984-48-3)	X	<0.4			1	mg/L			
f. Nitrate-Nitrite (as N)	X	4.03			1	mg/L			

ITEM V-B CONTINUED FROM FRONT

1. ANAL. CAS NO. (if available)	2. MARK 'X' IN THESE SPACES IF APPLICABLE	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	6. NO. OF ANAL. YSES
		7. MAXIMUM DAILY VALUE (1) CONCENTRATION	8. MAXIMUM DAILY VALUE (2) MASS	9. CONCENTRATION	10. MASS		
B. Nitrogen, Total Organic (as N)	X	1.07			Mg/L		1
A. Oil and Grease	X	<4			Mg/L		1
L. Phosphorus (as P), Total (7723-14-0)	X	0.095			Mg/L		1
J. Radioactivity							
(1) Alpha, Total	X	3.99 ± 2.21			pCi/L		1
(2) Beta, Total	X	140 ± 0.952			pCi/L		1
(3) Radium, Total	X	1.25 ± 0.523			pCi/L		1
(4) Radium 226, Total	X	0.342 ± 0.178			pCi/L		1
k. Sulfate (as SO <sub>4</sub> ) (14806-79-8)	X	73.39			Mg/L		1
l. Sulfide (as S)	X	ND			Mg/L		1
m. Sulfite (as SO <sub>3</sub> ) (14266-46-3)	X	ND			Mg/L		1
n. Surfactants	X	<0.03			Mg/L		1
o. Aluminum, Total (7429-90-5)	X	0.60			Mg/L		1
p. Barium, Total (7440-39-3)	X	0.07			Mg/L		1
q. Boron, Total (7440-42-8)	X	0.09			Mg/L		1
r. Cobalt, Total (7440-48-4)	X	<0.02			Mg/L		1
s. Iron, Total (7439-89-6)	X	0.76			Mg/L		1
t. Magnesium, Total (7439-95-4)	X	30.9			Mg/L		1
u. Molybdenum, Total (7439-98-7)	X	<0.05			Mg/L		1
v. Manganese, Total (7439-96-6)	X	0.07			Mg/L		1
w. Tin, Total (7440-31-6)	X	<2.0			Mg/L		1
x. Titanium, Total (7440-32-6)	X	0.02			Mg/L		1

**MND049537780 Intake**

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2c for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if applicable)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	a. TESTED	b. PRESENT	8. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	g. LONG TERM AVG. VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	9. CONCENTRATION	b. MASS	8. LONG TERM AVERAGE VALUE (1) CONCENTRATION	c. NO. OF ANALYSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>										
1M. Arsenic, Total (7440-36-0)	X		< 0.5			1	µg/L			
2M. Arsenic, Total (7440-38-2)	X		< 2			1	µg/L			
3M. Beryllium, Total, 7440-41-7)	X		< 0.01			1	mg/L			
4M. Cadmium, Total (7440-43-8)	X		< 0.5			1	µg/L			
5M. Chromium, Total (7440-47-3)	X		< 0.02			1	mg/L			
6M. Copper, Total (7440-50-6)	X		< 0.02			1	mg/L			
7M. Lead, Total (7439-92-1)	X		< 1.0			1	µg/L			
8M. Mercury, Total (7439-97-6)	X		< 0.5			1	µg/L			
9M. Nickel, Total (7440-02-0)	X		< 0.02			1	mg/L			
10M. Selenium, Total (7782-49-2)	X		< 2.0			1	µg/L			
11M. Silver, Total (7440-22-4)	X		< 0.01			1	mg/L			
12M. Tellurium, Total (7440-28-0)	X		< 1.0			1	µg/L			
13M. Zinc, Total (7440-66-6)	X		< 0.05			1	mg/L			
14M. Cyanide, Total (57-12-6)	X		ND			1	mg/L			
15M. Phenols, Total	X		178			1	µg/L			

<b>DIOXIN</b>										
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)		X								

DESCRIBE RESULTS

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' STREET ADDRESS (if available)	3. EFFLUENT		3. EFFLUENT		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) MASS CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANAL. YRS	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE (1) CONCENTRATION	h. NO. OF ANAL. YRS		
GC/MS FRACTION - VOLATILE COMPOUNDS											
1V. Acrolein (107-02-6)	X	ND					1	mg/L			
2V. Acrylonitrile (107-13-1)	X	ND					1	mg/L			
3V. Benzene (71-43-2)	X	ND					1	mg/L			
4V. Bis (Chloromethyl) Ether (542-88-1)		NA	Removed from the federal pollutants list	organic toxic							
5V. Bromoform (76-25-2)	X	ND					1	mg/L			
6V. Carbon Tetrachloride (56-23-6)	X	ND					1	mg/L			
7V. Chlorobenzene (108-90-7)	X	ND					1	mg/L			
8V. Chlorodibromomethane (124-48-1)	X	ND					1	mg/L			
9V. Chloroethane (78-00-3)	X	ND					1	mg/L			
10V. 2-Chloroethylvinyl Ether (110-76-8)	X	ND					1	mg/L			
11V. Chloroform (67-66-3)	X	ND					1	mg/L			
12V. Dichlorobromomethane (75-27-4)	X	ND					1	mg/L			
13V. Dichlorodifluoromethane (75-71-8)	X	ND					1	mg/L			
14V. 1,1-Dichloroethane (78-34-3)	X	ND					1	mg/L			
15V. 1,2-Dichloroethane (107-06-2)	X	ND					1	mg/L			
16V. 1,1-Dichloroethylene (78-36-4)	X	ND					1	mg/L			
17V. 1,2-Dichloropropane (78-87-5)	X	ND					1	mg/L			
18V. 1,3-Dichloropropane (542-76-8)	X	ND	Analyzed for both	cis-1,3-Dichloropropene & trans-1,3-Dichloropropene			1	mg/L			
19V. Ethylbenzene (100-41-4)	X	ND					1	mg/L			
20V. Methyl Bromide (74-83-9)	X	ND					1	mg/L			
21V. Methyl Chloride (74-87-3)	X	ND					1	mg/L			

CONTINUE ON PAGE V-1

PAGE V-4

EPA Form 3510-2C (9-90)



CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. YRS
	STEEL	CONC. (1)	MAXIMUM DAILY VALUE (1) CONCENTRATION	MAXIMUM 30 DAY VALUE (1) CONCENTRATION	LONG TERM AVG. VALUE (1) CONCENTRATION	CONCENTRATION	CONCENTRATION	(1) CONCENTRATION	(2) MASS		
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>											
23V. Methylene Chloride (75-09-2)	X		ND						μg/L		1
23V. 1,1,2-Tetrachloroethane (78-34-5)	X		ND						μg/L		1
24V. Tetrachloroethylene (127-18-4)	X		ND						μg/L		1
25V. Toluene (108-88-3)	X		ND						μg/L		1
26V. 1,2-Dichloroethylene (158-60-5)	X		ND						μg/L		1
27V. 1,1,1-Trichloroethane (71-69-5)	X		ND						μg/L		1
28V. 1,1,2-Trichloroethane (78-00-5)	X		ND						μg/L		1
29V. Trichloroethylene (79-01-8)	X		ND						μg/L		1
30V. Trichlorofluoromethane (75-69-4)	X		ND						μg/L		1
31V. Vinyl Chloride (75-01-4)	X		ND						μg/L		1
<b>GC/MS FRACTION - ACID COMPOUNDS</b>											
1A. 2-Chloropheno (98-87-8)	X		ND						μg/L		1
2A. 2,4-Dichloropheno (120-93-2)	X		ND						μg/L		1
3A. 2,4-Dimethylphenol (108-67-8)	X		ND						μg/L		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		ND						μg/L		1
5A. 2,4-Dinitrophenol (51-28-8)	X		ND						μg/L		1
6A. 2-Nitrophenol (88-75-8)	X		ND						μg/L		1
7A. 4-Nitrophenol (100-02-7)	X		ND						μg/L		1
8A. P-Chloro-M-Cresol (59-50-7)	X		ND						μg/L		1
9A. Pentachloropheno (97-86-6)	X		ND						μg/L		1
10A. Phenol (108-95-2)	X		ND						μg/L		1
11A. 2,4,6-Trinitrophenol (138-94-3)	X		ND						μg/L		1

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)				
	A. STREET ADDRESS	B. SEC. STREET	C. MAXIMUM DAILY VALUE		D. MAXIMUM 30 DAY VALUE		E. CONCEN- TRATION	F. MASS	G. LONG TERM AVERAGE VALUE	H. NO. OF ANAL. YSES	I. CONCEN- TRATION	J. MASS	K. NO. OF ANAL. YSES
			(1) CONCEN- TRATION	(2) MASS	(1) CONCEN- TRATION	(2) MASS							
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS													
1B. Acenaphthene (83-32-9)	X		ND					μg/L		1			
2B. Acenaphthylene (208-96-8)	X		ND					μg/L		1			
3B. Anthracene (120-12-7)	X		ND					μg/L		1			
4B. Benzidine (92-87-5)	X		ND					μg/L		1			
5B. Benzo (a) Anthracene (85-96-3)	X		ND					μg/L		1			
6B. Benzo (a) Pyrene (50-32-8)	X		ND					μg/L		1			
7B. 3,4-Benzofluoranthene (206-98-2)	X		ND					μg/L		1			
8B. Benzo (ghi) Perylene (191-24-2)	X		ND					μg/L		1			
9B. Benzo (h) Fluoranthene (207-98-9)	X		ND					μg/L		1			
10B. 9,10 (p-Chloro) Anthracene (111-91-1)	X		ND					μg/L		1			
11B. 9,10 (2-Chloro) ethyl Ether (111-44-4)	X		ND					μg/L		1			
12B. Bis (2-Chloro) propyl Ether (102-60-1)	X		ND					μg/L		1			
13B. Bis (2-Ethyl) Phthalate (117-81-7)	X		ND					μg/L		1			
14B. 4-Bromo-phenyl Phenyl Ether (101-88-3)	X		ND					μg/L		1			
15B. Butyl Benzyl Phthalate (86-88-7)	X		ND					μg/L		1			
16B. 3-Chloro-phenyl Ethyl Ether (91-82-7)	X		ND					μg/L		1			
17B. 2-Chloro-phenyl Phenyl Ether (206-72-3)	X		ND					μg/L		1			
18B. Chrysenes (219-91-8)	X		ND					μg/L		1			
19B. Dibenzo (a,h) Anthracene (83-78-3)	X		ND					μg/L		1			
20B. 1,2-Dichloro-benzene (96-60-1)	X		ND					μg/L		1			
21B. 1,3-Dichloro-benzene (541-73-1)	X		ND					μg/L		1			

CONTINUE ON PAGE V-7

PAGE V-6

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' START DATE AND QUANTITY	3. EFFLUENT	4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. YSES					
			a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS		a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. LONG TERM AVERAGE VALUE (1) MASS (2) MASS			
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
32B. 1,4-Dichlorobenzene (108-46-7)	X		ND				1	mg/L				
33B. 2,3-Dichlorobenzene (95-93-1)	X		ND				1	mg/L				
34B. Diethyl Phthalate (84-68-2)	X		ND				1	mg/L				
35B. Diethyl Phthalate (84-68-2)	X		ND				1	mg/L				
36B. 2,4-Dinitrochlorobenzene (121-14-2)	X		ND				1	mg/L				
37B. 2,6-Dinitrotoluene (806-30-2)	X		ND				1	mg/L				
38B. Di-N-Octyl Phthalate (117-84-0)	X		ND				1	mg/L				
39B. 1,2-Dichloroethane (106-18-8)	X		ND				1	mg/L				
31B. Fluoranthene (206-44-0)	X		ND				1	mg/L				
32B. Fluorene (86-73-7)	X		ND				1	mg/L				
33B. Benzo(a)anthracene (11874-1)	X		ND				1	mg/L				
34B. Hexachlorobutadiene (87-68-3)	X		ND				1	mg/L				
35B. Hexachlorocyclopentadiene (77-47-4)	X		ND				1	mg/L				
36B. Hexachloroethane (67-72-1)	X		ND				1	mg/L				
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		ND				1	mg/L				
38B. Isophorone (78-99-1)	X		ND				1	mg/L				
39B. Naphthalene (81-20-3)	X		ND				1	mg/L				
40B. Nitrobenzene (98-96-3)	X		ND				1	mg/L				
41B. N-Nitrosodimethylamine (62-78-9)	X		ND				1	mg/L				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		ND				1	mg/L				

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' AND USE APPROPRIATE UNIT		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	MAX. CONC. QUANT. SENT	C. SE. SENT	8. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	9. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	10. CONCENTRATION	(1) CONCENTRATION	(2) MASS	11. NO. OF ANAL. YRS.
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
43B. N-Nitro- acidiphenylamine (88-30-8)	X		ND							
44B. Phenanthrene (85-01-8)	X		ND							
45B. Pyrene (129-00-0)	X		ND							
46B. 1,2,4-Trifluorobenzene (120-20-1)	X		ND							
<b>GC/MS FRACTION - PESTICIDES</b>										
17P. Aldrin (50-11-8)		X								
27P. D-BHC (519-84-8)		X								
35P. $\beta$ -BHC (318-95-7)		X								
49P. $\gamma$ -BHC (68-89-9)		X								
59P. $\delta$ -BHC (319-86-8)		X								
69P. Chlordane (87-74-9)		X								
79P. 4,4'-DDT (50-29-3)		X								
89P. 4,4'-DDE (72-55-9)		X								
99P. 4,4'-DDD (72-84-8)		X								
109P. Dieldrin (60-57-1)		X								
119P. $\alpha$ -Endosulfan (118-29-7)		X								
129P. $\beta$ -Endosulfan (115-29-7)		X								
139P. Endosulfan Sulfate (1031-07-8)		X								
149P. Endrin (72-20-8)		X								
159P. Endrin Aldehyde (7421-83-4)		X								
169P. Heptachlor (76-44-3)		X								

CONTINUE ON PAGE V-9

PAGE V-8

EPA Form 3510-2C (8-90)

EPA I.D. NUMBER (copy from Item 1 of Form 3) OUTFALL NUMBER  
 MND 049537780 Intake

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (if applicable)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
GC/MS FRACTION - PESTICIDES (continued)							
17P. Heptachlor Epoxide (102457-3)	X						
18P. PCB-1242 (53465-21-8)	X						
19P. PCB-1254 (11097-69-1)	X						
20P. PCB-1221 (11104-28-2)	X						
21P. PCB-1232 (11141-16-5)	X						
22P. PCB-1248 (12672-29-6)	X						
23P. PCB-1260 (11096-82-6)	X						
24P. PCB-1016 (12674-11-2)	X						
26P. Toxaphene (8001-35-2)	X						



Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND-NPDES  
 Pace Project No.: 10116130

Sample: INTAKE COMP Lab ID: 10116130001 Collected: 11/03/09 09:00 Received: 11/03/09 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/05/09 23:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/05/09 23:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1		11/05/09 23:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/05/09 23:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1		11/05/09 23:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/05/09 23:35	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/05/09 23:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/05/09 23:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/05/09 23:35	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/05/09 23:35	108-05-4	
Vinyl chloride	ND	ug/L	0.40	1		11/05/09 23:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/05/09 23:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/05/09 23:35	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/05/09 23:35	95-47-6	
Dibromofluoromethane (S)	102	%	75-125	1		11/05/09 23:35	1868-53-7	1M
4-Bromofluorobenzene (S)	102	%	75-125	1		11/05/09 23:35	460-00-4	
Toluene-d8 (S)	97	%	75-125	1		11/05/09 23:35	2037-26-5	
1,2-Dichloroethane-d4 (S)	101	%	75-125	1		11/05/09 23:35	17060-07-0	

<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	60.0	units	2.0	2		11/05/09 21:10		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	5.0	1		11/10/09 12:30		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND	mg/L	2.0	1		11/05/09 21:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	ND	mg/L	2.0	1	11/04/09 11:00	11/09/09 13:00		
<b>300.0 IC Anlons 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND	mg/L	0.40	1		11/05/09 17:55	24959-67-9	

Sample: INTAKE GRAB Lab ID: 10116130002 Collected: 11/03/09 08:40 Received: 11/03/09 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b>		Analytical Method: SM 9222D Preparation Method: SM 9222D						
Fecal Coliforms	14	CFU/100 mL		1	11/03/09 17:15	11/04/09 17:30		H3
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4						
Cyanide	ND	mg/L	0.020	1		11/10/09 16:27	57-12-5	

Date: 11/25/2009 02:24 PM

### REPORT OF LABORATORY ANALYSIS

Page 8 of 32

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND-NPDES  
 Pace Project No.: 10116130

Sample: INTAKE COMP Lab ID: 10116130001 Collected: 11/03/09 09:00 Received: 11/03/09 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	83-32-9	
Acenaphthylene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	208-96-8	
Anthracene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	120-12-7	
Benzidine	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	92-87-5	
Benzo(a)anthracene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	56-55-3	
Benzo(a)pyrene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	207-08-9	
Benzoic acid	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	65-85-0	
Benzyl alcohol	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	101-55-3	
Butylbenzylphthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	85-68-7	
Carbazole	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	59-50-7 *	
4-Chloroaniline	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	108-60-1	
2-Chloronaphthalene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	91-58-7	
2-Chlorophenol	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	7005-72-3	
Chrysene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	53-70-3	
Dibenzofuran	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	22.5	1	11/09/09 09:00	11/11/09 16:09	91-94-1	
2,4-Dichlorophenol	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	120-83-2	
Diethylphthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	84-66-2	
2,4-Dimethylphenol	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	105-67-9	
Dimethylphthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	131-11-3	
Di-n-butylphthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	534-52-1	
2,4-Dinitrophenol	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	606-20-2	
Di-n-octylphthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	117-81-7	
Fluoranthene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	206-44-0	
Fluorene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	87-68-3	
Hexachlorobenzene	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	56.2	1	11/09/09 09:00	11/11/09 16:09	77-47-4	L2
Hexachloroethane	ND	ug/L	11.2	1	11/09/09 09:00	11/11/09 16:09	67-72-1	

Date: 11/25/2009 02:24 PM

### REPORT OF LABORATORY ANALYSIS

Page 5 of 32

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND-NPDES  
 Pace Project No.: 10116130

Sample: INTAKE COMP Lab ID: 10116130001 Collected: 11/03/09 09:00 Received: 11/03/09 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	--------------	----	----------	----------	---------	------

**625 MSSV**

Analytical Method: EPA 625 Preparation Method: EPA 625

Indeno(1,2,3-cd)pyrene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	193-39-5	
Isophorone	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	78-59-1	
2-Methylnaphthalene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	95-48-7	
3&4-Methylphenol	ND ug/L		22.5	1	11/09/09 09:00	11/11/09 16:09		
Naphthalene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	91-20-3	
2-Nitroaniline	ND ug/L		56.2	1	11/09/09 09:00	11/11/09 16:09	88-74-4	
3-Nitroaniline	ND ug/L		56.2	1	11/09/09 09:00	11/11/09 16:09	99-09-2	
4-Nitroaniline	ND ug/L		56.2	1	11/09/09 09:00	11/11/09 16:09	100-01-6	
Nitrobenzene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	98-95-3	
2-Nitrophenol	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	88-75-5	
4-Nitrophenol	ND ug/L		56.2	1	11/09/09 09:00	11/11/09 16:09	100-02-7	
N-Nitrosodimethylamine	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	86-30-6	
Pentachlorophenol	ND ug/L		25.8	1	11/09/09 09:00	11/11/09 16:09	87-86-5	
Phenanthrene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	85-01-8	
Phenol	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	108-95-2	
Pyrene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	120-82-1	
2,4,5-Trichlorophenol	ND ug/L		56.2	1	11/09/09 09:00	11/11/09 16:09	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		11.2	1	11/09/09 09:00	11/11/09 16:09	88-06-2	
Nitrobenzene-d5 (S)	76 %		47-127	1	11/09/09 09:00	11/11/09 16:09	4165-60-0	
2-Fluorobiphenyl (S)	77 %		52-133	1	11/09/09 09:00	11/11/09 16:09	321-60-8	
Terphenyl-d14 (S)	81 %		55-150	1	11/09/09 09:00	11/11/09 16:09	1718-51-0	
Phenol-d6 (S)	74 %		43-128	1	11/09/09 09:00	11/11/09 16:09	13127-88-3	
2-Fluorophenol (S)	71 %		31-131	1	11/09/09 09:00	11/11/09 16:09	367-12-4	
2,4,6-Tribromophenol (S)	81 %		30-150	1	11/09/09 09:00	11/11/09 16:09	118-79-6	

**624 MSV**

Analytical Method: EPA 624

Acetone	ND ug/L		10.0	1		11/05/09 23:35	67-64-1	
Acrolein	ND ug/L		40.0	1		11/05/09 23:35	107-02-8	
Acrylonitrile	ND ug/L		10.0	1		11/05/09 23:35	107-13-1	
Allyl chloride	ND ug/L		4.0	1		11/05/09 23:35	107-05-1	
Benzene	ND ug/L		1.0	1		11/05/09 23:35	71-43-2	
Bromobenzene	ND ug/L		1.0	1		11/05/09 23:35	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		11/05/09 23:35	74-97-5	
Bromodichloromethane	ND ug/L		4.0	1		11/05/09 23:35	75-27-4	
Bromoform	ND ug/L		8.0	1		11/05/09 23:35	75-25-2	
Bromomethane	ND ug/L		4.0	1		11/05/09 23:35	74-83-9	
2-Butanone (MEK)	ND ug/L		4.0	1		11/05/09 23:35	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		11/05/09 23:35	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		11/05/09 23:35	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		11/05/09 23:35	98-06-6	
Carbon disulfide	ND ug/L		1.0	1		11/05/09 23:35	75-15-0	
Carbon tetrachloride	ND ug/L		4.0	1		11/05/09 23:35	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		11/05/09 23:35	108-90-7	

Date: 11/25/2009 02:24 PM

**REPORT OF LABORATORY ANALYSIS**

Page 6 of 32

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND-NPDES  
 Pace Project No.: 10116130

Sample: INTAKE COMP Lab ID: 10116130001 Collected: 11/03/09 09:00 Received: 11/03/09 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Chloroethane	ND	ug/L	1.0	1		11/05/09 23:35	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		11/05/09 23:35	110-75-8	SS
Chloroform	ND	ug/L	1.0	1		11/05/09 23:35	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/05/09 23:35	74-87-3	
Chloroprene	ND	ug/L	1.0	1		11/05/09 23:35	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		11/05/09 23:35	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/05/09 23:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		11/05/09 23:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/05/09 23:35	124-46-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/05/09 23:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/05/09 23:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/05/09 23:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/05/09 23:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/05/09 23:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/05/09 23:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/05/09 23:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/05/09 23:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/05/09 23:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/05/09 23:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/05/09 23:35	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		11/05/09 23:35	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/05/09 23:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/05/09 23:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		11/05/09 23:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/05/09 23:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/05/09 23:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/05/09 23:35	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		11/05/09 23:35	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		11/05/09 23:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		11/05/09 23:35	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		11/05/09 23:35	591-78-6	
Iodomethane	ND	ug/L	4.0	1		11/05/09 23:35	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/05/09 23:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/05/09 23:35	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		11/05/09 23:35	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		11/05/09 23:35	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/05/09 23:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/05/09 23:35	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		11/05/09 23:35	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		11/05/09 23:35	103-65-1	
Styrene	ND	ug/L	1.0	1		11/05/09 23:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/05/09 23:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/05/09 23:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/05/09 23:35	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		11/05/09 23:35	109-99-9	
Toluene	ND	ug/L	1.0	1		11/05/09 23:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/05/09 23:35	87-61-6	

Date: 11/25/2009 02:24 PM

### REPORT OF LABORATORY ANALYSIS

Page 7 of 32

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..

~~Methylene Chloride?~~  
~~End of data for~~  
~~110 Methylene Chloride~~





# MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724  
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885  
www.mvtl.com



Page: 1 of 1

ANDREA OPLAND  
PACE ANALYTICAL SERVICES INC  
1700 ELM ST STE 200  
MINNEAPOLIS MN 55414

Report Date: 17 Nov 09  
Lab Number: 09-A52901  
Work Order #: 12-14593  
Account #: 013980  
Sample Matrix: WASTEWATER  
Date Sampled: 3 Nov 09  
Date Received: 5 Nov 09 11:15  
PO #: 10116130

Project Name: PRAIRIE ISLAND NPDES

Sample Description: INTAKE COMP

Temp at Receipt: 0.9C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Nitrogen, Organic	-1.07	mg/L	NA		16 Nov 09 11:40	Calculated
Nitrate+Nitrite	-4.03	mg/L as N	0.20	353.2	12 Nov 09 14:08	RMV
Nitrogen, Ammonia	-0.23	mg/L	0.16	4500 NH3 B E	16 Nov 09 11:40	CJL
Nitrogen, Total Kjeldahl	1.3	mg/L	0.2	SM 4500NorgB/NH3 E	11 Nov 09 9:30	CJL
Anionic Surfactants	* < 0.03	mg/L	0.03	5540C	6 Nov 09 4:24	JD

\* Holding time Exceeded

No collection time supplied by the client.

Approved by:

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL - Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration  
! = Due to sample quantity + = Due to extract volume  
- = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

33 of 36

AN EQUAL OPPORTUNITY EMPLOYER



Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND-NPDES  
Pace Project No.: 10116130

Sample: INTAKE COMP Lab ID: 10116130001 Collected: 11/03/09 09:00 Received: 11/03/09 13:30 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	3.99 ± 2.21 (2.90)	pCi/L	11/21/09 11:55	12587-46-1	
Gross Beta	EPA 900.0m	1.40 ± 0.952 (1.74)	pCi/L	11/21/09 11:55	12587-47-2	
Total Alpha Radium	EPA 903.0	1.25 ± 0.523 (0.508)	pCi/L	11/20/09 13:37		
Radium-226	EPA 903.1	0.342 ± 0.478 (0.793)	pCi/L	11/23/09 11:41	13982-63-3	

Date: 11/25/2009 02:24 PM

### REPORT OF LABORATORY ANALYSIS

Page 28 of 32

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





## QUALIFIERS

Project: PRAIRIE ISLAND-NPDES  
Pace Project No.: 10116130

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
ND - Not Detected at or above adjusted reporting limit.  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
S - Surrogate  
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.  
U - Indicates the compound was analyzed for, but not detected.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay  
PASI-K Pace Analytical Services - Kansas City  
PASI-M Pace Analytical Services - Minneapolis  
PASI-PA Pace Analytical Services - Greensburg

### BATCH QUALIFIERS

Batch: MSSV/5135

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1M Composited in lab, as per client request.  
H1 Analysis conducted outside the EPA method holding time.  
H3 Sample was received outside the recognized method holding time.  
H6 Analysis initiated more than 15 minutes after sample collection.  
L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.  
L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.  
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.  
P5 The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.  
SS This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.





Minneapolis Testing Laboratory Report

1518 Chestnut Avenue N
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Report To:

Attention: ERAD
Jim Bodensteiner
Dan Orr

Work Request # PIPP1109
Date of Report 12/15/2009

Sample Description: Intake
Location: Prairie Island
Customer Sample I.D.:

LabWorks I.D. EG52794
Laboratory I.D.: 1034.16
Collection Date: 11/3/2009
Date Submitted: 11/3/2009

Chain of Custody #: 202749

Table with 8 columns: Constituent, Result, Units, Analyst, Detection Limit (MDL), Reporting Limit (RL), Analytical Method, Analysis Start Date. Lists various chemical constituents and their test results.



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Total Organic Carbon	7.82	mg/L C	WRNJ03	0.3	1	SM 5310B	11/16/2009
Total Phosphorus	0.095	mg/L P	CMK	0.001	0.01	EPA 365.3	11/17/2009
Total Suspended Solids	23.2	mg/L	JCS	0.2	1	SM 2540D	11/4/2009
Zinc	< RL	mg/L Zn	HSD	0.02	0.05	EPA 200.7	11/5/2009

Comments related to sample number EG52794:

MD049537780

OUTFALL NO. SD001

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	ND		1	mg/L			
b. Chemical Oxygen Demand (COD)	16		1	mg/L			
c. Total Organic Carbon (TOC)	7.96		1	mg/L			
d. Total Suspended Solids (TSS)	20.8		1	mg/L			
e. Ammonia (as N)	<0.16		1	mg/L			
f. Flow	VALUE 780.7	VALUE 771.6	731	MGD		VALUE	
g. Temperature (water)	VALUE 85.0	VALUE	12	% OF		VALUE	
h. Temperature (sewimeter)	VALUE 94.6	VALUE	12	% OF		VALUE	
i. pH	MINIMUM	MAXIMUM 7.7	24	STANDARD UNITS			

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X' a. PRESENT b. ABSENT	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Bromide (2-4959-67-9)	X	ND		1	mg/L			
b. Chlorine Total Residual	X	<0.03		1	mg/L			
c. Color	X	40.0		1	units			
d. Fecal Coliform	X	17		1	CFU/100 mL			
e. Fluoride (18054-48-8)	X	0.31		1	mg/L			
f. Nitrate-Nitrite (as N)	X	3.72		1	mg/L			

ITEM V-8 CONTINUED FROM FRONT.

1. ANALYST (Last Name, Initials, & Title)	2. MARK 'X' USE INVERSE SERIALS	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL- YSES	
		D. MAXIMUM DAILY VALUE		B. CONCENTRATION		A. AVERAGE VALUE			
		(1) MASS CONCENTRATION	(2) MASS CONCENTRATION	(1) MASS CONCENTRATION	(2) MASS CONCENTRATION	(1) MASS CONCENTRATION	(2) MASS CONCENTRATION		
g. Nitrogen, Total Organic (as N)	X	1.60				mg/L		1	
h. Oil and Grease	X	< 4				mg/L		1	
i. Phosphorus (as P), Total (7723-14-0)	X	0.092				mg/L		1	
j. Radioactivity									
(1) Alpha, Total	X	5.16 ± 2.55				pCi/L		1	
(2) Beta, Total	X	405 ± 1.36				pCi/L		1	
(3) Radium, Total	X	0.318 ± 0.321				pCi/L		1	
(4) Radium 226, Total	X	0.494 ± 0.425				pCi/L		1	
k. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X	71.58				mg/L		1	
l. Sulfide (as S)	X	ND				mg/L		1	
m. Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X	ND				mg/L		1	
n. Surfactants	X	< 0.03				mg/L		1	
o. Aluminum, Total (7429-90-5)	X	0.41				mg/L		1	
p. Barium, Total (7440-39-3)	X	0.07				mg/L		1	
q. Boron, Total (7440-42-8)	X	0.06				mg/L		1	
r. Cobalt, Total (7440-48-4)	X	< 0.02				mg/L		1	
s. Iron, Total (7439-89-6)	X	0.67				mg/L		1	
t. Magnesium, Total (7439-96-4)	X	28.8				mg/L		1	
u. Molybdenum, Total (7439-98-7)	X	2.8				mg/L		1	
v. Manganese, Total (7439-96-6)	X	0.07				mg/L		1	
w. Tin, Total (7440-31-5)	X	< 2.0				mg/L		1	
x. Titanium, Total (7440-32-6)	X	< 0.02				mg/L		1	



EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER

MND049537780 | SD001

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2c for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	TESTED (X)	REPRESENTATIVE (X)	(1) MAXIMUM DAILY VALUE CONCENTRATION	(2) MASS	(1) MAXIMUM 30 DAY VALUE CONCENTRATION	(2) MASS	(1) LONG TERM AVRG. VALUE CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, CYANIDE, AND TOTAL PHENOLS										
1M. Antimony, Total (7440-36-0)	X		<0.1						1	MG/L
2M. Arsenic, Total (7440-38-2)	X		<2						1	MG/L
3M. Beryllium, Total (7440-41-7)	X		<0.01						1	MG/L
4M. Cadmium, Total (7440-43-8)	X		<0.5						1	MG/L
5M. Chromium, Total (7440-47-3)	X		<0.02						1	MG/L
6M. Copper, Total (7440-50-9)	X		<0.02						1	MG/L
7M. Lead, Total (7439-92-1)	X		<1.0						1	MG/L
8M. Mercury, Total (7439-97-6)	X		<0.5						1	MG/L
9M. Nickel, Total (7440-02-0)	X		<0.02						1	MG/L
10M. Selenium, Total (7782-49-2)	X		<2.0						1	MG/L
11M. Silver, Total (7440-23-4)	X		<0.01						1	MG/L
12M. Thellium, Total (7440-28-0)	X		<1.0						1	MG/L
13M. Zinc, Total (7440-66-6)	X		<0.05						1	MG/L
14M. Cyanide, Total (57-12-5)	X		ND						1	MG/L
15M. Phenols, Total	X		ND						1	MG/L

DIOXIN		DESCRIBE RESULTS
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)		
		X

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT NUMBER (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO. OF YSES
	TEST NO.	DATE	CONC.	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	d. NO. OF ANAL. YSES	e. CONCENTRATION	b. MASS	(1) CONCENTRATION	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>												
1V. Acrolein (107-02-8)	X			ND					1	mg/L		
2V. Acrylonitrile (107-13-1)	X			ND					1	mg/L		
3V. Benzene (71-43-2)	X			ND					1	mg/L		
4V. Bis (Chloromethyl) Ether (542-88-1)				NA	Removed from the federal organic pollutants list							
5V. Bromoform (75-26-2)	X			ND					1	mg/L		
6V. Carbon Tetrachloride (56-23-5)	X			ND					1	mg/L		
7V. Chlorobenzene (106-90-7)	X			ND					1	mg/L		
8V. Chlorodibromomethane (124-48-1)	X			ND					1	mg/L		
9V. Chloroethane (78-00-3)	X			ND					1	mg/L		
10V. 2-Chloroethanol Ethyl Ether (110-70-8)	X			ND					1	mg/L		
11V. Chloroform (67-66-3)	X			ND					1	mg/L		
12V. Dichlorobromomethane (75-27-4)	X			ND					1	mg/L		
13V. Dichlorodifluoromethane (78-71-8)	X			ND					1	mg/L		
14V. 1,1-Dichloroethane (78-34-3)	X			ND					1	mg/L		
15V. 1,2-Dichloroethane (107-06-2)	X			ND					1	mg/L		
16V. 1,1-Dichloroethylene (75-35-4)	X			ND					1	mg/L		
17V. 1,2-Dichloropropane (78-87-5)	X			ND					1	mg/L		
18V. 1,3-Dichloropropane (542-75-4)	X			ND	Analyzed for both cis-1,3-Dichloropropane & trans-1,3-Dichloropropane							
19V. Ethylbenzene (100-41-4)	X			ND					1	mg/L		
20V. Methyl Bromide (74-83-9)	X			ND					1	mg/L		
21V. Methyl Chloride (74-87-3)	X			ND					1	mg/L		

CONTINUED FROM PAGE V-4

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)		
	TEST NO. (if available)	DATE TESTED	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION (2) MASS	d. NO. OF ANALYSES	e. CONCENTRATION	b. MASS	f. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	g. NO. OF ANALYSES	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>											
23V. Methylene Chloride (75-08-2)	X		ND			1	mg/L				
23V. 1,1,2-Tetrachloroethane (78-34-3)	X		ND			1	mg/L				
24V. Tetrachloroethylene (127-18-4)	X		ND			1	mg/L				
25V. Toluene (108-88-3)	X		ND			1	mg/L				
26V. 1,2-Tetrachloroethylene (106-60-6)	X		ND			1	mg/L				
27V. 1,1,1-Trichloroethane (71-83-6)	X		ND			1	mg/L				
28V. 1,1,2-Trichloroethane (78-00-5)	X		ND			1	mg/L				
29V. Trichloroethylene (79-01-6)	X		ND			1	mg/L				
30V. Trichlorofluoromethane (75-68-4)	X		ND			1	mg/L				
31V. Vinyl Chloride (75-01-4)	X		ND			1	mg/L				
<b>GC/MS FRACTION - ACID COMPOUNDS</b>											
1A. 2-Chlorophenol (95-57-8)	X		ND			1	mg/L				
2A. 2,4-Dichlorophenol (120-83-2)	X		ND			1	mg/L				
3A. 2,4-Dimethylphenol (106-67-8)	X		ND			1	mg/L				
4A. 4,6-Dinitro-Cresol (834-53-1)	X		ND			1	mg/L				
5A. 2,4-Dinitrophenol (81-28-5)	X		ND			1	mg/L				
6A. 2-Nitrophenol (89-78-6)	X		ND			1	mg/L				
7A. 4-Nitrophenol (100-02-7)	X		ND			1	mg/L				
8A. p-Chloro-M-Cresol (98-60-7)	X		ND			1	mg/L				
9A. Pentachlorophenol (87-86-8)	X		ND			1	mg/L				
10A. Phenol (108-95-2)	X		ND			1	mg/L				
11A. p-Cresol (106-64-6)	X		ND			1	mg/L				

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' TEST: A. RE-TEST REQUIRED (X) B. TEST EQUIPMENT SENT (X) C. SAMPLE SENT (X)	3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. YSES
		B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. MASS	B. CONCENTRATION	B. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS										
18. Acenaphthene (83-32-9)	X		ND				μg/L			1
28. Acenaphthylene (208-96-8)	X		ND				μg/L			1
38. Anthracene (120-12-7)	X		ND				μg/L			1
48. Benzidine (92-67-5)	X		ND				μg/L			1
58. Benzo (a) Anthracene (85-98-3)	X		ND				μg/L			1
68. Benzo (k) Pyrene (80-32-8)	X		ND				μg/L			1
78. 3,4-Benzo-Fluoranthene (205-99-2)	X		ND				μg/L			1
88. Benzo (ghi) Perylene (191-24-2)	X		ND				μg/L			1
98. Benzo (k) Fluoranthene (207-09-9)	X		ND				μg/L			1
108. Bis (2-Chloro-ethyl) Methane (111-91-1)	X		ND				μg/L			1
118. Bis (2-Chloro-ethyl) Ether (111-44-4)	X		ND				μg/L			1
128. Bis (2-Chloroisopropyl) Ether (102-90-1)	X		ND				μg/L			1
138. Bis (2-Ethylhexyl) Fumarate (117-91-7)	X		ND				μg/L			1
148. 2-Bromo-Phenyl Phenyl Ether (101-58-3)	X		ND				μg/L			1
188. Butyl Benzyl Phosphine Oxide (85-68-7)	X		ND				μg/L			1
188. 2-Chloro-naphthalene (91-58-7)	X		ND				μg/L			1
178. 2-Chloro-Phenyl Phenyl Ether (2005-72-3)	X		ND				μg/L			1
188. Glycene (219-91-4)	X		ND				μg/L			1
198. Di-benzo (a,h) Anthracene (83-70-3)	X		ND				μg/L			1
208. 1,2-Dichloro-benzene (98-90-1)	X		ND				μg/L			1
218. 1,3-Dichloro-benzene (541-73-1)	X		ND				μg/L			1

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		b. NO. OF ANAL. YSES
	a. TESTING REQUIRED	b. USE OF DATA	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	(1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)											
228. 1,4-Dichlorobenzene (108-46-7)	X		ND					μg/L			
230. 2,3-Dichlorobenzene (95-93-1)	X		ND					μg/L			
246. Diethyl Phthalate (84-66-2)	X		ND					μg/L			
255. Diethyl Phthalate (84-66-2)	X		ND					μg/L			
256. Diethyl Phthalate (84-66-2)	X		ND					μg/L			
257. Diethyl Phthalate (84-66-2)	X		ND					μg/L			
258. 2,4-Dinitrochlorobenzene (121-14-2)	X		ND					μg/L			
265. 2,6-Dinitrotoluene (906-30-2)	X		ND					μg/L			
268. DIN-Octyl Phthalate (117-84-0)	X		ND					μg/L			
308. 1,2-Diphenylhydrazine (or Azobenzene) (122-65-7)	X		ND					μg/L			
318. Fluorethene (206-44-0)	X		ND					μg/L			
328. Fluorene (85-73-7)	X		ND					μg/L			
336. Hexachlorobenzene (118-74-1)	X		ND					μg/L			
348. Hexachlorobutadiene (87-68-3)	X		ND					μg/L			
368. Hexachlorocyclopentadiene (77-47-4)	X		ND					μg/L			
368. Hexachloroethane (67-72-1)	X		ND					μg/L			
378. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		ND					μg/L			
388. Isophorone (78-58-1)	X		ND					μg/L			
398. Naphthalene (91-20-3)	X		ND					μg/L			
408. Nitrobenzene (98-96-3)	X		ND					μg/L			
418. N-Nitrosodimethylamine (82-78-8)	X		ND					μg/L			
428. N-Nitrosodi-N-Propylamine (521-64-7)	X		ND					μg/L			

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	TEST CONC. (ppm)	TEST CONC. (ppm)	5. MAXIMUM DAILY VALUE (1) CONCENTRATION	6. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	6. LONG TERM AVG. VALUE (1) CONCENTRATION	7. NO. OF ANAL. YRS	8. CONCENTRATION	9. MASS	10. LONG TERM AVERAGE VALUE (1) CONCENTRATION	11. NO. OF ANAL. YRS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
43B. N-Nitrosodiphenylamine (85-30-6)	X		ND			1	ug/L			
44B. Phenanthrene (83-01-6)	X		ND			1	ug/L			
45B. Pyrene (129-00-0)	X		ND			1	ug/L			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		ND			1	ug/L			
<b>GC/MS FRACTION - PESTICIDES</b>										
1P. Aldrin (504-33-2)		X								
2P. DDT (504-33-2)		X								
3P. p-BHC (319-85-7)		X								
4P. γ-BHC (68-89-8)		X								
5P. δ-BHC (319-86-8)		X								
6P. Chlordane (67-74-9)		X								
7P. 4,4'-DDT (60-29-3)		X								
8P. 4,4'-DDE (72-85-9)		X								
9P. 4,4'-DDD (72-84-8)		X								
10P. Dieldrin (60-57-1)		X								
11P. α-Endosulfan (116-29-7)		X								
12P. β-Endosulfan (116-29-7)		X								
13P. Endosulfan Sulfate (1031-07-8)		X								
14P. Endrin (72-20-8)		X								
15P. Endrin Aldehyde (7421-93-4)		X								
16P. Heptachlor (76-44-8)		X								

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**MND 049537780** **SD 001**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	A. TEST NO. (if available)	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM (1) CONCENTRATION (2) MASS	D. NO. OF ANAL. YSES	A. CONCENTRATION	B. MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANAL. YSES
<b>GCMS FRACTION -- PESTICIDES (continued)</b>								
17P. Heptachlor Epoxide (1024-87-3)								
18P. PCB-1242 (63489-21-9)								
19P. PCB-1254 (11097-68-1)								
20P. PCB-1221 (11104-28-2)								
21P. PCB-1232 (11141-16-5)								
22P. PCB-1248 (12672-29-6)								
23P. PCB-1260 (11096-82-6)								
24P. PCB-1016 (12674-11-2)								
25P. Toxaphene (8001-35-2)								

PAGE V-9



**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 10116261

Sample: Sluice Gate Comp Lab ID: 10116261001 Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	83-32-9	
Acenaphthylene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	208-96-8	
Anthracene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	120-12-7	
Benzidine	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	92-87-5	
Benzo(a)anthracene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	207-08-9	
Benzoic acid	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	65-85-0	
Benzyl alcohol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	85-68-7	
Carbazole	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	59-50-7	
4-Chloroaniline	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	108-60-1	
2-Chloronaphthalene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	91-58-7	
2-Chlorophenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	7005-72-3	
Chrysene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	53-70-3	
Dibenzofuran	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	21.7	1	11/09/09 09:00	11/11/09 16:40	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	120-83-2	
Diethylphthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	105-67-9	
Dimethylphthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	534-52-1	
2,4-Dinitrophenol	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	117-81-7	
Fluoranthene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	206-44-0	
Fluorene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	87-68-3	
Hexachlorobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	77-47-4	L2
Hexachloroethane	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	67-72-1	

Date: 11/25/2009 02:51 PM

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 10116261

Sample: Sluice Gate Comp Lab ID: 10116261001 Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b> Analytical Method: EPA 625 Preparation Method: EPA 625								
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	193-39-5	
Isophorone	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	95-48-7	
3&4-Methylphenol	ND	ug/L	21.7	1	11/09/09 09:00	11/11/09 16:40		
Naphthalene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	91-20-3	
2-Nitroaniline	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	88-74-4	
3-Nitroaniline	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	99-09-2	
4-Nitroaniline	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	100-01-6	
Nitrobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	98-95-3	
2-Nitrophenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	88-75-5	
4-Nitrophenol	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	86-30-6	
Pentachlorophenol	ND	ug/L	25.0	1	11/09/09 09:00	11/11/09 16:40	87-86-5	
Phenanthrene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	85-01-8	
Phenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	108-95-2	
Pyrene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	54.3	1	11/09/09 09:00	11/11/09 16:40	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.9	1	11/09/09 09:00	11/11/09 16:40	88-06-2	
Nitrobenzene-d5 (S)	69 %		47-127	1	11/09/09 09:00	11/11/09 16:40	4165-60-0	
2-Fluorobiphenyl (S)	75 %		52-133	1	11/09/09 09:00	11/11/09 16:40	321-60-8	
Terphenyl-d14 (S)	79 %		55-150	1	11/09/09 09:00	11/11/09 16:40	1718-51-0	
Phenol-d6 (S)	71 %		43-128	1	11/09/09 09:00	11/11/09 16:40	13127-88-3	
2-Fluorophenol (S)	68 %		31-131	1	11/09/09 09:00	11/11/09 16:40	367-12-4	
2,4,6-Tribromophenol (S)	82 %		30-150	1	11/09/09 09:00	11/11/09 16:40	118-79-6	
<b>624 MSV</b> Analytical Method: EPA 624								
Acetone	ND	ug/L	10.0	1		11/10/09 21:58	67-64-1	
Acrolein	ND	ug/L	40.0	1		11/10/09 21:58	107-02-8	MO
Acrylonitrile	ND	ug/L	10.0	1		11/10/09 21:58	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		11/10/09 21:58	107-05-1	
Benzene	ND	ug/L	1.0	1		11/10/09 21:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/10/09 21:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/10/09 21:58	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		11/10/09 21:58	75-27-4	
Bromoform	ND	ug/L	8.0	1		11/10/09 21:58	75-25-2	
Bromomethane	ND	ug/L	4.0	1		11/10/09 21:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	1		11/10/09 21:58	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		11/10/09 21:58	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	1		11/10/09 21:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	108-90-7	

Date: 11/25/2009 02:51 PM

**REPORT OF LABORATORY ANALYSIS**

Page 6 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 10116261

Sample: Sluice Gate Comp Lab ID: 10116261001 Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Chloroethane	ND	ug/L	1.0	1		11/10/09 21:58	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		11/10/09 21:58	110-75-8	P5
Chloroform	ND	ug/L	1.0	1		11/10/09 21:58	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/10/09 21:58	74-87-3	
Chloroprene	ND	ug/L	1.0	1		11/10/09 21:58	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		11/10/09 21:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/10/09 21:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		11/10/09 21:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/10/09 21:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/10/09 21:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/10/09 21:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/10/09 21:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/10/09 21:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/10/09 21:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/10/09 21:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/10/09 21:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/10/09 21:58	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		11/10/09 21:58	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/10/09 21:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/10/09 21:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		11/10/09 21:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/10/09 21:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/10/09 21:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/10/09 21:58	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		11/10/09 21:58	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		11/10/09 21:58	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		11/10/09 21:58	591-78-6	
Iodomethane	ND	ug/L	4.0	1		11/10/09 21:58	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/10/09 21:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/10/09 21:58	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		11/10/09 21:58	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		11/10/09 21:58	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/10/09 21:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/10/09 21:58	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		11/10/09 21:58	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	103-65-1	
Styrene	ND	ug/L	1.0	1		11/10/09 21:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/10/09 21:58	630-20-6	
1,1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/10/09 21:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/10/09 21:58	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		11/10/09 21:58	109-99-9	
Toluene	ND	ug/L	1.0	1		11/10/09 21:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	87-61-6	

Date: 11/25/2009 02:51 PM

**REPORT OF LABORATORY ANALYSIS**

Page 7 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: Prairie Island NPDES  
 Pace Project No.: 10116261

Sample: **Sluice Gate Comp** Lab ID: **10116261001** Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/10/09 21:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/10/09 21:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1		11/10/09 21:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/10/09 21:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1		11/10/09 21:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/10/09 21:58	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/10/09 21:58	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/10/09 21:58	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/10/09 21:58	108-05-4	
Vinyl chloride	ND	ug/L	0.40	1		11/10/09 21:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/10/09 21:58	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/10/09 21:58	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/10/09 21:58	95-47-6	
Dibromofluoromethane (S)	105	%	75-125	1		11/10/09 21:58	1868-53-7	
4-Bromofluorobenzene (S)	102	%	75-125	1		11/10/09 21:58	460-00-4	
Toluene-d8 (S)	100	%	75-125	1		11/10/09 21:58	2037-26-5	
1,2-Dichloroethane-d4 (S)	102	%	75-125	1		11/10/09 21:58	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	40.0	units	1.0	1		11/06/09 19:40		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	5.0	1		11/10/09 12:30		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND	mg/L	2.0	1		11/06/09 18:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	ND	mg/L	2.0	1	11/05/09 16:24	11/10/09 17:27		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND	mg/L	0.40	1		11/06/09 20:23	24959-67-9	
<b>Phenolics, Total Recoverable</b>		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND	ug/L	100	1		11/16/09 16:22		

Sample: **Sluice Gate Grab** Lab ID: **10116261002** Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4						
Cyanide	ND	mg/L	0.020	1		11/10/09 16:34	57-12-5	

Date: 11/25/2009 02:51 PM

### REPORT OF LABORATORY ANALYSIS

Page 8 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.





MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvttl.com



Page: 1 of 1

ANDREA OPLAND
PACE ANALYTICAL SERVICES INC
1700 ELM ST STE 200
MINNEAPOLIS MN 55414

Report Date: 17 Nov 09
Lab Number: 09-A53171
Work Order #:12-14662
Account #: 013980
Sample Matrix: WASTEWATER
Date Sampled: 4 Nov 09 12:00
Date Received: 6 Nov 09 9:50
PO #: 10116261

Project Name: PRAIRIE ISLAND NPDES

Sample Description: 10116261001
SLUICE GATE COMP

Temp at Receipt: 2.3C

Table with columns: As Received Result, Method RL, Method Reference, Date Analyzed, Analyst. Rows include Nitrogen, Organic; Nitrate+Nitrite; Nitrogen, Ammonia; Nitrogen, Total Kjeldahl; Anionic Surfactants.

\* Holding time Exceeded

Approved by:

[Signature]

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): # = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

AN EQUAL OPPORTUNITY EMPLOYER



Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: Prairie Island NPDES  
 Pace Project No.: 10116261

Sample: Sluice Gate Comp Lab ID: 10116261001 Collected: 11/04/09 12:00 Received: 11/04/09 15:44 Matrix: Water  
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	5.16 ± 2.55 (3.00)	pCi/L	11/21/09 11:55	12587-46-1	
Gross Beta	EPA 900.0m	4.05 ± 1.36 (1.70)	pCi/L	11/21/09 11:55	12587-47-2	
Total Alpha Radium	EPA 903.0	0.318 ± 0.321 (0.586)	pCi/L	11/13/09 13:42		
Radium-226	EPA 903.1	0.494 ± 0.425 (0.519)	pCi/L	11/23/09 11:54	13982-63-3	

Date: 11/25/2009 02:51 PM

### REPORT OF LABORATORY ANALYSIS

Page 29 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..



EPA I.D. NUMBER (copy from Item 1 of Form 1)  
**MND049537780**

OUTFALL NO.  
**50002**

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

**V. INTAKE AND EFFLUENT CHARACTERISTICS** (continued from page 3 of Form 2-C)

**PART A -** You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT		3. INTAKE (optional)		4. NO. OF ANALYSES	5. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	6. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANALYSES			
a. Biochemical Oxygen Demand (BOD)	< 2.0			1	1	Mg/L	
b. Chemical Oxygen Demand (COD)	< 16			1	1	Mg/L	
c. Total Organic Carbon (TOC)	5.41			1	1	Mg/L	
d. Total Suspended Solids (TSS)	< 1			1	1	Mg/L	
e. Ammonia (as N)	1.10			1	1	Mg/L	
f. Flow	VALUE	1.851	VALUE	24	24	Mg	VALUE
g. Temperature (winter)	VALUE		VALUE			°C	VALUE
h. Temperature (summer)	VALUE	104	VALUE			% OF	VALUE
i. pH	MINIMUM 8.51	MAXIMUM 8.51	MINIMUM		1	STANDARD UNITS	

**PART B -** Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' (a. RECEIVED SENT (b. RECEIVED SENT)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANALYSES	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	f. NO. OF ANALYSES	
a. Bromide (24959-67-9)	X	ND			1	Mg/L		
b. Chlorine, Total Residual	X	< 0.03			1	Mg/L		
c. Color	X	< 1.0			1	units		
d. Fecal Coliform	X	< 4			1	CFU/100 ml		
e. Fluoride (16984-48-8)	X	< 0.4			1	Mg/L		
f. Nitrate-Nitrite (as N)	X	ND			1	Mg/L		

ITEM V-8 CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		D. NO. OF ANAL. YSES	
	A. SEVERITY	B. RECURRENT	B. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. CONCENTRATION	D. MASS	E. CONCENTRATION	F. MASS	A. INGESTION VALUE			D. NO. OF ANAL. YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS		
g. Nitrogen, Total Organic (as N)	X													
h. Oil and Grease	X													
i. Phosphorus (as P), Total (723-14-0)	X													
J. Radioactivity														
(1) Alpha, Total	X													
(2) Beta, Total	X													
(3) Radium, Total	X													
(4) Radium 226, Total	X													
k. Sulfide (as SO <sub>4</sub> ) (14808-79-8)	X													
l. Sulfide (as S)	X													
m. Sulfides (as SO <sub>3</sub> ) (14265-45-3)	X													
n. Surfactants	X													
o. Aluminum, Total (7429-90-6)	X													
p. Barium, Total (7440-39-3)	X													
q. Boron, Total (7440-42-8)	X													
r. Cobalt, Total (7440-48-4)	X													
s. Iron, Total (7439-89-6)	X													
t. Magnesium, Total (7439-95-4)	X													
u. Molybdenum, Total (7439-98-7)	X													
v. Manganese, Total (7439-96-6)	X													
w. Tin, Total (7440-51-6)	X													
x. Titanium, Total (7440-32-6)	X													

CONTINUE ON PAGE V-3

PAGE V-2

EPA Form 3510-2C (8-90)

MND049537780 SD002

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A. TESTED	B. RE-TECHNICAL QUANT. SENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	B. MAXIMUM DAILY VALUE (2) MASS	C. LONG TERM AVERAGE VALUE (if available) (1) CONCENTRATION	(2) MASS	B. CONCENTRATION	D. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS										
1M. Antimony Total (7440-36-0)	X		<0.1				mg/L			1
2M. Arsenic, Total (7440-38-2)	X		<2				mg/L			1
3M. Beryllium, Total, 7440-41-7)	X		<0.05				mg/L			1
4M. Cadmium, Total (7440-43-9)	X		<0.05				mg/L			1
5M. Chromium, Total (7440-47-3)	X		<0.05				mg/L			1
6M. Copper, Total (7440-50-8)	X		<0.02				mg/L			1
7M. Lead, Total (7439-92-1)	X		<1.0				mg/L			1
8M. Mercury, Total (7439-97-6)	X		<0.5				mg/L			1
9M. Nickel, Total (7440-02-0)	X		<0.05				mg/L			1
10M. Selenium, Total (7782-48-2)	X		<2.0				mg/L			1
11M. Silver, Total (7440-22-4)	X		<0.01				mg/L			1
12M. Tellurium, Total (7440-28-0)	X		0.6				mg/L			1
13M. Zinc, Total (7440-66-6)	X		<0.05				mg/L			1
14M. Cyanide, Total (57-12-5)	X		ND				mg/L			1
15M. Phenols, Total	X		ND				mg/L			1

<b>DIOXIN</b>											
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)											
DESCRIBE RESULTS											
											X



CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A TEST EQUIP. INST. SENT	B. EQUIP. INST. SENT	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	(2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	B. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS
<b>GCMS FRACTION - VOLATILE COMPOUNDS</b>										
1V. Acrolein (107-02-8)	X		ND					1	μg/L	
2V. Acrylonitrile (107-13-1)	X		ND					1	μg/L	
3V. Benzene (71-43-2)	X		ND					1	μg/L	
4V. Bis (Chloromethyl) Ether (542-88-1)			NA	Removed from the federal pollutants list	organic toxic					
5V. Bromoform (75-25-2)	X		ND					1	μg/L	
6V. Carbon Tetrachloride (58-23-5)	X		ND					1	μg/L	
7V. Chlorobenzene (108-90-7)	X		ND					1	μg/L	
8V. Chlorodibromomethane (124-46-1)	X		ND					1	μg/L	
9V. Chloroethane (75-00-3)	X		ND					1	μg/L	
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		ND					1	μg/L	
11V. Chloroform (67-66-3)	X		ND					1	μg/L	
12V. Dichlorobromomethane (75-27-4)	X		ND					1	μg/L	
13V. Dichlorodibromomethane (75-71-9)	X		ND					1	μg/L	
14V. 1,1-Dichloroethane (75-34-3)	X		ND					1	μg/L	
15V. 1,2-Dichloroethane (107-06-2)	X		ND					1	μg/L	
16V. 1,1-Dichloroethylene (75-35-4)	X		ND					1	μg/L	
17V. 1,2-Dichloropropane (78-87-6)	X		ND					1	μg/L	
18V. 1,3-Dichloropropylene (542-78-4)	X		ND	Analyzed for both cis-1,3-Dichloropropene & trans-1,3-Dichloropropene				1	μg/L	
19V. Ethylbenzene (100-41-4)	X		ND					1	μg/L	
20V. Methyl Bromide (74-83-9)	X		ND					1	μg/L	
21V. Methyl Chloride (74-87-3)	X		ND					1	μg/L	

CONTINUED FROM PAGE V-4

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YRS.
	A. USE OF MONITORING DATA	B. USE OF MONITORING DATA	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. CONCENTRATION	D. MASS	A. LONG TERM AVERAGE VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>											
22V. Methylene Chloride (76-09-2)	X		ND					μg/L			1
23V. 1,1,2-Tetrachloroethane (78-34-6)	X		ND					μg/L			1
24V. Tetrachloroethylene (127-18-4)	X		ND					μg/L			1
26V. Toluene (108-88-3)	X		ND					μg/L			1
26V. 1,2-Dichloroethylene (156-60-6)	X		ND					μg/L			1
27V. 1,1,1-Trichloroethane (71-55-6)	X		ND					μg/L			1
28V. 1,1,2-Trichloroethane (78-00-5)	X		ND					μg/L			1
29V. Trichloroethylene (79-01-6)	X		ND					μg/L			1
30V. Trichlorofluoromethane (75-69-4)	X		ND					μg/L			1
31V. Vinyl Chloride (75-01-4)	X		ND					μg/L			1
<b>GC/MS FRACTION - ACID COMPOUNDS</b>											
1A. 2-Chloropheno (98-87-8)	X		ND					μg/L			1
2A. 2,4-Dichloropheno (120-93-2)	X		ND					μg/L			1
3A. 2,4-Dimethylpheno (106-67-8)	X		ND					μg/L			1
4A. 4,6-Dinitro-Cresol (534-52-1)	X		ND					μg/L			1
5A. 2,4-Dinitrophenol (51-28-5)	X		ND					μg/L			1
6A. 2-Nitrophenol (89-75-6)	X		ND					μg/L			1
7A. 4-Nitrophenol (100-02-7)	X		ND					μg/L			1
8A. p-Chloro-M-Cresol (89-50-7)	X		ND					μg/L			1
9A. Pentachloropheno (97-86-6)	X		ND					μg/L			1
10A. Phenol (108-95-2)	X		ND					μg/L			1
11A. 2,4,6-Trinitrophenol	X		ND					μg/L			1

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optimal)		6. NO. OF ANAL. YSES
	7. RE-CLAS. OF POLLUTANT	8. BASE/NEUTRAL COMPOUNDS	9. MAXIMUM DAILY VALUE (1) CONCENTRATION	10. MAXIMUM DAILY VALUE (2) MASS	11. LONG TERM AVERAGE VALUE (1) CONCENTRATION	12. LONG TERM AVERAGE VALUE (2) MASS	13. CONCENTRATION	14. MASS	15. LONG TERM AVERAGE VALUE (1) CONCENTRATION	16. LONG TERM AVERAGE VALUE (2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS											
18. Acenaphthene (83-32-8)	X		ND					μg/L			1
28. Acenaphthylene (208-96-8)	X		ND					μg/L			1
38. Anthracene (120-12-7)	X		ND					μg/L			1
48. Benzidine (92-87-5)	X		ND					μg/L			1
58. Benzo (a) Anthracene (98-96-3)	X		ND					μg/L			1
68. Benzo (a) Pyrene (50-32-8)	X		ND					μg/L			1
78. 3,4-Benzo-fluoranthene (208-98-2)	X		ND					μg/L			1
88. Benzo (ghi) Perylene (191-24-2)	X		ND					μg/L			1
98. Benzo (k) Fluoranthene (207-08-9)	X		ND					μg/L			1
108. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X		ND					μg/L			1
118. Bis (2-Chloro-ethyl) Ether (111-44-4)	X		ND					μg/L			1
128. Bis (2-Chloro-propyl) Ether (102-60-1)	X		ND					μg/L			1
138. Bis (2-Ethylhexyl) Fthalate (117-81-7)	X		ND					μg/L			1
148. 4-Bromo-Phenyl Phenyl Ether (101-86-3)	X		ND					μg/L			1
168. Butyl Benzyl Phthalate (88-68-7)	X		ND					μg/L			1
188. 2-Chloro-ethoxyethane (93-88-7)	X		ND					μg/L			1
178. 2-Chloro-Phenyl Phenyl Ether (1002-72-3)	X		ND					μg/L			1
188. Chryseane (219-91-4)	X		ND					μg/L			1
198. Dibenzo (a,h) Anthracene (83-70-3)	X		ND					μg/L			1
208. 1,2-Dichloro-benzene (98-90-1)	X		ND					μg/L			1
218. 1,3-Dichloro-benzene (541-73-1)	X		ND					μg/L			1

CONTINUE ON PAGE V-7

PAGE V-6

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	INGESTION	INHALATION	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
228. 1,4-Dichlorobenzene (108-46-7)	X		ND			1	mg/L			
238. 3,3'-Dichlorobenzidine (81-98-1)	X		ND			1	mg/L			
248. Dimethyl Phthalate (84-39-2)	X		ND			1	mg/L			
258. Diethyl Phthalate (84-39-2)	X		ND			1	mg/L			
268. Di-n-butyl Phthalate (84-39-2)	X		ND			1	mg/L			
278. 2,4-Dinitrophenylamine (121-14-2)	X		ND			1	mg/L			
288. 2,6-Dinitrotoluene (606-20-2)	X		ND			1	mg/L			
298. DiN-Octyl Phthalate (117-84-0)	X		ND			1	mg/L			
308. 1,2-Diphenylhydrazine (44-61-7)	X		ND			1	mg/L			
318. Fluoranthene (206-44-0)	X		ND			1	mg/L			
328. Fluorene (85-75-7)	X		ND			1	mg/L			
338. Hexachlorobenzene (11674-1)	X		ND			1	mg/L			
348. Hexachlorobutadiene (87-48-3)	X		ND			1	mg/L			
358. Hexachlorobiphenyladiene (77-47-4)	X		ND			1	mg/L			
368. Hexachloroethane (67-72-1)	X		ND			1	mg/L			
378. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		ND			1	mg/L			
388. Isopharone (78-59-1)	X		ND			1	mg/L			
398. Naphthalene (81-20-3)	X		ND			1	mg/L			
408. Nitrobenzene (98-95-3)	X		ND			1	mg/L			
418. N-Nitrosodimethylamine (82-78-9)	X		ND			1	mg/L			
428. N-Nitrosodi-N-Propylamine (621-64-7)	X		ND			1	mg/L			

CONTINUE ON REVERSE

PAGE V-7

EPA Form 3510-2C (9-90)

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	TEST CONC. (PPM)	LOC. (MILE)	6. MAXIMUM DAILY VALUE (1) CONCENTRATION	7. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	8. LONG TERM AVERAGE VALUE (1) CONCENTRATION	9. LONG TERM AVERAGE VALUE (2) MASS	10. CONCENTRATION	11. MASS	12. LONG TERM AVERAGE VALUE (1) MASS	13. NO. OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
43B. N-Nitro-sediphenylamine (88-90-6)	X		ND				1	µg/L		
44B. Phenanthrene (85-01-8)	X		ND				1	µg/L		
45B. Pyrene (129-00-0)	X		ND				1	µg/L		
46B. 1,2,4-Trichlorobenzene (120-82-5)	X		ND				1	µg/L		
<b>GC/MS FRACTION - PESTICIDES</b>										
1P. Aldrin (304-63-2)			X							
2P. D-DHC (319-84-8)			X							
3P. P-BHC (319-86-7)			X							
4P. 7-BHC (68-80-9)			X							
6P. D-BHC (319-86-8)			X							
8P. Chlordane (67-74-8)			X							
7P. 4,4'-DOT (60-28-3)			X							
8P. 4,4'-DDE (72-86-9)			X							
9P. 4,4'-DDD (72-84-8)			X							
10P. Dieldrin (60-57-1)			X							
11P. D-Endosulfan (115-29-7)			X							
12P. β-Endosulfan (115-29-7)			X							
13P. Endosulfan Sulfate (1031-07-8)			X							
14P. Endrin (72-20-8)			X							
15P. Endrin Aldehyde (7421-93-4)			X							
16P. Heptachlor (76-44-8)			X							

EPA I.D. NUMBER (copy from Item 1 of Form 1) **SD 002**  
**MND049537780**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (check appropriate box)	3. EFFLUENT		3. EFFLUENT		3. EFFLUENT		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (3) CONCENTRATION	d. NO. OF ANAL. YSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE (4) CONCENTRATION	h. NO. OF ANAL. YSES	i. MASS	j. MASS	k. LONG TERM AVERAGE VALUE (5) CONCENTRATION	l. NO. OF ANAL. YSES
<b>GC/MS FRACTION - PESTICIDES (continued)</b>													
17P. Heptachlor Epoxide (1024-67-3)	X												
18P. PCB-1242 (63469-21-9)	X												
19P. PCB-1254 (11087-89-1)	X												
20P. PCB-1221 (11104-28-2)	X												
21P. PCB-1232 (11141-16-5)	X												
22P. PCB-1248 (12672-29-6)	X												
23P. PCB-1260 (11096-82-5)	X												
24P. PCB-1016 (12674-11-2)	X												
26P. Toxaphene (8001-35-2)	X												

PAGE V-9



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Report To:

Attention: ERAD  
Jim Bodensteiner

Work Request # PIPP1209  
Date of Report 1/14/2010

Sample Description: Priority Pollutants

Location: Prairie Island

Customer Sample I.D.: SD-002

Chain of Custody #: 202576

LabWorks I.D. EG55440

Laboratory I.D.: 1046.16

Collection Date: 12/14/2009

Date Submitted: 12/14/2009

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Aluminum	< RL	mg/L Al	HSD	0.01	0.02	EPA 200.7	12/16/2009
Antimony	< RL	ug/L Sb	KLZ	0.1	0.5	EPA 200.8	12/22/2009
Antimony	< RL	mg/L Sb	HSD	0.05	0.1	EPA 200.7	12/16/2009
Arsenic	< RL	ug/L As	KLZ	0.5	2	EPA 200.8	12/22/2009
Barium	< RL	mg/L Ba	HSD	0.01	0.05	EPA 200.7	12/16/2009
Beryllium	< RL	mg/L Be	HSD	0.01	0.05	EPA 200.7	12/16/2009
Boron	9.38	mg/L B	HSD	0.05	0.05	EPA 200.7	12/16/2009
Cadmium	< RL	ug/L Cd	KLZ	0.1	0.5	EPA 200.8	12/22/2009
Cadmium	< RL	mg/L Cd	HSD	0.02	0.05	EPA 200.7	12/16/2009
Calcium	< RL	mg/L Ca	HSD	0.5	1.0	EPA 200.7	12/18/2009
Chromium	< RL	mg/L Cr	HSD	0.02	0.05	EPA 200.7	12/16/2009
Cobalt	< RL	mg/L Co	HSD	0.02	0.05	EPA 200.7	12/16/2009
Copper	< RL	mg/L Cu	HSD	0.01	0.02	EPA 200.7	12/16/2009
Iron	0.07	mg/L Fe	HSD	0.05	0.05	EPA 200.7	12/16/2009
Lead	< RL	ug/L Pb	KLZ	0.5	1.0	EPA 200.8	12/22/2009
Magnesium	< RL	mg/L Mg	HSD	0.2	1.0	EPA 200.7	12/18/2009
Manganese	< RL	mg/L Mn	HSD	0.05	0.02	EPA 200.7	12/16/2009
Mercury	< RL	ug/L Hg	HSD	0.5	0.5	EPA 245.1	12/24/2009
Molybdenum	< RL	mg/L Mo	HSD	0.05	0.05	EPA 200.7	12/16/2009
Molybdenum	< RL	ug/L Mo	KLZ	0.5	5.0	EPA 200.8	12/22/2009
Nickel	< RL	mg/L Ni	HSD	0.02	0.05	EPA 200.7	12/16/2009
Oil & Grease	< RL	mg/L	JCS	1.4	4	EPA 1664	12/15/2009
Selenium	< RL	ug/L Se	KLZ	0.5	2.0	EPA 200.8	12/22/2009
Silver	< RL	mg/L Ag	HSD	0.01	0.01	EPA 200.7	12/16/2009
Thallium	0.6	ug/L TL	KLZ	0.1	0.5	EPA 200.8	12/22/2009
Tin	< RL	ug/L Sn	KLZ	0.5	2.0	EPA 200.8	12/22/2009
Titanium	< RL	mg/L Ti	HSD	0.02	0.05	EPA 200.7	12/16/2009
Total Hardness	< RL	mg/L CaCO3	CMK	1		SM234OB	1/14/2010
Total Organic Carbon	5.41	mg/L C	WRNJ03	0.3	1	SM 5310B	12/17/2009
Total Suspended Solids	< RL	mg/L	JCS	0.2	1	SM 2540D	12/16/2009
Zinc	< RL	mg/L Zn	HSD	0.05	0.05	EPA 200.7	12/16/2009



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Report To:

Attention: ERAD  
Jim Bodensteiner  
Brad Giese

Work Request # PIPP0110  
Date of Report 2/12/2010

Sample Description: SGBD  
Location: Prairie Island  
Customer Sample I.D.:

LabWorks I.D. EG57951  
Laboratory I.D.: 1054.14  
Collection Date: 1/27/2010  
Date Submitted: 1/27/2010

Chain of Custody #: 205953

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Chemical Oxygen Demand	< RL	mg/L O2	CMK	8	16	EPA 410.4 RV 2	2/1/2010
Fluoride	< RL	mg/L F	JCS	0.05	0.4	EPA 300.0	1/28/2010
Sulfate	< RL	mg/L SO4	JCS	0.03	2	EPA 300.0	1/28/2010
Total Phosphorus	< RL	mg/L P	CMK	0.001	0.01	EPA 365.3	2/11/2010

Comments related to sample number EG57951:





**ANALYTICAL RESULTS**

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

Sample: SGBD Lab ID: 10118792001 Collected: 12/14/09 03:00 Received: 12/14/09 12:42 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	83-32-9	
Acenaphthylene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	208-96-8	
Anthracene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	120-12-7	
Benzidine	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	92-87-5	SS
Benzo(a)anthracene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	56-55-3	
Benzo(a)pyrene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	207-08-9	
Benzoic acid	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	65-85-0	
Benzyl alcohol	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	101-55-3	
Butylbenzylphthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	85-68-7	
Carbazole	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	59-50-7	
4-Chloroaniline	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	108-60-1	
2-Chloronaphthalene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	91-58-7	
2-Chlorophenol	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	7005-72-3	
Chrysene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	53-70-3	
Dibenzofuran	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	103	5	12/15/09 13:06	12/19/09 02:13	91-94-1	
2,4-Dichlorophenol	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	120-83-2	
Diethylphthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	84-66-2	
2,4-Dimethylphenol	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	105-67-9	
Dimethylphthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	131-11-3	
Di-n-butylphthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	534-52-1	
2,4-Dinitrophenol	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	606-20-2	
Di-n-octylphthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	117-81-7	
Fluoranthene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	206-44-0	
Fluorene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	87-68-3	
Hexachlorobenzene	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	258	5	12/15/09 13:06	12/19/09 02:13	77-47-4	
Hexachloroethane	ND	ug/L	51.5	5	12/15/09 13:06	12/19/09 02:13	67-72-1	

Date: 01/18/2010 02:09 PM

**REPORT OF LABORATORY ANALYSIS**

Page 5 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

Sample: SGBD Lab ID: 10118792001 Collected: 12/14/09 03:00 Received: 12/14/09 12:42 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	--------------	----	----------	----------	---------	------

**625 MSSV**

Analytical Method: EPA 625 Preparation Method: EPA 625

Indeno(1,2,3-cd)pyrene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	193-39-5	
Isophorone	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	78-59-1	
2-Methylnaphthalene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	95-48-7	
3&4-Methylphenol	ND ug/L		103	5	12/15/09 13:06	12/19/09 02:13		
Naphthalene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	91-20-3	
2-Nitroaniline	ND ug/L		258	5	12/15/09 13:06	12/19/09 02:13	88-74-4	
3-Nitroaniline	ND ug/L		258	5	12/15/09 13:06	12/19/09 02:13	99-09-2	
4-Nitroaniline	ND ug/L		258	5	12/15/09 13:06	12/19/09 02:13	100-01-6	
Nitrobenzene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	98-95-3	
2-Nitrophenol	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	88-75-5	
4-Nitrophenol	ND ug/L		258	5	12/15/09 13:06	12/19/09 02:13	87-86-5	
N-Nitrosodimethylamine	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	86-30-6	
Pentachlorophenol	ND ug/L		119	5	12/15/09 13:06	12/19/09 02:13	87-86-5	
Phenanthrene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	85-01-8	
Phenol	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	108-95-2	
Pyrene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	100-82-1	
2,4,5-Trichlorophenol	ND ug/L		258	5	12/15/09 13:06	12/19/09 02:13	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		51.5	5	12/15/09 13:06	12/19/09 02:13	88-06-2	
Nitrobenzene-d5 (S)	63 %		47-127	5	12/15/09 13:06	12/19/09 02:13	4165-60-0	D3
2-Fluorobiphenyl (S)	77 %		52-133	5	12/15/09 13:06	12/19/09 02:13	321-60-8	
Terphenyl-d14 (S)	86 %		55-150	5	12/15/09 13:06	12/19/09 02:13	1718-51-0	
Phenol-d6 (S)	75 %		43-128	5	12/15/09 13:06	12/19/09 02:13	13127-88-3	
2-Fluorophenol (S)	52 %		31-131	5	12/15/09 13:06	12/19/09 02:13	367-12-4	
2,4,6-Tribromophenol (S)	63 %		30-150	5	12/15/09 13:06	12/19/09 02:13	118-79-6	

**624 MSV**

Analytical Method: EPA 624

Acetone	ND ug/L		10.0	1		12/15/09 21:32	67-64-1	
Acrolein	ND ug/L		40.0	1		12/15/09 21:32	107-02-8	
Acrylonitrile	ND ug/L		10.0	1		12/15/09 21:32	107-13-1	
Allyl chloride	ND ug/L		4.0	1		12/15/09 21:32	107-05-1	
Benzene	ND ug/L		1.0	1		12/15/09 21:32	71-43-2	
Bromobenzene	ND ug/L		1.0	1		12/15/09 21:32	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		12/15/09 21:32	74-97-5	
Bromodichloromethane	ND ug/L		4.0	1		12/15/09 21:32	75-27-4	
Bromoform	ND ug/L		8.0	1		12/15/09 21:32	75-25-2	
Bromomethane	ND ug/L		4.0	1		12/15/09 21:32	74-83-9	
2-Butanone (MEK)	ND ug/L		4.0	1		12/15/09 21:32	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		12/15/09 21:32	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		12/15/09 21:32	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		12/15/09 21:32	98-06-6	
Carbon disulfide	ND ug/L		1.0	1		12/15/09 21:32	75-15-0	
Carbon tetrachloride	ND ug/L		4.0	1		12/15/09 21:32	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		12/15/09 21:32	108-90-7	

Date: 01/18/2010 02:09 PM

**REPORT OF LABORATORY ANALYSIS**

Page 6 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

Sample: SGBD Lab ID: 10118792001 Collected: 12/14/09 03:00 Received: 12/14/09 12:42 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Chloroethane	ND	ug/L	1.0	1		12/15/09 21:32	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		12/15/09 21:32	110-75-8	
Chloroform	ND	ug/L	1.0	1		12/15/09 21:32	67-66-3	
Chloromethane	ND	ug/L	4.0	1		12/15/09 21:32	74-87-3	
Chloroprene	ND	ug/L	1.0	1		12/15/09 21:32	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		12/15/09 21:32	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		12/15/09 21:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		12/15/09 21:32	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/15/09 21:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/15/09 21:32	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/15/09 21:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:32	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		12/15/09 21:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/15/09 21:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/15/09 21:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:32	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		12/15/09 21:32	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		12/15/09 21:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		12/15/09 21:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		12/15/09 21:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		12/15/09 21:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		12/15/09 21:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		12/15/09 21:32	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		12/15/09 21:32	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		12/15/09 21:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		12/15/09 21:32	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		12/15/09 21:32	591-78-6	
Iodomethane	ND	ug/L	4.0	1		12/15/09 21:32	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/15/09 21:32	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		12/15/09 21:32	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		12/15/09 21:32	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		12/15/09 21:32	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/15/09 21:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/15/09 21:32	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		12/15/09 21:32	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		12/15/09 21:32	103-65-1	
Styrene	ND	ug/L	1.0	1		12/15/09 21:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/15/09 21:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/15/09 21:32	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		12/15/09 21:32	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		12/15/09 21:32	109-99-9	
Toluene	ND	ug/L	1.0	1		12/15/09 21:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:32	87-61-6	

Date: 01/18/2010 02:09 PM

**REPORT OF LABORATORY ANALYSIS**

Page 7 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

Sample: SGBD		Lab ID: 10118792001	Collected: 12/14/09 03:00	Received: 12/14/09 12:42	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
1,2,4-Trichlorobenzene	ND ug/L		1.0	1		12/15/09 21:32	120-82-1	
1,1,1-Trichloroethane	ND ug/L		1.0	1		12/15/09 21:32	71-55-6	
1,1,2-Trichloroethane	ND ug/L		4.0	1		12/15/09 21:32	79-00-5	
Trichloroethene	ND ug/L		1.0	1		12/15/09 21:32	79-01-6	
Trichlorofluoromethane	ND ug/L		4.0	1		12/15/09 21:32	75-69-4	
1,2,3-Trichloropropane	ND ug/L		1.0	1		12/15/09 21:32	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND ug/L		1.0	1		12/15/09 21:32	76-13-1	
1,2,4-Trimethylbenzene	ND ug/L		1.0	1		12/15/09 21:32	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		1.0	1		12/15/09 21:32	108-67-8	
Vinyl acetate	ND ug/L		20.0	1		12/15/09 21:32	108-05-4	
Vinyl chloride	ND ug/L		0.40	1		12/15/09 21:32	75-01-4	
Xylene (Total)	ND ug/L		3.0	1		12/15/09 21:32	1330-20-7	
m&p-Xylene	ND ug/L		2.0	1		12/15/09 21:32	1330-20-7	
o-Xylene	ND ug/L		1.0	1		12/15/09 21:32	95-47-6	
Dibromofluoromethane (S)	94 %		75-125	1		12/15/09 21:32	1868-53-7	2M
4-Bromofluorobenzene (S)	98 %		75-125	1		12/15/09 21:32	460-00-4	
Toluene-d8 (S)	97 %		75-125	1		12/15/09 21:32	2037-26-5	
1,2-Dichloroethane-d4 (S)	96 %		75-125	1		12/15/09 21:32	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	ND units		1.0	1		12/16/09 13:40		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND mg/L		5.0	1		12/16/09 09:30		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND mg/L		2.0	1		12/16/09 13:30		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	ND mg/L		2.0	1	12/16/09 11:40	12/21/09 11:47		1M,B2
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND mg/L		0.40	1		12/17/09 17:13	24959-67-9	
<b>SM4500NO3-H, NO2 + NO3 pres.</b>		Analytical Method: SM 4500-NO3 H						
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		12/16/09 12:00		

Sample: SGBD		Lab ID: 10118792002	Collected: 12/14/09 03:00	Received: 12/14/09 12:42	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4						
Cyanide	ND mg/L		0.020	1		12/17/09 13:38	57-12-5	M0

Date: 01/18/2010 02:09 PM

### REPORT OF LABORATORY ANALYSIS

Page 8 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

**Sample: SGBD** Lab ID: 10118792002 Collected: 12/14/09 03:00 Received: 12/14/09 12:42 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Phenolics, Total Recoverable</b>		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND	ug/L	100	1		12/16/09 10:02		

**Sample: TRIP BLANK** Lab ID: 10118792003 Collected: Received: 12/14/09 12:42 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	--------------	----	----------	----------	---------	------

**624 MSV** Analytical Method: EPA 624

Acetone	ND	ug/L	10.0	1		12/15/09 21:10	67-64-1	
Acrolein	ND	ug/L	40.0	1		12/15/09 21:10	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1		12/15/09 21:10	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		12/15/09 21:10	107-05-1	
Benzene	ND	ug/L	1.0	1		12/15/09 21:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		12/15/09 21:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		12/15/09 21:10	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		12/15/09 21:10	75-27-4	
Bromoform	ND	ug/L	8.0	1		12/15/09 21:10	75-25-2	
Bromomethane	ND	ug/L	4.0	1		12/15/09 21:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	1		12/15/09 21:10	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		12/15/09 21:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		12/15/09 21:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		12/15/09 21:10	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		12/15/09 21:10	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	1		12/15/09 21:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/15/09 21:10	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/15/09 21:10	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		12/15/09 21:10	110-75-8	
Chloroform	ND	ug/L	1.0	1		12/15/09 21:10	67-66-3	
Chloromethane	ND	ug/L	4.0	1		12/15/09 21:10	74-87-3	
Chloroprene	ND	ug/L	1.0	1		12/15/09 21:10	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		12/15/09 21:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		12/15/09 21:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		12/15/09 21:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/15/09 21:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/15/09 21:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/15/09 21:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/15/09 21:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		12/15/09 21:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/15/09 21:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/15/09 21:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/09 21:10	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		12/15/09 21:10	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		12/15/09 21:10	78-87-5	

Date: 01/18/2010 02:09 PM

**REPORT OF LABORATORY ANALYSIS**

Page 9 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRE ISLAND NPDES  
 Pace Project No.: 10118792

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	-0.616 ± 0.438 (1.67)	pCi/L	12/22/09 17:06	12587-46-1	
Gross Beta	EPA 900.0m	0.267 ± 0.615 (1.44)	pCi/L	12/22/09 17:06	12587-47-2	
Total Alpha Radium	EPA 903.0	0.313 ± 0.220 (0.344)	pCi/L	12/29/09 07:09		
Radium-226	EPA 903.1	0.489 ± 0.373 (0.189)	pCi/L	12/28/09 14:15	13982-63-3	

Date: 01/18/2010 02:09 PM

**REPORT OF LABORATORY ANALYSIS**

Page 29 of 33

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





# MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724  
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885  
www.mvttl.com



Page: 1 of 1

ANDREA OPLAND  
PACE ANALYTICAL SERVICES INC  
1700 ELM ST STE 200  
MINNEAPOLIS MN 55414

Report Date: 28 Dec 09  
Lab Number: 09-A58459  
Work Order #: 12-16075  
Account #: 013980  
Sample Matrix: WASTEWATER  
Date Sampled: 14 Dec 09 3:00  
Date Received: 16 Dec 09 11:55  
PO #: 10118792


Project Name: PRAIRIE ISLAND NPDES  
Project Number: 10118792  
Sample Description: SGBD

Temp at Receipt: 3.2C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Nitrogen, Organic	2.00	mg/L	NA		23 Dec 09 12:40	Calculated
Nitrogen, Ammonia	1.10	mg/L	0.16	4500 NH3 B E	22 Dec 09 8:00	CJL
Nitrogen, Total Kjeldahl	3.1	mg/L	0.2	SM 4500NorgB/NH3 E	23 Dec 09 12:40	CJL
Anionic Surfactants	* < 0.03	mg/L	0.03	5540C	17 Dec 09 3:08	JD

\* Holding time Exceeded

Approved by:

  
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): # = Due to sample matrix      # = Due to sample concentration  
! = Due to sample quantity      + = Due to extract volume  
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125    WI LAB # 999447680    ND MICRO # 1013-M    ND WW/DW # R-040    IA LAB #: 132    IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

AN EQUAL OPPORTUNITY EMPLOYER

EPA I.D. NUMBER (copy from Item 1 of Form 1)

MWD0495 37780

OUTFALL NO.  
SD 003

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVERAGE VALUE		3. UNITS (specify if blank)		4. INTAKE (optional)	5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	a. CONCENTRATION	b. MASS		
a. Biochemical Oxygen Demand (BOD)	<2.0				1	mg/L		
b. Chemical Oxygen Demand (COD)	<25.0				1	mg/L		
c. Total Organic Carbon (TOC)	4.1				1	mg/L		
d. Total Suspended Solids (TSS)	11.0				1	mg/L		
e. Ammonia (as N)	<0.1				1	mg/L		
f. Flow	VALUE	0.225	VALUE	0.079	24	MG	VALUE	
g. Temperature (winter)	VALUE		VALUE			°C	VALUE	
h. Temperature (summer)	VALUE	25	VALUE			°C	VALUE	
i. pH	MINIMUM 3.8	MAXIMUM 3.8	MINIMUM	MAXIMUM	1	STANDARD UNITS	VALUE	

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		3. LONG TERM AVERAGE VALUE (if available)		4. UNITS		5. INTAKE (optional)	6. NO. OF ANALYSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	a. CONCENTRATION	b. MASS		
a. Bromide (24959-67-8)	X	ND				1	mg/L		
b. Chlorine, Total Residual	X	<1.0				1	units		
c. Color	X	76000				1	CFM/1000AL		
d. Fecal Coliform	X	0.37				1	mg/L		
e. F. F. F. (16884-88-8)	X	ND				1	mg/L		
f. Nitrospira Nitroba (as N)	X								



ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)				
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		a. LONG TERM AVERAGE VALUE				
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
g. Nitrogen, Total Organic (as N)	X		<1.0										
h. Oil and Grease	X		<4.9										
i. Phosphorus (as P), Total (7723-14-0)	X		0.12										
j. Radioactivity													
(1) Alpha, Total	X		13.9 ± 3.29										
(2) Beta, Total	X		33,260 ± 6,097										
(3) Radium, Total	X		0.375 ± 0.363										
(4) Radium 226, Total	X		0.117 ± 0.231										
k. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		<10.0										
l. Sulfide (as S)	X		ND										
m. Sulfite (as SO <sub>3</sub> ) (14295-45-3)	X		ND										
n. Surfactants	X		<.10										
o. Aluminum, Total (7429-90-5)	X		<50.0										
p. Barium, Total (7440-39-3)	X		<10.0										
q. Boron, Total (7440-42-9)	X		927000										
r. Cobalt, Total (7440-48-4)	X		<5.0										
s. Iron, Total (7439-89-6)	X		329										
t. Magnesium, Total (7439-95-4)	X		<200										
u. Molybdenum, Total (7439-98-7)	X		<20.0										
v. Manganese, Total (7439-96-5)	X		<5.0										
w. Tin, Total (7440-31-5)	X		<50.0										
x. Titanium, Total (7440-32-6)	X		<5.0										

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1) **MD049537780** OUTFALL NUMBER **SD003**

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2b-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark 'X' in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark 'X' in column 2-b for each pollutant you know or have reason to believe is present. Mark 'X' in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED (if available)	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1)	b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)	d. NO. OF ANALYSES	a. LONG TERM AVERAGE VALUE (1)	
					(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>										
1M. Antimony, Total (7440-38-0)	X			< 5.0				1	µg/L	
2M. Arsenic, Total (7440-38-2)	X			65.8				1	µg/L	
3M. Beryllium, Total (7440-41-7)	X			< 1.0				1	µg/L	
4M. Cadmium, Total (7440-43-8)	X			< 100				1	µg/L	
5M. Chromium, Total (7440-47-3)	X			< 5.0				1	µg/L	
6M. Copper, Total (7440-50-8)	X			5.7				1	µg/L	
7M. Lead, Total (7439-92-1)	X			6.5				1	µg/L	
8M. Mercury, Total (7439-97-6)	X			< 200				1	µg/L	
9M. Nickel, Total (7440-02-0)	X			< 10.0				1	µg/L	
10M. Selenium, Total (7782-49-2)	X			< 500				1	µg/L	
11M. Silver, Total (7440-22-4)	X			< 1.0				1	µg/L	
12M. Thallium, Total (7440-28-0)	X			< 10.0				1	µg/L	
13M. Zinc, Total (7440-66-6)	X			< 10.0				1	µg/L	
14M. Cyanide, Total (57-12-5)	X			< 0.050				1	µg/L	
15M. Phenols, Total	X			< 50				1	µg/L	
<b>DIOXIN</b>										
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1784-01-6)		X								

DESCRIBE RESULTS

EPA Form 3510-2C (8-90)

PAGE 1-3

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' SIZE, D. SPEC. INVERTING, SUBSTRATE, SENSITIVITY	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		A. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. CONCEN- TRATION	D. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. NO. OF ANAL. YSES
GC/MS FRACTION - VOLATILE COMPOUNDS							
1V. Acrolein (107-02-8)	X	ND				1 mg/L	
2V. Acrylonitrile (107-13-1)	X	ND				1 mg/L	
3V. Benzene (71-43-2)	X	ND				1 mg/L	
4V. Bis (Chloro- methyl) Ether (542-88-1)		NA	Removed from the Federal pollutants list	organic toxic			
5V. Bromoform (75-25-2)	X	ND				1 mg/L	
6V. Carbon Tetrachloride (58-23-8)	X	ND				1 mg/L	
7V. Chlorobenzene (108-90-7)	X	ND				1 mg/L	
8V. Chloro-di-bromomethane (124-48-1)	X	ND				1 mg/L	
9V. Chloroethane (75-00-3)	X	ND				1 mg/L	
10V. 2-Chloro- ethylmethyl Ether (110-78-8)	X	ND				1 mg/L	
11V. Chloroform (67-66-3)	X	ND				1 mg/L	
12V. Dichloro- bromomethane (75-27-4)	X	ND				1 mg/L	
13V. Dichloro- difluoromethane (75-71-8)	X	ND				1 mg/L	
14V. 1,1-Dichloro- ethane (78-34-3)	X	ND				1 mg/L	
15V. 1,2-Dichloro- ethane (107-96-2)	X	ND				1 mg/L	
16V. 1,1-Dichloro- ethylene (78-35-4)	X	ND				1 mg/L	
17V. 1,2-Dichloro- propane (78-87-5)	X	ND				1 mg/L	
18V. 1,3-Dichloro- propane (542-75-6)	X	ND				1 mg/L	
19V. Ethylbenzene (100-41-4)	X	ND				1 mg/L	
20V. Methyl Bromide (74-83-9)	X	ND				1 mg/L	
21V. Methyl Chloride (74-87-3)	X	ND				1 mg/L	

Not Analyzed for by Contract 105

Analyzed for cis-1,3 - Dichloropropene

CONTINUED FROM PAGE V-4

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X' IN THESE SPACES (if available)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		E. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	F. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	G. CONCENTRATION (1) (2) MASS	H. NO. OF ANAL. YRS	I. CONCENTRATION (1) (2) MASS	J. NO. OF ANAL. YRS
<b>GCMS FRACTION - VOLATILE COMPOUNDS (continued)</b>							
22V. Methylene Chloride (76-08-2)	X	ND			1	mg/L	
23V. 1,1,2-Tetrachloroethane (78-34-8)	X	ND			1	mg/L	
24V. Tetrachloroethylene (127-18-4)	X	ND			1	mg/L	
25V. Toluene (108-88-3)	X	ND			1	mg/L	
26V. 1,2-Dichloroethylene (126-60-5)	X	ND			1	mg/L	
27V. 1,1,1-Trichloroethane (71-95-5)	X	ND			1	mg/L	
28V. 1,1,2-Trichloroethane (79-00-5)	X	ND			1	mg/L	
29V. Trichloroethylene (79-01-6)	X	ND			1	mg/L	
30V. Trichloroethylene (79-01-6)	X	ND			1	mg/L	
31V. Vinyl Chloride (75-01-4)	X	ND			1	mg/L	
<b>GCMS FRACTION - ACID COMPOUNDS</b>							
1A. 2-Chloropheno (85-87-8)	X	ND			1	mg/L	
2A. 2,4-Dichloropheno (120-83-2)	X	ND			1	mg/L	
3A. 2,4-Dimethylphenol (108-67-5)	X	ND			1	mg/L	
4A. 2,4-Dinitrophenol (834-83-1)	X	ND			1	mg/L	
5A. 2,4-Dinitrophenol (81-28-5)	X	ND			1	mg/L	
6A. 2-Nitrophenol (89-75-3)	X	ND			1	mg/L	
7A. 4-Nitrophenol (100-02-7)	X	ND			1	mg/L	
8A. 2-Chloro-M-Cresol (69-50-7)	X	ND			1	mg/L	
9A. 2-Chloro-M-Cresol (69-50-7)	X	ND			1	mg/L	
10A. Phenol (108-95-3)	X	ND			1	mg/L	
11A. Phenol (108-95-3)	X	ND			1	mg/L	

Not Analyzed for by Contract lab

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	MAX. DAILY LOAD (lb/day)	MAX. DAILY CONC. (ppm)	D. MAXIMUM DAILY VALUE		C. LONG TERM AVERAGE VALUE		E. CONCENTRATION	D. MASS	F. LONG TERM AVERAGE VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS											
18. Acenaphthene (83-32-9)	X										
28. Acenaphthylene (208-96-8)	X										
38. Anthracene (120-12-7)	X										
48. Benzidine (92-87-6)	X										
58. Benzo (a) Anthracene (151-85-3)	X										
68. Benzo (a) Pyrene (50-32-8)	X										
78. 3,4-Benzofluoranthene (206-98-2)	X										
88. Benzo (ghi) Perylene (191-34-2)	X										
98. Benzo (k) Fluoranthene (207-08-9)	X										
108. Bis (2-Chloroethoxy) Methane (111-81-1)	X										
118. Bis (2-Chloroethyl) Ether (111-44-4)	X										
128. Bis (2-Chloropropyl) Ether (108-60-1)	X										
138. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X										
148. Bisphenol A (95-47-6)	X										
158. Butyl Benzyl Phthalate (85-68-7)	X										
168. Chlorobenzene (108-90-7)	X										
178. Chloroethane (78-07-2)	X										
188. Chloroethane (78-07-2)	X										
198. Chloroethane (78-07-2)	X										
208. 1,2-Dichlorobenzene (95-50-1)	X										
218. 1,3-Dichlorobenzene (541-73-1)	X										

CONTINUED FROM PAGE V-6

1. POLLUTANT NUMBER (If available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		8. MAXIMUM DAILY VALUE (1) MASS CONCENTRATION	9. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	10. NO. OF YES	b. MASS	(1) CONCENTRATION	b. NO. OF AMAL. YSES
22B. 1,4-Dichlorobenzene (108-46-7)	X	ND		1	mg/L		
23B. 1,2-Dichlorobenzene (91-20-3)	X	ND		1	mg/L		
24B. 1,3-Dichlorobenzene (95-49-8)	X	ND		1	mg/L		
25B. 1,4-Dichlorobenzene (108-46-7)	X	ND		1	mg/L		
26B. 2,4-Dinitrochlorobenzene (121-14-2)	X	ND		1	mg/L		
27B. 2,5-Dinitrochlorobenzene (808-20-2)	X	ND		1	mg/L		
28B. Di-N-Octyl Phthalate (117-84-0)	X	ND		1	mg/L		
29B. 2,2-Diphenylhexafluoropropane (122-66-7)	X	ND		1	mg/L		
31B. Fluoranthene (206-44-0)	X	ND		1	mg/L		
32B. Fluorene (86-73-7)	X	ND		1	mg/L		
33B. Hexachlorobenzene (118-74-1)	X	ND		1	mg/L		
34B. Hexachlorobutadiene (87-48-3)	X	ND		1	mg/L		
35B. Hexachlorocyclopentadiene (77-47-4)	X	ND		1	mg/L		
36B. Hexachloroethane (67-72-1)	X	ND		1	mg/L		
37B. Indeno (1,2,3-cd) Pyrene (193-38-6)	X	ND		1	mg/L		
38B. Isophorone (78-38-1)	X	ND		1	mg/L		
39B. Naphthalene (91-20-3)	X	ND		1	mg/L		
40B. Nitrobenzene (98-05-3)	X	ND		1	mg/L		
41B. N-Nitrosodimethylamine (62-76-9)	X	ND		1	mg/L		
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X	ND		1	mg/L		

EPA Form 3610-2C (8-00)

PAGE V-7

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' HAS BEEN IDENTIFIED AS A PESTICIDE		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	MAX. CONC. (1) (mg/L)	NO. OF ANAL. YSES (2)	MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	MAXIMUM 7-DAY VALUE (1) CONCENTRATION (2) MASS	CONCENTRATION (1) (mg/L)	NO. OF ANAL. YSES (2)	LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	NO. OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>								
43B. N-Nitro-sodiphenylamine (86-30-6)	X		ND			1	mg/L	
44B. Phenanthrene (89-01-8)	X		ND			1	mg/L	
45B. Pyrene (129-00-0)	X		ND			1	mg/L	
46B. 1,2,4-Tri-methylbenzotriazine (124-25-3)	X		ND			1	mg/L	
<b>GC/MS FRACTION - PESTICIDES</b>								
7P. Aldrin (50-11-7)		X						
8P. Dieldrin (50-11-7)		X						
9P. Endrin (50-11-7)		X						
10P. Endosulfan (115-29-7)		X						
11P. Endosulfan Sulfate (1031-07-8)		X						
12P. Endrin Aldehyde (7421-93-4)		X						
13P. Heptachlor (76-44-9)		X						
14P. Endrin (72-20-8)		X						
15P. Endrin (72-20-8)		X						
16P. Endrin (72-20-8)		X						
17P. Endrin (72-20-8)		X						
18P. Endrin (72-20-8)		X						
19P. Endrin (72-20-8)		X						
20P. Endrin (72-20-8)		X						
21P. Endrin (72-20-8)		X						
22P. Endrin (72-20-8)		X						
23P. Endrin (72-20-8)		X						
24P. Endrin (72-20-8)		X						
25P. Endrin (72-20-8)		X						
26P. Endrin (72-20-8)		X						
27P. Endrin (72-20-8)		X						
28P. Endrin (72-20-8)		X						
29P. Endrin (72-20-8)		X						
30P. Endrin (72-20-8)		X						
31P. Endrin (72-20-8)		X						
32P. Endrin (72-20-8)		X						
33P. Endrin (72-20-8)		X						
34P. Endrin (72-20-8)		X						
35P. Endrin (72-20-8)		X						
36P. Endrin (72-20-8)		X						
37P. Endrin (72-20-8)		X						
38P. Endrin (72-20-8)		X						
39P. Endrin (72-20-8)		X						
40P. Endrin (72-20-8)		X						
41P. Endrin (72-20-8)		X						
42P. Endrin (72-20-8)		X						
43P. Endrin (72-20-8)		X						
44P. Endrin (72-20-8)		X						
45P. Endrin (72-20-8)		X						
46P. Endrin (72-20-8)		X						
47P. Endrin (72-20-8)		X						
48P. Endrin (72-20-8)		X						
49P. Endrin (72-20-8)		X						
50P. Endrin (72-20-8)		X						
51P. Endrin (72-20-8)		X						
52P. Endrin (72-20-8)		X						
53P. Endrin (72-20-8)		X						
54P. Endrin (72-20-8)		X						
55P. Endrin (72-20-8)		X						
56P. Endrin (72-20-8)		X						
57P. Endrin (72-20-8)		X						
58P. Endrin (72-20-8)		X						
59P. Endrin (72-20-8)		X						
60P. Endrin (72-20-8)		X						
61P. Endrin (72-20-8)		X						
62P. Endrin (72-20-8)		X						
63P. Endrin (72-20-8)		X						
64P. Endrin (72-20-8)		X						
65P. Endrin (72-20-8)		X						
66P. Endrin (72-20-8)		X						
67P. Endrin (72-20-8)		X						
68P. Endrin (72-20-8)		X						
69P. Endrin (72-20-8)		X						
70P. Endrin (72-20-8)		X						
71P. Endrin (72-20-8)		X						
72P. Endrin (72-20-8)		X						
73P. Endrin (72-20-8)		X						
74P. Endrin (72-20-8)		X						
75P. Endrin (72-20-8)		X						
76P. Endrin (72-20-8)		X						
77P. Endrin (72-20-8)		X						
78P. Endrin (72-20-8)		X						
79P. Endrin (72-20-8)		X						
80P. Endrin (72-20-8)		X						
81P. Endrin (72-20-8)		X						
82P. Endrin (72-20-8)		X						
83P. Endrin (72-20-8)		X						
84P. Endrin (72-20-8)		X						
85P. Endrin (72-20-8)		X						
86P. Endrin (72-20-8)		X						
87P. Endrin (72-20-8)		X						
88P. Endrin (72-20-8)		X						
89P. Endrin (72-20-8)		X						
90P. Endrin (72-20-8)		X						
91P. Endrin (72-20-8)		X						
92P. Endrin (72-20-8)		X						
93P. Endrin (72-20-8)		X						
94P. Endrin (72-20-8)		X						
95P. Endrin (72-20-8)		X						
96P. Endrin (72-20-8)		X						
97P. Endrin (72-20-8)		X						
98P. Endrin (72-20-8)		X						
99P. Endrin (72-20-8)		X						
100P. Endrin (72-20-8)		X						

EPA I.D. NUMBER (copy from Item J of Form J) **MV D049537780** | OUTFALL NUMBER **SD 003**

CONTINUED FROM PAGE V-3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	HEAVY METALS	ORGANIC CHLORIDES	ORGANIC PHOSPHORUS	8. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	H. NO. OF ANAL. YSES	B. CONCENTRATION	B. MASS	(1) CONCENTRATION	(2) MASS	D. NO. OF ANAL. YSES
<b>GC/MS FRACTION - PESTICIDES (continued)</b>													
17P. Heptachlor Epoxide (1024-87-3)				X									
18P. PCB-1242 (63469-21-9)				X									
19P. PCB-1254 (11087-66-1)				X									
20P. PCB-1221 (11104-26-2)				X									
21P. PCB-1232 (11141-16-5)				X									
22P. PCB-1248 (12872-28-8)				X									
23P. PCB-1260 (11098-82-8)				X									
24P. PCB-1016 (12874-11-2)				X									
28P. Toxaphene (8001-36-2)				X									





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

February 23, 2010

Brad Giese  
Environmental Compliance Coord  
1717 Wakonade Drive East  
Welch, MN 55089

RE: Project: Prairie Island NPDES  
Pace Project No.: 3022194

Dear Brad Giese:

Enclosed are the analytical results for sample(s) received by the laboratory on February 02, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Amy Wells

amy.wells@pacelabs.com  
Project Manager

Enclosures

cc: Jeanne Tobias, Environmental Compliance Coordinator

#### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

### CERTIFICATIONS

Project: Prairie Island NPDES  
Pace Project No.: 3022194

---

**Pennsylvania Certification IDs**  
1638 Roseytown Road Suites 2,3&4 Greensburg, PA  
15601  
Wyoming Certification #: 8TMS-Q  
Wisconsin/PADEP Certification  
West Virginia Certification #: 143  
Washington Certification #: C1941  
Virginia Certification #: 00112  
Virgin Island/PADEP Certification  
Utah/NELAC Certification #: ANTE  
Texas/NELAC Certification #: T104704188-09 TX  
Tennessee Certification #: TN2867  
South Dakota Certification  
Puerto Rico Certification #: PA01457  
Pennsylvania/NELAC Certification #: 65-282  
Oregon/NELAC Certification #: PA200002  
North Carolina Certification #: 42706  
New York/NELAC Certification #: 10888  
New Mexico Certification  
New Jersey/NELAC Certification #: PA 051  
New Hampshire/NELAC Certification #: 2976  
Nevada Certification  
Montana Certification #: Cert 0082  
Missouri Certification #: 235  
Michigan/PADEP Certification

Massachusetts Certification #: M-PA1457  
Maryland Certification #: 308  
Maine Certification #: PA0091  
Louisiana/NELAC Certification #: LA080002  
Louisiana/NELAC Certification #: 4086  
Kentucky Certification #: 90133  
Kansas/NELAC Certification #: E-10358  
Iowa Certification #: 391  
Indiana/PADEP Certification  
Illinois/PADEP Certification  
Idaho Certification  
Hawaii/PADEP Certification  
Guam/PADEP Certification  
Georgia Certification #: 968  
Florida/NELAC Certification #: E87683  
Delaware Certification  
Connecticut Certification #: PH 0694  
Colorado Certification  
California/NELAC Certification #: 04222CA  
Arkansas Certification  
Arizona Certification #: AZ0734  
Alabama Certification #: 41590

---

### REPORT OF LABORATORY ANALYSIS

Page 2 of 77

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5600

**SAMPLE ANALYTE COUNT**

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3022194001	SD 003	EPA 200.7	SAB	23	PASI-PA
		SM 2340B	SAB	3	PASI-PA
		SM 9222D	JMC	1	PASI-PA
		EPA 245.2	CTS	1	PASI-PA
		EPA 625	SPL	63	PASI-PA
		EPA 624	EAC	31	PASI-PA
		SM 7110C	JC2	1	PASI-PA
		EPA 903.0	MBT	1	PASI-PA
		EPA 903.1	RMD	1	PASI-PA
		EPA 120.1	BKH	1	PASI-PA
		EPA 1664A	DLH	1	PASI-PA
		SM 2120B	JMC	1	PASI-PA
		SM 2320B	JMC	1	PASI-PA
		SM 2540D	JMC	1	PASI-PA
		SM 4500-H+B	JMC	1	PASI-PA
		SM 4500-SO3 B	DLD	1	PASI-PA
		SM 5210B	MDF	1	PASI-PA
		SM 5540C	DLD	1	PASI-PA
		EPA 9034	DLD	1	PASI-PA
		TKN-NH3 Calculation	DJT	1	PASI-PA
		EPA 300.0	BKH	2	PASI-PA
		EPA 350.1	DJT	1	PASI-PA
		EPA 351.2	DJT	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		SM 4500-CI-E	DJT	1	PASI-PA
		SM 4500-CN-E	DLD	1	PASI-PA
		SM 4500-NO3 F	DJT	1	PASI-PA
		SM 4500-P E	DJT	1	PASI-PA
		SM 5310C	BKH	1	PASI-PA
		EPA 9065/9066	JMC	1	PASI-PA
ASTM D516-90,02	BKH	1	PASI-PA		

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15801  
(724)850-5600

## PROJECT NARRATIVE

Project: Prairie Island NPDES  
Pace Project No.: 3022194

---

**Method:** EPA 200.7  
**Description:** 200.7 Metals, Total  
**Client:** Xcel Energy-Prairie Island Nuclear Generating Plant  
**Date:** February 23, 2010

**General Information:**

1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

Page 4 of 77

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

## PROJECT NARRATIVE

Project: Prairie Island NPDES  
Pace Project No.: 3022194

**Method:** ASTM D516-90,02  
**Description:** ASTM D516-9002 Sulfate Water  
**Client:** Xcel Energy-Prairie Island Nuclear Generating Plant  
**Date:** February 23, 2010

**General Information:**

1 sample was analyzed for ASTM D516-90,02. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/3715

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3022194001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 142318)
- Sulfate

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

Page 35 of 77

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5800

### ANALYTICAL RESULTS

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Sample: SD 003 Lab ID: 3022194001 Collected: 02/01/10 07:30 Received: 02/02/10 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	ND	ug/L	50.0	1	02/03/10 10:32	02/04/10 11:52	7429-90-5	
Antimony	ND	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-36-0	
Arsenic	65.8	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-38-2	
Barium	ND	ug/L	10.0	1	02/03/10 10:32	02/04/10 11:52	7440-39-3	
Beryllium	ND	ug/L	1.0	1	02/03/10 10:32	02/04/10 11:52	7440-41-7	
Boron	927000	ug/L	5000	100	02/03/10 10:32	02/05/10 10:45	7440-42-8	
Cadmium	ND	ug/L	100	100	02/03/10 10:32	02/05/10 10:45	7440-43-9	
Calcium	ND	ug/L	100000	100	02/03/10 10:32	02/05/10 10:45	7440-70-2	
Chromium	ND	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-47-3	
Cobalt	ND	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-48-4	
Copper	5.7	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-50-8	
Iron	329	ug/L	50.0	1	02/03/10 10:32	02/04/10 11:52	7439-89-6	
Lead	6.5	ug/L	2.0	1	02/03/10 10:32	02/04/10 11:52	7439-92-1	
Magnesium	ND	ug/L	200	1	02/03/10 10:32	02/04/10 11:52	7439-95-4	
Manganese	ND	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7439-96-5	
Molybdenum	ND	ug/L	20.0	1	02/03/10 10:32	02/04/10 11:52	7439-98-7	
Nickel	ND	ug/L	10.0	1	02/03/10 10:32	02/04/10 11:52	7440-02-0	
Selenium	ND	ug/L	500	100	02/03/10 10:32	02/05/10 10:45	7782-49-2	
Silver	ND	ug/L	1.0	1	02/03/10 10:32	02/04/10 11:52	7440-22-4	
Thallium	ND	ug/L	10.0	1	02/03/10 10:32	02/04/10 11:52	7440-28-0	
Tin	ND	ug/L	50.0	1	02/03/10 10:32	02/04/10 11:52	7440-31-5	
Titanium	ND	ug/L	5.0	1	02/03/10 10:32	02/04/10 11:52	7440-32-6	
Zinc	ND	ug/L	10.0	1	02/03/10 10:32	02/04/10 11:52	7440-66-6	
<b>2340B Hardness, Total (Calc.)</b>		Analytical Method: SM 2340B						
Calcium	ND	ug/L	50000	100		02/05/10 00:00	7440-70-2	
Magnesium	ND	ug/L	20000	100		02/05/10 00:00	7439-95-4	
Total Hardness	ND	mg/L	210	100		02/05/10 00:00		
<b>9222D MICRO Fecal Coli by MF</b>		Analytical Method: SM 9222D Preparation Method: SM 9222D						
Fecal Coliforms	>6000	CFU/100 mL		1	02/04/10 20:09	02/01/10 00:00		
<b>245.2 Mercury</b>		Analytical Method: EPA 245.2 Preparation Method: EPA 245.2						
Mercury	ND	ug/L	0.20	1	02/04/10 09:38	02/04/10 12:18	7439-97-6	
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Acenaphthene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	83-32-9	
Acenaphthylene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	208-96-8	
Anthracene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	120-12-7	
Azobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	103-33-3	
Benzidine	ND	ug/L	1050	1	02/08/10 11:19	02/16/10 00:25	92-87-5	
Benzo(a)anthracene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	207-08-9	

Date: 02/23/2010 03:27 PM

### REPORT OF LABORATORY ANALYSIS

Page 36 of 77

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.





Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5600

**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Sample: SD 003 Lab ID: 3022194001 Collected: 02/01/10 07:30 Received: 02/02/10 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
4-Bromophenylphenyl ether	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	85-68-7	
bis(2-Chloroethoxy)methane	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	108-60-1	
2-Chloronaphthalene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	91-58-7	
2-Chlorophenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	7005-72-3	
Chrysene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	53-70-3	
1,2-Dichlorobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	120-83-2	
Diethylphthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	105-67-9	
Dimethylphthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	26.3	1	02/08/10 11:19	02/16/10 00:25	534-52-1	
2,4-Dinitrophenol	ND	ug/L	26.3	1	02/08/10 11:19	02/16/10 00:25	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	117-81-7	
Fluoranthene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	206-44-0	
Fluorene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	87-68-3	
Hexachlorobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	77-47-4	
Hexachloroethane	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	193-39-6	
Isophorone	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	78-59-1	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	21.1	1	02/08/10 11:19	02/16/10 00:25		
Naphthalene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	91-20-3	
Nitrobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	98-95-3	
2-Nitrophenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	88-75-5	
4-Nitrophenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	86-30-6	
Pentachlorophenol	ND	ug/L	26.3	1	02/08/10 11:19	02/16/10 00:25	87-86-5	
Phenanthrene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	85-01-8	
Phenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	108-95-2	
Pyrene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	120-82-1	
2,4,6-Trichlorophenol	ND	ug/L	10.5	1	02/08/10 11:19	02/16/10 00:25	88-06-2	

Date: 02/23/2010 03:27 PM

**REPORT OF LABORATORY ANALYSIS**

Page 37 of 77

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5600

**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Sample: SD 003 Lab ID: 3022194001 Collected: 02/01/10 07:30 Received: 02/02/10 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Nitrobenzene-d5 (S)	70 %		35-114	1	02/08/10 11:19	02/16/10 00:25	4165-60-0	
2-Fluorobiphenyl (S)	80 %		43-116	1	02/08/10 11:19	02/16/10 00:25	321-60-8	
Terphenyl-d14 (S)	158 %		33-141	1	02/08/10 11:19	02/16/10 00:25	1718-51-0	S3
Phenol-d6 (S)	28 %		10-110	1	02/08/10 11:19	02/16/10 00:25	13127-88-3	
2-Fluorophenol (S)	42 %		21-110	1	02/08/10 11:19	02/16/10 00:25	367-12-4	
2,4,6-Tribromophenol (S)	100 %		10-123	1	02/08/10 11:19	02/16/10 00:25	118-79-6	
<b>624 Volatile Organics</b>		Analytical Method: EPA 624						
Acrolein	ND ug/L		2.0	1		02/03/10 12:51	107-02-8	
Acrylonitrile	ND ug/L		2.0	1		02/03/10 12:51	107-13-1	
Benzene	ND ug/L		1.0	1		02/03/10 12:51	71-43-2	
Bromodichloromethane	ND ug/L		1.0	1		02/03/10 12:51	75-27-4	
Bromoform	ND ug/L		1.0	1		02/03/10 12:51	75-25-2	
Bromomethane	ND ug/L		1.0	1		02/03/10 12:51	74-83-9	
Carbon tetrachloride	ND ug/L		1.0	1		02/03/10 12:51	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		02/03/10 12:51	108-90-7	
Chloroethane	ND ug/L		1.0	1		02/03/10 12:51	75-00-3	
2-Chloroethylvinyl ether	ND ug/L		2.0	1		02/03/10 12:51	110-75-8	
Chloroform	ND ug/L		1.0	1		02/03/10 12:51	67-66-3	
Chloromethane	ND ug/L		1.0	1		02/03/10 12:51	74-87-3	
Dibromochloromethane	ND ug/L		1.0	1		02/03/10 12:51	124-48-1	
1,1-Dichloroethane	ND ug/L		1.0	1		02/03/10 12:51	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		02/03/10 12:51	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	1		02/03/10 12:51	75-35-4	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		02/03/10 12:51	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		02/03/10 12:51	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		02/03/10 12:51	10081-01-5	
Ethylbenzene	ND ug/L		1.0	1		02/03/10 12:51	100-41-4	
Methylene Chloride	ND ug/L		1.0	1		02/03/10 12:51	75-09-2	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	1		02/03/10 12:51	79-34-5	
Tetrachloroethene	ND ug/L		1.0	1		02/03/10 12:51	127-18-4	
Toluene	ND ug/L		1.0	1		02/03/10 12:51	108-88-3	
1,1,1-Trichloroethane	ND ug/L		1.0	1		02/03/10 12:51	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	1		02/03/10 12:51	79-00-5	
Trichloroethene	ND ug/L		1.0	1		02/03/10 12:51	79-01-6	
Vinyl chloride	ND ug/L		1.0	1		02/03/10 12:51	75-01-4	
4-Bromofluorobenzene (S)	94 %		70-130	1		02/03/10 12:51	460-00-4	
Toluene-d8 (S)	95 %		70-130	1		02/03/10 12:51	2037-26-5	
1,2-Dichloroethane-d4 (S)	102 %		70-130	1		02/03/10 12:51	17060-07-0	
<b>120.1 Specific Conductance</b>		Analytical Method: EPA 120.1						
Specific Conductance	54.7 umhos/cm		1.0	1		02/03/10 00:00		
<b>HEM, Oil and Grease</b>		Analytical Method: EPA 1664A						
Oil and Grease	ND mg/L		4.9	1		02/12/10 16:02		

Date: 02/23/2010 03:27 PM

**REPORT OF LABORATORY ANALYSIS**

Page 38 of 77

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.







Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5600

### ANALYTICAL RESULTS

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Sample: SD 003	Lab ID: 3022194001	Collected: 02/01/10 07:30	Received: 02/02/10 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2120B W Apparent Color</b>	Analytical Method: SM 2120B							
Apparent Color	ND	units	1.0	1		02/02/10 00:00		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	10.0	1		02/11/10 18:30		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	11.0	mg/L	4.0	1		02/03/10 19:37		
<b>4500H+ pH, Electrometric</b>	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	3.8	Std. Units	1.0	1		02/02/10 19:57		H6
<b>4500SO3B Sulfite, Iodometric</b>	Analytical Method: SM 4500-SO3 B							
Sulfite	ND	mg/L	2.0	1		02/03/10 14:49		H6
<b>5210B BOD, 5 day</b>	Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	ND	mg/L	2.0	1	02/03/10 14:00	02/03/10 00:00		
<b>5540C MBAS Surfactants</b>	Analytical Method: SM 5540C							
Surfactants	ND	mg/L	0.10	1		02/02/10 22:56		
<b>9034 Sulfide Water</b>	Analytical Method: EPA 9034							
Sulfide	ND	mg/L	1.0	1		02/08/10 12:35		
<b>Total Organic Nitrogen Calc.</b>	Analytical Method: TKN-NH3 Calculation							
Total Organic Nitrogen	ND	mg/L	1.0	1		02/17/10 00:00		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Bromide	ND	mg/L	0.62	10		02/23/10 00:00	24959-67-9	
Fluoride	0.37	mg/L	0.12	10		02/23/10 00:00	16984-48-8	
<b>350.1 Ammonia, Distilled</b>	Analytical Method: EPA 350.1							
Ammonia, Distilled	ND	mg/L	0.10	1		02/05/10 15:55		
<b>351.2 Total Kjeldahl Nitrogen</b>	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND	mg/L	1.0	1		02/11/10 00:00	7727-37-9	
<b>410.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	ND	mg/L	25.0	1		02/09/10 13:41		
<b>4500 Chloride</b>	Analytical Method: SM 4500-Cl-E							
Chloride	3.5	mg/L	3.0	1		02/05/10 14:29	16887-00-6	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		02/02/10 14:38	57-12-5	

Date: 02/23/2010 03:27 PM

### REPORT OF LABORATORY ANALYSIS

Page 39 of 77

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1638 Roseytown Road - Suites 2,3,4  
 Greensburg, PA 15601  
 (724)850-5600

**ANALYTICAL RESULTS**

Project: Prairie Island NPDES  
 Pace Project No.: 3022194

Sample: SD 003	Lab ID: 3022194001	Collected: 02/01/10 07:30	Received: 02/02/10 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>SM4500NO3-F, NO3-NO2</b>	Analytical Method: SM 4500-NO3 F							
Nitrogen,NO2 plus NO3	ND	mg/L	0.10	1		02/12/10 00:00		
<b>4500PB5E Total Phosphorus</b>	Analytical Method: SM 4500-P E							
Phosphorus	0.12	mg/L	0.030	1		02/11/10 10:07	7723-14-0	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	4.1	mg/L	1.0	1		02/12/10 00:00	7440-44-0	
<b>Phenolics, Total</b>	Analytical Method: EPA 9065/9066							
Phenolics, Total Recoverable	ND	ug/L	50.0	1		02/12/10 20:23	64743-03-9	
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	ND	mg/L	10.0	1		02/22/10 12:19	14808-79-8	





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

### ANALYTICAL RESULTS

Project: Prairie Island NPDES  
Pace Project No.: 3022194

Sample: SD 003 Lab ID: 3022194001 Collected: 02/01/10 07:30 Received: 02/02/10 09:30 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	SM 7110C	13.9 ± 3.29 (2.07)	pCi/L	02/09/10 18:20	12587-46-1	
Gross Beta	EPA 900.0m	33,260 ± 6,097 (3.85)	pCi/L	02/09/10 18:15	12587-47-2	
Total Alpha Radium	EPA 903.0	0.375 ± 0.363 (0.644)	pCi/L	02/09/10 10:37		
Radium-226	EPA 903.1	0.117 ± 0.231 (0.432)	pCi/L	02/22/10 11:58	13982-63-3	

Date: 02/24/2010 02:49 PM

### REPORT OF LABORATORY ANALYSIS

Page 73 of 79

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



EPA I.D. NUMBER (copy from Item 1 of Form 1)  
**MND049537780**

OUTFALL NO.  
**SD005**

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

**V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)**

**PART A -** You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT			3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	3.1			1	mg/L			
b. Chemical Oxygen Demand (COD)	<16			1	mg/L			
c. Total Organic Carbon (TOC)	3.79			1	mg/L			
d. Total Suspended Solids (TSS)	3.2			1	mg/L			
e. Ammonia (as N)	2.64			1	mg/L			
f. Flow	VALUE	1.197	VALUE	24	MG		VALUE	
g. Temperature (winter)	VALUE		VALUE				VALUE	
h. Temperature (summer)	VALUE		VALUE				VALUE	
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	STANDARD UNITS			
	8.44	8.44						

**PART B -** Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)	
	a. PRESENT	b. ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Bromide (24859-67-9)	X		ND			1	mg/L					
b. Chlorine Total Residual	X		<0.03			1	mg/L					
c. Color	X		10.0			1	units					
d. Fecal Coliform	X		<4			1	CFU/100 mL					
e. Fluoride (16984-48-9)	X		<0.4			1	mg/L					
f. Nitrate-Nitrite (as N)	X		0.88			1	mg/L					

CONTINUE ON REVERSE

ITEM V-8 CONTINUED FROM FRONT

POLUT. ANAL. AND GAS NO. (if available)	2. MARK 'X' (if checked)		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. USES	
	MAXIMUM DAILY VALUE (1)	CONCENTRATION (2)	MAXIMUM DAILY VALUE (1)	CONCENTRATION (2)	CONCENTRATION (1)	MASS (2)	CONCENTRATION (1)	MASS (2)		
g. Nitrogen, Total Organic (as N)	X	1.26							1	mg/L
h. Oil and Grease	X	< 4							1	mg/L
i. Phosphorus (as P), Total (7723-14-0)	X	0.023							1	mg/L
j. Radioactivity										
(1) Alpha, Total	X	1.11 ± 0.903							1	pCi/L
(2) Beta, Total	X	0.321 ± 0.738							1	pCi/L
(3) Radium, Total	X	0.366 ± 0.350							1	pCi/L
(4) Radium 226, Total	X	0.136 ± 0.267							1	pCi/L
k. Sulfide (as SO <sub>4</sub> ) (14808-79-8)	X	20.87							1	mg/L
l. Sulfide (as S)	X	ND							1	mg/L
m. Sulfite (as SO <sub>3</sub> ) (14265-46-3)	X	ND							1	mg/L
n. Surfactants	X	< 0.03							1	mg/L
o. Aluminum, Total (7429-90-5)	X	0.18							1	mg/L
p. Barium, Total (7440-39-3)	X	0.03							1	mg/L
q. Boron, Total (7440-42-8)	X	0.13							1	mg/L
r. Cobalt, Total (7440-48-4)	X	< 0.02							1	mg/L
s. Iron, Total (7439-89-6)	X	0.40							1	mg/L
t. Magnesium, Total (7439-95-4)	X	8.24							1	mg/L
u. Molybdenum, Total (7439-98-7)	X	0.13							1	mg/L
v. Manganese, Total (7439-96-6)	X	0.07							1	mg/L
w. Tin, Total (7440-31-5)	X	< 2.0							1	mg/L
x. Titanium, Total (7440-32-6)	X	< 0.02							1	mg/L

MND 049537780 SD 005

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2c for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	a. TEST EQUIP. SENT	b. C. RE-SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVRS. VALUE (if available) (1) MASS CONCENTRATION	d. NO. OF YSES	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANAL. YSES	
METALS, CYANIDE, AND TOTAL PHENOLS										
1M. Antimony, Total (7440-36-0)	X		<0.5			1	µg/L			
2M. Arsenic, Total (7440-38-2)	X		<2			1	µg/L			
3M. Beryllium, Total, 7440-41-7)	X		<0.02			1	µg/L			
4M. Cadmium, Total (7440-43-9)	X		<0.02			1	µg/L			
5M. Chromium, Total (7440-47-3)	X		<0.02			1	µg/L			
6M. Copper, Total (7440-50-8)	X		<0.02			1	µg/L			
7M. Lead, Total (7439-92-1)	X		1.0			1	µg/L			
8M. Mercury, Total (7439-97-6)	X		<0.5			1	µg/L			
9M. Nickel, Total (7440-32-0)	X		<0.05			1	µg/L			
10M. Selenium, Total (7782-49-2)	X		<2.0			1	µg/L			
11M. Silver, Total (7440-22-4)	X		<0.01			1	µg/L			
12M. Thallium, Total (7440-28-0)	X		0.6			1	µg/L			
13M. Zinc, Total (7440-66-6)	X		<0.05			1	µg/L			
14M. Cyanide, Total (57-12-5)	X		ND			1	µg/L			
15M. Phenols, Total	X		ND			1	µg/L			

DIOXIN		DESCRIBE RESULTS
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)	X	

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)	
	STREET NO. QUINCY ST. SE.	SEWER SERVICE	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	G. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	K. NO. OF USES	B. CONCENTRATION	D. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	E. NO. OF ANAL. YRS.
<b>GCMS FRACTION - VOLATILE COMPOUNDS</b>										
1V. Acrolein (107-02-8)	X		ND			1	µg/L			
2V. Acrylonitrile (107-13-1)	X		ND			1	µg/L			
3V. Benzene (71-43-2)	X		ND			1	µg/L			
4V. Bis (Chloromethyl) Ether (542-88-1)			NA	Removed from the federal pollutants list	organic toxic					
5V. Bromoform (75-26-2)	X		ND			1	µg/L			
6V. Carbon Tetrachloride (56-23-5)	X		ND			1	µg/L			
7V. Chlorobenzene (108-90-7)	X		ND			1	µg/L			
8V. Chlorodibromomethane (124-48-1)	X		ND			1	µg/L			
9V. Chloroethane (78-00-3)	X		ND			1	µg/L			
10V. 2-Chloroethylvinyl Ether (110-78-8)	X		ND			1	µg/L			
11V. Chloroform (67-66-3)	X		ND			1	µg/L			
12V. Dichlorobromomethane (75-27-4)	X		ND			1	µg/L			
13V. Dichlorodifluoromethane (75-71-8)	X		ND			1	µg/L			
14V. 1,1-Dichloroethane (78-34-3)	X		ND			1	µg/L			
15V. 1,2-Dichloroethane (107-06-2)	X		ND			1	µg/L			
16V. 1,1-Dichloroethylene (78-38-4)	X		ND			1	µg/L			
17V. 1,2-Dichloropropane (78-87-5)	X		ND			1	µg/L			
18V. 1,3-Dichloropropane (542-75-8)	X		ND	Analyzed for both	cis-1,3-Dichloropropene & trans-1,3-Dichloropropene	1	µg/L			
19V. Ethylbenzene (100-41-4)	X		ND			1	µg/L			
20V. Methyl Bromide (74-83-9)	X		ND			1	µg/L			
21V. Methyl Chloride (74-87-3)	X		ND			1	µg/L			

CONTINUED FROM PAGE V-4

1. POLLUTANT NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YSES	
	A. TEST METHOD	B. NO. OF SAMPLES	C. NO. OF SERVS.	D. MAXIMUM DAILY VALUE (if available)	E. MAXIMUM 30 DAY VALUE (if available)	F. LONG TERM AVERAGE VALUE (if available)	G. CONCENTRATION	H. MASS	I. CONCENTRATION	J. MASS		
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>												
22V. Methylene Chloride (78-09-2)	X			ND							1	μg/L
23V. 1,1,2-Tetrachloroethane (78-34-5)	X			ND							1	μg/L
24V. Tetrachloroethylene (127-18-4)	X			ND							1	μg/L
25V. Toluene (108-88-3)	X			ND							1	μg/L
26V. 1,2-Dichloroethylene (186-80-6)	X			ND							1	μg/L
27V. 1,1,1-Trichloroethane (71-93-8)	X			ND							1	μg/L
28V. 1,1,2-Trichloroethane (78-00-5)	X			ND							1	μg/L
29V. Trichloroethylene (78-01-6)	X			ND							1	μg/L
30V. Trichlorofluoromethane (78-09-4)	X			ND							1	μg/L
31V. Vinyl Chloride (75-01-4)	X			ND							1	μg/L
<b>GC/MS FRACTION - ACID COMPOUNDS</b>												
1A. 2-Chlorophenol (98-57-8)	X			ND							1	μg/L
2A. 2,4-Dichlorophenol (120-83-2)	X			ND							1	μg/L
3A. 2,4-Dimethylphenol (106-67-9)	X			ND							1	μg/L
4A. 4,6-Dinitro-Cresol (834-85-1)	X			ND							1	μg/L
5A. 2,4-Dinitrophenol (51-28-6)	X			ND							1	μg/L
6A. 2-Nitrophenol (88-78-8)	X			ND							1	μg/L
7A. 4-Nitrophenol (100-02-7)	X			ND							1	μg/L
8A. p-Chloro-M-Cresol (99-50-7)	X			ND							1	μg/L
9A. Pentachlorophenol (87-98-5)	X			ND							1	μg/L
10A. Phenol (108-95-2)	X			ND							1	μg/L
11A. 2,4,6-Trichlorophenol (88-04-1)	X			ND							1	μg/L

CONTINUE ON REVERSE



CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YSES
	A. TEST PROC. SENT	B. C. S. SENT	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	F. CONCENTRATION	b. MASS	G. LONG TERM AVERAGE VALUE (1) TREATMENT	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS											
18. Acenaphthene (83-32-8)	X		ND				1	µg/L			
28. Acenaphthylene (208-96-8)	X		ND				1	µg/L			
38. Anthracene (120-12-7)	X		ND				1	µg/L			
48. Benzidine (92-87-5)	X		ND				1	µg/L			
58. Benzo (a) Anthracene (85-95-3)	X		ND				1	µg/L			
68. Benzo (a) Pyrene (50-32-8)	X		ND				1	µg/L			
78. 3,4-Benzofluoranthene (206-99-2)	X		ND				1	µg/L			
88. Benzo (ghi) Perylene (191-24-2)	X		ND				1	µg/L			
98. Benzo (h) Fluoranthene (207-08-9)	X		ND				1	µg/L			
108. Bis (2-Chloroethyl) Methane (111-81-1)	X		ND				1	µg/L			
118. Bis (2-Chloroethyl) Ether (111-44-4)	X		ND				1	µg/L			
128. Bis (2-Chloropropyl) Ether (102-60-1)	X		ND				1	µg/L			
138. Bis (2-Ethylhexyl) Malonate (117-41-7)	X		ND				1	µg/L			
148. 4-Bromo-2-Phenyl Phenyl Ether (101-58-3)	X		ND				1	µg/L			
158. Butyl Benzyl Sulfide (85-68-7)	X		ND				1	µg/L			
168. 2-Chloro-1,3-dioxane (91-58-7)	X		ND				1	µg/L			
178. 2-Chloro-2-Phenylphenyl Ether (1005-72-3)	X		ND				1	µg/L			
188. Carylene (218-91-4)	X		ND				1	µg/L			
198. DiBenzo (a,h) Anthracene (83-70-3)	X		ND				1	µg/L			
208. 1,2-Dichlorobenzene (95-50-1)	X		ND				1	µg/L			
218. 1,3-Dichlorobenzene (841-73-1)	X		ND				1	µg/L			

PAGE V-6

PAGE V-6

EPA Form 3510-2C (8-80)

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	S. NO. OF QU. ANAL. ED.	S. NO. OF W. QU. ANAL. ED.	B. MAXIMUM DAILY VALUE (continued)		C. LONG TERM AVERAGE VALUE (if available)		S. CONCENTRATION	B. MASS	C. LONG TERM AVERAGE VALUE	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS										
328. 1,4-Dichlorobenzene (106-46-7)	X		ND					µg/L		
338. 3,3'-Dichlorodiphenylmethane (81-96-1)	X		ND					µg/L		
348. Dimethyl Phthalate (84-66-2)	X		ND					µg/L		
358. Diethyl Phthalate (84-66-2)	X		ND					µg/L		
378. 2,4-Dinitrophenol (121-14-2)	X		ND					µg/L		
388. 2,5-Dinitrotoluene (606-20-2)	X		ND					µg/L		
398. Di-N-Octyl Phthalate (117-84-0)	X		ND					µg/L		
308. 1,2-Diphenylhydrazine (as Azobenzene) (122-68-7)	X		ND					µg/L		
318. Fluorene (209-44-0)	X		ND					µg/L		
328. Fluorene (99-73-7)	X		ND					µg/L		
338. Hexachlorobenzene (118-74-1)	X		ND					µg/L		
348. Hexachlorobutadiene (87-68-3)	X		ND					µg/L		
358. Hexachlorocyclopentadiene (77-47-4)	X		ND					µg/L		
368. Hexachloroethane (67-72-1)	X		ND					µg/L		
378. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		ND					µg/L		
388. Isophorone (78-59-1)	X		ND					µg/L		
398. Naphthalene (91-20-3)	X		ND					µg/L		
408. Nitrobenzene (98-96-3)	X		ND					µg/L		
418. N-Nitrosodimethylamine (82-75-9)	X		ND					µg/L		
428. N-Nitrosodimethylamine (82-75-9)	X		ND					µg/L		

CONTINUE ON REVERSE

PAGE V-7

EPA Form 3510-2C (8-90)

CONTINUED FROM THE FRONT

1. POLLUTANT NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A. TEST NO.	B. SE. SENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	B. MAXIMUM DAILY VALUE (2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION	D. NO. OF ANAL. YSES	A. CONCENTRATION	B. MASS	A. CONC. TERM VALUE (1) CONCENTRATION	B. NO. OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
43B. N-Nitro-iodophenylamine (86-30-6)	X		ND			1	ug/L			
44B. Phenanthrene (86-01-8)	X		ND			1	ug/L			
45B. Pyrene (129-00-0)	X		ND			1	ug/L			
46B. 1,2,4-Trichlorobenzene (120-82-3)	X		ND			1	ug/L			
<b>GC/MS FRACTION - PESTICIDES</b>										
7P. 4,4'-DDT (50-29-3)		X								
8P. 4,4'-DDE (72-55-8)		X								
9P. 4,4'-DDD (72-54-8)		X								
10P. Dieldrin (60-87-1)		X								
11P. G-Endosulfan (115-29-7)		X								
12P. B-Endosulfan (115-29-7)		X								
13P. Endosulfan Sulfate (1031-07-9)		X								
14P. Endrin (72-20-8)		X								
15P. Endrin Aldehyde (7421-83-4)		X								
16P. Heptachlor (76-44-8)		X								

EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER  
 MND 049537780 | SD 005

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANAL. YSES
GC/MS FRACTION - PESTICIDES (continued)							
17P. Heptachlor Epoxide (1024-87-3)	X						
18P. PCB-1242 (63469-21-9)	X						
19P. PCB-1254 (11087-69-1)	X						
20P. PCB-1221 (11104-28-2)	X						
21P. PCB-1232 (11141-16-5)	X						
22P. PCB-1248 (12672-29-6)	X						
23P. PCB-1260 (11096-82-5)	X						
24P. PCB-1016 (12674-11-2)	X						
28P. Toxaphene (6001-36-2)	X						



Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616001** Collected: 11/10/09 10:57 Received: 11/10/09 15:05 Matrix: Water  
 1

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	83-32-9	
Acenaphthylene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	208-96-8	
Anthracene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	120-12-7	
Benzidine	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	92-87-5	SS
Benzo(a)anthracene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	207-08-9	
Benzoic acid	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	65-85-0	
Benzyl alcohol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	85-68-7	
Carbazole	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	59-50-7	
4-Chloroaniline	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	108-60-1	?
2-Chloronaphthalene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	91-58-7	
2-Chlorophenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	7005-72-3	
Chrysene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	53-70-3	
Dibenzofuran	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	21.1	1	11/16/09 14:54	11/23/09 21:54	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	120-83-2	
Diethylphthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	105-67-9	
Dimethylphthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	534-52-1	
2,4-Dinitrophenol	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	117-81-7	
Fluoranthene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	206-44-0	
Fluorene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	87-68-3	
Hexachlorobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	77-47-4	

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 6 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: TURBINE BUILDING SUMP Lab ID: 10116616001 Collected: 11/10/09 10:57 Received: 11/10/09 15:05 Matrix: Water  
 1

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Hexachloroethane	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	193-39-5	
Isophorone	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	95-48-7	
3&4-Methylphenol	ND	ug/L	21.1	1	11/16/09 14:54	11/23/09 21:54		
Naphthalene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	91-20-3	
2-Nitroaniline	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	88-74-4	
3-Nitroaniline	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	99-09-2	
4-Nitroaniline	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	100-01-6	
Nitrobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	98-95-3	
2-Nitrophenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	88-75-5	
4-Nitrophenol	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	86-30-6	
Pentachlorophenol	ND	ug/L	24.2	1	11/16/09 14:54	11/23/09 21:54	87-86-5	
Phenanthrene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	85-01-8	
Phenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	108-95-2	
Pyrene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	52.6	1	11/16/09 14:54	11/23/09 21:54	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.5	1	11/16/09 14:54	11/23/09 21:54	88-06-2	
Nitrobenzene-d5 (S)	70 %		47-127	1	11/16/09 14:54	11/23/09 21:54	4165-60-0	
2-Fluorobiphenyl (S)	78 %		52-133	1	11/16/09 14:54	11/23/09 21:54	321-60-8	
Terphenyl-d14 (S)	89 %		55-150	1	11/16/09 14:54	11/23/09 21:54	1718-51-0	
Phenol-d6 (S)	80 %		43-128	1	11/16/09 14:54	11/23/09 21:54	13127-88-3	
2-Fluorophenol (S)	69 %		31-131	1	11/16/09 14:54	11/23/09 21:54	367-12-4	
2,4,6-Tribromophenol (S)	54 %		30-150	1	11/16/09 14:54	11/23/09 21:54	118-79-6	
<b>624 MSV</b>		Analytical Method: EPA 624						
Acetone	ND	ug/L	10.0	1		11/17/09 02:23	67-64-1	
Acrolein	ND	ug/L	40.0	1		11/17/09 02:23	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1		11/17/09 02:23	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		11/17/09 02:23	107-05-1	
Benzene	ND	ug/L	1.0	1		11/17/09 02:23	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/17/09 02:23	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/17/09 02:23	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		11/17/09 02:23	75-27-4	
Bromoform	ND	ug/L	8.0	1		11/17/09 02:23	75-25-2	
Bromomethane	ND	ug/L	4.0	1		11/17/09 02:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	1		11/17/09 02:23	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		11/17/09 02:23	75-15-0	

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 7 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116618001** Collected: 11/10/09 10:57 Received: 11/10/09 15:05 Matrix: Water  
 1

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Carbon tetrachloride	ND	ug/L	4.0	1		11/17/09 02:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/17/09 02:23	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		11/17/09 02:23	110-75-8	
Chloroform	ND	ug/L	1.0	1		11/17/09 02:23	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/17/09 02:23	74-87-3	
Chloroprene	ND	ug/L	1.0	1		11/17/09 02:23	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:23	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		11/17/09 02:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/17/09 02:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/17/09 02:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/17/09 02:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/17/09 02:23	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:23	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		11/17/09 02:23	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:23	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		11/17/09 02:23	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/17/09 02:23	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:23	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		11/17/09 02:23	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		11/17/09 02:23	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		11/17/09 02:23	591-78-6	
Iodomethane	ND	ug/L	4.0	1		11/17/09 02:23	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/09 02:23	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/17/09 02:23	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		11/17/09 02:23	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		11/17/09 02:23	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/17/09 02:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/09 02:23	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		11/17/09 02:23	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	103-65-1	
Styrene	ND	ug/L	1.0	1		11/17/09 02:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:23	630-20-6	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/17/09 02:23	127-18-4	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 8 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616001** Collected: 11/10/09 10:57 Received: 11/10/09 15:05 Matrix: Water  
 1

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Tetrahydrofuran	ND	ug/L	10.0	1		11/17/09 02:23	109-99-9	
Toluene	ND	ug/L	1.0	1		11/17/09 02:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/17/09 02:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1		11/17/09 02:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/17/09 02:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1		11/17/09 02:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/17/09 02:23	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/17/09 02:23	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:23	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/17/09 02:23	108-05-4	
Vinyl chloride	ND	ug/L	0.40	1		11/17/09 02:23	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/17/09 02:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/17/09 02:23	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/17/09 02:23	95-47-6	
Dibromofluoromethane (S)	105 %		75-125	1		11/17/09 02:23	1868-53-7	
4-Bromofluorobenzene (S)	98 %		75-125	1		11/17/09 02:23	460-00-4	
Toluene-d8 (S)	98 %		75-125	1		11/17/09 02:23	2037-26-5	
1,2-Dichloroethane-d4 (S)	106 %		75-125	1		11/17/09 02:23	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	10.0	units	1.0	1		11/12/09 15:00		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	5.0	1		11/17/09 10:00		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND	mg/L	2.0	1		11/12/09 19:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	3.1	mg/L	2.0	1	11/11/09 11:51	11/16/09 12:04		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND	mg/L	0.40	1		11/13/09 23:32	24959-67-9	

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616002** Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water  
 2

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Acenaphthene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	83-32-9	

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 9 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







# MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724  
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885  
www.mvtl.com



Page: 1 of 1

ANDREA OPLAND  
PACE ANALYTICAL SERVICES INC  
1700 ELM ST STE 200  
MINNEAPOLIS MN 55414

Report Date: 19 Nov 09  
Lab Number: 09-A53874  
Work Order #: 12-14861  
Account #: 013980  
Sample Matrix: WASTEWATER  
Date Sampled: 10 Nov 09 10:57  
Date Received: 12 Nov 09 9:35  
PO #: 10116616

Project Name: PRAIRIE ISLAND NPDES

Sample Description: TURBINE BLDG SUMP 1

Temp at Receipt: 1.6C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Nitrogen, Organic	1.26	mg/L	NA		19 Nov 09 10:15	Calculated
Nitrate+Nitrite	0.88	mg/L as N	0.20	353.2	13 Nov 09 9:57	RMV
Nitrogen, Ammonia	2.64	mg/L	0.16	4500 NH3 B E	19 Nov 09 10:15	TAM
Nitrogen, Total Kjeldahl	3.9	mg/L	0.2	SM 4500NorgB/NH3 E	18 Nov 09 9:10	TAM
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	13 Nov 09 3:15	JD

\* Holding time Exceeded

Approved by:

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL - Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration  
! = Due to sample quantity + = Due to extract volume  
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WN/DW # R-040 IA LAB #: 132 IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

AN EQUAL OPPORTUNITY EMPLOYER



Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: MISC DRAINS		Lab ID: 10116616003	Collected: 11/10/09 12:00	Received: 11/10/09 15:05	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Trichloroethene	ND	ug/L	1.0	1		11/17/09 02:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1		11/17/09 02:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/17/09 02:00	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/17/09 02:00	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/17/09 02:00	108-05-4	
Vinyl chloride	ND	ug/L	0.40	1		11/17/09 02:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/17/09 02:00	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/17/09 02:00	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/17/09 02:00	95-47-6	
Dibromofluoromethane (S)	105 %		75-125	1		11/17/09 02:00	1868-53-7	
4-Bromofluorobenzene (S)	97 %		75-125	1		11/17/09 02:00	480-00-4	
Toluene-d8 (S)	98 %		75-125	1		11/17/09 02:00	2037-26-5	
1,2-Dichloroethane-d4 (S)	108 %		75-125	1		11/17/09 02:00	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	30.0	units	2.0	2		11/12/09 15:00		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	5.0	1		11/17/09 10:00		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND	mg/L	2.0	1		11/12/09 19:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	3.1	mg/L	2.0	1	11/11/09 11:51	11/16/09 12:04		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND	mg/L	0.40	1		11/14/09 00:45	24959-67-9	

Sample: TURBINE BUILDING SUMP 1 Lab ID: 10116616004 Collected: 11/10/09 11:10 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b>		Analytical Method: SM 9222D Preparation Method: SM 9222D						
Fecal Coliforms	<4	CFU/100 mL		1	11/10/09 17:07	11/11/09 16:38		
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4						
Cyanide	ND	mg/L	0.020	1		11/17/09 15:29	57-12-5	
<b>Phenolics, Total Recoverable</b>		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND	ug/L	100	1		11/16/09 16:22		

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 17 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506  
Fax: (612) 630-4367

Contact: Christine Keefe  
Lab Certification MN ID: 027-053-197  
Lab Certification WI ID:999071150

**Sample Description:** Priority Pollutants- TBS 1  
**Location:** Prairie Island  
**Customer Sample I.D.:**

**LabWorks I.D.:** EG53518  
**Laboratory I.D.:** 1037.12  
**Collection Date:** 11/10/2009  
**Date Submitted:** 11/11/2009

**Chain of Custody #:** 202571

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Aluminum	0.18	mg/L Al	HSD	0.01	0.02	EPA 200.7	11/20/2009
Ammonia Nitrogen	3.13	mg/L N	KLZ	0.20	0.20	SM 4500NH3 D	11/12/2009
Antimony	< RL	ug/L Sb	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Antimony	< RL	mg/L Sb	HSD	0.01	0.1	EPA 200.7	11/20/2009
Arsenic	< RL	ug/L As	KLZ	0.5	2	EPA 200.8	12/12/2009
Barium	0.03	mg/L Ba	HSD	0.01	0.02	EPA 200.7	11/20/2009
Beryllium	< RL	mg/L Be	HSD	0.02	0.02	EPA 200.7	11/20/2009
Boron	0.13	mg/L B	HSD	0.01	0.05	EPA 200.7	11/24/2009
Cadmium	< RL	mg/L Cd	HSD	0.02	0.02	EPA 200.7	11/20/2009
Cadmium	< RL	ug/L Cd	KLZ	0.1	0.5	EPA 200.8	12/12/2009
Calcium	22.1	mg/L Ca	HSD	0.5	0.5	EPA 200.7	11/25/2009
Chemical Oxygen Demand	< RL	mg/L O2	CMK	8	16	EPA 410.4 RV 2	11/17/2009
Chromium	< RL	mg/L Cr	HSD	0.02	0.02	EPA 200.7	11/20/2009
Cobalt	< RL	mg/L Co	HSD	0.02	0.02	EPA 200.7	11/20/2009
Copper	< RL	mg/L Cu	HSD	0.02	0.02	EPA 200.7	11/20/2009
Fluoride	< RL	mg/L F	JCS	0.05	0.4	EPA 300.0	11/30/2009
Iron	0.40	mg/L Fe	HSD	0.01	0.05	EPA 200.7	11/20/2009
Lead	1.0	ug/L Pb	KLZ	0.5	1.0	EPA 200.8	12/12/2009
Magnesium	8.24	mg/L Mg	HSD	0.2	0.5	EPA 200.7	11/25/2009
Manganese	0.07	mg/L Mn	HSD	0.02	0.02	EPA 200.7	11/20/2009
Mercury	< RL	ug/L Hg	HSD	0.5	0.5	EPA 245.1	11/12/2009
Molybdenum	0.13	mg/L Mo	HSD	0.02	0.05	EPA 200.7	11/20/2009
Molybdenum	101.7	ug/L Mo	KLZ	0.5	5.0	EPA 200.8	12/12/2009
Nickel	< RL	mg/L Ni	HSD	0.02	0.05	EPA 200.7	11/20/2009
Oil & Grease	< RL	mg/L	JCS	1.4	4	EPA 1664	11/16/2009
pH (Lab)	8.24		KLZ	0.01		SM 4500H+	11/13/2009
Selenium	< RL	ug/L Se	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Silver	< RL	mg/L Ag	HSD	0.01	0.01	EPA 200.7	11/20/2009
Specific Conductance	230	umhos/cm	KLZ	1	28.2	EPA 120.1	11/13/2009
Sulfate	20.87	mg/L SO4	JCS	0.03	2	EPA 300.0	11/30/2009
Thallium	0.6	ug/L TL	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Tin	< RL	ug/L Sn	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Titanium	< RL	mg/L Ti	HSD	0.02	0.02	EPA 200.7	11/20/2009
Total Hardness	89	mg/L CaCO3	HSD	1		SM234OB	11/25/2009
Total Organic Carbon	3.79	mg/L C	WRNJ03	0.3	1	SM 5310B	11/16/2009
Total Phosphorus	0.023	mg/L P	CMK	0.001	0.01	EPA 365.3	11/17/2009
Total Suspended Solids	3.2	mg/L	JCS	0.2	1	SM 2540D	11/12/2009
Zinc	< RL	mg/L Zn	HSD	0.01	0.05	EPA 200.7	11/20/2009

Comments related to sample number EG53518:



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Sample Description: Priority Pollutants - PI Sluice Gate

LabWorks I.D. EG52947

Location: Prairie Island Sluice

Laboratory I.D.: 1034.23

Customer Sample I.D.:

Collection Date: 11/4/2009

Date Submitted: 11/5/2009

Chain of Custody #: 202578

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Aluminum	0.41	mg/L Al	HSD	0.01	0.02	EPA 200.7	11/17/2009
Ammonia Nitrogen	< RL	mg/L N	KLZ	0.20	0.20	SM 4500NH3 D	11/20/2009
Antimony	< RL	mg/L Sb	HSD	0.01	0.1	EPA 200.7	11/17/2009
Antimony	< RL	ug/L Sb	KLZ	0.5	0.5	EPA 200.8	11/17/2009
Arsenic	< RL	ug/L As	KLZ	0.5	2	EPA 200.8	11/17/2009
Barium	0.07	mg/L Ba	HSD	0.01	0.01	EPA 200.7	11/17/2009
Beryllium	< RL	mg/L Be	HSD	0.01	0.01	EPA 200.7	11/17/2009
Boron	0.06	mg/L B	HSD	0.02	0.05	EPA 200.7	11/17/2009
Cadmium	< RL	ug/L Cd	KLZ	0.1	0.5	EPA 200.8	11/17/2009
Cadmium	< RL	mg/L Cd	HSD	0.01	0.02	EPA 200.7	11/17/2009
Calcium	73.50	mg/L Ca	HSD	0.05	0.5	EPA 200.7	11/17/2009
Chemical Oxygen Demand	16	mg/L O2	CMK	8	16	EPA 410.4 RV 2	11/17/2009
Chromium	< RL	mg/L Cr	HSD	0.01	0.02	EPA 200.7	11/17/2009
Cobalt	< RL	mg/L Co	HSD	0.01	0.02	EPA 200.7	11/17/2009
Copper	< RL	mg/L Cu	HSD	0.05	0.02	EPA 200.7	11/17/2009
Fluoride	0.31	mg/L F	JCS	0.05	0.4	EPA 300.0	11/30/2009
Iron	0.67	mg/L Fe	HSD	0.05	0.05	EPA 200.7	11/17/2009
Lead	< RL	ug/L Pb	KLZ	0.5	1.0	EPA 200.8	11/17/2009
Magnesium	28.8	mg/L Mg	HSD	0.2	0.5	EPA 200.7	11/17/2009
Manganese	0.07	mg/L Mn	HSD	0.01	0.02	EPA 200.7	11/17/2009
Mercury	< RL	ug/L Hg	HSD	0.5	0.5	EPA 245.1	11/12/2009
Molybdenum	< RL	mg/L Mo	HSD	0.01	0.05	EPA 200.7	11/17/2009
Molybdenum	2.8	ug/L Mo	KLZ	1.0	5.0	EPA 200.8	11/17/2009
Nickel	< RL	mg/L Ni	HSD	0.01	0.02	EPA 200.7	11/17/2009
Oil & Grease	< RL	mg/L	JCS	1.4	4	EPA 1664	11/16/2009
pH (Lab)	8.23		KLZ	0.01		SM 4500H+	11/13/2009
Selenium	< RL	ug/L Se	KLZ	0.5	2.0	EPA 200.8	11/17/2009
Silver	< RL	mg/L Ag	HSD	0.01	0.01	EPA 200.7	11/17/2009
Specific Conductance	600	umhos/cm	KLZ	1	28.2	EPA 120.1	11/13/2009
Sulfate	71.58	mg/L SO4	JCS	0.03	2	EPA 300.0	11/30/2009
Thallium	< RL	ug/L TL	KLZ	0.5	1.0	EPA 200.8	11/17/2009
Tin	< RL	ug/L Sn	KLZ	0.5	2.0	EPA 200.8	11/17/2009
Titanium	< RL	mg/L Ti	HSD	0.01	0.02	EPA 200.7	11/17/2009
Total Hardness	302	mg/L CaCO3	HSD	1		SM234OB	11/17/2009
Total Organic Carbon	7.96	mg/L C	WRNJ03	0.3	1	SM 5310B	11/16/2009
Total Phosphorus	0.092	mg/L P	CMK	0.001	0.01	EPA 365.3	11/17/2009
Total Suspended Solids	20.8	mg/L	JCS	0.2	1	SM 2540D	11/6/2009
Zinc	< RL	mg/L Zn	HSD	0.01	0.05	EPA 200.7	11/17/2009

Comments related to sample number EG52947:

EPA I.D. NUMBER (copy from Item 1 of Form 1)

MND049537780

OUTFALL NO.  
5D006

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVG. VALUE (if available)		3. UNITS (specify if drink)		4. INTAKE (optional)		5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE (1) CONCENTRATION	h. MASS	
a. Biochemical Oxygen Demand (BOD)	5.1			1	Mg/L				
b. Chemical Oxygen Demand (COD)	21			1	Mg/L				
c. Total Organic Carbon (TOC)	6.11			1	Mg/L				
d. Total Suspended Solids (TSS)	2.0			1	Mg/L				
e. Ammonia (as N)	24.3			1	Mg/L				
f. Flow	VALUE	3.468	VALUE	24	Mg			VALUE	
g. Temperature (winter)	VALUE		VALUE					VALUE	
h. Temperature (summer)	VALUE	72.6	VALUE					VALUE	
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	STANDARD UNITS				
	9.44	9.44							

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
	a. PRESENT	b. ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION	d. MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. MASS	
a. Bromide (24959-67-9)	X		ND			Mg/L			
b. Chlorine Total Residual	X		<0.03			Mg/L			
c. Color	X		15.0			units			
d. Fecal Coliform	X		<4			CFU/100 mL			
e. Fluoride (14964-48-8)	X		0.20			Mg/L			
f. Nitrate-Nitrite (as N)	X		1.64			Mg/L			

CONTINUE ON REVERSE

PAGE V-1

ITEM V-8 CONTINUED FROM FRONT

ANAL. NO. (if applicable)	3. MARK 'X' (SEE INSTRUCTIONS)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. VSES
		B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. CONCENTRATION (1) CONCENTRATION (2) MASS	D. MASS	A. MAXIMUM VALUE (1) CONCENTRATION (2) MASS	E. NO. OF ANAL. VSES	
g. Nitrogen, Total Organic (as N)	X	1.70			mg/L			
h. Oil and Grease	X	<4			mg/L			
i. Phosphorus (as P), Total (7723-14-0)	X	0.026			mg/L			
j. Radioactivity								
(1) Alpha, Total	X	1.31 ± 1.18			pCi/L			
(2) Beta, Total	X	0.500 ± 0.702			pCi/L			
(3) Radium, Total	X	0.775 ± 0.466			pCi/L			
(4) Radium 226, Total	X	0.000 ± 0.177			pCi/L			
k. Sulfates (as SO <sub>4</sub> ) (14808-79-8)	X	32.03			mg/L			
l. Sulfide (as S)	X	ND			mg/L			
m. Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X	ND			mg/L			
n. Surfactants	X	<0.03			mg/L			
o. Aluminum, Total (7429-90-5)	X	0.11			mg/L			
p. Barium, Total (7440-39-3)	X	0.03			mg/L			
q. Boron, Total (7440-42-8)	X	0.14			mg/L			
r. Cobalt, Total (7440-48-4)	X	<0.02			mg/L			
s. Iron, Total (7439-89-6)	X	0.29			mg/L			
t. Magnesium, Total (7439-95-4)	X	12.7			mg/L			
u. Molybdenum, Total (7439-98-7)	X	<0.05			mg/L			
v. Manganese, Total (7439-96-5)	X	0.03			mg/L			
w. Tin, Total (7440-31-5)	X	<2.0			µg/L			
x. Titanium, Total (7440-32-6)	X	<0.02			mg/L			

EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER  
 MNDO49537780 | SD006

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a/secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4, 6-dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)			
	a. TEST EQUIP. SENT	b. RECEIVING FAC. SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE (3) CONCENTRATION	d. NO. OF ANAL. YSES	a. MASS	b. CONCENTRATION	c. CONCENTRATION	d. MASS	(1) CONCENTRATION	(2) MASS	a. NO. OF ANAL. YSES	b. NO. OF ANAL. YSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>														
1M. Antimony, Total (7440-36-0)	X		<0.1			1								
2M. Arsenic, Total (7440-38-2)	X		<2			1								
3M. Beryllium, Total, 7440-41-7)	X		<0.02			1								
4M. Cadmium, Total (7440-43-8)	X		<0.02			1								
5M. Chromium, Total (7440-47-3)	X		<0.02			1								
6M. Copper, Total (7440-50-8)	X		0.08			1								
7M. Lead, Total (7439-92-1)	X		<1.0			1								
8M. Mercury, Total (7439-97-8)	X		<0.5			1								
9M. Nickel, Total (7440-02-0)	X		<0.02			1								
10M. Selenium, Total (7782-48-2)	X		<2.0			1								
11M. Silver, Total (7440-22-4)	X		<0.01			1								
12M. Tellurium, Total (7440-28-0)	X		<0.5			1								
13M. Zinc, Total (7440-66-6)	X		<0.05			1								
14M. Cyanide, Total (57-12-6)	X		ND			1								
15M. Phenols, Total	X		ND			1								

**DIOXIN**

2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)

DESCRIBE RESULTS

X

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
	(if available)			(2) MASS	(2) MASS	(2) MASS	(2) MASS	(1)	(2) MASS	(1)	(2) MASS
GC/MS FRACTION - VOLATILE COMPOUNDS											
1V. Acrolein (107-02-8)	X			ND			1	mg/L			
2V. Acrylonitrile (107-13-1)	X			47.7			1	mg/L			
3V. Benzene (71-43-2)	X			ND			1	mg/L			
4V. Bis (Chloromethyl) Ether (542-88-1)				NA	Removed from the organic toxic pollutants list						
5V. Bromoform (75-25-2)	X			ND			1	mg/L			
6V. Carbon Tetrachloride (56-23-5)	X			ND			1	mg/L			
7V. Chlorobenzene (108-90-7)	X			ND			1	mg/L			
8V. Chlorodibromomethane (124-48-1)	X			ND			1	mg/L			
9V. Chloroethane (75-00-3)	X			ND			1	mg/L			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			ND			1	mg/L			
11V. Chloroform (67-66-3)	X			1.3			1	mg/L			
12V. Dichlorobromomethane (75-27-4)	X			ND			1	mg/L			
13V. Dichlorodifluoromethane (75-71-8)	X			ND			1	mg/L			
14V. 1,1-Dichloroethane (75-34-3)	X			ND			1	mg/L			
15V. 1,2-Dichloroethane (107-06-2)	X			ND			1	mg/L			
16V. 1,1-Dichloroethylene (75-35-4)	X			ND			1	mg/L			
17V. 1,2-Dichloropropane (78-87-5)	X			ND			1	mg/L			
18V. 1,3-Dichloropropylene (542-75-6)	X			ND	Analyzed for both cis-1,3-Dichloropropene and trans-1,3-Dichloropropene		1	mg/L			
19V. Ethylbenzene (100-41-4)	X			ND			1	mg/L			
20V. Methyl Bromide (74-83-9)	X			ND			1	mg/L			
21V. Methyl Chloride (74-87-3)	X			ND			1	mg/L			



CONTINUED FROM PAGE V-4

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	TESTED	NO. OF TESTS	E. MAXIMUM DAILY VALUE (1) CONCENTRATION	E. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	G. LONG TERM AVG. VALUE (1) CONCENTRATION	D. NO. OF ANAL. YRS	F. CONCENTRATION	B. MASS	H. CONCENTRATION	D. MASS	(1) CONCENTRATION	(2) MASS	D. NO. OF ANAL. YRS
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>													
22V. Methylene Chloride (75-08-2)	X		ND			1	mg/L						
23V. 1,1,2-Tetrachloroethane (79-34-5)	X		ND			1	mg/L						
24V. Tetrachloroethylene (127-18-4)	X		ND			1	mg/L						
25V. Toluene (108-68-3)	X		ND			1	mg/L						
26V. 1,2-Dichloroethylene (186-60-6)	X		ND			1	mg/L						
27V. 1,1,1-Trichloroethane (71-58-6)	X		ND			1	mg/L						
28V. 1,1,2-Trichloroethane (78-00-6)	X		ND			1	mg/L						
29V. Trichloroethylene (79-01-6)	X		ND			1	mg/L						
30V. Trichlorofluoromethane (75-68-4)	X		ND			1	mg/L						
31V. Vinyl Chloride (75-01-4)	X		ND			1	mg/L						
<b>GC/MS FRACTION - ACID COMPOUNDS</b>													
1A. 2-Chlorophenol (96-57-8)	X		ND			1	mg/L						
2A. 2,4-Dichlorophenol (120-63-2)	X		ND			1	mg/L						
3A. 2,4-Dimethylphenol (108-67-8)	X		ND			1	mg/L						
4A. 4,6-Dinitro-Cresol (834-52-1)	X		ND			1	mg/L						
5A. 2,4-Dinitrophenol (89-75-6)	X		ND			1	mg/L						
6A. 2-Nitrophenol (99-75-6)	X		ND			1	mg/L						
7A. 4-Nitrophenol (100-02-7)	X		ND			1	mg/L						
8A. p-Chloro-N-Cresol (98-60-7)	X		ND			1	mg/L						
9A. Pentachlorophenol (87-86-6)	X		ND			1	mg/L						
10A. Phenol (108-95-2)	X		ND			1	mg/L						
11A. p-Cresol (106-58-2)	X		ND			1	mg/L						

CONTINUE ON REVERSE

PAGE V-5

EPA Form 3510-2C (8-90)

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (if available)	3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM (1) CONCENTRATION (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM (1) AVERAGE VALUE (2) MASS	b. NO. OF ANAL. YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS									
1B. Acenaphthene (83-32-8)	X	ND					1	μg/L	
2B. Acenaphthylene (208-96-8)	X	ND					1	μg/L	
3B. Anthracene (120-12-7)	X	ND					1	μg/L	
4B. Benzidine (82-87-5)	X	ND					1	μg/L	
5B. Benzo (a) Anthracene (85-98-3)	X	ND					1	μg/L	
6B. Benzo (c) Pyrene (50-32-8)	X	ND					1	μg/L	
7B. 3,4-Benzofluoranthene (208-98-2)	X	ND					1	μg/L	
8B. Benzo (ghi) Perylene (181-24-2)	X	ND					1	μg/L	
9B. Benzo (k) Fluoranthene (207-08-9)	X	ND					1	μg/L	
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X	ND					1	μg/L	
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X	ND					1	μg/L	
12B. Bis (2-Chloroisopropyl) Ether (102-60-1)	X	ND					1	μg/L	
13B. Bis (2-Ethylhexyl) Fumarate (1174-1-7)	X	ND					1	μg/L	
14B. 4-Bromo-2-Phenyl Phenyl Ether (101-56-3)	X	ND					1	μg/L	
15B. Butyl Benzyl Phosphate (95-68-7)	X	ND					1	μg/L	
16B. 3-Chloro-2-methyl-2-butene (91-58-7)	X	ND					1	μg/L	
17B. 2-Chloro-2-Phenyl Ethyl Ethyl Ether (208-72-3)	X	ND					1	μg/L	
18B. Chrysene (218-01-4)	X	ND					1	μg/L	
19B. Di-benzo (a,h) Anthracene (83-70-3)	X	ND					1	μg/L	
20B. 1,2-Dichlorobenzene (95-50-1)	X	ND					1	μg/L	
21B. 1,3-Dichlorobenzene (541-73-1)	X	ND					1	μg/L	

CONTINUE ON PAGE V-7

PAGE V-6

EPA Form 3510-2C (8-80)

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	NO. OF QUAT. FB	NO. OF SUBC. FB	NO. OF QUAT. FB	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVERAGE VALUE (if available)	d. NO. OF ANAL. YSES	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL. YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)													
228. 1,4-Dichlorobenzene (106-46-7)	X			ND					1	mg/L			
238. 3,3'-Dichlorobenzidine (81-84-1)	X			ND					1	mg/L			
248. Dimethyl Phthalate (DA-55-2)	X			ND					1	mg/L			
258. Diethyl Phthalate (DE-55-2)	X			ND					1	mg/L			
268. Di-n-Butyl Phthalate (DB-55-2)	X			ND					1	mg/L			
278. 2,4-Dinitrophenol (121-14-2)	X			ND					1	mg/L			
288. 2,5-Dinitrotoluene (806-20-2)	X			ND					1	mg/L			
298. Di-n-Octyl Phthalate (117-84-0)	X			ND					1	mg/L			
308. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			ND					1	mg/L			
318. Fluoranthene (208-44-0)	X			ND					1	mg/L			
328. Fluorene (85-73-7)	X			ND					1	mg/L			
338. Hexachlorobenzene (116-74-1)	X			ND					1	mg/L			
348. Hexachlorobutadiene (87-68-3)	X			ND					1	mg/L			
358. Hexachlorocyclopentadiene (77-47-4)	X			ND					1	mg/L			
368. Hexachloroethane (67-72-1)	X			ND					1	mg/L			
378. Indeno (1,2,3-cd) Pyrene (193-39-6)	X			ND					1	mg/L			
388. Isophorone (78-59-1)	X			ND					1	mg/L			
398. Naphthalene (91-20-3)	X			ND					1	mg/L			
408. Nitrobenzene (98-95-3)	X			ND					1	mg/L			
418. N-Nitrosodimethylamine (82-78-9)	X			ND					1	mg/L			
428. N-Nitrosodipropylamine (821-84-7)	X			ND					1	mg/L			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	STREET USE	IND. USE	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM DAILY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANAL. YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
43B. N-Nitro-sediphenylamine (86-30-6)	X		ND			1	ug/L			
44B. Phenanthrene (86-01-8)	X		ND			1	ug/L			
45B. Pyrene (129-00-0)	X		ND			1	ug/L			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		ND			1	ug/L			
GC/MS FRACTION - PESTICIDES										
7P. Aldrin (57-74-9)		X								
2P. DDT (50-29-3)		X								
3P. β-BHC (318-88-7)		X								
4P. γ-BHC (66-88-9)		X								
8P. δ-BHC (319-86-8)		X								
6P. Chlordane (57-74-9)		X								
7P. 4,4'-DDT (50-29-3)		X								
8P. 4,4'-DDE (72-85-8)		X								
9P. 4,4'-DDD (72-84-8)		X								
10P. Dieldrin (80-57-1)		X								
11P. D-Endosulfan (115-29-7)		X								
12P. β-Endosulfan (115-29-7)		X								
13P. Endosulfan Sulfate (1091-07-9)		X								
14P. Endrin (72-20-8)		X								
18P. Endrin Alderhyde (7421-93-4)		X								
16P. Heptachlor (76-44-8)		X								

CONTINUE ON PAGE V-9

PAGE V-8

EPA Form 3510-2C (8-90)

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**MND 049 537 780** **SD006**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (ppm/tons)		D. NO. OF ANAL. YSES	
	A. YES	B. NO	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	A. CONCENTRATION	B. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. NO. OF ANAL. YSES		
<b>GC/MS FRACTION - PESTICIDES (continued)</b>										
17P. Heptachlor Epoxide (1024-57-3)		X								
18P. PCB-1242 (53469-21-9)		X								
19P. PCB-1254 (11097-86-1)		X								
20P. PCB-1221 (11104-28-2)		X								
21P. PCB-1232 (11141-16-5)		X								
22P. PCB-1248 (12672-29-6)		X								
23P. PCB-1260 (11098-82-5)		X								
24P. PCB-1016 (12674-11-2)		X								
25P. Toxaphene (8001-35-2)		X								

PAGE V-9



Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)807-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: TURBINE BUILDING SUMP 2 Lab ID: 10116616002 Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthylene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	208-96-8	
Anthracene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	120-12-7	
Benzidine	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	92-87-5	SS
Benzo(a)anthracene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	207-08-9	
Benzoic acid	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	65-85-0	
Benzyl alcohol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	85-68-7	
Carbazole	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	59-50-7	*
4-Chloroaniline	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	108-60-1	
2-Chloronaphthalene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	91-58-7	
2-Chlorophenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	7005-72-3	
Chrysene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	53-70-3	
Dibenzofuran	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	21.5	1	11/16/09 14:54	11/23/09 22:24	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	120-83-2	
Diethylphthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	105-67-9	
Dimethylphthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	534-52-1	
2,4-Dinitrophenol	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	117-81-7	
Fluoranthene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	206-44-0	
Fluorene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	87-68-3	
Hexachlorobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	77-47-4	
Hexachloroethane	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	67-72-1	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 10 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616002** Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water  
 2

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	193-39-5	
Isophorone	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	95-48-7	
3&4-Methylphenol	ND	ug/L	21.5	1	11/16/09 14:54	11/23/09 22:24		
Naphthalene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	91-20-3	
2-Nitroaniline	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	88-74-4	
3-Nitroaniline	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	99-09-2	
4-Nitroaniline	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	100-01-6	
Nitrobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	98-95-3	
2-Nitrophenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	88-75-5	
4-Nitrophenol	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	86-30-6	
Pentachlorophenol	ND	ug/L	24.7	1	11/16/09 14:54	11/23/09 22:24	87-86-5	
Phenanthrene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	85-01-8	
Phenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	108-95-2	
Pyrene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	53.8	1	11/16/09 14:54	11/23/09 22:24	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.8	1	11/16/09 14:54	11/23/09 22:24	88-06-2	
Nitrobenzene-d5 (S)	72	%			47-127	11/16/09 14:54	11/23/09 22:24	4165-60-0
2-Fluorobiphenyl (S)	77	%	52-133	1	11/16/09 14:54	11/23/09 22:24	321-60-8	
Terphenyl-d14 (S)	91	%	55-150	1	11/16/09 14:54	11/23/09 22:24	1718-51-0	
Phenol-d6 (S)	84	%	43-128	1	11/16/09 14:54	11/23/09 22:24	13127-88-3	
2-Fluorophenol (S)	74	%	31-131	1	11/16/09 14:54	11/23/09 22:24	367-12-4	
2,4,6-Tribromophenol (S)	87	%	30-150	1	11/16/09 14:54	11/23/09 22:24	118-79-6	
<b>624 MSV</b>		Analytical Method: EPA 624						
Acetone	27.4	ug/L	10.0	1		11/17/09 02:45	67-64-1	
Acrolein	ND	ug/L	40.0	1		11/17/09 02:45	107-02-8	
Acrylonitrile	47.7	ug/L	10.0	1		11/17/09 02:45	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		11/17/09 02:45	107-05-1	
Benzene	ND	ug/L	1.0	1		11/17/09 02:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/17/09 02:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/17/09 02:45	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		11/17/09 02:45	75-27-4	
Bromoform	ND	ug/L	8.0	1		11/17/09 02:45	75-25-2	
Bromomethane	ND	ug/L	4.0	1		11/17/09 02:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	1		11/17/09 02:45	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		11/17/09 02:45	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	1		11/17/09 02:45	56-23-5	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 11 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616002** Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water  
 2

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Chlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/17/09 02:45	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		11/17/09 02:45	110-75-8	
Chloroform	1.3	ug/L	1.0	1		11/17/09 02:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/17/09 02:45	74-87-3	
Chloroprene	ND	ug/L	1.0	1		11/17/09 02:45	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		11/17/09 02:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/17/09 02:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/17/09 02:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/17/09 02:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/17/09 02:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:45	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		11/17/09 02:45	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		11/17/09 02:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/17/09 02:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:45	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		11/17/09 02:45	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		11/17/09 02:45	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		11/17/09 02:45	591-78-6	
Iodomethane	ND	ug/L	4.0	1		11/17/09 02:45	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/09 02:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/17/09 02:45	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		11/17/09 02:45	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		11/17/09 02:45	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/17/09 02:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/09 02:45	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		11/17/09 02:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	103-65-1	
Styrene	ND	ug/L	1.0	1		11/17/09 02:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/17/09 02:45	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		11/17/09 02:45	109-99-9	

4  
18K

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 12 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP 2** Lab ID: **10116616002** Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
- Toluene	- ND	ug/L	1.0	1		11/17/09 02:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:45	120-82-1	
- 1,1,1-Trichloroethane	- ND	ug/L	1.0	1		11/17/09 02:45	71-55-6	
- 1,1,2-Trichloroethane	- ND	ug/L	4.0	1		11/17/09 02:45	79-00-5	
- Trichloroethane	- ND	ug/L	1.0	1		11/17/09 02:45	79-01-6	
- Trichlorofluoromethane	- ND	ug/L	4.0	1		11/17/09 02:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/17/09 02:45	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/17/09 02:45	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:45	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/17/09 02:45	108-05-4	
- Vinyl chloride	- ND	ug/L	0.40	1		11/17/09 02:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/17/09 02:45	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/17/09 02:45	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/17/09 02:45	95-47-6	
Dibromofluoromethane (S)	104 %		75-125	1		11/17/09 02:45	1868-53-7	
4-Bromofluorobenzene (S)	96 %		75-125	1		11/17/09 02:45	460-00-4	
Toluene-d8 (S)	96 %		75-125	1		11/17/09 02:45	2037-26-5	
1,2-Dichloroethane-d4 (S)	107 %		75-125	1		11/17/09 02:45	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
- Apparent Color	- 15.0	units	1.0	1		11/12/09 15:00		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
- Sulfide	- ND	mg/L	5.0	1		11/17/09 10:00		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
- Sulfite	- ND	mg/L	2.0	1		11/12/09 19:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
- BOD, 5 day	- 5.1	mg/L	2.0	1	11/11/09 11:51	11/16/09 12:04		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
- Bromide	- ND	mg/L	0.40	1		11/14/09 00:33	24959-67-9	

Sample: **MISC DRAINS** Lab ID: **10116616003** Collected: 11/10/09 12:00 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
- Acenaphthene	- ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	83-32-9	
- Acenaphthylene	- ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	208-96-8	
- Anthracene	- ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	120-12-7	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 13 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616001** Collected: 11/10/09 10:57 Received: 11/10/09 15:05 Matrix: Water  
 1

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	1.11 ± 0.903 (1.46)	pCi/L	11/21/09 08:11	12587-46-1	
Gross Beta	EPA 900.0m	0.321 ± 0.738 (1.64)	pCi/L	11/21/09 08:11	12587-47-2	
Total Alpha Radium	EPA 903.0	0.366 ± 0.350 (0.650)	pCi/L	11/20/09 13:36		
Radium-226	EPA 903.1	0.136 ± 0.267 (0.499)	pCi/L	11/23/09 11:54	13982-63-3	

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616002** Collected: 11/10/09 10:17 Received: 11/10/09 15:05 Matrix: Water  
 2

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	1.31 ± 1.18 (2.23)	pCi/L	11/21/09 11:55	12587-46-1	
Gross Beta	EPA 900.0m	0.500 ± 0.702 (1.48)	pCi/L	11/21/09 11:55	12587-47-2	
Total Alpha Radium	EPA 903.0	0.775 ± 0.466 (0.603)	pCi/L	11/20/09 13:36		
Radium-226	EPA 903.1	0.000 ± 0.177 (0.471)	pCi/L	11/23/09 11:54	13982-63-3	

Sample: **MISC DRAINS** Lab ID: **10116616003** Collected: 11/10/09 12:00 Received: 11/10/09 15:05 Matrix: Water  
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0m	3.64 ± 2.21 (2.85)	pCi/L	11/21/09 11:55	12587-46-1	
Gross Beta	EPA 900.0m	1.23 ± 0.879 (1.59)	pCi/L	11/21/09 11:55	12587-47-2	
Total Alpha Radium	EPA 903.0	1.05 ± 0.535 (0.608)	pCi/L	11/20/09 13:36		
Radium-226	EPA 903.1	0.073 ± 0.144 (0.537)	pCi/L	11/23/09 12:06	13982-63-3	

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 38 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **TURBINE BUILDING SUMP** Lab ID: **10116616005** Collected: 11/10/09 11:10 Received: 11/10/09 15:05 Matrix: Water  
 2

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b> Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	<4	CFU/100 mL		1	11/10/09 17:07	11/11/09 16:38		
<b>335.4 Cyanide, Total</b> Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	1		11/17/09 15:30	57-12-5	
<b>Phenolics, Total Recoverable</b> Analytical Method: EPA 420.1								
Phenolics, Total Recoverable	ND	ug/L	100	1		11/16/09 16:22		

Sample: **MISC DRAINS** Lab ID: **10116616006** Collected: 11/10/09 11:10 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b> Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	14	CFU/100 mL		1	11/10/09 17:07	11/11/09 16:38		
<b>335.4 Cyanide, Total</b> Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	1		11/17/09 15:31	57-12-5	
<b>Phenolics, Total Recoverable</b> Analytical Method: EPA 420.1								
Phenolics, Total Recoverable	ND	ug/L	100	1		11/16/09 16:22		

Sample: **SLUICE GATE-FECAL RE-GRAB** Lab ID: **10116616007** Collected: 11/10/09 10:10 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b> Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	17	CFU/100 mL		1	11/10/09 17:07	11/11/09 16:38		

Sample: **TRIP BLANKS** Lab ID: **10116616008** Collected: Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b> Analytical Method: EPA 624								
Acetone	ND	ug/L	10.0	1		11/17/09 01:16	67-64-1	
Acrolein	ND	ug/L	40.0	1		11/17/09 01:16	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1		11/17/09 01:16	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		11/17/09 01:16	107-05-1	
Benzene	ND	ug/L	1.0	1		11/17/09 01:16	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/17/09 01:16	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/17/09 01:16	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		11/17/09 01:16	75-27-4	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 18 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





# MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724  
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885  
www.mvtl.com



Page: 1 of 1

ANDREA OPLAND  
PACE ANALYTICAL SERVICES INC  
1700 ELM ST STE 200  
MINNEAPOLIS MN 55414

Report Date: 19 Nov 09  
Lab Number: 09-A53875  
Work Order #: 12-14861  
Account #: 013980  
Sample Matrix: WASTEWATER  
Date Sampled: 10 Nov 09 10:17  
Date Received: 12 Nov 09 9:35  
PO #: 10116616

Project Name: PRAIRIE ISLAND NPDES

Sample Description: TURBINE BLDG SUMP 2

Temp at Receipt: 1.6C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
- Nitrogen, Organic	~ 1.70	mg/L	NA		19 Nov 09 10:15	Calculated
- Nitrate+Nitrite	~ 1.64	mg/L as N	0.20	353.2	19 Nov 09 11:54	AKF
- Nitrogen, Ammonia	~ 24.3	mg/L	0.16	4500 NH3 B E	19 Nov 09 10:15	TAM
- Nitrogen, Total Kjeldahl	26.0	mg/L	0.2	SM 4500NorgB/NH3 E	18 Nov 09 9:10	TAM
- Anionic Surfactants	~ * < 0.03	mg/L	0.03	5540C	13 Nov 09 3:15	JD

\* Holding time Exceeded

Approved by:

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration  
! = Due to sample quantity + = Due to extract volume  
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

AN EQUAL OPPORTUNITY EMPLOYER

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
**MND049537780**

OUTFALL NO.  
**SP010**

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

**V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)**

**PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.**

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVERAGE VALUE (if available)		3. UNITS (specify if blank)		4. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	3.1			1	mg/L			
b. Chemical Oxygen Demand (COD)	12			1	mg/L			
c. Total Organic Carbon (TOC)	6.76			1	mg/L			
d. Total Suspended Solids (TSS)	6.8			1	mg/L			
e. Ammonia (as N)	<0.16			1	mg/L			
f. Flow	VALUE	VALUE	VALUE	24	MG		VALUE	
g. Temperature (water)	VALUE	VALUE	VALUE		°C		VALUE	
h. Temperature (air/water)	VALUE	VALUE	VALUE		% OF		VALUE	
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	STANDARD UNITS			
	8.31	8.31						

**PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.**

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X' (a. SEE, b. PRESENT, c. ABSENT)	3. EFFLUENT		3. LONG TERM AVERAGE VALUE (if available)		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM DAILY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X	ND			1	mg/L			
b. Chlorine, Total Residual	X	0.05			1	mg/L			
c. Color	X	30.0			1	units			
d. Fecal Coliform	X	14			1	CFU/100 mL			
e. Fluoride (18964-48-8)	X	<0.4			1	mg/L			
f. Nitrate-Nitrite (as N)	X	2.63			1	mg/L			

ITEMS CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' AS APPLICABLE	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
		3. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. LONG TERM AVG. VALUE (2) CONCENTRATION	4. CONCENTRATION	4. MASS	5. AVERAGE VALUE (1) CONCENTRATION	5. MASS	
g. Nitrogen, Total Organic (as N)	X	0.90		mg/L				1
h. Oil and Grease	X	< 4		mg/L				1
i. Phosphorus (as P), Total (7223-14-0)	X	0.061		mg/L				1
j. Radioactivity								
(1) Alpha, Total	X	3.64 ± 2.21		pCi/L				1
(2) Beta, Total	X	1.23 ± 0.879		pCi/L				1
(3) Radium, Total	X	105 ± 0.535		pCi/L				1
(4) Radium 226, Total	X	-0.073 ± 0.144		pCi/L				1
k. Sulfide (as SO <sub>4</sub> ) (14808-79-8)	X	72.04		mg/L				1
l. Sulfide (as S)	X	ND		mg/L				1
m. Sulfite (as SO <sub>3</sub> ) (14268-45-3)	X	ND		mg/L				1
n. Surfactants	X	< 0.03		mg/L				1
o. Aluminum, Total (7429-90-5)	X	0.17		mg/L				1
p. Barium, Total (7440-39-3)	X	0.06		mg/L				1
q. Boron, Total (7440-42-8)	X	0.05		mg/L				1
r. Cobalt, Total (7440-48-4)	X	< 0.02		mg/L				1
s. Iron, Total (7439-89-6)	X	0.34		mg/L				1
t. Magnesium, Total (7439-96-4)	X	27.8		mg/L				1
u. Molybdenum, Total (7439-98-7)	X	< 0.05		mg/L				1
v. Manganese, Total (7439-96-6)	X	0.04		mg/L				1
w. Tin, Total (7440-31-5)	X	< 2.0		mg/L				1
x. Titanium, Total (7440-32-6)	X	< 0.02		mg/L				1

CONTINUE ON PAGE V-3

PAGE V-2

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)	
	TEST 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	GC/MS FRACTIONS	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS CONCENTRATION	c. LONG TERM AVG. VALUE (3) MASS CONCENTRATION	d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. AVERAGE VALUE (1) CONCENTRATION	h. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS										
1M. Antimony, Total (7440-36-0)	X		<0.1			1	mg/L			
2M. Arsenic, Total (7440-38-2)	X		<2			1	mg/L			
3M. Beryllium, Total (7440-41-7)	X		<0.02			1	mg/L			
4M. Cadmium, Total (7440-43-8)	X		<0.5			1	mg/L			
5M. Chromium, Total (7440-47-3)	X		<0.02			1	mg/L			
6M. Copper, Total (7440-50-8)	X		<0.02			1	mg/L			
7M. Lead, Total (7439-92-1)	X		<1.0			1	mg/L			
8M. Mercury, Total (7439-97-6)	X		<0.5			1	mg/L			
9M. Nickel, Total (7440-02-0)	X		<0.02			1	mg/L			
10M. Selenium, Total (7782-49-2)	X		<2.0			1	mg/L			
11M. Silver, Total (7440-22-4)	X		<0.01			1	mg/L			
12M. Thallium, Total (7440-28-0)	X		<0.5			1	mg/L			
13M. Zinc, Total (7440-66-6)	X		<0.05			1	mg/L			
14M. Cyanide, Total (67-12-6)	X		ND			1	mg/L			
15M. Phenols, Total	X		ND			1	mg/L			

**DIOXIN**  
 2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1782-01-8)  DESCRIBE RESULTS  
 EPA Form 3610-2C (8-90) PAGE V-3 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT NUMBER (if available)	2. MARK 'X' A. YES B. NO C. SEC- URITY SENT D. SEC- URITY SENT	3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
		B. MAXIMUM DAILY VALUE (1) MASS CONCENTRATION	D. MAXIMUM 30 DAY VALUE (1) MASS CONCENTRATION	C. LONG TERM AVERAGE VALUE (if available) (1) MASS CONCENTRATION	D. NO. OF ANAL- YSES	B. CONCEN- TRATION	D. MASS	B. LONG TERM AVERAGE VALUE (1) CONCEN- TRATION	D. NO. OF ANAL- YSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>									
1V. Acrolein (107-02-8)	X	ND			1	mg/L			
2V. Acrylonitrile (107-13-1)	X	ND			1	mg/L			
3V. Benzene (71-43-2)	X	ND			1	mg/L			
4V. Bis (Chloro- methyl) Ether (542-88-1)		NA	Removed from the pollutants list	organic toxic					
5V. Bromoform (75-25-2)	X	ND			1	mg/L			
6V. Carbon Tetrachloride (56-23-9)	X	ND			1	mg/L			
7V. Chlorobenzene (106-90-7)	X	ND			1	mg/L			
8V. Chlorodi- bromomethane (124-48-1)	X	ND			1	mg/L			
9V. Chloroethane (75-00-3)	X	ND			1	mg/L			
10V. 2-Chloro- ethylmethyl Ether (116-75-8)	X	ND			1	mg/L			
11V. Chloroform (67-66-3)	X	ND			1	mg/L			
12V. Dichloro- bromomethane (75-27-4)	X	ND			1	mg/L			
13V. Dichloro- difluoromethane (75-71-8)	X	ND			1	mg/L			
14V. 1,1-Dichloro- ethane (75-34-3)	X	ND			1	mg/L			
15V. 1,2-Dichloro- ethane (107-06-2)	X	ND			1	mg/L			
16V. 1,1-Dichloro- ethylene (75-35-4)	X	ND			1	mg/L			
17V. 1,2-Dichloro- propane (78-87-5)	X	ND			1	mg/L			
18V. 1,3-Dichloro- propylene (542-75-8)	X	ND	Analyzed for both cis-1,3-Dichloropropene trans-1,3-Dichloropropene		1	mg/L			
19V. Ethylbenzene (100-41-4)	X	ND			1	mg/L			
20V. Methyl Bromide (74-83-9)	X	ND			1	mg/L			
21V. Methyl Chloride (74-87-3)	X	ND			1	mg/L			



CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (USE INQUIRY EQUIPMENT)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	B. CONCENTRATION	D. MASS	A. AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. NO. OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>							
22V. Methylene Chloride (75-08-2)	X	ND		μg/L			1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X	ND		μg/L			1
24V. Tetrachloroethylene (127-18-4)	X	ND		μg/L			1
25V. Toluene (108-98-3)	X	ND		μg/L			1
26V. 1,2-Trans-Dichloroethylene (186-90-5)	X	ND		μg/L			1
27V. 1,1,1-Trichloroethane (71-55-6)	X	ND		μg/L			1
28V. 1,1,2-Trichloroethane (79-00-5)	X	ND		μg/L			1
29V. Trichloroethylene (79-01-6)	X	ND		μg/L			1
30V. Trichlorofluoromethane (75-69-4)	X	ND		μg/L			1
31V. Vinyl Chloride (75-01-4)	X	ND		μg/L			1
<b>GC/MS FRACTION - ACID COMPOUNDS</b>							
1A. 2-Chlorophenol (98-87-8)	X	ND		μg/L			1
2A. 2,4-Dichlorophenol (120-83-2)	X	ND		μg/L			1
3A. 2,4-Dimethylphenol (108-87-9)	X	ND		μg/L			1
4A. 4,6-Dinitro-O-Cresol (834-82-1)	X	ND		μg/L			1
5A. 2,4-Dinitrophenol (51-28-6)	X	ND		μg/L			1
6A. 2-Nitrophenol (89-75-6)	X	ND		μg/L			1
7A. 4-Nitrophenol (100-92-7)	X	ND		μg/L			1
8A. p-Chloro-M-Cresol (89-90-7)	X	ND		μg/L			1
9A. Pentachlorophenol (87-86-6)	X	ND		μg/L			1
10A. Phenol (108-95-2)	X	ND		μg/L			1
11A. 2,4,6-Trinitrophenol	X	ND		μg/L			1

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)					
	A. TEST NO.	B. SECT. NO.	C. SECT. NO.	D. MAXIMUM DAILY VALUE		E. MAXIMUM 30 DAY VALUE		U. NO. OF ANAL. YSES	B. CONCENTRATION	D. MASS	A. LONG TERM AVERAGE VALUE		B. NO. OF ANAL. YSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS														
1B. Acenaphthene (83-32-8)	X			ND							1	µg/L		
2B. Acenaphthylene (208-96-8)	X			ND							1	µg/L		
3B. Anthracene (120-12-7)	X			ND							1	µg/L		
4B. Benzidine (92-87-5)	X			ND							1	µg/L		
5B. Benzo (a) Anthracene (85-95-3)	X			ND							1	µg/L		
6B. Benzo (a) Pyrene (50-32-8)	X			ND							1	µg/L		
7B. 3,4-Benzo-fluoranthene (205-69-2)	X			ND							1	µg/L		
8B. Benzo (ghi) Perylene (191-24-2)	X			ND							1	µg/L		
9B. Benzo (h) Fluoranthene (207-08-9)	X			ND							1	µg/L		
10B. Bis (2-Chloro-ethyl) Methane (111-81-1)	X			ND							1	µg/L		
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X			ND							1	µg/L		
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)	X			ND							1	µg/L		
13B. Bis (2-Ethyl-Acetyl) Phthalate (117-81-7)	X			ND							1	µg/L		
14B. 4-Bromo-Phenyl Phenyl Ether (101-88-3)	X			ND							1	µg/L		
15B. Butyl Benzyl Phosphine Oxide (85-88-7)	X			ND							1	µg/L		
16B. 2-Chloro-1,3-Dioxane (91-58-7)	X			ND							1	µg/L		
17B. 2-Chloro-1,3-Dioxane (91-58-7)	X			ND							1	µg/L		
18B. Cerylene (218-81-4)	X			ND							1	µg/L		
19B. Dibenzo (a,h) Anthracene (83-70-3)	X			ND							1	µg/L		
20B. 1,2-Dichlorobenzene (95-50-1)	X			ND							1	µg/L		
21B. 1,3-Dichlorobenzene (541-73-1)	X			ND							1	µg/L		

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	START AND STOP QUANTITIES	CONCENTRATION	8. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	9. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	10. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	11. CONCENTRATION	12. MASS	13. CONCENTRATION	14. MASS	15. NO. OF ANAL. YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
22B. 1,4-Dichlorobenzene (108-46-7)	X		ND					mg/L		1
23B. 3,5-Dichlorobenzene (88-46-1)	X		ND					mg/L		1
24B. Dimethyl Phthalate (84-66-2)	X		ND					mg/L		1
25B. Diethyl Phthalate (84-66-2)	X		ND					mg/L		1
26B. Di-n-butyl Phthalate (84-66-2)	X		ND					mg/L		1
27B. 2,4-Dinitrophenol (121-14-2)	X		ND					mg/L		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		ND					mg/L		1
29B. Di-N-Octyl Phthalate (117-84-0)	X		ND					mg/L		1
30B. 1,2-Diphenylhydrazine (60-31-1)	X		ND					mg/L		1
31B. Fluoranthene (209-44-0)	X		ND					mg/L		1
32B. Fluorene (85-02-7)	X		ND					mg/L		1
33B. Hexachlorobenzene (11674-1)	X		ND					mg/L		1
34B. Hexachlorobutadiene (87-88-3)	X		ND					mg/L		1
35B. Hexachlorocyclopentadiene (77-47-4)	X		ND					mg/L		1
36B. Hexachloroethane (67-72-1)	X		ND					mg/L		1
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		ND					mg/L		1
38B. Isophorone (78-59-1)	X		ND					mg/L		1
39B. Naphthalene (91-20-3)	X		ND					mg/L		1
40B. Nitrobenzene (98-95-3)	X		ND					mg/L		1
41B. N-Nitrosodimethylamine (82-76-9)	X		ND					mg/L		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		ND					mg/L		1

CONTINUED FROM THE FRONT

1. POLLUTANT NUMBER (if available)	2. MARK 'X' (a) TEST (b) RELEVANCE (c) QUANTITATIVE (d) YES	3. EFFLUENT (a) MAXIMUM DAILY VALUE (b) MAXIMUM 30 DAY VALUE (c) LONG TERM AVERAGE VALUE (d) NO. OF ANAL. YSES	4. UNITS (a) CONCENTRATION (b) MASS	5. INTAKE (optional) (a) LONG TERM AVERAGE VALUE (b) MASS	6. NO. OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>					
43B. N-Nitro-sediphenylamine (85-50-6)	X	ND	mg/L		1
44B. Phenanthrene (85-01-8)	X	ND	mg/L		1
45B. Pyrene (129-00-0)	X	ND	mg/L		1
46B. 1,2,4-Trifluorobenzene (123-82-1)	X	ND	mg/L		1
<b>GC/MS FRACTION - PESTICIDES</b>					
7F. Aldrin (50-83-2)	X				
8F. D-BHC (519-84-8)	X				
9F. δ-BHC (519-84-7)	X				
4P. γ-BHC (88-49-9)	X				
8P. δ-BHC (319-86-8)	X				
8P. Chlordane (97-74-9)	X				
7F. 4,4'-DDT (50-29-3)	X				
8P. 4,4'-DDE (72-85-9)	X				
9P. 4,4'-DDD (72-84-8)	X				
10P. Dieldrin (60-57-1)	X				
11P. α-Endosulfan (115-29-7)	X				
12P. β-Endosulfan (115-29-7)	X				
13P. Endosulfan Sulfate (1031-07-8)	X				
14P. Endrin (72-20-8)	X				
18P. Endrin Aldehyde (7421-93-4)	X				
16P. Heptachlor (76-44-8)	X				

CONTINUE ON PAGE V-9

PAGE V-8

EPA Form 3510-2C (8-80)

EPA I.D. NUMBER (copy from Item 1 of Form 1) **MND 049537780** | **SP 010** | OUTFALL NUMBER

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (check appropriate box)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	E. CONCENTRATION	D. MASS	F. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANALYSES
<b>GCMS FRACTION -- PESTICIDES (continued)</b>							
17P. Heptachlor Epoxide (1024-57-3)	X						
18P. PCB-1242 (83469-21-8)	X						
19P. PCB-1254 (11097-69-1)	X						
20P. PCB-1221 (11104-28-2)	X						
21P. PCB-1232 (11141-16-5)	X						
22P. PCB-1248 (12672-29-6)	X						
23P. PCB-1260 (11098-82-5)	X						
24P. PCB-1016 (12674-11-2)	X						
28P. Toxaphene (8001-36-2)	X						

PAGE V-9



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

**Sample Description:** Priority Pollutants- Misc Drains

**LabWorks I.D.:** EG53520

**Location:** Prairie Island

**Laboratory I.D.:** 1037.14

**Customer Sample I.D.:**

**Collection Date:** 11/10/2009

**Date Submitted:** 11/11/2009

**Chain of Custody #.:** 202571

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Aluminum	0.17	mg/L Al	HSD	0.01	0.02	EPA 200.7	11/20/2009
Ammonia Nitrogen	< RL	mg/L N	KLZ	0.20	0.20	SM 4500NH3 D	11/12/2009
Antimony	< RL	mg/L Sb	HSD	0.01	0.1	EPA 200.7	11/20/2009
Antimony	< RL	ug/L Sb	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Arsenic	< RL	ug/L As	KLZ	0.5	2	EPA 200.8	12/12/2009
Barium	0.06	mg/L Ba	HSD	0.02	0.01	EPA 200.7	11/20/2009
Beryllium	< RL	mg/L Be	HSD	0.01	0.02	EPA 200.7	11/20/2009
Boron	0.05	mg/L B	HSD	0.01	0.05	EPA 200.7	11/24/2009
Cadmium	< RL	ug/L Cd	KLZ	0.1	0.5	EPA 200.8	12/12/2009
Cadmium	< RL	mg/L Cd	HSD	0.02	0.02	EPA 200.7	11/20/2009
Calcium	70.5	mg/L Ca	HSD	0.5	0.5	EPA 200.7	11/25/2009
Chemical Oxygen Demand	12	mg/L O2	CMK	8	16	EPA 410.4 RV 2	11/17/2009
Chromium	< RL	mg/L Cr	HSD	0.02	0.02	EPA 200.7	11/20/2009
Cobalt	< RL	mg/L Co	HSD	0.02	0.02	EPA 200.7	11/20/2009
Copper	< RL	mg/L Cu	HSD	0.02	0.02	EPA 200.7	11/20/2009
Fluoride	< RL	mg/L F	JCS	0.05	0.4	EPA 300.0	11/30/2009
Iron	0.34	mg/L Fe	HSD	0.01	0.05	EPA 200.7	11/20/2009
Lead	< RL	ug/L Pb	KLZ	0.5	1.0	EPA 200.8	12/12/2009
Magnesium	27.8	mg/L Mg	HSD	0.2	0.5	EPA 200.7	11/25/2009
Manganese	0.04	mg/L Mn	HSD	0.02	0.02	EPA 200.7	11/20/2009
Mercury	< RL	ug/L Hg	HSD	0.5	0.5	EPA 245.1	11/12/2009
Molybdenum	< RL	mg/L Mo	HSD	0.02	0.05	EPA 200.7	11/20/2009
Molybdenum	< RL	ug/L Mo	KLZ	0.5	5.0	EPA 200.8	12/12/2009
Nickel	< RL	mg/L Ni	HSD	0.02	0.02	EPA 200.7	11/20/2009
Oil & Grease	< RL	mg/L	JCS	1.4	4	EPA 1664	11/16/2009
pH (Lab)	8.34		KLZ	0.01		SM 4500H+	11/13/2009
Selenium	< RL	ug/L Se	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Silver	< RL	mg/L Ag	HSD	0.01	0.01	EPA 200.7	11/20/2009
Specific Conductance	598	umhos/cm	KLZ	1	28.2	EPA 120.1	11/13/2009
Sulfate	72.04	mg/L SO4	JCS	0.03	2	EPA 300.0	11/30/2009
Thallium	< RL	ug/L TL	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Tin	< RL	ug/L Sn	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Titanium	< RL	mg/L Ti	HSD	0.02	0.02	EPA 200.7	11/20/2009
Total Hardness	291	mg/L CaCO3	HSD	1		SM234OB	11/25/2009
Total Organic Carbon	6.76	mg/L C	WRNJ03	0.3	1	SM 5310B	11/16/2009
Total Phosphorus	0.061	mg/L P	CMK	0.001	0.01	EPA 365.3	11/17/2009
Total Suspended Solids	6.8	mg/L	JCS	0.2	1	SM 2540D	11/12/2009
Zinc	< RL	mg/L Zn	HSD	0.01	0.05	EPA 200.7	11/20/2009

Comments related to sample number EG53520:



**Minneapolis Testing Laboratory Report**

1518 Chestnut Avenue N  
Minneapolis, MN 55403

Phone: (612)630-4506

Fax: (612) 630-4367

Contact: Christine Keefe

Lab Certification MN ID: 027-053-197

Lab Certification WI ID:999071150

Sample Description: Priority Pollutants- TBS 2

LabWorks I.D. EG53519

Location: Prairie Island

Laboratory I.D.: 1037.13

Customer Sample I.D.:

Collection Date: 11/10/2009

Date Submitted: 11/11/2009

Chain of Custody #: 202571

Constituent	Result	Units	Analyst	Detection Limit (MDL)	Reporting Limit (RL)	Analytical Method	Analysis Start Date
Aluminum	0.11	mg/L Al	HSD	0.01	0.02	EPA 200.7	11/20/2009
Ammonia Nitrogen	27.25	mg/L N	KLZ	0.20	0.20	SM 4500NH3 D	11/12/2009
Antimony	< RL	mg/L Sb	HSD	0.01	0.1	EPA 200.7	11/20/2009
Antimony	< RL	ug/L Sb	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Arsenic	< RL	ug/L As	KLZ	0.5	2	EPA 200.8	12/12/2009
Barium	0.03	mg/L Ba	HSD	0.02	0.01	EPA 200.7	11/20/2009
Beryllium	< RL	mg/L Be	HSD	0.01	0.02	EPA 200.7	11/20/2009
Boron	0.14	mg/L B	HSD	0.01	0.05	EPA 200.7	11/24/2009
Cadmium	< RL	ug/L Cd	KLZ	0.1	0.5	EPA 200.8	12/12/2009
Cadmium	< RL	mg/L Cd	HSD	0.02	0.02	EPA 200.7	11/20/2009
Calcium	26.0	mg/L Ca	HSD	0.5	0.5	EPA 200.7	11/25/2009
Chemical Oxygen Demand	21	mg/L O2	CMK	8	16	EPA 410.4 RV 2	11/17/2009
Chromium	< RL	mg/L Cr	HSD	0.02	0.02	EPA 200.7	11/20/2009
Cobalt	< RL	mg/L Co	HSD	0.02	0.02	EPA 200.7	11/20/2009
Copper	0.08	mg/L Cu	HSD	0.02	0.02	EPA 200.7	11/20/2009
Fluoride	0.20	mg/L F	JCS	0.05	0.4	EPA 300.0	11/30/2009
Iron	0.29	mg/L Fe	HSD	0.01	0.05	EPA 200.7	11/20/2009
Lead	< RL	ug/L Pb	KLZ	0.5	1.0	EPA 200.8	12/12/2009
Magnesium	12.7	mg/L Mg	HSD	0.2	0.5	EPA 200.7	11/25/2009
Manganese	0.03	mg/L Mn	HSD	0.02	0.02	EPA 200.7	11/20/2009
Mercury	< RL	ug/L Hg	HSD	0.5	0.5	EPA 245.1	11/12/2009
Molybdenum	< RL	mg/L Mo	HSD	0.02	0.05	EPA 200.7	11/20/2009
Molybdenum	< RL	ug/L Mo	KLZ	0.5	5.0	EPA 200.8	12/12/2009
Nickel	< RL	mg/L Ni	HSD	0.02	0.02	EPA 200.7	11/20/2009
Oil & Grease	< RL	mg/L	JCS	1.4	4	EPA 1664	11/16/2009
pH (Lab)	9.36		KLZ	0.01		SM 4500H+	11/13/2009
Selenium	< RL	ug/L Se	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Silver	< RL	mg/L Ag	HSD	0.01	0.01	EPA 200.7	11/20/2009
Specific Conductance	337	umhos/cm	KLZ	1	28.2	EPA 120.1	11/13/2009
Sulfate	32.03	mg/L SO4	JCS	0.03	2	EPA 300.0	11/30/2009
Thallium	< RL	ug/L TL	KLZ	0.5	0.5	EPA 200.8	12/12/2009
Tin	< RL	ug/L Sn	KLZ	0.5	2.0	EPA 200.8	12/12/2009
Titanium	< RL	mg/L Ti	HSD	0.02	0.02	EPA 200.7	11/20/2009
Total Hardness	117	mg/L CaCO3	HSD	1		SM234OB	11/25/2009
Total Organic Carbon	6.11	mg/L C	WRNJ03	0.3	1	SM 5310B	11/16/2009
Total Phosphorus	0.026	mg/L P	CMK	0.001	0.01	EPA 365.3	11/17/2009
Total Suspended Solids	2.0	mg/L	JCS	0.2	1	SM 2540D	11/12/2009
Zinc	< RL	mg/L Zn	HSD	0.01	0.05	EPA 200.7	11/20/2009

Comments related to sample number EG53519:



**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: **MISC DRAINS** Lab ID: **10116616003** Collected: 11/10/09 12:00 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Benzidine	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	92-87-5	SS
Benzo(a)anthracene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	207-08-9	
Benzoic acid	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	65-85-0	
Benzyl alcohol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	85-68-7	
Carbazole	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	59-50-7	
4-Chloroaniline	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	108-60-1	
2-Chloronaphthalene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	91-58-7	
2-Chlorophenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	7005-72-3	
Chrysene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	53-70-3	
Dibenzofuran	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.8	1	11/16/09 14:54	11/23/09 22:53	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	120-83-2	
Diethylphthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	105-67-9	
Dimethylphthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	534-52-1	
2,4-Dinitrophenol	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	117-81-7	
Fluoranthene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	206-44-0	
Fluorene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	87-68-3	
Hexachlorobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	77-47-4	
Hexachloroethane	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	193-39-5	
Isophorone	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	91-57-6	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 14 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..







Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

### ANALYTICAL RESULTS

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: MISC DRAINS Lab ID: 10116616003 Collected: 11/10/09 12:00 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b> Analytical Method: EPA 625 Preparation Method: EPA 625								
2-Methylphenol(o-Cresol)	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	95-48-7	
3&4-Methylphenol	ND	ug/L	20.8	1	11/16/09 14:54	11/23/09 22:53		
Naphthalene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	91-20-3	
2-Nitroaniline	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	88-74-4	
3-Nitroaniline	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	99-09-2	
4-Nitroaniline	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	100-01-6	
Nitrobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	98-95-3	
2-Nitrophenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	88-75-5	
4-Nitrophenol	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	86-30-6	
Pentachlorophenol	ND	ug/L	24.0	1	11/16/09 14:54	11/23/09 22:53	87-86-5	
Phenanthrene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	85-01-8	
Phenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	108-95-2	
Pyrene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	52.1	1	11/16/09 14:54	11/23/09 22:53	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.4	1	11/16/09 14:54	11/23/09 22:53	88-06-2	
Nitrobenzene-d5 (S)	65 %		47-127	1	11/16/09 14:54	11/23/09 22:53	4165-60-0	
2-Fluorobiphenyl (S)	77 %		52-133	1	11/16/09 14:54	11/23/09 22:53	321-60-8	
Terphenyl-d14 (S)	90 %		55-150	1	11/16/09 14:54	11/23/09 22:53	1718-51-0	
Phenol-d6 (S)	69 %		43-128	1	11/16/09 14:54	11/23/09 22:53	13127-88-3	
2-Fluorophenol (S)	64 %		31-131	1	11/16/09 14:54	11/23/09 22:53	367-12-4	
2,4,6-Tribromophenol (S)	85 %		30-150	1	11/16/09 14:54	11/23/09 22:53	118-79-6	
<b>624 MSV</b> Analytical Method: EPA 624								
Acetone	ND	ug/L	10.0	1		11/17/09 02:00	67-64-1	
Acrolein	ND	ug/L	40.0	1		11/17/09 02:00	107-02-8	M0
Acrylonitrile	ND	ug/L	10.0	1		11/17/09 02:00	107-13-1	
Allyl chloride	ND	ug/L	4.0	1		11/17/09 02:00	107-05-1	
Benzene	ND	ug/L	1.0	1		11/17/09 02:00	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/17/09 02:00	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/17/09 02:00	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	1		11/17/09 02:00	75-27-4	
Bromoform	ND	ug/L	8.0	1		11/17/09 02:00	75-25-2	
Bromomethane	ND	ug/L	4.0	1		11/17/09 02:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	1		11/17/09 02:00	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		11/17/09 02:00	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	1		11/17/09 02:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/17/09 02:00	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		11/17/09 02:00	110-75-8	P5
Chloroform	ND	ug/L	1.0	1		11/17/09 02:00	67-66-3	

Date: 11/25/2009 02:23 PM

### REPORT OF LABORATORY ANALYSIS

Page 15 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: MISC DRAINS Lab ID: 10116616003 Collected: 11/10/09 12:00 Received: 11/10/09 15:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Chloromethane	ND	ug/L	1.0	1		11/17/09 02:00	74-87-3	
Chloroprene	ND	ug/L	1.0	1		11/17/09 02:00	126-99-8	
2-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:00	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/17/09 02:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		11/17/09 02:00	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/17/09 02:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/17/09 02:00	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/17/09 02:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/17/09 02:00	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/17/09 02:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/17/09 02:00	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		11/17/09 02:00	75-43-4	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:00	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/17/09 02:00	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		11/17/09 02:00	594-20-7	MO
1,1-Dichloropropene	ND	ug/L	1.0	1		11/17/09 02:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/17/09 02:00	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		11/17/09 02:00	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		11/17/09 02:00	87-68-3	
2-Hexanone	ND	ug/L	4.0	1		11/17/09 02:00	591-78-6	
Iodomethane	ND	ug/L	4.0	1		11/17/09 02:00	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/09 02:00	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/17/09 02:00	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		11/17/09 02:00	75-09-2	
2-Methylnaphthalene	ND	ug/L	5.0	1		11/17/09 02:00	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/17/09 02:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/09 02:00	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		11/17/09 02:00	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	103-65-1	
Styrene	ND	ug/L	1.0	1		11/17/09 02:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:00	630-20-6	
1,1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/17/09 02:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/17/09 02:00	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		11/17/09 02:00	109-99-9	
Toluene	ND	ug/L	1.0	1		11/17/09 02:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/17/09 02:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/17/09 02:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1		11/17/09 02:00	79-00-5	

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 16 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
 1700 Elm Street - Suite 200  
 Minneapolis, MN 55414  
 (612)607-1700

**ANALYTICAL RESULTS**

Project: PRAIRIE ISLAND NPDES  
 Pace Project No.: 10116616

Sample: MISC DRAINS		Lab ID: 10116616003	Collected: 11/10/09 12:00	Received: 11/10/09 15:05	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>624 MSV</b>		Analytical Method: EPA 624						
Trichloroethene	ND	ug/L	1.0	1		11/17/09 02:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1		11/17/09 02:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/17/09 02:00	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		11/17/09 02:00	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/09 02:00	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		11/17/09 02:00	108-05-4	
Vinyl chloride	ND	ug/L	0.40	1		11/17/09 02:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/17/09 02:00	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/17/09 02:00	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		11/17/09 02:00	95-47-6	
Dibromofluoromethane (S)	105 %		75-125	1		11/17/09 02:00	1868-53-7	
4-Bromofluorobenzene (S)	97 %		75-125	1		11/17/09 02:00	460-00-4	
Toluene-d8 (S)	98 %		75-125	1		11/17/09 02:00	2037-26-5	
1,2-Dichloroethane-d4 (S)	108 %		75-125	1		11/17/09 02:00	17060-07-0	
<b>2120B W Apparent Color</b>		Analytical Method: SM 2120B						
Apparent Color	30.0	units	2.0	2		11/12/09 15:00		H1
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	5.0	1		11/17/09 10:00		
<b>4500SO3B Sulfite, Iodometric</b>		Analytical Method: SM 4500-SO3 B						
Sulfite	ND	mg/L	2.0	1		11/12/09 19:00		H6
<b>SM5210B, BOD, Low Level</b>		Analytical Method: SM 5210B						
BOD, 5 day	3.1	mg/L	2.0	1	11/11/09 11:51	11/16/09 12:04		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Bromide	ND	mg/L	0.40	1		11/14/09 00:45	24959-67-9	

Sample: TURBINE BUILDING SUMP 1		Lab ID: 10116616004	Collected: 11/10/09 11:10	Received: 11/10/09 15:05	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MBIO 9222D Fecal Coli (Water)</b>		Analytical Method: SM 9222D Preparation Method: SM 9222D						
Fecal Coliforms	<4	CFU/100 mL		1	11/10/09 17:07	11/11/09 16:38		
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4						
Cyanide	ND	mg/L	0.020	1		11/17/09 15:29	57-12-5	
<b>Phenolics, Total Recoverable</b>		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND	ug/L	100	1		11/16/09 16:22		

Date: 11/25/2009 02:23 PM

**REPORT OF LABORATORY ANALYSIS**

Page 17 of 42

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc..





# MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724  
51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885  
www.mvttl.com



Page: 1 of 1

ANDREA OPLAND  
PACE ANALYTICAL SERVICES INC  
1700 ELM ST STE 200  
MINNEAPOLIS MN 55414

Report Date: 19 Nov 09  
Lab Number: 09-A53876  
Work Order #: 12-14861  
Account #: 013980  
Sample Matrix: WASTEWATER  
Date Sampled: 10 Nov 09 12:00  
Date Received: 12 Nov 09 9:35  
PO #: 10116616

Project Name: PRAIRIE ISLAND NPDES

Sample Description: MISC DRAINS

Temp at Receipt: 1.6C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Nitrogen, Organic	0.90	mg/L	NA		19 Nov 09 10:15	Calculated
Nitrate+Nitrite	2.63	mg/L as N	0.20	353.2	19 Nov 09 11:54	AKF
Nitrogen, Ammonia	< 0.16	mg/L	0.16	4500 NH3 B E	19 Nov 09 10:15	TAM
Nitrogen, Total Kjeldahl	0.9	mg/L	0.2	SM 4500NorgB/NH3 E	18 Nov 09 9:10	TAM
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	13 Nov 09 3:15	JD

\* Holding time Exceeded

Approved by:

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration  
! = Due to sample quantity + = Due to extract volume  
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

AN EQUAL OPPORTUNITY EMPLOYER

45 01 49