
SEPARATOR


54-00092


WATER NPDES


PRETREATMENT


02/1992


ARP001013

INDUSTRIAL BASELINE MONITORING REPORT

Instructions: Please complete this form in as much detail as possible. Include additional information on attached sheets as necessary. Refer to the supplemental instructions and return this report to the address shown in the instructions.

(1) Identifying Information:

A. Legal Name: The Norac Company, Inc.
Mailing Address: P.O. Box 577
405 S. Motor Ave.
Azusa, CA Zip: 91702

B. Facility Name: The Norac Company, Inc.
Location: Industrial Park Rd.
West Helena, AR Zip: 72390

C. Name of Owners: Dr. Chester M. McCloskey

D. Name of Operators: Neville A. Jones

E. Facility Contact (provide the name, title & phone number of a designated person to contact if additional information is necessary.) Jerry Macala
Environmental Affairs Dir. (818)334-2908

F. Number of Employees 30 G. Number of Shifts 3

H. Number of Months/Year in Operation 12

I. Provide the name of the publicly owned treatment works (sewerage authority, municipality, etc.) that receives the wastewater discharges from this facility (if this facility is not connected to a sewerage system describe where wastewater is discharged.) Helena Municipal Water Company

J. Provide the date the facility began/will begin discharging to the publicly owned treatment works (sewerage authority, municipality, etc.) February 1992
Date facility began operation June 1982

(2) Permits:
Describe all environmental control permits held by or for the facilit

Describe Title of the Permit	Permit No.	Issuing Office	Exp. Date
Air Pollution Control	624-AR-1	ADPC & E	NONE
Air Pollution Control	625-AR-1	ADPC & E	NONE
Waste Water Treatment	2543	ADPC & E	NONE

ARP001013

(3) Description of Operations:

A. List Raw Materials Used: Stearic Acid, Zinc Oxide, Calcium Oxide, Methyl Ethyl Ketone, Hydrogen Peroxide, Sulfuric Acid, 2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate (TXIB), Dimethyl Phthalate, Dimethyl Glutarate, Dimethyl Adipate, Diprppylene GLycol, Benzoyl Peroxide

B. List Chemicals Used: Same as Above

C. Describe Manufacturing or Service Activities Conducted and the Final Products: Chemical Manufacturing: Methyl Ethyl Ketone Peroxide, Metallic Salts of Stearic Acid

D. Summarize each Regulated Process:

Process Description	Production Rate	Pretreatment Standard Category	Subpart	SIC Code
* Methyl Ethyl Ketone Peroxide	8400Kg/Day	OCPSF 414.85	H	2869
Metallic Stearate Mfg.	9200Kg/Day	OCPSF 414.85	H	2869

* From 1992 Production Data as reported to USITC

E. Provide on a separate sheet:

1) a schematic drawing of flow chart of each regulated process that generates wastewater.

2) a schematic drawing showing all wastewater flows (regulated and unregulated), location of any treatment system, and sampling locations and estimated flows for each individual wastestream.

3) a schemeatic process diagram which indicates points of discharge to the POTW from regulated processes.

(4). Flow Measurement:

A. Total Plant Flow in Gallons Per Day (gpd):

Average 12000 Maximum 18000

B. Individual Process Flows in Gallons Per Day (gpd)

Regulated Process	Average Flow Rate (gpd)	Maximum Flow Rate (gpd)	Type of Discharge (Batch, etc)
MEKP Mfg.	11000	16500	Continuous
Stearate Mfg.	100	150	Continuous

Unregulated Process	Average Flow Rate (gpd)	Maximum Flow Rate (gpd)	Type of Discharge (Batch, etc.)
(NONE)			
Boiler	100	150	Batch/Continuous
DI water	100	150	Batch
Cooling Water	200	300	Continuous
Sanitary Wastewater	500	750	Batch

(5) Measurement of Pollutants

A. Provide on a Separate Sheet:

1) The user shall identify the Pretreatment Standards applicable to each regulated process.

2) A description of any and all wastewater treatment utilized (show treatment system location in relation to process flows and sampling points on schematic drawing required by Question 3.E.).

B. Analysis of Regulated Flows:
The industrial user must perform sampling and analysis of the effluent from all regulated processes (after treatment, if applicable). Provide the analytical data for the regulated processes in the space provided below. Attach additional sheets if necessary. **(Only those pollutants specifically regulated by the applicable category need be reported.)**

Regulated Process: _____

Pollutant (mg/l)											
Maximum											
Average											

Sample Location: _____

Sample Type (composite samples are required except where not feasible or where grab samples are specifically required (see 40 CFR 403.12(b)(5)(iii)): _____

Number of Samples and Frequency Collected: _____

Analytical Methods Used: _____

C. Analysis of Total Plant Flow (if appropriate)
An industrial user may sample and analyze the total plant flow and calculate an equivalent concentration limit using the combined wastestream formula if regulated process flows are mixed with other flows prior to treatment and/or sampling. Record the analytical results for all regulated pollutants below. Record the calculated concentration limits as well as the actual measured concentrations.

Pollutant (mg/l)	*SEE	ATTACHED*									
MEC*											
AEC*											
AMMC*											
AAAC*											

Sample Location: Treatment Pond Outfall
Sample Type (composite samples are required except where not feasible o: where grab samples are specifically required (see 40 CFR 403.12(b)(5)(iii)): Grab
Number of Samples and Frequency Collected: ONE SAMPLE, TWICE YEARLY
Analytical Methods Used: EPA 624, EPA 625, METALS

*MEC - Maximum Equivalent Concentration (derived through the combined wastestream formula)
*AEC - Average Equivalent Concentration (derived through the combined wastestream formula)
*AMMC - Actual Measured Maximum Concentration
*AAAC - Actual Measured Average Concentration

	40CFR 414.85			CWF			3/17/93 Wastewater	
	MAX	AVE		MEC	AEC		AMMC	AAAC
Benzene	57	134		53	124		<2	<2
Carbon Tetrachloride	142	380		131	352		<2	<2
Chlorobenzene	142	380		131	352		<2	<2
1,2,4-Trichlorobenzene	196	794		181	734		<10	<10
Hexachlorobenzene	196	794		181	734		<10	<10
1,2-Dichloroethane	180	574		167	531		<2	<2
1,1,1-Trichloroethane	22	59		20	55		<2	<2
Hexachloroethane	196	794		181	734		<10	<10
1,1-Dichloroethane	22	59		20	55		<10	<10
1,1,2-Trichloroethane	32	127		30	117		<10	<10
Chloroethane	110	295		102	273		<10	<10
Chloroform	111	325		103	301		<10	<10
1,2-Dichlorobenzene	196	794		181	734		<2	<2
1,3-Dichlorobenzene	142	380		131	352		<2	<2
1,4-Dichlorobenzene	142	380		131	352		<2	<2
1,1-Dichloroethene	22	60		20	56		<10	<10
trans-1,2-Dichloroethene	25	66		23	61		<2	<2
1,2-Dichloropropane	196	794		181	734		<2	<2
1,3-Dichloropropene	196	794		181	734		<4	<4
Ethylbenzene	142	380		131	352		<10	<10
Methylene Chloride	36	170		33	157		<10	<10
Methyl Chloride	110	295		102	273		<10	<10
Hexachlorobutadiene	142	380		131	352		<10	<10
Nitrobenzene	2237	6402		2069	5922		<10	<10
2-Nitrophenol	65	231		60	214		<10	<10
4-Nitrophenol	162	576		150	533		<50	<50
4,6-Dinitro-o-cresol	78	277		72	256		<50	<50
Tetrachloroethene	52	164		48	152		<2	<2
Toluene	28	74		26	68		<2	<2
Trichloroethene	26	69		24	64		<2	<2
Vinyl Chloride	97	172		90	159		<10	<10
total Cyanide	420	1200		389	1110		<20	<20
total Lead	320	690		296	638		5.1	5.1
total Zinc	1050	2610		971	2414		475	475
above data in ug/L								
MEC= Maximum Equivalent Concentration								
AEC= Average Equivalent Concentration								
AMMC= Actual Measured Maximum Concentration								
AAAC= Actual Measured Average Concentration								
regulated flow	11100 gpd							
total (reg + dilution) flow	12000 gpd							

(6) Certification:

A. Is the facility meeting applicable categorical pretreatment standards on a consistent basis ? YES X NO _____

B. If no, do you require:

1) additional operation and maintenance (O&M) to achieve compliance? YES _____ NO _____

2) new or additional pretreatment facilities to achieve compliance? YES _____ NO _____

3) Name of Qualified Professional that reviewed this certification:

Name & Title Jerry Macala, Regulatory Affairs Director

Signature Jerry Macala Date June 21, 1993

(7) Compliance Schedule:

A. If additional O&M or new or additional pretreatment will be required to meet categorical pretreatment standards on a consistent basis, attach a schedule on a separate sheet projecting increments of progress indicating dates for the commencement and completion of major events leading to compliance with the standard. Note: the final compliance date in this schedule shall not be later than the compliance date for the applicable pretreatment standard. Written progress reports are required within 14 days of each of the compliance dates specified in the compliance schedule.

NONE REQUIRED

E. Signatory Requirement

I certify under penalty of law that I have personally examined and am familiar with the information in this Baseline Monitoring Report and all attachments, and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the report, 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.

Name - Authorized Representative

Ray E. Stapp

Official Title

Vice President Mfg.

Signature

Ray E. Stapp

Date

June 21, 1993

Torrence, Rufus

From: Torrence, Rufus
Sent: Thursday, April 28, 2005 9:45 AM
To: Shafii, Mo
Cc: 'bohme.lee@epamail.epa.gov'; Gilliam, Allen
Subject: The Norac Co in West Helena

Tracking:

Recipient	Delivery	Read
Shafii, Mo	Delivered: 4/28/2005 9:45 AM	Read: 4/28/2005 9:52 AM
'bohme.lee@epamail.epa.gov'		
Gilliam, Allen	Delivered: 4/28/2005 9:45 AM	Read: 4/28/2005 9:46 AM

Mo,

Yesterday, I visited Amerimax and The Norac Co in West Helena. The Amerimax visit was routine but Wally McCloskey, President and Owner (Norac is a family owned company with two locations in the USA) was present and he was curious about Norac categorical standing. Another Norac plant is located in Region IX in Azusa, California. Region IX has the "pilot plant" regulated as 40CFR414; the pilot plant is identical to the one in West Helena.

When I took over the indirect dischargers in 1993, I had about 60 CIUs. The American Greeting Company in Osceola, AR had been reporting as a 40CFR433 CIU for seven years but after a corporate review of their facility, the Osceola plant petitioned ADPC&E to stop reporting because their process was not regulated. I checked with Lee and he said, "If they are not regulated, they don't have to report". So Steve Bainter and I reviewed all 60 CIUs to check their categorical standing. At that time four OCPSF CIUs were reporting to ADPC&E (one of these was Norac); I advised all four that they were not categorical and three stopped reporting, immediately. Norac refused to stop because Region IX had their California plant regulated. Nonetheless, Steve and I reduced the number from 60 down to 30. Currently, about 30 CIUs are still reporting to ADEQ.

I relegated ADPC&E authority to Region VI to make the final decision on Norac; Norac checked with Region VI and said that Region VI deemed them categorical. I asked Region VI/Norac to send me a copy of their determination for my records. To date neither Norac or Region VI has replied; therefore, I list Norac as "pending".

I will not send Norac an official reply until everyone agrees; I told Norac that in the meantime only HQ has the final authority on their categorical standing since two regions are involved.

Do you have an opinion on how to proceed?

Rufus

Pretreatment Industrial Inspection

Facility Information

Facility Name: The Norac Co	Site Address: 334 Phillips 311 Road West Helena, AR 72342
Signatory Authority (Name & Title): Jeff Wages, EHS Coordinator	
Phone: (870) 572-9061	Mailing Address (if different):
Fax: (870) 572-1416	same
Address:	Corporate Owner Name and address (if applicable): *
same	The Norac Company, 405 South Motor Ave / Azusa, CA
Phone: "	Phone: (818) 334-2908
Fax: "	Fax: (818) 334-3512
Contact Person (Name & Title): Jeff Wages, EHS Coor	Corporate ~~CEO~~ * ~~Terry Macala, Env Mgr~~
e-mail: JWages@norac.com	e-mail: Robert Summers, Env Mgr
Facility Permit # N/A or ARP00 1013	**Last Inspection Date:** N/A
POTW (City) IU discharges to: Helena WTP	POTW's NPDES #AR00 43389
Industrial Classification: ☐ Categorical *	☐ Significant
If Categorical, list which CFR #(s) the facility is subject to: *Under Review	

Table of Contents

Comments :

Inspector's Name (Print): Rufus Torrence	Signature:
IU Rep's Name (Print) Jeff Wages	Signature: Jeff Wages
Date and Time Inspection Ended: 4-27-05 @	12:45 pm

* Wally McCloskey, President

I. Summary of Inspection

A. Inspection and Objective (Complete Before Inspection)

☐ Permit Renewal	☐ Annual – Bi	☐ Spill/Slug	☐ Unscheduled
☐ New Construction	☐ Noncompliance	☐ Follow-up	☐ Complaint

Inspection Objective(s)

Checklist of items to be reviewed and/or visually inspected:

☐ Pre-inspection Meeting	☐ Permit Conditions	☐ Safety Concerns
☐ Process Inspection	☐ Pretreatment Process	☐ TOMP
☐ Chemical Storage	☐ Discharge point(s)	☐ Spills/Slug Control Plan
☐ Records Review	☐ RCRA information	☐ Process/Flow/Pretreatment Schematics
☐ IU sampling procedures	☐ Flow/pH Meter(s)	☐ Calibration Records
☐ MSDS Inventory List	☐ New MSDS	☐

Comments:

B. Inspection Analysis

Were there any deficiencies/violations identified and noted during the inspection? ☐ Yes ☐ No

Provide a brief narrative of deficiencies/violations or other concerns in the following areas:

Records Review

Process Area(s)

Benzoyl Peroxide Added in late 90's

Pretreatment System

Self Monitoring Procedures

Diversion/Sewer Meters

Spill/Slug Control Plan

Sampling Point

Chemical Storage

II. Pre-Inspection Meeting

A. General Information

Date and Time Inspection Started: 4-27-05 @ 11:30	SIC code(s): 2869
IU Reps/Titles: Jeff Wages	Control Authority Reps/Titles: Rufus Torrence, Pret Eng
End product(s): Organic Peroxides & Metallic Stearates	Approx. # of units produced: 18500 tons
Days of Operation: M-F	Days of Production (if different):
Hours of Operation: 24 hr/day	Hours of Production (if different):
Shift 1, hrs.: 7am to 3pm	Shift 2, hrs.: 3 to 11 pm; Shift 3, hrs.: 11 pm to 7 AM
# of Employees: 105	Peak Mos.: May; "Off" Mos.: December

Are there any scheduled plant shutdowns? Yes ☑ No ☐ N/A ☐ If yes, when? Last 2 weeks each year

Are there designated plant clean-up days? Yes ☐ No ☒ N/A ☐ If yes, when?

Is the facility currently in compliance with all pretreatment reporting requirements and limits? Yes ☐ **No** ☒

If **No**, explain: Unknown — CIU under categorical Determination

Are there any Special Entry Procedures for the Discharge/Sample point locations? Yes ☐ No ☑

If Yes, explain:

Are there any Safety Concerns or Identified Hazards that the inspector should be aware of: ☐ Yes. ☒ No

If Yes, explain:

Has there been any changes since the last inspection regarding the following items:

Plant/flow/process layout? Yes ☐ No ☐ If yes, obtain copy of updated schematic for facility file.

Processes? Yes ☐ No ☐ If yes, explain:

Production Levels? Yes ☐ No ☐ If yes, explain:

Raw materials? Yes ☐ No ☐ If yes, explain:

Flow rates? Yes ☐ No ☐ If yes, explain

Are regulated and non-regulated wastestreams combined?	yes ☐	no ☐	
Prior to Pretreatment System?	yes ☐	no ☐	N/A ☐
If Yes, was the CWF used to calculate limits?	yes ☐	no ☐	
Prior to connection to the POTW sanitary sewer?	yes ☐	no ☐	N/A ☐
At connection to sanitary sewer?	yes ☐	no ☐	N/A ☐
Production and flows verified for Production-Based Standards?	yes ☐	no ☐	N/A ☐

What is the current avg. production rate and process flow?

Is the prod. rate or flow substantially different (+/- 20%) from those used in calculating limits? yes ☐ no ☐

B. Facility Permits		
Permit Type	Permit No.	Expiration Date
Air		
RCRA	EPA ID# ARD980621320	
NPDES	ARR00A492	
Other		

C. Additional Comments
(Note which section or attachment comments are regarding)

Attachment A: Industrial Process(es)

List process(es) generating wastewater. Note if it's categorical (federally regulated w/pretreatment limits) or not

1.	Yes ☐ No ☐	4.	Yes ☐ No ☐
2.	Yes ☐ No ☐	5.	Yes ☐ No ☐
3.	Yes ☐ No ☐	6.	Yes ☐ No ☐

Were processes visually inspected? Yes ☒ No ☐ N/A ☐

Brief description of process(es):

General observations of facility's indoor housekeeping: Good

General observations of area outside facility's building: Excellent

Check all sources of wastewater being discharged into the City's collection system. Indicate avg. gal/day, measured (M) or estimated (E). If batch (B) discharged, list frequency and volume (1000 gal/month, e.g.).

☐ Process Rinse Overflows	☐ Equip. Cleanup	☐ Floor Cleanup	☐ Spent Bath Solutions
☐ Product Cleaning	☐ Forklifts Maint./Wash	☐ Tank Dragout	☐ Air Pollution Devices
☐ Boiler Blowdown	☐ Spent Rinse Tanks	☐ Equipment Coolants	☐ Non-Contact Cooling Water
☐ Stormwater	☐	☐	☐

List Major Raw Materials and Chemicals used:

Check Waste Stream Pollutants of Concern from Process(es)

☐ BOD	☐ CN^-	☑ Metals (List) Pb, Zn	☐ Solvents (List)
☐ TSS	☐ Cl_2		
☐ O&G	☐ S^-		
☐ pH	☐		

Are there floor drains in the Process area? ☒ Yes ☐ No If yes list number and the location of all floor drains:

Attachment B: Pollution Prevention (P2) / Recycling Activities			
Does the facility have a written P2 Plan?	Yes ☐	No ☐	
Does this facility practice P2?	Yes ☐	No ☐	
Environmental Management System in place?	Yes ☐	No ☐	
ISO Certified?	Yes ☐	No ☐	
Written Standard Operating Procedures?	Yes ☐	No ☐	
Explain:			
Preventative Maintenance Program	Yes ☐	No ☐	(hydraulic systems, valves, pumps, etc)
Explain:			
Water Reuse:	Yes ☐	No ☐	
Explain:			
Cost Accounting to Track Savings:	Yes ☐	No ☐	
Explain:			
Inventory Control / "Green Purchasing":	Yes ☐	No ☐	(lean manufacturing/"env. friendly purchasing", etc)
Explain:			
Employee Training:	Yes ☐	No ☐	
Explain:			
Spent Solvent Reclamation?	Yes ☐	No ☐	
Explain:			
Recycle Paper, Aluminum, Boxes, and Pallets?	Yes ☐	No ☐	
Explain:			
Recycle Waste Oil, Solvents, and Lubricants?	Yes ☐	No ☐	
Explain:			
Other Activities			
P2 Equipment/Practices in use:			

☐ Overflow Alarms	☐ Aqueous Cleaning Solutions
☐ Fog Spray Rinsing	☐ Countercurrent Rinsing
☐ Dragout Collection Trays	☐ Seal-Less Pumps
☐ Air Jets to Blow Parts Dry	☐ Secondary Containment of Process Solutions
☐ Aqueous Paint Stripping Solutions	☐ Bead Blasting to Remove Paint
☐ Water Soluble Cutting Fluids	☐ Recycle Overspray
☐ In-Process Recycle (Ion Exchange, Reverse Osmosis)	☐ Conductivity Meters
☐ Dead Rinse Tanks	☐ Bath / Rinse Filtration

Attachment C: Pretreatment System

Are wastestreams segregated before pretreatment?	☐ Yes	☐ No	☐ N/A
Are they pretreated prior to discharge to the sanitary sewer?	☐ Yes	☐ No	☐ N/A
Was the pretreatment system visually inspected during this visit?	☒ Yes	☐ No	☐ N/A

Check which of the following are utilized for pretreatment prior to discharge to sanitary sewer:

☐ Dissolved air floatation	☐ Membrane Tech.	☐ Ion Exchange	☐ Biological Treatment
☐ Centrifugation	☐ Flow Equalization	☐ Ozonation	☐ Chlorinating
☐ Chemical Precipitation	☐ Oil/Water Separation	☐ Reverse Osmosis	☐ Grit Removal
☐ Sludge Filter Press	☐ Grease Trap	☐ Screen	☐ Solvent Separation
☐ pH Adjustment	☐ Sand Trap	☐ Sedimentation	☐ Silver Recovery
☐ Belt/Disk Oil Skimmer	☐	☐	☐

Provide Brief Description of Pretreatment System (leaks, cleanliness, equipment not in working order):

Two Lagoons to remove DMP & H_2O_2

Does the description match the schematic currently on file? ☐ Yes ☐ No ☐ N/A

System Operator(s) Name:

Does discharge permit require licensed operator? ☐ Yes ☐ No ☐ N/A

Is the System Operator(s) licensed by the State of Arkansas (per Reg. # 3?) ☐ Yes ☐ No ☐ N/A

List Name(s) and License classification:

Is training provided to the Pretreatment System Operator(s)? ☐ Yes ☐ No ☐ N/A

If Yes, list type and frequency:

Is the discharge from the Pretreatment System? ☐ Batch ☐ Continuous ☐ Combination

If any discharges are batch type or combination, describe the following:

Volume of each batch: gallons per

Describe process from which batch originated (spent bath, e.g.):

Approximate duration of batch discharge:

Meter Type	Calibration Procedure and Frequency	Comments (Totalizer Reading)

Attachment D: Chemical Storage Area(s)

Does the facility have a designated chemical storage area(s)? ☒ Yes ☐ No

Was this area(s) visually inspected? ☐ Yes ☐ No ☐ N/A

Describe Chemical Storage Area(s)	Are there floor drains in this area?	If yes, where does this drain lead to?
1. MEKP	☐ Yes ☒ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
2.	☐ Yes ☐ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
3.	☐ Yes ☐ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
4.	☐ Yes ☐ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer

Does the Chemical Storage Area(s) contain any of the following?

☒ Dikes, Berms for Containment	☐ Plugs for Floor Drains
☐ Secondary Tanks for Holding	☐ Premix (low) Concentrations
☐ Alarms	☐ Chain restraints, limited access
☐ Spills Control Kits for Cleanup	☒ Notification Procedures
☒ Chemical desegregation within Storage Area	☐ Other

Chemical Inventory List (MSDS) on file? ☒ Yes ☐ No ☐ N/A

Were any new MSDS reviewed during the Inspection? ☐ Yes ☐ No ☐ N/A

If yes, list below:

Chemical storage comments: * Norac is primarily a chemical company so chemicals are stored over the entire plant but they do have a bulk storage area. Storage areas are scattered over acreage and isolated for safety; earth berms prevent surface run-off.

Chemical handling procedures (totes, dolly, buckets, hardline, etc):

Attachment E: Spill/Slug Control Plan	
Does the facility have a Spill/Slug control plan?	☐ yes ☐ no
If yes are the following: 403.8(f)(2)(v)(A-D) requirements in place?	
Is the spill/slug control plan <2 years old?	☐ yes ☐ no ☐ N/A
(A) Describes discharge practices including non routine batch (slug) discharges	☐ yes ☐ no ☐ N/A
(B) Describes storage and handling of chemicals	☐ yes ☐ no ☐ N/A
(C) Procedures for immediate notification to POTW of slug discharges	☐ yes ☐ no ☐ N/A
(D) 1. Describes measures for controlling toxic/hazardous pollutants	☐ yes ☐ no ☐ N/A
2. Describes procedures and equipment for emergency response	☐ yes ☐ no ☐ N/A
3. Describes follow-up to limit damage suffered by POTW or environment	☐ yes ☐ no ☐ N/A
4. Does the facility have Spill/Slug Notification Procedures posted?	☐ yes ☐ no ☐ N/A
5. Are worker personnel provided training in the event of a spill or slug discharge?	☐ yes ☐ no ☐ N/A
If no:	
Does the facility have Spill/Slug Notification Procedures posted?	☐ yes ☐ no
Is it posted in areas where chemicals are used and stored?	☐ yes ☐ no
If Yes how many?	
Are appropriate personnel provided training in the event of a spill or slug discharge?	☐ yes ☐ no
Have there been any non-routine, episodic discharges or chemical spills in the past year?	☐ yes ☐ no
(Briefly Describe, Include Dates)	
Was the City notified of these occurrences? ☐ yes ☐ no ☐ N/A	
Visual Inspection of Discharge Lines/Points	
Provide description of manhole condition and flow channel of the following where applicable:	
Sampling / Monitoring Point	
Total Flow Monitoring Point	Estimated using city water meter
Upstream Manhole	
Point of Connection:	

Attachment F: Self-Monitoring & if CFR 433, TTO/TOMP Requirements

Have Operator (or person collecting the sample) to describe how composite and grab samples are collected and preserved. Record descriptions. Include name of individual and title.

Where is the sample point located?

☐ End of Process	☐ Pretreatment Effluent	☐ Total Flow
☐ Combined Flow	☐ Metered Flow	☐ Flow Actuator
☐ Private Manhole	☐ Utility Manhole	☐ Advance Notice Required
☐ Safety Hazards Identified	☐	☐

Is the Sample Collection Site Adequate?	☐ Yes ☐ No ☐ N/A
Does the facility rep. request a split sample on this sampling/inspection?	☐ Yes ☐ No
Does the facility perform self-monitoring tests in-house?	☐ Yes ☐ No ☐ N/A

If no, record the name and address of Contract Lab:

Automatic Sampler ☐ or Manual ☐

IU Self-Monitoring Results reviewed:	☐ Yes ☐ No ☐ N/A
Is the Contract Lab certified by ADEQ for test parameters?	☐ Yes ☐ No ☐ N/A
Dates and Times of Sample Analysis Recorded?	☐ Yes ☐ No ☐ N/A
Correct Methods Used for Test Analysis (Refer To 40CFR Part 136)	☐ Yes ☐ No ☐ N/A
EPA recommended holding times being met (Refer to 40CFR Part 136)	☐ Yes ☐ No ☐ N/A
Chain of Custody Records for Self-Monitoring Samples Reviewed	☐ Yes ☐ No ☐ N/A
Were correct Sample Types Collected	☐ Yes ☐ No ☐ N/A
Dates and times of Sample Collection Recorded?	☐ Yes ☐ No ☐ N/A
Were Samples preserved correctly (refer to 40CFR Part 136)	☐ Yes ☐ No ☐ N/A
Were Self Monitoring records on file for past 3 years?	☐ Yes ☐ No ☐ N/A

List the parameters the facility monitors and the frequency:

☐ Cd(t)	☐ Cu(t)	☐ Cr(t)	☐ Ni(t)	☐ Pb(t)
☐ Ag(t)	☐ Zn(t)	☐ pH	☐ CN^-(t)	☐ CN^-(a-c)
☐ TTO-Vol	☐ TTO-B/N	☐ TTO-A.E.	☐ TTO-Pest	☐ Cr(hex)
☐	☐	☐	☐	☐

Toxic Organic Management Plan (TOMP) for Metal Finishers under CFR 433

How does the IU report TTO? ☐ Analysis ☐ Certification Statement

Does the facility have a Toxic Organic Management Plan? ☐ Yes ☐ No ☐ N/A

If yes, Does the plan show how toxic organics are used, stored, and disposed? ☐ Yes ☐ No ☐ N/A

List the date of the last revision to the TOMP:

Is the TOMP being followed as written? ☐ Yes ☐ No ☐ N/A (If no, provide explanation in comments.)

If no, is there evidence that a TOMP is needed? ☐ Yes ☐ No ☐ N/A (If yes, provide description of evidence in comments.)

Comments:

MAPQUEST.

Send To Printer Back to Map

[700-799] Phillips 311
Helena AR
72342 US

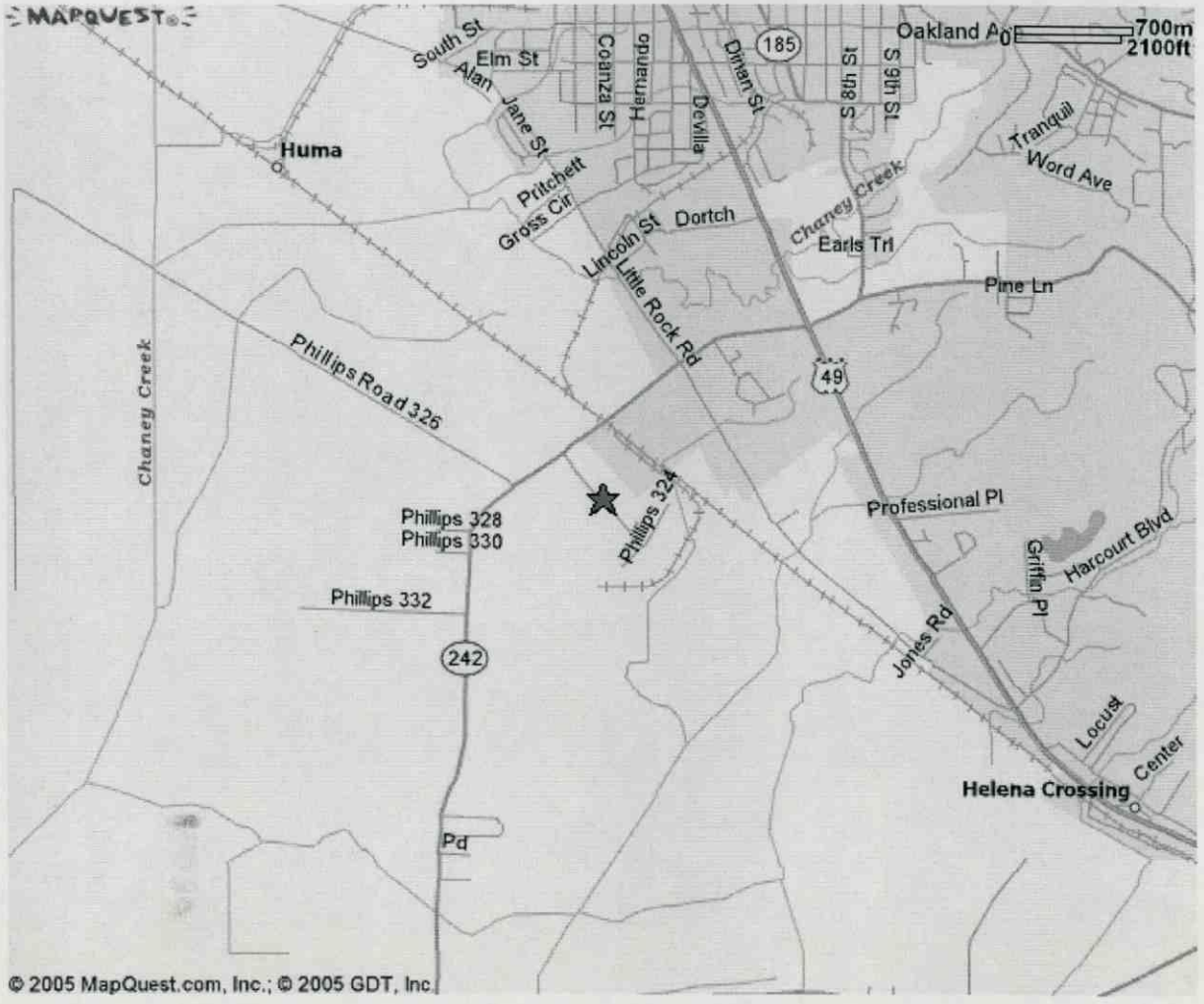
Notes:

.....

.....

.....

.....



NORAC®

334 Phillips 311 Road
Industrial Park Road
Helena, Arkansas 72342-9033

7722

RECEIVED
FEB 21 2007
MR

NORAC

Customer Service: (800) 786-6722
Customer Service Fax: (800) 987-0845
Phone: (870) 572-9061
Fax: (870) 572-1416

February 12, 2007

Mr. Rufus J. Torrence
ADEQ NPDES Pretreatment Engineer
Arkansas Department of Environmental Quality
8001 National Drive
PO Box 8913
Little Rock, AR 72219-8913

Dear Mr. Torrence:

In accordance with 40CFR403.12(e) please find enclosed our most recent monitoring report for the wastewater discharged from our facility in Helena, Arkansas. During the sampling period we were discharging about 40,000 gallons of water per day based on previous monthly use averages.

Please let me know if you have any questions or need any further information.

Sincerely,

Jeff Wages

Jeff Wages
EHS Coordinator

Enclosures

cc:
Terry McGinister
Helena WWTP
702 Cherry St.
Helena, AR 72342

Len Walp - Norac
Robert Summers - Norac

Feb 2007 SAR
Filed the 20070228

RE: Helena wastewater pretreatment report dated February 12, 2007.

SUBMISSIONS STATEMENT:

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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that all wastewater samples analyzed and reported herein are representative of the ordinary process wastewater flow from this facility. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Submitted by,

Norac, Inc.

Len Walp
Manager of Industrial Operations

permit limits 0702.xls

	day	month	det lim		
sample date					1/22/2007
sample time					0
location = pond outfall					2
flow (gal/day)					~40,000
report date					2/12/2007
Benzene	134	57	4.4		8.4
Carbon Tetrachloride	380	142	2.8		<2.8
Chlorobenzene	380	142	6.0		<6
Chloroethane	295	110	8.7		<8.7
Chloroform	325	111	1.6		1.6
1,1-Dichloroethane	59	22	4.7		<4.7
1,2-Dichloroethane	574	180	2.8		<2.8
1,1-Dichloroethene	60	22	2.8		<2.8
1,2-Dichloropropane	794	196	6.0		<6
Ethylbenzene	380	142	7.2		<7.2
Methyl Chloride	295	110	7.8		<7.8
Methylene Chloride	170	36	10.0		<10
Tetrachloroethene	164	52	4.1		<4.1
Toluene	74	28	6.0		<6
1,1,1-Trichloroethane	59	22	3.8		<3.8
1,1,2-Trichloroethane	127	32	5.0		<5
Trichloroethene	69	26	1.9		<1.9
Vinyl Chloride	172	97	6.4		<6.4
1,3-Dichloropropene	794	196	1.3		<1.3
trans-1,2-Dichloroethene	66	25	1.6		<1.6
1,2-Dichlorobenzene	794	196	38		<38
1,3-Dichlorobenzene	380	142	38		<38
1,4-Dichlorobenzene	380	142	88		<88
1,2,4-Trichlorobenzene	794	196	38		<38
Hexachlorobenzene	794	196	38		<38
Hexachloroethane	794	196	32		<32
Hexachlorobutadiene	380	142	18		<18
Nitrobenzene	6402	2237	38		<38
2-Nitrophenol	231	65	72		<72
4-Nitrophenol	576	162	48		<48
4,6-Dinitro-o-cresol	277	78	480		<480
total Cyanide	1200	420			
total Lead	690	320			
total Zinc mg/l	2610	1050	0.002		0.29
Acenaphthene	47	19	38		<38
Anthracene	47	19	38		<38
Bis(2-ethylhexyl) phthalate	258	95	50		<50
Di-n-butyl phthalate	43	20	50		<50
Diethyl phthalate	113	46	38		<38
Dimethyl phthalate	47	19	320		12000
Fluoranthene	54	22	44		<44
Fluorene	47	19	38		<38
Naphthalene	47	19	32		<32
Phenanthrene	47	19	110		<110
Pyrene	48	20	38		<38
phenol			30		<30

o-xylene					
all values reported in µg/Liter					

Rineco Analytical Services

819 Vulcan Road - Haskell
Benton, Arkansas 72015
(800) 377-4692 / (501) 778-9089
FAX (501) 776-5816

Analysis Summary

Norac Co., Inc.
334 Phillips 311 Rd
Helena, AR 72342-9033
870-572-9061
870-572-1416 (FAX)

Client's Project ID:	Pond 2 Samples	**Project:**	70121
Sampling Date:	01/22/07	**Date Received:**	01/23/07
Contact Name:	Jeff Wages	**Report Date:**	02/02/07

Comments: ND = not detected

Standard practice for quality control includes the use of blanks, laboratory control samples, matrix spikes and duplicates on at least 10% of samples analyzed. Standard practice for quality assurance includes compliance to USEPA guidelines for instrument maintenance and calibration.

Quality Manager or
Laboratory Director Jay Clark Date 2/02/07

Results Summary

Project #:	70121	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
RAS laboratory ID:	30							
Client ID:	Pond 2							
		VOC						
		1,1,1-Trichloroethane	ND	3.8	ug/l	EPA 624	AI	01/25/07 1531
		1,1,2,2-Tetrachloroethane	ND	6.9	ug/l	EPA 624	AI	01/25/07 1531
		1,1,2-Trichloroethane	ND	5	ug/l	EPA 624	AI	01/25/07 1531
		1,1-Dichloroethane	ND	4.7	ug/l	EPA 624	AI	01/25/07 1531
		1,1-Dichloroethylene	ND	2.8	ug/l	EPA 624	AI	01/25/07 1531
		1,2-Dichlorobenzene	ND	5	ug/l	EPA 624	AI	01/25/07 1531
		1,2-Dichloroethane	ND	2.8	ug/l	EPA 624	AI	01/25/07 1531
		1,2-Dichloropropane	ND	6	ug/l	EPA 624	AI	01/25/07 1531
		1,3-Dichlorobenzene	ND	5	ug/l	EPA 624	AI	01/25/07 1531
		1,4-Dichlorobenzene	ND	5	ug/l	EPA 624	AI	01/25/07 1531
		2-Chloroethylvinyl ether	ND	5.1	ug/l	EPA 624	AI	01/25/07 1531
		Acrolein	ND	50	ug/l	EPA 624	AI	01/25/07 1531
		Acrylonitrile	ND	50	ug/l	EPA 624	AI	01/25/07 1531
		Benzene	8.4	4.4	ug/l	EPA 624	AI	01/25/07 1531
		Dichlorobromomethane	ND	2.2	ug/l	EPA 624	AI	01/25/07 1531
		Bromofluorobenzene (surr.)	100		%	EPA 624	AI	01/25/07 1531
		Bromoform	ND	4.7	ug/l	EPA 624	AI	01/25/07 1531
		Carbon tetrachloride	ND	2.8	ug/l	EPA 624	AI	01/25/07 1531
		Chlorobenzene	ND	6	ug/l	EPA 624	AI	01/25/07 1531
		Chloroethane	ND	8.7	ug/l	EPA 624	AI	01/25/07 1531
		Chloroform	1.6	1.6	ug/l	EPA 624	AI	01/25/07 1531
		cis-1,3-Dichloropropylene	ND	5	ug/l	EPA 624	AI	01/25/07 1531
		Chlorodibromomethane	ND	3.1	ug/l	EPA 624	AI	01/25/07 1531
		Dibromofluoromethane (surr.)	103		%	EPA 624	AI	01/25/07 1531
		Ethylbenzene	ND	7.2	ug/l	EPA 624	AI	01/25/07 1531
		Methyl bromide(Bromomethane)	ND	8.9	ug/l	EPA 624	AI	01/25/07 1531
		Methyl chloride(Chloromethane)	ND	7.8	ug/l	EPA 624	AI	01/25/07 1531
		Methylene chloride	ND	10	ug/l	EPA 624	AI	01/25/07 1531
		Tetrachloroethylene	ND	4.1	ug/l	EPA 624	AI	01/25/07 1531
		Toluene	ND	6	ug/l	EPA 624	AI	01/25/07 1531
		Toluene-D8 (surr.)	100		%	EPA 624	AI	01/25/07 1531
		trans-1,2-Dichloroethylene	ND	1.6	ug/l	EPA 624	AI	01/25/07 1531
		trans-1,3-Dichloropropylene	ND	1.3	ug/l	EPA 624	AI	01/25/07 1531
		Trichloroethylene	ND	1.9	ug/l	EPA 624	AI	01/25/07 1531
		Vinyl chloride	ND	6.4	ug/l	EPA 624	AI	01/25/07 1531
RAS laboratory ID:	31							
Client ID:	Pond 2							
		BOD 5-day	560	2	mg/l	SM 5210 B	AI	01/24/07 0831
		Total Suspended Solids	88	4	mg/l	SM 2540D	AI	01/24/07 0927
		pH	7.9	-	Units	SM 4500-H+ B	AI	01/23/07 1851
RAS laboratory ID:	32							
Client ID:	Pond 2							
		Oil and Grease	ND	5	mg/l	EPA 1664A	AI	01/25/07 0939
RAS laboratory ID:	33							
Client ID:	Pond 2							
		Zinc	0.29	0.002	mg/l	EPA 200.7	AI	01/23/07 1413
RAS laboratory ID:	34							
Client ID:	Pond 2							
		Total Phosphorus	ND	0.02	mg/l	SM 4500-PBE	AI	01/25/07 1505
		Total Kjeldahl Nitrogen	12	1	mg/l	EPA 351.3	AI	01/25/07 0858
		COD	960	10	mg/l	HACH 8000	AI	01/23/07 1658

Results Summary

Project #:	70121	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
RAS laboratory ID:	35							
Client ID:	Pond 2							
		SVOC						
		1,2,4-Trichlorobenzene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		1,2-Dichlorobenzene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		1,2-Diphenylhydrazine	ND	220	ug/l	EPA 625	AI	01/26/07 1010
		1,3-Dichlorobenzene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		1,4-Dichlorobenzene	ND	88	ug/l	EPA 625	AI	01/26/07 1010
		2,4,6-Tribromophenol (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		2,4,6-Trichlorophenol	ND	54	ug/l	EPA 625	AI	01/26/07 1010
		2,4-Dichlorophenol	ND	54	ug/l	EPA 625	AI	01/26/07 1010
		2,4-Dimethylphenol	ND	54	ug/l	EPA 625	AI	01/26/07 1010
		2,4-Dinitrophenol	ND	840	ug/l	EPA 625	AI	01/26/07 1010
		2,4-Dinitrotoluene	ND	120	ug/l	EPA 625	AI	01/26/07 1010
		2,6-Dinitrotoluene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		2-Chloronaphthalene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		2-Chlorophenol	ND	66	ug/l	EPA 625	AI	01/26/07 1010
		2-Fluorobiphenyl (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		2-Fluorophenol (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		2-Nitrophenol	ND	72	ug/l	EPA 625	AI	01/26/07 1010
		3,3'-Dichlorobenzidine	ND	330	ug/l	EPA 625	AI	01/26/07 1010
		4,6-Dinitro-o-cresol	ND	480	ug/l	EPA 625	AI	01/26/07 1010
		4-Bromophenyl phenyl ether	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		p-Chloro-m-cresol	ND	60	ug/l	EPA 625	AI	01/26/07 1010
		4-Chlorophenyl phenyl ether	ND	84	ug/l	EPA 625	AI	01/26/07 1010
		4-Nitrophenol	ND	48	ug/l	EPA 625	AI	01/26/07 1010
		Acenaphthene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Acenaphthylene	ND	70	ug/l	EPA 625	AI	01/26/07 1010
		Anthracene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Benzidine	ND	880	ug/l	EPA 625	AI	01/26/07 1010
		Benzo(a)anthracene	ND	160	ug/l	EPA 625	AI	01/26/07 1010
		Benzo(a)pyrene	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		3,4-Benzofluoranthene	ND	96	ug/l	EPA 625	AI	01/26/07 1010
		Benzo(g,h,i)perylene	ND	82	ug/l	EPA 625	AI	01/26/07 1010
		Benzo(k)fluoranthene	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Bis(2-chloroethoxy)methane	ND	110	ug/l	EPA 625	AI	01/26/07 1010
		Bis(2-chloroethyl)ether	ND	120	ug/l	EPA 625	AI	01/26/07 1010
		Bis(2-chloroisopropyl)ether	ND	120	ug/l	EPA 625	AI	01/26/07 1010
		Bis(2-ethylhexyl)phthalate	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Butylbenzyl phthalate	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Chrysene	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Di-n-butyl phthalate	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Di-n-octyl phthalate	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Dibenzo(a,h)anthracene	ND	50	ug/l	EPA 625	AI	01/26/07 1010
		Diethyl phthalate	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Fluoranthene	ND	44	ug/l	EPA 625	AI	01/26/07 1010
		Fluorene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Hexachlorobenzene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Hexachlorobutadiene	ND	18	ug/l	EPA 625	AI	01/26/07 1010
		Hexachlorocyclopentadiene	ND	100	ug/l	EPA 625	AI	01/26/07 1010
		Hexachloroethane	ND	32	ug/l	EPA 625	AI	01/26/07 1010
		Indeno(1,2,3-cd)pyrene	ND	74	ug/l	EPA 625	AI	01/26/07 1010
		Isophorone	ND	44	ug/l	EPA 625	AI	01/26/07 1010
		n-Nitrosodi-n-propylamine	ND	17	ug/l	EPA 625	AI	01/26/07 1010
		n-Nitrosodimethylamine	ND	20	ug/l	EPA 625	AI	01/26/07 1010
		n-Nitrosodiphenylamine	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Naphthalene	ND	32	ug/l	EPA 625	AI	01/26/07 1010
		Nitrobenzene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Nitrobenzene-D5 (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		Pentachlorophenol	ND	72	ug/l	EPA 625	AI	01/26/07 1010
		Phenanthrene	ND	110	ug/l	EPA 625	AI	01/26/07 1010
		Phenol	ND	30	ug/l	EPA 625	AI	01/26/07 1010
		Phenol-D5 (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		Pyrene	ND	38	ug/l	EPA 625	AI	01/26/07 1010
		Terphenyl-D14 (surr.)	diluted out			EPA 625	AI	01/26/07 1010
		Dimethyl phthalate	12000	320	ug/l	EPA 625	AI	01/26/07 1010

Quality Control Summary
(Part C)

Project : 70121

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
Oil and Grease	ND	5	mg/l	EPA 1664A	01/25/07 0940	B	REG	B4398
1,2,4-Trichlorobenzene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
1,2-Dichlorobenzene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
1,2-Diphenylhydrazine	ND	11	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
1,3-Dichlorobenzene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
1,4-Dichlorobenzene	ND	4.4	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,4,6-Tribromophenol (surr.)	95		%	EPA 625	01/26/07 1011	B	SURR	B4399
2,4,6-Trichlorophenol	ND	2.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,4-Dichlorophenol	ND	2.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,4-Dimethylphenol	ND	2.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,4-Dinitrophenol	ND	42	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,4-Dinitrotoluene	ND	5.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2,6-Dinitrotoluene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2-Chloronaphthalene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2-Chlorophenol	ND	3.3	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
2-Fluorobiphenyl (surr.)	83		%	EPA 625	01/26/07 1011	B	SURR	B4399
2-Fluorophenol (surr.)	68		%	EPA 625	01/26/07 1011	B	SURR	B4399
2-Nitrophenol	ND	3.6	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
3,3'-Dichlorobenzidine	ND	16.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
4,6-Dinitro-o-cresol	ND	24	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
4-Bromophenyl phenyl ether	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
p-Chloro-m-cresol	ND	3	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
4-Chlorophenyl phenyl ether	ND	4.2	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
4-Nitrophenol	ND	2.4	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Acenaphthene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Acenaphthylene	ND	3.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Anthracene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Benzidine	ND	44	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Benzo(a)anthracene	ND	7.8	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Benzo(a)pyrene	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
3,4-Benzofluoranthene	ND	4.8	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Benzo(g,h,i)perylene	ND	4.1	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Benzo(k)fluoranthene	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Bis(2-chloroethoxy)methane	ND	5.3	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Bis(2-chloroethyl)ether	ND	5.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Bis(2-chloroisopropyl)ether	ND	5.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Bis(2-ethylhexyl)phthalate	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Butylbenzyl phthalate	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Chrysene	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Di-n-butyl phthalate	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Di-n-octyl phthalate	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Dibenzo(a,h)anthracene	ND	2.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Diethyl phthalate	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Dimethyl phthalate	ND	1.6	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Fluoranthene	ND	2.2	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Fluorene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Hexachlorobenzene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Hexachlorobutadiene	ND	0.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Hexachlorocyclopentadiene	ND	0.78	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Hexachloroethane	ND	1.6	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Indeno(1,2,3-cd)pyrene	ND	3.7	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Isophorone	ND	2.2	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
n-Nitrosodi-n-propylamine	ND	0.84	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
n-Nitrosodimethylamine	ND	0.96	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
n-Nitrosodiphenylamine	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Naphthalene	ND	1.6	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Nitrobenzene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Nitrobenzene-D5 (surr.)	91		%	EPA 625	01/26/07 1011	B	SURR	B4399
Pentachlorophenol	ND	3.6	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Phenanthrene	ND	5.4	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Phenol	ND	1.5	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Phenol-D5 (surr.)	52		%	EPA 625	01/26/07 1011	B	SURR	B4399
Pyrene	ND	1.9	ug/l	EPA 625	01/26/07 1011	B	REG	B4399
Terphenyl-D14 (surr.)	98		%	EPA 625	01/26/07 1011	B	SURR	B4399
Zinc	ND	0.002	mg/l	EPA 200.7	01/23/07 1413	B	REG	S19684
COD	ND	10	mg/l	HACH 8000	01/23/07 1659	B	REG	W19563
BOD 5-day	ND	2	mg/l	SM 5210 B	01/24/07 0832	B	REG	W19566
Total Suspended Solids	ND	4	mg/l	SM 2540D	01/24/07 0932	B	REG	W19569
Total Kjeldahl Nitrogen	ND	1	mg/l	EPA 351.3	01/25/07 0859	B	REG	W19582
Total Phosphorus	ND	0.02	mg/l	SM 4500-PBE	01/25/07 1505	B	REG	W19591
pH	7.8		Units	SM 4500-H+ B	01/23/07 1851	D	REG	W19564
pH	<1		%	SM 4500-H+ B	01/23/07 1851	D	RPD	W19564
1,1,1-Trichloroethane	ND	3.8	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,1,2,2-Tetrachloroethane	ND	6.9	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,1,2-Trichloroethane	ND	5	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,1-Dichloroethane	ND	4.7	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,1-Dichloroethylene	ND	2.8	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,2-Dichlorobenzene	ND	5	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,2-Dichloroethane	ND	2.8	ug/l	EPA 624	01/25/07 1131	B	REG	V6073

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
1,2-Dichloropropane	ND	6	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,3-Dichlorobenzene	ND	5	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
1,4-Dichlorobenzene	ND	5	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
2-Chloroethylvinyl ether	ND	5.1	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Acrolein	ND	50	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Acrylonitrile	ND	50	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Benzene	ND	4.4	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Dichlorobromomethane	ND	2.2	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Bromofluorobenzene (surr.)	99		%	EPA 624	01/25/07 1131	B	SURR	V6073
Bromoform	ND	4.7	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Carbon tetrachloride	ND	2.8	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Chlorobenzene	ND	6	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Chloroethane	ND	8.7	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Chloroform	ND	1.6	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
cis-1,3-Dichloropropylene	ND	5	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Chlorodibromomethane	ND	3.1	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Dibromofluoromethane (surr.)	97		%	EPA 624	01/25/07 1131	B	SURR	V6073
Ethylbenzene	ND	7.2	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Methyl bromide(Bromomethane)	ND	8.9	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Methyl chloride(Chloromethane)	ND	7.8	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Methylene chloride	ND	10	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Tetrachloroethylene	ND	4.1	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Toluene	ND	6	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Toluene-D8 (surr.)	100		%	EPA 624	01/25/07 1131	B	SURR	V6073
trans-1,2-Dichloroethylene	ND	1.6	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
trans-1,3-Dichloropropylene	ND	1.3	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Trichloroethylene	ND	1.9	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Vinyl chloride	ND	6.4	ug/l	EPA 624	01/25/07 1131	B	REG	V6073
Oil and Grease	91		%	EPA 1664A	01/25/07 0940	Q	REC	B4398
Oil and Grease	85		%	EPA 1664A	01/25/07 0940	Q	REC	B4398
Oil and Grease	7		%	EPA 1664A	01/25/07 0940	Q	RPD	B4398
Oil and Grease	79		%	EPA 1664A	01/25/07 0940	S	REC	B4398
1,2,4-Trichlorobenzene	72		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,2-Dichlorobenzene	71		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,2-Diphenylhydrazine	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,3-Dichlorobenzene	69		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,4-Dichlorobenzene	72		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4,6-Tribromophenol (surr.)	98		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2,4,6-Trichlorophenol	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dichlorophenol	88		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dimethylphenol	77		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dinitrophenol	62		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dinitrotoluene	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,6-Dinitrotoluene	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Chloronaphthalene	78		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Chlorophenol	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Fluorobiphenyl (surr.)	80		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2-Fluorophenol (surr.)	70		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2-Nitrophenol	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
4,6-Dinitro-o-cresol	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Bromophenyl phenyl ether	91		%	EPA 625	01/26/07 1011	Q	REC	B4399
p-Chloro-m-cresol	90		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Chlorophenyl phenyl ether	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Nitrophenol	62		%	EPA 625	01/26/07 1011	Q	REC	B4399
Acenaphthene	81		%	EPA 625	01/26/07 1011	Q	REC	B4399
Acenaphthylene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Anthracene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(a)anthracene	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(a)pyrene	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
3,4-Benzofluoranthene	85		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(g,h,i)perylene	95		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(k)fluoranthene	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroethoxy)methane	85		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroethyl)ether	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroisopropyl)ether	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-ethylhexyl)phthalate	98		%	EPA 625	01/26/07 1011	Q	REC	B4399
Butylbenzyl phthalate	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
Chrysene	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Di-n-butyl phthalate	98		%	EPA 625	01/26/07 1011	Q	REC	B4399
Di-n-octyl phthalate	90		%	EPA 625	01/26/07 1011	Q	REC	B4399
Dibenzo(a,h)anthracene	97		%	EPA 625	01/26/07 1011	Q	REC	B4399
Diethyl phthalate	90		%	EPA 625	01/26/07 1011	Q	REC	B4399
Dimethyl phthalate	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
Fluoranthene	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
Fluorene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorobenzene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorobutadiene	57		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorocyclopentadiene	61		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachloroethane	65		%	EPA 625	01/26/07 1011	Q	REC	B4399
Indeno(1,2,3-cd)pyrene	102		%	EPA 625	01/26/07 1011	Q	REC	B4399

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
Isophorone	79		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodi-n-propylamine	91		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodimethylamine	70		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodiphenylamine	85		%	EPA 625	01/26/07 1011	Q	REC	B4399
Naphthalene	79		%	EPA 625	01/26/07 1011	Q	REC	B4399
Nitrobenzene	83		%	EPA 625	01/26/07 1011	Q	REC	B4399
Nitrobenzene-D5 (surr.)	91		%	EPA 625	01/26/07 1011	Q	SURR	B4399
Pentachlorophenol	73		%	EPA 625	01/26/07 1011	Q	REC	B4399
Phenanthrene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Phenol	49		%	EPA 625	01/26/07 1011	Q	REC	B4399
Phenol-D5 (surr.)	54		%	EPA 625	01/26/07 1011	Q	SURR	B4399
Pyrene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Terphenyl-D14 (surr.)	90		%	EPA 625	01/26/07 1011	Q	SURR	B4399
1,2,4-Trichlorobenzene	67		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,2,4-Trichlorobenzene	8		%	EPA 625	01/26/07 1011	Q	RPD	B4399
1,2-Dichlorobenzene	68		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,2-Dichlorobenzene	4		%	EPA 625	01/26/07 1011	Q	RPD	B4399
1,2-Diphenylhydrazine	85		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,2-Diphenylhydrazine	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
1,3-Dichlorobenzene	63		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,3-Dichlorobenzene	9		%	EPA 625	01/26/07 1011	Q	RPD	B4399
1,4-Dichlorobenzene	66		%	EPA 625	01/26/07 1011	Q	REC	B4399
1,4-Dichlorobenzene	8		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,4,6-Tribromophenol (surr.)	95		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2,4,6-Trichlorophenol	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4,6-Trichlorophenol	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,4-Dichlorophenol	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dichlorophenol	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,4-Dimethylphenol	72		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dimethylphenol	7		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,4-Dinitrophenol	72		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dinitrophenol	15		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,4-Dinitrotoluene	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,4-Dinitrotoluene	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2,6-Dinitrotoluene	89		%	EPA 625	01/26/07 1011	Q	REC	B4399
2,6-Dinitrotoluene	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2-Chloronaphthalene	76		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Chloronaphthalene	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2-Chlorophenol	83		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Chlorophenol	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
2-Fluorobiphenyl (surr.)	80		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2-Fluorophenol (surr.)	69		%	EPA 625	01/26/07 1011	Q	SURR	B4399
2-Nitrophenol	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
2-Nitrophenol	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
4,6-Dinitro-o-cresol	88		%	EPA 625	01/26/07 1011	Q	REC	B4399
4,6-Dinitro-o-cresol	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
4-Bromophenyl phenyl ether	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Bromophenyl phenyl ether	4		%	EPA 625	01/26/07 1011	Q	RPD	B4399
p-Chloro-m-cresol	88		%	EPA 625	01/26/07 1011	Q	REC	B4399
p-Chloro-m-cresol	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399
4-Chlorophenyl phenyl ether	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Chlorophenyl phenyl ether	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
4-Nitrophenol	67		%	EPA 625	01/26/07 1011	Q	REC	B4399
4-Nitrophenol	8		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Acenaphthene	79		%	EPA 625	01/26/07 1011	Q	REC	B4399
Acenaphthene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Acenaphthylene	81		%	EPA 625	01/26/07 1011	Q	REC	B4399
Acenaphthylene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Anthracene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Anthracene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Benzo(a)anthracene	88		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(a)anthracene	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Benzo(a)pyrene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(a)pyrene	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399
3,4-Benzofluoranthene	79		%	EPA 625	01/26/07 1011	Q	REC	B4399
3,4-Benzofluoranthene	7		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Benzo(g,h,i)perylene	94		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(g,h,i)perylene	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Benzo(k)fluoranthene	80		%	EPA 625	01/26/07 1011	Q	REC	B4399
Benzo(k)fluoranthene	7		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Bis(2-chloroethoxy)methane	83		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroethoxy)methane	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Bis(2-chloroethyl)ether	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroethyl)ether	<1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Bis(2-chloroisopropyl)ether	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-chloroisopropyl)ether	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Bis(2-ethylhexyl)phthalate	91		%	EPA 625	01/26/07 1011	Q	REC	B4399
Bis(2-ethylhexyl)phthalate	8		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Butylbenzyl phthalate	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Butylbenzyl phthalate	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
Chrysene	84		%	EPA 625	01/26/07 1011	Q	REC	B4399
Chrysene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Di-n-butyl phthalate	94		%	EPA 625	01/26/07 1011	Q	REC	B4399
Di-n-butyl phthalate	4		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Di-n-octyl phthalate	87		%	EPA 625	01/26/07 1011	Q	REC	B4399
Di-n-octyl phthalate	4		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Dibenzo(a,h)anthracene	98		%	EPA 625	01/26/07 1011	Q	REC	B4399
Dibenzo(a,h)anthracene	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Diethyl phthalate	88		%	EPA 625	01/26/07 1011	Q	REC	B4399
Diethyl phthalate	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Dimethyl phthalate	86		%	EPA 625	01/26/07 1011	Q	REC	B4399
Dimethyl phthalate	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Fluoranthene	85		%	EPA 625	01/26/07 1011	Q	REC	B4399
Fluoranthene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Fluorene	83		%	EPA 625	01/26/07 1011	Q	REC	B4399
Fluorene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Hexachlorobenzene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorobenzene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Hexachlorobutadiene	40		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorobutadiene	35		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Hexachlorocyclopentadiene	56		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachlorocyclopentadiene	9		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Hexachloroethane	52		%	EPA 625	01/26/07 1011	Q	REC	B4399
Hexachloroethane	22		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Indeno(1,2,3-cd)pyrene	100		%	EPA 625	01/26/07 1011	Q	REC	B4399
Indeno(1,2,3-cd)pyrene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Isophorone	77		%	EPA 625	01/26/07 1011	Q	REC	B4399
Isophorone	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
n-Nitrosodi-n-propylamine	90		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodi-n-propylamine	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
n-Nitrosodimethylamine	68		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodimethylamine	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399
n-Nitrosodiphenylamine	83		%	EPA 625	01/26/07 1011	Q	REC	B4399
n-Nitrosodiphenylamine	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Naphthalene	77		%	EPA 625	01/26/07 1011	Q	REC	B4399
Naphthalene	3		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Nitrobenzene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Nitrobenzene	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Nitrobenzene-D5 (surr.)	90		%	EPA 625	01/26/07 1011	Q	SURR	B4399
Pentachlorophenol	73		%	EPA 625	01/26/07 1011	Q	REC	B4399
Pentachlorophenol	1		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Phenanthrene	82		%	EPA 625	01/26/07 1011	Q	REC	B4399
Phenanthrene	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Phenol	50		%	EPA 625	01/26/07 1011	Q	REC	B4399
Phenol	2		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Phenol-D5 (surr.)	54		%	EPA 625	01/26/07 1011	Q	SURR	B4399
Pyrene	79		%	EPA 625	01/26/07 1011	Q	REC	B4399
Pyrene	4		%	EPA 625	01/26/07 1011	Q	RPD	B4399
Terphenyl-D14 (surr.)	88		%	EPA 625	01/26/07 1011	Q	SURR	B4399
1,1,1-Trichloroethane	95		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,1,2,2-Tetrachloroethane	94		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,1,2-Trichloroethane	96		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,1-Dichloroethane	96		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,1-Dichloroethylene	95		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,2-Dichloroethane	98		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,2-Dichloropropane	92		%	EPA 624	01/25/07 1055	Q	REC	V6073
Acrylonitrile	106		%	EPA 624	01/25/07 1055	Q	REC	V6073
Benzene	99		%	EPA 624	01/25/07 1055	Q	REC	V6073
Dichlorobromomethane	90		%	EPA 624	01/25/07 1055	Q	REC	V6073
Bromofluorobenzene (surr.)	101		%	EPA 624	01/25/07 1055	Q	SURR	V6073
Bromoform	91		%	EPA 624	01/25/07 1055	Q	REC	V6073
Carbon tetrachloride	94		%	EPA 624	01/25/07 1055	Q	REC	V6073
Chlorobenzene	92		%	EPA 624	01/25/07 1055	Q	REC	V6073
Chloroethane	101		%	EPA 624	01/25/07 1055	Q	REC	V6073
Chloroform	92		%	EPA 624	01/25/07 1055	Q	REC	V6073
cis-1,3-Dichloropropylene	89		%	EPA 624	01/25/07 1055	Q	REC	V6073
Chlorodibromomethane	93		%	EPA 624	01/25/07 1055	Q	REC	V6073
Dibromofluoromethane (surr.)	99		%	EPA 624	01/25/07 1055	Q	SURR	V6073
Ethylbenzene	97		%	EPA 624	01/25/07 1055	Q	REC	V6073
Methyl bromide(Bromomethane)	126		%	EPA 624	01/25/07 1055	Q	REC	V6073
Methyl chloride(Chloromethane)	103		%	EPA 624	01/25/07 1055	Q	REC	V6073
Methylene chloride	94		%	EPA 624	01/25/07 1055	Q	REC	V6073
Tetrachloroethylene	91		%	EPA 624	01/25/07 1055	Q	REC	V6073
Toluene	93		%	EPA 624	01/25/07 1055	Q	REC	V6073
Toluene-D8 (surr.)	102		%	EPA 624	01/25/07 1055	Q	SURR	V6073
trans-1,2-Dichloroethylene	90		%	EPA 624	01/25/07 1055	Q	REC	V6073
trans-1,3-Dichloropropylene	88		%	EPA 624	01/25/07 1055	Q	REC	V6073
Trichloroethylene	92		%	EPA 624	01/25/07 1055	Q	REC	V6073
Vinyl chloride	120		%	EPA 624	01/25/07 1055	Q	REC	V6073
1,1,1-Trichloroethane	88		%	EPA 624	01/25/07 1317	S	REC	V6073

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
1,1,2,2-Tetrachloroethane	81		%	EPA 624	01/25/07 1317	S	REC	V6073
1,1,2-Trichloroethane	89		%	EPA 624	01/25/07 1317	S	REC	V6073
1,1-Dichloroethane	93		%	EPA 624	01/25/07 1317	S	REC	V6073
1,1-Dichloroethylene	88		%	EPA 624	01/25/07 1317	S	REC	V6073
1,2-Dichloroethane	92		%	EPA 624	01/25/07 1317	S	REC	V6073
1,2-Dichloropropane	86		%	EPA 624	01/25/07 1317	S	REC	V6073
Acrylonitrile	77		%	EPA 624	01/25/07 1317	S	REC	V6073
Benzene	92		%	EPA 624	01/25/07 1317	S	REC	V6073
Dichlorobromomethane	86		%	EPA 624	01/25/07 1317	S	REC	V6073
Bromofluorobenzene (surr.)	102		%	EPA 624	01/25/07 1317	S	SURR	V6073
Bromoform	82		%	EPA 624	01/25/07 1317	S	REC	V6073
Carbon tetrachloride	88		%	EPA 624	01/25/07 1317	S	REC	V6073
Chlorobenzene	86		%	EPA 624	01/25/07 1317	S	REC	V6073
Chloroethane	95		%	EPA 624	01/25/07 1317	S	REC	V6073
Chloroform	87		%	EPA 624	01/25/07 1317	S	REC	V6073
cis-1,3-Dichloropropylene	82		%	EPA 624	01/25/07 1317	S	REC	V6073
Chlorodibromomethane	86		%	EPA 624	01/25/07 1317	S	REC	V6073
Dibromofluoromethane (surr.)	98		%	EPA 624	01/25/07 1317	S	SURR	V6073
Ethylbenzene	89		%	EPA 624	01/25/07 1317	S	REC	V6073
Methyl bromide(Bromomethane)	103		%	EPA 624	01/25/07 1317	S	REC	V6073
Methyl chloride(Chloromethane)	93		%	EPA 624	01/25/07 1317	S	REC	V6073
Methylene chloride	94		%	EPA 624	01/25/07 1317	S	REC	V6073
Tetrachloroethylene	85		%	EPA 624	01/25/07 1317	S	REC	V6073
Toluene	88		%	EPA 624	01/25/07 1317	S	REC	V6073
Toluene-D8 (surr.)	101		%	EPA 624	01/25/07 1317	S	SURR	V6073
trans-1,2-Dichloroethylene	83		%	EPA 624	01/25/07 1317	S	REC	V6073
trans-1,3-Dichloropropylene	82		%	EPA 624	01/25/07 1317	S	REC	V6073
Trichloroethylene	86		%	EPA 624	01/25/07 1317	S	REC	V6073
Vinyl chloride	111		%	EPA 624	01/25/07 1317	S	REC	V6073
Zinc	98		%	EPA 200.7	01/23/07 1413	Q	REC	S19684
Zinc	99		%	EPA 200.7	01/23/07 1413	S	REC	S19684
Zinc	97		%	EPA 200.7	01/23/07 1413	SD	REC	S19684
Zinc	2		%	EPA 200.7	01/23/07 1413	SD	RPD	S19684
COD	98		%	HACH 8000	01/23/07 1659	Q	REC	W19563
COD	94		%	HACH 8000	01/23/07 1659	Q	REC	W19563
COD	5		%	HACH 8000	01/23/07 1659	Q	RPD	W19563
COD	89		%	HACH 8000	01/23/07 1659	S	REC	W19563
COD	89		%	HACH 8000	01/23/07 1659	SD	REC	W19563
COD	<1		%	HACH 8000	01/23/07 1659	SD	RPD	W19563
pH	100		%	SM 4500-H+ B	01/23/07 1851	Q	REC	W19564
BOD 5-day	108		%	SM 5210 B	01/24/07 0832	Q	REC	W19566
BOD 5-day	103		%	SM 5210 B	01/24/07 0832	Q	REC	W19566
BOD 5-day	5		%	SM 5210 B	01/24/07 0832	Q	RPD	W19566
Total Suspended Solids	103		%	SM 2540D	01/24/07 0932	Q	REC	W19569
Total Suspended Solids	102		%	SM 2540D	01/24/07 0932	Q	REC	W19569
Total Suspended Solids	<1		%	SM 2540D	01/24/07 0932	Q	RPD	W19569
Total Kjeldahl Nitrogen	104		%	EPA 351.3	01/25/07 0859	Q	REC	W19582
Total Kjeldahl Nitrogen	83		%	EPA 351.3	01/25/07 1525	S	REC	W19582
Total Kjeldahl Nitrogen	95		%	EPA 351.3	01/25/07 1525	SD	REC	W19582
Total Kjeldahl Nitrogen	5		%	EPA 351.3	01/25/07 1525	SD	RPD	W19582
Total Phosphorus	104		%	SM 4500-PBE	01/25/07 1505	Q	REC	W19591
Total Phosphorus	97		%	SM 4500-PBE	01/25/07 1716	Q	REC	W19591
Total Phosphorus	7		%	SM 4500-PBE	01/25/07 1716	Q	RPD	W19591

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

CHAIN OF CUSTODY RECORD

RAS Project # 70121

PROJECT NAME / NUMBER: Pond 2 Samples

REPORT MAILING ADDRESS (Include Company Name):
Norac, Inc.
334 Phillips 311 Road
Helena AR 72342

BILLING ADDRESS: SAME

PROJECT MANAGER: Jeff Wages

P.O. #: 40371

ATTENTION: Jeff Wages

TELEPHONE #: 870 572 9061

FAX #: 870 572 1416

TURNAROUND TIME:
NORMAL [X] 7-10 day
RUSH [ ] _____ day(s)

COMMENTS:

RINECO
ANALYTICAL SERVICES
819 Vulcan Road • Benton, AR 72015
501-778-9089 • 1-800-377-4692
FAX 501-776-5816

Samplers (Signature): Jeff Wages

PRESERVATION CODES:
1. Cool, 4 degrees C
2. Sulfuric Acid, pH < 2
3. Nitric Acid, pH < 2
4. Sodium Thiosulfate
5. Hydrochloric Acid
6. Sodium Hydroxide
7. Zinc Acetate

TEST PARAMETERS

Client I.D.	SAMPLE Date	SAMPLE Time	Comp.	Grab	No. of Containers	Preservation Codes	Sample Description/Matrix	VOC	BOD, TSS, pH	Oil & Grease	Zinc	COD, TKN, Phosphorus	5 VOC	RAS LABORATORY I.D. #
Pond 2	1/22/07	10:30 AM		✓	3	5		✓						30
Pond 2	"	"		✓	1				✓					31
Pond 2	"	"		✓	1	2				✓				32
Pond 2	"	"		✓	1	3					✓			33
Pond 2	"	"		✓	1	2						✓		34
Pond 2	"	"		✓	1								✓	35

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time
Jeff Wages	1/24/07	11:45 AM						
Received by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Mia Dixon	1/25/07	1030am						

NORAC®

NORAC

334 Phillips 311 Road
Industrial Park Road
Helena, Arkansas 72342-9033

Customer Service: (800) 786-6722
Customer Service Fax: (800) 987-0845
Phone: (870) 572-9061
Fax: (870) 572-1416

July 26, 2006

Mr. Rufus J. Torrence
ADEQ NPDES Pretreatment Engineer
Arkansas Department of Environmental Quality
8001 National Drive
PO Box 8913
Little Rock, AR 72219-8913

Dear Mr. Torrence:

In accordance with 40CFR403.12(e) please find enclosed our most recent monitoring report for the wastewater discharged from our facility in Helena, Arkansas. During the sampling period we were discharging about 44,368 gallons of water per day based on previous monthly use averages.

Please let me know if you have any questions or need any further information.

Sincerely,

Jeff Wages
EHS Coordinator

Aug 2006 SAR
Filedate 20060804

Enclosures

cc:
Terry McGinister
Helena WWTP
702 Cherry St.
Helena, AR 72342

Len Walp - Norac
Robert Summers - Norac

RE: Helena wastewater pretreatment report dated July 26, 2006.

SUBMISSIONS STATEMENT:

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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that all wastewater samples analyzed and reported herein are representative of the ordinary process wastewater flow from this facility. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Submitted by,

Norac, Inc.

Len Walp

Len Walp
Industrial Operations Manager

	day	month	det lim		
sample date					7/17/2006
sample time					0
location = pond outfall					2
flow (gal/day)					44368
report date					7/26/2006
Benzene	134	57	4.4		<4.4
Carbon Tetrachloride	380	142	2.8		<2.8
Chlorobenzene	380	142	6.0		<6
Chloroethane	295	110	8.7		<8.7
Chloroform	325	111	1.6		<1.6
1,1-Dichloroethane	59	22	4.7		<4.7
1,2-Dichloroethane	574	180	2.8		<2.8
1,1-Dichloroethene	60	22	2.8		<2.8
1,2-Dichloropropane	794	196	6.0		<6
Ethylbenzene	380	142	7.2		<7.2
Methyl Chloride	295	110	7.8		<7.8
Methylene Chloride	170	36	10.0		<10
Tetrachloroethene	164	52	4.1		<4.1
Toluene	74	28	6.0		<6
1,1,1-Trichloroethane	59	22	3.8		<3.8
1,1,2-Trichloroethane	127	32	5.0		<5
Trichloroethene	69	26	1.9		<1.9
Vinyl Chloride	172	97	6.4		<6.4
1,3-Dichloropropene	794	196	1.3		<1.3
trans-1,2-Dichloroethene	66	25	1.6		<1.6
1,2-Dichlorobenzene	794	196	3800		<380
1,3-Dichlorobenzene	380	142	3800		<380
1,4-Dichlorobenzene	380	142	8800		<880
1,2,4-Trichlorobenzene	794	196	3800		<380
Hexachlorobenzene	794	196	3800		<380
Hexachloroethane	794	196	3200		<320
Hexachlorobutadiene	380	142	1800		<180
Nitrobenzene	6402	2237	3800		<380
2-Nitrophenol	231	65	7200		<720
4-Nitrophenol	576	162	4800		<480
4,6-Dinitro-o-cresol	277	78	48000		<4800
total Cyanide	1200	420			
total Lead	690	320			
total Zinc mg/l	2610	1050	0.12		0.06
Acenaphthene	47	19	3800		<380
Anthracene	47	19	3800		<380
Bis(2-ethylhexyl) phthalate	258	95	5000		<500
Di-n-butyl phthalate	43	20	5000		<500
Diethyl phthalate	113	46	3800		<380
Dimethyl phthalate	47	19	3200		<320
Fluoranthene	54	22	4400		<440
Fluorene	47	19	3800		<380
Naphthalene	47	19	3200		<320
Phenanthrene	47	19	11000		<1100
Pyrene	48	20	3800		<380
phenol			3000		<300

o-xylene					
all values reported in µg/Liter					

Results Summary

RAS laboratory ID:	12430							
Client ID:	Pond 2 Water							
Sample Description:	Water							
Project #:	21819	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
		Oil and Grease	8.6	5	mg/l	EPA 166	AI	07/19/06 1558
RAS laboratory ID:	12431							
Client ID:	Pond 2 Water							
Sample Description:	Water							
Project #:	21819	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
		BOD 5-day	510	2	mg/l	EPA 405	AI	07/19/06 0836
RAS laboratory ID:	12432							
Client ID:	Pond 2 Water							
Sample Description:	Water							
Project #:	21819	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
		Zinc	0.06	0.002	mg/l	EPA 200.8	AI	07/20/06 0831

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Project : Result Type	21819 Batch
Oil and Grease	ND	5	mg/l	EPA 1664	07/19/06 1558	B	REG	B4084
1,2,4-Trichlorobenzene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
1,2-Dichlorobenzene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
1,2-Diphenylhydrazine	ND	11	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
1,3-Dichlorobenzene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
1,4-Dichlorobenzene	ND	4.4	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,4,6-Tribromophenol (surr.)	89		%	EPA 625	07/21/06 1138	B	SURR	B4086
2,4,6-Trichlorophenol	ND	2.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,4-Dichlorophenol	ND	2.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,4-Dimethylphenol	ND	2.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,4-Dinitrophenol	ND	42	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,4-Dinitrotoluene	ND	5.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2,6-Dinitrotoluene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2-Chloronaphthalene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2-Chlorophenol	ND	3.3	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
2-Fluorobiphenyl (surr.)	85		%	EPA 625	07/21/06 1138	B	SURR	B4086
2-Fluorophenol (surr.)	62		%	EPA 625	07/21/06 1138	B	SURR	B4086
2-Nitrophenol	ND	3.6	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
3,3'-Dichlorobenzidine	ND	16.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
4,6-Dinitro-o-cresol	ND	24	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
4-Bromophenyl phenyl ether	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
p-Chloro-m-cresol	ND	3	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
4-Chlorophenyl phenyl ether	ND	4.2	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
4-Nitrophenol	ND	2.4	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Acenaphthene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Acenaphthylene	ND	3.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Anthracene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Benzidine	ND	44	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Benzo(a)anthracene	ND	7.8	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Benzo(a)pyrene	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
3,4-Benzofluoranthene	ND	4.8	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Benzo(g,h,i)perylene	ND	4.1	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Benzo(k)fluoranthene	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Bis(2-chloroethoxy)methane	ND	5.3	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Bis(2-chloroethyl)ether	ND	5.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Bis(2-chloroisopropyl)ether	ND	5.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Bis(2-ethylhexyl)phthalate	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Butylbenzyl phthalate	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Chrysene	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Di-n-butyl phthalate	3.1	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Di-n-octyl phthalate	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Dibenzo(a,h)anthracene	ND	2.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Diethyl phthalate	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Dimethyl phthalate	ND	1.6	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Fluoranthene	ND	2.2	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Fluorene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Hexachlorobenzene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Hexachlorobutadiene	ND	0.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Hexachlorocyclopentadiene	ND	0.78	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Hexachloroethane	ND	1.6	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Indeno(1,2,3-cd)pyrene	ND	3.7	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Isophorone	ND	2.2	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
n-Nitrosodi-n-propylamine	ND	0.84	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
n-Nitrosodimethylamine	ND	0.96	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
n-Nitrosodiphenylamine	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Naphthalene	ND	1.6	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Nitrobenzene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Nitrobenzene-D5 (surr.)	97		%	EPA 625	07/21/06 1138	B	SURR	B4086
Pentachlorophenol	ND	3.6	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Phenanthrene	ND	5.4	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Phenol	ND	1.5	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Phenol-D5 (surr.)	52		%	EPA 625	07/21/06 1138	B	SURR	B4086
Pyrene	ND	1.9	ug/l	EPA 625	07/21/06 1138	B	REG	B4086
Terphenyl-D14 (surr.)	108		%	EPA 625	07/21/06 1138	B	SURR	B4086
Chloride	ND	0.2	mg/l	EPA 300.0	07/19/06 1451	B	REG	S18518
Zinc	ND	0.002	mg/l	EPA 200.8	07/20/06 0831	B	REG	S18520
BOD 5-day	ND	2	mg/l	EPA 405.1	07/19/06 0837	B	REG	W17599
Total Kjeldahl Nitrogen	ND	1	mg/l	EPA 351.3	07/20/06 0927	B	REG	W17611
Total Suspended Solids	ND	4	mg/l	EPA 160.2	07/20/06 1030	B	REG	W17613
Total Organic Carbon	ND	1	mg/l	EPA 415.1	07/20/06 1032	B	REG	W17615
COD	ND	10	mg/l	HACH 8000	07/21/06 1117	B	REG	W17626
1,1,1-Trichloroethane	ND		ug/l	EPA 624	07/20/06 2329	D	REG	V5815
1,1,1-Trichloroethane	<1		%	EPA 624	07/20/06 2329	D	RPD	V5815
1,1,2,2-Tetrachloroethane	ND		ug/l	EPA 624	07/20/06 2329	D	REG	V5815
1,1,2,2-Tetrachloroethane	<1		%	EPA 624	07/20/06 2329	D	RPD	V5815
1,1,2-Trichloroethane	ND		ug/l	EPA 624	07/20/06 2329	D	REG	V5815
1,1,2-Trichloroethane	<1		%	EPA 624	07/20/06 2329	D	RPD	V5815
1,1-Dichloroethane	ND		ug/l	EPA 624	07/20/06 2329	D	REG	V5815
1,1-Dichloroethane	<1		%	EPA 624	07/20/06 2329	D	RPD	V5815

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch
Tetrachloroethylene	ND	4.1	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
Toluene	ND	6	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
Toluene-D8 (surr.)	98		%	EPA 624	07/20/06 2148	B	SURR	V5815
trans-1,2-Dichloroethylene	ND	1.6	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
trans-1,3-Dichloropropylene	ND	1.3	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
Trichloroethylene	ND	1.9	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
Vinyl chloride	ND	6.4	ug/l	EPA 624	07/20/06 2148	B	REG	V5815
Oil and Grease	97		%	EPA 1664	07/19/06 1558	Q	REC	B4084
Oil and Grease	91		%	EPA 1664	07/19/06 1558	Q	REC	B4084
Oil and Grease	6		%	EPA 1664	07/19/06 1558	Q	RPD	B4084
Oil and Grease	91		%	EPA 1664	07/19/06 1558	S	REC	B4084
1,2,4-Trichlorobenzene	63		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,2-Dichlorobenzene	59		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,2-Diphenylhydrazine	92		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,3-Dichlorobenzene	56		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,4-Dichlorobenzene	56		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4,6-Tribromophenol (surr.)	108		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2,4,6-Trichlorophenol	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dichlorophenol	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dimethylphenol	52		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dinitrophenol	65		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dinitrotoluene	106		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,6-Dinitrotoluene	101		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Chloronaphthalene	80		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Chlorophenol	89		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Fluorobiphenyl (surr.)	90		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2-Fluorophenol (surr.)	68		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2-Nitrophenol	98		%	EPA 625	07/21/06 1138	Q	REC	B4086
4,6-Dinitro-o-cresol	91		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Bromophenyl phenyl ether	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
p-Chloro-m-cresol	96		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Chlorophenyl phenyl ether	92		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Nitrophenol	63		%	EPA 625	07/21/06 1138	Q	REC	B4086
Acenaphthene	87		%	EPA 625	07/21/06 1138	Q	REC	B4086
Acenaphthylene	89		%	EPA 625	07/21/06 1138	Q	REC	B4086
Anthracene	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(a)anthracene	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(a)pyrene	99		%	EPA 625	07/21/06 1138	Q	REC	B4086
3,4-Benzofluoranthene	114		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(g,h,i)perylene	88		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(k)fluoranthene	103		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroethoxy)methane	95		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroethyl)ether	87		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroisopropyl)ether	85		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-ethylhexyl)phthalate	106		%	EPA 625	07/21/06 1138	Q	REC	B4086
Butylbenzyl phthalate	110		%	EPA 625	07/21/06 1138	Q	REC	B4086
Chrysene	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
Di-n-butyl phthalate	103		%	EPA 625	07/21/06 1138	Q	REC	B4086
Di-n-octyl phthalate	136		%	EPA 625	07/21/06 1138	Q	REC	B4086
Dibenzo(a,h)anthracene	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Diethyl phthalate	99		%	EPA 625	07/21/06 1138	Q	REC	B4086
Dimethyl phthalate	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Fluoranthene	91		%	EPA 625	07/21/06 1138	Q	REC	B4086
Fluorene	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachlorobenzene	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachlorobutadiene	56		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachlorocyclopentadiene	67		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachloroethane	54		%	EPA 625	07/21/06 1138	Q	REC	B4086
Indeno(1,2,3-cd)pyrene	90		%	EPA 625	07/21/06 1138	Q	REC	B4086
Isophorone	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodi-n-propylamine	90		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodimethylamine	65		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodiphenylamine	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Naphthalene	72		%	EPA 625	07/21/06 1138	Q	REC	B4086
Nitrobenzene	85		%	EPA 625	07/21/06 1138	Q	REC	B4086
Nitrobenzene-D5 (surr.)	94		%	EPA 625	07/21/06 1138	Q	SURR	B4086
Pentachlorophenol	102		%	EPA 625	07/21/06 1138	Q	REC	B4086
Phenanthrene	91		%	EPA 625	07/21/06 1138	Q	REC	B4086
Phenol	57		%	EPA 625	07/21/06 1138	Q	REC	B4086
Phenol-D5 (surr.)	56		%	EPA 625	07/21/06 1138	Q	SURR	B4086
Pyrene	102		%	EPA 625	07/21/06 1138	Q	REC	B4086
Terphenyl-D14 (surr.)	105		%	EPA 625	07/21/06 1138	Q	SURR	B4086
1,2,4-Trichlorobenzene	68		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,2,4-Trichlorobenzene	8		%	EPA 625	07/21/06 1138	Q	RPD	B4086
1,2-Dichlorobenzene	63		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,2-Dichlorobenzene	6		%	EPA 625	07/21/06 1138	Q	RPD	B4086
1,2-Diphenylhydrazine	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,2-Diphenylhydrazine	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
1,3-Dichlorobenzene	60		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,3-Dichlorobenzene	7		%	EPA 625	07/21/06 1138	Q	RPD	B4086

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch
1,4-Dichlorobenzene	60		%	EPA 625	07/21/06 1138	Q	REC	B4086
1,4-Dichlorobenzene	6		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,4,6-Tribromophenol (surr.)	109		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2,4,6-Trichlorophenol	98		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4,6-Trichlorophenol	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,4-Dichlorophenol	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dichlorophenol	<1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,4-Dimethylphenol	50		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dimethylphenol	12		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,4-Dinitrophenol	59		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dinitrophenol	9		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,4-Dinitrotoluene	111		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,4-Dinitrotoluene	5		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2,6-Dinitrotoluene	105		%	EPA 625	07/21/06 1138	Q	REC	B4086
2,6-Dinitrotoluene	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2-Chloronaphthalene	83		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Chloronaphthalene	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2-Chlorophenol	89		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Chlorophenol	<1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
2-Fluorobiphenyl (surr.)	91		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2-Fluorophenol (surr.)	69		%	EPA 625	07/21/06 1138	Q	SURR	B4086
2-Nitrophenol	100		%	EPA 625	07/21/06 1138	Q	REC	B4086
2-Nitrophenol	2		%	EPA 625	07/21/06 1138	Q	RPD	B4086
4,6-Dinitro-o-cresol	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
4,6-Dinitro-o-cresol	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
4-Bromophenyl phenyl ether	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Bromophenyl phenyl ether	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
p-Chloro-m-cresol	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
p-Chloro-m-cresol	2		%	EPA 625	07/21/06 1138	Q	RPD	B4086
4-Chlorophenyl phenyl ether	95		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Chlorophenyl phenyl ether	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
4-Nitrophenol	61		%	EPA 625	07/21/06 1138	Q	REC	B4086
4-Nitrophenol	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Acenaphthene	89		%	EPA 625	07/21/06 1138	Q	REC	B4086
Acenaphthene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Acenaphthylene	92		%	EPA 625	07/21/06 1138	Q	REC	B4086
Acenaphthylene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Anthracene	96		%	EPA 625	07/21/06 1138	Q	REC	B4086
Anthracene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Benzo(a)anthracene	100		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(a)anthracene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Benzo(a)pyrene	104		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(a)pyrene	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
3,4-Benzofluoranthene	114		%	EPA 625	07/21/06 1138	Q	REC	B4086
3,4-Benzofluoranthene	<1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Benzo(g,h,i)perylene	98		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(g,h,i)perylene	11		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Benzo(k)fluoranthene	104		%	EPA 625	07/21/06 1138	Q	REC	B4086
Benzo(k)fluoranthene	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Bis(2-chloroethoxy)methane	95		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroethoxy)methane	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Bis(2-chloroethyl)ether	88		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroethyl)ether	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Bis(2-chloroisopropyl)ether	88		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-chloroisopropyl)ether	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Bis(2-ethylhexyl)phthalate	111		%	EPA 625	07/21/06 1138	Q	REC	B4086
Bis(2-ethylhexyl)phthalate	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Butylbenzyl phthalate	118		%	EPA 625	07/21/06 1138	Q	REC	B4086
Butylbenzyl phthalate	7		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Chrysene	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Chrysene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Di-n-butyl phthalate	108		%	EPA 625	07/21/06 1138	Q	REC	B4086
Di-n-butyl phthalate	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Di-n-octyl phthalate	143		%	EPA 625	07/21/06 1138	Q	REC	B4086
Di-n-octyl phthalate	5		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Dibenzo(a,h)anthracene	102		%	EPA 625	07/21/06 1138	Q	REC	B4086
Dibenzo(a,h)anthracene	9		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Diethyl phthalate	102		%	EPA 625	07/21/06 1138	Q	REC	B4086
Diethyl phthalate	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Dimethyl phthalate	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
Dimethyl phthalate	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Fluoranthene	98		%	EPA 625	07/21/06 1138	Q	REC	B4086
Fluoranthene	8		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Fluorene	97		%	EPA 625	07/21/06 1138	Q	REC	B4086
Fluorene	4		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Hexachlorobenzene	96		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachlorobenzene	5		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Hexachlorobutadiene	63		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachlorobutadiene	12		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Hexachlorocyclopentadiene	75		%	EPA 625	07/21/06 1138	Q	REC	B4086

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch
Hexachlorocyclopentadiene	8		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Hexachloroethane	58		%	EPA 625	07/21/06 1138	Q	REC	B4086
Hexachloroethane	9		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Indeno(1,2,3-cd)pyrene	102		%	EPA 625	07/21/06 1138	Q	REC	B4086
Indeno(1,2,3-cd)pyrene	13		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Isophorone	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Isophorone	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
n-Nitrosodi-n-propylamine	92		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodi-n-propylamine	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
n-Nitrosodimethylamine	63		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodimethylamine	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
n-Nitrosodiphenylamine	93		%	EPA 625	07/21/06 1138	Q	REC	B4086
n-Nitrosodiphenylamine	<1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Naphthalene	77		%	EPA 625	07/21/06 1138	Q	REC	B4086
Naphthalene	6		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Nitrobenzene	87		%	EPA 625	07/21/06 1138	Q	REC	B4086
Nitrobenzene	2		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Nitrobenzene-D5 (surr.)	98		%	EPA 625	07/21/06 1138	Q	SURR	B4086
Pentachlorophenol	101		%	EPA 625	07/21/06 1138	Q	REC	B4086
Pentachlorophenol	<1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Phenanthrene	94		%	EPA 625	07/21/06 1138	Q	REC	B4086
Phenanthrene	3		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Phenol	58		%	EPA 625	07/21/06 1138	Q	REC	B4086
Phenol	1		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Phenol-D5	57		%	EPA 625	07/21/06 1138	Q	SURR	B4086
Pyrene	113		%	EPA 625	07/21/06 1138	Q	REC	B4086
Pyrene	9		%	EPA 625	07/21/06 1138	Q	RPD	B4086
Terphenyl-D14 (surr.)	116		%	EPA 625	07/21/06 1138	Q	SURR	B4086
1,1,1-Trichloroethane	87		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,1,2,2-Tetrachloroethane	97		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,1,2-Trichloroethane	100		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,1-Dichloroethane	93		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,1-Dichloroethylene	104		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,2-Dichloroethane	100		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,2-Dichloropropane	90		%	EPA 624	07/20/06 2114	Q	REC	V5815
Acrylonitrile	105		%	EPA 624	07/20/06 2114	Q	REC	V5815
Benzene	103		%	EPA 624	07/20/06 2114	Q	REC	V5815
Dichlorobromomethane	94		%	EPA 624	07/20/06 2114	Q	REC	V5815
Bromofluorobenzene (surr.)	101		%	EPA 624	07/20/06 2114	Q	SURR	V5815
Bromoform	97		%	EPA 624	07/20/06 2114	Q	REC	V5815
Carbon tetrachloride	87		%	EPA 624	07/20/06 2114	Q	REC	V5815
Chlorobenzene	98		%	EPA 624	07/20/06 2114	Q	REC	V5815
Chloroethane	102		%	EPA 624	07/20/06 2114	Q	REC	V5815
Chloroform	96		%	EPA 624	07/20/06 2114	Q	REC	V5815
cis-1,3-Dichloropropylene	84		%	EPA 624	07/20/06 2114	Q	REC	V5815
Chlorodibromomethane	97		%	EPA 624	07/20/06 2114	Q	REC	V5815
Dibromofluoromethane (surr.)	97		%	EPA 624	07/20/06 2114	Q	SURR	V5815
Ethylbenzene	98		%	EPA 624	07/20/06 2114	Q	REC	V5815
Methyl bromide(Bromomethane)	96		%	EPA 624	07/20/06 2114	Q	REC	V5815
Methyl chloride(Chloromethane)	104		%	EPA 624	07/20/06 2114	Q	REC	V5815
Methylene chloride	100		%	EPA 624	07/20/06 2114	Q	REC	V5815
Tetrachloroethylene	96		%	EPA 624	07/20/06 2114	Q	REC	V5815
Toluene	102		%	EPA 624	07/20/06 2114	Q	REC	V5815
Toluene-D8 (surr.)	99		%	EPA 624	07/20/06 2114	Q	SURR	V5815
trans-1,2-Dichloroethylene	107		%	EPA 624	07/20/06 2114	Q	REC	V5815
trans-1,3-Dichloropropylene	89		%	EPA 624	07/20/06 2114	Q	REC	V5815
Trichloroethylene	98		%	EPA 624	07/20/06 2114	Q	REC	V5815
Vinyl chloride	104		%	EPA 624	07/20/06 2114	Q	REC	V5815
1,1,1-Trichloroethane	77		%	EPA 624	07/21/06 0002	S	REC	V5815
1,1,2,2-Tetrachloroethane	97		%	EPA 624	07/21/06 0002	S	REC	V5815
1,1,2-Trichloroethane	101		%	EPA 624	07/21/06 0002	S	REC	V5815
1,1-Dichloroethane	89		%	EPA 624	07/21/06 0002	S	REC	V5815
1,1-Dichloroethylene	98		%	EPA 624	07/21/06 0002	S	REC	V5815
1,2-Dichloroethane	98		%	EPA 624	07/21/06 0002	S	REC	V5815
1,2-Dichloropropane	88		%	EPA 624	07/21/06 0002	S	REC	V5815
Acrylonitrile	94		%	EPA 624	07/21/06 0002	S	REC	V5815
Benzene	98		%	EPA 624	07/21/06 0002	S	REC	V5815
Dichlorobromomethane	91		%	EPA 624	07/21/06 0002	S	REC	V5815
Bromofluorobenzene (surr.)	101		%	EPA 624	07/21/06 0002	S	SURR	V5815
Bromoform	89		%	EPA 624	07/21/06 0002	S	REC	V5815
Carbon tetrachloride	82		%	EPA 624	07/21/06 0002	S	REC	V5815
Chlorobenzene	92		%	EPA 624	07/21/06 0002	S	REC	V5815
Chloroethane	99		%	EPA 624	07/21/06 0002	S	REC	V5815
Chloroform	93		%	EPA 624	07/21/06 0002	S	REC	V5815
cis-1,3-Dichloropropylene	76		%	EPA 624	07/21/06 0002	S	REC	V5815
Chlorodibromomethane	94		%	EPA 624	07/21/06 0002	S	REC	V5815
Dibromofluoromethane (surr.)	97		%	EPA 624	07/21/06 0002	S	SURR	V5815
Ethylbenzene	93		%	EPA 624	07/21/06 0002	S	REC	V5815
Methyl bromide(Bromomethane)	81		%	EPA 624	07/21/06 0002	S	REC	V5815
Methyl chloride(Chloromethane)	104		%	EPA 624	07/21/06 0002	S	REC	V5815

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch
Methylene chloride	110		%	EPA 624	07/21/06 0002	S	REC	V581
Tetrachloroethylene	87		%	EPA 624	07/21/06 0002	S	REC	V581
Toluene	97		%	EPA 624	07/21/06 0002	S	REC	V581
Toluene-D8 (surr.)	99		%	EPA 624	07/21/06 0002	S	SURR	V581
trans-1,2-Dichloroethylene	99		%	EPA 624	07/21/06 0002	S	REC	V581
trans-1,3-Dichloropropylene	74		%	EPA 624	07/21/06 0002	S	REC	V581
Trichloroethylene	94		%	EPA 624	07/21/06 0002	S	REC	V581
Vinyl chloride	98		%	EPA 624	07/21/06 0002	S	REC	V581
Chloride	103		%	EPA 300.0	07/19/06 1451	Q	REC	S1851
Chloride	-		%	EPA 300.0	07/19/06 1451	S	REC	S1851
Chloride	-		%	EPA 300.0	07/19/06 1451	SD	REC	S1851
Chloride	<1		%	EPA 300.0	07/19/06 1451	SD	RPD	S1851
Zinc	98		%	EPA 200.8	07/20/06 0831	Q	REC	S1852
Zinc	87		%	EPA 200.8	07/20/06 0831	S	REC	S1852
Zinc	91		%	EPA 200.8	07/20/06 0831	SD	REC	S1852
Zinc	4		%	EPA 200.8	07/20/06 0831	SD	RPD	S1852
pH	101		%	EPA 150.1	07/18/06 1737	Q	REC	W1759
BOD 5-day	101		%	EPA 405.1	07/19/06 0837	Q	REC	W1759
BOD 5-day	101		%	EPA 405.1	07/19/06 0837	Q	REC	W1759
BOD 5-day	<1		%	EPA 405.1	07/19/06 0837	Q	RPD	W1759
Total Kjeldahl Nitrogen	98		%	EPA 351.3	07/20/06 0927	Q	REC	W1761
Total Kjeldahl Nitrogen	95		%	EPA 351.3	07/20/06 1507	S	REC	W1761
Total Kjeldahl Nitrogen	95		%	EPA 351.3	07/20/06 1507	SD	REC	W1761
Total Kjeldahl Nitrogen	<1		%	EPA 351.3	07/20/06 1507	SD	RPD	W1761
Total Suspended Solids	102		%	EPA 160.2	07/20/06 1030	Q	REC	W1761
Total Suspended Solids	102		%	EPA 160.2	07/20/06 1030	Q	REC	W1761
Total Suspended Solids	1		%	EPA 160.2	07/20/06 1030	Q	RPD	W1761
Total Organic Carbon	103		%	EPA 415.1	07/20/06 1032	Q	REC	W1761
Total Organic Carbon	103		%	EPA 415.1	07/20/06 1032	Q	REC	W1761
Total Organic Carbon	1		%	EPA 415.1	07/20/06 1032	Q	RPD	W1761
Total Organic Carbon	100		%	EPA 415.1	07/20/06 1033	S	REC	W1761
COD	101		%	HACH 8000	07/21/06 1117	Q	REC	W1762
COD	96		%	HACH 8000	07/21/06 1117	S	REC	W1762
COD	96		%	HACH 8000	07/21/06 1117	SD	REC	W1762
COD	<1		%	HACH 8000	07/21/06 1117	SD	RPD	W1762

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

CHAIN OF CUSTODY RECORD

RAS Project # 21819

PROJECT NAME / NUMBER: Pond 2 Samples

REPORT MAILING ADDRESS (Include Company Name):
Noral, Inc.
334 Phillips 311 Road
Helena, AR 72342-9033

BILLING ADDRESS: SAME

PROJECT MANAGER: Jeff Wages

P.O. # 38443

ATTENTION: Jeff Wages

TELEPHONE # 870 572 9061

FAX # 870 572 1416

TURNAROUND TIME:
NORMAL ☐ 7-10 day
RUSH ☒ 6 day(s)

COMMENTS:

RINECO
ANALYTICAL SERVICES
~~919 Vulcan Road • Benton, AR 72015~~
501-778-9089 • 1-800-377-4692
FAX 501-776-5816

Samplers (Signature): Jeff Wages

PRESERVATION CODES:
1. Cool, 4 degrees C
2. Sulfuric Acid, pH < 2
3. Nitric Acid, pH < 2
4. Sodium Thiosulfate
5. Hydrochloric Acid
6. Sodium Hydroxide
7. Zinc Acetate

TEST PARAMETERS

Client I.D.	SAMPLE Date	SAMPLE Time	Comp.	Grab	No. of Containers	Preservation Codes	Sample Description/Matrix	pH, Chloride	TKN, COD, TOC	TSS	Volatiles	Semi Volatiles	Oil & Grease	BOD	Zinc	RAS LABORATORY I.D. #
Pond 2	7/27/06	10:30am		✓	1		✓	✓								12425
Pond 2	"			✓	1	2		✓								12426
Pond 2	"			✓	1				✓							12427
Pond 2	"			✓	3	5				✓						12428
Pond 2	"			✓	1						✓					12429
Pond 2	"			✓	1	2						✓				12430
Pond 2	"			✓	1								✓			12431
Pond 2	"			✓	1	3								✓		12432

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time
Jeff Wages	7/27/06	11:[illegible]						
Received by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	[illegible]	[illegible]						

'07/26/06 WED 15:46 FAX 501 778 1096 RINECO ANALYTICAL 011

Rineco Analytical Services
819 Vulcan Road - Haskell
Benton, Arkansas 72015
(800) 377-4692 / (501) 778-9089
FAX (501) 776-5816

Analysis Summary

Norac Co., Inc.
334 Phillips 311 Rd
Helena, AR 72342-9033
870-572-9061
870-572-1416 (FAX)

Client's Project ID:	Pond 2 Samples	**Project:**	21819
Sampling Date:	07/17/06; 10:20am	**Date Received:**	07/18/06; 0:20am
Contact Name:	Jeff Wages	**Report Date:**	07/26/06

Comments: ND = not detected

(Surr.) = internal standard added to the sample to ensure overall efficiency of the method.

Standard practice for quality control includes the use of blanks, laboratory control samples, matrix spikes and duplicates on at least 10% of samples analyzed. Standard practice for quality assurance includes compliance to USEPA guidelines for instrument maintenance and calibration.

Quality Manager or
Laboratory Director _____ Date 7/26/06

Results Summary

RAS laboratory ID: 12425
Client ID: Pond 2 Water
Sample Description: Water
Project #: 21819

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
Chloride	7700	200	mg/l	EPA 300	AI	07/19/06 1450
pH	7.8	-	Units	EPA 150	AI	07/18/06 1737

RAS laboratory ID: 12426
Client ID: Pond 2 Water
Sample Description: Water
Project #: 21819

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
Total Organic Carbon	240	1	mg/l	EPA 415	AI	07/20/06 1031
Total Kjeldahl Nitrogen	12	1	mg/l	EPA 351	AI	07/20/06 0927
COD	1400	10	mg/l	HACH 80	AI	07/21/06 0848

RAS laboratory ID: 12427
Client ID: Pond 2 Water
Sample Description: Water
Project #: 21819

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
Total Suspended Solids	87	4	mg/l	EPA 160	AI	07/20/06 1030

RAS laboratory ID: 12428
Client ID: Pond 2 Water
Sample Description: Water
Project #: 21819

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
1,1,1-Trichloroethane	ND	3.8	ug/l	EPA 62	AI	07/20/06 2255
1,1,2,2-Tetrachloroethane	ND	6.9	ug/l	EPA 62	AI	07/20/06 2255
1,1,2-Trichloroethane	ND	5	ug/l	EPA 62	AI	07/20/06 2255
1,1-Dichloroethane	ND	4.7	ug/l	EPA 62	AI	07/20/06 2255
1,1-Dichloroethylene	ND	2.8	ug/l	EPA 62	AI	07/20/06 2255
1,2-Dichloroethane	ND	2.8	ug/l	EPA 62	AI	07/20/06 2255
1,2-Dichloropropane	ND	6	ug/l	EPA 62	AI	07/20/06 2255
2-Chloroethylvinyl ether	ND	5.1	ug/l	EPA 62	AI	07/20/06 2255
Acrolein	ND	50	ug/l	EPA 62	AI	07/20/06 2255
Acrylonitrile	ND	50	ug/l	EPA 62	AI	07/20/06 2255
Benzene	ND	4.4	ug/l	EPA 62	AI	07/20/06 2255
Dichlorobromomethane	ND	2.2	ug/l	EPA 62	AI	07/20/06 2255
Bromofluorobenzene (surr.)	99		%	EPA 62	AI	07/20/06 2255
Bromoform	ND	4.7	ug/l	EPA 62	AI	07/20/06 2255
Carbon tetrachloride	ND	2.8	ug/l	EPA 62	AI	07/20/06 2255
Chlorobenzene	ND	6	ug/l	EPA 62	AI	07/20/06 2255
Chloroethane	ND	8.7	ug/l	EPA 62	AI	07/20/06 2255
Chloroform	ND	1.6	ug/l	EPA 62	AI	07/20/06 2255
cis-1,3-Dichloropropylene	ND	5	ug/l	EPA 62	AI	07/20/06 2255
Chlorodibromomethane	ND	3.1	ug/l	EPA 62	AI	07/20/06 2255
Dibromotluoromethane (surr.)	96		%	EPA 62	AI	07/20/06 2255
Ethylbenzene	ND	7.2	ug/l	EPA 62	AI	07/20/06 2255
Methyl bromide(Bromomethane)	ND	8.9	ug/l	EPA 62	AI	07/20/06 2255
Methyl chloride(Chloromethane)	ND	7.8	ug/l	EPA 62	AI	07/20/06 2255
Methylene chloride	ND	10	ug/l	EPA 62	AI	07/20/06 2255
Tetrachloroethylene	ND	4.1	ug/l	EPA 62	AI	07/20/06 2255
Toluene	ND	6	ug/l	EPA 62	AI	07/20/06 2255
Toluene-D8 (surr.)	98		%	EPA 62	AI	07/20/06 2255
trans 1,2-Dichloroethylene	ND	1.6	ug/l	EPA 62	AI	07/20/06 2255
trans-1,3-Dichloropropylene	ND	1.3	ug/l	EPA 62	AI	07/20/06 2255
Trichloroethylene	ND	1.9	ug/l	EPA 62	AI	07/20/06 2255
Vinyl chloride	ND	6.4	ug/l	EPA 62	AI	07/20/06 2255

Results Summary

RAS laboratory ID: 12429
Client ID: Pond 2 Water
Sample Description: Water
Project #: 21819

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
1,2,4-Trichlorobenzene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
1,2-Dichlorobenzene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
1,2-Diphenylhydrazine	ND	2200	ug/l	EPA 62	AI	07/21/06 1137
1,3-Dichlorobenzene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
1,4-Dichlorobenzene	ND	880	ug/l	EPA 62	AI	07/21/06 1137
2,4,6-Tribromophenol (surr.)	diluted out			EPA 62	AI	07/21/06 1137
2,4,6-Trichlorophenol	ND	540	ug/l	EPA 62	AI	07/21/06 1137
2,4-Dichlorophenol	ND	540	ug/l	EPA 62	AI	07/21/06 1137
2,4-Dimethylphenol	ND	540	ug/l	EPA 62	AI	07/21/06 1137
2,4-Dinitrophenol	ND	8400	ug/l	EPA 62	AI	07/21/06 1137
2,4-Dinitrotoluene	ND	1200	ug/l	EPA 62	AI	07/21/06 1137
2,6-Dinitrotoluene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
2-Chloronaphthalene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
2-Chlorophenol	ND	660	ug/l	EPA 62	AI	07/21/06 1137
2-Fluorobiphenyl (surr.)	diluted out			EPA 62	AI	07/21/06 1137
2-Fluorophenol (surr.)	diluted out			EPA 62	AI	07/21/06 1137
2-Nitrophenol	ND	720	ug/l	EPA 62	AI	07/21/06 1137
3,3'-Dichlorobenzidine	ND	3300	ug/l	EPA 62	AI	07/21/06 1137
4,6-Dinitro-o-cresol	ND	4800	ug/l	EPA 62	AI	07/21/06 1137
4-Bromophenyl phenyl ether	ND	380	ug/l	EPA 62	AI	07/21/06 1137
p-Chloro-m-cresol	ND	600	ug/l	EPA 62	AI	07/21/06 1137
4-Chlorophenyl phenyl ether	ND	840	ug/l	EPA 62	AI	07/21/06 1137
4-Nitrophenol	ND	480	ug/l	EPA 62	AI	07/21/06 1137
Acenaphthene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Acenaphthylene	ND	700	ug/l	EPA 62	AI	07/21/06 1137
Anthracene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Benzidine	ND	8800	ug/l	EPA 62	AI	07/21/06 1137
Benzo(a)anthracene	ND	1600	ug/l	EPA 62	AI	07/21/06 1137
Benzo(a)pyrene	ND	500	ug/l	EPA 62	AI	07/21/06 1137
3,4-Benzofluoranthene	ND	960	ug/l	EPA 62	AI	07/21/06 1137
Benzo(g,h,i)perylene	ND	820	ug/l	EPA 62	AI	07/21/06 1137
Benzo(k)fluoranthene	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Bis(2-chloroethoxy)methane	ND	1100	ug/l	EPA 62	AI	07/21/06 1137
Bis(2-chloroethyl)ether	ND	1200	ug/l	EPA 62	AI	07/21/06 1137
Bis(2-chloroisopropyl)ether	ND	1200	ug/l	EPA 62	AI	07/21/06 1137
Bis(2-ethylhexyl)phthalate	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Butylbenzyl phthalate	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Chrysene	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Di-n-butyl phthalate	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Di-n-octyl phthalate	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Dibenzo(a,h)anthracene	ND	500	ug/l	EPA 62	AI	07/21/06 1137
Diethyl phthalate	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Dimethyl phthalate	ND	320	ug/l	EPA 62	AI	07/21/06 1137
Fluoranthene	ND	440	ug/l	EPA 62	AI	07/21/06 1137
Fluorene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Hexachlorobenzene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Hexachlorobutadiene	ND	180	ug/l	EPA 62	AI	07/21/06 1137
Hexachlorocyclopentadiene	ND	1000	ug/l	EPA 62	AI	07/21/06 1137
Hexachloroethane	ND	320	ug/l	EPA 62	AI	07/21/06 1137
Indeno(1,2,3-cd)pyrene	ND	740	ug/l	EPA 62	AI	07/21/06 1137
Isophorone	ND	440	ug/l	EPA 62	AI	07/21/06 1137
n-Nitrosodi-n-propylamine	ND	170	ug/l	EPA 62	AI	07/21/06 1137
n-Nitrosodimethylamine	ND	200	ug/l	EPA 62	AI	07/21/06 1137
n-Nitrosodiphenylamine	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Naphthalene	ND	320	ug/l	EPA 62	AI	07/21/06 1137
Nitrobenzene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Nitrobenzene-D5 (surr.)	diluted out			EPA 62	AI	07/21/06 1137
Pentachlorophenol	ND	720	ug/l	EPA 62	AI	07/21/06 1137
Phenanthrene	ND	1100	ug/l	EPA 62	AI	07/21/06 1137
Phenol	ND	300	ug/l	EPA 62	AI	07/21/06 1137
Phenol-D5 (surr.)	diluted out			EPA 62	AI	07/21/06 1137
Pyrene	ND	380	ug/l	EPA 62	AI	07/21/06 1137
Terphenyl-D14 (surr.)	diluted out			EPA 62	AI	07/21/06 1137

RT

NORAC

334 Phillips 311 Road
Industrial Park Road
Helena, Arkansas 72342-9033

Customer Service: (800) 786-6722
Customer Service Fax: (800) 987-0845
Phone: (870) 572-9061
Fax: (870) 572-1416

February 13, 2006

Mr. Rufus J. Torrence
ADEQ NPDES Pretreatment Engineer
Arkansas Department of Environmental Quality
8001 National Drive
PO Box 8913
Little Rock, AR 72219-8913

Dear Mr. Torrence:

In accordance with 40CFR403.12(e) please find enclosed our most recent monitoring report for the wastewater discharged from our facility in Helena, Arkansas. During the sampling period we were discharging about 170,000 gallons of water per day based on previous monthly use averages.

Please let me know if you have any questions or need any further information.

Sincerely,

Jeff Wages

Jeff Wages
EHS Coordinator

Feb 2006 SAR

Filedate 20060307

Enclosures

cc:
Terry McGinister
Helena WWTP
702 Cherry St.
Helena, AR 72342

Warren McGrew - Norac
Robert Summers - Norac

RE: Helena wastewater pretreatment report dated February 13, 2006.

SUBMISSIONS STATEMENT:

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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that all wastewater samples analyzed and reported herein are representative of the ordinary process wastewater flow from this facility. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Submitted by,

Norac, Inc.

Warren McGrew
Plant Manager

	day	month	det lim		
sample date					1/10/2006
sample time					0
location = pond outfall					2
flow (gal/day)					170000
report date					2/13/2006
Benzene	134	57	440		<440
Carbon Tetrachloride	380	142	280		<280
Chlorobenzene	380	142	600		<600
Chloroethane	295	110	870		<870
Chloroform	325	111	160		<160
1,1-Dichloroethane	59	22	470		<470
1,2-Dichloroethane	574	180	280		<280
1,1-Dichloroethene	60	22	280		<280
1,2-Dichloropropane	794	196	600		<600
Ethylbenzene	380	142	720		<720
Methyl Chloride	295	110	780		<780
Methylene Chloride	170	36	1000		<1000
Tetrachloroethene	164	52	410		<410
Toluene	74	28	600		<600
1,1,1-Trichloroethane	59	22	380		<380
1,1,2-Trichloroethane	127	32	500		<500
Trichloroethene	69	26	190		<190
Vinyl Chloride	172	97	640		<640
1,3-Dichloropropene	794	196	130		<130
trans-1,2-Dichloroethene	66	25	160		<160
1,2-Dichlorobenzene	794	196	480		<480
1,3-Dichlorobenzene	380	142	480		<480
1,4-Dichlorobenzene	380	142	1100		<1100
1,2,4-Trichlorobenzene	794	196	480		<480
Hexachlorobenzene	794	196	480		<480
Hexachloroethane	794	196	400		<400
Hexachlorobutadiene	380	142	230		<230
Nitrobenzene	6402	2237	480		<480
2-Nitrophenol	231	65	900		<900
4-Nitrophenol	576	162	600		<600
4,6-Dinitro-o-cresol	277	78	6000		<6000
total Cyanide	1200	420			
total Lead	690	320			
total Zinc mg/l	2610	1050	0.002		0.20 mg/l
Acenaphthene	47	19	480		<480
Anthracene	47	19	480		<480
Bis(2-ethylhexyl) phthalate	258	95	630		<630
Di-n-butyl phthalate	43	20	630		<630
Diethyl phthalate	113	46	480		<480
Dimethyl phthalate	47	19	400		<21000 ug/l
Fluoranthene	54	22	550		<550
Fluorene	47	19	480		<480
Naphthalene	47	19	400		<400
Phenanthrene	47	19	1400		<1400
Pyrene	48	20	480		<480
phenol			380		<380

o-xylene					
all values reported in µg/Liter					

Results Summary

Project # 21662

RAS laboratory ID: 12020
Client ID: Pond 2
Sample Description: Water

Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
Semivolatiles						
1,2,4-Trichlorobenzene	ND	480	ug/l	625	AI	01/12/06 0933
1,2-Dichlorobenzene	ND	480	ug/l	625	AI	01/12/06 0933
1,2-Diphenylhydrazine	ND	2800	ug/l	625	AI	01/12/06 0933
1,3-Dichlorobenzene	ND	480	ug/l	625	AI	01/12/06 0933
1,4-Dichlorobenzene	ND	1100	ug/l	625	AI	01/12/06 0933
2,4,6-Tribromophenol (surr.)	diluted out			625	AI	01/12/06 0933
2,4,6-Trichlorophenol	ND	680	ug/l	625	AI	01/12/06 0933
2,4-Dichlorophenol	ND	680	ug/l	625	AI	01/12/06 0933
2,4-Dimethylphenol	ND	680	ug/l	625	AI	01/12/06 0933
2,4-Dinitrophenol	ND	11000	ug/l	625	AI	01/12/06 0933
2,4-Dinitrotoluene	ND	1500	ug/l	625	AI	01/12/06 0933
2,6-Dinitrotoluene	ND	480	ug/l	625	AI	01/12/06 0933
2-Chloronaphthalene	ND	480	ug/l	625	AI	01/12/06 0933
2-Chlorophenol	ND	830	ug/l	625	AI	01/12/06 0933
2-Fluorobiphenyl (surr.)	diluted out			625	AI	01/12/06 0933
2-Fluorophenol (surr.)	diluted out			625	AI	01/12/06 0933
2-Nitrophenol	ND	900	ug/l	625	AI	01/12/06 0933
3,3'-Dichlorobenzidine	ND	4200	ug/l	625	AI	01/12/06 0933
4,6-Dinitro-o-cresol	ND	6000	ug/l	625	AI	01/12/06 0933
4-Bromophenyl phenyl ether	ND	480	ug/l	625	AI	01/12/06 0933
p-Chloro-m-cresol	ND	750	ug/l	625	AI	01/12/06 0933
4-Chlorophenyl phenyl ether	ND	1100	ug/l	625	AI	01/12/06 0933
4-Nitrophenol	ND	600	ug/l	625	AI	01/12/06 0933
Acenaphthene	ND	480	ug/l	625	AI	01/12/06 0933
Acenaphthylene	ND	880	ug/l	625	AI	01/12/06 0933
Anthracene	ND	480	ug/l	625	AI	01/12/06 0933
Benzidine	ND	11000	ug/l	625	AI	01/12/06 0933
Benzo(a)anthracene	ND	2000	ug/l	625	AI	01/12/06 0933
Benzo(a)pyrene	ND	630	ug/l	625	AI	01/12/06 0933
3,4-Benzofluoranthene	ND	1200	ug/l	625	AI	01/12/06 0933
Benzo(g,h,i)perylene	ND	1100	ug/l	625	AI	01/12/06 0933
Benzo(k)fluoranthene	ND	630	ug/l	625	AI	01/12/06 0933
Bis(2-chloroethoxy)methane	ND	1400	ug/l	625	AI	01/12/06 0933
Bis(2-chloroethyl)ether	ND	1500	ug/l	625	AI	01/12/06 0933
Bis(2-chloroisopropyl)ether	ND	1500	ug/l	625	AI	01/12/06 0933
Bis(2-ethylhexyl)phthalate	ND	630	ug/l	625	AI	01/12/06 0933
Butylbenzyl phthalate	ND	630	ug/l	625	AI	01/12/06 0933
Chrysene	ND	630	ug/l	625	AI	01/12/06 0933
Di-n-butyl phthalate	ND	630	ug/l	625	AI	01/12/06 0933
Di-n-octyl phthalate	ND	630	ug/l	625	AI	01/12/06 0933
Dibenzo(a,h)anthracene	ND	630	ug/l	625	AI	01/12/06 0933
Diethyl phthalate	ND	480	ug/l	625	AI	01/12/06 0933
Dimethyl phthalate	21000	400	ug/l	625	AI	01/12/06 0933
Fluoranthene	ND	550	ug/l	625	AI	01/12/06 0933
Fluorene	ND	480	ug/l	625	AI	01/12/06 0933
Hexachlorobenzene	ND	480	ug/l	625	AI	01/12/06 0933
Hexachlorobutadiene	ND	230	ug/l	625	AI	01/12/06 0933
Hexachlorocyclopentadiene	ND	1300	ug/l	625	AI	01/12/06 0933
Hexachloroethane	ND	400	ug/l	625	AI	01/12/06 0933
Indeno(1,2,3-cd)pyrene	ND	930	ug/l	625	AI	01/12/06 0933
Isophorone	ND	550	ug/l	625	AI	01/12/06 0933
n-Nitrosodi-n-propylamine	ND	210	ug/l	625	AI	01/12/06 0933
n-Nitrosodimethylamine	ND	240	ug/l	625	AI	01/12/06 0933
n-Nitrosodiphenylamine	ND	480	ug/l	625	AI	01/12/06 0933
Naphthalene	ND	400	ug/l	625	AI	01/12/06 0933
Nitrobenzene	ND	480	ug/l	625	AI	01/12/06 0933
Nitrobenzene-D5 (surr.)	diluted out			625	AI	01/12/06 0933
Pentachlorophenol	ND	900	ug/l	625	AI	01/12/06 0933
Phenanthrene	ND	1400	ug/l	625	AI	01/12/06 0933
Phenol	ND	380	ug/l	625	AI	01/12/06 0933
Phenol-D5 (surr.)	diluted out			625	AI	01/12/06 0933
Pyrene	ND	480	ug/l	625	AI	01/12/06 0933
Terphenyl-D14 (surr.)	diluted out			625	AI	01/12/06 0933

Results Summary

Project # 21662

		Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
RAS laboratory ID:	12015							
Client ID:	Pond 2							
Sample Description:	Water							
		Volatiles						
		1,1,1-Trichloroethane	ND	380	ug/l	624	AI	01/13/06 2026
		1,1,2,2-Tetrachloroethane	ND	690	ug/l	624	AI	01/13/06 2026
		1,1,2-Trichloroethane	ND	500	ug/l	624	AI	01/13/06 2026
		1,1-Dichloroethane	ND	470	ug/l	624	AI	01/13/06 2026
		1,1-Dichloroethylene	ND	280	ug/l	624	AI	01/13/06 2026
		1,2-Dichloroethane	ND	280	ug/l	624	AI	01/13/06 2026
		1,2-Dichloropropane	ND	600	ug/l	624	AI	01/13/06 2026
		2-Chloroethylvinyl ether	ND	510	ug/l	624	AI	01/13/06 2026
		Acrolein	ND	5000	ug/l	624	AI	01/13/06 2026
		Acrylonitrile	ND	5000	ug/l	624	AI	01/13/06 2026
		Benzene	ND	440	ug/l	624	AI	01/13/06 2026
		Dichlorobromomethane	ND	220	ug/l	624	AI	01/13/06 2026
		Bromofluorobenzene (surr.)	97		%	624	AI	01/13/06 2026
		Bromoform	ND	470	ug/l	624	AI	01/13/06 2026
		Carbon tetrachloride	ND	280	ug/l	624	AI	01/13/06 2026
		Chlorobenzene	ND	600	ug/l	624	AI	01/13/06 2026
		Chloroethane	ND	870	ug/l	624	AI	01/13/06 2026
		Chloroform	ND	160	ug/l	624	AI	01/13/06 2026
		cis-1,3-Dichloropropylene	ND	500	ug/l	624	AI	01/13/06 2026
		Chlorodibromomethane	ND	310	ug/l	624	AI	01/13/06 2026
		Dibromofluoromethane (surr.)	100		%	624	AI	01/13/06 2026
		Ethylbenzene	ND	720	ug/l	624	AI	01/13/06 2026
		Methyl bromide(Bromomethane)	ND	890	ug/l	624	AI	01/13/06 2026
		Methyl chloride(Chloromethane)	ND	780	ug/l	624	AI	01/13/06 2026
		Methylene chloride	ND	1000	ug/l	624	AI	01/13/06 2026
		Tetrachloroethylene	ND	410	ug/l	624	AI	01/13/06 2026
		Toluene	ND	600	ug/l	624	AI	01/13/06 2026
		Toluene-D8 (surr.)	102		%	624	AI	01/13/06 2026
		trans-1,2-Dichloroethylene	ND	160	ug/l	624	AI	01/13/06 2026
		trans-1,3-Dichloropropylene	ND	130	ug/l	624	AI	01/13/06 2026
		Trichloroethylene	ND	190	ug/l	624	AI	01/13/06 2026
		Vinyl chloride	ND	640	ug/l	624	AI	01/13/06 2026
RAS laboratory ID:	12016							
Client ID:	Pond 2							
Sample Description:	Water							
		BOD 5-day	860	2	mg/l	405.1	AI	01/11/06 1716
		Total Suspended Solids	110	4	mg/l	160.2	AI	01/12/06 0932
		pH	7.7	-	Units	150.1	AI	01/11/06 1734
RAS laboratory ID:	12017							
Client ID:	Pond 2							
Sample Description:	Water							
		Oil and Grease	ND	5	mg/l	1664	AI	01/11/06 1705
RAS laboratory ID:	12018							
Client ID:	Pond 2							
Sample Description:	Water							
		Zinc	0.2	0.002	mg/l	200.7	AI	01/12/06 1024
RAS laboratory ID:	12019							
Client ID:	Pond 2							
Sample Description:	Water							
		COD	1600	10	mg/l	HACH 8000	AI	01/11/06 1410
		Total Kjeldahl Nitrogen	12	1	mg/l	351.3	AI	01/16/06 0842
		Total Phosphorus	2.4	0.02	mg/l	SM 4500-PBE	AI	01/13/06 0756

Quality Control Summary
(Part C)

Parameter	Result	Det.	Units	Method	Analysis Date	Sample	Project : Result	21662 Batch
Oil and Grease	ND	5	mg/l	1664	01/11/06 1506	B	REG	B3786
1,2,4-Trichlorobenzene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
1,2-Dichlorobenzene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
1,2-Diphenylhydrazine	ND	11	ug/l	625	01/12/06 0933	B	REG	B3787
1,3-Dichlorobenzene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
1,4-Dichlorobenzene	ND	4.4	ug/l	625	01/12/06 0933	B	REG	B3787
2,4,6-Tribromophenol (surr.)	81		%	625	01/12/06 0933	B	SURR	B3787
2,4,6-Trichlorophenol	ND	2.7	ug/l	625	01/12/06 0933	B	REG	B3787
2,4-Dichlorophenol	ND	2.7	ug/l	625	01/12/06 0933	B	REG	B3787
2,4-Dimethylphenol	ND	2.7	ug/l	625	01/12/06 0933	B	REG	B3787
2,4-Dinitrophenol	ND	42	ug/l	625	01/12/06 0933	B	REG	B3787
2,4-Dinitrotoluene	ND	5.7	ug/l	625	01/12/06 0933	B	REG	B3787
2,6-Dinitrotoluene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
2-Chloronaphthalene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
2-Chlorophenol	ND	3.3	ug/l	625	01/12/06 0933	B	REG	B3787
2-Fluorobiphenyl (surr.)	77		%	625	01/12/06 0933	B	SURR	B3787
2-Fluorophenol (surr.)	59		%	625	01/12/06 0933	B	SURR	B3787
2-Nitrophenol	ND	3.6	ug/l	625	01/12/06 0933	B	REG	B3787
3,3'-Dichlorobenzidine	ND	16.5	ug/l	625	01/12/06 0933	B	REG	B3787
4,6-Dinitro-o-cresol	ND	24	ug/l	625	01/12/06 0933	B	REG	B3787
4-Bromophenyl phenyl ether	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
p-Chloro-m-cresol	ND	3	ug/l	625	01/12/06 0933	B	REG	B3787
4-Chlorophenyl phenyl ether	ND	4.2	ug/l	625	01/12/06 0933	B	REG	B3787
4-Nitrophenol	ND	2.4	ug/l	625	01/12/06 0933	B	REG	B3787
Acenaphthene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Acenaphthylene	ND	3.5	ug/l	625	01/12/06 0933	B	REG	B3787
Anthracene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Benzidine	ND	44	ug/l	625	01/12/06 0933	B	REG	B3787
Benzo(a)anthracene	ND	7.8	ug/l	625	01/12/06 0933	B	REG	B3787
Benzo(a)pyrene	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
3,4-Benzofluoranthene	ND	4.8	ug/l	625	01/12/06 0933	B	REG	B3787
Benzo(g,h,i)perylene	ND	4.1	ug/l	625	01/12/06 0933	B	REG	B3787
Benzo(k)fluoranthene	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Bis(2-chloroethoxy)methane	ND	5.3	ug/l	625	01/12/06 0933	B	REG	B3787
Bis(2-chloroethyl)ether	ND	5.7	ug/l	625	01/12/06 0933	B	REG	B3787
Bis(2-chloroisopropyl)ether	ND	5.7	ug/l	625	01/12/06 0933	B	REG	B3787
Bis(2-ethylhexyl)phthalate	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Butylbenzyl phthalate	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Chrysene	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Di-n-butyl phthalate	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Di-n-octyl phthalate	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Dibenzo(a,h)anthracene	ND	2.5	ug/l	625	01/12/06 0933	B	REG	B3787
Diethyl phthalate	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Dimethyl phthalate	ND	1.6	ug/l	625	01/12/06 0933	B	REG	B3787
Fluoranthene	ND	2.2	ug/l	625	01/12/06 0933	B	REG	B3787
Fluorene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Hexachlorobenzene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Hexachlorobutadiene	ND	0.9	ug/l	625	01/12/06 0933	B	REG	B3787
Hexachlorocyclopentadiene	ND	5	ug/l	625	01/12/06 0933	B	REG	B3787
Hexachloroethane	ND	1.6	ug/l	625	01/12/06 0933	B	REG	B3787
Indeno(1,2,3-cd)pyrene	ND	3.7	ug/l	625	01/12/06 0933	B	REG	B3787
Isophorone	ND	2.2	ug/l	625	01/12/06 0933	B	REG	B3787
n-Nitrosodi-n-propylamine	ND	0.84	ug/l	625	01/12/06 0933	B	REG	B3787
n-Nitrosodimethylamine	ND	0.96	ug/l	625	01/12/06 0933	B	REG	B3787
n-Nitrosodiphenylamine	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Naphthalene	ND	1.6	ug/l	625	01/12/06 0933	B	REG	B3787
Nitrobenzene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Nitrobenzene-D5 (surr.)	79		%	625	01/12/06 0933	B	SURR	B3787
Pentachlorophenol	ND	3.6	ug/l	625	01/12/06 0933	B	REG	B3787
Phenanthrene	ND	5.4	ug/l	625	01/12/06 0933	B	REG	B3787
Phenol	ND	1.5	ug/l	625	01/12/06 0933	B	REG	B3787
Phenol-D5 (surr.)	43		%	625	01/12/06 0933	B	SURR	B3787
Pyrene	ND	1.9	ug/l	625	01/12/06 0933	B	REG	B3787
Terphenyl-D14 (surr.)	86		%	625	01/12/06 0933	B	SURR	B3787
Zinc	ND	0.002	mg/l	200.7	01/12/06 1024	B	REG	S17362
BOD 5-day	ND	2	mg/l	405.1	01/11/06 1408	B	REG	W15724
COD	ND	10	mg/l	HACH 8000	01/11/06 1412	B	REG	W15725
Total Suspended Solids	ND	4	mg/l	160.2	01/12/06 0933	B	REG	W15733
Total Phosphorus	ND	0.02	mg/l	SM 4500-PBE	01/13/06 0756	B	REG	W15748
Total Kjeldahl Nitrogen	ND	1	mg/l	351.3	01/16/06 0842	B	REG	W15760
1,1,1-Trichloroethane	ND	3.8	ug/l	624	01/13/06 1833	B	REG	V5550
1,1,2,2-Tetrachloroethane	ND	6.9	ug/l	624	01/13/06 1833	B	REG	V5550

NOTES:

Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

Quality Control Summary
(Part C)

Parameter	Result	Det.	Units	Method	Analysis Date	Sample	Result	Batch
1,1,2-Trichloroethane	ND	5	ug/l	624	01/13/06 1833	B	REG	V5550
1,1-Dichloroethane	ND	4.7	ug/l	624	01/13/06 1833	B	REG	V5550
1,1-Dichloroethylene	ND	2.8	ug/l	624	01/13/06 1833	B	REG	V5550
1,2-Dichloroethane	ND	2.8	ug/l	624	01/13/06 1833	B	REG	V5550
1,2-Dichloropropane	ND	6	ug/l	624	01/13/06 1833	B	REG	V5550
2-Chloroethylvinyl ether	ND	5.1	ug/l	624	01/13/06 1833	B	REG	V5550
Acrolein	ND	50	ug/l	624	01/13/06 1833	B	REG	V5550
Acrylonitrile	ND	50	ug/l	624	01/13/06 1833	B	REG	V5550
Benzene	ND	4.4	ug/l	624	01/13/06 1833	B	REG	V5550
Dichlorobromomethane	ND	2.2	ug/l	624	01/13/06 1833	B	REG	V5550
Bromofluorobenzene (surr.)	96		%	624	01/13/06 1833	B	SURR	V5550
Bromoform	ND	4.7	ug/l	624	01/13/06 1833	B	REG	V5550
Carbon tetrachloride	ND	2.8	ug/l	624	01/13/06 1833	B	REG	V5550
Chlorobenzene	ND	6	ug/l	624	01/13/06 1833	B	REG	V5550
Chloroethane	ND	8.7	ug/l	624	01/13/06 1833	B	REG	V5550
Chloroform	ND	1.6	ug/l	624	01/13/06 1833	B	REG	V5550
cis-1,3-Dichloropropylene	ND	5	ug/l	624	01/13/06 1833	B	REG	V5550
Chlorodibromomethane	ND	3.1	ug/l	624	01/13/06 1833	B	REG	V5550
Dibromofluoromethane (surr.)	100		%	624	01/13/06 1833	B	SURR	V5550
Ethylbenzene	ND	7.2	ug/l	624	01/13/06 1833	B	REG	V5550
Methyl bromide(Bromomethane)	ND	8.9	ug/l	624	01/13/06 1833	B	REG	V5550
Methyl chloride(Chloromethane)	ND	7.8	ug/l	624	01/13/06 1833	B	REG	V5550
Methylene chloride	ND	10	ug/l	624	01/13/06 1833	B	REG	V5550
Tetrachloroethylene	ND	4.1	ug/l	624	01/13/06 1833	B	REG	V5550
Toluene	ND	6	ug/l	624	01/13/06 1833	B	REG	V5550
Toluene-D8 (surr.)	99		%	624	01/13/06 1833	B	SURR	V5550
trans-1,2-Dichloroethylene	ND	1.6	ug/l	624	01/13/06 1833	B	REG	V5550
trans-1,3-Dichloropropylene	ND	1.3	ug/l	624	01/13/06 1833	B	REG	V5550
Trichloroethylene	ND	1.9	ug/l	624	01/13/06 1833	B	REG	V5550
Vinyl chloride	ND	6.4	ug/l	624	01/13/06 1833	B	REG	V5550
Oil and Grease	101		%	1664	01/11/06 1506	Q	REC	B3786
Oil and Grease	100		%	1664	01/11/06 1506	Q	REC	B3786
Oil and Grease	2		%	1664	01/11/06 1506	Q	RPD	B3786
1,2,4-Trichlorobenzene	81		%	625	01/12/06 0933	Q	REC	B3787
1,2-Dichlorobenzene	75		%	625	01/12/06 0933	Q	REC	B3787
1,2-Diphenylhydrazine	74		%	625	01/12/06 0933	Q	REC	B3787
1,3-Dichlorobenzene	71		%	625	01/12/06 0933	Q	REC	B3787
1,4-Dichlorobenzene	71		%	625	01/12/06 0933	Q	REC	B3787
2,4,6-Tribromophenol	86		%	625	01/12/06 0933	Q	SURR	B3787
2,4,6-Trichlorophenol	86		%	625	01/12/06 0933	Q	REC	B3787
2,4-Dichlorophenol	88		%	625	01/12/06 0933	Q	REC	B3787
2,4-Dimethylphenol	80		%	625	01/12/06 0933	Q	REC	B3787
2,4-Dinitrophenol	89		%	625	01/12/06 0933	Q	REC	B3787
2,4-Dinitrotoluene	92		%	625	01/12/06 0933	Q	REC	B3787
2,6-Dinitrotoluene	85		%	625	01/12/06 0933	Q	REC	B3787
2-Chloronaphthalene	83		%	625	01/12/06 0933	Q	REC	B3787
2-Chlorophenol	90		%	625	01/12/06 0933	Q	REC	B3787
2-Fluorobiphenyl	91		%	625	01/12/06 0933	Q	SURR	B3787
2-Fluorophenol	61		%	625	01/12/06 0933	Q	SURR	B3787
2-Nitrophenol	93		%	625	01/12/06 0933	Q	REC	B3787
4,6-Dinitro-o-cresol	89		%	625	01/12/06 0933	Q	REC	B3787
4-Bromophenyl phenyl ether	88		%	625	01/12/06 0933	Q	REC	B3787
p-Chloro-m-cresol	85		%	625	01/12/06 0933	Q	REC	B3787
4-Chlorophenyl phenyl ether	87		%	625	01/12/06 0933	Q	REC	B3787
4-Nitrophenol	48		%	625	01/12/06 0933	Q	REC	B3787
Acenaphthene	83		%	625	01/12/06 0933	Q	REC	B3787
Acenaphthylene	82		%	625	01/12/06 0933	Q	REC	B3787
Anthracene	80		%	625	01/12/06 0933	Q	REC	B3787
Benzo(a)anthracene	88		%	625	01/12/06 0933	Q	REC	B3787
Benzo(a)pyrene	84		%	625	01/12/06 0933	Q	REC	B3787
3,4-Benzofluoranthene	84		%	625	01/12/06 0933	Q	REC	B3787
Benzo(g,h,i)perylene	87		%	625	01/12/06 0933	Q	REC	B3787
Benzo(k)fluoranthene	82		%	625	01/12/06 0933	Q	REC	B3787
Bis(2-chloroethoxy)methane	85		%	625	01/12/06 0933	Q	REC	B3787
Bis(2-chloroethyl)ether	83		%	625	01/12/06 0933	Q	REC	B3787
Bis(2-chloroisopropyl)ether	75		%	625	01/12/06 0933	Q	REC	B3787
Bis(2-ethylhexyl)phthalate	79		%	625	01/12/06 0933	Q	REC	B3787
Butylbenzyl phthalate	79		%	625	01/12/06 0933	Q	REC	B3787
Chrysene	83		%	625	01/12/06 0933	Q	REC	B3787
Di-n-butyl phthalate	88		%	625	01/12/06 0933	Q	REC	B3787
Di-n-octyl phthalate	80		%	625	01/12/06 0933	Q	REC	B3787
Dibenzo(a,h)anthracene	88		%	625	01/12/06 0933	Q	REC	B3787
Diethyl phthalate	88		%	625	01/12/06 0933	Q	REC	B3787

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate