



E. I. DU PONT DE NEMOURS & COMPANY  
INCORPORATED

NEWPORT, DELAWARE 19804

CHEMICALS AND PIGMENTS DEPARTMENT

April 13, 1981

Mr. Robert Zimmerman, Supervisor  
Water Resources Section  
Division of Environmental Control  
State of Delaware  
Box 1401  
Dover, Delaware 19901

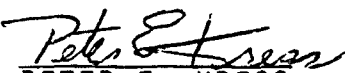
RE: NEWPORT PIGMENTS PLANT  
NPDES PERMIT DE 00004000  
STATE PERMIT WPC 3106A/74

Dear Mr. Zimmerman:

Attached are the completed consolidated permit application forms 1 and 2C for the renewal of the Du Pont-Newport Plant's NPDES permit. Confirming our conversation with Mr. Rod Bartchy of your department, we will be separately forwarding to you sample results for Section V-A of Form 2C on our stormwater collection system (outfalls 002-008).

As we indicated in our discussion of March 10, 1981 and our letter of March 23, 1981, we are anticipating the opportunity to further discuss the eventual effluent limitations that may be associated with our noncontact cooling water and stormwater discharges.

Should you have any questions on the enclosed application, please contact me at 999-6245.

  
PETER E. KRESS  
ENVIRONMENTAL COORDINATOR

PEK:cac

Attachments

AR201989

FORM <b>1</b> GENERAL	 <b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> <b>GENERAL INFORMATION</b> <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>	I. EPA I.D. NUMBER <b>F D E T 0 0 0 6 2 1 3 8 3</b>
LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION	PLEASE PLACE LABEL IN THIS SPACE	GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

**II. POLLUTANT CHARACTERISTICS**

**INSTRUCTIONS:** Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		X	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

**III. NAME OF FACILITY**

1 SKIP NEWPORT PIGMENTS PLANT

**IV. FACILITY CONTACT**

<b>A. NAME &amp; TITLE (last, first, &amp; title)</b>	<b>B. PHONE (area code &amp; no.)</b>
2 KRESS PETER ENVIRON. COORDINATOR	3 02 999 6 245

**V. FACILITY MAILING ADDRESS**

<b>A. STREET OR P.O. BOX</b>			
3 JAMES AND WATER STREETS			
<b>B. CITY OR TOWN</b>		<b>C. STATE</b>	<b>D. ZIP CODE</b>
4 NEWPORT		DE	19804

**VI. FACILITY LOCATION**

<b>A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER</b>			
5 JAMES AND WATER STREETS			
<b>B. COUNTY NAME</b>			
NEW CASTLE			
<b>C. CITY OR TOWN</b>		<b>D. STATE</b>	<b>E. ZIP CODE</b>
6 NEWPORT		DE	19804
<b>F. COUNTY CODE (if known)</b>			

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**II. SIC CODES (4 digit, in order of priority)**

A. FIRST				B. SECOND			
7	2	8	6.5	7	3	6	7,9
(specify) Organic Pigments				(specify) Magnetic tape for recording			
C. THIRD				D. FOURTH			
7	2	8	1.9	7			
(specify) Chromium Dioxide				(specify)			

**VIII. OPERATOR INFORMATION**

A. NAME: E I D U P O N T D E N E M O U R S A N D C O M P A N Y I N C.

B. Is the name listed in Item VIII-A also the owner?  YES  NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)  
 F = FEDERAL M = PUBLIC (other than federal or state) P (specify)  
 S = STATE O = OTHER (specify)  
 P = PRIVATE

D. PHONE (area code & no.)  
 A 3 0 2 7 7 4 1 8 2 5

E. STREET OR P.O. BOX: TENTH & MARKET STREETS

F. CITY OR TOWN: WILMINGTON G. STATE: DE H. ZIP CODE: 19898

IX. INDIAN LAND: Is the facility located on Indian lands?  YES  NO

**X. EXISTING ENVIRONMENTAL PERMITS**

A. NPDES (Discharges to Surface Water): 9 N DE 0000400

D. PSD (Air Emissions from Proposed Sources): 9 P

B. UIC (Underground Injection of Fluids): 9 U

E. OTHER (specify): State Air Permits (specify) See Attached

C. RCRA (Hazardous Wastes): R

E. OTHER (specify): other Permits (specify) See Attached

**XI. MAP**

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

**XII. NATURE OF BUSINESS (provide a brief description)**

The Plant manufactures organic pigments, chromium dioxide, and magnetic tape.

**XIII. CERTIFICATION (see instructions)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

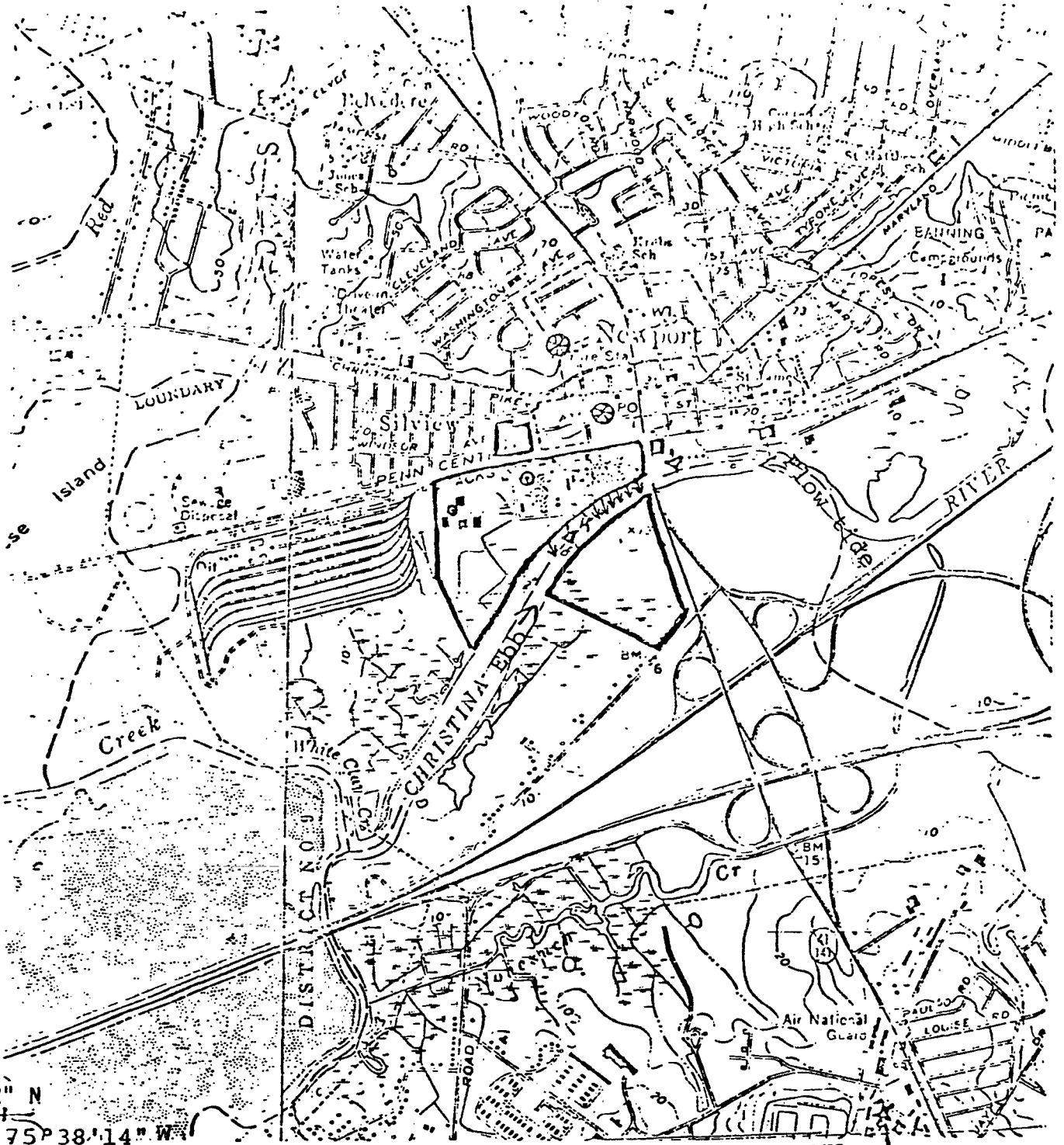
A. NAME & OFFICIAL TITLE (type or print): Robert J. Blair, Vice President  
Chemicals and Pigments

B. SIGNATURE: Robert J. Blair

C. DATE SIGNED: AR 204/99/11

**COMMENTS FOR OFFICIAL USE ONLY**

C



39° 41' 12" N  
75° 38' 14" W

- ▣ Hazardous Waste Management Facility (Storage)
- ↓ 001 = NPDES Outfall Old No. 007
- ↑ Creek Water Intake
- ⊙ Plant Production Water Wells
- Small Stream
- Town Drinking Water Wells
- Newport Plant Boundaries

↓ Storm Sewer

9° 0' 22"  
160 MILS  
6 MILS

UTM Grid and 1967 Magnetic No  
Declination at Center of Sheet

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Scale 1:24,000

1000 0 Feet

Location Map  
Newport Pigments Plant  
Newport, Newcastle  
Delaware



State Drying Lagoon Permit

. SWA-80/19

County Sewer Permit

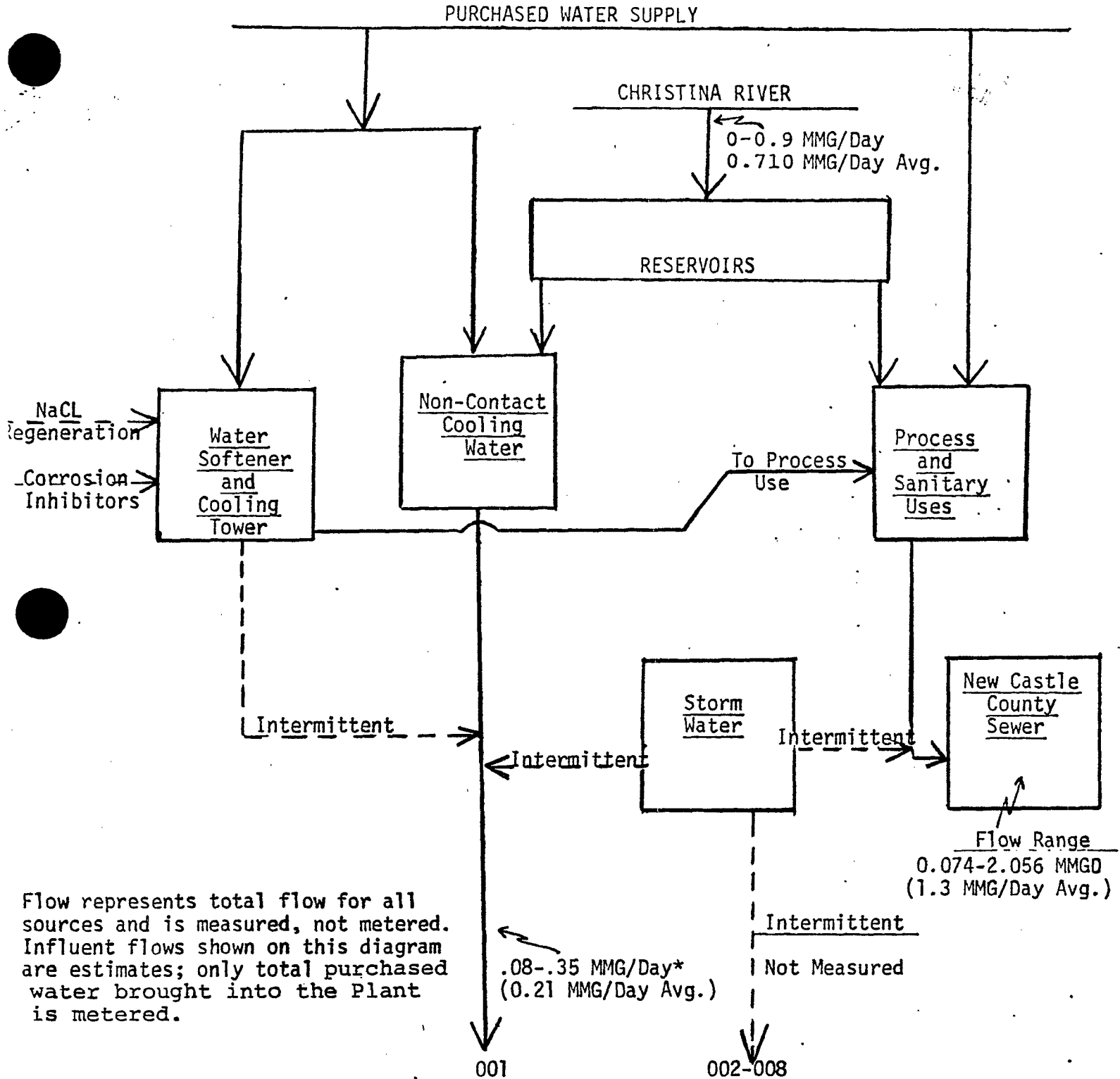
. WDP-76-013

State Air Permits

APC 78/278	APC 79/513	APC 79/294
APC 78/582	APC 79/121	APC 79/297
APC 79/010	APC 79/289	APC 79/212
APC 79/008	APC 79/135	APC 80/740
APC 79/009	APC 79/011	APC 80/737
APC 79/1022	APC 78/277	APC 80/738
APC 79/524	APC 78/836	APC 80/008
APC 79/014	APC 79/217	APC 79/834
APC 79/134	APC 81/136	APC 79/835
APC 79/012	APC 80/002	APC 78/844
APC 79/013	APC 80/003	
APC 79/520	APC 81/064	
APC 79/522	APC 81/063	
APC 79/523	APC 79/298	
APC 79/521	APC 80/288	
APC 79/525	APC 78/834	
APC 79/505	APC 78/229	
APC 79/506	APC 78/835	
APC 79/507	APC 78/212	
APC 79/508	APC 79/966	
APC 79/509	APC 81/126	
APC 79/510	APC 79/39	
APC 79/511	APC 79/296	
APC 79/512	APC 79/295	

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0.8 - 1.7 MMG/Day (1.3 MMG Avg.)  
Day



Flow represents total flow for all sources and is measured, not metered. Influent flows shown on this diagram are estimates; only total purchased water brought into the Plant is metered.

Schematic Water Flow  
Newport Pigments Plant  
Newport, New Castle, Delaware

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

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

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

1. POLLUTANT	2. EFFLUENT (1)		3. LONG TERM AVERAGE VALUE (if available)		4. NO. OF ANALYSES		5. UNITS (specify if blank)		6. INTAKE (specify if blank)	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. LONG TERM AVERAGE VALUE (2) MASS	e. (1) ANALYSES	f. (2) ANALYSES	g. CONCENTRATION	h. MASS	i. CONCENTRATION	j. MASS
a. Biochemical Oxygen Demand (BOD)	2 mg/L	61#/day	Not Available	5mg/L	36	15#/day	-	-	-	-
b. Chemical Oxygen Demand (COD)	15mg/L	44#/day	Not Available	Not Available	8	Available	-	-	-	See Attached
c. Total Organic Carbon (TOC)	6mg/L	18#/day	Not Available	Not Available	8	Available	-	-	-	Sheet
d. Total Suspended Solids (TSS)	18mg/L	53#/day	Not Available	7mg/L	36	20#/day	-	-	-	-
e. Ammonia (as N)	0.11mg/L	0.32#/day	Not Available	Not Available	7	Available	-	-	-	-
f. Flow	VALUE	0.35 MMGD	Not Available	0.21 MMGD	12	VALUE	-	-	-	VALUE
g. Temperature (winter)	VALUE	31°	Not Available	Not Applicable	62	Not Applicable	-	-	-	°C
h. Temperature (summer)	VALUE	36°	Not Available	Not Applicable	63	Not Applicable	-	-	-	°C
i. pH	MINIMUM	6.0	MAXIMUM	8.8	184	Not Available	-	-	-	STANDARD UNITS

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. In column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. LONG TERM AVERAGE VALUE (2) MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. LONG TERM AVERAGE VALUE (2) MASS
a. Bromide (24959-67-9)	X						
b. Chlorine, Total Residual	X(2)					X(2)	N.AV.
c. Color	X						
d. Fecal Coliform	X						
e. Fluoride (16984-48-8)	X(2)					X(2)	N.AV.
f. Nitrate-Nitrite (as N)	X(2)					X(2)	N.AV.

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT CAS NO.	2. HAZARDOUS (Y/N)	3. RISK X	4. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS		3. EFFLUENT (1) CONCENTRATION (2) MASS (3) MAXIMUM 30 DAY VALUE (4) (5) (6) (7) (8) (9) (10)		5. LONG TERM AVER. VALUE (1) CONCENTRATION (2) MASS		6. NO. OF ANAL. YSLS		7. INTAKE (Optional) (1) ORAL VALUE (2) MASS	
			(1)	(2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Lead		X	(2) Typically seen in treated purchased surface water which is one of our influent streams, as based on a conversation with local Water Company and would be expected in our effluent.									
2. Cadmium		X										
3. Chromium		X										
4. Barium		X										
5. Lead		X(2)										
6. Lead		X										
7. Lead		X										
8. Lead		X										
9. Lead		X										
10. Lead		X										
11. Lead		X										
12. Lead		X										
13. Lead		X										
14. Lead		X										
15. Lead		X										
16. Lead		X										
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44. Lead		X										
45. Lead		X										
46. Lead		X										
47. Lead		X										
48. Lead		X										
49. Lead		X										
50. Lead		X										

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**PART C** - If you are a primary industry and the outfall contains process wastewater, refer to Table 2c-2 in the instruction booklet for GC/MS fractions you should analyze. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metal fractions. In column 2-b, mark "X" for each pollutant you know or believe to be present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either column 2-b or 2-c for any pollutant you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS		5. INTAKE	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM DAILY VALUE (2) MASS	c. LONG TERM (YR) VALUE (if available) (3) MASS CONCENTRATION	d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. AVERAGE VALUE (1) CONCENTRATION (2) MASS		
							h. CONCENTRATION	i. MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>									
1M. Antimony, Total (7440-36-0)	X	N/A		1			<4ug/L	N.AV.	2
2M. Arsenic, Total (7440-38-2)	X	N/A		1			<4ug/L	"	2
3M. Beryllium, Total, (7440-41-7)	X	N/A		1			<0.4ug/L	"	2
4M. Cadmium, Total (7440-43-9)	X	0.013#/day		1			0.4ug/L	"	2
5M. Chromium, Total (7440-47-3)	X	(3) 440ug/L		5			32ug/L	"	2
6M. Copper, Total (7560-50-8)	X	12ug/L		1			1000ug/L	"	2
7M. Lead, Total (7439-97-6)	X	1.4ug/L	(3) Four of five analyses were below detection limit of 50 ug/L.	1			74ug/L	"	2
8M. Mercury, Total (7439-97-6)	X	2.0ug/L		1			6.6ug/L	"	2
9M. Nickel, Total (7440-02-0)	X	300ug/L		1			360ug/L	"	2
10M. Selenium, Total (7440-49-2)	X	<2ug/L		1			3ug/L	"	2
11M. Silver, Total (7440-22-4)	X	<0.1ug/L		1			0.2ug/L	"	2
12M. Thallium, Total (7440-28-0)	X	<2ug/L		1			2ug/L	"	2
13M. Zinc, Total (7440-66-6)	X	2.5mg/L		21			2.4mg/L	"	24
14M. Cyanide, Total (57-12-5)	X	1ug/L		1			3ug/L	"	2
15M. Phenols, Total	X	12ug/L		1			9ug/L	"	2

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CONTINUED FROM THE FRONT

1. POLY-UTAI AND CAS NUMBER (if available)	2. MARK A. ATRF INC. QUIN. A.M.	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available)	4. UNITS		5. INTAKE (optional)
			a. CONCENTRATION	b. MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS					
1. POLY-UTAI AND CAS NUMBER (if available)	2. MARK A. ATRF INC. QUIN. A.M.	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available)	4. UNITS		5. INTAKE (optional)
			a. CONCENTRATION	b. MASS	
1V. Acrolein (107-32-3)	X				
2V. Acrylonitrile (107-13-1)	X				
3V. Benzene (71-43-2)	X	N.D.			
4V. Bis (Chloromethyl) Ether (542-88-1)	X		1	1ug/L	N.A.V. 2
5V. Bromoform (75-25-2)	X	0.1	1	1.0ug/L	N.A.V. 2
6V. Carbon Tetrachloride (56-23-5)	X	N.Q.	1	N.Q.	N.A.V. 2
7V. Chlorobenzene (108-90-7)	X				
8V. Chloroethane (78-07-6)	X				
9V. Chloroethane (78-07-6)	X				
10V. 1,2-Dichloroethane (107-06-2)	X				
11V. Chloroform (67-65-3)	X	0.016#/day	2	100ug/L	N.A.V. 3
12V. 1,1-Dichloroethane (78-36-3)	X	0.029#/day	2	40ug/L	N.A.V. 3
13V. 1,1-Dichloroethane (78-36-3)	X				
14V. 1,1,1-Trichloroethane (75-34-3)	X				
15V. 1,2-Dichloroethane (107-06-2)	X				
16V. 1,1-Dichloroethane (75-35-4)	X	N.A.V.	0	N.Q.	N.A.V. 1
17V. 1,2-Dichloropropane (78-87-5)	X				
18V. 1,2-Dichloropropane (78-87-5)	X				
19V. Ethylbenzene (100-41-4)	X	N.D.	1	1ug/L	N.A.V. 2
20V. Ethylbenzene (100-41-4)	X				
21V. Methyl Ethyl Ether (14-87-3)	X				

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N.D. - Not Detected N.Q. - A deflection was seen in any GC







1. I.D. NUMBER	2. MARK X	3. MAXIMUM DAILY VALUE		4. LONG TERM AVERAGE VALUE		5. NO. OF ANALYSES	6. UNITS		7. INTAKE (estimated)
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	
1. Benzene (100-82-7)	X	1ug/L	.003#/day			1			
2. Chloroform (67-66-3)	X								
3. Dichloromethane (75-29-1)	X								
4. Ethylbenzene (100-97-6)	X								
5. Methylene chloride (75-29-1)	X								
6. Nitrobenzene (71-43-2)	X								
7. Toluene (108-88-3)	X								
8. Xylene (106-42-3)	X								
9. p-Dinitrobenzene (149-21-7)	X	N.D.				1	1ug/L	N.A.V.	2
10. m-Dinitrobenzene (121-14-2)	X	77ug/L	0.225#/day			3	N.D.		2
11. o-Dinitrobenzene (121-23-2)	X	16ug/L	0.047#/day			1	N.D.		2
12. 1,2-Dichloroethane (107-06-2)	X								
13. 1,1-Dichloroethane (78-07-1)	X								
14. 1,1,1-Trichloroethane (70-14-1)	X								
15. 1,1,2-Trichloroethane (78-07-1)	X								
16. 1,2-Dichlorobenzene (90-01-6)	X								
17. 1,4-Dichlorobenzene (95-49-7)	X								
18. 1,2,4-Trichlorobenzene (95-93-2)	X								
19. 1,2,3-Trichlorobenzene (95-93-2)	X								
20. 1,2,4-Trichlorobenzene (95-93-2)	X								
21. 1,2,3-Trichlorobenzene (95-93-2)	X								
22. 1,2,4-Trichlorobenzene (95-93-2)	X								
23. 1,2,3-Trichlorobenzene (95-93-2)	X								
24. 1,2,4-Trichlorobenzene (95-93-2)	X								
25. 1,2,3-Trichlorobenzene (95-93-2)	X								
26. 1,2,4-Trichlorobenzene (95-93-2)	X								
27. 1,2,3-Trichlorobenzene (95-93-2)	X								
28. 1,2,4-Trichlorobenzene (95-93-2)	X								
29. 1,2,3-Trichlorobenzene (95-93-2)	X								
30. 1,2,4-Trichlorobenzene (95-93-2)	X								
31. 1,2,3-Trichlorobenzene (95-93-2)	X								
32. 1,2,4-Trichlorobenzene (95-93-2)	X								
33. 1,2,3-Trichlorobenzene (95-93-2)	X								
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39. 1,2,3-Trichlorobenzene (95-93-2)	X								
40. 1,2,4-Trichlorobenzene (95-93-2)	X								
41. 1,2,3-Trichlorobenzene (95-93-2)	X								
42. 1,2,4-Trichlorobenzene (95-93-2)	X								
43. 1,2,3-Trichlorobenzene (95-93-2)	X								
44. 1,2,4-Trichlorobenzene (95-93-2)	X								
45. 1,2,3-Trichlorobenzene (95-93-2)	X								
46. 1,2,4-Trichlorobenzene (95-93-2)	X								
47. 1,2,3-Trichlorobenzene (95-93-2)	X								
48. 1,2,4-Trichlorobenzene (95-93-2)	X								
49. 1,2,3-Trichlorobenzene (95-93-2)	X								
50. 1,2,4-Trichlorobenzene (95-93-2)	X								
51. 1,2,3-Trichlorobenzene (95-93-2)	X								
52. 1,2,4-Trichlorobenzene (95-93-2)	X								
53. 1,2,3-Trichlorobenzene (95-93-2)	X								
54. 1,2,4-Trichlorobenzene (95-93-2)	X								
55. 1,2,3-Trichlorobenzene (95-93-2)	X								
56. 1,2,4-Trichlorobenzene (95-93-2)	X								
57. 1,2,3-Trichlorobenzene (95-93-2)	X								
58. 1,2,4-Trichlorobenzene (95-93-2)	X								
59. 1,2,3-Trichlorobenzene (95-93-2)	X								
60. 1,2,4-Trichlorobenzene (95-93-2)	X								
61. 1,2,3-Trichlorobenzene (95-93-2)	X								
62. 1,2,4-Trichlorobenzene (95-93-2)	X								
63. 1,2,3-Trichlorobenzene (95-93-2)	X								
64. 1,2,4-Trichlorobenzene (95-93-2)	X								
65. 1,2,3-Trichlorobenzene (95-93-2)	X								
66. 1,2,4-Trichlorobenzene (95-93-2)	X								
67. 1,2,3-Trichlorobenzene (95-93-2)	X								
68. 1,2,4-Trichlorobenzene (95-93-2)	X								
69. 1,2,3-Trichlorobenzene (95-93-2)	X								
70. 1,2,4-Trichlorobenzene (95-93-2)	X								
71. 1,2,3-Trichlorobenzene (95-93-2)	X								
72. 1,2,4-Trichlorobenzene (95-93-2)	X								
73. 1,2,3-Trichlorobenzene (95-93-2)	X								
74. 1,2,4-Trichlorobenzene (95-93-2)	X								
75. 1,2,3-Trichlorobenzene (95-93-2)	X								
76. 1,2,4-Trichlorobenzene (95-93-2)	X								
77. 1,2,3-Trichlorobenzene (95-93-2)	X								
78. 1,2,4-Trichlorobenzene (95-93-2)	X								
79. 1,2,3-Trichlorobenzene (95-93-2)	X								
80. 1,2,4-Trichlorobenzene (95-93-2)	X								
81. 1,2,3-Trichlorobenzene (95-93-2)	X								
82. 1,2,4-Trichlorobenzene (95-93-2)	X								
83. 1,2,3-Trichlorobenzene (95-93-2)	X								
84. 1,2,4-Trichlorobenzene (95-93-2)	X								
85. 1,2,3-Trichlorobenzene (95-93-2)	X								
86. 1,2,4-Trichlorobenzene (95-93-2)	X								
87. 1,2,3-Trichlorobenzene (95-93-2)	X								
88. 1,2,4-Trichlorobenzene (95-93-2)	X								
89. 1,2,3-Trichlorobenzene (95-93-2)	X								
90. 1,2,4-Trichlorobenzene (95-93-2)	X								
91. 1,2,3-Trichlorobenzene (95-93-2)	X								
92. 1,2,4-Trichlorobenzene (95-93-2)	X								
93. 1,2,3-Trichlorobenzene (95-93-2)	X								
94. 1,2,4-Trichlorobenzene (95-93-2)	X								
95. 1,2,3-Trichlorobenzene (95-93-2)	X								
96. 1,2,4-Trichlorobenzene (95-93-2)	X								
97. 1,2,3-Trichlorobenzene (95-93-2)	X								
98. 1,2,4-Trichlorobenzene (95-93-2)	X								
99. 1,2,3-Trichlorobenzene (95-93-2)	X								
100. 1,2,4-Trichlorobenzene (95-93-2)	X								

(4) Three Sample Results: 77 ug/L  
 <5 ug/L - below detection limit  
 <5 ug/L - below detection limit

AR202001

ORIGINAL (Red)

REPORT FROM

DATE

BY

FOR

PROJECT

LOCATION

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AR202002

EPA Form 3510-2C (6-80)

PAGE V-8

CONTINUE ON PA V-9

1. NAME OF PESTICIDE (10%) - PESTICIDES (continued)	2. MARK X		3. EFFLUENT		4. UTILITIES		5. INITIAL (optional)			
	USE	WATER	a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM VALUE (if available)	CONCENTRATION	NO. OF ANAL. YRS.	CONCENTRATION	NO. OF ANAL. YRS.	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1. DDT	X									
2. DDE	X									
3. DDD	X									
4. DDDT	X									
5. DDDT	X									
6. DDDT	X									
7. DDDT	X									
8. DDDT	X									
9. DDDT	X									
10. DDDT	X									
11. DDDT	X									
12. DDDT	X									
13. DDDT	X									
14. DDDT	X									
15. DDDT	X									
16. DDDT	X									
17. DDDT	X									
18. DDDT	X									
19. DDDT	X									
20. DDDT	X									

AR202003

SECTION V - PART A - #4 (INTAKE)

	INTAKE WATER		Treated Creek Water	No. of Analyses
	Purchased Water	No. of Analyses		
(a) BOD <sub>5</sub>	7 mg/L	1	10 mg/L	1
(b) COD	11 mg/l	1	8 mg/L	1
(c) TOC	20 mg/L max.	1	16 mg/L	1
(d) TSS	63.4 mg/L	13	29.2 mg/L	12
(e) NH <sub>3</sub>	0.17 mg/L	1	0.50 mg/L	1
(f) Flow	0-0.35 MMGD	-	0-0.35 MMGD	-
(g) Temp. Winter	Not Measured	-	Not Measured	-
(h) Temp. Summer	Not Measured	-	Not Measured	-

Note: Individual intake flows are not metered or measured and mass cannot be calculated.

AR202004

SECTION V - B & C

NOTE

The analytical methods used were intended for screening effluents for the presence of various compounds rather than a precise determination of concentrations. Consequently, the values indicated  $\leq 100$  PPB may not be entirely accurate or reliable. Our experience in measuring specific organics at the PPB levels indicates that an organic measured less than 100 PPB may or may not be present in the sample. This uncertainty is due to the high potential for false positive results inherent in analytical determinations at these levels.

AR202005

NPDES PERMIT RENEWAL  
COMMENTS & REASONING USED  
BY P.E.KRESS FOR 4/13/81  
SUBMITTAL TO DNREC

AR202006

4/9/81

Mike Barozzy

NPDES - RENEWAL  
NEWPORT PIGMENTS PLANT  
APRIL 1981  
PERMIT # DE 0000 4 000  
STATE PERMIT WPCC 3106 A/74

Attached are comments and reasoning used on our most recent NPDES renewal application.

Pete Lewis

AR202007

Form 1 - Page 2

302-774-1825 This is Sherie Wolf's number. She is the secretary for the C+P Department's Environmental & Regulatory Affairs Group 6TH Floor Brandwane Bldg.

Form 1 - Page 2

We have no RCRA permit yet but we have an EPA ID number. We asked Pete Brown about this and he said to leave it blank.

AR202008



D-2019/4

• We tested 7 storm sewers as point sources. These are pipes that take plant runoff from rain, snow and ice on roads, natural areas and roads on the plant and send this water to the river by gravity flow through pipes. This was reviewed with Steve Tucker and Carl Everett - Legal and they felt they were point sources.

• There is a trench on the western boundary of the plant property that carries rainwater to the river from natural areas outside the plant boundaries and some plant water. It is not a pipe but a natural trench. Because it is not a constructed conveyance and carries water (run) other than plant rain water it was not counted as a point source. Legal could not say this was a point source.

• There is a culvert that carries water from the town of Newport and some plant rainwater to the river. It is not a county pipe but is not known as a plant pipe. It was not counted since it carries other runwater & has its origin in the town of Newport. Legal could not say this was a point source and did not disagree with us leaving it off the permit as a point source. Legal made the same comment for the above mentioned trench.

AR202009

Form 2-C

Page 2 of 4 Section 111-A

We do not have an effluent guideline promulgated by EPA under section 304 of the Clean Water Act that applies to our facility. We checked this with Hugh Campbell, our Laurier Water Consultant

Form 2-C

Page 3 of 4

In section V-C, we use antimony and Chromium that are in compounds that can easily dissociate as we know. We use copper compounds and tetrachloroethylene in CPC pigment manufacture as well as 1, 2 dichlorobenzene known on the plant as ODCB and we use toluene and tetrachloroethylene known as perchlor on the plant in our QA pigment manufacturing operation.

AR202010

ORIGINAL  
(Red)

Page 2 of 4 - Section IV Improvements

The plant has a zinc monitoring program that the plant designed and is running for the state of Delaware. It is not considered compliance or part of construction program. The context of this question on improvements deals more with compliance and not monitoring programs, for this reason our zinc monitoring program was not included. This was reviewed with Carl Everett - Dept and he did not see a problem with expressing on this.

AR202011

Page 3 of 4

Section v-c Statement

This was lifted with the exclusion of the first sentence from a memo from Carl Everett. It was used as a standard for explaining possible future variance.

AR202012

## Intake & Effluent Characteristics

- The mass values used in this section on intake and others was determined from the maximum flow the plant has experienced over the last four years.
- One COD value was not used in our application since its 45 mg/L was not consistent with other sample results including a split sample sent to another laboratory (control)
- Two Ammonia Nitrogen values were not used in our application since they were inconsistent with our sample results including splits for both days to another laboratory (control)  
0.94 mg/L and 0.62 mg/L
- In a conversation with Bill Zimmerman of Wilmington Suburban Water Company. He told me that it was common to see total residual chlorine, fluoride, nitrate as N, sulfate or SO<sub>4</sub>, total aluminum and some phosphorus (small amount). In a conversation with John Pownski, of Artesian Water Company, he felt that it would not be uncommon to see these compounds or elements in treated surface purchased water (potable water).

In section V-A-B-C

Influent Streams

Due to the fact that we had insufficient data to characterize our influent streams, both grab and 24 hr analysis were used. In some cases, there was no choice such as with the volatiles where bubble free grabs were a necessity. Most all B&C were 24 hour composites with the exception of VOC and a few others.

Flows on V-A Intake water

The water volumes used in the V-A intake water were those which represented only the intake water which could eventually reach our 001 outfall.

AR202014

Section V B & C

If a compound was seen in analysis whether, quantified or unquantified in the effluent or influent, it was listed as believed present

NPDES - 001 Diagram

- Our diagram was reviewed with Hugh Campbell of Leuners and was made in a similar fashion to the example shown by EPA in their 200 instruction booklet.
- The flows coming into our plant from the Christina were estimated by the use of pump capacities and hours of use by Don Watson and others who were involved recently in a Delaware River Basin Commission water study for the Newfort Pigments Plant

AR202016





E. I. DU PONT DE NEMOURS & COMPANY  
WILMINGTON, DELAWARE 19898

cc: P. F. Brown - C&P

LEGAL DEPARTMENT

April 23, 1981

P. E. KRESS  
CHEMICALS & PIGMENTS DEPT.  
NEWPORT PLANT

In response to your inquiries concerning the NPDES permit for Newport, this will confirm my oral advice that the seven pipelines leading into the Christina River carrying stormwater runoff from roofs, parking lots, natural areas, the internal road network, etc. are point sources pursuant to §122.57 of the NPDES regulations and should be so listed.

While the facts surrounding the stormwater runoff which empties into a tributary of the Christina by route of ditches and swales does not constitute a direct discharge into the river, it may be prudent to list same as a point source on the application in order to avoid problems with the Agency on the application.

With respect to the drainage pipe which you have indicated is owned by either the City or the County into which we place stormwater runoff, I recommend ascertaining which entity has jurisdiction. It is highly likely that they hold an NPDES permit for the discharge into the river, in which case, no listing as a point source on our application should be done.

In regard to use of separate analyses for the seven separate points, if they are substantially identical, we may, with permission to sample and analyze only one outfall, submit the results of the analyses for other substantially identical outfalls.

In response to your inquiry as to whether we may use intake results performed by other agencies, groups, etc., the response is affirmative, with the corresponding responsibility that we complete Part VIII of the application.

AR202017

NPDES - SAMPLING

RESULTS mg/L  
EFFLUENT

	<u>TOC</u>	<u>COD</u>	<u>AMMONIA AS NITROGEN</u>	<u>ALUMINUM</u>	<u>PERC</u>	<u>2,4 DNT</u>	<u>LAB</u>	<u>TYPE</u> <u>OF</u> <u>SAMPLE</u>	<u>TIC/PC/ML</u>
3/7/81	16.7	—	—	<0.2, 0.2, 0.3	—	—	BRANDT	?	not, 0.05, 0.00
3/12/81	<1	<1	0.44*	0.2	—	—	BRANDT	24 COMP	
3/12/81	6	10	<0.11	0.6	—	—	RICHARDSON	24 COMP	
3/13/81	BRANDT FOR MACHINE (24HR)	45*	0.62*	0.3	—	—	BRANDT	24 COMP	
3/13/81	5	10	<0.11	0.2	—	—	RICHARDSON	24 COMP	
3/17/81	5	11	<0.11	0.2	—	—	RICHARDSON	24 COMP	<0.05
3/18/81	5	13	<0.11	1.2	—	—	RICHARDSON	24 COMP	<0.05
3/19/81	3	6	<0.11	0.2	—	—	RICHARDSON	24 COMP	<0.05
3/20/81	5	12	<0.11	0.4	—	—	RICHARDSON	24 COMP	<0.05
3/24/81	4	15	<0.11	—	—	—	RICHARDSON	24 COMP	
<p>* Suspect error in analysis due to consistently lower numbers for other days &amp; the split with Richardson</p>									
10/78	—	—	—	POSSIBLY NOT DETECTED	0.1	0.077	ACCURON	<del>GRAB</del>	—
3/18/81	—	—	—	NEAR SPLIT	0.0247	—	ARTESIAN	GRAB	—
3/18/81	—	—	—	—	0.081	—	JACKSON LAB	GRAB	—
3/18/81	—	—	—	—	0.092	—	JACKSON LAB	GRAB	—
3/19/81	—	—	—	—	0.057	—	JACKSON LAB	GRAB	—
3/17/81	—	—	—	—	—	N.D.*	JACKSON LAB	24HR COMP	—
3/18/81	—	—	—	—	—	N.D.*	JACKSON LAB	24HR COMP	—
AVG.					0.0709				

AR202018

\* APPROXIMATE LIMIT OF DETECTION  
BY GC MS = 5PPB

NPDES - SAMPLING  
INFLUENT + EFFLUENT

RESULTS IN UG/L - TETRACHLOROETHYLENE (GRAB-SAMPLE)

<u>DATE</u>	<u>PURCHASED</u>	<u>CREEK SETTLED</u>	<u>CREEK</u>	<u>NPDES</u>	<u>LAB</u>
10-78	N.D.	—	2	100	ACCURE
3-18-81	0.1	0.8	—	24.7	ARTESIA
3-18-81	N.D.	6	—	81	JACKSON
3-18-81	8	2	—	92	JACKSON
3-19-81	N.D.	2	—	57	JACKSON

$$\frac{18.9}{9} = 2.1$$

↑  
 70.9  
 avg.

NPDES SAMPLING  
 INFLUENT + EFFLUENT  
 RESULTS IN UG/L  
CHLOROFORM (GRAB-SAMPLE)

<u>DATE</u>	<u>PURCHASED</u>	<u>CREEK SETTLED</u>	<u>CREEK</u>	<u>NPDES</u>	<u>LAB</u>
10-78	100	—	2	50	ACCURE
3-18-81	29.9	0.15	—	5.5	ARTESIA

NPDES SAMPLING

COD - RESULTS IN mg/L

GRAB SAMPLES

<u>DATE</u>	<u>PURCHASED</u>	<u>CREEK SETTLED</u>	<u>NPDES</u>	<u>LAB</u>
3-11-81	11	8	23	BRANDT

TCC - RESULTS IN mg/L

<u>DATE</u>	<u>PURCHASED</u>	<u>CREEK SETTLED</u>	<u>NPDES</u>	<u>LAB</u>
3-11-81	20	16	41	BRANDT

ALUMINUM RESULTS IN mg/L

<u>DATE</u>	<u>PURCHASED</u>	<u>CREEK SETTLED</u>	<u>NPDES</u>	<u>LAB</u>
3-11-81	0.4	0.7	0.8	BRANDT

WV

AR202020

PURCHASED WATER  
GRAB SAMPLES - mg/L  
NEWPORT - SAMPLING.

<u>DATE</u>	<u>LOCATION</u>	<u>COOD</u>	<u>TOC</u>	<u>CHROME</u>	<u>LAB</u>
6-15-79	A-303	12.2	—		ARTESIAN
4-25-80	CARPENTER SHOP	< 1	—		BRANDT
5-18-79	A-100	10.5	—		ARTESIAN
5-14-79	A-202	11.8	—		ARTESIAN
1-16-81	A-202	—	< 1		BRANDT
3-11-81	POWERHOUSE	11	20		BRANDT

Not Newport Sampling - use as a guide

WILMINGTON SUBURBAN

- SAMPLING BY M. SUB.
- ANALYSIS BY CRIPPEN LABS
- DATE 1-20-81

TOC = 10 mg/L

AL = 0.7 mg/L

ZN = < 0.001 mg/L

TOTAL TRIHALO METHANES = 43 PPB STATE LIMIT 100 PPB

↳ INCLUDES CHLOROFORM, BROMOFORM ETC.

AR202021

CREEK-CHRISTINA RIVER

- DATES 1967-1974
- SAMPLED BY STATE
- ANALYSIS RUN AMMONIA AS NITROGEN
  - { 2.7 mg/L AMBIENT
  - { 1.0-5.5 mg/L WET-WEATHER

AR202022

# ZINC SAMPLING NIDES

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Jan	1.16	1.7	—	0.55
Feb	—	1.5	—	0.79
March	—	—	—	—
April	0.95	2.5	0.66	—
May	—	1.6	—	—
June	0.98	—	—	—
July	0.54	0.87	—	—
Aug	1.32	—	0.35	—
Sept	—	1.11	—	0.73
Oct	0.67	0.46	—	—
Nov.	1.14	—	—	—
Dec	2.5	—	1.6 0.9	0.68
<u>Yearly Avg.</u>	<u>1.157</u>	<u>1.391</u>	<u>0.877</u>	<u>0.74</u>

Average  $\frac{1979 + 1980 + 1981}{3} = \frac{1.1208 + 1.168 + 1.1208}{3} = 1.126$   
 Total Average for 78 to March 81 =  $\frac{23.83}{21} = 1.1348$

Zinc #/DAY

$$(1.13 \text{ mg/L AVG}) \left( 8.34 \frac{\text{#}}{\text{gallon}} \right) (0.19 \text{ /mm}^2) = 1.8 \frac{\text{#}}{\text{day}}$$

AR202024





Total Chromium Sampling - NPDES

10/10/12  
12/11

- 440<sup>PPB</sup> - Accurap
- 50<sup>PPB</sup> - Eubodan
- 50<sup>PPB</sup> - Eubodan
- 50<sup>PPB</sup> - Eubodan
- 50<sup>PPB</sup> - Eubodan

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AR202025

Chrom #/DAY

		conc
OCT 78	flow = 0.076	0.44
March	81 = 0.275	< 0.05
March	81 = 0.275	< 0.05
March	81 = 0.275	< 0.05
March	81 = 0.275	< 0.05
1.171		= 0.235 mg/DAY AVG

$$(0.128)(8.34)(0.235) = 0.25 \frac{\#}{\text{DAY}}$$

complement of ...

3.20 41 B. and ...	Purchased	Credit
	< 0.02 mg/L	0.5 mg/L

AR202026

Sochem Labs

Perchloroethylene

1 =	non detected	PURCH.
2 =	0.006 PPM	CREEK S
3 =	0.081 PPM	NPDES
4 =	0.008 PPM	PURCH.
5 =	0.002 PPM	CREEK S.
6 =	0.092 PPM	NPDES
7 =	non detected	PURCH
8 =	0.002	CREEK S
9 =	0.057 PPM	<del>PURCH</del> NPDES

AR202027

Pondare - Influent

$$\frac{8.1}{5 \text{ samples}} = 1.62 \text{ PPB in Pondare water AVERAGE}$$

$$\frac{10.8}{5} = 2.16 \text{ PPB in Creek Settles AVERAGE}$$

$$\frac{354.7}{5} = 70.94 \text{ PPB in WPDES AVERAGE}$$

AR202028

Slows NPDES

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>MMGD</u>
Jan	.054	.08	.12	.26	.25
Feb	.08	.35	.19	.24	.275
March	.21	.08	.16	.25	.275
April	.08	.35	.16		
May	.08	.15	.19		
June	.21	.08	.19		
July	.35	.15	.16		
Aug	.15	.08	.26		
Sept	.09	.22	.19		
Oct	.076	.35	.26		
Nov	.28	.15	.35		
Dec	.35	.35	.26		

$$\text{Average } 79+80+81 = \frac{5.53}{27} = 0.205 \text{ MMGD}$$

$$\text{Average } 78+79+80+81 = \frac{7.440}{39} = 0.191 \text{ MMGD}$$

1980

	<u>Temp.</u>		<u>PH</u>		
	<u>High temp</u>	<u>Number of analyses</u>	<u>Low PH</u>	<u>High PH</u>	<u>Number</u>
WINTER ↑ Dec Jan Feb Mar	82°F	21	7.0	8.8	21
	75°F	18	6.0	8.0	19
	87°F	15	6.6	8.0	15
	77°F	18	6.8	7.9	18
	81°F	12	6.5	7.8	13
↑ SUMMER Apr May June July Aug	97°F	15	7.0	8.4	15
	85°F	16	7.1	8.6	17
	97°F	16	7.8	8.4	16
	93°F	16	7.3	8.1	15
	82°F	18	6.7	8.3	18
↓ WINTER Sept Oct Nov Dec	68°F	8	6.8	7.8	8
	72°F	8	7.1	8.0	8

1981

	<u>Temp.</u>		<u>PH</u>		
	<u>High temp</u>	<u>Number of analyses</u>	<u>Low PH</u>	<u>High PH</u>	<u>Number</u>
Jan	63°F	8	6.8	7.6	8
Feb	62°F	4	6.8	7.6	4
March	50°F	4	7.0	7.3	4

AR202030

Mass Calculation - Effluent

COD = (0.35 m<sup>3</sup>/d) (21 PPM) (8.34) = 61.3 #/DAY

COD = (0.35 m<sup>3</sup>/d) (15 PPM) (8.34) = 43.78 #/DAY

TSS = (0.35 m<sup>3</sup>/d) (6 PPM) (8.34) = 17.15 #/DAY

Ammonia N = (0.35 m<sup>3</sup>/d) (<0.11 PPM) (8.34) = 0.29 #/DAY

TYPICAL FLOW DURING THIS SAMPLING PERIOD

Aluminum = (0.35 m<sup>3</sup>/d) (1.13 PPM) (8.34) = 3.15 #/DAY

AVERAGE FLOW

Aluminum = (0.35) (1.128) (8.34) = 3.15 #/DAY

Zinc = (0.35 m<sup>3</sup>/d) (1.13) (8.34) = 3.298 #/DAY

AVERAGE-FLOW

Used minimum flow for accurate samples 0.35 m<sup>3</sup>/DAY

TSS = (0.35 m<sup>3</sup>/d) (18 PPM) (8.34) = 52.54 #/DAY



Sept - 13 - 1979  
1980

Sept 13, 1979 →	177,000
Oct 13, 1979 →	117,000
Nov 13, 1979 →	75,000
Dec 13, 1979 →	138,328
<u>Total</u>	<u>607,328</u>

1980  
 36 - 12 = 254  
463 days total

607,328,600 gallons = 1,290  
463 days day

Average flow to New Salt Pond  
 between Sept. 13, 1979 and Dec. 13, 1979  
 was 1.290 MMS  
DAY

AR202032

723,000/DAY AVE

Low 664,000/DAY  
High 764,000

~~77~~

S 723,000 gallons/day 1713  
D → 764,000 gallons/day 1713

• Diff from meters 1 year  
- year R.C.

AR202033

$$\underline{Q_{50}} = (0.35 \text{ mm/s} / 3411) (37 \text{ mm} \times 1000) \quad 1/11$$

AR202034

# 001 - NPDES

$\frac{1}{100} \times 1000$

Aluminum	(1.2 mg/L)	(8.34 $\frac{\text{mg}}{\text{L}}$ )	(0.35 mg/d)	= 3.5 #/d
Lead	(0.3 mg/L)	(8.34)	(0.35)	= 0.876
Mercury	(0.003 mg/L)	(8.34)	(0.35)	= 0.0087
Arsenic	(0.003 mg/L)	(8.34)	(0.35)	= 0.0087
Benzidine	(0.0004 mg/L)	(8.34)	(0.35)	= 0.0012
Cadmium	(0.0046 mg/L)	(8.34)	(0.35)	= 0.013
Chromium	(0.44 mg/L)	(8.34)	(0.35)	= 1.284
Copper	(0.12 mg/L)	(8.34)	(0.35)	= 0.035
Lead	(0.014 mg/L)	(8.34)	(0.35)	= 0.004
Mercury	(0.002 mg/L)	(8.34)	(0.35)	= 0.0058
Nickel	(0.3 mg/L)	(8.34)	(0.35)	= 0.876
Selenium	(0.002 mg/L)	(8.34)	(0.35)	= 0.0058
Silver	(0.0001 mg/L)	(8.34)	(0.35)	= 0.00029
Thallium	(0.002 mg/L)	(8.34)	(0.35)	= 0.0058
Zinc	(2.5 mg/L)	(8.34)	(0.35)	= 7.3
Cyanide	(0.001 mg/L)	(8.34)	(0.35)	= 0.0029
Phenol	(0.012 mg/L)	(8.34)	(0.35)	= 0.0350
Bromoforn	(0.0001 mg/L)	(8.34)	(0.35)	= 0.00029
Chloroforn	(0.0055 mg/L)	(8.34)	(0.35)	= 0.0160
Dichlorobromomethane	(0.010 mg/L)	(8.34)	(0.35)	= 0.0292
Tetrachloroethylene	(0.1 mg/L)	(8.34)	(0.35)	= 0.2919
Trichloroethylene	(0.0014 mg/L)	(8.34)	(0.35)	= 0.0041
Phenol	(0.012 mg/L)	(8.34)	(0.35)	= 0.035
Bis (2-ethylhexyl) Phthalate	(0.001 mg/L)	(8.34)	(0.35)	= 0.0029
1,2-Dichlorobenzene	(0.008 mg/L)	(8.34)	(0.35)	= 0.0233
1,4-Dichlorobenzene	(0.001 mg/L)	(8.34)	(0.35)	= 0.0029
2,4-Dinitrotoluene	(0.077 mg/L)	(8.34)	(0.35)	= 0.2247
2,6-Dinitrotoluene	(0.016 mg/L)	(8.34)	(0.35)	= 0.0467

~~87°F = 31°C~~  
~~97°F = 36°C~~

$$\frac{5}{9} \times (87 - 32) =$$
$$\frac{5}{9} \times (55) = 30.55^\circ\text{C}$$

$$\frac{5}{9} \times (97 - 32) =$$
$$1.5555(65) = 36^\circ\text{C}$$

AR202036

## Influent

In a conversation with Bill Zimmerman  
Wilmington Suburban Water Company (4-7-8)  
He told me that his product water would  
have the following in it.

- Chloride - total Acidul
- Fluoride
- Nitrate (as N) due to ammonia in his  
intake water oxidizing ammonia to nitrate (1-3 ppm)
- Sulfate 20-40 mg/L range due to Alum treatment
- Small amount of Phosphorus - from intake
- Aluminum due to Alum treatment
- TOC ~ 10 mg/L
- Trihalomethanes ~ 44 PPB

P. J. Jones

AR202037

3/18/87

TABLE I

(a) BOD<sub>5</sub>  
N=36

DAILY MAX = 2 mg/l  $>$   $(2)(8.34)(.22) = 38.5$  LBS/DAY

Flow = .22 MMGD

LTA = 5 mg/l  $>$   $(5)(8.34)(0.20) = 8.3$  LBS/DAY

Flow = 0.20 MMGD

(b) COD 1/12 BAKNOT - < 1 mg/l  
3/13 BAKNOT - 45 mg/l

RICH. = 10 mg/l  
RICH. = 10 mg/l

Flow = 0.25 MMGD

$(10 - 45)(0.25)(8.34) = 21 \rightarrow 94$

(c) TOC  
3/12 BAKNOT < 1 mg/l RICH. 6  
3/13 - - - - - 5

Flow = 0.25 MMGD

$(1 - 6)(0.25)(8.34) = 2 \rightarrow 13$

(d) TK  
N=18

DAILY MAX = 1 mg/l  $>$   $(18)(0.21)(8.34) = 31.5$  LBS/DAY

Flow = 0.21 MMGD

LTA = 7 mg/l; Flow = 0.20 MMGD  $>$   $(7)(0.2)(8.34) = 11.7$

AR202038

(e) NH<sub>3</sub>

	BARNES	RICH-
3/12	0.94 mg/l	0.11 mg/l
3/13	0.62 mg/l	0.11 mg/l

Flow = 0.25 MGD

$$(0.11 - 0.94) (0.25) (8.34) = 0.23 \rightarrow 1.96$$

(f) Flow MGD

	1978	1979	1980	1981
T	0.054	0.08	0.12	0.26
F	0.08	0.35	0.19	
H	0.21	0.08	0.16	
A	0.08	0.35	0.16	
M	0.08	0.15	0.16	
4	0.21	0.05	0.19	
4	0.35	0.08	0.19	
A	0.05	0.22	0.16	
S	0.08	0.35	0.26	
R	0.076	0.15	0.19	
O	0.28	0.35	0.26	
2	0.35		0.35	
			0.26	

(j) TEMPERATURE

	1978	1980	1981
T	72	82	63
F	62	75	57
H	67	87	
A	67	77	
M	93	81	
4	92	97	
4	93	85	
A	87	97	
S	82	93	
R	85	82	
O	83	68	
2	84	72	

AR202039



(h) PH

1979	1980	1981
7.2-8.1	7.0-8.8	6.8-7.6
7.1-8.0	6.0-8.0	7.2-7.6
6.9-8.3	6.6-8.0	
7.0-7.9	6.8-7.9	
7.2-7.9	6.5-7.8	
6.8-7.7	7.0-8.4	
7.2-7.7	7.1-8.6	
6.9-8.6	7.8-8.4	
7.8-8.4	7.3-8.1	
6.3-8.7	6.7-8.3	
7.2-8.6	6.8-7.8	
6.9-8.5	7.1-8.0	

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METAKE DATA

WILM. SUBURBAN

(SEE NEXT PAGE)

AR202040

4. LEAKAGE

(From Part A Table J-A-4)

	<u>WILM. SUPERFUND</u>	<u>TARD RIVER WATER</u> *	<u>No. OF ANALYSES</u>
a) <u>BOD<sub>5</sub></u>	7 mg/L <del>not sub</del>	10 mg/L <del>not sub</del>	1
b) <u>COD</u>	<del>11 mg/L</del> 12.2 mg/L MAX 19.3 mg/L AVG.	8 mg/L	6
c) <u>TOC</u>	<del>20 mg/L</del> 20 mg/L MAX 10.5 mg/L AVG.	16 mg/L	3
d) <u>TSS</u> **	<del>14 mg/L</del> 14 mg/L	11 mg/L <del>ok</del>	10
e) <u>NH<sub>3</sub></u>	0.17 mg/L - 0.4 mg/L	0.50 mg/L	1
f) <u>Flow</u> ***	0 - 0.35 MGD	0 - 0.35 MGD	-
g) <u>TEMP. WINTER</u>	Not Measured	Not Measured	-
h) <u>TEMP. SUMMER</u>	Not Measured	Not Measured	-

\*\*\* NOTE: FLOW NOT MEASURED ON THESE TWO SOURCES; FLOW VALUES REM ARE POSSIBLE RANGE OF FLOWS FROM THESE TWO SOURCES ON ANY GIVEN DAY.

\* NOTE: STATE RECORDS SHOULD BE AVAILABLE FOR THE PARAMETERS OF BOD<sub>5</sub> AND TSS ON UNTREATED RIVER WATER

REPORTED ANALYSES THE FOLLOWING

AR202041

NOTE: INDIVIDUAL TSS DATA  
W.S.  
3.1, <0.5, 2.3, 3.0, 2.9, 61.7,  
6.6, <0.5, 0.7, 63 <sup>ok</sup>

CANON  
5.4, 0.7, 1.4, 3.5, 29.2, ~~11.8~~, 13.0  
25.2, 8.6,

3-11 20.5  
TSS

$$\text{Boron} = (0.128) \left( 8.34 \frac{\#}{\text{gal}} \right) (0.35 \text{ mgd}) =$$

$$= (0.07072) \left( 8.34 \frac{\#}{\text{gal}} \right) (0.35 \text{ mgd}) =$$

AR202042

Purchased Water Into Plant  
 Boreas & J. Lewis

July 1980

July 26, 1979	1.595, 1.564, 1.526, <u>1.683</u>
Aug. 27, 1979	1.206, 1.436, 1.457, 1.381
Sept. 2, 1980	1.436, 1.457, 1.381, 1.554
Sept. 18, 1980	1.457, 1.381, 1.554, 1.594
Oct. 27, 1980	1.554, 1.594, 1.534, 1.320
Nov. 21, 1980	1.594, 1.534, 1.320, 1.202
Nov. 23, 1980	1.534, 1.320, 1.202, 1.087
Dec. 26, 1980	1.320, 1.202, 1.087, 1.070
Jan. 28, 1981	1.202, 1.087, 1.070, 0.846
Feb. 27, 1981	1.087, 1.070, 0.846, 0.929
Mar. 26, 1981	1.070, 0.846, 0.929, 1.062
Apr. 27, 1981	<u>0.846</u> , 0.929, 1.062, 1.133
May. 26, 1981	0.929, 1.062, 1.133, 1.163
Jun. 23, 1981	1.133, 1.163, 1.452, 1.447
July 26, 1981	1.163, 1.452, 1.447, 1.471

60  $\overline{) 1.269}$   
 76.165

1.269 mg AVG  
 DAY

Flows of purchased water into the plant

• Boreas 0.846 mg/d → 1.683 mg/d  
 • AVERAGE 1.269 mg/d

AR202043

E. I. DU PONT DE NEMOURS & COMPANY  
 CHEMICALS, DYES AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

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 J. E. Waller  
 P. E. Kress  
 J. I. Nied  
 A. M. Bulloch  
 W. L. Spillan

April 26, 1979

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

<u>Plant Total</u>	<u>Avg./Day</u> <u>1,430</u>	<u>12/22 - 1/22</u> <u>1,595</u>	<u>1/23 - 2/21</u> <u>1,564</u>	<u>2/22 - 3/22</u> <u>1,526</u>	<u>3/23 - 4/23</u> <u>1,683</u>
6" Distribution (					
Research R&D	2	0	0	0	0
Control Lab	4	2	3	2	3
QA	417	426	468	461	536
"Afflair"	49	41	46	37	42
Overhead	11	5	4	6	5
Black Oxide	61	35	31	39	45
Unaccounted for	13	0	0	0	0
Total	<u>557</u>	<u>509</u>	<u>552</u>	<u>545</u>	<u>631</u>
10" Service Distribution					
Powerhouse	218	318	327	283	284
CPC - Areas I & II	377	435	425	441	440
Photo Products	24	36	31	28	27
Overhead	9	7	3	4	4
CPC - Area III	245	290	226	225	297
Unaccounted for	0	0	0	0	0
Total	<u>873</u>	<u>1086</u>	<u>1012</u>	<u>981</u>	<u>1052</u>
AR					
Total Unaccounted for	13	0	0	0	0
		(1%)			

*M. R. Biddle*  
 M. R. BIDDLE, MECH., SUPVR, POWER

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November 27, 1979

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	<u>Avg./Day</u>	<u>7/24 - 8/22</u>	<u>8/23 - 9/20</u>	<u>9/21 - 10/21</u>	<u>10/22 - 11/20</u>
<u>Plant Total</u>	<u>1,430</u>	<u>1,206</u>	<u>1,436</u>	<u>1,457</u>	<u>1,381</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	1	2	2	2
QA	417	453	467	489	460
"Afflair"	49	37	35	46	21
Overhead	11	13	12	7	5
Black Oxide	61	37	51	46	31
Unaccounted for	13	0	0	0	0
<b>Total</b>	<b>557</b>	<b>541</b>	<b>567</b>	<b>590</b>	<b>519</b>
<u>10" Service Distribution</u>					
Powerhouse	218	140	206	212	240
CPC - Areas I & II	377	341	379	400	393
Photo Products	24	27	33	29	25
Overhead	9	6	8	5	3
CPC - Area III	245	151	243	221	201
Unaccounted for	0	0	0	0	0
<b>Total</b>	<b>873</b>	<b>665</b>	<b>869</b>	<b>867</b>	<b>862</b>
Total Unaccounted for	13 (1%)	0	0	0	0

*M. R. Biddle / A. J. S.*  
 M. R. BIDDLE, MECH. SUPVR. POWER

202045

/tg

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 A. M. Bulloch  
 W. L. Spillan

January 2, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	<u>Avg./Day</u>	<u>8/23 - 9/20</u>	<u>9/21 - 10/21</u>	<u>10/22 - 11/20</u>	<u>11/21-12/21</u>
<u>Plant Total</u>	<u>1,430</u>	<u>1,436</u>	<u>1,457</u>	<u>1,381</u>	<u>1,554</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	2	2	2	2
QA	417	467	489	460	538
"Afflair"	49	35	46	21	16
Overhead	11	12	7	5	5
Black Oxide	61	51	46	31	38
Unaccounted for	13	0	0	0	0
<b>Total</b>	<b>557</b>	<b>567</b>	<b>590</b>	<b>519</b>	<b>599</b>
<u>10" Service Distribution</u>					
Powerhouse	218	206	212	240	282
CPC - Areas I & II	377	379	400	393	408
Photo Products	24	33	29	25	27
Overhead	9	8	5	3	3
CPC - Area III	245	243	221	201	235
Unaccounted for	0	0	0	0	0
<b>Total</b>	<b>873</b>	<b>869</b>	<b>867</b>	<b>862</b>	<b>955</b>
Total Unaccounted for	13 (1%)	0	0	0	0

10" Service Distribution

Powerhouse  
 CPC - Areas I & II  
 Photo Products  
 Overhead  
 CPC - Area III  
 Unaccounted for

**20046**

Total Unaccounted for

*J.P. Bradley / M.T.S.*  
 J.P. BRADLEY, MECH. SUPVR. POWER

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 W. L. Spillan

January 28, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	Avg./Day	9/21 - 10/21	10/22 - 11/20	11/21 - 12/21	12/22 - 1/22
<u>Plant Total</u>	<u>1,430</u>	<u>1,457</u>	<u>1,381</u>	<u>1,554</u>	<u>1,594</u>
<u>6" Distribution</u>					
Research R & D	2	0	0	0	0
Control Lab	4	2	2	2	2
QA	417	489	460	538	563
"Afflair"	49	46	21	16	0
Overhead	11	7	5	5	5
Black Oxide	61	46	31	38	48
Unaccounted for	13	0	0	0	0
<u>Total</u>	<u>557</u>	<u>590</u>	<u>519</u>	<u>599</u>	<u>618</u>
<u>10" Service Distribution</u>					
Powerhouse	218	212	240	282	303
CPC - Areas I & II	377	400	393	408	433
Photo Products	24	29	25	27	27
Overhead	9	5	3	3	4
CPC - Area III	245	221	201	235	209
Unaccounted for	0	0	0	0	0
<u>Total</u>	<u>873</u>	<u>867</u>	<u>862</u>	<u>955</u>	<u>976</u>
Total Unaccounted for	13 (1%)	0	0	0	0

J. P. BRADLEY, MECH. SUPVR. POWER

02047



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 R. C. Chynoweth W. L. Spillan

March 27, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

Plant Total	Avg./Day	11/21 - 12/21	12/22 - 1/25	1/26 - 2/24	2/25 - 3/24
	<u>1,430</u>	<u>1,554</u>	<u>1,594</u>	<u>1,534</u>	<u>1,320</u>
<u>6" Distribution</u>					
Research R & D	2	0	0	0	0
Control Lab	4	2	2	2	2
QA	417	538	563	520	471
"Afflair" Overhead	49	16	0	0	0
Black Oxide	11	5	5	4	4
Unaccounted for	61	38	48	39	38
Total	<u>13</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	<u>557</u>	<u>599</u>	<u>618</u>	<u>565</u>	<u>515</u>

10" Service Distribution

Powerhouse	218	282	303	303	265
CPC - Areas I & II	377	408	433	398	304
Photo Products	24	27	27	9	3
Overhead	9	3	4	4	3
CPC - Area III	245	235	209	255	230
Unaccounted for	0	0	0	0	0
Total	<u>873</u>	<u>955</u>	<u>976</u>	<u>969</u>	<u>805</u>

Total Unaccounted for 13 (1%)

R202048

J. P. BRADLEY, MECH. SUPV. POWER

WLS/tg

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 J. E. Waller  
 P. E. Kress  
 J. I. Nied  
 A. M. Bulloch  
 W. L. Spillan

April 27, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	<u>Avg./Day</u>	<u>12/22 - 1/25</u>	<u>1/26 - 2/24</u>	<u>2/25 - 3/24</u>	<u>3/25 - 4/24</u>
<u>Plant Total</u>	<u>1,430</u>	<u>1,594</u>	<u>1,534</u>	<u>1,320</u>	<u>1,202</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	2	2	2	2
QA	417	563	520	471	459
"Afflair"	49	0	0	0	0
Overhead	11	5	4	4	6
Black Oxide	61	48	39	38	41
Unaccounted for	13	0	0	0	0
Total	<u>557</u>	<u>618</u>	<u>565</u>	<u>515</u>	<u>508</u>

10" Service Distribution

Powerhouse	218	303	303	265	205
CPC - Areas I & II	377	433	398	304	225
Photo Products	24	27	9	3	22
Overhead	9	4	4	3	3
CPC - Area III	245	209	255	230	239
Unaccounted for	0	0	0	0	0
Total	<u>873</u>	<u>976</u>	<u>969</u>	<u>805</u>	<u>694</u>
Total Unaccounted for	13 (1%)	0	0	0	0

AR 02049

*J. P. Bradley / A.L.S.*  
 J. P. BRADLEY, MECH. SUPV. POWER

E. I. DU PONT DE NEMOURS & COMPANY  
 CHEMICALS, DYES AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

CC: A. E. Andrejko  
 G. G. Dougherty  
 D. M. Strouss  
 J. L. Deming  
 J. B. Pietuska  
 J. C. Lofland  
 C. E. Tryon/  
 R. C. Chynoweth

J. C. Chaney  
 R. A. Dean  
 E. W. Brinser  
 J. E. Waller  
 E. E. Kress  
 J. I. Nied  
 A. M. Bulloch  
 W. L. Spillan

May 23, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	<u>Avg./Day</u>	<u>1/26 - 2/24</u>	<u>2/25 - 3/24</u>	<u>3/25 - 4/24</u>	<u>4/25 - 5/23</u>
<u>Plant Total</u>	<u>1,430</u>	<u>1,534</u>	<u>1,320</u>	<u>1,202</u>	<u>1,087</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	2	2	2	1
QA	417	520	471	459	433
"Afflair"	49	0	0	0	0
Overhead	11	4	4	6	8
Black Oxide	61	39	38	41	36
Unaccounted for	13	0	0	0	0
<b>Total</b>	<b>557</b>	<b>565</b>	<b>515</b>	<b>508</b>	<b>478</b>

10" Service Distribution

Powerhouse	218	303	265	205	163
CPC - Areas I & II	377	398	304	225	188
Photo Products	24	9	3	22	19
Overhead	9	4	3	3	4
CPC - Area III	245	255	230	239	235
Unaccounted for	0	0	0	0	0
<b>Total</b>	<b>873</b>	<b>969</b>	<b>805</b>	<b>694</b>	<b>609</b>
Total Un counted for	13 (1%)	0	0	0	0

*J. P. Bradley*  
 J. P. BRADLEY, MECH / SUPPLY POWER

E. I. DU PONT DE NEMOURS & COMPANY  
 CHEMICALS, DYES AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

CC: A. E. Andrejko J. C. Chaney  
 G. G. Dougherty R. A. Dean  
 D. M. Strouss J. E. Waller  
 J. L. Deming ~~P. E. Kress~~  
 J. B. Pietuszka J. I. Nied  
 J. C. Lofland A. M. Bulloch  
 C. E. Tryon/ W. L. Spillan  
 R. C. Chynoweth

June 26, 1980  
PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

<u>Plant Total</u>	<u>Avg./Day</u>	<u>2/25 - 3/24</u>	<u>3/25 - 4/24</u>	<u>4/25 - 5/23</u>	<u>5/24 - 6/23</u>
	<u>1,430</u>	<u>1,320</u>	<u>1,202</u>	<u>1,087</u>	<u>1,070</u>

6" Distribution

Research R&D	2	0	0	0	0
Control Lab	4	2	2	1	2
QA	417	471	459	433	388
"Afflair"	49	0	0	0	0
Overhead	11	4	6	8	11
Black Oxide	61	38	41	36	36
Unaccounted for	13	0	0	0	0
Total	<u>557</u>	<u>515</u>	<u>508</u>	<u>478</u>	<u>437</u>

10" Distribution

Powerhouse	218	265	205	163	152
CPC - Areas I & II	377	304	225	188	193
Photo Products	24	3	22	19	28
Overhead	9	3	3	4	5
CPC - Area III	245	230	239	235	255
Unaccounted for	0	0	0	0	0
Total	<u>873</u>	<u>805</u>	<u>694</u>	<u>609</u>	<u>633</u>

Total Unaccounted for 13 (1%) 0 0

2051

*J. P. Bradley*  
 J. P. BRADLEY, MECH. SUPV. POWER

E. I. DU PONT DE NEMOURS & COMPANY  
 CHEMICALS, DYES AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

CC:

A. E. Andrejko  
 G. G. Dougherty  
 D. M. Strouss  
 J. L. Deming  
 J. B. Pietuszka  
 J. C. Lofland  
 C. E. Tryon/  
 R. C. Chynoweth

J. C. Chaney  
 R. A. Dean  
 J. G. Hnat  
 J. E. Waller  
 P. E. Kress  
 J. I. Nied  
 A. M. Bulloch

July 28, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

<u>Plant Total</u>	<u>Avg./Day</u>	<u>3/25 - 4/24</u>	<u>4/25 - 5/23</u>	<u>5/24 - 6/23</u>	<u>6/24 - 7/24</u>
	<u>1,430</u>	<u>1,202</u>	<u>1,087</u>	<u>1,070</u>	<u>846</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	2	1	2	1
QA	417	459	433	388	352
"Afflair"	49	0	0	0	0
Overhead	11	6	8	11	17
Black Oxide	61	41	36	36	27
Unaccounted for	13	0	0	0	0
Total	<u>557</u>	<u>508</u>	<u>478</u>	<u>437</u>	<u>397</u>

10" Distribution

Powerhouse	218	205	163	152	138
CPC - Areas I & II	377	225	188	193	128
Photo Products	24	22	19	28	28
Overhead	9	3	4	5	4
CPC - Area III	245	239	235	255	151
Unaccounted for	0	0	0	0	0
Total	<u>873</u>	<u>694</u>	<u>609</u>	<u>633</u>	<u>449</u>

Total Unaccounted for 13 (1%) 0 0 0 0

AR 02052

*J. P. Bradley /tg*  
 J. P. BRADLEY, MESH. SUPV. POWER

/tg

E. I. DUPONT DE NEMOURS & COMPANY  
 CHEMICALS AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

A. E. Andrejko J. C. Chaney  
 G. G. Dougherty R. A. Dean  
 D. M. Strouss J. G. Hnat  
 J. L. Deming J. E. Waller  
 J. B. Pietuska  
 C. E. Tryon/  
 R. C. Chynoweth J. I. Nied  
 R. J. Stawicki  
 S. Dombchik

August 27, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	<u>Avg./Day</u>	<u>4/25 - 5/23</u>	<u>5/24 - 6/23</u>	<u>6/24 - 7/24</u>	<u>7/25 - 8/24</u>
<u>Plant Total</u>	<u>1,430</u>	<u>1,087</u>	<u>1,070</u>	<u>846</u>	<u>929</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	1	2	1	1
QA	417	433	388	352	388
"Afflair"	49	0	0	0	0
Overhead	11	8	11	17	16
Black Oxide	61	36	36	27	27
Unaccounted for	13	0	0	0	0
<b>Total</b>	<b>557</b>	<b>478</b>	<b>437</b>	<b>397</b>	<b>432</b>

10" Distribution

Powerhouse	218	163	152	138	163
CPC - Plant I	377	188	193	128	175
Photo Products	24	19	28	28	29
Overhead	9	4	5	4	10
CPC - Plant II	245	235	255	151	120
Unaccounted for	0	0	0	0	0
<b>Total</b>	<b>873</b>	<b>609</b>	<b>633</b>	<b>449</b>	<b>497</b>
Total Unaccounted for	13 (1%)	0	0	0	0

2053

*J. P. Bradley*  
 J. P. BRADLEY, PRODUCTION COORD. POWER

E. I. DU PONT DE NEMOURS & COMPANY  
 CHEMICALS AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

cc: A. E. Andrejko  
 G. G. Dougherty  
 D. M. Strouss  
 J. L. Deming  
 J. B. Pietuska  
 C. E. Tryon/  
 R. C. Chynoweth

J. C. Chaney  
 R. A. Dean  
 J. G. Hnat  
 P. E. Kress ←  
 J. I. Nied  
 R. J. Stawicki  
 S. Dombchik  
 W. L. Spillan

September 26, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

	Avg./Day	5/24 - 6/23	6/24 - 7/24	7/25 - 8/24	8/25 - 9/23
<u>Plant Total</u>	<u>1,430</u>	<u>1,070</u>	<u>846</u>	<u>929</u>	<u>1,062</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	2	1	1	1
QA	417	388	352	388	430
"Afflair"	49	0	0	0	0
Overhead	11	11	17	16	16
Black Oxide	61	36	27	27	30
Unaccounted for	13	0	0	0	0
<b>Total</b>	<u>557</u>	<u>437</u>	<u>397</u>	<u>432</u>	<u>477</u>

10" Distribution

Powerhouse	218	152	138	163	184
CPC-Plant I	377	193	128	175	242
Photo Products	24	28	28	29	26
Overhead	9	5	4	10	12
CPC Plant II	245	255	151	120	121
Unaccounted for	0	0	0	0	0
<b>Total</b>	<u>873</u>	<u>633</u>	<u>449</u>	<u>497</u>	<u>585</u>

Total Unaccounted for 13 (1%) 0 0 0 0

AR 202054

*J. P. Bradley, Jr.*  
 J. P. BRADLEY, PRODUCTION COORD. POWER

E. I. du PONT DE NEMOURS & COMPANY  
 CHEMICALS AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

cc: A. E. Andrejko  
 G. G. Dougherty  
 D. M. Strouss  
 J. L. Deming  
 J. B. Pietuszk  
 C. E. Tryon  
 R. C. Chynoweth

J. C. Deal  
 R. A. Hnat  
 J. G. Kress  
 P. E. Nied  
 J. I. Stawicki  
 R. J. Dombchik  
 S. W. L. Spillan

October 27, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./DAY)

	Avg./Day	6/24 - 7/24	7/25 - 8/24	8/25 - 9/23	9/24 - 10/23
<u>Plant Total</u>	<u>1,430</u>	<u>846</u>	<u>929</u>	<u>1,062</u>	<u>1,133</u>
<u>6" Distribution</u>					
Research R&D	2	0	0	0	0
Control Lab	4	1	1	1	1
QA	417	352	388	430	410
"Afflair"	49	0	0	0	0
Overhead	11	17	16	16	11
Black Oxide	61	27	27	30	19
Unaccounted for	13	0	0	0	0
<b>Total</b>	<b>557</b>	<b>397</b>	<b>432</b>	<b>477</b>	<b>441</b>

10" Distribution

Powerhouse	218	138	163	184	191
CPC Plant I	377	128	175	242	225
Photo Products	24	28	29	26	23
Overhead	9	4	10	12	10
CPC Plant II	245	151	120	121	243
Unaccounted for	0	0	0	0	0
<b>Total</b>	<b>873</b>	<b>449</b>	<b>497</b>	<b>585</b>	<b>692</b>

Total Unaccounted for 13 (%)

AR 202055

*J.P. Bradley*  
 J.P. BRADLEY, PRODUCTION COORD. POWER



E. I. DU NT DE NEMOURS & COMPANY  
 CHEMICALS AND PIGMENTS DEPARTMENT  
 NEWPORT, DELAWARE

cc: A. E. Anceletko  
 G. G. Dougherty  
 D. M. Strouss  
 J. L. Deming  
 J. B. Pietuszka  
 C. E. Tryon/  
 R. C. Chynoweth

J. C. Ch. y  
 R. A. Dean  
 J. G. Hnat  
 P. E. Kress  
 J. I. Nied  
 R. J. Stawicki  
 S. Dombchik  
 W. L. Spillan

November 26, 1980

PURCHASED WATER CONSUMPTION  
 (averaged M Gal./Day)

<u>Plant Total</u>	<u>Avg./Day</u>	<u>7/25 - 8/24</u>	<u>8/25 - 9/23</u>	<u>9/24 - 10/23</u>	<u>10/24 - 11/21</u>
	<u>1,430</u>	<u>929</u>	<u>1,062</u>	<u>1,133</u>	<u>1,163</u>

6" Distribution

Research R&D	2	0	0	0	0
Control Lab	4	1	1	1	1
QA	417	388	430	410	394
"Afflair"	49	0	0	0	0
Overhead	11	16	16	11	6
Black Oxide	61	27	30	19	22
Unaccounted for	13	0	0	0	0
<b>Total</b>	<u>557</u>	<u>432</u>	<u>477</u>	<u>441</u>	<u>423</u>

10" Distribution

Powerhouse	218	163	184	191	288
CPC Plant I	377	175	242	225	178
Photo Products	24	29	26	23	22
Overhead	9	10	12	10	10
CPC Plant II	245	120	121	243	242
Unaccounted for	0	0	0	0	0
<b>Total</b>	<u>873</u>	<u>497</u>	<u>585</u>	<u>692</u>	<u>740</u>

Total Unaccounted for 13 (%)

R202055

*C.P. Bradley*  
 J.P. BRADLEY, PRODUCTION COORDINATOR

CONTINUED FROM FRONT

1. POLLUTANT NUMBER (if available)	2. ARK 'X' (USE TO IDENTIFY POLLUTANT)	3. EFFLUENT		4. UNITS		5. IN (optional)	
		a. MAXIMUM DAILY VALUE (1) MASS CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	a. LONG TERM AVG. VALUE (1) CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) MASS	b. NO. OF ANAL. YSES
<b>GCMS FRACTION - VOLATILE COMPOUNDS</b>							
IV. Acrolein (107-02-9)	X						0
V. Acrylonitrile (107-13-1)	X						0
IV. Benzene (71-43-2)	X						0
IV. Bis (Chloromethyl) Ether (542-88-1)	X						0
V. Bromoform (75-25-2)	X						0
IV. Carbon tetrachloride (56-23-5)	X						0
V. Chlorobenzene (108-90-7)	X						0
V. Chlorodibromomethane (124-48-1)	X						0
V. Chloroethane (78-00-3)	X						0
IV. 2-Chloroethylvinyl Ether (107-76-8)	X						0
IV. Chloroform (77-66-3)	X						0
IV. Dichlorodibromomethane (5-27-4)	X						0
IV. Dichlorodifluoromethane (5-71-8)	X						0
IV. 1,1-Dichloroethene (78-34-3)	X						0
IV. 1,2-Dichloroethene (107-06-2)	X						0
IV. 1,1-Dichloroethylene (78-35-4)	X						0
V. 1,2-Dichloroethane (78-07-5)	X						0
V. 1,2-Dichlorobenzene (95-47-6)	X						0
V. Ethylbenzene (100-41-4)	X						0
V. Methyl amide (74-83-9)	X						0
V. Methyl iodide (74-87-3)	X						0

AR202057

ORIGINAL (Red)

2c

Question 2

Provide all information in CIBA-GEIGY's possession regarding storm sewer discharge contamination at the site.

Attachment

ORIGINAL  
(Red)

3) NPDES Permit DE0000400 Application, 1988.

AR202058

Pigments Department  
CIBA-GEIGY Corporation  
James & Water Streets  
Newport, Delaware 19804  
Telephone 302 992 5600

*H.H.H.*  
CIBA-GEIGY

ORIGINAL  
(Red)

April 15, 1988

Mr. Paul J. Janiga,  
Environmental Engineer  
Water Pollution Control Branch  
Division of Water Resources  
Department of Natural Resources  
and Environmental Control  
State of Delaware  
P.O. Box 1401  
Dover, Delaware 19903

RE: NPDES PERMIT DE 0000400, STATE PERMIT 3106 B/74

Dear Mr. Janiga:

Attached are the completed consolidated permit application forms 1 and 2C for the renewal of the CIBA-GEIGY Corporation, Newport, DE plant NPDES discharge permit.

We trust this information will meet your needs. We also look forward to working with you on this renewal. If you need to contact us, please call me at 992-5621.

Sincerely,

*George H. Hull*

George H. Hull  
Environmental Coordinator

GHH/baj  
ID-0568X

Attachment

AR202059

<b>FORM 1</b>	<b>EPA</b>	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>	<b>I. EPA I.D. NUMBER</b>
<b>GENERAL</b>	<b>GENERAL INFORMATION</b> <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>		F D E D 9 8 0 8 3 0 4 0 0
<b>LABEL ITEMS</b>	<b>PLEASE PLACE LABEL IN THIS SPACE</b>		<b>GENERAL INSTRUCTIONS</b>
EPA I.D. NUMBER			<i>ORIGINAL</i>
III. FACILITY NAME			If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.
V. FACILITY MAILING ADDRESS			
VI. FACILITY LOCATION			

II. POLLUTANT CHARACTERISTICS							
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.							
SPECIFIC QUESTIONS	MARK 'X' FORM ATTACHED			SPECIFIC QUESTIONS	MARK 'X' FORM ATTACHED		
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)	YES	NO	FORM ATTACHED	B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)	YES	NO	FORM ATTACHED
		X				X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	16	17	18	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	19	20	21
	X		X		X		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	22	23	24	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	25	26	27
		X			X		
Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	28	29	30	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	31	32	33
		X			X		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may effect or be located in an attainment area? (FORM 5)	34	35	36	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may effect or be located in an attainment area? (FORM 5)	37	38	39
		X			X		

<b>III. NAME OF FACILITY</b>		
1	SKIP	C I B A - G E I G Y C O R P O R A T I O N

<b>IV. FACILITY CONTACT</b>			
A. NAME & TITLE (last, first, & title)		B. PHONE (area code & no.)	
2	HULL, GEORGE H. ENVIRON. COORD.	3 0 2	9 9 2
3	JAMES AND WATER STREETS	5 6 2	1

<b>V. FACILITY MAILING ADDRESS</b>			
A. STREET OR P.O. BOX			
3	JAMES AND WATER STREETS		
B. CITY OR TOWN		C. STATE	D. ZIP CODE
4	NEWPORT	DE	1 9 8 0 4

<b>VI. FACILITY LOCATION</b>					
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER					
5	JAMES AND WATER STREETS				
B. COUNTY NAME			F. COUNTY CODE (if known)		
NEW CASTLE COUNTY					
C. CITY OR TOWN		D. STATE	E. ZIP CODE		
6	NEWPORT	DE	1 9 8 0 4		

AR202060

CONTINUED FROM THE FRONT

**VII. SIC CODES (4-digit, in order of priority)**

A. FIRST				B. SECOND			
7	2	8	6	7			
(specify) ORGANIC PIGMENTS				(specify)			
C. THIRD				D. FOURTH			
7				7			
(specify)				(specify)			

ORIGINAL  
(Red)

**VIII. OPERATOR INFORMATION**

A. NAME												B. Is the name listed in Item VIII-A also the owner?	
CIBA - GEIGY CORPORATION												<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)										D. PHONE (area code & no.)			
F - FEDERAL		M - PUBLIC (other than federal or state)		P (specify)		A		9 1 4		4 7 8		3 1 3 1	
S - STATE		O - OTHER (specify)											
P - PRIVATE													
E. STREET OR P.O. BOX													
4 4 4 SAW MILL RIVER ROAD													
F. CITY OR TOWN						G. STATE		H. ZIP CODE		IX. INDIAN LAND			
B ARDSLEY						N Y		1 0 5 0 2		Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

**X. EXISTING ENVIRONMENTAL PERMITS**

A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)					
9 N D E 0 0 0 0 4 0 0						9 P					
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)					
9 U						OTHER PERMITS (specify) SEE ATTACHED					
C. RCRA (Hazardous Wastes)						E. OTHER (specify)					
R						(specify)					

**XI. MAP**

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

**XII. NATURE OF BUSINESS (provide a brief description)**

The Plant manufactures organic pigments.

**XIII. CERTIFICATION (see instructions)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME & OFFICIAL TITLE (type or print) Everett A. Kliphouse, Vice-President & General Manager		B. SIGNATURE <i>Everett A. Kliphouse</i>		APR 20 1980 April 15, 1980	
--	--	---	--	-------------------------------	--

**COMMENTS FOR OFFICIAL USE ONLY**

C											
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CIBA-GEIGY CORPORATION

NEWPORT PLANT

ORIGINAL  
(Red)

State Drying Lagoon Permit

- SWA-84/13

County Sewer Permit

- WDP-84-057

Water Intake

- Delaware State Lease No. SL-0705/81
- Delaware Intake Permit No. 84-0023
- Del. River Basin Comm. Docket No. D-84-12  
(Also applies to NPDES, but through DNREC.)
- Army C.O.E. Permit No. NAPOP-R-81-0311-3

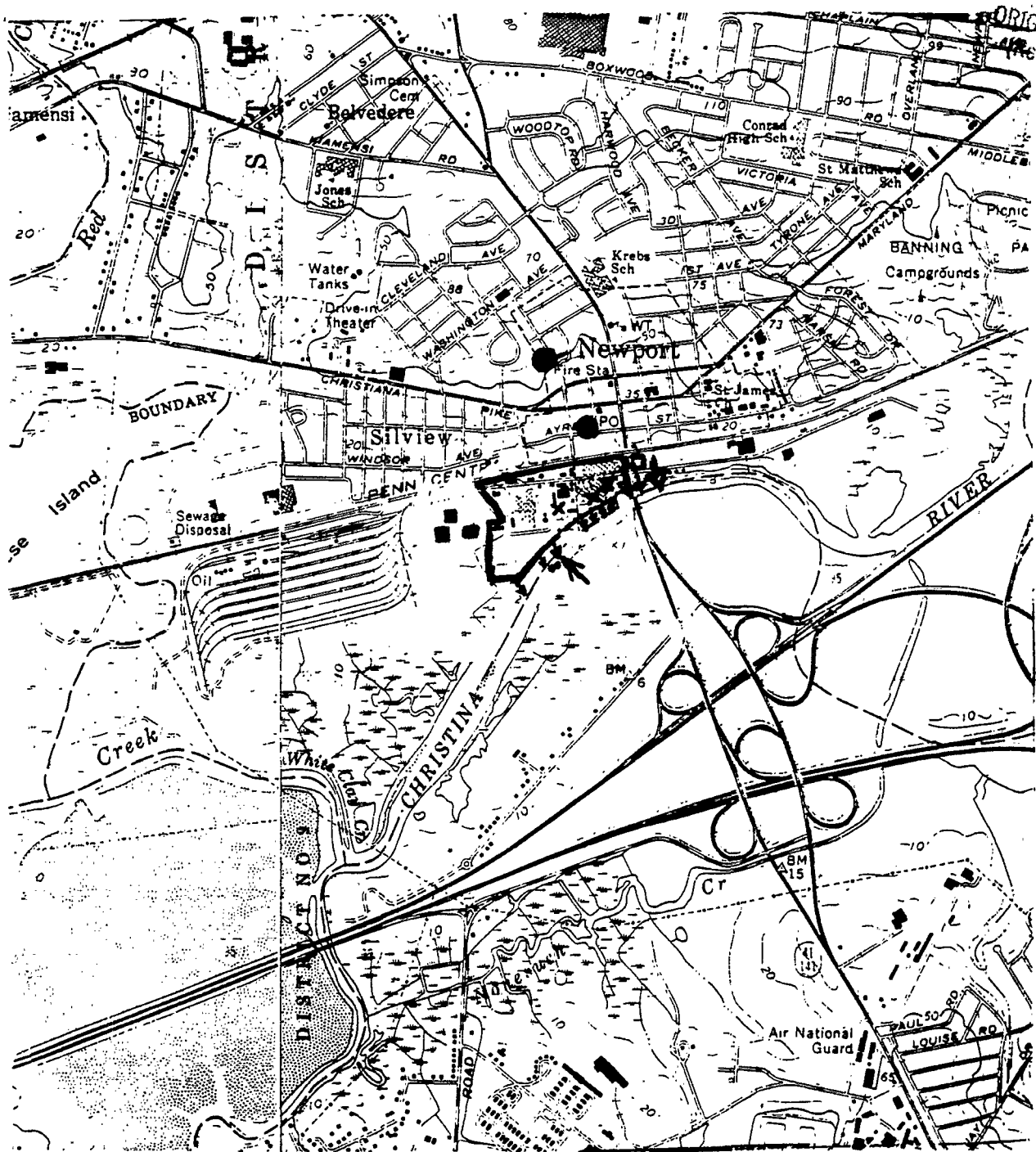
State Air Permits

APC-81/679	APC-82/514
APC-81/907	APC-82/828
APC-82/011	APC-84/700
APC-82/129	APC-86/326
APC-82/130	APC-87/261
APC-82/131	APC-87/272
APC-82/135	APC-87/273
APC-82/136	APC-87/274
APC-82/137	APC-87/275
APC-82/138	APC-87/277
APC-82/407	APC-87/278
APC-82/510	APC-87/283
APC-82/511	APC-87/284
APC-82/512	APC-87/285
APC-82/513	APC-87/297

Hazardous Waste, Generator Only

- EPA I.D. NO. DED980830400

AR202062



39° 41' 12" N

75° 38' 14" W

✕ Hazardous Waste (Generator only temporary storage, i.e. 90 days or less)

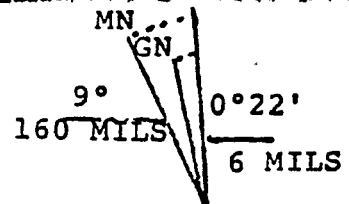
↑ Creek Water Intake

↘ Small Stream

○ Town Drinking Water Wells

□ Newport Plant Boundaries

↓ Outfall



UTM Grid and 1967 Magnetic North Declination at Cent **AR202068**

Scale 1:24,000

1000 0 Feet



CERTIFICATE OF APPLICANT

ORIGINAL  
(Red)

I HEREBY CERTIFY THAT THE APPLICANT IS:

a Delaware resident residing therein at: \_\_\_\_\_

or

a nonresident residing at: \_\_\_\_\_

but owning property in Delaware at: \_\_\_\_\_

or

a Delaware corporation, whose registered agent in accordance with  
8 Del. C. §132 is: \_\_\_\_\_

address: \_\_\_\_\_

or

a foreign corporation organized in the State of \_\_\_\_\_  
and authorized to do business in the State of Delaware pursuant  
to 8 Del. C. §371, whose registered agent in the State of  
Delaware is: \_\_\_\_\_

address: \_\_\_\_\_

or

a partnership, firm or association, with certificate on file with  
the Prothonotary of \_\_\_\_\_ County in the State of  
Delaware, recorded in Book \_\_\_\_\_ at Page \_\_\_\_\_ in accordance  
with 6 Del. C. §3101.

or

other: A New York corporation qualified to do business in the State  
of Delaware, whose registered agent in the State of Delaware  
is Corporation Trust Co., 100 W. Tenth St., Wilmington, DE  
19899.

Everett A. Kliphouse  
\_\_\_\_\_  
(typed or printed name)

Vice-President and General Manager  
\_\_\_\_\_  
(typed or printed title)

James & Water Streets  
\_\_\_\_\_  
(Address)

Newport, DE 19804  
\_\_\_\_\_

*Everett A. Kliphouse*  
\_\_\_\_\_  
Signature

AR202064

FORM  
**26**  
NPDES



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER**  
**EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS**  
*Consolidated Permits Program*

**I. OUTFALL LOCATION**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water. (Red)

OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	39	41	12	75	38	14	CHRISTINA RIVER
002-006	39	41	12	75	38	14	CHRISTINA RIVER
008	39	41	12	75	38	14	CHRISTINA RIVER
009	39	41	12	75	38	14	CITY OF NEWPORT DRAINAGE TRENCH

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. **(ATTACHED)**

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including Process Wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Salt water backwash	10,000 GPD	Discharge to Christina River	4A	
	Non-contact cooling water.	30,000 GPD			
	Cooling tower water.	2,000 GPD			
	Storm water run-off.	None, unless rain.			
002	Storm water run-off.	None, unless rain.	Discharge to Christina River	4A	
to					
006					
008	Storm water run-off.	None, unless rain.	Discharge to Christina River	4A	
009	Storm water run-off.	None, unless rain.	Discharge to Christina River	4A	
Note: flows above are estimates. No metered data is available.					

AR202065

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?  
 YES (complete the following table)  NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				C. DURATION (in days)
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
	NOT APPLICABLE							ORIGINAL (Red)

**III. PRODUCTION**

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?  
 YES (complete Item III-B)  NO (to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?  
 YES (complete Item III-C)  NO (go to Section IV)

C. If you answered "yes" to item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
		NOT APPLICABLE BECAUSE PRODUCTION IS LESS THAN 5,000,000 LBS./YR. AND BECAUSE GUIDELINES APPLICABLE TO LARGER FACILITIES THAN OURS ARE NOT EXPRESSED IN TERMS OF PRODUCTION.	

**IV. IMPROVEMENTS**

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.  
 YES (complete the following table)  NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
NOT APPLICABLE					

AR202066

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.  MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

**V. INTAKE AND EFFLUENT CHARACTERISTICS**

**A, B, & C:** See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.

NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

**ATTACHED**

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

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NONE FROM TABLE 2C-3 IS EXPECTED.			ORIGINAL (Red)

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

is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

YES (list all such pollutants below)

NO (go to Item VI-B)

TETRACHLOROETHYLENE AND TOLUENE ARE USED IN MANUFACTURING.

AR202067

**VII. BIOLOGICAL TOXICITY TESTING DATA**

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

YES (identify the test(s) and describe their purposes below)

NO (go to Section VIII)

The State of Delaware Department of Natural Resources and Environmental Control took water quality samples for bioassays in June 1987. Samples were also taken state-wide from all other direct discharges as part of state-wide testing.

ORIGINAL  
(Red)

**VIII CONTRACT ANALYSIS INFORMATION**

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


YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

NO (go to Section IX)

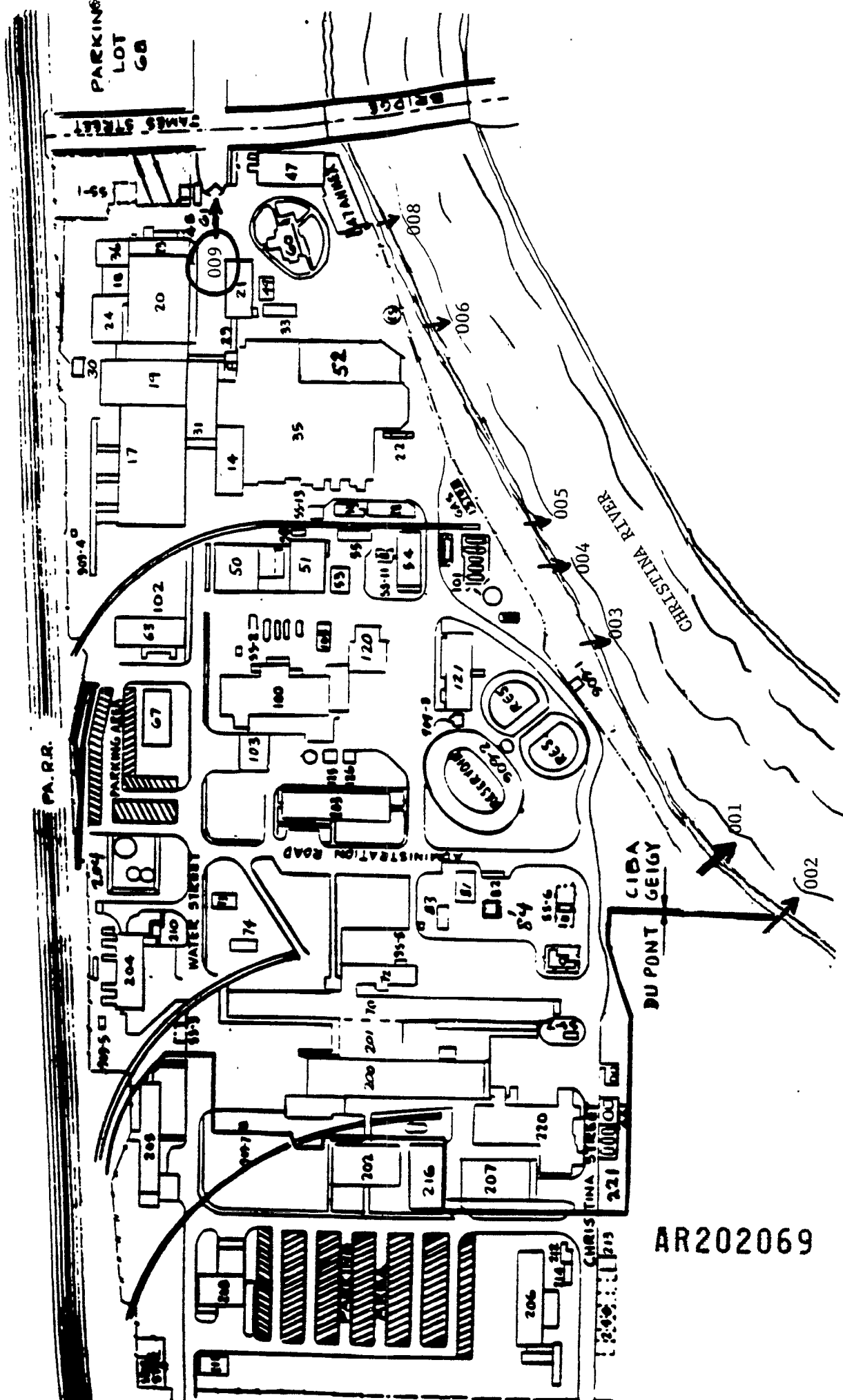
A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Artesian Laboratories, Inc.	630 Churchmans Road Newark, DE 19702	(302) 453-6920	V- Part A - All (For 001) V- Intake (For purchased water to plant.)
Lancaster Laboratories, Inc.	2425 New Holland Pike Lancaster, PA 17601	(717) 656-2301	V- All Parts (For 001) V- Intake (For purchased water to plant).

**IX. CERTIFICATION**

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

NAME & OFFICIAL TITLE (type or print) Herrett A. Kliphouse Vice-President & General Manager	B. PHONE NO. (area code & no.) (302) 992-5670 AR202068
C. SIGNATURE 	D. DATE SIGNED April 15, 1988

# NEWPORT PLANT



(Part)

EPA I.D. No. DED980830400

AR202069

LOCATION OF CONTINUOUS OUTFALL 001  
AND OF STORM WATER OUTFALLS 002, 003,  
004, 005, 006, 008, & 009.

ATTACHMENT

ORIGINAL  
(Red)

Part V, Tables A, B, and C of Permit  
Application Form 2C NPDES for  
Outfalls Nos. 001, 002, 003, 004,  
005, 006, 008, & 009

Notes:

1. Comprehensive analysis of outfall 001 was done by Lancaster Laboratories in March 1988.
2. BOD, TSS, pH and temperature are monitored routinely, for outfall 001. Data is from 1985 to 1988 analyses.
3. BOD, TSS, COD, TOC and NH<sub>3</sub> for intake are from a previous application. Rest of intake analyses are from 1987 to 1988 data.
4. No new analysis was performed on the storm water outfalls. This was agreed to by Mr. Janiga of DNREC, because regulatory protocols for outfall sampling have not been established yet.
5. Outfall 009 consists of about 4 pipes that enter the City of Newport drainage ditch separately.

ID-0568X

AR202070

ORIGIN  
(Red)

OUTFALL NO. 001

AR202071



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

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
DED9980830400

Form Approved  
OMB No. 2040-0086  
Approval expires 7-08

02072

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

OUTFALL NO  
001

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

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVERAGE VALUE		4. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)		5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available)	(1) CONCENTRATION		(2) MASS	a. CONCENTRATION	b. MASS	(1) AVERAGE VALUE	
a. Biochemical Oxygen Demand (BOD)	7.9	4.6	N/A	N/A	38	mg/l	Lbs./Day			
b. Chemical Oxygen Demand (COD)	12.0	3.2	N/A	N/A	2	mg/l	Lbs./Day			
c. Total Organic Carbon (TOC)	2.3	0.6	N/A	N/A	2	mg/l	Lbs./Day	See Attached		
d. Total Suspended Solids (TSS)	23.0	15.2	N/A	N/A	38	mg/l	Lbs./Day			
e. Ammonia (as N)	1.0	0.4	N/A	N/A	2	mg/l	Lbs./Day			
f. Flow	182400		N/A	N/A	38		Gallons			
g. Temperature (winter)	31°C.		N/A	N/A	38	°C				
h. Temperature (summer)	33°C.		N/A	N/A	40	°C				
i. pH	6.1	8.1	N/A	N/A	156		STANDARD UNITS			

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

3. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		3. LONG TERM AVERAGE VALUE		4. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available)	(1) CONCENTRATION		(2) MASS	a. CONCENTRATION	b. MASS	(1) AVERAGE VALUE	
a. Bromide (24958-67-9)	X	N.D.				1	mg/l				
b. Chlorine, Total Residual	X	N.D.				1	mg/l				
c. Color	X	N.D.				1	CP units				
d. Faecal Coliform	X	N.D.				1	/100 ml				8
e. Fluoride (15954-48-9)	(1) X	N.D.				1	mg/l				
f. Nitrate-Nitrite (as N)	X	3.0	0.8			1	mg/l		4.4		8

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If available)	2. ANAL. METHOD	3. X	3. EFFLUENT		4. UNITS		5. INTAKE		6. NO. OF ANAL. YRS.
			a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MASS	a. AVERAGE VALUE (1) CONCENTRATION	(2) MASS		
b. Nitrogen, Total Organic (as N)		X	2.7	0.73					
a. Oil and Grease		X	N.D.						
1. Phosphorus (as P), Total (1723-14-0)		X	< 2.0						
1. Radioactivity			< 0.02						
(1) Alpha, Total									
(2) Beta, Total									
(3) Radium, Total									
(4) Radium 226, Total									
f. Sulfate (as SO <sub>4</sub> ) (14808-79-8)		(1) X	48.	12.94	(1) Believed present due to intake water.				
1. Sulfide (as S)		X	< 0.1						
m. Sulfite (as SO <sub>3</sub> ) (14208-45-3)		(2) X	N.D.		(2) Not detected but believe may be present.				
< 2.0									
n. Surfactants		X	0.1	0.03					8
e. Aluminum, Total (17429-90-5)		X	0.1	0.03					
p. Barium, Total (17440-39-3)		(3) X	3.2		(3) Believed absent.				
1. Boron, Total (17440-42-8)		X	0.15	0.04					
t. Cobalt, Total (17440-48-4)		X	N.D.	--					
< 0.05									
r. Iron, Total (17439-99-6)		X	0.5	0.13					8
s. Magnesium, Total (17439-96-4)		(4) X	8.96	2.4	(4) Believed present due to intake water, based on prior data.				
u. Molybdenum, Total (17439-98-7)		X	N.D.						
< 0.1									
v. Manganese, Total (17439-96-7)		(1) X	0.39	0.11					
w. Tin, Total (17440-31-5)		X	N.D.						
< 0.5									
x. Titanium, Total (17440-32-6)		X	N.D.						
< 0.05									

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

1. POLLUTANT NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b. NO. OF ANAL. YSES
		a. MAXIMUM DAILY VALUE (1) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	(1) MASS	(2) MASS	(1) CONCENTRATION	(2) MASS	
1a. Arsenic, Total (7440-38-2)	X	0.01	(1) Result is at deflection limit and is not believed present.	mg/l				
1b. Beryllium, Total (7440-41-7)	X	<0.005		mg/l	Lbs./Day			
1c. Cadmium, Total (7440-43-9)	X	0.104	(2) Believe present due to intake water, based on prior intake data.	mg/l				
1d. Chromium, Total (7440-47-3)	X	<0.05		mg/l				
1e. Copper, Total (7440-50-9)	X	0.03		mg/l	Lbs./Day	1.0		7
1f. Lead, Total (7439-92-1)	X	<0.05		mg/l		0.03		8
1g. Mercury, Total (7439-97-6)	X	<0.0005		mg/l				
1h. Nickel, Total (7440-02-0)	X	0.10		mg/l				
1i. Selenium, Total (7782-49-2)	X	<0.005		mg/l				
1j. Silver, Total (7440-22-4)	X	<0.01		mg/l				
1k. Thallium, Total (7440-28-0)	X	<0.1		mg/l				
1l. Zinc, Total (7440-66-6)	X	4.35		mg/l	Lbs./Day			
1m. Cyanide, Total (87-12-6)	X	<0.005		mg/l				
16M. Phenols, Total	X	<0.004		mg/l				

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT		4. UNITS		5. LONG TERM AVERAGE VALUE		b. NO OF ANNUAL YSES
		(1) CONC. IN WATER	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONC. IN WATER	(2) MASS	
1V. Acrolein (107-02-8)	X	N.D.	<100.0			1	ug/l			
2V. Acrylonitrile (107-13-1)	X	N.D.	<100.0			1	ug/l			
3V. Benzene (71-43-2)	X	N.D.	<5.0			1	ug/l			
4V. Bis (Chloro-methyl) Ether (542-88-1)	X	---	---			0	---			
5V. Bromoform (75-26-2)	X	N.D.	<5.0			1	ug/l			
6V. Carbon Tetrachloride (56-23-5)	X	N.D.	<5.0			1	ug/l			
7V. Chlorobenzene (108-90-7)	X	N.D.	<5.0			1	ug/l			
8V. Chloro-dibromomethane (124-48-1)	X	N.D.	<5.0			1	ug/l			
9V. Chloroethane (75-00-3)	X	N.D.	<5.0			1	ug/l			
10V. 2-Chloro-ethyl Vinyl Ether (110-75-8)	X	N.D.	<10.0			1	ug/l			
11V. Chloroform (67-66-3)	X	N.D.	<5.0			1	ug/l			
12V. Dichloro-bromomethane (75-27-4)	X	N.D.	<5.0			1	ug/l			
13V. Dichloro-difluoromethane (75-71-8)	X	---	---			0	---			
14V. 1,1-Dichloro-ethane (75-34-3)	X	N.D.	<5.0			1	ug/l			
15V. 1,2-Dichloro-ethane (107-06-2)	X	N.D.	<5.0			1	ug/l			
16V. 1,1-Dichloro ethylene (75-35-4)	X	N.D.	<5.0			1	ug/l			
17V. 1,2 Dichloro propane (78-87-5)	X	N.D.	<5.0			1	ug/l			
18V. 1,3-Dichloro-propylene (542-75-6)	X	N.D.	<5.0			1	ug/l			
19V. Ethylbenzene (100-41-4)	X	N.D.	<5.0			1	ug/l			
20V. Methyl Bromide (74-83-9)	X	N.D.	<10.0			1	ug/l			
21V. Methyl Chloride (74-87-3)	X	N.D.	<10.0			1	ug/l			

AR202075

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b. NO. OF ANAL. YRS.	
		a. MAXIMUM DAILY VALUE (1) CONC. (2) MASS	b. MAXIMUM 30 DAY AVERAGE VALUE (1) CONC. (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONC. (2) MASS	d. NO. OF ANAL. YRS.	e. CONCENTRATION	f. MASS		a. LONG TERM AVERAGE VALUE (1) CONC. (2) MASS
<b>GCMS FRACTION - VOLATILE COMPOUNDS (continued)</b>									
23V. Methylene Chloride (75-09-2)	X	N.D.							8
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)	X	N.D.							8
24V. Trichloro-ethylene (127-18-4)	X	38.0	0.01						8
25V. Toluene (98-96-3)	X	N.D.							8
26V. 1,2-Tetra-chloroethylene (156-60-5)	X	N.D.							8
27V. 1,1,1-Trichloroethane (71-55-6)	X	N.D.							8
28V. 1,1,2-Trichloroethane (79-00-5)	X	N.D.							8
29V. Trichloro-ethylene (79-01-6)	X	N.D.							8
30V. Trichloro-fluoromethane (75-69-4)	X	N.D.							7
31V. Vinyl Chloride (75-01-4)	X	N.D.							8
<b>GCMS FRACTION - ACID COMPOUNDS</b>									
1A. 2-Chloropheno (95-57-8)	X	N.D.							1
2A. 2,4-Dichloro-phenol (120-83-2)	X	N.D.							1
3A. 2,4-Dimethyl-phenol (105-67-9)	X	N.D.							1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X	N.D.							1
5A. 2,4-Dinitro-phenol (51-28-5)	X	N.D.							1
6A. 2-Nitrophenol (88-76-5)	X	N.D.							1
7A. 4-Nitrophenol (100-02-7)	X	N.D.							1
8A. P-Chloro-M-Cresol (69-50-7)	X	N.D.							1
9. Pentachloro-phenol (87-86-5)	X	N.D.							1
10A. Phenol (108-95-2)	X	N.D.							1
11A. 2,4,6-Tri-chlorophenol (95-06-2)	X	N.D.							1

AR202076

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT		4. UNITS		5. LONG TERM AVERAGE VALUE (optional)		b. NO. OF ANAL. YSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
18. Acenaphthene (83-32-9)	X	N.D.				1	ug/l			
28. Acenaphthylene (208-96-8)	X	N.D.				1	ug/l			
38. Anthracene (120-12-7)	X	N.D.				1	ug/l			
48. Benzidine (92-87-6)	X	N.D.				1	ug/l			
58. Benzo (a) Anthracene (86-85-3)	X	N.D.				1	ug/l			
68. Benzo (el) Pyrene (80-32-8)	X	N.D.				1	ug/l			
78. 3,4-Benzofluoranthene (206-99-2)	X	N.D.				1	ug/l			
88. Benzo (ghi) Perylene (191-24-2)	X	N.D.				1	ug/l			
98. Benzo (h) Fluoranthene (207-08-9)	X	N.D.				1	ug/l			
108. Bis (2-Chloroethoxy) Methane (111-91-1)	X	N.D.				1	ug/l			
118. Bis (2-Chloroethyl) Ether (111-44-4)	X	N.D.				1	ug/l			
128. Bis (2-Chloropropyl) Ether (102-80-1)	X	N.D.				1	ug/l			
138. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X	N.D.				1	ug/l			
148. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X	N.D.				1	ug/l			
158. Butyl Benzyl Phthalate (85-88-7)	X	N.D.				1	ug/l			
168. 2-Chloro-naphthalene (91-68-7)	X	N.D.				1	ug/l			
178. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X	N.D.				1	ug/l			
188. Chrysene (218-01-9)	X	N.D.				1	ug/l			
198. Dibenzo (a,h) Anthracene (83-70-3)	X	N.D.				1	ug/l			
208. 1,2-Dichlorobenzene (95-50-1)	X	10.0				1	ug/l			7
218. 1,3-Dichlorobenzene (641-73-1)	X	N.D.				1	ug/l			7
		<10.0								

AR202077



CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		3. EFFLUENT (if available)		4. UNITS	5. INTAKE (optional)	6. NO. OF ANAL. YSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)								
43B. N-Nitro-podophenylamine (86-30-6)	X	N.D.				ug/l		1
44B. Phenanthrene (85-01-8)	X	N.D.				ug/l		1
45B. Pyrene (129-00-0)	X	N.D.				ug/l		1
46B. 1,2,4-Tri-chlorobenzene (120-82-1)	X	N.D.				ug/l		1
GC/MS FRACTION - PESTICIDES								
1P. Aldrin (309-00-2)	X	N.D.				ug/l		1
2P. D. BHC (319 84 6)	X	N.D.				ug/l		1
3P. β-BHC (319 85 7)	X	N.D.				ug/l		1
4P. γ-BHC (58 89-9)	X	N.D.				ug/l		1
5P. δ-BHC (K19 86-8)	X	N.D.				ug/l		1
6P. Chlordane (57 74-9)	X	N.D.				ug/l		1
7P. 4,4'-DDT (50 29-3)	X	N.D.				ug/l		1
8P. 4,4' ODE (72 55-9)	X	N.D.				ug/l		1
9P. 4,4'-DDD (72 54-8)	X	N.D.				ug/l		1
10P. Dieldrin (60-57-1)	X	N.D.				ug/l		1
11P. D-Endosulfan (115-29-7)	X	N.D.				ug/l		1
12P. β-Endosulfan (115-29-7)	X	N.D.				ug/l		1
13P. Endosulfan Sulfate (1031-07-8)	X	N.D.				ug/l		1
14P. Endrin (72-20-8)	X	N.D.				ug/l		1
15P. Endrin Aldehyde (7421-93-4)	X	N.D.				ug/l		1
16P. Heptachlor (76 44 8)	X	N.D.				ug/l		1

AR202079



CONTINUED FROM PAGE 14

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**DED980830400** **001**

Form Approved  
 OMB No. 2040-0086  
 Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MAX. PERCENTAGE OF TIME EXCEEDS		3. EFFLUENT	4. UNITS	5. INTAKE (optional)					
	(1) CONC. (1)	(2) MASS				(1) CONC. (1)	(2) MASS	(1) CONC. (1)	(2) MASS	(1) CONC. (1)
17P. Heptachlor Epoxide (102457-3)	X		a. MAXIMUM DAILY VALUE (1) N.D. (2) 0.05	b. MAXIMUM 30 DAY VALUE (1) (2) MASS	c. LONG TERM (YR) VALUE (1) (2) MASS	d. NO. OF ANAL. VES.	e. CONCENTRATION (1) ug/l (2) ug/l	f. MASS	g. LONG TERM AVERAGE VALUE (1) (2) MASS	h. NO. OF ANAL. VES.
18P. PCB-1242 (63469-21-9)	X		N.D. <2.0			1	ug/l			
19P. PCB-1254 (11097-69-1)	X		N.D. <2.0			1	ug/l			
20P. PCB-1221 (11104-26-2)	X		N.D. <2.0			1	ug/l			
21P. PCB-1232 (11141-16-5)	X		N.D. <2.0			1	ug/l			
22P. PCB-1248 (12672-29-6)	X		N.D. <2.0			1	ug/l			
23P. PCB-1260 (11098-82-5)	X		N.D. <2.0			1	ug/l			
24P. PCB-1016 (12674-11-2)	X		N.D. <2.0			1	ug/l			
25P. Toxaphene (8001-35-2)	X		N.D. <2.0			1	ug/l			

AR202080

SECTION V - PART A - #4 (INTAKE)

	INTAKE WATER		Treated Creek Water (Reg)	Original No. of Analyses
	Purchased Water	No. of Analyses		
(a) BOD <sub>5</sub>	7 mg/L	1	10 mg/L	1
(b) COD	11 mg/l	1	8 mg/L	1
(c) TOC	20 mg/L max.	1	16 mg/L	1
(d) TSS	63.4 mg/L	13	29.2 mg/L	12
(e) NH <sub>3</sub>	0.17 mg/L	1	0.50 mg/L	1
(f) Flow	0-0.35 MMGD	-	0-0.35 MMGD	-
(g) Temp. Winter	Not Measured	-	Not Measured	-
(h) Temp. Summer	Not Measured	-	Not Measured	-

Note: Individual intake flows are not metered or measured and mass cannot be calculated.

AR202081

ATTACHMENT

NPDES: STORM WATER OUTFALLS SAMPLE RESULTS' SUMMARY

02/20/82  
(RCU)

Concentrations, in mg/l

Stormwater Outfall No.	Date Sample Taken	Concentrations, in mg/l										pH	Temperature	
		Biological Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)	Total Organic Carbon (TOC)	Total Suspended Solids (TSS)	Ammonia (as N)	Chromium, Total (Cr)	Copper, Total (Cu)	OF	OC				
002	8/5/81 1/4/82 2/19/82 4/26/82	<6.0 6.9 <6.0 <6.0	31 23 78 33	11 10 14 8	14 26 130 64	0.46 <0.28 0.11 0.11	<0.05 <0.05 0.06 <0.05	0.07 0.07 <0.05 0.07	44 44 66 66	7 7 19 19				
003	8/5/82 1/4/82 4/26/82	11 6.6 6.0	41 31 14	12 10 7	11 23 9	1.5 0.34 1.5	<0.05 <0.05 <0.05	0.11 0.09 0.06	44 66 66	7 7 19				
004	4/26/82	<12	18	18	55	1.4	0.06	0.09	68	20				
005	4/26/82	<6.0	25	14	33	0.45	<0.05	0.07	68	20				
006	1/4/82 4/26/82	<6.0 <6.0	15 53	5 13	69 94	<0.11 0.11	<0.05 0.06	<0.05 0.06	44 68	7 20				
007	Outfall Closed	NO DATA. OUTFALL CLOSED PERMANENTLY												
008	8/5/81 1/4/82 2/19/82 4/26/82	<6.0 <6.0 <6.0 <6.0	19 35 21 25	4 10 6 10	6 72 25 44	0.23 <0.28 0.11 0.23	<0.05 <0.05 <0.05 <0.05	<0.05 <0.05 0.10 <0.05	44 44 66 66	7 7 19 19				
009	-----	NO DATA. SIMILAR TO OTHER OUTFALLS. Where the symbol < appears, this indicates the lower detection limit. All samples are grab samples.												

AR202082

OUTFALL NO. 002

ORIGINAL  
(red)

AR202083

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

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
DED980830400

Form Approved  
OMB No 2040-0086  
Approval expires 7/1/88

202084

OUTFALL NO  
002

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

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

1. POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)		4. NO. OF ANALYSES	5. INTAKE (optional)	6. NO. OF ANALYSES	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	(2) MASS				a. CONCENTRATION
a. Biochemical Oxygen Demand (BOD)	7	N/A	N/A	N/A	4	mg/l	N/A	N/A
b. Chemical Oxygen Demand (COD)	78	N/A	N/A	N/A	4	mg/l	N/A	N/A
c. Total Organic Carbon (TOC)	14	N/A	N/A	N/A	4	mg/l	N/A	N/A
d. Total Suspended Solids (TSS)	130	N/A	N/A	N/A	4	mg/l	N/A	N/A
e. Ammonia (as N)	0.5	N/A	N/A	N/A	4	mg/l	N/A	N/A
f. Flow	VALUE N/A	VALUE N/A	VALUE N/A	VALUE N/A	---	---	---	---
g. Temperature (winter)	VALUE 7°C.	VALUE N/A	VALUE N/A	VALUE N/A	1	°C	VALUE N/A	---
h. Temperature (summer)	VALUE 19°C.	VALUE N/A	VALUE N/A	VALUE N/A	1	°C	VALUE N/A	---
i. pH	MINIMUM 6.8	MAXIMUM 6.9	MINIMUM N/A	MAXIMUM N/A	2	STANDARD UNITS	---	---

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

POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL YSES
	a. PRESENT (1) CONCENTRATION	b. ABSENT (2) MASS	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X								0
b. Chlorine, Total Residual	X								0
c. Color	X								0
d. Fecal Coliform	X								0
e. Fluoride (16984-48-8)	X								0
f. Nitrate-Nitrite (as N)									0

(1) Believed to be present in rainwater or runoff carried into river by rainwater.

ITEM V-8 CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If Inseparable)	2. EFFLUENT	3. EFFLUENT		4. UNITS		5. INTRADAILY RANGE VALUE	6. NO. OF ANAL. YRS.
		(1) MAXIMUM DAILY VALUE CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
1. Nitrogen, Total Organic (see N)	X						0
2. Nitrogen, Total (see N)	X						0
3. Phosphorus (see P) Total (7440-31-5)	X						0
4. Radioactivity							
(1) Alpha, Total	X						0
(2) Beta, Total	X						0
(3) Radium, Total	X						0
(4) Radium 226, Total	X						0
(5) Strontium 90, Total	X						0
(6) Tritium (see T)	X						0
(7) Uranium (see U)	X						0
(8) Plutonium (see P)	X						0
(9) Americium (see A)	X						0
(10) Curium (see C)	X						0
(11) Bismuth (see B)	X						0
(12) Polonium (see O)	X						0
(13) Radium 228, Total	X						0
(14) Thorium 230, Total	X						0
(15) Thorium 232, Total	X						0
(16) Uranium 234, Total	X						0
(17) Uranium 235, Total	X						0
(18) Uranium 238, Total	X						0
(19) Plutonium 238, Total	X						0
(20) Plutonium 239, Total	X						0
(21) Plutonium 240, Total	X						0
(22) Plutonium 241, Total	X						0
(23) Americium 241, Total	X						0
(24) Americium 243, Total	X						0
(25) Curium 244, Total	X						0
(26) Curium 246, Total	X						0
(27) Curium 248, Total	X						0
(28) Curium 250, Total	X						0
(29) Bismuth 210, Total	X						0
(30) Bismuth 212, Total	X						0
(31) Bismuth 214, Total	X						0
(32) Bismuth 216, Total	X						0
(33) Bismuth 218, Total	X						0
(34) Bismuth 220, Total	X						0
(35) Bismuth 222, Total	X						0
(36) Bismuth 224, Total	X						0
(37) Bismuth 226, Total	X						0
(38) Bismuth 228, Total	X						0
(39) Bismuth 230, Total	X						0
(40) Bismuth 232, Total	X						0
(41) Bismuth 234, Total	X						0
(42) Bismuth 236, Total	X						0
(43) Bismuth 238, Total	X						0
(44) Bismuth 240, Total	X						0
(45) Bismuth 242, Total	X						0
(46) Bismuth 244, Total	X						0
(47) Bismuth 246, Total	X						0
(48) Bismuth 248, Total	X						0
(49) Bismuth 250, Total	X						0
(50) Bismuth 252, Total	X						0
(51) Bismuth 254, Total	X						0
(52) Bismuth 256, Total	X						0
(53) Bismuth 258, Total	X						0
(54) Bismuth 260, Total	X						0
(55) Bismuth 262, Total	X						0
(56) Bismuth 264, Total	X						0
(57) Bismuth 266, Total	X						0
(58) Bismuth 268, Total	X						0
(59) Bismuth 270, Total	X						0
(60) Bismuth 272, Total	X						0
(61) Bismuth 274, Total	X						0
(62) Bismuth 276, Total	X						0
(63) Bismuth 278, Total	X						0
(64) Bismuth 280, Total	X						0
(65) Bismuth 282, Total	X						0
(66) Bismuth 284, Total	X						0
(67) Bismuth 286, Total	X						0
(68) Bismuth 288, Total	X						0
(69) Bismuth 290, Total	X						0
(70) Bismuth 292, Total	X						0
(71) Bismuth 294, Total	X						0
(72) Bismuth 296, Total	X						0
(73) Bismuth 298, Total	X						0
(74) Bismuth 300, Total	X						0
(75) Bismuth 302, Total	X						0
(76) Bismuth 304, Total	X						0
(77) Bismuth 306, Total	X						0
(78) Bismuth 308, Total	X						0
(79) Bismuth 310, Total	X						0
(80) Bismuth 312, Total	X						0
(81) Bismuth 314, Total	X						0
(82) Bismuth 316, Total	X						0
(83) Bismuth 318, Total	X						0
(84) Bismuth 320, Total	X						0
(85) Bismuth 322, Total	X						0
(86) Bismuth 324, Total	X						0
(87) Bismuth 326, Total	X						0
(88) Bismuth 328, Total	X						0
(89) Bismuth 330, Total	X						0
(90) Bismuth 332, Total	X						0
(91) Bismuth 334, Total	X						0
(92) Bismuth 336, Total	X						0
(93) Bismuth 338, Total	X						0
(94) Bismuth 340, Total	X						0
(95) Bismuth 342, Total	X						0
(96) Bismuth 344, Total	X						0
(97) Bismuth 346, Total	X						0
(98) Bismuth 348, Total	X						0
(99) Bismuth 350, Total	X						0
(100) Bismuth 352, Total	X						0

AR202085

ORIGINAL (Red)

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

002

OUTFALL NUMBER

Form Approved  
OMB No 2040-0086  
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**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND GAS NUMBER (if applicable)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	a. TEST FOR PRESENT	b. REASON FOR ABSENCE	a. MAXIMUM DAILY VALUE (1)	b. MAXIMUM 30 DAY VALUE (1) (if available)	c. LONG TERM AVG. VALUE (1) (if available)	d. NO. OF ANAL. YRS.	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANAL. YRS.
1M. Anthromy, Total (7440-36-0)	X					0				
2M. Arsenic, Total (7440-39-2)	X					0				
3M. Barvillium, Total, 7440-41-7)	X					0				
4M. Cadmium, Total (7440-43-9)	X					0				
5M. Chromium, Total (7440-47-3)	X		0.06	N/A	N/A	4	mg/l			
6M. Copper, Total (7440-50-9)	X		0.07	N/A	N/A	4	mg/l			
7M. Lead, Total (7439-92-1)	X					0				
8M. Mercury, Total (7439-97-6)	X					0				
9M. Nickel, Total (7440-02-0)	X					0				
10M. Selenium, Total (7782-49-2)	X					0				
11M. Silver, Total (7440-22-4)	X					0				
12M. Tellurium, Total (7440-28-0)	X					0				
13M. Zinc, Total (7440-66-6)	X					0				
14M. Cyanide, Total (57-12-6)	X					0				
15M. Phenols, Total	X					0				

AR202086

1. POLLUTANT NUMBER (if available)	MARK 'X'	3. EFFLUENT		LONG TERM AVERAGE VALUE		4. UNITS		5. (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	(1) MASS	a. CONCENTRATION	b. MASS	a. AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
1V. Acrolein (107-02-8)	X								
2V. Acrylonitrile (107-13-1)	X								
3V. Benzene (71-43-2)	X								
4V. Bis (Chloro-methyl) Ether (542-88-1)	X								
5V. Bromoform (75-26-2)	X								
6V. Carbon Tetrachloride (56-23-5)	X								
7V. Chlorobenzene (108-90-7)	X								
8V. Chlorodibromomethane (124-48-1)	X								
9V. Chloroethane (75-00-3)	X								
10V. 2-Chloro-ethyl Vinyl Ether (110-76-8)	X								
11V. Chloroform (67-66-3)	X								
12V. Dichloro-bromomethane (75-27-4)	X								
13V. Dichloro-difluoromethane (75-71-8)	X								
14V. 1,1-Dichloro-ethane (75-34-3)	X								
15V. 1,2-Dichloro-ethane (107-06-2)	X								
16V. 1,1-Dichloro ethylene (75-35-4)	X								
17V. 1,2 Dichloro propane (78-87-5)	X								
18V. 1,3-Dichloro-propylene (542-75-6)	X								
19V. Ethylbenzene (100-41-4)	X								
20V. Methyl Sulfonide (74-83-9)	X								
21V. Methyl Chloride (74-87-3)	X								

AR202087



1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		A. MAXIMUM DAILY VALUE (1) (2) MASS	B. MAXIMUM 30 DAY VALUE (1) (2) MASS	A. CONCENTRATION (1) (2) MASS	B. MASS	A. LONG TERM AVERAGE VALUE (1) (2) MASS	B. NO. OF ANAL. YSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)							
22V. Methylene Chloride (75-09-2)	X						0
23V. 1,1,2,2-Tetrachloroethane (28-34-5)	X						0
24V. Trichlorobenzene (127-18-4)	(1) X	(1) Believe may be present, but only at levels equal to or less than in Outfall 001.					0
25V. Toluene (88-3)	X						0
26V. 1,2-Trans-Dichlorobenzene (86-6)	X						0
27V. 1,1,1-Trichloroethane (156-6)	X						0
28V. 1,1,2-Trichloroethane (79-00-5)	X						0
29V. Trichlorobenzene (79-01-6)	X						0
30V. Trichlorofluoromethane (75-69-4)	X						0
31V. Vinyl Chloride (75-01-4)	X						0
GC/MS FRACTION - ACID COMPOUNDS							
1A. 2-Chlorophenol (98-57-8)	X						0
2A. 2,4-Dichlorophenol (120-83-2)	X						0
3A. 2,4-Dimethylphenol (105-67-9)	X						0
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X						0
5A. 2,4-Dinitrophenol (51-28-5)	X						0
6A. 2-Nitrophenol (88-75-5)	X						0
7A. 4-Nitrophenol (100-02-7)	X						0
8A. P-Chloro-M-Cresol (89-50-7)	X						0
9A. Pentachlorophenol (87-86-5)	X						0
10A. Phenol (109-95-2)	X						0
11A. 2,4,6-Trichlorophenol (86-2)	X						0

AR202088

1. POLLUTANT NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT LONG TERM AVERAGE VALUE		4. UNITS	5.1 LOW FLOW AVERAGE VALUE	5.2 (optional) AVERAGE VALUE	NO. OF ANAL. YSES
		(1) CONC. (ug/l)	(2) MASS	(1) CONC. (ug/l)	(2) MASS				
1B. Acenaphthene (83-32-9)	X								0
2B. Acenaphthylene (208-96-9)	X								0
3B. Anthracene (120-12-7)	X								0
4B. Benzidine (92-87-5)	X								0
5B. Benzo (a) Anthracene (08-85-3)	X								0
6B. Benzo (a) Pyrene (50-32-8)	X								0
7B. 3,4-Benzofluoranthene (206-96-2)	X								0
8B. Benzo (ghi) Perylene (191-24-2)	X								0
9B. Benzo (k) Fluoranthene (207-08-9)	X								0
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X								0
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X								0
12B. Bis (2-Chloropropyl) Ether (102-60-1)	X								0
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X								0
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X								0
16B. Butyl Benzyl Phthalate (86-66-7)	X								0
19B. 2-Chloro-naphthalene (91-58-7)	X								0
17B. 4-Chlorophenyl Phenyl Ether (7006-72-3)	X								0
19B. Chrysene (218-01-9)	X								0
30B. Dibenzofluorene (63-70-3)	X								0
20B. 1,2-Dichlorobenzene (95-50-1)	X								0
21B. 1,3-Dichlorobenzene (841-73-1)	X								0

ORIGINAL (Red)

AR202089

1. POLLUTANT NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) (2) MASS	b. MAXIMUM 30 DAY VALUE (1) (2) MASS	a. CONCENTRATION (1) (2) MASS	b. MASS	a. LONG TERM AVERAGE VALUE (1) (2) MASS	b. NO. OF ANNUAL USES
SCANS FRACTIONS BASE/NEUTRAL COMPOUNDS (continued)							
22B. 1,4-Dichlorobenzene (106-46-7)	X						0
23B. 3,3'-Dichlorobiphenyl (9194-1)	X						0
24B. Diethyl Phthalate (84-66-2)	X						0
25B. Dimethyl Phthalate (131-11-3)	X						0
26B. Di-N-Butyl Phthalate (64-74-2)	X						0
27B. 2,4-Dinitrotoluene (121-14-2)	X						0
28B. 2,6-Dinitrotoluene (608-20-2)	X						0
29B. Di-N-Octyl Phthalate (11784-0)	X						0
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X						0
31B. Fluoranthene (206-44-0)	X						0
32B. Fluorene (86-73-7)	X						0
33B. Hexachlorobenzene (118-74-1)	X						0
34B. Hexachlorobutadiene (37-08-3)	X						0
35B. Hexachlorocyclopentadiene (74-47-4)	X						0
36. Hexachlorobenzene (67-72-1)	X						0
37B. Indeno (1,2,3-cd) Pyrene (183-39-5)	X						0
38B. Isophorone (78-59-1)	X						0
39B. Naphthalene (91-20-3)	X						0
40B. Nitrobenzene (98-96-3)	X						0
41B. N-Nitrosodimethylamine (62-76-9)	X						0
42B. N-Nitrosodipropylamine (621-84-7)	X						0

AR202090

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT LIMITS (if available)		4. UNITS		5. LONG TERM AVERAGE VALUE (optional)	
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
43B. N-Nitro-podophenylamine (86-30-6)									
44B. Phenanthrene (85-01-8)									
45B. Pyrene (129-00-0)									
46B. 1,2,4-Trichlorobenzene (120-82-1)									
GC/MS FRACTION - PESTICIDES									
1P. Aldrin (309-00-2)		X							
2P. D-BHC (319-84-6)		X							
3P. β-BHC (319-85-7)		X							
4P. γ-BHC (58-89-9)		X							
5P. δ-BHC (19-86-8)		X							
6P. Chlordane (57-74-9)		X							
7P. 4,4'-DDT (50-29-3)		X							
8P. 4,4'-DDE (72-55-9)		X							
9P. 4,4'-DDD (72-54-8)		X							
10P. Dieldrin (60-57-1)		X							
11P. D-Endosulfan (115-29-7)		X							
12P. β-Endosulfan (115-29-7)		X							
13P. Endosulfan Sulfate (1031-07-8)		X							
14P. Endrin (72-20-8)		X							
15P. Endrin Aldehyde (7421-93-4)		X							
16P. Heptachlor (76-44-8)		X							

ORIGINAL (Red)

AR202091

1. POLLUTANT AND GAS NUMBER (if applicable)	2. NAME OF CHEMICAL	3. EFFLUENT	4. UNITS		5. INTAKE (approx)	6. NO OF ANAL. YSES
			a. CONCENTRATION	b. MASS		
GC/MS FRACTION - PESTICIDES (continued)	a. MAXIMUM DAILY VALUE (1) (2) MASS	b. MAXIMUM DAILY VALUE (1) (2) MASS	c. LONG TERM AVERAGE VALUE (1) (2) MASS	d. LONG TERM AVERAGE VALUE (1) (2) MASS	e. NO OF ANAL. YSES	f. NO OF ANAL. YSES
17P. Heptachlor Epoxide (102457-3)	X					0
18P. PCB-1242 (53469-21-9)	X					0
19P. PCB-1254 (11097-69-1)	X					0
20P. PCB-1221 (11104-28-2)	X					0
21P. PCB-1232 (11141-16-5)	X					0
22P. PCB-1248 (12672-29-6)	X					0
23P. PCB-1260 (11098-82-5)	X					0
24P. PCB-1016 (12674-11-2)	X					0
25P. Toxaphene (3001-35-2)	X					0

AR202092

OUTFALL NO. 003

ORIGINAL  
(red)

AR202093

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

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
DED980830400

Form Approved  
OMB No 2040-0086  
Approval expires 7/31/80

202094

OUTFALL NO  
003

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

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

1. POLLUTANT	2. EFFLUENT				3. UNITS		4. INTAKE (optional)					
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE	D. NO. OF ANALYSES	E. CONCENTRATION	F. MASS	A. LONG TERM AVERAGE VALUE		B. NO. OF ANALYSES	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS		
a. Biochemical Oxygen Demand (BOD <sub>5</sub> )	11	N/A	N/A	N/A	N/A	3	mg/l	---	N/A	N/A	---	
b. Chemical Oxygen Demand (COD)	41	N/A	N/A	N/A	N/A	3	mg/l	---	N/A	N/A	---	
c. Total Organic Carbon (TOC)	12	N/A	N/A	N/A	N/A	3	mg/l	---	N/A	N/A	---	
d. Total Suspended Solids (TSS)	23	N/A	N/A	N/A	N/A	3	mg/l	---	N/A	N/A	---	
e. Ammonia (as N)	1.5	N/A	N/A	N/A	N/A	3	mg/l	---	N/A	N/A	---	
f. Flow	VALUE	N/A	VALUE	N/A	VALUE	---	---	---	VALUE	---	---	
g. Temperature (winter)	VALUE	7°C.	VALUE	N/A	VALUE	1	°C	---	VALUE	N/A	---	
h. Temperature (summer)	VALUE	19°C.	VALUE	N/A	VALUE	1	°C	---	VALUE	N/A	---	
i. pH	MINIMUM	6.8	MAXIMUM	6.9	MINIMUM	N/A	MAXIMUM	N/A	MINIMUM	N/A	MAXIMUM	---

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

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE	c. LONG TERM AVERAGE VALUE	d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS
a. Bromide (24959-57-9)	X				0		
b. Chlorine, Total Residual	X				0		
c. Color	X				0		
d. Fecal Coliform	X				0		
e. Fluoride (16984-48-8)	X				0		
f. Nitrate-Nitrite (as N)	(1)	(1)			0		

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If metabolic)	2. ANAL. METHOD	3. EFFLUENT	4. UNITS		5. INITIAL (Optional)		6. NO. OF ANAL. YES
			a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM DAILY VALUE (2) MASS	a. AVERAGE VALUE (1) CONCENTRATION	b. AVERAGE VALUE (2) MASS	
1. Nitrogen, Total Organic (as N)							
2. Oxidant (as O <sub>2</sub> )							
3. Hydrogen Sulfide (as S)							
4. Cyanide (as CN)							
5. Fluoride (as F)							
6. Sulfide (as S)							
7. Sulfite (as SO <sub>3</sub> )							
8. Sulfate (as SO <sub>4</sub> )							
9. Ammonia, Total (7429-90-5)							
10. Boron, Total (7440-42-8)							
11. Cadmium, Total (7440-48-4)							
12. Chromium, Total (7440-47-3)							
13. Copper, Total (7440-50-9)							
14. Iron, Total (7439-89-6)							
15. Magnesium, Total (7439-96-4)							
16. Manganese, Total (7439-96-7)							
17. Nickel, Total (7439-96-8)							
18. Silver, Total (7440-31-5)							
19. Zinc, Total (7440-32-8)							
20. Total							
21. Total							
22. Total							
23. Total							
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99. Total							
100. Total							

AR202095



EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
 DED980830400 003

Form Approved  
 OMB No. 2040-0086  
 Approval expires 7-31-88

ORIGINAL  
 (Red)

CONTINUED FROM PAGE 2 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	A. TOXIC METALS, CYANIDE, AND TOTAL PHENOLS	B. OTHER	A. MAXIMUM DAILY VALUE (1)	B. MAXIMUM DAILY VALUE (2) MASS	C. LONG TERM AVERAGE VALUE (1)	D. LONG TERM AVERAGE VALUE (2) MASS	E. NO. OF ANAL. YRS.	F. CONCENTRATION	G. LONG TERM AVERAGE VALUE (1)	H. LONG TERM AVERAGE VALUE (2) MASS	I. NO. OF ANAL. YRS.
1M. Antimony, Total (7440-38-0)	X							0			
2M. Arsenic, Total (7440-38-2)	X							0			
3M. Barium, Total, (7440-41-7)	X							0			
4M. Cadmium, Total (7440-43-9)	X							0			
5M. Chromium, Total (7440-47-3)	X		<0.05	N/A	N/A	N/A	N/A	3	mg/L		
6. Copper, Total (6509)	X		0.11	N/A	N/A	N/A	N/A	3	mg/L		
7. Lead, Total (82-11)	X							0			
8. Mercury, Total (39-97-6)	X							0			
9. Nickel, Total (40-02-0)	X							0			
10. Selenium, Total (7782-49-2)	X							0			
11. Silver, Total (7440-22-4)	X							0			
12M. Tellurium, Total (7440-28-0)	X							0			
13M. Zinc, Total (7440-65-6)	X							0			
14M. Cyanide, Total (57-12-6)	X							0			
18M. Phenols, Total	X							0			

AR20209

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT MAXIMUM DAILY VALUE		4. UNITS		5. LONG TERM AVERAGE VALUE		NO OF ANAL. YSES	NO OF ANAL. YSES
		(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)		
		CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION		
GC/MS FRACTION											
1V. Acrolein (107-02-8)	X										
2V. Acrylonitrile (107-13-1)	X										
3V. Benzene (71-43-2)	X										
4V. Bis (Chloro-methyl) Ether (542-88-1)	X										
5V. Bromoform (75-25-2)	X										
6V. Carbon Tetrachloride (56-23-8)	X										
7V. Chlorobenzene (108-90-7)	X										
8V. Chloro-dibromomethane (124-48-1)	X										
9V. Chloroethane (75-00-3)	X										
10V. 2-Chloro-ethyl Vinyl Ether (110-75-8)	X										
11V. Chloroform (67-66-3)	X										
12V. Dichloro-bromomethane (75-27-4)	X										
13V. Dichloro-difluoromethane (75-71-8)	X										
14V. 1,1-Dichloro-ethane (75-34-3)	X										
15V. 1,2-Dichloro-ethane (107-06-2)	X										
16V. 1,1 Dichloro ethylene (75-35-4)	X										
17V. 1,2-Dichloro propane (78-87-5)	X										
18V. 1,3-Dichloro-propylene (542-75-6)	X										
19V. Ethylbenzene (100-41-4)	X										
20V. Methyl Bromide (74-83-9)	X										
21V. Methyl Chloride (74-87-3)	X										

AR202097

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) (2) MASS	b. MAXIMUM 30 DAY VALUE (1) (2) MASS	a. CONCENTRATION (1) (2) MASS	b. MASS	a. LONG TERM AVERAGE VALUE (1) (2) MASS	b. NO. OF ANAL. YRS
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)							
22V. Methylene Chloride (75-09-2)	X						0
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)	X						0
24V. Tetrachloro-ethylene (127-18-4)	(1) X	(1) Believe may be present, but only at levels equal to or less than in Outfall 001.					0
25V. Toluene (108-88-3)	X						0
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X						0
27V. 1,1,1-Trichloroethane (77-55-6)	X						0
28V. 1,1,2-Trichloroethane (99-05-1)	X						0
29V. Trichloro-ethylene (79-01-6)	X						0
30V. Trichloro-ethylene (79-01-6)	X						0
31V. Vinyl Chloride (75-01-4)	X						0
GC/MS FRACTION - ACID COMPOUNDS							
32A. 2-Chlorophenol (95-57-8)	X						0
33A. 2,4-Dichloro-phenol (120-83-2)	X						0
34A. 2,4-Dimethyl phenol (105-67-9)	X						0
35A. 4,6-Dinitro-O-Cresol (534-52-1)	X						0
36A. 2,4-Dinitro-phenol (51-28-5)	X						0
37A. 2-Nitrophenol (88-75-5)	X						0
38A. 4-Nitrophenol (100-02-7)	X						0
39A. P-Chloro-M-Cresol (59-50-7)	X						0
40A. Pentachloro-phenol (87-86-5)	X						0
41A. Phenol (98-95-2)	X						0
42A. 2,4,6-Tri-chlorophenol (98-06-2)	X						0

AR202098

1. POLLUTANT NUMBER (if available)	MARK 'X'	2. BASELINE CENTRAL COMPOUNDS		3. EFFLUENT		4. LONG TERM AVERAGE VALUE		5. UNITS		6. (optional)	
		A. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	B. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	A. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	B. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	A. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	B. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	A. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	B. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	A. MAXIMUM DAILY VALUE (1) [ ] (2) MASS	B. MAXIMUM DAILY VALUE (1) [ ] (2) MASS
1B. Acetophenone (83-32-9)	X										
2B. Acenaphthylene (208-96-8)	X										
3B. Anthracene (120-12-7)	X										
4B. Benzidine (92-87-5)	X										
5B. Benzo (a) Anthracene (85-55-3)	X										
6B. Benzo (a) Pyrene (80-32-8)	X										
7B. 3,4-Benzofluoranthene (206-99-2)	X										
8B. Benzo (ghi) Perylene (181-24-2)	X										
9B. Benzo (k) Fluoranthene (207-08-9)	X										
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X										
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X										
12B. Bis (2-Chloropropyl) Ether (102-80-1)	X										
13B. Bis (3-Ethylhexyl) Phthalate (117-91-7)	X										
14B. 4-Bromo-phenyl Phenyl Ether (101-56-9)	X										
15B. Butyl Benzyl Phthalate (85-68-7)	X										
16B. 2-Chloronaphthalene (91-58-7)	X										
17B. 4-Chlorophenyl Phenyl Ether (7006-72-3)	X										
18B. Chrysene (218-01-9)	X										
19B. Dibenzo (a,h) Anthracene (63-70-3)	X										
20B. 1,2-Dichlorobenzene (95-50-1)	X										
21B. 1,3-Dichlorobenzene (541-73-1)	X										

DRINKING WATER

AR202099

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	BASE/NEUTRAL COMPOUNDS (continued)	CONC. ESTIMATION	a. MAXIMUM DAILY VALUE (1) (2) mass	b. MAXIMUM 30 DAY VALUE (1) (2) mass	c. LONG TERM AVG. VALUE (1) (2) mass	d. NO. OF ANAL. YRS	a. LONG TERM AVERAGE VALUE (1) (2) mass	b. NO. OF ANAL. YRS
22B. 1,4-Dichloro-benzene (106-46-7)						0		
23B. 3,3'-Dichloro-biphenyl (91-94-1)						0		
24B. Diethyl Phthalate (84-66-2)						0		
26B. Dimethyl Phthalate (131-11-3)						0		
26B. Di-N-Butyl Phthalate (84-74-2)						0		
27B. 2,4-Dinitro-toluene (121-14-2)						0		
28B. 2,6-Dinitro-toluene (808-20-2)						0		
28B. Di-N-Octyl Phthalate (117-84-0)						0		
30B. 1,2-Diphenyl-hydrazine (as Azo-benzene) (122-86-7)						0		
31B. Fluoranthene (206-44-0)						0		
32B. Fluorene (86-74-7)						0		
33B. Hexachlorobenzene (118-74-1)						0		
34B. Hexa-chlorobutadiene (87-68-3)						0		
36B. Hexachloro-cyclopentadiene (177-47-4)						0		
26B. Hexachloro-ethene (67-72-1)						0		
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)						0		
38B. Isophorone (76-69-1)						0		
39B. Naphthalene (91-20-3)						0		
40B. Nitrobenzene (98-95-3)						0		
41B. N-Nitro-nodimethylamine (62-76-9)						0		
42B. N-Nitrosodi-N-propylamine (621-84-7)						0		

ORIGINAL (Red)

AR202100

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT			4. UNITS		5. LONG TERM AVERAGE VALUE (optional)		b. NO OF ANAL YSES
		a. MAXIMUM DAILY VALUE (1) (if available)	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) (if available)	(2) MASS	U. CONCENTRATION	U. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	
43B. N-Nitro-podiphenylamine (86-30-6)	X								0
44B. Phenanthrene (85-01-9)	X								0
45B. Pyrene (129-00-0)	X								0
46B. 1,2,4-Trichlorobenzene (120-82-1)	X								0
GC/MS FRACTION - PESTICIDES									
1P. Aldrin (309-00-2)	X								0
2P. D-BHC (319-84-6)	X								0
3P. β-BHC (319-85-7)	X								0
4P. γ-BHC (58-89-9)	X								0
5P. δ-BHC (19-86-8)	X								0
6P. Chlordane (57-74-9)	X								0
7P. 4,4'-DDT (50-29-3)	X								0
8P. 4,4'-DDE (72-55-9)	X								0
9P. 4,4'-DDD (72-54-8)	X								0
10P. Dieldrin (60-57-1)	X								0
11P. D-Endosulfan (115-29-7)	X								0
12P. β-Endosulfan (115-29-7)	X								0
13P. Endosulfan Sulfate (1031-07-8)	X								0
14P. Endrin (72-20-8)	X								0
15P. Endrin Aldehyde (7421-93-4)	X								0
16P. Heptachlor (76-44-8)	X								0

AR202101

POLLUTANT AND CAS NUMBER (if available)	2 MARKING		3 EFFLUENT				4 UNITS		5 INTAKE (optional)	
	177 Epo. Chlor	178 Epo. Chlor	a. MAXIMUM DAILY VALUE (1) (2) MASS	b. MAXIMUM DAILY VALUE (1) (2) MASS	c. LONG TERM AVERAGE VALUE (1) (2) MASS	d. NO. OF ANAL. YRS.	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YRS.
177. Heptachlor Epoxide (102457-9)		X				0				
18P. PCB-1242 (63469-21-9)		X				0				
19P. PCB-1264 (11097-69-1)		X				0				
20P. PCB-1221 (11104-28-2)		X				0				
21P. PCB-1232 (11141-16-6)		X				0				
22P. PCB-1248 (12672-29-6)		X				0				
23P. PCB-1260 (11098-82-5)		X				0				
24P. PCB-1016 (12674-11-2)		X				0				
25P. Tokaphene (8001-36-2)		X				0				

AR202102

ORIGINAL  
(Red)

OUTFALL NO. 004

AR202103



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

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

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

I. POLLUTANT	2. EFFLUENT		3. INTAKE (optional)		d. NO. OF ANALYSES	3. UNITS (specify if blank)	d. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. LONG TERM AVERAGE VALUE (2) MASS			
a. Biochemical Oxygen Demand (BOD)	<12	N/A	N/A	N/A	1	mg/l	N/A
b. Chemical Oxygen Demand (COD)	18	N/A	N/A	N/A	1	mg/l	N/A
c. Total Organic Carbon (TOC)	18	N/A	N/A	N/A	1	mg/l	N/A
d. Total Suspended Solids (TSS)	55	N/A	N/A	N/A	1	mg/l	N/A
e. Ammonia (as N)	1.4	N/A	N/A	N/A	1	mg/l	N/A
f. Flow	VALUE	VALUE	VALUE	VALUE	---	---	---
g. Temperature (winter)	NO DATA	VALUE	VALUE	VALUE	0	°C	N/A
h. Temperature (summer)	20°C	VALUE	VALUE	VALUE	1	°C	N/A
i. pH	MINIMUM 5.7	MAXIMUM 5.7	MINIMUM N/A	MAXIMUM N/A	1	STANDARD UNITS	N/A

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

I. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d. MASS RATION	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
a. Bromide (24659-67-9)	X						
b. Chlorine, Total Residual	X						
c. Color	X						
d. Fecal Coliform	X						
e. Fluoride (16884-48-8)	X						
f. Nitrate-Nitrite (as N)	(1) X	(1) Believed to be present in river by rainwater.					

ORIGINAL FILED

ITEM V.B CONT	D. FROM FRONT			3. EFFLUENT			4. UNITS			5. INTAKE (optional)		
	1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' (if checked)		B. MAXIMUM DAILY VALUE		C. LONG TERM AVERAGE VALUE		A. CONCENTRATION	B. MASS	D. NO. OF ANALYSES	E. AVERAGE VALUE	
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
F. Nitrogen Total Organic (as N)	X									0		
F. Nitrogen Total Inorganic (as N)	X									0		
F. Nitrogen Total (as N)	X									0		
J. Radioactivity												
(1) Alpha, Total	X									0		
(2) Beta, Total	X									0		
(3) Radium, Total	X									0		
(4) Radium 226, Total	X									0		
K. Sulfide (as SO <sub>4</sub> ) (14208-79-9)	X			(1) Believed to be present in rainwater or sediment carried into river by rainwater.						0		
L. Sulfide (as S)	X									0		
M. Sulfite (as SO <sub>3</sub> ) (14208-46-3)	X									0		
N. Surfactants	X									0		
O. Aluminum, Total (7429-90-5)	(1) X									0		
P. Barium, Total (7440-39-3)	X									0		
Q. Boron, Total (7440-42-8)	X									0		
R. Cobalt, Total (7440-48-4)	X									0		
S. Iron, Total (7439-86-6)	(1) X									0		
T. Magnesium, Total (7439-95-4)	X									0		
U. Molybdenum, Total (7439-98-7)	X									0		
V. Manganese, Total (7439-96-5)	X									0		
W. Tin, Total (7440-31-5)	X									0		
X. Titanium, Total (7440-32-6)	X									0		

6900124  
Inco

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**DED980830400** **004**

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	TEST NO. (if available)	PRE-SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM (if available) (1) CONCENTRATION	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	9. LONG TERM AVERAGE VALUE (1) CONCEN- TRATION	b. NO. OF ANAL. YSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>										
1M. Antimony, Total (7440-36-0)		X				0				
2M. Arsenic, Total (7440-38-2)		X				0				
3M. Beryllium, Total (7440-41-7)		X				0				
4M. Cadmium, Total (7440-43-9)		X				0				
5M. Chromium, Total (7440-47-3)	X		0.06	N/A	N/A	1	N/A	N/A	mg/l	
6M. Copper, Total (7440-50-9)	X		0.09	N/A	N/A	1	N/A	N/A	mg/l	
7M. Lead, Total (7439-97-5)		X				0				
8M. Mercury, Total (7439-97-5)		X				0				
9M. Nickel, Total (7440-02-0)		X				0				
10M. Selenium, Total (7782-49-2)		X				0				
11M. Silver, Total (7440-22-4)		X				0				
12M. Thallium, Total (7440-28-0)		X				0				
13M. Zinc, Total (7440-66-4)		X				0				
14M. Cyanide, Total (57-12-6)		X				0				
15M. Phenols, Total		X				0				
<b>DIOXIN</b>										
2,3,7,8 Tetra-chlorodibenzo-P-Dioxin (1764-01-6)		X								

ORIGINAL (Red)

AR202106

DESCRIBE RESULTS

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**DED980830400** **005**

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D NO. OF ANAL. YSES
	a. TESTING REQUIRED	b. RE-TESTING REQUIRED	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if applicable) (1) CONCENTRATION	c. LONG TERM AVERAGE VALUE (if applicable) (1) CONCENTRATION	d. MASS (2) MASS	e. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>											
1M. Antimony, Total (7440-36-0)		X									0
2M. Arsenic, Total (7440-39-2)		X									0
3M. Beryllium, Total, (7440-41-7)		X									0
4M. Cadmium, Total (7440-43-9)		X									0
5M. Chromium, Total (7440-47-3)	X		< 0.05	N/A	N/A	N/A	N/A	mg/l			1
6M. Copper, Total (7440-50-9)	X		0.07	N/A	N/A	N/A	N/A	mg/l			1
7M. Lead, Total (6439-82-1)		X									0
8M. Mercury, Total (7439-97-6)		X									0
9M. Nickel, Total (7440-02-0)		X									0
10M. Selenium, Total (7782-49-2)		X									0
11M. Silver, Total (7440-22-4)		X									0
12M. Tellurium, Total (7440-28-0)		X									0
13M. Zinc, Total (7440-66-6)		X									0
14M. Cyanide, Total (57-12-5)		X									0
15M. Phenols, Total		X									0

ORIGINAL (Red)

AR202107

DIOXIN		DESCRIBE RESULTS
2,3,7,8 Tetra-chlorodibenzo P Dioxin (1764 01 6)	X	

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (if available)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCEN TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO OF ANAL YSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>							
1V. Acrolein (107-02-8)	X						
2V. Acrylonitrile (107-13-1)	X						
3V. Benzene (71-43-2)	X						
4V. Bis (Chloro-methyl) Ether (542-88-1)	X						
5V. Bromoform (75-26-2)	X						
6V. Carbon Tetrachloride (56-23-5)	X						
7V. Chlorobenzene (108-90-7)	X						
8V. Chlorodi-bromomethane (124-48-1)	X						
9V. Chloroethane (75-00-3)	X						
10V. 2-Chloro-ethylvinyl Ether (110-76-8)	X						
11V. Chloroform (67-66-3)	X						
12V. Dichloro-bromomethane (75-27-4)	X						
13V. Dichloro-difluoromethane (75-71-8)	X						
14V. 1,1-Dichloro-ethane (75-34-3)	X						
15V. 1,2-Dichloro-ethane (107-06-2)	X						
16V. 1,1-Dichloro-ethylene (75-35-4)	X						
17V. 1,2-Dichloro-propane (78-87-5)	X						
18V. 1,3-Dichloro-propylene (542-75-6)	X						
19V. Ethylbenzene (100-41-4)	X						
20V. Methyl Bromide (74-83-9)	X						
21V. Methyl Chloride (74-87-5)	X						

APR 20 2002

EPA I.D. NUMBER (copy from Item 1 of 1) **004**  
OUTFALL NUMBER **004**

EVA

CONTINUED FROM

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b NO OF ANAL. YSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVERAGE VALUE (if available) (1) CONCENTRATION	d. MASS	e. LONG TERM AVERAGE VALUE (1) MASS	f. MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>								
22V. Methylene Chloride (75-09-2)	X							0
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X							0
24V. Tetrachloroethylene (127-18-4)	(1) X	(1) Believe may be present, but only at levels equal to or less than in Outfall 001.						0
25V. Toluene (108-98-3)	X							0
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X							0
27V. 1,1,1-Trichloroethane (71-55-6)	X							0
28V. 1,1,2-Trichloroethane (79-00-5)	X							0
29V. Trichloroethylene (79-01-6)	X							0
30V. Trichlorofluoromethane (75-69-4)	X							0
31V. Vinyl Chloride (75-01-4)	X							0
<b>GC/MS FRACTION - ACID COMPOUNDS</b>								
1A. 2-Chlorophenol (96-67-8)	X							0
2A. 2,4-Dichlorophenol (120-83-2)	X							0
3A. 2,4-Dimethylphenol (106-67-9)	X							0
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X							0
5A. 2,4-Dinitrophenol (51-28-5)	X							0
6A. 2-Nitrophenol (88-75-5)	X							0
7A. 4-Nitrophenol (100-02-7)	X							0
8A. P-Chloro-M-Cresol (59-50-7)	X							0
9A. Pentachlorophenol (87-86-5)	X							0
10A. Phenol (108-95-2)	X							0
11A. 2,4,6-Trinitrophenol (88-06-2)	X							0

AR202109

ORIGINAL (Red)

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'A'	3. EFFLUENT		4. UNITS		5. IR - (optional)	
		TEST AND QUIN. NO.	D. SE. IN REACTOR (1) CONC. (2) MASS	D. MAXIMUM DAILY VALUE (1) CONC. (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONC. (2) MASS	D. LONG TERM (1) CONC. (2) MASS	D. NO OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>							
1B. Acenaphthene (83-32-9)		X					0
2B. Acenaphthylene (208-96-8)		X					0
3B. Anthracene (120-12-7)		X					0
4B. Benzidine (92-87-5)		X					0
5B. Benzo (e) Anthracene (95-55-3)		X					0
6B. Benzo (a) Pyrene (50-32-8)		X					0
7B. 3,4-Benzofluoranthene (205-99-2)		X					0
8B. Benzo (ghi) Perylene (191-24-2)		X					0
9B. Benzo (h) Fluoranthene (207-08-9)		X					0
10B. Bis (2-Chloro-2-propyl) Methane (111-91-1)		X					0
11B. Bis (2-Chloroethyl) Ether (111-44-4)		X					0
12B. Bis (2-Chloropropyl) Ether (102-60-1)		X					0
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)		X					0
14B. 4-Bromophenyl Phenyl Ether (101-85-3)		X					0
15B. Butyl Benzyl Phthalate (85-68-7)		X					0
16B. 2-Chloronaphthalene (91-65-7)		X					0
17B. 4-Chlorophenyl Phenyl Ether (7006-72-3)		X					0
18B. Chrysenes (218-01-9)		X					0
19B. Dibenzo (a,h) Anthracene (93-70-3)		X					0
20B. 1,2-Dichlorobenzene (95-50-1)		X					0
21B. 1,3-Dichlorobenzene (541-73-1)		X					0

AR202110

ORIGINAL (Red)

EPA I.D. NUMBER (copy from Item 1 c)  
DED980830400

W 1) CUTFALL NUMBER  
004

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	TEST METHOD	CONCENTRATION	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVG. VALUE (1) CONCENTRATION	d. MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	d NO. OF ANAL YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>								
228. 1,4-Dichlorobenzene (106-46-7)	X							0
238. 3,3'-Dichlorobenzidine (91-84-1)	X							0
248. Diethyl Phthalate (84-86-2)	X							0
268. Dimethyl Phthalate (131-11-3)	X							0
288. Di-N-Butyl Phthalate (84-74-2)	X							0
278. 2,4-Dinitrotoluene (121-14-2)	X							0
288. 2,6-Dinitrotoluene (606-20-2)	X							0
288. Di-N-Octyl Phthalate (117-84-0)	X							0
308. 1,2-Diphenylhydrazine (or Azobenzene) (122-66-7)	X							0
318. Fluorene (206-44-0)	X							0
328. Fluorene (86-73-7)	X							0
338. Hexachlorobenzene (118-74-1)	X							0
348. Hexachlorobutadiene (37-98-3)	X							0
358. Hexachlorocyclopentadiene (177-47-4)	X							0
368. Hexachloroethane (67-72-1)	X							0
378. Indeno (1,2,3-cd) Pyrene (193-39-8)	X							0
388. Isophoron (78-68-1)	X							0
398. Naphthalene (91-20-3)	X							0
408. Nitrobenzene (98-96-3)	X							0
418. N-Nitrosodimethylamine (82-76-9)	X							0
428. N-Nitrosodi-N-Propylamine (82-54-7)	X							0

AR 202

04/23/82  
1159



CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL YSES
	A. TEST D. BE. RECEIVED ONLY	C. P. SPAT. SEMI. A.D.	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION (2) MASS	B. CONCENTRATION	D. MASS	B. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANAL YSES		
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
438. N-Nitro-sediphenylamine (86-30-6)		X									0
448. Phenanthrene (85-01-8)		X									0
458. Pyrene (129-00-0)		X									0
488. 1,2,4 - Tri-chlorobenzene (120-82-1)		X									0
<b>GC/MS FRACTION - PESTICIDES</b>											
1P. Aldrin (309-00-2)		X									0
2P. $\alpha$ -BHC (319 84-6)		X									0
3P. $\beta$ -BHC (319 85-7)		X									0
4P. $\gamma$ -BHC (58 89-9)		X									0
5P. $\delta$ -BHC (19 86-8)		X									0
6P. Chlordane (57-74-9)		X									0
7P. 4,4'-DDT (50-29-3)		X									0
8P. 4,4'-DDE (72-65-9)		X									0
9P. 4,4'-DDD (72-64-8)		X									0
10P. Dieldrin (60-57-1)		X									0
11P. $\alpha$ -Endosulfan (115-29-7)		X									0
12P. $\beta$ -Endosulfan (115-29-7)		X									0
13P. Endosulfan Sulfate (1031-07-8)		X									0
14P. Endrin (72-20-8)		X									0
15P. Endrin Aldehyde (7421-93-4)		X									0
16P. Heptachlor (76-44-8)		X									0
AR202112											

EPA I.D. NUMBER (copy from Item I of Form I) | OUTFALL NUMBER  
DED980830400 | 004

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4 UNITS		5 INTAKE (optional)		D. NO OF ANAL YSES
	A. TEST OR PROC. OR QUANT. SENT	B. CLASS. OR AB. SENT	a. MAXIMUM DAILY VALUE (1) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	c. LONG TERM (if available) (1) MASS	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - PESTICIDES (continued)</b>											
17P. Heptachlor Epoxide (1024-57-3)		X									0
18P. PCB-1242 (53469-21-9)		X									0
19P. PCB-1254 (11097-69-1)		X									0
20P. PCB-1221 (11104-28-2)		X									0
21P. PCB-1232 (11141-16-5)		X									0
22P. PCB-1248 (12672-29-6)		X									0
23P. PCB-1260 (11098-82-5)		X									0
24P. PCB-1016 (12674-11-2)		X									0
25P. Toxaphene (8001-35-2)		X									0

AR202113

ORIGINAL  
(16)

OUTFALL NO. 005

AR202114

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

OUTFALL NO  
005

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

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

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)			4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		j. NO. OF ANALYSES	k. CONCENTRATION	l. MASS	j. LONG TERM AVERAGE VALUE		m. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	< 6	N/A	N/A	N/A	1	mg/l	---	N/A	N/A	---
b. Chemical Oxygen Demand (COD)	25	N/A	N/A	N/A	1	mg/l	---	N/A	N/A	---
c. Total Organic Carbon (TOC)	14	N/A	N/A	N/A	1	mg/l	---	N/A	N/A	---
d. Total Suspended Solids (TSS)	33	N/A	N/A	N/A	1	mg/l	---	N/A	N/A	---
e. Ammonia (as N)	0.45	N/A	N/A	N/A	1	mg/l	---	N/A	N/A	---
f. Flow	VALUE	VALUE	VALUE	VALUE	---	---	---	VALUE	---	---
g. Temperature (winter)	VALUE	VALUE	VALUE	VALUE	0	°C	---	VALUE	---	---
h. Temperature (summer)	VALUE	VALUE	VALUE	VALUE	1	°C	---	VALUE	---	---
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	1	STANDARD UNITS	---	VALUE	---	---
	5.4	5.4	N/A	N/A						

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

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	a. PRESENT	b. ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVERAGE VALUE (if available)	d. NO. OF ANALYSES	e. LONG TERM AVERAGE VALUE	f. MASS	g. CONCENTRATION	h. MASS	i. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
a. Bromide (26059-07-9)	X						0						
b. Chlorine, Total Residual	X						0						
c. Color	X						0						
d. Fecal Coliform	X						0						
e. Fluoride (16984-48-8)	X						0						
f. Nitrate-Nitrite (as N)	X						0						
							0						

(1) Believed to be present in rainwater or sent carried into river by rainwater.

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' USED AS SENT PRESENT	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YSES
		B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERAGE VALUE (if available) (1) CONCENTRATION (2) MASS	S. CONCENTRATION	D. MASS	AVERAGE VALUE (1) CONCENTRATION (2) MASS	
G. Nitrogen, Total Organic (as N)	X							0
H. Nitrate Nitrogen	X							0
I. Ammonia Nitrogen (as N)	X							0
J. Radiactivity								
(1) Alpha, Total	X							0
(2) Beta, Total	X							0
(3) Radium, Total	X							0
(4) Radium 226, Total	X							0
K. Sulfide (as SO <sub>4</sub> ) (14208-79-8)	(1) X	(1) Believed to be present in rainwater or sediment carried into river by rainwater.						0
L. Sulfide (as S)	X							0
M. Sulfite (as SO <sub>3</sub> ) (14208-46-3)	X							0
N. Surfactants	X							0
O. Aluminum, Total (7429-90-8)	(1) X							0
P. Barium, Total (7440-39-3)	X							0
Q. Boron, Total (7440-42-8)	X							0
R. Cadmium, Total (7440-48-4)	X							0
S. Iron, Total (7439-86-6)	(1) X							0
T. Magnesium, Total (7439-96-4)	X							0
U. Molybdenum, Total (7439-96-7)	X							0
V. Manganese, Total (7439-96-8)	X							0
W. Tin, Total (7440-31-8)	X							0
X. Titanium, Total (7440-32-6)	X							0

AR202116

ORIGINAL FILED

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	D. NO. OF POLLUTANT SENT TO WWT	E. NO. OF POLLUTANT SENT TO AIR	B. MAXIMUM DAILY VALUE		C. LONG TERM (if available) VALUE		A. CONCEN TRATION	B. MASS	A. LONG TERM AVERAGE VALUE (1) CONCEN TRATION	B. NO OF ANAL YSES	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>											
1V. Acrolein (107-02-8)											
2V. Acrylonitrile (107-13-1)			X								0
3V. Benzene (71-43-2)			X								0
4V. Bis (Chloro-methyl) Ether (542-88-1)			X								0
5V. Bromoform (76-26-2)			X								0
6V. Carbon Tetrachloride (56-23-5)			X								0
7V. Chlorobenzene (108-90-7)			X								0
8V. Chlorodi-bromomethane (124-48-1)			X								0
9V. Chloroethane (76-00-3)			X								0
10V. 2-Chloro-ethylvinyl Ether (110-76-8)			X								0
11V. Chloroform (67-66-3)			X								0
12V. Dichloro-bromomethane (75-27-4)			X								0
13V. Dichloro-difluoromethane (75-71-8)			X								0
14V. 1,1-Dichloro-ethane (75-34-3)			X								0
15V. 1,2-Dichloro-ethane (107-06-2)			X								0
16V. 1,1-Dichloro-ethylene (75-36-4)			X								0
17V. 1,2 Dichloro propane (78-87-5)			X								0
18V. 1,3-Dichloro-propylene (542-75-6)			X								0
19V. Ethylbenzene (100-41-4)			X								0
20V. Methyl Bromide (74-83-9)			X								0
21V. Methyl Chloride (74-87-3)			X								0

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EPA I.D. NUMBER (copy from Item 1 of  
DED980830400

OUTFALL NUMBER  
005

CONTINUED FROM PAGE V-4

1. POLLUTANT AND NUMBER (if available)	2. MARK 'X' (TEST INCLUDES PRESENT)	3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
		2. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. MASS			
<b>GCMS FRACTION - VOLATILE COMPOUNDS (continued)</b>										
22V. Methylene Chloride (75-09-2)	X									0
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X									0
24V. Tetrachloroethylene (127-18-4)	(1) X	(1) Believe may be present, but only at levels equal to or less than in Outfall 001.								0
25V. Toluene (108-88-3)	X									0
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X									0
27V. 1,1,1-Trichloroethane (71-55-6)	X									0
28V. 1,1,2-Trichloroethane (79-00-5)	X									0
29V. Trichloroethylene (79-01-6)	X									0
30V. Trichlorofluoromethane (75-69-4)	X									0
31V. Vinyl Chloride (75-01-4)	X									0
<b>GCMS FRACTION - ACID COMPOUNDS</b>										
1A. 2-Chlorophenol (86-57-8)	X									0
2A. 2,4-Dichlorophenol (120-83-2)	X									0
3A. 2,4-Dimethylphenol (105-67-9)	X									0
4A. 4,6-Dinitro-Cresol (534-52-1)	X									0
5A. 2,4-Dinitrophenol (51-28-5)	X									0
1A. 2-Nitrophenol (88-76-5)	X									0
1A. 4-Nitrophenol (100-02-7)	X									0
1A. P-Chloro-M-cresol (59-50-7)	X									0
1A. Pentachloroethane (87-86-5)	X									0
0A. Phenol (108-95-2)	X									0
1A. 2,4,6-Trinitrophenol (88-06-2)	X									0

10/2/88  
197

202118

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	3. EFFLUENT		4. UNITS		5. INT...E (optional)		
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION (2) MASS	d. NO OF ANAL. YSES	e. CONCEN- TRATION	f. MASS	g. LONG TERM AVERAGE VALUE (1) CONCEN- TRATION (2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>								
15. Acenaphthene (83-32-9)	X				0			
26. Acenaphthylene (208-96-8)	X				0			
36. Anthracene (120-12-7)	X				0			
42. Benzidine (82-87-5)	X				0			
58. Benzo (a) Anthracene (56-85-3)	X				0			
66. Benzo (e) Pyrene (50-32-8)	X				0			
78. 2,4-Benzofluoranthene (205-99-2)	X				0			
88. Benzo (ghi) Perylene (191-24-2)	X				0			
98. Benzo (k) Fluoranthene (207-08-9)	X				0			
108. Bis (2-Chloro-5'-oxy) Methane (111-91-1)	X				0			
118. Bis (2-Chloro-ethyl) Ether (111-44-4)	X				0			
128. Bis (2-Chloropropyl) Ether (102-60-1)	X				0			
138. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X				0			
148. 4-Bromo-phenyl Phenyl Ether (101-85-3)	X				0			
158. Butyl Benzyl Phthalate (95-08-7)	X				0			
168. 2-Chloro-naphthalene (91-58-7)	X				0			
178. 4-Chloro-phenyl Phenyl Ether (7006-72-3)	X				0			
188. Chrysenes (218-01-9)	X				0			
198. Dibenzo (a,h) Anthracene (83-70-3)	X				0			
208. 1,2-Dichloro-benzene (96-60-1)	X				0			
218. 1,3-Dichloro-benzene (541-73-2)	X				0			

AR202119



EPA I.D. NUMBER (copy from Item 1)  
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OUTFALL NUMBER  
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CONTINUED FROM PAGE V-6

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X' (if checked)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)							
22B. 1,4-Dichlorobenzene (108-46-7)	X						0
23B. 3,3'-Dichlorobenzidine (91-94-1)	X						0
24B. Diethyl Phthalate (84-66-2)	X						0
25B. Dimethyl Phthalate (131-11-3)	X						0
26B. Di-N-Butyl Phthalate (84-74-2)	X						0
27B. 2,4-Dinitrotoluene (121-14-2)	X						0
28B. 2,6-Dinitrotoluene (506-20-2)	X						0
29B. Di-N-Octyl Phthalate (117-84-0)	X						0
30B. 1,2-Diphenylhydrazine (or Alcobenzene) (122-86-7)	X						0
31B. Fluoranthene (206-44-0)	X						0
32B. Fluorene (86-73-7)	X						0
33B. Hexachlorobenzene (118-74-1)	X						0
34B. Heptachlorobutadiene (87-98-3)	X						0
35B. Hexachlorocyclopentadiene (17-47-4)	X						0
36B. Hexachloroethane (67-72-1)	X						0
37B. Indeno (1,2,3-cd) Pyrene (193-38-6)	X						0
38B. Isophorone (78-59-1)	X						0
39B. Naphthalene (91-20-3)	X						0
40B. Nitrobenzene (98-95-3)	X						0
41B. N-Nitrosodimethylamine (62-76-9)	X						0
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X						0

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1. POLLUTANT NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	INC. IN QUIN. REPT.	RECORDED IN QUIN. REPT.	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERAGE VALUE (if available) (1) CONCENTRATION (2) MASS	A. CONCENTRATION	B. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>									
43B. N-Nitrosodiphenylamine (86-30-6)		X							0
44B. Phenanthrene (86-01-8)		X							0
45B. Pyrene (129-00-0)		X							0
48B. 1,2,4 - Trichlorobenzene (120-82-1)		X							0
<b>GC/MS FRACTION - PESTICIDES</b>									
1P. Aldrin (309-00-2)		X							0
2P. $\alpha$ -BHC (319-84-6)		X							0
3P. $\beta$ -BHC (316-85-7)		X							0
4P. $\gamma$ -BHC (68-89-9)		X							0
5P. $\delta$ -BHC (19-86-8)		X							0
6P. Chlordane (67-74-9)		X							0
7P. 4,4'-DDT (50-29-3)		X							0
8P. 4,4'-DDE (72-65-9)		X							0
9P. 4,4'-DDD (72-64-8)		X							0
10P. Dieldrin (60-57-1)		X							0
11P. $\alpha$ -Endosulfan (116-29-7)		X							0
12P. $\beta$ -Endosulfan (116-29-7)		X							0
13P. Endosulfan Sulfate (1031-07-8)		X							0
14P. Endrin (72-20-8)		X							0
15P. Endrin Aldehyde (7421-93-4)		X							0
16P. Heptachlor (76-44-8)		X							0

AR202121

CONTINUE ON PAGE V-5

P. 2-8

OUTFALL NO. 005

EPA Form 3510-2 (Rev. 2-85)

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**DED980830400** **005**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	WATER	SOLID	a. MAXIMUM DAILY VALUE (1) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	a. CONCEN TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCEN TRATION	b. NO. OF ANNUAL USES	
<b>GCMS FRACTION - PESTICIDES (continued)</b>									
17P. Heptachlor Epoxide (1024-57-3)		X							
18P. PCB-1242 (53469-21-9)		X						0	
19P. PCB-1254 (11097-69-1)		X						0	
20P. PCB-1221 (11104-28-2)		X						0	
21P. PCB-1232 (11141-16-5)		X						0	
22P. PCB-1248 (12672-29-6)		X						0	
23P. PCB-1260 (11096-82-5)		X						0	
24P. PCB-1016 (12674-11-2)		X						0	
26P. Toxaphene (8001-35-2)		X						0	

AR202122

OUTFALL NO. 006

AR202123

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

OUTFALL NO  
**006**

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

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

1. POLLUTANT	2. EFFLUENT		3. INTAKE (optional)		4. NO. OF ANALYSES	5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION	d. MASS		
a. Biochemical Oxygen Demand (BOD)	< 6	N/A	N/A	N/A	2	N/A
b. Chemical Oxygen Demand (COD)	53	N/A	N/A	N/A	2	N/A
c. Total Organic Carbon (TOC)	13	N/A	N/A	N/A	2	N/A
d. Total Suspended Solids (TSS)	94	N/A	N/A	N/A	2	N/A
e. Ammonia (as N)	0.11	N/A	N/A	N/A	2	N/A
f. Flow	VALUE	VALUE	VALUE	VALUE	---	---
g. Temperature (winter)	7°C.	VALUE	VALUE	VALUE	1	N/A
h. Temperature (summer)	20°C.	VALUE	VALUE	VALUE	1	N/A
i. pH	MINIMUM 6.6	MAXIMUM 7.3	MINIMUM N/A	MAXIMUM N/A	2	STANDARD UNITS

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

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION	d. MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. MASS	g. NO. OF ANAL. YSES	h. NO. OF ANAL. YSES
a. Bromide (24959-67-9)	X						0	
b. Chlorine, Total Residual	AR202						0	
c. Color	124						0	
d. Fecal Coliform	X						0	
e. Fluoride (16984-48-8)	X						0	
f. Nitrate-Nitrite (as N)	(1) X						0	

ITEM V.B CO. D. FROM FRONT

1. POLLUTANT AND ANNOYANCE NO. (if available)	2. SE. D. RE. PRESENT SENT	3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YSES
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	d. CONCENTRATION	e. MASS	f. AVERAGE VALUE (1) CONCENTRATION (2) MASS	g. NO. OF ANAL. YSES		
B. Nitrogen, Total Organic (as N)	X									0
A. Oil and Grease	X									0
I. Microbacteria (as P), Total (7733-4-0)	X									0
J. Radioactivity										
(1) Alpha, Total	X									0
(2) Beta, Total	X									0
(3) Radium, Total	X									0
(4) Radium 226, Total	X									0
K. Sulfide (as SO <sub>4</sub> ) (14208-79-8)	(1) X		(1) Believed to be present in rainwater or sediment carried into river by rainwater.							0
L. Sulfide (as S)	X									0
M. Sulfite (as SO <sub>3</sub> ) (14208-46-3)	X									0
N. Surfactants	X									0
O. Aluminum, Total (7429-90-8)	(1) X									0
P. Barium, Total (7440-39-3)	X									0
Q. Boron, Total (7440-42-8)	X									0
R. Cadmium, Total (7440-48-4)	X									0
S. Iron, Total (7439-89-8)	(1) X									0
T. Magnesium, Total (7439-95-4)	X									0
U. Methylene, Total (7439-96-7)	X									0
V. Manganese, Total (7439-96-5)	X									0
W. Tin, Total (7440-31-5)	X									0
X. Titanium, Total (7440-32-6)	X									0

APR 20 2025

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
DED980830400 **006**

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
	A. TEST RESULTS QUANTITATIVE	B. PRESENT	C. DE-CONTAMINATED	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	E. MAXIMUM 30 DAY VALUE (2) MASS	F. LONG TERM AVG. VALUE (3) MASS	G. CONCENTRATION	H. MASS	I. CONCENTRATION	J. MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>											
1M. Antimony, Total (7440-36-0)		X									0
2M. Arsenic, Total (7440-38-2)		X									0
3M. Beryllium, Total (7440-41-7)		X									0
4M. Cadmium, Total (7440-43-9)		X									0
5M. Chromium, Total (7440-47-3)	X			0.06	N/A	N/A	N/A	N/A	N/A		2
6M. Copper, Total (7440-50-9)	X			0.06	N/A	N/A	N/A	N/A	N/A		2
7M. Lead, Total (7439-92-1)		X									0
8M. Mercury, Total (7439-97-6)		X									0
9M. Nickel, Total (7440-02-0)		X									0
10M. Selenium, Total (7782-49-2)		X									0
11M. Silver, Total (7440-22-4)		X									0
12M. Tellurium, Total (7440-28-0)		X									0
13M. Zinc, Total (7440-66-4)		X									0
14M. Cyanide, Total (57-12-6)		X									0
15M. Phenols, Total		X									0

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DIOXIN		DESCRIBE RESULTS
2,3,7,8-Tetra chlorodibenzo P Dioxin (1764-01-6)	X	

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	MARK 'X'	2. IS IT A SOURCE OF THIS POLLUTANT?	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
			a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	a. CONCEN TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO OF ANAL YSES	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>									
1V. Acrolein (107-02-8)		X							
2V. Acrylonitrile (107-13-1)		X							
3V. Benzene (71-43-2)		X							
4V. Bis (Chloromethyl) Ether (542-88-1)		X							
5V. Bromoform (75-25-2)		X							
6V. Carbon Tetrachloride (56-23-5)		X							
7V. Chlorobenzene (108-90-7)		X							
8V. Chloro dibromomethane (124-48-1)		X							
9V. Chloroethane (75-00-3)		X							
10V. 2-Chloroethylvinyl Ether (110-75-8)		X							
11V. Chloroform (67-66-3)		X							
12V. Dichlorobromomethane (75-27-4)		X							
13V. Dichlorodifluoromethane (75-71-8)		X							
14V. 1,1-Dichloroethane (75-34-3)		X							
15V. 1,2-Dichloroethane (107-06-2)		X							
16V. 1,1-Dichloroethylene (75-35-4)		X							
17V. 1,2 Dichloropropane (78-87-5)		X							
18V. 1,3-Dichloropropane (542-75-6)		X							
19V. Ethylbenzene (100-41-4)		X							
20V. Methyl Bromide (74-83-9)		X							
21V. Methyl Chloride (74-87-3)		X							

AR202127



GE V-4

CONTINUED FRG.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		b NO OF ANAL YSES	
	a TEST PERIOD	b. DE-CEIVED	b. MAXIMUM DAILY VALUE	d. MAXIMUM 30 DAY VALUE	c. LONG TERM AVG. VALUE	a. CONCEN-TRATION	b. MASS	a. (1) CONCEN-TRATION	b. LONG TERM AVERAGE VALUE			
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)												
22V. Methylene Chloride (75-09-2)		X										
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)		X										
24V. Tetrachloro-ethylene (127-18-4)	(1) X		(1) Believe may be present, but only at levels equal to or less than in Outfall 001.									
25V. Toluene (108-88-3)		X										
26V. 1,2-Trans-Dichloroethylene (156-60-6)		X										
27V. 1,1,1-Tri-chloroethane (71-55-6)		X										
28V. 1,1,2-Tri-chloroethane (79-00-5)		X										
29V. Trichloro-ethylene (79-01-6)		X										
30V. Trichloro-fluoromethane (75-69-4)		X										
31V. Vinyl Chloride (75-01-4)		X										
GC/MS FRACTION - ACID COMPOUNDS												
1A. 2-Chloropheno (96 57 8)		X										
2A. 2,4 Dichloro-phenol (120-83-2)		X										
3A. 2,4-Dimethyl-phenol (106-67-9)		X										
4A. 4,6-Dinitro-O-Cresol (534-52-1)		X										
5A. 2,4 Dinitro-phenol (51-28-5)		X										
6A. 2-Nitrophenol (89-75-5)		X										
7A. 4-Nitrophenol (100-02-7)		X										
8A. P-Chloro-M-Cresol (59-50-7)		X										
9A. Pentachloro-phenol (87-86-5)		X										
10A. Phenol (108 95 2)		X										
11A. 2,4,6-Tri-chlorophenol (88-06-2)		X										

AR202128

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. TERM AVERAGE VALUE (optional)		6. NO. OF ANAL. YSES
		D. MAXIMUM DAILY VALUE (if available)	E. LONG TERM AVERAGE VALUE (if available)	a. CONCENTRATION	b. MASS	(i) CONCENTRATION	(ii) MASS	
GCMS FRACTION - BASE/NEUTRAL COMPOUNDS								
1B. Acenaphthene (83-32-9)	X							0
2B. Acenaphthylene (208-96-9)	X							0
3B. Anthracene (120-12-7)	X							0
4B. Benzidine (92-87-5)	X							0
5B. Benzo (a) Anthracene (95-85-3)	X							0
6B. Benzo (a) Pyrene (50-32-8)	X							0
7B. 2,4-Benzofluoranthene (205-99-2)	X							0
8B. Benzo (a,h) Perylene (191-24-2)	X							0
9B. Benzo (k) Fluoranthene (207-08-9)	X							0
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X							0
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X							0
12B. Bis (2-Chloropropyl) Ether (102-83-1)	X							0
13B. Bis (2-Ethylhexyl) Phthalate (117-91-7)	X							0
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X							0
15B. Butyl Benzyl Phthalate (65-68-7)	X							0
16B. 2-Chloronaphthalene (91-58-7)	X							0
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X							0
18B. Chrysene (218-01-9)	X							0
19B. Dibenzo (a,h) Anthracene (53-70-3)	X							0
20B. 1,2-Dichlorobenzene (95-50-1)	X							0
21B. 1,3-Dichlorobenzene (541-73-1)	X							0

AR202129

EPA I.D. NUMBER (copy from Item 1 of  
DED980830400

1) OUTFALL NUMBER  
006

CONTINUED FROM PAGE V-5

1. POLLUTANT NUMBER (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVEG. VALUE (if available)	d. NO. OF ANAL. YSES	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. NO. OF ANAL. YSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>							
228. 1,4-Dichlorobenzene (108-46-7)	X				0		
238. 3,3'-Dichlorobenzidine (91-84-1)	X				0		
248. Diethyl Phthalate (84-66-2)	X				0		
258. Dimethyl Phthalate (131-11-3)	X				0		
268. Di-N-Butyl Phthalate (84-74-2)	X				0		
278. 2,4-Dinitrotoluene (121-14-2)	X				0		
288. 2,6-Dinitrotoluene (608-20-2)	X				0		
298. Di-N-Octyl Phthalate (117-84-0)	X				0		
308. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X				0		
318. Fluorethene (208-44-0)	X				0		
328. Fluorene (86-73-7)	X				0		
338. Hexachlorobenzene (118-74-1)	X				0		
348. Hexachlorobutadiene (87-68-3)	X				0		
358. Hexachlorocyclopentadiene (137-47-4)	X				0		
368. Hexachloroethene (67-72-1)	X				0		
378. Indeno (1,2,3-cd) Pyrene (193-39-5)	X				0		
388. Isophorone (78-59-1)	X				0		
398. Naphthalene (91-20-3)	X				0		
408. Nitrobenzene (98-95-3)	X				0		
418. N-Nitrosodimethylamine (82-75-9)	X				0		
428. N-Nitrosodi-N-Propylamine (921-64-7)	X				0		

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EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
DED980830400 **006**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4 UNITS		5 INTAKE (optional)	
	A. TEST METHOD AND UNIT	B. MAXIMUM DAILY VALUE (1) MASS (2) CONCENTRATION	C. LONG TERM (if available) (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	3 CONCENTRATION	4 MASS	5 LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	6 NO OF ANAL YSES
<b>GC/MS FRACTION -- PESTICIDES (continued)</b>								
17P. Heptachlor Epoxide (024-57-3)		X						0
18P. PCB-1242 (03469-21-9)		X						0
19P. PCB-1264 (11097-69-1)		X						0
20P. PCB-1221 (11104-28-2)		X						0
21P. PCB-1232 (11141-16-5)		X						0
22P. PCB-1248 (12672-29-6)		X						0
23P. PCB-1260 (11096-82-5)		X						0
24P. PCB 1016 (12674-11-2)		X						0
25P. Toxaphene (8001-36-2)		X						0

AR202132

OUTFALL NO. 008

AR202133

OUTFALL NO  
**008**

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

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

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

1. POLLUTANT	2. EFFLUENT		3. LONG TERM AVERAGE VALUE (if available)		3. UNITS (specify if blank)		4. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	(1) CONCENTRATION	(2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 6	N/A	N/A	N/A	mg/l	---	N/A	N/A
b. Chemical Oxygen Demand (COD)	35	N/A	N/A	N/A	mg/l	---	N/A	N/A
c. Total Organic Carbon (TOC)	10	N/A	N/A	N/A	mg/l	---	N/A	N/A
d. Total Suspended Solids (TSS)	72	N/A	N/A	N/A	mg/l	---	N/A	N/A
e. Ammonia (as N)	< 0.28	N/A	N/A	N/A	mg/l	---	N/A	N/A
f. Flow	VALUE	VALUE	VALUE	VALUE	---	---	---	---
g. Temperature (winter)	VALUE	VALUE	VALUE	VALUE	°C	---	---	---
h. Temperature (summer)	VALUE	VALUE	VALUE	VALUE	°C	---	---	---
i. pH	MINIMUM 6.5	MINIMUM N/A	MINIMUM N/A	MINIMUM N/A	---	---	---	---
	MAXIMUM 6.6	MAXIMUM N/A	MAXIMUM N/A	MAXIMUM N/A	STANDARD UNITS	---	---	---

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

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO OF ANALYSES
a. Bromide (24059-67-9)	X						
b. Chlorine, Total Residual	X						
c. Color	X						
d. Fecal Coliform	X						
e. Fluoride (16984-48-8)	X						
f. Nitrate-Nitrite (as N)	X						

(1) Believed to be present in rainwater into river by rainwater.

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		D. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
B. Nitrogen, Total Organic (or N)	X							0
A. Oil and Grease	X							0
C. Suspended Solids, Total (7439-96-0)	X							0
J. Resuspendibility								
(1) Alpha, Total	X							0
(2) Beta, Total	X							0
(3) Radium, Total	X							0
(4) Radium 226, Total	X							0
K. Sulfide (as SO <sub>2</sub> ) (14308-79-8)	(1) X							0
L. Sulfide (as S)	X							0
M. Sulfides (as SO <sub>2</sub> ) (14308-46-3)	X							0
N. Surfactants	X							0
O. Aluminum, Total (7429-90-8)	(1) X							0
P. Barium, Total (7440-39-3)	X							0
Q. Boron, Total (7440-42-6)	X							0
R. Cobalt, Total (7440-48-4)	X							0
S. Iron, Total (7439-89-8)	(1) X							0
T. Magnesium, Total (7439-96-4)	X							0
U. Molybdenum, Total (7439-96-7)	X							0
V. Manganese, Total (7439-96-9)	X							0
W. Tin, Total (7440-31-8)	X							0
X. Titanium, Total (7440-32-8)	X							0

(1) Believed to be present in rainwater or sediment carried into river by rainwater.

702  
702  
702  
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702



EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
DED980830400 **008**

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS			5. INTAKE (optional)	
	TESTED	GC/MS FRACTION	GC/MS FRACTION	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	c. LONG TERM AVG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. NO. OF ANALYSES	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>												
1M. Antimony, Total (7440-36-0)			X				0					
2M. Arsenic, Total (7440-39-2)			X				0					
3M. Beryllium, Total (7440-41-7)			X				0					
4M. Cadmium, Total (7440-43-9)			X				0					
5M. Chromium, Total (7440-47-3)	X			<0.05	N/A	N/A	4	mg/l				
6M. Copper, Total (7440-50-9)	X			0.10	N/A	N/A	4	mg/l				
7M. Lead, Total (7439-92-1)			X				0					
8M. Mercury, Total (7439-97-6)			X				0					
9M. Nickel, Total (7440-02-0)			X				0					
10M. Selenium, Total (7782-49-2)			X				0					
11M. Silver, Total (7440-22-4)			X				0					
12M. Thallium, Total (7440-28-0)			X				0					
13M. Zinc, Total (7440-66-6)			X				0					
14M. Cyanide, Total (57-12-5)			X				0					
15M. Phenols, Total			X				0					

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DIOXIN		DESCRIBE RESULTS
2,3,7,8 Tetra-chlorodibenzo P Dioxin (1764 01 6)	X	

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' (if checked)		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	INC. IN QUANT. DATA	CONC. DATA	D. MAXIMUM 30 DAY VALUE (if available)	C. LONG TERM AVG. VALUE (if available)	U. NO. OF ANAL. YSES	D. MASS & CONCENTRATION	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANAL. YSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>								
1V. Acrolein (107-02-8)		X			0			
2V. Acrylonitrile (107-13-1)		X			0			
3V. Benzene (71-43-2)		X			0			
4V. Bis (Chloromethyl) Ether (542-88-1)		X			0			
5V. Bromoform (75-25-2)		X			0			
6V. Carbon Tetrachloride (56-23-5)		X			0			
7V. Chlorobenzene (108-90-7)		X			0			
8V. Chlorodibromomethane (124-48-1)		X			0			
9V. Chloroethane (75-00-3)		X			0			
10V. 2-Chloroethylvinyl Ether (110-75-8)		X			0			
11V. Chloroform (67-66-3)		X			0			
12V. Dichlorobromomethane (75-27-4)		X			0			
13V. Dichlorodifluoromethane (75-71-8)		X			0			
14V. 1,1-Dichloroethene (75-34-3)		X			0			
15V. 1,2-Dichloroethene (107-06-2)		X			0			
16V. 1,1-Dichloroethylene (75-35-4)		X			0			
17V. 1,2-Dichloropropane (78-87-5)		X			0			
18V. 1,3-Dichloropropene (542-75-6)		X			0			
19V. Ethylbenzene (100-41-4)		X			0			
20V. Methyl Bromide (74-83-9)		X			0			
21V. Methyl Chloride (74-87-3)		X			0			

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1) OUTFALL NUMBER  
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CONTINUED FROM SHEET V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	TEST METHOD REQUIRED (if available)	CONCENTRATION (1) MASS	4. MAXIMUM DAILY VALUE (if available)	CONCENTRATION (1) MASS	8. CONCENTRATION	9. MASS	8. LONG TERM AVERAGE VALUE (1) CONCENTRATION	10. NO OF ANAL YSES	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>									
22V. Methylene Chloride (75-09-2)		X							
23V. 1,1,2-Tetra-chloroethane (79-34-5)		X							
24V. Tetrachloro-ethylene (127-18-4)	(1) X		(1) Believe may be present, but only at levels equal to or less than in Outfall 001.						
25V. Toluene (108-88-3)		X							
26V. 1,2-Trans-Dichloroethylene (156-60-5)		X							
27V. 1,1,1-Tri-chloroethane (71-55-6)		X							
28V. 1,1,2-Tri-chloroethane (79-00-5)		X							
29V. Trichloro-ethylene (79-01-6)		X							
30V. Trichloro-fluoromethane (75-69-4)		X							
31V. Vinyl Chloride (75-01-4)		X							
<b>GC/MS FRACTION - ACID COMPOUNDS</b>									
1A. 2-Chlorophenol (98-67-8)		X							
2A. 2,4-Dichloro-phenol (120-83-2)		X							
3A. 2,4-Dimethyl-phenol (105-67-9)		X							
4A. 4,6-Dinitro-O-Cresol (534-52 1)		X							
5A. 2,4-Dinitro-phenol (51-28-5) *		X							
6A. 2-Nitrophenol (88-75-5)		X							
7A. 4-Nitrophenol (100-02-7)		X							
8A. P-Chloro-M-Cresol (59-50-7)		X							
9A. Pentachloro-phenol (87-86-5)		X							
10A. Phenol (108 95 2)		X							
11A. 2,4,6-Tri-chlorophenol (88 06-2)		X							

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT	4. UNITS		5. LONG TERM AVERAGE VALUE (i) CONC. (ii) MASS	6. NO OF ANAL. YSES	7. LONG TERM AVERAGE VALUE (i) CONC. (ii) MASS	8. NO OF ANAL. YSES
			a. MAXIMUM DAILY VALUE (i) CONC. (ii) MASS	b. MASS				
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>								
1B. Acenaphthene (83-32-9)	X					0		
2B. Acenaphthylene (208-96-8)	X					0		
3B. Anthracene (120-12-7)	X					0		
4B. Benzidine (92-87-5)	X					0		
5B. Benzo (e) Anthracene (95-55-3)	X					0		
6B. Benzo (a) Pyrene (50-32-8)	X					0		
7B. 3,4-Benzo-fluoranthene (205-99-2)	X					0		
8B. Benzo (ghi) Perylene (191-24-2)	X					0		
9B. Benzo (h) Fluoranthene (207-08-9)	X					0		
10B. Bis (2-Chloro-nonyl) Methane (111-91-1)	X					0		
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X					0		
12B. Bis (2-Chloropropyl) Ether (102-60-1)	X					0		
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X					0		
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X					0		
15B. Butyl Benzyl Phthalate (85-68-7)	X					0		
16B. 2-Chloro-naphthalene (91-58-7)	X					0		
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X					0		
18B. Chrysene (218-01-9)	X					0		
19B. Dibenzo (a,h) Anthracene (53-70-3)	X					0		
20B. 1,2-Dichlorobenzene (95-50-1)	X					0		
21B. 1,3-Dichlorobenzene (541-73-1)	X					0		

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CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	TEST METHOD (see 101)	CONCENTRATION (1)	MAXIMUM DAILY VALUE (1) MASS	MAXIMUM 30 DAY VALUE (1) MASS	LONG TERM AVERAGE VALUE (1) MASS	CONCENTRATION	MASS	CONCENTRATION	AVERAGE VALUE (1) MASS	NO. OF ANAL YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
22B. 1,4-Dichlorobenzene (106-46-7)		X								0
23B. 3,3'-Dichlorobenzidine (91-84-1)		X								0
24B. Diethyl Phthalate (84-68-2)		X								0
25B. Dimethyl Phthalate (131-11-3)		X								0
26B. Di-N-Butyl Phthalate (84-74-2)		X								0
27B. 2,4-Dinitrotoluene (121-14-2)		X								0
28B. 2,6-Dinitrotoluene (606-20-2)		X								0
29B. Di-N-Octyl Phthalate (117-84-0)		X								0
30B. 1,2-Diphenylhydrazine (or Azobenzene) (122-66-7)		X								0
31B. Fluorethene (206-44-0)		X								0
32B. Fluorene (86-73-7)		X								0
33B. Hexachlorobenzene (118-74-1)		X								0
34B. Hexachlorobutadiene (87-68-3)		X								0
35B. Hexachlorocyclopentadiene (177-47-4)		X								0
36B. Hexachloroethane (67-72-1)		X								0
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)		X								0
38B. Isophorone (78-59-1)		X								0
39B. Naphthalene (81-20-3)		X								0
40B. Nitrobenzene (98-95-3)		X								0
41B. N-Nitrosodimethylamine (62-75-9)		X								0
42B. N-Nitrosodimethylamine (62-75-9)		X								0
42B. N-Nitrosodimethylamine (62-75-9)		X								0

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'				3. EFFLUENT				4. UNITS		5. INTAKE (optional)		6. NO OF ANAL YSES	
	A. INC. OR CON. A.B.	B. REVERSE PRE. SER.	C. REVERSE PRE. SER.	D. REVERSE PRE. SER.	A. MAXIMUM DAILY VALUE (if available)	B. MAXIMUM 30 DAY VALUE (if available)	C. LONG TERM AVRG. VALUE (if available)	D. CONCENTRATION	E. MASS	F. CONCENTRATION	G. MASS	H. AVERAGE VALUE (1) CONCENTRATION (2) MASS		I. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>														
43B. N-Nitro-sodiphenylamine (86-30-6)			X											0
44B. Phenanthrene (85-01-8)			X											0
45B. Pyrene (129-00-0)			X											0
46B. 1,2,4 - Tri-chlorobenzene (120-82-1)			X											0
<b>GC/MS FRACTION - PESTICIDES</b>														
1P. Aldrin (309-00-2)			X											0
2P. $\alpha$ -BHC (319-84-6)			X											0
3P. $\beta$ -BHC (318-85-7)			X											0
4P. $\gamma$ -BHC (58-89-9)			X											0
5P. $\delta$ -BHC (-19-86-8)			X											0
6P. Chlordane (57-74-9)			X											0
7P. 4,4'-DDT (50-29-3)			X											0
8P. 4,4'-DDE (72-55-9)			X											0
9P. 4,4'-DDD (72-54-8)			X											0
10P. Dieldrin (60-57-1)			X											0
11P. $\alpha$ -Endosulfan (115-29-7)			X											0
12P. $\beta$ -Endosulfan (115-29-7)			X											0
13P. Endosulfan Sulfate (1031-07-8)			X											0
14P. Endrin (72-20-8)			X											0
15P. Endrin Aldehyde (7421-93-4)			X											0
16P. Heptachlor (76-44-8)			X											0

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CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4 UNITS		5 INTAKE (optional)	
	A. TANK LIQUOR (1) SOLID	B. C. AS. (1) (2) (3) (4) (5)	D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM (1) CONCENTRATION (2) MASS	H. NO OF ANAL YSES	4 CONCENTRATION	U MASS	5 LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	I. NO OF ANAL YSES
<b>GC/MS FRACTION — PESTICIDES (continued)</b>										
17P. Heptachlor Epoxide (1024-57-3)		X					0			
18P. PCB-1242 (53469-21-9)		X					0			
19P. PCB-1254 (11097-89-1)		X					0			
20P. PCB-1221 (11104-28-2)		X					0			
21P. PCB-1232 (11141-16-5)		X					0			
22P. PCB-1248 (12672-29-6)		X					0			
23P. PCB-1260 (11098-82-5)		X					0			
24P. PCB-1016 (12674-11-2)		X					0			
25P. Toxaphene (8001-36-2)		X					0			

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OUTFALL NO. 009

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

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)			4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	LONG TERM AVERAGE VALUE	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
a. Biochemical Oxygen Demand (BOD)	NO DATA	N/A	N/A	N/A	0	mg/l	---	---	N/A	N/A
b. Chemical Oxygen Demand (COD)	NO DATA	N/A	N/A	N/A	0	mg/l	---	---	N/A	N/A
c. Total Organic Carbon (TOC)	NO DATA	N/A	N/A	N/A	0	mg/l	---	---	N/A	N/A
d. Total Suspended Solids (TSS)	NO DATA	N/A	N/A	N/A	0	mg/l	---	---	N/A	N/A
e. Ammonia (as N)	NO DATA	N/A	N/A	N/A	0	mg/l	---	---	N/A	N/A
f. Flow	VALUE	N/A	VALUE	N/A	---	---	---	---	VALUE	---
g. Temperature (winter)	VALUE	N/A	VALUE	N/A	0	°C	---	---	VALUE	N/A
h. Temperature (summer)	VALUE	N/A	VALUE	N/A	0	°C	---	---	VALUE	N/A
i. pH	MINIMUM	NO DATA	MINIMUM	N/A	0	STANDARD UNITS	---	---	VALUE	N/A

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

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS			5. INTAKE (optional)		
	a. PRESENT	b. ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	LONG TERM AVERAGE VALUE	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
a. Bromide (24959-67-9)	X						0					
b. Chlorine, Total Residual	X						0					
c. Color	X						0					
d. Fecal Coliform	X						0					
e. Fluoride (16984-48-8)	X						0					
f. Nitrate-Nitrite (as N)	X						0					

(1) Believed to be present in rainwater or into river by rainwater. (2) element carried

ITEM V-B COMPLETED FROM FRONT

1. POLLUTANT AND CAS NO. (If available)	2. SOURCE IDENTIFICATION (If available)	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
		7. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	8. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	9. CONCENTRATION	10. MASS	11. CONCENTRATION	12. MASS	
a. Nitrogen, Total Organic (40-2)	X							0
b. Nitrogen, Total (40-3)	X							0
c. Ammonia, Total (40-4)	X							0
d. Phosphorus, Total (40-5)	X							0
e. Phosphorus, Reactive (40-6)	X							0
f. Phosphorus, Soluble (40-7)	X							0
g. Selenium (40-8)	X							0
h. Cadmium (40-9)	X							0
i. Chromium, Total (40-10)	X							0
j. Chromium, Hexavalent (40-11)	X							0
k. Barium, Total (40-12)	X							0
l. Barium, Soluble (40-13)	X							0
m. Boron, Total (40-14)	X							0
n. Boron, Soluble (40-15)	X							0
o. Bismuth (40-16)	X							0
p. Cadmium (40-17)	X							0
q. Calcium (40-18)	X							0
r. Chloride (40-19)	X							0
s. Cobalt (40-20)	X							0
t. Copper (40-21)	X							0
u. Cyanide (40-22)	X							0
v. Fluoride (40-23)	X							0
w. Gallium (40-24)	X							0
x. Germanium (40-25)	X							0
y. Iodine (40-26)	X							0
z. Iron, Total (40-27)	X							0
aa. Iron, Soluble (40-28)	X							0
ab. Lead (40-29)	X							0
ac. Lithium (40-30)	X							0
ad. Magnesium (40-31)	X							0
ae. Manganese (40-32)	X							0
af. Mercury, Total (40-33)	X							0
ag. Mercury, Inorganic (40-34)	X							0
ah. Mercury, Methyl (40-35)	X							0
ai. Nickel (40-36)	X							0
aj. Nitrate (40-37)	X							0
ak. Nitrite (40-38)	X							0
al. Selenium (40-39)	X							0
am. Silver (40-40)	X							0
an. Sodium (40-41)	X							0
ao. Strontium (40-42)	X							0
ap. Sulfate (40-43)	X							0
aq. Sulfide (40-44)	X							0
ar. Tellurium (40-45)	X							0
as. Thallium (40-46)	X							0
at. Vanadium (40-47)	X							0
au. Zinc (40-48)	X							0
av. Zirconium (40-49)	X							0
aw. Barium, Total (40-50)	X							0
ax. Barium, Soluble (40-51)	X							0
ay. Boron, Total (40-52)	X							0
az. Boron, Soluble (40-53)	X							0
aa. Cadmium (40-54)	X							0
ab. Calcium (40-55)	X							0
ac. Chloride (40-56)	X							0
ad. Cobalt (40-57)	X							0
ae. Copper (40-58)	X							0
af. Cyanide (40-59)	X							0
ag. Fluoride (40-60)	X							0
ah. Gallium (40-61)	X							0
ai. Germanium (40-62)	X							0
aj. Iodine (40-63)	X							0
ak. Iron, Total (40-64)	X							0
al. Iron, Soluble (40-65)	X							0
am. Lead (40-66)	X							0
an. Lithium (40-67)	X							0
ao. Magnesium (40-68)	X							0
ap. Manganese (40-69)	X							0
aq. Mercury, Total (40-70)	X							0
ar. Mercury, Inorganic (40-71)	X							0
as. Mercury, Methyl (40-72)	X							0
at. Nickel (40-73)	X							0
au. Nitrate (40-74)	X							0
av. Nitrite (40-75)	X							0
aw. Selenium (40-76)	X							0
ax. Silver (40-77)	X							0
ay. Sodium (40-78)	X							0
az. Strontium (40-79)	X							0
aa. Sulfate (40-80)	X							0
ab. Sulfide (40-81)	X							0
ac. Tellurium (40-82)	X							0
ad. Vanadium (40-83)	X							0
ae. Zinc (40-84)	X							0
af. Zirconium (40-85)	X							0

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(1) Believed to be present in rainwater or sediment carried into river by rainwater.

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DED980830400 **009**

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	1. PRESENT	2. ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE VALUE (if available) (1) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE (1) CONCENTRATION	f. NO. OF ANALYSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>										
1M. Antimony, Total (7440-36-0)		X				0				
2M. Arsenic, Total (7440-38-2)		X				0				
3M. Beryllium, Total (7440-41-7)		X				0				
4M. Cadmium, Total (7440-43-9)		X				0				
5M. Chromium, Total (7440-47-3)	X		NO DATA	N/A	N/A	0			mg/l	
6M. Copper, Total (7440-50-9)	X		NO DATA	N/A	N/A	0			mg/l	
7M. Lead, Total (7439-97-6)		X				0				
8M. Mercury, Total (7439-97-6)		X				0				
9M. Nickel, Total (7440-02-0)		X				0				
10M. Selenium, Total (7782-49-2)		X				0				
11M. Silver, Total (7440-22-4)		X				0				
12M. Thallium, Total (7440-28-0)		X				0				
13M. Zinc, Total (7440-66-6)		X				0				
14M. Cyanide, Total (57-12-5)		X				0				
15M. Phenols, Total		X				0				
<b>DIOXIN</b>										
2,3,7,8 Tetra chlorodibenzo P Dioksin (1764 01)		X								

AR202146

DESCRIBE RESULTS

1. POLLUTANT NUMBER (if available)	MARK 'X'	2. MAXIMUM DAILY VALUE		3. EFFLUENT		C. LONG TERM (if available)		4. UNITS		5. INTAKE (optional)		11. NO OF ANAL YSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>												
1V. Acrotolein (107-02-8)		X										0
2V. Acrylonitrile (107-13-1)		X										0
3V. Benzene (71-43-2)		X										0
4V. Bis (Chloromethyl) Ether (542-88-1)		X										0
5V. Bromoform (75-25-2)		X										0
6V. Carbon Tetrachloride (56-23-5)		X										0
7V. Chlorobenzene (108-90-7)		X										0
8V. Chlorodibromomethane (124-48-1)		X										0
9V. Chloroethane (75-00-3)		X										0
10V. 2-Chloroethylvinyl Ether (110-75-8)		X										0
11V. Chloroform (67-66-3)		X										0
12V. Dichlorobromomethane (75-27-4)		X										0
13V. Dichlorodifluoromethane (75-71-8)		X										0
14V. 1,1-Dichloroethane (75-34-3)		X										0
15V. 1,2-Dichloroethane (107-06-2)		X										0
16V. 1,1-Dichloroethylene (75-35-4)		X										0
17V. 1,2-Dichloropropane (78-87-5)		X										0
18V. 1,3-Dichloropropylene (542-75-6)		X										0
19V. Ethylbenzene (100-41-4)		X										0
20V. Methyl Bromide (74-83-9)		X										0
21V. Methyl Chloride (74-87-3)		X										0

AR202147

EPA I.D. NUMBER (copy from Item 1 of  
DED980830400

1) OUTFALL NUMBER  
009

CONTINUED FROM J-E V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
		A. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	D. NO OF ANALYSES	B. CONCENTRATION	D. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	D. NO OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>									
22V. Methylene Chloride (75-09-2)									
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X								
24V. Tetrachloroethylene (127-18-4)	(1) X								
25V. Toluene (108-88-3)		X							
26V. 1,2-Trans-Dichloroethylene (156-60-5)		X							
27V. 1,1,1-Trichloroethane (71-55-6)		X							
28V. 1,1,2-Trichloroethane (79-00-5)		X							
29V. Trichloroethylene (79-01-6)		X							
30V. Trichlorofluoromethane (75-69-4)		X							
31V. Vinyl Chloride (75-01-4)		X							
<b>GC/MS FRACTION - ACID COMPOUNDS</b>									
1A. 2-Chlorophenol (95-57-8)									
2A. 2,4-Dichlorophenol (120-83-2)									
3A. 2,4-Dimethylphenol (105-67-9)									
4A. 4,6-Dinitro-Cresol (534-52-1)									
5A. 2,4-Dinitrophenol (51-28-5)									
6A. 2-Nitrophenol (88-75-5)									
7A. 4-Nitrophenol (100-02-7)									
8A. p-Chloro-M-Cresol (69-50-7)									
9A. Pentachlorophenol (87-86-5)									
10A. Phenol (108-95-2)									
11A. 2,4,6-Trichlorophenol (88-06-2)									

(1) Believe may be present, but only at levels equal to or less than in Outfall 001.

AR202148

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. TEST METHOD (if available)	3. EFFLUENT D. MAXIMUM 30 DAY VALUE (if available)	4. UNITS		5. NO OF ANAL. YSES	6. LONG TERM AVG. VALUE (if available)	7. NO OF ANAL. YSES	8. CONCENTRATION	9. MASS	10. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	11. NO OF ANAL. YSES	12. CONCENTRATION	13. MASS	14. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	15. NO OF ANAL. YSES	16. CONCENTRATION	17. MASS
			(1) CONCENTRATION	(2) MASS													
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS																	
18. Acenaphthene (83-32-9)	X																
28. Acenaphthylene (208-96-8)	X																
38. Anthracene (120-12-7)	X																
48. Benzidine (82-97-8)	X																
58. Benzo (a) Anthracene (85-55-3)	X																
68. Benzo (a) Pyrene (90-32-8)	X																
78. 2,4-Benzofluoranthene (208-96-2)	X																
88. Benzo (ghi) Perylene (191-24-2)	X																
98. Benzo (k) Fluoranthene (207-08-9)	X																
108. Bis (2-Chloro-ethyl) Methane (111-91-1)	X																
118. Bis (2-Chloro-ethyl) Ether (111-44-4)	X																
128. Bis (2-Chloro-propyl) Ether (102-60-1)	X																
138. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X																
148. 4-Bromophenyl Phenyl Ether (101-85-3)	X																
158. Butyl Benzyl Phthalate (85-68-7)	X																
168. 2-Chloronaphthalene (91-58-7)	X																
178. 4-Chlorophenyl Phenyl Ether (7006-72-3)	X																
188. Chrysene (218-01-8)	X																
198. Dibenzo (a,h) Anthracene (53-70-3)	X																
208. 1,2-Dichlorobenzene (96-60-1)	X																
218. 1,3-Dichlorobenzene (541-73-1)	X																

AR202149

CONTINUE ON PAGE V-7

PAGE V-6

OUTFALL NO. 009

EPA Form 3510-2C (Rev. 2-85)

EPA I.D. NUMBER (copy from Item 1 of I) **009**  
OUTFALL NUMBER **009**

CONTINUED FROM PAGE V-5  
EPA I.D. NUMBER (copy from Item 1 of I) **DED980830400**

1. POLLUTANT AND NUMBER (// available)	2. MARK 'X'	3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE (1) MASS CONCENTRATION	b. MAXIMUM 30 DAY VALUE (1) MASS CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANALYSES
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>							
22B. 1,4-Dichlorobenzene (106-46-7)	X						0
23B. 3,3'-Dichlorobenzidine (91-94-1)	X						0
24B. Diethyl Phthalate (84-66-2)	X						0
25B. Dimethyl Phthalate (131-11-3)	X						0
26B. Di-N-Butyl Phthalate (84-74-2)	X						0
27B. 2,4-Dinitrotoluene (121-14-2)	X						0
28B. 2,6-Dinitrotoluene (606-20-2)	X						0
29B. Di-N-Octyl Phthalate (117-84-0)	X						0
30B. 1,2-Diphenylhydrazine (as Asobenzene) (122-66-7)	X						0
31B. Fluorethene (206-44-0)	X						0
32B. Fluorene (86-73-7)	X						0
33B. Hexachlorobenzene (118-74-1)	X						0
34B. Hexachlorobutadiene (87-68-3)	X						0
35B. Hexachlorocyclopentadiene (17,47-4)	X						0
36B. Hexachloroethene (67-72-1)	X						0
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X						0
38B. Isophorone (78-59-1)	X						0
39B. Naphthalene (81-20-3)	X						0
40B. Nitrobenzene (98-95-3)	X						0
41B. N-Nitrosodimethylamine (82-75-9)	X						0
42B. N-Nitrosodi-N-Propylamine (821-84-7)	X						0

AR202150

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO OF ANAL YSES
	MAX. DAILY INTAKE (mg/kg body wt. per day)	MAX. DAILY CONCENTRATION	MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	CONCENTRATION	MASS	AVERAGE VALUE (1) CONCENTRATION (2) MASS	LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>									
43B. N-Nitro-sodiphenylamine (86-30-6)		X							0
44B. Phenanthrene (85-01-8)		X							0
45B. Pyrene (129-00-0)		X							0
46B. 1,2,4-Trichlorobenzene (120-82-1)		X							0
<b>GC/MS FRACTION - PESTICIDES</b>									
1P. Aldrin (1309-00-2)		X							0
2P. $\alpha$ -BHC (319 84-6)		X							0
3P. $\beta$ -BHC (319-85-7)		X							0
4P. $\gamma$ -BHC (58-89-9)		X							0
5P. $\delta$ -BHC (1-19-86-8)		X							0
6P. Chlordane (57-74-9)		X							0
7P. 4,4'-DDT (50 29-3)		X							0
8P. 4,4'-DDE (72-55-9)		X							0
9P. 4,4'-DDD (72-54-8)		X							0
10P. Dieldrin (60-57-1)		X							0
11P. $\alpha$ -Endosulfan (115-29-7)		X							0
12P. $\beta$ -Endosulfan (115-29-7)		X							0
13P. Endosulfan Sulfate (1031-07-8)		X							0
14P. Endrin (72-20-8)		X							0
15P. Endrin Aldehyde (7421 93 4)		X							0
16P. Heptachlor (76 44-8)		X							0

AR202151



EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**  
**DED980830400** **009**

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	STATE NO. / FED. NO.	CON- CENTRATION (1) MASS	MAXIMUM DAILY VALUE (2) MASS	MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	LONG TERM (if available) (1) CONCENTRATION	NO OF ANALYSES	CONCENTRATION	LONG TERM AVERAGE VALUE (1) CONCENTRATION	NO OF ANALYSES
<b>GC/MS FRACTION - PESTICIDES (continued)</b>									
17P. Heptachlor Epoxide (1024-57-3)		X				0			
18P. PCB-1242 (53469-21-9)		X				0			
19P. PCB-1264 (11097-69-1)		X				0			
20P. PCB-1221 (11104-28-2)		X				0			
21P. PCB-1232 (11141-16-5)		X				0			
22P. PCB-1248 (12672-29-6)		X				0			
23P. PCB-1260 (11096-82-5)		X				0			
24P. PCB-1016 (12674-11-2)		X				0			
25P. Toxaphene (8001-35-2)		X				0			

AR202152

Question 2

Provide all information in CIBA-GEIGY's possession regarding storm sewer discharge contamination at the site.

ORIGINAL  
(Red)

Attachment

4) Analytical Data of Storm Sewer Discharges for January 90.

AR202153



**ARTESIAN**  
LABORATORIES, INC.

A wholly owned subsidiary of  
Artesian Resources Corporation

Mr. Joseph J. Sasso  
Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Page 1 of 2  
Account Number: 70600187  
Date Sampled: 01/02/90  
Date Received: 01/02/90  
Sampled by: ALI  
Lab Id Number: BD 10805  
P.O. #: X003773  
Report Date: 01/17/90

All Results in mg/L unless noted differently  
Date-Time Sampled: 010290-1530 Technician: FSG

ANALYSIS RESULTS

Outfall 001	Grab	MDL	Date-Time Analyzed	Tech	Method
Cadmium	ND	0.01	010390-1100	ST	EPA 213.1
Copper	0.01	--	010490-0945	ST	EPA 220.1
Nickel	0.01	--	010390-1530	ST	EPA 249.1
Zinc	0.04	--	010390-1500	ST	EPA 289.1
Silver	ND	0.01	010490-0900	ST	EPA 272.1
Selenium	ND	0.002	011190-1000	AM	EPA 270.2
Total Hardness	120.	--	010390-0820	TAS	EPA 130.2
Total Cyanide	ND	0.02	010890-1530	PB	EPA 335.2
Pentachlorophenol (µg/L)	ND	10.	010790-2006	TDS	EPA 625
Benzidine (µg/L)	ND	44.	010590-0712	TDS	EPA 625

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.  
EPA Chemical Analysis for Water and Wastewater, 600/4-79-020, March, 1979

Quality Control Data (Samples split in Laboratory)

Test	Sample	With Spike	Spike Amt Added	Percent Recovery
Cadmium	ND	0.06	0.05	120.
Copper	0.01	0.05	0.05	80.
Nickel	0.01	0.06	0.05	100.
Zinc	0.04	0.10	0.05	120.
Silver	ND	0.05	0.05	100.
Selenium	ND	0.008	0.010	80.
Total Hardness	120.	215.	10.	95.
Total Cyanide	ND	0.092	0.1	88.
Pentachlorophenol (µg/L)	ND	43.	50.	86.0
Benzidine (µg/L)	ND	170.	150.	114.

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

AR202154

DISCLAIMER: Liability to Artesian Laboratories, Inc. not to exceed cost of analysis.

Post Office Box 15004  
Wilmington, Delaware 19850  
(302) 453-6920

Delaware Department of Public Health Approved  
Maryland Department of Public Health Certified  
Pennsylvania Department of Environmental Resources Certified

Post Office Box 935  
Dover, Delaware 19903  
(302) 734-8417



**ARTESIAN**  
LABORATORIES, INC.

ORIGINAL  
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Artesian Resources Corporation

Page 2 of 2

Mr. Joseph J. Sasso  
Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 01/02/90  
Date Received: 01/02/90  
Sampled by: ALI  
Lab Id Number: BD 10805  
P.O. #: X003773  
Report Date: 01/17/90

All Results in mg/L unless noted differently

Date-Time Sampled: 010290-1530 Technician: FSG

ANALYSIS RESULTS

Outfall 001	Grab	Date-Time Analyzed	Tech	Method
pH value (units)	7.2	010290-1530	FSG	EPA 150.1
Flow	HIGH TIDE	--	--	--
Temperature (°C)	11.2	010290-1530	FSG	EPA 170.1
Chlorine Residual	0.02	010290-1530	FSG	EPA 330.5

*Marlene O. Frey*

Marlene O. Frey  
VICE PRESIDENT

AR202155

DISCLAIMER: Liability to Artesian Laboratories, Inc. not to exceed cost of analysis.

Post Office Box 15004  
Wilmington, Delaware 19850  
(302) 453-6920

Delaware Department of Public Health Approved  
Maryland Department of Public Health Certified  
Pennsylvania Department of Environmental Resources Certified

Post Office Box 935  
Dover, Delaware 19903  
(302) 734-8417

**medlab**  
 Environmental Testing Inc.  
 212 Cherry Lane  
 Castle, DE 19720  
 655-LABS  
 1-800-MEDLAB-1  
 (outside DE)

TO: CIBA-GEIGY  
 JAMES & WATER STS.  
 NEWPORT, DE 19804

SOURCE: SITE 002, OUTFALL  
 MATRIX: WATER  
 SAMPLE TIME: 2:40 PM  
 SAMPLE DATE: 01/08/90  
 LAB NO: 01016540  
 REMARKS:

SAMPLE RECEIVED 01/08/90 REPORT DATE 01/24/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	0.266	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.048	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	0.97	MDL=0.01	MG/L
ZINC, AA (EPA 289.1)	0.404	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	202.0	(CONC. RELATIVE TO CaCO3)	MG/L
TOT. SUS. SOLIDS (EPA 160.2)	26.0		MG/L
PH (EPA 150.1)	8.88		PH UNIT

FOR SOIL: EPA 9W-846 METH. 90

**RECEIVED**  
 JAN 26 1990

AR202156

**medlab**  
 Environmental Testing Inc.  
 Perry Lane  
 Castle, DE 19720  
 355-LABS  
 J-MEDLAB-1  
 (outside DE)

TO: 0  
 CIBA-GEIGY  
 JAMES & WATER STS  
 NEWPORT, DE 19804

SOURCE: SITE 003, OUTFALL  
 MATRIX: WATER  
 SAMPLE TIME: 2:31 PM  
 SAMPLE DATE: 01/08/90

LAB NO. 01016541

REMARKS

SAMPLE RECEIVED 01/08/90

REPORT DATE 01/24/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	1.36	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.080	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	2.76	MDL=0.01	MG/L
ZINC, AA (EPA 289.1)	0.558	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	58.0	(CONC. RELATIVE TO CaCO3)	MG/L
TOT. SUS. SOLIDS (EPA 160.2)	73.0		MG/L
PH (EPA 150.1)	6.72		PH UNITS

FOR SOIL: EPA SW-846 METH. 9045

AR202157

*PA*

**medlab**  
 Environmental Testing Inc.  
 Cherry Lane  
 Castle, DE 19720  
 (302) 655-LABS  
 1-800-MEDLAB-1  
 (outside DE)

TO: **CIBA-GEIGY**  
**JAMES & WATER STS**  
**NEWPORT, DE 19804**

SOURCE **SITE 005, OUTFALL**  
 MATRIX **WATER** SAMPLE TIME: **2:23 PM**  
 SAMPLE DATE: **01/08/90**  
 LAB NO. **01016542**

REMARKS

SAMPLE RECEIVED **01/08/90**

REPORT DATE **01/24/90** FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	0.989	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.081	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	1.34	MDL=0.01	MG/L
ZINC, AA (EPA 289.1)	0.306	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	108.0	(CONC. RELATIVE TO EPA)	MG/L
TOT. SUS. SOLIDS (EPA 160.2)	54.0		MG/L
pH, ELEC. (EPA 150.1)	7.17		pH UNITS

FOR SOIL: EPA 84-646 METH. 9045

AR202158

**medlab**  
 Environmental Testing Inc.  
 Perry Lane  
 Castle, DE 19720  
 655-LABS  
 00-MEDLAB-1  
 (outside DE)

TO: **CIBA-GEIGY**  
**JAMES & WATER STS**  
**NEWPORT, DE 19804**

SOURCE **SITE 006, OUTFALL**  
 MATRIX **WATER** SAMPLE TIME: **2:12 PM**  
 SAMPLE DATE: **01/08/90**  
 LAB NO. **01016543**  
 REMARKS

SAMPLE RECEIVED **01/08/90** REPORT DATE **01/24/90** FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	0.087	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.101	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	0.22	MDL=0.01	MG/L
ZINC, AA (EPA 289.1)	2.57	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	24.0	(CONC. RELATIVE TO ...)	MG/L
TOT. SUS. SOLIDS (EPA 160.2)	13.0		MG/L
SEC. (EPA 150.1)	6.87		pH UNITS

FOR SOIL: EPA SW-846 METH. 9045

AR202159



**medlab**  
 Environmental Testing Inc.  
 Cherry Lane  
 Castle, DE 19720  
 (302) 655-LABS  
 1-800-MEDLAB-1  
 (outside DE)

TO: CIBA-GEIGY  
 JAMES & WATER STS  
 NEWPORT, DE 19804

SOURCE: SITE 008, OUTFALL  
 MATRIX: WATER  
 SAMPLE TIME: 1:57 PM  
 SAMPLE DATE: 01/08/90  
 LAB NO. 01016544  
 REMARKS

SAMPLE RECEIVED 01/08/90

REPORT DATE 01/24/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	0.232	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.073	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	1.76	MDL=0.01	MG/L
ZINC, AA (EPA 269.1)	0.77	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	100.0	(CONC. RELATIVE TO ...)	MG/L
TOT. SUS. SOLIDS (EPA 180.2)	25.0		MG/L
pH, cLEC. (EPA 150.1)	6.48		pH UN.

FOR SOIL: EPA SW-846 METH. 9045

AR202160

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 Cherry Lane  
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 1-800-MEDLAB-1  
 (outside DE)

TO: **CIBA-GEIGY**  
**JAMES & WATER STS**  
**NEWPORT, DE 19804**

SOURCE **SITE 009, OUTFALL**  
 MATRIX **WATER** SAMPLE TIME: **1:45 PM**  
 SAMPLE DATE: **01/08/90**  
 LAB NO. **01016545**

REMARKS

SAMPLE RECEIVED **01/08/90**

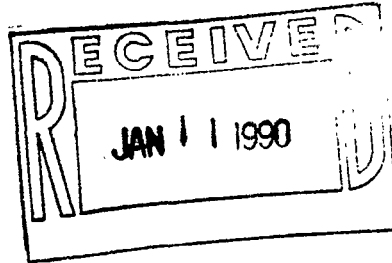
REPORT DATE **01/24/90** FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
ALUMINUM, AA (EPA 202.1)	0.692	MDL=0.1	MG/L
COPPER, AA (EPA 220.1)	0.159	MDL=0.01	MG/L
IRON, AA (EPA 236.1)	2.92	MDL=0.01	MG/L
ZINC, AA (EPA 289.1)	0.670	MDL=0.001	MG/L
HARDNESS (EPA 130.2)	44.0	(CONC. RELATIVE TO ...)	MG/L
TOT. SUS. SOLIDS (EPA 160.2)	75.0		MG/L
PH	6.71		PH UNITS

FOR SOIL: EPA SW-846 METH. 9045

AR202161



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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01 08 90

All Results in mg/L unless noted differently

ANALYSIS RESULTS

Outfall 001	MDL	Date-Time Analyzed	Tech	Method
Cadmium	0.10	121989-0920	ST	EPA 213.1
Copper	0.04	121889-1530	ST	EPA 220.1
Nickel	0.10	121989-1030	ST	EPA 249.1
Zinc	4.4	121989-1215	ST	EPA 289.1
Silver	ND	0.01 121889-1610	ST	EPA 272.1
Selenium	0.003	-- 121889-1645	AM	EPA 270.2
Total Hardness	130.	-- 121889-0915	AM	EPA 130.2
Total Cyanide	ND	0.02 121889-0900	PB	EPA 335.2
Acrolein (µg/L)	ND	5. 122689-1851	TDS	EPA 603
Acrylonitrile (µg/L)	ND	5. 122689-1851	TDS	EPA 603

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

EPA Chemical Analysis for Water and Wastewater, 600/4-79-020, March, 1979

Quality Control Data (Samples split in Laboratory)

Test	Sample	Duplicate	Sample With Spike	Spike Amt Added	Percent Recovery
Cadmium	0.10	0.10	0.15	0.05	100.
Copper	0.04	0.04	0.09	0.05	100.
Nickel	0.10	0.09	0.15	0.05	100.
Zinc	4.4	4.4	4.47	0.05	140.
Silver	ND	ND	0.04	0.05	80.
Selenium	0.003	0.004	0.012	0.010	120.
Total Hardness	130.	130.	170.	40.	100.
Total Cyanide	ND	ND	0.11	0.1	110.
Acrolein	ND	ND	21.8	21.	104.8
Acrylonitrile	ND	ND	18.5	22.	82.6

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

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James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: AII  
Lab Id Number: PH 10597  
P.O. #: X008773  
Report Date: 01/08/90

Sample ID: Outfall 001 121589-1545

Results are in µg/L

Analysis Results

VOLATILE COMPOUNDS Date-Time Analyzed: 122289-0029 Tech: SH

Compound	Amount Found	MDL	Compound	Amount Found	MDL
EPA 602			2-Chloroethylvinyl ether	ND	0.1
Benzene	ND	0.3	Dibromochloromethane	ND	0.2
Ethylbenzene	ND	0.2	Dichlorodifluoromethane	ND	1.0
Toluene	ND	0.6	1,1-Dichloroethane	ND	0.1
1,2-Dichlorobenzene	9.9		1,2-Dichloroethane	ND	0.1
1,3-Dichlorobenzene	ND	0.3	1,1-Dichloroethene	ND	0.8
1,4-Dichlorobenzene	4.2		1,2-Dichloropropane	ND	0.2
			cis-1,3-Dichloropropene	ND	0.7
			trans-1,3-Dichloropropene	ND	0.3
			Bromodichloromethane	ND	1.8
EPA 601			Methylene Chloride	ND	1.2
Chloromethane	ND	1.0	Chlorobenzene	4.5	
Bromoform	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.3
Carbon Tetrachloride	ND	0.2	1,2-Dichloroethene	1.0	
Bromomethane	ND	0.2	1,1,1-Trichloroethane	ND	0.2
Chloroethane	ND	0.4	1,1,2-Trichloroethane	ND	0.2
Trichloroethene	ND	0.4	Trichlorofluoromethene	ND	0.6
Chloroform	0.4		Vinyl Chloride	ND	0.1
			Tetrachloroethene	49.9	

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

Method References: EPA - EPA-600/4-79-020

**AR202163**

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12 15 89  
Date Received: 12 15 89  
Sampled by: ALI  
Lab Id Number: PH 10507  
P.O. #: X003773  
Report Date: 01 08 90

Sample ID: Outfall 001 Duplicate

Results are in µg/L

Analysis Results

**VOLATILE COMPOUNDS** Date-Time Analyzed: 122289-0137 Tech: SH

Compound	Amount Found	MDL	Compound	Amount Found	MDL
<b>PA 602</b>					
Benzene	ND	0.3	2-Chloroethylvinyl ether	ND	0.1
Ethylbenzene	ND	0.2	Dibromochloromethane	ND	0.2
Toluene	ND	0.6	Dichlorodifluoromethane	ND	1.0
1,2-Dichlorobenzene	5.9		1,1-Dichloroethane	ND	0.1
1,3-Dichlorobenzene	ND	0.3	1,2-Dichloroethane	ND	0.1
1,4-Dichlorobenzene	ND	0.3	1,1-Dichloroethene	ND	0.8
			1,2-Dichloropropane	ND	0.2
			cis-1,3-Dichloropropene	ND	0.7
			trans-1,3-Dichloropropene	ND	0.3
			Bromodichloromethane	ND	1.8
			Methylene Chloride	ND	1.2
			Chlorobenzene	ND	0.1
<b>EPA 601</b>					
Chloromethane	ND	1.0	1,1,2,2-Tetrachloroethane	ND	0.3
Bromoform	ND	0.5	1,2-Dichloroethene	1.0	
Carbon Tetrachloride	ND	0.2	1,1,1-Trichloroethane	ND	0.2
Bromomethane	ND	0.2	1,1,2-Trichloroethane	ND	0.2
Chloroethane	ND	0.4	Trichlorofluoromethene	ND	0.6
Trichloroethene	ND	0.4	Vinyl Chloride	ND	0.1
Chloroform	0.4		Tetrachloroethene	46.9	

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

Method References: EPA - EPA-600/4-79-020

**AR202164**

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Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample ID: Field Blank

Results are in µg/L

Analysis Results

VOLATILE COMPOUNDS Date-Time Analyzed: 122189-2211 Tech: SH

Compound	Amount Found	MDL	Compound	Amount Found	MDL
EPA 602			2-Chloroethylvinyl ether	ND	0.1
			Dibromochloromethane	ND	0.2
Benzene	ND	0.3	Dichlorodifluoromethane	ND	1.0
Ethylbenzene	ND	0.2	1,1-Dichloroethane	ND	0.1
Toluene	ND	0.6	1,2-Dichloroethane	ND	0.1
1,2-Dichlorobenzene	ND	0.3	1,1-Dichloroethene	ND	0.8
1,3-Dichlorobenzene	ND	0.3	1,2-Dichloropropane	ND	0.2
1,4-Dichlorobenzene	ND	0.3	cis-1,3-Dichloropropene	ND	0.7
			trans-1,3-Dichloropropene	ND	0.3
			Bromodichloromethane	ND	1.8
			Methylene Chloride	ND	1.2
EPA 601			Chlorobenzene	ND	0.1
			1,1,2,2-Tetrachloroethane	ND	0.3
Chloromethane	ND	1.0	1,2-Dichloroethene	ND	0.2
Bromoform	ND	0.5	1,1,1-Trichloroethane	ND	0.2
Carbon Tetrachloride	ND	0.2	1,1,2-Trichloroethane	ND	0.2
Bromomethane	ND	0.2	Trichlorofluoromethane	ND	0.6
Chloroethane	ND	0.4	Vinyl Chloride	ND	0.1
Trichloroethene	ND	0.4	Tetrachloroethene	ND	0.3
Chloroform	ND	0.2			

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

Method References: EPA - EPA-600/4-79-020

AR202165

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample ID: Trip Blank

Results are in µg/L

Analysis Results

VOLATILE COMPOUNDS Date-Time Analyzed: 122189-2320 Tech: SH

Compound	Amount Found	MDL	Compound	Amount Found	MDL
<b>EPA 602</b>					
Benzene	ND	0.3	2-Chloroethylvinyl ether	ND	0.1
Ethylbenzene	ND	0.2	Dibromochloromethane	ND	0.2
Toluene	ND	0.6	Dichlorodifluoromethane	ND	1.0
1,2-Dichlorobenzene	ND	0.3	1,1-Dichloroethane	ND	0.1
1,3-Dichlorobenzene	ND	0.3	1,2-Dichloroethane	ND	0.1
1,4-Dichlorobenzene	ND	0.3	1,1-Dichloroethene	ND	0.8
			1,2-Dichloropropane	ND	0.2
			cis-1,3-Dichloropropene	ND	0.7
			trans-1,3-Dichloropropene	ND	0.3
			Bromodichloromethane	ND	1.8
			Methylene Chloride	ND	1.2
			Chlorobenzene	ND	0.1
<b>EPA 601</b>					
Chloromethane	ND	1.0	1,1,2,2-Tetrachloroethane	ND	0.3
Bromoform	ND	0.5	1,2-Dichloroethene	ND	0.2
Carbon Tetrachloride	ND	0.2	1,1,1-Trichloroethane	ND	0.2
Bromomethane	ND	0.2	1,1,2-Trichloroethane	ND	0.2
Chloroethane	ND	0.4	Trichlorofluoromethene	ND	0.6
Trichloroethene	ND	0.4	Vinyl Chloride	ND	0.1
Chloroform	ND	0.2	Tetrachloroethene	ND	0.3

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

Method References: EPA - EPA-600/4-79-020

**AR202166**

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample ID: Outfall 001

Results are in µg/L

Analysis Results

**VOLATILE COMPOUNDS**

Date-Time Analyzed: 122289-0029 Tech: SH

Compound	Spike Amt.	Percent Recovery	Compound	Spike Amt.	Percent Recovery
<b>EPA 602</b>					
			2-Chloroethylvinyl ether	--	--
			Dibromochloromethane	0.6	120.
Benzene	6.2	221.	Dichlorodifluoromethane	1.6	200.
Ethylbenzene	0.6	100.	1,1-Dichloroethane	1.2	110.
Toluene	1.2	110.	1,2-Dichloroethane	1.2	120.
1,2-Dichlorobenzene	8.3	--	1,1-Dichloroethene	0.7	117.
1,3-Dichlorobenzene	0.8	200.	1,2-Dichloropropane	ND	--
1,4-Dichlorobenzene	1.5	--	cis-1,3-Dichloropropene	0.7	100.
			trans-1,3-Dichloropropene	0.6	120.
			Bromodichloromethane	0.6	150.
			Methylene Chloride	1.0	125.
<b>EPA 601</b>					
			Chlorobenzene	5.3	200.
Chloromethane	1.8	100.	1,1,2,2-Tetrachloroethane	44.2	--
Bromoform	ND	--	1,2-Dichloroethene	3.4	300.
Carbon Tetrachloride	0.7	175.	1,1,1-Trichloroethane	0.5	125.
Bromomethane	0.4	133.	1,1,2-Trichloroethane	0.6	120.
Chloroethane	0.5	125.	Trichlorofluoromethene	0.7	175.
Trichloroethene	2.6	371.	Vinyl Chloride	1.6	200.
Chloroform	1.4	125.	Tetrachloroethene	44.2	--

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

Method References: EPA - EPA-600/4-79-020

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Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample Location: Outfall 001

Results are in µg/l.

Base/Neutral Extractables (EPA 625) Analysis Date-Time-Tech: 122889-2240TDS

Compound Name	Amount Found	MDL	Compound Name	Amount Found	MDL
N-nitrosodimethylamine	ND	10.	4-Chlorophenylphenylether	ND	10.
Bis(2-chloroethyl)ether	ND	10.	N-nitrosodiphenylamine	ND	10.
1,3-Dichlorobenzene	ND	10.	Azobenzene	ND	10.
1,4-Dichlorobenzene	ND	10.	4-Bromophenylphenylether	ND	10.
1,2-Dichlorobenzene	ND	10.	Hexachlorobenzene	ND	10.
N-nitrosodi-n-propylamine	ND	10.	Phenanthrene	ND	10.
Bis(2-chloroisopropyl)ether	ND	10.	Anthracene	ND	10.
Hexachloroethane	ND	10.	Dibutylphthalate	ND	10.
Nitrobenzene	ND	10.	Fluoranthene	ND	10.
Isophorone	ND	10.	Benzidine	ND	10.
Bis(2-chloroethoxy)methane	ND	10.	Pyrene	ND	10.
1,2,4-Trichlorobenzene	ND	10.	Butylbenzylphthalate	ND	10.
Naphthalene	ND	10.	3,3'-Dichlorobenzidine	ND	10.
Hexachlorobutadiene	ND	10.	Benzo(a)anthracene	ND	10.
Hexachlorocyclopentadiene	ND	10.	Chrysene	ND	10.
2-Chloronaphthalene	ND	10.	Bis(2-ethylhexyl)phthalate	17.	
Dimethylphthalate	ND	10.	Di-n-octylphthalate	ND	10.
Acenaphthylene	ND	10.	Benzo(b)fluoranthene	ND	10.
2,6-Dinitrotoluene	ND	10.	Benzo(k)fluoranthene	ND	10.
Acenaphthene	ND	10.	Indeno(1,2,3-c,d)pyrene	ND	10.
2,4-Dinitrotoluene	ND	10.	Benzo(a)pyrene	ND	10.
Diethylphthalate	ND	10.	Dibenzo(a,h)anthracene	ND	10.
Fluorene	ND	10.	Benzo(ghi)perylene	ND	10.

\*Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water", EMSL-C1, September 1986

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

**AR202168**

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample Location: Outfall 001

Results are in µg/L

Acid Extractables (EPA 625)

Analysis Date-Time-Tech: 122889-2240TDS

Compound Name	Amount Found	MDL
Phenol	ND	10.
2-Chlorophenol	ND	10.
2-Nitrophenol	ND	10.
2,4-Dimethylphenol	ND	10.
2,4-Dichlorophenol	ND	10.
4-Chloro-3-methylphenol	ND	10.
2,4,6-Trichlorophenol	ND	10.
2,4-Dinitrophenol	ND	50.
4-Nitrophenol	ND	10.
2-Methyl-4,6-dinitrophenol	ND	25.
Pentachlorophenol	ND	10.

"Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water", EMSL-CI, September 1984

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

**AR202169**

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample Location: Outfall 001 Duplicate Results are in µg/L

Base/Neutral Extractables (EPA 625) Analysis Date-Time-Tech: 122889-2359TDS

Compound Name	Amount Found	MDL	Compound Name	Amount Found	MDL
N-nitrosodimethylamine	ND	10.	4-Chlorophenylphenylether	ND	10.
Bis(2-chloroethyl)ether	ND	10.	N-nitrosodiphenylamine	ND	10.
1,3-Dichlorobenzene	ND	10.	Azobenzene	ND	10.
1,4-Dichlorobenzene	ND	10.	4-Bromophenylphenylether	ND	10.
1,2-Dichlorobenzene	ND	10.	Hexachlorobenzene	ND	10.
N-nitrosodi-n-propylamine	ND	10.	Phenanthrene	ND	10.
Bis(2-chloroisopropyl)ether	ND	10.	Anthracene	ND	10.
Hexachloroethane	ND	10.	Dibutylphthalate	ND	10.
Nitrobenzene	ND	10.	Fluoranthene	ND	10.
Isochlorone	ND	10.	Benzidine	ND	44.
Bis(2-chloroethoxy)ethane	ND	10.	Pyrene	ND	10.
1,2,4-Trichlorobenzene	ND	10.	Butylbenzylphthalate	ND	10.
Naphthalene	ND	10.	3,3'-Dichlorobenzidine	ND	17.
Hexachlorobutadiene	ND	10.	Benzo(a)anthracene	ND	10.
Hexachlorocyclopentadiene	ND	10.	Chrysene	ND	10.
2-Chloronaphthalene	ND	10.	Bis(2-ethylhexyl)phthalate	13.	
Dimethylphthalate	ND	10.	Di-n-octylphthalate	ND	10.
Acenaphthylene	ND	10.	Benzo(b)fluoranthene	ND	10.
2,6-Dinitrotoluene	ND	10.	Benzo(k)fluoranthene	ND	10.
Acenaphthene	ND	10.	Indeno(1,2,3-c,d)pyrene	ND	10.
2,4-Dinitrotoluene	ND	10.	Benzo(a)pyrene	ND	10.
Diethylphthalate	ND	10.	Dibenzo(a,h)anthracene	ND	10.
Fluorene	ND	10.			

\*Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water\*, EMSL-CI, September 1986

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

**AR202170**

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(302) 453-6920

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Maryland Department of Public Health Certified  
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Dover, Delaware 19903  
(302) 734-8417



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Page 10 of 12

Mr. Joseph J. Sasso  
Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

-----  
Sample Location: Outfall 001 Duplicate Results are in µg/L

Acid Extractables (EPA 625) Analysis Date-Time-Tech: 122889-2359TDS

Compound Name	Amount Found	MDL
Phenol	ND	10.
2-Chlorophenol	ND	10.
2-Nitrophenol	ND	10.
2,4-Dimethylphenol	ND	10.
2,4-Dichlorophenol	ND	10.
4-Chloro-3-methylphenol	ND	10.
2,4,6-Trichlorophenol	ND	10.
2,4-Dinitrophenol	ND	50.
4-Nitrophenol	ND	10.
2-Methyl-4,6-dinitrophenol	ND	25.
Pentachlorophenol	ND	10.

-----  
\*Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water\*, EMSL-CI, September 1986

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

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Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: PM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample Location: Outfall 001

Results are in µg/L

Base/Neutral Extractables (EPA 625) Analysis Date-Time-Tech: 122289-0517TDS

Compound Name	Spike Amount Found	Percent Recovery	Compound Name	Spike Amount Found	Percent Recovery
N-nitrosodimethylamine	21.	20.8	4-Chlorophenylphenylether	80.	80.0
Bis(2-chloroethyl)ether	57.	56.8	N-nitrosodiphenylamine	87.	88.5
1,3-Dichlorobenzene	38.	38.3	Azobenzene	85.	85.3
1,4-Dichlorobenzene	39.	38.9	4-Bromophenylphenylether	50.	57.8
1,2-Dichlorobenzene	44.	44.0	Hexachlorobenzene	89.	89.1
N-nitrosodi-n-propylamine	63.	62.8	Phenanthrene	89.	89.1
Bis(2-chloroisopropyl)ether	54.	54.3	Anthracene	85.	85.3
Hexachloroethane	37.	37.2	Dibutylphthalate	82.	82.3
Nitrobenzene	63.	63.2	Fluoranthene	90.	90.4
Isophorone	75.	74.7	Benzidine	63.	62.6
Bis(2-chloroethoxy)ethane	74.	73.6	Pyrene	95.	94.6
1,2,4-Trichlorobenzene	58.	58.4	Butylbenzylphthalate	86.	86.4
Naphthalene	62.	61.8	3,3'-Dichlorobenzidine	73.	73.0
Hexachlorobutadiene	57.	56.7	Benzo(a)anthracene	43.	42.6
Hexachlorocyclopentadiene	53.	52.7	Chrysene	93.	92.5
2-Chloronaphthalene	74.	74.1	Bis(2-ethylhexyl)phthalate	100.	100.
Dimethylphthalate	72.	71.6	Di-n-octylphthalate	73.	73.4
Acenaphthylene	76.	76.0	Benzo(b)fluoranthene	85.	85.2
2,6-Dinitrotoluene	87.	87.2	Benzo(k)fluoranthene	84.	84.0
Acenaphthene	77.	77.4	Indeno(1,2,3-c,d)pyrene	57.	57.3
2,4-Dinitrotoluene	88.	88.1	Benzo(a)pyrene	87.	86.7
Diethylphthalate	80.	80.2	Dibenzo(a,h)anthracene	44.	43.6
Fluorene	87.	86.7			

"Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water", EMSL-CI, September 1986

All were spiked at 100. µg/L.

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

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Mr. Joseph J. Sasso  
Ciba Geigy Corporation  
James & Water Streets  
Newport, Delaware 19804

Account Number: 70600187  
Date Sampled: 12/15/89  
Date Received: 12/15/89  
Sampled by: ALI  
Lab Id Number: FM 10597  
P.O. #: X003773  
Report Date: 01/08/90

Sample Location: Outfall 001

Results are in µg/L

Acid Extractables (EPA 625)

Analysis Date-Time-Tech: 122889-2359TDS

Compound Name	Spike Amount Found	Percent Recovery
Phenol	42.	35.2
2-Chlorophenol	76.	63.4
2-Nitrophenol	68.	56.4.
2,4-Dimethylphenol	67.	55.6
2,4-Dichlorophenol	14.6	121.
4-Chloro-3-methylphenol	94.	77.9
2,4,6-Trichlorophenol	72.	60.2
2,4-Dinitrophenol	96.	79.9
4-Nitrophenol	63.	52.4
2-Methyl-4,6-dinitrophenol	128.	73.6
Pentachlorophenol	111.	92.8

"Methods for the Determination of Organic Compounds in Drinking Water and Raw Source Water", EMSL-CI, September 1986

All are spiked at 120. µg/L except for 2-Methyl-4,6-dinitrophenol.

N.D. = The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

*Marlene O. Frey*

Marlene O. Frey  
VICE PRESIDENT

**AR202173**

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(302) 734-8417

**medlab**  
 Environmental Testing Inc.  
 Perry Lane  
 Castle, DE 19720  
 (302) 655-LABS  
 1-800-MEDLAB-1  
 (outside DE)

TO: 2525  
 CIBA GEIGY CORP.  
 JAMES AND WATER STREETS  
 NEWPORT, DE 19804

SOURCE: OUTFALL 005,  
 MATRIX: WATER SAMPLE TIME: 10:10 AM  
 SAMPLE DATE: 01/25/90  
 LAB NO. 01033323  
 REMARKS 03

SAMPLE RECEIVED 01/25/90

REPORT DATE 02/13/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
IRON, AA (EPA 236.1)	12.06 .. MDL=0.010		MG/L
COPPER, AA (EPA 220.1)	0.038 .. MDL=0.010		MG/L
ALUMINUM, AA (EPA 202.1)	1.19 .. MDL=0.040		MG/L
ZINC, AA (EPA 289.1)	0.134 .. MDL=0.001		MG/L
HARDNESS (EPA 130.2)	18.0	(CONC. RELATIVE TO CaCO3)	MG/L
pH, ELEC. (EPA 150.1)	7.3	FOR SOIL: EPA SW-846 METH: 9045	PH UNITS
TOT. SUS. SOLIDS (EPA 160.2)	44.0		MG/L

AR202174

**medlab**  
 Environmental Testing Inc.  
 Cherry Lane  
 Castle, DE 19720  
 655-LABS  
 650-MEDLAB-1  
 (outside DE)

2525  
 TO: CIBA GEIGY CORP.  
 JAMES AND WATER STREETS  
 NEWPORT, DE 19804

SOURCE **OUTFALL 006,**  
 MATRIX **WATER** SAMPLE TIME: **9:55 AM**  
 SAMPLE DATE: **01/25/90**  
 LAB NO. **01033324**  
 REMARKS **04**

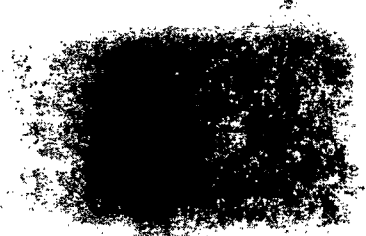
ORIGINAL  
 (Med)

SAMPLE RECEIVED 01/25/90 REPORT DATE 02/13/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
IRON, AA (EPA 236.1)	0.572 .. MDL=0.010		MG/L
COPPER, AA (EPA 220.1)	0.044 .. MDL=0.010		MG/L
ALUMINUM, AA (EPA 202.1)	0.550 .. MDL=0.100		MG/L
ZINC, AA (EPA 289.1)	0.894 .. MDL=0.001		MG/L
HARDNESS (EPA 130.2)	26.0	(CONC. RELATIVE TO CaCO3)	MG/L
pH, ELEC. (EPA 150.1)	6.6	PH UNITS FOR SOIL: EPA SW-846 METH. 9045	
TOT. SUS. SOLIDS (EPA 160.2)	11.0		MG/L

FOR THE WORK OF THE  
 1-800-840-003  
 311-311-1111  
 300-4527-112



AR202175

*[Handwritten scribbles]*





**medlab**  
 Environmental Testing Inc.  
 212 Cherry Lane  
 New Castle, DE 19720  
 (302) 655-LABS  
 1-800-MEDLAB-1  
 (side DE)

2525  
 TO: CIBA GEIGY CORP.  
 JAMES AND WATER STREETS  
 NEWPORT, DE 19804

SOURCE: OUTFALL 009,  
 MATRIX: WATER SAMPLE TIME: 9:45 AM  
 SAMPLE DATE: 01/25/90  
 LAB NO. 01033326  
 REMARKS 06

SAMPLE RECEIVED 01/25/90 REPORT DATE 02/13/90 FINAL REPORT

**REPORT**

TESTS	RESULTS	RANGE/COMMENTS	UNITS
IRON, AA (EPA 236.1)	0.774 .. MDL=0.010		MG/L
COPPER, AA (EPA 220.1)	0.023 .. MDL=0.010		MG/L
ALUMINUM, AA (EPA 202.1)	10.60 .. MDL=0.100		MG/L
ZINC, AA (EPA 289.1)	0.322 .. MDL=0.001		MG/L
HARDNESS (EPA 130.2)	16.0	(CONC. RELATIVE TO CaCO3)	MG/L
pH, ELEC. (EPA 150.1)	6.9	FOR SOIL: EPA SW-846 METH. 9045	pH UNITS
TOT. SUS. SOLIDS (EPA 160.2)	30.0		MG/L

AR202177

*[Handwritten signature]*