Jenkins,Ray

From: Ellinghaus, Matthew B. [mbellinghaus@co.hanover.va.us]
Sent: Thursday, December 04, 2008 2:14 PM
To: Jenkins,Ray
Subject: RE: Strawhorn Lagoon Permit Reissuance

If a discharge from the lagoon were to occur due to the filter backwash, the 2500 gallons per event would best characterize it. The 5000 gallon number is the theoretical calculated volume of water used to backwash the filter every other week. The lagoon would be able to hold a portion of the backwash without discharging it, so it all depends on how you want to describe the volume.

I hope this helps.

Matthew Ellinghaus
Assistant Chief of Operations & Maintenance
Hanover Department of Public Utilities
P.O. Box 470
7516 County Complex Road
Hanover, VA 23069

(804) 365-6701 (phone)
(804) 365-6705 (fax)

From: Jenkins,Ray [mailto:rrjenkins@deq.virginia.gov]
Sent: Thursday, December 04, 2008 1:56 PM
To: Ellinghaus, Matthew B.
Subject: Strawhorn Lagoon Permit Reissuance

I glanced over the subject permit application, and I know Jeremy has discussed the application with you.

One minor point of clarification: Form 2C, question II.B indicates an average discharge flow of 2500 gallons per week. Question II.C indicates a maximum daily flow of 2500 gpd, which I consider consistent with the response in II.B because the facility only backwashes once every 2 weeks. However, in Part V.A of the form the maximum daily flow is indicated to be 5,000 gpd based on the duration of backwash.

I know this facility doesn't discharge, but which of the above flows best characterizes the discharge if a discharge were to occur?

Thanks

Ray R. Jenkins, Jr.
Environmental Engineer Senior
Telephone: 804/527-5037
E-mail: rrjenkins@deq.virginia.gov
Fax: 804/527-5106

Jenkins,Ray

From: Kazio,Jeremy
Sent: Thursday, December 04, 2008 7:54 AM
To: Ellinghaus, Matthew B.
Cc: Jenkins,Ray
Subject: RE: 103108 - Hanover County - Strawhorn Well - VA0058611

Matt,

This email is for your information. I am no longer the permit writer for the subject facility. From now on you'll be dealing with Ray Jenkins, who is copied on this email. If you have any questions or concerns, please let him know. Thank you.

Jeremy S. Kazio, Water Permit Writer
VA DEQ Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Phone: 804/527-5044
Fax: 804/527-5106

From: Ellinghaus, Matthew B. [mailto:mbellinghaus@co.hanover.va.us]
Sent: Friday, November 14, 2008 3:01 PM
To: Kazio,Jeremy
Subject: FW: 103108 - Hanover County - Strawhorn Well - VA0058611

Jeremy –

Attached is the additional data requested for the Strawhorn Well.

Please let me know if you need any additional information.

Thanks,

Matt

Matthew Ellinghaus
Assistant Chief of Operations & Maintenance
Hanover Department of Public Utilities
P.O. Box 470
7516 County Complex Road
Hanover, VA 23069

(804) 365-6701 (phone)
(804) 365-6705 (fax)

From: Reno, Cindi [mailto:CRENO@HRSD.COM]
Sent: Thursday, November 13, 2008 5:30 PM
To: Ellinghaus, Matthew B.
Subject: 103108 - Hanover County - Strawhorn Well

HRSD
P.O. BOX 5911, VIRGINIA BEACH, VIRGINIA 23471-0911 • (757) 460-4205 • FAX: (757) 460-6586
www.hrsd.com

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November 13, 2008

Matthew Ellinghaus
Hanover County Department of Public Utilities
P.O. Box 470
Hanover, VA 23069

RE: STRAWHORN WELL – SPECIAL STUDY

Dear Matthew:

Enclosed are the analytical results, analytical QA report and chain of custody record for the October 31, 2008 sampling event.

Should you have any questions, please feel free to contact me at (757) 460-4247.

Sincerely,

Dan Barker
Environmental Scientist

DLB/cmr

Enclosures

HRSD
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www.hrsd.com

ANALYTICAL REPORT

Project: Hanover County - Strawhorn Well
Customer Sample ID: BKW
Project Code: HAN_STW
Sample Point: BKW
Sample Date: 10/30/08

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Misc. Parameters							
Color[2]	Orbeco-Hellige 611-A		8.5	NA	RMORGA	10/31/08	11:32
Apparent Color[3]	Orbeco-Hellige 611-A		>100	NA	RMORGA	10/31/08	11:32
Total Metals							
Iron	EPA 200.7	ug/L	17,600	100	SLABOC	11/07/08	09:25
Manganese	EPA 200.7	ug/L	2,380	5	SLABOC	11/07/08	09:25
Dissolved Metals							
Iron	EPA 200.7	ug/L	104	100	SWILLI	11/06/08	16:16
Manganese	EPA 200.7	ug/L	12	5	SWILLI	11/06/08	16:16

Notes

[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

[2] *Color Unit at pH 7.68 su.*

[3] *Apparent Color Unit at pH 7.55 su.*

Authorization: PRLee **Date:** 11/12/08

HRSD
P.O. BOX 5911, VIRGINIA BEACH, VIRGINIA 23471-0911 • (757) 460-4205 • FAX: (757) 460-6586
www.hrsd.com

ANALYTICAL REPORT

Project: Hanover County - Strawhorn Well
Customer Sample ID: Field Blank
Project Code: HAN_STW
Sample Point: FB
Sample Date: 10/30/08

Analyte	Method	Unit	Result	Report Limit[1]	Analyst	Analysis Date	Analysis Time
Total Metals							
Iron	EPA 200.7	ug/L	<100	100	SWILLI	11/06/08	15:45
Manganese	EPA 200.7	ug/L	<5	5	SWILLI	11/06/08	15:45
Dissolved Metals							
Iron	EPA 200.7	ug/L	<100	100	SWILLI	11/06/08	15:49
Manganese	EPA 200.7	ug/L	<5	5	SWILLI	11/06/08	15:49

Notes
[1] *Report Limit is lowest concentration at which quantitation is demonstrated.*

Authorization: PR Lee Date: 111208

QUALITY ASSURANCE REPORT
Level 1

Project:	**Hanover County - Strawhorn Well**
Customer Sample ID:	**Final Effluent**
Project Code:	**HAN_STW**
Sample Point:	**FB; BKW**
Sample Date:	**10/30/08**

Analytical Run Information	**Fe**	**Mn**
Method	**200.7**	**200.7**
Units	**ug/L**	**ug/L**
Method Detection Limit (MDL)	30	2
Report Limit (RL)	100	5
Average LRB	<30	<2

Total Metals	**Fe**	**Mn**
Sample ID: HAN_STW BKW TOTAL		
Matrix Spike Conc.	20	4
MS Percent Recovery	97%	95%
MSD Percent Recovery	98%	96%
MS/MSD RPD	<1	<1

LRB - Laboratory Reagent Blank

Report Limit is lowest concentration at which quantitation is demonstrated. Values below report limit should not be used for compliance determinations due to a high degree of uncertanity.

Validated By: Sadia Williams

Date: 11/12/08

CENTRAL ENVIRONMENTAL LABORATORY
1432 AIR RAIL AVENUE
VIRGINIA BEACH, VA 23455
TEL: 757-460-4214
FAX: 757-460-6586

CHAIN OF CUSTODY

PROJECT NAME/CODE: Hanover County- Strawhorn Well

ANALYSES REQUESTED, CGN & NUMBER OF CONTAINERS

Project in Lims? Yes ____ No ____

CUSTOMER SAMPLE ID	HRSD Use Only: PROJECT CODE	HRSD Use Only: SAMPLE POINT	DATE	TIME	SAMPLED BY	MATRIX (Circle One)	SAMPLE TYPE (Circle One)	DS Clean Metals (55)	TR Clean Metals (5)	Color (21)					HRSD Use Only: Presv'd Checked	HRSD Use Only: CONT. COUNT
	HAN_STW	FB	10/30/2008	1025	JR	L	G	1 ✓	1 ✓						✓	2
	HAN_STW	BKW	10/30/2008	1048	JR	L	G	1 ✓	1 ✓	1 ✓					✓	3

COMMENTS:

For Ground Water Use Only:
Temp. Blank °F
Temp. Blank °C

Relinquished by / Signature: Jennifer Kotz	Date/Time: 10/31/08 @ 738
Received by / Signature: [signature]	Date/Time: 10/31/08 0738
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time
Relinquished by / Signature	Date/Time
Received by / Signature	Date/Time

Temp. Requirement

Where required, submitted samples were transported in coolers maintained at ≤ 6 °C.

Yes ✓ No ____

Int GH/JR

***Preservatives**

- *Hg, Metals (pH<2 - HNO3) (Clean metals check in section)
- *O&G (pH<2 - HCl, check in section) & store ≤ 6 °C
- CN^- (pH>12 - NaOH) & store ≤ 6 °C
- *Sulfide (pH>9 - NaOH+ZnAc) & store ≤ 6 °C
- *Micro ($Na_3S_2O_3$ + EDTA) & store < 10 °C
- *COD, NUT, Phenols (pH<2 - H_2SO_4) & store ≤ 6 °C
- *TOC (pH<2 - H_3PO_4) & store ≤ 6 °C
- *BOD, TSS, TVSS, Turbidity, Surfactant, Sulfate store ≤ 6 °C
- *NUT Non Acidified, Conductivity, Organics store ≤ 6 °C
- *Cr (VI) (pH 9.3 - 9.7 - $(NH_4)_2SO_4$) & store ≤ 6 °C

All sample(s) met proper *preservation requirements. Yes ✓ No ____ Int GH/JR

Sample Type: B=Batch, C=Composite, G=Grab Matrix: L= Liquid , S = Solid CGN: Container Group Number

NOTE: ALL APPLICABLE INFORMATION MUST BE COMPLETED PRIOR TO ACCEPTANCE.

Hanover County
Department of Public Utilities
P.O. Box 470
7496 County Complex Road
Hanover, VA 23069-0470
FAX: (804) 365-6705

Fax

To:	Jeremy Kazio	**From:**	Matt Ellinghaus
Fax:	527-5106	**Pages:**	4 (including cover)
Phone:	365-6701	**Date:**	September 3, 2008
Re:	VA0058611	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

Jeremy –

Here are the lab sheets from the Strawhorn well filter backwash. Let me know if you have any questions.

Matt

Microbac®

Microbac Laboratories, Inc.

Richmond Division
2028 Dabney Road, Suite E-17 ● Richmond, VA 23230
Telephone (804) 353-1999 ● FAX (804) 353-0330 ● www.microbac.com
elab: www.microbacrichmond.com/elementweb/

CERTIFICATE OF ANALYSIS

May 06, 2008

LAB#: 0804433

CLIENT: Hanover - Totopotomoy WWTP
9015 Pole Green Park Lane
Mechanicsville VA, 23116
Dean DeVed

PROJECT: Strawhorn
PROJECT NO.:
SAMPLED BY: Chad Cox
RECEIVED: 04/18/08

Lab ID: 0804433-01 (Water)
Client ID: Strawhorn Sub.
Sampled Date/Time: 4/18/08 11:58

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
Wet Chemistry								
TOC	1.2	0.5	mg/L		4/24/08 0:00	SM20 5310C	TAR	CH
Metals								
Iron	32.4	0.02	mg/L	4/28/08 9:15	4/29/08 12:00	EPA 200 7	TG	
Manganese	4.58	0.02	"	4/28/08 9:15	4/29/08 12:00	"	TG	
Wet Chemistry								
Ammonia-Nitrogen	0.26	0.05	mg/L	4/21/08 11:38	4/21/08 14:34	SM18/4500-NH3 H	JCM	
BOD	BQL	2	"	4/18/08 15:30	4/23/08 14:15	SM18/5210 B	KLC	
COD	BQL	15	"	4/28/08 11:45	4/28/08 11:45	HACH (SM18/5220 D)	JCM	
Total Suspended Solids	38	1	"	4/21/08 15:21	4/21/08 15:21	SM18/2540 D	KLC	

Audrey N Brubeck

Audrey Brubeck
Technical Manager

CERTIFICATIONS:
VIRGINIA DRINKING WATER - 00150
NORTH CAROLINA DENR - 432
SOUTH CAROLINA DHEC- 93010001 & 93010002
MARYLAND DRINKING WATER - 279

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Notes and Definitions

CH Microbac Labs, Camp Hill

mg/L = milligrams per Liter
µg/L = micrograms per Liter
pCi/L = picocuries per Liter
BQL = Below the Quantitation Limit

mg/kg = milligrams per kilogram
ppm = parts per million
CFU/mL = Colony forming units per milliliter

su = standard units
NTU = Nephelometric Turbidity Units
MPN/100mL = Most Probable Number per 100 millilitors

Reported results relate only to the samples analyzed, as received by the laboratory.

This report shall not be reproduced, wholly or in part, without the consent of Microbac Laboratories, Inc - Richmond Division.

Microbac

Richmond Division
Richmond, VA 23228
Tel: 804-353-1999
Fax: 804-353-0330
www.microbac.com

Sample Submittal
Chain of Custody Record

Work Order Number: 0804433

Page 1 of 1

Client Name: Hanover Co	Project: Strawhorn	Turnaround Time (Required): [✓] Routine (10 working days) [ ] RUSH* (notify lab) ____ (needed by)	QC and EDD Type (Required): [ ] Level I [ ] Level II [ ] Level III [ ] Level IV CLP-like [ ] EDD Format: ____ Comments:
Address: 9075 Pole Green Parkway	Location: Strawhorn Sub		
City, State, Zip: Mech Va 23116	PO# 432		
Contact: Dean DeVol	Compliance Monitoring? [ ] Yes [ ] No		
Telephone #: 365-6739	(1)Agency/Program		

Sampled by (PRINT): CHAD COX Sampler Signature: [signature] Sampler Phone #: (804) 916-0332

Send Report via [ ] e-mail (address) ____ [ ] Mail [ ] Telephone [ ] Fax (fax #) ____

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

Requested Analysis

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	BOD	TSS	Total Manganese	COD/PMM	TDC				Comments
01 #1	WW	X			4-18-08	11:58	5	→	→	→	→	→	PH 7.77		FC → 9.55 TC → 9.99	TEMP 18.5°C
#2		↓			↓	12:00	5	→	→	→	→	→				
#3						12:02	5	→	→	→	→	→				
#4						12:04	5	→	→	→	→	→				
#5		↓			↓	12:06	5	→	→	→	→	→				

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive Sample Disposition [ ] Dispose as appropriate [ ] Return [ ] Archive

	Relinquished By (signature)	Printed Name/Affiliation	Date/Time	Received By (signature)	Printed Name/Affiliation
Number of Containers: 25	[signature]	Dean DeVol	4-18-08 12:30	[signature]	CHAD COX / MICROBAC
Cooler Number:	Relinquished By (signature)	Printed Name/Affiliation	Date/Time	Received By (signature)	Printed Name/Affiliation
Temp upon receipt(°C): 12°C					
Sample Received on Ice or Refrigerated from Client: Yes / No	Relinquished By (signature) [signature]	Printed Name/Affiliation MB	Date/Time 4/18/08 12:55	Received for Lab By (signature) [signature]	Printed Name/Affiliation [illegible]

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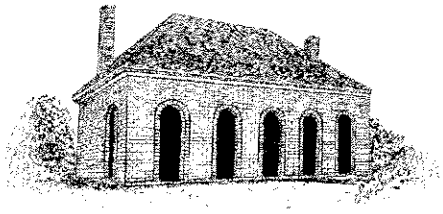
COUNTY ADMINISTRATOR



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HANOVER COUNTY

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DEPARTMENT OF PUBLIC UTILITIES

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P. O. BOX 470
HANOVER, VA 23069-0470

PHONE: (804) 365-6019
FAX: (804) 365-6245

WEB SITE: www.co.hanover.va.us

RECEIVED
AUG 29 2008
PRO

August 26, 2008

Mr. Jeremy Kazio
DEQ-PRO
4949-A Cox Road
Glen Allen, VA 23060

RE: Hanover County – Strawhorn Lagoon Permit Re-issuance (VA0058611)

Dear Mr. Kazio:

Included with this letter are the required permit re-issuance forms (EPA Form 1 and 2C) for the Strawhorn subdivision lagoon.

If you have any questions or concerns or would like to meet on this matter please contact me at 804-365-6235.

Sincerely,

David F. Van Gelder
Chief of Operations & Maintenance

Cc: M. Ellinghaus
DEQ correspondence file

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	VA0058611		D
1	2 13	14	15

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

RECEIVED AUG 29 2008 PRO

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

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

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		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	
	16	17	18		19	20	21
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	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	
	22	23	24		25	26	27
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	
	28	29	30		31	32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		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	
	34	35	36		37	38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		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	
	40	41	42		43	44	45

III. NAME OF FACILITY

C 1 SKIP: Strawhorn Subdivision Well Facility (15–29, 30–69)

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*: C 2 David F. Van Gelder (15–16, 16–45)

B. PHONE *(area code & no.)*: (804) 365-6235 (46–48, 49–51, 52–56)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: C 3 P.O. Box 470, 7516 County Complex Road (15–16, 16–45)

B. CITY OR TOWN: C 4 Hanover (15–16, 16–40)

C. STATE: VA (41–42)

D. ZIP CODE: 23069 (47–51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: C 5 Strawhorn Subdivision on Route 643 (15–16, 16–45)

B. COUNTY NAME: Hanover (46–70)

C. CITY OR TOWN: C 6 Hanover (15–16, 16–40)

D. STATE: VA (41–42)

E. ZIP CODE: 23069 (47–51)

F. COUNTY CODE *(if known)* (52–54)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

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

A. FIRST	B. SECOND
7 4941 *(specify)* Filter backwash lagoon for a small well water treatment system	7 *(specify)*
C. THIRD	**D. FOURTH**
7 *(specify)*	7 *(specify)*

VIII. OPERATOR INFORMATION

A. NAME: 8 Hanover County

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
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

M *(specify)*

D. PHONE *(area code & no.)*: A (804) 365-6235

E. STREET OR P.O. BOX: P.O. Box 470

F. CITY OR TOWN	G. STATE	H. ZIP CODE
B Hanover	VA	23069

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

	C	T	I	
A. NPDES *(Discharges to Surface Water)*	9	N		VA0058611
D. PSD *(Air Emissions from Proposed Sources)*	9	P		
B. UIC *(Underground Injection of Fluids)*	9	U		
E. OTHER *(specify)*	9			*(specify)*
C. RCRA *(Hazardous Wastes)*	9	R		
E. OTHER *(specify)*	9			*(specify)*

XI. MAP

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

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

Filter backwash from a small subdivision well water treatment system which discharges to a settling lagoon.

NOTE: The lagoon has not discharged in at least 22 years.

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.

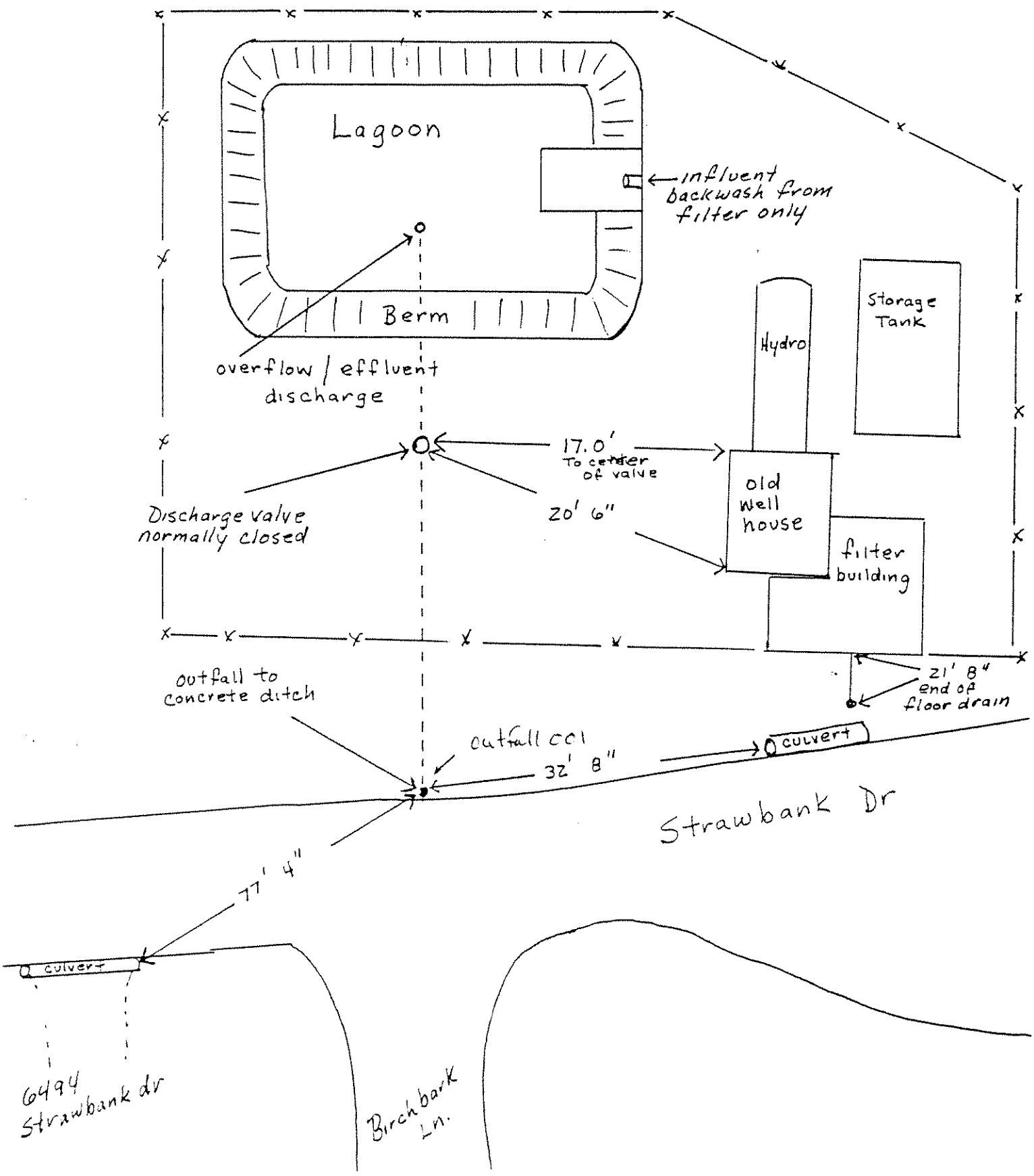
A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Cecil R. Harris, Jr., County Administrator	Cecil R. Harris	8/26/08

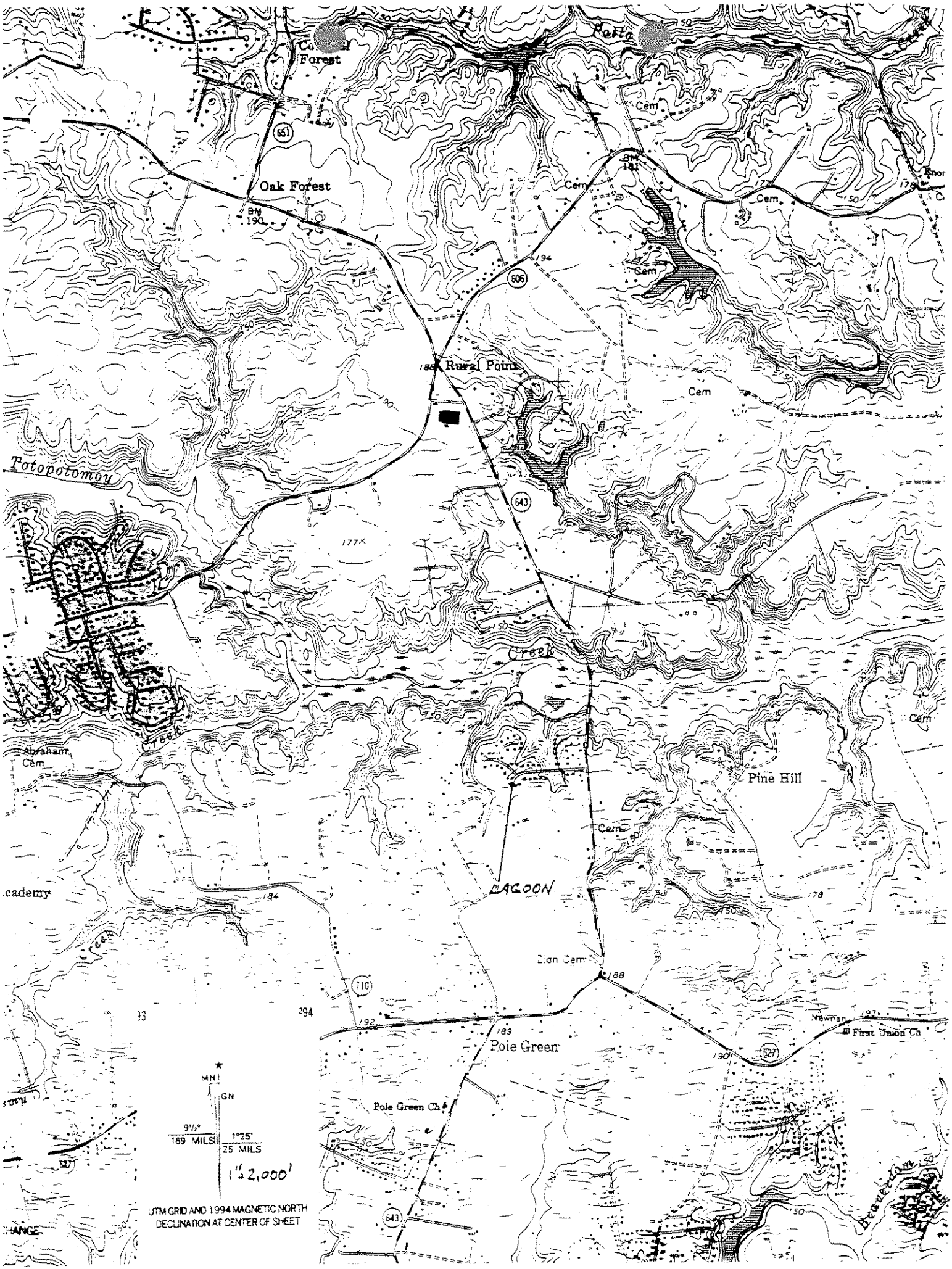
COMMENTS FOR OFFICIAL USE ONLY

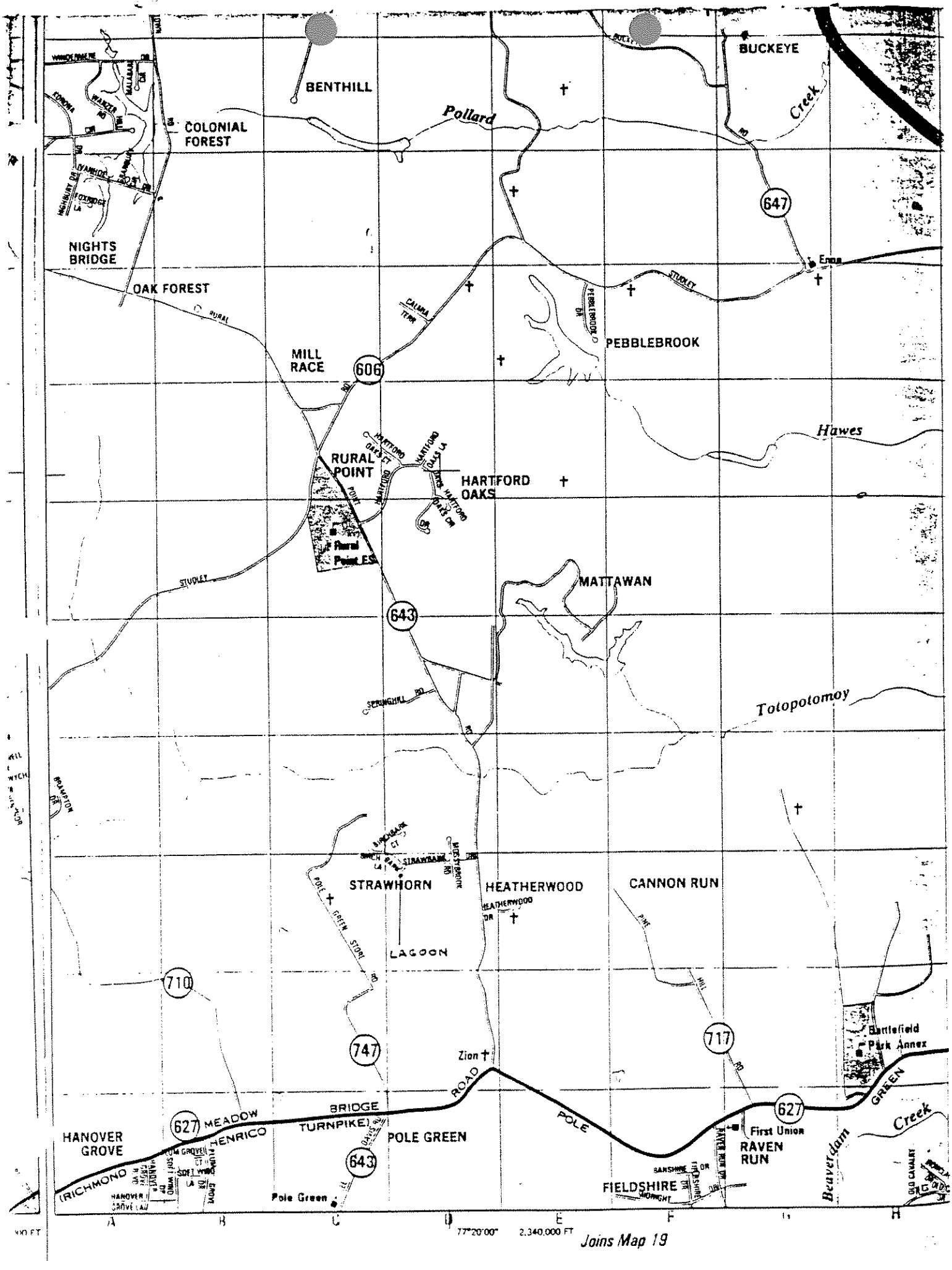
C

3-26-99 MDW
NOT TO SCALE

Strawhorn Lagoon/Well facility




Forest
Oak Forest
BM 190
651
606
Cem
Rural Point
Totopotomoy
643
Creek
Abraham Cem
Pine Hill
LAGOON
Zion Cem
710
Pole Green
Pole Green Ch
First Union Ch
Newman
627
MN
GN
9½°
169 MILS
1°25'
25 MILS
1" = 2,000'
UTM GRID AND 1994 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET


BENTHILL
BUCKEYE
COLONIAL FOREST
Pollard
Creek
647
NIGHTS BRIDGE
OAK FOREST
Enon
STUDLEY
PEBBLEBROOK
MILL RACE
606
Hawes
RURAL POINT
HARTFORD OAKS
Rural Point ES
MATTAWAN
643
Totopotomoy
STRAWHORN
HEATHERWOOD
CANNON RUN
LAGOON
710
747
717
Zion
Battlefield Park Annex
627
HANOVER GROVE
MEADOW
HENRICO
BRIDGE
TURNPIKE
ROAD
POLE
GREEN
POLE GREEN
RICHMOND
First Union
RAVEN RUN
FIELDSHIRE
Beaverdam
Creek
Pole Green
A
B
C
D
E
F
G
H
77°20'00"
2,340,000 FT
Joins Map 19

RECEIVED
AUG 29 2008
PRO

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): VA0058611

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

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE 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.

A. OUTFALL NUMBER (*list*)	B. LATITUDE 1. DEG.	2. MIN.	3. SEC.	C. LONGITUDE 1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER (*name*)
001	37	38	892	77	20	121	Unnamed Tributary to Topotomoy Creek

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.

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. OUT-FALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	3. TREATMENT a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Water Treatment Filter Backwash	2,500 gallons per week	Settling Lagoon	1-U	U

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				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
001	Filter Backwash	1/2 weeks	12	0.0025	0.0025			10 min.

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 (*go 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*)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ 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

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

 CONTINUE ON PAGE 3

EPA I.D. NUMBER (*copy from Item I of Form 1*)
VA0058611

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

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

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

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

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*)

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

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

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

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*)
Microbac Laboratories, Inc.	2028 Dabney Road, Suite E-17 Richmond, VA 23230	(804) 353-1999	TOC Iron Manganese Ammonia BOD COD TSS

IX. CERTIFICATION

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

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Cecil R. Harris, Jr., County Administrator	(804) 365-6235
C. SIGNATURE Cecil R. Harris Jr.	D. DATE SIGNED 8/26/08

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*): VA0058611

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 a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	<2	<0.038	<2	<0.038			1	mg/l	kg/d			
b. Chemical Oxygen Demand (*COD*)	<15	<0.29	<15	<0.29			1	mg/l	kg/d			
c. Total Organic Carbon (*TOC*)	1.2	0.022	1.2	0.022			1	mg/l	kg/d			
d. Total Suspended Solids (*TSS*)	38	0.72	38	0.72			1	mg/l	kg/d			
e. Ammonia (*as N*)	0.26	0.005	0.26	0.005			1	mg/l	kg/d			
f. Flow	VALUE **	approx. 5,000	VALUE **	approx. 5,000	VALUE		1	gpd		VALUE		
g. Temperature (*winter*)	VALUE 18.5		VALUE 18.5		VALUE		1	°C		VALUE		
h. Temperature (*summer*)	VALUE 18.5		VALUE 18.5		VALUE		1	°C		VALUE		
i. pH	MINIMUM 7.7	MAXIMUM 7.7	MINIMUM 7.7	MAXIMUM 7.7			1	STANDARD UNITS				

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

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual	X		1.6	0.03	1.6	0.03			1	mg/l	kg/d			
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (*as N*)		X												

** Flow value is an estimate based on filter backwash duration and is a single day maximum. Filter backwash is conducted once every two weeks. The backwash discharge is always contained within the settling basin. No discharge has occurred from the settling basin into the receiving stream.

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)		X												
h. Oil and Grease		X												
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (*as SO_4*) (14808-79-8)		X												
l. Sulfide (*as S*)		X												
m. Sulfite (*as SO_3*) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total (7440-48-4)		X												
s. Iron, Total (7439-89-6)	X		32.4	0.613	32.4	0.613			1	mg/l	kg/d			
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)	X		4.58	0.087	4.58	0.087			1	mg/l	kg/d			
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total (7440-32-6)		X												

 CONTINUE ON PAGE V-3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0058611	001

CONTINUED FROM PAGE 3 OF FORM 2-C

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

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X												
2M. Arsenic, Total (7440-38-2)			X												
3M. Beryllium, Total (7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)			X												
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7440-50-8)			X												
7M. Lead, Total (7439-92-1)			X												
8M. Mercury, Total (7439-97-6)			X												
9M. Nickel, Total (7440-02-0)			X												
10M. Selenium, Total (7782-49-2)			X												
11M. Silver, Total (7440-22-4)			X												
12M. Thallium, Total (7440-28-0)			X												
13M. Zinc, Total (7440-66-6)			X												
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (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 (56-23-5)			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 (110-75-8)			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												

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloro-ethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloro-ethane (71-55-6)			X												
28V. 1,1,2-Trichloro-ethane (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-Chlorophenol (95-57-8)			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-Trichloro-phenol (88-05-2)			X												

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo (*a*) Anthracene (56-55-3)			X												
6B. Benzo (*a*) Pyrene (50-32-8)			X												
7B. 3,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo (*ghi*) Perylene (191-24-2)			X												
9B. Benzo (*k*) Fluoranthene (207-08-9)			X												
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X												
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X												
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X												
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Di-chloro-benzene (541-73-1)			X												

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X												
23B. 3,3-Dichloro-benzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131 -11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitro-toluene (121-14-2)			X												
28B. 2,6-Dinitro-toluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachloro-benzene (118-74-1)			X												
34B. Hexachloro-butadiene (87-68-3)			X												
35B. Hexachloro-cyclopentadiene (77-47-4)			X												
36B Hexachloro-ethane (67-72-1)			X												
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitro-sodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

 CONTINUE ON PAGE V-9

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0058611	001

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												