



MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

March 20, 2007

Ms. Kathy Thurman
Kentucky Division of Water
14 Reilly Road
Frankfort, Kentucky 40601

RE: Floyds Fork Wastewater Treatment Plant, KPDES No: KY0102784
Discharge Monitoring Report for March 2007.

Dear Ms. Thurman:

Attached are the Discharge Monitoring Report (DMR) and the Monthly Operating Report (MOR) for the Floyds Fork Wastewater Treatment Plant, for the month of February 2007.

Also included is the First quarter Metals / Biomonitoring report.

If you have any questions concerning the attached DMR's, please contact me at (502)241-9093.

Sincerely,

John Kessel
Process Supervisor, East Region

JMK/ Floyds Fork 0307

Enclosures

cc: M. Mudd (DOW Louisville)
E. Brady
T. Singleton
P. Burgin
R. Shaw



*Beneficial Use of Louisville's Biosolids
www.louisvillegreen.com*

NAME OF TREATMENT PLANT Floyds Fork

COUNTY Jefferson

Month of: March 2007

Avg. Flow: 1.99

Date	Rainfall	Sludge Disposal in Gallons	Remarks
1	0	31500	
2	0.9	37800	collected composite samples& fecals
3	0	0	
4	0	37800	
5	0	25200	checked manhole in field for inf. Pump station
6	0	25200	collected composite samples& fecals
7	0	50400	collected composite samples& fecals simplex grinnell pm`ed sprinkler system
8	0	25200	pm`ed aerators
9	0		collected composite samples& fecals, checked manhole in field for inf. Ps
10	0	31500	
11	0	18900	
12	0	37800	elect. Replaced bad socket on b" bank
13	0	31500	collected composite samples& fecals
14	0	31500	pm`ed aerators,pm`ed fence around plant, ford hall changed brushes on clars
15	1		poured up boimonitoring samples
16	0.07		collected composite samples& fecals
17	0	6300000	poured up boimonitoring samples
18	0	0	
19	0	50400	collected composite samples& fecals
20	0.55	37800	collected composite samples& fecals
21	0	50400	pm`ed aerators
22	0	56700	maint.& elect. Replaced # 2 pump at plant drain p.s. ,checked manhole in field
23	0	25200	collected composite samples& fecals, pm`ed #1&2 bar screen, &2 sand f
24	0	0	
25	0	0	
26	0	50400	collected composite samples& fecals
27	0	25200	
28	0	44100	
29	0	25200	
30	0	50400	
31	0	25200	

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME MSD FLOYDS FORK STP
ADDRESS C/O LOUISVILLE/JEFF CO MSD
4522 ALBONQUIN PKWY
LOUISVILLE KY 40211-2497
FACILITY MSD FLOYDS FORK STP
LOCATION LOUISVILLE KY 40245
ATTN: ALEX E NOVAK, OPER MGR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

KY0102784
PERMIT NUMBER
0011
DISCHARGE NUMBER

MAJOR (SUBR LV)
F - FINAL
MUNICIPAL DISCHARGE EFFLUENT
*** NO DISCHARGE I [] ***

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
07	03	01		07	03	31

FROM

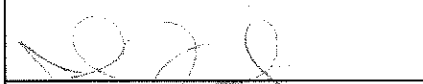
TO

NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
OXYGEN, DISSOLVED (DD)	SAMPLE MEASUREMENT	*****	*****		7.7	*****	*****	(19)	0	3/7	Grab
00300 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	INST MIN	*****	*****	MG/L		FREE / GRAB	WEEK
PH	SAMPLE MEASUREMENT	*****	*****		7.9	*****	8.3	(12)	0	3/7	Grab
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	MINIMUM	*****	MAXIMUM	SU		FREE / GRAB	WEEK
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT			(26)	*****	166	199	(19)	0	3/7	Loop
00530 6 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MD AVG	REPORT MX WK AV	LBS/DY	*****	REPORT MD AVG	REPORT MX WK AV	MG/L		FREE / SAMPLE	WEEK
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT			(26)	*****	1.4	2	(19)	0	3/7	Loop
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	813 MD AVG	1220 MX WK AV	LBS/DY	*****	30 MD AVG	45 MX WK AV	MG/L		FREE / SAMPLE	WEEK
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT			(26)	*****	13.2	16.2	(19)	0	3/7	Loop
00610 0 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MD AVG	REPORT MX WK AV	LBS/DY	*****	REPORT MD AVG	REPORT MX WK AV	MG/L		FREE / SAMPLE	WEEK
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT			(26)	*****	0.10	0.10	(19)	0	3/7	Loop
00610 1 2 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	135 MD AVG	200 MX WK AV	LBS/DY	*****	5 MD AVG	7.5 MX WK AV	MG/L		FREE / SAMPLE	WEEK
PHOSPHORUS, TOTAL (AS P)	SAMPLE MEASUREMENT	*****	*****		*****	0.13	0.28	(19)	0	3/7	Loop
00665 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	1.0 MD AVG	1.5 MX WK AV	MG/L		FREE / SAMPLE	WEEK

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

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.


SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE
502 241 9693 07 04 20
AREA CODE NUMBER YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
 NAME MSD FLOYDS FORK STP
 ADDRESS 0/0 LOUISVILLE/JEFF CO MSD
 4522 ALBONQUIN PKWY
 LOUISVILLE KY 40211-2497
 FACILITY MSD FLOYDS FORK STP
 LOCATION LOUISVILLE KY 40245
 ATTN: ALEX E NOVAK, OPER MGR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

KY0102784
 PERMIT NUMBER
 003 1
 DISCHARGE NUMBER


MAJOR (SUBR LV)
 F - FINAL
 MUNICIPAL DISCHARGE
 EFFLUENT

MONITORING PERIOD

FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	07	05	01		07	05	31

*** NO DISCHARGE [] ***

NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS				
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	1.99	2.29	(03)	*****	*****	*****		0	1/2	1/2	
80050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MD AVG	REPORT DAILY MX	MGD	*****	*****	*****	***		UNT IN UNITS	UNT IN UNITS	
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	*****	*****		*****	3	4	(15)	0	3/7	Grab	
74055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	200	400	#/		FREE/GRAB		
BOD, CARBONACEOUS 05 DAY, 20C	SAMPLE MEASUREMENT	1786	2315	(26)	*****	102	110	(17)	0	3/7	Comp	
80082 2 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MD AVG	REPORT MX WK AV	LBS/DY	*****	REPORT MD AVG	REPORT MX WK AV	MG/L		FREE/SAMPLE		
BOD, CARBONACEOUS 05 DAY, 20C	SAMPLE MEASUREMENT	35	42	(26)	*****	2.0	2	(17)	0	3/7	Comp	
80082 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	271	407		*****	10	15			FREE/SAMPLE		
BOD, CARB-5 DAY, 20 DEG C, PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****		98.1	*****	*****	(23)	0	1/31	Cal	
80091 1 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	*****	*****	***	MD MIN	*****	*****	PER-CENT		INCE/ CALCD		
SOLIDS, SUSPENDED PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****		99.1	*****	*****	(23)	0	1/31	Cal	
81011 1 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	*****	*****	***	MD MIN	*****	*****	PER-CENT		INCE/ CALCD		
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	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.							TELEPHONE		DATE		
H. J. Schneider Exec Director	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED								302	241-9893	07	04	26

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
 NAME MSD FLOYDS FORK STP
 ADDRESS C/O LOUISVILLE/JEFF CO MSD
 4522 ALCONQUIN PRVY
 LOUISVILLE KY 40211-2477
 FACILITY MSD FLOYDS FORK STP
 LOCATION LOUISVILLE KY 40245
 ATTN: ALEX E NOVAK, OPER MGR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

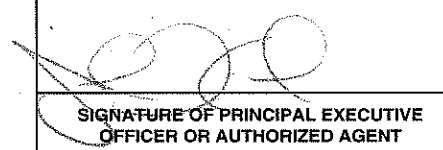
KY0102784 PERMIT NUMBER
 001 Y DISCHARGE NUMBER

MAJOR (SUBR LV)
 F - FINAL
 QUARTERLY METALS/BIO-MONITORING EFFLUENT
 *** NO DISCHARGE [] ***

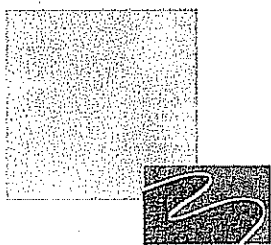
MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 07 01 04 TO 07 01 04

NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
HARDNESS, TOTAL (AS CaCO3) 00900 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	250	250	(17)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE / MONTH	COMPL
ZINC TOTAL RECOVERABLE 01094 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	0.040	0.040	(17)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE / MONTH	COMPL
CADMIUM TOTAL RECOVERABLE 01113 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	<0.001	<0.001	(17)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE / MONTH	COMPL
LEAD TOTAL RECOVERABLE 01114 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	0.005	0.005	(17)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE / MONTH	COMPL
COPPER TOTAL RECOVERABLE 01119 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	<0.003	<0.003	(17)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE / MONTH	COMPL
TOXICITY, FINAL CONC TOXICITY UNITS 61406 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****		<1.0	(20)	0	1/91	Comp
	PERMIT REQUIREMENT	*****	*****	*****	*****		1.00 CHRONIC DAILY MX TOXCTY			ONCE / MONTH	COMPL
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER B. B. Schandier Exec. Director TYPED OR PRINTED	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.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE		
			AREA CODE NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



**Chronic Toxicity Evaluation
for the
MSD-Floyd's Fork
Wastewater Treatment Plant**

March 2007

Prepared by:

Beckmar Environmental Laboratory
Biomonitoring Department
3251 Ruckriegel Parkway
Louisville, KY. 40299
(502) 266-6533

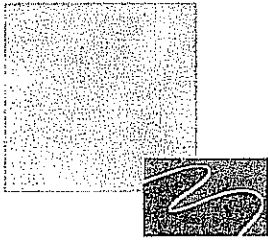
Submitted to:

Mr. Eric Brady
Floyd's Fork Wastewater Treatment Plant
700 West Liberty St.
Louisville, KY 40203

Released by:

Amanda S. Spalding
Biomonitoring QA Officer

4-20-07



Summary

Chronic, definitive, toxicity testing was performed on final effluent samples collected March 12 through 17, 2007 from the MSD-Floyd's Fork Wastewater Treatment Plant. Testing was performed March 13 through 20, 2007 and upon termination, the following conclusions were reached:

For the 7 day *Pimephales promelas* survival and growth test, the IC₂₅ for reproduction was greater than 100%, yielding less than 1.0 chronic toxicity units (TU_c=100/IC₂₅).

Introduction

At the request of Mr. Eric Brady, chronic definitive toxicity testing was performed on 24 hour composite effluent samples collected March 12 through 17, 2007 from the MSD-Floyd's Fork Wastewater Treatment Plant in Louisville, KY. Metals analyses were also performed on effluent samples collected during the same period. Information concerning plant and laboratory conditions can be found on the following pages.

The chronic toxicity testing was performed in accordance with the US EPA methodology as defined in the US EPA manual "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" fourth edition, 2002 (EPA-821-R-02-013). The actual methods used were "Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Method 1000.0". The chronic toxicity test was performed in order to ascertain the IC₂₅ values for *Pimephales promelas* growth.



Date of Issue: March 20, 2007

Page 1 of 1

Metropolitan Sewer District c/o Mr. Eric Brady
700 West Liberty St.
Louisville, KY 40203-1913

RE: Analysis results for: Floyds Fork WWTP: Biomonitoring metals/hardness.

BECKMAR CERTIFICATE OF ANALYSIS # 181804

Sample Date: 3/12/2007

Sample Time: 7:40

Sampled by: Client

Parameter	Results	Units	Type	Method	Analyzed Date / Time	Analyst
Hardness (T)	250	mg/l	C	EPA 130.2	3/16/2007 15:00	PJB
Cadmium (TR)	< 0.001	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Cadmium (D)	< 0.001	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Copper (TR)	< 0.003	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Copper (D)	< 0.003	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Lead (TR)	0.005	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Lead (D)	< 0.004	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Zinc (TR)	0.040	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS
Zinc (D)	0.040	mg/l	C	EPA 200.7	3/16/2007 15:00	ALS

Remarks:

If you have any questions please call.

Thank you,

Joe P. Carney
Quality Control Officer

JPC:dwt

ENVIRONMENTAL
LABORATORY

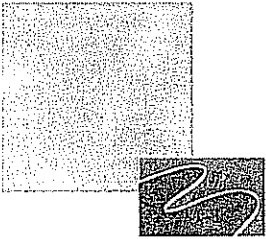
Jeffersonville Business Park

251 Ruckriegel Parkway

Jeffersonville, KY 40299

02-266-6533

AX-502-266-6444



Test Type: Acute Screen
Chronic X Definitive X

TOXICITY TEST REPORT SHEET

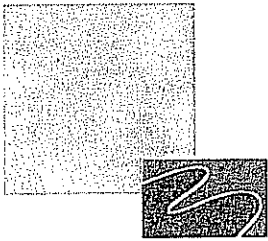
- 1) Facility/Discharger: Floyd's Fork WWTP
Report Date: 4/20/2007
- 2) Address: 1100 Miles Park Way, Louisville, KY 40245
- 3) NPDES Permit #: KY0102784 4) Receiving Stream: Floyd's Fork mile pt 37
- 5) Facility Contact: Mr. Eric Brady 6) Phone #: (502) 253-9310
- 7) Consultant/Testing Lab Name: Beckmar Environmental Laboratory
- 8) Lab Contact: Becky Barker Phone #: (502) 266-6533
- 9) Outfall(s) Tested: 1
- 10) Average Daily flow on day sampled (MGD) 1) 1.596 2) 2.51
3) 2.115 4) 5) 6) 7)
- 11) Test Species: 1) Pimephales promelas 2)
- 12) Species Age: 1) less than 24 hours 2)
- 13) Organism Source: 1) fish hatch 031307 2)
- 14) Acclimation Procedures: 1) Reared at test conditions in synthetic water
2)
- 15) Test Conditions: Static: Static-Renewal: X
- 16) Dilution Water Type (Synthetic, Receiving Stream) synthetic - mhs
- 17) Aeration? (Before Test/During Test/None): no
- 18) Dechlorination? no Original Chlorine Level: <0.01 m

Rhonda Baker
(Signature of person filling out form)

4/20/2007
Date

Rhonda Baker
Name (Typed or Printed)

Biologist
Title



Materials and Methods

Sampling

Composite effluent samples were collected once every other 24 hours (Table I) and delivered to Beckmar Environmental Laboratory. Upon receipt, each sample went through standard log in procedures.

Control/Dilution Water

All chemicals used are reagent grade, obtained from Aldrich. 1.20 grams of CaSO_4 , 1.2 grams of MgSO_4 , 1.92 grams of NaHCO_3 , and 0.080 grams of KCl were dissolved in distilled water provided by a Barnstead Thermolyne distillation system and aerated for a minimum of 24 hours.

Test Containers

P. promelas tests were performed in 600 mL plastic cups obtained from Liquor Outlet (Louisville, KY).

Toxicity Testing

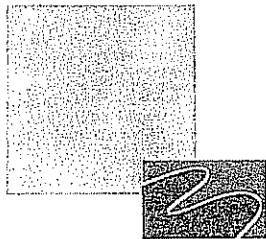
Samples were allowed to warm to room temperature (25°C) and were tested for residual chlorine immediately prior to dilution. Testing was then performed in accordance with US EPA methodology. Data was recorded on Beckmar generated lab sheets (Appendix I).

Chemical Analysis

All test dilutions as well as control/dilution water were tested to determine initial dissolved oxygen, temperature, and pH. At the end of 24 hours, the control/dilution water and test dilutions were again tested to determine final dissolved oxygen, temperature and pH. Also, specific conductance, hardness, and alkalinity analyses were performed on the initial control/dilution water and 100% effluent samples. Data was recorded on Beckmar generated lab sheet (Appendix I).

Statistical Analysis

Statistical data was generated using ToxCalc 5.0[®] (Tidepool Scientific software, McKinleyville, CA) and ToxStat[®] (USEPA, Cincinnati, OH) on a Pentium IV[®], computer using Windows 98[®] Operating System.



Additional Toxicity Test Information

- 1) Submit copies of all bench sheets and statistical calculations/printouts obtained during the test(s). Data must be presented in tabular form and must include all physical and/or chemical measurements recorded during the test (e.g. temperature, conductivity, total residual chlorine, dissolved oxygen, etc.).
- 2) Methods/Instrumentation used in chemical analysis:

Dissolved Oxygen:	YSI Model 52
PH:	Thermo-Orion 720
Conductivity:	Cole-Palmer Conductivity Meter 1481-60
Alkalinity:	Standard Methods Titration
Hardness:	Standard Methods Titration
Total Chlorine Residual:	Fisher-Porter Titration
EPA Acute/Chronic Manual:	4 th Chronic Edition, 2002
- 3) Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from EPA methodology that was necessary for these tests as well as any sample manipulations that were performed, such as aeration, dechlorination with sodium thiosulfate, etc., and the justification for such manipulations or deviations. Attach additional pages as needed.
- 4) Sample temperature upon receipt may be greater than 4°C. Samples are picked up immediately after the 24 hours composite is completed. The sampler is cooled and the samples are refrigerated, however it may be impossible to rapidly drop the effluent to 4°C.

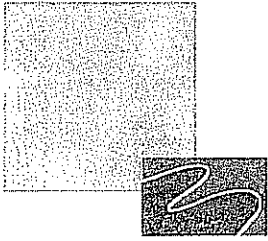
TABLE I
Sampling Summary

Outfall	Sample Type	Volume	Collection Period	Rainfall	Sample Temp
1	Composite	2 gallons	03/12/07 @ 7:30 a.m. = 03/13/07 @ 7:30 a.m.	0"	4.0 degrees C
	Composite	2 gallons	03/14/07 @ 7:05 a.m. = 03/15/07 @ 7:05 a.m.	0"	4.5 degrees C
	Composite	3 gallons	03/16/07 @ 7:30 a.m. = 03/17/07 @ 7:30 a.m.	.07"	3.0 degrees C

Dates/Times of Test Performance

Species #1: *Pimephales promelas*

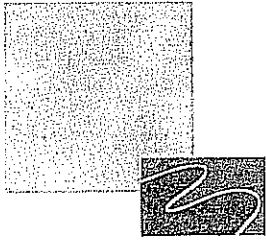
Initiated: 03/13/07 @ 5:30 P.M.
Renewed Daily @ 5:30 P.M.
Terminated 03/20/07 @ 5:30 P.M.



Results

Pimephales promelas exhibited 100% survival in the control, 95% survival in the 20% dilution, 95% survival in the 40% dilution, 100% survival in the 60% dilution, 92.5% survival in the 80% dilution, and 100% survival in the 100% dilution.

For the 7-day *Pimephales promelas* survival and growth test, the IC₂₅ for growth was greater than 100%, generating a chronic toxicity value of less than 1.0 TUc.



Appendix I

Pimephales promelas
Data Sheets

Larval Fish Growth and Survival Test-7 Day Growth

Start Date: 3/13/2007 Test ID: ff0307 Sample ID: ff0307
 End Date: 3/20/2007 Lab ID: 0044:beckmar environmental Sample Type: EFF1-POTW
 Sample Date: 3/13/2007 Protocol: EPAF 94-EPA Freshwater Test Species: PP-Pimephales promelas
 Comments: floedysfork fhm chronic march 2007

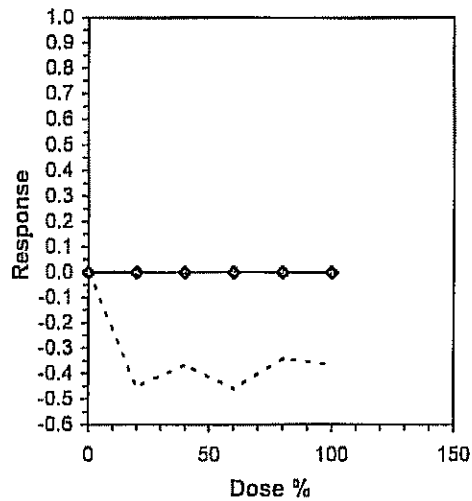
Conc-%	1	2	3	4
B-Control	0.3100	0.3600	0.2800	0.2000
20	0.3900	0.4200	0.3800	0.4800
40	0.3400	0.3600	0.4400	0.4300
60	0.4000	0.3900	0.3900	0.5000
80	0.3400	0.3500	0.4000	0.4500
100	0.3100	0.4800	0.3900	0.3900

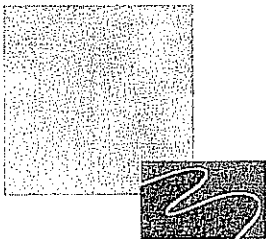
Conc-%	Transform: Untransformed							Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	Mean	N-Mean
B-Control	0.2875	1.0000	0.2875	0.2000	0.3600	23.311	4	0.3825	1.0000
20	0.4175	1.4522	0.4175	0.3800	0.4800	10.778	4	0.3825	1.0000
40	0.3925	1.3652	0.3925	0.3400	0.4400	12.718	4	0.3825	1.0000
60	0.4200	1.4609	0.4200	0.3900	0.5000	12.748	4	0.3825	1.0000
80	0.3850	1.3391	0.3850	0.3400	0.4500	13.159	4	0.3825	1.0000
100	0.3925	1.3652	0.3925	0.3100	0.4800	17.697	4	0.3825	1.0000

Auxillary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95263	0.884	0.21686	-0.8308
Bartlett's Test indicates equal variances (p = 0.98)	0.82165	15.0863		

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			





Grab #

Toxicity Test Results

Results of *Pimephales promelas* 7 day chronic definitive Toxicity Test
 (Genus) (Species) (Type / Duration)

Conducted: 03/13/07 -- 03/20/07 Using Effluent from Outfall # 1
 (mm/dd/yy) (mm/dd/yy)

Test Solution	Percent Survival (time intervals used:- DAY)								# of Young		Dry Weight	
	1	2	3	4	5	6	7	8	Total	Mean	Total	Mean
Control	100	100	100	100	100	100	100				11.5	0.29
20% Effluent	100	100	100	100	100	100	95				16.7	0.42
40% Effluent	100	97.5	97.5	97.5	97.5	97.5	95				15.7	0.39
60% Effluent	100	100	100	100	100	100	100				16.8	0.42
80% Effluent	100	100	100	100	97.5	97.5	92.5				15.4	0.39
100% Effluent	100	100	100	100	100	100	100				15.7	0.39
LC ₅₀ / IC ₂₅ Value: <u>>100%</u> 95% Confidence Limits UL: <u>NA</u> LL: <u>NA</u> UL = Upper Limit LL = Lower Limit								Calculated TU Estimate * <u>less than 1.0 TUc</u> (indicate Acute / Chronic) Permit Limits: <u>1.0 TUc</u> (Indicate TU _a / TU _c)				
								If acute test, method used to determine LC50 and Confidence Limit Valued: <u> </u>				

Note: TU_a = 100/LC₅₀; TU_c = 100/IC₂₅

Reference Toxicant Test Results					
Species	Date	Time	Duration	Toxicant	Results (LC ₅₀ / IC ₂₅)
<i>Pimephales promelas</i>	03/13/07	5:30 P.M.	<u>7 days</u>	<u>NaCl</u>	<u>IC25=2.4708g/l</u>

Weight Data for FATHEAD MINNOW LARVAL

survival and growth test

Analyst: Beck - B. Beck 5:30

Test Date(s): 3-13-07 - 3-20-07

Drying Temperature (Deg C.): 60°

Client: Floyd's Fork

Location: _____

Weight Date: 3-21-07
21 BB 3-21

Drying Time: 24 hr



	Replicate Number	A Weight of Boat <i>g/boat</i>	B Dry Wgt foil & Larvae <i>g</i>	B-A Total Dry Wgt of Larvae <i>g</i>	C Number of Larvae	(B-A)/C Mean Dry Wgt of Larvae <i>g</i>	Remarks
Control	1 H	1.3002	1.3033	3.1	(10)	.31	
	2 NA	1.3161	1.3197	3.6		.36	
	3 1	1.3512	1.3540	2.8		.28	
	4 2	1.3474	1.3494	2 16.5		.2	.29
Conc: 20%	1 E	1.5381	1.5420	3.9		.39	
	2 0	1.3200	1.3242	4.2		.42	
	3 1	1.5542	1.5580	3.8		.38	
	4 3	1.3067	1.3115	4.8 16.7		.48	.42
Conc: 40%	1 3	1.3392	1.3426	3.4		.34	
	2 4	1.2965	1.3001	3.6		.36	
	3 7	1.3414	1.3458	4.4		.44	
	4 8	1.5344	1.5387	4.3 15.7		.43	.39
Conc: 60%	1 11	1.5712 ³⁻²¹	BB 1.3077 ³⁻²¹	4		.4	
	2 11	1.3035 ³⁻²¹	BB 1.3486 ³⁻²¹	3.9		.39	
	3 12	1.3447	1.3486	3.9		.39	
	4 16	1.3154	1.3204	5 16.8		.5	.42
Conc: 80%	1 17	1.3154	1.3188	3.4		.34	
	2 19	1.3122	1.3157	3.5		.35	
	3 22	1.3401	1.3441	4		.4	
	4 28	1.5970	1.6015	4.5 15.4		.45	.39
Conc: 100%	1 28	1.3139	1.3170	3.1		.31	
	2 33	1.5774	1.5822	4.8		.48	
	3 41	1.2959	1.2998	3.89		.39	
	4 47	1.5878	1.5917	3.9 15.7	✓	.39	.39
Blank	46	1.3115	1.3115				



Data form for the Fathead Minnow survival and growth test.
Routine chemical and physical determinations.

Client: Floyd Fork
Test Start: 3-13-07 5:30
Test Stop: 3-20-07 5:30

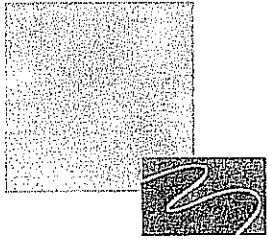
Analyst: R. Baker
Analyst: B. Barber
Analyst: _____

Conc. <u>60%</u>		Day							Remarks
		1	2	3	4	5	6	7	
Temp. Degree C.	Initial	26.0	24.3	24.0	24.0	24.0	25.0	24.9	
	Final	24.0	24.0	24.0	24.0	24.0	24.0	24.0	
D. O. mg/l	Initial	8.4	8.7	9.3	8.8	9.0	9.1	8.9	
	Final	7.0	5.4	8.2	5.6	6.1	6.3	5.5	
pH S.U.	Initial	7.76	7.81	7.69	7.85	7.82	7.81	7.89	
	Final	7.97	7.59	7.65	7.66	7.51	7.71	7.53	
Analyst (init.)		MS	MS	MS	MS	MS	MS	MS	

Conc. <u>80%</u>		Day							Remarks
		1	2	3	4	5	6	7	
Temp. Degree C.	Initial	26.0	24.3	24.0	24.0	24.0	24.9	25.6	
	Final	24.0	24.0	24.0	24.0	24.0	24.0	24.0	
D. O. mg/l	Initial	8.6	9.2	9.6	8.8	8.8	8.7	9.1	
	Final	7.0	5.2	8.5	6.0	5.8	6.6	5.8	
pH S.U.	Initial	7.76	7.78	7.65	7.74	7.80	7.83	7.87	
	Final	8.06	7.65	7.83	7.75	7.55	7.86	7.61	
Analyst (init.)		MS	MS	MS	MS	MS	MS	MS	

Conc. <u>100%</u>		Day							Remarks
		1	2	3	4	5	6	7	
Temp. Degree C.	Initial	26.0	24.3	24.0	24.0	24.0	24.9	26.0	
	Final	24.0	24.0	24.0	24.0	24.0	24.0	24.0	
D. O. mg/l	Initial	8.8	9.2	9.7	8.8	9.1	8.9	9.4	
	Final	6.4	5.4	7.5	5.5	5.7	6.2	5.2	
pH S.U.	Initial	7.75	7.77	7.60	7.64	7.88	7.85	7.80	
	Final	8.06	7.81	7.74	7.75	7.61	7.98	7.71	
Alkalinity (mg/l)		198.4	210	185.6	198	184.8	204.8	177.6	
Hardness (mg/l)		265.2	271.2	272.7	247.6	266.0	267.5	270.8	
Conductivity (µmhos)		771	811	754	738	761	720	720	
Chlorine (mg/l)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Analyst (init.)		MS	MS	MS	MS	MS	MS	MS	

Beckman Syph # 181798 181798 181952 181952 182067 182067 182067



Appendix II

Chain of Custody Data Sheets

FLOYDS FORIC

TYPE OF SAMPLE: INFLUENT (COMPOSITE)

SAMPLE DATE: 3-12-07 TO 3-13-07

EXPLAIN LOCATION: PHILIPINES TREATMENT

NAME _____ TIME _____ VOL: mls 1000

NAME SAWYER TIME _____ VOL: mls _____

NAME AD TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

TYPE OF SAMPLE: EFFLUENT (COMPOSITE)

SAMPLE DATE: 3-12-07 TO 3-13-07

EXPLAIN LOCATION: U-V SYSTEM DISINFECTION

NAME G. FARRIS TIME 7:30A VOL: mls 8000

NAME _____ TIME _____ VOL: mls _____

NAME IS TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

DELIVERED TO: EF LAB

DATE: 3-13-07 TIME: 7:40A

TYPE OF SAMPLE: EFF. NH₃N (COMPOSITE)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

DELIVERED TO: _____

DATE: _____ TIME: _____

TYPE OF SAMPLE: OTHER MIXED FLAME GAS

SAMPLE DATE: _____

EXPLAIN LOCATION: INNER Ring WEIR

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

NAME _____ TIME _____ VOL: mls _____

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

TYPE OF SAMPLE: FECAL COLIFORM (GRAB)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: mls _____

DELIVERED TO: _____

DATE: _____ TIME: _____

THE EFFLUENT GRABS CONDUCTED IN 7-DAYS DURING Bio-Tuning Event

17

I have accepted: McCeller DATE 3-13-07 TIME 11:30 50°C

NAME _____ and delivered to: McCeller LAB DATE 3-13-07 TIME 14:10 4°C

I have accepted the above sample:

NAME _____ DATE _____ TIME _____

and delivered to: _____ DATE _____ TIME _____

I have accepted the above sample:

NAME _____ DATE _____ TIME _____

and delivered to: _____ DATE _____ TIME _____

JMS # 181798
RF
12 @ 1.596
14 @ 2.510
16 @ 2.115

FLOYDS FORK

TYPE OF SAMPLE: INFLUENT (COMPOSITE)

SAMPLE DATE: 3-14-07

EXPLAIN LOCATION: PHIL COOPER INFLUENT

NAME _____ TIME _____ VOL: ml 1000

NAME Auto Sample Composite TIME _____ VOL: ml _____

NAME Auto Sample Composite TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

TYPE OF SAMPLE: EFFLUENT (COMPOSITE)

SAMPLE DATE: 3-14-07 TO 3-15-07

EXPLAIN LOCATION: U-V SYSTEM DISCHARGE

NAME G. FARIUS TIME 7:05A VOL: ml 8000

NAME Auto Sample TIME _____ VOL: ml _____

NAME Auto Sample TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

DELIVERED TO: EF LAB

DATE: 3-15-07 TIME: 7:10 AM

TYPE OF SAMPE: EFF. NH₃N (COMPOSITE)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

DELIVERED TO: _____

DATE: _____ TIME: _____

TYPE OF SAMPLE: OTHER Mixed Waste S.P.

SAMPLE DATE: _____

EXPLAIN LOCATION: INNER Ring WEIR

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

NAME _____ TIME _____ VOL: ml _____

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

TYPE OF SAMPLE: FECAL COLIFORM (GRAB)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: ml _____

DELIVERED TO: _____

DATE: _____ TIME: _____

THE EFFLUENT GRAB CLOUO me
 IN 7-DAYS DURING Bio-
 Toning Event

5° pls
 15 @ lab

I have accepted _____
 NAME Richard Baker DATE 3-15-07 TIME 11:42
 and delivered to: Richard Baker DATE 3-15-07 TIME 12:12

I have accepted the above sample:
 NAME _____ DATE _____ TIME _____
 and delivered to: _____ DATE _____ TIME _____

I have accepted the above sample:
 NAME _____ DATE _____ TIME _____
 and delivered to: _____ DATE _____ TIME _____

192067

FLOYDS FORIC

TYPE OF SAMPLE: INFLUENT (COMPOSITE)

SAMPLE DATE: 7-10-07

EXPLAIN LOCATION: PHILIPPOUS TREATMENT

NAME _____ TIME _____ VOL: mls 1000

NAME Auto TIME _____ VOL: mls

NAME Auto TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

TYPE OF SAMPLE: EFFLUENT (COMPOSITE)

SAMPLE DATE: 7-10-07

EXPLAIN LOCATION: U-V SYSTEM DISCHARGE

NAME McIntosh TIME _____ VOL: mls 1200

NAME _____ TIME _____ VOL: mls

NAME Auto TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

DELIVERED TO: EF LAB

DATE: 7-17-07 TIME: 0730

TYPE OF SAMPLE: EFF. NH₃N (COMPOSITE)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

DELIVERED TO: _____

DATE: _____ TIME: _____

TYPE OF SAMPLE: OTHER Mixed Flow

SAMPLE DATE: _____

EXPLAIN LOCATION: INNER Ring Weir

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

NAME _____ TIME _____ VOL: mls

DELIVERED TO: EF LAB

DATE: _____ TIME: _____

THE EFFLUENT GRABS (1000 ml)
IN 7-DAYS DURING Bio-
Testing EVENT

TYPE OF SAMPLE: FECAL COLIFORM (GRAB)

SAMPLE DATE: _____

EXPLAIN LOCATION: _____

NAME _____ TIME _____ VOL: mls

DELIVERED TO: _____

DATE: _____ TIME: _____

30

I have accepted _____
 NAME Paul Barb DATE 3-17-07 TIME 9:45

and delivered to: Richard DATE 3-10 TIME 9:30

I have accepted the above sample:
 NAME _____ DATE _____ TIME _____

and delivered to: _____ DATE _____ TIME _____

I have accepted the above sample:
 NAME _____ DATE _____ TIME _____

and delivered to: _____ DATE _____ TIME _____