

NASHVILLE PUBLIC WORKS

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March 12, 2013

STATE OF ARKANSAS
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Attn: Mr. Allen Anderson
Administrative Assistant, NPDES Enforcement

Re: NPDES Permit #AR0021776, AFIN # 31-00036
Bio-monitoring Results First Quarter - 2013

Dear Mr. Anderson:

Please find enclosed our results for the first quarter of 2013. Results have indicated that we passed both tests for fathead minnow and both tests for the ceriodaphnia-dubia for our first quarter.

If you have any questions of concern, please contact me at 870-845-4015.

Sincerely,



Larry Dunaway
Public Works Director

cc: Jeremy Stone, City Engineer
Pretreatment File, 2013



February 6, 2013

Test Results of
First Quarter
Chronic 7-Day Renewal
Biomonitoring Testing
for
Outfall 001
Nashville, AR

Control No. 164443-1

Prepared for:

Mr. Ed Carlyle
City of Nashville
426 North Main
Nashville, AR 71852

Prepared by:

AMERICAN INTERPLEX CORPORATION
8600 Kanis Road
Little Rock, AR 72204-2322



City of Nashville
ATTN: Mr. Ed Carlyle
426 North Main
Nashville, AR 71852

Re: Chronic 7-Day Renewal utilizing *Pimephales promelas* (Fathead minnow) and *Ceriodaphnia dubia*
Outfall 001 - Nashville, AR
NPDES Permit No. NPDES AR0021776 AFIN 31-00036

Dear Mr. Ed Carlyle:

This report is the analytical results and supporting information for the samples submitted to American Interplex Corporation (AIC). The following results are applicable only to the sample identified by the control number referenced above. Accurate assessment of the data requires access to the entire document. Each section of the report has been reviewed and approved by the laboratory director or qualified designee.

Testing procedures and Quality Assurance were in accordance with "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" EPA-821-R-02-013, Fourth Edition, October 2002. Test results are summarized below:

Method 1000.0 Chronic *Pimephales promelas* (Fathead minnow) Survival and Growth Test: The No Observable Effects Concentration (NOEC) for survival occurred at 97 % effluent, which is above the critical dilution of 73 %. The NOEC for growth occurred at 97 % effluent, which is above the critical dilution of 73 %. **The sample, therefore, PASSED both lethal and sub-lethal effects for the Fathead minnow test.**

Method 1002.0 Chronic *Ceriodaphnia dubia* Survival and Reproduction Test: The No Observable Effects Concentration (NOEC) for survival occurred at 97 % effluent, which is above the critical dilution of 73 %. The NOEC for reproduction occurred at 97 % effluent, which is above the critical dilution of 73 %. **The sample, therefore, PASSED both lethal and sub-lethal effects for the *Ceriodaphnia dubia* test.**

AMERICAN INTERPLEX CORPORATION

John Overbey
Laboratory Director

PDF cc: City of Nashville
ATTN: Mr. Ed Carlyle
mredcarlyle@yahoo.com

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I. Control Acceptance Criteria

Pimephales promelas (Fathead minnow) Method 1000.0

CRITERIA	RESULTS	PASS/FAIL
Control Survival > or = 80%	95.0	PASS
Control Growth > or = 0.25 mg per Surviving minnow	0.426	PASS
Control Growth CV < or = 40%	17.3	PASS
Growth Minimum Significant Difference 12 to 30%	26.3	PASS
Critical Dilution CV < or = 40%	12.5	PASS

Ceriodaphnia dubia Method 1002.0

CRITERIA	RESULTS	PASS/FAIL
Control Survival > or = 80%	100	PASS
Control Reproduction > or = 15 per Surviving Female	18.3	PASS
Control CV < or = 40% per Surviving Female	15.9	PASS
Reproduction Minimum Significant Difference 13 to 47%	16.9	PASS
Critical Dilution CV < or = 40%	15.3	PASS

II. Outlined Report

A. Introduction

1. Permit Number: NPDES AR0021776 AFIN 31-00036
2. Test Requirements: Test Methods 1000.0 and 1002.0
3. Receiving Stream: Ouachita River Basin

B. Source of Effluent/Dilution Water

1. Effluent Samples:
 - a. Sampling Point: Outfall 001
 - b. Chemical Data:

Analysis	Sample 1	Sample 2	Sample 3
Dissolved oxygen (mg/l)	8.1	7.9	8.9
pH (standard units)	7.9	7.7	7.8
Alkalinity (mg/l as CaCO ₃)	92	95	100
Hardness (mg/l as CaCO ₃)	26	26	29
Conductivity (umhos/cm)	520	540	500
Residual Chlorine (mg/l)	0.050	<0.05	0.050
Ammonia as N (mg/l)	5.7	6.4	6.8

2. Dilution Water Samples: Synthetic Soft Water #3957

- a. Dates Prepared: January 24 through February 7, 2013
- b. Chemical Data:

Analysis	Sample 1	Sample 2	Sample 3
Dissolved oxygen (mg/l)	8.2	8.2	8.8
pH (standard units)	7.7	7.7	7.8
Alkalinity (mg/l as CaCO ₃)	59	59	59
Hardness (mg/l as CaCO ₃)	84	85	85
Conductivity (umhos/cm)	150	160	160
Residual Chlorine (mg/l)	<0.05	<0.05	<0.05

C. Test Methods

1. Test methods used:

Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA-821-R-02-013; test Methods 1000.0 and 1002.0, Fathead Minnow Survival and Growth and *Ceriodaphnia dubia* Survival and Reproduction.

2. Endpoint: No Observable Effects Concentration (NOEC)

3. Test Conditions:

Pimephales promelas (Fathead minnow) Survival and Growth Method 1000.0

Date & Time Test Initiated: January 29, 2013 at 1530
Date & Time Test Terminated: February 5, 2013 at 1400
Type & Volume of Test Chamber: 500 ml disposable beaker
Volume of Sample: 250 ml
Number of Organisms per replicate: 8
Number of Replicates per dilution: 5

Ceriodaphnia dubia Survival and Growth Method 1002.0

Date & Time Test Initiated: January 29, 2013 at 1445
Date & Time Test Terminated: February 5, 2013 at 1530
Type & Volume of Test Chamber: 30 ml disposable beaker
Volume of Sample: 15 ml
Number of Organisms per replicate: 1
Number of Replicates per dilution: 10

4. Acclimation of test organisms: Obtained from in-house cultures

5. Test Temperature: 25 +/- 1 degree Celsius

D. Test Organisms

1. Scientific Name

- a. Test 1000.0 *Pimephales promelas*
- b. Test 1002.0 *Ceriodaphnia dubia*

III. Data Analysis

The data was analyzed using American Interplex Corporation's Laboratory Information Management Software based on Toxstat.

Pimephales promelas (Fathead minnow) survival data was transformed using the Arc Sine transformation. Normality and homogeneity of variance were checked using Shapiro-Wilk's. The survival data was then analyzed using Steel's Many-One Rank Test to determine the No Observable Effects Concentration (NOEC).

Fathead minnow growth data was analyzed for normality and homogeneity of variance using Shapiro-Wilk's and Bartlett's test. Dunnett's Test was used to determine the No Observable Effects Concentration (NOEC) for growth.

Ceriodaphnia dubia survival data was analyzed with Fisher's Exact Test. Reproduction data was analyzed using Kolmogorov's Test for Normality and analyzed with Steel's Many-One Rank Test to determine the No Observable Effects Concentration (NOEC) for Reproduction. Dunnett's Test was used to calculate the PMSD.

IV. Standard Reference Toxicants

American Interplex Corporation has an ongoing test organism culturing program. The sensitivity of the offspring is determined by performing a standard reference toxicant test with each effluent test. Sodium chloride in synthetic moderately hard water is used as prescribed in EPA-821-R-02-013.

Pimephales promelas (Fathead minnow)

Chronic reference tests are performed monthly.

A chronic reference test was performed on January 16, 2013 at 1600 to January 23, 2013 at 1445

The results were as follows: (Control No. 164121-1.)

Survival LC-50: 5726 mg/l

Growth IC-25: 5402 mg/l

Growth PMSD: 15.9

Ceriodaphnia dubia

Chronic reference tests are performed monthly.

A chronic reference test was performed on January 16, 2013 at 1450 to January 22, 2013 at 1545

The results were as follows: (Control No. 164121-2.)

Survival LC-50: 1825 mg/l

Growth IC-25: 1220 mg/l

Growth PMSD: 17

V. Chemical Analysis/Quality Control

Parameter	Method	% Recovery	Relative % Difference
Alkalinity	SM 2320 B	NA	0.00
Hardness	EPA 200.7	102	1.94
pH	SM 4500-H+ B	101	0.134
Conductivity	EPA 120.1	105	1.35

VI. Organism History

Pimephales promelas (Fathead minnow)

Date: January 29, 2013

Age: <24 hours

Source: In-house culture

Water Chemistry Record:

Alkalinity: 57-64 mg/l

Hardness: 80-100 mg/l

Temperature: 25 deg.C

Ceriodaphnia dubia

Date: January 29, 2013

Age: <24 hours

Source: In-house culture

Water Chemistry Record:

Alkalinity: 57-64 mg/l

Hardness: 80-100 mg/l

Temperature: 25 deg.C

VII. Results Summary *Pimephales promelas*, Fathead minnow Larval Survival and Growth Test -- Method 1000.0

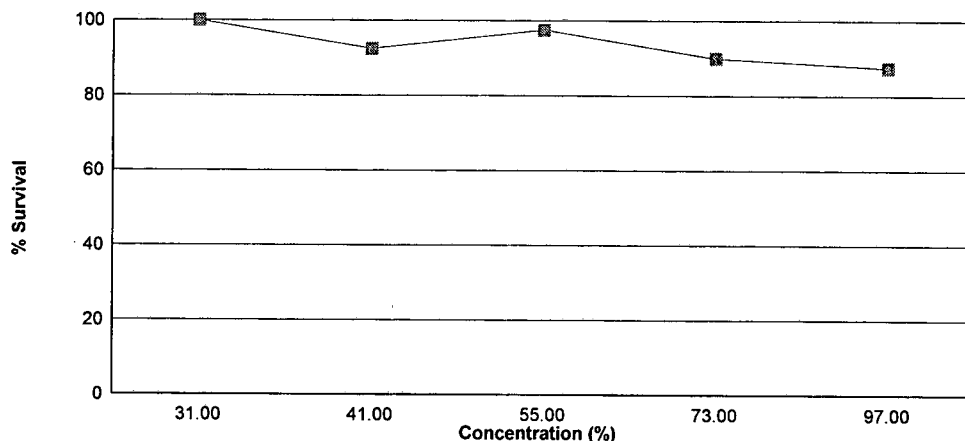
Larvae are exposed in a static renewal system for seven days to different concentrations of effluent with dilution water. Test results are based on the survival and growth (increase in weight) of the larvae.

Effluent dilutions for this test were 31 %, 41 %, 55 %, 73 %, 97 % in accordance with the NPDES permit.

The low flow or 'critical' dilution is specified in the NPDES permit as 73 % effluent.

The test was initiated on January 29, 2013 at 1530 and continued through February 5, 2013 at 1400. Statistical analyses were performed on the observed data and the no observable effects concentrations (NOECs) were as follows:

- a.) NOEC survival = 97 % effluent
- b.) NOEC growth = 97 % effluent



Summary of the 7-day Fathead Minnow Survival and Growth		
Concentration	Percent Survival	Mean Growth (mg)
Control	95.0	0.405
31 %	100	0.464
41 %	92.5	0.475
55 %	97.5	0.400
73 %	90.0	0.496
97 %	87.5	0.505

VII. Results Summary *Ceriodaphnia dubia*, Cladoceran Survival and Reproduction Test -- Method 1002.0

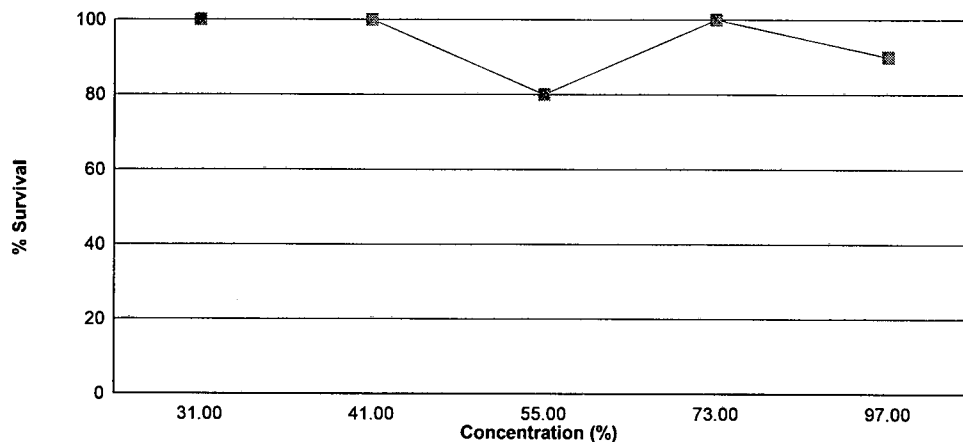
Neonates are exposed in a static renewal system to different concentrations of effluent with dilution water until 60% of surviving control organisms have three broods of offspring with an average of at least 15 young per female.

Effluent dilutions for this test were 31 %, 41 %, 55 %, 73 %, 97 % in accordance with the NPDES permit.

The low flow or 'critical' dilution is specified in the NPDES permit as 73 % effluent.

The test was initiated on January 29, 2013 at 1445 and continued through February 5, 2013 at 1530. Statistical analyses were performed on the observed data and the no observable effects concentrations (NOECs) were as follows:

- a.) NOEC survival = 97 % effluent
- b.) NOEC reproduction = 97 % effluent



Concentration	Percent Survival	Mean Reproduction
Control	100	18.3
31 %	100	21.6
41 %	100	18.3
55 %	80.0	16.2
73 %	100	16.6
97 %	90.0	15.8

Appendix B: Test 1000.0
SUMMARY REPORTING FORMS
CHRONIC BIOMONITORING
Pimephales promelas (Fathead Minnow)
SURVIVAL AND GROWTH

Permittee: City of Nashville

NPDES No.: NPDES AR0021776 AFIN 31-00036

Date and Time Test Initiated: January 29, 2013 at 1530

Date and Time Test Terminated: February 5, 2013 at 1400

Dilution water used: Synthetic Soft Water #3957

DATA TABLE FOR SURVIVAL

Effluent Conc. %	Percent Survival in replicate chambers					Mean percent survival			CV%
	A	B	C	D	E	24 hr	48 hr	7 days	
Control	87.5	100	100	100	87.5	100	97.5	95.0	7.21
31 %	100	100	100	100	100	100	100	100	0.00
41 %	100	100	100	75.0	87.5	100	97.5	92.5	12.1
55 %	100	100	100	100	87.5	100	97.5	97.5	5.73
73 %	62.5	100	100	87.5	100	100	100	90.0	18.1
97 %	87.5	100	87.5	62.5	100	100	100	87.5	17.5

DATA TABLE FOR GROWTH

Effluent Conc. %	Average dry weight, mg replicate chambers					Mean dry weight, mg	CV%
	A	B	C	D	E		
Control	0.424	0.362	0.318	0.415	0.504	0.405	17.3
31 %	0.545	0.620	0.408	0.350	0.398	0.464	24.4
41 %	0.442	0.399	0.532	0.476	0.528	0.475	12.0
55 %	0.409	0.340	0.351	0.504	0.398	0.4	16.2
73 %	0.458	0.494	0.446	0.480	0.602	0.496	12.5
97 %	0.540	0.538	0.451	0.496	0.500	0.505	7.23

CV = Coefficient of variation = standard deviation * 100 / mean

Appendix B: Test 1000.0
SUMMARY REPORTING FORMS
CHRONIC BIOMONITORING
Pimephales promelas (Fathead Minnow)
SURVIVAL AND GROWTH

1. Steel's Many-One Rank Test:

Is the mean survival significantly different ($p=0.05$) than the control survival for the % effluent corresponding to (lethality):

a.) LOW FLOW OR CRITICAL DILUTION	(73 %)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
b.) 1/2 LOW FLOW DILUTION	(NA)	<input type="checkbox"/> YES	<input type="checkbox"/> NO

2. Dunnett's Test:

Is the mean dry weight (growth) significantly different ($p=0.05$) than the control's dry weight (growth) for the % effluent corresponding to (significant non-lethal effects):

a.) LOW FLOW OR CRITICAL DILUTION	(73 %)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
b.) 1/2 LOW FLOW DILUTION	(NA)	<input type="checkbox"/> YES	<input type="checkbox"/> NO

3. If you answered NO to 1.a) enter [0] otherwise enter [1]: 0 (TLP6C)
4. If you answered NO to 2.a) enter [0] otherwise enter [1]: 0 (TGP6C)
5. NOEC *Pimephales* Lethality: 97 % (TOP6C)
6. LOEC *Pimephales* Lethality: 97 % (TXP6C)
7. NOEC *Pimephales* Sublethality: 97 % (TPP6C)
8. LOEC *Pimephales* Sublethality: 97 % (TYP6C)
9. Coefficient of variation for *Pimephales* growth: 17.3 (TQP6C)

Appendix B: Test 1000.0

CHRONIC TOXICITY SUMMARY FORM
Pimephales promelas (Fathead minnow)
CHEMICAL PARAMETERS CHART

PERMITTEE: City of Nashville SAMPLE No. 1 COLLECTED ending: DATE: January 29, 2013 TIME: 0800
 NPDES NO.: NPDES AR0021776 AFIN 31-000 SAMPLE No. 2 COLLECTED ending: DATE: January 31, 2013 TIME: 0800
 CONTACT: Mr. Ed Carlyle SAMPLE No. 3 COLLECTED ending: DATE: February 2, 2013 TIME: 0800
 ANALYST: 280, 298, 304, 307 Test Initiated: DATE: January 29, 2013 TIME: 1530
 Test Terminated: DATE: February 5, 2013 TIME: 1400

DILUTION	DAY						
	1	2	3	4	5	6	7
Control							
D.O. Initial	8.2	8.4	8.2	8.7	8.8	8.1	8.1
Final	7.8	7.0	7.3	6.9	7.2	7.1	6.8
pH Initial	7.7	7.7	7.7	7.8	7.8	7.7	7.8
Final	7.6	7.4	7.5	7.3	7.4	7.6	7.4
Alkalinity	59	NA	59	NA	59	NA	NA
Hardness	84	NA	85	NA	85	NA	NA
Conductivity	150	170	160	160	160	180	160
Chlorine	<0.05	NA	<0.05	NA	<0.05	NA	NA

DILUTION	DAY						
	1	2	3	4	5	6	7
31 %							
D.O. Initial	8.1	8.2	8.1	8.7	8.1	8.2	7.8
Final	7.6	6.7	6.8	6.8	7.0	6.9	6.4
pH Initial	7.8	7.8	7.8	7.8	7.8	7.8	7.7
Final	7.7	7.5	7.5	7.4	7.4	7.6	7.5
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	270	280	280	280	280	290	280
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION	DAY						
	1	2	3	4	5	6	7
41 %							
D.O. Initial	8.2	8.1	8.2	8.8	7.9	8.1	7.8
Final	7.7	6.7	6.6	7.8	7.0	7.0	6.4
pH Initial	7.8	7.8	7.8	7.8	7.8	7.9	7.6
Final	7.8	7.5	7.5	7.5	7.5	7.7	7.5
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	310	320	320	310	320	330	310
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION	DAY						
	1	2	3	4	5	6	7
55 %							
D.O. Initial	8.0	8.1	8.0	8.7	8.0	8.0	7.8
Final	7.4	7.3	6.7	7.2	7.1	6.6	6.4
pH Initial	7.8	7.8	7.8	7.8	7.8	7.9	7.6
Final	7.8	7.8	7.6	7.6	7.6	7.6	7.6
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	360	380	370	360	370	380	370
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION	DAY						
	1	2	3	4	5	6	7
73 %							
D.O. Initial	8.1	8.1	8.0	8.9	7.9	7.8	7.7
Final	7.7	7.0	6.7	6.8	6.6	7.0	6.7
pH Initial	7.8	7.9	7.9	7.8	7.8	7.9	7.6
Final	7.9	7.8	7.6	7.6	7.5	7.8	7.7
Alkalinity	77	NA	73	NA	75	NA	NA
Hardness	30	NA	32	NA	33	NA	NA
Conductivity	420	440	440	430	430	440	430
Chlorine	<0.05	NA	<0.05	NA	<0.05	NA	NA

DILUTION	DAY						
	1	2	3	4	5	6	7
97 %							
D.O. Initial	8.0	8.0	7.9	8.8	8.8	8.0	7.7
Final	7.6	7.4	6.4	6.8	6.6	6.6	6.6
pH Initial	7.9	7.9	7.9	7.9	7.8	8.0	7.6
Final	8.0	7.9	7.7	7.7	7.6	7.7	7.7
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	510	530	530	520	520	530	530
Chlorine	NA	NA	NA	NA	NA	NA	NA

Appendix B: Test 1002.0
SUMMARY REPORTING FORMS
CHRONIC BIOMONITORING
Ceriodaphnia dubia
SURVIVAL AND REPRODUCTION

Permittee: City of Nashville

NPDES No.: NPDES AR0021776 AFIN 31-00036

Date and Time Test Initiated: January 29, 2013 at 1445

Date and Time Test Terminated: February 5, 2013 at 1530

Dilution water used: Synthetic Soft Water #3957

PERCENT SURVIVAL

Time of Reading	Control	Percent Effluent				
		31 %	41 %	55 %	73 %	97 %
24 hour	100	100	100	100	100	100
48 hour	100	100	100	100	100	100
7 day	100	100	100	80.0	100	90.0

NUMBER OF YOUNG PRODUCED PER FEMALE @ 7 DAYS

Replicates	Control	Percent Effluent				
		31 %	41 %	55 %	73 %	97 %
A	17	21	20	24	14	12
B	17	25	20	0	21	15
C	16	23	19	22	16	21
D	21	22	17	0	19	19
E	16	26	13	19	16	20
F	18	23	19	20	16	13
G	17	18	15	20	12	18
H	25	20	17	18	18	0
I	20	17	20	20	16	18
J	16	21	23	19	18	22
Mean per Adult	18.3	21.6	18.3	16.2	16.6	15.8
Mean per Surviving Adult	18.3	21.6	18.3	20.2	16.6	17.6
CV %	15.9	13.1	15.7	9.43	15.3	20.0

CV = Coefficient of variation = standard deviation * 100 / mean
(calculated based on young produced by surviving females)

Appendix B: Test 1002.0
SUMMARY REPORTING FORMS
CHRONIC BIOMONITORING
Ceriodaphnia dubia
SURVIVAL AND REPRODUCTION

1. Fisher's Exact Test:

Is the mean survival significantly different ($p=0.05$) than the control survival for the % effluent corresponding to (lethality):

a.) LOW FLOW OR CRITICAL DILUTION	(73 %)	_____ YES	<u> X </u> NO
b.) 1/2 LOW FLOW DILUTION	(NA)	_____ YES	_____ NO

2. Steel's Many-One Rank Test:

Is the mean number of young produced per female significantly different ($p=0.05$) than the control's number of young per female for the % effluent corresponding to (significant non-lethal effects):

a.) LOW FLOW OR CRITICAL DILUTION	(73 %)	_____ YES	<u> X </u> NO
b.) 1/2 LOW FLOW DILUTION	(NA)	_____ YES	_____ NO

3. If you answered NO to 1.a) enter [0] otherwise enter [1]: 0 (TLP3B)
4. If you answered NO to 2.a) enter [0] otherwise enter [1]: 0 (TGP3B)
5. NOEC *Ceriodaphnia* Lethality: 97 % (TOP3B)
6. LOEC *Ceriodaphnia* Lethality: 97 % (TXP3B)
7. NOEC *Ceriodaphnia* Sublethality: 97 % (TPP3B)
8. LOEC *Ceriodaphnia* Sublethality: 97 % (TYP3B)
9. Coefficient of variation for *Ceriodaphnia* Reproduction: 15.9 (TQP3B)

Appendix B: Test 1002.0
CHRONIC TOXICITY SUMMARY FORM
Ceriodaphnia dubia
CHEMICAL PARAMETERS CHART

PERMITTEE: City of Nashville SAMPLE No. 1 COLLECTED ending: DATE: January 29, 2013 TIME: 0800
 NPDES NO.: NPDES AR0021776 AFIN 31-000 SAMPLE No. 2 COLLECTED ending: DATE: January 31, 2013 TIME: 0800
 CONTACT: Mr. Ed Carlyle SAMPLE No. 3 COLLECTED ending: DATE: February 2, 2013 TIME: 0800
 ANALYST: 280, 298, 304, 307 Test Initiated: DATE: January 29, 2013 TIME: 1445
 Test Terminated: DATE: February 5, 2013 TIME: 1530

DILUTION Control	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.2	8.4	8.2	8.7	8.8	8.1	8.1
Final	8.5	8.4	8.7	8.2	8.0	7.6	7.3
pH Initial	7.7	7.7	7.7	7.8	7.8	7.7	7.8
Final	8.0	8.0	8.2	8.0	8.2	7.8	7.6
Alkalinity	59	NA	59	NA	59	NA	NA
Hardness	84	NA	85	NA	85	NA	NA
Conductivity	150	170	160	160	160	180	160
Chlorine	<0.05	NA	<0.05	NA	<0.05	NA	NA

DILUTION 31 %	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.1	8.2	8.1	8.7	8.1	8.2	7.8
Final	8.6	8.5	8.6	8.2	7.8	7.5	7.0
pH Initial	7.8	7.8	7.8	7.8	7.8	7.8	7.7
Final	8.2	8.0	8.2	7.9	7.9	7.8	7.5
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	270	280	280	280	280	290	280
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION 41 %	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.2	8.1	8.2	8.8	7.9	8.1	7.8
Final	8.6	8.5	8.7	8.1	7.9	6.9	6.9
pH Initial	7.8	7.8	7.8	7.8	7.8	7.9	7.6
Final	8.3	8.0	8.2	7.9	8.0	7.7	7.5
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	310	320	320	310	320	330	310
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION 55 %	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.0	8.1	8.0	8.7	8.0	8.0	7.8
Final	8.5	8.3	8.2	8.1	7.9	7.3	6.8
pH Initial	7.8	7.8	7.8	7.8	7.8	7.9	7.6
Final	8.2	8.0	8.1	7.9	8.0	7.8	7.6
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	360	380	370	360	370	380	370
Chlorine	NA	NA	NA	NA	NA	NA	NA

DILUTION 73 %	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.1	8.1	8.0	8.9	7.9	7.8	7.7
Final	8.8	9.1	8.4	7.8	7.7	7.1	7.0
pH Initial	7.8	7.9	7.9	7.8	7.8	7.9	7.6
Final	8.3	8.1	8.2	8.0	8.0	7.8	7.7
Alkalinity	77	NA	73	NA	75	NA	NA
Hardness	30	NA	32	NA	33	NA	NA
Conductivity	420	440	440	430	430	440	430
Chlorine	<0.05	NA	<0.05	NA	<0.05	NA	NA

DILUTION 97 %	DAY						
	1	2	3	4	5	6	7
D.O. Initial	8.0	8.0	7.9	8.8	8.8	8.0	7.7
Final	8.7	8.3	8.3	7.8	7.8	7.2	7.0
pH Initial	7.9	7.9	7.9	7.9	7.8	8.0	7.6
Final	8.4	8.1	8.3	8.0	8.1	7.9	7.7
Alkalinity	NA	NA	NA	NA	NA	NA	NA
Hardness	NA	NA	NA	NA	NA	NA	NA
Conductivity	510	530	530	520	520	530	530
Chlorine	NA	NA	NA	NA	NA	NA	NA

CITY OF NASHVILLE
426 NORTH MAIN STREET
NASHVILLE, AR 71852
870-845-4015

WASTE TREATMENT PLANT
LABORATORY ANALYSIS
FOR BIOMONITORING REPORTS

COLLECTION DATE: 1/28-29/2013

COLLECTION TIME: 0800 - 0800

COLLECTION PLACE: NA001

CBOD	<u>2.41</u>	mg/L	#5210B
TSS	<u>4</u>	mg/L	#2540D
AMMN	<u>3.63</u>	mg/L	#4500-NH3 A-B
FECAL COL.	<u>11</u>	mg/L	#9222D
CHLORINE	<u>.08</u>	mg/L	#4500-CI D
pH	<u>7.48</u>	mg/L	#4500 - H
DO	<u>10.79</u>	mg/L	#4500 - OG

ANALYST: SP COLLECTED BY: LC

Analysis include 10% replication
Test performed as required in Standards Methods
Samples are iced at time of collection

CITY OF NASHVILLE
426 NORTH MAIN STREET
NASHVILLE, AR 71852
870-845-4015

WASTE TREATMENT PLANT
LABORATORY ANALYSIS
FOR BIOMONITORING REPORTS

COLLECTION DATE: 1/30-31/2013
COLLECTION TIME: 0800-0800
COLLECTION PLACE: NAC001

CBOD	<u>2.72</u>	mg/L	#5210B
TSS	<u>3</u>	mg/L	#2540D
AMMN	<u>7.62</u>	mg/L	#4500-NH3 A-B
FECAL COL.	<u>101</u>	mg/L	#9222D
CHLORINE	<u>.06</u>	mg/L	#4500-CI D
pH	<u>7.35</u>	mg/L	#4500 - H
DO	<u>10.96</u>	mg/L	#4500 - OG

ANALYST: AP COLLECTED BY: lc

Analysis include 10% replication
Test performed as required in Standards Methods
Samples are iced at time of collection

CITY OF NASHVILLE
426 NORTH MAIN STREET
NASHVILLE, AR 71852
870-845-4015

WASTE TREATMENT PLANT
LABORATORY ANALYSIS
FOR BIOMONITORING REPORTS

COLLECTION DATE: 2/1-2/2013

COLLECTION TIME: 0800 - 0800

COLLECTION PLACE: NAC001

CBOD	<u>2.61</u>	mg/L	#5210B
TSS	<u>6</u>	mg/L	#2540D
AMMN	<u>9.05</u>	mg/L	#4500-NH3 A-B
FECAL COL.	<u>88</u>	mg/L	#9222D
CHLORINE	<u>.03</u>	mg/L	#4500-CI D
pH	<u>7.30</u>	mg/L	#4500 - H
DO	<u>11.06</u>	mg/L	#4500 - OG

ANALYST: SP COLLECTED BY: LC

Analysis include 10% replication
Test performed as required in Standards Methods
Samples are iced at time of collection



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CITY OF NASHVILLE			PO No.			No of BOTTLES	Analyses Requested										AIC Control No: 764443							
Project Reference: 1ST QUARTER BIOMONITORING			Sample Matrix				WATER	SOIL	WASTE	CERIODAPHNIA	DUBIA	FATHEAD	MINNOW	AIC Proposal No:										
Project Manager: ED CARLYLE JR			GRA	COMP	3									X	X	Carrier: Ed								
Sampled By: Ed Carlyle Jr.																24	HR	1	G	A	L	Received Temperature °C 3.2°C		
AIC No.	Sample Identification	Date/Time Collected	Container Type	Preservative	P	NA	Remarks															Field pH calibration on _____ @ _____ Buffer:		
1	NASHV BIO 1ST	1/28-29/13																						

G = Glass P = Plastic V = VOA vials H = HCl to pH2 T = Sodium Thiosulfate
 NO = none S = Sulfuric acid pH2 N = Nitric acid pH2 B = NaOH to pH12 Z = Zinc acetate

T: NORMAL TURNAROUND
E: CONTACT: ED CARLYLE, JR.
W: 870-557-3143 FAX: 870-845-4522
R: REPORT TO: ED CARLYLE, JR.
426 NORTH MAIN
NASHVILLE, AR 71852

Relinquished By: Ed Carlyle Jr.	Date/Time: 1/29/13 10:40	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By: Lupe Hopta	Date/Time: 1-29-13 1040
Comments: hand delivered on ice, first of three samples			

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: <u>CITY OF NASHVILLE</u>			PO No.	No of BOTTLES	Analyses Requested							AIC Control No: <u>164443</u>								
Project Reference: <u>1ST QUARTER BIOMONITORING</u>			Sample Matrix		W A T E R	S O I L	W A S T E	CERIODAPHNIA	DUBIA	FATHEAD	MINNOW	AIC Proposal No:								
Project Manager: <u>ED CARLYLE JR.</u>												Carrier:								
Sampled By: <u>Ed Carlyle Sr.</u>			GRAB									COMP	Received Temperature °C <u>2</u>							
AIC No.	Sample Identification	Date/Time Collected																	Remarks	
<u>2</u>	<u>NASHUBIO 1ST</u>	<u>1/30-31/13</u>	<u>24</u>		<u>X</u>	<u>3</u>	<u>X</u>		<u>X</u>											
	<u>Q13 (2)</u>	<u>0800-0800</u>	<u>HR</u>																	
						<u>1</u>														
						<u>G</u>														
						<u>A</u>														
						<u>L</u>														
						<u>P</u>						Field pH calibration on _____ @ _____ Buffer:								
	Container Type			<u>NA</u>																
	Preservative																			
	<u>G = Glass</u> <u>NO = none</u>	<u>P = Plastic</u> <u>S = Sulfuric acid pH2</u>	<u>V = VOA vials</u> <u>N = Nitric acid pH2</u>	<u>H = HCl to pH2</u> <u>B = NaOH to pH12</u>	<u>T = Sodium Thiosulfate</u> <u>Z = Zinc acetate</u>															
<p>NORMAL TURNAROUND CONTACT: ED CARLYLE, JR. 870-557-3143 FAX: 870-845-4522 REPORT TO: ED CARLYLE, JR. 426 NORTH MAIN NASHVILLE, AR 71852</p>				Relinquished By: <u>Ed Carlyle Sr.</u>	Date/Time: <u>1/31/13 11:05</u>	Received By:	Date/Time:													
				Relinquished By:	Date/Time:	Received in Lab By: <u>Kyle Hester</u>	Date/Time: <u>1-31-13 1105</u>													
				Comments:																
				<u>hand delivered on ice, 2ND of 3 samples</u>																



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: <u>CITY OF NASHVILLE</u>					PO No. _____		No of _____	Analyses Requested											AIC Control No: <u>164443</u>																
Project Reference: <u>1ST QUARTER BIOMONITORING</u>					Sample Matrix		BOTTLES	CERIODAPHRINIA	DUBIA	FATHEAD	MINNOW											AIC Proposal No:													
Project Manager: <u>ED CARLYLE JR.</u>					G R A B C O M P		W A T E R	S O I L	W A S T E	P	NA											Carrier:													
Sampled By: <u>Ed Carlyle Jr.</u>																						Received Temperature °C <u>4</u>													
AIC No.	Sample Identification	Date/Time Collected	GRAB	COMP																													Remarks		
3	NASHUBI01ST	2/1-2/13		24			X		3	X					X																				
	Q13-3	0800-0800		HR																															
		Container Type																																Field pH calibration on _____ @ _____ Buffer: _____	

G = Glass P = Plastic V = VOA vials H = HCl to pH2 T = Sodium Thiosulfate
 NO = none S = Sulfuric acid pH2 N = Nitric acid pH2 B = NaOH to pH12 Z = Zinc acetate

NORMAL TURNAROUND
CONTACT: ED CARLYLE, JR.
870-557-3143 FAX: 870-845-4522 7409
REPORT TO: ED CARLYLE, JR.
426 NORTH MAIN
NASHVILLE, AR 71852

Relinquished By: <u>Ed Carlyle Jr.</u>	Date/Time: <u>2/2/13 10:51</u>	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received in Lab By: <u>Antone Syon</u>	Date/Time: <u>2/2/13 10:55</u>
Comments: <u>hand delivered on ice, 3rd of 3 samples.</u>			

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

NAME: NASHVILLE, CITY OF
 ADDRESS: WASTEWATER TREATMENT PLANT
 NASHVILLE, AR 71852

FACILITY: NASHVILLE WW TREATMENT PLANT
 LOCATION: 743 HWY 27 SOUTH
 NASHVILLE, AR 71852

ATTN: LARRY DUNAWAY, PUBLIC WKS DIR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
 OMB No. 2040-0004

AR0021776	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
1/1/2013	3/31/2013

DMR Mailing ZIP CODE: 71852
 MAJOR

001-QUARTERLY-W.E.T. TESTING
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity 22414 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	97	97	*****	%	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	73 MO AV MN	73 7 DA MIN	*****	%		Quarterly	COMP24
Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia TGP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Statre 7Day Chronic Pimephales Promelas TGP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TLP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TLP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24

LARRY DUNAWAY
 PUBLIC WORKS DIRECTOR
 426 NORTH MAIN
 NASHVILLE, AR 71852

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 such violations.

Larry Dunaway
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE
870-845-4015		03/12/2013
AREA Code	NUMBER	MM/DD/YYYY

(See all attachments here)

(PASS=0/FAIL=1) IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION #10. 31-00036

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

NAME: NASHVILLE, CITY OF
 ADDRESS: WASTEWATER TREATMENT PLANT
 NASHVILLE, AR 71852

FACILITY: NASHVILLE WW TREATMENT PLANT
 LOCATION: 743 HWY 27 SOUTH
 NASHVILLE, AR 71852

ATTN: LARRY DUNAWAY, PUBLIC WKS DIR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
 OMB No. 2040-0004

AR0021776	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
1/1/2013	3/31/2013

DMR Mailing ZIP CODE: 71852
 MAJOR

001-QUARTERLY-W.E.T. TESTING
 External Outfall


No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
TPP3B 10 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
Coef Of Var Statre 7Day Chronic Ceriodaphnia	SAMPLE MEASUREMENT	*****	*****	*****	*****	15.9	*****	%	0	1/90	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
TQP3B 10 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	17.3	*****	%	0	1/90	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24

AMERICAN INTERPLEX
 8600 KANIS ROAD
 LITTLE ROCK, AR
 72204

LARRY DUNAWAY
 PUBLIC WORKS DIRECTOR
 426 NORTH MAIN
 NASHVILLE, AR 71852

I, the undersigned, certify that this document and all attachments were prepared under my direction or in accordance with a system designed to assure that qualified personnel properly gather and report the information submitted. Based on my inquiry of the person or persons who manage the operations of this facility, I am aware that there are no 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 penalties for submitting false information, including the possibility of fine and imprisonment for violations.

 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
	870-845-4015	03/12/2013
	AREA Code	NUMBER
		MM/DD/YYYY

(All attachments here)

(PASS=0/FAIL=1) IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION #10. 31-00036

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

NAME: NASHVILLE, CITY OF
 ADDRESS: WASTEWATER TREATMENT PLANT
 NASHVILLE, AR 71852

FACILITY: NASHVILLE WW TREATMENT PLANT
 LOCATION: 743 HWY 27 SOUTH
 NASHVILLE, AR 71852
 ATTN: LARRY DUNAWAY, PUBLIC WKS DIR

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

Form Approved
 OMB No. 2040-0004

AR0021776	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 71852
 MAJOR

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
1/1/2013	3/31/2013

001-QUARTERLY-W.E.T. TESTING
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity	SAMPLE MEASUREMENT	*****	*****	*****	97	97	*****	%	0	1/90	Comp24
22414 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	73 MO AV MN	73 7 DA MIN	*****	%		Quarterly	COMP24
Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp24
TGP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail State 7 Day Chronic Pimephales Promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp24
TGP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp24
TLP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	1/90	Comp24
TLP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	97	0	1/90	Comp24
TOP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	97	0	1/90	Comp24
TOP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24

LARRY DUNAWAY
 PUBLIC WORKS DIRECTOR
 426 NORTH MAIN
 NASHVILLE, AR 71852

I, under penalty of law that this document and all attachments were prepared under my direction or vision in accordance with a system designed to assure that qualified personnel properly gather, 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 federal penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

TELEPHONE: 870-845-4015
 DATE: 03/12/2013
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT: *Larry Dunaway*
 AREA Code: NUMBER: MM/DD/YYYY

(See all attachments here)

(PASS=0/FAIL=1) IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION #10. 31-00036

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

NAME: NASHVILLE, CITY OF
 ADDRESS: WASTEWATER TREATMENT PLANT
 NASHVILLE, AR 71852

FACILITY: NASHVILLE WW TREATMENT PLANT
 LOCATION: 743 HWY 27 SOUTH
 NASHVILLE, AR 71852
 ATTN: LARRY DUNAWAY, PUBLIC WKS DIR

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

AR0021776	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
1/1/2013	3/31/2013

Form Approved
 OMB No. 2040-0004

DMR Mailing ZIP CODE: 71852
 MAJOR

001-QUARTERLY-W.E.T. TESTING
 External Outfall


No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp24
TPP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	97	*****	%	0	1/90	Comp24
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
Coef Of Var Statre 7Day Chronic Ceriodaphnia	SAMPLE MEASUREMENT	*****	*****	*****	*****	15.9	*****	%	0	1/90	Comp24
TQP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24
Coef Of Var Statre 7Day Chronic Pimephales	SAMPLE MEASUREMENT	*****	*****	*****	*****	17.3	*****	%	0	1/90	Comp24
TQP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMP24

AMERICAN INTERPLEX
 8600 KANIS ROAD
 LITTLE ROCK, AR
 72204

LARRY DUNAWAY
 PUBLIC WORKS DIRECTOR
 426 NORTH MAIN
 NASHVILLE, AR 71852

I, the undersigned, certify that the information submitted in this report and all attachments were prepared under my direction or in accordance with a system designed to assure that qualified personnel properly gather and report the information submitted. Based on my inquiry of the person or persons who manage the system, 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 penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	DATE
		870-845-4015	03/12/2013
AREA Code	NUMBER	MM/DD/YYYY	

(all attachments here)

(PASS=0/FAIL=1) IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION #10. 31-00036

MR. LARRY DUNAWAY
PUBLIC WORKS DIRECTOR
426 NORTH MAIN
NASHVILLE, AR 71852



PM **PM** **MAR 15** **2013** **MAR**

**Arkansas Department of
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Attn: Mr. Allen Anderson
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