



This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

REPORT OF LABORATORY ANALYSIS

cc: Mike Cole, EEG
Stacy Ness, EEG
Stacy Ness-copy invoice, EEG, Inc.

Enclosures

Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Sincerely,

If you have any questions concerning this report, please feel free to contact me.

Dear Mike Cole:
Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

RE: Project: L246-055060
Pace Project No.: 60301931

Mike Cole
Environmental Enterprise Group, Inc.
220 N Knoxville
Russellville, AR 72801

May 20, 2019





Pace Analytical Services, LLC
9608 Loiret Blvd
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: L246-055060
Pace Project No.: 60301931

Southeast Kansas Certification IDs
808 West McKay, Frontenac, KS 66763
Arkansas Certification #: 18-016-0
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10426

Louisiana Certification #: 03055
Oklahoma Certification #: 9935
Texas Certification #: T104704407
Utah Certification #: KS00021

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
9608 Loriet Blvd
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: L246-055060
Pace Project No.: 60301931

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60301931001	OUTFALL 001	Water	05/06/19 07:48	05/07/19 08:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-6665

SAMPLE ANALYTE COUNT

Project: L246-055060
Pace Project No.: 60301931

Lab ID	Sample ID	Method	Analysts	Reported	Analyses
60301931001	OUTFALL 001	EPA 821/R-02/013	MEB	1	PASI-SE Laboratory

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

REPORT OF LABORATORY ANALYSIS

Chronic Toxicity
Toxicity, Chronic

Complete

1.0 1

05/07/19 11:35

Analytical Method: EPA 821/R-02/013

Parameters

Results

Units

Report Limit

DF

Prepared

Analyzed

CAS No.

Qual

Sample: OUTFALL 001

Lab ID: 60301931001 Collected: 05/06/19 07:48 Received: 05/07/19 08:00 Matrix: Water

Pace Project No.: 60301931

Project: L246-055060

ANALYTICAL RESULTS





Pace Analytical Services, LLC
9608 Lorret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: L246-055060
Pace Project No.: 60301931

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-SE Pace Analytical Services - SE Kansas

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/20/2019 10:47 AM

Sample Condition Upon Receipt

MO#: 60301931
60301931

Client Name: ETS
 Courier: FedEx UPS VIA Clay PEX ECI Pace Xroads Client Other

Tracking #: _____
 Custody Seal on Cooler/Box Present: Yes No
 Seals Intact: Yes No
 PACE Shipping Label Used? Yes No
 Other

Packing Material: Bubble Wrap Bubble Bags Foam None Other
 Thermometer Used: F=19.3
 Cooler Temperature (°C): As-read 3.0 Corr. Factor -1.0 Corrected 2.0
 Temperature should be above freezing to 6°C

Chain of Custody present: Yes No N/A
 Chain of Custody relinquished: Yes No N/A
 Samples arrived within holding time: Yes No N/A
 Short Hold Time analyses (<72hr): Yes No N/A
 Rush Turn Around Time requested: Yes No N/A

Sufficient volume: Yes No N/A
 Correct containers used: Yes No N/A
 PACE containers used: Yes No N/A
 Containers intact: Yes No N/A
 Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Yes No N/A
 Filtered volume received for dissolved tests? Yes No N/A

Sample labels match COC: Date / time / ID / analyses Yes No N/A
 Samples contain multiple phases? Matrix: Yes No N/A
 Containers requiring pH preservation in compliance? Yes No N/A
 Exceptions: VOA, Micro, O&G, KS TPH, OK-DRQ)
 HNO₃, H₂SO₄, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)
 Cyanide water sample checks: Yes No
 Lead acetate strip turns dark? (Record only) Yes No
 Potassium iodide test strip turns blue/purple? (Preserve) Yes No

Trip Blank present: Yes No N/A
 Headspace in VOA vials (>6mm): Yes No N/A
 Samples from USDA Regulated Area: State: _____ Yes No N/A
 Additional labels attached to 5035A / TX1005 vials in the field? Yes No N/A

Field Data Required? Y / N
 Copy COC to Client? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/Resolution: _____
 Project Manager Review: _____ Date: _____

Date and initials of person examining contents: 5/7/19
 Date: _____

Enclosures

Technical Director
Tim.Hartell@paceclabs.com

Tim Hartell



Sincerely,

If you have any question concerning this report, please feel free to contact me.

Enclosed are the analytical results for sample(s) received by the laboratory. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

Dear:

Re: Lab Project Number: 60301931
Client Project ID: Wet Test

Environmental Enterprise Group, Inc.
220 North Knoxville
Russellville, AR 72801

May 16, 2019

www.paceclabs.com

Pace Analytical



REFERENCE #60301931

Pace Analytical Services, Inc.
9608 Lohr Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759



REFERENCE #60301931

CHRONIC TOXICITY TEST FOR
CITY CORPORATION

PERMIT # AR 0021868
AFIN # 58-00105

PERFORMED ON:

Pimephales promelas

and

Ceriodaphnia dubia

PREPARED FOR:

Environmental Enterprise Group Inc.
220 North Knoxville
Russellville, AR 72801
479-968-6767

PREPARED BY:
Pace Analytical Services, Inc.
808 West McKay
Frontenac, KS 66763
1-620-235-0003

May 16, 2019

Pace Analytical Services, Inc.
9608 Loiter Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

APPENDIX C - REFERENCE TOXICANT SUMMARY

APPENDIX B - CHAIN OF CUSTODY FORMS

APPENDIX A - STATISTICAL ANALYSIS

CONCLUSIONS

TEST VALIDITY

TEST CONDITIONS

RESULTS

TEST ORGANISMS

TEST METHODS

TEST MATERIAL

INTRODUCTION

SUMMARY

SECTION

17
17
11
6
5
5
5
5
4

PAGE

TABLE OF CONTENTS

REFERENCE #60301931

Pace Analytical
www.pacelabs.com



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

The chronic toxicity exhibited by the fathead minnows and the *Ceriodaphnia dubia* treated by the effluent sampled from May 6 to May 10 from the City Corp effluent discharge, is acceptable as described in EPA 821-R-02-013.

In Cladoceran section of testing, it was observed that the effluent had no significant effect on the survival of the organisms in the 100% effluent concentration. No significant mortality was observed in the other effluent concentrations after the 7-day exposure period. The No Observed Effect Concentration (NOEC) was determined to be 100% for survival. No significant reduction in reproduction was observed in the 100% effluent concentrations. The Toxic Units is < 1. The IC25 is > 100. The NOEC for reproduction in effluent was determined to be 100%. The PMSD was 13.6.

In minnow section of testing, it was observed that the effluent had no significant effect on the survival of the larvae at the 100% concentration. No significant mortality was observed in the other effluent concentrations after the 7-day exposure period. The No Observed Effect Concentration (NOEC) was determined to be 100% for survival. No significant reduction in growth was observed in the 100% effluent concentration. The Toxic Units is < 1. The IC25 is > 100. The NOEC for growth in effluent was determined to be 100%. The PMSD was 16.1.

Statistically significant ($p < 0.05$) mortality is determined by Dunnett's procedure using average percent survival of each test concentration versus the average survival of the controls. If significant mortality occurs, median lethal concentrations are calculated using effluent concentrations and their corresponding percent mortality data. The 95% confidence intervals are calculated where appropriate by the Spearman-Kärber method. Statistical analysis is accomplished by following steps in EPA 821-R-02-013, February 2002 and by use of Toxstat version 3.4.

A Chronic Whole Effluent Toxicity Test using the 7-day chronic fathead minnows (*Pimephales promelas*), static renewal larval survival and growth test, and three brood 7-day chronic Cladoceran (*Ceriodaphnia dubia*), static renewal survival and reproduction test, was conducted on effluent discharge water collected at the City Corp effluent discharge from May 6, 2019 to May 10, 2019. All the test methods followed are as listed in EPA 821-R-02-013, "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms."

SUMMARY

REFERENCE #60301931

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Pace Analytical
www.pacelabs.com



The organisms used in these tests were cultured at Pace under controlled temperature and photoperiod conditions and/or were purchased from an external supplier. Pace maintains records of all culture techniques used in producing organisms.

TEST ORGANISMS

The Pimephales and Ceriodaphnia tests were initiated on 5-7-19 and carried out until 5-14-19. The Pimephales tests were conducted in 500 ml plastic jars with 250 ml of test solution. Eight larvae were placed in each of at least 5 replicates to make a total of 40 larvae per sample concentration. The Ceriodaphnia tests were carried out in 35ml vials containing 25 ml of test solution. One Neonate was placed in each of 10 replicates to make a total of 10 neonates per sample concentration.

Pace used EPA test method 1000.0 for conducting the Fathead Minnow, Pimephales promelas, Larval Survival and Growth Test. EPA test method 1002.0 was used for conducting the Cladoceran, Ceriodaphnia dubia, Survival and Reproduction Test. The tests were conducted to estimate the NOEC, and LOEC for survival, growth, and reproduction of these test species.

TEST METHODS

City Corp personnel collected sampling of the effluent. A sample of the effluent was delivered to Pace by commercial carrier on 5-7-19. Subsequent samples followed by delivery on 5-9-19 and on 5-10-19. All samples were stored at $\leq 6^{\circ}$ Celsius. Moderately Hard Synthetic Water was used as a control and also to make the required dilutions in the test as described in EPA 821-R-02-013.

TEST MATERIAL

Pace Analytical was contracted to perform this chronic toxicity test on effluent from the City Corp effluent discharge. Chronic toxicity was measured using the Pimephales promelas at larval for survival and growth test and the Ceriodaphnia dubia survival and reproduction test described in EPA 821-R-02-013, "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The raw data of the study is stored at Pace Analytical Services, INC. 808 West McKay, Frontenac, KS 66763.

INTRODUCTION

REFERENCE #60301931

www.pacelabs.com

Pace Analytical



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759



www.pacelabs.com

Pace Analytical

REFERENCE #60301931

RESULTS

Pace Analytical Services, Inc.
9608 Loret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

* Coefficient of Variation = Standard Deviation X 100 / Mean

Effluent Concentration (%)	Average Dry Weight in Milligrams in Replicate Chambers					CV% *
	A	B	C	D	E	
Control 0%	0.427	0.319	0.396	0.452	0.407	12.53
Dilution 1 32%	0.392	0.453	0.443	0.315	0.422	13.70
Dilution 2 42%	0.475	0.366	0.414	0.407	0.429	9.42
Dilution 3 56%	0.404	0.415	0.418	0.398	0.419	2.27
Dilution 4 75%	0.479	0.484	0.403	0.369	0.429	11.39
Dilution 5 100%	0.363	0.410	0.366	0.423	0.456	9.77

DATA TABLE FOR GROWTH OF FATHEAD MINNOWS

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL
(Pimephales promelas)

Dilution Water used: Moderately Hard Synthetic Water

Date Sampled	No.	Date	Test Initiated:
7:48	No. 1:	5-6-19	11:35
7:18	No. 2:	5-8-19	5-7-19
7:21	No. 3:	5-10-19	

Permittee: City Corp Effluent discharge.

TABLE 1

REFERENCE #60301931

www.pacelabs.com
Pace Analytical



Pace Analytical Services, Inc.
 9608 Lotiet Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759

Conc. %	Percent Survival in Replicate Chambers					Mean Percent Survival			CV %
	A	B	C	D	E	24hr	48hr	7 day	
Control 0%	100	87.5	100	100	100	100	100	97.5	4.79
Dilution 1 32%	100	100	100	87.5	100	100	100	97.5	4.79
Dilution 2 42%	100	87.5	100	100	100	100	100	97.5	4.79
Dilution 3 56%	100	100	100	100	100	100	100	100	0.00
Dilution 4 75%	100	100	100	87.5	100	100	100	97.5	4.79
Dilution 5 100%	87.5	100	87.5	100	100	100	100	95	5.99

FATHEAD MINNOW SURVIVAL

Permittee: City Corp Effluent discharge.

www.pacelabs.com

Pace Analytical



REFERENCE #60301931

Pace Analytical Services, Inc.
 9608 Lotret Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759



Pace Analytical
www.pacelabs.com

REFERENCE #60301931

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Permittee: City Corp Effluent discharge.

CERIODAPHNIA SURVIVAL AND REPRODUCTION

DATA TABLE FOR CERIODAPHNIA YOUNG PRODUCTION

Replicate	Control	Dilution 1	Dilution 2	Dilution 3	Dilution 4	Dilution 5
1	16	25	16	18	22	24
2	23	20	24	24	23	23
3	19	22	21	23	24	23
4	21	23	22	18	20	24
5	24	22	27	22	21	20
6	21	19	24	24	24	25
7	20	23	27	25	23	24
8	19	23	24	21	25	23
9	26	18	15	21	24	24
10	24	24	21	16	17	17
Mean	21.3	21.9	22.1	21.2	22.3	23.5
SD	2.983	2.234	4.067	3.011	2.406	1.434
CV %	14.01	10.20	18.4	14.20	10.79	6.10

Percent Effluent (%)						
Time Elapsed	Control	Dilution 1	Dilution 2	Dilution 3	Dilution 4	Dilution 5
24 hrs	100	100	100	100	100	100
48 hrs	100	100	100	100	100	100
7-day	100	100	100	100	100	100
SD	0.000	0.000	0.000	0.000	0.000	0.000
CV %	0.00	0.00	0.00	0.00	0.000	0.000

CERIODAPHNIA MEAN PERCENT SURVIVAL

Permittee: City Corp Effluent discharge.

www.pacelabs.com

Pace Analytical®



REFERENCE #60301931

Pace Analytical Services, Inc.
 9608 Loiret Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759



www.pacelabs.com

REFERENCE #60301931

Pace Analytical Services, Inc.
 9608 Loreet Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759

TABLE 2
 SUMMARY OF TEST CONDITIONS FOR THE FATHEAD MINNOW
 (*Pimephales promelas*) LARVAL SURVIVAL AND GROWTH TEST

1. Test type	Static renewal
2. Temperature	25 degrees Celsius
3. Light quality	Ambient laboratory light
4. Light intensity	Ambient laboratory levels
5. Photoperiod	16 hr light, 8 hr dark
6. Test chamber size	500 ml
7. Test solution volume	250 ml
8. Renewal of test concentrations	Daily
9. Age of test organism	< 24 hours
10. No. larvae/chamber	8
11. No. replicates/concentration	5
12. No. larvae/concentration	40
13. Feeding regime	Feed 0.15 g newly hatched brine shrimp nauplii two times daily. Larvae are not fed 12 hours prior to termination of test.
14. Cleaning	Siphon daily, immediately before test solution renewal
15. Aeration	None

1. Test type	Static renewal
2. Temperature	25 degrees Celsius
3. Light quality	Ambient laboratory light
4. Light intensity	Ambient laboratory levels
5. Photoperiod	16 hr light, 8 hr dark
6. Test chamber size	30 ml
7. Test solution volume	25 ml

**TABLE 2 (CONT.)
SUMMARY OF TEST CONDITIONS FOR THE CLADOCERAN
(Ceriodaphnia dubia) SURVIVAL AND REPRODUCTION TEST**

16. Dilution Water	Moderately Hard Synthetic Water prepared with MILLI-Q deionized water and reagent grade chemicals
17. Effluent concentrations	0%, 32%, 42%, 56%, 75%, 100%
18. Test duration	7 days
19. Endpoints	Survival and growth
20. Test acceptability	80% or greater survival in the controls, Average dry weight in controls >0.25 mg, Coefficient of variation in the control must not exceed 40%.

TABLE 2 (CONT.)

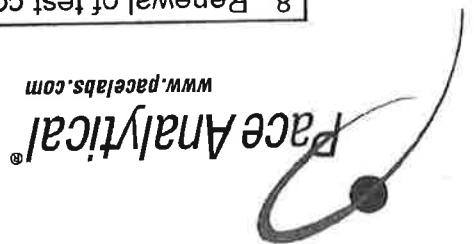
Pace Analytical Services, Inc.
9608 Lotret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

REFERENCE #60301931

www.pacelabs.com

Pace Analytical®





Pace Analytical
www.pacelabs.com

REFERENCE #60301931

TABLE 2 (CONT.)

Pace Analytical Services, Inc.
9608 Lorel Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

8. Renewal of test concentrations	Daily
9. Age of test organism	< 24 hours
10. No. larvae/chamber	1
11. No. replicates/concentration	10
12. No. larvae/concentration	10
13. Feeding regime	Feed 0.1 ml YCT and 0.1 ml of Algae daily. Larvae are not fed 12 hours prior to termination of test.
14. Cleaning	Siphon daily, immediately before test solution renewal
15. Aeration	None
16. Dilution Water	Moderately Hard Synthetic Water prepared with MILLI-Q deionized water and reagent grade chemicals
17. Effluent concentrations	0%, 32%, 42%, 56%, 75%, 100%
18. Test duration	Until 60% or more surviving control females have three broods or a maximum of 8 days.
19. Endpoints	Survival and Reproduction
20. Test acceptability	80% or greater survival in the controls, Average reproduction rate of 15 young / adult. Coefficient of variation in the control must not exceed 40%.

* D.O. is reported as mg/L
 Alkalinity is reported as mg/L CaCO3
 Hardness is reported as mg/L CaCO3
 Conductance is reported as umhos
 Ammonia is reported as mg/L
 Chlorine is reported as mg/L

Control	100%	
PH	7.62	7.35
D.O.	8.20	8.00
Temp	25.0	25.0
Alk	62	40
Hard	90	66
Cond	330	357
Chlorine	<0.1	<0.1

TABLE 2 (SECTION 2)
 INITIAL WATER QUALITY
 EFFLUENT CONCENTRATION

SAMPLE NO. 1 COLLECTED: DATE: 5-6-18
 SAMPLE NO. 2 COLLECTED: DATE: 5-8-18
 SAMPLE NO. 3 COLLECTED: DATE: 5-10-18

ANALYSTS: Pace Analytical Services, Inc.
 Timothy Harrell
 Mike Bollin
 Permittee: City Corp Effluent discharge.

BIOMONITORING CHRONIC TOXICITY REPORT
 FATHEAD MINNOW (Pimephales promelas)
 CHEMICAL PARAMETERS CHART

TABLE 2 (SECTION 2)

REFERENCE #60301931

Pace Analytical Services, Inc.
 9608 Loliet Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759

www.pacelabs.com
 Pace Analytical®





www.pacelabs.com

Pace Analytical

REFERENCE #60301931

TEST WATER QUALITY

24-Hour Water Quality Measurements

Effluent Concentration (%)	pH	D.O. (mg/l)	Temperature (C)
100% Effluent	7.21	4.70	24.8
75% Effluent	7.36	5.40	24.8
56% Effluent	7.41	6.00	24.8
42% Effluent	7.48	6.50	24.8
32% Effluent	7.52	6.80	24.8
0% Control	7.78	7.70	24.7

48-Hour Water Quality Measurements

Effluent Concentration (%)	pH	D.O. (mg/l)	Temperature (C)
100% Effluent	7.22	5.10	24.9
75% Effluent	7.36	5.50	24.9
56% Effluent	7.50	5.90	24.9
42% Effluent	7.61	6.30	24.9
32% Effluent	7.69	6.70	24.9
0% Control	7.73	7.10	24.9

Pace Analytical Services, Inc.
 9608 Loiret Blvd.
 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759



REFERENCE #60301931

Pace Analytical Services, Inc.
9608 Loirat Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

FINAL WATER QUALITY

EFFLUENT CONCENTRATION

	Control	100%
pH	7.67	7.12
D.O.	7.70	5.30
Temp	25.2	24.9
Alk	64	44
Hard	94	68
Cond	411	397

* D.O. is reported as mg/L
Alkalinity is reported as mg/L CaCO₃
Hardness is reported as mg/L CaCO₃
Conductance is reported as umhos



REFERENCE #60301931

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

TEST VALIDITY

The Pimephales promelas control survival rate was 97.5%. The mean dry weight (growth) of the Pimephales promelas was determined at 0.400 mg/organism in the controls. The percent coefficient of variation (%CV) values for the fathead minnow control for survival and growth were 4.79 and 12.53. The Ceriodaphnia dubia survival rates were 100 in the control. The Ceriodaphnia in the control produced an average of 21.3 young over the seven-day exposure period. Percent CV values for Ceriodaphnia dubia control survival and reproduction was 0.00 and 14.01. Control data met or exceeded all criteria set out by EPA 821-R-02-013 for test acceptance.

CONCLUSIONS

The No Observed Effect Concentration (NOEC) for Pimephales promelas was 100% for survival and 100% for growth. The No Observed Effect Concentration (NOEC) for Ceriodaphnia dubia was 100% for Survival and 100% for Reproduction. The tests were ran using a synthetic control against effluent concentrations of 32%, 42%, 56%, 75%, and 100%. The effluent sampled on 5-6-19, 5-8-19, and 5-10-19 exhibited acceptable chronic toxicity in Pimephales promelas and in Ceriodaphnia dubia during the exposure period as described in EPA 821-R-02-013.



REFERENCE #60301931

APPENDIX C

REFERENCE TOXICANTS

The absence of significant control mortality during this test indicated the health of the organisms and indicated that any significant mortality in the test concentrations was not due to contaminants or variations in testing conditions. Reference toxicity testing is routinely performed by staff members in our biomonitoring - bioassay laboratory.

Start: 4/16/19 11:40 End: 4/23/19 11:20

Reference Toxicant (NaCl) *Pimephales promelas*

Survival NOEC: 4.0 g/l

IC25 (4.94 g/l Sodium Chloride)

Concentration of Toxicant	Avg. # of Live Organisms/replicate		
	0 hrs	24 hrs	48 hrs
10 g/l	40	8	2
8 g/l	40	30	20
6 g/l	40	38	35
4 g/l	40	40	40
2 g/l	40	40	40

Reference Toxicant (NaCl) *Ceriodaphnia Dubia*

Survival NOEC: 1.5 g/l

IC25 (1.21 g/l Sodium Chloride)

Concentration of Toxicant	Avg. # of Live Organisms/replicate		
	0 hrs	24 hrs	48 hrs
2.5 g/l	10	4	0
2.0 g/l	10	10	7
1.5 g/l	10	10	10
1.0 g/l	10	10	10
0.5 g/l	10	10	10

Submitted By:

Timothy Harrell
 Timothy Harrell, Technical Director

Warning - The first three homogeneity tests are sensitive to non-normal data and should not be performed.

Data FAIL normality test. Try another transformation.

Critical W (P = 0.05) (n = 30) = 0.927
 Critical W (P = 0.01) (n = 30) = 0.900

W = 0.705

D = 0.059

Shapiro - Wilk's test for normality

60301931 EEG City Corp FATHRAD SURVIVAL
 File: 6301931A Transform: ARC SINE(SQUARE ROOT(Y))

Warning - The first three homogeneity tests are sensitive to non-normal data and should not be performed.

Data FAIL normality test. Try another transformation.

Calculated Chi-Square goodness of fit test statistic = 18.2325
 Table Chi-Square value (alpha = 0.01) = 13.277

INTERVAL	EXPECTED	OBSERVED
<-1.5	2.010	4
-1.5 to <-0.5	7.260	2
-0.5 to 0.5	11.460	21
>0.5 to 1.5	7.260	3
>1.5	2.010	0

Chi-square test for normality: actual and expected frequencies

60301931 EEG City Corp FATHRAD SURVIVAL
 File: 6301931A Transform: ARC SINE(SQUARE ROOT(Y))

60301931 EEG City Corp FATHEAD SURVIVAL
 File: 6301931A
 Transform: ARC SINE(SQUARE ROOT(Y))

Critical F value = 2.62 (0.05,5,24)
 Since F > Critical F FAIL TO REJECT Ho: All equal

SOURCE	DF	SS	MS	F
Between	5	0.005	0.001	0.436
Within (Error)	24	0.059	0.002	
Total	29	0.065		

ANOVA TABLE

60301931 EEG City Corp FATHEAD SURVIVAL
 File: 6301931A
 Transform: ARC SINE(SQUARE ROOT(Y))

GRP IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1 CONTROL	0.003	0.052	0.023	4.79
2 32%	0.003	0.052	0.023	4.79
3 42%	0.003	0.052	0.023	4.79
4 56%	0.000	0.000	0.000	0.00
5 75%	0.003	0.052	0.023	4.79
6 100%	0.004	0.064	0.028	5.99

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 OF 2

60301931 EEG City Corp FATHEAD SURVIVAL
 File: 6301931A
 Transform: ARC SINE(SQUARE ROOT(Y))

GRP IDENTIFICATION	N	MIN	MAX	MEAN
1 CONTROL	5	0.991	1.107	1.084
2 32%	5	0.991	1.107	1.084
3 42%	5	0.991	1.107	1.084
4 56%	5	1.107	1.107	1.107
5 75%	5	0.991	1.107	1.084
6 100%	5	0.991	1.107	1.061

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 OF 2

60301931 EEG City Corp FATHEAD SURVIVAL
 File: 6301931A
 Transform: ARC SINE(SQUARE ROOT(Y))

DUNNETT'S TEST - TABLE 1 OF 2

Ho: Control > Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	CONTROL	1.084	0.780	0.000	0.000
2	32%	1.084	0.780	0.000	0.000
3	42%	1.084	0.780	-0.739	0.000
4	56%	1.107	0.800	0.000	0.000
5	75%	1.084	0.780	0.000	0.000
6	100%	1.061	0.760	0.739	0.000

Dunnett table value = 2.36 (1 Tailed Value, P=0.05, df=24,5)

60301931 EEG City Corp FATHEAD SURVIVAL
 File: 6301931A
 Transform: ARC SINE (SQUARE ROOT(Y))

DUNNETT'S TEST - TABLE 2 OF 2

Ho: Control > Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	5	0.064	8.2	-0.000
2	32%	5	0.064	8.2	0.000
3	42%	5	0.064	8.2	-0.020
4	56%	5	0.064	8.2	-0.000
5	75%	5	0.064	8.2	-0.000
6	100%	5	0.064	8.2	0.020

60301931 EEG City Corp FATHEAD GROWTH
File: 6301931B
Transform: NO TRANSFORMATION

Shapiro - Wilk's test for normality

D = 0.045

W = 0.943

Critical W (P = 0.05) (n = 30) = 0.927
Critical W (P = 0.01) (n = 30) = 0.900

Data PASS normality test at P=0.01 level. Continue analysis.

60301931 EEG City Corp FATHEAD GROWTH
File: 6301931B
Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance
Calculated BI statistic = 8.69

Table Chi-square value = 15.09 (alpha = 0.01, df = 5)
Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS BI homogeneity test at 0.01 level. Continue analysis.

60301931 EEG City Corp FATHEAD GROWTH
 File: 6301931B
 Transform: NO TRANSFORMATION

Critical F value = 2.62 (0.05, 5, 24)
 Since F > Critical F FAIL TO REJECT Ho: All equal

SOURCE	DF	SS	MS	F
Between	5	0.004	0.001	0.391
Within (Error)	24	0.045	0.002	
Total	29	0.049		

ANOVA TABLE

60301931 EEG City Corp FATHEAD GROWTH
 File: 6301931B
 Transform: NO TRANSFORMATION

GRP IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1 CONTROL	0.003	0.050	0.022	12.53
2 32%	0.003	0.055	0.025	13.70
3 42%	0.002	0.039	0.018	9.42
4 56%	0.000	0.009	0.004	2.27
5 75%	0.002	0.049	0.022	11.39
6 100%	0.002	0.039	0.018	9.77

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

60301931 EEG City Corp FATHEAD GROWTH
 File: 6301931B
 Transform: NO TRANSFORMATION

GRP IDENTIFICATION	N	MIN	MAX	MEAN
1 CONTROL	5	0.319	0.452	0.400
2 32%	5	0.315	0.453	0.405
3 42%	5	0.366	0.475	0.418
4 56%	5	0.398	0.419	0.411
5 75%	5	0.369	0.484	0.433
6 100%	5	0.363	0.456	0.404

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

60301931 EEG City Corp FATHEAD GROWTH
 File: 6301931B
 Transform: NO TRANSFORMATION

60301931 EEG City Corp FATHEAD GROWTH
 File: 6301931B
 Transform: NO TRANSFORMATION

DUNNETT'S TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF RPPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	5	0.065	16.1	-0.005
2	32%	5	0.065	16.1	-0.018
3	42%	5	0.065	16.1	-0.011
4	56%	5	0.065	16.1	-0.033
5	75%	5	0.065	16.1	-0.003
6	100%	5	0.065	16.1	-0.003

DUNNETT'S TEST - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	CONTROL	0.400	0.400	-0.176	
2	32%	0.405	0.405	-0.658	
3	42%	0.418	0.418	-0.388	
4	56%	0.411	0.411	-1.192	
5	75%	0.433	0.433	-1.192	
6	100%	0.404	0.404	-0.124	

Dunnnett table value = 2.36 (1 Tailed Value, P=0.05, df=24,5)

FISHER'S EXACT TEST

IDENTIFICATION		NUMBER OF	
CONTROL	TOTAL ANIMALS	ALIVE	DEAD
10	10	10	0
56%			

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

FISHER'S EXACT TEST

IDENTIFICATION		NUMBER OF	
CONTROL	TOTAL ANIMALS	ALIVE	DEAD
10	10	10	0
42%			
TOTAL		20	0

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

FISHER'S EXACT TEST

IDENTIFICATION		NUMBER OF	
CONTROL	TOTAL ANIMALS	ALIVE	DEAD
10	10	10	0
32%			
TOTAL		20	0

SIG NUMBER NUMBER

SUMMARY OF FISHER'S EXACT TESTS

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

IDENTIFICATION		NUMBER OF	
CONTROL	TOTAL	ALIVE	DEAD
10	20	0	0
10	20	0	0
100%	20	0	0
TOTAL	20	0	0

FISHER'S EXACT TEST

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

IDENTIFICATION		NUMBER OF	
CONTROL	TOTAL	ALIVE	DEAD
10	20	0	0
10	20	0	0
75%	20	0	0
TOTAL	20	0	0

FISHER'S EXACT TEST

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

TOTAL	20	0	0
-------	----	---	---

GROUP	IDENTIFICATION	EXPOSED	DEAD
1	CONTROL	10	0
2	3.2%	10	0
3	4.2%	10	0
4	5.6%	10	0
5	7.5%	10	0
	10.0%	10	0

(P = .05)

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E
 Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

INTERVAL	EXPECTED	OBSERVED
<-1.5	4.020	6
-1.5 to <-0.5	14.520	9
-0.5 to 0.5	22.920	27
>0.5 to 1.5	14.520	17
>1.5	4.020	1

Calculated Chi-square goodness of fit test statistic = 6.4924
 Table Chi-square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E
 Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance
 Calculated B1 statistic = 9.61

Table Chi-square value = 15.09 (alpha = 0.01, df = 5)
 Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E Transform: NO TRANSFORMATION

Critical F value = 2.45 (0.05,5,40)
 Since F > Critical F FAIL TO REJECT Ho: All equal

SOURCE	DF	SS	MS	F
Between	5	34.750	6.950	0.881
Within (Error)	54	426.100	7.891	
Total	59	460.850		

ANOVA TABLE

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E Transform: NO TRANSFORMATION

GRP IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1 CONTROL	8.900	2.983	0.943	14.01
2 32%	4.989	2.234	0.706	10.20
3 42%	16.544	4.067	1.286	18.40
4 56%	9.067	3.011	0.952	14.20
5 75%	5.789	2.406	0.761	10.79
6 100%	2.056	1.434	0.453	6.10

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E Transform: NO TRANSFORMATION

GRP IDENTIFICATION	N	MIN	MAX	MEAN
1 CONTROL	10	16.000	26.000	21.300
2 32%	10	18.000	25.000	21.900
3 42%	10	15.000	27.000	22.100
4 56%	10	16.000	25.000	21.200
5 75%	10	17.000	25.000	22.300
6 100%	10	20.000	25.000	23.500

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

60301931 EEG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E Transform: NO TRANSFORMATION

60301931 FBG City Corp CERIODAPHNIA DUBIA REPROD
 File: 6301931E Transform: NO TRANSFORMATION

DUNNETT'S TEST - TABLE 2 OF 2 Ho:Control>Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	10	2.902	13.6	-0.600
2	32%	10	2.902	13.6	-0.800
3	42%	10	2.902	13.6	0.100
4	56%	10	2.902	13.6	-1.000
5	75%	10	2.902	13.6	-2.200
6	100%	10	2.902	13.6	-2.200

DUNNETT'S TEST - TABLE 1 OF 2 Ho:Control>Treatment

Dunnnett table value = 2.31 (1 Tailed Value, P=0.05, df=40,5)

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	CONTROL	21.300	21.300	-0.478	
2	32%	21.900	21.900	-0.637	
3	42%	22.100	22.100	0.080	
4	56%	21.200	21.200	-0.796	
5	75%	22.300	22.300	-0.796	
6	100%	23.500	23.500	-1.751	

Conc. ID	Conc. Tested	Response 1	Response 2	Response 3	Response 4	Response 5
Response 1	16	25	16	18	22	24
Response 2	23	20	24	24	23	23
Response 3	19	22	21	23	24	23
Response 4	21	23	22	18	20	24
Response 5	24	22	27	22	21	20
Response 6	21	19	24	24	24	25
Response 7	20	23	27	25	23	24
Response 8	19	23	24	21	25	23
Response 9	26	18	15	21	24	24
Response 10	24	24	21	16	17	17

*** Inhibition Concentration Percentage Estimate ***

Toxicant/Effluent: EFG city Corp
 Test Start Date: 5/7/19 Test Ending Date: 5/14/19
 Test Species: Dubia
 Test Duration: 7 Day
 DATA FILE:

Conc. ID	Number	Concentration	Response	Std. Dev.	Pooled Response Means
1	10	0.000	21.300	2.983	21.917
2	10	32.000	21.900	2.234	21.917
3	10	42.000	22.100	4.067	21.917
4	10	56.000	21.200	3.011	21.917
5	10	75.000	22.300	2.406	21.917
6	10	100.000	22.700	2.406	21.917

*** No Linear Interpolation Estimate can be calculated from the input data since none of the (possibly pooled) group response means were less than 75% of the control response mean.

Conc. ID	Conc. Tested	Response 1	Response 2	Response 3	Response 4	Response 5	Pooled Response Means
1	0	.427	.319	.475	.404	.479	0.433
2	0	.392	.453	.366	.415	.484	0.433
3	32	.396	.443	.414	.418	.403	0.421
4	32	.452	.615	.407	.398	.369	0.421
5	32	.407	.422	.429	.419	.429	0.421
6	100	0.000	0.400	0.404	0.050	0.404	0.433
1	32.000	0.465	0.087	0.418	0.039	0.433	0.433
2	42.000	0.418	0.039	0.421	0.009	0.421	0.421
3	56.000	0.411	0.009	0.421	0.009	0.421	0.421
4	75.000	0.433	0.049	0.421	0.049	0.421	0.421
5	100.000	0.404	0.039	0.404	0.039	0.404	0.404

*** Inhibition Concentration Percentage Estimate ***
 Toxicant/Effluent: EBG City Corp
 Test Start Date: 5/7/19 Test Ending Date: 5/14/19
 Test Species: Fathead
 Test Duration: 7 Day
 DATA FILE:

*** No Linear Interpolation Estimate can be calculated from the input data since none of the (possibly pooled) group response means were less than 75% of the control response mean.



Environmental Enterprise Group, Inc.
PROVIDING CUSTOMIZED SERVICES NATIONWIDE

L 246 - 055 060

Environmental Enterprise Group, Inc.
220 North Knoxville
Russellville, Arkansas 72801
(479) 968-6767 Fax (479) 968-1956

Company Name:		Phone #:		Requested Analysis						
City Corporation		(479) 968-4989								
Address:		Fax #:								
P. O. Box 3186 Russellville, AR 72811-3186		(479) 968-3430								
Project Name or Number:		Purchase Order #:								
Sampling Personnel Signature(s):		Printed:		Laboratory Control Number						
<i>B. Brooks</i>		<i>Brooks Reeter</i>		<i>0519020</i>						
Sample I.D.	Date	Time	24 Hr Comp.	Grab	Cont. Type	# of Containers	Method Preserved	Sample Matrix	7-Day Chronic Biomonitoring	Remarks
Outfall 001	<i>05/19/19</i>	<i>5:45</i>	<input checked="" type="checkbox"/>		Plast.	1	H2SO4	Ice	<input checked="" type="checkbox"/>	<i>Lab-001</i>
					Glass		HNO3	Water		
							NAOH	Soil		
							HCL	Air		
								Sludge		
								Other		
Relinquished by:		Date:	Time:	Received by:		Date:	Time:			
<i>Brooks</i>		<i>5/11/19</i>	<i>8:45</i>							
Received by:		Date:	Time:	Relinquished by:		Date:	Time:			
<i>Brooks</i>		<i>5/16/19</i>	<i>0845</i>							
Relinquished by:		Date:	Time:	Received by Laboratory:		Date:	Time:			
<i>Brooks</i>		<i>5/16/19</i>	<i>1400</i>	<i>Environmental Enterprise Group</i>		<i>5/7/19</i>	<i>8:00</i>			
Comments:										



L2410-055060

Environmental Enterprise Group, Inc.
PROVIDING CUSTOMIZED SERVICES NATIONWIDE

Environmental Enterprise Group, Inc.
220 North Knoxville
Russellville, Arkansas 72801
(479) 968-6767 Fax (479) 968-1956

Company Name:		Phone #:		(479) 968-4989	
City Corporation		Fax #:		(479) 968-3430	
Address:		Purchase Order #:		P.O. Box 3186 Russellville, AR 72811-3186	
Project Name or Number:		Printed: CHARLOTTE PETRICH		Requested Analysis	
Sampling Personnel Signature(s): <i>Charlotte Petruch</i>		Method Preserved		Sample Matrix	
Sample I.D.		Date		Time	
24 Hr Comp.		Grab		Cont. Type	
Plast.		Glass		# of Containers	
H2SO4		HNO3		HCL	
Ice		None		Water	
Soil		Air		Sludge	
Other		7-Day Chronic Bio-monitoring		Laboratory Control Number	
Outfall 001		05/31/19		0830	
05/31/19		0830		0519020	
05/31/19		0830		0830	
Relinquished by:		Date:		Time:	
Received by:		Date:		Time:	
Relinquished by:		Date:		Time:	
Received by:		Date:		Time:	
Comments:		Date:		Time:	

Sample Condition Upon Receipt

Face Analytical
www.faceanals.com

Client Name: EE6

Courier: FedEx UPS VIA Clay PEX ECI Pace Xroads Client Other

Tracking #: _____

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Face Shipping Label Used? Yes No

Other

Packing Material: Bubble Wrap Bubble Bags Foam None

Type of Ice: Wet Blue None

Thermometer Used: I-193

Cooler Temperature (°C): As-read 3.0 Corr. Factor -1.0 Corrected 2.0

Date and Initials of person examining contents: Mr. 5/9/19

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Sample labels match COC: Date / time / ID / analyses	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples contain multiple phases? Matrix:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Samples from USDA Regulated Area: State:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Additional labels attached to 5035A / TX1005 vials in the field?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

List sample IDs, volumes, lot #'s of preservative and the date/time added.

Client Notification/ Resolution: _____
Person Contacted: _____
Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____
Date: _____



Environmental Enterprise Group, Inc.
 PROVIDING CUSTOMIZED SERVICES NATIONWIDE

L246-055060

Environmental Enterprise Group, Inc.
 220 North Knoxville
 Russellville, Arkansas 72801
 (479) 968-6767 Fax (479) 968-1956

Company Name:		Phone #:		Requested Analysis							
City Corporation		(479) 968-4989									
Address:		Fax #:									
P.O. Box 3186 Russellville, AR 72811-3186		(479) 968-3430									
Project Name or Number:		Purchase Order #:									
Sampling Personnel Signature(s):		Printed:		Laboratory Control Number							
<i>Brooks Tetter</i>		<i>Brooks Tetter</i>		Remarks (Please note special detection limits below.)							
Sample I.D.	Date	Time	24 Hr Comp.	Grab	Cont. Type	# of Containers	Method Preserved	Sample Matrix	WET Testing	Date:	Time:
Outfall 001	05-19-19	7:23	X		Plast.	1	H2SO4 HNO3 NAOH HCL Ice None Water Soil Air Sludge Other		X	05/19/20	
Relinquished by:		Date:	Time:	Received by:		Date:	Time:			Date:	Time:
<i>Brooks Tetter</i>		5/19/19	8:50								
Received by:		Date:	Time:	Relinquished by:		Date:	Time:			Date:	Time:
<i>Smu</i>		5/20/19	0850								
Relinquished by:		Date:	Time:	Received by Laboratory:		Date:	Time:			Date:	Time:
<i>Smu</i>		5/10/19	1000	<i>Chantal Estepone Rose</i>		5/10/19	15:30				
Comments:											

Sample Condition Upon Receipt

Face Analytical
www.faceanb.com

City Corp

ETG

Client Name:

Courier: Fedex UPS VIA Clay PEX ECI Pace Xroads Client Other

Tracking #:

Face Shipping Label Used? Yes No

Custody Seal on Cooler/Box Present: Yes No

Seals intact: Yes No

Packing Material:

Bubble Wrap Bubble Bags Foam None Other

Thermometer Used:

T-193

Type of Ice: Wet Blue None

Cooler Temperature (°C): As-read 30

Corr. Factor -1.0 Corrected 2.0

Temperature should be above freezing to 6°C

Chain of Custody present:

Yes No N/A

Chain of Custody relinquished:

Yes No N/A

Samples arrived within holding time:

Yes No N/A

Short Hold Time analyses (<72hr):

Yes No N/A

Rush Turn Around Time requested:

Yes No N/A

Sufficient volume:

Yes No N/A

Correct containers used:

Yes No N/A

Face containers used:

Yes No N/A

Containers intact:

Yes No N/A

Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?

Yes No N/A

Filtered volume received for dissolved tests?

Yes No N/A

Sample labels match COC, Date / time / ID / analyses

Yes No N/A

Samples contain multiple phases? Matrix:

Yes No N/A

Containers requiring pH preservation in compliance? (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)

Yes No N/A

List sample IDs, volumes, lot #'s of preservative and the date/time added.

Cyanide water sample checks:

Yes No

Lead acetate strip turns dark? (Record only)

Yes No

Potassium iodide test strip turns blue/purple? (Preserve)

Yes No

Trip Blank present:

Yes No N/A

Headspace in VOA vials (>6mm):

Yes No N/A

Samples from USDA Regulated Area: State:

Yes No N/A

Additional labels attached to 5035A / TX1005 vials in the field? Yes No N/A

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted:

Date/Time:

Comments/ Resolution:

Project Manager Review:

Date: