



February 23, 2021

Brad Stewart Springdale Water Utilities 2910 Silent Grove Road Springdale, AR 72762

RE: Project: WET TEST

Pace Project No.: 60360979

Dear Brad Stewart:

Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - SE Kansas

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

Sincerely,

Jeffrey Shopper jeff.shopper@pacelabs.com 1(913)563-1408

Topy Shap

Project Manager

Enclosures





9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: WET TEST Pace Project No.: 60360979

Pace Analytical Services Southeast Kansas

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



SAMPLE SUMMARY

Project: WET TEST Pace Project No.: 60360979

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60360979001	SWWTF EFFLUENT	Water	02/07/21 08:00	02/09/21 08:00

REPORT OF LABORATORY ANALYSIS

(913)599-5665



SAMPLE ANALYTE COUNT

Project: WET TEST Pace Project No.: 60360979

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60360979001	SWWTF EFFLUENT	EPA 821/R-02/013	MEB	1	PASI-SE

PASI-SE = Pace Analytical Services - SE Kansas

(913)599-5665



ANALYTICAL RESULTS

Project: WET TEST
Pace Project No.: 60360979

Date: 02/23/2021 10:04 AM

Sample: SWWTF EFFLUENT	Lab ID: 603	60979001	Collected: 02/07/2	21 08:00	Received: 02	/09/21 08:00 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Chronic Toxicity	Analytical Met Pace Analytic							
Toxicity, Chronic	Complete		1.0	1		02/09/21 11:00		



QUALIFIERS

Project: WET TEST Pace Project No.: 60360979

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.

Date: 02/23/2021 10:04 AM

(913)599-5665



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WET TEST Pace Project No.: 60360979

Date: 02/23/2021 10:04 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60360979001	SWWTF EFFLUENT	EPA 821/R-02/013	704855		



Sample Condition Upon Receipt



\$

Client Name: Springdale water				
	EX 🗆	ECI		Pace ☐ Xroads ☐ Client ☐ Other ☐
racking #: Pace	Shippir	ng Lab	el Used	d? Yes □ No X
Sustody Seal on Cooler/Box Present: Yes X No □	Seals i	intact:	Yes X	No □
Packing Material: Bubble Wrap □ Bubble Bags □		Foa	am 🗆	None X Other □
hermometer Used: T-111 Type of	Ice: We	Blu	ue Noi	
Sooler Temperature (°C): As-read 2,4 Corr. Factor	or6	(Correct	Date and initials of person 300 examining contents: 1 2/9/21
emperature should be above freezing to 6°C				
Chain of Custody present:	XYes	□No	□n/A	0
Chain of Custody relinquished:	Ø ∜ es	□No	□n/A	
Samples arrived within holding time:	□Yes	√No	□N/A	
Short Hold Time analyses (<72hr):	XYes	□No	□n/a ^c	No.
Rush Turn Around Time requested:	□Yeş	XNo	□n/A	
Sufficient volume:	XYes	□No	□n/A	18
Correct containers used:	XYes	□No	□n/A	6)
Pace containers used:	XYes	□No	□n/a	· ·
Containers intact:	XYes	□No	□n/A	
Jnpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes	□No	XN/A	
Filtered volume received for dissolved tests?	□Yes	□No	□x/A	
Sample labels match COC: Date / time / ID / analyses	Xyes	□No	□N/A	, , , , , , , , , , , , , , , , , , , ,
Samples contain multiple phases? Matrix:	y⊟Yes	XNo	□n/a	
Containers requiring pH preservation in compliance? HNO₃, H₂SO₄, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	□Yes	□No	X _{N/A}	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Dyanide water sample checks: _ead acetate strip turns dark? (Record only)	□Yes	ПМо		
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes			
Trip Blank present:	□Yes	-	X _{N/A}	
Headspace in VOA vials (>6mm):	□Yes		7.0	
Samples from USDA Regulated Area: State:			Xn/a	
Additional labels attached to 5035A / TX1005 vials in the field?	Э Пуес	Пио	X _Y /A	
Copy COC to			/ N	Field Data Required? Y / N
Person Contacted: Date/T	ime:			
Comments/ Resolution:				
			4	
Project Manager Davis			5	
Project Manager Review:	- 1		Dat	

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately,

Section A	77.	Section B			S	Section C					141			***				
Required C		Required Project Information:	in:		-	Invoice Information:	ormatio	اۃ							Page:	-	6	-
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CHRONIC TOXICITY TEST FOR Springdale Water Utilities

PERMIT # AR 0022063 AFIN # 72-00003

PERFORMED ON:

Pimephales promelas

and

Ceriodaphnia dubia

PREPARED FOR:

Springdale Water Utilities Brad Stewart 2910 Silent Grove Road Springdale, AR 72762 479-756-3657

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

February 18, 2021

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SUMMARY

A Chronic Whole Effluent Toxicity Test using the 7-day chronic fathead minnows (<u>Pimephales promelas</u>), static renewal larval survival and growth test, and three brood 7-day chronic Cladoceran (<u>Ceriodaphnia dubia</u>), static renewal survival and reproduction test, was conducted on effluent discharge water collected at the Springdale Water Utilities effluent discharge from February 8, 2021 to February 12, 2021. All the test methods followed are as listed in <u>EPA 821-R-02-013</u>, "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms."

Statistically significant (p<0.05) mortality is determined by Dunnet'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-Karber method. Statistical analysis is accomplished by following steps in EPA 821-R-02-013, February 2002 and by use of Toxstat version 3.4.

In minnow section of testing, it was observed that the effluent had no significant effect on the survival of the larvae at the 97% 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 97% for survival. No significant reduction in growth was observed in the 97% effluent concentration. The Toxic Units is <1.03. The IC25 is >97. The NOEC for growth in effluent was determined to be 97%. The PMSD was 19.1. The COV is 17.13

In Cladoceran section of testing, it was observed that the effluent had no significant effect on the survival of the organisms in the 97% 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 97% for survival. No significant reduction in reproduction was observed in the 97% effluent concentrations. The Toxic Units is <1.03. The IC25 is >97. The NOEC for reproduction in effluent was determined to be 97%. The PMSD was 11.5. The COV is 13.02.

The chronic toxicity exhibited by the fathead minnows and the <u>Ceriodaphnia</u> treated by the effluent sampled from February 8 to February 12 from the Springdale Water Utilities effluent discharge, is acceptable as described in <u>EPA</u> 821-R-02-013.

INTRODUCTION

Pace Analytical was contracted to perform this chronic toxicity test on effluent from the Springdale Water Utilities effluent discharge. Chronic toxicity was measured using the <u>Pimephales promelas</u> at larval for survival and growth test and the <u>Ceriodaphnia dubia</u> survival and reproduction test described in <u>EPA 821-R-02-013</u>, "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.

TEST MATERIAL

Springdale Water Utilities personnel collected sampling of the effluent. A sample of the effluent was delivered to Pace by commercial carrier on 2-09-21. Subsequent samples followed by delivery on 2-11-21, and on 2-13-21. All samples were stored at \leq 6° 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 METHODS

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.

The <u>Pimephales</u> and <u>Ceriodaphnia</u> tests were initiated on 2-09-21 and carried out until 2-16-21. 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 <u>Ceriodaphnia</u> 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.

TEST ORGANISMS

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.

TABLE 1

Permittee: Springdale Water Utilities Effluent discharge.

Date Sampled No. 1: 2-8-21 8:00

No. 2: 2-10-21 8:00

No. 3: 2-12-21 9:00

Test Initiated: 11:00 Date: 2-9-21 Test End: 11:30 Date: 2-16-21

RESULTS

Results					
0					
0					
97					
97					
13.02					
Results					
0					
0					
97					
97					
17.13					

Dilution Water used: Moderately Hard Synthetic Water

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL (Pimephales promelas)

DATA TABLE FOR GROWTH OF FATHEAD MINNOWS

	DITTI	ITABLE	OIT OITO	VIII OI 1		MINIALONA	
Effluent Concentration	Averag	•	eight in Mi te Chamb	lligrams in ers		Mean Dry Weight	CV% *
(%)	Α	В	С	D	Е	(mg)	
Control 0%	0.327	0.386	0.429	0.392	0.401	0.387	9.66
Dilution 1 31%	0.380	0.398	0.494	0.394	0.402	0.414	11.05
Dilution 2 41%	0.382	0.343	0.340	0.431	0.421	0.383	11.06
Dilution 3 55%	0.469	0.417	0.474	0.326	0.401	0.417	14.42
Dilution 4 73%	0.443	0.376	0.434	0.408	0.387	0.410	7.07
Dilution 5 97%	0.403	0.519	0.401	0.396	0.324	0.409	17.13

^{*} Coefficient of Variation = Standard Deviation X 100 / Mean

FATHEAD MINNOW SURVIVAL

Conc. %	Pe		urvival i	n Replica	ate	Mean	Percent S	Survival	CV %
	Α	В	С	D	E	24hr	48hr	7 day	
Control 0%	87.5	100	100	100	100	100	100	97.5	4.79
Dilution 1 31%	100	100	100	100	100	100	100	100	0.0
Dilution 2 41%	100	100	100	100	100	100	100	100	0.0
Dilution 3 55%	100	100	100	87.5	100	100	100	97.5	4.79
Dilution 4 73%	100	100	100	100	100	100	100	100	0.0
Dilution 5 97%	100	100	100	100	87.5	100	100	97.5	4.79

Permittee: Springdale Water Utilities Effluent discharge.

CERIODAPHNIA SURVIVAL AND REPRODUCTION

DATA TABLE FOR CERIODAPHNIA YOUNG PRODUCTION

Replicate	Control 0%	Dilution 1 31%	Dilution 2 41%	Dilution 3 55%	Dilution 4 73%	Dilution 5 97%
1	15	23	21	18	24	25
2	17	20	18	23	22	19
3	18	19	17	20	22	20
4	14	21	19	21	23	21
5	21	24	22	19	22	20
6	19	21	20	22	19	18
7	19	19	22	20	24	19
8	16	22	21	17	20	18
9	20	21	23	23	21	20
10	20	18	19	20	21	22
Mean	17.9	20.8	20.2	20.3	21.8	20.2
SD	2.331	1.874	1.932	2.003	1.619	2.098
CV %	13.02	9.01	9.57	9.87	7.43	10.38

CERIODAPHNIA MEAN PERCENT SURVIVAL

		Perd	ent Effluent	(%)		
Time	Control	Dilution 1	Dilution 2	Dilution 3	Dilution 4	Dilution 5
Elapsed	0%	31%	41%	55%	73%	97%
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

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

(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				
16. Dilution Water	Moderately Hard Synthetic Water prepared with MILLI-Q deionized water and reagent grade chemicals				
17. Effluent concentrations	0%, 31%, 41%, 55%, 73%, 97%				
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.) SUMMARY OF TEST CONDITIONS FOR THE CLADOCERAN (Ceriodaphnia dubia) SURVIVAL AND REPRODUCTION TEST

	VAL AND REPRODUCTION 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	30 ml
7. Test solution volume	25 ml
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%, 31%, 41%, 55%, 73%, 97%
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%.

TABLE 2 (SECTION 2)

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

Permittee: Springdale Water Utilities Effluent discharge.

ANALYSTS: Pace Analytical Services, Inc.

Timothy Harrell Mike Bollin

TABLE 2 (SECTION 2) INITIAL WATER QUALITY EFFLUENT CONCENTRATION

	Control	100%
PH	7.6	7.5
D.O.	8.5	8.7
Temp	25.0	25.0
Alk	64	92
Hard	98	120
Cond	315	722
Chlorine	<0.1	<0.1

* 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

TEST WATER QUALITY

24-Hour Water Quality Measurements

27 Frod Water Quality Wooded of Horito						
Effluent Concentration (%)	PH	D.O. (mg/l)	Temperature (C)			
0% Control	7.6	6.9	24.9			
31% Effluent	7.6	6.9	24.6			
41% Effluent	7.6	6.9	24.6			
55% Effluent	7.6	6.9	24.6			
73% Effluent	7.5	7.0	24.6			
97% Effluent	7.5	7.0	24.6			

48-Hour Water Quality Measurements

40-Hour Water Quality Measurements						
Effluent	PH	D.O.	Temperature			
Concentration (%)		(mg/l)	(C)			
0% Control	7.6	6.9	24.5			
31% Effluent	7.6	6.9	25.0			
41% Effluent	7.5	6.9	25.0			
55% Effluent	7.5	6.9	25.0			
73% Effluent	7.4	6.9	25.0			
97% Effluent	7.4	6.9	25.0			

FINAL WATER QUALITY

EFFLUENT CONCENTRATION

	Control	97%
рН	7.6	8.0
D.O.	7.1	7.3
Temp	24.7	24.5
Alk	62	96
Hard	94	122
Cond	374	936

* 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

TEST VALIDITY

The <u>Pimephales promelas</u> control survival rate was 97.5. The mean dry weight (growth) of the <u>Pimephales promelas</u> was determined at 0.387 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 17.13. The <u>Ceriodaphnia dubia</u> survival rates were 100 in the control. The <u>Ceriodaphnia in the control produced an average of 17.9 young over the seven-day exposure period.</u> Percent CV values for <u>Ceriodaphnia dubia</u> control survival and reproduction was 0.00 and 13.02. Control data met or exceeded all criteria set out by <u>EPA 8100-R-02-013</u> for test acceptance.

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: 2/9/21 11:00

End: 2/16/21 10:30

Reference Toxicant (NaCl) Pimephales promelas

Concentration of Toxicant	Avg. # of Live Organisms/replicate					
or rexident	0 hrs 24 hrs 48 hrs 7 days					
10 g/l	40	4	0	0		
8 g/l	40	33	11	4		
6 g/l	40	40	36	24		
4 g/l	40	40	40	39		
2 g/l	40	40	40	40		

IC25 (5.00 g/l Sodium Chloride)

Survival NOEC: 4.0 g/l

Reference Toxicant (NaCl) Ceriodaphnia Dubia

Treference Toxicant (Tae)					
Concentration	Avg. # of Live Organisms/replicate				
of Toxicant					
	0 hrs	24 hrs	48 hrs	7 days	
2.5 g/l	10	8	3	0	
2.0 g/l	10	10	10	2	
1.5 g/l	10	10	10	10	
1.0 g/l	10	10	10	10	
0.5 q/l	10	10	10	10	

IC25 (1.14 g/l Sodium Chloride)

Survival NOEC: 1.5 g/l

Submitted By:

Timothy Harrell, Technical Director

60360979 Springdale FATHEAD SURVIVAL

File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

Chi-square test for normality: actual and expected frequencies

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	2.010	7.260	11.460	7.260	2.010
OBSERVED	3	0	27	0	0

Calculated Chi-Square goodness of fit test statistic = 38.0902 Table Chi-Square value (alpha = 0.01) = 13.277

Data FAIL normality test. Try another transformation.

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

60360979 Springdale FATHEAD SURVIVAL

File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

Shapiro - Wilk's test for normality

Shapito - with 8 test for horizativy

D = 0.032

W = 0.597

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

Data FAIL normality test. Try another transformation.

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

60360979 Springdale FATHEAD SURVIVAL

File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
	7				
1	CONTROL	5	0.991	1.107	1.084
2	31%	5	1.107	1.107	1.107
3	41%	5	1.107	1.107	1.107
4	55%	5	0.991	1.107	1.084
5	73%	5	1.107	1.107	1.107
6	97%	5	0.991	1.107	1.084

60360979 Springdale FATHEAD SURVIVAL

File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	CONTROL	0.003	0.052	0.023	4.79
2	31%	0.000	0.000	0.000	0.00
3	41%	0.000	0.000	0.000	0.00
4	55%	0.003	0.052	0.023	4.79
5	73%	0.000	0.000	0.000	0.00
6	97%	0.003	0.052	0.023	4.79

60360979 Springdale FATHEAD SURVIVAL File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

ANOVA TABLE

SOURCE	DF	SS	MS	F
Between	5	0.004	0.001	0.600
Within (Error)	24	0.032	0.001	
Total	29	0.036		

Critical F value = 2.62 (0.05, 5, 24)

Since F < Critical F FAIL TO REJECT Ho: All equal

60360979 Springdale FATHEAD SURVIVAL File: C:\TOXSTAT\DATA\6360979A. Transform: ARC SINE(SQUARE ROOT(Y))

DUNNETT'S	TEST	 TABLE	1	OF	2	Ho:Control <treatment< th=""></treatment<>
DOMINET D	THUL		_	01	~	110.00110101<11040110110

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
					2020
1	CONTROL	1.084	0.780		
2	31%	1.107	0.800	-1.000	
3	41%	1.107	0.800	-1.000	
4	55%	1.084	0.780	0.000	
5	73%	1.107	0.800	-1.000	
6	97%	1.084	0.780	0.000	

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

60360979 Springdale FATHEAD SURVIVAL File: C:\TOXSTAT\DATA\6360979A.

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			
2	31%	5	0.047	6.0	-0.020
3	41%	5	0.047	6.0	-0.020
4	55%	5	0.047	6.0	-0.000
5	73%	5	0.047	6.0	-0.020
6	97%	5	0.047	6.0	-0.000

60360979 Springdale FATHEAD GROWTH File: C:\TOXSTAT\DATA\6360979B.

Transform: NO TRANSFORMATION

Shapiro - Wilk's test for normality

D = 0.059

W = 0.978

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

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

60360979 Springdale FATHEAD GROWTH File: C:\TOXSTAT\DATA\6360979B. Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance Calculated B1 statistic = 3.63

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.

60360979 Springdale FATHEAD GROWTH File: C:\TOXSTAT\DATA\6360979B. Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

1 CONTROL 5 0.327 0.429 0.387 2 31% 5 0.380 0.494 0.414 3 41% 5 0.340 0.431 0.383 4 55% 5 0.326 0.474 0.417 5 73% 5 0.376 0.443 0.410 6 97% 5 0.324 0.519 0.409	GRP	IDENTIFICATION	N	MIN	MAX	MEAN
2 31% 5 0.380 0.494 0.414 3 41% 5 0.340 0.431 0.383 4 55% 5 0.326 0.474 0.417 5 73% 5 0.376 0.443 0.410	1	CONTROL	5	0.327	0.429	0.387
4 55% 5 0.326 0.474 0.417 5 73% 5 0.376 0.443 0.410	2		_	*	0.494	
5 73% 5 0.376 0.443 0.410	3	41%	5	0.340	0.431	0.383
750 5 500 500 500 500 500 500 500 500 50	4	55%	5	0.326	0.474	0.417
6 97% 5 0.324 0.519 0.409	5	73%	5	0.376	0.443	0.410
	6	97%	5	0.324	0.519	0.409

60360979 Springdale FATHEAD GROWTH

File: C:\TOXSTAT\DATA\6360979B.

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	CONTROL	0.001	0.037	0.017	9.66
2	31%	0.002	0.046	0.020	11.05
3	41%	0.002	0.042	0.019	11.06
4	55%	0.004	0.060	0.027	14.42
5	73%	0.001	0.029	0.013	7.07
6	97%	0.005	0.070	0.031	17.13
•	_ , -				

60360979 Springdale FATHEAD GROWTH
File: C:\TOXSTAT\DATA\6360979B. Transform: NO TRANSFORMATION

ANOVA TABLE

SOURCE	DF	SS	MS	F
Between	5	0.005	0.001	0.424
Within (Error)	24	0.059	0.002	
Total	29	0.064		

Critical F value = 2.62 (0.05,5,24)

Since F < Critical F FAIL TO REJECT Ho: All equal

60360979 Springdale FATHEAD GROWTH File: C:\TOXSTAT\DATA\6360979B. Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 1 OF 2	Ho: Control <t< th=""><th>reatment</th><th></th></t<>	reatment	
GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	CONTROL	0.387	0.387		
2	31%	0.414	0.414	-0.851	
3	41%	0.383	0.383	0.115	
4	55%	0.417	0.417	-0.973	
5	73%	0.410	0.410	-0.723	
6	97%	0.409	0.409	-0.691	

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

60360979 Springdale FATHEAD GROWTH File: C:\TOXSTAT\DATA\6360979B.

Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 2 C	F 2 Ho	:Control<	Treatment
GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	5			
2	31%	5	0.074	19.1	-0.027
3	41%	5	0.074	19.1	0.004
4	55%	5	0.074	19.1	-0.030
5	73%	5	0.074	19.1	-0.023
6	97%	5	0.074	19.1	-0.022

FISHER'S EXACT TEST

ALIVE	DEAD	TOTAL ANIMALS
10	0	10
10	0	10
20	0	20
	10	10 0 10 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

NUMBER OF		
ALIVE	DEAD	TOTAL ANIMALS
10	0	10
10	0	10
20	0	20
	ALIVE 10 10	ALIVE DEAD 10 0 10 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

		==========	=========	=======================================	
			NUMBER OF		
IDENTIF	ICATION	ALIVE	DEAD	TOTAL ANIMALS	
	CONTROL	10	0	10	
	55%	10	0	10	

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

	NUMBER OF		
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS
CONTROL	10	0	10
73%	10	0	10
TOTAL	20	0	20

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

		NUMBER OF			
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS		
CONTROL	10	0	10		
97%	10	0	10		
TOTAL	20	0 ===========	20		

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.

SUMMARY OF FISHER'S EXACT TESTS

GROUP	IDENTIFICATION	EXPOSED	DEAD	(P=.05)
$\boldsymbol{x}_{\boldsymbol{x}_{\boldsymbol{y}}} = \boldsymbol{x}_{\boldsymbol{y}_{\boldsymbol{y}}} = \boldsymbol{x}_{\boldsymbol{y}_{\boldsymbol{y}_{\boldsymbol{y}}}} = \boldsymbol{x}_{\boldsymbol{y}_{\boldsymbol{y}_{\boldsymbol{y}}}} = \boldsymbol{x}_{\boldsymbol{y}_{$				
	CONTROL	10	0	
1	31%	10	0	
2	41%	10	0	
3	55%	10	0	
4	73%	10	0	
5	97%	10	0	

60360979 Springdale CERIODAPHNIA DUBIA SURVIVA File: 6360979D Transform: NO TRANSFORM

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
7070		$- (-,-)_{-}$	*****		
1	CONTROL	10	1.000	1.000	1.000
2	31%	10	1.000	1.000	1.000
3	41%	10	1.000	1.000	1.000
4	55%	10	1.000	1.000	1.000
5	73%	10	1.000	1.000	1.000
6	97%	10	1.000	1.000	1.000

60360979 Springdale CERIODAPHNIA DUBIA SURVIVA File: 6360979D Transform: NO TRANSFORM

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	CONTROL	0.000	0.000	0.000	0.00
2	31%	0.000	0.000	0.000	0.00
3	41%	0.000	0.000	0.000	0.00
4	55%	0.000	0.000	0.000	0.00
5	73%	0.000	0.000	0.000	0.00
6	97%	0.000	0.000	0.000	0.00

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
	4				-
EXPECTED OBSERVED	4.020 4	14.520 15	22.920 24	14.520 15	4.020 2

Calculated Chi-Square goodness of fit test statistic = 1.0977

Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance Calculated B1 statistic = 1.25

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.

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	CONTROL	10	14.000	21.000	17.900
2	31%	10	18.000	24.000	20.800
3	41%	10	17.000	23.000	20.200
4	55%	10	17.000	23.000	20.300
5	73%	10	19.000	24.000	21.800
6	97%	10	18.000	25.000	20.200

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	CONTROL	5.433	2.331	0.737	13.02
2	31%	3.511	1.874	0.593	9.01
3	41%	3.733	1.932	0.611	9.57
4	55%	4.011	2.003	0.633	9.87
5	73%	2.622	1.619	0.512	7.43
6	97%	4.400	2.098	0.663	10.38

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

ANOVA TABLE

SOURCE	DF	SS	MS	F
Between	5	82.200	16.440	4.160
Within (Error)	54	213.400	3.952	
Total	59	295.600		

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

60360979 Springdale CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

		TRANSFORMED	MEAN CALCULATED IN		
GROUP	IDENTIFICATION	MEAN	ORIGINAL UNITS	T STAT	SIG
1	CONTROL	17.900	17.900		
2	31%	20.800	20.800	-3.262	
3	41%	20.200	20.200	-2.587	
4	55%	20.300	20.300	-2.700	
5	73%	21.800	21.800	-4.387	
6	97%	20.200	20.200	-2.587	

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

DUNNETT'S TEST - TABLE 1 OF 2

60360979 Springdale CERIODAPHNIA DUBIA REPRODU File: C:\TOXSTAT\DATA\6360979E. Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 2 C	F 2 Ho	:Control<	Treatment
GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	10			
2	31%	10	2.054	11.5	-2.900
3	41%	10	2.054	11.5	-2.300
4	55%	10	2.054	11.5	-2.400
5	73%	10	2.054	11.5	-3.900
6	97%	10	2.054	11.5	-2.300

Conc. ID		1	2	3	4	5	6
Conc. Tes	ted	0	31	41	55	73	97
Response Response Response Response Response	1 2 3 4 5	.327 .386 .429 .392 .401	.380 .398 .494 .394 .402	.382 .343 .340 .431 .421	.469 .417 .474 .326	.443 .376 .434 .408	.403 .519 .401 .396

*** Inhibition Concentration Percentage Estimate ***

Toxicant/Effluent: Springdale Test Start Date: 2/9/21 Test Ending Date: 2/16/21

Test Species: Fathead

Test Duration:

7 Day

DATA FILE:

Conc.	Number Replicates	Concentration	Response Means	Std. Dev.	Pooled Response Means
1 2	5 5	0.000 31.000 41.000	0.387 0.414 0.383	0.037 0.046 0.042	0.403 0.403 0.403
3 4 5 6	5 5 5	55.000 73.000 97.000	0.417 0.410 0.409	0.060 0.029 0.070	0.403 0.403 0.403

^{***} 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	1	2	3	4	5	6
Conc. Test	ed 0	31	41	55	73	97
Response	1 15	23	21	18	24	25
Response	2 17	20	18	23	22	19
Response	3 18	19	17	20	22	20
-	4 14	21	19	21	23	21
	5 21	24	22	19	22	20
_	6 19	21	20	22	19	18
Response	7 19	19	22	20	24	19
Response	8 16	22	21	17	20	18
Response	9 20	21	23	23	21	20
Response 1	0 20	18	19	20	21	22

*** Inhibition Concentration Percentage Estimate ***

Toxicant/Effluent: Springdale
Test Start Date: 2/9/21 Test Ending Date: 2/16/21
Test Species: Dubia

7 Day Test Duration:

DATA FILE:

Conc.	Number Replicates	Concentration	Response Means	Std. Dev.	Pooled Response Means
1	10	0.000	17.900	2.331	20.200
2	10	31.000	20.800	1.874	20.200
3	10	41.000	20.200	1.932	20.200
4	10	55.000	20.300	2.003	20.200
5	10	73.000	21.800	1.619	20.200
6	10	97.000	20.200	2.098	20.200

^{***} 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.

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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																EFFLUENT	MATRIX Dinking Water DW Walter Was to Water WW Product Product Sulfsoid OL Wipe Air Other Tissue Tis	Project #:	Project Name:	Purchase Order #:	Copy io:	Report To:	Required P	Section B
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Sample Condition Upon Receipt

Client Name: Sociagdale		
Courier: FedEx □ UPS □ VIA ☑ Clay □ F	PEX 🗆 ECI 🗆	Pace □ Xroads □ Client □ Other □
•	e Shipping Label Use	ed? Yes □ No X
Custody Seal on Cooler/Box Present: Yes X No □	Seals intact: Yes	
Packing Material: Bubble Wrap □ Bubble Bags □		None X Other □
-	Ice: We Blue No	
Cooler Temperature (°C): As-read 2.4 Corr. Factor	or <u>6</u> Correc	eted 1-8 Date and initials of person ZIV 7 examining contents: 15800
Temperature should be above freezing to 6°C		
Chain of Custody present:	XYes □No □N/A	
Chain of Custody relinquished:	□Yes Mo □N/A	
Samples arrived within holding time:	Yes No N/A	
Short Hold Time analyses (<72hr):	XYes □No □N/A	
Rush Turn Around Time requested:	□Yes XNo □N/A	
Sufficient volume:	XYes □No □N/A	
Correct containers used:	Xyes □No □N/A	
Pace containers used:	XYes □No □N/A	
Containers intact:	XYes □No □N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No X N/A	
Filtered volume received for dissolved tests?	□Yes □No □x/A	
Sample labels match COC: Date / time / ID / analyses	XYes □No □N/A	_
Samples contain multiple phases? Matrix:	□Yes XNo □N/A	
Containers requiring pH preservation in compliance?	□Yes □No XN/A	List sample IDs, volumes, lot #'s of preservative and the
(HNO ₃ , H ₂ SO ₄ , HCI<2; NaOH>9 Sulfide, NaOH>10 Cyanide)		date/time added.
(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks:		
Lead acetate strip turns dark? (Record only)	□Yes □No	
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No	
Trip Blank present:	□Yes □No XN/A	
Headspace in VOA vials (>6mm):	□Yes □No XN/A	
Samples from USDA Regulated Area: State:	□Yes □No XN/A	
Additional labels attached to 5035A / TX1005 vials in the field	? □Yes □No Xx/A	
Client Notification/ Resolution: Copy COC t		Field Data Required? Y / N
Person Contacted: Date/	Time:	
Comments/ Resolution:		
Project Manager Review:	_ D	ate:



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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	×			ADDITIONAL COMMENTS						14						SWWTF EFFLU	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique		Requested Due Dale:	479-756-3657 Fax:	Springdale, AK 72762 Email: bstewart@springdalewater.com	2910 Silent Grove Road	r. Springdale Water Utilities	Section A Required Client Information:
	-			Z 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2												LUENT	Drinking Water DW Water WT Waste Water WW Product P Sol/Solid SL Oil OL Wipe Air AR Other OT Tissue TS	MATRIX CODE	Project #:	Project Name:	Purchase Order #:	Copy To:	Report To:	Section B Required Project Information:
				ELINQUI												33	MATRIX CODE (see valid code SAMPLE TYPE (G=GRAB C:				er#:		Brad Stewart	ject Info
				RELINQUISHED BY I AFFILIATION												02/11/21 0000	START			WET Test			ewart	ormation:
PRINT	SAMPLER			FFILIATION													ME	COLLECTED						
PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	SAMPLER NAME AND SIGNATURE															0	END END	TED						
AMPLE	SIGNA			DATE	-								_			2.7	SAMPLE TEMP AT COLLECTION	ON						
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200				TIME												<	Unpreserved		Pace Profile #.	Pace Project Manager:	Pace Quote:	Company Name: Address:	Attention:	Section C Invoice Information:
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Ice	JII		4	SAMPLE												7				State / Location		Regulatory Agency		_
(Y/N) Custody		_	-	CON														300		ă		VOE		*
Sealed			1	CONDITIONS															1		П			잋
Cooler		1		. 7			4	11.		4										1	a 10			
(Y/N) Samples			+	S	1													4,00		3	П			



Sample Condition Upon Receipt

Client Name: Schoole				
Courier: FedEx UPS UPS Clay I	PEX □	ECI		Pace □ Xroads □ Client ★ Other □
Tracking #: Pac	e Shippin	ng Lab	el Use	d? Yes □ No X
Custody Seal on Cooler/Box Present: Yes X No □	Seals i	ntact:	Yes >	(No □
Packing Material: Bubble Wrap □ Bubble Bags I		Fo	am 🗆	None X Other □
Thermometer Used: T-111 Type of	f Ice: We	t) BI	ue No	
Cooler Temperature (°C): As-read 2 Corr. Fact	or <u>6</u>	(Correct	Date and initials of person examining contents
Temperature should be above freezing to 6°C				218/21800
Chain of Custody present:	XYes	□No	□n/A	<u> </u>
Chain of Custody relinquished:	Yes	□No	□n/A	
Samples arrived within holding time:	y ∃∀es	□No	□n/a	
Short Hold Time analyses (<72hr):	XYes	□No	□n/a	
Rush Turn Around Time requested:	□Yes	XNo	□n/a	
Sufficient volume:	XYes	□No	□n/A	
Correct containers used:	XYes	□No	□n/A	
Pace containers used:	XYes	□No	□n/A	
Containers intact:	XYes	□No	□n/a	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes	□No	XN/A	
Filtered volume received for dissolved tests?	□Yes	□No	□x/A	
Sample labels match COC: Date / time / ID / analyses	XYes	□No	□n/a	_
Samples contain multiple phases? Matrix:	□Yes	XNo	□n/a	
Containers requiring pH preservation in compliance?	□Yes	□No	XN/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)				date/lime added.
Cyanide water sample checks:				
Lead acetate strip turns dark? (Record only)	□Yes			
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes	□No		
Trip Blank present:	□Yes	□No	X _{N/A}	
Headspace in VOA vials (>6mm):	□Yes	□No	XN/A	
Samples from USDA Regulated Area: State:	□Yes	□No	X _{N/A}	
Additional labels attached to 5035A / TX1005 vials in the field	? □Yes	□No	Xx/A	
Client Notification/ Resolution: Copy COC to	o Client?	Υ	N	Field Data Required? Y / N
Person Contacted: Date/	Γime:			
Comments/ Resolution:			_	
Project Manager Review:			Dat	e: